

THE
INDUSTRIAL
ARTS INDEX

1948

List of Periodicals Indexed

- A S M E Trans**—Transactions of the American Society of Mechanical Engineers
Acoustical Soc Am J—Journal of the Acoustical Society of America
Adv & Sell—Advertising and Selling and the Advertising Agency
Advanced Management—Advanced Management
Aero Digest—Aero Digest
Aeronautical Eng R—Aeronautical Engineering Review
Air Affairs—Air Affairs
Air Transport—Air Transport
 Combined with Aviation Week beginning with April 5 issue
Am Assn Pet Geologists Bul—Bulletin of the American Association of Petroleum Geologists
Am Bld—American Builder and Building Age
Am Bsns—American Business
Am Cer Soc Bul—Bulletin of the American Ceramic Society
Am Cer Soc J—Journal of the American Ceramic Society
Am Chem Soc J—Journal of the American Chemical Society
Am Concrete Inst J—Journal of the American Concrete Institute
Am Dyestuff Rep—American Dyestuff Reporter
Am Gas Assn Mo—American Gas Association Monthly
Am Gas Assn Proc—American Gas Association Proceedings
Am Gas J—American Gas Journal
Am J Sci—American Journal of Science
Am Mach—American Machinist
Am Pet Inst Proc—American Petroleum Institute Proceedings
Am Soc C E Proc—Proceedings of the American Society of Civil Engineers
Am Soc for Metals Trans—Transactions of the American Society for Metals
Am Soc T M Proc—American Society for Testing Materials. Proceedings
Am Stat Assn J—Journal of the American Statistical Association
Am Water Works Assn J—Journal of the American Water Works Association
Anal Chem—Analytical Chemistry
Ann Am Acad—Annals of the American Academy of Political and Social Science
Arch Forum—Architectural Forum
Arch Rec—Architectural Record
Assn of Sp Lib & Inf Bur Proc—Association of Special Libraries and Information Bureaus Proceedings
Automobile Eng—Automobile Engineer
Automotive Ind—Automotive Industries
Aviation W—Aviation Week
 Merger of Aviation and Aviation News, July 7, 1947
Bankers Mo—Bankers Monthly
Banking—Banking; Journal of the American Bankers Association
Banking Law J—Banking Law Journal (combined with the Bankers Magazine)
Barron's—Barron's
Bell System Tech J—Bell System Technical Journal
Blast F & Steel Pl—Blast Furnace and Steel Plant
Boston Soc C E J—Journal of the Boston Society of Civil Engineers
Brick & Clay Rec—Brick and Clay Record
Bsns W—Business Week
Burroughs Clearing House—Burroughs Clearing House
Bus Transportation—Bus Transportation
CAA J—Civil Aeronautics Administration Journal
Can Chem & Process Ind—Canadian Chemistry and Process Industries
Can Min J—Canadian Mining Journal
Cer Ind—Ceramic Industry
Chem Age (Lond)—The Chemical Age
Chem & Eng N—Chemical and Engineering News
Chem & Ind—Chemistry and Industry
Chem & Met Eng—Chemical and Metallurgical Engineering (now Chemical Engineering)
Chem Eng—Chemical Engineering (formerly Chemical and Metallurgical Engineering)
Chem Eng Prog—Chemical Engineering Progress
Chem Ind—Chemical Industries
Chem R—Chemical Reviews
Chem Soc J—Journal of the Chemical Society
Chimie & Ind—Chimie & Industrie
Civil Eng—Civil Engineering
Coal Age—Coal Age
Comm & Fin Chr—Commercial & Financial Chronicle
Communications—Communications
Comp Air Mag—Compressed Air Magazine
Concrete—Concrete
Constr Methods—Construction Methods
Consumers Res Bul—Consumers' Research Bulletin (Not Confidential)
Credit & Fin Management—Credit and Financial Management
Diesel Power—Diesel Power and Diesel Transportation
Dom Eng—Domestic Engineering
Dun's R—Dun's Review
East Underw—Eastern Underwriter
Econ Geol—Economic Geology
Economist—Economist
Ed & Pub—Editor & Publisher, the Fourth Estate
Edison Elec Inst Bul—Edison Electric Institute Bulletin
Elec Com—Electrical Communication
Elec Eng—Electrical Engineering
Elec R (Lond)—Electrical Review
Elec West—Electrical West
Elec World—Electrical World
Electrician—Electrician
Electrochem Soc J—Journal of Electrochemical Society
Electrochem Soc Trans—The Electrochemical Society. Preprints
Electronics—Electronics
Eng & Min J—Engineering and Mining Journal
Eng N—Engineering News-Record
Engineer—Engineer
Engineering—Engineering
Explosives Eng—The Explosives Engineer
Factory Management—Factory Management and Maintenance
Fed Res Bul—Federal Reserve Bulletin
Food Ind—Food Industries
For Comm W—Foreign Commerce Weekly
Fortune—Fortune
Foundry—Foundry
Franklin Inst J—Journal of the Franklin Institute
Gas Age—Gas Age
Gas J (Lond)—Gas Journal
Gen Elec R—General Electric Review
Génie Civil—Génie Civil
Geol Soc Bul—Bulletin of the Geological Society of America
Geol Soc Proc—Proceedings volume of Geological Society of America for 1947
Glass Ind—Glass Industry
Harvard Bsns R—Harvard Business Review
Heat & Ven—Heating and Ventilating
Heating-Piping—Heating, Piping and Air Conditioning
Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin
Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station. Circular
Illum Eng—Illuminating Engineering including Transactions of the Illuminating Engineering Society
Ind & Eng Chem—Industrial and Engineering Chemistry
Ind & Eng Chem Anal ed—Industrial and Engineering Chemistry Analytical Edition
 Name changed to Analytical Chemistry January, 1947
Ind Marketing—Industrial Marketing
Ind Med—Industrial Medicine
Ind Stand—Industrial Standardization and Commercial Standards Monthly
 Name changed to Standardization beginning January, 1949
Index—Index
India Rubber World—India Rubber World
Inland Ptr—Inland Printer
Inst E E J—Journal of the Institution of Electrical Engineers
Inst Mech Eng J & Proc—Institution of Mechanical Engineers. Journal and Proceedings
Inst Pet J—Journal of the Institute of Petroleum
Inst Radio Eng Proc—Proceedings of the Institute of Radio Engineers (Including the Waves and Electrons Section)
Instruments—Instruments

LIST OF PERIODICALS INDEXED

- Int Labour R—International Labour Review
 Iron Age—Iron Age
 Iron & Steel Eng—Iron and Steel Engineer
 Iron & Steel Inst J—Journal of the Iron and Steel Institute
 J Account—Journal of Accountancy
 J Aeronautical Sci—Journal of the Aeronautical Sciences
 J Ap Phys—Journal of Applied Physics
 J Bsns—Journal of Business of the University of Chicago
 J Chem Educ—Journal of Chemical Education
 J Chem Phys—Journal of Chemical Physics
 J Doc—Journal of Documentation
 J Eng Educ—Journal of Engineering Education
 J Ind Hygiene—The Journal of Industrial Hygiene and Toxicology
 J Land & Pub Util Econ—Journal of Land and Public Utility Economics
 Name changed to Land Economics beginning February, 1948
 J Marketing—The Journal of Marketing
 Publication of the American Marketing Association
 J Phys & Colloid Chem—Journal of Physical and Colloid Chemistry
 J Res Nat Bur Stand—Journal of Research of the National Bureau of Standards
 J Retailing—Journal of Retailing
 J Sci Instr—Journal of Scientific Instruments and of Physics in Industry
 Land Econ—Land Economics
 Formerly Journal of Land and Public Utility Economics; name changed February 1948
 Life Ins Courant—Life Insurance Courant
 Light & Lighting—Light and Lighting
 Light Metal Age—Light Metal Age
 Locomotive—Locomotive
 Mach—Machinery
 Machine Design—Machine Design
 Mag of Wall St—Magazine of Wall Street
 Management R—Management Review
 Manuf Rec—Manufacturers Record
 Marine Eng—Marine Engineering and Shipping
 * Review
 Mass Transportation—Mass Transportation
 Materials & Methods—Materials and Methods
 Mech Eng—Mechanical Engineering
 Mech Handling—Mechanical Handling and Conveying
 Metal Finishing—Metal Finishing
 Metal Prog—Metal Progress
 Metallurgia—Metallurgia, the British Journal of Metals
 Metals Tech—Metals Technology
 Name changed to Journal of Metals January, 1949
 Midwest Eng—Midwest Engineer
 Formerly Journal of the Western Society of Engineers; name changed September, 1948
 Mill & Factory—Mill & Factory
 Min & Met—Mining and Metallurgy
 Name changed to Mining Engineering beginning January, 1949
 Min Cong J—Mining Congress Journal
 Mo Labor R—Monthly Labor Review
 Mod Ind—Modern Industry
 Mod Packaging—Modern Packaging
 Mod Plastics—Modern Plastics
 N A C A Bul—N.A.C.A. Bulletin
 N E Water Works Assn J—Journal of the New England Water Works Association
 N Y Pub Lib Bul—New York Public Library Bulletin
 Nat City Bank—National City Bank of New York
 Nat Pet N—National Petroleum News
 Nat Res Council Bul—National Research Council Bulletin
 Nat Safety N—National Safety News
 Nat Underw—National Underwriter
 Nat Underw (Life ed)—National Underwriter Life Insurance Edition
 Oil & Gas J—Oil and Gas Journal
 Oil Paint & Drug Rep—Oil Paint and Drug Reporter
 Opt Soc Am J—Journal of the Optical Society of America
 Paint Oil & Chem R—Paint, Oil and Chemical Review
 Paper Ind—Paper Industry and Paper World
 Paper Tr J—Paper Trade Journal
 Personnel—Personnel
 Personnel J—Personnel Journal
 Pet Eng—Petroleum Engineer
 Pet Processing—Petroleum Processing
 Pet Refiner—Petroleum Refiner
 Phys R—The Physical Review
 Plastics—Plastics
 Power—Power
 Power Generation—Power Generation
 Power Pl Eng—Power Plant Engineering
 Name changed to Power Generation beginning January 1948
 Product Eng—Product Engineering
 Ptr Ink—Printers' Ink
 Pub Health Rep—Public Health Reports
 Pub Roads—Public Roads
 Pub Util—Public Utilities Fortnightly
 Pub Works—Public Works Magazine
 Pulp & Pa of Can—Pulp and Paper Magazine of Canada
 Q S T—QST
 RCA R—RCA Review
 R Econ & Stat—Review of Economics & Statistics
 R Econ Stat—Review of Economic Statistics
 R Sci Instr—Review of Scientific Instruments
 Radio & Tv N—Radio and Television News
 Radio N—Radio News
 Rayon—Rayon and Synthetic Textiles
 Ref Shelf—The Reference Shelf
 Refrig Eng—Refrigerating Engineering
 Roads & Bridges—Roads and Bridges
 Roads & Sts—Roads and Streets
 Rock Prod—Rock Products
 Rough Notes—Rough Notes
 Roy Aeronautical Soc J—Journal of the Royal Aeronautical Society
 Rs Mod Phys—Reviews of Modern Physics
 Rubber Age—Rubber Age
 Ry Age—Railway Age
 Ry Mech Eng—Railway Mechanical Engineer
 S A E J—S.A.E. Journal
 Safety Eng—Safety Engineering
 Sales Management—Sales Management
 Sci Am—Scientific American
 Science—Science
 Sewage Works J—Sewage Works Journal
 Sheet Metal Worker—Sheet Metal Worker
 Soap & San Chem—Soap and Sanitary Chemicals
 Soc Chem Ind J—Journal of the Society of Chemical Industry
 Soc Dyers & Col J—Journal of the Society of Dyers and Colourists
 Soc Motion Picture Eng J—Journal of Society of Motion Picture Engineers
 Special Lib—Special Libraries
 Spectator (Life ed)—Spectator; Life insurance in Action
 Spectator (Property ed)—Spectator; Property Insurance Review
 Steel—Steel
 Survey of Cur Bsns—Survey of Current Business
 Tech R—Technology Review
 Tele-Tech—Tele-Tech
 Textile Col—Textile Colorist and Converter
 Merged with American Dyestuff Reporter January 10, 1949
 Textile Inst J—Journal of the Textile Institute
 Textile Res J—Textile Research Journal
 Textile World—Textile World
 Tool Eng—Tool Engineer
 Trusts & Estates—Trusts and Estates
 U S Bur Labor Statistics Bul
 U S Bur Mines Bul
 U S Bur Mines Information Circ
 U S Bur Mines Rep of Invest
 U S Bur Mines Tech Pa
 U S Geol S Bul
 U S Geol S Professional Pa
 U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics. Annual Report
 U S Nat Bur Stand—United States National Bureau of Standards. Circulars
 U S Naval Inst Proc—United States Naval Institute Proceedings
 U S Women's Bur Bul—United States. Women's Bureau. Bulletin
 Water & Sewage—Water and Sewage
 Water & Sewage Works—Water & Sewage Works
 Weekly Underw—Weekly Underwriter
 Welding J—Welding Journal
 Western Soc E J—Journal of the Western Society of Engineers
 Name changed to Midwest Engineer beginning September, 1948
 Westinghouse Eng—Westinghouse Engineer
 Wireless Eng—Wireless Engineer
 World Oil—World Oil

Key to General Abbreviations

+	continued on later pages of the issue	Jl	July
abr	abridged	Mr	March
Ag	August	My	May
Ap	April	n s	new series
arch	architect	N	November
bibliog	bibliography	no	number
comp	compiled or compiler	O	October
cond	condensed	p	page
cont	continued	pl	plate
D	December	por	portrait
diag	diagram	pseud	pseudonym
ed	edited or edition or editor	pt	part
F	February	rev	revised
i	index	S	September
il	illustrations	sup	supplement
inc	incorporated	tr	translated or trans- lation or translator
Ja	January	v	volume
Je	June	yrbk	yearbook

Sample entry: Hydrogen peroxide; structural materials,
manufacture and uses. J. S. Reichert and
R. H. Pete. il Chem Eng 54:213-14+ Ap '47

Explanation: An illustrated article with the title given
above will be found in Chemical Engineer-
ing, volume 54, pages 213 to 214 (continued
on later pages of the same issue) the April
1947 number

THE INDUSTRIAL ARTS INDEX

THIRTY-SIXTH ANNUAL VOLUME

1948

SUBJECT INDEX TO A SELECTED LIST OF ENGINEERING,
TRADE AND BUSINESS PERIODICALS

EDITED BY
MARION E. POTTER, LEONE BAKER,
LUCILLE CRAUMER

MANAGING EDITOR
CHARLOTTE TRILLING

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1949

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PREFACE

This volume, completing the thirty-sixth year of the Industrial Arts Index, cumulates the monthly issues published from December 1947 thru November 1948.

In the list of periodicals indexed will be found abbreviations of some periodicals no longer indexed. These were necessarily included since some later 1947 issues of these journals are indexed in this volume. A note as to discontinuance follows their titles in the List of Periodicals.

The periodicals indexed for the first time in this volume are: Air Affairs; Communications; Construction Methods; Editor & Publisher; Electrical Communication; Instruments; Iron and Steel Engineer; Journal of Marketing; Journal of Scientific Instruments; Light Metal Age; Metallurgia; Metals Technology (now Journal of Metals); Mill & Factory; Modern Industry; Personnel; Plastics; Q S T; Sewage Works Journal; Tele-Tech; Textile Research Journal; Tool Engineer; United States Naval Institute, Proceedings; Westinghouse Engineer; World Oil.

M. E. P.

Magazine Notes

Compiled with the aid of Johanna Kramm and Jessie Van Strander

(Reprinted from monthly issues of 1948) *

A.I.G.A. Journal is published bi-monthly by the American Institute of Graphic Arts, a non-profit, membership organization founded 1914 for the advancement of the graphic arts. January-February 1948 issue is volume 1 number 4. Subscriptions: United States and possessions, \$3 a year; Canada, \$3.50; foreign, \$4. Single copies, 50 cents.

Acta Chemica Scandinavica is a 1947 newcomer, published by chemical societies in Denmark, Finland, Norway, Sweden. Karl Myrbäck, Stockholm, is editor-in-chief. All articles and contributions are printed in one of three languages: English, French, German. It deals with the work of Scandinavian chemists and visiting chemists in Scandinavian laboratories. Published ten times a year, the yearly volume containing about 1200 pages. Subscription in Sweden, 30 Swedish crowns; outside of Scandinavia \$8.50 plus postage. Distributor is Einar Munksgaard, Nørregade 6, Copenhagen.

Action for Safety is a monthly newsletter, distributed by the National Education Commission on Safety, of the National Education Association, 1201 16th Street, N.W. Washington 6. "Its purpose is to inform interested persons about the activities of the Commission and about important developments in safety education."

Aero Catalog and Buyers' Guide of the Americas, planned to develop the use of American aviation products thruout the Western Hemisphere, has been announced by Frank A. Tichenor, publisher of *Aero Digest*.—*Sales Management*.

Air Transport, a McGraw-Hill monthly, has been incorporated in the weekly *Aviation Week* beginning with the April 5 issue of the weekly.

The Aluminium Courier, the quarterly organ of the Aluminium Development Association, 33 Grosvenor Street, London, W. 1., is sent free of charge to those concerned in the manufacturing or use of aluminium.

American Academy of Applied Nutrition, Journal, is owned and published as its official organ by the Academy, 1226 Wilshire Boulevard, Los Angeles 14. Subscription in North America, \$4; elsewhere \$5; single copies \$1.

Amusement Center, a new monthly published by Harrison Toler Company, 225 N. Michigan Avenue, Chicago, will be devoted basically to the architecture, furnishing, equipment, mechanical maintenance and management of

amusement and recreational enterprises. It is to be published in five separate editions: Screen & Stage, Bowling & Billards, Dine & Dance, Studio Audience, and Sports & Pastimes.—*Sales Management*.

Annals of the Orgone Institute continues the function of the *International Journal of Sex-Economy and Orgone Research*, published from 1942 to 1945. The *Annals* are published not in yearly volumes but in single issues, at irregular intervals by Orgone Institute Press, 157 Christopher Street, New York 14. Editor is Dr. Theodore P. Wolfe. Number one \$2.

Annual Reviews, Inc., nonprofit organization with headquarters at Stanford University, recently announced two additional forthcoming volumes for 1950. In addition to the *Annual Review of Psychology* and the *Annual Review of Physical Chemistry*, plans are under way for publishing an *Annual Review of Medicine* and an *Annual Review of Plant Physiology*.—*Science*.

Answers, "the quiz magazine you read with a pencil," a quarterly beginning with a summer number, is edited and published by Leonard Meites, 139 N. Clark Street, Chicago 2. Subscription \$1 a year; single copies 25 cents.

Antiquarian Bookman, a new weekly Bowker publication, beginning with 1948, will incorporate the Books Wanted and For Sale columns, and other features of the *Publishers' Weekly* supplement, with additional pages devoted to discussion and news of the trade. Subscription \$3 a year; Canadian and foreign \$3.50; 10 cents a copy. Published at 62 West 45th Street, New York 19.

Applied Mechanics Reviews, a new monthly engineering and scientific journal, world wide in scope, appeared in January under the co-sponsorship of the American Society of Mechanical Engineers, the Engineering Foundation, Illinois Institute of Technology, and other organizations. Each issue of the new journal will contain about 200 signed reviews, including bibliographies, of current literature in the field. L. H. Donnell, research professor of mechanics at Illinois Tech, has been appointed editor-in-chief, and S. P. Timoshenko, professor emeritus of Stanford University, will be editorial adviser. Published by American Society of Mechanical Engineers, Engineering Societies Building, 29 West 39th Street, New York City. Subscription \$12.50 a year; single numbers \$1.50.

* These notes have been reprinted by request, and with few revisions.

Applied Scientific Research is a new periodical intended to provide publication facilities for original technical-scientific investigations. It is published under the auspices of the Central Organization for Applied Scientific Research of the Netherlands, The Netherlands Physical Society, Section for Applied Physics, The Royal Institute of Engineers of the Netherlands, Section for Technical Scientific Research. It appears in two sections: A: Mechanics, heat. B: Electrophysics, acoustics, optics. Articles will be by preference in English but French and German are admitted. Published by Martinus Nijhoff, 9 Lange Voorhout, The Hague, Netherlands. Each section, 6 issues, 20 guilders. Published irregularly.

Archaeology, a Magazine Dealing with the Antiquity of the World, an illustrated quarterly of the Archaeological Institute of America, began with a March issue. Jotham Johnson is editor. Editorial and business offices are at Washington Square College, New York University, New York 3. The Institute's address is Andover Hall, Cambridge 38, Massachusetts. Subscription \$6 a year; \$1.50 for single copies.

Architectural Prospect, an illustrated quarterly, beginning with an April number, is published for the editor, Arthur Shannon, by Lund Humphries & Company, 12 Bedford Square, London WC1. "Each issue will be devoted to an analysis of one specific subject connected with architecture in its widest context." Single copies 3s 6d.

Arctic is the Journal of the Arctic Institute of North America, published semi-annually beginning with a Spring, 1948 number. The Institute is a non-profit organization whose object is to encourage scientific exploration and study of the Arctic. Particulars with regard to Associate membership in the Institute which includes subscription to *Arctic*, may be obtained from: The Arctic Institute of North America, 805 Sherbrooke Street, Montreal, Canada, or, Audubon Terrace, Broadway at 156th Street, New York.

The Argosy Advance, a promotional trade news digest, will go in late October to some two million retailers in men's wear, liquor, sporting equipment and drug stores. It will be sponsored by *Argosy* magazine, which started carrying advertising about eight months ago. There will be separate editions for each field. Second editions of *The Advance* will be issued in the spring of 1949, after which the men's wear edition will appear quarterly and the liquor, sporting equipment, and drug editions will appear three times a year.—*Advertising and Selling*.

The Arkham Sampler is for those seriously interested in imaginative writing. Four numbers will be published in 1948, "carrying information of rare and new books by many writers in the field of fantasy." Published by Arkham House, Sauk City, Wisconsin. Subscription \$4; single issues \$1.

Art Education, the bimonthly organ of the new National Art Education Association, began publication in 1948. Business and editorial offices are at State Teachers College, Kutztown, Pa.

Art in Industry Magazine, an attractively illustrated quarterly of the Indian Institute of Art in Industry, Artistry House, 15 Park Street, Calcutta 16, will be of interest to the industrial designer and the advertising artist. The first number appeared December 1946. Subscription Rs 12 plus postage.

Asian Horizon, a new quarterly beginning with a March issue, will discuss problems of present day Russia but "will not neglect the heritage of the great cultures of the East." Published at 34 Victoria Street, London, S.W.1. Subscription 15s a year; single numbers 3s 6d.

The amalgamation of the British Society for International Bibliography with Aslib has made it necessary to merge *Proceedings of the B.S.I.B.* and the *Report of the Proceedings of the Aslib Annual Conferences* into one new periodical, *Aslib Proceedings*, which will appear three or four times a year. Aslib will not furnish free to members both the new periodical and the *Journal of Documentation*. Members may choose which one of the two publications is desired and may obtain the other at a price of 20 shillings a year. There will probably be only two issues for the 1948 volume of the *Proceedings* but these will cover the September conference and the earlier 1948 Aslib and B.S.I.B. meetings.

Audio Visual Bulletin (typewritten) will publish monthly a summary of the latest news in the audio-visual field. It is sponsored by Brooklyn College, Bedford Avenue and Avenue H, Brooklyn.

The Australian Artist is the new name of the quarterly journal of the Victorian Artists Society, 430 Albert Street, Melbourne. It is issued in new format as volume one. Subscription 14 shillings a year; three shillings and sixpence a single copy.

Australian Journal of Scientific Research contains research papers of outstanding merit whatever their country of origin. It is printed in two series: Series A (Physical Sciences) and Series B (Biological Sciences). Initially each series will be issued quarterly. It began publication in March. Published by the Council for Scientific and Industrial Research in collaboration with the Australian National Research Council. The address is 314 Albert Street, East Melbourne, C.2, Victoria. Subscription for each series 30 shillings a year; 7s 6d for a single issue.

The Australian Outlook is the quarterly journal of the Australian Institute of International Affairs, an unofficial non-political body for the scientific study of international affairs. Subscription rates: in Australia 10s a year; in Canada and the United States \$2; in the United Kingdom and South Africa 10s. Published by the Institute, 369 George Street, Sydney. Overseas subscriptions may be placed with the Royal Institute of International Affairs, Chat-ham House, 10 St. James' Square, London, S.W. 1, and the Institute of Pacific Relations, 1 East 54th Street, New York 22.

The Automatic Electric Technical Journal, devoted to progress in communication engineering, is issued quarterly by Automatic Electric Company and affiliated companies. The first issue is dated April, 1948. Address 1033 W. Van Buren Street, Chicago 7. Subscription \$2 a year; 50 cents a copy.

Book Handbook, an Illustrated Quarterly for Owners and Collectors of Books, is distributed by The Book Centre, London, N.W. 10, beginning with 1947. Subscription 11s; single copies 2s 6d.

The British Chemical Digest begins its second volume with an October 1947 issue. It is an illustrated monthly, published at 14, The Avenue, Beckenham, Kent, England. It aims to give reliable information concerning the progress and development of chemical and allied industries all over the world and to bring British products to the notice of buyers and users. Subscription £1 1s; overseas £1 5s a year; single issue 2s 3d.

Building Specialties, a monthly magazine for the dealer who sells and installs home and industrial accessories, began with a July number. Published by Harris-Fox-Hoffman Corporation, 425 Fourth Avenue, New York 16. Subscription \$3 in United States and Canada; \$4 in other countries; single copies 35 cents.

Bulletin Critique du Livre Français, is a monthly classified list, reviewing French books and periodicals, that began publication in 1946. It is published by L'Association pour la Diffusion de la Pensée Française, 10 Rue Colbert, Paris 2°. Subscription in France 175 fr. for six months; single number 32 fr. Foreign subscriptions on request to the Association.

California State Publications is a quarterly listing, with index, of state documents available to the public and to qualified libraries. The first issue is dated July-September, 1947. Annual cumulations are planned. Published by Printing Division, Documents Section, 11th & O Streets, Sacramento 14, California.

Cambridge Journal, a Monthly Review, began in October, 1947. The Editorial Board of Cambridge professors and lecturers includes D. W. Brogan, author of "The American Scene." Published by Bowes & Bowes, 1 & 2 Trinity Street, Cambridge, England. Subscription 30s; single issues 3s.

Canadian Mathematical Congress has announced that, beginning in January 1949, it will publish a new quarterly journal, *Canadian Journal of Mathematics*, the editor-in-chief of which will be H. S. M. Coxeter, of the University of Toronto. Subscription \$6 a volume of four numbers (\$3 for members of the Mathematical Association of America). The managing editor, G. de B. Robinson, University of Toronto, will receive subscriptions.

Canadian Journal of Psychology, a quarterly of the Canadian Psychological Association, 100 St. George Street, Toronto 5, is in its second volume. Published by University of Toronto Press. Subscription \$3 a year. Address the Association.

Canadian Museums Association began in April the publication of a *Bulletin*. Regular quarterly publication is planned for next year. The Secretary-Treasurer of the Association is F. J. Alcock, National Museum of Canada, Ottawa.

Canadian Trade Abroad is a new export publication announced to be issued in January, 1948. It will be published by the Maclean-Hunter Publishing Co., Toronto, Canada.

Cancer, a Journal of the American Cancer Society, an illustrated bimonthly, began publication in May. It will deal "with all aspects of the cancer field: clinical, experimental and educational. It will include a section, Current cancer literature, comprising those titles in the current medical literature that deal with neoplastic diseases. It will endeavor to publish these promptly upon their appearance. Certain of these titles will be accompanied by abstracts." Published by Paul B. Hoeber, Medical Book Department of Harper & Brothers, 49 East 33d Street, New York 16. Subscription \$8 a year in United States and Pan American countries; \$9.50 elsewhere; single copies \$2.50.

China Economist, English language weekly economic supplement of the *China Weekly Review*, is published at 160 Chung Cheng Road (Eastern), Shanghai (0), China, by Millard Publishing Company, incorporated under the laws of the State of Delaware. It includes commercial statistics of China. Subscription \$9 for six months.

Chinese Journalists' Magazine, China's counterpart of *Editor & Publisher*, made its debut in Nanking on September 1. The magazine, a fortnightly, represents the first attempt of Chinese journalists to publish a periodical for newspaper workers themselves. Published by Ma Hsing-yeh, Missouri-trained publisher of the *Central Daily News* of Nanking.—*Editor and Publisher*.

Christus Rex; an Irish Quarterly Journal of Sociology, edited by Rev. Dr. P. McKeivitt and Rev. Dr. C. Lucey, of St. Patrick's College, Maynooth, is a journal for Irish priests, working for social reform. Published by Mercier Press, 19 Maylor Street, Cork, Ireland. Subscription 10s a year; single numbers 2s 6d.

Chronicle of the World Health Organization, published monthly in English, French, Spanish, Russian and Chinese, contains information dealing with the principal facts concerning the Organization, the trend of its work, the meetings of its Committees and summaries of its main technical publications. Subscription 10s, \$2 a year; single copies 1s 3d, 20 cents. Published by World Health Organization, Interim Commission, 350 Fifth Avenue, New York.

Cine-Grams, the monthly magazine for non-professional movie craftsmen, after wartime suspension, resumed publication in October. The magazine's publication office is 6770½ Hollywood Blvd., Hollywood 28, California.

Clue, a Guide to Mystery, began with a May issue. "It will shadow all the publishers, spot the best mysteries as soon as they come off the presses, and give a full report. Included also will be articles by and about mystery writers and critics and reports on mystery in stage, screen, radio and television." Published by Clue Publishing Company, 219 N. Barry Avenue, Mamaroneck, New York.

College Board Review is successor to *College Entrance Examination Board News Bulletin*, Princeton University. It is published three times a year and gives news and research reports of the Board.

Collegiate News and Views is intended for teachers of business and economic subjects in colleges and universities and is sent to them free of charge. It is published in October, December, March and May by South-Western Publishing Company, 201 West Fourth Street, Cincinnati 2.

Collins Magazine for Boys and Girls, an illustrated monthly, began publishing in January at 70 Bond Street, Toronto. Subscription, Canada \$3.50; United States \$4.50; single numbers 35 cents. New York office, Wm. Collins, Sons & Company, 425 Fourth Avenue, New York 16.

The Commercial Law Reporter, a monthly beginning January 1948, is published by Juta & Company, P.O. Box 30, Cape Town, South Africa. Subscription £2 17s 6d. Post free.

Comparative Literature is a new journal, to be published by the University of Oregon, at Eugene, Oregon, with the cooperation of the Comparative Literature Section of the Modern Language Association. It will appear quarterly, beginning early in 1949. Subscription \$3.50 a year. Correspondence concerning subscriptions or exchanges should be addressed to: University of Oregon Publications, Eugene, Oregon.

Cosmetics and Toiletries, making the 11th of Haire's specialized business magazines, appeared in August. Guaranteed circulation for the first issue 7,500.

Dartmouth Quarterly is a literary magazine published by a group of undergraduate students at Dartmouth College. Volume one, number three, is dated November, 1947. Subscription for 1947-1948 \$1.25; single issue 35 cents. Address 110 Smith Hall, Hanover, New Hampshire.

Deutsche Hydrographische Zeitschrift is a publication of the Deutsches Hydrographisches Institut, Seewartenstr. 9, Hamburg, issued with the authority of the Allied Control Council for Germany. It will include a current bibliography. "An ultimate aim is gradually to list all German and other publications of relevance

which have appeared since Autumn 1939, though such a bibliography cannot be compiled in proper time sequence." Six numbers a year. Subscription R.M. 3.50.

Disc, edited by Donald J. Thornton, is a small size quarterly published by the City of Bristol Gramophone Society, 47 Wellington Walk, Henleaze, Bristol, England. It began with a winter number. Subscription \$1.50.

Dixie, the Magazine of Southern Progress, is the new name adopted by *Dixie Handbook*, with its fourth quarterly issue, Winter, 1947-48. It is a small size illustrated periodical, edited by Frederick H. McDonald and published by Community Research Institute, 30 Rockefeller Plaza, New York. Subscription \$2 a year.

The Electrochemical Society changed its publication policy, effective January 1948. The technical papers, distributed heretofore to all members in preprint form, and the news and affairs of current interest which have appeared in the *Monthly Bulletin*, have been combined in a monthly journal, *Journal of the Electrochemical Society*. All members will receive this journal, its subscription cost of \$7.50 being provided in the annual dues of \$10. The *Transactions* of the Society will be published as heretofore and will contain the proceedings, the technical papers issued in the *Journal* and, in addition, the discussion of these technical papers which will not be printed in the monthly *Journal*. The cost of the *Transactions* will be \$4 a year instead of \$3 as heretofore. The *Journal* will be indexed in the *Industrial Arts Index* instead of the previously indexed *Preprints*, now discontinued.

Fantasy Book, edited by Garret Ford, a new monthly, is published by Fantasy Publishing Company, 8318-20 Avalon Boulevard, Los Angeles 3. Subscription \$2.50 a year; deluxe ed \$3; 25 cents a number.

Farm Policy Forum, a small size quarterly, beginning with a January 1948 issue, is published at Ames, Iowa, by the Iowa State College Press. It is not an official publication of the College. Subscription \$2 a year.

Feature, designed as a service publication for editors, a source book for ideas and stories, goes to a controlled circulation list of some 5,800 newspapers, magazines, syndicates, house organs, feature writers, book publishers, news and documentary film producers, industrial publications, foreign papers, etc. No advertising is carried, but the entire magazine is sold in ¼-page units, at \$60 a unit, to anyone who has a feature or story he wants to promote.—*Advertising and Selling*.

Film Forum Review will merge with *Adult Education Journal* after the publication of the Winter 1948 issue. Subscriptions in force to *Film Forum Review* will receive *Adult Education Journal* or a refund if requested.—*Bulletin of Bibliography*.

Food Sellers Digest is published monthly by The American Institute of Sanitary Science, 2385 Edgewater Terrace, Los Angeles 26, in the interest of public health, the restaurant industry and the industries which serve it. Volume 1, number 1 is dated March. Subscription \$1 a year; single copy 10 cents.

Foothills is a new magazine of the University of Denver. Number two is the Winter number.

Fortune for October introduces two new departments, Law and Labor. It announces that henceforth *Fortune* will be more strictly a review of business and the political economy in which its fate is cast.

French-American Commerce, bimonthly of the French Chamber of Commerce of the United States, 630 Fifth Avenue, New York 20, has resumed publication. Published six times a year.

The Garden is an illustrated quarterly of the New York Botanical Garden, replacing *Through the Garden Gate*. The publication is "designed to be of assistance to all who love flowers and are interested in growing them; to tell the story of the vital role which plants play in the lives of us all; and to describe our many and varied services in the fields of botanical and horticultural exploration and development, education and scientific research." Subscription \$2 a year; outside the United States \$2.50. Published by New York Botanical Garden at 801 Madison Avenue, New York 21.

Georgia Review, a quarterly of poetry, essays and stories, began with a spring, 1947 number. Published by the University of Georgia Press, Athens. Subscription \$3 a year; single copies \$1.

Glass Age News, published quarterly by Pilkington Brothers, St. Helens, Lancashire, England, for their export market, has a Canadian Branch at 27 Mercer Street, Toronto 28, Ontario. Distribution in the United States is limited.

Globe, the Magazine of Air Travel, announced in the April Index, made its appearance in June. It is an illustrated monthly. Published by Globe Publications, 545 Fifth Avenue, New York 17. Subscription \$3.50 a year; 35 cents an issue.

Halcyon began with a Spring 1948 issue. It will be a "predominantly creative magazine, publishing much poetry and keeping reviews at a minimum. Primary aim is not to make money but to publish good literature." Editors are Albert Cook, Aaron Rosen. Published quarterly by Halcyon, Box 109, Cambridge 39, Massachusetts. Subscription \$2 a year; single copies 50 cents.

L'Histoire Scientifique, Bulletin de la Société Historique et Scientifique de France, will resume quarterly publication in January 1948. Published by the Society, 27, Boulevard Saint-Michel, Paris-V°. Subscription 85 fr.

The Hudson Review, a literary quarterly, began publication with a Spring issue. Editors are William Arrowsmith, Joseph D. Bennett, Frederick Morgan. Address 39 West 11th Street, New York 11. Subscription \$3 a year; Canada \$3.50; foreign \$4. Single copy \$1.

Humphreys; a Monthly Review of Parliamentary and Local Government, is a non-party paper, published by H. J. Stubbs at 15 Dartmouth Street, Westminster, London, S.W.1. Subscription 12 shillings a year; single copy one shilling.

I. L. A. Record is the official journal of the Illinois Library Association, Urbana. Published quarterly beginning with a September issue. Subscription \$1 a year.

The Independent Veteran, volume 1, number 1, February 1948, combined with *Veterans Review* and *Army Pictorial News*, is published monthly by Roy Jackson, Inc., at Whitehall, New York. Its editorial offices are at 512 Fifth Avenue, New York 18. Subscription \$2 a year.

Indian Outlook, a monthly review of trade and Indian affairs, circulating in Great Britain, South Africa, East Africa, India, Burma and Malaya, began publication last August. Published at 70, St. George's Road, London, S.E.1. Single issues one shilling.

Industrial Teamwork, a monthly beginning in February, 1948, is published by Teamwork Publications, Incorporated, 66 Summer Street, Manchester, Massachusetts. Subscription \$4 a year; single numbers 35 cents.

Information, Journal of the Australian Association of Special Libraries and Information Services, is published twice yearly by the Association, Box 9a, Elizabeth Street, Melbourne, C.1. The Association was founded in 1946 and in June 1947 began publication of the Journal. Subscription 12 shillings and sixpence a year.

Institute of Petroleum Review, published by The Institute of Petroleum, 26 Portland Place, London, W.1, now in its second volume, is a small size monthly of general interest to the petroleum industry. Subscription 21 shillings a year; single copies 2 shillings.

The Institution of Electrical Engineers, Journal, beginning with its next volume, January 1949, will have certain changes in its division. Material in Part I of the present *Journal* which is intended specially for the use of members of the Institution, will appear in a new monthly *Journal*, to be circulated to members only. The present Part I will continue to appear but under the title of *Proceedings*, Part I, and instead of being a monthly publication it will be issued in alternate months. Parts II and III will continue to be issued in alternate months in substantially their present form but under the titles respectively of *Proceedings*, Part II and *Proceedings*, Part III. There will be no change in the present subscription rates for Parts I, II and III under their new title, but the charge for all three Parts together will be increased from £3 3s. to £3 13s. 6d.

The Instrumentalist, the Magazine for School Band and Orchestra Directors, is published bi-monthly, September to May at 409 Main Street, Glen Ellyn, Illinois, Traugott Rohner, Publisher. 5 issues a year, \$1.25; single issue 30 cents.

Insurance Book Reviews will be issued ten times a year beginning January 1, 1948. The periodical, formerly mimeographed, is now printed and published in a new format, and made available at an annual subscription price of \$2. Subscriptions should be sent to the business manager, Mrs. Elizabeth M. Grow, librarian of the North America Companies, at 1600 Arch Street, Philadelphia 1.—*Special Libraries*.

International Financial Statistics, a monthly, beginning January 1948, is a publication of the International Monetary Fund. The Bulletin will contain statistics arranged by countries, for some sixty countries, on exchange rates, gold production, gold and foreign exchange holdings, assets of the central banks and of commercial banks, interest rates, money supply, prices, foreign trade and production, with notes on the significance of the items carried. The figures for 1936 thru 1947 will be on an annual basis and for the last eighteen months on a monthly basis. The Bulletin will also publish the balance sheets of the International Monetary Fund and the International Bank for Reconstruction and Development. Subscriptions for the United States, \$5 a year, should be sent to the International Monetary Fund, Washington 6. Equivalent rates in other member countries will be accepted in local currency. Arrangements are being made to set up agents in other countries; in the meantime inquiries should be addressed to the International Monetary Fund, 1818 H Street, N.W. Washington.—*Federal Reserve Bulletin*.

International Journal of Agrarian Affairs, Volume 1, no. 2, October 1947, discusses "The changes of eight years in agricultural economics," contributed by nine educators and administrators. Published at 3 Maggie Lane, Oxford, England. Subscription for first volume, six numbers, 28s 6d; single copies 5s.

International Relations; a Selection of Current Readings, is a semiannual publication of the International Relations Division, Department of Economics and Social Science, Massachusetts Institute of Technology, Cambridge, and is intended as a supplement to textbook and other reading in an international relations course.

International Vocational Guidance Journal is the official monthly organ of the International Vocational Guidance Association, 153 West 24th Street, Los Angeles 7. The first issue, September, has four pages but larger issues are planned. Membership in the Association, including subscription to the Journal, Student member \$2 a year; Associate member \$3; Professional member \$5.

The Journal of Commerce, New York City, and the *Chicago Journal of Commerce* shortly will join forces to bring their readers their combined news-gathering facilities. Terms of the merger provide for the election of Bernard J. Ridder and his brother, Eric (general manager of the New York City publication), as directors of the *Chicago Journal of Commerce, Inc.* Mr. Ames and Philip P. Page, business manager of the *Chicago Journal of Commerce*, are to be elected directors of the Journal of Commerce Corporation, owner of the New York paper.—*Sales Management*.

Journal of Finance, now in its second volume, is published by the American Finance Association. Subscription is included in membership dues. (\$5). To non-members \$3 a year. Secretary-Treasurer of the Association is Edward E. Edwards, School of Business, Indiana University, Bloomington.

Journal of the Arctic Institute, beginning in March, will provide information about the Arctic and Subarctic areas of Alaska, Canada, Greenland, and Labrador. Inquiries about the new journal may be addressed to the Institute at Audubon Terrace, Broadway and 156th Street, New York 32.

Labor Market Review, published by the New York State Department of Labor, is the new name of *Labor Market Letter—Statistical Review*. The first issue under the new title is dated January-February 1948. Thereafter it will appear monthly. Address is 342 Madison Avenue, New York 17.

Language Learning, a small quarterly journal of applied linguistics, beginning in January, is published by the Research Club in Language Learning, 1522 Rackham Building, at the Ann Arbor Press, 317 Maynard, Ann Arbor, Michigan. Subscription \$2 a year.

The Lapidary Journal, a quarterly that began publishing April 1947, is a national magazine for the gem cutter, collector and jewelry craftsman. Published at 1129 N. Poinsettia Place, Los Angeles 46. Address correspondence to P.O. Box 1228 Hollywood 28, California. Subscription \$1 a year; 35 cents a copy.

Library Service Review, a quarterly publication of the North Carolina Negro Library Association, began with a June number. Attractive in dress and meeting the highest standards of library professional publications, it is a credit to the profession. Business and circulation manager is Benjamin F. Smith, North Carolina College Library School, Durham, N. C. Subscription \$1 a year; 25 cents a copy.

Libri e Periodici, Rassegna Informazioni Bibliografiche, is a new bibliographical periodical devoted to Italian books and periodicals that began with a July-August issue. Subscription in foreign countries 1500 l. Published by Fratelli Palombi, Via dei Gracchi 181-185, Rome, Italy.

Lingua, International Review of General Linguistics, is a new quarterly, with contributions in French and English, published by J. H. Gottmer, Haarlem, Netherlands. Subscription Netherlands 25 fl; Belgium 500 frs; England £2.10; United States \$11.50; other countries 30 Dutch guilders.

Lion Rampant, a new monthly published by William Maclellan, 240 Hope Street, Glasgow, aims "to rebuild the old Scotland (that which would be left if all our big towns were wiped out)." Single issue one shilling.

Literary Cavalcade, for high school English classes, is published monthly thru the school year by Scholastic Magazines, 7 East 12th Street, New York 3. It developed from the reading program that has been a part of *Scholastic* since its beginning, 28 years ago. The new magazine began with an October number. Subscription \$1 a school year.

Mademoiselle's Living, the Magazine for Smart Young Home Makers, is a large size illustrated quarterly, published by Street & Smith Publications, Inc., 122 East 42d Street, New York 17. It began with an Autumn 1947 number. Subscription \$2 a year; \$2.25 in Canada and the Pan American Union; \$2.75 elsewhere. 50 cents a copy. Effective with the February 1949 issue to be published bi-monthly.

Magazine Publishers' Market Place, a four page monthly, began with a June issue. It is intended for potential buyers and sellers of products or services of exclusive interest to publishers and their executives. Published by C.R.T. Publishing Enterprises, Suite 1711, 444 Madison Avenue, New York 22. Subscription \$1 a year; single copies 15 cents.

Management Abstracts, a new monthly, is published by British Institute of Management, 17 Hill Street, London, W.1. Abstracts are drawn from over 200 British and overseas publications and this coverage will be extended "to cover all material published in any part of the world, which is of interest to those who wish to keep themselves informed of current developments in management science." First issue is dated September, 1948. Subscription for non-members of the Institute is 30s a year.

Marg, a Magazine of Architecture and Art, is a recent illustrated quarterly, published at 25 Cuffe Parade, Bombay 5. Subscription Rs 16 (in India); Rs 18 abroad; single issue 4/8.

Medical Bookman and Historian, a monthly, now in its second volume, is published by Harvey & Blythe, 6 Hanover Square, London W 1. Subscription 25 shillings a year; \$7 in United States and Canada; elsewhere 30 shillings.

Micropaleontologist, an international news quarterly, is published by American Museum of Natural History, Department of Micropaleontology, Central Park West at 79th Street, New York 24. It does not carry formal scientific papers but reports the activities of micropaleontologists in various countries, new techniques, procedures, taxonomy, nomenclature. Subscription \$1 a year.

Microtecnic, a bi-monthly, now in its second volume, is an international review for measuring and gauging technique, optics and precision mechanics, published in Lausanne, Switzerland. The issue at hand, volume 2, number 3, English edition, is an English translation from the French except for one article on Documentation and international decimal classification, translated from the German. The English edition may be obtained from Bailey Bros. & Swinfen, 26/27 Hatton Garden, London. E.C. 1 or (U.S.A., Canada, West Indies) from Overseas Publishers' Representatives, 66 Beaver Street, New York 4. Subscription Sw. frs. 45.

Mining and Metallurgy (probably renamed *Mining Engineering*), beginning with 1949, will be one of three monthly magazines in 8¼ by 11¼-inch size issued by the American Institute of Mining and Metallurgical Engineers. The four *Technologies*—Petroleum, Coal, Mining, and Metals—will be discontinued in their present form; and all Technical Publications (T.P.'s) will appear in one or the other of the three monthlies. Subject to possible change as to name, these will be: *Mining Engineering*, *Metals*, *Petroleum Technology*.

Minister's Gazette of Fashion has resumed publication with a November-December issue with a new format and designated volume 1, new series. For over a hundred years it has served the retail tailor in Britain and abroad. Published bimonthly, by Hutchinson Periodical Company, 10 Great Queen Street, London, W.C. 2. Subscriptions in United Kingdom £1 10s; single copies 5s. Among the United States agents is the Franklin Square Agency, 49 East 33d Street, New York 16.

Modern Distribution, the three-and-one-half year old newsletter published by Magazines of Industry, Inc., which took a brief flyer as a newspaper carrying advertising, was sold last month to the International Statistical Bureau, Inc., and returned to its newsletter format.—*Advertising and Selling*.

Modern Television & Radio, a monthly, beginning with a December issue, will be published by Dell Publishing Company, 149 Madison Avenue, New York. It will carry advertising. Initial guarantee of circulation will be 300,000.—*Advertising and Selling*.

Museum, successor to *Mousetion*, is an illustrated quarterly review published by the United Nations Educational, Scientific and Cultural Organization, in Paris. The first issue, numbers 1 and 2 combined, was published in July 1948. Subscription \$7; 35s; 1,500 frs.

Music Reporter is a service in the field of music, offering subscribers all reviews appearing in the *New York Times*, *New York Herald-Tribune*, *New York Sun*, and *New York World-Telegram*. These reviews are reprinted in full. Each month's pages and index are mailed to subscribers the first week of the following month. Subscription \$24 a year. Published by Music Reporter, Inc., 501 Madison Avenue, New York 22. A volume in spiral binding (September 6, 1947-June 30, 1948) includes two semi-annual indexes.

NACCA Law Journal, the semi-annual official publication of the National Association of Claimants' Compensation Attorneys, 6 Beacon Street, Boston 8, began with a May number. It is devoted to current trends in personal injuries and deaths under the workmen's compensation, railroad and admiralty laws. Editor-in-chief is Samuel B. Horovitz. Subscription \$5 a year; single copy \$3.

The National Guardsman, a monthly magazine created especially for the 350,000 members of the postwar National Guard, will enter the national advertising field this fall.—*Advertising and Selling*.

National Tax Journal, a new quarterly devoted to public finance, replaces the *Bulletin of the National Tax Association*, which was issued nine times a year (October-June) from 1915 to 1947. The editor of the new *Journal* is Professor Roy Blough, the associate editor, Professor Richard Goode, both of the University of Chicago. The first issue is dated March, 1948. Subscription \$3.75 a year; single copies \$1.25. Orders should be placed with Mr. Ronald B. Welch, Secretary of the National Tax Association, P.O. Box 1799, Sacramento 8, California.

Forbes is bringing out its new *Nation's Heritage* (no advertising) in January, and brags that it's the most expensive magazine in the world . . . (\$150 a year). Publisher, is young Malcolm Forbes, son of *Forbes*'s B.F. and dyed-in-the-wool Princeton man. Editor is Robert K. Heimann, former free-lance writer who emerged from Princeton this year with the "most likely to succeed" label hung on his lapel. *Heritage* will be 90 percent graphic and will represent the whole American panorama, says Malcolm.—*Sales Management*.

Nebraska Writers News, a bimonthly (processed), replaces the semi-annual printed Bulletin, beginning with a December 1947 issue. (35 cents). Published by Nebraska Writers Guild, University of Nebraska, Lincoln 8.

Neurotica, a small size quarterly, edited by Jay Irving Landesman, began publication with a Spring issue. Published by The Neurotica Publishing Company, 4438½ Olive Street, St. Louis 8. Subscription \$2; single copies 50 cents.

The New Colophon, a *Book Collectors' Quarterly*, is a revival of a magazine *Colophon*, that discontinued publication in 1940. It is bound in paperboard, and illustrated and printed in a manner to appeal to book lovers. Volume one, number one, is dated January 1948. Published by Duschnes Crawford, Incorporated, 66 East 56th Street, New York 22. Subscription \$15 a year.

New Hardware News is a monthly tabloid with an 11¼ by 16-inch page size. Each page contains three 21 pica columns with each of the two outside columns carrying advertising, which is sold in units of one-third of a column (equivalent to one-fourth page in standard magazines). Published by New Hardware News Publishing Company, 6 Church Street, New York.

New Outlook, a *Digest of Ideas and Ideals*, "aims to demonstrate a common origin and a fundamental relationship of all great religions; to reconcile religion, science and philosophy, and in general to promote mutual understanding." Published monthly by the New Century Foundation, 1159 West Olympic Boulevard, Los Angeles 15. \$1 a year; 10 cents a copy.

N.Y. Calendar, a processed monthly beginning with a May number, reports "metropolitan area exhibits, displays, and museum events selected for significance to artists, designers, architects, and others in the creative arts." Subscription \$3 a year. Published by Hildegarde Zadig, 67 West 68th Street, New York 23.

The New York Retailer, published monthly by the Retailing Staff of the City College, School of Business and Civic Administration, 17 Lexington Avenue, New York 10, "aims to enrich the teaching of retailing and provide necessary facts for advisors of young people in search of a profession. Since the City College is New York's own institution, we shall attempt to keep the retailing teachers of the country informed as to developments in stores and buying offices here."

News from Turkey is a weekly bulletin published by Turkish Information Office, 444 East 52d Street, New York 22. Volume 1, Number 1, three typewritten pages, is dated February 26, 1948.

Nickel Topics, house organ of the International Nickel Company, 67 Wall Street, New York 5, is a merger of the sixteen year old *Nickel Steel Topics* and the eighteen year old *Nickel Cast Iron News*. It began with a February number. Circulation 100,000.

Numismatic Literature, a quarterly of the American Numismatic Society, Broadway between 155th and 156th Streets, New York 32, began publication with an October issue. This number includes a list of works issued during the years 1940-1945 in order to bridge the gap occasioned by the discontinuance of the *Numismatisches Literatur-Blatt* in 1939. Subscription \$1 a year.

The Oklahoma State Library, State Capitol, Oklahoma City 5, has begun publishing a new quarterly *Bulletin*. January-March, 1948 is the first issue.

Old London, an illustrated quarterly for lovers of London, is published by Roy Hopkins at 51 Chepstow Place, London W.C. 2. Subscription 12s. (\$2.60)

Oral Surgery, Oral Medicine and Oral Pathology, a new monthly, with a quarterly review of the literature, began with a January number. Editor-in-chief is Kurt H. Thoma. It is the official publication of The New England Society of Oral Surgeons, The Seminar of Dental Medicine, The American Academy of Oral Pathology. Published by C. V. Mosby Company, 3207 Washington Boulevard, St. Louis 3. Subscription \$8.50 a year.

Orchid Lore is an illustrated quarterly of the Houston Orchid Society of Texas that began with a Spring number, 1947. Subscription is included in the membership dues of \$4. Single copies 60 cents. D. J. Japhet, 2133 Albans Road, Houston 5, Texas.

ORT Bulletin, issued by American ORT Federation, 212 Fifth Avenue, New York 10, began publication in December 1947. It concerns the activities of the Office of Rehabilitation through Training.

Our Life is an illustrated English language magazine, beginning with a February number. Its aim is "to deepen mutual understanding and co-operation between the three Baltic nations. In order to give cultural information about the nations concerned, civilization, literature, art, politics, and social problems are dealt with in word as well as in picture." The address is Eybstrasse 98, Alb Elektrizitätswerk, 14a Geislingen (Steige), Württemberg, Germany. A sample copy was received from the Baltic Humanitarian Association, Garvargatan 11, Stockholm, Sweden. Price 1 Krona.

Pacific Discovery, is an illustrated bimonthly, beginning with a January-February number, published by the California Academy of Sciences, at the Gillick Press, 2057 Center Street, Berkeley 4. It is a journal of nature and man in the Pacific world, a natural science magazine written in nontechnical language. Subscription \$3 a year; single numbers 50 cents.

Pacific Neighbors, the Journal of the Australian-American Association, has begun its second volume. Its purpose is to promote friendly relations between the two countries. It is generously illustrated. Published by the Victorian Secretariat, 405 Collins Street, Melbourne.

Park Maintenance, a new monthly beginning in March, is to serve as a "medium of education, information and inspiration to the nationwide fraternity who administer and operate the public and private parks, golf courses and institutional campuses." Sales offices are at 360 North Michigan Avenue, Chicago. Editorial and executive offices, Appleton, Wisconsin.

Parliamentary Affairs, Journal of the Hansard Society, a quarterly, that began with a winter 1947 issue, to promote knowledge of Parliament and of the parliamentary system, is published by the Society, 162 Buckingham Palace Road, London, S.W.1. Subscription 16s; United States and Canada \$4; single issues 4s.

Partners, the Magazine of Labor and Management, is the official monthly of the National Labor-Management Foundation, 139 North Clark Street, Chicago 2. Subscription \$3 a year; including informative material circulating during term of subscription \$5.

Pediatrics, the official journal of the American Academy of Pediatrics, publishes papers on scientific and clinical investigation in the field

of pediatrics and includes also papers on public health, genetics, social legislation and many other topics when the subject matter is related to child health and welfare. Published by Charles C. Thomas, Springfield, Illinois. Subscription \$10 a year; single number \$1.50.

Personnel Psychology, a Journal of Applied Research, edited by G. Frederic Kuder, a quarterly, began with a March number. Subscriptions and business communications should be sent to Personnel Psychology, Inc., 1727 Harvard Street, N.W., Washington 9. Subscription \$6 a year, foreign \$7; single copies \$2.

Photo Industry, the newspaper of photographic business, beginning with a March 16 issue, is published every other Tuesday by Photo Industry Publications, Inc., affiliated with Don Gussow Publications, Inc., 107 West 43d Street, New York 18. Subscription \$3 a year; single copies 25 cents.

Physics Today, to be published monthly, beginning May 1948, by the American Institute of Physics, 57 East 55th Street, New York 2, is intended to appeal to the nonspecialized reader who wants to know what is going on in physics and who wants the information to be authoritative. Subscription \$4 a year.

Physiologia Comparata et Oecologia, an International Journal of Comparative Physiology and Ecology, is a new quarterly. Articles will embody original research and will be in English, French or German. Every paper will be accompanied by a summary not exceeding 300 words in length. A second summary will be added, written in French if the article is written in English or German. When the article is written in French the second summary will be in English. Published by Dr. W. Junk, the Hague, Netherlands. Subscription 36 fl.

Picture Stories from World History is a quarterly "Educational Comic," printed in color, resembling the comic strip of newspapers. Published by School Comics, Inc., at 225 Lafayette Street, New York 12. Subscription 75 cents; single issue 15 cents. *Picture Stories from Science*, a similar quarterly, with the same publisher and price, began publication with a spring issue.

Pilgrim Youth, published monthly except February and August by Pilgrim Press, 14 Beacon Street, Boston 8, is sponsored by the National Council, Pilgrim Fellowship of Congregational Young People. Subscription \$2 a year; single copies 20 cents.

Plant and Soil, an international journal of plant nutrition, plant chemistry, soil microbiology and soil-borne plant diseases, is issued under the auspices of the Netherlands Society of Agricultural Science. The first issue, January, 1948, contains four contributions in English, one in French and one in German. Four parts will be published annually, each volume comprising about 400 pages. Annual subscription guilders 20. (For the Netherlands guilders 17.50). Published by Martinus Nijhoff, 9 Lange Voorhout, The Hague, Netherlands.

Politics and Letters is a quarterly review of literature and society, edited by Clifford Collins, Raymond Williams and Wolf Mankowitz. Published by The Critic Press, Ltd. 7, Noel Street, London, W. 1. Subscription 10 shillings a year; single numbers 2s 6d.

Population Studies, a Quarterly Journal of Demography, published on behalf of the Population Investigation Committee by the Cambridge University Press, Bentley House, London, N.W. 1, is primarily a research journal for workers in the field of demography and others interested in the results of such research. Subscriptions 30 shillings; single copies 10 shillings.

Possibilities, an occasional review, is a "magazine of artists and writers who 'practice' in their work their own experience without seeking to transcend it in academic, group or political formulas." Editors are Robert Motherwell, Harold Rosenberg, Pierre Chareau and John Cage. Published by Wittenborn, Schultz, Inc., 38 East 57th Street, New York. The first number is dated Winter 1947/8. Price \$2.25.

Pre-Pack-Age, an illustrated monthly devoted to modern methods of packaging and merchandizing fresh food, began with a September number. Prepackaging is the accepted term for preparing fresh fruit, vegetables, and meat for retail self service. Published by Miller Freeman Publications, 370 Lexington Avenue, New York 17. Subscription \$3 a year; foreign \$4; single copies 30 cents.

Presbyterian Life, a Journal of Protestant Christianity, is published by authority of the General Assembly of the Presbyterian Church in the United States of America. It is published every other Saturday, by Presbyterian Life, 501 Witherspoon Building, Philadelphia 7. Subscription \$2.50 a year in the U. S. A. and possessions. Foreign subscriptions \$3 a year.

The Print Collector's Quarterly, which suspended publication six years ago, will resume publication during the fall quarter of this year. It will bear the imprint of William Edwin Rudge, Publisher, who also issues *Print*.

Printer's Digest, published monthly in the interest of the graphic arts industry, beginning in February, is distributed free of charge in the United States. Editorial offices are at 32 West Washington Street, Chicago. Business office, P.O. Box 6834, Cleveland, Ohio.

Problems, a January newcomer, is published quarterly by the Jewish Ethical Society, 270 Lafayette Street, New York 12. Abba Gordin is editor. Subscription \$2 a year; 50 cents a copy.

The Progressive, a weekly, which was discontinued last October, has been revived as a full size monthly with a January 1948 issue, volume 12, number 1. Published at 408 West Gorham Street, Madison 3, Wisconsin. Subscription \$3 a year; 25 cents a copy.

Renaissance News is a quarterly newsletter published by Dartmouth College Library for the American Council of Learned Societies, edited by Frederick W. Sternfeld and Vernon Hall, Jr. It began with a spring, 1948, number. Subscription \$1 a year. Address Box 832, Hanover, N. H.

Research, a Journal of Science and its Applications, an illustrated British monthly, began publication in October. "The selection of matter to form the main features of the *Journal* will require a continuous review of developments in all branches of science throughout the world. Those developments which may have, sooner or later, significant practical application will be chosen as subject matter by a highly competent editorial staff, working in close association with the Scientific Advisory Board. Descriptions will be given so far as practicable in non-specialized language, to appeal equally to the trained scientist and to the industrialist. Important developments not yet ripe for general treatment as descriptive reviews, will find their place as original research papers in the *Research Supplement*." Published by Butterworths Scientific Publications Limited, 4, 5 & 6 Bell Yard, Temple Bar, London, W.C.2. Subscription including postage £2 5s; single copies 3s 6d; \$10 Interscience Publishers, Inc., 215 4th Avenue, New York, American agents.

Research Progress is a bimonthly publication of the Lithographic Technical Foundation, Research Department, Glessner House, 1800 S. Prairie Avenue, Chicago 16. It began with a May-June 1947 issue.

Resort Management has announced that starting with the January 1949, issue, and once each year thereafter, it will devote a section to a list of those firms who manufacture or handle materials and equipment used in the operation of resort hotels, resorts, dude ranches, lodges and inns. Published at 926 N. Plankinton Avenue, Milwaukee 3.

Restaurant Equipment Dealer, a new business paper for equipment dealers selling to hotels, restaurants, industrial cafeterias, clubs, hospitals, schools, and other mass feeding outlets, will be published early in 1948 by the Ahrens Publishing Company, 71 Vanderbilt Avenue, New York. Subscription \$3 a year; 35 cents a single copy.—*Sales Management*.

Review of the Economic Conditions in Italy is published bimonthly by Banco di Roma, Via del Corso, 307 Rome. Text is in English. The New York agent is at 37 Wall Street.

La Revista de Estudios Eslavos is a semi-annual, scientific and literary, published in March and September by Boris P. Popovitzky, Apartado Postal 2263, México, D.F. Its purpose is to further a better understanding between slavic nations and Latin America. Subscription \$1 a year; 50 cents a single issue.

Newspaper publishers from twenty Latin-American countries met in New York, September 27, to complete plans for publication of the new Sunday pictorial magazine in Spanish

and Portuguese, *Revista Semanal*. The color magazine will be printed here and in Latin-America for insertion in regular Sunday editions of the participating newspapers starting early next year.—*Printers' Ink*.

Right Angle is published monthly thru the American University, Massachusetts and Nebraska Avenues, Washington, D.C., in the interest of the arts. Subscription \$2 a year; single copies 20 cents.

Rocket Science, the Journal of the Detroit Rocket Society, a quarterly, published by the Detroit Rocket Society, Inc., 682 South Waterman Avenue, Detroit 17, is now in its second volume. Subscription with active membership \$5 a year; with associate membership \$3 a year. Subscription rate offered only to libraries, schools, and research organizations \$1.50 a year.

Romance Philology is published quarterly, in August, November, February, and May by the University of California Press, Berkeley 4, California. Yakov Malkiel is editor. Subscription \$5 a year; special subscription rate for graduate students enrolled in American universities: \$3 a year; single copies \$1.50.

Rubber Developments is an illustrated quarterly, issued gratis by the British Rubber Development Board, Market Buildings, Mark Lane, E.C. 3.

Salute, the monthly magazine of veterans' affairs which was founded in 1946 as the civilian outgrowth of *Yank* and *Stars and Stripes*, reconverts completely to civilian life as *The Picture Magazine for Men*. Revisions include a new staff, new editorial approach, and new advertising department.—*Advertising and Selling*.

School Films; Quarterly of Classroom Visual Aids, began with a Spring 1948 issue. It is an illustrated well printed journal, published by C. J. Ver Halen, Jr., 6060 Sunset Blvd., Los Angeles 28; New York office, Suite 511, 475 Fifth Avenue, New York. Subscription for 12 issues \$3.

Science & Technology in China is a new bimonthly in the English language, published by The Natural Science Society of China. The Society states that, in spirit, the new publication is a continuation of *Acta Brevia Sinensia*, which was published during the war years by the Society in cooperation with the British Council. The subscription price is \$2 a year. Foreign subscribers should communicate with S. H. Doo, 7137 Pennsylvania Avenue, Pittsburgh 8, Pennsylvania.

Science Week, Newsletter of Science and Industry is an information service, published by G. W. Stamm & Associates, 612 North Michigan Avenue, Chicago 11. "In addition to summarizing the news, the service lists science articles selected from 108 magazines, both

general and industrial." Price of the service is \$25 a year. Sample copies will be sent to librarians on request.

Scottish Art Review is the new name of the *Glasgow Art Gallery and Museums Association Review*, published as a quarterly in 1947 by the Glasgow Art Gallery and Museums Association. Address Art Gallery, Kelvingrove, Glasgow. 2s 6d a copy.

Scriptorium; Revue Internationale des Études Relatives aux Manuscrits, a semi-annual, is published under the direction of F. Lyna and C. Gaspar of the Section of Manuscripts of the Royal Library of Belgium. Communications should be sent to Professor J. Hammer, 2757 Clafin Avenue, New York City, for United States and Canada and to Professor Neil R. Ker, Brambles, Hinksey Hill, Oxford, for Great Britain. The first number, 1946-1947, has contributions in French, English and German and is illustrated with 20 plates. Subscription \$12 a year, £3.

Ship and Boat Builder, a small size illustrated monthly, is published by John Trundell (Publishers), 161 Cheapside, London, E.C. 2. Subscription 20 shillings.

Sintesis Militar; Recopilaciones Estadounidenses, is a bimonthly digest in Spanish of technical material from United States sources for the officers of the ground, sea, and air forces of Latin American republics. It is distributed free. Financial support is expected from American advertisers wishing to reach the military market in Latin America. Volume 1, number 1, Mayo y Junio. Address is 410 Bond Building, Washington 5.

The South Carolina Law Quarterly began publication in September, as successor to *The Yearbook of the Selden Society*. It is published by the South Carolina Bar Association and the faculty and students of the University of South Carolina School of Law, Columbia. Subscription \$3 a year; 75 cents a copy.

Southwest Trend, the Magazine which Speaks of Progress, tells of the Negro communities in the Southwest. It is published monthly by the Inter Racial Good Will Publishing Company, 905 N. E. 5th Street, Oklahoma City, Oklahoma. Subscription \$3 a year; 25 cents a copy.

Speed Age, the Auto Racing Magazine, a monthly, began publication in May. Address P.O. Box 237, Hyattsville, Maryland. Subscription \$3 a year; single copies 25 cents.

Standards World, new quarterly journal, will make its appearance in the standardization field sometime this winter. Its editor is S. P. Kaidanovsky, 1601 Argonne Place, NW, Washington, D.C.—*Industrial Standards*.

Studies in Business and Economics is a quarterly publication of the University of Maryland, Bureau of Business and Economic Research, College of Business and Public Administration. Volume 1, Number 1, June 1947, is "An Economic Survey of Allegany County, Maryland."

Surf, the Southern Intercollegiate Magazine, published monthly thru the college year, completes the first volume with a May-June number. Volume 2 will begin with an October issue. Published by Surf Associates, 815 Cherokee Street, New Orleans 18. Subscription \$2 a year; single copies 25 cents.

Taylor Technology, a new quarterly, was inaugurated in June by The Taylor Instrument Companies of Rochester, New York.

Texas Cancer Bulletin is a new bimonthly intended "to convey to the physician in brief form, the results of important researches in the varied fields of cancer." Editorial offices of the *Bulletin*, of which Russell W. Cumley is executive editor, are at the M. D. Anderson Hospital, University of Texas, Austin. Subscription \$4 a year.

Theatre Craft, a small size monthly, beginning in January, is devoted primarily to the activities of the Little Theatre, but including in its pages a sprinkling of screen, television, radio, music and the legitimate stage. Published by A. C. Sanucci at 1513 Randall Street, Glendale 1, California. Subscription \$1.50; foreign \$2; single numbers 15 cents.

Theatre in Education, "a bulletin of the drama in university, college, school or youth group," is published monthly except for August and September by Theatre News Service, 77 Dean Street, London, W.1. September-October issue is number 6. Numbers 1-3 are out of print. Subscription 10 shillings (\$3); single copies one shilling.

The Tiger's Eye, a quarterly, beginning with an October issue, "is intended to be a bearer of ideas and art. Moreover it sees no harm in arts and letters being pleasurable, therefore it is no teacher, no merchant, no supreme judge." Ruth Stephan is editor; John Stephan is art editor. Subscription \$3.50 a year; \$1 a copy. Address is RFD 4 Westport, Connecticut.

Touch and Go is a monthly (typewritten); published by the Foundation for the Blind, 15 West 16th Street, New York 11. It began with an October 1947 issue.

Traffic Quarterly, an Independent Journal for Better Traffic, began its second volume with a January issue. Editor-in-Chief is Col. Robert C. F. Goetz, U. S. A., retired. Executive editor is Roscoe Ellard, Columbia University. It is a publication of The Eno Foundation for Highway Traffic Control, Saugatuck, Connecticut. Printed by Columbia University Press, New York. Free.

Tuna Fisherman is a December newcomer, published monthly at 205 Broadway Pier, San Diego, California. Subscription \$3 a year; 25 cents a copy.

The Ukrainian Bulletin began with a four-page issue, May 1. Published bimonthly by the Pan-American Ukrainian Conference. Office, 50 Church Street, Suite 252, New York 7. Subscription \$2 a year; 10 cents a copy.

UNESCO Courier is published monthly in English, French and Spanish, by the Public Information Office of Unesco. The New York office is United Nations Building (Room 401) 405 East 42d Street, New York. Six month subscription 2s or 50 cents; single number 10 cents. Publication began in February.

United States—German Chamber of Commerce, 71 Broadway, New York 6, publishes a monthly bulletin, now in its second volume. Subscription \$10 a year.

University of Birmingham Historical Journal will publish historical research by past and present members of the University. It will be issued annually, at the price of 10s 6d., at the beginning of the Autumn term. Its scope will not be limited to any period or aspect of history, though one article in each number will deal with the history of the Midlands. Volume 1, No. 1, dated 1947 was published in March 1948 by the University, Edmund Street, Birmingham 3.

Utilization, the Magazine of Coal Uses, a monthly, now in its second volume, will be sent to those responsible for the end use of coal. Published by Utilization, 1120 Munsey Building, Washington 4, D.C.

The Victoria League Review is a new monthly, published by the League, founded in 1901 to promote Empire friendship. Subscription 10s a year. Address is 38 Chesham Place, Belgrave Square, London, S.W. 1.

Virginia Accountant, a quarterly of the Virginia Society of Public Accountants, 1304 State-Planters Bank Building, Richmond, began with a June 1947 number. Subscription \$3 a year; single copies \$1.

Voice of Industry, a small-size monthly digest of industrial news, is published at 12 Carteret Street, London, S.W.1. Subscription 15 shillings a year.

Voice of the World is a quarterly selection of broadcasts of all nations, founded by Vernon Bartlett. It is distributed by Vox Mundi, 47 Welbeck Street, London, W.1. Subscription post free in Great Britain 8s 8d; in United States \$1.75; single issues 2 shillings.

The Way Ahead, Quarterly Economic Review, aims to provide a commentary on business conditions and reconstruction in the Netherlands. It is an illustrated magazine in the English language, published by the Society "Stichting Bouw," Koninginnegracht 62, the Hague. Subscription \$3; single copy \$1. Further information may be obtained from Netherlands Chamber of Commerce in New York, 41 East 42d Street, New York 17.

Western Photographic Market, a monthly trade magazine, serves dealers, distributors and manufacturers in twelve Western States, Alaska and Hawaii. Published by Western Photographic Publications, 708 N. Oxford Avenue, Los Angeles 27. It began with a January 1948 issue. Subscription \$2.50 a year; in Canada and Pan American Union \$3; foreign \$3.50.

The Western Political Quarterly is published by Institute of Government, University of Utah, Salt Lake City, beginning with a March issue. The annual dues of four dollars and the student dues of three dollars for subscription to the *Quarterly* include membership in the Western Political Science Association. One dollar should be added for foreign postage. Current issues \$1.50. Remittances for subscription to the *Quarterly* and correspondence concerning membership in the Western Political Science Association should be addressed to Frank H. Jonas, Secretary-Treasurer, University of Utah, Annex 126, Salt Lake City 1.

Westinghouse Engineer, Pittsburgh, publishes a cumulative index to volume 1-7, 1941-1947.

What's New in Crops and Soils, a popular illustrated magazine, published nine times a year, by the American Society of Agronomy, began with an October 9 issue. Address is 1910 Monroe Street, Madison 5, Wisconsin. Subscription \$3 a year in United States and Canada; in foreign countries \$4; single copies 35 cents.

The Wholesale Drug Salesman will be released in January, 1949, to the 5,000 wholesale drug salesmen who call weekly on the nation's drug stores. Editor of the new book is Hugh O'Malley, 221 N. LaSalle St., Chicago 1. New York and eastern representative is J. Meyer, 110 East 42nd St., New York.—*Advertising and Selling*.

World News Index and Interpretation, is a new monthly, published in Boston, P. O. Box 1225. \$3 a year.

World Politics, a quarterly journal of international relations, began with an October 1948 issue. It is devoted to the development of international relations as an integrated field of study. Published by World Politics, 202 Hall of Graduate Studies, Yale University, New Haven, Connecticut. Subscription \$5 a year; \$1.50 a single issue.

Writers of the Midlands is a small review, edited by Stanley Derricourt, "to provide an independent platform for good writing by Midlanders, giving special prominence to the short story; and to revive a regional consciousness." Published from 25, St Peter's Road, Handsworth, Birmingham. Subscription three issues 4s 9d; six issues 9s 6d; single copies 1s 7d.

Writer's World Magazine, a monthly publication for the modern writer, began with an August number. Its aim is "to bridge the gap between writers, critic and publisher; to encourage the writer, to appease the critic and to discover for the publisher new writers—all to the successful good of the writing industry, the pivotal focus of our intellectual existence." Published by Writer's World Publication, 60 East 42d Street, New York 17. Subscription \$1.50 a year; single copies 15 cents.

The Zoological Society of Bengal has this spring inaugurated publication of its *Proceedings*, to appear biannually. Correspondence should be directed to the Honorary Secretary, Zoological Society of Bengal, 35 Ballygunge Circular Road, Calcutta 19, India.—*Science*.

List of Periodicals Indexed

- A S M E Trans**—Transactions of the American Society of Mechanical Engineers. \$12; single numbers \$1.50. m (except Mr, Jr, S, D) American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v70;i-l) \$6 to members and affiliates
- Acoustical Soc Am J**—Journal of the Acoustical Society of America. \$10; single numbers \$2. bi-m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v20;i-s)
- Adv & Sell**—Advertising and Selling and the Advertising Agency. \$4; single numbers 35c. m Moore-Robbins Pub. Co, Inc, 3 E 38th St, New York 16 (1v:Ja v41;i-none)
Annual advertising awards issue \$1
- Advanced Management**—Advanced Management, \$6; single numbers \$1.50. q Society for the Advancement of Management, Inc, 84 William St, New York 7 (1v:Mr v13;i-l)
Formerly Society for the Advancement of Management Journal, a bi-monthly
- Aero Digest**—Aero Digest. \$3; single numbers 50c. m Aeronautical Digest Pub. Corp, 515 Madison Av, New York 22 (2v:Ja,Jl v56-57; i-r)
Annual Digest issue March \$1
- Aeronautical Eng R**—Aeronautical Engineering Review. \$3; single numbers 50c. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v7;i-s)
Formerly Journal of the Aeronautical Sciences, Aeronautical Review Section
- Air Affairs**—Air Affairs. \$5; single numbers \$2. q International Society of Air Affairs, 4926 Battery Lane, Washington 14, D.C. (1v:[S] v2;i-none)
- Air Transport**—Air Transport. \$3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v6;i-none)
Combined with Aviation Week beginning with April 5 issue
- Am Assn of Textile Chemists and Colorists**. Proceedings. Published in American Dyestuff Reporter
- Am Assn Pet Geologists Bul**—Bulletin of the American Association of Petroleum Geologists. \$15; single numbers \$1.50. m American Association of Petroleum Geologists, Inc, Box 979, Tulsa 1, Oklahoma (1v:Ja v32;i-s)
- Am Bankers Assn J**. See Banking
- Am Bld**—American Builder and Building Age. \$3; single numbers 50c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v70;i-none)
- Am Bsns**—American Business combined with System. \$4; single numbers 35c. m Dartnell Publications, Inc, 4660 Ravenswood Av, Chicago 40 (1v:Ja v18;i-none)
- Am Cer Soc Bul**—Bulletin of the American Ceramic Society. \$6; single numbers 50c. m American Ceramic Society, 2525 N High St, Columbus 2, Ohio (1v:Ja v27;i-s)
Ceramic Abstracts, formerly published as part of the Bulletin, is included in American Ceramic Society Journal beginning January 1946
- Am Cer Soc J**—Journal of the American Ceramic Society. Ceramic Abstracts. \$15; single numbers \$1.50. m American Ceramic Society, 2525 N High St, Columbus 2, Ohio (1v:Ja v31;i-s)
- Am Chem Soc J**—Journal of the American Chemical Society. \$10; single numbers 75c. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v70;i-s)
- Am Concrete Inst J**—Journal of the American Concrete Institute. \$10; single numbers \$1.25. m (except J1 and Ag) American Concrete Institute, 742 New Center Bldg, Detroit 2, Mich. (1v:S v20;i-s)
- Am Dyestuff Rep**—American Dyestuff Reporter. \$5. bi-w Howes Pub. Co, 1 Madison Av, New York 10 (1v:Ja v37;i-s)
Includes Proceedings of American association of textile chemists and colorists
- Am Gas Assn Mo**—American Gas Association Monthly. \$3. m (bi-m J1-Ag) American Gas Assn, Inc, 420 Lexington Av, New York 17 (1v:Ja v30;i-l)
- Am Gas Assn Proc**—American Gas Association Proceedings. Annual convention proceedings. American Gas Association, inc, 420 Lexington Av, New York (29th annual convention, 1947)
- Am Gas J**—American Gas Journal. \$3; single numbers 35c. m American Gas Journal, Inc, 53 Park Pl, New York 7 (2v:Ja,Jl v168-169; i-l)
- Am Inst Chem Eng Trans**—American Institute of Chemical Engineers. Transactions. \$10; single numbers \$2. bi-m American Institute of Chemical Engineers, 50 E 41st St, New York 17 (1v:F v42;i-s)
Published as section of Chemical Engineering Progress beginning January, 1947
- Am Inst E E J**. See Elec Eng
- Am Inst of Mining and Metallurgical Engineers**. See Min & Met
- Am J Sci**—American Journal of Science. \$8; single numbers 75c. m American Journal of Science, New Haven, Conn. (1v:Ja v246;i-s)
- Am Mach**—American Machinist. \$5; single numbers 35c. bi-w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v92;i-r)
- Am Pet Inst Proc**—American Petroleum Institute Proceedings. 50 W 50th St, New York
Published annually in 5 sections
- Am Soc C E Proc**—Proceedings of American Society of Civil Engineers. \$8; single numbers \$1. m (except J1 and Ag) American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v74;i-s)
- Am Soc for Metals Trans**—Transactions of the American Society for Metals. v38-39 '47. American Society for Metals, 7301 Euclid Av, Cleveland 3, Ohio
Published in 2 volumes soon after annual meeting
- Am Soc Heat & V E J**. See Heating-Piping
- Am Soc M E J**. See Mech Eng
- Am Soc M E Trans**. See A S M E Trans
- Am Soc T M Proc**—American Society for Testing Materials. Proceedings. annual American Society for Testing Materials, 1916 Race St, Philadelphia 3 (1v:v46)
- Am Stat Assn J**—Journal of the American Statistical Association. \$3. q American Statistical Association, 1603 K St, N.W, Washington 6, D.C. (1v:Mr v43;i-s)
- Am Water Works Assn J**—Journal of the American Water Works Association. \$7; single numbers 75c. to members 50c. m American Water Works Assn, 500 Fifth Av, New York 18 (1v:Ja v40;i-s)

Publications of societies, institutions, etc. are listed under the names of the organizations. i-l=index sent loose; i-r=index sent upon request; i-s=index stitched in volume.

Month abbreviation followed by volume number=Month in which new volume begins and the number of the new volume beginning in 1948.

Anal Chem—Analytical Chemistry. \$3; single numbers 50c. m American Chemical Society, 1155 16th st, N.W., Washington 6, D.C. (1v:Ja v20;i-s)

Formerly Industrial and Engineering Chemistry Analytical Edition

Not sold separately thru 1947. Combination rate, 1948 \$6

Ann Am Acad—Annals of the American Academy of Political and Social Science. \$5; single numbers \$2. bi-m American Academy of Political and Social Science, 3817 Spruce St, Philadelphia 4 (6v:Ja,Mr,My,JI,S,N v25-260;i-s)

Published also in cloth \$7.50; single numbers \$2.50

Arch Forum—Architectural Forum. \$5.50; single numbers \$1. m Time, Inc, 540 North Michigan Av, Chicago 11 (2v:Ja,JI v88-89;i-r)

Arch Rec—Architectural Record. \$4.50; single numbers \$1. m F. W. Dodge Corp, 119 W 40th St, New York 18 (2v:Ja,JI v103-104;i-s)

Assn of Sp Lib & Inf Bur Proc—Association of Special Libraries and Information Bureaux Proceedings. 7s 6d. annual Association of Special Libraries and Information Bureaux, 52, Bloomsbury St, London, W.C. 1

1947 Indexed in this volume. Volume for 1948 will be published as Aslib Proceedings (probably in 2 issues) and will incorporate British Society for International Bibliography Proceedings

Automobile Eng—The Automobile Engineer. £1 14s; single numbers 2s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v38;i-r;cost 6d)

Annual extra number published in November

Automotive Ind—Automotive Industries. \$2; single numbers 25c. s-m Chilton Company, Chestnut & 56th Sts, Philadelphia 39 (2v:Ja,JI v98-99;i-none)

Title was Automotive & Aviation Industries from February 1, 1942 thru June 15, 1947

Aviation W—Aviation Week. \$6; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (2v:Ja,JI v48-49;i-none)

Merger of Aviation and Aviation News beginning July 7, 1947

Air Transport incorporated April 5, 1948

Bankers Mo—Bankers Monthly. \$5; single numbers 50c. m Rand McNally & Co, 536 South Clark St, Chicago 5 (1v:Ja v65,i-none)

Formerly Rand McNally Bankers Monthly

Banking—Banking; Journal of the American Bankers Association. \$4; single numbers 35c. m American Bankers Association, 12 E 36th St, New York 16 (1v:JI v41;i-r)

Formerly American Bankers Association Journal

Banking Law J—Banking Law Journal (combined with the Bankers Magazine) \$8; single numbers 75c. m Bankers Publishing Co, 465 Main St, Cambridge 42, Mass. (1v:Ja v64;i-s)

Indexing discontinued with the December 1947 issue

Barron's—Barron's. \$15; single numbers 35c. m Barron's Pub. Co, Inc, 40 New St, New York 4 (1v:Ja v28;i-s)

Bell System Tech J—Bell System Technical Journal. \$1.50; single numbers 50c. q American Telephone and Telegraph Co, 195 Broadway, New York (1v:Ja v27;i-l)

Blast F & Steel Pl—Blast Furnace and Steel Plant. \$2.50; single numbers 50c. January and August numbers \$1 ea. m Steel Publications, Inc, Thaw Bldg, 108 Smithfield St, Pittsburgh 30, Pa. (1v:Ja v36;i-s)

Boston Soc C E J—Journal of the Boston Society of Civil Engineers. \$4; single numbers \$1. q Boston Society of Civil Engineers, 715 Tremont Temple, Boston (1v:Ja v34;i-s)

Indexing discontinued with the October 1947 issue

Brick & Clay Rec—Brick and Clay Record. \$5; single numbers 50c. m Industrial Publications, Inc, 5 So. Wabash Av, Chicago 3 (2v:Ja,JI v112-113;i-s)

Bsns W—Business Week. \$6; single numbers 25c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (without v no;i-none)

Burroughs Clearing House—Burroughs Clearing House. m Burroughs Adding Machine Co, Second Blvd. and Burroughs Av, Detroit 32, Mich. (1v:O v33;i-none)

Bus Transportation—Bus Transportation. \$5; single numbers 50c. m McGraw-Hill, Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v27;i-r)

CAA J—Civil Aeronautics Administration Journal; issued by the Civil Aeronautics Administration. 75c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v9;i-s)

Formerly Civil Aeronautics Journal; name changed with April 15, 1945 number

Can Chem & Process Ind—Canadian Chemistry and Process Industries. \$5; single numbers 50c. m Westman Publications, Ltd, 137 Wellington St, West, Toronto, Ont. 1 (1v:Ja v32;i-r)

Formerly Canadian Chemistry and Metallurgy

Can Min J—Canadian Mining Journal. \$7.50; single numbers \$1. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v69;i-s)

Cer Ind—Ceramic Industry. \$4; single numbers 50c. m Industrial Publications, Inc, 5 So. Wabash Av, Chicago 3 (2v:Ja,JI v50-51;i-s)

Price of January issue \$2

Chem Age (Lond)—The Chemical Age. 26s; single numbers 10d. w Benn Brothers, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,JI v58-59;i-r)

Chem & Eng N—Chemical and Engineering News. \$4; single numbers 15c. w American Chemical Society, 1155 16th St, N.W., Washington 6, D.C. (1v:Ja v26;i-s)

Chem & Ind—Chemistry and Industry. £3. single numbers 2s. w Society of Chemical Industry, 56 Victoria St, London, S.W.1 (without v no;i-s)

Chem & Met Eng—Chemical and Metallurgical Engineering. \$3; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v53;i-r)

Name changed to Chemical Engineering August, 1946

Chem Eng—Chemical Engineering with Chemical and Metallurgical Engineering. \$5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v55;i-s)

Chem Eng Prog—Chemical Engineering Progress. \$6; single numbers 75c. m American Institute of Chemical Engineers, 120 E 41st St, New York 17 (1v:Ja v44;i-s)

Chem Ind—Chemical Industries. \$5; single numbers 60c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (2v:Ja,JI v62-63;i-l)

Published twice in December; second issue, Buyer's Guidebook number \$2.50

Chem R—Chemical Reviews. \$9 (\$7 to members of American Chemical Society) bi-m Williams & Wilkins Co, Mount Royal and Guilford Aves, Baltimore 2, Md. (2v:F,Ag v42-43;i-s)

Chem Soc J—Journal of the Chemical Society. £3 15s. m The Chemical Society, Burlington House, Piccadilly, London, W. 1 (without v no:i-l)

Chimie & Ind—Chimie & Industrie. m Société de Chimie Industrielle, 23 Rue Saint-Dominique, Paris, France (7s)

Indexing discontinued with the December 1947 issue

Civil Aero J—Civil Aeronautics Journal. See CAA J

Civil Eng—Civil Engineering. \$5; single numbers 50c. m American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v18;i-r)

Coal Age—Coal Age. \$5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v53;i-r)

June issue (Coal mines of tomorrow) \$1

Comm & Fin Chr—Commercial & Financial Chronicle. \$35; single numbers Monday ed. 75c. Thursday ed. 30c. s-w William E. Dana Co, 25 Park Pl, New York 8 (2v:Ja,JI v167-168;i-l)

Annual Review number, January 22 in two sections \$1.50

- Communications**—Communications. \$2; single numbers 25c. m Bryan Davis Pub. Co. Inc, 52 Vanderbilt Av, New York 17 (1v:Ja v28; i-s)
- Comp Air Mag**—Compressed Air Magazine. \$3; single numbers 35c. m Compressed Air Magazine Co, Phillipsburg, New Jersey (1v:Ja v53; i-r)
- Concrete**—Concrete. \$3; single numbers 40c. m Concrete Pub. Corp, Daily News Plaza, 400 W Madison St, Chicago 6 (1v:Ja v56; i-s)
- Constr Methods**—Construction Methods. \$2; single numbers 25c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v30; i-none)
- Consumers Res Bul**—Consumers' Research Bulletin (Not Confidential). \$3; single numbers 30c. m Consumers' Research, Inc, Washington, New Jersey (2v:Ja,JI v21-22; i-s)
- Credit & Fin Management**—Credit and Financial Management. \$3; single numbers 25c. m National Association of Credit Men, 1309 Noble St, Philadelphia 23, Pa.; 1 Park Av New York 16 (1v:Ja v50; i-s)
- Diesel Power**—Diesel Power and Diesel Transportation. \$3; single numbers 35c. m Diesel Publications, Inc, 192 Lexington Av, New York 16 (1v:Ja v26; i-none)
- Dom Eng**—Domestic Engineering. \$3; single numbers 30c. m Domestic Engineering Co, 1801 Prairie Av, Chicago 16 (2v:Ja,JI v171-172; i-none)
- Dun's R**—Dun's Review. \$4; single numbers 35c. m Dun & Bradstreet, Inc, 290 Broadway, New York 8 (1v:Ja v56; i-r)
Formerly Dun & Bradstreet Monthly Review
- East Underw**—Eastern Underwriter. \$5; single numbers 25c. w Eastern Underwriter Co, 41 Maiden Lane, New York 7 (1v:Ja v49; i-none)
- Econ Geol**—Economic Geology. \$5; single numbers \$1. s-q Economic Geology Pub. Co, M. M. Leighton, Business Mgr, Urbana, Ill. (1v:Ja v43; i-s)
- Economist**—Economist. £3; single numbers 1s. w Economist Newspaper, Ltd, 22 Ryder St, St James's, London, S.W. 1 (2v:Ja,JI v154-155; i-l)
- Ed & Pub**—Editor & Publisher, the Fourth Estate. \$5; single numbers 15c. w Editor & Publisher, 1475 Broadway, New York 18 (1v:Ja v81; i-r) Bound in two volumes a year; cost \$2.50 each or \$5 a year
Additional issue published in January; International Year Book Number, included in annual subscription
- Edison Elec Inst Bul**—Edison Electric Institute Bulletin. \$2. m Edison Electric Institute, 420 Lexington Av, New York 17 (1v:Ja v16; i-l)
- Elec Com**—Electrical Communication. \$2; single numbers 50c. q International Telephone and Telegraph Corp, 67 Broad St, New York 4 (1v:Mr v25; i-l)
- Elec Eng**—Electrical Engineering. \$12; single numbers \$1.50. m American Institute of Electrical Engineers, 500 5th Av, New York 18 (1v:Ja v67; i-l)
- Elec R (Lond)**—Electrical Review. £3; single numbers 1s. w Electrical Review, Dorset House, Stamford St, London, S.E. 1 (2v:Ja,JI v142-143; i-r)
- Elec West**—Electrical West. \$2; single numbers 25c. m McGraw-Hill Co. of California, 68 Post St, San Francisco 4, Calif. (2v:Ja,JI v100-101; i-r)
- Elec World**—Electrical World. \$6; single numbers 35c. w McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (2v:Ja,JI v129-130; i-l)
Regular issue alternates with a News Edition
- Electrician**—Electrician. 30s; single numbers 8d. w Benn Bros, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,JI v140-141; i-l)
- Electrochem Soc J**—Journal of Electrochemical Society. \$10; single numbers \$1. m American Electrochemical Society, 235 W. 102d St, New York 25 (2v:Ja,JI v93-94; i-s)
- Electrochem Soc Trans**—The Electrochemical Society. Preprints. The Electrochemical Society, Columbia University, New York 27
Preprints replaced by Journal (monthly) January 1948
- Electronics**—Electronics. \$6; single numbers 75c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v21; i-s)
Price of Directory issue \$2
- Eng & Min J**—Engineering and Mining Journal. \$3; single numbers 50c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v149; i-s)
- Eng Educ**. See J Eng Educ
- Eng N**—Engineering News-Record \$6; single numbers 35c. w McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (2v:Ja,JI v140-141; i-r)
Regular issue alternates with a News Edition
- Construction costs**. Issue (May 27) \$2
- Engineer**—Engineer. £4 10s; Canadian subs £4 5s; single numbers 1s 9d. w Engineer, 28, Essex St, Strand, London, W.C. 2 (2v:Ja,JI v185-186; i-l)
- Engineering**—Engineering. £4 10s; Canadian subs £4 5s; single numbers 1s 6d. w Engineering, Ltd, 35 and 36 Bedford St, Strand, London, W.C. 2 (2v:Ja,JI v165-166; i-r)
- Explosives Eng**—The Explosives Engineer. \$1.50; single numbers 30c. bi-m Explosives Engineer, Delaware Trust Bldg, Wilmington 99, Delaware (1v:Ja v26; i-l)
- Factory Management**—Factory Management and Maintenance. \$3; single numbers 35c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v106; i-r)
- Fed Res Bul**—Federal Reserve Bulletin. \$2; single numbers 20c (to non-members). m Board of Governors of the Federal Reserve System, Constitution Av at 20th St, Washington 25, D.C. (1v:Ja v34; i-s)
- Food Ind**—Food Industries. \$3; single numbers 35c. m McGraw-Hill Pub. Co. Inc, 330 W 42d St, New York 18 (1v:Ja v20; i-s)
- For Comm W**—Foreign Commerce Weekly. Issued by U.S. Department of Commerce. \$9; single numbers 20c. w Superintendent of Documents, Washington 25, D.C. (4v: 13 issues in each v30-33; i-none)
- Fortune**—Fortune. \$12.50; single numbers \$1.25. m Time, Inc, 540 North Michigan Av, Chicago 11 (2v:Ja,JI v37-38; i-r)
- Foundry**—Foundry. \$3; single numbers 35c. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v76; i-r)
- Franklin Inst J**—Journal of the Franklin Institute. \$8; single numbers \$1. m Franklin Institute, Benjamin Franklin Parkway at 20th St, Philadelphia 3 (2v:Ja,JI v245-246; i-s)
- Gas Age**—Gas Age combining Natural Gas, Gas Age, Gas Record \$4; single numbers 25c. bi-w Moore-Robbins Pub. Co. Inc, 9 E 38th St, New York 16 (2v:Ja,JI v101-102; i-l)
June 10 issue, Gas engineering & appliance directory number \$1
- Gas J (Lond)**—Gas Journal. 52s; single numbers 1s. w Walter King, Ltd, 11, Bolt Court, Fleet St, London, E.C. 4 (4v:Ja,Ap,JI, O v249-252; i-l)
Indexing discontinued with the December 1947 issue
- Gen Elec R**—General Electric Review. \$4; single numbers 40c. m General Electric Co, Schenectady 5, N.Y. (1v:Ja v51; i-l)
- Génie Civil**—Génie Civil. 600 fr; single numbers 50fr. s-m Génie Civil, 5 Rue Jules-Lefebvre, Paris (9^e), France (1v:Ja v124; i-l)
Indexing interrupted in the war years, was resumed 1946 thru 1947. Discontinued with the December 15 issue
- Geol Soc Bul**—Bulletin of the Geological Society of America. \$10. m Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27 (1v:Ja v59; i-s)
- Geol Soc Proc**—Proceedings volume of Geological Society of America for 1947. Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27

- Glass Ind—Glass Industry.** \$3.50; single numbers 35c. m Ogden Pub. Co, 55 W 42d St, New York 18 (1v:Ja v29;i-s)
- Harvard Bsns R—Harvard Business Review.** \$6; single numbers \$1.50. bi-m Harvard Business Review, Soldiers Field, Boston 63 (1v:Ja v26;i-s)
Changed from quarterly to bi-monthly beginning January 1948
- Heat & Ven—Heating and Ventilating.** \$3; single numbers 30c. m Industrial Press, 143 Lafayette St, New York 13 (1v:Ja v45;i-none)
- Heating-Piping—Heating, Piping and Air Conditioning.** \$3; single numbers 35c. m Keeney Pub. Co, 6 N Michigan Av, Chicago 2 (1v:Ja v20;i-r)
Includes American Society of Heating and Ventilating Engineers Journal section
Directory and show number January, \$1.50
- III U Eng Exp Sta Bul—Illinois University Engineering Experiment Station, Bulletin.** irr Univ. of Ill, Urbana
- III U Eng Exp Sta Circ—Illinois University Engineering Experiments Station, Circular.** irr Univ. of Ill, Urbana
- Illum Eng—Illuminating Engineering including Transactions of the Illuminating Engineering Society.** \$10; single numbers \$1.50. m (except Ag and O) Illuminating Engineering Society, 51 Madison Av, New York 10 (1v:Ja v43;i-l)
Published every month beginning January, 1949
- Ind & Eng Chem—Industrial and Engineering Chemistry.** \$4; single numbers 75c. m American Chemical Society, 1155 16th St, N.W., Washington 6, D.C. (1v:Ja v40;i-s)
- Ind & Eng Chem Anal ed—Industrial and Engineering Chemistry Analytical Edition.** single numbers 50c. m American Chemical Society, 1155 16th St, N.W., Washington 6, D.C. (1v:Ja v18;i-s)
Name changed to Analytical Chemistry January, 1947
- Ind Marketing—Industrial Marketing.** \$3; single numbers 25c. m (s-m during S) Advertising Publications, Inc, 100 East Ohio St, Chicago 11 (1v:Ja v33;i-none)
September 15th issue not sold separately
- Ind Med—Industrial Medicine.** \$6; single numbers 75c. m Industrial Medicine Pub. Co, 605 North Michigan Av, Chicago 11 (1v:Ja v17;i-s)
- Ind Stand—Industrial Standardization.** \$4; single numbers 35c. m American Standards Association, 70 E 45th St, New York 17 (1v:Ja v19;i-l)
Published bi-monthly from November 1947 to June 1948
Name changed to Standardization beginning January, 1949
- Index—Index.** q New York Trust Company, 100 Broadway, New York (1v:[Mr] v28;i-s)
- India Rubber World—India Rubber World Natural & Synthetic.** \$3; single numbers 35c. m Bill Brothers Publishing Corporation, 386 4th Av, New York 16 (2v:Ap,O v118-119;i-s)
- Inland Ptr—Inland Printer.** \$4; single numbers 40c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6; 622 5th Av, New York 18 (2v:Ap,O v121-122;i-none)
- Inst E E J—Journal of the Institution of Electrical Engineers.** single numbers pt1 6s; pt2 7s 6d; pt3 7s 6d m The Institution, Savoy Place, Victoria Embankment, London, W.C. 2 (1v:Ja v95;i-l)
Beginning with volume 88 published in three parts: pt 1, General, m (Ja); pt 2, Power Engineering, bi-m (F); pt 3, Radio and Communication Engineering, bi-m (Ja)
- Inst Mech Eng J & Proc—Institution of Mechanical Engineers. Journal and Proceedings.** Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W. 1
- Inst Pet J—Journal of the Institute of Petroleum.** £3 13s 6d; single numbers 7s 6d. m Institute of Petroleum, 26 Portland Pl, London, W. 1 (1v:Ja v34;i-s)
Formerly Journal of the Institution of Petroleum Technologists
- Inst Radio Eng Proc—Proceedings of the Institute of Radio Engineers and Waves and Electrons.** \$18; single numbers \$2.25. m Institute of Radio Engineers, Inc, 1 East 79th St, New York 21 (1v:Ja v36;i-s)
- Instruments—Instruments, the Magazine of Measurement and Control.** \$3. m Instruments Pub. Co, Inc, 1117 Wolfendale St, Pittsburgh 12 (1v:Ja v21;i-s)
- Int Labour R—International Labour Review.** \$5; single numbers 50c. m International Labour Office, 1825 Jefferson Pl, Washington 6, D.C. (2v:Ja,Jl v57-58;i-s)
- Iron Age—Iron Age.** \$8; single numbers 35c. w Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39; 100 E 42d St, New York 17 (2v:Ja,Jl v161-162;i-r)
- Iron & Steel Eng—Iron and Steel Engineer.** \$7.50; single numbers \$1.50. m Association of Iron and Steel Engineers, 1010 Empire Bldg, Pittsburgh 22 (1v:Ja v25;i-s)
- Iron & Steel Inst J—Journal of the Iron and Steel Institute.** £5; single numbers 10s. m Iron and Steel Institute, 4, Grosvenor Gardens, London, S.W. 1 (3v:Ja,My,S v158-160;i-r)
Changed to a monthly with volume 155 January, 1947
Semi-annual volume 153 no 1, 1946 (delayed in publication), is indexed in this annual. Volume 154, 1946, no 2, will be indexed in 1949
- J Account—Journal of Accountancy.** \$6; single numbers 60c. m American Institute Pub. Co, Inc, 13 E 41st St, New York 17 (2v:Ja,Jl v85-86;i-s)
- J Aeronautical Sci—Journal of the Aeronautical Sciences.** \$12; single numbers \$1.50. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v15;i-s)
Review section now published as Aeronautical Engineering Review
- J Ap Phys—Journal of Applied Physics.** \$9; single numbers \$1. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v19;i-s)
\$7 to members and associate members of the American Institute of Physics
- J Bsns—Journal of Business of the University of Chicago.** \$6; single numbers \$1.50. q University of Chicago Press, 5750 Ellis Av, Chicago (1v:Ja v21;i-s)
- J Chem Educ—Journal of Chemical Education.** \$3; single numbers 50c. m Journal of Chemical Education, 20th and Northampton Sts, Easton, Pa. (1v:Ja v25;i-s)
- J Chem Phys—Journal of Chemical Physics.** \$12; single numbers \$1.25. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v16;i-s)
- J Doc—Journal of Documentation.** 25s or \$6; single numbers 7s 6d or \$1.75. q Association of Special Libraries and Information Bureaux, 52 Bloomsbury St, London, W.C. 1 (1v:Je v4;i-l)
- J Eng Educ—Journal of Engineering Education.** \$4; single numbers 75c. m (except J1 and Ag) American Society for Engineering Education, Northwestern University, Evanston, Ill. (1v:S v39;i-s)
- J Fr Inst—See Franklin Inst J**
- J Ind Hygiene—The Journal of Industrial Hygiene and Toxicology.** \$8; single numbers \$1.50. bi-m Williams & Wilkins Co, Mt Royal & Guilford Aves, Baltimore 2, Md. (1v:Ja v30;i-l)
- J Land & Pub Util Econ—Journal of Land and Public Utility Economics.** \$5; single numbers \$1.50. q University of Wisconsin, Madison 6, Wis. (1v:F v24;i-l)
Name changed to Land Economics beginning February, 1948
- J Marketing—The Journal of Marketing.** \$4. q Robert N. King, Business manager, 383 Madison Av, New York 17 (1v:Jl v13;i-l)
Publication of the American Marketing Association

- J Phys & Colloid Chem**—The Journal of Physical and Colloid Chemistry. \$10; single numbers \$1.75. m except (Jl, Ag and S) Williams & Wilkins Co., Mt. Royal & Guilford Aves, Baltimore 2, Md. (1v:Ja v52:i-s)
Changed from bi-monthly to monthly beginning January, 1948
- J Res Nat Bur Stand**—Journal of Research of the National Bureau of Standards. \$4.50. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v40-41:i-s)
- J Retailing**—Journal of Retailing. \$1.50; single numbers 40c. q New York University School of Retailing, 100 Washington Square, New York 3 (1v:F v24:i-r)
Index published every two years
- J Sci Instr**—Journal of Scientific Instruments and of Physics in Industry. 50s; single numbers 5s. m Institute of Physics, 47 Belgrave Square, London, S.W.1 (1v:Ja v25:i-l)
- Land Econ**—Land Economics. \$5; single numbers \$1.50. q University of Wisconsin, Madison 6, Wis. (1v:F v24:i-s)
Formerly Journal of Land and Public Utility Economics; name changed February 1948
- Life Ins Courant**—Life Insurance Courant. \$4; single numbers 50c. m Flitcraft, Inc. 75 Fulton St, New York 7 (1v:Ja v53:i-s)
- Light & Lighting**—Light and Lighting. 10s 6d; single numbers 9d. m Light and Lighting, 32 Victoria St, London, S.W. 1 (1v:Ja v40:i-l)
Indexing discontinued with the December 1947 issue
- Light Metal Age**—Light Metal Age. \$3; single numbers 50c. bi-m Roy Fellom, Jr, 201 N. Wells St, Chicago 6 (1v:F v6:i-r)
- Locomotive**—Locomotive. 50c; single numbers gratis; bound volumes [8 nos in a volume] issued every 2 years \$1. q Hartford Steam Boiler Inspection & Insurance Co, 56 Prospect St, Hartford 2, Conn. (1v:Ja v46:i-r)
Indexing discontinued with the October 1947 issue
- Mach**—Machinery. \$4; single numbers 40c. m Industrial Press, 148 Lafayette St, New York 13 (1v:S v55:i-r)
- Machine Design**—Machine Design. \$10; single numbers \$1. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v20:i-s)
- Mag of Wall St**—Magazine of Wall Street and Business Analyst. \$15; single numbers 75c. bi-w Ticker Pub. Co, Inc, 90 Broad St, New York 4 (2v:Ap,O v82-83:i-s)
- Management R**—Management Review. \$5; single numbers 50c. m American Management Association, 330 W 42d St, New York 18 (1v:Ja v37:i-s)
- Manuf Rec**—Manufacturers Record. \$3; single numbers 35c. m Manufacturers Record Publishing Co, 109 Market Place, Baltimore 3, Md. (1v:Ja v117:i-none)
- Marine Eng**—Marine Engineering and Shipping Review. \$3; single numbers 35c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v53:i-r)
- Mass Transportation**—Mass Transportation. \$2; single numbers 25c. m Kenfield-Davis Pub. Co, 222 West Adams St, Chicago 6 (1v:Ja v43:i-s)
Indexing discontinued with the December 1947 issue
- Materials & Methods**—Materials and Methods. \$2; single numbers 50c. m Reinhold Pub. Corp, 330 W 42d St, New York 18 (2v:Ja,Jl v27-28:i-s)
Formerly Metals and Alloys; name changed October, 1945
- Mech Eng**—Mechanical Engineering. \$7; single numbers 75c. m American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v70:i-r)
- Mech Handling**—Mechanical Handling. 14s; single numbers 1s m Louis Cassier Co, Ltd, Dorset House, Stamford St, London S.E. 1 (1v:Ja v34:i-l)
Indexing discontinued with the December 1947 issue
- Metal Finishing**—Metal Finishing. \$4; single numbers 45c. m Finishing Publications, Inc, 11 W 42d St, New York 18 (1v:Ja v46:i-s)
Formerly Metal Industry
- Metal Prog**—Metal Progress. \$7.50; single numbers \$1.50. m American Society for Metals, 7301 Euclid Av, Cleveland 3, O. (2v:Ja,Jl v53-54:i-s)
- Metallurgia**—Metallurgia, the British Journal of Metals. 24s; single numbers 2s. m Kennedy Press, Ltd, 31 King Street West, Manchester, 3 (2v:My,N v38-39:i-l)
- Metals Tech**—Metals Technology. \$6; single numbers \$1.25. s-q American Institute of Mining and Metallurgical Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v15:i-none)
Name changed to Journal of Metals January, 1949
- Midwest Eng**—Midwest Engineer. \$3; single numbers 35c. m (except Je, Jl and Ag) Western Society of Engineers, 84 E. Randolph st, Chicago 1
Formerly Journal of the Western Society of Engineers; name changed September, 1948
- Mill & Factory**—Mill & Factory. \$5; single numbers 50c. m Conover-Mast, Publications, Inc, 205 E 42d St, New York 17 (2v:Ja,Jl v42-43:i-none)
- Min & Met**—Mining and Metallurgy. \$4; single numbers 50c. m American Institute of Mining and Metallurgical Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v29:i-l)
Back numbers and special issues \$1
Name changed to Mining Engineering beginning January, 1949
- Min Cong J**—Mining Congress Journal. \$3; single numbers 30c. m American Mining Congress, 1102 Rine Bldg, Washington 6, D.C. (1v:Ja v34:i-r)
- Mo Labor R**—Monthly Labor Review. \$4.50; single numbers 40c. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v66-67:i-l)
Free to labor departments and bureaus and other offices connected with the administration of labor laws
- Mo U Sch Mines & Met Bul tech ser**—Bulletin of the University of Missouri, School of Mines and Metallurgy. Technical Series, irr Univ. of Mo. Rolla
- Mod Ind**—Modern Industry. \$4; single numbers 50c. m Magazines of Industry, Inc, 347 Madison Av, New York 17 (2v:Ja,Jl v15-16:i-none)
- Mod Packaging**—Modern Packaging. \$5; single numbers 75c. m Modern Packaging Corp, 122 E 42d St, New York 17 (1v:S v22:i-l)
- Mod Plastics**—Modern Plastics. \$5; single numbers 75c. m Modern Plastics Inc, 122 E 42d St, New York 17 (1v:S v26:i-l)
Formerly Plastic Products
- N A C A Bul**—N.A.C.A. Bulletin. \$10 s-m National Association of Cost Accountants, 385 Madison Av, New York 17 (1v:S v30:i-r)
- N E Water Works Assn J**—Journal of the New England Water Works Association. \$4; single numbers \$1.25. q New England Water Works Association, 609 Statler Bldg, Boston (1v:Mr v61:i-s)
Indexing discontinued with the December 1947 issue
- N Y Pub Lib Bul**—New York Public Library. Bulletin. \$1; single numbers 10c. m New York Public Library, 5th Av & 42d St, New York 18 (1v:Ja v52:i-s)
Bibliographies of interest to special libraries are indexed
- Nat City Bank**—National City Bank of New York. m 55 Wall St, New York (without v no; i-none)
- Nat Pet N**—National Petroleum News. \$5; single numbers 20c. w National Petroleum Pub. Co, 1213 W 3d St, Cleveland 13, O. (1v:Ja v40:i-none)
Monthly technical section beginning July 29, 1942, published separately as pt 2 of the regular issue with subtitle Refinery Management and Petroleum Chemical Technology thru August, 1946; name changed to Petroleum Processing, September, 1946
- Nat Res Council Bul**—National Research Council Bulletin. irr National Research Council, 2101 Constitution Av, Washington 25, D.C.
Individual numbers variously priced. Price-list sent on request

- Nat Safety N**—National Safety News. \$7.50; single numbers 75c. m National Safety Council, Inc, 20 N Wacker Drive, Chicago 6 (2v:Ja,JI v57-58;i-r)
- Nat Underw**—National Underwriter. \$5; single numbers 20c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v52;i-none)
- Nat Underw (Life ed)**—National Underwriter Life Insurance Edition. \$5; single numbers 20c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v52;i-none)
- Oil & Gas J**—Oil and Gas Journal. \$3; single numbers 50c. w Petroleum Pub. Co, 211 South Cheyenne St, Tulsa 1, Oklahoma (1v:My v47;i-r)
- Oil Paint & Drug Rep**—Oil, Paint and Drug Reporter. \$5; single numbers 25c. w Schnell Pub. Co, Inc, 59 John St, New York 7 (2v:Ja,JI v153-154;i-r)
- Opt Soc Am J**—Journal of the Optical Society of America. \$7; single numbers \$1. m American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v38;i-s)
- Paint Oil & Chem R**—Paint, Oil and Chemical Review. \$3; single numbers 20c. bi-w Trade Review Co, 537 S Dearborn St, Chicago 5 (1v:Ja v111;i-none)
- Paper Ind**—Paper Industry and Paper World. \$2. m Fritz Publications, Inc, 59 E. Van Buren St, Chicago 5 (1v:Ap v30;i-l)
- Paper Tr J**—Paper Trade Journal. \$5; single numbers 15c. w Lockwood Trade Journal Co, Inc, 15 W 47th St, New York 19 (2v:Ja,JI v126-127;i-s)
Extra number (75th anniversary issue) published as v 124 no 27 1947
- Personnel**—Personnel. \$5; single numbers \$1. bi-m American Management Association, 330 W 42d St, New York 18 (1v:JI v25;i-s)
- Personnel J**—Personnel Journal. \$5; single numbers 75c. m (JI and Ag issues combined) Personnel Journal, Inc, Swarthmore, Pa. (1v:My v27;i-s)
- Pet Eng**—Petroleum Engineer. \$2; single numbers 25c. m Petroleum Engineer Pub. Co, Irwin-Keasler Bldg, Dallas 1, Texas (1v:O v20;i-l)
Extra number [Ref annual] published July 1
- Pet Processing**—Petroleum Processing. \$3; single numbers 35c. m National Petroleum Pub. Co, 1213 W 3d St, Cleveland 13 (1v:Ja v3;i-r)
Formerly monthly technical section of National Petroleum News
- Pet Refiner**—Petroleum Refiner. \$2; single numbers 35c. m Gulf Pub. Co, Box 2608, Houston 1, Texas (1v:Ja v27;i-s)
September number is Process Handbook Edition, in two sections
- Phys R**—The Physical Review, Second Series. \$15; single numbers \$1. s-m American Institute of Physics, Inc, 57 E 55th St, New York 22 (2v:Ja,JI v73-74;i-s)
- Plastics**—Plastics. \$2; single numbers 50c. m Vincent Edwards, Inc, 342 Madison Av, New York 17 (1v:Ja v8;i-none)
- Power**—Power. \$5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v52;i-r)
Extra number published in Mid-June
- Power Generation**—Power Generation. \$10; single numbers \$1. m Technical Pub. Co, 53 West Jackson Blvd, Chicago 4 (1v:Ja v52;i-s)
- Power Pl Eng**—Power Plant Engineering. \$10; single numbers \$1. m Technical Pub. Co, 53 West Jackson Blvd, Chicago 4 (1v:Ja v51;i-s)
Name changed to Power Generation beginning January 1948
- Product Eng**—Product Engineering. \$6; single numbers 75c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v19;i-s)
- Ptr Ink**—Printers' Ink. \$4; single numbers 25c. w Printers' Ink Pub. Co, Inc, 205 E 42d St, New York 17 (4v:Ja,Ap,JI,O v222-225;i-none)
- Pub Health Rep**—Public Health Reports. \$4; single numbers 10c. w Superintendent of Documents, Washington 25, D.C. (1v:Ja v63;i-r)
Distributed gratuitously to state and municipal health officers, etc., by the Surgeon general of the United States public health service, Washington, D.C.
- Pub Roads**—Public Roads. 50c; single numbers 15c. q Superintendent of Documents, Washington 25, D.C. (1v [12 nos] S v25 '47;i-none)
- Pub Util**—Public Utilities Fortnightly. \$15; single numbers \$1. bi-w Public Utilities Reports, Inc, Munsey Bldg, Washington 4, D.C. (2v:Ja,JI v41-42;i-s)
- Pub Works**—Public Works Magazine. \$3; single numbers 35c. m Public Works Journal Corp, 310 E 45th St, New York 17 (1v:Ja v79;i-r)
- Pulp & Pa of Can**—Pulp and Paper Magazine of Canada. \$10; single numbers \$1. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v49;i-s)
Extra convention number published in February
- Q S T**—QST; \$4; single numbers 40c. m American Radio Relay League, Inc, 38 La Salle Road, West Hartford 7, Conn. (1v:Ja v32;i-s)
- RCA R**—RCA Review. \$2; single numbers 75c. q Radio Corporation of America, RCA Laboratories Division, Princeton, New Jersey (1v:Mr v9;i-s)
- R Econ & Stat**—Review of Economics and Statistics. \$5. q Harvard University Press, Cambridge 38, Mass. (1v:F v30;i-s)
- R Econ Stat**—Review of Economic Statistics. \$5. q Harvard University Press, Cambridge 38, Mass. (1v:F v30;i-s)
Name changed to Review of Economics and Statistics beginning February 1948
- R Sci Instr**—Review of Scientific Instruments. \$7; single numbers \$1. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v19;i-s)
\$5 to members of scientific societies
- Radio & Tv N**—Radio and Television News. \$4; single numbers 35c. m Ziff-Davis Pub. Co, 185 N Wabash Av, Chicago 1 (2v:Ja,JI v39-40;i-s)
Name changed from Radio News to Radio and Television News beginning August, 1948
- Radio N**. See Radio & Tv N
- Rayon**—Rayon and Synthetic Textiles. \$5; single numbers 60c. m Rayon Pub. Corp, 303 Fifth Av, New York 16 (1v:Ja v29;i-s)
Name changed to Rayon and Synthetic Textiles beginning September, 1948
- Ref Shelf**—The Reference Shelf. irr The H. W. Wilson Co, 958 University Av, New York 52
- Refrig Eng**—Refrigerating Engineering. \$4; single numbers 50c. m American Society of Refrigerating Engineers, 40 W 40th St, New York 18 (2v:Ja,JI v55-56;i-s)
- Review of Economics and Statistics**. See R Econ & Stat
- Roads & Bridges**—Roads and Bridges. \$3; \$6 in U.S.; single numbers 50c; \$1 in U.S. m Monetary Times Printing Co of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v86;i-none)
- Roads & Sts**—Roads and Streets. \$5. m Gillette Pub. Co, 22 West Maple St, Chicago 10 (1v:Ja v91;i-none)
- Rock Prod**—Rock Products. \$2; single numbers 25c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (1v:Ja v51;i-none)
- Rough Notes**—Rough Notes. \$2.50; single numbers 25c. m Rough Notes Co, Inc, 1142 N. Meridian St, Indianapolis 6, Ind. (1v:Ja v91;i-s)
- Roy Aeronautical Soc J**—Journal of the Royal Aeronautical Society. £4 13s; single numbers 7s 9d. m Royal Aeronautical Society, 4 Hamilton Place, Piccadilly, London, W. 1 (1v:Ja v52;i-s)
- Rs Mod Phys**—Reviews of Modern Physics. \$4; single numbers \$1.50. q American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v20;i-s)
- Rubber Age**—Rubber Age. \$3; single numbers 35c. m Palmerton Pub. Co, Inc, 250 W 57th St, New York 19 (2v:Ap,O v63-64;i-s)

- Ry Age**—Railway Age. \$6; single numbers 50c. w Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (2v:Ja, Jl v124-125; i-r) Statistical and outlook number, January 3, price \$1
- Ry Mech Eng**—Railway Mechanical Engineer with which is incorporated the Railway Electrical Engineer. \$3; single numbers 50c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v122; i-r)
- S A E J**—S.A.E. Journal. \$10; single numbers \$1. m Society of Automotive Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v56; i-r)
- Safety Eng**—Safety Engineering. \$4; single numbers 50c. m Alfred M. Best Co, Inc, 75 Fulton St, New York 7 (2v:Ja, Jl v95-96; i-s)
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Published semi-monthly except in May and November when it is published three times a month
- Sci Am**—Scientific American. \$5; single numbers 50c. m Scientific American, Inc, 24 W 40th St, New York 18 (2v:Ja, Jl v178-179; i-s)
- Science**—Science. \$7.50; single numbers 25c. w American Association for the Advancement of Science, 1515 Massachusetts Av, N.W., Washington 5 (2v:Ja, Jl v107-108; i-s)
- Sewage Works J**—Sewage Works Journal. \$5; single numbers \$1. bi-m Federation of Sewage Works Associations, 325 Illinois Bldg, Champaign, Ill. (1v:Ja v20; i-s)
- Sheet Metal Worker**—Sheet Metal Worker. \$3; single numbers 25c. m Edwin A. Scott Pub. Co, 45 W. 45th St, New York 19 (1v:Ja v39; i-s)
- Soap & San Chem**—Soap and Sanitary Chemicals. \$4. m MacNair-Dorland Co, Inc, 254 W 31st St, New York 1 (1v:Ja v24)
Annual index appears in Soap Blue Book which is sent to all subscribers
- Soc Chem Ind J**—Journal of the Society of Chemical Industry. \$2 5s; single numbers 4s. m Society of Chemical Industry, 56 Victoria St, London, S.W. 1 (1v:Ja v67; i-s)
- Soc Dyers & Col J**—Journal of the Society of Dyers and Colourists. 60s; single numbers 5s. m Society of Dyers and Colourists, Ocean Chambers, 32-34 Piccadilly, Bradford, Yorkshire, England (1v:Ja v64; i-l)
- Soc for Advan of Management J**. See Advanced Management
- Soc Motion Picture Eng J**—Journal of the Society of Motion Picture Engineers. \$10; single numbers \$1.25. m Society of Motion Picture Engineers, 342 Madison Av, New York 17 (2v:Ja, Jl v50-51; i-l)
1948 Membership Directory, published as part two of the September number
- Society of Automotive Engineers Journal**. See S A E J
- Special Lib**—Special Libraries. \$7; single numbers 75c. m (S-Ap) bi-m (My-Ag) Special Libraries Association, 31 E 10th St, New York 3 (1v:Ja v39; i-l)
- Spectator (Life ed)**—Spectator; Life Insurance in Action. \$5; single numbers 50c. m Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39 (1v:Jl v156; i-s)
Extra number [Endorsement no] published in December
- Spectator (Property ed)**—Spectator; Property Insurance Review. \$2; single numbers 25c. bi-w Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39 (1v:Jl v14; i-s)
- Steel**—Steel. \$10; single numbers 35c. w Penton Pub. Co, Penton Bldg, Cleveland 13, O. (2v:Ja, Jl v122-123; i-r)
- Survey of Cur Bsns**—Survey of Current Business. U.S. Bureau of Foreign and Domestic Commerce, Division of Business Review. \$3; single numbers 25c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v28; i-none)
- Survey of Cur Bsns 1947 Sup.** biennial U.S. Bureau of Foreign and Domestic Commerce. \$1 Superintendent of Documents, Washington, D.C.
- Tech R**—Technology Review. \$3.50; single numbers 50c. m except (Ag, S, O) Massachusetts Institute of Technology, room 7-203, Cambridge 39, Mass. (1v:N v51; i-r)
- Tele-Tech**—Tele-Tech. \$5; single numbers 50c. m Caldwell-Clements, Inc, 480 Lexington Av, New York 17 (1v:Ja v7; i-s)
- Textile Col**—Textile Colorist and Converter. \$5. m Howes Pub. Co, 1 Madison Av, New York 10 (1v:Ja v70; i-s)
Merged with American Dyestuff Reporter January 10, 1949
- Textile Inst J**—Journal of the Textile Institute. 48s; single numbers 4s. m Textile Institute, 16 St Mary's Parsonage, Manchester 3, England (1v:Ja v39; i-l)
- Textile Res J**—Textile Research Journal. \$15; single numbers \$1.50. m Textile Research Institute, Inc, 10 E 40th St, New York 16 (1v:Ja v18; i-s)
- Textile World**—Textile World. \$2; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v98; i-r)
- Tool Eng**—Tool Engineer. \$6. m American Society of Tool Engineers, 550 Lafayette Blvd, Detroit 26 (2v:F, Jl v20-21; i-none)
- Transactions of the American Society of Mechanical Engineers**. See A S M E Trans
- Trusts & Estates**—Trusts and Estates, The Fiduciary Journal. \$5; single numbers 60c. m Fiduciary Publishers, Inc, 50 E 42d St, New York 17 (2v:Ja, Jl v86-87; i-s)
- U S Agric**—Publications. U.S. Dept. of Agriculture, Division of Publications, Washington, D.C.
Selected contributions on technical subjects are indexed
- U S Bur For & Dom Com Economic Ser**—U.S. Bureau of Foreign and Domestic Commerce, Washington, D.C.
- U S Bur Labor Statistics Bul**—United States Bureau of Labor Statistics. Bulletin. Distributed free of charge. U.S. Bureau of Labor Statistics, Washington, D.C.
- U S Bur Mines Bul**—United States, Bureau of Mines, Bulletin. U.S. Bureau of Mines, Washington, D.C.
- U S Bur Mines Information Circ**—United States, Bureau of Mines, Information Circular. U.S. Bureau of Mines, Washington, D.C.
- U S Bur Mines Rep of Invest**—United States, Bureau of Mines, Reports of Investigations. U.S. Bureau of Mines, Washington, D.C.
- U S Bur Mines Tech Pa**—United States, Bureau of mines, Technical Paper. U.S. Bureau of Mines, Washington, D.C.
- U S Geol S Bul**—United States Geological Survey, Bulletin. U.S. Geological Survey, Washington, D.C.
- U S Geol S Professional Pa**—United States Geological Survey, Professional Paper. U.S. Geological Survey, Washington, D.C.
- U S Nat Advisory Com for Aeronautics**—United States National Advisory Committee for Aeronautics, Washington, D.C. Annual reports.
Twenty-eighth annual report, 1942, including Technical reports nos. 727-751 indexed in 1947 annual. Twenty-ninth annual report (delayed in publication), will be indexed in 1949
- U S Nat Bur Stand**—United States, National Bureau of Standards, Circular. U.S. National Bureau of Standards, Washington, D.C.
- U S Naval Inst Proc**—United States Naval Institute Proceedings. \$4; single numbers 50c. m United States Naval Institute, Annapolis, Md. (1v:Ja v74; i-r)
- U S Women's Bur Bul**—United States, Women's Bureau, Bulletin. U.S. Women's Bureau, Washington, D.C.
- Water & Sewage**—Water and Sewage. \$3; \$6 in U.S.; single numbers 50c; \$1 in U.S. m Monetary Times Printing Co. of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v86; i-none)
- Water & Sewage Works**—Water & Sewage Works. \$2; single numbers 25c. m Gillette Pub. Co, 22 West Maple St, Chicago 10 (1v:Ja v95; i-l)

Weekly Underw—Weekly Underwriter. \$5; single numbers 25c. w Underwriter Printing and Publishing Co, 116 John St, New York 7 (2v:Ja,Jl v158-159;i-l)

Welding J—Welding Journal. \$5; single numbers 75c. m American Welding Society, 33 W 39th St, New York 18 (1v:Ja v27;i-s)

Western Soc E J—Journal of the Western Society of Engineers. \$3; single numbers 75c. q Western Society of Engineers, 84 East Randolph St, Chicago 1 (1v:Mr v53;i-s)
Name changed to Midwest Engineer beginning September, 1948

Westinghouse Eng—Westinghouse Engineer. \$2; single numbers 35c. bi-m Westinghouse Engineer, 306 Fourth Av, P.O. Box 1017, Pittsburgh 30, Pa. (1v:Ja v8:i-r)

Wireless Eng—Wireless Engineer. 32s; single numbers 2s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v25;i-s)

World Oil—World Oil. \$2; single numbers 50c. m Gulf Pub. Co, Box 2608, Houston 1, Texas (1v:My v128;i-r)

Published twice in February; second issue, Yearbook Forecast issue \$1
July issue, section 2, World oil atlas, \$1

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† United States Bureau of Mines Publications for sale by Superintendent of Documents, Government Printing Office, Washington, D.C. Reports of Investigations and Information Circulars distributed by Bureau.

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Key to General Abbreviations

+	continued on later pages of the issue	Jl	July
abr	abridged	Mr	March
Ag	August	My	May
Ap	April	n s	new series
arch	architect	N	November
bibliog	bibliography	no	number
comp	compiled or compiler	O	October
cond	condensed	p	page
cont	continued	pl	plate
D	December	por	portrait
diag	diagram	pseud	pseudonym
ed	edited or edition or editor	pt	part
F	February	rev	revised
i	index	S	September
il	illustrations	sup	supplement
inc	incorporated	tr	translated or trans- lation or translator
Ja	January	v	volume
Je	June	yrbk	yearbook

Sample entry: Hydrogen peroxide; structural materials, manufacture and uses. J. S. Reichert and R. H. Pete. *il Chem Eng* 54:213-14+ Ap '47

Explanation: An illustrated article with the title given above will be found in *Chemical Engineering*, volume 54, pages 213 to 214 (continued on later pages of the same issue) the April 1947 number

Industrial Arts Index

A Cumulative Subject Index to Engineering, Trade and Business Periodicals

1948

ABC publications, inc.

L.A. publishers back project for magazine.
Ed & Pub 81:76 J1 17 '48

ATP. See Adenosine triphosphate

ABACA. See Manila hemp

ABANDONED mines. See Mines and mineral resources—Abandoned mines

ABATTOIRS. See Slaughtering and slaughter-houses

ABBOTT laboratories

Abbott laboratories notebooks, M. T. Leffler.
J Chem Educ 25:99-100 F '48
Cost rise slows growth in Abbott laboratories'
net, Barron's 28:34 Mr 15 '48
Investment audit, H. S. Coffin, il Mag of
Wall St 81:354-6+ Ja 3 '48

ABBREVIATIONS

Scientific and technical abbreviations, signs
and symbols. O. T. Zimmerman and I.
Lavine. 476p \$7.50 Industrial research
service, Masonic bldg, Dover, New Hamp-
shire '48

ABERNATHY, George Elmer, 1888-1948

Memorial, J. M. Jewett, por Am Assn Pet
Geologists Bul 32:1382-4 J1 '48

ABERRATION (optics)

Achromatic ultraviolet microscope objective.
L. V. Foster and E. M. Thiel, il diags Opt
Soc Am J 38:689-92 Ag '48

Algebraic theory of the primary aberrations
of the symmetrical optical system, H. A.
Buchdahl, Opt Soc Am J 38:14-19 Ja '48

Chromatic aberration and resolving power in
electron microscopy, E. G. Ramberg and
J. Hillier, il diags J Ap Phys 19:678-82 J1
'48

Image error theory for finite aperture and
field; the image of a point; geometry of
the wave surface, M. Herzberger, Opt Soc
Am J 38:736-8 Ag '48

Loss in resolving power caused by primary
astigmatism, coma, and spherical aberration
in telescopic systems, H. S. Coleman
and S. W. Harding, Opt Soc Am J 38:217-
21 Mr '48

Preparation of aspherical refracting optical
surfaces by an evaporation technique, L.
G. Schulz, bibliog il diags Opt Soc Am J
38:432-41 My '48

Reduction of sphero-chromatic aberration in
catadioptric systems, R. E. Stephens, diag
J Res Nat Bur Stand 40:467-9 Je '48;
Same, Opt Soc Am J 38:733-5 Ag '48

ABIETIC acid

Chemistry of the resin acids, H. H. Zeiss.
bibliog Chem R 42:163-71 F '48

Resin acids; an improved method of isolation
of resin acids; the isolation of a new
abietic-type acid, neobietic acid, G. C.
Harris and T. F. Sanderson, bibliog Am
Chem Soc J 70:334-9 Ja '48

ABIETYL alcohol

See also
Hydroabietyl
alcohol

ABILITY

See also
Creative ability

ABILITY tests

Accidents, a broader approach; new tests for
hiring car and bus operators, J. H. Collins.
Pub Util 40:693-700 N 20 '47

Aptitude tests are devised for printers, Ed &
Pub 81:55 Je 26 '48

Assessment of men; selection of personnel
for the Office of strategic services, 541p
\$5 Rinehart & co, 232 Madison av, New
York 16 '48

Boxing the compass of chemical personnel.
R. L. Demmerle, Chem & Eng N 25:3562-6
D 1 '47

Employee tests bring lower turnover; Victor
adding machine co., Chicago, G. H. Turner.
il Factory Management 106:131 My '48

How Hamilton hires; Hamilton watch co. J.
L. Owen, il Am Mach 92:85-8 N 4 '48

Man for the job; how placement tests aid
selection, M. S. Viteles, bibliog Nat Safety
N 57:22-3+ F '48

Mass mental tests for workers? Mod Ind
15:119-20+ Ja '48

Milwaukee plan of aptitude testing, E. C.
Koerber, Mech Eng 70:750-1 S '48

New developments in clerical testing, W. L.
Barnette, jr, Management R 37:70-2 F '48

Personnel testing, L. B. Ward, Harvard Bsns
R 26:181-93 Mr '48

Profile of an accounting executive, E. C.
Karmgard, N A C A Bul 29:1299-303 Je 15
'48

Proposed engineering aptitude test for high
school students, K. W. Vaughn, J Eng
Educ 38:114-21 O '47

Psychological services for an industrial com-
munity, L. F. Smith and L. Lipsett, Per-
sonnel J 27:130-4 S '48

Selection and promotion of a personnel staff.
M. M. Mandell, Personnel 25:125-7 S '48

Sunset-McKee's hiring plan cuts salesmen's
turnover to 10-15 per cent, W. H. Fischer
and W. Young, Sales Management 60:96+
Je 15 '48

Systematic approach to the construction and
evaluation of tests of ability, J. Loevinger.
(Psychological monographs v 61, no. 4) 49p
bibliog(p49) pa \$1.25 American psychologi-
cal assn, 1515 Massachusetts av, NW,
Washington 5, D.C. '47

Tailored tests to match men and jobs; Na-
tional cash register co, R. E. Kline, il Fac-
tory Management 105:126-8 N '47

Test of leadership ability, J. F. Bender, Sales
Management 61:44-6+ O 15 '48

Testing for aptitude promises efficiency and
savings; Shannon hosiery mills, P. M.
Thomas, il Textile World 98:143+ F '48

Tests select safe bus drivers, Bsns W p63-5
My 1 '48

Use of mark sensing in a large scale testing
program; Psychological program of army
air forces, W. L. Deemer, jr, Am Stat
Assn J 43:40-52 Mr '48

Use of tests in American industry; a sur-
vey, J. M. Lishan, Personnel 24:305-8 Ja
'48

Value of aptitude tests in selecting sales-
men, R. A. Fear and J. P. Foley, jr, Adv &
Sell 41:41+ S '48

ABILITY tests—Continued

Values of personnel testing in retailing. L. F. Greenberger. *J Retailing* 23:124-7+ D '47

What makes successful and unsuccessful executives? B. B. Gardner. *Advanced Management* 13:116-25 S '48; Excerpt, *Pub Util* 41:842-50 F '48

See also

Industrial personnel testing institute
Personality tests

Group tests

Judging candidates by observing them in unsupervised group discussion. W. Brody. *Personnel J* 26:170-3 N '47

ABITIBI power and paper company

Abitibi engineer training course. A. R. Mobbs. *Pulp & Pa of Can (Convention no)* 49:196-8 [F] '48

ABRASION

Abrasion, erosion and corrosion; abstracts. C. H. Desch. *Chem Age (Lond)* 53:207 F '48; *Chem & Ind* p 122 F '48

Alloying white cast iron increases abrasion resistance. K. A. DeLonge. *Il Eng & Min J* 149:86-9 O '48

Anisotropic strains produced by surface abrasion, and their effect on the magnetic properties of silicon sheet steel. R. G. Martindale. *bibliog diag Inst E E J* 95 pt 2: 620-6 O '48

Effect of welding practice on abrasion resistance of hard facings. R. D. Haworth. *Il Iron Age* 162:32-7 O '48

Metallurgical methods for combating corrosion and abrasion in the petroleum industry. B. B. Morton. *bibliog sps diag Inst Pet J* 34:1-59; Discussion. 59-68 Ja '48
Service wearing tests. E. N. Ditton. *Rayon* 29:69-70 Je '48

Taber yarn-sheet abrasion test. E. M. Hicks and A. G. Scroggie. *bibliog il diag Textile Res J* 18:416-23 J '48

Uniform abrasion in the testing of textiles. *Il Rayon* 28:646 D '47; Same. *Rubber Age* 62:547-8 F '48

ABRASIVES

Abrasive tumbling reduces finishing cost. V. H. Laughner. *Il Mach* 54:139-46 D '47

Coated abrasives; engineering file facts. R. S. Eurpo, jr. *Materials & Methods* 27:105, 107 F '48

Constitution and microhardness of fused corundum abrasives. N. G. Schrewelius. *bibliog Am Cer Soc J* 31:170-5 Je 1 '48

Fine-grit lubricated belt finishing. A. D. Stout, jr. *Il Iron Age* 160:68-71 D 18 '47

Finishing metals by liquid honing; abrasive suspended in water-chemical solution and discharged from nozzle by compressed air. S. H. Wick. *Il Mach* 54:158-61 Mr '48

New abrasive for hand soaps. T. F. Clark. *Il Soap & San Chem* 24:41+ Ag '48

Properties of hard abrasives, tabulated; engineering file facts. *Materials & Methods* 26:115 N '47

Uncommon optical grinding and polishing materials. J. M. Holeman. *Sci Am* 178:93-6, 142-4 F-Mr '48

Advertising

It pays to advertise your new package; Behr-Manning corp. Service packaging of abrasives. C. J. Swan. *Il Ptr Ink* 222:36-7 F 6 '48

Visual-vocal presentation explains ads to salesmen; 35-minute script, coordinated with slides introduces Norton 32 Alundum. C. J. Swan. *Il Ptr Ink* 224:36-7 S 24 '48

Manufacture

Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. *il diag J Ind Hygiene* 30:145-59 My '48

Testing

Methods of testing metallic abrasives. J. E. Hurst. *Il Metallurgia* 37:205-10 F '48

Relationship between laboratory abrasion tests and service performance. T. R. Griffith and others. *bibliog Anal Chem* 20: 837-47 S '48

ABSENTEEISM (labor)

Absenteeism and injury experience of older workers. M. D. Kossoris. *Mo Labor R* 67: 16-19 J '48

Cost and remedy of the alcoholic hangover in industry. J. L. Norris. *Ind Med* 17:129-32 Ap '48

Dummy checks and letters help control absenteeism. D. Hunt. *Factory Management* 106:103 S '48

Illness absenteeism in manufacturing plants in 1947. M. D. Kossoris. *Mo Labor R* 66: 265-7 Mr '48

Illness absenteeism in manufacturing plants, 1947. F. S. McElroy and A. Moros. *Mo Labor R* 67:235-9 S '48

Sickness absenteeism among industrial workers, first and second quarters of 1947. W. M. Gafafer. *Pub Health Rep* 62:1773-4 D 19 '47

Sickness absenteeism among industrial workers, third and fourth quarters of 1947; trend of disabling morbidity, 1938-47. W. M. Gafafer. *Pub Health Rep* 63:689-92 My 21 '48

Sickness absenteeism among male and female industrial workers, 1937-46, inclusive. W. M. Gafafer. *Pub Health Rep* 62:1538-41 O 24 '47

Studies on the duration of disabling sickness; duration table for specific causes of disability among male workers. W. M. Gafafer and others. *bibliog Pub Health Rep* 63:901-23 J '48

ABSORBENTS

Oil absorbents. G. MacDonald. *Il Nat Safety N* 58:100+ O '48

Vacuum dehydration using liquid absorbents. W. H. Tucker and T. K. Sherwood. *bibliog flow diag diag Ind & Eng Chem* 40: 832-8 My '48

ABSORPTIOMETER

Absorptiometer for medical and biochemical laboratories. *Il J Sci Instr* 25:324-5 S '48

Absorptiometric determination of chromium in high-speed steels by sodium chlorate oxidation. F. E. Eborall. *Metallurgia* 38: 135-6 J '48

Experience with photometric procedures for the determination of metals; using the Spekker absorptiometer. H. Cox. *bibliog il Metallurgia* 37:270-4 Mr '48

New photoelectric absorptiometer. J. H. Humphrey and E. J. Harris. *diag J Sci Instr* 25:314-16 S '48

ABSORPTION

Absorption and humidification. H. C. Carlson. *bibliog Ind & Eng Chem* 40:5-7 Ja '48

Absorption of chlorine in water. J. E. Vivian and R. P. Whitney. *bibliog diag Chem Eng Prog* 43:691-702 D '47

Absorption of oxygen by sodium in liquid ammonia; evidence for the existence of sodium superoxide. W. H. Schechter, H. H. Sisler and J. Kleinberg. *bibliog diag Am Chem Soc J* 70:267-9 Ja '48

Absorption of the alkyl cyanides in the vacuum ultraviolet. J. A. Cutler. *bibliog il J Chem Phys* 16:136-40 F '48

Absorption studies with waste pickle liquor. J. Seiberlich. *bibliog il Steel* 122:90+ Ja 12 '48

Acidic properties of cotton cellulose and derived oxycelluloses; absorption of methylene blue. C. F. Davidson. *bibliog Textile Inst J* 39:T65-86 Mr '48

Acidic properties of cotton cellulose and derived oxycelluloses; absorption of silver from silver nitrophenate solutions. G. F. Davidson and T. P. Nevell. *bibliog Textile Inst J* 39:T93-101 Mr '48

Determination of carbon monoxide by absorption in the Haldane-type gas-analysis apparatus. L. B. Berger. *5pls U S Bur Mines Rep of Invest* 4187:1-6 '47

Determination of cyclopropane by selective absorption. F. R. Brooks, R. E. Murdock and V. Zahn. *bibliog Anal Chem* 20:62-3 Ja '48

Effective absorption and stripping factors for multicomponent fractionation calculation. W. C. Edmister. *Chem Eng Prog* 44: 615-18 Ag '48

ABSORPTION—Continued

- Hydrocarbon absorption and fractionation process design methods. W. C. Edmister. bibliog flow diag diags Pet Eng 18:156+ My; 57+ Je; 39-44+ JI; 49-54+ Ag; 130+ S; 19:200+ O; 55-8+ N; 83+ D '47; 68+ J; 76+ F; 57-61 Mr; 128+ Ap; 47-54 Je; 66+ JI; 47-53 Ag; 128+ S '48
- Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hoftijzer. bibliog Chem Eng Prog 44:529-36; Discussion. 536 JI '48
- Maximum recovery of liquefied petroleum gases. J. A. Craig. Pet Refiner 27:108-10; Discussion. B. O. Bentley. 110-11 Ja '48
- Modern process methods to improve L.P.G. recovery. G. W. McCullough and others. bibliog flow diags Oil & Gas J 46:116-18+ Mr 25 '48; Same. Pet Processing 3:307-10 Ap '48; Same. Pet Refiner 27:87-91 Ap '48
- New method of determining the relaxation time and the dipole moment of polar substances; its application to fatty acids. G. Potapenko and D. Wheeler, jr. diags Rs Mod Phys 20:143-50 Ja '48
- Oxygen absorption by cast plastic films. J. W. Westwater. bibliog II diags Ind & Eng Chem 40:1494-500 Ag '48
- Permeation through and sorption of water vapor by high polymers. P. M. Hauser and A. D. McLaren. bibliog diag Ind & Eng Chem 40:112-17 Ja '48
- Poor absorption of pentane-plus. W. L. Nelson. Oil & Gas J 47:99 O 28 '48
- Sorptive and molecular-sieve properties of a new zeolitic mineral. R. M. Barrer and D. W. Riley. Chem Soc J p 133-43 F '48
- Steam-saving process for benzole extractions. H. Deringer. diags Am Gas J 168:22-3 Ja '48
- Synthesis of a zeolite mineral with chabazite-like sorptive properties. R. M. Barrer. pl Chem Soc J p 127-32 F '48
- Vacuum dehydration using liquid absorbents. W. H. Tucker and T. K. Sherwood. bibliog flow diag diags Ind & Eng Chem 40: 832-8 My '48
- Water absorption of proteins; contribution of the peptide group. E. F. Mellon, A. H. Korn and S. R. Hoover. bibliog Am Chem Soc J 70:3040-4 S '48
- Water absorption of proteins; lack of dependence of hysteresis in casein on free amino groups. E. F. Mellon, A. H. Korn and S. R. Hoover. bibliog Am Chem Soc J 70:1144-6 Mr '48
- Tables, calculations, etc.
- Absorption in a high molecular weight non-aqueous system; uranium hexafluoride in heavy oil. R. Landau and others. Chem Eng Prog 44:315-26 Ap '48
- Graphs help to solve ammonia absorption system problems. A. B. Stickney. diags Refrig Eng 54:451-7 N '47; Discussion. 55:96+ Ju '48
- Nomograph for determination of the Edmister effective absorption factors. G. E. Mapstone. bibliog Chem Ind 62:638+ Ap '48
- ABSORPTION apparatus**
- Absorption and stripping processes. diags Pet Refiner (Process Handbook ed) 27:308-9 sec 2 S '48
- Absorption apparatus for hydrogen chloride. M. H. Hubacher. diag Anal Chem 20:94 Ja '48
- Cycling plants stabilize crude oil. G. M. Lilienstein. flow sheets II Pet Refiner 27:87-93 O '48
- Engineering features of Hastings plant. J. J. Weatherby and H. N. Wade. flow diag II diag Pet Refiner 27:81-6 Ap '48
- Fiberglass packing in gas-absorbing systems. G. C. Williams, R. B. Akell and C. P. Talbott. diags Chem Eng Prog 43:585-96 N '47
- Further report on the rivet plate. J. A. Campbell. II diags Pet Eng 19:117-18+ My '48
- Gas drying by calcium chloride solutions; the mechanism of transfer. E. F. Thurston. bibliog diags Soc Chem Ind J 67:289-96 JI '48
- Gasoline plant design. V. E. Middlebrook. II Oil & Gas J 46:98+ F '48
- Hypersorption report; abstract. H. Kehde and others. diag Chem Eng 55:280+ My; 264+ Je '48

- Improved design, operating techniques for Girbotol absorption processes. R. M. Reed. flow diag II Pet Processing 2:907-12 D '47
- Increased economy at Tomoconnor. C. C. Pryor. flow sheet II Pet Refiner (Process Handbook ed) 27:104-7 S '48
- Liquid distribution characteristics of tower packing materials. W. A. Cairns. bibliog diags Can Chem & Process Ind 32:314-17 Ap '48
- Magnolia completes gasoline plant at Vanderbilt, Texas. C. C. Pryor. flow diag II Pet Refiner 27:91-5 F '48
- Multi-pressure absorption process. flow diag Pet Refiner (Process Handbook ed) 27:310-11 sec 2 S '48
- New gasoline plant; Stanolind oil & gas co., Hastings, Tex. E. Short. flow diag II Oil & Gas J 46:73-9+ D 13 '47
- New unit in gas conservation program; absorption-type gasoline plant owned by Humble oil and refining co. and Quintana petroleum corp. F. H. Love. II Pet Eng 19: 107+ S '48
- Pipeline absorption process. diag Pet Refiner (Process Handbook ed) 27:304-5 sec 2 S '48
- Plant for LPG and natural gasoline. F. H. Love. II Pet Eng 19:41-4 JI '48
- Pressure maintenance and high pressure absorption. F. H. Love. II Pet Eng 19:155+ Ap '48
- Straight-line chart determination of absorber-extraction efficiency. E. G. Ragatz. Oil & Gas J 46:73-9+ F 12 '48; Same. Pet Refiner 27:83-90 F '48
- See also
- Absorptiometer**
Koppers-Hinckley.
Fodbielniak apparatus
- Design**
- Absorption in a high molecular weight non-aqueous system; uranium hexafluoride in heavy oil. R. Landau and others. Chem Eng Prog 44:315-26 Ap '48
- Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hoftijzer. bibliog Chem Eng Prog 44:529-36; Discussion. 536 JI '48
- ABSORPTION coefficients**
- Absorption of incident quanta by atoms as defined by the mass photoelectric absorption coefficient and the mass scattering coefficient. J. A. Victoreen. bibliog J Ap Phys 19:855-60 S '48
- Nomographical calculation for the absorption coefficients of ammonia and sulphur dioxide in water. S. Sheehan and J. Reilly. Chem & Ind p 136 F 28 '48
- ABSORPTION of neutrons.** See Neutrons
- ABSORPTION of rays**
- Absorption of Na²⁴ gamma-radiation in lead, copper, and aluminum. D. E. Alburger. bibliog diag Phys R 73:344-6 F 15 '48
- Approach to the approximate solution of the ionosphere absorption problem. J. E. Hacke, jr. Inst Radio Eng Proc 36:724-7 Je '48
- Atmospheric absorption of microwaves. H. R. L. Lamont. Phys R 74:353 Ag 1 '48
- Detection of microwaves; absorption of microwaves by gases. II Electronics 21:124 S '48
- Dipolar broadening of magnetic resonance lines in crystals. J. H. Van Vleck. diags Phys R 74:1168-83 N 1 '48
- Measurements on the absorption of microwaves; losses of camphor dissolved in cyclohexane. D. H. Whitten. bibliog diag Am Chem Soc J 70:2452-5 JI '48
- Monochromatic light absorption by normal chicken erythrocytes. J. O. Ely and M. H. Ross. II Franklin Inst J 242:85-9 JI '46; Correction. 244:410 N '47
- Solar radiation absorption by wetted roofs. W. R. Woolrich and W. M. Rice. II Heat & Ven 45:84-7 Ja '48
- Spectroscopic method for the determination of absorption coefficients. G. W. Marks and E. C. Lukens. bibliog Spis U S Bur Mines Rep of Invest 4242:1-3 '48
- Studies of self-absorption in gamma-ray sources. R. D. Evans and R. O. Evans. bibliog diags Rs Mod Phys 20:305-26 Ja '48
- Whose absorption law? F. H. Perrin. Opt Soc Am J 38:72-4 Ja '48
- See also
- Beer's law**

- ABSORPTION spectra.** See Spectrum—Absorption spectra
- ABSTRACTS**
 Abstracting research reports. L. C. Stork and K. C. Cousins. *J Chem Educ* 25:130-3 Mr '48
 CA today. E. J. Crane. *Chem & Eng N* 26: 2190-2 Jl 26 '48
 Indexing abstracts. C. L. Bernier and E. J. Crane. *Ind & Eng Chem* 40:725-30 Ap '48
 UNESCO initiates cooperation in the abstracting of biological and medical sciences. E. R. Cunningham. *Science* 106:609-11 D 19 '47
 UNESCO plans conference on abstracting. *Chem & Eng N* 26:2214 Jl 26 '48
 UNESCO sponsors two conferences on scientific abstracting. *Science* 108:3-9 Jl 2 '48
- ACADEMY of sciences of the U.S.S.R.**
 Mendeleev and the Russian academy of sciences. H. M. Leicester. bibliog *J Chem Educ* 25:439-41, 444 Ag '48
- ACADEMY of world economics**
 Annual forum, 26th, Washington, D.C. Oct 6-7; announcement. *Science* 108:350 O 1 '48
- ACCELERATION**
 Teaching Coriolis' law. A. S. Hall. bibliog diags *J Eng Educ* 38:757-63; Discussion. 764-5 Je '48
- ACCELERATION of machinery.** See Machinery. Kinematics of
- ACCELERATOR, Electron.** See Electron accelerator
- ACCELERATOR, Proton.** See Proton accelerator
- ACCELERATORS, Vulcanization.** See Vulcanization—Accelerators
- ACCELEROMETERS**
 New type of servo-accelerometer and aircraft dive angle indicator. D. H. Jacobs. diags *R Sci Instr* 19:118-19 F '48
 Pick-up for the measurement of quasi-static angular acceleration. L. Statham. diags *R Sci Instr* 19:381-4 Je '48
 Teleflight accelerometers and pressure transmitters. *Il R Sci Instr* 19:373-4 My '48
- ACCEPTANCES**
 Acceptances and commercial paper outstanding, 1941-1946. Survey of Cur Bsns 1947 Sup p72[supplemented in monthly numbers]
- ACCIDENT and health underwriters, Bureau of.** See Bureau of accident and health underwriters
- ACCIDENT insurance.** See Insurance, Accident
- ACCIDENT law**
 See also
 Negligence
 Workmen's compensation
- ACCIDENT prevention.** See Safety devices and measures
- ACCIDENTS**
 How smart are we? abstract. J. Cost. *Safety Eng* 95:30-1 Je '48
 Public enemies of safety; six persistent notions that pile up needless toll of life and limb. N. H. Dearborn. *Nat Safety N* 56: 18-19- N '47; Excerpts. *Safety Eng* 94:12-13+ N '47
 See also
 Automobile accidents
 Drowning
 Electric railroads—
 Elevators—Accidents
 Grade crossing accidents
 Railroads—Accidents
 Street accidents
- Statistics**
 Accident cost \$6,700,000,000 in 1947. Weekly Underw 158:417+ F 7 '48
 Accident toll of 1947 reaches 100,000. *Nat Safety N* 57:7 Mr '48
 Sudden death in 1947. A. D. Battey. map *Nat Safety N* 58:22-4+ Ag '48
- ACCIDENTS, Automobile.** See Automobile accidents
- ACCIDENTS, Industrial**
 Accident causes classified. *Pulp & Pa of Can* 49:38, 110 F '48
 Accident prevention, using operations-analysis procedures. J. V. Grimaldi. *Mech Eng* 70:528-30 Je '48
 Analyzing accident causes. J. C. Stennett. *Nat Safety N* 56:52+ D '47
 Britain's accident front. J. Burton. *Safety Eng* 95:9+ Je '48
 Connecticut plan for accident reduction. E. W. Martin. *Nat Safety N* 57:84-5 Ja '48
 Cutting the cost of poor vision. R. W. Habersat and J. M. Davis. *Il Nat Safety N* 57:26-7+ Ap '48
 Heads or tails? are accident costs really accidental? C. Kendall. *Safety Eng* 96:17+ O '48
 History repeats itself; accident types do not change. *Safety Eng* 94:24+ N '47
 Job placement in accident control. W. H. Hollis. *Nat Safety N* 56:48+ D '47
 Know-how is not enough; false assumption that job training and safety training are one and the same. B. Burns. *Il Safety Eng* 94:11+ N '47
 Large and the small; why do small firms have higher injury rates than large? *Safety Eng* 95:28+ Ja '48
 Medical-safety team. R. R. Bresler. *Nat Safety N* 57:18-19+ My '48
 No one ever goes there; out of the way places should not be overlooked in inspection schedule. *Nat Safety N* 56:37 N '47
 Scaffold accidents. *Il Nat Safety N* 56:38-9+ N '47
 Study of fractures of the lower extremity, from the records of the Workmen's compensation board of British Columbia. C. A. Ryan. *Ind Med* 17:97-9 Mr '48
 Textile dyeing and finishing; work injuries in 1945. F. S. McElroy and G. R. McCormack. *Mo Labor R* 67:20-5 Jl '48; Abstract. *Textile World* 98:125+ Ag '48
 That word's here again! carelessness. M. Harris. *Safety Eng* 95:13+ Je '48
 Why workers get hurt. A. W. Williams. *Il Mill & Factory* 42:99-101 F '48
 Work reliability; older and safer. *Bsns W p* 111-12 S 11 '48
 See also
 Boiler explosions
 Burns and scalds
 Coal mines and mining—Safety measures
 Electricity, Injuries from
 Safety devices and measures
 Workmen's compensation
 also subdivision
 Subjects, e.g.
 Coal mines and mining
 Lumbering
 Cost
 Dam accident costs! R. N. Sepulveda. *Safety Eng* 95:7+ F '48
 Dollar value of light; relation between increases in illumination and decreases of accidents. H. L. Logan. *Ry Age* 124:433-4 F 28 '48
 Psychological aspects
 See Safety devices and measures—Psychological aspects
 Statistics
 Absenteeism and injury experience of older workers. M. D. Kossoris. *Mo Labor R* 67:16-19 Jl '48
 Comparison of accident frequency and accident severity in 1946; chart. *Rubber Age* 63:353 Je '48
 Do you fit your safety budget? C. Strain. *Mill & Factory* 43:107-8 S '48
 Great Britain; industrial accidents and diseases, 1946. *Mo Labor R* 66:532-3 My '48
 Industry cuts its injury rate. *Bsns W p* 114 O 23 '48
 Injury rates in manufacturing, third quarter of 1947. *Mo Labor R* 66:302-4 Mr '48
 Injury rates in manufacturing, fourth quarter, 1947. *Mo Labor R* 66:509-12 My '48
 Injury rates in manufacturing, first quarter, 1948. *Mo Labor R* 67:135-7 Ag '48
 Sudden death in 1947. A. D. Battey. map *Nat Safety N* 58:22-4+ Ag '48
 \$3.5-billion problem; industrial safety. *Il Bsns W p* 102+ S 25 '48
 Work injuries in manufacturing, second quarter of 1947. *Mo Labor R* 65:559-61 N '47
 Work injuries in 1947; preliminary estimates. *Mo Labor R* 66:301-2 Mr '48
 Work injuries in the United States, 1947. F. S. McElroy. *Mo Labor R* 67:361-5 O '48
 Z16 committee of judges gives 20 additional decisions on injury rates. *Ind Stand* 19:61-3+ Jl '48

ACCOUNTANTS

- Accountant's place in management. J. V. Toner. Am Gas Assn Proc 1947:223-6
- Accountants should not be expected to forecast future. R. H. Montgomery. J Account 84:460 D '47
- Accountants' status under Fair labor standards act; Institute president's testimony before House committee supports professional status of junior accountants in public firms. J Account 84:511-16 D '47; Discussion. 85:412-13 My '48
- Background for planning of sales incentive compensation. J. C. Olson. N A C A Bul 29:1549-59 Ag 15 '48
- Employers' conference evaluates accounting curriculums, recruitment, placement. L. A. Schmidt. J Account 85:292-6 O '48
- Meeting management's need for men trained in industrial accounting; Caterpillar tractor co. R. A. Morgan. N A C A Bul 29:1219-27 Je 1 '48
- Profile of an accounting executive. E. C. Karmgard. N A C A Bul 29:1299-303 Je 15 '48
- See also*
- Accounting ethics

Service

- How accounting services determine loss for insurance purposes. F. S. Glendening. J Account 86:119-22 Ag '48

Social relations

- Accountant and private enterprise. W. A. Paton. J Account 85:44-58, 278-91 Ja, Ap '48

ACCOUNTANTS, Public

- Comment on public accountant's independence. J. S. Seidman. J Account 84:469 D '47
- Comparative ability of certified and non-certified public accountants. J. F. Conway. J Account 84:408 N '47
- Do the smaller firms comply with Accounting research bulletins? A. F. Stewart. J Account 86:213-17 S '48
- Nine ways to promote loyalty in a public accounting firm. P. Kircher. J Account 86:310-13 O '48
- Problems of the small practitioner. J Account 86:181-3 S '48
- Public accountant and annual reports of corporations. N. L. McLaren. J Account 85:381-5 My '48
- What the professional responsibility of the CPA means to the public. W. W. Werntz. J Account 86:304-9 O '48

Examination

- Uniform certified public accountant examinations, November, 1947. J Account 84:480-95 D '47

Law

- Accountants' tax practice held illegal in Kentucky; text of letter containing opinion of Attorney general. E. S. Dummitt. J Account 85:173 F '48
- Bar association's statement on practice before tax court. J Account 84:425-31 N '47
- Bar's effort to limit accountant's tax practice; the accountant's position. J Account 85:216-17 Mr '48
- Case against regulatory accountancy legislation. W. R. Winn. J Account 85:151-4 F '48
- Institute statement on Tax court before Senate committee. J Account 85:511-13 Je '48
- Lawyer's views on accountants' administrative practice. C. H. Woods. J Account 84:469-70 D '47
- N.Y. appellate court reverses Bercu decision. J Account 85:428-30 My '48
- Permission to practice before tax court difficult to obtain. C. W. Olofson. J Account 84:396 N '47
- Privy of relationship between accountant and his client. P. J. Foley. J Account 85:243-4 Mr '48
- Report and summary of testimony before Senate committee on HR 3214; right of non-lawyers to practice before Tax court. M. Austin. J Account 85:475-80 Je '48

Service

- Accountant can render community a service by offering aid to his church. L. D. MacMillan. J Account 86:228-30 S '48
- Giving the small client his money's worth. H. V. Bowen. J Account 86:217-18 S '48
- How the accountant can help his client obtain proper insurance coverage. D. B. Tweedy. J Account 85:147-50 F '48

Social relations

- Public opinion of the accounting profession. J. L. Carey. J Account 85:59-64 Ja '48

Germany

- Outlook for the accounting profession in postwar Germany. K. Engelmann. J Account 86:129-32 Ag '48

ACCOUNTANTS' liability insurance. *See* Insurance, Accountants' liability

ACCOUNTANTS' reports

- Effect on opinion of non-confirmation of receivables and non-attendance at inventoring. O. M. Cordie. J Account 85:108-12 F '48
- How to write good reports. L. Rouble. J Account 86:161-3 Ag '48
- Need to revise accountant's short form certificate. S. M. Sharkey. J Account 84:470 D '47
- Recommendation made to clarify accountant's representations when opinion is not expressed. J Account 85:38-9 Ja '48
- Speeding up monthly closings and reports to management, it can be done. R. R. Wesley. N A C A Bul 30:205-11 O 15 '48
- What the professional responsibility of the CPA means to the public. W. W. Werntz. J Account 86:304-9 O '48

ACCOUNTING

- Accounting procedures and private enterprise. W. A. Paton. J Account 85:278-91 Ap '48
- Accounting progress, the next step; problem of unadjusted monetary units. T. M. Hill. N A C A Bul 29:1119-34 My 15 '48
- Impact of rising prices upon accounting procedures. S. J. Broad. J Account 86:10-21 Jl '48; N A C A Bul 29:1329-48 Jl 1 '48
- 137 questions to ask before installing new accounting procedures and methods. G. O. Eckley. J Account 85:210-14 Mr '48
- Property and inventory accounting as related to present-day price levels; summary and analysis of papers presented at conference in Chicago, Dec. 1947. J Account 85:406-12 My '48
- Tax effects of accounting methods; abstract. J. W. Ahern. J Account 85:256 Mr '48
- Technical papers of the twenty-second annual Michigan accounting conference, Nov. 15, 1947, Ann Arbor, Mich. (Mich. business papers no. 19) 28p pa \$1 Univ. of Mich. Bur. of business research, Ann Arbor '48
- What is accounting accounting for now? nature and measurement of business capital and income in a changing price economy. W. Blackie. N A C A Bul 29:1349-78 Jl 1 '48
- Whither accounting? D. Borth. N A C A Bul 29:1115-18 My 15 '48
- See also*
- | | |
|-------------------------|--------------------------|
| Accountants, Public | Government account- |
| Appreciation (ac- | ing |
| counting) | Income |
| Assets, Fixed | Income statements |
| Auditing | Laboratory account- |
| Bank accounting | ing |
| Billing | Library accounting |
| Budget, Business | Microfilm records |
| Consolidated state- | Municipal account- |
| ments | ing |
| Cost accounting | Profit |
| Depreciation | Profit and loss state- |
| Financial statements | ments |
| Fiscal year | Reserves |
| Foundry accounting | Surplus |
| | Vouchers |
| <i>also</i> subdivision | Accounting under special |
| subjects, e.g. | |
| Airline | Contracts, Govern- |
| Automobile industry | ment |
| and trade | Corporations |
| Business consolida- | Cotton mills |
| tions | Factories |
| Contractors | Gas, Natural |

ACCOUNTING—See also—*Continued*

Income tax Payrolls
Inventories Public utilities
Machine shops Railroads
Marketing Sales costs
Moving picture Trusts and trustees
theaters

Fraudulent entries

Accounting transactions most frequently used to cover defalcations, R. R. Sevenich. J Account 85:293-7 Ap '48

Laws and regulations

Accountants' status under Fair labor standards act; Institute president's testimony before House committee supports professional status of junior accountants in public firms. J Account 84:511-16 D '47
New English companies act changes requirements for financial statements. J. L. Dohr. J Account 85:196-203, 324-7 Mr-Apr '48
What the SEC requires in financial statements filed with the Commission. E. C. King. J Account 84:377-84 N '47

Mechanical aids

Adding machine division, W. Brooke. J Account 84:243-4 S '47; Discussion, 84:509-10 D '47

Computing checks for the payroll, II Food Ind 20:1269+ S '48

How to fit mechanical tabulating equipment into a specific accounting system, W. J. Wiley. J Account 85:224-7 Mr '48

Mechanization of public utility billing and accounting, A. Knapp. Am Water Works Assn J 40:1062-6 O '48

Mechanizing construction accounting; F. H. McGraw & co. C. S. Strike. II Eng N 141: 101 O 28 '48

Most accounting work can now be mechanized, Ry Age 125:471 S 4 '48

See also

Adding machines Punched card system
Intelix

Study and teaching

Employers' conference evaluates accounting curriculums, recruitment, placement. L. A. Schmidt. J Account 85:292-6 O '48

Making industrial accounting real to the student, G. W. Lafferty. N A C A Bul 29:517-27 Ja 1 '48

Terminology

Weakness in financial reporting caused by improper use of reserves, M. H. Stans. J Account 85:190-5 Mr '48

Germany

Outlook for the accounting profession in postwar Germany, K. Engelmann. J Account 86:129-32 Ag '48

Great Britain

New companies act; accounting provisions. Economist 154:386-8, 464-5, 513-14 Mr 6, 20-27 '48

New English companies act changes requirements for financial statements. J. L. Dohr. J Account 85:196-203, 324-7 Mr-Apr '48

ACCOUNTING departments

Company training program for accounting personnel; Armstrong cork co. J. R. Evans. N A C A Bul 29:509-16 Ja 1 '48

Duties and responsibilities of the accounting executive, I. D. Dawes. N A C A Bul 29:731-44 F 15 '48

How to conduct an accounting procedures and methods survey, G. O. Eckley. flow charts J Account 85:126-31 F '48

How to organize and direct activities of an accounting procedures and methods staff, G. O. Eckley. J Account 85:40-3 Ja '48

137 questions to ask before installing new accounting procedures and methods, G. O. Eckley. J Account 85:210-14 Mr '48

ACCOUNTING ethics

How new standards of financial reporting grow from social responsibility of accountants, M. H. Stans. J Account 86:198-106 Ag '48

Institute's new president sees freedom as accountancy's goal, G. D. Bailey. J Account 84:451-2 D '47

What the professional responsibility of the CPA means to the public, W. W. Wernitz. J Account 86:304-9 O '48

ACCOUNTING research bulletins. See American institute of accountants—Bulletins

ACCOUNTS payable

Handling of vouchers is cut 30 per cent by Uarco, Inc. II Am Bsns 18:14-15+ JI '48

Should liabilities be directly verified by auditor? S. Chan. J Account 84:407 N '47

Should the confirmation of accounts payable be standard practice? J Account 86:70-3, 252-3 JI, S '48

ACCOUNTS receivable

Audit of receivables; confirmations not practicable, B. Goodman. J Account 85:492-4 Je '48

Easiest way is best, C. V. Cox. II Credit & Fin Management 50:10-11+ S '48

Effect on opinion of non-confirmation of receivables and non-attendance at inventorying, O. M. Cordle. J Account 85:108-12 F '48

Procedure for handling the retail receivables of an oil company, A. P. Yung. N A C A Bul 29:1273-88 Je 15 '48

ACCOUNTS receivable insurance. See Insurance, Accounts receivable

ACCUMULATORS, Hydraulic. See Hydraulic accumulators

ACETALDEHYDE

Condensation products from acetaldehyde, A. H. Andersen, R. M. Kitchen and C. H. Neufeld. Am Chem Soc J 70:861 F '48

Dissociation schemes of some carbonyl compounds, L. Gerö and J. G. Valatin. biblog J Chem Phys 16:1014-17 N '48

McCarthy unveils; will spend \$15 million at Winnie, Texas, to produce formaldehyde, acetaldehyde, ethylene and benzene, map Chem Ind 62:220-1 F '48

Photochemistry of the aldehydes, F. E. Blacet. biblog J Phys & Colloid Chem 52: 534-45 Mr '48

Reaction of hydrogen atoms with some oxygen-containing organic compounds, W. R. Trost and others. biblog J Chem Phys 16:353-7 Ap '48

Spontaneous low-temperature polymerisation of acetaldehyde, H. A. Rigby, C. J. Danby and C. N. Hinshelwood. Chem Soc J p234-7 F '48

Sulfonate series; acetaldehyde disulfonic acid. Chem Ind 61:977 D '47

Vapor-liquid equilibria in binary system acetaldehyde dibutyl acetal—*n*-butanol, A. Z. Conner, P. J. Elving and S. Steingiser. biblog Ind & Eng Chem 40:497-9 Mr '48

Analysis

Determination of vinyl ethers and acetals and of any alcohol, acetaldehyde, and water contained therein, S. Siggia. biblog diags Anal Chem 19:1025-9 D '47

ACETALS

Cyclic acetals related to ethylacetylonylbarbituric acid, C. D. Hurd and M. L. McAuley. Am Chem Soc J 70:1650-2 Ap '48

Cyclization of δ -hydroxyacetals, W. E. Parham. biblog Am Chem Soc J 69:2449-51 O '47

1,3,5,7-Dibenzylidene and 1,3,5,7-dimethylene acetals of the D-, L- and D,L-perseitol. A. T. Ness, R. M. Hann and C. S. Hudson. biblog Am Chem Soc J 70:765-70 F '48

Ketene acetals; pentaethoxyethane and tetraethoxyethylene (diethoxyketene diethylacetal). S. M. McElvain and R. L. Clarke. biblog Am Chem Soc J 69:2661-3 N '47

Physical properties and chemical constitution; ethers and acetals, A. I. Vogel. Chem Soc J p616-24 My '48

Preparation, alcoholysis and reduction of cyanooacetaldehyde diethylacetal; malonaldehyde tetraethylacetal. S. M. McElvain and R. L. Clarke. biblog Am Chem Soc J 69:2657-60 N '47

Preparation of acetals or ketals from vinyl-type esters, W. J. Croxall, F. J. Glavis and H. T. Neher. Am Chem Soc J 70:2805-7 Ag '48

Preparation of some cyclic acetals, M. Sulzbacher, E. Bergmann and E. R. Farlsner. biblog Am Chem Soc J 70:2327-8 Ag '48

ACETALS—Continued

Some chloromethyl ethers of nitro alcohols and the preparation of mixed acetals from them. E. B. Hodge. *Am Chem Soc J* 70: 2006-8 Je '48

Some hemiacetals of chloral with cyclic alcohols. W. T. Sumerford and F. M. Cronin. *bibliog Am Chem Soc J* 70:448 F '48

Studies on furan compounds; conversion of 2-acetofuran to hexen-2-dion-4,5-acetal-1 and pyrocatechol. L. Vargha, J. Ramonczal and P. Bite. *bibliog Am Chem Soc J* 70:371-4 Ja '48

Vapor-liquid equilibria in binary system acetaldehyde dibutyl acetal—*n*-butanol. A. Z. Conner, P. J. Elving and S. Steingiser. *bibliog Ind & Eng Chem* 40:497-9 Mr '48

Analysis

Determination of vinyl ethers and acetals and of any alcohol, acetaldehyde, and water contained therein. S. Siggia. *bibliog diags Anal Chem* 19:1025-9 D '47

ACETAMIDE

N-Arylamides of mercaptoacetic acid; analogs of α -carbamylmercaptoacetanilide. U. Weiss. *bibliog Am Chem Soc J* 69:2682-4 N '47

N-Arylamides of mercaptoacetic acid; analogs of α -mercaptoacetanilide and corresponding gold mercaptides. U. Weiss. *bibliog Am Chem Soc J* 69:2684-7 N '47

Quaternary carbon compounds; trialkylacetic acids as antispasmodic agents. N. Sperber, D. Papa and E. Shwenk. *bibliog Am Chem Soc J* 70:3091-4 S '48

ACETAMIDO butanone

Conversion of α -amino acids to acylamido ketones and oxazoles. R. H. Wiley and O. H. Borum. *Am Chem Soc J* 70:2005-6 Je '48

ACETAMIDOPROPYLPHENOL

Partial *para*-migration in the allylic rearrangement of *o*-acetamidophenyl allyl ether and *o*-aminophenyl allyl ether. B. D. Tiffany. *Am Chem Soc J* 70:592-4 S '48

ACETAMIDOTHIAZOLE

Alkylation with non-ketonic Mannich bases; aminothiazoles and pyrrole. N. E. Albertson. *bibliog Am Chem Soc J* 70:669-70 F '48

ACETANILIDE

Acylation of benzene compounds with iodine as a catalyst. S. Chodroff and H. C. Klein. *bibliog Am Chem Soc J* 70:1647-8 Ap '48

N-Arylamides of mercaptoacetic acid; analogs of α -carbamylmercaptoacetanilide. U. Weiss. *bibliog Am Chem Soc J* 69:2682-4 N '47

N-Arylamides of mercaptoacetic acid; analogs of α -mercaptoacetanilide and corresponding gold mercaptides. U. Weiss. *bibliog Am Chem Soc J* 69:2684-7 N '47

ACETATES

Reaction of salicyclic acids with aldehyde diacetates. D. T. Mowry. *bibliog Am Chem Soc J* 69:2362-3 O '47

See also

Magnesium acetate

Mercury acetate

ACETIC acid

Acetic acid and acetic anhydride; synthetic production. *Chem Eng* 55:312 F '48

Acetylation of alkyl lactates and similar hydroxy esters with acetic acid. M. L. Fein and C. H. Fisher. *bibliog Ind & Eng Chem* 40:534-8 Mr '48

Actual plant problems involving equipment failures in handling of hot acetic acid. M. G. Fontana. *Ind & Eng Chem* 40:sup71A-2A Ag '48

Bromination of 3-ketosteroids in acetic acid and the effect of trace substances in the solvent. C. Djerassi and C. R. Scholz. *bibliog Am Chem Soc J* 69:2404-10 O '47

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon. P. C. Mehta and E. Pacsu. *bibliog diags Textile Res J* 18:387-95 Ji '48

Cleavage of tetraacetyl- β -D-thiogluconides with bromine in acetic acid. W. A. Bonner. *bibliog Am Chem Soc J* 70:770-2 F '48

Delta-tocopherol; assay of total tocopherols in mixtures containing delta-tocopherol. M. H. Stern and J. G. Baxter. *bibliog Anal Chem* 19:902-5 N '47

Electrolytic oxidation of ethyl alcohol to acetic acid. G. Zeller. *Electrochem Soc Trans* 92 (preprint 40):535-42 '47

Investigation of a Girbotol unit charging cracked refinery gases containing organic acids. W. E. Norris and F. R. Clegg. *flow diag Pet Refiner* 26:107-9 N '47

Materials of construction for making and handling acid. M. G. Fontana. *Ind & Eng Chem* 40:sup73A-4A Ji '48

Mechanism of the methane fermentation. A. M. Buswell and F. W. Sello, jr. *bibliog Am Chem Soc J* 70:1778-80 My '48

Oxidation of acetic acid with selenium dioxide. R. B. Thompson and J. A. Chenick. *Am Chem Soc J* 69:2563-4 O '47

Partial molal volume of acetic acid in sodium acetate and in sodium chloride solutions. H. E. Wirth. *bibliog Am Chem Soc J* 70:462-5 F '48

Rapid determination of nitroglycerin and ethyl centralite in rocket propellant powder. I. S. Hirschhorn. *bibliog Anal Chem* 19:880-2 N '47

Analysis

Analysis of chloroacetic acid; determination of dichloroacetic and acetic acids. G. A. Dalin and J. N. Haimsohn. *Anal Chem* 20: 470-2 My '48

ACETIC anhydride

Acetic acid and acetic anhydride; synthetic production. *Chem Eng* 55:312 F '48

Acetic anhydride; sevenfold in a decade. H. W. Zabel. *il diag Chem Ind* 63:217-19 Ag '48

Continuous process for acetylation of thiophene. J. Kellett and H. E. Rasmussen. *bibliog flow sheets Ind & Eng Chem* 40:384-9 Mr '48

ACETIN

Crystallization of triacetin. B. Hancock, D. M. Sylvester and S. E. Forman. *Am Chem Soc J* 70:424 Ja '48

ACETOACETANILIDES

1,4-Dimethyl-3-alkylcarbostyrils. D. J. Cook and W. C. Lawall. *Am Chem Soc J* 70:1918-19 My '48

ACETOACTER

Pantothenic acid studies; growth effect of pantoic acid analogs. V. H. Cheldelin and C. A. Schink. *bibliog Am Chem Soc J* 69: 2625-8 N '47

Synthesis of D-fructomethyllose by biochemical oxidation. L. Anderson and H. A. Lardy. *bibliog Am Chem Soc J* 70:594-7 F '48

ACETOFURAN. See Furyl methyl ketone

ACETOIN

Oxidation of acetoin. J. R. Pound. *J Phys & Colloid Chem* 51:1449-50 N '47

ACETOL

Volatile decomposition products of sugars in aqueous solution. L. Sattler and F. W. Zerbe. *bibliog Am Chem Soc J* 70:1975-6 My '48

ACETOLYSIS

Methyl 2,4,5,6-dimethylene-D-gluconate. C. L. Mehtretter, R. L. Mellies and C. E. Rist. *bibliog Am Chem Soc J* 70:1064-7 Mr '48

Role of neighboring groups in replacement reactions; kinetics of solvolysis of *trans*-2-acetoxycyclohexyl *p*-toluenesulfonate. S. Winstein, C. Hanson and E. Grunwald. *bibliog Am Chem Soc J* 70:812-16 F '48

Role of neighboring groups in replacement reactions; rates of acetolysis of 2-substituted cyclohexyl benzenesulfonates. S. Winstein, E. Grunwald and L. L. Ingraham. *bibliog Am Chem Soc J* 70:821-3 F '48

Role of neighboring groups in replacement reactions; some reactivities involving neighboring groups. S. Winstein and others. *bibliog Am Chem Soc J* 70:816-21 F '48

Role of neighboring groups in replacement reactions; the 5,6-double bond in cholesteryl *p*-toluenesulfonate as a neighboring group. S. Winstein and R. Adams. *bibliog Am Chem Soc J* 70:838-40 F '48

ACETONE

Acid-base catalysis in non-aqueous solvents; the halogenation of acetone by various *N*-halogen compounds in chlorobenzene solution at 50°. R. P. Bell and A. D. S. Tantram. *Chem Soc J* p370-4 Mr '48

Adsorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. F. Othmer. *bibliog il diag Ind & Eng Chem* 40:739-43 Ap '48

ACETONE—Continued

Allylic chlorides; relative reactivities with potassium iodide in acetone, L. F. Hatch, L. B. Gordon and J. J. Russ, bibliog Am Chem Soc J 70:1093-6 Mr '48

Butanol-acetone fermentation of wood sugar, R. H. Leonard, W. H. Peterson and G. J. Ritter, bibliog Ind & Eng Chem 39:1443-5 N '47

Carbohydrates as an alternative source to petroleum for organic chemicals, C. Weizmann, E. Bergmann and M. Sulzbacher, bibliog Chem & Ind p769-71 D 13 '47

Commodity survey, Chem Eng 55:313+ J1 '48

Dissociation schemes of some carbonyl compounds, L. Ger6 and J. G. Valatin, bibliog J Chem Phys 16:1014-17 N '48

Effect of variations in surface on the photolysis of acetone, E. W. R. Steacie and B. D. Darwent, bibliog J Chem Phys 16:230-2 Mr '48

Fluorescence of acetone vapor, G. W. Luckey and others, bibliog il J Chem Phys 16:407-10 Ap '48

Fluorescence of solid acetone, W. E. Kaskan and A. B. F. Duncan, bibliog J Chem Phys 16:223-4 Mr '48

Fractionation of amino acids from hydrolysates in nonaqueous systems, E. V. McCollum and A. A. Rider, Science 108:111-12 J1 30 '48

Halogenated ketones; the bromination of acetone and methyl ethyl ketone, J. R. Catch and others, Chem Soc J p272-5 Mr '48

Intensity and polarization of Brillouin spectra, D. H. Rank and others, il Opt Soc Am J 38:287-90 Mr '48

Kinetics of the hydrolysis of ethyl thiolacetate in aqueous acetone, J. R. Schaeffgen, Am Chem Soc J 70:1808-11 Ap '48

Kinetics of the oxidation of acetone by selenic acid, F. R. Duke, bibliog Am Chem Soc J 70:419-21 Ja '48

Methane formation in the photolysis of acetone at 130°, W. Davis, jr, bibliog Am Chem Soc J 70:1867-8 My '48

Photo-chemical decomposition of acetone at 3130 Å, L. M. Dorfman and W. A. Noyes, jr, bibliog J Chem Phys 16:557-60 Je '48

Photochemical studies; a further study of the fluorescence of acetone, R. E. Hunt and W. A. Noyes, jr, bibliog diag Am Chem Soc J 70:467-76 F '48

Photo-chemical studies; the mechanism of the photo-chemical decomposition of acetone, W. A. Noyes, jr, and L. M. Dorfman, bibliog J Chem Phys 16:788-97 Ag '48

Polyglycerols; identification of polyglycerol mixtures by the procedures of allylation and acetonation; isolation of pure diglycerol, H. Wittcoff, J. R. Roach and S. E. Miller, Am Chem Soc J 69:2655-7 N '47

Properties of electrolytic solutions; the conductance of some salts in acetone at 25°, M. B. Reynolds and C. A. Kraus, bibliog Am Chem Soc J 70:1709-13 My '48

Reaction between acetone and ammonia; formation of pyrimidine compounds analogous to the aldoxams of Späth, R. B. Bradbury, N. C. Hancox and H. H. Hatt, Chem Soc J p 1394-9 O '47

Separation of *d*-fructose from other natural sugars as its 2:3-4:5-diacetone and 1:2-monoacetone derivatives; observations on the behaviour of acetone derivatives of monosaccharides towards cold decinormal sulphuric acid, D. J. Bell, Chem Soc J p 1461-4 N '47

Some aspects of the photochemistry of ketones, W. A. Noyes, jr, bibliog J Phys & Colloid Chem 52:546-50 Mr '48

Structure of cellulose acetate molecules in acetone solution, S. J. Singer and H. Mark, bibliog J Ap Phys 19:97-101 Ja '48

Studies in selective extraction and adsorption; the adsorption of acetone, butyl alcohol and 2:3-butyleneglycol from dilute solutions, C. Weizmann and others, bibliog Soc Chem Ind J 67:225-7 Je '48

Sulfur linkage in vulcanized rubber; acetone extraction of vulcanizates, M. L. Selker and A. R. Kemp, bibliog Ind & Eng Chem 40:1470-3 Ag '48

Analysis

Optimum conditions for titrimetric determinations; determination of acetone, W. B. Huckabay, C. J. Newton and A. V. Mettler, bibliog Anal Chem 19:838-41 N '47

ACETONE cyanohydrin. See Hydroxyisobutyronitrile

ACETONECHLOROFORM. See Chloretone

ACETONITRILE

Absorption of the alkyl cyanides in the vacuum ultraviolet, J. A. Cutler, bibliog il J Chem Phys 16:136-40 F '48

Microwave spectra; methyl cyanide and methyl isocyanide, E. King and others, bibliog il Phys R 72:1262-3 D 15 '47

Quaternary carbon compounds; trialkylacetic acids as antispasmodic agents, N. Sperber, D. Papa and E. Schwenk, bibliog Am Chem Soc J 70:3091-4 S '48

ACETONYLBENZOTHAZOLE

Reactions of benzthiazole derivatives; observations on the formation of 2-acetonylbenzthiazole, M. A. T. Rogers and W. A. Sexton, Chem Soc J p 1619-21 D '47

ACETOPHENONE

Electrolytic reduction of carbonyl compounds at carbon cathodes, S. Swann, jr, and H. D. Kerfman, bibliog Electrochem Soc Trans 92 (preprint 33):407-14 '47

Mechanism of the acetophenone-iodine-pyridine reaction, R. G. Pearson, bibliog Am Chem Soc J 69:3100-3 D '47

Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds, K. Sisido and H. Nozaki, bibliog Am Chem Soc J 70:776-8 F '48

Reaction of ketones with iodine, pyridine and water, L. C. King, Am Chem Soc J 70:242-4 Ja '48

Studies on the mechanism of the Leuckart reaction, E. R. Alexander and R. B. Wildman, bibliog Am Chem Soc J 70:1187-9 Mr '48

ACETOXYCYANOBUTENE

Allylic rearrangement in the pyrolysis of 3-acetoxy-3-cyano-1-butene, C. S. Marvel and N. O. Brace, bibliog Am Chem Soc J 70:1775-6 My '48

ACETOXYCYCLOHEXYL toluenesulfonate

Role of neighboring groups in replacement reactions; kinetics of solvolysis of *trans*-2-acetoxy-2-cyclohexyl *p*-toluenesulfonate, S. Weinstein, C. Hanson and E. Grunwald, bibliog Am Chem Soc J 70:812-16 F '48

ACETOXYISOBUTYRATES

Preparation of α -carbalkoxyalkyl methacrylates of pyrolysis of the corresponding α -acetoxyisobutyrate, E. M. Filachione and others, bibliog Am Chem Soc J 70:526-9 F '48

ACETOXYPROPIONIC acid

Acetylation of alkyl lactates and similar hydroxy esters with acetic acid, M. L. Fein and C. H. Fisher, bibliog Ind & Eng Chem 40:534-8 Mr '48

β -Propiolactone; reactions with salts of carboxylic acids, T. L. Gresham, J. E. Jansen and F. W. Shaver, Am Chem Soc J 70:1003-4 Mr '48

ACETYLACETONE

Rare earth metals and their compounds; an improved method for the synthesis of some rare earth acetylacetonates, J. G. Stites, C. N. McCarty and L. L. Quill, bibliog Am Chem Soc J 70:3142-3 S '48

ACETYLAMINOFLUORENE

Mammary carcinoma in female rats fed 2-acetylaminofluorene, R. W. Engel and D. H. Copeland, bibliog Science 108:336-7 S 24 '48

ACETYLAMINOMETHOXYNAPHTHALENE

Succinylation of 1-acetylmino-7-methoxynaphthalene, L. E. Miller and E. F. Morello, bibliog Am Chem Soc J 70:1900-1 My '48

ACETYLCHOLINE

Effect of tetraethyl pyrophosphate on sympathetic ganglionic activity, T. Koppányi and others, bibliog Science 106:492-3 N 21 '47

Nature and spatial relationship of the prosthetic chemical groups required for maximal muscarinic action, C. C. Pfeiffer, bibliog Science 107:94-6 Ja 23 '48

Symposium on the physiology of acetylcholine, Science 107:316 Mr 26 '48

ACETYL compounds

Analysis

Microdetermination of *O*-acetyl groups. J. F. Alicino, bibliog Anal Chem 20:590 Je '48

ACETYLDIMETHYLNDOLE

Friedel-Crafts reaction with 1-acetyl-2:3-dimethylnindoles. W. J. Gaudion, W. H. Hook and S. G. P. Plant. Chem Soc J p 1631-4 D '47

ACETYL fluoride

Vapor phase fluorination of acetyl fluoride. W. T. Miller, Jr. and M. Prober, bibliog Am Chem Soc J 70:2602 JI '48

ACETYLFURAN

Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak, bibliog Am Chem Soc J 69:3093-6 D '47

ACETYL group

Deacetylation of acetylated carbohydrate derivatives with potassium alkoxides. W. A. Bonner and W. L. Koehler, bibliog Am Chem Soc J 70:314-16 Ja '48

ACETYLMETHOXYBENZALDEHYDE

Structure determination and synthesis of a plant growth inhibitor, 3-acetyl-6-methoxybenzaldehyde, found in the leaves of *Encelia farinosa*. R. Gray and J. Bonner, bibliog Am Chem Soc J 70:1249-53 Mr '48

ACETYLMETHYLCARBINOL. See Acetoin

ACETYLMETHYL phenylpyrimidine

Pyrimidine; study of the bromination of 5-acetyl-4-methyl-2-phenylpyrimidine. R. A. Clarke, B. Graham and B. E. Christensen, Am Chem Soc J 70:1088-90 Mr '48

ACETYL number

Determination of hydroxyl groups in organic compounds. B. L. Johnson, bibliog diag Anal Chem 20:777-8 Ag '48

ACETYL peroxide

Warning to users of acetyl peroxide. L. P. Kuhn, Chem & Eng N 26:3197 O 25 '48

ACETYL phosphate

New synthesis of acetyl dihydrogen phosphate. R. Bentley, Am Chem Soc J 70:2183-5 Je '48

ACETYLSALICYLIC acid. See Aspirin

ACETYLTHIOGLUCOSIDES

Oxidations of certain polyacetyl- β -D-thioglycosides to the corresponding sulfoxones. W. A. Bonner and R. W. Drisko, bibliog Am Chem Soc J 70:2435-8 JI '48

ACETYLTHIOPHENE

Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak, bibliog Am Chem Soc J 69:3093-6 D '47

Acylation studies in the thiophene and furan series; thiophene carboxylic acids and semicarbazones derived from acetylthiophenes. H. D. Hartough and L. G. Conley, bibliog Am Chem Soc J 69:3096-8 D '47

ACETYLATED cotton. See Cotton fabrics—Protection

ACETYLATION

Acetylation of alkyl lactates and similar hydroxy esters with acetic acid. M. L. Fein and C. H. Fisher, bibliog Ind & Eng Chem 40:534-8 Mr '48

Acetylation of alkyl phenyl ethers. A. I. Kosak and H. D. Hartough, bibliog Am Chem Soc J 69:3144 D '47

Acetylation of cellulose in phosphoric acid solution. E. Heuser and others, bibliog Ind & Eng Chem 40:1500-6 Ag '48

Analysis of aliphatic amine mixtures; determination of tertiary aliphatic amines in the presence of primary and secondary amines and ammonia. C. D. Wagner, R. H. Brown and E. D. Peters, bibliog Am Chem Soc J 69:2609-10 N '47

Continuous process for acetylation of thiophene. J. Kellett and H. E. Rasmussen, bibliog flow sheets Ind & Eng Chem 40:384-9 Mr '48

Marinated wood; acetylation of wood with acetic anhydride and pyridine. Chem Ind 61:980 D '47

Migration of acetyl and benzoyl groups in *o*-aminophenol. A. L. LeRosen and E. D. Smith, bibliog Am Chem Soc J 70:2705-9 Ag '48

Pyridines; the dissociation of *N,N'*-diacetyl-tetrahydro-4,4'-dipyridyl. R. L. Frank, F. Pelletier and F. W. Starks, bibliog Am Chem Soc J 70:1767-9 My '48

ACETYLENE

Acetylene chemistry. W. E. Hanford and D. L. Fuller, bibliog flow sheet diags Ind & Eng Chem 40:1171-7 JI '48

Acetylene cylinder; industry's unique container. C. Ness, II Welding J 27:445-9 Je '48

Acetylene derivatives in Spain; abstract. L. Blas, Chem Age (Lond) 58:433 Mr 27 '48

Benzene formation in the radiochemical polymerization of acetylene. C. Rosenblum, bibliog J Phys & Colloid Chem 52:474-8 Mr '48

Chemical products of coal carbonisation; possible yields of acetylene and ethylene. J. R. Campbell, Chem Age (Lond) 58:12-14 Ja 3 '48; Discussion. 58:367-8 Mr 13 '48

Chemical products of coal carbonisation; vast field for development of acetylene derivatives. J. R. Campbell, Chem Age (Lond) 58:172-5 Ja 31 '48

Effect of hydrocarbons and other gases upon the explosibility of acetylene. G. W. Jones and others, bibliog pl U S Bur Mines Rep of Invest 4196:1-8 '48

Effect of temperature on liquid phase activity coefficients. C. Berg and A. C. McKinnis, bibliog Ind & Eng Chem 40:1309-11 JI '48

Electron microscopy of radiation polymerization products. J. H. L. Watson, J Phys & Colloid Chem 52:470-4 Mr '48

Flame propagation rates at reduced pressures. W. C. Johnston, diags S A E J 55:62-5 D '47

German acetylene chemistry. A. W. Johnson, Chem Age (Lond) 58:431-2 Mr 27 '48; Abstract. Chem & Eng N 26:1661 My 31 '48

Industrial gases; tools and materials in steel bottles. II Sci Am 177:245-8 D '47

Polymerisation of acetylene; first comprehensive study of I.G. Farben discovery. Chem Age (Lond) 58:169 Ja 31 '48

Polymerization of acetylene to cyclooctatetraene; abstract. Chem Eng 55:113 JI '48

Pyrolysis of methane flowing through a porcelain tube in the region 1000°. A. S. Gordon, bibliog Am Chem Soc J 70:395-401 Ja '48

Reaction of atomic hydrogen with acetylene. E. L. Tollefson and D. J. Le Roy, bibliog diag J Chem Phys 16:1057-62 N '48

Reduction of acetylene to ethylene by chromous chloride. W. B. Barker and D. J. Kennedy, bibliog diags Electrochem Soc Trans 92 (preprint 20):231-40 '47

See also

Oxyacetylene flame

Oxyacetylene welding

Analysis

Determination of acetylene in gas. J. A. Shaw and E. Fisher, bibliog II Anal Chem 20:533-6 Je '48

Determination of traces of acetylene in air. T. A. Geissman, S. Kaufman and D. Y. Dollman, diags Anal Chem 19:919-21 N '47

Manufacture

Acetylene produced by cracking methane in regenerative-type reaction furnace; German process. flow diag diag Pet Processing 3:215-16+ Mr '48

Lab process goes commercial; acetylene gas by electric glow process. II Bsns W p78-D 6 '47; Abstract. Pet Processing 3:104 F '48

ACETYLENE compounds

Addition of halogens to an acetylenic ketone. C. L. Bickel, Am Chem Soc J 70:763-4 F '48

Copper acetylides. V. F. Brameld, M. T. Clark and A. P. Seyfang, bibliog diags Soc Chem Ind J 66:346-53 O '47

Force constants and frequency assignments for some substituted methylacetylenes. A. G. Meister, bibliog J Chem Phys 16:950-9 O '48

Physical properties and chemical constitution; acetylenic compounds and cyanides. G. H. Jeffery and A. I. Vogel, Chem Soc J p674-83 My '48

Researches on acetylenic compounds; the Mannich reaction with monosubstituted acetylenic compounds. E. R. H. Jones, I. Marszak and H. Bader, Chem Soc J p 1578-9 D '47

ACETYLENE compounds—Continued

- Researches on acetylenic compounds; the preparation of conjugated diacetylenic glycols by the oxidative coupling of various types of ethynylcarbinols. K. Bowden and others. *Chem Soc J* p 1579-83 D '47
- Researches on acetylenic compounds; the reaction between epichlorohydrin and sodium acetylide; a novel route to the ethynyl-ethylenic alcohol, pent-2-en-4-yn-1-ol. L. J. Haynes and others. *Chem Soc J* p 1583-5 D '47
- Some azotropes of alkylacetylenes and ethyl alcohol. G. F. Hennion and J. J. Groebner. *Am Chem Soc J* 70:426-7 Ja '48

Analysis

- Determination of ethylacetylene and vinylacetylene in C_4 hydrocarbon gases. P. R. Thomas, L. Donn and H. C. Becker, *bibliog diags Anal Chem* 20:209-13 Mr '48

ACETYLENE handling

- Handling acetylene under pressure. *Chem Ind* 62:399-400 Mr '48

ACHESON medal

- Calls for support of fundamental investigations in Acheson award address. D. A. MacInnes. *Chem & Eng N* 26:3191-2 O 25 '48

ACID handling

- Actual plant problems involving equipment failures in handling of hot acetic acid. M. G. Fontana. *Ind & Eng Chem* 40:sup71A-2A Ag '48
- Transportation and storage of strong nitric acid. G. A. Sands. *II Ind & Eng Chem* 40:1937-45 O '48

Safety measures

- Safety device for handling acids. *II diag Can Min J* 69:79 Mr '48

ACID mists. See Mists, Acid**ACID resisting materials**

- Acid proof cement for steel industry. *diag Iron & Steel Eng* 25:124 Mr '48
- Better floors for food plants with acid-proof brick or tile when joined with sulfur or resin cement that is acid-proof. W. L. Sheppard, jr. *II Food Ind* 19:1656-9+ D '47
- Carbon brick tank linings used for pickling stainless steels. *II Steel* 123:101+ Ag 2 '48
- Corrosion of metals in red fuming nitric acid and in mixed acid. N. Kaplan and R. J. Andrus. *bibliog Ind & Eng Chem* 40:1946-7 O '48
- Corrosion of steel, cast iron, and lead by sulfuric acid and choice of materials for pipe lines. M. G. Fontana. *Ind & Eng Chem* 40:sup 103A-4A Ap '48
- Corrosion resistant materials in brass and copper pickling. *Iron Age* 162:100-1 O 7 '48
- Corrosion tests of heater-tube materials for acid concentration service. H. F. Brown. *II Oil & Gas J* 46:134-7+ Ap 29 '48
- Food acids vs. concrete; use of Lassenite. E. L. Howard. *II Concrete* 56:16-18 Ja '48
- Handling sulfuric acid sludges. E. L. Hildebrand. *Oil & Gas J* 47:66-9+ S 30 '48
- Materials of construction for making and handling acid. M. G. Fontana. *Ind & Eng Chem* 40:sup73A-4A Jl '48
- New corrosion resistant alloy. *Metal Prog* 53:224-5 F '48
- Nitric acid versus construction materials; symposium. *II Chem Eng* 55:233-4+ F; 225-6+ Mr; 219-20 Ap '48
- Properties of chemical engineering materials of construction; tabulation. *Ind & Eng Chem* 40:1821-936 *bibliog*(p 1933-6) O '48; *Correction*. 40:2442 D '48
- Resistant lining for alum boiling tanks; thermoplastic, non-porous, flexible membrane faced with acidproof brick. E. S. Hopkins. *diags Chem Eng* 55:102-5 Mr '48
- Sulphuric acid versus construction materials. *II Chem Eng* 55:235-6+ My; 223-4+ Je; 227-8+ Jl; 219-20+ Ag '48
- Sulphuric resistant stainless. *Steel* 122:90+ Ja 19 '48; *Iron Age* 161:83 Ja 15 '48

ACID tanks

- Recording liquid level in acid accumulators. *diag Pulp & Pa of Can* 49:90-2 Ja '48
- Rubber-lined tanks for acid disposal. *II Chem Ind* 61:1038+ D '47

ACID waste

- Absorption studies with waste pickle liquor. J. Seiberlich. *bibliog II Steel* 122:90+ Ja 12 '48
- Burn acid sludge under boilers. D. P. Thornton, jr. *flow diag II Pet Processing* 3:981-2+ O '48

ACIDATION of oil wells. See Petroleum—Acidation of wells**ACIDIMETRY**

- Acidimetric determination of aluminum. A. H. Bushey. *bibliog Anal Chem* 20:169-72 F '48

ACIDS

- Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire. C. A. Zapffe and M. E. Haslem. *Am Soc for Metals Trans* 39:213-37; *Discussion*. 237-40 '47
- Anodic oxidation of coal; examination of the water-soluble acids. R. Belcher. *bibliog Soc Chem Ind J* 67:218-21 Je '48
- Aqueous ionization constants of inorganic oxygen acids. J. E. Ricci. *Am Chem Soc J* 70:109-13 Ja '48
- Behavior of steel during and after immersion in acid; abstract. L. S. Darken and R. P. Smith. *Metal Prog* 54:230+ Ag '48
- Brönsted concept of acids and bases in quantitative analysis. B. Naiman. *J Chem Educ* 25:454-7 Ag '48
- Contemporary acid-base theory. W. F. Luder. *J Chem Educ* 25:555-8 O '48
- Relationships between certain dissociation constants. J. C. McGowan. *bibliog Chem & Ind* p632-4 O 2 '48
- Stoichiometric extraction of mixed acids. A. V. Branner. *Soc Chem Ind J* 66:453-6 D '47

See also

- Concrete, Effect of acids on

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|---------------------------|-----------------|
| also names of acids, e.g. | |
| Hydrochloric acid | Phosphoric acid |
| Hydrofluoric acid | Sulfuric acid |
| Nitric acid | |

Analysis

- Potentiometric titration of weak acids in anhydrous ethylenediamine. M. L. Moss, J. H. Elliott and R. T. Hall. *bibliog diags Anal Chem* 20:784-8 S '48

ACIDS, Fatty

- Alpha- and beta-hydroxyls of glycerol in preparation of alkyl resins. H. A. Goldsmith. *bibliog Ind & Eng Chem* 40:1205-11 Jl '48
- Branched-chain fatty acids; the synthesis of optically active 10-methyloctadecanoic acids. F. S. Prout, J. Cason and A. W. Ingersoll. *bibliog Am Chem Soc J* 70:298-305 Ja '48
- Component acids and glycerides of neat's foot oil. T. P. Hilditch and R. K. Shrivastava. *bibliog Soc Chem Ind J* 67:139-42 Ap '48
- Component acids and glycerides of whale oil. T. P. Hilditch and L. Maddison. *bibliog Soc Chem Ind J* 67:253-7 Je '48
- Composition of commercial palm oils; component acids and glycerides of a Belgian Congo palm oil (studied with the aid of low-temperature crystallization). T. P. Hilditch and others. *bibliog Soc Chem Ind J* 66:284-8 Ag '47
- Composition of seed fats of West Indian citrus fruits. H. C. Dunn and others. *bibliog Soc Chem Ind J* 67:199-203 My '48
- Deacidification of glyceric oils; economic and technical merits of steam distillation. A. E. Williams. *diag Chem Age (Lond)* 59:245-8 Ag 21 '48
- Fatty acid distillation; pictured flowsheet. *Chem Eng* 55:146-9 F '48
- Fatty acid processing. R. F. Brown. *II Soap & San Chem* 24:55-6+ F; 46-8+ Mr '48
- Fatty acid synthesis; abstract. H. A. Barker. *Chem & Eng N* 26:2118-19 Jl 19 '48
- Friedel-Crafts synthesis of ω -aroyl aliphatic acids. D. Papa, E. Schwenk and H. Hankin. *bibliog Am Chem Soc J* 69:3018-22 D '47
- Ketonization of higher fatty acids with some observations on the mechanism of the reaction; studies of waxes. R. G. Curtis and others. *bibliog diag Soc Chem Ind J* 66:402-7 N '47

ACIDS, Fatty—Continued

- Mechanism of oxidation of monoethenoid fatty acids and esters; the course of thermal catalytic oxidation of methyl oleate, J. H. Skellon, *Chem Soc J* p343-7 Mr '48
- New method of determining the relaxation time and the dipole moment of polar substances; its application to fatty acids. G. Potapenko and D. Wheeler, jr. *diags Rs Mod Phys* 20:143-50 Ja '48
- Preparation of some polymerizable esters of long-chain saturated aliphatic acids with unsaturated alcohols, D. Swern and E. F. Jordan, jr. *bibliog Am Chem Soc J* 70:2334-9 J1 '48
- Relative strengths of some fatty acids. D. H. Everett and B. R. W. Pinsent, *Chem Soc J* p 1029-32 J1 '48
- Structural relationships in the natural unsaturated higher fatty acids. T. P. Hilditch, *Chem Soc J* p243-52 F '48; *Abstract. Chem & Ind* p76-7 Ja 31 '48
- Structure of the branched chain fatty acids in wool fat; X-ray diffraction study. S. F. Velick, *bibliog diags Am Chem Soc J* 69:2317-22 O '47
- Synthesis of unsaturated fatty acids. K. Ahmad and F. M. Strong, *bibliog Am Chem Soc J* 70:1699-700 My '48
- Tallow acids. J. R. Skeen, *Soap & San Chem* 24:45+ Ag '48
- Textile applications of the glycol fatty acid esters. J. H. Dollinger, *Rayon* 29:98-9 Ap; 83 My '48
- Utilization of carbon dioxide by the mature rat in the formation of fatty acids. J. Schubert and W. D. Armstrong, *bibliog Science* 108:286 S 10 '48
- Viscosity of solutions of primary alcohols and fatty acids in benzene and in carbon tetrachloride. W. J. Jones and others, *bibliog J Phys & Colloid Chem* 52:753-60 Ap '48

Advertising

- How to make non-selling advertising pay off; customer service campaign of Armour chemical division. R. E. Whiting, *il Ind Marketing* 33:33-5+ Mr '48

Analysis

- Colorimetric determination of fatty acids and esters. U. T. Hill, *Anal Chem* 19:932-3 N '47
- Component acids of rape seed oil. M. N. Baliga and T. P. Hilditch, *bibliog Soc Chem Ind J* 67:258-62 Je '48
- Preparation of animal tissue fats for determination of peroxides and free fatty acids. E. N. Rockwood, J. M. Ramsbottom and V. C. Mehlenschacher, *bibliog Anal Chem* 19:853-4 N '47
- Solidification point curves of ternary systems in the saturated fatty acid series; abstract. H. A. Schuette and J. G. Kane, *Soap & San Chem* 23:85 N '47
- Use of low-temperature crystallization in the determination of component acids of liquid fats; marine animal oils; the component acids and glycerides of a grey (Atlantic) seal. T. P. Hilditch and S. P. Pathak, *bibliog Soc Chem Ind J* 66:421-5 D '47

Manufacture

- Continuous fat splitting plants using the Colgate-Emery process; abstract. H. L. Barney and A. C. Brown, *Soap & San Chem* 23:39 N '47
- Developments in fatty acid distillation. C. Keleti, *bibliog flow diags Dig Can Chem & Process Ind* 32:630-2 J1 '48
- Swift & co.'s new industrial oil processing plant; new source of glycerides and fatty acids. *Paint Oil & Chem R* 111:12 S 16 '48

ACIDS, Organic

- Acid-base reactions in benzene and other organic solvents; behavior of bromphthalein magenta with different classes of organic bases. M. M. Davis and P. J. Schumann, *il J Res Nat Bur Stand* 53:221-63 *bibliog* (94 ref, p 262-3) S '47
- Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonphthalein with different classes of organic bases in benzene. M. M. Davis and others, *bibliog J Res Nat Bur Stand* 53:240-40 J1 '48

- α -Keto acids. K. L. Waters, *Chem R* 41:585-98 *bibliog* (p595-8) D '47
- Thermochemistry of solutions; the heats of ionisation of some organic acids. T. L. Cottrell and others, *Chem Soc J* p 1016-19 J1 '48

- Use of tributyl phosphate for extracting organic acids from aqueous solution. H. A. Pagel and F. W. McLafferty, *Anal Chem* 20:272 Mr '48

- | | |
|-----------------|------------------|
| <i>See also</i> | |
| Acids, Fatty | Carboxylic acids |
| Amino acids | Resin acids |

Analysis

- Derivatives of piperazine; piperazinium salts for utilization in identification of organic acids. M. Prigot and C. B. Pollard, *Am Chem Soc J* 70:2758-9 Ag '48

ACONIC acid

- Unsaturated lactones; some esters of aconic and coumalic acids. N. R. Campbell and J. H. Hunt, *Chem Soc J* p 1176-9 S '47

ACONITIC acid

- Noninterference of pectinous substances in aconitic acid method and of aconitic acid in uronic acid method. J. A. Ambler and E. J. Roberts, *bibliog Anal Chem* 20:880 S '48
- Scale for sale; calcium aconitate, *il Chem Ind* 62:736-7 My '48

Analysis

- Determination of aconitic acid in mixtures with citric acid. J. A. Ambler and E. J. Roberts, *bibliog Anal Chem* 19:879-80 N '47
- Determination of aconitic acid in sugarhouse products. J. A. Ambler and E. J. Roberts, *bibliog Anal Chem* 19:877-8 N '47

ACORN oil

- Acorn oil; abstract. R. H. McCormack, *Soap & San Chem* 24:89 Je '48

ACOUSTIC impedance

- Acoustic impedance from motional impedance diagrams. R. D. Fay and J. E. White, *bibliog diags Acoustical Soc Am J* 20:98-107 Mr '48

- Acoustic impedance measurement of very porous screen. C. M. Harris, *il diags Acoustical Soc Am J* 20:440-7 J1 '48

- Propagation of an acoustic wave along a boundary. I. Rudnick, *bibliog Acoustical Soc Am J* 19:348-56 Mr '47; *Correction*, 20:149 Mr '48

- Simplified porosity measurements. R. W. Leonard, *diags Acoustical Soc Am J* 20:39-41 Ja '48

ACOUSTIC mines. See Mines, Submarine**ACOUSTIC patents**

- Review of acoustical patents. R. W. Young, *Published in bi-monthly numbers of Journal of the acoustical society of America*

ACOUSTICAL society of America

- Meeting, 34th, Los Angeles, Dec. 12-13; with abstracts of papers, *Acoustical Soc Am J* 20:220-5 Mr '48

- Program of the 35th meeting, Washington, April 22-24; with abstracts of papers, *Acoustical Soc Am J* 20:582-600 J1 '48

ACOUSTICS. See Sound**ACOUSTICS, Architectural**

- Application of Helmholtz resonators to sound-absorbing structures. V. L. Jordan, *bibliog il diags Acoustical Soc Am J* 19:972-81 N '47

- Auditorium acoustics. J. P. Maxfield, *bibliog il plans diags Soc Motion Picture Eng J* 51:169-76; *Discussion*, 176-83 Ag '48

- Construction and design of Parly sound laboratory and anechoic chamber. P. J. Mills, *il diags Acoustical Soc Am J* 19:988-92 N '47

- Noise measurements; rooms, studios and plants; relationship of direct and reverberant sounds. R. L. Morgan, *Communications* 28:21+ J1 '48

- Sound board for Harringay arena, *il Enginier* 186:93 J1 23 '48; *Engineering* 166:129 Ag '48; *Metallurgia* 38:292 S '48

- Sound measurements in broadcast studios. W. Jack, *il Tele-Tech* 7:38-41+ Je '48

ACOUSTICS, Architectural—Continued

Time integral basic to optimum reverberation time, J. P. Maxfield, *Acoustical Soc Am J* 20:483-6 J1 '48

See also

Radio broadcasting studios

ACOUSTICS of music. See Music—Acoustics and physics

ACRIDINE

Acridine syntheses and reactions; a new synthesis of aminoacridines from formic acid and diarylamines; abstract, A. Albert, *Chem & Ind* p757 D 6 '47

Attempts to find new antimalarials; derivatives of various benzacridines and pyridoacridines, J. Dobson, W. C. Hutchison and W. O. Kermack, *Chem Soc J* p 123-6 F '48

Derivatives of arsacridine, C. L. Hewett and others, *Chem Soc J* p292-9 Mr '48

Hydroxyethyl analog of quinaidine, W. W. Carlson and L. H. Cretcher, *bibliog Am Chem Soc J* 70:597-9 F '48

Nuclear substituted 9-(4'-diethylamino-1'-methylbutylamino)-acridines, E. R. Shepard and H. A. Shonle, *bibliog Am Chem Soc J* 70:1979-80 My '48

Some dialkylaminoalkyl sulfides and ethers derived from quinoline and acridine heterocycles, R. O. Clinton and C. M. Suter, *bibliog Am Chem Soc J* 70:491-4 F '48

See also

Methoxyacridine

ACROLEIN

1,4-Addition reactions; the addition of acylamidomalones to acrolein, O. A. Moe and D. T. Warner, *Am Chem Soc J* 70:2763-5 Ag '48

Reactions of furan compounds; dehydration of tetrahydrofurfuryl alcohol to 2,3-dihydro-2H-pyran and subsequent formation of acrolein and ethylene, C. L. Wilson, *bibliog Am Chem Soc J* 69:3004-6 D '47

Skraup reaction with acrolein and its derivatives, H. L. Yale and J. Bernstein, *Am Chem Soc J* 70:254 Ja '48

Manufacture

Shell succeeds in producing acrolein, F. G. Watson, *Ind diag Chem Eng* 54:106-9 D '47

ACRYLATES

Properties of monomeric and polymeric alkyl acrylates and methacrylates, C. E. Rehberg and C. H. Fisher, *bibliog Ind & Eng Chem* 40:1429-33 Ag '48

Reactions of mercaptans with acrylic and methacrylic derivatives, C. D. Hurd and L. L. Gershbain, *bibliog Am Chem Soc J* 69:2328-35 O '47

Side-chain crystallization in alkyl polyacrylates, H. S. Kaufman and others, *Am Chem Soc J* 70:3147 S '48

ACRYLIC acid

β,β -Diarylacrylic acids; a new synthesis of triarylethylenes, F. Bergmann, E. Dimant and H. Japhe, *bibliog Am Chem Soc J* 70:1618-20 Ap '48

β,β -Diarylacrylic acids; synthesis and properties of symmetrical and unsymmetrical β,β -diarylacrylic acids, F. Bergmann and others, *bibliog Am Chem Soc J* 70:1612-17 Ap '48

ACRYLICS. See Lucite; Methacrylates

ACRYLONITRILE

Chemistry of acrylonitrile; cyanoethylation of ketones and sulfones, H. A. Bruson and T. W. Riener, *bibliog Am Chem Soc J* 70:214-17 Ja '48

Condensation of piperylene with acrylonitrile and methyl acrylate, J. S. Meek and J. W. Ragsdale, *bibliog Am Chem Soc J* 70:2502-4 J1 '48

Copolymerization; relative monomer addition rates in vinyl copolymerization, R. G. Fordyce, E. C. Chapin and G. E. Ham, *Am Chem Soc J* 70:2489-92 J1 '48

Copolymerization; the validity of the tri-polymer equation for the systems; styrene-vinyl chloride-methyl acrylate and styrene-vinyl chloride-acrylonitrile, E. C. Chapin, G. E. Ham and R. G. Fordyce, *bibliog Am Chem Soc J* 70:538-42 F '48

Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation, F. S. Dainton, *il J Phys & Colloid Chem* 52:490-517 *bibliog*(64 ref, p516-17) Mr '48

Medical problems encountered in the manufacture of American-made rubber, R. H. Wilson and others, *bibliog Ind Med* 17:199-207 Je '48

Partition of acrylonitrile between styrene and water, W. V. Smith, *Am Chem Soc J* 70:2177-9 Je '48

Preparation and some reactions of α -(α -cyanoethyl)- β -naphthol, A. F. Hardman, *Am Chem Soc J* 70:2119-20 Je '48

Properties of polymers as functions of conversion; composition studies of rubber-like copolymers, F. T. Wall and others, *bibliog Am Chem Soc J* 70:1031-7 Mr '48

Reaction of acrylonitrile with viscose, J. H. MacGregor and C. Pugh, *Soc Dyers & Col J* 64:71-2 F '48

Synthesis of chromans from phenols and from ortho-hydroxy aromatic aldehydes, G. B. Backman and H. A. Levine, *bibliog Am Chem Soc J* 70:599-601 F '48

Vibrational spectrum and thermodynamic functions of acrylonitrile, F. Halverson and others, *bibliog il diag J Chem Phys* 16:808-16 Ag '48

ACTIDIONE

Actidione; abstract, E. C. Kornfeld, R. G. Jones and T. V. Parke, *Chem & Eng N* 26:2686-7 S 13 '48

Actidione, an antibiotic from streptomycetes griseus, J. H. Ford and B. E. Leach, *Am Chem Soc J* 70:1223-5 Mr '48

Structure of actidione, an antibiotic from streptomycetes griseus, E. C. Kornfeld and R. G. Jones, *Science* 108:437-8 O 22 '48

ACTINIDE series

Evidence for actinide series cited; abstract, J. G. Hamilton, *il Chem & Eng N* 26:165 Ja 19 '48

ACTIVATED sludge method. See Sewage disposal—Activated sludge method

ACTIVATION

Controlled-electron reactions, G. Glockler, *bibliog J Phys & Colloid Chem* 52:451-6 Mr '48

Mechanical activation aids organometallic reactions, *Chem & Eng N* 25:3719 D 15 '47

Production of organometallic compounds by mechanical activation; abstract, M. C. Shaw, *Can Chem & Process Ind* 32:59 Ja '48

Thermal neutron activation cross sections, L. Seren, H. N. Friedlander and S. H. Turkel, *bibliog Phys R* 72:888-901 N 15 '47

ACTIVITY coefficients

Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions, R. G. Bates, *bibliog J Res Nat Bur Stand* 39:411-17 N '47

Effect of temperature on liquid phase activity coefficients, C. Berg and A. C. McKinnis, *bibliog Ind & Eng Chem* 40:1809-11 J1 '48

Ionic hydration and activity in electrolyte solutions, R. H. Stokes and R. A. Robinson, *bibliog Am Chem Soc J* 70:1870-8 My '48

Isoelectric measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25°, J. M. Stokes, *bibliog Am Chem Soc J* 70:1944-6 My '48

Thermodynamics of adsorption from solutions; the molality and activity coefficient of adsorbed layers, Y. Fu, R. S. Hansen and P. E. Bartell, *J Phys & Colloid Chem* 52:374-86 F '48

ACTIVITY measurement. See Kinesimeters

ACTOMYOSIN

Nature of the interaction between actomyosin and ATP, W. K. Jordan and G. Oster, *bibliog il Science* 108:188-90 Ag 20 '48

ACTUARIAL society of America

Annual meeting, New York, May 13-14, East Underw 49:14 My 21 '48; Nat Underw (Life ed) 52:1-4 My 21 '48

Joint meeting with American institute of actuaries, French Lick Springs, Ind, Oct. 27-29, East Underw 49:3 O 29 '48; Nat Underw (Life ed) 52:1-4 O 29, 1-4 N 5 '48

Merger of actuaries' two groups approved, East Underw 49:14 My 21 '48

New officers, East Underw 49:7 My 28 '48

ACTUARIES. See Insurance actuaries

ACYLATION

- Acylation of benzene compounds with iodine as a catalyst. S. Chodroff and H. C. Klein. *bibliog Am Chem Soc J* 70:1647-8 Ap '48
- Acylation of long chain aliphatic primary amines. J. H. MacGregor and F. Ward. *bibliog Soc Chem Ind J* 66:344-5 O '47
- Acylation of thiophene and furan by means of boron trifluoride. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 70:367 F '48
- Acylation reactions with organosilicon compounds. R. A. Benkeser and R. B. Currie. *bibliog Am Chem Soc J* 70:1780-2 My '48
- Acylation studies in the thiophene and furan series; direct acylation with carboxylic acids and phosphorus pentoxide. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3098-9 D '47
- Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3093-6 D '47
- Acylation studies in the thiophene and furan series; thiophene carboxylic acids and semicarbazones derived from acetylthiophenes. H. D. Hartough and L. G. Conley. *bibliog Am Chem Soc J* 69:3096-8 D '47
- Acylation of pyrrol carboxylic esters. A. H. Corwin and J. L. Straughn. *bibliog Am Chem Soc J* 70:2968-70 S '48
- n*-Alkanoyl derivatives of *n*-butyl and tetrahydrofurfuryl lactates. M. L. Fein and C. H. Fisher. *bibliog Am Chem Soc J* 70:52-6 Ja '48
- Concerning the acylation of kojic acid at elevated temperatures. L. L. Woods. *Am Chem Soc J* 70:2608-9 JI '48
- Free radical reactions of aldehydes. S. Winstein and F. H. Seubold, jr. *Am Chem Soc J* 69:2916-17 N '47
- Reaction of benzole anhydride with aromatic compounds catalysed by boron trifluoride. P. H. Given and D. L. Hammick. *Chem Soc J* p 1237-9 S '47
- See also
Acetylation
- ADAMANTANE**
- Electron diffraction investigation of the structure of adamantane. W. Nowacki and K. W. Hedberg. *bibliog diag Am Chem Soc J* 70:1497-500 Ap '48
- ADAMS, Alfred Courthope, 1864-1948**
Sketch. *por(pl) Inst Pet J* 34:511-12 JI '48
- ADAMS, Charles Francis, 1866-**
Portrait. *Fortune* 37:111 Ap '48
- ADAMS, John, 1735-1826**
J. Adams and Thomas Jefferson on the nature of landholding in America. R. Freund. *bibliog Land Econ* 24:107-19 My '48
- ADAMS, Kenneth Stanley, 1899-**
Portrait. *Fortune* 38:72 Ag '48
- ADDING machines**
- Adding machine division. W. Brooke. *J Account* 84:243-4 S '47; Discussion. 84:509-10 D '47
- Manufacture
- High speed induction brazing with interchangeable fixtures; Victor adding machine co. A. E. Heidenreich and J. W. Stead, jr. *il Iron Age* 162:95-7 O '48
- Straight-line production pays off in four ways; Burroughs adding machine co. C. Dunlop. *il Factory Management* 106:82-5 My '48
- ADDITION agents for storage batteries.** See Storage batteries
- ADDITION compounds**
- Addition compounds of sulfur dioxide with three isomeric lutidines. H. A. Hoffman and C. A. VanderWerf. *bibliog Am Chem Soc J* 70:262-4 Ja '48
- Addition of dinitrogen tetroxide to olefins; the butylenes. N. Levy, C. W. Scaife and A. E. Wilder-Smith. *Chem Soc J* p52-60 Ja '48
- Addition of Grignard reagents to the olefin, bidiphenyleneethylene. R. C. Fuson and H. D. Porter. *bibliog Am Chem Soc J* 70:895-7 Mr '48
- 1,4-Addition reactions; the addition of acylamidomalonates to acrolein. O. A. Moe and D. T. Warner. *Am Chem Soc J* 70:2763-5 Ag '48

- Compound formation between 2,6-lutidine and polyhalogenated methanes. C. A. VanderWerf, A. W. Davidson and C. I. Michaelis. *Am Chem Soc J* 70:308-10 Mr '48
- Compound formation between pyridine and polyhalogenated methanes. A. W. Davidson, C. A. VanderWerf and L. G. Boatright. *bibliog Am Chem Soc J* 69:3045-7 D '47
- Dissociation of the addition compound of triethylboron with quinuclidine; further evidence for the steric configuration of triethylamine. H. C. Brown and Sei Sujishi. *bibliog diags Am Chem Soc J* 70:2878-81 S '48
- Donor-acceptor bonding; ammonia-boron trifluoride. A. W. Laubengayer and G. F. Condit. *bibliog Am Chem Soc J* 70:2274-6 Je '48
- Mechanism of addition of Grignard reagents to nitriles. C. G. Swain. *bibliog Am Chem Soc J* 69:2306-9 O '47
- Modes of addition to conjugated unsaturated systems; a discussion of mechanism in equilibrium, with a note on three-carbon prototropy. P. B. D. de la Mare, E. D. Hughes and C. K. Ingold. *Chem Soc J* p 17-27 Ja '48
- ADDITIONAL living expense insurance.** See Insurance, Additional living expense
- ADDRESSING machines**
- Baby product that became a line reader; Elliott's Addresserette. H. P. Elliott. *Sales Management* 60:111-12 My 20 '48
- ADENINE**
- Experiments on the synthesis of purine nucleosides; a synthesis of 9- β -glucopyranosidoadenine. A. Holland, B. Lythgoe and A. R. Todd. *Chem Soc J* p965-7 JI '48
- ADENOSINE**
- Experiments on the synthesis of purine nucleosides; a synthesis of adenosine. J. Davoll, B. Lythgoe and A. R. Todd. *Chem Soc J* p967-9 JI '48
- ADENOSINE phosphoric acid**
- Vital chemical available. *Chem & Eng N* 26:2003 JI 5 '48
- ADENOSINE triphosphate**
- Nature of the interaction between actomyosin and ATP. W. K. Jordan and G. Oster. *bibliog il Science* 108:188-90 Ag '48
- ADHERENCE (term)**
- Measurement of adherence of organic coatings to metal surfaces. H. Green and T. P. Lamattina. *bibliog il diags Anal Chem* 20:523-7 Je '48
- ADHESION**
- Adhesion of enamel finishes to electroplated cadmium coatings. E. E. Halls. *Metallurgia* 38:75-8 Je '48
- How wheels behave on low-adhesion rail. L. D. Hays. *Ry Age* 123:978-9 D '47; Same. *Ry Mech Eng* 123:686-7 D '47
- Improving the adhesion of organic finishes over zinc plate. R. E. Kohl. *il Materials & Methods* 27:83 My '48
- Influence of physical properties on adhesion of high polymers to cellulose. A. D. McLaren. *bibliog Paper Tr J* 126:139-40 My 27 '48
- Laboratory investigation of anti-stripping admixtures used for promoting wetting power and adhesion between bitumens and aggregates. J. C. Sprague. *il Am Soc T M Proc* 46:1377-406; Discussion. 1407-15 '46
- Physical chemistry of flotation; kinetics of the flotation process. K. L. Sutherland. *bibliog il diag J Phys & Colloid Chem* 52:394-425 F '48
- Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, jr. and A. D. McLaren. *bibliog Ind & Eng Chem* 40:329-31 F '48
- Testing collapsible tubes; methods of rating performance of coatings, inks and enamels. M. Schor. *il Mod Packaging* 21:148-51 F '48
- Theoretical basis of adhesion. W. A. Weyl. *bibliog Am Soc T M Proc* 46:1506-16; Discussion. 1517-19 '46
- Theory of the adhesion of high polymers to cellulose. A. D. McLaren and C. H. Hofrichter, jr. *bibliog Paper Tr J* 125:96-1 N 6 '47
- ADHESIVE tape**
- Mechanical tape; two dispensers automatically seal boxes. *il Mod Packaging* 21:109 My '48

ADHESIVE tape—Continued

- Seal fibre boxes properly; use of gummed tape. T. F. Callahan. *Il Chem Ind* 63:652 O '48
 Topflight finds peacetime market for war-born tape. E. Huber. *Il Sales Management* 60:144+ Ja 15 '48

ADHESIVES

- Adhesives for metalworking. H. E. Linsley. *Il diags Am Mach* 92:107-18 F 12 '48
 Adhesives; their properties and use in electrical equipment. L. P. Hart, jr. *Il Machine Design* 20:122-6+ Ja '48
 Chemical specialties attain greater stature; industrial adhesives. C. B. Hemming. *Chem Ind* 63:393-4 S '48
 Engineering with adhesives. J. O. Hendricks and others. *Rubber Age* 63:327-30 Je '48
 Industrial adhesives. K. Rose. *Il Materials & Methods* 27:93-104 F '48
 Industrial adhesives. N. J. De Lollis. *Il diags Product Eng* 18:117-22 N; 137-42 D '47
 Packaging adhesives; Boxseal glue. *Chem Eng* 55:174 My '48
 Paisley products offers new case sealing glue for automatic sealing machines. *Paper Tr J* 126:49 Ap 22 '48
 Preparation of bonding surfaces; abrasive blasting. L. J. Wieschhaus. *Il Mill & Factory* 43:147-8 J1 '48
 Tailored adhesives for corrugated board. J. H. Willis. *bibliog Il Paper Tr J* 127:47-50 J1 '48; Same abr. *Paper Ind* 30:616+ J1 '48

See also

Cements
 Glue

Resinous products—
 Adhesives
 Rubber cement

ADIPIC acid

- Crystallographic data; adipic acid. *Il diag (p386) Anal Chem* 20:385 Ap '48
 Isoelectric measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25°. J. M. Stokes. *bibliog Am Chem Soc J* 70:1944-6 My '48
 Polyamides in Germany; intermediates. *Mod Plastics* 25:125-6 Mr '48

ADIPONITRILE

- Polyamides in Germany; intermediates. *bibliog Mod Plastics* 25:125-6+ Mr '48

ADLER, Emanuel Philip, 1872-

- Minnesota award for distinguished service in journalism. *por Ed & Pub* 81:9 F 14 '48

ADMINISTRATION, Public

- Directory of organizations and individuals professionally engaged in governmental research, 1948-1949. 48p. \$1.50 Governmental research assn, 30 Rockefeller plaza, New York '48
 Processes of organization and management. C. Seckler-Hudson, ed. 296p (bibliog p282-91) \$3.75 Public affairs press, 2153 Florida av, Washington 8 '48
 Top management view of the public service. D. C. Stone. *Advanced Management* 13: 103-10 S '48

See also

Certificates of convenience and necessity
 Economic cooperation administration

Public health administration
 United States—Agricultural research administration

ADMINISTRATION of estates. See Executors and administrators**ADMIRALTY**

- Panel of trained admiralty judges needed in U.S. W. S. Dow, jr. *East Underw* 49: 27 J1 16 '48

ADOBE

- Adobe brick stabilized with asphalt. *Il Eng N* 140:132-3 Ja 22 '48
 El Paso, Texas, patio type adobe dwelling in desert sand; design by F. L. Wright. *Il plan Arch Forum* 88:97 Ja '48
 New building material; asphalt-stabilized adobe brick. *Il Constr Methods* 30:98-100 Ap '48

ADONITOL

- Ribitol pentaacetate. W. W. Binkley and M. L. Wolfson. *Am Chem Soc J* 70:2809 Ag '48

ADRENAL glands

- Inhibition of hair growth by the percutaneous application of certain adrenal cortical preparations. W. L. Whitaker and B. L. Baker. *bibliog Il Science* 108:207-9 Ag 27 '48

ADRENALIN

- Diamines; the synthesis of amine analogs of adrenaline, arterenal and ephedrine. R. Duschinsky and others. *Am Chem Soc J* 69: 3150 D '47

See also

Sympathin

ADRIATIC electric company (Italy)

- Bondholders' committee. *Comm & Fin Chr* 168:1793 N 1 '48

ADSORBENTS

- Bone char behavior is a key to sugar refining improvement. *Il Food Ind* 20:1141-3 Ag '48
 Hygroscopic adsorbents. A. E. Williams. *Chem Age (Lond)* 58:838-40 Je 19 '48
 Methods used in evaluating adsorbent clays. *bibliog 10pls U S Bur Mines Information Circ* 7475:1-29 '48
 Use of adsorbents for protection against ammonia. J. C. Goshorn. *bibliog Il J Ind Hygiene* 30:201-4 My '48

ADSORPTION

- Activated carbon; manufacture, capacity of adsorption, use in solvent recovery. P. H. Courouleau and R. E. Benson. *diags Chem Eng* 55:112-15 Mr '48
 Active magnesia; application of dual-surface theory. A. C. Zettlemoyer and W. C. Walker. *bibliog J Phys & Colloid Chem* 52: 58-64 Ja '48
 Adsorption; a tool in the preparation of high-purity saturated hydrocarbons. A. E. Hirschler and S. Amon. *bibliog Ind & Eng Chem* 39:1585-96 D '47; Correction. 40:937 My '48
 Adsorption and pore-size measurements on charcoals and whetlerites. P. H. Emmett. *Chem R* 43:69-148 *bibliog*(157 ref, p 144-8) Ag '48
 Adsorption isotherms for binary gas mixtures. D. B. Broughton. *Ind & Eng Chem* 40:1506-8 Ag '48
 Adsorption of argon, nitrogen, and butane on porous glass. P. H. Emmett and M. Cines. *bibliog J Phys & Colloid Chem* 51:1248-62 N '47
 Adsorption of butane on glass spheres. R. T. Davis and T. W. DeWitt. *bibliog Am Chem Soc J* 70:1135-41 Mr '48
 Adsorption of gases on surfaces of powders and metal foils. R. T. Davis, jr. and others. *bibliog J Phys & Colloid Chem* 51:1232-48 N '47
 Adsorption of hydrogen on tungsten powders. G. Halsey and H. S. Taylor. *J Chem Phys* 15:624-30 S '47; Discussion. A. R. Miller. *bibliog* 16:841-2 Ag '48
 Adsorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. E. Othmer. *bibliog Il diag Ind & Chem* 40:739-43 Ap '48
 Adsorption of water vapor on glass surfaces. R. L. Razouk and A. S. Salem. *bibliog Il diag J Phys & Colloid Chem* 52:1208-27 O '48
 Adsorption of water vapour on insulin and plasma albumin. R. A. Robinson. *Chem Soc J* p 1083-5 J1 '48
 Adsorption phenomena in soils with special reference to their surface area. W. H. Cohen and B. H. Knight. *bibliog diags Soc Chem Ind J* 66:357-64 O '47
 Alteration of the size and distribution of pores in charcoals. J. Holmes and P. H. Emmett. *bibliog J Phys & Colloid Chem* 51:1276-307 N '47
 Aromatic absorption index as a rapid method for approximating catalyst activity. W. W. Scheumann and A. R. Rescorla. *bibliog Am Pet Inst Proc* 27(3):34-7 '47; Same. *Oil & Gas J* 46:231-2+ N 15 '47; Same. *Pet Refiner* 26:119-21 D '47
 Aromatic adsorption index for the estimation of surface area and catalytic activity. T. W. Pratt. *diag Am Pet Inst Proc* 27(3):38-47 '47
 Aromatics in petroleum fractions; separation and determination from high boiling petroleum fractions by adsorption. M. R. Lipkin and others. *bibliog diag Anal Chem* 20: 130-4 F '48
 Avoiding destructive velocity through adsorbent beds. E. Ledoux. *diags Chem Eng* 55:118-19 Mr '48

ADSORPTION—Continued

- Bob and transit; gas adsorption, a tool of growing importance. *Chem Ind* 62:385-6 Mr '48
- Chemical and physical adsorption of gases on carbon dust. R. H. Savage and C. Brown. *Il Am Chem Soc J* 70:2362-6 Jl '48
- Configuration and adsorption; a comparison of the adsorption of the *cis* and *trans* isomers of dichloroethylene on activated carbon. D. H. Volman and L. J. Andrews. *bibliog Am Chem Soc J* 70:457-62 F '48
- Correlating adsorption data. D. F. Othmer and S. Josefowitz. *Ind & Eng Chem* 40:723-5 Ap '48
- Determination of pore size distribution from gas adsorption data. C. G. Shull. *bibliog diags Am Chem Soc J* 70:1405-10 Ap '48
- Determination of the surface area of powders by means of low-temperature adsorption isotherms. P. E. Bugge and R. H. Kerlogue. *bibliog diags Soc Chem Ind J* 66:377-81 N '47
- Distribution of water in cellulose and other materials. R. Simha and J. W. Rowen. *bibliog Am Chem Soc J* 70:1663-5 Ap '48
- Dual-surface B.E.T. adsorption theory. W. C. Walker and A. C. Zettlemoyer. *bibliog J Phys & Colloid Chem* 52:47-53 Ja '48
- Dynamic cooling of adsorbent beds. E. Ledoux. *bibliog Ind & Eng Chem* 40:1970-7 O '48
- Elution equations for adsorption and ion exchange in flow systems. N. K. Hiester and T. Vermeulen. *bibliog J Chem Phys* 16:1087-9 N '48
- Ethylene recovery; commercial hypersorption operation. H. Kehde and others. *flow diag il diag Chem Eng Prog* 44:575-81 Ag '48; Excerpts. *Chem Eng* 55:280+ My; 264+ Je '48; Discussion. *Chem Eng Prog* 44:581-2 Ag '48
- Exchange adsorption of ions from aqueous solutions by organic zeolites. G. E. Boyd and others. *bibliog diags Am Chem Soc J* 69:2813-29, 2836-59 N '47
- Exchange adsorption of ions from aqueous solutions by organic zeolites; separation of the yttrium group rare earths. B. H. Kettelle and G. E. Boyd. *bibliog diag Am Chem Soc J* 69:2800-12 N '47
- Graphite lubrication. R. H. Savage. *bibliog il J Ap Phys* 19:1-10 Ja '48
- Heat capacity of nitrogen adsorbed on titanium dioxide between 20°K and 80°K. J. A. Morrison and G. J. Szasz. *bibliog diags J Chem Phys* 15:280-6 Ap '48
- Heterogeneity of catalyst surfaces; zinc oxide-chromic oxide, manganous oxide-chromic oxide, chromic oxide gel. H. S. Taylor and S. Liang. *bibliog Am Chem Soc J* 69:2989-91 D '47
- Hypersorption provides precise concentration-separation of gases. A. L. Foster. *flow diag il diag Oil & Gas J* 47:90+ Ag 12 '48
- Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett. *bibliog diag J Phys & Colloid Chem* 51:1262-76 N '47
- Ionic exchange equations derived from statistical thermodynamics. C. Krishnamoorthy and others. *Science* 108:439-40 O 22 '48
- Ionization processes on tungsten filaments; the absorption of fluorine on tungsten. M. Metlay and G. E. Kimball. *J Chem Phys* 16:779-81 Ag '48
- Isomerization of certain olefins by silica gel at room temperature. W. S. Gallaway and M. J. Murray. *Am Chem Soc J* 70:2584-6 Jl '48
- Low temperature nitrogen adsorption studies of silica gel. I. Kirshenbaum and R. K. Grover. *Am Chem Soc J* 70:1282-3 Mr '48
- Mathematics of adsorption in beds. N. R. Amundson. *bibliog J Phys & Colloid Chem* 52:1153-7 O '48
- Measurement of carbon black particles by the electron microscope and low temperature nitrogen adsorption isotherms. R. B. Anderson and P. H. Emmett. *bibliog J Ap Phys* 19:367-73 Ap '48
- Measurement of specific surfaces of calcined and hydrated alumina powders by adsorption of *n*-heptole acid from aqueous solutions. L. Saunders. *diag Chem Soc J* p969-73 Jl '48
- Mixed adsorption of radon and argon on silica gel. B. P. Burt and J. D. Kurbatov. *bibliog diag Am Chem Soc J* 70:2278-82 Je '48
- Modifications of the Brunauer, Emmett and Teller equation. R. B. Anderson and W. K. Hall. *bibliog Am Chem Soc J* 70:1727-34 Mr '48
- Molecular structure and adsorption sequences of carotenoid pigments. H. H. Strain. *bibliog Am Chem Soc J* 70:583-91 F '48
- Physical adsorption on non-uniform surfaces. G. Halsey. *bibliog J Chem Phys* 16:931-7 O '48
- Physical studies of gel microstructure. C. G. Shull, P. B. Elkin and L. C. Roess. *bibliog Am Chem Soc J* 70:1410-14 Ap '48
- Proposed method of test for aromatic hydrocarbons in mixtures with naphthenes and paraffins by silica gel adsorption. *il diags Am Soc T M Proc* 48:355-64 '46
- Shale-oil naphthas; analysis of small samples by the silica gel adsorption method. G. U. Dinneen and others. *bibliog diag Anal Chem* 19:992-3 D '47
- Some advances in techniques for the study of adsorbed monolayers at the liquid-air interface. H. W. Fox and W. A. Zisman. *bibliog R Sci Instr* 19:274 Ap '48
- Some recent advances in adsorption analysis; abstract. A. Tiselius. *Chem & Ind* p 189-90 Mr 20 '48
- Sorption-desorption hysteresis characteristics of the system $\text{SiO}_2\text{-H}_2\text{O}$ below the bulk freezing point of water. W. O. Milligan and H. H. Rachford, Jr. *bibliog Am Chem Soc J* 70:2922-4 S '48
- Sorption of gases on a plane surface of two stainless iron-chromium-nickel alloys at 20, -78 and -183°. M. H. Armbruster. *Am Chem Soc J* 70:1734-42 My '48
- Sorption of nitrogen and water vapor on textile fibers. J. W. Rowen and R. L. Blaine. *bibliog Ind & Eng Chem* 39:1659-63 D '47; Same. *J Res Nat Bur Stand* 39:479-85 D '47
- Statistical mechanics of multimolecular adsorption; introductory treatment of horizontal interactions; capillary condensation and hysteresis. T. L. Hill. *bibliog J Chem Phys* 15:767-77 N '47
- Statistical mechanics of multimolecular adsorption; the statistical analog of the BET constant a/b ; hindered rotation of a symmetrical diatomic molecule near a surface. T. L. Hill. *bibliog J Chem Phys* 16:181-9 Mr '48
- Statistical thermodynamics of the sorption of vapors by solids. M. Dole. *bibliog J Chem Phys* 16:25-30 Ja '48
- Structure of a catalyst surface. R. Sips. *bibliog J Chem Phys* 16:490-5 My '48
- Studies in selective extraction and adsorption; the adsorption of acetone, butyl alcohol and 2:3-butylene glycol from dilute solutions. C. Weizmann and others. *bibliog Soc Chem Ind J* 67:225-7 Je '48
- Studies in selective extraction and adsorption; the isolation of ethylene chlorohydrin by adsorption. M. Sulzbacher and R. Pariser. *Soc Chem Ind J* 67:205-6 My '48
- Surface-area measurements on metal spheres and on carbon blacks. P. H. Emmett and M. Cline. *bibliog il J Phys & Colloid Chem* 51:1329-41 N '47
- Surface complexes on charcoal; gas evolution as a function of vapor adsorption and of high-temperature evacuation. R. B. Anderson and P. H. Emmett. *bibliog diags J Phys & Colloid Chem* 51:1308-29 N '47
- Surfaces of solids; the heats of emersion and desorption of water from graphite at 25°. P. R. Basford, G. Jura and W. D. Harkins. *bibliog Am Chem Soc J* 70:1444-50 Ap '48
- Target chemistry of cesium; isolation of $\text{Ba}^{138}\text{Ba}^{139}$. M. H. Kurbatov and others. *J Chem Phys* 16:87-91 F '48
- Theory of adsorption of gases on solids. M. A. Cook. *bibliog Am Chem Soc J* 70:2925-30 S '48
- Thermodynamics of adsorption from solutions; the molality and activity coefficient of adsorbed layers. Y. Fu, R. S. Hansen and F. E. Bartell. *J Phys & Colloid Chem* 52:374-86 F '48
- Vacuum concentration by adsorption. E. Ledoux. *diags Chem Eng* 55:102-4 Jl '48
- See also
- Absorption
- Chromatography

ADSORPTION, Heat of

Adsorption of butane on glass spheres. R. T. Davis and T. W. DeWitt. bibliog Am Chem Soc J 70:1135-41 Mr '48

Differential heats of adsorption and desorption of nitrogen on porous glass. L. G. Joyner and P. H. Emmett. bibliog Am Chem Soc J 70:2359-61 31 '48

Differential heats of adsorption of nitrogen on carbon blacks. L. G. Joyner and P. H. Emmett. bibliog Am Chem Soc J 70:2353-9 11 '48

Heat of adsorption of gases on manganous-chromic oxide at room temperature. T. Ward. Chem Soc J p 1244-6 S '47

Heats of adsorption; ethyl chloride on graphite. C. Pierce and R. N. Smith. bibliog J Phys & Colloid Chem 52:1111-15 O '48

Heats of adsorption on carbon black. R. A. Beebe and others. bibliog diag Am Chem Soc J 69:95-101, 2294-9 Ja, O '47

Heats of adsorption; water, ammonia, ethyl chloride on graphite. R. N. Smith and C. Pierce. bibliog J Phys & Colloid Chem 52:1115-28 O '48

Reduction of oxides by hydrogen and carbon monoxide. W. E. Garner. Chem Soc J p 1239-44 S '47

Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, Jr. and A. D. McLaren. bibliog Ind & Eng Chem 40:329-31 F '48

Theory of adsorption of gases on solids. M. A. Cook. bibliog Am Chem Soc J 70:2925-30 S '48

ADSORPTION apparatus

Carbon adsorber protects oil-sealed vacuum pump from solvent vapors. N. W. Franke and others. diag Chem Ind 61:870 N '47

ADULT education. See Education of adults**ADVERTISED brands.** See Advertising, National**ADVERTISEMENTS**

Annual advertising awards, 1947, winners. il Adv & Sell 41:4-43 Mr '48

Dale Harrison column to be sponsored; Chicago Tribune combined editorial-advertising feature. Ed & Pub 81:20 Ap 10 '48

Dozen points to remember; check list for all promotion, especially for mail-order. C. Dahl. il Ptr Ink 221:38-9 N 7 '47

How well do you remember ads? attempt to analyze cause and cure of similitis. M. Heineman. il Ptr Ink 223:36-7 Ap 2 '48

Old-time advertising method gets modern results; Lonsdale shirt promotion piece for retail salesmen has flavor of 18th-century handbill. J. Handley. il Ptr Ink 222:41 F 20 '48

There's sales appeal in, I see by the papers; clippings from newspapers and trade journals reproduced as advertisements. D. Ross. Ptr Ink 222:94 Mr 19 '48

What it takes; steps in production of printed ad. Ed & Pub 81:12 S 4 '48

Where are the upstarts in industrial advertising? every phase of advertising needs new ideas. H. G. Sawyer. il Ptr Ink 221:31-3 N 21 '47

See also

Blotters Catalogs
Calendars Package inserts

Books and booklets

Company provides retail shop plans to regain ground lost in war; oilcloth shop. D. W. Klau. il Ptr Ink 222:37 F 27 '48

Cruise guide sells travel and gasoline; Mobilgas' log provides boat owners with tips on where and how to go. Sales Management 59:73 N 20 '47

Eight vital ingredients for employee and sales help booklets; illustrations. Ptr Ink 224:26-7 S 3 '48

How comic booklets are used in advertising and public relations. L. P. Birk. il Ptr Ink 224:41-4 Ag 13 '48

How Do-All's school program lays ground work for industrial sales. L. R. Rothenberger. il Sales Management 60:89+ My 1 '48

Textbook manual brings profitable sales; Tube fitters' manual, for maintenance men. S. E. Voran. il Ind Marketing 33:43+ Mr '48

See also
Comics (books, strips, etc.)

Cookbooks and recipes

How to put beauty and brains into a cookbook. M. Stegner. il Sales Management 59:44-6 D 15 '47

Coupons

Copy that clicked; Tilo sidewalls and roofing. R. Manville. il Ptr Ink 224:46+ S 24 '48

Current practice in use of premiums; coupon system, self-liquidating premiums, one-cent sales and trade-card deals. H. W. Dunk. il Adv & Sell 40:42+ D '47

How sold is the man who clips a coupon? P. V. Barrett. Adv & Sell 41:61 My '48

How to use coupons effectively; check list of display and design devices. K. H. Mathus. il Ptr Ink 225:28-31 O 22 '48

Redemption value of heavy coupon campaign by soap makers expected to reach \$10,000,000. W. H. Davis. il Ptr Ink 224:90 Ag 20 '48

Design

How to use coupons effectively; check list of display and design devices. K. H. Mathus. il Ptr Ink 225:28-31 O 22 '48

Inserts

We went to four-color inserts on a cut budget; Bryant chucking grinder company reprints calendar pictures in business papers. C. Stubbs. il Ind Marketing 33:34-5+ Je '48

Keying

Tracer bullets. Aesop Glim. Ptr Ink 225:81 O 8 '48

Layout

Annual advertising awards; layout, art, typography. il Adv & Sell 41:28-30 Mr '48

Best results with men's pictures in ads require much more than using just a head. D. E. Lathrop. il Ind Marketing 32:42-3+ D '47

Dynamic layouts! G. J. Church. il Inland Ptr 120:39 Mr '48

Get helpful immediately; saving reader's time with useful headlines, illustrations, and layouts. E. S. Green. Ind Marketing 33:42-3+ Ja '48

Have specific type styles and sizes in mind as you make working layouts. G. J. Church. il Inland Ptr 121:52 S '48

High cost of low readership revealed; 979 newspaper grocery advertisements analyzed. H. S. Barnes. il Adv & Sell 41:33-4+ Ja '48

Longevity

Effective life of business paper ads; four-year test by Machinery shows average of 7.5 months after each insertion. F. D. Jones. il Ind Marketing 33:45-6 Ja '48

Some advertising Methuselahs. E. E. Calkins. il Ptr Ink 222:32-3 Ja 23 '48

Position

Chicago agency's system rates all ad positions. W. H. Davis. Ptr Ink 222:102 F 20 '48

Relation of comic strip treatment to attention and readership and of right- and left-hand pages to attention. H. J. Rudolph. Ptr Ink 221:36-7 N 7 '47

Bleed pages

How are size, color, bleed related to attention and readership? H. J. Rudolph. Ptr Ink 221:44-5 N 14 '47

Printing

Better originals make better reproductions. I. Settel. Adv & Sell 41:104 O '48

Magnetism permits daily ad changes; magnetic paper and make-up boards. il Ed & Pub 81:11 My 22 '48

New England stereo clinic asks parleys on ad printing. Ed & Pub 81:18 O 30 '48

Rating

Copy that clicked. R. Manville. il Ptr Ink 222:38-9, 48 Ja 16 '48

ADVERTISEMENTS—Rating—Continued

Copy that clicked; nine reasons why book ad pulled seven and a half times the cost of the space; Haldeman-Julius publications, Girard, Kansas. R. Manville. *Ptr Ink* 222:40 F 13 '48

Copy that clicked; Tilo sidewalls and roofing. R. Manville. *Ptr Ink* 224:46+ S 24 '48

Judging ad copy effectiveness; opinions of salesmen vs. customers. F. B. Stubinger. *Il Ind Marketing* 33:52-3 Ap '48

Townsend method of evaluating advertising. W. S. Townsend. *Il Ptr Ink* 223:31-2 F 13; 34-6 F 27; 39-40 Mr 12; 40-1 Mr 26; 223:34-5 Ap 9; 38-9 Ap 23; 54+ My 7; 48+ My 21; 40-1 Je 4; 58+ Je 18; 224:46+ J1 2; 50-2 J1 16; 45+ J1 30; 56+ Ag 13 '48

Why ad men and engineers differ in their industrial advertising viewpoints. I. R. Ogilvie. *Ind Marketing* 32:50+ N '47

See also

Radio advertising—

Rating

Readership

Advertising value of different magazines. H. Zeisel and V. E. Harper. *J Marketing* 13: 56-61 J1 '48

Auto ad sets new mark in reader study. Ed & Pub 81:56 J1 31 '48

Auto store ad in study 114 sets new high. Ed & Pub 81:24 F 21 '48

Car card readership findings summarized. R. H. Ganly. *Ptr Ink* 223:37-8+ Ap 9 '48

Color ads rate high readership in CSNR test. Ed & Pub 81:106 Ap 17 '48

Content, not format, is key to picture-caption style. M. Wiseman. *Il Adv & Sell* 41:44+ J1 '48

Editorial approach in advertising. J. E. Gallagher. *Ptr Ink* 225:37 N 5 '48

Elements of confusion in newspaper readership study. C. L. Bigelow. *J Marketing* 12: 337-47 Ja '48; Discussion. S. Rovner. Ed & Pub 81:14 Ja 31 '48

High cost of low readership revealed; 979 newspaper grocery advertisements analyzed. H. S. Barnes. *Il Adv & Sell* 41:33-4+ Ja '48

Hollywood dailies place seven ads on CSNR lists. Ed & Pub 81:38 Ap 10 '48

How are size, color, bleed related to attention and readership? H. J. Rudolph. *Ptr Ink* 221:44-5 N 14 '47

How copy is related to readership. H. J. Rudolph. *Ptr Ink* 221:48+ D 19 '47

How do advertising illustrations affect attention? H. J. Rudolph. *Ptr Ink* 221:46+ N 28 '47

How many more readers see a campaign than see a single ad? A.N.A.N. study. C. J. Swan. *Il Ptr Ink* 221:38-9 D 19 '47

How media research can make advertising dollars more effective. A. Hurd. *Il Adv & Sell* 41:33-4+ Je '48

How the subject of the illustration is related to attention value. H. J. Rudolph. *Ptr Ink* 221:44+ D 5 '47

How to evaluate changes in advertising approach. M. Wiseman. *Il Adv & Sell* 41:48+ Ap '48

Ipans ads show women's reading habits. M. Wiseman. *Il Adv & Sell* 41:48+ My '48

Is individual page performance influenced by the number of magazine pages? Curtis publishing company Research department study. C. I. Johnson. *Ptr Ink* 221:39 N 21 '47

Low cost plan of readership study related; abstract. B. Pendergast. Ed & Pub 81:28 F 21 '48

Measures readership of security issue advertisements. *Ptr Ink* 223:88 Ap 23 '48

More about relation of illustration subject to attention. H. J. Rudolph. *Ptr Ink* 221:46+ D 12 '47

More data on repeat ads. R. L. Edsall. *Il Ind Marketing* 33:39+ O '48

Readership records set in study 119. Ed & Pub 81:13 Je 26 '48

Relation of comic strip treatment to attention and readership and of right- and left-hand pages to attention. H. J. Rudolph. *Ptr Ink* 221:36-7 N 7 '47

Six ads make ten-best lists in study 112 of Advertising research foundation. Ed & Pub 81:16 Ja 3 '48

Testing readership through controlled ads. L. Deckinger. *Adv & Sell* 41:44+ My '48

Three new records set by ads in study 115; Stamford (Conn.) advocate. Ed & Pub 81: 18 Ap 3 '48

What do farm families like most to read? H. D. Williams. *Il Adv & Sell* 41:37+ Ja '48

What is the relation of headline to attention and readership? H. J. Rudolph. *Ptr Ink* 221:46+ N 21 '47

Repetition

Ads are repeated year after year, but total inquiry rate goes steadily up; Coppus small turnbines, burners and blowers. R. L. Edsall. *Il Ptr Ink* 223:42-3 My 28 '48

Continuity is the best policy even for a fashion advertiser; experience of corset advertiser. C. J. Swan. *Il Ptr Ink* 223:28-9+ Je 4 '48

Effectiveness of repeated advertisements. *Ind Marketing* 32:36-8+ S; 50-1+ O; 56+ N '47; Reply. W. A. Marsteller. 33:94 Ja '48

More data on repeat ads. R. L. Edsall. *Il Ind Marketing* 33:39+ O '48

Peanut council finds it pays to repeat a good ad. *Il Sales Management* 60:140+ F 15 '48

When shall we repeat? S. Pattison. *Ind Marketing* 33:48-9+ F '48

You can say that again! power of repetition. T. H. Thompson. *Sales Management* 60: 120-1 Ap 15 '48

Reprints

Using publication color plates for producing related advertising material. H. C. Latimer. *Il Ptr Ink* 224:39 J1 9 '48

Signature

Ad may be distinctive, how about signature? R. Simmons. Ed & Pub 81:46 F 21 '48

Agency by-lines ads under new policy; Wolff ads will be signed by agency. S. Rovner. Ed & Pub 81:12 S 25 '48

Size

How are size, color, bleed related to attention and readership? H. J. Rudolph. *Ptr Ink* 221:44-5 N 14 '47

See also

Advertisements,

Small space

Testing

Agency man expects more split-run ads. Ed & Pub 81:14 O 2 '48

Beware of office juries. J. A. H. Rehm. *Adv & Sell* 41:34 My '48

Copy research, how it works; testing and development of A. & P. ad. M. Wiseman. *Il Adv & Sell* 41:48+ Ja '48

Copy testing plan expanded in Cincinnati. Ed & Pub 81:24 My 29 '48

Gallup's impact testing method, used by NAM; abstract. C. Robinson. *Ptr Ink* 221: 115 D 12 '47

Neckties by mail; story of Webb Young. J. D. Woolf. *Il Adv & Sell* 41:35-6+ Je '48

Opinion experts form firm to pretest ads. Ed & Pub 81:20 Ag 21 '48

Performance can be predicted, test shows. S. Rovner. *Il Ed & Pub* 81:20 O 16 '48

Results of copy testing by arousal method; Electropsychograph measures nervous reaction to ads. W. P. Wesley. *Il Adv & Sell* 40:48+ N '47

242 newspapers that offer split-runs and their requirements; charges made and minimum space asked; tabulation. J. Bradfute. *Ptr Ink* 224:62+ S 17 '48

We tested the sales potentials of small ads. J. M. Sitton. *Il Ptr Ink* 223:32-4 Je 11 '48

What 92 split-run ads tell us. V. O. Schwab. *Adv & Sell* 41:33-4+ Ap; 38+ My '48

Typography

Effective typography has body and soul. J. L. Collings. Ed & Pub 81:24 Ap 24 '48

How to combine type faces in single line layouts. A. R. Hopper. *Il Ind Marketing* 33:40-1+ O '48

How to judge the readability of type. J. M. Secrest. *Il Ptr Ink* 221:44-5+ D 12 '47

How to make your poster copy legible. J. E. Brennan and H. L. Gage. *Il Adv & Sell* 41:221-2+ Mr; 45+ My '48

Influence of modern art on design and typography. H. Zamboni. *Il Adv & Sell* 41:39+ F '48

ADVERTISEMENTS—Typography—Cont.

Put that serif back, mister! R. L. Lenhart. *Il* *Ptr Ink* 222:42-4 F 20 '48
 Serif or sans serif, type's job is to convey ideas clearly. S. L. Smith. *Il* *Ptr Ink* 223:36-7 Je 4 '48

ADVERTISEMENTS, Classified

Big splash ads in classified bring results; Molander Motor Sales. *Ed & Pub* 81:16 O 2 '48
 Chicago tribune tells saga of classified. *Il* *Ed & Pub* 81:17+ JI 17 '48
 CAMs gather in L.A. *Ed & Pub* 81:8 Je 12 '48
 CAMs suggest ways to get voluntary ads. C. Watson. *Ed & Pub* 81:30 JI 17 '48
 Classified group seeks economies. *Ed & Pub* 81:50 F 23 '48
 Classified's energy called vital to the press. *Ed & Pub* 81:9+ Je 19 '48
 Clinic offers recipes for classified lineage. C. W. Duke. *Ed & Pub* 81:7+ Ja 31 '48
 Drugstore runs entire page of classified in Tampa times. *Ed & Pub* 81:32 Ja 10 '48
 Every girl is a PEX in classified setup; Dallas Times Herald telephone service. J. Stag. *Il* *Ed & Pub* 81:12 Mr 13 '48
 Magnetism permits daily ad changes; magnetic paper and make-up boards. *Il* *Ed & Pub* 81:11 My 22 '48
 Success of photo-ads spurs realty copy. T. S. Irvin. *Ed & Pub* 81:48 S 13 '48
 Teaser series in personals column of small town paper. *Ptr Ink* 223:66 Je 25 '48

Want ads

Phyllis has gone to Boston, but I'm still in business; advertising for a secretary. *Ptr Ink* 222:41 F 6 '48

ADVERTISEMENTS, Humorous

Direct mail with a real hook creates sales; fire extinguishers for yachts. S. Grant. *Il* *Ptr Ink* 224:51-2 Ag 20 '48
 How copy is related to readership. H. J. Rudolph. *Ptr Ink* 221:43+ D 19 '47
 Light touch in business paper advertising. *Il* *Ind Marketing* 33:83+ JI '48
 My kingdom for a smile. J. Ecclesine. *Ptr Ink* 222:136 F 27 '48
 Selling via the funnybone. F. Myers. *Adv & Sell* 41:52 S '48
 Traffic safety campaign to use Mother Goose characters. *Il* *Ptr Ink* 222:45 F 20 '48
 Utility plus humor means sales! case history of Copperweld calendar pad campaign. *Il* *Ind Marketing* 32:60+ D '47

See also

Advertisements, Comics (books, pictorial—Cartoons strips, etc.)

ADVERTISEMENTS, Legal. See Legal advertising**ADVERTISEMENTS, Pictorial**

Believable illustration attracts more readers; advertising and editorial art should portray real and compelling human emotions. R. S. Chenault. *Il* *Adv & Sell* 41:38+ Je '48
 Best results with men's pictures in ads require much more than using just a head. D. E. Lathrop. *Il* *Ind Marketing* 32:42-3+ D '47
 Content, not format, is key to picture-caption style. M. Wiseman. *Il* *Adv & Sell* 41:44+ JI '48
 Don't grope for words; let a picture help you. F. B. Clarke. *Il* *Ptr Ink* 224:28-9 Ag 27 '48
 Get helpful immediately; saving reader's time with useful headlines, illustrations, and layouts. E. S. Green. *Ind Marketing* 33:42-3+ Ja '48
 High cost of low readership revealed; 979 newspaper grocery advertisements analyzed. H. S. Barnes. *Il* *Adv & Sell* 41:33-4+ Ja '48
 How comic booklets are used in advertising and public relations. L. P. Birk. *Il* *Ptr Ink* 224:41-4+ Ag 13 '48
 How do advertising illustrations affect attention? H. J. Rudolph. *Ptr Ink* 221:46+ N 28 '47
 How the subject of the illustration is related to attention value. H. J. Rudolph. *Ptr Ink* 221:44+ D 5 '47
 More about relation of illustration subject to attention. H. J. Rudolph. *Ptr Ink* 221:46+ D 12 '47
See also
 Calendars

Cartoons

Cartoons build acceptance for stock farm's prize bull. *Il* *Ptr Ink* 223:30 Je 4 '48
 Light touch in business paper advertising. *Il* *Ind Marketing* 33:83+ JI '48
 Small-space advertiser clicks with sprightly cartoons and copy; Carlson & Simpson, service garage, San Diego. J. H. Viissers. *Il* *Ptr Ink* 223:40 Je 25 '48

Comic strip

How copy is related to readership. H. J. Rudolph. *Ptr Ink* 221:43+ D 19 '47
 Relation of comic strip treatment to attention and readership and of right- and left-hand pages to attention. H. J. Rudolph. *Ptr Ink* 221:36-7 N 7 '47

Exhibitions

Product regains the spotlight in New York art directors' exhibition. P. Smith. *Il* *Ptr Ink* 223:44+ Je 18 '48
 16th annual exhibition of Chicago art directors. *Il* *Ptr Ink* 223:40-1 My 7 '48

Photographs

Display photography; direct-color shot for lithographic reproduction has distinct requirements. G. Greb. *Il* *Mod Packaging* 21:102-5 F '48
 Have you been passing up the pulling power of photographs? *Il* *Inland Ptr* 121:46 Ap '48
 Sales behind the ground glass. R. G. Roberts. *Il* *Ind Marketing* 32:36-7+ N '47

Santa Claus

Let's give Santa Claus back to the kids. *Adv & Sell* 41:76 Ja '48

Women's pictures

Oh, to be an art director! too many pictures of women in ads? H. G. Sawyer. *Ptr Ink* 223:128 Ap 9 '48

ADVERTISEMENTS, Small space

Consistent small space introduces specialty item; Cuprinol for treatment of boat hulls. D. Murray. *Il* *Ptr Ink* 221:40-1 N 7 '47
 Small-space advertiser clicks with sprightly cartoons and copy; Carlson & Simpson, service garage, San Diego. J. H. Viissers. *Il* *Ptr Ink* 223:40 Je 25 '48
 Small space isn't only for low-budget advertisers! L. F. Thomann. *Il* *Ptr Ink* 221:58 N 23 '47
 Small space produces new business at a profit for Harry Jay Treu, fur craftsman. *Il* *Ptr Ink* 223:82 My 7 '48
 Spotlight finds peacetime market for war-born tape. E. Huber. *Il* *Sales Management* 60:144+ Ja 15 '48
 We tested the sales potentials of small ads. J. M. Sitton. *Il* *Ptr Ink* 223:32-4 Je 11 '48

ADVERTISEMENTS, Syndicated

Syndicated Gimbel ads used by 180 customers. *Bsns W* p72+ D 6 '47

ADVERTISERS

In defense of Evan Llewelyn Evans; copywriter explains why he approves of the character typified in The hucksters. F. G. Comstock. *Ind Marketing* 32:35+ N '47
 Leading advertisers of 1947 and their expenditures; 835 companies invested \$561,132,308 in magazines, farm papers and network radio. *Ptr Ink* 223:38+ Ap 2 '47
 Leading newspaper advertisers in 1947; list of 2,292 companies that spent at least \$5,000 each in 346 daily and Sunday newspapers published in 108 cities. *Ptr Ink* 223:55-6+ My 28 '48
 Little industrials are important advertisers; need for education by agencies. H. D. McKinney. *Ind Marketing* 33:33+ Ap '48

ADVERTISING

Advertising's famous quotations; collected by A. D. Converse, Jr. *Ptr Ink* 222:37 Mr 19 '48
 But the client didn't like the copy; five ways for advertisers and their agencies to join for more fruitful relationship. G. Carson. *Sales Management* 59:78+ D 1 '47
 But we haven't a million to spend for advertising! identifying product by slogan, unusual tag, trademark, etc. S. L. Kwallner. *Sales Management* 59:66+ N 10 '47

ADVERTISING—Continued

- Dean of Boston agency men relies on press; C. J. O'Malley. J. M. Potter. Ed & Pub 81:24 Je 26 '48
- Educational force of magazine advertising. W. D. Fuller. Adv & Sell 41:40 Ap '48
- Footnote in semantics; advertising does not create desires. B. Sullivan. Ptr Ink 224:128 S 3 '48
- Have sales executives become too cowardly to fight for business? employing a specialist organization for distribution. Ptr Ink 223:51+ Je 11 '48
- Healthy climate for advertising; how do you create it? tieup between advertising and sales. W. Guild. Sales Management 61:86+ Ag 15 '48
- Is advertising losing out? public relations and advertising. H. Obermeyer. Ptr Ink 222:136 F 6 '48
- Let's leave the magic to the magicians! J. Katz. Ptr Ink 221:138 N 7 '47
- On the threshold; a department devoted to problems of the beginner in advertising (cont.). M. Wiseman. Il Adv & Sell 40:54+ N; 54+ D '47; 41:48+ Ja; 52+ F; 126+ Mr '48
- Printers' Ink refresher course in advertising, selling and merchandising. 249p \$4 Funk & Wagnalls co, 153 E. 24th st, New York 10 '47
- Recap on 44th convention of Advertising federation of America, Cincinnati, June 13-16. Sales Management 61:72+ J 1 '48
- Role of advertising today. A. L. Billingsley. Ind Marketing 33:35+ S '48
- Sales engineer and advertising. B. Lester. Mach 54:201-2 J 1 '48
- Selling in the buyer's market; product, service, promotion, sales personnel, and public relations. L. R. Walter. Ind Marketing 33:52+ F '48
- Three fundamentals of better advertising; repetition, newsworthiness, service. S. C. Gale. Adv & Sell 40:38+ D '47
- Townsend method of evaluating advertising. H. S. Townsend. Il Ptr Ink 222:31-2 F 13; 34-6 F 27; 39-40 Mr 12; 40-1 Mr 26; 223:34-5 Ap 9; 38-9 Ap 23; 54+ My 7; 48+ My 21; 40-1 Je 4; 58+ Je 18; 224:46+ J 2; 50-2 J 16; 45+ J 1 30; 56+ Ag 13 '48
- Trends in distribution and their effect on advertising. V. Lebow. Il Ptr Ink 225:62-3+ O 29 '48
- What is advertising? G. R. Marek. Il Ptr Ink 225:34-6 N 5 '48
- Why non-prospects are productive salesmen. M. Wiseman. Adv & Sell 41:48+ Ag '48
- Year gone by; advertising had a good year in 1947 despite spiraling costs and labor strife. Il Ptr Ink 222:27-9+ Ja 2 '48
- See also*
- | | |
|---|--|
| Advertisements | Odors in advertising |
| Advertising agencies and other headings | Premiums (merchandizing) |
| Beginning Advertising | Publicity |
| Bank advertising | Radio advertising |
| Catalogs | Safety advertising |
| Church advertising | Sales letters |
| Color in advertising | Southern newspaper publishers association—Advertising clinic |
| Government advertising | State advertising |
| House organs | Television advertising |
| Moving pictures in advertising | Advertising under special subjects, e.g. |
| Christmas greens | Public utilities |
| Insurance, Life | Restaurants |
| Live stock | Retail trade |
| Market stores | Television apparatus |
| Medical societies | Industry |
| Paint brushes | Tile industry |
| Perfumery | |
- Accounting**
- Accountant on advertising reserves. Ptr Ink 222:61-2 Mr 5 '48
- Architects, Appeal to**
- Advertising to the building industry. Il Ind Marketing 33:87-8+ F '48
- Bibliography**
- 100 books on advertising. E. K. Johnston. comp. (v 47, no 29) 3d ed 15p Univ. of Missouri, Columbia '46

Children, Appeal to

- Psychologists help radio program become a national institution; Jack Armstrong show for Wheaties. H. E. Green. Il Ptr Ink 221:32-3+ N 7 '47
- Restraint in use of premiums for young children. H. A. H. Rehm. Adv & Sell 41:36 J 1 '48

Continuity

- Consistent small space introduces specialty item; Cuprinol for treatment of boat hulls. D. Murray. Il Ptr Ink 221:40-1 N 7 '47
- Continuity in advertising builds Socony position. Il Ind Marketing 33:45+ Ag '48
- Continuity is the best policy even for a fashion advertiser; experience of corset advertiser. C. J. Swan. Il Ptr Ink 223:28-9+ Jm 4 '48
- Hit-or-miss ads failed, but a consistent campaign clicked; McColpin-Christie rectifier, storage battery (auto) rapid-charging equipment. L. F. Thomann. Il Ptr Ink 222:48+ F 13 '48
- Management set ad policy in 1872, it's still good; Nicholson file co. G. R. Ashbey. Il Ptr Ink 221:29-31 D 19 '47

Contractors, Appeal to

- Direct mail builds six-figure business in one year. B. L. Gough. Il Ptr Ink 222:39 Mr 5 '48

Cost

- Coverage vs. costs in magazine advertising. E. R. Smith. Adv & Sell 40:38-9+ N '47
- Cutting advertising and printing costs. 391p \$5 Funk & Wagnalls co, 153 E. 24th st, New York 10 '48
- Decalogue hits ad production costs; abstract. J. B. Gray. Ed & Pub 81:32 Ja 10 '48
- Macy's ad chief calls newspapers best buy. Ed & Pub 81:12 Je 19 '48
- Newspaper coverage formula has been revised; McKinney study brought up to date validating data of 1945 and showing more intensive city zone coverage. D. Taylor. Ptr Ink 222:40 F 27 '48
- So you think ad production costs are too high! E. T. Geddes. Il Ind Marketing 32:48-9 D '47

Coverage

- Coverage vs. costs in magazine advertising. E. R. Smith. Adv & Sell 40:38-9+ N '47
- Trading area depends on many variables. S. Rovner. Ed & Pub 81:14 My 29 '48

Dealer cooperation

- Closer sales-advertising tieup augurs 25 per cent gain for Sherwin-Williams; calendar of events. C. M. Lemperly. Il Sales Management 61:42-3 Ag 1 '48
- Display and demonstration help dealers tie in with national ads; campaigns of Bendix home laundry units and California-Arizona grapefruit. Il Ptr Ink 224:48+ J 1 23 '48
- How to get retailers to tie in with national advertising. J. C. Cumming. Sales Management 60:131-2+ Mr 15 '48
- Letters tell young salesmen the basic facts of advertising; inducing dealers to run co-operative advertising. J. Siegrist. Ptr Ink 224:36-7 S 17 '48
- Teaching dealers how to promote increases co-op advertising 100 per cent; B. F. Avery local advertising guide. Il Ptr Ink 225:32-3 O 15 '48
- Van Heusen approach caps a record for dealer tie-in ads; Phillip-Jones corporation's program for coordinating national advertising and point-of-sale promotion. Il Sales Management 61:48+ O 1 '48

Dealer helps

- Effect of store modernization upon display needs; what retailers say about manufacturer-supplied materials. Il Ptr Ink 222:31-5+ Mr 12 '48
- How a tailored ad mat service saved on production costs and made dealers happier. E. L. Galleher. Il Ptr Ink 223:73 Je 4 '48
- McKesson's "American look" captures customers for druggists. Il Sales Management 61:113 N 1 '48
- Over-the-counter promotion for hidden product; supplier takes story to public first; Sheer hair cloth stiffening. C. J. Swan. Il Ptr Ink 225:38-9 O 8 '48

ADVERTISING—Dealer helps—Continued

To charge or not to charge for sales promotion materials? check with 35 companies. Sales Management 61:92+ S 15 '48
 We find out in advance what folks like in calendar art; pretty girls are not the most popular subjects; J. R. Watkins co. L. W. Goldberg. *il* *Ptr Ink* 225:38-41 N 5 '48
 Why dealers foot the bill for Chevrolet's millions of mailings. *il* Sales Management 60: 141+ Mr 15 '48

Dealers, Appeal to

Distributor's radio-grams win dealers' co-operative ad support. W. J. Miller. *il* *Ptr Ink* 223:31 Ap 30 '48
 How Philco uses direct mail to sign new dealers. *il* *Ptr Ink* 221:46 N 14 '47
 Let's give dealers the dope. S. B. Lewis. *Ptr Ink* 222:146 Mr 12 '48
 Old-time advertising method gets modern results; Lonsdale shirt promotion piece for retail salesmen has flavor of 18th-century handbill. J. Handley. *il* *Ptr Ink* 222:41 F 20 '48
 There's sales appeal in, I see by the papers; clippings from newspapers and trade journals reproduced as advertisements. D. Ross. *Ptr Ink* 222:94 Mr 19 '48

Economic aspects

Advertising in a changing economy. D. G. Mitchell. *Ind Marketing* 33:33+ JI '48
 Advertising's role in maintaining employment and preventing depressions. W. Green. *il* *Ptr Ink* 225:74-5+ O 29 '48
 Better life for all? prize essay tells how. J. Bateman. Sales Management 61:52-3 JI 15 '48

Employees, Appeal to

Ads take plant community behind the scenes, create good-will; Bristol-Myers' local newspaper campaign. M. Davis. *il* *Ptr Ink* 223:34-6+ Ap 30 '48
 Chain management contacts branch personnel on the air. *Ptr Ink* 221:84+ N 14 '47
 Handling employee relations as a sales challenge; G-E finds new use for consumer marketing techniques. R. H. Ganly. *il* *Ptr Ink* 223:35-7+ Ap 16 '48
 Local ad space ideal spot for house organs. W. O. Merritt. *Ed & Pub* 81:45 F 28 '48
 Timken educates workers and public on Taft-Hartley law. R. H. Ganly. *Ptr Ink* 222:60+ Mr 19 '48
 We correct workers' ideas about management's profits; Stamford-Greenwich manufacturers' council. F. Bowes, jr. *il* *Ptr Ink* 222:36-7 Ja 23 '48

Farmers, Appeal to

Advertising used to straighten out eight-month seasonal slump; cartoon technique sells rural gas users on providing their own storage facilities. D. Markstein. *il* *Ptr Ink* 224:42-3 JI 16 '48
 Take the hayseeds out of your farm thinking. J. H. North. *Ptr Ink* 222:40-1 F 6 '48
 What do farm families like most to read? H. D. Williams. *il* *Adv & Sell* 41:37+ Ja '48

History

Adventures in advertising. J. O. Young. *il* *Ptr Ink* 222:27-30+ Mr 5; 34-7 Mr 19; 223: 32-4+ Ap 2; 41-2+ Ap 16; 40-1+ Ap 30; 42-3+ My 14; 44-5+ My 28; 40-1+ Je 11; 41+ Je 25; 224:46+ JI 9; 31+ JI 23; 37+ Ag 6; 42+ Ag 20; 38+ S 3; 225:42+ O 1 '48
 Advertising has grown up in these 60 years. *il* *Ptr Ink* 225:54-9+ O 29 '48
 Philadelphia hailed as site of ads' birth. *Ed & Pub* 81:18 S 25 '48

See also

Advertising hall of fame

Inquiries

How sold is the man who clips a coupon? P. V. Barrett. *Adv & Sell* 41:61 My '48
 Passion for inquiries; reprinted from December 1923 issue. C. Bold. Sales Management 59:116+ D 15 '47
 Simple courtesy is good business; careful handling of consumers' inquiries. *Ptr Ink* 224:56-8 JI 23 '48
 Why inquiries don't turn into orders. P. Vincent. *Ptr Ink* 224:57+ Ag 6 '48

Jobber cooperation

Mechanized selling paves way to 'dozer market for LeTourneau. A. Andrews and E. E. Weyeneth. *il* map *Ind Marketing* 33:42-3+ JI '48

Jobber helps

Flexibility keys Carboly's direct mail for distributors. D. G. Baird. Sales Management 61:102+ N 1 '48
 How Plymouth rope charts aid distributor sales. W. A. Scherff. *il* *Ind Marketing* 33: 48+ JI '48

Jobbers, Appeal to

How advertising lacks a sales training problem for Trumbull. T. D. MacLafferty. *il* Sales Management 61:60+ S 1 '48
 Industrial advertiser's mailings make hit with supply house salesmen; supplemented by business-paper and technical publicity campaigns; Simonds abrasive co. D. S. Saurman. *il* *Ptr Ink* 222:40-3 Ja 30 '48

Laws and regulations

Advertising of fixed price contractors o.k. *Ed & Pub* 81:66 JI 24 '48
 FTC cracks down on free goods offers. *Bsns W p68-9* JI 17 '48
 How agencies can avoid common legal pitfalls; dangers in use of group photographs, testimonials and proffered ideas. *Adv & Sell* 41:73-4+ Ag '48
 Institutional copy tax deduction studied. *Ed & Pub* 81:78 My 22 '48
 K&E gives its help; lowdown on ad laws. S. Rovner. *Ed & Pub* 81:12 F 21 '48
 New edicts jostle publishers' elbows; advertising of alcoholic beverages. *Ed & Pub* 81:44+ Ap 24 '48

See also

Advertising copy—
 Free offers
 Labels—Law

Market selection

How we check national advertising, market by market against sales; Wildroot co. alots advertising dollars in national and local media. J. W. Maurer. *il* *Ptr Ink* 221: 29-31 D 5 '47

Measurement

Advertising's sales power can be measured. D. Starch. *il* *Adv & Sell* 41:33-4+ F '48
 Passion for inquiries; reprinted from December 1923 issue. C. Bold. Sales Management 59:116+ D 15 '47

Objectives

Double barreled ad campaign aimed at diverse markets; Wyandotte chemicals corp. R. Raine. *il* *Ind Marketing* 33:65+ My '48
 How business paper ads unearth leads for Turco. D. T. Buist. *il* Sales Management 61:110-11 N 1 '48
 How to make people remember your product. M. Wiseman. *Adv & Sell* 41:52+ F '48
 Tie-in with salesmen made this industrial advertising campaign a success; sells rope to consumers and industry; Plymouth cordage co. W. A. Scherff. *il* *Ptr Ink* 224:34-6 Ag 6 '48
 What price novelty? Aesop Glim. *Ptr Ink* 222:36+ Mr 26; 223:84 Ap 23; 86 My 7 '48

Planning

Admen should give management better guides for making advertising investments; abstract. F. R. Pierce. *Ptr Ink* 222:77 Ja 30 '48
 How integration pays off in advertising; dress all your advertising material in one way. R. C. Shaw. *il* *Ptr Ink* 221:140-1 D 26 '47
 Marketing audit and the ad budget; method of long-range market planning and check list for industrial advertiser. W. Alderson. *Ind Marketing* 32:50+ D '47

Prize contests

Consumer quiz wins driver-salesmen's support; Golden State's unionized salesmen Gold Rush contest. Sales Management 61: 54 S 1 '48
 How prize contests promote quick sales. H. W. Dunk. *il* *Adv & Sell* 41:52+ Je '48
 Lever contest offers furs for 25 words. *Ed & Pub* 81:16 Ja 31 '48

ADVERTISING—Prize contests—Continued

- Making contests do double-duty; Kroger ties up a big package of national contests. *il* Bsns W p58+ O 16 '48
- Movie contests used to bring in teen-agers. *Ed & Pub* 81:18 Mr 27 '48
- P.O. official outlines lottery regulations. *D. J. Kelly, Ed & Pub* 81:14+ Ja 17 '48
- Recipe contest. *il* Sales Management 60:74 Je 1 '48
- Snowballing sales in 25 words or less. *il* Mod Ind 15:102+ Mr '48
- Watch your contest! *F. Finkelhor, Ptr Ink* 224:50-1+ J1 2 '48
- See also*
- Radio advertising—Prize contests

Psychology

- How to create desire; importance of sincerity. *W. S. Townsend, il* Ptr Ink 223:43+ My 21 '48
- Irritation advertising in radio commercials. *Aesop Glim, Ptr Ink* 222:78 F 27 '48
- Irritation technique; science vs. sense. *E. Peterson, Ptr Ink* 222:33 F 6 '48; Discussion. 222:31 Mr 5 '48
- More about relation of illustration subject to attention. *H. J. Rudolph, Ptr Ink* 221:46+ D 12 '47
- Psychologists help radio program become a national institution; Jack Armstrong show for Wheaties. *H. E. Green, il* Ptr Ink 221:32-3+ N 7 '47
- Selling through dislike. *C. H. Brower, Adv & Sell* 41:34 F '48
- These are the real reasons why people buy goods. *E. Dichter, il* Adv & Sell 41:33-4+ J1 '48
- To use or not to use the irritation technique in radio advertising. *L. S. Wechsler, Ptr Ink* 223:36-7 My 14 '48
- Townsend method of evaluating advertising; five main appeals in advertising. *W. S. Townsend, il* Ptr Ink 223:38-9 Ap 23 '48
- Townsend method of evaluating advertising; four principles on memory. *W. S. Townsend, il* Ptr Ink 224:50-2 J1 16; 45+ J1 30 '48
- Townsend method of evaluating advertising; how to get attention of prospects. *W. S. Townsend, Ptr Ink* 222:39-40 Mr 12; 40-1 Mr 26 '48
- Townsend method of evaluating advertising; one more Townsend principle; desire. *W. S. Townsend, il* Ptr Ink 224:46+ J1 2 '48
- Townsend method of evaluating advertising; promise a benefit. *W. S. Townsend, il* Ptr Ink 223:34-5 Ap 9 '48
- What is the power of product-association? *M. Wiseman, il* Adv & Sell 41:126+ Mr '48
- Why boastful advertising is based upon fear. *M. Wiseman, Adv & Sell* 41:31-2+ O '48

Public attitude

- Commercial advertising, bah! *A. Oksenberg, Ptr Ink* 223:120 Ap 30 '48
- Let's watch our step in using advertising. *G. Cowles, Adv & Sell* 41:46+ Ap '48

Purchasing agents, Appeal to

- Dull all copy, or pity the poor purchasing agent. *il* Ind Marketing 33:85-6+ O '48

Purchasing companies, Appeal to

- How to sell retailers through central buying offices. *J. C. Cumming, Sales Management* 60:82+ My 1 '48

Rates

- ANA puts rate problem up to the newspapers. *Ed & Pub* 81:7-8+ O 30 '48
- ANA takes a look at magazine rates. *S. Rovner, Ed & Pub* 81:20 Je 26 '48
- Don't blame the newspaper if cooperative advertising falls flat. *Sales Management* 60:50+ My 20 '48
- Ideal rate card gives benefits to transients. *W. Wright, Ed & Pub* 81:60 Je 19 '48
- Magazines hold line on rates despite refunds by Ladies' home journal; McCall's sets new rebate policy. *D. Bruner, Ptr Ink* 225:95+ N 5 '48
- Media rates are up, but advertisers are getting greater value; advances in circulations, listeners and buying power. *F. B. Ryan, jr, Ptr Ink* 223:42-4+ Ap 23 '48

- Media rates face new upward pressures in '48. *D. Bruner, Ptr Ink* 221:88 D 5 '47
- Newspapers lose millions in unspent co-op ad allowances; rate differentials, plus dealer skittishness about advertising a specific branded product. *J. D. Cathcart, Sales Management* 60:86+ Mr 1 '48
- Six-month protection on rate asked by ANA. *Ed & Pub* 81:14 J1 31 '48
- Theatre adman asks retail rate, no tieups. *Ed & Pub* 81:13 Mr 20 '48
- 242 newspapers that offer split-runs and their requirements; charges made and minimum space asked; tabulation. *J. Bradfute, Ptr Ink* 224:62+ S 17 '48
- Weeklies' ad rates rise. *Bsns W* p48+ N 8 '47

Returns

- Copy that clicked; nine reasons why book ad pulled seven and a half times the cost of the space; Haldeman-Julius publications, Girard, Kansas. *R. Manville, Ptr Ink* 222:40 F 13 '48
- From a \$60 ad in 1946 to \$150,000 in sales in 1948; Jonmar giftwares for table. *J. E. Roberson, il* Ptr Ink 223:27-9 Ap 2 '48
- How to make the slow line move. *Frey & sons labels and advertises sausage, D. Dover, il* Ptr Ink 222:48-9 F 20 '48
- Study indicates domestic papers bring response from overseas. *W. L. Sheppard, jr, Ind Marketing* 33:98+ Ag '48
- Tested advertising tripled our sales in five years; Sunroc refrigeration co. *R. A. Angus, il* Ptr Ink 225:29-31 N 5 '48
- We brought life back to a defunct company and product; Whiting-Adams paint brush campaign. *R. S. Edsall, il* Ptr Ink 225:44+ O 22 '48
- What would happen if you stopped advertising. *D. Starch, Adv & Sell* 41:35-6 S '48

Schedules

- How many more readers see a campaign than see a single ad? *A.N.A.N. study, C. J. Swan, il* Ptr Ink 221:38-9 D 19 '47
- New fiscal year for advertising proposal gets slight support. *Ptr Ink* 223:74+ Ap 9; 38-9 Ap 16 '48
- Split-second promotion melts stocks of fans. *il* Sales Management 61:92+ S 1 '48
- Will the famine months of magazine advertising return? *G. K. Greiner, Adv & Sell* 41:77-9 S '48

Schools, Appeal to

- How Do-All's school program lays ground work for industrial sales. *L. R. Rothenberger, il* Sales Management 60:89+ My 1 '48
- How educational material can serve advertising. *J. M. Sittin, il* Ptr Ink 222:38-9 Mr 19 '48
- Memphis Commercial Appeal football year-book pays its way and more. *T. S. Irvin, Ed & Pub* 81:52 Ja 10 '48
- Teachers want your industrial films. *F. M. McKinney, il* Ind Marketing 33:44+ Fa '48

Service

- New dimensions in advertising; its use in public, employee and social relations. *C. G. Mortimer, jr, il* Ptr Ink 225:80-1+ O 29 '48

- See also*
- Advertising council

Social aspects

- I want my children to serve in advertising; it will help them learn to know and respect the other fellow's point of view. *W. Weir, il* Ptr Ink 221:29-30 N 7 '47

Statistics

- Advertising has grown up in these 60 years. *Ptr Ink* 225:100+ O 29 '48
- Advertising, 1941-1946. Survey of Cur Bsns 1947 Sup p35-7 [supplemented in monthly numbers]
- Advertising volume figures for Dec. issues of business publications and totals for 1947 and 1946. *Ind Marketing* 33:106, 108, 110 Ja '48
- Analysis of 1947 lineage statistics compiled for 345 newspapers in 108 cities. *Ed & Pub* 81:123-5+ Ap 17 '48

ADVERTISING—Statistics—Continued

Annual estimate, prepared for Printers' Ink, shows 1947 U.S. advertising volume sets new record. H. Zeisel. *Ptr Ink* 223:28-9 Ap 30 '48

Business paper advertising tops \$196 million in 1947. A. R. Venezian. *Ind Marketing* 33: 50-2 Je '48

Business paper space placed by advertising agencies, 1947. *Ind Marketing* 33:110+ Je '48

Expenditures of newspaper advertisers in 1947; individual products and services listed alphabetically. *Ptr Ink* 223:53-4+ My 21 '48

Export ads show ten per cent increase. *Ind Marketing* 33:72 Mr '48

How advertising media fared; '47 vs. '46; another big year in '48? *Bsns W* p66+ F 21 '48

How much was spent on direct-mail advertising in 1947? Leonard J. Raymond's Printers' Ink index far too low. E. N. Mayer, Jr. *Ptr Ink* 224:42+ Ag 5 '48

Jan. linage in principal cities. *Ed & Pub* 81: 70-1 Mr 6 '48 [cont. monthly]

January magazine linage. *Ptr Ink* 222:126+ Ja 9 '48 [cont. monthly]

Leading advertisers of 1947 and their expenditures; 835 companies invested \$561,132,380 in magazines, farm papers and network radio. *Ptr Ink* 223:38+ Ap 2 '48

Leading newspaper advertisers in 1947; list of 2,292 companies that spent at least \$5,000 each in 346 daily and Sunday newspapers published in 108 cities. *Ptr Ink* 223:55-6+ My 28 '48

Magazine linage; five semi-annual totals. *Ptr Ink* 224:90+ Jl 30 '48

National advertising index; graphs. *Ptr Ink* 222:85-6, 88 Ja 9 '48 [cont. monthly]

Newspaper linage, 52 cities, 1947. *Ed & Pub* 81:10 Ja 31 '48

Newspapers led all media in advertising gain for '47. *Ed & Pub* 81:5+ Je 12 '48

Railroad advertising 12 per cent greater in 1947. F. Snow. *Il Adv & Sell* 41:39+ Jl '48

Reports of 1947 advertising returned by 1,153 newspapers. *Ed & Pub* 81:126-36 Ap 17 '48

Stockholders, Appeal to

Stockholder relations, an important part of P.R. job. E. J. Dever, Jr. *Il Ptr Ink* 224: 36-8+ Jl 30 '48

We introduced our employees to our stockholders; United aircraft corporation's employees' magazine. R. Minard. *Il Ptr Ink* 222:42-3 Ja 16 '48

Study and teaching

Ad class dreams up a problem for Adam hats; University of Washington's School of Journalism. *Ptr Ink* 221:64 N 7 '47

26 suggestions an audience would make to a speaker; and 15 points that college groups dislike in speeches by ad men. P. W. Burton. *Ptr Ink* 224:37-9 Jl 16 '48

Taxation

Louisiana plan loses. *Ed & Pub* 81:16 Je 19 '48

Timing problem

See Advertising—Schedules

Weather problem

Split-second promotion melts stocks of fans. *Il Sales Management* 61:92+ S 1 '48

Women, Appeal to

Consumer education was the key to the success of home permanents; Toni co. *Il Ptr Ink* 222:40-1 Ja 16 '48

Ipana ads show women's reading habits. M. Wiseman. *Il Adv & Sell* 41:48+ My '48

Making advertisements for newspapers. M. Wiseman. *Adv & Sell* 40:54+ N '47

Speaking for women. Mrs R. Clapper. *Ptr Ink* 225:256 O 29 '48

This campaign proves women want facts in advertising; Flexnit girdles. M. Adams. *Il Ptr Ink* 224:60+ Ag 20 '48

Youth, Appeal to

Movie contests used to bring in teenagers. *Ed & Pub* 81:18 Mr 27 '48

Brazil

Advertising in Brazil is estimated at 750,000,000 cruzeiros. *For Comm W* 33:29 N 8 '48

Radio passing publications as medium in Brazil, trade publisher reports. *Ptr Ink* 222: 108 Ja 16 '48

Canada

Advertising expenditures increase in 1946. *For Comm W* 29:13-14 N 15 '47

Many U.S. ad agencies now active in Canada. *Ed & Pub* 81:16 Jl 24 '48

Monthly audit made on linage in Canada. J. Montagnes. *Ed & Pub* 81:22 Ag 7 '48

1947 and 1946 advertising volume for Canadian business publications. *Ind Marketing* 33:110 Ja '48

Czechoslovakia

Czechs decree rigid control of advertising. *Ed & Pub* 81:22 Je 26 '48

Europe

American overseas distributors need help. R. Murray. *Adv & Sell* 41:58+ My '48

France

Advertising in France only five per cent of 1938. *Ed & Pub* 81:18 F 7 '48

Great Britain

Britain's ads reflect economic situation. J. L. Love. *Il Ed & Pub* 81:12 Ag 28 '48

British advertising changes under impact of new conditions. M. A. Colebrook. *For Comm W* 29:8+ D 6 '47

Control of advertisements. *Economist* 155: 179 Jl 31 '48

Latin America

Santa Claus doesn't mean Christmas in Latin America! Chicago printer prepares effective, printed matter. *Il Inland Ptr* 120: 57 Ja '48

Mexico

Restrictions in Mexico. B. Galbraith. *Adv & Sell* 41:101 Ja '48

See also

Radio advertising—
Mexico

Philippine Islands

Philippines; how promising as a market for U.S. goods? E. Gidlow. *Sales Management* 61:108+ S 1 '48

Sweden

National and retail-trade advertising in Sweden. *For Comm W* 30:32 Mr 13 '48

ADVERTISING, Association

Annual advertising awards; association advertising. *Il Adv & Sell* 41:25-7 Mr '48

Antitrust suit used for promotion by Douglas fir plywood assn. *Bsns W* p28 Mr 27 '48

Boost for bread; millers map publicity campaign. *Bsns W* p46+ F 28 '48

How a misunderstood industry is telling the public the facts; Bituminous coal institute. R. C. Mulligan. *Il Ptr Ink* 222:36-7 Mr 26 '48

Industry changes pace to meet growing competition; Tile council of America uses modern sales promotion, advertising and merchandising techniques. *Il Ptr Ink* 224:35 S 10 '48

Million dollars for oranges. *Sales Management* 59:56 D 15 '47

19 points to consider in association advertising. H. E. Green. *Il Ptr Ink* 224:32-5 S 24 '48

Post-war headache cleared by industry ad venture; Industrial truck statistical assn. campaign becomes fixture. C. J. Swan. *Il Ptr Ink* 222:66+ Mr 19 '48

Radio helps farmers get million a year more income than nonadvertising neighbors; Tillamook County cheese makers use radio, newspapers and magazines. L. F. Thomann. *Ptr Ink* 224:41 Jl 23 '48

Success, or else! marketing of perishable products like South Carolina peaches. J. A. H. Rehm. *Il Adv & Sell* 40:37+ D '47

Team up go-together products for better advertising results; California cling peach board. *Il Ptr Ink* 225:40-1 O 8 '48

Texas medical society prescribes ad doses. J. Stag. *Ed & Pub* 81:22 Je 5 '48

ADVERTISING, Association—Continued

3,000,000 leaflets tell how to brew a cup of tea.
Ptr Ink 221:120 D 12 '47

We correct workers' ideas about management's profits; Stamford-Greenwich manufacturers' council. F. Bowes, Jr. Il Ptr Ink 222:36-7 Ja 23 '48

Test campaigns

Strong local promotion zooms radio sales in Hartford test; campaign sponsored by Radio manufacturers association. A. B. Eicke. Il Sales Management 60:37-9 Ap 15 '48

ADVERTISING, Cooperative

Advantages to advertisers of cooperative films; four or five different companies may sponsor one commercial film, cutting individual cost. T. R. Cox, Jr. Il Adv & Sell 41:36 O '48

General Foods, General Electric, four agencies join magazine publishers in economic campaign. N. Kelne. Ptr Ink 225:93+ O 16 '48

Trade association and retailers finance merchandising program; soft coal cooperative venture. J. N. Stuart. Il Ptr Ink 225:35-7 O 8 '48

27 minds are sold on a single thought; advertising association promoted by St Paul pioneer press. S. Rovner. Ed & Pub 81:14 Ap 10 '48

Manufacturers and dealers

Don't blame the newspaper if cooperative advertising falls flat. Sales Management 60:50+ My 20 '48

Newspapers lose millions in unspent co-op ad allowances; rate differentials, plus dealer skittishness about advertising a specific branded product. J. D. Cathcart. Sales Management 60:86+ Mr 1 '48

Split runs give small dealers better break on co-op advertising; Selective Area plan. L. B. Colby. Il Sales Management 60:82+ F 1 '48

Manufacturers and jobbers

Distributor invests \$25,000 in 21-day sales drive; Sampson co., Chicago appliance and radio distributor. P. Sampson. Il Sales Management 60:98+ My 20 '48

Tie-in advertisements

Team up go-together products for better advertising results; California cling peach board. Il Ptr Ink 225:40-1 O 8 '48

ADVERTISING, Direct

See also

Package inserts

ADVERTISING, Direct mail. See Advertising, Mail

ADVERTISING, Educational

Ads answer pickets in T-H affidavits fight; Oppenheim Collins & co. Il Bsns W p 100 Ag 7 '48

Adventures in advertising; free enterprise, talking to itself; N.A.M. campaign. J. O. Young. Ptr Ink 224:37+ Ag 6 '48

Advertising; powerful instrument for world-trade promotion. G. L. Bell. For Comm W 31:8-9+ My 15 '48

Advertising viewed as U.S. spokesman; 44th annual convention of the Advertising federation of America, Cincinnati, June 14-16. Ed & Pub 81:8+ Je 19 '48

Alcoa Al informs folks in plant town; advertising for promotion of better community and employee relations. Il Ed & Pub 81:14 Mr 13 '48

Annual advertising awards; advertising as a social force. Il Adv & Sell 41:9-15 Mr '48

ABP talks to management; institutional campaign emphasizes mechanized selling. Ind Marketing 32:102+ D '47

Business talks back to the politicians. E. Whitmore. Am Bsns 18:8-9+ F '48

Can advertising prevent World War III? R. E. Smith. Il Ptr Ink 221:32-3+ D 5 '47

Cleveland industrialists advertise in labor paper. I. L. Sperling. Il Ptr Ink 221:31 N 7 '47

Consumer education was the key to the success of home permanents; Toni co. Il Ptr Ink 222:40-1 Ja 16 '48

Critic of system adds raises Detroit tempest. Ed & Pub 81:12 Ja 24 '48

Discard ANA-4A campaign on American system except on plant level. M. Adams. Ptr Ink 222:97+ Ja 16 '48

E. & P. forum of public relations advertising. Il Ed & Pub 81:37-74 F 7 '48

Education on the selling line; Shell indoctrinates buyers in general petroleum know-how. P. R. Willmarth. Il Ind Marketing 33:36-8+ F '48

11 ways we can add action to free enterprise ads. S. D. Cowan, Jr. Il Adv & Sell 41:37-8+ Ag '48

Fighting inflation is everybody's job; General electric company's campaign. J. L. Cooley. Banking 40:50+ F '48

General Foods, General Electric, four agencies join magazine publishers in economic campaign. N. Kelne. Ptr Ink 225:93+ O 15 '48

Gray Harbor's classic community-relations campaign. M. S. Munson. Il Ptr Ink 221:40-1 D 12 '47

How to make non-selling advertising pay off; customer service campaign of Armour chemical division. R. E. Whiting. Il Ind Marketing 33:33-5+ Mr '48

New dimensions in advertising; its use in public, employee and social relations. C. G. Mortimer, Jr. Il Ptr Ink 225:80-1+ O 29 '48

Newspapers to get special system ads in Campaign for better understanding of American economic system. Il Ed & Pub 81:24 O 16 '48

Plan for action helps industry with its public relations; national advertisers and agencies have developed an integrated program. Il Factory Management 106:108-10 O '48

Power company's contest sparks better farming; Arkansas power and light co. D. Markstein. Sales Management 61:131 S 15 '48

Selling the public the need for higher transit rates. D. Markstein. Pub Util 42:419-23 S 23 '48

Start public relations advertising program with company's insiders; employees, stockholders and dealers. J. L. McCaffrey. Il Ptr Ink 224:31-3 Ag 6 '48

System drive must be done on local level; newspaper activity in economic education program. J. W. Egan, Jr. Ed & Pub 81:18 My 29 '48

Tax assessor uses ads to soften up public; Howard W. Schroeder, Sedgwick county, Wichita, Kan. Bsns W p93 F 14 '48

Timken educates workers and public Taft-Hartley law. R. H. Ganly. Ptr Ink 222:60+ Mr 19 '48

Traffic safety campaign to use Mother Goose characters. Il Ptr Ink 222:45 F 20 '48

United America drive started by ad council. Il Ed & Pub 81:26 F 7 '48

U.S. is student body in GE's economics I. Ed & Pub 81:65 My 8 '48

We correct workers' ideas about management's profits; Stamford-Greenwich manufacturers' council. F. Bowes, Jr. Il Ptr Ink 222:36-7 Ja 23 '48

What to do when government says, you can't advertise your product; Canadian brewers and distillers sponsor game conservation and other forms of public service. F. Bell. Il Sales Management 61:37-9 S 1 '48

See also

Advertising, Institutional Political advertising
Advertising, Safety advertising

ADVERTISING, Foreign

Advertising; powerful instrument for world-trade promotion. G. L. Bell. For Comm W 31:8-9+ My 15 '48

Curious foreign customs affect export sales; often necessary to re-style, re-flavor, or repackage products. G. Bijur. Adv & Sell 41:35-6+ Ja '48

Export advertising hits valuable market. R. G. Simmons. Ind Marketing 33:78+ My '48

How to reach your foreign customers; abstract. F. Granger; R. Murray. Ind Marketing 33:78 J1 '48

Prospects for export advertising. D. Dickow. Ind Marketing 33:66-8 F '48

Study indicates domestic papers bring response from overseas. W. L. Sheppard, Jr. Ind Marketing 33:98+ Ag '48

ADVERTISING, Fraudulent

Fitch case; Federal trade commission hearing on Fitch dandruff remover shampoo. A. P. Federline. Soap & San Chem 23:40-1+ N '47

ADVERTISING, Indirect

Sells machines but advertises stockings; Scott & Williams, inc. *il* Ptr Ink 223:44-5 My 21 '48

ADVERTISING, Industrial

Ads are repeated year after year, but total inquiry rate goes steadily up; Coppus small turbines, burners and blowers. R. L. Edsall. *il* Ptr Ink 223:42-3 My 28 '48

Advertise to a handful of industrial prospects? E. B. Badger & sons, potential customers for multi-million dollar plants are few. B. G. Priestley. Sales Management 60:122-3 Je 1 '48

Advertising and promotions designed to help customers; International Nickel products. R. H. Ganly. *il* Ptr Ink 224:34-6 Jl 16 '48

Advertising in a changing economy. D. G. Mitchell. Ind Marketing 33:33+ Jl '48

Armour, J-M. National Lead, Robins take 1948 ABP competition awards. *il* Ind Marketing 33:50-2 My '48

ABP book shows how successful business-paper ads are written. Ptr Ink 223:64 Je 18 '48

Buyers want field facts in industrial copy. J. M. Adle. Ind Marketing 33:38+ O '48

Effectiveness of repeated advertisements. Ind Marketing 32:36-8+ S; 50-1+ O; 56+ N '47

Flexibility keys Carboly's direct mail for distributors. D. G. Baird. Sales Management 61:102+ N 1 '48

Hit-or-miss ads failed, but a consistent campaign clicked; McColpin-Christie rectifier, storage battery (auto) rapid-charging equipment. L. F. Thomann. *il* Ptr Ink 222:48+ F 13 '48

How industrial advertising can help your dealers; Hyster company, Portland, Ore. L. F. Thomann. *il* Ptr Ink 221:38 D 5 '47

How to make non-selling advertising pay off; customer service campaign of Armour chemical division. R. E. Whiting. *il* Ind Marketing 33:33-5+ Mr '48

In industrial advertising, copy comes first, after the idea. J. M. Sifton. *il* Ptr Ink 221:44-5 N 28 '47

Industrial advertiser's mailings make hit with supply house salesmen; supplemented by business-paper and technical publicity campaigns; Simonds abrasive co. D. S. Saurman. *il* Ptr Ink 222:40-3 Ja 30 '48

Industrial advertisers use papers abroad. S. Rovner. Ed & Pub 81:14 Ja 3 '48

Industrial advertising has come of age. W. A. Marsteller. *il* Ptr Ink 225:78-9+ O 29 '48

Industrial manufacturers expect record sales, full fledged buyers' markets during 1948. H. Burnett. Ind Marketing 33:33-5 Ja '48

Industrial taps new markets via mailings; Kramer & Kramer custom fabrication service. *il* Sales Management 60:46 F 1 '48

IRO business paper advertising shoots for specific sales objectives; 32-page color insert in *Electronics* for International resistance co. T. Armstrong. *il* Sales Management 60:115-16+ Ja 15 '48

Little industrials are important advertisers; need for education by agencies. H. D. McKinney. Ind Marketing 33:33+ Ap '48

Look to the editor, Mr Copy writer. L. Gibson. *il* Ind Marketing 33:54+ O '48

Marketing audit and the ad budget; method of long-range market planning and check list for industrial advertiser. D. Alderson. Ind Marketing 32:50+ D '47

Production shortcuts for diverse market advertising. *il* Ind Marketing 33:36-7+ Mr '48

Selling mass handling to industry; closed sales for Towmotor. H. Burnett. *il* Ind Marketing 33:39-40+ S '48

Tie-in with salesmen made this industrial advertising campaign a success; sells rope to consumers and industry; Plymouth cordage co. W. A. Scherff. *il* Ptr Ink 224:34-6 Ag 6 '48

21 guide posts to good business-paper advertising; review of entries in ABP contest. C. B. Larrabee. *il* Ptr Ink 223:33-7+ My 7 '48

Using newspaper advertising to spot industrial buyers. W. Ferdinand. *il* Ind Marketing 33:46+ Ag '48

What the purchasing agent looks for in industrial advertising. W. E. Cummin. Ind Marketing 33:38+ Je '48

Where are the upstarts in industrial advertising? every phase of advertising needs new ideas. H. G. Sawyer. *il* Ptr Ink 221:31-3+ N 21 '47

Why ad men and engineers differ in their industrial advertising viewpoints. L. R. Ogilvie. Ind Marketing 32:50+ N '47

See also
Advertising—Con- Electric trucks, In-
tractors. Appeal to dustrial—Advertis-
Advertising mediums ing
—Trade journals Machine tool indus-
Catalogs try—Advertising
also National industrial advertisers asso-
ciation

Exhibitions

Pittsburgh chapter, NIAA, to sponsor industrial advertising show. Ind Marketing 33:114+ Ja '48

Inquiries

Keep inquiries hot. M. M. Blake. Ind Marketing 33:39-40 Je '48

ADVERTISING, Institutional

Ads can and must sell System. W. I. Nunn. *il* Ed & Pub 81:7 Jl 24 '48

Ads take plant community behind the scenes, create good-will; Bristol-Myers' local newspaper campaign. M. Davis. *il* Ptr Ink 223:34-6+ Ap 30 '48

Advertise to a handful of industrial prospects? E. B. Badger & sons, potential customers for multi-million dollar plants are few. B. G. Priestley. Sales Management 60:122-3 Je 1 '48

Advertising needed to find more investors for business. C. Robbins. *il* Ptr Ink 225:32-5+ O 22 '48

Container Corporation's design for business. H. Burnett. *il* Ind Marketing 33:34-9, 122 Ap '48

Esso standard oil co. to expand its institutional advertising. *il* Nat Pet N 40:39-40 F 4 '48

Good works won't speak for themselves, Esso finds; ad test proves value of publicizing record in employe relations. *il* Ed & Pub 81:69 F 7 '48

Key to public relations; let folks know you so that they can like you; Weyerhaeuser timber co. reverses policy of keeping silent. L. F. Thomann. *il* Ptr Ink 225:29-31 O 8 '48

Lost product maker seeks name identity through advertising; Borg-Warner, makers of parts for 1,000 manufacturers. C. S. Davis. *il* Sales Management 61:100+ Ag 15 '48

Me and my brother. R. C. Hopcraft. Adv & Sell 41:44 O '48

Serve's public relations program proves to be sound. G. A. Brandenburg. Ed & Pub 81:32 My 8 '48

What is prestige? Aesop Glim. Ptr Ink 221:83 D 5 '47

What to do when government says, you can't advertise your product; Canadian brewers and distillers sponsor game conservation and other forms of public service. F. Bell. *il* Sales Management 61:37-9 S 1 '48

Your company, a good neighbor; abstract. Management R 37:8-9 Ja '48

See also
Anniversaries, Com-
pany—Advertising

ADVERTISING, Legal. See Legal advertising

ADVERTISING, Mail

Case of Pee-Jay, the talkative rooster; American poultry journal's waggish mailing pieces. L. Fitzmaurice. *il* Sales Management 60:74+ F 15 '48

Clever direct-mail piece helps this dealer; Oppenheimer plumbing & heating co. *il* Dom Eng 172:113 O '48

Come, deck the halls with boughs of holly! Kirk's gift package of Christmas greens. P. R. Kirk. *il* Sales Management 59:48+ N 20 '47

Direct mail advertising association convention, Philadelphia, Sept. 29-Oct. 1. Sales Management 61:100-2+ O 15 '48

ADVERTISING, Mail—Continued

Direct mail builds six-figure business in one year. B. L. Gough. *il* Ptr Ink 222:39 Mr 5 '48

Direct mail for dealers. G. Samkofsky. Radio N 39:96+ Mr '48

Direct mail, Orphan Annie of department store promotion. E. B. Weiss. *il* Ptr Ink 222:45-6+ Mr 19 '48

Direct mail pays off for dealers; abstract. H. O. Krass. Nat Pet N 39:30 D 3 '47

Direct mail with a real hook creates sales; fire extinguishers for yachts. S. Grant. *il* Ptr Ink 224:51-2 Ag 20 '48

Dozen points to remember; check list for all promotion, especially for mail order. C. Dahl. *il* Ptr Ink 221:38-9 N 7 '47

Flexibility keys Carboly's direct mail for distributors. D. G. Baird. Sales Management 61:102+ N 1 '48

Ford blankets Nation with three-way direct mail blizzard. D. G. Baird. *il* Sales Management 59:86+ N 10 '47

Gadgets gain attention for direct mail, but sometimes they backfire; five errors. E. N. Mayer, Jr. *il* Ptr Ink 222:34-5 Ja 9 '48

Gimmick mailing demonstrates product's sales points. *il* Ptr Ink 224:60 Ag 27 '48

How department stores are using direct-mail, telephone and outside selling. E. B. Weiss. *il* Ptr Ink 221:38-9+ D 26 '47

How much was spent on direct-mail advertising in 1947? Leonard J. Raymond's Printers' Ink index far too low. E. N. Mayer, Jr. *il* Ptr Ink 224:42+ Ag 6 '48

How Philco uses direct mail to sign new dealers. *il* Ptr Ink 221:46 N 14 '47

How we made a small budget do a big advertising job; Autocall company. B. Skelly. *il* Ptr Ink 224:44-5 JI 9 '48

Industrial taps new markets via mailings; Kramer & Kramer custom fabrication service. *il* Sales Management 60:46 F 1 '48

Linen association mail experiment shows differences in delivery time. *Ptr Ink* 223:104 Ap 9 '48

Millions of mailings; are they read? D. G. Baird. *il* Sales Management 60:87-8 Ap 1 '48

Millions of mailings back Chevrolet truck salesmen. *il* Sales Management 60:98+ F 1 '48

Motor maker's gazette; everybody has one; magazines sponsored by auto manufacturers, usually distributed with the dealer's imprint. D. G. Baird. *il* Sales Management 59:115-18 D 1 '47

122 best direct-mail campaigns cited by DMAA. *Ptr Ink* 225:96 O 1 '48

Prove results, and improve sales, Warner & Swasey case history copy approach. J. E. Craig. *il* Ind Marketing 32:48-9+ N '47

Salesman's corner; Ahrendt, inc. F. Rundell. Inland Ptr 121:68-70 Je '48

Simple mailers develop hot leads for lathe-maker. B. N. Brockman. Sales Management 61:96-7 JI 15 '48

Simple ways to make your efforts in direct advertising more effective. C. Phillips. Inland Ptr 120:48 F '48

Utility plus humor means sales! case history of Copperweld calendar pad campaign. *il* Ind Marketing 32:60+ D '47

What! sell a million dollar product by mail? Boeing airplane co. F. B. Collins. *il* Sales Management 60:100+ Ja 15 '48

Why dealers foot the bill for Chevrolet's millions of mailings. *il* Sales Management 60:141+ Mr 15 '48

Wise buyers buy by mail; Sauereisen's direct mail campaign. C. F. Sauereisen. *il* Ind Marketing 33:35+ F '48

See also

Calendars

Direct mail advertising association

Mailing lists

Cost

Mail-order mathematics; determining the break-even point. B. Gould. *Ptr Ink* 222:46-7 F 20 '48

Folders

For better sales results follow up your follow-up; New Britain machine co. J. T. Vinbury. *il* Ptr Ink 225:23-5 O 22 '48

Postal cards

Postal cards build air travel volume. C. J. Swan. *il* Ptr Ink 221:48+ N 14 '47

Printing

Clever die cutting adds interest and effectiveness to direct mail pieces. G. J. Church. *il* diags Inland Ptr 121:60-1 My '48

Selecting the printing process for your direct mail. E. N. Mayer, Jr. *Ptr Ink* 223:44+ Je 11 '48

Ten ways to reduce production costs. Ind Marketing 33:48+ O '48

Stuffers

Varied uses found for bill enclosures; Brooklyn union gas co. uses bill stuffers to send recipes and appliance news to customers. H. A. Praeger. *il* Adv & Sell 41:90+ O '48

ADVERTISING, National

Advertisers must manufacture customers as well as goods; 14 factors that demand greater advertising investments; problem of 400 elite retailers. E. B. Weiss. *il* Ptr Ink 222:60-1+ O 29 '48

Do girls and boys have brand preferences? survey in 40 centers. E. F. Howard. Adv & Sell 41:46+ F '48

Good news, and bad, about sales; how panel studies reveal it; analyses of brand loyalty, switches and deals. V. D. Reed. Sales Management 60:58+ Mr 15 '48

How we check national advertising, market by market against sales; Wildroot co. allots advertising dollars in national and local media. J. W. Maurer. *il* Ptr Ink 221:29-31 D 5 '47

Importance of the brand to the consumer. T. H. Beck. Am Pet Inst Proc 27(2):19-21 '47

Making advertisements for newspapers; faults of brand advertisements. M. Wiseman. *il* Adv & Sell 40:54+ D '47

New inventory policies of department stores favor advertised brands. E. B. Weiss. *Ptr Ink* 222:50+ F 13 '48

New packages aid shift to national advertising; Rexall re-labeled 5,000 drug items. C. J. Swan. *il* Ptr Ink 223:32-3+ Je 25 '48

One-man factory becomes national advertiser; hoarding of advertising fund makes magazine campaign possible for Main line trailer coach co. *il* Ptr Ink 221:47 N 14 '47

Statistics enhance Greenfield brand names project success. Ed & Pub 81:59 Ja 10 '48

Ten-market comparison shows use, position of 1,500 advertised brands; Milwaukee Journal analysis, 1947. H. E. Green. *il* Ptr Ink 221:43-5 N 21 '47

Tests prove branded product outsells unbranded by 15 to 1; the Simmons company and Lit brothers, Philadelphia, experiment. J. W. Hubbell. *il* Ptr Ink 221:33-5 N 14 '47

Town plugs national brands; Greenfield, Mass. merchants, Chamber of commerce join with Brand names foundation in 17-day campaign. *il* Bsns W p42+ N 1 '47

What nation-wide brand name identity has done for Botany. C. F. H. Johnson, Jr. *il* Sales Management 61:88+ O 1 '48

See also

Brand names foundation

tion

Local tie-in

Closer sales-advertising tieup augurs 25 per cent gain for Sherwin-Williams; calendar of events. C. M. Lemperly. *il* Sales Management 61:42-3 Ag 1 '48

Council starts new plan to localize ads. Ed & Pub 81:36 JI 31 '48

How to get retailers to tie in with national advertising. J. C. Cumming. Sales Management 60:131-2+ Mr 15 '48

Nailing buyers; to locate your nearest dealer, call Western Union. Bsns W p78 JI 24 '48

Phone plan for national advertisers debuts March 1. *Ptr Ink* 221:86 D 19 '47

Van Heusen approach caps a record for dealer tie-in ads; Phillip-Jones corporation's program for co-ordinating national advertising and point-of-sale promotion. *il* Sales Management 61:48+ O 1 '48

ADVERTISING, Outdoor

Motorola maintains 5,000 roadway signs in 47 states. *il* Ptr Ink 224:72 Ag 20 '48

ADVERTISING, Outdoor—Continued

Outdoor industry needs cost data system. D. Bruner. *Ptr Ink* 221:96 N 7 '47
Simple portfolio wools prospects and public for Foster & Kleiser. C. Wright. *Il Sales Management* 61:125+ O 15 '48
Spot posting; a new way to place national outdoor advertising. C. Coggins. *Il Ptr Ink* 223:40-1 My 28 '48

See also

Electric signs

Testing

Testing effectiveness of outdoor advertising. J. Bundy. *Adv & Sell* 41:50 S '48

ADVERTISING, Point-of-sale

Capturing customers at point-of-sale. *Il Mod Ind* 15:93-4+ Je '48

Chain stores expanding use of audio devices for point-of-sale advertising at local level. W. H. Davis. *Ptr Ink* 224:75 Ag 27 '48

Display installation. N. F. McKean. *Il Mod Packaging* 22:134-6 O '48

Effect of store modernization upon display needs; what retailers say about manufacturer-supplied materials. *Il Ptr Ink* 223:31-5+ Mr 12 '48

Eight vital factors in effective point-of-sale promotion. F. L. McKibbin. *Il Sales Management* 61:52-4+ N 1 '48

How integration pays off in advertising; dress all your advertising material in one way. R. C. Shaw. *Il Ptr Ink* 221:40-1 D 26 '47

How Squirt uses point-of-purchase to get into the public eye. L. F. Thomann. *Il Ptr Ink* 224:28-9 S 3 '48

Tests show window displays sell more merchandise. J. W. Maurer. *Il Adv & Sell* 41:39-40+ S '48

What's new in permanent displays? *Il Sales Management* 60:42-3 Ap 1 '48

See also

Radio advertising—

Point-of-sale

Tags

ADVERTISING, Political. *See* Political advertising

ADVERTISING, Soliciting of

Advertiser tells media representatives whom to see about what; Monsanto chemical co. booklet. *Il Ptr Ink* 223:30 Ap 30 '48

Agencies want usable media data; not buttons, balloons and badges. L. D. Farnath. *Ptr Ink* 224:36-8 J1 9 '48

Care and handling of space salesmen; planned interviews, saves money, time, and hard feelings. H. T. Hirst. *Ind Marketing* 32:47+ D '47

Footprints arouse prospect's interest; shoe advertisers for *The American magazine*. *Sales Management* 61:103 J1 15 '48

4A's coast survey uncovers agency-media gripes. L. F. Thomann. *Ptr Ink* 225:95 O 15 '48

How small dailies can sell advertising. W. S. Waddell. *Ed & Pub* 81:18+ J1 17 '48

How to make a bonus behave like a bonus; newspaper advertising salesmen. S. Rovner. *Ed & Pub* 81:16 Ja 24 '48

Media buyers want fewer, and better, presentations. W. P. Rankin and R. M. Howland. *Ptr Ink* 224:47 S 17 '48

Media man's viewpoint. D. B. Arnold. *Adv & Sell* 41:84+ S '48

Opposition's business enters into bonus base. S. Rovner. *Ed & Pub* 81:12 O 2 '48

Prestige of printing salesman compared with that of space salesman. F. Rundell. *Inland Ptr* 120:56-7 F '48

Small-town gal sells national advertising. J. L. Collings. *Ed & Pub* 81:10 O 23 '48

See also

Advertising mediums

—Advertising

ADVERTISING, Trade union

Hatter's group runs ad gamut with union label. *Ptr Ink* 222:76 Ja 2 '48

ADVERTISING agencies

Account executive; man or myth? M. Wiseman. *Adv & Sell* 41:44+ S '48

Account piracy cut by new British solicitation rules. *Ptr Ink* 223:106 My 14 '48

Ad agency becomes a retailer to get facts at retail level. S. Krupnick. *Il Ptr Ink* 223:48+ Ap 9 '48

Adventures in advertising. J. O. Young. *Il Ptr Ink* 222:27-30+ Mr 5 '47; 34-7 Mr 19; 223:32-4+ Ap 2; 41-2+ Ap 16; 40-1+ Ap 30; 42-3+ My 14; 44-5+ My 28; 40-1+ Je 11; 41+ Je 25; 224:46+ J1 9; 31-3 J1 23; 37+ Ag 6; 42+ Ag 20; 38+ S 3; 48+ S 17; 225:42+ O 1 '48
Agency by-lines ads under new policy; Wolff ads will be signed by agency. S. Rovner. *Ed & Pub* 81:12 S 25 '48
Before you estimate, hesitate! W. S. Roberts. *Ptr Ink* 222:54 F 6 '48
Business paper space placed by advertising agencies, 1947. *Ind Marketing* 33:110+ Je '48

Day, Duke & Tarleton, long without an account, tells philosophy that won new Lever product. E. Tolk. *Ptr Ink* 223:100 Ap 23 '48

James Thomas Chirurg marks its tenth year in detailed annual report. B. Tolk. *Ptr Ink* 222:94 Mr 5 '48

Many U.S. ad agencies now active in Canada. *Ed & Pub* 81:16 J1 24 '48

Picture research in the advertising agency. R. Allen. *Adv & Sell* 41:78+ Ag '48

Prestige of printing salesman compared with that of space salesman. F. Rundell. *Inland Ptr* 120:56-7 F '48

Story of Mrs Mishinsky. J. A. H. Rehm. *Adv & Sell* 41:40 S '48

What every account executive should know; creative planner for both agency and client. E. B. West. *Adv & Sell* 41:64+ O '48

Why agency partnerships are so short-lived. H. Byer. *Adv & Sell* 41:50 O '48

J. & R. started in 1923 on mere shoestring. Y. L. Collings. *Ed & Pub* 81:9+ My 22 '48

See also

First advertising agency group

Shaw, J. W., advertising agency

Advertising

Annual agency survey. M. O'Dea. *Ptr Ink* 222:92 F 20 '48

Form letters don't always pay. J. A. H. Rehm. *Adv & Sell* 41:36 Je '48

Art departments

Agency art department run at a profit. W. A. Lee. *Adv & Sell* 40:50+ N '47

Art gallery in an advertising agency; Newell-Emmett co. E. F. Molyneux. *Il Adv & Sell* 41:80 O '48

How N. W. Ayer files and finds its artwork; keeps track of 20,000 paintings, drawings and photos. M. Murdoch. *Il Adv & Sell* 41:79-80 J1 '48

Taking art department inventory. L. Rossin. *Adv & Sell* 41:80-2 S '48

Client relations

Aesop Glim's clinic; your client's clients. *Ptr Ink* 222:66 Ja 30 '48

Agencies hit by slow payments from clients, tighten fiscal policies and add credit insurance. H. E. Green and B. Tolk. *Ptr Ink* 221:87+ D 5 '47

Agency-arranged forum for small clients results in profitable exchange of ideas. B. Lindeke. *Ptr Ink* 222:41 F 27 '48

But the client didn't like the copy; five ways for advertisers and their agencies to join for more fruitful relationship. G. Carson. *Sales Management* 59:78+ D 1 '47

Cure for blue-pencilitis. J. A. H. Rehm. *Adv & Sell* 41:32 O '48

Does it pay to praise your advertising agency? F. A. Kummer. *Adv & Sell* 41:84 O '48

Every client an expert. J. M. Kesslinger. *Adv & Sell* 41:55 O '48

For best results the ad manager and agency should be a team. G. B. Perkins. *Ptr Ink* 224:31-2 J1 9 '48

Four-A members told clients expect more. *Ed & Pub* 81:42 O 16 '48

How to inspire new thinking by your present agency. G. B. Perkins. *Ptr Ink* 223:33+ My 28 '48

How to treat clients. Aesop Glim. *Ptr Ink* 222:69 Ja 2 '48

Is the agency brain dollar-bound? H. Pesin. *Ind Marketing* 33:104 Je '48

Red and the bull-headed client. J. A. H. Rehm. *Adv & Sell* 41:120 Mr '48

ADVERTISING agencies—Client relations—*Continued*

Smooth the workings of your agency-client machinery. W. W. McGregor. *Ind Marketing* 33:44+ Ag '48

Stranger at the gates; advertisers not cooperative. H. Byer. *Ptr Ink* 222:138 Ja 9 '48

Twenty suggestions for better client-agency relationships. R. S. Durstine. *Adv & Sell* 41:67-8 Jl '48

Yes-men breed tough clients. J. A. H. Rehm. *Adv & Sell* 41:36 F '48

You'll get better service if you help your agency. G. C. McNutt. *Ptr Ink* 222:31 Ja 31 '48

See also

Advertising agencies

—Credit problems

Commissions

Canadian agencies' plea for commission increase to 17 per cent heard at ad convention in Toronto. *Ptr Ink* 221:95 N 7 '47

How costing can help keep clients happy; agency sales manual. L. W. Ellis. *Adv & Sell* 40:62+ N '47

Services performed by agencies and charges made for them. I. Rubel and N. Fields. *Ptr Ink* 223:37-9 Je 11 '48

Should agencies produce more than copy for clients? S. D. Cowan, Jr. *Sales Management* 61:98+ S 1 '48

Costs

How costing can help keep clients happy; agency sales manual. L. W. Ellis. *Adv & Sell* 40:62+ N '47

Credit problems

Advertising agency credits and collections. I. W. Rubel. *Ptr Ink* 225:43-4+ N 5 '48

Employees

Analyses and comparisons of advertising agency salary costs and personnel. I. Rubel and N. Fields. *Ptr Ink* 223:37-40 My 21 '48

Five things wrong with agency personnel selection procedures. K. Whitney. *il Ptr Ink* 223:32-3+ Ap 30 '48

Happy Maxon agency is really no myth. G. W. Parker. *Ed & Pub* 81:16 My 1 '48

Personnel stability through income sharing may lead to agency economies. Central 4-A's find. *Ptr Ink* 221:97 N 28 '47

Stock and profit-sharing plans for agency executives. J. K. Lasser. *Adv & Sell* 41:73-5 Jl '48

Welcome to Young & Rubicam. *il Adv & Sell* 41:56-7 O '48

Exhibits

Agencies and clients cash in on lobby displays of products and campaigns. *il Ptr Ink* 225:94 O 15 '48

Fiction

In defense of Evan Llewellyn Evans; copywriter explains why he approves of the character typified in The hucksters. F. G. Comstock. *Ind Marketing* 32:35+ N '47

Finance

Advertising agency income, expense and net profit comparisons; survey of 315 advertising agencies. I. Rubel and N. Fields. *Ptr Ink* 223:32-5 My 14 '48

Analyses and comparisons of advertising agency salary costs and personnel. I. Rubel and N. Fields. *Ptr Ink* 223:37-40 My 21 '48

Analyses and comparisons of the various agency expenses; how agencies allocate expenses in 14 different categories. I. Rubel and N. Fields. *Ptr Ink* 223:31-5 Je 4 '48

How agencies can use data developed on costs and operations. I. Rubel and N. Fields. *Ptr Ink* 223:31-3+ Je 18 '48

Some highlights on agency volume and its relation to profits, commissions and fees. I. Rubel and N. Fields. *Ptr Ink* 223:30+ My 7 '48

See also

Advertising agencies

—Credit problems

Insurance requirements

Advantages of credit insurance to the advertising agency. W. H. Kinsall. *Ptr Ink* 222:49 F 13 '48

Libraries

Agency library can be a creative weapon.

R. Allen. *il Ptr Ink* 224:60+ S 10 '48

Picture research in the advertising agency.

R. Allen. *Adv & Sell* 41:78+ Ag '48

Management

Advice to the aspiring copy writer; helping them to help themselves helps the copy chief. C. deBruler. *Ptr Ink* 221:40 D 19 '47

How to get the most out of copy writers.

F. A. Kummer. *Ptr Ink* 221:42-3 N 28 '47

How you can chart your agency sales plan.

L. W. Ellis. *Adv & Sell* 41:48 F '48

Secrets of a happy marriage between salesmen and advertising. F. B. Clarke. *Sales Management* 60:91-2+ F 1 '48

Small-city agencies try exclusive buying or set up shops to solve ad production woes.

B. Tolk. *Ptr Ink* 224:94 Ag 6 '48

Take television out of the television department.

L. Valenstein. *Ptr Ink* 225:40-1 O 1 '48

Tatham-Laird agency team scores with newspaper ads. G. A. Brandenburg. *Ed & Pub* 81:5-6 Jl 10 '48

What will happen to the small agency in 1949?

W. H. Long. *Adv & Sell* 41:53-5 O '48

Medium relations

Another step forward in media-agency relations. B. Duffy. *Adv & Sell* 41:86+ Ap '48

4A's coast survey uncovers agency-media gripes. L. F. Thomann. *Ptr Ink* 225:95 O 15 '48

How business papers regard smaller agencies. J. J. Whelan. *Adv & Sell* 41:41+ My '48

Offices

Ad agency design; San Francisco branch of J. Walter Thompson. *il plan Arch Forum* 88:86-7 F '48

Federal's new modern offices. *il Adv & Sell* 41:72a-72d Ag '48

How to plan an agency office for functional efficiency; J. Walter Thompson's San Francisco office. L. F. Thomann. *il Ptr Ink* 223:38-9 My 28 '48

Robert W. Orr & associates' new offices; illustrations. *Adv & Sell* 41:61-3 O '48

Public relations service

How do advertising agencies treat public relations? survey of 250 agencies. A. Barnard. *Ptr Ink* 224:32-3+ Jl 30 '48

Records

Traffic system for small agencies. R. Holley. *il Ptr Ink* 223:40-3 Je 18 '48

Selection

Dan forms service from his diaries; brings advertiser and agency together. J. L. Collings. *Ed & Pub* 81:14 Jl 24 '48

Service

Agencies should sell goods to consumers not fancy services to clients. W. Weir. *il Ptr Ink* 224:25-6 Jl 2 '48

Agency service will have to be intensive rather than extensive. L. Burnett. *Ptr Ink* 225:64-5 O 29 '48

Agency starts ad position rating system. *Ed & Pub* 81:30 F 21 '48

Do little industrialists get their money's worth? two viewpoints on agency service. N. Landy; J. H. Adams. *Ind Marketing* 33:108 Je '48

How much service does your agency give?

L. W. Ellis. *Adv & Sell* 41:125+ Mf '48

How to make and use agency service charts. L. W. Ellis. *Adv & Sell* 41:50, 88+ My '48

JWT's panel shows how clients are doing.

S. Rovner. *Ed & Pub* 81:14 My 8 '48

Services performed by agencies and charges made for them. I. Rubel and N. Fields. *Ptr Ink* 223:37-9 Je 11 '48

Should agencies produce more than copy for clients? S. D. Cowan, Jr. *Sales Management* 61:98+ S 1 '48

See also

Advertising agencies

—Public relations service

ADVERTISING agencies—Continued**Space buyers**

Care and handling of space salesmen; planned interviews, saves money, time, and hard feelings. H. T. Hirst. *Ind Marketing* 32:47+ D '47

Media, agency, advertiser collaboration campaign proposed. H. A. Wilk. *Ind Marketing* 33:134+ Mr '48

Media man's viewpoint. D. B. Arnold. *Adv & Sell* 41:84+ S '48

Publisher gives advice to agency partners. C. Watson. *Ed & Pub* 81:16 JI 31 '48

Wise use of media urged by Pearson. G. A. Brandenburg. *Ed & Pub* 81:18 JI 17 '48

Taxation

Maybe your agency should be a partnership. J. K. Lasser. *Adv & Sell* 41:69-70 S '48

Television departments

How to organize your agency for television accounts. W. H. Case. *Il Ptr Ink* 223:41-3+ My 21 '48

ADVERTISING agencies, American association of. See American association of advertising agencies

ADVERTISING allowances

Advertising allowances under Robinson-Patman act. A. W. Gray. *Adv & Sell* 41:50 JI '48

How to get advertising value from the advertising allowance. E. B. Weiss. *Ptr Ink* 223:40+ Ap 16 '48

See also
Advertising, Co-operative—Manufacturers and dealers

ADVERTISING and salesmen

Advertising and the sales engineer. B. Lester. *Heat & Ven* 45:116 O '48

Dealer salesmen appraise faults and virtues of their bosses; member firms of Grocery manufacturers of America cooperate in survey. P. Salisbury. *Sales Management* 61:41-4 JI 15 '48

Direct mail with a real hook creates sales; fire extinguishers for yachts. S. Grant. *Il Ptr Ink* 224:51-2 Ag 20 '48

Five ways sales correspondence can help you sell your advertising program. C. Rondomanski. *Ptr Ink* 221:63 D 26 '47

How business paper ads unearth leads for Turco. D. T. Buist. *Il Sales Management* 61:110-11 N 1 '48

How Monsanto keeps salesmen abreast of advertising activities; monthly advertising sample case. H. A. Marple. *Il Ptr Ink* 224:42-3 S 10 '48

How to coordinate advertising and sales. H. Simmons. *Ind Marketing* 33:44, 124+ O '48

Industrial advertiser's mailings make hit with supply house salesmen; supplemented by business-paper and technical publicity campaigns; Simonds abrasive co. D. S. Saurman. *Il Ptr Ink* 222:40-3 Ja 30 '48

Letters tell young salesmen the basic facts of advertising; inducing dealers to run co-operative advertising. J. Siegrist. *Ptr Ink* 224:36-7 S 17 '48

Mechanized selling paves way to 'dozer market for LeTourneau. A. Andrews and E. E. Weyeneth. *Il map Ind Marketing* 33:42-3+ JI '48

Millions of mailings back Chevrolet truck salesmen. *Il Sales Management* 60:98+ F 1 '48

Playlet is medium for sales education; advertising agency's day at F. Jacobson & sons sales convention. C. J. Swan. *Il Ptr Ink* 224:33-5 JI 9 '48

Secrets of a happy marriage between salesmen and advertising. F. B. Clarke. *Sales Management* 60:91-2+ F 1 '48

Visual-vocal presentation explains ads to salesmen; 35-minute script, coordinated with slides introduces Norton 32 Alundum. C. J. Swan. *Il Ptr Ink* 224:36-7 S 24 '48

Wise buyers buy by mail; Sauereisen's direct mail campaign. C. F. Sauereisen. *Il Ind Marketing* 33:35+ F '48

ADVERTISING appropriations

Accountant on advertising reserves. *Ptr Ink* 222:61-2 Mr 5 '48

Agency economist cites danger in over-caution. G. A. Brandenburg. *Ed & Pub* 81:24+ JI 3 '48

ANA and NYU co-sponsor appropriations study to help determine logical advertising costs. H. E. Green. *Ptr Ink* 223:109+ Ap 16 '48

ANA undertakes three research projects vital to industrial advertisers. *Ind Marketing* 33:64 My '48

Better guides asked for ad budgeting. F. R. Pierce. *Ed & Pub* 81:6 Ja 31 '48

Budgets; abstract. R. J. Keith. *Adv & Sell* 40:66+ N '47

But we haven't a million to spend for advertising! identifying product by slogan, unusual tag, trademark, etc. S. L. Kawaller. *Sales Management* 59:66+ N 10 '47

Expenditures of newspaper advertisers in 1947; individual products and services listed alphabetically. *Ptr Ink* 223:53-4+ My 21 '48

Extra dividends from your industrial advertising dollars; Hyster trucks, tractors, cranes. D. Johnson. *Il Sales Management* 60:74+ Ja 15 '48

'48 advertising budgets, calculated on '39 dollar, trail booming sales figures. L. R. Walter. *Ptr Ink* 225:32 O 8 '48

How one company budgets its promotion. S. Rovner. *Ed & Pub* 81:12 O 23 '48

How the budget survey helps you; NIAA plans case history analysis. B. S. Chapple, jr. *Ind Marketing* 33:47+ JI '48

How we check national advertising, market by market against sales; Wildroot co. allots advertising dollars in national and local media. J. W. Maurer. *Il Ptr Ink* 221:29-31 D 5 '47

How we made a small budget do a big advertising job; Autocall company. B. Skelly. *Il Ptr Ink* 224:44-5 JI 9 '48

Leading advertisers of 1947 and their expenditures; 835 companies invested \$561,132,350 in magazines, farm papers and network radio. *Ptr Ink* 223:38+ Ap 2 '48

Marketing audit and the ad budget; method of long-range market planning and check list for industrial advertiser. W. Alderson. *Ind Marketing* 32:50+ D '47

NICB survey predicts rising ad expenditure. S. Rovner. *Ed & Pub* 81:14 F 14 '48

Presenting the advertising budget; 12 pointers for expediting management's approval, especially of industrial appropriations. R. S. Hayes. *Ptr Ink* 223:33-4+ Ap 16 '48

Sears spent \$19,134,400 in newspapers during '47. G. A. Brandenburg. *Ed & Pub* 81:7 S 11 '48

U.S. seen approving reserve advertising funds; abstract. W. A. Sutherland. *Ptr Ink* 221:78 D 26 '47

ADVERTISING art

Agency chief advises specific idea in art. D. Francisco. *Ed & Pub* 81:32 Je 5 '48

Believable illustration attracts more readers; advertising and editorial art should portray real and compelling human emotions. R. S. Chenault. *Il Adv & Sell* 41:38+ Je '48

Does fine art pay? factual analysis of objectives and methods. F. Baker and G. Hin-nus. *Il Ptr Ink* 222:30-1 Ja 2 '48

Hellers in art; 3d annual La Tausca competition. M. O'Dea. *Ptr Ink* 222:90 F 6 '48

Influence of modern art on design and typography. H. Zamboni. *Il Adv & Sell* 41:39+ F '48

16th annual exhibition of Chicago art directors. *Il Ptr Ink* 223:40-1 My 7 '48

See also

Advertisements, Pic- Advertising agencies
torial —Art departments
Posters

ADVERTISING artists

Artist in advertising. S. A. Wood. *Ptr Ink* 223:150 My 14 '48

ADVERTISING as a profession

Few words to the graduating class. H. C. Jones. *Ptr Ink* 224:116 JI 16 '48

I want my children to serve in advertising; it will help them learn to know and respect the other fellow's point of view. W. Weir. *Il Ptr Ink* 221:29-30 N 7 '47

Is it worth it? E. L. Deckinger. *Ptr Ink* 225:130 N 5 '48

Kimberlies on the campus. R. M. Howland. *Ptr Ink* 221:142 N 28 '47

ADVERTISING as a profession—Continued

Talent is where you find it. V. E. Canale. *Ptr Ink* 225:140 O 8 '48
 Training for advertising work. Q. H. McDon-
 ald. *J Marketing* 13:226-30 O '48

ADVERTISING associations

See also
 Advertising federa- American association
 tion of America of advertising
 agencies

Directories

Directory of associations. *Adv & Sell* 41:41-
 2+ O '48 (to be cont)

ADVERTISING awards

Annual advertising awards, 1947, winners. *il Adv & Sell* 41:4-43 Mr '48
 Armour, J-M. National Lead, Robins take
 1948 ABP competition awards. *il Ind Mar-*
keting 33:50-2 My '48
 Bill of Rights ad award to Revere Copper.
 Ed & Pub 81:48 O 2 '48
 Chicago advertising club's contest winners
 announced. *Ptr Ink* 223:100 Je 11 '48
 McGraw-Hill prize winning ad text goes to
 class this fall. *Ind Marketing* 33:40+ JI '48
 21 guide posts to good business-paper ad-
 vertising; review of entries in ABP con-
 test. C. B. Larrabee. *il Ptr Ink* 223:33-7+
 My 7 '48

ADVERTISING bureau. See American news-
 paper publishers association—Bureau of ad-
 vertising

ADVERTISING campaigns

Angostura reverses sales sag in face of liquor
 slump. I. P. MacPherson, Jr. *il Sales Man-*
agement 61:90+ JI 15 '48
 Bureau blue book cites best campaigns. Ed &
 Pub 81:9 Ag 21 '48
 Change in advertising pace opens new mar-
 ket, boosts sales; Angostura-Wuppermann
 promotes home use of bitters. V. J. Dal-
 laire. *il Ptr Ink* 224:32-3 JI 2 '48
 Dealers didn't like new product; campaign
 changed their minds; Triton motor oil. *il*
Ptr Ink 221:61+ N 21 '47
 Distributor invests \$25,000 in 21-day sales
 drive; Sampson co., Chicago appliance and
 radio distributor. P. Sampson. *il Sales Man-*
agement 60:98+ My 20 '48
 Double barreled ad campaign aimed at
 diverse markets; Wyandotte chemicals
 corp. R. Raine. *il Ind Marketing* 33:65+
 My '48
 Hit-or-miss ads failed, but a consistent cam-
 paign clicked; McCollin-Christie rectifier,
 storage battery (auto) rapid-charging
 equipment. L. F. Thomann. *il Ptr Ink* 222:
 48+ F 13 '48
 How to make the slow line move; Frey &
 sons labels and advertises sausage. D.
 Dover. *il Ptr Ink* 222:48-9 F 20 '48
 How we made a small budget do a big ad-
 vertising job; Autocall company. B. Skelly.
il Ptr Ink 224:44-5 JI 9 '48
 IGA's spring campaign exploits national
 brands in 5,000 groceries; ties in with
Life in two-week test. J. F. Grimes. *il*
Sales Management 60:94+ My 1 '48
 Package promotion introduces yard goods to
 sales clerks; Wild Rice, new fabric. *il Ptr*
Ink 222:32-3 Ja 2 '48
 Strong local promotion zooms radio sales in
 Hartford test; campaign sponsored by
 Radio manufacturers association. A. B.
 Ecke. *il Sales Management* 60:37-9 Ap 15
 '48
 This campaign proves women want facts in
 advertising; Flexnit girdles. M. Adams. *il*
Ptr Ink 224:60+ Ag 20 '48
 Tie-in with salesmen made this industrial
 advertising campaign a success; sells rope
 to consumers and industry; Plymouth
 cordage co. W. A. Scherff. *il Ptr Ink* 224:
 34-6 Ag 6 '48
 \$12,500 ad program accelerates huge sales
 of in-demand item; Federal Telephone &
 Radio new miniature selenium rectifier. *il*
Ptr Ink 222:42+ Ja 2 '48
 We brought life back to a defunct company
 and product; Whiting-Adams paint brush
 campaign. R. S. Edsall. *il Ptr Ink* 225:44+
 O 22 '48

Special weeks

1948 merchandising days and weeks; ninth
 annual compilation. *Ptr Ink* 221:55-6 D 5 '47

Teaser campaigns

Case of Pee-Jay, the talkative rooster; Amer-
 ican poultry journal's waggish mailing
 pieces. L. Fitzmaurice. *il Sales Manage-*
ment 60:74+ F 15 '48

Testing

How to evaluate changes in advertising ap-
 proach. M. Wiseman. *il Adv & Sell* 41:48+
 Ap '48

ADVERTISING cards

Car card readership findings summarized. R.
 H. Ganly. *Ptr Ink* 223:37-8+ Ap 9 '48
 What ten surveys tell about car card read-
 ers. P. J. Everest. *il Adv & Sell* 41:52+
 My '48

ADVERTISING characters

Cartoon characters make good spokesmen for
 management. M. C. Fought. *il Ptr Ink* 221:
 38-9 N 28 '47
 Case of Pee-Jay, the talkative rooster; Amer-
 ican poultry journal's waggish mailing
 pieces. L. Fitzmaurice. *il Sales Manage-*
ment 60:74+ F 15 '48
 Cudahy's Curly; cartoon character moves
 onto package. *il Mod Packaging* 21:114-15
 Je '48

ADVERTISING club of New York

N.Y. ad club climaxes rejuvenation. *Ptr Ink*
 221:124 D 12 '47

ADVERTISING contests. See Advertising—
 Prize contests

ADVERTISING contracts

New fiscal year for advertising proposal gets
 all round support. *Ptr Ink* 223:74+ Ap 9; 38-9
 Ap 16 '48

ADVERTISING copy

All he did was write the copy. H. Stebbins.
Ptr Ink 223:33 Ap 23 '48
 Are today's advertisers ingredient-happy? T.
 H. Thompson. *Ptr Ink* 225:120 O 1 '48
 Copy clinic. B. Tyler. *il Adv & Sell* 41:40-1+
 Ja '48 [cont monthly]
 Copy is steady on Parnassus. H. Halsell. *Adv*
& Sell 40:34 D '47
 Copy that clicked (cont). R. Manville. *il Ptr*
Ink 222:38-9, 48 Ja 16; 40 F 13 '48
 Copy trends of the future. G. Carson. *il Ptr*
Ink 225:68-71+ O 29 '48
 Essay type of advertisement; three examples
 from Boston. H. Shershow. *il Ptr Ink* 222:
 34-5 F 13 '48
 How copy is related to readership. H. J.
 Rudolph. *Ptr Ink* 221:148+ D 19 '47
 How to make people remember your product.
 M. Wiseman. *Adv & Sell* 41:52+ F '48
 Is it enough to talk plainly in advertise-
 ments? interest and accuracy are impor-
 tant. S. L. Smith. *Ptr Ink* 223:37 Ap 30
 '48

Making advertisements for newspapers. M.
 Wiseman. *il Adv & Sell* 40:54+ N; 54+
 D '47

Reactor outlines ad writing technique. T. J.
 Houghton. Ed & Pub 81:62 Ap 17 '48
 Relax, quacks! J. E. Matthews. *Ptr Ink* 223:
 142 Ap 16 '48

Subcutaneous advertising, or, selling through
 the memory book. V. O. Schwab. *Adv &*
Sell 41:75 JI '48

Techniques that will make your copy pull.
il Ind Marketing 33:74+ Ap '48

To whom to write? unsophisticates. Aesop
 Glim. *Ptr Ink* 222:92 Ja 16 '48

Triumph of Walter Mitty; how Caples' piano
 ad supplied a successful formula, contrib-
 uted to merriment of 1920's. J. D. Woolf. *il*
Adv & Sell 40:46+ N '47

What is a copy policy? Aesop Glim. *Ptr Ink*
 221:88 N 7; 106 N 21 '47

When Princess Matchabelli plumped for
 Ponds; comparison of 1926 copy and to-
 day's. M. Wiseman. *il Adv & Sell* 41:50+
 Je '48

Where are the upstarts in industrial adver-
 tising? every phase of advertising needs
 new ideas. H. G. Sawyer. *il Ptr Ink* 221:
 31-3+ N 21 '47

Why boastful advertising is based upon fear.
 M. Wiseman. *Adv & Sell* 41:31-2+ O '48

Why shout the pronoun? J. Y. Tipton. *Ptr*
Ink 224:104 JI 2 '48

The widow. J. Ecclesine. *Ptr Ink* 224:130 Ag
 13 '48

ADVERTISING copy—Continued

With Newton in decalcomania; regurgitant explorations through oleomargarine. F. H. Newton. Adv & Sell 41:40 Je '48

See also
Advertisements—Psychology
Advertising—Psychology
Sales letters

Competitive copy

Competitive or positive; Aesop Glim. Ptr Ink 221:74+ D 19 '47
Look at all three; Getchell theme for Plymouth advertising. J. D. Woolf. Il Adv & Sell 41:39+ Ja '48

Credibility

How to create desire; importance of sincerity. W. S. Townsend. Il Ptr Ink 223:48+ My 21 '48
It says so in the ad. J. France. Ptr Ink 224:130 S 24 '48
Selling in reverse; running up profits by running down products. R. S. Durstine. Adv & Sell 40:35-6+ D '47

Dealer tie-in

How industrial advertising can help your dealers; Hyster company, Portland, Ore. L. F. Thomann. Il Ptr Ink 221:38 D 5 '47

Economy appeal

Timken nips oil burner sales decline with fuel saving plan. D. G. Baird. Il Sales Management 60:46+ Mr 15 '48

Fashion appeal

Bob Tinsman remembers. Adv & Sell 41:54 Ja '48
Continuity is the best policy even for a fashion advertiser; experience of corset advertiser. C. J. Swan. Il Ptr Ink 223:28-9+ Je 4 '48

Fear appeal

Advertising plagues, and their remedies. E. J. Dever, Jr. Ptr Ink 222:74+ Ja 9 '48

Free offers

Disputing FTC on free goods, BBB approves non-deceptive offers. Ptr Ink 222:98 F 13 '48
FTC puts restriction on free offer in ads. Ed & Pub 81:30 F 7 '48
FTC to crack down on "free" product ads. Oil Paint & Drug Rep 153:4 F 2 '48

Gift appeal

Parker Pen sets sights on gift sales as HCL nips personal buying. J. N. Black. Il Sales Management 61:74+ O 15 '48

Headlines

Content, not format, is key to picture-caption style. M. Wiseman. Il Adv & Sell 41:44+ JI '48
Get helpful immediately; saving reader's time with useful headlines, illustrations, and layouts. E. S. Green. Ind Marketing 33:42-3+ Ja '48
Put your main appeals in the headline. W. S. Townsend. Il Ptr Ink 223:54+ My 7 '48
Townsend method of evaluating advertising; how to get attention of prospects. W. S. Townsend. Ptr Ink 222:39-40 Mr 12; 40-1 Mr 26 '48
What is the relation of headline to attention and readership? H. J. Rudolph. Ptr Ink 221:46+ N 21 '47

Health appeal

Electronic blanket billed as defense against colds. Ptr Ink 224:90 JI 16 '48

Individuality

How much individuality? Aesop Glim's clinic. Ptr Ink 222:81-2 F 13 '48
What price individuality? Aesop Glim. Ptr Ink 222:96 Mr 12 '48

Irritation copy

See Advertising—Psychology

Language, style, etc.

Aesop Glim's clinic; advertising's they. Ptr Ink 222:66 Ja 30 '48
Colloquial. Aesop Glim. Ptr Ink 223:85 Je 13 '48

Copy writers' strange affliction. J. A. H. Rehm. Adv & Sell 41:36 Ja '48
Don't let pure grammar result in poor ads. H. G. Sawyer. Ptr Ink 223:100+ Ap 16 '48
Good copy should sound like a good letter. A. Kleinwald. Ptr Ink 223:64+ Ap 9 '48
Just how dumb are they? D. David. Ind Marketing 33:44+ Mr '48
Meat plus meter is good copy rule. W. E. Rainsley. Il Adv & Sell 40:58+ D '47
Primer style copy used effectively in self-mailer. Ptr Ink 222:60 Ja 30 '48
Talky writing makes hard reading. B. Daniels. Ptr Ink 223:156 My 28 '48
Write with words that point. E. S. Green. Ind Marketing 33:45 S '48

Length

Essay type of advertisement; three examples from Boston. H. Shershow. Il Ptr Ink 222:34-5 F 13 '48
For what it's worth; getting business in your industrial ads. B. Craig. Ind Marketing 33:112 Ja '48
How to design posters that will sell; brevity is the soul of a good poster. J. E. Brennan. Il Adv & Sell 41:43+ Ja '48
How to milk a successful ad; typical mail-order problem. J. Shrager. Il Ptr Ink 224:40-1 S 17 '48
Words are expensive! H. T. Hough. Ptr Ink 223:116 Je 25 '48

Market research findings

Copy idea surveys are O.K., but advertisers misuse them. W. H. Eaton. Ptr Ink 223:64+ Ap 16 '48

Moving picture tie-in

How home service can co-operate with local movie theatres. M. Dorn. Il Gas Age 101:35+ F 5 '48; Excerpt. Am Gas Assn Mo 30:8+ F '48

Negative appeal

See also

Advertising copy—
Fear appeal

News appeal

Admen get profitable tip from news side. H. F. Hale. Ed & Pub 81:64 Ap 17 '48

Novelty appeal

Aesop Glim's clinic; when your product is not different. Ptr Ink 223:12+ My 21 '48
What price novelty? Aesop Glim. Ptr Ink 222:86+ Mr 26; 223:84 Ap 23; 86 My 7 '48

Premium offers

Mavis premium offer pushes one item, samples another. T. T. Toole. Sales Management 61:116-17 JI 15 '48

Price appeal

How to cut a price and tell consumers about it in paid space. C. J. Swan. Il Ptr Ink 222:36-8 Mr 5 '48
Independent grocers alliance schedules price promotion in heavy magazine campaign. Ptr Ink 222:95 F 13 '48

Price quoting

Shall we display and advertise price? public says emphatic yes! Sales Management 61:44-6+ N 1 '48

Quality appeal

Nu-Enamel builds spring campaign around proof of quality. A. F. Bredshall. Il Sales Management 60:130+ Ap 15 '48
Repetition of acceptance theme stretches wholesaler's small budget; Chicago musical instrument co. Ptr Ink 222:58 Mr 5 '48
Townsend method of evaluating advertising; make them want it, by talking quality. W. S. Townsend. Il Ptr Ink 223:40-1 Je 4 '48

Reason appeal

Is your prospect a reasonable person? Aesop Glim. Ptr Ink 224:80 JI 16 '48
What will it do for me? W. R. Northlich. Ind Marketing 32:38 D '47

Revision

Cure for blue-pencil-itis. J. A. H. Rehm. Adv & Sell 41:32 O '48
Mr Bump okays a book ad. Ptr Ink 222:56+ F 6 '48

ADVERTISING copy—Revision—Continued

Polished copy. Aesop Glim. Ptr Ink 223:83 Je 4 '48

Rimes

Far better for verse; advertising isn't improved by verse unless it's good verse. B. Braley. Ptr Ink 224:59-63 Jl 23 '48

Service appeal

Authentic technical copy sells your service representative; replace cure-all copy with service offers. J. Samuelson. Ind Marketing 33:40+ My '48

Sex appeal

Aesop Glim's clinic; sex is no panacea. Ptr Ink 223:86+ My 7 '48

Specific copy

What is the power of product-association? M. Wiseman. Il Adv & Sell 41:126+ Mr '48

Teaser copy

Teaser series in personals column of small town paper. Ptr Ink 223:66 Je 25 '48

Testimonials

How to get prestige testimonials; 11-step program. C. F. Stuhman. Il Ptr Ink 224:31-3+ Ag 20 '48

Make them want it, by using testimonials. W. S. Townsend. Il Ptr Ink 223:53+ Je 18 '48

Themes

Hints for the copy writer who has nothing new to write about. H. G. Sawyer. Ptr Ink 221:38-40 N 14 '47

In industrial advertising, copy comes first, after the idea. J. M. Sitton. Il Ptr Ink 221:44-5 N 28 '47

Townsend method of evaluating advertising; five main appeals in advertising. W. S. Townsend. Il Ptr Ink 223:38-9 Ap 23 '48

Who should decide the copy themes? consumers sometimes know best. F. E. Fehlman. Ptr Ink 224:32-3 Jl 16 '48

You can say that again! power of repetition. T. H. Thompson. Sales Management 60:120-1 Ap 15 '48

Use appeal

Buyers want field facts in industrial copy. J. M. Adie. Ind Marketing 33:38+ O '48

How to get and use industrial performance data; Giddings & Lewis capitalized on field operation facts. S. L. Little. Il Ind Marketing 33:46-7 S '48

Look to the editor, Mr Copy writer. L. Gibson. Il Ind Marketing 33:54+ O '48

Prove results, and improve sales, Warner & Swasey case history copy approach. J. E. Craig. Il Ind Marketing 32:48-9+ N '47

ADVERTISING copy writers

Advertising copy writer; blithe spirit or strait-jacketeer? H. Halsell. Adv & Sell 41:66 Ag '48

Advice to the aspiring copy writer; helping them to help themselves helps the copy chief. C. deBruler. Ptr Ink 221:40 D 19 '47

As good as their words. B. Foreman. Adv & Sell 41:64 Ag '48

At what age is a copy writer at his best? E. L. Skehan. Adv & Sell 41:70+ O '48

Can a copy writer sell anything and everything? B. Kingston. Ptr Ink 221:130 D 5 '47

Competent copy writer can write about anything; The touch of authenticity, by H. G. Vermes and How to horsemanship copy writers, by H. Siegel. Ptr Ink 222:36-7 Ja 16 '48

Copywriter knows lure for trout or business; Bob Carmichael at Moose, Wyo. C. E. Hayden. Ed & Pub 81:14 Ag 21 '48

Copy writer's responsibilities. Aesop Glim. Ptr Ink 225:90 N 5 '48

From slide rule to typewriter; Allis-Chalmers gives engineers an internship in advertising. A. R. Tofto. Il Ind Marketing 33:41-2+ Ap '48

Hometown copy pays off three ways. S. D. Cowan, Jr. Ptr Ink 222:148 F 20 '48

How to get the most out of copy writers. F. A. Kummer. Ptr Ink 221:42-3 N 28 '47

How to turn a copy writer into a public speaker. J. Caples. Adv & Sell 40:37+ N 52+ D '47; 41:46+ Ja; 42+ F; 124+ Mr '48

Importance of copy in merchandising fabrics. J. Trahey. Textile Col 70:31+ S '48

Philosophy for copy writers. Aesop Glim. Ptr Ink 224:88 Ag 13 '48

Precious ingredient. M. O'Dea. Ptr Ink 224:94 S 3 '48

Should copy be aged? Ptr Ink 224:64 Ag 27 '48

Substitutes for experience. Aesop Glim. Ptr Ink 223:85 Je 18 '48

Trouble with copy is copy writers. M. Ancker. Ptr Ink 222:56+ Ja 9 '48

Wide-minded. Aesop Glim. Ptr Ink 222:96 Mr 12 '48

Your private magic. Aesop Glim. Ptr Ink 224:68 Jl 2 '48

ADVERTISING council

Advertising council; serving business and public through education. N. Keine. Il Ptr Ink 221:40-1 N 28 '47

Public service; the best public relations. C. G. Mortimer, Jr. Il Dun's R 56:17-19+ Je '48

United America drive started by ad council. Il Ed & Pub 81:26 F 7 '48

ADVERTISING departments

Advertiser tells media representatives whom to see about what; Monsanto chemical co. booklet. Il Ptr Ink 223:30 Ap 30 '48

Advertising voice should be heard in management counsel; Packard motor car company setup. G. T. Christopher. Ptr Ink 223:72-3 O 29 '48

Check list of possible functions of modern advertising departments. H. Simmons. Ptr Ink 221:42-4+ D 26 '47

Con Edison to you; where advertising runs the gamut of sales promotion and public relations. H. Obermeyer. Il Adv & Sell 41:39-40+ Je '48

Does your ad dept. measure up? R. F. Dick. Ind Marketing 32:33-5+ D '47

Field store prepares ads without printers. G. A. Brandenburg. Ed & Pub 81:5-6 Mr 20 '48

Film tells management facts of business-paper advertising; U.S. Steel ad department develops slide films. R. H. Ganly. Ptr Ink 224:34-5 Jl 2 '48

Plan for filing cuts and art. M. D. Harper. Il Ptr Ink 221:36-7 N 14 '47

Sell management on advertising as you'd sell a prospect. E. M. Perrin. Ptr Ink 222:29-32 F 27 '48

See also

Advertising managers

Advertising displays

Animated display sells wallets for Aristocrat; motion displays in key railway stations. Il Sales Management 61:137 S 15 '48

Display bottles; half-section plastic replicas. Il Mod Packaging 21:151 Ap '48

Wrap-around pricer. Il Mod Packaging 21:129+ Ap '48

See also

Advertising, Point-of-sale

Show windows

ADVERTISING duplication. See Advertising mediums—Duplication

ADVERTISING ethics

Advertising blamed, defended. M. O'Dea. Ptr Ink 224:94 S 3 '48

Code adopted for auto ads in Pittsburgh. Ed & Pub 81:61 F 14 '48

Film adman questions practices of others. Ed & Pub 81:10 My 22 '48

International advertising code up for approval would punish violators with publicity. B. Tofto. Ptr Ink 223:81+ Ap 30 '48

Senator Murray flays vicious cartoon prizes. Ed & Pub 81:11 My 1 '48

ADVERTISING federation of America

Recap on 44th convention, Cincinnati, June 13-16. Sales Management 61:72+ Jl 1 '48

ADVERTISING gifts. See Advertising specialties; Gifts (in business)

ADVERTISING hall of fame

AFA sets up hall of fame for advertising. Ed & Pub 81:39 S 25 '48

ADVERTISING in action (periodical)

Merchandising idea provides advertising forum; Standard & Poor's monthly bulletin. Ptr Ink 223:66+ Je 11 '48

ADVERTISING libraries

See also

Advertising agencies

—Libraries

ADVERTISING literature

Bibliography

- Catalog library; latest standard catalogs and bulletins to aid the engineer. Published in monthly numbers of Power generation
Catalogs, bulletins. Published in monthly numbers of Food industries
Commercial reference sources. M. Moore and W. R. Holleman. Library Journal [New York] 72:1599-602 N 15 '47
Factory's catalog service. Published in monthly numbers of Factory management
Industrial advertising as a source of information. W. G. Kessel. J Chem Educ 25:222-3 Ap '48
Manufacturers' literature. Published in monthly numbers of Materials and methods
Manufacturers' new literature pertaining to instrumentation. Instruments 21:88-92 Ja '48 [cont monthly]
New bulletins; 524 items covering equipment and supplies used by power engineers. Power 91:923-6+ Mid-D '47
1948 new bulletins; 453 items covering equipment and supplies used by power engineers. Power 92:sup 181-4+ Mid-Je '48
Promotion of media, services and agencies. Published in weekly numbers of Printers' ink
Trade literature. Published in monthly numbers of Aero digest

ADVERTISING managers

- Admen must be salesmen. J. Howland. Ed & Pub 81:24 S 25 '48
Are ad managers mice or men? Ind Marketing 33:47 F '48; Discussion. 33:37 My '48
Bigger job for the advertising manager. H. S. Metcalfe. Elec World 129:90-1 My 8 '48
For best results the ad manager and agency should be a team. G. B. Perkins. Ptr Ink 224:31-2 J 9 '48
How to coordinate advertising and sales. H. Simmons. Ind Marketing 33:44, 124+ O '48
Keys to effective advertising. J. J. Quinn. Am Gas Assn Mo 30:3-4+ J1-Ag '48; Same. Gas Age 102:19+ J1 8 '48
More information about advertising managers' salaries and titles; titles of executives to whom advertising managers report. D. Houghton. Ptr Ink 222:32-4 Mr 5 '48
Presenting the advertising budget; 12 pointers for expediting management's approval, especially of industrial appropriations. R. S. Hayes. Ptr Ink 223:33-4+ Ap 16 '48
What the advertising manager can do to promote good labor relations. M. D. Ormes. Ind Marketing 33:50+ O '48
What the utility president expects from the advertising manager. E. L. Lindseth. Edison Elec Inst Bul 16:261-2+ Ag '48
Why can't the ad manager be the eyes and arms of management in public relations activities? H. S. Metcalfe. Ptr Ink 224:35-7+ Ag 27 '48

Salaries

- Printers' ink presents a study of advertising managers' salaries. D. Houghton. Ptr Ink 221:32-5+ D 26 '47, 222:32-4 Mr 5 '48

ADVERTISING mediums

- Agencies want usable media data; not buttons, balloons and badges. L. D. Farnath. Ptr Ink 224:36-8 J1 9 '48
Another step forward in media-agency relations. B. Duffy. Adv & Sell 41:36+ Ap '48
'48 media profits continue '47 downward trend. D. Bruner. Ptr Ink 224:73+ Ag 27 '48
Futures in media. N. F. McEvoy. Il Ptr Ink 222:66-7+ O 29 '48
How advertising media fared; '47 vs. '46; another big year in '48? Bsns W p66+ F 21 '48
How media research can make advertising dollars more effective. A. Hurd. Il Adv & Sell 41:33-4+ Je '48
Media rates are up, but advertisers are getting greater value; advances in circulations, listeners and buying power. F. B. Ryan, jr. Ptr Ink 223:42-4+ Ap 23 '48

Still rising costs threaten to offset new gains in lineage and billings registered by top media. D. Bruner. Ptr Ink 223:127+ My 28 '48

- See also
Advertising, Soliciting Moving pictures in
of advertising
Audit bureau of Radio advertising
circulations Television advertising

Advertising

- ABP talks to management; institutional campaign emphasizes mechanized selling. Ind Marketing 32:102+ D '47
Is your advertising promotion being read? 25 points to increase effectiveness of medium advertising. M. E. Michels. Ptr Ink 222:34-5 Ja 2 '48
Media man's viewpoint. D. B. Arnold. Adv & Sell 41:76+ O '48
New high to Nation's business. Aesop Glim. Ptr Ink 226:66 O 22 '48

Comics

See Comics (books, strips, etc.)

Duplication

- If you want better results from advertising, duplicate! M. Gerard. Adv & Sell 41:35-6+ Ag '48

Envelopes

- Metered mail messages. Il Banking 41:90-1 J1 '48

Farm papers

- Continuing study of farm publications. D. B. Lucas. Ptr Ink 222:40-1+ Mr 5 '48
Continuing study shows farm-paper readers want localized, how-to advice. W. H. Olmsted. Ptr Ink 224:52+ S 3 '48
Farm publication reports, to measure lineage, revenue. Ptr Ink 222:97 Ja 16 '48
What do farm families like most to read? H. D. Williams. Il Adv & Sell 41:37+ Ja '48

Match books

- How a salesman made book matches pay. Il Am Bsns 18:24+ O '48
Matchbook game. Fortune 38:122 S '48

Menus

- Menus as medium. Ptr Ink 222:80 Mr 26 '48

Motor trucks

- Your traveling billboard. Aesop Glim. Il Ptr Ink 222:92 Ja 16; 224:80 J1 16; 86 S 10 '48

Newspapers

- Ad column is best feature of local weekly newspaper. Il Ptr Ink 222:57-8 Mr 19 '48
Ad-men hear gripes that block sales. Ed & Pub 81:9+ Mr 13 '48
Ads can and must sell System; stresses ad research. W. I. Nunn. Il Ed & Pub 81:7 J1 24 '48
Agency man expects more split-run ads. Ed & Pub 81:14 O 2 '48
Analysis of 1947 lineage statistics compiled for 345 newspapers in 108 cities. Ed & Pub 81:123-5+ Ap 17 '48
ANA spokesman lauds and chides newspapers. R. Keith. Ed & Pub 81:15+ Ap 24 '48
Can we define the X quality in newspapers? E. F. Reading. Ptr Ink 222:32+ F 6 '48
Chain store selling planned by Bureau. Ed & Pub 81:71 F 14 '48
Coca-Cola or Coke; it's lineage in N.Y.; Pepsi uses full pages in new drive. Il Ed & Pub 81:14 Ag 7 '48
Daily newspaper study by A.N.A.N. map Sales Management 60:148 Ja 15 '48
Dale Harrison column to be sponsored; Chicago Tribune combined editorial advertising feature. Ed & Pub 81:20 Ap 10 '48
Expenditures of newspaper advertisers in 1947; individual products and services listed alphabetically. Ptr Ink 223:53-4+ My 21 '48
Growth in national ads. L. H. Brownholtz. Ed & Pub 81:16 O 9 '48
How many more readers see a campaign than see a single ad? A.N.A.N. study. C. J. Swan. Il Ptr Ink 221:38-9 D 19 '47
How small dailies can sell advertising. W. S. Waddell. Ed & Pub 81:18+ J1 17 '48
How to get more from your newspaper space. R. J. Walker. Rough Notes 90:17+ O '47
Industrial advertisers use papers abroad. S. Rovner. Ed & Pub 81:14 Ja 3 '48

ADVERTISING mediums—Newspapers—Cont.

Leading newspaper advertisers in 1947; list of 2,292 companies that spent at least \$5,000 each in 346 daily and Sunday newspapers published in 108 cities. *Ptr Ink* 223:55-6+ My 28 '48

Los Angeles ad space denied to auto code violators. *Ed & Pub* 81:22 My 8 '48

Making advertisements for newspapers. M. Wiseman. *il Adv & Sell* 40:54+ N; 54+ D '47

Medicine advertisers ask better position. *Ed & Pub* 81:55 Je 19 '48

NAEA meeting, Quebec. *Ed & Pub* 81:5+ J 26 '48

Newspaper advertising, lineage, 1941-1946. Survey of Cur Bsns 1947 Sup p37 [supplemented in monthly numbers]

Newspaper continuity; Artistic foundations, inc. Sales Management 60:44 Mr 15 '48

Newspaper coverage formula has been revised; McKinney study brought up to date validating data of 1945 and showing more intensive city zone coverage. D. Taylor. *Ptr Ink* 222:40 F 27 '48

Newspapers led all media in advertising gain for '47. *Ed & Pub* 81:5+ Je 12 '48

Publisher gives advice to agency partners. C. Watson. *Ed & Pub* 81:16 JI 31 '48

Readership surveys of daily newspapers in western states. Sales Management 59:106-7 N 20 '47

Reports of 1947 advertising returned by 1,153 newspapers. *Ed & Pub* 81:126-36 Ap 17 '48

Responses to newspaper and radio advertisements measured in pilot study by Columbia university bureau. P. F. Lazarsfeld. *Adv & Sell* 41:29-30+ O '48

Retailer advises putting all ads in newspapers. E. Wilson. *Ed & Pub* 81:16 O 9 '48

R.O.P. color offered now in 44 states. T. S. Irvin. *Ed & Pub* 81:54 S 11 '48

SNPA clinic stresses need of ad revenue. L. Phillips. *Ed & Pub* 81:79 JI 17 '48

Split runs give small dealers better break on co-op advertising; Selective Area plan. L. B. Colby. *il Sales Management* 60:82+ F 1 '48

Standard data on newspapers and markets being secured. *Adv & Sell* 41:42 JI '48

39-week stretch; Artistic Foundations campaign in American newspaper advertising network. *Ed & Pub* 81:16 F 28 '48

Trading area depends on many variables. S. Rovner. *Ed & Pub* 81:14 My 29 '48

242 newspapers that offer split-runs and their requirements; charges made and minimum space asked; tabulation. J. Bradfute. *Ptr Ink* 224:62+ S 17 '48

Using newspaper advertising to spot industrial buyers. W. Ferdinand. *il Ind Marketing* 33:46+ Ag '48

See also
Advertisements,
Classified
Advertising—Rates
also American newspaper publishers association—Bureau of advertising; Newspaper advertising executives association

Weeklies

ARF issues no. 1 of series on weeklies. *Ed & Pub* 81:18 Je 5 '48

Transom is fading on weekly's sales map. *Ed & Pub* 81:20 My 29 '48

Weeklies rated for advertisers. *Ed & Pub* 81:34 JI 17 '48

Weekly newspapers reach third of U.S., study shows. *Ptr Ink* 221:100 N 23 '47

Periodicals

Advertising value of different magazines. H. Zeisel and V. E. Harper. *J Marketing* 13:56-61 JI '48

Cautions ANA on total audiences. R. S. Butler. *Ed & Pub* 81:8 O 30 '48

Coverage vs. costs in magazine advertising. E. R. Smith. *Adv & Sell* 40:38-9+ N '47

Educational force of magazine advertising. W. D. Fuller. *Adv & Sell* 41:40 Ap '48

Footprints arouse prospect's interest; shoe advertisers for *The American magazine*. Sales Management 61:103 JI 15 '48

How advertisers and agencies differ on what's important in setting up magazine schedules. W. P. Rankin and R. M. Howland. *Ptr Ink* 224:36-7 JI 23 '48

How effective are media-sponsored department store promotions? J. C. Cumming. Sales Management 60:106+ My 20 '48

How we made a small budget do a big advertising job; Autocall company. B. Skelly. *il Ptr Ink* 224:44-5 JI 9 '48

IGA's spring campaign exploits national brands in 5,000 groceries; ties in with *Life* in two-week test. J. F. Grimes. *il Sales Management* 60:94+ My 1 '48

Is individual page performance influenced by the number of magazine pages? Curtis publishing company Research department study. C. I. Johnson. *Ptr Ink* 221:39 N 21 '47

January magazine lineage. *Ptr Ink* 222:126+ Ja 9 '48 [cont monthly]

Leading advertisers of 1947 and their expenditures; 835 companies invested \$561,132,380 in magazines, farm papers and network radio. *Ptr Ink* 223:38+ Ap 2 '48

Look issues second report in magazine audience study. *Ptr Ink* 222:99 Ja 16 '48

Magazine advertising, cost and lineage, 1941-1946. Survey of Cur Bsns 1947 Sup p36-7 [supplemented in monthly numbers]

Magazine lineage; five semi-annual totals. *Ptr Ink* 224:90+ JI 30 '48

Reply to competitive claims shows 68.9 per cent of population reads at least one periodical. D. Bruner. *Ptr Ink* 222:89-90 F 27 '48

Weeklies' ad rates rise. Bsns W p48+ N 8 '47

Will the famine months of magazine advertising return? G. K. Greiner. *Adv & Sell* 41:77-9 S '48

Advertising

See Advertising mediums—Advertising

Rates

See Advertising—Rates

Selection

How advertisers and agencies differ on what's important in setting up magazine schedules. W. P. Rankin and R. M. Howland. *Ptr Ink* 224:36-7 JI 23 '48

How Remington Rand reaches more customers at no extra cost in spite of increased space rates; survey of prospects' magazine reading. R. Manville. *Ptr Ink* 224:27-30 Ag 20 '48

How to get the facts for efficient media selection. R. D. Crisp. Sales Management 60:53+ Ap 1 '48

Service

Let's quit picking on media research! R. D. Crisp. *Ptr Ink* 222:31-8 Mr 19 '48

Merchandising helps for advertisers using business publications. *Ptr Ink* 222:42 Ja 9 '48

Statistics

How media and markets have changed since prewar years. H. H. Dobbertein. *Adv & Sell* 41:33-4+ My '48

Telephone directories

Classified book; phone book advertising; city directories. Bsns W p32+ S 6 '47; Discussion, p 102 N 1 '47

Trade journals

Advertising volume figures for Dec. issues of business publications and totals for 1947 and 1946. *Ind Marketing* 33:106, 108, 110 Ja '48

ABP book shows how successful business-paper ads are written. *Ptr Ink* 223:64 Je 13 '48

Business paper advertising tops \$196 million in 1947. A. R. Venezian. *Ind Marketing* 33:50-2 Je '48

Business paper space placed by advertising agencies, 1947. *Ind Marketing* 33:110+ Je '48

Effective life of business paper ads; four-year test by *Machinery* shows average of 7.5 months after each insertion. F. D. Jones. *Ind Marketing* 33:45-6 Ja '48

Effectiveness of business paper advertising; U.S. steel corporation's sound-slide film. G. R. Schreiner. *Ind Marketing* 33:34-5+ JI '48

ADVERTISING mediums—Trade journals—*Continued*

- Film tells management facts of business-paper advertising; U.S. Steel ad department develops slide films. R. H. Ganly. *Ptr Ink* 224:34-5 J 1 2 '48
- Get helpful immediately; saving reader's time with useful headlines, illustrations, and layouts. E. S. Green. *Ind Marketing* 33:42-3+ Ja '48
- How business paper ads unearth leads for Turco. D. T. Buist. *Il Sales Management* 61:110-11 N 1 '48
- How business papers regard smaller agencies. J. J. Whelan. *Adv & Sell* 41:41+ My '48
- IRC business paper advertising shoots for specific sales objectives; 32-page color insert in *Electronics* for International resistance co. T. Armstrong. *Il Sales Management* 60:115-16+ Ja 15 '48
- Light touch in business paper advertising. *Il Ind Marketing* 33:33-+ J 1 '48
- Market data book number, 1948. *Ind Marketing* 32:1-532 O 25 '47
- Merchandising helps for advertisers using business publications; fourth Deutsch & Shea study of services offered by media. *Ptr Ink* 222:42 Ja 9 '48
- Partners in progress; industrial advertisers, agencies and business papers. F. S. Chalmers. *Ind Marketing* 33:34-5+ My '48
- \$12,500 ad program accelerates huge sales of in-demand item; Federal Telephone & Radio new miniature selenium rectifier. *Il Ptr Ink* 222:42+ Ja 2 '48
- 21 guide posts to good business-paper advertising; review of entries in ABP contest. C. B. Larrabee. *Il Ptr Ink* 223:33-7+ My 7 '48
- We went to four-color inserts on a cut budget; Bryant chucking grinder company reprints calendar pictures in business papers. C. Stubbs. *Il Ind Marketing* 33:34-5+ Je '48

Trade union journals

- Cleveland industrialists advertise in labor paper. I. I. Sperling. *Il Ptr Ink* 221:31 N 7 '47

ADVERTISING men*See also*

- | | |
|--------------------------|----------------------|
| Advertising copy writers | Advertising managers |
| Advertising hall of fame | Platt, Rutherford |

ADVERTISING novelties

- Clever die cutting adds interest and effectiveness to direct mail pieces. G. J. Church. *Il diags Inland* *Ptr* 121:60-1 My '48
- Gadgets gain attention for direct mail, but sometimes they backfire; five errors. E. N. Mayer, Jr. *Il Ptr Ink* 222:34-5 Ja 9 '48
- Model tells complex sales story; Hydrovac power brake. *Il Ind Marketing* 33:70 S '48
- See also*
- Advertising specialties

ADVERTISING plagues. See Advertising copy—Fear appeal**ADVERTISING policies**

- Advertiser's advertising policy. *Ptr Ink* 224:84 S 17 '48
- Case history in marketing strategy; Philip Carey mfg. company revamped its merchandising, advertising and sales promotion program. H. D. Bates. *Il Ind Marketing* 32:44-5+ N '47
- General Foods' policies on advertising and agencies; chairman's memo to Ralph Starr Butler. C. Francis. *Il Ptr Ink* 221:29-31+ D 26 '47
- How Squirt uses point-of-purchase to get into the public eye. L. F. Thomann. *Il Ptr Ink* 224:28-9 S 3 '48
- How to dig out the facts when the sales curve sags; a change in advertising strategy was dictated by simple analytical approach when sales went below budgets. R. D. Crisp. *Ptr Ink* 224:25-7 Ag 27 '48
- Management set ad policy in 1872, it's still good; Nicholson file co. G. R. Ashbey. *Il Ptr Ink* 221:29-31 D 19 '47
- Tested advertising tripled our sales in five years; Sunroc refrigeration co. R. A. Angus. *Il Ptr Ink* 225:29-31 N 5 '48

ADVERTISING rates. See Advertising—Rates**ADVERTISING research**

- Advertising copy writer; blithe spirit or strait-jacketeer? H. Halsell. *Adv & Sell* 41:66 Ag '48
- Annual advertising awards, 1947, winners. *Il Adv & Sell* 41:38-43 Mr '48
- Confusion in advertising research requires consolidation of methods, not new ones. W. H. Davis. *Ptr Ink* 222:102 Ja 9 '48
- Copy research, how it works; testing and development of A. & P. ad. M. Wiseman. *Il Adv & Sell* 41:43+ Ja '48
- Free association tests can help advertisers; psychiatric method of probing subconscious. J. M. Vicary. *Ptr Ink* 222:44+ S 3 '48
- How media research can make advertising dollars more effective. A. Hurd. *Il Adv & Sell* 41:33-4+ Je '48
- How Remington Rand reaches more customers at no extra cost in spite of increased space rates; survey of prospects' magazine reading. R. Manville. *Ptr Ink* 224:27-30 Ag 20 '48
- Ipana ads show women's reading habits. M. Wiseman. *Il Adv & Sell* 41:48+ My '48
- McGraw-Hill offers findings on advertising techniques and practices. R. H. Ganly. *Ptr Ink* 224:30-1 Ag 27 '48
- 94 questions asked of a media research unit; J. Walter Thompson has had to answer queries on 11 general subjects. A. Hurd. *Adv & Sell* 41:38+ Ja '48
- Other people's shoe. B. Foreman. *Ptr Ink* 224:133 S 10 '48
- Our customers gave us our new copy theme; Drexel furniture co. interviews. B. R. Tuxford. *Il Ptr Ink* 225:26-7+ O 22 '48
- Relation of comic strip treatment to attention and readership and of right- and left-hand pages to attention. H. J. Rudolph. *Ptr Ink* 221:36-7 N 7 '47
- Responses to newspaper and radio advertisements measured in pilot study by Columbia university bureau. P. F. Lazarsfeld. *Adv & Sell* 41:29-30+ O '48
- Shall we display and advertise price? public says emphatic yes! *Sales Management* 61:44-6+ N 1 '48
- Too much research is still not enough. S. Rovner. *Ed & Pub* 81:14 Ag 14 '48
- We find out in advance what folks like in calendar art; pretty girls are not the most popular subjects; J. R. Watkins co. L. W. Goldberg. *Il Ptr Ink* 225:38-41 N 5 '48
- We find out in advance what folks like in calendar art; pretty girls are the most popular subjects; Pennsylvania refining co. *Il Ptr Ink* 225:38-9 N 5 '48
- See also*
- Advertisements—Readership
- Advertising copy—Market research findings
- also American newspaper publishers association—Bureau of advertising

ADVERTISING reserves. See Advertising appropriations**ADVERTISING signs. See Electric signs****ADVERTISING specialties**

- Advertising specialty sales hit \$150,000,000. W. H. Davis. *Ptr Ink* 221:106 N 7 '47
- Gifts and specialties as advertising aids. H. W. Dunk. *Il Adv & Sell* 41:40+ Ag '48
- 13 basic requirements of a good advertising specialty. D. J. Cowen. *Il Ptr Ink* 221:34-5 D 5 '47

Why plastics make good give-aways. Il Plastics 8:12-14+ J 1 '48**Advertising**

- Higher ad budgets promise 20 per cent better '48 sales for advertising specialties; calendars top list. N. Keine. *Ptr Ink* 223:96 Je 4 '48

ADVERTISING specialty national association

- Advertising specialty sales hit \$150,000,000. W. H. Davis. *Ptr Ink* 221:106 N 7 '47

ADVISORY trustees. See Trusts and trustees—Advisory trustees**AERATION**

- Growth of coliform bacteria in media containing nitrate and nitrite; influence of ammonia and of aeration and the coupling of the oxidation-reduction systems involved. P. R. Lewis and C. N. Hinshelwood. *Chem Soc J* p833-40 Je '48

AERATION of sewage. See Sewage disposal—Aeration

- AERIAL** photography. See Photography, Aerial
- AERIALS**. See Radio antennas
- AERLINTE** Eireann Teoranta. See Airlines—Ireland
- AERO** insurance underwriters
Withdrawal of Aero Insurance may hurt personal plane market. S. Altschul. Aviation W 47:18 N 24 '47
- AEROBACTER** cloacae
Aerobacter cloacae endotoxin as a possible factor in the etiology of bagassosis. R. Schneller and others. bibliog il J Ind Hygiene 30:238-46 Jl '48
- AERODYNAMICS**
Acoustical methods in supersonic aerodynamics. J. W. Miles. diag Acoustical Soc Am J 20:314-23 My '48
Aerodynamic forces on an oscillating flap at supersonic speeds. J. W. Miles. J Aeronautical Sci 15:565-8 S '48
Aerodynamic performance of delta wings at supersonic speeds. A. E. Puckett and H. J. Stewart. bibliog diags J Aeronautical Sci 14:567-78 O '47; Discussion. L. Beskin. 15:150 Mr '48
Aerodynamic stability of suspension bridges. F. B. Farquharson. il diags Western Soc E J 52:141-52 S '47
Aerodynamics of the gas turbine. A. R. Howell. bibliog(47 titles) il diags Roy Aeronautical Soc J 52:329-48; Discussion. 348-56 Je '48
Aerothermodynamic design of turbines for aircraft power plants. J. E. Talbert and J. C. Smith. il diags J Aeronautical Sci 15:556-64 S '48
Airfoil theory and experiment. A. Pope. bibliog J Aeronautical Sci 15:407-10 Jl '48
Approximations involved in the linear differential equation for compressible flow. H. W. Sibert. J Aeronautical Sci 14:680-1 D '47
Boundary layer of yawed cylinders. W. R. Sears. bibliog diag J Aeronautical Sci 15:49-52 Ja '48; Discussion. A. N. Tifford. 15:280-1 My '48
Dynamic instability of truss-stiffened suspension bridges under wind action. F. Bleich. diags Am Soc C E Proc 74:1269-314 O '48
Dynamic lateral stability as influenced by mass distribution. L. Sternfeld and M. O. McKinney, jr. bibliog diags J Aeronautical Sci 15:411-17 Jl '48
Dynamics of a swept wing. H. R. Lawrence. diags J Aeronautical Sci 14:643-50 N '47
Effects of compressibility on the two-dimensional subsonic wind-tunnel constriction correction. H. T. Epstein and L. U. Albers. bibliog J Aeronautical Sci 15:144-50 Mr '48
Einstein's equivalence principle and the problem of blind navigation. J. J. Gilvary. bibliog Phys R 73:1409-10 Je '48
Flight research at high subsonic speeds. H. Davies. il Roy Aeronautical Soc J 52:483-503; Discussion. 503-12 Ag '48
Flow at the rear of a two-dimensional supersonic airfoil. A. Kahane and L. Lees. diags J Aeronautical Sci 15:167-70 Mr '48
Flow of a perfect fluid through an axial turbomachine with prescribed blade loading. F. E. Marble. bibliog diags J Aeronautical Sci 15:473-85 Ag '48
Fluid dynamic aspects of axial-flow compressors and turbines. J. R. Weske. diags J Aeronautical Sci 14:651-6 N '47
Fluid mechanics. G. A. Hinkins and E. F. Relf. il diag Inst Mech Eng J & Proc 157 (War emergency issue no 31):277-81 '47
Harmonic and transient motion of a swept wing in supersonic flow. J. W. Miles. bibliog diag J Aeronautical Sci 15:343-6+ Je '48
Head-on collision of a shock wave and a rarefaction wave in one dimension. H. E. Moses. diag J Ap Phys 19:383-7 Ap '48
Institute of the aeronautical sciences 16th annual meeting, New York; abstracts of papers. Aeronautical Eng R 724-3 Ap '48
Interference between wing and body at supersonic speeds; theory and numerical application. C. Ferrari. bibliog diags J Aeronautical Sci 15:317-36 Je '48
Interferometric studies of faster than sound phenomena; gas flow around various objects in a free, homogeneous, supersonic air stream. R. Ladenburg and others. bibliog il diags Phys R 73:1359-77 Je '48
Kinematics of turbulence. F. N. Frenkiel. bibliog diags J Aeronautical Sci 15:57-64 Ja '48; Correction. 15:247 Ap '48
Laminar flow and laminar-flow airfoils. R. G. Naugle. il diags Aero Digest 56:40-1+ F '48
Linearized subsonic and supersonic flow about inclined slender bodies of revolution. E. V. Laiton. bibliog diags J Aeronautical Sci 14:631-42 N '47
Low-drag and suction airfoils. S. Goldstein. bibliog(40 titles) il diags J Aeronautical Sci 15:189-214; Discussion. 215-20 Ap '48
Low-speed flutter and its physical interpretation. M. A. Biot and L. Arnold. diags J Aeronautical Sci 15:232-6 Ap '48
Machmeters for high-speed flight research. H. Schaefer. bibliog il diags J Aeronautical Sci 15:351-63 Je '48
Matrix development of Multhopp's equations for spanwise air-load distribution. S. U. Benscoter. diags J Aeronautical Sci 15:113-20 F '48
Method of wind-tunnel testing through the transonic range. J. H. Weaver. il diags J Aeronautical Sci 15:28-34 Ja '48
New method for the aerodynamic design of multistage axial-flow compressors. H. Davis. diags J Aeronautical Sci 15:41-8 Ja '48
Numerical-graphical method of characteristics for axially symmetric isentropic flow. L. L. Cronvich. bibliog J Aeronautical Sci 15:155-62 Mr '48
Operational aerodynamics of high-speed transport aircraft. R. S. Shevell. diags J Aeronautical Sci 15:133-43 Mr '48
Planetary properties of fast cars. A. F. Zahm. Franklin Inst J 245:331-6 Ap '48
Plasticity for the aerodynamicist. W. Prager. bibliog diags J Aeronautical Sci 15:253-62 My '48
Primer of sonic aerodynamics. R. McLaren. diags Aviation W 49:21-2+ Ag 16 '48
Production of lift independently of incidence. B. Thwaites. diags Roy Aeronautical Soc J 52:117-24 F '48
Rolling moment due to sideslip for a swept wing. J. W. Miles. bibliog diag J Aeronautical Sci 15:418-24 Jl '48
Simple ram-air intake preceded by normal shock in supersonic flight. J. D. Stanitz. diags J Aeronautical Sci 15:181-3 Mr '48
Simplified method of obtaining drag of a high-speed body from wake surveys. C. Chang. bibliog diags J Aeronautical Sci 15:123-7 F '48
Stability of an oscillating airfoil in supersonic airflow. M. V. Barton. bibliog diag J Aeronautical Sci 15:371-6 Je '48
Stability of boundary layers and of flow in entrance section of a channel. E. Hahne-man and others. bibliog J Aeronautical Sci 15:493-6 Ag '48
Theoretical pressure distributions for a thin airfoil oscillating in incompressible flow. E. E. Postel and E. L. Leppert, jr. bibliog diag J Aeronautical Sci 15:486-92 Ag '48
Transient loading of airfoils at supersonic speeds. J. W. Miles. bibliog diags J Aeronautical Sci 15:592-8 O '48
Wind-tunnel testing problems in supersonic aerodynamics. H. Tsien. bibliog il J Aeronautical Sci 15:573-80 O '48
Wing-body problem in a supersonic conical flow. S. H. Browne and others. bibliog diags J Aeronautical Sci 15:443-52 Ag '48
See also
Aeronautics Air flow Airplane stability and stabilizers Airplanes—Design Ballistics Wind tunnels
- AERONAUTIC** education
Air Affairs special education issue. Air Affairs 2:161-277 Winter '48
See also
Aeronautic engineer-ing—Study and teaching Aeronautics—Study and teaching Aeronautics, Military—Study and teaching
- Europe**
Aviation education in Europe. D. Goedhuis. Air Affairs 2:247-52 Winter '48

AERONAUTIC education—Continued**North America**

Aviation education in North America. T. P. Wright and H. W. Sinclair. *Air Affairs* 2: 253-64 Winter '48

Philippine Islands

Aviation education in the Philippines. P. C. Morante. *Air Affairs* 2:271-7 Winter '48

South America

Aviation education in Argentina, Brazil, and Chile. A. G. Lavallo. *Air Affairs* 2:265-70 Winter '48

AERONAUTIC engineering

Aeronautical conference, London, 1947; summaries of papers. *Engineering* 166:187, 233-5 Ag 20, S 3 '48

Aircraft power plant engineering. F. Nixon. *il Engineering* 165:127-9, 132 F 6 '48

Art of the aviation engine. F. R. Banks. *Roy Aeronautical Soc J* 52:527-49 S '48

Bear-up requirements for aircraft; fatigue strength, the engineers call it. B. Lundberg. *il Aero Digest* 55:56-8+ D '47

Decimal dimensioning; what profit? O. E. Kirchner. *S A E J* 56:47-9 Ja '48

Design engineer's role in airplane cost reduction. H. G. Erickson. *il diags Aeronautical Eng R* 7:24-30 F '48

Engineering aspects of personal aircraft. F. E. Weick. *Aeronautical Eng R* 7:24-5 Ag '48

Engineering for safety; Republic aviation corp. W. I. Stieglitz. *Aeronautical Eng R* 7:18-23 F '48

Engineering problems of the helicopter. F. N. Piasecki. *il diag S A E J* 55:55-8 D '47

Human factors in engineering design. L. C. Mead. *diags S A E J* 55:40-6 D '47

Institute of the aeronautical sciences annual summer meeting; Los Angeles; technical sessions. *Aeronautical Eng R* 7:22-31 S '48

Institute of the aeronautical sciences 16th annual meeting, New York; with abstracts of technical session papers. *Aeronautical Eng R* 7:22-33 Mr; 16-28 Ap '48

Magnetic particle inspection in engineering. D. E. Roda. *il plan Iron Age* 162:79-83 Ag 5; 82-9 Ag 12 '48

SAE national aeronautic and air transport meeting, New York. *S A E J* 56:55-60 Je '48

SAE national aeronautic meeting, Los Angeles, Oct. 2-4. *S A E J* 56:36-41 N '47

See also

Aerodynamics	Airplanes, Military—
Aeronautic research	Design
Airplane engines	Airports
Airplanes	Airships
Airplanes—Design	Airways

Bibliography

Aeronautical reviews; periodical articles, government publications, books. *il Aeronautical Eng R* 7:33-7+ Ja '48 [cont monthly]

Study and teaching

Aeronautical engineering curriculum design. M. Nelles. *J Eng Educ* 38:574-8 Ap '48

Jet propulsion instruction and the undergraduate curriculum in aeronautical engineering. M. J. Zucrow. *J Eng Educ* 38:482-4 Mr '48

Tables, calculations, etc.

Analysis for optimum transport airplane configuration. P. A. Colman. *Aeronautical Eng R* 6:20-7 D '47

Analytical study of the landing shock effect on an elastic airplane. R. H. Scanlan. *bibliog J Aeronautical Sci* 15:300-4 My '48

Application of the performance operator to aircraft automatic control. R. C. Seamans, jr. and others. *bibliog il diags J Aeronautical Sci* 15:535-55 S '48

Approximations involved in the linear differential equation for compressible flow. H. W. Sibert. *J Aeronautical Sci* 14:680-1 D '47

Chart for determining properties of round aircraft tubing; reference book sheet. B. Ostlund. *Product Eng* 19:165 S '48

Computation of influence coefficients for aircraft structures with discontinuities and sweepback; method uses Castigliano's theorem. S. Levy. *bibliog diags J Aeronautical Sci* 14:547-60 O '47; Discussion, C. C. Wan. 15:95-6 F '48

Determination of gross weight. W. Nichols. *Aero Digest* 55:66-8+ D '47

Equilibrium running of the simple jet-turbine engine. A. W. Morley. *diags Roy Aeronautical Soc J* 52:305-22 My '48

Matrix development of Lulthopp's equations for spanwise air-load distribution. S. U. Benscoter. *diags J Aeronautical Sci* 15:113-20 F '48

Numerical-graphical method of characteristics for axially symmetric isentropic flow. L. L. Cronvich. *bibliog J Aeronautical Sci* 15:155-62 Mr '48

Semigraphical method of computing stick forces for spring-tab controls having nonlinear hinge-moment characteristics. R. A. Mendelsohn. *diag J Aeronautical Sci* 15:107-12 F '48

Use of vectors in vibration measurement and analysis. C. C. Kennedy and C. D. P. Pancu. *bibliog-diags J Aeronautical Sci* 14: 603-25 N '47

AERONAUTIC engineers

Plane builders need engineers. *Bsns W p23-4 S '48*

AERONAUTIC instruments

Airborne engine analyzer. V. C. Cetrone. *il diags Electronics* 21:90-5 Mr '48

Automatic control of aircraft. R. C. Seamans, jr. *diags Tech R* 50:102-4+ D '47

Automatic flight; air force report of C-54D test. *Instruments* 21:6+ Ja '48

B-D Computer; makes it possible to space planes on the same route in parallel tracks. *il Aero Digest* 55:49+ D '47

British autopilot claims more reliability. *diag Aviation W* 47:38 D 8 '47

Designing instrument dials for quick, accurate reading. W. F. Grether. *il diags Machine Design* 20:150-2+ Je '48

Electric field meter for use on airplanes. R. C. Waddell. *bibliog il diags R Sci Instr* 19: 31-5 Ja '48

Flight path control. P. A. Noxon. *il diags Aeronautical Eng R* 7:38-45 Ag '48

Flight record aids safety, efficiency; GE device. C. L. Beattie and P. J. Klass. *il diags Aviation W* 48:21+ Ja 12 '48

Instrumentation for aeronautical research. E. C. Blom. *il plan Instruments* 21:561-3 Je '48

Machmeters for high-speed flight research. H. Schaefer. *bibliog il diags J Aeronautical Sci* 15:351-63 Je '48

Navigation computer; B-D Computer. *il Sci Am* 178:27-8 Ja '48

New flight indicator introduced; Sperry develops Zero Reader. *il Aviation W* 49:16 S 20 '48

New instruments aid landing field safety. *il diag Product Eng* 18:143-5 D '47

New type of servo-accelerometer and aircraft dive angle indicator. D. H. Jacobs. *diags R Sci Instr* 19:118-19 F '48

Physical principles of some basic aircraft instruments. W. H. Hoather. *il diags J Sci Instr* 25:113-22 Ap '48

Polar recorder has optical centering device; developed by Airborne Instruments laboratory. *il diags Product Eng* 19:108-9 F '48

Stall approach flight tests show need for indicator installation. P. J. Rulon. *Aviation W* 48:31-2 Ja 19 '48

Stall-warning indicators refined. A. E. Smyser, jr. *il diags Aviation W* 48:21+ F 9 '48

Teleflight accelerometers and pressure transmitters. *il R Sci Instr* 19:373-4 My '48

See also

Direction finding ap- Radio apparatus on

paratus aircraft

Radio aids to avia- Radio beacons (for

tion aircraft)

Design

Aircraft instrument design. T. B. Holliday. *il Product Eng* 19:121-4 Ag '48

Designing instrument dials for quick, accurate reading. W. F. Grether. *il diags Machine Design* 20:150-2+ Je '48; Abstract. *S A E J* 56:44-5 S '48

AERONAUTIC laboratories

Construction begins on the Texas co.'s turbo-jet engine laboratory. A. L. Foster. *diag Oil & Gas J* 46:82+ D 20 '47

AERONAUTIC laboratories—Continued

Hangar for aeroplane tests in extreme climatic conditions; Elgin field, Florida. *il* Engineering 166:25-7 J1 9 '48

High-altitude test chamber for aircraft. *il* Engineering 164:512-13, 516 N 23 '47

Laboratory for gas-turbine development. W. R. New. *il* plans diags Mech Eng 70:195-204 Mr '48; Same cond. Aero Digest 56:64-6 F '48

NACA expands its facilities. Aviation W 48:22 Mr 15 '48

NACA shows Ames Laboratory progress. R. Hotz. *il* Aviation W 49:11-12 J1 26 '48

Unique laboratory speeds jet engine development. *il* Aviation W 47:30-1 D 1 '47

Wright aero lab. *il* plan Aero Digest 57:22-3 O '48

Wright's new facilities for testing high output turbines. *il* diag Automotive Ind 98:42-4+ Je 15 '48

AERONAUTIC literature

Aero knowledge now integrated; Standard aeronautical index; new abstracting and cataloging project collects, screens, and distributes technical data. L. E. Neville. Aviation W 48:26+ F 9 '48

Six division heads of Standard aeronautical index finalized. Aeronautical Eng R 7:8-9 Ja '48

AERONAUTIC research

Aeronautical progress disclosed at 16th IAS technical sessions. New York, Jan. 26-29. Aviation W 48:13 F 2; 13 F 9 '48

Air force plans extensive research. Automotive Ind 98:270+ Mr 15 '48

Air force research and development. L. C. Craigie. *il* Aero Digest 57:62-3+ S '48

Bill asks giant research center. Aviation W 48:12 Je 7 '48

Camera catches shock waves in flight; illustrations with text. Aviation W 49:33 S 13 '48

Concentration on jet research expected to yield greater gains. F. M. Hazen. Aviation W 47:29-30+ N 17 '47

Convertiplane; key to speed range; aircraft combining hovering characteristics with high speed; NACA research. Aviation W 48:24-6 Ap 12 '48

Curtain rises on act two; future of aeronautics. E. R. Sharp. *il* Aero Digest 56:20-1 Ja '48

Curtiss-Wright unveils flight simulator; training and research device. S. L. Colbert. *il* Aviation W 48:16 My 24 '48

Design and work of the Farnborough high speed tunnel. A. Thom and W. G. A. Perrie. *il* diags Roy Aeronautical Soc J 52:205-47; Discussion. 247-50 Ap '48

Development facilities for today's engines. W. A. Parkins. Aero Digest 56:73-4 Mr '48

Development of the navy-Douglas model D-558 research project. E. H. Heinemann. *il* diags Aeronautical Eng R 6:14-19 D '47

Douglas unveils its new research plane; Skyrocket combines turbojet and rocket power; sweptback wing. R. McLaren. *il* Aviation W 47:12-13 N 17 '47

Droop wing investigations aid high speed craft design. R. McLaren. Aviation W 47:27 D 29 '47

Escape-rocket design research indicates practical solution near. R. McLaren. Aviation W 48:23 Mr 1 '48

Experimental study of cooling by injection of a fluid through a porous material. P. Duwez and H. L. Wheeler, jr. diags J Aeronautical Sci 15:509-21 S '48

Flight research at high subsonic speeds. H. Davies. *il* Roy Aeronautical Soc J 52:483-503; Discussion. 503-12 Ag '48

General results of N.A.C.A. flight research in natural icing conditions during the winters of 1945 and 1946. N. R. Berggren. *il* diags J Aeronautical Eng R 7:20-7 Ja '48

General theory of cylindrical and conical tubes under torsion and bending loads. J. Hadji-Arghyris and P. C. Dunne. diags Roy Aeronautical Soc J 51:199-269 bibliog(p208-9), 767-84, 884-930 F, S, N '47

Improved schlieren apparatus. F. W. Barry and G. M. Edelman. *il* diags J Aeronautical Sci 15:364-5 Je '48

Landing impact vibration studied. *il* Aviation W 48:26-7 Ap 26 '48

Largest aero research program; U.S. government outstrips the world. R. McLaren. *il* Aviation W 48:42-4+ F 23 '48

Leading-edge jet indicates added lift; wind tunnel investigations of model airfoil fitted with leading-edge cold-air jet installation. I. Stone. *il* diags Aviation W 47:38+ D 15 '47

Low-drag and suction airfoils. S. Goldstein. *il* bibliog (40 titles) *il* diags J Aeronautical Sci 15:189-214; Discussion. 215-20 Ap '48

Macrometer for high-speed flight research. H. Schaefer. *il* diags J Aeronautical Sci 15:351-63 Je '48

Man-carrying rocket-jet aircraft; sonic research aircraft. D-558-2 Skyrocket. *il* diag Product Eng 19:150-1 Ja '48

Method of wind-tunnel testing through the transonic range. J. H. Weaver. *il* diags J Aeronautical Sci 15:28-34 Ja '48

Mirrors simplify precision work; Boeing develops ingenious uses in production jobs and in research work. *il* Aviation W 48:22+ D 19 '48

N.A.C.A. cascade data for the blade design of high-performance axial-flow compressors. S. M. Bogdonoff. *il* diags J Aeronautical Sci 15:89-95 F '48

NACA cites many attainments in year of intensive research; 23d annual report. Aviation W 48:28+ Mr 22 '48

NACA engine research plots new boosts for jet power. R. McLaren. Aviation W 48:9-10 Mr 29 '48

NACA shows Ames Laboratory progress. R. Hotz. *il* Aviation W 49:11-12 J1 26 '48

Naval contributions to aeronautical science, 1908-1913. M. C. Welborn. *il* U S Naval Inst Proc 74:990-7 Ag '48

Outlines boundary air progress; abstract. S. Goldstein. Aviation W 47:14 D 22 '47

Psychology, men, and machines; design and effectiveness of control mechanisms improved; research at navy's special devices center, Sands Point. W. M. Angas. *il* Tech R 50:267-9+ Mr '48

Research data on sheet-stringer panels; studies conducted at National bureau of standards. *il* Aviation W 49:22-4 O 4 '48

Research, foundation of air power. H. L. Dryden. Aeronautical Eng R 7:14-15 Ap '48

Research personnel, fund boost urged by Air policy commission. R. McLaren. Aviation W 48:14-15 Ja 19 '48

Technical briefs of the National advisory committee for aeronautics. Aero Digest 56:106 Je '48

Trends in aircraft research. E. H. Heinemann. Automotive Ind 99:36-7+ O 1 '48

Wing spoiler proves its worth in searching development tests; control system device. R. McLaren. *il* bibliog Aviation W 48:30+ F 9 '48

XS-1; design and development. R. McLaren. *il* Aviation W 49:22-4+ J1 26 '48

See also

Aeronautic laboratories

AERONAUTIC schools

Approved CAA rating given 3,287 schools; tabulation. CAA J 9:100 S 15 '48

College of aeronautics, Cranfield. Engineer 184:552 D 12 '47

Cyclone schooling with Smith and the Irish; Wright Aero's Wood-Ridge, N.J. service school. H. Powell. *il* Air Transport 5:35-8+ N '47

Jet training school at GE's aircraft gas-turbine factory. Lynn, Mass. R. C. Robin. *il* Aero Digest 56:34-5, 103 Ja '48

New engineering school for Maryland university; Glenn L. Martin college of engineering and aeronautical sciences. *il* plans Arch Rec 102:100-5 D '47

New town for Brazilian aeronautical center. *il* plans diags Arch Forum 87:76-7 N '47

R.A.E. technical college, Farnborough. *il* Engineer 185:205-6 F 27 '48

School rules up for revision. Aviation W 49:28 O 4 '48

Training is mainstay of fixed operators. Aviation W 48:74+ F 23 '48

Training the A&E mechanics. F. Serdahely. *il* Aero Digest 56:32+ Je '48

26 schools join in plan to study best aviation education methods. CAA J 9:99 S 15 '48

AERONAUTIC workers

Employment and earnings in aviation. E. Clague. Aero Digest 56:26-7+ My '48
 Technical vocational education; technical institute training for aviation. C. C. Moseley. bibliog Air Affairs 2:218-22 Winter '48

See also

Aeronautic schools
 Airlines—Employees

Airplane factories—
 Employees

AERONAUTICS

Annual National aviation clinic, 5th, Springfield, Ill. Aviation W 47:12-13 D 1 '47

See also

Aerodynamics
 Aeronautic laboratories
 Aeronautic research
 Air navigation
 Air power
 Air travel
 Aircraft
 Airfoils
 Airlines
 Airplane engines
 Airplane propellers
 Airplanes
 Airports

Airships
 Airways
 Aviation
 Aviators
 Bombs, Flying
 Flying boats
 Gliders
 Helicopters
 Interplanetary flight
 Meteorology, Aeronautic
 Photography, Aerial
 Radio aids to aviation
 Seaplane bases

Bibliography

Aeronautical reviews; periodical articles, government publications, books, il Aeronautical Eng R 7:33-7+ Ja '48 [cont monthly]
 I.A.S. briefs; summaries of current papers received for publication or presentation at I.A.S. meetings. Aeronautical Eng R 7:28-9 Ja '48 [cont monthly]
 New books. Published in monthly numbers of Aero digest

Directories

Who's who in British aviation. 446p pa 7s 6d Temple press, ltd, Bowling Green lane, London E.C. 1 '48

Exhibitions

Britain reveals new plane types; aircraft manufacturers' annual exhibition. il Aviation W 49:14-15 S 20 '48
 British aircraft display. Mech Eng 69:932-3 N '47
 New York air show taking shape. plan Aviation W 48:15 Je 21 '48
 S.B.A.C. flying display and exhibition. il Engineer 186:283-5, 317-19 S 17-24 '48; Engineering 166:258-9, 282-4, 296-8 S 10-24 '48

International aspects

United nations trusteeships. J. C. Cooper. Air Affairs 2, no 1:115-27 [S] '47
See also Aeronautics, Commercial—International aspects

Laws and regulations

CAA to compromise 'copter violation in helicopter photographic work. Aviation W 48:40 Je 14 '48
 Fallacy of arbitrary performance regulations. F. W. Kolk and R. W. Ayer. S A E J 56:66-7 Ag '48
 Independents fight economic regulation. Aviation W 48:15 My 31 '48
 International private law. A. W. Knauth. Air Affairs 2, no 1:61-7 [S] '47
 New laws; President signs eight aviation measures. Aviation W 49:15 Jl 19 '48
 Opposes proposed aviation liability bill. G. W. Orr. East Underw 49:44-5 S 17 '48
 Problems of international standardization of civil air regulations. E. Warner. S A E J 56:52-4 Mr '48
 Rotocraft airworthiness. A. Klemin. il Aero Digest 57:51-2+ O '48
 States likely to police air safety. A. McSurely. Aviation W 48:29-30 My 31 '48
 States moving toward uniform aviation laws. CAA tabulation shows. CAA J 9:76 Jl 15 '48
 Test case on helicopter air rules; photographic mission stirs CAA complaint. A. McSurely. Aviation W 48:14 My 10 '48

Patents

Aviation patents. Published in monthly numbers of Aero digest

Safety measures

See Airlines—Safety measures; Aviation—Safety measures

Social aspects

Aerial dimension; man finds aviation in the process of boldly altering many aspects of contemporary civilization. P. Meadows. bibliog il maps Tech E 50:154-7+ Ja '48
 Social effects of aviation. L. A. Bryan. Air Affairs 2:314-25 Jl '48

Study and teaching

Flight engineer trainer saves expense; Lockheed aircraft service, inc. il Aviation W 47:29 D 8 '47
 Purdue's training in air transport; illustrations with text. Air Transport 5:46-8 N '47
 Technical education. C. F. Kettering. Air Affairs 2:223-8 Winter '48

See also

Aeronautic schools
 Aviators—Training

Alaska

Inside route to Alaska avoids dangerous terrain. CAA J 9:75 Jl 15 '48

Australia

Australia's aviation status growing. Aviation W 48:42 Je 21 '48

See also

Aeronautics, Commercial—Australia

Brazil

Aeronautical center for Brazil. R. Hotz. Aviation W 49:14 Ag 16 '48

Great Britain

Who's who in British aviation. 446p pa 7s 6d Temple press, ltd, Bowling Green lane, London E.C. 1 '48

See also

Aeronautics, Military
 —Great Britain

Greece

American aid for Greek aviation. Aviation W 48:36 Je 7 '48

Latin America

CAA adds new Latin American aviation mission. CAA J 9:97 S 15 '48
 CAA-sponsored survey concludes agreements with three Latin nations. CAA J 9:24 F 15 '48

Norway

Norway establishes broad-scale air-security office. For Comm W 30:29 Ja 17 '48

Russia

Nazi labs spur Russian research; Soviet speeds up production. R. H. Wood. Aviation W 48:80 F 23 '48

See also

Aeronautics, Military
 —Russia

United States

Air coordinating committee submits its annual report. CAA J 9:25+ Mr 15 '48
 Aviation expenditures included in the budget for fiscal year 1949; tabulations. Aviation W 48:51 F 23 '48
 Aviation in the national economy. Aviation W 48:52 F 23 '48
 Big increases for aviation funds asked by Truman in '49 budget. Aviation W 48:11-12 Ja 19 '48
 Bulk of flying done in training, survey reveals. CAA J 8:121+ N 15 '47
 CAA aircraft use survey shows gains made in 1947. CAA J 9:97+ S 15 '48
 Commission on air policy submits report to President; Survival in the air age. CAA J 9:13+ F 15 '48
 Congress' Air policy board submits 92 recommendations. CAA J 9:37+ Ap 15 '48
 Dynamic aviation scene; comments on the report of the Congressional aviation policy board. S. Altschul. Comm & Fin Chr 167:1102+ Mr 11 '48
 Finletter report. R. F. Murray, 2d. Air Affairs 2:393-403 Jl '48
 Government aviation obligations under 1949 fiscal year appropriations; tabulations. Aviation W 49:18 S 6 '48
 Slim prospects for private flying aid seen in Congressional aviation policy board report. A. McSurely. Aviation W 48:35-6 Mr 8 '48

AERONAUTICS—United States—Continued

Survival in the air age; excerpts from the official summary of the report of the President's air policy commission. Aeronautical Eng R 7:34-54 Mr '48
Wright reports rise in civil aviation. Aviation W 48:13 Ja 5 '48

See also

Aeronautics, Commercial—United States
Aeronautics, Military—United States
Civil air patrol

AERONAUTICS, Commercial

Aviation holds a congress; NAA's national aviation clinic. K. K. Hoyt. Aero Digest 56:26-7 Ja '48

Civil aviation highlights, 1947-1948; tabulation. CAA J 9:42 Ap 15 '48

Geography and aviation. E. Huntington. Air Affairs 2, no 1:46-60 [S] '47

Place of civil aviation in the national pattern. J. R. Allison. Aero Digest 56:28-9 My '48

See also

Air carriers
Air express service
Air freight service
Air mail service
Airlines
Airplane industry and trade
Airports
Airways
Photography, Aerial

International aspects

International air transport association. W. P. Hildred. Air Affairs 1:277-88; 2:364-79 Mr '47, Jl '48

ICAO proposes sets of standards in seeking international uniformity. CAA J 9:63 Je 15 '48

International financing of air navigation facilities through ICAO. E. Warner. Air Affairs 2:351-63 Jl '48

Problems in international aviation confront entry airport managers. CAA J 9:51 My 15 '48

Problems of international standardization of civil air regulations. E. Warner. S A E J 56:52-4 Mr '48

Removal of barriers to air traffic between the United States and Canada. G. Burgess. CAA J 9:111 O 15 '48

Stalled at Geneva; meeting of International civil aviation organisation. Economist 153: 927 D 8 '47

See also

Airlines—Trans-oceanic lines

Statistics

Civil aviation highlights; 1947-1948; tabulation. CAA J 9:71 Je 15 '48

Argentina

Argentina expands air industry. Aviation W 48:38 My 24 '48

Australia

Australian air boom levels off while aviation fuel cut threatens. H. Leopold. Aviation W 48:40-1 Mr 22 '48

China

Potentials in air trade between the U.S. and China. K. N. Hynes. For Comm W 29:3-4 D 27 '47

India

India reports on civil aviation since partition. For Comm W 32:41 Jl 24 '48

Italy

Civil aviation makes rapid comeback in Italy. H. H. Rhodes. For Comm W 32:39 Ag 21 '48

Switzerland

Swiss subsidize private flying. Z. P. Filscher. Aviation W 49:34-5 Jl 5 '48

United States

Aviation industry eyes Congress for stable policy and more funds. Aviation W 48:11-12 Ja 5 '48

Aviation policy board reports to Congress. Ry Age 124:585-6 Mr 20 '48

Civil aviation gained stature in 1947. T. P. Wright. CAA J 9:14-15 Ja 15 '48

Clinic aims to cure ills. Bsns W p42 O 30 '48

Grass roots get new voice; advisory panel to Air coordinating committee. A. McCurely. Aviation W 49:33-4 Jl 26 '48

National aviation clinic, 6th, Detroit. Aviation W 49:14 N 1 '48

Postwar operating experience of domestic air lines. Survey of Cur Bsns 27:11-13+ D '47

Potentials in air trade between the U.S. and China. K. N. Hynes. For Comm W 29:3-4 D 27 '47

Problems and opportunities of aviation. R. S. Damon. Comm & Fin Chr 167:488+ Ja 29 '48

Safety first, dependability second; airway-aid bill to taxpayer is reaching high proportions. C. Hinshaw. Air Transport 5:43-4 D '47

AERONAUTICS, Military

Classical origins of military aviation. J. T. Lowe. Air Affairs 2, no 1:101-14 [S] '47

Industrial preparedness. S. M. Robbins and T. E. Murphy. Harvard Bsns R 26:329-52 My '48

Military application of atomic energy. J. T. Hayward. Aeronautical Eng R 7:32-3 S '48

Research work of the Franklin institute during World war II on airborne fire control apparatus. R. H. McClarren. Il Franklin Inst J 246:273-91 O '48

Some fundamentals of strategic thinking. O. A. Anderson. Aero Digest 57:56+ S '48

See also

Air power
Airplanes, Military
Airports, Military

History

Story of military aviation; 18th and 19th centuries. J. T. Lowe. Air Affairs 2:404-40 Jl '48

Study and teaching

Location of air force reserve training detachments; air R.O.T.C. colleges and universities; tabulation. Aero Digest 57:46-7 S '48
Naval academy and naval aviation. F. M. Hertel. Il U S Naval Inst Proc 74:36-41 Ja '48

Shrinking the world; activities of the Strategic air command. H. T. Wheless. map
Aero Digest 57:31-2+ S '48

Canada

RCAF builds up. H. C. Plummer. Il Aero Digest 57:19-21+ O '48

France

French air power weak and outmoded. M. J. Marsh. Aviation W 48:82 F 23 '48

Great Britain

British air power stands at low ebb. F. R. Brewster. Aviation W 48:79-80 F '48
U.K. defenses. Aviation W 49:16 S 27 '48

Japan

Yokosuka naval air base and Japanese naval aviation. C. R. Stokes and T. Darling. Il U S Naval Inst Proc 74:338-43 Mr '48

Russia

Russia eyes air bases in Sweden. G. H. Smith. Aviation W 48:39 Ap 12 '48

Sweden

Swedish air power dependent on West. G. H. Smith. Aviation W 48:37-8 F 23 '48

United States

Air affairs are your affairs; war. W. D. Partridge. Air Affairs 2:294-304 J '48

Air element in the air-ground team; work of the Tactical air command. E. R. Quesada. Il Aero Digest 57:36-7+ S '48

Air power and national security. R. B. Hotz. Aviation W 48:11-12 F 23 '48

Big increases for aviation funds asked by Truman in '49 budget. Aviation W 48:11-12 Ja 19 '48

Civilian components of the air force. K. K. Hoyt. Il Aero Digest 57:59-60+ S '48

Cold weather war. N. F. Silsbee and R. E. Saunders. Il Aero Digest 55:23-4+ D '47

Marine air reserve maneuvers. H. J. Blackwelder. Il Aero Digest 55:43 N '47

Power in the air; an analysis of the President's air policy commission report. Survival in the air age. S. P. Johnston. Il Dun's R 56:14-16+ Mr '48

AERONAUTICS, Military—United States—*Cont.*
Progress in air power related to construction power. W. Roper. *il Tech R* 50:24-8+ N '47
Trebling military plane production urged in ACC report to Truman. R. Hotz. *Aviation W* 48:9-10 F 16 '48
Your big customer, government; its aviation expenditures have climbed. *il Aviation W* 49:11-12 S 6 '48

See also

Airplanes, Military— United States—Air
United States service

AEROSOL MA

Turbidimetric determination of the molecular weight of micelles of dihexyl sodium sulfosuccinate in water. R. F. Stamm and others. *bibliog J Chem Phys* 16:423-4 Ap '48

AEROSOLS. See Colloids

AEROSOLS (insecticides). See Insecticides

AEROSOLS, Germicidal. See Disinfection and disinfectants

AFGHANISTAN

See also

Irrigation—Afghanis- Labor laws and leg-
tan islation—Afghanis-
tan Roads—Afghanistan

Commerce

Afghanistan seeks direct trade with United States. *For Comm W* 29:14 N 29 '47

Industries and resources

Afghan development to get U.S. firm's aid. *map Bsns W* p 101 F 28 '48

AFRICA

Industries and resources

Colonial Africa; Britain's new frontier. *map Bsns W* p 109-10+ O 2 '48

France maps development of African empire. *map Bsns W* p 117-18 Mr 27 '48

AFRICA, British East

Economic conditions

Situation during first half of 1947. *For Comm W* 29:12-13 N 15 '47

AFRICA, North

See also

Tunis (state)

AFRICA, South. See South Africa

AFRICA, West

Industries and resources

Cocoa demand goes up, supply comes down. V. McKay. *il Food Ind* 20:704-6 My '48

Unilever's Africa. G. Burck. *il map Fortune* 37:57-65+ Ja '48

AGAR

Japanese agar-agar production. *Chem Age (Lond)* 58:365 Mr 13 '48

AGAVES

Steroidal sapogenins; biogenesis of steroidal sapogenins in plants. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2383-5 O '47

Steroidal sapogenins; biogenesis of the steroidal sapogenins in agaves, manfreda and hesperaloe. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2403-4 O '47

Steroidal sapogenins; seasonal variation of sapogenins in plants. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2375-80 O '47

AGE (geological term)

Definition and adoption of the terms stage and age; American commission on stratigraphic nomenclature. *Am Assn Pet Geologists Bul* 32:372-6 *bibliog*(p374-6) Mr '48

AGE and employment

Absenteeism and injury experience of older workers. M. D. Kossoris. *Mo Labor R* 67:16-19 Jl '48

Age and opportunity. R. W. Babson. *Comm & Fin Chr* 166:1953 N 13 '47

Approach to old age and retirement. J. P. Flemming. *Edison Elec Inst Bul* 16:81-3 Mr '48

Employment problems of the older worker. B. Clague. *Mo Labor R* 65:661-3 D '47

Life begins at forty plus. *il Bsns W* p26 My 1 '48

Maximum age hiring policies surveyed. *Factory Management* 106:222+ Ja '48

Our ageing workers; program to keep older people productive. A. A. Morey. *Nat Safety* N 57:24-5+ My '48; Same cond. *Safety Eng* 95:11-12+ My '48

Work reliability; older and safer. *Bsns W* p 111-12 S 11 '48

AGED, Homes for the. See Old age homes

AGENCY (law)

See also

Bailment Master and servant
Insurance agents— Partnership
Law

Foreign principals

Should you register as a foreign agent? review of Foreign agent's registration act. K. E. Ettinger. *Ptr Ink* 224:40+ Ag 13 '48

AGENTS, Advertising. See Advertising agencies

AGENTS, Insurance. See Insurance agents

AGENTS, Manufacturers'. See Manufacturers' agents

AGGREGATES

Figuring aggregate costs; Arkansas state highway commission. A. B. Johnson. *Roads & Sts* 90:79-81 N '47

Laboratory investigation of anti-stripping admixtures used for promoting wetting power and adhesion between bitumens and aggregates. J. C. Sprague. *il Am Soc T M Proc* 46:1377-406; Discussion. 1407-15 '46

Maine turnpike project; portable plants supply aggregates. W. B. Lenhart. *il Rock Prod* 51:85-7 F '48

Mineral aggregates featured at A.S.T.M. meeting; symposium. *Rock Prod* 51:164+ Ag '48

Pennsylvania stone, slag, and sand and gravel producers meet with Highway department. *Rock Prod* 51:90-1+ F '48

See also

Concrete—Aggregate

Terrazzo

Moisture content

Rapid determinations of free moisture in aggregates. C. E. Proudley. *il Concrete* 56:40-1 Ag '48

Testing

Chemical test for reactivity of aggregates with cement alkalies; chemical processes in cement-aggregate reaction. R. C. Mielenz and others. *bibliog diags Am Concrete Inst J* 19:193-221 N '47

Laboratory needs for the ready-mixed concrete operator. E. L. Howard. *il Concrete* 56:10-12 Je '48

Modulus of elasticity of aggregates and its effect on concrete. H. A. LaRue. *bibliog il Am Soc T M Proc* 46:1298-310 '46

New army engineer tests for aggregates. *Rock Prod* 51:110-11 S '48

AGING OF metals. See Metals—Aging

AGING OF rubber. See Rubber—Aging

AGITATORS

Air lift agitator for varying tank levels and coarse, heavy slurries. H. W. Heiser. *diag Chem Eng* 55:135 Ja '48

Design and utilization of internal fittings for mixing vessels. E. S. Bissell and others. *bibliog diags Chem Eng Prog* 43:649-58 D '47

Effect of baffles on agitator power consumption. D. E. Mack and A. E. Kroll. *bibliog diags Chem Eng Prog* 44:189-93; Discussion. 193-4 Mr '48

Magnetic-flux agitating device for microtitation. C. L. Claff. *diags Science* 108:67 Jl 16 '48

See also

Mixers

AGLUCONES

Structure and synthesis of cardiac genins. R. B. Turner. *Chem R* 43:1-42 *bibliog*(205 ref, p38-42) Ag '48

AGNEW, Paul Gough, 1881-

P. G. Agnew and the ASA. E. C. Crittenden. *por Ind Stand* 19:2-3 Ja '48

AGRICULTURAL chemicals

Planetary Chemicals specializing in chemicals for greenhouses and orchards. *Chem Ind* 62:386 Mr '48

AGRICULTURAL chemistry

Accidents and lacunae in agricultural chemistry; abstract. H. Nicol. *Chem & Ind* p75 Jm 31 '48

AGRICULTURAL chemistry—Continued

Advisory chemist and problems in crop production. N. H. Pizer. *Chem & Ind* p702-4 N 15 '47

Agricultural researchers confer on tracer techniques. *il Chem & Eng* N 26:36-8 Ja 5 '48

Agriculture; farmers increasingly supply chemical industry with raw materials; also its best customers. P. H. Groggins. *Chem Eng* 55:114-18 Ap '48

Agriculture is part of everyone's business; abstract. R. Hansberry. *Chem Eng* 54:256-4 D '47

Chemistry and agriculture. S. J. Watson. *Chem & Ind* p664-7 O 16 '48

From the highest to the lowest. H. Nicol. *bibliog Chem & Ind* p230-2 Ap 10 '48

Synthetic chemicals for agriculture. R. H. Wellman. *il Chem Ind* 62:914-21; 63:223-9 Je, Ag '48 [reprints 50c]

AGRICULTURAL chemists, Association of official. See Association of official agricultural chemists

AGRICULTURAL clubs

See also
4-H clubs

AGRICULTURAL colleges

See also
Land grant colleges

AGRICULTURAL credit

Agricultural loans increased by a complete farm loan program; First national bank, Joliet, Illinois. E. M. Swanzey. *Bankers Mo* 64:583-6 D '47

Agricultural loans outstanding of banks and other agencies supervised by the Farm credit administration, 1941-1946. Survey of Cur Bsns 1947 Sup p72 [supplemented in monthly numbers]

Agriculture maintaining sound financial status despite rising costs. ABA survey shows. *Comm & Fin Chr* 168:1018 S 9 '48

All implement loans go to the bank; City national bank of Hoopston, Ill. G. H. Finch. *il Bankers Mo* 65:12 JI '48

Farm production loans at commercial banks outstanding in mid-1947. H. Koenig and T. Smith. *Fed Res Bul* 33:1469-76 D '47

Farm real estate and non-real estate debt; with data for selected periods, 1940-1947. *map Fed Res Bul* 33:1363-7 N '47

Keep agriculture financially sound; with table showing balance sheets of agriculture 1940 and 1947, and percentage change seven years to 1947, with reference to bank loans. A. G. Brown. *Banking* 40:66-7+ Ja '48

Keeping them down on the farm; junior farmer loan program of Valley national bank of Phoenix, Ariz. K. Taylor. *il Banking* 40:52-3+ D '47

Our best borrowers are farmers; Farmers state bank, Albert, Kan. R. J. Pivonka. *il Bankers Mo* 65:48+ S '48

Save and produce; agricultural credit; A.B.A.'s anti-inflation program. *Banking* 40:40-1+ F '48

Should bankers advise young men to buy farms? M. G. Via. *Banking* 40:56+ D '47

Structure of interest rates on commercial bank loans to farmers in mid-1947. R. Youngdahl. *Fed Res Bul* 33:1483-92 D '47

Two farm loan programs benefit both farmer and bank. R. E. Young and B. Gralik. *il Bankers Mo* 65:12 Mr '48

What the bankers are doing about inflation; granting sound agricultural loans. A. G. Brown. *Comm & Fin Chr* 168:1004+ S 9 '48

Who provides farmers with credit? with charts showing amount borrowed by farmers in 1947 by states. *Banking* 41:58-9 S '48

See also
Mortgages, Farm

AGRICULTURAL engineering

Study and teaching

Agricultural engineering; its place in the land-grant schools. A. W. Turner. *J Eng Educ* 38:331-7 Ja '48

Most effective utilization of fundamental engineering subjects in agricultural engineering courses. A. W. Farrall. *J Eng Educ* 38:582-6 Ap '48

Place of engineering experiment stations in agricultural engineering. R. M. Green. *J Eng Educ* 38:144-7 O '47

Training in agricultural engineering; memorandum by Institution of British agricultural engineers. *Engineer* 186:184 Ag 20 '48

AGRICULTURAL extension work

Thirty-three years' specialized service to farmers; demonstration trains. *il Ry Age* 124:165-6 Ja 17 '48

AGRICULTURAL insecticide and fungicide association

Annual meeting, 15th, Spring Lake, N.J. Sept. 7-9. *Chem & Eng N* 26:2889 S 27 '48

Annual meeting, 15th, Spring Lake, N.J. Sept. 7-9; with abstracts of papers. *Oil Paint & Drug Rep* 154:5+ S 13 '48

Meeting, New York, Feb. 19-20. *Oil Paint & Drug Rep* 153:5, 40-1 F 23 '48

AGRICULTURAL institute of Canada

Who's who in the Agricultural institute of Canada. 22cp \$2.50. Agricultural institute of Canada, Ottawa '48

AGRICULTURAL insurance. See Insurance, Agricultural

AGRICULTURAL labor. See Farm labor

AGRICULTURAL laws and legislation**Great Britain**

Agriculture and food; report of the Lucas committee on the Agricultural marketing acts. *Economist* 153:830-1 N 22 '47

English agricultural act, 1947. W. W. Johnson. *Land Econ* 24:178-81 My '48

United States

House farm bill is one that counts. *Barron's* 23:36-7 Je 23 '48

Rewriting of Agricultural act promises sharp support battle. *Food Ind* 20:1327 S '48

AGRICULTURAL limestone. See Lime as fertilizer

AGRICULTURAL limestone association, National. See National agricultural limestone association

AGRICULTURAL limestone institute
Supercedes N.C.S.A. division; board of directors meeting, Hot Springs, Va. July 8. *Rock Prod* 51:79+ JI '48

AGRICULTURAL machinery

Building, repairing and design of farm machinery. E. J. Koop. *il Welding J* 26:988-90 N '47

Capacity requirements for power-controlled agricultural implements. K. B. Sorensen and S. Madill. *diags S & E* 56:32-4 Ja '48

Farm horsepower; more mechanical power on the farms than in all the factories in the country. *il Fortune* 38:92-101+ O '48

Fast comer in farm machinery; Davis manufacturing of Kansas. *il Fortune* 38:96-101+ JI '48

Increase life of farm equipment parts by hard-facing; illustrations with text. J. E. Dato. *Welding J* 27:726-7 S '48

See also
Corn harvesting machinery Cotton picking machines
Tractors

Manufacture

Future welded design of farm equipment. E. J. Koop. *il Welding J* 27:850-4 O '48

Prices

Revised indexes of agricultural machinery and equipment prices. E. V. Minson. *Mo Labor R* 67:403-5 O '48

AGRICULTURAL machinery industry

Agriculture; prospects for 1948. E. F. Ross. *il Steel* 122:156-7 Ja 5 '48

Antitrust suits filed against farm machinery makers by government. *Iron Age* 162:112 S 23 '48

Bigger Schotts; Ohio family's empire is growing. *Bsns W* p23 Ap 3 '48

11 basic elements influencing dealer sales-training programs; Minneapolis-Moline power implement co. H. E. Green. *il Ptr Ink* 222:31-3+ Ja 16 '48

Farm horsepower; more mechanical power on the farms than in all the factories in the country. *il Fortune* 38:92-101+ O '48

Farm machine makers beckon to newspapers. G. W. Parker. *Ed & Pub* 81:16 Mr 13 '48

Farm machinery industry optimistic for 1948 after all-time sales peak. *il Am Mach* 92:124 F 26 '48

AGRICULTURAL machinery industry—Cont.

Farm supplies for ERP; equipment and fertilizer. Food Ind 20:707 My '48

Industrial's best sales tool; on-site demonstration; Be-Ge earth-moving equipment. Sales Management 61:126-8 Ag 15 '48

Why hand pick buyers for a new product? Allis-Chalmers' hay baler. Sales Management 59:111 D 1 '47

See also

Davis manufacturing, inc., Wichita, Kansas International harvester company Tractor industry and trade

Advertising

Power tools without electricity; Farm-Crafter, a field repair and work unit run from tractor power take-off, *il* Ind Market-ing 32:62 D '47

What Massey-Harris is doing to strengthen its dealers. E. F. Krein. *il* Sales Management 61:59-64 Ag 1 '48

Exhibitions

Royal show at York, *il* Engineer 186:30-2, 53-6 JI 9-16 '48; Engineering 166:42-3, 60, 65-7, 84, 89-91, 114-15 JI 9-30 '48

Finance

All implement loans go to the bank; City national bank of Hoopston, *il*. G. H. Finch. *il* Bankers Mo 65:12 JI '48

Farm machinery makers' working capital needs. Barron's 23:28 F 23 '48

International Harvester vs. Oliver corporation. P. Dobbs. Mag of Wall St 82:434-6+ JI 31 '48

Securities

Another good year for farm equipments? with position of leading stocks. F. R. Walters. Mag of Wall St 81:590-1+ F 28 '48

Future of farm equipment companies; with position of leading stocks. F. R. Walters. Mag of Wall St 82:590-1+ S 11 '48

Great Britain

Engineering outlook. Engineering 165:99-102 Ja 30 '48

Russia

Output in the Soviet Union, 1947-1948. For Comm W 31:26 Je 12 '48

Southern states

South gets new auto, farm equipment plants. S. Fish. Manuf Rec 117:41 O '48

Sweden

Large import requirements. For Comm W 30:22-3 F 21 '48

AGRICULTURAL pests

Insecticide industry's contribution to food production. L. S. Hitchner. Ind & Eng Chem 40:879 Ap '48

AGRICULTURAL products

DDT residues in agricultural products. R. H. Carter. bibliog Ind & Eng Chem 40:716-17 Ap '48

See also

Crops Rubber plants and
Dyes and dyeing—planting
Natural dyes Vegetables
Farm produce Wheat

AGRICULTURAL research

Advisory chemist and problems in crop production. N. H. Pizer. Chem & Ind p702-4 N 15 '47

Agricultural researchers confer on tracer techniques. *il* Chem & Eng N 26:36-8 Ja 5 '48

Agricultural research projects announced. *il* Food Ind 19:1680-3 D '47

First agricultural study to be financed by the Atomic energy commission. Science 107:367-8 Ap 9 '48

Insecticides for protection of growing crops. E. B. Pepper. Ind & Eng Chem 40:708-9 Ap '48

See also Iowa state college of agriculture and mechanical arts—Guatemala tropical research center

AGRICULTURAL research administration. *See* United States—Agricultural research administration

AGRICULTURE*See also*

Agricultural machinery and other headings beginning	Feeding and feeding stuffs
Agricultural	Fertilizers
Chemurgy	Flax
Cotton	Food supply
Crops	Forests and forestry
Dairying	Grasses
Electricity on the farm	Irrigation
Farm buildings	Land settlement
Farm labor	Land tenure
Farm produce	Rubber plants and planting
Farmers	Soils
	Sugar
	Wheat

Economic aspects

Agriculture and the world food problem; abstract. G. S. Robertson. Chem & Ind p603-4 S 18 '48

Agriculture in mid-1948. Fed Res Bul 34:1047-57 S '48

Agriculture; the key to price and business trends. F. R. Walters. *il* Mag of Wall St 81:687-9+ Mr 27 '48

Balance sheet of agriculture, 1947; annual report of U.S. Department of agriculture; abstract. N. J. Wall and others. maps Fed Res Bul 33:1357-72 N '47

Balance sheet of agriculture, 1948; United States Department of agriculture report; abstract. N. J. Wall and others. map Fed Res Bul 34:1067-82 S '48

Development of Salter's conception of research. K. H. Parsons. Land Econ 24:175-8 My '48

Farm prosperity; what's behind it. Bsns W p22 O 30 '48

Farmers figure they'll do O.K.; how the government's farm-price supports operate. *il* Bsns W p 19-20 F 21 '48

How rich is the farm market? R. Hurley. *il* Adv & Sell 41:27-8+ O '48

Next year's crops; the key to domestic and international outlook. F. R. Walters. *il* Mag of Wall St 81:182-3+ N 22 '47

Plan for transferring the farm from father to son. S. Henderson. Land Econ 24:82-5 F '48

Relation of agricultural production to inputs. G. T. Barton and M. R. Cooper. R Econ & Stat 30:117-26 My '48

Some current agricultural problems. O. V. Wells. Am Pet Inst Proc 27(1):62-3 '47

What the farmers want. A. B. Kline. Ann Am Acad 259:122-7 S '48

Which way do we go now? N. E. Dodd. Comm & Fin Chr 167:207+ Ja 15 '48

See also

Agricultural credit	Farmers
Farm income	Land tenure
Farm market	Sociology, Rural
Farm produce—Prices	
<i>also</i> International labor organization—	
Permanent agricultural committee	

Statistics

Yearbook of food and agricultural statistics, 1947. 261p \$3 Columbia univ. press, 2960 Broadway, New York 27 '47

See also

Horticulture—Statistics

Study and teaching

Number of banker agricultural schools increasing. V. B. Hart. Banking 40:52+ Je '48

Terminology

Farm glossary. L. S. Wolfe. 360p pa \$1.50 L. S. Wolfe, 949 Russell st, N.E. Orangeburg, S.C. '48

Brazil

Corn outranks coffee as most widely planted crop in Brazil; data on other crops. For Comm W 33:8 O 9 '48

Burma

Marketing board established. For Comm W 30:9 Ja 10 '48

California

Lush farms make Fresno an economic paradise. *il* Bsns W p38+ O 16 '48

AGRICULTURE—Continued

Europe

European recovery; role of agriculture. Economist 155:634-6 O 16 '48

Georgia

Georgia story. *il* Manuf Rec 117:92-7 My '48

Great Britain

Agricultural policy. Economist 155:564-6 O 9 '48

Organisation of agriculture in the United Kingdom. *Int Labour R* 57:630-2 Je '48

Ireland

Eire; new agriculture policy announced. *For Comm W* 31:15 My 8 '48

Japan

Natural resources problems in Japan. H. G. Schenck. *Science* 108:367-72 O 8 '48

Latin America

Latin American workers' organisations demand agrarian reform. *Int Labour R* 57:99-102 Ja-F '48

Mexico

Tariff commission adds report on Mexican agriculture. *For Comm W* 32:19 Ag 14 '48

Mississippi

How a cottonsick area got well; Tupelo, Miss. diversifies; contribution of banks. H. Severson. *Banking* 41:52+ J1 '48

Missouri

Balanced banking, farming and living; banker E. J. Evans of Amsterdam, Missouri, builds a prosperous community. D. Evans. *il* *Banking* 41:55-64 J1 '48
Balanced farming builds bank balances; Missouri's balanced farming program. J. W. Burch. *il* map *Banking* 40:54-5+ D '47

New England

More U.S. farms for Europe's food; immigrants could make New England acres productive. J. E. Kelly. *Barron's* 27:9 N 24 '47

Puerto Rico

Agricultural profit-sharing in Puerto Rico. G. Coates. *bibliog Land Econ* 24:309-11 Ag '48

Southwestern states

Dust storms of 1948; marginal lands in New Mexico and west Texas. H. H. Finnell. *il* map *Sci Am* 179:7-11 Ag '48

United States

Agriculture in mid-1948. *Fed Res Bul* 34:1047-57 S '48

Agriculture's new day. C. F. Brannan. *il* *Food Ind* 20:1424-5 O '48

Balance sheet of agriculture, 1947; annual report of U.S. Department of agriculture; abstract. N. J. Wall and others. maps *Fed Res Bul* 33:1357-72 N '47

Balance sheet of agriculture, 1948; United States Department of agriculture report; abstract. N. J. Wall and others. map *Fed Res Bul* 34:1067-82 S '48

Farm horsepower; more mechanical power on the farms than in all the factories in the country. *il* *Fortune* 38:92-101+ O '48

Progress of the postwar transition; agricultural production and income in 1947; with figures for other years. *Survey of Cur Bsns* 28:26-7 F '48

See also

Crops

Farm relief

Farmer gets hearing; House agricultural committee. J. A. J. Jones. *Food Ind* 19:1621+ D '47

Yugoslavia

Peasants under Tito. Economist 155:62-3 J1 10 '48

AGRICULTURE, Cooperative

Agricultural co-operation in Hungary. *Int Labour R* 56:89-90 J1 '47

AGRICULTURE and war

Use of military land for agriculture during World War II; War Department land. A. T. M. Lee. *J Land & Pub Util Econ* 23:349-59 N '47

AGSTONE. See Lime as fertilizer

AIDALA, Arthur

Will you insturgitate with Artie's yeandis? J. L. Collings. *poers Ed & Pub* 81:70-1 My 8 '48

AIR

Air cycle heat pump. T. F. Thomas. *diags Inst Mech Eng J & Proc* 158:Proc 30-9 Je '48; Same cond. *Engineer* 184:180-1, 205-6 Ag 22-29 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 39-51 Je '48

Cold air refrigerating cycles. R. P. Plank. *bibliog il* *diags Refrig Eng* 56:53-9 J1 '48

Graphical determination of heat transfer film coefficient for air. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:109-11 Ap '48

High-output combustion of ethyl alcohol and air. A. H. Shapiro and others. *bibliog diags A S M E Trans* 70:161-9 Ap '48

Ionization currents in divergent fields in hydrogen and in air. G. W. Johnson. *bibliog diags Phys R* 73:284-97 F 15 '48

Recovery of solvent from air. W. L. Nelson. *bibliog Oil & Gas J* 46:114-15 Ap 15 '48

Simulation of high air temperatures by hydrogen admixtures. B. N. Cole. *Engineering* 165:508 My 28 '48

Vapor pressure, specific volume, *p-v-T* data for H₂, N₂, O₂, CO, CO₂, air, He, A. H. S. Gratch. A S M E Trans 70:631-40 *bibliog* (154 titles, p637-40) Ag '48

See also

Aerodynamics

Air conditioning

Atmosphere

Atmosphere, Upper

Compressed air

Humidity

Liquid air

Analysis

Antimony trisulfide. F. M. R. Bulmer and J. H. Johnston. *J Ind Hygiene* 30:26-8 Ja '48

Determination of carbon monoxide in air by use of red mercuric oxide. J. D. McCullough, R. A. Crane and A. O. Beckman. *bibliog diags Anal Chem* 19:999-1002 D '47

Determination of chlorinated hydrocarbons in air. J. P. Fahy. *bibliog diag J Ind Hygiene* 30:205-7 My '48

Determination of lead in air; rapid micro-method for field use. L. J. Snyder, W. R. Barnes and J. V. Tokos. *bibliog il* *diags Anal Chem* 20:772-6 Ag '48

Determination of nitrogen oxides in air; permanent color standards for use with method of Patty and Petty. P. R. Averell and others. *Anal Chem* 19:1040-1 D '47

Determination of sulfur dioxide in air by means of the midget impinger. S. J. Pearce and H. H. Schrenk. *U S Bur Mines Rep of Invest* 4282:1-6 '48

Determination of traces of acetylene in air. T. A. Geissman, S. Kaufman and D. Y. Dollman. *diags Anal Chem* 19:919-21 N '47

Gas analysis apparatus employing the velocity of sound. C. E. Crouthamel and H. Diehl. *bibliog diags Anal Chem* 20:515-20 Je '48

Laboratory equipment for the analysis of mine atmospheres. L. B. Berger and H. H. Schrenk. *bibliog 8pls U S Bur Mines Information Circ* 7441:1-18 '48

Measurement of alpha-active dust in the atmosphere. H. Carmichael and P. R. Tunncliffe. *bibliog diags J Ind Hygiene* 30:211-27 J1 '48

Microdetermination of carbon monoxide in air; a portable instrument. A. O. Beckman, J. D. McCullough and R. A. Crane. *bibliog il* *diag Anal Chem* 20:674-7 J1 '48

Sampling device for average gas concentrations in air. D. E. Goldman and J. A. Mathis. *bibliog diags J Ind Hygiene* 30:129-32 Mr '48

Spectrographic determination of beryllium in biological material and in air. J. Cholak and D. M. Hubbard. *bibliog Anal Chem* 20:73-6 Ja '48

Spectroscopic evidence for ammonia in the earth's atmosphere. O. C. Mohler and others. *Phys R* 74:352-3 Ag 1 '48

Study of the health hazards of the tobacco stemming and redrying industry. W. E. McCormick and others. *bibliog flow sheet il* *J Ind Hygiene* 30:43-52 Ja '48

AIR—Continued

Bacteriology

- Sanitary significance of ventilation. W. F. Wells. bibliog diags Heating-Piping 20:115-21 S '48
 Studies on the air transmission of micro-organisms derived from the respiratory tract. H. du Buy and others. bibliog diags Pub Health Rep 62:1391-413 S 26 '47

AIR, Compressed. See Compressed air

AIR, Liquid. See Liquid air

AIR affairs (periodical)

- Air affairs are your affairs. W. D. Pardridge. Air Affairs 2:293-313 J1 '48

AIR affairs, International society of. See International society of air affairs

AIR brakes

- Air-brake assembly for mining locomotives. il Engineering 164:534 D 5 '47
 Air-brake clamping jigs speed machining of bus parts. W. Rudolph. il Steel 122:109-10 Ap 26 '48
 Air brake questions and answers (cont). Ry Mech Eng 121:661-2, 707-8; 122:27, 76-7, 137, 153, 258-9, 309, 373, 501, 589-90 N '47-J1, S-O '48
 Assures maximum braking effort; Decelostat equipment. C. F. Hammer. il Machine Design 20:116-17 Ap '48
 Automatic drilling control. M. E. True and R. R. Crockston. il diags Pet Eng 19:136+ D '47
 Brake-cylinder-release valve speeds freight-car handling in yards. Ry Mech Eng 122:312-14 Je '48; Same. Ry Age 125:151-2 J1 17 '48
 Brake equipment developments and changes; research by A.A.R. Mechanical division. Ry Mech Eng 122:421-3 Ag '48
 Brakes and brake equipment; A.A.R. committee report. Ry Age 125:62-4 J1 10 '48
 Broken air-brake pipes. Ry Mech Eng 122:19 Ja '48
 Fundamentals of no. 6-BL brake equipment for switching and branch line locomotives. H. W. Sudduth. diag Ry Mech Eng 122:142+ Ap '48
 Importance of careful handling of brake equipment. P. F. Conahan. Ry Mech Eng 121:659 N '47
 Lapping AB slide valves. il Ry Mech Eng 122:367-8 J1 '48
 Load compensating brake goes in service. C. D. Stewart. il diag Ry Age 123:690-2 O 25 '47; Same. Ry Mech Eng 121:691-2+ D '47
 Locating causes of undesired road emergency applications. R. C. Coon. Ry Mech Eng 122:9-10 Ja '48
 Missouri Pacific gets new air-brake instruction car. il Ry Age 122:760-2 O 23 '48
 Strainer protection devices. R. H. Cantzler. Ry Mech Eng 121:658-9 N '47

See also

Brakes, Electro-pneumatic

Manufacture

- Pneumatic muscles clamp and assemble; Bendix-Westinghouse automotive air brake co. C. S. Ricker. il diags Am Mach 92:112-13 Je 17 '48

Repair

- Air-operated non-pressure head assembler. il Ry Mech Eng 122:497 S '48
 AIR brakes, Motor bus
 Air brakes; Clayton Dewandre equipment. diags Automobile Eng 38:338-42 S '48
 AIR brakes, Motor truck
 Air brakes; Clayton Dewandre equipment. diags Automobile Eng 38:338-42 S '48
 Air brakes; Westinghouse system. il diags Automobile Eng 37:412-16 N '47

AIR brush

- Is the airbrush an asset in newspaper art? C. Jensen. il Ed & Pub 81:57 Ap 10 '48

AIR bubbles. See Bubbles

AIR cargo carriers. See Air freight service

AIR carriers
 See also
 Airlines

Non-scheduled operations

- Airlines backstop Berlin airlift. Aviation W 49:63-4 S 20 '48
 CAB again rebuffs nonskeds; rules out exemption to cover scheduled second-class service. Aviation W 49:40-1 O 25 '48
 CAB broadens attack on nonskeds. Aviation W 49:42 J1 26 '48
 CAB cites Viking on trip frequency. Aviation W 49:39 Ag 23 '48
 Coast-to-coast by sky-coach; editorial. P. Andrews. Aviation W 49:56+ O 18 '48
 Coast-to-coast flights for \$99; nonscheduled carriers again active. Aviation W 48:45 Mr 15 '48
 Coast-to-coast nonskeds attacked. C. Adams. Aviation W 48:37-8 Je 7 '48
 Contract conflict; CAB and Commerce split in testimony before congressional group. Aviation W 48:13 My 10 '48
 Cutrate fares again under fire. Aviation W 49:39-40 Ag 2 '48
 East-west nonskeds talk back; say they cannot operate if regularity of flights is limited too stringently. Aviation W 49:40 Ag 9 '48
 Flying boats; nonsked finds greater passenger capacity is advantageous. Aviation W 48:48 Je 21 '48
 Georgia crash jars nonskeds. Aviation W 48:40 Ja 19 '48
 How large are large irregulars. Aviation W 49:37 Ag 30 '48
 Industry loses its vision; editorial. R. H. Wood. Aviation W 49:50 Ag 9 '48; Discussion. 49:18 S 13 '48
 Irregulars accused of conspiracy; AA files complaint charging coast-to-coast carriers are plotting to evade nonsked exemption. Aviation W 49:13 Ag 30 '48
 New organization for irregular lines; Independent air carrier association. Aviation W 49:40 S 13 '48
 New probe set for nonskeds. C. Adams. Aviation W 49:46+ Ag 16 '48
 Nominal security quotations reflect plight of non-skeds. S. Altschul. Aviation W 48:39 Ja 26 '48
 Non-scheduled air carrier operations; tabulated data. Aviation W 48:92 F 23 '48
 Nonskeds in middle of three-way squeeze. Aviation W 49:41 O 11 '48
 Nonskeds seek Atlantic business. C. Adams. Aviation W 49:45-6 J1 12 '48
 39 irregular lines face CAB penalty. Aviation W 48:36 F 16 '48
 2,000 nonscheduled air carriers hold operating permits. CAA J 8:136 D 15 '47

AIR carriers, Freight. See Air freight service

AIR cleaners

- Air filtration; electrostatic precipitation principle. il Elec R (Lond) 142:858 My 28 '48
 Precipitating oil coolant mist electrostatically. il diags Steel 122:86-7+ F 23 '48

Manufacture

- Coordinated handling cuts labor costs 60 per cent; United Specialties conveys packaged air cleaners. A. Vander Meulin. il Factory Management 106:60-1 Ag '48

AIR cleaning

- Inaudible sound, a new tool for air cleaning. S. Y. White. il Heat & Ven 45:59-64 S '48

AIR compressors

- Air compressors in water and sewage works; results of questionnaire. Water & Sewage Works 95:56 F '48
 A.c. compressor valve and seal grinder. il Ry Mech Eng 122:163-4 Ap '48
 Axial-flow compressors are simple. J. A. King. il diag Aero Digest 55:42-5+ D '47
 Axial-flow compressors for gas turbines. A. I. Ponomareff. il diags A S M E Trans 70:295-304; Discussion. 305-6 My '48
 Bulls three-cylinder air compressor. il diags Engineer 185:sup5-6 Ap 30 '48; Engineering 165:461-2 My 14 '48
 Centralized compressor plant delivers air at 1/2 labor cost; Ball bros. co., Muncie, Ind. il Cer Ind 51:66-7 Ag '48
 Compressed air and the Diesel. il Diesel Power 25:70-4+ N '47
 Compressed air dumps slag pots of TCI Diesel-powered trains; unique air compressor car. il Blast F & Steel Pl 36:847-9 J1 '48

AIR compressors—Continued

- Could spontaneous ignition have caused this explosion? H. T. Livingston. *Power Generation* 52:89 Ja '48
- Cutting maintenance costs on air equipment. D. S. Linton. *Il plan diag Foundry* 76:90-3+ Ja '48
- Engineering the air compressor installation for maximum efficiency. *Il Paper Tr J* 127: 51-5 Jl 15 '48; Same. *Glass Ind* 29:26-7+ Ja '48; Same. *Pet Eng* 19:84-+ Ap '48
- Fluid dynamic aspects of axial-flow compressors and turbines. J. R. Weske. *diags J Aeronautical Sci* 14:651-6 N '47
- Free-piston compressor-engines. H. O. Farmer. *diags Inst Mech Eng J & Proc* 156:Proc 253-62, pl 1-2 D '47; Same cond. *Engineer* 182:540-2 D 13 '46; Discussion. *Inst Mech Eng J & Proc* 156:Proc 262-71 D '47; *Engineer* 182:548-9 D 13 '46; *Engineering* 162:617-19 D 27 '46
- Grouting stops compressor sway. *Il diags Eng & Min J* 149:93-4 Jl '48
- High-speed flow through cambered rotating grids. F. L. Wattendorf. *diags J Aeronautical Sci* 15:243-7 Ap '48
- Inlet conditions of centrifugal compressors for aircraft engine superchargers and gas turbines. H. Woodhouse. *diags J Aeronautical Sci* 15:403-6 Jl '48
- N.A.C.A. cascade data for the blade design of high-performance axial-flow compressors. S. M. Bogdonoff. *Il diags J Aeronautical Sci* 15:89-95 F '48
- New method for the aerodynamic design of multistage axial-flow compressors. H. Davis. *diags J Aeronautical Sci* 15:41-8 Ja '48
- 1000-kw gas-turbine plant features new centrifugal compressor design; experimental open-cycle unit built by Maschinenfabrik Oerlikon, Switzerland. *Il diags Power* 91: 851-3 D '47; Same. *Mech Eng* 70:144-5 F '48
- Relative merits of rotary compressors. D. G. Samaras and R. A. Tyler. *bibliog J Aeronautical Sci* 15:625-31 O '48
- Three piece cast iron compressor unit. *Il Product Eng* 19:99 Mr '48
- Two-stage synchronized compressor system for deep piers. A. Maitland. *Roads & Sts* 91:91 Ag '48
- You can simplify calculations for humidity and air compression. W. T. Rice. *Chem Eng* 55:116-18 O '48

Lubrication

- Proper air compressor lubrication promotes efficiency. T. Trail. *Il Power Generation* 52: 60-1+ Ag '48

Manufacture

- Connecting rod machining time and cost cut 20 per cent; Bendix Westinghouse automotive air brake co. *Il plan diags Steel* 123:84-6 Ag 2 '48
- Hollow blades for axial flow compressor. R. Meredith and A. J. Phelan. *Il diags Metal Prog* 53:841-7 Je '48

AIR conditioning

- Air conditioned building has double glass and glass block; Detroit Edison co.'s air conditioned service building. P. G. Heidman. *Il Heating-Piping* 20:69-71 Ap '48
- Air conditioning aids food sales; C. H. Morgan grocery co. *Il Heating-Piping* 20:79 F '48
- Air conditioning and blank walls introduce new fire problems. R. C. Corson. *Il Civil Eng* 18:557+ S '48
- Air conditioning buyers know lots about it that ain't so. H. E. Wheeler. *Il Heating-Piping* 20:101-3 Ja '48; Discussion. 20:109-10 Mr '48
- Air conditioning design. H. C. Hoffmann and G. B. Priestster. *diags Refrig* Eng 56:1-5 sec 2 N '48 [reprints 40c]
- Air conditioning the institution. *Il Dom Eng* 171:154+ Je '48
- Air quality control, fourth factor in air conditioning; Airkem system of odor removal. *Il Sheet Metal Worker* 39:88+ My '48
- Air recovery deodorizes conditioned air for economical recirculation. *Il diags Arch Forum* 89:105-7 Ag '48

American developments in air conditioning and refrigeration during the last decade. W. H. Carrier. *bibliog Inst Mech Eng J & Proc* 157 (War emergency issue no 33):357-60 '47

- Big new telephone building completely air conditioned; Illinois Bell telephone co.'s Toll building in Chicago. *Il Heating-Piping* 20:74-5 Je '48
- Carefully engineered installation; warm-air conditioning system. R. B. Duncan. *Il plan diag Sheet Metal Worker* 39:154+ Ja '48
- Conduit Weathermaster system for air conditioning multi-story buildings. W. L. McGrath. *Il diags Heat & Ven* 45:81-3 My '48
- Consider steam for air conditioning. B. Dmitrieff. *Power Generation* 52:102+ O '48
- Custom-air system for air conditioning multi-story buildings. *diags Heat & Ven* 45:86-8 Je '48
- Fit the air-conditioning system to the load. J. D. Constance. *plans diags Power* 92:18-21 Ja; 72-4 F '48
- Good for men and machines; air conditioning for comfort and for control of industrial processes. *Heating-Piping* 20:99 Mr '48
- Heat pump; economic effects of climatic and usage factors. D. W. McLenegan and G. W. Brown. *Elec Eng* 67:347-8 Ap '48
- Heating, ventilation, and air conditioning. O. Faber. *Inst Mech Eng J & Proc* 157 (War emergency issue no 33):355-7 '47
- Mine air conditioning at Noranda. *Il Eng & Min J* 149:95 S '48
- Personal weather system for air conditioning multi-story buildings. C. W. Brown. *diags Heat & Ven* 45:89-90 Ag '48
- Possibilities for heat pump expansion. E. N. Kemler. *Il diags Heat & Ven* 45:80-5 O '48
- Research aspects of the heat pump. E. N. Kemler and N. Kulik. *diags Heating-Piping* 20:107-12 Ap '48
- Self-contained units for air conditioning multi-story buildings. C. F. Wood. *Il plan diag Heat & Ven* 45:82-5 Ap '48
- Skilled operating personnel needed in air conditioning. D. A. Kepler. *diag Heating-Piping* 20:121-3 Ja '48
- Special drawings a great help to air conditioning operating engineer. D. A. Kepler. *Heating-Piping* 20:102-3 Mr '48
- Suction line heat exchangers; why and how they're used in refrigeration and air conditioning. H. E. Ferrill. *Heating-Piping* 20:90-3 Je '48
- Well-executed ductwork has nothing to hide! food store air conditioning; Donahoe's, inc. *Il Sheet Metal Worker* 39:67-3 Je '48
- Zoning air conditioning for future partition changes; Los Angeles Mirror building. D. T. DuBain. *Il diag Heating-Piping* 20:81-4 O '48

See also

- | | |
|-------------------------|------------------------|
| Air cleaners | Exhaust systems |
| Air filters | Gas in air con- |
| Air purification | ditioning |
| Cold storage | Heating |
| Cooling | Humidity |
| Deodorization | Ventilation |
| Electricity in air con- | |
| ditioning | |
| also subdivision | Air conditioning under |
| special subjects, e.g. | |
| Bank buildings—Air | Crane cabs—Air |
| conditioning | conditioning |
| Cotton mills—Air | Hosiery mills—Air |
| conditioning | conditioning |

Cost

- Cost and capacity data for hospital air conditioning; abstract. G. C. Dittman. *Heating-Piping* 20:106 F '48

Hygienic aspects

- Engineers and the doctors have many interests in common. V. L. Sherman. *Il Heating-Piping* 20:102-3 O '48
- Suggests we abandon comfort, and air conditioning for health. L. T. Avery. *Heating-Piping* 19:106-7 D '47

Specifications

- Simplified procedure for specification writing; supplement (cont). G. W. Campbell. *Heating-Piping* 20:128-9 Ja; 102-3 F; 106-7 Mr; 104-5 Ap; 109-10 My '48

AIR conditioning—Continued

Study and teaching

- Plumbing, heating, air conditioning technical courses offered at North Carolina State. Dom Eng 172:166 S '48
 School combines academic refrigeration instruction with commercial testing. Il Refrig Eng 56:337 O '48

Tables, calculations, etc.

- Mine air-conditioning chart. G. E. McElroy. bibliog 7pls U S Bur Mines Rep of Invest 4165:1-23 '47

Terminology

- Air conditioning in textile mills. H. Herkimer. Rayon 29:94-6 Mr '48

AIR conditioning, Industrial

- Air conditioning cuts rust spoilage; production of ball bearings; S K F industries, inc. N. N. Wolpert. Il Heat & Ven 45:81-2 F '48
 Air conditioning improves quality of baked pies. R. A. Latimer. Il Food Ind 20:684-5 My '48
 Air conditioning in textile mills. H. Herkimer. Rayon 29:94-6 Mr; 103-4 Ap; 59-60 My '48
 Conditioned area for inspection and assembly; Frigidaire division, General Motors. H. Eogue. Il Factory Management 106:116-17 JI '48
 Glycol system cuts air conditioning costs 40 per cent; glycol reactivated by exhaust steam from turbine driven refrigeration compressor. B. A. Engelbach. Il diag Food Ind 20:839-41+ Je '48
 Good for men and machines; air conditioning for comfort and for control of industrial processes. Heating-Piping 20:99 Mr '48
 Make your own climate. A. T. Spangler. Il Safety Eng 96:18-20+ Ag '48
 Manufactured weather a must for quality and lower cost textiles. Il Rayon 29:97-9 F '48
 Overcoming condensation in meat packing room; circulating heated air. R. Walter. Il Food Ind 20:356-7 Mr '48
 Technical features of greenhouse air conditioning. L. C. Marshall and others, bibliog Il diag Refrig Eng 55:151-4+, 269-72+ F-Mr '48
 You can simplify calculations for humidity and air compression. W. T. Rice. Chem Eng 55:116-18 O '48

See also

- Candy factories—Air conditioning

AIR conditioning equipment

- Air conditioning coils, their heat transfer problems. D. D. Wile. diag Refrig Eng 56:320-3 O '48
 Air conditioning grille. Il Mod Plastics 25:85 My '48
 Air recovery deodorizes conditioned air for economical recirculation. Il diag Arch Forum 89:105-7 Ag '48
 Central refrigeration handles load; Terrace Plaza hotel, Cincinnati. flow diag Il diag Power 92:393-5 JI '48
 Facts about evaporative air conditioning. M. E. Marsalls. Sheet Metal Worker 39:59 O '48
 Fans and fan laws. S. C. Moncher. Il diag Sheet Metal Worker 39:76+ S; 82+ O '48
 Functions, applications of unit conditioners. Dom Eng 171:159-60+ Je '48
 Industrial air conditioning; coordination of architectural and engineering design. F. F. Stevenson and J. F. Salsburg. diag Heating-Piping 20:88-91+ JI '48
 New ductless system cuts air conditioning costs 40 per cent. B. A. Engelbach. Il diag Factory Management 106:120-2 S '48
 Refinement of evaporator coils for packaged units. T. C. Gleason. diag Refrig Eng 55:549-51 Je '48
 Trends in air conditioning and refrigeration. W. E. Johnson. Il diag Gen Elec R 51:35-40 Je; 40-5 bibliog(p45) JI '48
 See also
 Cooling equipment
 Gas in air conditioning
 Heat pump

Control

- Complete automatic air-conditioning controls for heating, ventilating, and cooling in passenger cars. Il Ry Age 124:1265-7 Je 26 '48; Same. Ry Mech Eng 122:456-7 Ag '48
 Electronic controls for air conditioning systems. Il Heat & Ven 45:67-8 JI '48
 Individual control, flexibility in office building air conditioning. R. E. Phillips and L. H. Wagenbrenner. Il plans diag Heating-Piping 20:71-5 S '48
 Re-equips air conditioning shop at Portland. Il Ry Mech Eng 122:90-4 F '48
 Relay prevents short cycling of air conditioning units. W. Ewald. Il Machine Design 20:106 Ag '48
 Simplified air conditioner control. Il diag Product Eng 19:97 O '48

Exhibitions

- Big display of heating and air conditioning equipment; eighth International heating and ventilating exposition. Sheet Metal Worker 39:98+ Mr '48
 Eighth international heating and ventilating exposition, exposition exhibitors and their exhibits; with floor plan. Heating-Piping 20:142-52 Ja '48; Heat & Ven 45:93-100 Ja '48; Sheet Metal Worker 39:117-24 Ja '48
 Preview of air conditioning exhibits; fifth all-industry refrigeration and air conditioning exposition, Cleveland, Jan. 26-29, plans Heating-Piping 19:111-15 D '47

Installation

- Industrial air conditioning; equipment arrangement with truss roofs. F. F. Stevenson and J. F. Salsburg. plans diag Heating-Piping 20:93-7 O '48
 Rapid installation; Dallas office building entirely air-conditioned in 30 days. Il Dom Eng 171:166+ Je '48
 Skillful planning licks problems of air-conditioning installation; Ansley hotel, Atlanta, Ga. F. A. Ketterson. Il Power 92:140-2 Mr '48

Maintenance and repair

- Air-conditioning maintenance work. R. E. Johnson. Ry Mech Eng 122:158-9 Ap '48
 How can we simplify operation and maintenance? Heating-Piping 20:102-3 Ap '48
 Operating, maintenance schedules for air conditioning. B. G. Evans. Heating-Piping 20:76-8 F '48
 Service and maintenance of air-conditioning systems. W. B. Cott. Soc Motion Picture Eng J 51:32-3 JI '48

Manufacture

- Bush manufacturing company; new plant at West Hartford, Conn. Il Factory Management 106:1872-3 pt 2 Ap '48
 Welding and low-temperature brazing of air conditioning and refrigeration parts. W. Swarthout. Il Welding J 27:511-16 JI '48; Same cond. Steel 123:116+ S 13 '48

Noise

- Introduction of noise factors in air streams. J. Cassie. Heat & Ven 44:98-100 D '47

Rating

- Practical pointers on air conditioning plant operation; suggests scale for rating methods. D. A. Kepler. Heating-Piping 19:92-3 N '47
 Small air-conditioning units. Il Consumers Res Bul 22:12-15 Ag '48

Testing

- Test every air conditioning system. L. T. Avery and J. Black. Il Heat & Ven 45:96-8 Je '48

Water requirements

- Air conditioning and water requirements. E. L. Bean. bibliog Am Water Works Assn J 40:313-29; Discussion. R. Arnold. 330-2 Mr '48
 Air conditioning; panel discussion. A.W.W.A. meeting. Water & Sewage Works 95:207-9 Je '48
 Ground water regulation urged to curb excessive withdrawal for air conditioning; abstract. A. M. Buswell. Heat & Ven 45:124 Mr '48

AIR conditioning equipment—Water requirements—Continued

- Heat-pump system using water storage; control building of the Tidd plant of the Ohio power co. P. Sporn and E. R. Ambrose. *diags Mech Eng* 69:899-903+ N '47
- Rates and regulations for water used in air conditioning; panel discussion. F. C. Ambury, Jr. and others. *Am Water Works Assn J* 40:809-26 Ag '48; Abstract. *Water & Sewage Works* 95:207-9 Je '48
- Restrictions on the use of water for air conditioning; results of questionnaire. *Pub Works* 79:91 Ap '48
- Summer cooling with ice water. A. Merle. *diags Sheet Metal Worker* 39:160+ Ja '48
- Survey of city water supply systems; data on present capacities, restrictions on use and contemplated expansion for air conditioning needs. S. C. Moncher. *Refrig Eng* 55:162-5+ F '48
- Water from wells; practical pointers on its use for refrigeration, air conditioning, and the heat pump. G. B. Clancy. *diags Heating-Piping* 19:75-9 N; 90-3 D '47; Discussion. R. R. Storm. 19:104-5 D '47
- Water treatment for heating and air conditioning. W. H. Lang. *bibliog diags Heat & Ven* 45:97-111 O '48

AIR conditioning industries

- Air conditioning; market is far short of saturation; abstract. *Mech Eng* 70:236 Mr '48
- Air conditioning unlimited; Consolidated conditioning corp. *diags Sheet Metal Worker* 38:76+ N '47
- Are you getting your share of air conditioning business? F. Honerkamp. *diags Sheet Metal Worker* 39:66+ JI '48
- Estimated market for sales of air-conditioning systems. *Power* 51:166+ N '47
- Frigidaire removes the guesswork from salesman compensation. E. Gilbert. *diags Refrig Eng* 56:40-1+ JI '48
- How essential is plumbing, heating and air conditioning? industries' need for steel products. *diags Dom Eng* 171:108-19+ Mr; 98-100 Ap; 118-19+ My '48
- How Lone Star's package plan closes high price tag sales quicker; Servel gas air conditioning units. J. M. Lynn, Jr. *diags Sales Management* 61:80+ JI '48
- Levels out low spots with appliance merchandising; air conditioning contractor. W. F. Mingledorff. *diags Dom Eng* 171:150-1+ F '48
- Management by committee; its Trane's approach to sales; ten department heads guide sales policies. T. Hancock. *Sales Management* 61:37-9 O '48
- Mapping out potential business. B. Lester. *Heat & Ven* 45:92 Ap '48
- Plan for the buyers' market. B. Lester. *Heat & Ven* 45:68 Ja '48
- Prospects for 1948. *Sheet Metal Worker* 39:85-8 Ja '48
- Sell cooling to Main street. *diags Sheet Metal Worker* 39:74+ Ag '48
- Selling the contractor. B. Lester. *Heat & Ven* 45:113 Mr '48
- Selling the engineer and architect. B. Lester. *Heat & Ven* 45:99 F '48

Advertising

- What advertising has done for us. C. E. Hendricks. *diags Dom Eng* 172:122-3+ S '48

Directories

- Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. *Sheet Metal Worker* 39:193-208 Ja '48
- 1948 directory of heating, piping, and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names and manufacturers' addresses. *Heating-Piping* 20:301-415 Ja '48

Statistics

- Air conditioning equipment and components and accessories for air conditioning and commercial refrigeration equipment; summary of shipments by major class of product, second and third quarters 1947; tabulation. *Heat & Ven* 45:122 Mr '48

Tropics

- What are the right air conditions for comfort cooling? C. Tasker. *Heating-Piping* 20:84-7 Ag '48

AIR conditions

- Stability of the atmosphere and its influence on air pollution. H. F. Hebley. *maps Mech Eng* 70:407-13 My '48
- Studies in boundary lubrication; the wear of carbon brushes in dry atmospheres. W. E. Campbell and R. Kozak. *bibliog diags A S M E Trans* 70:491-7; Discussion. 497-8 JI '48

See also

- Air conditioning
Humidity

AIR coordinating committee. See United States—Air coordinating committee**AIR defenses. See Air raids—Protective measures****AIR diffusers**

- Air circulation without draft. *diags Dom Eng* 172:143+ S '48
- Are you getting your share of air conditioning business? anemostat diffuser. F. Honerkamp. *diags Sheet Metal Worker* 39:66+ JI '48
- Controlled air distribution is secret of good apple storage. R. M. Smock and others. *diags Refrig Eng* 54:444-8+ N '47

AIR ejectors

- Application of overfire jets to prevent smoke from stationary plants. R. B. Engdahl and W. S. Major. *diags Power* 92:532-5 S '48
- Cut smoke by proper jet application. L. N. Rowley and J. C. McCabe. *diags Power* 92:676-9 N '48
- How to construct overfire jets. *diags Power Generation* 52:64-6+ Ap '48
- Overfire air licked this smoke problem. H. B. McDermid. *diags Power Generation* 52:79-80 Ap '48
- Refrigeration with steam jet coolers. *diags Pulp & Pa. of Can* 49:90 Ag '48
- Rotary or steam-jet air pumps? W. C. Woodman. *diags Power* 92:470-3+ Ag '48
- Selection and use of ejectors. D. H. Jackson. *diags Chem Eng Prog* 44:347-52 My '48
- Smoke abatement by overfire air jets. *diags Dom Eng* 170:145-6+ D '47
- Where to put overfire jets. W. S. Major. *diags Power Generation* 52:95-7 Mr '48

AIR engines

- Air motors operate scroll chucks on milling fixture. L. C. Heinlein. *diags Am Mach* 92:77 Ag '48
- Berry lightweight rotary air motor. *diags Product Eng* 19:98-9 JI '48
- Broom and Wade crankless compressed air motors. *diags Product Eng* 19:95 N '48
- Inventor of the hot-air engine and the engine driven air pump. *Engineer* 186:168-9 Ag '48
- Philips air engine. *diags Engineer* 184:549-50, 572-4 D 12-19 '47
- Philips air engine. H. de Bray and F. L. van Weenen. *diags Automotive Ind* 97:24-8+ D 15 '47
- Philips air engine. L. Engel. *diags Sci Am* 179:52-5 JI '48
- Philips air engine; old idea in a new form. *diags Comp Air Mag* 53:38-9 F '48; Excerpts. *Power Generation* 52:88 My '48
- Pneumatic motor. *diags Machine Design* 20:98 JI '48
- Tiny jet engine builds a fire. *diags Westinghouse Eng* 8:82-3 My '48

See also

- Air turbines

Repair

- Plating and airlines efficiency; plating shop of American airlines. J. Albin. *diags Metal Finishing* 46:90-4+ Je '48

AIR entrainment in gas burners. See Gas burners**AIR express service**

- Air shipment opens new vistas for mail-order sales; national distribution for Loft candy. *diags Ptr Ink* 223:38-9 Ap 80 '48
- Suspension seen for AAA route 49. *Aviation* W 49:32 O 4 '48

AIR filters

- Air-conditioned plant solves cotton-lint problem; Argentine installation; carding, spinning, and weaving controlled separately from central station. G. T. Lang. *diags Textile World* 98:118-19+ Ap '48

AIR filters—Continued

- Air filter developed by American air filter co. il Blast F & Steel Pl 36:1132 S '48
 Filtré d'air, système Linderöth. Blomén. diags Génie Civil 124:457 D 1 '47
 High volume air sampling and filter weighing method for certain aerosols. L. Silverman and F. J. Viles, jr. il J Ind Hygiene 30:124-3 Mr '48
 Scrap filaments in air filters; vinylidene chloride monofilaments and metal. il Mod Plastics 25:103-5 Ap '48
 Study of certain factors affecting the filtration of smoke by fibrous materials. J. J. Perot, jr. bibliog diags Paper Tr J 124:54-62 Je 19 '47; Excerpts. Paper Ind 29:1350-2 D '47

See also
 Automobile engines—
 Air filters

Cleaning

- Detergents for cleaning air conditioning filters. L. F. Hoyt, il Soap & San Chem 24:42-4+ Ag '48

Testing

- Improved test method for rating air filters. R. S. Farr and others. bibliog il diags Heating-Piping 20:111-17 F '48

AIR flow

- Air turbulence and transfer processes; flow normal to cylinders. E. W. Comings, J. T. Clapp and J. F. Taylor. bibliog diags Ind & Eng Chem 40:1076-82 Je '48
 ASHVE research in air distribution and air duct friction. C. Tasker. Heating-Piping 20:125-7; Discussion. 127-30 Ap '48
 Annular air-flow orifice. A. R. Howell. diags Power Generation 52:79-80 Ag '48
 Cooling of gases through packed tubes. M. Leva and others. diags Ind & Eng Chem 40:747-52 Ap '48
 Counter flow of vapor pressures. T. W. Reynolds. diags Heat & Vent 44:102 D '47
 Discharge of air from a long slot. A. Koestel and G. L. Tuve. diags Heating-Piping 20:153-7 Ja '48
 Downward projection of heated air. L. Helander and C. V. Jakowatz. il Heating-Piping 20:129-35 Mr '48
 Field instrument for measuring volume and instantaneous flow rate of inspired air. L. Silverman and others. bibliog il diags R Sci Instr 19:513-26 Ag '48
 Fluidization of solid non-vesicular particles. M. Leva and others. Chem Eng Prog 44:619-26 Ag '48
 Heat transfer; local and average coefficients for air flowing inside tubes. A. Cholette. bibliog il Chem Eng Prog 44:81-3 Ja '48
 High-speed flow through cambered rotating grids. F. L. Wattendorf. diags J Aeronautical Sci 15:243-7 Ap '48
 How to determine reliable air-flow data for design of duct systems. A. H. Korn. diags Power 92:30-2 Ja '48
 Introduction to fluidization; counter-gravity flow of air, carbon dioxide, and helium through beds of round and sharp sands. M. Leva and others. il diags Chem Eng Prog 44:511-20 Jl '48
 Meter for flowing mixtures of air and pulverized coal. H. M. Carlson and others. bibliog il diags A S M E Trans 70:65-74; Discussion. 74-9 F '48
 Nozzle flow characteristics in pneumatic force-balance circuits. D. R. Kirk. diags A S M E Trans 70:111-16 F '48
 Principles of cooling by air motion. M. E. Marsalis. Sheet Metal Worker 39:116+ Mr '48
 Process engineer's guide to the centrifugal compressor. L. J. Karassik. il diags Chem Eng 54:110-14 O; 132-5 N; 126-8 D '47; 55:118-21 Ja; 134-7 F '48
 Unsteady-state heat transfer between air and loose solids. G. O. C. Löf and R. W. Hawley. bibliog il diags Ind & Eng Chem 40:1061-70 Je '48
 Use of a flow controller instead of a pressure regulator and needle valve to control small air flows. R. H. Munch. diags Ind & Eng Chem 40:sup81A-2A F '48
 See also
 Anemometers

AIR freight forwarders. See Forwarding companies (air freight)

AIR freight service

- Air cargo angles; pallets and mechanization. G. Johns. il Mod Packaging 21:138-41+ Mr '48
 Air France to open all-freight services. Aviation W 48:40 F 9 '48
 Air lift to Berlin. Economist 155:652-3 O 23 '48
 Air shipments of peas extend freezer's operations. il Food Ind 20:1310-11 S '48
 Airfreight at record volume as carriers plan for 1948. C. Adams. il Aviation W 47:36-7 D 22 '47
 Airfreight booms in postwar period. Aviation W 48:107-8 F 23 '48
 Airfreight deal; Air cargo, inc., signs with Central states motor freight bureau of Chicago. Bsns W p74 Ag 14 '48
 Airfreight fight between certificated airlines and independent freight carriers. Bsns W p80 Ap 3 '48
 Airfreight is gaining as a marketing tool. il Bsns W p56-3+ Jl 10 '48
 Airfreight regulations. T. P. Callahan. Chem Ind 61:860+ N '47
 Airfreight situation. E. F. Slick. il Aero Digest 55:28-9+ N '47
 Alaska airlines stresses cargo. Aviation W 48:42 Ap 26 '48
 Alaska cargo; handling freight between the Pacific Northwest and Alaska. Aviation W 48:34-5 O 4 '48
 Alaskan cargo exemption hit. Aviation W 48:43 Ja 26 '48
 American air cargo development. J. H. Frederick. Air Affairs 2, no 1:79-100 [S] '47
 Berlin air lift. C. J. V. Murphy. il map Fortune 38:89-93 N '48
 Berlin speedup; U.S. U.K. lifts are merged. Aviation W 49:16 O 25 '48
 California-Eastern files bankruptcy plea. S. Altschul. Aviation W 48:39 My 24 '48
 Cargo contracts; USAF calls on six U.S. carriers to help with Berlin airlift. Aviation W 49:42-3 Ag 2 '48
 Cargo lines' financial status hit. C. Adams. Aviation W 49:36-8 Jl 5 '48
 Cargo lines report financial status. Aviation W 48:47 Mr 22 '48
 Certification of six freight lines recommended by CAB examiners. C. Adams. Aviation W 48:11-12 Mr 22 '48
 Continental plans Convair cargo runs. Aviation W 48:47 Mr 22 '48
 Foreign trade by air. G. Beckett. J Marketing 12:505-6 Ap '48
 Freight forwarder plea denied; CAB rejects proposed exemption. Aviation W 48:42-3 Ap 12 '48
 Freight route fight enters last rounds. Aviation W 49:67 S 20 '48
 Garments by air. Bsns W p86 Mr 20 '48
 International airfreighters; Seaboard and Western petition requesting temporary exemption from Economic regulation 292.1. S. L. Colbert. il Aviation W 48:42-3 Ap 5 '48
 No end in sight for cargo fight. C. Adams. Aviation W 49:32-3 N 1 '48
 Photo flash fight; danger of ignition by radar. Bsns W p87 Ap 10 '48
 Santa Fe Skyway throws in the sponge; denied right to operate by C.A.B. il Ky Age 124:252-3 Ja 31 '48
 Santa Fe to quit air freight service soon. Ry Age 124:174 Ja 17 '48
 Scandinavian non-sket reports are misleading. Aviation W 47:15 D 22 '47
 Separate airlines for freight? C. R. Smith; J. O'Brien. Air Transport 6:21-2+ Mr '48
 Small load service flying short hauls; Coast air transport, inc. Aviation W 47:45 N 10 '47
 Survey analyzes freight shipments. Aviation W 48:43 Mr 22 '48
 See also
 Air express service

Rates

- C. R. Smith testifies on cargo rate probe. Aviation W 48:36 F 16 '48
 CAB orders general investigation of cargo transportation charges. CAA J 8:122 N 15 '47
 Floor under airfreight rates. Aviation W 48:49 Je 21 '48
 Floor under airfreight rates urged by CAB public counsel. Aviation W 48:39-40 Ap 5 '48

AIR freight service—Rates—Continued

Freight rates; CAB sets eight cent floor under commodity rates. Aviation W 49:40-1 Ag 2 '48
 Freight rates moving upward as rising costs hit cargo lines. C. Adams. Aviation W 48:44 Mr 15 '48
 Slick cost study shows new rates too low. Barron's 27:35 N 17 '47

AIR jets

Air jets compact concrete around reinforcing wall forms. diags Eng N 140:638 Ag 29 '48; Abstract. Comp Air Mag 53:197 Ag '48
 Mach interferometer applied to studying an axially symmetric supersonic air jet. J. Winkler. bibliog il diags R Sci Instr 19:307-22 My '48

AIR lifts

Air-lift salvages sunken salmon cargo. A. R. MacPherson. il Comp Air Mag 52:309-10 D '47
 Lone Star feeds kiln with air lift. W. B. Lenhart. il diags Rock Prod 51:156-7 Ag '48

AIR lines. See Airlines**AIR liquefaction. See Liquid air****AIR locks**

Procedure used in fighting and sealing a fire in an Ohio coal mine and recovery of the mine by air-locking methods. G. W. Grove and others. 6pls U S Bur Mines Information Circ 7418:1-18 '47

AIR mail service

Air mail rate drive stalls; Post Office proposes other plans. Aviation W 48:58-9 Ap 19 '48

Air mail rates set for Southwest Airways. CAA J 9:62 Je 15 '48

Air parcel post for scheduled lines. Aviation W 48:47 My 17 '48

Air parcel post on the way. Aviation W 48:43 Je 28 '48

Air parcel post; Sept. debut of service boosts month's airmail volume. Aviation W 49:42 O 25 '48

Air Transport facts and figures; air mail revenues, 1926-1947; miles and payments, 1928-1947; tabulations. Air Transport 6:sup 12-13 E '48

Airlines dispute mail rates. Aviation W 49:41 Ag 9 '48

Airlines move to get back in black; fare raises, mail pay boosts spearhead carriers' campaign. S. Altschul. Barron's 27:25 D 15 '47

Airmail pay; Committee has approved 1949 appropriation. Aviation W 48:13 Je 7 '48

Airmail rates start up again. Aviation W 48:43 Je 28 '48

American airlines suggests mail pay increase; record deficit for first six months. Aviation W 49:37 Ag 23 '48

Attack on feeder costs renewed; Post office department against further increases in temporary mail payments. Aviation W 48:54 Ap 19 '48

CAB blights airlines' hopes for retroactive mail pay. C. Adams. Aviation W 47:57-8 D 15 '47

CAB boosts airlines' revenue; air mail rate increases offered. C. Adams. Aviation W 48:14 Ap 19 '48

CAB disturbed by AAA mail pay. Aviation W 48:39 Ja 5 '48

CAB still seeking best method for determination of mail pay. S. Altschul. Aviation W 48:17 Mr 8 '48

Colonial to receive incentive mail pay. Aviation W 48:42 Ja 26 '48

DC-6 grounding swells deficits; United and National press CAB for higher mail pay. Aviation W 47:44 D 1 '47

Do airlines like being called self-sufficient? it means low mail pay; CAB decision may be challenged. S. Altschul. Barron's 28:29-30 My 3 '48

Economic factors relating to helicopter air mail operations; abstract. J. E. Rothman. Aero Digest 57:82+ J1 '48

Feeders renew plea for more mail pay. Aviation W 48:34 Mr 1 '48

Foreign airmail payments; Congress slashes '43 appropriation. Aviation W 49:51-2 J1 12 '48

Helicopter airmail for Chicago? map Aviation W 48:42 My 17 '48

Helicopter mail sees economy ax. Aviation W 49:41 J1 26 '48

Helicopter mail volume booms, but Los Angeles airways finds itself in red. Aviation W 48:40 Ap 5 '48

House committee weighs plans to reclassify air mail payments. Aviation W 47:11-12 D 22 '47

House group trims 1949 airmail fund. Aviation W 48:48 Mr 22 '48

Incentive mail pay gaining favor. S. Altschul. Aviation W 49:33 S 27 '48

International air parcel post regulations. For Comm W 30:12 Mr 20; 31:16 My 22 '48

Los Angeles helicopter service. A. Klemin. il Aero Digest 56:51-2+ My '48

Mail parade; EAL lines up with others in higher rate plea. Aviation W 49:38 Ag 30 '48

Mail pay increase for five major airlines is proposed by CAB. CAA J 9:53 My 15 '48

Mail pay too high? Aviation W 48:42 My 24 '48

Mail rates; self-sufficiency the key. S. Altschul. Aviation W 48:37 Ap 26 '48

New mail rate gives C&S profit. Aviation W 49:47-8 J1 19 '48

NWA seeks new mail pay rate. Aviation W 49:48-9 Ag 16 '48

Order in mail case follows new plan worked out by CAB. CAA J 9:86 Ag 15 '48

Outlook bright for Delta, Braniff. Aviation W 49:40-1 S 27 '48

Overseas air parcel post service starts; map. Bsns W p 122 Mr 20 '48

Post office air mail estimates support stand against rate boost. Aviation W 48:40 Ja 12 '48

Post office asks for halt in new feeder certificates. Aviation W 49:47 N 8 '48

Post office balks at CAB mail rates. Aviation W 49:39 J1 5 '48

Post office withdraws backing for domestic air parcel post. Aviation W 48:13 Mr 15 '48

Success near for air parcel post. Aviation W 48:42 Je 14 '48

Suspension seen for AAA route 49. Aviation W 48:32 O 4 '48

What are air mail costs? D. S. Stanley. Pub Util 42:21-7 J1 1 '48

Winter focusing airline interest on CAB mail pay determinations. S. Altschul. Aviation W 47:50 D 8 '47

AIR navigation

Air navigation board gets under way; responsible for producing an all-weather airways system. Aviation W 49:15 Ag 16 '48

Astro-window through which navigators aboard stratosphere airliners will shoot the stars, even in daytime. Mech Eng 70:348 Ap '48

Einstein's equivalence principle and the problem of blind navigation. J. J. Gilvary. Bibliog Phys R 73:1409-10 Je 1 '48

Electronic flying; Minneapolis-Honeywell B-D (bearing and direction) computer. il Bsns W p66+ N 8 '47; Aero Digest 55:49+ D '47; Sci Am 178:27-8 Ja '48

Pity the private pilot; difficulties of navigation. H. G. Moe. il diags Aero Digest 56:60+ F '48

Polatonic navigation for world air routes; system of polar radio stations to serve aircraft with direct reading latitude-longitude indicators. R. I. Colin. diags Air Transport 6:28-32 Mr '48

See also

Aeronautic instru- Radio aids to aviation

AIR patrols

Northwest patrol takes to the air. K. I. Jack. Pub Util 41:683-7 My 20 '48

AIR pipes

Aluminum pipe and tubing; use for heating and ventilating work. P. Brandt. Heat & Ven 46:83-6 F '48

Attenuation of sound in lined air ducts. C. P. Brittain and others. il Engineering 165:97-8, 145-7 Ja 30, F 13 '48

Complexity, no problem with laminated ducts. il Plastics 8:42+ Mr '48

FHA issues data on aluminum ducts. Heating-Piping 19:99 D '47

Individual supply duct units heat and ventilate new plant; Reliance electric & engineering co. il Heating-Piping 20:73-4 My '48

Plant operating costs cut by mineral wool insulation of ducts. il Chem Ind 61:999-1000 D '47

AIR pipes—Continued

Sizing exhaust system mains at branch junctions; with chart, F. A. Stanton and H. M. Nichols. *Heat & Ven* 45:111-12 O '48
Well-executed ductwork has nothing to hide! food store air conditioning; Donahoe's, Inc. *Il Sheet Metal Worker* 39:67-8 Je '48

Cleaning

Here are suggestions for cleaning ducts. *Heating-Piping* 20:96-7 JI '48

Tables, calculations, etc.

Friction equivalents for round, square and rectangular ducts, R. G. Huebscher, bibliog *Il diag Heating-Piping* 19:127-35 D '47
How to determine reliable air-flow data for design of duct systems, A. H. Korn, *diags Power* 92:30-2 Ja '48

AIR policy commission, President's. See United States—Air policy commission, President's

AIR pollution

Air contamination during machining of beryllium stainless steel, A. C. Titus, *J Ind Hygiene* 30:29-31 Ja '48
Condensation nuclei; their significance in atmospheric pollution, H. Neuberger, bibliog *Mech Eng* 70:221-5 Mr '48

Dust chasers; installation of industrial hygiene laboratory by Bethlehem steel company, *Il Safety Eng* 95:63-4 My '48; Same. *Steel* 122:110+ Je 14 '48; Same. plan Nat Safety N 57:22-3+ My '48

Factors rarely considered in smoke abatement, H. F. Hebley, bibliog *Il map diags Mech Eng* 69:281-? Ap '47; Discussion, 69: 1048-9 D '47

Industrial hygienist takes a walk; plant inspection methods, R. L. Gade, *Safety Eng* 95:70-1 Mr '48

Interpretation of permissible limits in the breathing of toxic substances in air, H. H. Schrenk, bibliog *U S Bur Mines Information Circ* 7457:1-7 '48

Los Angeles county starts anti-smog campaign, *Eng N* 140:108 Ja 22 '48

Maximum allowable concentration of air contaminants; table; reference data, *Heat & Ven* 44:94a D '47; Same, *Power Generation* 52:82 JI '48

Measurement of alpha-active dust in the atmosphere, H. Carmichael and P. R. Tunnicliffe, bibliog *diags J Ind Hygiene* 30:211-27 JI '48

New instruments for measuring air contamination, demonstrated at New York AIHA meeting, *Heat & Ven* 44:116+ N '47
Recognition and control of fume and dust exposure, V. J. Castrop, *Il Nat Safety N* 57: 20-1+ F '48

Smog fighters; Los Angeles county, J. R. Callahan, *Chem Eng* 55:114-15 O '48

Southern California foundries studying and testing methods to overcome smog air pollution, O. Murdock, *Iron Age* 162:168+ O 14 '48

Stability of the atmosphere and its influence on air pollution, H. F. Hebley, maps *Mech Eng* 70:407-13 My '48; Abstract, *Power Generation* 52:122 Ja '48

Toxicity of dimethyl-, diethyl-, and diisopropyl fluorophosphate vapors, S. D. Silver, *J Ind Hygiene* 30:307-11 S '48

Toxicology of 1,2-dichloropropane (propylene dichloride); effects of repeated exposures to a low concentration of the vapor, L. A. Heppel and others, *J Ind Hygiene* 30:189-91 My '48

Ventilation and dust control, *Il Nat Safety N* 57:15-16+ Mr '48

What part does pulverized-coal firing play in air pollution? L. N. Rowley and J. C. McCabe, *Il Power* 92:14-17 Ja '48

What progress against air pollution? *Il Safety Eng* 95:67+ Mr '48

See also

Benzene poisoning	Respiratory apparatus
Dust	
Fumes	Smoke prevention
Gases, Asphyxiating and poisonous	

AIR power

Air power is peace power, E. Rickenbacker, *Aero Digest* 55:28-9+ D '47

Air transport's role in air power, C. Adams, *Aviation W* 48:91-2+ F 23 '48

Aircraft design superiority recommended as national policy; from President's air policy commission report, *Survival in the air age*, Product *Eng* 19:156-8 Mr '48
Airports as base of air power, S. L. Colbert, *Aviation W* 48:69-70 F 23 '48

Betrayal of air power; editorial, R. H. Wood, *Aviation W* 48:50 Ap 5; 54 Ap 12; 66 Ap 19 '48

Forty-four years since Kitty Hawk, J. S. Knight, *Aero Digest* 56:26-8 F '48

Industry speaks plainly; statements at hearings before the President's air policy commission, *Aero Digest* 55:26-7+ N '47

Inventory of U.S. air power, *Il map Aviation W* 48:9-108 F 23 '48

Military aircraft in time of peace, O. A. Anderson and J. F. Rodenhauer, *Air Affairs* 2, no 1:17-25 [S] '47

Military lessons learned and not learned, B. Vogel, *Il U S Naval Inst Proc* 74:722-31 Je '48

Power in the air; an analysis of the President's air policy commission report, *Survival in the air age*, S. P. Johnston, *Il Duns R* 56:14-16+ Mr '48

Private flying feeds air power, A. McSurely, *Il Aviation W* 48:55+ F 23 '48

Progress in air power related to construction power, W. Roper, *Il Tech R* 50:24-8+ N '47

Research, foundation of air power, H. L. Dryden, *Aeronautical Eng R* 7:14-15 Ap '48

Survival in the air age; excerpts from the official summary of the report of the President's air policy commission, *Aeronautical Eng R* 7:34-5+ Mr '48

Survival in the air age; highlights from the report of the President's air policy commission, *Aero Digest* 56:25+ F '48

Vast air program held defense need, I. F. Angstadt, *Il Aero Digest* 56:16+ Ja '48

AIR preheaters

Corrosion of heating surfaces in boiler plants; further studies in deposit formation, J. R. Rylands and J. R. Jenkinson, *Engineer* 185: 215-16; Discussion, 212-13 F 27 '48; *Elec R (Lond)* 142:359-60 Mr 5 '48

Pre-heated air in refuse incinerator practice, H. W. Taylor, *diags Pub Works* 78:21-2 O '47

Tubular air heaters of welded construction, A. N. Clark and others, *Il diags Engineer* 185:289-91, 313-15 Mr 19-26 '48

AIR pumps

See also

Air ejectors

AIR purification

Air purification and deodorization by use of activated carbon, F. H. Munkelt, bibliog *Refrig Eng* 56:1-8 sec 2 S '48

Air purification by glycol vapor, J. W. Spiselman, bibliog *Il Soc Motion Picture Eng* 51:70-8 JI '48

Air sterilization and human health, B. H. Jennings, *Refrig Eng* 56:323 O '48

Automatic dewpoint meter for the determination of condensable vapors, T. T. Puck, bibliog *diags R Sci Instr* 19:16-23 Ja '48

Germ free indoor air for schools; abstract, W. T. Anderson, *Dom Eng* 171:150 Je '48

Taking odors out of air, G. A. Van Brunt, *Il diag Factory Management* 106:105-7 Ag '48

Triethylene glycol; significant new air sterilant, *Sheet Metal Worker* 39:70+ Ag '48

Ultraviolet air disinfection in the theater, J. L. Buttolph, bibliog *diags Soc Motion Picture Eng* 51:79-91 JI '48

See also

Air cleaners

Air filters

Dust removal

AIR raids

Panama canal; strength of soils under dynamic loads; studies of stability of slopes under effects of bombing, A. Casagrande and W. L. Shannon, *Il diags Am Soc C E Proc* 74:591-608 Ap '48

See also

Electric lines—Damage from air raids

Protective measures

Air defense today; activities of the Air defense command, G. E. Stratemeyer, maps *Aero Digest* 57:45-8+ S '48

AIR raids—Protective measures—Continued

Decentralization; defense against atomization? C. I. Barnard, Pub Util 41:597-603 My 6 '48
 Japan's homeland aerial defense, B. Vogel, il U S Naval Inst Proc 74:174-81 F '48

AIR raids and building

Australia developing federal capital at Canberra; Administrative offices building embodying design precautions against air raids, G. S. Boris, il map Civil Eng 18:290-1+ My '48

Churchill-Severud atomic city designed to withstand force of atomic bomb explosion, plan diags Arch Forum 88:10-11 Ap '48; Discussion, D. Baker, 88:38+ Je '48

AIR receivers

Hydraulic air-storage chambers in Swedish mines, S. Dalhammer, il map diag Comp Air Mag 53:30-3 F '48

Mine workings are sealed off to serve as air receiver, C. Pengilly, diags Eng & Min J 149:34-5 My '48

Underground air receiver, R. W. Neyman, il diags Min Cong J 34:50-1 Mr '48

AIR reduction company

Another look, S. Devlin, Mag of Wall St 81: 358-9, 373 Ja 3 '48

Apparatus research laboratory, il Mech Eng 70:31-2 Ja '48; Same cond, Blast F & Steel P1 36:127-8 Ja '48; Abstracts, Chem & Eng N 25:3648 D 8 '47; Marine Eng 52:132 D '47

AIR rights

Park avenue; Manhattan's gold-plated railroad yard; two railroads using Grand Central take back air rights over their tracks, il plan Bsns W p93-102+ S 18 '48

AIR sampling

Calibration of field equipment from air vapor mixtures in a five-gallon bottle, F. M. Stead and G. J. Taylor, diags J Ind Hygiene 29:408-12 N '47

High volume air sampling and filter weighing method for certain aerosols, L. Silverman and F. J. Viles, Jr, il J Ind Hygiene 30: 124-8 Mr '48

Improvement of the M.S.A. electrostatic precipitator, G. D. Clayton, bibliog il J Ind Hygiene 29:400-2 N '47

Sampling device for average gas concentrations in air, D. E. Goldman and J. A. Mathias, bibliog diags J Ind Hygiene 30: 129-32 Mr '48

Study of the efficiency of methods for obtaining vapor samples in air, H. L. Andrews and D. C. Peterson, bibliog flow diag diags J Ind Hygiene 29:403-7 N '47

AIR separators

Air-elutriator for use with coherent dusts, L. L. Katan, diag Chem & Ind p 119-20 F 21 '48

Air separation of powders, E. N. Simons, diags Can Chem & Process Ind 31:1121-2 D '47

AIR supported roofs. See Roofs—Air pressure support

AIR traffic. See Airlines—Traffic; Airports—Traffic control; Airways—Traffic control

AIR transport association, International. See International air transport association

AIR transport association of America
 A.T.A. policy, E. S. Land, Aeronautical Eng R 7:20+ Mr '48

Objectives, officers, members, Air Transport 6:sup 16 F '48

AIR transportation. See Air freight service; Airlines

AIR travel

Boost for all-expense air tours CAB examiner recommends certification of special carrier, Aviation W 49:42 Ag 30 '48

Certified lines ask monopoly on U.S. governmental air travel, C. Adams, Aviation W 48:40+ Ja 26 '48

Revelations over 9,000 miles; where service can be improved; detailed diary covering an extended air journey through the United States, F. W. Barker, il Air Transport 5: 21-4+ D '47; 6:42-6 Ja '48

That new look among airborne customers, G. Bijur, il Adv & Sell 41:30 O '48

See also

Airlines—Traffic

Advertising

Postal cards build air travel volume, C. J. Swan, il Ptr Ink 221:48+ N 14 '47

AIR turbines

Air-driven spinners for testing fast-rotating machine components up to bursting speeds, pose mysterious design problems, L. W. Wightman, il diags Machine Design 20:121-5 My '48

Freon versus air cycle cooling of automobiles, H. Woodhouse, diags Refrig Eng 56:313-15+ O '48

Proposed turbo-expander design for air liquefaction, S. C. Collins, bibliog diags Refrig Eng 55:351-4+ Ap '48

AIRBORNE instruments laboratory

Electronic aerial traffic cop developed, il Bsns W p58-9+ D 13 '47

AIRCRAFT

See also
 Airplanes
 Airships
 Flying boats

Gliders
 Helicopters

Patents

Aviation patents, Published in monthly numbers of Aero digest

AIRCRAFT gas turbines. See Gas turbines, Aircraft

AIRCRAFT steel. See Steel, Aircraft

AIREON manufacturing corporation

SEC's report on reorganization, Comm & Fin Chr 165:1245 S 27 '48

Trustees' plan approved, Comm & Fin Chr 168:1137 S 20 '48

AIRFOILS

Airfoil theory and experiment, A. Pope, bibliog J Aeronautical Sci 15:407-10 J1 '48

Flow at the rear of a two-dimensional supersonic airfoil, A. Kahane and L. Lees, diags J Aeronautical Sci 15:167-70 Mr '48

Theoretical pressure distributions for a thin airfoil oscillating in incompressible flow, E. E. Postel and E. L. Leppert, Jr, bibliog diag J Aeronautical Sci 15:486-92 Ag '48

Transient loading of airfoils at supersonic speeds, J. W. Miles, bibliog diags J Aeronautical Sci 15:592-8 O '48

AIRLINE foods corporation

Steady development, Food Ind 20:576 Ap '48

AIR line pilots association

Behncke attacked for strike threat, Aviation W 47:38 D 22 '47

NAL-ALPA heading toward showdown, A. McSurely, il Aviation W 48:11-12 Mr 15 '48

NAL strike, Aviation W 49:44 S 27 '48

AIR line pilots associations, International federation of. See International federation of air line pilots associations

AIRLINES

Airline aids to the schools; by four airline educators, E. J. Doherty and others, Air Affairs 2:233-46 Winter '48

Airline aircraft in operation and on order as of Feb. 15, 1948; tabulation, Air Transport 6:43 Mr '48

Buy American; U.S. aircraft flown on 87 per cent of all foreign lines outside Russia, Aviation W 49:68 S 20 '48

Pan Am; nine-day wonder, C. Caldwell, il Aero Digest 55:26-7+ D '47

Size in transport, A. Gouge, il plan diags Roy Aeronautical Soc J 52:407-36 J1 '48; Same cond, Engineering 165:557-8, 599-600 Je 11-18 '48

See also

Aeronautics, Commercial
 Air carriers—Non-scheduled operations
 Air express service

Air mail service
 Air travel
 Airports
 Airways

Accidents

Air Transport facts and figures; passenger fatalities, 1928-1947; tabulation, Air Transport 6:sup 9 F '48

Airline traffic trends show growth depends on safety, Aviation W 48:97-100 F 23 '48

Airlines' safety record rewarded; National safety council fetes 24 for 1947 showing, C. Adams, Aviation W 48:44 Je 14 '48

Alpha pilot cleared; CAB exonerates pilots of intoxication charge, Aviation W 48:45-6 My 17 '48

Aviation officials killed in crash of the KLM Royal Dutch airlines Lockheed L-49 Constellation at Prestwick, Scotland, Aviation W 49:15 N 1 '48

AIRLINES—Accidents—Continued

CAB fixes blame for PCA accident. Aviation W 47:47 D 1 '47
 CAB probes Alaskan mishaps. Aviation W 47:55 D 8 '47
 Comparative safety statistics, scheduled domestic operations, 1938-1947; tabulation. Aviation W 48:101 F 23 '48
 Comparative transportation safety record; passenger fatalities, 1941-1947 and first eight months of 1948. Aviation W 49:71 S 20 '48
 Crash probes cite CO₂ danger; recommends precautions in use of extinguishers; proof sought that UAL pilots were asphyxiated. Aviation W 49:13-14 J1 5 '48
 Crash report of an Eastern air lines DC-3 near Oxon Hill, Md. Jan. 13. Aviation W 49:67 S 20 '48
 Engines blamed in Syrian crash. Aviation W 48:14 F 2 '48
 NWA grounds 2-0-2s pending crash probe. Aviation W 49:44-5 S 13 '48
 Probes under way in DC-4 accidents. Aviation W 48:15 Mr 22 '48
 Runway snow blamed for Boston accident. Aviation W 48:15 My 10 '48
 2-0-2 report; experts blame crash on structural failure of wing. Aviation W 49:16 O 25 '48
 2-0-2s get O.K.; NWA returns planes to service after grounding following crash. Aviation W 49:15 O 11 '48
 United crash. Aviation W 48:12 Je 28 '48
 Weather, static figured in crash; American airlines Jones Beach landing. Aviation W 47:15 D 8 '47
See also
 Air lines—Safety measures
 Aviation—Accidents

Accounting

Airline keeps daily profit tab; TWA system; illustrations with text. Bsns W p76 Ja 17 '48

Advertising

Bernard Shaw touches up agency copy for airline. Ed & Pub 81:24 Je 19 '48
 PAA ads are many-tongued in the Pacific. il Ed & Pub 81:10 O 9 '48
 Panagra ads step out on red plush carpet. il Ed & Pub 81:12 Ag 14 '48
See also
 Air travel—Advertising

Consolidation

Airline merger signs increase. S. Altschul. Aviation W 49:30 Ag 23 '48
 Airline mergers? rumors. Bsns W p93-4 S 25 '48
 Scandinavians fuse airlines in one unit. Aviation W 48:41-2 Mr 22 '48
 WAL finds consolidation vital to belt-tightening program. S. Bangs. Aviation W 48:39-40 Mr 8 '48

Costs

Air transport ground operating costs. R. G. Ferguson. S A E J 56:73 My '48
 Delta supply costs up 25 percent; breakdown on last year's expenditures. Aviation W 49:40-1 Ag 30 '48
 Measuring tools for air transport economics. D. S. Atkinson. il Aero Digest 57:48-9+ O '48

Employees

Air Transport facts and figures; personnel, 1928-1947; tabulation. Air Transport 6:sup8 F '48
 Airlines' pilot selection methods hit in CAA-sponsored survey. Aviation W 47:43 D 1 '47
 American, TWA sign new wage pacts. Aviation W 48:42 Ja 5 '48
 Comparison by job classification of annual wage scales for Pan American, BOAC and KLM; chart. Aviation W 49:38 Ag 9 '48
 Flight engineer trainer saves expense; Lockheed aircraft service, inc. il Aviation W 47:29 D 8 '47
 Mediation board chairman opens record on NAL pilot strike. Aviation W 48:44-5 Mr 22 '48
 Memo from an old labor skate; trade unions in the airlines. J. Woods. Air Transport 5: 28-9+ D '47

NAL-ALPA heading toward showdown. A. McSurely. il Aviation W 48:11-12 Mr 15 '48
 National held at fault in strike. Aviation W 49:12 J1 19 '48
 National strike tension rising. Aviation W 48:14 Ap 5 '48
 New crews trained in NAL pilot strike. Aviation W 48:10 F 16 '48
 Newer planes mean fewer pilots. C. Adams. Aviation W 49:31-2 O 4 '48
 Pay demands eyed as unions organize more airline personnel. Aviation W 47:40-1 N 24 '47
 Purdue's training in air transport; illustrations with text. Air Transport 5:46-8 N '47
 Safety attitudes of airline employees. W. A. Cutter. il Air Transport 6:44-6 F '48
 Survey reveals skills required by airline pilots. CAA J 8:133+ D 15 '47
 UAL pilots vote to authorize strike. Aviation W 47:14 D 15 '47
 Wages hit stratosphere in Alaska. E. M. Fitch. Air Transport 6:43 F '48
See also
 Aviators

Engineering departments

Engineering a feederline. T. P. Lombardo. Air Transport 6:36-8+ Ja '48

Equipment and supplies

Airline market substantial for expendable and wear-outable items. G. Herrick. Air Transport 5:61-2 D '47
 Rugged individualism means high costs; problem of acquiring standard ground-handling equipment by the airlines. C. P. Turner. il Air Transport 5:35 D '47

Equipment trust certificates

Cargo line seeks equipment trust; Trans-Caribbean air cargo corp. Aviation W 48: 13 Ap 5 '48
 Equipment trust for airline. Bsns W p88-90 My 29 '48
 Equipment trusts loom larger in proposals for airline financing. S. Altschul. Aviation W 48:37 Ja 5 '48
 ICAO acts on airline financing; will pave way for equipment trust arrangements. S. Altschul. Aviation W 49:16 J1 5 '48
 New type of airline financing undertaken by Trans Caribbean air cargo lines; equipment trust issue. Comm & Fin Chr 167: 2092 My 13 '48

Fares

Bargaining rates begin test period. Aviation W 49:34-5 N 1 '48
 Battling over airline fares. Bsns W p38-9 O 2 '48
 CAB and carriers meet on fare raise. Aviation W 49:15 Ag 16 '48
 CAB backs ten percent airline fare hike. C. Adams. Aviation W 49:11-12 Ag 30 '48
 CAB says no; permission for cutrate, round-trip summer fares refused EAL and NAL. Aviation W 49:41 J1 5 '48
 Coast-to-coast by sky-coach; editorial. P. Andrews. Aviation W 49:56+ O 18 '48
 Commuter plan catches; Mid-Continent airlines' commuter fare plan. Aviation W 49: 32 O 4 '48
 Costs pushing fares up again. Aviation W 49:37 J1 26 '48
 Cutrate fares again under fire. Aviation W 49:39-40 Ag 2 '48
 Excursion fares; Pan Am finds way to reduce rates. S. L. Colbert. Aviation W 49:40 Ag 23 '48
 Family fare plan a success, says AA. Aviation W 49:39 O 25 '48
 Fare boost offset by discount. Aviation W 49:41 S 27 '48
 Higher air rates compensate for traffic cuts. J. B. Ford. Barron's 28:29-30 S 20 '48
 More fares up. Aviation W 49:43 Ag 9 '48
 NWA plans rebates for delayed flights. Aviation W 48:38 F 15 '48
 NWA rebate plan minimizes delays. Aviation W 48:43 Ap 12 '48
 PCA to start sky-coach service. Aviation W 49:14 O 4 '48
 Pan American sets fare precedent; tourist class service to Puerto Rico. Aviation W 49: 42 S 13 '48
 Passenger fares show mixed trend. Aviation W 48:104 F 23 '48

AIRLINES—Fares—Continued

Press chilly to fare increase; extracts from newspaper editorials and columnists. Aviation W 49:43 S 13 '48
 Tax exemption ruling revoked by Bureau of internal revenue. Ry Age 125:648 O 2 '48
 Tax-free fare plan for commuter out. Aviation W 49:42 O 11 '48
 Tripps and Smith show the way; editorial. R. H. Wood. Aviation W 49:50 S 13 '48
 UAL objects; protests to CAB about Capital plan for sky-coach service. Aviation W 49:46 O 18 '48

Feeder airlines

Air Transport facts and figures; local service air lines. Air Transport 6:sup 15 F '48
 Attack on feeder cost renewed; Post office department against further increases in temporary mail payments. Aviation W 48:54 Ap 19 '48
 Certificate of extension sought by feeders. Aviation W 48:51 J 21 '48
 CAB awards new feeder service in the Middle Atlantic Case decision. CAA J 9:38 Ap 15 '48
 CAB cautious on feeder future. C. Adams. Aviation W 49:39-40 S 13 '48
 CAB extends routes of two feeder lines into Mississippi area. CAA J 9:7 Ja 15 '48
 Engineering a feederline. T. P. Lombardo. Air Transport 6:36-8-Ja '48
 Feed plan given CAB approval; Northeast airlines. Aviation W 48:43 Je 7 '48
 Feeder poll shows public support. Aviation W 49:35-6 N 1 '48
 Feederline that pays! Pioneer air lines of Texas. R. W. Barker. il Air Transport 6:21-4 Ja '48
 Feeders far in red for 1947. C. Adams. Aviation W 48:36-7 Ap 5 '48
 Feeders renew plea for more mail pay. Aviation W 48:34 Mr 1 '48
 Florida line fights to keep operating. Aviation W 49:32 O 4 '48
 New air taxi service organized; fixed base operators set up feederline network. A. McSurely. Aviation W 49:35-6 Ag 9 '48
 Parks, Southern always grow to super feederline size. C. Adams. Aviation W 47:34-5 D 29 '47
 Post office asks for halt in new feeder certificates. Aviation W 49:47 N 8 '48
 Starting a feeder is tough; Island air ferries. F. H. Smith. il map Air Transport 5:52-3 N '47
 Win one, lose one; get helping hand from CAB, protest on high mail costs from post office. Aviation W 48:43-4 My 17 '48

Finance

Air subsidies seen justified in future; House study group report, Public aid to air transportation. Ry Age 124:724-5 Ap 10 '48
 Air Transport facts and figures; operating revenues, 1938-1947. Air Transport 6:sup 7 F '48
 Air transport problems. E. S. Land. S A E J 56:25-7 O '48
 Airline financing legislation. Aviation W 48:41 My 24 '48
 Airline financing need continues as replacement problem grows. S. Altschul. Aviation W 47:17 D 29 '47
 Airline mumbo-jumbo; RFC to study financial problems. Barron's 28:34 S 6 '48
 Airline problem in RFC's lap. S. Altschul. Aviation W 49:55-6 S 20 '48
 Airlines hear details on TWA money-saving. Aviation W 49:41-2 O 11 '48
 Airlines move to get back in black; fare raises, mail pay boosts spearhead carriers' campaign. S. Altschul. Barron's 27:25 D 15 '47
 Airlines' 1948 prospects dim. Aviation W 49:41 S 13 '48
 Airlines welcome RFC survey. Aviation W 49:39 Ag 23 '48
 American airlines suggests mail pay increase; record deficit for first six months. Aviation W 49:37 Ag 23 '48
 Aviation RFC? proposed corporation would buy planes from manufacturers, lease them to airlines. Bsns W p28+ Ja 31 '48
 Awkward case of Eastern airlines. Fortune 38:100-2 N '48
 Bad year for airlines. Bsns W p90+ My 8 '48

Bank credits still aid airlines. S. Altschul. Aviation W 49:33 Ag 30 '48
 California-Eastern files bankruptcy plea. S. Altschul. Aviation W 48:39 My 24 '48
 Cargo lines' financial status hit. C. Adams. Aviation W 49:36-8 J1 5 '48
 CAB boosts airlines' revenue; air mail rate increases offered. C. Adams. Aviation W 48:14 Ap 19 '48
 CAB peers into Big five future. S. Altschul. Aviation W 48:34 My 3 '48
 Convair forms plane-leasing subsidiary. W. Kroger. Aviation W 49:12-13 O 4 '48
 Disappointing airline earnings to show in 1947 annual reports. S. Altschul. Aviation W 48:35 F 9 '48
 Do airlines like being called self-sufficient? it means low mail pay; CAB decision may be challenged. S. Altschul. Barron's 28:29-30 My 3 '48
 Domestic trunklines to show record losses for second year. Aviation W 47:53-4 D 8 '47
 Higher air rates compensate for traffic cuts; gross revenues boosted. J. B. Ford. Barron's 28:29-30 S 20 '48
 Incentive mail pay gaining favor. S. Altschul. Aviation W 49:33 S 27 '48
 Last-minute reprieve for TWA; additional mail pay saves it from defaulting on sinking fund payments. S. Altschul. Aviation W 48:32 My 31 '48
 Lift for Convair; Odlum forms equipment-finance company. Bsns W p89-90 O 2 '48
 More deficits for domestic lines? first-quarter reports show heavy losses. Aviation W 48:33 My 31 '48
 NWA pinched by 2-0-2 grounding. S. Altschul. Aviation W 49:30 O 4 '48
 Outlook bright for Delta, Braniff. Aviation W 49:40-1 S 27 '48
 Pan American reports its position. S. Altschul. Aviation W 48:40 My 17 '48
 16 domestic trunklines report \$20,193,000 deficit in 1947. C. Adams. Aviation W 48:41-2 Ap 12 '48
 Small airlines make money; Trans Caribbean shines. il Bsns W p84-6 S 4 '48
 Study of United's financing plan shows stress on future earnings. S. Altschul. Aviation W 48:32 Mr 29 '48
 Subsidies defended in House report. Aviation W 48:50-1 Ap 12 '48
 Summer profits. Aviation W 49:40 Ag 9 '48
 13-point plan to solve problems facing carriers. W. L. McMillen. Aviation W 49:40 O 11 '48
 TWA finances beginning to clarify. S. Altschul. Aviation W 49:44 J1 12 '48
 Trunklines look to last quarter. Aviation W 49:37 O 25 '48
 UAL fears heavy loss in 1948. Aviation W 48:45 Je 14 '48
 UAL seeks more working capital. S. Altschul. Aviation W 48:33 Je 21 '48
 U.S. flag carriers show loss in 1947. Aviation W 48:38 Mr 29 '48
 Western. TWA annual reports show new management results. S. Altschul. Aviation W 48:40 Ap 12 '48
 What are air mail costs? D. S. Stanley. Pub Util 42:21-7 J1 1 '48
 Who's to blame in airline crisis? C. Adams. Aviation W 49:43+ N 8 '48

Food service

Design for air catering. W. Duschinsky. il diags Air Transport 6:26-8 Ja '48
 Food for flying gourmets. G. Herrick. Air Transport 6:25 Ja '48
 Weight-saving on tableware sells plastics to airlines. il Plastics 8:58+ Mr '48

Freight rates

See Air freight service—Rates

Freight service

See Air freight service

Insurance requirements

New airline insurance plan on passenger miles. Weekly Underw 158:1574 My 29 '48
 New insurance rule to cut airline costs suggested by ICAO. CAA J 9:96 Ag 15 '48

Interchange agreements

Equipment interchange analyzed. S. Altschul. Aviation W 49:45 Ag 16 '48

AIRLINES—Interchange agreements—Cont.
 Equipment interchange decision promises better routes, service; CAB approves TWA-Delta agreement. S. Altschul. Aviation W 48:37 Ja 12 '48
 NAL, PCA sign interchange pact. Aviation W 48:43 Mr 29 '48

Maintenance and repair

Airline maintenance is 25 per cent better; engineering and maintenance conference of the Air transport association, Kansas City, March 30-April 1. Aero Digest 56:30+ Je '48
 Ease work, save money by docking. G. Habian. il Air Transport 6:29-30+ Ja '48
 End of pooled maintenance boom? S. L. Colbert. il Aviation W 48:50-1 My 10 '48
 How to control maintenance costs. G. W. Norris. Air Transport 6:33-5 Ja '48
 New techniques speed airliner maintenance. il Mill & Factory 43:121-2 Jl '48
 New UAL base largely automatized. il Instruments 21:634-5 Jl '48
 Trade tricks. il Air Transport 5:78+ N; 53-7 D '47
See also
 Airlines—Shape

Management

Aircraft and the airlines; Canadian view. J. T. Bain. Roy Aeronautical Soc J 52: 193-203 Ap '48
 Airlines and Survival in the air age. Air Transport 6:26+ F; 40-2 Mr '48
 Formula; dependability with safety. W. A. Patterson. Aero Digest 56:40-1 Ap '48
 Pilots' wartime idea clicks; Transocean Airline profit in foreign air charter business. Bsns W p36 Ag 14 '48
 Plan and cooperate for airline profits; SABENA, the Belgian airline. F. J. Martens. Air Transport 6:33 Mr '48
 Problems facing civil air operations. N. E. Rowe. Roy Aeronautical Soc J 52:87-103; Discussion. 103-16 F '48
 Standardization and simplification for the air transport industry. W. Littlewood. S A E J 56:41-3 S '48

Officials

More 1947 pay checks. Aviation W 48:44 My 3 '48
 Top airline salaries show increase in 1947. Aviation W 48:53 Ap 19 '48

Radio communication

Radio tames South American airline frontier. map Aero Digest 57:32+ O '48
 Very-high-frequency single-channel receiver. W. C. Lane and T. C. Clark. il diags Elec Com 25:132-8 Je '48
See also

Airways—Traffic control

Regulation

National case has repercussions; CAB dismemberment proposal. S. Altschul. Aviation W 49:33 O 25 '48
 Premature DC-3 retirement fought by scheduled airlines. C. Adams. Aviation W 47: 55-6 N 17 '47
 Search and research before you apply; making an airline application to CAB. D. S. Stanley. Air Transport 6:31-2+ Ja '48
 Use of flight engineers protested. Aviation W 49:33 Jl 26 '48

Reservation systems

Intelix; automatic reservations; passengers on airlines and railroads. J. D. Mountain and E. M. S. McWhirter. il diags Elec Com 25:220-31 S '48
 Quick yes or no jumps TWA seat sales. J. E. Hawthorne. Sales Management 59:89 D 15 '47
 Reservations in seconds; new robot called Intelix. il Product Eng 19:148 Ag '48
 Untangling reservation red tape. il Aviation W 48:50-1 Je 21 '48

Safety measures

Airlines using ILS for safer bad-weather landings. CAA J 9:43 Ap 15 '48

Down to earth, but fast; plane evacuation chute, developed by American Airlines for use after emergency landings. il Air Transport 6:23 Mr '48
 For safer flying; Air safety board suggestions. Bsns W p36 Ja 10 '48
 President's special safety board releases sixth and final report. CAA J 9:14 F 15 '48
 Problems facing civil air operations. N. E. Rowe. Roy Aeronautical Soc J 52:87-103; Discussion. 103-16 F '48
 Safety is no accident. S. Janas. Aero Digest 57:38-9 Ag '48
 Two safety devices required equipment on scheduled lines. CAA J 8:125 N 15 '47
 Using air-borne radar to increase air-line safety. R. W. Ayer. il Elec Eng 67:246-8 Mr '48

Securities

Airline equity market analyzed. S. Altschul. Aviation W 49:33 Jl 19 '48
 American and United declare dividends on preferred stocks. S. Altschul. Aviation W 48:35 F 2 '48
 Atlas-NEA divorce no hardship; order gives holding company 18 months to dispose of stock. S. Altschul. Aviation W 48:31 Je 7 '48
 Aviation common-stock holdings. H. A. Long. Aero Digest 57:28-30 Ag '48
 Continuing deficit operations minimizes carriers' dividends. S. Altschul. Aviation W 47:41 N 17 '47
 Dwindling market equity values key to airline finance problems. S. Altschul. Aviation W 47:16 D 22 '47
 Security reins to CAB? S. Altschul. Air Transport 5:33-4 D '47
See also
 Airlines—Equipment trust certificates

Service

Airlines study passenger habits; travelers polled in move to improve service in New York area. Aviation W 48:35 F 16 '48
 Customer squawks cue Braniff on improved sales appeals. C. E. Beard. Sales Management 59:96+ N 20 '47
 On-time pays; airlines step up efforts to fly on schedule. Aviation W 49:69 S 20 '48
 Revelations over 9,000 miles; where service can be improved; detailed diary covering an extended air journey through the United States. F. W. Barker. il Air Transport 5: 21-4+ D '47; 6:42-6 Ja '48
See also

Airlines—Reservation systems

Shops

Conveyorized maintenance methods reduce airliner overhaul time; maintenance base of United air lines. il Steel 123:94+ Jl 5 '48
 Engine-repair shops of the B.O.A.C. at Treforest. Engineering 165:22-3 Ja 2 '48
 Maintenance base; United air lines streamlines its operation at San Francisco installation. il plans Arch Forum 89:90-4 O '48
 Plating and airlines efficiency; plating shop of American Airlines. J. Albin. il Metal Finishing 46:90-4 Je '48
 Push-button overhaul dock at United air lines' San Francisco maintenance base. il Aero Digest 57:24 Ag '48
 Reclaiming solvent cleaners; American Airlines engine build-up shop. J. Albin. flow chart il Iron Age 161:74-5 F 12 '48
 Shop science; Delta's Atlantic base. E. D. White. il Air Transport 5:25-7 D '47
 United air lines opens new maintenance depot. il Concrete 56:18 Je '48
 Well-engineered wiring at United. il Elec West 101:102-3 S '48

Statistics

Air Transport facts and figures. Air Transport 6:sup2-15 F '48
 Airlines analyze 1947 progress. Aviation W 47:35 D 29 '47
 Airlines; operations on scheduled airlines, 1941-1946. Survey of Cur Bsns 1947 Sup p 104 [supplemented in monthly numbers]
 Douglas surveys airline traffic trends between 1947 and 1950. C. Adams. Aviation W 47: 59-60 N 10 '47

AIRLINES—Statistics—Continued

15 year growth of domestic air lines; number of companies, planes and miles flown, passengers, mail and freight carried, fuel consumed; tabulations. *Automotive Ind* 98: 127 Mr 15 '48

Final traffic totals for 1947 issued. *Aviation W* 48:49 Mr 15 '48

Traffic down on domestic airlines, first quarter 1948. *Aviation W* 48:40 My 24 '48

U.S. carriers still largest in world. *Aviation W* 48:100-1 F 23 '48

U.S. leads world in plane miles flown. *Aviation W* 48:33 Mr 1 '48

Stops

Down, up, and off in five minutes; Southwest airways' time for small-station stops; illustrations with text. S. Bangs. *Air Transport* 6:24-5 F '48

Taxation

Airlines protest heavy tax burden. map *Aviation W* 48:106 F 23 '48

Fuel taxes; airlines hold line, with only two changes in state levies. *Aviation W* 49:51-2 Ag 16 '48

Terminals

Air terminal ground traffic problems. R. Ramspeck. *Pub Works* 79:26-+ S '48

Airlines still row with Port authority. *Aviation W* 49:38 Ag 30 '48

E.O.A.C. flying-boat terminal. *Il Engineer* 185:407-8 Ap 23 '48

Three lines sign to use Idlewild. *Aviation W* 48:47 Je 28 '48

Ticket offices

Britain circles the globe; British overseas airways corporation offices. New York city. *Il plan Arch Rec* 103:102-3 Mr '48

Royal Dutch airline offices in New York city. *Il plans diags Arch Rec* 103:97-101 Mr '48

Tickets

See also

Airlines—Reservation systems

Traffic

Airline traffic slump continues. *Aviation W* 49:36 Ag 23 '48

Douglas surveys airline traffic trends between 1947 and 1950. C. Adams. *Aviation W* 47: 69-60 N 10 '47

No slump in passenger traffic. *Aviation W* 48: 44 Ap 12 '48

See also

Airways—Traffic control

Transoceanic lines

Court bars review of overseas awards. *Aviation W* 48:106-7 F 23 '48

Excursion fares; Pan Am finds way to reduce rates. S. L. Colbert. *Aviation W* 49:40 Ag 23 '48

Food for flying gourmets. G. Herrick. *Air Transport* 6:25 Ja '48

Foreign airport program faces rough sledding in Congress; Air coordinating committee urges airport rehabilitation to aid international airlines of United States. *Aviation W* 48:11-12 F 9 '48

Foreign traffic analyzed. *Aviation W* 48:47 Je 21 '48

Getting a share of transoceanic traffic; Air France, H. Lesieur. *Air Transport* 5:40 D '47

Hawaiian service goes to NWA. *Aviation W* 49:39 Ag 9 '48

No help needed; recent CAB order implies flag lines handle summer rush alone. *Aviation W* 49:41 Ag 23 '48

Nonskeds seek Atlantic business. C. Adams. *Aviation W* 49:46-6 JI 12 '48

Record overseas traffic likely. *Aviation W* 48:34 My 31 '48

Transoceanic makes money with foreign charter service, overhaul business and other activities. R. Hotz. *Il Aviation W* 49:39 Ag 30 '48

U.S. carriers retain bulk of trans-Atlantic traffic. *Aviation W* 47:63 N 10 '47

Alaska

Air Transport facts and figures; Alaskan aircraft operations, 1929-1947; tabulation. *Air Transport* 6:sup 14 F '48

Alaska airlines stresses cargo. *Aviation W* 48:42 Ap 26 '48

Alaska cargo; handling freight between the Pacific Northwest and Alaska. *Aviation W* 49:34-5 O 4 '48

CAB probes Alaskan mishaps. *Aviation W* 47:55 D 8 '47

Wages hit stratosphere in Alaska. E. M. Fitch. *Air Transport* 6:43 F '48

Argentina

Joint Argentine line experiences deficit. *Il Aviation W* 48:34 Ja 5 '48

Australia

Australian lines feud over fare increases. *Aviation W* 47:15 D 22 '47

Canberra turns down ANA expansion plan. *Aviation W* 48:44-5 Ap 5 '48

Belgium

Plan and cooperate for airline profits; SABENA, the Belgian airline. F. J. Martens. *Air Transport* 6:33 Mr '48

Bolivia

Bolivian air force wants to be airline. *Aviation W* 49:32 Ag 23 '48

Brazil

Brazilian air lines chalk up outstanding safety record. *For Comm W* 30:29 Ja 24 '48

Money troubles hit Brazil lines. H. W. Bagley. *Aviation W* 49:39 S 27 '48

Canada

Aircraft and the airlines; Canadian view. J. T. Bain. *Roy Aeronautical Soc J* 52:193-203 Ap '48

Canadian traffic up but income drops. *Aviation W* 49:53-4 Ag 16 '48

Chosen instrument makes good in Canada; airline controlled by a government railroad; Trans-Canada air lines. J. Montagnes. *Il Air Transport* 5:36-9 D '47

Caribbean area

Board authorizes additional service in Caribbean area. *CAA J* 9:112 O 15 '48

CAB rules on service restriction; Caribbean decision. *Aviation W* 49:43 S 27 '48

China

Air transport booms in China. *Aviation W* 49:51-2 JI 19 '48

Airlines show upward trend. *Aviation W* 48: 41 F 9 '48

Czechoslovakia

Czechs seek more air pacts. E. Fisher. *Il Aviation W* 48:37 Ja 19 '48

France

Air France to open all-freight services. *Aviation W* 48:40 F 9 '48

Getting a share of transoceanic traffic; Air France, H. Lesieur. *Air Transport* 5:40 D '47

Germany

Air service vital problem in Germany. J. J. Christie. map *Aviation W* 47:42-+ N 17 '47

Great Britain

Britain eyes the transport future. *Aviation W* 49:35 O 4 '48

BOAC reports on reorganization. F. T. Brewster. *Aviation W* 49:31-2 Ag 23 '48

British permits; charter operators get Ministry approval for scheduled service. *Aviation W* 49:31 JI 26 '48

British reject home transports; order for new planes for BOAC goes to Canada. C. L. Adams. *Aviation W* 49:38-9 Ag 2 '48

Deficit and equipment problems harass BOAC as 1948 begins. F. R. Brewster. *Aviation W* 48:31 F 16 '48

Flying blind; Civil aviation policy. *Economist* 154:366-7 Mr 6 '48

Scheduled contract for charter airline. *Bsns W p* 115 Je 5 '48

Hawaiian Islands

Hawaiian service goes to NWA. *Aviation W* 49:39 Ag 9 '48

India

Indian air transport climbing. J. K. Van Denburg, Jr. *Aviation W* 48:31 My 17 '48

AIRLINES—Continued

Ireland

Air carrier permit granted to Aerlinite Eireann Teoranta, CAA J 9:29 Mr 15 '48

Italy

Italy's lines, Aviation W 48:19 Je 14 '48

Japan

Facilities future puzzles airlines; coming peace treaty poses problem of upkeep services now handled by USAF, A. W. Jessup, Aviation W 48:30 My 3 '48

Two U.S. airlines ask to operate in Japan; Pan American airways and Northwest airlines, Aviation W 47:33 D 29 '47

Latin America

Aviation world news; Latin America, Aviation W 48:29-30+ Je 28 '48

Latin American route battle; PAA and Panagra appeal to Congress and CAB to block new competitive Braniff and C&S service to South, Aviation W 48:42-3 My 3 '48

Mexico

LAMSA, UAL subsidiary, shies from Mexican merger proposal, W. Giandoni, Aviation W 48:34 Mr 29 '48

Netherlands

Dutch air monopoly to be studied, Aviation W 47:17-18 D 8 '47

Peru

First with the seeing eye; poor man's radar, APS-10, does a two-fold job for Peruvian international airways, N. F. Silsbee, II Aero Digest 55:23-4 N '47

Russia

Soviet transports; Tupolev TU-70 and the Il'yushin IL-18, II diags Aviation W 48:24-5 Mr 1 '48

Scandinavia

Integration of Scandinavian air lines, C. F. Baldwin, For Comm W 31:30 Ap 3 '48
Scandinavian non-sked reports are misleading, Aviation W 47:15 D 22 '47
Scandinavians fuse airlines in one unit, Aviation W 48:41-2 Mr 22 '48

South Africa

South African nonskeds strike policy snag, Aviation W 49:32 Ag 30 '48

South America

Radio tames South American airline frontier, map Aero Digest 57:32+ O '48

Spain

Authoritarian Spain builds air services, R. MacGall, II Air Transport 5:49-50 N '47

Sweden

Weather, politics felt in Swedish aviation, G. H. Smith, Aviation W 47:52-3 D 1 '47

Turkey

Turkish state airlines releases operating data for first eight months of 1947 and the entire year 1946, For Comm W 30:27 F 21 '48
Turkish state airlines signs contracts for international airports, Aviation W 49:34 Ag 16 '48

United States

After the turn of the year, E. Rickenbacker, Comm & Fin Chr 167:374 Ja 22 '48
A.T.A. policy, E. S. Land, Aeronautical Eng R 7:20+ Mr '48
Air Transport facts and figures, Air Transport 6:sup2-15 F '48
Air transport problems, E. S. Land, S A E J 56:25-7 O '48
Air transportation; review prepared by the Air transport association of America, Mech Eng 70:156 F '48
Air transport's role in air power, C. Adams, Aviation W 48:91-2+ F 23 '48
Airline ailments probed for cure, W. L. McMillen, Aviation W 49:38 O 18 '48
Airlines and Survival in the air age, Air Transport 6:26+ F; 40-2 Mr '48
Airlines backstop Berlin airlift, Aviation W 49:63-4 S 20 '48

Certificated lines ask monopoly on U.S. governmental air travel, C. Adams, Aviation W 48:40+ Ja 26 '48
Crisis in the air, Fortune 38:4 Jl '48
Formula; dependability with safety, W. A. Patterson, Aero Digest 56:40-1 Ap '48
Lobby probe hits airlines, Aviation W 48:12 Ja 26 '48

Military services, bankers and over-regulation by government were causes of current airline difficulties, E. S. Land, Aviation W 48:47 Je 21 '48

More airline mumbo-jumbo; possible dismantling of National airlines, Barron's 28:32 O 4 '48

More trouble in the air, Fortune 38:16 N '48
President's air policy commission urges more financial aid to airlines, C. Adams, Aviation W 48:38-9 Ja 19 '48

Reshaping the airline map; financial problems raise possibility of mergers, equipment sharing and route transfers, S. Altshul, Barron's 28:31-2 Jl 26 '48
Trying to revamp a major industry, Bsns W 19:20 O 9 '48

Ways to end paradox of airlines, L. T. Cohu, S A E J 56:86-7 Ag '48; Abstract, Comm & Fin Chr 167:1751+ Ap 22 '48

AIRPARKS, See Aviation landing stations

AIRPLANE accessories industry

Aircraft accessory manufacturer, the forgotten man, J. C. Garrett, Aero Digest 57:40-1 Jl '48

Directories

1948 classified index of accessories (airborne); directory of accessory manufacturers, Aero Digest 56:114+ Mr '48

Statistics

Aeronautic exports by years, 1912-1947; by type of product for 1944-1947; tabulations, Automotive Ind 98:128 Mr 15 '48

AIRPLANE assembly plants

Plant for building giant planes at Filton, England, II Eng N 140:532-3 Ap 8 '48

AIRPLANE carriers

Aircraft-carrier research; aluminum model at Stevens institute of technology, II Mech Eng 70:22 Ja '48

Boeing must bargain, says NLRB examiner, Aviation W 49:15 Ag 2 '48

Carrier war in the Atlantic, J. L. Blackman, Jr. II U S Naval Inst Proc 74:998-1003 Ag '48

Defense of the navy, C. Caldwell, II Aero Digest 56:23-5+ My '48

FJ-1 makes first carrier test, S. Bangs, II Aviation W 48:13 Mr 22 '48

How the navy buys a carrier; chart, Aviation W 49:22 S 6 '48

Sea-based air power, C. Caldwell, Aero Digest 57:50-1+ Ag '48

Super carrier; navy gets go-ahead to build 65,000-ton craft, R. B. Hotz, Aviation W 48:12 My 24 '48

USAF at sea; pilots to train aboard carrier, Aviation W 49:14 Ag 2 '48

Unsinkable flattop, C. Caldwell, II Aero Digest 57:68-70+ O '48

Conversion

Gulf yard converts flat tops, II Marine Eng 53:64-5 F '48

Robin line converts flat-top to C-3 passenger-cargo ship, II plans Marine Eng 53:52-63 My '48

AIRPLANE engines

A.B.C. auxiliary engine, II diags Automobile Eng 38:385-8 O '48

Aircraft power plant engineering, F. Nixon, II Engineering 165:127-9, 132 F 6 '48

Allison V-1710 exhaust turbine compounded reciprocating aircraft engine; abstracts, D. Gerdan and J. M. Wetzler, II S A E J 56:59-60 Ja '48; Automotive Ind 97:42-3 N 1 '47

American aircraft propulsion machinery, W. J. King and W. R. Hawthorne, bibliog diags Inst Mech Eng J & Proc 157 (War emergency issue no 29):197-202, pl 1-2 '47

America's most powerful aircraft jet engine in production, Franklin Inst J 246:340 O '48

Analysis of composite-powered aircraft, B. T. Salmon, II S A E J 55:34-9+ D '47

Art of the aviation engine, F. R. Banks, Roy Aeronautical Soc J 52:527-49 S '48

AIRPLANE engines—Continued

Ceramic developments for aircraft power plants. W. H. Duckworth. *Am Cer Soc Bul* 27:33-5 Mr '48

Compound engine; compounding of exhaust-gas turbine with reciprocating piston engine. *il diag Aero Digest* 57:65 S '48

Compounding the reciprocating piston engine. L. J. Fischer and W. O. Meckley. *Aero Digest* 56:74-5 Mr '48

Engine output in transition period. *il Aviation W* 48:30 F 23 '48

Engine possesses less weight per hp; Wasp Major-VDT. *Iron Age* 162:176 N 4 '48

Four high-horsepower engine projects at Wright. *Aviation W* 48:20 Ap 12 '48

From 1700 to 2700 horsepower in ten years; Wright Cyclone 18. *il Aviation W* 48:26-7+ My 24 '48

Future power for the personal airplane; abstracts. J. W. Thorp. *Automotive Ind* 97:46 N 1 '47; *S A E J* 56:40-2+ Ja '48

Leading U.S. reciprocating engines; tabulation. *Aviation W* 48:29 F 23 '48

Metals and ceramics; wide industrial possibilities of coatings; symposium on ceramics for airplane engines. *Chem Age (Lond)* 59:219-20 Ag 14 '48

NACA engine research plots new boosts for jet power. R. McLaren. *Aviation W* 48:9-10 Mr 29 '48

New Oldsmobile engine has 7.25 to 1 ratio. *Automotive Ind* 98:19 O 1 '48

New propeller engines for the air force; combining best features of jet and reciprocating units. *il Aviation W* 49:18 O 25 '48

Nuclear energy for propulsion of aircraft now engineering problem; abstracts. A. Kalitinsky. *Aviation W* 49:29 Jl 19 '48; *Mech Eng* 70:755-6 S '48

Piston aero-engines. H. R. Ricardo. *diag Inst Mech Eng J & Proc* 157 (War emergency issue no 29):193-7, pl 1-2 '47

Piston engine boosted to 4000 hp. *Aviation W* 49:12-13 Ag 9 '48

Prevention of idling failures. *Aero Digest* 55:71 D '47

Requirements for ceramic materials for application to aircraft power plants; abstract. R. A. Jones. *Chem Age (Lond)* 59:219 Ag 14 '48

Rocket engine developments. R. Healy. *il diags Aero Digest* 55:33-41+ N '47

Structural alloy steels in the air age; aircraft engines. A. W. F. Green. *il Metal Prog* 54:491-5 O '48

Summary of power comparisons; chart. *Aviation W* 48:22 Ja 19 '48

Trends in new-type powerplants. / R. P. Kroon and others. *Aero Digest* 56:63-74 Mr '48

Wasp Major-VDT; piston-jet propulsion combination. *Aero Digest* 57:62 N '48

Where engine money goes. *Bsns W* p22 Jl 17 '48

Wright's Turbo-Cyclone 18: *il Aero Digest* 57:59+ O '48

See also

Airplanes—Auxiliary Jet propulsion of aircraft power craft

Air supply

Boeing B-50 induction system pressurizes air for cabin. *flow diag il Automotive Ind* 98:44-5+ Ap 1 '48

New ducts give power increase; by-pass system for takeoff uses Constitution's rating. *il Aviation W* 48:29 Mr 8 '48

Bearings

Temperature distribution in the bush of a journal bearing. D. Clayton and M. J. Wilkie. *diags Engineering* 166:49-52 Jl 16 '48

Cleaning

Cleaning surfaces by non-erosive blasting; seed or soft grit blasting. J. Albin. *il Metal Finishing* 46:54-6+ Mr '48

Control

Air transport maintenance and engineering aspects of powerplant controls. H. W. Nevin, Jr. *S A E J* 56:65-6 Ag '48

Cooling

Ejection cooling of the XR-10 helicopter power plant. L. L. Douglas. *diag Aero Digest* 56:61+ F '48

Ejector cooling of the XR-10 helicopter power plant; abstract. L. L. Douglas. *il S A E J* 56:65-6 Je '48

Evaluation of engine coolants; techniques for testing small quantities. G. A. Hawkins and C. F. Warner. *diag Ind & Eng Chem* 40:517-20 Mr '48

Design

Slant mechanisms; principles and application. T. L. Sherman. *diags Machine Design* 19:135-40+ N '47

Detonation

Piston failure by preignition and detonation. A. G. Cattaneo and E. P. Viscia. *il diag S A E J* 55:54-60 N '47

Directories

1948 annual directory of aircraft engines; illustrations and brief descriptions. *Aero Digest* 56:89-92+ Mr '48

Efficiency

Engine compounding for power and efficiency; abstracts. E. F. Pierce and H. W. Welsh. *diags S A E J* 56:58-9+ Ja '48; *Automotive Ind* 97:45-6 N 1 '47

National flight propulsion meeting; performance possibilities of aircraft engines utilizing gas turbines. R. P. Krebs. *Aeronautical Eng R* 7:27-9+ Je '48

Theoretical investigation into the porting of a two-cycle high mean effective pressure internal combustion engine. G. Parker. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 34):367-73; *Discussions* 373-4 '47

Trends in aircraft power plants. M. U. Clauser. *bibliog Aeronautical Eng R* 6:12-17 N '47

Exhaust

Navy fire prevention system utilizes exhaust gases. *Product Eng* 18:147-3 D '47

Fuel

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; composition of an aviation alkylate. F. Morton and A. R. Richards. *bibliog Inst Pet J* 33:697-720 D '47

Aviation gasoline survey. W. C. Holliman and others. *Oil & Gas J* 47:98-9 Jl 8 '48

Aviation spirit production; electrical applications in processes. *il Elec R (Lond)* 141:759-64 N 21 '47

Butane used as fuel in lightplane flight. *Aviation W* 47:25 N 24 '47

Desperate Japs tried to make avgas even from pine tree roots, needles. D. P. Thornton, Jr. *il Pet Processing* 2:815-20 N '47

Effect of sulphur and phosphorus on aviation fuel performance. T. K. Hanson and K. F. Coles. *Inst Pet J* 33:589-97 O '47

Fuel freezing hazards studied. L. Storey, Jr. and J. C. Duffendack. *il diag Aviation W* 48:26-7+ Je 14 '48

Fuels of the future; abstract. T. B. Rendel. *S A E J* 56:83-4 Ja '48

Full-scale engine performance characteristics of aviation safety-type fuels. W. J. Sweeney and others. *S A E J* 56:70-2 Ag '48

Initial operation and test run of 100-octane aviation gasoline plant. U. Tsao. *flow diags il Pet Eng (Ref annual)* 19:161+ Jl 1 '48

Plane crash fire danger studied by fuel engineers. W. E. Kuhn. *il Aviation W* 48:24-5 Ja 19 '48

Production of 2,3-dimethylbutane by alkylation. R. B. Thompson and J. A. Chenicek. *bibliog diag Ind & Eng Chem* 40:1265-9 Jl '48

Production of xylidines by high pressure hydrogenation; quality and performance characteristics. J. F. Kunc, Jr., W. C. Howell, Jr. and C. E. Starr, Jr. *bibliog Ind & Eng Chem* 40:1530-8 Ag '48

Survey of characteristics of marketed aviation gasolines. W. C. Holliman and others. *Oil & Gas J* 47:99 S 30 '48

AIRPLANE engines—Fuel—Continued

Survey of commercial aviation-gasoline characteristics, March 1947 production, W. C. Holliman and others, 7pls U S Bur Mines Rep of Invest 4273:1-16 '48

Survey of commercial aviation gasoline characteristics, July 1947 production, W. C. Holliman and others, 7pls U S Bur Mines Rep of Invest 4353:1-16 '48

Synthesis and purification of ethers, W. T. Olson and others, bibliog Am Chem Soc J 69:2451-4 O '47

See also
Gas turbines, Air-
craft—Fuel
Xylidine

Fuel consumption

Measuring liquid flow by weight; scales modified to check fuel consumption of airplane and automobile engines, D. B. Kendall, il diags Electronics 21:114-16 My '48

Oscillating-piston meters for fuel consumption in aircraft; abstract, C. S. Hazard, diags Mech Eng 70:458 My '48

Fuel feeding

Direct injection for Wright 13-cyl. engine, J. T. Marshall, diag S A E J 56:28-9 My '48

Ignition

Piston failure by preignition and detonation, A. G. Cattaneo and E. P. Viscia, il diag S A E J 55:54-60 N '47

Preignition and its deleterious effects in aircraft engines, A. Hunderer and J. A. Bert, il S A E J 56:43-5 Ag '48

Industrial applications

Surplus airplane engines power products line stations, C. C. Keane, il World Oil 127:181-3 Mr '48

Lubrication

Air force extending its program of reclaiming engine lube oil, D. P. Thornton, jr, Nat Pet N 40:23 N 3 '48

Army convoy's 20,000-mile run tests lubes in all weathers, G. H. Vogel, il Pet Processing 3:761-2 Ag '48

Evaluation of light aircraft engine lubricants, W. J. Backoff and others, il S A E J 56:31-4 F '48

Lubrication problems encountered in light plane engines; abstract, C. T. Doman, S A E J 56:18; Discussion, 19 Mr '48

Manufacture

Factory control at a glance; use of peg-board system at Pratt & Whitney aircraft engine plant, K. Kern, il Aero Digest 55:66-74 N '47

Shot-peening aluminum forgings; Pratt & Whitney aircraft division of United Aircraft corp, C. H. Wick, il Mach 54:133-9 N '47

Tooling the Wright cyclone forged cylinder head, F. E. Whitacre, il diags Tool Eng 21:17-20 Jl '48

Unique applications of induction heating; Pratt & Whitney aircraft division, il Mach 54:179-81 Je '48

Models

Baby Diesel for model airplanes, J. W. Korda, il Diesel Power 26:42-5 Ap '48

Mounting

Planned tooling whittles costs of engine mounts, H. S. Wharen, il diags Am Mach 92:140-3 Mr 11 '48

Mufflers

Engine silencer on the Swift lightplane, Aviation W 49:29 S 27 '48

Noise

Muffling noise of engine tests, S. Bangs, il Aviation W 48:20 Je 14 '48

Repair

Cyclone schooling with Smith and the Irish; Wright Aero's Wood-Ridge, N.J. service school, H. Powell, il Air Transport 5:35-84 N '47

Engine overhaul, including the atomic; new power plant manual prepares for Engine mechanic's certificate, diag Air Transport 5:46-7 D '47

Engine-repair shops of the B.O.A.C. at Treforest, Engineering 165:22-3 Ja 2 '48

Plating techniques for rebuilding aircraft engine parts, J. Albin, il Iron Age 161:82-5 My 6 '48

These ideas save engine-overhaul time; shop at Piedmont aviation, D. R. Willard, il Air Transport 5:64-5 N '47

Specifications

American aircraft engines; tabulation, Automotive Ind 98:172-3 Mr 15 '48

British aircraft engines; tabulation, Automotive Ind 98:175 Mr 15 '48

Starting

Controlled friction; clutches for airplane engine starters, E. O. Peters, il Machine Design 19:117-19 N '47

Superchargers

Development of a turbosupercharger bucket alloy, E. Epreman, bibliog Am Soc for Metals Trans 39:261-73; Discussion, 273-80 '47

Inlet conditions of centrifugal compressors for aircraft engine superchargers and gas turbines, H. Woodhouse, diags J Aeronautical Sci 15:403-6 Jl '48

Testing

Airborne engine analyzer, V. C. Cetrone, il diags Electronics 21:90-5 Mr '48

Diagnosing engine troubles in flight; abstract, J. W. Wheeler, il Mech Eng 70:635-6 Jl '48

Speed-increasing gearbox for special test plant, S. A. Couling, il diags Engineering 164:412-14 O 31 '47

Transportation

Modified C-47 carries Connie engine; delivering power units to overhaul base by air, il Aviation W 49:47 Jl 12 '48

Valves

Theoretical investigation into the porting of a two-cycle high mean effective pressure internal combustion engine, G. Parker, diags Inst Mech Eng J & Proc 157 (War emergency issue no 34):367-73; Discussion, 373-4 '47

AIRPLANE engines, Jet propelled. See Jet propulsion of aircraft

AIRPLANE factories

AMC pilot plant at Adrian, Mich, Aviation W 49:18 N 8 '48

B-47 job goes to B-29 plant, Aviation W 49:17 O 11 '48

Chance Vought move to Texas pending under navy agreement, W. Kroger, Aviation W 47:18 D 29 '47

Chinese aircraft engine factory, H. C. Tsen, il Aero Digest 56:58-604 Je '48

Moving a plant 1,700 miles; Chance Vought aircraft division, il map Mill & Factory 43:130-1 S '48

Moving an airplane plant all-rail, New England to Texas, Ry Age 125:846-9 N 6 '48

See also

Airplane assembly plants	Airplanes—Manufacture
Airplane engines—Manufacture	Helicopters—Manufacture

Costs

Designer and manufacturing costs, G. W. Papen, diags S A E J 56:24-7 Ja '48

Designing with dollars; organization of cost data and its use by design engineering department; Glenn L. Martin co, J. Van Hamersveld, il diags Product Eng 19:81-6 Mr '48

Employees

Bendix strike, Aviation W 49:14 Jl 5 '48

IAM-UAW vie for aircraft workers, Aviation W 47:15-16 N 10 '47

Key employment in aircraft centers; tabulation, Aviation W 49:22 S 20 '48

Labor union raids; hits aircraft plant; Consolidated Vultee aircraft corp.'s San Diego plant, Aviation W 48:17 Mr 1 '48

No production labor shortage, Aviation W 48:18 My 10 '48

Plane builders need engineers, Bsns W p23-4 S 4 '48

AIRPLANE factories—Employees—Continued
 Strike at Boeing halts production. *il Aviation* W 48:12 My 3; 17 My 10; 16 My 17; 17 My 31 '48
 Strike ends; Boeing workers return. *Aviation* W 49:18 S 20 '48
 Teamsters organizing at Boeing. *Aviation* W 48:17 Je 7 '48
 Temporary injunction won by Boeing; mass picketing banned. *Aviation* W 48:17 My 24 '48
 Union loses seniority fight; Boeing and machinists' union. *il Bsns* W p 108-10 S 25 '48
 We introduced our employees to our stockholders; United aircraft corporation's employees' magazine. R. Minard. *il Ptr Ink* 222:42-3 Ja 16 '48
 Will the aircraft industry be labor's next battleground? R. McLaren. *Automotive Ind* 99:31+ Ag 15 '48

Equipment

Changing compressed air piping improves operations at Martin. E. Elliott. *il diag Heating-Piping* 20:73-6 O '48
 Hard facing improves tool life; Glenn L. Martin co. L. Barrett. *il Am Mach* 92:94-5 Ap 8 '48
 Office-size electronic computer. H. H. Adise. *il diag Aviation* W 49:18+ J1 26 '48
 Operations in the production of helicopters at the Bell Aircraft plant. E. L. Kramer. *il Mach* 54:164-8 D '47
 Plasecki helicopter corporation; new plant at Morton, Pa. *il Factory Management* 106: B50-1 pt 2 Ap '48
 Rigid aircraft inspection demands scientific instruments. W. E. Luff and M. T. Shelmimer. *il Automotive Ind* 99:41-2+ S 1 '48
 Sheet metal operations in aircraft supply plant revolve about air power; Rohr aircraft corp. *il Steel* 123:97+ J1 26 '48
 Stretch forming aluminum sheets. *il Iron Age* 161:86-7 Je 3 '48

Management

Better production control with all charts in one place; Glenn L. Martin co. W. H. Snyder. *il Factory Management* 106:102-4 Mr '48
 Factory control at a glance; use of peg-board system at Pratt & Whitney aircraft engine plant. K. Kern. *il Aero Digest* 55:66-7+ N '47

AIRPLANE industry and trade

Aircraft production tempo increasing; military plane orders. S. Altschul. *Barron's* 28:32 N 1 '48
 Analysis of the business aspects of the personal aircraft industry. A. H. Tully, jr. *Aeronautical Eng* R 7:20-2+ Ag '48
 ADMA, NATA study air show. A. McSurely. *Aviation* W 49:40 J1 12 '48
 Back for more; Northwest Airlines pleased with Martin 202's. *Bsns* W p22 F 21 '48
 Beech sales; company averages about \$2 million a month for first three quarters. *Aviation* W 49:18 J1 19 '48
 Bigger slices of business for aircraft makers; some for all, but firms with best war records may be favored. R. P. Cooke. *Barron's* 28:9-10 My 3 '48
 DC-6 fender; Douglas Aircraft stamps out car parts. *Bsns* W p23-4 J1 31 '48
 Dynamic aviation scene; comments on the report of the Congressional aviation policy board. S. Altschul. *Comm & Fin Chr* 167: 1102+ Mr 11 '48
 Early 1948 sales of lightplanes foreshadow low total for year. A. McSurely. *Aviation* W 48:32 Ap 12 '48
 Expansion in the aircraft industry resumed. *Survey of Cur Bsns* 28:6-7 Je '48
 Exports of aircraft and engines seen reaching post-war peak. W. Kroger. *Aviation* W 48:17 Ja 19 '48
 Jet-plane propellant; McDonnell aircraft corp. *Fortune* 38:108+ J1 '48
 Lightplane sales innovation; Silvalirizing program will permit conversion of any flyable airplane powered by a 65-hp Continental engine, -8 or -8 F series, into a modern all-metal Silvalire. *Aero Digest* 56:30+ My '48
 New lift for aircraft industry; Finletter commission report. *Bsns* W p28+ Ja 24 '48

Outlook for aircraft manufacturing. G. L. Martin. *Comm & Fin Chr* 167:1874+ Ap 29 '48
 Plane-maker's wheelbarrow; Bell aircraft corp.'s engine-driven Prime Mover. *il Bsns* W p39+ Ja 10 '48
 Region one operators seek better public relations on local level; fourteen states join program to promote private flying. *Aviation* W 48:26 Mr 1 '48
 Some builders' backlogs boosted by plane orders. R. P. Cooke. *Barron's* 28:40 Je 14 '48
 Subcontracting follows plane orders; Northrop deal with Convair. *il Bsns* W p32+ Ag 14 '48
 Variety at Temco; Texas engineering & manufacturing co. manufactures planes, parts and accessories, overhauls and converts planes. R. McCulloch. *il Aero Digest* 56:46-7 Ap '48

Advertising

What! sell a million dollar product by mail? Boeing airplane co. F. B. Collins. *il Sales Management* 60:100+ Ja 15 '48

Directories

1948 annual directory of airframe and power-plant manufacturers. *Aero Digest* 56:109-10+ Mr '48
 1948 annual directory of personal aircraft; illustrations, miniature plans and brief descriptions. *Aero Digest* 56:34-6+ Mr '48
 1948 transport aircraft directory; illustrations, miniature plans and brief descriptions. *Aero Digest* 56:20-2+ Mr '48

See also
 Airplane engines— Directories
 Helicopters—Directories

Finance

Aircraft manufacturers find red ink tide ebbing. R. P. Cooke. *Barron's* 27:25-6 D 23 '47
 Aviation RFC? proposed corporation would buy planes from manufacturers, lease them to airlines. *Bsns* W p28+ Ja 31 '48
 Convair forms plane-leasing subsidiary. W. Kroger. *Aviation* W 49:12-13 O 4 '48
 Convair's prize deficit for 1947. S. Altschul. *Aviation* W 48:34 My 10 '48
 Lift for Convair; Odium forms equipment-finance company. *Bsns* W p89-90 O 2 '48
 Little hope seen for surplus cash distribution by aircraft companies. S. Altschul. *Aviation* W 47:55 D '47
 Lockheed report for 1947. *Aviation* W 48:17 Ap 12 '48
 Manufacturers report huge losses for 1947. S. Altschul. *Aviation* W 48:38 Ap 19 '48
 Military orders boon to Lockheed. *Aviation* W 49:21 S 20 '48
 Northrop, Convair trends conflict. S. Altschul. *Aviation* W 49:30 N 1 '48
 Outlook good for stock dividends. S. Altschul. *Aviation* W 48:40 Je 28 '48
 Plane development bill fought; would authorize government financing of development costs on commercial transport and cargo prototypes. *Aviation* W 49:38-9 Ag 9 '48
 Plane makers expect to earn seven per cent on military orders. R. P. Cooke. *Barron's* 28:7 O 18 '48
 Profits ahead? six months' sales running better than last year. *Aviation* W 49:17 O 25 '48
 Reports indicate industry upswing. W. Kroger. *Aviation* W 49:17 Ag 9 '48
 Results vary for plane makers with non-aviation subsidiaries. S. Altschul. *Aviation* W 47:57 N 10 '47
 Slack commercial plane market leads to heavy deficit at Martin; other company reports. W. Kroger. *Aviation* W 48:17-18 Ap 5 '48
 Survey shows slump in aircraft sales. *Aviation* W 48:18 Ap 12 '48
 Up from a nosedive; North American aviation, inc. *il Bsns* W p54-7 J1 3 '48
 Way eased for airline equipment financing. *Barron's* 28:32 Je 14 '48
 West Coast earnings pick up. *Aviation* W 49: 21 S 13 '48
 Winger for French air industry. *Aviation* W 48:44 My 10 '48

AIRPLANE industry and trade—Continued

Securities

Aircraft dividends run counter to general corporate tendency. S. Altschul. Aviation W 47:34 D 1 '47

Aircraft shares may be out-running prospects; long-term outlook favorable, but new military orders are being delayed. R. P. Cooke. Barron's 28:29 Mr 15 '48

Aircraft stocks gain over 1947. S. Altschul. Aviation W 48:33 Mr 22 '48

Aircraft stocks on upward path. S. Altschul. Aviation W 49:29 JI 26 '48

Aviation common-stock holdings. H. A. Long. Aero Digest 57:28-30 Ag '48

Aviation pays for General Motors; sale of North American stock. S. Altschul. Aviation W 48:41 Je 14 '48

General Motors planning to sell Bendix Aviation stock interest. S. Altschul. Aviation W 48:36 Ja 19 '48

Investment trusts slow to shift in aviation securities holdings. S. Altschul. Aviation W 48:30 F 16 '48

Large stock sale may forestall new fight on Bell management. Aviation W 48:30 Mr 1 '48

New life in the aircrafts; with statistics on leading stocks. H. F. Travis. Mag of Wall St 81:528-30+ F 14 '48

Trusts active in aviation shares. S. Altschul. Aviation W 49:33 Ag 9 '48

Which aircrafts in best position; with pertinent statistics on aircraft stocks. R. Colston. II Mag of Wall St 82:488-9+ Ag 14 '48

Statistics

Ability to produce at low point. Aviation W 48:21-2+ F 23 '48

Aeronautic exports by years, 1912-1947; by type of product for 1944-1947; tabulations. Automotive Ind 98:128 Mr 15 '48

Aircraft and engine production, 1913-1947; tabulation. Aviation W 48:35 F 23 '48

Aircraft industry; mid-year, 1948; tables and charts. Aviation W 49:22 S 13 '48

Aircraft production and other statistics; tables and chart. Automotive Ind 98:124-5 Mr 15 '48

Aircraft; production or shipments, and exports, 1941-1946. Survey of Cur Bsns 1947 Sup p 178 [supplemented in monthly numbers]

CAA reveals increase of 13,819 civil planes during the past year. CAA J 9:43 Ap 15 '48

Civil plane output totals 15,616 units for the year 1947. CAA J 9:26 Mr 15 '48

Quarterly backlog report studied. Aviation W 48:17 Je 21 '48

Registered civil aircraft by major manufacturers; by engine classification, by hp classifications; tabulations. Automotive Ind 98:176-7 Mr 15 '48

16,023 personal planes sold during 1947; value \$53,206,000. A. McSurely. Aviation W 48:31 F 2 '48

Used airplanes

DC-3 sales boom. Aviation W 49:15 N 1 '48

Used airplane business is slack. S. L. Colbert. Aviation W 49:34-5 Ag 30 '48

Canada

Canada's role; its importance to air rearmament. Aviation W 49:17 N 1 '48

Surplus planes and U.S. aircraft bulk large in Canada's 1947 sales. Aviation W 48:15 F 16 '48

China

Chinese aircraft engine factory. H. C. Tsien. II Aero Digest 56:58-60+ Je '48

Czechoslovakia

New aircraft; Czechoslovakia. II Aviation W 47:50+ N 10 '47

Dallas

Chance-Vought moves south to Dallas. II Manuf Rec 117:42-3 S '48

Europe

Europe's progress in lightplanes. S. Fedan. II Aviation W 49:35, 37-8+ S 20 '48

France

French halt Corman production. II Aviation W 49:44 O 11 '48

French postwar designs in production. M. Marsh. II Aviation W 47:30+ D 8 '47

Great Britain

Aeronautics in 1947. II Engineer 185:21-3, 48-9, supp 3 Ja 2-9 '48

Britain reveals new plane types; aircraft manufacturers' annual exhibition. II Aviation W 49:14-15 S 20 '48

British air power stands at low ebb. F. R. Brewster. Aviation W 48:79-80 F 23 '48

British policy criticized by labor. Aviation W 49:32 Ag 30 '48

Engineering outlook. Engineering 165:232-5 Mr 5 '48

India

First Indian plane in prospect. diags Aviation W 49:30 Ag 2 '48

Netherlands

Dutch aircraft industry; Fokker, holding a monopoly of plane production, making remarkable comeback. A. A. Hoehling. II Aero Digest 56:68+ Je '48

United States

Ability to produce at low point. Aviation W 48:21-2+ F 23 '48

Aid to aircraft makers proposed in two bills amending the Vinson-Trammell act. B. Ravits. Barron's 27:9 D 22 '47

Air force buys. Bsns W p40 O 2 '48

Air force industrial mobilization now moves into second phase. Aviation W 48:17 F 2 '48

Air industry preparedness. J. C. Ward, jr. Aero Digest 57:24-6 O '48

Aircraft industry outlook bright for 1948. R. McLaren. II Automotive Ind 98:32-3+ Ja 1 '48

Aircraft industry rescued; navy and air force allocate almost \$2-billion. II Bsns W p26 Je 19 '48

Aircraft industry states its case; with abstracts of reports submitted by executives before Air policy commission. Automotive Ind 97:40-3+ D 1 '47

Aircraft orders; stimulus of air force and navy contracts. Barron's 28:33 Je 21 '48

Aircraft; prospects for 1948. C. F. Ross and others. II Steel 122:142-3 Ja 5 '48

Airplanes now for security. Factory Management 106:88-93 My '48

Conflict perils plane development. Aviation W 48:14-15 My 31 '48

First moves made to step up production. Aviation W 48:11-12 Ap 26 '48

Gloomy forecast by Air coordinating committee. Bsns W p46+ F 21 '48

Happy days at Grumman. II Fortune 37:112-15+ Je '48

Harvard report, Problems of accelerating aircraft production during World war II, gives yardstick for industrial preparedness plans. Aviation W 48:17 Ja 12 '48

Industrial planning progressing. map Aviation W 49:42+ S 6 '48

Industry speaks plainly; statements at hearings before the President's air policy commission. Aero Digest 55:26-7+ N '47

Long range procurement plans suggested for aircraft industry by President's air policy commission. Aviation W 48:16-17 Ja 26 '48

Manufacturers warned to step up output. R. Hotz. II Aviation W 49:11+ S 20 '48

Military boon. Bsns W p28+ My 1 '48

New air program. Bsns W p44+ Ag 21 '48

New rules set for aircraft procurement. Aviation W 48:9-10 My 3 '48

1949 military aircraft program; how the aircraft industry will be affected. R. McLaren. Automotive Ind 98:40-1+ Je 15 '48

Orders are coming for aircraft industry. R. Hotz. Aviation W 48:11-12 Ap 19 '48

Overgrown aircraft industry pinning for procurement boost. S. Altschul. Aviation W 48:36 Mr 15 '48

Power in the air; an analysis of the President's air policy commission report. Survival in the air age. S. P. Johnston. II Dun's R 56:14-16+ Mr '48

Present and future of the aircraft industry. C. N. Monson. Mech Eng 70:211-12+ Mr '48

Shall we have airplanes? II Fortune 37:77-81+ Ja '48

Stalemate in private flying. K. K. Hoyt. Aero Digest 55:37 D '47

AIRPLANE industry and trade—United States
—Continued

Stiff-place competition seen for lightplane market in 1948. A. McSurely. *il Aviation W* 47:46+ D 15 '47

Survey shows huge backlog; airplane manufacturers report unfilled orders. R. Hotz. *Aviation W* 49:11-12 Ag 23 '48

12 companies share aircraft program. R. Hotz. *il Aviation W* 48:11-12 Je 21 '48

Two boards to direct renegotiation act. *Aviation W* 49:11-12 Ag 9 '48

USAF, navy to order 3300 new planes. R. Hotz. *Aviation W* 48:11 Je 7 '48

U.S. war plane production rises; industry summary prepared by the Aircraft Industries association. *Aviation W* 48:15 Ja 5 '48

Where engine money goes. *Bsns W* p22 JI 17 '48

Wildest blue yonder yet; the aircraft industry Finletter report. *il Fortune* 37:94-101+ Mr '48

Your big customer, government; its aviation expenditures have climbed. *il Aviation W* 49:11-12 S 6 '48

AIRPLANE mechanics

Cyclone schooling with Smith and the Irish; Wright Aero's Wood-Ridge, N.J. service school. H. Powell. *il Air Transport* 5:35-8+ N '47

Training the A&E mechanics. F. Serdahely. *il Aero Digest* 56:32+ Je '48

AIRPLANE parts

Aluminum furnace brazing; aircraft pitot tube and a carburetor air scoop. P. A. Koerner. *il Machine Design* 20:123 S '48

Applications of precision castings. R. H. Osbrink. *il Automotive Ind* 97:38-40+ D 15 '47

Barrel finishing of aircraft parts. J. Wingate. *il Metal Finishing* 46:67-74 O '48

Bath contour forming, a new metalworking process; parts for truck, bus, and trailer bodies and also for aircraft. *il diags Automotive Ind* 98:32-3+ Je 15 '48

Centrifugal and precision steel castings for aircraft. J. F. B. Jackson. *il diags Engineering* 165:461-4 My 21 '48

Design of structural components for interchangeability. F. M. Mallett. *il diags Product Eng* 19:137-9 Ag '48

How processing affects bolt fatigue strength. N. B. Green. *il Machine Design* 19:138-40 D '47

Parts prospect; new procedures for standardizing aircraft parts used by air force and navy expected. A. McSurely. *Aviation W* 49:17 O '48

Rapid method of producing powdered-metal aircraft parts. *il Mach* 54:146 D '47

Testing

Magnetic particle inspection in engineering. D. E. Roda. *il plan Iron Age* 162:79-83 Ag 5: 82-9 Ag 12 '48

AIRPLANE propellers

Advantages seen for extruded propellers. *il Aviation W* 49:21-2+ O 18 '48

Development of zero-mach propeller; abstract. J. D. Waugh. S A E J 56:79 Mr '48

Foreign lightplane props analyzed. S. H. Fedan. *il diag Aviation W* 49:21-2+ O 11 '48

New propeller resists abrasion; Flottorp propeller. *il Aviation W* 49:34 Ag 23 '48

New type of hollow steel propeller blades. K. Rose. *il Automotive Ind* 99:32-3+ S 1 '48

1948 annual directory of aircraft propellers; illustrations with brief descriptions. *Aero Digest* 56:101-4+ Mr '48

Practical aspects of reverse-thrust propellers in airline operation. M. G. Beard. *il diags S A E J* 56:56-61 JI '48

Prop reversing; aid to safety? *Aviation W* 49:12-13 Ag 16 '48

Propeller considerations for high-speed aircraft. M. H. Warden. *il Aeronautical Eng* R 7:32-5+ O '48

Reduce airplane noise through basic design; abstract. W. E. Burnham. *Automotive Ind* 97:43-4 N 1 '47

Reverse pitch props offer safety. A. E. Smyser. *jr. Aviation W* 47:39+ D 15 '47

Static thrust analysis for helicopter rotors and airplane propellers. W. Castles, jr. and A. L. Ducoffe. *bibliog diags J Aeronautical Sci* 15:293-9 My '48

Turbine propellers will be different. G. W. Brady. *Aero Digest* 56:71-2 Mr '48

Control

Douglas DC-6 propeller feathering; drawings and instructions. *Aero Digest* 57:37 O '48

Reversing hydromatic and its control. C. F. Baker. *diags S A E J* 56:21-3 Je '48

Manufacture

Aeromatic welding procedures lower hub costs; propeller hubs of arc-welded tubular design. *il diag Aviation W* 48:24-7 F 2 '48

Arc welded propeller hub weighs and costs less. *il Automotive Ind* 97:42 N 15 '47

Arc welded propeller hubs reduce cost-weight. J. D. Waugh. *il S A E J* 56:33-9 JI '48

Development of arc-welded propeller hubs. C. C. Mast and others. *il diags Welding J* 27:605-9 Ag '48

Furnaces save propeller costs. J. D. Waugh. *il diag Automotive Ind* 98:40-2+ My 15 '48

Hot pressing 575-pound propeller hubs. F. Welshner and A. A. Flout. *il diag Steel* 122: 90-2+ Mr 15 '48

Pressure welding propeller barrels. G. W. Motherwell and others. *bibliog il diags Welding J* 26:994-1001 N '47

Selective shot peening extends fatigue life; Curtiss-Wright Propeller division. J. Epprecht and H. W. Eberhardt. *il diags Am Mach* 92:95-8 S 23 '48

Special furnaces developed for producing hollow steel propellers. R. M. Hortvet. *il diags Iron Age* 162:72-9 S 16 '48

Steel and rubber for aircraft propellers. K. Rose. *il Materials & Methods* 28:66-8 S '48

Testing

Building the propeller test beds, Hatfield. *il Engineer* 185:324-5 Ap 2 '48; *Engineering* 165:324, 332 Ap 2 '48

Electronic analog studies for turbo-prop control systems; abstracts. G. A. Philbrick and others. *il diag S A E J* 56:63 Ja '48; *Automotive Ind* 97:34+ N 1 '47

Problems of gas-turbine-propeller combinations. F. W. Davis. *il diags Aeronautical Eng* R 7:30-6 Ap '48

AIRPLANE races

Cosmic wind takes the Goodyear trophy. A. McSurely. *il Aviation W* 49:37 S 13 '48

F-86A hits record; cameras miss; reports of National air races. R. Hotz. *il Aviation W* 49:12-17 S 13 '48

Lineup for Cleveland air races. *Aviation W* 49:14 Ag 23 '48

More original designs would help National air races. R. McLaren. *Automotive Ind* 99:38-40+ O 1 '48

Regatta plan tests pilot skill. *Aviation W* 49:39 Je 14 '48

Winners at National air races; tabulation. *Aero Digest* 57:26 O '48

AIRPLANE repair stations

Atlantic beachhead for Pacific; Pacific air-motive corporation opens plant at Linden, N.J. for transport overhaul, repair, and service. N. F. Silsbee. *il Aero Digest* 56: 48-9+ Ja '48

Flat rates; Pacific Air-motive latest to adopt policy. *Aviation W* 49:17 JI 5 '48

Repair-your-own plan offered owners; Stolp-Adams co. self-service repair station. *il Aviation W* 48:38 Je 14 '48

Specialized maintenance for the big ones; Lockheed aircraft service, inc. I. F. Angstadt. *il Aero Digest* 57:44-5+ JI '48

Equipment

Maintenance communications set. W. C. Milligan. *il diag Aero Digest* 56:49+ My '48

These ideas save engine-overhaul time; shop at Piedmont aviation. D. R. Willard. *il Air Transport* 5:64-5 N '47

AIRPLANE service stations

Better service for plane owners; auto service station type of facilities installed by Gulf of Pittsburgh. A. McSurely. *Aviation W* 49:38 Ag 16 '48

AIRPLANE service stations—Continued

Super-service for private aircraft. C. Boyd, Jr. *il Nat Pet N* 40:34-5 S 22 '48

See also

Gasoline service stations—Airplane service

AIRPLANE stability and stabilizers

Correlation of wind-tunnel and flight-test stability and control data for an SB2C-1 airplane. M. T. Hockman and R. E. Eisminger, Jr. *bibliog diags J Aeronautical Sci* 15:15-17 Ja '48

Dorsal fin; aids stability, but how? R. Mc-Larren. *bibliog Aviation W* 48:28 Je 7 '48

Dynamic lateral stability as influenced by mass distribution. L. Sternfeld and M. O. McKinney, Jr. *bibliog diags J Aeronautical Sci* 15:411-17 Jl '48

Flight research at high subsonic speeds. H. Davies. *Roy Aeronautical Soc J* 52:494-502 Ag '48

Primary instability of open-section stringers attached to sheet. S. Levy and W. D. Kroll. *bibliog diags J Aeronautical Sci* 15:581-91 O '48

Progress in dynamic stability and control research. W. F. Milliken, Jr. *il J Aeronautical Sci* 14:493-519 *bibliog*(91 titles, p517-19) S '47; Discussion. R. S. Swanson. 15:311-12 My '48

Stability of an oscillating airfoil in supersonic airflow. M. V. Barton. *bibliog diag J Aeronautical Sci* 15:371-6 Je '48

See also

Airplane wings—Flutter

AIRPLANE wings

Aerodynamic performance of delta wings at supersonic speeds. A. E. Puckett and H. J. Stewart. *bibliog diags J Aeronautical Sci* 14:567-78 O '47; Discussion. L. Beskin. 15:150 Mr '48

Analysis of simplified all-metal wing structures. D. J. Peery. *diags Aero Digest* 56:38-40+ Ja '48

Boundary layer of yawed cylinders. W. R. Sears. *bibliog diag J Aeronautical Sci* 15:49-52 Ja '48; Discussion. A. N. Tifford. 15:280-1 My '48

Cardboard-box wing structures. F. R. Shanley. *il J Aeronautical Sci* 14:713-15 D '47

Drop wing investigations aid high speed craft design. R. McLarren. *Aviation W* 47:27 D 23 '47

Dynamics of a swept wing. H. R. Lawrence. *diags J Aeronautical Sci* 14:643-50 N '47

Free vibrations of sweptback wing. A. T. Zahorski. *bibliog il diags J Aeronautical Sci* 14:683-92 D '47

General theory of cylindrical and conical tubes under torsion and bending loads. J. Hadji-Arghyris and P. C. Dunne. *diags Roy Aeronautical Soc J* 61:199-269 *bibliog*(p208-9). 757-84, 884-930 F, S, N '47

Interference between wing and body at supersonic speeds; theory and numerical application. C. Ferrari. *bibliog diags J Aeronautical Sci* 15:317-36 Je '48

Laminar flow and laminar-flow airfoils. R. G. Naugle. *il diags Aero Digest* 56:40-1+ F '48

Leading-edge jet indicates added lift; wind tunnel investigations of model airfoil fitted with leading-edge cold-air jet installation. I. Stone. *il diags Aviation W* 47:38+ D 15 '47

Low-drag and suction airfoils. S. Goldstein. *bibliog*(40 titles) *il diags J Aeronautical Sci* 15:189-214 Ap '48; Abstract. *Aeronautical Eng R* 7:6 Ja '48; Discussion. *J Aeronautical Sci* 15:215-20 Ap '48

Nature of the distortion of swept-back wings. G. T. R. Hill. *diags Roy Aeronautical Soc J* 52:188-90 Mr '48

Optimum number of webs required for a multicell box under bending. G. Gerard. *diag J Aeronautical Sci* 15:53-6 Ja '48

Prediction of load distribution and its effect on aerodynamic characteristics at subsonic speeds for wings of arbitrary plan form. V. I. Stevens, Jr. *diags Aeronautical Eng R* 7:37-42 Je '48

Primer of sonic aerodynamics. R. McLarren. *diags Aviation W* 49:21-2+ Ag 16 '48

Production of lift independently of incidence. B. Thwaites. *diags Roy Aeronautical Soc J* 52:117-24 F '48

Rolling moment due to sideslip for a swept wing. J. W. Miles. *bibliog diag J Aeronautical Sci* 15:418-24 Jl '48

Seagull features pivoted wing; British amphibian. *il Aviation W* 49:33 S 20 '48

Slots; advantage and disadvantage. R. McLarren. *Aviation W* 48:24 Ap 26 '48

Swept wing taxes piloting skill; Bell L-39. R. McLarren. *il Aviation W* 48:30 Mr 8 '48

Thick root proved in Phantom. R. McLarren. *il Aviation W* 48:21-2+ Je 21 '48

Unified design for performance and safety characteristics. F. W. Ross. *il Aeronautical Eng R* 7:26-9 My '48

Wing-body problem in a supersonic conical flow. S. H. Browne and others. *bibliog diags J Aeronautical Sci* 15:443-52 Ag '48

Wing spoiler proves its worth in searching development tests; control system device. R. McLarren. *bibliog Aviation W* 48:30+ F 9 '48

See also

Airplanes, Flying wing

Flutter

Aerodynamic forces on an oscillating flap at supersonic speeds. J. W. Miles. *J Aeronautical Sci* 15:565-8 S '48

Computation of influence coefficients for aircraft structures with discontinuities and sweepback; method uses Castigliano's theorem. S. Levy. *bibliog diags J Aeronautical Sci* 14:547-60 O '47; Discussion. C. C. Wan. 15:95-6 F '48

Flight flutter testing. R. Rosenbaum and R. H. Scanlan. *bibliog il J Aeronautical Sci* 15:366-70 Je '48

Harmonic and transient motion of a swept wing in supersonic flow. J. W. Miles. *bibliog diag J Aeronautical Sci* 15:343-6+ Je '48

Low-speed flutter and its physical interpretation. M. A. Biot and L. Arnold. *diags J Aeronautical Sci* 15:232-6 Ap '48

Simplified punch-card approach to the solution of the flutter determinant. W. D. Bell. *J Aeronautical Sci* 15:121-2 F '48

Stability of an oscillating airfoil in supersonic airflow. M. V. Barton. *bibliog diag J Aeronautical Sci* 15:371-6 Je '48

Theoretical pressure distributions for a thin airfoil oscillating in incompressible flow. E. E. Postel and E. L. Leppert, Jr. *bibliog diag J Aeronautical Sci* 15:486-92 Ag '48

Transverse bending of beams having both translating and rotating mass elements. R. H. Scanlan. *J Aeronautical Sci* 15:425-6 Jl '48

AIRPLANES

Aeronautics in 1947. *il Engineer* 185:21-3, 48-9, supp 3 Ja 2-9 '48

Air Transport facts and figures; transport aircraft of the United States; tabulated data. *Air Transport* 6:sup 11 F '48

Aircraft and the airlines; Canadian view. J. T. Bain. *Roy Aeronautical Soc J* 52:193-203 Ap '48

Airline aircraft in operation and on order as of Feb. 15, 1948; tabulation. *Air Transport* 6:43 Mr '48

Airspeed liner new export rival. A. E. Smyser, Jr. *il plan diag Aviation W* 48:21-2+ Ja 26 '48

Ambassador civil air liner. *il Engineering* 164:546 D 5 '47

Assembling a behemoth; Bristol Brabazon I. *il Aviation W* 47:26 N 10 '47

Bristol civil transport aircraft. *il Engineering* 165:297-8, 300 Mr 26 '48

Canadair DC-4M2 equals specs in tests. *Aviation W* 48:11 Ja 12 '48

Canadair presents the C-4. I. F. Angstadt. *il plan Aero Digest* 56:26-7+ Je '48

Commercial-transport trends. I. M. Laddon. *Aero Digest* 56:19+ Mr '48

First jet transport; Avro XC-102. *il Aviation W* 49:18+ N 1 '48

Flying the novel Beech Twin-Quad. *il Aviation W* 47:13 N 10 '47

French postwar designs in production. M. Marsh. *il Aviation W* 47:30+ D 8 '47

AIRPLANES—Continued

Group formed to plan plane development; working as ACC branch. Aviation W 49: 11-12 Ag 16 '48

Italian four-engine transport in final stage. Aviation W 48:26 Je 21 '48

Modified DC-6 being tested; airlines eye service resumption. S. Bangs. Aviation W 48:34-5 F 16 '48

New aircraft; Czechoslovakia. Aviation W 47:50+ N 10 '47

1948 transport aircraft directory; illustrations, miniature plans and brief descriptions. Aero Digest 56:20-2+ Mr '48

Premature DC-3 retirement fought by scheduled airlines. C. Adams. Aviation W 47:56-6 N 17 '47

S.B.A.C. flying display and exhibition. Engineer 186:283-5, 317-19 S 17-24 '48; Engineering 166:258-9, 282-4, 296-8 S 10-24 '48

That mysterious five-engine plane, flying laboratory to test Wright T-35 Typhoon turboprop. Aero Digest 57:21 N '48

U.S. air transport planes; tabulated data. Aviation W 48:91 F 23 '48

Vickers Viscount airliner. Engineer 186:267-8 S 10 '48

See also

Airships	Helicopters
Flying boats	Loading and unloading—Airplanes
Gliders	

Air conditioning

Cabin cooling for jet aircraft and strato-liners. D. O. Moeller. Heat & Ven 45:126+ Ag '48

Controlling temperature in jet aircraft; cabin cooling and heating; abstracts. D. O. Moeller and O. A. Sanne. Aviation W 48: 26+ Ap 19 '48; S A E J 56:46-7 Ag '48

Design considerations for cabin air conditioning of Boeing Stratocruiser. R. L. Linforth. diag S A E J 56:19-23 My '48

Factors affecting transport air conditioning and pressurizing system design. P. E. R. Brice. Aero Digest 57:48-51+ JI '48

Lubrication of cabin-pressurization and air-conditioning systems. D. N. Harris. flow diag II diags Aero Digest 57:38-44+ O; 63-4+ N '48

Pressurisation and cabin air control. W. M. Widgery. diags Roy Aeronautical Soc J 51: 949-67; Discussion, 967-80 D '47

See also

Airplanes—Cabins
—Supercharging

Airworthiness

Bear-up requirements for aircraft; fatigue strength, the engineers call it. B. Lundberg. Aero Digest 55:56-8+ D '47

Influence of recent civil airworthiness requirements on aircraft design. W. Tye. biblog diags Roy Aeronautical Soc J 52:513-22 Ag '48

Automobile combinations

See Airplanes, Light—Automobile combinations

Auxiliary power

A.B.C. auxiliary engine. II diags Automobile Eng 38:385-8 O '48

A-c power system for large aircraft. J. G. Euton. II diags Gen Elec R 61:11-19 F '48

Aircraft accessory systems; comparison of hydraulic, pneumatic and electric systems. T. B. Holliday. Product Eng 19:119-21 N '48

Designing secondary power sources and mechanisms for airplanes. J. H. Meyer. diags Aeronautical Eng R 7:36-45 Mr '48

Electricity aloft. T. J. Martin. II diags Elec Eng 67:232-5 Mr '48

Solar auxiliary-power turbine. Aviation W 49:26-7 N 8 '48

Why pneumatics? auxiliary power for airplanes. H. F. Gerwig and J. H. Fammie. II diags Machine Design 20:116-21 Je; 138-42 JI '48

Why pneumatics? or the case for pneumatics for intermittent services on aircraft. H. F. Schmidt and H. F. Gerwig. II diag S A E J 56:50-2 Ja '48

Bearings

Indium plated lead bearings withstand high stresses. J. Albin. II Materials & Methods 27:88-9 Je '48

Why aircraft use anti-friction bearings. H. O. Smith. II Aero Digest 56:54-5+ My '48

Cabins

Controlling temperature in jet aircraft; cabin cooling and heating; abstracts. D. O. Moeller and O. A. Sanne. Aviation W 48: 26+ Ap 19 '48; S A E J 56:46-7 Ag '48

Greater comfort for the airline passenger. K. R. Jackman. biblog II diags Aero Digest 57:62-3+ O; 42-6+ N '48

Inside tomorrow's airliner. B. J. Cumnock. II Air Transport 5:43-5 N '47

Supercharging

Boeing B-50 induction system pressurizes air for cabin. flow diag II Automotive Ind 98: 44-5+ Ap 1 '48

Factors affecting transport air conditioning and pressurizing system design. P. E. R. Brice. Aero Digest 57:48-51+ JI '48

Fine points of sealing pressurized plane. diags Aviation W 47:34+ N 10 '47

First turbosupercharger application on airliner. II Automotive Ind 98:44 My 15 '48

High speed turbine cooling unit; designed to control temperatures within pressurized cabins of jet engined aircraft. II diag Product Eng 19:98 Je '48

Lubrication of cabin-pressurization and air-conditioning systems. D. N. Harris. flow diag II diags Aero Digest 57:38-44+ O; 63-4+ N '48

Pressurisation and cabin air control. W. M. Widgery. diags Roy Aeronautical Soc J 51:949-67; Discussion, 967-80 D '47

Cargo release mechanisms

Cargo power-handled for flight unloading. Aviation W 49:25 O 4 '48

Chartering

PCA leads in charter business. Aviation W 49:38 O 25 '48

Cleaning

Cleaning the Mainliners. H. H. Slawson. II Soap & San Chem 24:40-1+ S '48

New plane cleaner cuts man-hours. Aviation W 48:27 Je 21 '48

Cockpits

Cockpit confusion, a challenge; coordinated control groupings vital factor in goal to eliminate crashes. G. W. Hoover. II diags Aviation W 48:18+ Mr 29 '48

Cockpit-design problems of high-altitude high-speed aircraft. J. E. Sullivan. Mech Eng 70:883-7 N '48

Doctors told cockpits should be redesigned; abstract. B. G. King and J. J. Swearingen. CAA J 9:99 S 15 '48

Cold weather operation

Cold weather war. N. F. Silsbee and R. E. Saunders. II Aero Digest 55:23-4+ D '47

Fuel freezing hazards studied. L. Storey, Jr. and J. C. Duffendack. II diag Aviation W 48:26-7+ Je 14 '48

Control

Aircraft autopilot; abstract. C. R. Hanna. Sci Am 178:128 Mr '48

Application of the performance operator to aircraft automatic control. R. C. Seamans, Jr. and others. biblog II diags J Aeronautical Sci 15:535-55 S '48

Automatic aircraft control. J. L. Anast. II diags Aeronautical Eng R 7:20-4 JI '48

Automatic control of aircraft. R. C. Seamans, Jr. diags Tech R 50:102-4+ D '47

Automatic controls for pilotless ocean flight. II diags Electronics 20:82-92 D '47

Automatic pilots. J. C. Owen. II diags Elec Eng 67:551-61 Je '48

B-D computer; makes it possible to space planes on the same route in parallel tracks. II Aero Digest 55:49+ D '47

British autopilot claims more reliability. diag Aviation W 47:38 D 8 '47

Flight handling characteristics of a modern transport airplane; symposium. S. Flower and others. biblog Aeronautical Eng R 7: 18-31 O '48

Flight path control. P. A. Noxon. II diags Aeronautical Eng R 7:38-45 Ag '48

Light-weight automatic pilot for planes uses rate gyroscopes. Mach 54:167 Ap '48

AIRPLANES—Control—Continued

- Navion's selective two-control system. *il* diag Aviation W 48:18 My 17 '48
- New automatic pilot; Sperry Pilot Aid. Mech Eng 70:236-7 Mr '48
- Polarized relay as an aircraft control element; abstract. R. E. Johnson and F. A. Glasgow. diag Elec Eng 67:1059 N '48
- Power-operated controls for the S.R. 45 flying boat, plan Engineer 186:134-5 Ag 5 '48
- Progress in dynamic stability and control research. W. E. Milliken, jr. *il* J Aeronautical Sci 14:493-519 bibliog(91 titles, p517-19) S '47; Discussion. R. S. Swanson. 15:311-12 My '48
- Psychology, men, and machines; design and effectiveness of control mechanisms improved; research at navy's special devices center, Sands Point. W. M. Angas. *il* Tech R 50:267-9+ Mr '48
- Semigraphical method of computing stick forces for spring-tab controls having nonlinear hinge-moment characteristics. R. A. Mendelschmid. diag J Aeronautical Sci 15:107-12 F '48
- Telemetering offers new benefits in civil plane test and operation. Aviation W 47:31-2+ N 24 '47
- Wing spoiler proves its worth in searching development tests; control system device. R. McLaren. bibliog Aviation W 48:30+ F 9 '48
- See also
Airplanes—Landing

Cost of operation

- Life in the old gal yet; changes proposed for DC-3s. W. L. Flinn. *il* diags Air Transport 6:24-7 Mr '48

Design

- Aeronautical conference, London, 1947; summaries of papers. Engineering 166:187, 233-5 Ag 20, S 3 '48
- Airfoil theory and experiment. A. Pope. bibliog J Aeronautical Sci 15:407-10 JI '48
- Analysis for optimum transport airplane configuration. P. A. Colman. Aeronautical Eng R 6:20-7 D '47
- Analysis of a circular ring with propped floor beam. J. S. Taylor and S. S. Gill. bibliog diags J Aeronautical Sci 15:237-42 Ap '48
- Analysis of simplified all-metal wing structures. D. J. Peery. diags Aero Digest 56:38-40+ Ja '48
- Bear-up requirements for aircraft; fatigue strength, the engineers call it. B. Lundberg. *il* Aero Digest 55:56-8+ D '47
- Bending rigidity and column strength of thin sections. P. E. Sandorff. bibliog diags A S M E Trans 69:833-41 N '47
- Buckling of a column with elastic supports. T. H. Lin and K. S. Ching. diag J Aeronautical Sci 15:347-50 Je '48
- Cardboard-box wing structures. F. R. Shanley. *il* J Aeronautical Sci 14:713-15 D '47
- Control of structural temperatures in jet-propelled aircraft. G. F. Anisman and M. W. Blackstone. bibliog *il* diags A S M E Trans 70:677-84 Ag '48
- Convertiplane; key to speed range; aircraft combining hovering characteristics with high speed; NACA research. Aviation W 48:24-6 Ap 12 '48
- Dangers taken out of ditching; NACA's hydroflaps and hydrofoils reduce noseover tendencies and protect fuselage bottoms in water setdowns of landplanes. R. McLaren. bibliog diag Aviation W 48:19-20 Ap 12 '48
- Data for odd-shaped tanks. C. L. Bates. diags Aero Digest 56:63-9, 80 My '48
- Deep ring analysis. K. Ching. diags J Aeronautical Sci 15:531-4 S '48
- Design engineer's role in airplane cost reduction. H. G. Erickson. *il* diags Aeronautical Eng R 7:24-30 F '48
- Design of structural components for interchangeability. F. M. Mallett. *il* diags Product Eng 19:137-9 Ag '48
- Design productivity serves the industry. W. R. Jones and H. M. Harrison. diags Aero Digest 57:40-5+ Ag; 98-100+ S '48
- Designer and manufacturing costs; abstracts. G. W. Papen. diags A S E J 56:24-7 Ja '48; Automotive Ind 97:46+ N 1 '47
- Designing secondary power sources and mechanisms for airplanes. J. H. Meyer. diags Aeronautical Eng R 7:36-45 Mr '48
- Droop wing investigations aid high speed craft design. R. McLaren. Aviation W 47:27 D 29 '47
- Dynamic lateral stability as influenced by mass distribution. L. Sternfeld and M. O. McKinney, jr. bibliog diags J Aeronautical Sci 15:411-17 JI '48
- Dynamics of a swept wing. H. R. Lawrence. diags J Aeronautical Sci 14:643-50 N '47
- Effects of cutouts in semimonocoque structures. P. Cicala. diags J Aeronautical Sci 15:171-9 Mr '48
- Elements of the buckling of curved plates. H. L. Cox and E. Pribram. Roy Aeronautical Soc J 52:551-65 bibliog(44 titles, p564-5) S '48
- Evolution of the design of an aeroplane. R. L. Lickley. diags Roy Aeronautical Soc J 52:537-66 Je '48; Same abr. Engineer 186:44-5 JI '48; Discussion. Roy Aeronautical Soc J 52:367-82 Je '48
- Finite deflections of sandwich plates. E. Reissner. diag J Aeronautical Sci 15:435-40 JI '48
- Flow at the rear of a two-dimensional supersonic airfoil. A. Kahane and L. Lees. diags J Aeronautical Sci 15:167-70 Mr '48
- Harmonic and transient motion of a swept wing in supersonic flow. J. W. Miles. bibliog diag J Aeronautical Sci 15:343-6+ Je '48
- Hyperbolic column formulas for magnesium-alloy extrusions. E. H. Schuette. bibliog J Aeronautical Sci 15:523-9 S '48
- Inelastic column theories and an analysis of experimental observations. C. Wang. bibliog diags J Aeronautical Sci 15:283-92 My '48; Discussion. F. R. Shanley. 15:502-3 Ag '48
- Influence of recent civil airworthiness requirements on aircraft design. W. Tye. bibliog diags Roy Aeronautical Soc J 52:513-22 Ag '48
- Institute of the aeronautical sciences 16th annual meeting, New York; abstracts of papers. Aeronautical Eng R 7:18-21 Ap '48
- Interference between wing and body at supersonic speeds; theory and numerical application. C. Ferrari. bibliog diags J Aeronautical Sci 15:317-36 Je '48
- Laminar flow and laminar-flow airfoils. R. G. Naugle. *il* diags Aero Digest 56:40-1+ F '48
- Lockheed Constitution transport. R. McLaren. *il* diags Aviation W 49:20-2+ Ag 30 '48
- Low-drag and suction airfoils. S. Goldstein. bibliog(40 titles) *il* diags J Aeronautical Sci 15:189-214; Discussion. 215-20 Ap '48
- Maintenance design questions. C. E. G. Bowden. Roy Aeronautical Soc J 52:523-5 Ag '48
- Nature of the distortion of swept-back wings. G. T. R. Hill. diags Roy Aeronautical Soc J 52:186-90 Mr '48
- Newest transport; Convair-Liner. *il* Aviation W 48:19-26 Je 28 '48
- Northrop C-125 based on Pioneer. R. McLaren. *il* Aviation W 49:21-2+ N 8 '48
- Optimum number of webs required for a multicell box under bending. G. Gerard. diag J Aeronautical Sci 15:53-6 Ja '48
- Optimum proportions of a long unstiffened circular cylinder in pure bending. H. Becker. J Aeronautical Sci 15:616-24 O '48
- Outlines boundary air progress; abstract. S. Goldstein. Aviation W 47:14 D 22 '47
- Plasticity for the aerodynamicist. W. Prager. bibliog diags J Aeronautical Sci 15:253-62 My '48
- Prediction and reduction to minimum properties of plate compressive curves. E. H. Schuette and J. C. McDonald. bibliog J Aeronautical Sci 15:23-7 Ja '48
- Prediction of load distribution and its effect on aerodynamic characteristics at subsonic speeds for wings of arbitrary plan form. V. I. Stevens, jr. diags Aeronautical Eng R 7:37-42 Je '48
- Primary instability of open-section stringers attached to sheet. S. Levy and W. D. Kroll. bibliog diags J Aeronautical Sci 15:581-91 O '48
- Primer of sonic aerodynamics. R. McLaren. Aviation W 49:21-2+ Ag 16 '48

AIRPLANES—Design—Continued

- Production of lift independently of incidence, B. Thwaites, diags Roy Aeronautical Soc J 52:117-24 F '48
- Reduce airplane noise through basic design, W. E. Burnham, H. L. Ericson, J. M. Picton, S A E J 56:47-50 F '48
- Reduce airplane noise through basic design; abstract, W. E. Burnham, Automotive Ind 97:43-4 N 1 '47
- Research data on sheet-stringer panels; studies conducted at National bureau of standards, bibliog il Aviation W 49:22-4 O 4 '48
- Rolling moment due to sideslip for a swept wing, J. W. Miles, bibliog diag J Aeronautical Sci 15:418-24 JI '48
- Simple ram-air intake preceded by normal shock in supersonic flight, J. D. Stanitz, diags J Aeronautical Sci 15:131-3 Mr '48
- Soviet transports; Tupolev TU-70 and the Ilyushin IL-18, il diags Aviation W 48:24-5 Mr 1 '48
- Stability of thin-walled compression members, H. D. Wimer, jr. diags Am Soc C E Proc 74:655-68 My '48
- Strength keynotes liner's design; Convair-Liner, S. Bangs, il Aviation W 48:20-1 Mr 8 '48
- Stress analysis of noncircular rings for monocoque fuselages, C. Wang and S. Ramamirtham, diags J Aeronautical Sci 14:707-12 D '47
- Technical interest seen in racers, R. McLaren, il Aviation W 49:16-17 S 13 '48
- This is the Two-O-Two; Martin's new airliner, il plans diags Air Transport 5:19-34 N '47
- Three-engine design wins favor; Australians adopt configuration for Bush operations with new de Havilland Drover, il diags Aviation W 47:20 D 22 '47
- Torsion-bending stresses in box beams, R. A. Williamson, diags J Aeronautical Sci 15:427-34 JI '48
- Trends in aircraft research, E. H. Heine-mann, Automotive Ind 99:36-7+ O 1 '48
- Unconventional design loadings for aircraft, M. Jakosky, il diags Aero Digest 57:58-9+ N '48
- Unified design for performance and safety characteristics, F. W. Ross, il diags Aeronautical Eng R 7:22-9+ My '48
- Unveil Constitution's design highlights; illustrations with text, Aviation W 48:20-1 Mr 1 '48
- Utility emphasized in student's design, diags Aviation W 49:37 O 18 '48
- Wanted; better aircraft systems, L. R. Koepnick, Aviation W 49:26-7+ Ag 9 '48
- Warping and shear lag in closed cylindrical shells, L. Beskin, diags J Aeronautical Sci 15:221-31 Ap '48
- Wing-body problem in a supersonic conical flow, S. H. Browne and others, bibliog diags J Aeronautical Sci 15:443-52 Ag '48
- See also*
- | | |
|-------------------------|----------------------------|
| Airplanes, Flying | Airplanes, Military—Design |
| Airplanes, Light—Design | |
- Diving speed
- Dives vary craft temperatures, Aviation W 49:25-6 O 18 '48
- Electric equipment**
- Air transportation sessions feature developments and recent projects; A.I.E.E. Middle eastern district meeting, Elec Eng 66:1139-41 N '47
- Aircraft carbon-pile voltage regulator, fundamentals and design improvements; abstract, B. O. Austin and H. H. C. Richards, il Elec Eng 67:1083 N '48
- A-c power system for large aircraft, J. G. Hutton, il diags Gen Elec R 51:11-19 F '48
- Connector provides high safety; electrical firewall connector to withstand attack by fire, C. J. Adams, il Aviation W 49:28-9 S 27 '48
- Electric drive for aircraft, G. C. Crom, Elec Eng 66:1206-8 D '47
- Electric field meter for use on airplanes, R. C. Waddell, bibliog il diags R Sci Instr 19:31-5 Ja '48
- Electric motors being put to some unusual functions in planes, Iron Age 161:87 Ja 29 '48

- Electric power aloft, Westinghouse Eng 8:15+ Ja '48
- Electric power supply protection on aircraft, J. G. Hutton and P. C. Bogliages, il diags Gen Elec R 51:27-32 Ap '48
- Electrical and allied developments during 1947; aviation, G. Bartlett, il Gen Elec R 51:51-3 Ja '48
- Electrical snap-action temperature controls for aircraft; thermostat known as Cam-Stat, J. R. Campbell, il diags A S M E Trans 69:821-5; Discussion, 825-7 N '47
- Electricity aloft, T. J. Martin, il diags Elec Eng 67:232-5 Mr '48
- Lightweight aircraft battery, il Engineer 186:194 Ag 20 '48
- Making short-time motor-coast measurements, E. G. Downie, il diags Gen Elec R 51:18-20 Mr '48
- New switch shows pressure discharge; for use in the Convair-liner fire extinguishing system, il Aviation W 48:24 My 24 '48
- Performance of electrical and radio equipment at 40,000 ft, K. Martinez, S A E J 56:24-6 JI '48
- Polarized relay as an aircraft control element; abstract, R. E. Johnson and F. A. Glassow, diag Elec Eng 67:1059 N '48
- Protection of the airplane main bus, D. W. Exner, Elec Eng 67:1050 N '48
- Prove electronic units in miniaturization plan, Aviation W 49:24 O 4 '48
- Regulator for 400-cycle inverter, C. A. Helber, il diag Electronics 21:90-1 N '48
- Relay design for compactness, T. B. Holliday, il Product Eng 18:118-21 D '47
- Safety and aircraft electric equipment, T. B. Holliday, Elec Eng 67:901-4 S '48
- Society of British aircraft constructors 9th annual exhibition, Farnborough, Sept. 7-12; electrical equipment for aircraft, il Electrician 141:703-5 S 3 '48
- Steady-state analysis of aircraft d-c generators; abstract, E. Van Valkenburg and W. Mathews, Elec Eng 67:1041 N '48
- Thyatron frequency changers; designed to permit parallel operation of three-phase aircraft alternators driven at unequal speeds, O. E. Bowlus and P. T. Nims, bibliog il diags Electronics 21:126-30 Mr '48

Equipment

- Complexity, no problem with laminated ducts, il Plastics 8:42+ Mr '48

See also

- | | |
|-------------------------------|-------------------------------|
| Airplane propellers | Airplanes—Pneumatic equipment |
| Airplanes—Electric equipment | Radio apparatus on aircraft |
| Airplanes—Hydraulic equipment | |

Fires and fire protection

- Aircraft fire protection, D. H. Moore, jr. diags Aero Digest 56:70+ Ap '48
- AIA sets uniform specifications on non-flammable hydraulic fluid, Aviation W 48:17 Mr 22 '48
- Airlines ground DC-6 for accessory changes, Aviation W 47:12 N 24 '47
- Cause of DC-6 fires found, Bsns W p28 D 27 '47
- CAA aircraft fire prevention developments, H. L. Hansberry, il S A E J 56:36-7 F '48
- CAB issues report on AA DC-6 fire, Aviation W 48:41 Ja 12 '48
- Connector provides high safety; electrical firewall connector to withstand attack by fire, C. J. Adams, il Aviation W 49:28-9 S 27 '48
- DC-6 modification schedule set, Aviation W 47:12 D 22 '47
- Engineering omission that cost \$16,000,000 and 52 lives; cause of fires aboard the Douglas DC-6, R. McLaren, Automotive Ind 98:37+ Ap 1 '48
- How to save lives in crash fires, B. Stubblefield, il Air Transport 5:30-2 D '47
- Improvise crash-study technique; cause and course of Bryce DC-6 fire found, S. Bangs, il Aviation W 48:24-5 Ap 5 '48
- Methyl bromide as fire extinguisher, S. Bangs, Aviation W 47:28 D 1 '47
- Navy fire prevention system utilizes exhaust gases, Product Eng 18:147-8 D '47
- New hydraulic fluids won't burn, il Machine Design 20:113 JI '48

AIRPLANES—Fires and fire protection—Cont.

Plane crash fire danger studied by fuel engineers, W. E. Kuhn, *il Aviation W* 48:24-5 Ja 19 '48

Presidential air safety board urges accelerated fire research, R. Hotz, *Aviation W* 48:12-13 Ja 12 '48

SAE hydraulic specs to fight plane fires, S A E J 56:54 F '48

What ails the DC-6? *il Bsns W* p36-+ N 22 '47

What of air safety? dangers from electrostatic discharge can be eliminated by utilization of ionizers, R. Beach, *il Elec Eng* 67:423-9 My '48

What the air force wants in nonflammable hydraulic fluids, E. M. Glass, S A E J 56:55-9 S '48

Fuel tanks

Data for odd-shaped tanks, C. L. Bates, *diags Aero Digest* 56:68-9, 80 My '48

Fuel tanks; integral versus bladders versus metal cells, J. E. Lindberg and others, *diags S A E J* 56:34-9 Ap '48

Preboiling evaporation losses in aircraft fuel tanks, L. M. Whitney and others, *bibliog J Aeronautical Sci* 14:703-6 D '47

Variable-capacitance aircraft fuel gage, *diag Electronics* 21:155-+ F '48

Fuselage

Analysis of a circular ring with propped floor beam, J. S. Taylor and S. S. Gill, *bibliog diags J Aeronautical Sci* 15:237-42 Ap '48

Deep ring analysis, K. Ching, *diags J Aeronautical Sci* 15:531-4 S '48

Influence of aircraft gross weight upon the size and weight of hulls and fuselages, L. W. Rosenthal, *il Roy Aeronautical Soc J* 51:874-83 N '47

Stress analysis of noncircular rings for mono-coque fuselages, C. Wang and S. Ramamirtham, *diags J Aeronautical Sci* 14:707-12 D '47

Gearing

Bevel differential, an operational analysis, G. H. Logan, *diags Aero Digest* 56:47-+ Je '48

Heating and ventilation

Electrical snap-action temperature controls for aircraft; thermostat known as Cam-Stat, J. R. Campbell, *il diags A S M E Trans* 69:821-5; Discussion, 825-7 N '47

See also

Airplanes—Air conditioning

History

Genius of the Wright brothers, A. McSurely, *Aviation W* 48:50 F 9 '48

Orville Wright, Engineer 185:139-40 F 6 '48

Orville Wright, W. F. Durand, *Mech Eng* 70:581-5 JI '48

Orville Wright; editorial, *Engineering* 165:133-4 F 6 '48

Orville Wright's death may return Kitty Hawk plane to U.S. museum, A. McSurely, *Aviation W* 48:13-14 F 9 '48

Wright biplane may return to U.S. Aug. 19, *il Aviation W* 48:7 F 23 '48

Wright brothers, *bibliog il Roy Aeronautical Soc J* 52:141-50 Mr '48

Hydraulic equipment

Aircraft hydraulic packings, L. E. Cheyney and T. J. McCuiston, *diags Mech Eng* 70:675-9 Ag '48

AIA sets uniform specifications on nonflammable hydraulic fluid, *Aviation W* 48:17 Mr 22 '48

Designing for economical manufacture, B. N. Ashton, *il diags Machine Design* 20:101-6 F '48

Development of ultra high-pressure hydraulic systems, S. M. Parker, *diags Inst Mech Eng J & Proc* 156:Proc 282-5; Discussion 293-304 D '47

Full scale development; hydraulic system of the Constellation; abstract, L. R. Koepnick, *Machine Design* 20:210-+ Je '48

High pressure hydraulic control system, *diags Product Eng* 19:93 S '48

Hydraulic shock absorber orifice designs and equations, J. Brown, *il diags Product Eng* 19:92-5 F '48

Liquid springs for aircraft; landing-gear strut, H. Shawbrook, *il diag Aero Digest* 57:53-5+ Ag '48

More water, less fire for safer landings, *Bsns W* p52 Je 12 '48

New hydraulic fluids won't burn, *il Machine Design* 20:113 JI '48

Research on aircraft hydraulic packings; abstract, T. J. McCuiston and others, *il Automotive Ind* 97:44-5 N 1 '47

SAE hydraulic specs to fight plane fires, S A E J 56:54 F '48

Some recent developments in the landing gear field, R. Lucien, *il diags Roy Aeronautical Soc J* 52:27-61; Discussion, 62-74 Ja '48

Two-pressure aircraft hydraulic system, T. C. Hill and E. G. Riley, *il diags Machine Design* 20:123-8 F '48

What the air force wants in nonflammable hydraulic fluids, E. M. Glass, S A E J 56:55-9 S '48

Ice protection

Boeing thermal anti-icing, *il Aero Digest* 55:71-2 D '47

Calculation of heat required for wing thermal ice prevention in specified icing conditions; abstract, C. B. Neel, S A E J 56:54 Ja '48

General results of N.A.C.A. flight research in natural icing conditions during the winters of 1945 and 1946, N. R. Bergun, *bibliog il Aeronautical Eng R* 7:20-7 Ja '48

Heat requirements for instruments and airfoils during icing storms on Mt Washington, V. J. Schaefer, *il A S M E Trans* 69:843-6 N '47

NACA engineer gets Collier trophy for thermal de-icing, *il Aviation W* 47:16 D 15 '47

NACA research ends ice hazard; award of Robert J. Collier trophy to Lewis A. Rodert, R. McLaren, *il diags Aviation W* 47:24-5 D 22 '47

New method combats aircraft icing; clearing hole in cloud with dry ice, *il Gen Elec R* 50:48 D '47; *Aviation W* 47:34 N 17 '47

Rodert wins Collier trophy for development and practical application of ice-prevention system for aircraft, *il Aeronautical Eng R* 7:7 Ja '48

Study of wing de-icer performance on Mount Washington, D. L. Loughborough and others, *bibliog il diags Aeronautical Eng R* 7:41-50 S '48

Thermal anti-icing survey on Mt Washington, J. G. Guilbert, *il A S M E Trans* 69:829-32 N '47

Thermal fin effect in heat anti-icing corrugations, J. Jonas, *diag J Aeronautical Sci* 15:163-6 Mr '48

Identification marks

Aircraft nationality marks; tabulation, *Aviation W* 48:103 F 23 '48

Instrument boards

Flow panel eases tank selection, *il Aviation W* 49:30 Ag 30 '48

Quick-disconnect instrument panels, L. Baird and R. McAlister, *il Aero Digest* 56:41-+ Ja '48

Jet propulsion

See Jet propulsion of aircraft

Landing

Accurate checks without calculations; Lockheed aircraft combines camera and grid to record takeoff and landing, *il Aviation W* 49:24-6 JI 5 '48

All-weather landing descent, R. S. Johnson, *diags Air Transport* 5:41-2+ N '47

Analysis of aircraft landing techniques, E. Hetzel, *il Aero Digest* 56:52-3+ Je '48

Analytical study of the landing shock effect on an elastic airplane, R. H. Scanlan, *bibliog J Aeronautical Sci* 15:300-4 My '48

Cross-wind landings promote use of single-strip airports, *il Civil Eng* 18:295 My '48

Droop snoot configuration aids jet fighter landings, R. McLaren, *Aviation W* 48:26 Mr 15 '48

Get better landings with all-weather roll-ons, R. S. Johnson, *diags Air Transport* 6:34-7 Mr '48

Krypton lamp for all-weather landings, G. A. Freeman, *il Westinghouse Eng* 8:90-1 My '48

Landing impact vibration studied, *il Aviation W* 48:26-7 Ap 26 '48

Landing through overcast, W. T. Harding, *il Elec Eng* 66:1176-7 D '47

AIRPLANES—Landing—Continued

- New instruments aid landing field safety. *Il diags Product Eng* 18:143-5 D '47
- Progress in landing aids at Arcata. A. L. Lewis. *Il diags Aero Digest* 56:40-1+ My '48
- San Francisco's all-weather plan. *Aviation W* 49:12 Ag 23 '48
- SVVA uses four aids for all-weather landing. *Aviation W* 47:15 D 29 '47
- Stability, chief approach problem. H. C. Bostwick and R. B. Roe. *diags Aviation W* 49:27+ Ag 16 '48; Discussion. H. F. X. Hesston. 49:17 N 3 '48
- Survey of continuous-wave short-distance navigation and landing aids for aircraft. C. Williams. *diags Inst E E J* 94 pt 1:491-2 O '47
- Testing transmitters for instrument landing systems. S. K. Webster. *Il diags Western Soc E J* 52:162-71 D '47
- Visual aids for low visibility conditions. E. S. Calvert. *Il diags Roy Aeronautical Soc J* 52:439-66; Discussion. 467-76 JI '48
- Visual landing aids for use in restricted visibility. H. J. C. Pearson. *Il diags Illum Eng* 43:736-42 JI '48

Landing gear

- Aeroplane undercarriage. H. G. Conway. *Il diags Inst Mech Eng J & Proc* 156:Proc 272-81; Discussion. 293-304 D '47
- Air power as affected by air-drome construction and track-type landing gear; abstract. S. D. Sturgis, Jr. *Il S A E J* 56:66 Je '48
- Castering gear for transports. A. McSurely. *Il Aviation W* 48:16 Ap 26 '48
- Critical study of aircraft landing gears. J. F. McBrearty. *bibliog Il diags J Aeronautical Sci* 15:263-80 My '48
- Cross-wind gear demonstrated at National airport. CAA J 9:49+ My 15 '48
- Cross-wind gear use boosts pilot morale; additional markers needed. J. E. Sims. CAA J 9:87 Ag 15 '48
- Double wheel gear shown on Bellanca. *Il Aviation W* 48:38 My 3 '48
- Drop tests of lightplane nose gear. G. A. Brewer. *Il diags Aero Digest* 56:36-7 Ja '48
- European landing gear developments. H. G. Conway. *Il diags S A E J* 56:50-5 Ag '48
- Evaluation of aircraft pneumatics indicates commercial applications. S. Bangs. *Aviation W* 48:26-7 Ja 19 '48
- Flying runway strategy; track-type landing gear. *Il Aero Digest* 57:25 JI '48
- Kinematics of undercarriage retraction. H. G. Conway. *diags Roy Aeronautical Soc J* 52:125-37 F '48
- Landing gear designed to give softer let-down for the Luscombe two-place Silvalre. *diag Aviation W* 48:27 Mr 22 '48
- Liquid springs for aircraft; landing-gear strut. H. Shawbrook. *Il diag Aero Digest* 57:53-5+ Ag '48
- Northrop B-35 landing gear. C. J. Dunn. *diags Aero Digest* 56:59-60+ Mr '48
- Services investigate utility of ski gear. *Il Aviation W* 49:30 JI 19 '48
- Smaller dres and lighter, more efficient brakes for B-29 bomber. *Il Automotive Ind* 99:41+ N 1 '48
- Some recent developments in the landing gear field. R. Lucien. *Il diags Roy Aeronautical Soc J* 52:27-61; Discussion. 62-74 Ja '48
- Track gear promises high utility. A. McSurely. *Il diag Aviation W* 49:21-2 JI 5 '48
- Track-tread landing gear. *Il Mech Eng* 70:636 Ag '48
- Track-type landing gears for large transport airplanes. *Il Rubber Age* 63:333 Je '48
- Why cross-wind landing gear? O. W. Loudenslager. *Il diags Aviation W* 48:21-2+ Je 7 '48

Lighting

- Guide light to aid plane crash search. *Il Aviation W* 48:22 Mr 15 '48

Load

- Matrix development of Multhopp's equations for spanwise air-load distribution. S. U. Benscoter. *diags J Aeronautical Sci* 15:113-20 F '48

- Prediction of load distribution and its effect on aerodynamic characteristics at subsonic speeds for wings of arbitrary plan form. V. I. Stevens, Jr. *diags Aeronautical Eng R* 7:37-42 Je '48

- Research data on sheet-stringer panels; studies conducted at National bureau of standards. *bibliog Il Aviation W* 49:22-4 O 4 '48

Lubrication

- Lubrication of cabin-pressurization and air-conditioning systems. D. N. Harris. *flow diag Il diags Aero Digest* 57:38-44+ O; 63-4+ N '48

Maintenance and repair

- Maintenance design questions. T. E. G. Bowden. *Roy Aeronautical Soc J* 52:523-5 Ag '48
- Maintenance knacks. *diags Air Transport* 6:50 F '48
- Parts that fit together; the relationship of precision tooling, quality control and interchangeability in aircraft maintenance operations. W. L. Nye. *Il Aero Digest* 56:50-1+ Ja '48
- Push button overhauling; United air lines' dock at San Francisco. *Il Bsns W* p38+ My 8 '48
- Town meeting on maintenance; ATA engineering conference. *Aviation W* 48:46-7 Ap 12 '48

See also

- | | |
|--------------------------|--|
| Airlines Shops | Airplanes—Cleaning |
| Airplane repair stations | Airplanes, Military—Maintenance and repair |

Manning

- CAB insists on flight engineers. *Aviation W* 49:41-2 O 18 '48
- Device computes flight time and gives scheduling data. *Il Air Transport* 6:47-8 Mr '48
- Flight engineer talks. J. Anderson. *Aviation W* 49:31 N 1 '48
- Newer planes mean fewer pilots. C. Adams. *Aviation W* 49:31-2 O 4 '48
- Third crewman; flight engineer; CAB orders addition to flight crews on DC-6s and Stratocruisers after Dec. 1. C. Adams. *Aviation W* 48:38+ Ap 26 '48
- Use of flight engineers protested. *Aviation W* 49:38 JI 26 '48

Manufacture

- Design producibility serves the industry. W. R. Jones and H. M. Harrison. *diags Aero Digest* 57:40-5+ Ag; 98-100+ S '48
- Designing with dollars; organization of cost data and its use by design engineering department; Glenn L. Martin co. J. Van Hamersveld. *Il diags Product Eng* 19:81-6 Mr '48
- Hot stretch-forming of aluminum sheets. J. A. Johnson. *Il Mach* 54:170-1 Ag '48
- It's all done with mirrors; Boeing aircraft co. uses principle of reflected light for design, production, and testing jobs. *Il Bsns W* p68-70 Mr 27 '48
- Mirrors simplify precision work; Boeing develops ingenious uses in production jobs and in research work. *Il Aviation W* 48:22+ Ap 19 '48
- New method of producing three-dimensional plaster models; applicable in automobile, aircraft, and shipbuilding; involves use of Contour Developer. J. S. Haldeman. *Il diags Mach* 54:144-9 Mr '48
- Plastics in German aircraft tooling. J. T. Grey. *bibliog Il diags Mod Plastics* 25:126-7+ F '48
- Problems of accelerating aircraft production during World war II. T. Lilley and others. 112p pa \$1.50 Harvard univ. Graduate school of business administration, Div. of research, Soldiers Field, Boston '47
- Shadowgraph a sample to find tool errors; manufacture of interchangeable parts by Lockheed aircraft corp. C. H. Bodner. *Il diag Am Mach* 91:87-90 D 18 '47
- Tractor moves Brabazon I from erecting hangar to assembly hall. *Il plan Mech Handling* 34:649-52 D '47

Drafting room practice

- Decimal dimensioning; what profit? O. E. Kirchner. *S A E J* 56:47-9 Ja '48

AIRPLANES—Manufacture—Drafting room practice—Continued

Master control system to check out design interference before release of production drawings to shop; Glenn L. Martin co. J. Savage, il plan diags Product Eng 19: 109-12 My '48
 New machine speeds templating; automatic sensitizer, conveyor system; Boeing aircraft co. il Aviation W 47:20+ D 1 '47
 Things not to do in drafting; recommendations for solving common problems prepared for inclusion in SAE aeronautical drafting manual, diags S A E J 56:35-8 S '48

Materials

Aircraft materials developments. Materials & Methods 27:110-12 My '48
 Compressive stress-strain properties of some aircraft materials, P. E. Sandorff and R. K. Dillon, bibliog il diag Am Soc T M Proc 46: 1039-52 '46
 Conference on high-temperature ceramics for application to aircraft power plants, Am Cer Soc Bul 27:277-9 JI '48
 Control of structural temperatures in jet-propelled aircraft, G. F. Anisman and M. W. Blackstone, bibliog il diags A S M E Trans 70:677-84 Ag '48
 Effects of overheating aluminum; appraised from color changes in zinc chromate coated surfaces, P. A. Haythorne and H. B. Wiley, il Product Eng 19:104-5 JI '48
 Flexural strength and stiffness of wood-aluminum sandwich panels, R. A. Miller and H. L. Langhaar, diags Product Eng 19:104-8 Ag '48
 Fuel tanks; integral versus bladders versus metal cells, J. E. Lindberg and others, diags S A E J 56:34-9 Ap '48
 Hyperbolic column formulas for magnesium-alloy extrusions, E. H. Schuette, bibliog J Aeronautical Sci 15:523-9 S '48
 Impact strength and hardness of aircraft alloys down to -423° F., M. G. Fontana and J. L. Zambrow, il diags Metal Prog 53: 97-101 Ja '48
 Insulating material resists high heat; developed for aircraft use, Aviation W 49:24 O 4 '48
 Magnesium as weight saver for various parts of B-36, il Aviation W 49:21-2+ JI 12 '48
 Magnesium in the B-36, diag Light Metal Age 6:20 O '48
 New light metals being produced; titanium and zirconium show great promise for use in aviation, il Aviation W 48:31 Mr 15 '48
 Refractory ceramic base coats for metal, W. J. Plankenhorn, bibliog il Am Cer Soc J 31:145-53 Je 1 '48
 Something more is done about the weather; Dow Chemical's magnesium corrosion tests, il Aero Digest 56:24 Ja '48
 Standard aircraft materials ease supply problems, Ind Stand 19:69 JI '48
 Standardization of aircraft materials eases supply problems, Automotive Ind 99:70+ Ag 1 '48
 Standards simplify buying, il Bsns W p56+ My 8 '48
 Stress-corrosion tests evaluate alloys, il Aviation W 49:25+ S 20 '48
 Stress notch sensitivity with eccentric holes, L. Schapiro and R. H. Esling, diags A S M E Trans 70:135-8 F '48
See also
 Steel, Aircraft

Plastics

Fuel flow control panel; edge-lighted acrylic panel of Martin Mercator, il Mod Plastics 25:110-11 Ap '48
 Laminated fiber-glass for aircraft, J. H. Beach, il plan Aero Digest 56:37+ Je '48
 Laminated Plexiglas in aircraft, W. F. Bartoe and E. N. Robertson, diags Aero Digest 56:42-5, 102+ My; 57:68+ JI '48
 New Plexiglas II resists higher heat, Aviation W 49:30 Ag 9 '48
 Plastic ducts to assist designers fabricated from fiberglass impregnated with resin, il Aviation W 48:26-7 Ja 12 '48
 Plastic plane; new method resembles casting, Aviation W 49:23 O 25 '48
 Plastics in airplane interiors, R. J. Considine, il Mech Eng 69:996-8+ D '47
 Plastics in the Convair-Liner, il Plastics 8: 36-8 JI '48

Pneumatic forming of acrylic cabin enclosures; Bell aircraft corp.'s helicopters, il Materials & Methods 26:76-8 D '47

Model testing

High-speed testing in the southern California cooperative wind tunnel, C. B. Millikan and others, bibliog il diags J Aeronautical Sci 15:69-88 F '48

Noise

Anti-noise campaign getting results, CAA country-wide check-up shows, CAA J 9:4 Ja 15 '48
 External sound levels of aircraft, R. L. Field and others, Aeronautical Eng R 7:42-9+ JI '48
 Greater comfort for the airline passenger; cabin silencing, K. R. Jackman, bibliog il diags Aero Digest 57:62-3+ O '48
 Noise problem up to industry, A. McSurely, Aviation W 49:27-8 N 1 '48
 Noise reduction devices shown on modified Stinson Voyager, A. McSurely, Aviation W 48:29 Ja 12 '48
 Reduce airplane noise through basic design, W. E. Burnham; H. L. Ericson; J. M. Picton, S A E J 56:47-50 F '48
 Reduce airplane noise through basic design; abstract, W. E. Burnham, Automotive Ind 97:43-4 N 1 '47

Patents

Aviation patents, Published in monthly numbers of Aero digest

Performance

Analysis of composite-powered aircraft, B. T. Salmon, il S A E J 55:34-9+ D '47
 Application of the performance operator to aircraft automatic control, R. C. Seamans, jr. and others, bibliog il diags J Aeronautical Sci 15:535-55 S '48
 Determination of the optimum airplane-powerplant combination, J. H. Brewster, 3d, S A E J 56:32-6 O '48
 Investigation of ideal flight criteria aids in assessment of test results, R. McLaren, bibliog Aviation W 48:18+ Ja 5 '48
 Operational aerodynamics of high-speed transport aircraft, R. S. Shevell, diags J Aeronautical Sci 15:133-43 Mr '48
 Unified design for performance and safety characteristics, F. W. Ross, il diags Aeronautical Eng R 7:22-9+ My '48

Pneumatic equipment

Evaluation of aircraft pneumatics indicates commercial applications, S. Bangs, Aviation W 48:26-7 Ja 19 '48
 Why pneumatics? auxiliary power for airplanes, H. F. Gerwig and J. H. Fammie, il diags Machine Design 20:116-21 Je; 138-42 JI '48

Prices

Four-place plane for \$2995? il Aviation W 49: 18 Ag 23 '48

Private ownership

Can further development extend personal aircraft utility? excerpts from the talks and discussions at I.A.S. personal aircraft meetings in Detroit, Wichita, and Dayton, June 7-11, Aeronautical Eng R 7:20-32 Ag '48
 CAA regional men assist in expansion of private flying, CAA J 8:132 N 15 '47
 CAA shifts affect private flying, Aviation W 49:35 O 18 '48
 CAA study shows private plane use, Aviation W 48:78 F 23 '48
 More civilian planes registered in 1947, Aviation W 48:36 Mr 22 '48
 Personal aircraft business at airports, L. Bollinger and A. H. Tully, jr. Aviation W 48:37 My 10 '48
 Pity the private pilot; difficulties of navigation, H. G. Moe, il diags Aero Digest 56: 60+ F '48
 Private flying and its effect on petroleum marketing, J. H. Doolittle, Am Pet Inst Proc 27(2):51-4 '47
 Private flying feeds air power, A. McSurely, il Aviation W 48:55+ F 23 '48
 Receiver development key to private use of new airways, R. Hotz, Aviation W 48:30 Ap 5 '48

AIRPLANES—Private ownership—*Continued*

Region one operators seek better public relations on local level; fourteen states join program to promote private flying. *Aviation W 48:26 Mr 1 '48*

Shortage of hangars bar to private flying. *Aviation W 48:37 Mr 8 '48*

Stalemate in private flying. K. K. Hoyt. *Aero Digest 55:37 D '47*

Radio equipment

See Radio apparatus on aircraft

Range

Range performance of turbojet airplanes. I. L. Ashkenas. *J Aeronautical Sci 15:97-101 F '48*; Discussion. E. G. Reid. *15:341-2 Je '48*

Shrinking the world; activities of the Strategic air command. H. T. Wheelless. map *Aero Digest 57:31-2+ S '48*

Reconstruction

Life in the old gal yet; changes proposed for DC-3s. W. L. Flinn. *il diags Air Transport 6:24-7 Mr '48*

Refueling

See also
Gasoline service stations—Airplane service

Renting

CAA plane rental proposal gains widespread approval. A. McSurely. *Aviation W 48:31-2 Ja 5 '48*

Roadable airplanes

See Airplanes, Light—Automobile combinations

Safety measures

See Airlines—Safety measures; *Aviation*—Safety measures

Seats

Greater comfort for the airline passenger. K. R. Jackman. *bibliog il diags Aero Digest 57:42-6+ N '48*

Research toward greater seating comfort. K. R. Jackman. *bibliog il diags Aeronautical Eng R 7:16-23 Je '48*

Upholstered folding seats developed by C. P. Liljengren. *il Air Transport 5:81 N '47*

Size

Size in transport. A. Gouge. *il plan diags Roy Aeronautical Soc J 52:407-36 Jl '48*; Same cond. *Engineering 165:557-8, 599-600 Je 11-18 '48*

Skis

See Airplanes—Landing gear

Specifications

American commercial and private aircraft; tabulation. *Automotive Ind 98:152-3 Mr 15 '48*

British commercial and private aircraft. *Automotive Ind 98:154-5 Mr 15 '48*

Speed

Aerodynamic forces on an oscillating flap at supersonic speeds. J. W. Miles. *J Aeronautical Sci 15:565-8 S '48*

Aerodynamic performance of delta wings at supersonic speeds. A. E. Puckett and H. J. Stewart. *bibliog diags J Aeronautical Sci 14:567-78 O '47*; Discussion. L. Beskin. *15:150 Mr '48*

Bell XS-1 makes supersonic flight. R. McLaren. *il Aviation W 47:9-10 D 22 '47*

British DH-108 hits sonic speed. *il Aviation W 49:13 S 20 '48*

Cockpit-design, problems of high-altitude high-speed aircraft. J. E. Sullivan. *Mech Eng 70:883-7 N '48*

Development of the navy-Douglas model D-558 research project. E. H. Heinemann. *il diags Aeronautical Eng R 6:14-19 D '47*

Douglas unveils its new research plane; Sky-rocket combines turbojet and rocket power; sweptback wing. R. McLaren. *il Aviation W 47:12-13 N 17 '47*

F-86A hits record; cameras miss. R. Hotz. *il Aviation W 49:12-13 S 13 '48*

F-86A sets world speed record. *il Aviation W 49:15 S 27 '48*

Fighter planes gain high speed at sacrifice of maneuverability. *bibliog Aviation W 48:18-19 Mr 1 '48*

Flight research at high subsonic speeds. H. Davies. *il Roy Aeronautical Soc J 52:483-503*; Discussion. *503-12 Ag '48*

High-speed testing in the southern California cooperative wind tunnel. C. B. Millikan and others. *bibliog il diags J Aeronautical Sci 15:69-88 F '48*

Instrumentation conquers the sonic barrier. M. F. Behar. *Instruments 21:505-7 Je '48*

Interference between wing and body at supersonic speeds; theory and numerical application. C. Ferrari. *bibliog diags J Aeronautical Sci 15:317-36 Je '48*

Jet propulsion can be efficient at low speeds. H. C. Hill. *Automotive Ind 99:46-8+ S 15 '48*

Man girds for supersonic role; research to insure efficiency and survival in realm of high speeds. *il Aviation W 49:21-4 S 27 '48*

Operational aerodynamics of high-speed transport aircraft. R. S. Shevell. *diags J Aeronautical Sci 15:133-43 Mr '48*

Planetary properties of fast cars. A. F. Zahm. *Franklin Inst J 245:331-6 Ap '48*

Precise measurement of aircraft speed. C. S. Franklin. *il diags Electronics 21:72-7 F '48*

Prediction of load distribution and its effect on aerodynamic characteristics at subsonic speeds for wings of arbitrary plan form. V. I. Stevens, Jr. *diags Aeronautical Eng R 7:37-42 Je '48*

Primer of sonic aerodynamics. R. McLaren. *diags Aviation W 49:21-2+ Ag 16 '48*

Problems and significance of really high speed flight. J. F. Victory. *Am Gas Assn Proc 1947:437-41*

Propeller considerations for high-speed aircraft. H. H. Warden. *il Aeronautical Eng R 7:32-5+ O '48*

Radio Doppler effect for aircraft speed measurements. L. R. Malling. *il diags Inst Radio Eng Proc 35:1357-60 N '47*

Ram temperature; supersonic speed barrier. *Aero Digest 57:26+ N '48*

Simplified method of obtaining drag of a high-speed body from wake surveys. C. Chang. *bibliog diags J Aeronautical Sci 15:123-7 F '48*

Supersonic-aircraft pilots; will they be able to operate efficiently or even survive; abstract. G. May; R. Brush; R. Thaw. *Mech Eng 70:824-5 O '48*

Supersonic role awaits turbojet. *diags Aviation W 49:23-30 Ag 30 '48*

Symington confirms XS-1 story; was first aircraft to exceed speed of sound. R. McLaren. *Aviation W 48:13-14 Je 21 '48*

Three rules to guide test pilots in flying at near-sonic speeds. L. A. Clousing. *Aviation W 48:20-2+ My 10 '48*

Transient loading of airfoils at supersonic speeds. J. W. Miles. *bibliog diags J Aeronautical Sci 15:592-8 O '48*

X-1 flights proved research data. *Aviation W 48:13 Je 28 '48*

XF-86 flies faster than sound. R. McLaren. *il Aviation W 48:11-12 Je 14 '48*

XS-1; design and development. R. McLaren. *il Aviation W 49:22-4+ Jl 26 '48*

Spinning

Spin tests may be on way out. *Aviation W 49:39-40 N 8 '48*

Stalling

Make stall warning devices compulsory, researchers advise; tests of pilots by committee of aviation psychology of the National research council. *CAA J 9:12 Ja 15 '48*

Stall approach flight tests show need for indicator installation. P. J. Rulon. *Aviation W 48:31-2 Ja 19 '48*

Stall-warning indicators refined. A. E. Smyser, Jr. *il diags Aviation W 48:21+ F 9 '48*

Stress on stalls in pilot training urged by group. *CAA J 9:73+ Jl 15 '48*

Wind shifts and stalls. W. G. Briegleb. *Aviation W 48:33 My 3 '48*

AIRPLANES—Continued

Standards

Parts prospect; new procedures for standardizing aircraft parts used by air force and navy expected. A. McSurely. Aviation W 49:17 O 4 '48
 Standardization and simplification for the air transport industry. W. Littlewood. S A E J 56:41-3 S '48
 Standard simplify buying. 11 Bsns W p56+ My 8 '48

Storage

Air force sheds on out-of-season skin. 11 Refrig Eng 56:409 N '48

Stresses

Bending rigidity and column strength of thin sections. P. E. Sandorff. bibliog diags A S M E Trans 69:833-41 N '47
 Buckling of curved sheet in compression and its relation to the secant modulus. E. H. Schuette. diags J Aeronautical Sci 15:18-22 Ja '48; Discussion. E. A. Richardson. 15: 521-2 S '48
 Effects of cutouts in semimonocoque structures. P. Cicala. diags J Aeronautical Sci 15:171-9 Mr '48
 General theory of cylindrical and conical tubes under torsion and bending loads. J. Hadji-Argrys and P. C. Dunne. diags Roy Aeronautical Soc J 51:199-269 bibliog(p208-9), 757-84, 884-930 F, S, N '47 (to be cont)
 Inelastic column theories and an analysis of experimental observations. C. Wang. bibliog diags J Aeronautical Sci 15:283-92 My '48
 Plasticity for the aerodynamicist. W. Prager. bibliog diags J Aeronautical Sci 15:253-62 My '48
 Prediction and reduction to minimum properties of plate compressive curves. E. H. Schuette and J. C. McDonald. bibliog J Aeronautical Sci 15:23-7+ Ja '48
 Problem types in the theory of perfectly plastic materials. W. Prager. bibliog diags J Aeronautical Sci 15:337-41 Je '48
 Stress analysis of noncircular rings for monocoque fuselages. C. Wang and S. Ramamirtham. diags J Aeronautical Sci 14:707-12 D '47
 Testing highly stressed structures. W. B. Miller and E. H. Schwartz. 11 diag Product Eng 19:81-4 N '48
 Torsion-bending stresses in box beams. R. A. Williamson. diags J Aeronautical Sci 15:427-34 Jl '48
 Warping and shear lag in closed cylindrical shells. L. Beskin. diags J Aeronautical Sci 15:221-31 Ap '48

Tail surfaces

Case against the vertical fin. 11 Aviation W 48:23-4 My 24 '48
 Flow at the rear of a two-dimensional supersonic airfoil. A. Kahane and L. Lees. diags J Aeronautical Sci 15:167-70 Mr '48
 Optimum number of webs required for a multicell box under bending. G. Gerard. diag J Aeronautical Sci 15:53-6 Ja '48

Take-off

Accurate checks without calculations; Lockheed aircraft combines camera and grid to record takeoff and landing. 11 Aviation W 49:24-6 Jl 5 '48
 Fallacy of arbitrary performance regulations. F. W. Kolk and R. W. Ayer. S A E J 56: 66-7 Ag '48
 New ducts give power increase; by-pass system for takeoff uses Constitution's rating. 11 Aviation W 48:29 Mr 8 '48

Temperature effects

Dives vary craft temperatures. Aviation W 49:25-6 O 18 '48

Testing

Correlation of wind-tunnel and flight-test stability and control data for an SB2C-1 airplane. M. T. Hockman and R. E. Elsminger, jr. bibliog diags J Aeronautical Sci 15:5-17 Ja '48
 Design and work of the Farnborough high speed tunnel. A. Thom and W. G. A. Per-ring. 11 diags Roy Aeronautical Soc J 52: 205-47; Discussion. 247-50 Ap '48

Design principles of amplitude-modulated subcarrier telemeter systems used for the instrumentation of airplanes and guided missiles. C. K. Stedman. diags Inst Radio Eng Proc 36:36-41 Ja '48

Instrumentation conquers the sonic barrier. M. F. Behar. Instruments 21:505-7 Je '48
 Investigation of ideal flight criteria aids in assessment of test results. R. McLauren. bibliog Aviation W 48:18+ Ja 5 '48
 Telemetering offers new benefits in civil plane test and operation. Aviation W 47:31-2+ N 24 '47

Temperature-probe for aviation flight testing; measures total air temperature. 11 Aviation W 48:20 F 16 '48

Testing highly stressed structures. W. B. Miller and E. H. Schwartz. 11 diag Product Eng 19:81-4 N '48

Three rules to guide test pilots in flying at near-sonic speeds. L. A. Clousing. Aviation W 48:20-2+ My 10 '48

What price structural testing? S. A. Gordon and G. E. Holback. 11 S A E J 56:32-7 Ag '48

See also

Airplanes, Military—
 Testing

Undercarriage

See Airplanes—Landing gear

Vibration

Free vibrations of sweptback wing. A. T. Zahorski. bibliog. 11 diags J Aeronautical Sci 14:583-92 D '47
 Landing impact vibration studied. 11 Aviation W 48:26-7 Ap 26 '48
 Use of vectors in vibration measurement and analysis. C. C. Kennedy and C. D. P. Pancu. bibliog diags J Aeronautical Sci 14:603-25 N '47

Weight

Convair boosts gross on Liner. Aviation W 47:14-15 D 29 '47
 Determination of gross weight. W. Nichols. Aero Digest 55:66-8+ D '47
 How light is aviation? abstract. W. D. Appel. Machine Design 20:202+ F '48
 Influence of aircraft gross weight upon the size and weight of hulls and fuselages. L. W. Rosenthal. 11 Roy Aeronautical Soc J 51:874-83 N '47

Welding operations

Investigation into spacing of spotwelds. H. D. Wimer, jr. diags Aero Digest 57:66-7+ Jl '48
 New high-strength welding rod for aircraft landing gear. L. Tarnopol. 11 diag Welding J 27:517-21 Jl '48

Windows

Absorption glass for windows in airplanes; patent. diag Glass Ind 29:504-5 S '48

AIRPLANES, Amphibious

Amphibian prototype ends long flight; W-6 Aqua I. Aviation W 48:45-6 Ap 19 '48
 Latest Grumman amphibian; navy XJR2F-1. 11 Aviation W 47:15 N 24 '47
 New amphibian tested by Delaware firm. Aviation W 47:31 D 29 '47
 Seagull features pivoted wing; British amphibian. 11 Aviation W 49:33 S 20 '48

AIRPLANES, Flying wing

Airfoil fuselage; more lift and cargo? Burnell flying wing tested in Labrador. 11 Aviation W 48:23 Ap 26 '48
 Flying wing holds key to Northrop's future. 11 Bsns W p24-5 N 1 '47
 Free vibrations of sweptback wing. A. T. Zahorski. bibliog 11 diags J Aeronautical Sci 14:583-92 D '47
 Northrop jet-powered flying wing. YB-49. 11 Aero Digest 55:42 N '47
 Present and future of the aircraft industry. C. N. Monson. Mech Eng 70:212 Mr '48
 U.S. air force planes; Northrop B-49. 11 diags Aero Digest 57:77-8 S '48

AIRPLANES, Freight

Analysis for optimum transport airplane configuration. P. A. Colman. Aeronautical Eng R 6:20-7 D '47
 Cargo aircraft requirements. J. J. Casey, jr. and R. D. Speas. 11 S A E J 56:49-52 Jl '48
 Manufacturers push cargo planes. W. Kroger. Aviation W 49:17 Ag 30 '48

AIRPLANES, Freight—Continued

Modified C-47 carries Connie engine; delivering power units to overhaul base by air. *il Aviation W 49:47 JI 12 '48*
 New design brings better packet; C-119, R. McLaren, *il Aviation W 47:24+ D 8 '47*

AIRPLANES, Industrial

Owners of company planes form group; Corporation aircraft owners association. *Aviation W 47:31 D 23 '47*
 Variety of companies reports use of planes. *Aviation W 48:63+ F 23 '48*

See also

Airplanes in the petroleum industry

AIRPLANES, Light

Aeronca 1948 Super Chief. *il Aero Digest 55:41 D '47*
 Butane used as fuel in lightplane flight. *Aviation W 47:25 N 24 '47*
 Cal-Aero designs midjet jet; may show the way to a personal jet plane. *il Aviation W 49:35 O 25 '48*

Cessna bids for four-place leadership. *il Aviation W 48:32 F 2 '48*
 Cessna's new model features more speed. *Aviation W 48:33 Ja 5 '48*

Competition from England; Chrislea Super Ace. *il Aviation W 48:35+ My 3 '48*

Cosmic wind takes the Goodyear trophy. A. McSurely. *il Aviation W 49:37 S 13 '48*

Dependability, comfort and beauty for the new Navion. *il Aero Digest 56:31+ Ja '48*

Ercoupe sales near 5000 mark. A. McSurely. *il Aviation W 49:35-6 Ag 2 '48*

Europe's progress in lightplanes. S. Fedan. *il Aviation W 49:35, 37-8+ S 20 '48*

Excellent visibility marks new Luscombe tandem; Observer 90. *il Aviation W 48:37 Ap 12 '48*

First Indian plane in prospect, diags *Aviation W 49:30 Ag 2 '48*

Foreign lightplane props analyzed. S. H. Fedan. *il diags Aviation W 49:21-2+ O 11 '48*

Future power for the personal airplane; abstracts. J. W. Thorp. S A E J 56:40-2+ Ja '48; *Automotive Ind 97:46 N 1 '47*

Howard demonstrates strength of Bonanza. *Aviation W 49:17 S 13 '48*

Leading personal aircraft of the U.S.; tabulation. *Aviation W 48:54 F 23 '48*

Lightplane sales innovation; Silvalrizing program will permit conversion of any flyable airplane powered by a 65-hp Continental engine, -3 or -8 F series, into a modern all-metal Silvalre. *Aero Digest 56:30+ My '48*

Luscombe Sedan stresses comfort. A. E. Smyser, Jr. *il Aviation W 47:25-6 N 17 '47*

Luscombe Silvalre sedan. *il Aviation W 49:43-4 JI 19 '48*

Luscombe's four-placer on market. *Aviation W 48:32+ Je 7 '48*

Mooney delivers first plane; M-18. *il Aviation W 49:33-4 Ag 23 '48*

Navions get workout in recent flood. *il Aviation W 48:36 Je 23 '48*

New airplanes for old in Luscombe Silvalrizing process. *il Aviation W 48:35 My 24 '48*

New four-engine lightplane; Monsted-Vincent plane. *il Aviation W 49:15 O 18 '48*

1948 annual directory of personal aircraft; illustrations, miniature plans and brief descriptions. *Aero Digest 56:34-6+ Mr '48*

Omni-receiver for small planes. A. McSurely. *Aviation W 48:37 Je 14 '48*

Personal aircraft from the pilot's viewpoint. W. Langewiesche. *Aeronautical Eng R 7: 25-6 Ag '48*

Personal plane progress noted in round the world flight. A. McSurely. *Aviation W 47: 29+ D 29 '47*

Personal plane prospects. D. L. Wallace. *Aero Digest 56:33 Mr '48*

Personal plane to win mass approval held basic need of aviation industry. B. Stern. *CAA J 9:74+ JI 15 '48*

Personal plane totals show continued rise. *Aviation W 48:36 Je 28 '48*

Piper to market Family Cruiser. *il Aviation W 48:27 Mr 1 '48*

Ryan brings out newly styled Navion for 1948 sales campaign. A. McSurely. *il Aviation W 47:37-8 N 24 '47*

16,023 personal planes sold during 1947; value \$53,206,000. A. McSurely. *Aviation W 48:31 F 2 '48*

Stiff four-place competition seen for lightplane market in 1948. A. McSurely. *il Aviation W 47:46+ D 15 '47*

Stinson models for 1948. *il Aero Digest 55: 41+ D '47*

Stinson refines Voyager for 1948. *il diags Aviation W 47:24-5 N 10 '47*

Taylorcraft presents 1949 line. *il Aviation W 48:35 Je 28 '48*

Automobile combinations

Close-up of Convair Car. *il Aviation W 48:21 Ap 19 '48*

Convair gives up flying auto rights. *Aviation W 49:35 O 25 '48*

Early tests scheduled for new flying car; Aerocar. *Aviation W 48:27 Ja 5 '48*

Roadable plane crashes in test. *il Aviation W 47:13 N 24 '47*

Control

Correlation of wind-tunnel and flight-test stability and control data for an SB2C-1 airplane. M. T. Hockman and R. E. Eisinger, Jr. *bibliog diags J Aeronautical Sci 15:5-17 Ja '48*

Design

Continental design award. *il diags Aero Digest 57:32 N '48*

Cost reduction and the designer; abstract. H. G. Erickson. *Machine Design 20:204+ Mr '48*

Design simplification pays; abstract. W. A. Davidson and others. *Machine Design 20: 194 Ja '48*

Engineering aspects of personal aircraft. F. E. Weick. *Aeronautical Eng R 7:24-5 Ag '48*

Engineering the Silvalre Sedan. H. F. Kueck. *il Aero Digest 55:46-8 D '47*

Improved protective design offers lightplane safety hope. *Aviation W 47:14 N 10 '47*

Testing

Drop tests of lightplane nose gear. G. A. Brewer. *il diags Aero Digest 56:36-7 Ja '48*

AIRPLANES, Military

Air power as affected by airdrome construction; abstract. S. D. Sturgis, Jr. S A E J 56:38-90 F '48

Aircraft production tempo increasing. S. Altschul. *Barron's 28:32 N 1 '48*

Analysis of composite-powered aircraft. B. T. Salmon. *il S A E J 55:34-9+ D '47*

Bigger slices of business for aircraft makers; some for all, but firms with best war records may be favored. R. P. Cooke. *Barron's 28:9-10 My 3 '48*

Door opened to export of jet fighters. R. B. Hotz. *Aviation W 49:12-13 N 1 '48*

Fuel flow control panel; edge-lighted acrylic panel of Martin Mercator. *il Mod Plastics 25:110-11 Ap '48*

High-speed jet bombers. *il Aero Digest 56: 57 F '48*

Parasite jet fighter; McDonnell XF-85. *il Mech Eng 70:686-7 Ag '48*

Piston engine boosted to 4000 hp. *Aviation W 49:12-13 Ag 9 '48*

Plane makers expect to earn seven per cent on military orders. R. P. Cooke. *Barron's 28:7 O 18 '48*

Why pneumatics? or the case for pneumatics for intermittent services on aircraft. H. F. Schmidt and H. F. Gerwig. *il diags S A E J 56:50-2 Ja '48*

Conversion

Sales mount on converted C-46s. *il Aviation W 48:15 My 17 '48*

Design

Design for mass production. E. M. Powers. *Aeronautical Eng R 7:21+ Mr '48*

Design of fighter aircraft. H. R. Footitt. *il Aero Digest 56:23-4+ F '48*

Development of the Lockheed F-80A jet fighter airplane. C. L. Johnson. *il diags J Aeronautical Sci 14:659-79 D '47*

Drop snoot configuration aids jet fighter landings. R. McLaren. *Aviation W 48:26 Mr 15 '48*

F-12 based on fighter experience; Republic photo-reconnaissance aircraft. R. McLaren. *il Aviation W 47:28-30 N 10 '47*

AIRPLANES, Military—Design—Continued

- Fighter planes gain high speed at sacrifice of maneuverability. *bibliog* Aviation W 48: 18-19 Mr 1 '48
- Navy reveals design analysis system. Aviation W 47:22 D 8 '47
- Republic's P-84 Thunderjet designed around specific engine type, axial-flow J-35. R. McLaren. *il* Aviation W 48:18+ My 24 '48
- Swept wing taxes piloting skill; Bell L-39. R. McLaren. *il* Aviation W 48:30 Mr 8 '48
- Thick root proved in Phantom. R. McLaren. *il* Aviation W 48:21-2+ Je 21 '48
- Vampire jet fighters. R. C. Franklin. *il* *diag* Aero Digest 57:23-4 Ag '48
- XS-1; design and development. R. McLaren. *il* Aviation W 49:22-4+ JI 26 '48

Drawings

- Sea attacker; Vickers-Armstrong jet craft. Aviation W 48:25 Mr 15 '48

Maintenance and repair

- Airlift contract goes to Lockheed aircraft service. S. L. Colbert. *il* Aviation W 49:17 S 27 '48
- Maintenance difficulties in the field. M. J. Kemper. Roy Aeronautical Soc J 51:981-91 D '47

Rescue equipment

- Air-borne lifeboat speeds rescue. *il* Aviation W 49:13 Ag 23 '48
- Lightplane floats to rescue boats; Edo corp. fashioning lifeboats for the U.S. air force. W. Kroger. *il* Aviation W 49:17 Ag 16 '48

Testing

- Hangar for aeroplane tests in extreme climatic conditions; Elgin field, Florida. *il* Engineering 166:25-7 JI 9 '48
- Testing the Stratojet XB-47. *il* Aero Digest 57:26-7 Ag '48

Canada

- Details on Canada's jet fighter. *il* Aviation W 49:16 N 8 '48

Germany

- Enemy jet history. D. R. Maguire. *il* *diag*s Roy Aeronautical Soc J 52:76-83 Ja '48

Great Britain

- Aeronautics in 1947. *il* Engineer 185:48-9, supp 3 Ja 9 '48
- British bombers; present, future. Aviation W 49:15 N 8 '48
- British DH-108 hits sonic speed. *il* Aviation W 49:13 S 20 '48
- Jets in England. M. Eddy. *il* Aero Digest 56: 26-9+ Ap '48
- Newer English jet-type fighters delayed until 1950; with drawing of Sea Vampire Mark XX. R. Cross. Aviation W 48:22-3 F 16 '48

Italy

- Enemy jet history. D. R. Maguire. Roy Aeronautical Soc J 52:83 Ja '48

Japan

- Enemy jet history. D. R. Maguire. Roy Aeronautical Soc J 52:83-4 Ja '48

Russia

- Russian jet fighters operational; details on YAK and MIG. F. R. Brewster. *il* *diag*s Aviation W 48:15 Ap 19 '48
- Russia's fastest service plane; Yak jet fighter. *il* Aviation W 49:15 O 4 '48
- Secrets of Russian jets revealed. *il* Aviation W 48:14-15 Je 14 '48

Sweden

- Sweden develops jet aircraft. *il* Aviation W 49:33 JI 12 '48

United States

- Air force B-29s bomb Muroc on 4600 mile mission from Tampa; offer dramatic proof in range controversy. R. Hotz. Aviation W 48:11-12 Ap 12 '48
- Air force confirms YB-49 record. Aviation W 49:14 N 8 '48
- Air force seeks 12,441 planes for adequate U.S. defense force. Aviation W 47:11-12 D 8 '47
- Air force to boost B-49 orders. Aviation W 49:11-12 Ag 2 '48

Aircraft industry states its case; with abstracts of reports submitted by executives before Air policy commission. Automotive Ind 97:40-3+ D 1 '47

Airprop based on obsolete types. Aviation W 48:14 Ja 12 '48

B-29's on the line again; Boeing Airplane's Wichita division is retooling, rehiring. *il* Bsns W p32 My 1 '48

B-47 job goes to B-29 plant. Aviation W 49: 17 O 11 '48

Bell XS-1 makes supersonic flight. R. McLaren. *il* Aviation W 47:9-10 D 22 '47

Boeing's team of the air; USAF's bomber-transport combination, B-50 Superfortress and YC-97A Stratofreighter. *il* Aero Digest 56:68-9 Ap '48

Cargo plane evolves from glider; MS-7. A. E. Smyser. *il* *diag* Aviation W 48:23-4+ Ja 5 '48

Compound engine; compounding of exhaust-gas turbine with reciprocating piston engine. *il* Aero Digest 57:65 S '48

Development of naval night fighters in World war II. J. S. Gray, jr. *il* U S Naval Inst Proc 74:846-51 JI '48

Development of the Lockheed P-80A jet fighter airplane. C. L. Johnson. *il* *diag*s J Aeronautical Sci 14:659-79 D '47

Douglas Skyrocket. *il* U S Naval Inst Proc 74:117-19 Ja '48

Engine installation problems in the XP-84 airplane. R. R. Higginbotham. *il* *diag*s S A E J 56:53-7 Ja '48

Engineering facts about the world's largest landplane; air force transport, the XC-99. *il* Automotive Ind 98:42-3+ F 15 '48

F-12 based on fighter experience; Republic photo-reconnaissance aircraft. R. McLaren. *il* Aviation W 47:28-30 N 10 '47

F-80's across; first west-east crossing of the Atlantic by jet aircraft. J. Powell. *il* map Aero Digest 57:34-5+ S '48

F-86A hits record; cameras miss. R. Hotz. *il* Aviation W 49:12-13 S 13 '48

F-86A sets world speed record. *il* Aviation W 49:15 S 27 '48

FJ-1 makes first carrier test. S. Bangs. *il* Aviation W 48:13 Mr 22 '48

Fairchild contracts new pack plane. *il* Aviation W 48:11 Mr 29 '48

First moves made to step up production. Aviation W 48:11-12 Ap 26 '48

Fury for the navy. E. Schmued. *il* *diag*s Aero Digest 57:28-30 O '48

Good shooting from Shooting Stars; gunnery tests. *il* Aero Digest 56:37 F '48

Grumman Panther. N. F. Silsbee. *il* *diag*s Aero Digest 57:28-30 JI '48

Happy days at Grumman. *il* Fortune 37:112-15+ Je '48

Huge U.S. turboprop program under way. R. McLaren. Aviation W 49:11-12 JI 19 '48

Manufacturers warned to step up output. R. Hotz. *il* Aviation W 49:11+ S 20 '48

More Mercators for the navy. *il* Aero Digest 57:37 Ag '48

More warplanes. Bsns W p22 S 18 '48

Naval aviation program. A. M. Pride. *il* Aero Digest 56:55-7 Mr '48

Navy boosts ram jet power. *il* Aviation W 48:12 F 9 '48

Navy has two new plane types for '49. Aviation W 48:12 Ja 26 '48

Navy increases Neptune order. *il* Aviation W 48:14 Ja 5 '48

Navy orders 1,632 new planes. Aviation W 48:13-14 Ja 12 '48

Navy reveals Grumman jet fighter; XF9F-2 (Panther). R. McLaren. *il* Aviation W 47: 12-13 D 15 '47

Navy reveals new night fighter; Douglas twin-jet Sky Knight. *il* Aviation W 49: 12-13 O 11 '48

Navy's XF9F jet fighter; illustrations with text. Aviation W 47:21 D 29 '47

New B-36 to give USAF greater range. R. Hotz. *il* Aviation W 49:12-14 O 18 '48

New high speed planes for USAF. R. Hotz. *il* Aviation W 49:12-14 S 27 '48

New-model jet fighters. *il* Aero Digest 57: 42-3+ JI '48

New propeller engines for the air force; combining best features of jet and reciprocating units. *il* Aviation W 49:18 O 25 '48

North American swept-wing fighter, XP-86. *il* Aero Digest 55:42 N '47

AIRPLANES, Military—United States—Cont.

- Northrop XF-89 and X-4 announced. *il Aero Digest* 67:45 O '48
- P-80 still right after five years. R. McLaren. *il Aviation W* 49:22+ JI 19 '48
- Panther 650 mph fighter solves jet carrier problem. R. McLaren. *il Automotive Ind* 98:42+ Ja 1 '48
- Parasite jet fighter due for test; McDonnell XP-85; air launch from belly of Boeing B-29 Superfortress. *il Aviation W* 47:14 D 1 '47
- Phantoms join the Atlantic fleet. R. McLaren. *il Aviation W* 48:13 My 17 '48
- Present and future of the aircraft industry. C. N. Monson. *Mech Eng* 70:211-12+ Mr '48
- Smaller tires and lighter, more efficient brakes for B-29 bomber. *il Automotive Ind* 99:41+ N 1 '48
- Thunderjet; air force ace for '48. N. F. Silsbee. *il diags Aero Digest* 56:44-8 F '48
- Thunderjets take over active duty. R. McLaren. *il Aviation W* 48:15 Ap 26 '48
- Trebling military plane production urged in ACC report to Truman. R. Hotz. *Aviation W* 48:9-10 F 16 '48
- USAF, navy step up jet engine buying. R. McLaren. *Aviation W* 49:11-12 JI 12 '48
- USAF, navy to order 3300 new planes. R. Hotz. *Aviation W* 48:11 Je 7 '48
- United States air force planes. *il Aero Digest* 56:52-3 Mr; 57:76-8+ S '48
- USAF unveils speed designs. *il Aviation W* 49:25-7 S 13 '48
- U.S. airpower flowing back to Europe. R. Hotz. *il Aviation W* 49:10-11 Ag 2 '48
- U. S. military and naval planes; tabulation. *Aviation W* 48:10 F 23 '48
- West coast predicts gain in military ram jet knowledge. S. Bangs. *Aviation W* 48:17 F 9 '48
- XB-47 dives at 720 mph. *Aviation W* 48:15 Ja 5 '48
- XF-86 flies faster than sound. R. McLaren. *il Aviation W* 48:11-12 Je 14 '48
- XL-15 demonstrates its versatility; illustrations with text. *Aviation W* 47:22 N 17 '47
- AIRPLANES, Military transport**
- Boeing's team of the air; USAF's bomber-transport combination, B-50 Superfortress and YC-97A Stratofreighter. *il Aero Digest* 56:68-9 Ap '48
- Engineering facts about the world's largest landplane; air force transport, the XC-99. *il Automotive Ind* 98:42-3+ F 15 '48
- Lockheed Constitution transport. R. McLaren. *il diags Aviation W* 49:20-2+ Ag 30 '48
- Northrop C-125 based on Pioneer. R. McLaren. *il Aviation W* 49:21-2+ N 8 '48
- U.S. air force planes; Boeing C-97A; Fairchild C-119B; Douglas C-124A. *il diags Aero Digest* 57:85-6+ S '48
- AIRPLANES, Roadable.** See Airplanes, Light—Automobile combinations

AIRPLANES, Training

- Avro Athena Mk. I training aircraft. *il Engineer* 185:360 Ap 9 '48
- Fairey training aircraft. *il Engineering* 165:379 Ap 16 '48
- First jet trainers. *il diags Aero Digest* 56:38-40 Je '48
- First turboprop trainer nears completion; Britain's three-place Athena. *il diags Aviation W* 48:21-2+ My 3 '48
- Flight report on jet trainer; Lockheed TF-80C. *il Aviation W* 49:13 Ag 2 '48
- Modern engineering in turboprop trainer; Britain's Boulton Paul Balliol. R. McLaren. *il Aviation W* 49:20+ Ag 2 '48
- U.S. air force planes; North American T-28; Lockheed TF-80C. *il diags Aero Digest* 57:90+ S '48

AIRPLANES, Used. See Airplane industry and trade—Used airplanes**AIRPLANES in agriculture**

- Agricultural aviation clinic suggested. D. W. Rentzel. *CAA J* 9:109+ O 15 '48
- National flying farmers association annual meeting, Columbus. *Aviation W* 49:59-60 S 20 '48
- Plane a useful tool for rancher flying 32,000 miles a year. *CAA J* 9:63 Je 15 '48
- Weed-killing dust ban seeks to avoid damage to broad-leaf crops. *CAA J* 9:84 JI 15 '48

See also

Helicopters—Agricultural use**AIRPLANES in business**

- Adjusting aircraft losses in the Southwest; insurance man uses airplane. O. W. Baker. *Weekly Underw* 158:592 F 21 '48
- Ask the businessman who flies one. C. A. Selby. *il Am Bsns* 18:22-3+ Ag '48
- Insurance firms use Navion airplane extensively and profitably in their business. *Weekly Underw* 159:390 Ag 21 '48
- AIRPLANES in forestry**
- Air photography and its application to forest inventory. J. M. Robinson. *Pulp & Pa* of Can 49:102+ Ja '48
- Air survey of forest lands. S. T. B. Losee. *Pulp & Pa* of Can 49:98+ My '48
- See also
- Forest fire patrol, Helicopters—Forestry use

AIRPLANES in insect control

- Spray combine; Kansas operator employs 40 planes in crop-dusting business. *Aviation W* 48:34 Je 7 '48

AIRPLANES in patrol work. See Air patrols**AIRPLANES in selling**

- South American tour is planned in Cadet. *il Aviation W* 47:49 D 15 '47

AIRPLANES in the petroleum industry

- Aerial pipe-line patrol saves expense on eastern line. E. H. Williamson. *il map Oil & Gas J* 47:265 S 23 '48
- Airborne magnetometer. H. Jensen. *il Oil & Gas J* 48:89-90+ Mr 11 '48
- Airborne magnetometer survey completed in Nassau. *il Pet Eng* 19:86 Mr '48
- Airplanes prove worth in expediting movement of equipment and personnel. C. Hoot. *il Oil & Gas J* 47:190+ My 20 '48
- Aramco takes to the air. C. B. Colby. *il World Oil* 127:227-8 Ap '48
- Economics of aerial magnetics. C. J. Deegan. *il Oil & Gas J* 47:67+ JI 22 '48
- Flying magnetometer speeds oil search. I. Stone. *il Aviation W* 49:25-6 Ag 23 '48
- Gulf's airborne magnetometer in Florida. J. E. Kastrop. *il World Oil* 128:138-40+ Ag '48
- Modern exploratory tools being used in five-company Bahama oil search; airborne magnetometer used in conjunction with shoran radar. W. W. Burns. *il map diag Oil & Gas J* 46:38-40+ N 8 '47
- Walking on air; airplanes for pipe line walking. R. Sneddon. *il Pet Eng* 19:208+ Mr '48

AIRPORT buildings

- Air terminal building for Rio de Janeiro. *il plan Arch Forum* 87:78-9 N '47
- Plenty of snow, but footings go in at Boston airport. *il Constr Methods* 30:86-8 Mr '48
- Quonsets will be U.S. front door for Europe's air travelers; Idlewild terminal buildings. *il Arch Forum* 89:15 Ag '48

AIRPORT operators council

- Annual meeting, 1st, Boston, April 1-3. *Aviation W* 48:15 Ap 21 '48

AIRPORTS

- Air Transport facts and figures; airports by classes as of Dec. 31; number of flight operations, 1944-1947; tabulations. *Air Transport* 6:sup 10 F '48
- Airport activity shows increase over last year; tabulation. *CAA J* 9:88 Ag 15 '48
- Airport plan for '48 lists many locations needing development. *CAA J* 9:26 Mr 15 '48
- Airports as base of air power. S. L. Colbert. *Aviation W* 48:69-70 F 23 '48
- Airports by class and type, by states; tabulation. *Automotive Ind* 98:126 Mr 15 '48
- Airports by class as of Jan. 1, 1948; tabulated by state. *Aviation W* 48:70, 72 F 23 '48
- Airports by type, by year, 1936-1947; tabulation. *Automotive Ind* 98:127 Mr 15 '48
- Avoca airport; new Wilkes-Barre-Scranton installation is the largest port east of the Mississippi. *il Aero Digest* 55:58 N '47
- CAA to level airport obstructions. *Eng N* 141:37+ JI 22 '48
- Civil airport increase in past six months shown by CAA list. *CAA J* 9:87 Ag 15 '48
- Foreign airport program faces rough sledding in Congress; Air coordinating committee urges airport rehabilitation to aid international airlines of United States. *Aviation W* 48:11-12 F 9 '48
- Landscape planting for airports. F. B. Robinson. *III U Inst of Aeronautics Bul* 2:1-32 bibliog(p 32) '48

AIRPORTS—Continued

- Law gives CAA control over all construction near any air field, *Elec World* 130:50 J1 17 '48
- New CAA airport markers, plan diags *Aero Digest* 55:68 N '47
- Seattle-Tacoma field speeds northwest traffic, R. Bloomberg, *il Air Transport* 5:41-2 D '47
- U.S. land now available to aid airport program, CAA J 9:109 O 15 '48

Bibliography

- Highway and airport digest, Published in monthly numbers of Public works

Construction

- Baltimore airport grading; three types or rigs for various hauls, *il Constr Methods* 30:102-5 Ja '48
- Carving an airport from a mountain top, Mount Ettrick, W. P. Gillingham, *il plan Comp Air Mag* 53:234-7 O '48
- Mammoth earthmoving job features San Francisco international airport construction, O. H. Tucker, Jr., *il Civil Eng* 18:518-20+ Ag '48
- Twin Falls airport, *il Roads & Sts* 91:53-5+ Ja '48

Cost

- Airport improvements, Brainerd, Minn.; unit prices, *Eng N* 141:101 S 2 '48
- Airport improvements, Georgia; unit prices, *Eng N* 139:894 D 25 '47
- Contract unit bid prices, *Eng N* 140:375+ My 27 '48
- Highway and airport appropriations nearly \$200,000,000 for 1948, *Roads & Bridges* 86:95-8+ Je '48
- Mitchell Field airport improvements, Wis.; unit prices, *Eng N* 140:1046 Je 24 '48
- Paving at international airport, Baltimore, Md.; unit prices, *Eng N* 140:669 Ap 29 '48

Design

- Airport operational safety; better design needed to reduce the seriousness of accidents, E. P. Hall, *il Pub Works* 79:26-7+ Ap '48
- Design data on foreign airports, *Pub Works* 79:37 Je '48
- Economical airport planning requires cooperation of airport and aircraft designers; abstracts, H. O. Wright, Jr., *Civil Eng* 18:54 Ja '48; S A E J 56:85 Mr '48

Drainage

- Drainage of airport surfaces; some basic design considerations, S. W. Jens, diags *Am Soc C E Proc* 73:983-1007 S '47; Discussion, 74:746-68, 895-900 My-Je '48
- Landing-field engineering techniques keep pace with advances in aviation; abstracts of A.S.C.E papers, *Civil Eng* 18:675 N '48

Expansion

- Expanding Mitchell field, H. M. Maxwell, *il map plan diags Roads & Sts* 91:55-7+ F '48
- Heavy tractors compact swamp fill for airport enlargement, C. C. Munoz, plan *Eng N* 140:343-9 Je 10 '48
- Philadelphia conducts extensive subsurface exploration prior to airport expansion, E. W. Scott, Jr., *il plans Civil Eng* 18:96-8+ F '48

Federal aid

- Airport projects listed for 1949, *Aviation W* 49:12-13 J1 12 '48
- Aviation officials and contractors meet; Joint cooperative committee of the National association of state aviation officials and the Associated general contractors of America, *Roads & Sts* 90:96-7 D '47
- CAA announces new regulations for airport act, CAA J 9:37 Ap 15 '48
- CAA changes rules for airport program, *Eng N* 140:451 Mr 25 '48
- CAA tenders 127 airport-aid grants during past year, CAA J 9:19 F 15 '48
- New airport standards set to speed development work, *Eng N* 139:697 N 20 '47
- New policy paves way for airports at national parks; abstract, C. G. Davidson, CAA J 9:1+ Ja 15 '48
- 908 airports may benefit in U.S. program, *il Steel* 121:86-7 N 10 '47

- Progress of federal airport program, T. P. Wright, CAA J 8:121+ N 15 '47
- 309 big airports in fiscal 1949 CAA plan, *Aviation W* 48:43-4 My 24 '48
- We need 2700 new airports, *Roads & Sts* 91:82 Je '48

Fees

- Idlewild fees, *Aviation W* 48:40-1 Je 7 '48
- New York airport squabble to affect other cities, R. P. Cooke, *Barron's* 28:11 S 6 '48

Finance

- Airport revenues will mold development of civil aviation's future, G. W. Burgess, CAA J 9:50 My 15 '48

See also

- Airports—Federal aid

Fires and fire protection

- Airport fire protection, W. H. Rodda, *Weekly Underw* 159:977, 1031+ O 23-30 '48; Excerpts, *Nat Underw* 52:6 O 28 '48
- Airport fire truck, *il Safety Eng* 95:26 Ja '48
- Airports unprepared for fire, *Safety Eng* 95:50 My '48
- How to save lives in crash fires, B. Stubblefield, *il Air Transport* 5:30-2 D '47

Law

- Airport legal battles point to future handling problems; Whiteman airport and Chamberlain airport cases set precedents in nuisance complaints, *Aviation W* 48:36-7 F 9 '48
- Courts bar owners' fight on airport; Ohio courts hold that airport development is public necessity, *Eng N* 140:225 F 12 '48
- Pennsylvania Supreme court rules for airport operator; Chester County property owner test case, A. McCurely, *Aviation W* 48:42+ Ap 19 '48

Lighting

- Air-approach facilities at New York international airport, G. M. McSherry, *il Aero Digest* 67:23-4+ J1 '48
- Air force will test world's brightest lights for blind landings; Krypton flash unit, *Iron Age* 162:146-7 S 23 '48
- Airfield approach lighting, *Engineering* 165:551 Je 4 '48
- Automatic runway lighting developed by J. J. Meadows, *il plan diag Air Transport* 5:78 N '47
- CAA and pilots split on lighting, R. Hotz, *Aviation W* 49:14-15+ O 25 '48
- Help, via light, for the small airport, *il Westinghouse Eng* 3:20-1 Ja '48
- Horizon bar approach lighting system, diags *Engineer* 185:420-1 Ap 30 '48
- Krypton lamp for all-weather landings, G. A. Freeman, *il Westinghouse Eng* 8:90-1 My '48
- Lighted glide-path for small airports, *il Aviation W* 48:32+ My 24 '48
- Lighting for streets and airports; illustrations with text, *Elec West* 101:96 S '48
- Lighting of small airports, L. C. Vipond, *il Illum Eng* 43:717-22 J1 '48
- New type runway lighting system, CAA answer to small airport needs, *il diag CAA J* 9:3 Ja 15 '48
- Progress in landing aids at Arcata, A. L. Lewis, *il diags Aero Digest* 56:40-1+ My '48
- Simulated lightning, night flying aid; krypton and neon light combinations, *il Westinghouse Eng* 8:26-7 Ja '48
- Street lighting in the vicinity of aerodromes; abstracts, S. English and J. G. Holmes, *Electrician* 141:854 S 17 '48; *Elec R (Lond)* 143:440-1 S 17 '48
- Visual aids for low visibility conditions, E. S. Calvert, *il diags Roy Aeronautical Soc J* 52:439-66; Discussion, 467-76 J1 '48
- Visual landing aids for use in restricted visibility, H. J. C. Pearson, *il diags Illum Eng* 43:736-42 J1 '48
- What's ahead for airport lighting, K. Kroger, *il Aviation W* 48:18+ My 31 '48

Location

- Airports in the balance sheet of real estate values; abstract, G. W. Burgess, CAA J 8:134 D 15 '47

AIRPORTS—Location—Continued

Close-in airports held vital to increase plane's utility. D. W. Rentzel. CAA J 9:85+ Ag 15 '48

Management

Chicago's Skymotive inc. sets new pattern for fixed bases. A. McSurely. il Aviation W 47:45-6 D 8 '47

Grimes is here to stay; story of a small fixed-base operator. I. F. Angstadt. il Aero Digest 57:48-9+ N '48

Problems in international aviation confront entry airport managers. CAA J 9:51 My 15 '48

Restaurants

Snack between landing and take-off; Flight bar, La Guardia airport, New York. il plan diag Arch Rec 104:140-2 J1 '48

Runways

Bituminous subsealed concrete pavements withstand accelerated traffic tests. il plan diag Civil Eng 18:364-7 Je '48

Cross-wind landings promote use of single-strip airports. il Civil Eng 18:295 My '48

Design of rigid pavements for heavy wheel loads. E. R. Philippe. il Civil Eng 18:84-8 F '48

Effect of jet-driven airplanes on airport runways. Pub Works 79:38 Ag '48

Effect of jet heat on airport pavements. W. R. Macatee. Roads & Sts 91:101 Ag '48

Expanding Mitchell field. H. M. Maxwell. il map plan diags Roads & Sts 91:55-7+ F '48

French view of runway construction; abstract. J. de Larrard. Pub Works 79:40 Ja '48

Giant compactor with 160-ton load makes deep imprint on future runway. il Bsns W 92:1 D 27 '47

How thick should airport runways be? il Roads & Bridges 86:60-3+ Ag '48

Jet engine fuel found serious hazard to asphalt pavements, joint sealing. Eng N 141:3 Ag 26 '48

Laying 21-in. concrete runway slab at Patterson field. il Concrete 56:3-7+ Ja '48

Lime used in airfield base. Roads & Sts 91:96+ Ja '48

New formulas for stresses in concrete pavements of airfields. H. M. Westergaard. biblog Am Soc C E Proc 73:687-701 My '47; Discussion. 73:1562-4; 74:218-20, 723-4 D '47, F My '48

New prestressed concrete tried on Orly runway. Aviation W 49:26 Ag 2 '48

Prestressed concrete for runways at Orly field, near Paris. il diags Eng N 141:104-5 S 16 '48

Rational airport planning; unidirectional runway. E. P. Hall. il diags Pub Works 78:19-21+ N '47

Runways for seventy-five-ton wheel loads; Patterson field. il plan diags Eng N 140:362-7 Mr 4 '48

Runways unharmed by jet exhausts. Aviation W 49:43 O 25 '48

Static load, not impact, determines CAA design standard for airports. Civil Eng 18:584 S '48

Subgrade and base-course design study of airport runways developed into design procedure for highways. N. W. McLeod. il diag Roads & Bridges 86:96-8+ S '48

Super compactor for runways on the Baltimore, Md. Friendship airport. il Eng N 140:89 Ja 15 '48

Twin Falls airport. il Roads & Sts 91:53-5+ Ja '48

200-ton super compactor being tried out at Baltimore airport. H. J. McKeever. il plan Roads & Sts 91:82-4+ Ja '48

Visual aids for low visibility conditions. E. S. Calvert. il diags Roy Aeronautical Soc J 52:439-66; Discussion. 467-76 J1 '48

Safety measures

Inspection report on suicide field; imaginative tale. E. L. Stephenson. Nat Safety N 57:30-1+ Ja '48

Snow protection and removal

Runway snow plowing plan paid off at La Guardia airport. il Roads & Sts 91:62-4 My '48

Standards

CAA sets runway standards for six classes of airports. CAA J 8:133 D 15 '47; Eng N 139:697 N 20 '47

New CAA airport standards in proposed manual revisions. A. McSurely. Aviation W 48:35 Mr 22 '48

New standards for airports pose special problems for contractors and engineers. L. H. Swenson. Roads & Sts 90:69-70 O '47

Statistics

Airports total 5,904 as of March 1, 1948, CAA records show. CAA J 9:39 Ap 15 '48

Civil airports increase by more than 1,500 in past 12 months. CAA J 9:19 F 15 '48

Surfaces

Soil cement side show; airport area on Chicago lake front processed as demonstration project. il Roads & Sts 91:92-3 Ag '48

See also

Airports—Runways

Surfaces, Grass

Grass stabilizes sand on 4,900 acres of New York's Idlewild airport. il Civil Eng 18:22-3+ Ja '48

Scientific study of turf proposed to aid airport building program. CAA J 9:120 O 15 '48

Traffic control

Air traffic control session stresses operational safety; A.I.E.E. Middle eastern district meeting. Elec Eng 66:1137-8 N '47

Airport traffic; abstract. B. H. Griffin. Mech Eng 70:444 My '48

CAA personnel sloppy in ILS monitoring. ATA survey shows. R. Hotz. map Aviation W 47:13-14 D 8 '47

Delays in the flow of air traffic; statistical analysis. E. G. Bowen and T. Pearcey. biblog diags Roy Aeronautical Soc J 52:251-8 Ap '48

New York radar charts air traffic. I. C. Nye. il Aero Digest 57:102+ S '48

Proposed air traffic control and controlled handling systems for high-speed aircraft. M. W. Arnold. S A E J 56:45-6 Mr '48

San Francisco's all-weather plan. Aviation W 49:12 Ag 23 '48

They call it Tricon; General Electric's triple coincidence electronic method of air navigation. il diags Aero Digest 56:42-5+ Ap; 64-7+ My '48

Traffic control towers

CAA tabulation lists 9,563 tower operators. CAA J 9:98 S 15 '48

World's largest airport under radio control; New York International airport (Idlewild). R. Hertzberg. il Tele-Tech 7:48-9+ S '48

Transportation problems

Air terminal ground traffic problems. R. Ramspeck. Pub Works 79:26+ S '48

Akron, Ohio

Akron loses fight on new airport. Aviation W 48:44 Ap 5 '48

Alaska

CAA asks and gets bid bonds for engineering work in Alaska. Eng N 141:3 J1 29 '48

Baltimore

Baltimore pushes new airport. il Aviation W 48:42 Ja 19 '48

200-ton super compactor being tried out at Baltimore airport. H. J. McKeever. il plan Roads & Sts 91:82-4+ Ja '48

Canada

Highway and airport appropriations nearly \$200,000,000 for 1948. Roads & Bridges 86:95-8+ Je '48

Chicago

Chicago's Skymotive inc. sets new pattern for fixed bases. A. McSurely. il Aviation W 47:45-6 D 8 '47

Connecticut

Bradley Field joining Conn. airport system. Aviation W 47:32 D 29 '47

AIRPORTS—Continued

Milwaukee

Expanding Mitchell field, H. M. Maxwell, il map plan diags Roads & Sts 91:55-7+ F '48

New Jersey

Teterboro sale to Port of New York authority, Aviation W 49:38 Ag 23 '48

New York (city)

Air-approach facilities at New York international airport, G. M. McSherry, il Aero Digest 57:23-4+ J '48

Airlines still row with Port authority, Aviation W 49:38 Ag 30 '48

Airport revenue raisers; port of New York authority's program, S. L. Colbert, Aviation W 48:45-6 Mr 22 '48

Grass stabilizes sand on 4,900 acres of New York's Idlewild airport, il Civil Eng 18:22-3+ Ja '48

Idlewild dispute; carriers may have to abandon their boycott, Aviation W 49:46 J '48

Idlewild fees, Aviation W 48:40-1 Je 7 '48

New York airport squabble to affect other cities, R. P. Cooke, Barron's 28:11 S 6 '48

New York Port authority administrators \$200,000,000 airport program, il Civil Eng 18:619 O '48

Three lines sign to use Idlewild, Aviation W 48:47 Je 28 '48

USAF flexes muscle at Idlewild; exposition opening world's largest civil airport, il Aviation W 49:14 Ag 9 '48

Newark, New Jersey

\$50 million face-lifting at Newark airport, S. L. Colbert, il Aviation W 48:40 My 3 '48

Peru

Peru fields; Braniff's permit to land at Lima is restored, Aviation W 48:48 Je 28 '48

Philadelphia

Philadelphia conducts extensive subsurface exploration prior to airport expansion, E. W. Scott, jr, il plans Civil Eng 18:96-8+ F '48

San Francisco

Aviation's value to city estimated, Aviation W 48:44 Je 7 '48

Mammoth earthmoving job features San Francisco international airport construction, O. H. Tucker, jr, il Civil Eng 18:518-20+ Ag '48

Turkey

Turkish state airlines signs contracts for international airports, Aviation W 49:34 Ag 16 '48

Washington, D.C.

High stacks no safety, low stacks no power, leave CAA up in air; claim electric plant slacks produce an obstruction to air navigation at National airport, Elec World News ed 130:12 J '48

WNA passenger traffic in 1947 decreases seven per cent from previous year, CAA J 9:24 F '48

Worcester, Massachusetts

High intensity lighting units, feature of Worcester airport, A. E. Smyser, jr, Aviation W 47:46+ N 17 '47

AIRPORTS, Military

Air force building B-36 fields, Aviation W 48:15 Ap 5 '48

Air power as affected by airdrome construction, abstract, S. D. Sturgis, jr, S A E J 56:88-90 F '48

Berlin airlift; U.S. support centered at Westover field, Aviation W 49:13 J '48

Jet fighter base; Dow air force base, Bangor, Maine, N. F. Silsbee, il Aero Digest 56:54-5 Je '48

Progress in air power related to construction power, W. Roper, il Tech R 50:24-8+ N '47

Runways for seventy-five-ton wheel loads; Patterson field, il plan diags Eng N 140:362-7 Mr 4 '48

AIRPORTS, Municipal

Cities operate war-built airports, Eng N 140:510 Ap 1 '48

High intensity lighting units, feature of Worcester airport, A. E. Smyser, jr, Aviation W 47:46+ N 17 '47

See also

Airports—New York (city)

AIRSHIPS

Airship belongs in our over-all transportation picture, il Aero Digest 55:25 N '47

AIRSHIPS, Military

Utility uses for airships, J. G. Vaeth, il U S Naval Inst Proc 74:296-9 Mr '48

AIRWAYS

All-weather airways program backed by military-civil groups, R. Hotz, Aviation W 48:14-15 Mr 1 '48

Skyway number two from Seattle to Boston designated by CAA, CAA J 9:39 'Ap 15 '48

Marking

Air marking for Texas, M. W. Hunter, il Aero Digest 56:40-1+ Je '48

Billy Mitchell skyway; what better name for Skyway no. 1? map Aero Digest 55:65+ N '47

City goes back on the airways map; air marker under construction at Albany, Ga, K. K. Hoyt, il Aero Digest 55:37 N '47

CAA approves North-South skyway, CAA J 9:12 Ja 15 '48

Cross-wind gear use boosts pilot morale; additional markers needed, J. E. Sims, CAA J 9:87 Ag 15 '48

Fire towers, stations are to be air-marked; will aid visual fliers, CAA J 9:51 My 15 '48

Traffic control

Air traffic control; abstract, C. W. Carmody, Product Eng 19:137-8 F '48

Air traffic control report aims at all-weather safety, CAA J 9:49+ My 15 '48

All-weather airway; 15-year job; target system proposed by Radio technical commission for aeronautics, R. Hotz, Aviation W 48:23-4 Ap 26 '48

All-weather airways gain's more ground, R. Hotz, Aviation W 48:11 My 31 '48

Basic air traffic control is sought by joint board, CAA J 9:61+ Je 15 '48

Block signals to control air traffic; Tricon system, Bsns W 57:8 Ja 31 '48

Delays in the flow of air traffic; statistical analysis, E. G. Bowen and T. Pearcey, biblog diags Roy Aeronautical Soc J 52:251-8 Ap '48

Electronic tracks for aircraft; system called Tricon, Gen Elec R 51:51 Ap '48

More on time schedules; improved air traffic control with existing techniques possible, W. D. White, diags Air Transport 5:39-40 N '47

Plan boost in air traffic control; five-year interim program, R. B. Hotz, diags Aviation W 48:25-7 Mr 22 '48

Proposed air traffic control and controlled handling systems for high-speed aircraft, M. W. Arnold, S A E J 56:45-6 Mr '48

Safety electronic tracks for aircraft; traffic control system, called Tricon, Can Min J 69:30-1 Mr '48

They call it Tricon; General Electric's triple coincidence electronic method of air navigation, il diags Aero Digest 56:42-5+ Ap; 64-7+ My '48

Try Tricon for traffic; GE navigation-traffic control system, G. Herrick, il diags Air Transport 6:47-8 F '48

AKRON, Ohio

Water supply

How Akron has utilized its watershed as a business and recreation venture, W. R. LaDue, Eng N 141:78 Ag 19 '48

Reservoir lands pay their way, W. R. LaDue and others, Am Water Works Assn J 40:827-36 Ag '48

ALABAMA

Associated industries of Alabama aims to show South's opportunities to youth, il Manuf Rec 117:52 Ap '48

See also

Iron ores—Alabama

Mobile, Alabama—Commerce

ALABAMA academy of science

Annual meeting, 25th, Tuscaloosa, April 15-17, Science 107:472-3 My 7 '48

ALANINE

Bacteriostasis in the amino-acid series; derivatives of alanine. D. F. Elliott, A. T. Fuller and C. R. Harington. *Chem Soc J* p85-9 Ja '48

Derivatives of taurine and β -alanine. M. M. Rapport and others. *bibliog Am Chem Soc J* 69:2561-3 O '47

Incorporation of C^{14} from carboxyl-labeled *dl*-alanine into the proteins of liver slices. I. D. Frantz, jr. and others. *bibliog Science* 106:544-5 D 5 '47

Interaction of ions and dipolar ions; the solubility of cupric iodate in glycine and in alanine solutions. R. M. Keefe. *bibliog Am Chem Soc J* 70:476-9 F '48

Pantothenic acid studies; growth effect of pantoic acid analogs. V. H. Cheldelin and C. A. Schink. *bibliog Am Chem Soc J* 69:2625-8 N '47

See also

Dihydroxyphenylalanine

ALARMS, Electric. See Electric alarms

ALASKA

Tewkesbury's Who's who in Alaska and Alaska business index. 320p \$4.50 Tewkesbury, 200 Lyon bldg, Seattle, Washington '47

See also

Airports—Alaska	Paper industry and trade—Alaska
Antimony mines and mining—Alaska	Petroleum—Alaska
Lead mines and mining—Alaska	Railroads—Alaska
Motor bus lines—Alaska	Shipping—Alaska
	Zinc mines and mining—Alaska

Commerce

Alaska; it's now a market-in-the-making. A. G. Mezerik. *il Sales Management* 60:136+ Jm 15 '48

Industries and resources

Alaska Five-year plan. *Bsns W* p30 F 21 '48

ALASKA highway

La route de l'Alaska. E. Lemaire. *il map Génie Civil* 124:453-5 N 15 '47

ALBANY, Georgia

City goes back on the airways map; air marker under construction. K. K. Hoyt. *il Aero Digest* 55:37 N '47

ALBERTA

See also

Forests and forestry—Alberta	Petroleum industry and trade—Alberta
Irrigation—Alberta	

ALBERTSON, Maurice L.

Sketch. *por*(p33) *Civil Eng* 18:36 Ja '48

ALBITE

Hydrothermal alteration of feldspars at 250° C. to 400° C. T. F. O'Neill. *bibliog Econ Geol* 43:167-80 My '48

ALBRIGHT, Fuller, 1900-

Squibb award for 1948. *Science* 107:643 Je 18 '48

ALBUMIN

Acid hydrolysis of egg albumin; kinetic studies. H. B. Bull and J. W. Hahn. *bibliog Am Chem Soc J* 70:2128-31 Je '48

Acid hydrolysis of egg albumin; molecular weight distribution of peptides. H. B. Bull and J. W. Hahn. *Am Chem Soc J* 70:2132-5 Je '48

Absorption of water vapour on insulin and plasma albumin. R. A. Robinson. *Chem Soc J* p 1083-5 JI '48

Binding of organic ions by proteins; competition phenomena and denaturation effects. I. M. Klotz, H. Triwush and F. M. Walker. *bibliog Am Chem Soc J* 70:2935-41 S '48

Binding of some sulfonamides by bovine serum albumin. I. M. Klotz and F. M. Walker. *bibliog Am Chem Soc J* 70:943-6 M '48

Factors influencing rate of deterioration in dried egg albumen. G. F. Stewart and R. W. Kline. *bibliog Ind & Eng Chem* 40:916-19 My '48

Glucose-protein reaction in dried egg albumen. R. W. Kline and G. F. Stewart. *bibliog Ind & Eng Chem* 40:919-22 My '48

Homogeneity and the electrophoretic behavior of some proteins. R. A. Alberty, E. A. Anderson and J. W. Williams. *bibliog J Phys & Colloid Chem* 52:217-30 Ja '48

Long range enzymatic action on films of antigen. A. Rothen. *Am Chem Soc J* 70:2732-40 Ag '48

Reactions of antiserum homologous to the *p*-azosuccinylate ion group. D. Pressman, J. H. Bryden and L. Pauling. *bibliog Am Chem Soc J* 70:1352-8 Ap '48

Studies on double refraction of flow; human serum γ -globulin and crystallized bovine serum albumin. J. T. Edsall and J. F. Foster. *bibliog Am Chem Soc J* 70:1860-6 My '48

Thermodynamics of metallo-protein combinations; copper with bovine serum albumin. I. M. Klotz and H. G. Curme. *bibliog Am Chem Soc J* 70:939-43 Mr '48

Use of egg albumin to demonstrate colloidal phenomena. L. C. King and R. E. Peterson. *J Chem Educ* 25:488 S '48

ALCIAN blue. See Blue

ALCLAD

Characteristics of aluminum make it suited to outdoor reflector use. W. Irby. *Materials & Methods* 27:75-8 Je '48

Preliminary test of spot-weld shunting in 24 ST Alclad. A. R. Hard. *il diags Welding J* 27:sup491-5 O '48

Reheating of 24S and 75S aluminum sheet. J. A. Nock, jr. *Iron Age* 160:73-9 D 25 '47

Sodium chloride versus construction materials; aluminum. J. P. Balash. *Chem Eng* 55:224+ Ja '48

ALCOHOL

Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Licht, jr. and C. G. Denzler. *bibliog diag Chem Eng Prog* 44:627-38 Ag '48

Beryllium fluoride in water and ethanol solutions. R. H. Linnell and H. M. Haender. *bibliog J Phys & Colloid Chem* 52:819-27 My '48

Carbohydrates as an alternative source to petroleum for organic chemicals. C. Weizmann, E. Bergmann and M. Sulzbacher. *bibliog Chem & Ind* p769-71 D 13 '47

Catalytic ethylation of benzene with ethanol in the gaseous phase. N. M. Cullinane, S. J. Chard and R. Meatyard. *bibliog Soc Chem Ind J* 67:232 Je '48

Correlating reactor performance in alcohol butadiene process. J. Coull and C. A. Bishop. *Chem Eng Prog* 44:443-51; Discussion. 450+ Je '48

Densities and liquid-vapor equilibria of the system ethanol-isooctane (2,2,4-trimethylpentane) between 0 and 50°. C. B. Kretschmer, J. Nowakowska and R. Wiebe. *bibliog diags Am Chem Soc J* 70:1785-90 My '48

Effect of temperature on liquid phase activity coefficients. C. Berg and A. C. McKinnis. *bibliog Ind & Eng Chem* 40:1309-11 JI '48

Electrical conductance of strontium chloride and strontium bromide in ethanol-water mixtures. R. L. Bateman and D. T. Ewing. *bibliog Am Chem Soc J* 70:2137-40 Je '48

Electrolytic oxidation of ethyl alcohol to acetic acid. G. Zeller. *Electrochem Soc Trans* 92 (preprint 40):535-42 '47

Fermentation of wood hydrolyzates by torula utilis. E. E. Harris and others. *il Ind & Eng Chem* 40:1216-20 JI '48

Heat transfer through boiling liquid films. F. Rumford. *bibliog diag Soc Chem Ind J* 66:309-12 S '47

Hydrogen exchange of phenols and phenol ethers with deuterio-alcohol. P. F. Tryon, W. G. Brown and M. S. Kharasch. *bibliog Am Chem Soc J* 70:2003-5 Je '48

Intensity and polarization of Brillouin spectra. D. H. Rank and others. *il Opt Soc Am J* 38:287-90 Mr '48

Liquid and vapor curves in the system ethyl alcohol-benzene-carbon tetrachloride at constant pressure. A. N. Campbell and W. J. Dulmage. *bibliog diag Am Chem Soc J* 70:1723-7 My '48

Refractive indices of alcohol, water and their mixtures at high pressures. J. S. Rosen. *bibliog diag Opt Soc Am J* 37:932-8 N '47

Regression of lymphosarcoma produced by intraperitoneal administration of 95 per cent ethyl alcohol. A. D. Bass and M. L. H. Freeman. *il Science* 107:114-15 Ja 30 '48

ALCOHOL—Continued

Solubility and density isotherms; potassium and ammonium nitrates in ethanol solutions. A. R. Thompson and R. E. Vener. *bibliog Ind & Eng Chem* 40:478-81 Mr '48

Some azeotropes of alkylacetylenes and ethyl alcohol. G. F. Hennion and J. J. Groebner. *Am Chem Soc J* 70:426-7 Ja '48

Stability of synthetic keratin fibers in alcohol-water mixtures; theoretical basis for a new method for solubilizing feather keratin. H. P. Lundgren and others. *bibliog diags J Phys & Colloid Chem* 52:180-206 Ja '48

Supersonics in a water-alcohol mixture and analysis of its intermolecular action. R. Parshad. *Acoustical Soc Am J* 20:66-7 Ja '48

Variation of the complex dielectric constant with frequency. H. C. Bolton. *bibliog J Chem Phys* 16:486-9 My '48

See also

Alcoholism — Drunkenness
Alcohols — Liquor problem

Analysis

Determination of small amounts of ethyl ether in ethyl alcohol. W. E. Shaefer. *Anal Chem* 20:651-2 Jl '48

Removal of higher alcohols from ethanol. H. W. Coles and W. E. Tournay. *Anal Chem* 19:936-7 N '47

Spirit beverages; determination of alcohol content by volume at 60°F. J. F. Williams and E. F. Kenney. *bibliog Anal Chem* 20:527-33 Je '48

Manufacture

Acclimatization of various yeasts to wood sugar. M. C. Johnson and E. E. Harris. *bibliog Am Chem Soc J* 70:2961-3 S '48

Alcohol from ethylene. E. K. Burger. *Chem Eng Prog* 44:sup15 Ja '48

Alcohol from molasses. C. L. Gabriel. *Chem Eng Prog* 44:sup13 Ja '48

Alcoholic fermentation of acid-hydrolyzed grain mash; continuous process. E. W. Ruf and others. *flow diag il diags Ind & Eng Chem* 40:1154-8 Je '48

Chemurgic alcohol. L. M. Christensen. *Chem Eng Prog* 44:sup14 Ja '48

Conversion of corn amylopectin by barley malt enzymes. T. M. Back, W. H. Stark and C. C. Vernon. *bibliog Ind & Eng Chem* 40:80-4 Ja '48

Determination of glycerol in fermentation residues. P. J. Elving and others. *Anal Chem* 20:25-9 Ja '48

Evaluating fungal amylolytic materials for saccharifying fermentation mash. H. D. Reese, E. I. Fulmer and L. A. Underkoffler. *bibliog diag Anal Chem* 20:348-53 Ap '48

Fischer-Tropsch alcohol. W. C. Schroeder. *Chem Eng Prog* 44:sup15-17 Ja '48

Fractional liquid extraction. E. G. Scheibel. *bibliog flow sheet Chem Eng Prog* 44:771-82 O '48

Industrial alcohol versus construction materials; symposium. *Chem Eng* 55:247-8 S; 235-6+ O '48

Manufacture of ethanol from ethylene. R. S. Aries. *il diag Can Chem & Process Ind* 31:1004-7 N '47; Same. *Oil & Gas J* 46:108-10+ Mr 18 '48; Same. *Pet Refiner* 27:124-8 Ap '48

Microbiological utilization and disposal of wood-processing wastes. E. E. Harris and M. C. Johnson. *bibliog Paper Ind* 30:940-2 S '48

Pioneering in the chemical processing of wood. G. H. Tomlinson. *bibliog Chem & Ind* p371-5 Je 12 '48; Same. *Pulp & Pa of Can* 49:63-8 Je '48

Raw material sources for solvents; fermentation alcohol. C. L. Gabriel. *Oil Paint & Drug Rep* 154:5+ O 11 '48

Sawdust neutral spirits; abstract. R. S. Aries. *Chem Eng* 55:284+ My '48

Stable alcohol costs forecast at Chemical market research assn. meeting, New York. C. L. Gabriel; J. G. Park. *Chem & Eng N* 26:3194-5 O 25 '48

By-products

Clarification of corn mash; preparation of malt-converted, degerminated mash for fermentation. F. A. Hilinski and C. L. Lovell. *il Chem Eng Prog* 44:783-8 O '48

ALCOHOL as fuel

Alcohol as fuel featured by chemurgists. *Chem & Eng N* 26:361 Mr 22 '48

China's motor fuels from tung oil. C. Chang and S. Wan. *bibliog flow sheets diag Ind & Eng Chem* 39:1543-8 D '47

High-output combustion of ethyl alcohol and air. A. H. Shapiro and others. *bibliog diags A S M E Trans* 70:161-9 Ap '48

Home-grown motor fuel; abstract. G. E. Hilbert. *Chem Eng* 55:258+ Ap '48

We need a national agricultural policy; program based upon fermentation alcohol. W. J. Hale. *Chem & Eng N* 26:743+ Mr 15 '48

ALCOHOL industry**Statistics**

Alcohol and solvents, 1947. *Chem Eng* 55:120-1 F '48

Alcohol data for 1947-48; tabulation. *Oil Paint & Drug Rep* 154:3 N 1 '48

Alcohol, 1941-1946. Survey of Cur Bsns 1947 Sup p 111 [supplemented in monthly numbers]

Alcohol used in 1946-47 reported by tax bureau. *Oil Paint & Drug Rep* 153:56-6 F 23 '48

ALCOHOLATES

Essential steps in the catalytic condensation of aldehydes; nitroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J* 69:2603 N '47

Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. *bibliog Am Chem Soc J* 69:2605-7 N '47

ALCOHOLICS anonymous

Cost and remedy of the alcoholic hangover in industry. J. L. Norris. *Ind Med* 17:129-32 Ap '48

Help for the man who can't handle liquor; Alcoholics anonymous. W. Augsburg. *Am Bsns* 18:20+ Mr '48

ALCOHOLISM

Alcoholism in industry. S. D. Bacon. *Ind Med* 17:161-7 My '48

Alcoholism plagues industry. *Bsns W* p25 Jl 10 '48

Can alcoholic ever be insurable risk for A.&H? *Nat Underw* 52:21 S 30 '48; Same. *Nat Underw (Life ed)* 52:22 O 1 '48

Conclusions from fifty years' experience in the treatment of alcoholics. R. E. Maupin. *Ind Med* 17:344-6 S '48

Cost and remedy of the alcoholic hangover in industry. J. L. Norris. *Ind Med* 17:129-32 Ap '48

Industrial conference on alcoholism, 1st, Chicago. *Mill & Factory* 43:246+ Jl '48

Psychiatrist looks at the causes of alcoholism. R. V. Seliger. *Ind Med* 17:125-8 Ap '48

See also Yale Institute of alcohol studies in the Southwest

ALCOHOLS

Alcohols of the sugar group; 2,5-anhydro-L-iditol. L. Vargha, T. Fuskas and E. Nagy. *bibliog Am Chem Soc J* 70:261-2 Ja '48

Aromatic nitro-compounds; preparation of alkyl 2-nitroalkyl ethers. A. Lambert, C. W. Scaife and A. E. Wilder-Smith. *Chem Soc J* p 1474-7 N '47

Aliphatic nitro-compounds; preparation of nitro-olefins by dehydration of 2-nitro-alcohols. G. D. Buckley and C. W. Scaife. *Chem Soc J* p 1471-2 N '47

Aminoalcohol derivatives of benzo(f)chroman. G. B. Bachman and H. A. Levine. *bibliog Am Chem Soc J* 69:2341-6 O '47

Anhydrides of polyhydric alcohols; derivatives of 1:4-anhydrosorbitol from 1:4-3:6-dianhydrosorbitol. R. Montgomery and L. F. Wiggins. *Chem Soc J* p237-41 F '48

Anhydrides of polyhydric alcohols; 1:4-3:6-dianhydro-d- and -l-iditol. L. F. Wiggins. *Chem Soc J* p 1403-5 O '47

Anhydrides of polyhydric alcohols; some alkyl ethers of 1:4-3:6-dianhydromannitol and 1:4-3:6-dianhydrosorbitol. H. Gregory and L. F. Wiggins. *diag Chem Soc J* p 1405-7 O '47

Anhydrides of polyhydric alcohols; the conversion of glucamine into 1:4-anhydrosorbitol; the constitution of benzylidene 1:4-anhydrosorbitol. V. G. Bashford and L. F. Wiggins. *Chem Soc J* p299-303 Mr '48

ALCOHOLS—Continued

- Anomalous oxidation of some secondary alcohols containing an α -neo carbon. W. A. Mosher and F. C. Whitmore. *bibliog Am Chem Soc J* 70:2544-5 J1 '48
- Antimonycatechol; coordinates with aminoalcohols. L. M. Wheeler and C. K. Banks. *Am Chem Soc J* 70:1266-7 Mr '48
- Antimonycatechol; coordination of simple amines and alcohols. L. M. Wheeler and C. K. Banks. *bibliog Am Chem Soc J* 70:1264-6 Mr '48
- Behavior of certain sugars and sugar alcohols in the presence of tetraborates; correlation of optical rotation and compound formation. H. S. Isbell and others. *bibliog J Res Nat Bur Stand* 40:129-49 F '48
- Catalytic oxidation of alcohols at low temperatures. R. H. Baker and D. Stanonis. *Am Chem Soc J* 70:2594-5 J1 '48
- Correlation of azetropic data. H. Skolnik. *bibliog Ind & Eng Chem* 40:442-50 Mr '48
- Diffusion across oil-water interfaces. E. Hutchinson. *bibliog J Phys & Colloid Chem* 52:897-908 My '48
- Fuel synthesis by-products as a source of chemicals. F. W. Sullivan, jr. *bibliog J Chem Eng Prog* 43:sup 13-17 D '47
- Hydrogenation of esters to alcohols at 25-150°. H. Adkins and H. R. Billica. *bibliog Am Chem Soc J* 70:3121-5 S '48
- Hydrogenation of esters to alcohols over Raney nickel. H. Adkins and A. A. Pavlic. *bibliog Am Chem Soc J* 69:3039-41 D '47
- Hydrogenolysis of aromatic esters to alcohols. R. Mozingo and K. Folkers. *bibliog Am Chem Soc J* 70:229-31 Ja '48
- Lignin-alcohol condensation; the reaction of lignin with amino- and nitro-butanol. A. Bailey. *bibliog Paper Ind* 29:1606-7- F '48
- New type of micelle; soap with alcohol, amine, or other polar-nonpolar molecules. W. D. Harkins and others. *J Chem Phys* 15:763-4 O '47
- Partition coefficients of formaldehyde solution. H. G. Johnson and E. L. Piret. *Ind & Eng Chem* 40:743-6 Ap '48
- Preparation of some polymerizable esters of long-chain saturated aliphatic acids with unsaturated alcohols. D. Swern and E. F. Jordan, jr. *bibliog Am Chem Soc J* 70:2334-9 J1 '48
- Preparation of some polymerizable esters of oleic acid with unsaturated alcohols. D. Swern, G. N. Billen and H. B. Knight. *bibliog Am Chem Soc J* 69:2439-42 O '47
- β -Propiolactone; reaction with alcohols. T. L. Gresham and others. *Am Chem Soc J* 70:1004-6 Mr '48
- Pyrimidine; amino alcohols derived from pyrimidine. R. A. Clarke and B. E. Christensen. *Am Chem Soc J* 70:1818-19 My '48
- Secondary and tertiary amino ketones and alcohols derived from desoxybenzoin and 1,2-diphenylethanol; ring-chain tautomerism of the α -(β -hydroxyethylamino) ketones. R. E. Lutz, J. A. Freck and R. S. Murphey. *bibliog Am Chem Soc J* 70:2015-23 Je '48
- Some chloromethyl ethers of nitro alcohols and the preparation of mixed acetals from them. E. B. Hodge. *Am Chem Soc J* 70:2006-8 Je '48
- Some hemiacetals of chloral with cyclic alcohols. W. T. Sumerford and F. M. Cronin. *bibliog Am Chem Soc J* 70:448 F '48
- Study of ultrasonic velocity and absorption in liquid mixtures. C. J. Burton. *bibliog diag Acoustical Soc Am J* 20:186-99 Mr '48
- Synthesis of some long-chain primary alcohols and related compounds. R. G. Jones. *bibliog Am Chem Soc J* 69:2350-4 O '47
- Thermal conductivity of liquids. G. Palmer. *bibliog Ind & Eng Chem* 40:89-92 Ja '48
- Ultrasonic investigation of molecular properties of liquids; the alcohols. A. Weissler. *bibliog diag Am Chem Soc J* 70:1634-40 Ap '48
- Use of monoreactive phenol alcohols as models for the general polymerization of phenol resin systems. H. S. Lilley. *bibliog Soc Chem Ind J* 67:196-9 My '48

Viscosity of solutions of primary alcohols and fatty acids in benzene and in carbon tetrachloride. W. J. Jones and others. *bibliog J Phys & Colloid Chem* 52:753-60 Ap '48

See also

Alcohol	Methanol
Butyl alcohol	Pentaerythritol
Coniferyl alcohol	Sorbitol
Esters	

Analysis

- Determination of the alcoholic hydroxyl group in organic compounds; phthalic anhydride method. P. J. Elving and B. Warshowsky. *bibliog Anal Chem* 19:1006-10 D '47
- Determination of vinyl ethers and acetals and of any alcohol, acetaldehyde, and water contained therein. S. Sigga. *bibliog diag Anal Chem* 19:1025-9 D '47
- Identification of alcohols with 2,4-dinitrophenylhydrazine. F. R. Duke and R. C. Witman. *Anal Chem* 20:490 My '48
- Separation of aliphatic alcohols by chromatographic adsorption of their 3,5-dinitrobenzoates. J. W. White, jr. and E. C. Dryden. *bibliog Anal Chem* 20:853-5 S '48
- 3,4,5-Triiodobenzoyl chloride as a reagent for alcohols. D. C. O'Donnell and others. *Am Chem Soc J* 70:1657-8 Ap '48
- p*-Triphenylmethylphenyl and 2-fluorenyl isocyanates as reagents for alcohols. B. Witten and E. E. Reid. *bibliog Am Chem Soc J* 69:2470-2 O '47

Manufacture

- Critical review of chemistry of oxo synthesis for production of alcohols from olefins, carbon monoxide, and hydrogen. I. Wender and M. Orchin. *pl U S Bur Mines Rep of Invest* 4270:1-26 '48
- Oxo-ated olefins; production of alcohols and aldehydes by the action of CO and hydrogen on olefins is now a commercial reality. *il Chem Ind* 63:211-12 Ag '48

Statistics

- Alcohol and solvents, 1947. *Chem Eng* 55:120-1 F '48

ALCOHOLYSIS

- Alcoholysis of ethyl phosphate; the preparation of mixed ethyl butyl phosphates. W. H. C. Rueggeberg and J. Chernack. *bibliog Am Chem Soc J* 70:1802-4 My '48
- Ester or orthoester formation in the alcoholysis of iminoester hydrochlorides; a proposed mechanism. S. M. McElvain and C. L. Stevens. *bibliog Am Chem Soc J* 69:2663-6 N '47
- Study of new approaches to α -halogenated orthoesters. S. M. McElvain and C. L. Stevens. *bibliog Am Chem Soc J* 69:2667-70 N '47
- Synthesis of some β -keto esters. S. B. Soloway and F. E. LaForge. *bibliog Am Chem Soc J* 69:2677-8 N '47

ALDEHYDES

- Absorption spectra; the infrared spectra of certain compounds containing conjugated double bonds. E. R. Blout, M. Fields and R. Karplus. *bibliog Am Chem Soc J* 70:194-8 Ja '48
- Absorption spectra; the ultraviolet and visible spectra of certain polyene aldehydes and polyene azines. E. R. Blout and M. Fields. *bibliog Am Chem Soc J* 70:189-93 Ja '48
- Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose. R. S. H. Head. *bibliog Textile Inst J* 38:T389-407 D '47
- Degradation of α -amino-acids to aldehydes and ketones by interaction with carbonyl compounds. A. Schöenberg, R. Moubasher and A. Mostafa. *bibliog diag Chem Soc J* p 176-82 F '48
- Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds. W. H. Lemon. *bibliog Am Chem Soc J* 69:2998-3000 D '47
- Essential steps in the catalytic condensation of aldehydes; nitroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J* 69:2608 N '47

ALDEHYDES—Continued

- Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. bibliog Am Chem Soc J 69:2605-7 N '47
- Free radical reactions of aldehydes. S. Winstein and F. H. Seubold, jr. Am Chem Soc J 69:2916-17 N '47
- Imparting water-repellency to textiles by chemical methods; a review of the literature. H. A. Schuyten and others. bibliog Textile Res J 18:494-5 Ag '48
- Photochemistry of the aldehydes. F. E. Blacet. bibliog J Phys & Colloid Chem 52:534-45 Mr '48
- Piperidine derivatives; the condensation of aromatic aldehydes with 1-methyl-4-piperidone. S. M. McElvain and K. Rorig. bibliog Am Chem Soc J 70:1320-5 Mr '48
- Polarographic studies on aliphatic polyene aldehydes. M. Fields and E. R. Blout. bibliog Am Chem Soc J 70:930-5 Mr '48
- Preparation of aldehydes from alkenes by the addition of carbon monoxide and hydrogen with cobalt carbonyls as intermediates. H. Adkins and G. Krsek. bibliog Am Chem Soc J 70:383-6 Ja '48
- Reaction of salicylic acids with aldehyde diacetates. D. T. Mowry. bibliog Am Chem Soc J 69:2362-3 O '47
- Reactions of furan compounds; thermal interconversion of 2,3-dihydrofuran and cyclopropane aldehyde. C. L. Wilson. bibliog Am Chem Soc J 69:3002-4 D '47
- Reactions of $\alpha\beta$ -unsaturated cyclic aldehydes and ketones; (—)-*cis*- and (—)-*trans*-cryptol from (—)-cryptone. D. T. C. Gillespie, A. K. Macbeth and J. A. Mills. Chem Soc J p996-9 JI '48
- Removal of aldehydes from Diesel exhaust gas. R. F. Davis and M. A. Elliott. bibliog diag A S M E Trans 70:745-50 Ag '48
- Synthesis of chromans from phenols and from ortho-hydroxy aromatic aldehydes. G. E. Backman and H. A. Levine. bibliog Am Chem Soc J 70:593-601 F '48
- Synthesis of derivatives of β -carboline; syntheses from *dl*-tryptophan and aldehydes. H. R. Snyder and others. bibliog Am Chem Soc J 70:219-21 Ja '48
- Synthesis of some *p*-arylsulphonybenzaldehydes and related aldehydes and ketones. H. Burton and P. F. Hu. Chem Soc J p601-3 My '48

See also

- | | |
|---------------------|---------------------------|
| Acetaldehyde | Mesitylphenylacetaldehyde |
| Cannizzaro reaction | dehyde |
| Cyanoacetaldehyde | Syringaldehyde |
| Formaldehyde | |

Analysis

- Colorimetric determination of certain alpha, beta-unsaturated aldehydes. R. B. Wearn and others. bibliog Anal Chem 20:922-4 O '48
- Determination of formaldehyde and other aldehydes; assessment of the methods. J. G. Reynolds and M. Irwin. bibliog Chem & Ind p419-24 JI 3 '48
- Improved procedure for determination of aldehydes. S. Siggia and W. Maxcy. bibliog Anal Chem 19:1023-5 D '47
- ALDOSES**
- Oxidation of some aldoses by alkaline solutions of iodine. O. G. Ingles and G. C. Israel. Chem Soc J p810-14 Je '48
- ALDOXANES**
- Reaction between acetone and ammonia; formation of pyrimidine compounds analogous to the aldoxans of Späth. R. B. Bradbury, N. C. Hancox and H. H. Hatt. Chem Soc J p1394-9 O '47
- ALEUDRIN.** See Norisodrine
- ALEUTIAN ISLANDS**
- Geologic notes on Adak island and the Aleutian chain, Alaska. C. C. Bradley. bibliog maps diag Am J Sci 246:214-40, pl 1-4 Ap '48
- ALFALFA**
- Combined straw again injurious to clover seedlings. C. J. Willard. il Paper Tr J 126: 57-9 Ap 29 '48
- Galactomannan of the lucerne seed. E. L. Hirst, J. K. N. Jones and W. O. Walder. Chem Soc J p 1443-6 N '47

Green light for chlorophyll; extraction of leaves and fractionation of extract is big business. Chem Ind 63:590-1 O '48

Proteins, pigments, from alfalfa. Chem Ind 61:1016+ D '47

Analysis

Determination of carotene in alfalfa and cereal grasses. H. L. Mitchell and H. H. King. bibliog Anal Chem 20:637-8 JI '48

ALGAE

- Copper-sulfate distributor. S. S. Anthony. il diag N E Water Works Assn J 61:253-9 S '47; Same. Water & Sewage Works 94:343-4 S '47
- Fresh water biology and water supply in Britain; abstract. W. H. Pearsall and others. Am Water Works Assn J 40:997-8 S '48
- Liquid bromine removes obstinate algae from 30,000 gpm tower for \$2.10/day. J. C. Albright. il Pet Processing 3:421-2 My '48
- Needs for further research in algal control. F. W. Collins. Civil Eng 18:171 Mr '48
- Operation of water treatment plants; third edition, rewritten. Pub Works 79:71-2 Ap '48
- Path of carbon in photosynthesis. M. Calvin and A. A. Benson. bibliog Science 107:476-80 My 7 '48
- Path of carbon in photosynthesis; amino acids. W. Stepka and others. Science 108: 304 S 17 '48
- Photosynthetic studies with mutant strains of chlorella. E. A. Davis. bibliog Science 108:110-11 JI 30 '48
- Role of algae in waste treatment. A. J. Espinosa. Pub Works 79:36 Ag '48
- Rotating screen for algae removal proposed for London waterworks. Eng N 140:662 Ap 29 '48
- Studies in biological methylation; precursor of the dimethyl sulphide evolved by polysiphonia fastigiata; dimethyl-2-carboxyethylsulphonium hydroxide and its salts; abstract. F. Challenger and M. I. Simpson. Chem & Ind p756 D 6 '47
- Textiles from seaweed. W. H. Cady. bibliog Am Dyestuff Rep 37:283-4+ My 3 '48
- See also

Carrageen

Analysis

- Methods for the routine estimation of manitol, alginic acid, and combined fucose in seaweeds. M. C. Cameron and others. bibliog diag Soc Chem Ind J 67:161-4 Ap '48
- Recent developments in seaweed technology; abstract and discussion. W. A. P. Black. Chem & Ind p723-4 N 22 '47
- Seasonal variation in chemical constitution of some of the sublittoral seaweeds common to Scotland. W. A. P. Black. bibliog Soc Chem Ind J 67:165-8, 169-76 Ap-May '48

ALGEBRA

See also

Equations, Cubic

ALGIN

- Algin-protein as a sizing composition. Am Dyestuff Rep 37:290 My 3 '48
- Alginic acid acetate. A. Wassermann. Chem Soc J p197-8 F '48
- Alginic acid derivatives; treatment with alkylene oxide; patent. Am Dyestuff Rep 36:720 D 1 '47

Analysis

Methods for the routine estimation of manitol, alginic acid, and combined fucose in seaweeds. M. C. Cameron and others. bibliog diag Soc Chem Ind J 67:161-4 Ap '48

ALIEN property. See Enemy property

ALIENS

See also

Agency (law)—Foreign principals

ALIGNMENT charts. See Nomographs

ALIGNMENT of machinery

Alignment assured by split link. il Product Eng 19:101 S '48

Aligning reciprocating steam engines. F. G. Corneau. Marine Eng 53:77-8 Ag '48

ALINEMENT of machinery—Continued

Machine facilitates checking of automobile front-end alignment. *Il diag Machine Design* 20:130-1 O '48

ALKALI halides

β -Propiolactone; reactions with salts of inorganic acids. T. L. Gresham and others. *Am Chem Soc J* 70:999-1001 Mr '48

See also

Alkali metal halides
Ammonium halides

ALKALI metal arabates

Electrophoretic mobilities and conductometric activities of potassium, sodium, and lithium salts of gum arabic. D. R. Briggs. *bibliog J Phys & Colloid Chem* 52:76-83 Ja '48

ALKALI metal halides

Activation energy for the diffusion of coupled pairs of vacancies in alkali halide crystals. G. J. Dienes. *bibliog diags J Chem Phys* 16:620-32 Je '48

Alkali halide scintillation counters. R. Hofstadter. *bibliog Il Phys R* 74:100-1 Jl 1 '48

Conversion of strontium sulfate to carbonate in molten state; effect of alkali halides. H. M. Busey and E. F. Pollard. *bibliog Ind & Eng Chem* 40:1988-90 O '48

Effect of trapping centers on dielectric breakdown in alkali halides. C. F. Meyer and R. C. Herman. *bibliog J Chem Phys* 16:161-6 Mr '48

Infrared radiation from a Bunsen flame. E. K. Plyler. *bibliog J Res Nat Bur Stand* 40:113-20 F '48

Low frequency dispersion in ionic crystals. R. G. Breckenridge. *bibliog J Chem Phys* 16:959-67 O '48

Magnetic field of a rotating molecule. G. C. Wick. *bibliog Phys R* 73:51-7 Ja 1 '48

New method of preparing strongly luminescent thallium activated alkali halides and some properties of these phosphors. E. H. Hutten and P. Pringsheim. *bibliog Il J Chem Phys* 16:241-6 Mr '48

Vapor pressures of some alkali halides. G. E. Coglin and G. E. Kimball. *bibliog diag J Chem Phys* 16:1035-48 N '48

ALKALI metal perchlorates

Commercial production of perchlorates. J. C. Schumacher. *Il diags Electrochem Soc Trans* 92 (preprint 24):287-94 '47

ALKALI metal perhenates

Salts of perhenic acid; the alkali metals and ammonium. W. T. Smith, jr. and S. H. Long. *bibliog Am Chem Soc J* 70:354-6 Ja '48

ALKALI metal picrates

Properties of electrolytic solutions; the conductance of some salts in acetone at 25°. M. B. Reynolds and C. A. Kraus. *bibliog Am Chem Soc J* 70:1709-13 My '48

ALKALI metal sulfides

Synthesis of some sulpharsenites of silver in alkali sulphide solutions. R. Béland. *bibliog Il Econ Geol* 43:119-32 Mr '48

ALKALI metals

Ion-exchange separation of the alkali metals. W. E. Cohn and H. W. Kohn. *Am Chem Soc J* 70:1986 My '48

Polarography in liquid ammonia; the alkali metals. H. A. Laitinen and C. J. Nyman. *bibliog diags Am Chem Soc J* 70:2241-4 Je '48

Pressure-volume and pressure-compressibility relation of metals. P. Gombás. *Phys R* 72:1123-4 D 1 '47

See also

Cesium Rubidium
Lithium Sodium
Potassium

Analysis

Removal of metals at the mercury cathode; separation of interfering metals in the determination of aluminum, alkaline earth, and alkali metals. T. D. Parks, H. O. Johnson and L. Lykken. *bibliog Il Anal Chem* 20:148-51 F '48

ALKALIES

Alkali export advisers discuss control plan. *Oil Paint & Drug Rep* 154:3+ Ag 9 '48

Alkalies distribution control by industry agreement studied. *Oil Paint & Drug Rep* 153:3 Mr 29 '48

Alkalies exporters hit by revised chemical licensing policy of U.S. *Oil Paint & Drug Rep* 153:3+ Ja 5 '48

Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds. W. H. Lemon. *bibliog Am Chem Soc J* 69:2998-3000 D '47

High alkali; Colombia will spend \$9 million on alkali industry at Bogota. *Chem Ind* 62:572 Ap '48

Peeling with lye; suitable for all peaches, pears and root vegetables. J. G. Woodroof and others. *bibliog Il diags Food Ind* 20:862-9 Je '48

Structure of alkali amylose. F. R. Senti and L. P. Witnauer. *bibliog diags Am Chem Soc J* 70:1438-44 Ap '48

See also

Concrete, Effect of Potassium hydroxide
alkalies on Sodium hydroxide

Analysis

Identification of cleaner ingredients. A. Treffler. *Soap & San Chem* 24:43-5+ Je '48

ALKALINE earth metals

Pressure-volume and pressure-compressibility relation of metals. P. Gombás. *Phys R* 72:1123-4 D 1 '47

See also

Barium
Calcium
Strontium

Analysis

Removal of metals at the mercury cathode; separation of interfering metals in the determination of aluminum, alkaline earth, and alkali metals. T. D. Parks, H. O. Johnson and L. Lykken. *bibliog Il Anal Chem* 20:148-51 F '48

ALKALINE earth selenides

Infrared-sensitive phosphors of the alkaline earth sulfides and selenides. R. Ward. *bibliog Electrochem Soc J* 93:171-6 My '48

X-ray diffraction studies of systems involved in the preparation of alkaline earth sulfide and selenide phosphors. W. Primak, H. Kaufman and R. Ward. *bibliog Am Chem Soc J* 70:2043-6 Je '48

ALKALINE earth sulfides

Infrared-sensitive phosphors of the alkaline earth sulfides and selenides. R. Ward. *bibliog Electrochem Soc J* 93:171-6 My '48

X-ray diffraction studies of systems involved in the preparation of alkaline earth sulfide and selenide phosphors. W. Primak, H. Kaufman and R. Ward. *bibliog Am Chem Soc J* 70:2043-6 Je '48

ALKALINITY

Two new total alkalinity indicators. M. Taras. *Am Water Works Assn J* 40:468-72 Ap '48

ALKALOIDS

Alkaloids of *dichroa febrifuga* Lour. F. A. Kuehl, jr., C. F. Spencer and K. Folkers. *Am Chem Soc J* 70:2091-3 Je '48

Curare alkaloids; constitution of *destror*-tubocurarine chloride. H. King. *Chem Soc J* p265-6 Mr '48

Curare alkaloids; constitution of *destror*-tubocurarine chloride and its botanical origin; abstract and discussion. H. King. *Chem & Ind* p349 My 29 '48

Curariform activity and chemical structure. L. E. Craig. *Chem R* 42:285-410 bibliog (226 ref, p405-10) Ap '48

Curariform activity and chemical structure; synthesis in the benzyltetrahydroisoquinoline series. L. E. Craig and D. S. Tarbell. *bibliog Am Chem Soc J* 70:2783-6 Ag '48

Minor alkaloids of *duboisia myoporoides*; valeroidine. W. Mitchell and E. M. Trautner. *diags Chem Soc J* p 1330-1 O '47

Papilionaceous alkaloids; *baptisia australis* (L.) R. Br. L. Marion and J. Ouellet. *bibliog Am Chem Soc J* 70:691-2 F '48

Papilionaceous alkaloids; identity of rhombinine and monolupine with anagyrine. L. Marion and J. Ouellet. *bibliog Am Chem Soc J* 70:3076-8 S '48

Plant insecticides; ryanodine, a new alkaloid from *ryania speciosa* Vahl. E. F. Rogers and others. *bibliog Am Chem Soc J* 70:3086-8 S '48

ALKALOIDS—Continued

Recovery of nicotine by ion exchange from cigaret tobacco drier gases. A. W. Kingsbury, A. E. Mindler and M. E. Gilwood. flow diag *il Chem Eng Prog* 44:497-500 JI '48

Some recent developments in alkaloid chemistry; abstract. H. T. Openshaw. *Chem & Ind p* 106-7 F 14 '48

See also

Cinchona alkaloids Quinine
Gelsemine Strychnine

ALKANES. See Paraffins**ALKANESULFONIC ACIDS. See Sulfonic acids****ALKOXIDES. See Alcoholates****ALKOXY group**

tert-Alkoxyaminosilanes. C. S. Miner, jr. and others. *il Ind & Eng Chem* 39:1368-71 N '47
Microdetermination of alkoxyl groups. A. Steyermark. bibliog *il diag Anal Chem* 20: 368-70 Ap '48

Preparation and physical properties of *n*-alkyl β -*n*-alkoxypropionates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog *Am Chem Soc J* 69:2966-70 D '47

ALKOXYISOBUTYRIC acid

Synthesis of α -alkoxyisobutyric acids and alkyl methacrylates from acetonechloroform. C. Weizmann, M. Sulzbacher and E. Bergmann. bibliog *Am Chem Soc J* 70: 1153-3 Mr '48

ALKOXYPROPIONATES

Preparation and physical properties of *n*-alkyl β -*n*-alkoxypropionates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog *Am Chem Soc J* 69:2966-70 D '47

ALKOXYPROPIONITRILES

Hydrolysis of some β -alkoxypropionitriles. R. V. Christian, jr. and R. M. Hixon. bibliog *Am Chem Soc J* 70:1333-6 Ap '48

ALKYD resins. See Resinous products**ALKYL acrylates**

Properties of monomeric and polymeric alkyl acrylates and methacrylates. C. E. Rehberg and C. H. Fisher. bibliog *Ind & Eng Chem* 40:1429-33 Ag '48

ALKYL bromides

Electrophilic attack on halogen in a homogeneous medium; reaction of mercuric nitrate with some primary and secondary alkyl bromides. O. T. Benfey. bibliog *Am Chem Soc J* 70:2163-70 Je '48

ALKYL diselenides

n-Alkyl diselenides. G. S. Stoner and R. W. Williams. bibliog *Am Chem Soc J* 70:1113-14 Mr '48

ALKYL group

Acetylation of alkyl phenyl ethers. A. I. Kosak and H. D. Hartough. bibliog *Am Chem Soc J* 69:3144 D '47

Aliphatic nitro-compounds; preparation of alkyl 2-nitroalkyl ethers. A. Lambert, C. W. Scaife and A. E. Wilder-Smith. *Chem Soc J p* 1474-7 N '47

Controlled hydrogenation of polyalkylphenols. A. C. Whitaker. bibliog *Am Chem Soc J* 69:2414-15 O '47

Effect of alkyl substitution on the spectra and ionization potentials of some fundamental chromophores. W. C. Price. bibliog *Chem R* 41:257-72 O '47

Near-ultraviolet absorption spectra of mono-alkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. bibliog *Chem R* 41: 273-9 O '47

Novel replacement of alkyl groups by chlorine. S. D. Ross and M. Nazzewski. *Am Chem Soc J* 69:3146 D '47

Tetrahydrocannabinol homologs with doubly branched alkyl groups in the 3-position. R. Adams, S. MacKenzie, jr. and S. Loewe. bibliog *Am Chem Soc J* 70:664-3 F '48

Use of zinc alkyls in the preparation of hydrocarbons with a quaternary carbon atom. F. R. Buck and others. *diags Inst Pet J* 34:339-69 bibliog(58 ref, p369) My '48

ALKYL halides

Aliphatic halide-carbonyl condensations by means of sodium. E. A. Cadwallader and others. bibliog *J Res Nat Bur Stand* 41: 111-18 Ag '48

Reaction between trialkyl phosphites and alkyl halides. A. H. Ford-Moore and J. H. Williams. *Chem Soc J p* 1465-7 N '47

ALKYL methacrylates

Properties of monomeric and polymeric alkyl acrylates and methacrylates. C. E. Rehberg and C. H. Fisher. bibliog *Ind & Eng Chem* 40:1429-33 Ag '48

Synthesis of α -alkoxyisobutyric acids and alkyl methacrylates from acetonechloroform. C. Weizmann, M. Sulzbacher and E. Bergmann. bibliog *Am Chem Soc J* 70: 1153-8 Mr '48

ALKYLATION

C-Alkylation and O-alkylation in the synthesis of substituted furic acids. C. D. Hurd and K. Wilkinson. bibliog *Am Chem Soc J* 70:739-41 F '48

Alkylation and related processes of modern petroleum practice. F. C. Whitmore. *Chem & Eng N* 26:668-7 Mr '48

Alkylation of aliphatic nitro compounds with gramine; a new synthesis of derivatives of tryptamine. H. R. Snyder and L. Katz. bibliog *Am Chem Soc J* 69:3140-2 D '47

Alkylation of hydrochlorosilanes. C. A. Burkhard and R. H. Kriebel. bibliog *Am Chem Soc J* 69:2687-9 N '47

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; action of sulphuric acid on the trimethylpentanes. F. Morton and A. R. Richards. bibliog *diag Inst Pet J* 34:133-46 F '48

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; composition of an aviation alkylate. F. Morton and A. R. Richards. bibliog *Inst Pet J* 33:697-720 D '47

Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylaminomethylpyrrole; proposed synthesis of β -2-pyrrole-alanine. W. Herz, K. Dittmer and S. J. Cristol. bibliog *Am Chem Soc J* 70:504-7 F '48

Alkylation of thiophene with olefins. W. G. Appleby and others. bibliog *Am Chem Soc J* 70:1552-5 Ap '48

Alkylation with non-ketonic Mannich bases; aminothiazoles and pyrrole. N. F. Albertson. bibliog *Am Chem Soc J* 70:669-70 F '48

Alkylation with the methiodide of 1-methyl-3-dimethylaminomethylindole (1-methylgramine). H. R. Snyder and E. L. Eliel. bibliog *Am Chem Soc J* 70:1703-5 My '48

Allylic rearrangement in an alkylation by a quaternary ammonium salt. H. R. Snyder and E. L. Eliel. *Am Chem Soc J* 70:1857-60 My '48

Chemical engineering unit processes. R. N. Shreve. *diag Ind & Eng Chem* 40:1565-74 bibliog(157 ref, p 1572-4) S '48

Evidence of an induction period in the alkylation of isobutane by 2-butene. T. D. Stewart and W. H. Calkins. bibliog *Am Chem Soc J* 70:1006-9 Mr '48

Hf alkylation. flow diag *Oil & Gas J* 46:130 Ap 1 '48

Kinetic study of alkylation by ethyl aryl sulfonates. M. S. Morgan and L. H. Cretcher. bibliog *Am Chem Soc J* 70:375-8 Ja '48

Liquid-phase alkylation of aromatic hydrocarbons. A. W. Francis. *diags Chem R* 43: 257-69 bibliog(79 ref, p268-9) O '48

Low pressure reductive alkylation method for the conversion of ketones to primary amines. E. R. Alexander and A. L. Misegades. *Am Chem Soc J* 70:1315-16 Ap '48

Organic reactions with aluminum chloride; the cycli-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms. K. Sisido and H. Nozaki. *Am Chem Soc J* 70:1609-12 Ap '48

Pilot plants; jet-type reactor alkylation unit. E. W. Bowerman and B. M. Filbert. *diags Ind & Eng Chem* 40:542-4 Mr '48

Preparation and some reactions of ethyl α -acetamidoacetate. N. F. Albertson and others. bibliog *Am Chem Soc J* 70:1150-3 Mr '48

Production of 2,3-dimethylbutane by alkylation. R. B. Thompson and J. A. Chenicek. bibliog *diag Ind & Eng Chem* 40:1265-9 JI '48

Properties and uses of alkanesulfonic acids; C₁ to C₆ acids. W. A. Proell, C. E. Adams and B. H. Shoemaker. bibliog *Ind & Eng Chem* 40:1129-32 Je '48

ALKYLATION—Continued

Reaction of methylcyclopentane with propene in the presence of aluminum bromide-hydrogen bromide. H. Pines and V. N. Ipatieff. *bibliog Am Chem Soc J* 70:531-2 F '48

Sulfuric acid alkylation. flow diag *Oil & Gas J* 46:129 Ap 1 '48

Synthesis of alkylmalonic esters by oxalate condensations. D. E. Floyd and S. E. Miller. *bibliog Am Chem Soc J* 69:2354-5 O '47

Synthesis of embelin, rapanone and related quinones by peroxide alkylation. L. F. Fieser and E. M. Chamberlin. *bibliog Am Chem Soc J* 70:71-5 Ja '48

Synthesis of 2-iminothiophanes from ethyl cyanoacetate and alkene sulfides. H. R. Snyder and W. Alexander. *bibliog Am Chem Soc J* 70:217-18 Ja '48

See also

Propylation

ALLAN, William

Sketch. *por Civil Eng* 18:32-3 Ja '48

ALLANTOIN

Mechanism of the oxidation of uric acid studied with isotopic nitrogen as a tracer. L. F. Cavalieri and G. B. Brown. *bibliog Am Chem Soc J* 70:1242-3 Mr '48

ALLEGHANY corporation

Alleghany preferred holders in uprising. *Barron's* 28:34 Je 14 '48

Denies Young N.Y.C. directorship; I.C.C. rejects Bowman application and petition of C. & O. and Alleghany corporation for release of Central holdings from trusteeship. *Ry Age* 124:1020-1+ My 22 '48

ALLEGHENY Luminum steel corporation

Preferred stock offered. *Comm & Fin Chr* 167:1689 Ap 19 '48

ALLEN, Roland Craten, 1881-1948

Tribute. M. D. Harbaugh. *Eng & Min J* 149:120-1+ S '48

ALLEN, Weldon

What's playing at the Grove? independent movie operator in Galesburg, Ill. *por Fortune* 38:94-9+ Ag '48

ALLERGY

Allergic problems of the railway surgeon. S. M. Feinberg. *Ind Med* 17:91-3 Mr '48

Allergy; a definition. B. Schick. *il Sci Am* 179:28-9 JI '48

New development in antihistaminic therapy. E. F. Roberts. *bibliog Ind Med* 17:263-5 JI '48

See also

Anaphylaxis

ALLIED chemical and dye corporation

Long call on Allied Chemical in new Solvay American preferred. *Barron's* 28:40 Ap 26 '48

ALLIED oil company

Ashland stockholders urged to vote favorably July 30 on Allied merger. *Nat Pet N* 40:21 JI 14 '48

ALLIS-CHALMERS manufacturing company

Allis-Chalmers has century of production. *Steel* 121:78 D 8 '47

Backlog up despite sales rise. *Barron's* 27:32 N 24 '47

Castings move into new fields; lost-wax casting technique. *il Bsns W* p54+ Je 5 '48

ALLISON engine

Allison V-1710 exhaust turbine compounded reciprocating aircraft engine; abstracts. D. Gerdan and J. M. Wetzler. *il S A E J* 58:59-60 Ja '48; *Automotive Ind* 97:42-3 N 1 '47

ALLOCATION. See Priorities and allocations, Industrial

ALLOCATION of frequency. See Radio frequency—Allocation

ALLOXAN

Mechanism of cysteine and glutathione protection against alloxan diabetes. A. Lazarow and others. *bibliog Science* 108:308-9 S 17 '48

Mechanism of the oxidation of uric acid studied with isotopic nitrogen as a tracer. L. F. Cavalieri and G. B. Brown. *bibliog Am Chem Soc J* 70:1242-3 Mr '48

ALLOXAZINE

Lipoid-soluble alloxazine derivatives. W. C. J. Ross. *Chem Soc J* p219-24 F '48

Synthesis of alloxazine from 2-aminoquinoxaline-3-carboxamide. A. H. Gowenlock, G. T. Newbold and F. S. Spring. *Chem Soc J* p517-19 Ap '48

ALLOY steels. See Steel alloys

ALLOYS

Alloying of metal powders by diffusion. S. Weinbaum. *bibliog diag J Ap Phys* 19:897-900 O '48

Alloys by electrodeposition. J. B. Mohler and H. J. Sedusky. *bibliog diag Metal Finishing* 45:65-70 D '47

Alloys for non-ferrous forgings; tabulations; reference book sheet. *Am Mach* 92:143 Ja 15 '48

Development of powder alloys; widening use for fabricating hard metals. *Chem Age (Lon)* 58:462 Ap 3 '48

Diffusion, mobility and their interrelation through free energy in binary metallic systems. L. S. Darken. *bibliog Metals Tech* 15:TP2311 1-11 Ja '48; Discussion. 15:TP2449 53-60 Ag '48

Improved metals promise design progress. *il Machine Design* 20:103-7 Ja '48

Light alloys need new design concepts. J. A. Gregoire. *il diags Product Eng* 19:81-5 JI '48

Metal electrons and alloy catalysis; the system gold-cadmium. G. Schwab and S. Pasmatjogobu. *bibliog diags J Phys & Colloid Chem* 52:1046-53 Je '48

Metals and alloys used for solders. *Electronics* 21:M24-9 Mid-Je '48

Method for the evaporation of alloys. L. Harris and B. M. Siegel. *il diag J Ap Phys* 19:739-41 Ag '48

Modern die casting practice. R. J. Reel. *il Steel* 122:81-4+ F 9 '48

Periodic chart for metallurgists. C. A. Zapffe. *bibliog il Am Soc for Metals Trans* 38:239-65; Discussion. 265-70 '47

Permanent magnet alloys. E. M. Underhill. *Electronics* 21:122-3 Ja '48

Precision investment casting; design procedure for high and low machinability alloys. E. L. Cady. *il diags Product Eng* 19:81-5 Ap '48

Progress in metals development work; condensed from papers of the American society for metals. *Materials & Methods* 26:114+ D '47

Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing. *bibliog diags Rs Mod Phys* 20:112-22 Ja '48

Resistance of alloys to corrosion during the processing of some foods. J. F. Mason, Jr. *il Metallurgia* 38:320-7 O '48

Selecting alloys to resist cavitation erosion. R. Beeching. *il diags Product Eng* 19:110-13 Ja '48

Vacuum metallurgy produces purer, denser, tougher and more ductile metals. H. A. Knight. *il diag Sci Am* 178:173-5 Ap '48

See also

Aluminum alloys

Brass

Bronze

Cobalt alloys

Copper alloys

Iron alloys

Magnesium alloys

Manganese alloys

Nickel alloys

Steel alloys

Zinc alloys

Analysis

How to separate alloys by spot testing. H. Kirtchik. *Steel* 122:91+ F 23 '48

Percentages of alloying components in metals determined by Geiger counter. *diag Steel* 122:108 Je 7 '48

Titration of iron in high-temperature alloys; use of copper powder reduction method. L. Silverman. *il Steel* 122:66+ Ja 26 '48

Testing

Hardness testing of metals and alloys at elevated temperatures. F. P. Bens. *bibliog il diag Am Soc for Metals Trans* 38:505-13; Discussion. 513-16 '47

Investigation of materials for marine propellers. W. C. Stewart and W. L. Williams. *bibliog diag Am Soc T M Proc* 46:836-46 '46

ALLOYS, Hard facing

New high alloy hard-facing materials adapted to automatic arc welding. *il Materials & Methods* 27:78-9 Mr '48

Stellite in the mining industry. B. G. MacKenzie. *il diags Can Min J* 63:71-4 Ag '48

ALLOYS, Heat resisting

- Cast heat resistant alloys of the 16 per cent chromium-36 per cent nickel type. H. S. Avery and N. A. Mathews, *il diags Am Soc for Metals Trans* 38:957-1015 bibliog (p 1013-15); Discussion, 1015-22 '47
- Cobalt-chromium binary system. A. R. Elsea and others, *bibliog il Metals Tech* 15: TP2393 1-24 Je '48
- Development of a turbosupercharger bucket alloy. E. Epreman, *bibliog Am Soc for Metals Trans* 39:261-73; Discussion, 273-80 '47
- Developments in metals and alloys for chemical plant equipment. W. Z. Friend, *bibliog il Chem Eng Prog* 44:501-10; Discussion, 510 J1 '48
- Extrusion molding process; its potentialities as a means of processing gas turbine parts. H. B. Cook, *il diag Iron Age* 161:79-86+ F 5 '48
- First jet alloy specifications evolved by SAE group. S. A. E J 55:71-2 N '47
- Heat resistant alloy castings of the HH (25-12) type; abstract. E. F. Wilson, *Metal Prog* 53:578+ Ap '48
- Heat-resistant alloys for use in jet propulsion engines. J. W. Freeman and others, *bibliog J Aeronautical Sci* 14:693-702 D '47
- High-silicon cast iron for high temperature service. W. H. White and A. R. Elsea, *il Iron Age* 162:106-8 N '48; Same cond. Foundry 76:68-9+ N '48
- High temperature materials by powder metallurgy. C. G. Goetzel, *il Iron Age* 161: 73-81 Ap 29 '48
- Metal oxide films at elevated temperatures. J. W. Hickman, *bibliog il diags Iron Age* 162:90-4 Ag 12; 90-4 Ag 19 '48
- Metallurgical aspects of turbine wheels and nozzles; abstract. E. M. Phillips, *S A E J* 56:66-7 Ja '48
- Oxidation of high-temperature alloys containing molybdenum; abstract. W. C. Leslie and M. G. Fontana, *Metal Prog* 54: 518+ O '48
- Precipitation-hardened alloys for gas-turbine service. H. Scott and R. B. Gordon, *il A S M E Trans* 69:583-99 Ag '47; Abstract, *Metal Prog* 53:589-90+ Ap '48
- Problem of high temperature alloys for gas turbines. W. T. Griffiths, *bibliog il Roy Aeronautical Soc J* 52:1-20 Ja '48; Discussion, 52:20-6, 138-9 Ja-F '48
- Selection of high temperature materials for gas turbines. R. H. Smith, *bibliog il Iron Age* 161:56-60 Ja 22 '48
- Sheet metals for high temperature service. P. A. Haythorne, *il Iron Age* 162:89-95 S 23 '48
- Stress rupture and creep properties of heat resistant gas turbine alloys. N. J. Grant, *bibliog il diags Am Soc for Metals Trans* 39:281-325; Discussion, 325-34 '47
- Summary of heat resistant alloys from 1200° to 1800° F. N. J. Grant and others, *Iron Age* 161:73-8 Mr 18; 75-81 Ap 8; 84-93 Ap 15 '48
- Titration of iron in high-temperature alloys; use of copper powder reduction method. L. Silverman, *il Steel* 122:60+ Ja 26 '48
- Turbine blades that resist heat. H. Woodhouse, *diags Aero Digest* 57:74+ Ag '48
- Weldability of alloys for high-temperature service. G. E. Linnert, *il diags Welding J* 27:sup385-405 Ag '48
- Welding and fabrication of high-temperature alloys. C. G. Chisholm, *il diags Welding J* 27:217-23 Mr '48
- Welding characteristics of high temperature alloys. C. G. Chisholm, *il diag Steel* 121: 54-6+ D 29 '47; Abstract, *Product Eng* 19: 138-9 F '48

Testing

- Effect of composition and structural changes on the rupture properties of certain heat resistant alloys at 1600 F. N. J. Grant, *il Am Soc for Metals Trans* 39:368-403 '47
- High temperature properties of rotor discs for gas turbines as affected by variables in processing; abstract. J. W. Freeman and E. E. Reynolds, *Iron Age* 162:94 J1 15 '48
- Structural variations in gas turbine alloys revealed by the stress rupture test. N. J. Grant, *il Am Soc for Metals Trans* 39:335-59; Discussion, 359-67 '47

ALLOYS, Low melting

- Economical short run stamping dies, made of low melting alloys chilled to 320°F in liquid nitrogen; Ford motor co. W. G. Paton, *il Iron Age* 161:34-5 F 19 '48
- Flexible molds for low-melt alloys. T. A. Dickinson, *il Foundry* 76:218-20+ O '48
- Soft alloys used to make short-run sheet metal dies; use of Cerrobend hardened in liquid nitrogen. K. Ross, *il Materials & Methods* 27:83-5 Mr '48

ALLYL benzene

- Allylic rearrangements; reaction of the sodium derivative of allylbenzene with carbonyl compounds. T. W. Campbell and W. G. Young, *bibliog Am Chem Soc J* 69:3066-8 D '47

ALLYL chlorides

- Allylic chlorides; preparation of the 1,3-dichloro-2-methyl-1-propenes. L. F. Hatch, J. J. Russ and L. B. Gordon, *bibliog Am Chem Soc J* 69:2614-16 N '47
- Allylic chlorides; relative reactivities with potassium iodide in acetone. L. F. Hatch, L. B. Gordon and J. J. Russ, *bibliog Am Chem Soc J* 70:1093-6 Mr '48
- Isomerization during allylic fluorination. A. M. Whaley and H. W. Davis, *bibliog Am Chem Soc J* 70:1026-7 Mr '48

ALLYL compounds

- Allyl esters of phosphonic acids; preparation and polymerization of allyl and methallyl esters of some arylphosphonic acids. A. D. F. Toy, *bibliog Am Chem Soc J* 70:186-8 Ja '48
- Condensation of formaldehyde with lower aliphatic ketones; allylation as a means of structure proof. J. R. Roach, H. Wittcoff and S. E. Miller, *bibliog Am Chem Soc J* 69:2651-5 N '47

- Polyglycerols; identification of polyglycerol mixtures by the procedures of allylation and acetonation; isolation of pure diglycerol. H. Wittcoff, J. R. Roach and S. E. Miller, *Am Chem Soc J* 69:2655-7 N '47
- Preparation and properties of allyl phosphines, arsines, and stannanes. W. J. Jones and others, *Chem Soc J* p 1446-50 N '47

ALLYL dimethylphenyl ether

- Claisen rearrangement of allyl 3,4-dimethylphenyl ether. C. S. Marvel and N. A. Higgins, *Am Chem Soc J* 70:2218-19 Je '48

ALLYL ethers, See Ethers**ALLYL glycine**

- Inhibition of microbiological growth by allyl-glycine, methallylglycine and crotylglycine. K. Dittmer and others, *bibliog Am Chem Soc J* 70:2499-501 J1 '48

ALLYL trimethylsilane

- Reactions of allyltrimethylsilane. L. H. Sommer, L. J. Tyler and F. C. Whitmore, *bibliog Am Chem Soc J* 70:2872-4 S '48

ALNICO

- Production grinding Alnico rotors. R. E. Roberts, *il diag Am Mach* 92:94-5 Ag 12 '48

ALOINS**Analysis**

- Polarography of certain substances related to anthraquinone. K. G. Stone and N. H. Furman, *bibliog Am Chem Soc J* 70:3062-4 S '48

ALPHA delta sigma

- Alpha delta sigma joins AFA, bases its president's cup awards on Council projects. *Ptr Ink* 225:98 O 1 '48

ALPHA epsilon delta

- Gamma chapter installed at the University of Miami. *Science* 108:293 S 17 '48

ALPHA rays

- Alpha-2 neutrons nuclear reactions. K. Lark-Horowitz and others, *Phys R* 72:1117 D 1 '47
- Alpha-particle and deuteron tracks in Eastman NTA photographic plates. E. L. Brock and E. Gardner, *il R Sci Instr* 19:299-303 My '48
- Alpha-ray emitting isotope in samarium. A. J. Dempster, *bibliog Phys R* 73:1125-6 My 1 '48
- Alpha-ray spectra of RaC and RaC'. W. Y. Chang, *Phys R* 74:1195-6 N 1 '48
- Alpha-ray spectra of RnTh, ThC, and ThC'. W. Y. Chang and T. Coor, *Phys R* 74:1196-7 N 1 '48
- Angular distribution from Li⁷(p,α). N. P. Heydenburg and others, *bibliog Phys R* 73: 241-5 F 1 '48

ALPHA rays—Continued

- Angular distribution of alphas from $\text{Li}^6(d,\alpha)\alpha$ and $\text{Li}^7(p,\alpha)\alpha$. N. P. Heydenburg and others. bibliog diag Phys R 74:405-10 Ag 15 '48
- Artificial alpha-active bismuth isotopes. D. H. Templeton and I. Perlman. bibliog Phys R 73:1211 My 15 '48
- Artificial collateral chains to the thorium and actinium families. A. Ghiorso and others. Phys R 74:695-6 S 15 '48
- Artificially radioactive Se^{75} and Se^{76} produced by alpha-particle bombardment of germanium. W. S. Cowart and others. Phys R 73:1454-7 Je 15 '48
- Background eradication of nuclear emulsions by accelerated fading of the latent image. H. Yagoda and N. Kaplan. Phys R 73:634 Mr 15 '48
- Conductivity induced in diamond by alpha-particle bombardment and its variation among specimens. A. J. Ahearn. Phys R 73:1113 My 1 '48
- Conductivity pulses in liquid argon. N. Davidson and A. E. Larsh, Jr. Phys R 74:220 Jl 15 '48
- Conductivity pulses induced in single crystals of zinc sulfide by alpha-particle bombardment. A. J. Ahearn. Phys R 73:524 Mr 1 '48
- Crystal counter. W. Jentschke. Phys R 73:77-8 Ja 1 '48
- Emission of alpha-particles from different faces of a radioactive crystal. K. B. Mather and F. N. D. Kurie. Phys R 73:1474 Je 15 '48
- Emission of alpha-particles from the different faces of a radioactive crystal. J. H. J. Poole and J. W. Bremner. Phys R 74:836 O 1 '48
- Emission of protons from light nuclei on bombardment with α -particles of short range. F. C. Champion and R. R. Roy. bibliog Phys R 74:5-8 Jl 1 '48
- Energies of alpha-particles from Pu^{238} and Pu^{239} . W. P. Jesse and H. Forst. Phys R 73:926-7 Ap 15 '48
- Excitation curves of (α,n) ; $(\alpha,2n)$; $(\alpha,3n)$ reactions on silver. S. N. Ghoshal. Phys R 73:417-18 F 15 '48
- Excitation of infra-red phosphors by alpha- and beta-particles. R. H. Thompson and R. T. Ellickson. Phys R 73:185-6 Ja 15 '48
- Factors affecting operation of apparatus for counting alpha particles in an ion counting chamber. F. J. Davis. diag J Res Nat Bur Stand 39:545-9 D '47
- Gamma-rays from alpha-particle reactions. D. E. Alburger. bibliog diag Phys R 73:1014-19 My 1 '48
- Gamma-rays from the alpha-particle bombardment of Na, Mg, Al, Si, P, S. E. Polard and D. E. Alburger. bibliog diag Phys R 72:1196-201 D 15 '47
- Improved electron multiplier particle counter. J. S. Allen. bibliog il diags R Sci Instr 18:739-49 O '47
- Improvement of α -particle counters. M. A. Guimarães and P. A. Sampaio. R Sci Instr 19:475-6 Jl '48
- Ionization currents from extended alpha-sources. M. Blau and J. Carlin. bibliog il diag R Sci Instr 18:715-21 O '47
- Measurement of alpha-active dust in the atmosphere. H. Carmichael and P. R. Tunnicliffe. bibliog diags J Ind Hygiene 30:211-27 Jl '48
- (n,p) and (n,α) disintegrations of nitrogen by fast neutrons. P. Huber and A. Stebler. bibliog Phys R 73:89-90 Ja 1 '48
- Photoelectric alpha-particle detector. S. C. Curran and W. R. Baker. R Sci Instr 19:116 F '48
- Photographic apparatus for angular-distribution measurements. S. Rubin. bibliog diag Phys R 72:1176-86 D 15 '47
- Precision alpha-proportional counter. J. A. Simpson, Jr. il diag R Sci Instr 18:884-93 D '47
- Range-energy relations for protons in substances containing C, H, O, A. and Xe. J. O. Hirschfelder and J. L. Magee. bibliog Phys R 73:207-15 F 1 '48
- Relative yields of (α, n) and $(\alpha, 2n)$ reactions for Ag and Rh with 15-20-Mev alpha-particles. H. L. Bradt and D. J. Tendam. Phys R 72:1117-18 D 1 '47
- Scintillation counter for the detection of α -particles. R. Sherr. diags R Sci Instr 18:767-70 O '47
- Story of atomic energy; the discovery of atomic energy. F. Soddy. il diags Engineering 184:601-4 D 26 '47
- Study of the breakup of Li^8 . T. W. Bonner and others. bibliog il diag Phys R 73:885-90 Ap 15 '48
- Transformation of organic substances by alpha particles and deuterons. I. A. Breger. bibliog il diag J Phys & Colloid Chem 52:551-63 Mr '48
- ALTERNATING** electric currents. See Electric currents, Alternating
- ALTIMETERS**
Altimeter lag in simulated dives and climbs. il diag Instruments 21:854+ S '48
- ALTITUDE, Effect of**
Pressure-chamber experiments. Mech Eng 70:26-7 Ja '48
- ALTITUDE flying.** See Aviation—Altitude flying
- ALTROSE**
Methyl 2,6-anhydro- α -D-altroside and other new derivatives of methyl α -D-altroside. D. A. Rosenfeld, N. K. Richtmyer and C. S. Hudson. bibliog Am Chem Soc J 70:2201-6 Je '48
- ALUMEL**
Embrittlement of chromel and alumel thermocouple wires. W. I. Pumphrey, 2pls Iron & Steel Inst J 157:513-14 D '47
- ALUMINA**
Action of methanol on naphthalene in the presence of catalysts of the alumina-silica type; formation of 2-methylnaphthalene. N. M. Cullinane and S. J. Chard. Chem Soc J 8304-5 Je '48
- Alumina catalysts for vapour-phase organic dehydrations, deaminations, etc. G. Fea-chem and H. T. S. Swallow. Chem Soc J 267-72 Mr '48
- Alumina cracking catalysts. V. M. Stowe and others. bibliog il diags Pet Processing 3:317-19+ Ap '48
- Alumina from clay. Metal Prog 52:846+ N '47
- Alumina from clay by the lime-sinter method. F. R. Archibald and C. M. Nicholson. bibliog flow sheet il diags Metals Tech 15:TP2390 1-25 Je '48
- Aluminous laterite soil of the Republic of Haiti. W. I. S. W. I. S. Goldich and H. E. Bergquist. maps U S Geol S Bul 954-C:63-111, pl 20-2; pa 40c Supt. of doc. '48
- Analytical treatment of multicomponent systems. L. A. Dahl. bibliog J Phys & Colloid Chem 52:698-729 Ap '48
- Anodic reactions of aluminum and its alloys in sulfuric and oxalic acid electrolytes. R. B. Mason and C. J. Slunder. bibliog Ind & Eng Chem 39:1602-7 D '47; Same. Metal Finishing 46:65-70 F '48
- Applications of sintered alumina; abstract. F. Singer and H. Thurnauer. Materials & Methods 27:103 Ja '48
- Chemical and physical properties of alumina-molybdenum oxide catalysts for hydroforming. G. M. Webb and others. bibliog Pet Processing 2:834-40+ N '47
- Desirable desiccant properties for refrigerant water removal. P. L. Veltman and C. E. Waring. Refrig Eng 54:550-3+ D '47; Discussion. 55:49-52, 177+ Ja-F '48
- Effect of the use of calcined alumina in china biscuit placing on the health of the workmen; a field study in a group of pottery workers in North Staffordshire. A. Meiklejohn and W. W. Jones. bibliog J Ind Hygiene 30:160-5 My '48
- Exchange reaction between methane and deuteronethanes on silica-alumina cracking catalysts. G. Parravano, E. F. Hammel and H. S. Taylor. Am Chem Soc J 70:2269-70 Je '48
- Extraction of alumina from high-iron bauxites; pilot-plant tests employing the lime-soda sinter process. F. J. Cservenyak and others. bibliog 5pls U S Bur Mines Rep of Invest 4299:1-29 '48
- Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. il diag J Ind Hygiene 30:145-59 My '48
- German methods of producing alumina and aluminium. diags Light Metal Age 6:10-14 Ap '48

ALUMINA—Continued

- Heat stability of molybdena-alumina dehydrocyclization catalysts. A. S. Russell and J. J. Stokes, Jr. *Ind & Eng Chem* 40:520-4 Mr '48
- Hyscrosopic adsorbents. A. E. Williams. *Chem Age* (Lond) 53:338-40 Je 19 '48
- Measurement of specific surfaces of calcined and hydrated alumina powders by adsorption of *n*-heptic acid from aqueous solutions. L. Saunders. *diag Chem Soc J* p969-73 Jl '48
- Preliminary study on portions of systems $\text{Na}_2\text{O}-\text{CaO}-\text{Al}_2\text{O}_3-\text{Fe}_2\text{O}_3$ and $\text{Na}_2\text{O}-\text{CaO}-\text{Fe}_2\text{O}_3-\text{SiO}_2$. W. R. Eubank and R. H. Bogue. *bibliog Am Cer Soc J* 31:284-91 O 1 '48; Same. *J Res Nat Bur Stand* 40:225-34 Mr '48
- Preparation of methylpyridines by catalytic methods. N. M. Cullinane and others. *bibliog Soc Chem Ind J* 67:142-3 Ap '48
- Propeller influence in high speed stirring. A. A. Morton and L. M. Redman. *bibliog diags Ind & Eng Chem* 40:1190-3 Jl '48
- Properties and uses of mullite and pure alumina refractories; abstract. G. B. Remmey. *Metal Prog* 53:279+ F '48
- Reactions of molten titanium with certain refractory oxides. P. H. Brace. *diags Electrochem Soc J* 94:170-9 O '48
- Recovery of alumina from Wyoming anorthosite by the lime-soda-sinter process. R. A. Brown and others. *3pls U S Bur Mines Rep of Invest* 432:1-127 '47
- Small thing: activated alumina as catalyst. *Ind & Eng Chem* 40:sup 14A+ Ap '48
- Structure and activity of the chromium-aluminum oxide catalyst system. R. P. Elschens and P. W. Selwood. *Am Chem Soc J* 70:2271-3 Je '48
- Structure studies on chromium-aluminum oxide and related catalyst systems. R. P. Elschens and P. W. Selwood. *Am Chem Soc J* 69:2698-702 N '47
- Studies of rosin sizing: effect of alumina. D. Price. *bibliog Paper Tr J* 125:54-9 N 20 '47
- Ultra-fine alumina. *Chem Ind* 63:626 O '48
- Viscosity studies of system $\text{CaO}-\text{MgO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. J. S. Machin and T. B. Yee. *Am Cer Soc J* 31:200-4 Jl 1 '48
- See also
- Corundum
- ALUMINUM**
- Absorption of Na^* gamma-radiation in lead, copper, and aluminum. D. E. Alburger. *bibliog diag Phys R* 73:344-6 F 15 '48
- Absorption of 17-Mev gamma-rays in lead and aluminum. B. D. McDaniel and others. *diag Phys R* 72:985-6 N 15 '47
- Aluminum, and its alloys. *il Metallurgia* 37:185-6+ F '48
- Aluminum and magnesium; review of 1947. J. D. Sullivan. *Min & Met* 29:99-101 F '48
- Aluminum cans; Norway experience. D. Nickelsen. *il Mod Packaging* 21:134-7+ Ap '48
- Aluminum invades the oil field. *il Bsns W* p92+ My 15 '48
- Aluminum replaces steel in Ford parts. C. S. Ricker. *il Am Mach* 91:96 D 18 '47
- Aluminum stretches steel supply for cars. J. R. Custer. *Automotive Ind* 98:29+ Ja 1 '48
- Aluminum widely used on textile machines. H. V. Menking. *il Textile World* 98:126-9 S '48
- Aluminum's specialized properties; abstract. P. V. Faragher. *S A E J* 55:90-1 D '47
- Build your truck from standard aluminum parts. *il Food Ind* 19:1513-14 N '47
- Crystal orientation in Al by slow neutron diffraction. G. Arnold and A. H. Weber. *bibliog Phys R* 73:1335-9 Je 1 '48
- Disintegration of positive and negative mesotrons in different absorbers. N. Nereson. *bibliog diags Phys R* 73:565-9 Mr 15 '48
- Effect of cold working on the magnetic properties of pure metals. J. Reekie and T. S. Hutchison. *bibliog Phys R* 74:610-20 S 1 '48
- Energy losses of sound waves in metals due to scattering and diffusion. W. F. Mason and H. J. McSkimin. *J Ap Phys* 19:940-6 O '48
- Food industry use of aluminum discussed in British report. *il Food Ind* 20:1281+ S '48
- Gamma-rays from alpha-particle reactions. D. E. Alburger. *bibliog diag Phys R* 73:1014-19 My 1 '48
- Gamma-rays from the alpha-particle bombardment of Na, Mg, Al, Si, P, S. E. Pollard and D. E. Alburger. *bibliog diag Phys R* 72:1196-20+ D 15 '47
- Impregnating steel with aluminum improves corrosion resistance and conductivity; Mollerizing. *Steel* 123:110 Ag 23 '48
- Nitric acid versus construction materials. J. P. Balash and E. D. Verink, Jr. *Chem Eng* 55:236+ F '48
- Norwegian food industry packs in aluminum cans. D. Nickelsen. *il Food Ind* 19:1650-3 D '47
- Photographic study of the neutron spectra from Al(m) and Si(dn). R. A. Peck, Jr. *bibliog Phys R* 73:947-55 My 1 '48
- Preparatory and finishing equipment use aluminum. H. V. Menking. *il Textile World* 98:143 O '48
- Replacing tungsten with aluminum in high speed steels. R. Mitsche and E. M. Onitsch. *Metal Prog* 53:690-1 My '48
- Role of the cathode surface in sparking phenomena. H. Jacobs and A. P. LaRocque. *diags Phys R* 74:163-5 Jl 15 '48
- Roll-on capper; Taylor Wine machine applies aluminum closures. *il Mod Packaging* 21:133-9 Ap '48
- Scattering of ultrasonic radiation in polycrystalline metals. W. Roth. *bibliog il diag J Ap Phys* 19:901-10 O '48
- Solubility of iron in solid aluminum. J. K. Edgar. *bibliog il Metals Tech* 15:TP2389 1-5 Je '48
- Steel and aluminum for automotive products compared. D. F. Toot. *il Materials & Methods* 28:69-73 O '48; Same cond. *S A E J* 56:59-62 Ag '48
- Where aluminum replaces steel in Ford and Mercury cars. *il Automotive Ind* 98:42-3+ Ap 15 '48
- Will we follow Europe in the use of aluminum cans? J. V. Ziemba. *il diags Food Ind* 20:532-3+ Ap '48
- See also
- Calorizing
- Analysis**
- Acidimetric determination of aluminum. A. H. Bushey. *bibliog Anal Chem* 20:169-72 F '48
- Determination of alumina in iron ore. G. F. Smith and F. W. Cagle, Jr. *bibliog Anal Chem* 20:574-6 Je '48
- Determination of sodium, potassium, aluminum, and zinc in derivatives of carboxymethylcellulose. E. P. Samsel and others. *bibliog il diag Anal Chem* 20:142-6 F '48
- Rapid method of spectrographic analysis. H. R. Clayton. *bibliog diags Soc Chem Ind J* 67:270-3 Jl '48
- Removal of metals at the mercury cathode; separation of interfering metals in the determination of aluminum, alkaline earth, and alkali metals. T. D. Parks, H. O. Johnson and L. Lykken. *bibliog il Anal Chem* 20:48-51 F '48
- Spectrographic determination of sodium in a silica-alumina catalyst. J. B. Marling. *bibliog Anal Chem* 20:299-300 Ap '48
- See also
- Aluminum alloys—
- Cleaning**
- Aluminum alloy castings; recommended practices in cleaning and finishing. F. A. Lewis. *il Foundry* 76:90-3+ S '48
- Aluminum cleaning methods. A. H. Pope. *bibliog il Metal Finishing* 46:75-80+ O '48
- Latest methods for cleaning aluminum prior to painting. S. H. Phillips. *il Automotive Ind* 98:42-3+ Ja 15 '48
- New pickling solution for aluminum; abstract. J. Frasch. *Materials & Methods* 28:92-3 Jl '48
- Washing aluminum; abstract. L. Karunina. *Soap & San Chem* 24:87+ My '48
- Coloring**
- Some miscellaneous applications of dyes. J. F. Gill. *Soc Dyers & Col J* 64:215 Je '48

ALUMINUM—Continued

Corrosion

Aluminum corrosion performance in contact with various chemical agents; table. Heat & Ven 45:86 F '48.

Corrosion of aluminum is shown in the return of Eros, statue by Alfred Gilbert. *il* Light Metal Age 6:6-9+ Ap '48.

Dissolution of aluminum in sodium hydroxide solutions. M. A. Streicher, bibliog (45 ref) *il* diag Electrochem Soc J 93:285-316 Je '48.

Mechanism of the corrosion of aluminum. J. M. Bryan, bibliog Chem & Ind p 135-6 F 28 '48.

Stress-corrosion tests evaluate alloys. *il* Aviation W 49:25+ S 20 '48.

Electrotechnical uses

Aluminum busbar design. Elec R (Lond) 142:971 Je '48.

Aluminum clamps cut magnetic losses. *il* Elec West 99:64 D '47.

Aluminum conductors used exclusively throughout new rolling mill of Aluminum company of America. *il* diags Elec World 129:81-4 Ap 24 '48.

Aluminum sheathed cables. *il* Electrician 140:1255-6 Ap 23 '48.

Aluminum-sheathed power cables. *il* Engineer 185:398-9, 422-3 Ap 23-30 '48; Abstracts. Engineering 165:404 Ap 23 '48; Elec R (Lond) 142:629-30 Ap 23 '48.

Aluminum wiring performs well, is becoming generally accepted. Sci Am 178:32 Ja '48.

Anodic behavior of aluminum in a magnetic field. G. Antonoff and A. Rowley. *il* diags J Phys & Colloid Chem 52:1105-8 Je '48.

Electrical conductivity tests facilitated by improved fixture; control of aluminum for casting rotors. *il* Steel 122:112 F 2 '48.

Joints and clamps for aluminum conductors; abstract. G. B. Tebo. Elec Eng 67:986 O '48.

Long-time service tests of aluminum conductor cables; abstract. J. Herenguel. Materials & Methods 23:91 Ji '48.

Sag-tension data for aluminum cable; engineering reference sheet. Elec World 128:102 N 22 '47.

Tennessee utility adopts aluminum for distribution circuits. C. E. Bryan. *il* Elec World 129:64-6 F 23 '48.

Watt-hour meter accuracy can be preserved despite surge currents; aluminum protector cap. E. L. Keller. *il* Elec World 129:67-9 F 28 '48.

Finishing

Aluminum alloy castings; recommended practices in cleaning and finishing. F. A. Lewis. *il* Foundry 76:90-3+ S '48.

Characteristics of aluminum make it suited to outdoor reflector use. W. Irby. Materials & Methods 27:75-8 Je '48.

Electroplated finishes on aluminum. R. Mansell. Light Metal Age 6:24+ Ag '48.

Electroplating on aluminum extends use of this material. H. A. Knight. *il* Materials & Methods 28:84-8 '48.

Electroplating on aluminum; preparation by zinc immersion process. M. B. Diggin. *il* Metal Finishing 45:67-9 N '47.

Enamel for aluminum. Chem Eng 55:170+ Ji '48.

Glycerine in aluminum treatments. M. A. Lesser. bibliog Light Metal Age 6:22+ O '48.

How to machine and finish aluminum alloy castings. F. A. Lewis. *il* diags Steel 123: 90-4+ S 6 '48.

How to work aluminum and its alloys; cleaning and finishing. A. Ashburn. Am Mach 92:99-100 Ji 1 '48.

Metal finishing process information sheets; reference book sheet. G. Black. Product Eng 19:157, 169 N '48.

Surface oxide removal important in final processing of aluminum. D. E. Durkin. Materials & Methods 27:82-5 Ap '48.

Twin Coach develops special methods for painting aluminum buses. W. Rudolph. *il* Automotive Ind 98:40-1+ F 1 '48.

Isotopes

Proton-gamma-ray coincidence counting with cyclotron bombardment. B. B. Benson, bibliog *il* diags Phys R 73:7-15 Ja 1 '48.

Rotation vibration levels of the Si²⁸ and Al²⁷ nuclei. H. A. Wilson. Phys R 74:352 Ag 1 '48.

Joining to steel, etc.

Bonding aluminum to ferrous metals. M. G. Whitfield and V. Sheshunoff. *il* Iron Age 162:88-93 Ji 1 '48.

Copper-aluminum joints and combination materials made by upset welding. R. T. Gillette. *il* diag Materials & Methods 28:70-3 Ji '48.

Metallography

Aluminum sheet; various production factors affecting grain size. R. Chevigney. Automobile Eng 37:497 D '47.

Carbides, nitrides and porosity in aluminum. D. Von Ludwig. bibliog *il* Iron Age 160:73-8+ N 20 '47.

Effect of a dispersed phase on grain growth in Al-Mn alloys. P. A. Beck and others. bibliog (44 titles) *il* Metals Tech 15:TP2475 1-30 S '48.

Effect of composition on grain growth in aluminum-magnesium solid solutions. L. J. Demer and P. A. Beck, bibliog *il* Metals Tech 15:TP2374 1-16 Je '48.

Electron microscope and electron diffractor: study of slip in metal crystals. R. D. Heidenreich and W. Shockley. *il* diags J Ap Phys 18:1029-31 N '47.

Grain orientation in aluminum revealed by anodic film; with photomicrographs in color. A. Hone and E. C. Pearson. *il* Metal Prog 53:363-6, cover Mr '48.

Influence of chemical composition and quality of raw materials on the physical properties of silum gamma. V. Zednik. *il* diags Metallurgia 37:253-7 Mr '48.

Instantaneous rates of grain growth. P. A. Beck and others. Phys R 73:526-7 Mr 1 '48.

Quick method for detecting preferred orientation. P. A. Beck. Metals Tech 15:2-3 Je '48.

Prices

Aluminum, 99 per cent plus; monthly, 1929-1947; tabulation. Iron Age 161:304 Ja 1 '48.

Price, wholesale, scrap castings (N.Y.) 1941-1946. Bureau of Cur Bsns 1947 Sup p 150 [supplemented in monthly numbers]

Protection

Anodic coatings on aluminum and their protective value. D. M. McLachlin and H. P. Godard, bibliog *il* diags Can Chem & Process Ind 32:124-8 F '48.

Anodic oxidation of aluminum. Engineering 166:295 S 24 '48.

Anodic reactions of aluminum and its alloys in sulfuric and oxalic acid electrolytes. R. E. Mason and C. J. Slunder, bibliog Ind & Eng Chem 39:1602-7 D '47; Same, Metal Finishing 46:65-70 F '48.

Brush anodic films onto local areas; electrolytic brush used to anodize aluminum and magnesium. E. Simon and F. W. Thomas. *il* Am Mach 92:103-5 Ji 1 '48.

Formation of anodic films on aluminum; a lecture demonstration. R. C. Spooner and H. P. Godard. diag J Chem Educ 25:340-1 Je '48.

Formation of the natural oxide film on aluminum. F. Keller and J. D. Edwards. *il* Metal Prog 54:35-41, 195-200 Ji-Ag '48.

Influence of sealing treatments on the protective value of anodized coatings. L. Whitby, bibliog *il* Metal Finishing 46:70-4 S '48.

Materials handling and storage of light alloys. J. Erickson. *il* Light Metal Age 6:10-14 Je '48.

Measurement of thickness of oxide coatings on aluminum alloys. R. E. Mason and W. C. Cochran, bibliog Metal Finishing 46:69-73 My '48.

Phosphate coating of aluminum and polymorphism of chromium phosphate. G. L. Clark and A. P. Tai. Science 107:505 My 14 '48.

Phosphating of metals; some processes recently patented. Chem Age (Lond) 59:452 O 2 '48.

Preparation of aluminum for painting. R. Mansell. *il* Aero Digest 57:46-7+ O '48.

ALUMINUM—Protection—Continued

- Process sheet for anodizing aluminum; aluminite sulfuric-acid method; reference book sheet. G. Black. *Am Mach* 92:141 Je 17 '48
- Process sheet for anodizing aluminum, chromic acid method; reference book sheet. *Am Mach* 92:133 Mr 25 '48
- Process sheet for zinc-immersion treatment; reference book sheet. G. Black. *Am Mach* 92:135 JI 15 '48

Testing

- Effects of overheating aluminum; appraised from color changes in zinc chromate coated surfaces. P. A. Haythorne and H. B. Wiley. *Il Product Eng* 19:104-5 JI '48
- Formation of the natural oxide film on aluminum. F. Keller and J. D. Edwards. *Il Metal Prog* 54:35-41 JI '48
- Production hardness testing speeds manufacture of aluminum extrusion and tube products. O. L. Mitchell. *Steel* 122:104-My 3 '48

Therapeutic use

- New data on the use of aluminum and of alumina in the prophylaxis and treatment of silicosis; abstract. A. Policard. *J Ind Hygiene* 29:sup 114-15 N '47

See also

- Aluminum, Powdered
—Therapeutic use

Uses

- New uses expand aluminum casting applications. F. A. Lewis. *bibliog Il Steel* 123:84-8-N 1 '48

Welding

- Aluminum fuel tank welding. *Steel* 123:104-+ Ag 23 '48
- Aluminum strips butt welded for cyclotron magnet coll. I. A. Oehler. *Il Iron Age* 160:80-3 D 4 '47
- Aluminum welding. T. Trail. *Il diags Mill & Factory* 42:123-7 Ap '48
- Defects in aluminum alloy spot-welds; micrographs. C. R. Dixon. *Am Mach* 92:98-101 Je 17 '48
- Developing a welding procedure for aluminum piping; abstract. J. D. Mattimore. *Il (p78) Heating-Piping* 20:76-7 JI '48
- Developments in cold welding. *Il Engineer* 185:432-3, 541-2 Ap 30, Je 4 '48; *Engineering* 165:535 Je 4 '48; *Automobile Eng* 38:277-8 JI '48; *Iron Age* 162:85 Ag 19 '48
- Fatigue tests of spot welds; improvement of their endurance limit by hydrostatic pressure. G. Welter. *bibliog Il diags Welding J* 27:sup285-98 Je '48
- Field-erected storage tanks of aluminum. F. L. Plummer. *bibliog Il Welding J* 27:796-804 O '48
- Flash welding of structural aluminum alloys. R. M. Curran and R. C. Becker. *Il diags Welding J* 26:sup664-72 N '47
- Heliarc welding of aluminum frames for coin-operated phonographs. *Il Mach* 54:170-1 JI '48
- High-purity helium saves money on aluminum welds. W. A. Mays. *Welding J* 27:609 Ag '48
- How to work aluminum and its alloys; joining methods. A. Ashburn. *diags Am Mach* 92:96-8 JI 1 '48
- Inert-gas-welded aluminum pipe line to carry sour oil. *Il Pet Eng* 19:45-6 JI '48
- Macroscopic examination of spot welds in aluminum. G. H. Boss. *bibliog Il diag Metal Prog* 53:227-30 F '48
- Oxyhydrogen welding of aluminum reported. *Steel* 122:118 F 2 '48
- Preliminary test of spot-weld shunting in 24 ST Alclad. A. R. Hard. *Il diags Welding J* 27:sup491-5 O '48
- Radiographic appraisal of spot welds in aluminum. G. H. Boss. *bibliog Il Metal Prog* 53:522-7+ Ap '48
- Spot-welded aluminum lap joints designed for repeated loads. R. C. McMaster and H. J. Grover. *Il diags Product Eng* 18:112-16 N; 158-61 D '47
- Static and fatigue strengths of welded joints in aluminum-manganese alloy sheet and plates. R. L. Templin and M. Holt. *Il Welding J* 26:sup705-11 D '47

- Testing and control of spot welds in aluminum. G. H. Boss. *bibliog Metal Prog* 54:344-5 S '48
- Welded aluminum alloy pipe lines. B. J. Fletcher. *Il Oil & Gas J* 47:207-8+ S 23 '48
- Welding aluminum-magnesium alloys; abstract. E. A. G. Liddiard. *Materials & Methods* 26:120-1 D '47
- Welding aluminum; suggestions on improving welded joint formation. *Il diags Sheet Metal Worker* 39:56-8 F '48

ALUMINUM, Itd.

- Canadian Aluminum outstrips American counterpart. E. Ravits. *Barron's* 28:31-2 S 20 '48

ALUMINUM, Powdered

- Effect of the use of calcined alumina in china biscuit placing on the health of the workmen; a field study in a group of pottery workers in North Staffordshire. A. Meiklejohn and W. Jones. *bibliog J Ind Hygiene* 30:160-5 My '48
- Measurement of specific surfaces of calcined and hydrated alumina powders by adsorption of *n*-heptic acid from aqueous solutions. L. Saunders. *diag Chem Soc J* p969-73 JI '48
- X-ray study of the effect of high hydrostatic pressures on the perfection of crystals. L. Rosen. *bibliog Il Am Soc for Metals Trans* 39:713-22; *Discussion*. 722-4 '47

Therapeutic use

- Apparatus for dispensing aluminum dust in the treatment of silicosis. F. W. Church and F. R. Ingram. *diags J Ind Hygiene* 30:246-50 JI '48

ALUMINUM, Structural

- All-aluminum highway bridge to span Saguenay river in Canada; crane also fabricated of aluminum. *Il Civil Eng* 18:644-5 O '48
- All-metal Italian prefab; Turin ABC house. *Il plans Arch Forum* 87:156-7 N '47
- Aluminum as a building material in 1947. *Il Am Bld* 70:107 Mr '48
- Aluminum exploration equipment has advantages in Gulf Coast marshes. L. S. McCaslin, Jr. *Il Oil & Gas J* 47:88-9 O 14 '48
- Aluminum in the marine industry. *Marine Eng* 53:86 Mr '48
- Aluminum in the mining industry. E. P. White. *Il Eng & Min J* 149:85-9 JI '48
- Aluminum schools in Britain. J. Littlefield. *Il Light Metal Age* 6:15 Je '48
- Aluminum units accelerate British school construction program. *Il Civil Eng* 18:372 Je '48
- Aluminum used for 15-ton bridge crane. *Il Iron Age* 161:94 Je 17 '48
- Aluminum used in combatting tank corrosion. G. W. Alexander. *Il Pet Refiner* 26:99 D '47
- Erecting all-aluminum quonsets is simple; illustrations with text. *Constr Methods* 30:46-8 O '48
- Experimental aluminum home. *Il diag Sheet Metal Worker* 39:42-3 O '48
- Experimental house of Aluminum company of America at New Kensington, Pa. *Il plan diag Arch Forum* 89:140 S '48
- Flash welding of structural aluminum alloys. R. M. Curran and R. C. Becker. *Il diags Welding J* 26:sup664-72 N '47
- Flexural strength and stiffness of wood-aluminum sandwich panels. R. A. Miller and H. L. Langhaar. *diags Product Eng* 19:104-8 Ag '48
- Forming aluminum for new type dwellings. W. J. Granberg. *Il Sheet Metal Worker* 39:55-6 Ap '48
- Growing use of aluminum in building industry. J. V. Sherman. *Barron's* 28:10 My 3 '48
- Hotel faced with plastic and aluminum; Laurentien hotel in Montreal. *Il diags Eng* N 141:70-3 JI 22 '48
- It's product training that puts ring of conviction into sales talk; Permanente Products salesmen know about aluminum siding. D. C. Murphy. *Il Sales Management* 61:37-40 N 1 '48
- Painting aluminum structures. R. I. Wray and J. D. Edwards. *bibliog Il Paint Oil & Chem R* 111:16+ Ap 15 '48

ALUMINUM, Structural—Continued

Railway bridge with 100-ft. aluminum span; Grasse River bridge, near Massena, N.Y. *il* Engineering 164:529-31, 540 D 5 '47; Engineer 185:254 Mr 12 '48

Spectacular aluminum building and tower; Federal telecommunication laboratories, inc. *il* Sheet Metal Worker 39:76 Mr '48

Structural use of aluminum. *il* Engineer 186:9-10 JI 2 '48; Engineering 166:127 Ag 6 '48

Textile mill walls faced with aluminum; Duplan corp. air-conditioned nylon-throwing plant, J. W. Davis. *il* Eng N 140:130-1 Ja 22 '48

What's new in oil field housing? packaged aluminum houses. A. Reese. *il* diags World Oil 128:53-4 S '48

See also

Aluminum work, Bridges, Aluminum
Architectural, Roofs, Aluminum

ALUMINUM alloys

Aluminum-alloy casting developments. E. G. West. *il* Engineering 166:213-16 Ag 27 '48

Aluminum alloy castings. F. A. Lewis. *il* Foundry 75:74-7 J D '47; 76:94-8 Ja; 90:3-4 F; 90:8-1 Mr; 82:5-4 Ap; 142:5-7 My; 96-7-1 J; 92-5-1 JI; 96-9-1 Ag; 90:3-4 S; 74-5-1 bibliog(p240) O; 88-9-1 bibliog(p 194) N '48

Aluminum alloys in ship construction. M. G. Forrest. *diags* Marine Eng 53:55-8; Discussion. 70-2 F '48

Aluminum, and its alloys. *il* Metallurgia 37:185-6+ F '48

Aluminum bearings developments in France; abstract. M. Goret. *Materials & Methods* 26:118 N '47

Aluminum for body stampings, selection of alloys, drawing and joining; abstracts. J. H. Dunn and others. *il* Automotive Ind 98:41, 78 My '48; S A E J 56:27-9 JI '48

A.S.T.M. code for naming aluminum and magnesium alloys. W. L. Nelson. *Oil & Gas* J 47:269 O 7 '48

Annealing characteristics of an aluminum-copper-magnesium alloy; abstracts and discussion. M. Cook and T. L. Richards. *Engineering* 166:355-6 O 8 '48; *Metallurgia* 38:338-9 O '48

Another aluminum alloy; F-4110. J. B. Neiman. *Chem Age (Lond)* 59:356 S 11 '48

Application tables to guide in the selection of materials; sand cast aluminum alloys; reference book sheet. Z. Fox. *Product Eng* 18:167 D '47

Bearing metals; aluminum alloys. H. R. Clauser. *Materials & Methods* 28:83 Ag '48

Brazing aluminum alloys. H. R. Clauser. *il* Materials & Methods 27:78-82 My '48

Carbides, nitrides and porosity in aluminum. D. Von Ludwig. *bibliog il* Iron Age 160:73-8+ N 20 '47

Chemical engineering materials of construction. R. H. Brown and E. D. Verink, jr. *bibliog il* Ind & Eng Chem 40:1776-7 O '48

Composition and properties of aluminum alloys for die casting; table. *Steel* 122:83 F 9 '48

Copper-aluminum-silicon alloys. *Engineer* 185:520 My 28 '48

Copper-rich corner of the copper-aluminum-silicon diagram. F. H. Wilson. *bibliog il* Metals Tech 15:TP2329 1-12 F '48; Discussion. *il* 15:TP2449 41-50 Ag '48

Corrosion-resistant aluminum-magnesium alloys. P. Brenner and W. Roth. *il* Engineering 166:44-7 JI 9 '48

Deformation lines in cold-rolled copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and others. *bibliog il* Metals Tech 15:TP2336 1-10 F '48

Developments in metals and alloys for chemical plant equipment. W. Z. Friend. *il* Chem Eng Prog 44:501-2 JI '48

Die-casting aluminum alloy; Hiduminium 51. *Engineer* 186:141 Ag 6 '48

Effect of composition on grain growth in aluminum-magnesium solid solutions. L. J. Demer and P. A. Beck. *bibliog il* Metals Tech 15:TP2374 1-16 Je '48

Engineering characteristics of 61S aluminum alloy sheet. J. J. Warga. *il* Product Eng 19:108-12 Je '48

Engineering for aluminum-alloy castings. T. R. Gauthier and H. J. Rowe. *bibliog il* diags Mech Eng 70:505-14 Je '48; Discussion. F. F. Buckland. 70:773-4 S '48

Equilibrium relations in aluminum-sodium alloys of high purity. W. L. Fink and others. *bibliog il* diags Metals Tech 15:TP2339 1-8 F '48

Flash welding of structural aluminum alloys. R. M. Curran and R. C. Becker. *il* diags Welding J 26:sup664-72 N '47

High quality pressure die castings. J. L. Erickson. *il* Metallurgia 38:212-14 Ag '48

How to work aluminum and its alloys. A. Ashburn. *il* diags Am Mach 92:85-100 JI 1 '48

Industrial alcohol versus construction materials. J. P. Balash and E. D. Verink, jr. *Chem Eng* 55:240+ O '48

Light alloy piston materials. A. Schofield and L. M. Wyatt. *il* diags Metallurgia 37:187-94 F '48

Light alloys need new design concepts. J. A. Gregoire. *il* diags Product Eng 19:81-5 JI '48

Light metals in automotive construction; progress made by Kaiser-Frazer. C. P. Bedford. *il* Steel 122:102+ Mr 15 '48

Materials & Methods manual; aluminum alloy castings. F. A. Lewis. *bibliog il* diags Materials & Methods 27:89-104 Mr '48

Moduli of aluminum alloys in tension and compression; abstract and discussion. S. F. Grover and others. *Engineer* 185:346-7 Ap 9 '48

New high strength aluminum-magnesium-zinc alloys; abstract. P. Vachet. *Materials & Methods* 26:121-2 D '47

Potentialities of aluminum and its alloys for the paper-making industry. F. W. Rogers. *Metallurgia* 38:340-1 O '48

Prediction and reduction to minimum properties of plate compressive curves. E. H. Schuette and J. C. McDonald. *bibliog J Aeronautical Sci* 15:23-7+ Ja '48

Recent developments in corrosion-resistant aluminum-magnesium alloys; abstract and discussion. P. Brenner. *Engineering* 165:365 Ap 16 '48

Selecting aluminum alloys for specific applications. H. Dobkin. *il* Steel 121:67-70 D 22 '47

Small lightweight engine employs aluminum alloy for principal parts. *diags Automotive Ind* 99:34+ S 1 '48

Some important things you can do with wrought aluminum alloys. O. L. Mitchell. *il* Light Metal Age 6:8-11 Ag '48

Static and fatigue strengths of welded joints in aluminum-manganese alloy sheet and plates. R. L. Templin and M. Holt. *il* Welding J 26:sup705-11 D '47

Tables to guide in the selection of materials; wrought aluminum alloys; reference book sheet. Z. Fox. *Product Eng* 18:169 N '47

Tentative specifications for aluminum-base alloys in ingot form for sand castings, die castings and permanent mold castings. *Foundry* 76:153-4 S '48

When you buy aluminum; some facts on sheet aluminum offered as a guide to purchasing. *il* Sheet Metal Worker 38:67-8 D '47

See also

Alnico
Silumin

Analysis

Improved gravimetric determination of silicon in aluminum alloys, developed in Germany during the war. W. Stross. *bibliog Metallurgia* 38:63-5 My '48

Improved spectrographic source. C. Braudo and H. R. Clayton. *bibliog il* diags Soc Chem Ind J 66:259-67 Ag '47

Microdetermination of zinc in aluminum alloys. D. F. Phillips and L. J. Holton. *Metallurgia* 38:237-9 Ag '48

Micro-spectrochemistry of aluminum alloys. D. P. Jensen. *bibliog il* Iron Age 161:66-8 Ja 8 '48

Phosphoric acid attack method for determination of silicon in aluminum alloys. G. Norwitz. *Anal Chem* 20:182 F '48

Quantitative analysis performed quickly by instrument; Quantometer. *il* Foundry 76:304 My '48

Quantometer speeds aluminum alloy analyses. T. S. Blair. *il* Iron Age 160:65-7+ D 18 '47

Rapid method of spectrographic analysis. H. R. Clayton. *bibliog diags Soc Chem Ind J* 67:270-3 JI '48

ALUMINUM alloys—Continued

Testing

- Atmospheric and indoor aging studies on some aluminum and zinc-base die-casting alloys. G. R. Gohn and L. E. Menges, bibliog *il Am Soc T M Proc* 46:1064-94; Discussion, 1095-6 '46
- Bearing properties of 24S-T sheet and shear strength of 24S-T rivets at elevated temperatures. A. E. Flanigan and others, *il diags Am Soc for Metals Trans* 38:789-804; Discussion, 804-6 '47
- Compressive properties of aluminum alloy sheet at elevated temperatures. A. E. Flanigan and others, bibliog *il diags Am Soc T M Proc* 46:951-69 '46
- Consideration of the constitution of aluminum-iron-silicon alloys and its relation to cracking above the solidus; abstracts, P. H. Jennings and W. I. Pumphrey, *Engineering* 165:305 Mr 26 '48; *Engineer* 185:322 Ap 2 '48; *Discussion*, *Engineering* 165:305 Mr 26 '48; *Engineer* 185:322-3 Ap 2 '48
- Dependence of the stress-strain curves of cold-worked metals upon the testing direction. L. J. Klingler and G. Sachs, bibliog *J Aeronautical Sci* 15:151-4 Mr '48
- Effect of single and multi-hole die extrusion on the properties of extruded aluminum-alloy bar. L. Northcott and others, *il diags Engineering* 165:93-5 Jl 23 '48
- Effect of various stress histories on the flow and fracture characteristics of the aluminum alloy 24ST. J. J. Lynch and others, bibliog *diags Metals Tech* 15:TP 2307 1-24 Ja '48; Discussion, 15:TP2449 100-9 Ag '48
- Evaluation of the forming properties in bending of five commercial sheet aluminum alloys. G. R. Gohn and S. M. Arnold, *il Am Soc T M Proc* 46:1053-61; Discussion, 1062-3 '46
- Flow and fracture characteristics of the aluminum alloy 24ST after alternating tension and compression. S. I. Liu and G. Sachs, bibliog *Metals Tech* 15:TP2392 1-12 Je '48
- Hot-shortness of some high-purity alloys in the systems aluminum-copper-silicon and aluminum-magnesium-silicon; abstracts, P. H. Jennings and others, *Metallurgia* 37:240-1 Mr '48; *Engineering* 165:305 Mr 26 '48; *Engineer* 185:322 Ap 2 '48; Discussion, *Engineering* 165:305 Mr 26 '48; *Engineer* 185:322-3 Ap 2 '48
- Impact strength and hardness of aircraft alloys down to -423° F. M. G. Fontana and J. L. Zambrow, *il diags Metal Prog* 53:97-101 Ja '48
- Low cycle fatigue of the aluminum alloy 24ST in direct stress. S. I. Liu and others, bibliog *il diags Metals Tech* 15:TP2338 1-22 F '48; Discussion, *il* 15:TP2449 79-84 Ag '48
- Notch sensitivity in fatigue loading of some magnesium-base and aluminum-base alloys. G. H. Found, *il diags Am Soc T M Proc* 46:715-37; Discussion, 738-40 '46
- Notch sensitivity in static and impact loading of some magnesium-base and aluminum-base alloys. J. P. Doan and J. C. McDonald, bibliog *diags Am Soc T M Proc* 46:1097-118 '46
- Plastic flow characteristics of aluminum-alloy plate. L. J. Klingler and G. Sachs, bibliog *il diags J Aeronautical Sci* 15:599-604 O '48
- Reheating of 24s and 75s aluminum sheet. J. A. Nock, *jr. Iron Age* 160:73-9 D 25 '47
- Report of subcommittee V on exposure and corrosion tests, *Am Soc T M Proc* 46:244-58 '46
- Stress-corrosion tests evaluate alloys, *il Aviation W* 49:25+ S 20 '48
- Stress-corrosion tests of high-strength aluminum alloys. H. Logan and H. Hessing, *Franklin Inst J* 246:344-7 O '48; Same abr, *Light Metal Age* 6:18+ O '48
- Stress-corrosion tests on high-strength aluminum alloy sheet in sodium chloride-hydrogen peroxide solution and in marine atmosphere. H. L. Logan and H. Hessing, bibliog *il J Res Nat Bur Stand* 41:69-86 Ji '48
- Stress notch sensitivity with eccentric holes. L. Schapiro and R. H. Esling, *diags A S M E Trans* 70:135-8 F '48
- Use of the Jominy test in studying commercial age-hardening aluminum alloys. B. M. Loring and others, *diags Metals Tech* 15:TP2337 1-9 F '48
- X-ray method of measuring Poisson's ratio. R. F. Hanstock and E. H. Lloyd, *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 26):52-4; Discussion, 55 '47
- Young's modulus of some aluminum alloys; abstracts, N. Dudzinski and others, *Engineering* 165:340 Ap 9 '48; *Metallurgia* 37:242 Mr '48; Discussion, *Engineering* 165:340-1 Ap 9 '48

ALUMINUM alloys, Heat treatment of

Aluminum alloy castings. F. A. Lewis, *il Foundry* 76:94-8+ Ja; 96-9+ Ag '48

Effect of a dispersed phase on grain growth in Al-Mn alloys. P. A. Beck and others, bibliog (44 titles) *il Metals Tech* 15:TP2475 1-30 S '48

How to work aluminum and its alloys. A. Ashburn, *Am Mach* 92:86-8 Jl 1 '48

New temper designations for aluminum alloys. R. B. Smith, *Iron Age* 161:72-8 Je 24 '48

Precipitation heat treatment of work-hardened 61S-W aluminum alloy sheet. J. J. Waga, *il diags Am Soc for Metals Trans* 39:680-9; Discussion, 689-93 '47

Reheating of 24S and 75S aluminum sheet. J. A. Nock, *jr. Iron Age* 160:73-9 D 25 '47

Temper designations for aluminum alloys; engineering file facts. *Materials & Methods* 28:105 S '48

Temper designations for aluminum alloys; reference book sheets, *Am Mach* 92:129, 131 Jl 1 '48

ALUMINUM ammonium sulfate

Systems chromic ammonium sulfate-ferrie ammonium sulfate-water and chromic ammonium sulfate-aluminum ammonium sulfate-water at 25°. N. O. Smith and C. S. Lennox, bibliog *Am Chem Soc J* 70:1793-6 My '48

ALUMINUM barrels. See Barrels, Aluminum

ALUMINUM bridges. See Bridges, Aluminum

ALUMINUM bromide

Isomerization of saturated hydrocarbons; the effect of cyclohexene upon the isomerization of methylcyclopentane and cyclohexane. H. Pines, B. M. Abraham and V. N. Ipatieff, *diags Am Chem Soc J* 70:1742-6 My '48

Reaction of methylcyclopentane with propene in the presence of aluminum bromide-hydrogen bromide. H. Pines and V. N. Ipatieff, bibliog *Am Chem Soc J* 70:531-2 F '48

Solubility of aluminum bromide in cyclohexane. P. A. Leighton and J. B. Wilkes, *Am Chem Soc J* 70:2600-1 Jl '48

Vapor pressure studies in the system, aluminum bromide-hydrogen bromide-paraffin hydrocarbon. C. M. Fontana and R. J. Herold, bibliog *diags Am Chem Soc J* 70:2881-3 S '48

ALUMINUM bronze

Testing

Properties of aluminum bronzes at subzero and high temperatures. R. I. Jaffee and R. H. Ramsey, *il diags Metal Prog* 54:57-63 Jl '48

ALUMINUM chloride

Amidines; preparation of amidines from cyanides, aluminum chloride, and ammonia or amines. P. Oxley, M. W. Partridge and W. F. Short, *Chem Soc J* p 1110-16 S '47

Corrosion in isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst. N. Fragen, C. W. Nysewander and W. R. Hertwig, *flow diags il diags Ind & Eng Chem* 40:1133-8 Je '48

Organic reactions with aluminum chloride; the action of aluminum chloride upon ethylene chloride. K. Sisido and Y. Yosikawa, bibliog *Am Chem Soc J* 70:1608-9 Ap '48

Organic reactions with aluminum chloride; the cycli-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms. K. Sisido and H. Nozaki, *Am Chem Soc J* 70:1609-12 Ap '48

Production of 2,3-dimethylbutane by alkylation. R. B. Thompson and J. A. Chenieck, bibliog *diags Ind & Eng Chem* 40:1265-9 Jl '48

ALUMINUM chloride—Continued

Removal of aluminum chloride from Friedel-Crafts mixtures containing water-labile phosphorus halides. W. T. Dye, Jr. *Am Chem Soc J* 70:2595-6 *Jan* '48

Titration of fluoride ion with aluminum chloride. J. H. Saylor and M. E. Larkin. *bibliog Anal Chem* 20:194-6 *Mr* '48

ALUMINUM coating

Aluminum; backdrop for light; vaporized reflectors. *Il Bsns W* p56 *Ag* 14 '48

Aluminum coating of steel. A. Di Giulio. *Il Light Metal Age* 6:8-9 *Je* '48

Heat resisting aluminum coatings. G. Kremer and K. E. Volk. *Il Engineer* 184:506 *N* 28 '47

ALUMINUM company of America

Alcoa case still rolling. *Bsns W* p20 *My* 29 '48

ALUMINUM compounds

Preparation of aluminum di-soaps. G. H. Smith and others. *bibliog Am Chem Soc J* 70:1053-4 *Mr* '48

ALUMINUM containers. See Containers, Aluminum

ALUMINUM cooking utensil company

More to sell; Aluminum Cooking Utensil adds cutlery line. *Bsns W* p54 *My* 8 '48

ALUMINUM dust

Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. *Il diag J Ind Hygiene* 30:145-59 *My* '48

See also

Aluminum, Powdered

ALUMINUM ethoxide

Essential steps in the catalytic condensation of aldehydes; nitroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J* 69:2608 *N* '47

ALUMINUM fluoride

Basic fluorides of aluminum. J. M. Cowley and T. R. Scott. *bibliog diag Am Chem Soc J* 70:105-9 *Ja* '48

ALUMINUM foil

Aluminum foil. J. D. Edwards and D. B. Stroh. *Il diag Mod Packaging* 21:143-7+ *F*; 150-3+ *Mr*; 186-91+ *Ap* '48

Aluminum foil production in Germany; abstract. *Materials & Methods* 26:122 *D* '47

Fertile imagination breeds new markets for Reynolds foil. E. M. Kelley. *Il Sales Management* 61:44-5 *S* 1 '48

Formed-aluminum candy pack; new machine and new kind of package give Charns a boost. *Il Mod Packaging* 21:118-22 *Ag* '48

ALUMINUM founding

Aluminum-alloy casting developments. E. G. West. *Il Engineering* 166:213-16 *Ag* 27 '48

Aluminum alloy castings. F. A. Lewis. *Il Foundry* 75:74-7+ *D* '47; 76:94-8+ *Ja*; 90-3+ *F*; 90-3+ *Mr*; 82-5+ *Ap*; 142-5+ *My*; 96-7+ *Je*; 92-5+ *Il*; 96-9+ *Ag*; 90-3+ *S*; 74-5+ *bibliog*(p240) *O*; 88-9+ *bibliog*(p 194) *N* '48

Aluminum alloy pressure molding. J. L. Erickson. *Il Light Metal Age* 6:14-17+ *O* '48

Aluminum and magnesium discussed at three sessions; A.F.A. annual meeting. *Foundry* 76:142+ *Je* '48

Automatic mechanical ladling in die casting; Hydrexpress Inc. E. F. Ross. *Il Steel* 122:108+ *Mr* 15 '48

Casting aluminum pistons in permanent molds; Thompson products Inc. R. H. Herrmann. *Il plan Foundry* 76:78-83+ *S* '48

Casting developments in review; aluminum. W. E. Sicha. *Il Foundry* 76:70-3+ *Ja* '48

Converts dairy into modern nonferrous foundry; Filscher-Sweeny bronze and aluminum co. P. Dwyer. *Il Foundry* 75:90-3+ *D* '47

Conveyor system features modernized aluminum foundry; Aluminum co. of America. W. G. Gude. *Il plan Foundry* 76:72-8+ *N* '48

Die casting progress. A. C. Street. *Il Metallurgia* 37:201-4 *F* '48

Engineering for aluminum-alloy castings. T. R. Gauthier and H. J. Rowe. *bibliog Il diag Mech Eng* 70:505-14 *Je* '48; Discussion, F. F. Buckland. 70:773-4 *S* '48

Hot tearing in castings due to shrinkage stresses; abstract. A. A. Bochvar and Z. A. Sviderskaya. *diag Metal Prog* 53:878+ *Je* '48

How to design pressure moldings. J. L. Erickson. *Il diag Machine Design* 20:118-22+ *S* '48

How to work aluminum and its alloys; casting and forging. A. Ashburn. *Il diag Am Mach* 92:94-5 *Jan* '48

Influence of chemical composition and quality of raw materials on the physical properties of silicon gamma. V. Zednik. *Il diag Metallurgia* 37:195-200, 253-7 *F-Mr* '48

Materials & Methods manual; aluminum alloy castings. F. A. Lewis. *bibliog Il diag Materials & Methods* 27:89-104 *Mr* '48

New uses expand aluminum casting applications. F. A. Lewis. *bibliog Il Steel* 123:84-8+ *N* 1 '48

Plaster molds for casting intricate aluminum torque converter parts; Buick's new Dynaflo drive. H. Chase. *Il diag Iron Age* 161:60-8 *F* 12 '48

Precision casting; aluminum castings made in plaster molds by the Antioch process. C. S. Ricker. *Il diag Tool Eng* 21:27-9 *S* '48

Pressure casting aluminum matchplates in plaster molds. S. N. Touchman. *diag Foundry* 76:76-9+ *Jan* '48

Structurally sound cast parts provided by aluminum base alloy pressure molding. J. L. Erickson. *Il Steel* 122:98-100 *My* 3 '48

Tentative specifications for aluminum-base alloy permanent mold castings; data sheet. *Foundry* 76:135-6 *Ap* '48

Tentative specifications for aluminum-base alloy sand castings; data sheet. *diag Foundry* 76:227-3 *Je*; 141-2 *Il* '48

Tentative specifications for aluminum-base alloys in ingot form for sand castings, die castings and permanent mold castings. *Foundry* 76:153-4 *S* '48

Two-chamber induction melting furnace lowers aluminum die casting cost. F. J. Kamin. *Il diag Materials & Methods* 28:69-72 *S* '48

Using an old technique to make parts too difficult to produce by other means; production of aluminum torque converter castings; Allison-Bedford foundry; use of Antioch plaster mold technique. J. Geschel. *Il Automotive Ind* 99:28-30 *Ag* 15 '48

X-ray inspection of aluminum jet engine castings. W. A. Mader. *Il Iron Age* 160:90-3 *D* 11 '47

ALUMINUM freight cars. See Freight cars, Aluminum

ALUMINUM halides

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; equilibrium and side reactions. D. P. Stevenson and J. H. Morgan. *bibliog Am Chem Soc J* 70:2773-7 *Ag* '48

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; the nature of the catalyst. D. P. Stevenson and O. Beeck. *bibliog Am Chem Soc J* 70:2890-4 *S* '48

ALUMINUM houses. See Aluminum, Structural

ALUMINUM hydride

Cause of explosions occasionally observed during evaporation of solutions of aluminum hydride and related compounds. G. Barbaras and others. *Am Chem Soc J* 70:877 *F* '48

ALUMINUM hydroxide

Effect of the use of calcined alumina in china biscuit placing on the health of the workmen; a field study in a group of pottery workers in North Staffordshire. A. Meiklejohn and W. W. Jones. *bibliog J Ind Hygiene* 30:160-5 *My* '48

ALUMINUM hydroxyfluoride

Basic fluorides of aluminum. J. M. Cowley and T. R. Scott. *bibliog diag Am Chem Soc J* 70:105-9 *Ja* '48

ALUMINUM industry and trade

After the turn of the year. R. A. Hunt. *Comm & Fin Chr* 167:528 *Ja* 29 '48

Aluminum, bauxite, and magnesium; annual review and forecast. H. L. Cullen. *Min Cong J* 34:104-7 *F* '48

Aluminum ingot shortage confounds the crystal ball gazers. J. R. Hight. *Il Iron Age* 161:101-2 *Ja* 22 '48

Aluminum output up, but demand still tops peak postwar production. *Bsns W* p23 *Ag* 7 '48

Aluminum pinch. *Bsns W* p20 *Ja* 3 '48

Aluminum short. *Bsns W* p34 *My* 1 '48

Aluminum squeeze. *Fortune* 37:126 *Je* '48

Aluminum to stay when shortages go. R. M. Bleiberg. *Barron's* 28:29 *Jan* 12 '48

ALUMINUM industry and trade—Continued

How Kaiser captures 20 per cent of aluminum market in 18 months; Permanente products co. B. Inch. Sales Management 60:37-9 Je 15 '48

How to take your industrial sales story to buyers; display coach, Reynolds metals co. il Sales Management 60:46 My 20 '48
Light metals, 1947. R. J. Lund and C. M. Craighead. Eng & Min J 149:82+ F '48

Many industrial applications of aluminum may become permanent. D. I. Brown. Iron Age 160:128-30 N 13 '47

Mixed metals; U.S. Steel Supply will distribute Reynolds aluminum products. Bsns W p22 S 11 '48

Mushrooming industrial applications brighten aluminum future. D. I. Brown. il Iron Age 160:131-3 N 6 '47

Presenting a review of aluminum markets. Light Metal Age 6:15-20 Ap '48

Advertising

How to uncover a new industrial market; research, advertising, publicity, and exhibits create million-pound market for Reynolds aluminum. J. C. Bjorkholm. il Ind Marketing 32:39-40+ D '47

Statistics

Aluminum, 1941-1946. Survey of Cur Bsns 1947 Sup p 150 [supplemented in monthly numbers]

Production, shipments, and stocks of primary aluminum in 1947, by months; production, 1941-47, by months; imports and exports in 1947; tabulations. Light Metal Age 6:30-1 Ap '48

Canada

Canadian aluminum, ltd. outstrips American counterpart. B. Ravits. Barron's 28:31-2 S 20 '48

Germany

Aluminum production in Germany; dependence chiefly on indigenous bauxite. Chem Age (Lond) 58:615 My 1 '48

India

Indian aluminum industry. S. K. Ghaswala. Light Metal Age 6:16-18 Je '48

Japan

Japanese aluminum and lead; rapid development based on ample power supplies. Chem Age (Lond) 59:190 Ag 7 '48

Northwestern states

Northwest aluminum is big business. il Elec West 101:73 O '48

Russia

Soviet Russia's aluminum totals. Chem Age (Lond) 58:98 Ja 17 '48

Southeastern states

Alcoa and aluminum in the Southeast. Manuf Rec 117:68 S '48

Western states

New giant of the West. R. T. Reinhardt. il Iron Age 161:190-7 Ja 1 '48

ALUMINUM laboratories

Aluminum laboratories limited, Kingston, Ont. A. W. J. Dyck. il Can Chem & Process Ind 32:830-4 S '48

ALUMINUM metallurgy

Alumina from clay by the lime-sinter method. F. R. Archibald and C. M. Nicholson. bibliog flow sheet il diags Metals Tech 15: TP2390 1-25 Je '48

Aluminum from clay. J Chem Educ 25:159-62 Mr '48

Development of the lime-soda process; highly efficient recovery technique. diag Chem Age (Lond) 58:299 F 28 '48

Elimination of iron in ammonium sulfate process for production of alumina from clay. A. T. Sweet and G. D. Gardner. bibliog U S Bur Mines Rep of Invest 4183:1-13 '48

German methods of producing alumina and aluminum. diags Light Metal Age 6:10-14 Ap '48

Process for the production of iron-free alum; laboratory development. E. A. Gee and W. K. Cunningham. 12pls U S Bur Mines Rep of Invest 4191:1-27 '48

Production of metallurgical alumina from Pennsylvania nodular diaspore clays. J. E. Conley and others. bibliog flow sheets 3pls maps diags U S Bur Mines Bul 465:1-193; pa 35c Supt. of doc. '47

Recovery of alumina from Wyoming anorthosite by the lime-soda-sinter process. R. A. Brown and others. 3pls U S Bur Mines Rep of Invest 4132:1-127 '47

Electrometallurgy

Electrical equipment of aluminum factory. Engineering 164:440 N 7 '47

Electrolytic production of aluminum. F. C. Frary. bibliog il diags Electrochem Soc J 94:31-40 Jl '48

ALUMINUM ores

Caribbean aluminum ores. O. C. Schmiedeman. bibliog il map diags Eng & Min J 149:78-82 Je '48

ALUMINUM oxide. See Alumina

ALUMINUM pavements. See Pavements, Aluminum

ALUMINUM pipes. See Pipes, Aluminum

ALUMINUM research

See also

Aluminum laboratories

ALUMINUM roofs. See Roofs, Aluminum

ALUMINUM ships. See Ships, Aluminum

ALUMINUM silicates

Preparation of methylpyridines by catalytic methods. N. M. Cullinane and others. bibliog Soc Chem Ind J 67:142-3 Ap '48

See also

Andalusite
Spodumene

ALUMINUM statues. See Statues, Aluminum

ALUMINUM stearate

Aluminum stearate gels for use as flame-thrower fuels. C. M. Cawley and others. bibliog pl diag Inst Pet J 33:721-55 D '47

Aluminum stearate gels in light hydrocarbon oils; development of incendiary mixtures for use in munitions. C. M. Cawley and others. bibliog 4pls diag Inst Pet J 33:649-72 N '47

ALUMINUM sulfate

Aluminum sulfate nomograph. D. S. Davis. Chem Ind 61:1048 D '47

Composition of rosin size precipitates; analyses of standard size precipitates. D. Price. bibliog Anal Chem 20:444-9 My '48

ALUMINUM tanks. See Tanks, Aluminum

ALUMINUM trimethyl

Infra-red spectrum and structure of aluminum trimethyl. K. S. Pitzer and R. K. Sheline. bibliog il J Chem Phys 15:552-3 My '48; Correction. 16:668 Jl '48

ALUMINUM tumblers. See Tumblers, Aluminum

ALUMINUM work

Aircraft know-how applied to truck aluminum bodies. R. W. Graham. il Automotive Ind 98:44-5+ Ja 1 '48

Aluminum furnace brazing; aircraft pitot tube and a carburetor air scoop. P. A. Koerner. il Machine Design 20:128 S '48

Bending and forming of 75S-T aluminum at elevated temperatures. M. L. Ochleane. il Mach 54:158-61 Ja '48

Brazing aluminum. G. W. Birdsall. Welding J 27:355-6 O '48

Brazing aluminum alloys. H. R. Clauser. il Materials & Methods 27:78-82 My '48

Broaching of aluminum and magnesium. H. Gotberg. il diags Light Metal Age 6:12-16+ Ag '48

Deep-drawing one-piece aluminum boat hulls. il diag Mach 54:174-6 My '48

Development of a high-speed lathe for machining aluminum. R. L. Templin. il diags A S M E Trans 70:837-44 O '48; Abstract. Iron Age 161:61 Ja 22 '48; Discussion. A S M E Trans 70:844-6 O '48

Die-casting aluminum rotors on a vertical hydraulic press; Life-Line motor department, Westinghouse electric corp. il diag Mach 54:150-2 F '48

ALUMINUM work—Continued

- Drilling aluminum alloys with high-speed steel drills. Mach 54:173 Ap '48
- Effect of single- and multi-hole die extrusion on the properties of extruded aluminum alloy bar; abstract. L. Northcott and others. Light Metal Age 6:30 F '48
- Effective extrusion design in aluminum. H. Cohen. II diags Light Metal Age 6:8-12+ O '48
- Gramm introduces first model of aluminum trailer series. II Automotive Ind 98:49+ Je 15 '48
- Hot stretch-forming of aluminum sheets. J. A. Johnson. II Mach 54:170-1 Ag '48
- How to work aluminum and its alloys. A. Ashburn. II diags Am Mach 92:85-100 JI 1 '48
- Impact extrusion methods at western aluminum plant; collapsible tube manufacturing. H. Pierce. II Light Metal Age 6:20+ Ag '48
- Light metals cold rolling. II Elec R (Lond) 142:153-6 Ja 30 '48
- Light metals hot rolling; Birmetals, Ltd. II Elec R (Lond) 141:609-13 O 24 '47
- Pressed metal opportunities for light metals. II Light Metal Age 6:12-15 F '48
- Production hardness testing speeds manufacture of aluminum extrusion and tube products. O. L. Mitchell. Steel 123:104+ My '48
- Quality control of aluminum sheet. A. Gelb. II Iron Age 161:72-7 My 13 '48
- Shot-peening aluminum forgings; Pratt & Whitney aircraft division of United aircraft corp. C. H. Wick. II Mach 54:133-9 N '47
- Soldering aluminum alloys; magnetostriction oscillator vibrates soldering iron at ultrasonic frequency. F. W. Thomas and E. Simon. II diag Electronics 21:90-2 Je '48
- Some important things you can do with wrought aluminum alloys. O. L. Mitchell. II Light Metal Age 6:8-11 Ag '48
- Stretch forming aluminum sheets. II Iron Age 161:86-7 Je 3 '48
- Theory and practice of pressing aluminum. J. W. Lengbridge. II diags Tool Eng 20:17-22 Je; 21:21-4 JI; 23-6 Ag; 23-6 S; 23-6 O; 27-30 N '48 (to be cont)
- Tooling the Wright cyclone forged cylinder head. F. E. Whitacre. II diags Tool Eng 21:17-20 JI '48
- What size is hot work? both warm weather and operating heat must be considered when making close fits with aluminum and magnesium. L. W. Macomber and C. N. Weiler. II Am Mach 91:101-4 N 20 '47

See also**Aluminum—Welding****Patents**

- International patent calendar; U.S., British, Canadian and German abstracts. Published in bi-monthly numbers of Light metal age

ALUMINUM work, Architectural

- Mammoth skylight installation; puttyless aluminum type; aluminum louvered vents. II Sheet Metal Worker 39:33+ S '48

ALUMINUM works

- Large Canadian aluminium plant at Kingston, Ontario. Engineer 185:143 F 6 '48
- New giant of the West. R. T. Reinhardt. II Iron Age 161:190-7 Ja 1 '48
- Special tools bore aluminum castings at high speed. B. C. Brosheer. II diags Am Mach 92:90-2 Ag 12 '48

Electric equipment

- Aluminum conductors used exclusively throughout new rolling mill of Aluminum company of America. II diags Elec World 129:81-4 Ap 24 '48
- Electrical equipment of aluminum factory. Engineering 164:440 N 7 '47

Power

- Conversion equipment in the United States aluminum industry. J. Tompkins. Elec Eng 66:1068-73 N '47
- Radial engines for aluminum works. II Power 92:419-20 JI '48
- U.S. will supply additional power for aluminum. P. J. Raver. Elec World 130:84 S 11 '48

ALUMS

- Magnetic resonance absorption in diluted chrome alums. C. A. Whitmer and others. bibliog Phys R 73:1463-70 Je 15 '48
- Microwave spectroscopy of paramagnetic salts; the spectrum of chromic alum. P. R. Weiss. bibliog Phys R 73:470-6 Mr 1 '48
- Process for the production of iron-free alum; laboratory development. E. A. Gee and W. K. Cunningham. 12pls U S Bur Mines Rep of Invest 4191:1-27 '48
- Resistant lining for alum boiling tanks; thermoplastic, non-porous, flexible membrane faced with acidproof brick. E. S. Hopkins. diags Chem Eng 55:102-5 Mr '48
- Sodium phospho aluminate. Chem Eng 55:163 Mr '48

See also**Ammonium chromium sulfate****AMALGAMATED association of street, electric railway and motor coach employees of America**

- Report of the international secretary-treasurer. Mass Transportation 43:523-4 N '47
- AMALGAMATED lithographers of America Offset upsurge. Bsns W p 104-7 N 22 '47
- AMALGAMATED press, limited

- Statement by the chairman at annual general meeting. W. E. B. Camrose. Economist 155:82 JI 10 '48

AMALGAMATED research and development company

- Research company's plan; financial and material aid for inventors. Chem Age (Lond) 57:646 N 15 '47

AMALGAMS

- Balanced alkaline dry cells. S. Ruben. II diag Electrochem Soc Trans 92 (preprint 19): 219-29 '47

AMARILLO, Texas**Water supply**

- Waterworks improvements. S. M. Field. II Pub Works 79:27 JI '48

AMATEUR radio operators. See Radio operators, Amateur**AMAZON valley**

- Cracking the Amazon basin; International hylean Amazon institute. map Bsns W p32+ Mr 6 '48
- Future of the Amazon. P. van Dresser. II map Sci Am 178:11-15 My '48

AMBER glass. See Glass, Colored**AMBERLITES**

- Anion-exchange equilibria in an anion exchange resin. R. Kunin and R. J. Myers. bibliog Am Chem Soc J 69:2874-8 N '47
- Exchange adsorption of ions from aqueous solutions by organic zeolites; kinetics. G. E. Boyd, A. W. Adamson and L. S. Myers, jr. diag Am Chem Soc J 69:2836-48 N '47

- Hydrolysis regeneration of an anion exchange resin. H. P. Kortschak and J. H. Payne. Am Chem Soc J 70:3139-40 S '48

- Ion-exchange as a separations method; separation of fission-produced radiolabels, including individual rare earths, by complexing elution from amberlite resin. E. R. Tompkins, J. K. Khym and W. E. Cohn. bibliog Am Chem Soc J 69:2769-77 N '47
- Purification of zirconium by ion exchange columns. J. A. Ayres. Am Chem Soc J 69: 2879-81 N '47

- Separation of rare earths by ion exchange; cerium and yttrium. F. H. Spedding and others. bibliog Am Chem Soc J 69:2777-81 N '47

- Separation of rare earths by ion exchange; neodymium and praseodymium. F. H. Spedding and others. Am Chem Soc J 69:2786-92 N '47

AMBYSTOMA tigrinum. See Salamanders**AMEBA**

- Concerning the genera of amebas. R. L. King and T. L. Jahn. Science 107:293-4 Mr 10 '48

- Taxonomic characteristics for amebae; reply to King and Jahn. C. G. Wilber. Science 107:445 Ap 30 '48

AMERICA

- Economic profile of the Americas. R. Beteta. Comm & Fin Chr 166:1946+ N 13 '47

AMERICAN academy of tropical medicine Officers. Science 107:13 Ja 2 '48

- AMERICAN airlines, inc.**
Irregulars accused of conspiracy; AA files complaint charging coast-to-coast carriers are plotting to evade nonsked exemption. Aviation W 49:13 Ag 30 '48
- AMERICAN allergy foundation**
Officers for 1948. Science 107:110 Ja 30 '48
- AMERICAN and foreign power company, inc.**
Court to enforce SEC utility plan. Comm & Fin Chr 168:1357 O 4 '48
- Public utility securities.** Comm & Fin Chr 168:1428 O 7 '48
- Revised plan cuts junior holders' share. Barron's 27:34 N 10 '47
- AMERICAN association for the advancement of science**
AAAS on the Pacific slope. R. C. Miller. Science 108:220-3 S 3 '48
- AAAS summarized proceedings and directory. Science 107:674-5 Je 25 '48
- Annual meeting, section on geology and geography; section on medical sciences, Chicago. Science 107:55-7 Ja 16 '48
- Brief historical sketch. F. R. Moulton. Science 108:217-18 S 3 '48
- Centenary; a preliminary report. J. M. Hutzel. Science 108:428-30 O 22 '48
- Centennial celebration, AAAS; a preview. E. W. Sinnott. Science 107:455-6 My 7 '48
- Centennial meeting, 1948. Science 106:535 D 5 '47
- Centennial membership goal. Science 108:31-2, 76-7 Ji 9, 23 '48
- Historical sketch. Science 106:463-4 N 14 '47
- Meeting, Chicago, Dec. 26-31. Chem & Eng N 26:94-5 Ja 12 '48
- Meeting, Chicago, Dec. 26-31. Science 107:237-9 Mr 5 '48
- Officers for 1948. Science 107:55 Ja 16 '48
- One world of science stressed at centennial celebration, Washington, Sept. 13-17. Chem & Eng N 26:2886-9+ S 27 '48
- Preview of the 114th meeting, Chicago, Dec. 26-31, 1947. Science 106:555-66 D 12 '47
- Section on astronomy (D); symposium on origin of the earth. Science 107:160-1 F 13 '48
- Southwestern division of the AAAS. F. E. E. Germann. Science 108:224-6 S 3 '48
- AMERICAN association of advertising agencies**
Four A's three decades. J. C. Cornelius. Pors Ptr Ink 223:31-3+ Ap 9 '48
- Kynett heads new 4-A group on newspapers. Ed & Pub 81:22 Ji 17 '48
- Meeting, New York, Nov. 18. Adv & Sell 41:52+ Ja '48
- Central council**
Meeting, Chicago, Oct. 8. Ed & Pub 81:42 O 16 '48
- Pacific council**
Agents and reps swap gripes, at 4-A parley; annual sessions, Arrowhead, Calif. Ed & Pub 81:13 O 16 '48
- AMERICAN association of blood banks**
Annual meeting, 1st, Buffalo, Aug. 26-28. Science 108:375 O 8 '48
- AMERICAN association of candy technologists**
AACT organized. Food Ind 20:1165 Ag '48
- AMERICAN association of cereal chemists**
Annual meeting, 33d, Cincinnati, May 23-28. Food Ind 20:1028-9 Ji '48
- AMERICAN association of insurance general agents**
Annual convention, San Francisco, May 16-19. East Underw 49:22 My 21 '48; Nat Underw 52:1+ My 20; 3 My 27 '48
- AMERICAN association of oilwell drilling contractors**
Annual meeting, 8th, Houston, Oct. 11-13. Oil & Gas J 47:54-6 O 14 '48
- Officers and committee members in charge of arrangements of annual meeting; program. Oil & Gas J 47:144-8 O 7 '48
- AMERICAN association of passenger traffic officers**
Annual meeting, 85th, Estes Park, Sept. 14-16. Ry Age 125:592-5 S 25 '48
- AMERICAN association of petroleum geologists**
Annual meeting, Denver, April 26-29; with abstracts of papers. Oil & Gas J 46:100-1, 109-10+ Ap 29 '48
- Annual meeting, 33d, Denver, April 26-29. Am Assn Pet Geologists Bul 32:1161-200 Je '48
- Constitution. Am Assn Pet Geologists Bul 31:2225-34 D '47
- Membership list. Am Assn Pet Geologists Bul 32:390-499 Mr '48
- Study of ancient sedimentology will occupy attention of A.A.P.G. research committee for some years to come. C. J. Deegan. Oil & Gas J 46:98-9 Ap 29 '48
- AMERICAN association of railroad superintendents**
Annual meeting, 52d, Chicago, June 8-10. Ry Age 124:1215-13 Je 19 '48
- AMERICAN association of railway surgeons**
Annual meeting, 53th, Chicago, Nov. 23-25. Ind Med 17:25-6 Ja '48
- AMERICAN association of schools and departments of journalism**
Meeting, Philadelphia. Ed & Pub 81:58 Ja 10 '48
- AMERICAN association of state highway officials**
Annual meeting, 33d, New York, Sept. 22-26. Roads & Sts 90:78-81 O; 89-90 N '47; Eng N 139:437- O 2 '47
- Annual meeting, 34th, Salt Lake City, Sept. 19-24. Eng N 141:39+ S 30 '48
- Joint cooperative committee meeting with Associated general contractors of America, Miami, Dec. 7. Concrete 56:40 Ja '48; Roads & Sts 91:108+ Ja '48
- AMERICAN association of teachers of journalism**
Annual convention, 32d, Boulder, Colo., Sept. 1. Ed & Pub 81:8 S 4 '48
- Convention, 31st, Philadelphia. Ed & Pub 81:10+ Ja 3 '48
- AMERICAN association of textile chemists and colorists**
Annual convention, Chicago, Oct. 23-25. Rayon 28:585 N '47
- Annual convention, Chicago, Oct. 23-25; with abstracts of papers. Oil Paint & Drug Rep 152:7+ N 3 '47
- Annual meeting; abstracts of papers. Textile World 98:133+ N; 139+ D '47; 139+ Ja, 147+ F '48
- Annual meeting, 27th, Augusta, Ga., Oct. 21-23, 1948. Am Dyestuff Rep 37:328-39 My 17 '48
- Convention, 27th, Augusta, Ga., Oct. 21-23. Textile Col 70:22-3+ O '48; Oil Paint & Drug Rep 154:5+ N 1 '48
- Council meeting, 162d, New York, June 8. Am Dyestuff Rep 37:459-60 Ji 12 '48
- General research meeting, Chicago, Oct. 24. Am Dyestuff Rep 36:778-84 D 29 '47
- National convention, 27th, Augusta, Ga., Oct. 21-23; program, exhibits, committees, abstracts of papers. Am Dyestuff Rep 37:670-82 O 18 '48
- 160th council meeting. Am Dyestuff Rep 37:144-6 Mr 8 '48
- Panel meeting, northern New England section, Andover, Mass., May 21. Am Dyestuff Rep 37:547-52 Ag 23 '48
- President's address, 26th annual meeting. H. F. Herrmann. Am Dyestuff Rep 37:7-9 Ja 12 '48
- Questionnaire on research; research problem screening meeting. Am Dyestuff Rep 37:216-17 Ap 5 '48
- Committee on research**
Gearing toward better textiles. J. R. Bonnar. Am Dyestuff Rep 36:765-6+ D 29 '47
- 152d and 153d meetings. Am Dyestuff Rep 37:147-8 Mr 8 '48
- Research committee meeting, New York, April 2. Am Dyestuff Rep 37:292-4 My 3 '48
- AMERICAN association of university teachers of insurance**
Annual meeting, 15th, Chicago, Nat Underw 52:11 Ja 1 '48; Nat Underw (Life ed) 52:1+ Ja 2 '48
- AMERICAN automobile association**
Urges use of foreign oil to aid Europe; applauds restroom cleanup. Nat Pet N 39:20 N 12 '47
- AMERICAN bankers association**
A.B.A. convention; abstracts of principal addresses. Burroughs Clearing House 32:19-21+ N '47
- Annual convention, 73d, Atlantic City, Sept. 28-Oct. 1. Comm & Fin Chr 166:1405+ O 9 '47; Banking 40:42-52, 90-1 N '47

AMERICAN bankers association—Continued

Annual convention, 74th, Detroit, Sept. 26-29. Comm & Fin Chr 168:1413+ O 7 '48;
Burroughs Clearing House 33:33-56 O '48;
Banking 41:80-86+ N '48
How the postman helps your bank; value of A.B.A. reports, studies and communications. Banking 40:86-7 Ja '48
Mid-western credit conference, Chicago, Oct. 28. Banking 40:89 D '47
Save and produce; anti-inflation program. map Banking 40:33-43+ F '48
Voluntary credit control program. Burroughs Clearing House 32:24-7 F '48

Savings division

Eastern regional savings and mortgage conference, New York, March 15-16. Banking 40:100 Ap '48

Trust division

Annual convention, 74th, Detroit. Trusts & Estates 87:253-5, 351-3 O '48
Newly elected state vice presidents. Trust & Estates 86:518; 87:143 Je, Ag '48
Proceedings of 16th mid-continent trust conference, Chicago, Nov. 6-7. Trusts & Estates 85:501-3 D '47
Proceedings of 21st regional trust conference of the Pacific coast and Rocky Mountain states, San Francisco, Oct. 22-24. Trusts & Estates 85:407-12+ N '47
Proceedings of 29th annual mid-winter trust conference, New York, Feb. 9-11. Trusts & Estates 86:101-4+, 198-204+ F-Mr '48; Banking 40:98-101 Mr '48

AMERICAN bar association**Insurance section**

Annual meeting, Seattle, Sept. 6-9. Nat Underw 52:25+ S 9 '48

Public utility law section

Annual meeting, Seattle, Wash. Sept. 6-9. Pub Util 42:573-634 O 21 '48

Real property, probate and trust law section

Annual meeting, Seattle, Sept. 6-7. Trusts & Estates 87:247, 261-74+ O '48

AMERICAN bison. See Bison, American**AMERICAN Bosch corporation**

Capitalization increased. Comm & Fin Chr 167:2461-2 Je 7 '48

AMERICAN bottlers of carbonated beverages

Annual meeting, 29th, Atlantic City. Food Ind 20:5-7+ Ja '48

AMERICAN box board company

Common stock offered. Comm & Fin Chr 166:2553 D 22 '47

AMERICAN brake shoe company

Investment audit. P. Dobbs. Mag of Wall St 82:28-9+ Ap 10 '48

AMERICAN broadcasting company

Common stock offered. Comm & Fin Chr 167:2245 My 24 '48

AMERICAN bureau of shipping

Annual meeting, 86th, New York. Weekly Underw 158:366+ Ja 31 '48

AMERICAN car company

American Can's private depression now over. P. A. Murphy. Barron's 27:25 D 1 '47

Consolidated income account for calendar years, 1945-1947. Comm & Fin Chr 167:1357-8 Mr 29 '48

AMERICAN car and foundry company

Annual report, 49th. Comm & Fin Chr 168:341-2 Ji 26 '48

Ten potential market leaders for 1948. Mag of Wall St 81:403 Ja 17 '48

AMERICAN ceramic society

ACS golden jubilee meeting, Chicago; abstracts of papers. Cer Ind 50:72-7+ My '48

Annual meeting, 50th, Chicago. Am Cer Soc Bul 27:188-95 My 15 '48

Annual meeting, 50th, Chicago; abstracts of papers on heat resisting materials. Iron Age 162:86-9 Ji 8 '48

Annual meeting, 50th, Chicago; with abstracts of papers. Brick & Clay Rec 112:46-50+ My '48

Celebrates golden jubilee in Chicago, April 26-29. Chem & Eng N 26:1435 My 17 '48

Fiftieth annual meeting program; with abstracts of papers and author index. plans Am Cer Soc Bul 27:101-36 Mr 15 '48

From an idea 50 years ago, ACS grows to leading place in ceramic world. Cer Ind 50:64-5 Ap '48; Same. Brick & Clay Rec 112:55-6 Ap '48

Golden jubilee meeting; Chicago, April 25-30; program. Cer Ind 50:71-2+ Ap '48; Brick & Clay Rec 112:58+ Ap '48

Historical data. Am Cer Soc Bul 27:214 My 15 '48

Local sections. E. M. Rupp. Am Cer Soc Bul 27:79 F 15 '48

Meeting of board of trustees, Columbus, Ohio, Dec. 5. Am Cer Soc Bul 27:30-1 Ja 15 '48

Membership roster. Am Cer Soc Bul 26:305-46 O 15 '47

Membership roster. Am Cer Soc Bul 27:381-428 O 15 '48

Outstanding student speech contest at ACS annual convention. Cer Ind 50:65 My '48

Pacific coast regional meeting, Los Angeles, Oct. 16-17. Glass Ind 28:867-8+ N '47

Proposed amendments to the constitution. Am Cer Soc Bul 27:137-9 Mr 15 '48

Whiteware ACS members get data on recent investigation. Cer Ind 49:86-7 O '47

Whiteware, materials and equipment divisions fall meeting, Conneaut Lake Park, Pa. Sept. 17-18. Cer Ind 51:66+ N '48

Glass division

A.C.S. to celebrate golden jubilee at Chicago, April 25-30; Glass division program. Glass Ind 29:191-3+ Ap '48

Annual meeting, 29th, Chicago, April 25-30; with abstracts of papers. Glass Ind 29:316-21+ Je '48

Autumn meeting, 19th, Sept. 5-6; with abstracts of papers. Glass Ind 28:513-15+ O '47; Cer Ind 49:76-7+ O '47

AMERICAN ceramic society journal

Edward E. Marbaker named editor. Am Cer Soc Bul 27:285-7 Ji '48

AMERICAN chain and cable company

Slight dividend lift. Barron's 28:27 Ag 30 '48

AMERICAN chemical society

ACS board of directors' minutes including new bylaws and regulations. Chem & Eng N 26:179-90 Ja 19 '48

ACS board of directors; minutes of meeting, Dec. 2-3, 1947. Chem & Eng N 25:3854-7 D 29 '47

Board of directors minutes of meeting, New York, June 20. Chem & Eng N 26:2056-7 Ji 12 '48

Divisional previews of 113th meeting. Chem & Eng N 26:1070-2 Ap 12 '48

Divisions of petroleum chemistry and gas and fuel chemistry meetings, St Louis, Sept. 6-10; abstracts of papers. Oil & Gas J 47:83+ S 9 '48

Meeting, 112th, New York, Sept. 15-19; with abstracts of papers. Can Chem & Process Ind 31:918-20, 924 O '47

Meeting, 113th, Chicago, April 19-23, 1948; program. Chem & Eng N 26:748-74 Mr 15 '48

Meeting, 113th, Chicago, April 19-22; with abstracts of papers. Can Chem & Process Ind 32:430-3 My '48

Meeting, 113th, Chicago, April 19-23; with abstracts of technical papers. Chem & Eng N 26:1274-9, 1344-66 My 3-10 '48

Meeting, 114th, Portland, Ore. Sept. 13-17; abstracts of papers. Chem & Eng N 26:2870-3 S 27 '48

Meeting, 114th, Sept. 1948; official reports. Chem & Eng N 26:3117-38 O 18 '48

Midwest session, St Louis, Sept. 6-10, Chem & Eng N 26:2752-63 S 20 '48

National meeting, Chicago. Bsns W p46+ My 1 '48

National meeting, 114th; program. Chem & Eng N 26:2261-90 Ag 2 '48

Official reports for the year 1947. Chem & Eng N 26:535-58 F 23 '48

Official reports, 113th meeting, Chicago; board of directors minutes; Council minutes, etc. Chem & Eng N 26:1605-42 My 31 '48

Organization, activities, etc. Science 108:205-6 Ag 27 '48

Philosophy of classification of chemical literature. E. H. Huntress. bibliog Ind & Eng Chem 40:473-6 Mr '48

Preliminary program, 113th meeting, Chicago, April 19-23, 1948. Chem & Eng N 26:31-6 Ja 5 '48

AMERICAN chemical society—Continued

Preliminary program, 114th national meeting, Washington, St Louis, Portland, Aug. 30-Sept. 17, 1948, Chem & Eng N 26:1590-7 My 31 '48

Radio world salutes ACS, 11 Chem & Eng N 26:1367 My 10 '48

Reorganized council conducts business with dispatch, Chem & Eng N 26:1212 Ap 26 '48

Should ACS candidates present platforms? yes! J. A. Campbell; no! T. H. Vaughn and H. E. Tremain, Chem & Eng N 26:1062-4 Ap 12 '48

Southwest regional meeting, 4th, Shreveport, La., Dec. 9-11; program, Chem & Eng N 26:3286+ N 1 '48

Third Southwest meeting makes history, Chem & Eng N 26:3358-9 D 29 '47

Varied program ready for divided ACS meeting, Chem & Eng N 26:2427-9 Ap 16 '48

Washington session of the 114th national meeting, Aug. 30-Sept. 3; with abstracts of papers, Can Chem & Process Ind 32: 821-3+ S '48

Washington session opens first divided national ACS meeting, Aug. 30-Sept. 3, Chem & Eng N 26:2676-87 S 13 '48

Chemical nomenclature committees

Chemical nomenclature committees, Chem & Eng N 26:3026 O 11 '48

Chicago section

Technical conference, Chicago, Dec. 26, Oil Paint & Drug Rep 153:7+ Ja 5 '48

Delaware section

Chemical progress in Delaware reviewed at thirtieth anniversary, 11 Chem & Eng N 26:612 Mr 1 '48

Industrial and engineering chemistry division

Chemical marketing field studied at meeting, Chicago, Oil Paint & Drug Rep 153:7+ Ap 26 '48

Symposium on chemical marketing; introductory remarks on chemical marketing section, W. H. Harding, Chem & Eng N 26:1690-1 Je 7 '48

Wartime techniques disclosed at I&EC symposium, Chem & Eng N 26:164-5 Ja 19 '48

New York section

Second annual all-day symposium on recent developments reported to New York section, Chem & Eng N 26:609 Mr 1 '48

Petroleum division

Annual meeting, 113th, Chicago; abstracts of papers, Oil & Gas J 46:58-9 Ap 22 '48; Pet Refiner 27:160+ My '48

Meeting, St Louis, Sept. 6-10; abstracts of papers, Pet Eng 19:171-2 S '48; Pet Processing 3:961+ O '48

Philadelphia section

Meeting-in-miniature of the Philadelphia section, 2d, Jan. 22, Chem & Eng N 26:311 F 2 '48

Physical and organic chemistry division

Meeting, Syracuse, June 28-30, Chem & Eng N 26:2052-5 Jl 12 '48

Rubber chemistry division

Summer meeting, Los Angeles, July 22-25, Chem & Eng N 26:2354-5 Ag 9 '48

Rubber division

Biographies of officers, Rubber Age 62:439 Ja '48

Fall meeting, Detroit, Nov. 8-10; abstracts of papers, Rubber Age 64:63-7 O '48

Meeting, 52d, Chicago, April 21-23, India Rubber World 118:237-8 My '48

Spring meeting, Chicago, April 21-23; abstracts of papers, Rubber Age 62:665-70 Mr '48; India Rubber World 117:758-62 Mr '48

Spring meeting, Chicago, April 21-23; with abstracts of papers, Rubber Age 63:210-12 My '48

Summer meeting, Los Angeles, July 22-23; program; abstracts of papers, India Rubber World 118:536+ Jl '48; Rubber Age 63: 473-7 Jl '48

Summer meeting, Los Angeles, July 22-23, India Rubber World 118:817-18 S '48

Rubber division library

Rubber division library, India Rubber World 117:372 D '47; Rubber Age 62:310 D '47; Elec Eng 67:305-6 Mr '48

AMERICAN cities power and light corporation
Offers to retire up to 400,000 shares of its class B stock in partial liquidation, Comm & Fin Chr 167:741-2 F 16 '48

AMERICAN cladmetals company
Stock offered, Comm & Fin Chr 166:1989 N 17 '47

Stock offered, Comm & Fin Chr 168:1477 O 11 '48

AMERICAN college of life underwriters
Acquires own home, 11 East Underw 49:12 Je 25 '48

Diplomas conferred on 215, Life Ins Courant 53:26-31 O '48

250 successfully finish examinations for C.L.U. Nat Underw (Life ed) 52:3+ Ag 13 '48

AMERICAN communications association
Cable strike ends in defeat, 11 Bsns W p 100-1 Ap 10 '48

AMERICAN concrete institute
Annual meeting, Denver; with abstracts of papers, Concrete 56:11+ Ap '48

Annual meeting, 44th, Denver, Feb. 23-26, Am Concrete Inst J 19:sup4-28 Ap '48; Eng N 140:335-6 Mr 4 '48; Rock Prod 51:193-4 Ap '48

President's address; unique position of the Institute as a professional organization, S. Walker, Am Concrete Inst J 19:605-10 Ap '48

AMERICAN concrete pipe association
Annual meeting, New Orleans, Eng N 140:403 Mr 18 '48

Annual meeting, 40th, New Orleans, March 11-13; with abstracts of papers, Concrete 56:14-15+ Ap '48; Rock Prod 51:189-92 Ap '48

AMERICAN council of commercial laboratories
Annual meeting, 11th, Colorado Springs, Oil Paint & Drug Rep 154:7 Jl 19 '48

AMERICAN council on education for journalism
ACEJ approves internships for teachers, Ed & Pub 31:160 O 16 '48

AMERICAN cyanamid company
They struck oil; Pittsburgh Plate Glass and American Cyanamid; subsidiary, Bsns W p36 My 8 '48

AMERICAN dairy association
Annual meeting, 9th, Chicago, Food Ind 20: 728 My '48

AMERICAN dietetic association
Annual meeting, 31st, Boston, Oct. 18-22; announcement, Science 108:350 O 1 '48

AMERICAN district telegraph protection system
Throw your fire troubles away; central station services; fire detection, alarm and watchman's system, R. K. Hyde, 11 diag Safety Eng 96:10-13+ Ag '48

AMERICAN drug manufacturers association
Annual meeting, 36th, Bretton Woods, June 7-10, Chem & Eng N 26:1838-9 Je 21 '48

Annual meeting, 36th, Bretton Woods, N. H. June 7-10; with abstracts of papers, Oil Paint & Drug Rep 153:5+ Je 14 '48

AMERICAN dry milk institute
Annual meeting, 23d, Chicago, April 20, Food Ind 20:883+ Je '48

AMERICAN economic association
Annual meeting, 60th, Chicago, Dec. 28-31, Comm & Fin Chr 167:488+ Ja 29 '48

AMERICAN electroencephalographic society
Charting the sea of brain waves, H. H. Jasper, biblog Science 108:343-7 O 1 '48

AMERICAN electropaters' society
Annual meeting, 35th, Atlantic City, June 28-July 1; abstracts of papers, Steel 123:108+ Ag 2 '48

Annual meeting, 35th, Atlantic City, June 28-July 1; program, officers, exhibitors' list, Metal Finishing 46:77-84 Je '48

New national officers elected at annual convention meeting, Atlantic City, Metal Finishing 46:46 Ag '48

AMERICAN ethnological society
Officers for 1948. Science 107:163 F 13 '48

AMERICAN farm bureau federation
Insurance conference, Chicago. Nat Underw 51:24+ D 13 '47; Nat Underw. (Life ed) 51:34+ D 19 '47

AMERICAN federation of labor
Annual convention, 66th, San Francisco, Oct. 6-17. Int Labour R 57:392-7 Ap '48
Attitude of the American federation of labor on job evaluation. E. N. Hay. Personnel J 26:163-9 N '47
Eyes overseas; A.F.L. and C.I.O. interest in foreign labor movements. Bsns W p90-2 N 1 '47
Sixty-sixth AFL convention. B. Stern and N. M. Bortz. Mo Labor R 65:527-31 N '47
Toward unity? C.I.O. and A.F.L. sit down together to discuss ERP with European unions. Bsns W p78+ Mr 6 '48
What chances of organic trade union unity? abstract. C. W. Mills and H. Schneider. Management R 37:20-1 Ja '48

AMERICAN federation of musicians
Petrillo ban, a scheme to beat law; czar's order seeks to protect Welfare fund with recorders' help. E. Abrams. Barron's 27:29-30 N 24 '47
Petrillo settles with television broadcasters. Bsns W p58+ Mr 27 '48

AMERICAN flint glass workers union
60-year peace; sales promotion scheme started by glass workers' union and employers. Il Bsns W p 106-8 O 16 '48

AMERICAN foreign insurance association
Foreign business means premium; role of AFIA. F. J. Malley. Il Spectator (Property ed) 14:12-14 JI 8 '48
New officers. East Underw 49:18 Ja 16 '48

AMERICAN foundation for high blood pressure
New heart attack; Cleveland businessmen open new battle against heart disease. Bsns W p26 My 8 '48

AMERICAN foundrymen's association
Annual meeting, 52d, Philadelphia, May 3-7. Foundry 76:68-73+ Je; 96-7+ JI '48; Iron Age 161:80-3 My 20 '48; Steel 122:64-6+ My 10 '48
Annual meeting, 52d, Philadelphia, May 3-7; program, committee members, exhibitors, awards. Foundry 76:103-19+ My '48
Officers and directors. Foundry 76:165+ Je '48

AMERICAN gas and electric company
Completes merger of Indiana units. Comm & Fin Chr 168:937 S 6 '48

AMERICAN gas association
Accounting section considers 1948. J. A. Williams. Gas Age 101:23+ Ja 8 '48
AGA publications. Pub Util 42:519-21 O 7 '48
Annual distribution, motor vehicle and corrosion conference, Pittsburgh, April 19-21. Am Gas J 168:33-5 Je '48
Annual meeting, 29th, Cleveland, Oct. 6-8; abstracts of papers. Am Gas Assn Mo 29:471-6+ N '47; Am Gas J 167:13-18+ N '47; Gas Age 100:19-35 O 30 '47; Pub Util 40:656-63 N 6 '47
Annual meeting, 30th, Atlantic City, Oct. 4-8; with abstracts of papers. Gas Age 102:25-41+ O 23 '48; Am Gas J 169:11-19+ N '48; Pub Util 42:681-6 N 4 '48
Annual meeting, Atlantic City, Oct. 4-8; program. Am Gas Assn Mo 30:22-6+ S '48
Awards for outstanding individual achievement presented at A.G.A. convention. Am Gas Assn Mo 29:492-3+ N '47; Am Gas J 167:30-2 N '47
Current publications of the American gas association, Feb. 1, 1948; with prices. Am Gas Assn Mo 30:supp 1-18 F '48
Economic explorations; A.G.A. committee on economics. R. E. Ginna. Am Gas Assn Mo 30:15-16+ JI-Ag '48
Home service workshop, Chicago, Jan. 21-24. Am Gas J 168:15+ Mr '48; Gas Age 101:25-6+ Mr 4 '48
1947-1948. officers, section and committee chairmen; portraits. Gas Age 102:69 S 30 '48
Progressing through cooperative research and promotion. E. R. Acker. Am Gas Assn Proc 1947:54-8
PAR carries the ball; gas industry's promotion, advertising and research program. pors Am Gas Assn Mo 29:527-30+ D '47

Research at work; Association's gas production research committee. Il Am Gas Assn Mo 30:24 JI-Ag '48
Residential gas mobilized for 1948. C. S. Stackpole. Gas Age 101:32-4+ Ja 8 '48
Statistics show the way; usefulness of A.G.A. statistical information. W. E. Caine. Am Gas Assn Mo 30:3-4+ F '48
Technical section, prime source of gas industry progress. A. C. Cherry. Il Gas Age 101:35-8+ Ja 8 '48
Technical section's conference on the gas industry's distribution, motor vehicle and corrosion problems, Pittsburgh, April 19-21. Am Gas Assn Mo 30:31-4+ My '48
Your association; a report. H. C. Wolf. Am Gas Assn Proc 1947:16-19

Appliance testing laboratory

A.G.A. laboratories report. Am Gas Assn Mo 30:37+ Mr '48
Approval standards revised. Am Gas Assn Mo 30:35+ My '48
Fact finding for sound standards. H. J. Hense. Il Am Gas Assn Mo 30:14-16 Ja '48
Hall succeeds Conner as director of A.G.A. testing laboratories. Am Gas Assn Mo 29:517 N '47
Laboratories operations at peak level; approval plan aids market development. Am Gas J 167:40 D '47
Laboratories operations hit peak. Il Am Gas Assn Mo 30:11-12 O '48
Laboratory facilities expanded; acquisition of new property on the West coast. Il Am Gas Assn Mo 30:7+ S '48

Natural gas department

Spring meeting, Houston, May 4-5. Am Gas Assn Mo 30:3-6+ Je '48; Am Gas J 168:29-31 Je '48; Gas Age 101:17-21+ My 27 '48

AMERICAN gear manufacturers association
Annual meeting, 32d, Hot Springs, June 7-9. Iron Age 161:79-81 Je 24 '48
Annual meeting, 32d, Hot Springs, June 7-9. Mach 54:183-4 JI '48
Annual meeting, 32d, Hot Springs, June 7-9; with abstracts of papers. Steel 122:64 Je 14 '48
Semi-annual meeting, Chicago, Oct. 26-29; abstracts of papers. Mach 54:160-2 D '47

AMERICAN heritage foundation
Printer's ink presents awards in American Heritage employee relations competition; C. E. Wilson accepts award to General Electric. Ptr Ink 225:128+ O 29 '48

AMERICAN industrial hygiene association
Annual meeting, 9th, Boston, March 30-April 1. Chem & Eng N 26:1074-5 Ap 12 '48

AMERICAN institute for foreign trade
Yanks, new style. Fortune 38:116+ Ag '48

AMERICAN institute for property and liability underwriters
Annual meeting, 5th, Chicago, Sept. 26-28. East Underw 49:38 O 1 '48; Nat Underw 52:1+ S 30 '48
C.P.C.U. award winners. Nat Underw 52:15 Ag 5 '48
How to become a CPCU. W. C. Smith, jr. Rough Notes 91:17+ Ja '48

AMERICAN institute of accountants
Disclosure in financial statements; codification of Institute pronouncements. J Account 86:112-13 Ag '48
Institute's new president sees freedom as accountancy's goal. G. D. Bailey. J Account 84:451-2 D '47
President summarizes present position of Institute. E. B. Wilcox. J Account 84:449-51 D '47

Bulletins

Do the smaller firms comply with Accounting research bulletins? A. F. Stewart. J Account 86:213-17 S '48

AMERICAN institute of actuaries
Annual meeting, Chicago, April 29-30. Nat Underw (Life ed) 52:1+ Ap 30; 1+ My 7 '48
Joint meeting with Actuarial society of America, French Lick Springs, Ind. Oct. 27-29. East Underw 49:3 O 23 '48; Nat Underw (Life ed) 52:1+ O 29; 1+ N 5 '48
Merger of actuaries' two groups approved. East Underw 49:14 My 21 '48
President's address at annual meeting. J. G. Beatty. East Underw 49:3+ Ap 30 '48

AMERICAN institute of architects
Annual convention, 80th, Salt Lake City.
Arch Rec 104:88-91+ Ag '48

AMERICAN institute of banking
Annual convention, 46th, Buffalo. Trusts & Estates 87:47-51 J1 '48

AMERICAN institute of biological sciences
Established, Feb. 20. Science 107:267 Mr 12 '48

AMERICAN institute of chemical engineers
Annual meeting, 40th, Detroit, Nov. 9-13. Chem & Eng N 25:3570-1 D 1 '47
Annual meeting, 40th, Detroit, Nov. 9-13; with abstracts of papers. Chem Eng Prog 43:sup 16-19+ O; sup 12+ D '47; Oil Paint & Drug Rep 152:7+ N 17 '47
Meeting, New Orleans, Feb. 15-19. Chem & Eng N 26:606-7 Mr 1 '48
Process design featured at AIChE symposium. Chem & Eng N 25:3291 N 10 '47
Regional meeting, Cleveland, May 9-12. Chem & Eng N 26:1516-17 My 24 '48; Chem Eng Prog 44:sup 17-21+ Je '48
Regional meeting, French Lick, Ind. Sept. 15-17. Chem & Eng N 26:2954-5 O 4 '48
Regional meeting, New Orleans, Feb. 15. Chem Eng Prog 44:sup 18 Mr; 20+ Ap '48
Regional meeting, 6th, Buffalo; with abstracts of papers. Chem Eng Prog 43:sup 12+ N '47

AMERICAN institute of draftsmen
Offers many services to the industry. Am Bld 70:196 F '48

AMERICAN institute of electrical engineers
Annual meeting, 64th, Mexico City. Elec Eng 67:787-8 Ag '48

Institute problems. B. D. Hull. Elec Eng 67:776-7 Ag '48

Midwest general meeting, Chicago, Nov. 3-7. Elec Eng 66:1232-47 D '47

Officers and committees for 1948-49; directors' report. Elec Eng 67:793-825 Ag '48

Our institute. E. S. Lee. Elec Eng 67:777 Ag '48

Our institute membership. E. S. Lee. Elec Eng 67:996 O '48

Pacific Coast meeting, Spokane, Aug. 24-27. Elec West 101:82-3 O '48

Section and branch activities; annual report for 1947-1948; tabulated. Elec Eng 67:1117-20 N '48

Section chairmen for 1948-49; portraits. Elec Eng 67:1004-5, 1110-11 O-N '48

Sections officers 1948-49; geographical district, executive committees, student branches. Elec Eng 67:1011-14 O '48

Technical subcommittees. Elec Eng 67:160-9, 203-6 Ja-F '48

Winter meeting, Pittsburgh, Jan. 26-31. Elec Eng 67:272-97, 333-404 Mr-Apr '48

Winter meeting, Pittsburgh, Jan. 26-31. Power Generation 52:98-9+ Mr '48

Winter meeting, Pittsburgh, Jan. 26-31; papers and discussions summarized. Elec World 129:88-95 F 14 '48

AMERICAN institute of mining and metallurgical engineers
AIME publications, 1949. Min & Met 29:421-2 Ag '48

Annual meeting, New York, Feb. 15-19. Iron Age 161:127-30 F 26 '48; Chem & Eng N 26:606 Mr 1 '48; Eng & Min J 149:86-7 Mr '48; Oil Paint & Drug Rep 153:7+ F 23 '48; Steel 122:53+ F 23 '48; Metal Prog 53:390-2 Mr '48; Min & Met 29:177-99 Mr '48

Annual meeting; program. Min & Met 29:161-8 F '48

Completing divisionalization; proposal. Min & Met 28:537 N '47

New officers of standing and technical committees, 1948-1949. Min & Met 29:206 Mr '48

Regional meeting, Denver, Sept. 28-Oct. 3. Min & Met 28:562-7 N '47

Report of the committee on divisionalization and publication program. Min & Met 29:1-8 sec 2 Mr '48

Revised publication program and new plan of organization. Min & Met 29:505-7 S '48

Coal division

Annual meeting, New York, Feb. 16-18. Coal Age 53:106+ Mr '48

Industrial minerals division

Annual meeting, New York, Feb. 15-19. Rock Prod 51:144-5 Ap '48

Institute of metals division

Fall meeting, Chicago. Min & Met 28:613+ D '47

Petroleum division

Annual meeting, New York. Oil & Gas J 46:70-1, 73-6 F 19 '48

Annual meeting, New York; Feb. 15-18; abstracts of papers. World Oil 127:262+ Ap '48

Fall meeting, Tulsa, Oct. 8-10. Min & Met 28:569-72 N '47

Meeting, Dallas, Oct. 4-6. Oil & Gas J 47:122-3+ O 7 '48

AMERICAN institute of public opinion

How Gallup poll samples public opinion. Il Bsns W p39-40+ Je 19 '48

AMERICAN insurance company

Capital stock offered. Comm & Fin Chr 166:2410 D 15 '47

AMERICAN iron and steel institute

Annual meeting, 56th, New York, May 26-27. Iron Age 161:90-3 Je 10 '48

Annual meeting, 56th, New York, May 26-27; with abstracts of technical papers. Steel 122:27-9, 63+ My 31 '48

AMERICAN journal of science (periodical)

American journal of science, 1818-1948. E. W. Sinnott. Science 108:227-9 S 3 '48

AMERICAN leather chemists association

Annual meeting, 44th, Bretton Woods, June 17-18. Chem & Eng N 26:1980-1+ J1 5 '48

AMERICAN legion

Library

American legion national headquarters library, archives and files. V. Grimm. Special Lib 39:3-9 Ja '48

AMERICAN life convention

Annual meeting, 43d, Chicago, Oct. 4-8. East Underw 49:1, 3-11+ O 8; 3 O 15 '48; Nat Underw (Life ed) 52:23 O 8 '48; Weekly Underw 159:860+ , 866-76, 934 O 9-16 '48; Spectator (Life ed) 156:34-8+ O '48

Joint committees of LIAA and ALC. East Underw 49:11 Ja 30 '48; Nat Underw (Life ed) 52:2 Ja 30 '48

Medical section annual meeting, 36th, Bretton Woods, N.H., June 24-26. Nat Underw (Life ed) 52:1 Je 26; 1 J1 2 '48; Weekly Underw 158:1850-1 Je 26 '48; East Underw 49:3+ J1 16 '48

Name state vice-presidents. Nat Underw (Life ed) 51:6 N 23 '47

Standing and special committees. Nat Underw (Life ed) 52:3 F 6 '48

AMERICAN light and traction company

United Light & Railways lowers value of planned dividends; decline in price of common stock. Barron's 28:26-7 F 23 '48

AMERICAN literature

Bibliography

Bibliography of American literature at Philadelphia. A. H. Quinn. J Doc 3:177-87 D '47

AMERICAN locomotive company

Alco's educational program matches rapid Dieselization of railroads. E. F. Carney. Il Diesel Power 25:66-9+ D '47

Leads in Diesel field with GM. Barron's 28:35 My 10 '48

AMERICAN lumberman (periodical)

American lumberman at 75. Sales Management 61:122 S 1 '48

AMERICAN machine and foundry company

Annual report. Comm & Fin Chr 167:1797 Ap 26 '48

AMERICAN machine tool distributors' association

Spring meeting, Los Angeles, March 15-16. Am Mach 92:132 Ap 8 '48

AMERICAN management association

Annual marketing conference, New York, March 18-19. Sales Management 60:114+ Ap 15 '48

Answering questions for businessmen. Il Bsns W p22-4 My 22 '48

How to organize and run a good convention or meeting. E. J. Dever, jr. Il Ptr Ink 224:277-30 J1 23 '48

Personnel workshop; school for management; A.M.A.'s display of employee publications. Il Bsns W p 108 Mr 13 '48

AMERICAN management association—Cont.**Insurance division**

Meeting, Chicago, Nov 18-19. East Underw 48:31+ 32-3 N 28 '47; Nat Underw 51:1+ N 20 '47

Spring meeting, Atlantic City, May 24-25. East Underw 49:30-1 My 28 '48; Nat Underw 52:1+ 2 My 27 '48; Spectator (Property ed) 13:10-13+ Je 10 '48

Packaging conference

Annual exposition and conference, 17th, Cleveland, April 26-30. Chem & Eng N 26: 1437 My 17 '48

Annual packaging conference and exposition, 17th, Cleveland, April 26-30; with abstracts of papers. Mod Packaging 21:143-56 Je '48

Highlights of 17th annual packaging exposition, Cleveland, Chem Ind 62:978+ Je '48
Packaging problems ease. Il Bsns W p45-6+ My 8 '48

AMERICAN-MARIETTA company

Stock offered. Comm & Fin Chr 166:2093-4 N 24 '47

AMERICAN marketing association

AMA chairman announces major objectives, names of subcommittee members. Ind Marketing 22:49+ D '47

AMA votes national headquarters and staff. H. L. Stephen. Ptr Ink 223:94 Je 18 '48

AMERICAN men of science

Distribution of those starred in American men of science, S. S. Visser. map Am J Sci 245:714-24 N '47

AMERICAN mining congress

Coal division annual conference of committees, Pittsburgh, Nov. 18. Min Cong J 33: 53-5+ D '47

Coal division annual meeting, Cincinnati, April 26-28; with abstracts of papers. Coal Age 58:138-40+ My '48; Min Cong J 34:53-74 Je '48

Coal division annual meeting, Cincinnati; program, committees, speakers. Min Cong J 34:38-50 Ap '48

Work of the American mining congress in '47. J. D. Conover. Il Min Cong J 34:34-8 Ja '48

Western division

Annual meeting, El Paso, Oct. 27-29. Eng & Min J 148:84+ D '47; Explosives Eng 25: 174-5 N '47

Annual meeting, El Paso, Oct. 27-29; with abstracts of papers. Min Cong J 33:64-85 D '47

Annual meeting, San Francisco, Sept. 20-25; committee members, directors, program. Min Cong J 34:41-56 S '48

Annual meeting, San Francisco, Sept. 20-25; with abstracts of papers. Eng & Min J 149: 99-103 O '48

AMERICAN motors, inc.

Stock offered. Comm & Fin Chr 166:2206 D 1 '47

AMERICAN museum of natural history**Expeditions**

Expedition to Cape York peninsula, Australia. Science 106:635 D 26 '47

Major expedition into central Africa. Science 106:541 D 5 '47

New Zealand expedition. R. C. Murphy. Science 108:463-4 O 29 '48

AMERICAN newspaper advertising network

ANAN groups headed by Hall and McKittrick. Ed & Pub 81:24 Mr 13 '48

AMERICAN newspaper guild

Annual convention, 15th, San Francisco. Ed & Pub 81:6+ J1 3; 7+ J1 10 '48

570 students hold associate status in Guild. Ed & Pub 81:45 Ag 7 '48

Guild to seek \$500 base for exempt class. Ed & Pub 81:8 Ja 10 '48

AMERICAN newspaper publishers association

Annual convention, 62d, New York. Ptr Ink 223:82+ Ap 30 '48

Mechanical conference, 20th, Pittsburgh. Ed & Pub 81:5-6, 62+ J1 24 '48

President's address to national convention. D. W. Howe. Ed & Pub 81:70+ Ap 24 '48

Bureau of advertising

Ad bureau's report challenges promotion. T. S. Irvin. Ed & Pub 81:46 Je 26 '48

Advertising case histories by the Bureau of advertising. Ed & Pub 81:7+ Je 12 '48

Barnes is appointed director. Ed & Pub 81: 14 O 16 '48

Don U. Bridge heads advisory group. Ed & Pub 81:14 My 15 '48

425 dailies now use retail division helps. Il Ed & Pub 81:14 Ja 24 '48

How to use facts on file at A.N.P.A. Bureau of advertising; what advertisers can learn from Bureau's 250,000 punched cards. C. J. Swan. Il Ptr Ink 223:37-9 Je 18 '48

AMERICAN oil chemists' society

Annual meeting, 39th, New Orleans, May 4. Chem & Eng N 26:1512-13 My 24 '48; Oil Paint & Drug Rep 153:7, 76 My 10 '48

Fall meeting, 21st, Chicago, Oct. 20-22; with abstracts of papers. Oil Paint & Drug Rep 152:7+ O 27 '47; Soap & San Chem 23:36-9+ N '47; Chem & Eng N 25:3284-5 N 10 '47

AMERICAN optical company

Debentures offered. Comm & Fin Chr 167: 1253-4 Mr 22 '45

AMERICAN paper and pulp association

Annual meeting, 71st, New York, Feb. 22-27. Paper Ind 29:1779-80+ Mr '48

AMERICAN petroleum institute

API marketing committee takes steps to help independent oil jobbers. H. Ridder and D. L. Harbour. Nat Pet N 40:23-4 My 12 '48

Annual meeting, 27th, Chicago, Nov. 10-13. Nat Pet N 39:11-16, 86+ N 12; 13-18, 13-4+ N 19 '47; Oil & Gas J 46:186-8 N 15; 40+ N 22 '47; Chem & Eng N 25:3492-3 N 24 '47

Eastern district of Production division spring meeting, White Sulphur Springs, June 30-July 2. Oil & Gas J 47:38-40 J1 8 '48

Midcontinent district of Production division spring meeting, Wichita, March 24-26. Oil & Gas J 46:102-3+ Ap 1 '48

Pacific Coast district of Production division spring meeting, Los Angeles, May 6-7. Oil & Gas J 47:196 My 13 '48

Panel discussion on How can API help the petroleum marketer? Am Pet Inst Proc 27(2):32-7 '47

Refining division mid-year meeting, Philadelphia, May 10-13. Nat Pet N 40:20 My 19 '48; Oil & Gas J 47:122-3 My 20 '48

Refining division mid-year meeting, Philadelphia, May 10-13; with abstracts of papers. Pet Processing 3:531-4 Je '48

Resolutions adopted by the board of directors; extracts from minutes of board and executive-committee meetings; and division and department reports to the board; list of officers, directors and committee members. Am Pet Inst Proc 27(1):133-70 '47

Short, long range world oil supply study groups named by API oil policy committee. Nat Pet N 40:21 Mr 10 '48

Southwest district of Production division spring meeting, San Antonio, April 14-16. Oil & Gas J 46:53-4 Ap 22 '48

AMERICAN pharmaceutical association

1948 national meeting, San Francisco, Aug. 8-14. Chem & Eng N 26:2552-3 Ag 30 '48

AMERICAN pharmaceutical manufacturers' association

APMA scientific award won by American medical association. Oil Paint & Drug Rep 152:4 N 3 '47

Annual meeting of eastern section, New York, Feb. 23-25. Oil Paint & Drug Rep 153:60-1 Mr 1 '48

Meeting, Havana, April 12-14. Oil Paint & Drug Rep 153:5+ Ap 19 '48

Midyear meeting, New York, Dec. 16. Oil Paint & Drug Rep 152:7+ D 22 '47

Midyear meeting, New York. Chem & Eng N 26:99 Ja 12 '48

AMERICAN philosophical society

Abstracts of papers presented at autumn general meeting. Science 106:628-32 D 26 '47

Abstracts of papers presented at 1948 meeting. Science 107:585-91 Je 4 '48

AMERICAN photo-engravers association

Annual convention, 51st, Buffalo, Inland Ptr 120:61-4 N '47

AMERICAN physical society

Meeting at Madison, June 21-23, 1948; with abstracts of papers. Phys R 74:1253-67 N 1 '48

Proceedings, meeting at Chicago, Dec. 29-31, 1947; abstracts of papers. Phys R 73:1217-36 My 15 '48

Proceedings, meeting at Houston, Nov. 28-29, 1947; with abstracts of papers. Phys R 73: 644-67 Mr 15 '48

Proceedings, meeting at Washington, April 29-May 1, 1948; with abstracts of papers. Phys R 74:1201-53 N 1 '48

Proceedings, meeting of the New York state section, Schenectady, N.Y., Nov. 8, 1947; with abstracts of papers. Phys R 73:96 Je 1 '48

Proceedings, meeting of the Ohio section and Southeastern section; with abstracts of papers. Phys R 74:114-29 Jl 1 '48

Proceedings, meeting of the Ohio section, Oberlin, Nov. 1, 1947; with abstracts of papers. Phys R 73:94-5 Ja 1 '48

Proceedings; minutes of meeting at Los Angeles, Jan. 2-3, 1948; with abstracts of papers. Phys R 73:550-42 Mr 1 '48

Proceedings, 1947 annual meeting, New York, Jan. 29-31; with abstracts of papers. Phys R 73:1237-76 My 15 '48

Division of fluid dynamics

Members of the executive committee; symposium on heat transfer. Science 108:375-6 O 8 '48

AMERICAN plant food council

Annual meeting, 3d, White Sulphur Springs, W. Va. Oil Paint & Drug Rep 153:5+ Je 21 '48

AMERICAN power and light company

American Power plans Texas distribution. Barron's 28:27 Jl 5 '48

Shifts base for recap plan. Barron's 28:32 Mr 1 '48

Two plans filed with SEC. Comm & Fin Chr 167:1661 Ap 15 '48

AMERICAN press association

Transom is fading on weekly's sales map. Ed & Pub 81:20 My 29 '48

AMERICAN press institute

Appraisal of API. F. Taylor. Ed & Pub 81: 32 Ag 7 '48

AMERICAN public health association

American public health association program for engineering personnel. W. T. Ingram. Am Water Works Assn J 40:337-40 Mr '48

AMERICAN public works association

Annual meeting, Boston. Eng N 141:71+ O 28 '48

Annual meeting, Jacksonville, Oct. 5-8; with abstracts of papers. Roads & Sts 90:71-3+ N '47; Eng N 139:503+ O 16 '47

AMERICAN pulp and paper mill superintendents association

Annual meeting, 28th, New Orleans, May 19-21. Paper Tr J 126:45+ My 27 '48; Paper Ind 30:411-12+ Je '48

AMERICAN radiator and standard sanitary corporation

1947 operations and comparisons for other years. Comm & Fin Chr 168:145-6 Jl 12 '48

AMERICAN radio relay league

ARRL; history of the organization. K. B. Warner. Q S T 32:33-4+ N '48

AMERICAN railway bridge and building association

Annual meeting, Chicago, Sept. 20-22. Ry Age 125:637-42, 676-80 O 2-9 '48

AMERICAN railway engineering association

Annual meeting, 47th, Chicago; with abstracts of papers. Ry Age 124:558-75 Mr 20 '48

Annual meeting, Chicago, March 16-18, Eng N 140:453 Mr 25 '48

Parallel progress and achievement; review of inception and growth of American railway engineering association and National railway appliances association. Ry Age 124: 508-9+ Mr 13 '48

AMERICAN republics corporation

Aided by higher crude oil prices. Barron's 27:35 D 22 '47

AMERICAN road builders' association

Annual meeting, 45th, Washington. Eng N 140:165+, 224 F 5-12 '48; Roads & Sts 91: 67-8+ F '48; Concrete 56:32+ Mr '48

Meeting, Chicago, July 16-24. Eng N 141: 15-16 Jl 29; 59-60 Ag 5 '48; Concrete 56: 16+ Ag '48; Roads & Sts 91:55-7+ Ag '48

AMERICAN rolling mill company. See Armco steel corporation**AMERICAN safety razor corporation**

Razor firm needs aid of new lines to repeat top earnings. Barron's 27:26 D 1 '47

AMERICAN short line railroad association

Annual meeting, 35th, Chicago, Oct. 13-14. Ry Age 125:776-7 O 23 '48

AMERICAN society for engineering education

Annual meeting, 56th, Austin, June 14-18. J Eng Educ 39:45-7 S '48

Annual meeting, 56th, University of Texas, June 14-18, 1948; program. J Eng Educ 38: 593-610 Ap '48

Officers, council members, divisions, committees for 1947-48; with list of members. J Eng Educ 38:8-294 F '48

Putting the officers to work. C. J. Freund. J Eng Educ 39:8-10 S '48

Reports, minutes of General Council meeting, etc. J Eng Educ 39:18-44 S '48

What do you know about your section? B. J. Robertson. map J Eng Educ 38:1-6 F '48

Committee on secondary schools

Engineering colleges and secondary schools. S. S. Steinberg. J Eng Educ 38:611 My '48

AMERICAN society for metals

Convention, Philadelphia, Oct. 25-29, 1948; abstracts of papers. Metal Prog 54:362+, 512+ S '48

AMERICAN society for pharmacology and experimental therapeutics

Officers. Science 107:419 Ap 23 '48

AMERICAN society for testing materials

A.S.T.M. and the foundry industry. C. S. Cole. Foundry 76:86-7+ Ap '48

Annual meeting, 51st, Detroit, June 21-25. Steel 122:96+ Je 28 '48; Oil Paint & Drug Rep 154:7+ Jl 5 '48; Eng N 141:11 Jl 1 '48; Iron Age 162:92-4 Jl 15 '48; Foundry 76:104+ Ag '48

Committee D-1 meeting, Washington, March 1-3. Oil Paint & Drug Rep 153:5+ Mr 8 '48

Committee D-12 meeting, New York, March 23-24. Soap & San Chem 24:102 Ap '48

New standards. Bens W p44 Jl 10 '48

AMERICAN society for the study of arteriosclerosis

Officers. Science 108:204 Ag 27 '48

AMERICAN society for X-ray and electron diffraction

Joint meeting with Crystallographic society, New Haven, March 31-April 3. Anal Chem 20:493-4 My '48

Meeting in joint scientific sessions with Crystallographic society of America. Science 107:419 Ap 23 '48

AMERICAN society of bakery engineers

Annual meeting, 24th, Chicago. Food Ind 20: 727-8 My '48

AMERICAN society of brewing chemists

Annual meeting, St Louis, April 28-May 1. Food Ind 20:381-2 Je '48

AMERICAN society of chartered life underwriters

Current trends forum of New York chapter CLU. East Underw 49:1, 3-4 Ap 23 '48; Nat Underw (Life ed) 52:3+ Ap 23 '48; Spectator (Life ed) 155:8-9+ My '48

AMERICAN society of civil engineers

ASCE policy stated on use of engineers employed by units of government. Civil Eng 18:176-7 Mr '48

Annual meeting, 95th, New York, Jan. 21-24. Eng N 140:95-6, 143+ Ja 22-29 '48; Civil Eng 18:69-77+ F '48

Civil engineers share knowledge of fluid mechanics with many related professions; A.S.C.E. committee on fluid mechanics of the Hydraulics division. H. Rouse. II Civil Eng 17:37-9+ D '47

Convention, Seattle, July 21-22. Civil Eng 18:483-8 Ag '48

Convention, Seattle, Washington. Eng N 141: 6-7 Jl 29 '48

Fall meeting, Boston, Oct. 13-15; abstracts of papers. Civil Eng 18:675-81+ N '48; Eng N 141:6-7+ O 21 '48

Fall meeting, Jacksonville, Oct. 15-16; with abstracts of papers. Civil Eng 17:645-50, 683-8 N '47

New officers installed at New York meeting; prizes awarded. Civil Eng 18:105-7 F '48

AMERICAN society of civil engineers—Cont.

- Society prizes and medals to be awarded: sketches and portraits of recipients. Civil Eng 18:32-9 Ja '48
- Society's economic status analyzed. R. E. Dougherty. Civil Eng 18:525 Ag '48
- Spring meeting, Pittsburgh, April 7-9. Civil Eng 18:273-6+ My '48
- Spring meeting, Pittsburgh. Eng N 140:543-5 Ap '48
- Statement of policy. Civil Eng 18:315 My '48
- AMERICAN society of heating and ventilating engineers**
- Annual meeting, New York, Feb. 2-5. Dom Eng 171:163-4 Mr '48
- Annual meeting, 54th, New York, Feb. 2-5. Heating-Piping 20:111-14 Mr; 113-42 Ap '48
- Annual meeting, 54th, New York, Feb. 2-5; with abstracts of papers. Heat & Ven 45:89-93 F '48
- Semi-annual meeting, Bretton Woods, June 21-23. Heat & Ven 45:103-4 Jl '48; Heating-Piping 20:133-42 Ag '48; Dom Eng 172:160+ Ag '48

Committee on research

- 1947 annual report. il diag Heating-Piping 20:115-20 Mr '48
- AMERICAN society of journalism school administrators**
- Meeting, Kansas City, June 18-19. Ed & Pub 81:52 Je 26 '48
- AMERICAN society of limnology and oceanography**
- Limnological society of America changes name. Science 107:313 Mr 26 '48
- AMERICAN society of lubrication engineers**
- Annual meeting, 3d, Buffalo, April 19-21. Steel 122:73 Ap 26 '48
- AMERICAN society of mechanical engineers**
- Accent on youth. E. W. O'Brien. Mech Eng 70:5-7 Ja '48
- ASME streamlines standards procedure. Ind Stand 19:31 My '48
- Annual meeting, New York, Nov. 28-Dec. 3; technical program. Mech Eng 70:934-42 N '48
- Annual meeting, 68th, Atlantic City, Dec. 1-5. Mach 54:169-70 Ja '48; Product Eng 19:158-9 Ja '48
- Annual meeting, 68th, Atlantic City, Dec. 1-5; abstracts and list of power plant papers. Power Generation 52:98-101 Ja '48
- Annual meeting, 68th, Atlantic City, Dec. 1-5; with abstracts of papers. Mech Eng 70:49-74 Ja '48
- Council reports for 1947. Mech Eng 70:41-8 Ja '48
- Depositories for A.S.M.E. Transactions in the United States including territories and dependencies, and in Central and South America and Great Britain. A S M E Trans 70:61-4 sec 2 Ja '48
- Fall meeting, Salt Lake City, Sept. 1-4. Elec Eng 68:1155-6 N '47
- Fall meeting, Salt Lake City, Sept. 1-4. Mech Eng 69:965-70 N '47
- Semi-annual meeting, Milwaukee, May 30-June 5. Mech Eng 70:641-8 Jl '48
- Semi-annual meeting, Milwaukee, May 30-June 5. Steel 122:67+ Je 7 '48; Mach 54:187 Jl '48
- Semi-annual meeting, Milwaukee; abstracts of papers on machine design. Machine Design 20:98-105+ Ag '48
- Spring meeting, New Orleans, March 1-4. Mech Eng 70:477-80 My '48
- Student counseling, a new activity for the local sections. A. H. Morey. Mech Eng 69:1016 D '47
- Teaching our way of life; program of ASME engineers civic responsibility committee for 1948. F. A. Faville. bibliog Mech Eng 70:404-6 My '48

Industrial instruments and regulators division

- Annual meeting, 2d, Chicago, Sept. 8-9. Mech Eng 69:971-2 N '47

Rubber and plastics division

- Rubber and plastics division meeting, Atlantic City, Dec. 4. Rubber Age 62:312 D '47; India Rubber World 117:503-4 Ja '48

AMERICAN society of newspaper editors

- ASNE committee endorses government newscasts. Ed & Pub 81:17+ Ap 17 '48
- Annual meeting, 26th, Washington. Ed & Pub 81:17+ Ap 24 '48
- AMERICAN society of photogrammetry**
- Annual meeting, Washington. Eng N 140:147 Ja 29 '48
- AMERICAN society of protozoologists**
- Organized in Chicago, Dec. 29, 1947. Science 107:88 Ja 23 '48
- AMERICAN society of range management**
- Annual meeting, 1st, Salt Lake City, Jan. 30-31. Science 107:618-19 Je 11 '48
- AMERICAN society of refrigerating engineers**
- Annual meeting, 43d, Atlantic City, Dec. 7-10. Heat & Ven 45:119 Ja '48
- Annual meeting, 43d, Atlantic City; with abstracts of papers. Food Ind 20:182-3 F '48
- AMERICAN society of safety engineers**
- ASSE becomes independent. Nat Safety N 58:33 N '47
- AMERICAN society of tool engineers**
- Annual meeting, Cleveland. Steel 122:35-8+ Mr 22 '48
- Annual meeting, Cleveland, March 15-19. Tool Eng 20:44-51 My '48
- Erection of A.S.T.E. building marks milestone in Society progress. il map plan Tool Eng 21:38-9 Jl '48
- Semi-annual meeting, 15th, Boston, Oct. 30-Nov. 1. Am Mach 91:128-9 N 20 '47; Steel 121:79-80 N 10 '47
- Tool engineers industrial exposition, Cleveland, 1948; floor plan; exhibitors. Am Mach 92:127-32 Mr 11 '48
- AMERICAN-Soviet science society**
- Officers and former officers make a statement. L. C. Dunn and others. Science 108:279 S 10 '48
- AMERICAN soybean association**
- Annual meeting, 28th, Memphis, Tenn. Sept. 13-15. Oil Paint & Drug Rep 154:7+ S 20 '48
- AMERICAN spice trade association**
- Annual convention, 42d, New York. Oil Paint & Drug Rep 153:5+ My 10 '48
- AMERICAN standards association**
- ASA adopts Universal decimal classification system. Ind Stand 19:84 Ag '48
- ASA plans long-term financing. Ind Stand 19:30 My '48
- Highlights of 1947 annual meeting. Ind Stand 18:265-71 N '47
- Incorporated. Science 108:204 Ag 27 '48
- Standards in American industry. H. Coonley. Paint Oil & Chem R 110:29-30 N 13 '47
- AMERICAN statistical association**
- New York chapter annual meeting. New York, May 27. Comm & Fin Chr 167:2434 Je 3 '48
- Proceedings; 107th annual meeting. New York, Dec. 28-30. Am Stat Assn J 43:299-317 Je '48
- AMERICAN steel warehouse association**
- Annual meeting, Chicago. Iron Age 161:121-2 My 27 '48
- Chapters announce new officers for year. Iron Age 161:144+ My 13 '48
- AMERICAN sugar refining company**
- Annual report. Comm & Fin Chr 167:1581 Ap 12 '48
- AMERICAN telephone and telegraph company**
- A.T.&T. misses \$9 mark, but sees upturn. O. J. Gingold. Barron's 27:9 D 8 '47
- A.T.&T.'s profits due to rise. Bsns W p75-6+ D 20 '47
- Annual report. Comm & Fin Chr 167:742-3 F 16 '48
- Arbitrage selling holds down price of American telephone and telegraph stock. Barron's 27:20 D 29 '47
- Conversion of debentures. Comm & Fin Chr 168:246 Jl 19 '48
- Rate relief. Bsns W p88-91 Je 12 '48
- Telephone won't split stock, alter dividend; new president will have Gifford at his elbow for awhile. O. J. Gingold. Barron's 28:9 Mr 22 '48
- Who owns the AT&T? C. S. Van Cise. Pub Util 42:539-44 O 21 '48
- AMERICAN tobacco company**
- Common B stock given equal voting rights with common stock. Comm & Fin Chr 167:1581 Ap 12 '48
- Consolidated income account and consolidated balance sheet for 1947 and comparisons with other years. Comm & Fin Chr 167:1141-2 Mr 15 '48

AMERICAN tobacco company—Continued

Lucky Strike scrap over advertising policy. Bsns W p26 Ap 3 '48

AMERICAN transit association

Annual meeting, Atlantic City, Oct. 8-10; with abstracts of papers. Bus Transportation 26: 39-53 N '47; Pub Util 40:756-61 D 4 '47

Annual meeting, 67th, Atlantic City, Sept. 26-29; with abstracts of papers. Bus Transportation 27:44-5+ O '48; Pub Util 42:686-7 N 4 '48

Executive conference, French Lick Springs, March 31-April 1. Bus Transportation 27: 94-6 My '48

AMERICAN university, Washington, D.C.

American university. Science 108:276 S 10 '48

AMERICAN viscose corporation

Big earnings finance expansion. P. B. Stockton. Barron's 28:25 Ag 23 '48

Smaller return likely on plant expansion. Barron's 28:41 Ap 26 '48

AMERICAN water works association

Annual meeting, Atlantic City, May 3-7. Eng N 140:685+, 952-5 My 13, Je 10 '48; Water & Sewage 86:17-20+ Je '48

Annual meeting, 68th, Atlantic City, May 3-7; with abstracts of papers. Water & Sewage Works 95:197-209, 243-52, 269-64, 288-92 Je-Ag '48

Board of directors meeting, New York, Jan. 18-20. Water & Sewage Works 95:54-6 F '48

1947 conference, San Francisco; with list of papers. Am Water Works Assn J 39:1245-51 D '47

Papers scheduled at section meetings; titles and authors. Am Water Works Assn J 39: 1252-61 D '47

Report of the audit of funds for the year ending Dec. 31, 1947. Am Water Works Assn J 40:345-50 Mr '48

Report of the committee on water works practice for the year ending Dec. 31, 1947. Am Water Works Assn J 40:351-9 Mr '48

Report of the editor for the year ending, Dec. 31, 1947. Am Water Works Assn J 40:341-4 Mr '48

Canadian section

Annual meeting, Niagara Falls, Ont. April 12-14; with abstracts of papers. Water & Sewage 86:57-68+ Ap '48

AMERICAN water works company

Maintains net despite property sales. Barron's 28:34 Ap 12 '48

AMERICAN welding society

Annual report. Welding J 26:1060-2+, 1146+ N-D '47

Board of directors meeting, New York, Dec. 16. Welding J 27:142 F '48

Officers elected; meeting of board of directors. Welding J 27:732+ S '48

Railroads and the American welding society. L. E. Grant. Ry Mech Eng 122:140-1 Ap '48

AMERICAN weldment manufacturers association

A.W.M.A. organized; to standardize design and manufacturing procedure of weldments to be used as machine components. Product Eng 19:156-7 F '48

AMERICAN wood preservers' association

Annual meeting, 44th, St Paul, April 27-29. Ry Age 124:909-13 My 8 '48

AMERICAN zinc and chemical company

Business good, but plant closes; American Zinc dismantles Langeloth, Pa. factory. Bsns W p80 Ja 31 '48

AMERICAN zinc institute

Annual meeting, 30th, St Louis, April 15-16. Eng & Min J 149:107-8 My '48

AMERICANA furniture, inc.

Stocks offered. Comm & Fin Chr 167:41-2 Ja 5 '48

AMERICANS

American genius for bankruptcy; Europe, not the U.S.A., has the love of money. G. Burck. Fortune 37:130-1+ Ap '48

AMIDES

Amides; preparation of diacetimide. J. B. Polya and P. L. Tardew. Chem Soc J p 1081-3 JI '48

Basic esters and amides of 4-quinolylmercaptoacetic acid derivatives. A. R. Surrey. Am Chem Soc J 70:2190-8 Je '48

Elastic N-substituted polyamides. E. L. Wittbecker, R. C. Houtz and W. W. Watkins. bibliog il Ind & Eng Chem 40:875-9 My '48

Few experiments on the crystallinity of polyamides. M. E. Bergmann and others. bibliog il Textile Res J 18:1-8 Ja '48

Phase equilibrium studies on pyridine-amide system. S. Stephanou, C. A. VanderWerf and H. H. Sisler. bibliog Am Chem Soc J 70:264-7 Ja '48

Polyamide antifoams; relation between chemical constitution and effectiveness. A. L. Jacoby. bibliog J Phys & Colloid Chem 52:689-94 Ap '48

Polyamide foam inhibitors; mechanism of foam inhibition in steam generators. L. O. Gunderson and W. L. Denman. bibliog il Ind & Eng Chem 40:1363-70 Ag '48

Polyamide resins from dilinoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. bibliog Am Chem Soc J 70:760-3 F '48

Polyamides in Germany; intermediates. bibliog Mod Plastics 25:126-6+ Mr '48

Polyamides in Germany; preparation and applications. Mod Plastics 25:143-50+ Ap '48

Reaction of formaldehyde with proteins; cross-linking between amino and primary amide or guanidyl groups. H. Fraenkel-Conrat and H. S. Olcott. bibliog Am Chem Soc J 70:2673-84 Ag '48

Salol reaction. J. A. VanAllan. bibliog Am Chem Soc J 69:2913-14 N '47

Some amides and esters of fluoroacetic acid. J. C. Bacon and others. Am Chem Soc J 70:2653-5 Ag '48

Spectroscopic studies of the amide linkage. R. E. Richards and H. W. Thompson. Chem Soc J p 1248-60 S '47

Synthesis of α,β -unsaturated amides. A. Galat. Am Chem Soc J 70:2596 JI '48

Utilization of nicotinic acid and its amide by the human erythrocyte in vitro. E. Leifer and others. Am Chem Soc J 70:2908-10 S '48

AMIDINES

Amidines; preparation of amidines from cyanides, aluminum chloride, and ammonia or amines. P. Oxley, M. W. Partridge and W. F. Short. Chem Soc J p 1110-16 S '47

Amidines; preparation of amidines from cyanides, ammonia or an amine, and an ammonium or substituted-ammonium salt. P. Oxley, M. W. Partridge and W. F. Short. Chem Soc J p303-9 Mr '48

Attempts to find new chemotherapeutic amidines; derivatives of 1:1-diphenyl ethylene and naphthalene. J. N. Ashley, J. F. Grove and T. Henshall. Chem Soc J p261-4 Mr '48

Benzylamine analogues of chemotherapeutic diamidines. A. Albert, J. A. Mills and R. Royer. Chem Soc J p 1452-5 N '47

New methods for the preparation of amidines; abstract. P. Oxley and others. Chem & Ind p349-50 My 29 '48

Reaction of halogenomagnesium dialkylamides with nitriles; the preparation of N,N-disubstituted amidines. E. Lorz and R. Baltzy. Am Chem Soc J 70:1904-7 My '48

Analysis

Amperometric microtitration of diamidines. J. B. Conn. bibliog Anal Chem 20:585-6 Je '48

AMIDONE

New synthesis and confirmation of the structure of amidone. N. R. Easton, J. H. Gardner and J. R. Stevens. bibliog Am Chem Soc J 69:2941-2 D '47

Reaction of 1-dimethylamino-2-chloropropane with diphenylacetonitrile; the structure of amidone. E. M. Schultz, C. M. Robb and J. M. Sprague. bibliog Am Chem Soc J 69:2454-9 O '47

Some isomers of amidone and related compounds. N. R. Easton and others. Am Chem Soc J 70:76-8 Ja '48

Some new compounds related to amidone. J. H. Gardner, N. R. Easton and J. R. Stevens. Am Chem Soc J 70:2906-8 S '48

AMINATION

Chemical engineering unit processes; amination by reduction. J. Werner. il Ind & Eng Chem 40:1574-83 bibliog(223 ref, p 1581-3) S '48

Schmidt reaction; experimental conditions and mechanism. P. A. S. Smith. bibliog Am Chem Soc J 70:320-3 Ja '48

AMINATION—Continued

Study of the synthesis of plasmochin by the reductive amination method with Raney nickel, R. C. Elderfield and others. *Am Chem Soc J* 70:40-4 Ja '48

AMINES

Acid-binding properties of long-chain aliphatic amines. E. L. Smith and J. E. Page. *Soc Chem Ind J* 67:48-51 F '48

Action of Nessler's reagent on amines. H. A. Liebafsky and L. E. Bronk. *Anal Chem* 20:583-9 Je '48

Acylation of long chain aliphatic primary amines. J. H. MacGregor and F. Ward. *bibliog Soc Chem Ind J* 66:344-5 O '47

Aliphatic ketones and amines containing the trifluoromethyl group. R. G. Jones. *Am Chem Soc J* 70:143-4 Ja '48

Aliphatic nitro-compounds; preparation of 2-nitroalkylamines. R. L. Heath and J. D. Rose. *Chem Soc J* p 1486-9 N '47

Amidines; preparation of amidines from cyanides, aluminum chloride, and ammonia or amines. P. Oxley, M. W. Partridge and W. P. Short. *Chem Soc J* p 1110-16 S '47

Aminides; preparation of amidines from cyanides, ammonia or an amine, and an ammonium or substituted-ammonium salt. P. Oxley, M. W. Partridge and W. P. Short. *Chem Soc J* p303-9 Mr '48

Amines related to 2,5-dimethoxyphenethylamine; 2,5-diethoxy, 2-hydroxy-6-methoxy and 2-hydroxy-5-ethoxyphenylalkanolamines. W. S. Ide and R. Baltzly. *Am Chem Soc J* 70:1034-7 Mr '48

Antimonycatechol; coordination of simple amines and alcohols. L. M. Wheeler and C. K. Banks. *bibliog Am Chem Soc J* 70:1264-6 Mr '48

Arylcycloalkylamines; 2-phenylcyclopropylamine. A. Burger and W. L. Yost. *bibliog Am Chem Soc J* 70:2193-201 Je '48

Basic strengths of amines as measured by the stabilities of their complexes with silver ions. R. J. Bruchman and F. H. Verhoek. *Am Chem Soc J* 70:1401-4 Ap '48

Combination of acid dyes with amine and amide groups in nylon fibre. P. W. Carlene and others. *bibliog diags Soc Dyers & Col J* 63:358-93 D '47

Diamines; the synthesis of amino analogs of adrenaline, arterenol and ephedrine. R. Duschinsky and others. *Am Chem Soc J* 69:3150 D '47

Effect of the addition of amines on the electrode potential of copper in buffered acid solution. N. Hackerman and J. D. Sudbury. *bibliog Electrochem Soc J* 93:191-8 My '48

Imparting water-repellency to textiles by chemical methods; a review of the literature; amines, amides, and related compounds. H. A. Schuyten and others. *bibliog Textile Res J* 18:492-4 Ag '48

Low pressure reductive alkylation method for the conversion of ketones to primary amines. E. R. Alexander and A. L. Misesgades. *Am Chem Soc J* 70:1315-16 Ap '48

New condensation products of ethyl cyclopentanone-2-carboxylate with aromatic amines. H. C. Barany and M. Planka. *Chem Soc J* p 1420-1 O '47

New type of micelle; soap with alcohol, amine, or other polar-nonpolar molecules. W. D. Harkins and others. *J Chem Phys* 15:763-4 O '47

Preparation of 4-hydroxyquinoline derivatives from aromatic amines and ethyl ethoxymethylenemalonate. G. F. Duffin and J. D. Kendall. *Chem Soc J* p893-4 Je '48

Preparation of nitrite salts of alkyl amines. J. K. Wolfe and K. L. Temple. *bibliog Am Chem Soc J* 70:1414-16 Ap '48

Preparation of 2-nitro-1-alkenes from nitro amines. A. T. Blomquist and T. H. Shelly, Jr. *bibliog Am Chem Soc J* 70:157-9 Ja '48

Quadridentate amines; some coordination compounds of cobalt (III) and triethylenetetramine. F. Basolo. *bibliog Am Chem Soc J* 70:2634-8 Ag '48

Reaction of amines with phosphorus pentasulfide; thiophosphoric amides. A. C. Buck, J. D. Bartelson and H. P. Lankelma. *bibliog Am Chem Soc J* 70:744-6 F '48

Reaction of azlactones with secondary amines. D. K. Barnes, E. Campaigne and R. L. Shriner. *bibliog Am Chem Soc J* 70:1769-72 My '48

Reactions of N-benzenesulphonylbenziso-thiazolone with aromatic amines. E. W. McClelland and R. H. Peters. *Chem Soc J* p 1229-34 S '47

Reactions of ethylenimines; with ammonia and amines. L. B. Clapp. *bibliog Am Chem Soc J* 70:184-6 Ja '48

Reactions of β -keto esters with aromatic amines; syntheses of 2- and 4-hydroxyquinoline derivatives. C. R. Hauser and G. A. Reynolds. *Am Chem Soc J* 70:2402-4 JI '48

Resonance and hydrogen bond effects on the basic strengths of certain arylalkyl azomethines. C. D. Wagner and E. D. Peters. *Am Chem Soc J* 69:2914-15 N '47

Restricted rotation in aryl amines; preparation and resolution of N-succinyl-1-methylamino-2,4-dimethyl-6-substituted benzenes. R. Adams and N. K. Sundholm. *Am Chem Soc J* 70:2667-73 Ag '48

Steric inhibition of resonance; reactivities of some halogenated primary and tertiary aromatic amines. R. B. Sandin and J. R. L. Williams. *bibliog Am Chem Soc J* 69:2747-9 N '47

Studies in the anthracene series; a novel rearrangement in the reaction of halomethyl ketones with secondary amines. E. L. May and E. Mosettig. *Am Chem Soc J* 70:1077-9 Mr '48

Studies on the mechanism of the sulfonation of aromatic amines; rearrangement of barium phenylsulfamate. E. R. Alexander. *Am Chem Soc J* 70:1274 Mr '48

Sulfur-containing amines; local anesthetics. R. O. Clinton and others. *bibliog Am Chem Soc J* 70:950-5 Mr '48

Synthesis of amino mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. *Am Chem Soc J* 69:2672-4 N '47

Synthesis of imidazolines from 1,2-diamines and carboxylic acids. J. L. Riebsomer. *Am Chem Soc J* 70:1629-32 Ap '48

2-Thenyl substituted diamines with antihistaminic activity. F. Leonard and U. V. Solmsen. *bibliog Am Chem Soc J* 70:2064-7 Je '48

Thiophosphoric amides; aminolysis. A. C. Buck and H. P. Lankelma. *Am Chem Soc J* 70:2396-7 JI '48

Analysis

Acid-base reactions in benzene and other organic solvents; behavior of bromophthalein magenta with different classes of organic bases. M. M. Davis and F. J. Schuhmann. *il J Res Nat Bur Stand* 53:221-63 bibliog(94 ref. p262-3) S '47

Analysis of aliphatic amine mixtures; determination of secondary plus tertiary amines by the azomethine-acidimetric method. C. D. Wagner, R. H. Brown, E. D. Peters. *bibliog Am Chem Soc J* 69:2611-14 N '47

Analysis of aliphatic amine mixtures; determination of tertiary aliphatic amines in the presence of primary and secondary amines and ammonia. C. D. Wagner, R. H. Brown and E. D. Peters. *bibliog Am Chem Soc J* 69:2609-10 N '47

Detection of certain chlorinated tertiary aliphatic amines. A. J. Cruikshank and others. *Anal Chem* 70:849-50 N '47

AMINOACETONITRILE. See Glycinonitrile

AMINOACETOPHENONE

Mechanism of indole formation from phenacylarylamines; the conditions and mechanism of the isomerisation and indolisation of phenacylarylamines. F. Brown and F. G. Mann. *Chem Soc J* p858-70 Je '48

Mechanism of indole formation from phenacylarylamines; the stability and reactions of phenacyl-N-alkylarylamines. F. Brown and F. G. Mann. *Chem Soc J* p847-58 Je '48

AMINO acids

Amino acid conversion products; some substituted 3-indoleacetic acids and some substituted phenylhydrazones of β -formylpyruvic acid. F. J. Stevens and S. W. Fox. *bibliog Am Chem Soc J* 70:2263-5 Je '48

AMINO acids—Continued

- Amino acid impairment in casein heated with glucose. A. R. Patton and others. *bibliog Science* 107:623-4 Je 11 '48
- Amino acid intermediates; α -amino- γ -lactones. J. Fillman and N. Albertson. *bibliog Am Chem Soc J* 70:171-4 Ja '48
- Amino acid requirements of swine; tryptophan. W. M. Beeson and others. *bibliog Science* 107:599-600 Je 4 '48
- Amino acids; new synthesis of DL-tryptophan, DL-ornithine and DL-glutamic acid. D. T. Warner and O. A. Moe. *Am Chem Soc J* 70:2765-7 Ag '48
- Amino acids; phthalyl derivatives. J. H. Billman and W. F. Harting. *Am Chem Soc J* 70:1473-4 Ap '48
- Bacterial activity of racemized casein, caseose, and the four diastereoisomeric leucylleucines. S. W. Fox and others. *bibliog Am Chem Soc J* 70:2404-6 Jl '48
- Bacteriostasis in the amino-acid series; derivatives of alanine. D. F. Elliott, A. T. Fuller and C. R. Harrington. *Chem Soc J* p85-9 Ja '48
- Conversion of α -amino acids to acylamido ketones and oxazoles. R. H. Wiley and O. H. Borum. *Am Chem Soc J* 70:2005-6 Je '48
- Degradation of α -amino-acids to aldehydes and ketones by interaction with carbonyl compounds. A. Schönberg, R. Moubasher and A. Metataf. *bibliog diag Chem Soc J* p 176-82 F '48
- Deposition of protein in the liver following intravenous injection of an amino acid mixture (hydrolyzed protein) and glucose. C. A. Ross and R. Elman. *Science* 108:441-3 O 22 '48
- Diversity of amino acids in legumes according to the soil fertility. V. L. Sheldon and others. *Science* 108:426-8 O 22 '48
- Esterification of acylated α -amino acids. H. Rinderknecht and C. Nlemann. *Am Chem Soc J* 70:2605-6 Jl '48
- Formation of fluorescing substances from amino acids. J. L. Chen, J. D. Medler and R. A. Harte. *Am Chem Soc J* 70:3145-6 S '48
- Fractionation of amino acids from hydrolysates in nonaqueous systems. E. V. McCollum and A. A. Rider. *Science* 108:111-12 Jl 30 '48
- Infrared absorption spectra of some amino acids and their complexes. I. M. Klotz and D. M. Gruen. *bibliog J Phys & Colloid Chem* 52:961-8 Je '48
- Inhibition of D-amino acid oxidase by benzoic acid and various monosubstituted benzoic acid derivatives. G. R. Bartlett. *Am Chem Soc J* 70:1010-11 Mr '48
- Inhibition of microbiological growth by allylglycine, methallylglycine and crotylglycine. K. Dittmer and others. *bibliog Am Chem Soc J* 70:2499-501 Jl '48
- Native proteins as polycondensations of amino acids. D. Wrinch. *Science* 107:445-6 Ap 30 '48
- New synthesis of DL-serine. J. A. King. *bibliog Am Chem Soc J* 69:2738-41 N '47
- Nutritional significance of amino acid imbalance; abstract. C. A. Elvehjem. *Science* 106:510 N 28 '47
- Polycondensation of α -amino acid derivatives: polylysine. E. Katchalski, I. Grossfeld and M. Frankel. *bibliog Am Chem Soc J* 70:2094-2101 Je '48
- Preparation of some reactions of ethyl α -acetamidoacetate. N. F. Albertson and others. *bibliog Am Chem Soc J* 70:1150-3 Mr '48
- Prolyl and phthalyl derivatives of enantiomorphs of valine and leucine. M. Fling, F. N. Minard and S. W. Fox. *bibliog Am Chem Soc J* 69:2466-7 O '47
- Protein hydrolysate; source of glutamate flavor. L. A. Hall. *bibliog J Food Ind* 20:1158-60+ Ag '48
- Pteroylglutamic acid (folic acid), liver extract, and amino acids in the treatment of granulocytopenia in rats. F. S. Daft. *bibliog Pub Health Rep* 62:1785-92 D 26 '47
- Reactions of mustard-type vesicants with α -amino acids. V. du Vigneaud and others. *Am Chem Soc J* 70:1620-4 Ap '48
- Spectroscopic studies of the amide linkage. R. E. Richards and H. W. Thompson. *Chem Soc J* p 1248-60 S '47
- Studies in the azole series; the preparation of some thiazolones. A. H. Cook and others. *Chem Soc J* p 1056-60 Jl '48
- Syntheses of some amino-acids, including methionine. J. R. Catch and others. *Chem Soc J* p 1609-13 D '47
- Use of ion exchange resins for separation of basic amino acids. B. A. Hems and others. *bibliog Soc Chem Ind J* 67:77-80 F '48
- See also
Glutamic acid
Thyroxine
- Analysis
- Determination of amino nitrogen in corn sirup; modified Van Slyke method. B. L. Scaliet. *bibliog J Anal Chem* 20:353-4 Ap '48
- Determination of aspartic acid. B. Warshawsky and M. W. Rice. *bibliog Anal Chem* 20:341-4 Ap '48
- Paper chromatography applied to the isotopic derivative method of analysis. A. S. Keston, S. Udenfriend and M. Levy. *Am Chem Soc J* 69:3151-2 D '47
- Paper chromatography using capillary ascent. R. J. Williams and H. Kirby. *bibliog Science* 107:481-3 My 7 '48
- Partition chromatography of amino acids with applied voltage. G. Haugaard and T. D. Kroner. *Am Chem Soc J* 70:2135-7 Je '48
- Path of carbon in photosynthesis; amino acids. W. Stepka and others. *Science* 108:304 S 17 '48
- Qualitative analysis of amino acids in pollen collected by bees. J. L. Auclair and C. A. Jamieson. *bibliog Science* 108:357-8 O 1 '48
- Sensitivity of the ninhydrin reaction in paper partition chromatography. J. J. Pratt, Jr. and J. L. Auclair. *Science* 108:213-14 Ag 27 '48
- AMINOACRIDINE
- Acridine syntheses and reactions; a new synthesis of aminoacridines from formic acid and diarylamines; abstract. A. Albert. *Chem & Ind* p757 D 6 '47
- Reaction of 5-alkoxyacridines with bases and their salts. H. J. Barber and others. *bibliog Soc Chem Ind J* 66:411-15 N '47
- Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; 5-amino-2- and -4-trifluoromethylacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p32-5 Ja '48
- Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; some 5-amino-1:2:2':3'-pyridoacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p283-91 Mr '48
- AMINO alcohols. See Alcohols
- AMINOANTHRAQUINONE
- Methyl derivatives of 1:4:5:8-tetraaminoanthraquinone. R. H. Hall and D. H. Hey. *Chem Soc J* p736-40 Je '48
- AMINOAZOBENZENE. See Aniline yellow S
- AMINO BENZENESULFONYLGUANIDINE. See Sulfaguanidine
- AMINO BENZOIC acid
- Application of the halogen-metal interconversion reaction to syntheses with isotopic carbon. A. Murray, 3d, W. W. Foreman and W. Langham. *bibliog diag Am Chem Soc J* 70:1037-8 Mr '48
- Fungistatic properties of *p*-aminobenzoic acid and related compounds; growth curves obtained with aspergillus niger penicillium roqueforti and byssoschlamys fulva. G. W. K. Cavill and J. M. Vincent. *bibliog diags Soc Chem Ind J* 67:25-33 Ja '48
- Some derivatives of *p*-aminobenzoic acid. A. T. Fuller and others. *Chem Soc J* p241 F '48
- Analysis
- p*-aminobenzoic acid and its sodium salt; properties of analytical interest. C. J. Kern, T. Antoskiw and M. R. Maiese. *bibliog Anal Chem* 20:919-22 O '48
- AMINO BENZYLPHOSPHONIC acid
- Synthesis of amino-substituted phosphonic acids; α -aminobenzylphosphonic acid. G. M. Kosolapoff. *Am Chem Soc J* 70:1283 Mr '48
- AMINO BENZYLQUINAZOLONE
- Quinazolines; the synthesis of 2-(and 3)- α -aminobenzyl-4-quinazolones. A. Tomisek and B. E. Christensen. *bibliog Am Chem Soc J* 70:1701-2 My '48

AMINO-BUTANOL

Lignin-alcohol condensation; the reaction of lignin with amino- and nitro-butanol. A. Bailey. *bibliog Paper Ind* 29:1606-7+ F '48

AMINO-BUTYRIC ACID

Solubilities of four amino butyric acids and the densities of aqueous solutions of the acids at 25°. L. S. Mason. *bibliog Am Chem Soc J* 69:3000-2 D '47

AMINOCHALCONE

Preparation and bacteriostatic action of some aminochalkones and related compounds. D. H. Marrian, P. B. Russell and A. R. Todd. *Chem Soc J p* 1419-20 O '47

AMINOCHLOROALKYL GROUP

Ring enlargement by rearrangement of the 1,2-aminochloroalkyl group; rearrangement of 1-ethyl-2-chloromethylpyrrolidines to 1-ethyl-3-chloropiperidine. R. C. Fuson and C. L. Zirkle. *bibliog Am Chem Soc J* 70:2760-2 Ag '48

AMINOCHLOROQUINOLINE

Radiation-induced fluorescence and fluorescence spectra of certain quinoline derivatives. C. C. Price, W. G. Jackson and A. Pohland. *Am Chem Soc J* 70:2983-8 S '48

AMINOCINNOLINE

Cinnolines; a simple method for the preparation of 4-aminocinnolines. J. R. Keneford, K. Schofield and J. C. E. Simpson. *Chem Soc J* p358-60 Mr '48

AMINO COMPOUNDS

tert-Alkoxyaminosilanes. C. S. Miner, jr. and others. *Ind & Eng Chem* 39:1368-71 N '47

Aminoalcohol derivatives of benzo(f)chroman. G. B. Bachman and H. A. Levine. *bibliog Am Chem Soc J* 69:2341-6 O '47

Amino analog of pantothenic acid. F. W. Holly and others. *bibliog Am Chem Soc J* 70:3088-90 S '48

Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Campen, jr. and R. S. Shelton. *bibliog Am Chem Soc J* 69:2902-6 N '47

Antimalarials; 2,5-diphenyl-3-furyl amino ketones and alcohols. R. E. Lutz and R. J. Rowlett, jr. *bibliog Am Chem Soc J* 70:1359-63 Ap '48

Chemical interactions of amino compounds and sugars; methylation experiments. M. L. Wolfrom, L. F. Cavaliere and D. K. Cavaliere. *bibliog Am Chem Soc J* 69:2411-13 O '47

Chemical interactions of amino compounds and sugars; the conversion of D-glucose to 5-(hydroxymethyl)-2-furaldehyde. M. L. Wolfrom, R. D. Chuetz and J. F. Cavaliere. *bibliog Am Chem Soc J* 70:514-17 P '48

Degradation of the fermentation lactobacillus casei factor. E. L. R. Stokstad, B. L. Hutchings and others. *bibliog Am Chem Soc J* 70:5-13 Ja '48

Derivatives of 3-amino-4-hydroxybenzenearsonic acid. L. A. Sweet and others. *bibliog Am Chem Soc J* 69:2258-9 O '47

Derivatives of diethylamino compounds. N. J. Leonard, F. M. Kraft and V. Wolfman. *bibliog Am Chem Soc J* 70:867-8 F '48

Hydrogenation of esters to alcohols over Raney nickel. H. Adkins and A. Pavlic. *bibliog Am Chem Soc J* 69:3039-41 D '47

Iron reduction of some aliphatic nitro compounds. M. Senkus. *bibliog Ind & Eng Chem* 40:506-8 Mr '48

Periodate oxidation of some dihydroxyaminoketones. J. F. Mead and E. A. Barron. *bibliog Am Chem Soc J* 70:1286-7 Mr '48

Physiologically active indanamines; compounds substituted in the aromatic ring. R. V. Heinzelmann, H. G. Koloff and J. H. Hunter. *bibliog Am Chem Soc J* 70:1386-90 Ap '48

Potential trypanocides of the N-heterocyclic series; benanthridinium salts. A. G. Caldwell and L. P. Walls. *Chem Soc J p* 188-97 F '48

Preparation of 2-amino-4-hydroxy-6-keto-5,5-dichlorodihydropyrimidine. R. E. Angier and others. *bibliog Am Chem Soc J* 70:1274-5 Mr '48

Pyrazinoinolide-1,4-diones; ring closure of 2-indolecarbonyl derivatives of α -aminoesters. J. R. Johnson, J. H. Andren and A. D. Holley. *bibliog Am Chem Soc J* 69:2370-2 O '47

Reaction of formaldehyde with proteins; cross-linking between amino and primary amide or guanidyl groups. H. Fraenkel-Conrat and H. S. Ojcott. *bibliog Am Chem Soc J* 70:2673-84 Ag '48

Rearrangement of 1,2-aminochloroalkanes. J. F. Kerwin and others. *bibliog Am Chem Soc J* 69:2961-5 D '47

Secondary and tertiary amino ketones and alcohols derived from desoxybenzoin and 1,2-diphenylethanol; ring-chain tautomerism of the α -(β -hydroxyethylamino) ketones. R. E. Lutz, J. A. Freck and R. S. Murphey. *bibliog Am Chem Soc J* 70:2015-23 Je '48

Studies on the mechanism of the Cannizzaro reaction; hydroxy and amino aldehyde derivatives. E. R. Alexander. *Am Chem Soc J* 70:2592-4 JI '48

Synthesis of ω -aminoalkyl cyanides. A. A. Goldberg and W. Kelly. *Chem Soc J p* 1369-71 O '47

Synthesis of β -carboline; 3-aminoharman and some of its derivatives. H. R. Snyder, S. M. Farmer and H. G. Walker. *Am Chem Soc J* 70:237-9 Ja '48

Synthetic antimalarials; 4-aryl-amino-6-amino-alkylaminopyrimidines; further variations. F. R. Basford and others. *Chem Soc J p* 1354-64 O '47

Water absorption of proteins; lack of dependence of hysteresis in casein on free amino groups. E. F. Mellon, A. H. Korn and S. R. Hoover. *bibliog Am Chem Soc J* 70:1144-6 Mr '48

AMINODIAZINE

Physiological response of animals to 2-aminodiazone and 2-amino-4-methyl pyrimidine. J. F. Treon and others. *bibliog I J Ind Hygiene* 30:79-91 Mr '48

AMINODIBENZOTHIOPHENE

Some derivatives of dibenzothiophene. R. K. Brown, R. G. Christiansen and R. B. Sandin. *Am Chem Soc J* 70:1748-9 Mx '48

AMINODIBROMOPROPANE

Benzenesulfonyl derivatives: 1-amino-2,3-dibromopropane and 2-amino-1,3-dibromopropane. W. J. Gensler. *bibliog Am Chem Soc J* 70:1843-6 My '48

AMINODIMETHYLPYRAZINIC ACID

Pyrazine chemistry; derivatives of 3-amino-5,6-dimethylpyrazinic acid. R. C. Ellingson and R. L. Henry. *bibliog Am Chem Soc J* 70:1257-61 Mr '48

AMINODIMETHYL QUINOLINE

8-Amino-2,4-dimethylquinoline. W. R. Vaughan. *Am Chem Soc J* 70:2294 Je '48

AMINODIPHENYL

Aromatization studies; aminobiphenyls and naphthalenes. E. C. Horning, M. G. Horning and E. J. Platt. *Am Chem Soc J* 70:288-9 Ja '48

AMINO GUANIDINE

Some diacid salts of aminoguanidine and methyl aminoguanidine. J. J. Pitha, H. Hughes, jr. and G. B. L. Smith. *Am Chem Soc J* 70:2823 Ag '48

AMINO GUANIDONIUM BISULFATE

Solubility of aminoguanidonium bisulfate in water and in sulfuric acid solutions. J. J. Pitha and G. B. L. Smith. *Am Chem Soc J* 70:1977 My '48

AMINO HYDROXY BENZENEARSONOUS ACID

Derivatives of 4-hydroxybenzenearsonous acid; derivatives. C. K. Banks and others. *bibliog Am Chem Soc J* 70:1762-5 My '48

AMINO HYDROXY BENZOIC ACID

Synthesis of a biologically active nicotinic acid precursor; 2-amino-3-hydroxybenzoic acid. J. F. Nyc and H. K. Mitchell. *bibliog Am Chem Soc J* 70:1847-8 My '48

AMINO HYDROXY BUTYRIC ACID

Preparation of D- and L-homoserine. M. D. Armstrong. *bibliog Am Chem Soc J* 70:1756-9 My '48

AMINO- β -HYDROXY BUTYRIC ACID. See Threonine

AMINO HYDROXY PHENYL BUTYRIC ACID

Synthesis of α -amino- γ -(p-hydroxyphenyl) butyric acid, a homologue of tyrosine. W. C. Evans and N. Walker. *Chem Soc J p* 1571-3 D '47

AMINOMANNURONAMIDE

Amino derivatives of mannuronic acid. H. L. Frush and H. S. Isbell. *bibliog I J Res Nat Bur Stand* 41:11-16 JI '48

AMINOMERCAPTANS

Reaction of certain β -aminomercaptans with iodine in ethanol. H. R. Snyder and E. L. Eliel. *Am Chem Soc J* 70:2825-6 Ag '48

AMINOMETHOXYQUINOLINE

Heterocyclic basic compounds; derivatives of 8-(3-aminopropylamino)-6-methoxyquinoline. G. W. Moersch and others. *bibliog Am Chem Soc J* 69:2619-21 N '47

AMINOMETHYLATION

Aminomethylation of thiophene: the reaction of thiophene with formaldehyde and ammonium salts. H. D. Hartough, S. J. Lukasiewicz and E. H. Murray, jr. *bibliog Am Chem Soc J* 70:1146-9 Mr '48

AMINOMETHYLPROPANOL

Reaction of 2-amino-2-methyl-1-propanol with sulfuric acid. R. E. Buckles and G. V. Mock. *bibliog Am Chem Soc J* 70:1275-6 Mr '48

AMINOMETHYLPYRIMIDINE

Physiological response of animals to 2-amino-diazine and 2-amino-4-methyl pyrimidine. J. F. Treon and others. *bibliog J Ind Hygiene* 30:79-91 Mr '48

AMINONITRILES

Studies in the azole series; the interaction of α -amino-nitriles and carbon disulphide. A. H. Cook, I. Heilbron and A. L. Levy. *Chem Soc J* p 1598-609 D '47

AMINONITRO benzene. See Nitroaniline**AMINOPARACYMENE. See Carvacrylamine****AMINOPHENOLS**

Aminoalkylphenols as antimalarials; (heterocyclic-amino)- α -amino- α -cresols; the synthesis of camactin. J. H. Burckhalter and others. *Am Chem Soc J* 70:1363-73 Ap '48

Migration of acetyl and benzoyl groups in α -aminophenol. A. L. LeRosen and E. D. Smith. *bibliog Am Chem Soc J* 70:2705-9 Ag '48

Preparation of certain nuclear-substituted 2-aminophenolsulphonic acids. W. F. Beech. *Chem Soc J* p212-16 F '48

Salol reaction. J. A. VanAllan. *bibliog Am Chem Soc J* 69:2913-14 N '47

Technique for measuring reactivity of gasoline antioxidants with air; reactivity of *n*-butyl-*p*-aminophenol and *N,N'*-di-*sec*-butyl-*p*-phenylenediamine. B. K. Strickland. *diag Anal Chem* 20:55-6 Ja '48

AMINOPHENYL dimethylsulfonium naphthalenesulfonate

2-Aminophenyldimethylsulfonium β -naphthalenesulfonate, and antibacterial activity. P. E. Wilcox, J. H. Owen and M. A. Stamm. *bibliog Am Chem Soc J* 70:1931-3 My '48

AMINOPHTHALIDYL ethane

Analgesics; a new synthesis of aminophthalidylalkanes. G. E. Ullvot, H. W. Taylor, jr. and N. Dawson. *bibliog Am Chem Soc J* 70:542-5 F '48

AMINOPHTHALIDYL propane

Analgesics; a new synthesis of aminophthalidylalkanes. G. E. Ullvot, H. W. Taylor, jr. and N. Dawson. *bibliog Am Chem Soc J* 70:542-5 F '48

AMINOPICOLINE

Synthesis of derivatives of 4- and 5-azaindole. G. R. Clemo and G. A. Swan. *Chem Soc J* p 198-200 F '48

AMINOPROPYL cinnamates

Local anesthetics; aroyl derivatives of β -methyl- β -monoalkylamino propanols. J. S. Pierce, R. D. Gano and J. M. Lukeman. *bibliog Am Chem Soc J* 70:255-6 Ja '48

AMINOPROPYLPHENOL

Partial *para*-migration in the allylic rearrangement of *o*-acetamidophenyl allyl ether and of *o*-aminophenyl allyl ether. B. D. Tiffany. *Am Chem Soc J* 70:592-4 F '48

AMINOPYRIDINE

Preparation of 1:8-naphthyridines from 2:6-diaminopyridine. V. Petrow, E. L. Rewald and B. Sturgeon. *Chem Soc J* p 1407-10 O '47

AMINOPYRIDOACRIDINE

Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; some 5-amino-1:2:2':3'-pyridoacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p288-91 Mr '48

AMINOPYRIMIDINE

Iodination of certain phenylsulfonamido- and amino-heterocycles. R. G. Shepherd and C. E. Fellows. *bibliog Am Chem Soc J* 70:157-60 Ja '48

Synthetic antimalarials; pyridyl- and pyrimidyl-aminopyrimidines. F. H. S. Curd, W. Graham and F. L. Rose. *Chem Soc J* p534-7 My '48

AMINOQUINOLINE

8-Amino-2,4-dimethylquinoline. W. R. Vaughan. *Am Chem Soc J* 70:2294 Je '48

Derivatives of 6-methoxyquinoline with basic substituents in the 4-position. J. Walker. *Chem Soc J* p 1552-3 N '47

Heterocyclic basic compounds; derivatives of 8-(3-aminopropylamino)-6-methoxyquinoline. G. W. Moersch and others. *bibliog Am Chem Soc J* 69:2619-21 N '47

Quinolines; some polysubstituted 4-(4'-diethylamino-1'-methylbutylamino)-quinolines. E. A. Steck and others. *bibliog Am Chem Soc J* 70:1012-15 Mr '48

Reduction of 6-methyl-8-(4'-diethylamino-1'-methylbutylidene)-aminoquinoline. H. J. Barber, D. H. O. John and W. R. Wragg. *bibliog Am Chem Soc J* 70:2282-3 Je '48

Synthetic antimalarials; some quinolylamino-substituted pyrimidine derivatives. F. H. S. Curd and others. *Chem Soc J* p 1613-19 D '47

AMINOQUINOXALINE carboxylic acid

Synthesis of alloxazine from 2-aminoquinoxaline-3-carboxamide. A. H. Gowenlock, G. T. Newbold and F. S. Spring. *Chem Soc J* p517-19 Ap '48

AMINOSALICYLIC acid

p-Aminosalicylic acid (4-amino-2-hydroxybenzoic acid). J. T. Sheehan. *bibliog Am Chem Soc J* 70:1665-6 Ap '48

AMINOTETRAHYDROFURAN

Conversion of sucrose into furan compounds; some aminotetrahydrofuran derivatives. F. H. Newth and L. F. Wiggins. *Chem Soc J* p 155-8 F '48

AMINOTETRAHYDROQUINOLINE

Reaction of β -phenylenediamine and of 8-amino-1,2,3,4-tetrahydroquinoline derivatives with carbonyl compounds. R. C. Eldefield and F. J. Kreysa. *bibliog Am Chem Soc J* 70:44-8 Ja '48

AMINOTHIAZOLE

Alkylation with non-ketonic Mannich bases; aminothiazoles and pyrrole. N. F. Albertson. *bibliog Am Chem Soc J* 70:669-70 F '48

Studies in the azole series; a novel route to 5-aminothiazoles. A. H. Cook, I. Heilbron and A. L. Levy. *Chem Soc J* p 1594-8 D '47

Physiological effect

Physiological response of experimental animals following absorption of 2-aminothiazole. W. B. Deichmann and others. *bibliog J Ind Hygiene* 30:71-8 Mr '48

AMINOTHIONAPHTHENE dioxide

Studies in the thianaphene series; aminothianaphthene-1:10-dioxides. F. G. Bordwell and C. J. Albisetti. *jr. bibliog Am Chem Soc J* 70:1955-8 My '48

AMINOTRIFLUOROMETHYL acridine

Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; 5-amino-2- and -4-trifluoromethylacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p32-5 Ja '48

AMMETERS

Electronic microammeter. *J R Sci Instr* 18: 804-5 O '47

Magnetic field strength meter employing the Hall effect in germanium. G. L. Pearson. *J R Sci Instr* 19:263-5 Ap '48

Operation and care of circular-scale instruments. J. Spencer. *J R Sci Instr* 19: 715-18+ Ag '48

Recording ammeter can be used to increase auger machine capacity. R. F. Grady, jr. *J R Sci Instr* 19:374-5 My '48

Ultrasensitive d.c. microammeter. *J R Sci Instr* 19:374-5 My '48

AMMONIA

Absorption of oxygen by sodium in liquid ammonia; evidence for the existence of sodium superoxide. W. H. Schechter, H. H. Sisler and J. Kleinberg. *bibliog diag Am Chem Soc J* 70:267-9 Ja '48

AMMONIA—Continued

- Aliphatic nitro-compounds; preparation of 2-nitroalkylamines. R. L. Heath and J. D. Rose. *Chem Soc J* p 1486-9 N '47
- Amidines; preparation of amidines from cyanides, aluminium chloride, and ammonia or amines. P. Oxley, M. W. Partridge and W. F. Short. *Chem Soc J* p 1110-16 S '47
- Amidines; preparation of amidines from cyanides, ammonia or an amine, and an ammonium or substituted-ammonium salt. P. Oxley, M. W. Partridge and W. F. Short. *Chem Soc J* p303-9 Mr '48
- Ammonia as a solvent; an example of the application of existing theory. J. H. Hildebrand. *bibliog J Chem Educ* 25:74-7 F '48
- Ammonia molecule. M. Mizushima. *bibliog Phys R* 74:705-6 S 15 '48
- Analysis of aliphatic amine mixtures; determination of secondary plus tertiary amines by the azomethine-acidimetric method. C. D. Wagner, R. H. Brown and E. D. Peters. *bibliog Am Chem Soc J* 69:2611-14 N '47
- Analysis of aliphatic amine mixtures; determination of tertiary aliphatic amines in the presence of primary and secondary amines and ammonia. C. D. Wagner, R. H. Brown and E. D. Peters. *bibliog Am Chem Soc J* 69:2609-10 N '47
- Anhydrous ammonia availability assured. *Oil Paint & Drug Rep* 154:5+ J 5 '48
- Anhydrous ammonia; commodity survey. *Chem Eng* 55:318+ Ap '48
- Anomalous values of certain of the fine structure lines in the ammonia microwave spectrum. H. H. Nielsen and D. M. Dennison. *bibliog Phys R* 72:1101-8 D 1 '47
- Apparent molar volume of sodium in liquid ammonia. A. J. Stosick and E. B. Hunt. *diag Am Chem Soc J* 70:2826-7 Ag '48
- Catalytic oxidation of ammonia to nitrous oxide; manganese oxide-bismuth oxide catalyst. K. A. Kobe and P. D. Hosman. *bibliog Ind & Eng Chem* 40:397-9 Mr '48
- Chemical engineering unit processes; ammonolysis. A. C. Stevenson. *bibliog (75 ref) Ind & Eng Chem* 40:1584-9 S '48
- Donor-acceptor bonding; ammonia-boron trifluoride. A. W. Laubengayer and G. F. Condit. *bibliog Am Chem Soc J* 70:2274-6 Je '48
- L'épuration des saumures souillées par l'ammoniaque. E. Urien and G. Lejeune. *Chimie & Ind* 58:348 O '47
- Fine structure in the inversion spectrum of ammonia. R. S. Henderson. *Phys R* 74:107 J 1 '48
- Frequency stabilization of microwave oscillators by spectrum lines. W. V. Smith and others. *bibliog il diags J Ap Phys* 18:1112-15; 19:831-6 D '47, S '48
- Frequency stabilization with microwave spectral lines. W. D. Herschberger and L. E. Norton. *bibliog il diag RCA R* 9:38-49 Mr '48
- Further work on satellites in the microwave spectrum of ammonia. D. Williams. *Phys R* 72:974 N 15 '47
- Gas drying by calcium chloride solutions; the mechanism of transfer. E. F. Thurston. *bibliog diags Soc Chem Ind J* 67:289-96 J 1 '48
- Graphical determination of heat transfer film coefficient for ammonia vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:100-2 F '48
- Graphs help to solve ammonia absorption system problems. A. B. Stickney. *diags Refrig Eng* 54:451-7 N '47; Discussion. 55: 96+ Ja '48
- Growth of coliform bacteria in media containing nitrate and nitrite; influence of ammonia and of aeration, and the coupling of the oxidation-reduction systems involved. P. R. Lewis and C. N. Hinshelwood. *Chem Soc J* p833-40 Je '48
- Heats of adsorption; water, ammonia, ethyl chloride on graphite. R. N. Smith and C. Pierce. *bibliog J Phys & Colloid Chem* 52: 1115-28 O '48
- Internal molecular motions of large amplitude illustrated by the symmetrical vibration of ammonia. R. R. Newton and L. H. Thomas. *bibliog J Chem Phys* 16:310-23 Ap '48
- Kinetics of neutralization of nitroethane with ammonia and methylamines. R. G. Pearson. *bibliog Am Chem Soc J* 70:204-8 Ja '48
- Mercaptan modification of rosin rubber; retardation by ammonia. C. F. Fryling. *bibliog Ind & Eng Chem* 40:928-32 My '48
- Metal-ammonia solutions. A. J. Birch and D. K. C. MacDonald. *J Chem Phys* 16:741 J '48
- Method for measuring the complex dielectric constant of gases at microwave frequencies by using a resonant cavity. C. K. Jen. *bibliog diags J Ap Phys* 19:649-53 J 1 '48
- Microwave spectrum frequency markers. R. L. Carter and W. V. Smith. *il Phys R* 72: 1265-6 D 15 '47
- Nomographical calculation for the absorption coefficients of ammonia and sulphur dioxide in water. S. Sheehan and J. Reilly. *Chem & Ind* p 136 F 28 '48
- Nuclear electric quadrupole interaction in molecular spectra. B. T. Feld. *bibliog Phys R* 72:1116-17 D 1 '47
- Operation of ammonia machines. J. R. Chamberlain. *diags Refrig Eng* 55:1-9 sec 2 Mr '48
- Physical interaction of electrons with dielectric media. T. L. Hill. *J Chem Phys* 16:394-9 Ap '48
- Polarography in liquid ammonia; the alkali metals. H. A. Laitinen and C. J. Nyman. *bibliog diags Am Chem Soc J* 70:2241-4 Je '48
- Polarography in liquid ammonia; the electron electrode. H. A. Laitinen and C. J. Nyman. *Am Chem Soc J* 70:3002-3 S '48
- Pressure broadening in ammonia at centimeter wave-lengths. D. F. Smith. *bibliog Phys R* 74:506-7 Ag 15 '48
- Reaction between acetone and ammonia; formation of pyrimidine compounds analogous to the aldoxans of Späth. R. B. Bradbury, N. C. Hancox and H. H. Hatt. *Chem Soc J* p 1394-9 O '47
- Reactions of ethylenimines; with ammonia and amines. L. B. Clapp. *bibliog Am Chem Soc J* 70:184-6 Ja '48
- Reduction by dissolving metals. A. J. Birch. *Chem Soc J* p430-6 S '44; 809-13 N '45; 593-7 J 1 '48; 102-5, 1642-8 Ja, D '47
- Resistivity in the system sodium-ammonia and lithium-ammonia. H. Jaffe. *J Chem Phys* 16:743 J 1 '48
- Rolling warehouse; an ammonia refrigeration system for railroad cars. *Chem Ind* 62:387-8 Mr '48
- Safety in use and handling of ammonia. W. L. Nelson. *Oil & Gas J* 47:137-8 S 16 '48
- Saturation effect in microwave absorption of ammonia. R. L. Carter and W. V. Smith. *bibliog il diag Phys R* 73:1053-8 My 1 '48
- Saturation effect in microwave spectrum of ammonia. T. A. Pond and W. F. Cannon. *diag Phys R* 72:1121-2 D 1 '47
- Saturation effects in the microwave spectrum of ammonia. R. Karplus. *Phys R* 73:1120 My 1 '48
- Solubility of sulphur dioxide in ammonia-base sulphite cooking acid. D. E. Marriner and R. P. Whitney. *bibliog Paper Tr J* 126:52-4 My 20 '48
- Some reactions of trisodium monobismuthide in liquid ammonia. G. W. Watt and T. E. Moore. *bibliog diags Am Chem Soc J* 70: 1197-200 Mr '48
- Structure of the inversion spectrum of ammonia. J. W. Simmons and W. Gordy. *bibliog il Phys R* 73:713-18 Ap 1 '48
- System ammonia-sulphur dioxide-water at 25°. L. M. Hill. *Chem Soc J* p76-8 Ja '48
- Use of adsorbents for protection against ammonia. J. C. Goshorn. *bibliog il J Ind Hygiene* 30:201-4 My '48
- Use of dissociated ammonia for hydrogenation; abstract. A. Van de Erve, W. A. Jacob and R. A. Bates. *Soap & San Chem* 23:83 N '47
- Vapor pressure, specific volumes, and *p-v-T* data for H₂O, NH₃, CH₄, C₂H₆ with comments on mixtures. F. G. Keyes. *bibliog A S M E Trans* 70:641-4 Ag '48

Analysis

- Spectroscopic evidence for ammonia in the earth's atmosphere. O. C. Mohler and others. *Phys R* 74:352-3 Ag 1 '48

AMMONIA—Continued

Manufacture

- Approach to equilibrium in fractionation. W. Bartky and A. J. Dempster. *bibliog Rs Mod Phys* 20:123-7 Ja '48
- Development, production, and performance of water-gas conversion catalyst. G. L. Bridger, D. C. Gernes and H. L. Thompson. *bibliog flow sheet il plan diag Chem Eng Prog* 44:363-81; Discussion. 381-2 My '48
- Pyrolysis of ammonium sulphate waste liquor to yield ammonia. A. E. Markham and others. *bibliog Paper Tr J* 127:64-8 Jl '48; Same *abr. Paper Ind* 30:778-80-1 Ag '48
- Recovery of coke-oven ammonia. P. J. Wilson and J. H. Wells. *bibliog flow diag diag Blast F & Steel Pl* 36:806-12, 961-4 Jl-Ag '48

Physiological effect

- Comparison of acute toxicities of ethyleneimine and ammonia to mice. S. D. Silver and F. P. McGrath. *bibliog J Ind Hygiene* 30:7-9 Ja '48

AMMONIA as fertilizer

- Ammonia as fertilizer; deep South has new source of concentrated nitrogen; cotton planters and their plants are eating it up. *il Fortune* 38:100-3-1 Ag '48
- Application of anhydrous ammonia to the soil; abstract. J. R. Riley, jr. *Chem & Eng N* 26:314 F 2 '48
- Down on the farm; ammonia gets a new chore. *il Chem Eng* 55:114-17 Ja '48
- How green is our valley; adding nitrogen to soil through use of ammonia, free and in the irrigation water. F. G. Sawyer. *il Chem & Eng N* 26:3258-60 N 1 '48

AMMONIUM bromide

- Reduction of allylic quaternary ammonium bromides. D. R. Howton. *bibliog Am Chem Soc J* 69:2555-7 O '47

AMMONIUM chloride

- Aminomethylation of thiophene; the reaction of thiophene with formaldehyde and ammonium salts. H. D. Hartough, S. J. Lukasiewicz and E. H. Murray, jr. *bibliog Am Chem Soc J* 70:1146-9 Mr '48

- Conductivities of quaternary ammonium chlorides containing two long-chain alkyl groups. A. W. Ralston, D. N. Eggenberger and P. L. Du Brow. *bibliog Am Chem Soc J* 70:977-9 Mr '48

- Effect of inhibitors on the corrosion of zinc in dry-cell electrolytes. C. K. Morehouse and others. *bibliog diag J Res Nat Bur Stand* 40:151-61 F '48

- Electrolyte equilibria in relation to dry cell performance. N. C. Cahoon. *bibliog Electrochem Soc Trans* 92 (preprint 17):203-16 '47

- Reaction of 5-alkoxyacridines with bases and their salts. H. J. Barber and others. *bibliog Soc Chem Ind J* 66:411-15 N '47

See also

- Dodecylammonium chloride

AMMONIUM chromium sulfate

- Magnetic resonance absorption of chromic ammonium alum. P. R. Weiss and others. *Phys R* 72:975 N 15 '47

AMMONIUM citrate

- Ammonium citrate in the colorimetric determination of copper. A. J. Hall and R. S. Young. *Anal Chem* 20:776-7 Ag '48

AMMONIUM compounds

- Allylic rearrangement in an alkylation by a quaternary ammonium salt. H. R. Snyder and E. L. Eliel. *Am Chem Soc J* 70:1857-60 My '48

- Amidines; preparation of amidines from cyanides, ammonia or an amine, and an ammonium or substituted-ammonium salt. P. Oxley, M. W. Partridge and W. F. Short. *Chem Soc J* p303-9 Mr '48

- Concerning quaternaries. E. G. Klarmann and E. S. Wright. *bibliog Soap & San Chem* 24:155-1 Mr '48

- Conductivities of quaternary ammonium chlorides containing two long-chain alkyl groups. A. W. Ralston, D. N. Eggenberger and P. L. Du Brow. *bibliog Am Chem Soc J* 70:977-9 Mr '48

- Contributions to the theoretical treatment of ammonium. J. I. Horváth. *bibliog diags J Chem Phys* 16:851-64 S '48

- Curariform activity and chemical structure. L. E. Craig. *Chem R* 42:285-410 *bibliog* (226 ref. p405-10) Ap '48

- Dielectric behavior of solutions of electrolytes in solvents of low dielectric constant; the influence of constitution on dielectric absorption. H. A. Strobel and H. C. Eckstrom. *J Chem Phys* 16:817-26 Ag '48

- Germicidal behavior of a quaternary ammonium compound. J. W. Klimek and L. E. Umbreit. *bibliog Soap & San Chem* 24:137-1 Ja '48

- Inhibitors for neutralizing the germicidal action of quaternary ammonium compounds. G. R. Weber and L. A. Black. *bibliog Soap & San Chem* 24:137-1 S; 134-7-1 O '48

- Practical aspects of the quaternaries. J. C. Varley. *Soap & San Chem* 23:130-3-1 D '47
- Properties of electrolytic solutions; conductance of some electrolytes in nitrobenzene at 25°. C. R. Witschonke and C. A. Kraus. *bibliog Am Chem Soc J* 69:2472-81 O '47

- Properties of electrolytic solutions; conductance of some long chain salts in ethylene chloride and nitrobenzene at 25°. H. E. Weaver and C. A. Kraus. *bibliog Am Chem Soc J* 70:1707-9 My '48

- Properties of electrolytic solutions; the conductance of some salts in acetone at 25°. M. B. Reynolds and C. A. Kraus. *bibliog Am Chem Soc J* 70:1709-13 My '48

- Quaternaries vs. phenolics; germicidal effectiveness reported; together with time-survival numbers of *E. typhosa* and *S. aureus*. L. H. James and G. Eckfeldt. *Soap & San Chem* 23:125-1 N; 157-1 D '47

- Quaternary ammonium compounds; abstract and discussion. J. C. L. Resuggan. *Chem & Ind* p249-50 Ap '48

- Quaternary ammonium compounds in the dairy industry. J. J. Portley. *il Food Ind* 20:196-8 F '48

- Quaternary ammonium studies. *Soap & San Chem* 24:157 Ja '48

- Quaternary sanitizers; abstract. G. M. Ridenour and E. H. Ambruster. *Soap & San Chem* 24:147 My '48

- Salts of an aquaammonomolybdic acid. G. W. Watt and D. D. Davies. *Am Chem Soc J* 70:2041-3 Je '48

- Some quaternary ammonium salts of substituted thiazoles. C. T. Bahner, D. Pickens and D. B. Bales. *Am Chem Soc J* 70:1652-4 Ap '48

- Some urethans of phenolic quaternary ammonium salts. J. H. Gardner and J. R. Stevens. *bibliog Am Chem Soc J* 69:3086-8 D '47

- Structure of germicides; abstract. C. A. Lawrence and others. *Soap & San Chem* 24:145 My '48

- Toxicity of quaternaries; abstract. O. G. Fitzhugh and A. A. Nelson. *Soap & San Chem* 24:145 My '48

- Transference numbers and hydration of some quaternary ammonium salts. C. H. Hale and T. De Vries. *bibliog diag Am Chem Soc J* 70:2473-5 Jl '48

Analysis

- Determination of high molecular weight quaternary ammonium compounds as the triiodides. O. B. Hager and others. *bibliog Anal Chem* 19:385-8 N '47

- Determining quaternary content in sanitizing solutions. T. L. Flanagan, jr. and others. *Soap & San Chem* 24:163-1 Ap '48

- Rapid method for estimation of use-dilution concentrations of quaternary ammonium germicides. J. F. Gain and C. A. Lawrence. *bibliog Science* 106:525-7 N 28 '47

Testing

- Practical field test for quaternaries. M. W. Cucci. *bibliog diags Soap & San Chem* 24:129-1 Ag '48

- Quaternary test. W. J. Harper and others. *Soap & San Chem* 24:159-1 F '48

AMMONIUM formate

- Studies on the mechanism of the Leuckart reaction. E. R. Alexander and R. B. Wildman. *bibliog Am Chem Soc J* 70:1187-9 Mr '48

AMMONIUM halides

Properties of electrolytic solutions; conductance of some inorganic and organic electrolytes in pyridine at 25°. W. F. Luder and C. A. Kraus. bibliog *Am Chem Soc J* 69:2481-3 O '48

See also

Ammonium bromide
Ammonium chloride

AMMONIUM molybdenum tellurate

Crystal structures of ammonium and potassium molybdatellurates. H. T. Evans, jr. *Am Chem Soc J* 70:1291-2 Mr '48

AMMONIUM nitrate

Ammonium nitrate explosions at Texas City. J. E. Jacobson. *Mech Eng* 69:1054-5 D '47

Ammonium nitrate; its properties and fire and explosion hazards. G. S. Scott and R. L. Grant. 4pls U S Bur Mines Information Circ 7463:1-32 bibliog(115 titles, p25-32) '48

Canada's synthetic nitrogen; war plants now serving agricultural needs. S. G. Barkley. *Chem Age (Lond)* 59:489-90 O 9 '48

Consumption of ammonium nitrate as fertilizer in the United States. W. Scholl and others. bibliog *Chem & Eng N* 26:986-90 Ap 5 '48

Continuous vacuum crystallization of ammonium nitrate. P. Miller and W. C. Saeman. bibliog flow diag il diags *Chem Eng Prog* 43:667-87; Discussion. 687-90 D '47

Crystal structure of ammonium nitrate III, and atomic scattering factors in ionic crystals. T. H. Goodwin and J. Whetstone. diags *Chem Soc J* p 1455-61 N '47

Le danger d'incendie et d'explosion du nitrate d'ammoniaque. *Génie Civil* 124:458-9 D 1 '47

Exothermal decomposition of mixtures containing ammonium nitrate. M. A. Elliott. 4pls U S Bur Mines Rep of Invest 4244:1-11 '48

Explosions of ammonium nitrate fertilizer on board the S.S. Grandcamp and S.S. High Flyer at Texas City, Tex., April 16, 17, 1947. G. M. Kintz and others. 37pls U S Bur Mines Rep of Invest 4245:1-57 '48

New approach to nitrate hazards; French contributor's unorthodox theory. H. Spindler. *Chem Age (Lond)* 58:132-3 Ja 24 '48

Nitrate sequel; the Inter-agency committee has officially reported its recommendations. *il Chem Ind* 62:42-3 Ja '48

Properties of monocrystalline ammonium nitrate fertilizer. P. Miller and W. C. Saeman. bibliog *il Ind & Eng Chem* 40:154-60 Ja '48

Refrigerator car road tests with new cooling mixtures. J. M. Carbert and others. *il Refrig Eng* 56:42-6+ J1 '48

Solubility and density isotherms; potassium and ammonium nitrates in ethanol solutions. A. R. Thompson and R. E. Vener. bibliog *Ind & Eng Chem* 40:478-81 Mr '48

System ammonium nitrate-ammonium sulfamate. J. H. Thelin and P. A. van der Meulen. bibliog diags *Am Chem Soc J* 70:1796-8 Mv '48

Thermal decomposition of ammonium nitrate. J. T. Kummer. *Am Chem Soc J* 69:2559 O '47

Thermal decomposition of pentaerythritol tetranitrate, nitroglycerin, ethylenediamine dinitrate and ammonium nitrate. A. J. B. Robertson. bibliog *Soc Chem Ind J* 67:221-4 Je '48

AMMONIUM nitrite

Preparation of nitrite salts of alkyl amines. J. K. Wolfe and K. L. Temple. bibliog *Am Chem Soc J* 70:1414-16 Ap '48

AMMONIUM pentachloroindate

Crystal structure of ammonium pentachloroindate monohydrate. H. P. Klug, E. Kummer and L. Alexander. bibliog diags *Am Chem Soc J* 70:3064-8 S '48

AMMONIUM perchlorates

Dissociation constants of some substituted phenyltrimethylammonium perchlorates in ethylene chloride; effect of ion asymmetry. J. B. Ramsey and E. L. Collicham. bibliog *Am Chem Soc J* 69:3041-5 D '47

AMMONIUM perhenate

Salts of perhenic acid; the alkali metals and ammonium. W. T. Smith, Jr. and S. H. Long. bibliog *Am Chem Soc J* 70:354-6 Ja '48

AMMONIUM phosphates

Effect of the piezoelectric properties of a crystal on diffuse X-ray reflections. D. C. Miller. bibliog il diags *Phys R* 74:166-9 J1 15 '48

What advantages has diammonium phosphate in acid and/or chrome dyeing? panel meeting, northern New England section. *Am Dyestuff Rep* 37:547-8 Ag 23 '48

AMMONIUM picrate

Dipole moments and molecular association of some picrates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Maryott. bibliog *J Res Nat Bur Stand* 41:1-6 J1 '48

Properties of electrolytic solutions; conductance of some inorganic and organic electrolytes in pyridine at 25°. W. F. Luder and C. A. Kraus. bibliog *Am Chem Soc J* 69:2481-3 O '47

See also

Tribenzylammonium
picrate

AMMONIUM sulfamate

Chemical treatment of trees to facilitate removal of bark and to reduce weight of wood. D. C. McIntosh. *Pulp & Pa of Can* 49:117-18+ Je '48

System ammonium nitrate-ammonium sulfamate. J. H. Thelin and P. A. van der Meulen. bibliog diags *Am Chem Soc J* 70:1796-8 Mv '48

Systems ammonium sulfamate-sodium sulfamate and sodium sulfamate-sodium nitrate. S. H. Laning and P. A. van der Meulen. *Am Chem Soc J* 70:1799-800 My '48

AMMONIUM sulfate

Elimination of iron in ammonium sulfate process for production of alumina from clay. A. T. Sweet and G. D. Gardner. bibliog U S Bur Mines Rep of Invest 4183:1-13 '48

Mexico to make own nitrogen fertilizer. *Bsns W* 6 '48

Production and use of ammonium sulphate; large increases in 1946-47. *Chem Age (Lond)* 58:52-4 Ja 10 '48

Systems chromic ammonium sulfate-ferrie ammonium sulfate-water and chromic ammonium sulfate-aluminum ammonium sulfate-water at 25°. N. O. Smith and C. S. Lennox. bibliog *Am Chem Soc J* 70:1793-6 Mv '48

AMMONIUM sulfinate

Action of chlorine on aqueous solutions of ammonium sulphinates. P. R. Carter and D. H. Hey. *Chem Soc J* p 147-9 F '48

AMMONIUM sulfite

Pyrolysis of ammonium sulphite waste liquor to yield ammonia. A. E. Markham and others. bibliog *Paper Tr* 127:64-8 J1 1 '48; Same abr. *Paper Ind* 30:778-80+ Ag '48

AMMONOLYSIS

Chemical engineering unit processes. A. C. Stevenson. bibliog(75 ref) *il Ind & Eng Chem* 40:1584-9 S '48

Effect of structure on reactivity; ammonolysis of esters with special reference to the electron release effects of alkyl and aryl groups. M. Gordon, J. G. Miller and A. R. Day. bibliog *Am Chem Soc J* 70:1946-53 My '48

AMMUNITION

Effect of radiation on the rate of burning of solid fuel rocket propellants. S. S. Penner. diags *J Ap Phys* 19:392-8 Ap '48

£8m. worth of chemicals and metals; post-war harvest from ammunition dumps. *Chem Age (Lond)* 58:233 F 14 '48

Mass emissivity of powder raises in solid fuel rockets. S. S. Penner. bibliog *diag J Ap Phys* 19:278-85 Mr '48

Qualitative experimental verification of the change of burning rate of rocket powders with radiation path length. S. S. Penner. diags *J Ap Phys* 19:511-13 Je '48

See also

Gunpowder

AMMUNITION disposal unit. See Atomic bombs

—Testing

AMPEROMETRIC titration. See Volumetric

analysis

AMPHIBIOUS airplanes. See Airplanes, Amphibious

AMPHIBIOUS motor trucks. See Motor trucks, Amphibious

AMPHIBIOUS warfare. See Military art and science—Amphibious warfare; World war, 1939-1945—Amphibious warfare

AMPHITHEATERS

See also
Stadiums

AMPLIDYNE generator

Amplidyne gives quick response on synchronous condenser fields. J. H. Vivian and F. V. Gillum. *il diags Elec World* 128:68-71 D 20 '47

Electronic control for dc motors. G. W. Heumann. *il diags Power* 92:703-5+ N '48

Multiple-generator power with electronic amplidyne control for sectional paper machine drive. L. K. Hart and G. E. Plaisted. *il diags Pulp & Pa of Can (Convention no)* 49:237-43 [F] '48

Taking the mystery out of the amplidyne. W. H. Wigington, jr. *bibliog il diags Power Generation* 52:62-4+ My; 69-71 JI '48

AMPLIFIERS

Bridge amplifier. *il R Sci Instr* 19:612-13 S '48

Crystal that amplifies; experiments with a double-contact germanium type. C. E. Atkins. *il diags Radio & Tv* N 40:39+ O '48

Current amplifier; shooting diamond chips with electron pulses. *il Bsns W* p72+ F 14 '48; *Machine Design* 20:113-14 Mr '48; *Sci Am* 178:176-7 Ap '48; *Tech R* 50:259 Mr '48; *Tele-Tech* 7:72+ Mr '48

Design of magnetic amplifiers. A. S. Fitz-Gerald. *bibliog diags Franklin Inst J* 244: 323-62 N '47

Electromagnetic amplifiers. *bibliog il diag Electronics* 21:190+ Ja '48

Electromechanical amplifier. R. H. Müller. *Anal Chem* 19:23A D '47

German D-C amplifier. *Power Generation* 52: 120 Mr '48

High gain amplifier. *R Sci Instr* 19:198 Mr '48

Improved material for magnetic amplifiers; symposium on magnetic materials, Washington, D.C., June 15, *il diags Electronics* 21:128+ Ag '48

Magnetic amplifier characteristics; neutral type. A. S. Fitzgerald. *il diags Franklin Inst J* 244:415-39 D '47

Magnetic amplifier for industrial controls; new 50/50 nickel-iron alloy Permenorm 5000-Z. *Elec World* 130:103+ S 25 '48; *Mach* 65:178 S '48

Saturable reactors and magnetic amplifiers. F. G. Logan. *diags Electronics* 21:104-9 O '48

Semi-conductor replaces vacuum tubes; Transistor. *il diags Product Eng* 19:158-9 S '48; *Instruments* 21:636-8 JI '48; *Mech Eng* 70:766 S '48; *Machine Design* 20:95-6 Ag '48; *Electronics* 21:68-71 S '48; *Power Generation* 52:83-5 O '48

Simplified magnetic amplifier. D. A. Bell. *diags Wireless Eng* 25:303-4 S '48

Special magnetic alloys and applications. G. W. Elmen and E. A. Gaugler. *diags Elec Eng* 67:843-5 S '48; Same, *il Power Generation* 52:64-7 S '48

Special magnetic amplifiers and their use in computing circuits. H. S. Sack and others. *bibliog diags Inst Radio Eng Proc* 35:1375-82 N '47

Substitute for vacuum tube; Bell laboratories, revolutionary amplifying unit; Transistor. *il Bsns W* p39-40+ JI 10 '48

Theory of magnetic amplifiers and some recent developments. E. H. F. Smith. *diags J Sci Instr* 25:268-72 Ag '48

Transducer fundamentals; magnetic amplifiers analyzed. S. Hedstrom and L. F. Borg. *bibliog diags Electronics* 21:88-93 S '48

Transistor; a new amplifier. *il diags Elec Eng* 67:740 Ag '48

Transistor may replace vacuum tubes. *il diag Tele-Tech* 7:18-20+ Ag '48

AMPLIFIERS, Vacuum tube

Amplifier instability in transmitters. D. H. Mix. *diags Q S T* 32:19-24+ Je '48

Amplifier load impedance reduction. B. M. Hadfield. *diag Tele-Tech* 7:33-5+ My '48

Amplitude selective amplifier. C. E. Lowe. *il diags Electronics* 21:156+ O '48

Applications of screen-grid supply impedance in pentodes. P. G. Sulzer. *diags Communications* 28:10-11+ Ag '48

Audio amplifier of high quality. Consumers Res Bul 21:15 Mr '48

Basic amplifier for a wire recorder. L. S. Hicks. *il diag Radio N* 39:44-5+ F '48

Bolometer amplifier; compact tuned amplifier designed for use with bolometer or crystal microwave detectors. D. D. King and others. *il diag Electronics* 21:116-17 P '48

Bridge-balanced amplifiers. Y. P. Yu. *diags Electronics* 21:111-13 Mr '48

Cathode-coupled amplifier. K. A. Pullen, jr. *diags Inst Radio Eng Proc* 34:402-5 Je '46; *Discussion*. 35:150-14 D '47

Cathode-coupled clipper circuit. L. A. Goldmuntz and H. L. Krauss. *diags Inst Radio Eng Proc* 36:1172-7 S '48

Class-A push-pull amplifier theory. H. L. Krauss. *diags Inst Radio Eng Proc* 36:50-2 Ja '48

Common-cathode amplifiers. N. R. Campbell and others. *diags Wireless Eng* 25:180-92 Je '48

Compact bias supply. J. F. Clemens. *il diag Radio N* 39:180-1 Mr '48

Considerations in the design of a radar intermediate-frequency amplifier. A. L. Hopper and S. E. Miller. *il diags Inst Radio Eng Proc* 35:1208-19 N '47

CR's ten-watt high-fidelity all-triode amplifier designed to be assembled at home. Consumers Res Bul 22:31 Ag '48

Design of shunt equalizers. H. N. Wroe. *diags Wireless Eng* 25:192-6 Je '48

Differential input circuits. E. E. Suckling. *diags Electronics* 21:186+ D '48

Directly coupled phase inverter. E. Johnson. *diag Electronics* 21:188+ Mr '48

Distributed amplification. E. L. Ginzton and others. *diags Inst Radio Eng Proc* 36:956-69 Ag '48

Dynamic impedance circuit. Y. P. Yu. *diags Tele-Tech* 7:28-9+ Ag '48

Dynamic performance of peak-limiting amplifiers. D. E. Maxwell. *il diag Inst Radio Eng Proc* 35:1349-56 N '47

Exact design and analysis of double- and triple-tuned band-pass amplifiers. M. Disha. *bibliog charts diags Inst Radio Eng Proc* 35:608-26 Je '47; *Discussion*. 35: 1507-10 D '47; *Elec Com* 25:100-2 Mr '48

Field theory of traveling-wave tubes. L. J. Chu and J. D. Jackson. *bibliog diags Inst Radio Eng Proc* 36:853-63 JI '48

500 watts of audio from ABi. H. A. Mandoli and D. H. Atkins. *bibliog il diags Q S T* 32:13-19 Mr '48

Flat-response single-tuned i.f. amplifier. E. H. B. Bartelink and others. *il diags Inst Radio Eng Proc* 36:474-8 Ap '48

General purpose linear amplifier. W. H. Jordan and P. R. Bell. *il diags R Sci Instr* 18:703-5 O '47

Graphical determination of percent harmonic distortion. R. W. Buchheim. *Electronics* 21:170-2 JI '48

Inverse Nyquist plane in servomechanism theory. G. B. Criss. *diags Inst Radio Eng Proc* 35:1503-4 D '47

Low frequency compensation for amplifiers. K. Schlesinger. *diags Electronics* 21:103-5 F '48

Low-noise amplifier. *diags Communications* 28:25 My '48

Low-noise amplifier. H. Wallman and others. *il diags Inst Radio Eng Proc* 36:700-8 Je '48

Maintenance of preamp equipment in broadcast transcription-reproducing systems. E. G. Peters. *diags Communications* 28:9+ JI '48

Microwave repeater research. H. T. Friis. *bibliog il maps diags Bell System Tech J* 27:183-246 Ap '48

Miniature tube high fidelity amplifier. W. Boyer and E. Toops. *il diag Radio & Tv* N 40:46-7+ S '48

Negative feedback compression. J. T. Goode. *diags Radio N* 39:118+ Ja '48

New developments in d.c. amplifiers. D. M. Wherry. *diags Radio & Tv* N 40:88+ Ag '48

Parallel-tuned transformer design. V. C. Rideout. *diags Bell System Tech J* 27:96-103 Ja '48

Peaked audio amplifier for communication receivers. G. D. Hanchett, jr. *il diags Q S T* 32:16-17+ S '48

AMPLIFIERS, Vacuum tube—Continued

- Practical radio course; intermediate-frequency amplifier requirements for different types of receivers. A. A. Ghirardi. diags Radio N 39:88+ Ja '48
- Push-pull triodes; avoiding trouble in balanced class C amplifiers. I. H. Nixon. diags Q S T 32:55-7 Ap '48
- Recording and control system for infra-red spectrophotometer. G. M. Rassweiler and others. il diags Opt Soc Am J 37:963-74 D '47
- Recording and reproduction of sound; design details for building a high quality amplifier. O. Read. il diags Radio N 39:54-6+ Ja; 73+ My '48
- Reducing stray input pickup. P. L. Richman. diag Tele-Tech 7:32 JI '48
- Reduction of noise; Perkin-Elmer infrared spectrophotometer recording system. C. Creitz. bibliog diags Anal Chem 20:707-13 Ag '48
- Reinote amplifier and program meter. D. V. R. Drenner. il diag Electronics 20:140+ D '47
- Simple RC equalizer circuits. H. Logemann. diags R Sci Instr 19:196 Mr '48
- Simplified wide band amplifiers. F. L. Burroughs. diags Radio & Tv N 40:58-9+ O '48
- Space-charge tetrode amplifiers. N. Pickering. il diag Electronics 21:96-9 Mr '48
- Sprayed wiring for control amplifier. R. T. Squier. il Electronics 21:128+ My '48
- Stable voltmeter amplifier. J. D. Clare. diags Wireless Eng 25:231-6 J '48
- Stagger-tuned amplifier design. H. Wallman. il diags Electronics 21:100-5 My '48
- Steady-state and transient analysis of a feedback video amplifier. J. H. Mulligan, jr. and L. Mautner. diags Inst Radio Eng Proc 36:595-610 My '48
- Table of intermodulation products. C. A. A. Wass. Inst E E J 95 pt 3:31-9 Ja '48
- Television antenna and rf distribution systems for apartment houses. H. E. Kallmann. il diags Inst Radio Eng Proc 36:1153-60 S '48
- Time response of an amplifier of N identical stages. E. F. Grant. Inst Radio Eng Proc 36:870-1 JI '48
- Transient response of damped linear networks with particular regard to wideband amplifiers. W. C. Elmore. diags J Ap Phys 19:65-63 Ja '48
- Two-tube phono amplifier. H. Keroes. il diag Radio N 39:45+ My '48
- Unique a.v.c. amplifier. J. T. Goode. diags Radio N 39:67+ Ap '48
- Utility amplifier unit. T. A. Patterson, jr. il diags Radio N 39:42-3 Ja '48
- Versatile noise-reduction amplifier. K. Singer. il diag Soc Motion Picture Eng J 50:562-70 Je '48
- Very-high-frequency triode oscillator and amplifier circuits. G. Lehmann. bibliog diags Elec Com 25:50-61 Mr '48
- Voltage amplification formulas. H. J. Peake. diags Tele-Tech 7:48 F '48
- Wide-band 550-megacycle amplifier. R. O. Petrich. il diags Inst Radio Eng Proc 35: 1371-4 N '47
- Wide range phonograph system. G. Southworth. il diags Radio N 39:62-3+ Je '48

Rating

- Two audio amplifiers. Consumers Res Bul 21:14-16 F '48
- Two audio amplifiers. Consumers Res Bul 22: 20 O '48

Testing

- Gain measuring test unit. W. E. Norman. il diags Radio & Tv N 40:61-3+ S '48
- Recording and reproduction of sound; performance testing of voltage and power amplifiers. O. Read. il diags Radio N 39: 65-7+ Je '48

AMSTERDAM, New York**Sanitary affairs**

- Modern incinerator. B. A. Kroup and R. S. Taggart. il Pub Works 78:26 D '47

AMUSEMENT industries

- See also
Moving picture industry

AMYL alcohol

- Systems; glycol- n -amyl alcohol-water and glycol- m -hexyl alcohol-water. G. S. Laddha and J. M. Smith. bibliog Ind & Eng Chem 40:494-6 Mr '48

AMYL butadiene

- Preparation of 2-alkylbutadienes. C. S. Marvel, R. L. Myers and J. H. Saunders. bibliog Am Chem Soc J 70:1694-9 My '48

AMYL peroxide

- Decompositions of di- t -alkyl peroxides; kinetics. J. H. Raley, F. F. Rust and W. E. Vaughan. diags Am Chem Soc J 70:88-94 Ja '48

AMYLASES

- Further studies of the action of pancreatic amylase; extent of hydrolysis of starch. R. B. Alfin and M. L. Caldwell. bibliog Am Chem Soc J 70:2534-9 JI '48
- Reversible action of macerans amylase. D. French and others. Am Chem Soc J 70: 3143 S '48
- Submerged culture of fungal amylase. S. L. Adams and others. bibliog Ind & Eng Chem 39:1615-17 D '47

AMYLOLYSIS. See Starch**AMYLOPECTINS**

- Conversion of corn amylopectin by barley malt enzymes. T. M. Back, W. H. Stark and C. C. Vernon. bibliog Ind & Eng Chem 40: 80-4 Ja '48
- Fractionation of potato starch; phosphorus of potato starch. L. H. Lampitt and others. bibliog Soc Chem Ind J 67:121-5 Ap '48
- Fractionation of potato starch; the retrogradation of potato starch fractions. L. H. Lampitt and others. bibliog Soc Chem Ind J 67:179-84 My '48
- Many uses for new stabilizer; Clearjel starch for fruit pie fillings, marshmallows, etc. P. A. Deutsch. il Food Ind 19:1648-9 D '47
- Polysaccharide aryl carbamates. I. A. Wolff and C. E. Rist. bibliog Am Chem Soc J 70:2779-82 Ag '48

AMYLOSES

- Fractionation of potato starch; phosphorus of potato starch. L. H. Lampitt and others. bibliog Soc Chem Ind J 67:121-5 Ap '48
- Fractionation of potato starch; the retrogradation of potato starch fractions. L. H. Lampitt and others. bibliog Soc Chem Ind J 67:179-84 My '48
- Structure of alkali amylose. F. R. Senti and L. P. Witnauer. bibliog diags Am Chem Soc J 70:1438-44 Ap '48

AMYRIN

- Isolation of β -amyrin and a fatty acid of high molecular weight from solidago leavenworthii T. and G. R. C. Burrell and F. G. Houston. Am Chem Soc J 70:447 F '48

ANACONDA copper mining company

- Annual report. Comm & Fin Chr 167:1917-18 My 3 '48
- Good quality stocks yielding seven per cent and over. Mag of Wall St 81:141 N 8 '47
- Stocks cheaper than during prewar depression. F. H. Rosensiel. Comm & Fin Chr 167:931 F 26 '48

ANACONDA wire and cable company

- High-yield stocks selling less than five times earnings. Mag of Wall St 82:183 My 22 '48

ANAGYRINE

- Papillonaceous alkaloids; identity of rhombinine and monolupine and anagyrine. L. Marion and J. Ouellet. bibliog Am Chem Soc J 70:3076-8 S '48

ANALGESICS

- Analgesic drug institute issues progress report. Oil Paint & Drug Rep 153:58 Je 7 '48
- Analgesics; a new synthesis of aminophthalidylalkanes. G. E. Ulliyot, H. W. Taylor, jr. and N. Dawson. bibliog Am Chem Soc J 70:542-5 F '48
- Experiments in the piperidine series. R. M. Anker and A. H. Cook. Chem Soc J p806-10 Je '48
- New synthesis and confirmation of the structure of amidone. N. R. Easton, J. H. Gardner and J. R. Stevens. bibliog Am Chem Soc J 69:2941-2 D '47
- Preparation of substituted 4-aminomethylpiperidines and their straight chain analogs. C. E. Kwartler and P. Lucas. bibliog diags Am Chem Soc J 69:2582-6 N '47

ANALGESICS—Continued

Reaction of 1-dimethylamino-2-chloropropane with diphenylacetonitrile; the structure of amidone. E. M. Schultz, C. M. Robb and J. M. Sprague. *bibliog Am Chem Soc J* 69:2454-9 O '47

Search for new analgesics; further homologues of pethidine and the pharmacology of these and other compounds. R. H. Thorp and E. Walton. *Chem Soc J* p559-61 My '48

Synthesis of piperidine derivatives; aryldecahydroquinolines; discussion. *Chem & Ind* p 155-6 Mr 6 '48

Synthetic anodynes study inaugurated by NRC unit. *Oil Paint & Drug Rep* 152:5-11 N 17 '47

See also

Salicylates

ANALYSIS, Chemical. See Chemistry, Analytic

ANALYSIS, Colorimetric. See Colorimetric analysis

ANALYTIC chemists. See Chemists, Analytic

ANALYTIC mechanics. See Mechanics, Analytic

ANAPHYLAXIS

Absence of protective action of rutin in anaphylactic and histamine shock. L. W. Roth and I. M. Shepperd. *Science* 108:410-11 O 15 '48

Inhibition of anaphylactic shock by acetylsalicylic acid. E. Campbell. *bibliog Science* 108:478-9 O 29 '48

ANATOMICAL models

Miracle of growth; transparent acrylic models at Museum of science and industry in Chicago. *il Mod Plastics* 25:112-15 D '47

ANATOMY

Vesalius, discoverer of the human body. M. Gumpert. *il Sci Am* 178:24-31 My '48

ANCHORS

Permanent moorings; abstract and discussion. T. Thorpe and K. P. Farrell. *Engineering* 164:425 O 31 '47

ANDALUSITE

Blue Metal corundum-andalusite deposit, Douglas county, Nev.; supplemental investigation. E. O. Binyon. *2pls U S Bur Mines Rep of Invest* 4298:1 '48

ANDERSON, Carl David. 1905-

Portrait. *Fortune* 38:109 O '48

ANDERSON, Hale. 1883-

Sketch. *por East Underw* 49:23-1 O 29 '48

ANDERSON, Sir John. 1882-

Messel medal presented. *Chem & Ind* p492-3 J1 31 '48

Sketch. *por(cover) Chem & Eng N* 26:2351 Ag 9 '48

ANDERSON, Indiana**Sewerage**

City saves \$27,250 on sewer siphon for river crossing. M. A. Milling. *diags Pub Works* 79:27-8 S '48

ANDES mountains

Theory of Andean orogenesis. V. Oppenheim. *bibliog maps Am J Sci* 246:578-90 S '48

ANDREWS, Bert. 1901-

Wins Guild's Broun award. *por Ed & Pub* 81:13 F 14 '48

ANDREYEV, Andrei Andreyevich

Economic brain trust of Soviet Russia. *por Bsns W* p22-4 My 15 '48

ANDROSCOGGIN river

Determination of the time of passage of pollution in the Androscoggin river and pond. W. A. Lawrence. *Sewage Works J* 20:881-96 S '48

ANDROSTADIENOLONE hexahydrobenzoate

Preparation and diene-phenol rearrangement of 2-bromo-1,4-androstadien-17-ol-3-one 17-hexahydrobenzoate. C. Djerassi and C. R. Scholz. *bibliog Am Chem Soc J* 70:1911-13 My '48

ANDROSTERONE**Analysis**

New series of reagents for the colorimetric determination of steroids. L. C. Clark, jr. and H. Thompson. *Science* 107:429-31 Ap 23 '48

ANECDOTES

Thesaurus of anecdotes. E. Fuller, ed. 489p \$1.98 Garden City pub. co, Garden City, New York '48

ANECHEIC chambers. See Acoustics, Architectural

ANELASTICITY. See Elasticity

ANEMIA

Absence of sickling phenomenon of the red blood corpuscle among Brazilian Indians. E. M. da Silva. *bibliog Science* 107:221-2 F 27 '48

Activity of vitamin B₁₂ in addisonian pernicious anemia. R. West. *Science* 107:398 Ap 16 '48

Effect of cholinesterase-containing globulin fraction of human plasma in macrocytic anemia. R. D. Barnard and J. W. Mentha. *bibliog Science* 107:195-6 F 20 '48

Similarity to heparin of the clotting inhibitor in acute leucemia and the significance of hyperheparinemia in estroperenic cholinergic states. R. D. Barnard. *bibliog il Science* 107:571-2 My 28 '48

Vitamin B₁₂, a cobalt complex. E. L. Rickes and others. *Science* 108:134 Ag 6 '48

ANEMOMETERS

Constant temperature operation of the hot wire anemometer at high frequencies. E. Ossosky. *Phys R* 73:410 F 15 '48

Portable wind speed indicator has modified tachometer unit. *il diag Product Eng* 19:101 Ap '48

Two types of sensitive recording cup anemometers. E. L. Deacon. *il diags J Sci Instr* 25:44-7 F '48; Discussion. 25:283 Ag '48

Mounting

Effect of support on the performance of vane anemometers. G. B. Schubauer and G. H. Adams. *il Heat & Ven* 45:78-81 Ap '48; Same. *J Res Nat Bur Stand* 40:275-80 Ap '48

ANEROID barometers. See Barometers

ANESTHETICS

Labeling of ampoules of anesthetic drugs. *Chem & Ind* p359 Je 5 '48

Pathogenicity and isosterism; reactions of pyhsarum to carbon dioxide and to nitrous oxide. W. Seifriz. *bibliog Science* 107:15-16 Ja 2 '48

ANESTHETICS, Local

Derivatives of urethane; azamalonate esters. L. G. R. Tompkins and E. F. Degering. *bibliog Am Chem Soc J* 69:2616-18 N '47

Local anesthetics; aroyl derivatives of β -methyl- β -monoalkylamino propanols. J. S. Pierce, R. D. Gano and J. M. Lukeman. *bibliog Am Chem Soc J* 70:255-6 Ja '48

Spinal anaesthetic effects of ephedrine sulfate; a preliminary report. J. E. Ruben and others. *Science* 107:223 F 27 '48

Sulfur-containing amines; local anesthetics. E. O. Clinton and others. *bibliog Am Chem Soc J* 70:950-5 Mr '48

ANGER

Suppression and facilitation of angry behavior by certain forebrain mechanisms; abstract. P. Bard and V. E. Mountcastle. *Science* 107:457 My 7 '48

ANGLE of repose

Stability of soil slopes. E. Tan. *diags Am Soc C E Proc* 73:19-38 Ja '47; Discussion. 73:723-8, 963-8, 1119-21; 74:221-30 My-Je, S '47, F '48

ANGLE plates

Grouped parts multiple-machined; compound-angle plate, with tilting plate and swivel base. F. H. Scriber. *diags Am Mach* 92:90-1 Ap 8 '48

ANGLES

Methods for rolling angles. A. L. Lhermitte. *diags Blast F & Steel Pl* 36:957-60 Ag '48

Simple tangent meter. V. L. Frampton. *il diag Science* 107:323-4 Mr 26 '48

See also

Goniometers

Goniometry

Trisection of angle

ANGLO-AMERICAN council on productivity

Council established; members. *For Comm W* 32:9 S 25 '48

ANGLO-EGYPTIAN Sudan. See Sudan**ANGLO-IRANIAN oil company, ltd.**

Statement by the chairman at ordinary general meeting. W. Fraser. *Economist* 155:36 J1 3 '48

ANGLO-PORTUGUESE telephone company, limited

Statement by the chairman. A. Roger. Economist 155:437-8 S 11 '48

ANGORA goats

See also

Mohair

ANHYDRIDES

Anhydride of benzylpenicillin. F. H. Carpenter. bibliog Am Chem Soc J 70:2964-6 S '48

Anhydrides of polyhydric alcohols; derivatives of 1:4-anhydrosorbitol from 1:4-3:6-dianhydrosorbitol. R. Montgomery and L. F. Wiggins. Chem Soc J p 237-41 F '48

Anhydrides of polyhydric alcohols; 1:4-3:6-dianhydro-*d*- and -*l*-iditol. L. F. Wiggins. Chem Soc J p 1403-5 O '47

Anhydrides of polyhydric alcohols; some alkyl ethers of 1:4-3:6-dianhydromannitol and 1:4-3:6-dianhydrosorbitol. H. Gregory and L. F. Wiggins. diag Chem Soc J p 1405-7 O '47

Anhydrides of polyhydric alcohols; the conversion of glucamine into 1:4-anhydrosorbitol; the constitution of benzylidene 1:4-anhydrosorbitol. V. G. Bashford and L. F. Wiggins. Chem Soc J p 299-303 Mr '48

Reaction of 2-nitropropane with acid anhydrides. E. P. Steff and M. E. Dull. bibliog Am Chem Soc J 69:3037-9 D '47

ANHYDROGALACTITOL

1,5-Anhydro-4-(β -D-glucopyranosyl)-D-glucitol, 1,5-anhydro-6-(β -D-glucopyranosyl)-D-glucitol and 1,5-anhydro-D-galactitol. H. G. Fletcher, Jr. and C. S. Hudson. bibliog Am Chem Soc J 70:310-14 Ja '48

ANHYDROGLUCITOL

1,5-Anhydro-4-(β -D-glucopyranosyl)-D-glucitol, 1,5-anhydro-6-(β -D-glucopyranosyl)-D-glucitol and 1,5-anhydro-D-galactitol. H. G. Fletcher, Jr. and C. S. Hudson. bibliog Am Chem Soc J 70:310-14 Ja '48

ANHYDROGLUCOSE

Carbohydrate sulphuric esters; production of a derivative of 5:6-anhydroglucose by the hydrolysis of a sulphate. R. B. Duff and E. G. V. Percival. Chem Soc J p 1875-8 D '47

ANHYDROIDITOL

Alcohols of the sugar group; 2,5-anhydro-*l*-iditol. L. Vargha, T. Puskás and E. Nagy. bibliog Am Chem Soc J 70:261-2 Ja '48

ANHYDROSORBITOL

Anhydrides of polyhydric alcohols; derivatives of 1:4-anhydrosorbitol from 1:4-3:6-dianhydrosorbitol. R. Montgomery and L. F. Wiggins. Chem Soc J p 237-41 F '48

Anhydrides of polyhydric alcohols; the conversion of glucamine into 1:4-anhydrosorbitol; the constitution of benzylidene 1:4-anhydrosorbitol. V. G. Bashford and L. F. Wiggins. Chem Soc J p 299-303 Mr '48

ANHYDROTETRONIC acid

Structure of anhydrotetronic acid. D. H. Marrian and others. Chem Soc J p 1365-9 O '47

ANILIDES

Reactions of β -keto esters with aromatic amines; syntheses of 2- and 4-hydroxyquinoline derivatives. C. R. Hauser and G. A. Reynolds. Am Chem Soc J 70:2402-4 J1 '48

ANILINE

Apparatus for distilling aniline. E. L. Ruh and J. L. Rossettie. diag Anal Chem 19: 933 N '47

Catalytic oxidation of aniline in the vapor phase. O. W. Brown and W. C. Frishe. diags J Phys & Colloid Chem 51:1394-400 N '47

Kinetics of activation-diffusion controlled reactions in solution; the temperature dependence of the quenching of fluorescence. B. Williamson and V. K. La Mer. bibliog Am Chem Soc J 70:717-21 F '48

N-Phenyl-3,5-diethyl-2-propyl-1,4-dihydropyridine. D. Craig, L. Schaefer and W. P. Tyler. bibliog Am Chem Soc J 70:1624-9 Ap '48

Reaction of aniline with phosphorus pentoxide; phosphoric anilides. A. C. Buck and H. P. Lankeima. bibliog Am Chem Soc J 70:2398-400 J1 '48

Solvent effects on the quenching of the fluorescence of uranin by aniline. K. C. Hodges and V. K. La Mer. bibliog Am Chem Soc J 70:722-6 F '48

Steric inhibition of resonance; reactivities of some halogenated primary and tertiary aromatic amines. R. B. Sandin and J. R. L. Williams. bibliog Am Chem Soc J 69:2747-9 N '47

Analysis

Use of a line source in ultraviolet absorption spectrophotometric analyses; application to analysis of mixtures of aniline, *N*-methyl-aniline, and *N,N*-dimethylaniline. D. D. Tunnicliff. il Anal Chem 20:828-30 S '48

ANILINE point

Petroleum solvents; correlation of kauri butanol solvency with gravity and aniline point. W. T. Harvey and I. W. Mills. bibliog Anal Chem 20:207-9 Mr '48

Relation of the physical properties of the isomeric alkanes to molecular structure; surface tension, specific dispersion, and critical solution temperature in aniline. H. Wiener. bibliog J Phys & Colloid Chem 52:1082-9 Ja '48

ANILINE yellow S

p-Aminazo benzene (aniline yellow S). diag Anal Chem 20:594-5 Je '48

ANIMAL charcoal. See Bone black

ANIMAL experimentation

History and ethics of the use of human subjects in medical experiments. A. C. Ivy. bibliog Science 108:1-5 J1 2 '48

Prolonged hypnotic states with local signs induced in guinea pigs. W. T. Liberson. il Science 108:40-1 J1 9 '48; Discussion. R. M. True. 108:436-7; Reply. 437 O 22 '48

Simple self-leveling drinking well for laboratory animals. D. Lehr. bibliog diag Science 107:230-1 F 27 '48

ANIMALS

See also
Reproduction

Size

See Size (biology)

ANIONOTROPY

Kinetics of anionotropic rearrangement; the simultaneous rearrangement and hydrolysis of propenylethynylcarbinyl acetate; general discussion of the mechanism of anionotropy and a comparison of the mobility of the hydroxyl and the acetoxy group. E. A. Braude. diag Chem Soc J p 794-804 Je '48

Modes of addition to conjugated unsaturated systems; a discussion of mechanism and equilibrium, with a note on three-carbon prototropy. P. B. D. de la Mare, E. D. Hughes and C. K. Ingold. Chem Soc J p 17-27 Ja '48

Rearrangement and substitution in anionotropic systems. A. G. Catchpole, E. D. Hughes and C. K. Ingold. Chem Soc J p 1-17 Ja '48

ANISOLE

Acylation of benzene compounds with iodine as a catalyst. S. Chodroff and H. C. Klein. bibliog Am Chem Soc J 70:1647-8 Ap '48

Mechanism of the nitration of anisole. R. M. Schramm and F. H. Westheimer. bibliog Am Chem Soc J 70:1782-4 My '48

Reduction by dissolving metals. A. J. Birch. Chem Soc J p 1642-8 D '47

ANISOTROPY

Anisotropic strains produced by surface abrasion, and their effect on the magnetic properties of silicon sheet steel. R. G. Martinale. bibliog diags Inst E E J 95 pt 2:620-6 O '48

Applications of magnetochemistry to polymers and polymerization. P. W. Selwood. bibliog diags J Res Nat Bur Stand 41:161-62 Ag '48

Plastic flow characteristics of aluminum-alloy plate. L. J. Klingler and G. Sachs. bibliog il diag J Aeronautical Sci 15:599-604 O '48

ANKLES

Fractures about the ankle joint. E. B. Kaye. bibliog il diags Ind Med 17:181-6 My '48

ANNAPOLIS naval academy. See United States naval academy, Annapolis

ANNEALING

Annealing characteristics of an aluminum-copper-magnesium alloy; abstracts and discussion. M. Cook and T. L. Richards. Engineering 166:355-6 O 8 '48; Metallurgia 38: 338-9 O '48

ANNEALING—Continued

- Annealing malleable iron castings; Lake City malleable, inc. E. G. Billhardt. *Il Iron Age* 162:86-9 Ag 19 '48
- Coalescing anneals. A. M. Portevin. *Metal Prog* 52:829-30 N '47; Discussion. J. J. Curran. *Metal Prog* 53:536-7 Ap '48
- Continuous annealing nonferrous strip. E. S. Kopecki. *Il diag Iron Age* 161:46-50 Ja 8 '48
- Copper-manganese alloys; properties of cold-worked and annealed alloys containing 2 to 20 per cent manganese. R. S. Dean and others. *bibliog Am Soc for Metals Trans* 38:577-91; Discussion. 591-2 '47
- Cyclic annealing alloy steel forgings. *Il Steel* 122:99 F 9 '48
- Cyclic annealing of steel forgings saves time, betters quality. K. Rose, flow diag *Il Materials & Methods* 27:71-4 Ja '48
- Decarburization during annealing of malleable iron. H. A. Schwarz and J. Hedberg. *bibliog Il Am Soc for Metals Trans* 39:61-70; Discussion. 70-2 '47
- Effect of annealing and gas content on the superconducting properties of tantalum. R. T. Webber. *bibliog Phys R* 72:1241-5 D 15 '47
- Factors influencing the pearlitic microstructure of annealed hypoeutectoid steel. R. A. Grange. *Il Am Soc for Metals Trans* 38: 879-98; Discussion. 898-908 '47
- Grain growth in 70-30 brass. P. A. Beck and others. *bibliog Metals Tech* 15:TP2326 1-7 F '48; Discussion. 15:TP2449 60-9 Ag '48
- Heat processing easily oxidized metals; hydrogen atmosphere for brazing, bright annealing and sintering. F. C. Kelley. *Il diags Iron Age* 161:84-9 My 20 '48
- Heat transmission in strip-coil annealing; abstracts. J. D. Keller. *Iron & Steel Eng* 25:69 Ap '48; *Steel* 122:116+ My 10 '48
- Research in controlled vacuum heat treating; abstract. J. Huebler. *Foundry* 76:306 My '48
- Selective annealing of nonferrous metals. L. H. Seabright. *Metal Prog* 52:811-12 N '47
- Surface effects during the annealing of 70:30 brass; abstracts. I. Jenkins. *Metal Prog* 53: 1204-48 '48; *Materials & Methods* 27:108 Ja '48

ANNEALING furnaces. See **Furnaces, Annealing**

ANNEALING of glass. See **Glass manufacture**

ANNIVERSARIES, Company

- Birthday party for 500,000. D. Dickow. *Il Ind Marketing* 32:51-3+ D '47
- Birthday party, June 14-19; International paper company's 50th anniversary. *Il Paper Tr J* 126:12-13 Je 10 '48
- Relations with public highlighted in anniversary books. *Ptr Ink* 224:62 Ag 27 '48

Advertising

- Curtis exploits 50th birthday in debut of new luminaire. G. T. Morrow. *Il Sales Management* 60:54+ F 1 '48

Bibliography

- Business histories and anniversary publications. (Business literature v. 20, no. 8) p81-4 Business library, Newark public lib, Newark, N.J. Ap '48

ANNIVERSARIES, Employees. See **Employees—Length of service**

ANNUAL reports. See **Corporations—Reports and yearbooks**

ANNUITIES

- Analysis of recent group annuities supplementing retirement benefits under old-age and survivors insurance; abstract. W. Van Eenam. *Management R* 37:492-4 S '48
- Annuities owned now number over 3 million. *East Underw* 49:12 S 3 '48
- Annuity loss cut to \$5,142,585; with tabulation by company showing 1947 figures. K. O. Force. *Nat Underw (Life ed)* 52:19-20 Mr 12 '48
- Continuing gains shown in payment of annuities; tabulation by company showing figures for 1937, 1946 and 1947. *Weekly Underw* 158:60-3 sec 2 My 8 '48
- Group annuities; individual annuities; ranking Dec. 31, 1947; tabulation. *Life Ins Courant* 53:5 Jl '48
- Payments under annuity contracts as of Dec. 31, 1946; tabulation by company. *Spectator (Life ed)* 155:23 O '47

- Role of insurance and annuities. H. W. Steinhilber. *East Underw* 49:110-1+ pt 2 O 8 '48
- West Coast Life revises retirement annuity. *Nat Underw (Life ed)* 52:13 Jl 30 '48

Taxation

- Magill report would base annuity income tax on life expectancy. *Nat Underw (Life ed)* 51:1+ N 7 '47
- On the tax horizon. F. L. Morton. *Spectator (Life ed)* (Endorsement no 1947-1948) 155: 64-7 N '47
- Return of single premium life and annuities not taxable as annuity. *Nat Underw (Life ed)* 52:4 Jl 2 '48
- Revenue act of 1948; its application to annuity contracts. E. M. Thore. *East Underw* 49:10+ S 10 '48
- Revision of pension and annuity provisions of tax law weighed in Treasury staff study. H. Lando. *Weekly Underw* 158:256 Ja 17 '48
- Shape of taxes to come; annuity rules to be revised drastically. L. J. Freeman. *Barron's* 28:13-14 S 13 '48
- Tax revision in 1948; the Magill report. F. L. Morton. *Spectator (Life ed)* 155:20-1+ Ja '48
- Treasury's annuity study suggests tax changes. H. C. Hallam. *Nat Underw (Life ed)* 51:3+ D 5 '47

ANODES. See **Electrodes**

ANODIZING of aluminum. See **Aluminum—Protection**

ANORTHOSITE

- Recovery of alumina from Wyoming anorthosite by the lime-soda-sinter process. R. A. Brown and others. *3pls U S Bur Mines Rep of Invest* 4132:1-127 '47

ANOXEMIA

- Anoxic survival and diisopropyl fluorophosphate (DFP). A. M. Freedman and H. E. Himwich. *Science* 108:41-2 Jl 9 '48
- Effect of anoxia and cytochrome C on readily hydrolyzable phosphate of rat tissues. W. N. Miller and others. *Science* 107: 421 Ap 23 '48
- Value of cytochrome C in anoxia of newborn guinea pigs. B. Benjamin and others. *Science* 107:142 F 6 '48

ANOXIA. See **Anoxemia**

ANTARCTIC regions

- British rule in the Antarctic, map *Economist* 155:272 Ag 14 '48
- Further observations on the Ross Shelf ice, Antarctica. A. D. Howard. *bibliog Geol Soc Bul* 59:919-26, pl 1 S '48

ANTENNAS, Radio. See **Radio antennas**

ANTENNAS, Television. See **Television antennas**

ANTHOCYANINS

- To reduce color loss in strawberry preserves. Z. I. Kertesz and E. Sondheimer. *bibliog Il Food Ind* 20:1300-2+ S '48

Analysis

- Anthocyanin pigments; colorimetric determination in strawberries and strawberry products. E. Sondheimer and Z. I. Kertesz. *bibliog Anal Chem* 20:245-8 Mr '48

ANTHRACENE

- Higher hydrocarbons; alkyl anthracenes and alkyl phenanthrenes. R. W. Schlessler, A. W. Rytina and F. C. Whitmore. *bibliog Am Chem Soc J* 70:529-30 F '48
- Les huiles d'anthracène; utilisation et hygiène professionnelle. R. Barthe. *Chimie & Ind* 58: 439 N '47
- Molecular diagram method. P. Daudel and R. Daudel. *bibliog J Chem Phys* 16:639-43 Jl '48
- Pulse characteristics of anthracene scintillation counters. L. F. Wouters. *Phys R* 74: 489-90 Ag 15 '48
- Reaction of anthracene with maleic and fumaric acid and their derivatives and with citraconic anhydride and mesaconic acid. W. E. Bachmann and L. B. Scott. *bibliog Am Chem Soc J* 70:1458-61 Ap '48
- Studies in the anthracene series; a novel rearrangement in the reaction of halomethyl ketones with secondary amines. E. L. May and E. Mosettig. *Am Chem Soc J* 70:1077-9 Mr '48

ANTHRACENE—*Continued*

Studies in the anthracene series; alkyl ketones derived from 1,2,3,4-tetrahydro-9,10-anthraquinone. E. L. May and E. Mosettig. *Am Chem Soc J* 69:3036-7 D '47

Studies in the anthracene series; amino ketones derived from 9-acetylanthracene. E. L. May and E. Mosettig. *bibliog Am Chem Soc J* 70:686-8 F '48

Studies in the anthracene series; derivatives of 1,2,3,4-tetrahydroanthracene. H. G. Latham, Jr., E. L. May and E. Mosettig. *bibliog Am Chem Soc J* 70:1079-81 Mr '48

Studies in the anthracene series; meso-substituted 9,10-dihydroanthracene derivatives. E. L. May and E. Mosettig. *bibliog Am Chem Soc J* 70:688-91 F '48

Ultraviolet absorption spectra of anthracene derivatives. R. N. Jones. *bibliog Chem R* 41:353-71 O '47

Use of anthracene as a scintillation counter. P. R. Bell. *Phys R* 73:1405-6 Je 1 '48

See also

Benzanthracene

ANTHRANILIC acid

Chlorination of anthranilic acid. E. R. Atkinson and P. B. Mitton. *Am Chem Soc J* 69:3142 D '47

ANTHRAQUINONE

Chemistry of the coprosma genus; a synthesis of areolatin and an isomer, 3:5:6:7-tetrahydroxy-2-methylantraquinone. L. H. Briggs, J. C. Dacre and G. A. Nicholls. *Chem Soc J* p990-2 J1 '48

Analysis

Polarographic study of certain anthraquinones. N. H. Furman and K. G. Stone. *Am Chem Soc J* 70:3055-61 S '48

ANTHRONE

Anthrone in estimating low concentrations of sucrose. E. E. Morse. *Anal Chem* 19:1012-13 D '47

Dreywood anthrone reaction as affected by carbohydrate structure. L. Sattler and F. W. Zerban. *bibliog Science* 108:207 Ag 27 '48

Quantitative determination of carbohydrates with Dreywood's anthrone reagent. D. L. Morris. *Science* 107:254-5 Mr 5 '48

Analysis

Polarography of certain substances related to anthraquinone. K. G. Stone and N. H. Furman. *bibliog Am Chem Soc J* 70:3062-4 S '48

ANTIBIOSIS

Symbiosis, antibiosis, and cancer. E. V. Cowdry. *Science* 107:101-4 Ja 30 '48

ANTIBIOTIC substances

Acetidone, an antibiotic from streptomycetes griseus. J. H. Ford and B. E. Leach. *Am Chem Soc J* 70:1223-5 Mr '48

Antibacterial principle of arctium minus; unsaturated lactone structure. C. J. Cavallito and F. K. Kirchner. *bibliog Am Chem Soc J* 69:3030-2 D '47

Cooperation of science and industry in the development of the antibiotics. R. T. Major. *il Chem & Eng N* 26:3186-90+ O 25 '48

Fresh victories in war on disease spur drug research; potent new anti-biotics. B. Cannon. *Barron's* 28:9 S 13 '48

Industrial development of antibiotics. W. H. Engels. *il Chem & Eng N* 26:1284-7 My 3 '48

New antibiotic isolated from soil; chloromycin. *Chem & Eng N* 26:3746 D 15 '47

Nomenclature of streptomycin preparations. S. A. Waksman. *bibliog Science* 107:233-4 Mr 5 '48

Pharmaceuticals; antibiotics; antihistamines. 1947. *Chem Eng* 55:114 F '48

Prolyl and phthalyl derivatives of enantiomorphs of valine and leucine. M. Fling, F. N. Minard and S. W. Fox. *bibliog Am Chem Soc J* 69:2466-7 O '47

Recent advances in antibiotic research. P. P. Regna. *bibliog Chem & Ind* p275-8, 295-7 My 1-8 '48

Streptomycetes antibiotics; dihydrostreptosonic acid lactone and configuration of streptose and streptobiosamine. F. A. Kuehl, Jr. and others. *bibliog Am Chem Soc J* 70:2613 J1 '48

Streptomycetes antibiotics; N-methyl-L-glucosamine. F. A. Kuehl, Jr. and others. *bibliog Am Chem Soc J* 69:3032-5 D '47

Streptomycetes antibiotics; the structures of bis-desoxystreptose, dihydrodesoxystreptose and tetraacetyl-bis-desoxystreptobiosamine. N. G. Brink and others. *bibliog Am Chem Soc J* 70:2085-91 Je '48

Structure of acetidone, an antibiotic from streptomycetes griseus. E. C. Kornfeld and R. G. Jones. *Science* 108:437-8 O 22 '48

Symposium on antibiotics, A.A.A.S. (section Nm). *Science* 107:133-4 F 6 '48

See also

Aureomycin

Bacitracin

Chloromycin

Glilotxin

Penicillin

Streptolisin

Streptomycin

Streptothricin

Subtilin

ANTICOAGULANTS. *See* Blood—Coagulation**ANTICONSULSANTS**

5-Alkyl (or 5-phenyl)-5-propoxymethylhydantoin. H. R. Henze, J. W. Melton and E. O. Forman. *Am Chem Soc J* 70:2438-9 J1 '48

8-R-thio- and 8-R-sulfonylcaffeine derivatives. L. M. Long. *bibliog Am Chem Soc J* 69:2939-41 D '47

Some N-alkyl-2,4-oxazolidinediones and their anticonvulsant properties. M. A. Spielman and G. M. Everett. *bibliog Am Chem Soc J* 70:1021-2 Mr '48

Synthesis of 1-R-5-R'-5-phenylhydantoin. L. M. Long, C. A. Miller and H. D. Troutman. *bibliog Am Chem Soc J* 70:900-3 Mr '48

See also

Antispasmodics

ANTICORONA

Observations of anticorona on Mt Washington. D. L. Arenberg. *il Opt Soc Am J* 38:481-2 My '48

ANTIFIBRILLATORY compounds

Importance of the methoxy group in antifibrillatory compounds. J. R. DiPalma and J. J. Lambert. *bibliog Science* 107:66-8 Ja 16 '48

ANTI-FOAMING. *See* Boilers—Foaming and priming**ANTI-FOULING paint.** *See* Paint, Anti-fouling**ANTI-FREEZE solutions**

Antifreeze battle. *Bsns W* p23 Je 26 '48

Anti-freeze liquid distributors for conductor rails. *il Engineering* 164:479 N 14 '47

Better business bureau warns of salt base antifreezes sold under misleading labels. *Nat Pet N* 40:18 N 3 '48

Consumers will do well to buy with care. *Consumers Res Bul* 21:22-3 Ja '48

More antifreeze. *Bsns W* p72-3 O 16 '48

New low temperature rubber made by antifreeze method. G. G. Oberfell and R. W. Thomas. *Automotive Ind* 99:44 J1 15 '48

Three chemicals compete for anti-freeze market. *Chem Ind* 62:764+ My '48

What is an antifreeze? D. G. Zink. *diags Diesel Power* 25:44-8 N '47

Rating

Anti-freeze. *Consumers Res Bul* 23:20-1 N '48

ANTI-FRICTION bearings. *See* Bearings, Anti-friction**ANTIGENS and antibodies**

Allergy; a definition. E. Schick. *il Sci Am* 179:26-9 J1 '48

Approximate configurational partition functions for certain aggregates of spherical molecules. M. F. Morales and J. Botts. *diags J Chem Phys* 16:587-91 Je '48

Dynamic state of antibodies. E. C. Kooyman and D. H. Campbell. *Am Chem Soc J* 70:1293-4 Mr '48

Effect of relative concentration on complement fixation by identical amounts of antigen and antibody. I. Gordon and G. M. Gresh. *bibliog Science* 107:148-50 F 6 '48

Employment of soluble antigen in screening tests for typhus complement fixation. T. O. Berge. *bibliog Pub Health Rep* 63:529-37 Ap 23 '48

Equilibrium equations for a model of antibody-antigen combination. M. F. Morales, J. Botts and T. L. Hill. *bibliog Am Chem Soc J* 70:2339-41 J1 '48

Long range enzymatic action on films of antigen. A. Rothen. *Am Chem Soc J* 70:2732-40 Ag '48

Long-range forces may account for specific chemical reactions between molecules not in contact. T. Stern, pseud, *il diags Sci Am* 179:14-17 O '48

ANTIGENS and antibodies—Continued

Purification and properties of antibody against *p*-azophenylarsonic acid and molecular weight studies from light scattering data. D. H. Campbell, R. H. Blaker and A. E. Fardee. bibliog *Am Chem Soc J* 70: 2498-9 J '48

Structure of antibodies and the nature of serological reactions; abstract. L. Pauling. *Chem & Ind* p317 My 15 '48

Structure of antigen films and long-range forces. F. Karush and B. M. Siegel. *il Science* 108:107-8 J1 30 '48

Studies of fungus antigens; preliminary report on the isolation of an immunologically active polysaccharide from histoplasmin. F. W. Cross and A. Howell, jr. bibliog *Pub Health Rep* 63:179-83 F 6 '48

Studies of fungus antigens; sensitization of normal animals with skin test antigens. A. Howell, jr. bibliog *Pub Health Rep* 63: 595-601 My 7 '48

Studies on the denaturation of antibody; kinetic aspects of the inactivation of diphtheria antitoxin by urea. G. G. Wright and V. Schomaker. bibliog *Am Chem Soc J* 70: 356-64 Ja '48

See also

Complement fixation
Tuberculin

ANTI-HISTAMINIC activity. See Histamine**ANTIMONY**

Antimony; annual review and forecast. J. P. Bradley. *il Min Cong J* 34:98-9 F '48
Antimony, 1947. R. H. Mote. *Eng & Min J* 149:86 F '48

New antimony smelter to be built in Idaho. *Min & Met* 29:427 Ag '48

Self discharge in lead-acid storage batteries. A. C. Zachlin. bibliog *Electrochem Soc Trans* 92 (preprint 28):323-43 '47

Studies on some metal electrodes; does the antimony electrode behave simply as a metal-metal oxide electrode in air? A. R. Tourky and A. A. Mousa. *Chem Soc J* p752-6 Je '48

Studies on some metal electrodes; the behaviour of the antimony electrode out of contact with air. A. R. Tourky and A. A. Mousa. *Chem Soc J* p756-9 Je '48

Szillard-Chalmers reaction in the chain-reacting pile. R. R. Williams. *J Phys & Colloid Chem* 52:603-11 Mr '48

Analysis

Reduction of antimony solutions with metallic nickel. H. Holness. bibliog *Soc Chem Ind J* 67:238-41 Je '48

Isotopes

β -Radiations of antimony¹²⁴, tantalum¹⁸², tungsten¹⁸⁵, and iridium¹⁹². S. Jnanananda. bibliog *Phys R* 72:1124-5 D 1 '47

Coincidence experiments in antimony 124. E. T. Jurney and A. C. G. Mitchell. bibliog *diag Phys R* 73:1153-6 My 15 '48

Disintegration of antimony-124. I. Feister and L. F. Curtiss. bibliog *J Res Nat Bur Stand* 40:315-19 Ap '48

Disintegration of antimony 124. B. D. Kern and others. bibliog *diag Phys R* 73:1142-8 My 15 '48

Energies of the beta- and gamma-rays from antimony; magnetic spectrometer. C. S. Cook and L. M. Langer. *Phys R* 73:1149-52 My 15 '48

Multiple nuclear isomerism. E. Der Mateosian and others. *diags Phys R* 72:1271-2 D 15 '47

Neutron deficient isotopes of tellurium and antimony. M. Lindner and I. Perlman. *Phys R* 73:1124-5 My 1 '48

Radiations from tantalum (182), antimony (122), and indium (116). C. E. Mandeville and M. V. Scherb. bibliog *Phys R* 73:340-3 F 15 '48

Study of the radiations from iridium (194), iridium (192), lanthanum (140), antimony (124), and zirconium (95). C. E. Mandeville and M. V. Scherb. bibliog *Phys R* 73: 1434-41 Je 15 '48

X-ray emitting isotopes of radioactive Sb and Sn. K. D. Coleman and M. L. Pool. bibliog *Phys R* 72:1070-4 D 1 '47

Metallography

Fractographic structures in antimony. C. A. Zapffe and F. K. Landgraf, jr. *il Metal Prog* 53:377-81 Mr '48

ANTIMONY chlorides

Flameproofing, antimony compounds in solution; patent. Am Dyestuff Rep 36:720-1 D 1 '47

Fluorination of organic compounds with anhydrous hydrogen fluoride; an investigation of antimony pentachloride catalysed fluorinations. W. B. Whalley. bibliog *Soc Chem Ind J* 66:430-3 D '47

New series of reagents for the colorimetric determination of steroids. L. C. Clark, jr. and H. Thompson. *Science* 107:429-31 Ap 23 '48

ANTIMONY compounds

Organic thio-antimonials in schistosomiasis. L. W. Clemence and M. T. Leflier. *Am Chem Soc J* 70:2439-40 J1 '48

ANTIMONY mines and mining**Alaska**

Antimony deposits in Alaska. N. Ebbley, jr. and W. S. Wright. 23pls U S Bur Mines Rep of Invest 4173:1-41 '48

ANTIMONY oxides

Effect of temperature and impurities on certain photochemical reactions in solids; darkening of antimony oxide and bleaching of dye deposited upon titanium dioxide. C. F. Goodeve and M. R. Taylor. bibliog *il diags J Phys & Colloid Chem* 52:828-36 My '48

Fire-retardant paints; role of pigment volume, antimony oxide, and chlorinated paraffin. L. S. Birnbaum and M. Markowitz. bibliog *il diags Ind & Eng Chem* 40:400-5 Mr '48

Studies on some metal electrodes; the amphoteric properties of antimony tri- and pentoxide. A. R. Tourky and A. A. Mousa. *Chem Soc J* p759-63 Je '48

ANTIMONY poisoning

Antimony trisulfide. F. M. R. Bulmer and J. H. Johnston. *J Ind Hygiene* 30:26-8 Ja '48

ANTIMONY sulfides

Antimony trisulfide. F. M. R. Bulmer and J. H. Johnston. *J Ind Hygiene* 30:26-8 Ja '48

Synthesis of lead sulphantimonites. S. C. Robinson. *diag diags Econ Geol* 43:293-312 Je '48

ANTIMONYLCATECHOL

Antimonycatechol; coordination of simple amines and alcohols. L. M. Wheeler and C. K. Banks. bibliog *Am Chem Soc J* 70: 1264-6 Mr '48

ANTIOXIDANTS

Antioxidant combinations; abstract. J. E. W. McConnell. *Soap & San Chem* 24:69 Ja '48

Fighting rancid fats and oils; new stabilizers. Tenox HQ and Tenox BHA. *Bsns W* p49 J1 3 '48

Technique for measuring reactivity of gasoline antioxidants with air; reactivity of *n*-butyl-*p*-aminophenol and *N,N'*-di-*sec*-butyl-*p*-phenylenediamine. B. R. Strickland. *diag Anal Chem* 20:55-6 Ja '48

ANTIOXIDANTS for rubber. See Rubber—Aging; Rubber, Artificial—Aging**ANTI-PERSPIRANTS. See Perspiration****ANTIPODES islands**

Antipodes. C. W. Thomas. *il U S Naval Inst Proc* 74:1120-5 S '48

ANTIQUES**Directories**

Washer's directory of antique dealers, 1950 pa \$1.50 Edward C. Washer, 628 Montgomery st, San Francisco 11 '47

ANTISEPTICS

Antiseptic coating for metals. *Chem Ind* 63: 628+ O '48

Imidazolium and imidazolinium salts as topical antiseptics. E. R. Shepard and H. A. Shonle. bibliog *Am Chem Soc J* 69:2269-70 O '47

Preparation of *N*-(carboxyacyl)sulphonamides; the synthesis of *N*-(phthalylsulphanilamide) derivatives. C. W. Picard and others. *Chem Soc J* p821-3 Je '48

ANTI-SLIP surfaces. See Floors—Anti-slip surfaces

ANTISPASMODICS

Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Campen, Jr. and R. S. Shelton. *bibliog* Am Chem Soc J 69:2902-6 N '47

Contributions to the chemistry of phenanthridine; conversion of 9-(3'-pyridyl)phenanthridines into their quaternary salts and the preparation of some derivatives of potential biological interest. V. Patrow and W. R. Wraga. *Chem Soc J* p 1410-15 O '47

Preparation of substituted 4-aminomethylpiperidines and their straight chain analogs. C. E. Kwartler and P. Lucas. *bibliog* diags Am Chem Soc J 69:2582-6 N '47

Quaternary carbon compounds; trialkylacetic acids as antispasmodic agents. N. Sperber, D. Papa and E. Schwenk. *bibliog* Am Chem Soc J 70:3091-4 S '48

ANTIHYROID drugs. See Goiter

ANTIULCER vitamin. See Vitamins—Vitamin U

ANTIVENIN. See Venom

ANTOINE equation. See Vapor pressure

ANTS

Army ant. T. C. Schneirla and G. Piel. *il* Sci Am 178:16-23 Je '48

Carnivorous army ants. *Science* 106:519 N 28 '47

First live colony of army ants ever brought to this country. *il*(cover) *Science* 107:364 Ap 9 '48

ANTU. See Naphthyl thiourea

APARTMENT hotels

Apartment hotel co-op; New York's Hampshire House. *Arch Forum* 89:14 Ag '48

APARTMENT houses

Cost-saving design simplified apartment house construction. W. T. Holzman. *il* diags Eng N 139:675-9 N 13 '47

NYC housing pattern; new apartments built with millions of brick and tile. *il* diags Brick & Clay Rec 112:33-41 Ap '48

Stuyvesant Town; rebuilding a blighted city area. *il* plans diags Eng N 140:185-208 F 5 '48

Television antenna and rf distribution systems for apartment houses. H. E. Kallmann. *il* diags Inst Radio Eng Proc 36:1153-60 S '48

Air conditioning

Heating without heating fuel; system employing Diesel as source of power, air conditioning for space and heat for domestic water supply; heat pump as an auxiliary, also reversed for cooling. *il* diags Sheet Metal Worker 39:131-2+ Ja '48

Cleaning

Keeping an apartment city clean; Parkchester development in Bronx county. F. J. Reilly. *il* Soap & San Chem 24:147-9+ Ap '48

Cooperative ownership

Cooperative apartments near the Sierras. *il* plan Arch Rec 103:124-5 F '48

Postwar co-op's; City investing company; Carnegie Hill apartment house in Manhattan. *il* plans diags Arch Forum 88:92-100 Je '48

Tax aspects of cooperative apartments. *J* Account 86:244 S '48

Veterans' cooperative apartments in New York; Great Oaks, Riverdale. *il* plan Arch Rec 103:128-9 F '48

Designs and plans

A.B.C.'s of rental planning; Broadland Place apartments, Columbus, Ohio. *il* plans Am Bld 70:96-7 Mr '48

Apartment building in Sao Paulo; architects' apartments in Rio de Janeiro. *il* plans diags Arch Forum 87:99-101 N '47

Apartment buildings. *Architectural Record's* building types study. *il* plans Arch Rec 103:112-34 F '48

Big demand for modern small apartments in Spokane, Wash. *il* plans Am Bld 70:124-5 S '48

Circular apartments. *il* plans Arch Rec 103:152+ F '48

Every apartment is an individual home; Mayfair Boulevard development, Columbus, Ohio. *il* plans Am Bld 70:104-5 Mr '48

Georgia Tech housing; two veterans' apartment groups. *il* plans diags Arch Forum 89:131-6 S '48

New brick built rental apartments in Oklahoma City contain 200 units. *il* plan diags Brick & Clay Rec 113:31-2 Jl '48

Plan for middle income rental housing; pentagonal plan for Farragut apartments, New York city. C. A. Vollmer. *il* plans Arch Rec 102:80-5 N '47

Postwar co-op's; City investing company; Carnegie Hill apartment house in Manhattan. *il* plans diags Arch Forum 88:92-100 Je '48

Sun, air and moderate rent go together in row house apartment plan in suburban Chicago. *il* plans diags Arch Forum 88:96-7 F '48

Duplex apartments

Duplex apartments in economy role. plans Arch Rec 102:86-8 N '47

Electric equipment

All-electric flats; Walthamstow council's scheme. *il* Elec R (Lond) 142:358 Mr 5 '48

Garden apartments

Designed with a built-in park; Atlantic Gardens, Washington, D.C. *il* plans Arch Rec 103:114-15 F '48

Economical four-unit garden apartment; with blueprints. *il* Am Bld 69:32-6 D '47

Garden apartments for rental housing; Langley Park project, Montgomery county, Md. *il* plans Arch Rec 103:122-3 F '48

Garden apartments; projects in Santa Monica, Beverly Hills and Houston. *il* plans diags Arch Forum 88:107-14 Jl '48

How to plan, build and sell garden apartments. *il* plans Am Bld 70:107-17 Ap '48

Heating and ventilation

Adequate temperature controls provide improved apartment house heating. R. A. Lawder. diags Heat & Ven 45:85-8 Ag '48

All rooms can be heated to individual temperatures in this split circuit radiant installation. *il* diags Arch Forum 88:100 Je '48

Planning, the answer to low-cost heating installations. C. M. Toelear. *il* Sheet Metal Worker 38:90+ N '47

APARTMENTS

New apartments over a drafting room. *il* plan Arch Rec 103:120-1 F '48

Student apartments in Texas. *il* plan Arch Rec 103:126-7 F '48

APORHIZOPTERIN. See Rhizopterin

APPALACHIAN area

See also

Petroleum—Appalachian area

APPALACHIAN electric power company

Offering of bonds and preferred stock. *Comm & Fin* Chr 166:2306 D 8 '47

APPALACHIAN mountains

Appalachian and Alpine structures; a comparative study. A. E. Lombard. maps diags Am Assn Pet Geologists Bul 32:709-44 *bibliog*(p742-4) My '48

Geomorphic studies in the Appalachians of Pennsylvania. P. de Bethune. *bibliog* maps diags Am J Sci 246:1-22 Ja '48

APPAREL shops, Women's. See Women's apparel shops

APPLE juice

Arsenic and lead are still getting into the food supply. *Consumers* Res Bul 21:11-12 My '48

Gelproof juice; pectin-destroying enzyme permits apple juice to be concentrated without jelling. *Chem Ind* 61:799 N '47

APPLES

Apple packages. *il* Mod Packaging 21:124-8 Ap '48

Apple production and consumption, New Zealand. *For Comm* W 29:23 N 8 '47

Apple trading. *Bsns* W p20 Ag 14 '48

Pectic substances; molecular structure of strawberry and apple pectic acids. G. H. Beavan and J. K. N. Jones. *Chem Soc J* p 1218-21 S '47

Advertising

Promoting apples; growers combat drop in demand. *il* Bsns W p76 F 21 '48

APPLES—Continued

Statistics

Apples, 1941-1946. Survey of Cur Bsns 1947
Sup p 127 [supplemented in monthly numbers]

Storage

Controlled air distribution is secret of good
apple storage. R. M. Smock and others.
diags Refrig Eng 54:444-8+ N '47

APPLES, Dried

Production and exports of dried apples, Canada. For Comm W 31:22-3 Jc 12 '48

APPLES, Frozen

Preservation of apples; patent, Food Ind 20:
1542+ O '48

APPLETON, Sir Edward Victor, 1892-

Industry's tribute to scientists; Nobel prize-
winners honoured by the FBI. por Chem
Age (Lond) 59:419-20 Mr 27 '48

Nobel prize. por Chem Age (Lond) 57:677
N 22 '47; Chem & Eng N 25:3510 N 24 '47

Radio propagation research. por Electronics
21:138 F '48

Sketch. por Electrician 140:104 Ja 9 '48

APPLEY, Lawrence A. 1904-

Appley brings to American Management
presidency 24 years in top business posts.
por Ptr Ink 224:80 Jl 2 '48

APPLICATIONS for positions

Checking the applicants' references. C. W.
Books. Personnel J 26:329-31 Mr '48

See also
Employment systems
—Information
sheets

APPOINTMENT, Power of. See Power of appointment

APPRAISALS. See Real property—Valuation

APPRECIATION (accounting)

Asset appreciation. J Account 86:251 S '48

APPRENTICE training service. See United States—Apprentice training service

APPRENTICES

Apprentice-training school; Derby locomotive
works. il Engineering 165:102-3 Ja 30 '48

Apprenticeship scheme; Samuel Osborn and
co. Engineer 185:601 Jc 18 '48

Apprenticeship training revitalized; meth-
ods of instruction for mechanical depart-
ment apprentices on the New York Central
and Union Pacific. E. E. Goshen. il Ry Age
124:664-6+ Ap 3 '48

Boom in apprentice training; Apprentice-
ship-training service of the U.S. Dept. of
labor. il Bsns W p 110-13 D 6 '47

Collective bargaining provisions; apprentices
and learners. U S Bur Labor Statistics Bul
908:4:1-44; pa 15c Supt. of doc. '48

Detroit industry marks fourth year of co-
operative apprenticeship program. Inland
Ptr 120:40-1 Mr '48

Looking to the future; Fort Wayne builder
trains veterans while building three sub-
divisions. il plans Am Bid 69:90-3 D '47

Montreal government adopts regulations on
selection and training of apprentices. Inland
Ptr 120:85 F '48

Overcoming problems met in getting and
training mason apprentices. T. W. Cole.
Brick & Clay Rec 112:36-7 F '48

Push apprentice training; employers, labor,
and public officials confer at Lake Placid.
il Bsns W p88+ Jl 10 '48

What about your apprentice? pattern mak-
ing and molding contests. F. C. Cech. il
diags Foundry 76:66-70+ F '48

Why do apprentices quit? W. F. Patterson.
Am Mach 92:80 Ag 26 '48

APPROXIMATE computation

Contribution to the approximation problem.
R. F. Baum. Inst Radio Eng Proc 36:863-9
Jl '48

APPROXIMATION, Newton's method of

Engineering applications of Newton's method
of approximation. R. W. Richards. J Eng
Educ 38:231-4 N '47

APTITUDE tests. See Ability tests

AQUEDUCTS

De-chlorination at the Washington aqueduct.
C. J. Lauter. Am Water Works Assn J
39:1237-40 D '47

Precasting concrete pipe for the San Diego
aqueduct. D. K. Woodin. il plan diags Am
Concrete Inst J 19:261-88 D '47

Radio on the San Diego aqueduct. R. D.
Thorson. il Eng N 141:58-9 Jl 22 '48

San Diego aqueduct. J. Beach. il Pub Works
79:23-5 F '48

Sinking shafts and driving tunnels in
metropolitan Boston; Quabbin aqueduct. F.
W. Gow. il map diags Explosives Eng 25:
135-9+ S '47

Water supply job follows 1924 plans; con-
struction of the second Mokelumne aque-
duct in California. il map Eng N 140:50-2
Ja 8 '48

ARABAN

Pestic substances; structure of the araban
from arachis hypogaea. E. L. Hirst and J.
K. N. Jones. Chem Soc J p 1221-5 S '47

ARABATES

See also
Alkali metal ara-
bates

ARABIA

See also
Petroleum industry
and trade—Arabia

ARABIAN American oil company

Aramco facts answer Brewster's charges on
Arabian oil sales. Nat Pet N 40:20-2 My
5 '48

Brewster and Aramco debate U.S. benefits
from Saudi concession. H. A. Yocom. Nat
Pet N 39:15 N 5 '47

Brewster submits highly critical report on
navy-Aramco dealings. Oil & Gas J 46:78
Ap 29 '48

Companies present strong defense in probe
of Middle East activities. Oil & Gas J 46:43
N 8 '47

Jersey and Socony seek decision on red line
bar to Aramco deal. Oil & Gas J 47:60 O 28
'48

Plan for U.S. buying stock interest is re-
vived. D. L. Harbour. Nat Pet N 40:41 F
4 '48

ARABINOSE

Open-chain sugars; absorption in ultra-violet
of D-glucose and L-arabinose in acid solu-
tion. E. Pacsu and L. A. Hiller. jr. bibliog
Am Chem Soc J 70:523-6 F '48

Structure of an enzymatically synthesized re-
ducing disaccharide D-glucoside-L-arabinose.
W. Z. Hassid and others. bibliog il Am
Chem Soc J 70:306-10 Ja '48

Structures of some isopropyliden-aldehydo-
L-arabinose derivatives. J. English, jr. and
P. H. Griswold. jr. bibliog Am Chem Soc J
70:1390-2 Ap '48

Synthesis of some derivatives of D- and L-
arabinose. J. K. N. Jones, P. W. Kent and
M. Stacey. Chem Soc J p 1341-4 O '47

Analysis

Quantitative determination of hemicellulose
constituents by fermentation. A. H. Auern-
heimer, L. J. Wickerham and L. E.
Schliepp. bibliog Anal Chem 20:876-7 S '48

ARAGONITE

Extension of the polarizability theory of
Raman effect. F. Matossi and R. Mayer.
bibliog Phys R 74:449-55 Ag 15 '48

ARAPAHOE chemicals, Inc.

Boulder boldness. Chem Ind 62:735-6 My '48

ARBITRATION

Arbitration's tested techniques smooth world-
trade paths. G. N. Butler. il For Comm W
31:3-5+ Je 5 '48

ARBITRATION, Industrial

Arbitration. E. L. Klein. Bus Transportation
27:55-60 My '48

Arbitration and justice too; new machinery
needed. I. Rooks. Bus Transportation 26:
38-41 D '47

Arbitration must improve or bankrupt. E. A.
Egan. Management R 37:189-91 Ap '48

Arbitration panel awards pay raises in set-
tling Arizona construction fight. Eng N 140:
80 Ja 15 '48

Arbitration; presenting your case; a guide
to management. J. J. Justin. Personnel 24:
261-70 Ja '48

Building arbitration machinery starts. Bsns
W p 115-16 Ap 17 '48

Community's role in labor relations; New
York city administration's technique for
settling disputes. T. W. Kheel. Comm &
Fin Chr 167:1330 Mr 25 '48

ARBITRATION, Industrial—Continued

- Compulsory arbitration due? is the Taft-Hartley act a half-way house. *il Bsns W* p98+ Mr 13 '48
- Compulsory federal arbitration of labor disputes. *J. E. Johnsen, comp. Ref Shelf v 19, no 6:1-316 bibliog(p287-316) '47 (\$1.25)*
- Conciliation and arbitration in Australia. *Int Labour R* 56:316-19 S '47
- Conciliation and arbitration in New Zealand. *Int Labour R* 57:229-31 Mr '48
- How can arbitration be improved? abstract. *E. A. Egan, Management R* 27:461-3 S '48
- Is it arbitration, or socialization? Fifth avenue coach company's predicament. *Pub Util* 40:853-4 D 13 '47
- Man in the middle talks shop. *R. T. Seward. il Mod Ind* 15:67-8+ Mr '48
- Preparing a case for labor arbitration. *M. Copelof. Advanced Management* 13:58-64 Je '48
- Presenting management's case to the arbitrator. *J. J. Justin. Factory Management* 106:119-21 Mr '48
- Umpire wanted; U.A.W.-G.M. arbiter. *Bsns W* p 111-12 S 25 '48
- Union gets bill; U.A.W. assessed full cost in arbitration case as result of agreement with Ex-Cello-O corp. *Bsns W* p78+ Ja 31 '48
- What goes on in the mind of an arbitrator. *C. M. Updegraff. Personnel* 24:417-26 My '48
- What price transit arbitration? *P. B. Willauer, Mass Transportation* 43:531-4 N '47
- Why not arbitrate? *W. I. King. Mass Transportation* 43:575-8 D '47
- See also*
- National labor relations board United States—Federal mediation and conciliation service board

ARBORS and mandrels

- Tapered flat on boring-bar arbor guides boring tool in liner. *C. D. M. Airdrie. diags Am Mach* 92:120 O 7 '48

ARC, Electric. See Electric arc**ARC of contact. See Belting—Tables, calculations, etc.****ARC welding. See Electric welding, Arc****ARCHEOLOGY**

- See also*
- Egypt—Antiquities United States—Antiquities
- Morocco—Antiquities antiquities

ARCHES

- Arch is an arch in y²=2px (sometimes); is the Sardinens' arch plagiarism? *il diags Arch Rec* 103:28+ Ap '48
- Echoes at Echo bridge. *A. T. Jones. diags Acoustical Soc Am J* 20:706-7 S '48
- Rigid frames and arches; potentials for the building field. *il diags Arch Forum* 88:105-8+ F '48

ARCHES, Concrete

- Arch roof construction provides large column-free area; motor vehicle repair shop for New York Fire department. *il Civil Eng* 18:19+ Ja '48
- Arch roof with dome-ends provides unobstructed area for skating; combination skating rink, bowling alley and garage in Washington, D.C. *il Eng N* 141:110-12 J1 8 '48
- Expansive cement used for concrete arch keys. *Eng N* 140:433 Mr 18 '48
- Form on traveler speeds arch concreting; two hangars built at Chicago airport. *N. Gray. il Eng N* 141:108-10 Ag 19 '48
- Reinforced concrete shells span 257 ft. wide airplane hangars for American airlines at Chicago. *il diags Arch Forum* 89:138-9 S '48
- Thin-shell arch hangars span 257 ft. *B. G. Anderson. il diags Eng N* 141:55-7 J1 22 '48

ARCHIMEDEAN screw

- Discharge tests on an Archimedeal screw. *A. C. Donaldson. diags Inst Mech Eng J & Proc* 157 (War emergency issue no 27):93-9 '47; *Same abr. Engineering* 162:309-12 S 27 '46; *Discussion. Inst Mech Eng J & Proc* 157 (War emergency issue no 27):100-2 '47

ARCHIMEDES

- Mechanics of Aristotle and Archimedes. *H. F. Glirvin. J Eng Educ* 38:680-5 My '48

ARCHITABUS. See Phalangiotarbus subovalis (Woodward)**ARCHITECTS**

- Architect's stake in private enterprise. *M. Colean. Arch Rec* 103:97-9 Je '48

- Greene and Greene; their turn-of-the-century work in California. *J. M. Bangs. il plan diags Arch Forum* 89:80-9 O '48
- New appreciation of Greene and Greene. *il Arch Rec* 103:138-40 My '48
- Value of cooperation between engineers and architects emphasized by the AIA president; abstract. *D. W. Orr. Civil Eng* 18:42-3 Ja '48

See also

- American institute of architects
- Women as architects
- also names of architects, e.g.*
- Goff, Bruce Wright, Frank
- Maybeck, Bernard Lloyd
- Ralph

Fees

- How much for a set of house plans? *K. K. Stowell. Arch Rec* 103:71 Ja '48

ARCHITECTS' homes. See Architecture, Domestic—Architects' homes**ARCHITECTS' offices**

- Architect's office and home combined, Miami, Fla. *il plans Arch Rec* 104:94-6 J1 '48
- Architect's office in a rural setting, Santa Rosa, Calif. *il plan diags Arch Rec* 104:97-9 J1 '48
- Architect's office in limited space, Boston, Mass. *il plan Arch Rec* 104:100-1 J1 '48
- Example of clean contemporary design and deft detailing; offices for Ketchum, Gina & Sharp, architects-owners. *il plans diags Arch Forum* 88:79-83 F '48

ARCHITECTURAL acoustics. See Acoustics, Architectural**ARCHITECTURAL metal work. See Metal work, Architectural****ARCHITECTURAL models**

- Cold molded model building blocks. *il Mod Plastics* 25:100 D '47

ARCHITECTURAL societies

- See also*
- American institute of architects

ARCHITECTURE

- Creative architectural design with welded rigid frames. *M. P. Korn. il diags Welding J* 27:369-75 My '48

See also

- | | |
|---|------------------------------------|
| Acoustics, Architectural | Hillside architecture |
| Arches | Hospitals |
| Art galleries and museums | Hotels |
| Auditoriums | Laboratories |
| Automobile sales buildings | Library architecture |
| Bank buildings | Lobbies (architecture) |
| Brick construction | Marqueses |
| Bridges—Architecture | Monuments |
| Building | Naval architecture |
| Building materials | Office buildings |
| Buildings | Orientation (architecture) |
| Church architecture | Pavilions |
| Clubhouses | Railroads—Buildings and structures |
| College architecture | Railroads—Stations |
| Community centers | Recreation buildings |
| Concrete construction | Restaurants |
| Factories | School buildings |
| Farm buildings | Shopping centers |
| Floors | Store buildings |
| Foundations | Strains and stresses |
| Gasoline service stations—Construction and design | Strength of materials |
| Hangars | Ventilation |
| Heating | Walls |
| | Wood construction |

Competitions

- Jefferson national expansion memorial competition; prize winning designs. *il plans Arch Forum* 88:14-16B Mr '48; *Arch Rec* 103:92-103 Ap '48

Designs and plans

- Frank Lloyd Wright; a portfolio of work. *il plans diags Arch Forum* 88:65-156 Ja '48

See also

- | | |
|--|------------------------------------|
| Architecture, Domestic—Designs and plans | School buildings—Designs and plans |
| Laundries—Designs and plans | |

ARCHITECTURE—Continued

Dimensions, Interior

Critical dimensions governing school design; bodily dimensions of children; minimum widths of school exits and corridors; with time-saver standards. W. W. Caudill. Arch Rec 103:147 F '48
 Schools; pupils' working heights; data for furniture, fixtures, built in equipment; with time-saver standards. Arch Rec 103:153 Mr '48

Philosophy

Beauty for us demands architecture of larger scope at vastly broader scale. D. Haskell. il Arch Rec 103:88-91 Je '48
 Planning the contemporary house. A. B. Dow. il Arch Rec 102:89-91 N '47
 What buildings are beautiful? J. Hudnut. Arch Rec 103:88-94 My '48

Brazil

Brazil; a portfolio of building types for recreation and travel, for education and welfare, for living and for work. il maps plans diags Arch Forum 87:65-112 N '47

India

Department store with recreation top for Gautam Sarabhai at Amehabad, India; design by F. L. Wright. il plan Arch Forum 88:120 Ja '48

Russia

Wide gulf; western architects find Russian notion of beauty hard to understand. il Arch Forum 88:15-16 My '48

Uruguay

Contemporary architecture; a portfolio. Arch Forum 88:101-9 Je '48

ARCHITECTURE, Domestic

Main roads to better house architecture; the architect and the small house. A. M. Stires. il Arch Rec 104:82-7 S '48
 Planning for family living. F. Gutheim. Arch Rec 103:118-21 My '48
 Planning the contemporary house. A. B. Dow. il Arch Rec 102:89-91 N '47

See also

Apartment houses	Heating
Beach houses	Hillside architecture
Brick houses	Housing projects
Concrete houses	Stone houses
Country houses	Tourist camps,
Farmhouses	hostels, etc.
Guest houses	Week-end houses

Architects' homes

Architect's dwelling and workplace of the Taliesin fellowship in Arizona desert. il plans Arch Forum 88:87-8, 152-5 Ja '48
 Architect's house in Massachusetts; home of Hugh Stubbins, jr. il plans diags Arch Rec 103:88-96 Mr '48
 Architect's office and home combined, Miami, Fla. il plans Arch Rec 104:94-6 Jl '48
 Houses; a portfolio of progress in design. Arch Forum 88:104-5, 110-11, 124, 133, 135 Ap '48
 Marcel Breuer builds for himself. il plan diags Arch Rec 104:92-9 O '48
 Planning for a site; house on ridge overlooking small lake near St Paul, Minn. il plans diags Am Bld 70:84-7 Ap '48
 Studio-home of the John Lloyd Wrights, Del Mar, Calif. il plans diag Arch Rec 104:100-3 O '48

Designs and plans

Adroit handling of wood marks this hilltop house in Los Angeles. il plans Arch Forum 87:102-3 D '47
 Architect's house in Massachusetts; home of Hugh Stubbins, jr. il plans diags Arch Rec 103:88-96 Mr '48
 Arizona house planned for entertainment. il plan diag Arch Rec 104:110-15 Jl '48
 Basementless house has novel floor construction. il plan Am Bld 69:106-7 N '47
 Bruce Goff, pride of the prairie, designs in a strikingly regional idiom. il plans Arch Forum 88:94-101+ Mr '48
 Built complete in forty-five working days; Chicago adaptation of Blandings' dream house. il plans Am Bld 70:96-7 Ag '48

Built in 59 days; low cost houses by Carl R. Bryan of Pasadena, Calif. il plans Am Bld 70:90-1 Ja '48
 Cliff house exploits a magnificent site in Vancouver, B.C. il plans Arch Forum 89:96-100 O '48
 Colonial beauty in ranch house style; house with neighborly qualities. il plans Am Bld 70:86-7 Ja '48
 Comfort and background without excessive cost; house in Carmel, Calif. il plans diag Arch Rec 104:116-18 Jl '48
 Comfort for four; ranch type house; with blueprints. il Am Bld 70:106-10 F '48
 Concrete home in Florida built by Lamolithic industries. il plan diags Arch Forum 89:101-5 O '48
 Conservative modern colonial with expandable second floor; with blueprints. il Am Bld 70:102-6 Ap '48
 Denver developer's house, a try at better design, nits snag; J. Marlow's designs for F. Burns. il plans diags Arch Forum 88:88-9 Mr '48
 Designed for a corner lot; with blueprints. Am Bld 70:82-6 My '48
 Designed for comfortable living. il plan Am Bld 70:116-17 S '48
 Designed for living, house overlooking Columbia river, Vancouver, Wash. il plans Am Bld 70:102-3 My '48
 Designed to meet special needs; Rancillac cares for needs of owners as well as providing room for children and grandchildren during visits. il plans Am Bld 70:90 Mr '48
 Distinction is more a matter of brains than money; small house near Carmel, Calif. il plans diag Arch Forum 88:114-17 Je '48
 Doing something about low-cost houses; Earl W. Smith, Alameda county, California, builder. il plan diags Am Bld 70:87-9 Je '48
 Economical four-unit garden apartment; with blueprints. il Am Bld 69:82-6 D '47
 Economy house. il plan Am Bld 70:73 Je '48
 Economy house for a narrow lot; with blueprints. il Am Bld 70:94-8 S '48
 Economy still favored the two-story type. il plans Arch Rec 103:103-5 Je '48
 Expandable houses; Federal housing agency offers prototype plans. il plans Arch Forum 87:15 D '47
 40 houses; a portfolio of progress in American house design. Arch Forum 88:93-144 Ap '48
 Four houses demonstrate four degrees of electrical living; Westinghouse Electric's project in Hartford, Conn. il plans Am Bld 70:100-3 Ag '48
 Frank Lloyd Wright; a portfolio of work. il plans diags Arch Forum 88:65-99, 142-55 Ja '48
 Freedom and freshness in compact limits; house in Berkeley, Calif. il plan Arch Rec 102:108-11 D '47
 Good exterior result of good plan; with blueprints. il Am Bld 70:122-6 O '48
 Hats off to the ladies; demonstration house sponsored by Good housekeeping constructed by woman builder of Milwaukee. il plans diag Am Bld 70:76-81 F '48
 Here's one for all builders; simple, straightforward lines, with a contemporary touch; with blueprints il Am Bld 70:82-6 Mr '48
 Homes of poured vermiculite; construction method developed by Burt Smith of Portland, Oregon. il plans diags Am Bld 69:100-1 D '47
 House a survey built; Parents Magazine house for families with children. il plans Am Bld 70:60-3 Ja '48
 House divided; critical appraisal by the editors and rebuttal by architect R. P. Travelletti. il plans diags Arch Forum 88:110-13 Je '48
 House in Florida on Gulf of Mexico. il plans diags Arch Forum 89:97-103 Jl '48
 House in Houston; house in San Fernando Valley. il plans Arch Forum 89:125-30 S '48
 Houses; Architectural Record's building types study. il plans diags Arch Rec 102:89-114 N '47
 Houses; Architectural Record's building types study. il plans diags Arch Rec 103:118-37 My '48
 Houses; the small house; building types study. il plans diags Arch Rec 104:82-121 S '48

ARCHITECTURE, Domestic—Designs andplans—*Continued*

How to plan, build and sell individual houses. il plans diags Am Bld 70:72-91 Ap '48
 Idea house designed for a family of four. il plans diags Am Bld 69:76-9 D '47
 Individually designed modern home. il plan Am Bld 69:108-9 N '47
 Industry engineered house as adapted by John H. Geis & co., Baltimore. il plan Am Bld 70:130 F '48
 It's just as easy to build a good small house; Eastover Gardens' project, Richmond, Va. il plan Am Bld 70:100-1 Je '48
 Lakeside house fitted to a deceptively rural site within commuting distance of Manhattan. il plans Arch Forum 89:75-80 Ag '48
 Large activity range in small compass. il plan diag Arch Rec 103:107 Je '48
 Large, informal house of great luxury and little ostentation; Scarsdale, N.Y. il plans diag Arch Forum 88:118-20 Je '48
 Living; private residences, apartment houses and housing projects. il plans diags Arch Forum 87:92-105 N '47
 Marcel Breuer builds for himself. il plan diags Arch Rec 104:92-9 O '48
 Model house built for luxury; Utah centennial home. il plans Am Bld 69:70-3 D '47
 Modern design; traditional mellowness. il plans Am Bld 70:91-3 Ag '48
 Modified western homes find ready sales. il plans Am Bld 70:90-3 My '48
 National home week, a milestone; a portfolio of designs showing homebuilding progress and trends, nationwide, by geographical sections. il maps plans diags Am Bld 70:76-121 O '48
 North Country house for many children, Lake Placid; serves family and some pupils. il plans diags Arch Rec 103:106-11 F '48
 Novel house plan; Quakerian house. il plans Arch Rec 104:164-7 JI '48
 Outdoor views, indoor comforts. il plan Am Bld 70:78-81 Mr '48
 Pennsylvania house is rebuilt without a wagon wheel in sight. il plans Arch Forum 88:86-7 Mr '48
 Plan for Mr Blanding's dream house; with blueprints. il Am Bld 70:102-6 JI '48
 Planned for informal living; with blueprints. il Am Bld 70:86-90 Ag '48
 Planned for terrace living; house in Pacific Palisades, Calif. il plan Arch Rec 104:92-9 Ag '48
 Privacy on a city lot; with blueprints. il Am Bld 69:98-103 N '47
 Remodeled farm house in Connecticut. il plans Arch Forum 87:93-7 D '47
 Small house gives maximum space in minimum area. il plan Arch Forum 87:104 D '47
 Small house of impressive stature in Marin county, Calif. il plan Arch Rec 103:104-8 Ap '48
 Solar house for better living; Pasadena, Calif. il plans Am Bld 70:131 F '48
 Sound planning produces balanced design; ranch type house; with blueprints. il Am Bld 70:66-70 Ja '48
 Spacious privacy on a small lot. il plan Arch Rec 103:100-2 Je '48
 Studio-home of the John Lloyd Wrights, Del Mar, Calif. il plans diag Arch Rec 104:100-3 O '48
 Sufficient in size; high in quality; with blueprints. il Am Bld 70:82-6 Je '48
 Three-bedroom house is compact, economical. il plan Am Bld 70:111 JI '48
 Traditional style includes several modern features. il plans Am Bld 70:92-3 F '48
 Usonian house and designs by F. L. Wright. il plans Arch Forum 88:69-79, 144-5 Ja '48
 Variety adds value to Penn Model Village, Minneapolis. il plans Am Bld 70:86-9 S '48
 Vertical house built at the top of a sloping Maine meadow. il plans diags Arch Forum 89:81-3 Ag '48
 Winter house in Arizona tilts shed roof to view. il plans diag Arch Forum 87:98-101 D '47

See also

Apartment houses—
 Designs and plans
 Houses, Model

Details

American Builder's better detail plate. R. J. Alexander, diags Am Bld 70:98-9 Ja '48
 [cont monthly]

Four-family houses

Four-family apartments yield rentals in Cincinnati. il plans Am Bld 69:106-7 D '47

Remodeling

See Houses, Remodeled

Two-family houses

Duplex homes; a good investment. il plan Am Bld 70:81 My '48
 Merrionette Manor; three-level duplex ranch houses in Chicago. il plans Am Bld 70:64-6 Ja '48

Arizona

Architect's dwelling and workplace of the Taliesin fellowship in Arizona desert. il plans Arch Forum 88:87-8, 152-5 Ja '48
 Arizona's sunlight and shadow predetermined. il plan Arch Rec 102:102-3 N '47
 Redwood desert-dwelling near Phoenix, Ariz.; design by F. L. Wright. il Arch Forum 88:150 Ja '48
 Winter house tilts shed roof to view. il plans diag Arch Forum 87:98-101 D '47

Brazil

Living; private residences, apartment houses and housing projects. il plans diags Arch Forum 87:92-105 N '47
 On a long narrow lot; house in São Paulo. il plans Arch Rec 102:114 N '47

California

Distinction is more a matter of brains than money; small house near Carmel, Calif. il plans diag Arch Forum 88:114-17 Je '48
 Greene and Greene; their turn-of-the-century work. J. M. Bangs, il plan diags Arch Forum 89:80-9 O '48
 Planned for terrace living; house in Pacific Palisades, Calif. il plan Arch Rec 104:92-9 Ag '48

Florida

Concrete home in Florida built by Lamolithic Industries. il plan diags Arch Forum 89:101-5 O '48
 Delicacy and openness are the hallmarks of Florida's new regional architecture. il plan diag Arch Forum 88:108-9 Ap '48
 Designed for cool, comfortable living; house in West Palm Beach. il plan diag Am Bld 70:98-9 Ag '48
 House in Florida on Gulf of Mexico. il plans diags Arch Forum 89:97-103 JI '48
 Tropical house with aluminum screened porch for outdoor living. il plan Arch Forum 88:119 Ap '48

Guam

Bungalows for Guam. il Arch Rec 102:10 N '47

Hawaiian Islands

Oahu house is linked to Hawaiian past with rich textures, open views, exotic details. il plans diags Arch Forum 88:88-92 F '48

United States

National home week, a milestone; a portfolio of designs showing homebuilding progress and trends, nationwide, by geographical sections. il maps plans diags Am Bld 70:76-121 O '48

Uruguay

Residential work reflects high living standards. il plans Arch Forum 88:106-7 Je '48

ARCHITECTURE, Modernistic

40 houses; a portfolio of progress in American house design. Arch Forum 88:93-144 Ap '48

House divided; critical appraisal by the editors and rebuttal by architect R. P. Travelletti. il plans diags Arch Forum 88:110-13 Je '48

Houses; the small house; building types study. il plans diags Arch Rec 104:82-121 S '48

ARCTIC institute of North America

Board of governors. Science 107:288 F 20 '48
Grants-in-aid. Science 107:539 My 21 '48

ARCTIC regions

Arctic research at Point Barrow, Alaska. L. Irving. Science 107:284-G Mr 19 '48

Arctic shelter; United States army testing new type of troop shelter. Heat & Ven 45: 136+ O '48

Army trains personnel for Arctic survival. II Refrig Eng 56:142-3 Ag '48

Climate of the Arctic as viewed by the explorer and the meteorologist. W. H. Hobbs. bibliog(33 titles) Science 108:193-201 Ag 27 '48

Influence of Arctic operations on future ship design. J. W. Millard. U S Naval Inst Proc 74:261-5 F '48

Some problems of human ecology in polar regions. M. C. Shelesnyak. Science 106:405-9 O 31 '47

See also

Yukon

ARCTIC research. See Polar research

ARCTIUM minus. See Burdock

AREA measurement

Chart for determining the area of any ring or concentric circle. W. F. Schaphorst. Water & Sewage Works 95:392 N '48

Concentric circles, areas, and weights. diag Am Gas J 168:30 Ja '48

Simple method of measuring the surface area of small objects of irregular shape. I. Zeidman. Science 108:214-15 Ag 27 '48

AREOLATIN

Chemistry of the coprosma genus; a synthesis of areolatin and an isomer, 3 : 5 : 6 : 7- tetrahydroxy-2-methylanthraquinone. L. H. Briggs, J. C. Dacre and G. A. Nicholls. Chem Soc J p990-2 Jl '48

Chemistry of the coprosma genus; the colouring matters from coprosma areolata. L. H. Briggs, M. R. Crow and J. C. Dacre. Chem Soc J p568-70 My '48

ARGENTINA

See also

Airlines—Argentina

Immigration and emigration—Argentina

Investments, Foreign (in Argentina)

Railroads—Argentina

Vocational education—Argentina

Commerce

Argentina takes steps to improve port conditions. K. N. Hynes. For Comm W 31:37 My 15 '48

Argentine-Italian trade stages two-way comeback. For Comm W 31:12 Ap 10 '48

Buenos Aires letter. Bsns W p 120 S 25 '48

Commercial policy

Anglo-Argentine agreement. Economist 154: 312-13 F 21 '48

Argentina; control over payments abroad; exchange rates. For Comm W 32:12 Jl 10 '48

Argentina signs commercial agreement with Yugoslavia. For Comm W 32:14-15 Jl 17 '48

Argentina signs protocol to trade agreement with Spain. For Comm W 31:18-19 My 15 '48

Argentina signs trade and financial agreement with Netherlands. For Comm W 31: 16-18 My 15 '48; Oil Paint & Drug Rep 153:54 My 31 '48

Argentine beef for Britain; trade pact signed. II Bsns W p 113-14 F 14 '48

Argentine-Bolivian trade and financial agreement of March 26, 1947 brought into effect. For Comm W 30:14-15 F 28 '48

Argentine trade deal may cut wheat price. W. P. Schuck. Barron's 27:38 N 24 '47

Big U.S. crops weigh heavily on Peron; Argentina's own Marshall plan runs into bear market. W. P. Schuck. Barron's 28:5 Ag 16 '48

Brazil; payments agreement with Argentina continued in effect. For Comm W 32:14-15 Ag 21 '48

Commercial and financial agreement with France signed. For Comm W 30:14-15 Ja 31 '48

Protocol to trade agreement with United Kingdom initialed. For Comm W 31:7 Ap 3 '48

Trade agreement signed with Italy; commercial and financial agreement with Rumania signed. For Comm W 29:8-9 N 22 '47

Economic conditions

Argentina and Brazil; key to South America. V. L. Horoth. II Mag of Wall St 81:469-71+ Ja 31 '48

Argentina's losing gamble for power. V. L. Horoth. Mag of Wall St 83:123-5+ N 6 '48

Economic relations

Lessons for Peron he may not like. Barron's 28:1+ S 20 '48

United States

Argentine crisis. Bsns W p 126+ My 15 '48

Argentine economic crisis; its effect on the U.S. V. L. Horoth. II Mag of Wall St 82: 279-81+ Ja 13 '48

Peron's policy in danger. Economist 155:498 S 25 '48

Industries and resources

Argentina builds its industry. II Bsns W p97-8 F 28 '48

Buenos Aires letter. Bsns W p 100 Ja 10 '48

ARGININE

Use of ion exchange resins for separation of basic amino acids. B. A. Hems and others. bibliog Soc Chem Ind J 67:77-80 F '48

ARGON

Adsorption of argon, nitrogen, and butane on porous glass. P. H. Emmett and M. Cines. bibliog J Phys & Colloid Chem 51: 1248-62 N '47

Discharge spread in Geiger counters with methane and methane/argon fillings. G. Balakrishnan and others. bibliog diag Phys R 74:410-14 Ag 15 '48

Free-volume models for liquids. T. L. Hill. bibliog J Phys & Colloid Chem 51:1219-32 N '47

Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. bibliog J Chem Phys 16:190-4 Mr '48

Mixed adsorption of radon and argon on silica gel. B. P. Burt and J. D. Kurbatov. bibliog diag Am Chem Soc J 70:2278-82 Je '48

Range-energy relations for protons in substances containing C, H, O, A, and Xe. J. O. Hirschfelder and J. L. Magee. bibliog Phys R 73:207-15 F 1 '48

Self-diffusion coefficient of argon. F. Hutchinson. bibliog Phys R 72:1256 D 15 '47

Slow neutron spectrometer studies of oxygen, nitrogen, and argon. E. Melkonian and others. Phys R 73:1399-400 Je 1 '48

Small-angle X-ray scattering from amorphous materials. G. H. Vineyard. bibliog Phys R 74:1076-83 N 1 '48

Vapor pressure, specific volume, *p-v-T* data for H₂, N₂, O₂, CO, CO₂, air, He, A, Hg. S. Gratch. A S M E Trans 70:631-40 bibliog(154 titles, p637-40) Ag '48

Isotopes

Argon 40 in potassium minerals. L. T. Aldrich and A. O. Nier. bibliog Phys R 74:876-7 O 15 '48

ARGON, Liquid

Calculation of the surface energy of liquid argon and mercury. G. Jura. bibliog diags J Phys & Colloid Chem 52:40-7 Ja '48

Conductivity pulses in liquid argon. N. Davidson and A. E. Larsh, jr. Phys R 74: 220 Jl 15 '48

Sound absorption and velocity in liquefied argon, oxygen, nitrogen, and hydrogen. J. K. Galt. bibliog diag J Chem Phys 16:505-7 My '48

ARGUS, inc.

Argus, cameras for the millions. Fortune 37: 138 Mr '48

ARISTOTLE

Mechanics of Aristotle and Archimedes. H. F. Girvin. J Eng Educ 38:680-5 My '48

ARITHMETIC

Arithmetical shorthand facilitates computations. H. A. Thomas. Eng N 140:565 Ap 15 '48

ARITHMETIC—Continued

Tracing transposition errors. A. A. Goldfaber.
J Account 85:167 F '48

ARIZONA

See also

Architecture, Domes- Manganese mines
tic—Arizona and mining—Ariz-
Geology—Arizona zona
Physical geography—
Arizona

ARIZONA highways (periodical)

Understatement in the Southwest. Fortune
38:114 J1 '48

ARKANSAS

See also

Mines and mineral
resources—Arkan-
sas

Industries and resources

Southwest's goal; light industry. il Bsns W
p30+ Ap 3 '48

ARKANSAS power and light company

Arkansas P&L co. takes title to Lake Cath-
erine power plant. Elec World News ed
129:11 Je 12 '48

Bonds offered. Comm & Fin Chr 168:838 Ag
30 '48

ARLINGTON national cemetery

Arlington national cemetery. C. A. Phillips.
il U S Naval Inst Proc 74:732-5 Je '48

ARMAMENTS

Generating plant for military equipment. K.
H. Tuson. bibliog il diags Inst E E J 94
pt 2:616-28; Discussion. 629-33 D '47

ARMATURES

Armature-turning device. il Ry Mech Eng
123:162-3 Ap '48

Motor parts of glass-polyester laminates. il
Product Eng 19:137-8 S '48

Tight traction motor coils; method of bind-
ing armatures. E. H. Horstkotte. il diag
Ry Mech Eng 122:32-4 Ja '48

Testing

Circulating currents; armature testing and
adjustment methods. diags Elec R (Lond)
143:284-8 Ag 20 '48

ARMCO steel corporation

'48 profit to top 1947 level. Barron's 28:35 O
18 '48

Selling a name; American rolling mill co.
changes its name to Armco steel corp.
Bsns W p50-3 My 8 '48

ARMED forces chemical association

Chemical corps association adopts new name.
Chem & Eng N 26:1702 Je 7 '48

ARMED forces communications association

Annual meeting. Dayton, May 10-11. Radio
& Tv N 40:20+ Ag '48

AFCA and national defense. S. H. Sherrill.
il Radio N 39:44-5+ Je '48

ARMED services procurement act of 1947. See

Contracts, Government

ARMENTROUT, Vance

Two veteran editors retire in Louisville. Ed
& Pub 81:20 S 11 '48

ARMOR plate

Developments in the welding of armor; ab-
stract. T. L. H. Butterfield. Metal Prog
53:864+ Je '48

Flame hardening of armor plate. E. L.
Bartholomew, Jr. il diags Metal Prog 52:
979-83 D '47

High-speed milling of threads in armor
plate. il diags Mach 54:190-2 J1 '48

ARMOUR, Norman, 1887-

Portrait. Fortune 36:84 D '47

ARMOUR and company of Illinois

Annual report. Comm & Fin Chr 167:422 Ja
26 '48

Armour vs. Wilson; a comparative study. H.
F. Travis. il Mag of Wall St 81:478-80+
Ja 31 '48

U.S. flees suit asking dissolution of Big four
packers. Comm & Fin Chr 168:1138-9 S 20
'48

ARMOUR research foundation

Partners in research; excerpts from eleventh
annual report. Chem & Eng N 26:994-6 Ap
5 '48

ARMSTRONG, Donald Budd, 1886-

Receives Prentiss award. por East Underw
49:10 O 29 '48

ARMSTRONG, Edwin Howard, 1890-

Armstrong of radio. por Fortune 37:88-91+
F '48

What to look for in fm. D. T. Armstrong.
por Sci Am 178:115-18. 165-8 Mr-Ap '48

ARMSTRONG, Henry Edward, 1848-1937

H. E. Armstrong; an impressionist sketch.
F. W. Keeble. Chem & Ind p715-20 N 22
'47

ARMSTRONG, William F.

Chevrolet's new head. por Bsns W p52 S 18
'48

Portrait. Fortune 33:13 O '48

ARMSTRONG cork company

Armstrong cork company, ceramic manufac-
turer; glass containers, insulating firebrick,
and glass insulators. K. C. Lyon and D. J.
Townsend. il Am Cer Soc Bul 27:181-2 My
15 '48

Offers rights to new \$4 preferred. Comm &
Fin Chr 167:150 Ja 12 '48

ARMY fabrics

Applied research in the textile industry. D.
H. Powers. Chem & Eng N 26:1442-3 My 17
'48

Forecasting military fabrics with frigid facts.
il Textile Col 70:23-31 F '48

See also

Duck (textile)

Testing

Use of acceptance testing data to substanti-
ate specification requirements. S. Backer.
Am Dyestuff Rep 37:603-12 S 20 '48

ARMY hospitals. See Hospitals, Military**ARMY-navy petroleum board**

Role of the Army-navy petroleum board. G.
A. Vogel. Am Pet Inst Proc 27(1):90-1 '47

ARNOLD, Thurman Wesley, 1891-

Portrait. Bsns W p21 Ja 3 '48

Portrait. Fortune 38:66 J1 '48

AROCLOR

Melting-point bath liquids; Aroclor 1248 and
silicone oil 9981-LTNV-40. J. L. Hartwell.
Anal Chem 20:374-6 Ap '48

AROMATIC compounds

Aromatic cyclodehydrogenation. M. Orchin
and others. bibliog 2pls diags U S Bur
Mines Tech Pa 708:1-40; pa 20c Supt. of doc.
'48

N-Bromosuccinimide as a dehydrogenating
agent. R. A. Barnes. bibliog Am Chem Soc
J 70:145-7 Ja '48

Colorimetric determination of certain dinitro
aromatics in the presence of the corre-
sponding mononitro compounds. F. L. Eng-
lish. Anal Chem 20:745-6 Ag '48

Determination of aromatic compounds in pe-
troleum products; chromatographic method.
A. L. Conrad. bibliog Anal Chem 20:725-6
Ag '48

Reaction of benzoic anhydride with aromatic
compounds catalyzed by boron trifluoride.
P. H. Given and D. L. Hammick. Chem
Soc J p 1237-9 S '47

AROMATIC hydrocarbons. See Hydrocarbons, Aromatic**AROMATIZATION**

Aromatization studies; aminobiphenyls and
naphthylamines. E. C. Horning, M. G.
Horning and E. J. Platt. Am Chem Soc J
70:288-9 Ja '48

Heat stability of molybdena-alumina dehydro-
cyclization catalysts. A. S. Russell and
J. J. Stokes, Jr. Ind & Eng Chem 40:520-4
Mr '48

ARRIOLA, Gustavo Montano

Lazy but full of beans that's Gordo. Señor.
H. Keen. por Ed & Pub 81:46 S 18 '48

ARSANILIC acid

P-(2-Chloroethylthio)phenyldichloroarsine. H.
T. Openshaw and A. R. Todd. Chem Soc J
p374-6 Mr '48

ARSENATES**Analysis**

Accumulation of traces of arsenate by copre-
cipitation with magnesium ammonium phos-
phate. I. M. Kolthoff and C. W. Carr. bib-
liog Anal Chem 20:728-30 Ag '48

ARSENIC

Arsenic and lead are still getting into the
food supply. Consumers Res Bul 21:11-12
My '48

Arsenic. 1947. R. H. Mote. Eng & Min J 149:
86-7 F '48

ARSENIC—Continued

Chemical treatment of trees to facilitate removal of bark and to reduce weight of wood. D. C. McIntosh, Pulp & Pa of Can 49:117-18+ Je '48

Work on arsenic insecticides; the quest for non-toxic preparations. Chem Age (Lond) 59:87-8 Jl '48

Analysis

Coulometric titration of arsenic by means of electrolytically generated bromine and an amperometric end-point. R. J. Myers and E. H. Swift, diags Am Chem Soc J 70:1047-52 Mr '48

Detection of arsenic in foods, drugs. Chem Ind 62:774+ My '48

Determination of phosphorus, germanium, silicon, and arsenic by the heteropoly blue method. D. F. Boltz and M. G. Mellon, bibliog Anal Chem 19:873-7 N '47

Photometric determination of arsenic in copper and copper-base alloys. O. P. Case, bibliog Anal Chem 20:902-4 O '48

Semimicrodetermination of arsenic in the presence of antimony, bismuth, tin, and lead. J. H. Freeman and W. M. McNabb, Anal Chem 20:979 O '48

Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others, bibliog Anal Chem 19:1035-9 D '47

Time reaction; Bettendorff's test for arsenic; lecture demonstration. F. E. Brown, J Chem Educ 25:257 My '48

Volumetric microdetermination of arsenic and iron. G. F. Smith and J. S. Fritz, Anal Chem 20:874-6 S '48

Isotopes

Beta-rays and gamma-rays from arsenic (76). M. V. Scherb and C. E. Mandeville, bibliog Phys R 73:418-19 F '48

Nuclear reactions of arsenic with 190-Mev deuterons. H. H. Hopkins, jr. and B. B. Cunningham, bibliog Phys R 73:1406-7 Je 1 '48

Short lived isomeric states of Se^{78} and Ge^{77} . J. R. Arnold and N. Sugarman, bibliog J Chem Phys 15:703-12 O '47

ARSENIC acid

Rate of the chlorate-bromide reaction in acid solution with arsenious acid present; arsenic acid as a catalyst. F. F. Grieger, bibliog Am Chem Soc J 70:3045-9 S '48

ARSENIC compounds

Anomalous reaction of 2-nitro-4-arsenophenyl ethers. L. A. Sweet, D. G. Calkins and C. K. Banks, bibliog Am Chem Soc J 69:2260-1 O '47

Derivatives of 3-amino-4-hydroxybenzene-arsenic acid. L. A. Sweet and others, bibliog Am Chem Soc J 69:2258-9 O '47

Derivatives of arsacridine. C. L. Hewett and others, Chem Soc J p292-9 Mr '48

Inorganic insecticides. L. B. Norton, bibliog Ind & Eng Chem 40:691-3 Ap '48

Studies in the incidence of cancer in a factory handling inorganic compounds of arsenic; abstract. A. E. Hill and E. L. Fanning, Nat Safety N 57:44+ Je '48

ARSENIC oxides

Vapour-phase reduction of arsenic trioxide by carbon monoxide. R. C. Vickery and R. W. Edwards, diag Metallurgia 37:310-11 Ap '48

ARSENIC poisoning

Arsenic and lead are still getting into the food supply. Consumers Res Bul 21:11-12 My '48

ARSENIC trioxide. See Arsenic oxides**ARSENIOS acid**

Rate of the chlorate-bromide reaction in acid solution with arsenious acid present; arsenic acid as a catalyst. F. F. Grieger, bibliog Am Chem Soc J 70:3045-9 S '48

ARSINE

Arsine gas poisoning; report of a case. R. A. Willis, Ind Med 17:208 Je '48

Preparation and properties of allyl phosphines, arsines, and stannanes. W. J. Jones and others, Chem Soc J p 1446-50 N '47

Study of the distribution of arsine in impregnated charcoal by means of radioactive tracers. J. W. Hickey and E. O. Wiig, bibliog diag Am Chem Soc J 70:1574-9 Ap '48

Volatility and vapor pressure of nine organic arsines. C. E. Redemann and others, bibliog Am Chem Soc J 70:637-9 F '48

ARSON

Arson at low ebb. T. P. Brophy, Nat Underw 52:8 O 21 '48

Good times and full employment cut down fires set for profit; National Board report; abstracts, East Underw 49:23 My 28 '48; Weekly Underw 153:1695-6+ Je 12 '48

ARSONIUM compounds

Hydroxyalkylamides of 4-arsenophenoxy- and 4-arsonaniinoacetic acids. C. K. Banks and others, bibliog Am Chem Soc J 70:738-9 F '48

ART

Will modern art influence typography? J. M. Secret, Il Ind Marketing 33:56+ Je '48

See also

Advertising art	Ceramic art
Architecture	Design
Banks and banking	Photography
—Art exhibits	Textile design
Consult Art Index for additional references	

Bibliography

Art bibliography. A. R. Young, ed. 92p \$1.75 Teachers college, Bur. of publications, Columbia univ, 525 W. 120th st, N.Y. 27 '47

ART and industry

Making art pay; maker of lighting equipment sponsors exhibit of abstract art. Il Bsns W p84-5 Mr 20 '48

ART galleries and museums

Directory of museums and art galleries in the British Isles. S. F. Markham, 392p £1 2s Museums assn, Meteorological bldgs, Exhibition road, London, S.W. 7 '48

Plans of Solomon R. Guggenheim memorial museum. Il plans Arch Forum 88:136-8 Ja '48

See also

Art objects—Cataloging

Lighting

5.4-kw fixture lights noted art gallery; Tapestry Hall in the Morgan memorial gallery, Wadsworth atheneum. W. D. Gorman, Il Elec World 129:82+ Ja 31 '48

ART industry and trade

Art goes big business; Associated American artists. Il Bsns W p25 D 20 '47

ART objects**Cataloging**

Cataloging works of art. J. B. Montignani, Special Lib 38:292-4 N '47

ARTERENOL

Diamines; the synthesis of amino analogs of adrenaline, arterenol and ephedrine. R. Duschinsky and others, Am Chem Soc J 69:3150 D '47

Levo-arterenol. M. L. Tainter and others, bibliog Science 107:39-40 Ja 9 '48

Resolution of dl-arterenol. B. F. Tullar, Am Chem Soc J 70:2067-8 Je '48

ARTERIO

Sympathin E and nor-adrenaline. U. S. v. Euler, Science 107:422 Ap 23 '48

ARTERIOSCLEROSIS

New heart attack; Cleveland businessmen open new battle against heart disease. Bsns W p26 My 8 '48

Physical state of lipids and foreign substances producing atherosclerosis. J. R. Moreton, bibliog Science 107:371-3 Ap 9 '48

ARTESIAN wells

Artesian salt formations. B. Willis, bibliog Il maps diag Am Assn Pet Geologists Bul 32:1227-64 Jl '48

Effective radius of drawdown test to determine artesian well. C. E. Jacob, diags Am Soc C E Proc 72:629-46 My '46; Discussion, 72:1319-20, 1433-4; 73:239-40; 74:175-7 N-D '46, F '47, F '48

ARTHRITIS

Phlebotomic treatment of arthritis of the knee. O. Meyer, bibliog Il diags Ind Med 17:405-8 O '48

Trauma and arthritis; analysis of 162 cases. E. Wolff, bibliog Ind Med 17:41-5 F '48

ARTIFICIAL limbs

Artificial-limb research; abstract. Mech Eng 70:338-9 Ap '48

ARTIFICIAL limbs—Continued

Medical science award to Dr A. Alfred Nelson; use of plastics in artificial hands. *Il Mod Plastics* 26:142-3 S '48

ARTIFICIAL respiration. See **Respiration, Artificial**

ARTISTS**Biography**

Who's who in American art; v 4, 1940-1947. D. B. Gilbert, ed. (American art annual, v 36, pt 2) 684p \$12 (American federation of arts, 1262 New Hampshire av, NW, Washington 6 '47

ARTOCARPUS communis. See **Breadfruit**

ARTS and crafts

See also

Enamel and enameling (arts and crafts) Handicraft Pottery

ARVIDA, Quebec**Bridges**

Arvida, to have world's first aluminum highway bridge. *J. S. Walsh, Il Roads & Bridges* 86:61+ J1 '48

ASBESTOS

Asbestos industry in Quebec. H. R. Rice, *flow sheet il map diags Can Min J* 69:148-61 O '48

Asbestos statistics for 1947 reported. *Oil Paint & Drug Rep* 154:72 J1 26 '48

Asbestos; the magic protection. *Il Safety Eng* 96:11-13+ J1 '48

History of the Canadian asbestos mining industry. A. L. Penhale. *Can Min J* 69:146-8 O '48

Superfine asbestos used as catalyst carrier, and as filler in plastics and rubber. A. Van Winsen and E. A. Brown. *Il Can Chem & Process Ind* 32:129-32 F '48

Terratex, thin flexible inorganic insulation manufactured from asbestos fiber. T. R. Walters. *Il Elec Eng* 67:452-4 My '48

Using graded porosity pads for depth filtration; used in beverage industries to polish liquids, to improve ultra-violet sterilization and retention of carbonation. F. R. Hormann. *Il diag Food Ind* 20:680-1+ My '48

ASBESTOS cement pipes. See **Pipes, Asbestos cement**

ASBESTOS workers

Asbestosis and cancer of the lung; abstract. R. Desmeules and others. *J Ind Hygiene* 30: sup94-5 S '48

ASBURY PARK, New Jersey**Water supply**

We drill a new well. C. M. Roberts. *plan Pub Works* 79:28+ Ap '48

ASCORBIC acid

Determination of silver with ascorbic acid. E. C. Stathis. *Anal Chem* 20:271 Mr '48

See also

Dehydroascorbic acid
Vitamins—Vitamin C

ASDIC

Sonar and asdic, anti-submarine sisters. M. Prendergast. *Il U S Naval Inst Proc* 74: 1008-11 Ag '48

ASH handling

Tips for pneumatic ash conveying. E. Hahn. *diags Power* 92:352 Je '48

What is best way to remove ash siftings? *diags Power* 92:366-7+ Je '48

ASHLAND oil and refining company

Ashland stockholders urged to vote favorably July 30 on Allied merger. *Nat Pet N* 40:21 J1 14 '48

Preferred stock offered. *Comm & Fin Chr* 168:642 Ag 16 '48

ASIA, Southeastern

Communism in south-east Asia. *Economist* 154:1003-4 Je 19 '48

Progress of communism in southeastern Asia. V. L. Horoth. *Il map Mag of Wall St* 82: 583-5+ S 11 '48

ASPARTIC acid**Analysis**

Determination of aspartic acid. B. Warshowsky and M. W. Rice. *bibliog Anal Chem* 20:341-4 Ap '48

ASPEN

Aspen for pulp and paper. E. R. Schafer. *bibliog Pulp & Pa of Can* 48:104+ D '47

Effect of decay on the groundwood pulping of quaking aspen. A. Hyttinen and E. R. Schafer. *Paper Ind* 30:405-7 Je '48

Effect on pulp quality of the stepwise removal and replacement of the hemicelluloses from aspen holocellulose. R. E. March. *bibliog Paper Tr J* 127:51-7 O 21 '48; Same cond. *Paper Ind* 29:1833-4+ Mr '48

Extraction treatments in bleaching aspen neutral sulphite semichemical pulp. S. A. Trivedi and others. *bibliog Paper Ind* 29: 1443-53 Ja '48

ASPERGILLIC acid

Pyrazine derivatives; conversion of diketopyrazines into pyrazine derivatives; synthesis of 2-hydroxy-3 : 6-di-sec-butylpyrazine from isoleucine. R. A. Baxter and F. S. Spring. *Chem Soc J* p 1179-83 S '47

Pyrazine derivatives; pyrazine N-oxides and their conversion into chloropyrazines. G. T. Newbold and F. S. Spring. *Chem Soc J* p 1183-5 S '47

ASPERGILLUS

Citric acid; production by submerged fermentation with *aspergillus niger*. P. Shu and M. J. Johnson. *bibliog Ind & Eng Chem* 40:1202-5 J1 '48

Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. *Il Ind & Eng Chem* 40:262-7 F '48

Fungistatic properties of *p*-aminobenzoic acid and related compounds; growth curves obtained with *aspergillus niger*, *penicillium raistrickii* and *byssoschlamys fulva*. G. W. K. Cavill and J. M. Vincent. *bibliog diags Soc Chem Ind J* 67:25-33 Ja '48

Mold enzymes produced by continuous tray method. G. A. Jeffreys. *Il diags Food Ind* 20:688-90+ My '48

See also

Mold bran

ASPHALT

Adobe brick stabilized with asphalt. *Il Eng N* 140:132-3 Ja 22 '48

Asphalt paver lines small canals. *Il Constr Methods* 30:86-8 Ja '48

Asphalt products, 1941-1946. Survey of Cur Bsns 1947 Sup p 168 [supplemented in monthly numbers]

Asphalt, the black sheep of the petroleum industry. C. M. Hewett. *Pet Eng* 19:140+ Ap '48

California's latest results and experiments in asphalt subsealing. H. L. Cooper and W. R. Severing. *Il Roads & Sts* 91:110-11 Ja '48

Mean molecular weights of asphalts and their constituents. G. W. Eckert and B. Weetman. *bibliog Ind & Eng Chem* 39:1512-16 N '47

New building material; asphalt-stabilized adobe brick. *Il Constr Methods* 30:98-100 Ap '48

Oil-paper dielectrics; effect of asphalt as a contaminant in oil and in impregnated paper. J. D. Piper, P. Treend and K. S. Bevis. *bibliog Ind & Eng Chem* 40:323-8 F '48

Paving asphalt from California crude oil; staff-industry collaborative report. M. L. Kastens. *bibliog flow sheets Il Ind & Eng Chem* 40:548-57 Ap '48

Analysis

Determination of asphaltenes, oils, and resins in asphalt. R. L. Hubbard and K. E. Stanfield. *bibliog diags Anal Chem* 20:460-5 My '48

ASPHALT coated paper. See **Paper, Asphalt coated**

ASPHALT handling

Electric heating for asphalt plants; municipal asphalt plant of the borough of Manhattan. L. H. Csanyi. *Il diag Eng N* 140: 502-5 Ap 1 '48

ASPHALT pavements. See **Pavements, Asphalt**

ASPHALT plants**Costs**

Asphalt plant operating costs. L. H. Csanyi. *Il Eng N* 140:572-4 Ap 15 '48

ASPHALT plants, Municipal

Electric heating for asphalt plants; municipal asphalt plant of the borough of Manhattan. L. H. Csanyi. *Il diag Eng N* 140: 502-5 Ap 1 '48

ASPHALT shingles. See **Shingles, Asphalt**

ASPHALT tile

Behind the scenes in an asphalt tile factory.
 Il Am Bld 70:126-7 S '48

ASPHALTENES

Mean molecular weights of asphalts and their constituents. G. W. Eckert and B. Weetman. *bibliog Ind & Eng Chem* 39:1512-16 N '47

Analysis

Determination of asphaltenes, oils, and resins in asphalt. R. L. Hubbard and K. E. Stanfield. *bibliog diags Anal Chem* 20:460-5 My '48

ASPHYXIA

Bottled death; shipboard casualties from carbon dioxide fire extinguishers. *Marine Eng* 53:94+ Mr '48

ASPIRIN

Aspirin cures one water testing headache; aspirin tablets used in electrical conductivity testing of feedwater. R. S. Wise and R. S. Robertson. *Power Generation* 52:116+ Ja '48

Bayer aspirin; Trenton plant packages over 10,000,000 tablets a day in tins and bottles. Il *plan Mod Packaging* 21:100-5 Ag '48

Inhibition of anaphylactic shock by acetylsalicylic acid. B. Campbell. *bibliog Science* 108:478-9 O 29 '48

Manufacture

No headaches here; modern aspirin plant. R. W. Porter. *flow sheet(p 136-9)* Il *Chem Eng* 55:96-8 Mr '48

ASSAYING

Assaying gold and silver in works products. C. C. Downie. *Can Min J* 63:821-3 N '47

New assay slide rule computes complex ore values. R. E. Gilbert. Il *diags Eng & Min J* 149:95-7 Je '48

ASSEMBLING methods

Aircraft fixtures make trolley-coach assemblies. S. C. Klein. Il *Am Mach* 92:88-91 S 9 '48

Automatic assembly of pistons and connecting rods; Ford motor co. Il *Automotive Ind* 98:28 F 15 '48

Automatic hoppers speed assembling. A. E. Rylander. Il *diags Tool Eng* 21:17-19 S '48

Body building at Hudson; Monobilt bodies; illustrations with text. A. H. Allen. *Steel* 122:60-2 My 31 '48

Bolted assemblies. W. C. Stewart. *bibliog diags Machine Design* 20:153-8 Mr '48

Conditioned area for inspection and assembly; Frigidaire division, General Motors. H. Bogue. Il *Factory Management* 106:116-17 JI '48

Delco-Remy introduces new facilities for high-volume minimum-cost production. J. Geschelin. Il *plan Automotive Ind* 97:36-7+ N 1 '47

Diverse assembly methods used to build new type welder. J. DeEulis. Il *plan Steel* 122:95-100 My 10 '48

Freight car fabrication fixturized; illustrations with text. *Am Mach* 92:120-3 F 12 '48

Furnace-brazed assemblies replace one-piece units; American Bosch corp. H. M. Weber. Il *diags Am Mach* 92:92-6 S 9 '48

Highlights of Monobilt body production. J. Geschelin. Il *Automotive Ind* 98:30-1+ F 15 '48

Hudson final assembly layout quite different than others. J. Geschelin. Il *Automotive Ind* 98:28-9+ Ap 1 '48

Job improvement in twelve steps; Oldsmobile. J. J. Edwards. Il *Factory Management* 106:76-9 S '48

Latest innovations at GMC bus plants. J. Geschelin. Il *Automotive Ind* 99:26-9+ JI 1 '48

Line assembly pays off in heavy industry; Fullman-Standard. A. A. Logmann. Il *Factory Management* 106:80-1 S '48

Made a new layout to get assembly savings; Stewart-Warner. A. R. Collins. Il *Factory Management* 106:84-7 Je '48

Material handling; conveyors. J. vonRosen. Il *S A E J* 56:29-34 Mr '48

Mechanized graphs cut control costs; Lion manufacturing corp. Il *Bsns W* p54+ Ag 21 '48

Motor industry methods applied to hopper-car manufacture. Il *Steel* 123:90-2 Ag 16 '48

Multi-product assembly on a single line; Doeppke construction toys. *flow chart* Il *Factory Management* 106:74-5 Mr '48

New layout and handling cut labor costs 72 per cent; portable storage conveyors. W. J. Perrie. Il *Factory Management* 106:104-5 S '48

New layout for small assemblies returns first cost in six months; Weatherhead co. Il *plan Factory Management* 106:100-3 JI '48

Piston assembly machine. Il *diags Product Eng* 19:92-3 O '48

Pistons and con rods machine-assembled at the Rouge plant of the Ford motor co. C. S. Ricker. Il *diags Am Mach* 92:111 Ap 8 '48

Planned assembly; methods employed on master cylinders for Lockheed hydraulic brakes. Il *Automobile Eng* 38:134-6 Ap '48

Planned assembly of hydraulic brake components. Il *Engineer* 185:141-3 F 6 '48

Precision investment castings reduce assembly operations; illustrations with text. E. L. Cady. *Materials & Methods* 28:78-80 O '48

Radiator ore assembling machine. Il *Engineer* 185:156-8 F 13 '48

Radiator cores; a semi-automatic assembly machine developed by Ford motor co. ltd. Il *Automobile Eng* 38:93-6 Mr '48

Radiator output increased 50 per cent by mechanized processing; Ford motor co. Il *Steel* 122:94-7 My 3 '48

Revamped fabricating procedure cuts assembly time of unit speed heaters. L. E. Browne. Il *Steel* 122:116+ Je 14 '48

Small boats hit assembly line; Steelcraft boats; illustrations with text. *Bsns W* p24 Ja 17 '48

Straight-line assembly served by elevators; G.E. Erie plant. J. M. Scarlett. Il *plan Factory Management* 106:74-5 Je '48

Synchronizing subassemblies to main line needs at Packard. F. J. Bird. Il *diag Factory Management* 106:56-9 Ap '48

Three-level layout boosts assembly capacity 65 per cent; General Electric's Erie, Pa. plant. M. L. Disco. *plan Factory Management* 106:116-17 My '48

Using straight-line assembly in boat-building. Il *plan Factory Management* 106:72-5 Ja '48

Welding a highly accurate tubular structure; antenna pedestals for ship fire control mechanisms; Sperry gyroscope co. Il *Mach* 54:152-3 Ap '48

ASSETS

Accounting procedures and private enterprise. W. A. Paton. *J Account* 85:278-91 Ap '48

Current assets and current liabilities; working capital; Accounting research bulletin. *J Account* 84:282-5 O 47. Discussion. 85:160-1, 273-4; 86:195 F, Ap, S '48

Prepaid expenses as current assets. *J Account* 85:160-1 F '48

ASSETS, Fixed

Adjustment of prior years' income for depreciation and disposal of fixed assets. D. Borth. *bibliog J Account* 85:470-4 Je '48

Auditor and the problem of high cost replacements of fixed assets. *J Account* 85:420-1 My '48

Earmarking of funds dedicated to fixed asset expansion. *J Account* 85:345-6 Ap '48

Installing manual fixed asset records. D. R. Thompson. *N A C A* B 29:343-51 N 15 '47

Restricting funds for fixed asset replacement. *J Account* 86:337-8 O '48

ASSETS, Liquid

Consumer reserves high; Federal reserve board survey. *Bsns W* p26+ JI 17 '48

Estimated liquid asset holdings of individuals and businesses; with half-yearly figures by type of holder. Dec. 1939-Dec. 1947. *Fed Res Bul* 34:657-8 Je '48

Liquid saving estimates of the Securities and exchange commission and their reconciliation with personal saving estimates of the Department of commerce. 1933-46; tabulation. *Survey of Cur Bsns* 27:sup20-1 JI '47

Liquid saving estimates of the Securities and exchange commission and their reconciliation with personal saving estimates of the Department of commerce. 1944-47; tabulation. *Survey of Cur Bsns* 28:17 JI '48

ASSETS, Liquid—Continued

1948 survey of consumer finances. D. M. Holthausen. Fed Res Bul 34:634-56, 766-80, 914-32 Je-Ag '48; Excerpt (pt 2). Comm & Fin Chr 168:313+ J1 22 '48

ASSOCIATED business papers

ABP talks to management; institutional campaign emphasizes mechanized selling. Ind Marketing 32:102+ D '47

ASSOCIATED dry goods corporation

Annual report. Comm & Fin Chr 168:738 Ag 23 '48

ASSOCIATED equipment distributors

Annual meeting, 29th, Chicago. Roads & Sls 91:93+ Mr '48

Annual meeting, 29th, Chicago, Feb. 15-19; with abstracts of papers, Roads & Bridges 86:128-30+ Mr '48

ASSOCIATED general contractors of America

Annual meeting, Dallas. Eng N 140:235+ F 19 '48

Annual meeting, Dallas, Feb. 9-12; with abstracts of papers. Concrete 56:20+ Mr '48

Annual meeting, 28th, Dallas, Feb. 9-12. Roads & Sls 91:77-9 Mr '48

AGC sponsors 100 reserve army units; meeting. Des Moines, Sept. 30; abstracts of papers. Concrete 55:13-14+ N '47

Board meeting, Chicago, Sept. 13-15; abstracts of papers. Concrete 56:16-18+ O '48

Meeting with Joint cooperative committee of American association of state highway officials, Miami, Dec. 7. Concrete 56:40 Ja '48;

Roads & Sls 91:108+ Ja '48

Midyear board meeting, Chicago. Eng N 141:43-4 S 30 '48

ASSOCIATED industries of Cleveland

Telling the facts. Bsns W p97-8 J1 24 '48

ASSOCIATED press

Annual report to members. K. Cooper. Ed & Pub 81:14 Mr 27 '48

AP report simplified by new Flesch formula. Ed & Pub 81:8 F 21 '48

Flesch study improves AP report, editors say. Ed & Pub 81:28 My 15 '48

100-year-old AP renews truth pledge; Reelects McLean. Ed & Pub 81:12-13 Ap 24 '48

Proposes AP-Reuters truth team. Lord Rothermere. Ed & Pub 81:19+ Ap 24 '48

Proposes AP-Reuters truth team. Lord Rothermere. Ed & Pub 81:19+ Ap 24 '48

ASSOCIATED press managing editors association

AP editors win program for member participation. J. Walker. Ed & Pub 81:9+ O 30 '48

ASSOCIATED telephone company, ltd.

Bonds offered. Comm & Fin Chr 166:1990 N 17 '47

Preferred stock offered. Comm & Fin Chr 166:2306; 168:738 D 8 '47, Ag 23 '48

Preferred stock offered; sells bonds privately. Comm & Fin Chr 167:1532 Ap 12 '48

ASSOCIATED traffic clubs of America

Annual meeting, 25th, Cincinnati, Oct. 18-20. Ry Age 125:815-17 O 30 '48

ASSOCIATES of the food and container institute for the armed forces

Dedication meeting, Washington, D.C. Nov. 6. Food Ind 19:1677 D '47

Food, container firms form research group. Oil Paint & Drug Rep 153:5 Je 7 '48

ASSOCIATION (psychology)

Free association tests can help advertisers; psychiatric method of probing subconscious. J. M. Vicary. Ptr Ink 224:44+ S 3 '48

ASSOCIATION advertising. See Advertising, Association**ASSOCIATION and associations**

Freedom of association and industrial relations. Int Labour R 56:277-9 S '47

See also

Benefit societies Trade associations

Cooperative associations Trade unions

Corporations Youth serving associations

Scientific societies

ASSOCIATION for the study of Internal secretions

Awards for 1948. Science 107:643 Je 18 '48

ASSOCIATION of American fertilizer control officials

Annual meeting, 2d, Washington, Oct. 10. Oil Paint & Drug Rep 154:4+ O 18 '48

ASSOCIATION of American geographers

Officers for 1948. Science 107:88 Ja 23 '48

ASSOCIATION of American railroads

Annual member road meeting, Chicago, Nov. 21. Ry Age 123:998+ D 6 '47

A.A.R. denies F.R.P.'s anti-trust bill charge; did not make false statements on Bulwinkle measure. Ry Age 124:588 Mr 20 '48

Gass replaces Kendall as C.S.D. chairman. Ry Age 124:1038-9 My 29 '48

Plans unveiled for A.A.R. laboratory. il plans Ry Age 125:674-5 O 9 '48

ASSOCIATION of insurance advertisers—*Continued*

Extends membership deadline, Nat Underw 52:13+ J1 29 '48; Same, Nat Underw (Life ed) 52:4 J1 30 '48

Mail-order insurance companies form association, East Underw 49:30-1+ J1 9 '48; Same, Weekly Underw 159:61+ J1 10 '48

Mail order insurers form trade group, Nat Underw 52:15+ Je 24 '48; Same, Nat Underw (Life ed) 52:3+ Je 25 '48

ASSOCIATION of iron and steel engineers

Annual convention and exposition, Cleveland, Sept. 28-Oct. 1; program, authors and chairmen, abstracts of papers, exposition floor plans, exhibitors, Iron & Steel Eng 25:72-95 S '48

Annual meeting and exposition, Cleveland, Sept. 28-Oct. 1; floor plan, program, exhibitors, Steel 123:97-102 S 20 '48

Annual meeting, Cleveland; with abstracts of papers, Iron Age 152:102-4 O 7 '48

Annual meeting, Cleveland, Sept. 28-Oct. 1; abstracts of papers, Steel 123:48-50 O 4; 114+ O 11 '48

Newly elected officers and directors; national committees, 1948, Iron & Steel Eng 25:74-8 Ja '48

Report of activities of standardization committee, 1947, Iron & Steel Eng 25:60-77 F '48

Spring meeting, Buffalo, April 26-27; abstracts of papers, Iron & Steel Eng 25:69-72 Ap '48; Steel 122:115-16+ My 10 '48

ASSOCIATION of life insurance counsel

Annual meeting, New York, Dec. 16, Nat Underw (Life ed) 51:5 D 19 '47; Weekly Underw 157:549+ D 20 '47

ASSOCIATION of life insurance medical directors of America

Annual meeting, 56th, New York, Oct. 23-24, East Underw 48:7 O 31 '47; Nat Underw (Life ed) 51:1+ O 31 '47; Weekly Underw 157:1135 N 1 '47

ASSOCIATION of national advertisers

Annual convention, 38th, Atlantic City, Oct. 5-8, Ind Marketing 32:43+ N '47; Sales Management 59:125-6+ N 1 '47

Annual meeting, 39th, New York, Ptr Ink 225:96-7+ N 5 '48

Spring meeting, Chicago, Ed & Pub 81:28+ Ap 17 '48

ASSOCIATION of newspaper classified advertising managers

Annual convention, 28th, Los Angeles, Ed & Pub 81:8 Je 12; 9+ Je 19 '48

ASSOCIATION of official agricultural chemists

Annual meeting, 62d, Washington, D.C., Oct. 11-13, Chem & Eng N 26:3195 O 25 '48

ASSOCIATION of operative millers

Annual meeting, 62d, Chicago, May 17-21, Food Ind 20:1030+ J1 '48

ASSOCIATION of southeastern biologists

Annual meeting, 9th, Gainesville, Fla., April 16-17, Science 107:593-4 Je 4 '48

ASSOCIATION of special libraries and information bureaux

Aslib holds a practical conference, I. B. N. Evans, Special Lib 39:16-19 Ja '48

ASSOCIATION of stock exchange firms

New officers and committees, Comm & Fin Chr 166:2063 N 20 '47

ASSOCIATION technique de fonderie de France

Annual meeting, 21st, Paris, Oct. 13-15, Foundry 75:106+ D '47

ASSOCIATIONS. See Association and associations**ASSOCIATIONS, Trade. See Trade associations****ASTHMA**

Inhalation of norisodrine sulfate dust, L. R. Krasno and others, bibliog il Science 108: 476-8 O 29 '48

ASTRONOMICAL instruments

Electronics in astronomy, G. E. Kron, bibliog il diags Electronics 21:98-103 Ag '48

ASTRONOMICAL observatories

Night on Pajomar, A. G. Ingalls, il diags Sci Am 179:12-17 Ag '48

See also

Greenwich royal observatory United States naval observatory

ASTRONOMICAL photography

Fast astronomical plates will be used in the Palomar telescope; abstract, C. J. Staud, Mech Eng 70:147 F '48

ASTRONOMICAL photometry. See Photometry, Astronomical**ASTRONOMICAL research**

One world of stars, H. Shapley, il Science 108:315-21 S 24 '48

ASTRONOMY

Amateur astronomer, A. G. Ingalls, Published in monthly numbers of Scientific American

See also

Cosmogony Solar system

Galactic systems Stars

Nautical astronomy Sun

ASTRONOMY, Nautical. See Nautical astronomy**ASTROPHYSICS**

Magnetism of celestial bodies, J. Mariani, Phys R 73:78-9 Ja 1 '48

ATACAMITE

Replacement of calcite by atacamite in copper chloride solutions, R. M. Garrels and L. O. Stine, il Econ Geol 43:21-30 Ja '48

ATCHISON, Topeka and Santa Fe railway

Advises I.C.C. to keep Santa Fe out of St Louis; Boles-Nye proposed report, Ry Age 123:912-13 N 22 '47

Argue on St Louis entry for Santa Fe, Ry Age 124:536-7 Mr 13 '48

Atchison's cash up beyond likely needs, Barron's 28:34 S 20 '48

Santa Fe denied St Louis entry, Ry Age 125:215-17 J1 24 '48

Santa Fe; no. 1 railroad, il map Fortune 38: 122-7+ N '48

Santa Fe report reveals capital goods problem, Am Bsns 18:34+ Mr '48

Stocks cheaper than during prewar depression, F. H. Rosenstiel, Comm & Fin Chr 167:931 F 26 '48

ATEBRIN

Hydroxyethyl analog of quinacrine, W. W. Carlson and L. H. Cretcher, bibliog Am Chem Soc J 70:597-9 F '48

Resolution of mepacrine [2-chloro-5-(6-diethylamino- α -methylbutyl)amino-7-methoxyacridine, B. R. Brown and D. L. Hamrick, Chem Soc J p99-100 Ja '48

Some developments in organic chemical manufacture; pharmaceutical products, W. Smith and W. G. Reid, Chem & Ind p661-2 O 16 '48

Synthesis of nuclear isomers of quinacrine, W. G. Dauben, bibliog Am Chem Soc J 70:2420-3 J1 '48

ATHERMALIZATION of lenses. See Lenses, Plastic**ATHEROSCLEROSIS. See Arteriosclerosis****ATHLETE'S foot (disease)**

Athlete's foot therapy; abstract, L. Schwartz, Soap & San Chem 23:145+ N '47

Three-point attack on athlete's foot, Safety Eng 95:55-7 F '48

ATKINSON, Joseph E., 1865-1948

J. E. Atkinson dies; Toronto daily star willed to charity, Ed & Pub 81:32 My 15 '48

ATLANTA*See also*

Labor and laboring

classes—Atlanta

Retail trade—Atlanta

ATLANTA gas light company

Public utility securities, Comm & Fin Chr 167:708 F 12 '48

ATLANTIC coast fisheries company

Subscriptions for bonds, Comm & Fin Chr 167:2246 My 24 '48

ATLAS corporation

Annual report, Comm & Fin Chr 167:2130 My 17 '48

Atlas-NEA divorce no hardship; order gives holding company 18 months to dispose of stock, S. Altschul, Aviation W 48:51 Je 7 '48

ATLAS plywood corporation

Six well-entrenched dividend payers, Mag of Wall St 83:131 N 6 '48

ATMOSPHERE

Abundance and temperature of methane in the earth's atmosphere, R. R. McMath and others, Phys R 74:623-4 S 1 '48

Duration and intensity of sunshine; effects of atmosphere, F. Benford, Illum Eng 43:699-710 J1 '47

Energy distribution of neutrons in the atmosphere, S. A. Korff and others, Phys R 73: 1133 My 1 '48

Influence of the atmosphere upon the precision of telescope pointing, F. E. Washer and L. W. Scott, diag J Res Nat Bur Stand 39:297-302 O '47

ATMOSPHERE—Continued

Neutron density in the free atmosphere up to 87,000 feet. L. C. L. Yuan. *Phys R* 74: 504-5 Ag 15 '48

Nitrous oxide in the earth's atmosphere. J. H. Shaw and others. *Phys R* 74:978-9 O 15 '48

Propagation of radio waves in the lower troposphere. J. B. Smyth and L. G. Trolese. *bibliog Inst Radio Eng Proc* 35:1198-202 N '47

Reduction of apparent contrast by the atmosphere. S. Q. Duntley. *bibliog diags Opt Soc Am J* 38:179-91 F '48

Study of tropospheric reception at 42.8 mc. and meteorological conditions. G. W. Pickard and H. T. Stetson. *Inst Radio Eng Proc* 35:1445-50 D '47

See also

Air
Meteorology
Sea air

ATMOSPHERE, Upper

Absorption spectrum of carbon dioxide from 14 to 16 microns. L. D. Kaplan. *bibliog J Chem Phys* 15:809-15 N '47

Approach to the approximate solution of the ionosphere absorption problem. J. E. Hacke, jr. *Inst Radio Eng Proc* 36:724-7 Je '48

Automatic ionosphere recorder. Franklin Inst J 245:164-6 F '48

Continuous oscillograph camera for ionosphere measurements. J. E. Hacke, jr. *il Instruments* 21:914-15 O '48

Cosmic-ray bursts in the upper atmosphere. H. E. Tatel and J. A. Van Allen. *diag Phys R* 73:87-8 Ja 1 '48

Cosmic-ray counting rate of a single Geiger counter from ground level to 161 kilometers altitude. J. A. Van Allen and H. E. Tatel. *bibliog diags Phys R* 73:245-51 F 1 '48

Determination of ionospheric electron distribution. L. A. Manning. *Inst Radio Eng Proc* 35:1203-7 N '47

Developments in radio sky-wave propagation research and applications during the war. J. H. Dellinger and N. Smith. *maps Inst Radio Eng Proc* 36:258-66 F '48

Estimation and forecasting of short-wave propagation conditions, with special reference to naval communications. L. E. Beghian. *bibliog maps Inst E E J* 95 pt 3: 351-62 S '48

Experimental determination of the gyrofrequency; magneto-ionic theory of wave propagation. S. L. Seaton. *il Science* 106: 496-7 N 21 '47

Heat transfer to bodies traveling at high speed in the upper atmosphere. J. R. Stalder and D. Jukoff. *bibliog diag J Aeronautical Sci* 15:381-91 J1 '48

High altitude measurements on extensive showers. R. Maze and others. *Phys R* 73: 418 F 15 '48

High-power ionosphere-measuring equipment. P. G. Sulzer. *il diags Inst Radio Eng Proc* 36:389-94 Mr '48

Improved ionospheric height recorder. H. A. Thomas and R. G. Chalmers. *bibliog il diags Inst E E J* 95 pt 3:7-13 Ja '48

Investigation and forecasting of ionospheric conditions. E. Appleton. *Inst E E J* 94 pt 1:483-4 O '47

Ionosphere reflections recorded mechanically by means of a repetition frequency converter. W. Stoffregen. *il diags J Ap Phys* 19:487-90 My '48

Ionospheric eclipse of Oct. 1, 1940; variations in the critical frequencies of the various ionospheric layers over Queenstown, South Africa. J. A. Pierce. *il map Inst Radio Eng Proc* 36:8-15 Ja '48

Ionospheric radio propagation. *bibliog il maps diags U S Nat Bur Stand Circ* 462:1-209; pa 11 Supt. of doc. '48

Latitude dependence of neutron densities in the atmosphere as a function of altitude. J. A. Simpson, jr. *Phys R* 73:1389-91 Je 1 '48

Magnetoionic multiple refraction at high latitudes. S. L. Seaton. *bibliog il Inst Radio Eng Proc* 36:450-4 Ap '48

Measurement of ionospheric virtual height at 100 kilocycles. R. A. Helliwell. *il Phys R* 73:77 Ja 1 '48

Measurement of total stratosphere ozone. Franklin Inst J 245:253-4 Mr '48; Same abr. *Mech Eng* 70:440-1 My '48

New ionospheric-meteorological correlation. T. G. Mhiran. *bibliog Inst Radio Eng Proc* 36:1093-5 S '48

Positive excess of slow mesotrons at an altitude of 3.5 km. M. Correll. *bibliog il diags Phys R* 72:1054-60 D 1 '47

Propagation of radio waves; measurements with oblique incidence on the ionosphere. W. J. G. Beynon. *bibliog il diag Wireless Eng* 25:322-30 O '48

Restricted-range sky-wave transmission. J. E. Hacke, jr. and A. H. Waynick. *diags Inst Radio Eng Proc* 36:787-93 Je '48

Symposium on problems of the earth's gaseous envelope. *Science* 107:641-2 Je 18 '48

Upper-atmosphere circulation as indicated by drifting and dissipation of intense sporadic-E clouds. O. P. Ferrell. *bibliog maps Inst Radio Eng Proc* 36:879-80 J1 '48

Upper-atmosphere research. *Mech Eng* 70: 547 Je '48

ATMOSPHERIC electricity

Electric field intensity inside of natural clouds. R. Gunn. *bibliog J Ap Phys* 19: 481-4 My '48

Suggested mechanism for the generation of thunderstorm electricity. E. J. Workman and S. E. Reynolds. *Phys R* 74:709 S 15 '48

See also

Lightning

ATMOSPHERIC pressure

Influence of atmospheric pressure on the phenomena accompanying the entry of spheres into water. D. Gilbarg and R. A. Anderson. *il diags J Ap Phys* 19:127-39 F '48

New ionospheric-meteorological correlation. T. G. Mhiran. *bibliog Inst Radio Eng Proc* 36:1093-5 S '48

Propagation of a pulse in the atmosphere. C. L. Pekeris. *bibliog Phys R* 73:145-54 Ja 15 '48

Two-stage ignition of higher hydrocarbons at atmospheric pressure. G. Friedlander and L. Grunberg. *bibliog diag Inst Pet J* 34:490-510 Ag 15 '48

ATOLLS. *See* Coral reefs and islands

ATOMIC bombs

Atom-bomb explosion; effect on a typical American city; abstracts. R. E. Lapp. *maps Mech Eng* 70:150-2 F '48; *Refrig Eng* 55:29+ Ja '48

Atom bomb; miracle or catastrophe. L. Mumford. *Air Affairs* 2:326-45 J1 '48

Atomic bombs for two? *Economist* 154:572-4 Ap 10 '48

Atomic dilemma; comment. Q. Wright. *Air Affairs* 2, no 1:136-40 [S] '47

Atomic dilemma; third way out. L. Hartley. *Air Affairs* 2, no 1:128-35 [S] '47

Atomic energy and the engineer. D. E. Lillenthal. *Mech Eng* 70:8-11 Ja '48

Business Week reports to executives on atomic energy, 1948. *il diag Bsns W* p47-54 Ap 10 '48 [reprints 20c]

Ceramics and nucleonics. A. L. Johnson. *Am Cer Soc Bul* 27:235-7 Je 15 '48

Churchill-Severud atomic city designed to withstand force of atomic bomb explosion. *plan diags Arch Forum* 88:10-11 Ap '48; *Discussion*. D. Baker. 88:38+ Je '48

Decentralization; defense against atomization? C. I. Barnard. *Pub Util* 41:597-603 My 6 '48

Effect of atomic bombing on building materials at Hiroshima, Japan. A. C. Tester. *Geol Soc Bul* 59:787-94, pl 1-4 Ag '48

Effects of atomic bombing on sewerage and refuse collection in Hiroshima and Nagasaki. *Pub Works* 78:36+ O '47

Failure to release Bikini report aid to aggression; abstract. B. Dewey. *Chem & Eng N* 26:929 Mr 29 '48

How A-bombs would hit utilities; Hiroshima study. *il Bsns W* p28+ N 8 '47

Human relations and the atom. D. E. Lillenthal. *Comm & Fin Chr* 168:811+ Ag 26 '48

If an atomic bomb hit city X. R. E. Lapp. *diag Midwest Eng* 1:20-6 O '48

Industrial survival in an atomic war. *il Mil & Factory* 43:95-8 O '48

ATOMIC bombs—Continued

Insurance to have part in defense plans against atomic bomb attacks. East Underw 49:20 J1 16 '48

Japanese appraisal of atomic bomb damage to Hiroshima utility system. R. M. Van Duzer, Jr. and E. J. Burger. *il map Elec World* 128:98-103 N 8 '47

Military application of atomic energy. J. T. Hayward. *Aeronautical Eng R* 7:32-3 S '48

Military influence on nuclear research. A. W. Kramer. *il Power Generation* 52:66-9 Je '48

Plane-sub team devised for navy for atomic bomb attacks. R. Hotz. *il diag Aviation W* 49:12-13 N 8 '48

Recent decisions of interest to labor; atomic bomb not an article of commerce. *Mo Labor R* 66:306-7 Mr '48

Royal navy and nuclear power. R. J. Daniel. *Engineer* 185:337-9 Ap 2 '48; Same cond. *Engineering* 165:428-31 Ap 30 '48; Discussion. *Engineer* 185:333-4 Ap 2 '48; *Engineering* 165:330-1 Ap 2 '48

Story of atomic energy. F. Soddy. *Engineering* 165:424-7 Ap 30 '48

Bibliography

Annotated bibliography on atomic energy, 257 selected references for schools and discussion groups. I. Light. 29p Bureau of publications, Teachers college, Columbia univ, 525 W. 120 st, New York 27 '47 (35c)

Insurance aspects

Insurers stymied by atomic bomb threat. W. Schiff. *Weekly Underw* 159:209+ J1 31 '48; Same. *East Underw* 49:16+ Ag 6 '48; Same. *Spectator (Property ed)* 14:12-13+ Ag 5 '48; Same cond. *Nat Underw* 52:15 J1 29 '48

Manufacture

Where do we stand on the atom? R. Colborn. *il diag Chem Eng* 55:130-3 My '48

Radiological effect

Atom-bomb radiation; abstracts. *Mech Eng* 70:546-7 Je '48; *il Pub Works* 79:56+ J1 '48

Bikini revisited; preliminary results of the scientific resurvey during the summer of 1947; abstract. R. Revelle. *Science* 106:512-13 N 28 '47

Cytogenetic effects in corn exposed to atomic bomb ionizing radiation at Bikini. L. F. Randolph and others. *Science* 108:13-15 J1 2 '48

Genetic effects of the atomic bombs in Hiroshima and Nagasaki; genetics conference, committee on atomic casualties, National research council. *Science* 106:331-3 O 10 '47; Excerpts. *Mech Eng* 69:1038 D '47

Testing

Eniwetok tests termed satisfactory. *Chem & Eng N* 26:1778 Je 14 '48

Lesson of the ADU. F. I. Winant, Jr. *il U S Naval Inst Proc* 74:1067-79 S '48

Tests at Eniwetok on improved atomic bombs. *Metal Prog* 54:42 J1 '48

ATOMIC constants. See **Physical constants**

ATOMIC energy commission (United States)

Appointments. *Science* 106:414 O 31 '47

AEC appoints committee on isotope distribution. *Chem & Eng N* 26:252 Ja 26 '48

Atomic energy commission appropriation cut by Congress. *Chem & Eng N* 26:1889 Je 28 '48

AEC boots out leftist unions. *Bsns W* p 100+ O 9 '48

AEC compromise. *Sci Am* 179:22 Ag '48

AEC employee relations policy gets it in trouble with contractors. *Elec World* 129:72 My 8 '48

Atomic energy commission, is it to be trusted? W. Nelson. *Pub Util* 41:355-61 Mr 11 '48

AEC medical program. S. Warren; L. L. Strauss. *Oil Paint & Drug Rep* 153:58-9 Je 28 '48

AEC progress. *Sci Am* 178:24-5 Je '48

A.E.C. reports its year I. *Chem Eng* 55:99 Mr '48

AEC reports on Condon. *Chem & Eng N* 26:2200 J1 26 '48

AEC will sell industry radioactive compounds.

Bsns W p36 J1 17 '48

Atomic energy group reveals program for \$460 million construction work. *Eng N* 140:3 Ja 1 '48

Benefit plans can backfire; Oak Ridge and AEC-contractors squabble. *Chem Eng* 55:175-6+ Je '48

Board of consultants. *Science* 106:489 N 21 '47

Commercial isotopes raise problems. *il Bsns W* p74-7 Ap 24 '48

Extending terms of atomic energy commissions. A. Leggin. *Chem & Eng N* 26:2111 J1 19 '48

Extracts from 4th semiannual report to Congress. *Metal Prog* 54:323 S '48

Fellowship program for training in medical and biological aspects of atomic energy. *Science* 107:136 F 6 '48

Fellowships. *Am Cer Soc Bul* 27:239 Je 15 '48

First AEC reorganization bringing changes in policy and personnel. *Elec World* 130:62 Ag 28 '48

Fourth semiannual report to Congress. *Mech Eng* 70:820-2 O '48

International control bogs down. *Metal Prog* 53:837 Je '48

New program of fellowships supported by Atomic energy commission. *Science* 107:367 Ap 9 '48

Physicists hear problems of AEC. *Chem & Eng N* 26:454 F 16 '48

Program for the use of radioactive materials. S. Warren. *Ind Med* 17:221-4 Je '48

Realignment of research program at Clinton national laboratory. *Science* 107:112 Ja 30 '48

Secrecy versus the law; vanadium antitrust case. *Bsns W* p65-6 S 25 '48

Slippup brings woe to AEC; employment standards for scientific workers accidentally published. *Bsns W* p 108+ My 8 '48

Support for a civilian-controlled Atomic energy commission urged. M. Gorman. *Chem & Eng N* 26:2550-1 Ag 30 '48

United States Atomic energy commission. R. P. Johnson. *J Eng Educ* 38:440-5 Mr '48

What does AEC do? abstract. R. F. Bacher. *Chem Eng* 55:262+ Ap '48

When happened in atomic energy in '47? R. Colborn. *il Elec World* 129:97-104 Ap 10 '48; Same cond. *Elec West* 100:63-7 My '48

Insurance problems

Atomic energy unit's insurance policy is told. H. C. Hallam. *Nat Underw* 51:14 N 6 '47

Removes mystery from atomic energy program, to help insurance companies to underwrite AEC employees. R. R. Boyer. *East Underw* 49:56 O 15 '48

Patent policy

Atomic patent policy approved by advisory panel. *Product Eng* 18:147-8 N '47; Same. *Bsns W* p48+ O 4 '47; Same cond. *Elec World* 128:45 S 27 '47

ATOMIC power

American developments in atomic energy; extracts from 3d semiannual report of United States Atomic energy commission to Congress (Jan. 31, 1948). *Metal Prog* 53:521 Ap '48

Atom and industry. D. E. Lillenthal. *diag Iron Age* 161:126-9 Ja 1 '48

Atomic developments and industrial management. S. T. Pike. *Ind Med* 17:147-9 Ap '48

Atomic energy and American industry. D. E. Lillenthal. *Power Pl Eng* 51:109-10 D '47

Atomic energy conversion factors. I. Rotkin. *Elec World* 129:146 My 22 '48

Atomic energy; engineering problems in its industrial application. J. A. Hutcheson. *Westinghouse Eng* 8:37-8 Mr '48; Same. *Steel* 122:88-9 Mr 1 '48; Same. *Min & Met* 29:484-5 S '48

Atomic energy for industry will pose intricate problems for refractories. *il Brick & Clay Rec* 112:62+ Ja '48

Atomic energy is your business; abstract. D. E. Lillenthal. *Metal Prog* 53:94-5 Ja '48

Atomic energy problems; abstract. T. E. Allibone. *Electrician* 139:1366 N 7 '47

ATOMIC power—Continued

- Atomic energy; where America stands in 1948. R. Colborn. *il Power* 92:264-7 My '48
- Atomic power for aircraft. A. Kalitinsky. *diags Aero Digest* 57:58-9+ Ag '48
- Atomic power for industry; problems of designing equipment. H. Etherington. *il diag Machine Design* 20:91-7 JI '48
- Atomic power prospects. M. Benedict. *il diag Refrig Eng* 56:31-4+ JI '48
- Atomic power reactor; Knolls atomic power laboratory. *Mech Eng* 70:909 N '48
- Atomic rocket; novel approach to space-flight; atomic energy for the propulsion. K. W. Gatland. *Aviation W* 48:25 Je 7 '48
- Atoms to burn; AEC's semiannual report. *Bsns W* p23 Ag 7 '48
- Better refractories needed before atomic piles can work for industry. J. E. Armstrong. *Brick & Clay Rec* 113:64+ JI '48
- Breeder reactor may create fissionable material supply. *Chem & Eng N* 26:450 F 16 '48
- Business Week reports to executives on atomic energy, 1948. *il diags Bsns W* p47-54 Ap 10 '48 [reprints 20c]
- Deaeration of boiler feedwater for atomic power plants. S. D. Distelhorst. *il Power Pl Eng* 51:107-8 D '47
- Effect of atomic energy on scientific and technical publications. R. E. Peierls. *Engineering* 164:305, 318 S 26-O 3 '47; *Abstract. Special Lib* 39:17 Ja '48
- Electric power situation in the United States; atomic energy. *Power Generation* 52:72 Ja '48
- Future of atomic energy. L. A. DuBridge. *Am Gas J* 167:20-2 D '47
- Heat transfer and nuclear energy. A. W. Kramer. *diags Power Generation* 52:35-9 F '48
- Houston engineers review atomic energy developments. *Chem & Eng N* 26:1438 My 17 '48
- How far away is atomic power? A. W. Kramer. *Power Generation* 52:74-5+ Ag '48
- Importance of breeding in nuclear power development. A. W. Kramer. *Power Generation* 52:86-9 O '48
- Industrial application of nuclear energy; address before American society of mechanical engineers, New Orleans. L. E. Borst. *Comm & Fin Chr* 167:996+ JI '48; *Same. Mech Eng* 70:295-7 Ap '48; *Excerpts. Chem Eng* 55:302+ My '48; *Abstract. Chem Age (Lond)* 58:370 Mr 13 '48
- Kellogg corp. displays model of the future's industrial atom plants. *il Ind Marketing* 33:113 O '48
- Marvel of atomic energy. M. M. Samuels. *Pub Util* 42:350-8 S 9 '48
- Metallurgical and economic problems of atomic power plants. S. T. Pike. *diag Metal Prog* 53:823-6 Je '48; *Same cond. Power Generation* 52:70-1+ S '48
- Metallurgical problems involved in the generation of useful power from atomic energy. W. Akers. *Metal Prog* 52:1016+ D '47
- Metallurgy and atomic energy. C. H. Plant. *diags Metallurgia* 37:15-19, 137-40, 178-80, 248-52 N '47, Ja-Mr '48
- New energy levels. A. W. Kramer. *Power Generation* 52:57 Ja '48
- Nuclear energy and our vanishing fuel resources. A. W. Kramer. *Power Generation* 52:62-3+ JI '48
- Nuclear energy for power. W. F. Davidson. *Pub Util* 40:833-8 D 18 '47
- Nuclear energy for propulsion of aircraft now engineering problem; abstracts. A. Kalitinsky. *Aviation W* 49:29 JI 19 '48; *Mech Eng* 70:755-6 S '48
- Nuclear energy in 1947. *Engineer* 185:24-5 Ja 2 '48
- Nuclear engineering. E. U. Condon. *diags Elec Eng* 67:229-32 Mr '48
- Nuclear engineering; basic design background and scope of a new branch of engineering. J. R. Huffman. *Mech Eng* 70:217-20 Mr '48; *Abstract. Power* 92:251+ Ap '48
- Nuclear power. C. P. Cabell. *il diag Gen Elec R* 50:11-17 D '47
- Nuclear reactions and nuclear energy. S. N. Van Voorhis. *Inst Radio Eng Proc* 36:1277-82 O '48
- Nuclear reactors. F. L. Friedman. *bibliog Elec Eng* 67:655-93 JI '48
- Nuclear reactors for power generation. W. F. Davidson. *Elec Eng* 67:962-6 O '48
- Les possibilités d'utilisation industrielle de l'énergie atomique. *Génie Civil* 124:474-6 D 15 '47
- Public education on atomic energy continues. *Chem & Eng N* 26:1444 My 17 '48
- Report on atomic power. *Metal Prog* 54:489 O '48
- Royal navy and nuclear power; nuclear energy as the source of power in the ship for propulsion and auxiliaries. R. J. Daniel. *Engineer* 185:362-3 Ap 9 '48; *Excerpt. Engineering* 165:431 Ap 30 '42
- Second Nieuwland lecture. G. T. Seaborg. *Chem & Eng N* 25:3800 D 22 '47
- Some problems in the industrial applications of atomic energy. K. H. Kingdon. *Gen Elec R* 51:11-15 Ag '48
- Stamford stages Nation's first Atomic energy week. *il Chem & Eng N* 26:248 Ja 26 '48
- What happened in atomic energy in '47? R. Colborn. *flow chart. il Elec World* 129:97-104 Ap 10 '48; *Same cond. Elec West* 100:63-7 My '48
- Where do we stand on the atom? R. Colborn. *il diag Chem Eng* 55:130-3 My '48
- Will nuclear energy compete in ten to twenty years? *Min Cong J* 34:30+ My '48

See also

Insurance—Atomic power risks

Bibliography

Annotated bibliography on atomic energy, 257 selected references for schools and discussion groups. I. Light. 29p Bureau of publications, Teachers college, Columbia univ, 525 W. 120 st, New York 27 '47 (35c)

Safety measures

Atom and safety; plants of the Atomic energy commission. S. J. Williams. *il Nat Safety N* 57:18-19+ Ap '48

Atomic armor; radiochemical protective equipment. R. P. Eames. *il plan diags Safety Eng* 96:26-30 Ag '48

Health physics and its control of radiation exposures at Clinton national laboratory. K. Z. Morgan. *bibliog il Chem & Eng N* 25:3794-8 D 22 '47

Nation needs atomic engineers; abstract. O. C. Simpson. *Nat Safety N* 57:58 Je '48

Nuclear fission developments pose sanitary-engineering challenge. A. Wolman and A. E. Gorman. *Eng N* 141:91-2 O 14 '48

Physical and medical aspects of radiation. L. I. German, and H. M. Rozendaal. *il Elec Eng* 67:884-90 S '48

Radiation safety; a new industrial problem. K. Z. Morgan. *il Sci Am* 178:4-8 Ja '48

Terminology

Atom talk, what they say and what they mean; businessman's glossary of atomic energy terms. *Elec World* 129:104 Ap 10 '48; *Bsns W* p53 Ap 10 '48

ATOMIC research

Apparatus for nuclear research; high voltage particle accelerators at Stafford. *il diags Electrician* 140:259-61 Ja 23 '48

Atom and industry. D. E. Lillenthal. *diag Iron Age* 161:126-9 Ja 1 '48

Atom and its nucleus. J. J. Smith. *bibliog Elec Eng* 66:1165-75 D '47

Atomic developments and industrial management. S. T. Pike. *Ind Med* 17:147-9 Ap '48

Atomic energy abroad. *Sci Am* 178:24 Je '48

Atomic-energy exhibit. *il Mech Eng* 70:235-6 Mr '48

Atomic energy in France. *Mech Eng* 69:944-5 N '47

Atomic energy progress. C. H. Vivian. *il Comp Air Mag* 53:216-19 S '48

Atomic energy research establishment. *il Engineer* 186:90-1, 114-17 JI 23-30 '48; *Engineering* 166:97-9, 103 JI 30 '48

Atomic energy research establishment at Harwell, England. *il Metallurgia* 38:207-11 Ag '48

Atomic energy; where America stands in 1948. R. Colborn. *il Power* 92:264-7 My '48

ATOMIC research—Continued

- Atomic physics division formed at National bureau of standards. *Elec Eng* 66:1260 D '47
- Atomic research in the U.S.S.R.; more than £1000 million allocated. *Chem Age (Lond)* 58:623 My 1 '48
- Behind our atomic iron curtain big-scale construction goes on. R. Colborn. *il Eng N* 140: 550-4 Ap 15 '48
- British atomic-research center. *Mech Eng* 70:325 O '48
- British pile at Harwell operating since August. *Elec World News* ed 129:6 My 1 '48
- Brookhaven lab to explore uses of atomic energy. W. W. Watson. *Midwest Eng* 1:27 O '48
- Charge distribution in nuclei and the scattering of high energy electrons. M. E. Rose. *bibliog Phys R* 73:279-84 F 15 '48
- Contemporary neutron physics. A. H. Snell. *bibliog il Science* 108:167-76 Ag 20 '48
- Cornell university opens Laboratory of nuclear studies. *Iron Age* 162:226+ O 14 '48
- Detection and measurement of nuclear radiation. G. W. Dunlap. *bibliog il diags Elec Eng* 67:325-32 Ap '48
- Effect of atomic energy developments on scientific and technical publications. R. E. Peierls. *Assn of Sp Lib & Inf Bur Proc* 1947:12-20; Discussion. 20-2
- Electrical and allied developments during 1947; research and laboratory investigations. G. Bartlett. *il Gen Elec R* 51:12-13 Ja '48
- Electronic techniques in nuclear science. S. A. Korff. *il diags Electronics* 20:80-7 D '47
- Electrostatic generator used in nuclear studies. W. E. Shoupp. *diags Elec Eng* 67: 668-71 J1 '48
- Experimental basis for the study of atomic structure. W. E. Morrell. *J Chem Educ* 25:551-4 O '48
- Future role of atomic energy. *Comp Air Mag* 53:200 Ag '48
- Get on the nuclear bandwagon; abstract. R. H. Hutchins. *Chem Eng* 55:256+ Ja '48
- High-energy particle accelerators. J. R. Woodyard. *bibliog il diags Elec Eng* 67: 759-67 Ag '48
- Los Alamos, the town the atom is building. W. N. Carey. *il Civil Eng* 18:436-9+ J1 '48
- Mesons produced by University of California cyclotron. A. W. Kramer. *diags Power Generation* 52:72-3+ My '48
- Metallurgist and atomic energy. R. B. Bacher. *Metal Prog* 52:800-2 N '47
- Military influence on nuclear research. A. W. Kramer. *il Power Generation* 52:66-9 Je '48
- Much data available on atomic projects; abstract. N. Woodruff. *Ed & Pub* 81:50+ Ag 21 '48
- Need for secrecy seen in atomic information. G. Seymour. *Ed & Pub* 81:22+ Ap 24 '48
- New high-energy pile uses plutonium fuel. *Power* 91:725+ O '47; Same. *Mech Eng* 69:1030-1 D '47
- Nuclear engineering; basic design background and scope of a new branch of engineering. J. R. Huffman. *Mech Eng* 70:217-20 Mr '48
- Nuclear research emulsions. *R Sci Instr* 19: 539 Ag '48
- Nuclear science laboratory; grant made to Massachusetts institute of technology by the Texas co. *Mech Eng* 70:441 My '48
- Nucleus, its structure and reactions. W. E. Shoupp and H. Odishaw. *diags Elec Eng* 67:125-34 F '48
- Oak Ridge switch; Carbon & Carbide takes over. *Bsns W* p20-1 Ja 10 '48; *Elec World News* ed 129:12 Ja 10 '48
- Peacetime benefits from military research. H. Schor. *il Product Eng* 19:32-3+ Ja '48
- Progress at Harwell. *il Elec R (Lond)* 143: 161-2 J1 30 '48
- Quickly constructed Quonsets provide eight-acre laboratory for atomic research. *il Civil Eng* 18:689 N '48
- Radiation chemistry; an interpretation of the effect of state on the behavior of some organic compounds and solutions. M. Burton. *bibliog J Phys & Colloid Chem* 52:564-78 Mr '48
- Radiation hazards in industry; suggested safety measures. *Chem Age (Lond)* 59:9+ J1 3 '48
- Realignment of research program at Clinton national laboratory. *Science* 107:112 Ja 30 '48
- Recent developments in high energy physics. A. W. Kramer. *diags Power Generation* 52: 91-7 Ja '48
- Reconverting war research; survey on peacetime applications of war-born products. *il Bsns W* p56-8+ Ja 10 '48
- Relation between energy and mass. F. Seitz, Jr. *diag Elec Eng* 67:1-5 Ja '48
- Russian atomic research. W. G. Cass. *Chem & Eng N* 26:1549 My 24 '48
- Second atomic pile at Harwell. *Elec R (Lond)* 143:58 J1 9 '48
- Significance of the nuclear reactor in atomic development. A. W. Kramer. *diag Power Generation* 52:90-4 Mr '48
- Some engineering problems of atomic-energy research. O. C. Simpson. *il diags Mech Eng* 70:729-32 S '48
- Story of atomic energy. F. Soddy. *il diags Engineering* 164:313-17, 361-4, 409-11, 457-61, 505-8, 553-5, 601-4; 165:25-8, 73-6, 121-3, 169-71, 217-21, 265-7, 313-16, 361-4, 424-7, 472-4 O 3, 17, 31, N 14, 28, D 12, 26 '47, Ja 9, 23, F 6, 20, Mr 5, 19, Ap 2, 16, 30, My 14 '48
- Training and research in atomic energy. *Metal Prog* 54:182 Ag '48
- United States Atomic energy commission. R. P. Johnson. *J Eng Educ* 38:440-5 Mr '48
- Visit to Harwell. *il Electrician* 141:314-17 J1 30 '48
- Where are we heading in atomic development? A. W. Kramer. *Power Generation* 52:70-1+ Ap '48
- World atomic research; developments at Harwell, in the U.S.A. and Canada. *Chem Age (Lond)* 58:389 Mr 20 '48
- See also Cornell university—Laboratory of nuclear studies

Bibliography

Atomic energy reports. *Chem Age (Lond)* 58: 110 Ja 17 '48

ATOMIC theory

Atomic structure. R. E. Lapp and H. L. Andrews. *il diags Inst Radio Eng Proc* 36:1070-80 S '48

Atomic structure models, diagrams, classes, and codes. W. J. Wiswesser. *J Chem Educ* 25:420-5 Ag '48

ATOMIC weights

Material gathered since publication of thirteenth report of the A C S committee on atomic weights. *bibliog Chem & Eng N* 26: 1619-21 My 31 '48

Natural variations in the isotopic content of baron and its chemical atomic weight. H. G. Thode and others. *bibliog Am Chem Soc J* 70:3008-11 S '48

See also

Periodic system

ATOMIZERS

Atomization of liquids in high velocity gas streams. H. C. Lewis and others. *bibliog Ind & Eng Chem* 40:67-74 Ja '48

De Vibbiss co. hopes its nebulizer will lift sales. *Barron's* 28:26 Ap 19 '48

Jewelry and novelties aword to Xpray corporation; atomizer made of plastic and metal. *il diag Mod Plastics* 26:138-9 S '48

ATOMIZERS, Perfume. See Perfume atomizers

ATOMS

Absorption of incident quanta by atoms as defined by the mass photoelectric absorption coefficient and the mass scattering coefficient. J. A. Victoreen. *bibliog J Ap Phys* 19:855-60 S '48

Artificial cosmic radiation; what keeps atomic nuclei from exploding? I. A. Getting. *il diags Tech R* 50:435-40+ Je '48

Atom and its nucleus. J. F. Smith. *bibliog Elec Eng* 66:1165-75 D '47

Atomic energy levels as derived from the analyses of optical spectra; the spectra of hydrogen, deuterium, helium, lithium, beryllium, boron, carbon, nitrogen, oxygen, and fluorine. C. E. Moore. *bibliog U S Nat Bur Stand Circ* 467:1-75; pa 50c Supt of doc. '48

Atomic structure. *Inst Radio Eng Proc* 36: 1068-70 S '48

ATOMS—Continued

- Atomic structure. R. E. Lapp and H. L. Andrews. *il diags Inst Radio Eng Proc* 36:1070-80 S '48
- Atomic structure and mechanism. H. P. Gillette. *Roads & Sts* 90:32-3+ N '47
- Closed shells in nuclei. M. G. Mayer. *bibliog Phys R* 74:235-9 Ag 1 '48
- Dynamic method for the determination of the velocity distribution of thermal atoms. I. L. Kofsky and H. Levinstein. *Phys R* 74:500 Ag 15 '48
- Dynamics of nuclear reactions. C. E. Mandeville. *bibliog diags Franklin Inst J* 244:385-99 N '47
- Energy levels of light nuclei. W. F. Hornyak and T. Lauritsen. *Rs Mod Phys* 20:191-227 *bibliog* (p223-7) Ja '48
- Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton. *il J Phys & Colloid Chem* 52:490-517 *bibliog* (64 ref, p516-17) Mr '48
- Fundamentals of nuclear energy. G. Volkoff. *J Chem Educ* 24:533-44 N '47
- Hyperfine structure and nuclear moments of chlorine. L. Davis, Jr. and others. *bibliog Phys R* 73:525-6 Mr 1 '48
- Imprisonment of resonance radiation in gases. T. Holstein. *Phys R* 72:1212-33 D 15 '47
- Interactions between non-bonded atoms, and the structure of *cis*-decalin. D. H. R. Barton. *Chem Soc J* p340-2 Mr '48
- Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler. *bibliog J Chem Phys* 15:712-26 O '47
- Nuclear magnetism in relation to problems of liquid and solid states. E. M. Purcell. *bibliog diags Science* 107:433-40 Ap 30 '48
- Nucleus, its structure and reactions. W. E. Shoupp and H. Odishaw. *diags Elec Eng* 67:125-34 F '48
- Phenomenological theory of exchange currents in nuclei. R. G. Sachs. *bibliog Phys R* 74:433-41 Ag 15 '48
- Polarizability of the neutron in an electrostatic field. K. M. Watson. *Phys R* 73:125-6 Ja 15 '48
- Precision measurement of the ratio of the atomic 'g' values' in the $^{2}P_{1/2}$ and $^{2}P_{3/2}$ states of gallium. P. Kusch and H. M. Foley. *Phys R* 72:1256-7 D 15 '47
- Proton widths of light nuclei. R. F. Christy and R. Latter. *Rs Mod Phys* 20:185-90 Ja '48
- Ratio of g values of the $^{2}P_{1/2}$ and the $^{2}S_{1/2}$ states in ionized calcium. J. R. McNally, Jr. *bibliog Phys R* 73:1130 My 1 '48
- Relation between covalent and packing radii of atoms. A. L. G. Rees. *diags J Chem Phys* 16:995-6 O '48
- Relative abundances of nuclei in the universe. P. Saraiva de Toledo and G. Wataghin. *bibliog Phys R* 73:79-80 Ja 1 '48
- Theory of internal conversion. H. A. Meyer. *Phys R* 74:979 O 15 '48
- Theory of oscillating absorber in a chain reactor. A. M. Weinberg and H. C. Schweinler. *bibliog Phys R* 74:851-63 O 15 '48
- Theory of strain interaction of solute atoms. C. Zener. *diags Phys R* 74:639-47 S 15 '48
- Ultimate particles. G. W. Gray. *il diags Sci Am* 178:26-39 Je '48
- Use of electronic structure in interpreting chemical reactions. W. F. Kleffer. *bibliog J Chem Educ* 25:537-43 O '48
- Velocity dependence of nuclear forces. H. Snyder and R. E. Marshak. *bibliog Phys R* 72:1253-4 D 15 '47
- Zero-zero transitions. M. L. Goldberger. *Phys R* 73:1119 My 1 '48
- See also
- | | |
|-----------------|-----------------|
| Atomic research | Nuclear spin |
| Deuterons | Protons |
| Electrons | Radiation |
| Molecules | Spectrum |
| Neutrons | Stereochemistry |
- Disintegration
- Angular distribution from $Li^{(p,\alpha)}$. N. P. Heydenburg and others. *bibliog Phys R* 73:241-5 F 1 '48
- Angular distribution in nuclear reactions and coincidence measurements. C. N. Yang. *bibliog Phys R* 74:764-72 O 1 '48
- Angular distribution of alphas from $Li^{(d,\alpha)}$ and $Li^{(p,\alpha)}$. N. P. Heydenburg and others. *bibliog diags Phys R* 74:405-10 Ag 15 '48
- Beta-beta-coincidence curves for Ir^{192} and Ta^{182} . M. V. Scherb and C. E. Mandeville. *Phys R* 74:508-9 Ag 15 '48
- Calculations in the liquid-drop model of fission; electronic calculator, the Eniac. S. Frankel and N. Metropolis. *bibliog Phys R* 72:914-25 N 15 '47
- Characteristics of bismuth fission with high energy particles. R. H. Goeckermann and I. Perlman. *bibliog Phys R* 73:1127-8 My 1 '48
- Chemical effects in nuclear electron emission. T. H. Davies. *bibliog J Phys & Colloid Chem* 52:595-603 Mr '48
- Chemistry of energetic atoms produced by nuclear reactions. W. F. Libby. *bibliog Am Chem Soc J* 69:2523-34 O '47
- Coincidence experiments in antimony 124. E. T. Jurney and A. C. G. Mitchell. *bibliog diags Phys R* 73:1153-6 My 15 '48
- Conservation of momentum in the beta-decay of Y^{90} . C. W. Sherwin. *bibliog Phys R* 73:1173-7 My 15 '48
- Decay scheme of αRh^{108} . W. C. Peacock. *bibliog diags Phys R* 72:1049-53 D 1 '47
- Delayed neutrons from fission of U^{235} . D. J. Hughes and others. *bibliog il diags Phys R* 73:111-24 Ja 15 '48
- Deuteron-induced reactions. D. C. Peaslee. *bibliog Phys R* 74:1001-13 N 1 '48
- Disintegration energy of $N^{14}(n,p)C^{14}$. P. Huber and A. Stebler. *bibliog Phys R* 73:85 Ja 1 '48
- Disintegration of antimony-124. I. Feister and L. E. Curtiss. *bibliog J Res Nat Bur Stand* 40:315-19 Ap '48
- Disintegration of antimony 124. B. D. Kern and others. *bibliog diags Phys R* 73:1142-8 My 15 '48
- Disintegration of Be^8 . A. Hemmendinger. *bibliog Phys R* 73:806 Ap 1 '48
- Disintegration of Cs^{137} . J. Townsend and others. *Phys R* 74:499 Ag 15 '48
- Disintegration of scandium⁴⁵, gold¹⁹⁸, and tungsten^{187,185}. C. L. Peacock and R. G. Wilkinson. *bibliog Phys R* 74:297-303 Ag 1 '48
- Disintegration of the deuteron in flight. S. M. Dancoff. *Phys R* 72:1017-22 D 1 '47
- Disintegration scheme of Cs^{134} . K. Siegbahn and M. Deutsch. *Phys R* 73:410 F 15 '48
- Disintegration scheme of 1.7-year Cs^{134} . L. G. Elliott and R. E. Bell. *Phys R* 72:979-80 N 15 '47
- Electro-disintegration of Cu^{63} , Ag^{107} , and Ag^{109} . L. S. Skaggs and others. *bibliog Phys R* 73:420 F 15 '48
- Emission of protons from light nuclei on bombardment with α -particles of short range. F. C. Champion and R. R. Roy. *bibliog Phys R* 74:5-8 J 1 '48
- Energies of the beta- and gamma-rays from antimony; magnetic spectrometer. C. S. Cook and L. M. Langer. *Phys R* 73:1149-52 My 15 '48
- Energy and momentum relations in the beta-decay, and the search for the neutrino. H. R. Crane. *bibliog diags Rs Mod Phys* 20:278-95 Ja '48
- Energy distribution of the fragments resulting from the fission of U^{235} and Th^{232} by slow and by fast neutrons. J. L. Fowler and L. Rosen. *bibliog diags Phys R* 72:926-30 N 15 '47
- Energy quanta emitted in disintegration of ground state of Ba^{138} . F. Yu and J. D. Kurbatov. *bibliog Phys R* 74:34-7 J 1 '48
- Excitation function of reaction $C^{12}(n,2n)C^{11}$ at high energies. W. Heckrotte and P. Wolff. *Phys R* 73:265-6 F 1 '48
- Excitation function of reaction $C^{12}(p,pn)C^{11}$ at high energies. W. Heckrotte and P. Wolff. *Phys R* 73:264-5 F 1 '48
- Fission excitation functions. J. Jungerman and S. C. Wright. *bibliog Phys R* 74:150-2 J 15 '48
- Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand. *diags Phys R* 73:1135-9 My 15 '48

ATOMS—Disintegration—Continued

- High energy photo-disintegration of the deuteron. M. E. Rose and G. Goertzel. *bibliog* Phys R 72:749-57 N 1 '47
- High energy spallation and fission products of uranium. P. R. O'Connor and G. T. Seaborg. *bibliog* Phys R 74:1189-90 N 1 '48
- Limits of beta-stability. T. P. Kohman. *bibliog* diag Phys R 73:16-21 Ja 1 '48
- Momentum conservation in the beta-decay of P^{32} and the angular correlation of neutrinos with electrons. C. W. Sherwin. *bibliog* diags Phys R 73:216-25 F 1 '48
- (n,p) and (n,α) disintegrations of nitrogen by fast neutrons. P. Huber and A. Stebler. *bibliog* Phys R 73:89-90 Ja 1 '48
- Nuclear dipole vibrations. M. Goldhaber and E. Teller. Phys R 74:1046-9 N 1 '48
- Nuclear evaporation recorded in an emulsion near sea level. H. Yagoda. *bibliog* il Phys R 73:263-4 F 1 '48
- Nuclear photography. A. W. Haslett. *il* Sci Am 178:70-2 F '48
- Nuclear reactions of arsenic with 190-Mev deuterons. H. H. Hopkins, Jr. and B. B. Cunningham. *bibliog* Phys R 73:1406-7 Je 1 '48
- Nuclear reactions, the intermediate or compound nucleus, and continuity of series; abstract. W. D. Harkins. Science 107:466 My 7 '48
- Nuclear reactors; abstract. A. Wattenberg. Elec Eng 67:588 Je '48
- On γ -induced β -disintegration: experimental. R. L. Burung and F. N. D. Kurie. Phys R 74:109-10 Jl 1 '48
- On γ -induced β -disintegration: theoretical. H. Primakoff. Phys R 74:110 Jl 1 '48
- Photo-effects in middle-weight nuclei. L. I. Schiff. *bibliog* Phys R 73:1311-13 Je 1 '48
- Production of high energy neutrons by stripping. R. Serber. *diag* Phys R 72:1008-16 D 1 '47
- Production of neutrons by the capture of cosmic-ray mesons at sea level. G. Groetzinger and G. W. McClure. Phys R 74:341-2 Ag 1 '48
- Production of nuclear disruptions by the cosmic radiation. S. A. Korff. *bibliog* Rs Mod Phys 20:327-33 Ja '48
- Range of protons from $N^{14}(n,p)C^{14}$. I. C. Cornog and others. *bibliog* Phys R 74:1-4 Jl 1 '48
- Ranges in air and mass identification of plutonium fission fragments. S. Katcoff and others. *bibliog* diag Phys R 74:631-8 S 15 '48
- Rate of decay of fission products. K. Way and E. P. Wigner. *bibliog* Phys R 73:1318-30 Je 1 '48
- Reaction constants for $Li^{7}(p,n)Be^{7}$. R. Taschek and A. Hemmendinger. *bibliog* Phys R 74:373-85 Ag 15 '48
- Relative yields of (γ,n) reactions. M. L. Perlman and G. Friedlander. Phys R 72:1272 D 15 '47
- Relative yields of some X-ray induced nuclear reactions. M. L. Perlman and G. Friedlander. *bibliog* Phys R 74:442-8 Ag 15 '48
- Resonances in $Li^{7}(p,n)Be^{7}$. G. Breit and I. Bloch. Phys R 74:397-404 Ag 15 '48
- Resonances in the disintegration of fluorine and lithium by protons. T. W. Bonner and J. E. Evans. *bibliog* Phys R 73:666-74 Ap 1 '48
- Study of cosmic-ray bursts. H. S. Bridge and others. *bibliog* il diags Phys R 74:1083-102 N 1 '48
- Study of the breakup of Li^{6} . T. W. Bonner and others. *bibliog* il diag Phys R 73:885-90 Ap 15 '48
- Technique for observing nuclear disintegrations and scattering in small gas volumes. R. F. Taschek. *bibliog* diag R Sci Instr 19:591-4 S '48
- Theory of electrodisintegration of Be^{9} . E. Guth and others. *bibliog* Phys R 74:834-5 O 1 '48
- Theory of the lithium two-alpha-reactions; angular distribution of $Li^{7}(p,\alpha)\alpha$. D. R. Inglis. *bibliog* Phys R 74:21-33 Jl 1 '48
- Theory of the photo-disintegration of Be^{9} . E. Guth and C. J. Mullin. *bibliog* Phys R 74:833-4 O 1 '48

- Transuranium elements and nuclear chemistry. I. Perlman. J Chem Educ 25:273-7 My '48
- Tripartition of heavy elements. Tsien San-Tsiang. *bibliog* Phys R 72:1257-8 D 15 '47
- Uncertainty principle and the yield of nuclei formed in fission. P. F. Gast. *diag* Phys R 72:1265 D 15 '47
- Use of an electron multiplier tube as a new technique in disintegration experiments. L. del Rosario. *bibliog* diag Phys R 74:304-14 Ag 1 '48
- Use of coincidence counting methods in determining nuclear disintegration schemes. A. C. G. Mitchell. *bibliog* diags Rs Mod Phys 20:296-304 Ja '48
- X-ray yield curves for γ - n reactions. G. C. Baldwin and G. S. Klaiber. *bibliog* il Phys R 73:1156-63 My 15 '48

Models

- Atomic structure models, diagrams, classes, and codes. W. J. Wiswesser. J Chem Educ 25:420-5 Ag '48
- Demonstration model of atomic structure. V. R. Rawson and R. W. Pfeil. *il* J Chem Educ 25:260-1 My '48
- Sodium atom model for lecture demonstration. G. A. Hall, jr. *il* J Chem Educ 24:564 N '47
- ATRANOL**
New synthesis of atranol (2,6-dihydroxy-4-methylbenzaldehyde) and the corresponding cinnamic acid. R. Adams and J. Mathieu. *bibliog* Am Chem Soc J 70:2120-2 Je '48
- ATTACHMENT and garnishment**
Equitable attachments and levies. C. B. Everberg. Credit & Fin Management 49: 8-9 D '47
See also
Wage garnishment
- ATTAPULCOTE**
Static electrification of dust clouds. J. G. Miller and others. *bibliog* Science 107:144-6 F 6 '48
- ATTENUATORS, Radio.** See Radio attenuators
- ATTICS**
Basement vs. attic fan for house ventilation. Sheet Metal Worker 38:58 N '47
- ATWOOD, John Leland, 1904-**
Portrait. Bsns W p56 Jl 3 '48
- AUCTIONS**
Farm sales plan of the Illinois national bank and trust company. Rockford. Banking 40: 58 D '47
Our bank profits from farm sales; Merchants national bank and trust co. Syracuse, N.Y. E. D. Hollister, jr. *il* Bankers Mo 64:527-8 N '47
- AUDIENCE research, inc.**
How Gallup poll samples public opinion; market research is main job. *il* Bsns W p42+ Je 19 '48
- AUDIO engineering society**
Audio engineering society. L. S. Goodfriend. Radio & Tv N 40:82+ S '48
Audio engineering society organized. Product Eng 19:165 Ap '48
Audio society launched. Electronics 21:139+ Je '48
- AUDIT bureau of circulations**
Annual meeting, Chicago. Ptr Ink 225:77+ O 22 '48
ABC members show renewed interest. G. A. Brandenburg. Ed & Pub 81:14+ O 23 '48
Dailies call on ABC board for debate of data changes. Ed & Pub 81:16A O 16 '48
- AUDITING**
Accounting transactions most frequently used to cover defalcations. R. R. Sevenich. J Account 85:293-7 Ap '48
Audit of receivables; confirmations not practicable. B. Goodman. J Account 85:492-4 Je '48
Auditing a fidelity claim. D. A. Angus. Weekly Underw 158:380-2 Ja 31 '48
Auditing case study no. 5; corn processing company. J Account 85:347-8 Ap '48
Case illustrations in the intelligent application of auditing procedures. R. Andrace. J Account 84:422 N '47
Case studies in auditing. J Account 84:504-5 D '47
Court holds stockholders may select auditors. J Account 84:400 N '47

AUDITING—Continued

Effect on opinion of non-confirmation of receivables and non-attendance at inventorying. O. M. Cordle. J Account 85:108-12 F '48

Fitting the audit program to punched card accounting systems. C. C. Sparks. J Account 86:196-200 S '48

Further meanings underlying auditing instructions; excerpt from Eric Kohler's book. Auditing. J Account 85:164-6 F '48

New look at basic auditing techniques. W. D. Cranston. J Account 86:274-83 O '48

Recommendation made to clarify accountant's representations when opinion is not expressed. J Account 85:38-9 Ja '48

SEC discusses new developments in accounting and auditing. J Account 85:500-4 Je '48

Should liabilities be directly verified by auditor? S. Chan. J Account 84:407 N '47

Should the confirmation of accounts payable be standard practice? J Account 86:70-3 Jl '48

See also

Bank auditing
Income tax—Auditing

Examinations

American institute of accountants examination in auditing, May 21, 1948. J Account 85:529-30 Je '48

Internal control

How internal auditor corrects a troublesome problem in inventory control; Sylvania Electric. W. R. Seibert. J Account 85:104-7 F '48

How the internal auditor operates as an instrument of management control. F. F. Tannery. J Account 84:461-5 D '47

How to audit cost system to provide most useful service to management. E. A. Green. J Account 85:304-3 Ap '48

Illustrative cases of weaknesses in internal control. J. H. Stewart. J Account 86:253-4 S '48

Internal auditing practice; Consolidated gas electric light and power company of Baltimore. C. J. Nichols. Am Gas Assn Proc 1947:281-6

Internal auditing program of an integrated natural gas system. J. M. Trant. Am Gas Assn Proc 1947:229-31

Official statement of the responsibilities of the internal auditor. V. Z. Brink. J Account 85:465-8 Je '48

Organization and practice of the auditing department, Consolidated Edison company of New York, Inc. C. G. Nye. Am Gas Assn Proc 1947:286-9

Responsibilities of the internal auditor; statement approved by Board of directors of Institute of internal auditors. V. Z. Brink. J Account 85:468-9 Je '48

Should the auditor's opinion comment on internal control and accounting procedures? C. J. J. Cox. J Account 86:297-8 O '48

Standards

Tentative statement of auditing standards. J Account 85:74-5 Ja '48

AUDITORIUMS

Auditorium acoustics. J. P. Maxfield. bibliog il plans diags Soc Motion Picture Eng J 51:169-76; Discussion. 176-83 Ag '48

Special lecture room equipment; Science building, Drake university. diags Arch Rec 102:78-9 D '47

See also

Acoustics, Architectural

Lighting

Flexible lighting for a small stage; auditorium of Academy and convent of the Sacred Heart in Menlo park, Calif. il Elec West 100:76-7 Mr '48

AUDITORS' reports

Auditor's report and company's federal income tax status. J Account 85:260 Mr '48

Bank officer criticizes auditors' certificates. J Account 84:411 N '47

Short form auditor's certificate is obsolete; revised text suggested. C. B. Hellerson. J Account 85:228-31 Mr '48

Should the auditor's opinion comment on internal control and accounting procedures? C. J. J. Cox. J Account 86:297-8 O '48

Suggestions for improving the auditor's report. R. T. Warner. J Account 86:188-95 S '48

AUGER machines

Recording ammeter can be used to increase auger machine capacity. R. F. Grady, jr. il Brick & Clay Rec 112:50+ Je '48

AUGUSTA, Georgia

Augusta prepares for new industries; Clark Hill dam will bring supply of electric energy and improve Savannah River traffic. il Manuf Rec 117:30-1+ Jl '48

Convention city. P. H. Rice. il Am Dyestuff Rep 37:686-8 O 18 '48

AUGUSTA, Maine**Water supply**

Copper-sulfate distributor. S. S. Anthony. il diags N E Water Works Assn J 61:253-9 S '47; Same. Water & Sewage Works 94:343-4 S '47

AULT, Philip

Editorial chiefs named for new L.A. mirror. por Ed & Pub 81:24 S 11 '48

AUREOMYCIN

Aureomycin, new antibiotic, announced. Chem & Eng N 26:2308 Ag 2 '48

AUSTENITE

Decomposition of austenite by nucleation and growth processes. R. F. Mehl. 4pls diags Iron & Steel Inst J 159:113-29 bibliog(50 titles, p128-9) Je '48

Diffusion of carbon in austenite with a discontinuity in composition. L. S. Darken. bibliog Metals Tech 15:TP2443 1-9 S '48

Grand prize; 1947 A.S.M. metallographic exhibit; subzero transformation of austenite. R. H. Hays. il Metal Prog 53:374-5 Mr '48

Isothermal transformation of austenite. A. Hultgren. il diags Am Soc for Metals Trans 39:915-89 bibliog(p986-9); Discussion. 989-1005 '47

Low temperature treatment of steel. H. E. Boyer. il Iron Age 161:78-83 F 19 '48

Stability of austenite in stainless steels. C. B. Post and W. S. Eberly. diags Am Soc for Metals Trans 39:868-88; Discussion. 888-90 '47

X ray determination of retained austenite by integrated intensities. B. L. Averbach and M. Cohen. bibliog il Metals Tech 15:TP2342 1-14 F '48

AUSTIN, George Arthur, 1890-

Sketch. por Explosives Eng 25:164-5 N '47

AUSTIN, Harold Raymond

Sketch. por(cover) Bsns W p6 Mr 20 '48

AUSTIN motor company

Statement by the chairman at ordinary general meeting. L. R. Lord. Economist 153:900 N 29 '47

AUSTRALIA

See also

Aeronautics, Commercial—Australia
Immigration and emigration—Australia

Silk trade—Australia
Soils—Australia

Commerce

Dollar shortage chief problem. For Comm W 29:10 N 8 '47

Commercial policy

Geneva tariff negotiations; southern dominion concessions. For Comm W 29:13-16 D 6 '47

Economic conditions

Conditions at end of June 1948. For Comm W 32:8-10 S 11 '48

Economic policy

State governments take over control of prices, rents, and land sales. For Comm W 33:24 N 8 '48

Industries and resources

Australia, a new industrial power. Economist 154:187 Ja 31 '48

Australian plans; commonwealth's west hopes for industrial development. Bsns W p76 D 27 '47

AUSTRALIA—Continued

Navv

Naval engineering and construction in Australia. A. B. Doyle. *Il Engineering* 166:132, 141-4 Ag 6 '48

Politics and government

Is Australia moving right? *Economist* 154: 62+ Ja 10 '48

AUSTRIA

Austrian peace. K. von Schuschnigg. *Ann Am Acad* 257:106-18 My '48

See also
Automobile industry and trade—Austria
Money—Austria
Petroleum industry and trade—Austria
Science—Austria
Trade unions—Austria
Water supply—Austria

Allied military government

Austria: the cost of indecision. *Economist* 153:925 D 6 '47

Cold war in Austria. *Economist* 154:638 Ap 17 '48

Commerce

Foreign trade; improvement since 1947. *For Comm W* 33:24 N 8 '48

Commercial policy

Agreement signed for exchange of goods with Bulgaria. *For Comm W* 31:10 Je 12 '48

Austria; provisional barter agreement with Hungary. *For Comm W* 31:8 My 8 '48

Austria signs trade agreement with Belgium-Luxembourg. *For Comm W* 32:13 Ag 21 '48

Regulation of international monetary traffic; list of announcements under Foreign exchange law of July 25, 1946. *For Comm W* 33:14 O 23 '48

Trade and payments agreements with Yugoslavia concluded. *For Comm W* 33:14 O 23 '48

Economic conditions

Recovery in Austria. *Economist* 155:459 S 18 '48

Economic history

Prices and wages in the Austrian economy, 1938-47. I. B. Kravits. *map Mo Labor R* 66: 20-7 Ja '48

Industries and resources

Manufacturing activities. *For Comm W* 29: 24 N 8 '47

AUSTRIAN, Ralph Brooke, 1938-

Television is now wearing long pants; interview with R. B. Austrian. J. L. Collings. *por Ed & Pub* 81:30 F 14 '48

AUSTRIAN chemical society

Observes 50th anniversary. *Chem & Eng N* 26:2008 Jl 5 '48

AUTHORSHIP

See also

Technical writing

AUTO damage appraisers

Chicago plan cuts auto damage repair cost about 20 per cent. *Nat Underw* 52:15+ Ag 26 '48

AUTOCLOVE building products association (formerly National sand lime brick association)

Annual meeting. Roanoke. *Rock Prod* 51:195-6+ Ap '48

AUTOCLOAVES

Agitation in experimental rocking-type autoclaves. A. N. Hoffmann, J. B. Montgomery and J. K. Moore. *diag Ind & Eng Chem* 40:1708-10 S '48

AUTOCOLLIMATOR. See Collimators

AUTO-LITE company, Electric. See Electric auto-lite company

AUTOMATIC machinery. See Machinery, Automatic

AUTOMATIC pilot. See Airplanes—Control

AUTOMATIC selling. See Vending machines

AUTOMATIC substations. See Electric substations, Automatic

AUTOMOBILE accessories industry

Auto-Lite builds near markets. *Il map Bsns W* p30+ O 16 '48

Auto parts and accessory industry steps up merchandising in battle for jobber support. W. H. Davis. *Ptr Ink* 221:85 D 19 '47

Cashing in on competitors' markets; emphasis on top personnel and buying right. Electric auto-lite co. *Il Mod Ind* 15:67-8+ Je '48

Chrysler opens another parts plant. *Il Automotive Ind* 99:46 N 1 '48

FTC now studying quantity discounts of automobile parts and tire industries. *Automotive Ind* 98:26+ Je 15 '48

Hidden payroll costs; automotive parts manufacturers. *Automotive Ind* 98:33+ Je 1 '48

Ploeser group hears complaints in two cities on exclusive dealing. *Nat Pet N* 40:18 O 13 '48

Production planning for an automobile accessories manufacturer. J. W. Schafer. *N A C A Bul* 30:21-8 S 1 '48

Three-man territory setup keeps sales wheels greased for Standard Motors; territory man and field man work with wholesalers; dealer cooperation man serves dealers. J. F. Kenny. *Il Sales Management* 69:94+ Ap 15 '48

Advertising

Automotive parts companies emphasize trend to heavier promotion at point-of-purchase. H. E. Green. *Ptr Ink* 225:94+ O 8 '48

Copy chasers; automotive distributor field. *Il Ind Marketing* 33:94+ Ja '48

Securities

Divergent outlook for motor accessories; with statistical data on leading automotive parts and accessories companies. P. Dobbs. *Il Mag of Wall St* 81:653-5+ Mr 13 '48

What's ahead for motor accessories; with statistical data on leading automatic parts and accessories companies. C. F. Morgan. *Mag of Wall St* 82:543-5+ Ag 23 '48

Statistics

U.S. exports of automotive products, 1943-1947; tabulation. *Automotive Ind* 98:121 Mr 15 '48

Wholesale value of repair parts and accessories production, 1933-1947; table and chart. *Automotive Ind* 98:120 Mr 15 '48

AUTOMOBILE accidents

Does testing reveal the accident-prone? abstract. R. R. Howard. *Management R* 37: 331-3 Je '48

Exchange of traffic ideas cuts accidents. J. A. Carrothers. *East Underw* 53:37 Ag 27 '48; Same. *Weekly Underw* 159:345 Ag 14 '48

Highway safety; review and forecast. P. G. Hoffman. *S A E J* 55:47-54 D '47

Liability of a bailor for hire; accident to rented truck. J. L. Roesch. *Spectator (Property ed)* 13:10-11 N 13 '47

Lowest traffic death rate this year. P. B. Fleming. *East Underw* 49:59 O 15 '48

1947 auto tragedies analyzed by Travelers in booklet Fifth commandment. *East Underw* 49:38 Ap 16 '48

Pictures that shock curb traffic fatalities. A. J. Smith. *Ed & Pub* 81:20 Je 12 '48

Road factor in accidents shown by North Carolina survey. *Roads & Sts* 91:82 S '48

See also

Motor trucks—Accidents

Statistics

It's highway murder; automobile fatalities in 1947. T. J. V. Cullen. *Spectator (Property ed)* 14:14-17+ O 21 '48

AUTOMOBILE assembly plants

Ford builds an auto plant in Georgia. *Il Eng N* 141:68-9 Ag 5 '48

Getting the most out of low grade fuel; Chevrolet-Flint assembly plant. D. G. Baird. *Il plan diag Mill & Factory* 42:132-4 F '48

How auto, bus, and truck plants dot the Nation. *map Bsns W* p34-5 Ag 21 '48

Lincoln-Mercury plant at Metuchen. W. G. Patton. *Iron Age* 161:100+ Je 3 '48

Mammoth automobile factory; Chevrolet-Flint assembly plant, Flint, Mich. *Il Arch Rec* 104:112-17 Ag '48

Directories

Location of motor vehicle assembly plants in the United States. *map Automotive Ind* 99:42-3 O 1 '48

AUTOMOBILE assembly plants—*Continued***Power**

New boiler house for Chevrolet at Flint. F. Bergey. *il* plan diag Power Pl Eng 51:72-5 D '47

AUTOMOBILE camps. See Tourist camps, hotels, etc.

AUTOMOBILE drivers

Chemical tests for intoxication as an aid to traffic and industrial safety. R. N. Harger. *bibliog* Ind Med 17:52-6 F '48

Drunken driving scored; problem of reckless and younger drivers. J. W. Randall. *East Underw* 49:32 Je 4 '48

Motorists not satisfied with restrooms; agreeable to pay toilets, survey shows; Hearst newspapers' Second consumer study. *Nat Pet* N 39:25+ N 26 '47

Quitting whistle insanity. *Nat. Safety* N 57:106-7 Ja '48

Teen age car drivers causing concern. *Weekly Underw* 157:1225+ N 15 '47

Training

Red cross teaches drivers; drivers' safety training school in Bremen, Germany. D. J. Hamblin. *il* Safety Eng 95:22-3 My '48

Safety leaders endorse plan for youthful driver training award. *East Underw* 49:32 Ja 9 '48

Training program for utility car and truck drivers. F. A. Herr. *Am Gas J* 169:36-7 Jl '48

AUTOMOBILE driving

Car design factors in highway safety. M. Halsey. *S A E J* 56:17-20 Je '48

Defensive driving defined. W. E. Brown. *Am Gas Assn Mo* 23:547 D '47

Highway safety; review and forecast. P. G. Hoffman. *S A E J* 55:47-54 D '47

Invitation to live, this winter. *Spectator* (Property ed) 13:30-1 D 25 '47; Same *abr. Safety Eng* 95:36-7 F '48

AUTOMOBILE engineering

Automobile engineering; an experience of forty-three years. G. T. Smith-Clarke. *diags Inst Mech Eng J & Proc* (Auto div pt 1):1-8, pl 1-4 '47-48

Glimpse of engineering in industry. T. A. Boyd. *Mech Eng* 70:797-802 O '48

Production clinics prove big success; SAE National production meeting, Cleveland, Oct. 20-21. *Automotive Ind* 97:48+ N 15 '47

SAE annual meeting, Detroit; abstracts of papers. *Automotive Ind* 98:30-4 F 1 '48

S.A.E. annual meeting, Detroit, Jan. 12-16. *S A E J* 56:18-20+ F '48

SAE summer meeting, French Lick Springs, June 6-11. *S A E J* 56:17, 62-77 Jl '48; *Automotive Ind* 99:32-7+ Jl 1 '48

Styling for the future; General Motors practices. L. Westrate. *il* *Automotive Ind* 97:42-3+ D 15 '47

See also

Automobiles

AUTOMOBILE engineers

Challenge to engineers. E. R. Breech. *S A E J* 56:22-3+ F '48

S.A.E. *il* *Fortune* 38:78-83+ Ag '48

AUTOMOBILE engines

Austin A.40 chassis. *il* *diags* *Automobile Eng* 38:123-8 Ap '48

Auto-engine battle; Builders' association starts campaign. *Bsns W* p60 O 16 '48

British disclose gas turbine projects for automobile power. W. F. Bradley. *il* *Automotive Ind* 98:32 Je 1 '48

Compression ratio going up? *il* *Bsns W* p62+ N 8 '47

Engines for sale; Buick sells spares for older cars. *Bsns W* p96 S 18 '48

Flat's latest economy engine; sectional drawings. *Automotive Ind* 99:34-5 O 15 '48

Gas turbines for automobiles. F. L. Schwartz. *diag* *Automotive Ind* 98:30-1+ Je 1 '48; *Abstract. S A E J* 56:65 Ag '48

Gas turbines for autos; British model on test. *Bsns W* p66+ My 29 '48

Kaiser-Frazer engine. *diags* *Automotive Ind* 97:47 D 1 '47

New engine here; Olds high-compression power unit. *Bsns W* p36+ S 25 '48

New engine in the Cadillac 1949 models. W. G. Patton. *Iron Age* 162:132+ N 4 '48

New Olds engine on the way. *il* *Fortune* 38:14-15 N '48

Olds steps up compression. *Bsns W* p80+ Ap 17 '48

Oldsmobile to start production of high-compression V-8 power plant for 1949 models.

A. H. Allen. *il* *Steel* 123:69-70 Ag 2 '48

Overhead valve V-eight powers 1949 Cadillac. J. Geschellin. *il* *Automotive Ind* 99:34-7+ N 1 '48

Rover 60 and 75 chassis. *il* *diags* *Automobile Eng* 38:243-50 Jl '48

Standard Vanguard. *il* *diags* *Automobile Eng* 38:325-32 S '48

Willys six-cylinder engine; drawings. *Automotive Ind* 98:50 Ap 15 '48

See also

Gas turbines, Motor bus engines

Automotive, Motor truck engines

Air filters

Air and oil filtration; investigation of effects on wear of engine components. *il* *Automobile Eng* 38:15-20 Ja '48

Alcohol-water injection

See Automobile engines—Cooling

Cooling

Boosting engine performance with alcohol-water injection. J. C. Porter and others. *bibliog* *il* *Automotive Ind* 98:34-7+ My 1 '48

Developments in engine cooling; abstracts. F. M. Young. *S A E J* 56:82 Ja '48; *Automotive Ind* 98:38-9+ Ap 1 '48

How to up temperature of vehicle cooling systems. F. M. Young. *diag* *S A E J* 56:67-8 Ag '48

See also

Automobile engines, Automobile engines—

—Fans, Radiators

Design

Analysis of Vee-type and flat six-cylinder engines. P. M. Heldt. *diags* *Automotive Ind* 99:32-4+ Ag 15 '48

Better engine design can end sludge; abstracts of papers. C. W. Georgi and others. *S A E J* 56:38-42+ My '48

Brazing cast iron. S. D. Heron. *il* *diags* *Automobile Eng* 38:149-51 Ap '48

Design features of Packard's 1948 engines. *Automotive Ind* 97:43+ N 15; 41 D 15 '47

Jowett Javelin. *il* *diags* *Automobile Eng* 38:365-9 O '48

Latest European designs; illustrations. *Automotive Ind* 98:42-3 Ap 1 '48

New Swiss SSV engine features thin split sleeve valve. W. F. Bradley. *il* *diags* *Automotive Ind* 99:42-4+ Ag 15 '48

Radial engine cam design simplified. G. D. Angle. *diags* *Automotive Ind* 99:28-31 S 1; 38-45 S 15 '48

Rolls-Royce engines. *il* *diags* *Automobile Eng* 38:375-6 O '48

Taking the guesswork out of crankcase ventilation. B. G. Brown. *diags* *S A E J* 56:37-9 O '48

Detonation

Engine knock and molecular structure of hydrocarbons; abstract. W. G. Lovell. *Automotive Ind* 98:33-4 F 1 '48

Knock-limited performance of several automobile engines; abstract. E. M. Barber. *S A E J* 56:56-7 Mr '48

Efficiency

Gains in fuel economy in high compression engines; abstract. J. M. Campbell. *Nat Pet* N 40:20 Mr 31 '48

Higher compression automobile engines in '49 seen as probability; abstract. R. J. S. Pigott. *Nat Pet* N 40:21 S 22 '48

Increasing the thermal efficiencies of internal combustion engines; abstracts. J. M. Campbell and others. *Iron Age* 162:100 Ag 26 '48; *Mech Eng* 70:822 O '48

Test results of high-compression engine; abstract. D. F. Caris and A. D. McDuffie. *S A E J* 56:78-80 Ja '48

Exhaust

Exhaust gas analysis. H. E. Styles. *Automobile Eng* 38:153-6 Ap '48

AUTOMOBILE engines—Continued

Fans

Eddy-current clutch for driving engine fan of Ford cars, *il diag Machine Design* 20: 104-5 S '48

Fuel

Automotive fuels, W. G. Perriguy, S A E J 56:63-4 Ag '48

Blending methods in the preparation of motor fuel, F. D. Fuqua, *Pet Refiner* 27:108-12 F '48

Car makers watch future fuel developments after introducing high compression engine, C. F. Kettering, *Nat Pet N* 40:24 O 6 '48

Effects of substitute fuels on automotive engines, C. S. Bruce and others, *bibliog il diags J Res Nat-Bur Stand* 41:135-49 Ag '48

Efficient production and utilization of motor gasoline; abstracts, W. M. Holaday, S A E J 56:30-6 My '48; *Automotive Ind* 98: 25-6+ Ja 15 '48; *Nat Pet N* 40:41-3 Ja 14 '48; *Pet Processing* 3:107-9 F '48

Europe renews efforts to develop gas generator engines, *Automotive Ind* 99:90 O 1 '48

High compression engine exploits antidetonants, R. I. Potter, *diags S A E J* 56:22-3 O '48

New approach to the evaluation of fuel volatility and associated engine variables; abstracts, J. E. Taylor and H. J. Gibson, *Pet Processing* 3:832-5 S '48; S A E J 56:66-8 S '48

Octane booster goes on trial; *Vitameter, il Bsns W p82+ O* 30 '48

Octane race ended; abstract, M. W. Holaday, *Oil & Gas J* 46:40-1 Ap 8 '48

Paul De Vries rigged his car to run on fuel oil, *diag Chem Eng* 54:223-4+ N '47

Road and laboratory methods determine antiknock quality of today's gasoline, E. H. Scott and K. L. Shull, *Nat Pet N* 40:34+ Ap 7 '48

Road test data supports greater use of light ends in winter motor fuels, *il Pet Processing* 3:33-4+ Ja '48

Significance of fuel sensitivity in the performance of motor gasoline, E. J. McLaughlin and J. A. Miller, *Pet Refiner* 27: 112-16 Ja '48

Symposium on relation of fuel properties to engine design and the future of high-octane fuels, *Oil & Gas J* 47:50-1 S 9 '48

Use of natural gas in Italy for motor fuel, R. A. Ransom, *Gas Age* 100:28 N 27 '47

See also
Gasoline

Fuel consumption

50.9 gals. of gasoline to one of crankcase oil shown in API passenger car consumption study, *Nat Pet N* 40:40 Ja 28 '48

Gains in fuel economy demonstrated in General Motors high-compression engine; abstract, J. M. Campbell, D. F. Caris and L. L. Withrow, *Steel* 123:59 Ag 23 '48

Measuring liquid flow by weight; scales modified to check fuel consumption of airplane and automobile engines, D. B. Kendall, *il diags Electronics* 21:114-16 My '48

New automobile engine might cut oil demand, *Barron's* 28:26 Ag 23 '48

Fuel feeding

Anti-detonant injection data; Thompson Vitameter method and dual-fuel system; symposium on supplemental anti-knock methods, *diags Automotive Ind* 99:37+ JI 1 '48

Automatic dual-fuel system saves high octane gasoline, R. C. Mack, *diag Automotive Ind* 98:36-7 F 1 '48

Automatic mixture controls; manifold pressure utilized to regulate fuel delivery, S. J. Shames, *diags Automotive Ind* 98:42-3+ Je 1 '48

Dual-fuel system, antiknock injection termed practical for general auto use; abstracts of papers at SAE summer meeting, French Lick, June 6-11, *diags Nat Pet N* 40:37-8+ Je 23 '48

Economics of antidetonant injector through new automatic octane booster for engines; device trademarked Vita-Meter; abstracts, C. H. Van Hartesveldt, *il diag Oil & Gas J* 46:103-4+ Mr 25 '48; *Nat Pet N* 40:45-6; Discussion, R. I. Potter, 45 Ap 7 '48

Feeding two fuels brings octane thrift, W. M. Holaday, *diags S A E J* 56:23-4 O '48

First public test of fuel injection for cars begins this week in Ohio, *Nat Pet N* 40:49 S 15 '48

How the mechanical octane savers operate; Socony-Vacuum's dual-fuel carburetor and Thompson Vita-Meter, *diags Pet Processing* 3:641 JI '48

Knock-free engine operation on low-octane gasoline; injection of a knock-suppressing liquid, Vitol, P. M. Heldt, *il diag Automotive Ind* 98:32-3+ Ja 15 '48

Mechanical devices offered as solution to octane and gasoline supply problem; review of three SAE papers and discussions, W. C. Uhl, *Pet Processing* 3:639-41 JI '48

Practical considerations in the design of motor vehicle fuel systems for freedom from vapor lock, G. Way, *il diags S A E J* 56: 24-6 F '48

Public introduced to fuel injection for cars; stations to sell anti-knock liquid for the Thompson Vitameter, H. Ridder, *Nat Pet N* 40:20 S 8 '48

Some aspects of petrol injection equipment development, K. Brook and W. E. W. Nicolls, *diags Inst Mech Eng J & Proc (Auto div pt 1)* 30:43, pl 1-4 '47-48; Same cond. *Engineer* 185:135-7 F 6 '48; Discussion, *Inst Mech Eng J & Proc (Auto div pt 1)* 43:50 '47-48

Use of anti-detonant injection in a high compression ratio engine, R. I. Potter, *bibliog il diag Pet Refiner (Process Handbook ed)* 27:125-32 S '48

Gearing

Important factors in designing camshaft chain drives, E. F. Riopelle, *il diags Automotive Ind* 99:36-9+ O 15 '48

Ignition

Modern approach to ignition, C. Cipriani and L. H. Middleton, S A E J 56:47-50+ O '48

Ignition devices

Factors affecting the functioning of spark plugs, W. A. Bychinsky, *diag S A E J* 55:45-7 N '47

Lubrication

Accurate method of determining engine oil consumption; recording scale, W. S. Powell, *il Automotive Ind* 98:35+ F 1 '48

Air and oil filtration; investigation of effects on wear of engine components, *il Automotive Eng* 38:15-20 Ja '48

Better engine design can end sludge; abstracts of papers, C. W. Georgi and others, S A E J 56:38-42+ My '48

Crankcase oil viscosity; a problem of cold-weather operation, *Consumers Res Bul* 21: 12-13 F '48

Developments in fuels, lubricants, and lubrication, R. J. S. Pigott, *il S A E J* 56:21-4 Ag '48

Effect of lubrication in reducing mechanical wear, W. M. Sopher, *bibliog diags World Oil* 127:191-2+ Mr '48; Abstract, S A E J 55:48-50 N '47

Engine lubricating oils; equipment and methods employed at Thompson research centre, *il Automotive Eng* 38:97-105 Mr '48

Faber engine analysis for internal combustion engines, R. L. Faber, S A E J 56:68-9 Ag '48

Inhibitor action in crankcase lubricants, A. F. Prutton, *Oil & Gas J* 47:70-3+ Je 10 '48

Laboratory and road tests to discover cause of extreme rates of oil contamination; abstract, C. W. Georgi, *diag Nat Pet N* 40: 26-7 Mr 17 '48

Most passenger car driving induces crankcase sludge; abstract, R. J. Greenshields and N. Kendall, *Nat Pet N* 40:27 Mr 17 '48

Motor oils, *Consumers Res Bul* 22:17-18 O '48

AUTOMOBILE engines—Lubrication—Cont.

- Motor oils, 1948. J. C. Geniesse and J. F. McGrogan. bibliog il Oil & Gas J 47:67-8+ J1 8 '48
- New line of motor oil advertising; Royal Triton crankcase life. Consumers Res Bul 21:11-12 F '48
- Preparation and properties of high viscosity index motor oils. W. L. Van Horne, Pet Refiner 27:90-5 Mr '48; Abstract. S A E J 56:49-52; Discussion. 52 S '48
- Reclassification of crankcase oils to reduce refining costs, and simplify distribution and supply. A. L. Foster. Oil & Gas J 47: 70+ Ag 5 '48
- Report on SAE 10, SAE 20, and SAE 30 motor oils. Consumers Res Bul 20:13-14 N '47
- S.A.E. National fuels and lubricants meeting. Tulsa, Nov. 6-7. S A E J 55:29-33 D '47
- Sub-zero automotive crankcase oils. E. W. Upham and H. C. Mougey. il S A E J 56:43-6 F '48

Manifolds

- Automatic mixture controls; manifold pressure utilized to regulate fuel delivery. S. J. Shames. diags Automotive Ind 98:42-3+ Je 1 '48
- Features of Nash engines; abstract. E. L. Monson. il S A E J 56:68 O '48
- M-59; transfer machine for manifolds. il Automotive Ind 99:52 S 15 '48

Manufacture

- Air gauge controls size of cylinder bore. il diags Comp Air Mag 53:143 Je '48
- Automatic assembly of pistons and connecting rods; Ford motor co. il Automotive Ind 98:28 F 15 '48
- Broaching gasket faces on Chevrolet engine blocks. il Iron Age 161:71 F 19 '48
- Conveyors aid assembly of engines; Austin motor co. il Mech Handling 34:637-45 D '47
- Drawing auto engine rocker arm covers; Buick motor div. of General Motors corp. T. E. Lloyd. il diags Iron Age 161:84-6 Ja 15 '48
- Flexible transfer machines for Packard cylinder heads and blocks. il Automotive Ind 99:34-6+ J1 15 '48
- High speed machining of large V-8 cylinder blocks. J. Geschel. il Automotive Ind 99: 32-5 O 1 '48
- How tooling problems were decided for Cadillac's new V-eight cylinder block. H. G. Warner. diags Automotive Ind 99:38-9+ N 1 '48
- Hudson realigns facilities for new six-cylinder engine. J. Geschel. il Automotive Ind 98:34-6+ Ap 15 '48
- Inspecting Oldsmobile's new V-eight engine; unique inspection machines. S. C. Starnaman. il Mach 55:184-93 N '48
- Machining Ford carburetor die-castings. H. Chase. il Mach 54:144-8 N '47
- Multiple wheel grinding speeds-up crank-shaft production; Studebaker corp. O. F. Mishler. il Mach 55:162-9 N '48
- Necked or waisted screws and bolts; possibilities in engine production. P. M. Heldt. diags Automotive Ind 99:42-3+ N 1 '48
- New Olds V-8 engine, will be built in remarkably co-ordinated new plant. A. H. Allen. il Steel 123:69-70 S 27 '48
- Packard transfer line machines 50 blocks an hour. T. E. Lloyd. il Iron Age 161:72-9 My 20 '48
- Transfer line drills Ford crankshafts. W. G. Patton. il diag Iron Age 161:72-6 Je 17 '48

Mounting

- Controlled-frequency mounts on 1948 Buick engines. il Machine Design 20:109 F '48

Radiators

- Ford's radical radiator production line. C. S. Ricker. il diags Am Mach 92:77-81 J1 1 '48
- Radiator core assembling machine. il Engineer 185:156-8 F 13 '48
- Radiator cores; a semi-automatic assembly machine developed by Ford motor co. ltd. il Automotive Eng 38:93-6 Mr '48

- Radiator output increased 50 per cent by mechanized processing; Ford motor co. il Steel 122:94-7 My 3 '48

See also

Anti-freeze solutions**Specifications**

- 1948 passenger car specifications; tabulations. Automotive Ind 98:129-39 Mr 15 '48

Superchargers

- Supercharged racing engines; importance of inter-cooling. P. Borracchi. Automobile Eng 37:407-8 N '47

Testing

- Accurate method of determining engine oil consumption; recording scale. W. S. Powell. il Automotive Ind 98:35+ F 1 '48
- Measuring engine torque under driving conditions; Kaiser-Frazer torquemeter. il Automotive Ind 99:35 Ag 15 '48
- Punched tape controls engine test cycle. il diags Product Eng 19:104-5 Ja '48
- Research by the mile; Ethyl corporation research laboratory at San Bernardino; research on engines and motor fuels. il Pet Eng 19:116+ Ap '48
- Sonic vibrations measure combustion chamber volume. il Automotive Ind 99:49 S 15 '48
- Test methods and some instruments. E. B. Stead. il diags Engineering 165:333-5 Ap 2 '48

Valves

- Some aspects of valve burning and sticking; abstract. J. A. Newton. il S A E J 56:79 S '48
- Swiss process for heat treating Cr-Si valves. Automotive Ind 99:64 N 1 '48

Vibration

- Ford develops device for testing viscous dampers. il Automotive Ind 98:43+ F 1 '48
- Welding facilitates assembly of silicone engine dampers. J. Geschel. il diag Automotive Ind 97:24-5 D 1 '47

AUTOMOBILE factories

- General motors corporation; new plant for Chevrolet-Flint division. il Factory Management 106:B54-8 pt 2 Ap '48
- New Olds V-8 engine, will be built in remarkably co-ordinated new plant. A. H. Allen. il Steel 123:69-70 S 27 '48
- 1948 plant expansion and modernization. L. Westrate. Automotive Ind 98:28+ Ja 1 '48
- Paring costs with pallets; Packard's purchased parts. D. G. Baird. il Mill & Factory 43:127-9 S '48
- Separate building for personnel functions minimizes confusion; Chevrolet-Indianapolis. M. R. Harris. il Factory Management 106:106-7 O '48

See also

Automobile assembly plants**Electric equipment**

- Welding Hudson's Monobilt body-and-frame. C. H. Wick. il Mach 55:170-7 N '48

Employees

- Auto strike tests industry's wage resistance. il Steel 122:61-2 My 24 '48
- Auto workers' blues; U.A.W. survey shows that sick care is chief concern today. Fortune 38:210+ N '48
- Auto workers jump the gun; wage-boost drive of U.A.W. locals. Bsns W p56 Ja 3 '48
- Average wages vs. real wages; automobile and other industries, monthly, 1941-1947; tabulation. Automotive Ind 98:87 Mr 15 '48
- Employees tell why they like their jobs; General Motors prize contest. il Mill & Factory 42:102-4 F '48
- Ford pay-play boost. Bsns W p68 D 27 '47
- Ford puzzle; company has quit its no-raise position. Bsns W p91-2 J1 10 '48
- Ford Rouge news cops. honors for best employee newspaper. Sales Management 61: 124+ S 15 '48
- Four-hour induction school gives job picture to new workers; White motor co. P. C. Williams. il Factory Management 105: 117-19 N '47

AUTOMOBILE factories—Employees—Cont.

General Motors health maintenance program. H. W. Anderson. *Ind Med* 17:61-4 F '48
 General Motors hikes wages to living costs. *Steel* 122:30-1 My 31 '48
 G.M. ties wages to cost of living. *Bsns W* 96:7 My 29 '48
 General Motors wage increase. *Nat City Bank* p62-4 Je '48
 Health examinations of industrial executives; a statistical analysis. E. F. Lutz. *Ind Med* 17:65-9; Discussion. 70-1 F '48
 Hourly and weekly earnings and hours worked per week in the U.S. 1941-1947; employment, earnings and hours worked, by years, 1929-1947; tabulations. *Automotive Ind* 98:38-9 Mr 15 '48
 Kaiser-Frazer shares production kitty. *Il Bsns W* p66 D 27 '47
 Living costs pace labor's demands; lesson at Ford. *Bsns W* p 100 JI 24 '48
 Setting the wage pattern? U.A.W. comes to grips with Chrysler. *Bsns W* p 108+ Ap 24 '48
 Stress importance of supervisory employees in the auto industry; Packard's liberalized policy. *Iron Age* 162:162 O 14 '48
 Unions told off; Ford's pay-cut proposal. *Bsns W* p 110-11 My 22 '48

See also

United automobile workers of America

Equipment

Advanced type equipment conspicuous in Willys press shop. *Il Automotive Ind* 97:44+ D 1 '47
 Alarm system minimizes conveyor downtime; Packard motor car co. L. R. Bogardus. *Il Factory Management* 106:113 JI '48
 Automatic machine bales over 110 tons of scrap daily; De Soto division, Chrysler corp. *Il Automotive Ind* 99:44+ O 15 '48
 Automotive production number. *Il diags Mach* 55:151-212 N '48
 Barrel switch solves conveyor problem; transferring racks of ten crankshafts at Kaiser-Frazer. F. W. Scooneas. *Il diags Am Mach* 92:108-9 Fe 3 '48
 Biggest remodeling job; Kaiser-Frazer plant at Willow Run. *Il Dom Eng* 169:116-23 Je; 170:104-6+ N '47
 Buick's new sheet metal plant features energy saving equipment. *Il Automotive Ind* 98:40-1+ Ja 1 '48
 Conveyors aid assembly of engines; Austin motor co. *Il Mech Handling* 34:637-45 D '47
 Deep-drilling of crankshafts on transfer type machines. C. H. Wick. *Il diags Mach* 54:153-6+ Ag '48
 First transfer machine for drilling crankshaft oil holes; Ford motor co. *Il Automotive Ind* 98:36+ Ap 1 '48
 Fixtures facilitate automatic buffing; stainless steel moldings for automobile rear windows and windshields. *Il Iron Age* 161:94 My 6 '48
 Flexible transfer machines for Packard cylinder heads and blocks. *Il Automotive Ind* 99:34-6+ JI 15 '48
 Ford handles by automation. R. LeGrand. *Il plan diags Am Mach* 92:107-22 O 21 '48
 Ford retools cylinder block line with transfer machines. *Il Automotive Ind* 98:38-9+ F 1 '48
 Ford's radical radiator production line. C. S. Ricker. *Il diags Am Mach* 92:77-81 JI 1 '48
 Futuramic bodies require major change-over; Lansing Fisher body division plant. *Il Automotive Ind* 98:42-4 My 1 '48
 High speed machining of large V-8 cylinder blocks. J. Geschelin. *Il Automotive Ind* 99:32-5 O 1 '48
 High-speed machining of rear-axle housings on a Transfer-matic. *Il diags Mach* 54:161-4 F '48
 How Renault has modernized its plant to triple output. W. F. Bradley. *Il Automotive Ind* 99:24-6+ JI 15 '48
 How tooling problems were decided for Cadillac's new V-eight cylinder block. H. G. Warner. *diags Automotive Ind* 99:38-9+ N 1 '48
 Hudson realigns facilities for new six-cylinder engine. J. Geschelin. *Il Automotive Ind* 98:34-6+ Ap 15 '48

Huge presses at work for Kaiser-Frazer; illustrations with text. *Automotive Ind* 97:30-1 D 15 '47
 Latest metalworking equipment employed at new Chevrolet Indianapolis truck plant. *Il Steel* 121:62-3+ D 22 '47
 Latest transfer machines at Ford plant. *Il Automotive Ind* 99:41+ Ag 1 '48
 M-59; transfer machine for manifolds. *Il Automotive Ind* 99:52 S 15 '48
 Making heavy duty trucks by mass production methods. *Il Automotive Ind* 98:36-7+ My 15 '48
 Making the Dynaflo, an exacting precision job. J. Geschelin. *Il Automotive Ind* 98:26-8+ My 15 '48
 Materials handling at Fisher body Flint plant no. 2. *Il plan Mill & Factory* 42:110-15 Ja '48
 Mechanical handling; equipment and methods employed by Vauxhall motors ltd. S. Gilbert. *Il diags Automobile Eng* 38:311-14 Ag '48
 Nash pioneered in automatic transfer lines. J. Geschelin. *Automotive Ind* 97:78 N 1 '47
 Nash prepares for 1949 production. J. Geschelin. *Il Automotive Ind* 99:32-3+ JI 15 '48
 New self-contained line for making stabilizer bars; Oldsmobile forge plant. *Il Automotive Ind* 98:40-1 Je 1 '48
 Oldsmobile organizes bumper bracket setup. *Il Automotive Ind* 98:29 My 15 '48
 Packard transfer line machines 50 blocks an hour. T. E. Lloyd. *Il Iron Age* 161:72-9 My 20 '48
 Press forging. *Il diags Automobile Eng* 37:493-7 D '47
 Producing the new Studebaker. G. E. Westphal. *Il Mach* 54:139-45 Ja '48
 Radiator core assembling machine. *Il Engineer* 185:156-8 R 13 '48
 Radiator cores; a semi-automatic assembly machine developed by Ford motor co. ltd. *Il Automotive Eng* 38:93-6 Mr '48
 Radiator output increased 50 per cent by mechanized processing; Ford motor co. *Il Steel* 122:94-7 My 3 '48
 Radiographic practice at Ford. D. Goodman. *Il Iron Age* 162:90-4 JI 22 '48
 Shop shots at Studebaker; illustrations with text. *Am Mach* 92:100-1 Ja 1 '48
 Studebaker's '49 trucks built in ultra-modern plant. J. Geschelin. *Il Automotive Ind* 99:24-6+ S 1 '48
 Transfer machine works in duplicate; transmission gear-shift housings. *Il diags Am Mach* 92:122-4 Ag 12 '48
 Transfer-type machine tools. *Il Steel* 121:76 D 15 '47

Heating and ventilation

Automobile production at Willow Run; providing additional make-up air. R. L. Getts. *Il diags Heating-Piping* 20:107-11 Ja '48

Layout

Higher output from new layout and better handling; Cadillac Motor polishing and plating department. C. A. Rafferty. *Il Factory Management* 106:85-7 O '48
 Layout controls material and man movement; Ford motor car co. plan *Am Mach* 92:85 Ap 8 '48
 Scale models help visualize the production job; Dodge truck plant. W. S. Wheeler. *Il Factory Management* 105:74-7 D '47
 Synchronizing subassemblies to main line needs at Packard. F. J. Bird. *Il diags Factory Management* 106:56-9 Ap '48

Management

Extensive changes incorporated in Ford's foundry modernization program. A. H. Allen. *Foundry* 76:122 Ap '48
 Functions of production engineering department at Buick; abstract. H. S. Golden. *S A E J* 56:61-2 Je '48
 Job improvement in twelve steps; Oldsmobile. J. J. Edwards. *Il Factory Management* 106:76-9 S '48
 Perennial good housekeeping program; Chrysler division. D. G. Baird. *Il Mill & Factory* 43:127-9 Ag '48
 Process control corrects faulty methods; from an interview with the late R. H. McCarroll, Ford motor co. C. S. Ricker. *Il diags Am Mach* 92:112-15 Je 3 '48

AUTOMOBILE factories—Management—Cont.

Production process control, what it can do for quality, costs, and volume, R. H. McCarrroll, *il diags* S A E J 56:24-7 Je '48
 Salvaging fifty-six tons of sheet metal per day; Buick motor division of General Motors corp. *il diags* Mach 55:178-83 N '48
 Tool standardization program at GM; committee system, W. G. Patton, *il Iron Age* 161:131-5 Mr 11 '48

Power

Diesel generating station; Vauxhall motors, ltd. *il Elec R (Lond)* 142:61-2 Ja 9 '48

Records

Packard ties sales to inventory; greater parts sales volume and better service, D. G. Baird, *il Am Bsns* 17:18-19+ D '47

Safety measures

Safety program that overlooks nothing; Fisher Body-Ternstedt division, General Motors, J. E. Kane, *Factory Management* 106:97-101 Je '48

Waste

We sort scrap to get top prices; Pontiac Motor, F. J. McLaughlin, *il Factory Management* 106:118-19 Ji '48

AUTOMOBILE fans. See Automobile engines—Fans

AUTOMOBILE headlights. See Automobiles—Lighting

AUTOMOBILE industry and trade

Auto companies get set for tougher going, C. Macko, *Barron's* 28:29-30 Ja 12 '48

Auto dealer looks to the future; M. J. Lanan, inc. attempts to improve customer service by starting with its employees, W. N. Augsburg, *il Am Bsns* 18:12-13+ Ap '48

Auto demand firms up again, *Bsns W* p78+ Ap 10 '48

Auto makers owning steel plants have best production records, W. G. Patton, *Iron Age* 160:133-4 D 11 '47

Automobile industry in postwar world, K. T. Keller, *Comm & Fin Chr* 168:398+ Ji 29 '48

Automobiles and steel, *il Fortune* 38:8 O '48
 Backlog demand for consumers' durable goods; passenger automobiles, L. J. Atkinson, *Survey of Cur Bsns* 28:16-17 Ap '48

Car exports slump, *Bsns W* p54-5 S 18 '48
 Car sales; abstract, M. E. Coyle, *Adv & Sell* 40:66 N '47

Chrysler operation, *il Fortune* 38:102-5+ O '48

Complaints of unfair dealer practices plague auto producers, W. G. Patton, *Iron Age* 160:122+ N 20 '47

Consumer survey shows automobiles lead durable goods wanted by Detroiters, *Ptr Ink* 222:85-6 Ja 23 '48

For autos, no tornadoes on the horizon, G. W. Mason, *Sales Management* 59:84 D 1 '47
 Foreign entries in U.S. market, *il Bsns W* p34+ Mr 20 '48

F.o.b. Detroit under scrutiny again; recent decisions may result in changes in marketing practices, E. J. Hardy and others, *Automotive Ind* 98:24-6+ Je 15 '48

High prices threaten auto market, A. J. Morris, *Comm & Fin Chr* 168:1871+ N 4 '48
 Hudson to drop middlemen, *Bsns W* p70-1 My 22 '48

Important tariff concessions in Geneva trade agreement; summary by country of tariff changes affecting major automotive items, E. Hardy, *Automotive Ind* 97:45-6+ D 1; 45-+ D 15 '47

K-F cashes in, *il Fortune* 36:94-7+ D '47

Luxury car sag, *Bsns W* p33-4 Ja 31 '48

Output, prices both going up, *Bsns W* p54+ D 13 '47

Pitfalls of seller's market in the automobile industry, J. R. Davis, *Comm & Fin Chr* 168:1097+ S 16 '48

Survey shows motorists turning from dealers on service, E. J. Dever, jr., *Ptr Ink* 222:99+ Mr 26 '48

Try, try again; 23 companies to invade auto business, *Bsns W* p23-4 My 29 '48

Unfilled car orders greater than year ago, L. Westrate, *Automotive Ind* 98:25+ Je 1 '48

See also

Automobile accessories industry	Motor bus industry
Automobile factories	Motor truck industry
Automobile parts company	Packard motor car
Chrysler corporation	Studebaker corporation
Ford motor company	Taxicabs
General motors corporation	

Accounting

Car-record plan; Chevrolet's new method for keeping dealer accounts, *Bsns W* p48+ D 6 '47

Daily management plan of Chevrolet Motors guides dealers, D. G. Baird, *Am Bsns* 18:20-1 My '48

Advertising

Advertising voice should be heard in management counsel; Packard motor car company setup, G. T. Christopher, *Ptr Ink* 225:72-3 O 29 '48

Auto-engine battle; Rebuilders' association starts campaign, *Bsns W* p60 O 16 '48

Big splash ads in classified bring results; Molander Motor Sales, Ed & Pub 81:16 O 2 '48

Ford blankets Nation with three-way direct mail blizzard, D. G. Baird, *il Sales Management* 59:86+ N 10 '47

Hayward Anderson of Kudner, B. Tyler, *il Adv & Sell* 41:40-1+ Ja '48

K-F. puts on steam, *Bsns W* p54 Ag 7 '48
 Look at all three; Getchell theme for Plymouth advertising, J. D. Woolf, *il Adv & Sell* 41:39+ Ja '48

Millions of mailings; are they read? D. G. Baird, *il Sales Management* 60:87-8 Ap 1 '48

Motor maker's gazette; everybody has one; magazines sponsored by auto manufacturers, usually distributed with the dealer's imprint, D. G. Baird, *il Sales Management* 59:115-18 D 1 '47

National and dealer co-op ad campaign to introduce '49 Ford expected to hit \$10,000,000, *il Ptr Ink* 223:97 Je 4 '48

Why dealers foot the bill for Chevrolet's millions of mailings, *il Sales Management* 60:141+ Mr 15 '48

Exhibits

Behind-the-scenes report on Ford's Operation Waldorf, *il Sales Management* 61:86+ Ag 1 '48

Ford puts on a big show to introduce its new models, *il Bsns W* p54+ Je 19 '48

See also

Automobiles—Exhibitions

Exhibits, Educational

GM exhibit tells industry's story; educational displays at Museum of science and industry, *il Ind Marketing* 33:36-7+ Ja '48

Finance

Floor plan finance company cannot seize cars sold to purchasers, *East Underw* 49:27 Ja 23 '48

Ford & K-F shed nonautomotive holdings, *Bsns W* p36 Je 12 '48

History

Fifty years of merry Oldsmobiles, *il Automotive Ind* 98:32-3+ My 1 '48

New models

Competition dictates tomorrow's car styles, *il Bsns W* p 19-20 Ja 24 '48

Model changes; few and fast, *il Bsns W* p32+ N 1 '47

Promoting the '49 Ford, *il Mod Plastics* 25:95 Ag '48

Styling for the future; General Motors practices, L. Westrate, *il Automotive Ind* 97:42-3+ D 15 '47

See also

Automobiles—Exhibitions

Patent pooling

Patent pool; auto maker's cross-licensing untouched by Supreme court's rulings, *Bsns W* p30+ Mr 20 '48

AUTOMOBILE industry and trade—Continued**Purchasing**

Ford modernizes its buying methods. A. J. Browning. *il Automotive Ind* 97:24-7+ N 1 '47

Salesmen

Abuses breed unionization, San Francisco auto dealers warn. E. Gidlow. *Sales Management* 60:32-4 Ja 15 '48

Chevrolet's battle plan; dealers' sales managers get instruction in how to guide salesmen. *il Bsns W* p64+ JI 10 '48

How can you match merit and pay when salesmen are unionized? Oakland, Calif. dealers. E. Gidlow. *Sales Management* 60:86+ Mr 15 '48

New issues you will face if your salesmen are unionized; Seattle automobile dealers experience. E. Marple. *il Sales Management* 59:37-40 N 20 '47

Packard training course revives ancient art of salesmanship; films-and-manuals packaged training program for retail auto dealers and their salesmen. D. G. Baird. *il Sales Management* 60:48+ F 1 '48

What Chevrolet is doing to prepare for competitive selling; factory wholesale personnel and dealers' sales managers' course. D. G. Baird. *il Sales Management* 61:42-4 S 15 '48

Securities

Earnings prospects for the motors; with statistical position of automobile and truck manufacturers. G. W. Mathis. *Mag of Wall St* 81:651-2+ Mr 13 '48

Playboy financing. *Bsns W* p87-8 Je 5 '48

Varying trends for motor companies; with statistical position of automobile and truck manufacturers. G. W. Mathis. *Mag of Wall St* 82:541-2+ Ag 28 '48

Statistics

Automotive wholesalers, dealers and repair shops, by years, 1928-1948; by states as of Jan. 1948, with number of motor vehicles per outlet; tabulations. *Automotive Ind* 98:113 Mr 15 '48

Car dealer franchises by makes by population groups; by states by population groups; by makes by years; by states by makes; tabulations. *Automotive Ind* 98:114-15 Mr 15 '48

First 100-million cars were the hardest. *il Bsns W* p26+ Ag 21 '48

Motor vehicles, 1941-1946. Survey of Car Bsns 1947 Sup p 178-9 [supplemented in monthly numbers]

New passenger car registrations by makes, by years, 1936-1947; tabulation; by manufacturing groups; chart. *Automotive Ind* 98:118-19 Mr 15 '48

1947 leading export markets of new motor vehicles, by country; tabulation. *Automotive Ind* 98:121 Mr 15 '48

1947 motor-vehicle factory sales to domestic and foreign markets; tabulations. *Automotive Ind* 98:95-6 Mr 15 '48

1947 U.S. exports of new motor vehicles by continental divisions; tabulation. *Automotive Ind* 98:123 Mr 15 '48

1948; big year. *Bsns W* p56 S 18 '48

97 million motor vehicles produced in 48 years; tabulation. *Automotive Ind* 98:94 Mr 15 '48

Number of passenger cars in use as of July of each year, by age, 1938-1947; tabulation. *Automotive Ind* 98:120 Mr 15 '48

Significant automobile facts and figures for '48. *Automotive Ind* 98:72 S 1 '48

U.S. exports of new motor vehicles, 1916-1947; tabulation and chart. *Automotive Ind* 98:122 Mr 15 '48

Taxation

Reduction of automobile excise tax unlikely next year. G. H. Baker. *Automotive Ind* 99:54 N 1 '48

Used cars

Automobile appraisal guides designated by Federal reserve system for purposes of regulation. W. Fed Res Bul 34:1240-2 O '48

Eleven appraisal guides for automobile loans to be used in carrying out government restrictions on installment buying. *Automotive Ind* 99:80 O 1 '48

Light on used car sales contracts; Minneapolis takes action. *Bsns W* p90 S 11 '48

Outlook in used cars. T. J. Gallivan. *Banking* 40:50+ D '47

Used car deal. *Fortune* 38:132+ S '48

See also

Automobiles—Wrecking

Argentina

Argentina makes deal with Italian car maker; reports from both countries confirm Cistalia agreement. M. Chinigo; D. J. Wilson. *Automotive Ind* 99:27+ JI 15 '48

Australia

Majority of Australian automobiles over eight years old. *Automotive Ind* 99:78 Ag 1 '48

Austria

Automobile industry in Austria. L. Vogel. *Automotive Ind* 98:250+ Mr 15 '48

Canada

Canada hits U.S. auto makers; new rules slash imports of finished cars and parts. *Bsns W* p 113-14 F 21 '48

Canadian monthly motor vehicle production; 1942-1946; tabulation. *Automotive Ind* 98:100 Mr 15 '48

Motor vehicle production in Canada, 1921-1947; 1946 Canadian motor vehicle registrations, by provinces; tabulations. *Automotive Ind* 98:97 Mr 15 '48

Quota arrangement for automobiles and parts; additional allotment for certain automobile manufacturers. *For Comm W* 31:19 My 29 '48

Way opened for entry of British cars into Canada. *Automotive Ind* 98:25+ Ap 1 '48

Chile

Import licensing procedure for automobiles in 1948. *For Comm W* 30:17 Ja 31 '48

Detroit

Detroit hot potato; car sales racket. *Bsns W* p49-50 N 22 '47

Dominican Republic

Motor vehicles; import duties increased; tabulation. *For Comm W* 30:13 F 14 '48

Europe

Foreign cars. W. Hobson. *il Fortune* 37:92-9+ F '48

France

Car exports and the franc. *Economist* 154:685 Ap 24 '48

Ford in France; light car to be made abroad. *Bsns W* p65 My 1 '48

France's Renault modernizes its auto plant. *il Bsns W* p46+ Ap 3 '48

French try comeback; new designs displayed at Paris show. W. F. Bradley. *il diags Automotive Ind* 97:26-30+ D 1 '47

Tooling requirements of French automobile and tractor plants. W. F. Bradley. *Automotive Ind* 98:54 Je 1 '48

Germany

Factory producing Volkswagen model, Wolfsburg. *For Comm W* 32:20-1 S 11 '48

German Ford plant produces for peace; illustrations with text. *Bsns W* p22-3 F 28 '48

Germans set up plans to export Volkswagen. *Bsns W* p 126+ Ap 17 '48

People's cars from Germany. *Economist* 154:322 F 21 '48

Great Britain

British face severe reduction in passenger car models. W. F. Bradley. *il Automotive Ind* 97:34+ N 1 '47

British vehicle exports higher than prewar volume. *Automotive Ind* 98:242+ Mr 15 '48

Engineering outlook. *Engineering* 165:196-9 F 27 '48

Expansion, manufacture, and sales by Austin motor co., ltd. *For Comm W* 33:26 O 16 '48

Exporting British cars. *Economist* 154:462-3 Mr 20 '48

AUTOMOBILE industry and trade—Great Britain—Continued

Rolls-Royce limited; statement by the chairman at annual general meeting. E. C. E. Smith. *Economist* 155:203 J1 31 '48
 Standard motor company, limited; ordinary general meeting. *Economist* 153:822 N 15 '47
 Types of automobiles manufactured in the United Kingdom. *For Comm W* 29:21 N 15 '47

See also
 Austin motor company

Hungary

Automobiles and motorcycles; commercial importation. *For Comm W* 31:20 My 1 '48

India

India's autos up. *Bsns W p* 118 Ap 10 '48

Italy

Italy's 1948 international automobile salon. W. F. Bradley. *il Automotive Ind* 99:25-7+ O 15 '48

Portugal

Automotive products; demand in Portugal. *For Comm W* 29:22 N 29 '47

Russia

Automobile industry that's behind the iron curtain. D. B. Shimkin. *Automotive Ind* 98:25-7+ F 1; 34-7+ F 15; 30-3+ bibliog (104 titles) Ap 1 '48

South Africa

Supply situation, Union of South Africa. *For Comm W* 32:30 S 4 '48

Southern states

Automobile assembly moves South; Ford motor company decentralization. *il Manuf Rec* 116:44-5 D '47
 South gets new auto, farm equipment plants. S. Fish. *Manuf Rec* 117:41 O '48

Sweden

Manufacture and sales in 1946 and 1947. *For Comm W* 32:30 S 4 '48

United States

Auto industry smashed many records during 1947. W. G. Patton. *Iron Age* 161:240+ Ja 1 '48
 Automobile industry looks ahead. L. Westrate. *Automotive Ind* 98:24-7+ Ja 1 '48
 Automobiles; prospects for 1948. E. F. Ross and others. *il Steel* 122:140-1 Ja 5 '48

AUTOMOBILE insurance. See Insurance, Automobile

AUTOMOBILE laboratories

Motor industry research association. *il Engineer* 186:8-9 J1 2 '48; *Engineering* 166:18-19 J1 2 '48

AUTOMOBILE laws and regulations**Ohio**

Parents liability case in Ohio arouses interest; minor drivers. *Nat Underw* 52:18 J1 15 '48

AUTOMOBILE lighting. See Automobiles—Lighting

AUTOMOBILE mechanics

Automobile repair shops; wages in July 1947. *Mo Labor R* 66:54 Ja '48
 Experience with apprentice mechanic training. A. W. Neumann. *S A E J* 56:44-5 Je '48

Garage settlement; Seattle mechanics go back to work after six-month strike. *Bsns W p* 91 Ja 10 '48

AUTOMOBILE ornaments, Plastic

Pocketed plastics; compartmented envelope with protective lining guards molded acrylic ornaments in route to the assembly line at Ford's. *il Mod Packaging* 21:122 Ja '48

AUTOMOBILE parking

Claim check received by owner when parking automobile held mere token of identification. *Weekly Underw* 159:523 S 4 '48
 Costs of municipal parking lots. *Pub Works* 73:38 Ja '48
 Economic study of interior block parking. C. S. LeCraw. *Pub Works* 73:31 D '47

Garage and parking lot liability; wrongful use of automobile by employee. C. S. Bishop. *bibliog. Weekly Underw* 157:1584-6 D 20 '47

How far will a motorist park from his destination? *Roads & Sts* 90:66+ D '47

Long-span triple-deck parking station; Kansas City, Mo. D. K. Jackson. *il plans Eng N* 141:111-13 Ag 19 '48

Macy's Jamaica is designed around merchandising methods; automobile parking on roof. *il map plan Arch Forum* 88:100-1 F '48

Parking facilities in existing buildings offer solution to downtown parking problem. O. S. Willumsen. *plans Civil Eng* 18:521-2 Ag '48

Parking lot operations; with cost data. W. S. Smith and C. S. LeCraw, jr. *Pub Works* 73:48+ O '48

Parking lots located within city blocks. *Eng N* 139:869 D 25 '47

Solving traffic problems; free bus rides, free parking space in Sacramento; for Boston, an under-Common garage. *il Bsns W p* 22 My 29 '48

Traffic congestion; abstract. R. W. Crum. *Mech Eng* 69:1039 D '47

Meters

Parking meters now an accepted part of traffic-control program. C. F. LeeDecker. *il Roads & Bridges* 86:78-80+ F '48

Recommendations for the best use of parking meters. *Roads & Sts* 91:93-4+ Ap '48
 Use of parking meters is increasing. *Eng N* 140:657 Ap 29 '48

AUTOMOBILE parts

Auto parts fight; car-wrecking industry wants to keep \$100-million business. *Bsns W p* 56 D 27 '47

Auto parts makers expand. *Bsns W p* 36+ Ag 21 '48

Bath contour forming, a new metalworking process; parts for truck, bus, and trailer bodies and also for aircraft. *il diags Automotive Ind* 98:32-3+ Je 15 '48

Delco-Remy introduces new facilities for high-volume minimum-cost production. J. Geschelin. *il plan Automotive Ind* 97:36-7+ N 1 '47

Development of low weight forgings. J. H. Friedman. *il S A E J* 56:30-2 J1 '48

80-inch die casting die produces zinc alloy automobile strip. *il Steel* 122:38 Ap '48

Extrusion forging ready for mass production at Ford Canton foundry. *il Automotive Ind* 98:40+ Ap 1 '48

Kirksite dies for auto stampings. W. G. Patton. *il Iron Age* 161:78-81 Ap 15 '48

Material handling efficiency increases output, cuts costs; Fisher Body's Ternstedt div. H. Chase. *il Iron Age* 161:84-9 My 13 '48

Materials and requirements for decorative and protective plating. N. G. Meagley. *il Materials & Methods* 27:80-2 Mr '48

Materials and their requirements for automobile stampings, bumpers and pistons. N. G. Meagley. *il Materials & Methods* 26:74-8 N '47

New GM supplier plant; decentralized unit in Ohio manufacturing hub caps, bumper guards and grilles. J. Geschelin. *il Automotive Ind* 98:28-9+ F 1 '48

Pallet loading and shipping. W. L. Pearce and C. L. Daly. *il S A E J* 56:27-30 F '48

Paring costs with pallets; Packard's purchased parts. D. G. Baird. *il Mill & Factory* 43:127-9 S '48

Practical aspects of quenching below the critical temperature; new case-hardening technique. W. H. Holcroft and H. J. Hammond. *il plan Steel* 123:106+ S 20 '48

Recommended practices for salvaging automotive gray iron castings by welding; a committee report. *il diags Welding J* 27:351-8 My '48

Surface finishing automobile moldings. L. F. Strong. *il Metal Finishing* 46:60-1 J1 '48

Testing

Application of nondestructive testing to automotive parts. D. M. McCutcheon. *il S A E J* 56:25-6+ S '48

AUTOMOBILE purchase financing. See Banks and banking—Automobile purchase financing

AUTOMOBILE racing

Important 1948 innovations in racing car design. J. Bond. *il Automotive Ind* 98:36-8+ Je 1 '48

Mechanical features of Indianapolis race cars; illustrations with text. *Automotive Ind* 99:30-1 J 1 '48

155 mph Maserati racing car. *il Automotive Ind* 98:31 My 1 '48

Prefab track carries midjet racing autos. *il Eng N* 141:15 J 15 '48

Problems facing designers of British racing car. *Automotive Ind* 99:40+ J 1 '48

Supercharged racing engines; importance of inter-cooling. P. Borracchi. *Automobile Eng* 37:407-8 N '47

Twin-four powers Dommartin-Petit racer. W. F. Bradley. *diags Automotive Ind* 99:38-40 J 1 '48

AUTOMOBILE radiators. See Automobile engines—Radiators

AUTOMOBILE radios. See Automobiles—Radio equipment; Radio receiving apparatus—Automobile receivers; Radio telephone on automobiles

AUTOMOBILE research

Automobile industry that's behind the iron curtain; research and development of Russian motor vehicles. D. B. Shimkin. *bibliog* (104 titles) *il Automotive Ind* 98:30-3+ Ap 1 '48

See also
Automobile laboratories

AUTOMOBILE sales buildings

Auto dealer picks brick and tile; Dahl motors, Davenport, Ia. *il Brick & Clay Rec* 111:35 N '47

Auto sales and service, built to client's specifications. *il plans Am Bld* 70:88-9 Ja '48

Unusual design for automotive sales and service building. *il plans Am Bld* 69:87 N '47

AUTOMOBILE service stations

Auto sales and service, built to client's specifications. *il plans Am Bld* 70:88-9 Ja '48

See also
Gasoline service stations

AUTOMOBILE shops**Employees**

Automobile repair shops; wages in July 1947. Mo Labor R 66:54 Ja '48

AUTOMOBILE steel. See Steel, Automobile

AUTOMOBILE tires. See Tires, Automobile

AUTOMOBILE touring

Study shows 55.5 per cent of 1948 vacationers to use automobiles. *Nat Pet N* 40:42 J 7 '48

See also
Oil companies—
Travel bureaus

AUTOMOBILE trailer insurance. See Insurance, Automobile trailer

AUTOMOBILE trailers

Shipments of housing type trailers; number of units shipped and their value, by months, 1946-1947; tabulation. *Automotive Ind* 98:98 Mr 15 '48

Trailer coach makers invade the East; illustrations with text. *Automotive Ind* 97:32-3 D 1 '47

Trailers may double soon as showrooms. *Bsns W* p28 N 22 '47

Advertising

One-man factory becomes national advertiser; hoarding of advertising fund makes magazine campaign possible for Main line trailer coach co. *il Ptr Ink* 221:47 N 14 '47

AUTOMOBILE workers. See Automobile factories—Employees

AUTOMOBILE workers of America, United. See United automobile workers of America (International union, United automobile, aircraft and agricultural implement workers of America)

AUTOMOBILES

Austin adopts American styling. *il Automotive Ind* 99:45+ O 1 '48

Austrian Porsche, a glamorized Volkswagen. *il Automotive Ind* 99:44+ O 1 '48

Body styling and engine design details of the 1948 Packard. *il diags Product Eng* 18:90-3 N '47

Cadillac's svelte surge styling for '48; illustrations. *Automotive Ind* 98:44 F 1 '48

Detroit; evolution, not revolution. W. G. Patton. *il Iron Age* 161:156-67 Ja 1 '48

Distinctive features of the Playboy. *il Automotive Ind* 98:45 Ap 15 '48

Entirely different Hudsons for '48. J. Geschelin. *il Automotive Ind* 97:32-5+ D 15 '47

Entirely new '49 Mercury. *il Automotive Ind* 98:28-30+ My 1 '48

F-head engine powers 1948 Rover models. W. F. Bradley. *il diag Automotive Ind* 98:38-9, 67 My 15 '48

Ford's first postwar cars are introduced to the public; Mercury and Lincoln models. W. G. Patton. *Iron Age* 161:100+ D 22 '48

New body + new chassis equals completely new 1949 Ford. J. Geschelin. *il Automotive Ind* 98:28-31 Je 15 '48

New Ford has a new price; 1949 models. *il Bsns W* p28+ Je 12 '48

New Ford models introduced in New York. W. G. Patton. *il Iron Age* 161:100+ Je 10 '48

New high speed car of British design; British Frazer-Nash; illustrations with text. *Automotive Ind* 98:37 Ap 15 '48

New Hudson model. A. H. Allen. *il (p76) Steel* 121:75 D 3 '47

New Hudson requires extensive changes in plant and assembly lines. W. G. Patton. *Iron Age* 160:112+ D 11 '47

New postwar Hudson wins enthusiastic approval. W. G. Patton. *Iron Age* 160:106+ N 6 '47

New Willys products. *il Automotive Ind* 97:47+ N 1 '47

1948 automobiles; including some 1949 models. *il Consumers Res Bul* 22:13-15 J 1; 5-9 Ag; 5-14 S '48

1948-1949 automobiles; note to subscribers. *Consumers Res Bul* 22:21 O '48

1949 Kaiser models. *il Automotive Ind* 99:30-1+ S 15 '48

1949 Lincolns. *il Automotive Ind* 98:26-8+ Ap 15 '48

1949 Nash models. *il Automotive Ind* 99:26-9+ N 1 '48

Oldsmobile presents first GM postwar passenger car. W. G. Patton. *Iron Age* 161:92 F 5 '48

Overhead valve V-eight powers 1949 Cadillac. J. Geschelin. *il Automotive Ind* 99:34-7+ N 1 '48

Postwar Nash features all-enclosed wheels and coil springs. W. G. Patton. *Iron Age* 162:88+ O 28 '48

Rear-engine automobile; Tatra; abstract. *Mech Eng* 69:939 N '47

SAE National passenger car and production meeting, Detroit, March 3-5. S A E J 56:37-19 Ap '48

SAE passenger car and production meeting, Detroit; abstracts of papers. *Automotive Ind* 98:38-41, 78 My 1 '48

Studebaker producing 1948 models. A. H. Allen. *Steel* 121:89 N 10 '47

Three 1949 model cars make their bows. *il Bsns W* p22 O 23 '48

Two new Vauxhall models. *il Automotive Ind* 99:41+ O 1 '48

See also

Airplanes, Light—
Automobile combinations
Automobile engines
Automobile industry and trade
Motor bus lines—
Automobile competition

Motor buses
Motor trucks
Railroads—Motor vehicle competition
Tires, Automobile
Tractors

Air conditioning

Freon versus air cycle cooling of automobiles. H. Woodhouse. *diags Refrig Eng* 56:313-15+ O '48

Airplane combinations

See Airplanes, Light—Automobile combinations

Axles

Ford's new methods of forming and machining axle housings. C. H. Wick. *il diags Mach* 55:152-61 N '48

AUTOMOBILES—Axles—Continued

High-speed machining of rear-axle housings on a Transfer-matic. *Il* diags Mach 54:161-4 F '48

Welding banjo type axles at Ford. W. Kroy. *Il* Iron Age 162:96-101 S 23 '48

Bearings

Million and a half automotive bearings a month; New Departure's Sandusky ball bearing plant. J. Geschelin. *Il* Automotive Ind 99:26-9+ Ag 1 '48

New streamlined bearing plant; New departure division, General motors corp. *Il* Steel 122:74-5 Je 7 '48

Bodies

Body building at Hudson; Monobilt bodies; illustrations with text. A. H. Allen. *Steel* 122:60-2 My 31 '48

Bodywork competitions; review of the exhibits submitted in the recent I.B.C.A.M. contest. *Il* diags Automobile Eng 38:264-72 J1 '48

Current developments in body engineering; abstracts of papers from the convention of American society of body engineers, inc. *Automotive Ind* 97:33-4+ D 1 '47

Current passenger car price, weight and body table. *Automotive Ind* 99:29 S 15 '48

Futuramic bodies require major change-over; Lansing Fisher body division plant. *Il* *Automotive Ind* 98:42-4 My 1 '48

Highlights of Monobilt body production. J. Geschelin. *Il* *Automotive Ind* 98:30-1+ F 15 '48

Lighter and stronger car bodies using aircraft designs practices. E. W. Conlon and G. W. Lothrop. *Il* diags *Automotive Ind* 98:46-8+ Ap 15 '48

Stress engineering as applied to automotive bodies; abstracts. P. O. Johnson and R. G. Heyl, jr. *Il* diags S A E J 56:46-8 J1 '48; *Automotive Ind* 98:39-40 My 1 '48

Welding body sections at Ford. D. Critser. *Il* *Iron Age* 162:88-94 S 9 '48

Bumpers

Materials and their requirements for automobile stampings, bumpers and pistons. N. G. Meagle. *Il* *Materials & Methods* 26: 75-7 N '47

Oldsmobile organizes bumper bracket setup. *Il* *Automotive Ind* 98:29 My 15 '48

Producing bumpers at Auto-Lite; illustrations with text. *Iron Age* 160:84-5 D 4 '47

Submarine quench technique; forming and hardening auto leaf springs; also used for bumper treatment. G. E. Stedman. *Il* *Steel* 122:92-4 Je 7 '48

Chassis

Austin A.40 chassis. *Il* diags *Automobile Eng* 38:123-33 Ap '48

Chassis height; recent patents relating to the lowering of floor and body levels. C. Ridley. diags *Automobile Eng* 38:357-60 S '48

Rover 60 and 75 chassis. *Il* diags *Automobile Eng* 38:243-54 J1 '48

Standard Vanguard. *Il* diags *Automobile Eng* 38:325-37 S '48

Cleaning

Novel car-washing and drying system. *Il* *Sheet Metal Worker* 39:43 O '48

Vacu-Mite car vacuum cleaner. *Consumers Res Bul* 22:24 J1 '48

Clutches

Fraser hydraulic clutch uses radial cylinders. W. F. Bradley. *Il* diags *Automotive Ind* 98:26-7+ F 15 '48

Magnetic fluid clutch of unique design. R. C. Mack. *Il* diags *Automotive Ind* 98:38-40+ Ap 15 '48

Two European transmissions with automatic clutches. W. F. Bradley. diags *Automotive Ind* 98:45+ My 1 '48

Cold weather operation

Road test data supports greater use of light ends in winter motor fuels. *Il* *Pet Processing* 3:33-4+ Ja '48

Sub-zero automotive crankcase oils. E. W. Upham and H. C. Mougey. *Il* S A E J 56: 43-6 F '48

Color

Models help motor makers select new car colors; Ditzler theater showing. D. G. Baird. *Il* *Sales Management* 60:86+ Je 1 '48

Control

New electric shifter; Columbia's latest control automatically shifts two-speed rear axle to low ratio when car is stopped. diags *Automotive Ind* 99:42 J1 15 '48

Cost of operation

Auto expenses run 5½ to 6 cents per mile on General Foods fleet; costs of traveling salesmen by car in 1948. *Sales Management* 61:132+ S 15 '48

How to compute salesmen's auto allowances in 42 areas. R. E. Runzheimer. map *Sales Management* 61:120-2+ N 1 '48

Design

British sport car of unusual design; Aston Martin. *Il* diag *Automotive Ind* 99:40+ J1 15 '48

Car design factors in highway safety. M. Halsey. S A E J 56:17-20 Je '48

Car styling founded on character. W. Hobson. *Il* S A E J 56:77-8 S '48

Design progress in American passenger cars; chronological tabulation. *Automotive Ind* 99: 31 Ag 1 '48

Export vehicle design. H. W. Fulton. *Automobile Eng* 38:273-6 J1 '48; Same abr. *Engineering* 165:595, 607 Je 18-25 '48

Foreign cars. W. Hobson. *Il* *Fortune* 37:92-9+ F '48

Important 1948 innovations in racing car design. J. Bond. *Il* *Automotive Ind* 98:36-8+ Je 1 '48

Javelin design features. *Il* *Automotive Ind* 98:43+ My 15 '48

Jowett Javelin. *Il* diags *Automobile Eng* 38: 365-74 O '48

Latest engineering features of the Tucker. *Il* *Automotive Ind* 99:50+ J1 15 '48

Light alloys need new design concepts. J. A. Gregoire. *Il* diags *Product Eng* 19:81-5 J1 '48

Lighter and stronger car bodies using aircraft designs practices. E. W. Conlon and G. W. Lothrop. *Il* diags *Automotive Ind* 98:46-8+ Ap 15 '48

Lincoln abandons integral-type body and frame construction. A. H. Allen. *Steel* 122: 57 Ap 5 '48

More functional styling in tomorrow's cars. B. Stevens. *Il* *Iron Age* 160:104+ N 13 '47

New Mercury. *Il* *Bsns W* p30 Ap 24 '48

Odd problems at high speeds. R. A. Railton. diags S A E J 55:61-3 N '47

Olds Futuramic is General Motors' first completely new postwar design. A. H. Allen. *Steel* 122:83 F 2 '48

Paris automobile show; review of exhibits. *Il* *Automobile Eng* 37:475-91 D '47

Passenger car design; a review. H. T. Youngren. *Il* S A E J 56:43-6 Ja '48

Problems facing designers of British racing car. *Automotive Ind* 99:40+ J1 1 '48

Road motor vehicles; private cars. M. Platt. diags *Inst Mech Eng J & Proc* 167 (War emergency issue no 30):255-9 '47

S.A.E. *Il* *Fortune* 38:78-83+ Ag '48

Styling for the future; General Motors practices. L. Westrate. *Il* *Automotive Ind* 97: 42-3+ D 15 '47

Le XXXIV^e salon de l'automobile (Paris, 23 octobre-6 novembre 1947). J. Angeli. *Il* diags *Génie Civil* 124:445-52, 465-71 D 1-15 '47

Twain-four powers Dommartin-Petit racer. W. F. Bradley. diags *Automotive Ind* 99:38-40 J1 1 '48

Door hinges

Rapid processing of automobile door hinges. J. A. Broden. *Il* *Iron Age* 161:86-90 Ap 29 '48

Electric equipment

Auto-Lite's flexible setup; making ignition coils, distributors, and condensers. J. Geschelin. *Il* *Automotive Ind* 99:26-8+ S 15 '48

Battery vent plug gives visual warning. *Il* *Mod Plastics* 25:98 Mr '48

AUTOMOBILES—Electric equipment—Cont.

Electric equipment of automobiles; review of progress. E. A. Watson. Inst E E J 95 pt 1:426-33 O '48

See also

Electric auto-lite company

Equipment

Dura power actuation; hydro-electric system for windows, seat adjustment, and coupé hoods. diags Automobile Eng 38:137-40 Ap '48

See also

Carburetors
Tires, Automobile

Exhibitions

Europe's largest automobile show; 18th International automobile show of Geneva. E. Gonda. il diag Automotive Ind 98:30-3+ Ap 15 '48

French look over the new cars; Paris exhibition. Steel 121:75 N 17 '47

French try comeback; new designs displayed at Paris show. W. F. Bradley. il diags Automotive Ind 97:26-30+ D 1 '47

Italy's 1948 international automobile salon. W. F. Bradley. il Automotive Ind 99:25-7+ O 15 '48

Paris automobile show; review of exhibits. il Automotive Eng 37:475-91 D '47

Prague's first postwar international automobile show. il Automotive Ind 97:24-5+ N 15 '47

Le XXXIV^e salon de l'automobile (Paris, 23 octobre-6 novembre 1947). J. Angell. il diags Génie Civil 124:445-52, 455-71 D 1-15 '47

Fenders

DC-6 fender; Douglas Aircraft stamps out car parts. Bsns W p28-4 Jl 31 '48

You can make rusted fenders good as new. F. C. Gelbig. il Welding J 27:725-6 S '48

Frames

New Maserati car has tubular frame. il diags Automotive Ind 99:41 Jl 15 '48

Planning for plant layout; manufacture of automobile frames. A. E. Rylander. il plans diags Tool Eng 20:41-6 Mr '48

Gearing

New Timken differential. il diags Automotive Eng 37:501-3 D '47

Steels classified for automotive gears. J. R. England and O. F. Hager. Automotive Ind 97:38+ N 1 '47

Heating and ventilation

Accessible all-weather automotive ventilating system; Ford fresh air heaters. il diags Product Eng 19:99 Ja '48

History

Automobile engineering; an experience of forty-three years. G. T. Smith-Clarke. diags Inst Mech Eng J & Proc (Auto div pt 1):1-8, pl 1-4 '47-48

Insurance

See Insurance, Automobile

Length of service

Cars in use by makes, states and by year of manufacture; tabulation. Automotive Ind 98:104-11 Mr 15 '48

Number of passenger cars in use as of July of each year, by age, 1938-1947; tabulation. Automotive Ind 98:120 Mr 15 '48

Lighting

Comparative survey of some possible systems of polarized headlights. B. H. Billings and E. H. Land. bibliog Opt Soc Am J 38:319-29 O '48

Headlighting with minimum glare. V. J. Roper. S A E J 56:60-3; Discussion. 68-4 S '48

Polarized headlights out. Bsns W p46+ N 22 '47

Lubrication

Modern trends in automotive lubricants; abstract. B. B. Farrington. S A E J 56:69+ Je '48

Normal driving termed hardest on lubes. J. M. Koch. Nat Pet N 40:30+ My 12 '48
Transmission gear lubricating system. il diag Product Eng 19:96 O '48

See also

Automobile engines—
Lubrication

Manufacture

Automotive production number. il diags Mach 55:151-212 N '48

Diecastings in the '48 Packard. H. Chase. il Iron Age 161:78-81 Je 3 '48

Economical short run stamping dies, made of low melting alloys chilled to -320°F in liquid nitrogen; Ford motor co. W. G. Patton. il Iron Age 161:84-6 F 19 '48

Explosive rivets; recent developments in American automobile construction. H. C. Hendrick. il Automotive Eng 38:141-2 Ap '48

Fabricating automobile molding clips; Buick motor plant. H. Chase. il plan diag Iron Age 161:74-7 F 19 '48

Higher output from new layout and better handling; Cadillac Motor polishing and plating department. C. A. Raftery. il plan Factory Management 106:84-7 O '48

Highlights of Monobilt body production. J. Geschelin. il Automotive Ind 98:30-1+ F 15 '48

How Packard whips tough forging jobs. G. F. Daschke and H. Lawson. il diags Am Mach 92:73-7 Jl 29 '48

Hudson final assembly layout quite different than others. J. Geschelin. il Automotive Ind 98:28-9+ Ap 1 '48

Instrumentation is key to greater economy in automobile production. R. B. Colten. il Automotive Ind 99:40+ S 1 '48

Latest developments in mass production techniques in the automotive industries; abstract. J. Geschelin. diag S A E J 56: 58-9 Mr '48

Material handling; conveyors. J. vonRosen. il S A E J 56:29-34 Mr '48

Multiple welding procedures; Briggs mfg. co. E. O. Courtemanche. il Steel 122:93-5 Je 14 '48; Abstract. S A E J 56:34-5 Je '48

New method of producing three-dimensional plaster models; applicable in automobile, aircraft, and shipbuilding; involves use of Contour Developer. J. S. Haldeman. il diags Mach 54:144-9 Mr '48

Press forging. il diags Automobile Eng 37: 433-7 D '47

Producing the new Studebaker. G. E. Westphal. il Mach 54:139-45 Ja '48

Production flow charts; automobiles. Factory Management 106:96a-96c Je '48

Shotpeening; charts; abstract. F. K. Lan-decker. S A E J 56:65 Ja '48

Survey of automatic arc and gas welding processes as used in the automotive industry; committee report. diags Welding J 27:27-35 Ja '48

Welding body sections at Ford. D. Criteser. il Iron Age 162:88-94 S 9 '48

See also

Automobile assembly plants
Automobile engines—
Automobile factories
Automobiles—Paint-
ing and finishing
Manufacture

Materials

Accent on costs at S.A.E. meeting. Bsns W p53-4 Ja 24 '48

Aluminum for body stampings, selection of alloys, drawing and joining; abstracts. J. H. Dunn and others. il Automotive Ind 98: 41, 78 My 1 '48; S A E J 56:27-9 Jl '48

Aluminum replaces steel in Ford parts. C. S. Ricker. il Am Mach 91:96 D 18 '47

Aluminum stretches steel supply for cars. J. R. Custer. Automotive Ind 98:29+ Ja 1 '48

Engineering with sponge rubber. C. S. Yoran. il diags Rubber Age 63:199-203 My '48

Light alloys need new design concepts. J. A. Gregoire. il diags Product Eng 19:81-5 Jl '48

Light metals in automotive construction; progress made by Kaiser-Frazer. C. P. Bedford. il Steel 122:102+ Mr 15 '48; Abstract. Iron Age 161:96+ F 26 '48

AUTOMOBILES—Materials—Continued

Materials and their requirements for automobile stampings, bumpers and pistons. N. G. Meagley. *Materials & Methods* 26:74-8 N '47

Materials used in the new Buick automatic transmission. H. Chase. *Iron Age* 161:74-7 Ja 15 '48

Steel and aluminum for automotive products compared. D. F. Toot. *Materials & Methods* 28:69-73 O '48; Same cond. S A E J 56:59-62 Ag '48

Where aluminum replaces steel in Ford and Mercury cars. *Automotive Ind* 98:42-3+ Ap 15 '48

Widespread use of nickel alloys in the automotive industries. *Automotive Ind* 98:282+ Mr 15 '48

See also

Steel, Automobile

Plastics

Acrylic plastics in automotive body design; Plexiglas developed to eliminate sunburn wave-lengths; abstract. W. F. Bartoe. *Automotive Ind* 97:39 D 1 '47

Automotive applications; use of plastics as functional parts. *Product Eng* 19:146-8 S '48

Non-metallic materials; manufacture and employment of Tufnol. *Automotive Eng* 38:171-6 My '48

Plastics in 1948 Packards. *Mod Plastics* 25:112-13 Ap '48

Plastics in the new automobiles. *Plastics* 8:16-18+ O '48

Plastics in this year's Hudson. D. Ward. *Plastics* 8:7-1+ Ag '48

Plastics pass rigid requirements of the automotive field; new Playboy car. *Plastics* 8:34-5 Jl '48

Models

Models demonstrate Hudson car features. *Mod Plastics* 26:94-7 N '48

Salesmen demonstrate car innards with models; Hudson motor car co. *Sales Management* 61:117 N 1 '48

New models

See Automobile industry and trade—New models

Painting and finishing

DAB and WYPE, two new automobile enamels. *Consumers Res* Bul 20:23 N '47

Improved automotive finishes as engineering materials. M. G. Bell and W. W. Bauer. S A E J 56:71-2 My '48

Radiant heat; Rapradia car, stoving system. *Automotive Eng* 38:14 Ja '48

Studebaker introduces convertibles with 1948 models; finishing operations. *Automotive Ind* 97:26-8+ N 15 '47

Synthetic painting; works of Austin motor co., Ltd. *Automotive Eng* 38:356 S '48

See also

Automobiles—Color

Patents

Chassis height; recent patents relating to the lowering of floor and body levels. C. Ridley. *diags Automobile Eng* 38:357-60 S '48

Current patents. Published in monthly numbers of *Automobile engineer*

See also Automobile industry and trade—Patent pooling

Prices

Auto prices; 1941 vs. 1948; tabulation. *Steel* 123:76 S 6 '48

Auto, truck prices go up. *Bsns W* p66+ Je 26 '48

Current passenger car price, weight and body table. *Automotive Ind* 99:29 S 15 '48

High prices threaten auto market. A. J. Morris. *Comm & Fin Chr* 168:1871+ N 4 '48

How automobile prices stack up. *Bsns W* p73 Ag 14 '48

Prices up again. *Bsns W* p42 My 8 '48

They call it optional. *Fortune* 36:138+ D '47

Wage boosts force car prices up. *Automotive Ind* 99:19 Jl 1 '48

What the industry thinks about f.o.b. mill steel; higher car and truck prices seen as result. L. Westrate. *Automotive Ind* 99:25+ Ag 1 '48

Radiators

See Automobile engines—Radiators

Radio equipment

Inexpensive and compact two-meter mobile transmitter. E. D. Gibbs. *diag Q S T* 32:37-9 Jl '48

Thirty watts mobile; remote-control ten-meter rig for the car. A. Kelley. *diags Q S T* 32:60-3 My '48

See also Radio receiving apparatus—Automobile receivers; Radio telephone on automobiles

Repair

See also

Auto damage appraisers

Cost

Used car; should it be traded in, or made to last a few years longer? *Consumers Res* Bul 21:7-8 F '48

Riding qualities

See also

Automobiles—Vibration

Seats

Foam rubber for auto seats; how it's done; illustrations with text. *Bsns W* p38-40 Ap 10 '48

Recent developments in seat construction; abstract. C. E. McCormick. *Automotive Ind* 97:39 D 1 '47

Small size

Do Americans want a small, light car? E. R. Grace. S A E J 56:47-8+ Mr '48; Abstract. *Automotive Ind* 98:276+ Mr 15 '48

Fiat's improved 500 gives 54 mpg in test. *Automotive Ind* 99:35+ S 1 '48

New contender in the small-car field; Super Chief. *Bsns W* p35 N 1 '47

Small car builder tries again; Towne Shopper. *Bsns W* p25 Ja 3 '48

Specifications

Foreign passenger cars; tabulation. *Automotive Ind* 98:178-9 Mr 15 '48

1948 passenger car specifications; tabulations. *Automotive Ind* 98:129-39 Mr 15 '48

1948-1949 German passenger cars; tabulation. *Automotive Ind* 99:60 S 1 '48

Specifications of basic Soviet motor vehicles; tabulation. *Automotive Ind* 98:37 F 15 '48

Speed

Odd problems at high speeds. R. A. Railton. *diags S A E J* 56:61-3 N '47

Radar speed meter to aid engineering design. *Roads & Sts* 90:106 O '47

Springs and suspension

Basic car springing problems; abstract. R. R. Peterson. S A E J 56:73-4 Mr '48

Broad-beam springs with fewer and wider leaves. M. Fahnestock. *diags Automotive Ind* 97:36+ N 15 '47

Practical approach to torsion bar spring design. F. Kurtis and A. Ward. *Automotive Ind* 99:28-9+ O 15 '48

Rubber springing; survey of the technical aspects in vehicle suspension. A. E. Moulton and O. H. Varga. *diags Automotive Eng* 38:143-8 Ap '48

Spring steels air-fabricated at West Coast automotive parts plant. *Steel* 123:110+ S 20 '48

Steering geometry characteristics and their influence on car handling. H. E. Churchill and P. G. Hykes. *diags S A E J* 56:28-31 O '48

Submarine quench technique; forming and hardening auto leaf springs; also used for bumper treatment. G. E. Stedman. *Steel* 122:92-4 Je 7 '48

Torsion bar springs. D. Bastow. *diags Product Eng* 19:111-16 S; 104-6 O '48

Torsion-bar springs; abstract. O. Föpl. *diag Engineer* 185:115 Ja 30 '48

Torsion bars; graphical elucidation of various problems. H. Elvidge. *Automotive Eng* 38:211-14 Je '48

AUTOMOBILES—Continued**Starting**

Preventing freeze-up of auto gasoline lines; Cristy Dry-Gas. Consumers Res Bul 23:22 N '48

Steering

Steering geometry characteristics and their influence on car handling. H. E. Churchill and P. G. Hykes. diags S A E J 56:23-31 O '48

Steering gear

Outstanding operations in producing Kaiser-Frazer steering assemblies. J. J. Shepp. il Mach 55:202-7 N '48

Testing

Machine facilitates checking of automobile front-end alignment. il diag Machine Design 20:130-1 O '48

Test methods and some instruments. E. B. Stead. il diags Engineering 165:333-5 Ap 2 '48

Theft

Automobile protective and information bureau reports thieves busy and well organized. Nat Underw 51:4 N 6 '47

Transmission

Automobile transmissions; recent developments and forecast of future trend. E. M'Ewen. bibliog diags Automobile Eng 38:72-8, 111-16 F-Mr '48

Bevel gears; the design of straight tooth types for automotive drives. F. Shaw. diags Automobile Eng 38:177-82, 217-21 My-Je '48

Buick car produce to offer torque-converter. W. G. Patton. Iron Age 161:78-4 Ja 22 '48

Buick Dynaflow drive. C. A. Chayne. il diag S A E J 56:23-9 Ap '48; Abstract. Automotive Ind 98:39 My 1 '48

Buick reveals design of new Dynaflow transmission. J. Geschelin. flow diag il diags Automobile Ind 98:28-31+ Ja 15 '48

Buick's Dynaflow drive built to aircraft tolerances. C. H. Wick. il Mach 54:135-42 Ap '48

Buick's new automatic drive; torque-converter. il Bsns W p21 Ja 17 '48

Buick's new Dynaflow transmission. il diags Product Eng 19:96-102 F '48

How Buick builds the Dynaflow. C. Ricker. il diags Am Mach 92:91-5 O 21 '48

Hydraulic drives. C. C. Lindblom. diags S A E J 56:53-7 O '48

Insides of the new Truckstell overdrive. diags Automotive Ind 99:50+ O 15 '48

Making the Dynaflow, an exacting precision job. J. Geschelin. il Automotive Ind 98:26-8+ My 15 '48

Materials used in the new Buick automatic transmission. H. Chase. il diag Iron Age 161:74-7 Ja 15 '48

Plaster molds for casting intricate aluminum torque converter parts; Buick's new Dynaflow drive. H. Chase. il diags Iron Age 161:60-8 F 12 '48

Practical hydraulic coupling design modifications; abstract. W. F. Shurts. il Automotive Ind 97:37+ D 1 '47

Preselctive overdrive control combined with shifting lever. R. C. Mack. il diags Automotive Ind 98:38-9+ Ja 15 '48

Special induction heating setup tempers spline bores of gears. P. A. Hassell. il diag Automotive Ind 98:44+ F 15 '48

Torque-converter drive for Buick automobiles. diag Mach 54:176-7 F '48

Torque converter drive for new Buicks. il diags Machine Design 20:122-4+ Mr '48

Transfer machine works in duplicate; transmission gear-shift housings. il diags Am Mach 92:122-4 Ag 12 '48

Transmissions that shift for themselves. L. H. Nagler. il diags S A E J 56:36-9 Mr '48

Two European transmissions with automatic clutches. W. F. Bradley. diags Automotive Ind 98:45+ My 1 '48

Transportation

Auto carrier. Commercial Clipper. il Marine Eng 52:93+ N '47

Balance ramp for big boxcar loads; illustrations with text. Bsns W p46 D 6 '47

Vibration

Methods of measuring torsional vibration; abstract. L. F. Hope. diags S A E J 56:20-1 Mr '48

Vehicle vibration limits to fit the passenger. R. N. Janeway. S A E J 56:48-9 Ag '48; Excerpts. Automotive Ind 98:29 Ap 15 '48

Walls of Jericho; reduced vibration cuts car cost. L. E. Muller. il diags S A E J 56:40-2 O '48

Weight

Current passenger car price, weight and body table. Automotive Ind 99:29 S 15 '48

Wheels

Mechanized handling eases wheel manufacture; Norris stamping and manufacturing co. H. S. Wharen. il diags Am Mach 92:84-8 F 26 '48

Mechanized wheel line; Norris stamping and manufacturing co.; illustrations with text. Steel 123:66-8 Jl 26 '48

Window regulators

Automatic broaching speeds output of auto window pinions. H. Chase. il diags Steel 122:89 Ap 12 '48

Windows

Acrylic car window. il Mod Plastics 26:254 S '48

Cementless glass fixing; keyed-in sections of rubber sealing strips. diag Automobile Eng 38:105 Mr '48

Windshields

Automotive glazing with plastics. Glass Ind 29:573-4 O '48

New type glass de-ices windshields. il Safety Eng 95:32 Je '48

Windshields with new curved glass introduce many problems for car producers. W. G. Patton. Iron Age 160:84 D 18 '47

Wrecking

Auto parts fight; car-wrecking industry wants to keep \$100-million business. Bsns W p56 D 27 '47

AUTOMOBILES, Electric. See Electric vehicles

AUTOMOBILES, Employees'

Insure the cars he doesn't own. G. A. Strader. Rough Notes 91:19-20+ S '48

AUTOMOBILES, Salesmen's

Auto expenses run 5½ to 6 cents per mile on General Foods fleet; costs of traveling salesmen by car in 1948. Sales Management 61:132+ S 15 '48

Four companies' fleet operating costs. Management R 37:365-7 Jl '48

How to compute salesmen's auto allowances in 42 areas. R. E. Runzheimer. map Sales Management 61:120-2+ N 1 '48

Trailers may double soon as showrooms. Bsns W p28 N 22 '47

Two ways to compute fair auto allowance. Sales Management 61:106 O 1 '48

AUTOMOBILES, Toy

Little cars, big business; National products co., Chicago makes replicas of real-life cars; illustrations with text. Bsns W p58+ S 18 '48

AUTOMOBILES, Used

Used car; should it be traded in, or made to last a few years longer? Consumers Res Bul 21:7-8 F '48

AUTOMOTIVE Diesel engines. See Diesel engines, Automotive

AUTOMOTIVE engine rebuilders association.

Auto-engine battle; Rebuilders starts campaign. Bsns W p60 O 16 '48

AUTOMOTIVE engines. See Automotive engines; Diesel engines, Automotive; Gas turbines, Automotive

AUTOMOTIVE fuel

Catalytic treatment of synthetic gasoline. C. J. Helmers and others. bibliog Oil & Gas J 47:86+ O 23 '48

China's motor fuels from tung oil. C. Chang and S. Wan. bibliog flow sheets diag Ind & Eng Chem 39:1543-8 D '47

Developments in fuels, lubricants, and lubrication. R. J. S. Pigott. S A E J 56:17-21 Ag '48

Factors in the future of the LP-gas industry. W. R. Lowe. bibliog il Pet Refiner 26:125-9 N '47

AUTOMOTIVE fuel—Continued

S.A.E. National fuels and lubricants meeting, Tulsa, Nov. 6-7. S A E J 55:29-33 D '47

See also

Airplane engines—
Fuel Automobile engines
 —Fuel
 Gasoline

Testing

Aid to reliable fuel rating emerges from CRC test work, D. B. Brooks and R. B. Cleaton. S A E J 56:53-4 Je '48
Effects of substitute fuels on automotive engines. C. S. Bruce and others, bibliog il diags J Res Nat Bur Stand 41:135-49 Ag '48
Monsanto opens new laboratory for testing fuels, lubricants. il Pet Processing 3:752-3 Ag '48

AUTOMOTIVE industries**See also**

Airplane industry and trade Motor bus industry and trade
Automobile accessories industry Motor truck industry and trade
Automobile assembly plants Tractor industry and trade
Automobile industry and trade

Statistics

Automotive industries annual statistical issue. Automotive Ind 98:81-128+ Mr 15 '48

AUTORADIOGRAPHY. See Radiography**AUXINS**

Effect of organic manures on the auxin content of soils and the auxin balance in soils. J. H. Hamence. Soc Chem Ind J 67:277-81 JI '48

Indole-3-acetic acid and flowering. M. Green and H. J. Fuller. Science 108:415-16 O 15 '48

AVERY, Sewell Lee, 1877-

Avery holds the fort. Bsns W p24 Je 26 '48
Avery still boss. Bsns W p98 Je 19 '48
Avery yields. Bsns W p92 My 29 '48

AVIATION**See also**

Aeronautics Meteorology, Aeronautic
Aeronautics, Commercial Radar aids to aviation
Air navigation Radio aids to aviation
Airlines Radio apparatus on aircraft
Airplanes Television aids to aviation
Airports Wind tunnels
Airways
Aviators
Flying boats
Glanders
Insurance, Aviation

Accidents

Air safety need shown in analysis. Aviation W 48:74 F 23 '48

Aircraft accidents; can chances of survival be increased? R. E. Hardingham. Roy Aeronautical Soc J 52:477-80 JI '48; Discussion, 52:566-73 S '48

Airport operational safety; better design needed to reduce the seriousness of accidents. E. P. Hall. il Pub Works 79:26-7+ Ap '48

California accident stirs new probes. Aviation W 48:43 F 9 '48

Careless pilots pay; report on crash of Bonanza, NC-3010V, Jan. 25. R. H. Wood. Aviation W 48:54 Mr 22 '48

Chief aviation accident causes. G. W. Orr. Weekly Underw 159:614 S 18 '48

Crash injury research on safety belts. Mech Eng 70:439-40 My '48

Crash survival chances measured. Aviation W 49:15 Ag 30 '48

Fuel pump defect blamed in crash. Aviation W 49:38 Ag 23 '48

Georgia crash jars nonscheds. Aviation W 48:40 Ja 19 '48

How to reduce insurance costs; causes of accidents; abstracts. J. Lederer. Aviation W 48:34 Je 21 '48; Aeronautical Eng R 7:26-8 Ag '48

New pilots, over-confident, have high fatality rate. J. E. Hoskins. East Underw 49:18 Je 25 '48

Operational safety increase seen as major aviation need. J. Lederer. Aviation W 48:17-18+ F 16 '48

Personal plane accidents analyzed. Aviation W 48:36 My 24 '48

Pilot fatigue seen as cause of crash of the Burke air transport DC-3. Aviation W 47:36 D 29 '47

Plans set for crash study school. Aviation W 49:16 N 1 '48

Reckless flying runs up death toll in 1946. Aviation W 48:33-4 Ap 5 '48

Roadable plane crashes in test, il Aviation W 47:13 N 24 '47

Shannon crash. Aviation W 48:44 My 24 '48

Six crash probe reports issued. Aviation W 49:48+ JI 12 '48

Skystreak crash. Aviation W 48:12 My 10 '48

Weather factor in Snell Bonanza crash. Aviation W 47:33 D 22 '47

See also

Airlines—Accidents

Altitude flying

Cockpit-design problems of high-altitude high-speed aircraft. J. E. Sullivan. Mech Eng 70:883-7 N '48

Heat transfer to bodies traveling at high speed in the upper atmosphere. J. R. Stalder and D. Jukoff, bibliog diag J Aeronautical Sci 15:381-91 JI '48; Abstract. Mech Eng 70:344 Ap '48

High-altitude test chamber for aircraft. il Engineering 164:512-13, 516 N 28 '47

High spots in high flight; speakers at Boeing's three-day symposium discuss flight at altitudes. Aero Digest 55:52-4 N '47

Institute of the aeronautical sciences 16th annual meeting, New York; abstracts of papers. Aeronautical Eng R 7:21-2 Ap '48
International altitude record. il Engineer 185:337 Ap 2 '48

Performance of electrical and radio equipment at 40,000 ft. K. Martinez. S A E J 56:24-6 JI '48

Pressure-chamber experiments. Mech Eng 70:26-7 Ja '48

Medical aspects

Aviation medicine. B. Groesbeck. Air Affairs 2, no 1:68-78 [S] '47

Man girds for supersonic role; research to insure efficiency and survival in realm of high speeds. il Aviation W 49:21-4 S 27 '48
Place of the aviation physiologist in the aeronautical sciences. M. C. Shelesnyak. Aeronautical Eng R 7:18-19 Ja '48

X-raying flier reactions in crash landing. Electronics 21:158+ JI '48

Bibliography

Studies in aviation medicine. (In Mayo aero medical unit, v6) Mayo clinic and Mayo foundation for medical education and research, Univ. of Minnesota, Rochester

Night flying

Helicopters by night; special advantages of flying after dark. A. Klemin. il Aero Digest 55:51+ D '47

Safety measures

Behncke offers safety formula; tells Policy commission of need for Bureau of standards. Aviation W 47:60 D 15 '47

CAB, Commerce, argue air safety. Aviation W 48:12 My 10 '48

Cockpit confusion, a challenge; coordinated control groupings vital factor in goal to eliminate crashes. G. W. Hoover. il diags Aviation W 48:18+ Mr 29 '48

Compressed air operates exits. Aviation W 49:50 Ag 16 '48

Dangers taken out of ditching; NACA's hydroflaps and hydrofoils reduce noseover tendencies and protect fuselage bottoms in water setdowns of landplanes. R. McLaren. bibliog diags Aviation W 48:19-20 Ap 12 '48

Engineering for safety; Republic aviation corp. W. I. Stieglitz. Aeronautical Eng R 7:13-23 F '48

Flight record aids safety, efficiency; GE device. C. L. Beattie and P. J. Klass. il diags Aviation W 48:21+ Ja 12 '48

AVIATION—Safety measures—Continued

How low must a smoke stack be so as not to interfere with planes? *Il Elec World News* ed 129:5-6 My 15 '48

Improved protective design offers light-plane safety hope. *Aviation W* 47:14 N 10 '47

Landing through overcast. W. T. Harding. *Il Elec Eng* 66:1176-7 D '47

Loss prevention programs in civil aviation. J. Lederer. *Il Aeronautical Eng R* 7:25-32 JI '48

New instruments aid landing field safety. *Il diag Product Eng* 18:143-5 D '47

Nonsked committee asks end of spin test; other recommendations. *Aviation W* 49:31-2 JI 5 '48

Prevention of idling failures. *Aero Digest* 55:71 D '47

Prop reversing; aid to safety? *Aviation W* 49:12-13 Ag 16 '48

Proximity devices returned to lab; terrain clearance indicators show lack of reliability. *Aviation W* 48:45-6 My 10 '48

Reverse pitch props offer safety. A. E. Smyser, Jr. *Aviation W* 47:33-4 D 15 '47

Safety and aircraft electric equipment. T. B. Holliday. *Elec Eng* 67:901-4 S '48

Safety foundation lists projects. *Aviation W* 49:14 JI 12 '48

Safety, hot potato! J. Lederer. *Aero Digest* 57:28-9+ N '48

Senate aviation subcommittee given safety recommendations. *Aviation W* 48:37 Mr 29 '48

Stall-warning indicators refined. A. E. Smyser, Jr. *Il diags Aviation W* 48:21+ F 9 '48

Standards in international flying. E. P. Warner. *Ind Stand* 18:272-5 N '47

States likely to police air safety. A. McCsurely. *Aviation W* 48:29-30 My 31 '48

Static elimination; engineers propose use of polonium, which emits alpha rays. *Aviation W* 48:26-7 My 3 '48

Steps to aircraft accident prevention. S. Jailer. *Il Aero Digest* 56:48-9+ Ap '48

Three rules to guide test pilots in flying at near-sonic speeds. L. A. Clousing. *Aviation W* 48:20-2+ My 10 '48

Unified design for performance and safety characteristics. F. W. Ross. *Il diags Aeronautical Eng R* 7:22-9+ My '48

What of air safety? dangers from electrostatic discharge can be eliminated by utilization of ionizers. R. Beach. *Il Elec Eng* 67:423-9 My '48; Discussion, 67:928-30 S '48

Transatlantic flights

F-80's across; first west-east crossing of the Atlantic by jet aircraft. J. Powell. *Il map Aero Digest* 57:34-5+ S '48

U.S. carriers retain bulk of trans-Atlantic traffic. *Aviation W* 47:63 N 10 '47

Transoceanic flights

Automatic controls for pilotless ocean flight. *Il diags Electronics* 20:88-92 D '47

World flights

Personal plane progress noted in round the world flight. A. McCsurely. *Aviation W* 47:29+ D 29 '47

AVIATION and shipping company, limited

Statement by the chairman. N. Purvis. *Economist* 155:605 O 9 '48

AVIATION distributors and manufacturers association

Annual meeting, Dallas. *Aviation W* 47:31 D 22 '47

AVIATION insurance. See Insurance, Aviation**AVIATION landing stations**

Airpark; novel West Coast model; Aerotel, Del Mar airport, near San Diego. *Il Aviation W* 48:33 Ap 5 '48

Resort for flying sportsmen; Otis lodge near Grand Rapids, Minn. *Il Aviation W* 49:35-6 O 11 '48

AVIATION psychology, Committee on. See National research council—Committee on aviation psychology**AVIATION writers association**

Arthur Riley elected president; other officers. *Aviation W* 48:11 My 24 '48

AVIATORS

Airlines' pilot selection methods hit in CAA-sponsored survey. *Aviation W* 47:43 D 1 '47
CAA tabulation shows pilot total of 433,241 in U.S. on April 1; tabulation. *CAA J* 9:77 JI 15 '48

Pilot certificates issued during 1947 increased 15 per cent over previous year. *CAA J* 9:27 Mr 15 '48

Pity the private pilot; difficulties of navigation. H. G. Moe. *Il diags Aero Digest* 56:60+ F '48

Supersonic-aircraft pilots; will they be able to operate efficiently or even survive; abstract. G. May; R. Brush; R. Thaw. *Mech Eng* 70:324-5 O '48

See also

Aviation—Medical aspects

Civil air patrol

Clothing

New anti-G coverall gives more protection. *Aviation W* 49:34 N 8 '48

Over-water garment has built-in safety. *Aviation W* 49:29 O 11 '48

See also

Helmets, Aviators'

Salaries

Pan American agrees to raise pilot wages. *Aviation W* 47:38 D 22 '47

Testing

Make stall warning devices compulsory, researchers advise; tests of pilots by committee of aviation psychology of the National research council. *CAA J* 9:12 Ja 15 '48

Spin tests may be on way out. *Aviation W* 49:39-40 N 8 '48

Stall approach flight tests show need for indicator installation. P. J. Rulon. *Aviation W* 48:31-2 Ja 19 '48

Use of mark sensing in a large scale testing program; psychological program of army air forces. W. L. Deemer, Jr. *Am Stat Assn J* 43:40-52 Mr '48

Training

Advisory committee urges changes in private pilot training methods. *CAA J* 8:123 N 15 '47

Air schools grounded by VA curbs on courses. H. Davenport. *Barron's* 28:3 S 6 '48

Charges against GI training are challenged; abstract. J. W. Batchelor. *Aviation W* 48:50 Mr 8 '48

Cross-country college course; new methods in teaching flying at Stephens college. A. McCsurely. *Aviation W* 48:34+ My 17 '48

Curtiss-Wright unveils flight simulator; training and research device. S. L. Colbert. *Il Aviation W* 48:16 My 24 '48

Expected World War II pilot surplus used up, Balfour says; rebuttal to Budget bureau's attack on GI aviation training. A. McCsurely. *Aviation W* 48:29-30 Mr 29 '48

Fixed base operators dispute training claims of Budget bureau. *Aviation W* 48:39-40 Mr 15 '48

Industry challenges VA threat to GI flight training future. A. McCsurely. *Aviation W* 48:27-8 F 16 '48

Keep GI aviation training. Congress says. *Aviation W* 48:11 Je 23 '48

Pay as you learn to fly; loans made by Babylon national bank & trust co.; illustrations with text. *Banking* 40:25 Ja '48

Stress on stalls in pilot training urged by group. *CAA J* 9:73+ JI 15 '48

Veterans' administration to back slash in college flight training. A. McCsurely. *Aviation W* 47:51-2 N 17 '47

Veterans flight program cost totals \$257,000, 000 for year. A. McCsurely. *Aviation W* 48:13-14 Mr 1 '48

AVIATORS, Military**Training**

Air training command. J. T. Fitzwater. *Il Aero Digest* 57:64-5+ S '48

Mockups of B-50 built to train crews. *Il Aviation W* 48:17 My 17 '48

Shooting Stars in the sun valley; Williams field, Chandler, Arizona, single-engine fighter-pilot training school. *Il Aero Digest* 56:39 Ap '48

AVIATORS' helmets. See Helmets, Aviators'

AVOCADOS

Cuban shipments in 1947. For Comm W 29: 23 N 8 '47; 30:19-20 Ja 3 '48

AVOGADRO'S number

Our knowledge of the atomic constants F , N , m , and h , in 1947, and of other constants derivable therefrom. J. W. M. DuMond and E. R. Cohen. bibliog diags Rs Mod Phys 20: 82-108 Ja '48

AXELROD, Joseph H.

Axelrod buys another mill. por Bsns W p36+ F 7 '48

AXLES

Influence of radial pressure from a press fit on the endurance limit of axles and crank pins. G. W. C. Hirst. bibliog il diag Engineer 184:598-9 D 26 '47

See also

Automobiles—Axles Motor buses—Axles
Car axles Motor trucks—Axles
Locomotives—Axles

Manufacture

Automatic machines speed truck-axle production; use of Cross Transfer-matic. C. S. Rieker. il diag Am Mach 92:94-6 Ja 15 '48
Ford's new methods of forming and machining axle housings. C. H. Wick. il diags Mach 55:152-61 N '48
Welding banjo type axles at Ford. W. Kroy. il Iron Age 162:96-101 S 23 '48

Testing

Eliminating axle breakage; Erie now using Sperry reflectoscopes. E. D. Hall. il Ry Mech Eng 121:710-13 D '47

AZAINDOLE

Synthesis of derivatives of 4- and 5-azaindole. G. R. Clemo and G. A. Swan. Chem Soc J p 198-200 F '48

AZAMALONIC esters

Derivatives of urethan; azamalononic esters. L. G. R. Tompkins and E. F. Degering. bibliog Am Chem Soc J 69:2616-18 N '47

AZEOTROPES

Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Light, Jr. and C. G. Denzler. bibliog diag Chem Eng Prog 44:627-38 Ag '48

Composition and boiling points of binary azeotropes. H. P. Meissner and S. H. Greenfield. bibliog Ind & Eng Chem 40:438-42 Mr '48

Physical properties of benzene-methanol mixtures. G. C. Williams, S. Rosenberg and H. A. Rothenberg. bibliog Ind & Eng Chem 40:1273-6 JI '48

Some azeotropes of alkylacetylenes and ethyl alcohol. G. F. Hennion and J. J. Groebner. Am Chem Soc J 70:426-7 Ja '48

AZEOTROPY

Correlation of azeotropic data. H. Skolnik. bibliog Ind & Eng Chem 40:442-50 Mr '48

AZIMUTH

Charts to obtain solar altitudes and azimuths. I. F. Hand. Heat & Ven 45:86-8 O '48

Determination of position and azimuth by simple and accurate methods. T. F. Hickerson. diags Am Soc C E Proc 73:1379-90 N '47; Discussion. 74:926-30 Je '48

See also

Cosmic rays—Azimuthal effect

AZINES

Absorption spectra; the infrared spectra of certain compounds containing conjugated double bonds. E. R. Blout, M. Fields and R. Karpilus. bibliog Am Chem Soc J 70: 194-8 Ja '48

Absorption spectra; the ultraviolet and visible spectra of certain polyene aldehydes and polyene azines. E. R. Blout and M. Fields. bibliog Am Chem Soc J 70:189-93 Ja '48

AZLACTONES

Reaction of azlactones with secondary amines. D. K. Barnes, E. Campaigne and R. L. Shriner. bibliog Am Chem Soc J 70: 1769-72 My '48

AZOBENZENE

Catalytic oxidation of aniline in the vapor phase. O. W. Brown and W. C. Frishe. diags J Phys & Colloid Chem 51:1394-400 N '47

Colour and constitution; Ufimtzev's coloured compounds; steric hindrance of resonance; *cis*-azobenzene; substitutivity of 4:4'diamino-o, m, and p-terphenyls. H. H. Hodgson. bibliog Soc Dyers & Col J 64:184-6 My '48
Crystallographic data: *trans*-azobenzene. il diag Anal Chem 20:385-6 Ap '48

Evidence for the existence of *cis*-azobenzene and *cis*-aryldiazocyanides. K. E. Calderbank and others. bibliog Chem & Ind p 158 Mr 6 '48

Stabilization of chlorinated diphenyl in paper capacitors. L. J. Berberich and R. Friedman. bibliog il diag Ind & Eng Chem 40: 117-23 Ja '48

AZO compounds

Decomposition reactions of the aromatic diazo-compounds in aqueous solution explained on simple electronic theory, and without recourse to the current free-radical hypothesis. H. H. Hodgson. Chem Soc J p348-54 Mr '48

Dyeing azo dyestuffs with chromium complex; chromic salts added; patent. Am Dyestuff Rep 37:396 Je 14 '48

New synthesis of cinnoline derivatives; heterocyclic steroid analogs. E. C. Kornfeld. bibliog Am Chem Soc J 70:1373-6 Ap '48

Preparation of some azo boronic acids. H. R. Snyder and C. Weaver. bibliog Am Chem Soc J 70:232-4 Ja '48

Reactions of antiserum homologous to the p-azosuccinylate ion group. D. Pressman, J. H. Bryden and L. Pauling. bibliog Am Chem Soc J 70:1352-8 Ap '48

Synthesis of azo boronic acids; dyes from tetrazotized benzidine-2,2'-diboronic acid. H. R. Snyder and S. L. Meisel. Am Chem Soc J 70:774-6 F '48

AZOLE. See Pyrrole

AZOMETHINE compounds

Resonance and hydrogen bond effects on the basic strengths of certain arylalkyl azomethines. C. D. Wagner and E. D. Peters. Am Chem Soc J 69:2514-15 N '47

AZONAPHTHALENE

Naphthidine transformation involving β -positions only. H. H. Hodgson, J. Habeshaw and P. B. R. Murti. Chem Soc J p 1390-2 O '47

AZOPHENYLARSONIC acid

Purification and properties of antibody against p-azophenylarsonic acid and molecular weight studies from light scattering data. D. H. Campbell, R. H. Blaker and A. B. Pardee. bibliog Am Chem Soc J 70:2496-9 JI '48

AZOTOBACTER

Effect of various gases on nitrogen fixation by azotobacter. D. M. Molnar, R. H. Burris and P. W. Wilson. bibliog Am Chem Soc J 70:1713-16 My '48

AZULENE

Azules; exploration of new synthetic routes. J. W. Cook, R. Philip and A. R. Somerville. Chem Soc J p 164-9 F '48

B

BCG (Calmette-Guérin) vaccine. See Vaccines

BABASSU oil

Coconut oil market. J. R. Skeen. Soap & San Chem 24:41+ Ja '48

BABBITT metal

Bearing metals; white metal alloys. H. R. Clauser. il Materials & Methods 28:80-1 Ag '48

BABBITTING

New developments in babbitting methods. J. T. Clenny. il Iron Age 160:62-8 D 25 '47

BABCOCK and Wilcox company

Dividends rise as earnings mount. Barron's 28:34 Ja 5 '48

BABY products. See Infants' supplies

BABYLONIA

See also

Hammurabi, Code of

BACH, Frederick L.

Art of copper wheel glass engraving flourishes in Washington. H. Helfer, por Cer Ind 49:85 O '47

BACILLUS coli

Growth of coliform bacteria in media containing nitrate and nitrite. P. R. Lewis and C. N. Hinshelwood. *Chem Soc J* p824-47 Je '48

Relative productivity of newer coliform media. E. Wattie. *Pub Health Rep* 63:269-74 F 27 '48

Variants of *Escherichia coli*, *Pseudomonas aeruginosa*, and *Bacillus subtilis* requiring streptomycin. T. Kushnick and others. *Science* 106:587-8 D 12 '47

BACILLUS subtilis

Variants of *Escherichia coli*, *Pseudomonas aeruginosa*, and *Bacillus subtilis* requiring streptomycin. T. Kushnick and others. *Science* 106:587-8 D 12 '47

BACITRACIN

Assay of bacitracin in body fluids. G. C. Bond and M. A. Nook. *Science* 107:228-9 F 27 '48

Sensitive cylinder-plate assay for bacitracin. D. A. Hoff and others. *Science* 106:551-2 D 5 '47

BACK

Oh, my aching back! need for analysis of employee's medical records for careful placement in accordance with his limitations; prevention of back injuries. L. M. McKay. *II Safety Eng* 95:57+ Ap '48

Worker's back. J. K. Stack. *II Nat Safety N* 58:30-1+ J1 '48

BACKACHE

Treatment of industrial backaches by progressive fascial ligamentous loosening. E. Loopesko. *bibliog Ind Med* 17:329-32 S '48

BACKBONE. See Spine**BACON**

Bacon in vacuum; Armour's new package. *II Bsns W* p56 N 8 '47

Fried bacon rind strips win acceptance in South. *II Food Ind* 20:546-7 Ap '48

How Canada attacks some of her food preservation problems. J. A. Pearce. *Chem & Ind* p67-70 Ja 31 '48

Pitch-dipped meats; Swift Sealite package preserves hams and bacon slabs. *II Mod Packaging* 21:128-30 My '48

Saltness of bacon; abstract. *Food Ind* 20:1087 J1 '48

Well kept bacon; Hormel Institute canning. *Well kept*. *Bsns W* p61 J1 10 '48

BACTERIA

API research project 43a; the rôle of microorganisms in the transformation of organic matter into petroleum. *Am Pet Inst Proc* 27(4):133-6 '47

Bacterial degradation of sodium carboxymethylcellulose and methyl ethyl cellulose. G. G. Freeman and others. *bibliog Chem & Ind* p279-82 My 1 '48

Bactericidal radiation. A. W. Ewell. *bibliog II Refrig Eng* 55:466-8 My '48

Chemical significance of the Gram test for bacteria. A. S. W. Haslett. *J Chem Educ* 25:322 Je '48

In vitro resistance of the genus *Bacteroides* to streptomycin. G. E. Foley. *bibliog Science* 106:423-4 O 31 '47

Microbial utilization of carcinogenic hydrocarbons. F. D. Sisler and C. E. ZoBell. *Science* 106:521-2 N 28 '47

Some derivatives of D-galacturonic acid. J. K. N. Jones and M. Stacey. *Chem Soc J* p 1340-1 O '47

Use of glycine in the disruption of bacterial cells. E. S. Maculla and P. B. Cowles. *Science* 107:376-7 Ap 9 '48

See also

Air—Bacteriology	Iron bacteria
Bacteriology	Viruses
Bacteriostasis	Water—Bacteriology
Fermentation	

BACTERIA, Nitrifying

Nature is free; U.S. Supreme court denies patent protection to discovery of mixture of nitrogen-fixing bacteria for inoculation of leguminous plants. *Chem Ind* 62:737 My '48

See also

Azotobacter

BACTERIA, Pathogenic

Streptomycin-sensitive, -dependent and -resistant bacteria. T. F. Paine and M. Finland. *bibliog Science* 107:143-4 F 6 '48

See also

Meningococci
Salmonella
Streptococci

BACTERICIDES. See Disinfection and disinfectants

BACTERIMETRY (term)

Microbiological assay or bacterimetry? G. Toennies. *Science* 107:598 Je 4 '48

BACTERIOLOGICAL apparatus

Method for obtaining massive growth of bacteria in fluid media. J. H. Brown and R. M. Wood. *diags Science* 107:402 Ap 16 '48

Method for the aeration of liquid cultures of microorganisms. G. B. Achorn, jr. and J. L. Schwab. *diags Science* 107:377-8 Ap 9 '48

BACTERIOLOGY

See also

Air—Bacteriology	Fermentation
Antigens and antibodies	Food—Bacteriology
Antiseptics	Milk—Bacteriology
Bacteria	Viruses
Disinfection and disinfectants	Water—Bacteriology

Culture mediums

Absorption of bacteriostatic quantities of fatty acid from media by large inocula of tubercle bacilli. B. D. Davis. *bibliog Pub Health Rep* 63:455-9 Ap 2 '48

Growth of coliform bacteria in media containing nitrate and nitrite. P. R. Lewis and C. N. Hinshelwood. *Chem Soc J* p824-47 Je '48

Reduced tellurite medium for isolating and typing *C. diphtheriae*. T. W. Galbraith and others. *bibliog Pub Health Rep* 63:1203-5 S 10 '48

Relationship between cystine and pyridoxal or pyridoxamine in the nutrition of certain bacteria. M. L. Speck and D. A. Pitt. *bibliog Science* 106:420 O 31 '47

Relative productivity of newer coliform media. E. Wattie. *Pub Health Rep* 63:269-74 F 27 '48

Laboratory methods

Simple technic for passage of certain viruses. F. M. Schabel, Jr. and F. B. Gordon. *Science* 106:549 D 5 '47

Technique

Effect of chemical agents on iron bacteria. K. Duchon and L. B. Miller. *bibliog II Paper Tr J* 126:47-58 Ja 22 '48

Terminology

See also

Serology (term)

BACTERIOPHAGE

Origin of virus phosphorus. F. W. Putnam and L. M. Kozloff. *bibliog Science* 108:386-7 O 8 '48

Unseeing eyes; bacteriophage studied under microscope. *Tech R* 50:309-10 Ap '48

BACTERIOSTASIS

Antibacterial principle of arctium minus; unsaturated lactone structure. C. J. Cavalitto and F. K. Kirchner. *bibliog Am Chem Soc J* 69:3030-2 D '47

Bacteriostasis application to toiletries investigated. A. R. Cade. *Oil Paint & Drug Rep* 153:40+ My 24 '48

Bacteriostasis in the amino-acid series; derivatives of alanine. D. F. Elliott, A. T. Fuller and C. R. Harington. *Chem Soc J* p85-9 Ja '48

Bacteriostatic effect of methylene blue on the b.o.d. test. W. E. Abbott. *Water & Sewage Works* 95:424-5 N '48

Imidazolium and imidazolinium salts as topical antiseptics. E. R. Shepard and H. A. Shonle. *bibliog Am Chem Soc J* 69:2269-70 O '47

Preparation and bacteriostatic action of some aminochalkones and related compounds. D. H. Marrian, P. B. Russell and A. R. Todd. *Chem Soc J* p 1419-20 O '47

Synthesis of the 2- α -aminoalkyl and 2- α -sulphanilamidoalkyl derivatives of thiazole and pyrimidine. A. A. Goldberg and W. Kelly. *Chem Soc J* p 1372-7 O '47

BAD debts. See Collecting of accounts; Income tax—Deductions

BAG filling

Dustless packhouse; Lone Star cement corp. W. B. Lenhart. *II plan diags Rock Prod* 51:82-7 S '48

BAG filling—Continued

Ventilation for control of dust from bagging operations. G. M. Hama. *il* Heat & Ven 45:91 Ap '48

BAG filling machines

Produce bagger. *il* Mod Packaging 21:155 Ap '48

BAG making machines

Polyethylene bag maker. *il* Mod Packaging 21:156 Ap '48

BAG sewing machines

Overhead bag-sewing machines cut cost; shipping operations of United States sugar corp. Clewiston, Fla. *diag* Food Ind 20:348 Je '48

Sewing machine clinic in a bag plant. *il* Mod Packaging 21:111 Je '48

BAGASSE

Aerobacter cloacae endotoxin as a possible factor in the etiology of bagassosis. R. Schneider and others. *bibliog* *il* J Ind Hygiene 30:238-45 Jl '48

Bagasse production grows at Flintkote Hilo plant. *Chem Eng* 55:184+ Jl '48

Utilizing bagasse as fuel. F. X. Gilg. *diags* A S M E Trans 70:719-23; Discussion. 723-7 Ag '48

BAGG, Rufus Mather, 1869-1946

Memorial. E. F. Bean. *bibliog* *por*(pl 3) *Geol Soc Proc* 1947:105-7 My '48

BAGGAGE and express cars

Burlington converts government kitchen cars. *il* Ry Mech Eng 121:695 D '47

Hearing on head-end car safety and sanitation bill covering baggage, express or mail cars. *Ry Age* 124:640-1, 828-9 Mr 27, Ap 24 '48

BAGS

Burlap bag with paper-sleeve valve. *il* Mod Packaging 21:150 Ap '48

Polyethylene bags for humus. *Mod Plastics* 26:282 S '48; *il* Mod Packaging 22:132-3 S '48

See also

Cotton bags

Paper bags

BAHAMA Banks

Submarine sedimentary features on Bahama Banks and their bearing on distribution patterns of lenticular oil sands. J. L. Rich. *il* maps *Am Assn Pet Geologists Bul* 32: 767-79 My '48

BAILEES' customers insurance. See Insurance, Bailees' customers

BAILEY, Arthur L.

Named actuary by New York department. *East Underw* 49:25 Ja 2 '48

BAILEY, George D.

1948 Dickinson lectures to be given by G. D. Bailey. *J Account* 85:217 Mr '48

BAILEY, Liberty Hyde, 1858-

Portrait(cover). *Science* 108:218 S 3 '48

BAILEY bridges. See Bridges, Prefabricated

BAILEMENT

Bailee issue is decided in favor of assured; Whiteside vs. State of Pennsylvania. *Nat Underw* 52:6 Ag 5 '48

Claim check received by owner when parking automobile held mere token of identification. *Weekly Underw* 159:523 S 4 '48

Defense. Supplies recovers fire loss from bailees; Lawrence warehouse co. case. *Nat Underw* 52:10+ F 19 '48; *East Underw* 49: 27 S 3 '48

Garage and parking lot liability; wrongful use of automobile by employee. C. S. Bishop. *bibliog* *Weekly Underw* 157:1584-6 D 20 '47

Liability of a bailor for hire; accident to rented truck. J. L. Roesch. *Spectator* (Property ed) 13:10-11 N 13 '47

Rule on liability where milk coat was handed over by concessionaire to wrong party. *Weekly Underw* 153:1533+ Je 5 '48

BAIN, David, 1832-1947

Sketch. *Chem & Ind* p 140-1 F 28 '48

BAIN, Harry Foster, 1871-1948

Appreciation. A. E. Parsons. *Min & Met* 29:219-20 Ap '48

BAIR, Edna F.

Lady fits Daily's tone to community ideals; A. F. Bair. *Daily Journal*, Phillipsburg, Pa. D. Rickard. *por* Ed & Pub 81:18 My 1 '48

BAKELITE

Densified wood made with bakelite resins. *Mech Eng* 70:617 Jl '48

Modern applications of photo-elasticity. R. B. Heywood. diags

Inst Mech Eng J & Proc 158:Proc 235-40, pl 3-6 S '48; Abstract. Engineer 184:586-7 D 19 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 240-50, pl 7-10 S '48

Molded clarinet. *il* Mod Plastics 25:164 Ag '48

BAKELITE corporation

Bakelite corp. completing new expansion program. *Chem Eng* 55:185 Ja '48

Increases plastics facilities. *Chem & Eng N* 25:3864 D 29 '47

BAKER, George Pierce, 1903-
Portrait. *Fortune* 37:97 Mr '48

BAKER, Lawrence Adams
Sketch. *por* East Underw 48:24 D 19 '47

BAKER-NATHAN effect
Near-ultraviolet absorption spectra of mono-alkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. *bibliog* *Chem R* 41:273-9 O '47

BAKERS and bakeries

Bakers face fewer problems. *Food Ind* 20: 727-8 My '48

Nabisco; the dough is rising. *il* Fortune 37: 86-91, 204-6+ Je '48

Tractor-trailers ease bakery distribution. *il* map *Food Ind* 20:1020-1 Jl '48

See also

Biscuits

Cake

Bread

Pretzels

Accounting

These bakeries benefit from standard cost control; Mayflower doughnut corp. H. S. Stevensen. *il* Food Ind 20:1128-9+ Ag '48

Air conditioning

Air conditioning improves quality of baked pies. R. A. Latimer. *il* Food Ind 20:684-5 My '48

Electric equipment

Large-scale bread making. *il* Elec R (Lond) 143:307-11 Ag 27 '48

Employees

Union wages and hours: the baking industry, July 1, 1947. J. P. Corkery. *U S Bur Labor Statistics Bul* 936:1-37; pa 20c Supt. of doc. '48; Excerpts. *Mo Labor R* 66:521-3 My '48

Equipment

Doughnuts now big business; doughnut machines and doughnut factories. R. G. Skerrett. *il* Comp Air Mag 52:262-7 N '47

See also

Dough mixers

Finance

Bakers' profits recover from 1947 slump. F. B. Dezendorf. *Barron's* 28:31-2 Je 28 '48

Laboratories

Grass roots bakery lab; equipment and materials of C. J. Patterson co. laboratory in Kansas City. *il* Food Ind 20:387 Mr '48

Layout

Visualization; new tool used in designing bakery layout; engineer's model. *il* Food Ind 20:552-3 Ap '48

Safety measures

Safety for those who knead the dough; ASA safety code for bakery equipment. *Safety Eng* 95:32+ Mr '48

BAKHMETEFF, Boris Alexander, 1880-
Sketch. *por*(p33) *Civil Eng* 18:32 Ja '48

BAKING

Lactic fermentation and trace iron affect cracker quality. J. Micka. *bibliog* *il* Food Ind 20:34-9+ Ja '48

Some present trends and future developments in food technology. D. W. Kent-Jones. *Chem & Ind* p735-6 N 29 '47

See also

Pretzels

Yeasts

BAL

Antibiotic activity of subtilin and streptomycin in the presence of BAL. H. H. Anderson and Y. Chin. *bibliog* *Science* 106:643-4 D 26 '47

Effect of BAL; abstracts. H. M. Tepperman and others. *J Ind Hygiene* 30:sup9-10 Ja '48

BALABAN, Barney, 1887-
Portrait. *Fortune* 38:67 JI '48

BALANCE of payments

Britain losing her gold. P. Einzig. *Comm & Fin Chr* 167:914 F 26 '48

Britain's balance of payments in 1947; comments on the White paper. *Economist* 154: 273-5 F 14 '48

Britain's balance of payments; press conference statement, Feb. 10, 1948. S. Cripps. *Comm & Fin Chr* 167:815+ F 18 '48

Britain's balance of payments; striking transformation. *Economist* 155:504-5 S 25 '48

Britain's exchange reserves. *Economist* 153: 968-9 D 13 '47

Canada; customer and competitor; battle for a better international trade balance. V. L. Horoth. *il map Mag of Wall St* 82:383-5+ JI 17 '48

Current British crisis and the broad dollar problem. J. M. Cassels and F. L. Hall. *For Comm W* 29:4-7+ N 29 '47

Decline of Latin-American gold and exchange holdings during 1947. C. F. Carson. *For Comm W* 30:7+ Mr 20 '48

Dollar arithmetic. *Economist* 153:729-31 N 1 '47

ECA apportionment and intra-European clearing. J. H. Richter. *Comm & Fin Chr* 168:1000+ S 9 '48

European payments agreements, multilateral compensation and the European recovery program; report of Bank for International Settlements. *Fed Res Bul* 34:1232-7 O '48

European payments scheme; allocating direct Marshall aid and mutual aid. *Economist* 155:466-7 S 18 '48

First-quarter 1948 transportation account in U.S. balance of payments. *For Comm W* 32:48 JI 17 '48

International transactions of the United States during the first quarter of 1948. *Survey of Cur Bsns* 28:8-10 Je '48

International transactions of the United States during the second quarter of 1948. *Survey of Cur Bsns* 28:6-9 S '48

International transactions of the United States during the war, 1940-45. U S Dept of Commerce *Economic Ser* 65:1-227; pa 60c Supt. of doc. '48

Keynes clearing plan for western Europe; to settle international balances. P. Einzig. *Comm & Fin Chr* 167:1999 My 6 '48

Latin American exchange situation. E. M. Bernstein. *Comm & Fin Chr* 168:1317+ S 30 '48

Latin America's dollar payments difficulties. *Nat City Bank p* 105-7 S '48

Possibilities of restoring Europe's international balance. *il For Comm W* 32:3-9 JI 24 '48

Private aid to foreign areas; factor in balance of payments; remittance pattern reveals significant angles. *il For Comm W* 30:3-6+ Mr 20 '48

Reports drain on foreign gold and dollar holdings. *Comm & Fin Chr* 167:1995+ My 6 '48; Same. *Fed Res Bul* 34:371-81 Ap '48

Second-quarter 1948 transportation account in United States international balance of payments. *For Comm W* 33:47 N 8 '48

Sterling area; stumbling block to European recovery? V. L. Horoth. *Mag of Wall St* 82:227-9+ Je 5 '48

Sterling dilemma in empire trade. V. L. Horoth. *il Mag of Wall St* 81:522-3+ F 14 '48

Sterling releases; are accumulated balances on overseas account being released too fast? *Economist* 155:309-10 Ag 21 '48

Transportation account in our postwar balance of payments. R. Q. P. Chin and L. D. Nierenberg. *il For Comm W* 31:3-5+ Je 19; 8-9+ Je 26 '48

United States balance of payments with ERP countries; estimates for 1947 and the first program year. *Survey of Cur Bsns* 28: 5-7 My '48

BALANCE of power

Great powers in the new world order. R. Strauss-Hupé. *Ann Am Acad* 257:47-56 My '48

BALANCE sheets

Re-shaping the balance sheet. *Economist* 154: 386-8 Mr 6 '48

See also

Financial statements

BALANCES

Electronic analytical balance. J. W. Clark. *il diags R Sci Instr* 18:915-18 D '47

Fluorocarbon vapor balance. J. H. Simons, W. H. Pearlson and W. A. Wilson. *diag Anal Chem* 20:933 O '48

Gram-atic balance. *il R Sci Instr* 19:730 O '48

Gram-atic balance. R. H. Müller. *il Anal Chem* 20:sup29A-30A O '48

Mercury-balance method for the measurement of gel strength. *Franklin Inst J* 245:71-2 Ja '48

Method of particle size determination of soils, cement, etc., by means of a chainomatic specific gravity balance. E. V. Barrett. *il diags Am Soc T M Proc* 46:1355-72; Discussion. 1373-6 '46

Microchemical balance; ancillary apparatus. C. L. Wilson. *diags Metallurgia* 37:275-7, 331-3 Mr-Apr '48

Photoelectric balance indicator. C. L. Rulfs. *bibliog diags Anal Chem* 20:262-4 Mr '48

Quartz spring Joly balance. I. Sheft and S. Fried. *diag R Sci Instr* 19:723-4 O '48

BALANCING machines

Truck-wheel balancer. S. R. Winters. *il diag Electronics* 21:134+ Ap '48

BALANCING of machinery

- Eliminating vibration in high-speed machines. A. S. Gutman. *diags Machine Design* 20:118-24 O '48

Field problems in balancing rotating electric machinery. R. B. Barton. *bibliog Elec Eng* 67:150-3 F '48

Jigs check balance of shafts. *diags Pet Processing* 3:656 JI '48

Locomotive balancing table. *il Ry Mech Eng* 121:708 P '47

Method of checking the balance of high-speed rotors. *diag Engineering* 166:137 Ag 6 '48

To balance rotating parts. *diag Can Min J* 69: 77 Ja '48

BALDWIN, Robert Taylor, 1882-

Retired as A.C.S. treasurer. *por(cover) Chem & Eng N* 26:98 Ja 12 '48

BALING presses

Automatic machine bales over 110 tons of scrap daily; De Soto division, Chrysler corp. *il Automotive Ind* 99:44+ O 15 '48

Safety measures

Baling presses; hazards and precautions. *il diags Nat Safety N* 57:30-2+ My '48

BALKAN states

Rivalries in Macedonia. *map Economist* 155: 104-5 JI 17 '48

BALKE, Clarence William, 1880-

Balke receives Perkin medal for tantalum development. *por Chem & Eng N* 26:156-7 Ja 19 '48

Sketch. *por Chem Eng* 55:241 Ja '48

BALL bearings. See Bearings, Ball

BALL mills

Improving the quality of extruded mill brick. H. G. Schurecht. *diags Am Cer Soc J* 31:122-7 My 1 '48

Influence of various deairing and compressed-air treatments on wearing qualities of mill balls and mill-brick linings. H. G. Schurecht. *diags Am Cer Soc J* 31:76-80 Mr 1 '48

Multiple mills for raw and finish grinding; Calaveras cement co. W. B. Lenhart. *flow sheets il Rock Prod* 51:142-3+ Ag '48

New glaze-grinding ball mill installed at Pacific Clay. *il Cer Ind* 49:54 N '47

Solid rubber construction in new ball mill. *Chem Age (Lond)* 59:110 JI 3 '48

Toward decreased ball wear. S. Mortseil. *bibliog Eng & Min J* 149:50-1 My '48

Wear tests on grinding balls. T. E. Norman and C. M. Loeb, Jr. *bibliog flow sheet Metals Tech* 15:TP2319 1-31 Ap '48; Excerpts. *Iron Age* 161:130 F 26 '48

BALLAST

Matisa. ballast cleaning machine. *il Engineer* 185:601 Je 18 '48; *Engineering* 166:33-4, 36 JI 9 '48

Producing ballast for the Union Pacific at Sherman hill. L. A. Luther. *il Comp Air Mag* 53:250-2 O '48

Sand on top of ballast. H. W. Protzeller. *Rock Prod* 51:97-8 Mr '48

BALLAST (ships)

Blasting concrete ballast in cargo ships. J. Hills. Explosives Eng 25:142+ S '47
Use of western magnetite as ship ballast. C. L. Severy. U S Bur Mines Information Circ 7427:1-3 '48

BALLISTIC photography. See Photography, Ballistic

BALLISTICS

Full-scale free-flight ballistic measurements of guided missiles. L. A. Delsasso and others. biblog il diags J Aeronautical Sci 15:605-15 O '48

Influence of atmospheric pressure on the phenomena accompanying the entry of spheres into water. D. Gilbarg and R. A. Anderson. il diags J Ap Phys 19:127-39 F '48

Instrument for the rapid production of a decimal series of potentials and its application to ballistic measurements. H. S. Roberts and H. L. Curtis. il diags J Res Nat Bur Stand 41:46-51 JI '48

Loss of spin of projectiles. J. A. Van Allen; H. P. Hitchcock. diags J Aeronautical Sci 15:35-40 Ja '48

Qualitative experimental verification of the change of burning rate of rocket powders with radiation path length. S. S. Penner. diags J Ap Phys 19:511-13 Je '48

Theory of the internal ballistics of the hoch-und-niederdruck kanone. J. Corner. biblog diag Franklin Inst J 246:233-48 S '48

BALLOONS, Meteorological

Instrument-laden plastic balloon will explore stratosphere. Mach 54:167 Ap '48

Plastic skyhooks. il Mod Plastics 25:100-1 My '48

BALLS

Jig for the preparation of balls for the construction of crystal structure models. R. C. Evans. diags R Sci Inst 19:402-4 Je '48

Punch-out window permits effective display of athletic balls in the package. il diags Mod Packaging 21:148-50 Ap '48

See also

Golf balls
Tennis balls

BALLS, Steel

Steel balls as centers improve offset tallstock taper turning. A. F. Wyleta, jr. diag Am Mach 92:120 Ja 15 '48

Steel balls in unit lots; SKF packaging. il Mod Packaging 21:160-2 Ap '48

Testing

Wear tests on grinding balls. T. E. Norman and C. M. Loeb, jr. biblog flow sheet Metals Tech 15:TP2319 1-31 Ap '48; Excerpts. Iron Age 161:130 F 26 '48; Discussion. Metals Tech 15:TP2448 30-6 Ag '48

BALSAM fir

Growth of balsam fir in Newfoundland. Pulp & Pa of Can (Convention no) 49:280+ [F] '48

BALTIMORE

See also
Airports—Baltimore
Newspapers—Baltimore

Commerce

Baltimore; new export leader. il Bsns W p46-8 F 14 '48

Baltimore scores advances in role of world-trade port. J. Weber. il For Comm W 29:4-7+ D 6 '47; Correction. 29:9 D 20 '47

Sewerage

Industrial water supply from processed sewage treatment plant effluent. A. Wolman. Sewage Works J 20:15-21; Discussion. R. F. Goudney. 22-3 Ja '48

Pumping sewage automatically. C. E. Keefer. il plans Eng N 141:88-91 S 2 '48

Water supply

Baltimore water sampling methods. G. W. Schucker. maps Am Water Works Assn J 40:625-30; Discussion. W. H. Cary, jr. 630-1 Je '48

Seven-mile tunnel has eight line changes; Baltimore's water supply conduit. il map Eng N 141:83-7 O 28 '48

BALTIMORE and Ohio railroad

Annual report, 121st. Comm & Fin Chr 176:1798 Ap 26 '48

Little for stockholders in big B. & O. earnings. A. Jansen. Barron's 28:29-30 My 24 '48

Plans large expenditures. Comm & Fin Chr 166:2206-7 D 1 '47

Summary of annual report, 1947. Ry Age 124:873 My 1 '48

BALUCHISTAN

Neighbours of Afghanistan. map Economist 154:307-8 F 21 '48

BALY, Edward Charles Cyril, 1871-1948

Appreciation. R. A. Morton. por Chem & Ind p87 F 7 '48

BAMBOO

India's first newsprint mill to use bamboo. Ed & Pub 81:9 Ag 28 '48

BANDAGES and bandaging

Five-cent bandages; Gotham aseptic laboratory makes adhesive bandages, wraps and packages them in one high-speed operation. il Mod Packaging 21:112-13 JI '48

BANDS, School

Purchase of band instruments; with list of makers. Consumers Res Bul 22:7-9 O '48

BANGOR and Aroostook railroad

C. M. Hutchins elected president of Bangor & Aroostook; W. F. Cram continues as chairman of the board. Ry Age 124:1075 My 29 '48

Set for lean summer. Barron's 28:34 Je 28 '48

BANK accounting

Accrual of income tax liability provides a more accurate statement. F. J. Sudekum. Bankers Mo 65:5-6+ Ja '48

Bank's responsibility for deposit slip detail. J Account 55:163-4 F '48

Bird dog in bookkeeping has saved some valuable accounts; clerk watches balances for marked declines. H. J. Bernard. Bankers Mo 65:14+ JI '48

Clearing the way for deferred posting. W. F. Lawson. Burroughs Clearing House 32:24-5+ Je '48

Good buildings need good records. C. J. Schwinge. Banking 41:54-5+ O '48

How banks now use the reserve method to account for bad debts. W. J. L. Patton. J Account 56:299-302 O '48

How deferred posting works. Banking 40:124+ Je '48

How one small bank knows its costs. T. A. Glenn, jr. Banking 41:46-7+ O; 42-3+ N '48 to be cont'

How to avoid internal losses. A. F. Lafrentz. Banking 41:39+ O '48

Members of 273 clearing houses now benefit from deferred posting. Bankers Mo 65:24+ 28 S '48

Posting errors quickly found. Bankers Mo 64:594 D '47

Reckoning your consumer credit costs. E. A. Yergey. Banking 40:52+ Ja '48

Stamp plan for special savings accounts; Savings bank of Baltimore. B. T. Salisbury. il Burroughs Clearing House 32:26-8 Mr '48

Time for another look at reserves for bad debts. D. Horne. Banking 40:38-9+ Je; 41:46-7 S '48

BANK advertising

Bank advertising for community development; Troy savings bank promotes local area. il Trusts & Estates 87:52-4 JI '48

Bank of America's colossal drive; \$500,000,000 campaign. R. J. Barbieri. il Burroughs Clearing House 32:19-21+ D '47

Bank of Warwick, Hilton village, Va. takes lid off promotion. Bsns W p86+ Mr 6 '48

Bank sells services; Seattle-First National. Sales Management 59:40 N 20 '47

Banking explained in simple language; Miss Penny featured in ads of First national bank of Canton, Ohio. il Banking 40:55-6 My '48

Banks advertise for deposits; summary of A.B.A. annual survey. J. Mack, jr. Banking 40:38+ Ap '48

Depositors wooed; Bank of America campaign. Bsns W p 101 D 6 '47

F.P.R.A. surveys consumer credit advertising. Banking 40:57 N '47

How to split your advertising dollar; trend of bank advertising today. B. S. Hamilton. Banking 40:26-7 N '47

BANK advertising—Continued

Metered mail messages. *il* Banking 41:90-1 JI '48

97 banks use co-op radio programs. *J. B. Mack, jr. il* Banking 40:40-25 D '47

Second thoughts on the FFRA meeting. *Banking* 40:90+ D '47

Security-First's program; two-minute commercial on television. *il* Burroughs Clearing House 32:25 Ag '48

Solving a small-bank earnings problem; Romeo savings bank, Romeo, Michigan. *M. F. Lanphar. il* Burroughs Clearing House 32:28-30+ Ag '48

Television; a new bank advertising medium; National Shawmut bank of Boston. *J. J. Barry. il* Burroughs Clearing House 32:24-5+ Ag '48

Vacation billions; banks publicize vacation attractions. *il* Banking 40:28+ My '48

We sell additional services with a monthly house organ; Security state bank, Allen, Neb. *M. M. Martin. Bankers Mo* 65:16+ O '48

BANK auditing

Audit control may be had without an official auditor. *Bankers Mo* 65:32-3 Mr '48

Defalcations can be controlled by an audit program. *W. H. McDaniel. Bankers Mo* 65:40-4 Ag '48

BANK auditors and comptrollers, National association of. See National association of bank auditors and comptrollers**BANK buildings**

Bank buildings that fit the job. *J. J. McCann, jr. il* Banking 41:33-7 S; 52-3+ O; 50-2+ N '48 (to be cont)

Bank in Cleveland exploits Quonset construction; bank in Yonkers makes most of small space. *il* plans diag *Arch Forum* 39:121-4 S '48

Bank of tomorrow. *J. J. McCann. il* Banking 40:70-1 N '47

Banks of tomorrow and the day after. *D. J. Gothold. il* Banking 41:38-9+ S '48

Bold departure from traditional bank design; Citizens national trust and savings bank, Los Angeles. *il* plan diag *Arch Rec* 104:116-21 O '48

Building case histories. *il* Banking 41:40-1 S; 56-7 O; 54-5 N '48 (to be cont)

Deposits increase over \$60,000 the first month in new quarters; Peoples state bank, Newton, Ill. *L. F. Arnold. il* Bankers Mo 65:13+ My '48

500 bank building plans; winners in Beaux-Arts small bank plan contest. *J. J. McCann. il* Banking 41:33-5 Ag '48

Good buildings need good records. *C. J. Schwingle. Banking* 41:54-5+ O '48

How to plan a bank building. *D. J. Gothold. Banking* 41:58+ O '48

Ideas from City national bank's new offices, Houston, Tex. *il* Am Bsns 18:16-17 Ap '48

New look takes over the banks; illustrations with text. *Bsns W p* 102 D 13 '47

World's tallest concrete building; Banco do estado de São Paulo. *L. Compagna. il* diag *Eng N* 141:72-3 S 2 '48

Air conditioning

Flexibility in air conditioning features new Houston building; City national bank building. *R. J. Salinger. il* diag *Heating-Piping* 20:71-4 F '48

More work, fewer errors in air conditioned banks. *il* Bankers Mo 65:10+ Ja '48

Layout

Innovations in work area planning; Union bank & trust co., Los Angeles. *W. C. Neary. il* Burroughs Clearing House 32:26-7+ Ag '48

Long range planning for bank quarters. *A. G. Alexander. plans* Burroughs Clearing House 32:24-5+ D '47

More customers need more banking space. *A. G. Alexander. plans* Banking 40:72+ My; 72 Je '48

Lighting

Lighting in public buildings; illustrations with text. *Elec West* 101:97 S '48

Tellers' cages

Curbside banking done with mirrors; illustration with text. *Bsns W p* 94 Mr 20 '48

Friendly counters can still be safe. *A. G. Alexander. il* plans diag *Banking* 40:60+ Mr '48

Research-developed standard teller's unit; American trust company, San Francisco. *D. C. Armanino. il* diag Burroughs Clearing House 32:32-3+ Ap '48

BANK checks. See Checks**BANK clearings**

Course of bank clearings. Published in weekly Monday numbers of Commercial and financial chronicle

Course of bank clearings; figures for 1947 by Federal reserve districts and comparison with other years. *Comm & Fin Chr* 167:189-91 Ja 12 '48

BANK consolidations

Bank mergers in the air; two New York deals under way. *Bsns W p* 93-4+ Mr 20 '48

BANK credit. See Credit, Bank**BANK crisis, 1933**

When all the banks closed. *A. A. Ballantine. Harvard Bsns R* 26:129-43 Mr '48

BANK debits

Bank debits, 1941-1946. Survey of Cur Bsns 1947 Sup p72 [supplemented in monthly numbers]

BANK defalcations. See Embezzlement**BANK deposits**

Bank debits decline, will production follow? financial foundations of postwar boom shakier this past winter. *R. M. Bleiberg. Barron's* 28:9-10 Ap 26 '48

Bank's application of bankrupt's deposits against his indebtedness to bank held not voidable preference. *Banking Law J* 64:968-78 D '47

Bird dog in bookkeeping has saved some valuable accounts; clerk watches balances for marked declines. *H. J. Bernard. Bankers Mo* 65:14+ JI '48

Deposit growth continues. *Fed Res Bul* 33:1342-6 N '47

Federal liens on bank deposits; liability of banks. *D. J. Needham. Banking* 41:45+ Ag '48

Ownership of demand deposits as of Jan. 30, 1948. *Fed Res Bul* 34:497-500 My '48

Remedy where funds credited by bank to wrong account. *Banking Law J* 64:805-7 O '47

Set-offs against bankrupt's deposits. *C. R. Rosenberg, jr. Burroughs Clearing House* 32:51 D '47

See also
Banks and banking—
Guaranty of deposits

Interest

Interest on deposit computed at contracted rates. *Banking Law J* 64:897-901 N '47

Joint accounts

Joint bank account agreement not void for want of consideration. *Banking Law J* 64:905-15 N '47

Records

Banker's summarization of the bank's responsibility for deposit slip detail. *C. Z. Meyer. J Account* 85:421-2 My '48

Bank's responsibility for deposit slip detail. *J Account* 85:163-4 F '48

Statistics

Changes in bank deposits by counties, Dec. 31, 1941-Dec. 31, 1947; map. *Banking* 41:84-5 S '48

Deposit trend in 1947; with comparative ranking of 100 largest commercial banks, based on year-end deposit totals. *Burroughs Clearing House* 32:3-4+ Mr '48

Record bank deposits. *Economist* 153:774 N 8 '47

Year-end deposits of the fifteen largest banks; table. *Burroughs Clearing House* 32:3 F '48

BANK directors

Directors and the trust department; suggestions for efficient examinations. *R. M. Stephenson. Trusts & Estates* 86:67-71 Ja '48

Directors serving without salary are not employees by court decision; unemployment taxes paid on them may be recovered. *A. E. Probst. Bankers Mo* 65:18-19 JI '48

BANK directors—Continued

Here is a plan which maintains the most useful board of directors. Bankers Mo 65: 7-9 Mr '48

Practical plan for maintaining a board of capable directors. A. C. Lueder. Bankers Mo 65:5-6 Je '48

Tested plan used by directors to convert cash into earning assets. M. Corns. Bankers Mo 65:18- Ag '48

We get more helpful response from directors by giving them visual information; opaque projector throws charts and printed matter on screen. T. R. Hefty. il Bankers Mo 65:20+ Ap '48

BANK employees

Bank employees go to the country; Manufacturers Trust provides vacation resort and other extensive benefits. il Trusts & Estates 87:56-7 Jl '48

Bank pay boosted; program of Illinois bankers assn. Bsns W p87-100 Mr 20 '48

Bank profit sharing successful; Harris trust and savings bank, Chicago, reports 31 years of experience and changes. Trusts & Estates 86:240-1 Mr '48

Banking's use of staff publications. L. C. Fink. il Burroughs Clearing House 32:28-31+ Je '48

Competition for college graduates; college dean finds that banks outbid. J. B. Trant. il Banking 40:36-7 Mr '48

Date with Plato and Thucydides; adult educational program of Harris trust and savings bank, Chicago, for its employees. Banking 40:30 My '48

Embezzlement up. Bsns W p87-8 S 4 '48

Employee anniversaries; program for recognizing employee service at Valley national bank, Phoenix, Ariz. B. Bush. il Burroughs Clearing House 32:29+ S '48

Employee magazines stimulate personal pride in the bank; in employee's work. il Bankers Mo 65:8+ Je '48

Here are eighteen reasons why we make banking our career. A. M. Kjos. il Bankers Mo 65:16+ F '48

Homespun customer relations; how a bank guard promotes good will. G. Stamford. il Banking 41:44-5 O '48

Hostess conserves officer time, speeds up service. J. S. Holm and V. Peitz. il Bankers Mo 65:3+ Ag '48

How much is a bank job worth? salary administration. W. Kennedy. il Burroughs Clearing House 32:17-19+ Ap '48

How to avoid internal losses. A. F. Lafrentz. Banking 41:39+ O '48

How to set up a productivity analysis. D. E. Ellis. Banking 40:43 Ja '48

More work, fewer errors in air conditioned banks. il Bankers Mo 65:10+ Ja '48

One source of answers to management questions; employee suggestion system of Central national bank of Cleveland. F. Steele. Banking 40:73-4 F '48

Overcoming personnel problems. F. E. Whitmer. Trusts & Estates 86:131-4 F '48

Pension pool; Michigan bankers' assn. and Detroit trust co. retirement fund plan for small banks' employees. Bsns W p92 F 21 '48

Personnel turnover reduced 45 per cent; program of First national bank of Wichita Falls, Texas. C. E. McCutchen. il Bankers Mo 65:12 My '48

Pioneer cooperative bank pension plan; Penco plan. W. L. Case, jr. Trusts & Estates 87: 193-6 S '48

Program of salary adjustments promotes good employee relations. E. N. Hay. Bankers Mo 65:7-8+ F '48

Recreational program for women; First Wisconsin national bank of Milwaukee. M. A. Raleigh. il Burroughs Clearing House 32: 20-1+ Ja '48

Retirement program of Anglo California national bank of San Francisco. Burroughs Clearing House 32:17 My '48

Salary administration and supervision. J. S. Brown. Trusts & Estates 86:333-6 Ap '48

Salary schedule is needed for each job; use of job evaluation. R. J. Miller. il Bankers Mo 65:18+ Mr '48

San Diego bank shares its profits. J. Beach. Banking 40:49+ Ja '48

Some things every employee wants. H. R.

Feil. Banking 40:134+ N '47

Staff magazines educate and inspire employees. il Bankers Mo 65:32+ Ag '48

State-wide pension plan; group insurance plan and trustee pension plan for West Virginia bank employees. Trusts & Estates 87:131 Ag '48; Banking 41:114 S '48

Teamwork benefits the bank; staff magazines promote teamwork. il Bankers Mo 65:40-3 S '48

Trying job analysis in a medium-size bank; American state bank, Lansing, Michigan. A. A. Elssesser. il Burroughs Clearing House 32:26-8+ D '47

Two-way channels of personnel information. W. Powers. Banking 40:48+ Ja '48

Contests

11,763 new deposit accounts from a ten-week employee contest; Irving trust company, New York. J. M. Tonsmeire. Bankers Mo 65:34 S '48

Training

FPRA slide film series. Trusts & Estates 87: 197-8 S '48

New visual aid in personnel training; FPRA sound slide films. P. E. Reed. il Burroughs Clearing House 32:24-5+ Ap '48

This training plan cuts worker shortage; Northern trust company prepares high-school graduates for careers. il Am Bsns 18:14-15+ Mr '48

Training credit men. Burroughs Clearing House 32:6-7 Ja '48

We got eight beneficial results from an orientation program; First national bank and trust co., Pittsburgh. S. H. Chelsted. Bankers Mo 65:14+ S '48

"Work with" versus "work for"; job relations program of Central Hanover bank and trust company, New York. K. W. McLaren. il Banking 40:38-40 My '48

BANK equipment and supplies

Customers are curious about banks; Mercantile national bank displays mechanized equipment at party for customers. Banking 40:84 F '48

Economies in cost and less waste with this system of stock control. G. J. Ruhlmann. il Bankers Mo 65:10-11 Mr '48

Seven mistakes are avoided by this supply-control technique; Gary national bank, Gary, Indiana. F. N. Tyler. Bankers Mo 65:42+ F '48

See also

Banks and banking—Forms, blanks, etc.

BANK examination

Directors and the trust department; suggestions for efficient examinations. R. M. Stephenson. Trusts & Estates 86:67-71 Ja '48

BANK failures

Limitations to actions to enforce statutory double liability of stockholder of insolvent national bank. Banking Law J 64:775-9 O '47

BANK for international settlements

Annual report for year ending March 31, 1948. Fed Res Bul 34:1221-39 O '48

Bank for international settlements; its functions and prospects; interview with Maurice Freire. H. M. Batter. Comm & Fin Chr 168:698-9 Ag 19 '48

BANK holiday. See Bank crisis, 1933**BANK holidays**

Banking holidays by states, January-June, 1948. Bankers Mo 64:596 D '47

Banking holidays by states, July-December, 1948. Bankers Mo 65:30 Ag '48

BANK liability

Collecting bank held liable upon warranty of genuineness of indorsement regardless of liability of drawee bank to depositor. Banking Law J 64:763-7 O '47

Federal liens on bank deposits; liability of banks. D. J. Needham. Banking 41:45+ Ag '48

Savings bond redemption liability. Banking 41:126-7 S '48

Trust funds diversion; bank's alleged participation not protected by Ohio statute of limitations. Burroughs Clearing House 32: 54-6 Jl '48

BANK loans. See Loans, Bank

BANK messengers. See Messengers, Bank

BANK notes

See also

Federal reserve bank notes

BANK of America national trust and savings association

Bank of America's colossal drive; \$500,000,000 campaign. R. J. Barbieri. Il Burroughs Clearing House 32:19-21+ D '47

Depositors wooed; Bank of America campaign. Bsns W p 101 D 6 '47

BANK of England

Nationalised sphinx; second annual report. Economist 154:941 Je 5 '48

BANK of London and South America, limited

Address to stockholders; abstract. Lord Wardington. Economist 153:941 D 6 '47

BANK of the Manhattan company

Annual stockholders' meeting, 149th, Dec. 2. Comm & Fin Chr 166:2376 D 11 '47

Report at 149th annual meeting of stockholders. J. S. Baker. Comm & Fin Chr 166:2272 D 4 '47

BANK officials

Bank officer not authorized to accept for deposit his own check on bank given in payment of his personal debt. Banking Law J 64:947-62 D '47

Personnel changes in trust institutions. Published in monthly numbers of Trusts and estates

BANK research

Bank research; growing use of research techniques in promotion and internal management. H. V. Odle. Il Burroughs Clearing House 32:22-4+ Ja '48

BANK reserves

A.B.A. view on reserve requirements. J. M. Dodge. Banking 41:43+ S '48

Commercial bank reserves; a re-appraisal. K. R. Bopp. Comm & Fin Chr 165:1872+ N 4 '48

Credit control; the Eccles plan. N. P. Gregory. Burroughs Clearing House 32:27-8 Ja '48

Cumulative changes in factors affecting excess reserves of member banks, December 31, 1947-March 31, 1948; graph. Comm & Fin Chr 167:2102 My 13 '48

Explains "special reserve" proposal. M. S. Eccles. Comm & Fin Chr 166:2487+ D 18 '47

Federal reserve board announces slight increase in reserve requirements; with text of supplement to Regulation D. Comm & Fin Chr 167:505 Ja 29 '48

Federal reserve board raises reserve requirements of member banks. Comm & Fin Chr 168:1118 S 16 '48

Gold and foreign exchange reserve requirements of foreign central banks; with tabular summary by country. Fed Res Bul 34:33-8 Ja '48

How Federal Reserve policies affect New York city banks. M. A. Schapiro. Comm & Fin Chr 163:1750+ O 23 '48

Illinois bankers protest increased reserves. H. C. Hausman. Comm & Fin Chr 168:606+ Ag 12 '48

Increases in reserve requirements. Nat City Bank p 111-14 O '48

Inflation and the banking position; dangers of increasing reserve requirements. P. H. Lohman. Comm & Fin Chr 167:2+ Ja 1 '48

Mostly inflation; Eccles' special reserve proposal. L. Stafford. Banking 40:35-9+ Ja '48

Proposal for a demand reserve requirement against the demand and time deposits of banks; statement filed by Chairman Eccles with Committee on banking and currency of the House of representatives, Dec. 8, 1947. Fed Res Bul 34:14-23 Ja '48

Reserves; amendments to Regulation D and supplement. Fed Res Bul 34:1103-4 S '48

Reserves; central reserve city banks; supplement to Regulation D. Fed Res Bul 34:666-7 Je '48

Treasury surplus, bank reserves, and the money supply in the first quarter of 1948. Fed Res Bul 34:487-96 My '48. Same. Comm & Fin Chr 167:2310+ My 27 '48

What has happened to excess reserves? P. W. McCracken. Comm & Fin Chr 168:1866+ N 4 '48

BANK robberies

Countermeasures for "morning glory" bandits. Banking 40:102 Mr '48

Four helpful stories on handling holdup men. Il Bankers Mo 65:36-7 Mr '48

Medals for valor; National surety corporation awards to bank employees. Banking 40:70-1 Ap '48

This plan avoids messenger holdups. plans Bankers Mo 65:3+ Ap '48

See also

Banks and banking—Protection

BANK stocks. See Banks and banking—Stock

BANK supplies. See Bank equipment and supplies

BANKERS

Banker and 350 bombers; makes musical instruments and trailers from plane salvage. Il Banking 40:26-8 Je '48

Bankers; influence on course of trade [23 portraits]. Il Fortune 38:114-21+ N '48

Return of the banker; investment bankers in the role of public servants. Fortune 36:2 D '47

BANKERS' blanket bond

Bankers' blanket bond; standard form no. 24. Rough Notes 90:61-2 N '47

Lloyds bankers blanket bond filing gets Illinois ok. Nat Underw 52:24 My 13 '48

Sureties are doubtful of looted securities claims. Nat Underw 51:20 N 13 '47

BANKING law

A.B.A. model state banking code draft. Banking 41:88 S '48

Court decisions. C. R. Rosenberg, Jr. Burroughs Clearing House 32:47-9 Ja '48 [cont monthly]

Gold and foreign exchange reserve requirements of foreign central banks; with tabular summary by country. Fed Res Bul 34:33-8 Ja '48

Law department. Published in monthly numbers of Federal reserve bulletin

Laws governing the keeping of bank records, 1947 revision; tabulation by states. Bankers Mo 65:26 F '48

Legal page; digest of recent cases. Banking 40:68+ Ja '48 [cont monthly]

Summary of 1948 state banking legislation. Banking 41:78+ O '48

See also

Banks and banking—Checks—Law

Regulation Federal reserve act

Banks and banking—Stockholders' liability

Hungary

Law governing nationalization of banks in Hungary. For Comm W 30:20 Ja 31 '48

Philippine Islands

Central bank bill; general banking bill. For Comm W 32:31 Ji 24 '48

Philippine Central bank act. D. L. Grove and J. Exter. Fed Res Bul 34:938-49 Ag '48

Rumania

Dissolution of banking enterprise and credit institutions. For Comm W 33:22 O 16 '48

BANKING research. See Bank research

BANKRUPTCY

Bank's application of bankrupt's deposits against his indebtedness to bank held not voidable preference. Banking Law J 64:968-73 D '47

Discrimination in foreign trade; need for creditor rights before international conferences. K. H. Nadelmann. Credit & Fin Management 50:28-9 Je '48

It can happen again; Vesty Gates, a practical credit man, analyzes some bankruptcy cases of the 30's. H. W. Sommers. Credit & Fin Management 50:16+ Ap; 8-9+ My; 24-6+ Je; 9-10+ Ji; 12-13+ Ag; 22-7 S; 19-21 O '48 (to be cont)

NACM presents views on Section 60a. F. A. Dudley. Credit & Fin Management 50:7-8+ Je '48

Priority of federal claims in insolvencies. L. Boston. Il Dun's R 56:19-20+ Mr '48

See also

Business failures

Railroads—Receiver-ships

BANKS, Federal reserve. See Federal reserve banks

BANKS, International. See Bank for international settlements

BANKS and banking

Bank credit developments. Fed Res Bul 34: 1205-16 O '48; Excerpts. Comm & Fin Chr 168:1762 O 28 '48

Bank director looks at banks. O. H. Lam-born. Trusts & Estates 85:399-400 N '47

Bank management in the coming depression. C. L. Benner. Comm & Fin Chr 167:2081+ My 13 '48

Bankers; influence on course of trade. *il* For-tune 38:114-21+ N '48

Bankers monthly quiz. Bankers Mo 65:32 Ja '48 [cont monthly]

Banking developments and monetary ex-pansion. Fed Res Bul 33:1341-52 N '47

Banking economics and the inflationary boom. R. Rodgers. Comm & Fin Chr 167:2633+ Je 17 '48

Banking in a period of confusion. G. K. Mor-ris. Comm & Fin Chr 168:1860+ N 4 '48

Banking responsibilities in international crisis. P. Delano. Comm & Fin Chr 168: 1207+ S 23 '48

Banks and the economy. J. M. Dodge. Comm & Fin Chr 167:2093 My 13 '48

Banks and tomorrow. T. C. Root. Comm & Fin Chr 167:1766 Ap 22 '48

Banks have new competitors; address at ABA convention. F. C. Rathje. Comm & Fin Chr 168:1430+ O 7 '48

Banks; the whipping boy of inflation. C. W. Williams. Comm & Fin Chr 168:1655+ O 21 '48

Business conditions and the banks. W. L. Bennett. Comm & Fin Chr 166:2479+ D 18 '47

Customers and employees benefit from music in the bank. E. G. Cleverdon. Bankers Mo 64:538 N '47

Effect of current economic problems on bank-ing. R. V. Fleming. Comm & Fin Chr 167: 2321+ My 27 '48

Federal Reserve chart book as an aid to bank management. C. H. Schmidt. Fed Res Bul 34:382-90 Ap '48

Growing up with deposits; organization prob-lem of La Salle national bank, Chicago. J. C. Wright. *il* Burroughs Clearing House 32:21-3+ Ag '48

How Bank of America cuts operating costs. W. D. Yealand. *il* Am Bsns 18:26+ My '48

How to plan bank operations to reduce time and expense. F. Steele. Bankers Mo 64: 530-2 N '47

Loans and lollipops; Franklin Square na-tional bank uses retail-merchandising tech-niques. Fortune 37:134+ Ap '48

One source of answers to management ques-tions; employee suggestion system of Cen-tral national bank of Cleveland. F. Steele. Banking 40:73-4 F '48

Outlook for banks; address before A.B.A. convention, Detroit. M. Nadler. Comm & Fin Chr 168:1434-5+ O 7 '48

Process charts save steps at Lincoln national bank & trust company, Syracuse, N.Y. R. P. Johnson. Banking 40:30+ N '47

Recapitulation of 400 ideas published since Jan. 1948. Bankers Mo 65:26+ J1 '48

Recapitulation of 351 ideas published since July, 1947. Bankers Mo 65:20-2+ Ja '48

Receiving end of the income tax; how tax dollars affect banks; illustrations with text. Banking 40:46-8 Mr '48

We lessen lobby congestion by nine practi-cal methods. W. H. Dodson, jr. plan Bank-ers Mo 65:44 Je '48

We try to prevent errors to save time trying to find them. C. S. Hettinger. Bankers Mo 65:12 S '48

See also

Bank advertising	Federal reserve
Bank buildings	banks
Bank deposits	Investment banking
Bank research	Letters of credit
Checks	Savings banks
Discount	Trust companies

also American bankers association

Art exhibits

Art in banks; Holyoke savings bank, Mt Holyoke, Mass. *il* Banking 40:16 N '47

Automobile purchase financing

Bank-agent plan aspects. C. G. Hallowell. Weekly Underw 158:1106 Ap 10 '48; Same abr. East Underw 49:23 Ap 9 '48; Excerpts. Nat Underw 52:3 Ap 8 '48

Commercial banks and competitive trends in consumer instalment financing. W. P. Mors. bibliog J Bsns 21:146-61 J1 '48

How one bank-agent auto plan works in New Haven. J. W. Mason. *il* Banking 41: 38-9 J1 '48

Branch banking

Number of banks and branches in operation on Dec. 31, 1947. Fed Res Bul 34:588-9 My '48

Cash handling

Errors would be avoided if money pack-ages were standardized. Bankers Mo 65:36+ Ap '48

Improved handling of wrapped coin; Harris trust and savings bank, Chicago. M. K. Heald. *il* Burroughs Clearing House 32:28-9+ F '48

Central banks

Establishment of central bank for U.S.-U.K. zones of Germany. For Comm W 30:18 Mr 27 '48

Germany's central bank. Economist 154:317 F 21 '48

Gold and foreign exchange reserve require-ments of foreign central banks; with tabular summary by country. Fed Res Bul 34:33-8 Ja '48

New central bank for United States and Brit-ish zones of Germany; with text of U.S. area of control law no.60. Fed Res Bul 34: 279-83 Mr '48

Philippine Central bank act. D. L. Grove and J. Exter. Fed Res Bul 34:938-49 Ag '48

Proposes European reserve system. H. F. Milligan. Comm & Fin Chr 167:1326 Mr 25 '48

See also

Bank of England

Checking accounts

On-the-job service for customers; Denver national bank cooperates with credit union to permit employees to bank through their firms. J. K. Sanbourne. *il* Burroughs Clear-ing House 33:26-7+ O '48

See also

Banks and banking—
Service charge

Collection charges

More on par clearance. H. W. Bangert. Credit & Fin Management 50:9-11 O '48

North Dakota banks are dropping exchange charges. H. Bangert. Bankers Mo 64:539 N '47

North Dakota checks can now be collected at par. Bankers Mo 65:36-7 Ja '48

Par-clearance and how to get it. W. C. Car-ter. Credit & Fin Management 49:4-5 D '47

Collections

Delay in notification of forwarding bank of dishonor of sight draft by collecting bank. Burroughs Clearing House 32:61-2+ Ag '48

Correspondent banks

Almost any service may be had from city correspondents; program of Mellon national bank & trust co., Pittsburgh. C. R. Korb. *il* Bankers Mo 65:5-6 My '48

Customers of country banks served through city correspondents. G. J. Ruhlman and others. Bankers Mo 65:5-6 O '48

Idea conference; meeting of correspondent banks, First national bank of Chicago, Jan. 29-30. A. Van Vlissingen. Burroughs Clear-ing House 32:19-21+ Mr '48

Twelve specific services given by a city bank to correspondents. A. K. Foster. *il* Bankers Mo 65:5-6 J1 '48

Costs

Costs in the savings business. J. R. Dunker-ley. Banking 40:45+ Je '48

How one small bank knows its costs. T. A. Glenn, jr. Banking 41:46-7+ O; 42-3+ N '48 (to be cont)

How to set up a productivity analysis. D. E. Ellis. Banking 40:43 Ja '48

Problem of rising bank costs. W. F. Kurtz. Comm & Fin Chr 166:2053+ N 20 '47

Several dozen ways to watch costs. Banking 40:37+ D '47

BANKS and banking—Continued

Country banks

After the turn of the year; are country banks entirely forgotten? W. J. Field. *Comm & Fin Chr* 167:340+ Ja '48

Balanced banking, farming and living; banker E. J. Evens of Amsterdam, Missouri, builds a prosperous community. D. Evans. *il Banking* 41:55-6+ J1 '48

Balanced farming builds bank balances; Missouri's balanced farming program. J. W. Burch. *il map Banking* 40:54-5+ D '47

Better steaks in the inland empire; livestock program in northern Idaho and eastern Washington. O. A. Fitzgerald. *il Banking* 40:65+ My '48

Country bank, large city methods; a \$10,000,000 big bank; First national bank of Meadville, Pa. E. H. Keep. *il Burroughs Clearing House* 32:17-19+ Ja '48

Country banker. *il Banking* 40:54+ Ja '48 [cont monthly]

Country bank's P.R. program pays off; Romeo savings bank, Michigan. *il Banking* 41:56+ Ag '48

Customers of country banks served through city correspondents. G. J. Ruhman and others. *Bankers Mo* 65:5-6 O '48

Eight-state soil inspection tour sponsored by Louisiana bankers association. L. Reid. *Banking* 41:62+ O '48

Example from southeast Georgia; broader bank service; First national bank in Waycross. G. M. Bazemore. *il Burroughs Clearing House* 32:19-21+ F '48

Farm sales plan of the Illinois national bank and trust company, Rockford. *Banking* 40:58+ D '47

Five-point soil conservation program; Palouse branch of Old national bank of Spokane. C. E. Funkhouser. *Banking* 40:50+ Je '48

How a cottonsick area got well; Tupelo, Miss. diversifies; contribution of banks. H. Severson. *Banking* 41:52+ J1 '48

Investments of large and small banks show marked contrast; results of A.B.A. survey. D. H. Erdman. *Banking* 41:42-3 O '48

Keeping them down on the farm; junior farmer loan program of Valley national bank of Phoenix, Ariz. K. Taylor. *il Banking* 40:52-3+ D '47

Kentucky bankers are farm minded. H. Severson. *il Banking* 41:61+ O '48

Member bank earnings, 1947; country member banks, by Federal Reserve districts; with ratios. *Fed Res Bul* 34:579, 586 My '48

Number of banker agricultural schools increasing. V. B. Hart. *Banking* 40:52+ Je '48

One country bank's experience with real estate loans. G. F. Baltz. *Banking* 41:106 J1 '48

Operation conservation; one-day make-a-farm-over demonstration of First national bank of Valdosta, Georgia. *il Banking* 40:51+ Ap '48

Our bank profits from farm sales; Merchants national bank and trust co, Syracuse, N.Y. E. D. Hollister, jr. *il Bankers Mo* 64:527-8 N '47

Outside man for the small country bank. Burroughs Clearing House 32:9 D '47

Soil conservation; all aboard! special train, sponsored by railroad and bank officials, tours Texas farm lands. J. J. McCann. *il Banking* 40:54 Ja '48

Solving a small-bank earnings problem; Romeo savings bank, Romeo, Michigan. M. F. Lanphar. *il Burroughs Clearing House* 32:28-30+ Ag '48

This bank graduates farmers; Citizens national bank of Chillicothe, Mo. H. Severson. *il Banking* 41:57+ Ag '48

Tomorrow's livestock in good hands; banker cooperation with Future farmers of America and 4-H club members in the inland empire. O. A. Fitzgerald. *il Banking* 40:51+ Je '48

Youth work support is key to success; 4-H club and FFA projects. M. B. Leach. *il Banking* 40:64+ My '48

See also

Agricultural credit

Credit departments

Costs vs. rates. K. R. Wells. *Banking* 40:66+ My '48

Customers borrow more often because we give them credit cards. G. S. Blue. *il Bankers Mo* 64:550 N '47

How to know whether operations are profitable; cost factor of consumer credit. E. J. Frey. *Banking* 41:60+ Ag '48

Reckoning your consumer credit costs. E. A. Yergey. *Banking* 40:52+ Ja '48

Training credit men. Burroughs Clearing House 32:6-7 Ja '48

Records

Finger-tip credit control. A. F. Adams. *Banking* 40:36-7 My '48

Customer relations

Customer relations; good and bad. P. K. Barker. *Trusts & Estates* 86:321-2 Ap '48

Customers are curious about banks; Mercantile national bank displays mechanized equipment at party for customers. *Banking* 40:84 F '48

Homespun customer relations; how a bank guard promotes good will. G. Stamford. *il Banking* 41:44-5 O '48

Hostess conserves officer time, speeds up service. J. S. Holm and V. Peitz. *il Bankers Mo* 65:3+ Ag '48

Deposit service

On-the-job service for customers; Denver national bank cooperates with credit union to permit employees to bank through their firms. J. K. Sanbourne. *il Burroughs Clearing House* 33:26-7+ O '48

Exchange charges

See Banks and banking—Collection charges

Exhibits

All sorts of ways to build bank displays; Bank for savings in the city of New York. M. B. Leach. *il Banking* 41:42-4+ Ag '48

Banks display Heritage papers; reproductions of documents from Freedom train. *il Banking* 40:53 Ap '48

Bank's library of new homes; Dime savings bank of Brooklyn opens home buyers' exhibition. J. L. Cooley. *il Banking* 41:64-5 J1 '48

How banks sell services at fairs. M. B. Leach. *il Banking* 40:42-3+ Mr '48

Know your city; lobby displays boost local industries and the bank in Rock Island, Ill. *il Trusts & Estates* 85:512-13 D '47

Neighborhood bank stops Park avenue; window exhibits of Empire city savings bank, New York. *il Banking* 40:16-17 Ap '48

See also

Banks and banking—
Art exhibits

Farm development service

See Banks and banking—Country banks

Fees

See also
Banks and banking— Banks and banking—
Collection charges Service charge

Finance

Aggregate net operating earnings of 15 New York City banks from 1939 to 1947. E. A. Van Deusen. *Comm & Fin Chr* 167:1002 Mr '48

Are bank earnings high enough? J. W. Wooster, jr. *Banking* 40:36-7 Je '48

Bank capital and dividend policies. R. I. Robinson. *Harvard Bsns R* 26:398-409 J1 '48; Excerpts. *Comm & Fin Chr* 168:102+ J1 '48; *Banking* 41:116 Ag '48

Bank earnings outlook loses glitter; with tabulation showing earnings and price relations of 16 New York banks. H. T. Rohs. *Barron's* 28:27 Ap 19 '48

Bank picture, a seesaw; deposits and loans are up, earnings down for most commercial banks. *Bsns W* p62+ Ja 31 '48

Bankers trust company questions adequacy of bank lending rates; points to declining bank profits in 1947. *Comm & Fin Chr* 166:1879 N 6 '47

BANKS and banking—Finance—Continued

Banks' profits off in 1947; opinions mixed for this year; with table showing earnings and price relationships of 16 New York banks. *Barron's* 28:22 F 2 '48

Banks; where they stand in the postwar economy. *Bans W* p73-80 My 8 '48 [reprints 10c] Changing weather for bank earnings. *J. W. Wooster, Jr. Banking* 40:33-4+ D '47

How Federal Reserve policies affect New York city banks. *M. A. Schapiro. Comm & Fin Chr* 168:1750+ O 28 '48

Inflation shapes New York bank profits; with data on earnings and price relationships of 15 New York banks as second quarter ends. *H. T. Rohs. Barron's* 28:7 J1 19 '48

Member bank earnings, 1947 and comparisons with other years; with ratios and detailed figures of earnings and related items. *Fed Res Bul* 34:501-4, 576-86 My '48

News about banks and bankers; figures from year-end statements. *Comm & Fin Chr* 167:113+ Ja 8 '48

1947 earnings and year-end figures of 17 leading New York City banks vs. their 1946 figures. *E. A. Van Deusen. Comm & Fin Chr* 167:312 Ja 22 '48

Ratio of total capital funds to total deposits of insured commercial banks; position of leading New York city banks. *E. A. Van Deusen. Comm & Fin Chr* 167:1870 Ap 29 '48

Rising interest rates brighten banks' outlook. *W. K. Gutman. Barron's* 28:29-30 O 4 '48

Rising rates and loans aiding bank profits; with table giving earnings and price relationships of 15 New York banks for third quarter. *H. T. Rohs. Barron's* 28:31 O 18 '48

Trend of New York City bank earnings. *M. A. Schapiro. Comm & Fin Chr* 166:2622+ D 25 '47

Upward trend of bank earnings; position of central Reserve city banks of New York. *F. L. Elliott. Comm & Fin Chr* 168:1100+ S 16 '48

See also

Bank reserves

Foreign banking service

Every bank may provide foreign banking services for its customers. *R. K. Newhall. Bankers Mo* 64:577-80 D '47

How commercial letters of credit help finance foreign trade. *A. W. Roberts. Bankers Mo* 64:525-6 N '47

World trade, ERP and the banker, interview with T. C. Blaisdell, Jr. *H. Bratter, il Bank-ing* 40:46-7+ My '48

Forms, blanks, etc.

Overhauling bank forms and procedures; program of National bank of Hanover, New Hampshire. *C. N. Batchelder, il Burroughs Clearing House* 32:24-7+ J1 '48

General security agreement

Case for a general security agreement. *K. N. Llewellyn. Banking* 40:50+ Ap '48

Government ownership

Australian bank bill details. *Economist* 153: 734 N 1 '47

Australia's bank nationalisation powers. *Economist* 153:977 D 13 '47

Law governing nationalization of banks in Hungary. *For Comm W* 30:20 Ja 31 '48

State banking in Australia. *Economist* 153: 688-90 O 25 '47

Guaranty of deposits

Separate insured deposit of accounts maintained by depositor in different capacity and right. *Banking Law J* 64:869-81 N '47

What depositors should know about bank stability; work of the FDIC. *M. T. Harl. Bankers Mo* 65:28 O '48

Holding companies

Has banking the will to remain competitive? *C. F. Byrd. Comm & Fin Chr* 168:710+ Ag 19 '48

Hours of business

Six-day banking week. *H. J. Stoddard, il Burroughs Clearing House* 32:28-9+ My '48

333 new accounts resulted from our seven-day banking service; Syracuse, N.Y. bank makes night depository available for other transactions. *W. G. Morton, il Bankers Mo* 65:24+ O '48

Information departments

Information desk saves time for officers, tellers, customers. *P. K. Barker, il Bankers Mo* 65:14+ Je '48

Insurance requirements

Advises bankers what coverages to buy. *K. C. Bell. East Underw* 49:38 My 7 '48

Cost-reducing transit letter plan; use of cash letter insurance. *W. H. McDaniel, il Burroughs Clearing House* 32:28-9+ J1 '48

Crimes against banks increase. *F. B. Post. Banking* 40:105+ N '47; Same cond. *Nat Underw* 51:19 O 23 '47; Same cond. *East Underw* 48:55 O 17 '47

Loss prevention program for state banking groups. *W. L. Flynn. Nat Underw* 52:29 My 6 '48

New York savings bank group pursues fire legal liability cover. *Nat Underw* 52:2 J1 8 '48

Protection demanded by definite crime trend. *R. D. Mathias and others. Weekly Underw* 158:375+ Mr 27 '48

Westinghouse has financing, insurance plan for banks. *Nat Underw* 52:6 Ag 19 '48; *East Underw* 49:22 Ag 20 '48

See also

Bankers' blanket bond

Insurance, Safe deposit box

Insurance selling

See also

Savings banks—Insurance selling

Investments

Bank investment portfolio. *E. S. Adams. Comm & Fin Chr* 166:2371+ D 11 '47

Bankers deride Parkinson's inflation weapon; problem of banks utilizing proceeds of government bond sales for inflationary purposes. *W. F. McHale. Barron's* 28:25 Ag 30 '48

Banks and governments; changes in bank holdings since 1943. *Burroughs Clearing House* 32:6-7 S '48

Government bond market and bank bond portfolio management. *J. H. Grier. Comm & Fin Chr* 168:1748+ O 28 '48

Investments of large and small banks show marked contrast; results of A.B.A. survey. *D. H. Erdman. Banking* 41:42-3 O '48

Municipal bonds as bank investments. *H. L. Severson. Comm & Fin Chr* 167:817+ F 19 '48

Municipal bonds in the bank portfolio. *I. A. Long. Comm & Fin Chr* 168:1102+ S 16 '48

Outlook for business and government bonds. *M. Nadler. Comm & Fin Chr* 167:2201+ My 20 '48

Outlook for government bonds. *J. H. Grier. Bankers Mo* 65:28+ F '48; Same. *Comm & Fin Chr* 167:486+ Ja 29 '48

Postwar changes in commercial bank portfolios. *W. W. Aldrich. Comm & Fin Chr* 167:2653+ Je 17 '48

Problems in federal debt management. *F. C. Broach. Comm & Fin Chr* 168:1538+ O 14 '48

Recent changes in bank government security portfolios. *Fed Res Bul* 33:1348-9 N '47

Reducing bank bond holdings; effective debt management. *M. M. Townsend. Comm & Fin Chr* 167:1439+ Ap 1 '48

Tailored investment policy; abstract. *W. W. McEachern. Banking* 40:88+ Ja '48

Tested plan used by directors to convert cash into earning assets. *M. Corns. Bankers Mo* 65:18+ Ag '48

We feel safer with a definite investment policy; Blissfield state bank, Blissfield, Mich. *K. B. Glaser. Bankers Mo* 64:600-1 D '47

What banks face in mortgage lending; address before Eastern regional savings and mortgage conference of ABA, New York. *J. M. Dodge. Comm & Fin Chr* 167:1221+ Mr 18 '48

See also

Banks and banking

Loans, Bank

—Real estate operations

Savings banks—Investments

BANKS and banking—Continued

Law

See Banking law

Mortgage departments

Bank lending policies on today's mortgages; Cleveland trust co. H. R. Templeton. *il* Burroughs Clearing House 32:21-3+ Mr '48
 Howie Duzzit, mortgage loan officer; cartoons with text. D. Ericson. *Banking* 40:40-1 Je '48
 Originating new mortgage loans. E. M. Mortlock. *Banking* 40:68+ D '47
 Real estate prices and mortgage practices. W. W. True. *Comm & Fin Chr* 168:1205+ S 23 '48
 Time to keep an eye on costs; operating economies in a mortgage department. E. J. Livesey. *il* *Banking* 40:34-5 N '47
 Ways to save money in mortgage loan operations. E. M. Mortlock. *Banking* 40:68 N '47

New business

Compound interest accounts add customers for eight other services. L. P. Gallet. *Bankers Mo* 65:8 Ap '48
 11,763 new deposit accounts from a ten-week employee contest; Irving trust company, New York. J. M. Tonsmeire. *Bankers Mo* 65:34 S '48
 Successful new business program; Central bank, Oakland, Calif. D. Clark. *il* Burroughs Clearing House 33:22-5+ O '48

Night and curb depositories

333 new accounts resulted from our seven-day banking service; Syracuse, N.Y. bank makes night depository available for other transactions. W. G. Morton. *il* *Bankers Mo* 65:24+ O '48

Periodicals

Why publish an echo? *Banking* 40:92+ N '47

Protection

Crimes against banks increase. F. B. Post. *Banking* 40:105+ N '47; Same cond. *Nat Underw* 51:19 O 23 '47; Same cond. *East Underw* 48:55 O 17 '47
 Why some burglaries don't happen; work of Underwriters' laboratories. H. Severson. *il* *Banking* 40:30 Je '48

See also

Bank robberies

Public relations

Bank advertising for community development; Troy savings bank promotes local area through public relations campaigns. *il* *Trusts & Estates* 87:52-4 Jl '48
 Bank public relations; survey of 1948 plans of state bankers and fiduciary associations. *Trusts & Estates* 86:215-20 Mr '48
 Components of community relations for banks and trustees. *Trusts & Estates* 86:8-10 Ja '48
 Connecticut bankers public relations committee reports. *Trusts & Estates* 86:489 Je '48
 Explain actions to public. R. Lindquist. *Trusts & Estates* 86:323-4 Ap '48
 How-to series on public relations. J. B. Mack, jr. *Banking* 41:40-2 Jl '48
 Humanized banking pays off; First national bank of Meadville builds business through community service activity. *Trusts & Estates* 85:402-3 N '47
 Los Angeles story; A.I.B. chapter promotes Bankers Day program and essay contest for high school students. *Trusts & Estates* 86:234-6 Mr '48
 Participation in community affairs; program of Security-first national bank of Los Angeles. C. Braxdale. *il* Burroughs Clearing House 32:22-3+ N '47; Excerpts. *Trusts & Estates* 85:514 D '47
 Pioneering venture for commercial banks; state-wide public relations; program of Connecticut banks. A. Van Vlissingen. *il* Burroughs Clearing House 32:21-3+ Jl '48
 Young Philadelphia looks at banking; co-operation between Corn Exchange and Philadelphia schools. D. E. Williams. *il* Burroughs Clearing House 32:20-1+ Ap '48

See also

Banks and banking
 —Customer relations

Purchasing

Efficient routine for supplies control. O. B. Lovell. *il* Burroughs Clearing House 32:24-5+ N '47

Real estate operations

Equity housing; banks find yesterday's golden opportunity turning into today's expensive headache. *il* *Arch Forum* 88:14-16 Ja '48

Records

Banks may Recordak currency for protection. B. Dunn. *Bankers Mo* 64:580 D '47
 Cost-reducing transit letter plan; use of cash letter insurance. W. H. McDaniel. *il* Burroughs Clearing House 32:28-9+ Jl '48
 Depositors write deposit slips when properly instructed; relieve tellers of task. *il* *Bankers Mo* 65:14+ Ap '48
 Laws governing the keeping of bank records, 1947 revision; tabulation by states. *Bankers Mo* 65:26 F '48
 Preservation and filming of records; experience of Haverhill national bank, Massachusetts. N. T. Shepherd. *il* Burroughs Clearing House 32:26-8+ S '48
 Seven-year test shows that deposit slips need not be stored; National city bank of Dallas uses photographic records. R. C. Ayres. *il* *Bankers Mo* 65:14+ My '48
 75 per cent of employees' time saved in handling new account records. C. C. Bridgers. *il* *Bankers Mo* 65:14+ Ag '48

Regulation

Correct approach to bank supervision. J. L. Robertson. *Comm & Fin Chr* 168:902+ S 2 '48
 Free banking system recedes into indefinite future; Sproul and Schram disagree, but both shrink from end of U.S. rule. H. Murphy. *Barron's* 28:10 My 17 '48
 Government financial powers and banking. E. Woollen, jr. *Comm & Fin Chr* 168:1855+ N 4 '48
 Inflation and the banking position; urges simplification of bank supervision. P. H. Lohman. *Comm & Fin Chr* 167:2+ Ja 1 '48
 Mostly inflation; Eccles' special reserve proposal. L. Stafford. *Banking* 40:35-9+ Ja '48
 Problem of credit control. *Nat City Bank* p4-9 Ja '48; Excerpts. *Comm & Fin Chr* 167:117 Ja 8 '48
 Proposal for a special reserve requirement against the demand and time deposits of banks; statement filed by Chairman Eccles with Committee on banking and currency of the House of representatives, Dec. 8 1947. *Fed Res Bul* 34:14-23 Ja '48
 Proposals for sound banking; statement before Joint committee on the economic report. J. J. Rowe. *Comm & Fin Chr* 167:1750+ Ap 22 '48

Reports

New look bank reports; notes on selected 1947 reports. *Banking* 40:84+ Mr '48
 New look in annual reports. H. V. Odle. *il* Burroughs Clearing House 32:22-5+ Mr '48
 Radio report to depositors; Community savings bank of Rochester, N.Y. *Banking* 41:32-3 Jl '48

Safe deposits

See Safe deposits

Savings departments

Compound interest accounts add customers for eight other services. L. P. Gallet. *Bankers Mo* 65:6 Ap '48

Securities

See Banks and banking—Stock

Securities handling

Charges for handling stocks and bonds. *Bankers Mo* 65:34 Ja '48

Service

A.B.A. anti-inflation program; abstract. W. A. Kleimann. *Banking* 40:140 My '48
 A.B.A.'s voluntary credit control program. Burroughs Clearing House 32:24-7 F '48
 Bank has own consumer panel to attract ad agency business. *Ptr Ink* 223:90 My 7 '48

BANKS and banking—Service—Continued

Bank details its services; Security—first national bank of Los Angeles, *Il Bsns W* p69-70+ *Ja* 10 '48

Banking statesmanship; progress of A.B.A. anti-inflation program. *Banking* 40:44-5+ *Ap* '48

Building customers for tomorrow; Bank of America helps small businessman, J. J. O'Rourke, *Il Am Bsns* 18:24+ *Jl* '48

Chile's mining bank aids small operators, F. Benitez, *Il Eng & Min J* 148:65-7 *D* '47

Helping people make ends meet; budget counseling service of Northwestern national bank, Minneapolis, M. E. Mattson, *Banking* 40:60-1+ *F* '48

Keeping America green; forestry program of the Florida bankers association, A. A. McKethan, *Il Banking* 40:16+ *Ja* '48

More customers, more profits have come from new bank service; Security—first national bank of Los Angeles, G. M. Wallace, *Il Bankers Mo* 65:7-8+ *S* '48

New bank service to business; Irving trust company's round tables on investor relations for utility operating companies, *Banking* 40:120-1 *My* '48

Oregon bankers association's successful youth program; assistance given to FFA and 4-H, *Il Banking* 40:56-7+ *Mr* '48

Save and produce; anti-inflation program of the American bankers association, map *Banking* 40:33-43+ *F* '48

Savings bond program for banks, *Banking* 40:130 *My* '48

What's your favorite brand? product research panel of Marine midland trust company of New York for its advertising agency customers, J. L. Cooley, *Banking* 40:35+ *My* '48

See also

Banks and banking—
Foreign banking
service

Management aids

Specific facts about business help both customer and loan officer, E. A. Mattison, *Bankers Mo* 65:24+ *Ag* '48

Service charge

Are service charges keeping up with costs? J. W. Wooster, jr., *Banking* 41:33-5+ *O* '48

Depositors prefer to pay service charges instead of exchange, *Bankers Mo* 65:27 *Ag* '48

How to formulate a simplified service charge schedule, H. L. Dunham, *Bankers Mo* 65:17-19 *Ja* '48

Service charges by whim and guess, E. S. Woolley, *Banking* 41:33+ *O* '48

Service to government

Security loan drive, *Banking* 40:130+ *Je* '48

Show windows

Bank windows that sell, *Il Banking* 40:42-4 *Je* '48

Standards

International banking standards; French proposal, B. Melnitsky, *Banking* 41:140 *S* '48

Statements of account

Old and new British bank statements, F. Plachy, *Il Burroughs Clearing House* 32:26-7 *Je* '48

Statistics

All banks in the United States and possessions, by states, June 30, 1947; assets and liabilities, and number of banks, *Fed Res Bul* 34:66-7 *Ja* '48

All banks in the United States and possessions, by states, Dec. 31, 1947; assets and liabilities, and number of banks, *Fed Res Bul* 34:68-7 *Je* '48

All member banks; assets and liabilities on Dec. 31, 1947, by class of bank, *Fed Res Bul* 34:460 *Ap* '48

All member banks; assets and liabilities on June 30, 1948, by class of bank, *Fed Res Bul* 34:1302 *O* '48

Assets and liabilities of insured commercial banks in United States and possessions, on Dec. 31, 1947, June 30, 1947, and Dec. 31, 1946, *Fed Res Bul* 34:461 *Ap* '48

Assets and liabilities of insured commercial banks in United States and possessions, June 30, 1948, December 31, 1947, and June 30, 1947, *Fed Res Bul* 34:1303 *O* '48

Bank earnings; insured commercial banks in the United States and possessions, 1944-1947, *Fed Res Bul* 34:587 *My* '48

Banking assets and the money supply since 1929, M. A. Copeland and D. H. Brill, *Fed Res Bul* 34:24-32 *Ja* '48

Banking in Michigan today; with statistical comparisons, M. A. Schapiro, *Comm & Fin Chr* 167:1984-5 *My* '48

Banking's billion-dollar club grows, *Bsns W* p62 *Ja* 31 '48

Classified list of banks and bankers of the United States, together with recapitulation of the banking figures as of Dec. 31, 1947, by states and territories, *Banking* 40:128 *My* '48; Correction, 41:120 *Jl* '48

New commercial banking offices, 1936-1947, C. H. Cagle and R. C. Kolb, *Fed Res Bul* 34:505-16 *My* '48

Number of banks and branches in operation on Dec. 31, 1947, *Fed Res Bul* 34:588-9 *My* '48

Sharp rise in bank deposits; with summary of assets and liabilities of all operating banks in the United States and possessions, Dec. 31, 1947, *Comm & Fin Chr* 167:2332 *My* 27 '48

See also

Bank clearings **Federal reserve**
Bank deposits—Sta- **banks—Statistics**
tistics

Stock

Bank stocks in the new year; with statistical summary of leading stocks, H. S. Coffin, *Mag of Wall St* 81:474-6+ *Ja* '48

Bankicide; bank stock selling for less than known book value, *Fortune* 38:112 *Jl* '48

Banks at mid-year; with statistical summary of leading stocks, H. S. Coffin, *Mag of Wall St* 82:440-1+ *Jl* 31 '48

Book values and market prices of 17 New York City bank stocks as of today, compared with two years ago; table, *Comm & Fin Chr* 167:610 *F* '48

Movements of 17 leading New York City stocks from Dec. 31, 1946 to Dec. 31, 1947, E. A. Van Deusen, *Comm & Fin Chr* 167:116 *Ja* 8 '48; Correction, 167:212 *Ja* 15 '48

Stockholders

Contacts with stockholders; what banks are doing, *Il Banking* 41:106+ *O* '48

Stockholders' liability

Limitations to actions to enforce statutory double liability of stockholder of insolvent national bank, *Banking Law J* 64:775-9 *O* '47

Stores systems

Economies in cost and less waste with this system of stock control, G. J. Ruhlman, *Il Bankers Mo* 65:10-11 *Mr* '48

Efficient routine for supplies control, O. B. Lovell, *Il Burroughs Clearing House* 32:24-5+ *N* '47

Seven mistakes are avoided by this supply-control technique; Gary national bank, Gary, Indiana, F. N. Tyler, *Bankers Mo* 65:42+ *F* '48

Study and teaching

Cashier started teaching; high school program that will fit any town; First national bank of Leesburg, B. S. Hamilton, *Il Banking* 40:33-4 *Je* '48

Los Angeles story; A.I.B. chapter promotes Bankers Day program and essay contest for high school students, *Trusts & Estates* 86:234-6 *Mr* '48

Outline of a banking course for high school students, *Banking* 41:38-9 *Ag* '48

Trust education in Canada; pioneer course given at Queens university, A. R. Courtice, *Trusts & Estates* 86:237-9 *Mr* '48

Young Philadelphia looks at banking; co-operation between Corn Exchange and Philadelphia schools, D. E. Williams, *Il Burroughs Clearing House* 32:20-1+ *Ap* '48

Taxation

Accrual of income tax liability provides a more accurate statement, F. J. Sudekum, *Bankers Mo* 65:5-6+ *Ja* '48

BANKS and banking—Taxation—Continued

How Missouri equalizes bank taxes. R. Neill, Jr. Banking 41:30+ Ag '48

Tellers

Depositors write deposit slips when properly instructed; relieve tellers of task. *il* Bankers Mo 65:14+ Ap '48

See also

Bank buildings—
Tellers' cages

Transit operations

Check routing symbol experience. M. C. Miller. Banking 40:39+ Ap '48
Check routing symbol progress. M. C. Miller. Banking 40:51+ F; 41:64 Ag '48
Cost-reducing transit letter plan; use of cash letter insurance. W. H. McDaniel, *il* Burroughs Clearing House 32:28-9+ Jl '48

Travel credit service

Banks' travel-credit service. *il* Burroughs Clearing House 32:4+ D '47

Trust departments

Acceptance of small estates. D. T. Pyne. Trusts & Estates 87:207-9 S '48

Adequate investment facilities; joint trust department and investment counsel service. G. P. Caterer. Trusts & Estates 87:177-9 S '48

Are you missing trust business? study of trust business and market in Rockford, Ill. A. Journeay. Banking 41:40-1+ O; 46:7+ N '48

Capable trust service for customers of correspondents. *il* Bankers Mo 65:14-15 Ja '48

Case history in trust cost study. R. B. Wilhoit. Trusts & Estates 87:99-104 Ag '48

Conference with bank supervisors; Connecticut trustmen and supervisors discuss operations. Trusts & Estates 86:415-17 My '48

Directors and the trust department; suggestions for efficient examinations. R. M. Stephenson. Trusts & Estates 86:67-71 Ja '48

Fiduciary activities of national banks; comparison as of Dec. 31, 1946, and Dec. 31, 1945; tabulation. Trusts & Estates 86:64 Ja '48

Fiduciary activities of national banks, comparison as of Dec. 31, 1947, and Dec. 31, 1946; fiduciary activities by Federal reserve districts as of Dec. 31, 1947; tabulations. Trusts & Estates 87:214-15 S '48

Fifty years of trust service. R. Stone. Comm & Fin Chr 168:1436-7+ O 7 '48

Handling small estates; streamlining legal requirements and administrative procedures. L. H. Roseberry. Trusts & Estates 85:408-12 N '47

Management looks at trust business. E. Woolen, Jr. Trusts & Estates 85:435-6 N '47

New trust cost analysis for New England banks for 1947. L. M. Hoyle. Trusts & Estates 87:171-5 S '48

Overcoming personnel problems. F. E. Whitmer. Trusts & Estates 86:131-4 F '48

Smaller trust departments in Pennsylvania; a survey. R. W. Steber. Trusts & Estates 86:74-6 Ja '48

Trust business in the United States. G. T. Stephenson. Trusts & Estates 86:206 Mr '48

Trust business making record highs; survey and review of annual reports. Trusts & Estates 86:254-9 Mr '48

Trust department expense control; four essentials to fair profit. G. C. Robinson. Trusts & Estates 86:109-11 F '48

Trust expenses analyzed by Federal reserve bank of Boston. Trusts & Estates 86:434 Je '48

Trust man's contribution; abstract. J. W. Allison. Banking 40:86 N '47

Use of investment counsel by trust departments. H. L. Austin. Trusts & Estates 86:459-62 Je '48

See also

American bankers association—Trust division

Australasia

Bank of Australasia annual general meeting. Economist 154:523 Mr 27 '48

Australia

Australian bank bill details. Economist 153:734 N 1 '47

Australia's bank nationalisation powers. Economist 153:977 D 13 '47

State banking in Australia. Economist 153:688-90 O 25 '47

Bolivia

Import committee abolished and administrative functions of import-licensing system turned over to the Central bank. For Comm W 30:14-15 F 21; 12 Mr 20 '48

Burma

Developments in establishing independent financial system. For Comm W 29:13 D 27 '47

California

Suit regarding condition of membership; Peoples bank of Lakewood Village, Calif., v. Eccles, et al. Fed Res Bul 34:398-402 Ap '48
See also Bank of America national trust and savings association

Canada

Annual report of the Bank of Canada for 1947. Fed Res Bul 34:659-65 Je '48

Bank for small business has busiest year; Canada's industrial development bank. Bsns W p89 Ja 31 '48

Bank of Montreal 130th annual general meeting. Economist 154:37 Ja 3 '48

Canadian bank of commerce annual meeting, Toronto. Economist 153:980 D 13 '47

Industrial development bank reports. J. Montagnes. Burroughs Clearing House 32:63-4+ F '48

Chile

Chile's mining bank aids small operators. F. Benitez. *il* Eng & Min J 148:65-7 D '47

China

See also

Hongkong and Shanghai banking corporation

Czechoslovakia

Centralization of banks. For Comm W 30:15 Mr 13 '48

Reorganization of banking system. For Comm W 33:14-15+ O 16 '48

Detroit

Detroit bank on the move; Industrial National. Bsns W p80+ F 7 '48

Egypt

National bank of Egypt 48th annual general meeting, Cairo. Economist 154:692 Ap 24 '48

Europe

Proposes European reserve system. H. F. Milligan. Comm & Fin Chr 167:1326 Mr 25 '48

France

Second annual report of the National credit council of France. Fed Res Bul 34:950-60 Ar '48

Georgia

Example from southeast Georgia; broader bank service; First national bank in Waycross. G. M. Bazemore. *il* Burroughs Clearing House 32:19-21+ F '48

Germany

Establishment of central bank for the Soviet zone. For Comm W 32:20 Jl 3 '48

Establishment of central bank for U.S.-U.K. zones of Germany. For Comm W 30:18 Mr 27 '48

Germany's central bank. Economist 154:317 F 21 '48

New central bank for United States and British zones of Germany; with text of U.S. area of control law no. 60. Fed Res Bul 34:279-83 Mr '48

Great Britain

American genius for bankruptcy; Europe, not the U.S.A., has the love of money. G. Burck. Fortune 37:130-1+ Ap '48

Bank balance sheets. Economist 154:195 Ja 31 '48

BANKS and banking—Great Britain—Cont.

- Banking outlook. Economist 154:232-3 F 7 '48
- Banks in 1947. Economist 154:29-30 Ja 3 '48
- Co-operative wholesale society bank expansion checked. Economist 154:1035 Je 19 '48
- English, Scottish and Australian bank, limited, ordinary general meeting. Economist 153:1023 D 20 '47
- Higher bank profits; with figures for leading banks, 1944-47. Economist 154:111-12 Ja 17 '48
- Old and, new British bank statements. F. Plachy. *il* Burroughs Clearing House 32: 26-7 Je '48
- See also*
- | | |
|---|-----------------------------------|
| Bank of England | Lloyds bank, limited |
| Bank of London and South America, limited | Martins bank, limited |
| Barclays bank (Dominion, colonial and overseas) | Midland bank, limited |
| Barclays bank, limited | National provincial bank, limited |
| District bank, limited | Westminster bank, limited |
| | Williams Deacon's bank, limited |

Hilton village, Virginia

- Bank of Warwick takes lid off promotion. Bsns W p86+ Mr 6 '48

Hungary

- Reorganization of the banking system. For Comm W 32:19 Ag 14 '48

India

- Annual report of Reserve bank of India. For Comm W 29:17-18 N 15 '47
- Mercantile bank of India, limited, 55th annual general meeting, London. Economist 154:563 Ap 3 '48
- National bank of India, limited, annual general meeting. Economist 154:523-4 Mr 27 '48
- Pakistan monetary system and reserve-bank order. For Comm W 29:18 N 15 '47
- Punjab national bank limited, ordinary general meeting, Delhi. Economist 155:396-7 S 4 '48

Japan

- Banking today in Japan. W. R. Johnston. *il* Banking 40:54-5+ F; 49-50+ Mr '48

London

- The City is a citadel of free trade, of sound money, of confidence. Fortune 37:124-5 Ap '48

Los Angeles

- Bank retails its services; Security-first national bank of Los Angeles. *il* Bsns W p69-70+ Ja 10 '48
- More customers, more profits have come from new bank service; Security-First national bank of Los Angeles. G. M. Wallace. *il* Bankers Mo 65:7-8+ S '48

Meadville, Pennsylvania

- Country bank, large city methods; a \$10,000,000 big bank; First national bank of Meadville. E. H. Keep. *il* Burroughs Clearing House 32:17-19+ Ja '48

Michigan

- Banking in Michigan today; with statistical comparisons. M. A. Schapiro. Comm & Fin Chr 167:1984-5 My 4 '48

New York (city)

- Aggregate net operating earnings of 15 New York banks from 1939 to 1947. E. A. Van Deusen. Comm & Fin Chr 167:1002 Mr 4 '48
- Bank earnings outlook loses glitter; with tabulation showing earnings and price relations of 16 New York banks. H. T. Rohs. Barron's 28:27 Ap 19 '48
- Bank mergers in the air; two deals under way. Bsns W p93-4+ Mr 20 '48
- Banks' profits, off in 1947; opinions mixed for this year; with table showing earnings and price relationships of 16 New York banks. Barron's 28:22 F 2 '48
- How Federal Reserve policies affect New York city banks. M. A. Schapiro. Comm & Fin Chr 168:1750+ O 28 '48

- Inflation shapes New York bank profits; with data on earnings and price relationships of 15 New York banks as second quarter ends. H. T. Rohs. Barron's 28:7 Jl 19 '48
- Movements of 17 leading New York City stocks, from Dec. 31, 1946 to Dec. 31, 1947. E. A. Van Deusen. Comm & Fin Chr 167: 116 Ja 8 '48; Correction. 167:212 Ja 15 '48

- 1947 earnings and year-end figures of 17 leading New York City banks vs. their 1946 figures. E. A. Van Deusen. Comm & Fin Chr 167:312 Ja 22 '48

- Rising rates and loans aiding bank profits; with table giving earnings and price relationships of 15 New York banks for third quarter. H. T. Rohs. Barron's 28:31 O 18 '48
- Trend of New York City bank earnings. M. A. Schapiro. Comm & Fin Chr 166:2622+ D 25 '47

- Upward trend of bank earnings; position of central Reserve city banks of New York. F. L. Elliott. Comm & Fin Chr 168:1100+ S 16 '48

See also

- Bank of the Manhattan company

New York (state)

- Bank deposits again divorced from Treasury operations; summary of 1947 results. E. V. Bell. Comm & Fin Chr 167:1013 Mr 4 '48

Oakland, California

- Successful new business program; Central bank, Oakland. D. Clark. *il* Burroughs Clearing House 33:22-5+ O '48

Pakistan

- State bank of Pakistan. For Comm W 32:44 S 11 '48

Palestine

- Anglo-Palestine bank, limited, 46th ordinary general meeting. Economist 154:779 My 8 '48

Philippine Islands

- Operations of Philippine national bank. For Comm W 31:17-18 Ap 24 '48
- Philippine Central bank act. D. L. Grove and J. Exter. Fed Res Bul 34:938-49 Ag '48
- Philippines Supreme court validates Jap liquidation of allied banks. Comm & Fin Chr 167:1769 Ap 22 '48; For Comm W 31:25-6 My 22 '48

Pittsburgh

- Mellon family bank; how big will it get? *il* Bsns W p61-3 Ag 28 '48

Rock Island, Illinois

- Know your city; lobby displays boost local industries and the bank in Rock Island. *il* Trusts & Estates 85:512-13 D '47

Rockford, Illinois

- Are you missing trust business? study of trust business and market in Rockford. A. Journey. Banking 41:40-1+ O; 46-7+ N '48

Scotland

- Bank of Scotland; statement by the Governor at annual general meeting. Lord Elphinstone. Economist 154:613 Ap 10 '48

- Clydesdale bank, limited; 110th general meeting, Glasgow. Economist 154:244 F 7 '48

- Commercial bank of Scotland, limited; annual meeting of shareholders; National bank of Scotland, limited; annual general meeting of the proprietors. Economist 153:1021-2 D 20 '47

- Royal bank of Scotland; annual general court of proprietors; with figures showing position, Oct. 11, 1947. Economist 153:899, 901-2 N 29 '47

- Scottish banking results. Economist 153:897-8 N 29 '47

- Union bank of Scotland, limited, annual meeting. Economist 154:818 My 15 '48

South Africa

- Annual report of the governor of the South African reserve bank. For Comm W 29: 19-20 N 8 '47

- Banking and foreign-exchange situation. For Comm W 31:27 My 22 '48

BANKS and banking—South Africa—Cont.
Standard bank of South Africa, limited; statement by the chairman at ordinary general meeting. Lord Harlech. Economist 155:204 J1 31 '48

Sunset, Louisiana

Big little bank; Sunset institution. Bsns W p97-8 S 25 '48

Turkey

See also

Ottoman bank

United States

American genius for bankruptcy; Europe, not the U.S.A., has the love of money. G. Burck. Fortune 37:130-1+ Ap '48

Banking assets and the money supply since 1929. M. A. Copeland and D. H. Brill. Fed Res Bul 34:24-32 Ja '48

Banks; where they stand in the postwar economy. Bsns W p73-80 My 8 '48 [reprints 10c]

Classified list of banks and bankers of the United States, together with recapitulation of the banking figures as of Dec. 31, 1947, by states and territories. Banking 40:128 My '48; Correction. 41:120 J1 '48

FDIC and banking history. H. E. Cook. Comm & Fin Chr 168:9+ J1 '48

How sound is the dollar? Fortune 37:84-8+ Ap '48

Inflation, a world problem; because of dual banking in U.S., federal authorities cannot control money supply. A. A. Potter. Comm & Fin Chr 168:711+ Ag 19 '48

Looking at banking in an inflated economy. C. W. Williams. Burroughs Clearing House 32:22-3+ F '48

New commercial banking offices, 1936-1947. C. H. Cagle and R. C. Kolb. Fed Res Bul 34:505-16 My '48

See also

Federal reserve banks

Federal reserve board

Crisis, 1933

See Bank crisis, 1933

BANKS and banking, Cooperative

Co-operative wholesale society bank expansion checked. Economist 154:1035 Je 19 '48
Would ask capital refund by banks for co-operatives; abstract. C. T. O'Neill. Banking 40:52 My '48

BANKS and banking, International

See also Bank for international settlements; International bank for reconstruction and development

BANKS and banking, National

Comptroller of the currency reports higher national bank earnings in 1947. Comm & Fin Chr 167:1545 Ap 8 '48

Condition of national banks as of June 30, 1948, April 12, 1948 and June 30, 1947. Comm & Fin Chr 168:1328 S 30 '48

Fiduciary activities of national banks; comparison as of Dec. 31, 1946, and Dec. 31, 1945; tabulation. Trusts & Estates 86:64 Ja '48

Fiduciary activities of national banks, comparison as of Dec. 31, 1947, and Dec. 31, 1946; fiduciary activities by Federal reserve districts as of Dec. 31, 1947; tabulations. Trusts & Estates 87:214-15 S '48

Member bank earnings, 1947; national banks, by size of bank. Fed Res Bul 34:581 My '48

National bank assets off in first quarter. Comptroller of currency reports. Comm & Fin Chr 167:2435 Je 3 '48

National banks' loans and deposits up in 1947; report of Comptroller of currency. Comm & Fin Chr 167:1112 Mr 11 '48

National banks pay out more from lower profits. Barron's 28:10 S 6 '48

Reports 60 per cent of national banks' profits turned into capital funds. G. D. Palmer. Comm & Fin Chr 167:2544 Je 10 '48

Trust assets and gross earnings of national banks up in 1946. Trusts & Estates 85:480 N '47

BANKS and banking, State

Member bank earnings, 1947; state member banks, by size of bank. Fed Res Bul 34: 582 My '48

BAPTISIA australis

Papilionaceous alkaloids; baptisia australis (L.) R. Br. L. Marion and J. Ouellet. bibliog Am Chem Soc J 70:691-2 F '48

BAR associations

See also

American bar association

BARABOO, Wisconsin

Reviving a war-boom town. Il Bsns W p64-5 O 2 '48

BARBITURIC acid

Condensation of isatin and of 1-methylisatin with barbituric acid. F. E. King, T. J. King and G. B. Thompson. Chem Soc J p552-6 My '48

Condensations of α -alkyl- α -carbethoxy- γ -butyric lactones. G. S. Skinner, A. Stokes and G. Spiller. bibliog Am Chem Soc J 69:3083-6 O '47

Constitution of a by-product from the preparation of trichloropyrimidine from barbituric acid. F. E. King, T. J. King and P. C. Spensley. Chem Soc J p 1247-8 S '47

Cyclic acetals related to ethylacetylbarbituric acid. C. D. Hurd and M. L. McAuley. Am Chem Soc J 70:1650-2 Ap '48

BARBOUR, Erwin Hinckley, 1856-1947

Memorial. C. B. Schultz. por(pl 4) Geol Soc Proc 1947:109-17 bibliog(p 111-17) My '48

BARCLAYS bank (Dominion, colonial and overseas)

Statement of the chairman at ordinary general meeting. J. Crossley. Economist 153: 980 D 13 '47

BARCLAYS bank, limited

Statement by the chairman. W. Goodenough. Economist 154:115-17 Ja 17 '48

BARCROFT, Sir Joseph, 1872-1947

Memorial conference on hemoglobin. Science 108:203-4 Ag 27 '48

BARGE lines

Barges haul goods to Alaska. Il Bsns W p52+ Mr 20 '48

BARGE lines, Federal. See Federal barge lines

BARGES

Barge and towboat construction spurt means more oil will move on rivers. E. Lamm. Il Nat Pet N 40:29-30+ Ap 7 '48

Giant rig for deepest marine drilling; Shell oil company, inc.'s new barge. E. Sterrett. Il World Oil 127:75-8+ Mr '48

Ingalls shipbuilding corporation develops bow design for barges. Il Marine Eng 53:75 O '48

Largest mechanical barge drilling rig placed in Gulf Coast operation. E. Short. Il plans diag Oil & Gas J 46:62-5 Ja 15 '48

New boat and barges are designed to permit maximum maneuverability, cut delay at locks. Il Nat Pet N 39:44 D 17 '47

New lighterage barge has full-opening hatch cover. Il Marine Eng 53:100 Mr '48

Pittsburgh may double barge shipments of steel within two years. T. S. Blair. Iron Age 162:119-20 Ag 12 '48

Power and control are salient feature of Shell's new super drilling barge. E. Short. Il Oil & Gas J 46:76-8 Mr 11 '48

Resistance of barge forms with simple geometrically-shaped ends. A. D. Hay. bibliog diag Marine Eng 53:64-7 Ag '48

Resistance of barges and flotillas; abstract. L. A. Baier. Marine Eng 52:88-9; Discussion. 89-90 D '47

Resistance of barges in deep and shallow water; abstract and discussion. J. F. Allan and W. P. Walker. Engineering 164:425-6 O 31 '47

Rhine River barges. Il Marine Eng 53:52-7 Je '48

Socony-Vacuum oil barge repowered. Il Marine Eng 53:79 S '48

Waterways get a boost. Il Bsns W p41-2+ Ag 21 '48

See also

Inland waterways

Loading and un-

loading—Barges

BARGES, Steel

Steel barges move 3,000,005 tons of coal annually in Philadelphia area. Il Marine Eng 53:96 Mr '48

BARING family

Masters of money; the Barings and the Rothschilds. por Fortune 37:95 Ap '48

BARITE

Barite deposits in the Ouachita mountains, Montgomery, Pike, and Pike counties, Ark. T. A. Jones. 8pls U S Bur Mines Rep of Invest 4348:1-15 '48

Barite production upheld by improved equipment. E. Just. flow sheets II Eng & Min J 149:71-3 Ja '48

Investigation of ore-dressing methods for barite ores from New Mexico, Missouri, and Arkansas. M. M. Fine and J. S. Kennedy. U S Bur Mines Rep of Invest 4280:1-31 '48
Specific gravity and assay relationship of Arkansas barite; graph. Eng & Min J 149: 91 S '48

See also

Barium sulfate

BARIUM

Barium lubricating grease. C. J. Boner and G. W. Miller. II Iron & Steel Eng 25:120-2; Discussion. 123-4 S '48

Multistage ion-exchange system for the fractionation of solutes; radium-barium fractionation. A. F. Reid. flow diag Ind & Eng Chem 40:76-8 Ja '48

Role of the cathode surface in sparking phenomena. H. Jacobs and A. P. LaRocque. diags Phys R 74:163-5 Jl 15 '48

Secondary electron emission from targets of barium-strontium oxide. J. E. Johnson. bibliog diags Phys R 73:1058-73 My 1 '48

Analysis

Microdetermination of alkaline earths as normal molybdates. R. Moser and R. J. Robinson. bibliog Anal Chem 19:929-30 N '47

Polarographic and amperometric determination of barium. I. M. Kolthoff and H. P. Gregor. bibliog Anal Chem 20:541-4 Je '48

Quantitative separation of calcium, barium, and strontium. S. Kallmann. bibliog Anal Chem 20:449-51 My '48

Quantitative spectrochemical determination of barium, strontium, and calcium. W. Hartmann and B. E. Prescott. Opt Soc Am J 38:539-41 Je '48

Isotopes

Energy quanta emitted in disintegration of ground state of Ba^{138} . F. Yu and J. D. Kurbatov. bibliog Phys R 74:34-7 Jl 1 '48

Further studies on the radiations from Ba^{138} and Cs^{134} . B. J. Finkle. diags Phys R 72: 1260-1 D 15 '47

New barium and cesium isotopes; $12.0d \text{ Ba}^{131}$, $10.2d \text{ Cs}^{131}$, and long-lived Ba^{132} . S. Katcoff. diags Phys R 72:1160-4 D 15 '47

Target chemistry of cesium; isolation of $\text{Ba}^{138,134}$. M. H. Kurbatov and others. J Chem Phys 16:87-91 F '48

BARIUM acetate

Acetate metabolism in yeast, studied with isotopic carbon. S. Weinhouse and R. H. Millington. bibliog Am Chem Soc J 69:3089-93 D '47

BARIUM aluminate

Barium aluminate hydrates. E. T. Carlson and L. S. Wells. bibliog II J Res Nat Bur Stand 41:103-9 Ag '48

BARIUM bromide

Barium 2-ketolactobionate and the corresponding barium bromide double salt. W. W. Walton and H. S. Isbell. bibliog II J Res Nat Bur Stand 41:119-23 Ag '48

BARIUM carbonate

Effect of the sulfate ion on the plasticity of brick clays. A. L. Johnson and G. B. Hughes. bibliog Am Cer Soc J 31:194-200 Jl 1 '48

Loss of radioactivity from barium carbonate samples. P. E. Yankwich. bibliog Science 107:661-3 Je 25 '48

Method of spectrographic analysis of impurities in materials for oxide coating of thermionic cathodes. T. J. Organ and S. L. Parsons. bibliog Opt Soc Am J 38:191-5 F '48

Production of radioactive carbon monoxide and phosgene from barium carbonate. J. L. Huston and T. H. Norris. diags Am Chem Soc J 70:1968-9 My '48

Rapid method of preparing NaC^{14}N from BaC^{14}O . A. W. Adamson. Am Chem Soc J 69:2564 O '47

Reactions in inert fused substances; conversion of barytes to barium carbonate. H. S. Booth and E. F. Pollard. bibliog Ind & Eng Chem 40:1983-6 O '48

Substitutes for soda ash in the treatment of boiler feed water. W. A. Tanzola, R. L. Reed and J. J. Maguire. bibliog Ind & Eng Chem 39:1440-3 N '47

BARIUM chloride

Apparent molal expansibilities of potassium, barium and lanthanum chlorides as a function of concentration and temperature. G. Jones, E. F. Taylor and R. C. Vogel. bibliog diags Am Chem Soc J 70: 966-77 Mr '48

Catalytic action of salt pairs. G. Schwab and A. Karatzas. bibliog diags J Phys & Colloid Chem 52:1053-60 Je '48

Synthesis of a zeolitic mineral with chabazite-like sorptive properties. R. M. Barrer. pl Chem Soc J p 127-32 F '48

Volumetric determination of small amounts of soluble sulfates. C. L. Ogg, C. O. Willis and F. J. Cooper. bibliog Anal Chem 20:83-5 Ja '48

BARIUM hydroxide

Determination of carbon dioxide in water; improved evolution method. F. E. Clarke. bibliog diags Anal Chem 19:889-91 N '47

BARIUM ketolactobionate

Barium 2-ketolactobionate and the corresponding barium bromide double salt. W. W. Walton and H. S. Isbell. bibliog II J Res Nat Bur Stand 41:119-23 Ag '48

BARIUM oxide

Changes in the indices of refraction and liquids of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. bibliog J Res Nat Bur Stand 40:361-74 My '48

BARIUM phenylsulfamate

Studies on the mechanism of the sulfonation of aromatic amines; rearrangement of barium phenylsulfamate. E. R. Alexander. Am Chem Soc J 70:1274 Mr '48

BARIUM sulfate

Cadmium lithopone colors; their history, characteristics and suitability for use in various fields. R. B. Quelos. Paint Oil & Chem R 111:11-12 Ap 15 '48

Reactions in inert fused substances; conversion of barytes to barium carbonate. H. S. Booth and E. F. Pollard. bibliog Ind & Eng Chem 40:1983-6 O '48

Reactions in inert fused substances; production of blanc fixe from barytes. H. S. Booth, E. F. Pollard and M. J. Rentschler. diags Ind & Eng Chem 40:1981-2 O '48

BARIUM titanate

Anomalous effects in hysteresis loops of a single crystal of BaTiO_3 . A. de Bretteville, Jr. II Phys R 73:807-8 Ap 1 '48

Barium titanate and barium strontium titanate resonators. H. L. Donley. bibliog RCA R 9:218-28 Je '48

Crystal structure of hexagonal barium titanate. H. T. Evans, Jr. and R. D. Burbank. diags J Chem Phys 16:634 Je '48

Cyclic variations of capacitance; effect of 50-c/s voltages on high-permittivity ceramics. W. Reddish. bibliog II diags Wireless Eng 25:331-7 O '48

Dielectric behavior of single domain crystals of BaTiO_3 . G. C. Danielson and others. Phys R 74:986-7 O 15 '48

Domain structure and dielectric response of barium titanate single crystals. B. Matthias and A. von Hippel. bibliog II diags Phys R 73:1378-84 Je 1 '48

Electrostrictive effect in barium titanate. W. P. Mason. Phys R 72:869-70 N 1 '47

Electrostrictive effect in barium titanate ceramics. W. P. Mason. bibliog diags Phys R 74:1134-47 N 1 '48

Growth of barium titanate crystals. B. Matthias. bibliog Phys R 73:808-9 Ap 1 '48

Phase change in barium titanate crystals induced by infra-red radiation absorption. N. J. Field and others. bibliog Phys R 72:1119-20 D 1 '47

Piezoelectric effect in polycrystalline barium titanate. W. L. Cherry, Jr. and R. Adler. Phys R 72:981-2 N 15 '47

Piezoelectric or electrostrictive effect in barium titanate ceramics. W. P. Mason. Phys R 73:1398-9 Je 1 '48

BARIUM titanate—Continued

- Properties of barium-magnesium titanate dielectrics. G. R. Shelton and others, *bibliog* Am Cer Soc J 31:205-12 JI 1 '48; Same. J Res Nat Bur Stand 41:17-26 JI '48
- Properties of electromechanical ceramics. H. Jaffe, *Electronics* 21:128+ JI '48
- Structure, electrical, and optical properties of barium titanate. B. Matthias and A. von Hippel, *bibliog* Phys R 73:268 F 1 '48
- Theory of the dielectric behavior of BaTiO_3 . J. M. Richardson and B. T. Matthias, *Phys R* 74:987-8 O 15 '48

BARK

- Disposal of wood refuse at Thunder Bay paper co. limited, Port Arthur, Ontario. T. C. Anderson, *il diag Pulp & Pa of Can* (Convention no) 49:129-32 [F] '48
- Modern bark burning. M. H. Snodgrass, *il diag Paper Tr J* 125:43-5 D 25 '47; Same *cond. Paper Ind* 29:1488+ Ja '48
- Northeastern wood utilization council conference, Cambridge, Mass. Sept. 17. *Paper Tr J* 127:7-9 S 30 '48; *Paper Ind* 30:1064 O '48
- Products from pulp and pulpwood on Pacific coast. H. K. Benson, *Paper Tr J* 126:61-2 Mr 18 '48
- Putting waste wood to work. E. L. Heermance, *Paper Ind* 30:1092+ O '48
- Redwood bark derivative now available from Pacific lumber co. *Chem Eng* 55:180+ Ja '48
- Studies on composition of bark; utilization for structural boards. L. P. Clermont and H. Schwartz, *bibliog Paper Tr J* 126:57-60 My 6 '48; Same, *Pulp & Pa of Can* 49:90-4 Je '48

BARK peeling

- Bellingham hydraulic log barker; abstract. V. C. Haner and H. A. Rose, *diag Elec Eng* 67:945 O '48
- Chemical treatment of trees to facilitate removal of bark and to reduce weight of wood. D. C. McIntosh, *Pulp & Pa of Can* 49:117-18+ Je '48
- Economical debarking of wood; two new debarking machines. O. Goy, *Paper Tr J* 126:59-60 Je 17 '48
- Mechanical methods of bark removal. I. W. Smith, *bibliog il diags Paper Tr J* 126:45-50 Je 3 '48
- Pneumatic barker cuts log waste, *il Comp Air Mag* 53:68 Mr '48
- Putting sawlogs through barkers, *Paper Tr J* 127:16 O 21 '48

BARLEY

- Barley, 1941-1946. Survey of Cur Bsns 1947 Sup p 128-61 [supplemented in monthly numbers]
- Post-war malting barley problems. L. R. Bishop, *bibliog diag Chem & Ind* p779-83 D 20 '47

BARLEY malt. See Malt**BARNACLES**

- Control of barnacle growth in condenser intake pits. R. B. Lee, *plan diag Power Generation* 52:86+ My '48

BARNES, Harold S.

- Barnes is appointed A.N.P.A. ad bureau director, *por Ed & Pub* 81:14 O 16 '48

BARNES, Joseph, 1907-

- Crum and Barnes take active control of P.M. C. Hodge, *por Ed & Pub* 81:7-8 My 1 '48

BARNES and stables

- Number of tile required for barn gable ends, *diags Brick & Clay Rec* 112:38 Ja '48

Heating and ventilation

- Tests prove value of insulation for dairy barns, *il diags Am Bld* 70:118-19 S '48

BAROMETERS

- Aneroid barometers, *il R Sci Instr* 19:537 Ag '48
- High-precision automatic direct-reading barometer, *il Instruments* 21:596 JI '48
- Recent progress in the measurement of atmospheric pressure. F. Koppl, *il diags R Sci Instr* 18:850-1 N '47
- Study on anaeroid capsules. E. W. Pike and N. E. Gibbs, *bibliog J Ap Phys* 19:106-8 Ja '48

BARR, Pelham, 1892-1948

- Sketch. P. Temple, *Special Lib* 39:127-8 Ap '48

BARRACKS

- Low-cost houses; Virginia builder creates 181-house development from surplus barracks, *il plan Arch Forum* 87:11-12 N '47
- Quick transition creates homes from barracks, *il Eng N* 141:13 JI 15 '48

BARRELS

- How much is one barrel? Water & Sewage Works 95:339 S '48

- Performance characteristics of tight white-oak laminated-stave and solid-stave barrels. R. S. Kurtenacker and D. L. Patrick, *il A S M E Trans* 70:547-51 JI '48

BARRELS, Aluminum

- High-speed deep-drawing; aluminum beer barrels; Benson manufacturing co, *il Steel* 122:87+ My 17 '48

BARRIER layer photocells. See Photoelectric cells**BARROWS, Arthur Stanhope, 1884-**

- Meet Barrows, undersecretary of the air force, *por Aviation W* 48:15 Je 28 '48

BARS, Metal

- Table of weights for elliptical bars; data sheet, *diag Foundry* 76:118 Mr '48

See also**Steel bars****BARS and bar rooms**

- Hollenden Corners bar, Cleveland; Four Winds bar in central California; Canterbury wood bar on Long Island, *il plans diag Arch Forum* 89:101-4 Ag '48
- Lighting effect for every mood; Henric's restaurant, Merchandise mart, Chicago, *il plan Arch Rec* 104:129-31 JI '48

BARTON, Derek Harold Richard

- Harrison memorial prize, *Chem Age* (Lond) 58:277 F 21 '48

BARYTES. See Barite; Barium sulfate**BASALT**

- Basalt for papermaking equipment. C. Perry, *il Paper Ind* 29:1309 D '47

BASCULE bridges. See Bridges, Bascule**BASE exchanging compounds**

- Dowex 50; a new high capacity cation exchange resin. W. C. Bauman, J. R. Skidmore and R. H. Osmun, *bibliog il Ind & Eng Chem* 40:1350-5 Ag '48

- Fundamental properties of a synthetic cation exchange resin. W. C. Bauman and J. Eichhorn, *bibliog Am Chem Soc J* 69:2830-6 N '47

- Ion exchange develops as a unit process. J. C. Winters, *bibliog il Chem Ind* 62:754-8 My '48

- Kinetics of an esterification with cation-exchange resin catalyst. C. L. Levesque and A. M. Craig, *bibliog Ind & Eng Chem* 40:96-9 Ja '48

- Polysaccharide acid esters as cation exchange media. F. C. McIntire and J. R. Schenck, *Am Chem Soc J* 70:1193-4 Mr '48

See also**Amberlites****BASEBALL**

- Selling a ball club to the fans; Bill Veeck and Cleveland Indians, *il Bsns W* p52+ O 2 '48

BASEBALL bats

- Ball bat marker has concave traversing die, *il diags Product Eng* 19:100-1 Je '48

BASEBALL stadiums. See Stadiums**BASEBOARDS**

- Radiant baseboard heating. J. L. Shank, *il plans diags Am Bld* 70:91-5 Mr '48

BASEMENTLESS construction

- Basementless boost; storage and utility ell is cheaper, *plan diag Arch Forum* 88:16 Je '48
- Basementless house has novel floor construction, *il plan Am Bld* 69:106-7 N '47

- Controlling moisture in buildings; problem of crawl spaces, *il diag Arch Rec* 104:145-8 Ag '48

- Ground temperature distribution with a floor panel heating system. A. B. Algren, *plans diags Heating-Piping* 20:111-19 My '48

- Low cost solution for heating basementless houses. H. P. Morehouse, *il plans diag Gas Age* 102:17-20 S 16 '48

BASEMENTS

- Basement vs. attic fan for house ventilation. Sheet Metal Worker 38:58 N '47

- One-piece basement form speeds house erection, *il Eng N* 140:465 Mr 25 '48

- Prevention of dampness in basements. C. C. Fishburn, *diags Am Concrete Inst J* 19:421-36 F '48

BASEMENTS—Continued

There's water in my basement! avoid such complaints; build them dry, plan diags Brick & Clay Rec 111:29-30 D '47

BASES (chemistry)

Acid-base reactions in benzene and other organic solvents; behavior of bromophthalin magenta with different classes of organic bases. M. M. Davis and P. J. Schuhmann. *J Res Nat Bur Stand* 39:221-63 bibliog(94 ref, p262-3) S '47

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene. M. M. Davis and others. *bibliog J Res Nat Bur Stand* 41:27-40 JI '48

Brønsted concept of acids and bases in quantitative analysis. B. Naiman. *J Chem Educ* 25:454-7 Ag '48

Contemporary acid-base theory. W. F. Luder. *J Chem Educ* 25:555-8 O '48

See also

Alkalies Amines
Alkaloids Schiff bases

BASING point system. See Price policies

BASKETS, Wire

Collapsible wire baskets speed casting handling; Westinghouse electric corp.'s gray iron foundry. *II Foundry* 76:92-3 Ag '48

BASSETT, Preston Rogers, 1892

Portrait. *Aeronautical Eng* 7:16 Ja '48

BATES, Charles Austin

Portrait. *Ptr Ink* 225:48 O 29 '48

BATES, James L., 1880-

J. L. Bates retires from U.S.M.C. post. por

Marine Eng 53:65-6 S '48

BATH salts

Bath preparations; a brief resume of typical formulas for powder, tablet, crystalline and liquid types. F. Winter. *Soap & San Chem* 24:81+ F '48

BATHING beaches

Chlorination curbs beach pollution. *II Eng N* 139:801-3 D 11 '47

BATHOLITHS

Batholiths and associated rocks of Corona, Elsinore, and San Luis Rey quadrangles, southern California. E. S. Larsen, Jr. (*Memoir* 29) 182p 8 pls bibliog(pl72-5) Geological soc. of America, 419 W. 117th st, New York '48 (\$4.50)

Role of the Idaho batholith during the Laramide orogeny. A. L. Anderson. *bibliog maps Econ Geol* 43:84-99 Mr '48

BATHROOM fixtures

Bathrooms; a portfolio of layouts, fixtures, accessories; with list of manufacturers producing materials and equipment. *Am Bld* 70:72-87 Ag '48

Bathtub dressing table. D. Monroe. *II Mod*

Plastics 25:98-9 D '47

Quality fixtures for today's builders. *II Am*

Bld 70:127-30 O; 120-3 N '48

Wash basins formed of acrylic. *II Mod*

Plastics 25:112-14 Je '48

BATHROOMS

Bathrooms; a portfolio of layouts, fixtures, accessories; with list of manufacturers producing materials and equipment. *Am Bld* 70:72-87 Ag '48

Bathrooms help sell the houses. *II plans Am*

Bld 70:94-5+ Ag '48

Better detail plate; built-ins, a feature of dual bath and dressing room. R. J. Alexander. *plans diags Am Bld* 70:114-15 Mr '48

Better detail plate; practical suggestions for the use of bathroom fixtures. R. J. Alexander. *diags Am Bld* 70:98-9 Ja '48

Plastic skin on aluminum body is used in new British kitchen-bathroom units for lightweight, tough finish. *II Arch Forum* 89:108 Ag '48

Selling bathrooms and kitchens room by room; Hanna kitchens, inc. has seven showrooms in one. *II Dom Eng* 170:118-21+ N '47

34 bathroom layouts feature efficiency in limited areas. *plans Dom Eng* 171:125-6+ Ja '48

Heating and ventilation

Built-in bathroom heaters. *II Am Bld* 70:84 Ag '48

Lighting

Evaluation of methods and fixtures used for bathroom mirror lighting. M. Fahs Bender and E. Priest. *II diags Illum Eng* 42:999-1024; Discussion. 1024-7 D '47

BATHYMETRIC charts

Major structural features of the western North Pacific, an interpretation of H.O. 5485, bathymetric chart, Korea to New Guinea. H. H. Hess. *maps diags Geol Soc Bul* 59:417-45, pl 1-2 bibliog(p443-5) My '48

BATHYSCAPHE. See Diving, Submarine**BATS, Baseball**. See Baseball bats**BAUSCH and Lomb optical company**

94 years of history. *Science* 106:538 D 5 '47

BAUXITE

Activated bauxite as a catalyst for polymerization of C₄ olefins. H. Heinemann, W. A. La Lande, Jr. and W. S. W. McCarter. *bibliog(41 ref) Ind & Eng Chem* 40:1224-6 JI '48

Aluminum, bauxite, and magnesium; annual review and forecast. H. L. Cullen. *Min Cong J* 34:104-7 F '48

Bauxite deposits in Tippah and Benton counties. Miss. D. F. Reed. *3pls U S Bur Mines Rep of Invest* 4281:1-15 '48

Bauxite deposits in Union and Pontotoc counties. Miss. D. M. Coulter. *8pls U S Bur Mines Rep of Invest* 4235:1-8 '48

Bauxite in Australia. C. Lynch. *Light Metal Age* 6:20 Je '48

Bauxite in Cherokee and Calhoun counties. Ala. D. M. Coulter. *15pls U S Bur Mines Rep of Invest* 4223:1-28 '48

Catalytic desulfurization and reforming of naphthas over bauxite. C. J. Helmers and G. M. Brooner. *bibliog diag Pet Processing* 3:133-4+ F '48

Dropped caisson shaft sinking; Reynolds bauxite property. W. S. Cole, Jr. *II diags Eng & Min J* 148:82-3 Ap '48

Extraction of alumina from high-iron bauxites; pilot-plant tests employing the lime-soda sinter process. F. J. Cservenyak and others. *bibliog 5pls U S Bur Mines Rep of Invest* 4299:1-29 '48

Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. *II diag J Ind Hygiene* 30:145-59 My '48

Investigation of Arkansas bauxite. M. C. Malamphy and others. *bibliog 123pls U S Bur Mines Rep of Invest* 4251:1-63; 4252:1-16; 4253:1-84; 4254:1-135; 4255:1-142; 4256:1-118; 4257:1-131; 4258:1-105; 4259:1-95; 4260:1-32; 4261:1-139; 4262:1-149; 4263:1-99; 4264:1-143; 4265:1-92; 4266:1-120; 4267:1-53; 4268:1-121 '48

Marguerum bauxite district, Colbert county. Ala. D. M. Coulter. *3pls U S Bur Mines Rep of Invest* 4207:1-10 '48

Occurrence of bauxite in Gold Coast region. *Can Min J* 69:90-1 Ag '48

Production and imports of bauxite in the United States, by quarters, in long tons: 1945-1947; tabulation. *Light Metal Age* 6:30 F '48

Static electrification of dust clouds. J. G. Miller and others. *bibliog Science* 107:144-6 F '48

BAXTER, M. L., ltd.

Rapid growth of firm founded only fourteen years ago. *II Roads & Bridges* 86:78+ JI '48

BAYER 205 (antypol)

Some developments in organic chemical manufacture; pharmaceutical products. W. Smith and W. G. Reid. *Chem & Ind* p663 O 16 '48

BEACH clubs

Beach club to sell a view; Ariston restaurant, Mar del Plata, Argentina. *II plan diags Arch Rec* 104:136-9 JI '48

BEACH houses

Delicacy and openness are the hallmarks of Florida's new regional architecture. *II plan diag Arch Forum* 88:108-9 Ap '48

Dwelling on high shore of Pacific ocean; garden terrace top; design by F. L. Wright. *II plan Arch Forum* 88:91 Ja '48

Dwelling on ocean-front near Carmel, Calif.; design by F. L. Wright. *II plan diags Arch Forum* 88:98 Ja '48

For living between sea and land; California beach-house. *II plan Arch Rec* 104:109-11 S '48

Four concrete beach houses built by Lamo-lithic industries in Florida. *II plans Arch Forum* 89:106-8 O '48

House in Florida on Gulf of Mexico. *II plans diags Arch Forum* 89:97-103 JI '48

BEACH houses—Continued

Seashore residence at Guarujá, Brazil, 11 plans Arch Forum 87:96 N '47

BEACHES

Beach erosion studies in Florida, H. J. Hansen, 11 maps diags Florida Eng and Industrial Exp Sta, Univ. of Florida, [Gainesville] Bul 16:1-68 bibliog(p67-8) '47

See also

Bathing beaches

BEACONS

How to light a tower beacon; Travelers insurance co. tower in Hartford, 11 diags Elec World 129:107-8 Je 5 '48

See also

Radio beacons

BEAMS and girders

Beam deflections by second and third moments, Hsu Shih-Chang, Am Soc C E Proc 73:291-310 Mr '47; Discussion, diags 73:1157-62, 1417-18; 74:801-13 S, N '47, My '48

Bond and anchorage, T. D. Mylrea, 11 diags Am Concrete Inst J 19:521-52 Mr '48

Chart for wooden beams, W. F. Schaphorst, Tool Eng 20:51 Mr '48

Composite construction for I-beam bridges, C. P. Siess, diags Am Soc C E Proc 74:331-53 Mr '48

Continuous beams simplify design of footings for four-story building, 11 Eng N 139:877 D 25 '47

Design of I-beam bridges, N. M. Newmark, 11 diags Am Soc C E Proc 74:305-30 Mr '48

Economy of precast four-in. Joistile beam appeals to southwest builders, diags Brick & Clay Rec 112:32-3 Je '48

Effect of non-uniform distribution of stress on the yield strength of steel, D. Morkovin and O. Sidebottom, bibliog 11 diags Ill U Eng Exp Sta Bul 372:1-72 '47 (50c)

Effect of rib proportions on beam bending strength, A. R. Holowenko, diags Product Eng 18:122-3 D '47

Elastic foundations analyzed by the method of redundant reactions, Z. Levinton, Am Soc C E Proc 73:1529-41 D '47; Discussion, 73:1173-84, 1375-83, 1630-6 S-O, D '48

Flexural constants of haunched beams by area computation, F. Tsai, diags Am Soc C E Proc 74:1129-59 S '48

Flexural fatigue strength of steel beams; a report of an investigation, W. M. Wilson, diags Ill U Eng Exp Sta Bul 377:1-32 '48 (20c); Same, Welding J 27:sup409-17 Ag '48

Gas torches kick warped beams into shape without dismantling, 11 diag Constr Methods 30:58 O '48

Georgia bridge girder pulled into place with a hand winch, 11 Eng N 139:746-7 N 27 '47

Heavy flexible beam and girder connections; fluid catalytic cracking plants built by the Atlantic refining co. H. Greaves, 11 diags Welding J 27:845-9 O '48

Integral-equation approach to problems of vibrating beams, W. T. White, diags Franklin Inst J 245:25-36, 117-33 bibliog(p 131-3) Ja-F '48

Investigation of U type tile-concrete beams, J. N. Thompson and W. D. Ramey, 11 diags Texas U Bur of Eng Research Bul 41:1-66 '47

Limit design of prismatic beams, E. P. Popov, diags Eng N 140:721-3 My 13 '48

More exact analysis proposed for continuous beams over flat supports, A. Floris, diags Civil Eng 18:301-2 My '48

Moving loads on continuous beams, J. J. O'Donovan, diags Engineering 164:484-6, 509-10 N 21-28 '47

Relative strengths of portland cement mortar in bending under various loading conditions, J. P. Frankel, diags Am Concrete Inst J 20:21-32 S '48

Residual stresses in a butt-welded structural I-beam, W. J. Krefeld and E. C. Ingalls, 11 diags Welding J 27:sup417-20 Ag '48

Results of accelerated tests and long-term exposures on glue joints in laminated beams, T. R. Truax and M. L. Selbo, 11 A S M E Trans 70:393-400 My '48

Shearing stress distribution in box girders with multiple webs, A. S. Neiman, diags Am Soc C E Proc 74:161-71 F '48; Discussion, 74:1041-4, 1210-13 Je-S '48

Shortcut calculation of moments in girders, T. E. Faley, diag Eng N 141:112 S 16 '48

Solution of beams with abrupt (step) variations in moment of inertia, S. F. Borg, Western Soc E J 53:84-5 Je '48

Strength of beams as determined by lateral buckling, K. de Vries, diags Am Soc C E Proc 72:985-1011 S '46; Discussion, 72:1425-32; 73:236-8, 397-403, 559-68, 953-9; 74:193-210 D '46, F-Ap, Je '47, F '48

Tables aid in designing laterally unsupported beams, W. P. Stewart, Eng N 140:438-9 Mr 18 '48

Torsion-bending stresses in box beams, R. A. Williamson, diags J Aeronautical Sci 15:427-34 Jl '48

Welded beam design reduces production costs of continuous weighing machines, 11 Steel 121:103 D 15 '47

Transportation

How to haul 125-ft. girders, 11 Roads & Svs 91:94 Ja '48

BEANS

Delayed maturity of bean plants sprayed with solutions of 2,4-dichlorophenoxyacetic acid of nonherbicidal concentrations, E. R. Stromme and C. L. Hamner, 11 Science 107:170-1 F 13 '48

Effect of 2,4-dichlorophenoxyacetic acid on root development in bean cotyledons, E. K. Akamine, 11 Science 108:209 Ag 27 '48

BEANS, Frozen

Effect of fluctuating storage temperatures on quality of frozen foods, W. A. Gortner and others, bibliog Ind & Eng Chem 40:1423-6 Ag '48

These chlorine sprays improve processed green beans, R. Haynes and J. O. Mundt, 11 diag Food Ind 20:977-81+ Jl '48

BEARING materials

Plain sleeve bearings, materials and design, bibliog 11 diags Product Eng 19:129-60 O '48

BEARING metals

Aluminum bearings developments in France; abstract, M. Goret, Materials & Methods 26:118 N '47

Bearing construction and performance characteristics, E. Crankshaw and K. Scheucher, 11 diags Iron & Steel Eng 25:109-16; Discussion, 116-19 S '48

Bearing metals; cast iron as anti-friction material; abstract, M. S. Karpyshev, Automobile Eng 33:210 Je '48

Bearing metals; requirements of sleeve bearing materials; properties and characteristics, H. R. Clauser, 11 Materials & Methods 28:75-86 Ag '48

Bearing steels meet high quality standards, E. M. Taussig and C. B. Cobun, Steel 122:100+ F 23 '48

Indium plated lead bearings withstand high stresses, J. Albin, 11 Materials & Methods 27:88-9 Je '48

Metallurgical aspects of ball bearing steels, A. S. Jameson, 11 diag Iron Age 162:72-9 S 2; 81-7 S 9; 88-92 bibliog(p92) S 16 '48

Modern bearing materials meet tough demands of Diesel service conditions, 11 diag Power 92:78-81 F '48

Research on bearing alloys, bibliog Engineer 186:111 Jl 30 '48

Substitute for tin babbitt in repair work, Can Chem & Process Ind 31:954 O '47

See also

Babbitt metal

Testing

Frictional properties of lead-base and tin-base bearing alloys; role of the matrix and the hard particles, D. Tabor, 11 Engineer 186:117-19 Jl 30 '48

BEARINGS

Bearing reconditioning at card saves quality, C. R. Blakeney, 11 Textile World 98:262+ Ap '48

Elastic matching improves bearing life and performance, J. G. Baker, 11 diags Machine Design 20:106-10 My '48

Gridded bearings, Mech Eng 70:32-3 Ja '48; Abstract, 11 Chem Ind 62:268 F '48

Hydrosphere; spherical bearing capable of hydrodynamically supporting loads of great magnitude; abstract, M. C. Shaw and C. D. Strang, Jr, Machine Design 20:202+ Mr '48

Journal bearings with diminishing oil supply, H. A. S. Howarth, diags Product Eng 19:104-9 N '48

BEARINGS—Continued

Load capacity and friction of pivoted-shoe bearings; engineering data sheet. H. A. S. Howarth. *diag* Machine Design 20:151-4 J1; 149-51 Ag '48

Plain sleeve bearings, materials and design. bibliog *il* *diag*s Product Eng 19:129-60 O '48
Pouring bearings requires proper technique. F. X. Kinzie. *diag* Textile World 98:135-+ My '48

Some facts you should know about the selection of bearings. Pulp & Pa of Can 49:97-8 Ap '48

See also

Bearing metals	Lubrication and
Bearings, Needle	lubricants
also subdivision Bearings under special	
subjects, e.g.	Electric motors
Automobiles	Locomotives
Cars	

Design

Lubrication factors in bearing design. *diag*s Mach 54:146-53 Ja '48

Plain sleeve bearings, materials and design; hydrodynamic bearings. *il* *diag*s Product Eng 19:152-9 O '48

Hydraulic mounting

Hydraulic mounting technique for roller bearings. A. S. Murray. *il* *diag*s Paper Tr J 127:55-60 J1 22 '48

Manufacture

Align honing eliminates bearing scraping; bearings of Elias presses. H. E. Linsley. *il* Am Mach 92:38-9 Ja 15 '48

Clamping fixture holds bearing shell for oil-groove machining. R. R. Waech. *diag*s Am Mach 92:124 O 7 '48

Die material changeover; manufacture of rod bearings for automotive socket tie rod assemblies. *il* Steel 122:98 Ja 12 '48

Diesel bearings cast in sheet-steel flasks; illustrations with text. C. O. Donley. Am Mach 92:89-91 N 4 '48

Precision method of fabricating makes heavy-duty gridded bearings available at lower cost. *il* *diag* Steel 122:128 Mr 15 '48

Tinning manganese bronze. I. R. Valentine. *il* Steel 122:68-70 Ja 12 '48

Testing

Bearing and lubricants center analyzes electrical machinery problems; Thomson laboratory. General electric co. D. F. Wilcock. *il* *diag*s Steel 123:94-6 S 20 '48

Frictional and thermal bearing behavior in journal bearing lubrication. *il* Marine Eng 53:88-+ O '48; Same abr. Refrig Eng 56:335-6 O '48; Same abr. Blast F & Steel Pl 36:1107-9 S '48; Same abr. Franklin Inst J 246:343-4 O '48; Same abr. Product Eng 19:148-9 N '48; Same abr. Pulp & Pa of Can 49:118-19 N '48

Journal bearing lubrication and design. A. S. T. Thomson. bibliog *il* *diag*s Inst Mech Eng J & Proc 153:Proc 250-4 S '48

Measurements of combined frictional and thermal behavior in journal-bearing lubrication. S. A. McKee and others. *il* A S M E Trans 70:409-18 My '48

Oil flow and temperature relations in lightly loaded journal bearings. J. Boyd and B. P. Robertson. bibliog *diag*s A S M E Trans 70:257-62 Ap '48

Temperature distribution in the bush of a journal bearing. D. Clayton and M. J. Wilkie. *diag*s Engineering 166:49-52 J1 16 '48

Torque and thrust measurement aid bearing testing. *il* Steel 122:119 F 2 '48

BEARINGS, Anti-friction

Antifriction bearings. L. E. Browne. *il* *diag*s Steel 121:90-1-+ N 17; 88-9-+ D 1; 96-8-+ D 15; 50-3 D 29 '47; 122:72-4+ Ja 12; 50-3+ Ja 26; 76-9-+ F 9 '48

Antifriction bearings; plant operation library no. 110. H. O. Smith. *il* *diag*s Factory Management 106:105-15 Mr '48

Bearing selection. B. T. Ruley. *il* Product Eng 19:149-51 Mr '48

Bearing steels meet high quality standards. E. M. Taussig and C. B. Coburn. Steel 122:100-+ F 23 '48

Bottleneck in bearings? Economist 154:642-4 Ap 17 '48

Fretting corrosion; how to eliminate it. E. V. Albert. *il* Steel 122:72-6-+ Ap 5 '48

Steels for antifriction bearings; abstract. H. Diegarten. Product Eng 13:121-2 O '48

Why aircraft use anti-friction bearings. H. O. Smith. *il* Aero Digest 56:54-5+ My '48

BEARINGS, Ball

Antifriction bearings. L. E. Browne. *il* *diag*s Steel 122:72-4+ Ja 12 '48

Ball and roller bearings; relative merits of rolling contact bearing types for various operating conditions. B. T. Ruley. *il* *diag*s Product Eng 19:123-6 F '48

Ball-bearing drive for the ultracentrifuge. P. G. Becker and J. Blum. *il* *diag*s R Sci Instr 19:399-400 Je '48

Ball bearing slides. C. Jobst. *diag*s Machine Design 20:138-40 Ja '48

Bearings in action, plague of friction oxidation. L. A. Hilles. *diag*s S A E J 56:69-70 Ag '48

Do you know why antifriction bearings require lubrication? W. F. Schaphorst. *diag*s Paper Ind 30:1084 O '48

Flange type seals for ball and roller bearing applications; drawings. Product Eng 19:122-3 N '48

How to avoid costly shutdowns through correct lubrication. A. C. Skooglund. *il* Power 92:105-6 F '48

Metallurgical aspects of ball bearing steels. A. S. Jameson. *il* *diag* Iron Age 162:72-9 S 2; 81-7 S 9; 88-92 bibliog(p92) S 16 '48

Methods of lubricating high-speed ball bearings. A. F. Brewer. *il* *diag*s Mach 55:172-8 O '48

New tester for ball-bearing greases. M. Anderson and D. F. Wilcock. *il* *diag*s Gen Elec R 51:41-2 Je '48

Steel balls in unit lots; SKF packaging. *il* Mod Packaging 21:160-2 Ap '48

Study of rhythmic phenomena in roller bearings; abstract. *diag* Product Eng 18:127-8 D '47

Tubes keep ball bearing clean; Electrolux vacuum-cleaner motors. A. F. Murray. *il* Am Mach 92:102 J1 1 '48

Typical ball bearing seals and internal and external slinger rings; drawings. Product Eng 19:110-11 O '48

Cleaning

Cleaning used ball bearings. H. T. Morton. *il* Power Generation 52:80 Mr '48

Manufacture

Air conditioning cuts rust spoilage; production of ball bearings; S K F Industries, Inc. N. N. Wolpert. *il* Heat & Ven 45:81-2 F '48

Electronic control of motors; external grinding of ball-bearing rings. *il* Electrician 141:1157 O 15 '48

Ingenious fixture used in broaching windows in bearing cages. *il* Mach 55:195 S '48

Million and a half automotive bearings a month; New Departure's Sandusky ball bearing plant. J. Geschein. *il* Automotive Ind 99:26-9+ Ag 1 '48

New streamlined bearing plant; New Departure division. General motors corp. *il* Steel 122:74-5 Je 7 '48

Treating metal-working wastes; New Departure ball-bearing plant. H. D. Unwin. flow *diag* *il* *diag*s Eng N 141:91-5 Ag 19 '48

BEARINGS, Jewel

Apparatus for measuring the static frictional torques of instrument jewels. W. H. Pearse. *diag* J Sci Instr 25:344-6 O '48

Synthetic-spinel jewels; German research report. Mech Eng 70:24 Ja '48

BEARINGS, Needle

Antifriction bearings; needle bearings and part they play in design of machinery. L. E. Browne. *il* *diag*s Steel 121:96-8+ D 15 '47

BEARINGS, Non-metallic

Bearings and gears of molded nylon. *il* Product Eng 19:140-1 S '48

Nonmetallic bearings; symposium. *il* *diag*s Mech Eng 70:599-608 J1 '48

BEARINGS, Plastic

Plain sleeve bearings, materials and design; plastic laminate bearings. *il* *diag*s Product Eng 19:149-50 O '48

BEARINGS, Plastic—Continued

Properties and applications of laminated phenolic bearings. L. E. Caldwell and J. Boyd. *il* *diags* Mech Eng 70:601-7 J1 '48

BEARINGS, Roller

Ball and roller bearings; relative merits of rolling contact bearing types for various operating conditions. B. T. Ruley. *il* *diags* Product Eng 19:123-6 F '48

Comparison of stationary and rotating axle idler wheel mountings for tractor and implement service; abstracts. G. W. Curtis. *diags* S A E J 56:64 Ja '48; Automotive Ind 97: 33-4 O 15 '47

Flange type seals for ball and roller bearing applications; drawings. Product Eng 19: 122-3 N '48

Heavy duty roller bearing lubrication. A. E. Hickel. *il* *diags* Pet Refiner 27:103-5 Mr '48

Roller bearing maintenance. *il* Roads & Sts 91:109-11 F; 116-17 Mr; 110-11 Ap '48

Roller-bearing mounting press. *il* Ry Mech Eng 122:588 O '48

Roller bearings for freight cars. M. S. Downes. Ry Age 124:348-9 F 14 '48

Shaft rollers used in the Bunker Hill mine. W. H. Denlinger. Min Cong J 34:38 O '48

Study of rhythmic phenomena in roller bearings; abstract. *diag* Product Eng 18:127-8 D '47

See also

Bearings, Needle

Bridge bearings

Hydraulic mounting

Hydraulic mounting technique for roller bearings. A. S. Murray. *il* *diags* Paper Tr J 127:55-60 J1 22 '48; Abstract. Paper Ind 29:1669+ F '48

Improved method for mounting bearings and couplings; oil injection method. A. S. Murray. *il* *diags* Iron & Steel Eng 25:61-5 Mr '48

Manufacture

Isothermal heat treatment aids bearing production. P. A. Cushman. *il* Iron Age 160: 76-7 N 27 '47

BEARINGS, Rubber

Plain sleeve bearings, materials and design. *il* *diags* Product Eng 19:151 O '48

Reduction of wear in rubber stern bearings by the flow controlled continuous film method. R. D. Smealle. *il* Rubber Age 62: 543-4 F '48; Same. Mech Eng 70:607-8 J1 '48

Soft rubber as a material for water-lubricated bearings. A. Bednar. *il* Mech Eng 70:599-600 J1 '48

BEARINGS, Thrust

Load capacity and friction of pivoted-shoe bearings; engineering data sheet. H. A. S. Howarth. *diags* Machine Design 20:151-4 J1 '48

BEARINGS, Wood

Plain sleeve bearings, materials and design. *il* Product Eng 19:147 O '48

Some general information about lignum-vitae bearings. H. V. Townsley. Mech Eng 70: 600-1 J1 '48

BEATTY, Frank Edmund, 1894-

Portrait. Bsns W p56 O 30 '48

BEAUTY contests

Beauty contest sparks women employee relations. W. J. Sheehan. Ptr Ink 224:42+ J1 23 '48

BEAUTY shops

Beauty-shop business tangles on two fronts. Bsns W p74 My 22 '48

Equipment

Soap opera piped with shampoos has Boston in a lather; Beautiset enables women to enjoy radio program while their hair dries. B. G. Priestley. *il* Sales Management 60: 122+ Mr 15 '48

BECK, David

Crown prince of labor's biggest realm, por Bsns W p74 Ja 24 '48

BECKETT paper company

Paper making company celebrates centennial on original site with same family owners. Inland Ptr 121:47-9 Je '48

BECKMAN spectrophotometers. See Spectrophotometers**BEDDING**

See also

Mattresses

BEECH

Semichemical pulps from beech wood; abstract. H. Bouchayer. Paper Ind 30:956 S '48

BEECH aircraft corporation

In black in first half of fiscal year. Barron's 28:35 Ap 12 '48

BEEF

Effect of cooking on the DDT content of beef. R. H. Carter and others. Science 107: 347 Ap 2 '48

BEEF, Frozen

Effect of 40 years' frozen storage on the quality of beef. J. R. Ramsbottom and others. *bibliog-*il** Refrig Eng 54:544-8+ D '47; Discussion. 55:53-4 Ja '48

Effect of very rapid freezing on beef tenderness. J. E. Nicholas and others. *diags* Refrig Eng 54:438-40 N '47

BEER

Beer through the ages. H. R. Henius. *il* Food Ind 20:1466-8+ O '48

Bottling beer; completely mechanized plant at Burton-on-Trent. *il* Elec R (Lond) 143: 563-5 O 8 '48

Brewing chemists hail results of cooperative studies on quality; annual meeting of American society of brewing chemists. Food Ind 20:881-2 Je '48

Germans will again raise their beer steins. Bsns W p 121 My 22 '48

Hygiene of beer production and consumption; abstract. H. J. Bunker. Chem & Ind p618-19 S 25 '48

Shifts in beer picture. Bsns W p70-2 J1 17 '48

Some scientific aspects of beer. H. J. Bunker. *bibliog* Chem & Ind p339-44 My 29 '48

BEER barrels. See Barrels, Aluminum**BEER containers**

All throwaways; Carling's sells only packaged brew. *il* Mod Packaging 21:94-101 Ja '48

BEER's law

Defense of Beer's law. A. C. Hardy and F. M. Young. Opt Soc Am J 38:854-8 O '48

BEES

Language of the bees; Austrian researcher has deciphered the ritual. A. Krogh. *il* *diags* Sci Am 179:18-21 Ag '48

BEESWAX

Wasp wax in Benguella beeswax. Chem & Ind p477-8 J1 24 '48

BEETS and beet sugar

Food flavor from beet sugar byproduct. P. D. V. Manning. flow sheet(p136-9) *il* Chem Eng 55:100-1 Ap '48; Same. Food Ind 20: 510-15 Ap '48

Ion exchange develops as a unit process. J. C. Winters. *il* Chem Ind 62:754-5 My '48

Ion exchange in beet sugar refining. B. N. Dickinson. flow sheet *il* Chem Eng 55:114-17 J1 '48

Manufacture of monosodium glutamate. P. D. V. Manning, R. W. Shafer and F. H. Catterson. flow sheet *il* Chem Eng Prog 44:491-6; Discussion. 496 J1 '48

Microbiological problems in the manufacture of sugar from beet; corrosion in the diffusion battery and in the recirculation system. L. A. Allen and others. *bibliog* *diags* Soc Chem Ind J 67:70-7 F '48

Painful growth of monosodium glutamate; James E. Larowe's twelve-year struggle to wring monosodium glutamate out of beet sugar waste. Chem Eng 55:223-4+ Ap '48

Sugar-beet cultivation, Greece. For Comm W 29:22 N 22 '47

Sugar production; private generating plant; British sugar corp. *il* Elec R (Lond) 142: 191-5 F 6 '48

Sugar prospects and ECA; with data on European beet sugar and production, selected years, 1937-1948. Economist 155:32 J1 '48

Vitamin B content of sugar beets and byproducts. D. Rogers and M. N. Mickelson. *bibliog* Ind & Eng Chem 40:527-9 Mr '48

Wyoming Natural resources research institute in fifth year of operation; sugar beet by-products. H. G. Fisk. *il* Chem & Eng N 26:677-8 Mr 8 '48

BEETS and beet sugar—Continued**Storage**

Temperature-reduction problems in sugar-beet storage. R. D. Barmington. *A S M E Trans* 70:685-7 Ag '48; Same abr. *Refrig Eng* 54:339-41 O '47

BEHAN, Joseph C. 1873-Sketch. por East Underw 49:8 Mr 26 '48

BEHAVIOR (psychology)
Neurological and behavioristic psychological basis of the ordering of society by means of ideas. F. S. C. Northrop. *bibliog Science* 107:411-17 Ap 23 '48

BEHENIC acid
Water repellent compositions; behenic acid amide; patent. *Am Dyestuff Rep* 37:134-5 F 23 '48

BEILSTEIN, Friedrich Konrad, 1838-1906
Numerical index key for the Beilstein system. F. L. Taylor. *il Ind & Eng Chem* 40:470-3 Mr '48

BEILSTEIN'S Handbuch der organischen chemie
Bernhard Prager, editor of Beilstein, 1907-1938. D. Stern. *J Chem Educ* 24:592-3 D '47

Present status of Beilstein and Gmelin. H. B. Hass. *Chem & Eng N* 26:1430-3 My 17 '48

BEISEL, Rex, 1893-
Aircraft designer. por(cover) *Bsns W p6 Ag* 14 '48

BELDING, Don, 1898-
Sketch. por(cover) *Bsns W p6 Jl* 17 '48

BELGIAN CONGO. See Congo, Belgian

BELGIUM*See also*

Railroads—Belgium
Wages—Belgium

Commercial policy*See also*

Benelux union

Economic conditions

Belgium and European recovery. *Economist* 155:539-40 O 2 '48

Economic relations*Great Britain*

Belgium's dilemma; Anglo-Belgian monetary relations. *Economist* 154:430 Mr 13 '48

BELL, Elliott Vallance, 1902-
Portrait. *Fortune* 38:78 O '48

BELL, Lawrence Dale, 1894-
Sketch. por(cover) *Bsns W p6 Ja* 10 '48

BELL aircraft corporation
Large stock sale may forestall new fight on Bell management. *Aviation W* 48:30 Mr 1 '48

Plane-maker's wheelbarrow; Bell aircraft corp.'s engine-driven Prime Mover. *il Bsns W p39+ Ja* 10 '48

BELL and Howell company
Elegant Bell & Howell. *il Fortune* 38:92-5+ Jl '48

BELL telephone laboratories
Trapping sound in ventilating ducts; sound-proof test room of the Bell telephone laboratories. N. N. Wolpert. *il diags Heat & Ven* 45:65-7 Ja '48

BELL telephone system
Responsibility of management. *Sales Management* 59:47 D 1 '47

BELLEVILLE, Illinois

Sewerage

Selling sewer rental to industry. G. S. Russell. *il Water & Sewage Works* 95:341-3 O '48

BELLOWS

Centrifugal-force finishing; method of painting gas-filled bellows. G. Cavanaugh. *il Steel* 122:95 Ja 19 '48

Motion transmitted by bellows. *il Machine Design* 19:156 D '47

Use electrically-heated bellows in rapid response valve design; patent. *diag Pet Processing* 3:262 Mr '48

BELLS

Church bells once cast on the site; extracts from ancient documents. F. R. Nichols. *il diags Foundry* 76:80-1+ Mr '48

Welding a bronze bell. M. Maynard. *il Welding J* 27:854 O '48

*See also***Doorbells**

BELMONT iron works, Philadelphia
Common stock offered. *Comm & Fin Chr* 168:739 Ap 23 '48

BELT conveyors. See Conveying machinery—Belt conveyors

BELTING

Belt creep is excusable. W. F. Schaphorst. *Pet Eng* 19:160 Ja '48

Chart for belt drive selection. M. C. Ziemke. *Chem Eng* 55:130 Je '48

Concerning double leather belting. *diags Can Min J* 69:80-1 Ja '48

Don't put on a belt in this way. W. F. Schaphorst. *diag Can Min J* 69:73 Ja '48

How can I stop belt slippage on flywheel? *diags Power* 92:46-7+ Ja '48

Motor driven machines; belt and chain drives. *il Product Eng* 19:117 Mr '48

Report of committee on the standardization of oil-field belting. *Am Pet Inst Proc* 27(4):171-6 '47

Reverse rotation of belt. W. F. Schaphorst. *diags Can Min J* 68:394 D '47

When you have trouble with rubber drive belts. W. P. Hallstein. *il Factory Management* 106:76-80 Ap '48

Tables, calculations, etc.

Arc of contact factors for correcting horsepower ratings of belts; data sheet. *Power* 92:505 Ag '48

Pulpwood saw V-belt improves performance of portable power saws. *il Paper Tr J* 127:51 Jl 22 '48

Selection of V-belt drives for machine tools; data sheets. *Mach* 54:249 Jl; 231 Ag; 55:255 S '48

Selection of V-belt drives; reference data. *Heat & Ven* 45:82a-82b S; 112a O '48

BELTING, Conveyor

Adjustable troughing idler increases life of conveyor belts. *diag Rubber Age* 62:654 Mr '48

Belt care and maintenance to increase life; abstract. J. A. Bottomley. *Min Cong J* 34:63-4 Je '48

Belt selection and installation. J. H. Edwards. *il Coal Age* 53:80-5 O '48

Conveyor belt lacing machine. *il Engineer* 185:240-1 Mr 5 '48

How to minimize trouble with rubber conveyor belts. W. P. Hallstein. *il Factory Management* 106:106-9 Je '48

Wire conveyor belt can turn sharp corners, is suitable as cooling line. *il Sci Am* 177:269 D '47

BELTS, Safety. See Safety belts

BEMBERG

Cotton system excellent for warping Bemberg. J. Gassman. *diags Textile World* 98:116-17 F '48

Crepe warping techniques are applicable to Bemberg. J. Gassman. *il Textile World* 98:113+ My '48

BENCH marks

Radioactive bench marks for subsidence study. *Eng N* 140:645 Ap 29 '48

BENDING

Behaviour of bent stanchions. J. F. Baker. *Chem Age (Lond)* 58:619 My 1 '48

Bending a textile mill forging in an arbor press. R. Mawson. *diags Mach* 54:190-1 Ja '48

Bending and forming of 75S-T aluminum at elevated temperatures. M. L. Ochiano. *il Mach* 54:158-61 Ja '48

Bending rigidity and column strength of thin sections. F. E. Sandorff. *bibliog diags A S M E Trans* 69:333-41 N '47

Effect of rib proportions on beam bending strength. A. R. Holowenko. *diags Product Eng* 18:122-3 D '47

Evaluation of the forming properties in bending of five commercial sheet aluminum alloys. G. R. Gohn and S. M. Arnold. *il Am Soc T M Proc* 46:1053-61; Discussion. 1062-3 '46

General theory of cylindrical and conical tubes under torsion and bending loads. J. Hadji-Arghyris and P. C. Dunne. *diags Roy Aeronautical Soc J* 51:199-269 bibliog(p208-9), 757-84, 884-930 F, S, N '47

BENDING—Continued

Normal stresses in reinforced concrete sections under unsymmetrical bending. M. Eakhoum, diags Am Concrete Inst J 19: 669-91 Ap '48

Overstrength of short bending members. F. L. Ryder, diags Product Eng 19:110-12 N '48

Plastic bending under tension. H. W. Swift, diags Engineering 166:333-5, 357-9 O 1-8 '48

BENDING machines

Bronx fabricated 120-ton press brake, il Engineering 184:584 D 19 '47

Cabinet maker for cost cutting; tangent bender used in manufacture of refrigerators. il Engrs W 69-70 S 11 '48

Fabricated heavy plate bending machine. H. B. Fergusson and others, il Engineer 185: 214-15 F 27 '48

Large plate-bending machine, il Engineer 186: 399 O 15 '48

Repetition bending machine, il Engineer 184: 586 D 19 '47

Tangent bender forms camera body parts, il Iron Age 161:94 Ap 29 '48

Tube bending machine; patent, diag Glass Ind 29:330 Je '48

BENDING moment

Beam deflections by second and third moments. Hsu Shih-Chang, Am Soc C E Proc 73:291-310 Mr '47; Discussion, diags 73:1157-62, 1417-18; 74:301-13 S N '47, My '48

Theory of inelastic bending with reference to limit design. A. Hrennikoff, Am Soc C E Proc 73:255-89 Mr '47; Discussion, 73: 944-6, 1293-301; 74:277-82, 377-80 Je, O '47, F-Mr '48

BENDIX aviation corporation

Common stock offered, Comm & Fin Chr 167: 542 F 2 '48

General Motors planning to sell stock interest. S. Altschul, Aviation W 48:36 Ja 19 '48

BENDIX home appliances, Inc.

Newcomers on the New York stock exchange. Mag of Wall St 81:249 D 6 '47

BENEFIT plans, Employees'. See Employees' benefit plans

BENEFIT societies

Dunne's international insurance reports, covering legal reserve life insurance companies and prominent fraternal beneficial societies operating in the United States and Canada. 1435p \$20 Insurance index, 110 William st, New York 7 '47

Fraternal orders; business of 1947 and condition Dec. 31, 1947; tabulation, Weekly Underw 158:80 sec 2 My 8 '48

Iowa department survey on fraternal. East Underw 49:9 S 3 '48; Same cond. Nat Underw (Life ed) 52:13 Ag 27 '48

Massachusetts governor refuses to fire Harrington; revocation of Knights of Columbus license. Nat Underw (Life ed) 52:3 Jl 30 '48

Mutualization plan for A.O.U.W. of North Dakota is approved. Nat Underw (Life ed) 51:19 O 31 '47

See also

National fraternal congress of America

Accounting

Many fraternal's interest assumptions too high. C. C. Dubuar. Nat Underw (Life ed) 52:28 O 1 '48

BENELUX union

Austria signs trade agreement with Belgium-Luxembourg. For Comm W 32:13 Ag 21 '48

Belgium-Luxembourg; supplementary trade agreement concluded with Sweden. For Comm W 33:15-16 O 23 '48

Benelux concessions under general agreement on tariffs and trade. R. P. Donogh. For Comm W 30:4-7+ Ja 17 '48

Benelux customs convention effective Jan. 1, 1948, following exchange of ratifications. For Comm W 29:12 D 27 '47

Benelux union; a step towards European integration? H. D. Jellinek, Comm & Fin Chr 167:1100+ Mr 11 '48

Establishment of certain new industries, requires previous consultation among member states. For Comm W 31:14 Je 26 '48

Latest lessons of Benelux. Economist 155: 186-7 Jl 31 '48

New protocol to the Belgo-Luxembourg economic union payment agreement with Denmark signed; commercial and payment agreements for exchange of goods signed with the Soviet military government in Germany. For Comm W 30:9-10 Ja 24 '48

Summary of import-license regulations. For Comm W 31:11 Je 12 '48

BENES, Edvard, 1884-1948

Western statesman. Economist 155:405-6 S 11 '48

BENQUET consolidated mining company

Untamed capitalist of Luzon; Judge John Hausermann and the rich byproducts of a gold-mining fortune, il map Fortune 37: 116-19+ My '48

BENJAMIN, Fred

Portrait. Ptr Ink 225:37 O 29 '48

BENNETT, Walter H. 1872-

Sketch. por East Underw 48:20 N 7 '47

BENT, Quincy, 1879-

Q. Bent, vice president of Bethlehem Steel retires and is succeeded by Stewart J. Cort. por Blast F & Steel Pl 35:1395-6 N '47

BENTONITE

Bentonite deposits. Can Min J 69:91 Je '48

Bentonite film as a dielectric. J. T. Kendall. Soc Chem Ind J 67:210 My '48

Upper Devonian bentonite in Tennessee. W. H. Hass, map Am Assn Pet Geologists Bul 32:816-19 My '48

BENZACRIDINE

Attempts to find new antimalarials; derivatives of various benzacridines and pyridoacridines. J. Dobson, W. C. Hutchison and W. O. Kermack. Chem Soc J p 123-6 F '48

BENZAL chloride. See Dichlorotoluene

BENZALDEHYDE

Synthesis of benzaldehyde, a possible route to toluene. D. V. N. Hardy. bibliog Soc Chem Ind J 67:150-5 Ap '48

Versatile technique for X-ray single crystal structural analysis applied to benzaldehyde 2,4-dinitrophenylhydrazones and zinc salts of salicylic and benzoic acids. G. L. Clark and Hung Kao. Am Chem Soc J 70:2151-4 Je '48

See also
Acetylmethoxybenzaldehyde

BENZAMIDINE

Condensation of benzamidine with α -diketones. J. W. Cornforth and H. T. Huang. Chem Soc J p751-5 Je '48

Condensations of α -alkyl- α -carboxy- γ -butyrolactones. G. S. Skinner, A. Stokes and G. Spiller, bibliog Am Chem Soc J 69:3083-6 D '47

BENZANTHRACENE

Carcinogenic hydrocarbons; 9,11-dimethylbenz[*a*]anthracene and 8,9,11-trimethylbenz[*a*]anthracene. B. Riegel and J. G. Burr, jr. bibliog Am Chem Soc J 70:1070-3 Mr '48

BENZENE

Absolute absorption intensities of alkylbenzenes in the 2250-1700 A. region. J. R. Platt and H. B. Klevens. bibliog Chem R 41:301-10 O '47

Acid-base reactions in benzene and other organic solvents; behavior of bromophthalain magenta with different classes of organic bases. M. M. Davis and P. J. Schuhmann. il J Res Nat Bur Stand 39:221-63 bibliog(94 ref, p262-3) S '47

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalain with different classes of organic bases in benzene. M. M. Davis and others, bibliog J Res Nat Bur Stand 41:27-40 Jl '48

Adsorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. F. Othmer, bibliog il diag Ind & Chem 40:739-43 Ap '48

Alkylbenzenes in the C₆ fraction from seven representative crude petroleum. A. F. Forziati and F. D. Rossini, bibliog J Res Nat Bur Stand 39:425-33 N '47

Analysis of the vibrations of benzene derivatives; the class A_g carbon vibrations of toluene. A. R. Chopin and C. H. Smith, bibliog Am Chem Soc J 70:2520-3 Jl '48

BENZENE—Continued

- Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Licht, Jr. and C. G. Denzler, *bibliog diag Chem Eng Prog* 44:627-38 Ag '48
- Benzene formation in the radiochemical polymerization of acetylene. C. Rosenblum, *bibliog J Phys & Colloid Chem* 52:474-8 Mr '48
- Butylation of benzene during propylation in the presence of isobutane; ratio of reactivities of benzene and isobutane. F. E. Condon and M. P. Matuszak, *Am Chem Soc J* 70:2539-42 Jl '48
- Catalytic ethylation of benzene with ethanol in the gaseous phase. N. M. Cullinane, S. J. Chard and R. Meatyard, *bibliog Soc Chem Ind J* 67:232 Je '48
- Chlorination of 1,3-bis-(trifluoromethyl)-benzenes. C. K. Bradsher and R. S. Kittila, *Am Chem Soc J* 70:1318-20 Ap '48
- Chloro- and dichloro-bis-(trichloromethyl)-benzenes. C. K. Bradsher and others, *bibliog Am Chem Soc J* 70:1317-18 Ap '48
- Concerted displacement reactions; termolecular displacement reactions of methyl halides in benzene solution. C. G. Swain and R. W. Eddy, *Chem Am Chem Soc J* 70:2989-94 S '48
- Condensation of some tertiary octyl alcohols with benzene. R. C. Huston and others, *bibliog Am Chem Soc J* 70:1090-3 Mr '48
- Correlation of azeotropic data. H. Skolnik, *bibliog Ind & Eng Chem* 40:442-50 Mr '48
- Dielectric behavior of solutions of electrolytes in solvents of low dielectric constant. H. A. Strobel and H. C. Eckstrom, *bibliog J Chem Phys* 16:317-31 Ag '48
- Diffusion across oil-water interfaces. E. Hutchinson, *bibliog J Phys & Colloid Chem* 52:897-908 My '48
- Dipole moments and molecular association of some picrates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Maryott, *bibliog J Res Nat Bur Stand* 41:1-6 Jl '48
- Distribution reaction products in benzene chlorination; batch vs. continuous process procedures. R. B. MacMullin, *Chem Eng Prog* 44:183-8 Mr '48
- Economic trends in coal tar hydrocarbons. J. M. Weiss, *Chem & Eng N* 26:238-40 Ja 26 '48
- Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. P. H. Richards and J. W. McBain, *bibliog Am Chem Soc J* 70:1338-42 Ap '48
- Electron levels in polyatomic molecules having resonating double bonds. K. F. Herzfeld, *bibliog diags Chem R* 41:233-56 O '47
- Electronic transitions in the simple unsaturated hydrocarbons. E. P. Carr, *bibliog Chem R* 41:293-9 O '47
- Electronic transitions in trisubstituted benzenes in the near ultraviolet. H. Sponer, *bibliog il Chem R* 41:281-91 O '47
- Excited states of benzene. F. M. Garforth and others, *diags Chem Soc J* p406-517 Ap '48
- Formation of quinone by the action of bromine oxide on benzene. M. S. Kharasch, P. B. Polen and W. H. Urry, *Am Chem Soc J* 69:2566 O '47
- Friedel-Crafts reaction of benzene and 3,4-dichlorohexane. K. Sisido and H. Nozaki, *Am Chem Soc J* 70:1288-9 Mr '48
- Heat capacity; heat of fusion and entropy of benzene. G. D. Oliver, M. Eaton and H. M. Huffman, *bibliog Am Chem Soc J* 70:1502-5 Ap '48
- Hyperconjugation; the competitive bromination of benzene and *t*-butylbenzene. E. Berliner and E. J. Bondhus, *bibliog Am Chem Soc J* 70:854-8 F '48
- Interfacial tension by the ring method; the benzene-water interface. H. L. Cupples, *bibliog J Phys & Colloid Chem* 51:1341-5 N '47
- Kinetic evidence for a termolecular mechanism in displacement reactions of triphenylmethyl halides in benzene solution. C. G. Swain, *bibliog Am Chem Soc J* 70:1119-28 Mr '48
- Liquid and vapor curves in the system ethyl alcohol-benzene-carbon tetrachloride at constant pressure. A. N. Campbell and W. J. Dulmage, *bibliog diag Am Chem Soc J* 70:1723-7 My '48
- Liquid sulfur dioxide in sulfonation of benzene. L. Leiserson, R. W. Bost and R. LeBaron, *bibliog Ind & Eng Chem* 40:508-10 Mr '48
- Molecular orbital treatment of the ultraviolet spectra of benzene and borazole. C. C. J. Roothaan and R. S. Mulliken, *bibliog J Chem Phys* 16:118-23 F '48
- Near-ultraviolet absorption spectra of monoalkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others, *bibliog Chem R* 41:273-9 O '47
- Near ultraviolet absorption spectra of mono-substituted benzenes; the effect of certain meta directing groups. W. F. Hamner and F. A. Matsen, *Am Chem Soc J* 70:2482-5 Jl '48
- Nucleophilic substitution in the benzene ring; rates of reactions of *p*-substituted bromobenzenes with piperidine. J. F. Bunnett and A. L. Witt, *bibliog Am Chem Soc J* 70:2778-9 Ag '48
- Organic reactions with aluminum chloride; the cycl-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms. K. Sisido and H. Nozaki, *Am Chem Soc J* 70:1609-12 Ap '48
- Oxyntation of benzene to picric acid; Wolfenstein-Böters reaction. E. E. Aristoff and others, *bibliog il diags Ind & Eng Chem* 40:1281-90 Jl '48
- Partition of hydrogen chloride between water and benzene. J. E. Such and R. H. Tomlinson, *bibliog Soc Chem Ind J* 67:110-14 Mr '48
- Petroleum chemical detergents. M. Sittenfeld, *flow sheet il Chem Eng* 55:120-2 Je '48
- Physical properties and chemical constitution; *n*-alkylbenzenes. A. I. Vogel, *Chem Soc J* p607-10 Mr '48
- Physical properties of benzene-methanol mixtures. G. C. Williams, S. Rosenberg and H. A. Rothenberg, *bibliog Ind & Eng Chem* 40:1273-6 Jl '48
- Polyalkylbenzenes; the reaction between polymethyl-*p*-methoxyanilines and formaldehyde. L. I. Smith and W. M. Schubert, *bibliog Am Chem Soc J* 70:2656-61 Ag '48
- Properties of alkylbenzenes; list of 397 alkylbenzenes, with observed properties which are recorded in the literature. A. W. Francis, *Chem R* 42:107-62 bibliog(425 ref, p 152-62) F '48
- Radical reactions with certain nitrogen compounds; the conversion of benzene (toluene, etc.) in other compounds at low temperature. O. Baudisch, *bibliog Science* 108:443-4 O 22 '48
- Relative rates of propylation of monoalkylbenzenes. F. E. Condon, *bibliog Am Chem Soc J* 70:2265-7 Je '48
- Restricted rotation in aryl amines; preparation and resolution of *N*-succinyl-1-methylamino-2,4-dimethyl-6-substituted benzenes. R. Adams and N. K. Sundholm, *Am Chem Soc J* 70:2667-73 Ag '48
- Solubility of tetraethylammonium iodide in benzene-ethylene dichloride mixtures. A. A. Vernon and J. L. Sheard, *Am Chem Soc J* 70:2035-6 Je '48
- Some catalyzed gas-phase reactions of aromatic hydrocarbons; the interaction of benzene and ethylene. D. L. Hammick and M. Roberts, *Chem Soc J* p73-6 Ja '48
- Specific heats of volatile liquids; benzene-methanol system. G. C. Williams, *diag Ind & Eng Chem* 40:340-1 F '48
- Supplies of benzene and naphthalene. J. M. Weiss, *Chem Eng Prog* 44:sup 16-+ Jl '48
- Thermodynamics of nonelectrolyte solutions; α - γ - t relations in a binary system. O. Redlich and A. T. Kister, *Ind & Eng Chem* 40:341-5 F '48
- Thermodynamics of the system benzene-biphenyl. H. Tompa, *bibliog diags J Chem Phys* 16:292-302 Ap '48
- Ultraviolet absorption spectra of simple unsaturated compounds; mono- and *p*-disubstituted benzene derivatives. L. Doub and J. M. Vandenberg, *bibliog Am Chem Soc J* 69:2714-23 N '47
- Use of tritium in the determination of the solubility of water in solvents; the solubility of water in benzene. G. G. Joris and H. S. Taylor, *bibliog diags J Chem Phys* 16:45-51 Ja '48

BENZENE—Continued

Viscosity of solutions of primary alcohols and fatty acids in benzene and in carbon tetrachloride, W. J. Jones and others, *bibliog J Phys & Colloid Chem* 52:753-60 Ap '48

See also

Benzol (commercial benzene) Butylbenzene
Diisopropylbenzene

Analysis

Calibration of field equipment from air vapor mixtures in a five-gallon bottle, F. M. Stead and G. J. Taylor, *diags J Ind Hygiene* 29:408-12 N '47

Colorimetric determination of less than 0.001 per cent sulphur as carbon disulphide in benzenes, T. A. Dick, *bibliog Soc Chem Ind J* 66:253-7 Ag '47

Determination of traces of organic bases in benzol and the like, H. N. Wilson, *Soc Chem Ind J* 67:237-8 Je '48

Study of the efficiency of methods for obtaining vapor samples in air, H. L. Andrews and D. C. Peterson, *bibliog flow diag diags J Ind Hygiene* 29:403-7 N '47

BENZENEARSENIOUS acid

3-Amino-4-hydroxybenzenearsenous acid, C. K. Banks and others, *bibliog Am Chem Soc J* 69:5-11; 70:1762-5 Ja '47, My '48

BENZENE hexachloride, See Hexachlorocyclohexane

BENZENE poisoning

Benzol exposure in drug plant, *Safety Eng* 95:62-3 F '48

Medical aspects of maximum allowable concentrations; benzene, H. L. Hardy and H. B. Elkins, *bibliog J Ind Hygiene* 30:196-200 My '48

BENZENESULFONAMIDE

Preparation of aromatic stibonic acids of certain benzenesulfonamides, R. D. Englert and O. J. Sweeting, *Am Chem Soc J* 70:2977-9 S '48

BENZENESULFONYL benzoisothiazolone

Formation of hydroxythionaphthens by the interaction of benzenesulphonylbenzoisothiazolone and substances containing a reactive methylene group, A. W. H. Barton and E. W. McClelland, *Chem Soc J p* 1574-8 D '47

BENZENESULFONYL chloride

Benzenesulfonyl derivatives; 1-amino-2,3-dibromopropane and 2-amino-1,3-dibromopropane, W. J. Gensler, *bibliog Am Chem Soc J* 70:1843-6 My '48

BENZENESULFONYL guanidine

Acyl derivatives of *p*-aminobenzenesulphonylguanidine, P. R. Carter, D. H. Hey and D. S. Morris, *Chem Soc J p* 143-7 F '48

BENZETHIOL

Reactions of mercaptans with acrylic and methacrylic derivatives, C. D. Hurd and L. L. Gershbein, *bibliog Am Chem Soc J* 69:2328-35 O '47

BENZIDINE

Relation between the absorption spectra and the chemical constitution of dyes; induced non-coplanarity in symmetrical benzidine dyes, R. J. Morris and W. R. Brode, *Am Chem Soc J* 70:2485-8 Jl '48

Synthesis of azo boronic acids; dyes from tetrazotized benzidine-2,2'-diboronic acid, H. E. Snyder and S. L. Meisel, *Am Chem Soc J* 70:774-6 F '48

Synthesis of benzidine-2,2'-diboronic acid, H. E. Snyder, C. Weaver and S. M. Farmerter, *Am Chem Soc J* 70:773-4 F '48

BENZIL

Stabilization of chlorinated diphenyl in paper capacitors, L. J. Berberich and R. Friedman, *bibliog il diag Ind & Eng Chem* 40:117-23 Ja '48

BENZIMIDAZOLE

Dissociation constants of benzimidazole and certain purine derivatives, H. F. W. Taylor, *Chem Soc J* p785-6 Je '48

Folic acid activity and antagonism of two structurally related derivatives of benzimidazole, P. C. Edwards and others, *bibliog Science* 107:119-20 Ja 30 '48

Sulfonate salts of substituted benzimidazoles, N. J. Leonard, D. Y. Curtin and K. M. Beck, *bibliog Am Chem Soc J* 69:2459-61 O '47

BENZIMINAZOLE, See Benzimidazole

BENZOATES

See also

Zinc benzoate

BENZOFLUORIDE, See Fluorotoluene

BENZOFURAN

Coumarone-indene resins in rubber compounding, T. A. Bulifant, *Rubber Age* 62:306-2 D '47

Solubility of hydrocarbon resins and their behavior in rubber compounds, P. O. Powers, *bibliog India Rubber World* 117:351-4 D '47

Solvent extraction of indene and coumarone from coal tar light oils, A. W. Gauger and J. N. Breston, *bibliog Inst Pet J* 33:687-94 N '47

BENZOFURANCARBOXYLIC acid

2-Benzofuryllithium and 3-benzofuryllithium, H. Gilman and D. S. Meistrum, *bibliog Am Chem Soc J* 70:1655-7 Ap '48

BENZOHYDRLAMINE

N-Substituted benzohydrylamines, N. H. Cromwell and W. E. Fitzgibbon, *Am Chem Soc J* 70:387-9 Ja '48

BENZOIC acid

Binary systems of some carboxylic acids; systems containing benzoic acid or a substituted benzoic acid as one of the components, K. Mislow, *bibliog J Phys & Colloid Chem* 52:729-40 Ap '48

Heat of combustion of phenyl-beta-naphthylamine (N-phenyl-2-naphthylamine), D. E. Roberts and R. S. Jessup, *bibliog J Res Nat Bur Stand* 40:281-3 Ap '48

Hydrogenolysis of aromatic esters to alcohols, R. Mozingo and K. Folkers, *bibliog Am Chem Soc J* 70:229-31 Ja '48

Inhibition of D-amino acid oxidase by benzoic acid and various monosubstituted benzoic acid derivatives, G. R. Bartlett, *Am Chem Soc J* 70:1010-11 Mr '48

New thermometric standard utilizing the freezing point of benzoic acid, *il diag Pet Eng* 19:158+ D '47; Same, *Can Chem & Process Ind* 31:1144 D '47; Same, *Instruments* 21:458-60 My '48

BENZOIC anhydride

Reaction of benzoic anhydride with aromatic compounds catalysed by boron trifluoride, P. H. Given and D. L. Hammick, *Chem Soc J p* 1237-9 S '47

BENZOISOTHIAZOLONE

Reactions of N-benzenesulphonylbenzoisothiazolone with aromatic amines, E. W. McClelland and R. H. Peters, *Chem Soc J p* 1229-34 S '47

BENZOL (commercial benzene)

Benzol, how it's chlorinated, J. A. Lee, *il diag Chem Eng* 54:118-20 N '47

Steam-saving process for benzole extractions, H. Deringer, *diags Am Gas J* 168:22-3 Ja '48

BENZOL poisoning, See Benzene poisoning

BENZONITRILE

Ultraviolet absorption spectrum of benzonitrile vapor, R. C. Hirt and J. P. Howe, *bibliog J Chem Phys* 16:480-5 My '48

BENZOPHENANTHRENE

Condensation of phenylcycloalkenes with maleic anhydride; synthesis of 7-methoxy-3,4-benzophenanthrene, J. Szmuszkovicz and E. J. Modest, *bibliog Am Chem Soc J* 70:2542-3 Jl '48

BENZOPHENONE

Leuckart reaction; a study of the mechanism, V. J. Webers and W. F. Bruce, *bibliog Am Chem Soc J* 70:1422-4 Ap '48

Reaction of benzophenone β -naphthyl with phenylmagnesium bromide and with phenyllithium, H. Gilman and J. Morton, *bibliog Am Chem Soc J* 70:2514-15 Jl '48

BENZOPURPURINE

Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient, J. Crank, *bibliog Soc Dyers & Col J* 63:412-16; Discussion, 416-18 D '47

BENZOTHIADIAZOLE

Elimination of sulphur in certain reductions of the 2:2':4:4'-tetranitrodiphenyl mono- and di-sulphides, and an alternative route to the preparation of some 5-substituted benz-1-thia-2:3-diazoles, H. H. Hodgson and D. P. Dodgson, *Chem Soc J p* 1002-4 Jl '48

BENZOTHIADIAZOLE—*Continued*

Nitration of benz-1-thia-2:3-diazole and the synthesis of 7-nitro-, 5-methyl-, and 7-nitro-5-methyl-benz-1-thia-2:3-diazole, with improved preparations of 1-chloro-2:6-dinitrobenzene and 2-chloro-3-nitroaniline. H. H. Hodgson and D. P. Dodgson. *Chem Soc J* p 1006-9 J1 '48

Some derivatives of benz-1-thia-2:3-diazole, the nature of the thiadiazole ring, and a note on the thiolation of 2-chloro-5-nitroaniline. H. H. Hodgson and D. P. Dodgson. *Chem Soc J* p 870-4 J1 '48

BENZOTHIAZOLE

Reactions of benzthiazole derivatives; observations on the formation of 2-acetylbenzthiazole. M. A. T. Rogers and W. A. Sexton. *Chem Soc J* p 1619-21 D '47

BENZOTHIAZYL disulfide

Magnetic measurements on 2,2'-benzothiazyl disulfide and bis-(9-ethoxy-10-phenanthryl) peroxide. H. G. Cutforth and F. W. Selwood. *bibliog diag Am Chem Soc J* 70:278-81 Ja '48

BENZOTHIENYLAMINOPROPIONIC acid

Synthesis and microbiological properties of β -(2-benzothiényl)- α -aminopropionic acid. S. Avakian, J. Moss and G. J. Martin. *bibliog Am Chem Soc J* 70:3075-6 S '48

BENZOTHIOPURAN. See Thionaphthene**BENZOTHIOPHENE**. See Thionaphthene**BENZOTRIFLUORIDE**. See Trifluorotoluene**BENZOXAZOLE**

Preparation of 2-phenylbenzoxazole. L. C. Galatis. *Am Chem Soc J* 70:1967 My '48

BENZOXYLATION

Hydroxylated stearic acids; action of Prévo's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids. H. Wittcoff and S. E. Miller. *bibliog Am Chem Soc J* 69:3138-9 D '47

BENZOYL azide

Mechanism of the Schmidt reactions and observations on the Curtius rearrangement. M. S. Newman and H. L. Gildenhorn. *bibliog Am Chem Soc J* 70:317-19 Ja '48

BENZOYL hydratropic acid

Melting point curves of optical isomers. C. L. Bickel and A. T. Peaslee, jr. *bibliog Am Chem Soc J* 70:1790-1 My '48

BENZOYL peroxide

Decomposition of benzoyl peroxide in solvents; ethers, alcohols, phenols and amines. P. D. Bartlett and K. Nozaki. *bibliog Am Chem Soc J* 69:2299-306 O '47

Effect of temperature and solvent upon the fate of carboxyl groups in the decomposition of benzoyl peroxide. P. E. Hartman, H. G. Sellers and D. Turnbull. *bibliog Am Chem Soc J* 69:2416-19 O '47

Peroxide-catalyzed chlorination of trimethylchlorosilane and *t*-butyl chloride. J. J. McBride, jr. and H. C. Beachell. *bibliog Am Chem Soc J* 70:2532-3 J1 '48

Preparation of some polymerizable esters of oleic acid with unsaturated alcohols. D. Swern, G. N. Billen and H. B. Knight. *bibliog Am Chem Soc J* 69:2439-42 O '47

Reactions of benzoyl peroxide. D. H. Hey. *bibliog Chem & Ind* p 587 S 11 '48

Thermal decomposition of benzoyl peroxide. D. J. Brown. *bibliog Am Chem Soc J* 70:1208-9 Mr '48

Analysis

Determination of benzoyl peroxide in organic media. S. Sigga. *Anal Chem* 19:872-3 N '47

BENZOYLATION

Claisen benzylation of certain methylene ketones with phenyl benzoate by the sodium amide method. C. R. Hauser and others. *bibliog Am Chem Soc J* 69:2649-51 N '47

Migration of acetyl and benzoyl groups in *o*-aminophenol. A. L. LeRosen and E. D. Smith. *bibliog Am Chem Soc J* 70:2705-9 Ag '48

Streptomycetes antibiotics; heptabenzoylstreptidine from streptomycin. R. L. Peck and others. *bibliog Am Chem Soc J* 70:2321-5 J1 '48

BENZYLAMINE

Benzylamine analogues of chemotherapeutic diamidines. A. Albert, J. A. Mills and R. Royer. *Chem Soc J* p 1452-5 N '47

Conversion of benzylamine to *N*-substituted thiobenzamides. F. H. McMillan. *bibliog Am Chem Soc J* 70:868-9 F '48

Preparation of benzylamines from benzyl halides and hexamethylenetetramine. J. Graymore. *Chem Soc J* p 1116-18 S '47

Preparation of mono- and dibenzylamines. M. A. Phillips. *Soc Chem Ind* 66:325 S '47

BENZYL bromide. See Bromotoluene**BENZYL chloroethyl sulfide**

Chemical studies on vesicant-treated proteins. F. H. Carpenter and others. *Am Chem Soc J* 70:2551-3 J1 '48

Reaction of some radioactive mustard-type vesicants with purified proteins. J. L. Wood and others. *bibliog Am Chem Soc J* 70:2547-50 J1 '48

Reactions of mustard-type vesicants with α -amino acids. V. du Vigneaud and others. *Am Chem Soc J* 70:1620-4 Ap '48

BENZYL cholesterylamine

Sterols; the β -cholesterylamines. P. L. Julian and others. *bibliog Am Chem Soc J* 70:1834-7 My '48

BENZYL cyclohexanol

Field tests with tick repellents. J. M. Brennan. *Pub Health Rep* 63:339-46 Mr 12 '48

BENZYL ether

Cleavage of benzyl ethers with hydrogen. R. H. Baker, K. H. Cornell and M. J. Cron. *bibliog Am Chem Soc J* 70:1490-2 Ap '48

BENZYL fluoride. See Fluorotoluene**BENZYL halides**

Preparation of benzylamines from benzyl halides and hexamethylenetetramine. J. Graymore. *Chem Soc J* p 1116-18 S '47

BENZYLIDENE anhydrosorbitol

Anhydrides of polyhydric alcohols; the conversion of glucamine into 1:4-anhydrosorbitol; the constitution of benzylidene 1:4-anhydrosorbitol. V. G. Bashford and L. F. Wiggins. *Chem Soc J* p 299-303 Mr '48

BENZYLISOTHIUREA

Reaction of *S*-benzylisothiurea with phenacyl bromide. R. M. Dodson. *bibliog Am Chem Soc J* 70:2753-5 Ag '48

BENZYL PENICILLIN. See Penicillin**BENZYPENILLIC acid**

Synthesis of benzypenillic acid. R. W. Holey and others. *Science* 108:136-7 Ag 6 '48

BENZYL pyridine

Preparation of 2- and 4-benzylpyridine. K. E. Crook. *Am Chem Soc J* 70:416-17 Ja '48

Preparation of mixed benzyl pyridine isomers on a pilot plant scale. C. H. G. Hands and F. B. Whit. *bibliog diag Soc Chem Ind J* 66:407-9 N '47

BENZYL TETRAHYDROISQUINOLINE

Curariform activity and chemical structure; synthesis in the benzyltetrahydroisquinoline series. L. E. Craig and D. S. Tarbell. *bibliog Am Chem Soc J* 70:2783-5 Ag '48

BERGER, Adolph L.

Director of the Wright field ceramic development program. *por*(p93) *Am Cer Soc Bul* 27:95-6 Mr 15 '48

BERGSON, Maria

Flexible furniture. *por Fortune* 37:116-19 Mr '48

BERIA, Laurentius Pavlovich, 1899-

Economic brain trust of Soviet Russia. *por Bsns W* p 22-4 My 15 '48

BERKELEY, California

See also

Food industry and trade—Berkeley, California

BERKEY and Gay furniture company

Berkey & Gay ruled bankrupt. *Bsns W* p 86-7 Ap 3 '48

BERKSHIRE fine spinning associates

Textile firm's net reflects long-term rehabilitation. *Barron's* 28:35 Mr 22 '48

BERLIN

Berliners carry on. *Economist* 155:21-2 J1 3 '48

Economic conditions

Berlin; its economic structure before and after World War II. M. Brickman. *il maps For Comm W* 32:3-9+ S 18 '48

BERLIN air lift. See Air freight service

BERLIN botanical garden. See Botanical gardens

BERMUDA

Oligarchy on guard. *Economist* 154:933 Je 5 '48

Economic conditions

General review, first half of 1948. *For Comm W* 32:13-14 Ag 28 '48

BERTHELOT tubes

Study of the Berthelot method for determining the tensile strength of a liquid. A. F. Scott and others. *bibliog diag J Chem Phys* 16:495-502 My '48

BERYL

Beryl mountain, Sullivan county, N.H. S. B. Levin. 2pls *U S Bur Mines Rep of Invest* 4216:1-3 '48

Flotation of beryllium ores. J. S. Kennedy and R. G. O'Meara. *U S Bur Mines Rep of Invest* 4166:1-18 '48

BERYLLIUM

Beryllium, 1947. A. F. Matthews. *Eng & Min J* 149:87 F '48

Calibration of a Ra+Be neutron source by the B(α , n)Li reaction. F. G. P. Seidl and S. P. Harris. *bibliog R Sci Instr* 18:897-9 D '47

Cloud-chamber energy measurement of photo-neutron sources. D. J. Hughes and C. Egger. *bibliog diag Phys R* 72:902-7 N 15 '47

Excited state of Be⁹ by inelastic scattering of protons. K. E. Davis and E. M. Hafner. *Phys R* 73:1473 Je 15 '48

Gamma-radiation from the bombardment of fluorine, boron, and beryllium by protons. J. A. Jacobs and others. *Phys R* 73:1130 My 1 '48

Models for Be⁹. E. Guth and C. J. Mullin. *bibliog Phys R* 74:832-3 O 1 '48

New wrought zinc alloys containing small amounts of beryllium. R. H. Harrington. *il Am Soc for Metals Trans* 39:773-83; Discussion, 783-7 '47

Photographic apparatus for angular-distribution measurements. S. Rubin. *bibliog diag Phys R* 72:1176-86 D 15 '47

Proton stopping power of solid beryllium. C. B. Madsen and P. Venkateswarlu. *bibliog Phys R* 74:648-9 S 15 '48

Range of Ra-a-Be neutrons in water determined by means of indium foil activations. J. H. Rush. *diag Phys R* 73:271-3 F 15 '48

Some measurements of gamma-ray energies. F. N. D. Kurie and M. Ter-Pogossian. *Phys R* 74:677-82 S 15 '48

Theory of electrodisintegration of Be⁹. E. Guth and others. *bibliog Phys R* 74:834-5 O 1 '48

Theory of the photo-disintegrating of Be⁹. E. Guth and C. J. Mullin. *bibliog Phys R* 74:833-4 O 1 '48

Use of an electron multiplier tube as a new technique in disintegration experiments. L. del Rosario. *bibliog diag Phys R* 74:304-14 Ag 1 '48

Yields of neutrons from photo-neutron sources. B. Russell and others. *bibliog diag Phys R* 73:545-9 Mr 15 '48

Analysis

Spectrochemical determination of beryllium; increased sensitivity of detection in the cathode layer. J. Cholak and D. M. Hubbard. *Anal Chem* 20:970-2 O '48

Spectrographic determination of beryllium in biological material and in air. J. Cholak and D. M. Hubbard. *bibliog Anal Chem* 20:73-6 Ja '48

Isotopes

Disintegration of Be⁹. A. Hemmendinger. *bibliog Phys R* 73:806 Ap 1 '48

Energy of the Be⁹ gamma-ray. D. J. Zaffarano and others. *bibliog Phys R* 74:105-6 Jl 1 '48

γ -Radiation from Be⁹. S. Devons and M. G. N. Hine. *bibliog Phys R* 74:976-8 O 15 '48

Reaction constants for Li⁷ (p,n)Be⁹. R. Taschek and A. Hemmendinger. *bibliog Phys R* 74:373-85 Ag 15 '48

Resonances in Li⁷ (p,n)Be⁹. G. Breit and I. Bloch. *Phys R* 74:397-404 Ag 15 '48

Spins of nuclei of mass number ten. M. Goldhaber. *bibliog Phys R* 74:1194 N 1 '48

Physiological effect

Saranac symposium, 6th, Saranac Lake, N.Y. Sept. 29-Oct. 3, 1947. *Ind Med* 17:72-3 F '48

BERYLLIUM alloys

Economies result when parts are designed for beryllium copper. R. W. Carson and W. Martin. *il diag Materials & Methods* 26:79-84 D '47

Extrusion molding process; its potentialities as a means of processing gas turbine parts. H. B. Cook. *il diag Iron Age* 161:79-86+ F 5 '48

Improved electron multiplier particle counter; beryllium copper electrodes. J. S. Allen. *bibliog il diag R Sci Instr* 18:739-49 O '47

Mechanism of precipitation in alloys of beryllium in copper. A. G. Guy and others. *bibliog il diag Metals Tech* 15:TP2341 1-23 F '48

New beryllium alloys; five American patent applications. *Chem Age (Lond)* 59:327 S 4 '48

Stress-relief-hardening of beryllium copper. R. W. Carson. *il Mech Eng* 69:651-4 Ag '47; Discussion. 70:162-3 F '48

Testing

Fatigue properties of beryllium-copper strip and their relation to other physical properties. G. R. Gohn and S. M. Arnold. *il diag Am Soc T M Proc* 46:741-75; Discussion. 776-82 '46

BERYLLIUM fluoride

Beryllium fluoride in water and ethanol solutions. R. H. Linnell and H. M. Haendler. *bibliog J Phys & Colloid Chem* 52:819-27 My '48

BERYLLIUM foil

Production of thin Be foils. H. Bradner. *il R Sci Instr* 19:662-4 O '48

BERYLLIUM metallurgy

Flotation of beryllium ores. J. S. Kennedy and R. G. O'Meara. *U S Bur Mines Rep of Invest* 4166:1-18 '48

Production of beryllium. B. R. F. Kjellgren. *bibliog Electrochem Soc J* 93:122-8 Ap '48

BERYLLIUM oxide

Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. *bibliog Am Cer Soc J* 31:132-44 My 1 '48; Same. *J Res Nat Bur Stand* 40:361-74 My '48

Reactions of molten titanium with certain refractory oxides. P. H. Brace. *diag Electrochem Soc J* 94:170-6 O '48

Spectral emissivity and total emissivity of beryllium oxide. R. L. Seifert. *bibliog diag Phys R* 73:1181-7 My 15 '48

BERYLLIUM poisoning

Air contamination during machining of beryllium stainless steel. A. C. Titus. *J Ind Hygiene* 30:29-31 Ja '48

Beryllium case. C. F. Shook and J. P. Powell. *Ind Med* 17:403-4 O '48

Beryllium granulomatosis; abstract. J. Pyre and W. H. Oatway, jr. *J Ind Hygiene* 30: sup37 Mr '48

Environmental studies in plants and laboratories using beryllium; the acute disease. M. Eisenbud and others. *bibliog J Ind Hygiene* 30:281-5 S '48

Saranac symposium, 6th, Saranac Lake, N.Y. Sept. 29-Oct. 3, 1947. *Ind Med* 17:72-3 F; 18-21 My '48

Skin lesions in persons exposed to beryllium compounds. R. S. Grier and others. *bibliog il J Ind Hygiene* 30:228-37 Jl '48

BERZELIUS, Jöns Jacob, 1779-1848

J. J. Berzelius. K. R. Webb. *bibliog Chem & Ind* p474-6 Jl 24 '48

J. J. Berzelius. R. Winderlich. *pers J Chem Educ* 25:500-5 bibliog(p504-5) S '48

Sketch. *Engineering* 166:135 Ag 6 '48

BESSEL's functions

Solutions of the transformed Weber equation as an aid in teaching Legendre polynomials and Bessel functions. F. M. Mallett. *bibliog J Eng Educ* 33:672-9 My '48

Tables of Bessel functions of fractional order. 413p \$7.50 Columbia univ. press, 2960 Broadway, New York 27 '48

BESSEMER process

- Application of oxygen-enrichment to side-blown converter practice. J. L. Harrison and others. *bibliog diags Iron & Steel Inst J* 159:281-90 J1 '48; Same abr. *Metalurgia* 38:193-200 Ag '48; Abstract. *Metal Prog* 54:562+ O '48
- Development of an improved basic Bessemer steel. H. A. Dickie. *bibliog 2pls diags Iron & Steel Inst J* 159:360-76 Ag '48
- Economic advantages offered by sideblow converters. A. W. Gregg. *il Steel* 123:98+ Ag 23 '48
- Electrolytic manganese in open-hearth and Bessemer steel tests at Jones & Laughlin steel corp., Pittsburgh, Pa. F. Sillers, jr. *bibliog U S Bur Mines Rep of Invest* 4303: 1-33 '48
- Oxygen in the Bessemer converter. *Iron Age* 161:70 F 19 '48
- Oxygen use in Bessemer reported. *Chem Eng Prog* 44:sup20 J1 '48
- Russian experiments with oxygen in steel-making. V. V. Kondakov. *Metalurgia* 38:302 S '48

BETA rays

- Angular distribution in nuclear reactions and coincidence measurements. C. N. Yang. *bibliog Phys R* 74:764-72 O 1 '48
- Beta- and gamma-rays of Ga^{72} . A. C. G. Mitchell and others. *bibliog diag Phys R* 73:1424-9 Je 15 '48
- Beta- and gamma-rays of Rb^{86} . D. J. Zaffarano and others. *diag Phys R* 74:682-6 S 15 '48
- Beta- and gamma-spectra of Cs^{137} . J. Townsend and others. *Phys R* 74:99-100 J1 '48
- Beta- and gamma-spectra of Ga^{72} . S. K. Haynes. *bibliog Phys R* 73:187-8 Ja 15 '48
- Beta- and gamma-spectra of gallium irradiated by slow neutrons. S. K. Haynes. *bibliog Phys R* 74:423-32 Ag 15 '48
- Beta-beta-coincidence curves for Ir^{192} and Ta^{182} . M. V. Scherb and C. E. Mandeville. *Phys R* 74:508-9 Ag 15 '48
- β -Decay of mesons. J. J. Horowitz and others. *bibliog Phys R* 74:713-17 O 1 '48
- β -radiations of antimony¹²⁴, tantalum¹⁸², tungsten¹⁸⁵, and iridium¹⁹². S. Jnanananda. *bibliog Phys R* 72:1124-5 D 1 '47
- Beta-ray spectra from copper 64. W. E. Meyerhof and M. Goldhaber. *bibliog Phys R* 74:348-9 Ag 1 '48
- Beta-ray spectra of europium and tungsten. F. B. Shull. *diags Phys R* 74:917-25 O 15 '48
- Beta-ray spectrometer design of quadratic resolution-solid angle relationship. S. Frankel. *diag Phys R* 73:804 Ap 1 '48
- Beta-rays and gamma-rays from arsenic (76). M. V. Scherb and C. E. Mandeville. *bibliog Phys R* 73:418-19 F 15 '48
- Beta-spectra of Cu^{64} as a test of the Fermi theory. C. S. Cook and L. M. Langer. *bibliog Phys R* 73:601-7 Mr 15 '48
- Beta-spectra of Y^{90} and Sr^{90} . W. E. Meyerhof. *bibliog Phys R* 74:621-2 S 1 '48
- Beta-spectrum of Au^{198} . D. Saxon. *bibliog Phys R* 73:811-12 Ap 1 '48
- Beta-spectrum of $Hg^{(203)}$. D. Saxon. *bibliog Phys R* 74:849-50 O 1 '48
- Beta-spectrum of Sr^{90} . R. D. Albert and C. S. Wu. *Phys R* 74:847-8 O 1 '48
- Beta-spectrum of S^{85} and the mass of the neutrino. C. S. Cook and others. *Phys R* 73:1395 Je 1 '48
- Cloud-chamber observation on low energy portion RaE beta-spectrum. A. Waltner and F. T. Rogers, jr. *Phys R* 74:699-700 S 15 '48
- Coincidence experiments in antimony 124. E. T. Jurney and A. C. G. Mitchell. *bibliog diag Phys R* 73:1153-6 My 15 '48
- Coincidence experiments on Sc^{45} , Ga^{72} , Au^{198} , and Rb^{86} . E. T. Jurney. *Phys R* 74:1049-52 N 1 '48
- Coincidence measurements; beta spectra. M. L. Wiedenbeck and K. Y. Chu. *bibliog diags Phys R* 72:1164-70 D 15 '47
- Coincidence measurements; internal conversion. M. L. Wiedenbeck and K. Y. Chu. *bibliog diags Phys R* 72:1171-6 D 15 '47
- Coincidences between beta-rays and conversion electrons in europium. K. Y. Chu and M. L. Wiedenbeck. *Phys R* 74:494 Ag 15 '48
- Comparison of the beta-spectra of C^{14} and S^{35} . L. E. Glendenin and A. K. Solomon. *bibliog Phys R* 74:700-1 S 15 '48
- Comparison of the determination of the disintegration rate of radiophosphorus by absolute beta counting and calorimetric measurement. L. R. Zumwalt and others. *Science* 107:47 Ja 9 '48
- Conservation of momentum in the beta-decay of Y^{90} . C. W. Sherwin. *bibliog Phys R* 73:1173-7 My 15 '48
- Counter for low energy ionizing particles. H. C. Thomas and N. Underwood. *bibliog il diags R Sci Instr* 19:637-9 O '48
- Detection of beta-radiation by photographic film. J. Cobb and A. K. Solomon. *bibliog diags R Sci Instr* 19:441-7 J1 '48
- Disintegration of antimony 124. B. D. Kern and others. *bibliog diag Phys R* 73:1142-8 My 15 '48
- Energies of the beta- and gamma-rays from antimony; magnetic spectrometer. C. S. Cook and L. M. Langer. *Phys R* 73:1149-52 My 15 '48
- Energy and momentum relations in the beta-decay, and the search for the neutrino. H. R. Crane. *bibliog diags Rs Mod Phys* 20: 278-95 Ja '48
- Energy of beta-radiation from S^{35} and C^{14} . A. K. Solomon and others. *bibliog diag Phys R* 72:1097-100 D 1 '47
- Example of the beta-decay of the light meson. E. C. Fowler and others. *il Phys R* 74:101-2 J1 '48
- Excitation of infra-red phosphors by alpha- and beta-particles. R. H. Thompson and R. T. Ellickson. *Phys R* 73:185-6 Ja 15 '48
- Fluctuations of ionization and low energy beta-spectra. D. H. W. Kirkwood and others. *bibliog Phys R* 74:497-3 Ag 15 '48
- High energy part of the K^{40} β -spectrum. S. Franchetti and M. Giovanazzi. *Phys R* 74:102-3 J1 '48
- High resolution nuclear spectrometer. L. M. Langer and C. S. Cook. *bibliog il R Sci Instr* 19:257-62 Ap '48
- Identification of beta-rays with atomic electrons. M. Goldhaber and G. Scharff-Goldhaber. *bibliog diag Phys R* 73:1472-3 Je 15 '48
- Inside Geiger-Müller counter for soft beta-emitters; assay of radioactive sulfur 35 or carbon 14. L. W. Labaw. *bibliog diag R Sci Instr* 19:390-5 Je '48
- Internal conversion electrons from Sm^{152} . 47 hour. R. D. Hill. *bibliog il Phys R* 74:78-9 J1 '48
- Internal conversion in tungsten and platinum. M. V. Scherb and C. E. Mandeville. *bibliog Phys R* 73:1401-2 Je 1 '48
- Magnetic lens beta- and gamma-ray spectrometer. E. A. Quade and D. Halliday. *bibliog diags R Sci Instr* 19:234-9 Ap '48
- Momentum conservation in the beta-decay of P^{32} and the angular correlation of neutrinos with electrons. C. W. Sherwin. *bibliog diags Phys R* 73:216-25 F 1 '48
- Nucleometer. *il R Sci Instr* 19:197 Mr '48
- Optimum conditions for a beta-ray solenoid spectrometer. E. Persico. *Phys R* 73:1475-6 Je 15 '48
- Radiations from scandium⁴⁵ and titanium⁵¹. C. E. Mandeville and M. V. Scherb. *bibliog diag Phys R* 73:141-5 Ja 15 '48
- Range and energy of beta-radiation from calcium 45. A. K. Solomon and L. E. Glendenin. *bibliog Phys R* 73:415-16 F 15 '48
- Rapid method for the determination of the maximum energies of β -emitters with simple spectra. L. Yaffe and K. M. Justus. *bibliog Phys R* 73:1400-1 Je 1 '48
- Ratio of positives to negatives in Cu^{64} . L. Cranberg and J. Halpern. *Phys R* 73:259-60 F 1 '48
- Recoll of the nucleus in beta-decay of Kr^{88} . J. C. Jacobsen and O. Kofoed-Hansen. *bibliog diags Phys R* 73:675-9 Ap 1 '48
- Relation of backscattering to self-absorption in routine beta-ray measurements. P. E. Yankwich and J. W. Weigl. *Science* 107: 651-3 Je 18 '48
- Search for positron-electron branching in certain beta emitting isotopes. W. C. Barber. *bibliog diags Phys R* 72:1156-9 D 15 '47
- Shape of the positron spectrum of Cu^{64} . C. S. Cook and L. M. Langer. *Phys R* 74:227-3 J1 15 '48

BETA rays—Continued

Study of the beta-spectra of C^{14} and S^{35} .
C. S. Cook and others. *bibliog Phys R* 74:
548-52 S 1 '48

Study of the radiations from iridium (194),
iridium (192), lanthanum (140), antimony
(124), and zirconium (95). C. E. Mandeville
and M. V. Scherb. *bibliog Phys R* 73:
1434-41 Je 15 '48

Thermal neutron activation cross sections.
L. Seren, H. N. Friedlander and S. H.
Turkel. *bibliog Phys R* 72:888-901 N 15 '47

BETAINE

Printing indigosols; betaines br sulfobetaines
as assistants; patent. *Am Dyestuff Rep*
37:475 J1 12 '48

BETATRON. See Electron accelerator**BETHLEHEM steel company**

Quincy Bent, vice president, retires and is
succeeded by Stewart J. Cort. *Blast F &*
Steel P 35:1395-6 N '47

BETTING

See also
Gambling

BETULINIC acid

Occurrence of betulinic acid in the bark of
the plane tree. V. Bruckner, J. Kovács and
I. Koczka. *Chem Soc J* p948-51 J1 '48

BEVAN, Arthur Charles, 1888-

Ceramic abstractor. *por Am Cer Soc Bul* 27:
347 S 15 '48

BEVERAGES

Bottler tackles truck delivery problems; Min-
nehaha water co. distributes drinking water
and soft beverages. *il Food Ind* 20:187 F '48

Cold drink vendors, an industry in a cabinet;
field for refrigeration. E. A. Terhune. *il*
Refrig Eng 55:372-3 Ap '48

Dry ice; economical CO_2 source for bottlers.
G. B. Armstrong. *il Food Ind* 20:1460-1
O '48

Powdered Kool-Aid to bow in bottled form.
Bsns W p26 Ja 31 '48

Seven-Up spices facts with fun at annual
bottler's sales confab. *il Sales Manage-*
ment 61:95 J1 15 '48

Soft drink industry resumes growth trend
W. S. Morris. *Barron's* 28:31 Ja 26 '48

What's wrong with soft drinks? with statis-
tical highlights of leading companies. *il*
Mag of Wall St 82:394-5+ J1 17 '48

See also

Beer	Maté
Bitters	Pepsi-Cola
Bottling plants	Root beer
Coffee	Wine
Liquors	

Advertising

Coca-Cola or Coke; it's lineage in N.Y.;
Pepsi uses full pages in new drive. *il Ed*
& Pub 81:14 Ag 7 '48

How Squirt uses point-of-purchase to get
into the public eye. L. F. Thomann. *il*
Ptr Ink 224:28-9 S 3 '48

National, at local level; Bireley's division of
General foods corp. *Sales Management* 61:
71-2 Ag 1 '48

Manufacture

Beverage filling units use synthetic tubing.
il Food Ind 20:1024 J1 '48

Modern practices in carbonated beverage
plants. H. E. Medbery. *flow diag il diag*
Food Ind 20:1133-40 Ag '48

Using graded porosity pads for depth filtra-
tion; used in beverage industries to polish
liquids, to improve ultra-violet steriliza-
tion and retention of carbonation. F. R.
Hormann. *il diag Food Ind* 20:680-1+ My
'48

BEVIS, Howard Landis, 1885-

Portrait. *Am Cer Soc Bul* 27:135 Mr 15 '48

BIAZZI process

Continuous nitration; the Biazzi process. J.
C. Smith. *bibliog il diag Chem Ind* 62:929-
31 Je '48

BIBLIOGRAPHY

Books. S. I. Vavilov. *J Doc* 4:1-4 Je '48

Books in print, an author-title-series index
to the Publishers' trade list annual, 1948.
E. A. Uhlenborn, ed. 1200p R. R. Bowker
co, 62 W. 45th st, New York 19 '48

Co-ordination of information; a survey of
schemes put forward in the last fifty years.
E. M. R. Dittmas. *J Doc* 3:209-21 Mr '48

Literature citation. A. C. Zachlin. *Science*
107:292-3 Mr 19 '48
Special libraries association makes bibliog-
raphies available. *Paper Tr J* 126:38 Ap 22
'48

See also
Catalogs, Library

Best books

Best books of the decade, 1936-1945. A. D.
Dickinson. 295p \$3 H. W. Wilson co, New
York '48

Editions for the armed services, inc.: a history,
together with the complete list of
1324 books published for American armed
forces overseas. 139p Editions for the
armed services, 40 E. 49th st, New York '48
Standard catalog for public libraries, 1947
supplement to the 1940 edition; an
annotated list of 1,634 books with a full
analytical index. D. E. Cook, D. H. West
and E. A. Fidell, comps. 329p H. W. Wil-
son co, New York '48

Bibliography

Bibliographic index; a cumulative bibliog-
raphy of bibliographies, 1943-1946. H. T.
Geer, ed. 83ip H. W. Wilson co, New York
'48

Bibliographic index; a cumulative bibliog-
raphy of bibliographies, 1947. V. Turrell,
ed. 208p H. W. Wilson co, New York 52 '48
World bibliography of bibliographies and of
bibliographical catalogues, calendars, ab-
stracts, digests, indexes, and the like, v 1,
by T. Besterman. Review by A. G. Hepburn.
J Doc 3:188-9 D '47

BICYCLE insurance. *See Insurance, Bicycle*

BICYCLE tires. *See Tires, Bicycle*

BICYCLES

How the new look brought back the bike.
J. D. Woolf. *il Adv & Sell* 41:52+ Ap '48

United Kingdom's bicycle trade and produc-
tion. *For Comm W* 29:25 D 6 '47

Rating

Bicycles. *il Consumers Res Bul* 21:5-7 Je '48

BIDDING, Competitive. *See Contracts, Letting*
of; Securities—Marketing

BIGELOW-SANFORD carpet company

Cost-cutting conference brings out an idea
a minute. E. I. Petersen. *Factory Manage-*
ment 106:94-6 My '48

BIGGERS, John David, 1888-

Portrait. *Bsns W* p21 N 1 '47

BIKINI

Reefs of Bikini, Marshall islands. J. I.
Tracey, jr. and others. *il maps plans diag*
Geol Soc Bul 59:861-78, pl 1-11 S '48

Submarine geology of Bikini atoll. K. O.
Emery. *fold maps(pl 1-3) Geol Soc Bul* 59:
855-9, pl 2, 4-5 S '48

BILLBOARDS

See also

Advertising, Out-	Moving picture
door	theaters—Bill-
	boards

BILLING

Alphabetic tabulating card billing and ac-
counts receivable plan. W. J. Taraldson.
Am Gas Assn Proc 1947:366-8

Billing and collecting, accounts receivable;
waterworks accounting. E. L. Gothard.
Water & Sewage 85:82+ Ap '48

Budget plan for payment of house heating
bills. C. Hammel. *Am Gas Assn Proc* 1947:
156-62

From hand to electric accounting methods
for sorting and billing operations; Elyria
telephone company, Ohio. *il Am Bsns* 18:12-
13+ J1 '48

Mechanics of irregular billing. J. D. Elliott.
Gas Age 102:18-20+ S 2 '48

Mechanization of public utility billing and
accounting. A. Knapp. *Am Water Works*
Assn J 40:1062-6 O '48

Microfilm solves problem of interline ticket
billing. F. Kane. *il Bus Transportation* 27:
70-1 Ap '48

New billing system cuts time and errors for
Commonwealth Edison company, Chicago;
bills are machine-punched cards. *il Am*
Bsns 18:12-13+ Je '48

BILLING—Continued

Order-billing plan aids management at Pennsylvania salt manufacturing co. R. Neumaler, *il Am Bsns* 18:12-13+ F '48
 Postal card bill and historical ledger card plan, F. W. Phelps, *Am Gas Assn Proc* 1947:364-6

Prorating of irregular period billing, F. W. Phelps, *Am Gas Assn Proc* 1947:321-5

Varied uses found for bill enclosures; Brooklyn union gas co. uses bill stuffers to send recipes and appliance news to customers, H. A. Praeger, *il Adv & Sell* 41:90+ O '48

BILLS of exchange

Notes pledged to bank by payee not bills of exchange, *Banking Law J* 64:965-7 D '47

BILLS of lading

More about secured credits; bills of lading can be used to protect sellers, C. B. Everberg, *Credit & Fin Management* 50:10-11+ My '48

Uniform bill of lading presents problems to inland marine claims men, *bibliog Weekly Underw* 158:651+, 808+, 887-9+ F '28, Mr 13-20 '48

BIMETAL. See Thermostats**BINAPHTHYL**

Ultraviolet absorption spectra of 1,1'-and 2,2'-binaphthyl, V. L. Frampton, J. D. Edwards, Jr. and H. R. Henze, *Am Chem Soc J* 70:2284-5 Je '48

BINDERS. See Insurance—Binders**BINDING materials**

Cereal core binders, C. L. Mehlretter, *Foundry* 75:224+ D '47
 Comparative strength and hardness of core binders, H. Brown, *Foundry* 76:76-9+ O '48
 Gases given off by core binders, H. Brown, *il diag Foundry* 76:84-7+ N '48
 Sawdust-binder compositions, A. E. Gabriel, *Mod Plastics* 25:145-7+ Ap '48

See also

Resinous products—
 Binding materials

BINGHAM plan. See Medical service, Rural**BINOCULAR vision. See Sight****BINOCULARS. See Field glasses****BINS**

Electronic bin level indicator, *il diags Product Eng* 19:99 Je '48
 Notched skid bins solve crankshaft handling problem, *il Iron Age* 161:130 Mr 11 '48
 Racks and bins aid raw-material warehousing, R. O. Fristoe, *il diag Am Mach* 92:116-17 Ag 12 '48

BINS, Concrete**See also**

Coal bins, Concrete
 Grain bins, Concrete

BIOCHEMICAL oxygen demand test. See Sewage—Testing**BIOGRAPHY****Bibliography**

Biography index; a cumulative index to biographical material in books and magazines, July 1947-June 1948, B. Joseph, ed. 432p H. W. Wilson co, New York '48
 Business biographies and company histories (Baker lib, Reference list no.4) 54p pa \$1 Harvard univ. Graduate school of business administration, Soldiers field, Boston 63 '48

Dictionaries

Current biography; who's news and why, 1947, A. Rothe and C. Ellis, eds. 760p H. W. Wilson co, New York, '48
 International who's who, 1947, 11th ed 960p \$16 Ziff-Davis pub. co, 185 N. Wabash av, Chicago '47
 International who's who, 1948, 12th ed 1032p \$16 Europa publications, 39 Bedford square, London, W.C.1 '48
 International world who's who, G. G. Sampson, ed. 1175p \$18.50 American universities medical research publications, inc. 240 Broadway, New York '47
 Tewkesbury's Who's who in Alaska and Alaska business index. 320p \$4.50 Tewkesbury, 200 Lyon bldg, Seattle, Washington '47
 Who's who in America, 1948-1949, v 25 2860p \$8.50 A. N. Marquis co, 210 E. Ohio st, Chicago 11 '48

Who's who in American art; v 4, 1940-1947, D. B. Gilbert, ed. (American art annual, v 36, pt 2) 684p \$12 American federation of arts, 1262 New Hampshire av, NW, Washington 6 '47

Who's who in engineering; a biographical dictionary of the engineering profession, 1948, W. S. Downs, ed. 6th ed 2357p \$15 Lewis historical pub. co, 80 8th av, New York 11 '48

Who's who in insurance. 369p \$5 Underwriter printing and pub. co, 116 John st, New York 7 '48

Who's who in the Agricultural institute of Canada. 226p \$2.50 Agricultural institute of Canada, Ottawa '48

Who's who on the Pacific coast. 1084p \$15 A. N. Marquis co, 210 E. Ohio st, Chicago 11 '47

See also

Educators—Biography

BIOLOGICAL apparatus

Apparatus for semimicro electroanalysis, K. F. Urbach and J. J. Svarz, *il diags Science* 108:93 J1 23 '48

Apparatus to facilitate intravenous injections in the mouse, J. J. Nickson and S. S. Barkulis, *il diag Science* 107:229-30 F '27 '48

Electrically heated wax pencil for sealing inoculated eggs, N. A. Labzoffsky, *diags Science* 108:364-5 O 1 '48

Mincing apparatus for the preparation of embryo extract for tissue culture, E. Carpenter, *diags Science* 106:621 D 19 '47

Piston recorder for small volume changes, F. N. Martin, Jr, *diag Science* 107:683-4 Je 25 '48

Practical method for the illumination of biological material with ultraviolet rays, B. V. Pisha, *il Science* 108:142-3 Ag 6 '48

Precision micro-pipette trimmer, K. M. Richter, *diags Science* 106:598-9 D 12 '47

Rapid method of single cell isolation, R. D. Northcraft, *diag Science* 107:578 My 28 '48

Removal of the fertilization membranes from large quantities of sea-urchin eggs, P. E. Lindahl and J. Lundin, *diag Science* 108:481-2 O 29 '48

See also

Micromanipulators
 Physiological apparatus

BIOLOGICAL assay

Biological assay of vitamin A; liver storage test of Guggenheim and Koch, J. R. Foy and K. Morgareidge, *bibliog Anal Chem* 20:304-7 Ap '48

Microbiological assay for riboflavin, H. A. Kornberg, R. S. Langdon and V. H. Cheltenham, *bibliog Anal Chem* 20:31-3 Ja '48

Sensitive cylinder-plate assay for bacitracin, D. A. Hoff and others, *Science* 106:551-2 D 5 '47

See also

Microbiological assay (term)

BIOLOGICAL chemistry

Advances in protein chemistry; address at Richards medal award, E. J. Cohn, *Chem & Eng N* 26:1514-15 My 24 '48

Binary systems of some carboxylic acids, K. Mislow, *bibliog J Phys & Colloid Chem* 52:729-49 Ap '48

Biosynthesis of penicillins; by editorial board of "Chemistry of penicillin," *bibliog Science* 106:503-5 N 28 '47

Case study in biochemical engineering; Merck's brilliant streptomycin achievement typifies the potentialities of a new technology, S. D. Kirkpatrick, *il Chem Eng* 54:94-6, 101-2 N '47

Chemical studies on viruses, W. M. Stanley, *il Chem & Eng N* 25:3786-91 D 22 '47

Diffusion in biological processes; abstract and discussion, P. Eggleton, *Chem & Ind* p755 D 6 '47

Effects of a new tetrazolium derivative on tissue, bacteria, and onion root tips, W. Anapol and others, *bibliog Pub Health Rep* 63:1231-8 S 17 '48

From the highest to the lowest, H. Nicol, *bibliog Chem & Ind* p230-2 Ap 10 '48

Low-temperature spectroscopy of biological compounds, J. F. Scott and others, *bibliog Science* 107:302 Mr 19 '48

BIOLOGICAL chemistry—Continued

Radioactive isotopes as indicators in biology. J. Sacks. Chem R 42:411-56 bibliog (291 ref. p448-56) Ap '48

Reaction rates in biological processes; abstract. F. H. Johnson. Science 107:462-3 My 7 '48

Use of punched cards for indexing and classifying biochemical literature. S. R. Ames and W. F. Kujawski. Special Lib 39:233-8 S '48

See also

Antigens and antibodies

Bacteria

Biological materials

—Analysis

Biotin

Blood

Enzymes

Haptens

Hormones

Metabolism

Nutrition

Penicillin

Physiological chemistry

Plants—Chemical

analysis

Proteins

Vitamins

X rays—Biological

effect

Terminology

Toward a more convenient method for expressing the concentration of biological fluids. C. Bishop. Science 107:596 Je 4 '48

BIOLOGICAL chemists*See also*

Koch, Fred Conrad

BIOLOGICAL laboratories*See also*

Mt Desert Island
biological laboratory

Equipment

Automatic proportioning apparatus for experimental study of the effects of chemical solutions on aquatic animals. A. Collier and S. M. Ray. diags Science 107:576-7 My 28 '48

Simple ink writer for the mercury manometer. L. H. Anderson. diags Science 108:445 O 22 '48

BIOLOGICAL luminescence. See Luminescence, Biological**BIOLOGICAL materials**

Irradiation of biological materials by high energy Roentgen rays and cathode rays. J. G. Trump and R. J. Van de Graaff. bibliog il diag J Ap Phys 19:599-604 Jl '48

Vibrator for treating small samples of biological materials. B. R. Russell and H. B. Wahl. diag R Sci Instr 19:277 Ap '48

See also

Urine

Analysis

Determination of nitrogen in biological materials; improved Kjeldahl-Nessler method. G. L. Miller and E. E. Miller. bibliog diags Anal Chem 20:481-8 My '48

Determination of phenol and *m*-cresol in complex biochemical mixtures; application of countercurrent distribution method. B. Warshawsky, E. J. Schantz and M. W. Rice. Anal Chem 20:951-4 O '48

Microdetermination of lead in biological material with dithione extraction at high pH. J. Cholak, D. M. Hubbard and R. E. Burke. bibliog diag Anal Chem 20:671-2 Jl '48

Spectrochemical determination of beryllium; increased sensitivity of detection in the cathode layer. J. Cholak and D. M. Hubbard. Anal Chem 20:970-2 O '48

Spectrographic determination of beryllium in biological material and in air. J. Cholak and D. M. Hubbard. bibliog Anal Chem 20:73-8 Ja '48

BIOLOGICAL physics

Biophysical studies of blood plasma proteins; separation and properties of the γ -globulins of the sera of normal cows. E. L. Hess and H. F. Deutsch. bibliog Am Chem Soc J 70:84-8 Ja '48

Biophysical studies of blood plasma proteins; separation of γ -globulin from the sera of various animals. J. C. Nichol and H. F. Deutsch. bibliog Am Chem Soc J 70:80-3 Ja '48

Conference on biological applications of nuclear physics announced by Brookhaven national laboratory. Science 108:7 Jl 2 '48

Engineering principles in biophysics. K. Riess. J Eng Educ 38:290-3 D '47

BIOLOGICAL research

Arctic research at Point Barrow, Alaska. L. Irving. Science 107:284-6 Mr 19 '48

Mathematics of life; biologist makes increasing use of statistics in analyzing results of research. F. W. Nordsieck. bibliog il Tech R 60:313-15+ Ap '48

BIOLOGICAL sciences, American institute of. See American institute of biological sciences**BIOLOGICAL sciences, international union of. See International union of biological sciences****BIOLOGICAL societies**

See also American institute of biological sciences

BIOLOGICAL specimens

Method for permanent identification of materials sealed in small containers. A. S. Lazarus. Science 106:550 D 5 '47

Mounting of dermatological material with synthetic resins. L. Goldman and L. Mason. il Science 106:646 D 26 '47

Specimens preserved by embedding in solid block of acrylic. il Sci Am 177:266 D '47

BIOLOGICAL warfare

Biological warfare hazards to water supplies; abstracts. H. H. Gerstein and R. E. Noble. Eng N 140:685 My 13 '48; Water & Sewage Works 95:289 Ag '48

Scientists and management in the chemical industry. G. W. Merck. Chem & Ind p783-5 D 20 '47; Abstract. Chem & Eng N 25:3496-7 N 24 '47

BIOLOGISTS*See also*

Glaser, Rudolf William

BIOLOGY*See also*

Biological chemistry

Botany

Ecology

Luminescence, Biological

Microorganisms

Microscope and microscopy

Mutation (biology)

BIOLUMINESCENCE. See Luminescence, Biological

BIOMECHANICS

Human bone properties; research necessary in predicting body behavior in aircraft crashes, seat-ejection from aircraft, parachute opening, and exposure to blast. il Mech Eng 70:827-9 O '48

Human factors in engineering design. L. C. Mead. diags S A E J 55:40-6 D '47

BIOMETRIC society

International biometric society formed at Woods Hole conference. Science 106:413 O 31 '47

BIOPHYSICS. See Biological physics**BIOTIN**

Biotin and related compounds. E. J. Chu. bibliog (99 ref) Chem & Ind p 115-18+ F 21 '48

Synthesis of imidazolones structurally related to biotin by means of *N*-bromosuccinimide. R. Duschinsky and L. A. Dolan. bibliog Am Chem Soc J 70:657-62 F '48

BIPYRIDINE

Determination of alumina in iron ore. G. F. Smith and F. W. Cagle, jr. bibliog Anal Chem 20:574-6 Je '48

BIRCH

Drought, a possible contributor to yellow birch dieback. Pulp & Pa of Can 49:156 O '48

BIRDS

New Zealand expedition of the American museum of natural history. R. C. Murphy. Science 108:463-4 O 23 '48

Flight

Preliminary study of a physical basis of bird navigation. H. L. Yeagley and F. C. Whitmore. bibliog maps diag J Ap Phys 18:1035-63 D '47; Discussion. J. Sieplan; R. H. Varian; L. Davis, jr. 19:306-8 Mr '48

BIRDS—Continued

Migration

- Bird migration and the concept of continental drift. A. Wolfson. bibliog maps Science 108:23-30 J1 9 '48
- Bird navigation in homing and in migration. D. B. O. Saville. Science 107:596-7 Je 4 '48
- Experiments on bird navigation. D. R. Griffin and R. J. Hock. bibliog map Science 107: 347-9 Ap 2 '48
- Physical basis of bird navigation. G. H. Henderson. Science 107:597-8 Je 4 '48
- Preliminary study of a physical basis of bird navigation. H. L. Yeagley and F. C. Whitmore. bibliog maps diag J Ap Phys 18:1035-63 D '47; Discussion. J. Slepián; R. H. Varian; L. Davis, jr. 19:306-8 Mr '48

BIREFRINGENCE. See Refraction, Double

BIRMINGHAM, Alabama

Streets

- Sealing and dust laying, chief street activities during past year. il Roads & Sts 90: 70+ D '47

BIRMINGHAM electric company

- Birmingham Electric adding power distributing capacity. Barron's 27:29 D 29 '47

BIRMINGHAM university

- Medical school will conduct post-graduate summer school, 1948. Science 108:634 D 26 '47

BIRTH rate

- Births, infant mortality and maternal mortality in the United States, 1944. N. J. Brombacher. maps Pub Health Rep 62:1555-74 O 31 '47

Great Britain

- Malthus regained? Economist 154:749-50 My 8 '48

BISCUITS

See also

- Crackers
National biscuit company

Manufacture

- Power trucks cut costs, save space; Strietmann biscuit co. il Mill & Factory 42:118-19 My '48

BISHOP, Frederic Lendall, 1876-1947

- Sketch. J Eng Educ 38:164 O '47
- Testimonial to F. L. Bishop; retiring secretary of A.S.E.E. J Eng Educ 38:103 O '47

BISHOP, Louis W.

- Sketch. por Manuf Rec 117:44 Ap '48

BISMUTH

- Bismuth, 1947. R. H. Mote. Eng & Min J 149:87 F '48
- Characteristics of bismuth fission with high energy particles. R. H. Goeckermann and I. Perlman. bibliog Phys R 73:1127-8 My 1 '48
- Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand. diag Phys R 73:1135-9 My 15 '48
- Inelastic scattering of fast neutrons by Fe, Pb, and Bi. L. Szilard and others. bibliog diag Phys R 73:1307-10 Je 1 '48
- La Corne mine producing molybdenite concentrate and metallic bismuth. W. M. Bonham. flow sheet il diag Can Min J 68:881-4 D '47
- Slow neutron velocity spectrometer studies of Cu, Ni, Bi, Fe, Sn, and calcite. W. W. Havens, jr. and others. bibliog Phys R 73:963-72 My 1 '48
- Total cross section of Fe, Ni, and Bi for fast neutrons. H. H. Barschall and others. bibliog Phys R 73:659-65 Ap 1 '48

Analysis

- Microdetermination of bismuth in biological material; an improved photometric dithionite method. D. M. Hubbard. bibliog Anal Chem 20:363-4 Ap '48

Isotopes

- Artificial alpha-active bismuth isotopes. D. H. Templeton and I. Perlman. bibliog Phys R 73:1211 My 15 '48
- Artificial radioactive isotopes of bismuth and lead. D. H. Templeton and others. bibliog Phys R 72:766-71 N 1 '47

- Artificial radioactive isotopes of polonium. D. H. Templeton and others. bibliog Phys R 72:758-65 N 1 '47

BISMUTH alloys

- Economical short run stamping dies, made of low melting alloys chilled to -320°F in liquid nitrogen; Ford motor co. W. G. Patton. il Iron Age 161:34-6 F 19 '48
- Flexible molds for low-melt alloys. T. A. Dickinson. il Foundry 76:218-20+ O '48
- Soft alloys used to make short-run sheet metal dies; use of Cerrobend hardened in liquid nitrogen. K. Rose. il Materials & Methods 27:83-5 Mr '48
- Thermoelectric properties and electrical conductivity of bismuth-selenium alloys. B. D. Cullity. bibliog Metals Tech 15:TP2213 1-8 Ja '48
- Young's modulus and strain coefficient of resistivity of some bismuth rich alloys. G. C. Kuczynski and J. T. Norton. bibliog J Ap Phys 19:683-6 J1 '48

BISMUTH iodide

- Detection of certain chlorinated tertiary aliphatic amines. A. J. Cruikshank and others. Anal Chem 19:849-50 N '47
- Some reactions of trisodium monobismuthide in liquid ammonia. G. W. Watt and T. E. Moore. bibliog diag Am Chem Soc J 70: 1197-200 Mr '48

BISMUTH oxide

- Catalytic oxidation of ammonia to nitrous oxide; manganese oxide-bismuth oxide catalyst. K. A. Kobe and P. D. Hosman. bibliog Ind & Eng Chem 40:397-9 Mr '48

BISNORCHOLENALDEHYDE

- Derivatives of bisnor-5-choleinaldehyde. A. P. Centolella, F. W. Heyl and M. E. Herr. bibliog Am Chem Soc J 70:2953-4 S '48

BISNORCHOLENIC acid

- Steroid acids and their transformation products; desulfurization of the esters of 3(β)-hydroxy-5-choleonic and -bisnor-5-choleonic acids. A. V. McIntosh, jr., E. M. Meinzer and R. H. Levin. bibliog Am Chem Soc J 70:2955-8 S '48

- Sterols; Δ^2 -pregnenes from bisnor-steroid acids. P. L. Julian, E. W. Meyer and H. C. Printy. Am Chem Soc J 70:887-92 Mr '48

BISON, American

- When the buffaloes roamed. A. P. Burt. il Comp Air Mag 53:196-7 Ag '48

BITS

- Assembly-line machining used to produce rock bits for petroleum industry; Hughes tool co. G. E. Stedman. il Steel 123:91-2+ J1 5 '48
- Development of a successful hard-surfaced bit for drilling oil shale. T. Ertl and others. 2pls U S Bur Mines Rep of Invest 417:1-8 '48; Excerpt. Eng & Min J 149:94 Mr '48
- Diamond bits. P. Adamson. il Oil & Gas J 47:32+ J1 22 '48
- Diamond drilling and diamond bit investigation. L. Obert and others. bibliog 8pls U S Bur Mines Rep of Invest 4041:1-18 '47; 4233: 1-12 '48
- Hard materials for rock bits. R. W. Adamson. il Min Cong J 33:38-41 N; 46-9 D '47
- How to use diamond bits in deep drilling. il diag Pet Eng 19:179+ S '48
- Machine cutting with tungsten carbide bits; abstract. H. H. Fletcher. Min Cong J 34: 57 Je '48
- Modern rotary drilling; drilling bits, general. J. Zaba. Oil & Gas J 46:303 Ja 29; 87 F 5; 105 F 12; 131 F 19 '48
- New material for drill bits; Carbometal. il Eng & Min J 149:73 Mr '48
- Relation of nozzle fluid velocity to rate of penetration with drag type rotary bits. J. P. Nolley and others. bibliog il Pet Eng 19:86+ Je '48; Same. World Oil 128:78-82 S; 87+ O '48; Same cond. Oil & Gas J 47:87-8+ My 6 '48
- Tungsten carbide in mining. J. A. Drain. il Can Min J 69:90-1 Ap '48
- Tungsten carbide techniques for rock bits. P. M. McKenna. il Min Cong J 33:49-51 D '47

BITTERS

- Angostura reverses sales sag in face of liquor slump. I. P. MacPherson, jr. il Sales Management 61:90+ J1 15 '48
- Change in advertising pace opens new market, boosts sales; Angostura-Wuppermann promotes home use of bitters. V. J. Dal-laire. il Ptr Ink 224:32-3 J1 2 '48

BITUMINOUS coal institute

How a misunderstood industry is telling the public the facts. R. C. Mulligan. *il* *Ptr Ink* 222:36-7 Mr 26 '48

BITUMINOUS concrete pavements. See Pavements, Bituminous concrete**BITUMINOUS concrete roads.** See Roads, Bituminous concrete**BITUMINOUS materials**

Bituminous subbase concrete pavements withstand accelerated traffic tests. *il* *plan diag Civil Eng* 18:364-7 Ja '48

Controlling the pumping action of concrete pavement slabs; use of bituminous materials, information on mixtures of soils and other materials for mudjacking. *Roads & Bridges* 86:105-10 Ja '48

Emulsified asphalt; mud jacking mix successfully used in Arkansas. C. C. White. *il* *Roads & Sts* 91:105 My '48

Fracture phenomena in bituminous materials; abstract and discussion. P. J. Rigden. *Chem & Ind* p75-6 Ja 31 '48

Prevention of underground leakage; Shell-perm process. L. E. Blakeley and V. A. Endersby. bibliog *il* *plan diag Am Water Works Assn J* 40:873-82 Ag '48

Test-linings placed in small canals. *il* *Eng N* 141:74-7 Jl 22 '48

Water mains lined-in-place with electrically deposited bitumen. *il* *diags Eng N* 140:506-7 Ap 1 '48

See also

Roads, Bituminous

Fillers

Use of fillers in bituminous road surfacings; a study of filler systems in relation to filler characteristics. F. J. Rigden. bibliog *diags Soc Chem Ind J* 66:299-309 S '47

Standards

A.S.T.M. standards on bituminous materials for highway construction, waterproofing, and roofing. 306p pa \$3 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

Testing

Development of a method of test for soil bituminous mixtures. E. O. Rhodes and P. F. Phelan. *diags Am Soc T M Proc* 46:1416-28; Discussion. 1429-36 '46

Effect of characteristics of asphalts on physical properties of bituminous mixtures. R. H. Lewis and J. Y. Welborn. bibliog *Pub Roads* 26:85-94 S '48

Laboratory investigation of anti-stripping admixtures used for promoting wetting power and adhesion between bitumens and aggregates. J. C. Sprague. *il* *Am Soc T M Proc* 46:1377-406; Discussion. 1407-15 '46

Mechanical stability of bitumen-aggregate mixtures. L. W. Nijboer. bibliog *Soc Chem Ind J* 67:244-9 Je '48

Rheological investigation of asphaltic bitumen in connexion with its technical applications. R. N. J. Saal. *Inst Pet J* 34:69-79; Discussion. 79-89 F '48

Transportation

Hot-mix hauled 44 miles for Texas road job. *il* *Roads & Sts* 91:70 Ag '48

BITUMINOUS roads. See Roads, Bituminous**BITUMINOUS sand**

Elimination of water from wet crude oil by the hot water washing process; continuous settling at atmospheric pressure. K. A. Clark and D. S. Pasternack. *diags Can Chem & Process Ind* 31:1007-11; 32:32-6 N '47, Ja '48

BLACK, Fischer S. 1911-

Appointed editor of *Electrical world*. *por Elec World* 130:63 Jl 3 '48

BLACK

Black for textile printing; abstract. J. H. Downey. *Am Dyestuff Rep* 37:415 Je 14 '48

One-bath method of dyeing acetate developed black. L. S. Thompson. *Rayon* 28:495-6 S '47; Abstract. *Am Dyestuff Rep* 36:663 N 17 '47

BLACK death. See Plague**BLACK HILLS, South Dakota**

High-potash dikes in the Homestake mine. Lead, South Dakota. J. A. Noble. bibliog *diags Geol Soc Bul* 59:27-39, pl 1 S '48

Stratigraphy and metamorphism in a part of the northern Black Hills and the Homestake mine. Lead, South Dakota. J. A. Noble and J. O. Harder. *Geol Soc Bul* 59:841-75, pl 1-3 bibliog(p971-2) S '48

BLACK HILLS power and light company

Bonds placed privately. *Comm & Fin Chr* 167:1254 Mr 22 '48

Stocks offered. *Comm & Fin Chr* 168:1795 N 1 '48

BLACK light. See Ultraviolet rays**BLACK market.** See Profiteering**BLACK sand**

Distribution of coastal black sands in North Carolina, South Carolina, and Georgia, as mapped from an airplane. V. E. McKelvey and J. K. Balsley, jr. *maps Econ Geol* 43:518-24 S '48

BLACKENING of steel. See Steel—Blackening**BLACKMORE, George Augustus, 1883-1948**

Sketch. *por Ry Age* 125:686 O 9 '48

BLAIR holdings corporation

From groceries to sugar; Blair buys chunk of Spreckels sugar empire. *il* *Bsns W* p32+ Mr 13 '48

BLAKE, Clarence W.

Portrait. *Chem Ind* 62:73 Ja '48

BLANC fixe. See Barium sulfate**BLANCHING**

Use of sodium hexametaphosphate in the blanching of peas; abstract. J. W. Holmquist, C. F. Schmidt and A. E. Guest. *Food Ind* 20:237 F '48

BLANCK, Frederick Conrad, 1881-Awarded first Stephen M. Babcock award. *por Oil Pet & Drug Rep* 155:76 Je 7 '48**BLANCKE, Harold**

Portrait. *Fortune* 37:86 My '48

BLANKETS

Infrared makes short work of wet blankets. *il* *Elec World* 128:124 D 6 '47

Laminated blanket box; a die-cut trademark permits product visibility and boxboard gives strength to new St Mary's package. *il* *Mod Packaging* 21:125 Mr '48

BLANKS, Robert Franklin, 1900-

Sketch. *por*(p33) *Civil Eng* 18:34 Ja '48

BLAST furnace gas

English boiler house utilizes coke oven and blast furnace gas as fuel. *Blast F & Steel* Pl 35:1388+ N '47

Fuel utilization in iron and steel works. N. H. Turner and F. A. Gray. *diags Iron & Steel Inst J* 153:183-98 no 1 '46; Same abr. *Blast F & Steel Pl* 34:1408-12+ N '46; Discussion.

Iron & Steel Inst J 153:199-216 no 1 '46

Gaseous and liquid fuels in iron and steel works. J. B. R. Brooke and J. S. Bryan. *il* *diags Iron & Steel Inst J* 158:111-24 Ja '48; Discussion. 160:85-94 S '48

How gas engines serve today's steel mills. W. M. Cline, Jr. *il* *diag Power* 92:38-40 Ja '48

Steel-mill boilers designed for blast-furnace gas. W. M. Cline, Jr. *il* *Power* 92:350-1+ Je '48

BLAST furnace stoves

Hot blast stove gas burner gives soft mellow flame. S. P. Kinney. *il* *diags Blast F & Steel Pl* 36:217-19 F '48

BLAST furnaces

Blast furnace capacity rises. *Steel* 121:22-3 D 29 '47

Blast furnaces become heat economy conscious. O. R. Rice. *il* *Blast F & Steel Pl* 36:54-6 Ja '48

British experimental blast furnace. T. Bishop. *il* *Metal Prog* 53:693 My '48

Builds new blast furnace in 97 days; Youngstown sheet & tube co. J. D. Knox. *il* *Steel* 123:101 O 4 '48

Development of blast-furnace process for production of phosphoric acid. T. P. Hignett. *il* *diags Chem Eng Prog* 44:753-64 O '48 (to be cont)

Eastern states blast furnace and coke oven association winter meeting. Pittsburgh, Feb. 6. *Steel* 122:107+ F 16 '48

Elimination of sulphur in the blast-furnace. D. Joyce. bibliog *Iron & Steel Inst J* 159:291-6 Jl '48; Same. *Blast F & Steel Pl* 36:1207-11+ O '48

Furnace fireworks; K.-F. to take over Republic Steel's blast furnace no. 5. *Bsns W* p28 Ag 28 '48

BLAST furnaces—Continued

- Henry Kaiser shows up on inside once more; furnace deal stirs indignation, but auto maker gets source of precious iron. R. M. Bleiberg. *Barron's* 25:5 Ag 30 '48
- High ash content of coke cuts blast furnace output. *Blast F & Steel Pl* 36:361 Mr '48
- Introduction to the interaction of carbon and iron ore at temperatures up to 1450°C. H. L. Saunders and H. J. Tress. bibliog. il diags *Iron & Steel Inst J* 157:215-22 O '47
- J & L blast furnace makes production record. *Blast F & Steel Pl* 36:805 Jl '48
- Kaiser-Republic agreement considered more true than treaty. B. Lloyd. *Iron Age* 162:125-6 S 9 '48
- Maintenance of blast-furnace and ancillary plant. A. Bridge. il plan diags *Iron & Steel Inst J* 159:193-204 Je '48
- National open hearth steel committee and blast furnace, coke oven and raw materials committee of American institute of mining and metallurgical engineers 31st annual conference, Pittsburgh, April 12-14. *Steel* 123:125-6 Ap '48
- National open hearth steel committee and the blast furnace, coke oven and raw materials committee of the American institute of mining and metallurgical engineers; conference program. *Blast F & Steel Pl* 36:sup23-4- Ap '48
- New blast-furnace at Tollcross. il *Engineer* 185:285-6 Mr 19 '48
- Preparation of iron ore for blast furnace and open hearth use. R. R. Williams, jr. plan *Iron & Steel Eng* 25:122-4 Ag '48
- Proper sizing, screening and preparation of blast furnace coke. D. M. Cromwell and C. A. Covington. *Blast F & Steel Pl* 36:965-71 Ag '48; Abstract. *Iron & Steel Eng* 25:109-10 Ag '48
- Saga of iron at Daingerfield furnace packs drama galore. D. I. Brown. *Iron Age* 161:121 Ap 1 '48
- Sinter quality and effect of sinter on blast furnace practice. J. L. Mauthe. bibliog. il *Blast F & Steel Pl* 36:817-24 Jl '48; Excerpts. *Iron Age* 162:83-9 Jl 29 '48
- Study of blast furnace downcomer failures. C. M. Squaroy. diags *Blast F & Steel Pl* 35:1353-6+ N '47; Same. *Steel* 121:110+ N 24 '47
- Sue to break blast furnace lease. *Steel* 123:42 S 27 '48
- Tempest over blast furnace; Chattanooga foundry challenges legality of lease to Kaiser-Frazer. *Steel* 123:68 S 20 '48
- Tuyere of novel design improves furnace operation. J. H. Sprow. il *Blast F & Steel Pl* 36:455-6 Ap '48
- Two 1500-ton blast furnaces now under construction at South Works, by Carnegie-Illinois steel corp. il diag *Blast F & Steel Pl* 36:94-8 Ja '48

Air supply

- Application of oxygen in the operation of the blast furnace. D. D. Howat. bibliog. *Blast F & Steel Pl* 36:533-8+ My '48
- Blast furnace at Warren, Ohio converted to high top pressure. *Blast F & Steel Pl* 36:1256 O '48
- Hot and cold blast mixing device gives to blast a uniform temperature. H. E. McDonnell. il diags *Blast F & Steel Pl* 36:91-3 Ja '48
- More blast furnaces to be equipped for high pressure by Republic. *Blast F & Steel Pl* 36:478+ Ap '48; Same. *Iron Age* 161:152-3 Ap 15 '48
- Potentialities of the pressure blast furnace. B. S. Old and E. R. Poor. il *Min & Met* 29:385-7 Jl '48; Abstract. *Mech Eng* 70:759-60 S '48
- Pressure blast furnaces show greater production on little maintenance. *Iron Age* 162:116 O 23 '48
- Progress in high pressure operations of blast furnaces. B. S. Old and others. bibliog. il diags *Iron & Steel Eng* 25:37-43; Discussion. 43-7 My '48
- Smelting under pressure. L. Engel. il diag *Sci Am* 178:54-7 My '48

Utilization of oxygen in smelting low-grade ores. W. M. Pollitzer. diags *Steel* 122:98+ F 16 '48; Abstracts. *Chem Age (Lond)* 57:731 D 6 '47; Product *Eng* 19:151-2 Ja '48

See also

Blast furnace stoves

Lining

- Carbon, a blast furnace refractory. M. T. Cory and F. B. Thacher. diags *Blast F & Steel Pl* 35:1482-7 D '47
- Carbon hearths in new South Works furnaces. il *Iron Age* 160:74-6 D 13 '47; *Mech Eng* 70:21-2 Ja '48
- Chemical and mineralogical changes in stack and hearth refractories of a blast furnace. L. H. Van Vlack. bibliog. il diag *Am Cer Soc J* 31:220-35 Ag 1 '48; Abstract. *Iron Age* 162:88 Jl 8 '48
- Considerations in the use of carbon refractories in the blast furnace. W. S. Debenham. diags *Steel* 123:110+ Jl 12 '48; Excerpts. *Iron & Steel Eng* 25:131-2 Ag '48
- Design of carbon hearths and the results obtained at the Carrie furnace. C. J. Fleisch. *Blast F & Steel Pl* 35:1359-60 N '47; Same. *Iron Age* 160:72-4 D 13 '47; Same. il *Steel* 121:116+ N 17 '47
- Economic considerations for stack lining repairs. W. R. Trognitz. *Blast F & Steel Pl* 36:322-4 Mr '48; Same. *Steel* 122:110+ Mr 1 '48; Abstract. *Iron & Steel Eng* 25:65 Mr '48
- Examination of blast-furnace scaffolds and scaffold-forming materials. J. H. Chesters and others. il diags *Iron & Steel Inst J* 159:23-36 My '48
- Record made by Armco on lining blast furnace. *Blast F & Steel Pl* 36:731 Je '48; *Iron Age* 161:94 Je 10 '48
- Safer blast furnace lining; Interlake iron corp. installs new type of carbon block hearth. il *Ensn W* p70 F 14 '48

Tapping

- Blast furnace tapping hole construction; use of carbon. W. S. Unger. diags *Blast F & Steel Pl* 36:434-8 Ap '48
- Jet caster for opening iron notches in blast furnaces; abstract. J. R. Barnes. *Steel* 122:107 F 16 '48
- Properties of blast furnace tapping hole refractories. L. L. Wells, jr. il *Blast F & Steel Pl* 36:451-4 Ag '48

Testing

- Effect of coke quality on blast furnace iron tonnage. E. J. Gardner. *Blast F & Steel Pl* 36:707-11 Je '48; Same. *Steel* 123:94+ O 4 '48; Excerpts. *Iron & Steel Eng* 25:110-11 Ag '48

BLASTING

- Blasting a burn-cut round in a drift; Evans mine, Eureka, Utah. J. G. Hall. il diags *Explosives Eng* 26:113-16 Jl '48
- Blasting cement rock in a Pennsylvania quarry. J. O. Smith. il *Explosives Eng* 26:80-2 My '48
- Blasting concrete ballast in cargo ships. J. J. Hills. *Explosives Eng* 25:142+ S '47
- Blasting demonstration. il *Rock Prod* 51:78 Jl '48
- Blasting new river channel to reduce railroad curve; New York Central diverts flow of Mohawk river. R. J. Dillon. il *Explosives Eng* 25:167-70+ N '47
- California's \$36,000,000 Pine Flat dam; blasting for abutment. O. H. Barnhill. il *Explosives Eng* 25:176-7 N '47
- Cantera Guaimaro quarry in Cuba. R. Martinez de Castro, jr. il diags *Explosives Eng* 26:150-2 S '48
- Delayed action blasting; panel discussion. National crushed stone association. il *Rock Prod* 51:116-13 Mr '48
- Enlarging highway tunnels in Wyoming. R. V. Pierce. il *Explosives Eng* 26:148-50+ S '47
- Explosives convert swamps into valuable pastures. W. F. Miller. il *Explosives Eng* 26:20-1 Ja '48
- Fort-type structure in Berlin tests demolition ingenuity; attempt to demolish flak tower with TNT. il *Eng N* 140:675 My 6 '48

BLASTING—Continued

- Glory-Hole operation uses coyote-drift blasting; Ruby Gulch mining co., Zortman, Mont. M. L. Reyner and others, *il plan diags Eng & Min J* 149:75-7 Ag '48
- Huge blast shatters 60,000-ton rock plug; excavating a section of the main canal of the Columbia Basin project, *il Comp Air Mag* 53:95 Ap '48
- Important decision on alleged blasting damage; New York trap rock corp. *Rock Prod* 51:89 F '48
- Long-hole diamond drilling in narrow ore bodies, R. H. Fox, *il diags Explosives Eng* 26:44-6+ Mr '48
- Mining gold in South Africa, H. W. Haynes, *il Explosives Eng* 26:103-7 Jl '48
- Modern equipment and methods; drilling and blasting; pictorial review, *Eng & Min J* 148:96-101 N '47
- Quarrying at Watauga dam, O. Reed, *il map plans Roads & Sts* 91:68-72+ Mr '48
- Scientific approach to the industrial application of shaped charges, R. W. Lawrence, *il diags Explosives Eng* 25:171-3+ N '47
- Sinking shafts and driving tunnels in metropolitan Boston; Quabbin aqueduct, F. W. Gow, *il map diags Explosives Eng* 25:135-9+ S '47
- Tunnel blasting California limestone, H. D. Hellmers, *il plan Explosives Eng* 25:143+ S '47
- Vibrator-type multiple-shot blasting unit, F. C. Gibson and F. W. Brown, 3pls U S Bur Mines Rep of Invest 4136:1-5 '47
- See also*
- Cartridges, Dynamite Petroleum—Well
- Coal mines and min- blasting
- ing—Blasting

Safety measures

- Fool-proof blasting switch, *diags Eng & Min J* 149:110 O '48
- Safety in blasting at Ajo, Ariz., A. D. Look and J. H. Bird, 2pls U S Bur Mines Information Circ 7431:1-17 '48

BLASTING, Subaqueous

- Blasting river ice in Michigan, A. D. Carsley, *il map diags Explosives Eng* 25:144-6+ S '47
- High explosives solve irrigation problem; blasting to correct bad habits of Colorado river, B. E. Wilson and C. O. Mayer, *il map Explosives Eng* 26:14-16+ Ja '48
- Shooting for oil; seventeen companies pool resources to explore structures in Pacific ocean, M. Wharton, *il diag Explosives Eng* 26:142-6+ S '48

BLASTOMYCESES dermatitidis

- Isolation of pathogenic fungi from experimentally inoculated guinea pigs, A. Howell, Jr., *bibliog Pub Health Rep* 63:602-16 My 7 '48

BLASTOMYCIN

- Complement fixation test for histoplasmosis; technic and preliminary results on animal sera, D. J. Tenenber and A. Howell, Jr., *bibliog Pub Health Rep* 63:163-8 F 6 '48
- Precipitin reactions in experimental histoplasmosis and blastomycosis, A. L. Pates, *Science* 108:333-5 O 8 '48
- Studies of fungus antigens; preliminary report on the isolation of an immunologically active polysaccharide from histoplasmin, F. W. Cross and A. Howell, Jr., *bibliog Pub Health Rep* 63:179-83 F 6 '48
- Studies of fungus antigens; sensitization of normal animals with skin test antigens, A. Howell, Jr., *bibliog Pub Health Rep* 63:595-601 My 7 '48

BLEACHERIES**Equipment**

- Textile finishing machinery; abstract, E. S. Pierce, *Textile World* 98:147+ F '48

Power

- Springs cotton mills power plant, *diags Power* 92:614-15 O '48

BLEACHERS' association, limited

- Statement by the chairman at 49th ordinary general meeting, A. Sykes, *Economist* 156:165-6 Jl 24 '48

BLEACHING

- Bleaching of animal fibres by modern methods, M. H. Wilkinson, *Soc Dyers & Col J* 64:8-13 Ja '48

- Knit goods bleached continuously; Spring City bleach and dye works, W. A. Newell, *il Textile World* 97:108-9 D '47
- Role of chemistry in the development of dyeing and bleaching, S. M. Edelstein, *bibliog il J Chem Educ* 25:144-9 Mr '48

See also

- Flour—Bleaching
- Paper making—Bleaching

Control

- Economics of instrumentation, C. W. Bowden, Jr., *diags Am Dyestuff Rep* 37:647-51 O 4 '48

Cotton

- Bleaching methods compared by laboratory analyses, J. H. Kettering, *Textile World* 98:139+ Ap '48
- Bleaching; pre-treatment with per-acids; patent, *Am Dyestuff Rep* 36:786-7 D 29 '47
- Effect of hypochlorite bleaching on the resistance to abrasive wear of cotton fabric, H. E. Cowles and J. G. Williams, *Textile Inst J* 39:P175-7 My '48; Discussion, 39:P504-6 Ag '48
- Knit goods bleached in continuous range, C. M. Bowden, *il Textile World* 98:104-6 Ap '48
- New bleaching range handles Startex mills' output, E. Mauldin, *il Textile World* 98:135 S '48

Jute

- Bleaching of jute with chlorite, P. B. Sarkar and H. Chatterjee, *bibliog Textile Inst J* 39:T274-81 Ag '48

Patents

- Bleaching, pretreatment, padding with alkalis, followed by steaming; patent, *Am Dyestuff Rep* 37:432+ Je 28 '48
- Bleaching pretreatment with ethanalamine, ozone bleaching; patent, *Am Dyestuff Rep* 37:631 S 20 '48

Rayon

- Bleaching polyacrylonitriles B, 5; patent, *Am Dyestuff Rep* 37:384 My 31 '48

Wool

- Bleaching of animal fibres by modern methods, M. H. Wilkinson, *Soc Dyers & Col J* 64:8-13 Ja '48

BLEACHING materials

- Bleaching, hypochlorite, stabilizing with sodium glucosates; patent, *Am Dyestuff Rep* 37:539 Ag 9 '48
- Bleaching; hypochlorites combined with bromides; patent, *Am Dyestuff Rep* 37:698 O 18 '48
- Bleaching textiles; bluing compounds plus fluorescent agents; patent, *Am Dyestuff Rep* 36:666-7 N 17 '47
- Early history of the St Rollox chemical works; second Tennant memorial lecture, E. W. D. Tennant, *Chem & Ind* p667-73 N 1 '47
- Method of evaluating bleaching clays, D. W. Ross, *bibliog U S Bur Mines Rep of Invest* 4295:1-26 '48
- Optical bleaches, S. Cohen and F. Gruenwald, *bibliog Rayon* 29:89-91 O '48

See also

- Chlorine oxides
- Sodium chlorite
- BLEACHING of flour. *See* Flour—Bleaching
- BLEACHING powder

Analysis

- Determination of water in bleaching powder, J. Goldenson and C. E. Danner, *bibliog diag Anal Chem* 20:359-60 Ap '48

BLEININGER, Albert Victor, 1873-1946

- A. V. Bleininger, man and scientist, A. Silverman, *Am Cer Soc Bul* 27:204-9 bibliog(p208-9) My 15 '48
- Sketch, *por Chem & Eng N* 26:992 Ap 5 '48

BLEININGER medal

- First Bleininger medal to Purdy, *Chem & Eng N* 26:992 Ap 5 '48
- Ross, C. Purdy receives first Bleininger award, E. E. Marbaker, *Am Cer Soc Bul* 27:203 My 15 '48

BLENDERS. See Mixers**BLIGHTED areas. See Slums**

BLIND

Agent Paul DiBenedetto of Rahway has won success without sight. *East Underw* 49:30 Ag 6 '48

Blind do own banking with this check. *Il Banking* 41:82 O '48; *Burroughs Clearing House* 33:9 O '48

Employment of blind workers in industry. *J. F. Clunk. Personnel* 24:280-3 Ja '48

Hands that see; N.Y. institute for the blind prepares students for blind ham license exams. *il Radio N* 38:66-7+ D '47

BLIND, Apparatus for

Blind guidance by ultrasonics. *F. H. Slaymaker and W. F. Meeker. bibliog il diags Electronics* 21:76-80 My '48

Directional characteristics of a clamped-edge disk. *L. L. Merrill and F. H. Slaymaker. diags Acoustical Soc Am J* 20:375-80 J1 '48

Sound flashlight for the blind; obstacle-detecting device. *V. Twersky. il diag Electronics* 21:156+ N '48

BLIND, Printing for

Machines for the blind. *M. Du-Plat-Taylor. il Engineer* 185:469-71 My 14 '48

BLOCK and tackle. See Hoisting**BLOCK printing**

Block printing. *P. Chadwick. Soc Dyers & Col J* 64:274-6 Ag '48

Block printing device, mechanically operated; patent. *diags Am Dyestuff Rep* 37:445-6 Je 28 '48

BLOCKED money income. See *Income tax—Blocked money income*

BLOCKED securities. See *Securities—Blocked securities*

BLOCKS, Toy. See *Toys*

BLOOD

Effect of morphine addiction on blood, plasma, and extra-cellular fluid. *Volumes in man.* *H. Isbell. bibliog Pub Health Rep* 62: 1493-513 O 17 '47

Electric charge of red blood cells in malaria. *W. B. Redmond. bibliog Science* 107:199-200 F 20 '48

Monochromatic light absorption by normal chicken erythrocytes. *J. O. Ely and M. H. Ross. il Franklin Inst J* 242:85-9 J1 '46; *Correction*, 244:410 N '47

Preparation and properties of serum and plasma proteins; the separation of purified fibrinogen from fraction I of human plasma. *P. R. Morrison, J. T. Edsall and S. G. Miller. bibliog diags Am Chem Soc J* 70: 3103-3 S '48

Pure immune blood protein for therapeutic use; abstract. *J. W. Williams. Can Chem & Process Ind* 31:1144 D '47

Specific heat of human blood. *M. Mendlowitz. Science* 107:97-8 Ja 23 '48

Stabilization of prothrombin activity by freezing; application to the standardization of prothrombin determinations. *A. Randall, 4th and J. P. Randall. bibliog Science* 107: 399-400 Ap 16 '48

Total white cell counts of peripheral and heart blood of the rat. *F. H. Quimby and others. bibliog Science* 107:447 Ap 30 '48; *Reply. J. Nichols and A. T. Miller, jr.* 108: 378-9 O 8 '48

Utilization of nicotinic acid and its amide by the human erythrocyte in vitro. *E. Leifer and others. Am Chem Soc J* 70: 2908-10 S '48

See also

Fibrin

Hemolysis

Agglutination

Effect of heparin and dicoumarol on sludge formation. *H. Laufman and others. Science* 108:283-4 S 10 '48

Sludged blood. *M. H. Knisely and others. bibliog (53 ref) il Science* 106:431-40 N 7 '47

Analysis

Antimony trisulfide. *F. M. R. Bulmer and J. H. Johnston. J Ind Hygiene* 30:26-8 Ja '48

Control of a lead hazard in the brass foundry industry. *L. E. Hamlin and H. J. Weber. bibliog J Ind Hygiene* 29:367-77 N '47

Dialysis of protein solutions for electrophoresis. *M. Reiner and R. L. Fenichel. diags Science* 108:164-6 Ag 13 '48

Improved method for the determination of volatile halogenated hydrocarbons in blood and other biological materials. *W. C. Alford. bibliog diag J Ind Hygiene* 29:396-9 N '47

Microdetermination of bismuth in biological material; an improved photometric dithionite method. *D. M. Hubbard. bibliog Anal Chem* 20:363-4 Ap '48

Polarographic study with a microelectrode past which an electrolyte is flowing. *O. H. Müller. bibliog diags Am Chem Soc J* 69: 2992-7 D '47

Preparation and properties of serum and plasma proteins; some factors influencing the quantitative determination of fibrinogen. *P. R. Morrison. bibliog Am Chem Soc J* 69:2723-31 N '47

Presence of an alcoholic, ketonic derivative of estrone in human and rabbit blood. *N. T. Werthessen and others. bibliog Science* 107:64-6 Ja 16 '48

Spectrographic determination of lead in blood. *W. A. Patterson. bibliog Can Chem & Process Ind* 32:239-42 Mr '48

Spectrophotometric determination of serum calcium. *J. A. Weybrew, G. Matrone and H. M. Baxley. bibliog Anal Chem* 20:759-62 Ag '48

Vitamin A and carotenoids in the blood serum of dairy cattle; chemical methods for determination. *D. B. Parrish, G. H. Wise and J. S. Hughes. bibliog Anal Chem* 20:230-3 Mr '48

Circulation

Radiocardiography; a new method for studying the blood flow through the chambers of the heart in human beings. *M. Prinzmetal and others. il Science* 108:340-1 S 24 '48

Sludged blood. *M. H. Knisely and others. bibliog (53 ref) il Science* 106:431-40 N 7 '47

Coagulation

Coagulation defect produced by nitrogen mustard. *T. R. Smith and others. bibliog Science* 107:474 My 7 '48

Electrophoretic resolution of heparin and related polysaccharides. *M. L. Wolfrom and F. A. H. Rice. Am Chem Soc J* 69:2918-19 N '47

Function of Ace-globulin in blood clotting. *A. G. Ware and others. bibliog Science* 106: 618-19 D 19 '47

Hemophilia; the mechanism of development and action of an anticoagulant found in two cases. *J. S. Lawrence and C. G. Craddock, jr. bibliog Science* 106:473-4 N 14 '47

Is the action of calcium in the coagulation of blood stoichiometric or catalytic? *A. J. Quick. bibliog Science* 106:591 D 12 '47

Observation on the mechanism of action of dicoumarol. *R. L. MacMillan. bibliog Science* 108:416-17 O 15 '48

Preparation and properties of serum and plasma proteins; some factors influencing the quantitative determination of fibrinogen. *P. R. Morrison. bibliog Am Chem Soc J* 69:2723-31 N '47

Prothrombokinase and the three stages of blood coagulation. *J. H. Milstone. bibliog Science* 106:546-7 D 5 '47

Similarity to heparin of the clotting inhibitor in acute leucemia and the significance of hyperheparinemia in estrapenic cholinergic states. *R. D. Barnard. bibliog il Science* 107:571-2 My 28 '48; *Discussion*, 108:278 S 10 '48

Studies on double refraction of flow; human fibrinogen and fraction I of human plasma. *J. T. Edsall, J. F. Foster and H. Scheinberg. bibliog Am Chem Soc J* 69: 2731-3 N '47

See also

Heparin

Diseases

See also

Hemophilia

Proteins

See Proteins

BLOOD banks, American association of. See *American association of blood banks*

BLOOD dialyzer. See *Dialyzers*

BLOOD groups

Blood groups; abstract. C. Niemann. Chem & Eng N 26:2118 J1 19 '48
Nomenclature of the anti-Rh typing serums; report of the Advisory review board. W. B. Castle and others. bibliog Science 107: 27-31 Ja 9 '48

BLOOD pressure

Body temperature, blood pressure, and hypothermia. S. Rodbard. bibliog Science 108: 413-15 O 15 '48
Convenient apparatus for recording the blood pressure of small animals. D. F. Marsh. bibliog Science 108:393 O 8 '48
Device for measuring physiologic pressure phenomena using the bonded electrical wire resistance strain gauge. H. R. Bierman. bibliog il diags R Sci Instr 19:707-10 O '48
High blood pressure. I. H. Page. il diag Sci Am 179:44-7 Ag '48
Immediate pressor effect of desoxycorticosterone acetate. M. L. Goldman and H. A. Schroeder. bibliog Science 107:272-3 Mr 12 '48
New heart attack; Cleveland businessmen open new battle against heart disease. Bsns W p26 My 8 '48

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 rural families examined by the Farm security administration, 1940; variation of blood pressure and heart disease with age; and the correlation of blood pressure with height and weight. M. Gover. Pub Health Rep 63:1083-1101 bibliog(48 titles, p 1099-101) Ag 20 '48
Preparation of α,α -dimethyl- and N,α -trimethyl- β -cyclohexylethylamine. B. L. Zenitz, E. B. Macks and M. L. Moore. bibliog Am Chem Soc J 70:955-7 Mr '48

BLOOD vessels

Crystalline serotonin; vasoconstrictor present in serum and defibrinated blood. M. M. Rapport and others. il Science 108:329-30 S 24 '48
Simple aid for the cannulation of small blood vessels. E. Haas and H. Goldblatt. il Science 108:166 Ag 13 '48
Use of the freezing-drying technique for study of vasomotor activity. C. A. Richins. Science 107:25 Ja 2 '48

BLOTTERS

How to use blotter advertising effectively. F. D. Staples. il Ptr Ink 224:40+ Ag 27 '48

Design

Judges select prize winners in blotter design competition. il Inland Ptr 121:70-1 S '48

BLOWERS

Blower requirements for forced-air-cooled tubes. bibliog Communications 28:26-7 F '48
Blower types classified by specific speed. A. M. G. Moody. diag Power Generation 52: 76-7 Mr '48
Centrifugal blowers for two-cycle Diesel engines. R. Cramer, jr. diags Diesel Power 26:74-8 J1 '48
Redesigned blower wheels have one-piece stamped blade group. il Product Eng 19: 106-7 Ja '48
Sulzer blowers; their use in the paper industry. R. Thomann. il diags Pulp & Pa of Can (Convention no) 49:189-95 [F] '48; Same cond. Paper Ind 29:1652+ F '48
Tests of 7½ hp motor for silo elevator. J. W. Hall and A. W. Cook. il Elec World 123:130 Mr 27 '48
Variable speed blower control unit. il diags Product Eng 19:106 J1 '48
Water-jet air blast. W. Prandtl. il J Chem Educ 24:561-2 N '47

Testing

Speed-increasing gearbox for special test plant. S. A. Couling. il diags Engineering 164:412-14 O 31 '47

BLOWFLIES

Rearing houseflies and blowflies on dog biscuit. H. Frings. bibliog Science 107: 629-30 Je 11 '48

BLUE

Chaiky blue ink. Inland Ptr 121:53-4 Ap '48
I.C.I.'s new dyestuff: Alcyan Blue. Chem Age (Lond) 58:61, 371 Ja 10, Mr 13 '48; Chem & Eng N 26:703 Mr 8 '48

Starch blue. N. C. Turner. Science 108:302 S 17 '48

See also

Molybdenum blue
Naphthol blue
Prussian blue

BLUEING. See **Bluing**

BLUEPRINTS

Plant lay-out templates of acrylic, serve as negatives in blue-printing arrangement. il Sci Am 177:271 D '47

BLUING

Laundry bluing. M. A. Lesser. bibliog Soap & San Chem 24:43-6+ O '48

BOAT building

Boat-building booms. Bsns W p25 Ja 17 '48
Deep-drawing one-piece aluminum boat hulls. il diag Mach 54:174-6 My '48
Laminating for small-boat construction; abstract. D. F. May. il Mech Eng 70:634 J1 '48
Navy plastic personnel boat. il Mod Plastics 26:166 O '48
Small boats hit assembly line; Steelcraft boats; illustrations with text. Bsns W p24 Ja 17 '48
Sporting goods award to Beetle boat co., inc.; replacing wood with plastics. il Mod Plastics 26:166-9 S '48
Using straight-line assembly in boat-building. il plan Factory Management 106:72-5 Ja '48

BOATS and boating

Boat-building booms. Bsns W p25 Ja 17 '48

See also

Flying boats	Shipbuilding
Freight ships	Ships
Motor boats	Steamboats
Radio-receiving apparatus—Installation on boats	Submarine boats
	Towboats
	Yachts and yachting

BOHEIM, Otto

Financial fun after fifty. pors Mod Ind 15: 67-8+ Ap '48

BOHLEN, Charles Eustis, 1904-
Portrait. Fortune 36:82 D '47

BOILER cleaning

Acid-cleaning boilers. J. L. Wasco and F. N. Alquist. Mech Eng 70:28-30 Ja '48
Acid cleaning of boilers. W. H. Betz and L. D. Betz. diag Paper Ind 29:1197-8 N '47
Acid cleaning of boilers; abstract. S. K. Adkins. Power Generation 52:89+ F '48
Hydrogen-zeolite treated water dissolves boiler, superheater scale. T. L. B. Webb and J. D. Yoder. diags Power 92:35-7+ Ja '48
What the power engineer needs to know about fire tube boiler cleaners. il Power Pl Eng 51:112-13 D '47

BOILER deposits, Exterior

Deposits on external heating surfaces of boiler systems; abstract. H. E. Crossley. Power 92:53 Ja '48

BOILER explosions

Power boiler accidents continue to cause serious losses. il Locomotive 46:236-44 O '47
Why keep boiler room logs? K. H. Mack. flow charts il Power Generation 52:76-8 Ag '48

BOILER plants**Efficiency**

New boiler room shows high efficiency; Avondale mills. il Textile World 98:131+ Ja '48

Equipment

Automatic feeding of woodwaste replaces hand firing, saves fuel; Weyerhaeuser timber co. H. Panning. il diags Power 92:396-8 J1 '48
Boiler plant to be modernized. S. R. Lewis. Heating-Piping 19:101-2 N '47
Careful planning pays big dividends in layout of laundry boiler plant. R. F. Combs. il plan diags Power 92:452-5 Ag '48
Chemical feed systems in modern water treatment. J. H. Richards. il diags Power Generation 52:62-3+ Ag; 61-3+ S '48
Fuel and steam economy. M. Berkley. il diags Pet Eng 19:221-2+ My '48
Instruments and automatic control for the modern boiler plant. A. L. Stewart. il diags Pulp & Pa of Can 49:105-12 O '48
Keystone steel & wire co. adds 150,000 lbs. per hr. boiler capacity. W. Gaumer and M. O. Funk. Blast F & Steel Pl 36:460-1 Ap '48

BOILER plants—Equipment—Continued

New boiler house for Chevrolet at Flint, F. Bergey, *il plan diag Power Pl Eng* 51:72-5 D '47

New boiler-plant design features reliability and simple operation; Melchers distilleries, J. A. Kearns, *il plan diag Power* 92:4-7 Ja '48

Takes guess out of chemical feeding, A. R. Eastcott, *diag Power* 91:859 D '47

3600-rpm fluid drives adjust feed-pump speed to boiler load, J. D. Rosebrough, *il Power* 92:12-13 Ja '48

Which heat saver system is most economical? *diags Power* 92:714-15 N '48

See also

Stokers, Mechanical

Maintenance and repair

Maintenance and repair of steam boilers and boiler furnaces, J. F. Shanley and G. R. Hull, *il diags Oil & Gas J* 46:200-1+ Ap 1 '48

Management

How to select fuel for plants and buildings, F. Meyer, *il diags Heating-Piping* 20:78-82 Je '48

Save stress on boiler drums by planned operation, F. X. Gilg, *diags Power* 92:474-6 Ag '48

Records

Why keep boiler room logs? K. H. Mack, *flow charts il Power Generation* 52:76-8 Ag '48

Safety measures

Should 115-v extension lights be used inside boiler drums? H. I. Podell, *diags Power Generation* 52:98-9 O '48

Water column as a safety device, C. C. Custer, *diags Power Generation* 52:78-80 S '48

Standards

Proposed revisions and addenda to suggested rules for the care of power boilers, section VII of ASME boiler construction code, *Mech Eng* 70:557-60 Je '48

BOILER plates**Testing**

Investigation of boiler-drum steel after forty years of service, H. S. Blumberg and G. V. Smith, *il diags A S M E Trans* 70:185-98; Discussion, 193-200 Ap '48

BOILER plugs. See Fusible plugs

BOILER scale

Boiler tubes that are cleanest scale the most, W. F. Schaphorst, *Paper Ind* 30:1084 O '48

Internal conditions of old boilers guide water treatment for new units, J. N. Welsh and others, *diags Power* 92:542-5 S '48

Silica-free boiler feed water by ion exchange, W. C. Bauman, J. Eichhorn and L. F. Wirth, *bibliog il diags Ind & Eng Chem* 39:1453-7 N '47

BOILER tubes

Boiler tubes fouling; abstract, J. Valley, *Mech Eng* 70:830-1 O '48

Boiler tubes that are cleanest scale the most, W. F. Schaphorst, *Paper Ind* 30:1084 O '48

Fire-cracked tubes, G. M. Davies, *Ry Mech Eng* 122:372-3 Jl '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace; variations as shown by density and velocity measurements of fluid within a tube, A. R. Mumford and C. G. R. Humphreys, *bibliog il plan diags A S M E Trans* 70:587-600 Jl '48

Test data on gas-side sulphate-type deposits on tubes beyond boiler furnace, J. F. Barkley and others, *il diags A S M E Trans* 70:81-7; Discussion, 87-9 F '48

Tube beveling device, A. G. Noseworthy and G. Byrne, *diag Pulp & Pa of Can* 49:70-1 My '48

BOILERS

La chaudière à équipression, associant la turbine à gaz et la turbine à vapeur, R. Papault, *il diags Génie Civil* 124:405-10 N 1 '47

Factors involved in selection of stationary steam generating units, W. S. Patterson, *diags Paper Tr J* 126:43-60 F 12 '48

Five modern boilers will replace forty-six old ones in steel plant; Jones & Laughlin steel corp, F. X. Gilg, *diags Blast F & Steel Pl* 36:108-11 Ja '48

Insulating a new 300-hp Scotch boiler at Supreme textile printers, *il Power Generation* 52:92-3 O '48

Old boilers and steam costs, D. M. Myers, *Factory Management* 106:81 My '48

Packaged steam generators, W. B. Parker, *Locomotive* 46:230-6 O '47

Packaged steam generators modernize industrial plant; Ansonia O & C co, R. S. Franklin, *il Heating-Piping* 20:77-9 Mr '48

Phli Sporn plant boilers made for best heat rate, *Elec World* 129:95 Mr 13 '48

Preparing Scotch boiler for operation, W. T. Mullen; C. W. Parks, *Power Pl Eng* 51:102-3 N '47

Save stress on boiler drums by planned operation, F. X. Gilg, *diags Power* 92:474-6 Ag '48

So you're buying a new boiler, G. P. Reintjes, *il map Power Pl Eng* 51:88-91 N '47

Some aspects of generating station development, J. Wright, *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 29): 207-20 '47

When you modernize do a complete job; U.S. industrial chemicals, inc, *flow diag il diags Power* 92:68-71 F '48

Boiler explosions and Feed water purification

Blowdown

Calculate continuous blowdown rate from chloride concentrations; chart; data sheet, J. F. Hyam, *Power* 92:567 S '48

Fundamentals of feedwater treatment; boiler blowdown practice, *diags Power* 91:834-5 D '47

Heat recovery utilizing flash steam regeneration, M. C. McKeown, *il diag Power Generation* 52:113+ Mr '48

Procedure for blowing off a boiler, T. W. Reynolds, *Heat & Ven* 45:73 Ag '48

Control

Automatic control of combustion, K. D. Sheldrick, *il diags Pulp & Pa of Can* 49:91-105 Jl '48

How to select the right combustion control, F. Meyer, *il diags Heating-Piping* 20:80-5 Jl '48

Corrosion

Acid-cleaning boilers, J. L. Wasco and F. N. Alquist, *Mech Eng* 70:28-30 Ja '48

Corrosion in boilers; abstract and discussion, J. R. Rylands and J. R. Jenkinson, *Electrician* 140:651-2 F 27 '48

Corrosion of boiler steels by inhibited hydrochloric acid, P. H. Cardwell and S. J. Martinez, *bibliog Ind & Eng Chem* 40:1956-64 O '48

Effect of fire scale on interior corrosion of boiler tubes, H. C. Dinger, *Marine Eng* 52:73 D '47

Electrolytic action in this boiler? C. C. Custer, *Power Generation* 52:83-9 Ja '48

Is there electrolytic action in this boiler? *Power Pl Eng* 51:103 D '47

Station design and material composition factors in boiler corrosion, R. B. Donworth, *bibliog flow diag diags Blast F & Steel Pl* 36:1236-9 O '48

See also

Boilers—Failure

Design

How Williamsport boiler design features worked out in operation, H. G. Ebdon and A. T. Hunter, *diag Power Generation* 52:72-3 S '48

Locomotive developments at Crewe, *il Engineer* 185:190-1 F 20 '48

Modern design of multiple fuel steam units, A. R. Mumford, *bibliog il diags Iron & Steel Eng* 25:88-97; Discussion, 97-8 F '48

Topping stretches refinery steam; dual-circulation steam generator; Whiting refinery of Standard oil co. of Indiana, D. A. Monro and A. T. Milbrook, *diag Power* 92:155 Mr '48

BOILERS—Continued

Efficiency

Boiler efficiencies when using gas; tabulations. C. G. Segeler, Heating-Piping 20:83 F '48

How Williamsport boiler design features worked out in operation. H. G. Ebdon and A. T. Hunter, diag Power Generation 52:72-3 S '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace; comparison and correlation of the results of investigations. A. R. Mumford and G. W. Bice, bibliog plans A S M E Trans 70:601-14 JI '48

Temperature of the chimney gas; indicator of boiler efficiency, diag Can Min J 69:76 Ja '48

Electric heating

Electrode boiler installation, il Elec R (Lond) 141:851 D 5 '47

Electrode boilers in a factory, il Engineer 185:451-5 My 7 '48

High-voltage electric boiler; abstract. A. Schmutz, Mech Eng 70:247 Mr '48

Pottery drying, il Elec R (Lond) 141:971 D 26 '47

Embrittlement

See Boilers—Failure

Failure

Power boiler accidents continue to cause serious losses, il Locomotive 46:236-44 O '47

Statistics of boiler embrittlement, C. D. Weir, A S M E Trans 70:253-6 Ap '48

See also

Locomotive boilers—

Failure

Firing

Application of overfire jets to prevent smoke from stationary plants, R. B. Engdahl and W. S. Major, diags Power 92:532-5 S '48

Automatic control of combustion, K. D. Sheldrick, il diags Pulp & Pa of Can 49:91-105 JI '48

Burn acid sludge under boilers, D. P. Thornton, jr, flow diag il Pet Processing 3:981-2+ O '48

Burns bug-dust lignite at efficiencies to 79 per cent; Canada Packers' St Boniface plant, G. E. Gibson, il diags Power 92:550-3 S '48

Combustion problems of various fuels, H. C. Carroll, Western Soc E J 52:181-8 D '47

Cut smoke by proper jet application, L. N. Rowley and J. C. McCabe, diags Power 92:676-9 N '48

Experiences with a multiple fuel-fired water tube boiler, R. F. Hollis, Blast F & Steel Pl 36:844-7 JI '48

Fuel and steam economy, M. Berkley, il diags Pet Eng 19:221-2+ My '48

Fuel engineering study of some recent boiler installations in the pulp and paper industry, J. E. Tobey, bibliog map diags Paper Tr J 125:43-52 D 18 '47; Excerpts, Paper Ind 29:1370-1 D '47

Grate scotchy mystery, G. Holman, Power Generation 52:90-1 O '48

How to construct overfire jets, diags Power Generation 52:64-5+ Ap '48

How to figure unburned carbon; chart; data sheet, H. Richardson, Power 92:651 O '48

Ignition jet system for boilers, diags Engineer 185:452-3 My 7 '48

Proper hand firing makes no smoke, L. N. Rowley and J. C. McCabe, diags Power 92:456-8 Ag '48

Set up to burn either coal or oil, D. M. Myers, Factory Management 106:122 Ag '48

Smoke abatement by overfire air jets, diags Dom Eng 170:145-6+ D '47

Utilizing bagasse as fuel, F. X. Gilg, diags A S M E Trans 70:719-23; Discussion, 723-7 Ag '48

Want your overfeed stoker to be smoke-free? L. N. Rowley and J. C. McCabe, il diags Power 92:158-61 Mr '48

Where to put overfire jets, W. S. Major, il diags Power Generation 52:95-7 Mr '48

See also

Boilers—Gas firing Locomotive boilers—
Boilers—Wood firing Firing,
Stokers, Mechanical

Foaming and priming

Foaming and carry-over in boilers, R. W. Seniff, bibliog Am Water Works Assn J 40:961-70 S '48

Polyamide antifoams; relation between chemical constitution and effectiveness, A. L. Jacoby, bibliog J Phys & Colloid Chem 52:689-94 Ap '48

Polyamide foam inhibitors; mechanism of foam inhibition in steam generators, L. O. Gunderson and W. L. Denman, bibliog il Ind & Eng Chem 40:1363-70 Ag '48

Steam bubble formation; effects of heating surface and use of antifoams, A. L. Jacoby and L. C. Bischmann, bibliog il diag Ind & Eng Chem 40:1360-3 Ag '48

Gas firing

Boiler efficiencies when using gas; tabulations, C. G. Segeler, Heating-Piping 20:83 F '48

English boiler house utilizes coke oven and blast furnace gas as fuel, Blast F & Steel Pl 35:1388-4 N '47

Steel-mill boilers designed for blast-furnace gas, W. M. Cline, jr, il Power 92:350-1+ Je '48

Length of service

Investigation of boiler-drum steel after forty years of service, H. S. Blumberg and G. V. Smith, il diags A S M E Trans 70:185-98; Discussion, 198-200 Ap '48

Manufacture

Welding of locomotive type high pressure boilers, G. M. Trefts, 3d, il diag Welding J 26:1011-14 N '47

Oil firing

Flame-failure controls protect boilers at U.S. Rubber plant, il Power Generation 52:59 Ag '48

Pulverized coal firing

Future of pulverized-coal firing in Great Britain, C. H. Sparks, diags Inst E E J 94 pt 2:402-13 O '47; Same, Inst Mech Eng J & Proc 156:Proc 384-94 Mr '48; Excerpts, Engineer 182:590-1 D 27 '46; Abstract, Electrician 137:1835-6 D 27 '46; Discussion, Inst E E J 94 pt 2:413-22 O '47; Inst Mech Eng J & Proc 156:Proc 394-403 Mr '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace, L. B. Schueler and others, bibliog il plans diags A S M E Trans 70:553-614; Discussion, 615-19 JI '48

Ten years' experience burning lignite and discarded slack coal, A. R. Eastcott, il diag Power 92:276-9 My '48

What part does pulverized-coal firing play in air pollution? L. N. Rowley and J. C. McCabe, il Power 92:14-17 Ja '48

Repair

Maintenance and repair of steam boilers and boiler furnaces, J. F. Shanley and G. R. Hull, il diags Oil & Gas J 46:200-1+ Ap 1 '48

Safety measures

Flame failure protection; devices for use in protecting furnaces against explosions, diags Power Generation 52:58-9 F '48

Safe practices for steam boiler operation, D. Attaway, il Pet Refiner 26:146-8 N '47

What to do if the water level is doubtful, M. M. Persinger, G. Browning, Power Generation 52:83-5 Mr '48

Settings

Air-cooled wall beats solid wall at Atlas brewing company, N. O. Kennicker, il diag Power Generation 52:72-3 JI '48

Practice of theory vs theory of practice; furnace and boiler enclosures and settings, G. P. Reintjes, il diags Power Generation 52:84-1, 135-6 Je '48

Standardized connections speed boiler rigging-up, J. C. Albright, il World Oil 128:121-2 My '48

Standards

Proposed revisions and addenda to boiler construction code, diags Mech Eng 70:167-8, 268-9, 371-4, 465-6, 557-60, 704, 847 F-Je, Ag, O '48

BOILERS—Standards—Continued

Report of committee on the standardization of oil-field boilers. *Am Pet Inst Proc* 27(4): 177-99 '47
 Steel boiler rating codes. *Dom Eng* 170:113 D '47

Wood firing

Automatic feeding of woodwaste replaces hand firing, saves fuel; Weyerhaeuser timber co. H. Panning. *il diags Power* 92:396-8 J1 '48
 Boiler control; method of controlling combustion in hog-fuel-fired boilers. *Mech Eng* 69:1038-9 D '47
 Combustion problems of various fuels. H. C. Carroll. *Western Soc E J* 52:181-4 D '47
 Disposal of wood refuse at Thunder Bay paper co. limited. Part Arthur, Ontario. T. C. Anderson. *il diag Pulp & Pa of Can* (Convention no) 49:129-32 [F] '48; Same cond. *Paper Ind* 29:1658-9 F '48
 Efficient burning of wood refuse. D. Brownlie. *Pulp & Pa of Can* 49:90-1 S '48
 Modern bark burning. M. H. Snodgrass. *il diag Paper Tr J* 125:43-5 D 25 '47; Same cond. *Paper Ind* 29:1488+ Ja '48

BOILERS, Heating

Anthractite's answer; new burner-boiler unit, anthratube. *il diag Bsns W* p56-6 N 1 '47
 Burns anthracite in new way. *il Dom Eng* 170:149+ D '47
 Fabricated hot-water boiler. *il diag Engineer* 185:146 F 6 '48
 High pressure hot water; boiler types and piping connections. J. R. Kell. *diags Heating-Piping* 20:91-4 Ag '48
 Steel boiler orders; Department of commerce summary for 1947. *Heat & Ven* 45:106 J1 '48
 Two anthratube models using new coal burning principle are now in production. *Heat & Ven* 44:116 N '47

Efficiency

Improving efficiency of converted boilers. *diags Dom Eng* 171:102-4 Ja '48

Electric heating

Demand-controlled radiant house heating. *il Elec West* 100:58-9 Ja '48

Firing

Data on anthracite sizes with which heating contractors should be conversant. P. A. Mulcey. *diags Sheet Metal Worker* 39:70+ O '48
 Smokeless boiler for use with bituminous coal. *Heat & Ven* 45:101 My '48

Gas firing

Are automatic air shutters justified on a gas-fired conversion burner? W. M. Myler, Jr. and H. W. Nelson. *diag Heating-Piping* 20:111-18 O '48
 Automatic controls and their functions. *Am Gas J* 168:19-20 F '48
 Does oil and gas heating demand extra radiator surface? A. G. Canar. *Heat & Ven* 45:65-6 S '48
 How to estimate standby fuel required by interruptible gas users. A. B. Stickney. *Heating-Piping* 20:71-4 Ag '48

Oil firing

Does oil and gas heating demand extra radiator surface? A. G. Canar. *Heat & Ven* 45:65-6 S '48
 Improving efficiency of converted boilers. *diags Dom Eng* 171:102-4 Ja '48
 Oil burners are now used in Korea. W. Viessman. *diag Heat & Ven* 45:100 Ag '48
 Oil industry's conservation tips. *diag Dom Eng* 170:133 D '47
 Performance of a coal-fired boiler converted to oil. R. S. Dill and P. R. Achenbach. *diags Heat & Ven* 45:65-8 My '48
 Principles of heating by oil. C. H. Burkhardt. *il diags Sheet Metal Worker* 38:71-2+ D '47; 39:138+ Ja; 76+ F; 86-7+ Mr; 76+ Ag; 78+ My; 70+ Je; 72-4+ J1; 56+ Ag; 55-6+ S; 60+ O '48 (to be cont)
 Short cycling causes heating difficulties; oil fired warm air heating plant and an oil fired hot water heating plant. S. Lewis. *Heating-Piping* 20:100-1 Mr '48

Some things to tell your prospects about oil heating. *il Dom Eng* 172:102-3+ Ag '48

BOILERS, Marine

Boilers for whaling vessels. *il diag Marine Eng* 53:77-9 O '48
 La chaudière Sural, à chambre de combustion sous pression et à circulation forcée. *diags Génie Civil* 124:399-400 O 15 '47
 Khedivial mail line passenger steamer El Malek Foad. *il diags Engineering* 165:152-4, 156 F 13 '48
 Marine boilers and marine auxiliary machinery. W. Gregson and H. Hillier. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 29):184-90, pl 1-4 '47
 Scotch marine boilers have many uses on land and sea. S. R. Lewis. *Heating-Piping* 20:104-5 O '48
 Smoke eliminator for industrial draught boilers. *diags Engineer* 185:600-1 Je 18 '48

Control

Mystery of combustion control, or don't touch that knob! C. W. Sandberg. *diags Marine Eng* 53:57-63 J1 '48
 Victory ships equipped with automatic combustion control. *il Marine Eng* 53:78 F '48

Firing

Modern marine combustion controls. J. W. Westberg. *Marine Eng* 53:50-1 Je '48
 Smoke abatement on marine installations. *Marine Eng* 53:63 J1 '48

Oil firing

Todd shipyards converting Pulaski to oil-burning. *il Marine Eng* 52:104 D '47

BOILERS, Mercury

First integrated mercury unit takes shape. E. L. Richardson. *il Elec World* 130:71 J1 17 '48

BOILERS, Portable

Portable steam generator cleans presses. B. C. Higgins. *il Am Mach* 92:111 J1 1 '48

BOILERS, Waste heat

Gas turbine with a waste-heat boiler. G. R. Fusner. *diags Mech Eng* 70:515-18 Je '48; Same cond. *Power* 92:421-2+ J1 '48
 Recovering waste heat. *il diags Diesel Power* 25:58-9 D '47
 Successful operation of waste heat boilers; combination spark arrestor, silencer and waste heat boiler. W. R. Williamson. *il diags Diesel Power* 25:50-2 D '47
 Waste heat boilers and water heaters. *il Diesel Power* 25:53-5 D '47

BOILERS, Water tube

Experiences with a multiple fuel-fired water tube boiler. R. F. Hollis. *Blast F & Steel* 36:844-7 J1 '48
 Marine boilers and marine auxiliary machinery. W. Gregson and H. Hillier. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 29):184-90, pl 1-4 '47
 Water-tube boilers; design and operation; abstracts. E. Yarrow. *Elec R (Lond)* 142: 17 Ja 2 '48; *Engineering* 165:247 Mr 12 '48; *diags Engineer* 185:418-19 Ap 30 '48

La Mont boiler

Improvements in an alum flocculation process, following difficulties with a domestic supply used as feed water for a high-pressure boiler plant. J. P. Beveridge and others; flow *diag Soc Chem Ind J* 66:267-73 Ag '47

BOILING

Condensation of water, styrene, and butadiene vapors; pure components and constant boiling mixtures. D. A. Edwards, C. F. Bonilla and M. T. Cicchelli. *bibliog diags Ind & Eng Chem* 40:1105-12 Je '48
 Determination of boiling range of methyl bromide. D. Williams and C. C. Meeker. *diag Anal Chem* 20:733-5 Ag '48
 Heat transfer through boiling liquid films. F. Rumpf. *bibliog diag Soc Chem Ind J* 66:309-12 S '47
 Heat transfer to boiling styrene and butadiene and their mixtures with water. C. F. Bonilla and A. A. Eisenberg. *bibliog diag Ind & Eng Chem* 40:1113-22 Je '48
 Heat transfer to water boiling under pressure. E. A. Farber and R. L. Scorch. *bibliog il diags A S M E Trans* 70:369-80; Discussion. 380-4 My '48

BOILING—Continued

- Polytetrafluoroethylene for the prevention of bumping from superheating of boiling fluids, H. S. Bennett, *Science* 106:646 D 26 '47
- Prediction of pressure drop during forced-circulation boiling of water, R. C. Martinnelli and D. B. Nelson, *bibliog A S M E Trans* 70:695-702 Ag '48

BOILING points

- Azeotropic mixtures; variation of boiling point and latent heat with pressure, W. Licht, Jr. and C. G. Denzler, *bibliog diag Chem Eng Prog* 44:627-38 Ag '48
- Boiling point elevation as an experiment in general chemistry, C. S. Hoyt, *il J Chem Educ* 24:563-4 N '47
- Composition and boiling points of binary azeotropes, H. P. Meissner and S. H. Greenfield, *bibliog Ind & Eng Chem* 40:438-42 Mr '48
- Correlation of A.S.T.M. true boiling point and flash vaporization curves, W. L. Nelson and R. J. Harvey, *bibliog Oil & Gas J* 47:71-2+ Je 17 '48
- Correlation of azeotropic data, H. Skolnik, *bibliog Ind & Eng Chem* 40:442-50 Mr '48
- Petroleum solvents; correlation of kauri butanol solvency with gravity and aniline point, W. T. Harvey and I. W. Mills, *bibliog Anal Chem* 20:207-9 Mr '48
- Vapor pressure-temperature relationships among the branched paraffin hydrocarbons, H. Wiener, *bibliog J Phys & Colloid Chem* 52:425-30 F '48

BOILING water, Flow of. See Water flow

BOISE, Idaho**Streets**

- How Boise widened and modernized its streets, H. K. Glidden, *il Roads & Sts* 90:84-6+ D '47

Water supply

- Improving Boise's water supply, H. R. Vinson, *il Pub Works* 79:32-3 O '48

BOLIVIA

See also

- Mines and mineral resources—Bolivia Petroleum industry and trade—Bolivia

Commercial policy

- Argentine-Bolivian trade and financial agreement of March 26, 1947 brought into effect, *For Comm W* 30:14-15 F 28 '48
- Import committee abolished and administrative functions of import-licensing system turned over to the Central bank, *For Comm W* 30:14-15 F 21; 12 Mr 20 '48
- Imported or domestic foodstuffs and beverages; registration required; Agricultural bank of Bolivia designated as importing agency for specified raw materials, *For Comm W* 31:11 Je 5 '48
- New exchange-control and import-licensing decrees, *For Comm W* 29:12 N 15 '47
- Official register for accredited importers established, *For Comm W* 30:9 Ja 3 '48

Economic policy

- Board of industrial development established, *For Comm W* 30:15-16 Mr 27 '48
- Tariff and tax concessions granted to industry in an effort to stimulate industrial production, *For Comm W* 30:15-16 F 21 '48

Industries and resources

- Board of industrial development established, *For Comm W* 30:15-16 Mr 27 '48
- Bolivian siesta of science, W. E. White, *il map Chem & Eng N* 26:516-18 F 23 '48
- Tariff and tax concessions granted to industry in an effort to stimulate industrial production, *For Comm W* 30:15-16 F 21 '48

BOLOMETERS

- Bolometer amplifier; compact tuned amplifier designed for use with bolometer or crystal microwave detectors, D. D. King and others, *il diag Electronics* 21:116-17 F '48
- D.c. thermal characteristics of microwave bolometers, E. Peskin and E. Weber, *bibliog diag R Sci Instr* 19:188-95 Mr '48
- Infra-red sensitivity of superconducting bolometers, N. Fuson, *bibliog il diags Opt Soc Am J* 38:845-53 O '48

Strange behavior of metals at very low temperatures; super-conductivity, D. H. Andrews, *bibliog il diag Refrig Eng* 54:431-5+ N '47

Ultimate sensitivity of radiation detectors, R. C. Jones, *bibliog Opt Soc Am J* 37:879-90 N '47

BOLTS and nuts

- Applications, materials, and specifications of bolts, W. C. Stewart, *diags S A E J* 56:20-2 Ap '48
- Bolt tension; method of predicting clamping force by tightening nut; abstract, G. A. Maney, *Automobile Eng* 38:310 Ag '48
- Bolted assemblies, W. C. Stewart, *bibliog diags Machine Design* 20:153-8 Mr '48
- Bolted connections in structures, A. M. Hamilton, *il diags Engineering* 165:433-5 My 7 '48
- Effective use of fasteners in product design, L. J. Lovisek, *diags Iron Age* 162:78-83+ S 23 '48
- Electric arc stud welding, R. C. Singleton, *il Welding J* 26:1095-1101 D '47
- Engineering aspects of bolt variables, V. E. Hillman, *diags Iron Age* 160:62-8 N 20 '47
- Equipment design is too functional and practical, C. O. Brown, *Ind & Eng Chem* 40:sup91A-2A O '48
- Four types of stud removers get into those tight quarters, R. E. Trospet, *diags Am Mach* 92:184 Mr 11 '48
- Industrial package lacks re-order problem; Lamson & Sessions' aircraft treasure chest; automatic buying, stock control, pricing and selling, J. E. Sorrell, *Sales Management* 60:99-100 Mr 1 '48
- Locking a nut with a rubber band, *diag Chem Ind* 62:292 F '48
- Necked or waisted screws and bolts; possibilities in engine production, P. M. Heldt, *diags Automotive Ind* 99:42-3+ N 1 '48
- Nuts and bolts, *il Mod Packaging* 21:126-7+ Ag '48
- Nylon locks nuts, *il Mod Plastics* 25:143 N '47
- Rapid stud driving fixture; making radio grills for automobiles, H. Chase, *il Iron Age* 160:74-5 N 27 '47
- Safety devices for nuts and bolts; abstract, H. Schaefer, *diags Product Eng* 19:140-1 Jl '48
- Strength and clamping force of bolts, K. H. Lenzen, *il diags Product Eng* 18:130-3 D '47
- Tightening bolts in fuse box, *diags MHL & Factory* 42:146 My '48

Manufacture

- Cold heading cuts manufacturing costs, C. S. Ricker, *il diags Am Mach* 92:89-91 F 26 '48
- Fundamentals of cold heading, H. E. Linsley, *diags Am Mach* 92:99-110 Ap 8 '48
- Hard die inserts, F. Lovell, *diags Steel* 123:108 Ag 23 '48
- High production galvanizing of small parts; Buffalo bolt co., W. Rudolph, *il Metal Finishing* 46:62-3+ S '48
- Special bolt-head milling fixture, D. A. Baker, *diags Mach* 54:189-90 Ap '48

Testing

- How processing affects bolt fatigue strength, N. B. Green, *il Machine Design* 19:138-40 D '47
- How to develop maximum strength in alloy steel bolts, G. Sachs, *diags Steel* 122:104-6 F 2 '48

BOMB sights

- Research work of the Franklin institute during World war II on airborne fire control apparatus, R. H. McClarren, *il Franklin Inst J* 246:273-91 O '48

BOMBS (chemical apparatus)

- Bomb methods in microchemistry, J. H. Beaucourt, *Metallurgia* 38:297-9 S '48
- Continuous spectra and OH absorption in carbon monoxide, oxygen explosions, G. A. Hornbeck, *il J Chem Phys* 16:845-6 Ag '48

BOMBS, Aerial

- 21-ton bomb, *Mech Eng* 70:444-5 My '48; *Product Eng* 19:149 Ag '48

Manufacture

- Mass-production methods applied to the manufacture of cast-steel bomb bodies, P. H. Wilson, *il diags Engineering* 164:501-3, 525-7, 550-2 N 21-D 5 '47

BOMBS, Atomic. See Atomic bombs**BOMBS, Flying**

Chemical propellants; mononitromethane used in combination with oxygen and an igniter. F. Bellinger and others. *diag Ind & Eng Chem* 40:1324-31 J1 '48

Chemical propellants; stability of mononitromethane for launching buzz bombs. F. Bellinger and others. *il Ind & Eng Chem* 40:1320-3 J1 '48

Design principles of amplitude-modulated sub-carrier telemeter systems used for the instrumentation of airplanes and guided missiles. C. K. Stedman. *diags Inst Radio Eng Proc* 36:36-41 Ja '48

Guided bombs in World war II. L. O. Gron-dahl. *il Franklin Inst J* 245:87-99 F '48

Guided missile heat is problem. R. McLaren. *Aviation W* 49:25+ O 11 '48

Guided missiles. C. E. Chapel. *il Radio N* 39:39-41+ Ja '48

Guided missiles reserve. *Instruments* 21:880+ O '48

Heat transfer to bodies traveling at high speed in the upper atmosphere. J. R. Stalder and D. Jukoff. *bibliog diag J Aeronautical Sci* 15:381-91 J1 '48

High altitude tube; can be operated in guided missiles and in industrial equipment subject to dust, moisture and fumes. N. Anton and M. Youdin. *il diags Electronics* 21:35-7 Ap '48

Linearized subsonic and supersonic flow about inclined slender bodies of revolution. E. V. Laitone. *bibliog diags J Aeronautical Sci* 14:631-42 N '47

Photographic tracking of guided missiles. L. M. Biberman and others. *diags Electronics* 21:92-5 J1 '48

Project squid probes pulsejet; five eastern universities hold navy research contracts. R. McLaren. *Aviation W* 47:26+ D 1 '47

Rocket researchers sift fuels to reduce high consumption; nitric acid seen offering advantages. R. McLaren. *Aviation W* 48:18 Ja 26 '48

Rocket's efficiency augurs future usefulness; abstract. A. W. Robinson, Jr. *S A E J* 56:31 F '48

Some of the refractory problems faced in research on jet propulsion units. *il Brick & Clay Rec* 112:58+ Ja '48

Ultraviolet spectrum of the sun from V-2 rockets. J. J. Hopfield and H. E. Clearman, Jr. *il diag Phys R* 73:877-84 Ap 15 '48

Why no guided missiles yet. A. B. Scoles. *Aero Digest* 56:67 Mr '48

Testing

Air gun tests airplane devices; built by Boeing aircraft company, designed primarily for evaluating performance of components of Boeing GAPA (ground to air pilotless aircraft) guided missiles. *il Comp Air Mag* 52:279 N '47

Checking the test birds (guided missiles); observing and governing the flights by use of tracking radar. *il Aero Digest* 56:49+ F '48

Full-scale free-flight ballistic measurements of guided missiles. L. A. Delsasso and others. *bibliog il diags J Aeronautical Sci* 15:605-15 O '48

Results of V-2 rocket tests. W. L. Clay. *diags S A E J* 56:58-9 O '48

Supersonic tunnel for missiles. R. B. Pearce. *bibliog il diags Aviation W* 49:22-4 Ag 23 '48

BOMBS, Incendiary

Incendiary fuels for various purposes. C. M. Cawley and others. *bibliog diags Inst Pet J* 34:90-108 F '48

Novel foreign chemical and pyrotechnic munitions. J. Goldenson and C. E. Danner. *il diags Chem & Eng N* 26:1976-8 J1 5 '48

BOND club of Detroit

Annual dinner, 32d, March 4; portraits. *Comm & Fin Chr* 167:1549-51 Ap 8 '48

BONDERIZING

Continuous bonderizing doubles output. J. W. Lynch. *il diags Am Mach* 92:37 Je 3 '48

How our industry helps make autos; piping and valve installation for bonderizing; Kaiser-Frazer plant at Willow Run. *il Dom Eng* 170:104-6+ N '47

BONDS

Halsey, Stuart & co. year end bond review. *Comm & Fin Chr* 167:119 Ja 8 '48

Income from retirement or discharge of bonds in computing excess profits net income. *Am Gas Assn Proc* 1947:250-2

See also

Municipal bonds

Default

Debt service of foreign issues improved; position, Dec. 31, 1947. J. T. Madden. *Comm & Fin Chr* 167:2750 Je 24 '48

Price indexes and averages

Security markets; bond prices, 1941-1946. *Survey of Cur Bsns Sup* p91 [supplemented in monthly numbers]

Prices

Big bond buyers take out price insurance; federal peg holds market up. R. M. Bleiberg. *Barron's* 28:7-8 Ag 9 '48

Bond trend unfavorable for stock boom. J. E. Banks. *Barron's* 28:25 J1 19 '48

How stocks behave in a falling bond cycle; from 1900 to 1920 there were bull markets, but they were of limited size. B. Griffith. *Barron's* 28:25 Mr 8 '48

Italian bond price spread raises payments question. *Barron's* 28:34 Ja 26 '48

Monthly range of prices on the New York stock exchange. *Comm & Fin Chr* 167:411-18 Ja 22 '48

Where do bonds go now? *Bsns W* p78-9 Ja 10 '48

Refunding

Italian securities need ERP success; refunding issues give bondholders hope of adequate return. F. M. Stern. *Barron's* 28:22 Ja 19 '48

See also

Bonds, Government—

Refunding

Statistics

Security markets, 1941-1946. *Survey of Cur Bsns* 1947 *Sup* p90-2 [supplemented in monthly numbers]

Yields

Bonds; yields, 1941-1946. *Survey of Cur Bsns* *Sup* p92 [supplemented in monthly numbers]

Compares bond yields and living costs; *Business bulletin of Cleveland trust co.* *Comm & Fin Chr* 166:2407 D 11 '47

Long-term bond yields and short-term money rates, 1928-1943; graph. *Survey of Cur Bsns* 28:3 S '48

Relation of bond and stock yields by industry groups, 1919-48; tabulation. *Survey of Cur Bsns* 28:14 Mr '48; Same. *Comm & Fin Chr* 167:1554 Ap 8 '48

Rise in bond yields. *Nat City Bank* p 128-30 N '47

BONDS, Convertible

Are convertibles now attractive? J. S. Williams. *Mag of Wall St* 83:134-5+ N 6 '48

Convertible debentures as a medium for financing. J. F. Childs. *Pub Util* 41:333-43 Mr 11 '48

Tax advantages in premium redeemable convertible bonds. M. Fried. *Comm & Fin Chr* 168:306 Ag 26 '48

Tax saving method on convertibles upheld. L. H. Hoffman. *Barron's* 28:10 Je 21 '48

BONDS, Debenture

Convertible debentures as a medium for financing. J. F. Childs. *Pub Util* 41:333-43 Mr 11 '48

BONDS, Government

IBA committee sees limited market for foreign bonds. *Comm & Fin Chr* 166:2504 D 18 '47

See also

Municipal bonds

State bonds

Marketing

Anti-inflationary role of savings; what banks can do. R. G. Taylor. *Banking* 40:39+ F '48

Government bond dealer attacks Federal Reserve open market methods. *Comm & Fin Chr* 167:1542+ Ap 8 '48

How the government-bond market works. *Bsns W* p79 Ja 10 '48

BONDS, Government—Marketing—Continued

Savings bond program for banks. Banking 40:130 My '48
Savings bonds net sales up. Banking 40:99 D '47
Security loan drive. II Banking 40:54-5 Ap '48
Security loan drive. Banking 40:130+ Je '48

Prices

Benefits and hazards in U.S. government bond support; should support levels be lowered? T. L. Godey; J. S. Williams. Mag of Wall St 82:626-7+ S 25 '48
Big bond buyers take out price insurance; federal peg holds market up. R. M. Bleiberg. Barron's 28:7-8 Ag 9 '48
Cold war, dollar-squeeze hit foreign bonds. Bsns W p97 Mr 13 '48
Course of prices of government securities for the year 1947; monthly tabulation. Comm & Fin Chr 167:419 Ja 22 '48
Effects of lower government bond prices; Reserve system support; Monthly review of Federal reserve bank of New York. Comm & Fin Chr 167:107+ Ja 8 '48
Why money will cost more; government bond prices decline as Federal reserve system lowers its support level. Bsns W p52-3 Ja 3 '48

Redemption

Savings bond redemption liability. Banking 41:126-7 S '48

Refunding

June-July refundings. Nat City Bank p64-5 Je '48
Refunding project to relieve government bond market support. A. J. Cortese. Comm & Fin Chr 167:797+ F 19 '48

Yields

Rise in bond yields. Nat City Bank p 128-30 N '47

Australia

Australia invites success; new commonwealth issue. Economist 155:508 S 25 '48

Bolivia

Bolivia's plan to resume service no dollar bonds. Comm & Fin Chr 168:115 Jl 8 '48

Chile

Chile announces new plan on external bonds. Comm & Fin Chr 167:1355 Mr 25 '48

Costa Rica

New Costa Rican bond issue subordinates U.S. creditors. Barron's 28:34 Je 7 '48

Great Britain

Cheap money epilogue. Economist 154:66-7 Ja 10 '48
Making TDRs more flexible. Economist 154:985 Je 12 '48
Money and gilt-edged. Economist 154:770-1 My 8 '48
Sir Stafford and gilt-edged; with table showing gross redemption yields for significant dates, 1945-1947. Economist 153:850-1 N 22 '47
United Kingdom bonds yield nearly nine per cent in New York. Barron's 28:10 Ag 9 '48

Italy

Italian debt service delays. Economist 155:551 O 2 '48
New Italian bonds registered with SEC. Comm & Fin Chr 166:2496 D 18 '47

Mexico

Announces payments on Mexican bonds. Comm & Fin Chr 167:2105 My 13 '48

Panama

Panama 3½% discount tie to U.S. income. R. E. Bedingfield. Barron's 28:7 Ag 16 '48

Peru

New bond issues of republic of Peru now listed on New York Curb. Comm & Fin Chr 167:230 Ja 15 '48
Peru extends exchange offer on its sterling bonds. Comm & Fin Chr 167:18 Ja 1 '48
Peru sterling bonds. Economist 154:78 Ja 10 '48

United States

Action of the government bond market. Nat City Bank p7-9 Ja '48
Arguing over U.S. bond supports. Bsns W p24-5 O 2 '48
Bankers contend insurance company sales of government bonds aid inflation. Comm & Fin Chr 168:816 Ag 26 '48
Bankers deride Parkinson's inflation weapon; problem of banks utilizing proceeds of government bond sales for inflationary purposes. W. F. McHale. Barron's 28:25 Ag 30 '48
Banks and governments; changes in bank holdings since 1943. Burroughs Clearing House 32:6-7 S '48
Benefits and hazards in U.S. government bond support; should support levels be lowered? T. L. Godey; J. S. Williams. Mag of Wall St 82:626-7+ S 25 '48
Bond market. Nat City Bank p 141-2 D '47
Break in governments to send other rates up. Barron's 27:32 D 29 '47
Danger of an increase in the velocity of circulation; unsettled government bond market. J. H. Kugel. Comm & Fin Chr 166:2159+ N 27 '47
Debt management and government securities prices. H. F. Hagemann, Jr. Comm & Fin Chr 166:1942+ N 13 '47
Explains "special reserve" proposal; need of supporting government bond market. M. S. Eccles. Comm & Fin Chr 166:2487+ D 18 '47
Federal Reserve support of government securities market. Fed Res Bul 34:11-13 Ja '48
Gives N.Y. times answers to monetary queries. T. I. Parkinson. East Underw 49:1+ S 10 '48
Government bond market. J. H. Grier. Comm & Fin Chr 168:1748+ O 28 '48
Government bond support vital! address before New York state bankers association. A. Sproul. Comm & Fin Chr 167:485+ Ja 29 '48
IBA government securities group reviews debt policies. Comm & Fin Chr 166:2508 D 18 '47
Investment market. H. E. Dickhuth. Banking 40:64+ Ja '48 [cont monthly]
Let's admit part of U.S. debt is permanent; issuance of perpetual "consols" would tend to facilitate anti-inflation fight. F. Quantius. Barron's 28:7 Jl 26 '48
Money rates and bond market support. E. S. Adams. Banking 41:35+ Jl '48
Mutual savings banks, inflation and public debt policy. A. Ihlefeld. Comm & Fin Chr 168:1313+ S 30 '48
1948 monetary and credit developments. J. B. Willis. Comm & Fin Chr 167:2102 My 13 '48
Outlook for business and government bonds. M. Nadler. Comm & Fin Chr 167:2201+ My 20 '48
Outlook for government bonds. J. H. Grier. Bankers Mo 65:28+ F '48; Same. Comm & Fin Chr 167:486+ Ja 29 '48
Outlook for Treasury bonds. A. J. Casazza. Comm & Fin Chr 168:1197+ S 23 '48
Reducing bank bond holdings; effective debt management. M. M. Townsend. Comm & Fin Chr 167:1439+ Ap 1 '48
Refunding project to relieve government bond market support. A. J. Cortese. Comm & Fin Chr 167:797+ F 19 '48
Remove pegs on government bonds. T. I. Parkinson. Comm & Fin Chr 168:1539+ O 14 '48
Restraint on credit expansion; effects on government bond market. Nat City Bank p 14-18 F '48
Savings banks and liquidity of U.S. government bonds. L. S. Pruyn. Comm & Fin Chr 167:1654+ Ap 15 '48
Savings bonds in estate planning. T. J. Lynch. Trusts & Estates 87:291-6 O '48
Savings bonds not a detriment to savings institutions. W. C. Hanson. Comm & Fin Chr 166:2365+ D 11 '47
Secretary Snyder announces details of new Treasury savings notes; Series D. Comm & Fin Chr 168:812 Ag 26 '48
Sees bond market tied in with fiscal policy. L. M. Piser. Comm & Fin Chr 167:498 Ja 29 '48

BONDS, Government—United States—Cont.

Sees inflation increasing Reserve bondholdings. J. T. Madden. *Comm & Fin Chr* 167:2201+ My 20 '48

Snyder reports on Nation's finances and promises U.S. bonds above par. *Comm & Fin Chr* 167:505 Ja 29 '48

Three percent government bond to curb inflation. E. J. Schlesinger. *Comm & Fin Chr* 166:2625 D 25 '47

Unpegging of U.S. bonds not needed. A. O. Johnson. *Comm & Fin Chr* 168:1418+ O 7 '48

Whole U.S. debt now tinder for inflation; government's bonds are now really call money. Barron's 27:1+ D 15 '47

Why support government bonds? T. I. Parkinson. *Comm & Fin Chr* 167:1871+ Ap 29 '48

See also

Bonds, Government—Marketing

Venezuela

Bond issue authorized on Venezuelan road project. *For Comm W* 32:33-4 JI 10 '48

Yugoslavia

Payment of bonds issued during 1943 and 1944. *For Comm W* 33:25 O 16 '48

BONDS, Municipal. See **Municipal bonds**

BONDS, Real estate

Outlook for real estate securities. H. R. Amott. *Comm & Fin Chr* 167:209 Ja 15 '48

BONDS, Revenue

Syndicate headed by Alex. Brown & sons markets \$37,500,000 Maryland Bridge revenue bonds. *Comm & Fin Chr* 168:1657 O 21 '48

BONDS, State. See **State bonds**

BONE

Demonstration of P₃₂ in bone by radioautography. R. S. Siffert. *Il Science* 108:445-8 O 22 '48

Evidence for actinide series cited; abstract. J. G. Hamilton. *Il Chem & Eng N* 26:165 Ja 19 '48

Human bone properties; research necessary in predicting body behavior in aircraft crashes, seat-ejection from aircraft, parachute opening, and exposure to blast. *Il Mech Eng* 70:827-9 O '48

Rapid method for celloidin impregnation of undecalcified bone. J. J. Bertrand. *diag Science* 107:152 F 6 '48

BONE black

Bone char behavior is a key to sugar refining improvement. *Il Food Ind* 20:1141-3 Ag '48

Heat transfer into cylindrical columns of bone char. V. R. Deitz and H. E. Robinson. *diags Ind & Eng Chem* 40:1070-5 Je '48

Analysis

Determination of sulfur in bone char. V. R. Deitz and others. *bibliog diag J Res Nat Bur Stand* 40:263-74 Ap '48

BONE char. See **Bone black**

BONE marrow. See **Marrow**

BONESTEEL, Charles Hartwell, 1885-

Portrait. *Fortune* 36:85 D '47

BONILLA, Charles Francis, 1903-

C. F. Bonilla goes to Columbia univ. *por Chem Eng Prog* 44:sup60 My '48

BONNEVILLE power administration

Northwest power; Bonneville administration urges private utilities to expand. *Bsns W* p36 F 21 '48

Power politics topsy-turvy as BPA plans for future. *Elec World* 129:72 F 14 '48

Report for 1947; abstract. *Pub Util* 41:249-51 F 12 '48

BONUS system

Bonus based on production value. *Iron Age* 162:94 JI 1 '48

Bonus plan helps fuel oil distributor reduce costs. F. C. Sturtevant. *Nat Pet N* 39:30+ N 5 '47

Bonus plan raises take-home pay 70 per cent; Acme sash balance co. D. Steele. *Il Factory Management* 106:83-4 Ap '48

Boosting driver morale; Interstate passenger service, inc. F. Kane. *map Bus Transportation* 27:55-9 JI '48

Control and planning of maintenance with an incentive bonus scheme. R. Talbot and G. F. Satow. *Inst Mech Eng J & Proc* 156: Proc 305-13; Discussion. 313-17 D '47

Interdependent deductions under federal and New York taxes. *J Account* 85:69 Ja '48

Plus business bonus pays off for greater productivity; Micro Switch, Freeport, Ill. M. W. Eaton. *Factory Management* 106: 82-3 Je '48

See also

Salesmen—Bonuses

BONUS system for executives

Incentive pay for supervisors; a survey. *Personnel* 24:341-50 Mr '48

Incentives for executives. H. A. Hopf. *Management R* 37:101-3 F '48

BONUSES, Soldier. See **Veterans—Bonuses**

BOOK industry and trade

To ease book-trade worries. *Bsns W* p96+ S 11 '48

Advertising

Copy that clicked; nine reasons why book ad pulled seven and a half times the cost of the space; Haldeman-Julius publications, Girard, Kansas. R. Manville. *Ptr Ink* 222:40 F 13 '48

Huge market awaits live book publisher. S. L. Schmid. *Ed & Pub* 81:24 Mr 6 '48

Mr Bump okays a book ad. *Ptr Ink* 222:56+ F 6 '48

Statistics

Book publication, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 161 [supplemented in monthly numbers]

Australia

Import licensing regulations for certain publications from dollar countries revised. *For Comm W* 30:15 Mr 27 '48

Great Britain

Book exports. *Economist* 155:49-50 JI 10 '48

BOOK reviews

Music reporter, 1947-1948. 436p Music reporter inc. 501 Madison av. New York 22 '48

Reviewing of technical books, the minimum requirements. E. H. McClelland. *J Chem Educ* 25:380-2 JI '48

Time interval between book publication and review. G. Schutze. *Special Lib* 38:297-9 N '47

BOOKBINDING

Binding as a book publisher sees it; abstract. B. D. Zevin. *Inland Ptr* 121:57 Ag '48

BOOKER brothers, McConnell and company, limited

Statement by the chairman at annual general meeting. A. F. V. McConnell. *Economist* 155:517-18 S 25 '48

BOOKKEEPING

Case for opening new general ledgers each year. *J Account* 86:341-2 O '48

See also

Accounting

BOOKLETS, Advertising. See **Advertisements—Books and booklets**

BOOKLETS, Employees'. See Employees' booklets

BOOKS

Fifty books of the year 1947. American institute of graphic arts, 115 E. 40th st. New York 16 '48

Prices

United States cumulative book auction records, 1945-47. S. R. Shapiro, ed. 957p \$20 Want List, 85 Broad st. New York 4 '48

BOOKS and reading

Reading makes a full man. D. H. Erickson. *Elec Eng* 67:960 O '48

BOOSTERS, Gas. See **Gas boosters**

BOOTH, Henry, 1895-

PhotoMetric; new idea for men's clothing. *por Fortune* 38:106-7+ JI '48

BOOTHs, Paint spraying. See **Paint spraying—Booths**

BOOTS, Rubber. See **Shoes, Rubber**

BORANE. See **Boron hydrides**

BORATES

Behavior of certain sugars and sugar alcohols in the presence of tetraborates; correlation of optical rotation and compound formation. H. S. Isbell and others. *bibliog J Res Nat Bur Stand* 40:129-49 F '48

See also
Colemanite

BORAX

Behavior of certain sugars and sugar alcohols in the presence of tetraborates; correlation of optical rotation and compound formation. H. S. Isbell and others. *bibliog J Res Nat Bur Stand* 40:129-49 F '48

Developments in recovery of Searles Lake deposits; abstract. W. H. Allen. *Chem Eng* 55:272+ J1 '48

Why put borax in glass batches? *Cer Ind* 50:56 F '48

BORAZOLE

Molecular orbital treatment of the ultraviolet spectra of benzene and borazole. C. C. J. Roothaan and R. S. Mulliken. *bibliog J Chem Phys* 16:118-22 F '48

Search for near ultraviolet bands in borazole. L. E. Jacobs and others. *J Chem Phys* 16:116-17 F '48

BORDEN company

Borden means business in plastics; new chemical division, formed by a merger of Durite plastics and Casein co. *il Bsns W* p74+ My 1 '48

BOREHOLES

Boreholes replace shaft lines; use of transite pipe. B. Gleason. *diags Coal Age* 53:76-8 Mr '48

BORERS, Marine. See Marine borers**BORIC acid**

Creaseproofing textiles; boric acid + borax as catalysts; patent. *Am Dyestuff Rep* 37:243-4 Ap 5 '48

Excitation curve for the reaction $C^{12}(p, pn)C^{11}$ up to 140 Mev. W. W. Chupp and E. M. McMillan. *diag Phys R* 72:873-4 N 1 '47

Analysis

Rapid evaluation of solvent extraction processes; new liquid-liquid extractor; water-boric acid-isoamyl alcohol. H. A. Bewick, J. E. Currah and F. E. Beamish. *bibliog diag Anal Chem* 20:740-3 Ag '48

BORING (earth and rocks). See Drilling and boring (earth and rocks)**BORING bars**

Accuracy in diverse operations; improved by precision boring with rigid solid carbide bars. *il Steel* 122:100 F 9 '48

Block clamps boring bar. R. Cañero. *diags Am Mach* 92:122 N 4 '48

Carbide boring bars. *il Sci Am* 178:126-7 Mr '48

Precision boring with solid cemented carbide bars. *il Tool Eng* 20:59 Je '48

Tapered flat on boring-bar arbor guides boring tool in liner. C. D. M. Airdrie. *diags Am Mach* 92:120 O 7 '48

BORING machinery. See Drilling and boring machinery**BORN, Kendall Eugene, 1908-1947**

Memorial. L. C. Glenn. *bibliog por(pl 5) Geol Soc Proc* 1947:119-23 My '48

Sketch. C. W. Wilson, jr. *por Am Assn Pet Geologists Bul* 32:145-7 Ja '48

BORON

Disintegration of positive and negative mesotrons in different absorbers. N. Nereson. *bibliog diags Phys R* 73:666-9 Mr 15 '48

Gamma-radiation from the bombardment of fluorine, boron, and beryllium by protons. J. A. Jacobs and others. *Phys R* 73:1130 My 1 '48

Production of Li^8 in boron-loaded photographic emulsions. E. Pickup. *diag Phys R* 74:495 Ag 16 '48

Analysis

Boron microdetermination in fresh plant tissue. H. W. Winsor. *diags Anal Chem* 20:176-81 F '48

Spectrographic determination of boron in plant tissue. F. M. Smith, W. G. Schrenk and H. H. King. *bibliog Anal Chem* 20:941-3 O '48

Isotopes

Disintegration of mesotrons in B^{10} . N. G. Nereson. *Phys R* 74:509 Ag 15 '48

Excited states of B^{10} . T. Lauritsen and others. *bibliog Phys R* 73:636-7 Mr 15 '48

Natural variations in the isotopic content of boron and its chemical atomic weight. H. G. Thode and others. *bibliog Am Chem Soc J* 70:3008-11 S '48

Nuclear spins and quadrupole moments of B^{10} and B^{11} . W. Gordy and others. *Phys R* 74:1191 N 1 '48

BORON bromide

Coordination compounds of boron bromide and boron iodide. D. R. Martin. *bibliog Chem R* 42:581-99 Je '48

BORON chlorides

Coordination compounds of boron trichloride; relationship of dipole moment of chlorides to compound formation. D. R. Martin. *bibliog J Phys & Colloid Chem* 51:1400-4 N '47

BORON compounds

Boron output set new high in 1947. *Oil Paint & Drug Rep* 154:65 Ag 16 '48

Tri- α -naphthylboron as a highly hindered reference acid; a case of polymorphism ascribed to hindered rotation. H. C. Brown and S. Sujishi. *il diags Am Chem Soc J* 70:2793-802 Ag '48

BORON fluoride

Acylation of thiophene and furan by means of boron trifluoride. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 70:867 F '48

Donor-acceptor bonding; ammonia-boron trifluoride. A. W. Laubengayer and G. F. Condie. *bibliog Am Chem Soc J* 70:2274-6 Je '48

Hydrofluorination in the presence of boron fluoride. A. L. Henne and R. C. Arnold. *bibliog Am Chem Soc J* 70:758-60 F '48

Reaction of benzoic anhydride with aromatic compounds catalysed by boron trifluoride. P. H. Given and D. L. Hammick. *Chem Soc J p* 1237-9 S '47

BORON halides

Coordination compounds of boron bromide and boron iodide. D. R. Martin. *bibliog Chem R* 42:581-99 Je '48

BORON hydrides

Absorption spectrum of diborane. W. C. Price. *bibliog J Chem Phys* 16:894-902 S '48

Critical temperature and pressure of diborane. A. E. Newkirk. *Am Chem Soc J* 70:1978 My '48

Dissociation of diborane by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog Am Chem Soc J* 70:987-9 Mr '48

Reactions of diborane with hydrocarbons. D. T. Hurd. *Am Chem Soc J* 70:2053-5 Je '48

Structure of diborane and related molecules. R. S. Mulliken. *bibliog diag Chem R* 41:207-17 O '47

Structure of the decaborane molecule. J. S. Kasper, C. M. Lucht and D. Harker. *diag Am Chem Soc J* 70:881 F '48

Structures of the hydrides of boron; decaborane. G. Silbiger and S. H. Bauer. *bibliog Am Chem Soc J* 70:115-19 Ja '48

BORON iodide

Coordination compounds of boron bromide and boron iodide. D. R. Martin. *bibliog Chem R* 42:581-99 Je '48

BORON nitride

Heat-resisting lubricants; molybdenum sulfide and boron nitride. G. L. Sumner. *Mech Eng* 70:30-1 Ja '48

BORON oxide

Boric oxide, its chemistry and role in glass technology. W. A. Weyl. *Glass Ind* 29:131-6+, 200-4+, 264-5+, 328-9+, 388-90+, 444-5+, 500-2+, 559-61+ Mr-O '48

Changes in the indices of refraction and liquids of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. *bibliog Am Cer Soc J* 31:132-44 My 1 '48; Same. *J Res Nat Bur Stand* 40:361-74 My '48

Effect of boric oxide on properties of soda-dolomitic lime-silica glass; contribution of the Owens-Illinois glass company general research laboratory. *bibliog Am Cer Soc J* 31:8-14 Ja 1 '48

BORON oxide—Continued

Some energy relations in the systems $\text{PbO-B}_2\text{O}_3$ and PbO-SiO_2 . L. Shartsis and E. S. Newman. bibliog diags J Res Nat Bur Stand 40:471-8 Je '48; Same. Am Cer Soc J 31:213-19 Ag 1 '48

Surface tension of compositions in the systems $\text{PbO-B}_2\text{O}_3$ and PbO-SiO_2 . L. Shartsis and others. bibliog Am Cer Soc J 31:23-7 Ja 1 '48; Same. J Res Nat Bur Stand 40: 61-6 Ja '48

Systems $\text{K}_2\text{O-ZnO-SiO}_2$, $\text{ZnO-B}_2\text{O}_3\text{-SiO}_2$, and $\text{Zn}_2\text{SiO}_4\text{-Zn}_2\text{GeO}_4$. E. Ingerson and others. bibliog Am J Sci 246:31-40 Ja '48

BORON triethyl

Wall effects in the oxidation of boron triethyl vapor; ignition of *n*-butane. R. S. Brokaw, E. J. Badin and R. N. Pease. bibliog Am Chem Soc J 70:1921-2 My '48

BORON trimethyl

Dissociation of the addition compound of trimethylboron with quinuclidine; further evidence for the steric configuration of triethylamine. H. C. Brown and Sei Sujishi. bibliog diags Am Chem Soc J 70:2878-81 S '48

Strains in methyl amines and hydrocarbons. R. Spitzer and K. S. Pitzer. bibliog Am Chem Soc J 70:1261-4 Mr '48

BORONIC acids

Preparation of some azo boronic acids. H. R. Snyder and C. Weaver. bibliog Am Chem Soc J 70:232-4 Ja '48

Synthesis and reactions of some substituted naphthaleneboronic acids. H. R. Snyder and F. W. Wyman. bibliog Am Chem Soc J 70:234-7 Ja '48

Synthesis of azo boronic acids; dyes from tetrazotized benzidine-2,2'-diboronic acid. H. R. Snyder and S. L. Meisel. Am Chem Soc J 70:774-6 F '48

Synthesis of benzidine-2,2'-diboronic acid. H. R. Snyder, C. Weaver and S. M. Parmerter. Am Chem Soc J 70:773-4 F '48

BOSE-EINSTEIN statistics

Statistical mechanics of mixtures of Bose-Einstein and Fermi-Dirac systems. W. Band. J Chem Phys 16:343-52 Ap '48

BOSS rule. See Politics, Corruption in**BOSTON**

Score Boston transit construction work as mismanaged, politically governed; report by Boston finance commission. Eng N 141:7 Ag 12 '48

Watching Boston's steps; organization that uses publicity as its chief weapon; Boston finance commission. Eng N 140:391 Mr 11 '48

See also

Newspapers—Boston

Sanitary affairs

Bulk refuse collectors help in keeping Boston clean. Il Pub Works 79:33-4 My '48

Streets

Boston's master highway scheme; abstracts of A.S.C.E. fall meeting papers. Civil Eng 18:677-8 N '48

Subway

Boston's Tremont Street subway celebrates 50th year of service. Mass Transportation 43:583-4 D '47

Water supply

Low-cost by-product power from municipal water supply; hydroelectric development at Quabbin reservoir; with cost data, il map, diags Elec World 130:102-4 S 11 '48

Sinking shafts and driving tunnels in metropolitan Boston; Quabbin aqueduct. F. W. Gow. il map diags Explosives Eng 25: 135-9+ S '47

BOSTON and Maine railroad

Legislation and litigation delay B. & M. recap plans. Barron's 28:27 Mr 8 '48
Plan to modify capital stock. Comm & Fin Chr 168:843 Ag 30 '48

BOSTON conference on distribution

Nineteenth Boston conference on distribution, 1947. 90p pa \$3.75 Boston conference on distribution, 80 Federal st, Boston 10 '47

BOSTON insurance company

Offers new capital shares. Comm & Fin Chr 168:1038-9 S 13 '48

BOSTON university

Boston university's new public relations school. Am Gas J 167:33-4 D '47

BOTANICAL apparatus

Simplified diffusion-dehydration technique in the microtomy of tissues. A. P. Lorz. diags Science 107:278-9 Mr 12 '48

BOTANICAL chemistry

Recent developments in horticultural chemistry; abstract. R. L. Wain. Chem & Ind p557 Ag 28 '48

See also

Agricultural chemis-	Photosynthesis
try	Plants—Chemical
Auxins	analysis
Hormones, Plant	Plants—Nutrition
	Sapogenins

BOTANICAL gardens

Berlin botanic garden. E. B. Babcock. Science 107:622 Je 11 '48

BOTANISTS

See also

Livingston, Burton
Edward

BOTANY

See also

Bacteria	Gums and resins
Cellulose	Molds (botany)
Color of plants	Fungi
Grafting	Plants
Grasses	Weeds

Embryology

Growth in vitro of immature hordeum embryos. N. Kent and R. A. Brink. Science 106:547-8 D 5 '47

Nomenclature

Precedence of modern plant names over names based on fossils. J. M. Schopf. Science 108:483 O 29 '48

Should there be a living metasequoia? Inter-relationship of living and fossil plants. J. M. Schopf. Science 107:344-5 Ap 2 '48

Physiology

Developmental physiology of seed plants. W. F. Loehwing. Science 107:529-33 My 21 '48
Symposium on trace elements in plant physiology. Science 107:108-10 Ja 30 '48

BOTANY, Economic

See also

Dyes and dyeing—
Natural dyes

BOTANY mills, inc.

What nation-wide brand name identity has done for Botany. C. F. H. Johnson, Jr. I Sales Management 61:88+ O 1 '48

BOTOGENIN

Steroidal sapogenins, structural relationship of botogenin; new steroidal sapogenin, to all other known sapogenins. R. E. Marker and J. Lopez. Am Chem Soc J 69:2397-8 O '47

BOTTLE caps and seals

Cork manufacturers accused as trust. Oil Paint & Drug Rep 154:69 Ag 23 '48

Roll-on capper; Taylor Wine machine applies aluminum closures. Il Mod Packaging 21: 138-9 Ap '48

Squeezable bottles. Il Mod Packaging 21:108-11 N '47

Volatile loss in molding lignocellulose filled phenolics. R. V. Williamson. bibliog Mod Plastics 25:126-7+ My '48

BOTTLE filling machines. See Bottling machines**BOTTLE making machinery**

Blow head for bottle machines; patent, diag Glass Ind 29:391 Ji '48

BOTTLE testing machines

Owens bottle testing machine; patent, diag Glass Ind 29:85-6 F '48

BOTTLED goods

Bottles get built-in labels; illustrations with text. Esns W p59 F '48

Table spice kits; stock drug vials and plastic poker chip rack make re-usable package for flavoring extracts. Il Mod Packaging 22: 127 S '48

See also

Beverages	Pepsi-Cola
Bottling	Salad dressing

BOTTLERS

What makes a successful bottler? Lyons tests get some answers. L. Zweig. Il Sales Management 59:48+ D 15 '47

BOTTLERS of carbonated beverages, American. See American bottlers of carbonated beverages

BOTTLES

All throwaways; Carling's sells only packaged brew. *il* Mod Packaging 21:94-101 Ja '48

Bottles that packed a wallop. C. T. Hubbard. *il* Glass Ind 29:257-8+ My '48

Ceramic color labeling. *il* Mod Packaging 21:120-6+ My '48

Color-labeling the modern way; ceramic label. *il* Cer Ind 51:78-9 N '48

Mix product and package, result: smash hit; Hitching Post salad dressing. *il* Sales Management 61:48+ S 15 '48

Private glass or stock? practices and plans of four glass-using industries. *il* Mod Packaging 21:95-100 D '47

Manufacture

Device for removing bottles from molds; patent. *diag* Glass Ind 29:267 My '48

How bottles are made! Cer Ind 49:84 O '47

Steps in fire-finishing with oxy-fuel gas mixture; photographs. Cer Ind 51:81 O '48

See also
Bottle making machinery

BOTTLES, Plastic

Acetate bottles replace glass. D. Ward. *il* Plastics 8:17 Je '48

Disposable nursing bottles; rolls of polyethylene layflat tubing are heat sealed. *il* Mod Plastics 26:90-2 N '48

Powder dispensed from squeezable bottle. *il* Mod Plastics 25:158 N '47

Squeezable bottles. *il* Mod Packaging 21:108-11 N '47

Squeeze bottle for acid; polyethylene with spray valve for liquid rust remover containing hydrofluoric. *il* Mod Packaging 21:106-7 Ag '48

BOTTLING

All throwaways; Carling's sells only packaged brew. *il* Mod Packaging 21:94-101 Ja '48

Bayer aspirin; Trenton plant packages over 10,000,000 tablets a day in tins and bottles. *il* plan Mod Packaging 21:100-5 Ag '48

Public relations stressed at 29th annual Bottlers convention, Atlantic City. Food Ind 20:5-7+ Ja '48

BOTTLING machines

Plastic machine parts cut bottle breakage. *il* Mod Packaging 21:117 My '48

Plastics for peroxide; Parke, Davis new 15-spout filler. *il* Mod Packaging 21:114-15 J1 '48

Roll-on capper; Taylor Wine machine applies aluminum closures. *il* Mod Packaging 21:133-9 Ap '48

Unscrambler for glass containers as they are fed into a bottling machine. *il* *diags* Machine Design 20:108 Ja '48

BOTTLING plants

Heavy emphasis on sanitation at Moxie's Boston plant; hooded conveyors and germicidal lamps over open bottles. H. S. Knowlton. *il* *diag* Food Ind 19:1519-21+ N '47

Last word in bottling plants; Blatz brewing co. F. K. Lawler. *il* Food Ind 20:1270-3 S '48

Modern practices in carbonated beverage plants. H. E. Medbery. *flow diag* *il* *diag* Food Ind 20:1193-40 Ag '48

Multi-million dollar Blatz bottling plant uses all-tile construction; Blatz brewing co. *il* *diags* Brick & Clay Rec 112:32-3 F '48

Rigid-frame base supports heavy loads of five-story bottling plant; Coca Cola bottling company of New York. *il* Eng N 140:37-9 Ja 8 '48

Truck bodies get a lift right to production line; Vernor ginger ale plant. *il* Food Ind 20:1470-1+ O '48

Equipment

Bottling beer; completely mechanized plant at Burton-on-Trent. *il* Elec R (Lond) 143:563-5 O 8 '48

BOULDER dam. See Colorado river—Hoover Dam project

BOULDERS

Water-faceted boulders. P. H. Kuenen. *bibliog* Am J Sci 246:779-83, pl 1-2 D '47

BOULOGNE

Harbor

Emergency repairs to continental ports. *il* map Engineering 164:433-4, 444 N 7 '47

BOULTON, Matthew, 1728-1809

Lunar Society members. M. Schofield. Chem & Ind p389 Je 19 '48

BOULWARE, Lemuel Ricketts, 1895-

G-E promotes sound employee and community relations. *por* Mill & Factory 42:93-7 Je '48

BOUNDARY layer

Boundary layer of yawed cylinders. W. R. Sears. *bibliog diag* J Aeronautical Sci 15:49-52 Ja '48; Discussion. A. N. Tifford. 15:280-1 My '48

Stability of boundary layers and of flow in entrance section of a channel. E. Hahnemann and others. *bibliog* J Aeronautical Sci 15:493-6 Ag '48

BOUNDARY tension. See Interfacial tension

BOUNDARY value problems

Electronic differential analyzer. J. S. Koehler. *diags* J Ap Phys 19:148-55 F '48

BOUNDARY waters

Commission to study western international waters. map Eng N 140:636-7 Ap 29 '48

Objectives for boundary waters quality control. Sewage Works J 20:331 S '48

United States-Canadian boundary waters pollution control. Pub Health Rep 63:1238-40 S 17 '48

BOWLES, Oliver, 1837-

Sketch. *por* Min & Met 29:273 My '48

BOWLING

AMF's pinspotter investment tied up by prolonged tests. Barron's 27:31 D 22 '47

BOWLING pins

Sporting goods award to Durable bowling pin corp.; Celcon ethyl cellulose, injection molded over maple wood core. *il* Mod Plastics 26:170-1 S '48

BOWMAN, Robert Jay, 1890-

Denies Young N.Y.C. directorship; I.C.C. rejects Bowman application and petition of C. & O. and Allegheny corporation for release of Central holdings from trusteeship. Ry Age 124:1020-1+ My 22 '48

BOX albums. See Phonograph records

BOX making machines

Automatic box making. *il* Mod Plastics 25:105-7 Ja '48

Box setter-up; forming of candy-bar boxes from folding carton blanks. *il* Mod Packaging 21:120-2 F '48

BOXBOARD. See Paper board

BOXES

Self-displaying boxes; inner pulley-cord arrangement enables automatic opening; Silastic table mats. *il* *diags* Mod Packaging 22:124-5 O '48

Shipping container study; progress report on fibre box and board industry's technical research. W. B. Lincoln, jr. *il* Mod Packaging 21:168-71+ Ap '48

BOXES, Plastic

Electronic box stayer; first commercial machine demonstrates a split-second way to seal acetate sheet through controlled high-frequency heat. *il* Mod Packaging 21:113-16+ F '48

Folding boxes. *il* Mod Plastics 25:150-1 Mr '48

Laminated blanket box; a die-cut trademark permits product visibility and boxboard gives strength to new St Mary's package. *il* Mod Packaging 21:125 Mr '48

Utility box taps non-seasonal market. *il* Sales Management 60:73 F 15 '48

Manufacture

Automatic box making. *il* Mod Plastics 25:105-7 Ja '48

BOXES, Wirebound

Wirebound boxes cut two-thirds off packing and shipping costs. R. G. Caouette. *il* Factory Management 106:76-7 Ag '48

BOYCOTT

NLRB issues first T-H injunction; A.F.L. teamsters union secondary boycott case. *il* Bns W p80+ Ja 10 '48

BOYD, Donald Lewis, 1899-

PIA president, began career as a newspaper man. *por* Inland Ptn 120:53 D '47

BOYD, Morton, 1899-

Sketch. por East Underw 49:10 My 14 '48

BOYS' clubs

Interesting the young in railroad; New Haven and department store foster Junior railroaders' club. il Ry Age 125:326-7 Ag 14 '48

BOYS TOWN, Nebraska

Rigid frames reduce cost at Boys Town. J. D. Griffiths. il Eng N 139:673-4 N 13 '47

BRACES, Plastic. See Orthopedic apparatus, Plastic

BRACHIOPODA

Recent brachiopods. P. E. Cloud, jr. bibliog Am J Sci 246:241-50 Ap '48

BRACING

Clean-cut bracing tames tough New York subway. il Constr Methods 30:86-90 Je '48
In the open hearth area; designing crane runways. H. G. Tregillus. diags Blast F & Steel Pl 36:954-6 Ag '48

BRADLEY, Milton, company

Comeback of a game king. il Bsns W p36 N 29 '47

BRADSHAW, George, 1801-1853

George Bradshaw, English printer, invented railway time tables. Inland Ptr 120:84 D '47

BRADY, William Gage, 1887-

Top-level shifts at National city bank. por Bsns W p93 Mr 20 '48

BRAIN

Charting the sea of brain waves. H. H. Jasper. bibliog Science 108:343-7 O 1 '48
Evolution of the horse brain. T. Edinger. (Memoir 25) 177p, 4pls bibliog(pl70-4) Geological soc. of America, 419 W. 117th st, New York '48 (\$2)

Great unravelled knot. G. W. Gray. il diags Sci Am 179:26-39 O '48

Simple device for macroscopic sectioning of the brain. R. F. Bouldin and W. Holzheimer. il Science 106:527 N 28 '47

Suppression and facilitation of angry behavior by certain forebrain mechanisms; abstract. P. Bard and V. B. Mountcastle. Science 107:457 My 7 '48

See also

Hydrocephalus

Hypothalamus

Injuries

Mechanism of concussion; a theory. J. W. Ward and others. bibliog il Science 107:349-53 Ap 2 '48

BRAINARD, Morgan B, 1879-

Sketch. por Nat Underw 51:15 D 4 '47; Weekly Underw 157:1294 N 22 '47

BRAKE beams

Testing

Brake-beam building and testing layout. il Ry Mech Eng 122:493-4 S '48

BRAKE linings

Bonding brake lining to shoes. W. R. Rodgers and J. V. Hendrick. il S A E J 56:36-40 Je '48

Crosley's method of bonding brake linings. il Automotive Ind 99:38-9 Jl 15 '48

New brakelining using cement; Cyclewelding. Bsns W p61-3 Mr 13 '48

Southern firm develops new process for manufacturing molded brake linings; Fiber block. il Manuf Rec 117:48-9 Jl '48

BRAKE shoes

External friction blocks and shoes. A. C. Rasmussen. diags Product Eng 18:134-6 D '47

Last word in brake shoe production; Brake shoe & castings division's foundry. il Ry Age 124:472-3 Mr 6 '48

BRAKES

Budd disk brake perfected to reduce stopping distances. il Ry Age 123:775 N 8 '47; Same. Ry Mech Eng 121:719-20 D '47

Comparison of braking required for different indexing mechanisms. M. Knott and G. Levesque. diags Mach 54:181-2 F '48

External friction blocks and shoes. A. C. Rasmussen. diags Product Eng 18:134-6 D '47

Geared hand brakes; A.A.R. committee report. Ry Age 125:64-5 Jl 10 '48; Same. Ry Mech Eng 122:423 Ag '48

Internal-shoe clutches and brakes. O. Von Mehren. diags A S M E Trans 69:913-21; Discussion, 921-4 N '47

See also

Air brakes

BRAKES, Airplane

Aircraft wheel brakes. D. A. L. Robson. il diags Inst Mech Eng J & Proc 156:Proc 286-93; Discussion. 293-304 D '47

Smaller tires and lighter, more efficient brakes for B-29 bomber. il Automotive Ind 99:41-1 N 1 '48

BRAKES, Automobile

Crosley's method of bonding brake linings. il Automotive Ind 99:38-9 Jl 15 '48

Glenn L. Martin co. develops new automobile brake. Barron's 28:30 Je 21 '48

New automobile brake adapted from airplane design. diag Product Eng 19:167 O '48

Passenger car brake performance. T. P. Chase. S A E J 56:51-2 O '48

Proportional braking. P. Borraacci. diags Automobile Eng 38:398-400 O '48

Manufacture

Bonding brake lining to shoes. W. R. Rodgers and J. V. Hendrick. il S A E J 56:36-40 Je '48

How Buick makes Dynaflo brakes tough; illustrations with text. C. S. Ricker. Am Mach 92:118-19 O 7 '48

Planned assembly; methods employed on master cylinders for Lockheed hydraulic brakes. il Automobile Eng 38:134-6 Ap '48

BRAKES, Eddy current

Thyatron braking for oil drilling rigs. R. L. Jaeschke. il diag Electronics 21:92-4 Ap '48

BRAKES, Electric

Mill motor brake standardization; discussion at 1947 AISE annual convention. A. H. Myles and others. Iron & Steel Eng 25:71-7 F '48

Trolleybus braking. diag Engineer 186:358-9 O 8 '48

See also

Braking, Regenerative

BRAKES, Electropneumatic

Testing

Checker for high-speed brakes. C. M. Hines. il diags Ry Mech Eng 122:150-2+ Mr '48

BRAKES, Hydraulic

Bendix's new hydraulic system for commercial vehicles; equipment for operation of brakes, steering, windshield wiper, doors and throttle undergoing road tests on bus. G. W. Pontius. il diags Automotive Ind 97:30-3+ N 1 '47; Abstract. S A E J 55:51-3 N '47

Hydraulic brake fluids. Consumers Res Bul 22:26 O '48

Hydraulic servo hand brake. il diag Engineer 184:585 D 19 '47

Planned assembly; methods employed on master cylinders for Lockheed hydraulic brakes. il Automobile Eng 38:134-6 Ap '48

Planned assembly of hydraulic brake components. il Engineer 185:141-3 F 6 '48

Remote control hydraulic system for crane bridge brake operation. il diags Product Eng 19:95 Ap '48

BRAKES, Motor bus

Prevent slack adjuster freezing. H. Menegus. diags Bus Transportation 27:69 Ja '48

Some answers to brake drum problems. V. D. Sears. diags Bus Transportation 27:61 Je '48

BRAKES, Trolley bus

Trolleybus braking. diag Engineer 186:358-9 O 8 '48

BRAKES, Vacuum

Vacuum brake exhauster. diag Engineer 185:449 My 7 '48

BRAKING, Dynamic

Electric control gear for steel-mill auxiliaries. R. A. West. diags Iron & Steel Inst J 158:373-5 Mr '48

BRAKING, Regenerative

Theory and practice of regenerative braking of d.c. locomotives, with particular reference to multiple-unit operation. O. H. Hahn. diags Inst E E J 95 pt 2:85-92 F '48

BRANCH factories, Foreign

Britain builds in Canada. il Bsns W p84-5 Ag 28 '48

BRANCH factories, Foreign—Continued

Britain welcomes American subsidiaries, with some reservations. R. A. Foulke. *il Dun's* R 56:11-13+ F '48

Engineers' part in foreign trade. F. Gannett. *il Eng N* 140:950-1 Je 10 '48

Establishing U.S. firms in Britain; comments on the bilateral pact. P. Einzlg. *Comm & Fin Chr* 168:902 S 2 '48

Puerto Rico woos industry; hopes to get U.S. manufacturers to set up branches. *il Bsns W* p 105-6 F '48

U.S. industries in Britain; British attitude towards proposals for establishment of American financed factories. P. Einzlg. *Comm & Fin Chr* 167:394 Ja 22 '48

BRANCH management

American Type Founders finds way to enhance values of field trips; specific records of visits. *Sales Management* 61:98-9 S 15 '48

ATF's kit stimulates branch office meetings. *Sales Management* 61:86-7 O 1 '48

BRANCH offices

See also Insurance companies—Branch offices

BRANCH stores. See Department stores—Branch stores

BRAND names foundation

Cities plan brand name demonstrations. Ed & Pub 81:46 Ap 3 '48

Town plugs national brands; Greenfield, Mass. merchants, Chamber of commerce join with Brand names foundation in 17-day campaign. *il Bsns W* p42+ N 1 '47

What's in a name? L. Stevens. *il Textile Col* 70:43+ J1 '48

BRANDS, Advertised. See Advertising, National**BRANDT, Hennig**

Phosphorus; bearer of light and life. W. Mann. *Sci Am* 178:100-4 Mr '48

BRANIFF airways

Braniff heads south; DC-6 service to Lima, Peru, via Havana to start in June. *Aviation W* 48:60 Ap 19 '48

BRANNAN, Charles Franklin, 1903-

Portrait. *Bsns W* p90 My 29 '48

BRASS

Activity coefficients in alpha-brass from statistical thermodynamics. L. Guttman. *bibliog Metals Tech* 15:TP2331 1-5 F '48

Anodes for electroplating; brass anodes. E. R. Thews. *Metal Finishing* 46:74-5 Mr '48

Corrosion resistant materials in brass and copper pickling. *Iron Age* 162:100-1 O 7 '48

Deformation lines in cold-rolled copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and others. *bibliog il Metals Tech* 15:TP2336 1-10 F '48

Diffusion during homogenization of a single crystal of alpha brass. R. Maddin. *il Metals Tech* 15:1-2 S '48

Effect of grain size on tensile strength, elongation, and endurance limit of deep drawing brass. H. L. Walker and W. J. Craig. *bibliog il diags Metals Tech* 15:TP2478 1-10 S '48

Grain growth in alpha-brass. J. E. Burke. *J Ap Phys* 18:1028; *Comments. P. A. Beck.* 1028-9 N '47

Grain growth in 70-30 brass. P. A. Beck and others. *bibliog Metals Tech* 15:TP2326 1-7 F '48; *Discussion.* 15:TP2449 60-9 Ag '48

Method for the evaporation of alloys. L. Harris and B. M. Siegel. *il diag J Ap Phys* 19:739-41 Ag '48

Milestones in the brass industry since 1917. D. R. Hull. *Metal Prog* 53:831-2 Je '48

Nature of strain markings in alpha brass. J. E. Burke and C. S. Barrett. *bibliog il diag Metals Tech* 15:TP2327 1-12 F '48; *Discussion.* 15:TP2449 2-11 Ag '48

Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing. *bibliog diags Rs Mod Phys* 20:112-22 Ja '48

Standard commercial wrought coppers and copper-base alloys; tabulation. *Am Mach* 92:106-7 My 6 '48

Surface effects during the annealing of 70:30 brass; abstracts. I. Jenkins. *Metal Prog* 53:120+ Ja '48; *Materials & Methods* 27:108 Ja '48

Unpredicted cross-slip in single crystals of alpha brass. R. Maddin and others. *bibliog il diag Metals Tech* 15:TP2331 1-14 F '48; *Discussion.* 15:TP2449 15-21 Ag '48

Viscous slip along grain boundaries and diffusion of zinc in alpha-brass. T. K&E. *bibliog J Ap Phys* 19:285-90 Mr '48

Corrosion

Dezincification and erosion-corrosion. M. G. Fontana. *il Metal Prog* 53:686-7 My '48

Specifications

Chemical specifications for standard copper-base alloys; data sheet. *Foundry* 76:134 D '47

Testing

Testing of brass and other constructional materials for ferromagnetic impurities. J. R. Barker. *il diags J Sci Instr* 25:363-4 O '48

BRASS, Powdered

Sintering of brass compacts; abstract. H. C. Miller. *Iron Age* 161:80-1 My 6 '48

BRASS fittings

Flame-sealed visibility; Edelman's brass fittings packaged in polyethylene bags; displayed by jobber in polystyrene stock drawer. *il Mod Packaging* 21:112-14 Mr '48

BRASS founding

Brass and bronze papers stress foundry practice; A.F.A. annual meeting. *Foundry* 76:154+ Je '48

Casting developments in review; brass and bronze. W. W. Edens. *il Foundry* 76:78-81+ Ja '48

Centrifugal casting of copper-alloy wheels in sand moulds. O. R. J. Lee and L. Northcott. *il Engineering* 163:556-9 Je 27 '47; *Abstract. Metal Prog* 53:272+ F '48; *Discussion. Engineering* 164:353 O 10 '47

Permanent mold casting of copper base alloys; review of British practice. J. L. Erickson. *il Iron Age* 162:84-9 J1 22 '48

BRASS foundries

Control of a lead hazard in the brass foundry industry. L. E. Hamlin and H. J. Weber. *bibliog J Ind Hygiene* 29:367-77 N '47

BRASS work

Arc welding red brass. L. P. Benuea. *il Iron Age* 161:77-9 Je 17 '48

Barrel polishing of small brass parts; brass paper fasteners. T. S. Blair. *il Iron Age* 160:77 D 4 '47

Wire, machines and processes mean better cold headed brass. W. D. France. *il Am Mach* 92:96-7 F 12 '48

BRASS works**Equipment**

Brass smelting speeded by new materials handling methods; North Chicago refiners & smelters, inc. *il Steel* 122:100 Mr 1 '48

Fixtures aid work handling; methods devised at Keystone brass works. W. Rudolph. *il Am Mach* 92:96-7 My 20 '48

Time and fuel-saving exhaust system; buffing room at Bridgeport brass co. *il Sheet Metal Worker* 38:53-8 N '47

BRAZIL**See also**

Aeronautics—Brazil
Amazon valley
Architecture—Brazil
Architecture, Domestic—Brazil
Geology—Brazil
Hospitals—Brazil
Hotels—Brazil

Iron ores—Brazil
Paper industry and trade—Brazil
Petroleum—Brazil
Petroleum industry and trade—Brazil
Railroads—Brazil
School laws and legislation—Brazil

Commerce

Brazilian coastwise-trade figures show how domestic business mounts. *For Comm W* 31:36 Ap 10 '48

How Brazilian trade bureau strengthens commercial ties with U.S. *For Comm W* 30:36 Ja 10 '48

There's a lot of business in Brazil. E. T. Hunter. *Ind Marketing* 32:42+ N '47

Commercial policy

Brazil tightens trade regulations. *Oil Paint & Drug Rep* 153:4 Mr 8 '48

Exchange regulations revised. *For Comm W* 32:15-16 J1 3 '48

BRAZIL—Commercial policy—*Continued*

- Payments agreement with Argentina continued in effect. For Comm W 32:14-15 Ag 21 '48
- Regulations affecting foreign exchange covering nonpriority goods; tax on remittances abroad reestablished. For Comm W 29:10 D 20 '47
- Regulations under import and export control law issued. For Comm W 31:10 Ap 24 '48; Correction. 31:17-18 My 29 '48
- Trade and payments agreement with the United Kingdom signed. For Comm W 32:13-14 Jl 10 '48

Economic conditions

- Argentina and Brazil; key to South America. V. L. Horoth. *il* Mag of Wall St 81:463-71+ Ja 31 '48

Economic history

- Century of prices in Brazil. H. W. Spiegel. *R Econ & Stat* 30:57-62 F '48

Economic policy

- Five-year plan proposed for Brazil. For Comm W 31:13 Ap 10 '48
- Message of the President of Brazil to the national Congress. *Int Labour R* 56:60-3 Jl '47

Foreign relations**United States**

- South Atlantic; a diplomatic campaign. F. Pratt. *il* U S Naval Inst Proc 74:690-9 Je '48

Industries and resources

- Brazil's five year plan. *map Economist* 155:302-3, 339-40 Ag 21-28 '48
- Cracking the Amazon basin; International hylean Amazon institute. *map Bsns W* p32+ Mr 6 '48

BRAZIL nuts

- Brazil-nut production and exports, Brazil. For Comm W 32:24-5 Jl 10 '48

BRAZING

- Aluminum furnace brazing; aircraft pitot tube and a carburetor air scoop. P. A. Koerner. *il* Machine Design 20:128 S '48
- Brazing aluminum. G. W. Birdsall. *Welding J* 27:855-6 O '48
- Brazing aluminum alloys. H. R. Clauser. *il* Materials & Methods 27:78-82 My '48
- Brazing and other applications of high-frequency heating. H. Bunte. *Welding J* 27:441-4 Je '48
- Brazing stainless steel parts in hydrogen atmosphere. Blast F & Steel Pl 36:sup62 Ap '48; Steel 122:96 Ap 19 '48
- Choosing the correct metals-joining method; chart to aid manufacturing engineers and designers in making correct selection. J. W. Kehoe. *diags Mach* 55:185-8 S '48
- Dissimilar metals joined by step brazing methods. I. S. Goodman. *il* Materials & Methods 28:64-7 Ag '48
- Economical joining of magnesium possible through new brazing method. P. Klein. *biblog il* Materials & Methods 27:83-7 Je '48
- Electric furnace brazing for mass production; Sunbeam corp. H. Eickelberg. *il* Iron Age 160:56-9 D 18 '47
- Furnace-brazed assemblies replace one-piece units; American Bosch corp. H. M. Weber. *il* diags Am Mach 92:92-6 S 9 '48
- Furnace brazing pulleys and sheaves cuts production costs. T. E. Nelson. *il* diags Iron Age 162:92-4 S 2 '48
- Furnace brazing simplifies product design. H. M. Weber. *il* diags Steel 123:79-84+ O 4 '48
- Furnace's copper braze refrigerator evaporators. *il* Elec World 123:93 D 6 '47
- Heat processing easily oxidized metals; hydrogen atmosphere for brazing, bright annealing and sintering. F. C. Kelley. *il* diags Iron Age 161:84-9 My 20 '48
- High speed induction brazing with interchangeable fixtures; Victor adding machine co. A. E. Heidenreich and J. W. Stead, jr. *il* Iron Age 162:95-7 O 7 '48
- How brazing methods affect design of details. S. DeDomenico and A. Squire. *il* diags Product Eng 19:86-91 Ap '48
- Hydrogen brazing seals evaporator plates. *il* Refrig Eng 54:443+ N '47

- Methods of joining pipe; welded and brazed pipe joints. J. E. York. *diags Heat & Ven* 44:99-101 N '47
- New outlook in brazing. *il* Fortune 38:127-30+ O '48
- New technique in brazing of stainless-steel parts. Gen Elec R 51:47 Jl '48
- Properties of copper brazed joints. G. B. Wilkes, jr. *il* diags Iron Age 162:44-51 S 30 '48
- Study of furnace brazing as applied to 12 per cent chromium low carbon steel. T. H. Gray. *il* diags Am Soc for Metals Trans 39:453-78; Discussion. 478-87 '47
- Wooden dowels solve fixturing problem in brazing steel laminations; repair of water wheel generator. S. DeDomenico and A. Squire. *il* diags Materials & Methods 28:74 Jl '48

BRAZING, Silver. See Silver solder**BREAD**

- Addition of skim milk powder to Australian bread; abstract. R. C. Hutchinson and others. *Food Ind* 20:1087 Jl '48
- Bread improver; patent. *Food Ind* 20:297 F '48
- Chilling units reduce sealing time; Twin-Pack bread wrapping machine. *il* diags Product Eng 19:100-1 Ja '48
- Homogenized bread; abstract. W. B. Bradley and C. B. Faulstich. *Food Ind* 19:1727-8 D '47
- Improved bread made from frozen dough. C. M. McPherson and M. W. Lamb. *il* Food Ind 20:1289-91+ S '48
- Large-scale bread making. *il* Elec R (Lond) 143:307-11 Ag 27 '48
- Lost bread, result of consignment selling. *Fortune* 37:132 Mr '48
- Physical chemistry of food with special reference to bakery products; abstract and discussion. W. Cundliffe. *Chem & Ind* p235-6 Ap 10 '48
- Some present trends and future developments in food technology. D. W. Kent-Jones. *Chem & Ind* p735-6 N 29 '47
- Working bread dough; patent. *Food Ind* 20:464+ Mr '48

Advertising

- Boost for bread; millers map publicity campaign. *Bsns W* p46+ F 28 '48

Staling

- Studies on bread staling; the role of starch; abstract. T. J. Schoch and D. French. *Food Ind* 19:1587+ N '47
- Studies on bread staling; war relationships during staling of bread crumb and the retrogradation of starch; abstract. H. L. Bachrach and D. R. Briggs. *Food Ind* 20:796+ My '48

Transportation

- New bread-shipping basket. *il* Food Ind 20:1469 O '48

BREADFRUIT

- Effect of hormone on root formation in artocarpus communis. T. J. Muzik. *Science* 107:225 F 27 '48

BREAK-even point. See Cost accounting**BREAKAGE. See Crushing****BREAKFAST food. See Cereals, Prepared****BREAKWATERS**

- Grouted fill protects breakwater at Forestville. Quebec. R. F. Legget and P. A. Harakas. *il* map diags Eng N 141:72-4 S 30 '48
- Model tests help navy choose breakwater design; harbor at Hunter's Point, Calif. Eng N 140:715 My 13 '48

BREATHING. See Respiration**BREITEL, Charles D. 1908-**

- Portrait. *Fortune* 33:81 O '48

BREITHAUPTITE

- Partial study of the NiAs-NiSb system. D. F. Hewitt. *biblog il* Econ Geol 43:408-17 Ag '48

BREWERIES**Electric equipment**

- Electricity in brewing; Arthur Guinness, son & co. *il* Elec R (Lond) 142:871-5; 143:8-10 Je 4, Jl 2 '48

BREWERIES—Continued

Equipment

Air-cooled wall beats solid wall at Atlas brewing company. N. O. Kennicker. *il diag Power Generation* 52:72-3 *Jl* '48

Filters vs. centrifugal separators in the brewery; differences in brewing and distribution practices in Europe and the United States. S. Laufer. *diags Food Ind* 20:208-11+, 378-81 (bibliog(p381)) F-Mr '48

Last word in bottling plants; Blatz brewing co. F. K. Lawler. *il Food Ind* 20:1270-3 *S* '48

Power

Brewery supply scheme; Park Royal brewery of Arthur Guinness, son & co. *il Elec R (Lond)* 143:8-10 *Jl* 2 '48

BREWERS association of America, Master. See Master brewers association of America

BREWING

Brewing chemists study analytical methods. Chem & Eng N 26:1439 *My* 17 '48

Two problems in brewing science. I. A. Preece. *bibliog Chem & Ind* p611-14; Discussion. 614-15 *S* 25 '48

See also

Beer

Wort

BREWING chemists, American society of. See American society of brewing chemists

BREWING industries

Brew masters visit Cleveland. *il Food Ind* 19:1654-5+ *D* '47

Pabst goes West. *Bsns W* p84-5 *My* 29 '48

Advertising

Small brewers increase ad budgets. N. Kelne. *Ptr Ink* 224:100 *S* 10 '48

Bolivia

Brewery industry dependent upon imports. *For Comm W* 29:15 *D* 13 '47

Netherlands

Conditions in Netherlands brewing industry. *For Comm W* 32:28 *Ag* 7 '48

BRIANCHON'S theorem

Application of Brianchon's theorem to construction of geologic profiles. J. B. Mertie, jr. *bibliog diags Geol Soc Bul* 59:767-85 *Ag* '48

BRICK chimneys. See Chimneys, Brick

BRICK construction

Brick and tile selected for showrooms; illustrations. Brick & Clay Rec 112:27 *Je* '48

Brick-sheathed marquee uses ingenious method for attaching brick to concrete. *il diag Arch Forum* 87:105 *D* '47

Brickbuilt factories; illustrations. Brick & Clay Rec 112:30-1 *Ap* '48

Community theaters are best showplaces for brick; illustrations. Brick & Clay Rec 112:30-1 *Ja* '48

Cost-saving design simplified apartment house construction. W. T. Holsman. *il diags Eng N* 139:675-9 *N* 13 '47

Decorative brick walls, walks, terraces increase property value; illustrations. Brick & Clay Rec 113:26-7 *Jl* '48

Detail glimpses of construction; brick and cypress plywood house at Bloomfield Hills, Mich.; design by F. L. Wright. *il plans Arch Forum* 88:146-7 *Ja* '48

Fresh Meadows built with six million face and ten million common brick. *il diags Brick & Clay Rec* 112:37-8 *Ap* '48

How to obtain desired texture when building brick masonry structures. *il Brick & Clay Rec* 113:36-7 *S* '48

Modern brick built church is designed with classic appeal. *il plans diags Brick & Clay Rec* 113:38 *S* '48

New brick built rental apartments in Oklahoma City contain 200 units. *il plan diags Brick & Clay Rec* 113:31-2 *Jl* '48

NYCHA builds 11-story cavity wall, saves \$37,000 on apartment building. *il diag Brick & Clay Rec* 112:39-40 *Ap* '48

Red brick gives bakery that streamlined look; motor court owners are building with brick; views. Brick & Clay Rec 111:26-7 *D* '47

Shore Haven development in Bensonhurst is brickbuilt; brick used in Glen Oaks suburban rental apts. *il Brick & Clay Rec* 112:34 *Je* '48

Smart business men obtain that trim, modern look with brick built structures; illustrations. Brick & Clay Rec 113:28-9 *S* '48

Some facts about bricklaying and mason productivity on New York apartment jobs. J. A. Mulligan. Brick & Clay Rec 112:41 *Ap* '48

Ultra-modern hotel faced with Norman brick laid in block bond. *il Brick & Clay Rec* 113:32 *S* '48

Use one million face and common brick in Chicago's first big modular job; Chicago and north western Diesel shops. *il Brick & Clay Rec* 113:30 *Jl* '48

What about modern brickbuilding? It will survive and advance, if—, P. Schweikher and W. Eiting. *il diags Brick & Clay Rec* 112:30-2 *Mr* '48

Window treatments with brick; views. Brick & Clay Rec 111:23 *D* '47

See also

Brick houses

Brick work

Towers, Brick

Walls, Brick

Estimates

Don't toss away your building dollars on careless masonry estimating. J. A. Mulligan. *il Brick & Clay Rec* 112:39-40 *Ja* '48

Fire resistance

Brick and tile fight fire. *diags Brick & Clay Rec* 113:36-40 *O* '48

Reinforcement

RBM partitions in apts. saves 4 in. of floor space along interior walls. *il plan diag Brick & Clay Rec* 111:28 *D* '47

BRICK handling

Cavity wall kiln designed for lift truck operation and built for \$8,500. J. Sparks and B. Foster. *il Brick & Clay Rec* 112:48-9 *Je* '48

BRICK houses

Brick engineered home plans are figured out on the modular system. *il plans Brick & Clay Rec* 113:38 *Ag* '48

Brick residence strikes keynote in contemporary design. S. R. Joseph. *il plan diag Brick & Clay Rec* 112:31-2 *My* '48

Chance of a lifetime! ceramic homes, Austin, Texas. *il plans diags Brick & Clay Rec* 112:32-5 *Ag* '48

Erecting 100 all-masonry homes without duplicating floor plans. *il plan Brick & Clay Rec* 113:34 *O* '48

Neighborhood planned from the ground up; Meadowood of Birmingham, a suburb of Detroit. *il plans Am Bid* 70:90-3 *S* '48

Two brick and tile homes for those who want the best; drawings and plans. Brick & Clay Rec 113:30 *S* '48

Two houses in Memphis, Tenn. *il plans Am Bid* 70:92 *O* '48

BRICK industry and trade

Brick and concrete block mfrs. sell whole masonry wall. *il Brick & Clay Rec* 112:51+ *F* '48

FITC orders brick makers to end monopoly practices. *Eng N* 140:983+ *Je* 17 '48

Advertising

How Iowa-Minn. producers are spending \$13,000 to promote clay products. *il Brick & Clay Rec* 111:42-3 *N* '47

Great Britain

Bricks after price control. *Economist* 154:815 *My* 15 '48

See also

London brick company

BRICK towers. See Towers, Brick

BRICK veneer

Brick makes smart shop facades; illustrations. Brick & Clay Rec 113:27 *Ag* '48

BRICK work

Barker bros. store is brick-styled; illustrations. Brick & Clay Rec 112:29 *Ja* '48

It's smart to build and easy to relax by a brick fireplace; views. Brick & Clay Rec 111:24-5 *D* '47

BRICK works

Clay products by precision methods; Ohio plants of Claycraft co. *il Am Cer Soc Bul* 27:369-71 *O* 15 '48

BRICK works—Continued

New plant of L. E. Shaw, Ltd. producing at full capacity. *il* Brick & Clay Rec 113:44 J1 '48

Accidents

How to make safety first; safety at last in brick and tile plants. F. S. Trowbridge. Brick & Clay Rec 113:53-4 S '48

Equipment

Delaware brick co. makes 40 thousand daily, operating two up-draft kilns. *il* Brick & Clay Rec 113:53 Ag '48

Diversity of product marks operations of Summitville face brick plant. *il* plan diag Brick & Clay Rec 111:52-3+ D '47

How they make soft mud brick at the Oberly brick co., Wilmington, Del. *il* Brick & Clay Rec 111:48-9 D '47

Hydraulic press brick co. uses five tractor-tow-scoops and tractor shovel. *il* Brick & Clay Rec 112:62 Je '48

Isenhour plant setup permits $\frac{1}{4}$ man per 1,000 brick daily production. *il* Brick & Clay Rec 112:49-51 Ja '48

Modern brick factory, Phoenix (Ariz.) plant. *il* Brick & Clay Rec 111:56-8 N '47

Overcoming problems and shortages met in brick plant reconditioning; Darlington (Pa.) products co. J. S. Pardoe. Brick & Clay Rec 113:62+ Ag '48

Regular hard-facing of ten machinery parts cuts upkeep cost ten per cent at Belden. *il* Brick & Clay Rec 112:56+ Je '48

Some practical hints on operation and care of brick plant conveyor belts. M. C. Dow. *il* Brick & Clay Rec 113:48 S '48

Tractor and two-wheeled pan operated by one man wins 400 cu. yds. of clay a day; West bros. brick co., Washington, D.C. *il* Brick & Clay Rec 113:49-50+ J1 '48

See also

Brickmaking machinery

Heating and ventilation

Control of atmospheric dust in the fire-brick industry. W. W. Stalker and others. flow sheet *il* Heat & Vent 45:73-7 Ap '48

BRICKLAYERS

Apprentices seen only hope for sick brick-laying craft. R. H. Dodds. Eng N 141:5+ O 7 '48

Chicago leads field with first local brick-layer apprentice competition. Brick & Clay Rec 112:36 My '48

New Ohio program takes mason training into smaller towns. Brick & Clay Rec 111:47 N '47

Overcoming problems met in getting and training mason apprentices. T. W. Cole. Brick & Clay Rec 112:36-7 F '48

BRICKLAYING

Architect says dry joint masonry can replace trowel and mortar bricklaying. diag Brick & Clay Rec 112:35 Je '48

Some facts about bricklaying and mason productivity on New York apartment jobs. J. A. Mulligan. Brick & Clay Rec 112:41 Ap '48

You can lay brick in cold weather by winter-proofing your masons. *il* Brick & Clay Rec 111:39-40 N '47

Study and teaching

Baltimore brick masonry apprentice school moves to larger quarters. *il* Brick & Clay Rec 112:36 Je '48

BRICKMAKING

Effect of the sulfate ion on the plasticity of brick clays. A. L. Johnson and G. B. Hughes. bibliog Am Cer Soc J 31:194-200 J1 '48

Four brick production pointers. *il* diags Brick & Clay Rec 113:56+ S '48

Improving the quality of extruded mill brick. H. G. Schurecht. diags Am Cer Soc J 31:122-7 My 1 '48

Investigation of the effect of low-fired grogs on properties of soft-mud brick. R. R. Bowman and R. E. Burdick. Am Cer Soc J 31:71-6 Mr 1 '48

Method followed in solving a problem of scumming in a dryer-tunnel kiln. G. Palmer, Jr. Brick & Clay Rec 112:64 Je '48

Stoker-firing round down-draft kilns reduces burning time, saves 14 per cent fuel. *il* Brick & Clay Rec 111:56-7 D '47

Uniformity of size in brick and tile starts with efficient clay winning. L. R. Whitaker. *il* Brick & Clay Rec 112:64+ Ap '48

Use of excess air in tunnel kiln operation increases brick output. G. Palmer, Jr. Brick & Clay Rec 113:48-9 S '48

See also

Brick works

BRICKMAKING machinery

Measurement and control of pressure in a Boyd brick press. J. A. Tauber. *il* diags Am Cer Soc Bul 27:97-100 Mr 15 '48

See also

Auger machines

BRICKS

Physical properties of Canadian building brick; abstract. J. G. Phillips. Am Cer Soc J 31(Cer A):12-13 Ja 1 '48

See also

Adobe

Brick construction

Fire brick

Drying

Infra-red drying ups production 25 per cent; cuts bating and check loss to zero. R. S. Allday. *il* Brick & Clay Rec 113:48 J1 '48

Investigation of the effect of low-fired grogs on properties of soft-mud brick. R. R. Bowman and R. E. Burdick. Am Cer Soc J 31:71-6 Mr 1 '48

Jenkins brick co. dries hollow tile by radiation with less than one per cent loss. *il* diag Brick & Clay Rec 113:53-4+ O '48

Low cost system at Allday plant shows how drying can be improved. E. L. Kreidl. Brick & Clay Rec 113:62 S '48

Standards

Engineer makes its bow in the southeast as a new modular unit. diags Brick & Clay Rec 112:38 F '48

Testing

Influence of various deairing and compressed-air treatments on wearing qualities of mill balls and mill-brick linings. H. G. Schurecht. diags Am Cer Soc J 31:76-80 Mr 1 '48

Permeability of brick-mortar assemblages. J. W. McBurney and others. bibliog diags Am Cer Soc T M Proc 46:1333-48; Discussion. 1349-54 '46

BRICKWORK. See Brick work

BRIDE shops. See Department stores—Bride shops

BRIDES

How to capitalize on bridal business. A. Potts. J Retailing 24:69-73 Ap '48

BRIDGE approaches

Michigan studies backfill consolidation. R. L. Greenman. *il* Eng N 141:88-90 S 16 '48

BRIDGE bearings

Bascule bearings jacked to position. T. P. Lewis. *il* diag Eng N 140:1016-17 Je 24 '48

Roller bearings support world's largest bascule bridge. *il* Civil Eng 18:151 Mr '48

Williamsburg bridge gets two pair new shoes; installation of new bearings. N. Deutschman. *il* Constr Methods 30:86-8 F '48

BRIDGE design

Aerodynamic stability of suspension bridges. F. B. Farquharson. *il* diags Western Soc E J 52:141-52 S '47

Analysis of rectangular reinforced concrete sections subjected to direct stress and bending in two directions. D. M. Goodall. Pub Roads 25:80-3 Je '48

Analysis of two-column symmetrical bents and Vierendeel trusses having parallel and equal chords. J. E. Goldberg. Am Concrete Inst J 19:225-34 N '47

Box girder on single columns supports curved bridge deck in Niles canyon, Calif. E. R. Foley and G. D. Gilbert. *il* diags Eng N 140:842-4 Je 10 '48

Bridges over railways. L. Loch. *il* plans diags Roads & Bridges 85:66-75+ N '47

Composite construction for I-beam bridges. C. P. Siess. diags Am Soc C E Proc 74:331-53 Mr '48

BRIDGE design—Continued

- Design of I-beam bridges. N. M. Newmark. *il* diags Am Soc C E Proc 74:305-30 Mr '48
- Four cantilever arms fit bridge to curve of 110 degrees. *il* Eng N 139:890 D 25 '47
- Frequency factor is applied to highway bridge live-load stress computations. C. D. Bowser. *Civil Eng* 18:587-+ S '48
- High girders bridge the Feather river. R. W. Hutchinson. *il* Eng N 139:814-17 D 11 '47
- Highway-bridge engineering cannot be standardized. E. W. Wendell. *Roads & Bridges* 86:146-+ S '48
- Influence lines for continuous structures by geometrical computation. D. F. Peterson, jr. diags Am Soc C E Proc 73:1009-25 S '47; Discussion. 73:1565-6; 74:735-45, 887-8 D '47, My-Je '48
- Lift bridge provides 175-ft. clearance; Schuyler F. Heim bridge in southern California. *il* map Eng N 140:578-80 Ap 15 '48
- Live loads for highway bridges based on the chance grouping of heaving trucks in traffic; abstract. H. K. Stephenson. *Civil Eng* 18:71-2 F '48
- Moving loads on continuous beams. J. J. O'Donovan. diags Engineering 164:484-6, 509-10 N 21-23 '47
- New type bridge proposed by Germans. *il* diags Eng N 141:86-7 S 2 '48
- Reflections on standard specifications for structural design. A. M. Freudenthal. Am Soc C E Proc 73:103-21 F '47; Discussion. 74:374-6 Mr '48
- Simplified method of analyzing suspension bridges. L. Tsien. diags Am Soc C E Proc 74:1093-128 S '48
- Studies of highway skew slab-bridges with curbs; results of analyses. V. P. Jensen and J. W. Allen. plans diags *Ill U Eng Exp Sta Bul* 369:1-62 '47 (75c)
- Studies of slab and beam highway bridges; tests of simple-span skew I-beam bridges. N. M. Newmark and others. *il* diags *Ill U Eng Exp Sta Bul* 375:1-80 '47 (pa 50c); Abstract. *Roads & Bridges* 86:79-80+ My '48
- Tacoma Narrows bridge, reconstruction to follow design resulting from extensive wind tunnel research. diags *Roads & Sts* 90:72-3+ D '47
- Truss-and-beam bridge spans Yazoo river; with cost data. *il* diags Eng N 141:84-7 Ag 19 '48
- Unusual design problems; second Tacoma Narrows bridge. C. E. Andrew. *il* diags Am Soc C E Proc 73:1483-97 bibliog(p 1495-7) D '47; Discussion. 74:985-92 Je '48
- Unusual skewed bridges under way at El Paso. *il* plan *Roads & Sts* 91:88-9 F '48
- Wind tunnel tests yield aerodynamically stable bridge sections. D. B. Steinman. *il* diags *Civil Eng* 17:40-3+ D '47
- See also*
- Bridges, Suspension

Bibliography

- Bibliography on aerodynamics applied to suspension bridge design. C. E. Andrew. Am Soc C E Proc 73:1495-7 D '47

BRIDGE engineering

- Highway-bridge engineering cannot be standardized. E. W. Wendell. *Roads & Bridges* 86:146-+ S '48
- Toll bridge authority directs construction of two new San Francisco Bay crossings. R. A. Tudor. *il* map *Civil Eng* 18:504-5+ Ag '48
- Two-way radio tried by Kansas City bridge co. *Roads & Sts* 91:70 Ag '48
- BRIDGE failures**
- Aerodynamic stability of suspension bridges. F. B. Farquharson. *il* diags *Western Soc E J* 52:141-52 S '47
- BRIDGE insurance.** *See Insurance, Bridge*
- BRIDGE traffic**
- Two-way radio expedites traffic on San Francisco-Oakland Bay bridge. F. E. Ebel. *il* Pub Works 78:21-3 D '47
- BRIDGEPORT, Connecticut**

Water supply

- Watershed practices of Bridgeport hydraulic company with particular reference to aerial watershed surveys. F. B. Silliman. N E Water Works Assn J 61:302-10; Discussion. 310-11 D '47

BRIDGEPORT brass company

- Answers to the foreman problem; what four able companies are doing. *il* Mod Ind 15:40-4 Je '48

BRIDGEPORT Sunday herald

- Sunday-only Herald clicks in Connecticut. C. Hodge. *il* Ed & Pub 81:24 Ap 17 '48

BRIDGES

- Causeway built to withstand hurricanes; causeway across Biscayne bay at Miami. *il* Eng N 140:568-71 Ap 15 '48
- Dual-lane bypass road at Norfolk incorporates triple-level bridge. *il* map Eng N 140:700-1 My 13 '48
- Rickenbacker causeway; \$6,000,000 project joins Miami with nearby keys. E. M. Rader. *il* maps *Civil Eng* 17:658-61 N '47
- Virginia completes first major postwar bridge. *il* Eng N 139:711 N 20 '47

*See also***Bridge design****Motor trucks and****bridges**

- also* subdivision Bridges under names of cities, e.g. New York (city)—Bridges; Niagara Falls, New York—Bridges

Architecture

- Dynamic symmetry in pier design. W. J. LaFleur. *il* diags Concrete 56:6-10 My '48
- Most beautiful steel bridges of last six years; plaques awarded by American institute of steel construction. *il* Eng N 141:14-15 O 7 '48

Bearings*See Bridge bearings***Cost**

- Bridges and approaches, N.J.; unit prices. Eng N 141:98-+ S 2 '48
- Contract unit bid prices. Eng N 140:893-+ My 27 '48
- Highway and railroad bridges, Newark, New Jersey; unit prices. Eng N 140:310 F 19 '48
- Mystic River bridge piers, Mass.; unit prices. Eng N 140:518-+ Ap 1 '48
- Racine Street bridge, Janesville, Wisconsin; unit prices. Eng N 140:310 F 19 '48
- Road bridge and approaches, Ga.; unit prices. Eng N 140:521 Ap 1 '48
- Viaduct substructure, Chicago, Ill.; unit prices. Eng N 140:378-+ Mr 4 '48

Damage from floods, etc.

- Semi-permanent bridges in flooded border country. *il* Engineering 166:235 S 3 '48

Erection

- Bascule bearings packed to position. T. P. Lewis. *il* diag Eng N 140:1016-17 Je 24 '48
- Bridge erection in the wilderness; Pine River bridge in British Columbia. M. McDonald. *il* Eng N 140:413 Mr 13 '48
- Erecting cantilever bridge at Eau Claire, Wis. *il* Roads & Sts 91:66-7 Ja '48
- Fast steel erection beats flood threat; bridge across the Vedder river, British Columbia. *il* Constr Methods 30:81 S '48
- Floating barges used in erecting new Peoria bridge. *il* Midwest Eng 1:21 S '48
- Georgia bridge girder pulled into place with a hand winch. *il* Eng N 139:746-7 N 27 '47
- Quick work with two cranes; erection of cantilever bridge. C. H. Voss and C. W. Kime. *il* Roads & Sts 91:101-2+ My '48
- Steel set with Sea Mule and pontoons; structural steel transported and placed for Harvard Street crossing at Peoria. H. M. Maxwell. *il* diags Roads & Sts 91:70-3 Ap '48
- 2247-ft. continuous truss bridge at Sandy Hook, Maryland. W. C. Hopkins. *il* diags Roads & Sts 91:108-11+ Mr '48

*See also***Bridges—Reconstruction****Floors**

- Aluminum panels replace bridge's wooden deck. *il* Constr Methods 30:109+ Ap '48
- Highway bridge floors; symposium. F. E. Richart and others. *il* diags Am Soc C E Proc 74:288-353 Mr '48; Discussion. 74:1263-6, 1419-24 S-O '48
- Old timber bridges decked with concrete. *il* Eng N 141:68-9 Jl 22 '48

BRIDGES—Floors—Continued

- Open-grid floors for bridges. R. J. Barry. *il* diag Pub Works 79:22-3 J1 '48
- Paving the roadway of the George Washington bridge. *il* Roads & Bridges 85:85-6 N '47
- Replacing a plank bridge deck with grating. *il* Pub Works 79:36 Ja '48
- Strengthening bridges with added beams and grid floor. *il* Roads & Sts 90:99 D '47
- Welded highway deck cuts dead load on Eads bridge. J. D'Esposito, jr. *il* diags Eng N 140:42-5 Ja 8 '48

Foundations and piers

- Air cushion for tight tremie seal; Halifax River bridge. *il* Constr Methods 30:78-80 S '48
- Bridge piers faced with clay liner plate. H. K. Fluck. *il* Eng N 140:508-9 Ap 1 '48
- Bridge piles driven by precision methods. *il* Eng N 141:80-2 Ag 5 '48
- Deep caisson piers support new Memphis highway bridge. *il* Civil Eng 18:13+ Ja '48
- Dynamic symmetry in pier design. W. J. Lafleur. *il* diags Concrete 56:6-10 My '48
- Earth filled cofferdam bored approach footings employed on Ohio highway bridge. *il* Roads & Sts 91:94-6 Je '48
- Girder spans floated to new supports; Louisville & Nashville renewing substructure of long bridge. *il* diags Ry Age 124:1076-9 My 29 '48
- Innovations in bridge pier concrete; bridge at Chesapeake City, Md. C. C. Frech. *il* diags Eng N 140:174-8 F 5 '48
- New deep piers save old bridge; piles encased with concrete; bridge of Canadian national railway. N. S. Bateman. *il* diags Eng N 140:113-17 Ja 22 '48
- Safety measures in pier erection. *il* Concrete 56:9 J1 '48
- Safety scaffolds built into bridge pier forms. *il* Constr Methods 30:75 S '48; Same. Roads & Sts 91:68 S '48
- Shims over settled bents restore Colorado bridge. *il* Roads & Sts 91:74 Je '48
- Something new in bridge-pier design; combination of steel piles and Prepak concrete; reconstruction of Canadian national railway bridge. C. P. Disney. *il* diags Ry Age 124:158-61 Ja 17 '48; Same cond. Roads & Bridges 86:66+ Ja '48
- Two-stage synchronized compressor system for deep piers. A. Maitland. Roads & Sts 91:91 Ag '48
- Well-points on bridge job progress from pier to pier. Eng N 141:85 Ag 5 '48

Insurance

See Insurance, Bridge

Load

- Moving loads on continuous beams. J. J. O'Donovan. diags Engineering 164:484-6, 509-10 N 21-28 '47

Maintenance and repair

- Repairing a bascule at Toledo. T. W. Reeves. *il* diags Roads & Sts 90:103-5 O '47
- Williamsburg bridge gets two pair new shoes; installation of new bearings. N. Deutschman. *il* Constr Methods 30:86-8 F '48

See also

Bridges—Reconstruction

Model testing

- Studies of slab and beam highway bridges; tests of simple-span skew I-beam bridges. N. M. Newmark and others. *il* diags Ill U Eng Exp Sta Bul 375:1-60 '48 (pa 50c); Abstract. Roads & Bridges 86:79-80+ My '48

Reconstruction

- New bridges for old by welding at 40 per cent as much; with cost data. H. R. Craig. *il* Pub Works 79:26-7 F '48
- Portal frames make Rhine bridge raising look easy. *il* diags Constr Methods 30:92-6 Ja '48
- Street bridges raised to clear bigger locomotives. R. A. MacGregor. *il* Roads & Sts 91: 115 Ja '48

- U.S. army engineers reconstruct German superhighway bridges. W. H. Gumpertz. *il* diags Civil Eng 18:440-5 J1 '48
- Welded highway deck cuts dead load on Eads bridge. J. D'Esposito, jr. *il* diags Eng N 140:42-5 Ja 8 '48

See also

Bridges, Railroad—Reconstruction

Stresses

- Analysis of rectangular reinforced concrete sections subjected to direct stress and bending in two directions. D. M. Goodall. Pub Roads 25:80-3 Je '48
- Frequency factor is applied to highway bridge live-load stress computations. C. D. Bowser. Civil Eng 18:587+ S '48

See also

Bridges, Railroad—Stresses

Testing

- Methods used for testing highway bridges in England. Pub Works 78:32 N '47
- Testing of highway bridges. N. Davey. *il* diag Engineering 165:93-5 Ja 23 '48

Tolls

- Influence of toll bridges on highway traffic is subject of report. Civil Eng 18:55 Ja '48

Vibration

- Aerodynamic stability of suspension bridges. F. B. Farquharson. *il* diags Western Soc E J 52:141-52 S '47
- Cable vibration on Alaska bridges. R. Archibald. *il* Eng N 141:79-80 S 2 '48
- Dynamic instability of truss-stiffened suspension bridges under wind action. F. Bleich. diags Am Soc C E Proc 74:1269-314 O '48

Welding operations

- New bridges for old by welding at 40 per cent as much; with cost data. H. R. Craig. *il* Pub Works 79:26-7 F '48
- Proposed specification for steel St.L. 37 for welded bridge construction. P. Schoonmaker and others. Welding J 27:117 F '48
- Road bridge to the Ruppertswil-Auenstein hydroelectric plant in Switzerland. A. Lumbotte. *il* diags Welding J 27:729-30 S '48
- Welded bridges constructed in the U.S.A., Canada and foreign countries during the last 12 years. L. Grover. bibliog *il* diags Welding J 27:812-26 O '48
- Welded highway deck cuts dead load on Eads bridge. J. D'Esposito, jr. *il* diags Eng N 140:42-5 Ja 8 '48

Wrecking

- Old viaduct wrecked from topside in Nashville, Tenn. *il* Constr Methods 30:94-5 S '48

Germany

- Portal frames make Rhine bridge raising look easy. *il* diags Constr Methods 30:92-6 Ja '48
- U.S. army engineers reconstruct German superhighway bridges. W. H. Gumpertz. *il* diags Civil Eng 18:440-5 J1 '48

Italy

- Concrete rigid frames rise on old stone viaduct piers; viaduct of Desenzano. *il* diags Eng N 140:326-7 F 26 '48

BRIDGES, Aluminum

- All-aluminum highway bridge to span Saguenay river in Canada. *il* Civil Eng 18:644 O '48
- Aluminum span for railway bridge. *il* Engineer 185:254 Mr 12 '48
- Arvida, Quebec, to have world's first aluminum highway bridge. J. S. Walsh. *il* Roads & Bridges 86:61+ J1 '48
- Begin first all-aluminum arch bridge. *il* Eng N 140:917 Je 3 '48

BRIDGES, Arched

- Arvida, Quebec, to have world's first aluminum highway bridge. J. S. Walsh. *il* Roads & Bridges 86:61+ J1 '48
- Begin first all-aluminum arch bridge. *il* Eng N 140:917 Je 3 '48
- Grouting repair of masonry arch. E. C. Harding. *il* Am Concrete Inst J 19:502-3 F '48

BRIDGES, Arched—Continued

Santa Fe again tames Canyon Diablo; single-track bridge replaced with double-track structure. C. H. Sandberg. *Il diags Ry Age* 123:1102-5 D 27 '47

BRIDGES, Bascule

Bascule bearings jacked to position. T. P. Lewis. *Il diag Eng N* 140:1016-17 Je 24 '48
Repairing a bascule at Toledo. T. W. Reeves. *Il diags Roads & Sls* 90:103-5 O '47

BRIDGES, Cantilever

Erecting cantilever bridge at Eau Claire, Wis. *Il Roads & Sls* 91:66-7 Ja '48
Four cantilever arms fit bridge to curve of 110 degrees. *Il Eng N* 139:890 D 25 '47
Quick work with two cranes; erection of cantilever bridge. C. H. Voss and C. W. Kime. *Il Roads & Sls* 91:101-2+ My '48

BRIDGES, Concrete

Analysis of rectangular reinforced concrete sections subjected to direct stress and bending in two directions. D. M. Goodall. *Pub Roads* 25:80-3 Je '48
Analysis of two-column symmetrical bents and Vierendeel trusses having parallel and equal chords. J. E. Goldberg. *Am Concrete Inst J* 19:225-34 N '47
Box girder on single columns supports curved bridge deck in Niles canyon, Calif. E. R. Foley and G. D. Gilbert. *Il diags Eng N* 140:942-4 Je 10 '48
Concrete rigid frames rise on old stone viaduct piers; viaduct of Desenzano. *Il diags Eng N* 140:326-7 F 26 '48
Dynamic symmetry in pier design. W. J. LaFleur. *Il diags Concrete* 56:6-10 My '48
Four-level super crossroads embodies novel structural features; expressway program for Los Angeles. *Il plans diags Roads & Sls* 91:58-64 S '48
Long distance pumping of concrete; Pump-crete system. *Il diag Concrete* 56:15-16+ My '48
Precast highway bridges cut construction costs. *Il Eng N* 141:116 Ag 19 '48
Pre-stressed cast-in-situ concrete bridge. *Il diags Engineering* 165:608-9, 612 Je 25 '48
Pre-stressed concrete highway bridge; Nunn's bridge in England. *Pub Works* 79:58 O '48
Reinforced concrete bridge for Wisconsin river; design by F. L. Wright. *Il Arch Forum* 88:110 Ja '48

Steel grating expansion joint in concrete bridge decks. *Il diags Eng N* 140:350 Mr 4 '48

Streamlined construction on Houston Inter-urban expressway. *Il diags Constr Methods* 30:74-9 JI '48

Truss-and-beam bridge spans Yazoo river; with cost data. *Il diags Eng N* 141:84-7 Ag 19 '48

Cost

Road and bridge bypass, Plymouth, Mass.; unit prices. *Eng N* 141:119+ Ag 19 '48

BRIDGES, Iron and steel

Bids on California bridge job showed shop fabrication cheaper. *Il Eng N* 141:85 S 2 '48

California's war surplus bridges; army-surplus portable steel bridges. H. D. Stover. *Il Roads & Sls* 91:92, 111 My '48

Flexural fatigue strength of steel beams; a report of an investigation. W. M. Wilson. *diags Ill U Eng Exp Sta Bul* 377:1-32 '48 (20c); Same. *Welding J* 27:sup409-17 Ag '48

High girders bridge the Feather river. R. W. Hutchinson. *Il Eng N* 139:814-17 D 11 '47

Most beautiful steel bridges of last six years; plaques awarded by American Institute of steel construction. *Il Eng N* 141:14-15 O 7 '48

One good bridge from two wrecked ones at Dusseldorf, Germany. R. E. Neumann. *Il plan Eng N* 141:98-9 S 16 '48

Road bridge to the Rapperswil-Auenstein hydroelectric plant in Switzerland. A. Lumbotte. *Il diags Welding J* 27:729-30 S '48

2247-ft. continuous truss bridge at Sandy Hook, Maryland. W. C. Hopkins. *Il diags Roads & Sls* 91:108-11+ Mr '48

BRIDGES, Lift

Lift bridge provides 175-ft. clearance; Schuyler F. Heim bridge in southern California. *Il map Eng N* 140:578-80 Ap 15 '48

See also

Bridges, Bascule

BRIDGES, Movable**See also**

Bridges, Bascule

Bridges, Lift

BRIDGES, Portable

California's war surplus bridges; army-surplus portable steel bridges. H. D. Stover. *Il Roads & Sls* 91:92, 111 My '48

BRIDGES, Prefabricated

Bailey bridge adapted to Louisiana wildcat drilling; used as floating-end loading ramp to accommodate trucks in land-water drilling operations. E. Short. *Il Oil & Gas J* 46:68+ Mr 4 '48

Bailey bridging used for aggregate conveyor system at Des Joachims. H. M. Blake. *flow sheet il map Roads & Bridges* 86:82-5 Ap '48

Semi-permanent bridges in flooded border country. *Il Engineering* 166:235 S 3 '48
Using war surplus bridges. H. D. Stover. *Il diag Pub Works* 79:19-20 Ja '48

BRIDGES, Railroad

Beautiful railway bridges; illustrations with text. *Ry Age* 125:850-1 N 6 '48

C. & O. tests effect on track circuits of bridge ties treated to resist fire. H. M. Church. *Il Ry Age* 125:580-2 S 25 '48
Place long railroad bridge in nine hours at Sheboygan. Wis. A. R. Harris. *Il Eng N* 141:11 Ag 12 '48

Railway bridge with 100-ft. aluminum span; Grasse River bridge, near Massena, N.Y. *Il Engineering* 164:529-31, 540 D 5 '47; *Engineer* 185:254 Mr 12 '48

Relocating 16 miles of double-track railroad to make way for Conemaugh dam. C. J. Burton. *Il map Explosives Eng* 26:11-13+ Ja '48

Santa Fe again tames Canyon Diablo; single-track bridge replaced with double-track structure. C. H. Sandberg. *Il diags Ry Age* 123:1102-5 D 27 '47

Reconstruction

Careful planning features bridge job on Baltimore & Ohio. C. E. Sloan. *Il plan diags Ry Age* 124:706-10 Ap 10 '48

Concrete rigid frames rise on old stone viaduct piers; viaduct of Desenzano. *Il diags Eng N* 140:326-7 F 26 '48

From any angle, special barge mounted rig drives two-way battered piles. O. A. Zimmerman. *Il Constr Methods* 30:102-5 Mr '48

Girder spans floated to new supports; Louisville & Nashville renewing substructure of long bridge. *Il diags Ry Age* 124:1076-9 Mr 29 '48

New deep piers save old bridge; piles encased with concrete; bridge of Canadian national railway. N. S. Bateman. *Il diags Eng N* 140:113-17 Ja 22 '48

One good bridge from two wrecked ones at Dusseldorf, Germany. R. E. Neumann. *Il plan Eng N* 141:98-9 S 16 '48

Reconstruction of Chestport railway bridge. *Il Engineering* 166:321, 324 O 1 '48

Reconstruction of French railway bridges. R. Dugas and L. Carpentier. *Il Engineer* 185:554-5 Je 4 '48

Regirding a railroad bridge in India. *Il Comp Air Mag* 53:166 JI '48

Ships and erects 163-ft. span as unit; installation on Chicago & North Western at Sheboygan. A. R. Harris. *Il Ry Age* 124:1272-5 Je 26 '48

Something new in bridge-pier design; combination of steel piles and Prepack concrete; reconstruction of Canadian national railway bridge. C. P. Disney. *Il diags Ry Age* 124:158-61 Ja 17 '48; Same cond. *Roads & Bridges* 86:86+ Ja '48

Stresses

Investigation of bridge impacts with a mechanical oscillator. C. T. West. *Il diags Ohio State Univ Eng Exp Sta Bul* 132:1-54 '48 (pa 75c)

BRIDGES, Steel. See Bridges, Iron and steel

BRIDGES; Suspension

- Aerodynamic stability of suspension bridges. F. B. Farquharson. *il diags Western Soc E J* 52:141-52 S '47
- Cable vibration on Alaska bridges. R. Archibald. *il Eng N* 141:79-80 S 2 '48
- Dynamic instability of truss-stiffened suspension bridges under wind action. F. Bleich. *diags Am Soc C E Proc* 74:1269-314 O '48
- Florida's first suspension bridge in service. *il Eng N* 140:20-1 Ja 1 '48
- Plans advanced for new suspension bridge across Hudson. *il Civil Eng* 18:643 O '48
- Simplified method of analyzing suspension bridges. L. Tsien. *diags Am Soc C E Proc* 74:1093-128 S '48
- Tacoma Narrows bridge; reconstruction to follow design resulting from extensive wind tunnel research. *diags Roads & Sts* 90:72-3+ D '47
- Unusual design problems; second Tacoma Narrows bridge. C. E. Andrew. *il diags Am Soc C E Proc* 73:1483-97 bibliog(p 1495-7) D '47; Discussion. 74:1895-92 Je '48

Bibliography

- Bibliography on aerodynamics applied to suspension bridge design. C. E. Andrew. *Am Soc C E Proc* 73:1495-7 D '47

BRIDGES, Wooden

- Covered timber bridges replaced in Virginia. *il Eng N* 140:129 Ja 22 '48
- Crescoted pine Alabama county bridge. *il Pub Works* 79:20 Mr '48
- Old timber bridges decked with concrete. *il Eng N* 141:68-9 Jl 22 '48

BRIDGMAN, Percy Williams, 1882-

- Portrait. *Fortune* 38:168 O '48

BRIGHTNESS

- Brightness and illumination requirements; motion picture theater auditoriums. H. L. Logan. *bibliog il plans diag Soc Motion Picture Eng J* 51:1-12 Jl '48
- Brightness determination of paper clays. N. Millman. *Paper Tr J* 127:43-5 S 23 '48
- Brightness intensifier. G. A. Morton and others. *diags RCA E* 9:419-32 S '48
- Calibration of a photo-multiplier photometer. J. R. DeVore. *il Opt Soc Am J* 38:692-6 Ag '48
- Correlation of brightness ratios and decoration. W. H. Kahler and J. A. Meacham. *il diags Illum Eng* 43:175-91; Discussion. C. M. Cutler. 132:3 F '48
- Effect of activator concentration on the infrared-sensitive phosphor, strontium sulfide-samarium, europium. K. F. Stripp and R. Ward. *diags Am Chem Soc J* 70:401-6 Ja '48
- Highway lighting as a customer's problem. J. A. Stoops. *diags Illum Eng* 42:864-76 N '47
- Measurement of illumination and brightness in a classroom. W. E. Folsom and R. L. Bieseke, jr. *bibliog il plans diags Illum Eng* 43:355-70; Discussion. 371:6 Ap '48
- Quanta explanation of vision and the brightness impression for various times of observation and visual angles. M. A. Bouman and H. A. van der Velden. *diag Opt Soc Am J* 38:231-6 Mr '48
- Recording photometer and its use in studies of cathode-ray screen displays. F. Ham-burger, jr. and E. J. King. *bibliog diags Opt Soc Am J* 38:875-9 O '48
- Reduction of apparent contrast by the atmosphere. S. Q. Duntley. *bibliog diags Opt Soc Am J* 38:179-91 F '48
- Size, shape, and contrast in detection of targets by daylight vision; frequency of seeing and the quantum theory of cone vision. E. S. Lamar and others. *bibliog Opt Soc Am J* 38:741-55 S '48
- Understanding color. F. Birren. *il Illum Eng* 43:711-16 Jl '48
- Visibility on cathode-ray tube screens; the effects of light adaptation. R. M. Hanes and S. B. Williams. *bibliog diag Opt Soc Am J* 38:363-77 Ap '48
- BRILL, Franklin**
Portrait. *Ed & Pub* 81:31 O 23 '48
- BRILLOUIN effect**
Intensity and polarization of Brillouin spectra. D. H. Rank and others. *il Opt Soc Am J* 38:287-90 Mr '48

BRILLOUIN zone

- Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing. *bibliog diags Rs Mod Phys* 20:112-22 Ja '48

BRINE

- Brine disposal from sodium zeolite softeners. P. D. Haney. *diags Am Water Works Assn J* 39:1215-19 D '47
- Calcium chloride and sodium chloride refrigeration brines. R. H. Sawens. *Refrig Eng* 54:1-5 sec 2 N '47 [reprints 30c]
- Distillation of phenolic brines. M. J. P. Bogart and A. S. Brunjes. *bibliog flow diag il diag Chem Eng Prog* 44:95-103; Discussion. 103-4 F '48
- L'épuration des saumures souillées par l'ammoniaque. E. Union and G. Lejeune. *Chimie & Ind* 58:348 O '47
- Sodium chloride versus construction materials; symposium. *il Chem Eng* 54:211-12+ O; 217-18+ N; 225-6+ D '47; 55:223-4+ Ja '48 [reprints 25c]

BRINELL hardness test

- Brinell hardness of gray cast iron and its relation to some other properties. J. T. MacKenzie. *Am Soc T M Proc* 46:1025-36 '46; Same. *Foundry* 74:88-93 O '46; Discussion. *Am Soc T M Proc* 46:1037-8 '46

BRQUETTING (fuel)**Bibliography**

- Selected bibliography on briquetting of coal and other carbons. P. L. Fisher. *U S Bur Mines Information Circ* 7469:1-15 '48

BRISTLES

- Bristle exports for June 1948; data for Chungking, Shanghai, Tientsin and Tsingtao. *For Comm W* 32:35-6 S 4 '48
- Bristle exports from Tientsin, China; with data for selected years 1935-1947. *For Comm W* 30:28 F 28 '48

BRISTOL-MYERS company

- Debutantes offered. *Comm & Fin Chr* 167:2252-3 My 24 '48

BRITISH association for the advancement of science

- Meeting, Brighton. Sept. 8-15. *Engineer* 186:288-9, 303-4, 328-30, 357-8, 384-5 S 17-O 15 '48; *Engineering* 166:280-1, 304-5, 329-30, 352-3, 376-7 S 17-O 15 '48
- Science and life. R. Calder. *Science* 108:247-8 S 3 '48

BRITISH broadcasting corporation

- Musicians' strike; issue between the BBC and the Musicians' union. *Economist* 155:132-4 Jl 24 '48

BRITISH COLUMBIA

- Highlights on British Columbia. *il Pulp & Pa of Can* 49:80-2 Jl '48

See also

- | | |
|---|---|
| Forests and forestry | Paper mills—British Columbia |
| Geology—British Columbia | Railroads—British Columbia |
| Paper industry and trade—British Columbia | Water laws and legislation—British Columbia |

Commerce

- Buyers' delegation welcomed; cementing trade relations with British Columbia. *Chem Age (Lond)* 58:649 My 8 '48

Sanitary affairs

- Public health engineering. R. Bowering. *Water & Sewage* 86:19+ F '48

BRITISH council

- British council, 1947-48. *Economist* 155:299 Ag 21 '48

BRITISH EAST AFRICA. See Africa, British East**BRITISH electrical and allied industries research association**

- Annual report. *Engineer* 185:182 F 20 '48
- Electrical research; increasing cost and staffing difficulties affect E.R.A.'s activities. *Elec R (Lond)* 142:202-3 F 6 '48

BRITISH electrical and allied manufacturers' association

- Annual meeting, 37th, London, April 15. *Engineer* 185:433 Ap 30 '48; *Elec R (Lond)* 142:719 My 7 '48
- Annual report. *Electrician* 140:1260 Ap 23 '48

- BRITISH electrical development association**
Annual meeting, London. Elec R (Lond)
142:463-6 Mr 26 '48
Conference, Scarborough, Sept. 22-23. Elec-
trician 141:1001 O 1 '48
Dinner at Birmingham. Electrician 140:1499-
500 My 14 '48
E.D.A.-E.A.W. conference. Elec R (Lond)
141:669-70 O 31 '47
E.D.A.-E.A.W. conference, London, June 28.
Electrician 141:35-6 J1 2 '48
- BRITISH glues and chemicals, limited**
Statement by the chairman at annual general
meeting. R. Duncalfe. Economist 155:397 S
4 '48
- BRITISH GUIANA**
Commercial policy
Validity of import licenses restricted. For
Comm W 32:19 S 25 '48
- BRITISH HONDURAS**
Commercial policy
Import restrictions revised. For Comm W 32:
16 J1 31 '48
Revision of import-control regulations. For
Comm W 30:15-16 Ja 31 '48
Foreign relations
British Honduras; dispute with Guatemala.
map Economist 154:384 Mr 6 '48
- BRITISH industries fair**
British industries fair. il diags Engineer
185:416-17, supp 1-12, 440-3, 466-8, 490-2
Ap 30-My 21 '48; Engineering 165:437-9, 444,
461-4, 468, 485-8, 492, 509-12 My 7-28 '48
British industries fair. il Metallurgia 38:15-
26+ My '48
British industries fair; electrical exhibits; list
of exhibitors. il Elec R (Lond) 142:661-96,
753-69 Ap 30, My 14 '48
British industries fair, London and Birming-
ham, May 3-14. Chem & Ind p314-16, 330 My
15-22 '48
Chemical equipment at Birmingham. il Chem
Age (Lond) 53:654-6 My 8 '48
- BRITISH Institute of management**
Meeting, London, April 24. Engineer 185:453
My 7 '48
- BRITISH MALAYA.** See Malayan Union
- BRITISH museum**
Catalogues of the British museum. F. C.
Francis. J Doc 4:14-40 Je '48
- BRITISH non-ferrous metals federation**
Annual general meeting, Birmingham. Chem
Age (Lond) 59:77-8 J1 17 '48
- BRITISH overseas airways corporation**
BOAC reports on reorganization. F. T. Brew-
ster. Aviation W 49:31-2 Ag 23 '48
BOAC rolls up \$240 loss per passenger. Avia-
tion W 48:42 Ja 12 '48
Deficit and equipment problems harass BOAC
as 1948 begins. F. R. Brewster. Aviation W
48:31 F 16 '48
- BRITISH plaster board, limited**
Statement by the chairman at annual gen-
eral meeting. Lord Belper. Economist 155:
245-6 Ag 7 '48
- BRITISH trades union congress.** See Trade
unions—Great Britain
- BRITTLE coating test.** See Strains and
stresses—Brittle coating test
- BRITTLENESS**
Embrittlement of chromel and alumel ther-
mocouple wires. W. I. Pumphrey. 2pls Iron
& Steel Inst J 157:513-14 D '47
Mechanism of fracture of glass and similar
brittle solids. N. W. Taylor. bibliog diags
J Ap Phys 18:943-55 N '47
See also
Steel—Brittleness
- BRITTON, Mason, 1882-**
Highest civilian medal awarded to M. Brit-
ton. por Am Mach 92:130 Ja 15 '48
- BROACHES**
Broach requirements for spline shafts and
 fittings. H. H. Gotberg. diags Mech Eng
70:680-2 Ag '48; Excerpt. Machine Design
20:102-3 Ag '48
Broach-tap cuts quintuple threads. H. S.
Wharen. il diags Am Mach 92:69-72 Ap 22
'48
Splines cut by set of broaches using single
progressive edges. H. Stern. diags Am
Mach 92:120 Mr 25 '48
- Vertical furnaces reduce labor costs 20
per cent in treating high-speed steel
broaches. W. L. Gibbons. il Materials &
Methods 28:77-9 S '48
- Testing**
Shadowgraph a sample to find tool errors;
manufacture of interchangeable parts by
Lockheed aircraft corp. C. H. Bodner. il
diag Am Mach 97:87-90 D 18 '47
- BROACHING**
Automatic broaching speeds output of auto
window pinions. H. Chase. il diags Steel
122:89 Ap 12 '48
Broaching gasket faces on Chevrolet engine
blocks. il Iron Age 161:71 F 19 '48
Broaching jet-propulsion engine parts. il
Mach 54:169-70 D '47
Broaching of aluminum and magnesium. H.
Gotberg. il diags Light Metal Age 6:12-16+
Ag '48
Broaching stamped parts. il Iron Age 162:88
J1 15 '48
Fundamentals of broaching. J. A. Markstrum.
diags Tool Eng 21:30-2 Ag '48
High production broaching. Endicott, N.Y.,
plant of International business machines
corp. il diags Iron Age 161:72-5 Ap 15 '48
Ingenious fixture used in broaching windows
in bearing cages. il Mach 55:195 S '48
Pneumatic fixture simplifies broaching. il
Comp Air Mag 52:281 N '47
- BROACHING machines**
Acme hydraulic horizontal broaching machine.
il Mach 54:201 D '47
Broaching mating parts on one machine;
tractor wheel hub and hub clamp. il Mach
54:170-1 F '48
Broaching of teeth speeds saw blade produc-
tion. il Mach 55:157-9 O '48
Handbook of vertical surface-broaching fix-
tures. E. C. Brosheer. il diags Am Mach
92:77-92 Ja 1; 101-16 Ja 15 '48
35th annual review. il Am Mach 92:170-1 Ja
29 '48
Work loaders applied to machine tools. R.
Le Grand. il diags Am Mach 92:151-2 Mr 11
'48
- BROADCASTERS, National association of.** See
National association of broadcasters
- BROADCASTING stations, Radio.** See Radio
broadcasting stations
- BROCCOLI**
Produce-film comparisons; government tests
on packaged produce yield data on trans-
parent films. J. Kaufman and others. Mod
Packaging 21:147-51 Ag '48
- BROKERS**
Brokerage supermarket; Merrill Lynch,
Pierce, Fenner & Beane. il Bsns W p79-
82+ N 8 '47
Brokers' responsibility in flow of investment
capital. J. A. Murphy. Comm & Fin Chr
167:600+ F 5 '48
New philosophy of security selling; work of
customers' broker. V. B. Cook. Comm &
Fin Chr 168:1540+ O 14 '48
United front needed by securities industry.
P. L. Carret. Comm & Fin Chr 167:1109
Mr 11 '48
See also
Association of stock
exchange firms
Insurance brokers
- Accounting**
Clears up tax liability on loaned stock. J. C.
Korn. Comm & Fin Chr 167:2000 My 6 '48
Special tax problems in purchase and sale
of securities. I. Sack. Comm & Fin Chr
167:702+ F 12 '48
- Advertising**
National campaign on trust shares by Arthur
Wiesenberger & co. Comm & Fin Chr 167:
2753 Je 24 '48
Reynolds & co. uses commercial television.
Comm & Fin Chr 167:2423 Je 3 '48
- Commissions**
Tax saving on lump-sum brokerage fee;
court permits spreading income over long-
term negotiations. L. H. Hoffman. Bar-
ron's 28:9 J1 12 '48

BROKERS—Continued

Employees

Wall Street wins its first two T-H tests.
Bsns W p97 N 22 '47

Law

Capital gains and losses as applied to security dealers; text of I.T. 3891 of Internal revenue code, Comm & Fin Chr 167: 1530 Ap 8 '48
SEC and the broker-dealer, L. Loss, Comm & Fin Chr 167:1316+ Mr 25 '48

BROKERS' blanket bond. See Bankers' blanket bond

BROMATES

Photo-chemistry of some ions in solution, L. Farkas and F. S. Klein, bibliog diag J Chem Phys 16:386-93 S '48

BROMIDES

Rate of the chlorate-bromide reaction in acid solution with arsenious acid present; arsenic acid as a catalyst, P. F. Grieger, bibliog Am Chem Soc J 70:3045-9 S '48

See also

Alkyl bromides

BROMINATION

Bromination of dimethoxystilbenes, F. Bergmann and H. Japhé, Chem Soc J p 1450-2 N '47

Bromination of 3-ketosteroids in acetic acid and the effect of trace substances in the solvent, C. Djerassi and C. R. Scholz, bibliog Am Chem Soc J 69:2404-10 O '47

Bromination of zein, W. W. Binkley, Am Chem Soc J 70:2010-12 Je '48

Brominations with N-bromosuccinimide and related compounds; the Wohl-Ziegler reaction, C. Djerassi, Chem R 43:271-317 bibliog (125 ref, p296, 332-14, 316-17) O '48

Brominations with pyridine hydrobromide perbromide, C. Djerassi and C. R. Scholz, bibliog Am Chem Soc J 70:4147-13 Ja '48

Cleavage of tetracetyl- β -D-thioglycosides with bromine in acetic acid, W. A. Bonner, bibliog Am Chem Soc J 70:770-2 F '48

Cyclobutane derivatives; Ziegler bromination of methylenecyclobutane, E. R. Buchman and D. R. Howton, bibliog Am Chem Soc J 70:2517-20 Jl '48

Determination of bromine addition numbers; electrometric method, H. D. DuBois and D. A. Skoog, bibliog il diags Anal Chem 20:624-7 Jl '48

Determination of diphenyl carbonate; three analytical methods for estimating in cloth, J. Goldenson and S. Sass, bibliog Anal Chem 20:730-2 Ag '48

Exaggerated effect of iodine as carrier in the bromination of fluorene, J. R. Sampey and A. B. King, Am Chem Soc J 70:2606-7 Jl '48

Formation of quinone by the action of bromine oxide on benzene, M. S. Kharasch, P. B. Polen and W. H. Urry, Am Chem Soc J 69:2566 O '47

Halogenated ketones; the bromination of acetone and methyl ethyl ketone, J. R. Catch and others, Chem Soc J p272-5 Mr '48

Halogenated ketones; the bromination of methyl propyl and methyl isopropyl ketone, J. R. Catch and others, Chem Soc J p276-7 Mr '48

Halogenated ketones; the preparation of bromomethyl ketones by the diazomethane reaction, J. R. Catch and others, Chem Soc J p278 Mr '48

Hyperconjugation; the competitive bromination of benzene and *t*-butylbenzene, E. Berliner and E. J. Bondhus, bibliog Am Chem Soc J 70:854-8 F '48

Kinetics of aromatic halogen substitution; the 1-halogenonaphthalenes and related compounds, P. B. D. de la Mare and P. W. Robertson, Chem Soc J p 100-6 F '48

Kinetics of halogen addition to unsaturated compounds; iodine catalysis of chlorine and bromine addition to ethyl cinnamate, H. D. C. Waters, A. R. Caverhill and F. W. Robertson, Chem Soc J p 1168-72 S '47

N-Bromosuccinimide as a dehydrogenating agent, R. A. Barnes, bibliog Am Chem Soc J 70:145-7 Ja '48

Pentachlorophenyl derivatives; bromination of ethylpentachlorobenzene, S. D. Ross, M. Markarian and M. Nawzowski, bibliog Am Chem Soc J 69:2468-70 O '47

Photobromination of methylsiloxane films on glass surfaces, G. L. Vandervort and J. E. Willard, Am Chem Soc J 70:3148 S '48

Preparation and dienone-phenol rearrangement of 2-bromo-1,4-androstadien-17-ol-3-one 17-hexahydrobenzoate, C. Djerassi and C. R. Scholz, bibliog Am Chem Soc J 70: 1911-13 My '48

Pyrimidine; study of the bromination of 5-acetyl-4-methyl-2-phenylpyrimidine, R. A. Clarke, B. Graham and B. E. Christensen, Am Chem Soc J 70:1088-90 Mr '48

Synthesis of imidazolones structurally related to biotin by means of N-bromosuccinimide, R. Duschinsky and L. A. Dolan, bibliog Am Chem Soc J 70:657-62 F '48

BROMINE

Bromine for pool disinfection finds favor in Illinois, Eng N 139:881 D 25 '47

Coulometric titration of arsenic by means of electrolytically generated bromine and an amperometric end-point, R. J. Myers and E. H. Swift, diags Am Chem Soc J 70:1047-52 Mr '48

Nuclear magnetic moments of bromine, R. V. Pound, bibliog Phys R 72:1273 D 15 '47

Quantitative methods for certain organic sulfides, J. W. Sease and others, bibliog Anal Chem 20:431-4 My '48

Reactions of carbon tetrachloride with bromine activated by isomeric nuclear transition and by the neutron-gamma reaction, J. E. Willard, bibliog diag J Phys & Colloid Chem 52:585-94 Mr '48

Studies in the thianaphthene series; reactivity of the bromine atom in 3-bromothianaphthene-1-dioxide, F. G. Bordwell and C. J. Albisetti, jr, bibliog Am Chem Soc J 70:1558-60 Ap '48

Temperature coefficient of electrical resistivity for crystalline selenium containing various percentages of bromine, W. E. Blackburn, diag J Ap Phys 19:51-4 Ja '48

Isotopes

Electromagnetic separation of bromine and chlorine isotopes, L. G. Chelius and C. P. Keim, Phys R 73:813 Ap 1 '48

Radioactive Br isotopes, L. L. Woodward and others, bibliog Phys R 74:870-5 O 15 '48

Short-lived isomeric states of Se⁸³ and Ge⁷⁷, J. R. Arnold and N. Sugarman, bibliog J Chem Phys 15:703-12 O '47

BROMINE, Liquid

Liquid bromine removes obstinate algae from 10,000 gpm tower for \$2.10/day, J. C. Albright, il Pet Processing 3:421-2 My '48

See also

Bromination

BROMINE compounds

Extreme pressure (e.p.) lubricating properties of some bromine and iodine compounds, alone and in presence of sulphur, with observations on the mechanism of the development of e.p. properties, W. Davey, Inst Pet J 33:673-7 N '47

Reactions of atoms and free radicals in solution; the addition of bromo esters to olefins, M. S. Kharasch, P. S. Skell and P. Fisher, bibliog Am Chem Soc J 70:1055-9 Mr '48

Sales up 83 percent in 1947, Oil Paint & Drug Rep 154:90 Ag 16 '48

BROMINE number

Determination of bromine addition numbers; electrometric method, H. D. DuBois and D. A. Skoog, bibliog il diags Anal Chem 20:624-7 Jl '48

Procedure for determination of the bromine number of olefinic hydrocarbons, H. L. Johnson and R. A. Clark, bibliog Anal Chem 19:869-72 N '47

BROMOACETOPHENONE

Approximate method for the determination of active halogens, J. R. Sampey, A. B. King and B. C. Blitch, Am Chem Soc J 70:2606 Jl '48

Reaction of S-benzylisothiourea with phenacyl bromide, R. M. Dodson, bibliog Am Chem Soc J 70:2753-5 Ag '48

BROMOACETYLDIHYDROANTHRACENE

Studies in the anthracene series; a novel rearrangement in the reaction of halomethyl ketones with secondary amines, E. L. May and E. Mosettig, Am Chem Soc J 70:1077-9 Mr '48

BROMOBENZENE

Nucleophilic substitution in the benzene ring; rates of reactions of *p*-substituted bromobenzenes with piperidine, J. F. Bunnett and A. Levitt, *bibliog Am Chem Soc J* 70:2778-9 Ag '48

BROMOBENZOFURAN

2-Benzofuryllithium and 3-benzofuryllithium, H. Gilman and D. S. Meistrom, *bibliog Am Chem Soc J* 70:1655-7 Ap '48

BROMOBENZYL cyanide**Analysis**

Determination of phenylbromoacetonitrile, A. M. Kinnear, *bibliog Soc Chem Ind J* 67: 35-8 Ja '48

BROMOBUTANE

Preparation of optically active hydrocarbons by the Wurtz reaction, R. L. Letsinger, *bibliog Am Chem Soc J* 70:406-9 Ja '48

BROMOCHLOROMETHANE

Toxicity and narcotic action of mono-chloro-mono-bromo-methane with special reference to inorganic and volatile bromide in blood, urine and brain, J. L. Svirbely and others, *bibliog J Ind Hygiene* 29:382-9 N '47

BROMOCRESOL green

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene, M. M. Davis and others, *bibliog J Res Nat Bur Stand* 41:27-40 Jl '48

BROMOFLOURENE**See also**

Dibromofluorene

Analysis

Approximate method for the determination of active halogens, J. R. Sampey, A. B. King and B. C. Blitch, *Am Chem Soc J* 70:2606 Jl '48

BROMOFORM

Compound formation between pyridine and polyhalogenated methanes, A. W. Davidson, C. A. VanderWerf and L. G. Boatright, *bibliog Am Chem Soc J* 69:3045-7 D '47

Compound formation between 2,6-lutidine and polyhalogenated methanes, C. A. VanderWerf, A. W. Davidson and C. I. Michaelis, *Am Chem Soc J* 70:908-10 Mr '48

BROMOISOBUTYRONITRILES

Chloro- and bromoisobutyronitriles, C. L. Stevens, *bibliog Am Chem Soc J* 70:165-7 Ja '48

BROMOMETHANE. See Methyl bromide**BROMOÏCTANE**

Preparation of optically active hydrocarbons by the Wurtz reaction, R. L. Letsinger, *bibliog Am Chem Soc J* 70: 406-9 Ja '48

BROMOPHENOL blue

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene, M. M. Davis and others, *bibliog J Res Nat Bur Stand* 41:27-40 Jl '48

Determination of surface active agents in solution, T. Barr and others, *bibliog Soc Chem Ind J* 67:45-8 F '48

BROMOPHENYLCYCLOPENTANE

Nitration of (*p*-bromophenyl)-cyclopentane, R. D. Kleene, *Am Chem Soc J* 70:366-7 F '48

BROMOSUCCINIMIDE

Brominations with N-bromosuccinimide and related compounds; the Wohl-Ziegler reaction, C. Djerassi, *Chem R* 43:271-317 bibliog(125 ref, p296, 312-14, 316-17) O '48

N-Bromosuccinimide as a dehydrogenating agent, R. A. Barnes, *bibliog Am Chem Soc J* 70:145-7 Ja '48

Synthesis of imidazolones structurally related to biotin by means of N-bromosuccinimide, R. Duschinsky and L. A. Dolan, *bibliog Am Chem Soc J* 70:657-62 F '48

BROMOTHIONAPHTHENE

Studies in the thianaphthene series; reactivity of the bromine atom in 3-bromothianaphthene-1-dioxide, F. G. Bordwell and C. J. Albisetti, *jr. bibliog Am Chem Soc J* 70:1558-60 Ap '48

BROMOTOLUENE

Approximate method for the determination of active halogens, J. R. Sampey, A. B. King and B. C. Blitch, *Am Chem Soc J* 70:2606 Jl '48

p-Bromobenzyl bromide in the identification of some aromatic carboxylic acids, B. A. Fiskens and E. M. Di Geronimo, *Am Chem Soc J* 70:1654-5 Ap '48

Reaction of benzyl bromide with ethyl α -acetoxyacetoacetate, N. Green and F. B. LaForge, *Am Chem Soc J* 70:2812-13 Ag '48

BROMPTHHALEIN. See Tetrabromophenolphthalein**BRONCHODILATORS**

Physiologically active indanamines; compounds substituted in the aromatic ring, R. V. Heinzelmann, H. G. Koloff and J. H. Hunter, *bibliog Am Chem Soc J* 70:1336-90 Ap '48

BRONFMAN, Samuel, 1891-

Portrait, *Fortune* 38:96 S '48

BRÖNSTED'S principle

Brønsted concept of acids and bases in quantitative analysis, B. Naiman, *J Chem Educ* 25:454-7 Ag '48

BRONZE

Effect of gases on tin bronze, C. L. Frear, *diags Foundry* 76:70-1+ N '48 (to be cont)

Experiments on the corrosion resistance of porous bronze compacts produced by powder metallurgy, M. M. Hallett, *Soc Chem Ind J* 67:57-61 F '48

How to finish copper and copper alloys, by subcommittee of American society for metals, *il Am Mach* 92:95-106 F 26 '48

OTS report describes bronze coated gears, *Diesel Power* 26:76-8 S '48

Solidification mechanism of tin bronzes, C. L. Frear, *il diags Foundry* 76:68-71+ Ap; 130-2+ My '48

Standard commercial wrought coppers and copper-base alloys; tabulation, *Am Mach* 92:106-7 My 6 '48

See also

Manganese bronze

Silicon bronze

Specifications

Chemical specifications for standard copper-base alloys; data sheet, *Foundry* 75:134 D '47

Testing

Investigation of materials for marine propellers, W. C. Stewart and W. L. Williams, *bibliog diag Am Soc T M Proc* 46:836-45 '46

BRONZE founding

Brass and bronze papers stress foundry practice, A.F.A. annual meeting, *Foundry* 76: 154+ Je '48

Bronze founding; a review of some recent developments, F. Hudson, *bibliog il diags Foundry* 76:86-9+ Mr '48

Casting artistic bronzes; Roman bronze works, P. Dwyer, *il diag Foundry* 75:66-71 N; 96-9+ D '47

Casting developments in review; brass and bronze, W. W. Edens, *il Foundry* 76:78-81+ Ja '48

Centrifugal casting of copper-alloy wheels in sand moulds, O. R. J. Lee and L. Northcott, *il Engineering* 163:556-9 Je 27 '47; Abstract, *Metal Prog* 53:272+ F '48; Discussion, *Engineering* 164:353 O 10 '47

Control of gas content during the melting of phosphor bronzes, gun metals and leaded bronzes, W. T. Pell-Walpole, *il Metallurgia* 37:119-28 Ja '48; Abstract, *Metal Prog* 54: 220+ Ag '48; Discussion, W. A. Baker, *Metallurgia* 37:295-6; Reply, 296-7 Ap '48

Converts dairy into modern nonferrous foundry; Fischer-Sweeney bronze and aluminum co., P. Dwyer, *il Foundry* 75:30-3+ D '47

Die-cast bearings cast in sheet-steel flasks; illustrations with text, C. O. Donley, *Am Mach* 92:89-91 N 4 '48

Effect of nickel, zinc and lead additions to five per cent tin bronze, R. L. Fox, jr. *il Foundry* 76:102-3+ Je '48

Efficient layout for bronze melting, B. Schafer, *il diags Foundry* 76:212-13+ Ag '48

Permanent mold casting of copper base alloys; review of British practice, J. L. Erickson, *il Iron Age* 162:84-9 Jl 22 '48

- BRONZE welding**
Bronze welding or fusion welding for repairing cast iron? H. B. Gilson, *il Materials & Methods* 28:74-6 S '48
Some hints on bronze-welding, *diags Mill & Factory* 43:136 S '48
Welding a bronze bell, M. Maynard, *il Welding J* 27:854 O '48
Welding pulleys and gears without a preheating furnace, *diags Coal Age* 53:112 JI '48
- BRONZES**
Casting artistic bronzes; Roman bronze works, P. Dwyer, *il diag Foundry* 75:66-71 N; 96-9+ D '47
- BROODERS, Poultry.** See Poultry brooders
- BROOKHAVEN** national laboratory, Upton, New York
Brookhaven lab to explore uses of atomic energy, W. W. Watson, *Midwest Eng* 1:27 O '48
Conference on biological applications of nuclear physics, *Science* 108:7 JI 2 '48
- BROOKLYN, New York**
See also
Housing—Brooklyn, New York
Rapid transit
What's ahead for Brooklyn; \$50 million estimated modernization cost, C. Speare, *il Bus Transportation* 26:48-50 D '47
- BROOKLYN union gas company**
Brooklyn Union reviews fifteen years, *Pub Util* 41:182-3 Ja 29 '48
- BROOKS, Vernon, 1896-**
Advertising salesman, R. Manville, *por Adv & Sell* 41:91-2+ Ag '48
- BROOM factories**
Employees
Grain itch; report of first outbreak in the city of Baltimore, F. A. Glass, *bibliog Ind Med* 17:95-6 Mr '48
- BROOM fibers**
Uses of broom fiber, Sicily, *For Comm W* 32:34-5 JI 31 '48
- BROWN, Heywood Hale**
Yesterday's H.3rd now Mr Brown, columnist, J. L. Collings, *por Ed & Pub* 81:16 S 18 '48
- BROWN, Heywood, memorial award**
Bert Andrews wins Guild's Brown award, *Ed & Pub* 81:13 F 14 '48
- BROWN, Bruce Keith, 1898-**
Portrait, *Fortune* 37:115 My '48
- BROWN, Edwy R.**
See also
Marietta college—
Edwy R. Brown school of petroleum
- BROWN, Harris**
Jackson, Tenn. editor hailed as man of year, *Ed & Pub* 81:40 My 29 '48
- BROWN, Harrison Scott, 1917-**
Brown wins AAAS prize for chemical studies of meteorites, *por(cover) Chem & Eng N* 26:310 F 2 '48
\$1000 prize for a notable contribution to science, *por(cover) Science* 107:36 Ja 9 '48
- BROWN, Sydney George, 1873-1948**
Sketch, *por Engineer* 186:163-4 Ag 13 '48
- BROWN and Bigelow, Inc.**
Stock offered, *Comm & Fin Chr* 166:2555 D 22 '47
- BROWN coal, See Lignite**
- BROWN company**
Expansion may delay arrears payments, *Baron's* 28:35 Ja 26 '48
- BROWNE, Charles Albert, 1870-1947**
C. A. Browne as an historian of chemistry, H. S. Klickstein and H. M. Leicester, *J Chem Educ* 25:315-17+ bibliog(104 titles, p316-17+) Je '48
- BROWNING**
Hydroxylation of 2,3-dihydropyran and the application of desoxyaldopentoses in the browning reaction, C. D. Hurd and C. D. Kelso, *bibliog Am Chem Soc J* 70:1484-6 Ap '48
Prevention of darkening in consumer-packaged corn; immersing ears in acid-water before packaging, G. G. Cauch and L. E. Scott, *il Food Ind* 20:170-1 F '48
- BROWNSVILLE, Texas**
Busy gateway, *il Bsns W* p28+ JI 31 '48
- BRUCE, Howard, 1879-**
Civil engineer-business executive will help direct aid to foreign countries, *pers Eng N* 140:916, cover Je 3 '48
Portrait, *Fortune* 33:67 Ag '48
- BRUCellosis**
Brucellosis in industry, C. F. Jordan, *Ind Med* 17:176-80 My '48
Committee on the public health aspects of brucellosis meeting, Washington, *Science* 107:110-12 Ja 30 '48
Report of brucellosis outbreak at Federalburg, Maryland, J. H. Steele and J. W. Hastings, *Pub Health Rep* 63:144-5 Ja 30 '48
- BRUCINE**
Strychnine and brucine; degradation of the strychnineacetic acid prepared from pseudostrychnine, K. H. Pausacker and R. Robinson, *Chem Soc J* p 1557-60 N '47
Strychnine and brucine; oxodihydroneostrychnine and oxodihydromethoxymethyl-dihydroneostrychnine, R. N. Chakravarti, K. H. Pausacker and R. Robinson, *Chem Soc J* p 1554-6 N '47
- BRUNAUER-EMMETT-TELLER equation**
Active magnesia; application of dual-surface theory, A. C. Zettlemoyer and W. C. Walker, *bibliog J Phys & Colloid Chem* 52:63-64 Ja '48
Adsorption of butane on glass spheres, R. T. Davis and T. W. DeWitt, *bibliog Am Chem Soc J* 70:1135-41 Mr '48
Dual-surface B.E.T. adsorption theory, W. C. Walker and A. C. Zettlemoyer, *bibliog J Phys & Colloid Chem* 52:47-58 Ja '48
Equilibrium moisture and X-ray diffraction investigations of pectinic and pectic acids, K. J. Palmer, R. C. Merrill and M. Balandyne, *bibliog il Am Chem Soc J* 70:570-7 F '48
Ionic hydration and activity in electrolyte solutions, R. H. Stokes and R. A. Robinson, *bibliog Am Chem Soc J* 70:1870-8 My '48
Modifications of the Brunauer, Emmett and Teller equation, R. B. Anderson and W. K. Hall, *bibliog Am Chem Soc J* 70:1727-34 My '48
Physical adsorption on non-uniform surfaces, G. Halsey, *bibliog J Chem Phys* 16:931-7 O '48
Statistical mechanics of multimolecular adsorption; introductory treatment of horizontal interactions; capillary condensation and hysteresis, T. L. Hill, *bibliog J Chem Phys* 15:767-77 N '47
Statistical mechanics of multimolecular adsorption; the statistical analog of the BET constant a_1/b_1a_2 ; hindered rotation of a symmetrical diatomic molecule near a surface, T. L. Hill, *bibliog J Chem Phys* 16:131-9 Mr '48
Statistical thermodynamics of the sorption of vapors by solids, M. Dole, *bibliog J Chem Phys* 16:25-30 Ja '48
Theory of adsorption of gases on solids, M. A. Cook, *bibliog Am Chem Soc J* 70:2925-30 S '48
- BRUNDAGE, Percival Flack, 1892-**
Portrait, *Bsns W* p90 O 2 '48
- BRUNETTI, Clelio, 1910-**
Clelio Brunetti receives 1947 Materials & Methods achievement award, *por Materials & Methods* 26:64-5 N '47
- BRUSH plating.** See Electroplating—Brush plating
- BRUSHES**
Better polystyrene brush backs, *il Mod Plastics* 26:98 O '48
- BRUSHES (electric machinery)**
Carbon film formation and commutator brush-wear as revealed by the electron microscope, E. F. Fuham and R. H. Savage, *bibliog il J Ap Phys* 19:654-61 JI '48
Effects of silicone vapor on brush wear; abstract, J. Marsden and R. H. Savage, *il Elec Eng* 67:1034 N '48
Motor brushes finished to size by milling and lapping fixture, E. Lay, *diags Am Mach* 92:125 My 6 '48
Slip rings and brushes for constant electrical resistance, F. J. Dutee and others, *il diags Product Eng* 19:129-33 Je '48
Testing motor brushholder springs, *il Steel* 121:128 D 1 '47

BRUSHES (electric machinery)—Continued**Testing**

Studies in boundary lubrication; the wear of carbon brushes in dry atmospheres. W. E. Campbell and R. Kozak. biblog il A S M E Trans 70:491-7; Discussion, 497-8 JI '48

BRUSHES, Industrial

Brush technique effective in condenser cleaning. il Power Generation 52:59 Je '48; Same cond. Steel 123:98 Ag 9 '48
Electrolytic tinning process speeded by power brush application. diag Steel 123:122 JI 12 '48

Freestone plants utilize power brushing for cleaning molds. il Rubber Age 62:302 D '47
Production costs halved by power-brush cleaning. il Steel 122:78 Ja 19 '48; Automotive Ind 98:45 F 15 '48

Widening field for nylon; tough monofilaments required for industrial brushes. M. Duncan. il Chem Age (Lond) 58:394-5 Mr 20 '48

BRUSSELS**Railroads**

Brussels north-south rail connections. C. F. B. Lemaire. il map diag Engineer 185:596-8 Je 18 '48

BRUSSELS sprouts

Produce-film comparisons; government tests on packaged produce yield data on transparent films. J. Kaufman and others. Mod Packaging 21:147-51 Ag '48

BRYANT, George Archie, 1889-

President of the Austin co. por(cover) Bsns W p6 Je 12 '48

BUBBLE gum. See Chewing gum**BUBBLES**

High speed movies, taken through microscope, let you see bubble-particle contacts in flotation. il Eng & Min J 149:95-7 JI '48
Laboratory investigations of the mechanism of cavitation. R. T. Knapp and A. Hollander. il A S M E Trans 70:419-31; Discussion, 431-5 JI '48

New tough films and bubbles. A. L. Kuehner. il J Chem Educ 25:211-12 Ap '48

Polyamide foam inhibitors; mechanism of foam inhibition in steam generators. L. O. Gunderson and W. L. Denma. biblog il Ind & Eng Chem 40:1363-70 Ag '48

Secondary pressure pulses due to gas globe oscillation in underwater explosions. A. B. Arons and others. il Acoustical Soc Am J 20:271-82 My '48

Sheet of air bubbles as an acoustic screen for underwater noise. D. P. Loye and W. F. Arndt. diag Acoustical Soc Am J 20:143-5 Mr '48

Steam bubble formation; effects of heating surface and use of antifoams. A. L. Jacoby and L. C. Bischmann. biblog il diag Ind & Eng Chem 40:1360-3 Ag '48

BUBONIC plague. See Plague**BUCK, Walter Albert, 1895-**

Portrait. Fortune 38:83 S '48

BUCKETS

Eight-yd. dual concrete bucket to be used on Corps of engineers work. il Concrete 56:28+ Ap '48

How to select and use dragline buckets. il diag Roads & Sts 91:104-6 Ja '48

BUCKLING. See Strains and stresses**BUDGET****Canada**

Budget looks to future. For Comm W 31:18-20 Je 19 '48

Great Britain

Budget analysed. Economist 154:593-5 Ap 10 '48

Budget prospect. Economist 154:349-50 F 28 '48

Courage within limits. Economist 154:570-2 Ap 10 '48

Is Britain's surplus deflationary? P. Elzing. Comm & Fin Chr 167:1884 Ap 29 '48

Mr Dalton's opportunity. Economist 153:767-8 N 8 '47

New British budget; radio broadcast, April 6, 1948. S. Cripps. Comm & Fin Chr 167:1646+ Ap 15 '48

New budget introduced. For Comm W 31:19 My 8 '48

Priority for the surplus. Economist 154:531-2 Ap 3 '48

Side-stepping the issue. Economist 153:785-6 N 15 '47

India

First annual budget. For Comm W 31:17-18 Je 5 '48

First budget of Dominion of India. For Comm W 30:16-17 Ja 17 '48

Ireland

Retrenchment in Eire. Economist 154:800-1 My 15 '48

Netherlands

Dutch plans for 1949. Economist 155:630 O 16 '48

Norway

Norwegian national budget for 1948. Int Labour R 58:62-4 JI '48

Pakistan

First annual budget of Dominion of Pakistan. For Comm W 31:16-17 Je 12 '48

Persia

Iran; budget estimates for 1948-49 larger. For Comm W 32:16 S 11 '48

Philippine Islands

Authorized government expenditures and expected revenues, fiscal year 1949. For Comm W 33:24 O 30 '48

Balanced budget proposed. For Comm W 30:20-1 Mr 13 '48

Poland

Polish national budget for 1947. For Comm W 29:15 N 8 '47

Polish national budget for 1948. For Comm W 31:17 Ap 24 '48

Portugal

Budget for 1948 approved. For Comm W 31:25 My 22 '48

Russia

Soviet budget survey. Economist 154:267-8 F 14 '48

Siam

Revised 1948 budget ready for presentation to Parliament. For Comm W 32:21 Ag 14 '48

South Africa

Budget for fiscal year 1948-49 presented to Parliament. For Comm W 33:33 O 2 '48

Spain

Spanish budget for 1948. For Comm W 31:18 My 8 '48

United States

Administration's swollen budget. R. A. Taft. Comm & Fin Chr 167:306+ Ja 22 '48

Aviation expenditures included in the budget for fiscal year 1949; tabulations. Aviation W 48:51 F 23 '48

Budget of the United States. J. E. Webb. Comm & Fin Chr 167:1435+ Ap 1 '48

Budget outlook for the 1949 fiscal year. Nat City Bank p35-41 Ap '48

Controlling the budget. Nat City Bank p78-9 JI '48; Same. Comm & Fin Chr 168:114 JI 8 '48

Federal budget. Mod Ind 16:367 S '48

Federal budget; 50 billion in fiscal '50? H. F. Byrd. Manuf Rec 117:39+ Mr '48

Federal budget locks horns with simple arithmetic. E. A. Kracke. J Account 84:471-9 D '47

Federal budget; the budgetary process; expenditures; revenues. Index 27 no 4:71-87 [D] '47

\$55 billion budget possible in two years; military plans include big projects yet unveiled. J. Abels. Barron's 28:34 My 3 '48

First national bank of Boston calls swollen budget national security threat. Comm & Fin Chr 167:613 F 5 '48

Fiscal program of the 80th Congress. J. A. Maxwell. Harvard Bsns R 26:63-73 Ja '48

President's \$40 billion budget. Nat City Bank p21-3 F '48

BUDGET—United States—Continued

- Reduced budget before tax cut. J. D. Mooney. Comm & Fin Chr 167:597+ F 5 '48
 Revised budget. Nat City Bank p 103-5 S '48
 Snyder holds Truman budget the minimum. Comm & Fin Chr 167:913 F 26 '48
 Tailoring the federal budget. T. S. Holden. Comm & Fin Chr 166:2379+ D 11 '47
 \$39,668,993,983; a report on the U.S. budget and the chances for reducing it. Fortune 37:102-7+ Mr '48
 Truman asks \$40 billion budget; text of introductory portion of budget message. Comm & Fin Chr 167:206+ Ja 15 '48
 Truman foresees \$1½ billion budget deficit; text of midyear review of the federal budget. Comm & Fin Chr 168:639+ Ag 19 '48
 Truman; it's time to put on brakes; meaning of Economic report and budget. Bsns W p 19-20 Ja 17 '48

BUDGET, Business

- Budget controls for better business; Cutter laboratories use sales budget committee to forecast its sales. H. Lange. Am Bsns 18: 18-20 O '48
 Budgetary control of production and costs in the machine tool industry. N. T. Harrison. N A C A Bul 29:939-48 Ap 1 '48
 Budgeting planning of manufacturing operations. N. H. Gross. N A C A Bul 30:103-14 O 1 '48
 Capacity budget procedure to set task for plant and sales force. F. E. Baridon. N A C A Bul 29:1483-92 Ag 1 '48
 Case against flexible budgeting. B. P. Hamilton. N A C A Bul 29:1135-40 My 15 '48
 Dynamic budgeting for cost control. E. J. Hockstad. N A C A Bul 30:115-30 O 1 '48
 Guideposts to better budgeting; abstract. S. Havassy. Management R 37:259-61 My '48
 How to start a budget for a small manufacturing company. L. H. Spronck. J Account 86:34-7 Jl '48
 Planning for profit; credit man's relation to budgetary control. S. Havasey. Credit & Fin Management 50:22-3+ Jl '48
 Preparation of a utility's budget. W. H. Zimmer. Am Gas Assn Proc 1947:173-99
 Procedure for periodic comparison of actual results with original budgets. F. H. Crissman. Am Gas Assn Proc 1947:200-13
 Sales budget; blueprint for more efficient marketing. C. W. Smith. map Sales Management 61:37-40 Jl 15; 48+ Ag 1 '48
 Value of budget procedures to the utility industry. J. W. Mackie. Am Gas Assn Proc 1947:171-3
 Variable budget control is key to cost reduction; New York air brake co. R. G. Hess. Factory Management 106:118-21 O '48

BUDGET, Household

- Budget in perspective. A. F. Hinrichs. Mo Labor R 66:131-2 F '48
 Budget levels for families of different sizes. Mo Labor R 66:179-81 F '48
 City worker's family budget; purpose and methods followed in BLS survey for 34 cities; with tables. L. S. Kellogg and D. S. Brady. bibliog Mo Labor R 66:133-70 F '48
 Expenditures of moderate-income families; 1934-36 and 1945. M. C. Ruark. Mo Labor R 66:622-6 Je '48
 Family budgets; a historical survey. D. S. Brady. bibliog Mo Labor R 66:171-5 F '48
 Family incomes and cost of family budgets; Indianapolis study. A. Hurwitz. Mo Labor R 66:176-8 F '48
 Helping people make ends meet; budget counseling service of Northwestern national bank, Minneapolis. M. E. Mattson. Banking 40:60-1+ F '48
 Pattern of food expenditures. D. S. Brady and H. A. Barber. bibliog R Econ & Stat 30: 198-206 Ag '48
 Quantity and cost budgets for dependent families or children; prices for San Francisco, September 1947. 56p pa 75c Univ. of Calif. Heller committee for research in social economics, Berkeley '47
 Quantity and cost budgets for three income levels; prices for San Francisco, September 1947. 106p pa \$1 Univ. of Calif. Heller committee for research in social economics, Berkeley '47

- Real persons cut more budget corners than do BLS' imaginary wage earners. Barron's 27:12 D 22 '47
 £6,250 a year; A. D. 1948. W. Wallace. Fortune 38:120+ Ag '48
 Studies in consumer expenditures (1901, 1918-19, 1922-24). H. G. Lewis and P. H. Douglas. bibliog J Bsns 20 pt 2:1-55 [with appendix of statistical tables] O '47
 \$25,000 a year; A.D. 1948; how seven families in seven U.S. metropolitan areas are not quite managing to live on that income. Fortune 37:66-8+ Ja '48

See also**Cost of living****BUDGET, Personal**

- Quantity and cost budget for a single working woman; prices for San Francisco, September 1947. 16p pa 35c Univ. of Calif. Heller committee for research in social economics, Berkeley '48
 State budgets for single women workers. H. Kefauver. Mo Labor R 66:182-4 F '48
BUDORCAS. See Takins, Fossil
BUDWORMS, Spruce. See Spruce budworms
BUFFALO, New York

Sewerage

- Industrial pollution abatement program; abstract. G. E. Symons and others. Water & Sewage Works 95:110-11 Mr '48
 Industrial waste pollution abatement program. G. E. Symons and others. il map Sewage Works J 20:851-71 S '48

Streets

- Solving traffic-congestion problems in urban centers. B. D. Tallamy. il maps Roads & Bridges 86:106+ S '48

- BUFFALO** Niagara electric corporation
 Merger approved. Comm & Fin Chr 167:2130; 168:1358 My 17, O 4 '48

- BUFFALOES, American.** See Bison, American

BUFFER mixtures

- Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions. R. G. Bates. bibliog J Res Nat Bur Stand 39:411-17 N '47

- BUFFETT bill.** See Gold as money

- BUFFING.** See Polishing

- BUGAS, John Stephen**

- Portrait. Bsns W p 110 My 22 '48

BUILDERS' equipment

- Building products on review; illustrations with text. Am Bld 70:76-106+ F '48

- BUILDERS' risk insurance.** See Insurance, Builders' risk

BUILDING

- Building a skyscraper city; Stuyvesant Town in New York city. il Eng N 140:190-1 F 5 '48

- Building forum under the auspices of the Architectural department of the Pennsylvania state college. il Heat & Ven 45:126+ Mr '48

- Building products on review; illustrations with text. Am Bld 70:76-106+ F '48

- Cost-saving design simplified apartment housing construction. W. T. Holzman. il diags Eng N 139:675-9 N 13 '47

- Detroit builds first unit of civic center. il Eng N 141:68-9 S 30 '48

- Housing design for construction economy; Hancock Village, garden-type home community in the Brookline-West Roxbury area of Boston. il plans Eng N 139:874-6 D 25 '47

- Is the construction boom over? Fortune 38:4 Ag '48

- Mass construction of houses by Kaiser; blend of factory and field operations. S. A. Garrett. il Mill & Factory 42:132-3 Ap '48

- Material handling simplified on community school project. H. E. Getman. il Am Concrete Inst J 19:332-4 D '47

- Open-web girders simplify air-conditioning duct location; Macy's Jamaica department store. il Eng N 140:425 Mr 18 '48

- Retaining wall eliminates underpinning. N. B. Green. il diags Eng N 141:74-5 S 2 '48

- Superstitutions in the building field. S. F. Borg. il Eng N 140:968-9 Je 10 '48

BUILDING—Continued

Toward low-cost building; special section. *il*
diags Eng N 139:659-83 N 13 '47
World construction report. *il* Eng N 140:277-
82 F 19 '48

See also

Acoustics, Architectural
Air conditioning
Air raids and building
Architecture
Beams and girders
Brick construction
Building laws and regulations
Building materials
Building trades
Chimneys
Cold storage locker plants
Columns
Concrete, Reinforced
Concrete construction
Concrete houses
Construction equipment
Earthquakes and building
Factories
Farm buildings
Fireproof construction
Floors
Foundations
Framing (building)
Glass construction

Hangars
Heating
Home ownership
Hot water supply
Hotels
Houses
Housing
Industrial buildings
Joints
Masonry
Piles and pile driving
Plumbing
Public works
Roofs
School buildings
Sheet metal work, Architectural
Shipbuilding
Soundproofing
Steel construction
Stone construction
Strains and stresses
Strength of materials
Tile construction
Trusses
Ventilation
Walls
Windowless construction
Winter construction
Wood construction

Cost

Brief survey of Chicago building costs. V. O. McClurg. Midwest Eng 1:6-7 S '48
Building cost trends. M. H. Foley. Comm & Fin Chr 167:905-4 F 26 '48
Close supervision, careful checking cuts building costs; Berne company's Merrick Crest development, Jamaica, N.Y. *il* plans Am Bld 70:92-3 Ja '48
Construction cost indexes, labor and materials for New York, Atlanta, St Louis and San Francisco; selected years 1920-1946 and monthly July 1947-October 1947. Arch Rec 103:26 Ja '48 [cont monthly]
Construction cost indexes, 1941-1946. Survey of Cur Bsns 1947 Sup p32-3 [supplemented in monthly numbers]
Construction costs, 1948. fold chart Eng N 140:797-9+ My 27 '48
Construction costs; selected data, 1939-1948; graphs. Bsns W p26 S 4 '48
Construction costs stay up; forum of American public works association. *il* Eng N 141:71-4 O 28 '48
Contract unit bid prices. Eng N 140:865-4 My 27 '48
Costs up; profit percentage down; cost comparisons of items in two identical houses built in Cincinnati in 1941 and 1947. *il* plan Am Bld 70:80 Ja '48
Design and site fabrication economies coordinated in small house test program of University of Illinois. J. T. Lendrum. *il* diag Arch Rec 103:141-5 My '48
Design of a skyscraper hospital; Ft Hamilton veterans hospital; with unit prices. *il* plan diags Eng N 140:778-82 My 27 '48
Economy in structural design. I. E. Morris. diags Am Concrete Inst J 19:349-59 Ja '48
Effect of restrictive electrical codes and ordinances on building costs. A. F. Metz. Edison Elec Inst Bul 15:431-4 D '47
Examples of low-cost housing. *il* plans Am Bld 70:110-15 S '48
Home building costs and trends. M. L. Matthews. Comm & Fin Chr 167:605-4 F 5 '48
Hospital construction costs can be cut. I. Rosenfeld. *il* plans diag Eng N 141:96-3 O 28 '48
Index of small house costs; cost index for standard house in 47 cities, 1939; 1944-1947. Eng N 140:861, 863 My 27 '48
Interesting facts on building costs. M. L. Matthews. Sheet Metal Worker 39:95 Ja '48
New construction activities compared on 1939 price basis. Civil Eng 13:429-4 JI '48

Today's problems and costs in building concrete masonry homes; abstract. J. Strandberg, Jr. Concrete 56:83 Ap '48
Welded steel construction for hydroelectric power plants; with cost data. O. J. Aftreth and A. J. Perry. plans diags Power Generation 52:98-4 F '48
What will it cost to rebuild your property? (cont). Rough Notes 91:28 Ja; 36 Ap; 37-8 JI; 32 O '48
What's happening to values? E. H. Boeckh. Rough Notes 90:17-18-4 N '47
Where are building construction costs going? J. P. H. Perry. Comm & Fin Chr 168:1209-4 S 23 '48

Estimates

How much will it cost? Fast-est building materials price calculator. *il* Am Bld 69:115 N '47

See also

Brick construction
—Estimates

Extensions

Mess hall extended while cadets dine; United States military academy. *il* diags Eng N 141:66-7 S 30 '48

Finance

Cost of financing; bond yields, 1933-1947; interest rates, 1929-1947. Eng N 140:837 My 27 '48
Housing pains; builders, mortgage men weigh financing problems. Bsns W p26-4 Mr 6 '48
1947 construction volume vs costs. Eng N 140:264-74 F 19 '48
Private investment financing in 1947 largest since 1930. Eng N 140:sup65 Mr 18 '48
Proposes new scheme of construction financing. L. T. Smith. Comm & Fin Chr 167:2430 Je 3 '48
\$2 billion school building program ready for work, FWA survey shows. Eng N 140:925 Je 3 '48
Will financing problems halt building boom? J. D. C. Weldon. *il* Mag of Wall St 82:389-90-4 JI 17 '48

See also

Building trades
—Finance
Mortgages

Heating aspects

Arctic shelter; United States army testing new type of troop shelter. Heat & Ven 45:136-4 O '48
Building shape vs heating efficiency. A. J. Maher. Heat & Ven 45:91-4 Ag '48
Heating as it applies to the builder and architect. S. Konzo. diags Am Bld 70:108-11 Je '48
Heating results depend on construction details. S. Lewis. Heating-Piping 20:103-4 JI '48
Here's an idea; put town inside building by roofing over area half a mile square, heating and other problems could be solved. S. Lewis. Heating-Piping 20:107-8 My '48
How to save money on oil heating. *il* diags Sheet Metal Worker 39:55-6-4 JI '48
Measurements of solar heat transmission through flat glass. G. V. Parmelee and others. *il* diag Heating-Piping 20:158-66 Ja '48
Method for calculating insulation economies developed by HHPA technical staff. Arch Rec 103:141-4 Je '48
Periodic heat transfer at the inner surface of a homogeneous wall. H. A. Johnson. biblog Heating-Piping 20:121-31 My '48
Stop building heat leaks to save fuel this winter. E. A. Tyler. Heating-Piping 19:90-1 N '47

Rapid construction

American community builders; construction of Park Forest, satellite town, south of Chicago. *il* maps plans Arch Forum 89:70-4 Ag '48
Built in 59 days; low cost houses by Carl R. Bryan of Pasadena, Calif. *il* plans Am Bld 70:90-1 Ja '48
Clever design and erection speed Texas fair structure. *il* Eng N 141:15 S 9 '48

BUILDING—Rapid construction—Continued

Fast work on student housing at Pennsylvania state college. *il Eng N 141:106-7 S 16 '48*

Homes in a hurry for Puerto Rico. *il Eng N 141:6 Ag 12 '48*

On-site fabrication keeps costs down on this project in Detroit area. *il plans diag Am Bld 70:92-5 Je '48*

See also

Houses, Prefabricated

Repair and reconstruction

Engineering problems in building changes and repairs. F. H. Wells. *diags Midwest Eng 1:25-7 S '48*

How-to-do-it pointers. *Am Bld 70:98 Ja '48* [cont monthly]

See also

Houses, Remodeled

Safety aspects

See also
Fire escapes

Safety measures

Bridging the accident-gap; construction of substructure for bridge near Pittsburgh. *il Safety Eng 96:24 Ag '48*

See also

Concrete construction—Safety measures

Steel construction—Safety measures

Standards

Flexible and lightweight, Deskey's modular screening system is first step in Boston renovation job. *il diags Arch Forum 87:106-7 D '47*

Flexible plan attained for library through modular design; Princeton university's new Harvey S. Firestone memorial library. *il plans Eng N 139:808-11 D 11 '47*

Interlocking metal frame used with lightweight insulating panels in economical new modular structural system; Haig house. *il diags Arch Forum 88:128-9 Je '48*

Layout tables for glass block panels based on modular coordination. *diags Brick & Clay Rec 112:34 F '48*

Marble's contribution to industrial standardization; new specification for the proper method of using and installing. R. Shawhan. *il Ind Stand 19:141-2 O '48*

Modular library under construction; State college of Washington. Pullman. *il plans diags Arch Rec 104:102-9 Jl '48*

University builds small homes to compare construction methods. J. T. Lendrum. *il Ind Stand 19:32-5 My '48*

See also

Concrete construction—Standards

Statistics

Building and construction. Published in Monthly labor review

Building contracts at high mark in first quarter of 1948. T. S. Holden. *Comm & Fin Chr 167:1768 Ap 22 '48*

Building hits peak. *Bsns W p54 F 14 '48*

Building tempo to reach new high in 1948. *Am Bld 70:57-94 Ja '48*

ELS raises estimate of new construction. *Comm & Fin Chr 168:815 Ag 12 '48*

Construction activity, contract awards, etc., 1941-1946. Survey of Cur Bsns 1947 Sup p27-34 [supplemented in monthly numbers]

Construction activity; with graphs giving data for 1945-1947. charts(p 1) Survey of Cur Bsns 27:7 N '47

Construction dollar-volume reaches all-time record. *Eng N 140:1 Ja 1 '48*

Construction volume this year expected to top 1947 figure by 13 percent. *Civil Eng 18:53-4 Ja '48*

New construction activity, by type, 1929-46; tabulation. Survey of Cur Bsns 27:sup44 Jl '47

New construction activity, by type, 1944-47; tabulation. Survey of Cur Bsns 28:25 Jl '48

1947 construction developments. Survey of Cur Bsns 28:4 Ja '48

1947 construction volume exceeds 1946 record by nine percent. *Eng N 140:sup51 Ja 22 '48*

1947, construction volume vs costs. *Eng N 140:264-74 F 19 '48*

Progress of the postwar transition; construction activity in 1947. Survey of Cur Bsns 28:20-1 F '48

Review of the construction situation. H. E. Riley. *Mo Labor R 65:539-43 N '47*

Study and teaching

Construction-worker training that works; Montreal contractors, unions and Quebec provincial government jointly operating school for construction apprentices. *il Eng N 140:1038-9 Je 24 '48*

Tables, calculations, etc.

See also

Masonry—Tables, calculations, etc.

Canada

Canada building boom crimped. *Steel 122:67 F 23 '48*

Chicago

Brief survey of Chicago building costs. V. O. McClurg. *Midwest Eng 1:6-7 S '48*

Chicago's construction moves ahead. H. M. Stanton. *il Midwest Eng 1:3-5+ S '48*

History of building foundations in Chicago; a report of an investigation. R. B. Peck. *il plans diags Ill U Eng Exp Sta Bul 373:1-62 '48 (40c)*

Chile

Situation in Chile. *For Comm W 33:37 O 2 '48*

Europe

Europe reaches for prewar status. *il Eng N 140:277-80 F 19 '48*

France

New cooperative research setup to aid reconstruction in France. *il diags Eng N 140:426-7 Mr 18 '48*

Great Britain

Cripps, controls and construction. *Economist 153:705-6 N 1 '47*

Latin America

Latin-American situation. *il Eng N 140:280-2 F 19 '48*

South America

Problems of heavy construction contractor in South America. J. J. Collins. *il Civil Eng 17:24-8+ D '47*

Southern states

South experiences big year for construction value; total is highest in peacetime. *il Manuf Rec 117:30-1+ Ja '48*

United States

Building boom. *Nat City Bank p75-7 Jl '48*

Building industry looks forward. G. H. Miehs. *Western Soc E J 52:188-95 D '47*

Building tempo to reach new high in 1948. *Am Bld 70:57-94 Ja '48*

Claims new construction under prewar rate. C. B. Wigton. *Comm & Fin Chr 167:909 F 26 '48*

Construction activity, 1939-1947; Commerce department study. *Heat & Ven 45:120-2 Ap '48*

Construction outlook, 1948. *Dom Eng 171:105+ Ja '48*

Construction prospect for 1948. T. S. Holden and C. Shute. *Arch Rec 102:106-7 D '47*

Construction; prospects for 1948. L. E. Browne. *il Steel 122:152-3 Ja 5 '48*

Extent of building revival ahead? G. W. Mathis. *il Mag of Wall St 81:197-9+ N 22 '47*

F. W. Dodge corporation reports building up 30 per cent over last year. *Comm & Fin Chr 168:1768 O 28 '48*

Gains seen in 1948 construction. Heating-Piping 20:136 Ja '48

Good Congress record seen on construction matters. V. B. Smith. *Eng N 141:1-3, 10 Jl 1 '48*

Inventory of major projects; with information on costs, sizes and features. *il maps Eng N 140:287-308 F 19 '48*

BUILDING—United States—Continued

- National association of real estate boards expects commercial building gain. Comm & Fin Chr 166:2269 D 4 '47
- National association of real estate boards sees rent control slowing building. Comm & Fin Chr 166:2621 D 25 '47
- Outlook for construction in '48. H. E. Foreman. Concrete 56:8-9 + F '48
- Real estate and construction markets. Fed Res Bul 34:755-63 J1 '48
- Survey and forecast, 1947-1948. il Eng N 140: 245-62 F 19 '48
- What's after for building; what the leaders say; symposium. Am Bld 70:52-6 Ja '48

See also

Building trades—
United States

BUILDING and earthquakes. See Earthquakes and building

BUILDING and loan associations

- Building society problems. Economist 154: 943-4 Je 5 '48
- Gross savings and loan receipts topped \$1 billion in first quarter of 1948. R. M. Smith. Comm & Fin Chr 168:21 J1 '48
- Savings and loan units ride crest again. R. M. Bleiberg. Barron's 28:7-8 F 9 '48
- Specialization spells success for progressive printing firm; William Rylance & sons print forms used by savings and loan associations. G. C. Compton. il Inland Ptr 120: 37-9 N '47
- Urges savings-loan associations to insure loans. D. W. DeWitt. Comm & Fin Chr 168: 1113 S 16 '48
- Warns savings and loan executives to review investment program. S. R. Wendin. Comm & Fin Chr 168:617 Ag 12 '48

See also

Federal savings and
loan associations

Great Britain

- Abbey national building society annual meeting. Economist 154:525 Mr 27 '48
- Building societies' record year. Economist 154:433 Mr 13 '48

BUILDING blocks

- Cold molded model building blocks. il Mod Plastics 25:100 D '47

BUILDING contracts

- Legal adventures of Tractor Conn; based on decisions of American courts. L. Jobb. Constr Methods 30:97 Ja; 103 F; 109 Mr; 112 Ap; 103 My; 107 Je; 95 Ji; 89 Ag; 87 S; 59 O '48 (to be cont)
- Legal decisions relating to construction. I. V. Werbin. Eng N 140:1023 Je 24; 141:118 Ji 8; 103 S 16; 65 S 30; 87 O 28 '48

BUILDING equipment. See Construction equipment**BUILDING fittings**

- Kitchen cabinet hardware and metal mouldings. il diags Am Bld 70:92-3 J1 '48

See also

Door fittings

BUILDING laws and regulations

- Building official looks at codes. H. A. Cobden. Eng N 139:800 D 11 '47
- Emergency controls on construction, 1941-1948. Eng N 140:791 My 27 '48
- Good building codes properly administered assure public safety. C. G. Cappel. il Civil Eng 18:9-12 Ja '48
- National Board prepares National building code. East Underw 49:22 My 28 '48
- New building codes urged to cut fires. P. B. Fleming. East Underw 48:20+ O 31 '47

See also

Mechanics liens Ventilation—Laws
Plumbing laws and and regulations
regulations

Georgia

- New building statute now effective. East Underw 48:17 D 12 '47

South Africa

- What South African architects face in designing a building. il Ind Stand 19:150-1 O '48

BUILDING loans

- Veterans repair loans; VA unwraps new low-interest plan. Arch Forum 87:14 N '47

See also

Mortgages
Veterans—Loans

BUILDING materials

- Brick & Clay Record's spot check on building material for 1948. Brick & Clay Rec 112:36-7 Ja '48
- Building materials outlook for 1948. Factory Management 106:B62-3 pt 2 Ap '48
- Building materials stay short. il Bsns W p25 N 8 '47
- Building products on review; illustrations with text. Am Bld 70:76-106+ F '48
- Effect of atomic bombing on building materials at Hiroshima. Japan. A. C. Tester. Geol Soc Bul 59:787-94, pl 1-4 Ag '48
- Fiberglass building in New York for Owens-Corning fiberglass corp. il Arch Rec 103: 140-1 F '48; Am Bld 70:98-9 Mr '48
- For immediate delivery; Lorne Pacey's ventures. Fortune 36:143 D '47
- Hotel faced with plastic and aluminum; Laurentien hotel in Montreal. il diags Eng N 141:70-3 J1 22 '48
- House building materials reappraised. H. V. Walsh. diags Arch Rec 102:115-20 N '47
- Housing design for construction economy; Hancock Village; garden-type home community in the Brookline-West Roxbury area of Boston. il plans Eng N 139:874-6 D 25 '47
- Johns-Manville corporation lays cornerstone at Research center. il Blast F & Steel P1 36:132 Ja '48
- Laurentien, Montreal hotel uses pulp and paper product in construction; arborite, lignin enriched laminated paper. il Pulp & Pa of Can 49:57-9 F '48
- Limestone as a building material. O. Bowles and N. C. Jensen. U S Bur Mines Information Circ 7416:1-16 '47
- Modern Plastics competition; building materials awards. il Mod Plastics 25:116-21 S '48
- New label will identify hidden qualities built into homes; Revere Copper & Brass quality house institute. il Ptr Ink 223:34-5 Je 25 '48
- PABCO research laboratories completed. il Paper Ind 29:1077-8 N '47
- Ricement; rice hulls into building blocks. il Arch Forum 87:12 D '47
- Sandwich wall construction developed for aircraft is under study as boon to low-cost housing. il Heat & Ven 44:110+ D '47
- Semi-structural building panel has insulating and noise reducing qualities, speeds erection, lowers building costs; Durisol. Arch Forum 88:129 Je '48
- Showroom and offices serve as building education center for building material dealer. il Am Bld 70:120-3 S '48
- Time-saving expedients cut over-all costs of new plants. G. R. Miehl. il Eng N 141:99-100 O 28 '48
- Toward low-cost building; special section. il diags Eng N 139:659-83 N 13 '47
- Visit to the house of fiberglass. il Sheet Metal Worker 39:108+ Mr '48
- Weights of various materials; tabulation. Brick & Clay Rec 111:33 D '47
- Wood waste now converted into fine woodwork; Frespine panels. il Am Bld 70:118-19 J1 '48

See also *

Adobe
Aluminum, Structural
Bricks
Cement
Clay products
Concrete
Concrete, Reinforced
Concrete blocks
Concrete tiles
Fiber board
Fire resisting materials
Flooring
Glass, Structural
Glass blocks
Lime
Lumber

Metal work, Architectural
Mineral wool
Paper, Building
Plywood
Roofing
Sheet metal work, Architectural
Sound absorbent materials
Steel, Structural
Strength of materials
Terra cotta
Tiles
Vermiculite
Wall board
Wood

Prices

- Building materials prices. Heat & Ven 44:109-10 D '47

BUILDING materials—Prices—Continued

Jury considers price racket charges. Eng N 141:41 S 30 '48

Prices of construction materials; price trends; basic building materials prices, New York city, 1874-1947. Eng N 140:813 My 27 '48

Wholesale prices of building materials 1913-1947; table. Steel 122:52 Ap 5 '48

Statistics

Trends in construction materials shipments. Eng N 140:sup53 Ap 15 '48

Testing

Manville builds new home for industrial research. Il Bsns W p44 N 8 '47

BUILDING officials conference of America

Annual meeting, 33d, New York. Eng N 141:4 S 23 '48

BUILDING paper. See Paper, Building**BUILDING research**

Building research advisory board promotes development in building construction. R. H. Tatlow. Il Civil Eng 17:676-9+ N '47

Design and site fabrication economies coordinated in small house test program of University of Illinois. J. T. Lendrum. Il diag Arch Rec 103:141-5 My '48

New cooperative research setup to aid reconstruction in France. Il diags Eng N 140:426-7 Mr 18 '48

BUILDING trades

After the turn of the year. P. W. Eller. Comm & Fin Chr 167:338 Ja 22 '48

Building industry looks forward. G. H. Miehl. Western Soc E J 52:188-95 D '47

Developing total and unit costs by types of work on construction projects. M. J. Mazur. N A C A Bul 29:1077-86 My 1 '48

Firm prices are returning to industrial building. Il Bsns W p 19-20 Jl 17 '48

Improved outlook for construction industry. M. L. Matthews. Comm & Fin Chr 168:204 Jl 15 '48

Make it easy for the customer to buy; complete building service offered by two lumber and supply companies in Louisiana. Il plans Am Bld 70:132-7 O '48

Real estate and construction markets. Fed Res Bul 34:755-63 Jl '48

Sharp advice for building maintenance contractors from Stevenson, Jordan & Harrison, maintenance engineers. Bsns W p23-4 F 14 '48

Skilled help, materials lack seen top construction worry. Eng N 141:1+ S 9 '48

Slide-rule homebuilding; Smith & Hill inc., Chicago builders, have adapted mass production and new financing techniques to small-scale operation. Il plans Arch Forum 88:74-8 F '48

We plugged the leaks in profits through tighter sales control; Michigan wholesalers, inc. G. E. Voorhees, Sales Management 60:56+ Ap 15 '48

See also

Brick industry and Houses, Prefabricated
trade Housing projects
Cement industry and Lumber trade
trade Plumbing trade

also Building officials conference of America; Johns-Manville corporation

Accounting

Construction cost-control simplified. I. H. Winslow. Eng N 140:792-4 My 27 '48

Mechanizing construction accounting; F. H. McGraw & co. C. S. Strike. Il Eng N 141:101 O 28 '48

Advertising

Industrial builder goes into television; Austin co. Il Bsns W p25-6 Je 12 '48

New label will identify hidden qualities built into homes; Revere Copper & Brass quality house institute. Il Ptr Ink 223:34-5 Je 26 '48

Exhibitions

Building exhibition at Olympia, Nov. 19-Dec. 4. Il Engineering 164:522-4 N 28 '47

Building exhibition, 1947, Olympia, Nov. 19-Dec. 4. Il Gas J (Lond) 252:529-30 D 3 '47

More than 7,000 get exhibit, sales ideas from fifth Home builders exposition. Il Ind Marketing 33:48+ Mr '48

Finance

Credit in construction work; how to avoid some of the hazards. J. C. Hoffman. Credit & Fin Management 50:10-13+ Ap '48

See also

Federal housing administration—Insured mortgage plan Insurance, Surety and fidelity—Contract bonds

Labor conditions

AFL unions approve pact to end jurisdictional strikes in the construction industry. Eng N 140:397 Mr 18 '48

Apprentices seen only hope for sick brick-laying craft. R. H. Dadds. Eng N 141:5+ O 7 '48

Arbitration panel awards pay raises in settling Arizona construction fight. Eng N 140:80 Ja 15 '48

Associated general contractors sets up national joint board to settle jurisdictional disputes. J. W. Shaver. Concrete 56:20+ Mr '48

Base rates on compensation insurance for construction, April 1, 1948. Eng N 140:845 My 27 '48

Builders' peace? first decisions in jurisdictional disputes. Bsns W p 100 S 4 '48

Building arbitration machinery starts. Bsns W p 115-16 Ap 17 '48

Building output; a case history. Economist 154:73-4 Ja 10 '48

Building trades wage rates, eight-hour day, prevailing Sept. 1, 1947. Eng N 139:695 N 13 '47

Building trades wages up 52 percent since 1939. Eng N 140:158 Ja 29 '48

Building unions gain new wage boosts. Eng N 140:451 Ap 15 '48

Chicago's housing prospects for 1947; labor situation. B. Dalton. Western Soc E J 52:122-4 S '47

Comparative employment levels; construction projects, 1941-47. Mo Labor R 65:562 N '47

Comparative employment levels; construction projects, 1946-47. Mo Labor R 66:58-9 Ja '48

Compensation insurance rates for construction; Nevada, North Dakota, Ohio, West Virginia and Wyoming. Eng N 140:847 My 27 '48

Construction productivity rising. Eng N 140:788-9 My 27 '48

Construction wage rates and trends, 1926-1947. Eng N 140:823+ My 27 '48

14,000 polls; applying the T-H act to the building trades unions. Bsns W p 104+ F 21 '48

Is labor to blame for housing lag? two congressional committees disagree. Il Bsns W p84-6+ Ja 10 '48

Joint board settles disputes in AFL building trade unions. Eng N 141:1+ Ag 26 '48

Labor requirements for new construction, 1947-48. Mo Labor R 66:413-14 Ap '48

Labor requirements for new construction, second quarter, 1948. Mo Labor R 67:47-8 Jl '48

Labor requirements for new construction, third quarter, 1948. Mo Labor R 67:393-4 O '48

Law to be applied to construction. N. C. Rockwood. Rock Prod 51:93+ Ap '48

Local construction does not affect interstate commerce? application of Taft-Hartley law to building trades. N. C. Rockwood. Rock Prod 51:125+ Je '48

Looking to the future; Fort Wayne builder trains veterans while building three subdivisions. Il plans Am Bld 69:90-3 D '47

Minimum building wage set by Indiana county. Eng N 140:619 Ap 29 '48

NLRB asks courts end building strikes. Eng N 139:838 D 18 '47

NLRB rules against feather-bedding. Eng N 141:3 Ag 12 '48

NLRB takes construction jurisdiction. Eng N 140:1004 Je 24 '48

New York builders, AFL OK wage stabilization pact. Eng N 140:23 Ja 8 '48

BUILDING trades—Labor conditions—Cont.

New York building conditions stabilized; new wage contract. M. L. Matthews, Comm & Fin Chr 167:243 Ja 15 '48

Open shop; Jersey newcomer picks fight with toughest building locals in U.S. Arch Forum 88:10-11 Je '48

Plan to stop jurisdictional disputes makes progress in AGC-AFL sessions. Eng N 139: 839 D 18 '47

Supreme court rules 40 hrs. is base for overtime pay. Eng N 141:5 O 21 '48

T-H change due? collapse of union-shop poll in building trades. Bsns W p 110-11 O 23 '48

Union wages and hours: building trades. July 1, 1947. H. W. Callaway. U S Bur Labor Statistics Bul 930:1-36; pa 20c Supt. of doc. '48; Excerpt. Mo Labor R 66:50-3 Ja '48

Unions agree to build prefabs. Steel 121:63 N 17 '47

U.S. acts against building labor group as new union-employer activity begins. Eng N 140:97 Ja 22 '48

Wage rates in the building trades. Sheet Metal Worker 39:47 S '48

Wage rates in the building trades in 48 cities; tabulation. Sheet Metal Worker 39:92 Ja '48

Public relations

Building industry on West coast plans public relations. il Am Bld 70:106 Ag '48

Securities

Extent of building revival ahead? with data on promising companies in the building industry. G. W. Mathis. il Mag of Wall St 81:197-9+ N 22 '47

How far can the building boom go? with position of leading building materials stocks. S. Devlin. Mag of Wall St 81:594-6+ F 28 '48

Realistic appraisal of building stocks; with position of leading building materials stocks. S. Devlin. Mag of Wall St 82:538-40+ Ag 23 '48

Statistics

Is building boom ending? Bsns W p 19-20 Je 26 '48

Europe

Private builder vanishes in Europe. F. W. Cortright. Am Bld 70:95 Ja '48

Great Britain

British trade in building materials restrained. For Comm W 31:33 Je 19 '48

Builders' merchant; Simon report. Economist 154:722-3, 851-2 My 1, 22 '48

Inquiry into building. Economist 154:811 My 15 '48

New York (city)

Housing investigators hear charges of monopoly in N.Y.C. construction. Eng N 139:707 N 20 '47

New York builders, AFL OK wage stabilization pact. Eng N 140:23 Ja 8 '48

New York building industry answers critics. C. G. Norman; T. S. Holden. Heating-Piping 20:82 F '48

New York (state)

New York building conditions stabilized; new wage contract. M. L. Matthews, Comm & Fin Chr 167:243 Ja 15 '48

United States

Building materials prices. Heat & Ven 44: 109-10 D '47

Challenge to the construction industry. A. Wilson. Brick & Clay Rec 112:30-1 F '48

Construction faces new decisions. R. W. McChesney. Comm & Fin Chr 166:2165+ N 27 '47

Construction outlook. W. Wright. Comm & Fin Chr 167:805 F 19 '48

Future of the building construction industry. J. F. H. Perry. il Civil Eng 13:152-5 Mr '48; Same cond. Heat & Ven 45:116+ Je '48

Homebuilding keeps booming. il Bsns W p23 S 11 '48

Homebuilding's biggest year. il Bsns W p 19-20 My 8 '48

Outlook for construction industry. T. S. Holden. Comm & Fin Chr 167:805+ F 19 '48

Plan to modernize the building industry. J. Garth. il Am Bsns 18:16-17+ F '48

Prologue to progress; address before tenth anniversary meeting of the Washington building congress. T. S. Holden. il Arch Rec 103:86-91 Ja '48

Score construction industry in NAM report on housing. Eng N 139:781+ D 11 '47

BUILDINGS**See also**

Architecture	High buildings
Bank buildings	Hospitals
Building	Hotels
Capitols	Houses
College buildings	Industrial buildings
Dampness in buildings	Laundries
Electric utilities—Buildings	Mine buildings
Factories	Office buildings
Farm buildings	Railroads—Buildings and structures
Foundries	Recreation buildings
Gas companies—Buildings	School buildings
Gasoline service stations	Society buildings
	Store buildings
	Warehouses

Cleaning

Sanitary chemicals in government building maintenance. C. C. Staats. Soap & San Chem 24:147+ F '48

Demolition

See Wrecking

Management

Skilled operating personnel needed in air conditioning. D. A. Kepler. diag Heating-Piping 20:121-3 Ja '48

Obsolescence

Depreciation schedule, U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, waterworks, gas and electric plants. Eng N 140:857+ My 27 '48

Records

Good buildings need good records. C. J. Schwingle. Banking 41:54-5+ O '48

Vibration

Damping of textile-mill movement by Frahm system. C. E. Crede. il diags A S M E Trans 69:937-46 N '47

Experimental determination of vibration characteristics of structures. S. J. Loring. il diag Am Soc C E Proc 73:1457-74 D '47; Discussion. 74:1022-8, 1219-22, 1627-9 Je-S, D '48

Vibration testing of friction piles. C. F. Dodge and W. F. Swiger. il diags Eng N 140:716-20 My 13 '48

Wrecking

See Wrecking

BUILDINGS, Industrial. See Industrial buildings

BUILDINGS, Portable

Anchoring portable station building. M. H. Pearce. il World Oil 128:242 My '48

BUILDINGS, Prefabricated

All-welded prefabricated sandwich shops shipped completely assembled anywhere in the United States. R. E. Davies. il Welding J 26:788-9 S '47; Same. Sheet Metal Worker 38:62-3 N '47

Development of tilt-up construction. C. A. Clark. il diags Am Concrete Inst J 19:813-20 My '48

Experiences with panel construction; Country Life Press building at Garden City, L.I.; Federal telecommunications laboratory at Nutley, N.J. and the Doubleday publishing plant at Hanover, Pa. L. F. Booth. il Eng N 139:670-3 N 13 '47

Industrial plants packaged to order. F. S. Merritt. il Eng N 139:667-9 N 13 '47

Pre-cast roof and wall panels in the construction of buildings. T. C. Creaghan. il Pulp & Pa of Can 49:76-7 Ja '48

Prefab track carries midget racing autos. il Eng N 141:15 JI 15 '48

BUILDINGS, Prefabricated—Continued

Shop fabrication of wood trusses and laminated beams expedites erection. V. Ketchum, *il* diags Eng N 141:106-8 O '48

See also
Houses, Prefabricated

BUILDINGS, Remodeled

Deft remodeling; new office for Owens-Corning fiberglass corp. *il* diags Arch Forum 88:87-91 Je '48

Houston store rebuilds eleven floors without shutting down; Fashion, inc. *il* plans diags Arch Forum 88:110-11 My '48

New apartments over a drafting room. *il* plan Arch Rec 103:120-1 F '48

Residences converted to commercial treble earnings; modern medical center emerges from transformed court. *il* plans Am Bid 69:82-3 N '47

Unique face-lifting for 99 year old building; Baltimore rug and linoleum store. *il* plan diags Am Bid 69:113-19 D '47

Women's wear store is hung on steel frame of old office building; L. Magnin, San Francisco, *il* plans diags Arch Forum 88:106-7 My '48

See also
Houses, Remodeled

BUILDINGS, Temporary

Experimental paper house; made of sulfur impregnated chipboard. J. A. Van den Akker and W. A. Wink, *il* diags Paper Ind 30:231-8 My '48

BUILT-IN furniture. *See* Furniture, Built-in

BULBS

Netherlands' flower-bulb trade. For Comm W 32:31 Ag 14 '48

BULGARIA

See also
Vocational education—Bulgaria

Constitution

New Bulgarian constitution. Int Labour R 57:624-6 Je '48

Economic policy

Bulgarian two-year plan. Int Labour R 56:313-15 S '47

Nationalisation of Bulgarian industries and banks. Int Labour R 58:375-7 S '48

Politics and government

Bulgaria, kingdom of Dimitrov. Economist 154:507 Mr 27 '48

BULKHEADS

Large-scale model earth pressure tests on flexible bulkheads. G. P. Tschebotarioff, *il* plan diags Am Soc C E Proc 74:9-48 Ja '48; Discussion. 74:1003-14, 1257-60 Je-S '48

Lateral earth pressures on flexible retaining walls; application of test results to quay wall design. H. Epstein, diags Am Soc C E Proc 74:58-71 Ja '48

Long piers for the navy's surplus ships. *il* Eng N 140:356-60 Mr 4 '48

Special features on large-scale earth pressure tests. E. R. Ward and others, *il* diags Am Soc C E Proc 74:49-57 Ja '48

BULKHEADS (naval architecture)

Shearing stress distribution in box girders with multiple webs. A. S. Neiman, diags Am Soc C E Proc 74:161-7 F '48; Discussion. 74:1041-4, 1210-18 Je-S '48

BULLDOZER. *See* Excavating machinery**BULLETIN boards**

Effective plant bulletin boards economical employe media. E. Newcomb and M. Sammons, *il* Ind Marketing 33:42-3+ Ag '48

BULLIS, Harry Ames, 1890-

General Mills shift, por Bsns W p74-5 D 6 '47

Sketch, por(cover) Bsns W p6 F 28 '43

BULLOCK, Barry

Two veteran editors retire in Louisville. Ed & Pub 81:20 S 11 '48

BULWINKLE, Alfred Lee, 1883-

Bulwinkle law balks Justice dept.; rate bureaus to continue to set freight rates. por Bsns W p22 Je 26 '48

BULWINKLE law. *See* Railroad law**BUNSEN burner**

Infrared radiation from a Bunsen flame. E. K. Plyler, bibliog J Res Nat Bur Stand 40:113-20 F '48

Theory of burning velocity; square root law for burning velocity. C. Tanford and R. N. Pease, bibliog J Chem Phys 15:861-5 D '47

BURCHARD, John Ely, 1898-
Dean of humanities, por Tech R 50:513 JI '48

BURDOCK

Antibacterial principle of arcetium minus; unsaturated lactone structure. G. J. Cavalito and F. K. Kirchner, bibliog Am Chem Soc J 69:3030-2 D '47

BUREAU of accident and health underwriters

Accident men active in many directions in 1947. J. F. Follmann, jr, Weekly Underw 158:71-2 Ja 3 '48

Annual meeting, 34th, Virginia Beach, Oct. 11-13. East Underw 49:54-8+ O 15 '48; Nat Underw 52:21+ O 14 '48; Nat Underw (Life ed) 52:4 O 15 '48; Weekly Underw 159:897, 924, 929-32, 986 O 16-23 '48

BUREAU of advertising. *See* American newspaper publishers association—Bureau of advertising

BUREAU of contract information

New officers. East Underw 49:25 Ja 2 '48; Nat Underw 52:11 Ja 1 '48

BUREAU of explosives

Bureau of explosives issues annual report. Chem Ind 63:92+ JI '48

BUREAU of personal accident and health underwriters. *See* Bureau of accident and health underwriters

BUREAU of shipping, American. *See* American bureau of shipping

BUREAU of yards and docks. *See* United States—Navy department—Bureau of yards and docks

BURETS

Improved horizontal microburette. A. Lacourt, diags Metallurgia 38:355-6 O '48

BURGESS, Warren Randolph, 1889-

Top-level shifts at National city bank, por Bsns W p93 Mr 20 '48

BURGLARY insurance. *See* Insurance, Burglary

BURIAL insurance. *See* Insurance, Burial

BURLAP

Barnyard design; colorful cartoons of cows and chicks on burlap and cotton bags. *il* Mod Packaging 21:137 Je '48

Burlap bag with paper-sleeve valve. *il* Mod Packaging 21:150 Ap '48

Clean energized insulators with burlap. H. L. Rudolph, *il* Elec World 130:76+ JI 17 '48

BURLINGAME plan. *See* Stock exchange

BURMA

See also
Petroleum industry and trade—Burma

Commercial policy

Export control revised. For Comm W 30:11 Ja 17 '48

New import-control program announced. For Comm W 29:17-18 N 29 '47

Status of United States private trade with the Far East; trade and exchange controls. For Comm W 32:40-1 JI 17 '48

Tariffs and trade controls; Geneva trade agreement. For Comm W 29:11 D 20 '47

Economic conditions

Burmese doldrums. Bsns W p74 D 27 '47

Economic policy

Burma prepares for socialism; programme of economic reform. Economist 153:763 N 8 '47

Politics and government

Burma and the foreigner; background of Burmese politics. Economist 154:1022 Je 19 '48

Karens and the future, map Economist 153:805-6 N 15 '47

BURMAH oil company

Statement by the chairman at 46th annual general meeting. K. B. Harper, Economist 154:990-1 Je 12 '48

BURNERS

Gas-oil burner provides new protection for homes that are heated with gas. C. C. Young, *il* Am Gas J 169:34-6 S '48

Multiple fuel burners for open hearth furnaces. J. M. Brashear, bibliog *il* diags Iron & Steel Eng 25:60-6; Discussion. 66-8 My '48

BURNERS—Continued

Open hearth furnace burner adjustable. Blast
F & Steel Pl 36:718-20 Je '48
Refinery-burner maintenance. R. Reed. II
diag Oil & Gas J 46:129-30 Ap 29 '48
See also
Gas burners
Oil burners

Manufacture

Furnace brazing simplifies product design.
H. M. Webber. II diags Steel 123:79-81 O 4
'48

BURNING of steel. See Steel—Overheating and
burning

BURNS and scalds

First-aid treatment of burns. H. S. MacLean.
Nat Safety N 56:32-3+ D '47; Same. II
Safety Eng 95:54-9 Ja '48
Thermal burns. G. S. Bergh. bibliog Ind Med
17:9-11 Ja '48; Excerpts. Nat Safety N
57:45+ Ap '48
Treatment of eye chemical burns. T. W.
Nale. II Safety Eng 96:58-63 Ag '48
Use of hydrosulphosol (sulphydryl) in the
treatment of chemical and/or thermal
burns of the eyes. H. S. Kuhn. bibliog Ind
Med 17:347-50 S '48

BURRELL, George Arthur, 1882-

Had a hand in the first recovery of liquid gas.
por Pet Processing 3:405 My '48

BURRITT, Henry Way

Eureka Williams. por Fortune 36:108-13+ D
'47

BURTNESSE, Harold William, 1897-

Burtneesse resigns C.G.W. presidency. por Ry
Age 125:337-8 Ag 14 '48

BURTON, John Edward, 1908-

Portrait. Fortune 38:80 O '48

BURTON, Laurence Vreeland, 1889-

Chief editor joins Packaging Institute. por
Food Ind 19:1637+ D '47

BUS terminals. See Motor bus lines—Terminals

BUSBARS

Aluminum busbar design. Elec R (Lond)
142:971 Je 18 '48

Development of the 230-kv ring bus for Grand
Coulee power plant; abstract. N. G. Holm-
dahl and C. L. Killgore. II Elec Eng 67:
967 O '48

Equations for the inductances of three-phase
coaxial busses comprised of square tubular
conductors. T. J. Higgins and H. P. Mes-
singer. bibliog diags J Ap Phys 18:1009-21
N '47

Features of a new a-c bus design. R. N.
Wagner. II Elec Eng 67:448-50 My '48

New isolated-phase metal-enclosed bus. B.
W. Wyman and R. B. Shores. II diag Elec
Eng 67:564 Je '48

Switched capacitors back bus regulation. F.
M. Reed. diag Elec World 128:89 D 6 '47

Protection

Protection of the airplane main bus. D. W.
Exner. Elec Eng 67:1050 N '48

BUSES, Motor. See Motor buses

BUSH, Vannevar, 1890-

Portrait. Aeronautical Eng R 6:10 N '47

BUSHINGS

Bronze die set bushings increase accuracy
life. Steel 121:109 D 1 '47

Stainless steel bushings maintain sprocket's
pitch. E. E. Lamberson. diag Elec World
128:96 N 22 '47

Turning thin-walled bushings with a single-
point tool. D. A. Baker. diags Mach 54:171
N '47

Testing

Temperature distribution in the bush of a
journal bearing. D. Clayton and M. J. Wil-
kie. diags Engineering 166:49-52 J 16 '48

BUSHINGS, Insulating

New bushing arrangement for distribution
transformer. II Elec World 129:106 Je 5 '48
New oil-filled apparatus bushings. B. N.
Bowers and D. L. Johnston. II Elec Eng
67:580 Je '48

Testing

Cold-collar test of high-voltage bushing.
diags Elec World 129:102+ Ap 24 '48
Mitigating surface during bushing tests. H.
A. Walsh and R. C. Bacon. diag Elec World
129:124+ Je 5 '48

BUSINESS

Business and finance; gluttons for punish-
ment. R. P. Boylan. Comm & Fin Chr 168:
1423+ O 7 '48

Business man's platform. T. J. Bannan.
Comm & Fin Chr 167:2210-11 My 20 '48
Let's look at business; radio broadcast from
Northwestern university. R. Bradford and
others. Comm & Fin Chr 168:804+ Ag 26
'48

Modern business interpreted; review of Mana-
gerial enterprise, by O. Knauth. Pub Util
42:379-80 S 9 '48

See also

Accounting	Income tax
Advertising	Industry
Applications for posi-	Instalment plan
tions	Insurance
Auditing	Interest
Banks and banking	Inventories
Billing	Jobbers
Budget, Business	Location in industry
Business conditions	Mail order business
and other headings	Mailings lists
beginning Business	Manufactures
Card system in busi-	Marketing
ness	Money
Catalogs	Office management
Christmas business	Organization in in-
Collecting of ac-	dustry
counts	Partnership
Commerce	Price policies
Commercial corre-	Profit
spondence	Prosperity
Corporations	Public relations
Cost accounting	Purchasing
Credit	Real estate business
Department stores	Retail trade
Economics	Risk
Efficiency, Industrial	Sales letters
Employment man-	Salesmanship
agement	Salesmen
Executives	Securities
Exhibitions	Taxation
Export trade	Trade associations
Finance	Trade marks
Government regula-	Trust companies
tion of industry	Trusts, Industrial
House organs	Veterans—Business
Income	plans

Bibliography

Business handbooks. Cleveland Pub Lib Busi-
ness Information Bur Bul v 19, no 1:1-2
Ap '48

Business reference publications; catalogs, di-
rectories, buyers' guides, etc. Ind Market-
ing 32:140-1 O 25 '47

Business thinking in 1947; selected reading
from the year's output. (Business literature
v. 20, no. 4) p73-4 Business library, Newark
public lib. Newark, N.J. D '47

Survey of books for executives. Published in
monthly numbers of Management review

Mortality

Operating businesses and business turnover;
incorporations, and failures, 1941-1946. Sur-
vey of Cur Bsns 1947 Sup p20-1 [supple-
mented in monthly numbers]

Progress of the postwar transition; business
population in 1947; with figures for other
years. Survey of Cur Bsns 28:29-31 F '48

See also

Business failures

New businesses

Progress of the postwar transition; business
population in 1947; with figures for other
years. Survey of Cur Bsns 28:29-31 F '48

Political aspects

Business prospects under the coming Repub-
lican regime. A. W. Zelomek. Comm & Fin
Chr 168:301+ J 22 '48

Business talks back to the politicians. E.
Whitmore. Am Bsns 18:8-9+ F '48

National securities and research corporation
sees investor confidence in Republican re-
gime. Comm & Fin Chr 168:400+ J 29 '48

Reports to government

How confidential are industry's secret data?
E. Hardy. Automotive Ind 97:29+ N 15 '47

What government expects of corporation re-
ports. W. W. Wernitz. Comm & Fin Chr
167:1767+ Ap 22 '48

BUSINESS—Continued

Small business

- Bank for small business has busiest year; Canada's Industrial development bank. Bsns W p89 Ja 31 '48
- Building customers for tomorrow; Bank of America helps small businessman. J. J. O'Rourke. *il Am Bsns* 18:24+ J1 '48
- Business birth rate. *Fortune* 38:86-7 O '48
- Case study of small business controls. C. W. Bennett. *N A C A Bul* 29:991-1026 Ap 15 '48
- Getting capital for small business. T. F. Moore. *Comm & Fin Chr* 167:2761+ Je 24 '48
- How can big and little business cooperate? *Am Bsns* 18:20-1+ Ag '48
- Justice dept. describes small business section. H. A. Bergson. *Oil Paint & Drug Rep* 154:7 Ag 30 '48
- Management services for small business through trade associations; work of Printing industry of America. I. D. Robbins. *Harvard Bsns R* 26:627-40 S '48
- Market research will help small companies. M. G. Jenkins. *Am Mach* 92:104-6 Ag 26 '48
- Mass production vs. small business; technological developments favoring flexible decentralized plants. J. M. Blair. *Trusts & Estates* 87:217-21 S '48
- Pitfalls of small business; text by C. A. Gunderson; cartoons by D. Ericson. *Banking* 40:40-1 Ap '48
- Small business and depression. R. V. Rosa. *Harvard Bsns R* 26:58-62 Ja '48
- Small business and government licenses. A. Green. *U S Dept of Com, Economic (Small Business)* Ser 66:1-22; pa 15c Supt. of doc. '48
- Small business and trade-marks. B. Watson. *U S Dept of Com Economic (Small Business)* Ser 66:1-24; pa 10c Supt. of doc. '48
- Small businessman and his bank. G. M. Francis. *U S Dept of Com, Economic (Small Business)* Ser 64:1-13; pa 10c Supt. of doc. '47
- Small-business man and sources of loans. J. C. Dockeray. *il U S Dept of Com Economic (Small Business)* Ser 69:1-27; pa 15c Supt. of doc. '48
- Small scale effort in the textile industry. A. N. Shimmil. *Textile Inst J* 39:P424-8; Discussion. P428-9 Ag '48
- Specific facts about business help both customer and loan officer. E. A. Mattison. *Bankers Mo* 65:24+ Ag '48
- Tax millstone on small business. K. R. Cravens. *Banking* 41:33-4+ J1 '48

Terminology

See also

Marketing—Terminology

- BUSINESS archives.** See Business history
- BUSINESS budget.** See Budget, Business
- BUSINESS conditions**
- Bank debits decline, will production follow? financial foundations of postwar boom shakier this past winter. R. M. Bleiberg. *Barron's* 28:9-10 Ap 26 '48
- Better business index; revision of Business Week's index of business activity. *Bsns W* p20-1 Je 5 '48
- Business activity; up or down? C. V. Kinter. *Ind Marketing* 33:43-4+ Je '48
- Business and commodity outlook for 1948. L. Spangenberg. *Comm & Fin Chr* 166:1838+ N 6 '47
- Business and finance speaks after the turn of the year; symposium on 1948 prospects. *Comm & Fin Chr* 167:318+, 493+ Ja 22, 29 '48
- Business conditions and the banks. W. L. Bennett. *Comm & Fin Chr* 166:2479+ D 18 '47
- Business optimism, with a weather eye on the telescope. S. M. Kempner. *Comm & Fin Chr* 167:803+ F 19 '48
- Business outlook, R. W. Babson. *Comm & Fin Chr* 167:201+ Ja 15 '48
- Business outlook, H. R. Bowen. *Comm & Fin Chr* 166:2050+ N 20 '47
- Business outlook, S. H. Slichter. *Comm & Fin Chr* 168:1197+ S 23 '48

- Business outlook; address before Chamber of commerce of the U.S., Washington, April 27. E. G. Nourse. *Comm & Fin Chr* 167:1861+ Ap 29 '48
- Business outlook; with peace, prosperity can last into 1950s. D. C. Elliott. *Credit & Fin Management* 50:17-20 Ag '48
- Business prospects and distribution trends. C. F. Hughes. *Comm & Fin Chr* 167:598+ F 5 '48
- Business roundup. *Fortune* 38:6-10 O '48 [cont monthly]
- Business; today and tomorrow. E. G. Nourse. *Comm & Fin Chr* 168:1536+ O 14 '48
- Critical situations in our economy. W. Wright. *Comm & Fin Chr* 167:1205+ Mr 18 '48
- Cross-currents in business as we enter the fourth quarter. E. A. Krauss. *Mag of Wall St* 82:572-4+ S 11 '48
- Current business situation. W. Lindow. *Comm & Fin Chr* 167:599+ F 5 '48
- Current topics in Wall Street. J. Stresemann. *Comm & Fin Chr* 166:2162+ N 27 '47
- Economic facts as we face 1948. E. A. Krauss. *Mag of Wall St* 81:337-9+ Ja 3 '48
- Economic guideposts for business planning. M. Shields. *Am Gas Assn Proc* 1947:240-5
- Economic outlook. D. J. Duncan. *Comm & Fin Chr* 167:2416+ Je 3 '48
- Economic outlook and what to do about it. H. B. Arthur. *Comm & Fin Chr* 166:2379+ D 11 '47
- Economics and credit. W. E. Hoadley, Jr. *Credit & Fin Management* 49:20+ D '47
- Economists report on 1948 business outlook; National industrial conference board panel. L. D. Edie and others. *Comm & Fin Chr* 167:8+ Ja 1 '48
- Effects of rearmament and ERP on business. C. C. Abbott. *Comm & Fin Chr* 167:2638+ Je 17 '48
- Employment and outlook for 1948. R. W. Babson. *Comm & Fin Chr* 167:6+ Ja 1 '48
- Exaggerated froth in business outlook. A. H. Temple. *Comm & Fin Chr* 168:1534+ O 14 '48
- Executive forecast. *Fortune* 37:69-76 Ja '48
- Executive forecast; management believes the boom is becoming stabilized. *Fortune* 38: supp 1-6 J1 '48
- Extremely prosperous 1947 sways seers as they predict new peaks in 1948. *Barron's* 27:8 D 29 '47
- Fall business holds close to peak levels; Business bulletin, La Salle extension university. *Comm & Fin Chr* 168:1005+ S 9 '48
- Figures of the week. Published in Business week
- Financial aspects of business outlook. W. A. McDonnell. *Comm & Fin Chr* 168:1+ J1 '48
- Forces shaping business outlook; comments on Truman's proposals to combat inflation. N. H. Jacoby. *Comm & Fin Chr* 166:2157+ N 27 '47
- Government spending; key to business outlook. E. A. Krauss. *Mag of Wall St* 83:112-14+ N 6 '48
- International statistical bureau predicts business uptrend throughout 1948. *Comm & Fin Chr* 168:17 J1 '48
- Is business at the turning point? doctors find more billings, slower pay. *il Sales Management* 61:44-6 O 1 '48
- Is the postwar boom facing collapse? A. J. Cortese. *Barron's* 28:25 J1 5 '48
- Look at some soft spots in business as shown by U.S. excise tax collections. *Bsns W* p22-3 O 2 '48
- Market potentials, 1948. A. H. Johnson. *Harvard Bsns R* 26:11-31 Ja '48
- National economic outlook. M. Natelson. *Comm & Fin Chr* 167:203+ Ja 15 '48
- National industrial conference board survey shows business executives optimistic. *Comm & Fin Chr* 167:2023 My 6 '48
- National summary of business conditions. Published in monthly numbers of Federal reserve bulletin
- N.Y. commerce and industry association leaders stress greater efficiency and full production; outlook for the new year. A. M. Pope and others. *Comm & Fin Chr* 167:118-19 Ja 8 '48

BUSINESS conditions—Continued

1947 statistical supplement. Survey of Cur
Bsns 1947 Sup p 1-282 (pa \$1)
1948, a critical year. H. T. Lewis, Comm &
Fin Chr 167:1205+ Mr 18 '48
1948; an appraisal and forecast. J. D. Weiss,
Comm & Fin Chr 167:706+ F 12 '48
1948 outlook. Nat City Bank p2-4 Ja '48
Opposing factors in business outlook. D. C.
Elliott. Comm & Fin Chr 167:2309+ My
27 '48
Outlook for business. L. D. Edie. Comm &
Fin Chr 167:897+ F 26 '48
Outlook for national income. S. M. Living-
ston. Comm & Fin Chr 166:1947+ N 13 '47
Outlook for 1948. R. L. Heilbroner. Il Am
Bsns 17:12-13 D '47
Outlook for 1948. R. D. Naess. Comm & Fin
Chr 167:2+ Ja 1 '48
Philadelphia reserve bank previews business
prospects in last half of 1948. Comm &
Fin Chr 168:315+ JI 22 '48
Post war expansion spurred by broadened
domestic markets. E. A. Krauss, Mag of
Wall St 82:112-14+ My 8 '48
Predicts federal deficit and higher prices;
outlook for business. G. V. Cox. Comm &
Fin Chr 168:697+ Ag 19 '48
Preliminary outlook for 1948. J. H. G. Pell.
Comm & Fin Chr 166:1942+ N 13 '47
Review of 1948; economic and business
trends; with balance sheet of economic fac-
tors. E. A. Krauss, Mag of Wall St 81:389-
91+ Ja 17 '48
Purchasing agents'-eye view of business. Oil
Paint & Drug Rep 153:5 F 2 '48 [cont
monthly]
Report of business survey committee of the
National association of purchasing agents.
Comm & Fin Chr 166:1860; 167:18, 1017, 1440,
1893, 2431; 168:115, 909, 1326, 1872 N 6 '47,
Ja 1, Mr 4, Ap 1, 29, Je 3, JI 8, S 2, 30,
N 4 '48
Roundup of business conditions. K. Field.
Comm & Fin Chr 167:1997 My 6 '48
Sees insufficient venture capital to maintain
high employment. F. Cole. Comm & Fin
Chr 166:2627 D 25 '47
Short-range economic outlook. M. Nadler.
Comm & Fin Chr 167:302+ Ja 22 '48
State of business. S. H. Slichter. Comm &
Fin Chr 167:99+ Ja 8 '48
Strength and weakness of business situation.
L. F. Whittemore. Comm & Fin Chr 168:
8+ JI 1 '48
Trade activity in twenty-nine regions; with
regional trade barometers. Dun's R 56:26+
Ja '48 [cont monthly]
Uneasy balance in third quarter business out-
look. E. A. Krauss, Mag of Wall St 82:268-
70+ Je 19 '48
United business service sees well-sustained
business during rest of '48. Comm & Fin
Chr 167:2758 Je 24 '48
Wages, prices and business outlook; address
before American management association.
S. H. Slichter. Comm & Fin Chr 166:2474+
D 18 '47
We have homework to do; business faces a
warm war, a rearmament and foreign aid
program. W. R. Kuhns. Il Banking 40:33-4+
My '48
What business may do from now on. A. W.
Zelomek. Comm & Fin Chr 167:704+ F 12
'48
What is ahead for industry? I. D. Dawes.
Credit & Fin Management 60:19-20+ Ja '48
What lies ahead for business? B. H. Gordon.
Comm & Fin Chr 167:494+ Ja 29 '48
What new problems will army boom create?
effect of armaments expenditures on busi-
ness. R. L. Heilbroner. Il Am Bsns 18:18-
19+ Ap '48
What's ahead for banking and business? A.
R. Uppgren. Comm & Fin Chr 168:597+ Ag
12 '48
What's ahead for business? D. M. Keezer.
Comm & Fin Chr 167:2204+ My 20 '48
What's ahead for prices and business? J.
L. Snider. Comm & Fin Chr 168:1745+ O
23 '48
Where's that war boom? Bsns W p23 O 30
'48

Which industries offer best prospects for 1948?
G. W. Mathis. Il Mag of Wall St 81:392-5+,
467-60+ Ja 17-31 '48

See also

Inflation (finance)
Prosperity

BUSINESS conferences

First aid for feeble confabs; abstract. Man-
agement R 37:119-20 Mr '48

BUSINESS consolidations

Bigger Schotts; Ohio family's empire is grow-
ing. Bsns W p23 Ap 3 '48

C. K. Williams and company merges its sub-
sidiary interests. Paper Tr J 126:18 F 19

'48; Paint Oil & Chem R 111:11 F 19 '48
Fewer, healthier millers; International mill-
ing co. buys out Midland flour mills co.

Bsns W p78-82 JI 10 '48
Industry merger trend traced in FTC report.

Oil Paint & Drug Rep 154:3+ Ag 2 '48
Intensified industrial concentration; trend to-
ward bigness continues. W. Gates. Mag of

Wall St 82:578-9+ S 11 '48
Tax aspects of dividing and merging a busi-
ness. L. A. Diamond. bibliog J Account

86:314-22 O '48
Why the urge to merge. Bsns W p25-6+ S

4 '48

See also

Bank consolidations Railroads—Consoli-
Public utilities— dation

Consolidation

Accounting

Expenses of mergers. J. J. Fuld. J Account
86:63-4 JI '48

Labor problems

Employee interest in public utility merger
and abandonment cases. H. H. Goldin. Land

Econ 24:161-74 My '48

BUSINESS consultants

Consultants; managers sum up; pros and
cons. Il Mod Ind 15:54-6+ Je '48

BUSINESS cycles

Appendix on Keynes' theory of business
cycles. A. F. Burns. R Econ Stat 29:265-7

N '47
Business-cycle forecasting. E. C. Bratt. J

Bsns 21:1-11 Ja '48
Business cycle needs a brake. S. P. Hayes,

Jr. Dun's R 56:17-18+ F '48
Data needed to forecast the business cycle.

E. C. Bratt. bibliog J Bsns 21:168-79 JI
'48

Do we face a new kind of business cycle?
R. L. Heilbroner. Am Bsns 18:16-17+ JI

'48
Guideposts for forecasting. F. D. Newbury

Ind Marketing 33:42+ O, 57+ N '48
Where are we in the business cycle? N.

Carothers. Comm & Fin Chr 167:1521+
Ap 8 '48

BUSINESS depression

Barriers to a depression; abstract. Manage-
ment R 36:602-3 N '47

Farm price decline does not herald slump. E.
B. George. Comm & Fin Chr 168:1871 N 4

'48
How to avoid deep depressions. E. C. Bratt.

Comm & Fin Chr 166:2266+ D 4 '47
National industrial conference board survey

indicates no recession expected in first half
of 1948. Comm & Fin Chr 167:20 Ja 1 '48

No business collapse near, but prepare for
buyers' market! R. C. Shook. Comm & Fin

Chr 168:1861+ N 4 '48
No early drop from present business levels.

W. E. Hoadley, Jr. Comm & Fin Chr 168:
1549 O 14 '48

No recession in the offing. J. Backman. Comm
& Fin Chr 167:809 F 19 '48

Optimistic voter mood dulls edge of slump
warning; Gallup poll. Iron Age 162:129 JI 29

'48
Present economic situation. W. Lindow.

Comm & Fin Chr 166:2474+ D 18 '47
Probabilities of a recession. G. Soule. Comm

& Fin Chr 166:2167+ N 27 '47
Pros and cons of a business recession. M. P.

Rasmussen. Comm & Fin Chr 168:704 Ag 19
'48

Prosperity or depression in 1948? R. Rodgers.
Comm & Fin Chr 166:2163+ N 27 '47

Recession looms! R. Rodgers. Comm & Fin
Chr 167:802+ F 19 '48

BUSINESS depression—Continued

- Recession or depression? E. A. Krauss. Mag of Wall St 81:629-31+ Mr 13 '48
 Shots-in-the-arm delay postwar depression. Comm & Fin Chr 167:1979+ My 6 '48
 Slow down is probable. R. G. Gattell. Comm & Fin Chr 168:1764 O 28 '48
 Small business and depression. R. V. Rosa. Harvard Bsns R 26:58-62 Ja '48
 Some soft spots in business picture. E. P. Schmidt. Comm & Fin Chr 168:1551 O 14 '48
 Straws in the economic winds. A. A. Smith. Comm & Fin Chr 166:2476+ D 18 '47
 United Nations survey; Current inflationary and deflationary tendencies; abstract. Bsns W p20 N 22 '47
 What causes depressions? R. S. Tucker. Comm & Fin Chr 168:800 Ag 26 '48; Same cond. Trusts & Estates 87:211-12 S '48
 When the boom is over. E. W. Lane. Credit & Fin Management 50:14+ S '48
 Wolf, wolf! recent commodity price declines have reduced danger of early depression. W. F. Edwards. Comm & Fin Chr 167:1206+ Mr 18 '48

BUSINESS directories. See Trade directories**BUSINESS districts***See also*

- Business streets
 Shopping centers

BUSINESS education

- Business education in a university. J. R. Rose. bibliog J Bsns 20:183-90 O '47
 Developing powers for decision in business education. J. D. Miller. Jr. Advanced Management 13:29-32 Mr '48
 Keeping the dust off business textbooks; use of financial newspapers and periodicals in college classrooms. il Banking 40:44-5+ My '48
 Marketing executives should help raise the education level in marketing. D. K. Beckley. Ptr Ink 222:60 Ja 2 '48
 Professors roam corporate campuses, study General Mills and Standard Oil. L. Fitzmaurice; E. M. Kelley. Sales Management 61:46+ S 1 '48
 What management and economic courses should be included in all engineering education. E. L. Grant. J Eng Educ 38:612-15 My '48

See also

- Business foundation Business schools and of North Carolina colleges

Cooperative plan

- Practical ladies; Stephens College girls learn business ropes by doing. il Bsns W p35-6+ O 9 '48
 U.S. Rubber trains office workers; students spend half a day at high school, half a day at the office. il Am Bsns 18:20-1 F '48

BUSINESS ethics

- Business and ethics. W. A. Orton. Fortune 38:118-20+ O '48
 The idea; human service a short cut to efficiency. W. Weir. Ptr Ink 222:100 Ja 2 '48
 Selling; a friendly journey. H. G. Stoddard. Sales Management 60:sup6 F 1 '48

See also

- Federal trade commission
 Racketeering

BUSINESS failures

- Business birth rate. Fortune 38:86-7 O '48
 Failures are inching upward; chart showing trend, 1929-1947. Bsns W p23 Mr 6 '48
 Industrial and commercial failures, 1941-1946. Survey of Cur Bsns 1947 Sup p21 [supplemented in monthly numbers]
 Trend of business failures, 1939-1947. Survey of Cur Bsns 27:4-5 D '47

See also

- Bankruptcy

BUSINESS forecasting

- Business confidence, its rise and fall; Cleveland trust company index. Pub Util 40:719-20 N 20 '47
 Business-cycle forecasting. E. C. Bratt. J Bsns 21:1-11 Ja '48
 Business sales anticipations for the year 1948. Survey of Cur Bsns 28:7-8 My '48

- Business situation and outlook. C. F. Roos. Comm & Fin Chr 167:1648+ Ap 15 '48
 Current business opinion; how will 1948 compare with 1947? a survey. Dun's R 56:25-6 Je '48

- Data needed to forecast the business cycle. E. C. Bratt. bibliog J Bsns 21:168-79 Jl '48
 Economists' views on business in 1949; F. W. Dodge corporation survey. Comm & Fin Chr 168:1874 N 4 '48

- Executive forecast. Fortune 37:69-76 Ja '48
 Executive forecast; management believes the boom is becoming stabilized. Fortune 38:supp 1-6 Jl '48

- Guideposts for forecasting. F. D. Newbury. Ind & Marketing 33:33+ Ag; 41-2+ S; 42+ O; 57+ N '48

- How we keep our own business scoreboard; Stein, Hall & company. R. L. Heilbronner. Am Bsns 18:18-19+ My '48

- Job of the business forecaster. C. O. Hardy. Comm & Fin Chr 167:2747+ Je 24 '48

- Last half of '48? no need for any business smash-up. P. G. Hoffman. Sales Management 60:80 Ja 1 '48

- Last half of '48? scarce money and reduced employment. R. R. Wason. Sales Management 60:81 Ja 1 '48

- Long-range industrial planning. D. C. Prince. Mech Eng 70:137-42 F '48

- Long-term trends in industry. D. B. Woodward. Comm & Fin Chr 166:2370+ D 11 '47; Same cond. Weekly Underw. 158:326-8 Ja 24 '48

- Looking ahead. J. L. Snider. Harvard Bsns R 26:1-10 Ja '48

- Mild business recession predicted. Management R 36:568 N '47

- Sales Management future sales ratings by industries; first quarter dollar volume likely to expand by 15-20 per cent. Sales Management 60:98-100 Ja 1 '48 [cont quarterly]

- Use of the consumption function in short run forecasting. R. V. Rosa. R Econ & Stat 30:91-105 My '48

- Wages, prices, and stability forecast for 1948. S. H. Slichter. Factory Management 106:224+ F '48

See also

- Dow theory Sales estimates
 Prices—Forecast- Stocks—Price fore-
 ing casting

- BUSINESS foundation of North Carolina, inc.**
 With college and business in step. I. G. Greer. il Banking 40:24+ My '48

- BUSINESS gifts. See Christmas gifts—Business gifts; Gifts (in business)**

BUSINESS history

- Business records as a source of economic history with special reference to their selective preservation in libraries. W. H. Chaloner. bibliog J Doc 4:5-13 Je '48
 Lavender and old lace; abstract. Management R 38:570-1 N '47
 Ph.D.'s tackle business history; Business history foundation. Bsns W p24 Ap 3 '48

Bibliography

- Business biographies and company histories (Baker lib. Reference list no. 4) 54p pa \$1
 Harvard univ. Graduate school of business administration, Soldiers field, Boston 63 '48

- Business histories and anniversary publications. (Business literature v. 20, no. 8) p81-4
 Business library, Newark public lib, Newark, N.J. Ap '48

BUSINESS history foundation, inc.

- Ph.D.'s tackle business history. Bsns W p24 Ap 3 '48

- BUSINESS hours. See Banks and banking—Hours of business; Retail trade—Hours of business**

BUSINESS information**Bibliography**

- Using business information. (Business literature v. 20, no. 3) p71-2
 Business library, Newark public lib, Newark, N.J. N '47

- BUSINESS insurance. See Insurance, Business**

- BUSINESS interruption insurance. See Insurance, Use and occupancy**

- BUSINESS law. See Commercial law**

- BUSINESS letters. See Commercial correspondence**

BUSINESS libraries

Company library; Eli Lilly and company library. M. E. Schaaf. Personnel J 27:110-12 J1-Ag '48

See also

Trade associations
—Libraries

BUSINESS machines. See Office appliances;
Office equipment industry

BUSINESS management

America's number one asset; efficient management. C. F. Hood. Credit & Fin Management 50:21 Je '48

Commercial chemical development; appraisal by management. W. Steele. Chem & Eng N 26:856-8 Mr 22 '48

Conserving corporate liquid assets. R. J. Hamilton. Credit & Fin Management 50:144 Mr '48

Cooperation of line and staff in the development and use of costs. R. P. Swartz. N A C A Bul 29:1149-55 My 15 '48

Death, taxes and your business. G. J. Laikin. Trusts & Estates 85:372-4, 459-63, 517-22; 86:13-17, 145-51 O '47-F '48

Die-casting about for new markets; Gerity-Michigan corp. il Mod Ind 15:67-8+ My '48

Economic bases of profitable operations. C. J. Newman. N A C A Bul 29:1141-7 My 15 '48

Effective controls for top management. A. E. Werolin. Advanced Management 12:120-8 S '47

Evaluating departmental efficiency. H. T. Lewis. Harvard Bsns R 26:313-28 My '48

Financial fun after fifty; Otto Boheim now has 12 small firms in his industrial mills, inc. il Mod Ind 15:67-8+ Ap '48

Functional roles of union and management. N. W. Chamberlain. Advanced Management 12:143-7 D '47

How the internal auditor operates as an instrument of management control. F. F. Tannery. J Account 84:461-5 D '47

How top management can guide sales and marketing plans; authority and responsibility of each executive should be defined. R. D. Crisp. Ptr Ink 223:29-30 Ap 9 '48

Is your management scientific or haphazard? 35 guide posts to business leadership. W. T. Doyle. Ptr Ink 223:29-30 Je 18 '48

Lick routine to allow time for planning. J. Garth. Am Bsns 18:26+ S '48

Management services for small business through trade associations; work of Printing industry of America. I. D. Robbins. Harvard Bsns R 26:627-40 S '48

Management's no. 1 problem. Bsns W p 19-20 O 2 '48

Management's rôle in shaping the future. A. E. Dodd. il Dun's R 56:13-14+ J1 '48

Operation of business enterprises as executor and trustee. M. McHenry. Trusts & Estates 85:414-18 N '47

Presenting the facts for disciplined business decisions. M. Smith. N A C A Bul 29:1523-32 Ag 15 '48

Professors roam corporate campuses, study General Mills and Standard Oil. L. Fitzmaurice; E. M. Kelley. Sales Management 61:46+ S 1 '48

Shadow of dead men's reasoning. J. F. Bell. Management R 36:620-2 D '47

Transition in corporate controls; exit: the capitalists; enter: the managers. J. M. Juran. Advanced Management 13:126-30 S '48

Unilever; the conversion. G. Burck. il map Fortune 37:74-81+ F '48

What's behind the 51 per cent jump in sales at Lever brothers? C. Luckman. il Sales Management 61:37-41 O 1 '48

When an organization begins to go stale. Am Bsns 18:22+ O '48

Why this company has no formal public relations department; Jewel Tea. H. E. Green. il Ptr Ink 224:31-3 Ag 13 '48

See also

Accounting
Advertising
Auditing
Budget, Business
Business consultants
Collecting of accounts

Complaints
Corporations
Credit
Diversification in industry
Employment management

Executives
Factory management
Files and filing (documents, etc.)
Forms and blanks, Business
Ideas in business
Industrial management
Instalment plan
Inventories
Jobbers
Location in industry
Mail order business
Marketing
Merchandizing

Office management
Orders
Organization in industry
Planning
Profit
Public relations
Purchasing
Retail trade—Store management
Sales management
Sales policies
Sales promotion
Trade marks
Turnover
Visitors

Expansion problems

Business and economic implications of waning industrial expansion. E. A. Krauss. Mag of Wall St 82:620-2+ S 25 '48

Business plans with cautious optimism. R. L. Heilbroner. Am Bsns 18:10-11+ Je '48

Companies which expanded without new financing. J. C. Clifford. Mag of Wall St 82:274-5+ Je 19 '48

Expansion plans ease up; Stanolind and du Pont. Bsns W p23 Ag 23 '48

Problem of financing further business expansion. E. A. Krauss. Mag of Wall St 81:572-4+ F 23 '48

Segregation of cash for depreciation reserve urged to prevent use for current expansion. Barron's 28:31 Ja 19 '48

Tax carryovers; aids to business expansion. J. K. Lasser. il Dun's R 56:13-15+ Ja '48

U.S. physical plant expansion not excessive; but high prices make burden of it on future earnings heavy. W. J. Nolle. Barron's 28:5-6 Ap 5 '48

See also

Eureka Williams corporation

BUSINESS men

See also

Executives

BUSINESS men in fiction

Businessman in fiction. J. Chamberlain. il Fortune 38:134-6+ N '48

BUSINESS names

New words come and go; use of new technical terms in business names. W. C. White. Electronics 21:72-3 Mr '48

BUSINESS periodicals

See also

Banks and banking Wall Street journal (periodical)

BUSINESS research

Establishment of business research programs, with special reference to farmers' regional purchasing associations. M. A. Abrahamsen. J Marketing 12:348-61 Ja '48

See also

Advertising research Retail trade—Research
Bank research search
Market research

also Merrill foundation for advancement of financial knowledge

BUSINESS risks. See Risk**BUSINESS schools and colleges**

Bard college school for small business. Am Bsns 18:42 Ap '48

See also

American institute for foreign trade North Carolina university—School of commerce

Directories

Directory of colleges, universities and professional schools offering training in occupations concerned with business and industry. M. M. Pendergrast, comp. 645p pa \$2.50 Institute of women's professional relations, Connecticut college, New London, Conn. '47

Directory of private business schools in the United States; a handbook for vocational advisors and guidance officers. 3d ed 48p National council of business schools, 839 17th st, N.W. Washington 6 '48

BUSINESS statistics

Business analyst; statistics of money and credit, trade, industry, commodities. Published in biweekly numbers of Magazine of Wall Street

BUSINESS statistics—Continued

- Business population swells; with charts showing data for selected years, 1929-1947. Bsns W p22-3 Mr 6 '48
- Business predictor; Univac machine computes chances of success of new business. Bsns W p75-6 Je 5 '48
- Charts give Truman picture of business. Bsns W p24-5 Ap 24 '48
- Financial trends of large manufacturing corporations, 1936-46. E. C. Stokes, Survey of Cur Bsns 27:16-24 N '47
- Four millions businesses now operating in United States. Credit & Fin Management 50:30 O '48
- Industrial patterns of the business population. M. J. Ulmer, Survey of Cur Bsns 28:10-15 My '48
- 1947 statistical supplement, Survey of Cur Bsns 1947 Sup p 1-282 (pa \$1)
- Number of active proprietors of unincorporated enterprises, by industry, 1929-46; number of persons engaged in production, by industry, 1929-46; tabulations. Survey of Cur Bsns 27:sup39-40 Jl '47
- Number of active proprietors of unincorporated enterprises, by industry, 1944-47; tabulation. Survey of Cur Bsns 28:23 Jl '48
- Progress of the postwar transition; business population in 1947; with figures for other years. Survey of Cur Bsns 28:29-31 F '48
- Trend of business; production, prices, trade, finance. Dun's R 56:20-2+ Ja '48 [cont monthly]
- Trends in selected business indicators, 1946-1948; graphs and charts. Survey of Cur Bsns 28:3 O '48

See also

- Advertising—Statistics
Index numbers (economics)
Industrial statistics
Market statistics
- Prices—Statistics
Prices, Wholesale
—Statistics
Retail trade—Statistics
- BUSINESS streets**
Madison avenue, NYC; portfolio. Il Fortune 36:98-107 D '47
- BUSINESS year.** See Fiscal year

BUTADIENE

- Butadiene-crotonaldehyde explosion. K. W. Greenlee, Chem & Eng N 26:1985 Jl 5 '48
- Chlorostyrene polymers with butadiene. H. C. Jones. Il Rubber Age 63:735-40 S '48
- Commercial chemical development of butadiene. J. H. Boyd, bibliog Il Ind & Eng Chem 40:1703-7 1964-70 S-O '48
- Condensation of water, styrene, and butadiene vapors; pure components and constant boiling mixtures. D. A. Edwards, C. F. Bonilla and M. T. Cichelli, bibliog diags Ind & Eng Chem 40:1105-12 Je '48
- Copolymerization of butadiene with vinyl monomers; use of 2-vinylfuran, 2-vinylthiophene, methacrylonitrile, and vinylidene chloride. R. L. Frank and others, bibliog Ind & Eng Chem 40:420-2 Mr '48
- Copolymers of butadiene with halogenated styrenes. C. S. Marvel and others, bibliog Ind & Eng Chem 39:1486-90 N '47
- Cyclooctadienes from dienes. R. E. Foster and R. S. Schreiber, Am Chem Soc J 70:2303-5 Jl '48
- Distillation calculations in ideal and nonideal systems. R. B. Smith and T. Dresser, bibliog Chem Eng Prog 44:789-94 O '48
- Evaluation of sodium-catalyzed copolymers of 1,3-butadiene and styrene. A. E. Juve and others, bibliog Ind & Eng Chem 39:1490-3 N '47
- Handling and shipping 1,3-butadiene; abstract. J. H. Boyd, Oil Paint & Drug Rep 152:5 N 3 '47
- Heat transfer to boiling styrene and butadiene and their mixtures with water. C. F. Bonilla and A. A. Elsenberg, bibliog diag Ind & Eng Chem 40:1113-22 Je '48
- Medical problems encountered in the manufacture of American made rubber. R. H. Wilson and others, bibliog Ind Med 17:199-207 Je '48
- Mercaptan modification of rosin rubber. C. F. Fryling, bibliog Ind & Eng Chem 40:928-32 My '48

- Modes of addition to conjugated unsaturated systems; a discussion of mechanism and equilibrium, with a note on three-carbon prototropy. P. B. D. de la Mare, E. D. Hughes and C. K. Ingold, Chem Soc J p 17-27 Ja '48
- Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents. G. B. Bachman and R. W. Finholt, bibliog Am Chem Soc J 70:622-4 F '48
- Physical properties of diene polymers; effects of side vinyl groups and other structural features. J. D. D'Ianni, bibliog Ind & Eng Chem 40:253-6 F '48
- Preparation of 2-alkylbutadienes. C. S. Marvel, R. L. Myers and J. H. Saunders, bibliog Am Chem Soc J 70:1694-9 My '48
- Process problems in low temperature emulsion polymerization. J. E. Troyan, bibliog diag Rubber Age 63:585-95 Ag '48
- Properties of polymers as functions of conversion; composition studies of rubber-like copolymers. F. T. Wall and others, bibliog Am Chem Soc J 70:1031-7 Mr '48
- Raman spectrum and normal modes of vibration of butadiene-1,2. G. J. Szasz, J. S. McCartney and D. H. Rank, bibliog Am Chem Soc J 69:3150-1 D '47
- Rubber or plastics; high styrene-butadiene copolymers and status of raw materials. Il Mod Plastics 25:93-8 Jl '48
- Soap ingredients as retarders in butadiene-styrene copolymerization. J. W. Wilson and E. S. Pfau, bibliog Ind & Eng Chem 40:530-4 Mr '48
- Some reactions of butadiene monochlorohydrin, 1-chloro-3-buten-2-ol. W. E. Bissinger and others, bibliog Am Chem Soc J 69:2955-61 D '47
- Substituted vinylpyridines as monomers for synthetic elastomers. R. L. Frank and others, bibliog Ind & Eng Chem 40:879-82 My '48
- Table and Mollier chart of the thermodynamic properties of 1, 3-butadiene. C. H. Myers and others, bibliog fold chart J Res Nat Bur Stand 39:507-21 D '47
- Thermodynamics of butadiene-1,2 from calorimetric and spectroscopic data. J. G. Aston and G. J. Szasz, bibliog diag Am Chem Soc J 69:3108-14 D '47
- Vapor-phase chlorination of butadiene. R. F. Taylor and G. H. Morey, bibliog diags Ind & Eng Chem 40:432-5 Mr '48

Analysis

- Compounds involved in production of synthetic rubber; determination of purity by measurement of freezing points. A. R. Glasgow, jr. and others, bibliog diags Anal Chem 20:410-22 My '48
- Experimental study of the Koppers-Hinckley-Podbielniak apparatus and method for the determination of conjugated dienes. M. Shepherd and others, J Res Nat Bur Stand 39:435-51 N '47

Manufacture

- Catalytic dehydrogenation of normal butenes to butadiene in the presence of steam. L. H. Beckberger and K. M. Watson, bibliog flow chart diag Chem Eng Prog 44:229-48 Mr '48
- Correlating reactor performance in alcohol butadiene process. J. Coull and C. A. Bishop, Chem Eng Prog 44:443-51; Discussion, 450+ Je '48
- Gas cracking for butadiene; simplified flow diagrams. W. L. Nelson, Oil & Gas J 47:91 Jl 8 '48
- High chromium nickel alloys; essential in dehydrogenation of butane and in butadiene processes; abstract. H. D. Newell, Oil & Gas J 46:279 Ap 1 '48
- Italian work on butadiene; selective hydrogenation of di-olefins. Chem Age (Lond) 57:816+ D 27 '47
- Ugite cracking process; patent. P. J. Gaylor, diag Pet Processing 3:69-70 Ja '48

Specifications

- Commercial chemical development of butadiene; specifications. J. H. Boyd, bibliog Il Ind & Eng Chem 40:1964-70 O '48

BUTANE

- Adsorption of argon, nitrogen, and butane on porous glass. F. H. Emmett and M. Cline. *bibliog J Phys & Colloid Chem* 51:1248-62 N '47
- Adsorption of butane on glass spheres. R. T. Davis and T. W. DeWitt. *bibliog Am Chem Soc J* 70:1135-41 Mr '48
- Butane and propane as tractor fuels. E. A. Jamison and J. R. Strother. *S A E J* 56:38-42 F '48
- Butane dehydrogenation; pilot-plant investigations. K. Hachmuth and G. H. Hanson. *bibliog flow diag* 11 *diag* Chem Eng Prog 44:421-30 Je '48
- Butane isomerization, flow diag Oil & Gas J 46:131 Ap 1 '48
- Butane isomerization process; Shell development co. flow sheet *Pet Refiner* (Process Handbook ed) 27:150-1 sec 2 S '48
- Eutane problem as viewed by an integrated refiner. H. R. Poland. *Am Pet Inst Proc* 28(3):83-4; Discussion, 100-7 '48
- Butane used as fuel in lightplane flight. *Aviation W* 47:25 N 24 '47
- Catalytic reforming of hydrocarbons; process extended to include natural gas propane, commercial butane, and refinery oil gas used in the production of peak load gas. C. H. Riesz and others. *Am Gas Assn Mo* 30:17-20 Ap '48
- Chemical engineering unit processes; isomerization. S. F. Perry. *bibliog* (30 ref) *Ind & Eng Chem* 40:1624-7 S '48
- Drying propane or butane by vaporization. W. L. Nelson. *Oil & Gas J* 47:133 S 16 '48
- Fuels for truck haulage. A. C. Butterworth. *Il Min & Met* 29:278-80 My '48
- High chromium nickel alloys; essential in dehydrogenation of butane and in butadiene processes; abstract. H. D. Newell. *Oil & Gas J* 46:279 Ap 1 '48
- Ignition of *n*-butane by the spontaneous oxidation of zinc dimethyl. E. J. Badin, D. R. Walters and R. N. Pease. *Am Chem Soc J* 69:2586-8 N '47
- Isomerization of *n*-butane-1- C^{14} . J. W. Otvos and others. *J Chem Phys* 16:745 JI '48
- Methane-*n*-butane-water system in two- and three-phase regions. J. J. McKetta, Jr. and D. L. Katz. *bibliog* (50 ref) *diag* Ind & Eng Chem 40:353-63 My '48
- Natural gas, butane and motor-fuel vapor pressures. R. C. Alden and T. W. Legatski. *Am Pet Inst Proc* 28(3):94-100 '48; Same cond. *Pet Processing* 3:579-80+ Je '48; Discussion. *Am Pet Inst Proc* 28(3):100-7 '48
- Pentane and butane isomerization processes; Standard oil company (Indiana). flow diag *Pet Refiner* (Process Handbook ed) 27:154-5 sec 2 S '48
- Phillips butane dehydrogenation process; special plant investigations. G. H. Hanson and H. L. Hays. *bibliog flow diag* 11 *diag* Chem Eng Prog 44:431-42 Je '48
- Problems in the efficient utilization of refinery butanes. T. L. Apjohn and D. P. Heath. *Am Pet Inst Proc* 28(3):85-93 '48; Same cond. *Pet Processing* 3:573-4+ Je '48; Discussion. *Am Pet Inst Proc* 28(3):100-7 '48
- Process group develops piping system useful for speeding up butane unloading. *diag Pet Processing* 3:846 S '48
- Some catalytic hydrogen exchange reactions of hydrocarbons. J. Aman, L. Farkas and A. Farkas. *bibliog diag* *Am Chem Soc J* 70:727-32 F '48
- Spectroscopic studies of rotational isomerism; liquid *n*-butane and the assignment of the normal modes of vibration. G. J. Szasz and others. *bibliog J Chem Phys* 16:704-11 JI '48
- Spontaneous ignition of nickel carbonyl vapor; the ignition of *n*-butane. E. J. Badin, P. C. Hunter and R. N. Pease. *bibliog Am Chem Soc J* 70:2055-6 Je '48
- System 1-butene-*n*-butane; compositions of coexisting phases. B. H. Sage and W. N. Lacey. *bibliog Ind & Eng Chem* 40:1299-301 JI '48
- Vapor pressure studies in the system, aluminum bromide-hydrogen bromide-paraffin hydrocarbon. C. M. Fontana and R. J. Herold. *bibliog diag* *Am Chem Soc J* 70:2881-3 S '48

- Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes. R. S. Rasmussen. *bibliog diag* *J Chem Phys* 16:712-27 JI '48
- Wall effects in the oxidation of boron triethyl vapor; ignition of *n*-butane. R. S. Brokaw, E. J. Badin and R. N. Pease. *bibliog Am Chem Soc J* 70:1921-2 My '48

Analysis

- Quick field test for propane contamination of butane streams in fractionator control. G. T. Hamblen. *Pet Processing* 3:815 Ap '48
- BUTANEDIOL**. See Butylene glycol
- BUTANETRICARBOXYLIC acid**
New synthesis of butane-1,2,4-tricarboxylic acid. P. O. Tawney and E. J. Prill. *Am Chem Soc J* 70:2828 Ag '48
- BUTANOL**. See Butyl alcohol
- BUTANONE**
Effect of solvent composition and primary solvent dilution on dewaxing filter rates and wax oil contents. E. J. Reeves and I. E. Pattillo. *bibliog Pet Refiner* 27:80-2 Mr '48
- Electrolytic reduction of carbonyl compounds at carbon cathodes. S. Swann, Jr. and H. D. Kerfman. *bibliog Electrochem Soc Trans* 92 (preprint 33):407-14 '47
- Fractional liquid extraction. E. G. Scheibel. *bibliog flow sheet Chem Eng Prog* 44:771-32 O '48
- Haloogenated ketones; the bromination of acetone and methyl ethyl ketone. J. R. Catch and others. *Chem Soc J* p272-5 Mr '48
- Methyl ethyl ketone to obtain dewaxed oil. flow diag Oil & Gas J 46:151 Ap 1 '48
- BUTENE**
Catalytic dehydrogenation of normal butenes to butadiene in the presence of steam. L. H. Beckberger and K. M. Watson. *bibliog flow chart diag Chem Eng Prog* 44:229-48 Mr '48
- Catalytic isomerization of butene-1 to butene-2. J. Turkevich and R. K. Smith. *bibliog* 11 *diag* *J Chem Phys* 16:466-80 My '48
- Distillation calculations in ideal and nonideal systems. R. E. Smith and T. Dresser. *bibliog Chem Eng Prog* 44:789-94 O '48
- Evidence of an induction period in the alkylation of isobutane by 2-butene. T. D. Stewart and W. H. Calkins. *bibliog Am Chem Soc J* 70:1006-9 Mr '48
- Mass spectrometric and infra-red study of rates of deuterium exchange, isomerization, and hydrogenation of the *n*-butenes. V. H. Dibeler and T. I. Taylor. *J Chem Phys* 16:1008-9 O '48
- Reversible dissociation of *t*-butyl esters; structural effects and reactions mechanism. R. Altschul. *Am Chem Soc J* 70:2569-72 JI '48
- Some catalytic hydrogen exchange reactions of hydrocarbons. J. Aman, L. Farkas and A. Farkas. *bibliog diag* *Am Chem Soc J* 70:727-32 F '48
- Steric effects; general equations; application to *cis*- and *trans*-2-butene. T. L. Hill. *bibliog J Chem Phys* 16:938-49 O '48
- System 1-butene-*n*-butane; compositions of coexisting phases. B. H. Sage and W. N. Lacey. *bibliog Ind & Eng Chem* 40:1299-301 JI '48
- Analysis**
Mass spectrometer; hydrochlorination analysis of butenes. F. W. Melpolder and R. A. Brown. *Anal Chem* 20:139-42 F '48
- BUTENINE**
Determination of ethylacetylene and vinylacetylene in C_4 hydrocarbon gases. P. R. Thomas, L. Donn and H. C. Becker. *bibliog diag* *Anal Chem* 20:209-13 Mr '48
- BUTENOLIDES**
Constitution of ψ -santonin; study of the butenolide system. W. Cocker and S. Hornsbury. *Chem Soc J* p 1157-66 S '47
- Unsaturated lactones; some esters of acetic and coumalic acids. N. R. Campbell and J. H. Hunt. *Chem Soc J* p 1176-9 S '47
- BUTLER**, Ralph Starr, 1932-
General Foods' policies on advertising and agencies; chairman's memo to R. S. Butler. *por Ptr Ink* 221:29-31+ D 26 '47

- BUTLER, Roland**
Ringling's word hawker. J. L. Collings. por
Ed & Pub 81:46 Ap 10 '48
- BUTLER brothers**
New president changes Butler brothers' picture.
Barrons 28:27 Ag 16 '48
- BUTOXYCHLOROSILANE**
Butoxychlorosilanes; hydrolysis and condensation. R. K. Iler. bibliog Ind & Eng Chem
39:1384-8 N '47
- BUTTE, Montana**
Butte; new mines, new life. il Bsns W p25
D 27 '47
- BUTTER**
Aluminum foil; its performance with packaged products. J. D. Edwards and D. B. Strohman. Mod Packaging 21:188-9 Ap '48
Butter's battle. Bsns W p50 N 1 '47
- Manufacture
- Streamlined buttermaking by Cherry-Burrell corp. and Creamery package mfg. co. il
Bsns W p60+ Ap 17 '48
- Prices
- More milk and oleo topple butter price. Barron's 28:28 Ag 30 '48
- Statistics
- Dairy products, 1941-1946. Survey of Cur Bsns
1947 Sup p 125 [supplemented in monthly numbers]
- BUTTER fat**
Analysis
Trace metal determination in fats; with special reference to copper in milk fat. R. D. Coleman, J. B. Thompson and I. Brannum. il Anal Chem 20:365-8 Ap '48
- BUTTER substitutes**
See also
Oleomargarine
BUTTER test. See Enamel and enameling—Testing
- BUTTONS**
Bug buttons; bees, beetles, and other insects as buttons, buckles, jewelry, and pottery. il Soap & San Chem 24:150-1 Ap '48
How Blumenthal pushes the button. R. G. Whalen. il Adv & Sell 41:48+ S '48
- BUTTONS, Plastic**
Buttons are big business. il diags Mod Plastics 25:91-7 Ap '48
Nylon no-sew buttons. il Mod Plastics 25:154 J1 '48
- BUTTS, Charles, 1863-1946**
Memorial. A. Bevan. por(pl 6) Geol Soc Proc 1947:125-9 bibliog(p 127-9) My '48
- BUTYL acetanilide**
Field tests with tick repellents. J. M. Brennan. Pub Health Rep 68:339-46 Mr 12 '48
- BUTYL acetate**
Thermal decomposition of tertiary butyl acetate. C. E. Rudy, jr. and P. Fugassi. bibliog J Phys & Colloid Chem 52:357-63 F '48
- BUTYL alcohol**
Alcoholysis of ethyl phosphate; the preparation of mixed ethyl butyl phosphates. W. H. C. Rueggeberg and J. Chernack. bibliog Am Chem Soc J 70:1802-4 My '48
Alkoxy content of urea formaldehyde resin films. B. M. Shaw. diags Soc Chem Ind J 66:147-9 My '47. Abstract. Paint Oil & Chem R 110:60+ O 16 '47
- Butanol-acetone fermentation of wood sugar.**
R. L. Leonard, W. H. Peterson and G. J. Ritter. bibliog Ind & Eng Chem 39:1443-5 N '47
- Butyl alcohol from xylose saccharification liquors from corncobs.** A. F. Langlykke, J. M. Van Lanen and D. R. Fraser. Ind & Eng Chem 40:1716-19 S '48
- Butyl alcohols.** il Chem Eng 55:344 My '48
- Carbohydrates as an alternative source to petroleum for organic chemicals.** C. Weizmann, E. Bergmann and M. Sulzbacher. bibliog Chem & Ind p769-71 D 13 '47
- Catalytic racemization and dehydrogenation of optically active secondary-butyl alcohol by copper and by zinc chromite.** R. L. Burwell, jr. bibliog diag Am Chem Soc J 70:2865-9 S '48
- Dibutyl phthalate; reaction rate of catalytic esterification.** S. Berman, A. A. Melnychuk and D. F. Othmer. bibliog Ind & Eng Chem 40:1312-19 J1 '48
- Dielectric behavior of solutions* of electrolytes in solvents of low dielectric constant; dielectric absorption of butyl alcohol.** H. A. Strobel and H. C. Eckstrom. bibliog J Chem Phys 16:827-31 Ag '48
- Influence of butyl alcohol on shape of snow crystals formed in the laboratory.** B. Vonnegut. Science 107:621-2 Je 11 '48
- Kinetics of an esterification with cation-exchange resin catalyst.** C. L. Levesque and A. M. Craig. bibliog Ind & Eng Chem 40:96-9 Ja '48
- Quantitative separation of calcium, barium, and strontium.** S. Kallmann. bibliog Anal Chem 20:449-51 My '48
- Reversible dissociation of *t*-butyl esters; structural effects and reactions mechanism.** R. Altschul. Am Chem Soc J 70:2569-72 J1 '48
- Studies in selective extraction and adsorption; the adsorption of acetone, butyl alcohol, and 2:3-butyleneglycol from dilute solutions.** C. Weizmann and others. bibliog Soc Chem Ind J 67:225-7 Je '48
- Vapor-liquid equilibria in binary system acetaldehyde dibutyl acetal-*n*-butanol.** A. Z. Conner, P. J. Elving and S. Steingiser. bibliog Ind & Eng Chem 40:497-9 Mr '48
- Variation of the complex dielectric constant with frequency.** H. C. Bolton. bibliog J Chem Phys 16:486-9 My '48
- BUTYL aminophenol**
Technique for measuring reactivity of gasolene antioxidants with air; reactivity of *n*-butyl-*p*-aminophenol and *N,N'*-di-*sec*-butyl-*p*-phenylenediamine. B. R. Strickland. diag Anal Chem 20:55-6 Ja '48
- BUTYL anthracene**
Higher hydrocarbons; alkyl anthracenes and alkyl phenanthrenes. R. W. Schiessler, R. W. Rytina and F. C. Whitmore. bibliog Am Chem Soc J 70:529-30 F '48
- BUTYL benzene**
Further alkylbenzene spectra to 1750A. J. R. Platt and H. B. Kleven, J. Chem Phys 16:832-4 Ag '48
Hyperconjugation; the competitive bromination of benzene and *t*-butylbenzene. E. Berliner and E. J. Bondhus. bibliog Am Chem Soc J 70:854-8 F '48
- Near-ultraviolet absorption spectra of monoalkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect.** F. A. Matsen and others. bibliog Chem R 41:273-9 O '47
- Relative rates of propylation of monoalkylbenzenes.** F. E. Condon. bibliog Am Chem Soc J 70:2265-7 Je '48
- BUTYL benzoate**
Vapor pressure of isobutene over dioxane as basis of manometric kinetic studies; the dissociation of *t*-butyl benzoate. R. Altschul and J. Herbert. Am Chem Soc J 70:351-4 Ja '48
- BUTYL chloride**
Peroxide-catalyzed chlorination of trimethylchlorosilane and *t*-butyl chloride. J. J. McBride, jr. and H. C. Beachell. bibliog Am Chem Soc J 70:2532-3 J1 '48
- BUTYL chlorocarbonate**
Preparation of di-*t*-butyl carbonate and *t*-butyl chlorocarbonate. A. R. Choppin and J. W. Rogers. Am Chem Soc J 70:2967 S '48
- BUTYL chloroethyl sulfide**
Chemical studies on vesicant-treated proteins. F. H. Carpenter and others. Am Chem Soc J 70:2551-3 J1 '48
- Reaction of some radioactive mustard-type vesicants with purified proteins.** J. L. Wood and others. bibliog Am Chem Soc J 70:2547-50 J1 '48
- Reactions of mustard-type vesicants with α -amino acids.** V. du Vigneaud and others. Am Chem Soc J 70:1620-4 Ap '48
- Studies of the effect of mustard-type vesicants on the phenol color reaction of proteins.** C. M. Stevens, H. McKennis, jr. and V. du Vigneaud. bibliog Am Chem Soc J 70:2556-9 J1 '48
- Studies on acid hydrolysates of vesicant-treated insulin.** C. M. Stevens and others. Am Chem Soc J 70:2554-6 J1 '48
- BUTYL hydrogen peroxide**
Organic peroxides; properties and uses. R. P. Perry and K. P. Seltzer. bibliog Mod Plastics 25:134-6+ N '47

BUTYL lactate

n-Alkanoyl derivatives of *n*-butyl and tetrahydrofurfuryl lactates. M. L. Fein and C. H. Fisher. *bibliog Am Chem Soc J* 70:52-6 Ja '48

BUTYL lithium. See Lithium compounds**BUTYL magnesium chloride**

Reaction of *t*-butylmagnesium chloride with ethyl oxalate. G. F. Hennion and C. F. Raley. *Am Chem Soc J* 70:365-6 F '48

BUTYL nitrite

Photochemical decomposition of *t*-butyl nitrite. C. S. Coe and T. F. Doumani. *il diag Am Chem Soc J* 70:1516-19 Ap '48

BUTYL peroxide

Decompositions of di-*t*-alkyl peroxides; kinetics. J. H. Raley, F. F. Rust and W. E. Vaughan. *diags Am Chem Soc J* 70:83-94 Ja '48

Decompositions of di-*t*-alkyl peroxides; kinetics in liquid phase. J. H. Raley, F. F. Rust and W. E. Vaughan. *Am Chem Soc J* 70:1336-8 Ap '48

Decompositions of di-*t*-alkyl peroxides; reactions of the resultant free radicals. F. F. Rust, F. H. Seubold and W. E. Vaughan. *Am Chem Soc J* 70:95-9 Ja '48

BUTYL silicon trisocyanate

Methyl silicon isocyanates and *n*-butyl silicon trisocyanate. G. S. Forbes and H. H. Anderson. *bibliog Am Chem Soc J* 70:1222-3 Mr '48

BUTYL trichlorosilane

t-Butylsilicon compounds. L. J. Tyler, L. H. Sommer and F. C. Whitmore. *bibliog Am Chem Soc J* 70:2876-8 S '48

BUTYLAMINE

Preparation of *t*-butylamine. D. E. Pearson, J. F. Baxter and K. N. Carter. *Am Chem Soc J* 70:2290-1 Je '48

BUTYLATION

Butylation of benzene during propylation in the presence of isobutane; ratio of reactivities of benzene and isobutane. F. E. Condon and M. P. Matuszak. *Am Chem Soc J* 70:2539-42 Jl '48

BUTYLENE

Addition of dinitrogen tetroxide to olefins; the butylenes. N. Levy, C. W. Scafe and A. E. Wilder-Smith. *Chem Soc J* p52-60 Ja '48

Butane dehydrogenation; pilot-plant investigations. K. Hachmuth and G. H. Hanson. *bibliog flow diags il diags Chem Eng Prog* 44:421-30 Je '48

Catalytic polymerization and its commercial application. P. C. Weinert and G. Egloff. *flow diags Pet Processing* 3:585-6+ Je '48

Depolymerization of butylene polymers; analysis of isomeric octenes by the mass spectrometer. F. G. Ciapetta, S. J. Macuga and L. N. Leum. *bibliog Anal Chem* 20:699-704 Ag '48

Phillips butane dehydrogenation process; special plant investigations. G. H. Hanson and H. L. Hays. *bibliog flow diag il diags Chem Eng Prog* 44:431-42 Je '48

BUTYLENE glycol

levo-2,3-Dinitroxybutane. A. F. McKay, R. H. Meen and G. F. Wright. *bibliog Am Chem Soc J* 70:430 Ja '48

Production of 2,3-butanediol by fermentation of cornstarch. E. R. Kool, E. I. Fulmer and L. A. Underkoffler. *bibliog Ind & Eng Chem* 40:1440-5 Ag '48

Some physical properties of aqueous solutions of 1,3-butanediol. T. H. G. Michael and C. Y. Hopkins. *Can Chem & Process Ind* 32:341-2 Ap '48

Studies in selective extraction and adsorption; the adsorption of acetone, butyl alcohol and 2:3-butyleneglycol from dilute solutions. C. Weizmann and others. *bibliog Soc Chem Ind J* 67:225-7 Je '48

BUTYNE**Analysis**

Determination of ethylacetylene and vinylacetylene in C₄ hydrocarbon gases. F. R. Thomas, L. Donn and H. C. Becker. *bibliog diags Anal Chem* 20:209-13 Mr '48

BUTYRALDEHYDE

N-Phenyl-3,5-diethyl-2-propyl-1,4-dihydropyridine. D. Craig, L. Schaeffgen and W. P. Tyler. *bibliog Am Chem Soc J* 70:1624-9 Ap '48

BUTYRIC acid

Butyric acid fermentation of sulphite waste liquor. H. S. Daniels and J. L. McCarthy. *bibliog diag Paper Tr J* 126:43-6 Ja 29 '48

Derivatives of indene and of butyric acid. J. S. H. Davies and D. S. Morris. *Chem Soc J* p 1697-8 D '47

Ionization constants of *n*-butyric acid in isopropyl alcohol-water mixtures from 0 to 40°. W. A. Felsing and M. May. *bibliog Am Chem Soc J* 70:2904-6 S '48

Thermodynamics of adsorption from solutions; the molality and activity coefficient of adsorbed layers. Y. Fu, R. S. Hansen and F. E. Bartell. *J Phys & Colloid Chem* 52:374-86 F '48

BUTYROLACTONE

Condensations of α -alkyl- α -carbethoxy- γ -butyric lactones. G. S. Skinner, A. Stokes and G. Spiller. *bibliog Am Chem Soc J* 69:3083-6 D '47

Search for new analgesics; further homologues of pethidine and the pharmacology of these and other compounds. R. H. Thorp and E. Walton. *Chem Soc J* p559-61 My '48

BUYERS. See Purchasing agents**BUYING habits**

Buying behavior being studied by Columbia university's Bureau of applied social research. R. H. Ganly. *Ptr Ink* 224:91+ Ag 6 '48

Consumer buying habits in selected south central Illinois communities. P. D. Converse. (Bur. of economic and business research, Business studies no. 6) 42p College of commerce and business administration, Univ. of Illinois, Urbana. '48

Good news, and bad, about sales; how panel studies reveal it; analyses of brand loyalty, switches and deals. V. D. Reed. *Sales Management* 60:58+ Mr 15 '48

Indirect approach to market reactions. L. Cheskin and L. B. Ward. *Harvard Bsns R* 26:572-80 S '48

Shall we display and advertise price? public says emphatic yes! *Sales Management* 61:44-6+ N 1 '48

Ten-market comparison shows use, position of 1,500 advertised brands; Milwaukee Journal analysis, 1947. H. E. Green, *il Ptr Ink* 221:43-5 N 21 '47

Urge to splurge; Du Pont survey of impulse buying in service (clerk-operated) grocery stores. *Bsns W* p72 My 22 '48

See also

Men as purchasers

Women as purchasers

BUYING motives

Motivation analysis in market research. F. T. Schreier and A. J. Wood. *J Marketing* 13:172-82 O '48

There are the real reasons why people buy goods. E. Dichter. *il Adv & Sell* 41:33-4+ Jl '48

BUYING offices. See Purchasing companies

BUYING power. See Consumption (economics)

BYRD cloth

With Byrd cloth at the South Pole; my experience with cotton fabrics for protective clothing. R. E. Byrd. *il Textile Col* 70:28-9+ Jl '48

BYRNE, George Thomas, 1885-1944

Sketch. R. P. Linstead. *Chem Soc J* p253 F '48

BYSSOCHLAMYS

Fungistatic properties of *p*-aminobenzoic acid and related compounds; growth curves obtained with *aspergillus niger*, *penicillium roqueforti* and *byssochlamys fulva*. G. W. K. Cavill and J. M. Vincent. *bibliog diags Soc Chem Ind J* 67:25-33 Ja '48

C

C.I.O. See Congress of industrial organizations

CIT. See Inter-American confederation of workers

C.I.T. financial corporation

Annual report. *Comm & Fin Chr* 167:1040-1 Mr 8 '48

CABINETS (furniture)

Economics of cabinet design. C. Davies. *Il diag Product Eng* 19:139-42 N '48

CABINETS, File. See *File cabinets*

CABINETS, Kitchen. See *Kitchen cabinets*

CABINS

Two-bedroom mountain cabin for year-round use. *Il plan diag Arch Forum* 88:98 Ap '48

CABINS, Airplane. See *Airplanes—Cabins*

CABLE and wireline, ltd.

Cable and Wireless under nationalisation. *Economist* 155:196+ JI 31 '48

CABLE joints. See *Electric cables—Joints*

CABLE laying machines

Cable pulling-in vehicle. R. C. Golding. *Il Elec R (Lond)* 142:924-5 Je 11 '48

Cat-drawn plows bury coaxial cable; illustrations with text. *Constr Methods* 30:90-2 My '48

CABLES

See also

Wire rope

CABLES, Electric. See *Electric cables*

CABLES, Submarine. See *Electric cables, Submarine*

CABLEWAYS

Aerial ropeway at Cornelly quarry. *Il diag Engineer* 186:362-3 O 8 '48

Blondin débardeur pour exploitations forestières, système Schönholzer. *diag Génie Civil* 124:478-9 D 15 '47

Dual 12½ mile cableway to haul aggregates for Australian dam. H. B. Fletcher. *Concrete* 56:26 My '48

Roadway in the sky; transporting from ships to shore, pipe and other materials for Trans-Arabian pipe line. *Il Pet Eng* 19:144+ S '48

Skyhook; a new transportation unit. *Il Eng & Min J* 149:108 JI '48

Tramways serve Swiss hydro tunnels. *Il Constr Methods* 30:112-13 Je '48

Two-mile tramway from quarry to plant; Central silica co. D. Mocine. *flow sheet Il Rock Prod* 51:78-81+ S '48

World's longest aerial ropeway; transporting ores from Boliden mine. *Il Mech Handling* 34:549+, 579-86, 646-8 O-D '47

CABOOSE cars. See *Cars, Caboose*

CACAO

Cacao-bean production, uses, and exports, Brazil. *For Comm W* 31:23 Ap 10 '48

Cacao production and export, Guatemala. *For Comm W* 33:33 N 8 '48

Production and exports, Jamaica. *For Comm W* 31:18 Ap 3 '48

Analysis

Determination of theobromine and caffeine in cacao materials. R. G. Moores and H. A. Campbell. *bibliog Il Anal Chem* 20:40-7 Ja '48

CADMIUM

Cadmium, 1947. R. H. Mote. *Eng & Min J* 149:38 F '48

Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler. *bibliog J Chem Phys* 15:712-26 O '47

Optical properties of Ni, Co, Fe, Mn, and Cd. F. Bueche. *bibliog diag Opt Soc Am J* 38:806-10 S '48

Isotopes

Neutron-scattering cross section at the cadmium resonance. W. W. Beeman. *bibliog Phys R* 72:986-7 N 15 '47

Relative abundances of the zinc and cadmium isotopes. W. T. Leland and A. O. Nier. *Phys R* 73:1206 My 15 '48

CADMIUM alloys

Densities of magnesium-cadmium solid solutions. J. M. Singer and W. E. Wallace. *bibliog J Phys & Colloid Chem* 52:999-1006 Je '48

Metal electrons and alloy catalysis; the system gold-cadmium. G. Schwab and S. Pesmatoglou. *bibliog diag J Phys & Colloid Chem* 52:1046-53 Je '48

Method for the evaporation of alloys. L. Harris and B. M. Siegel. *Il diag J Ap Phys* 19:739-41 Ag '48

CADMIUM cells. See *Standard cells*

CADMIUM plating

Adhesion of enamel finishes to electro-plated cadmium coatings. E. E. Halls. *Metallurgia* 38:75-8 Je '48

Introductory survey of electroplating. R. Mansell. *Il Metal Finishing* 45:70-4 N; 78-81 D '47

Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zapffe and M. E. Haslem. *bibliog Am Soc for Metals Trans* 39:241-58; Discussion. 258-60 '47

Process sheet for cadmium plating; reference book sheet. G. Black. *Am Mach* 92:145 F 12 '48

Schoellkopf award to Udy; address of the recipient. *Chem & Eng N* 26:1580-1 My 31 '48

Thickness standards for cadmium electroplate; reference book sheet. G. Black. *Prod Eng* 19:165 Je '48

CADMIUM poisoning

Proteinuria and kidney injury among workmen exposed to cadmium and nickel dust. L. Friberg. *bibliog J Ind Hygiene* 30:32-6 Ja '48

CADMIUM sulfide

Cadmium lithopone colors; their history, characteristics and suitability for use in various fields. R. B. Quelos. *Paint Oil & Chem R* 111:11-12 Ap 15 '48

Change of photo-conductivity of cadmium sulfide between room temperature and the temperature of liquid air. J. C. M. Bren-tano and D. H. Davis. *Phys R* 74:711-12 S 15 '48

Emission spectra of some zinc sulfide and zinc-cadmium sulfide phosphors. W. H. Byler. *Opt Soc Am J* 37:920-2 N '47

Emission spectra of zinc cadmium sulfides. F. J. Studer and D. A. Larson. *Opt Soc Am J* 38:480-1 My '48

Influence of atmosphere firing on the cathodoluminescence of zinc sulfide; silver type phosphors. A. L. Smith. *bibliog diag Electrochem Soc J* 93:324-33 Je '48

CAFFEIN

Caffeine and theobromine production, Brazil; with data on exports, 1945-1947. *For Comm W* 31:26-7 My 8 '48

8-R-thio- and 8-R-sulfonylcaffeine derivatives. L. M. Long. *bibliog Am Chem Soc J* 69:2939-41 D '47

Analysis

Determination of theobromine and caffeine in cacao materials. R. G. Moores and H. A. Campbell. *bibliog Il Anal Chem* 20:40-7 Ja '48

CAFFREY, James Joseph, 1897-

Resigns as chairman of SEC. *por Comm & Fin Chr* 166:2480 D 18 '47

CAGES, Insect. See *Insect cages***CAISSON disease**

Treatment of decompression sickness; an analysis of one hundred and thirteen cases. O. E. Van Der Aue and others. *bibliog J Ind Hygiene* 29:359-66 N '47

CAISSONS

Deep caisson piers support new Memphis highway bridge. *Il Civil Eng* 18:13+ Ja '48

Dropped caisson shaft sinking; Reynolds bauxite property. W. S. Cole, jr. *Il diag Eng & Min J* 149:82-3 Ap '48

CAKE

Effect of soy flours on rate of staling in plain cake; abstract. L. B. Powers and J. I. Simpson. *Food Ind* 20:943+ Je '48

Festive-occasion cakes; window packages encourage frequent purchase. *Il Mod Pack-aging* 21:163 Ap '48

Lifting power of dried whole egg when used in sponge cake; abstract. C. F. Miller and others. *Food Ind* 20:123-4 Ja '48

CALAIS**Harbor**

Emergency repairs at continental ports. *Il map Engineering* 164:481-2, 492 N 21 '47

CALCAR, Jan Stephan von, 1499-1546

Vesalius; discoverer of the human body; De humani corporis fabrica, work of scientific art. M. Gumpert. *Sci Am* 178:24-31 My '48

CALCERITE

Ready-to-cast compound. *Il Mod Plastics* 25: 98-101 Ap '48

CALCIFEROL. See Vitamins—Vitamin D₂

CALCINATION

Fluidization in non-catalytic operations; limestone calcination. R. P. Kite and E. J. Roberts. *flow diag diags Chem Eng* 54:112-15 D '47

Unit processes. H. J. Garber. *Ind & Eng Chem* 40:1684 bibliog(43 ref, p 1691) S '48

CALCITE

Extension of the polarizability theory of Raman effect. F. Matossi and R. Mayer. *bibliog Phys R* 74:449-55 Ag 15 '48

Low frequency Raman spectrum of calcite. L. Giulotto and G. Olivelli. *diag J Chem Phys* 16:555-6 My '48; Correction. 16:668 JI '48

Replacement of calcite by atacamite in copper chloride solutions. R. M. Garrels and L. O. Stine. *Il Econ Geol* 43:21-30 Ja '48

Slow neutron velocity spectrometer studies of Cu, Ni, Bi, Fe, Sn, and calcite. W. W. Havens, Jr. and others. *bibliog Phys R* 73: 963-72 My 1 '48

CALCIUM

Essentiality of calcium in the nutrition of fungi. R. A. Steinberg. *Science* 107:423 Ap 23 '48

Method for measuring short period activities. A. D. Schelberg and others. *diag R Sci Instr* 19:458-61 JI '48

Physical and electrical properties of calcium. A. H. Everts and G. D. Bagley. *Il Electrochem Soc J* 93:265-71 Je '48

Radioactive decay constants of K⁴⁰ as determined from the accumulation of Ca⁴⁰ in ancient minerals. L. H. Ahrens and R. D. Evans. *Phys R* 74:279-86 Ag 1 '48

Ratio of *g* values of the ²P_{1/2} and the ²S_{1/2} states in ionized calcium. J. R. McNally, jr. *bibliog Phys R* 73:1130 My 1 '48

See also

Solids—Calcium content

Analysis

Determination of small concentrations of calcium and magnesium by titration with standard soap solution; comparison with gravimetric results. J. W. McCoy. *Anal Chem* 19:1002-3 D '47

Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *bibliog Anal Chem* 20:630-4 JI '48

Determining small amounts of calcium in plant materials; a colorimetric method. E. H. Tyner. *bibliog Anal Chem* 20:76-80 Ja '48

Electrochemical properties of mineral membranes; clay membranes for the determination of calcium. C. E. Marshall and A. D. Ayers. *bibliog Am Chem Soc J* 70:1297-302 Ap '48

Microdetermination of alkaline earths as normal molybdates. R. Moser and R. J. Robinson. *bibliog Anal Chem* 19:929-30 N '47

Quantitative separation of calcium, barium, and strontium. S. Kallmann. *bibliog Anal Chem* 20:449-51 My '48

Quantitative spectrochemical determination of barium, strontium, and calcium. W. Hartmann and B. E. Prescott. *Opt Soc Am J* 38:559-41 Je '48

Spectrophotometric determination of serum calcium. J. A. Weybrew, G. Matrone and H. M. Baxley. *bibliog Anal Chem* 20:759-62 Ag '48

Isotopes

Range and energy of beta-radiation from calcium 45. A. K. Solomon and L. E. Glendenin. *bibliog Phys R* 73:415-16 F 15 '48

CALCIUM acetate

Acidic properties of cotton cellulose and derived oxycelluloses; a comparison of various methods proposed for the determination of carboxyl content. G. F. Davidson and T. P. Nevell. *bibliog Textile Inst J* 39: T102-17 Mr '48

CALCIUM alginate

Alginic acid acetate. A. Wassermann. *Chem Soc J* p 197-8 F '48

CALCIUM bisulfite. See Calcium sulfite

CALCIUM borates

Heat capacities at low temperatures and entropies of 3CaO·B₂O₃, 2CaO·B₂O₃, CaO·B₂O₃, and CaO·2B₂O₃. K. K. Kelley, S. S. Todd and C. H. Shonate. *bibliog Am Chem Soc J* 70:1350-2 Ap '48

High-temperature heat contents of 3CaO·B₂O₃, 2CaO·B₂O₃, CaO·B₂O₃, and CaO·2B₂O₃. E. G. King, D. R. Torgeson and O. A. Cook. *bibliog Am Chem Soc J* 70:2160-3 Je '48

See also

Colemanite

CALCIUM carbonate

Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeier and A. D. Ayers. *bibliog Am Chem Soc J* 69:2759-61 N '47

Corrosion prevention by controlled calcium carbonate scale. S. T. Powell, H. E. Bacon and E. L. Knoedler. *bibliog Ind & Eng Chem* 40:453-7 Mr '48

Influence of CaCO₃ additions to the electrode coating on the composition of the arc atmosphere. M. W. Mallett. *Welding J* 27: sup28-9 Ja '48

Process for manufacturing of dead-burned magnesite and precipitated calcium carbonate from dolomite; abstract. R. D. Pike. *flow sheet Brick & Clay Rec* 112:82 Ja '48

Process for the separation of magnesium carbonate from calcium carbonate; abstract. R. A. Schoenlaub. *Am Cer Soc J* 31 (Cer A):76-7 Ap 1 '48

Steam bubble formation; effects of heating surface and use of antifoams. A. L. Jacoby and L. C. Bischmann. *bibliog Il diag Ind & Eng Chem* 40:1360-3 Ag '48

CALCIUM chloride

Calcium chloride and sodium chloride refrigeration brines. R. H. Sawens. *Refriger Eng* 54:1-5 sec 2 N '47 [reprints 30c]

Calcium chloride counteracts organic impurities in sand. I. Lyse. *Eng N* 141:62 JI 22 '48

Chemical removal of clays. P. H. Cardwell. *bibliog diags Oil & Gas J* 46:130-3+ F 26 '48

Effect of calcium chloride on the preparation of extracts of *H. pertussis*. J. I. Burrell and others. *bibliog Science* 108:311 S 17 '48

Effect of topically applied fluoride on dental caries experience; experiments with sodium fluoride and calcium chloride. D. J. Galagan and J. W. Knutson. *bibliog Pub Health Rep* 63:1215-21 S 17 '48

Gas drying by calcium chloride solutions; the mechanism of transfer. E. F. Thurston. *bibliog diags Soc Chem Ind J* 67:289-96 JI '48

Propeller influence in high speed stirring. A. A. Morton and L. M. Redman. *bibliog diags Ind & Eng Chem* 40:1190-3 JI '48

Sales up three percent in 1947. *Oil Paint & Drug Rep* 154:42 Ag 16 '48

CALCIUM compounds**Analysis**

Determination of carboxylic acid salts. S. Siggia and M. Maisch. *Anal Chem* 20:235-6 Mr '48

CALCIUM fluoride

Nuclear paramagnetism at low temperatures. B. V. Rollin and J. Hatton. *Phys R* 74:346 Ag 1 '48

See also

Fluorspar

CALCIUM hypochlorite

See also

Bleaching powder

CALCIUM in the body

Calcium and growth in aging and cancer. C. Gurchot. *Science* 106:490-1 N 21 '47

Is the action of calcium in the coagulation of blood stoichiometric or catalytic? A. J. Quick. *bibliog Science* 106:591 D 12 '47

CALCIUM magnesium phosphate

Electric furnace combines olivine and phosphate; calcium magnesium phosphate produced by Magnesium products, Inc. W. J. Granberg. *Il Rock Prod* 51:108+ O '48

CALCIUM nitrate

Ionic hydration and activity in electrolyte solutions. R. H. Stokes and R. A. Robinson. bibliog Am Chem Soc J 70:1870-8 My '48

CALCIUM oxide. See Lime

CALCIUM phosphates

Acid pyro- and metaphosphates produced by thermal decomposition of monocalcium phosphate. W. L. Hill and others. bibliog Ind & Eng Chem 39:1667-72 D '47

Calculation of the pH of saturation of tricalcium phosphate. J. Green and J. A. Holmes. bibliog Am Water Works Assn J 39:1090-6 N '47

System calcium oxide-phosphorus pentoxide-sulfur trioxide-water at 75.3° C. A. N. Campbell and J. W. Coutts. bibliog (35 ref) Ind & Eng Chem 40:1295-9 JI '48

CALCIUM silicates

CaSiO₃-(Pb+Mn) phosphor. J. B. Merrill and J. H. Schulman. bibliog J Opt Soc Am J 38:471-9 My '48

Emission spectra of silicate phosphors with manganese activation. K. H. Butler. bibliog Electrochem Soc J 93:143-56 My '48

Hydrofluoric acid solution calorimeter and the determination of the heats of formation of MgSiO₃, MgSiO₃, and CaSiO₃. D. R. Torgeson and T. G. Sahara. bibliog diag Am Chem Soc J 70:2156-60 Je '48

Infra-red stimulability of CaSiO₃:Pb and CaSiO₃:(Pb+Mn). J. H. Schulman and others. Opt Soc Am J 38:817-18 S '48

Manganese activated calcium silicate phosphors. H. C. Froelich. bibliog Electrochem Soc J 93:101-13 Ap '48

Structure of calcium silicate phosphors. G. R. Fonda and H. C. Froelich. bibliog Electrochem Soc J 93:114-22 Ap '48

CALCIUM sulfate

Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeier and A. D. Ayers. bibliog Am Chem Soc J 69:2759-61 N '47

Determination of calcium sulphate in sulphide ores. R. S. Young and A. J. Hall. Soc Chem Ind J 66:375 O '47

Influence of dipolar ions on the solubility of some sparingly soluble salts. F. Lee and L. Luh. bibliog Am Chem Soc J 70:113-14 Ja '48

Nuclear resonance absorption in hydrated crystals; fine structure of the proton line. G. E. Pake. bibliog J Chem Phys 16:327-36 Ap '48

CALCIUM sulfite

Solubility of sulphur dioxide in calcium bisulphite solutions. C. K. White, Jr. and others. bibliog Paper Tr J 126:46-8 My 13 '48

Use of liquid sulphur dioxide for calcium bisulphite acid production. B. H. Lougheed. bibliog flow sheet JI diags Pulp & Pa of Can (Convention no) 49:215-21 [F] '48

CALCULATING boards. See Electric distribution—Network analyzers

CALCULATING devices

Simple calculator for certain types of instrumental data. D. A. Brody and J. P. Quigley. Science 106:595-6 D 12 '47

Use induction period calculator for oxidation stability tests. E. L. Korb. J Pet Processing 3:848-50 S '48

Where there's profit, there's expense; rapid calculator gives nine selling prices for every contract. Dom Eng 171:140+ Mr '48

CALCULATING machines

Analysis of nonlinear control systems with the analog computer; abstract. G. D. McCann and C. H. Wilts. Elec Eng 67:1104 N '48

Automatic integration of linear sixth-order differential equations by means of punched-card machines. L. F. Hausman and M. Schwarzschild. R Sci Instr 18:377-83 D '47

Automatic simultaneous equation computer and its use in solving secular equations. W. A. Adcock. bibliog JI diags R Sci Instr 19:181-7 Mr '48

Bell relay computer. F. L. Alt. J Instrum 21:912-13 O '48

Business predictor; Univac machine computes chances of success of new business. Bsns W 975-6 Je 5 '48

Calculating machines. R. C. Tumbleson. JI Elec Eng 67:6-12 Ja '48

Calculations in the liquid-drop model of fission; electronic calculator, the Eniac. S. Frankel and N. Metropolis. bibliog Phys R 72:914-25 N 15 '47

Compact analog computer for obtaining solutions of the simultaneous differential equations usually encountered in design engineering. S. Frost. JI diags Electronics 21:116-20+ JI '48

Computer for supercompressibility factors. F. C. Walters. JI Am Gas J 169:57-8 O '48; Same. Gas Age 102:19+ O 14 '48

Computer, mathematical Merlin. G. D. McCann and E. L. Harder. JI diags Westinghouse Eng 8:178-83 N '48

Design of d-c electronic integrators. G. A. Korn. diags Electronics 21:124-6 My '48

Designing industrial controllers by analog; use of electronic computer. G. A. Philbrick. JI diags Electronics 21:108-11 Je '48

Details of the simultaneous equation solver. E. A. Goldberg. JI diags RCA R 9:394-405 S '48

Device computes flight time and gives scheduling data. JI Air Transport 6:47-8 Mr '48

Digital computer switching circuits. C. H. Page. diags Electronics 21:110-16+ S '48

Electronic analog studies for turbo-prop control systems; abstracts. G. A. Philbrick and others. JI diag S A E J 58:63 Ja '48; Automotive Ind 97:84+ N 1 '47

Electronic differential analyzer. J. S. Koehler. diags J Ap Phys 19:148-55 F '48

Electronic war production board; computing machine that could guide war economy. JI Bsns W 922-4 O 9 '48

Elements of d-c analog computers. G. A. Korn. diags Electronics 21:122-7 Ap '48

ENIAC (electronic numerical integrator and computer). J. G. Brainerd and T. K. Sharpless. JI plan diags Elec Eng 67:163-72 F '48

Extensions in differential analyzer technique. J. G. L. Michel. bibliog diags J Sci Instr 25:357-61 O '48

Heat-flow analyzer. Mech Eng 70:541-2 Je '48

How much will it cost? Fast-est building materials price calculator. JI Am Bld 69:115 N '47

IBM completes development of large scale digital computer. JI Elec Eng 67:506-7 Mr '48; Product Eng 19:160-1 Mr '48; Am Bsns 18:30 Ap '48

Mechanical computer would refine governing. T. E. Curtis. JI diag Elec World 129:78-9 F 28 '48

Megacycle stepping counter. C. B. Leslie. diags Inst Radio Eng Proc 36:1030-4 Ag '48

Numeroscope for cathode-ray printing; Arabic numerals traced on screen of cathode-ray tube used in high speed electronic calculator. H. W. Fuller. JI diags Electronics 21:98-102 F '48

Office-size electronic computer. H. H. Adise. JI diag Aviation W 49:18+ JI 26 '48

Photographic memory device, part of an electronic computer being developed by the Massachusetts institute of technology. Mech Eng 70:25 Ja '48; Product Eng 19:164 Mr '48

Proceedings of a symposium on large-scale digital calculating machinery. 302p \$10 Harvard Univ. press, Cambridge 38, Mass. '48

Rapid machine method, calculating results of infrared analyses of gaseous hydrocarbon mixtures. E. C. Daigle and J. H. Lee. bibliog Pet Refiner (Process Handbook ed) 27:120-3 S '48

Recent developments in calculating machines; discussion meeting. Inst E E J 95 pt 2:225-6 Ap '48

Selective sequence digital computer for science. JI Electronics 21:138+ Ap '48

Simple device for calculating X-ray structure factors. V. Vand. diag J Sci Instr 25:352 O '48

Special magnetic amplifiers and their use in computing circuits. H. S. Sack and others. bibliog diags Inst Radio Eng Proc 35:1375-82 N '47

CALCULATING machines—Continued

Use of the Burroughs type 70 stock accounting machine for preparation of tables of values of polynomial functions. R. H. Purdie. Chem & Ind p265-6 Ap 24 '48

See also
Adding machines
Counting machines
and devices
Integragraphs

Manufacture

Shop shots at Friden; illustrations with text. Am Mach 92:98-9 F 12 '48

CALCULUS

New calculus for the treatment of optical systems; properties of the N-matrices. R. C. Jones. Opt Soc Am J 38:671-85 Ag '48

See also
Approximation, Newton's method of
Tensor analysis

CALDWELL, Otis William, 1869-1947
Sketch. M. Meister. por Science 106:576-8 D 12 '47

CALENDARS

Girls! girls! girls! no. 1 calendar subject. R. W. Lackner. Sales Management 61:106 Ag 15 '48

More 1948 industrial calendars pass in review. A. Bernstein. il Ind Marketing 33:72+ F '48

1948 industrial calendar review. M. French. il Ind Marketing 33:48-9+ Ja '48
250 year calendar. il Power Generation 52:84 F '48

Utility plus humor means sales! case history of Copperweld calendar pad campaign. il Ind Marketing 32:60+ D '47

We find out in advance what folks like in calendar art; pretty girls are not the most popular subjects; J. R. Watkins co. L. W. Goldberg. il Ptr Ink 225:38-41 N 5 '48

We find out in advance what folks like in calendar art; pretty girls are the most popular subjects; Pennsylvania refining co. il Ptr Ink 225:38-9 N 5 '48

CALENDERS

Electric heaters modernize calendar. il Elec World 130:134+ S 25 '48

Preventive maintenance of the calendar. S. T. Weber. Pulp & Pa of Can 49:110-11 S '48

Super calendar roll deflections and crowns. J. B. Gough. diag Paper Tr J 125:147-52 N 6 '47; Abstract. Paper Ind 29:1664-5 F '48

CALGON. See Sodium hexametaphosphate

CALIFORNIA

See also
Central Valley project, California
Clothing trade—California
Copper mines and mining—California
Fruit trade—California
Manganese mines and mining—California
Commerce

Petroleum industry and trade—California
Roads—California
Tungsten mines and mining—California
Zinc mines and mining—California

See also
Los Angeles—Commerce

Economic conditions

Fact finding in California. H. J. Taylor. Comm & Fin Chr 168:904+ S 2 '48

Industries and resources

Postwar market and industrialization in California. E. T. Grether. J Marketing 12:311-16 Ja '48

Sanitary affairs

Disposal of industrial wastes in Los Angeles county. A. Pickett. Water & Sewage Works 95:33-6 Ja '48

CALIFORNIA, Gulf of

Buried topography, initial structures, and sedimentation in Santa Rosalia area, Baja California, Mexico. I. F. Wilson. maps diag Am Assn Pet Geologists Bul 32:1762-807 bibliog(p 1893-7) S '48

CALIFORNIA, Lower

See also
Geology—California,
Lower

CALIFORNIA eastern airlines

Cal-Eastern files bankruptcy plea. S. Alt-schul. Aviation W 48:39 My 24 '48

CALIFORNIA electric power company
Bonds offered. Comm & Fin Chr 167:2570+ Je 14 '48

Preference stock offered. Comm & Fin Chr 168:247 JI 39 '48

CALIFORNIA institute of technology

Chemical education in American institutions. E. H. Swift. il J Chem Educ 24:574-83 D '47

Electrical engineering graduate studies; program of the California institute of technology. R. W. Sorensen. Elec Eng 66:1049-53 N '47

Hydrodynamics laboratory. R. T. Knapp and others. il plans diag A S M E Trans 70:437-57 JI '48

R. A. Millikan and the California institute of technology. L. A. DuBridge. il Rs Mod Phys 20:7-9 Ja '48

CALIFORNIA Oregon power company

Securities offered. Comm & Fin Chr 167:1583 Ap 12 '48

Stocks offered. Comm & Fin Chr 166:2100 N 24 '47

CALIFORNIA packing corporation

Research cuts costs. Barron's 28:38 O 11 '48

CALIFORNIA research corporation, Richmond, California

Postwar expansion program. il Chem & Eng N 26:874 Mr 22 '48

CALIFORNIA university

Petroleum engineering schools. il Oil & Gas J 46:80-1 D 20 '47

Institute of geophysics

Annual conference, 1st, Berkeley. Science 108:34 JI 9 '48

CALIFORNIA water and telephone company

Preferred stock offered. Comm & Fin Chr 168:1795-6 N 1 '48

CALIFORNIA water service company

Bonds offered. Comm & Fin Chr 166:2100 N 24 '47

Common stock offered. Comm & Fin Chr 166:1990 N 17 '47

CALIPERS

Great caliper family. J. E. Hyler. il Mill & Factory 42:125-9 F '48

CALKING

Caulking open masonry cuts down wind and water leakage thru walls. diag Brick & Clay Rec 113:34-5 S '48

CALKINS, Earnest Elmo, 1868-

Portrait. Ptr Ink 225:41 O 29 '48

CALLAWAY, J. Thomas

Sketch. por(cover) Bsns W p6 Ag 7 '48

CALLAWAY, Merrel Price, 1872-

Elected chairman of reorganized Central of Georgia. por Ry Age 125:153+ JI 17 '48

CALORIMETERS and calorimetry

Adiabatic calorimeter for specific heat determinations over the temperature range 25° to 300° C. F. S. Stow, jr. and J. H. Elliott. bibliog il diag Anal Chem 20:250-3 Mr '48

Calorimeter building for domestic-heating research. il diag Engineering 166:79-81 JI 23 '48; Abstract. Elec R (Lond) 143:55 JI 9 '48

Comparison of the determination of the disintegration rate of radiophosphorus by absolute beta counting and calorimetric measurement. L. R. Zumwalt and others. Science 107:47 Ja 9 '48

Dielectric behavior of solutions of electrolytes in solvents of low dielectric constant. H. A. Strobel and H. C. Eckstrom. bibliog J Chem Phys 16:817-31 Ag '48

Flow calorimeter measures specific heats of gases. diag Pet Eng 19:148 D '47

Heat capacity of nitrogen adsorbed on titanium dioxide between 20°K and 80°K. J. A. Morrison and G. J. Szasz. bibliog diag J Chem Phys 16:280-6 Ap '48

Hydrofluoric acid solution calorimeter and the determination of the heats of formation of Mg_2SiO_4 , $MgSiO_3$, and $CaSiO_3$. D. R. Torgeson and T. G. Sahama. bibliog diag Am Chem Soc J 70:2156-60 Je '48

Iron-loss measurements by a.c. bridge and calorimeter. J. Greig and H. Kayser. bibliog il diag Inst E E J 95 pt 2:205-12; Discussion. 212-16 Ap '48

CALORIMETERS and calorimetry—Continued

- Measurement of heat of combustion of volatile hydrocarbons; liquid sample holder. R. L. LeTourneau and R. Matteson. *bibliog diag Anal Chem* 20:663-4 J1 '48
- Measurements of heat of vaporization and heat capacity of a number of hydrocarbons. N. S. Osborne and D. C. Ginnings. *bibliog diags J Res Nat Bur Stand* 39:453-77 N '47
- Simple calorimeter for measuring specific heat. R. E. Rice. *bibliog li diags Gen Elec R* 51:32-8 O '48
- Specific heats of volatile liquids. G. C. Williams. *diag Ind & Eng Chem* 40:340-1 F '48
- Thermodynamics of butadiene-1,2 from calorimetric and spectroscopic data. J. G. Aston and G. J. Szasz. *bibliog diag Am Chem Soc J* 69:3108-14 D '47
- Weirs and the gas calorimeter. J. H. Eise-man and R. F. Plapp. *Am Gas Assn Mo* 30:34-5 Je '48

Standards

- Heat of combustion of phenyl-beta-naphthyl-amine (N-phenyl-2-naphthylamine). D. E. Roberts and R. S. Jessup. *bibliog J Res Nat Bur Stand* 40:281-3 Ap '48

CALORIZING

- Process sheet for calORIZING steel; reference book sheet. G. Black. *Am Mach* 92:135 N 4 '48

CALUMET, Lake

- Development of Lake Calumet. M. M. Cohen. *map plan Western Soc E J* 52:128-40 S '47

CALUMET and Hecla consolidated copper company

- Securities disturbing investors. R. Colston. *Mag of Wall St* 82:293 Je 19 '48
- Unusual costs, delays hit Calumet & Hecla profit. *Barron's* 28:33 My 3 '48

CALVERT, Harry Thornton, 1878-1947

- Sketch. A. Parker. *Chem Soc J p* 1707-8 D '47

CAMBRIDGE university, England**Engineering school**

- Engineering at Cambridge university; report for the year 1946-47. *Engineering* 165:449 My 7 '48

CAMERA insurance. See Insurance, Camera**CAMERAS**

- American type founder's new all-metal dark-room-type precision camera for large color work. *li Inland Ptr* 120:103 D '47
- Cathode-ray oscilloscope camera. D. D. Bare. *li R Sci Instr* 19:471-2 J1 '48
- Continuous oscillograph camera for ionosphere measurements. J. E. Hacke, jr. *li Instruments* 21:914-15 O '48
- Deep-wall camera permits visual examination of bore holes. C. E. Barstow and C. M. Bryant. *bibliog li diags Oil & Gas J* 45: 74-5+ Mr 15 '47; Same cond. *Mech Eng* 70: 238-9 Mr '48
- Electro- and magneto-optical shutters for aerial cameras. R. C. Gunter, jr. *Opt Soc Am J* 38:419-20 Ap '48
- Engineering perfects a plastics camera. *li Mod Plastics* 25:107-11 J1 '48
- Foreign-made cameras. *Consumers Res Bul* 21:29 Mr '48
- Laboratory oscilloscope. V. L. Fitch and E. W. Titterton. *bibliog li diags R Sci Instr* 18:821-30 N '47
- Navy's fast camera slices time extra-thin. *li Enns W* 554-5 My '48
- New camera thanks for the photographer. *Ed & Pub* 81:44 F 21 '48
- New one-step photographic process. E. H. Land. *li diag Opt Soc Am J* 37:61-77 F '47; Discussion. L. E. Varden. 38:69-70; Reply. 70 Ja '48
- Oscilloscope camera. H. E. Hale and H. P. Mansberg. *li diag Electronics* 21:102-7 Je '48
- Oscilloscope camera takes still or continuously moving film record. *li Sci Am* 177:270-1 D '47; *Chem Ind* 61:1054 D '47; *R Sci Instr* 19:56 Ja '48
- Periscope camera for the U.S. submarine service. *Mech Eng* 70:17-18 Ja '48
- Test a lens before you buy it. *Consumers Res Bul* 20:33-4 N '47
- See also*
Moving picture cameras

Manufacture

- Creating a Kodak. H. E. Linsley. *li Am Mach* 92:98-100 O 21 '48
- Gage control and measuring techniques; inspection of camera parts. P. G. Fishback. *diags Tool Eng* 20:25-30 My '48
- Tangent bender forms camera body parts. *li Iron Age* 161:94 Ap 29 '48

Rating

- Some simple cameras in the price range \$3 to \$20. *li Consumers Res Bul* 20:7-10 N '47
- Twin-lens reflex camera. *li Consumers Res Bul* 21:23 My '48

Small size**Rating**

- Miniature cameras. *li Consumers Res Bul* 21:23-4 My '48

Testing

- Camera shutter timer. H. Sear. *diag Electronics* 21:148+ N '48
- Camera-testing service. *Consumers Res Bul* 22:18-19 O '48
- Simple shutter speed meter. V. B. Westburg. *li diag Radio N* 40:58-9+ J1 '48
- Testing photographic shutters. S. H. Duffield and L. R. Lankes. *bibliog diags Electronics* 21:82-7 Ag '48

CAMERAS, Electron diffraction

- New applications of X-ray and electron beams to metal research; report of fifth annual Pittsburgh conference on X-ray and electron diffraction. E. H. Alexander. *Metal Prog* 52:989-90+ D '47
- Some like it hot; high temperature electron diffraction camera. *li Westinghouse Eng* 8: 44 Mr '48

CAMERAS, Moving picture. See Moving picture cameras**CAMERAS, Television. See Television cameras****CAMERAS, X ray. See X ray apparatus****CAMOQUIN**

- Aminocyclohexanols as antimalarials; (heterocyclic-amino)- α -amino- α -cresols; the synthesis of camoquin. J. H. Burkhalter and others. *Am Chem Soc J* 70:1363-73 Ap '48

CAMP, Thomas Ringgold, 1895-

- Sketch. *por(p33) Civil Eng* 18:34 Ja '48

CAMPBELL, Donald F.

- Sketch. *por Iron & Steel Inst J* 159:front Ag '48

CAMPBELL, W. W.

- Portrait. *Science* 108:221 S 3 '48

CAMPBELL, Lord, act. See Damages**CAMPENE****See also****Toxaphene****CAMPHOR**

- Measurements on the absorption of micro-waves; losses of camphor dissolved in cyclohexane. D. H. Whiffen. *bibliog diag Am Chem Soc J* 70:2452-5 J1 '48

CAMPS**See also****Labor camps****CAMPS, Military**

- Sewage treatment at military installations; summary and conclusions by the NRC subcommittee on sewage treatment. *Sewage Works J* 20:52-95 Ja '48

CAMPS, Tourist. See Tourist camps, hostels, etc.**CAMS**

- Analysis of the dynamic forces in a cam-driven system. J. A. Hrones. *diags A S M E Trans* 70:473-9 J1 '48; Excerpts. *Machine Design* 20:135-8 Ja '48; Discussion. *A S M E Trans* 70:479-82 J1 '48
- Analytical determination of radial cam profiles. G. M. Sommer. *diags Tool Eng* 20:17-22 My '48
- Analyzing circular-arc cams. P. K. Slaymaker. *diags Machine Design* 20:129-31 J1 '48
- Cam-operated air vise. M. W. Purser. *li Mach* 54:170-1 N '47
- Curvature-acceleration relations for plane cams. M. L. Baxter. *jr. diags A S M E Trans* 70:483-9 J1 '48; Excerpts. *Machine Design* 20:159-61 F '48
- High accuracy contour cams. R. O. Yavne. *li diags Product Eng* 19:134-6 Ag '48

CAMS—Continued

- Milling cams without a master or lay-out; disk cams for use on Brown & Sharpe automatic screw machines. *il Mach* 54: 178-9 F '48
- Multiple cam and lever mechanism. F. Hartley. *diags Mach* 54:165 N '47
- Oscillating cam made adjustable; drilling machine work-holding fixture. L. Kasper. *diags Mach* 54:193-4 Je '48
- Percentage charts for motion analysis; reference book sheet. H. R. Ross. *Product Eng* 19:171, 173 O '48
- Radial engine cam design simplified. G. D. Angle. *diags Automotive Ind* 99:23-31 S 1; 33-45 S 15 '48

Manufacture

- Geared disk-cam holder matches feed and rotation for milling. C. T. Bower. *diags Am Mach* 92:110 JI 29 '48
- Milling machine cuts slotted cams using removable fixtures on table. F. C. Lurz. *diags Am Mach* 92:121 Ap 8 '48

CAMSHAFTS

- Important factors in designing camshaft chain drives. E. F. Riopelle. *il diags Automotive Ind* 99:36-9+ O 15 '48

Manufacture

- Grinding Packard crankshafts and camshafts. G. W. Deislinger. *il Iron Age* 162:80-3 S 16 '48
- Multiple grinding of automotive shafts jumps production rate. *il diag Steel* 123:101 Ag 9 '48

Testing

- Hydraulic-electric system; machine for magnafux inspection of crankshafts and camshafts. W. E. Bock. *il diags Machine Design* 19:107-11 D '47

CAN openers

- Two jar, can, and bottle openers. *Consumers Res Bul* 21:10 Je '48

CAN seaming machines

- End seamer for cans. *il Mod Packaging* 21:154 Ap '48

CANADA

- Canada and the Marshall plan. F. H. Soward. *Pulp & Pa of Can* 49:87-8 O '48

See also

- | | |
|-----------------------------------|----------------------------------|
| Electric industries— | Investments, Foreign (in Canada) |
| Canada | Petroleum—Canada |
| Gold mines and mining—Canada | Retail trade—Canada |
| Hospitals—Canada | Yukon |
| Immigration and emigration—Canada | |

Bibliography

- Canada catalogue of books published in Canada, about Canada, as well as those written by Canadians, with imprint of 1946. 58p Toronto public lib, 214 College st, Toronto 2B '47

Commerce

- Annual report of Canadian commercial corporation; abstract. *For Comm W* 32:20 S 25 '48
- Bank of Montreal finds Canadian dollar situation better. *Comm & Fin Chr* 168:20 JI 1 '48
- Canada's dollars. *Economist* 154:814 My 15 '48
- Canada's exchange position running 20 percent ahead of 1947. *Banking* 40:20+ Je '48
- Canada's problems mirror the world's; dollar shortage. *Barron's* 27:1+ N 10 '47
- Canadian dollar crisis and its effect on the U.S. V. L. Horoth. *il Mag of Wall St* 81: 291-3+ D 20 '47
- Canadian import control drastic. *Steel* 122: 47-9 Ja 12 '48
- Canadian imports establish new record of two billion dollars. *Can Chem & Process Ind* 32:67-8 Ja '48
- Canadian trade pattern changes. *Can Chem & Process Ind* 32:847-8 S '48
- Customer and competitor; battle for a better international trade balance. V. L. Horoth. *il map Mag of Wall St* 82:383-5+ JI 17 '48
- Review of foreign trade, 1947. 58p pa 25c Canada. Dominion bur. of statistics, Ottawa '48

- Way opened for entry of British cars into Canada. *Automotive Ind* 98:25+ Ap 1 '48

Commercial policy

- Additional capital goods under import controls. *For Comm W* 31:19 My 29; 32:16 JI 3 '48
- Administration of import controls. J. H. Berry. *Roads & Bridges* 86:99-100+ Je '48
- Amendments to recent import restrictions. *For Comm W* 29:13-14 D 27 '47
- Canada fights dollar crisis; heavy import restrictions. *il Bsns W* p 117-18 N 22 '47
- Canada places import controls on numerous iron and steel items. *Iron Age* 161:111-12+ Ja 22 '48
- Canada seeks to expand exports while curbing imports. *Banking* 40:20+ Ja '48
- Canada's exchange disorders and the remedies. D. Gordon. *Comm & Fin Chr* 167:1008+ Mr 4 '48
- Canada's problem. *Economist* 153:1036-8; 154: 4-5, 44-6 D 27 '47-Ja 10 '48
- Drastic import restrictions announced. *For Comm W* 29:18-19 N 29 '47
- Emergency exchange conservation act amended. *For Comm W* 32:16 JI 31 '48
- Import-control bill passed. *For Comm W* 30: 11-12 Mr 13 '48
- Import controls now under statute. *For Comm W* 31:11-12 My 22 '48
- U.S. magazines and the Canadian embargo. *Sales Management* 69:138 D 15 '47
- Will Canada ease her U.S. import restrictions? R. A. Bing. *Comm & Fin Chr* 168: 1212+ S 23 '48

Economic conditions

- Canada meets a challenge. D. C. Abbott. *Comm & Fin Chr* 166:2628+ D 25 '47
- Factors influencing Canadian credit. W. T. G. Hackett. *Comm & Fin Chr* 167:1650+ Ap 15 '48
- Overexpanding? *Bsns W* p 114+ My 1 '48

Economic policy

- Austerity to the north. *Fortune* 37:82-3+ Ja '48; *Reply*. 37:4 Mr '48

See also

- Prices—Regulation
—Canada

Economic relations**United States**

- Austerity to the north. *Fortune* 37:82-3+ Ja '48; *Reply*. 37:4 Mr '48
- Canadian dollar crisis and its effect on the U.S. V. L. Horoth. *il Mag of Wall St* 81: 291-3+ D 20 '47
- Defense, international co-operation, and peace; North Atlantic community would foster peace to end war. C. D. Howe. *il Tech R* 50:497-8+ JI '48
- Economic factors in Canadian and United States trade. R. A. Gillies. *Iron & Steel Eng* 25:98-101 Je '48

Foreign relations**United States**

- Canadian-American union? *Economist* 154: 547-8 Ap 3 '48
- Great unguarded frontier; Canadian's passport troubles. *Fortune* 38:4 S '48

Industries and resources

- Britain builds in Canada. *il Bsns W* p84-5 Ag 23 '48
- Canada's need for manpower; country's vast resources and potential development. W. M. Neal. *Comm & Fin Chr* 166:2484+ D 18 '47
- Strains on our national production. R. C. Berkinshaw. *Can Chem & Process Ind* 32: 563-4+ Je '48

Mines, Bureau of

- Special services to industry; Bureau of mines, Ottawa. A. J. Baxter. *il Can Min J* 69:70-3 Ja '48

Politics and government

- Canada's new leader; Louis St Laurent. *Economist* 155:338-9 Ag 28 '48
- Political upsets in Canada. *Economist* 154: 1068+ Je 26 '48

CANADA—Continued

Statistics

- Canada, Ind Marketing 32:143 O 25 '47
 Canadian market; population, retail sales, effective buying, income for provinces, counties, cities, map Sales Management 60: 533-4+ My 10 '48
 Canadian statistical review. Published monthly by Canada, Dominion bur. of statistics, Ottawa

Technical personnel, Bureau of

- Bureau of technical personnel of the Department of labour, Can Chem & Process Ind 32:134-5 F '48

CANADAIR, Ltd.

- Canadaair operations an aid to Electric Boat. Barron's 28:38 S 20 '48

CANADIAN advertising and sales federation

- Recap on meet of Canada's sales-advertising chiefs. Sales Management 61:118-19 JI 15 '48

CANADIAN association of equipment distributors

- Annual meeting, 5th, Niagara Falls, Ont. Roads & Bridges 86:69-74+ My '48
 List of members, with name of signing member of each firm. Roads & Bridges 86: 213 Je '48

CANADIAN congress of labor

- Annual convention, 7th, Toronto, Oct. 6-10, 1947. Int Labour R 57:537-40 My '48

CANADIAN construction association

- Annual meeting, 30th, Quebec. Eng N 140: 237 F 19 '48

CANADIAN good roads association

- Annual meeting, 29th, Digby, Nova Scotia, Sept. 7-9. Roads & Bridges 86:85-96+ S '48

CANADIAN institute of chemistry

- Science teacher and the Chemical institute of Canada. H. R. Holland. Can Chem & Process Ind 32:140-1 F '48

CANADIAN institute of mining and metallurgy

- Annual meeting, 50th, Vancouver, April 5-8. Eng & Min J 149:110+ My '48
 Story of our Institute. W. M. Goodwin. Can Min J 69:87-9 Ap '48

CANADIAN international paper company

- Plays host to over 60 thousand. Il Pulp & Pa of Can 49:66-9 Ag '48

CANADIAN international trade fair. See Fairs

- CANADIAN life insurance officers association Annual meeting, 45th, Montebello, Quebec, May 18-20. East Underw 49:1+ My 21 '48

CANADIAN literature

Bibliography

- Canadian index; a guide to Canadian periodicals. Published monthly by Canadian lib. assn, room 46, 46 Elgin st, Ottawa

CANADIAN Pacific railway

- Annual report, 67th, year ended Dec. 31, 1947. Comm & Fin Chr 167:1535-7 Ap 8 '48; Excerpts. Ry Age 124:734-8 Ap 17 '48
 Income account for calendar years, 1944-1947. Comm & Fin Chr 167:1584 Ap 12 '48
 Investment audit. S. Devlin. Mag of Wall St 82:185-7+ My 22 '48
 New Canadian Pacific executives. Ry Age 124: 556 Mr 20 '48
 Saves on sterling charges. Barron's 28:34 JI 12 '48

CANADIAN paint, varnish and lacquer association

- Annual meeting, 35th, Montreal, Jan. 23. Paint Oil & Chem R 111:9 F 5 '48

CANADIAN press

- CP elects V. Sifton, starts picture service. Ed & Pub 81:57 Ap 24 '48

CANADIAN pulp and paper association

- Annual meeting, 35th, Montreal, Jan. 28-30. Pulp & Pa of Can (Convention no) 49:83-5 [F] '48; Paper Tr J 126:7+ F 5 '48

- Organization and functions. Pulp & Pa of Can 49:63-5 Ag '48

- Reports of branches and committees, 1947. Pulp & Pa of Can (Convention no) 49:244-50+ [F] '48

- Sections review, 1947. Pulp & Pa of Can (Convention no) 49:326+ [F] '48

- Western branch of the Association. Pulp & Pa of Can 49:63 JI '48

Technical section

- Annual meeting, 34th, Montreal, Jan. 28-30. Paper Ind 29:1619-24+ F '48; Pulp & Pa of Can (Convention no) 49:91-8 [F] '48
 Pacific Coast branch. Il Pulp & Pa of Can 49:64 JI '48
 Successful instrumentation course held in Montreal. Pulp & Pa of Can 49:84-9 Je '48
 Summer meeting, Vancouver, Sept. 8-10. Pulp & Pa of Can 49:79-84 O '48
 Summer meeting, Vancouver, Sept. 8-10; abstracts of papers. Paper Ind 30:1055-6+ O '48

Woodlands section

- Annual meeting, Montreal, March 31-April 2. Pulp & Pa of Can 49:83-4+ My '48
 Summer meeting, St Johns, Que. Aug. 18-20. Pulp & Pa of Can 49:115-18+ S '48
 Woodlands section reports to Association on 1947 activities. Pulp & Pa of Can (Convention no) 49:251-3 [F] '48

CANADIAN trades and labor congress. See Trades and labor congress of Canada

CANADIAN waterworks equipment association

- Annual meeting, Niagara Falls, Ont. April 14. Water & Sewage 86:69+ Ap '48

CANAL lining

- Asphalt paver lines small canals. Il Constr Methods 30:86-8 Ja '48

- Canal lining methods on Gila project. Il Concrete 55:18-20+ D '47

- Compressed air helps thwart weeds and gophers; guniting and oil spraying irrigation canals. B. Peplow and E. Peplow. Il Comp Air Mag 53:193-4 Ag '48

- Experimental concrete canal linings on the Roza division of the Yakima project. Il Concrete 56:8-10 Ja '48

- Jumbo rigs trim and line big canal; illustrations with text. Constr Methods 30:104-5 My '48

- Mechanical trimmer and slip-form expedite canal lining operations; Delta-Mendota canal. R. H. Heitman. Il Civil Eng 18:634-7 O '48

- Soil-cement lining placed mechanically; irrigation canal on the W. C. Austin project. W. S. Byrne and W. G. Holtz. Il Eng N 139:860-3 D 25 '47

- Soil cement paving for small canals; illustrations with text. Constr Methods 30:108-9 My '48

- Soil-cement tested as low-cost canal lining. Il Civil Eng 17:45 D '47

- Test-linings placed in small canals. Il Eng N 141:74-7 JI 22 '48

CANAL traffic

See also

- Panama canal—
 Traffic

CANALS

- Proposed Allegheny-Genesee waterway links vital inland water systems. C. E. Long. Il map Civil Eng 18:574-7 S '48

See also

- Irrigation canals
 Panama canal

Reconstruction

- Panama canal, the sea-level project; symposium, bibliog il maps plans diags Am Soc C E Proc 74:443-632 Ap '48; Discussion. 74:1015-21, 1228-56, 1384-92 Je-O '48

Illinois

See also

- Illinois waterway

CANBERRA, Australia

- Australia developing federal capital; Administrative offices building embodying design precautions against air raids. G. S. Boris. Il map Civil Eng 18:250-1+ My '48

CANCELLATION of orders

- Fabric manufacturer at the last frontier. J. L. Fri. Textile Col 70:27+ S '48

CANCER

- Action of pteroylglutamic conjugates on man. S. Farber and others. Science 106:619-21 D 19 '47

- Action of the endotoxin of trypanosoma cruzi (KR) on malignant mouse tumors. W. M. Mallisoff. Il Science 106:591-4 D 12 '47

- Adrenal changes in animals bearing transplanted tumors. K. Savard. bibliog Science 108:381-2 O 8 '48

CANCER—Continued

- Application of chromatography to segregation studies of the agent of chicken tumor I (Rous sarcoma virus). V. T. Riley, bibliog diag Science 107:573-5 My 28 '48
- Biology of cancer. A. C. Ivy, bibliog Science 106:455-60 N 14 '47
- Calcium and growth in aging and cancer. C. Gurchot, Science 106:490-1 N 21 '47
- Cancer; no. 2 killer. W. G. Bowerman, il maps Spectator (Life ed) 156:28-33 O '48
- Cancer of the respiratory system in the United States: chromate-producing industry. W. Machle and F. Gregorius, bibliog flow sheet Pub Health Rep 63:1114-27 Ag 27 '48
- Cancer research fellowships. Chem & Eng N 26:2377-8 Ag 9 '48
- Carcinogenic hydrocarbons; 9,11-dimethylbenz[a] anthracene and 8,9,11-trimethylbenz [a]anthracene. B. Riegel and J. G. Burr, jr, bibliog Am Chem Soc J 70:1070-3 Mr '48
- Carcinogenic hydrocarbons; 3,5-dimethylcholanthrene. B. Riegel and others, bibliog Am Chem Soc J 70:1073-6 Mr '48
- Coagulation defect produced by nitrogen mustard. T. B. Smith and others, bibliog Science 107:474 My 7 '48
- Demonstration of reducing enzyme systems in neoplasms and living mammalian tissues by triphenyltetrazolium chloride. F. H. Straus and others, bibliog Science 108:113-15 J 30 '48
- Derivatives of 10-methyl-1,2-benzanthracene related to the nitrogen and sulfur beta-chloroethyl vesicants. O. M. Friedman and A. M. Seligman, bibliog Am Chem Soc J 70:3082-6 S '48
- Detroit cancer center dedicated. il Chem & Eng N 26:3104-5 O 18 '48
- Enzymes in tumors; tr. from German. E. Waldschmidt-Leitz and others, Franklin Inst J 245:449-53, 535-40 My-Je '48
- First industrial cancer clinic; Avondale mills, Sylacauga, Alabama, Ind Med 17:156-7 Ap '48
- Formation of malignant tumors in mice by deuterium-bombarded methylcholanthrene. B. F. Barnes and others, Science 108:82 J 23 '48
- Grants for cancer research. Science 108:33-4 J 9 '48
- Half century of state cancer legislation. A. V. Deibert, Pub Health Rep 63:1128-35 Ag 27 '48
- Inhibition of glycolysis in vitro by impure penicillin. E. Kun, Science 108:117-18 J 30 '48
- Interference with estrogen-induced tissue growth in the chick genital tract by a folic acid antagonist. R. Hertz, bibliog Science 107:300 Mr 19 '48
- International cancer research congress, 4th, St Louis, Sept. 2-7, Science 106:479-83 N 21 '47
- Jane Coffin Childs memorial fund for medical research; grants, Science 107:287; 108:101-2 Mr 19, J 30 '48
- Lipoid-soluble alloxazine derivatives. W. C. J. Ross, Chem Soc J p219-24 F '48
- Lung cancer of miners. W. Schweisheimer, Can Min J 69:86-7 J 1 '48
- Mammary carcinoma in female rats fed 2-acetylaminofluorene. R. W. Engel and D. H. Copeland, bibliog Science 108:336-7 S 24 '48
- Microbial utilization of carcinogenic hydrocarbons. F. D. Sisler and C. E. ZoBell, Science 106:521-2 N 28 '47
- Objectives and program of the Arkansas cancer detection project. A. N. Koplin, bibliog Pub Health Rep 63:813-21 Je 18 '48
- Oxidation of carcinogenic hydrocarbons by osmium tetroxide. J. W. Cook and R. Schoental, Chem Soc J 170-3 F '48
- α -Peltatin, a new compound isolated from podophyllum peltatum. J. L. Hartwell, Am Chem Soc J 69:2918 N '47
- Pharmacist's place in cancer control. R. F. Kaiser, Pub Health Rep 63:1111-14 Ag 27 '48
- Program of the National cancer institute. Pub Health Rep 63:501-17 Ap 18 '48
- Qualitative chemical change in carcinogenesis. C. Carruthers and V. Sontzeff, bibliog Science 108:450-4 O 22 '48
- Rates of dissociation of some tetraphenylxylylethanes. R. R. Grunert, J. C. Nichol and R. B. Sandin, bibliog Am Chem Soc J 69:2254-6 O '47
- Reaction of ketones with iodine and pyridine. L. C. King, M. McWhirter and R. L. Rowland, bibliog Am Chem Soc J 70:239-42 Ja '48
- Reducing properties of serum from subjects with malignant disease. W. C. Stadie, Science 108:221 Ag 27 '48
- Regression of lymphosarcoma produced by intraperitoneal administration of 95 per cent ethyl alcohol. A. D. Bass and M. L. H. Freeman, il Science 107:114-15 Ja 30 '48
- Roentgen rays against cancer; use of electrostatic generators. J. G. Trump, il diag Tech R 50:91-5+ D '47
- Role of the dentist in oral cancer detection. R. S. Lloyd, bibliog Pub Health Rep 63:805-12 Je 18 '48
- Services and facilities for cancer control in the United States, Jan. 1948. Pub Health Rep Supp 208:1-87, pa 20c Supt. of doc. '48
- Significance of distribution of fluorescein in sarcoma 180. D. M. Shapiro and B. H. Landing, il diag Science 108:304-5 S 17 '48
- Some tetramethylanthracenes. J. C. Nichol and R. B. Sandin, bibliog Am Chem Soc J 69:2256-8 O '47
- Studies in the incidence of cancer in a factory handling inorganic compounds of arsenic; abstract. A. B. Hill and E. L. Fanning, Nat Safety N 57:44+ Je '48
- Studies on hypoproteinemia; lymphoid hyperplasia and redistribution of nitrogen caused in mice by transplanted tumors (sarcoma 180 and breast adenocarcinoma EO 771). F. Homburger, bibliog Science 107:648-9 Je 18 '48
- Studies on the structure of colchicine; syntheses in the biphenyl series. H. R. Frank, P. E. Fanta and D. S. Tarbell, Am Chem Soc J 70:2314-20 J 1 '48
- 4-Styrylbenzylamine and 4-styrylbenzylidimethylamine. G. A. R. Kon, Chem Soc J p224-7 F '48
- Symbiosis, antibiosis, and cancer. E. V. Cowdry, Science 107:101-4 Ja 30 '48
- Synthesis of 3-alkyl-1,2-cyclopentenophenanthrenes. B. Riegel, S. Siegel and D. Kritchevsky, bibliog Am Chem Soc J 70:2950-2 S '48
- Trypanosoma cruzi endotoxin (KR) in the treatment of malignant mouse tumors. T. S. Hauschka and M. B. Goodwin, bibliog Science 107:600-2 Je 4 '48
- Twenty-one universities and hospitals in need of more facilities for cancer research. Science 107:340-1 Ap 2 '48
- University of Chicago cancer research foundation. Science 106:515 N 28 '47
- University of Illinois College of medicine to have betatron for cancer treatment and research. Science 107:676-7 Je 25 '48
- Use of radioactive diiodofluorescein in the diagnosis and localization of brain tumors. G. E. Moore, Science 107:569-71 My 28 '48
- See also Sloan-Kettering institute for cancer research
- CANCER research commission, International.** See International cancer research commission
- CANDELILLA wax**
Candelilla-wax production and exports, Mexico, For Comm W 32:31 Ag 14 '48
- CANDIDA albicans**
Isolation of pathogenic fungi from experimentally inoculated guinea pigs. A. Howell, jr, bibliog Pub Health Rep 63:602-16 My 7 '48
- CANDLES, Plastic**
Decorative candles. il Mod Plastics 25:172 Je '48
- CANDY**
Picture pack candies; Howe products, inc. il Mod Packaging 21:134-6 F '48
- See also
Marshmallows
- CANDY boxes**
Box setter-up; forming of candy-bar boxes from folding carton blanks. il Mod Packaging 21:120-2 F '48
- Candy trends. il Mod Packaging 21:118-21 Ja '48
- Design dynamics; Gobelin co. candy packages. E. Arens, il Mod Packaging 21:142-4 Mr '48

CANDY boxes—Continued

Hershey's box seal; mechanical application of thermoplastic spot labels. *il Mod Packaging* 22:135-9 S '48
 Samplers; candy glamorized in clear acetate box; ties and jewelry in colored vinyl. *il Mod Packaging* 21:126-7 N '47

CANDY factories**Air conditioning**

Ceiling system cuts cooling costs; New England confectionery co. *il Bsns W* p68 O 9 '48
 Glycol system cuts air conditioning costs 40 per cent; glycol reactivated by exhaust steam from turbine driven refrigeration compressor. B. A. Engelbach. *il diag Food* Ind 20:839-41+ Je '48

Employees

Candy and other confectionery; wage structure, Jan. 1947. L. Badenhop. *Mo Labor R* 66:395-7 Ap '48
 Dressing up the ladies; uniforms worn by women employees of New England confectionery co. E. J. Cook. *Safety Eng* 95: 62-4 Je '48

Equipment

Better marshmallow faster; new mixer may be used also for cake batters, etc. J. V. Ziembra. *il Food Ind* 20:988-90 J1 '48

CANDY stores

Styling stores for today's trade. *il plan Am* Bld 70:130 S '48

CANDY technologists, American association of. See American association of candy technologists**CANDY trade**

Air shipment opens new vistas for mail-order sales; national distribution for Loft candy. *il Ptr Ink* 223:38-9 Ap 30 '48
 Candy packaging improved with new machines. J. V. Ziembra. *il Food Ind* 20:1462-5+ O '48
 Chocolate man cracks urban market with trucks; door-to-door delivery of candies in New York City's suburbs. *il Sales Management* 60:113 Je 1 '48
 FTC hits from two sides; Curtiss candy co. violated Robinson-Patman act. *Bsns W* p62+ D 6 '47
 Formed-aluminum candy pack; new machine and new kind of package give Charms a boost. *il Mod Packaging* 21:118-22 Ag '48
 Selling in multiple units; six-bar package boosts candy sales. *il Mod Packaging* 21: 130-1+ Ag '48
 Sweet problem; increased costs of raw materials; with chart. *Bsns W* p40+ N 15 '47

Advertising

Candy trade association paces manufacturers in increasing '48-'49 advertising outlay by 20 per cent. N. Kelle. *Ptr Ink* 224: 73+ J1 2 '48

CANE sirups. See Sirups**CANELO Hills, Arizona. See Geology—Arizona****CANHAM, Erwin Dain, 1904-**

Began career on country telephone. J. M. Potter. *Ed & Pub* 81:20 My 1 '48

CANNABINOL

See also
 Tetrahydrocanna-
 binol

CANNED fish

Biological stability of canned marine products. E. P. Sidaway. *bibliog Chem & Ind* p547-50 Ag 28 '48
 Canned fish, marinated fish products and fish pastes; abstract and discussion. E. P. Sidaway. *Chem & Ind* p28-9 Ja 10 '48
 Carp with class; Lakefish canning co. acetate-laminated label and double-money-back guarantee. *il Mod Packaging* 21:112-13 Je '48
 Norwegian food industry packs in aluminum cans. D. Nickelsen. *il Food Ind* 19:1650-3 D '47
 Peru fishing industry undergoing modernization. J. Wilhelm. *il Food Ind* 20:388-90 Mr '48
 United States canned salmon and sardine exports; January-June, 1947 and 1948. *For Comm W* 33:23 O 9 '48

Advertising

Consistent, helpful advertising makes big seller of once unknown tuna. L. F. Thormann. *il Ptr Ink* 224:27-9 J1 2 '48

CANNED food

Canned goods; sales stimulants and cost cutting in western industry. *il Mod Packaging* 21:165-7 J1 '48
 Canning convention at Parma. *Chem & Ind* p675 N 1 '47
 Perpetual inventory method helps factory warehouse. C. V. Davis. *il Food Ind* 19: 1507-3+ N '47
 Regional food-packer hits big time; Hunt Foods, gains manufacturing foothold in East to give new zip to its entry in the national field. *il Bsns W* p80-1 O 30 '48
 Retention of vitamins in low acid canned foods; new processing technics. J. F. Feaster and others. *bibliog il Food Ind* 20: 14-17+ Ja '48

Rating

Canned peas and canned corn. *il Consumers Res Bul* 22:7-11 J1 '48

Storage

Condensation and rust on canned goods in storage. D. H. Rose and H. D. Johnson. *il Food Ind* 20:212-15+ F '48

CANNED meat

Armour shows dealers the how of full-line selling; film demonstrating tested way to create more impulse sales. W. S. Shafer. *il Sales Management* 59:60+ D 15 '47
 Well kept bacon. *Bsns W* p61 J1 10 '48

CANNERIES

Perpetual inventory method helps factory warehouse. C. V. Davis. *il Food Ind* 19:1507-8+ N '47
 Sugar in bulk aids big users. E. B. Schmalz. *il diags Food Ind* 19:1483-8+ N '47

Design

Advanced design, gravity flow save labor and machines; Umatilla canning co. F. A. Miller. *il plans diags Food Ind* 20:1426-31+ O '48

Equipment

Filled can washing unit. *il Engineer* 186: 92 J1 23 '48
 Finished product machinery for the citrus fruit industry. *il Manuf Rec* 117:42-3 F '48
 Improved citrus concentrate depends on advanced technique. J. L. Heid and C. G. Beisel. *il Food Ind* 20:516-19 Ap '48
 New evaporation process uses refrigeration for heating and cooling simultaneously in citrus juice canning plant. *diag Heat & Ven* 46:120+ Ag '48
 Powdered ice cream mix; dried mix is gas packed in metal cans. W. J. Corbett. *il diag Food Ind* 20:534-7 Ap '48

Floors

Food acids vs. concrete; use of Lassenite. E. L. Howard. *il Concrete* 56:16-18 Ja '48

Waste

Lime treatment of tomato canning waste. R. Y. Le Vine. *flow diag Pub Works* 79: 28-30 O '48
 Pretreatment of carbohydrate industrial wastes. F. G. Nelson. *bibliog Sewage Works J* 20:530-7 My '48
 Some rights and wrongs of cannery waste treatment. C. L. Siebert and C. Allison. *il Water & Sewage Works* 95:227-30 Je '48

CANNERS association, National. See National cannery association**CANNING and preserving**

Aluminum cans; Norway experience. D. Nickelsen. *il Mod Packaging* 21:134-7+ Ap '48
 Can sealing compounds; test and development work in synthetic rubbers. E. N. Funkhouser. *bibliog il diags Mod Packaging* 22:143-8+ O '48
 Flash process, aseptic film, are used in new canning unit. W. M. Martin. *bibliog flow diag il Food Ind* 20:832-6 Je '48
 National cannery association 41st convention, Atlantic City. *Food Ind* 20:236-7, 358-60+ F-Mr '48

CANNING and preserving—Continued

Norwegian food industry packs in aluminum cans. D. Nickelsen. *il Food Ind* 19:1650-3 D '47

Retention of vitamins in low acid canned foods; new processing technics. J. F. Feaster and others. *bibliog il Food Ind* 20:14-17+ Ja '48

Science in the canning and allied industries. L. V. Taylor, jr. *bibliog J Chem Educ* 24:558-60 N '47

To reduce color loss in strawberry preserves. Z. I. Kertesz and E. Sondheimer. *bibliog il Food Ind* 20:1300-2+ S '48

See also

Peeling**CANNIZZARO reaction**

Mechanism of the conversion of phenylglyoxal to mandelic acid. W. v. E. Doering, T. I. Taylor and E. F. Schoenwaldt. *bibliog Am Chem Soc J* 70:455-7 F '48

Studies on the mechanism of the Cannizzaro reaction; hydroxy and amino aldehyde derivatives. E. R. Alexander. *Am Chem Soc J* 70:2592-4 JI '48

CANNULAS

Improved assembly of the Hartung-Clark double cannula for the isolated frog heart. Go Lu. *bibliog diags Science* 107:256-6 Mr 5 '48

Simple aid for the cannulation of small blood vessels. E. Haas and H. Goldblatt. *il Science* 108:166 Ag 13 '48

CANS

Aluminum cans; Norway experience. D. Nickelsen. *il Mod Packaging* 21:134-7+ Ap '48

Canned sutures; Ethicon packs tubes of surgical gut in antiseptic fluid in key-opening cans. *il Mod Packaging* 22:102-5 O '48

Norwegian food industry packs in aluminum cans. D. Nickelsen. *il Food Ind* 19:1650-3 D '47

Will we follow Europe in the use of aluminum cans? J. V. Ziembra. *il diags Food Ind* 20:532-3+ Ap '48

See also

Food containers—Self heating

Tin cans

CANTILEVER bridges. *See* Bridges, Cantilever

CANVASSING

See also

Fuller brush company

CAPACITORS. *See* Condensers (electricity)

CAPACITRON

Electronic preservation of food by exposure to pulsed cathode rays from a capacitron; sterilization of drugs also possible. W. Huber. *bibliog il diags Electronics* 21:74-9 Mr '48

CAPEHART, Homer Earl, 1897-

How does the cement case affect the national economy? H. E. Capehart. *por Ptr Ink* 225:37+ O 1 '48

Portrait. *Fortune* 38:79 S '48

CAPILLARIES

Adjustable glass capillary gas leak. J. H. Martin. *diag R Sci Instr* 19:404-5 Je '48

Application and characteristics of capillary tubes. H. F. Lathrop. *diags Refrig Eng* 56:129-33 Ag '48

Application of corrections in viscometry of high-polymer solutions. R. H. Wagner. *Anal Chem* 20:155-7 F '48

Capillary-tube viscometer for routine measurements of dilute high-polymer solutions. R. H. Wagner and J. Russell. *bibliog diags Anal Chem* 20:151-5 F '48

Gaseous self-diffusion in long capillary tubes. W. G. Pollard and R. D. Present. *bibliog diag Phys R* 73:762-74 Ap 1 '48

Rapid method for preparing powder camera specimens with cellulose acetate capillary tubes. K. E. Beu and H. H. Claassen. *il diags R Sci Instr* 19:179-80 Mr '48

Theory and use of a capillary tube for liquid refrigerant control. L. A. Staebler. *diags Refrig Eng* 55:55-9+ Ja '48

CAPILLARIES (blood vessels)

Echymosis test for capillary hemorrhagic diathesis. A. L. Copley. *diag Science* 107:201-2 F 20 '48

CAPILLARITY

Capillary forces. J. C. Calhoun, jr. *diags Oil & Gas J* 46:137 Mr 18; 205 Mr 25 '48

Capillary pressure. J. C. Calhoun, jr. *diags Oil & Gas J* 46:99 Ap 8; 119 Ap 22; 47:113 My 6; 427 My 13 '48

Statistical mechanics of multimolecular adsorption; introductory treatment of horizontal interactions; capillary condensation and hysteresis. T. L. Hill. *bibliog J Chem Phys* 15:767-77 N '47

See also

Electrocapillarity**CAPITAL**

Are there enough savings to meet demands for long-term capital? *Nat City Bank* p 129-30 N '47

Bank capital and dividend policies. R. I. Robinson. *Harvard Bsns R* 26:398-409 JI '48; Excerpts. *Comm & Fin Chr* 168:102+ JI 8 '48; *Banking* 41:116 Ag '48

Business financing in the postwar period. I. Friend. *Survey of Cur Bsns* 28:10-16+ Mr '48; Same. *Comm & Fin Chr* 167:1546+ Ap 8 '48

Business needs more new money. *il Bsns W* p 19-20 D 20 '47

Canada's 1948 capital investment at \$3 billion. *Comm & Fin Chr* 168:812 Ag 26 '48

Capital cuts; Britain's program for 1948. *Economist* 153:328-30 D 6 '47

Capital expansion boom; industry's plans for new plant and equipment. *il Bsns W* p65-72 F 7 '48 [reprints 20c]

Capital flotations in the United States during the month of Dec. and for the twelve months of the calendar year 1947. *Comm & Fin Chr* 167:423-31 Ja 26 '48

Capital formation in industry; government programme of capital investment for next year. *Economist* 155:344-6 Ag 28 '48

Capital investment in 1948. *Engineer* 184:528-9 D 5 '47

Capital malnutrition in stock market. A. R. Wells. *Comm & Fin Chr* 167:1310+ Mr 25 '48

Capital markets and national defense. J. S. Lawrence. *Banking* 40:33-5+ Ap '48

Capital needs of an expanding economy. M. Shields. *Comm & Fin Chr* 166:2366+ D 11 '47

Capital outlays in 1948 nearly \$19 billion. *Comm & Fin Chr* 168:1333 S 30 '48

Capital price adjustment method for deflating inflated profits. E. S. Freeman. *N A C A Bul* 29:635-53 F 1 '48

Causes of the abnormal capital market. H. A. Widenmann. *Comm & Fin Chr* 167:486+ Ja 29 '48

Cost of credit and capital. *Fed Res Bul* 34:269-78 Mr '48

Current and prospective plant and equipment expenditures. M. L. Merriam. *Survey of Cur Bsns* 28:12-14+ Ap '48

Equity investment and capital dearth. *Trusts & Estates* 86:401 My '48

Federal reserve bank of New York predicts falling off in capital outlays. *Comm & Fin Chr* 167:2538 Je 10 '48

Getting capital for small business. T. F. Moore. *Comm & Fin Chr* 167:2761+ Je 24 '48

Guaranty trust co. of New York sees serious shortage of venture capital; excerpts. *Comm & Fin Chr* 167:1438 Ap 1 '48; *Management R* 37:208-10 Ap '48

High taxes causing capital shortage; Northern trust company of Chicago. *Comm & Fin Chr* 167:120 Ja 8 '48

Holds taxation is undermining capital formation. R. W. Valentine. *Comm & Fin Chr* 167:306+ Ja 22 '48

How to revive our ailing capital market. E. Schram. *Comm & Fin Chr* 167:2082+ My 13 '48

Industrial development and new capital sources. A. R. Koch. *Comm & Fin Chr* 167:2647+ Je 17 '48

Institute of life insurance sees life insurance funds huge capital source. *Comm & Fin Chr* 167:2127 My 13 '48

IBA committee estimates industrial capital need at \$30 billions. *Comm & Fin Chr* 166:2507+ D 18 '47

Let life insurance companies satisfy our capital needs! B. J. Buttenweiser. *Comm & Fin Chr* 167:98+ Ja 8 '48

CAPITAL—Continued

Life company investments and the capital markets. F. J. McDiarmid. Am Stat Assn J 43:265-73 Je '48
 Long-range demand for capital. S. H. Slichter. Comm & Fin Chr 167:302+ Ja 22 '48
 Long-term economic problems; capital. Economist 154:786-7, 829-30, 868-9 My 15-23 '48

Major obstacles to the financing of a perpetual business boom; opportunity for new capital investment. M. Shields. Comm & Fin Chr 167:1309+ Mr 25 '48

Money at work. H. D. Comer. Comm & Fin Chr 168:1424+ O 7 '48

More risk capital as incentive for sound industrial future. G. A. Price. Comm & Fin Chr 167:1210+ Mr 13 '48

Must have inducement for venture capital. C. E. Merrill. Comm & Fin Chr 167:911 F 26 '48

Must have risk capital or government ownership of industry. R. W. Courts. Comm & Fin Chr 167:1211+ Mr 13 '48

Need of venture capital for defense. N. S. Chadwick. Comm & Fin Chr 167:497+ Ja 29 '48

1929 upside down. T. W. Phelps. Fortune 38: 95-7+ N '48; Abstract. Comm & Fin Chr 168:1867 N 4 '48

Our capital needs and the tax program. E. Bunting. Il Dun's R 55:11-13+ D '47

Outlook for capital outlays; National industrial conference board survey. Comm & Fin Chr 168:614 Ag 12 '48

Price trends and capital demand and supply. S. H. Slichter. Comm & Fin Chr 168:1310+ S 30 '48

Progress of the postwar transition; domestic business investment in 1947; expenditures for new plant and equipment; inventories. Survey of Cur Bsns 28:18-20 F '48

Reduced taxes or capital shortage? H. L. Derby. Comm & Fin Chr 167:1990+ My 6 '48

Reduction in capital investment; British government's proposals; abstract. For Comm W 30:17 Ja 3 '48

Relation of stock issues to total amount of new capital issues, by industry groups, 1919-47; tabulation. Survey of Cur Bsns 28: 14 Mr '48; Same. Comm & Fin Chr 167:1554 Ap 8 '48

Risk capital shortage. A. M. Wolkiser. Trusts & Estates 86:466-71 Je '48

Savings and capital expenditures. Nat City Bank p9-11 Ja '48

Sees insufficient venture capital to maintain high employment. F. Cole. Comm & Fin Chr 166:2627 D 25 '47

Small-business man and sources of loans. J. C. Dockeray. Il U S Dept of Com Economic (Small Business) Ser 69:1-27; pa 15c Supt. of doc. '48

Sources of funds for business expansion. J. H. Riddle. Comm & Fin Chr 167:303+ Ja 22 '48

Stock market speculation and venture capital. F. A. Truslow. Comm & Fin Chr 167: 602+ F 5 '48; Same cond. Dun's R 56:17-19+ J1 '48

Tax reduction essential to obtain risk capital; statement before Senate finance committee. E. Schram. Comm & Fin Chr 167: 1104+ Mr 11 '48

Venture capital needed to sustain continuing boom. H. L. Blackburn. Il Mag of Wall St 81:126-7+ N 8 '47

Venture capital problem. A. M. Pope. Comm & Fin Chr 167:1868+ Ap 29 '48

Venture capital; seed corn of our economy. H. A. Vilas. Comm & Fin Chr 167:810 F 19 '48

Venture capital shortage; its dangers and remedies. W. Gates. Mag of Wall St 82: 170-1+ My 22 '48

Who killed Cock Robin? margin restrictions reduce available equity capital. T. Prince. Comm & Fin Chr 167:1422+ Ap 1 '48

Working capital position of industry. J. D. C. Weldon. Mag of Wall St 82:575-7+ S 11 '48

See also

Corporations—Fi-

nance

Dividends

also Finance corporation for industry

Interest

Investments

Profit

also Finance corporation for industry

Taxation

See Capital levy

CAPITAL and labor. See Labor and capital

CAPITAL gains tax. See Income tax—Capital gains tax

CAPITAL goods industries. See Equipment industries

CAPITAL levy

Britain's capital levy; collectivism via the back door. A. W. May. Comm & Fin Chr 167:1645+ Ap 15 '48

Capital levy? disinflationary policy. Economist 154:81-2 Ja 17 '48; Discussion. 154:133 Ja 24 '48

Capital levy in Britain. P. Elnzig. Comm & Fin Chr 167:1765 Ap 22 '48

Currency reform and capital levy in Austria. For Comm W 30:9 Ja 24 '48

Hungary; capital and capital increases subject to tax. For Comm W 29:11-12 N 8 '47

CAPITALISM

Accountant and private enterprise. W. A. Paton. J Account 85:44-58 Ja '48

American capitalistic economy; New York state Chamber of commerce statement of principles. Comm & Fin Chr 167:2532 Je 10 '48

Capitalism and communism; church view. Trusts & Estates 87:216 S '48

Clear the road for free enterprise. C. A. Schmutz. Automotive Ind 99:25+ J1 '48

Free enterprise and planned economy. R. L. Garis. bibliog Comm & Fin Chr 167:9+ Ja 1 '48

Great delusion; where Marx went wrong. C. E. Wilson. Mech Eng 69:658-60 Ag '47; Discussion. 69:1047-8 D '47

Is capitalism the cause of wars? reply to Mr Vishinsky's charges. A. Wilson. Comm & Fin Chr 166:2157+ N 27 '47

Management's part in the free enterprise system. R. E. Flanders. Comm & Fin Chr 168: 308+ J1 22 '48

Must sell belief in private enterprise. J. W. Randall. East Underw 48:3+ D 5 '47; Same abr. Weekly Underw 157:1438+ D 6 '47

New concepts of corporate responsibility. C. Robinson. Comm & Fin Chr 167:1758+ Ap 22 '48; Excerpts. Pub Util 42:441-3 S 23 '48

Origin and evolution of our free enterprise system. W. E. Spahr. Comm & Fin Chr 166:1838+ N 6 '47; Discussion. R. C. Holmes. 166:2271 D 4 '47

Private enterprise; a public franchise. J. E. McCarthy. Trusts & Estates 87:135-6 Ag '48

Selling the idea of free enterprise. E. C. Bursk. Harvard Bsns R 26:372-84 My '48

Strength of dynamic capitalism; address before Chicago Board of trade. H. E. Stassen. Comm & Fin Chr 167:1544+ Ap 8 '48

Who killed Horatio Alger? deplores decline in concept of free enterprise. D. Emery. Comm & Fin Chr 167:1862+ Ap 29 '48

Who's Utopian now? democratic capitalism has made good on most of the Socialist promises. Fortune 37:2-4 Ja '48

CAPITALISTS and financiers

Masters of money; gallery of men who have wielded historic fortunes. Il Fortune 37:89-97 Ap '48

CAPITALS (cities)

Australia developing federal capital at Canberra; Administrative offices building embodying design precautions against air raids. G. S. Boris. Il map Civil Eng 18: 290-1+ My '48

CAPITOLS

Lighting

High ceiling fluorescent proves successful; California state capitol. Il Elec World 129: 128+ Je 5 '48

CAPPER, Arthur, 1865-

Calls halt to Senate career. por Ed & Pub 81:68 Je 12 '48

Retires to his publishing empire. P. Wyden. por Ed & Pub 81:13+ J1 17 '48

CAPRIC acid

Properties of freshly-formed surfaces; expansion of soluble films of decanoic acid at the air-water interface, C. C. Addison, J. Bagot and H. S. McCauley, *diag Chem Soc J* p936-42 J1 '48

Synthesis and reduction of difluorodecanoic acid derivatives, M. S. Newman, M. W. Renoll and I. Auerbach, *bibliog Am Chem Soc J* 70:1023-4 Mr '48

CAPROIC acid

Infrared absorption spectra of some amino acids and their complexes, I. M. Klotz and D. M. Gruen, *bibliog J Phys & Colloid Chem* 52:961-8 Je '48

CAPROLACTAM

Chemical reactions of caprolactam, R. E. Benson and T. L. Cairns, *bibliog Am Chem Soc J* 70:2115-18 Je '48

Polyamides in Germany; intermediates, *Mod Plastics* 25:125-6+ Mr '48

Printing nylon with acid and direct dyestuffs, caprolactam; patent, *Am Dyestuff Rep* 37: 632 S 20 '48

CAR. See Cars**CAR axles**

Axle power for passenger cars, E. F. H. Grothe, *Ry Mech Eng* 122:322-3 Je '48

Hydraulic axle-centering machine, *il Ry Mech Eng* 122:513-14 S '48

Review of wheel and axle violations, F. B. Rykoskey, *Ry Mech Eng* 122:366-7 J1 '48

Manufacture

Railroad car axles machined automatically by completely automatic transfer-type machine, W. G. Patton, *il diag Iron Age* 161: 63-5 Ja 8 '48

Testing

Research to improve axle design; A.A.R. committee report, *diag Ry Age* 125:75-8 J1 10 '48; Same, *Ry Mech Eng* 122:416-19 Ag '48

CAR cards. See Advertising cards**CAR cleaning**

Burlington car-roof washer, *il Ry Mech Eng* 122:484-6+ S '48; Same, *Ry Age* 125:624-7 O 2 '48

Canadian Pacific's grit-blast cleaning plant, *il Ry Mech Eng* 122:138-40 Mr '48

Car washer improves terminal service, *il Ry Age* 125:418-19 Ag 28 '48; Same, *Ry Mech Eng* 122:455 Ag '48

CAR cooling

Basic requirements of car heating and cooling, M. R. Eastin, *diag Ry Mech Eng* 122: 317-19+ Je '48

CAR couplings

Automatic coupler for tunnel muck cars, *il Constr Methods* 30:72 S '48

Developing the standard car coupler; abstract, H. L. Spence, *il Machine Design* 20:100-1 Ag '48

Intercoupling problem, *diags Ry Mech Eng* 122:252-3 My '48

Report on couplers and draft gears; A.A.R. Mechanical division, *Ry Mech Eng* 122:431-3 Ag '48; Same cond. *Ry Age* 125:67-9 J1 10 '48

CAR dumpers

Builds car-a-minute dumper at Lorain; electrically-operated facility of Baltimore & Ohio, *il map Ry Age* 124:246-9 Ja 31 '48

Car dumper unloads riprap for Canton dam, *il Constr Methods* 30:96-7 F '48

New roll-over car dump, *il diag Eng & Min J* 149:90-1 S '48

CAR ferries. See Train ferries**CAR heating**

Basic requirements of car heating and cooling, M. R. Eastin, *diag Ry Mech Eng* 122: 317-19+ Je '48

Heaters plus fans mean safer fruit transit, *il Food Ind* 20:1438-9 O '48

Mexican government installs radiant heat in the private car of President Aleman, *il Ry Age* 125:854-6 N 6 '48

Problems in heating long trains, L. H. Gillick, *Ry Age* 125:813 O 30 '48

Regulators for steam-heat loops, *il Ry Age* 124:1260 Je 26 '48

Warning the rails; better heating system for Diesel trains, *Bsns W* p39-40 S 25 '48

CAR inspection

A.A.R. mechanical inspection helps railroads give better service, *il diags Ry Age* 124: 1252-5 Je 26 '48

Changes in car inspection system advocated; abstract, F. E. Cheshire, *Ry Age* 123:1032 D 13 '47

Magnaflux inspection of car parts, R. H. Herman, *Ry Mech Eng* 122:310-12 Je '48

Modern freight car inspection facilities, *il Ry Mech Eng* 122:80-1 F '48

CAR lavatories

Joint report on sanitation; A.A.R. Mechanical division and U.S. Public health service, *Ry Mech Eng* 122:442 Ag '48

CAR lighting

Car electrical equipment; report of A.A.R. Mechanical division, Electrical section, *diags Ry Mech Eng* 121:631-3 N '47

Fluorescent lamps for high voltage direct current operation for New York subway cars, C. I. Brady, jr. and others, *il plan diags Illum Eng* 43:50-64 Ja '48

Fluorescent on 600-v d-c in New York subway cars, *diag Elec World* 128:113+ N 8 '47

CAR load. See Freight car service—Car load**CAR painting and finishing**

Cart for painting apparatus, *il Ry Mech Eng* 122:316 Je '48

Drying room at St Cloud shops, *il Ry Mech Eng* 122:314-15 Je '48

Painting passenger cars, *il Ry Mech Eng* 122: 155-6 Ap '48

Shadow-lined passenger cars, *il Ry Mech Eng* 122:584-5 O '48

Ventilating and heating C.N.J.'s paint shop, T. R. Peyrek, *il plan diag Ry Mech Eng* 122:364-6 J1 '48

CAR retarders

B.&O. expedites yard operations at Cumberland, *il plan Ry Age* 125:4-7 J1 3 '48

CAR seats

Coach seat for overnight train trips, *il Ry Age* 124:819 Ap 24 '48

CAR shops**Equipment**

Car shop automotive equipment, *il Ry Mech Eng* 121:655-6 N '47

Cart for painting apparatus, *il Ry Mech Eng* 122:316 Je '48

Drying room at St Cloud shops, *il Ry Mech Eng* 122:314-15 Je '48

Metallic steam connector repairs on C.& N.W.; illustrations with text, *Ry Mech Eng* 121:700-1 D '47

New Missouri Pacific freight car shop designed for rapid production, *il plan Ry Age* 123:942-5 N 29 '47

Northern Pacific has assembly-line car shop at Brainerd, *il plan Ry Age* 123:1066-70 D 20 '47

Steam connector maintenance tools, *il Ry Mech Eng* 122:144-5 Mr '48

Heating and ventilation

Ventilating and heating C.N.J.'s paint shop, T. R. Peyrek, *il plan diag Ry Mech Eng* 122:364-6 J1 '48

Layout

New Missouri Pacific freight car shop designed for rapid production, *il plan Ry Age* 123:942-5 N 29 '47

CAR trucks

Evolution of slide frames and bolsters, R. B. Cottrell, *diags Ry Mech Eng* 122:238-91 Je '48

Maintenance of passenger-car trucks, *il diags Ry Mech Eng* 121:651-4 N '47

New hydraulic pump shock absorber to give easier rides, *Iron Age* 160:148-9 N 13 '47; *Mech Eng* 69:1037 D '47; *Ry Age* 123:997 D 3 '47; *Machine Design* 20:108-9 F '48

Westinghouse super shock-absorber, C. R. Hanna, *il Sci Am* 178:77-8 F '48

CAR wheels

B.&O.'s production wheel shop; Review of wheel and axle violations, F. B. Rykoskey, *il Ry Mech Eng* 122:285-7+, 366-7 Je-J1 '48

Evolution in chilled wheel rims, *il Ry Age* 124:1248-9 Je 26 '48

How wheels behave on low-adhesion rail, L. D. Hays, *Ry Age* 123:978-9 D 6 '47; Same, *Ry Mech Eng* 121:686-7 D '47

CAR wheels—Continued

- Machine trues wheels, while on railroad car. Bsns W p70 Ap 10 '48
 Railroads study rough rides. II Bsns W p78 O 16 '48
 Report of A.A.R. committee on wheels. Ry Age 125:73-5 Jl 10 '48; Same. Ry Mech Eng 122:424-5 Ag '48
 Rip track setup features rapid wheel change. II Ry, Mech Eng 122:368-9 Jl '48

Manufacture

- Two-wheel lifter speeds boring-mill output. II Ry Mech Eng 122:494-5 S '48

CAR windows

- Thermopane, double-glass unit for railroad windows. diag Ry Age 124:223 Ja 24 '48; Same. Ry Mech Eng 122:99-100 F '48

CARBAMATES

- Aryl carbamates of cellulose acetate. W. M. Hearon and J. L. Lobsitz, bibliog Am Chem Soc J 70:296-7 Ja '48
 Polysaccharide aryl carbamates. I. A. Wolff and C. E. Rist, bibliog Am Chem Soc J 70:2779-82 Ag '48
p-Triphenylmethylphenyl and 2-fluorenyl isocyanates as reagents for alcohols. B. Witten and E. B. Reid, bibliog Am Chem Soc J 69:2470-2 O '47

CARBAMIC acid

- Associating effect of the hydrogen atom; the N-H-O bond; esters of carbamic acid. M. Barker, L. Hunter and N. G. Reynolds, Chem Soc J p874-81 Je '48

CARBAMITE. See Ethyl centralite**CARBAMYL compounds**

- N-Arylamides of mercaptoacetic acid; analogs of α -carbamylmercaptoacetanilide. U. Weiss, bibliog Am Chem Soc J 69:2632-4 N '47

CARBANILATES

- Methyl glucoside carbanilates; α -methyl-*d*-glucoside 2,3,6-tricarbanilate. W. M. Hearon. Am Chem Soc J 70:297-8 Ja '48

CARBAZOLE

- Carbazoles, carbolines, and related compounds; quinindoline derivatives. S. J. Holt and V. Petrow, Chem Soc J p922-4 Jl '48
 Carbazoles, carbolines, and related compounds; transformations of some quaternary salts of quindoline. S. J. Holt and V. Petrow, Chem Soc J p919-22 Jl '48
 Some reactions of N-(β -hydroxyalkyl)-carbazoles. R. G. Flowers, H. F. Miller and L. W. Flowers, Am Chem Soc J 70:3019-21 S '48

CARBIDE and carbon chemicals corporation

- Oak Ridge switch; Carbon & Carbide takes over. Bsns W p20-1 Ja 10 '48; Elec World News ed 129:12 Ja 10 '48

CARBIDE cutting tools. See Cutting tools, Carbide**CARBIDES**

- Carbide die maintenance. R. Saxton. II diag Metallurgia 38:314-16 O '48
 Carbide dies cut costs. II Bsns W p58-60 Mr 13 '48
 Carbides in iron-carbon-silicon alloys and cast irons. D. Marles, bibliog 2pls Iron & Steel Inst J 158:433-6 Ap '48; Discussion. 160:21-9 S '48
 Carbides, nitrides and porosity in aluminum. D. Von Ludwig, bibliog II Iron Age 160: 73-84 N 20 '47
 Discussion on a symposium on powder metallurgy; hard-metal carbides. II diag Iron & Steel Inst J 157:560-60 D '47; Same cond. Engineer 184:119-21 Ag 8 '47
 Kinetics of carbiding and hydrocarbon synthesis with cobalt Fischer-Tropsch catalysts. S. Weller, bibliog diag Am Chem Soc J 69:2432-6 O '47
 Large cemented carbide sections gain wide industrial use. H. Crump. II Steel 123:103-4 S 27 '48

See also

Cutting tools, Carbide

Tungsten carbides
Uranium carbides**Analysis**

- Analysis of cemented carbide compositions. W. O. Touhey and J. C. Redmond. II Anal Chem 20:202-6 Mr '48; Discussion. 20:989 O '48

- Rapid spectrographic analysis of cemented carbide compositions. J. C. Redmond. II Steel 122:86+ Je 28 '48

Testing

- Black light shows flaws in carbides. F. Catlin. II Mill & Factory. 43:134-5 O '48

CARBINOLS

- Anomalous oxidation of some secondary alcohols containing an α -neo carbon. W. A. Mosher and F. C. Whitmore, bibliog Am Chem Soc J 70:2544-5 Jl '48
 Studies in the quinoline series; the mononitrophenyllepidylcarbinols and related compounds. R. S. Tipson and A. F. Walton, bibliog Am Chem Soc J 70:892-5 Mr '48

See also

Propenylethynylcarbinol

CARBOCYANINE

- Preparation of unsymmetrical carbocyanines. J. D. Kendall and J. R. Majer, Chem Soc J p687-90 My '48

CARBOHYDRATES

- Allyl ethers of carbohydrates; polymerization of allyl ethers. A. N. Wrigley and E. Yanovsky, bibliog Am Chem Soc J 70:2194-6 Je '48
 Applications of periodate oxidation to some problems of carbohydrate chemistry. D. J. Bell, Chem Soc J p992-6 Jl '48
 Carbohydrate metabolism in the soil. W. G. C. Forsyth, bibliog Chem & Ind p515-19 Ag 14 '48
 Carbohydrate sulphuric esters; production of a derivative of 5:6-anhydroglucose by the hydrolysis of a sulphate. R. B. Duff and E. G. V. Percival, Chem Soc J p 1675-8 D '47
 Carbohydrates as an alternative source to petroleum for organic chemicals. C. Weizmann, E. Bergmann, and M. Sulzbacher, bibliog Chem & Ind p769-71 D 13 '47
 Deacetylation of acetylated carbohydrate derivatives with potassium alkoxides. W. A. Bonner and W. L. Koehler, bibliog Am Chem Soc J 70:314-16 Ja '48
 Dreywood anthrone reaction as affected by carbohydrate structure. L. Sattler and F. W. Zerban, bibliog Science 108:207 Ag 27 '48
 Investigation of the reserve carbohydrates of leguminous seeds; periodate oxidation. O. A. Moe, S. E. Miller and M. H. Iwen, bibliog Am Chem Soc J 69:2621-5 N '47
 Oxidation of carbohydrates by the periodate ion. T. G. Halsall, E. L. Hirst and J. K. N. Jones, Chem Soc J p 1427-32 N '47
 Pretreatment of carbohydrate industrial wastes. F. G. Nelson, bibliog Sewage Works J 20:530-7 My '48
 Ultraviolet light-absorption of alkali-treated solutions of carbohydrates. D. Macmillan and E. H. Melvin, bibliog diag Science 107: 447-9 Ap 30 '48
 Vitamins and carbohydrate metabolism. H. A. Lardy, bibliog J Chem Educ 25:262-7 My '48

Analysis

- Glucose; direct colorimetric method for determining carbohydrates. G. H. Eenham and J. E. Despaul, bibliog Anal Chem 20: 933-5 O '48
 Quantitative determination of carbohydrates with Dreywood's anthrone reagent. D. L. Morris, Science 107:254-5 Mr 5 '48

Nomenclature

- Nomenclature, spelling, and pronunciation; ACS committee on carbohydrates. Chem & Eng N 26:1623-9 My 31 '48

CARBOLINE. See Pyridindole**CARBOLOY.** See Tungsten carbide**CARBON**

- Carbon-carbon and carbon-hydrogen bond energies. G. Glockler, bibliog J Chem Phys 16:342-4 Ag '48
 Carbon film formation and commutator brushwear as revealed by the electron microscope. E. F. Fullam and R. H. Savage, bibliog II J Ap Phys 19:664-61 Jl '48
 Carbon-hydrogen bond strengths in methane. H. H. Voge, bibliog J Chem Phys 16:984-6 O '48

CARBON—Continued

- Carbon oxygen steam reactions studied. J. D. Parent and S. Katz, *il diags Am Gas Assn Mo* 30:21-4 Ja '48
- Developments of carbon cyanidation at Getchell mine, Nevada. R. A. Hardy and F. W. McQuiston, Jr. *il diag Min Cong J* 33:42-3 N '47
- Diffusion of carbon in austenite with a discontinuity in composition. L. S. Darken. *bibliog Metals Tech* 15:TP2443 1-9 S '48
- Disintegration of positive and negative mesotrons in different absorbers. N. Nereson. *bibliog diags Phys R* 73:565-9 Mr 15 '48
- Dissociation energy of carbon monoxide and the heat of sublimation of carbon. H. D. Hagstrum. *bibliog Phys R* 72:947-63 N 15 '47
- Dissociation energy of carbon monoxide and the heat of sublimation of carbon. J. G. Valatin. *bibliog Phys R* 74:350-1 Ag 1 '48
- Effect of the manganese/carbon ratio on the brittle fracture of mild steel. W. Barr and A. J. K. Honeyman. *4pls Iron & Steel Inst J* 157:239-42 O '47; Discussion, 158:327-36 Mr '48
- Electrolytic reduction of carbonyl compounds at carbon cathodes. S. Swann, Jr. and H. D. Kerfman. *bibliog Electrochem Soc Trans* 92 (preprint 33):407-14 '47
- Industrial carbon; problem of shortage, and what can be done about it. CI report. R. E. Ladd and C. A. Stokes. *bibliog il Chem Ind* 63:609-16 O '48
- Influence of carbon on the equilibria between steel and slag in the acid open-hearth furnace. P. Herasymenko. *bibliog Iron & Steel Inst J* 157:515-25 D '47
- Internal conversion pairs in carbon. C. B. Dougherty and others. *bibliog Phys R* 74:712 S 15 '48
- Internal friction in the interstitial solid solutions of C and O in tantalum. T. Ké. *bibliog diag Phys R* 74:9-15 Jl 1 '48
- Introduction to the interaction of carbon and iron ore at temperatures up to 1450°C. H. L. Saunders and H. J. Tress. *bibliog il diags Iron & Steel Inst J* 157:215-22 O '47
- Location of the reactive carbon in N-methylnicotinamide. W. E. Knox and W. I. Grossman. *bibliog Am Chem Soc J* 70:2172 Je '48
- Mean life of negative mesons in carbon. C. W. Kissinger and D. Cooper. *bibliog diag Phys R* 74:349-50 Ag 1 '48
- Mechanism of carbon removal in the open-hearth furnace. A. H. Jay. *Iron & Steel Inst J* 157:167-72 O '47; Discussion, 158:451-6 Ap '48
- Neutron and gamma-ray yields from deuterons on carbon. C. L. Bailey and others. *bibliog diags Phys R* 73:274-8 F 15 '48
- Polarization effects in the ionization loss of 1-Mev electrons in carbon. F. L. Hereford. *bibliog diags Phys R* 73:1123-4 My 1 '48
- Range-energy relations for protons in substances containing C, H, O, A, and Xe. J. O. Hirschfelder and J. L. Magee. *bibliog Phys R* 73:207-15 F 1 '48
- Reactions of carbon and metal oxides in a vacuum. W. J. Kroll and A. W. Schlechton. *bibliog diags Electrochem Soc J* 93:247-53 Je '48
- Some structural aspects of carbon oxidation. H. L. Riley. *bibliog Chem & Ind* p569-71 S 4 '48
- Use of zinc alkyls in the preparation of hydrocarbons with a quaternary carbon atom. F. R. Buck and others. *diags Inst Pet J* 34:339-69 *bibliog* (58 ref, p369) My '48
- See also
- | | |
|--------------|----------------|
| Bone black | Coke |
| Carbon black | Graphite |
| Coal | Petroleum coke |
- Analysis
- Apparatus for absorption of carbon dioxide in mass spectrometric determination of the carbon isotopes. K. Rankama and K. J. Neuvonen. *diag Anal Chem* 20:589-90 Je '48
- Art of carbometry. F. S. Ellis and H. MacLees. *Blast F & Steel Pl* 35:1357-8 N '47
- Determination of free carbon in compounded rubber and synthetic elastomers. G. D. Louth. *bibliog Anal Chem* 20:717-19 Ag '48
- Determination of radioactive carbon in solid samples. W. D. Armstrong and J. Schubert. *bibliog diags Anal Chem* 20:270-1 Mr '48
- Determination of small amounts of carbon in steel; evaluation of low-pressure combustion apparatus. J. J. Naughton and H. H. Uhlig. *diag Anal Chem* 20:477-80 My '48
- Improved combustion technique speeds carbon analysis of steel. *il Steel* 122:96 F 16 '48; Same. *Iron & Steel Eng* 25:107-8 F '48
- Measurement of carbon 14. J. D. Roberts and others. *bibliog diags Anal Chem* 20:904-5 O '48
- Pressure regulator for use in microdetermination of carbon and hydrogen. M. F. Furrer and A. Steyermark. *bibliog il diag Anal Chem* 20:257-3 Mr '48
- Properties and measurement of carbon 14. A. T. Reid, A. S. Weil and J. R. Dunning. *bibliog diag Anal Chem* 19:824-7 N '47
- Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others. *bibliog Anal Chem* 19:1035-9 D '47
- Isotopes
- Absolute cross section for the reaction $C^{12}(p, pn)C^{11}$ at high energy. E. M. McMillan and R. D. Miller. *Phys R* 73:80-1 Ja 1 '48
- Acetate metabolism in yeast, studied with isotopic carbon. S. Weinhouse and R. H. Millington. *bibliog Am Chem Soc J* 69:3089-93 D '47
- Apparatus for absorption of carbon dioxide in mass spectrometric determination of the carbon isotopes. K. Rankama and K. J. Neuvonen. *diag Anal Chem* 20:589-90 Je '48
- Application of the halogen-metal interconversion reaction to syntheses with isotopic carbon. A. Murray, 3d, W. W. Foreman and W. Langham. *bibliog diag Am Chem Soc J* 70:1037-9 Mr '48
- Comparison of the beta-spectra of C^{14} and S^{35} . L. E. Glendenin and A. K. Solomon. *bibliog Phys R* 74:700-1 S 15 '48
- Conversion of isotopically enriched CO_2 to CO . R. B. Bernstein and T. I. Taylor. *diags Science* 106:498-9 N 21 '47
- Countercurrent gaseous exchange method for the separation of isotopes. R. B. Bernstein and T. I. Taylor. *bibliog diags J Chem Phys* 16:903-16 S '48
- Cross section for the reaction $C^{12}(n, 2n)C^{11}$ at 90 Mev. E. M. McMillan and H. F. York. *bibliog Phys R* 73:262-3 F 1 '48
- Cross section for the reaction $C^{12}(\gamma, n)C^{11}$. J. L. Lawson and M. L. Perlman. *Phys R* 74:1390-1 N 1 '48
- Determination of radioactive carbon in solid samples. W. D. Armstrong and J. Schubert. *bibliog diags Anal Chem* 20:270-1 Mr '48
- Disintegration energy of $N^{14}(n, p)C^{14}$. P. Huber and A. Stebler. *bibliog Phys R* 73:385 Ja 1 '48
- Energy of beta-radiation from S^{35} and C^{14} . A. K. Solomon and others. *bibliog diag Phys R* 72:1097-100 D 1 '47
- Excitation curve for the reaction $C^{12}(p, pn)C^{11}$ up to 140 Mev. W. W. Chupp and E. M. McMillan. *diag Phys R* 72:873-4 N 1 '47
- Excitation curves for the reactions $C^{12}(d, dn)C^{11}$ and $C^{12}(a, an)C^{11}$ at high energies. R. L. Thornton and R. W. Sensenman. *Phys R* 72:372-3 N 1 '47
- Excitation function of reaction $C^{12}(n, 2n)C^{11}$ at high energies. W. Heckrotte and P. Wolff. *Phys R* 73:265-6 F 1 '48
- Excitation function of the reaction $C^{12}(p, pn)C^{11}$ at high energies. W. Heckrotte and P. Wolff. *Phys R* 73:264-5 F 1 '48
- Half-life of C^{14} . R. C. Hawkins and others. *bibliog Phys R* 74:696-7 S 15 '48
- Half-life of carbon 14. L. D. Norris and M. G. Inghram. *bibliog diags Phys R* 73:350-60 F 15 '48
- Incorporation of C^{14} from carboxyl-labeled α -alanine into the proteins of liver slices. I. D. Frantz, Jr. and others. *bibliog Science* 106:544-5 D 5 '47
- Inside Geiger-Müller counter for soft beta-emitters; assay of radioactive sulfur 35 or carbon 14. L. W. Labaw. *bibliog diag R Sci Instr* 19:390-5 Je '48
- Isomerization of propane with C^{13} in one end position. O. Beeck and others. *J Chem Phys* 16:255-6 Mr '48

CARBON—Isotopes—Continued

- Loss of radioactivity from barium carbonate samples. P. E. Yankwich. *bibliog Science* 107:681-3 Je 25 '48
- Measurement of carbon 14. J. D. Roberts and others. *bibliog diags Anal Chem* 20:904-5 O '48
- Natural radiocarbon from cosmic radiation. B. C. Anderson and others. *bibliog Phys R* 72:931-6 N 15 '47
- New evidence of the origin of pre-Cambrian carbon. K. Rankama. *map diags Geol Soc Bul* 59:389-416, pl 1-6 *bibliog (p414-16)* My '48
- Nuclear spins of the carbon isotopes. F. A. Jenkins. *bibliog il diag Phys R* 74:355-63 Ag 15 '48
- Properties and measurement of carbon 14. A. F. Reid, A. S. Weil and J. R. Dunning. *bibliog diag Anal Chem* 19:824-7 N '47
- Radioactive carbon of high specific activity. L. D. Norris and A. H. Snell. *Phys R* 73:244-5 F 1 '48
- Radioactive tracers in flotation; use of carbon 14 especially adaptable. A. M. Gaudin and others. *bibliog diags Min & Met* 29:432-5 Ag '48
- Radioautograph technique with C^{14} . A. M. MacDonald and others. *il Science* 107:550-2 My 21 '48
- Radiocarbon and filter-paper partition chromatography. R. M. Fink and K. Fink. *bibliog Science* 107:253-4 Mr 5 '48
- Rapid method of preparing $NaC^{14}N$ from $BaC^{14}O_3$. A. W. Adamson. *Am Chem Soc J* 69:2564 O '47
- Relative cross sections of reactions induced by high energy neutrons in C, N, O, and F. W. J. Knox. *Phys R* 72:1254-5 D 15 '47
- Rotational spectrum of $OC^{18}S$ and the nuclear spin of C^{14} . A. Roberts. *bibliog Phys R* 73:1405 Je 1 '48
- Routine use of ionization chamber method for C^{14} assay. C. D. Janney and B. J. Moyer. *bibliog il diags R Sci Instr* 19:667-74 O '48
- Spin of C^{14} . F. A. Jenkins. *Phys R* 73:639 Mr 15 '48
- Study of the beta-spectra of C^{14} and S^{35} . C. S. Cook and others. *bibliog Phys R* 74:548-52 S 1 '48
- Synthesis of organic intermediates from carbon dioxide and carbon monoxide; with special reference to the radiolabel, C^{14} . S. F. Van Straten and R. V. V. Nicholls. *bibliog Can Chem & Process Ind* 31:947-8+ O '47
- Synthesis of palmitic acid and tripalmitin labeled with carbon fourteen. W. G. Dauben. *bibliog Am Chem Soc J* 70:1376-8 Ap '48
- Techniques in the use of carbon 14. W. G. Dauben, J. C. Reid and P. E. Yankwich. *bibliog diags Anal Chem* 19:828-32 N '47
- Utilization of carbon dioxide by the mature rat in the formation of fatty acids. J. Schubert and W. D. Armstrong. *bibliog Science* 108:286 S 10 '48
- Variety of C^{14} compounds available. *Science* 107:389-90 Ap 16 '48; *Chem & Eng N* 26:1170 Ap 19 '48
- X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-500 O '47
- X-ray yield curves for γ -n reactions. G. C. Baldwin and G. S. Klaiber. *bibliog il Phys R* 73:1156-63 My 15 '48
- CARBON, Activated**
- Absorption studies with waste pickle liquor. J. Seiberlich. *bibliog il Steel* 122:90+ Ja 12 '48
- Activated carbon from coal; conversion and testing processes. *diag Chem Age (Lond)* 59:79-82 JI 17 '48
- Activated carbon; manufacture, capacity of adsorption, use in solvent recovery. P. H. Couroulean and R. E. Benson. *diags Chem Eng* 55:112-15 Mr '48
- Adsorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. F. Othmer. *bibliog il diag Ind & Eng Chem* 40:739-43 Ap '48
- Air purification and deodorization by use of activated carbon. F. H. Munkelt. *bibliog Refrig Eng* 56:1-8 sec 2 S '48

- Alteration of the size and distribution of pores in charcoals. J. Holmes and P. H. Emmett. *bibliog J Phys & Colloid Chem* 51:3276-307 N '47
- Carbon adsorber protects oil-sealed vacuum pump from solvent vapors. N. W. Franke and others. *diag Chem Ind* 61:870 N '47
- Configuration and adsorption; a comparison of the adsorption of the *cis* and *trans* isomers of dichloroethylene on activated carbon. D. H. Volman and L. J. Andrews. *bibliog Am Chem Soc J* 70:457-62 F '48
- Design details, operating results of first commercial Hypersorber. W. F. Bland. *flow diag il diag Pet Processing* 3:635-8 JI '48
- European practice for solvent recovery in printing industry. R. E. Benson and P. H. Couroulean. *flow diags il plan Chem Eng Prog* 44:459-68; *Discussion*, 463 Je '48
- Hypersorption provides precise concentration-separation of gases. A. L. Foster. *flow diag il diag Oil & Gas J* 47:90+ Ag 12 '48
- Inactivation of 2,4-D on sweet-potato slips with activated carbon. H. F. Arle and others. *Science* 107:247-8 Mr 5 '48
- Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett. *bibliog diag J Phys & Colloid Chem* 51:1262-76 N '47
- Mathematical calculation of phenol value of an activated carbon; solving the Freundlich equation by the method of least squares. R. A. Hoot. *il Water & Sewage Works* 94:402-4 N '47
- Oil removal studies in refrigerated storage. M. Uota and R. M. Smock. *il Refrig Eng* 55:256-9+ Mr '48
- Steam-saving process for benzole extractions. H. Deringer. *diags Am Gas J* 168:22-3 Ja '48
- Surface complexes on charcoal; gas evolution as a function of vapor adsorption and of high-temperature evacuation. R. B. Anderson and P. H. Emmett. *bibliog diags J Phys & Colloid Chem* 51:1308-29 N '47

Manufacture

- Fluidization used in making activated carbon. A. Godel. *diag Chem Eng* 55:110-11 JI '48
- Producing active carbon; another application of the fluidised bed. *diag Chem Age (Lond)* 58:841 Je 19 '48
- Swiss process for activated carbon. *Chem & Eng N* 26:2056 JI 12 '48
- CARBON, Structural**
- Blast furnace tapping hole construction; use of carbon. W. S. Unger. *diags Blast F & Steel Pl* 36:434-8 Ap '48
- Carbon, a blast furnace refractory. M. T. Cory and F. B. Thacher. *diags Blast F & Steel Pl* 35:1432-7 D '47; *Abstracts. Metal Prog* 53:572+ Ap '48; *Brick & Clay Rec* 111:66 N '47
- Carbon blocks simplify welding jobs. P. Glanzer. *il diags Am Mach* 92:124-5 O 21 '48
- Carbon brick tank linings used for pickling stainless steels. *il Steel* 123:101+ Ag 2 '48
- Carbon hearths in new South Works furnaces. *il Iron Age* 160:74-6 D 18 '47; *Mech Eng* 70:21-2 Ja '48
- Carbon in chemical engineering; high resistance to acids, heat and shock. A. E. Williams. *Chem Age (Lond)* 58:234-5 F 14 '48
- Carbon mold plugs in alloy steel production. H. F. Walther. *il Iron Age* 160:70-3 N 27 '47
- Considerations in the use of carbon refractories in the blast furnace. W. S. Debenham. *diags Steel* 123:110+ JI 12 '48; *Excerpt. Iron & Steel Eng* 25:131-2 Ag '48
- Design of carbon hearths and the results obtained at the Carrie furnace. C. J. Fleisch. *Blast F & Steel Pl* 35:1359-60 N '47; *Same. Iron Age* 160:72-4 D 18 '47; *Same. il Steel* 121:116+ N 17 '47
- Industrial alcohol versus construction materials; carbon and graphite. J. F. Revilock. *Chem Eng* 55:236+ O '48
- Nitric acid versus construction materials; carbon and graphite. W. M. Gaylord. *il Chem Eng* 55:225 Mr '48
- Sodium chloride versus construction materials; carbon graphite. L. C. Werking. *Chem Eng* 54:218+ N '47
- Sulphuric acid versus construction materials; carbon, graphite. W. W. Palmquist. *il Chem Eng* 55:226+ Je '48

CARBON black

- Carbon pH and structure in rubber compounding. H. A. Braendle and others. *bibliog India Rubber World* 119:57-62+ O '48
- Chemical and physical properties of Phil-black carbons. L. R. Sperberg and H. M. Barton. *bibliog il diag Rubber Age* 63:45-51 Ap '48
- Dark-field electron microscopy; studies of colloidal carbon. C. E. Hall. *bibliog il J Ap Phys* 19:271-7 Mr '48
- Differential heats of adsorption of nitrogen on carbon blacks. L. G. Joyner and P. H. Emmett. *bibliog Am Chem Soc J* 70:2353-9 Jl '48
- Effect of carbon black and black iron oxide on air content and durability of concrete. T. G. Taylor. *Am Concrete Inst J* 19:613-24 Ap '48
- Effect of carbon blacks on swelling of neoprene GRM-10 vulcanizates. N. L. Catton and D. C. Thompson. *bibliog Ind & Eng Chem* 40:1523-6 Ag '48
- Heats of adsorption on carbon black. R. A. Beebe and others. *bibliog diag Am Chem Soc J* 69:95-101, 2294-9 Ja, O '47
- Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett. *bibliog diag J Phys & Colloid Chem* 51:1262-76 N '47
- Investigation of specimen contamination in the electron microscope. J. Hillier. *il diags J Ap Phys* 19:226-30 Mr '48
- Measurement of carbon black particles by the electron microscope and low temperature nitrogen adsorption isotherms. R. B. Anderson and P. H. Emmett. *bibliog J Ap Phys* 19:367-73 Ap '48
- Mechanism of reinforcement of elastomers by pigments. L. H. Cohan. *bibliog il India Rubber World* 117:343-3+ D '47
- Particle size determinations with electron microscopes. J. H. L. Watson. *bibliog il Anal Chem* 20:576-84 Je '48
- Particle size of dispersed carbon black affects entrainment of air in concrete. F. J. Mardulier. *Civil Eng* 18:165 Mr '48; Same. *Concrete* 56:33 Ap '48
- Surface-area measurements on metal spheres and on carbon blacks. P. H. Emmett and M. Cines. *bibliog il J Phys & Colloid Chem* 51:1329-41 N '47
- Surface complexes on charcoal; gas evolution as a function of vapor adsorption and of high-temperature evacuation. R. B. Anderson and P. H. Emmett. *bibliog diags J Phys & Colloid Chem* 51:1308-29 N '47
- Uses of carbon black. W. H. Cadman. *Oil & Gas J* 47:110 My 6 '48
- Vulcanizing characteristics of reinforcing furnace carbon. D. F. Cranor and others. *bibliog India Rubber World* 117:749-51+ Mr '48

Analysis

- Determination of free carbon in compounded rubber and synthetic elastomers. G. D. Louth. *bibliog Anal Chem* 20:717-19 Ag '48

Manufacture

- Home-produced carbon black? *il Chem Age (Lond)* 59:109-10 Jl 24 '48
- Record production of carbon black by south-west chemical industry. *Manuf Rec* 117:58 Jl '48
- Sound generator; erection by Ultrasonic corporation of unit to precipitate carbon black. *Mech Eng* 69:1041-2 D '47
- Surface combustion is employed in new carbon black furnace; patent. *diag Pet Processing* 3:599-600 Je '48

CARBON compounds

- Development of electrochemical theories of the course of reactions of carbon compounds. R. Robinson. *Chem Soc J p* 1283-301 S '47
- Structure number; proposal for more exact characterization of structure isomers. P. V. Laakso. *Chem & Ind* p387-8 Je 19 '48
- Thermochemical evaluation of the bond-strength in some carbon compounds; methyl carbon-iodine and methyl carbon-magnesium; abstract. H. Mackle and A. R. Ubbelohde. *Chem & Ind* p806 D 27 '47

CARBON dioxide

- Absorption spectrum of carbon dioxide from 14 to 16 microns. L. D. Kaplan. *bibliog J Chem Phys* 15:809-15 N '47; Correction. 16: 426 Ap '48
- Chemical erosion of steel by hot gases under pressure. R. C. Evans and others. *bibliog diags J Phys & Colloid Chem* 51:1404-29 N '47
- Conversion of isotopically enriched CO₂ to CO. R. B. Bernstein and T. I. Taylor. *diags Science* 106:498-9 N 21 '47
- Cooling of gases through packed tubes. M. Leva and others. *diag Ind & Eng Chem* 40:747-52 Ap '48
- Experimental determination of the intensities of infra-red absorption bands; carbon dioxide, methane, and ethane. A. M. Thorndike. *bibliog J Chem Phys* 15:868-74 D '47
- Graphical determination of heat transfer film coefficient for carbon dioxide vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:88-90 S '48
- Heat of adsorption of gases on manganous-chromic oxide at room temperature. T. Ward. *Chem Soc J p* 1244-6 S '47
- Infrared emission spectra of CO₂ and H₂O molecules. E. K. Plyler. *Science* 107:48 Ja 9 '48
- Introduction to fluidization; counter-gravity flow of air, carbon dioxide, and helium through beds of round and sharp sands. M. Leva and others. *il diags Chem Eng Prog* 44:511-20 Jl '48
- Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hoftijzer. *bibliog Chem Eng Prog* 44: 529-36; Discussion. 536 Jl '48
- Kinetics of the polymerization of carbonic anhydrides. S. G. Waley and J. Watson. *Am Chem Soc J* 70:229-300 Je '48
- Pathogenicity and isoterism; reactions of phosarum to carbon dioxide and to nitrous oxide. W. Seifriz. *bibliog Science* 107:15-16 Ja 2 '48
- Production of synthesis gas by reacting light hydrocarbons with steam and carbon dioxide. R. E. Reitmeyer and others. *bibliog il Ind & Eng Chem* 40:620-6 Ap '48
- Reduction of carbon dioxide to methanol by lithium aluminum hydride. R. F. Nystrom, W. H. Yanko and W. G. Brown. *Am Chem Soc J* 70:441 Ja '48
- Safety essentials in designing water-recarbonation systems. H. Arnold. *Eng N* 141:96 O 14 '48
- Sulphide penetration in the carburization of steel. A. Preece and K. J. Irvine. *bibliog 2pls diag Iron & Steel Inst J* 157:336-43 N '47
- Synthesis of organic intermediates from carbon dioxide and carbon monoxide; with special reference to the radioisotope, C¹⁴. S. F. Van Straten and R. V. V. Nicholls. *bibliog Can Chem & Process Ind* 31:947-8+ O '47
- Techniques in the use of carbon 14. W. G. Dauben, J. C. Reid and P. E. Yankwich. *bibliog diags Anal Chem* 19:828-32 N '47
- Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties. B. H. Sage, R. H. Olds and W. N. Lacey. *bibliog Ind & Eng Chem* 40:1453-9 Ag '48
- Utilization of carbon dioxide by the mature rat in the formation of fatty acids. J. Schubert and W. D. Armstrong. *bibliog Science* 108:286 S 10 '48
- Vapor pressure, specific volume, p-v-T data for H₂, N₂, O₂, CO, CO₂, air, He, A, Hg. S. Gratch. *A S M E Trans* 70:631-40 *bibliog* (154 titles, p637-40) Ag '48

See also

Photosynthesis

Analysis

- Apparatus for determining CO₂ in a gas. J. J. Gay. *diag Chem & Ind* p600 S 18 '48
- Determination of carbon dioxide in water; improved evolution method. F. E. Clarke. *bibliog diag Anal Chem* 19:389-91 N '47
- Routine use of ionization chamber method for C¹⁴ assay. C. D. Janney and B. J. Moyer. *bibliog il diags R Sci Instr* 19:667-74 O '48

CARBON dioxide—Continued

Industrial applications

See also

Carbon dioxide,
Solid**CARBON dioxide, Liquid**Liquid carbon-dioxide recarbonation permits high absorption rates. H. Stock. *il Eng N* 140:653-5 Ap 29 '48**CARBON dioxide, Solid**Air cargo refrigeration. L. R. Hackney. *bibliog diags Aero Digest* 56:37-9+ My '48Dry-ice baller is new tool for well clean-out operations. L. S. McCaslin, Jr. *diag Oil & Gas J* 47:258+ J 29 '48Dry ice; economical CO₂ source for bottlers. G. B. Armstrong. *il Food Ind* 20:1460-1 O '48Rail refrigeration temperatures controlled with dry ice system; secondary refrigerant, evaporating plates and thermostat control. *il Food Ind* 20:1298-9 S '48**CARBON dioxide fire extinguishers.** See Fire extinguishers, Carbon dioxide**CARBON disulfide**Carbon disulfide from sulfur dioxide and anthracite. C. W. Siller. *bibliog diag Ind & Eng Chem* 40:1227-33 J 1 '48Colorimetric determination of copper with carbon disulfide and diethanolamine; improved dithiocarbamate reagent. W. C. Woelfel. *bibliog Anal Chem* 20:722-4 Ag '48New carbon bisulphide process. *Chem Age (Lond)* 57:700 N 29 '47Recoil-activated and thermal exchange reactions between sulfur-35 and carbon disulfide. R. R. Edwards, F. B. Nesbitt and A. K. Solomon. *Am Chem Soc J* 70:1670 Ap '48Self-filling micro infra-red absorption cell. N. B. Colthup and V. Z. Williams. *il R Sci Instr* 18:927-8 D '47Studies in the azole series; the interaction of aminocetonitrile and carbon disulphide. A. H. Cook, I. Heilbron and A. L. Levy. *Chem Soc J* p201-6 F '48Studies in the azole series; the interaction of α -aminonitriles and carbon disulphide. A. H. Cook, I. Heilbron and A. L. Levy. *Chem Soc J* p 1598-609 D '47

Analysis

Colorimetric determination of less than 0.001 per cent sulphur as carbon disulphide in benzoates. T. A. Dick. *bibliog Soc Chem Ind J* 66:253-7 Ag '47Determination of thiophene, carbon oxysulfide, and carbon disulfide in producer gas; spectrophotometric method. L. J. Brady. *bibliog diag Anal Chem* 20:512-14 Je '48

Physiological effect

Two outbreaks of carbon disulfide poisoning in rayon staple fiber plants in Poland. E. A. Paluch. *J Ind Hygiene* 30:37-42 Ja '48**CARBON monoxide**Bond energies of hydrocarbons. L. Gerö. *bibliog J Chem Phys* 16:1011-13 N '48Chemical erosion of steel by hot gases under pressure. R. C. Evans and others. *bibliog diags J Phys & Colloid Chem* 51:1404-29 N '47Continuous spectra and OH absorption in carbon monoxide, oxygen explosions. G. A. Hornbeck. *il J Chem Phys* 16:845-6 Ag '48Conversion of isotopically enriched CO₂ to CO. R. B. Bernstein and T. I. Taylor. *diags Science* 106:498-9 N 21 '47Critical review of chemistry of oxo synthesis for production of alcohols from olefins, carbon monoxide, and hydrogen. I. Wender and M. Orchin. *pl U S Bur Mines Rep of Invest* 4270:1-26 '48Decomposition of carbon monoxide by nickel catalysts; the reaction mechanism between 250° and 450°. J. A. Tebbott. *bibliog diag Soc Chem Ind J* 67:62-6 F '48Dissociation energy of carbon monoxide and the heat of sublimation of carbon. H. D. Hagstrum. *bibliog Phys R* 72:947-63 N 15 '47Dissociation energy of carbon monoxide and the heat of sublimation of carbon. J. G. Valatin. *bibliog Phys R* 74:350-1 Ag 1 '48Gasification of subbituminous coal and lignite in externally heated retorts. V. F. Parry and others. *bibliog diags Ind & Eng Chem* 40:627-41 Ap '48Heat of adsorption of gases on manganous-chromic oxide at room temperature. T. Ward. *Chem Soc J* p 1244-6 S '47Homogeneous reaction of nitric oxide and carbon monoxide. C. P. Fenimore. *bibliog Am Chem Soc J* 69:3143-4 D '47How to control carbon monoxide in garages; flexible duct tailpipe exhaust systems. G. Hama. *il Heat & Ven* 45:113-15 O '48Infra-red emission and absorption of the carbon monoxide-oxygen flame. S. Silverman and others. *bibliog J Chem Phys* 16:155-6 F '48Kinetics of methane synthesis. W. W. Akers and R. R. White. *bibliog(47 ref) diag Chem Eng Prog* 44:553-66 J 1 '48Mechanism of flame propagation. M. F. Hoare and J. W. Linnett. *bibliog J Chem Phys* 16:747-9 Ag '48Oxygen in the production of hydrogen or synthesis gas; Winkler, Koppers, Lurgi, Thyssen-Galocsy and Leuna processes. L. L. Newman. *bibliog flow diag il diags Ind & Eng Chem* 40:559-82 Ap '48Preparation of aldehydes from alkenes by the addition of carbon monoxide and hydrogen with cobalt carbonyls as intermediates. H. Adkins and G. Krsek. *bibliog Am Chem Soc J* 70:383-6 Ja '48Preparation of carbon monoxide. S. Weinhouse. *Am Chem Soc J* 70:442-3 Ja '48Production of radioactive carbon monoxide and phosgene from barium carbonate. J. L. Huston and T. H. Norris. *diag Am Chem Soc J* 70:1968-9 My '48Production of synthesis gas by catalytic decomposition of methanol. H. S. Seelig and R. F. Marschner. *flow diag diag Ind & Eng Chem* 40:583-6 Ap '48Reduction of oxides by hydrogen and carbon monoxide. W. E. Garner. *Chem Soc J* p 1239-44 S '47Review of development of processes for synthesis of liquid fuels by hydrogenation of carbon monoxide. H. H. Storch. *bibliog flow diag Chem Eng Prog* 44:469-80 Je '48Selective deposition of carbon on the (111) face of a nickel crystal in the catalytic decomposition of carbon monoxide. H. Leideheiser, Jr. and A. T. Gwathmey. *Am Chem Soc J* 70:1206 Mr '48Sulphide penetration in the carburization of steel. A. Prece and K. J. Irvine. *bibliog 2pls diag Iron & Steel Inst J* 157:336-43 N '47Synthesis of organic intermediates from carbon dioxide and carbon monoxide; with special reference to the radioisotope, C¹⁴. S. F. Van Straten and E. V. V. Nicholls. *bibliog Can Chem & Process Ind* 31:947-8+ O '47Theory of burning velocity; square root law for burning velocity. C. Tanford and R. N. Pease. *bibliog J Chem Phys* 15:861-5 D '47Thermochemistry of organic compounds. J. G. Valatin. *bibliog J Chem Phys* 16:1018-24 N '48Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties. B. H. Sage, R. H. Olds and W. N. Lacey. *bibliog Ind & Eng Chem* 40:1453-9 Ag '48Vapor-liquid equilibrium constants for carbon monoxide. L. C. Widdoes and D. L. Katz. *bibliog Ind & Eng Chem* 40:1742-6 S '48Vapour-phase reduction of arsenic trioxide by carbon monoxide. R. C. Vickery and R. W. Edwards. *diag Metallurgy* 37:310-11 Ap '48Vapor pressure, specific volume, *p-v-T* data for H₂, N₂, O₂, CO, CO₂, air, He, A, Hg. S. Gratch. *A S M E Trans* 70:631-40 bibliog(154 titles, p637-40) Ag '48X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-500 O '47

CARBON monoxide—Continued

Analysis

- Determination of carbon monoxide by absorption in the Haldane-type gas-analysis apparatus. L. B. Berger. 5pls U S Bur Mines Rep of Invest 4187:1-6 '47
- Determination of carbon monoxide in air by use of red mercuric oxide. J. D. McCullough, R. A. Crane and A. O. Beckman. bibliog diags Anal Chem 19:999-1002 D '47
- Device to detect carbon monoxide; colorimetric indicating gel. M. Shepherd. Can Min J 69:89 Mr '48
- Field tests for the detection of carbon monoxide. L. T. Minchin. bibliog diags Chem & Ind p 147-9 Mr 6 '48
- Microdetermination of carbon monoxide in air; a portable instrument. A. O. Beckman, J. D. McCullough and R. A. Crane. bibliog il diag Anal Chem 20:674-7 Jl '48
- Testing for carbon monoxide. J. M. Berkebile. J Chem Educ 25:342-3 Je '48

CARBON monoxide recorders

- New carbon monoxide detector used by Citizens Gas & Coke. il Gas Age 102:46- S 16 '48

CARBON oxides

- Countercurrent gaseous exchange method for the separation of isotopes. R. B. Bernstein and T. I. Taylor. bibliog diags J Chem Phys 16:903-16 S '48

CARBON oxysulfide. See Carbonyl sulfide

CARBON paper

- Better carbon paper through use of vinyl back coating on tissue. il Mod Plastics 25: 176 Je '48

CARBON tetrabromide

- Compound formation between 2,6-lutidine and polyhalogenated methanes. C. A. VanderWerf, A. W. Davidson and C. I. Michaelis. Am Chem Soc J 70:908-10 Mr '48

CARBON tetrachloride

- Carbon tetrachloride OK in proper extinguisher. B. C. Hutchins. Power 92:375- Je '48
- Chain transfer in the polymerization of styrene; the reaction of styrene with carbon tetrachloride. R. A. Gregg and F. R. Mayo. bibliog Am Chem Soc J 70:2373-8 Jl '48
- Compound formation between 2,6-lutidine and polyhalogenated methanes. C. A. VanderWerf, A. W. Davidson and C. I. Michaelis. Am Chem Soc J 70:908-10 Mr '48
- Compound formation between pyridine and polyhalogenated methanes. A. W. Davidson, C. A. VanderWerf and L. G. Boatright. bibliog Am Chem Soc J 69:3045-7 D '47
- Cryoscopic behavior of carbon tetrachloride. A. W. Davidson, W. J. Argersinger, Jr. and C. I. Michaelis. bibliog J Phys & Colloid Chem 52:332-9 F '48
- Electronics simulates sense of smell; emission of ions from heated platinum increased in presence of halogen vapor compounds. W. C. White and J. J. Hickey. il diags Electronics 21:100-2 Mr '48
- Forces between tetrahalide molecules. J. H. Hildebrand. bibliog J Chem Phys 15:727-36 O '47
- Free radical-initiated reaction of ethylene with carbon tetrachloride. R. M. Joyce, W. E. Hanford and J. Harmon. bibliog Am Chem Soc J 70:2529-32 Jl '48
- Kinetics of the reaction between copper and iodine in various solutions; solutions of iodine in organic solvents. L. L. Bircumshaw and M. H. Everdell. Chem Soc J p 1119-28 S '47
- Liquid and vapor curves in the system ethyl alcohol-benzene-carbon tetrachloride at constant pressure. A. N. Campbell and W. J. Dulmage. bibliog diag Am Chem Soc J 70:1723-7 My '48
- Raman lines of second-order intensity in SnBr_4 , SnCl_4 , and CCl_4 . H. L. Welsh and others. bibliog il diag J Chem Phys 16: 97-105 F '48
- Reactions of carbon tetrachloride with bromine activated by isomeric nuclear transition and by the neutron-gamma reaction. J. E. Willard. bibliog diag J Phys & Colloid Chem 52:585-94 Mr '48
- Self-filling micro infra-red absorption cell. N. B. Colthup and V. Z. Williams. il R Sci Instr 18:927-8 D '47

Viscosity of solutions of primary alcohols and fatty acids in benzene and in carbon tetrachloride. W. J. Jones and others. bibliog J Phys & Colloid Chem 52:758-60 Ap '48

Analysis

- Rapid evaluation of solvent extraction processes; new liquid-liquid extractor; carbon tetrachloride-aqueous iodine. H. A. Bewick, J. E. Currah and F. E. Seamish. bibliog diag Anal Chem 20:740-3 Ag '48

CARBON tetrachloride poisoning

- Be careful with carbon tetrachloride. Safety Eng 95:60-1 Je '48
- Death from exposure to carbon tetrachloride. B. Linde. Safety Eng 94:61 N '47

CARBON tetrafluoride

- Force constants for CF_4 and C_2F_6 . E. L. Pace. bibliog J Chem Phys 16:74-7 Ja '48

CARBONIUM compounds

- Alkylation and related processes of modern petroleum practice. F. C. Whitmore. Chem & Eng N 26:668-74 Mr 8 '48

CARBONYL chloride. See Phosgene

CARBONYL compounds

- Absorption spectra of 2:4-dinitrophenyl-semicarbazones. A. E. Gillam and D. G. Moss. Chem Soc J p 1387-90 O '47
- Aliphatic halide-carbonyl condensations by means of sodium. E. A. Cadwallader and others. bibliog J Res Nat Bur Stand 41:111-18 Ag '48
- Allylic rearrangements; reaction of the sodium derivative of allylbenzene with carbonyl compounds. T. W. Campbell and W. G. Young. bibliog Am Chem Soc J 69:3066-8 D '47
- Degradation of α -amino-acids to aldehydes and ketones by interaction with carbonyl compounds. A. Schöenberg, R. Moubasher and A. Mostafa. bibliog diag Chem Soc J p 176-82 F '48
- Dissociation schemes of some carbonyl compounds. L. Gerö and J. G. Valatin. bibliog J Chem Phys 16:1014-17 N '48
- Electrolytic reduction of carbonyl compounds at carbon cathodes. S. Swann, Jr. and H. D. Kerfman. bibliog Electrochem Soc Trans 92 (preprint 33):407-14 '47
- Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. bibliog Am Chem Soc J 69:2605-7 N '47
- Metallations of diphenylmethane and related compounds by potassium amide; condensations with carbonyl compounds. R. S. Yost and C. R. Hauser. Am Chem Soc J 69: 2325-8 O '47
- Pyrazinoindeole-1,4-diones; ring closure of 2-indolecarbonyl derivatives of α -aminoesters. J. R. Johnson, J. H. Andreen and A. D. Holley. bibliog Am Chem Soc J 69: 2370-2 O '47
- Reaction of α -phenylenediamine and of 8-amino-1,2,3,4-tetrahydroquinoline derivatives with carbonyl compounds. R. C. Eldefield and F. J. Kreysa. bibliog Am Chem Soc J 70:44-8 Ja '48
- Schmidt reaction; experimental conditions and mechanism. P. A. S. Smith. bibliog Am Chem Soc J 70:320-3 Ja '48
- Studies in steroid metabolism; the characterization of carbonyl and other functional groups in steroids by infrared spectrometry. R. N. Jones and others. bibliog Am Chem Soc J 70:2024-34 Je '48
- Studies on the mechanism of the Leuckart reaction. E. R. Alexander and R. B. Wildman. bibliog Am Chem Soc J 70:1187-9 Mr '48

CARBONYL sulfide

- Microwave spectra of some linear XYZ molecules. C. H. Townes and others. bibliog diags Phys R 74:1113-33 N 1 '48
- Rotational spectrum of OC^3S , and the nuclear spin of C^{34} . A. Roberts. bibliog Phys R 73:1405 Je 1 '48
- Spin and quadrupole moment of S^{34} . C. H. Townes and S. Geschwind. Phys R 74:626-7 S 1 '48

CARBONYL sulfide—Continued

Analysis

Determination of thiophene, carbon oxysulfide, and carbon disulfide in producer gas; spectrophotometric method. L. J. Brady, bibliog diag Anal Chem 20:512-14 Je '48

CARBOSEAL

Memphis carbosealing experience. A. E. Baheart and H. G. Howell, il Gas Age 101: 22-3+ Ap 15 '48

CARBOSTYRIL

1,4-Dimethyl-3-alkylcarbostyrils. D. J. Cook and W. C. Lawall, Am Chem Soc J 70:1918-19 My '48

CARBOXYACYLSULFONAMIDES. See Sulfonamides

CARBOXYBUTYROPHENONE

Analgesics; a new synthesis of aminophthalylalkanes. G. E. Ulliot, H. W. Taylor, Jr., and N. Dawson, bibliog Am Chem Soc J 70:542-5 F '48

CARBOXYETHYL cellulose

Carboxy alkyl cellulose hardened with zirconium compounds; patent, Am Dyestuff Rep 36:644 N 3 '47

CARBOXYL group

Acidic properties of cotton cellulose and derived oxycelluloses. G. F. Davidson and T. P. Nevell, bibliog Textile Inst J 39:T59-130 Mr '48

Determination of acetic acid in mixtures with citric acid. J. A. Ambler and E. J. Roberts, bibliog Anal Chem 19:879-80 N '47

Determination of acetic acid in sugarhouse products. J. A. Ambler and E. J. Roberts, bibliog Anal Chem 19:877-8 N '47

Effect of temperature and solvent upon the rate of carboxyl groups in the decomposition of benzoyl peroxide. P. F. Hartman, H. G. Sellers and D. Turnbull, bibliog Am Chem Soc J 69:2416-19 O '47

Effects of esterification of the carboxyl groups of wool on supercontraction in sodium bisulfite and set in aqueous media. S. Blackburn and H. Lindley, bibliog Soc Dyers & Col J 64:310-12; Discussion. 312-14 S '48

Extension of the scope of the Hammick reaction. K. Mislow, Am Chem Soc J 69: 2569 O '47

Role of neighboring groups in replacement reactions; rates and medium effects in the alcoholysis and hydrolysis of α -bromopropionate ion; the carboxylate ion group. E. Grunwald and S. Winstein, bibliog Am Chem Soc J 70:341-6 F '48

CARBOXYLATION

Astylenes chemistry. W. E. Hanford and D. L. Fuller, bibliog flow sheet diags Ind & Eng Chem 40:1171-7 Jl '48

CARBOXYLIC acids

Acylation studies in the thiophene and furan series; direct acylation with carboxylic acids and phosphorus pentoxide. H. D. Hartough and A. I. Kosak, bibliog Am Chem Soc J 69:3098-9 D '47

Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Campen, Jr., and R. S. Shelton, bibliog Am Chem Soc J 69:2902-6 N '47

Binary systems of some carboxylic acids; systems containing benzoic acid or a substituted benzoic acid as one of the components. K. Mislow, bibliog J Phys & Colloid Chem 52:729-40 Ap '48

Binary systems of some carboxylic acids; systems containing heterocyclic acids as the components. K. Mislow, bibliog J Phys & Colloid Chem 52:740-9 Ap '48

Determination of carboxylic acid salts. S. Siggia and M. Maisch, Anal Chem 20:235-6 Mr '48

Many-membered carbon rings; carboxylic acid derivatives of cycloheptadecane. A. T. Blomquist and R. W. Holley, bibliog Am Chem Soc J 70:36-9 Ja '48

Physical properties and chemical constitution; aliphatic carboxylic esters. A. I. Vogel, Chem Soc J p624-44 My '48

β -Propiolactone; reactions with salts of carboxylic acids. T. L. Gresham, J. E. Jansen and F. W. Shaver, Am Chem Soc J 70: 1003-4 Mr '48

Reduction of organic compounds by lithium aluminum hydride; carboxylic acids. R. F. Nystrom and W. G. Brown, Am Chem Soc J 69:2548-9 O '47

Reversible dissociation of *t*-butyl esters; structural effects and reactions mechanism. R. Altschul, Am Chem Soc J 70:2569-72 Jl '48

Synthesis of an octabasic carboxylic acid. J. R. Schaefgen and P. J. Flory, Am Chem Soc J 70:2823-4 Ag '48

Synthesis of imidazolines from 1,2-diamines and carboxylic acids. J. L. Riebsomer, Am Chem Soc J 70:1629-32 Ap '48

Analysis

p-Bromobenzyl bromide in the identification of some aromatic carboxylic acids. E. A. Fiekers and E. M. Di Geronimo, Am Chem Soc J 70:1654-5 Ap '48

CARBOXYMETHOXYLAMINE

Preparation of carboxymethoxylamine hemihydrochloride. M. H. Lott, bibliog Am Chem Soc J 70:1972 My '48

CARBOXYMETHYL cellulose

Application of carboxymethyl cellulose to the wet processing of textiles. Am Dyestuff Rep 37:596-602 S 6 '48

Bacterial degradation of sodium carboxymethylcellulose and methyl ethyl cellulose. G. G. Freeman and others, bibliog Chem & Ind p279-82 My 1 '48

Carboxy-methyl cellulose in wet processing; abstract. Textile World 97:135+ N '47

CMC on firm ground. il Chem Ind 62:733-4 My '48

Effect of sodium carboxy methyl cellulose on synthetic detergent systems; abstract. T. H. Vaughn and C. E. Smith, Soap & San Chem 23:38-9 N '47

Soap plant observer. J. W. McCutcheon, Soap & San Chem 24:45 S '48

Sodium CMC in synthetic detergents. T. H. Vaughn and H. E. Tremain, il Soap & San Chem 24:37-9+ Mr '48

Analysis

Determination of sodium, potassium, aluminum, and zinc in derivatives of carboxymethylcellulose. E. P. Samsel and others, bibliog il diag Anal Chem 20:142-6 F '48

CARBOXYMETHYLMERCAPTO succinic acid

Esters of (carboxymethylmercapto)succinic acid. J. F. Mulvaney, J. G. Murphy and R. L. Evans, Am Chem Soc J 70:2428-9 Jl '48

CARBOXYMETHYLATION

Partial carboxymethylation of cotton to obtain swellable fibers. J. D. Reid and G. C. Daul, bibliog il Textile Res J 18:551-6 S '48

CARBOXYPHENYLMETHANE sulfonanilide.

See Carbanilide

CARBURETERS

Machining Ford carburetor die-castings. H. Chase, il Mach 54:144-8 N '47

Paul de Vries uses chrome steel tubes for char retorts. diag Chem Eng 64:223-4+ N '47

CARD games

See also

Poker

CARD system in business

Alphabetic tabulating card billing and accounts receivable plan. W. J. Taraldson, Am Gas Assn Proc 1947:366-8

Branch stock control from central office; Kardex records used by Crow-Burlingame co. K. V. Browne, il Am Bsns 18:16-17 O '48

Control reports to aid top management at Freeman shoe co. W. Norris, il Am Bsns 18:8-9+ Ag '48

Figures are ready every day; Chicago steel service company uses efficient, modern business machines, il Am Bsns 18:14-15+ Ap '48

Postal card bill and historical ledger card plan. F. W. Phelps, Am Gas Assn Proc 1947:364-6

See also

Punched card system

CARD system in statistical analysis

Edge-marking method of analyzing data. L. L. Thurstone, Am Stat Assn J 43:451-62 S '48

CARDIACS. See Heart—Diseases

CARDING machines

Bearing reconditioning at card saves quality. C. R. Blakeney. *il Textile World* 98:262+ Ap '48

Carding problems discussed at fall meeting of Eastern Carolina division, Southern textile association. *Textile World* 98:137+ Ja '48

See also

Cotton carding

CARDIOTACHOMETER

Instantaneous recording cardiographometer. R. E. Sturm and E. H. Wood. *il diag R Sci Instr* 18:771-6 O '47

CARDS

Novel playing cards have plastics coating. *il Plastics* 8:23 F '48

CARE. See Cooperative for American remittances to Europe

CAREY, Calvert

Leads Yale & Towne in regional program. *por Bsns W* p66+ D 6 '47

CAREY, James Barron, 1911-

Portrait. *Bsns W* p114 S 11 '48

CARGO airplanes. See Airplanes, Freight

CARGO handling

Cargo handling and stowage; President Cleveland. *il Marine Eng* 53:65-7 Mr '48

Farrell improved burtoning cargo gear. *il Marine Eng* 53:884 F '48

Handling and stowage of ship's perishable cargoes. L. L. Westling. *diags Refrig Eng* 56:1-8 sec 2 O '48

Heavy damage to cargo sustained by poor handling at foreign ports; Buenaventura, Colombia. C. Baldwin. *East Underw* 48:27 D 26 '47

Moore-McCormack lines installs a Farrell

burtoning rig. *il Marine Eng* 53:77 JI '48

Shipping interests view postwar cargo-handling devices. *Marine Eng* 53:74-5 Ja '48

See also

Loading and unloading—Ships

CARGO release mechanisms. See Airplanes—Cargo release mechanisms

CARGO ships. See Freight ships

CARIBBEAN labor congress

Conference, 2d, Kingston, Jamaica, Sept. 2-8, 1947. *Int Labour R* 57:528-30 My '48

CARIBBEAN region

See also

Cement industry and Mines and mineral trade—Caribbean resources—Caribbean region

CARICATURES. See Cartoons

CARILLONS

Bells without bells; Stromberg-Carlson buys Liberty carillons, inc. *il Bsns W* p82+ Je 26 '48

CARLL, Charles E.

Heads Ford publicity. *por Bsns W* p56 D 13 '47

CARLSBAD, New Mexico

Streets

Contractor cooperation aids asphalt surfacing program. E. A. Roberts. *diag Pub Works* 78:30 D '47

CARLSON, Chester F.

New photo reproduction process shown by Battelle institute. *por Chem & Eng N* 26:3264-5 N 1 '48

CARNAUBA wax

Carnauba-wax production and exports, Brazil. *For Comm W* 33:42 O 30 '48

Carnauba wax substitutes; abstract. G. W. Wood. *Soap & San Chem* 24:147 My '48

Study of lubricating wax coatings by electron diffraction. C. R. Berry. *Phys R* 73:1117 My 1 '48

CARNEGIE, Andrew, 1835-1919

Andrew Carnegie. H. Maurer. *por Fortune* 37:116-19+ Je '48

CARNEGIE institute of technology

Library school assumes graduate status. *Special Lib* 39:122-3 Ap '48

CAROB bean gum

Investigation of the reserve carbohydrates of leguminous seeds; peroxidase oxidation. O. A. Moe, S. E. Miller and M. H. Iwen. *bibliog Am Chem Soc J* 69:2621-5 N '47

Production and exports of locust-bean gum, Spain. *For Comm W* 30:25-6 Mr 13 '48

CAROLINA power and light company

New industrial customers lift Carolina Power revenue. *Barron's* 23:32 Ja 19 '48

CARONAMIDE

Enhancement of penicillin blood levels following oral administration of caronamide. L. Loewe and others. *bibliog Science* 106:494-6 N 21 '47

CAROTENE

Beta-carotene from sweet potatoes. W. C. Sherman and C. J. Koehn. *bibliog Ind & Eng Chem* 40:1445-8 Ag '48

Effect of variety and storage on carotene and total carotenoid pigments in sweet potatoes; abstract. B. D. Ezell and M. S. Wilcox. *Food Ind* 20:1542 O '48

Green light for chlorophyll; extraction of leaves and fractionation of extract is big business. *Chem Ind* 63:590-1 O '48

Influence of heredity on the carotene content of corn. L. W. Aurand and others. *Science* 106:493-4 N 21 '47

Protoplasts from plant materials; properties of protoplasts released by anaerobic fermentation with clostridium roseum. J. W. White, Jr. and others. *bibliog Ind & Eng Chem* 40:2397 F '48

X-ray investigation of some oxidation products of β -carotene. R. F. Hunter and others. *Chem Soc J* p710-12 My '48

Analysis

Chromatographic separation of beta-carotene stereoisomers as a function of developing solvent. E. M. Bickoff. *bibliog Anal Chem* 20:51-4 Ja '48

Determination of carotene in alfalfa and cereal grasses. H. L. Mitchell and H. H. King. *bibliog Anal Chem* 20:637-8 JI '48

Determination of carotene in plant materials. A. Sreenivasan and R. M. Vaidya. *bibliog Anal Chem* 20:720-2 Ag '48

CAROTENOIDS

Acetylenic glycols related to natural polyenes. L. F. Deemer, L. Lutwak and F. M. Strong. *bibliog Am Chem Soc J* 70:154-7 Ja '48

Molecular structure and adsorption sequences of carotenoid pigments. H. H. Strain. *bibliog Am Chem Soc J* 70:588-91 F '48

Analysis

Vitamin A and carotenoids in the blood serum of dairy cattle; chemical methods for determination. D. B. Parrish, G. H. Wise and J. S. Hughes. *bibliog Anal Chem* 20:230-3 Mr '48

CARP

Carp with class; Lakefish canning co. acetate-laminated label and double-money-back guarantee. *il Mod Packaging* 21:112-13 Je 48

CARPENTER, John William, 1881-

Sketch. *por(cover) Manuf Rec* 117:48-9 S '48

CARPENTER, Walter Samuel, 1888-

Changes in command at du Pont. *por Bsns W* p26 Ja 24 '48

CARPENTER stainless 20. See Nickel alloys

CARPENTRY

Accurate method of cutting rafters between wall and bow string type truss. *diags Am Bld* 70:113 Mr '48

CARPET beetles

Simplified technique for rearing carpet beetles. H. Laudani. *il Soap & San Chem* 24:139+ O '48

CARPET factories

Carpet-yarn mill, 1947 model; James Lees & sons co. *il Eng N* 140:58-60 Ja 8 '48

Research and development at Alexander Smith & sons carpet co. *il Am Dyestuff Rep* 37:700-2 O 18 '48

Ruralization method no.2; build a new plant; James Lees & sons co. *il Factory Management* 106:70-3 Ag '48

Employees

Training for all is Bigelow-Sanford objective. J. Gagnon. *il Textile World* 97:103-5+ D '47

Heating and ventilation

Direct fired space heater serves comfort, processing requirements. M. H. Shorago. *il plan diag Heating-Piping* 20:95-6 Ag '48; Same. *Sheet Metal Worker* 39:55-7 O '48

CARPETS

- Bigelow tackles retail training with Carpet selling institute, *il Sales Management* 61: 62+ O 1 '48
- Buying carpet by the pound for theater floors, J. V. Smealie, *Soc Motion Picture Eng J* 50:421-5 My '48
- Carpet construction and installation for theater floors, O. P. Beckwith, *Soc Motion Picture Eng J* 50:426-32 My '48
- Carpet makers now in up side of their cycle; high operations to meet record demand promise new earnings peaks, M. Pescatello, *Barron's* 28:40 F 2 '48
- Carpet wear increased with sponge rubber used as carpet cushion on theater floors, W. L. Jantzen, *Soc Motion Picture Eng J* 50: 436-8 My '48
- Comeback in carpets, *il Fortune* 38:88-93+ S '48
- Design for carpets; report of Board of trade working party on the carpet industry, *Economist* 154:201 Ja 31 '48
- Glamor in rugs; carpet industry injects showmanship into its selling, improves its designs, *il Bsns W* p38+ Ja 17 '48
- New profit peak for Firth carpet co, *Barron's* 28:35 O 4 '48
- Selection and care of rugs and carpets, *diags Consumers Res Bul* 20:11-13 N '47; 21: 16-18 Ja '48
- Showroom for Magee carpet company, *il plan Arch Forum* 88:106 Mr '48
- Trade in carpet wool, India and Pakistan, *For Comm W* 31:25-6 Ap 17 '48

Cleaning

- Vacuum cleaning of theaters, R. Webber, *Soc Motion Picture Eng J* 50:439-41 My '48

Manufacture

- British patent covers pile carpet knitting, H. Wignall, *diags Textile World* 97:149 N '47
- Drying and curing of carpet backing compounds; Duraloom carpet mills, inc. *il Rubber Age* 64:61-2 O '48
- Heat for a drying room; Devconcraft corporation carpet finishing plant, *il diag Dom Eng* 172:153+ S '48
- Woolen spinning unit has balanced packages; James Lees & sons co. F. Smith, *il Textile World* 98:133+ F '48

See also

Carpet factories**CARPETS, Rubber**

- Rubber floor coverings for theaters, T. S. Savoury, *Soc Motion Picture Eng J* 50:433-5 My '48

CARRAGEEN

- Polysaccharides of carrageen; the gigantina stellata polysaccharide, E. T. Dewar and E. G. V. Percival, *Chem Soc J* p 1622-6 D '47

CARRIER corporation

- Annual report, *Comm & Fin Chr* 167:1039 Mr 8 '48

CARRIER current control

- Centralized ripple control on high-voltage networks, T. W. Ross and R. M. A. Smith, *bibliog diags Inst E E J* 95 pt 2:470-80 O '48; Same, *Engineering* 165:309-10 Mr 26 '48; Excerpts, *Engineer* 185:158 F 13 '48; Electrician 140:575 F 20 '48; Discussion, *Inst E E J* 95 pt 2:480-91 O '48; Electrician 140:575-6 F 20 '48

- Faster telemeter for carrier-current channels, E. E. Lynch and others, *diags Elec Eng* 67:249-52 Mr '48

- Stabilization of carrier-frequency servomechanisms, A. Sobczyk, *diags Franklin Inst J* 246:21-43, 95-121, 187-213 Jl-S '48
- Supervisory control permits decentralization of large systems, *il diag Elec World* 129: 53-5 Ja 31 '48

CARRIER current telegraph. See Telegraph,**Carrier current****CARRIER current telephone. See Telephone,****Carrier current****CARRIER pigeons. See Pigeons****CARRIERS**

- Case for the common carrier in trucking, W. A. Spurr, *bibliog Land Econ* 24:253-63 Ag '48

See also

- | | |
|---------------------|---------------------|
| Air carriers | Gas, Natural—Pipe |
| Air freight service | lines |
| Airlines | Interstate commerce |
| Freight car service | commission |

- Motor bus lines
- Motor trucks—Laws and regulations
- Motor trucks in freight service

- Petroleum pipe lines
- Pipe lines
- Railroads
- Shipping
- Steamboat lines

CARROTING. See Felt**CARROTS**

- How to prevent off color in glassed carrots, F. J. Younga, *Food Ind* 20:47+ Ja '48
- Male sterility in the carrot, J. E. Welch and E. L. Grimbail, jr. *bibliog Science* 106: 594 D 12 '47

CARS

- Coaches and front-end cars for the Eagles, *il plans Ry Age* 125:420-5 Ag 28 '48
- Future passenger and freight cars, L. K. Sillcox, *Ry Age* 123:778-80+ N 8 '47
- Milwaukee Hiawathas for 1948; with list of suppliers of materials and equipment, *il Ry Age* 125:322-5 Ag 14 '48
- Model for British railroads built by the Budd company, *il Diesel Power* 26:53 Ja '48
- Modernizes coach servicing facilities; Reading installs new platforms in yard at Philadelphia, Pa. *il plan Ry Age* 125:456-8 S 4 '48
- New cars coming, but slowly, *il Bsns W* p39-40+ F 21 '48
- New comfort for New England passengers; the Boston & Maine and the Maine Central re-equip three trains with cars built by Pullman-Standard, *il plans Ry Age* 123:1060-5 D 20 '47
- Passenger-car terminal attention; exterior maintenance, R. V. Ketrang, *il Ry Mech Eng* 122:85-6 F '48
- Passenger-car terminal attention; interior maintenance, E. E. Packard, *Ry Mech Eng* 122:81+ F '48
- Passenger cars, a look back and a look ahead, *il Ry Age* 123:832-3 N 15 '47
- Progress in railway mechanical engineering, 1946-1947, *il Mech Eng* 70:331-4 Ap '48
- Resin laminates on the rails; Chicago, Milwaukee, St Paul and Pacific, P. Fuller, *il Mod Plastics* 25:86-8 N '47
- Rock Island exhibits newly delivered passenger cars, *il Ry Age* 123:894-6 N 22 '47
- Too many ideas; why cars cost what they do, A. W. Clarke, *Barron's* 28:8 Jl 19 '48
- Traffic officers review passenger year, *Ry Age* 123:955-6 N 29 '47
- Wabash installs City of Kansas City, *il plans Ry Age* 123:1110-16 D 27 '47

See also

- | | |
|--|-------------------|
| Air brakes | Kitchen cars |
| Baggage and express cars | Mine cars |
| Car axles and other headings beginning Car | Postal cars |
| Dynamometer cars | Railroads—Trains |
| Freight cars | Recreation cars |
| | Refrigerator cars |
| | Sleeping cars |

Air conditioning

- Air-conditioning maintenance work, R. E. Johnson, *Ry Mech Eng* 122:153-9 Ap '48
- A.c. air conditioning, H. H. Hanft, *il Ry Mech Eng* 122:147-9+ Mr '48; Abstract, *Heating-Piping* 20:106 Ap '48
- Car air conditioning equipment; report of A.A.R. Mechanical division, Electrical section, *Ry Mech Eng* 121:633-5 N '47
- Car air conditioning; report of Electrical section, Mechanical division, Association of American railroads, *Ry Mech Eng* 122:557-9 O '48
- Complete automatic air-conditioning controls for heating, ventilating, and cooling in passenger cars, *il Ry Age* 124:1265-7 Je 26 '48; Same, *Ry Mech Eng* 122:456-7 Ag '48
- Passenger comfort; railroad car with complete a-c weather factory, H. H. Hanft, *Heat & Ven* 45:122+ Ap '48
- Re-equips air conditioning shop at Portland, *il Ry Mech Eng* 122:90-4 F '48

Bearings

- Antifriction bearings, L. E. Browne, *il Steel* 121:50-3 D 29 '47
- Hot boxes and train movement, R. Schey, *Ry Age* 124:816-17 Ap 24 '48
- Journal bearing development; A.A.R. committee report, *Ry Age* 125:65 Jl 10 '48; Same, *Ry Mech Eng* 122:420-1 Ag '48

CARS—Bearings—Continued

Journal-bearing lubrication failures. Ry Age 125:490-1 S 11 '48
 No new ideas for hot-box alarms; A.A.R. committee report. Ry Age 125:69-70 J 10 '48; Same. Ry Mech Eng 122:440-2 Ag '48
 Roller-bearing mounting press. il Ry Mech Eng 122:583 O '48
 Roller bearings for freight cars. M. S. Downes. Ry Age 124:348-9 F 14 '48

Design

Burlington's newest Vista-Dome trains. diag Am Bsns 18:30+ Ja '48
 Dome coaches for Eagle trains. il plan Ry Age 125:500-5 S 11 '48
 Enjoyable moments for P.R.R.'s coach passengers; recreation cars for the Jeffersonian; illustrations with text. plan Ry Age 124:1032-3 My 22 '48
 Missouri Pacific buys 134 passenger cars for Eagles. il plans Ry Mech Eng 122:566-70 O '48
 New Haven passengers get what they asked for; \$20,000,000 worth; nine types of cars. il plan diag Ry Age 124:1108-13 Je 5 '48; Same. Ry Mech Eng 122:345-50 J 1 '48
 Pennsylvania's overnight coaches. il plan Ry Age 124:384-9 F 21 '48
 Why can't we standardize? A. W. Clarke. il Ind Stand 19:119-21 S '48

Electric equipment

A.c. power system for trains. il diag Ry Mech Eng 122:260-3+ My '48
 Axle power for passenger cars. E. F. H. Grothe. Ry Mech Eng 122:322-3 Je '48
 Car electrical equipment; report of A.A.R. Mechanical division, Electrical section. diags Ry Mech Eng 121:631-3 N '47
 Car electrical equipment; report of Electrical section, Mechanical division, Association of American railroads. il Ry Mech Eng 122:554-7 O '48
 Care and maintenance of railroad storage batteries. R. I. Fort. il Ry Mech Eng 122:264-6 My '48
 Engines operating on propane and Diesel fuels for air conditioning and generator operator on railway passenger cars; abstract. N. H. Willis. S A E J 56:93-4 O '48
 Looking ahead with the railroads; locomotive and car equipment developments by Westinghouse electric corp. G. A. Price. Ry Age 124:583 Mr 20 '48
 More kw. output from axle-driven generators; power supply requirements of air-conditioned passenger cars. B. A. Widell. Ry Mech Eng 122:267-8 My '48
 Norfolk & Western car equipment program. C. P. Taylor. Ry Mech Eng 122:167-3 Ap '48
 Passenger comfort; railroad car with complete a-c weather factory. Heat & Ven 45:122+ Ap '48
 Power networks for passenger trains; Waukesha motor company develops alternating-current Diesel-engine-generator sets for mounting on cars. il Ry Age 124:903-5 My 8 '48

Equipment

Accessories on new passenger cars. J. Gogerty. Ry Age 123:902-3 N 22 '47
 Air hose and steam-heat assembly. il Ry Mech Eng 122:582-3 O '48
 Metallic steam connection repairs. il Ry Mech Eng 122:253-4 My '48
 New York Central's Twentieth Century Limited trains are newly equipped. il plan Ry Age 125:710-17 O 16 '48
 Rigidized metal; two products applicable to car installation. il Ry Age 123:996-7 D 6 '47
 Steam-line connection tester. il Ry Mech Eng 122:492-3 S '48

Interchange

Prices for labor and materials; A.A.R. committee report. Ry Age 125:78-9 J 10 '48
 See also
 Freight cars—Interchange

Lubrication

Car and locomotive lubrication; A.A.R. committee report. Ry Age 125:70-2 J 10 '48; Same. Ry Mech Eng 122:419-20 Ag '48

Car lubrication practices. Ry Mech Eng 121:699+ D '47

Prices

Passenger-train car prices; tabulation. Ry Age 124:66 Ja 3 '48

Reconstruction

Monon converts hospital cars and troop sleepers to make up streamline trains. il Ry Age 124:114-17 Ja 10 '48; Ry Mech Eng 122:1-4 Ja '48

Repair

General welding practices in locomotive and car shops. J. Michne. il Welding J 27:781-4 O '48
 Maintenance of passenger-car trucks. il diags Ry Mech Eng 121:651-4 N '47
 Welding in car repairs. H. E. Gannett. Ry Mech Eng 121:688-90+ D '47

Statistics

Passenger-train cars on order now total 3,026. il Ry Age 123:822-3+ N 15 '47
 Passenger-train cars ordered total 283; tabulation. F. C. Miles. il Ry Age 124:73-4 Ja 3 '48

Toilet rooms

Railroad toilet unit; Combolet. il Ry Mech Eng 121:723 D '47

Weight

I.C.C. accident report renews lightweight controversy; collision, Jan. 1, Missouri Pacific near Syracuse, Mo. Ry Mech Eng 122:173-4 Ap '48

CARS, Aluminum**See also**

Freight cars, Aluminum

CARS, Baggage and express. See Baggage and express cars

CARS, Caboose
 Power supply for cabooses. E. H. Musgrove. il Ry Mech Eng 121:714-18 D '47

CARS, Construction
 Home comfort in camp cars for maintenance-of-way employees of the Norfolk and western railway. il Nat Safety N 57:37 Ja '48

CARS, Dynamometer. See Dynamometer cars

CARS, Electric railroad
 British equipment for new Hague trams. il Electrician 141:406 Ag 6 '48

CARS, Freight. See Freight cars

CARS, Instruction

All-purpose safety car on Canadian Pacific. il Ry Age 125:252-3 J 31 '48
 Florida East Coast builds Diesel instruction car. il Ry Age 124:552-3 Mr 20 '48; Same. Ry Mech Eng 122:134-5 Ap '48
 Missouri Pacific gets new air-brake instruction car. il Ry Age 125:760-2 O 23 '48
 Toy that saves lives; model railroad in safety instruction car. il Nat Safety N 58:50+ Ag '48

CARS, Postal. See Postal cars

CARS, Steel

Prototype stainless steel coach. Silver Princess. il Engineer 184:512-13 N 28 '47; Engineering 164:584-6, 588 D 19 '47

See also

Freight cars, Steel

CARS, Subway**Lighting****See Car lighting**

CARSON, Ellis H. 1904-Sketch. por East Underw 49:32 My 21 '48

CARTER coal company
 Steelmakers buy coal source. Bsns W p21 D 6 '47

CARTOONISTS

Cartooning couple works by the radio; Gladys Parker and Stookie Allen. C. Hodge. Ed & Pub 81:46 O 16 '48

See also

Clark, George
 Duffy, Edmund
 Goldberg, Reuben
 Lucius

Low, David
 Richter, Mischa

CARTOONS

All-night game. R. Osborn. Fortune 37:126-7 Mr '48

CARTOONS—Continued

Cartoon characters make good spokesmen for management. M. C. Faught. *Il Ptr Ink* 221: 38-9 N 28 '47

Cartoons jump returns on business questionnaire; Corning glass works secured data on market for glass piping through the mail. *Il Ptr Ink* 222:44-5 Ja 16 '48

Local editorial themes handled in cartoon strip. *Ed & Pub* 81:30 S 18 '48

See also

Advertisements, Chemists—Cartoons and cartoons
Pictorial—Cartoons

Exhibitions

Cartoonists' exhibit, their reply to critics. C. Hodge. *Il Ed & Pub* 81:44 Ag 21 '48

CARTRIDGE, Power. See Power cartridge**CARTRIDGE cases**

Prewar French experience with steel cartridge cases. E. Herzog. *Il diags Metal Prog* 53:679-83 My '48

CARTRIDGES, Dynamite

Influence of cartridge diameter on the effectiveness of dynamite. L. E. Shaffer and C. H. Noren. *bibliog Mo U Sch Mines & Met Bul tech ser* 19 no 1:1-43 '48

CARVACROL

Synthetic estrogens; tetraalkyl substituted analogs of dieneol and hexestrol. J. B. Niederl and P. Weiss. *Am Chem Soc J* 70: 2894-6 S '48

CARVACRYLAMINE

Some quinoline derivatives of 2-amino-*p*-cymene. A. S. Wheeler and J. N. LeConte. *Am Chem Soc J* 70:386 Ja '48

CASE, J. I., company

Prepares to shift operations. *Barron's* 28:16 Ag 16 '48

CASE, Mills E.

Sketch. *por Comm & Fin Chr* 167:2434 Je 3 '48

CASE hardening

Automatic flame-hardening. M. R. Nelson. *Il Mach* 54:150-3 N '47

Carbide and oxide in surface zones of carburized alloy steels. A. Hultgren and E. Hägglund. *bibliog Il Am Soc for Metals Trans* 39:820-37; Discussion. 837-42 '47

Carburized cases of hypoeutectoid carbon content. P. C. Rosenthal and G. K. Manning. *Am Soc for Metals Trans* 39:801-15; Discussion. 815-19 '47

Fixtures facilitate induction and flame hardening. V. E. Hillman. *Il Iron Age* 161:90-4 Je 24 '48

Flame-hardening feed arrangement. *Il Ry Mech Eng* 122:499-500 S '48

Flame-hardening machine tool parts. W. D. Whalen. *Il diags Welding J* 27:11-18 Ja '48

Flame hardening methods and techniques. J. R. Burg. *Il Welding J* 27:805-9 O '48

Flame hardening of armor plate. E. L. Bartholomew, Jr. and others. *Il diags Metal Prog* 52:979-83 D '47

Flame hardening; principles, applications, and equipment. M. S. Rosengren. *Il Welding J* 27:453-5 Je '48

Gas cyaniding small parts. H. N. Ipsen. *Il diags Iron Age* 161:84-7 My 27 '48

New batch-type gas cyaniding furnace. J. A. Dow. *Il Metal Prog* 52:984-7 D '47

Nonmetallic grain boundary material in carburized cases. J. J. Kary. *Il Metal Prog* 53: 218-22 F '48

Practical aspects of quenching below the critical temperature; new case-hardening technique. W. H. Holcroft and H. J. Hammond. *Il plan Steel* 123:106-7 S 20 '48

Subzero treatments for carburized medium-alloy parts. J. C. Selby and E. S. Rowland. *Il Metal Prog* 53:667-71 My '48

Temperature controlled electronically in automatic flame hardener. *Il Machine Design* 20:148-9 My '48

Transformations in Krupp-type carburizing steels. A. R. Troiano and J. E. DeMoss. *bibliog Am Soc for Metals Trans* 39:788-98; Discussion. 798-800 '47

True carburizing in oxygen-activated cyanide bath. *Sci Am* 177:267 D '47

See also

Plastic materials—
Case hardening

Electric hardening

Automatic handling for induction hardening; grass shear blades. G. P. Cardwell and M. Server. *Il Am Mach* 91:91 D 18 '47

Design and manufacture for profit by means of high-frequency induction heating. H. B. Osborn, Jr. *Il diags Mech Eng* 70:805-10 O '48

Designing for induction hardening; abstract. J. T. Temin. *Machine Design* 20:178-9 Ag '48

Induction heating of cylindrical steel bars; chart; engineering file facts. *Materials & Methods* 28:107 S '48

Selective hardening of wear surfaces. J. F. Libsch and R. D. Guess. *Il diags Tool Eng* 20:31-2 My '48

Some factors affecting the induction hardening of an alloy cast iron; abstract. J. R. Sloan and R. H. Hays. *Iron Age* 161:76 Ja 29 '48

Gas carburizing

Carbon concentration control; phase rule applied to all gas compositions which might be used in gas carburizing. E. G. de Coriolis and others. *Am Soc for Metals Trans* 38: 659-81; Discussion. 681-5 '47

Gas carburisation of steel; affording precise control and rapid processing. *diag Chem Age (Lond)* 59:187-8 Ag 7 '48

Gas carburizing; Wild-Barfield process. *Il Automobile Eng* 38:215-16 Je '48; *Engineer* 185:561 Je 4 '48

Gas carburising with town's gas. D. S. Laidler. *bibliog Il Metallurgia* 38:46-9 My '48; Discussion. 38:91-4 Je '48

Nitrogen as a carrier gas in gas carburizing. W. H. Holcroft and R. P. Harris. *Il diags Metal Prog* 53:241-6 F '48

Sulphide penetration in the carburization of steel. A. Preece and K. J. Irvine. *bibliog 2pls diags Iron & Steel Inst J* 157:336-43 N '47

Through-carburizing of low carbon steel permits purchasing and fabricating economies. K. Rose. *Il Materials & Methods* 27:68-71 Je '48

Nitriding process

Fatigue tests on crankshaft steels; effect of nitriding on fatigue properties of chromium-molybdenum steel. P. H. Frith. 2pls *Il diags Iron & Steel Inst J* 159:385-400 Ag '48

Nitriding cycle for high-speed steel tools. *Mach* 54:200 Jl '48

Roughen stainless before nitriding. S. Dedomenico. *Il Am Mach* 92:96-7 O 21 '48

CASEIN

Amino acid impairment in casein heated with glucose. A. R. Patton and others. *bibliog Science* 107:623-4 Je 11 '48

Bacterial activity of racemized casein, caseose, and the four diastereoisomeric leucyl-leucines. S. W. Fox and others. *bibliog Am Chem Soc J* 70:2404-6 Jl '48

Casein binders for paints; abstract. A. A. Kraeff. *Paint Oil & Chem R* 111:35-6 Mr 4 '48

Casein still presents a question. N. Anderson, Jr. *Paper Tr J* 126:62-4 F 26 '48

Combination of formaldehyde with casein. A. P. Swain and others. *bibliog Ind & Eng Chem* 40:465-9 Mr '48

Direct molding of plastics from casein and carbamido casein. N. J. Hipp and others. *bibliog Il Mod Plastics* 26:205-8+ S '48

Effect of the protein content of the diet on the glomerular filtration rate of young and adult rats. S. E. Dicker. *Science* 108:12 Jl 2 '48

Regenerated protein fibres from wool and casein. R. L. Wormell. *Il diags Textile Inst J* 39:T219-24 Jl '48

Water absorption of proteins; lack of dependence of hysteresis in casein on free amino groups. E. F. Mellon, A. H. Korn and S. R. Hoover. *bibliog Am Chem Soc J* 70:1144-6 Mr '48

CASEOSE

Bacterial activity of racemized casein, caseose, and the four diastereoisomeric leucyl-leucines. S. W. Fox and others. *bibliog Am Chem Soc J* 70:2404-6 Jl '48

CASH accounting

Bulk proof of cash receipts. G. J. Beswick and H. G. Littlewort. *Il Am Gas Assn Mo* 30:29-31 Ap '48

CASH discount. See Discount, Cash

CASH handling

Cashiers' errors; error measurement and distribution. L. Derrick. *J Bsns* 21:74-9 Ap '48

See also

Banks and banking—
Cash handling

CASH registers

Plastics in business machines. R. G. Chollar. *Il Mod Plastics* 25:111-15 F '48

Manufacture

High-speed cameras catch operating faults in design; National cash register co. H. G. Sisson. *Il Mill & Factory* 42:149-50 Ap '48

High stacking saves floor space; National cash register co. H. G. Sisson. *Il Mill & Factory* 42:134-5 Je '48

CASHIERS

Cashiers' errors; error measurement and distribution. L. Derrick. *J Bsns* 21:74-9 Ap '48

CASKETS. See Coffins

CASSAVA

Brazilian manioc, selected statistics, 1942-1947. *For Comm W* 32:32-3 S 4 '48

CAST iron

Acicular cast iron. *Engineering* 164:596, 607-8 D 19-26 '47; Excerpts. *Metal Prog* 53:874+ Je '48

Alloying white cast iron increases abrasion resistance. K. A. DeLonge. *Il Eng & Min J* 149:86-9 O '48

Annealing malleable iron castings; Lake City malleable, Inc. E. G. Billhardt. *Il Iron Age* 162:36-9 Ag 19 '48

Annealing of cast iron in hydrogen. J. Bernstein. *bibliog* 2pls *diags* *Iron & Steel Inst J* 159:11-15 My '48

Bearing metals; cast iron as anti-friction material; abstract. M. S. Karpyshev. *Automobile Eng* 38:210 Je '48

Brazing cast iron. S. D. Heron. *Il diags* *Automobile Eng* 38:149-51 Ap '48

British cast iron research association; report of work. J. G. Pearce. *bibliog* *Metallurgia* 38:273-5 S '48

Carbides in iron-carbon-silicon alloys and cast irons. D. Marles. *bibliog* 2pls *Iron & Steel Inst J* 158:433-6 Ap '48; Discussion. 160:21-9 S '48

Cast crankshafts; a survey of published information. R. J. Love. *Il diags* *Iron & Steel Inst J* 159:247-74 *bibliog* (116 titles, p272-4) JI '48

Cast iron gear-shaving increased 83 per cent; combining actions of two high-production underpass machines. *Il Steel* 122:102 F 9 '48

Cast iron offers combination of properties not found in other materials. N. G. Meagley. *Materials & Methods* 27:83-6 F '48

Cast iron; the influence of nickel on hardness and machinability. *Automobile Eng* 38:13 Ja '48

Decarburization during annealing of malleable iron. H. A. Schwartz and J. Hedberg. *bibliog* *Il Am Soc for Metals Trans* 39:61-70; Discussion. 70-2 '47

Electric oven annealing of malleable iron castings; Lake City malleable co. F. W. Jacobs. *Il Foundry* 76:63-73+ S '48

High-silicon cast irons resist high temperatures. W. H. White and A. R. Elsea. *Il Foundry* 76:63-9+ N '48

How conversion to other materials solved malleable castings shortage; International harvester co. H. Chase. *Il diags* *Materials & Methods* 27:89-92 My '48

Kolene process aids silver brazing of cast iron. E. R. Atkinson. *diag* *Iron Age* 160:85 N 6 '47

Maurer diagram and its evolution and a new structure diagram for cast iron; abstract. H. Laplanche. *Foundry* 76:239 Ag '48

Modern engineering cast iron. D. J. Reese. *Il diags* *Metal Prog* 53:539-44 Ap '48

New cast iron. J. G. Pearce. *bibliog* *Il Chem Age (Lond)* 58:616-18, 783-4 My 1, Je 5 '48

New malleable austenitic cast iron and recent developments in Ni-Resist irons. M. G. Fontana. *Ind & Eng Chem* 40:sup89A-90A Ja '48

New structural diagram for cast iron; with data sheet. H. Laplanche. *Metal Prog* 52:991-2+ D '47

Planing cast iron with carbide tools. G. J. Raible. *Il diags* *Mach* 55:171-3 S '48

Progress in gray iron. J. H. Schaum. *bibliog* *Il diags* *Foundry* 76:98-101+ Je '48

Research has improved quality. D. R. Kasanof. *Pet Refiner (Process Handbook ed)* 27:124 S '48

Research in controlled vacuum heat treating; abstract. J. Huebler. *Foundry* 76:306 My '48

Research on cast iron; abstract. H. Morrogh and W. J. Williams. *Engineering* 164:618 D 26 '47

Resistance of cast irons to some petroleum services; tabulation. F. L. LaQue. *Oil & Gas J* 47:237 My 20 '48

Role of meehanite metal castings in engineering production. C. R. Austin. *Il diags* *A S M E Trans* 70:99-103 F '48; Excerpts. *Mach* 53:203-7 N '46

Salvage of cast iron through heat treatment. D. Von Ludwig. *diag* *Materials & Methods* 26:87-9 N '47

Shot peening castings. C. R. Austin. *Il diags* *Steel* 122:79-82+ Ap 5 '48

Solved and unsolved problems in the metallurgy of blackheart malleable. H. A. Schwartz. *Foundry* 76:74-5+ *bibliog* (121 titles, p232+) JI '48

Some factors affecting the induction hardening of an alloy cast iron; abstract. J. R. Sloan and R. H. Hays. *Iron Age* 161:76 Ja 29 '48

Special high strength cast irons; abstract. G. Delbart and R. Potaszkin. *Materials & Methods* 26:116 N '47

Study of residual gases in cast iron; abstract. J. E. Hurst and R. V. Riley. *Foundry* 76:236+ Ag '48

Tinning of cast iron. R. A. Cresswell. *bibliog* *Iron & Steel Inst J* 152:157-69, pl 15-18 no 2 '45; Same. *Engineering* 161:526-8, 550-1 My 31-Je 7 '46; Abstract. *Metal Prog* 51:802+ My '47; Discussion. *Iron & Steel Inst J* 153:360-2 no 1 '46

Tool angles for machining meehanite castings; reference book sheet. *diags* *Am Mach* 92:139 N 4 '48

Unappreciated advantages of modern gray iron. E. G. Seifing. *Il Mech Eng* 70:667-70+ Ag '48

Wear resistance of gray iron Diesel engine liners. T. E. Eagan. *Il Foundry* 76:134-9+ My '48

When and how to use gray iron. T. E. Eagan. *Il diags* *Foundry* 76:84-91 Ag '48; Same cond. *Materials & Methods* 26:71-5 D '47; Same cond. *Tool Eng* 21:17-20 Ag '48

See also
Chilled iron
Pig iron

Analysis

Combined method for spectrophotometric analysis of gray iron. G. T. Henderson. *Foundry* 76:93+ O '48

Defects

Symposium on the peeling of whiteheart cast iron. J. C. W. Hurrey and others. *bibliog* *Il 12pls diags* *Iron & Steel Inst J* 158:1-36 Ja '48; Abstracts. *Engineering* 165:343 Ap 9 '48; *Metallurgia* 37:312-16 Ap '48; Discussion. *Iron & Steel Inst J* 161:17-34 Ja '49

Graphitization

Graphite formation in grey cast iron. H. Morrogh and W. J. Williams. *Il Engineering* 164:141-3, 166-8 Ag 8-15 '47; Abstract. *Metal Prog* 53:432+ Mr '48

Nodular cast irons; use of cerium. H. Morrogh and J. W. Grant. *Il Foundry* 76:90-5+ N; 86-9+ D '48; Same cond. *Metallurgia* 38:153-60 JI '48

Production of nodular graphite structures in cast iron; abstracts and discussion. H. Morrogh and W. J. Williams. *Engineer* 185:494 My 21 '48; *Engineering* 165:476 My 14 '48; *Metallurgia* 38:98-100 Je '48

CAST iron—Graphitization—Continued

Production of nodular graphite structures in cast iron; additions of cerium to the molten alloys. H. Morrogh and W. J. Williams. *bibliog 6pls Iron & Steel Inst J* 158:306-22 Mr '48; Discussion. 160:21-9 S '48

Solved and unsolved problems in the metallurgy of blackheart malleable. H. A. Schwartz. *Foundry* 76:74-5+ *bibliog* (121 titles, p232+) J1 '48

Growth

High-silicon cast iron for high temperature service. W. H. White and A. R. Elsea. *il Iron Age* 162:106-8 N 4 '48; Same cond. *Foundry* 76:68-9+ N '48

Specifications

Gray iron castings; ASTM spec. A48-46. *Machinery Design* 19:159-61 D '47

Specifications for automotive malleable iron castings; data sheet. *diags Foundry* 75:133 D '47

Specifying cast iron; abstract. R. G. McElwee. *Machine Design* 20:168+ O '48

Testing

Brinell hardness of gray cast iron and its relation to some other properties. J. T. MacKenzie. *Am Soc T M Proc* 46:1025-36 '46; Same. *Foundry* 74:88-93 O '46; Discussion. *Am Soc T M Proc* 46:1037-8 '46

Strain testing improves iron alloy machine parts. H. M. Hardy and T. O. Kuivinen. *il diags Product Eng* 19:116-20 Ag '48

Welding

Bronze welding or fusion welding for repairing cast iron? H. B. Gilson. *il Materials & Methods* 28:74-6 S '48

Cast iron. *Welding J* 27:530 J1 '48

Here's a way to preheat castings; build a temporary firebrick. F. C. Geibig. *diags Welding J* 27:591-2 Ag '48

Recommended practices for salvaging automotive gray iron castings by welding; a committee report. *il diags Welding J* 27:351-8 My '48

Welding techniques for cast iron. T. E. Kihlgren. *il diags Welding J* 27:19-25 Ja '48

CAST iron pipes. See Pipes, Cast iron

CASTING, Centrifugal

Centrifugal and precision steel castings for aircraft. J. F. E. Jackson. *il diags Engineering* 165:481-4 My 21 '48

Centrifugal casting of copper-alloy wheels in sand moulds. O. R. J. Lee and L. Northcott. *il Engineering* 163:556-9 Je 27 '47; Abstract. *Metal Prog* 53:272+ F '48; Discussion. *Engineering* 164:353 O 10 '47

Centrifugal casting of soil pipe. R. L. Farabee. *il Foundry* 76:88-91+ J1 '48

Centrifugal casting of steel. J. H. Hall. *bibliog il diags Foundry* 76:76-7+ Ag; 74-7+ S; 88-91+ O '48

Centrifugal casting process applied to stainless- and carbon-steel tubes. J. W. Moore and J. W. MacKay. *il diags Mech Eng* 69:551-8 J1 '47; Abstract. *Mach* 54:131-3 Ja '48; Discussion. *Mech Eng* 69:1051-2 D '47

Centrifugal casting proves advantageous for iron piston rings. T. C. Jarrett and E. J. Hubbard. *il diag Materials & Methods* 27:79-82 Ja '48

Centrifugal castings for jet engines. N. F. Silsbee. *il Aero Digest* 57:47+ N '48

Centrifugal process improves investment castings. V. S. Lazzara. *il Am Mach* 92:93-6 Ag 26 '48

Centrifugally cast steel. *Engineer* 184:600 D 26 '47

Manufacture of centrifugal tubular castings; abstract. E. M. Anger. *Steel* 122:120+ My 10 '48

Metallurgical and structural investigation of steel castings for aircraft. L. W. Smith and L. D. Morris. *il Am Soc for Metals Trans* 38:865-74 '47

New developments in babbitting methods. J. T. Clenney. *il Iron Age* 160:62-8 D 25 '47

Polystyrene in centrifugal casting; plastic material producing metal castings by the lost-wax process. *il Mod Plastics* 26:112-15 N '48

Why cast steel centrifugally? J. F. B. Jackson. *il Iron Age* 160:64-9 N 27 '47

CASTING, Precision. See Lost wax process

CASTING machines

Casting lead parts in permanent molds. H. Chase. *il Iron Age* 161:90-1 My 20 '48

Continuous casting; Asarco process. J. S. Smart, jr. and A. A. Smith, jr. *il diag Iron Age* 162:72-80 Ag 26 '48

Continuous casting of nonferrous metals in Germany; abstract. H. Kastner. *Materials & Methods* 26:121-3 N '47

New casting machine is developed; illustrations with text. *Foundry* 76:158 Mr '48

See also

Die casting machines

CASTINGS

Annual engineering review; fabricated materials and precision parts. *Materials & Methods* 27:101-2 Ja '48

Application tables to guide in the selection of materials; reference book sheet. Z. Fox. *Product Eng* 18:166+ D '47

Applications of precision castings. R. H. Osbrink. *il Automotive Ind* 97:38-40+ D 15 '47

Casting applications discussed at Chicago technical conference. E. F. Ross. *Foundry* 76:184+ My '48

Collapsible wire baskets speed casting handling; Westinghouse electric corp.'s gray iron foundry. *il Foundry* 76:92-3 Ag '48

Designing castings in gray iron. C. O. Burgess. *diags Foundry* 76:100-1+ S '48

Determinable variations in close tolerance castings. L. M. Nielsen. *il Foundry* 76:72-3 F '48

Determining the weights of metal fillets; tables; data sheet. *diags Foundry* 76:117 Mr '48

Engineering for aluminum-alloy castings. T. R. Gauthier and H. J. Rowe. *bibliog il diags Mech Eng* 70:505-14 Je '48; Discussion. F. F. Buckland. 70:773-4 S '48

Gases in cast metals. M. B. Bever. *bibliog il Iron Age* 161:90-4 Ap 22 '48

Magnesium castings; their production and use. A. W. Winston and M. E. Brooks. *il diags Mech Eng* 70:425-31 My '48

Permanent mold castings. H. Chase. *il Materials & Methods* 28:75-86 J1 '48

Table of weights for elliptical bars; data sheet. *diag Foundry* 76:118 Mr '48

Technical progress in metalworking; casting. *Steel* 122:194-7 Ja 5 '48

Weight of rods or cylinders per running inch; data sheet. *Foundry* 76:107-8 F '48

See also

Die casting
Steel castings

Inspection

Three-dimensional inspection of castings. Franklin Inst J 245:116 F '48

Repair

Recommended practices for salvaging automotive gray iron castings by welding; a committee report. *il diags Welding J* 27:351-8 My '48

Testing

Acceptance standards in radiographic examination of castings and welds; discussion. *Engineer* 184:551 D 12 '47

Aluminum alloy castings; inspection methods. F. A. Lewis. *bibliog il Foundry* 76:74-5+ O '48

A.S.T.M. and the foundry industry. C. S. Cole. *Foundry* 76:86-7+ Ap '48

Density measurements. W. T. Pell-Walpole. *Metal Prog* 52:1032 D '47

Gas porosity in nickel-silver castings. T. F. Pearson and others. *il Engineering* 166:237-9 S 3 '48

Magnesium-cerium-zirconium alloys; properties at elevated temperatures; abstracts. A. J. Murphy and R. J. M. Payne. *il Engineering* 163:485-7 Je 6 '47; *Product Eng* 19:153-6 Ap '48

CASTINGS, Steel. See Steel castings

CASTOR oil

Castor oil extracted for paint. *Chem & Eng* N 26:1856+ Je 21 '48

Dehydrated castor oil; abstract. *Paint Oil & Chem R* 111:50 F 19 '48

CASTOR oil—Continued

- Polyamide antifoaams; relation between chemical constitution and effectiveness. A. L. Jacoby. bibliog J Phys & Colloid Chem 52:689-94 Ap '48
- Polyamide resins from dillinoic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. bibliog Am Chem Soc J 70: 760-3 F '48

CASUALTY actuarial society

- Annual meeting, New York, Nov. 14. East Underw 48:32-3 N 21 '47; Nat Underw 51:26 N 20 '47

- CASUALTY insurance.** See Insurance, Casualty
- CASUALTY underwriters, National bureau of.** See National bureau of casualty underwriters

CATALOGING

- Author headings for the official publications of the state of Alabama. A. E. Markley. 123p American library assn, 50 E. Huron st, Chicago '48 (\$4.75)
- Cataloging commercial material. M. Moore and W. R. Holleman. Special Lib 38:295-7 N '47
- Fundamentals of practical cataloguing. M. S. Taylor. 141p 8s 6d George Allen & Unwin, 40 Museum st, W.C. 1 London '48
- Manual for the classification and cataloguing of maps in the American geographical society's collection. 43p pa \$1 American geographical soc, B'way at 156th st, New York '47
- Vatican library; rules for the catalog of printed books. W. E. Wright, ed. 426p \$18 American library assn, 50 E. Huron st, Chicago 11 '48

See also

Art objects—Cataloging

CATALOGS

- Buying information please, how scientific cataloging can help. N. Jervis. *il* Ind Marketing 33:41+ J1 '48
- Cataloging commercial material. M. Moore and W. R. Holleman. Special Lib 38:295-7 N '47
- Catalogs are good salesmen when given proper help. G. J. Roth. *il* Adv & Sell 41:43+ F '48
- Catalogs as a sales tool. B. M. Walberg. *il* Ind Marketing 32:45-6+ D '47; 33:50-1+ Ja; 40-2+ Mr; 54+ Ap; 44-7+ My '48
- Chemical engineering catalog, 1947-48. 32d annual ed 1584p Reinhold pub. corp, 330 W. 42d st, New York 18 '47 (\$12)
- Industrial manufacturers interested in charging for catalogs, literature; IM survey. J. P. Allison. *il* Ind Marketing 33:33+ My '48
- Sell's national directory and British exporters' register, 1947. 30th annual ed 810p 50s Business dictionaries ltd, 133-137 Fetter lane, Fleet st, London, E.C.4 '47
- Standard merchandise manual; America's blue book of gifts. J. L. Albert, ed. 2d ed 71p Nelda publications, 503 West 43d st, New York 18 '48 (\$6)
- What price catalogs? Aesop Glim. *Ptr Ink* 224:66 J1 30 '48
- What to put in your catalog, and how. *il* Ind Marketing 32:87-8+ N '47
- When your customers order spare parts, do you give out well-organized readable spare parts catalogs? R. H. Jacobs. *il* Ind Marketing 33:36-7+ Je '48

Printing

- Simple method for preparing a catalog for dealers; Physicians' and hospitals supply co., Minneapolis. K. Berglund. *il* *Ptr Ink* 225:44+ O 15 '48

CATALOGS, Card

- Bibliography of American literature at Philadelphia. A. H. Quinn. *J Doc* 3:177-87 D '47

CATALOGS, Library

- Catalogues of the British museum. F. C. Francis. *J Doc* 4:14-40 Je '48

See also

Catalogs, Union

CATALOGS, Union

- National union catalog. L. C. Coffin. Special Lib 39:10-13 Ja '48

CATALYSIS

- Acid-base catalysis in non-aqueous solvents; the halogenation of acetone by various N-halogen compounds in chlorobenzene solution at 50°. R. P. Bell and A. D. S. Tamman. *Chem Soc J* p370-4 Mr '48
- Benol scale equipment and techniques; evaluation of vapor phase reactions with solid catalysts. H. J. Henriques. *il* *diags Ind & Eng Chem* 39:1564-70 D '47
- La catalyse d'oxydation et l'influence de l'état des surfaces catalysantes. J. Ternisien. bibliog *il* *Chimie & Ind* 58:234-7 S '47
- Catalytic cracking of heavy distillate. C. H. Viland and J. Seth. *il* *Oil & Gas J* 47: 186-7+ My 20 '48
- Catalytic hydrogenation of furan compounds. E. H. Wojcik. bibliog *Ind & Eng Chem* 40:210-16 F '48
- Catalytic reforming of hydrocarbons; process extended to include natural gas propane, commercial butane, and refinery oil gas used in the production of peak load gas. C. H. Riesz and others. *Am Gas Assn Mo* 30:17-20 Ap '48
- Catalytic reforming of hydrocarbons; proposed peak load reforming process using either steam or steam and air with refinery propane. C. H. Riesz and others. *flow diag il* *Am Gas Assn Mo* 30:17-22 F '48
- Catalytic treatment of synthetic gasoline. C. J. Heimers and others. bibliog *Oil & Gas J* 47:38+ C 28 '48
- Changes in energy or kinetic state. *diags Chem Eng* 55:107-12 My '48
- Developments in catalysis and processing of polyester resins. D. G. Patterson and J. D. Robinson. *India Rubber World* 118:811-12 S '48
- Exchange reaction between methane and deuteromethanes on silica-alumina cracking catalysts. G. Parravano, E. F. Hammel and H. S. Taylor. *Am Chem Soc J* 70:2269-70 Je '48
- Fluorination of organic compounds with anhydrous hydrogen fluoride in investigation of antimony pentachloride catalyzed fluorinations. W. B. Whalley. bibliog *Soc Chem Ind J* 66:430-3 D '47
- Industrial catalysis; recent developments, current trends. J. H. Boyd. bibliog *il* *Chem Ind* 63:594-6+ O '48
- Kinetics, mechanism, and activation energy of the cobaltous ion catalyzed decomposition of ozone. G. R. Hill. bibliog *Am Chem Soc J* 70:1306-7 Ap '48
- Model behavior; catalysis largely a matter of molecular geometry. *Chem Ind* 62:222-3 F '48
- Possible contributing mechanism of catalysis. U. Fano. *J Chem Phys* 15:845 N '47
- Preparation of methylpyridines by catalytic methods. N. M. Cullinan and others. bibliog *Soc Chem Ind J* 67:142-3 Ap '48
- Le 80^e anniversaire d'un pionnier de la catalyse; le professeur Vladimir N. Ipatieff. B. A. Bogoyavlensky. bibliog *Chimie & Ind* 58:600-2 D '47
- Some catalysed gas-phase reactions of aromatic hydrocarbons; the interaction of benzene and ethylene. D. L. Hammick and M. Roberts. *Chem Soc J* p73-6 Ja '48
- Surface catalysis. O. Beeck. bibliog *Rs Mod Phys* 20:127-30 Ja '48
- Surface catalysis; abstract. O. Beeck. *Chem & Eng N* 25:3859 D 29 '47
- Thermoform catalytic cracking unit. S. C. Eastwood, C. V. Hornberg and A. E. Potas. bibliog *flow diags il* *diags Ind & Eng Chem* 39:1685-90 D '47

See also

Catalysts

CATALYSTS

- Acetylation of alkyl phenyl ethers. A. I. Kosak and H. D. Hartough. bibliog *Am Chem Soc J* 69:3144 D '47
- Activated bauxite as a catalyst for polymerization of C₄ olefins. H. Heinemann, W. A. La Lande, Jr. and W. S. W. McCarter. bibliog (41 ref) *Ind & Eng Chem* 40:1224-6 J1 '48
- Acylation of benzene compounds with iodine as a catalyst. S. Chodroff and H. C. Klein. bibliog *Am Chem Soc J* 70:1647-8 Ap '48

CATALYSTS—Continued

- Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3093-6 D '47
- Alumina catalysts for vapour-phase organic dehydrations, deaminations, etc. G. Feachem and H. T. S. Swallow. *Chem Soc J* p267-72 Mr '48
- Alumina cracking catalysts. V. M. Stowe and others. *bibliog il diags Pet Processing* 3:317-19+ Ap '48
- Bench scale equipment and techniques; evaluation of vapor phase reactions with solid catalysts. H. J. Henriques, *il diags Ind & Eng Chem* 39:1564-70 D '47
- British study of catalyst poisoning. *Chem & Eng N* 26:2714-15 S 13 '48
- Catalyst manufacture, a growing industry. E. C. Ray. *Chem Eng* 55:127-9 My '48
- Catalysts for hydrocarbon synthesis. C. H. Riesz and others. *bibliog diag Ind & Eng Chem* 40:718-22 Ap '48
- Catalysts in petroleum refining. F. Heine-mann. *bibliog il Pet Refiner* 27:138-44 My '48
- Catalytic action of salt pairs. G. Schwab and A. Karatzas. *bibliog diag J Phys & Colloid Chem* 52:1053-60 Je '48
- Catalytic dehydrogenation of ethylbenzene. R. R. Wenner and E. D. Dybdal. *bibliog diags Chem Eng Prog* 44:275-86 Ap '48
- Catalytic isomerization of butene-1 to butene-2. J. Turkevich and R. K. Smith. *bibliog il diags J Chem Phys* 16:466-80 My '48
- Catalytic oxidation of aniline in the vapor phase. O. W. Brown and W. C. Frishe. *diags J Phys & Colloid Chem* 51:1394-400 N '47
- Catalytic reaction of hydrogen and oxygen on plane faces of a single crystal of copper. H. Leidheiser, Jr. and A. T. Gwathmey. *2pls diags Am Chem Soc J* 70:1200-6 Mr '48
- Channeling effects in reactors of a commercial hydroformer. C. Berg, P. N. Fawcett and R. O. Dhondt. *flow diag il diags Chem Eng Prog* 43:719-23; Discussion. 723-30 D '47
- Chemical and physical properties of alumina-molybdenum oxide catalysts for hydroform-ing. G. M. Webb and others. *bibliog Pet Processing* 2:334-40+ N '47
- Comparison of nickel catalysts in the hydrogenation of β -naphthol. H. Adkins and G. Krsek. *Am Chem Soc J* 70:412 Ja '48
- Correlation of surface area and dehydrogena-tion activity for a chromia-alumina catalyst. J. R. Owen. *Am Chem Soc J* 69:2559-60 O '47
- Corrosion in isomerization of light hydro-carbons by aluminum chloride-hydrocarbon complex catalyst. N. Fragen, C. W. Nyse-wander and W. R. Hertwig. *flow diag il diag Ind & Eng Chem* 40:1133-8 Je '48
- Cross-linking of vinyl polymers by Friedel-Crafts catalysts. J. C. Bevington and R. G. W. Norrish. *Chem Soc J* p771-4 Je '48
- Decomposition of carbon monoxide by nickel catalysts; the reaction mechanism between 250° and 450° J. A. Tebboth. *bibliog diag Soc Chem Ind J* 67:62-6 F '48
- Development, production, and performance of water-gas conversion catalyst. G. L. Bridger, D. C. Gernes and H. L. Thompson. *bibliog flow sheet il plan diag Chem Eng Prog* 44:363-81; Discussion. 381-2 My '48
- Effect of catalysts on the hydrogenolysis of coal. M. Pelipetz and others. *Ind & Eng Chem* 40:1259-64 JI '48
- Essential steps in the catalytic condensation of aldehydes; nroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J* 69:2603 N '47
- Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. *bibliog Am Chem Soc J* 69:2605-7 N '47
- Fischer-Tropsch synthesis with cobalt catal-ysts. S. R. Craxford. *bibliog Soc Chem Ind J* 66:440-4 D '47
- Fluidization of solid particles; sand, glass, silicate catalyst, and lead shot in air and water. R. H. Wilhelm and M. Kwauk. *bibliog diags Chem Eng Prog* 44:201-17; Dis-cussion. 217-18 Mr '48
- Heat stability of molybdena-alumina dehy-drocyclization catalysts. A. S. Russell and J. J. Stokes, Jr. *Ind & Eng Chem* 40:520-4 Mr '48
- Heterogeneity of catalyst surfaces; zinc oxide-chromic oxide, manganous oxide-chromic oxide, chromic oxide gel. H. S. Taylor and S. Liang. *bibliog Am Chem Soc J* 69:2989-91 D '47
- Hydrogen transfer; reaction of *p*-cymene with olefinic hydrocarbons in the presence of sulfuric acid and hydrogen fluoride catalysts. V. N. Ipatieff, H. Pines and R. C. Olberg. *bibliog Am Chem Soc J* 70:2123-8 Je '48
- Hydrogenation of esters to alcohols at 25-150°. H. Adkins and H. R. Billica. *bibliog Am Chem Soc J* 70:3121-5 S '48
- Introduction to fluidization; counter-gravity flow of air, carbon dioxide, and helium through beds of round and sharp sands. M. Leva and others. *il diags Chem Eng Prog* 44:511-20 JI '48
- Isomerization of cyclohexane and methyl-cyclopentane in the presence of aluminum halides; the nature of the catalyst. D. P. Stevenson and O. Beeck. *bibliog Am Chem Soc J* 70:2890-4 S '48
- Ketonization of higher fatty acids with some observations on the mechanism of the re-action; studies of waxes. R. G. Curtis and others. *bibliog diag Soc Chem Ind J* 66:402-7 N '47
- Kieselguhrs; suitability as carriers in catalysts. R. E. Anderson and others. *bibliog il Ind & Eng Chem* 39:1618-23 D '47
- Kinetics of an esterification with cation-ex-change resin catalyst. C. L. Levesque and A. M. Craig. *bibliog Ind & Eng Chem* 40:96-9 Ja '48
- Kinetics of carbiding and hydrocarbon syn-thesis with cobalt. Fischer-Tropsch cat-alysts. S. Weller. *bibliog diag Am Chem Soc J* 69:2432-6 O '47
- Organic peroxides; properties and uses. R. P. Perry and K. P. Seltzer. *bibliog Mod Plas-tics* 25:134-6+ N '47
- Phillips butane dehydrogenation process; special plant investigations. G. H. Hanson and H. L. Hays. *bibliog flow diag il diags Chem Eng Prog* 44:431-42 Je '48
- Poisoning of platinum catalysts at high tem-peratures. R. H. Savage. *J Chem Phys* 16:237-40 Mr '48
- Preparation of Raney nickel catalysts and their use under conditions comparable with those for platinum and palladium catalysts. H. Adkins and H. R. Billica. *bibliog diags Am Chem Soc J* 70:695-8 F '48
- Production of 2,3-dimethylbutane by alkyla-tion. R. B. Thompson and J. A. Chienck. *bibliog diag Ind & Eng Chem* 40:1265-9 JI '48
- Production of 2-methylfuran by vapor-phase hydrogenation of furfural. L. W. Burnette and others. *bibliog diags Ind & Eng Chem* 40:502-5 Mr '48
- Reaction of benzoic anhydride with aromatic compounds catalysed by boron trifluoride. P. H. Given and D. L. Hammick. *Chem Soc J* p 1237-9 S '47
- Reactions of isopropyl alcohol in the presence of catalysts containing magnesium oxide. L. L. Gershbein, H. Pines and V. N. Ipatieff. *bibliog Am Chem Soc J* 69:2888-93 N '47
- Redox catalysts for vinyl polymerization; ab-stract and discussion. R. G. R. Bacon. *Chem & Ind* p300 My 8 '48
- Removing spent catalyst from reactor tubes. D. Schott. *il Pet Refiner* 27:104 Ag '48
- Schmidt reaction; experimental conditions and mechanism. P. A. S. Smith. *bibliog Am Chem Soc J* 70:320-3 Ja '48
- Selective deposition of carbon on the (111) face of a nickel crystal in the catalytic decomposition of carbon monoxide. H. Leidheiser, Jr. and A. T. Gwathmey. *Am Chem Soc J* 70:1206 Mr '48
- Selenium as catalyst in Kjeldahl digestions. S. M. Patel and A. Sreenivasan. *bibliog Anal Chem* 20:63-5 Ja '48
- Small thing; activated alumina as catalyst. *Ind & Eng Chem* 40:sup 14A+ Ap '48

CATALYSTS—Continued

- Some recent advances in catalysis; detoxication of catalyst poisons. E. B. Maxted. *bibliog Soc Chem Ind J* 67:93-7 Mr '48
- Structure and activity of the chromium-aluminum oxide catalyst system. R. P. Eischens and P. W. Selwood. *Am Chem Soc J* 70:2271-3 Je '48
- Structure of a catalyst surface. R. Sips. *bibliog J Chem Phys* 16:490-5 My '48
- Structure studies on chromium-aluminum oxide and related catalyst systems. R. P. Eischens and P. W. Selwood. *Am Chem Soc J* 69:2698-702 N '47
- Studies of the Fischer-Tropsch synthesis; properties of reduced cobalt catalysts. R. B. Anderson, W. K. Hall and L. J. E. Hofer. *bibliog diags Am Chem Soc J* 70:2465-72 Jl '48
- Studies of the Fischer-Tropsch synthesis; properties of unreduced cobalt catalysts. R. B. Anderson and others. *bibliog Am Chem Soc J* 69:3114-19 D '47
- Study of fluidization of an iron Fischer-Tropsch catalyst. M. Leva and others. *il Chem Eng Prog* 44:707-16 S '48
- Sulfur as a promoter for a nickel catalyst in dehydrogenation. H. Adkins and others. *Am Chem Soc J* 70:381-2 Ja '48
- Susceptibility isotherms for supported copper oxide. F. W. Selwood and N. S. Dallas. *Am Chem Soc J* 70:2145-7 Je '48
- Tannins and allied chemicals in mercaptan removal processes. J. Happel and S. F. Cauley. *bibliog flow diag Ind & Eng Chem* 39:1655-9 D '47
- Vanadium oxide, a hydrogenation catalyst. V. I. Komarewsky, L. B. Bos and J. E. Coley. *bibliog Am Chem Soc J* 70:428-30 Ja '48
- X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-500 O '47
- | | |
|-----------------------------|---------------------|
| See also | Hormones |
| Antioxidants | Nickel—Raney nickel |
| Catalysis | Vitamins |
| Enzymes | |
| Growth promoting substances | |
- Testing**
- Accurate particle-size determination of fluid catalyst by coordination of roller analysis and microscopic examination. J. T. Wiley and others. *il diags Am Pet Inst Proc* 27(3):23-8 '47; Same. *Pet Refiner* 26:90-3 D '47
- Aromatic absorption index as a rapid method for approximating catalyst activity. W. W. Scheumann and A. R. Rescorla. *bibliog Am Pet Inst Proc* 27(3):34-7 '47; Same. *Oil & Gas J* 46:231-2+ N 15 '47; Same. *Pet Refiner* 26:119-21 D '47
- Aromatic adsorption index for the estimation of surface area and catalytic activity. T. W. Pratt. *diag Am Pet Inst Proc* 27(3):38-47 '47
- Bench-scale method for determining activity of cracking catalysts in powdered form. H. McReynolds. *flow diag Am Pet Inst Proc* 27(3):78-83 '47; Same. *Pet Refiner* 26:94-8 D '47
- Bench-scale test method for evaluating cracking catalysts. E. R. Birkhimer and others. *diags Am Pet Inst Proc* 27(3):90-9 '47
- Cracking catalyst symposium; abstracts of papers. *bibliog Pet Processing* 2:945-7+ D '47
- Design and operation of a bench-scale automatic catalyst-aging unit. T. Rice and F. E. Ivey, jr. *diags Am Pet Inst Proc* 27(3):84-9 '47; Excerpts. *Oil & Gas J* 46:227-3+ N 15 '47
- Determination of activity and selectivity of cracking catalyst. R. V. Shankland and G. E. Schmitkons. *bibliog il diags Am Pet Inst Proc* 27(3):57-77 '47
- Evaluation of catalysts for catalytic cracking. A. R. Rescorla, J. H. Ottenweller and R. S. Freeman. *bibliog diags Anal Chem* 20:196-202 Mr '48
- Evaluation of catalysts used in the synthesis of hydrocarbons. S. R. Wright and others. *flow sheet Can Chem & Process Ind* 32:53-4+ Ja '48
- Fischer-Tropsch synthesis; tests of cobalt catalysts at atmospheric pressure. R. B. Anderson and others. *bibliog flow diag Ind & Eng Chem* 39:1543-54 D '47
- Modification in the roller analysis for the determination of particle-size distribution. G. L. Matheson. *diags Am Pet Inst Proc* 27(3):18-22 '47; Same. *Oil & Gas J* 46:307-8+ N 15 '47
- Pilot-plant evaluation of fluid cracking catalysts. H. W. Grote and C. R. Olsen. *flow diag Am Pet Inst Proc* 27(3):108-13 '47; Same. *Pet Refiner* 26:104-6 N '47; Same. *Oil & Gas J* 46:332+ N 15 '47; Discussion. *Am Pet Inst Proc* 27(3):113-16 '47
- Plant control tests for particle-size distribution of fluid cracking catalysts. W. B. Innes and K. D. Ashley. *bibliog il diag Am Pet Inst Proc* 27(3):9-17 '47
- Prediction of the activity of cracking catalysts from heat of wetting. I. W. Mills. *diags Am Pet Inst Proc* 27(3):29-33 '47; Same. *Oil & Gas J* 46:237+ N 15 '47
- Simplified method for determination of carbonaceous deposits on cracking catalysts. F. E. Ray and others. *diags Am Pet Inst Proc* 27(3):48-50 '47; Same. *Oil & Gas J* 46:255+ N 15 '47
- Small-scale laboratory testing of cracking catalysts. G. F. Hornaday and D. B. Ardern. *flow diag diag Am Pet Inst Proc* 27(3):100-7 '47
- Standard laboratory method for the determination of cracking catalysts activity. J. Alexander, jr. *flow diag diags Am Pet Inst Proc* 27(3):51-6 '47
- Bibliography**
- Bibliography on cracking catalyst testing. *Pet Processing* 2:957 D '47
- CATASTROPHISM (geology)**
- Catastrophism in the sea and its paleontological significance, with special reference to the Gulf of Mexico. G. Gunter. *bibliog Am J Sci* 245:669-76 N '47
- CATCH basins**
- How Connecticut cleans highway catch basins. *il Roads & Sts* 90:74 D '47
- CATCH basins, Concrete**
- Precast catchbasins save city funds. *diag Roads & Sts* 91:80-1 Ap '48
- CATECHOL**
- Allergenic principles of poison ivy; absorption spectra of 3-*n*-pentadecylcatechol and related compounds. H. S. Mason. *Am Chem Soc J* 70:138-40 Ja '48
- Oxidation of catechol-type substrates by tyrosinase. M. L. Cushing. *bibliog Am Chem Soc J* 70:1184-7 Mr '48
- CATHODE followers**
- Cathode-follower tv-antenna system. E. G. Hills. *il diags Communications* 28:22+ Ja '48
- Circle diagrams for cathode followers. J. M. Diamond. *diags Inst Radio Eng Proc* 36:416-20 Mr '48
- Valve operating point with cathode load. E. J. Harris. *Wireless Eng* 25:63-4 F '48
- Wide deviation reactance modulator. H. D. Helfrich, jr. *diags Electronics* 21:120-1 Ap '48
- CATHODE ray oscillographs.** See *Oscillographs*, Cathode ray
- CATHODE ray tubes**
- Automatic standing wave indicator; abstract. P. J. Allen. *il Elec Eng* 67:1082 N '48
- Barrier grid storage tube and its operation. A. S. Jensen and others. *il diags RCA R* 9:112-35 Mr '48
- Detectability and discriminability of targets on a remote projection plan-position indicator. W. R. Garner and F. Hamburger, jr. *diags Inst Radio Eng Proc* 35:1220-5 N '47
- Development and applications of the Skiatron. G. Wikkenhauser. *il diag Electronics* 21:174+ Mr '48
- Fluorescent compounds used in screens of cathode-ray tubes. *Electronics* 21:M17 Mid-Je '48

CATHODE ray tubes—Continued

- Flying spot designed for television studio scanning, *il* diags Tele-Tech 7:42-3+ Je '48; Communications 28:33+ Je '48; Electronics 21:124+ Je '48
- Historic researches; conduction of electricity through gases, diags Engineer 185:272-4, 296-9 Mr 19-26 '48
- Home projection television; cathode-ray tube and optical system, H. Rinia and others, *il* diags Inst Radio Eng Proc 36:395-400 Mr '48
- Image storage tube, *il* diags Electronics 21:132+ My '48
- Method of spectrographic analysis of impurities in materials for oxide coating of thermionic cathodes, T. J. Organ and S. L. Parsons, bibliog Opt Soc Am J 38:191-5 F '48
- New viewing tube for color tv, A. Bronwell, diags Tele-Tech 7:40-1+ Mr '48
- Nonlinear indicator for vacuum gage, R. S. Mackay, diag Electronics 21:140+ F '48
- Number display using the cathode-ray tube, G. T. Baker, *il* diags Inst E E J 94 pt 3: 421-7 N '47
- Numeroscope for cathode-ray printing; Arabic numerals traced on screen of cathode-ray tube used in high speed electronic calculator, H. W. Fuller, *il* diags Electronics 21:98-102 F '48
- Performance characteristics of long-persistence cathode-ray tube screens; their measurement and control, R. E. Johnson and A. E. Hardy, bibliog *il* diag RCA R 8:660-81 D '47
- Permeameter for metals used in cathode-ray and television tubes, H. J. Evans, bibliog *il* diag Am Soc T M Proc 46:1119-25 '46
- Polarity response from radio tuning eye tubes; abstract, M. L. Greenough, diags Product Eng 19:138-9 Je '48
- Repeller storage tube, H. Klemperer and J. T. deBettencourt, *il* diags Electronics 21:104-6 Ag '48
- Secondary emission, R. Koller, bibliog diags Gen Elec R 51:33-40 Ap '48
- Spectral power distribution of cathode-ray phosphors, R. M. Bowie and A. E. Martin, bibliog *il* Inst Radio Eng Proc 36:1023-9 Ag '48
- Three-dimensional cathode-ray tube displays, E. Parker and P. R. Wallis, bibliog *il* diags Inst E E J 95 pt 3:371-87; Discussion, 387-90 S '48
- Video storage by secondary emission from simple mosaics, R. A. McConnell, bibliog diags Inst Radio Eng Proc 36:1253-64 N '47
- Visibility of small echoes on radar PPI displays, R. Payne-Scott, *il* diags Inst Radio Eng Proc 36:180-96 F '48
- Visibility on cathode-ray tube screens; signals on a P7 screen seen at different intervals after excitation, A. L. Sweet and N. R. Bartlett, diag Opt Soc Am J 38: 329-37 Ap '48
- Visibility on cathode-ray tube screens; the effects of light adaptation, R. M. Hanes and S. B. Williams, bibliog diag Opt Soc Am J 38:363-77 Ap '48

See also
Oscillographs, Cathode ray

Manufacture

- Automatic spinning of stainless steel; cone for cathode ray television tube, A. Hildebrandt, *il* diags Tool Eng 21:20-2 S '48
- Television tubes by the thousands; manufacture of iconoscopes and kinescopes, F. E. Butler, *il* Radio N 38:39-42+ D '47

Testing

- Testing long persistence screens; cathode-ray tube screens for radar, J. C. Tellier and J. F. Fisher, *il* diags Electronics 21:126-30 F '48
- Visual photometer for after-glow tests on cathode-ray tube screens, W. G. White, diag J Sci Instr 25:1-4 Ja '48

CATHODE rays

- Biological and photo-chemical effects of high energy, electrostatically produced Roentgen rays and cathode rays, C. G. Dunn and others, J Ap Phys 19:805-16 bibliog(p615-16) J1 '48

Cathodoluminescence emission spectra of zinc-oxide phosphors, R. E. Shrader and H. W. Leverenz, Opt Soc Am J 37:939-40 N '47

Electronic preservation of food by exposure to pulsed cathode rays from a capacitor; sterilization of drugs also possible, W. Huber, bibliog *il* diags Electronics 21:74-9 Mr '48

Irradiation of biological materials by high energy Roentgen rays and cathode rays, J. G. Trump and R. J. Van de Graaff, bibliog *il* diag J Ap Phys 19:599-604 J1 '48

CATHODES

Mechanism of an electron emission at the cathode spot of an arc, J. Rothstein, bibliog Phys R 73:1214 My 15 '48; Correction, 74:223-9 J1 15 '48

Relationship between the emission constant and the apparent work function for various oxide-coated cathodes, H. Jacobs and others, bibliog diag Inst Radio Eng Proc 36:1109-14 S '48

Role of the cathode surface in sparking phenomena, H. Jacobs and A. P. La-Rocque, diags Phys R 74:163-5 J1 15 '48

Secondary electron emission from targets of barium-strontium oxide, J. B. Johnson, bibliog diags Phys R 73:1058-73 My 1 '48

Spectral emissivity and electron emission constants of thorla cathodes, T. E. Hanley, *il* diag J Ap Phys 19:583-9 Je '48

Thermionic emission from oxide-coated cathodes; report of meeting of electronics group of Institute of physics, London, June 14, 1947, bibliog J Sci Instr 25:56-60 F '48

CATHODIC protection. See Electric cables—Protection; Petroleum pipe lines—Protection; Pipe lines—Protection; Steel—Cathodic protection; Water pipes—Protection; Water tanks, Steel—Cathodic protection

CATHODOLUMINESCENCE. See Luminescence

CATTLE

Vitamin A and carotenoids in the blood serum of dairy cattle; chemical methods for determination, D. B. Parrish, G. H. Wise and J. S. Hughes, bibliog Anal Chem 20: 230-3 Mr '48

CATTLE, Effect of temperature on

To express in a mathematical formula a complicated physiological response; body-temperature reactions of cattle to climate, A. O. Rhoad, Science 106:416 O 31 '47

CATTLE industry and trade

Beef feeding low, Bsns W p24 O 30 '48

CAULIFLOWER

Produce-film comparisons; government tests on packaged produce yield data on transparent films, J. Kaufman and others, Mod Packaging 21:147-51 Ag '48

Produce packaging; how and where? F. Gindick, *il* diag Mod Packaging 21:106-11+ D '47

CAUSALGIA

Causalgia, P. Pernworth, *il* Ind Med 16:525-7 N '47

CAUSEWAYS

Causeway built to withstand hurricanes; causeway across Biscayne bay at Miami, *il* Eng N 140:558-71 Ap 15 '48

Long causeway resurfaced in fast time, *il* Constr Methods 30:91 J1 '48

Precast concrete units simplify construction of West Coast marine structures, B. C. Gerwick, *il* diag Civil Eng 18:512-16+ Ag '48

Rickenbacker causeway; \$6,000,000 project joins Miami with nearby keys, E. M. Rader, *il* maps Civil Eng 17:658-61 N '47

CAUSTIC potash. See Potassium hydroxide

CAUSTIC soda. See Sodium hydroxide

CAVES

See also
Ice caves

CAVITATION

Cavity drag in two and three dimensions, M. S. Plesset and P. A. Shaffer, *il* bibliog J Ap Phys 19:934-9 O '48

Drag in cavitating flow, M. S. Plesset and P. A. Shaffer, Jr, diags Rs Mod Phys 20: 228-31 Ja '48

Gate cavitation avertable, Elec World 130: 124+ Ag 14 '48

CAVITATION—Continued

Hydrodynamic design of 48-in. water tunnel to be used in research on torpedo propellers. D. Ross and others. *diag Engineering* 166:68-72 J1 16 '48

Laboratory investigations of the mechanism of cavitation. R. T. Knapp and A. Hollander. *il A S M E Trans* 70:419-31; Discussion. 431-5 J1 '48

Propeller tunnel notes; discussion of paper by F. M. Lewis. *Marine Eng* 53:69-70 F '48

Vibratory cavitation test apparatus. H. H. Schwartz. *Product Eng* 19:184+; Reply. R. Beeching. *diag* 186+ My '48

See also

Hydraulic machinery
—Cavitation

CAVITY resonators. *See* Radio resonators

CAYEUX, Lucien, 1864-1944

Memorial. E. de Margerie. *bibliog por* (pl 7) *Geol Soc Proc* 1947:131-3 My '48

CEDAR

Thinning in cedar swamps. E. I. Roe. *Pulp & Pa of Can* 48:121 D '47

CEDAR chests

Determination of major constituents of cedar oil vapor in cedar chests. F. W. Hayward and R. B. Seymour. *bibliog Anal Chem* 20:572-4 Je '48

CEDAR oil

Analysis

Determination of major constituents of cedar oil vapor in cedar chests. F. W. Hayward and R. B. Seymour. *bibliog Anal Chem* 20:572-4 Je '48

CEDAR RAPIDS

Water supply

Chloride dioxide experiences. A. K. Cherry and B. Coates. *il Pub Works* 79:35 My '48

CEDRENE

Analysis

Determination of major constituents of cedar oil vapor in cedar chests. F. W. Hayward and R. B. Seymour. *bibliog Anal Chem* 20:572-4 Je '48

CEDROL

Analysis

Determination of major constituents of cedar oil vapor in cedar chests. F. W. Hayward and R. B. Seymour. *bibliog Anal Chem* 20:572-4 Je '48

CEILINGS

Conductive rubber for space heating. *diag Heat & Ven* 45:64 My '48

CELANESE corporation of America

Celanese Corp; business in chemicals, plastics, fabrics. *il Fortune* 37:84-91+ My '48

Celanese corporation establishes award, expands research facilities. *il Chem Eng Prog* 43:sup 18-19+ N '47

Consolidated income statement and consolidated balance sheet for 1947 with comparisons for other years. *Comm & Fin Chr* 167:1147 Mr 15 '48

Petrochemicals at Corpus Christi. *il diag Chem Ind* 62:738-40 My '48

CELASTIC

Impregnated cloth of many uses. *il Mod Plastics* 26:96-7 O '48

CELERY

Chemical control of seedstalk. S. H. Wittwer and others. *il Science* 106:590 D 12 '47

CELL biology, Society for. *See* Society for cell biology

CELL division (biology)

Effects of X-rays on the mitotic activity of mouse epidermis. N. P. Knowlton, Jr. and others. *Science* 107:625-6 Je 11 '48

Modification of mitosis by chemicals. J. R. Meyer. *Science* 108:188 Ag 20 '48

CELLOPHANE

Cellophane, shoe machinery monopiles charged. *Bsns W* p21 D 20 '47

DuPont sued as cellophane trust. *Mod Packaging* 21:178 Ja '48

Films for cherries. F. Gerhardt and T. R. Wright. *il Mod Packaging* 21:163-5+ Je '48

Hunter's meats brightly printed cellophane overwraps. *il Mod Packaging* 21:112-15 D '47

Quantitative X-ray investigations on the crystallinity of cellulose fibers; background analysis. P. H. Hermans and A. Weidinger. *bibliog il diag J Ap Phys* 19:491-506 My '48

CELLOSOLVE

Study of ultrasonic velocity and absorption in liquid mixtures. C. J. Burton. *bibliog diag Acoustical Soc Am J* 20:186-99 Mr '48

CELLS

Disappearance of salt from glass ice during low-temperature dehydration, and its implication in electron microscopy. D. C. Pease. *il Science* 106:543 D 5 '47

Incorporation of C^{14} from carboxyl-labeled α -alanine into the proteins of liver slices. I. D. Frantz, Jr. and others. *bibliog Science* 106:544-5 D 5 '47

International depot of microscopic preparations of cytology. P. Vaysiere and P. Martens. *Science* 107:566 Mr 28 '48

Rapid method of single cell isolation. R. D. Northcraft. *diag Science* 107:578 My 28 '48

Studies on radiosensitivity of cells. L. O. Jacobson and others. *il Science* 107:248-50 Mr 5 '48

Symbiosis, antibiosis, and cancer. E. V. Cowdry. *Science* 107:101-4 Ja 30 '48

Three quarter-centuries of cytology. F. Schrader. *Science* 107:155-9 F 13 '48

Use of thin kidney slices and isolated renal tubules for direct study of cellular transport kinetics. R. P. Forster. *bibliog Science* 108:65-7 J1 16 '48

See also

Genes

CELLS, Electrolytic. *See* Electrolytic cells

CELLULAR glass. *See* Glass, Cellular

CELLULOSE

Acetylation of cellulose in phosphoric acid solution. E. Heuser and others. *bibliog Ind & Eng Chem* 40:1500-6 Ag '48

Behavior of the components of cellulose in the processing of pulp to viscose. A. Riedemann. *Rayon* 29:45-7 Ag; 82-4 S '48

Cellulose intercrystalline structure; study by hydrolytic methods. R. F. Nickerson and J. A. Habrie. *bibliog Ind & Eng Chem* 39:1507-12 N '47

Cellulose; its history, growth, and influence. M. Heath. *il Chem Ind* 62:405-12 Mr '48

Cellulose solutions; oxidation with nitrogen dioxide; patent. *Am Dyestuff Rep* 36:666 N 17 '47

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon. P. C. Mehta and E. Pascu. *bibliog diag Textile Res J* 18:387-95 J1 '48

Continuous cellulose cooking; abstract. J. Richter. *Pulp & Pa of Can* 49:91-2 Ag '48

Degree of polymerization of cellulose in cotton fibers. L. E. Hessler and others. *bibliog diag Textile Res J* 18:628-34 O '48

Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient. J. Crank. *bibliog Soc Dyers & Col J* 63:412-16; Discussion. 416-18 D '47

Dimensional stability tests on injection-molded cellulose derivatives and synthetic plastics; abstract. W. O. Bracken. *Mod Plastics* 25:174+ My '48

Distribution of water in cellulose and other materials. R. Simha and J. W. Rowen. *bibliog Am Chem Soc J* 70:1663-5 Ap '48

Effect of grinding on the crystallinity of cellulose fibers, as indicated by the acid-hydrolysis and other techniques. M. L. Nelson and C. M. Conrad. *bibliog Textile Res J* 18:155-64 Mr '48

Effect of urea on cellulosic textiles; presented by South central section, AATCC. *bibliog Am Dyestuff Rep* 37:10-15 Ja 12 '48

Electron microscopical studies of natural cellulose fibers. W. G. Kinsinger and C. W. Hock. *bibliog* (37 ref) *il Ind & Eng Chem* 40:1711-16 S '48

Emil Heuser honored by TAPPI. *Chem & Eng N* 26:675 Mr 8 '48

Fillers for ureas and melamines. P. Fuller. *Mod Plastics* 25:132+ D '47

Fungal decomposition of jute fibre and cellulose. S. N. Basu. *bibliog Textile Inst J* 39: T232-48 J1 '48

CELLULOSE—Continued

- Growth-promoting action of cellulose. F. Hoelzel and A. J. Carlson. Science 106:616-17 D 19 '47
- Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. E. Harris and B. G. Lang. bibliog J Phys & Colloid Chem 51:1430-41 N '47
- Improvements in the acid-hydrolysis method of determining the crystallinity of cellulose. M. L. Nelson and C. M. Conrad. bibliog Textile Res J 18:149-54 Mr '48
- Influence of physical properties on adhesion of high polymers to cellulose. A. D. McLaren. bibliog Paper Tr J 126:139-40 My 27 '48
- Influence of the properties of cellulose on the filtration of viscose. Pulp & Pa of Can 49:122-3 O '48
- Investigation of the properties of cellulose oxidized by nitrogen dioxide; the effect of alkali on the celluronic acids. P. A. McGee and others. bibliog Am Chem Soc J 70:2700-5 Ag '48
- Moisture relationships of cellulose; the heat of wetting in water and in certain organic liquids. M. Wahba. bibliog diags J Phys & Colloid Chem 52:1197-208 O '48
- Phosphorylated cotton cellulose as a cation-exchange material. J. F. Jurgens and others. Textile Res J 18:42-4 Ja '48
- Photo-chemical degradation of undyed and dyed cellulose irradiated by the mercury spectrum. H. Lanigan. Textile Inst J 39: T285-92 S '48
- Quantitative X-ray investigations on the crystallinity of cellulose fibers; background analysis. P. H. Hermans and A. Weidinger. bibliog il diags J Ap Phys 19:491-506 My '48
- Rate of exchange of cellulose with heavy water. V. J. Frllette, J. Hanle and H. Mark. bibliog diags Am Chem Soc J 70:1107-13 Mr '48
- Relation of physical characteristics and chemical structure of cellulose derivatives; abstract. E. Ott. Chem & Ind p494-5 JI 31 '48
- Relaxation and flow in cellulose fibres. R. Meredith. bibliog diag Textile Inst J 39: P245-51; Discussion. P251-2 JI '48
- Small angle X-ray scattering of various cellulose fibers. A. N. J. Heyn. bibliog il Am Chem Soc J 70:3138-9 S '48
- Straw cellulose for feeding-stuffs; an aid in fighting the food shortage. Chem Age (Lond) 54:277-8 Mr 16 '46; Same cond. Pulp & Pa of Can 49:85-6 S '48
- Structure and properties of regenerated cellulose. W. E. Roseveare and others. bibliog il diags Textile Res J 18:114-23 F '48
- Summary of recent developments in cellulose and cellulose derivatives. J. S. Tinsley. bibliog il diags J Chem Educ 25:94-6+ F '48
- TAPPI conducts cellulose seminars. Chem & Eng N 25:3360 N 17 '47
- Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, jr and A. D. McLaren. bibliog Ind & Eng Chem 40:329-31 F '48
- Theory of the adhesion of high polymers to cellulose. A. D. McLaren and C. H. Hofrichter, jr. bibliog Paper Tr J 125:96+ N 6 '47
- Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. MacLay. Am Chem Soc J 70:2220-3 Je '48
- Trimethylsilylcellulose. H. A. Schuyten and others. bibliog Am Chem Soc J 70:1919-20 My '48
- Use of cellulose in diets. F. Davis and G. M. Briggs. Science 107:292 Mr 19 '48; Discussion. N. B. Guerrant. 108:82-3 JI 23 '48
- See also*
- | | |
|-----------------|------------------|
| Cotton | Oxycellulose |
| Ethyl cellulose | Rayon |
| Hemicellulose | Viscose |
| Holocellulose | Vulcanized fiber |
| Lignin | |

Analysis

- Acidic properties of cotton cellulose and derived oxycelluloses. G. F. Davidson and T. F. Newell. bibliog Textile Inst J 39:T59-130 Mr '48

- Determination of cellulose in agricultural residues; modifications of the Norman-Jenkins method. E. B. Lewis. bibliog Anal Chem 19:910-13 N '47
- Statistical study of the variables of alpha-cellulose methods. A. S. O'Brien and others. bibliog Paper Tr J 127:51-4 Ag 5 '48

CELLULOSE acetate

- Acetic anhydride; sevenfold in a decade. H. W. Zabel. il diag Chem Ind 63:217-19 Ag '48
- Application printing of acetate cellulose fabrics. H. Baumann. Rayon 29:89-90 Mr; 102 Ap '48
- Aryl carbamates of cellulose acetate. W. M. Hearon and J. L. Lobsitz. bibliog Am Chem Soc J 70:296-7 Ja '48
- CCA makes fire-resistant panel material; cellular cellulose acetate between two layers of carbon steel; Pyroply. il Plastics 8:15 F '48
- Cellulose plastics; properties, applications, etc. M. Bentivoglio and M. Demarest. il diags reference book sheet (p 153, 155) Product Eng 19:85-91 My '48
- Diffusion coefficient of nitroglycerin in rocket powder and in cellulose acetate. S. S. Penner and S. Sherman. Am Chem Soc J 70:869-70 F '48
- Effect of temperature and humidity on mechanical properties of molded cellulose acetate plastics. W. E. Welch and others. bibliog Am Soc T M Proc 46:1452-64 '46
- Electronic box stayer; first commercial machine demonstrates a split-second way to seal acetate sheet through controlled high-frequency heat. il Mod Packaging 21:113-16+ F '48
- Flame resistance in acetate. F. D'Alleio. il Mod Plastics 25:94-6 Ag '48
- For sharper edges; cellulose acetate housings of two new type sharpeners. il Mod Plastics 25:142 F '48
- Heavy production machines; color-thickness identification of plastic spacers speeds production. il diag Product Eng 19:132-3 S '48
- Ice cream in acetate. il Mod Packaging 22:100-1 S '48
- Improved safety motion picture film support. C. R. Fordyce. bibliog Soc Motion Picture Eng J 51:331-49; Discussion. 349-50 O '48
- Laminated blanket box; a die-cut trademark permits product visibility and boxboard gives strength to new St Mary's package. il Mod Packaging 21:125 Mr '48
- Looking toward 1948; raw materials; cellulose acetate and kindred materials. Mod Plastics 25:61-72+ Ja '48
- Permeation through and sorption of water vapor by high polymers. P. M. Hauser and A. D. McLaren. bibliog diag Ind & Eng Chem 40:112-17 Ja '48
- Physical properties of cellulose acetate rayon yarns. H. D. Smith and H. R. Childs. bibliog Rayon 29:63-4 F; 52-3 Mr; 53-4 My; 52-4 Je; 47-9 Ag '48
- Rapid method for preparing powder camera specimens with cellulose acetate capillary tubes. K. E. Beu and H. H. Claassen. il diags R Sci Instr 19:179-80 Mr '48
- Scrap reprocessed under new service plan; Celanese corp. Mod Plastics 25:111 N '47
- Shoes for marionettes. il Mod Plastics 26:260 S '48
- Structure of cellulose acetate molecules in acetone solution. S. J. Singer and H. Mark. bibliog J Ap Phys 19:97-101 Ja '48
- Suitability of fibrous materials for the preparation of cellulose acetate; determination of reactivity; abstract. G. Jayne and U. Schenck. Chem Eng 55:312 O '48

Analysis

- Determination of primary hydroxyl groups in cellulose acetate by tosylation and iodination. C. J. Malm, L. J. Tanghe and B. C. Laird. bibliog Am Chem Soc J 70:2740-7 Ag '48
- CELLULOSE acetate butyrate**
- Air conditioning grille. il Mod Plastics 25:85 My '48
- Binocular of molded plastic. il Mod Plastics 25:110-11 N '47
- Butyrate parts in a lawn mower. il Mod Plastics 25:99-101 JI '48

CELLULOSE acetate butyrate—Continued

- Cellulose ester plastics; plasticizing action of homologous series of esters of sebacic and phthalic acids on cellulose acetate butyrate. L. W. A. Meyer and W. M. Gearhart, *bibliog Ind & Eng Chem* 40:1478-85 Ag '48
- Cellulosic plastics; properties, applications, etc. M. Bentivoglio and M. Demarest, *il diags reference book sheet* (p 153, 155) *Product Eng* 19:85-91 My '48
- Child's toilet seat molded of Tenite II cellulose butyrate, *il Mod Plastics* 26:278 S '48
- Color; armored tubing, *il Mod Plastics* 25: 103-7 Je '48
- Display beautified with plastics rod, M. Meyers, *il Plastics* 8:39-40 Jl '48
- For intricate switch, bubble-free cast plastics; translucent indicator button, *il diags Plastics* 8:28+ Jl '48
- One-piece football helmet of cellulose acetate butyrate, *il Mod Plastics* 25:84 F '48
- Plastics win in fence controller; transparent cellulose acetate butyrate housing, *il Mod Plastics* 25:102 Ap '48

CELLULOSE esters

- Control of the accuracy and precision of industrial tests and analyses; cellulose esters as an example, J. A. Mitchell, *bibliog diags Anal Chem* 19:961-7 D '47
- Densities of cellulose esters, C. J. Malm, L. B. Genung and J. V. Fleckenstein, *bibliog Ind & Eng Chem* 39:1499-504 N '47

CELLULOSE ethers

- Permanent finishes; cellulose ethers; non coherent film; patent, *Am Dyestuff Rep* 36:665 N 17 '47

CELLULOSE nitrate. See Nitrocellulose**CELLULOSE oxypropionic acid**

- Cellulose oxypropionic acid from acrylonitril for producing permanent finishes and the like; patent, *Am Dyestuff Rep* 37:567-8 Ag 23 '48

CELLULOSE propionate

- Cellulosic plastics; properties, applications, etc. M. Bentivoglio and M. Demarest, *il diags reference book sheet* (p 153, 155) *Product Eng* 19:85-91 My '48

CELLULOSE zincate

- Cellulose zincate solution; urea added; patent, *Am Dyestuff Rep* 37:475 Jl 12 '48
- Cellulose zincate solutions oxidizing agents added; patent, *Am Dyestuff Rep* 37:533 Ag 9 '48
- Water repellent fabrics; aluminum salts blended with cellulose zincate; patent, *Am Dyestuff Rep* 36:787 D 29 '47

CELLURONIC acids

- Investigation of the properties of cellulose oxidized by nitrogen dioxide; the effect of alkali on the celluronic acids, P. A. McGee and others, *bibliog Am Chem Soc J* 70:2700-5 Ag '48

CELOTEX corporation

- Debentures offered, *Comm & Fin Chr* 166: 2207-8 D 1 '47

CEMENT

- Acid proof cement for steel industry, *diag Iron & Steel Eng* 25:124 Mr '48
- Aggregate reaction with cement alkalies, W. H. Parsons and H. Insley, *bibliog il Am Concrete Inst J* 19:625-32 Ap '48
- Better floors for food plants with acid-proof brick or tile when joined with sulfur or resin cement that is acid-proof, W. L. Shepard, Jr. *il Food Ind* 19:1656-9+ D '47
- Chemical test for reactivity of aggregates with cement alkalies; chemical processes in cement-aggregate reaction, R. C. Mielenz and others, *bibliog diags Am Concrete Inst J* 19:193-221 N '47
- Corrosion-resistant cements, V. Evans, *bibliog Chem & Ind* p307-11 My 15 '48
- Deterioration of sacked cement, W. Parker, *Am Concrete Inst J* 19:501-2 F '48
- Effect on properties of concrete of natural and portland cement blends, A. G. Timms and others, *il Pub Roads* 25:30-40 D '47
- Future for hydraulic cements, N. C. Rockwood, *Rock Prod* 51:122-5 Ja; 135-6+ Ap '48
- Hot cement effect on concrete mix temperature, M. A. Swayze, *Am Concrete Inst J* 19: 330-1 D '47

- Portland cement technology; abridgement, J. C. Witt, *Concrete* 56:17-18, 20 Ap; 24-5+ My; 16+ Jl; 34+ Ag; 23-4+ O '48
- Pozzolan cements, E. A. Ledyard, *Rock Prod* 50:134+ D '47
- Two decades of service prove structural soundness of high early strength cement, *il Civil Eng* 18:236-8+ Ap '48
- Water-soluble alkali in portland cements; abstract, V. V. Nekrasov and A. V. Evko, *Am Cer Soc J* 31 (Cer A):151 Jl 1 '48

See also
Concrete
Grouting

Alumina cement

- Aluminous cements; effects of hydration of monocalcium aluminate, *Chem Age (Lond)* 59:52 Jl 10 '48

Analysis

- Control of portland cement raw mixtures, E. J. Spohn, *diags Rock Prod* 51:160-2+ Ag '48

Fineness

- To what fineness should cement be ground? S. L. Meyers, *Rock Prod* 51:130-4 Ja '48

Hydration

- Influence of gypsum on the hydration and properties of portland cement pastes, W. Lerch, *bibliog il diags Am Soc T M Proc* 46:1252-92; Discussion, 1293-7 '46

Magnesia cement

- Contribution à l'étude de la cristallisation de la magnésie sous l'effet de températures croissantes; mécanisme du frittage, Y. Letort and L. Halm, *bibliog il Chimie & Ind* 55:537-44 D '47
- Sur un liant magnésien stable doué de propriétés mécaniques exceptionnelles, A. M. Fleuret, *Chimie & Ind* 58:548-9 D '47

Manufacture

- Additive feed rate calculations for air-entraining cements, C. J. Knickerbocher, *Rock Prod* 51:105 F '48
- Control of portland cement raw mixtures, E. J. Spohn, *diags Rock Prod* 51:160-2+ Ag '48
- European cement developments, G. Albertus and B. R. Jacobsen, *il Rock Prod* 51:152-5+ Ag '48
- Long-time study of cement performance in concrete, F. R. McMillan and W. C. Hansen, *Am Concrete Inst J* 19:553-602 Mr '48
- Method of manufacturing blast furnace slag cement; plant of Cementos del norte, Monterrey, N.L., Mexico, *bibliog il plan Rock Prod* 51:96-100 S '48
- Permanente doubles capacity, O. Jack, *il Rock Prod* 51:116-18 Ag '48
- Portland cement technology; abridgment, J. C. Witt, *Concrete* 56:17-18, 20 Ap; 24-5+ My '48

Prices

- Builders and manufacturers study cement decision effect; Supreme Court ruling outlawing basing-price plan, *Eng N* 140:671+ My 6 '48
- Cement companies adopting new pricing methods, *Rock Prod* 51:148+ Ag '48
- Cement prices start to rise as base-points are dropped, *Eng N* 141:1+ Jl 15 '48
- Universal Atlas abandons basing point system of quoting prices, *Concrete* 56:44 Ag '48
- What the decision in the cement case means to the construction industry, W. Simon, *Concrete* 56:16-17 O '48

Specifications

- Changes in cement specifications and concrete practices during the past 25 years, J. C. Pearson, *Am Concrete Inst J* 19:705-14 Ap '48

Standards

- A.S.T.M. standards on cement (with related information) prepared by A.S.T.M. committee C-1 on cement; specifications, chemical analysis, physical tests, 191p *bibliog* (p 171-4) pa \$2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

CEMENT—Continued

Testing

- Cement investigations for Boulder dam; results of tests on mortars up to age of ten years. R. E. Davis and others. *Am Concrete Inst J* 18:21-48 S '46; Correction. 19: 48-48* pt 2 D '47
- Comparison of cements for bonding nitrile rubber to steel. R. E. Morris and others. *diags Rubber Age* 64:53-6+ O '48
- Determining air content of cement mortar. C. J. Knickerbocker. *diags Rock Prod* 51: 138 Ap '48
- L'emploi de l'aiguille de Le Châtelier comme détecteur de la sensibilité des ciments aux eaux sulfatées. G. Batta. *Chimie & Ind* 58:501-2 N '47
- Influence of gypsum on the hydration and properties of portland cement pastes. W. Lerch. *bibliog il diags Am Soc T M Proc* 46:1252-92; Discussion. 1293-7 '46
- International congress on large dams, 3d, Stockholm, June 10-17; experiences arising from the testing and the actual use of special cements for large dams. *Engineering* 166:341-2 O 8 '48
- Method of particle size determination of soils, cement, etc., by means of a chainomatic specific gravity balance. E. V. Barrett. *il diags Am Soc T M Proc* 46:1355-72; Discussion. 1373-6 '46
- Nomographs for determining air content of cement mortars. K. J. Schatzlein, jr. *Rock Prod* 51:130-1 Je '48
- Studies of properties of sulfur jointing compounds containing various bactericides. W. W. Duecker and others. *bibliog il Am Water Works Assn J* 40:715-28 Jl '48

Transportation

- Bulk cement hauled in mixer trucks; with cost data. *Roads & Sts* 91:68-9 S '48
- CEMENT, Effect of sulfates on**
- L'emploi de l'aiguille de Le Châtelier comme détecteur de la sensibilité des ciments aux eaux sulfatées. G. Batta. *Chimie & Ind* 58:501-2 N '47

CEMENT, Rubber. See Rubber cement**CEMENT clinkers**

- Long-time study of cement performance in concrete; microscopical study of clinkers. L. S. Brown. *bibliog il Am Concrete Inst J* 19:377-923 My '48

CEMENT dust

- Dust problem in loading truck mixers. *diag Am Concrete Inst J* 19:418-19 Ja '48; *Eng N* 140:135-6 Ja 22 '48

CEMENT handling

- Air moves cement from barges to batching bins; Metropolitan sand and gravel co. W. B. Lenhart. *il diag Rock Prod* 51:154-6 F '48
- Dustless packhouse; Lone Star cement corp. W. B. Lenhart. *il plan diags Rock Prod* 51:82-7 S '48

CEMENT industry and trade

- Builders and manufacturers study cement decision effect; Supreme Court ruling outlawing basing-price plan. *Eng N* 140:671+ My 6 '48
- Cement case decision reviewed. R. Smethurst. *Oil Paint & Drug Rep* 154:5+ S 13 '48
- Cement decision has a "burn-down-the-barn" tinge; basing point ban may foster local monopolies instead of rivalries. H. S. Taylor. *Barron's* 28:7 My 3 '48
- Cement industry boards huge backlog for rainy day; road-building. E. M. Bleiberg. *Barron's* 28:7 S 20 '48
- Cement plants push production. *il Bsns W* p23-4 N 29 '47
- Cement; producer's rights, problems, and procedures under mechanics' lien laws and surety payment bonds. C. G. Roth. *Weekly Underw* 159:234-5, 276-7, 347-8 Jl 31-Ag 14 '48
- Cement shortage is critical. *Bsns W* p30+ S 4 '48
- Cement supply in 1948. V. P. Ahearn. *Concrete* 56:9-10+ Mr '48; *Abstract. Rock Prod* 51:151 Mr '48
- Congress opens probe on effects of Cement institute case decision. *Oil Paint & Drug Rep* 154:3+ S 20 '48

- FTC defied; cement basing point case. *Bsns W* p87 My 29 '48
- FTC holds cement case decision doesn't outlaw freight absorption. *Oil Paint & Drug Rep* 153:3+ Je 7 '48
- F.o.b. plant vs. basing point; implications of Supreme Court cement case decision. J. D. C. Weidon. *Mag of Wall St* 82:230-1+ Je 5 '48
- How does the cement case affect the national economy? H. E. Capehart. *Ptr Ink* 225:37+ O 1 '48
- Never-equalled cement production is no match for record consumption. W. G. Bowman. *il Eng N* 141:3+ S 23 '48
- Pricing system and the cement case. L. B. Mason. *Oil Paint & Drug Rep* 153:7+ My 31 '48
- Problems facing the cement industry. B. Nordberg. *il Rock Prod* 51:110-15 Ag '48
- Ready mix survey of cement situation. V. Ahearn. *Concrete* 56:28+ S '48
- Surrender; Universal Atlas cement co. shifts from delivered prices to f.o.b. mill basis. *Barron's* 28:3 Jl 5 '48
- Threat to delivered prices; Supreme court upholds FTC order in cement case. *Bsns W* p24-5 My 1 '48
- See also General portland cement company; Marquette cement manufacturing company

Statistics

- Cement, ceramics, 1947. *Chem Eng* 55:122 F '48
- Portland cement, 1941-1946. Survey of Cur Bsns 1947 Sup p 170 [supplemented in monthly numbers]

Brazil

- Cement output in Brazil increases to meet building needs. *For Comm W* 32:21 Ag 14 '48

Caribbean region

- Cement, the new gold of the Caribbean. H. H. Lauer. *il plans diags Rock Prod* 50: 128-33+ D '47

China

- Conditions in China's cement industry. *For Comm W* 33:26 O 9 '48

Europe

- European cement developments. G. Albertus and B. R. Jacobsen. *il Rock Prod* 51:152-5+ Ag '48

Great Britain

- Rugby portland cement co. annual general meeting. *Economist* 154:522 Mr 27 '48
- Tunnel portland cement company, limited; statement by the chairman at annual general meeting. M. M. Jensen. *Economist* 155:395-6 S 4 '48

Japan

- What has happened to the cement industry in Japan? G. R. Gwinn. *il Rock Prod* 51: 108-12 Ja '48

Latin America

- Latin America's expanding cement industry. J. M. Wolfe. *il plan diags Rock Prod* 51: 137-41 Ag; 93-5 S '48

Lebanon

- Cement manufacture. *For Comm W* 31:20 Ap 3 '48

CEMENT kilns

- Kiln sets a performance record; Ponce cement corp. C. L. Cintron. *Rock Prod* 51: 119+ Ag '48
- Lone Star feeds kiln with air lift. W. B. Lenhart. *il diags Rock Prod* 51:156-7 Ag '48
- World's longest dry-process kilns; Riverside cement co. *il Rock Prod* 51:144-8 Ag '48

Firing

- Firing several rotary kilns with one coal mill; Universal atlas cement co. B. Nordberg. *il diags Rock Prod* 51:74-7 My '48
- Pulverized coal system fires three rotary kilns. *il Heat & Ven* 45:104 S '48

CEMENT laboratories

- First concrete placed on PCA research center. *il Concrete* 56:8-9 Ag '48

CEMENT laboratories—Continued

New building for cement research. Safety Eng 96:24 Ag '48
 Research laboratory; Portland cement association. *il* Rock Prod 51:103-4+ My '48

CEMENT lined pipes

Acid pig adapted to cleaning of cement-lined pipe. L. S. McCaslin, Jr. *il* diag Oil & Gas J 47:78 Jl 8 '48
 Mortar-coated thin steel shells for distribution main service. Eng N 140:662 Ap 29 '48
 Tests on steel pipes lined in place. W. G. Banks, map Am Water Works Assn J 39: 1181-8; Discussion. W. R. LaDue. 1188-90 D '47

CEMENT plants

Cement, the new gold of the Caribbean. H. H. Lauer, *il* plans diags Rock Prod 50: 128-33+ D '47

Accidents

Curtis receives Holmes medal. Concrete 55: 28+ D '47
 Review of the injury experience in the cement and quarry industries; abstract. F. T. Moyer. Rock Prod 50:125 D '47
 30 cement plants have injury-free year. Nat Safety N 58:46 S '48

Equipment

Automatic controls for Mexico's newest portland cement plant. *il* plan Rock Prod 51: 80-2 Mr '48
 Dustless packhouse; Lone Star cement corp. W. B. Lenhart, *il* plan diags Rock Prod 51:82-7 S '48
 Ideal's fifteen million dollar program steps up production; new plants at Portland, Colo., and Devil's Slide, Utah. B. Nordberg, *il* plan Rock Prod 51:120-31 Ag '48
 Ideal's Houston plant improvements. W. B. Lenhart, *il* plan Rock Prod 51:132-3 Ag '48
 Lehigh modernizes for the future; Lehigh portland cement co. *il* Rock Prod 51:149-51 Ag '48
 Method of manufacturing blast furnace slag cement; plant of Cementos del norte, Monterrey, N.L., Mexico. bibliog *il* plan Rock Prod 51:96-100 S '48
 Multiple mills for raw and finish grinding; Calaveras cement co. W. B. Lenhart, flow sheets *il* Rock Prod 51:142-3+ Ag '48
 Permanente doubles capacity. O. Jack, *il* Rock Prod 51:116-18 Ag '48
 Slurry filters save coal; Peerless cement corp., Detroit. B. Nordberg, *il* plan diags Rock Prod 51:134-6+ Ag '48
 Up cement production with new crushing plant and long kiln; Oregon portland cement co. W. B. Lenhart, *il* Rock Prod 51: 96-9 O '48
 Waste-chasing transportation; portland cement industry finding increasing use for power trucks. I. F. Legore, *il* Rock Prod 51: 158-9+ Ag '48
 World's longest dry-process kilns; Riverside cement co. *il* Rock Prod 51:144-8 Ag '48

Safety measures

Safety for newcomers; abstract. D. A. Gasper. Rock Prod 50:125-6 D '47

CEMENT research

Hydrolysis studies of cement; some steps in the quest of standards. Chem Age (Lond) 53:428-30 Mr 27 '48
 Long-time study of cement performance in concrete. F. E. McMillan and others. bibliog *il* Am Concrete Inst J 19:441-53, 553-602, 745-95, 877-923 F-MY '48
 Preliminary study on portions of systems $\text{Na}_2\text{O}-\text{CaO}-\text{Al}_2\text{O}_3-\text{Fe}_2\text{O}_3$ and $\text{Na}_2\text{O}-\text{CaO}-\text{Fe}_2\text{O}_3-\text{SiO}_2$. W. R. Eubank and R. H. Bogue. bibliog Am Cer Soc J 31:284-91 O 1 '48; Same. J Res Nat Bur Stand 40:225-34 Mr '48
 Progress(?) in cement and concrete research. N. C. Rockwood. Rock Prod 51:73 Ja '48
 Research on cement; new Italian theories of composition. W. G. Cass. Chem Age (Lond) 53:611-12 My 1 '48
See also
 Cement laboratories

CEMENTS

Chemical engineering materials of construction. C. R. Payne. bibliog(50 ref) *il* Ind & Eng Chem 40:1778-82 O '48

Corrosion-resistant cements. V. Evans. bibliog Chem & Ind p307-11 My 15 '48
 New braking using cement; Cyclewelding. Bsns W p61-3 Mr 13 '48

See also

Adhesives
 Glue
 Rubber cement

Advertising

Wise buyers buy by mail; Sauereisen's direct mail campaign. C. F. Sauereisen. *il* Ind Marketing 33:35+ F '48

CEMETERIES**See also**

Arlington national cemetery

CENSORSHIP

Army rules press correspondents may criticize. Ed & Pub 81:15 Ap 3 '48
 Freedom of press, radio, and screen. B. Price. Ann Am Acad 254:137-9 N '47
 Media security advisors suggested to Forrestal. Ed & Pub 81:12+ Ap 3 '48
 Need for vigilance in security problem; discussion before ASNE. Ed & Pub 81:122-3 Ap 24 '48
 Seek plan to guard security information. Ed & Pub 81:9+ Mr 6 '48

Russia

Moscow correspondent tells why he was ousted. R. Magidoff. Bsns W p26 Ap 24 '48

CENSUS**United States**

Census includes detailed maps of each county. J. J. Butler. Ed & Pub 81:14 Jl 24 '48

CENSUS of the Americas

Salvadoran activity exemplifies developing interest. For Comm W 31:20 Je 19 '48

CENTERING (machine)

Adjustable jig locates double centers. H. Moore. diags Am Mach 91:129 D 13 '47
 Double-acting screw on vise fixture centers forged links for drilling. C. T. Bower. diags Am Mach 92:120 N 4 '48
 Hydraulic axle-centering machine. *il* Ry Mech Eng 122:513-14 S '48
 Machine centers. J. E. Hyler. *il* Mill & Factory 42:124-6 Mr '48
 Steel balls as centers improve offset tall-stock taper turning. A. F. Wyleta, jr. diags Am Mach 92:120 Ja 15 '48

CENTRAL and south west corporation

More financing. Barron's 28:31-2 Ag 9 '48
 Public utility securities. Comm & Fin Chr 168:415 Jl 29 '48
CENTRAL Arizona light and power company
 Common stock offered. Comm & Fin Chr 168:1688+ O 25 '48

CENTRAL banks. See Banks and banking—Central banks

CENTRAL chemical corporation

Stock offered. Comm & Fin Chr 167:1692 Ap 19 '48

CENTRAL electric and gas company

Preferred stock offered. Comm & Fin Chr 168:1691 O 25 '48

CENTRAL Illinois public service company

Bonds offered. Comm & Fin Chr 167:1651 Ja 12 '48

Common stock offered. Comm & Fin Chr 168:740 Ag 23 '48

Financing may lower utility's capital ratio. Barron's 28:28 S 27 '48

Public utility securities. Comm & Fin Chr 168:821 Ag 26 '48

CENTRAL Maine power company

Bonds offered. Comm & Fin Chr 166:2416 D 15 '47

Bonds offered. Comm & Fin Chr 168:438 Ag 2 '48

CENTRAL of Georgia railway

Five per cent bonds discount recap securities. Barron's 27:36 D 8 '47

M. P. Callaway elected chairman of reorganized Central of Georgia; M. J. Wise, president. Ry Age 126:153+ Jl 17 '48

CENTRAL Ohio distributing company

Debentures offered. Comm & Fin Chr 166: 2208 D 1 '47

CENTRAL Ohio light and power company

Common stock offered. Comm & Fin Chr 167: 248 Ja 19 '48

- CENTRAL Pacific railway**
Bonds offered. Comm & Fin Chr 167:1147-8 Mr 15 '48
- CENTRAL power and light company**
Bonds offered. Comm & Fin Chr 166:2555 D 22 '47
- CENTRAL railroad of New Jersey**
Directors approve readjustment plan. Comm & Fin Chr 167:2786 Je 28 '48
- CENTRAL states electric corporation**
New plan. Comm & Fin Chr 168:438, 1691 Ag 2, O 25 '48
- CENTRAL stations.** See Electric plants (central stations)
- CENTRAL Valley project, California**
Central Valley plan aimed at 1951. Eng N 141:11 J1 15 '48
Pumping requirements for irrigation; Columbia basin and Central Valley projects. I. L. Wightman. maps Mech Eng 70:417-20 My '48
- CENTRAL Vermont public service corporation**
Offering to common stockholders; sale of bonds privately. Comm & Fin Chr 168:438-4 Ag 2 '48
- CENTRALITE**
See also
Ethyl centralite
- CENTRALIZED traffic control.** See Railroads—Signals
- CENTRIFUGAL casting.** See Casting, Centrifugal
- CENTRIFUGAL force**
Centrifugal-force finishing; method of painting gas-filled bellows. G. Cavanaugh. Il Steel 122:95 Ja 19 '48
- CENTRIFUGAL pumps.** See Pumps, Centrifugal
- CENTRIFUGES**
Ball-bearing drive for the ultracentrifuge. P. G. Ecker and J. Blum. Il diags R Sci Instr 19:399-400 Je '48
Centrifugals replace tables for separation of starch and gluten. R. L. Taylor. Il diags Chem Ind 62:54-7 Ja '48
Centrifugation. J. O. Maloney. bibliog Ind & Eng Chem 40:8-9 Ja '48
Centrifuges; new equipment announced 1947-48. Chem Ind 63:407 S '48
Determination of sedimentation constants in the Sharples supercentrifuge. H. K. Schachman. bibliog diags J Phys & Colloid Chem 52:1034-45 Je '48
Enamel clarification by centrifuging. W. R. Prosch. Il Paint Oil & Chem R 111:18-19 Mr 4 '48
Filters vs. centrifugal separators in the brewery; differences in brewing and distribution practices in Europe and the United States. S. Laufer. diags Food Ind 20:208-11, 378-81 bibliog(p381) F-Mr '48
Fluid drive centrifugal. Il Chem Eng 55:143 J1 '48
Higher yields of better oils by continuous alkali refining. L. D. Tyler. Il diags Food Ind 20:1456-9+, 1618-21 O-N '48
Impact flour milling; centrifugal impact machines, hitherto used for controlling insect infestation; Entoleter. A. N. Hibba and others. flow diags Il Food Ind 19:1626-30+ D '47
Improved freeze drying; foam suppression by low-speed centrifuge. Chem Age (Lond) 59:55 J1 10 '48
Method of determining the particle size of colloids from sedimentation data obtained with the Sharples supercentrifuge. S. A. Loukomsky and S. J. O'Brien. bibliog Il diags Am Soc T M Proc 46:1437-51 '46
New developments in centrifuge applications. C. M. Ambler. Il Chem Eng Prog 44:405-10 My '48
Nomograph for particle size determination with the Sharples supercentrifuge. E. Saunders. bibliog Anal Chem 20:379-81 Ap '48
Self-contained ultracentrifuge. Il R Sci Instr 19:813-14 S '48
Speed control for the air driven ultracentrifuge. S. D. Majumdar and G. N. Sarkar. diags R Sci Instr 19:541-4 S '48
Ultracentrifuge. Fisher-Stern. Il R Sci Instr 19:408-9 Je '48
- CEPHALERPETON ventriarmatum**
Structure of cephalerpeton and affinities of the microsauria. J. T. Gregory. diags Am J Sci 246:550-68 bibliog(p567-8) S '48
- CERAMIC abstracts**
Ceramic abstracts. bibliog Am Cer Soc Bul 27:307, 347, 430, 461 Ag 15-N 15 '48
Ceramic abstracts. Published in monthly numbers of American ceramic society journal
- CERAMIC art**
American lattice ware developed by ceramic artist in Oklahoma City. Il Cer Ind 50:164+ Ap '48
Cordey China, New Jersey creator of old world-style porcelain pieces. Il Cer Ind 51:90 O '48
Hall-Kubinyi porcelain enamels; jewelry, bowls, boxes, ash trays, etc. Il Cer Ind 49:73+ O '47
See also
Glassware—Decoration
Pottery—Decoration
- Exhibitions**
Ceramic National promotes the industry. A. W. Olmsted. Cer Ind 49:104 N '47
- CERAMIC containers.** See Containers, Ceramic
- CERAMIC educational council**
Functions and aims. P. G. Herold. Am Cer Soc Bul 27:29 Ja 15 '48
- CERAMIC engineering**
Safety's place in ceramic plant engineering. J. L. Carruthers. Nat Safety N 57:37+ F '48
- CERAMIC engineers**
Report on the survey of the economic status of members of the Institute of ceramic engineers. Am Cer Soc Bul 27:308-15 Ag 15 '48
- Salaries**
Factors affecting earnings of ceramic engineers. C. E. Taylor. Mo Labor R 67:381-3 O '48
Schedule of minimum engineering fees, salaries, and code of ethics for members of the Institute of ceramic engineers. Am Cer Soc Bul 27:168-9 Ap 15 '48
- CERAMIC industries**
Ceramic Industry's forecast; coming 25 years. Cer Ind 50:70-3 Je '48
Confidence in ceramics, keynote to production in 1948. Cer Ind 50:57-8 Ja '48
Leaders of the industry predict. Cer Ind 50:60-9 Je; 51:48-9+ J1; 53+ Ag; 67+ S; 65 O; 59+ N; 63 D '48
Recent trends in the ceramic industry. Il Chem Eng 55:127-34 J1 '48
Report to the American ceramic society of the ceramic film committee of the Missouri school of mines. Am Cer Soc Bul 27:163-5 Ap 15 '48
Role of ceramic products in our engineering economy. J. D. Sullivan. Am Cer Soc Bul 27:149-52 Ap 15 '48
See also
Brick industry and Enamel and enamel-trade ing
Cement industry and Glass trade
Pottery industry
Refractory materials
- Directories**
Membership roster of the American ceramic society. Am Cer Soc Bul 26:305-46 O 15 '47
Membership roster of the American ceramic society. Am Cer Soc Bul 27:381-428 O 15 '48
- Exhibitions**
Ceramic National promotes the industry. A. W. Olmsted. Cer Ind 49:104 N '47
- Texas**
Texas ceramic industry growing. F. K. Pence. Il Manuf Rec 117:38 Ag '48
- CERAMIC industry (periodical)**
Marks 25th year. Brick & Clay Rec 113:54 J1 '48
- CERAMIC materials**
American ceramic society 50th annual meeting. Chicago; abstracts of papers on heat resisting materials. Iron Age 162:86-9 J1 8 '48

CERAMIC materials—Continued

Application of replica techniques to the study of ceramic surfaces with the optical microscope. A. W. Allen and A. L. Friedberg. *Bibliog Il Am Cer Soc J* 31:83-8 Mr 1 '48
 Ceramic-coated steel. *Mech Eng* 70:349-50 Ap '48

Ceramic coatings for combustion-chamber liners and turbine buckets in gas turbines; abstract. L. Navias. *Mech Eng* 69:1043-4 D '47

Ceramic developments for aircraft power plants. W. H. Duckworth. *Am Cer Soc Bul* 27:93-5 Mr 15 '48

Ceramic materials; a complete directory of ceramic materials used in the manufacture of all types of enamel, glass and pottery products, with details of their properties and their functions. *Cer Ind* 50:67-70+ Ja '48

Ceramic materials show promise for high temperature mechanical parts. J. R. Bressman. *Il Materials & Methods* 27:65-70 Ja '48

Ceramic raw materials. *Chem Eng* 55:107 Ag '48

Ceramics and glass used in electronics. *Electronics* 21:M4-5 Mid-Je '48

Ceramics for aircraft power plants. J. M. Neff. *Il Iron Age* 162:60-3 O 21 '48

Chemical engineering materials of construction; ceramics. J. H. Koenig. *Bibliog Ind & Eng Chem* 40:1782-5 O '48

Executive comments on ceramic materials outlook for 1948. *Cer Ind* 50:59-60 Ja '48

High-temperature ceramic coatings for molybdenum. W. N. Harrison. *S A E J* 56:47-8 Je '48

High temperature ceramics. E. L. Olcott. *Il Product Eng* 19:110-12 Mr '48

Important changes in ceramic materials for 1948. *Cer Ind* 50:65-6 Ja '48

Metal-ceramics, a new field in powder metallurgy; abstract. H. H. Hausner. *Iron Age* 161:81 My 6 '48

Method of correlating chemical composition, relative amounts of glassy bond, and properties of ceramic bodies. G. R. Shelton. *Bibliog diags Am Cer Soc J* 31:39-49 F 1 '48

Properties and uses of technical ceramics. H. Thurnauer. *Il Materials & Methods* 26:87-92 D '47

Requirements for ceramic materials for application to aircraft power plants; abstract. R. A. Jones. *Chem Age (Lond)* 59:219 Ag 14 '48

Some of the refractory problems faced in research on jet propulsion units. *Il Brick & Clay Rec* 112:58+ Ja '48

Synthetic materials to replace natural minerals. R. Russell, jr. *Cer Ind* 51:48-9+ JI '48

See also

Bricks	Refractory materials
Clay	Silica
Enamel and enameling	Silicates
Feldspar	Steatite
Nephelite syenite	Stoneware
	Talc

Analysis

Quantitative spectrographic analysis of powdered ceramic materials. J. M. Zander and J. H. Terry. *Bibliog Am Cer Soc J* 30:366-70 D 1 '47

Cutting

Diamond band saw solves cutting problem in ceramics. H. J. Chamberland. *Il Cer Ind* 51:89+ O '48

Fast, low-cost forming for coils, insulators. E. F. Mosthaf. *diags Cer Ind* 51:84-5 N '48

Drying

Method of drying tank block; patent. *diag(p28) Glass Ind* 29:29 Ja '48

Electric properties

Ceramic dielectric materials. B. H. Marks. *Il Electronics* 21:116-20 Ag '48

Domain structure and dielectric response of barium titanate single crystals. B. Matthias and A. von Hippel. *Bibliog Il diags Phys R* 73:1378-84 Je 1 '48

Electrostrictive effect in barium titanate ceramics. W. P. Mason. *Bibliog diags Phys R* 74:1134-47 N 1 '48

Piezoelectric or electrostrictive effect in barium titanate ceramics. W. P. Mason. *Phys R* 73:1398-9 Je 1 '48

Properties of barium-magnesium titanate dielectrics. G. R. Shelton and others. *Bibliog Am Cer Soc J* 31:205-12 JI 1 '48; Same. *J Res Nat Bur Stand* 41:17-26 JI '48

Properties of electromechanical ceramics. H. Jaffe. *Electronics* 21:128+ JI '48

Sintered semiconductors. H. H. Hausner. *Il diags Electronics* 21:138+ Ja '48

Joining to metal

Cermets, ceramic-metal compounds. G. A. Bole. *Cer Ind* 51:108 S '48

Soldered ceramic-to-metal seals. A. L. Jenny. *Il diags Product Eng* 18:154-7 D '47

Testing

Better ceramics with better inspection. *Il Mod Ind* 15:125-6 Ap '48

Statiflux method for nondestructive inspection of nonconductors. *Il Iron Age* 161:68 F 12 '48

CERAMIC patents

Manufacture of ceramic bodies; abstract. J. C. Quayle and others. *Am Cer Soc J* 31 (Cer A):158 JI 1 '48

CERAMIC research

British ceramic research association; report for year. A. E. Dodd. *Metallurgia* 38:275-6 S '48

Fundamental study of clay; a new theory for the plasticity of clay-water masses. F. H. Norton. *Bibliog Il diags Am Cer Soc J* 31:236-41 Ag 1 '48

Nuclear physics and the ceramic industry. J. R. Johnson. *Bibliog Am Cer Soc Bul* 27:263-7 JI 15 '48

Onward motives in research; Priestley medal address, 1948. E. R. Weidlein. *Chem & Eng N* 26:2765 S 20 '48

See also

Refractory research

CERAMIC sculpture

Ceramic sculpture by Gunnar Nylund; illustrations. *Cer Ind* 51:98 O '48

CERAMICS

ACS Whiteware, materials and equipment divisions fall meeting, Conneaut Lake Park, Pa. Sept. 17-18. *Cer Ind* 51:66+ N '48

Ceramics and nucleonics. A. L. Johnson. *Am Cer Soc Bul* 27:235-7 Je 15 '48

1987 delegates to ACS convention testify that it's a ceramic world. *Brick & Clay Rec* 112:46-50+ My '48

First Bleining medal to Purdy. *Chem & Eng N* 26:992 Ap 5 '48

Ohio ceramic industries assn. discusses approach to drying, etc. *Cer Ind* 49:86-7 D 47

Phase diagrams for ceramists. F. P. Hall and H. Inslay. *Bibliog Am Cer Soc J* 30:1-152 pt 2 N 1 '47

Statistical control. J. H. Toulouse. *Glass Ind* 29:79-80+ F '48

See also

Brickmaking	Glass manufacture
Cement	Glasses
Clay	Kilns
Clay products	Porcelain
Enamel and enameling	Pottery
Fire brick	Refractory materials
Glass	Stoneware
	Tiles

Bibliography

American ceramic society bulletin; author index and subject index; volume 26, 1947. *Am Cer Soc Bul* 26:417-32 D 15 '47

Ceramic abstracts. Published in monthly numbers of American ceramic society journal

Ceramic abstracts; compiled by the American ceramic society; author index and subject index for 1947. *Am Cer Soc J* 30 (Cer A):245-80 D 1 '47

Indexes to the Journal; compiled by the American ceramic society; author index and subject index for 1947. *Am Cer Soc J* 30:371-4 D 1 '47

CERAMICS—Continued

Standards

Report of committee on standards, American ceramic society. *Am Cer Soc Bul* 26:350-1 O 15 '47

Study and teaching

Ceramic education; its status, its progress, its needs. R. M. King. *Am Cer Soc Bul* 27:431-2 O 15 '48

Dissemination of ceramic knowledge to electrical engineering undergraduates. S. J. McDowell. *Am Cer Soc Bul* 27:217-18 My 15 '48

CEREALS, Prepared

A & P cereals meet demand for more forceful surface display on self-service shelves. *Il Mod Packaging* 21:106-7 F '48

Wheat in eastern dress; Australian hydrolyzed wheat cereal; Rycena. *Il Food Ind* 19:1482+ N '47

Advertising

Psychologists help radio program become a national institution; Jack Armstrong show or Wheaties. H. W. Green. *Il Ptr Ink* 221: 32-3+ N 7 '47

By-products

Quaker Oats nurses a stepchild product to volume and profits; fufurall. L. B. Hitchcock. *Il Sales Management* 60:37-9 Ja 1 '48

Manufacture

Quaker Oats finds ways to keep its workers happy. W. M. McIlwain. *Il Food Ind* 20: 1144-5+ Ag '48

CERENKOV effect. See Cherenkov effect

CERIUM

Ion-exchange as a separations method; separations of several rare earths of the cerium group (La, Ce, Pr and Nd). D. H. Harris and E. R. Tompkins. *bibliog diag Am Chem Soc J* 69:2792-800 N '47

Nodular cast irons; use of cerium. H. Morrogh and J. W. Grant. *Il Foundry* 76:90-5+ N; 86-9+ D '48; Same cond. *Metalurgia* 38:153-60 Ji '48

Production of nodular graphite structures in cast iron; additions of cerium to the molten alloys. H. Morrogh and W. J. Williams. *bibliog 6pls Iron & Steel Inst J* 158:306-22 Mr '48; *Discussjon*. 160:21-9 S '48

Radioactive cerium and praseodymium. M. L. Pool and N. L. Krisberg. *bibliog Phys R* 73:1035-41 My 1 '48

Rare metals improve magnesium alloys. *Iron Age* 162:83 Ji 22 '48

Separation of rare earths by ion exchange; cerium and yttrium. F. H. Spedding and others. *bibliog Am Chem Soc J* 69:2777-81 N '47

Superconductivity of lanthanum and cerium. W. T. Ziegler. *J Chem Phys* 16:838 Ag '48

Isotopes

Isotopic constitution of lanthanum and cerium. M. G. Inghram and others. *bibliog Phys R* 72:967-70 N 15 '47

Neutron deficient isotopes of cerium and lanthanum. J. B. Chubbuck and I. Perlman. *bibliog Phys R* 74:982-3 O 15 '48

Radioactive lanthanum and cerium isotopes of mass 137. M. G. Inghram and D. C. Hess, Jr. *Phys R* 74:627 S 1 '48

CERIUM alloys

Magnesium-cerium-zirconium alloys; properties at elevated temperatures; abstracts. A. J. Murphy and J. M. Payne. *Il Engineering* 163:485-7 Je 6 '47; *Metal Prog* 53: 268+ F '48; *Product Eng* 19:153-6 Ap '48

CERIUM nitrate

Color reactions of thiophene compounds with ceric nitrate alcohol reagent. H. D. Hartough. *Anal Chem* 20:860-1 S '48

CERIUM oxide

Effects of cerium oxide on spectral transmission of some experimental glasses; abstract. J. A. Kapnick and W. A. Koehler. *Glass Ind* 29:318 Je '48

Rare earth oxides for glass polishing. R. W. Urie and A. W. Wylie. *bibliog il diag Soc Chem Ind J* 66:433-6 D '47; Same. *Engineering* 166:189-91 Ag 20 '48

CERIUM perchlorates

Quantum yields of the photochemical reduction of ceric ions by water and evidence for the dimerization of ceric ions. L. J. Heidt and M. E. Smith. *bibliog Am Chem Soc J* 70:2476-81 Ji '48

CERIUM sulfate

Spectrophotometric determination of serum calcium. J. A. Weybrew, G. Matrone and H. M. Baxley. *bibliog Anal Chem* 20:759-62 Ag '48

CEROTIC acid

Tetratriacontanoic acid and related compounds. N. L. Drake and S. Melamed. *bibliog Am Chem Soc J* 70:364-7 Ja '48

CERROBEND. See Bismuth alloys

CERTAIN-TEED products corporation

Annual report. *Comm & Fin Chr* 168:148 Ji 12 '48

CERTIFICATES of convenience and necessity

State control of business through certificates of convenience and necessity. F. P. Hall. *bibliog 154p Indiana univ. Bur. of government research, Dept. of government, Bloomington* '48

CERTIFICATES of deposit

Payment of certificate of deposit; twenty years not too long for bank to keep records. *Burroughs Clearing House* 32:66+ Ag '48

CESIUM

Coincidence measurements; internal conversion. M. L. Wiedenbeck and K. Y. Chu. *bibliog diag Phys R* 72:1171-5 D 15 '47
Target chemistry of cesium; isolation of Ba^{138,134}. M. H. Kurbatov and others. *J Chem Phys* 16:87-91 F '48

Isotopes

Beta- and gamma-spectra of Cs¹³⁷. J. Townsend and others. *Phys R* 74:99-100 Ji 1 '48

Disintegration of Cs¹³⁷. J. Townsend and others. *Phys R* 74:499 Ag 15 '48

Disintegration scheme of Cs¹³⁴. K. Siegbahn and M. Deutsch. *Phys R* 73:410 F 15 '48

Disintegration scheme of 1.7-year Cs¹³⁴. L. G. Elliott and R. E. Bell. *Phys R* 72:979-80 N 15 '47

Further studies on the radiations from Ba¹³¹ and Cs¹³¹. B. J. Finkle. *diag Phys R* 72: 1260-1 D 15 '47

New barium and cesium isotopes; 12.0d Ba¹³¹, 10.2d Cs¹³², and long-lived Ba¹³⁰. S. Katcoff. *diag Phys R* 72:1160-4 D 15 '47

CESIUM chromate

Cesium chromate photo-tube pellets. H. A. Liebhafsky and A. F. Winslow. *diag J Ap Phys* 18:128-32 D '47

CESIUM copper chloride

Crystal structure of CsCuCl₂ and the crystal chemistry of complex halides ABX₃. A. F. Wells. *diag Chem Soc J p* 1662-70 D '47

CESIUM dichloriodide

Solubility of cesium and rubidium dichloriodides in hydrochloric acid solutions. P. Bender and R. A. Strehlow. *Am Chem Soc J* 70:1995-6 Je '48

CESIUM fluoride

Nuclear quadrupole interaction in CsF. J. W. Trischka. *bibliog diag Phys R* 74:718-27 O 1 '48

System cesium fluoride-hydrogen fluoride. R. V. Winsor and G. H. Cady. *bibliog diag Am Chem Soc J* 70:1500-2 Ap '48

CETANE. See Hexadecane

CETANE number

Production of high cetane number Diesel fuels by hydrogenation. J. A. Tilton, W. M. Smith and W. G. Hockberger. *bibliog Ind & Eng Chem* 40:1269-73 Ji '48

CETAVLON

Germicidal aerosols. J. D. Fulton and others. *bibliog diag Soap & San Chem* 24:125-7+ My '48

New analytical reactions with anionic and cationic wetting agents. A. Steigmann. *bibliog Soc Chem Ind J* 66:365-6 O '47

CETYLPIRIDINIUM chloride. See Pyridinium compounds

CETYLTRIMETHYLAMMONIUM bromide. See Cetavlon

CEYLON

See also
Chemical industries
—Ceylon

Commercial policy

Tariffs and trade controls; Geneva trade agreement. For Comm W 29:11-12 D 20 '47

Industries and resources

Ceylon's plans. Bsns W p 114 F 21 '48

Politics and government

Right and left in Ceylon. map Economist 153:680- O 25 '47
Trotskysm in Ceylon. Economist 154:24 Ja 3 '48

CHABAZITE

Synthesis of a zeolitic mineral with chabazite-like sorptive properties. R. M. Barrer. pl Chem Soc J p 127-32 F '48

CHAIN gear

Chain and its application in pulp and paper mills. W. M. Hufnagel. Paper Tr J 125: 143-6 D 4 '47
Chain-drive phase adjuster. diag Engineering 165:271 Mr 19 '48

Embrittlement of roller chains by plating after assembly. il Product Eng 19:105 S '48
Impact between chain roller and sprocket in a chain drive. R. C. Binder and W. V. Covert. bibliog diags Franklin Inst J 245: 319-29 Ap '48

Important factors in designing camshaft chain drives. E. F. Riopelle. il diags Automotive Ind 99:36-9+ O 15 '48
Mechanism for taking up slack in sprocket chain. F. Server. diags Mach 55:193 O '48

Motor driven machines; belt and chain drives. il Product Eng 19:117 Mr '48
Pattern chain drive; Fidelity 400 circular knitting machine. il diag Machine Design 20:126-7 Ap '48

Sequence control uses endless belt; printing machine used in making felt-base rugs. P. W. Vessey. il Machine Design 20:130 Ap '48

Testing

Tensile and elasticity testing of steel roller chain. il diags Product Eng 19:121 S '48

CHAIN stores

Chain store industry sets new record in building, remodeling. S. O. Kaylin. Ind Marketing 33:110 Ap '48

Chains want allowances based on performance; seek same price status as jobber. il Ptr Ink 221:36-8 N 21 '47

Edison bros. shoes. il Fortune 37:82-7+ F '48

Facts behind figures covered in annual report; chain grocer presentation for employees, stockholders and suppliers. il Ptr Ink 222:41 F 13 '48

Local supermarkets' business is growing; regional food chains expand, too. il Bsns W p64-6+ Jl 17 '48

Progress in rural selling; Gamble-Skogmo, inc. il Bsns W p70+ Mr 13 '48

Revamping a homey chain; A. G. Rhodes & son, Atlanta furniture chains. Bsns W p50-1 My 15 '48

See also
Marketing—Chain
store outlets

Accounting

Danger signals to accountants in net-lease financing. A. M. Cannon. J Account 85:312-19 Ap '48

Advertising

Ad uniformity helps in chain identification. Ed & Pub 81:32 O 23 '48

Bureau launches effort in retail chain field. S. Rovner. Ed & Pub 81:7 Je 5 '48

Chain management contacts branch personnel on the air. Ptr Ink 221:84+ N 14 '47

Chain store selling planned by Bureau. Ed & Pub 81:71 F 14 '48

Chain stores expanding use of audio devices for point-of-sale advertising at local level. W. H. Davis. Ptr Ink 224:75 Ag 27 '48

Making contests do double-duty; Kroger ties up a big package of national contests. il Bsns W p58+ O 16 '48

Finance

Danger signals to accountants in net-lease financing. A. M. Cannon. J Account 85: 312-19 Ap '48

Variety chains put brakes on prices. Bsns W p65-6+ O 16 '48

Mail order stores

Mass merchandising in Latin America; Sears, Roebuck & co. W. F. Brown. J Marketing 13:73-7 Jl '48

Young Sears, Roebuck. il Fortune 38:84-7+ Ag '48

Management

Cashiers' errors; error measurement and distribution. L. Derrick. J Bsns 21:74-9 Ap '48

Chains set pace in drive to cut retail selling costs. Ptr Ink 221:38-9 D 12 '47

System and control plus employee initiative bring results for Neisner brothers, inc. E. Whitmore. Am Bsns 18:10-11+ S; 14-15+ O '48 (to be cont)

Securities

Diverse outlook for merchandise shares; with statistics on leading stocks. P. Dobbs. Mag of Wall St 82:587-9+ S 11 '48

Diverse prospects of merchandise shares; with statistics on leading stocks. J. C. Clifford. Mag of Wall St 82:22-4+ Ap 10 '48

Statistics

Indexes of sales of chain stores and mail-order houses, monthly, Jan. 1942-Dec. 1946. Survey of Cur Bsns 28:11 Ja '48

Retail trade; chain stores and mail-order houses; 1941-1946. Survey of Cur Bsns 1947 Sup p42-3 [supplemented in monthly numbers]

Stock

Branch stock control from central office; Kardex records used by Crow-Burlingame co. K. V. Browne. il Am Bsns 18:16-17 O '48

Cautious food chains hold down inventories. Barron's 28:26 Ag 30 '48

CHAINS

Chain and its application in pulp and paper mills. W. M. Hufnagel. Paper Tr J 125: 143-6 D 4 '47

Chain for industrial use. il Nat Safety N 57:120 Mr '48

Manufacture

Chainmaking, present-day practice. R. B. Vasey. il Steel 123:76-8 O 4 '48

How we made twisted-link welded steel chains. S. Framurz. diags Am Mach 91: 119 N 20 '47

Planned handling; Morse chain co. R. O. Erickson. il Steel 121:95+ D 15 '47

Standards

AISE sling and crane chain standards. diag Iron & Steel Eng 25:66-8 F '48

CHAINS, Chemical

Average boundaries of statistical chains. C. A. Hollingsworth. diag J Chem Phys 16: 544-7 My '48

CHAIRMEN

How to get enthusiastic support for any new program; technique of the chairman. E. Mottershead. il Bankers Mo 65:14+ Mr '48

Three types of useful bank meetings and how to conduct them. E. Mottershead. Bankers Mo 64:552+ N '47

CHAIRS

Contour-formed chairs. il Mod Plastics 26: 154-5 N '48

CHALCOCITE

Oxidation of chalcocite in air compared with its oxidation in pure oxygen. J. R. Lewis and others. bibliog diags Metals Tech 15: TP2388 1-9 Je '48

CHALCONES

See also
Aminochalcone

CHALK talks

Chalk talk; management's aid. M. McCall.
Pulp & Pa of Can 49:77-8 S '48

CHALLIES, John Bow, 1881-

Sketch. por Civil Eng 18:36-7 Ja '48

CHAMBER of commerce of the United States

Annual meeting, 36th, Washington, April
26-29. Ry Age 124:914-16 My 8 '48

Summaries of three addresses at 36th annual
meeting, S. Bridges and others. Pub Util
42:114-17 JI 15 '48

U.S. Chamber of commerce opposes new
economic controls; suggests restraints.
Comm & Fin Chr 168:315-1 JI 22 '48

Insurance department

Activities of the insurance committee. J.
F. Matthai. Weekly Underw 159:831 O 9
'48

How U.S. Chamber aids public relations. A.
L. Kirkpatrick. East Underw 49:32 Mr 26
'48

Meeting. New York, Sept. 9. East Underw
49:42-1 S 17 '48

New officers. East Underw 49:35 JI 2 '48;
Nat Underw 52:15 JI 1 '48; Spectator (Prop-
erty ed) 14:32 JI 8 '48

Value of U.S. Chamber to insurance. A. L.
Kirkpatrick. Nat Underw (Life ed) 52:4
S 17 '48

CHAMBERLIN, Rollin Thomas, 1881-1948

Sketch. J. H. Bretz. Science 108:50-1 JI 16
'48

CHAMBERS, Washington Irving

Naval contributions to aeronautical science,
1908-1913. M. C. Welborn. II U S Naval
Inst Proc 74:990-7 Ag '48

CHAMBERS of commerce**Hungary**

Establishment of new chamber of commerce.
For Comm W 33:18 O 30 '48

CHAMBRAY

Serviceability study comparing an all-cotton
chambray with a chambray of cotton warp
and viscose rayon filling. P. E. Keeney
and others. II Rayon 29:53-4 O; 63-5 N '48

CHAMFERING

Lathe attachment for chamfering both ends
of cylindrical parts. M. W. Purser. II diags
Mach 54:183-5 F '48

CH'ANG SHAN

Antimalarial constituents of Chinese drug,
Ch'ang Shan, dichroa febrifuga Lour. T. Q.
Chou, F. Y. Fu and Y. S. Kao. Am Chem
Soc J 70:1765-7 My '48

CHANGE houses. See Mine buildings**CHANNELS**

Charts aid in solving problems of flow in
open channels. C. Freeman. Civil Eng 18:
585-7 S '48

Dimensionless constants for hydraulic ele-
ments of open-channel cross-sections. P.
Z. Kirpich. diags Civil Eng 18:649-51 O '48

Hydraulics for the practical water works
man; flow in streams, drains and open
channels. R. W. Angus. diags Water &
Sewage Works 94:405-8 N '47

Measurement of flow in open channels. J.
Tarrant. diags Water & Sewage Works
95:R173-5 Ap '48

Panama canal; design of channel. J. E.
Reeves and E. H. Bourquard. diags Am
Soc C E Proc 74:550-69 Ap '48

Panama canal; ship performance in restric-
ted channels. C. A. Lee and C. E. Bowers.
bibliog II diags Am Soc C E Proc 74:521-
49 Ap '48

Stability of boundary layers and of flow in
entrance section of a channel. E. Hahne-
man and others. bibliog J Aeronautical Sci
15:493-6 Ag '48

CHAPELS, Mortuary. See Mortuary chapels**CHAPMAN**, Joseph, 1871-1948

Sketch. por Banking 40:132 Je '48

CHAPMAN, Rosco

R. Chapman, Duquesne light company em-
ployee, wins Carnegie hero fund silver
medal. Edison Elec Inst Bul 16:46 F '48

CHARACTER

See also
Graphology

CHARCOAL

Adsorption and pore-size measurements on
charcoals and whetlerites. P. H. Emmett.
Chem R 43:69-148 bibliog (157 ref, p 144-8)
Ag '48

Filtration of aerosols by granular charcoal.
S. H. Katz and D. Macrae. J Phys &
Colloid Chem 52:695-7 Ap '48

Industrial carbon; problem of shortage; and
what can be done about it; CI report. R.
B. Ladoo and C. A. Stokes. bibliog II
Chem Ind 63:609-16 O '48

Study of the distribution of arsine in im-
pregnated charcoal by means of radioactive
tracers. J. W. Hickey and E. O. Wiig.
bibliog diag Am Chem Soc J 70:1574-9 Ap
'48

See also

Bone black

CHARCOAL, Activated. See Carbon, Activated

CHARGE accounts (retail trade)

Retail credit survey, 1947. K. P. Reil. Fed

Res Bul 34:787-93 JI '48

Stores join hands; cooperative Charge-plate
service in New York city. Bsns W p79-80-1
Ag 21 '48

CHARITIES

Rationed charity; limitation on deductible
charitable contributions. Fortune 37:4 My
'48

See also

Newspapers—Char-

ities

also Cooperative for American remittances
to Europe

CHARLESTON, South Carolina

Port of Charleston; rebuilt and revitalized. II
Manuf Rec 117:40-1+ Mr '48

CHARTERED property and casualty under-
writers. See American institute for prop-
erty and liability underwriters

CHARTERIS, Leslie, 1907-

The Saint, ace sleuth, makes comics debut.
C. Hodge. por Ed & Pub 81:38 O 2 '48

CHARTS (calculating)

Additive feed rate calculations for air-
entraining cements. C. J. Knickerbocher.
Rock Prod 51:105 F '48

Calculating deflections of hollow shafts in
torsion; chart; engineering data sheet. C.
P. Nachod. Machine Design 20:151-2 My
'48

Chart for timber stop-logs aids selection
of sizes. C. J. Posey. diags Eng N 139:
750 N 27 '47

Chart for use in productivity-index calcula-
tions. J. C. Calhoun, Jr. Oil & Gas J 47:103
Ag 19 '48

Chart reading and drafting speeded by pro-
portional interval divider. R. B. Bennett.
diag Chem Eng 54:138 D '47

Charts aid in solving problems of flow in
open channels. C. Freeman. Civil Eng 18:
585-7 S '48

Charts facilitate determination of stresses
under loaded areas. H. Gray and I. J.
Hooks. Civil Eng 18:373-5 Je '48

Charts for calculating root stresses in spur
gears; reference book sheet. W. H. Book-
miller. Product Eng 19:161-1 F '48

Charts for designing long-short addendum
spur gears; reference book sheet. W. H.
Bookmiller. Product Eng 19:167, 169 Mr
'48

Charts simplify chemical dosage for treating
boiler feedwater. W. D. Turner. Power
92:347-9 Je '48

Charts to obtain solar altitudes and azimuths.
I. F. Hand. Heat & Vent 45:86-8 O '48

Compensator setting chart for feeder voltage
regulators; engineering reference sheet. P.
E. Benner. Elec World 129:102 F 14 '48

Design curves for parallel-T network. D.
Espy. diags Electronics 21:114-15 JI '48

Efficiency of inductive coupling; chart. A. C.
Hudson. Electronics 20:138 D '47

F-12 suction line selector chart and AP com-
putor. H. E. Ferrilli. Refrig Eng 54:436-7
N '47

Filter ripple chart; reference sheet. C. K.
Hooper. Electronics 21:132 Mr '48

How to figure moisture in compressed air.
L. F. Wilson. Heating-Piping 19:82-3 N
'47

Logarithmic scales of odd lengths. II Metal
Prog 52:810-11 N '47

CHARTS (calculating)—Continued

Mechanical loading of wood poles; engineering reference sheet. E. M. Adkins. Elec World 129:90-1 F 28 '48

Mine air-conditioning chart. G. E. McElroy. bibliog 7pls U S Bur Mines Rep of Invest 4165:1-23 '47

Mismatch loss chart for transmission lines; reference sheet. J. M. Hollywood. Electronics 21:130 Je '48

Pipe bending chart. W. F. Schaphorst. Water & Sewage Works 95:377 O '48

Practical economics of radio frequency heating; making cost estimates. B. T. P. Kinn. diags Iron Age 161:72-9 Je 10 '48

Simple condenser proportioning. W. H. Armitage. Power Pl Eng 51:81-3 N '47

Simplified method for the design of vibration-isolating suspensions. R. C. Lewis and K. Unholtz. bibliog diags A S M E Trans 69:813-20 N '47; Same abr. Refrig Eng 53:291-5 Ap '47

Straight-line chart determination of absorber-extraction efficiency. E. G. Ragatz. Oil & Gas J 46:78-9+ F 12 '48; Same. Pet Refiner 27:83-90 F '48

Television resolution chart. Electronics 20:123-5 D '47

These short-cuts will speed your design and estimation of tanks; six charts. E. H. Coe. diags Chem Eng 55:107-9 S '48

Tool angles govern cutting efficiency; use of transparent model and chart. M. Kronenberg. diags Am Mach 92:90-2 Ja 15 '48

Torsion bars; graphical elucidation of various problems. H. Elvidge. Automobile Eng 38:211-14 Je '48

Torsional vibration frequency determined by use of charts and formulas; engineering data sheet. F. P. Porter. diags Machine Design 20:153-6 Ja '48

Valve operating point with cathode load. E. J. Harris. Wireless Eng 25:63-4 F '48

What is the length of any roll? chart gives answer in feet. W. F. Schaphorst. Water & Sewage Works 95:79 F '48

CHASE, Harold Mason, 1872-

1948 Olney medalist. A. R. Thompson. por Am Dyestuff Rep 37:684-5 O 18 '48

CHATTANOOGA**Railroads**

Showing southerners how Southern serves them; railroad-industrial tour for Chattanooga business men and civic leaders. il Ry Age 125:852-3 N 6 '48

CHECK books

Bookkeeping checkbook; Stubfax. il Bsns W p83 F 14 '48

Visible-record checkbook; Corn exchange national bank, Philadelphia. Burroughs Clearing House 32:6 Mr '48

CHECK cancelling machines

Fool-proof tripping circuits in electric check perforator. il diag Machine Design 20:157 F '48

CHECK off system

Union security under the Taft-Hartley act; provisions of contracts signed, August 23, 1947, June 23, 1948. Factory Management 106:77 O '48

CHECK paper. See Paper, Safety**CHECKER brick. See Fire brick****CHECKER cab manufacturing corporation**

More taxicabs; Checker Cab's plans. il Bsns W p26 Ja 3 '48

CHECKERWORK

Evaluation of openhearth checkers. W. B. Bryant. diags Iron Age 160:76-81 N 13 '47

Fundamentals of open-hearth checkerwork design. H. W. Potter. il Steel 121:112+ D 8 '47

CHECKING service

Rule on liability where mink coat was handed over by concessionaire to wrong party. Weekly Underw 158:1633+ Je 5 '48

CHECKOFF system

Coverage of check-off under Taft-Hartley act. Mo Labor R 67:42 J1 '48

Fixing checkoffs under Taft-Hartley. Bsns W p106-7 Je 12 '48

CHECKS

Bearer checks for payrolls save time for drawer and bank. L. F. Payne and others. il Bankers Mo 64:581-2 D '47

Certified Bancchecks developed for students by Valley national bank in Arizona. il Burroughs Clearing House 32:16-17 D '47

Customers should be urged to write checks slowly. il Bankers Mo 65:36 My '48

Certification

Audit treatment of certified checks. J Account 85:492 Je '48

Rubber stamp certification may be dangerous to paying banks. il Bankers Mo 65:50-1 F '48

Collection

Clearing the way for deferred posting. W. F. Lawson. Burroughs Clearing House 32:24-5+ Je '48

How deferred posting works; with suggested form of collection contract. Banking 40:124+ Je '48

Members of 279 clearing houses now benefit from deferred posting. Bankers Mo 65:24+ 28 S '48

See also

Banks and banking Banks and banking
—Collection charges —Transit operations

Design

Blind do own banking with this check. il Banking 41:82 O '48; Burroughs Clearing House 33:9 O '48

Check routing symbol experience. M. C. Miller. Banking 40:51+ F: 39+ Ap '48

Checks which cause no errors. B. Daily and W. H. Maples. il Bankers Mo 64:546 N '47

Printed account names reduce mis-sorts 60 per cent. il Bankers Mo 65:24+ My '48

Railways cooperate with A.B.A. on check standardization. M. C. Miller. Banking 40:63 N '47

Law

Bank justified in presumption that check drawn by agent was for purpose authorized by principal. Banking Law J 64:767-74 O '47

Check presented without explanation as to its conditional character. Banking Law J 64:989-92 D '47

Checking up on checks. C. B. Everberg. Credit & Fin Management 49:15-16+ N '47

Checks payable to insurance companies and deposited in agency accounts. Banking 40:84 Je '48

56 helpful ideas on check and safe deposit liability. il Bankers Mo 65:22+ Mr '48

Florida has new law on post-dated checks. W. E. Ellis. Bankers Mo 65:41 Ja '48

Mere acceptance of debtor's check by payee does not discharge debt until check is paid. Banking Law J 64:885-9 N '47

See also

Checks—Protest
Checks, Fraudulent

Par payment

See Banks and banking—Collection charges

Postal card checks

Hazards of postcard checks. M. C. Miller. Banking 41:26 J1 '48

Printing

Sorting speed increased 35 per cent when account names are printed. G. Munsick. il Bankers Mo 65:38-9 Ja '48

Protection

Mechanical check signers save time for customers and bank; prevent forgeries of cashier's checks. F. O. Ridings. il Bankers Mo 65:7-8+ J1 '48

See also

Paper, Safety

Protest

Ninety-five per cent of bankers favor protest procedure changes. Bankers Mo 65:12+ F '48

Work can be eliminated for every bank in America by changing the law on protest. Bankers Mo 64:534+ N '47

CHECKS—Continued

Signatures

Mechanical check signers save time for customers and bank; prevent forgeries of cashier's checks. P. O. Ridings. *il Bankers Mo* 65:7-8+ *Jl* '48

Stop payment

Eight ways to ease the load of handling stop payments. A. T. Wilson. *Bankers Mo* 64:548 *N* '47

Most of our stop-payment orders are released after 30 days. R. H. Makemson. *Bankers Mo* 65:5-6 *Ap* '48

Only two stop payments, we formerly had dozens; Citizens bank & trust co., Lebanon, Indiana. P. A. Morris. *Bankers Mo* 64:602-3 *D* '47

Recovery on check denied after payment stopped. *Banking Law J* 64:810-13 *O* '47

Renewals of stop payment orders not needed after one year; with text of Louisiana law. F. H. Fitzgerald. *Bankers Mo* 65:32+ *Ap* '48

This set of rules results in practically no losses on dangerous stop payments. R. C. Cleman. *Bankers Mo* 65:22+ *F* '48

CHECKS, Cancelled

Check sorting methods. J. H. Myers. *J Account* 84:510 *D* '47

See also

Check cancelling machines

CHECKS, Certified. See Checks—Certification

CHECKS, Forged. See Checks, Fraudulent

CHECKS, Fraudulent

Bank officer not authorized to accept for deposit his own check on bank given in payment of his personal debt. *Banking Law J* 64:947-62 *D* '47

Better business bureau gives good advice on not cashing checks. F. J. Sherertz. *Bankers Mo* 65:22-3 *Jl* '48

Collecting bank held liable upon warranty of genuineness of indorsement regardless of liability of drawee bank to depositor. *Banking Law J* 64:763-7 *O* '47

Drawee is liable in cashing a check with forged signature. P. C. Hodge. *Bankers Mo* 65:30-1 *S* '48

Evidence necessary to prove forgery. *Banking Law J* 64:915-17 *N* '47

Forged bank checks. D. S. Konheim. *Weekly Underw* 158:902-4, 973-4 *Mr* 20-27 '48

Interstate transportation of forged and false-made checks. *Banking Law J* 64:832-4 *N* '47

Mechanical check signers save time for customers and bank; prevent forgeries of cashier's checks. P. O. Ridings. *il Bankers Mo* 65:7-8+ *Jl* '48

New twist on imposter rule. C. R. Rosenberg, Jr. *Burroughs Clearing House* 32:71-2 *F* '48

Why and how forgeries can be detected. C. H. Fletcher. *il Bankers Mo* 65:36-8 *S* '48

CHEESE

Cheese-curing film wrap. *il Mod Packaging* 21:118-19 *Jl* '48

Cheese dish; molded of clear polystyrene. *il Mod Packaging* 21:91 *Ja* '48

Curing packaged cheese; patent. *Food Ind* 19:1738 *D* '47

Flavor in cheddar cheese; abstract. A. C. Dahlberg and F. V. Kosikowski. *Food Ind* 20:1540+ *O* '48

Kraft designs trailers for bigger loads. *il Food Ind* 20:371-2 *Je* '48

Lipase for blue cheese; abstract. I. E. Peters and F. E. Nelson. *Food Ind* 20:1230 *Ag* '48

Package gives small processor advantage over big competition; Zausner cheeses. *il Ptr Ink* 221:74 *N* 14 '47

Study of the changes occurring in the fat constants of milk fat of cheddar cheese during the ripening process; abstract. J. J. Sheuring and S. L. Tuckey. *Food Ind* 20:304 *F* '48

Tyramine in cheese; abstract. F. V. Kosikowski and A. C. Dahlberg. *Food Ind* 20:1390+ *S* '48

Advertising

Radio helps farmers get million a year more income than nonadvertising neighbors; Tillamook County cheese makers use radio, newspapers and magazines. L. F. Thomann. *Ptr Ink* 224:41 *Jl* 23 '48

Manufacture

Cheese from homogenized milk. *Food Ind* 20:371 *Mr* '48

Cheese processing put on batch-continuous basis; two melter-mixers to which cheese, in batches, is blown from grinder. F. W. McCarthy. *il plan Food Ind* 20:875-7 *Je* '48

Cheese quality improvement influenced by technology. G. P. Sanders. *il diag Food Ind* 20:26-31+ *Ja* '48

Comparison of the yields of cheddar cheese obtained from raw, holder pasteurized and high short-time pasteurized milk; abstract. O. R. Irvine and others. *Food Ind* 19:1586 *N* '47

Tips for improving acid-type fresh cheeses. E. Lundstedt. *il Food Ind* 20:1472-4+ *O* '48

Statistics

Dairy products, 1941-1946. Survey of Cur Bsns 1947 *Sup* p 125-6 [supplemented in monthly numbers]

CHELATION

Sexadentate chelate compound. F. P. J. Dwyer and F. Lions. *Am Chem Soc J* 69:2917-18 *N* '47

CHEMICAL abstracts (periodical)

ACS official report, 1947. E. J. Crane. *Chem & Eng N* 26:551-2 *F* 23 '48

CA today. E. J. Crane. *Chem & Eng N* 26:240-2 *Jl* 26 '48

Indexing abstracts. C. L. Bernier and E. J. Crane. *il Ind & Eng Chem* 40:725-30 *Ap* '48

CHEMICAL affinity

Affinity and reaction rate close to equilibrium; hydrogenation of benzene; dehydrogenation of cyclohexane. I. Prigogine, P. Outer and C. Herbo. *bibliog J Phys & Colloid Chem* 52:321-31 *F* '48

CHEMICAL and engineering news (periodical)

ACS official report, 1947. *Chem & Eng N* 26:555-7 *F* 23 '48

CHEMICAL apparatus

Apparatus for absorption of carbon dioxide in mass spectrometric determination of the carbon isotopes. K. Rankama and K. J. Neuvonen. *diag Anal Chem* 20:589-90 *Je* '48

Apparatus for micro- and semimicrodetermination of nitrogen according to Dumas. W. Kirsten. *bibliog il diags Anal Chem* 19:925-7 *N* '47

Apparatus for refined thermal analysis exemplified by a study of the system *p*-dichlorobenzene-*p*-dibromobenzene-*p*-chlorobromobenzene. A. N. Campbell and L. A. Prodan. *bibliog diags Am Chem Soc J* 70:553-61 *F* '48

Apparatus for the semimicro test for a carbonate. F. H. Heath. *diag J Chem Educ* 25:73 *F* '48

Determination of lithium aluminum hydride in solution. J. A. Krynetsky, J. E. Johnson and H. W. Carhart. *diag Anal Chem* 20:311-12 *Ap* '48

Gas analysis apparatus employing the velocity of sound. C. E. Crouthamel and H. Diehl. *bibliog diags Anal Chem* 20:515-20 *Je* '48

Glass trough for filter paper partition chromatography. W. H. Longenecker. *diags Science* 107:23-4 *Ja* 2 '48

Hydraulic device for raising and lowering mercury in gas analyzers. H. F. Brubach and N. H. Smith. *diags Science* 108:338-9 *O* 8 '48

Improved steam-distillation apparatus; application to determination of nicotine in green and dry tobacco. R. B. Griffith and R. N. Jeffrey. *bibliog il diags Anal Chem* 20:307-11 *Ap* '48

Instrument for continuous measurement and recording of low concentrations of oxygen in gases. G. Cohn. *bibliog il diags Anal Chem* 19:832-5 *N* '47

Laboratory apparatus for vapor phase reactions. L. J. Spillane and R. D. Goodwin. *diags J Chem Educ* 25:78-80 *F* '48

CHEMICAL apparatus—Continued

- Laboratory tests and equipment for plating tests. J. B. Mohler and H. J. Sedusky. *Ind* **diag** Metal Finishing 46:50-5 F; 76-83 bibliog(p83) Mr '48
- Method for silvering a Dewar flask for optical experiments. J. S. Haynes and J. F. Scott. *diag* Science 107:301 Mr 19 '48
- Microdetermination of carbon monoxide in air; a portable instrument. A. O. Beckman, J. D. McCullough and R. A. Crane. bibliog *Ind* **diag** Anal Chem 20:674-7 JI '48
- Modification of the Victor Meyer molecular weight apparatus. W. V. Evans and F. P. Cassaretto. *diag* J Chem Educ 25:348 Je '48
- Modified apparatus for determination of groups active to the Grignard reagent. P. M. Maginnity and J. B. Cloke. bibliog *diag* Anal Chem 20:978-9 O '48
- Modified differential thermal analysis apparatus. P. G. Herold and T. J. Planje. bibliog *Ind* **diag** Am Cer Soc J 31:20-2 Ja 1 '48
- Multiple unit bath for oxidation stability tests for gasoline. E. L. Ruh and others. *Ind* Pet Processing 9:45-6 J '48
- New solution sampler. *diag* Can Chem & Process Ind 32:643 JI '48
- Objective determinations of freezing points. J. B. Hickman. bibliog *diag* J Chem Educ 25:163-7 Mr '48
- Optical system for melting-point apparatus. N. Whitman. *diag* Anal Chem 20:394 Ap '48
- Oxyntification of benzene to picric acid; Wolfenstein-Böters reaction. E. E. Aristoff and others. bibliog *Ind* **diag** Ind & Eng Chem 40:1281-90 JI '48
- Rapid determination of specific gravity of liquids under pressure. J. I. Lacey. *diag* Anal Chem 20:379 Ap '48
- Simple siphon device. E. E. McDermott. *diag* Chem & Ind p73 Ja 31 '48
- Simple steam microbath. C. L. Ruifs. *diag* Anal Chem 19:1046 D '47
- Storage and titration with oxygen-sensitive solutions. H. W. Stone. bibliog *diag* Anal Chem 20:747-9 Ag '48
- Temperature control for a constant-temperature water bath. H. S. Schwenk. *diag* J Phys & Colloid Chem 52:761 Ap '48
- See also*
- | | |
|---|--|
| Agitators | Electric heaters, |
| Autoclaves | Laboratory |
| Bombs (chemical apparatus) | Emulsifiers |
| Burets | Evaporators |
| Centrifuges | Filters and filtration (technical chemistry) |
| Chemical engineering—Apparatus and supplies | Gases—Apparatus |
| Chemical plants—Equipment | Pipets |
| Distillation apparatus | Stirrers |
| | Vacuum pumps |
| | Viscosimeters |
- CHEMICAL balance.** *See* Balances
- CHEMICAL bank and trust company**
Bank stocks; proposed acquisition of Continental bank & trust co. E. A. Van Deusen. *Comm & Fin Chr* 167:808 F 19 '48
- CHEMICAL-biological coordination center.** *See* National research council—Chemical-biological coordination center
- CHEMICAL bonds**
Associating effect of the hydrogen atom; the N-H-O bond; esters of carbanic acid. M. Barker, L. Hunter and N. G. Reynolds. *Chem Soc J* p874-81 Je '48
- Bond energies in peroxides, and the energy evolved in the reaction $H + O_2 = HO_2$. A. D. Walsh. *Chem Soc J* p331-9 Mr '48
- Bond energies of hydrocarbons. L. Gerö. bibliog *J Chem Phys* 16:1011-13 N '48
- Carbon-carbon and carbon-hydrogen bond energies. G. Glockler. bibliog *J Chem Phys* 16:842-4 Ag '48
- C-H bond energy in toluene and xylenes. M. Szwarc. bibliog *diag* J Chem Phys 16:128-36 F '48
- Carbon-hydrogen bond strengths in methane. H. H. Voge. bibliog *J Chem Phys* 16:984-6 O '48
- Coordinating compounds of boron trichloride; relationship of dipole moment of chlorides to compound formation. D. R. Martin. bibliog *J Phys & Colloid Chem* 51:1400-4 N '47
- Donor-acceptor bonding; ammonia-boron trifluoride. A. W. Laubengayer and G. F. Condit. bibliog *Am Chem Soc J* 70:2274-6 Je '48
- Energy of the C-H bond in the fluorotoluenes. M. Szwarc and J. S. Roberts. *J Chem Phys* 16:609-11 Je '48
- Energy of the C-H bond in the three picolines (methyl pyridines). J. S. Roberts and M. Szwarc. *J Chem Phys* 16:981-3 O '48
- Factors influencing the strengths of bonds. A. D. Walsh. *Chem Soc J* p398-406 Ap '48
- Force constants and frequency assignments for some substituted methylacetylenes. A. G. Meister. bibliog *J Chem Phys* 16:950-9 O '48
- Forces between tetrahalide molecules. J. H. Hildebrand. bibliog *J Chem Phys* 15:727-36 O '47
- Heats of formation of the N=N and C=N bonds; abstract. G. E. Coates and L. E. Sutton. *Chem & Ind* p806 D 27 '47
- Influence of interatomic forces on paraffin properties. H. Wiener. *J Chem Phys* 15:766 O '47
- Mechanism of the alkaline cleavage of silicon-hydrogen bonds; temperature coefficients of the rate of cleavage of several trialkylsilanes. F. R. Price. bibliog *Am Chem Soc J* 69:2600-4 N '47
- Molecular diagram method. P. Daudel and R. Daudel. bibliog *J Chem Phys* 16:639-43 JI '48
- Molecular structure of dimethyltrisulfide. (CH₃)₂SS₃. J. Donohue and V. Schomaker. bibliog *J Chem Phys* 16:92-6 F '48
- Nature of bond orbitals in quadrivalent complexes of transition elements. H. Kuhn. bibliog *J Chem Phys* 16:727-33 JI '48
- Repulsive forces in relation to bond energies, distances and other properties. K. S. Pitzer. bibliog *diag* Am Chem Soc J 70:2140-5 Je '48
- Role of electrons in interatomic relations. W. F. Euret. *diag* J Chem Educ 25:291-5 JI '48
- Simple potential functions for HF and [F-H-F]⁻. M. Davies. bibliog *J Chem Phys* 15:739-41 O '47
- Study of the exchange of nickel in certain complex compounds using radioactive nickel. J. E. Johnson and N. F. Hall. bibliog *Am Chem Soc J* 70:2344-8 JI '48
- Theory of the ferroelectric effect and clamped dielectric constant of Rochelle salt. W. P. Mason. bibliog *Phys R* 72:854-65, 976 N 1-15 '47
- Thermochemical evaluation of the bond-strength in some carbon compounds; methyl carbon-iodine and methyl carbon-magnesium; abstract. H. Mackie and R. Ubbelohde. *Chem & Ind* p806 D 27 '47
- CHEMICAL consultants.** *See* Shell, Foster D., inc.
- CHEMICAL corps.** *See* United States—Chemical corps
- CHEMICAL corps association.** *See* Armed forces chemical association
- CHEMICAL development association, Commercial.** *See* Commercial chemical development association
- CHEMICAL education**
ACS official reports; professional training. *Chem & Eng N* 25:1629-30 My 31 '48
- Chemical education in American institutions. L. E. Steiner. *Ind* **diag** J Chem Educ 25:526-31 O '48
- Chemical education in American institutions; California institute of technology. E. H. Swift. *Ind* **diag** J Chem Educ 24:574-83 D '47
- Chemical education in American institutions; Duke university. L. A. Bigelow and others. *Ind* **diag** J Chem Educ 25:378-5 JI '48
- Chemical education in American institutions; junior colleges. R. D. Rowe. *J Chem Educ* 25:378-5 JI '48
- Chemical education in American institutions; Massachusetts institute of technology. A. C. Cope. *Ind* **diag** J Chem Educ 25:187-94+ Ap '48
- Chemical education in American institutions; Mount Holyoke college. E. P. Carr. *Ind* **diag** J Chem Educ 25:11-15 Ja '48
- Chemical education in American institutions; Pennsylvania state college. G. C. Chandless. *Ind* **diag** J Chem Educ 25:122-6 Mr '48

CHEMICAL education—Continued

Chemical education in American institutions;
University of Chicago, W. C. Johnson, II
J Chem Educ 26:318-21 Je '48

Chemical education in American institutions;
University of Illinois, J. C. Ballar, Jr. II
J Chem Educ 24:550-5 N '47

Chemical education in American institutions;
University of Kansas, R. Taft, II J Chem
Educ 25:474-81 S '48

Chemical education in American institutions;
University of Rochester, Rochester, N.Y.,
W. A. Noyes, Jr. II J Chem Educ 25:71-3
F '48

Chemical education today, H. F. Lewis, J
Chem Educ 25:573-7 O '48

English in the chemistry curriculum, C. San-
ford, bibliog Can Chem & Process Ind 31:
1133-5 D '47

Philosophy of graduate training at Ph.D.
level; committee on professional training
of the American chemical society, Chem &
Eng N 26:166-7 Ja 19 '48

Plan of industrial training for chemists and
engineers, General Electric Co. C. H. Kline,
Jr. II Chem & Eng N 26:2692-4 S 13 '48

Progress report number 16 of the Commit-
tee on professional training, Chem & Eng
N 25:3843+ D 29 '47

Progress reports 17 and 18 of the A.C.S.
committee on professional training; with
list of accredited colleges, Chem & Eng N
26:2197-9 JI 26 '48

See also

Chemistry—Study and teaching
Chemistry students
Chemistry teachers

Bibliography

List of books on display at the Chemical
education book exhibit, Hotel Stevens,
Chicago, April 19-23, J Chem Educ 25:32+
Ap '48

CHEMICAL elements

Formation of chemical elements inside the
stars, G. Wataghin, Phys R 73:79 Ja 1 '48

Grouping of the elements, C. C. Addison,
bibliog Chem & Ind 22:27-9 Ap 10 '48

Natural abundance of isotopes of stable ele-
ments, J. R. White and A. E. Cameron,
bibliog Phys R 74:991-1000 N 1 '48

Neutron cross sections of the elements, H. H.
Goldsmith and others, bibliog(74 ref) Rs
Mod Phys 19:259-97 O '47

Origin of chemical elements, R. A. Alpher
and others, bibliog Phys R 73:803-4 Ap 1
'48

Origin of elements and the separation of
galaxies, G. Gamow, Phys R 74:505-6 Ag 15
'48

Periodic system of the chemical elements in
three dimensions; the five-five system, A.
G. Oppegaard, Chem Soc J p318-21 Mr '48

Relative abundances of nuclei in the universe,
P. Sarraiva de Toledo and G. Wataghin,
bibliog Phys R 73:79-80 Ja 1 '48

Second Nieuwland lecture, G. T. Seaborg,
Chem & Eng N 25:3800 D 22 '47

Thermonuclear reactions in the expanding
universe, R. A. Alpher and others, bib-
liog Phys R 74:1198-9 N 1 '48

See also

Atoms
Isotopes
Periodic system
Transition elements
also names of elements, e.g. Carbon;
Oxygen; Sulfur

Atomic no. 43

Characterization of Tc activities produced by
deuteron bombardment of separated Mo
isotopes, E. E. Motta and G. E. Boyd, bib-
liog Phys R 74:220-2 JI 15 '48

Crystal structure of element 43, R. C. L.
Mooney, Phys R 72:1269 D 15 '47

Mass spectrometric study of fission element
43, M. G. Inghram and others, Phys R 72:
1269-70 D 15 '47

Preparation of technetium metal, S. Fried,
Am Chem Soc J 70:442 Ja '48

Production of new Tc activities from
separated Mo isotopes, E. E. Motta and
G. E. Boyd, Phys R 73:1470-2 Je 15 '48

Salts of elements 43 and 61 shown for first
time at Syracuse symposium, II Chem &
Eng N 26:2052-5 JI 12 '48

Technetium; proof of element 43; abstract,
G. W. Parker and others, Chem Age (Lond)
59:111 JI 24 '48

X-ray spectrum of element 43, L. E. Burk-
hart and others, bibliog II Phys R 73:347-9
F 15 '48

Isotopes

Decay scheme of 62-day isotope of element
43 (Tc), O. Huber and others, bibliog diag
Phys R 73:1211-12 My 15 '48

Disintegration of Tc^{65} and Tc^{66} , H. Medicus
and others, bibliog Phys R 74:339-40 O 1
'48

Long-lived Tc activities produced by deu-
teron bombardment of separated Mo iso-
topes, E. E. Motta and G. E. Boyd, bibliog
Phys R 74:344-5 Ag 1 '48

New isomer of element 43 (Tc) of very small
excitation energy, O. Huber and others,
Phys R 73:1208-9 My 15 '48

Production and properties of a long-lived
radio-isotope of element 43, E. E. Motta
and others, Phys R 73:1270 D 15 '47

Radiations from molybdenum (99) and tech-
netium (99), C. E. Mandeville and M. V.
Scherb, bibliog Phys R 73:848-52 Ap 15
'48

Radioactive isotopes of Ru and Tc, D. T.
Eggen and M. L. Pool, bibliog Phys R 74:
57-62 JI 1 '48

Atomic no. 61

Chemical identification of radioisotopes of
neodymium and of element 61, J. A. Ma-
rinsky, L. E. Glendenin and C. D. Coryell,
bibliog Am Chem Soc J 69:2781-5 N '47

Considerations on the existence of element
61 in nature, N. E. Ballou, bibliog Phys
R 73:630 Mr 15 '48

Proposal of the name promethium for ele-
ment 61, J. A. Marinsky and L. E. Glen-
denin, bibliog(45 ref) Chem & Eng N 26:
2346-8 Ag 9 '48; Abstract, Chem Age (Lond)
59:110-11 JI 24 '48

Salts of elements 43 and 61 shown for first
time at Syracuse symposium, II Chem &
Eng N 26:2052-5 JI 12 '48

Atomic no. 93

See Neptunium

Atomic no. 94

See Plutonium

CHEMICAL engineering

Bench scale equipment and techniques, bib-
liog flow diags II diags Ind & Eng Chem
39:1555-81 D '47

Case study in biochemical engineering;
Merck's brilliant streptomycin achievement
typifies the potentialities of a new tech-
nology, S. D. Kirkpatrick, II Chem Eng 54:
94-6, 101-2 N '47

Celanese corporation establishes award, ex-
pands research facilities, II Chem Eng Prog
43:sup 18-19+ N '47

Chemical engineering in the plastics indus-
try, T. S. Carswell; R. Buchdahl and others,
bibliog diags Ind & Eng Chem 40:642-72 Ap
'48

Chemical engineering in the textile industry;
Chem & Met report, II diags Chem Eng
55:127-34 Mr '48

Chemical engineering role in modern indus-
try; abstract, W. A. Hall and others, Oil
Paint & Drug Rep 153:7-1 Ja 5 '47

Chemical engineering unit processes review,
bibliog flow diags II diags Ind & Eng Chem
40:1552-694 S '48

Chemical engineers honor Merck & co, Chem
Eng 54:110-11+ D '47

For distinguished service to humanity; 1947
award for chemical engineering achieve-
ment, S. D. Kirkpatrick, II Chem Eng 54:
91-3 N '47

For progress in petroleum chemicals; award
for chemical engineering achievement at
Shell development co, S. D. Kirkpatrick,
Chem Eng 55:97-9 O '48

GR-S and waste disposal featured before
AIChE regional meeting, Cleveland, May
9-12, Chem & Eng N 26:1516-17 My 24 '48

German chemical engineering; a survey, 1935-
1945, C. W. Perry, bibliog flow sheet Chem
Eng Prog 43:659-66 D '47

CHEMICAL engineering—Continued

Need for resource; DSIR chief's advice to chemical engineers. *Chem Age* (Lond) 58: 551-2 Ap 24 '48

Planning function in chemical engineering. A. J. Speakman. *Il Chem Age* (Lond) 58:371-4 Je 26 '48

Process design featured at AIChE symposium. *Chem & Eng N* 25:3291 N 10 '47

Process engineering plots its course; *Chem. & Met.* report. *diags Chem Eng* 55:95-126 My '48 [reprints 75c]

Recent advances in fermentation. *Il Chem Eng* 54:141-8 D '47

Shell to get chemical achievement award for synthetic glycerine. *Chem Eng* 55:193 S '48

Unit operations review. *bibliog il diags Ind & Eng Chem* 40:2-56 Ja '48

Unit processes in retrospect and in prospect. R. N. Shreve. *bibliog Ind & Eng Chem* 40: 379-81 Mr '48

Work of a process design chemical engineer. G. C. Gester, jr. *J Chem Educ* 24:584-7 D '47

See also

Chemical plants	Fluidization
Chemistry, Technical	Food factories
Cooling, Industrial	Metallurgy
Distillation	Mixing
Drying	Petroleum refineries
Evaporation	Refrigeration and
Extraction processes	refrigerating ma-
Feed water purifica-	chinery
tion	Refuse disposal
Filters and filtration	Sewage disposal
(technical chem-	Sublimation
istry)	Unit processes
Flotation process	Water purification
also American institute of chemical engineers	

Apparatus and supplies

Bench scale equipment and techniques; evaluation of vapor phase reactions with solid catalysts. H. J. Henriques. *Il diags Ind & Eng Chem* 39:1564-70 D '47

Carbon in chemical engineering; high resistance to acids, heat and shock. A. E. Williams. *Chem Age* (Lond) 58:234-5 F 14 '48

Chemical engineering catalog, 1947-48. 32d annual ed 1584p Reinhold pub. corp, 330 W. 42d st, New York 18 '47 (\$12)

Chemical engineering materials of construction; second annual review. *bibliog il Ind & Eng Chem* 40:1773-936 O '48

Controlled volume chemical pumps; design and operation. R. T. Sherrin. *Il diags Chem Eng Prog* 44:327-32 Ap '48

Filtration in the process industries. W. W. King. *Il diags Chem Eng Prog* 44:717-20 S '48

Principles of automatic control; report for executive in process industries. G. A. Philbrick and W. H. Kidd. *diags Chem Eng Prog* 44:675-80 S '48

Repairing glass-lined equipment. E. F. Meier. *diags Chem Eng* 54:116-18 D '47

Safety and the chemical engineer. C. F. Montross. *Il Pet Eng* 19:207-8 Ja '48; Same *Abstr Safety Eng* 95:12-13-7a '48

Vacuum concentration by adsorption. E. Ledoux. *diags Chem Eng* 55:102-4 Jl '48

What to look for at the chemical show. *Il Chem Eng* 54:138-43 N '47

See also

Agitators	Evaporators
Air separators	Extraction apparatus
Autoclaves	Heat exchangers
Centrifuges	Mixers
Chemical plants—	Pressure vessels
Equipment	Proportioning equip-
Distillation apparatus	ment
Drying apparatus	Vacuum apparatus
Emulsifiers	

Estimates

Equipment cost indexes for process industries; Marshall and Stevens indexes carried back to 1913. R. W. Stevens. *Chem Eng* 54:124-6 N '47

How N system simplifies piping cost estimation. R. A. Dickson. *Chem Eng* 54:121-3 N '47

Short-cut estimation of welded process vessels; charts. H. How. *diags Chem Eng* 55: 122-6 Ja '48

Simplified approach to preliminary cost estimates. H. J. Lang. *Chem Eng* 55:112-13 Je '48

Six-tenths factor aids in approximating costs. R. Williams. *jr. Chem Eng* 54:124-5 D '47

Study and teaching

Chemical engineering curricula debated at Madison. *Chem & Eng N* 26:2831 S 20 '48

Correlation of unit operations and processes. D. E. Mack. *J Eng Educ* 38:638-41 My '48

Design of unit operations laboratories; observations at institutions in U.S. and Canada of facilities for undergraduate laboratory instruction. W. D. Kranich. *bibliog Il Chem & Eng N* 26:1830-2 Je 21 '48

Experiment in practical training. J. R. Campbell. *Chem & Ind* p424-5 Jl 3 '48

Graduate thermodynamics in chemical engineering. R. York, jr. *bibliog J Chem Educ* 25:126-30 Mr '48

Methods of chemical engineering laboratory instruction. R. K. Toner. *J Eng Educ* 38: 745-50 Je '48

Nucleonics and chemical engineering; abstract. R. M. Boarts. *Chem Eng* 55:302-3 S '48

Process instrumentation in chemical engineering curriculum. J. B. Arant. *J Chem Educ* 25:233-5 My '48

Teaching the unit process laboratory. C. J. Marsel. *J Eng Educ* 38:650-2 My '48

Unit process fundamentals. C. H. Prien. *bibliog J Eng Educ* 38:467-81 Mr '48

Tables, calculations, etc.

Avoiding destructive velocity through adsorbent beds. E. Ledoux. *diags Chem Eng* 55: 118-19 Mr '48

Calculations for high vacuum systems. W. P. Dryer. *Chem Eng* 54:127-31 N 122-4 D '47

Contact times of continuous-flow reacting systems with volume change. S. R. Brinkley, jr. *Ind & Eng Chem* 40:303-7 F '48

Correlating reactor performance in alcohol butadiene process. J. Coull and C. A. Bishop. *Chem Eng Prog* 44:443-51; Discussion. 450-7 Je '48

Dimensionless groups in fluid friction, heat, and material transfer. A. Klinkenberg and H. H. Mooy. *Chem Eng Prog* 44:17-36 bibliog(103 ref, p35-6) Ja '48

Effect of particle shape on free-settling rates of isometric particles. E. S. Pettyjohn and E. B. Christiansen. *bibliog Il diags Chem Eng Prog* 44:157-73 F '48

Fluidization of solid particles; sand, glass, silicate catalyst, and lead shot in air and water. R. H. Wilhelm and M. Kwauk. *bibliog diags Chem Eng Prog* 44:201-17; Discussion. 217-18 Mr '48

Fundamentals in chemical process calculations. O. L. Kowalke. 158p \$2.80 Macmillan co, 60 5th av, New York 11 '47

Graphical residual; its application to phase relations of oxygen and nitrogen. H. A. Koch, jr. and V. C. Williams. *bibliog Chem Eng Prog* 43:623-32 N '47

Improving pump and compressor selection. I. Taylor. *Il Chem Eng Prog* 44:336-8 Ap '48

Method for subdividing logarithmic and other non-uniform scales. M. A. G. Rau. *Chem Eng* 55:128-9 Je '48

Nomographs for chemical kinetics. M. Nord. *Chem Ind* 63:664-7 O '48

Preliminary process design. L. J. Coulthurst. *Il Chem Eng Prog* 44:257-60 Mr '48

Process design; chemical engineering economics. J. M. Harris, jr. *bibliog Il Chem Eng Prog* 44:333-5 Ap '48

Process engineer's guide to the centrifugal compressor. I. J. Karassik. *Il diags Chem Eng* 54:110-14 O; 132-5 N; 126-8 D '47; 55: 118-21 Ja; 134-7 F '48

Reaction rate, heat transfer, and temperature distribution in fixed-bed catalytic converters; solution by electrical network. R. H. Wilhelm and others. *bibliog Il diags Chem Eng Prog* 44:105-16 F '48

Required process and design data for heat exchangers. P. S. Otten. *Il Chem Eng Prog* 44:411-13 My '48

Sampling lag and purging time in mixing vessels in series. H. J. Kandiner. *Chem Eng Prog* 44:383-6 My '48

CHEMICAL engineering—Tables, calculations, etc.—*Continued*

Simplified approach to mixing problems; calculation of required power and mixing time, H. E. Serner, *Chem Eng* 55:127-9+ Ja '48

Simplified pressure-loss calculations for plastic flow, E. L. McMillen, *bibliog Chem Eng Prog* 44:537-46 JI '48

Tools for process design, L. Friend, *bibliog il Chem Eng Prog* 44:253-6 Mr '48

See also

Mixing—Tables, calculations, etc.
Vapor pressure

CHEMICAL engineering laboratories

Application of micro-pilot plant techniques to the unit operations laboratory, W. M. Langdon and others, *bibliog diag J Eng Educ* 33:751-6 Je '48

Design of unit operations laboratories; observations at institutions in U.S. and Canada of facilities for undergraduate laboratory instruction, W. L. Kranich, *bibliog il Chem & Eng N* 26:1830-2 Je 21 '48

Illinois is building a new chemical engineering laboratory at Urbana, *il Chem Eng* 55: 184+ F '48

Unit operations laboratory; abstract, J. J. McKetta, jr., *Chem Eng* 55:260+ JI '48

Safety measures

Practice of safety in the chemical engineering laboratory, R. L. Huntington, *il J Chem Educ* 25:157-9 Mr '48

CHEMICAL engineers

Chemical engineer and civilisation, H. W. Cremer, *Engineering* 165:390 Ap 23 '48

Chemical engineer; his role in electrical manufacturing, N. R. Maleady, *il J Chem Educ* 25:365-6 JI '48

Chicago section selects ten ablest chemists and chemical engineers now working in the United States in each of 20 specialized fields, *Chem & Eng N* 25:3572+ D 1 '47

Graduate appointments in chemistry and chemical engineering, *J Chem Educ* 25:52-4 Ja '48 [cont monthly]

Opportunities to chemists and chemical engineers, W. von Pechmann, *Ind & Eng Chem* 40:sup99A-100A My '48

Plan of industrial training for chemists and engineers, General Electric co. C. H. Kline, jr., *il Chem & Eng N* 26:2692-4 S 13 '48

Practical hints for young chemical engineers, J. Neill, *Can Chem & Process Ind* 32:549-51 Je '48

Professional chemical engineering pays off; 1946 survey, A. Fraser, *map Chem & Eng N* 25:3068-70+ O 20 '47; Abstract, *Can Chem & Process Ind* 31:926 O '47

Safety and the chemical engineer, C. F. Montross, *il Pet Eng* 19:207-8 Ja '48; Same abr, *Safety Eng* 95:12-13+ Ja '48

Selective placement of chemists and chemical engineers through industrial training programs, C. H. Kline, jr., *J Chem Educ* 25: 568-70 O '48

Directories

Association of consulting chemists and chemical engineers classified directory, 11th ed enl 97p Assn. of consulting chemists and chemical engineers, 50 E. 41st st, New York 17 '47

Canada

Economic status of chemists and chemical engineers in Canada; 1947 survey, Chemical institute of Canada, *Can Chem & Process Ind* 32:435-42 My '48

CHEMICAL engineers, American institute of.
See American institute of chemical engineers**CHEMICAL equations**

Some mathematical relations involving the solubility of silver cyanide, J. E. Ricci, *bibliog J Phys & Colloid Chem* 51:1375-94 N '47

CHEMICAL equilibria

Anion-exchange equilibria in an anion exchange resin, R. Kunin and R. J. Myers, *bibliog Am Chem Soc J* 69:2874-8 N '47

Basic strengths of amines as measured by the stabilities of their complexes with silver ions, R. J. Bruehlman and F. H. Verhoek, *Am Chem Soc J* 70:1401-4 Ap '48

Chemical reaction equilibria; estimating standard entropy changes, H. P. Meissner, *bibliog Ind & Eng Chem* 40:904-8 My '48

Equilibrium equations for a model of antibody-antigen combination, M. F. Morales, J. Botts and T. L. Hill, *bibliog Am Chem Soc J* 70:2339-41 JI '48

Equilibrium of iron-carbon-silicon and of iron-carbon-manganese alloys with mixtures of methane and hydrogen at 1000°, R. P. Smith, *bibliog Am Chem Soc J* 70: 2724-9 Ag '48

Exchange adsorption of ions from aqueous solutions by organic zeolites; ion-exchange equilibria, G. E. Boyd, J. Schubert and A. W. Adamson, *bibliog Am Chem Soc J* 69:2818-29 N '47

Ion exchange as a separations method; equilibrium studies of the reactions of rare earth complexes with synthetic ion exchange resins, E. R. Tompkins and S. W. Mayer, *bibliog Am Chem Soc J* 69:2859-65 N '47

Ion exchange as a separations method; theoretical analysis of the column separations process, S. W. Mayer and E. R. Tompkins, *bibliog Am Chem Soc J* 69:2866-74 N '47

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; equilibrium and side reactions, D. P. Stevenson and J. H. Morgan, *bibliog Am Chem Soc J* 70:2773-7 Ag '48

Lecture demonstrations for general chemistry; chemical equilibrium; the common ion effect, C. H. Sorum, *J Chem Educ* 25:489-90 S '48

Simplified method for computing the equilibrium composition of gaseous systems, F. J. Krieger and W. B. White, *bibliog J Chem Phys* 16:358-60 Ap '48

See also

Phase rule and equilibrium

CHEMICAL formulas

Structure number; proposal for more exact characterization of structure isomers, P. V. Laakso, *Chem & Ind* p387-8 Je 19 '48

CHEMICAL industries

Agriculture; farmers increasingly supply chemical industry with raw materials; also its best customers, F. H. Groggins, *Chem Eng* 55:114-18 Ap '48

Cellulose; its history, growth, and influence, M. Heath, *il Chem Ind* 62:406-12 Mr '48

Chemical and related markets in 1947, Oil Paint & Drug Rep 153:3+ sec 2 F 16 '48

Chemical firms shake off coal strike blow, H. S. Taylor, *Barron's* 28:7-8 Ap 26 '48

Chemical growth shows no sign of slackening, S. B. Self, *Barron's* 28:7-8 Ja 5 '48

Chemical industry prospects for '48 viewed optimistically by Department of commerce, Oil Paint & Drug Rep 152:3 D 8 '47

Chemicals export quotas license cut-off dates revealed by OIT, Oil Paint & Drug Rep 153:3 Je 14 '48

Commercial chemical development symposium touches issues vital to industry, *Chem & Eng N* 26:832-58 Mr 22 '48

Commercial research groups meet in New York; Commercial chemical development association; excerpts from papers, *Chem Eng* 55:180+ Ap '48

Export controls discussed before chemical market group; revising the chemical index, *Chem & Eng N* 26:312 F 2 '48

First session of the I.L.O. chemical industries committee, Paris, April 7-16, *Int Labour R* 57:612-17 Je '48

Industrial chemical conference, *Chem & Eng N* 26:3270-2 N 1 '48

Industry experts join MIT staff in marketing conference, *Chem & Eng N* 26:1146-7 Ap 19 '48

Legal decisions in 1947 of interest to chemical makers and sellers, L. T. Parker, *Chem Ind* 62:402-4 Mr '48

Market development successes outlined at meeting of Commercial chemical development association, *Chem & Eng N* 26:3092-3 O 18 '48

Miracles will move onto production lines, S. B. Self, *Barron's* 28:7-8 Je 7 '48

New chemical plants promise an old product, profits, S. B. Self, *Barron's* 28:7-8 S 13 '48

CHEMICAL industries—Continued

New chemicals and equipment point way to lower costs; annual survey, *il Chem Ind* 63:378-422+ S '48

New patterns of world chemical trade; adapted from *For Comm W Oct*, 25. C. C. Concannon. *Chem & Eng N* 25:3488-90 N 24 '47

New plants may halt drop in chemical firms' profits. *Barron's* 28:35 My 10 '48

Oil Paint & Drug Rep 153:4+ Je 7 '48

Problems of the chemical industries. *Int Labour R* 57:334-43 Ap '48

Product development in the petroleum chemical field. R. W. KixMiller. *il Pet Processing* 3:241-3+ Mr '48

Reporting of executive committee, Manufacturing chemists' association. *Chem & Eng N* 26:1834-5 Je 21 '48

Scientists and management in the chemical industry. G. W. Merck. *Chem & Ind* p783-5 D 20 '47; Abstract. *Chem & Eng N* 25:3496-7 N 24 '47

Some developments in the heavy chemical industry. A. I. Coleman. flow sheets *il Chem Age (Lond)* 58:42-51+ Ja 10 '48

Symposium on chemical marketing; territory between synthesis research on the one hand and production on the other. *Chem & Eng N* 26:1690-3, 1770-4 Je 7-14 '48

U.S. chemicals to hold export dominance. S. B. Self. *Barron's* 27:7-8 N 17 '47

U.S. has assumed top position in chemical trade. C. C. Concannon. *Ind & Eng Chem* 40:1004-10 Je '48

Westvaco takes a helpmate; merges with Food machinery corp. *il map Chem Ind* 62:908-9 Je '48

What use is technical service? chemical equipment companies. F. G. Rice. *Can Chem & Process Ind* 32:155-8 F '48

What's ahead for petrochemicals? H. W. Zabel. *il Chem Ind* 62:390-3 Mr '48

Why the chemical industry is pre-eminent; abstract. R. D. Naess. *Chem Eng* 55:264+ Ap '48

See also

Alcohol industry
Anti-freeze solutions
Brewing industries
Chemical workers
Chemicals
Chemistry, Technical
Dye industry
Electrochemistry
Fermentation
Fertilizer industry
Fertilizers
Furfural
Glass
Leather industry and trade
Metallurgy
Oil industries
Paint industry and trade
Paper
Paper chemicals
Paper industry and trade
Petroleum chemicals
Plastic industries
Pottery
Rubber
Rubber chemicals
Rubber industry and trade
Salt
Silicones
Soap
Soap industry and trade
Solvents
Sugar industry and trade
Tanning materials
Textile chemicals
Textile industry

also Chemical market research association; Du Pont de Nemours, E. I., and company; International minerals and chemical corporation; Manhattan chemicals, inc.; Manufacturing chemists' association of the United States; Solvay American corporation; Synthetic organic chemical manufacturers association; Tracerlab, inc.

Accounting

Depreciation and maintenance. S. H. Withey. *Chem Age (Lond)* 59:249-51, 448-50 Ag 21, O 2 '48 (to be cont)

Good old depreciation. W. I. McNeill. *Chem Eng* 55:130 Ja '48

Advertising

Double barreled ad campaign aimed at diverse markets; Wyandotte chemicals corp. R. Raine. *il Ind Marketing* 33:65+ Mr '48

House organ and press conference teach industry an involved new-product lesson. *Ptr Ind* 225:52 O 15 '48

Industrial advertising as a source of information. W. G. Kessel. *J Chem Educ* 25:222-3 Ap '48

Exhibitions

Biennial National chemical exposition, 5th. Chicago, Oct. 12-16; program. *Chem Eng Prog* 44:supp 22 O '48

British exhibition at Copenhagen; some representative chemicals and scientific instruments. *il Chem Age (Lond)* 59:390-4, 414-15 S 18-25 '48

British industries fair, London and Birmingham, May 3-14. *Chem & Ind* p314-16 My 15 '48

Camera tour of the British industries fair. *il Chem Age (Lond)* 58:650-3 My 8 '48

Charleroi and Brussels, 1948. N. J. L. Megson. *il Chem & Ind* p635-6 O 2 '48

Chemical exposition displays postwar technical progress. *il Chem & Eng N* 25:3712-16+ D 15 '47

Exposition of chemical industries, New York, Dec. 1-6, 1947; exhibitors and products. *il plans Chem & Eng N* 25:3372-4+ N 17 '47; Same abr. *Chem Eng* 54:301-4+ N '47

Exposition of chemical industries, 21st, New York, Dec. 1-6. *India Rubber World* 117:505 Ja '48

Improved products and equipment featured. *il Chem & Eng N* 26:3266-70 N 1 '48

Les industries chimiques à la Foire de Lyon 1947. M. Souvé. *il Chimie & Ind* 58:388-91 O '47

Looking over the chemical industries show; new equipment of interest to food plant operators. A. V. Gemmill. *il Food Ind* 19:1643-7+ D '47

Many new products and equipment at 21st exposition of the chemical industry, New York, Dec. 1-6. *il Can Chem & Process Ind* 32:40-3 Ja '48; *Chem Age (Lond)* 57:788-92 D 20 '47

New petro-chemical processing equipment displayed at New York exposition. W. C. Uhl. *il Pet Processing* 3:15-16 Ja '48

1948 national chemical exposition, Chicago; preview and guide. *il plans Chem & Eng N* 26:2779-820 S 20 '48

Western chemical progress exhibited. *il Chem & Eng N* 25:3278-9 N 10 '47

Finance

Chemical corporations incomes off in 1945; preliminary reports by Treasury department. *Oil Paint & Drug Rep* 153:4 Mr 29 '48

Chemical industry; with a breakdown of company balance sheets and comparative income statements. J. C. Clifford. *il Mag of Wall St* 83:28-31+ O 9 '48

Commercial chemical development; an investment manager looks at the chemical industry. R. D. Naess. *Chem & Eng N* 26:841-7 Mr 22 '48

Du Pont; after 146 years, still growing. *il Bsns W* p97-8+ My 15 '48

Financing the chemical industry; the role of the investment banker and investment trust. H. C. Breck. *Chem & Eng N* 26:837-40 Mr 22 '48

1947 chemical company developments as reported to the stockholders; companies with sales over \$50 million. P. A. Singleton and J. A. Sprague. *Chem Ind* 62:748-51, 932-6 My-Je '48

Profits in the chemical industry. R. S. Aries. *Chem & Eng N* 25:3717-19 D 15 '47

Twenty-five years of chemical progress. M. F. Crass, jr. *Ind & Eng Chem* 40:948-59 Je '48

Venture capital and an adventurous industry. C. S. Munson. *Chem & Eng N* 26:1835-7 Je 21 '48

Year of chemical industry progress; twenty-four chemical companies, comparison 1939, 1946 and 1947. M. Pescatello. *table Chem Ind* 62:744-7 My '48

See also
Monsanto chemical company

History

News review of 1947. *Chem Age (Lond)* 58:34-41 Ja 10 '48

Twenty-five years of chemical progress. M. F. Crass, jr. *Ind & Eng Chem* 40:948-59 Je '48

CHEMICAL industries—Continued

Securities

Chemical industry as it looks to world leadership with statistics analyzing position of individual companies. J. C. Clifford. *Mag of Wall St* 82:74-74 Ap 24 '48
Commercial chemical development; an investment manager looks at the chemical industry. R. D. Naess. *Chem & Eng N* 26:841-7 Mr 22 '48

Service

Scope of technical service broadens. *Chem & Eng N* 25:3357 N 17 '47; *Oil Paint & Drug Rep* 152:5+ N 3 '47

Statistics

Chemical exporting nations orient themselves. C. C. Concannon. *il map Chem & Eng N* 26:15-18 Ja 5 '48
Chemical exports from U.S. to Brazil, 1946 and 1947; tabulation. *Oil Paint & Drug Rep* 154:74 Jl 19 '48
Chemical industry in 1947. C. S. Munson. *Chem & Eng N* 26:13-14 Ja 5 '48
Chemical industry sales at peak in January-June. *Oil Paint & Drug Rep* 154:3+ S 6 '48
Chemicals and allied products, 1941-1946. Survey of Cur Bsns 1947 Sup p 110-20 [supplemented in monthly numbers]
Drugs and fine chemicals. Published in weekly numbers of *Oil, paint and drug reporter* Facts and figures for the chemical process industries. *Ind & Eng Chem* 40:947-1010 Je '48
Federal Reserve's index of chemical production; abstract. F. R. Garfield. *Chem Eng* 55:263+ Ap '48
First quarter requirements for chemicals large enough to force a new high in production. *Chem Eng* 55:314 Ja '48
How are we doing in the process industries. J. D. Wilson and D. M. Keezer. *Chem Eng* 55:98-101 F '48
How much for new plants and equipment? *Chem Eng* 55:102-3+ F '48
Inventory of Midwest chemical progress; *Chem. & Met. report. il maps Chem Eng* 55:127-50 S '48
1947 chemical company developments as reported to the stockholders; companies with sales over \$50 million. P. A. Singleton and J. A. Sprague. *Chem Ind* 62:748-51, 932-6 My-Je '48
Paint, varnish and lacquer; consumption of chemicals; abstract. M. W. Reece and H. L. Wampner. *Chem Ind* 61:803 N '47
Significant realignment of international chemical trade; with statistics for selected years, 1939-1947. C. C. Concannon. *For Comm W* 29:3-5+ O 25 '47; Same. *il Chem Ind* 61:807-10 N '47; Excerpt. *Oil Paint & Drug Rep* 152:3+ O 27 '47
Synthetic organic chemicals; U.S. production, 1939-1946. *Chem Eng* 55:110-11 F '48
Twenty-five years of chemical progress. M. F. Crass, Jr. *Ind & Eng Chem* 40:948-59 Je '48
U.S. synthetic organic chemical output; 1947; table. *Oil Paint & Drug Rep* 153:5 Ap 5 '48
See also
Sulfuric acid—
Statistics

Argentina

Argentine chemical market; effects of increasing home production. *Chem Age (Lond)* 58:719 My 22 '48

Australia

Australian expansion. *Chem Eng* 55:222+ O '48
Australia's industrial chemicals. H. P. Breen. *Chem Age (Lond)* 58:273-4 F 21 '48
Chemicals production boosted in Australia. *Oil Paint & Drug Rep* 154:44 S 13 '48

Austria

Austrian chemical industry. *Chem Age (Lond)* 58:437 Mr 27 '48
Chemical needs of Italy, Austria, France listed for stop-gap aid program. *Oil Paint & Drug Rep* 152:3+ N 17 '47

Brazil

Chemical exports from U.S. to Brazil, 1946 and 1947; tabulation. *Oil Paint & Drug Rep* 154:74 Jl 19 '48

World wide chemistry (cont). C. E. Nabuco de Araujo, Jr. *Chem & Eng N* 25:3452, 3818-19 N 17, D 22 '47

Canada

Canada's chemical progress. *map Chem Eng* 55:127-34 Ag '48
Canadian chemical production; higher prices magnify increases in 1947. *Chem Age (Lond)* 59:56 Jl 10 '48
Chemical production in 1947 leads that in 1946. S. J. Cook. *Chem & Eng N* 26:2152 Jl 19 '48
Monsanto products in Canada. L. K. Laflamme and others. *Can Chem & Process Ind* 32:253-4+ Mr '48
1947 chemical output and employment, as well as wholesale prices, outstripped those of 1946. S. J. Cook. *Chem & Eng N* 26:1030 Ap 5 '48
Substantial increase in output of chemical industries in 1947. H. McLeod. *Can Chem & Process Ind* 32:418-29 My '48

Ceylon

Ceylon's reviving cinchona industry. S. N. Gangly. *Chem Age (Lond)* 58:16-16 Ja 3 '48
Reduced chemical shipments endanger Ceylon's industries. *Chem Age (Lond)* 59:259-60 Ag 21 '48

China

Chemical industry in China. *Chem Age (Lond)* 59:343-4 S 11 '48
China as a chemical market. *Chem Age (Lond)* 58:359-60 Mr 13 '48
China's chemical industry today; progress toward reconstruction. *il For Comm W* 32:10-13+ Jl 24 '48
Dim future seen for Chinese chemical industry. *Chem & Eng N* 26:3218 O 25 '48
Recovery of China's chemical industry. *Can Chem & Process Ind* 32:849-50 S '48

Colombia

High alkali; Colombia will spend \$9 million on alkali industry at Bogota. *Chem Ind* 62:572 Ap '48

Czechoslovakia

Czech chemical comeback. E. Fisher. *il Chem Eng* 55:100-1 Ag '48
Czech chemical exports pushed as raw material imports and new facilities swell output. *Chem Eng* 55:226+ O '48
Revamped Czechoslovak chemical industry is geared to Red economy. *Chem Eng* 55:202+ Ap '48
State chemical industry. *Chem Age (Lond)* 58:707 My 22 '48

Denmark

Good reports from Copenhagen. *il Chem Age (Lond)* 59:443-4 O 2 '48

Europe

Chemical requirements of Europe under Marshall plan \$260,000,000. *Oil Paint & Drug Rep* 152:3+ N 10 '47
Eastbound chemicals. *il Chem Ind* 62:386-7 Mr '48
Europe's chemicals under ERP. *Chem Age (Lond)* 59:411-13 S 25 '48

France

Chemical needs of Italy, Austria, France listed for stop-gap aid program. *Oil Paint & Drug Rep* 152:3+ N 17 '47
France frees chemicals from price controls. *Chem Eng* 55:208+ Ja '48
France plans chemical expansion. M. Marsh. *il Chem Eng* 55:127-9 O '48
French and Italian chemical industries. *Chem Eng* 55:226+ My '48
French chemical outputs expand in the face of fuel and raw material shortages. *Chem Eng* 54:208+ N '47
French chemicals reviewed; recommendations to implement the Monnet plan. *Chem Age (Lond)* 59:438+ O 9 '48
Newsletter from France. Y. Prax. *Chem & Ind* p71-2 D 13 '47; p247 Ap 17 '48
Reconstruction des laboratoires de chimie. R. A. Coulon. *il plan diags Chimie & Ind* 58:495-500 N '47
Strikes reduce chemical outputs in France. *Chem Eng* 55:228+ F '48

CHEMICAL industries—France—Continued

Trends in French chemical industry. Chem & Eng N 26:3048-9 O 11 '48.

France (colonies)

World wide chemistry. W. G. Cass. Chem & Eng N 26:414 F 9 '48

Germany

Bizonia exports. *il* Chem Ind 63:212 Ag '48
Chemical capacity of Germany out nearly fifty per cent. Chem & Eng N 26:533 F 23 '48

Chemical plant explosions at Ludwigshaven. Engineer 186:132 Ag 6 '48

Chemical shortages in Germany; currency difficulties prevent export revival. Chem Age (Lond) 58:743 My 29 '48

Dismantling of plants in Germany; abstract. A. B. Newman. Chem Eng Prog 44:sup 18 Mr '48

Fabulous I. G. Farben disintegrates. J. J. Christie. Chem Eng 55:38-102 Ja '48

French dismantlings in Germany; 56 I. G. Farbenindustrie plants to go. Chem Age (Lond) 57:669 N 22 '47

German chemical and metal prospects. Chem Age (Lond) 58:624 My 1 '48

German chemical engineering; a survey, 1935-1945. C. W. Perry. bibliog flow sheet Chem Eng Prog 43:659-66 D '47

German chemical industry capacity high, recovery slow. N. A. Shepard. *il* Chem Ind 62:50-2 Ja '48

German chemical plants available for reparation. Oil Paint & Drug Rep 152:4 D 1 '47

German chemical revival? Chem Age (Lond) 57:618 N 8 '47

Hydrogenation resumed in W. Germany; fuel and other shortages hamper large expansion. Chem Age (Lond) 58:835-6 Je 19 '48

Level of German industry. V. S. Swaminathan. Chem & Eng N 26:1098+ Ap 12 '48

Progress report on Germany. Chem Age (Lond) 58:7 Ja 3 '48

Reorganising German chemistry; effects of the currency reform. Chem Age (Lond) 59:123-4 Jl 24 '48

Soviet zone chemicals output in 1946. Oil Paint & Drug Rep 153:5+ F 9 '48

What about future of I.G. J. J. Christie. map Chem Eng 55:132-3 F '48

Great Britain

Antiseptics and disinfectants as formulated for the British market. J. M. Vallance, bibliog *il* Soap & San Chem 23:127-9+ O; 133+ N '47

Britain shows postwar progress in chemicals at industrial fair. Chem Eng 55:212+ Je '48

British are spending big sums on new chemical plant construction. Chem Eng 55:210+ Ag '48

British chemical industry aims at 10 percent increase in production in present year. Chem Eng 55:222+ F '48

British chemical production catching up with demand. Chem Eng 55:212+ Jl '48

British push new construction in chemical industry to increase export volume. Chem Eng 55:208+ Mr '48

Chemical exports by U.K. first half of 1947-1948. Oil Paint & Drug Rep 154:53 Ag 23 '48

Chemical production and exports; Manchester committee's advice to the government. Chem Age (Lond) 58:129 Ja 24 '48

Chemical traders take stock. Chem Age (Lond) 58:805-6 Je 12 '48

Chemicals exports, imports of U.K.; 1947 and 1946; tabulation. Oil Paint & Drug Rep 154:42 O 25 '48

Chemicals from petroleum. Economist 155:192-4 Jl 31 '48

Currency problems overshadow British plans to expand production of chemicals. Chem Eng 55:210+ Ap '48

Expansion of British chemical industry slowed by delays in getting building materials. Chem Eng 55:218+ My '48

Expansion plans for British refineries include facilities for petroleum chemicals. Chem Eng 55:214+ Ja '48

I.C.I. Chemicals division; 12,000 workers at 15 factories. *il* Chem Age (Lond) 57:651-2 N 15 '47

Industrial legislation in 1947. Chem Age (Lond) 58:68-9 Ja 10 '48

Laporte chemicals, limited 41st ordinary general meeting. Economist 154:1042 Je 19 '48

Larger supplies of raw materials bring gradual rise in British chemical outputs. Chem Eng 54:205-6+ N '47

More chemical plants are needed in Britain's drive to increase production. Chem Eng 55:218+ O '48

More plants and labor needed in Britain to meet higher chemical production targets. Chem Eng 54:211-12 D '47

Slow growth in exports worries British chemical industry as shipments fail to meet quotas. Chem Eng 55:230+ S '48

Today and tomorrow. H. D. McGowan. Chem Age (Lond) 58:33 Ja 10 '48

World wide chemistry (cont). G. Abrahamson. Chem & Eng N 26:3317-18, 3750-2; 26:200+; 637-8, 708-9, 1026+, 1472+ N 10, D 15 '47, Ja 19, Mr 1-3, Ap 5, My 17 '48

World wide chemistry. W. G. Cass. Chem & Eng N 25:3817-18; 26:952, 1392+ D 22 '47, Mr 29, My 10 '48

World wide chemistry. V. S. Swaminathan. Chem & Eng N 26:124, 272+, 573-4, 798, 1178+; 1548-9 Ja 12, 26, F 23, Mr 15, Ap 19, My 24 '48

Hungary

Difficulty in acquiring raw material supplies affects production of chemicals in Hungary. Chem Eng 54:216+ D '47

India

Chemical plan for India. Chem Age (Lond) 57:766 D 13 '47

India's chemical blue-print. Chem Age (Lond) 57:644 N 15 '47

Know-how needed; India drafts a five-year plan. *il* Chem Ind 62:48-9 Ja '48

World wide chemistry. A. P. Som. Chem & Eng N 26:342-3, 892+ F 2, Mr 22 '48

World wide chemistry. V. S. Swaminathan. Chem & Eng N 26:13875-6 D 29 '47

Italy

Chemical imports from U.S. licensed by Italy in Dec. 1947; table. Oil Paint & Drug Rep 153:44 Ap 5 '48

Chemical needs of Italy, Austria, France listed for stop-gap aid program. Oil Paint & Drug Rep 152:3+ N 17 '47

French and Italian chemical industries. Chem Eng 55:226+ My '48

Italian chemical trade with U.S.; imports in 1947; table. Oil Paint & Drug Rep 153:56 Je 28 '48

Italian trade in chemicals, first half of 1948; table. Oil Paint & Drug Rep 154:63 S 6 '48

Italy's economic revival; regaining foreign markets. Chem Age (Lond) 59:24 Jl 3 '48

La Montecatini et l'ingénieur Guido Donegani. G. Coppa-Zuccari. *il* Chimie & Ind 58:392-5 O '47

Private investment encouraged in Italy. R. Sansone. Chem & Eng N 26:1180-1 Ap 19 '48

World wide chemistry (cont). R. Sansone. Chem & Eng N 26:572-3, 1243-4 F 23, Ap 26 '48

Japan

Chemical industries of Japan. C. Osborn. *il* map Chem & Eng N 26:3018-21 O 11 '48

Desperate Japs tried to make avgas even from pine tree roots, needles. D. P. Thornton, Jr. *il* Pet Processing 2:815-20 N '47

Japan chemical output shows slight increases. Oil Paint & Drug Rep 154:5 O 25 '48

Japan developing chemical industry; with production data for first four months of 1948. Oil Paint & Drug Rep 154:5+ Jl 12 '48

Japanese science and technology; chemical and textile progress reviewed. Chem Age (Lond) 59:486 O 9 '48

Low-temperature carbonization of coal produced most of Japs' synthetic oil. C. S. Giddin and D. P. Thornton, Jr. *il* Pet Processing 3:121-2+ F '48

Nixes for Nips. *il* Chem Ind 62:912-13 Je '48

Louisiana

Keeps warbuilt plants humming; Lake Charles' chemical industry. *il* Bsns W 970-3 Je 12 '48

CHEMICAL industries—Continued

Mexico

Sosa, Texcoco; Mexico's newest and biggest alkali plant. R. Williams, Jr. flow sheet (p 136-9) *il diag Chem Eng* 55:96-8 Ag '48

Middle western states

Inventory of Midwest chemical progress; Chem. & Met. report. *il maps Chem Eng* 55:127-50 S '48

Netherlands

Dutch chemical progress. J. Greenroyd. *Chem Age (Lond)* 59:494-5 O 9 '48
Dutch newsletter. *Chem & Ind* p571-2 S 4 '48

Nevada

Nevada gamble; Henderson, Nevada, as potential major chemical producing center. *il Chem Ind* 61:797-9 N '47
Nevada plans large chemical center at Henderson. *Chem Eng* 55:190+ My '48

Ohio

New chemical area grows in northern Ohio. *il map Bsns W* p36+ Ap 3 '48

Pacific states

Western chemical progress exhibited; Pacific industrial conferences. *il Chem & Eng N* 25:3278-82 N 10 '47

Palestine

Palestine progress. *il Chem Ind* 63:212-14 Ag '48

Persia

Iranian chemical plan; rôle in industrial development. *Chem Age (Lond)* 58:802 Je 12 '48

Poland

Polish chemical production and prospects. *Chem Age (Lond)* 58:495 Ap 10 '48
Private enterprise in Poland; 1600 small chemical plants. *Chem Age (Lond)* 59:25 JI 3 '48
Reviving Polish chemical industry. *Chem Age (Lond)* 57:825 D 27 '47
Status of Polish chemical industries. W. G. Cass. *Chem & Eng N* 25:3876 D 29 '47
Three-year chemical plan. *Chem Age (Lond)* 58:145-6 Ja 24 '48

Quebec

Chemical industries came to Quebec. V. Gratton. *Can Chem & Process Ind* 32:467-9 My '48

Russia

Russian chemical industry. K. Falk. *il Chem Eng* 15:129-31+ F '48

Scandinavia

Scandinavian chemical trade; increased activity last year. *Chem Age (Lond)* 58:531 Ap 17 '48

Scotland

Chemical industry's role in Scotland; abstract and discussion. S. Blisland. *Chem Age (Lond)* 59:118 JI 24 '48
Early history of the St Rollox chemical works; second Tennant memorial lecture. E. W. D. Tennant. *Chem & Ind* p667-73 N 1 '47
Integrated chemical industry; big developments foreseen in Scotland. *Chem Age (Lond)* 58:777-8 Je 5 '48

Sicily

Sicily to develop chemical industry. *Chem & Eng N* 26:2636 S 6 '48

South Africa

Chemical engineering in South Africa. W. L. Speight. *Chem & Eng N* 26:1308+ My 3 '48
Chemicals in South Africa. W. L. Speight. *Chem & Eng N* 26:60-1 Ja 5 '48
South African chemical industries. *Chem Age (Lond)* 57:763 D 13 '47
South African chemical industry. *Chem Age (Lond)* 58:400 Mr 20 '48
South African fuel and chemicals; no synthetic oil supplies before 1950. *Chem Age (Lond)* 59:23 JI 3 '48

South Africa's new industries. *Chem Age (Lond)* 59:193 Ag 7 '48

Southern states

Chemicals; industrial giant. C. R. Walker. *il Manuf Rec* 117:35+ Ag '48

Southwestern states

New skyline for old Southwest. J. V. Hightower. *il map Chem Eng* 54:104-7 N '47

Spain

Spanish and Portuguese pharmaceutical progress. *Chem & Eng N* 26:2310-11 Ag 2 '48

Texas

Gulf Coast chemical industry continues to expand; Port Neches plant of Jefferson chemical co. *il Chem & Eng N* 26:1214-15 Ap 26 '48; *Chem Eng Prog* 44:sup 18-20 My '48
Petrochemicals at Corpus Christi. *il diag Chem Ind* 62:738-40 My '48
Petroleum chemicals from Neches; Jefferson chemical co. *il Chem Ind* 62:569-70 Ap '48

Turkey

Development of Turkish chemical industry slow. *Chem & Eng N* 26:2835-6 S 20 '48

United States

Chemical industry and the National security resources board. W. T. Hack. *Chem & Eng N* 26:2885 S 27 '48
Commercial chemical development; job facing the chemical industry. W. P. Marsh, Jr. *Chem & Eng N* 26:834-6 Mr 22 '48
Facts and figures for the chemical process industries. *Ind & Eng Chem* 40:947-1010 Je '48
Imports at United States ports; list by ports of chemical products, with amounts and consignors. Published in weekly numbers of *Oil, paint and drug reporter*
See also DuPont de Nemours, E. I., and company

Western states

Western industrial growth provides expanding outlet for chemicals; symposium at Pacific chemical exposition. *Chem Ind* 61:800-4, 990-3 N-D '47
Western progress; projects going into production during 1947; projects temporarily closed or abandoned; projects under construction. *Chem Eng* 55:127 F '48

CHEMICAL industry medal

Conferred upon George W. Merck. *Chem & Eng N* 25:3496-7 N 24 '47

CHEMICAL institute of Canada

Annual conference, 4th, Montreal, June 7-10. *Can Chem & Process Ind* 32:528-9 Je '48; *Chem & Eng N* 26:1896-900+ Je 28 '48; *Oil Paint & Drug Rep* 153:7+ Je 21 '48
Financial statement. *Can Chem & Process Ind* 32:543-5 Je '48
Industrial trust fund. *Can Chem & Process Ind* 31:1017-18 N '47
Minutes of 4th annual general meeting, Montreal, June 7. *Can Chem & Process Ind* 32:634-5 JI '48
Proceedings and reports of sections. *Can Chem & Process Ind* 31:1123-31 D '47
Professional member and the fellow of the Institute. R. P. Graham. *Can Chem & Process Ind* 32:326-8 Ap '48
Report of chairman of the board of directors. L. Lortie. *Can Chem & Process Ind* 32:638-40 JI '48
Report of director of membership. J. C. Honey. *Can Chem & Process Ind* 32:636-7 JI '48
Report of director of professional affairs. R. E. Graham. *Can Chem & Process Ind* 32:730-2 Ag '48
Review of the publications policy. L. A. Munro. *Can Chem & Process Ind* 32:541-5 Je '48

Rubber division meeting, Montreal, June 9. *Rubber Age* 63:347 Je '48

CHEMICAL laboratories

Analysts at Shell oil co. get new control lab. *Chem & Eng N* 26:2691 S 13 '48
Better lab layout, higher research output. E. G. Rochow. *bibliog diag Chem Ind* 61:986-7 D '47

CHEMICAL laboratories—Continued

- Celanese corporation establishes award, expands research facilities. *il Chem Eng Prog* 43:sup 18-19+ N '47
- DuPont co.'s Wilmington, Del., experimental station. *il Chem & Eng N* 26:1374 My 10 '48
- Industrial consultants; Foster D. Snell, inc. D. H. Killeffer. *il Sci Am* 178:122-6 Mr '48
- Laboratory construction and layout; design and equipment for the analyst. J. Haslam. *Chem Age (Lond)* 58:581-2 Ap 24 '48
- Monsanto opens new laboratory for testing fuels, lubricants. *il Pet Processing* 3:752-3 Ag '48
- Principles of industrial engineering for chemical laboratory layouts and techniques. W. von Fechnmann. *Ind & Eng Chem* 40:sup 107A-8A Je '48
- Reconstruction des laboratoires de chimie. R. A. Coulon. *il plan diags Chimie & Ind* 58:495-500 N '47
- Rocket lab; U.S. naval ordnance test station at Inyokern, Calif. *Chem Ind* 61:975-6 D '47
- Royal aircraft establishment; new chemical and physical laboratory. *il Chem & Ind* p705-6 N 15 '47; *Chem Age (Lond)* 57:617 N 8 '47

See also

Chemical engineering laboratories

Equipment

- Electrothermal heating mantle, *il diag Engineer* 186:170 Ag 13 '48; *Engineering* 166:126 Ag 6 '48
- Maximum use of the chemistry laboratory. W. G. Dunning. *J Chem Educ* 25:457 Ag '48
- New type high-capacity general chemistry laboratory and lecture hall; Boston university. E. O. Holmes, jr. *il J Chem Educ* 25:442-4 Ag '48

Fires and fire protection

- Chemical laboratory, beware of fires and explosions. *Safety Eng* 95:46 Ja '48
- Fire protection in laboratories; practical views on equipment and design. *Chem Age (Lond)* 59:76 JI 17 '48

Heating and ventilation

- Preheated air helps carry panel load; Shell chemical corporation's experimental laboratory. *il Heat & Ven* 45:81 Ap '48

Records

- Aid to filing analytical chemistry procedures. H. Kirtchik. *Gen Elec R* 51:43-4 My '48

Safety measures

- Explosion vents for fume hoods and a method for testing them. H. W. Stone and T. W. Campbell. *il J Chem Educ* 25:22-4 Ja '48
- Health hazards of common laboratory reagents; toxicity of compounds and first aid procedure tabulated. F. M. Van Arsdell. *bibliog Chem & Eng N* 26:304-9 F 2 '48
- Safety in chemical laboratories. J. B. Ficklen. *Pulp & Pa* of Can 49:84-5 S '48

CHEMICAL literature

- ACS photocopying service. A. H. Emery. *il Chem & Eng N* 26:1436-7 My 17 '48
- Indexing, classifying, and coding the chemical literature. J. W. Perry. *Ind & Eng Chem* 40:476-7 Mr '48
- Philosophy of classification of chemical literature. E. H. Huntress. *bibliog Ind & Eng Chem* 40:473-6 Mr '48
- Present status of Beilstein and Gmelin. H. B. Hass. *Chem & Eng N* 26:1430-3 My 17 '48
- Review of the publications policy of the Chemical Institute of Canada. L. A. Munro. *Can Chem & Process Ind* 32:541-5 Je '48
- Trends in 'quantitative analysis; a survey of papers for the year 1946. F. C. Strong. *bibliog Anal Chem* 19:968-71 D '47

CHEMICAL market research association

- Annual meeting, New York, June 3. *Oil Paint & Drug Rep* 153:5+ Je 14 '48
- Industry experts join MIT staff in marketing conference. *Chem & Eng N* 26:1146-7 Ap 19 '48
- Joint session on chemical market research with M.I.T., Boston. *Oil Paint & Drug Rep* 153:5+ Ap 12 '48

- Meeting, New York. *Oil Paint & Drug Rep* 153:5+ Mr 15 '48
- Meeting, New York, Dec. 10. *Chem & Eng N* 25:3851 D 23 '47; *Oil Paint & Drug Rep* 152:5+ D 15 '47
- Meeting, New York, Oct. 7. *Oil Paint & Drug Rep* 154:5+ O 11 '48
- Meeting, Washington, Jan. 23. *Chem & Eng N* 26:312 F 2 '48

CHEMICAL patents

- Abstracts of U.S. and foreign patents. Published in monthly numbers of Chemical industries
- Chemil-curls; lawsuits in the permanent wave business. *Chem Ind* 63:32-3 JI '48
- Invention in the chemical industry. S. L. Levy. *Chem & Ind* p35-7, 71-2 Ja 17, 31 '48
- Inventorship test in chemical priority conflicts. I. J. Felner. *Chem & Eng N* 25:3354-6 N 17 '47
- Patent monopoly in chemical industry. R. S. Jane. *Can Chem & Process Ind* 32:37-9 Ja '48; *Same cond. Chem Age (Lond)* 58:390-2 Mr 20 '48; *Abstract. Am Dyestuff Rep* 37:241-2 Ap 5 '48
- Patentable chemical inventions. C. W. Rivise and A. D. Caesar. *bibliog(51 ref) J Chem Educ* 25:434-8 Ag '48
- Summary of U.S. patents on dispersants for use in lubricating oils; tabulation. *Oil & Gas J* 46:95-6+ Ja 22 '48
- Techniques employed in making literature searches for a patent department. T. Hoffman. *bibliog J Chem Educ* 24:546-9+ N '47

See also

- | | |
|--------------------|---------------------|
| Glass manufacture— | Petroleum refining— |
| Patents | Patents |
| Paper making— | Textile patents |
| Patents | |

CHEMICAL plants

- Casting three-story concrete pilasters; plant for Calco chemical division of American cyanamid co. *il Concrete* 55:16-18 N '47
- Celanese Corp.'s, New Bishop, Tex., petrochemical operation. A. L. Foster. *flow chart il Oil & Gas J* 47:64-6+ JI 22 '48
- Chemcel petrochemicals. J. V. Hightower. *flow sheet(p 136-9) il Chem Eng* 55:105-7 JI '48
- Chemicals from sea water; South African factory. *Chem Age (Lond)* 59:359 S 11 '48
- Commercial chemical development; gearing to manufacturing. J. J. Healy, jr. *Chem & Eng N* 26:853-5 Mr 22 '48
- Development, production, and performance of water-gas conversion catalyst. G. L. Bridger, T. D. C. Gernes and H. L. Thompson. *bibliog flow sheet il plant diag Chem Eng Prog* 44:363-81; *Discussion. 381-2 My '48*
- Early history of the St Rollox chemical works; second Tennant memorial lecture. E. W. D. Tennant. *Chem & Ind* p667-73 N 1 '47
- Engineering completed for new \$15,000,000 petrochemical plant; chemical processing units, utilizing natural gas. J. E. Bludworth. *flow diags il Oil & Gas J* 46:48-9+ Ja 1 '48
- Fatty acid distillation; pictured flowsheet. *Chem Eng* 55:146-9 F '48
- French dismantlings in Germany; 56 I. G. Farbenindustrie plants to go. *Chem Age (Lond)* 57:669 N 22 '47
- From coal mine to consumer; photographs of Pittsburgh coke & coal company plant. *Chem Ind* 62:594-5 Ap '48
- Gulf Coast chemical industry continues to expand; Port Neches, Tex. plant of Jefferson chemical co. *il Chem & Eng N* 26:1214-15 Ap 26 '48
- Harnessing heat from reaction vessels; economies at a Russian chemical works. *Chem Age (Lond)* 57:653 N 15 '47
- Impact of tonnage oxygen on American chemical industry. C. R. Downs. *il Chem Eng* 55:113-17+ Ag '48
- Jefferson Chemical plant now under full operation at Port Neches. *il Oil & Gas J* 47:100+ My 6 '48; *Pet Eng* 19:231+ My '48
- McGraw-Hill census of plants and employees in Midwestern process industries. *Chem Eng* 55:128-9 S '48
- Nevada plans large chemical center at Henderson. *Chem Eng* 55:190+ My '48
- New xyldine process revealed. R. J. DeLargy and others. *il diag Chem Eng* 55:124-6 O '48

CHEMICAL plants—Continued

- No headaches here; modern aspirin plant. R. W. Porter, flow sheet (p 136-9) *il Chem Eng* 55:96-8 Mr '48
- Petrochemicals at Corpus Christi. *il diag Chem Ind* 62:733-40 My '48
- Phillips butane dehydrogenation process; special plant investigations. G. H. Hanson and H. L. Hays, bibliog flow diag *il diag Chem Eng Prog* 44:431-42 Je '48
- Phosgenation products range from resins to grass killers; Columbia chemical division of Pittsburgh plate glass co. *il Chem Ind* 61:805-6 N '47
- Production of DL-methionine on a semi-technical and pilot scale. C. H. G. Hands, A. F. Millidge and B. Y. Walker, bibliog *il diag Soc Chem Ind J* 66:345-73 O '47
- Shell Chemical puts \$12 million plant on stream. *Chem & Eng N* 26:2618 S 6 '48
- Story of Henderson, Nevada. T. B. Gibson, *il Chem Eng* 54:132-5 D '47
- Synthetic glycerine plant opened at Houston by Shell, flow diag *il diag Chem Eng Prog* 44:sup 16-18 O '48
- Trall refuses to trail in chemical pioneering. S. D. Kirkpatrick, flow sheet *il Chem Eng* 55:96-9 Ap '48
- Water supply; Chem & Met report. *il maps diag Chem Eng* 55:137-44 Ja '48 [reprints 35c]
- Western progress; projects going into production during 1947; projects temporarily closed or abandoned; projects under construction. *Chem Eng* 55:127 F '48
- What can we learn from the mechanical engineer in process design? abstract. E. J. Stephens. *Chem Age (Lond)* 58:303+ F 28 '48
- When you modernize your plant. W. W. Slocum and G. M. Dexter. *Chem Eng* 55:99-101 J '48
- World's first synthetic glycerine plant opens at Houston. L. S. McCaslin, jr. flow chart *il Pet Refiner* 27:112-14 O '48; Same cond. *Oil & Gas J* 47:88-90+ S 16 '48

See also

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|----------------------|----------------------|
| Alcohol—Manufacture | Paper mills |
| Canneries | Petroleum refineries |
| Cement plants | Rubber, Artificial |
| Clay products plants | —Manufacture |
| Drug factories | Rubber factories |
| Food factories | Soap factories |
| Glass factories | Varnish factories |

Accounting**See Chemical industries—Accounting****Costs**

- Equipment cost indexes for process industries; Marshall and Stevens indexes carried back to 1913. R. W. Stevens. *Chem Eng* 54:124-6 N '47
- Process, design; chemical engineering economics. J. M. Harris, jr. bibliog *il Chem Eng Prog* 44:333-5 Ap '48
- Repair cost budget based on power consumption; General aniline & film corp. D. E. Pierce, Factory Management 106:78-80 Ag '48; Abstract, *Chem Eng Prog* 44:249-52 Mr '48
- Simplified approach to preliminary cost estimates. H. J. Lang, *Chem Eng* 55:112-13 Je '48
- Six-tenths factor aids in approximating costs. R. Williams, jr. *Chem Eng* 54:124-5 D '47

Design

- Architect's dream becomes reality; Corn products refining co plant at Corpus Christi, Tex. *il Chem Eng* 55:99-101 S '48
- Blueprint for safety; safety in plant design. L. E. Stout, *il Nat Safety N* 58:18-19+ S '48
- Consideration should be given to the importance of providing for possible changes in manufacturing techniques when new chemical plants are constructed. W. von Pechmann. *Ind & Eng Chem* 40:sup 111A-12A Ap '48
- Design of equipment in preventing and minimizing corrosion. M. G. Fontana. *Ind & Eng Chem* 40:sup 95A-6A My '48
- Equipment and design solutions to difficult design problems; floating roof. C. O. Brown. *Ind & Eng Chem* 40:sup 93A-4A S '48
- Equipment and design; standard fabrication steps. C. O. Brown. *Ind & Eng Chem* 40:sup 65A-6A J '48

- Improving pump and compressor selection. I. Taylor. *il Chem Eng Prog* 44:336-8 Ap '48
- Preliminary process design. L. J. Coulthurst. *il Chem Eng Prog* 44:257-60 Mr '48
- Required process and design data for heat exchangers. P. S. Otten. *il Chem Eng Prog* 44:411-13 My '48
- These short-cuts will speed your design and estimation of tanks; six charts. E. H. Coe. *diag Chem Eng* 55:107-9 S '48
- Tools for process design. L. Friend, bibliog *il Chem Eng Prog* 44:253-6 Mr '48
- What can we learn from the mechanical engineer in process design? E. J. Stephens, flow diag *il Chem & Ind* p661-4 Ag 28 '48
- Whose responsibility? C. L. Knowles, *Chem Eng Prog* 44:413-14 My '48
- Work of a process design chemical engineer. G. C. Gester, jr. *J Chem Educ* 24:584-7 D '47

Electric equipment

- Aviation spirit production; electrical applications in processes. *il Elec R (Lond)* 141:759-64 N 21 '47
- Supply in a large works; chemical factory and oil refinery run by Trimpell, Ltd. *il diag Elec R (Lond)* 141:873-8 D 12 '47

Employees**See Chemical workers****Equipment**

- Analyzing the instrumentation of a continuous chemical process. A. L. Chaplin, *diag Instruments* 21:532-40, 617-19 Je-Jl '48
- Applications of plastics in chemical equipment. E. B. Yelton. *il Chem Eng Prog* 44:89-92 Ja '48
- Automatic process control; special considerations for the designer. L. Walter, bibliog *Chem Age (Lond)* 58:521-2 Ap 17 '48
- Bench scale equipment and techniques, bibliog flow diag *il diag Ind & Eng Chem* 39:1555-81 D '47
- Bubble gum; its manufacture is as modern as the confection. W. K. Brame, flow sheet *il Food Ind* 20:984-7 J '48
- Chemical engineering materials of construction; second annual review, bibliog *il Ind & Eng Chem* 40:1773-936 O '48
- Commercial synthesis of glycerol begins at new Shell chemical corp. plant. *il diag Chem & Eng N* 26:2770-1, 2774-5 S 20 '48
- Continuous hydrolysis of corn starch. J. E. Dlouhy and A. Kott, *diag Chem Eng Prog* 44:399-404 My '48
- Depreciation and maintenance. S. H. Withey. *Chem Age (Lond)* 59:249-51, 448-50 Ag 21, O 2 '48 (to be cont)
- Developments in metals and alloys for chemical plant equipment. W. Z. Friend, bibliog *il Chem Eng Prog* 44:501-10; Discussion. 510 J '48
- Equipment manufacturers satisfy expansion demands. *Chem Ind* 63:401-19 S '48
- Ethylene glycol produced in Canada. A. W. J. Dyck. *il Can Chem & Process Ind* 32:218-20 Mr '48
- Exposition of chemical industries, New York, Dec. 1-6, 1947; exhibitors and products. *il plans Chem & Eng N* 25:3372-4+ N 17 '47; Same abr. *Chem Eng* 54:301-4+ N '47
- Fluorine disposal; continuous process. R. Landau and R. Rosen, flow sheet *Ind & Eng Chem* 40:1389-93 Ag '48
- Gulf Coast chemical industry continues to expand; Fort Neches plant of Jefferson chemical co. *il Chem & Eng N* 26:1214-15 Ap 26 '48; *Chem Eng Prog* 44:sup 18-20 My '48
- Ice, how and when to use it in chemical processing; direct cooling in batch processes. E. Spencer. *il Chem Eng* 55:110-13 O '48
- Instrumentation. R. H. Munch. Published in monthly numbers of Industrial and engineering chemistry
- Liquid level measurement in chemical processing. S. D. Ross, bibliog *il diag Chem Ind* 62:924-8 Je '48
- Many new products and equipment at 21st exposition of the chemical industry, New York, Dec. 1-6. *il Can Chem & Process Ind* 32:41-3 Ja '48; *Chem Age (Lond)* 57:783-92 D 20 '47

CHEMICAL plants—Equipment—Continued

Mechanical engineering in the chemical industry. F. B. Smith. *il* *diags* *Inst Mech Eng J* & *Proc* 157 (War emergency issue no 33): 19-25 '47

Naval stores new plant does old job better. J. V. Hightower. *il* *Chem Eng* 55:108-9 Ag '48

Nitric acid versus construction materials; symposium. *il* *Chem Eng* 55:233-4 F; 225-6+ Mr; 219-20 Ap '48

Polythene for chemical processes. *il* *Chem Age* (Lond) 59:215-18 Ag 14 '48

Production clinic; flexible equipment. E. G. Thomssen. *Soap & San Chem* 24:73+ My '48

Reactor design for manufacture of toluene by catalytic reforming. A. A. Burton and others. *diag* *Chem Eng Prog* 44:195-200; Discussion. 200 Mr '48

Shell succeeds in producing acrolein. F. G. Watson. *il* *diag* *Chem Eng* 54:106-9 D '47

Six-tenths factor aids in approximating costs. R. Williams, jr. *Chem Eng* 54:124-5 D '47

Sodium chloride versus construction materials; symposium. *il* *Chem Eng* 54:211-12+ O; 217-18+ N; 225-6+ D '47; 55:223-4+ Ja '48 [reprints 25c]

Special tooling used in machining heavy processing equipment; Goslin-Birmingham mfg. co. G. B. Stedman. *il* *Steel* 121: 86-8+ N 24 '47

Sulphuric acid versus construction materials. *il* *Chem Eng* 55:235-6+ My; 223-4+ Je; 227-8+ Jl; 219-20+ Ag '48

TVA phosphoric acid plant sports a new phosphorus combustion system; graphite combustion chamber. L. H. Almond and H. K. Steinbiss. *il* *diag* *Chem Eng* 55:105-9 O '48

Triumph for engineers; British chemical firm's new titanium plant. *il* *Chem Age* (Lond) 59:157-9 JI 31 '48

Vitreous enameling of chemical plant; abstract. J. D. Currie. *Am Cer Soc J* 31 (Cer A):152 JI 1 '48

What to look for at the chemical show. *il* *Chem Eng* 54:138-43 N '47

Experimental plants

Catalytic dehydrogenation of normal butenes to butadiene in the presence of steam. L. H. Beckberger and K. M. Watson. *bibliog* *flow chart diag* *Chem Eng Prog* 44:229-48 Mr '48

Correlating reactor performance in alcohol butadiene process. J. Coull and C. A. Bishop. *Chem Eng Prog* 44:443-51; Discussion. 450+ Je '48

Countercurrent liquid-solid extraction; the Kennedy continuous pilot plant. F. Lerman, A. R. Kennedy and J. Loshin. *flow sheet* *il* *plan diag* *Ind & Eng Chem* 40:1753-8 S '48

Fluid bed catalytic cracking plant. R. P. Trainer, N. W. Alexander and F. Kunreuther. *flow diag* *il* *plan diags* *Ind & Eng Chem* 40:175-82 Ja '48

General purpose fermentation plant. W. L. Jacobs, R. K. Wright and F. M. Hildebrandt. *flow sheet* *il* *diag* *Ind & Eng Chem* 40:759-64 Ap '48

Pilot-plant distillation and purification of titanium tetrachloride. C. K. Stoddard and E. Pietz. *bibliog* 4pls *U S Bur Mines Rep* of Invest 4153:1-40 '47

Pilot plant production of rare earth hydroxides and thorium oxalate from monazite. R. W. Urie. *flow diags* *Soc Chem Ind J* 66:437-9 D '47

Pilot plant's value to industry. D. H. Killeffer. *il* *Sci Am* 178:19-23 Ja '48

Principles of the pilot plant. H. L. Larcombe. *Chem Age* (Lond) 58:176-7, 200-1 Ja 31-F 7 '48

Production of copper arsenite. P. Miller. *flow diag* *il* *Ind & Eng Chem* 39:1521-30 N '47

Production of orange juice concentrate and powder; pilot plant. H. W. Schwarz and F. E. Penn. *bibliog* *flow diags* *il* *diag* *Ind & Eng Chem* 40:938-44 My '48

Production of red phosphorus by a continuous process. P. Miller, R. A. Wilson and J. R. Tusson. *bibliog* *flow diag* *il* *diag* *Ind & Eng Chem* 40:357-66 F '48

Production of xylydines by high pressure hydrogenation. A. Voorhies, jr., W. M. Smith and R. B. Mason. *il* *plan* *Ind & Eng Chem* 40:1543-8 Ag '48

Separation of rare earths by ion exchange; pilot plant scale separations. F. H. Spedding and others. *bibliog* *Am Chem Soc J* 69:2812-18 N '47

Thermofoor catalytic cracking unit. S. C. Eastwood, C. V. Hornberg and A. E. Potas. *bibliog* *flow diags* *il* *diags* *Ind & Eng Chem* 39:1685-90 D '47

Unpredictable semicommercial pilot plant. C. O. Brown. *Ind & Eng Chem* 40:sup63A-4A Ag '48

See also
Petroleum refineries
—Experimental plants

Fires and fire protection

Fire prevention in the chemical industry. G. B. James. *il* *Chem Eng Prog* 43:639-46 N '47

Physical facilities alone not sufficient. W. von Pechmann. *Ind & Eng Chem* 40:sup 103A-4A O '48

Layout

Jefferson chemical company plant layout. G. W. Alexander. *il* *maps* *Pet Refiner* 27:87-92 My '48

Location

Boulder boldness; Arapahoe chemicals capitalizing on its location. *Chem Ind* 62:735-6 My '48

Maintenance and repair

New crystal ball; abstract. D. E. Pierce. *Chem Eng* 55:272+ Ap '48

Repair cost budget based on power consumption; General aniline & film corp. D. E. Pierce. *Factory Management* 105:78-80 Ag '48; *Abstract, Chem Eng Prog* 44:249-52 Mr '48

Management

Chemical plants often judged by observation of apparently insignificant details. W. von Pechmann. *Ind & Eng Chem* 40:sup95A-6A Ja '48

More consideration should be given to the possibility of employing continuous manufacturing processes in the chemical industry. W. von Pechmann. *Ind & Eng Chem* 39:sup37A-8A D '47

Opportunities to chemists and chemical engineers. W. von Pechmann. *Ind & Eng Chem* 40:sup99A-100A My '48

Plant management. W. von Pechmann. Published in monthly numbers of *Industrial and engineering chemistry*

Reasons and a suggested procedure for establishing a foremen's vocational organization on a basis acceptable to management. W. von Pechmann. *Ind & Eng Chem* 40:sup81A-2A Mr '48

Power

A-c to d-c conversion equipment in the du Pont co. H. E. Houck. *il* *Elec Eng* 66: 1077-82 N '47

Gas turbines in chemical processes; abstract. W. E. P. Johnson. *Chem Age* (Lond) 58:608 My 1 '48

Quality control

Control of the accuracy and precision of industrial tests and analyses. J. A. Mitchell. *bibliog* *diags* *Anal Chem* 19:361-7 D '47

Statistical control in chemical production; abstract. G. Wernimont. *Chem Eng* 55: 272+ Ja '48

Safety measures

Alkali works reports; infractions more frequent in 1946. *Chem Age* (Lond) 58:261-2 F 21 '48

Blueprint for safety; safety in plant design. L. E. Stout. *il* *Nat Safety* N 58:13-19+ S '48

Casualties in chemical plants. *Chem Age* (Lond) 58:230-2 F 14 '48

Chemical engineer; ally in safety. C. F. Montross. *il* *Safety Eng* 95:12-13+ Ja '48

Chemical safety. *Chem Eng* 55:189-90 S '48

Emergency alarms safeguard plant operations. C. S. Beard. *diags* *Chem Eng* 55: 118-21 JI '48

CHEMICAL plants—Safety measures—Cont.

- Handling acetylene under pressure. Chem Ind 62:399-400 Mr '48
- Making 1080 safe; case study in safe manufacture and distribution of chemical. R. L. Jenkins and H. C. Koehler. il Chem Ind 62:232-5 F '48
- Model safety rules. Chem Age (Lond) 58: 99-100 Ja 17 '48
- Ounce of prevention minimizes lead hazards. J. E. Hatfield. il Chem Ind 62:401 Mr '48
- Safety plug built into pyroxylin coating plant to handle nitrocellulose and flammable solvents. H. Rosenberg. il plan Chem Eng 55: 136-8 My '48
- Safety rules for maintenance men; Mathieson alkali works; maintenance data sheet. Factory Management 105:133-4+ N '47

Waste

- Cleveland regional draws large attendance; synthetic rubber and industrial waste symposia are featured. Chem Eng Prog 44: sup20-1+ Je '48
- Incineration solves a waste disposal problem; Hoffman-La Roche stink liquor. il Chem Eng 55:110-11 Mr '48

CHEMICAL reaction

- Application of the halogen-metal interconversion reaction to syntheses with isotopic carbon. A. Murray, 3d, W. W. Foreman and W. Langham. bibliog diag Am Chem Soc J 70:1037-9 Mr '48
- Chemical reaction equilibria; estimating standard entropy changes. H. P. Meissner. bibliog Ind & Eng Chem 40:904-8 My '48
- Chemical reactions of pentaerythritol and its derivatives. S. F. Marrian. Chem R 43: 149-202 bibliog(159 ref, p 193-202) Ag '48
- Chemical reactions produced by ionization processes. J. O. Hirschfelder. bibliog J Phys & Colloid Chem 52:447-50 Mr '48
- Contact times of continuous-flow reacting systems with volumetric change. S. R. Brinkley, Jr. Ind & Eng Chem 40:303-7 F '48
- Free-radical reactions of the aromatic diazo compounds; reply to Hodgson's criticisms. D. H. Hey and W. A. Waters. Chem Soc J p882-5 Je '48
- Interchange reactions of orthothioformates and mercaptols. W. E. Mocheil, C. L. Agre and W. E. Hanford. bibliog Am Chem Soc J 70:2268-9 Je '48
- Ketonization of higher fatty acids with some observations on the mechanism of the reaction; studies of waxes. R. G. Curtis and others. bibliog diag Soc Chem Ind J 66: 402-7 N '47
- Kinetic analysis of irreversible consecutive reactions. J. Chien. bibliog Am Chem Soc J 70:2256-61 Je '48
- Kinetic evidence for a termolecular mechanism in displacement reactions of triphenylmethyl halides in benzene solution. C. G. Swain. bibliog Am Chem Soc J 70:1119-28 Mr '48
- Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hoftijzer. bibliog Chem Eng Prog 44:529-36; Discussion. 536 J1 '48
- Kinetics of the acid-catalyzed cyclization of citral and citronellal. C. C. Price and M. L. Dickman. bibliog Ind & Eng Chem 40: 257-61 F '48
- Long-range forces may account for specific chemical reactions between molecules not in contact. T. Stern, pseud. il diags Sci Am 179:14-17 O '48
- Mechanical activation aids organometallic reactions. Chem & Eng N 25:3719 D 15 '47
- Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler. bibliog J Chem Phys 15:712-26 O '47
- Mechanism of the alkaline cleavage of β -ketoalkylpyridinium salts. R. G. Pearson and R. L. Dillon. bibliog Am Chem Soc J 70:1933-6 My '48
- Methanolysis of 3,4-epoxy-1-butene. P. D. Bartlett and S. D. Ross. bibliog Am Chem Soc J 70:926-9 Mr '48
- Nature of the interaction between starch and iodine. R. S. Stein and R. E. Rundle. bibliog diags J Chem Phys 16:195-207 Mr '48
- Nomographs for chemical kinetics. M. Nord. Chem Ind 63:664+ O '48

- Propeller influence in high speed stirring. A. A. Morton and L. M. Redman. bibliog diags Ind & Eng Chem 40:1190-3 J1 '48
- Radical reactions with certain nitrogen compounds; the conversion of benzene (toluene, etc.) in other compounds at low temperature. O. Baudisch. bibliog Science 108:443-4 O 22 '48
- Rate, order and molecularity in chemical kinetics. K. J. Laidler and S. Glasstone. bibliog J Chem Educ 25:333-7 J1 '48
- Reaction kinetics of aliphatic tertiary β -chloroethylamines in dilute aqueous solution; the cyclization process. B. Cohen, E. R. Van Artsdalen and J. Harris. bibliog Am Chem Soc J 70:281-5 Ja '48
- Reaction of hydrogen atoms with some oxygen-containing organic compounds. W. R. Trost and others. bibliog J Chem Phys 16:353-7 Ap '48
- Reactions in inert fused substances. H. S. Booth, E. F. Pollard and M. J. Rentschler. bibliog diags Ind & Eng Chem 40:1981-8 O '48
- Reactions in the solid state. G. Cohn. diags Chem R 42:527-79 bibliog(169 ref, p575-9) Je '48
- Reactions of atoms and free radicals in solution; the addition of bromo esters to olefins. M. S. Kharasch, P. S. Skell and P. Fisher. bibliog Am Chem Soc J 70:1055-9 Mr '48
- Reactions of atoms and free radicals in solution; the reactions of diacetyl peroxide with aliphatic ketones; a new synthesis of 1,4-diketones. M. S. Kharasch, H. C. McBay and W. H. Urry. bibliog Am Chem Soc J 70: 1269-74 Mr '48
- Role of electrons in interatomic relations. W. F. Ehret. diag J Chem Educ 25:291-5+ My '48
- Role of neighboring groups in replacement reactions. S. Winstein and others. bibliog Am Chem Soc J 70:812-46 F '48
- Salol reaction. J. A. vanAlaan. bibliog Am Chem Soc J 69:2913-14 N '47
- Some catalytic hydrogen exchange reactions of hydrocarbons. J. Aman, L. Farkas and A. Farkas. bibliog diags Am Chem Soc J 70:727-32 F '48
- Some exchange experiments involving hexacyanoferrate(II) and hexacyanoferrate(III) ions. R. C. Thompson. bibliog Am Chem Soc J 70:1045-6 Mr '48
- Types of reaction of carboxylic esters with Grignard reagents. C. R. Hauser, P. O. Saperstein and J. C. Shivers. bibliog Am Chem Soc J 70:606-8 F '48
- Use of electronic structure in interpreting chemical reactions. W. F. Kieffer. bibliog J Chem Educ 25:537-43 O '48

See also

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|--------------------------|-------------------------------|
| Cannizzaro reaction | Oppenauer reaction |
| Catalysis | Oxidation |
| Catalysts | Pfizzinger reaction |
| Chlorination | Phosphorylation |
| Condensation, Chemical | Photochemistry |
| Darzens reaction | Polymerization |
| Decomposition | Reduction, Chemical |
| Dehydration | Reed reaction |
| Dehydrogenation | Reformatsky reaction |
| Diels-Alder reaction | Schmidt reaction |
| Electrolysis | Steric hindrance |
| Esterification | Substitution (chemistry) |
| Feulgen reaction | Sulfonation |
| Friedel-Crafts reaction | Synthesis |
| Gomberg reaction | Ullmann reaction |
| Grignard reagents | Unit processes |
| Hydrogenation | Unsaturation |
| Hydrolysis | Wohl-Ziegler reaction |
| Leuckart reaction | Wolffenstein-Bötters reaction |
| Methylation | Wurtz reaction |
| Molecular rearrangements | |
| Nitration | |

Models

- Potential energy model for displacement reactions. N. S. MacDonald. bibliog il J Chem Educ 25:338-40 Je '48

Velocity

- Absolute reaction kinetics of tobacco mosaic virus and a proposed theory of denaturation. G. A. Boyd and J. J. Eberl. bibliog J Phys & Colloid Chem 52:1146-53 O '48

CHEMICAL reaction—Velocity—Continued

- Absolute reaction rate of unimolecular decompositions. J. O. Hirschfelder. *J Chem Phys* 16:22-5 Ja '48
- Affinity and reaction rate close to equilibrium; hydrogenation of benzene; dehydrogenation of cyclohexane. I. Frigoline, P. Outer and C. Herbo. *bibliog J Phys & Colloid Chem* 52:321-31 F '48
- Allylic chlorides; relative reactivities with potassium iodide in acetone. L. F. Hatch, L. B. Gordon and J. J. Russ. *bibliog Am Chem Soc J* 70:1093-6 Mr '48
- Bench scale equipment and techniques; evaluation of vapor phase reactions with solid catalysts. H. J. Henriques. *il diags Ind & Eng Chem* 39:1564-70 D '47
- Chemical engineering unit processes; applied kinetics and equilibria. O. A. Hougen. *Ind & Eng Chem* 40:1556-60 *bibliog* (139 ref, p 1559-60) S '48
- Correlation of solvolysis rates. E. Grunwald and S. Winstein. *bibliog Am Chem Soc J* 70:846-54 F '48
- Decomposition of benzoyl peroxide in solvents; ethers, alcohols, phenols and amines. P. D. Bartlett and K. Nozaki. *bibliog Am Chem Soc J* 69:2299-306 O '47
- Dibutyl phthalate; reaction rate of catalytic esterification. S. Berman, A. A. Melnychuk and D. F. Olmher. *bibliog Ind & Eng Chem* 40:1312-19 Jl '48
- Effect of structure on reactivity; ammonolysis of esters with special reference to the electron release effects of alkyl and aryl groups. M. Gordon, J. G. Miller and A. R. Day. *bibliog Am Chem Soc J* 70:1946-53 My '48
- Electrolyte effects in the hydration of isobutene. F. G. Ciapetta and M. Kilpatrick. *bibliog il Am Chem Soc J* 70:639-46 F '48
- Electrophilic attack on halogen in a homogeneous medium; reaction of mercuric nitrate with some primary and secondary alkyl bromides. O. T. Benfey. *bibliog Am Chem Soc J* 70:2163-70 Je '48
- Exchange adsorption of ions from aqueous solutions by organic zeolites; kinetics. G. E. Boyd, A. W. Adamson and L. S. Myers. *jr. diag Am Chem Soc J* 69:2836-8 N '47
- Factors influencing the rate of nitration of 2:4 dinitrotoluene in a 2-phase system. G. M. Bennett and others. *bibliog Soc Chem Ind J* 66:288-93 Ag '47
- Interaction of manganic ion and oxalate; rates, equilibria and mechanism. H. Taube. *bibliog Am Chem Soc J* 70:1216-20 Mr '48
- Kinetics and mechanism of reactions of tertiary β -chloroethylamines in solution; ethyl-bis- β -chloroethylamine. F. D. Bartlett and others. *Am Chem Soc J* 69:2977-82 D '47
- Kinetics and mechanism of the reactions of tertiary β -chloroethylamines in solution; methyl-bis- β -chloroethylamine. P. D. Bartlett, S. D. Ross and C. G. Swain. *bibliog Am Chem Soc J* 69:2971-7 D '47
- Kinetics and mechanism of the thermal decomposition of *n*-heptane. W. G. Appleby, W. H. Avery and W. K. Meerbolt. *bibliog diag Am Chem Soc J* 69:2279-85 O '47
- Kinetics of activation-diffusion controlled reactions in solution; the temperature dependence of the quenching of fluorescence. B. Williamson and V. K. La Mer. *bibliog Am Chem Soc J* 70:717-21 F '48
- Kinetics of an esterification with cation-exchange resin catalyst. C. L. Levesque and A. M. Craig. *bibliog Ind & Eng Chem* 40:96-9 Ja '48
- Kinetics of aromatic halogen substitution; iodination by iodine chloride. L. J. Lamourne and P. W. Robertson. *Chem Soc J* p 1187-8 S '47
- Kinetics of carbiding and hydrocarbon synthesis with cobalt Fischer-Tropsch catalysts. S. Weller. *bibliog diag Am Chem Soc J* 69:2432-6 O '47
- Kinetics of furfural destruction in acidic aqueous media. D. L. Williams and A. P. Dunlop. *Ind & Eng Chem* 40:239-41 F '48
- Kinetics of halogen addition to unsaturated compounds; $\alpha\beta$ -unsaturated ketones and quinones. H. P. Rothbaum, I. Ting and P. W. Robertson. *Chem Soc J* p980-4 Jl '48
- Kinetics of methane synthesis. W. W. Akers and R. W. White. *bibliog* (47 ref) *diag Chem Eng Prog* 44:553-66 Jl '48
- Kinetics of the decomposition of trichloroacetic acid in formamide-water mixtures. C. N. Cochran and F. H. Verhoek. *bibliog Am Chem Soc J* 69:2987-8 D '47
- Kinetics of the fumarase system. E. M. Scott and R. Powell. *bibliog Am Chem Soc J* 70:1104-7 Mr '48
- Kinetics of the photolysis of methyl iodide and the hydrogen halides. R. R. Williams, jr. and R. A. Ogg, jr. *bibliog diag J Chem Phys* 15:691-702 O '47
- Kinetics of the reaction between copper and iodine in various solutions; solutions of iodine in organic solvents. L. L. Bircumshaw and M. H. Everdell. *Chem Soc J* p 1119-28 S '47
- Kinetics of the reaction between ethylene chlorohydrin and hydroxyl or alkoxy ions in mixed solvents. J. E. Stevens, C. L. McCabe and J. C. Warner. *bibliog Am Chem Soc J* 70:2449-52 Jl '48
- Kinetics of the reactions between iodine and certain substituted phenols. Choh Hao Li. *bibliog Am Chem Soc J* 70:1716-17 My '48
- Kinetics of the thermal chlorination of benzal chloride. H. A. Scheraga and M. E. Hobbs. *bibliog Am Chem Soc J* 70:3015-19 S '48
- Mechanism of addition of Grignard reagents to nitriles. C. G. Swain. *bibliog Am Chem Soc J* 69:2306-9 O '47
- Mechanism of the acetophenone-iodine-pyridine reaction. R. G. Pearson. *bibliog Am Chem Soc J* 69:3100-5 D '47
- Mechanism of the tautomeric change of 5-hydroxy-1:2:3-triazole-4-carboxylic esters into aliphatic diazo-compounds. B. R. Brown and D. L. Hammick. *Chem Soc J* p 1384-6 O '47
- Method of following the course of the phenol-formaldehyde reaction. S. R. Finn and L. R. Rogers. *bibliog Soc Chem Ind J* 67:51-7 F '48
- Nitration in sulphuric acid; nitration of 2:4-dinitrotoluene in a two-phase system. G. M. Bennett and others. *Chem Soc J* p 1185-90 S '47
- Non-equilibrium theory of absolute rates of reaction. B. J. Zwolinski and H. Eyring. *bibliog Am Chem Soc J* 69:2702-7 N '47
- Nucleophilic substitution in the benzene ring; rates of reactions of *p*-substituted bromobenzenes with piperidine. J. F. Bunnett and A. Levitt. *bibliog Am Chem Soc J* 70:2778-9 Ag '48
- Probability formulation of chemical reaction kinetics. J. Chien. *J Chem Phys* 16:426 Ap '48
- Rates of the chlorate-bromide reaction in acid solution with arsenious acid present; arsenic acid as a catalyst. P. F. Grieger. *bibliog Am Chem Soc J* 70:3045-9 S '48
- Rates of reaction; lecture demonstrations. J. A. Campbell. *J Chem Educ* 25:498-9 S '48
- Reaction rates in chemistry; abstract. H. S. Taylor. *Science* 107:462 My 7 '48
- Reaction rates in solids; abstract. F. Seitz. *Science* 107:463 My 7 '48
- Reactions of iron pyrite; its thermal decomposition, reduction by hydrogen and air oxidation. G. M. Schwab and J. Philimis. *bibliog diag Am Chem Soc J* 69:2583-96 N '47
- Role of neighboring groups in replacement reactions; general theory of neighboring groups and reactivity. S. Winstein and E. Grunwald. *Am Chem Soc J* 70:828-37 F '48
- Role of neighboring groups in replacement reactions; rates and medium effects in the alcoholysis and hydrolysis of α -bromopropionate ion; the carboxylate ion group. E. Grunwald and S. Winstein. *bibliog Am Chem Soc J* 70:841-6 F '48
- Role of neighboring groups in replacement reactions; rates of acetalysis of 2-substituted cyclohexyl benzenesulfonates. S. Winstein, E. Grunwald and L. L. Ingraham. *bibliog Am Chem Soc J* 70:821-8 F '48
- Role of neighboring groups in replacement reactions; some reactivities involving neighboring groups. S. Winstein and others. *bibliog Am Chem Soc J* 70:816-21 F '48
- Solvent effects on the quenching of the fluorescence of uranin by aniline. K. C. Hodges and V. K. La Mer. *bibliog Am Chem Soc J* 70:722-6 F '48
- Steric effects. T. L. Hill. *bibliog J Chem Phys* 16:399-404 Ap '48

CHEMICAL reaction—Velocity—Continued

Temperature lag and chemical kinetics. W. S. Horton. *J Phys & Colloid Chem* 52:1129-36 O '48

Theory and kinetics of specific oxidation; trivalent manganese-oxalate reaction. F. R. Duke. *bibliog Am Chem Soc J* 69:2885-8 N '47

Time reaction; Bettendorff's test for arsenic; lecture demonstration. F. E. Brown. *J Chem Educ* 25:257 My '48

CHEMICAL reagents

A.S.T.M. symposium on organic reagents for metal analysis. *Anal Chem* 20:392-3 Ap '48
1,2-Cyclohexanedione dioxime; a reagent for nickel. R. C. Voter, C. V. Banks and H. Diehl. *bibliog Anal Chem* 20:458-60 My '48
Modern methods of analysis; practical requirements for organic reagents. *Chem Age (Lond)* 59:47-9 JI 10 '48

New analytical reactions with anionic and cationic wetting agents. A. Steigmann. *bibliog Soc Chem Ind J* 66:355-6 O '47

Organic reagents in inorganic analysis. *Chem Age (Lond)* 59:283-6 Ag 28 '48

Organic reagents in metal analysis discussed by committee of American society for testing materials. *Chem & Eng N* 26:799 Mr 15 '48

Preparation of organolithium reagents. T. D. Perrine and H. Rapoport. *bibliog diags Anal Chem* 20:635-6 JI '48

Recent developments in the use of organic reagents in chemical analysis; abstract. G. H. Osborn. *Chem & Ind p* 169-70 Mr 13 '48

Reduction of organic compounds by lithium aluminum hydride; carboxylic acids. R. F. Nystrom and W. G. Brown. *Am Chem Soc J* 69:2548-9 O '47

Salinogenic or chelate forming dyes as analytical reagents. A. Steigmann. *Soc Chem Ind J* 66:353-5 O '47

Storage and titration with oxygen-sensitive solutions. H. W. Stone. *bibliog diags Anal Chem* 20:747-9 Ag '48

Tetraphenylphosphonium and tetraphenylstibonium chloride. H. H. Willard, L. R. Perkins and F. F. Blicke. *bibliog Am Chem Soc J* 70:737-8 F '48

See also

Anthrone	Lithium aluminum
Cuprethol	hydride
Deniges reagent	Tetrazolium com-
Fischer reagent	pounds
Indicators and test papers	

Physiological effect

Health hazards of common laboratory reagents; toxicity of compounds and first aid procedure tabulated. P. M. Van Arsdeil. *bibliog Chem & Eng N* 26:304-9 F 2 '48

CHEMICAL research

Academic research and the chemical industry; abstract. E. C. Dodds. *Chem & Ind p* 724 N 22 '47

Advance of industrial chemistry; medicine's debt acknowledged at SCI dinner. *Chem Age (Lond)* 59:115-17 JI 24 '48

Application research in industry. F. L. Matthews. *J Chem Educ* 25:174-6 Mr '48

Application research methods for synthetic detergents. L. H. Flett. *II Chem & Eng N* 26:1368-70 My 10 '48

British DSIR chemical research progress. *Chem & Eng N* 26:2833+ S 20 '48

Chemical research and the milk industry. G. C. Supple. *II Chem & Eng N* 26:90-3 Ja 12 '48

Chemical research hits full postwar stride. *Chem Ind* 63:381-7 S '48

Chemical research of army expanded. *Oil Paint & Drug Rep* 152:3+ D 29 '47

Chemistry in action. E. R. Weidlein. *Paint Oil & Chem R* 110:18-20 N 13 '47

Commercial chemical development; gearing to research. C. F. Rassweiler. *Chem & Eng N* 26:850-3 Mr 22 '48

Design of experiments in industrial research. H. M. Smallwood. *Anal Chem* 19:950-2 D '47

Development of new insecticides and fungicides; relation of chemical research laboratories. M. D. Farrar. *Ind & Eng Chem* 40: 680-1 Ap '48

Experimental research station; du Pont company. *Mech Eng* 70:617-18 JI '48

High lights of present day Russian chemical research. J. G. Tolpin. *Chem & Eng N* 26: 3096-104+ bibliog(211 ref, p3102-4+) O 18 '48

High pressure research work; abstract. V. N. Ipatieff, G. S. Monroe and L. E. Fischer. *Chem Eng* 55:284+ Mr '48

Kellogg's pilot plant laboratory researches widely in petroleum and chemical fields. A. L. Foster. *II Oil & Gas J* 47:224+ JI 29 '48

Mellon institute in 1947-48. *II Chem & Eng N* 26:1513-23 My 24 '48

Nonfood agricultural uses studied; report of Bureau of industrial and engineering chemistry. *II Chem & Eng N* 26:245-7 Ja 26 '48

Office of naval research requests proposals for basic chemical research. A. Leggin. *Chem & Eng N* 26:1133+ Ap 19 '48

Onward motives in research; Priestley medal address, 1948. E. R. Weidlein. *Chem & Eng N* 26:2764-9+ S 20 '48

Partners in research; excerpts from eleventh annual report of Armour research foundation. *Chem & Eng N* 26:994-6 Ap 5 '48

Physical techniques further modern organic research. *II Chem Ind* 63:48-9 JI '48

Program of basic research in chemistry. T. A. Solberg. *Chem & Eng N* 26:2638-90+ S 13 '48

Red research. *Chem Ind* 62:741 My '48
Research corp. grants announced. *Chem & Eng N* 26:1554 Je 21 '48

Research corp. grants-in-aid. *Chem & Eng N* 25:3310 N 10 '47

Research progress at Midwest research institute. *II Chem & Eng N* 25:3498-500 N 24 '47

Research re-grouped at CRL. *Chem Age (Lond)* 59:41-2 JI 10 '48

Scientists and management in the chemical industry. G. W. Merck. *Chem & Ind p* 783-5 D 20 '47

Symposium on application research methods; rubber chemicals. M. G. Shepard. *II Chem & Eng N* 26:1140-3 Ap 19 '48

Symposium on chemical marketing; territory between synthesis research on the one hand and production on the other. *Chem & Eng N* 26:1690-3, 1770-4 Je 7-14 '48

Symposium on industrial processes. A.A.A.S. (section C). *Science* 107:133 F 6 '48

Time—money in research. H. L. Barnebey. *II Chem Eng* 55:103-5 Je '48

Work of the chemical research laboratory of the Department of scientific and industrial research. *Engineering* 166:29 JI 9 '48; *Abstract. Engineer* 186:16 JI 2 '48

See also

Electron microscope	Pharmaceutical re-
Gas research	search
Metallurgical research	Rubber, Artificial
Paint research	—Research
Paper research	Rubber research
Petroleum research	Textile research

Bibliography

Bibliography of chemical research in South Africa, 1910-1939. H. Cobiana, comp. 25p *The African bookman*, P.O. box 3115, Cape Town '47

Records

Abbott laboratories notebooks. M. T. Leffler. *J Chem Educ* 25:99-100 F '48

Original records of experimental work. E. L. d'Ouville. *II J Chem Educ* 25:97-9 F '48

Research records in the small laboratory; Bausch & Lomb optical co. F. L. Jones. *J Chem Educ* 25:101 F '48

CHEMICAL research conferences. See Gordon research conferences

CHEMICAL smoke. See Smoke, Chemical

CHEMICAL societies

1948 calendar of meetings and events. *Chem & Eng N* 26:330-1+ F 2 '48

See also

American chemical society	Society of chemical industry
Chemical institute of Canada	

CHEMICAL society, London

Address on the occasion of the centenary celebration of the Chemical society, by the president. C. N. Hinshelwood. *Chem Soc J* p 1271-7 S '47

CHEMICAL society, London—Continued

Century of chemistry; lecture at joint meeting of Royal society of arts and Chemical society, Feb. 19th, 1947. H. Hartley, Chem Soc J p 1278-87 S '47

CHEMICAL stability

Formation and stability of complex ions. D. T. Hurd, J Chem Educ 25:394-5 J1 '48
Highly concentrated hydrogen peroxide; physical and chemical properties. E. S. Shanley and F. P. Greenspan, bibliog II Ind & Eng Chem 39:1536-43 D '47
Stability of systems containing a light positive particle. A. Ore, bibliog Phys R 73: 1313-17 Je 1 '48

CHEMICAL stoneware. See Stoneware**CHEMICAL tests**

Control of the accuracy and precision of industrial tests and analyses. J. A. Mitchell, bibliog diags Anal Chem 19:961-7 D '47

CHEMICAL warfare

Aluminium stearate gels for use as flame-thrower fuels. C. M. Cawley and others, bibliog pl diag Inst Pet J 33:721-55 D '47
Aluminium stearate gels in light hydrocarbon oils; development of incendiary mixtures for use in munitions. C. M. Cawley and others, bibliog 4 pls diag Inst Pet J 33:649-72 N '47
Incendiary fuels for various purposes. C. M. Cawley and others, bibliog diags Inst Pet J 34:90-108 F '48
Laboratory experiments with chemical warfare agents. W. Kintoff, diags J Chem Educ 24:609-13; 25:36-40 D '47-Ja '48

See also

Smoke screens

History

Chemical warfare in ancient India. V. R. Korkatur, J Chem Educ 25:268-72 My '48

CHEMICAL workers

Chemical industry violations of wage-hour law revealed. Oil Paint & Drug Rep 153:5 Ja 19 '48
First session of the I.L.O. chemical industries committee, Paris, April 7-16. Int Labour R 57:612-17 Je '48
Industrial chemical industry; earnings in Jan. 1948. D. L. Helm, Mo Labor R 67: 142-3 Ag '48
Practical hints for young chemical engineers. J. Neil, Can Chem & Process Ind 32:549-51 Je '48
Problems of the chemical industries. Int Labour R 57:334-49 Ap '48
Production-worker employment and pay rolls in the chemicals industry; revised data; monthly figures and monthly averages, 1939-1946. Survey of Cur Bsns 28:22 Ap '48
Reasons why chemical workers often resent changes recommended by industrial engineers. W. von Pechmann, Ind & Eng Chem 39:sup93A-4A N '47

CHEMICALS

Analytical chemist and the production executive have joint responsibility for use of chemicals of standard quality. W. von Pechmann, Ind & Eng Chem 40:sup75A-6A Ag '48

Case study in package selection for chemical products and specialties. Pennsylvania Salt, H. C. E. Johnson, II Chem Ind 62: 394-6 Mr '48

Chemical products from the Fischer-Tropsch process; abstract and discussion. C. C. Hall, Chem & Ind p722-3 N 22 '47

Chemical risks in non-chemical works; abstract. A. Webster, Chem Age (Lond) 59:11 J1 3 '48

Chemicals and the eye; damage inflicted by acids and alkalis. Chem Age (Lond) 59:51-7 J1 10 '48

Chemicals export quotas for '48 first quarter reported by OIT. Oil Paint & Drug Rep 153:3 F 9 '48

Chemicals from petroleum. E. R. Smoley and others, bibliog II diag Pet Refiner 26: 136-40 N '47

Chemicals from petroleum and natural gas. G. Egloff, Oil & Gas J 46:88-94 Ag 30 '47; Same, II Chem & Eng N 25:3634-7 D 8 '47

Chemicals from petroleum; list of products and companies making them. W. L. Nelson, Oil & Gas J 46:77 Ja 22 '48

Chemicals; list of materials with properties that suit them to use in electronics. Electronics 21:M6-8 Mid-Je '48

Chemicals used by the U.S. food industry; abstract. T. L. Swenson, Chem Eng 54: 260 D '47

Food industries; chemical consumer. Chem Eng 55:118 Ap '48

Fuel synthesis by-products as a source of chemicals. F. W. Sullivan, Jr, bibliog II Chem Eng Prog 43:sup 13-17 D '47

Inorganic chemicals. Chem Ind 63:385 S '48
Liquid fuels and chemical products from petroleum and coal. F. H. Garner, Inst Pet J 33:678-86 N '47

New chemicals for industry; catalog. Chem Ind 63:421-2+ S '48

Polyethylene packaging for chemicals. II Chem Ind 63:39 J1 '48

Product development in the petroleum chemical field. R. W. Kixmiller, II Pet Processing 3:241-3+ Mr '48

Specialties use large quantities of chemicals. F. M. Hoffheins, Ind & Eng Chem 40: 1000-3 J '48

Synthetic liquid fuels and chemicals from natural gas. G. Roberts, Jr, flow diags Pet Processing 2:905-6 D '47

Synthetic organics. R. Connor, Chem Ind 63: 383 S '48

Useful chemical data; substance, formula, molecular weight, equivalent weight; tabulation. Power 91:848 D '47

Western industrial growth provides expanding outlet for chemicals; symposium at Pacific chemical exposition. Chem Ind 61: 800-4, 990-3 N-D '47

What's doing in chemistry; new products. Bsns W p46+ My 1 '48

Wood in the West; significance in terms of chemicals consumed. C. C. Heritage, Chem Ind 61:990-3 D '47; Abstract, Chem Eng 54:260+ D '47

See also

Acids	Isotopes
Alcohols	Mothproofing preparations
Butadiene	Nitrosyl chloride
Catalysts	Oils and fats
Chemical industries	Paint materials
Chemical reagents	Paper chemicals
Chemistry, Technical	Petroleum chemicals
Cleaning compositions	Plasticizers
Drugs	Refrigerants
Drying agents	Rubber chemicals
Dyes and dyeing—Chemistry	Sanitary chemicals
Furfural	Solvents
Glycerin	Tanning materials
Hydrogen peroxide	Tariff—United States
Insecticides	—Chemicals
Ion exchangers	Textile chemicals

Prices

Chemicals, oils and drugs price changes; Jan. 6, 1947 and Jan. 5, 1948 compared; tabulation by commodity. Oil Paint & Drug Rep 153:8+ sec 2 F 16 '48

Chemicals, oils and drugs price record, 1939, 1942, 1945-1947; tabulation. Oil Paint & Drug Rep 153:4 sec 2 F 16 '48

Current market quotations; chemicals and related materials. Published in weekly numbers of Oil, paint and drug reporter
Current prices. Published in monthly numbers of Chemical industries

Statistics

Heavy chemicals. Published in weekly numbers of Oil, paint and drug reporter

Inorganic chemicals output, 1946 and 1947; tabulation. Oil Paint & Drug Rep 154:7 J1 12 '48

Organic chemicals imports, exports for 1947, reported. Oil Paint & Drug Rep 154:38 Ag 30 '48

Organics have grown phenomenally. J. H. Hibben, Ind & Eng Chem 40:978-91 Je '48

Primary production of inorganic chemicals by months for 1947. Chem & Eng N 26:2296 Ag 2 '48

Production and sales of synthetic organic intermediates; preliminary report for 1947. Oil Paint & Drug Rep 154:56-7 O 11 '48

Production curves are up for inorganics. F. Talbot, Ind & Eng Chem 40:968-77 Je '48

CHEMICALS—Statistics—Continued

Synthetic organic chemicals production increased in '47; with figures for 1946. Oil Paint & Drug Rep 154:3- O 4 '48
 Synthetic organic chemicals; U.S. production, 1939-1946. Chem Eng 55:110-11 F '48
 United States production of chemicals. Chem & Eng N 25:3577-8 D 1 '47

Transportation

Bulk packaging of chemicals; Chem. and Met. report. II Chem Eng 55:127-34 Ap '48
 Chemicals ride the waves. II Chem Ind 63: 585-6 O '48
 ICC amends regulations. R. W. Lahey. Chem & Eng N 26:807 Mr 15 '48
 ICC regulations amended. Chem Ind 62:630+, 980-+ Ap. Je '48
 Packaging and shipping; the industrial frontier. Chem Ind 63:397-9 S '48

See also

Explosives—Transportation

Uses

Industrial application of chemicals. Published in weekly numbers of Oil paint and drug reporter

CHEMIGUM. See Rubber, Artificial

CHEMISCHES zentralblatt (periodical)

Comment s'élabore le Chemisches zentralblatt; projet d'une documentation internationale. E. Klever, diag Chimie & Ind 58:290-3 S '47

CHEMISTRY

Pacific Coast chemists gather at Berkeley. Chem & Eng N 26:2118-19 J1 19 '48

Portland session concludes first divided ACS meeting; abstracts of papers. Chem & Eng N 26:2870-3 S 27 '48

Second annual all-day symposium on recent developments reported to A.C.S. New York section. Chem & Eng N 26:609 Mr 1 '48

Twenty-five years of publicizing chemistry. J. T. Grady. Chem & Eng N 26:101-2 Ja 12 '48

Ultrasonics in chemistry. A. Weissler. bibliog II J Chem Educ 25:28-30 Ja '48

See also

Acids
 Atoms
 Biological chemistry
 Catalysis
 Chemical reaction and other headings
 beginning Chemical
 Chemicals
 Chemists
 Colloids
 Color
 Combustion
 Condensation, Chemical
 Crystallization
 Crystallography
 Dyes and dyeing—
 Chemistry
 Electrochemistry
 Electrolysis
 Electrolytes
 Electrons
 Evaporation
 Explosives
 Fermentation
 Food—Chemistry
 Gases
 Geochemistry
 Hydrolysis
 Ions

Liquids
 Metallurgy
 Metals
 Molecules
 Oxidation
 Photochemistry
 Photographic chemistry
 Poisons
 Poisons, Industrial
 Radioactive substances
 Reduction, Chemical
 Rubber—Chemistry
 Rubber, Artificial—
 Chemistry
 Salt
 Salts
 Solids
 Solution (chemistry)
 Solvents
 Spectrum
 Stereochemistry
 Sublimation
 Synthesis
 Textile chemicals
 Textile chemistry
 Thermochemistry
 Waxes
 Wood—Chemistry

also National research council—Division of chemistry and chemical technology

Bibliography

List of books on display at the Chemical education book exhibit, Hotel Stevens, Chicago, April 19-23. J Chem Educ 25:32-+ Ap '48

Classification

Punched-card systems and their application to library and technical work; some applications of mechanical methods to library problems in organic chemistry. G. M. Dyson, diags Assn of Sp Lib & Inf Bur Proc 1947:23-36

Use of punched card techniques in the coding of inorganic compounds. J. C. Bailar, Jr. and others. J Chem Educ 25:142-3+ Mr '48

Use of punched cards for indexing and classifying biochemical literature. S. R. Ames and W. F. Kujawski. Special Lib 39:233-8 S '48

Experiments

Introduction to polymer laboratory experiments; granular polymerization of methyl methacrylate. R. H. Wiley, bibliog J Chem Educ 25:204-7 Ap '48

Laboratory experiments dealing with the manufacture of paints. F. S. Boig. J Chem Educ 24:594-5-+ D '47

Laboratory experiments with chemical warfare agents. W. Kintbf. diags J Chem Educ 24:809-13; 25:36-40 D '47-Ja '48

Symposium on lecture demonstrations. H. N. Alyea and others, bibliog II diags J Chem Educ 25:249-61, 482-8 My, S '48

History

Address on the occasion of the centenary celebration of the Chemical society, by the president. C. N. Hinshelwood. Chem Soc J p 1271-7 S '47

Century of chemistry; lecture at joint meeting of Royal society of arts and Chemical society, Feb. 19th, 1947. H. Hartley. Chem Soc J p 1278-87 S '47

Chemistry in ancient India. P. R. Ray. bibliog J Chem Educ 25:327-35 Je '48

Chymia; annual studies in the history of chemistry, 190p Univ. of Pennsylvania press, 3436 Walnut st, Philadelphia 4 '48 \$3.50

Dr. Ernst Cohen as historian of chemistry. C. A. Browne. II J Chem Educ 25:302-7 Je '48

J. A. R. Newlands; a pioneer whom the chemists ridiculed. J. A. Cameron. Chem Age (Lond) 59:354-6 S 11 '48

Jöns Jakob Berzelius. R. Winderlich. J Chem Educ 25:500-5 bibliog (p504-5) S '48

Jöns Jakob Berzelius, 1779-1848. K. R. Webb. bibliog Chem & Ind p474-6 J1 24 '48

Bibliography

Charles Albert Browne as an historian of chemistry. H. S. Klickstein and H. M. Leicester. J Chem Educ 25:315-17+ bibliog (104 titles, p316-17+) Je '48

Lecture demonstration

See Chemistry—Experiments

Nomenclature

Chemical nomenclature. E. J. Crane. Chem & Eng N 26:158-9 Ja 19 '48

Nomenclature of coordination compounds. W. C. Fernelius and others. Chem & Eng N 26:520-3 F 23 '48

Nomenclature, spelling, and pronunciation; ACS committee on carbohydrates. Chem & Eng N 26:1622-9 My 31 '48

Some problems of inorganic chemical nomenclature. W. C. Fernelius. bibliog Chem & Eng N 26:161-3 Ja 19 '48

System of nomenclature for isotopic compounds. J. W. Otvos and C. D. Wagner. Science 106:409-11 O 31 '47

See also

Chemistry, Analytic and theoretical—
 Nomenclature
 Chemistry, Organic and theoretical—
 Nomenclature
 also American chemical society—Chemical nomenclature committees

Study and teaching

Chemastery; card games to teach valence and making of compounds. H. M. Demuth. J Chem Educ 25:459-60 Ag '48

Freshman chemistry without a blackboard! use of slides. F. J. Toole and R. H. Wright. Can Chem & Process Ind 32:332-3 Ap '48

Guinea pigs in the classroom. H. G. Deming. J Chem Educ 25:445-9+ Ag '48

Johnny investigates. C. H. Stone. J Chem Educ 24:568-9 N '47

Merck fellowship in analytical chemistry. Chem & Eng N 26:3017 O 11 '48

- CHEMISTRY—Study and teaching—Continued.**
Occupational guidance in high-school chemistry. V. W. Fisher. bibliog J Chem Educ 25:90-3 F '48
Selecting research problems for students. E. E. Reid. J Chem Educ 25:515-16+ S '48
Three ways of teaching chemistry. A. Standen. bibliog J Chem Educ 25:506-10 S '48
Visualization; a step to understanding. A. B. Garrett. II J Chem Educ 25:544-7 O '48
Why should theoretical principles be used in teaching elementary chemistry? H. H. Sisler. J Chem Educ 25:562-5 O '48

See also

- | | |
|--------------------|--------------------|
| Chemistry students | Electrochemistry— |
| Chemistry teachers | Study and teaching |

Tables, calculations, etc.

- Analytical treatment of multicomponent systems. L. A. Dahl. bibliog J Phys & Colloid Chem 52:698-729 Ap '48
Diagnostic test on the mastery of chemical calculations for eleventh and twelfth grade students. M. C. Bachelder. J Chem Educ 25:217-18 Ap '48
Nomograph for determination of P_2O_5 content of crude phosphoric acid. V. L. Marquart. Chem Ind 62:986+ Je '48
Simplified method for computing the equilibrium composition of gaseous systems. F. J. Krieger and W. B. White. bibliog J Chem Phys 16:358-60 Ap '48

See also

Stoichiometry

Terminology

- | | |
|------------------------|---------------------------------|
| See also | |
| Chemistry—Nomenclature | Chemistry, Analytic—Terminology |

Tests and scales

- Diagnostic test on the mastery of chemical calculations for eleventh and twelfth grade students. M. C. Bachelder. J Chem Educ 25:217-18 Ap '48
Objective testing in inorganic chemistry. W. E. Harris and S. G. Davis. Can Chem & Process Ind 32:235-7 Mr '48
Proficiency in general chemistry; method of integrating high school and college program. A. B. Garrett. J Chem Educ 25:24-6 Ja '48
Testing program of the Division of chemical education of the American chemical society; committee report. bibliog J Chem Educ 25:280-2+ My '48

Canada

- See also
Chemical institute of Canada

Great Britain

- Address on the occasion of the centenary celebration of the Chemical society, by the president. C. N. Hinshelwood. Chem Soc J p 1271-7 S '47
British DSIR chemical research progress. Chem & Eng N 26:2833+ S 20 '48

India

- Chemistry in ancient India. P. R. Ray. bibliog J Chem Educ 25:327-35 Je '48

Palestine

- Work at Israel's Sieff institute. M. Orchin. II Chem & Eng N 26:2956-7 O 4 '48

Russia

- High lights of present day Russian chemical research. J. G. Tolpin. Chem & Eng N 26:3096-104+ bibliog (211 ref, p3102-4+) O 18 '48

CHEMISTRY, Analytic

- Acid-base reactions in benzene and other organic solvents; behavior of bromophthalein magenta with different classes of organic bases. M. M. Davis and P. J. Schuhmann. II J Res Nat Bur Stand 53:221-63 bibliog (94 ref, p262-3) S '47

- Aid to filing analytical chemistry procedures. H. Kirtchik. Gen Elec R 51:43-4 My '48

- Analysts study organizational problems; 3d annual symposium of Pittsburgh section of American chemical society. Chem & Eng N 26:519 F 23 '48

- Analytical aspects of thorium chemistry. T. Moeller, G. K. Schweitzer and D. D. Starr. Chem R 42:63-105 bibliog (263 ref, p99-105) F '48

- Analytical chemist and corrosion studies. C. A. Murray. flow sheet Pet Refiner 27:90+ Ag; 111-14 S '48

- Analytical work in the Manhattan District project. N. H. Furman. bibliog Chem & Eng N 26:2490-2 Ag 23 '48

- Applications of radioactive isotopes to the field of analytical chemistry; abstract. P. R. O'Connor. Anal Chem 20:331-2 Ap '48

- Determination of silicon in organosilicon compounds. J. A. McHard, P. C. Servais and H. A. Clark. bibliog Anal Chem 20:325-8 Ag '48

- Errors in the use of a model 18 Perkin-Elmer flame photometer for the determination of alkali metals; interference of common metals, acids, and solvents. T. D. Parks, H. O. Johnson and L. Lykken. Anal Chem 20:322-5 S '48

- Hydrogen ion measurement in plating baths. J. B. Mohler and H. J. Sedusky. II diags Metal Finishing 46:85-9+ Je '48

- Instrumentation; papers presented at Pittsburgh in symposium on instrumental analysis discussed. Anal Chem 20:21A-2A Mr '48

- International congress on analytical chemistry. Utrecht, Netherlands, June 1-3. Anal Chem 20:994-5 O '48

- Modern analytical methods; abstracts of papers. Metallurgia 37:333-4 Ap '48

- Modern instrumental methods of analysis; symposium. Anal Chem 20:389-92 Ap '48

- Modern methods of analysis. Chem Age (Lond) 58:582-3, 748-50, 812-13, 877-8; 59: 47-9 My 15, 23, Je 12, 26, Jl 10 '48

- Modern methods reported at analytical symposium at University of Minnesota. Chem & Eng N 26:993 Ap 5 '48

- New analytical reactions with anionic and cationic wetting agents. A. Steigmann. bibliog Soc Chem Ind J 66:355-6 O '47

- Optical society of America meeting, New York, March 4-6; abstracts of papers of interest to analysts. Anal Chem 20:387-8 Ap '48

- Organic reagents in inorganic analysis. Chem Age (Lond) 59:283-6 Ag 28 '48

- Organic reagents in metal analysis discussed by committee of American society for testing materials. Chem & Eng N 26:799 Mr 15 '48

- Radioactive contaminants in tracers; origin, detection, identification, and removal. W. E. Cohn. bibliog Anal Chem 20:498-503 Je '48

- Recent developments in the use of organic reagents in chemical analysis; abstract. G. H. Osborn. Chem & Ind p 169-70 Mr 13 '48

- Sand filters in analytical chemistry. S. Stone. bibliog diags Anal Chem 19:937-8 N '47

- Some aspects of modern analytical chemistry; abstract. W. F. Elvidge. Chem & Ind p724-5 N 22 '47

- Spotlight on analytical chemistry; Louisiana state university first annual symposium on modern analytical methods. Chem & Eng N 26:453 F 16 '48; Anal Chem 20:184-5 F '48

- Symposium on modern methods of analytical chemistry; instrumentation. Anal Chem 20: 23A-4A F '48

- Symposium on purity and identity of organic compounds. R. B. Barnes and others. bibliog diags Anal Chem 20:95-121 F '48

- Systematic multiple fractional extraction procedures; principles of application to separation of (organic) mixtures. M. T. Bush and P. M. Densen. bibliog Anal Chem 20: 121-9 F '48

- Third annual analytical symposium, sponsored by Analytical division, Pittsburgh section of the A.C.S. Feb. 12-13; abstracts of papers. Anal Chem 20:277-80 Mr '48

- X-ray speeds chemical comparisons. Franklin Inst J 245:268-9 Mr '48

See also

- | | |
|--------------------------|------------------------|
| Chromatographic analysis | Fluorometric analysis |
| Colorimetric analysis | Gas analysis |
| Combustion analysis | Gravimetric analysis |
| Dye analysis | Iodometry |
| Electrochemical analysis | Metallurgical analysis |
| | Microanalysis |

CHEMISTRY, Analytic—See also—*Continued*
Mineralogical analysis
Oil analysis
Plants—Chemical analysis

also subdivision Analysis under names of substances, e.g.
Ceramic materials—Analysis
Fish as food—Analysis

Definition

What is analysis? what is the role of the analyst? W. W. Hilly and others. *Anal Chem* 19:821-3, 941-2; 20:1-4 N '47-Ja '48

Nomenclature

Progress report of committee on naming analytical methods. *Anal Chem* 19:931-2 N '47

Qualitative

Group separations in inorganic qualitative analysis. F. R. M. McDonnell and C. L. Wilson. *Metallurgia* 38:115-17, 177-9 Je-Jl '48

Outline of qualitative dye analysis. W. E. Mathewson. *Am Dyestuff Rep* 37:709-25 N 1 '48

Qualitative analysis of textile processing agents. H. B. Goldstein. *bibliog diag Am Dyestuff Rep* 36:629-40 N 3 '47

Qualitative organic analysis and infrared spectrometry. R. B. Barnes and others. *bibliog Anal Chem* 20:402-10 My '48

Rarer elements in qualitative analysis; tungsten. T. Chao and J. Yang. *J Chem Educ* 25:358-9 Jl '48

Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others. *bibliog Anal Chem* 19:1035-9 D '47

Study and teaching

Qualitative organic analysis as a part of the first-year organic laboratory course. J. B. Entringer. *J Chem Educ* 24:604-5 D '47

Semimicro qualitative analysis for elementary chemistry courses. A. B. VanCleave. *Can Chem & Process Ind* 32:737-9 Ag '48

Simplified correction of qualitative analysis unknown. I. Amron and K. J. Mysels. *J Chem Educ* 25:42 Ja '48

Quantitative

Basic aspects of X-ray absorption in quantitative diffraction analysis of powder mixtures. L. Alexander and H. P. Klug. *bibliog Anal Chem* 20:886-9 O '48

Chemical analysis based on X-ray absorption measurements with a multiplier phototube; gases. E. H. Winslow and others. *il Anal Chem* 19:866-7 N '47

Chemical analysis based on X-ray absorption measurements with a multiplier phototube; solids and liquids. H. A. Liebhafsky and others. *bibliog il diag Anal Chem* 19:861-5 N '47

Determination of monomer in polystyrene; spectrophotometric and solubility methods. J. J. McGovern, J. M. Grim and W. C. Teach. *Anal Chem* 20:312-14 Ap '48

Determination of vinyl ethers and acetals and of any alcohol, acetaldehyde, and water contained therein. S. Sigga. *bibliog diag Anal Chem* 19:1025-9 D '47

Extension of the isotope dilution method. K. Bloch and H. S. Anker. *Science* 107:228 F 27 '48

Identification of small amounts of organic compounds by distribution studies; purity of synthetic antimalarials. L. C. Craig and others. *bibliog Anal Chem* 20:134-9 F '48

Microdetermination of alkoxyl groups. A. Steyermark. *bibliog il diag Anal Chem* 20:368-70 Ap '48

Organic quantitative analysis using the Geiger counter X-ray spectrometer. C. L. Christ, R. B. Barnes and E. F. Williams. *bibliog il diag Anal Chem* 20:789-95 S '48

Quantitative analysis with the X-ray spectrometer; accuracy and reproducibility. H. P. Klug, L. Alexander and E. Kummer. *Anal Chem* 20:607-9 Jl '48

Quantitative determination of dicyclopentadiene. F. Bergmann and H. Japhe. *Anal Chem* 20:146-7 F '48

Quantitative estimation of GR-S in rubber reclaim. D. S. le Beau. *Anal Chem* 20:355-8 Ap '48

Quantitative experimental investigation of the hydrogen and nitrogen contents of steel during commercial melting. C. E. Sims and others. *bibliog Metals Tech* 15:TP2347 1-19 F '48; Discussion. 15:TP2448 24-8 Ag '48

Quantitative methods for certain organic sulfides. J. W. Sease and others. *bibliog Anal Chem* 20:431-4 My '48

Rapid evaluation of solvent extraction processes; new liquid-liquid extractor. H. A. Bewick, J. E. Currah and F. E. Beamish. *bibliog diag Anal Chem* 20:740-3 Ag '48

Some definitions in quantitative analysis. R. P. Graham. *bibliog J Chem Educ* 24:596-9 D '47

Technique for testing the accuracy of analytical data. W. J. Youden. *bibliog Anal Chem* 19:946-50; Discussion. 958-60 D '47

Trends in quantitative analysis; a survey of papers for the year 1946. F. C. Strong. *bibliog Anal Chem* 19:968-71 D '47

X-ray fluorescence analysis. J. L. Abbott. *bibliog il diag Iron Age* 162:58-62 O 28; 121-4 N 4 '48

X-ray speeds chemical comparisons. *il Electronics* 21:158+ Ap '48

See also

Colorimetric analysis	Turbidimetric analysis
Gravimetric analysis	
Iodometry	Volumetric analysis
Mass spectrometric analysis	

Study and teaching

Bronsted concept of acids and bases in quantitative analysis. B. Naiman. *J Chem Educ* 25:454-7 Ag '48

Quantitative analysis; the science of measurement in chemistry. W. M. MacNevin. *J Chem Educ* 25:26-7 Ja '48

Visual demonstrations of efficiency in the washing of precipitates. W. A. Bonner. *J Chem Educ* 25:41 Ja '48

Terminology

Microbiological assay or bacterimetry? G. Toennies. *Science* 107:598 Je 4 '48

Some definitions in quantitative analysis. R. P. Graham. *bibliog J Chem Educ* 24:596-9 D '47

CHEMISTRY, Inorganic

Group separations in inorganic qualitative analysis. F. R. M. McDonnell and C. L. Wilson. *Metallurgia* 38:115-17, 177-9 Je-Jl '48

CHEMISTRY, Medical and pharmaceutical

Chemists and pharmacologists collaborate in symposium at University of Michigan. *Chem & Eng N* 26:1974-5 Jl 5 '48

Effect of fluorine substitution on chemotherapeutic agents; synthesis of some fluorine-containing medicinals. H. L. Bradlow and C. A. VanderWerf. *bibliog Am Chem Soc J* 70:654-7 F '48

Medicinal chemistry in 1947. C. M. Suter. *Chem & Eng N* 26:29-30 Ja 5 '48

Nature and spatial relationship of the prosthetic chemical groups required for maximal muscarinic action. C. C. Pfeiffer. *bibliog Science* 107:94-6 Ja 23 '48

Unsaturated lactones; some esters of aconic and coumalic acids. N. R. Campbell and J. H. Hunt. *Chem Soc J p* 1176-9 S '47

See also

Alkaloids	Drugs
Analgesics	Hormones
Anesthetics	Hypnotics
Anesthetics, Local	Immunity
Anticonvulsants	Narcotics
Antiseptics	Pharmaceutical research
Antispasmodics	Vaccines
Chemotherapy	Vesicants
Disinfection and disinfectants	Vitamins

CHEMISTRY, Organic

Contributions of organic chemistry to the war effort: synthetic rubber. R. F. Dunbrook. *bibliog India Rubber World* 117:203-7, 355-9+*r*, 486+*r*, 617-19, 745-8 N '47-Mr '48

CHEMISTRY, Organic—Continued

- Mass spectra of some organic compounds. R. H. Roberts and S. E. J. Johnsen. *bibliog Anal Chem* 20:690-9 Ag '48; Same revised 20:1225-31 D '48
- Mass spectrometer in organic chemical analysis. R. C. Taylor and others. *Anal Chem* 20:396-401 My '48
- Moses Gomberg. C. S. Schoepfle and W. E. Bachman. *Am Chem Soc J* 69:2921-5 *bibliog* (p2924-5) D '47
- Physical techniques further modern organic research. *il Chem Ind* 63:48-9 JI '48
- Polarograph in organic chemistry. M. J. Astle. *bibliog Electrochem Soc Trans* 92 (preprint 39):523-34 '47
- Preparation, properties, chemical behavior, and identification of organic chlorine compounds. E. H. Huntress. v2 1443p \$27.50 John Wiley & sons, 440 4th av, New York 16 '48
- Punched-card systems and their application to library and technical work; some applications of mechanical methods to library problems in organic chemistry. G. M. Dyson. *diags Assn of Sp Lib & Inf Bur Proc* 1947:23-38
- Radiation chemistry; an interpretation of the effect of state on the behavior of some organic compounds and solutions. M. Burton. *bibliog J Phys & Colloid Chem* 52:564-78 Mr '48
- Symposium on purity and identity of organic compounds. R. B. Barnes and others. *bibliog diags Anal Chem* 20:96-121 F '48
- See also*
- | | |
|------------------------|-------------------|
| Acids, Fatty | Esterification |
| Alcohols | Esters |
| Aldehydes | Ethers |
| Alkaloids | Grignard reagents |
| Amines | Hydrocarbons |
| Carbon | Ketones |
| Cellulose | Polymerization |
| Condensation, Chemical | Proteins |
| Cyclic compounds | Stereochemistry |
| Essential oils | Sugars |

Classification

- Numerical index key for the Beilstein system. F. L. Taylor. *il Ind & Eng Chem* 40:470-3 Mr '48

Examinations

- Examinations in the practice of elementary organic chemistry. G. R. Robertson. *J Chem Educ* 25:104-5 F '48

Experiments

- Laboratory course in aromatic chemistry based on sequence syntheses. M. M. Baizer. *bibliog J Chem Educ* 25:336-7+ Je '48

Nomenclature

- Enumerative nomenclature for organic ring systems. F. L. Taylor. *Ind & Eng Chem* 40:734-8 Ap '48
- French project for nomenclature. R. S. Cahn. *Chem & Ind* p 166 Mr 13 '48
- Progress of the nomenclature committee of the Organic division. H. S. Nutting. *Chem & Eng N* 26:159-60 Ja 19 '48
- Structure number; proposal for more exact characterization of structure isomers. P. V. Laakso. *Chem & Ind* p387-8 Je 19 '48
- Useful prefix for the extension of a systematic nomenclature for intact polycyclic to related open-ring systems. H. Jaffe. *Science* 107:646 Je 18 '48

CHEMISTRY, Physical and theoretical

- Physical techniques further modern organic research. *il Chem Ind* 63:48-9 JI '48
- Scattering of light and its applications to chemistry. G. Oster. *diags Chem R* 43:319-65 *bibliog* (227 ref, p360-5) O '48
- Scientific work of Ernst Cohen. A. L. T. Moesveld. *J Chem Educ* 25:308-14 Je '48

See also

- | | |
|----------------------|------------------------|
| Absorption | Condensation, Chemical |
| Adsorption | |
| Atoms | Corresponding states, |
| Azeotropy | Law of |
| Catalysis | Crystallization |
| Catalysts | Crystallography |
| Chemical bonds | Electrocapillarity |
| Chemical equilibrium | Electrochemistry |
| Chemical reaction | Electrolysis |
| Colloids | Electrolytes |

- | | |
|--------------------------|----------------------|
| Electrons | Periodic system |
| Emulsions | Phase rule and |
| Equation of state | equilibrium |
| Fluorescence | Photochemistry |
| Freezing points | Polymers |
| Gases | Precipitation |
| Ionization, Electrolytic | Quantum theory |
| Ionization, Gaseous | Solids |
| Ions | Solubility |
| Isotopes | Solution (chemistry) |
| Magnetochromism | Stereochemistry |
| Melting points | Stoichiometry |
| Mixtures | Surface energy |
| Molecular rearrangements | Surface tension |
| Molecular weights | Thermodynamics |
| Molecules | Throttropy |
| Neutralization | Valence |
| Partition (chemistry) | Vapor pressure |
| | Wave mechanics |

Experiments

- Errors of measurement with the slide rule. M. L. Marshall. *J Chem Educ* 25:376-7 JI '48
- Experiments simulating first and second order gas reactions. C. C. Coffin. *diag J Chem Educ* 25:167-9 Mr '48

Nomenclature

- Nomenclature of colloid chemistry. E. A. Hauser. *J Chem Educ* 25:367-70 JI '48

Study and teaching

- Symposium on use of theoretical principles in chemistry. A. W. Davidson and others. *il diag J Chem Educ* 25:533-65 O '48

Tables, calculations, etc.

- Report of the New England association of chemistry teachers, anglomathematics. T. H. Hazlehurst. *J Chem Educ* 25:353-7 Je '48

CHEMISTRY, Technical

- Case for continuous processes. *Chem Age (Lond)* 58:134-5+ Ja 24 '48
- Chemical process control with radioactivity. A. P. Schreiber. *diags Chem Eng* 55:103-5 Ja '48
- Chemical progress reviewed at Chicago technical conference. *Chem & Eng N* 26:1068-9 Ap 12 '48
- Chicago section of ACS and AAAS hold joint technical conference. *Chem & Eng N* 26:96-7 Ja 12 '48
- Industrial catalysis; recent developments, current trends. J. H. Boyd. *bibliog il Chem Ind* 63:594-6+ O '48
- Industrial chemical conference. *Chem & Eng N* 26:3270-2 N 1 '48
- Some aspects of the industrial oxidation of lower aliphatic hydrocarbons. J. E. Bludworth. *bibliog il Pet Refiner* 27:110-14 Ap '48; Same abr. *Oil & Gas J* 46:99+ Ap 22 '48
- Some developments in the heavy chemical industry. A. I. Coleman. *flow sheets il Chem Age (Lond)* 58:42-51+ Ja 10 '48
- Symposium on statistical methods in experimental and industrial chemistry. B. L. Clarke and others. *bibliog Anal Chem* 19:943-55; Discussion. 956-60 D '47
- Technical sessions at Chicago surpass previous records. *Chem & Eng N* 26:1344-66 My 10 '48

See also

- | | |
|-------------------------------|------------------------|
| Acid resisting materials | Drying |
| Alcohols | Dyes and dyeing— |
| Alloys | Chemistry |
| Ammonia | Emulsions |
| Bleaching | Essential oils |
| Cellulose | Explosives |
| Cement | Extraction processes |
| Ceramics | Fertilizers |
| Chemical engineering | Filters and filtration |
| Chemical industries | (technical chemistry) |
| Chemical patents | Fuel |
| Chemicals | Gas |
| Chemurgy | Gas manufacture |
| Clarification | Glass manufacture |
| Clay | Glue |
| Coal distillation | Gums and resins |
| Coal tar products | Ion exchangers |
| Corrosion and anti-corrosives | Lacquer and lacquering |
| Cosmetics | Metallurgy |
| Distillation | Oil and fats |

CHEMISTRY, Technical—See also—Continued

Ore treatment
Paint
Paper
Paper making
Paper making materials
Petroleum—Chemistry
Petroleum distillation
Petroleum refining
Plastic materials
Pottery
Rayon
Refractory materials
Refrigerants
Resinous products
Rubber
Rubber—Chemistry
also National research council—Division of chemistry and chemical technology

Bibliography

Industrial advertising as a source of information. W. G. Kessel. *J Chem Educ* 25:222-3 Ap '48

CHEMISTRY buildings

Chemistry center under way at Urbana. *Il Chem & Eng N* 26:193 Ja 19 '48

CHEMISTRY students

Chemical student guidance. H. R. L. Streight. *Can Chem & Process Ind* 32:44-7 Ja '48

CHEMISTRY teachers

Chemical education today. H. F. Lewis. *J Chem Educ* 25:573-7 O '48
Science teacher and the Chemical institute of Canada. H. R. Holland. *Can Chem & Process Ind* 32:140-1 F '48

CHEMISTS

Chemists elected to National academy of sciences. *Chem & Eng N* 26:1378+ My 10 '48
Chicago section selects ten ablest chemists and chemical engineers now working in the United States in each of 20 specialized fields. *Chem & Eng N* 25:3572+ D 1 '47
Graduate appointments in chemistry and chemical engineering. *J Chem Educ* 25:52-4 Ja '48 [cont monthly]
Lunar Society members. M. Schofield. *Chem & Ind* p389-90 Je 19 '48
Matching the science-trained worker with his job. T. Coffey. *J Chem Educ* 25:571-3 O '48
New York academy of science nominates 56 chemists and chemical engineers as fellows. *Chem & Eng N* 26:260 Ja 26 '48

Opportunities to chemists and chemical engineers. W. von Pechmann. *Ind & Eng Chem* 40:sup99A-100A My '48

Permanence of your job as a chemist. V. Conquest. *J Chem Educ* 25:566-8 O '48

Safeguarding chemists' status; points from the RIC 1947 report. *Chem Age (Lond)* 58: 516+ Ap 17 '48

Scientist in industry; highest rewards seldom available to chemists. *Chem Age (Lond)* 58:164 Ja 31 '48

Selective placement of chemists and chemical engineers through industrial training programs. C. H. Kline, jr. *J Chem Educ* 25:568-70 O '48

See also

Railroads—Chemists

Women as chemists

also names of chemists, e.g.

Appleton, Sir Edward
Browne, Charles Albert
Chevreul, Michel Eugène
Cohen, Ernst Julius
Dow, Willard Henry
Fierz-David, Hans Eduard
Fisher, Chester G.
Flett, Lawrence Hugo
Gomberg, Moses
Johnson, Samuel William
Lewis, Gilbert Newton
also American chemical society

Lundell, Gustav Ernst Fredrick
Mees, Charles Edward Kenneth
Mendeleev, Dmitrii Ivanovich
Mittasch, Alwin
Newton, Roy Chester
Ostwald, Wilhelm
Robinson, Sir Robert
Veazey, William Reed
Weidlein, Edward Ray
Winstein, Saul
Wormley, Theodore George

Caricatures and cartoons

Chemical caricatures. W. Prandtl. *J Chem Educ* 25:323-6 Je '48

Licenses

National certification of chemists. W. M. Sperry. *Chem & Eng N* 26:381-3 F 9 '48

Salaries

Economic status of chemists and chemical engineers in Canada; 1947 survey. Chemical institute of Canada. *Can Chem & Process Ind* 32:435-42 My '48

Canada

Economic status of chemists and chemical engineers in Canada; 1947 survey. Chemical institute of Canada. *Can Chem & Process Ind* 32:435-42 My '48

Economic status of chemists in Canada. A. L. Davidson. *Can Chem & Process Ind* 31: 921 O '47

Great Britain

Quest for economic security. *Chem Age (Lond)* 57:592 N 1 '47

CHEMISTS, Analytic

What is analysis? what is the role of the analyst? W. W. Hilly and others. *Anal Chem* 19:321-3, 341-2; 20:1-4 N '47-Ja '48

CHEMISTS' club

Chemists' club celebrates 50 years. *Chem & Eng N* 26:2057 J 12 '48

CHEMOTHERAPY

Addition of sulphydryl derivatives to 2-methyl-1,4-naphthoquinone. L. F. Fieser and E. B. Turner. *bibliog Am Chem Soc J* 69: 2355-8 O '47

Attempts to find new chemotherapeutic amines; derivatives of 1:1-diphenylethylene and naphthalene. J. N. Ashley, J. F. Grove and T. Henshall. *Chem Soc J* p261-4 Mr '48
Benzylamine analogues of chemotherapeutic diamidines. A. Albert, J. A. Mills and R. Royer. *Chem Soc J* p 1452-5 N '47

Chemists and pharmacologists collaborate in symposium at University of Michigan. *Chem & Eng N* 26:1974-5 J 15 '48

Chloromycetin, an antibiotic with chemotherapeutic activity in experimental rickettsial and viral infections. J. E. Smadel and E. B. Jackson. *Science* 106:418-19 O 31 '47

Effect of fluorine substitution on chemotherapeutic agents; synthesis of some fluorine-containing medicinals. H. L. Bradlow and C. A. VanderWerf. *bibliog Am Chem Soc J* 70:654-7 F '48

Some chemotherapeutically active sulfones; azido substituted sulfones. C. K. Banks and O. M. Gruhzit. *Am Chem Soc J* 70:1268-9 Mr '48

Studies of the acute diarrheal diseases; further observations of chemotherapy in shigellosis; the efficacy of streptomycin and sulfacarzole. A. V. Hardy and S. P. Halbert. *bibliog Pub Health Rep* 63:790-2 Je 11 '48

Succinic acid derivatives of 4-nitro-4'-amino-diphenylsulfone and of 4,4'-diaminodiphenylsulfone. H. Bauer. *bibliog Am Chem Soc J* 70:2254-6 Je '48

See also

Antibiotic substances

CHEMURGY

Agriculture; farmers increasingly supply chemical industry with raw materials; also its best customers. P. H. Groggins. *Chem Eng* 55:114-18 Ap '48

Alcohol as fuel featured by chemurgists. *Chem & Eng N* 26:861 Mr 22 '48

Chemical industry needs reproducible crops. P. H. Groggins. *Ind & Eng Chem* 40:992-5 Je '48

Midwest chemurgy; from nylon to penicillin. G. E. Hilbert. *Il Chem Eng* 55:145-7 S '48

We need a national agricultural policy; program based upon fermentation alcohol. W. J. Hale. *Chem & Eng N* 26:743+ Mr 15 '48

CHERBOURG, France**Harbor**

France rebuilds her ports. W. G. Bowman. *Il plan diags Eng N* 141:101-4 Ag 19 '48

CHERENKOV effect

Contribution to the theory of the Cherenkov effect. G. Beck. bibliog Phys R 74:795-802 O 1 '48

CHERRIES

Films for cherries. F. Gerhardt and T. R. Wright. II Mod Packaging 21:163-5+ Je '48

CHESAPEAKE and Ohio railway

Argue Young's N.Y.C. directorship case; I.C.C. hears opposing views on proposed C.&O.-Central relationship. Ry Age 124:480-2 Mr 6 '48

Bowman answers inquiring stockholder. Ry Age 124:466-8+ Mr 6 '48

C. & O. goes orthodox on equipment loans. Barron's 28:34 O 25 '48

C.&O.-P.M. merger sent back to I.C.C. Ry Age 124:1002+ My 15 '48

Denies Young N.Y.C. directorship; I.C.C. rejects Bowman application and petition of C.&O. and Alleghany corporation for release of Central holdings from trusteeship. Ry Age 124:1020-14 My 22 '48

Earnings glitter but burdens mount for C.&O. H. Murphy. Barron's 28:7-8 Ap 12 '48

Equipment trusts offered. Comm & Fin Chr 166:2101; 167:1584; 168:843, 844, 1796 N 24 '47, Ap 12, Ag 16, 30, N 1 '48

ICC authorized issuance of \$4,450,000 equipment issue. Comm & Fin Chr 167:2576 Je 14 '48

ICC says no to Young's trial marriage between Chesapeake & Ohio and New York Central. Bsns W p96 My 22 '48

Securities disturbing investors. R. Colston. Mag of Wall St 82:293-4 Je 19 '48

Stockholder questions C.&O. activities; G. S. Jackson asks about Young influence, advertising, passenger service, and proposed tie-up with New York Central. Ry Age 124:258-61 Ja 31 '48

Walter J. Tuohy, new C.&O. president. Ry Age 125:860-1 N 6 '48

Young has new idea. Bsns W p90+ My 29 '48

Young on the mat? Bsns W p95-6 Ap 10 '48

CHEST

Preliminary report on a community-wide chest X-ray survey at Minneapolis, Minn. W. Roemmich and others. Pub Health Rep 63:1285-90 O 1 '48

CHESTNUTS

Chestnut case; nuts may set precedent on Geneva pact. Bsns W p21 My 15 '48

CHEVREUL, Michel Eugène, 1786-1889

M. E. Chevreul, P. Lemay and R. E. Oesper. pors J Chem Educ 25:62-70 F '48

CHEWING gum**Advertising**

Wrigley goes into dailies on comic page. Ed & Pub 81:16 O 2 '48

Manufacture

Bubble gum; its manufacture is as modern as the confection. W. K. Brame. flow sheet II Food Ind 20:984-7 Jl '48

Treatment of wastes from natural gums in chewing gum manufacture. R. P. Logan and W. Rudolfs. Ind & Eng Chem 39:1673-5 D '47

CHIANG KAI-SHEK, 1887-

Portrait. Fortune 37:115 F '48

CHICAGO

Chicago's sea wall: based on an interview with J. L. Bridges. D. H. Dyer. II Roads & Sts 90:92-3 D '47

Development of Lake Calumet. M. M. Cohen. map plan Western Soc E J 52:128-40 S '47

Shopping centers in urban redevelopment; application of method in Chicago area. R. M. Lillibridge. plans Land Econ 24:137-60 bibliog(53 titles, p 159-60) My '48

See also

Electricity supply—

Chicago

Housing—Chicago

Galleries and museums**See also**

Museum of science and industry, Chicago

Hotels, restaurants, etc.

Lighting effect for every mood; Henrici's restaurant. Merchandise mart, Chicago. II plan Arch Rec 104:129-31 Jl '48

Problems and policies of Chicago's 1,445 hotels. L. B. Ermeling. Midwest Eng 1:18-19 O '48

Merchandise mart

Eleven hundred tenants under one roof. M. G. French. II Am Bsns 18:14-15+ Ag '48

Over the coffee cup; breakfast clinics. A. Sheehan. Textile Col 70:25 Ja '48

Railroads

Chicago being ringed with welded rail; year's program of the Elgin, Joliet & Eastern. II Ry Age 125:544-7 S 18 '48

Freight station mechanization helps offset trend of rising costs; Pennsylvania's Polk Street station. II Ry Age 124:898-900 My 8 '48

One hundred years' development of railways in the Chicago area. S. O. Dunn. map Ry Age 125:509-11, 540-3 S 11-18 '48

Original depot being built for Railroad fair; Chicago's first railroad station. II Western Soc E J 53:63-5 Je '48

Since 1848; Chicago railroad history. C. Fish. II Nat Safety N 58:90-3+ O '48

Would modernize Chicago's South Side stations. Ry Age 125:472-3 S 4 '48

Rapid transit

Chicago now owner; Chicago transit authority takes over operation of surface lines and rapid transit. II Bus Transportation 26:42-5 D '47

Water supply

Chemical control at South District filtration plant. J. R. Baylis. plans diags Ind & Eng Chem 40:1379-84 Ag '48

Chicago's new filtration plant. flow diag II plan diags Pub Works 79:21-3 Mr '48

Fighting frazil ice at a waterworks; Chicago's South district filtration plant. J. A. Baylis and H. H. Gerstein. II diags Eng N 140:562-5 Ap 15 '48

CHICAGO and eastern Illinois railroad

Merger talk buoys price of Chicago & Eastern Illinois 5s. Barron's 28:34 My 17 '48

CHICAGO and western railway

Big slash in funded debt. Barron's 28:35 Je 7 '48

Equipment trust certificates offered. Comm & Fin Chr 168:43 Jl 5 '48

High spots in the North Western's history. II maps Ry Age 125:796-807 O 30 '48

Hundred-year veteran of railroading. II map Bsns W p86+ My 1 '48

Today's North Western, a product of modernization and adaptation. II maps Ry Age 125:808-12 O 30 '48

CHICAGO board of trade

Board of trade anniversary. Bsns W p90+ Ap 3 '48

CHICAGO daily news

Chicago daily news profit drops \$649,000. Ed & Pub 81:6 F 21 '48

CHICAGO great western railway

Burtress resigns presidency. Ry Age 125:337-8 Ag 14 '48

Railroad securities. Comm & Fin Chr 168:1221 S 23 '48

CHICAGO, Indianapolis and Louisville railway

Monon likely to pay income interest, though not earned. Barron's 28:35 F 16 '48

CHICAGO, Milwaukee, St Paul and Pacific railroad

Equipment trusts offered. Comm & Fin Chr 167:2464; 168:43 Je 7, Jl 5 '48

Milwaukee road uses cash to cut income bond total. Barron's 28:33 Mr 1 '48

CHICAGO museum of science and industry. See Museum of science and industry, Chicago**CHICAGO, Rock Island and Pacific railway**

Bankruptcy ends for Rock Island. Ry Age 124:128-9 Ja 10 '48

Bankruptcy ends; officers and directors. Comm & Fin Chr 167:151 Ja 12 '48

ICC approves final steps in reorganization. Comm & Fin Chr 166:2659 D 29 '47

Rock Island bond purchase would cut interest \$540,000. Barron's 28:29 Ag 23 '48

CHICAGO, Rock Island and Pacific railway—
Continued

Rock Island's earnings cushioned against traffic drop. H. Cogswell. Barron's 28:31 F 2 '48

CHICAGO stock exchange

Inaugurates method of clearing by mail. Comm & Fin Chr 167:331 Ja 22 '48
Officers; committees. Comm & Fin Chr 167:2661 Je 17 '48

CHICAGO sun-times (newspaper)

Chicago sun-times publishes nine editions. G. A. Brandenburg. Ed & Pub 81:15 F 7 '48

To be all-day paper. Ed & Pub 81:8 Ja 31 '48

CHICAGO title and trust company

Record keeper. Bsns W p98+ D 6 '47

CHICAGO university

Chemical education in American institutions; University of Chicago. W. C. Johnson. II J Chem Educ 26:318-21 Je '48

CHICAGO youth conference

Letter-writing campaign to rally good neighbors. Ed & Pub 81:20 Ap 3 '48

CHICLE

Mexican chicle production. For Comm W 31:35 Je 19 '48

CHIGGERS

Chemicals for chiggerless clothing. Chem & Eng N 26:3046 O 11 '48

CHILD labor

Employment problems of out-of-school youth. E. S. Johnson. Mo Labor R 65:671-4 D '47

Great Britain

See also

Great Britain—Juvenile employment service

CHILD labor laws

Minor illegally employed held not employee within exemption of public liability policy. Weekly Underw 159:103 Jl 10 '48

Haiti

Protection of young workers in Haiti. Int Labour R 57:515-18 My '48

CHILDREN

Care and hygiene

Dental services received by children in a New York clinic. I. Altman. Pub Health Rep 62:1355-71 S 19 '47

Dentist-time for children's services. E. Landsiedel and I. Altman. bibliog Pub Health Rep 63:1221-31 S 17 '48

Charities and protection

Children's allowances in Norway. Int Labour R 56:345-6 S '47

United Nations appeal for children. E. Phelan. Int Labour R 57:155-6 Mr '48

Diseases

See also

Infants—Diseases

Employment

See Child labor

Law

See Child labor laws

CHILDREN'S shoes. See Shoes, Children's

CHILDS, Jane Coffin, Memorial fund for medical research
Grants. Science 107:287 Mr 19 '48

CHILDS company

Retirement lottery on Childs co. pfd. Barron's 28:35 Jl 26 '48

CHILE

See also

Banks and banking

—Chile

Copper mines and

mining—Chile

Mining industry and

finance—Chile

Petroleum industry

and trade—Chile

Sewerage—Chile

Water supply—Chile

Commerce

Bureau of commerce established. For Comm W 33:18 O 23 '48

Commercial policy

Commercial agreement with Ecuador extended indefinitely. For Comm W 29:16 D 6 '47

Foreign-exchange budget for 1948. For Comm W 30:17-18 Mr 27 '48

Import licenses outstanding at end of 1947 required to be renewed; import licensing procedure for automobiles in 1948. For Comm W 30:16-17 Ja 31 '48

New procedure instituted for controlling foreign exchange for imports. For Comm W 29:11 N 22 '47

Part I of 1948 foreign exchange budget prepared. For Comm W 30:12 F 7 '48

Industries and resources

World bank grants \$16 billion loan to Chile for hydro-electric development and for the purchase of agricultural machinery. Comm & Fin Chr 167:1440 Ap 1 '48; Bsns W p 122-3 Ap 3 '48

Politics and government

Chilean crosscurrents. Economist 154:347-8 F 28 '48

CHILLED iron

Evolution in chilled wheel rims. II Ry Age 124:1248-9 Je 26 '48

CHIMNEYS

High stacks no safety, low stacks no power, leave CAA up in air; claim electric plant stacks produce an obstruction to air navigation at Washington's National airport. Elec World News ed 130:12 Jl 24 '48

How low must a smoke stack be so as not to interfere with planes? II Elec World News ed 129:5-6 My 15 '48

Tank house ventilating chimney. F. H. Stebbins. diags Sheet Metal Worker 39:85 Ap '48

Reinforcing bands

Job-lot chimney bands produced with economical tooling methods. J. J. Reich. diags Am Mach 92:125 S 9 '48

Testing

Performance of fourteen masonry chimneys under steady state conditions. F. E. Achenbach and S. D. Cole. II diags Heating-Piping 20:119-28 O '48

CHIMNEYS, Brick

Chimney estimating data; quantities of materials required per foot of height. diags Brick & Clay Rec 112:38 Je '48

Six ways of treating chimneys so they're not just home smokestacks; illustrations. Brick & Clay Rec 112:26-7 F '48

CHIMNEYS, Steel

Welding proves economical on stack construction. II Sheet Metal Worker 39:68 F '48

Bibliography

Reference to stacks. Oil & Gas J 47:111 Je 10 '48

CHINA

China handbook, 1937-1945; a comprehensive survey of major developments in China in eight years of war. rev & enl with 1946 supplement 862p \$6 Macmillan co, 60 5th av, New York 11 '47

Marshall plan for China. map Bsns W p21-2 D 13 '47

U.S. aid to China; Chiang's last chance. Bsns W p97-8 Jl 10 '48

See also

Airlines—China

Chemical industries—

China

Coal supply—China

Concrete industry—

China

Irrigation—China

Labor and laboring

classes—China

Petroleum supply—

China

Railroads—China

Trade associations—

China

Trade unions—China

Transportation—

China

Commerce

Chinese exports of selected products, Jan.-Nov. 1947. For Comm W 30:23 Mr 6 '48

Exports of selected products from Canton to the United States, Jan.-Sept. 1947. For Comm W 29:25 N 29 '47

Improvement in trade balance. For Comm W 31:20-1 My 29 '48

Oversea remittances to Kwangtung Province. For Comm W 29:14 N 15 '47

CHINA—Continued

Commercial policy

- Collection of import-licensing fees. For Comm W 32:17 Ag 21 '48
- Customs agreements with Hong Kong. For Comm W 30:14 Mr 20 '48
- Disposal of accumulated unauthorized imports. For Comm W 29:14-15 N 15 '47
- Imports of certain chemical items suspended; registration records of importers; unauthorized imports. For Comm W 32:16-17 J1 3 '48
- New import-export link system introduced. For Comm W 32:20-1 J1 24 '48
- Provisions of General agreement on tariffs and trade put into effect by U.S. For Comm W 31:47 My 22 '48
- Status of United States private trade with the Far East; trade and exchange controls. For Comm W 32:41-2 J1 17 '48
- Use of oversea foreign exchange held by Chinese nationals. For Comm W 32:17 Ag 28 '48

Economic conditions

- Chaos in China. Economist 154:591 Ap 10 '48
- Hong Kong boom; China bust. il Fortune 38:86-7+ S '48

Economic relations

United States

- Provisional allotments for China, in reconstruction and replacement program. For Comm W 33:16+ N 8 '48

Foreign relations

Russia

- Key to China's backdoor; Sinkiang acts as buffer state. map Economist 154:420 Mr 13 '48

United States

- American policy toward China. D. N. Rowe. Ann Am Acad 255:136-45 Ja '48
- Far Eastern fronts; pattern of American diplomacy. map Economist 154:446-7 Mr 20 '48
- New far eastern conflict. N. Pfeffer. Ann Am Acad 258:27-30 J1 '48
- Shanghai letter. Bsns W p 120-1 Je 26 '48
- Tyrannous decade; ten years of American-Chinese history. H. Maurer. il Fortune 37:112-19+ F '48

Navy

- China's new navy. American built, starts from scratch. L. J. Gulliver. il U S Naval Inst Proc 74:626-8 My '48

Politics and government

- China's tepid war. Economist 153:990-1 D 20 '47
- Chinese struggle for democracy. J. Lee. Ann Am Acad 258:31-52 J1 '48
- Who holds China's future? Bsns W p 101-2 Ja 17 '48

Sanitary affairs

- Experimental project offers solution to China's sanitary needs. R. Stone. il Civil Eng 18:166-7 Mr '48

CHINA clay. See Kaolin

CHINA insurance company, ltd.

- New York court affirms order of attachment; declines to vacate warrant against China Insurance Co. East Underw 49:26 My 21 '48
- Reinsurance contract and arbitration; American reserve insurance co. v. China Insurance Co. J. L. Roesch. Spectator (Property ed) 13:24-5 Je 24 '48

CHINESE association for the advancement of science

- Annual meeting, 25th, Shanghai, Aug. 30-Sept. 1. Science 106:516-17 N 28 '47

CHINESE language

- Chinese language in the light of comparative semantics; abstract. E. Reifer. Science 107:586 Je 4 '48

CHINESE tallow tree

- From nuts to soap; sapium sebiferum. Ind & Eng Chem 39:sup 16A+ N '47

CHIOLITE

- Nature of precipitated sodium fluoaluminates. J. M. Cowley and T. R. Scott. Am Chem Soc J 63:2596-8 N '47

CHIPPER knives. See Knives, Chipper

CHIPS, Metal. See Metal cutting

CHLORAL

- Action of alkali on chloral-quinaldine. R. B. Woodward and E. C. Kornfeld. bibliog Am Chem Soc J 70:2508-14 J1 '48
- Condensation of thiophene and certain derivatives with chloral. J. F. Feeman, J. R. Dove and E. D. Amstutz. Am Chem Soc J 70:3136-8 S '48
- Some hemiacetals of chloral with cyclic alcohols. W. T. Sumerford and F. M. Cronin. bibliog Am Chem Soc J 70:448 F '48
- Some new 1,1,1-trichloro-2,2-bis-(p-alkylphenyl)-ethanes. G. F. Hennion and J. G. Walsh. Am Chem Soc J 70:866 F '48

Analysis

- Determination of small amounts of water in chloral. T. P. G. Shaw and T. Bruce. Anal Chem 19:384-5 N '47

CHLORAMINE

- Bactericidal properties of chloramines and free chlorine in water. C. T. Butterfield. Pub Health Rep 63:934-40 J1 16 '48
- Preparation and rearrangements of 1,2-dimethylaminochloropropanes. E. M. Schultz and J. M. Sprague. bibliog Am Chem Soc J 70:48-52 Ja '48
- Triethylenetetranitramine. G. N. R. Smart and G. F. Wright. Am Chem Soc J 70:3141-2 S '48

Analysis

- Determination of chlorine dioxide and other active chlorine compounds in water. J. F. Haller and S. S. Listek. bibliog diag Anal Chem 20:639-42 J1 '48

CHLORAMINE-T

- Equilibrium studies on N-chloro compounds; the ionization constant of N-chloro-p-toluenesulfonamide. J. C. Morris, J. A. Salazar and M. A. Wineman. Am Chem Soc J 70:2036-41 Je '48

- Quantitative methods for certain organic sulfides. J. W. Sease and others. bibliog Anal Chem 20:431-4 My '48

CHLORANILIC acid

- Determining small amounts of calcium in plant materials; a colorimetric method. E. H. Tyner. bibliog Anal Chem 20:76-80 Ja '48

CHLORATES

- Graphite anodes in brine electrolysis; application to chlorate cells. M. Janes. bibliog il diag Electrochem Soc Trans 92 (preprint 31):363-84 '47

- Photo-chemistry of some ions in solution. L. Farkas and F. S. Klein. bibliog diag J Chem Phys 16:886-93 S '48

- Rate of the chlorate-bromide reaction in acid solution with arsenious acid present; arsenic acid as a catalyst. P. F. Grieger. bibliog Am Chem Soc J 70:3045-9 S '48

CHLORAZOL red K

- Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient. J. Crank. bibliog Soc Dyers & Col J 63:412-16; Discussion. 416-18 D '47

CHLORDANE

- Chlordane. J. E. Bussart and A. Schor. Soap & San Chem 24:126-8 Ag '48

- Chlordane is superior to DDT for controlling insect pests. il diag Food Ind 20:172-5 F '48

- Emulsifiable concentrates of chlordane. R. E. Lidov and others. Soap & San Chem 24:137-9 Mr '48

- Fleedom at stake; chlordane dog shampoos. Chem Ind 63:588-9 O '48

- Insecticide emulsions easier to ship, safer to use. G. A. Mail. il Chem Ind 62:238-40 F '48

- Metabolism of chlorinated hydrocarbon insecticides. G. Woodward, B. Davidow and A. J. Lehman. bibliog Ind & Eng Chem 40:711-12 Ap '48

Analysis

- Detection of chlordan (octachloro-4,7-methanetetrahydroindane) in insecticide oil sprays. J. S. Ard. Anal Chem 20:858-9 S '48

CHLORETONE

Configurations of active 2,3-epoxybutane and *erythro*-3-chloro-2-butanol. H. J. Lucas and H. K. Garner. bibliog Am Chem Soc J 70:990-2 Mr '48

Preparation of acetonechloroform and its homologs. C. Weizmann, E. Bergmann and M. Sulzbacher. bibliog Am Chem Soc J 70:1189-91 Mr '48

Study of new approaches to α -halogenated orthoesters. S. M. McElvain and C. L. Stevens. bibliog Am Chem Soc J 69:2667-70 N '47

Synthesis of α -alkoxyisobutyric acids and alkyl methacrylates from acetonechloroform. C. Weizmann, M. Sulzbacher and E. Bergmann. bibliog Am Chem Soc J 70:1153-8 Mr '48

CHLORIDES

Chlorides and other derivatives of tetramethylsilane. J. L. Speier and B. F. Dautbert. bibliog Am Chem Soc J 70:1400-1 Ap '48

Cleavage of tetrahydropyran by acid chlorides in the presence of zinc chloride; the preparation of 5-diethylaminopentanol-1. M. E. Synerholm. bibliog Am Chem Soc J 69:2581-2 N '47

Coordination compounds of boron trichloride; relationship of dipole moment of chlorides to compound formation. D. R. Martin. bibliog J Phys & Colloid Chem 51:1400-4 N '47

Electrowinning of manganese from chloride electrolytes. J. H. Jacobs and P. E. Churchward. bibliog Electrochem Soc J 94:108-21 S '48

Graphite anodes in brine electrolysis; application to chlorate cells. M. Janes. bibliog J Appl Electrochem Soc Trans 92 (preprint 31):363-84 '47

Loss of nitrate nitrogen caused by chlorides; method for determining total nitrogen. P. M. Shuey. bibliog Anal Chem 19:882-3 N '47

Physiological adjustments in chloride balance of the goldfish. D. K. Meyer. Science 108:305-7 S 17 '48

Rearrangement in the preparation of ester acid chlorides. S. Stållberg-Stenhagen. Am Chem Soc J 69:2568 O '47

Study of organic parachors; the additive nature of structural units in the parachors of ditertiary glycols and chlorides. T. P. Johnston and O. R. Quayle. bibliog Am Chem Soc J 70:479-82 F '48

See also

Calcium chloride
Nitrosyl chloride
Salt

Analysis

Analysis of water-soluble chlorohydrins and other organic chlorides. L. Trafelet. Anal Chem 20:68-9 Ja '48

Apparatus for the detection and estimation of small amounts of chloride. B. A. Scott. diags Soc Chem Ind J 67:1-2 Ja '48

Conductometric titration of chloride in sea water and marine sediments. L. J. Anderson. Anal Chem 20:618-19 J1 '48

Rapid method for analysis of chlorides; electrometric end point for titration of chlorides with silver nitrate. R. B. Dean and R. L. Hawley. bibliog diags Anal Chem 19:841-2 N '47

CHLORIMET. See Nickel alloys

CHLORINATION

Advances in the field of chlorination of hydrocarbons in the last ten years; abstract. L. S. Soldar and V. V. Markin. Chem Eng 55:308+ S '48

Allylic chlorides; preparation of the 1,3-dichloro-2-methyl-1-propenes. L. F. Hatch, J. J. Russ and L. B. Gordon. bibliog Am Chem Soc J 69:2614-16 N '47

Benzol, how it's chlorinated. J. A. Lee. II diags Chem Eng 54:118-20 N '47

Chemical engineering unit processes; halogenation. E. T. McBee. bibliog Ind & Eng Chem 40:1611-15 S '48

Chlorination of anthranilic acid. E. R. Atkinson and P. B. Mitton. Am Chem Soc J 69:3142 D '47

Chlorination of 1,3-bis-(trifluoromethyl)-benzenes. C. K. Bradsher and R. S. Kittila. Am Chem Soc J 70:1318-20 Ap '48

Chlorination of 2-nitro-*p*-cymene; monosubstitution. A. S. Wheeler, J. M. Early and J. N. LeConte. Am Chem Soc J 69:2563 O '47

Chlorination of thiophene; addition products. H. L. Coonradt and H. D. Hartough. Am Chem Soc J 70:1158-61 Mr '48

Chlorination of thiophene; substitution products; physical properties of the chlorothiophenes; the mechanism of the reaction. H. L. Coonradt, H. D. Hartough and G. C. Johnson. Am Chem Soc J 70:2564-8 J1 '48

Chlorination of thiophenes with sulfonyl chloride. E. Campaigne and W. M. LeSuer. Am Chem Soc J 70:415-16 Ja '48

Chlorine and sodium pentachlorophenate as fouling preventives in sea water conduits. H. J. Turner, Jr., D. M. Reynolds and A. C. Redfield. bibliog Ind & Eng Chem 40:450-3 Mr '48

Chloro- and dichloro-*bis*-(trichloromethyl)-benzenes. C. K. Bradsher and others. bibliog Am Chem Soc J 70:1317-18 Ap '48

Distribution reaction products in benzene chlorination; batch vs. continuous process procedures. R. B. MacMullin. Chem Eng Prog 44:183-8 Mr '48

Halogenated ketones; the application of the Friedel-Crafts reaction to the preparation of halogenated aliphatic ketones. J. R. Catch and others. Chem Soc J p278-81 Mr '48

Insecticides nouveaux; les dérivés chlorés de la série terpénique. L. Desalbres and R. Labatut. bibliog Chimie & Ind 58:448-8 N '47

Kinetics of the thermal chlorination of benzal chloride. H. A. Scheraga and M. E. Hobbs. bibliog Am Chem Soc J 70:3015-19 S '48

Novel replacement of alkyl groups by chlorine. S. D. Ross and M. Nazzewski. Am Chem Soc J 69:3146 D '47

Peroxide-catalyzed chlorination of trimethylchlorosilane and *t*-butyl chloride. J. J. McBride, Jr. and H. C. Beachell. bibliog Am Chem Soc J 70:2532-3 J1 '48

Photochemical gaseous phase chlorination of isobutane. R. W. Taft, Jr. and G. W. Stratton. bibliog diags Ind & Eng Chem 40:1485-91 Ag '48

Preparation of cyanuric acid and trichloriminocyanuric acid on a pilot plant scale. C. H. G. Hands and F. R. Whitt. bibliog diags Soc Chem Ind J 67:66-9 F '48

Reactions of some highly chlorinated unsaturated C₈ hydrocarbons with chlorine and copper. R. W. Bost and J. A. Krynsky. bibliog Am Chem Soc J 70:1027-9 Mr '48

Some reactions of butadiene monochlorohydrin, 1-chloro-3-buten-2-ol. W. E. Bissinger and others. bibliog Am Chem Soc J 69:2955-61 D '47

Triethylenetetranitramine. G. N. R. Smart and G. F. Wright. Am Chem Soc J 70:3141-2 S '48

Vapor-phase chlorination of butadiene. R. F. Taylor and G. H. Morey. bibliog diags Ind & Eng Chem 40:432-5 Mr '48

See also

Sewage disposal—	Water purification
Chlorination	—Chlorination
	Wool—Chlorination

CHLORINE

Absorption of chlorine in water. J. E. Vivian and R. P. Whitney. bibliog diags Chem Eng Prog 43:691-702 D '47

Action of chlorine on aqueous solutions of ammonium sulphates. P. R. Carter and D. H. Hey. Chem Soc J p 147-9 F '48

Chlorine and sodium pentachlorophenate as fouling preventives in sea water conduits. H. J. Turner, Jr., D. M. Reynolds and A. C. Redfield. bibliog Ind & Eng Chem 40:450-3 Mr '48

Chlorine supply and demand. J. O. Logan. Am Water Works Assn J 40:837-41 Ag '48

Corrosion of silver in a water saturated chlorine atmosphere. H. B. Linford and M. J. Ford. bibliog Electrochem Soc J 93:16-26 J1 '48

Determination of hydrogen chloride in presence of chlorine. H. N. Barham and T. R. Thomson. bibliog diags Anal Chem 20:60-1 Ja '48

CHLORINE—Continued

Heavy duty chlorine—depolarized cell. G. W. Heise and others. *bibliog diags Electrochem Soc J* 94:99-105 S '48

Hyperfine structure and nuclear moments of chlorine. L. Davis, Jr. and others. *bibliog Phys R* 73:525-6 Mr 1 '48

Kinetics of halogen addition to unsaturated compounds; iodine catalysis of chlorine and bromine addition to ethyl cinnamate. H. D. C. Waters, A. R. Caverhill and P. W. Robertson. *Chem Soc J* p 1168-72 S '47

Preparation of chlorine-demand-free water. S. Megregian. *Pub Health Rep* 63:137-41 Ja 30 '48; Same. *Water & Sewage* 86:25-4 F '48

Reaction between wool and active chlorine; abstract. D. Frishman and others. *Textile World* 98:220 Ja '48

U.S. chlorine: where it is made and where it is used. R. K. Lamie; R. B. MacMullin. *il Chem Ind* 62:578-83 Ap '48

See also

Chlorination

Analysis

Amperometric titration of residual chlorine in sewage. H. C. Marks and others. *bibliog Water & Sewage Works* 95:175-8 My '48

Argentometric microdetermination of organic chlorine. K. Sisido and H. Yagi. *bibliog Anal Chem* 20:677-8 Jl '48

Determination of chlorine dioxide and other active chlorine compounds in water. J. F. Haller and S. S. Listek. *bibliog diag Anal Chem* 20:639-42 Jl '48

Determination of chlorine in resins obtained from polyvinyl chloride compositions. J. Haslam and W. W. Soppet. *diags Soc Chem Ind J* 67:33-5 Ja '48

Isotopes

Electromagnetic separation of bromine and chlorine isotopes. L. G. Chelius and C. P. Keim. *Phys R* 73:813 Ap 1 '48

Fine structure of Raman lines due to chlorine isotopes. D. I. Rank and others. *bibliog diags J Chem Phys* 16:693-703 Jl '48

Manufacture

Chlorine: a statistical review. J. R. Skeen. *Chem & Eng N* 26:2194-5 Jl 26 '48

Chlorine production; nonelectrolytic processes. H. F. Johnstone. *bibliog(54 ref) flow sheets diag Chem Eng Prog* 44:657-68 S '48

New electrolytic cell for magnesium and chlorine production. B. G. Hunt. *il Electrochem Soc J* 94:151-60 O '48

Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard. *il diags Elec Eng* 66:1059-63 N '47

U.S. chlorine: where it is made. R. K. Lamie. *Chem Ind* 62:578-80 Ap '48

Waste hydrogen chloride? *il Chem Ind* 63:371-2 S '48

Safety measures

Handling chlorine safely. J. O. Logan. *il Water & Sewage Works* 95:333-6 S '48

Operation of small water filtration plants. A. E. Clark. *Water & Sewage Works* 95:253-4 Jl '48

Statistics

Alkalis and chlorine in 1947. *Chem Eng* 55:106-7-4 F '48

Uses

Chlorine: where it is used. R. B. MacMullin. *il Chem Ind* 62:581-3 Ap '48

CHLORINE, Liquid

Liquid chlorine from single unit tank cars; Louisville water purification plant. B. E. Payne and W. H. Lovejoy. *il diags Water & Sewage Works* 95:93-5 Mr '48

Rapid determination of specific gravity of liquids under pressure. J. I. Lacey. *diag Anal Chem* 20:379 Ap '48

CHLORINE as disinfectant. See Water purification—Chlorination

CHLORINE compounds

Lubrication of metals by compounds containing chlorine. J. N. Gregory. *Inst Pet J* 34:670-6 S '48

Metabolism of chlorinated hydrocarbon insecticides. G. Woodard, B. Davidow and A. J. Lehman. *bibliog Ind & Eng Chem* 40:711-12 Ap '48

Preparation, properties, chemical behavior, and identification of organic chlorine compounds. E. H. Huntress. v2 1443p \$27.50 John Wiley & sons, 440 4th av, New York 16 '48

Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; derivatives of 2'-chloro-5'-nitrobenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, A. T. Peters and Y. I. Rangwala. *Chem Soc J* p206-9 F '48

Some diethylisopropoxyhalogenosilanes and their hydrolysis products. P. A. McCusker and C. E. Greene. *Am Chem Soc J* 70:2807-8 Ag '48

Stabilization of chlorinated diphenyl in paper capacitors. L. J. Berberich and R. Friedman. *bibliog il diag Ind & Eng Chem* 40:117-23 Ja '48

Vulcanization of chlorine-containing acrylic elastomers. W. C. Mast and C. H. Fisher. *bibliog Ind & Eng Chem* 40:107-12 Ja '48

See also

Carbon tetrachloride Tetrachlorophthalic Dichloroethylene anhydride

CHLORINE dioxide. See Chlorine oxides

CHLORINE fluoride

Fluorine carrier. *Chem Ind* 62:742-3 My '48

CHLORINE oxides

Chlorine dioxide for water treatment. *il Water & Sewage* 86:27-9-4 Mr '48

Heat of formation and free energy of chlorous acid. B. J. Fontana and W. M. Latimer. *bibliog Am Chem Soc J* 69:2598-9 N '47

Millers state their case for chlorine dioxide in flour. D. B. Pratt, jr. *bibliog il Food Ind* 20:1455-4 O '48

Sodium chlorite goes commercial; source of chlorine dioxide. G. P. Vincent. *flow diag il Sci Am* 177:249-51 D '47

Symposium on chlorine dioxide. *il diag Pub Works* 79:35-6-4 My '48

Use of chlorine dioxide in water treatment; abstract. L. H. Coult and W. Johnson. *Water & Sewage Works* 95:390 N '48

Analysis

Determination of chlorine dioxide and other active chlorine compounds in water. J. F. Haller and S. S. Listek. *bibliog diag Anal Chem* 20:639-42 Jl '48

CHLORINS

Possibility of a triplet state intermediate in the photo-oxidation of a chlorin. M. Calvin and G. D. Dorough. *bibliog il diags Am Chem Soc J* 70:699-706 F '48

CHLOROACETIC acid

Basic esters and amides of 4-quinolylmercaptoacetic acid derivatives. A. R. Surrey. *Am Chem Soc J* 70:2190-3 Je '48

Electrolyte effects in the hydration of isobutene. F. G. Ciapetta and M. Kilpatrick. *bibliog il Am Chem Soc J* 70:639-46 F '48

Analysis

Analysis of chloroacetic acid; determination of dichloroacetic and acetic acids. G. A. Datin and J. N. Haimsohn. *Anal Chem* 20:470-2 My '48

CHLOROACETONE

Condensation of chloroacetone with formaldehyde. C. D. Hurd, W. D. McPhee and G. H. Morey. *Am Chem Soc J* 70:329-31 Ja '48

CHLOROAMINE. See Chloramine

CHLOROENZALACETONE

α -Chloro- β -amino ketones. N. H. Cromwell and R. A. Wankel. *bibliog Am Chem Soc J* 70:1320-2 Ap '48

CHLOROENZALACETOPHENONE

α -Chloro- β -amino ketones. N. H. Cromwell and R. A. Wankel. *bibliog Am Chem Soc J* 70:1320-2 Ap '48

CHLOROBENZENE

Acid-base catalysis in non-aqueous solvents; the halogenation of acetone by various N-halogen compounds in chlorobenzene solution at 50°. R. F. Bell and A. D. S. Tantram. *Chem Soc J* p370-4 Mr '48

Contribution to the direct synthesis of phenylchlorosilanes. L. Riccoboni and M. Zotta. *bibliog diag Soc Chem Ind J* 67:235-7 Je '48

CHLOROBENZENE—Continued

Pentachlorophenyl derivatives; bromination of ethylpentachlorobenzene. S. D. Ross, M. Markarian and M. Nazzewski. *bibliog* Am Chem Soc J 69:2468-70 O '47

Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of 2-chlorobenzene-2-naphthol-1-diazosulphonate. C. I. Brodrick, A. T. Peters and F. M. Rowe. *Chem Soc J* p 1026-9 JI '48

CHLOROBROMOBENZENE

Apparatus for refined thermal analysis exemplified by a study of the system *p*-dichlorobenzene-*p*-dibromobenzene-*p*-chlorobromobenzene. A. N. Campbell and L. A. Prodan. *bibliog* diags Am Chem Soc J 70:553-61 F '48

CHLOROBROMOXYLENOL

Halogenation of *m*-5- and *m*-2-xylenol; mixed chlorobromo-derivatives. S. W. Glead and A. T. Peters. *Chem Soc J* p209-11 F '48

CHLOROBUTADIENE. See Chloroprene**CHLOROBUTANOL**. See Chlorotene**CHLORODIFLUOROMETHANE**

Condensation of vapors on outside of finned tubes. K. O. Beatty, Jr. and D. L. Katz. *Chem Eng Prog* 44:55-69; Discussion. 69-70 Ja '48

CHLORODINITROBENZENE

Nitration of benz-1-thia-2:3-diazole and the synthesis of 7-nitro-, 5-methyl-, and 7-nitro-5-methyl-benz-1-thia-2:3-diazole, with improved preparations of 1-chloro-2:6-dinitrobenzene and 2-chloro-3-nitro-aniline. H. H. Hodgson and D. P. Hodgson. *Chem Soc J* p 1006-9 JI '48

CHLOROETHANOL. See Ethylene chlorohydrin**CHLOROETHYLAMINE**

Coagulation defect produced by nitrogen mustard. T. R. Smith and others. *bibliog* Science 107:474 My '48

Derivatives of 10-methyl-1,2-benzanthracene related to the nitrogen and sulfur beta-chloroethyl vesicants. O. M. Friedman and A. M. Seligman. *bibliog* Am Chem Soc J 70:3082-6 S '48

Kinetics and mechanism of reactions of tertiary β -chloroethylamines in solution; ethyl-bis- β -chloroethylamine. P. D. Bartlett and others. *Am Chem Soc J* 69:2977-82 D '47

Kinetics and mechanism of the reactions of tertiary β -chloroethylamines in solution; methyl-bis- β -chloroethylamine. P. D. Bartlett, S. D. Ross and C. G. Swain. *bibliog* Am Chem Soc J 69:2971-7 G '47

Nitrogen mustards in fowl-leucosis. E. P. Johnson. *bibliog* JI Science 107:40-2 Ja 9 '48

Reaction kinetics of aliphatic tertiary β -chloroethylamines in dilute aqueous solution; the cyclization process. B. Cohen, E. R. Van Artsdalen and J. Harris. *bibliog* Am Chem Soc J 70:281-5 Ja '48

Two chlorinated tertiary amines (diethyl- β -chloroethyl amine and dimethyl- β -chloroethyl amine); toxicity in industrial use. R. M. Watrous and others. *Ind Med* 17:237-41 JI '48

Volatility and vapor pressure of ten substituted 2-chloroethylamines. C. E. Redemann, S. W. Chaikin and R. B. Fearing. *Am Chem Soc J* 70:1648-50 Ap '48

CHLOROETHYL chloroisopropyl sulfide

New organic sulphur vesicants; 2-chloroethyl 2-chloroisopropyl sulphide. A. Hamilton, R. C. G. Morigridge and F. N. Woodward. *Chem Soc J* p47 Ja '48

CHLOROETHYL diethyloxilane

Further studies of β -eliminations involving silicon. L. H. Sommer, D. L. Bailey and F. C. Whitmore. *bibliog* Am Chem Soc J 70:2869-72 S '48

Some reactions of trialkylaminosilanes. D. L. Bailey, L. H. Sommer and F. C. Whitmore. *Am Chem Soc J* 70:435-6 Ja '48

CHLOROETHYLENE

Copolymerization; the copolymerization of chloroethylenes with other monomers. K. W. Doak. *Am Chem Soc J* 70:1525-7 Ap '48

CHLOROETHYL sulfide

Volatility and vapor pressure of eight 2-chloroethyl alkyl (or cycloalkyl) sulfides. C. E. Redemann, S. E. Chaikin and R. B. Fearing. *bibliog* diags Am Chem Soc J 70:631-3 F '48

CHLOROETHYLTHIOPHENYL dichloroarsine

p-(2-Chloroethylthio)phenyldichloroarsine. H. T. Openshaw and A. R. Todd. *Chem Soc J* p374-6 Mr '48

CHLOROFLUOROMETHANES

Freon versus air cycle cooling of automobiles. H. Woodhouse. *diags Refrig Eng* 56:313-15+ O '48

Modern developments in marine refrigeration. S. W. Brown. *bibliog* JI diags Refrig Eng 55:36-41+ Ja '48; Same. *Marine Eng* 53:65-72 Je '48; Discussion. *Refriger Eng* 55:90+ Ja '48

Propellents for low-pressure liquefied gas aerosols. R. A. Fulton. *Ind & Eng Chem* 40:699-700 Ap '48

Theory and use of a capillary tube for liquid refrigerant control. L. A. Staebler. *diags Refrig Eng* 55:55-9+ Ja '48

CHLOROFLUOROPROPANES

Some fluorinated derivatives of propane. E. T. McBee, A. Truchan and R. O. Bolt. *Am Chem Soc J* 70:2023-4 Je '48

CHLOROFORM

Compound formation between pyridine and polyhalogenated methanes. A. W. Davidson, C. A. VanderWerf and L. G. Boatright. *bibliog* Am Chem Soc J 69:3045-7 D '47

Compound formation between 2,6-lutidine and polyhalogenated methanes. C. A. VanderWerf, A. W. Davidson and C. I. Michaelis. *Am Chem Soc J* 70:908-10 Mr '48

Heats of mixing of some fluorinated ethers with chloroform. J. R. Lacher, J. J. McKinley and J. D. Park. *bibliog* Am Chem Soc J 70:2598-600 JI '48

Surface tension of chloroform. R. Fanelli. *bibliog* Am Chem Soc J 70:1792-3 My '48

CHLOROFORMATES

Phosgenation products range from resins to grass killers; Columbia chemical division of Pittsburgh plate glass co. *II Chem Ind* 61:805-6 N '47

CHLOROGENIC acid**Analysis**

Determination of chlorogenic acid in coffee; ultraviolet absorption and iodometric oxidation methods. R. G. Moores, D. L. McDermott and T. R. Wood. *bibliog* Anal Chem 20:620-4 JI '48

CHLOROGENIN

Steroidal sapogenins; magogenin and cagogenin and their biogenesis to chlorogenin and tigenin. R. E. Marker. *Am Chem Soc J* 69:2399-401 O '47

CHLOROHYDRINS

Some reactions of butadiene monochlorohydrin, 1-chloro-3-buten-2-ol. W. E. Bissinger and others. *bibliog* Am Chem Soc J 69:2955-61 D '47

Bibliography

Analysis of water-soluble chlorohydrins and other organic chlorides. L. Trafelet. *Anal Chem* 20:63-9 Ja '48

CHLOROXYDROXYSTEARIC acid

Chemistry of epoxy compounds; stereochemical relationships between the 9,10-epoxy-, chlorohydroxy-, and dihydroxy-stearic acids. D. Swern. *bibliog* Am Chem Soc J 70:1235-40 Mr '48

CHLOROISOBUTYRIC acid

Study of new approaches to α -halogenated orthoesters. S. M. McElvain and C. L. Stevens. *bibliog* Am Chem Soc J 69:2667-70 N '47

CHLOROISOBUTYRONITRILE

Chloro- and bromoisobutyronitriles. C. L. Stevens. *bibliog* Am Chem Soc J 70:165-7 Ja '48

CHLOROMETHANE. See Methyl chloride**CHLOROMETHOXYACRIDINE**

Synthesis of nuclear isomers of quinalcine. W. G. Dauben. *bibliog* Am Chem Soc J 70:2420-3 JI '48

CHLOROMETHYLATION

Chloromethylation of naphthalene and of tetralin. G. M. Edger, J. W. Cook and G. W. Crosbie. *Chem Soc J* p 1432-4 N '47

CHLOROMETHYLATION—Continued

Some chloromethyl ethers of nitro alcohols and the preparation of mixed acetals from them. E. B. Hodge. *Am Chem Soc J* 70: 2066-8 Je '48

CHLOROMYCETIN

Chloromycetin, a new antibiotic from a soil actinomycete. J. Ehrlich and others. *Science* 106:417 O 31 '47

Chloromycetin, an antibiotic with chemotherapeutic activity in experimental rickettsial and viral infections. J. E. Smadel and E. B. Jackson. *Science* 106:418-19 O 31 '47

Chloromycetin and streptothricin. H. E. Carter and others. *Science* 107:113 Ja 30 '48

Chloromycetin in the treatment of scrub typhus. J. E. Smadel and others. *bibliog Science* 108:160-1 Ag 13 '48

Chloromycetin used to treat scrub typhus. *Chem & Eng N* 26:1718 Je 7 '48

Rickettsial rout? a new antibiotic, chloromycetin. *Chem Ind* 61:980-1 D '47

CHLORONAPHTHOIC acid

Nitration of 6-chloro-1-naphthoic acid. C. C. Price, T. J. Bardos and H. I. Enos. *bibliog Am Chem Soc J* 70:1978-9 My '48

CHLORONITROANILINE

Nitration of benz-1-thia-2:3-diazole and the synthesis of 7-nitro-, 5-methyl-, and 7-nitro-5-methyl-benz-1-thia-2:3-diazole, with improved preparations of 1-chloro-2:6-dinitrobenzene and 2-chloro-3-nitroaniline. H. H. Hodgson and D. P. Dodgson. *Chem Soc J* p 1006-9 JI '48

Some derivatives of benz-1-thia-2:3-diazole, the nature of the thiadiazole ring, and a note on the thiolation of 2-chloro-5-nitroaniline. H. H. Hodgson and D. P. Dodgson. *Chem Soc J* p870-4 Je '48

CHLORONITROBENZENE

Fractional liquid extraction. E. G. Scheibel. *flow sheet diag Chem Eng Prog* 44:681-90 S '48

CHLOROPHENOXYACETIC acid

Cyclization of phenoxyacetic acid and some chlorophenoxyacetic acids. M. L. Kalinowski and L. W. Kalinowski. *bibliog Am Chem Soc J* 70:1970-1 My '48

CHLOROPHENYL cinnamic acid

cis and *trans* Forms of β -(*p*-chlorophenyl)-cinnamic acid. R. C. Fuson and H. L. Jackson. *Am Chem Soc J* 70:1655 Ap '48

CHLOROPHYLL

Chlorophyll-sensitized photooxidation of phenylhydrazine by methyl red; reactivity of the several forms of methyl red. R. Livingston and R. Pariser. *Am Chem Soc J* 70:1510-15 Ap '48

Green light for chlorophyll; extraction of leaves and fractionation of extract is big business. *Chem Ind* 63:590-1 O '48

Reversible photobleaching of chlorophyll. J. J. McBrady and R. Livingston. *bibliog diag J Phys & Colloid Chem* 52:662-76 Ap '48

Reversible photobleaching of dyes and pigments. R. Livingston. *bibliog J Phys & Colloid Chem* 52:527-34 Mr '48

CHLOROPICRIN

Diffusion coefficients and molecular radii of hydrogen cyanide, cyanogen chloride, phosgene and chloropicrin. I. M. Klotz and D. K. Miller. *bibliog Am Chem Soc J* 69:2557-8 O '47

CHLOROPLASTS

Some factors involved in oxygen evolution from triturated spinach leaves. F. P. Boyle. *bibliog Science* 103:353-60 O 1 '48

CHLOROPRENE

Cyclic polyolefins; synthesis of cyclo-octatriene from chloroprene. A. C. Cope and W. J. Bailey. *bibliog Am Chem Soc J* 70:2305-9 JI '48

Cyclooctadienes from dienes. R. E. Foster and R. S. Schreiber. *Am Chem Soc J* 70:2303-5 JI '48

Hair loss in neoprene manufacture. W. L. Ritter and A. S. Carter. *J Ind Hygiene* 30:192-5 My '48

CHLOROPROPANE

Rearrangement of 1,2-aminochloroalkanes. J. F. Kerwin and others. *bibliog Am Chem Soc J* 69:2961-5 D '47

Role of neighboring nitrogen atom in the displacement reaction; rearrangement in the hydrolysis of 1-diethylamino-2-chloropropane. S. D. Ross. *bibliog Am Chem Soc J* 69:2982-3 D '47

CHLOROPROPANONE. See Chloroacetone**CHLOROQUINOLINE**

Some dialkylaminoalkyl sulfides and ethers derived from quinoline and acridine heterocycles. R. O. Clinton and C. M. Suter. *bibliog Am Chem Soc J* 70:491-4 F '48

CHLOROSALIGENIN

Use of monoreactive phenol alcohols as models for the general polymerization of phenol resin systems. H. S. Lilley. *bibliog Soc Chem Ind J* 67:196-9 My '48

CHLOROSILANE

Contribution to the direct synthesis of phenylchlorosilanes. L. Riccoboni and M. Zotta. *bibliog diag Soc Chem Ind J* 67: 235-7 Je '48

Experiments with silicones. F. J. Norton. *J Chem Educ* 25:256 My '48

Reaction of olefins and chlorohydrosilanes. A. J. Barry and others. *Am Chem Soc J* 69: 2916 N '47

Trimethylsilylcellulose. H. A. Schuyten and others. *bibliog Am Chem Soc J* 70:1919-20 My '48

*See also***Trichlorosilane****CHLOROSTYRENE**

Chlorostyrene polymers with butadiene. H. C. Jones. *Il Rubber Age* 63:735-40 S '48

Copolymerization; copolymerizations involving α -vinylpyridine, α -vinylthiophene, α -chlorostyrene and α -methylstyrene. C. Walling, E. R. Briggs and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1543-4 Ap '48

Use of liquid phase oxidation for the preparation of nuclearily substituted styrenes; *m*-chlorostyrene. W. S. Emerson and V. E. Lucas. *bibliog Am Chem Soc J* 70:1180-1 Mr '48

CHLOROSULFONATION

Kinetic study of alkylation by ethyl arylsulfonates. M. S. Morgan and L. H. Cretcher. *bibliog Am Chem Soc J* 70:375-8 Ja '48

Preparation of N^+ -carboxyacylsulphonamides; the synthesis of N^+ -phthalylsulphanilamide derivatives. C. W. Picard and others. *Chem Soc J* p821-3 Je '48

CHLOROTHIOPHENE

Chlorination of thiophene; substitution products; physical properties of the chlorothiophenes; the mechanism of the reaction. H. L. Coonradt, H. D. Hartough and G. C. Johnson. *Am Chem Soc J* 70:2564-8 JI '48

Melation studies in the thiophene series; preparation of 2-thienylsodium and the 5-halo-2-thienylsodiums. J. W. Schick and H. D. Hartough. *bibliog Am Chem Soc J* 70:286-8 Ja '48

Monomers and polymers; vinylthiophenes. G. B. Bachman and L. V. Heisey. *bibliog Am Chem Soc J* 70:2378-80 JI '48

CHLOROTOLUENE

Reaction of ketene with organic halogen compounds. A. T. Blomquist, R. W. Holley and O. J. Sweeting. *bibliog Am Chem Soc J* 69:2356-8 O '47

CHLOROTOLUENESULFONAMIDE

Equilibrium studies on *N*-chloro compounds; the ionization constant of *N*-chloro-*p*-toluenesulfonamide. J. C. Morris, J. A. Salazar and M. A. Wineman. *Am Chem Soc J* 70:2036-41 Je '48

CHLOROTRIFLUOROETHYLENE

Molecular weight of C_2ClF_3 polymers; abstract. J. L. Gabbard and others. *Chem Eng* 55:276+ My '48

Polyfluoro alkyl ethers and their preparation. J. D. Park and others. *bibliog Am Chem Soc J* 70:1550-2 Ap '48

CHLOROTRIFLUOROPROPANE

Grignard reagent from 3-chloro-1,1,1-trifluoropropane. E. T. McBee and A. Truchan. *Am Chem Soc J* 70:2910-11 S '48

CHLOROUS acid

Heat of formation and free energy of chlorous acid. B. J. Fontana and W. M. Latimer. *bibliog Am Chem Soc J* 69:2598-9 N '47

CHLOROWAX

Development of chlorowax as a paint ingredient. K. S. Wade. *Paint Oil & Chem R* 111:20-1+ My 27 '48

CHOCOLATE

Aluminum foil; its performance with packaged products. J. D. Edwards and D. B. Strohm. *Mod Packaging* 21:186-7 Ap '48
How to temper chocolate; control of melting and cooling operations. W. G. Wolfe. *il Food Ind* 20:531-4 Ap '48
Storage of chocolate. R. F. Korfhage. *Food Ind* 20:318 F '48

CHOLANE

Preparation of 17-ketosteroids from enol acetates of 20-ketosteroids. C. W. Marshall and others. *bibliog Am Chem Soc J* 70:1837-9 My '48

CHOLANTHRENE

Carcinogenic hydrocarbons; 3,5-dimethylcholanthrene. B. Riegel and others. *bibliog Am Chem Soc J* 70:1073-6 Mr '48

See also

Methyl cholanthrene

CHOLENALDEHYDE

Derivatives of bisnor-5-cholelaldehyde. A. P. Centolella, F. W. Heyl and M. E. Herr. *bibliog Am Chem Soc J* 70:2953-4 S '48

CHOLENIC acid

Steroid acids and their transformation products; epimeric 24-phenyl-5-chole-3(8), 24-diols and related compounds. R. H. Levin and others. *bibliog Am Chem Soc J* 70:2958-60 S '48

Steroid acids and their transformation products; thiol esters. R. H. Levin and others. *bibliog Am Chem Soc J* 70:511-14 F '48

CHOLERA

Chemistry in the fight against cholera in Egypt. S. A. El Khishen. *Chem & Ind* p 10 Ja 3 '48

Statistics

World distribution of cholera, plague, small-pox, typhus fever, and yellow fever; Jan.-Oct. 1947, Nov. 1947, Dec. 1947, by weeks. *Pub Health Rep* 63:156 Ja 30 '48 [cont monthly]

CHOLESTADIENE

Preparation, structure and configuration of some salts derived from Δ^6 -i-cholestadiene and i-cholesten-6-one. L. C. King. *bibliog Am Chem Soc J* 70:2685-6 Ag '48

CHOLESTANE

Steroids and the Walden inversion; (a) derivatives of 6-ketocholestone; (b) a direct proof of the stereochemical orientation of the hydroxyl group in cholesterol. C. W. Shoppee. *pl Chem Soc J* p 1032-43 Jl '48

CHOLESTANOL sulfite

Studies in steroid metabolism; the problem of Walden inversion in the reactions of steroid hydrogen sulfates and steroid sulfites. S. Lieberman, L. B. Hariton and D. K. Fukushima. *bibliog Am Chem Soc J* 70:1427-32 Ap '48

CHOLESTENONE

Preparation, structure and configuration of some salts derived from Δ^6 -i-cholestadiene and i-cholesten-6-one. L. C. King. *bibliog Am Chem Soc J* 70:2685-6 Ag '48

CHOLESTEROL

Cholesterol from wool grease produced at Ambler unit. *il Chem Eng* 55:183 My '48

Cholesterol-i-cholesterol isomerization. H. McKennis, Jr. *Am Chem Soc J* 69:2565-6 O '47

Cholesterol now made from wool grease. H. C. E. Johnson. *il Chem Ind* 62:922-3 Je '48

Elimination maxima of certain saturated cholesterol esters; analytical molecular distillation. G. L. Fletcher and others. *bibliog Anal Chem* 20:943-6 O '48

Some reactions of cholesteryl-p-toluenesulfonate. H. McKennis, Jr. *bibliog Am Chem Soc J* 70:675-7 F '48

Steroids and the Walden inversion; (a) derivatives of 6-ketocholestone; (b) a direct proof of the stereochemical orientation of the hydroxyl group in cholesterol. C. W. Shoppee. *pl Chem Soc J* p 1032-43 Jl '48

CHOLESTERYLAMINE

Sterols; the i-cholesterylamines. P. L. Julian and others. *bibliog Am Chem Soc J* 70:1834-7 My '48

CHOLESTERYL compounds

Preparation and structure of cholesteryl quaternary salts. L. C. King, R. M. Dodson and L. A. Subluskey. *bibliog Am Chem Soc J* 70:1176-7 Mr '48

CHOLESTERYL ketones

Derived steroids; cholesteryl ketones. R. H. Baker and E. N. Squire. *bibliog Am Chem Soc J* 70:1487-90 Ap '48

CHOLESTERYL toluenesulfonate

Role of neighboring groups in replacement reactions; the 5,6-double bond in cholesteryl-p-toluenesulfonate as a neighboring group. S. Winstein and R. Adams. *bibliog Am Chem Soc J* 70:838-40 F '48

Some reactions of cholesteryl-p-toluenesulfonate. H. McKennis, Jr. *bibliog Am Chem Soc J* 70:675-7 F '48

CHOLIC acid

Steroid acids and their transformation products; thiol esters. R. H. Levin and others. *bibliog Am Chem Soc J* 70:511-14 F '48

CHOLINE

Choline cholanate. D. R. Rexford and E. S. Wallis. *Am Chem Soc J* 69:3148 D '47

L- α -Glycerolphosphorylcholine. E. Baer and M. Kates. *bibliog Am Chem Soc J* 70:1394-9 Ap '48

Loss of contractility of the uterus and partial atrophy of the uterus and ovaries in albino rats fed choline-deficient diets. M. Peet and M. M. Sampson. *bibliog Science* 107:548-9 My 21 '48

Natural vulcanization accelerators in hevea latex. E. F. A. Altman. *bibliog(95 ref) Ind & Eng Chem* 40:241-9 F '48

CHOLINESTERASE

Effect of cholinesterase-containing globulin fraction of human plasma in macrocytic anemia. R. D. Barnard and J. W. Mentha. *bibliog Science* 107:195-6 F '48

CHRISTIANSEN effect

Microscopical distinction of corundum among its natural and artificial associates; employing the Christiansen effect by transmitted, dark-field illumination. G. C. Crossmon. *Anal Chem* 20:976-7 O '48

CHRISTIE, Alexander Graham, 1880-

Lamme award. *por J Eng Educ* 39:3-5 S '48

CHRISTMAS business

Retailers ride buying wave. *il Bsns W* p 19-20 Ja 10 '48

Spruce up for Christmas. *Elec West* 99:91-3 N '47

Stag night in Bridgeport; an experiment in community sales promotion. J. M. Goloff. *J Retailing* 24:28-9 F '48

Xmas sales hitting new high. *map Bsns W* p 26 D 13 '47

CHRISTMAS clubs

Stamp plan for special savings accounts; Savings bank of Baltimore. B. T. Salisbury. *il Burroughs Clearing House* 32:26-8 Mr '48

CHRISTMAS gifts

Christmas presents for the younger set. *il Consumers Res Bul* 20:17-20 D '47

What folks want for Christmas; cues for holiday sales drives. *il Sales Management* 61:90+ O 15 '48

Advertising

See also

Advertising copy—

Gift appeal

Business gifts

Business gifts. *Am Bsns* 18:57-9+ O '48

CHRISTMAS greens**Advertising**

Come, deck the halls with boughs of holly! Kirk's gift package of Christmas greens. P. R. Kirk. *il Sales Management* 59:48+ N 20 '47

CHRISTMAS letters

Nightmare before Christmas; some sample letters to customers. T. H. Thompson. *Sales Management* 61:106+ N 1 '48

CHRISTMAS lighting

Some engineering aspects of community Christmas lighting. H. K. Trend and P. H. Hildebrand. *il diag Illum Eng* 43:723-35 Jl '48

CHRISTMAS parties, Employees'

Have you planned your Christmas party? *Management R* 36:579-81 N '47

CHRISTMAS printing

Some Christmas greeting ideas. *il Inland Ptr* 120:44-5 N '47

CHRISTMAS tree decorations**Rating**

Christmas tree lamps. Consumers Res Bul
20:20-2 D '47

CHRISTMAS trees

Packaged tree; Seattle firm's mail order
Christmas trees. II Mod Packaging 21:105
D '47

Fires and fire protection

Fire safety for insureds' Christmas trees.
Rough Notes 90:32 D '47

CHROMAN

Synthesis of chromans from phenols and
from ortho-hydroxy aromatic aldehydes. G.
B. Bachman and H. A. Levine. bibliog
Am Chem Soc J 70:599-601 F '48

CHROMATES

Chromate passivation of sprayed zinc coat-
ings; abstract. E. E. Halls. Materials &
Methods 27:109 F '48

Chromated proteins halt corrosion. Eng N
140:661 Ap 29 '48; Same. Metal Finishing
46:110 Je '48; Same. Metal Prog 54:250-
Ag '48; Same. World Oil 128:162 Ag '48;
Same abr. Heat & Ven 45:83 My '48

Practical use of chromate inhibitors in en-
gine cooling systems. D. D. Wright. bib-
liog flow sheet Can Chem & Process Ind
32:533-5 Je '48

Physiological effect

Cancer of the respiratory system in the Unit-
ed States chromate-producing industry. W.
Machle and F. Gregorius. bibliog flow sheet
Pub Health Rep 63:1114-27 Ag 27 '48

CHROMATOGRAPHIC analysis

Application of chromatography to segrega-
tion studies of the agent of chicken tumor
I (Rous sarcoma virus). V. T. Riley. bib-
liog diag Science 107:573-5 My 23 '48

Chromatographic analysis of the unsaponi-
fiable matter of marine animal oils. L. A.
Swain. Can Chem & Process Ind 32:553-4
Je '48

Chromatographic separation of aliphatic 2,4-
dinitrophenylhydrazones. J. W. White, jr.
bibliog Anal Chem 20:726-8 Ag '48

Chromatographic separation of beta-carotene
stereoisomers as a function of developing
solvent. E. M. Bickoff. bibliog Anal Chem
20:51-4 Ja '48

Chromatography of Cuban blackstrap mol-
lasses on clay; some constituents of an
odor and pigment fraction. W. W. Binkley
and M. J. Wolfson. bibliog Am Chem
Soc J 70:290-2 Ja '48

Chromatography of some common indicators.
J. V. Karabinos and P. M. Hyde. bibliog
Am Chem Soc J 70:428 Ja '48

Determination of aromatic compounds in pe-
troleum products; chromatographic method.
A. L. Conrad. bibliog Anal Chem 20:725-6
Ag '48

Determination of gamma-benzene hexa-
chloride by partition chromatography. O.
T. Aepli, P. A. Munter and J. F. Gall.
bibliog II diags Anal Chem 20:610-13 J1 '48

Determining vitamins D₂ by two physical
chemical methods; oil solutions. D. T.
Ewing and others. bibliog Anal Chem 20:
317-20 Ap '48

Direct estimation of penicillin G in small
broth samples. J. A. Thorn and M. J. John-
son. bibliog Anal Chem 20:614-17 J1 '48

Drop by drop; a new instrument, fraction
collector for chromatographic analyses. II
Chem Ind 62:224-5 F '48

Fumarate content of certain tissues of the
rat as determined by partition chromato-
graphy. L. M. Marshall and others. Science
108:92 J1 23 '48

Paper chromatography applied to the isotopic
derivative method of analysis. A. S. Kes-
ton, S. Udenfriend and M. Levy. Am Chem
Soc J 69:3151-2 D '47

Paper chromatography using capillary as-
cent. R. J. Williams and H. Kirby. bib-
liog Science 107:481-3 My 7 '48

Paper partition chromatography, a new re-
search tool. II Chem & Eng N 26:632 Mr
1 '48

Partition chromatography of amino acids with
applied voltage. A. Haugaard and T. D.
Kroner. II Am Chem Soc J 70:2135-7 Je '48

Path of carbon in photosynthesis; amino
acids. W. Stepka and others. Science 108:
304 S 17 '48

Preformed vitamin A in mixed feeds; chemi-
cal estimation by chromatographic methods.
M. Narod and D. Verhagen. bibliog diag
Anal Chem 20:627-30 J1 '48

Quantitative separation of methylated sugars.
F. Brown and J. K. N. Jones. Chem Soc
J p 1344-7 O '47

Radiocarbon and filter-paper partition chro-
matography. R. M. Fink and K. Fink.
bibliog Science 107:253-4 Mr 5 '48

Sensitivity of the ninhydrin reaction in paper
partition chromatography. J. J. Pratt, jr.
and J. L. Auclair. Science 108:213-14 Ag
27 '48

Separation of aliphatic alcohols by chromato-
graphic adsorption of their 3,5-dinitroben-
zoates. J. W. White, jr. and E. C. Dryden.
bibliog Anal Chem 20:553-5 S '48

Use of papergrams in the study of the
urinary excretion of radioactive sulfur
compounds. R. M. Tomarelli and K. Florey.
diags Science 107:630-1 Je 11 '48

Use of X-ray and electron diffraction as
methods of analysis in biochemical chroma-
tography. C. L. Christ and others. Science
108:91-2 J1 23 '48

CHROMATOGRAPHY

Apparatus for partition chromatography on
paper. F. C. Steward and others. bibliog
II diag Science 107:451-2 Ap 30 '48

Exchange adsorption of ions from aqueous
solutions by organic zeolites; separation
of the yttrium group rare earths. B. H.
Ketell and G. E. Boyd. bibliog diag Am
Chem Soc J 69:2800-12 N '47

Glass trough for filter paper partition chro-
matography. W. H. Longenecker. diags
Science 107:23-4 Ja 2 '48

Hydrolysis of steroid esters on activated
alumina. W. Dasler. Science 107:369 Ap 9
'48; Discussion. 108:32 J1 23 '48

Paralytic shellfish poison; purification by
chromatography. H. Sommer and others.
Am Chem Soc J 70:1019-21 Mr '48

Partition chromatography; abstract. A. J. P.
Martin. Chem & Ind p789 D 20 '47

Partition chromatography; abstract and dis-
cussion. A. J. P. Martin. Chem & Ind p805
D 27 '47

Separation of tropic and atropic acids by
partition chromatography. S. Gottlieb. Am
Chem Soc J 70:423 Ja '48

Simplified apparatus for one-dimensional pa-
per partition chromatography. W. A.
Winsten. diag Science 107:605 Je 4 '48

CHROME alum. See Alums**CHROMEL**

Embrittlement of chromel and alumel ther-
mocouple wires. W. I. Pumphrey. 2pls Iron
& Steel Inst J 157:513-14 D '47

CHROMIC acid

Rapid plating range test. J. B. Mohler. diag
Iron Age 160:75-6 D 4 '47

CHROMIC anhydride

Anomalous oxidation of some secondary alcoh-
ols containing an α -neo carbon. W. A.
Mosher and F. C. Whitmore. bibliog Am
Chem Soc J 70:2544-5 J1 '48

CHROMISING. See Chromizing**CHROMITE**

Chromite. 1947. N. B. Melcher. Eng & Min J
149:91-2 F '48

Geology and chromite deposits of the Cama-
gley district, Camagney province, Cuba.
D. E. Flint and others. map diags U S Geol
S Bul 954-B:39-63, pl 18-19[in pocket] '48

Investigation of Louise chromite deposits,
Troup county, Ga. T. J. Ballard. 5pls
U S Bur Mines Rep of Invest 4311:1-24 '48

Origin and alteration of chromites from
Egypt. M. S. Amin. bibliog II maps diags
Econ Geol 43:133-53 Mr '48; Discussion. N.
M. Shukri. 43:427-9 Ag '48

Some refractory properties of Washington
chromite. H. Wilson and others. 15pls U S
Bur Mines Rep of Invest 3694R:1-25 bib-
liog(p6-8) '47

CHROMIUM

Aerial oxidation of trivalent chromium in
aqueous solution. R. S. Nyholm. Soc Chem
Ind J 66:449-51 D '47

CHROMIUM—Continued

- Automatic potentiometric titration of iron and titanium with chromous ion. J. J. Lingane. bibliog diag Anal Chem 20:797-801 S '48
- Effect of chromium on the M_s point. J. B. Bassett and E. S. Rowland. bibliog il Metals Tech 15:TP2417 1-8 Ag '48
- Passivity of chromium. N. Hackerman and D. I. Marshall. bibliog il Electrochem Soc J 93:49-54 Mr '48
- Some measurements of gamma-ray energies. F. N. D. Kurie and M. Ter-Pogossian. Phys R 74:677-82 S 15 '48
- Thermionic properties of chromium. H. B. Wahlen. Phys R 73:1458-9 Je 15 '48

Analysis

- Absorptiometric determination of chromium in high-speed steels by sodium chlorate oxidation. F. E. Eborall. Metallurgia 38:135-6 J '48
- Analysis of thorium-chromium mixtures. R. E. Ewing and C. V. Banks. bibliog diag Anal Chem 20:233-5 Mr '48
- Critical examination of a perchloric acid colorimetric method of analysis for chromium in carbon and low alloy steel. Metallurgia 37:211-16 F '48

Hydrogen content

- Hydrogen content of electrolytic chromium and its removal. E. V. Potter and H. C. Lukens. bibliog diag Metals Tech 15:TP2312 1-8 Ja '48

CHROMIUM alloys

- Cobalt-chromium binary system. A. R. Elsea and others. bibliog il Metals Tech 15:TP2393 1-24 Je '48
- Constitution and properties of copper-rich copper-chromium and copper-nickel-chromium alloys. W. R. Hibbard, Jr. and others. bibliog il Metals Tech 15:TP2317 1-12 F '48
- Copper-chromium and copper-nickel-chromium alloys. bibliog Engineer 185:616 Je 25 '48
- Decarburization of chrome nickel alloys by their surface oxides in high vacua and at elevated temperatures. E. A. Gulbransen and others. bibliog Metals Tech 15:TP2438 1-14 S '48
- Electron diffraction study of oxide films formed on nickel-chromium alloys. J. W. Hickman and E. A. Gulbransen. bibliog Metals Tech 15:TP2372 1-15 Je '48
- New alloy has improved electrical resistance properties; Evanohm. Materials & Methods 28:62-3 Ag '48

See also

- | | |
|-----------------------------|------------------------------------|
| Chromel | Iron alloys—Chromium nickel alloys |
| Chromium steel | Iron alloys—Nickel chromium alloys |
| Iron alloys—Chromium alloys | |

CHROMIUM ammonium sulfate

- Systems chromic ammonium sulfate-ferrous ammonium sulfate-water and chromic ammonium sulfate-aluminum ammonium sulfate-water at 25°. N. O. Smith and C. S. Lennox. bibliog Am Chem Soc J 70:1793-6 My '48

CHROMIUM boride

- Development of powder alloys; widening use for fabricating hard metals. Chem Age (Lond) 58:462 Ap 3 '48

CHROMIUM chlorides

- Preparation of standard chromous sulfate or chromous chloride solutions of determinate concentration. J. J. Lingane and R. L. Pecsok. bibliog diags Anal Chem 20:425-8 My '48

- Reduction of acetylene to ethylene by chromous chloride. W. E. Barker and D. J. Kennedy. bibliog diags Electrochem Soc Trans 92 (preprint 20):231-40 '47

CHROMIUM hexacarbonyl

- Plating chromium by thermal decomposition of chromium hexacarbonyl. B. B. Owen and R. T. Webber. bibliog il diag Metals Tech 15:TP2306 1-5 Ja '48

CHROMIUM metallurgy**Electrometallurgy**

- Hydrogen content of electrolytic chromium and its removal. E. V. Potter and H. C. Lukens. bibliog diag Metals Tech 15:TP2312 1-8 Ja '48

- Pilot-plant production of electrolytic chromium. R. E. Lloyd and others. bibliog flow sheets il Electrochem Soc J 94:122-38 S '48

CHROMIUM molybdenum steel

- Creep properties of molybdenum, chromium-molybdenum, and molybdenum-vanadium steels. J. Glen. bibliog Iron & Steel Inst J 158:37-80 Ja '48
- Fatigue tests on crankshaft steels. P. H. Frith. bibliog 2pls il diags Iron & Steel Inst J 159:335-409 Ag '48
- Study of the properties of 0.5 per cent chromium, 0.5 per cent molybdenum pipe steel. R. C. Fitzgerald and others. il Welding J 27:sup457-69 S '48; Excerpt. Power Generation 52:66 F '48

Testing

- Fatigue tests on crankshaft steels; tests on nickel-chromium-molybdenum and chromium-molybdenum-vanadium steels. P. H. Frith. bibliog il diags Iron & Steel Inst J 159:400-9 Ag '48

CHROMIUM nickel steel

- Changes in austenitic chromium-nickel steels during exposures at 1100 to 1700 F. P. Payson and C. H. Savage. bibliog il Am Soc for Metals Trans 39:404-39; Discussion. 439-52 '47

- Continuous furnace simplifies annealing austenitic stainless; Landers, Frary & Clark. L. F. Spencer. il diags Iron Age 162:84-8 S 23 '48

- Corrosion resistance, mechanical properties, and some uses of a new heat-hardenable 18-8 stainless steel. M. G. Fontana. Ind & Eng Chem 39:sup91A-2A D '47

- Drilling 18-8 stainless steel. J. K. Matter. diags Tool Eng 21:29-30 O '48

- Effect of composition on low carbon austenitic chromium-nickel stainless steels; abstract. G. C. Kiefer and C. M. Sheridan. Steel 122:82-3 My 31 '48

- Hydraulic forming of stainless steel; pail of milkier unit. W. C. Brice. il diag Materials & Methods 26:63-70 N '47

- Influence of low temperatures on the mechanical properties of 18-8 chromium-nickel steel. D. J. McAdam, Jr. and others. bibliog J Res Nat Bur Stand 40:375-92 My '48

- Large stainless steel tank heads fabricated by spinning; illustrations with text. Materials & Methods 23:56-8 Ag '48

- Prototype stainless steel coach. Silver Princess. il Engineer 184:512-13 N 28 '47; Engineering 164:584-6, 588 D 19 '47

- Resistance to sensitization of austenitic Cr-Ni steels; abstract. W. O. Binder and others. Metal Prog 54:516-17 O '48

- Stabilization of austenitic stainless steel. S. J. Rosenberg and J. H. Darr. bibliog il J Res Nat Bur Stand 40:321-38 Ap '48; Abstract. Iron Age 162:81 JI 22 '48

Analysis

- Determination of columbium in rustless and heat-resisting steels. B. Bagshaw, W. T. Elwell and S. W. Craven. Soc Chem Ind J 66:398-402 N '47

- Routine chemical methods for analysis of niobium and tantalum bearing 18/8 steels. B. Rogers. bibliog Metallurgia 37:326-30 Ap '48

Testing

- Apparent influence of grain size on the high temperature properties of austenitic steels. C. L. Clark and J. W. Freeman. il Am Soc for Metals Trans 38:148-69; Discussion. 169-79 '47

- Corrosion-resistant steel sheet in marine atmospheres. W. Mutchler. il diags Am Soc T M Proc 46:621-39; Discussion. 640-1 '46

- Effect of composition on low carbon austenitic chromium-nickel stainless steels; abstract. G. C. Kiefer and C. M. Sheridan. Iron Age 161:93 Je 10 '48

- Formation of sigma phase in duplex chromium-nickel molybdenum corrosion-resisting steels. H. W. Kirby and J. I. Morley. 4pls Iron & Steel Inst J 158:289-94 Mr '48

- Occurrence and some effects of sigma phase in a molybdenum-bearing chromium-nickel austenitic steel. L. Smith and K. W. J. Bowen. il 4pls diag Iron & Steel Inst J 158:295-305 Mr '48

CHROMIUM nickel steel—Testing—Continued

- Quantitative evaluation of intergranular corrosion of 18-8 Ti. E. J. Phillips, bibliog il Am Soc for Metals Trans 39:891-906; Discussion, 906-14 '47
- Results of 15 years' exposure tests on corrosion-resistant steels. I. V. Williams and K. G. Compton. Am Soc T M Proc 46:673-7 '46

CHROMIUM ores*See also*

Chromite

CHROMIUM oxides

- Heat of adsorption of gases on manganous-chromic oxide at room temperature. T. Ward. Chem Soc J p 1244-6 S '47
- Heterogeneity of catalyst surfaces; zinc oxide-chromic oxide, manganous oxide-chromic oxide, chromic oxide gel. H. S. Taylor and S. Liang, bibliog Am Chem Soc J 69:2989-91 D '47
- Reduction of oxides by hydrogen and carbon monoxide. W. E. Garner. Chem Soc J p 1239-44 S '47
- Structure and activity of the chromium-aluminum oxide catalyst system. R. P. Elschens and P. W. Selwood. Am Chem Soc J 70:2271-3 Je '48
- Structure studies on chromium-aluminum oxide and related catalyst systems. R. P. Elschens and P. W. Selwood. Am Chem Soc J 69:2698-702 N '47
- X-ray diffraction studies in the system NiO-Cr₂O₃-ZrO₂. W. O. Milligan and L. M. Watt, bibliog il J Phys & Colloid Chem 52: 230-5 Ja '48

CHROMIUM phosphate

- Phosphate coating of aluminum and polymorphism of chromium phosphate. G. L. Clark and A. P. Tai. Science 107:505 My 14 '48

CHROMIUM plating

- Advantages of chromium plating. Steel 123: 56-7 Ag 30 '48
- Automatic chromium plating barrel. il Engineer 185:627 Je 25 '48
- Chrome craftsmen; Gro-Plate co. develops close-tolerance techniques. il Bsns W p50-1 Jl 24 '48
- Chromium plating of molds; abstract. J. C. Rogers. India Rubber World 118:533-4 Jl '48
- Coordination compounds in the electrodeposition of chromium. R. W. Parry and others, bibliog diag Electrochem Soc Trans 92 (preprint 27):311-22 '47
- Finishing small electric appliances. G. E. Stedman. il Metal Finishing 46:78-80 Ja '48
- Influence of internal stress on the structure of electro-deposits. M. R. J. Wyllie. J Chem Phys 16:53-7 Ja '48
- Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zapffe and M. E. Haslem. bibliog Am Soc for Metals Trans 39:241-58; Discussion, 258-60 '47
- Mechanisms of chromium plating; abstract. C. A. Snively. il(p98) Steel 121:110+-N 17 '47
- Oxidation of trivalent chromium; abstract. R. Seemiller and V. Lamb. Steel 123:110+-Ag 2 '48
- Physical properties of electrodeposited chromium. A. Brenner and others, bibliog il J Res Nat Bur Stand 40:31-59 Ja '48; Excerpts, Product Eng 19:137-9 Jl '48
- Plating chromium by thermal decomposition of chromium hexacarbonyl. B. B. Owen and F. T. Webber, bibliog il diag Metals Tech 15:TP2306 1-5 Ja '48
- Porous-chromium hardening of Diesel-engine cylinders. C. D. B. Williams. Engineering 165:139 F 6 '48
- Process sheet for decorative chromium plating; reference book sheet. G. Black. Am Mach 92:203 Mr 11 '48
- Process sheet for industrial chromium plating; reference book sheet. G. Black. Am Mach 92:135 O 7 '48
- Rapid plating range test. J. B. Mohler. diag Iron Age 160:75-6 D 4 '47
- Schoellkopf award to Udy; address of the recipient. Chem & Eng N 26:1580-1 My 31 '48

Theory for the mechanism of chromium plating; a theory for the physical characteristics of chromium plate. C. A. Snively, bibliog il diags Electrochem Soc Trans 92 (preprint 35):445-84 '47; Abstract, Steel 121: 98, 110+-N 17 '47

Transmission of cracks from plate to underlying metal. F. D. Rowe and J. B. Dancy. il Metal Prog 53:537-8 Ap '48

U.S. naval engineering experiment station investigations on cylinder liner wear. W. G. Payne and W. F. Joachim. S A E J 56:40-3 Jl '48

Use of plastic beads on chrome plating tanks. A. C. Stern and others. Electrochem Soc J 93:67N-8N My '48

Safety measures

Mist control with addition agents in chrome plating. L. Silverman and R. M. Thomson, bibliog diag J Ind Hygiene 30:303-6 S '48

CHROMIUM steel

Swiss process for heat treating Cr-Si valves. Automotive Ind 99:64 N 1 '48

See also

Chromium nickel steel

Testing

- Atmospheric corrosion tests on high-chromium steels. W. O. Binder and C. M. Brown, il diag Am Soc T M Proc 46:593-609 '46
- Changes in size and toughness of high carbon-high chromium steels due to subzero treatments. L. E. Gippert and G. M. Butler, jr. Am Soc for Metals Trans 39:549-57; Discussion, 558-68 '47
- Results of 15 years' exposure tests on corrosion-resistant steels. I. V. Williams and K. G. Compton. Am Soc T M Proc 46:673-7 '46
- Study of furnace brazing as applied to 12 per cent chromium low carbon steel. T. H. Gray, il diags Am Soc for Metals Trans 39:453-78; Discussion, 478-87 '47

CHROMIUM sulfate

- Potentiometric titration of +4 and +6 selenium and tellurium with chromous ion. J. J. Lingane and L. Niedrach, bibliog Am Chem Soc J 70:1997-2000 Je '48
- Preparation of standard chromous sulfate or chromous chloride solutions of determinate concentration. J. J. Lingane and R. L. Pecsok, bibliog diags Anal Chem 20:425-8 My '48

CHROMIZING

- Chromising steel surfaces. G. Black and E. Rosen, diags Metal Finishing 46:70-2 Ag '48
- Process sheet for chromising steel; reference book sheet. G. Black. Am Mach 92:123 Jl 29 '48

CHROMOPHORES

- Correlation of resonance structure with ultraviolet absorption in nitro-substituted organic molecules. W. H. Rodebush, bibliog Chem R 41:317-23 O '47
- Effect of alkyl substitution on the spectra and ionization potentials of some fundamental chromophores. W. C. Price, bibliog Chem R 41:257-72 O '47

CHROMOSOMES

- Differential effects of combined radiations on chromosome breakage and mutation rate; abstract. C. F. Swanson. Science 107:458 My 7 '48
- Modification of mitosis by chemicals. J. R. Meyer. Science 108:188 Ag 20 '48

CHROMOTROPIC acid

- Quantitative colorimetric microdetermination of methanol with chromotropic acid reagent. R. N. Boos, bibliog Anal Chem 20:964-5 O '48
- Spectrophotometric determination of diacetyl. J. C. Speck, jr. bibliog Anal Chem 20: 647-8 Jl '48

CHROMOTROPIC blue

- Salinogenic or chelate forming dyes as analytical reagents. A. Steigmann. Soc Chem Ind J 66:353-5 O '47

CHRONOGRAPH

- Spiral chronograph for long time intervals. H. D. Warshaw. il diag R Sci Instr 19: 420-3 Jl '48

CHRONOMETERS

- Portable electronic chronometer. G. T. Baker, bibliog il diags J Sci Instr 25:194-8 Je '48

CHRYSANTHEMUM monocarboxylic acid. See Chrysanthemumic acid

CHRYSANTHEMUMIC acid
Determination of the factor for pyrethrin I in the mercury method. G. T. Bray and others. Soc Chem Ind J 66:275-9 Ag '47

CHRYSENE
Modified synthesis of chrysene. G. M. Badger. Chem Soc J p999-1001 J1 '48

CHRYSLER, Walter Percy
Chrysler operation. Fortune 38:102-5+ O '48

CHRYSLER corporation
Annual report. Comm & Fin Chr 167:1040 Mr 8 '48

Chrysler earns 4.93 per cent of sales in 1947. A. H. Allen. Steel 122:73 Mr 1 '48

Chrysler operation. *il* Fortune 38:102-5+ O '48

Comparative investment audit; Chrysler versus General Motors. F. K. Dodge. Mag of Wall St 81:246-8+ D 6 '47

Ten potential market leaders for 1948. Mag of Wall St 81:405 Ja 17 '48

CHUBB, Lewis Warrington, 1882-
Retirement. Science 108:324 S 24 '48

CHUCKS
Air motors operate scroll chucks on milling fixture. L. C. Heinlein. *il* diags Am Mach 92:77 Ag 26 '48

Chuck-jaw inserts cut scrap pile and improve quality of production. R. H. White. *il* diag Am Mach 92:132 S 23 '48

Increasing the capacity of a lathe chuck. J. Meyer. diag Mach 55:220 N '48

Setcrew, chuck grips odd shapes. T. G. Hicks. diags Am Mach 92:130 O 21 '48

Special nose type chuck for a solid-spindle lathe. D. A. Baker. diags Mach 55:202 S '48

Standards

Newly published standard gives data on spindle noses and chucks. J. E. Lovely. *il* Ind Stand 19:56-8 J1 '48

CHURCH accounting
Accountant can render community a service by offering aid to his church. L. D. Mac-Millan. J Account 86:228-30 S '48

CHURCH advertising
Why should ministers study advertising? J. D. Woolf. Adv & Sell 41:38+ O '48

CHURCH and education
Schools question in Europe; battle between communism and Catholicism. Economist 155:252-4 Ag 14 '48

CHURCH and social problems
Churches and social problems. P. H. Furfey. Ann Am Acad 256:101-9 Mr '48

Organized religion, the state, and the economic order. H. F. Ward. Ann Am Acad 256:72-83 Mr '48

CHURCH and state
Organized religion, the state, and the economic order. H. F. Ward. Ann Am Acad 256:72-83 Mr '48

France

Church and state in France. Economist 154: 844 My 22 '48

CHURCH architecture
Religious buildings; building types study. *il* plans diags Arch Rec 103:116-40 Je '48

Unitarian church in the country near Madison, Wis.; design by E. L. Wright. *il* plan diag Arch Forum 83:118-19 Ja '48

CHURCH bells. See Bells

CHURCH decoration and ornament
See also Stained glass

CHURCHES
Concrete prismatic shell reinforces 85-year-old brick church tower. A. R. Kelly. *il* diag Civil Eng 18:690-1 N '48

Modern brick built church is designed with classic appeal. *il* plans diags Brick & Clay Rec 113:53 S '48

Rigid-frame church arches prefabricated by welding; Mission Baptist tabernacle in Chicago. *il* Constr Methods 30:100-2 F '48

See also Church architecture

Fires and fire protection

Fire hazards in churches. T. M. Lickel. Spectator (Property ed) 13:10-11+ Je 24 '48

Insurance requirements

Church protective policy. Rough Notes 91:62 F '48

CHUTES

Banked spiral sheet metal chutes; newspaper chutes made by the Charles Hartmann co. *il* Sheet Metal Worker 39:74-5 Mr '48

Compact chute rack stores motor frames. J. F. Miller. *il* diags Am Mach 92:102-3 Je 17 '48

Curved chutes aid work ejection; lamination punching on five-stage progressive die. H. S. Wharen. *il* diags Am Mach 92:88-9 Ap 8 '48

Down to earth, but fast; plane evacuation chute, developed by American Airlines for use after emergency landings. *il* Air Transport 6:23 Mr '48

Flow of coal in chutes. E. F. Wolf and H. L. von Hohenleiten. diags Mech Eng 70: 313-14+ Ap '48

Portable chutes in pulpwood logging. C. R. Silversides. bibliog *il* diags Pulp & Pa of Can 49:108-14+ J1 '48

Transfer by shaking chutes; drift conveyors combine output of two seams; Mansfield colliery, Nottinghamshire. plans diags Can Min J 69:74-6 Ja '48

CIDER
Arsenic and lead are still getting into the food supply. Consumers Res Bul 21:11-12 My '48

CIGARET industry and trade
Automatic electric cigarette and match merchandiser. *il* diags Product Eng 19:92-4 Je '48

Camels challenge Luckies; battle for supremacy between Reynolds Tobacco and American Tobacco. F. R. Walters. *il* Mag of Wall St 82:128-30+ My 8 '48

Chain uses tokens in cigarette promotion; Sun Ray's answer in Pennsylvania price dispute. *il* Bsns W p57 Mr 27 '48

Cigarette race speeds up. *il* Bsns W p78 Ap 24 '48

Cigarette sales five per cent over '46. Bsns W p42+ Ja 17 '48

Conquering the pilferage peril as regards cigarettes. For Comm W 32:35 Ag 14 '48

Higher costs likely in 1948 for cigarette manufacturers. Barron's 28:34 Ja 26 '48

Incentive goods market opens under interim-aid law; small, packaged products wanted to spur European output; propaganda possibilities of cigarettes. *il* Bsns W p22 Ja 17 '48

Advertising

Lucky Strike scrap over advertising policy. Bsns W p26 Ap 3 '48

Finance

Cigarette makers need higher prices. H. W. Knodel. Barron's 28:32 J1 19 '48

What's happening to tobacco profits. Bsns W p69 Ag 28 '48

Statistics

Cigarette sales at peak, twice 1935-39 average. G. R. Dunhill. *il* Adv & Sell 41:35-6+ F '48

1947 cigarette consumption up 4.6 per cent. H. M. Wooten. *il* Ptr Ink 222:27-30+ Ja 23 '48

United States exports of cigarettes, January-June, 1947 and 1948. For Comm W 33:47 O 9 '48

CIGARET paper
Cigarette paper from fruit trimmings. Paper Tr J 127:9 S 30 '48

CIGARETS
Aluminum foil; its performance with packaged products. J. D. Edwards and D. B. Strohm. Mod Packaging 21:186 Ap '48

Metal-clad cigarettes. *il* Mod Packaging 21: 95-100 Mr '48

Manufacture

Recovery of nicotine by ion exchange from cigaret tobacco drier gases. A. W. Kingsbury, A. B. Mindler and M. E. Gilwood. flow diag *il* Chem Eng Prog 44:497-500 J1 '48

CINCHONA

Ceylon's reviving cinchona industry. S. N. Gangly. *Chem Age (Lond)* 58:15-16 Ja 3 '48

Cinchona-bark and quinine production and trade, Netherlands. *For Comm W* 32:38 S 4 '48

Cinchona bark industry world status reported. *Oil Paint & Drug Rep* 154:60 Jl 19 '48

Cinchona derivatives getting back to normal and quinine salts are inadequate supply. *Chem & Eng N* 26:68 Ja 5 '48

CINCHONA alkaloids

Application of cinchona alkaloids in the rubber industry. R. F. A. Altman and G. J. Van der Bie. *bibliog Ind & Eng Chem* 40: 897-904 My '48

See also

Quinine

CINCHONINALDEHYDE

Cinchoninaldehyde and reactive methylene compounds. A. P. Phillips. *Am Chem Soc J* 70:452-4 F '48

CINCHONINE

Importance of the methoxy group in anti-fibrillatory compounds. J. R. DiPalma and J. J. Lambert. *bibliog Science* 107:66-8 Ja 16 '48

CINCHONINIC acid

Synthesis of 2,3-disubstituted cinchoninic acids from propoxymethyl alkyl (or phenyl) ketones by means of the Pfitzinger reaction. H. R. Henze, J. W. Melton and E. O. Forman. *bibliog Am Chem Soc J* 70:2622-4 Ag '48

CINCINNATI

See also

Housing—Cincinnati

Hotels, restaurants, etc.

Arrival in Cincinnati: Terrace Plaza hotel. *il diag Fortune* 38:113-17+ O '48

New hotel spruces up Cincinnati: Terrace Plaza. *il Bsns W* p22-3 Jl 3 '48

Industries

Cincinnati, city closest to America; civic-minded utility promotes nation-wide advertising campaign to attract new industry. *il Am Gas Assn Mo* 30:13 Mr '48

Railroads

Power and light for Cincinnati union terminal co. *il Ry Mech Eng* 122:451-4 Ag '48

CINCINNATI gas and electric company

Bonds offered. *Comm & Fin Chr* 167:2786 Je 28 '48

Rising fuel costs to hit Cincinnati gas and electric. *Barron's* 27:35 D 22 '47

Unsubscribed shares offered. *Comm & Fin Chr* 167:939 Mr 1 '48

CINCINNATI planer company

Fiftieth anniversary. *Mach* 54:176 My '48

CINDER concrete. See Concrete—Cinder concrete**CINEMA spectrograph. See Spectrograph****CINERONE**

Synthesis of some β -keto esters. S. B. Soloway and F. B. LaForge. *bibliog Am Chem Soc J* 69:2677-8 N '47

CINNAMAL chloride

Allylidene halides; spectrophotometric study of solvolysis reactions of cinnamal chloride. L. J. Andrews. *bibliog Am Chem Soc J* 69:3062-5 D '47

CINNAMALDEHYDE

Allylidene halides; spectrophotometric study of solvolysis reactions of cinnamal chloride. L. J. Andrews. *bibliog Am Chem Soc J* 69:3062-5 D '47

Analysis

Colorimetric determination of certain alpha, beta-unsaturated aldehydes. R. B. Wearn and others. *bibliog Anal Chem* 20:922-4 O '48

CINNAMAMIDES

Reaction of azlactones with secondary amines. D. K. Barnes, E. Campaigne and R. L. Shriner. *bibliog Am Chem Soc J* 70:1769-72 My '48

CINNAMATES

Local anesthetics; aroyl derivatives of β -methyl- β -monoalkylamino propanols. J. S. Pierce, R. D. Gano and J. M. Lukeman. *bibliog Am Chem Soc J* 70:255-6 Ja '48

CINNAMIC acid

α -Aryloxy and α -aryl thiol cinnamic acids. D. Paps and E. Schwenk. *bibliog Am Chem Soc J* 69:3022-3 D '47

cis and *trans* Forms of β -(*p*-chlorophenyl)-cinnamic acid. R. C. Fuson and H. L. Jackson. *Am Chem Soc J* 70:1655 Ap '48

New synthesis of atranol (2,6-dihydroxy-4-methylbenzaldehyde) and the corresponding cinnamic acids. R. Adams and J. Mathieu. *bibliog Am Chem Soc J* 70:2120-2 Je '48

CINNOLINE

Cinnolines; a simple method for the preparation of 4-aminocinnolines. J. R. Keneford, K. Schofield and J. C. E. Simpson. *Chem Soc J* p358-60 Mr '48

Cinnolines; 4-hydroxy-3-methylcinnolines. J. R. Keneford and J. C. E. Simpson. *Chem Soc J* p354-8 Mr '48

Cinnolines; *N*-oxides of 4-aryl-cinnolines; conversion of 4-substituted cinnolines into indoles. C. M. Atkinson and J. C. E. Simpson. *Chem Soc J* p 1649-52 D '47

Cinnolines; the alkaline decomposition of some quaternary salts of 4-substituted cinnolines. J. C. E. Simpson. *Chem Soc J* p 1653-6 D '47

New synthesis of cinnoline derivatives; heterocyclic steroid analogs. E. C. Kornfeld. *bibliog Am Chem Soc J* 70:1373-6 Ap '48

CIPERO formation

Description, correlation, and paleoecology of tertiary Cipro marl formation, Trinidad. B.W.I. R. M. Stainforth. *map diag Am Assn Pet Geologists Bul* 32:1292-330 *bibliog*(61 titles, p 1329-30) Jl '48

CIRCLES

Concentric circles, areas, and weights. *diag Am Gas J* 168:30 Ja '48

CIRCUS**Advertising**

Ringling's word hawk; Roland Butler. *J. L. Collings. Ed & Pub* 81:46 Ap 10 '48

CIRE perdue process. See Lost wax process**CITATIONS, Bibliographic. See Bibliography****CITIES and towns**

Design of arterial routes in urban areas. J. Barnett. *il Roads & Bridges* 86:71-2+ Ag '48

Scope and status of urban geography; an assessment. R. E. Dickinson. *bibliog Land Econ* 24:221-38 Ag '48

See also

City planning

Streets

also headings beginning Municipal

Cleanliness

It pays dividends; well organized clean-up campaign. C. Tolan, jr. *Paint Oil & Chem R* 110:135-6 N 13 '47

Industries

Colorado develops industrial relocation exhibit; flying chamber of commerce, Fremont County development board. *Ind Marketing* 33:66+ O '48

Community goes into business. R. Wood. *Harvard Bsns R* 26:144-55 Mr '48

Facts, facts, facts; they're California's new gold; sales tools of New Industries committee of Oakland chamber of commerce. D. M. Pollett. *il Sales Management* 60:126+ Je 15 '48

Georgia town and manufacturer show how free enterprise works; Cluett, Peabody & Co. in Buchanan. *Ptr Ink* 223:46-7 Je 18 '48

Job finder; LeRoy, N.Y. got clothing maker to set up a plant there. *Bsns W* p30+ Je 26 '48

Reviving a war-boom town; Wisconsin businessmen put together a nonprofit industrial corporation for Baraboo. *il Bsns W* p64-5 O 2 '48

Subsidization of industry in forty selected cities. in Wisconsin, 1930-1946. W. D. Knight. (Wisconsin commerce studies v 1, no 2) 206p pa \$1 Univ. of Wisconsin, Bur. of business research and science, 404 Sterling Hall, Madison '47

CITIES and towns—Industries—Continued

Town keeps industry going; ten year review; Ware, Mass. plan Mill & Factory 42:135-6 F '48

See also

Gary, Indiana—Industries
Scio, Ohio—Industries

United States

Population ranking of the 200 largest cities, Sales Management estimates Jan. 1, 1948. Sales Management 60:96 My 10 '48

CITIES service company

Annual report, Comm & Fin Chr 167:2254 My 24 '48

Cities Service common pays first dividend since 1932; five companies issue statements. Nat Pet N 39:45 N 26 '47

CITIZENS foundation. See Syracuse, New York—Citizens foundation**CITIZENS radio service**

Antennas for Citizens Radio. H. J. Rowland. *il* diags Electronics 21:96-9 My '48

Citizens band transceivers. W. B. Lurie. *il* diags Electronics 21:76-81 Ag '48

Field tests for Citizens band. R. E. Samuelson. *il* Electronics 21:92-6 Ja '48

Receiver for the Citizens radio service. W. C. Hollis. *il* diags Electronics 21:80-5 Mr '48

CITRACONIC anhydride

Diels-Alder reaction of 1-vinyl-6-methoxy-3,4-dihydronaphthalene with citraconic anhydride. W. E. Bachmann and J. M. Chemerda. bibliog Am Chem Soc J 70:1468-73 Ap '48

Reaction of anthracene with maleic and fumaric acid and their derivatives and with citraconic anhydride and mesaconic acid. W. E. Bachmann and L. B. Scott. bibliog Am Chem Soc J 70:1458-61 Ap '48

Reaction of 1-vinylnaphthalene and 6-methoxy-1-vinylnaphthalene with citraconic anhydride, fumaric acid and mesaconic acid. W. E. Bachmann and L. B. Scott. bibliog Am Chem Soc J 70:1462-8 Ap '48

CITRAL

Kinetics of the acid-catalyzed cyclization of citral and citronellal. C. C. Price and M. L. Dickman. bibliog Ind & Eng Chem 40: 257-61 F '48

CITRATES

Acetate metabolism in yeast, studied with isotopic carbon. S. Weinhouse and R. H. Millington. bibliog Am Chem Soc J 69: 3089-93 D '47

Ion-exchange as a separations method; separation of fission-produced rare earths, by complexing elution from amberlite resin. E. R. Tompkins, J. K. Khym and W. E. Cohn. bibliog diags Am Chem Soc J 69:2769-77 N '47

Separation of rare earths by ion exchange; pilot plant scale separations. F. H. Spedding and others. bibliog Am Chem Soc J 69:2812-18 N '47

Structure and behavior of ferric tartrate and citrate complexes in dilute solutions. M. Bobtelsky and J. Jordan. bibliog Am Chem Soc J 69:2286-90 O '47

CITRIC acid

Citric acid; production by submerged fermentation with *Aspergillus niger*. P. Shu and M. J. Johnson. bibliog Ind & Eng Chem 40: 1202-5 J '48

Determination of aconitic acid in mixtures with citric acid. J. A. Ambler and E. J. Roberts. bibliog Anal Chem 19:879-80 N '47

Spectrophotometric study of the reaction of ferric iron and citric acid. O. E. Lanford and J. R. Quinan. bibliog Am Chem Soc J 70:2900-3 S '48

CITRININ

Antibiotic found in citrus fruit mold. Chem & Eng N 25:3520 N 24 '47

Constitution of citrinin. T. S. Gore, T. B. Panse and K. Venkataraman. bibliog Am Chem Soc J 70:2287 Je '48

Structure of citrinin. D. J. Cram. Am Chem Soc J 70:440-1 Ja '48

CITROBAG. See Paper bags

CITRONELLA oil

Citronella and lemongrass oils; sales and exports controlled in Guatemala. For Comm W 33:15-16 O 9 '48

CITRONELLAL

Kinetics of the acid-catalyzed cyclization of citral and citronellal. C. C. Price and M. L. Dickman. bibliog Ind & Eng Chem 40: 257-61 F '48

CITRUS fruit

Citrus-fruit exports, Jamaica. For Comm W 31:27 My 1 '48

Citrus fruit processing; staff-industry collaborative report. W. H. Shearon, Jr. and E. M. Burdick. bibliog (46 ref) flow diags *il* diags Ind & Eng Chem 40:370-8 Mr '48

Citrus-fruit production and exports, Algeria. For Comm W 30:25 Ja 31 '48

Citrus-fruit production and exports, Cuba. For Comm W 30:20 Ja 3 '48

Citrus-fruit supplies, Peru. For Comm W 30:27 F 28 '48

Finished product machinery for the citrus fruit industry. *il* Manuf Rec 117:42-3 F '48

Fruits of Arizona; citrus fruits and dates wrapped in ploxim by semi-automatic machine. *il* Mod Packaging 21:108-11 Ag '48

Isolation of rutin from a citrus hybrid. C. F. Krewson and J. F. Couch. bibliog Am Chem Soc J 70:257-8 Ja '48

Sicily's citrus-fruit production and exports in 1947. For Comm W 31:17-18 Ap 17 '48

See also

Oranges

Statistics

Shipments, carlot, 1941-1946. Survey of Cur Bsns 1947 Sup p 127 [supplemented in monthly numbers]

Transportation

St Regis develops Citrobag, system for packaging, handles 400 commodities. *il* Paper Ind 30:540 JI '48

CITRUS fruit juices

Citrus fruit processing; staff-industry collaborative report. W. H. Shearon, Jr. and E. M. Burdick. bibliog (46 ref) flow diags *il* diags Ind & Eng Chem 40:370-8 Mr '48

Improved citrus concentrate depends on advanced technique. J. L. Heid and C. G. Beisel. *il* Food Ind 20:516-19 Ap '48

Inhibit corrosion in canned citrus juices. Food Ind 20:588+ Ap '48

It de-oils citrus juices, dehumidifies vegetable oils; unit, developed for purification of insulating oils; Hydro-Volifier. *il* Food Ind 20:194-5 F '48

Oil-free citrus juice; patent. Food Ind 20: 1546+ O '48

Refrigerating cycle replaces steam in concentrating fruit juices. T. Mitchell. *il* diags Refrig Eng 56:240-1 S '48; Same cond. Heat & Ven 45:120+ Ag '48

See also

Orange juice

Analysis

Rapid estimation of citrus peel oil; new turbidimetric method. E. M. Burdick and J. S. Allen. *il* Anal Chem 20:539-41 Je '48

Storage

Temperature variations in warehousing citrus juice. D. W. Riester and others. bibliog *il* diags Food Ind 20:372-5+ Mr '48

CITRUS oils

Composition of seed fats of West Indian citrus fruits. H. C. Dunn and others. bibliog Soc Chem Ind J 67:199-203 My '48

CITY and country

Problems and control of decentralization in urban areas; symposium. J. M. Pictou; R. H. Riley. Am Soc C E Proc 73:1332-9 N '47; Discussion. 74:386-8, 951-6 Mr, Je '48

CITY planning

American community builders; construction of Park Forest, satellite town, south of Chicago. *il* maps plans Arch Forum 89:70-4 Ag '48

Community planning. F. Shurtleff. N E Water Works Assn J 61:231-4 S '47

Definite standards for city planning. C. A. Meadows. plans diags Roads & Bridges 85: 73-5+ D '47

Escape into decentralization? S. Riemer. bibliog Land Econ 24:40-8 F '48

CITY planning—Continued

- Fluid city of the future. L. Williams. Pub Util 42:399-405 S 23 '48
 Part of the engineer in community planning. J. A. Walker. Roads & Bridges 86:86+ My '48
 Philadelphia plans again; exhibition designed to capture citizen support. il plans diags Arch Forum 87:65-88 D '47
 Possibilities of two-level superblocks; Weissman-Greenstein plan. il plans Arch Rec 104:122-5 S 43
 Problems involved in replanning our cities. L. Williams. Roads & Bridges 85:72-3+ D '47
 Public utilities and city planning. L. Williams, map Pub Util 41:135-43 Ja 29 '48
 Redevelopment plan for Grand Haven. il plans Arch Rec 103:92-7 F '48
 Scope and status of urban geography; an assessment. R. E. Dickinson. bibliog Land Econ 24:221-38 Ag '48
 Shopping centers in urban redevelopment. R. M. Lillbridge. plans Land Econ 24:137-60 bibliog (63 titles, p 159-60) My '48
 Urban redevelopment; abstract. R. F. Wagner, Jr. Civil Eng 18:76-7 F '48
 Water department in city planning. F. A. Cuthbert. Am Water Works Assn J 40:385-90; Discussion. O. K. Jensen. 390-2 Ap '48
 We won't cure billion dollar city traffic jams until we make room for the pedestrian. il plans Arch Forum 88:12-14 My '48
 What are the forces determining metropolitan patterns? abstract. M. L. Walker. Civil Eng 18:76 F '48

See also

- | | |
|-------------------------------|----------------------|
| Building laws and regulations | Regional planning |
| Housing | Shopping centers |
| Neighborhood planning | Streets |
| | Suburban development |

Bibliography

- Newark and city planning today. (Business literature v. 20, no. 9) p85-8 Business library, Newark public lib, Newark, N.J. My '48

CIVETONE

- Many-membered carbon rings; a new synthesis of civetone and dl-musccone. A. T. Blomquist, R. W. Holley and R. D. Spencer. bibliog Am Chem Soc J 70:34-6 Ja '48
CIVIC centers. See Municipal centers

CIVIL aeronautics administration

- Budget of \$149,370,000 is approved by House committee. Aviation W 48:11-12 Mr 8 '48
 CAA asks and gets bid bonds for engineering work in Alaska. Eng N 141:3 JI 29 '48
 CAA plane rental proposal gains widespread approval. A. McSurely. Aviation W 48:31-2 Ja 5 '48
 CAA shifts affect private flying. Aviation W 49:35 O 18 '48
 CAA to level airport obstructions. Eng N 141:37+ JI 22 '48
 Congressional groups move slowly toward civil air shifts. Aviation W 48:14-15 Mr 22 '48
 It's now Office of aviation safety; Safety Regulation title is changed. CAA J 9:62 Je 15 '48
 Law gives CAA control over all construction near any air field. Elec World 130:50 JI 17 '48
 New vigor for CAA; Delos Wilson Rentzel, nominated as administrator. Aviation W 48:13-14 Ap 19 '48
 Organization chart. Aviation W 48:75 F 23 '48
 Rentzel housecleaning hits CAA heads. A. McSurely. Aviation W 49:11-12 O 11 '48
 Rentzel sworn in as new CAA chief. Aviation W 48:14 Je 7 '48
 Vacancies are filled by new appointments to Advisory committee. CAA J 9:65 Je 15 '48
 Wright resigns; served 3½ years as administrator. CAA J 9:13+ F 15 '48

CIVIL aeronautics board

- Branch answers attack on decision. Aviation W 48:38 Mr 29 '48
 CAB, Commerce, argue air safety. Aviation W 48:12 My 10 '48
 Colonial president flays CAB policy. Aviation W 48:46 Mr 22 '48
 New face on CAB; changes in Board membership. Aviation W 48:43 My 3 '48
 Organization chart. Aviation W 48:99 F 23 '48

- President's rejection of Landis brings widespread criticism. C. L. Adams. Aviation W 48:10-11 Ja 12 '48
 Search and research before you apply; making an airline application to CAB. D. S. Stanley. Air Transport 6:31-2+ Ja '48
 Security reins to CAB? S. Altschul. Air Transport 5:33-4 D '47
 Senate group stymies Gen. Kuter, President's choice for CAB chairman. Aviation W 48:15 Ja 19 '48

CIVIL air patrol

- Citizens' air force; Civil air patrol carries on. il Aero Digest 56:19 Ja '48

CIVIL aviation organization, International. See International civil aviation organization**CIVIL engineering**

- American society of civil engineers fall meeting, Boston; abstracts of papers. Civil Eng 18:675 N '48
 American society of civil engineers 95th annual meeting, New York, Jan. 21-24. Eng N 140:143+ Ja 29 '48; Civil Eng 18:69-77+ F '48
 Civil engineering in 1947. il plan diags Engineer 185:58-61, 89-91 Ja 18-23 '48
 Civil engineering problems of the East African groundnuts scheme. D. Harrison. maps diag Engineer 186:120-1 JI 30 '48; Abstract. Engineering 166:138 Ag 6 '48
 Data book for civil engineers; v3, Field practice. B. E. Seelye. 306p \$4.50 John Wiley & sons, 440 4th av, New York 16 '47
 Los Angeles' \$41,000,000 Hyperion project ends beach contamination; equipment and construction work. L. Aldrich and H. G. Smith. il map plans Civil Eng 18:418-23+ JI '48
 Survey and forecast, 1947-1948. il Eng N 140:245-62 F 19 '48

See also

- | | |
|---------------------------------------|--------------------------|
| Airports | Piers |
| Airways | Piles and pile driving |
| Aqueducts | Pipe laying |
| Blasting | Public works |
| Breakwaters | Railroads—Construction |
| Bridges | Regional planning |
| Building | Retaining walls |
| Cofferdams | Rivers |
| Dams | Roads |
| Drainage | Sanitary engineering |
| Drilling and boring (earth and rocks) | Sewerage |
| Earthwork | Soil mechanics |
| Filling | Steel construction |
| Flood control | Strains and stresses |
| Foundations | Strength of materials |
| Highway engineering | Structural engineering |
| Hydraulic engineering | ing |
| Hydraulic filling | Surveying |
| Irrigation | Tunnels and tunneling |
| Marine engineering | ing |
| Mining engineering | Water supply engineering |
| Moving of structures | |

Bibliography

- Engineering societies library compiles list of important books for civil engineers. Civil Eng 18:196 Mr '48

Study and teaching

- Construction option in the civil engineering curriculum at Purdue. R. E. Fadum. J Eng Educ 38:579-81 Ap '48
 Judicious programming of structural courses. A. L. Miller. J Eng Educ 38:194-200 N '47
 Mathematics in civil engineering. J. M. Hayes. J Eng Educ 38:220-2 N '47
 Model structures for engineering training. R. J. Wilkins. il diags Engineering 166:385-7 Ap 23 '48

CIVIL engineers

- Civil engineers share knowledge of fluid mechanics with many related professions; A.S.C.E. committee on fluid mechanics of the Hydraulics division. H. Rouse. il Civil Eng 17:37-9+ D '47
 Part of the engineer in community planning. J. A. Walker. Roads & Bridges 86:86+ My '48

CIVIL liberty. See Civil rights; Liberty**CIVIL rights**

- Implications of the Bill of rights. W. O. Douglas. Comm & Fin Chr 166:1852+ N 6 '47
 Repercussions of foreign affairs on the American tradition of civil liberties; abstract. R. E. Cushman. Science 107:588 Je 4 '48

Alumina from clay by the lime-sinter method, F. R. Archibald and C. M. Nicholson. bibliog flow sheet il diag Metals Tech

CLAY—Continued

- Aluminum from clay. *J Chem Educ* 25:159-62 Mr '48
- Art potters use natural clays for colorful effects. *il Cer Ind* 50:71 F '48
- Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeier and A. D. Ayers. *bibliog Am Chem Soc J* 69:2759-61 N '47
- Chemical removal of clays. P. H. Cardwell. *bibliog diags Oil & Gas J* 46:130-31 F '26 '48
- Colloidal equipment applied to the homogenization of clay and paper coatings. D. E. Gould. *il Paper Tr J* 126:53-7 My 6 '48
- Correlation of Wilcox formation. H. O. De Beck. *Am Cer Soc Bul* 27:377-9 O 15 '48
- Development of the clay coagulation process for the reduction of electrolyte in GR-S. E. A. Willson and others. *Rubber Age* 62:183-6 N '47
- Effect of the sulfate ion on the plasticity of brick clays. A. L. Johnson and G. B. Hughes. *bibliog Am Cer Soc J* 31:194-200 J 1 '48
- Effects of various clays used in mill additions on properties of a titania-opacified enamel. E. E. Marbaker and others. *il Am Cer Soc J* 31:260-7 S 1 '48
- Electrochemical properties of mineral membranes; clay membranes for the determination of calcium. C. E. Marshall and A. D. Ayers. *bibliog Am Chem Soc J* 70:1297-302 Ap '48
- Electrochemical properties of mineral membranes; clay membranes for the determination of magnesium. C. E. Marshall and L. O. Elme. *Am Chem Soc J* 70:1302-5 Ap '48
- Elimination of iron in ammonium sulfate process for production of alumina from clay. A. T. Sweet and G. D. Gardner. *bibliog U S Bur Mines Rep of Invest* 4183:1-13 '48
- Experiences with soil types in naval construction. L. A. Palmer. *Am Soc C E Proc* 74:73-9 Ja '48
- Fabric, water-distribution, drying-shrinkage, and porosity of some shaped discs of clay. W. O. Williamson. *bibliog diags Am J Sci* 245:645-62 O '47
- Fundamental study of clay; a new theory for the plasticity of clay-water masses. F. H. Norton. *bibliog il diags Am Cer Soc J* 31:236-41 Ag 1 '48
- Improved technique saves time in obtaining undisturbed chunk samples of clay. R. W. Brandle and S. D. Wilson. *il Civil Eng* 18:239-40 Ap '48
- Production of metallurgical alumina from Pennsylvania nodular diaspore clays. J. E. Conley and others. *bibliog flow sheets 3pls maps diags U S Bur Mines Bul* 465:1-193; pa 35c Supt. of doc. '47
- See also
- | | |
|-------------------|----------------------|
| Adobe | Foundation soils |
| Bentonite | Kaolin |
| Bleaching agents | Kaolinite |
| Bricks | Pottery |
| Ceramic materials | Refractory materials |
| Fire clay | Soils |
- Analysis**
- Colorimetric microdetermination of zirconium. D. E. Green. *bibliog Anal Chem* 20:370-2 Ap '48
- Differential thermal analysis of clays in sediments. A. J. Kauffman, Jr. *bibliog World Oil* 128:118+ J '48
- Modified differential thermal analysis apparatus. P. G. Herold and T. J. Planje. *bibliog il diag Am Cer Soc J* 31:20-2 Ja 1 '48
- Titanium; polarographic determination in clays and clay products. D. F. Adams. *bibliog Anal Chem* 20:891-5 O '48
- Deaeration**
- Influence of various deairing and compressed-air treatments on wearing qualities of mill balls and mill-brick linings. H. G. Schurecht. *diags Am Cer Soc J* 31:76-80 Mr 1 '48
- Testing**
- Brightness determination of paper clays. N. Millman. *Paper Tr J* 127:43-5 S 23 '48
- Method of evaluating bleaching clays. D. W. Ross. *bibliog U S Bur Mines Rep of Invest* 4295:1-26 '48
- Methods used in evaluating adsorbent clays. *bibliog 10pls U S Bur Mines Information Circ* 7475:1-29 '48
- Preliminary ceramic tests of clays from seven Pacific Northwest deposits. K. G. Skinner and H. J. Kelly. *diags Am Cer Soc Bul* 27:183-4 My 15 '48
- California**
- Ione-Carbonade clays, Amador county, Calif. F. T. Johnson and S. Ricker. *3pls U S Bur Mines Rep of Invest* 4213:1-6 '48
- Maryland**
- Marlboro clay. N. H. Darton. *Econ Geol* 43:154-5 Mr '48
- Missouri**
- Differential thermal analyses of some Missouri fire clays. W. D. Keller and J. F. Westcott. *bibliog Am Cer Soc J* 31:100-5 Ap 1 '48
- North Dakota**
- Southwestern North Dakota clay deposits. Stark, Slope, and Billings counties, N. Dak. F. F. Clarke. *3pls U S Bur Mines Rep of Invest* 4219:1-32 '48
- Oklahoma**
- Investigation of Kiowa county clays, Kiowa county, Okla. C. C. Knox. *2pls U S Bur Mines Rep of Invest* 4329:1-18 '48
- Pacific coast**
- Preliminary ceramic tests of clays from seven Pacific Northwest deposits. K. G. Skinner and H. J. Kelly. *diags Am Cer Soc Bul* 27:183-4 My 15 '48
- Pennsylvania**
- Production of metallurgical alumina from Pennsylvania nodular diaspore clays. J. E. Conley and others. *bibliog flow sheets 3pls maps diags U S Bur Mines Bul* 465:1-193; pa 35c Supt. of doc. '47
- CLAY drying**
- Accelerated radiated heat drier. T. W. Garve. *diags Am Cer Soc Bul* 27:299-300 Ag 15 '48
- Waste heat drying system. T. W. Garve. *plan diags Am Cer Soc Bul* 27:296-8 Ag 15 '48
- CLAY industries**
- B&C Iowa lumber dealer survey shows manufacturer dealer cooperation pays off. Brick & Clay Rec 113:60 Ag '48
- See also
- | | |
|--------------------------|----------------------|
| Brick industry and trade | Fire brick |
| Ceramic industries | Glazer |
| Clay products | Pottery |
| | Refractory materials |
- Statistics**
- Clay products, 1941-1946. Survey of Cur Bsns 1947 Sup p170-1 [supplemented in monthly numbers]
- CLAY mines and mining**
- Plan for maximum recovery when mining fire clay property. J. O. Everhart. *il Brick & Clay Rec* 111:58-9 D '47
- Uniformity of size in brick and tile starts with efficient clay winning. L. R. Whitaker. *il Brick & Clay Rec* 112:64+ Ap '48
- Great Britain**
- Report on china clay; Working party report. Economist 154:396 Mr 6 '48
- CLAY products**
- A.C.S. Structural clay products division program; abstracts. *Am Cer Soc Bul* 27:126-9 Mr 15 '48
- Bridge piers faced with clay liner plate. H. K. Fluck. *il Eng N* 140:508-9 Ap 1 '48
- Recent trends in the ceramic industry; structural clay products. *il Chem Eng* 55:132-3 J 1 '48
- Research specialists launch survey on clay products industry problems. Brick & Clay Rec 112:68+ Ap '48
- Scientific research for new uses and applications of clay products needed. Brick & Clay Rec 113:58 J 1 '48

CLAY products—Continued

What is wrong with present-day structural clay products? designer's viewpoint. E. Jacobson. *diags Am Cer Soc Bul* 27:158-60 Ap 15 '48

What is wrong with present-day structural clay products? distributor's viewpoint. L. W. Diener. *Am Cer Soc Bul* 27:161-2 Ap 15 '48

See also

Bricks	Pottery
Ceramics	Stoneware
Enamel and enamel- ing	Terra cotta Tiles
Fire brick	

CLAY products plants

Alternate fuels for the ceramic industry; abstract. C. C. Wright. *Cer Ind* 51:66 N '48

See also

Refractory materials
—Manufacture

Electric equipment

Tile making. *il Elec R (Lond)* 141:911-14 D 19 '47

Equipment

Hydraulic sewer pipe presses give push button power; cut down boiler costs. C. Sutherland. *il Brick & Clay Rec* 112:60+ F; 52+ Mr '48

Propeller fans save 60 per cent power; welders make 200 cars at Alliance plant. *il Brick & Clay Rec* 112:46 F '48

Shop hints; efficient operating methods, new and improved equipment; illustrations with text. Published in monthly numbers of *Brick and clay record*

Waste heat drying system. T. W. Garve. *plan diags Am Cer Soc Bul* 27:296-8 Ag 15 '48

See also

Auger machines

Management

Letters to a new superintendent. P. S. Trowbridge. *Brick & Clay Rec* 111:47-8 Jl; 45+ Ag; 50+ S; 49+ O; 52-3 N; 46+ D '47; 112:52-3 Ja; 56+ F; 48+ Mr '48

Safety measures

Safety's place in ceramic plant engineering. J. L. Carruthers. *Nat Safety* N 57:37+ F '48

CLAYTON, Charles

Specialty and speed in Clayton classroom. L. M. Violet. *por Ed & Pub* 81:80 Ap 17 '48

CLAYTON anti-trust act

Clayton act revision again urged by Federal trade commission. *Oil Paint & Drug Rep* 153:5+ Ja 26 '48

CLEAN-up campaigns. See Cities and towns—Cleanliness**CLEANERS' shops****Heating and ventilation**

Cooling without refrigeration; Colonial dry-cleaners. *il plan. Sheet Metal Worker* 39:86+ Ap '48

Ventilating a pressing room. *plan diag Sheet Metal Worker* 39:33 O '48

CLEANING

Cleaning safely with synthetic solvents. L. Gordon. *il Safety Eng* 34:56-9 N '47

Cleaning white woollens; abstract. C. H. Bayley. *Soap & San Chem* 24:83 F '48

Color problems in drycleaning. A. E. Johnson. *Rayon* 29:125-7 S '48

Performance of resin-treated fabrics in wet and dry-cleaning. D. S. Lyle and M. R. Butler. *il Rayon* 29:57-8 My; 66-8 Je '48

There's more than glamour to your fabric. A. E. Johnson. *Textile Col* 70:38-9 Ja '48

See also

Boiler cleaning	Dyes and dyeing
Car cleaning	Floor cleaning
Coal cleaning	Laundry
Degreasing	Metal cleaning
Dishwashing	Soap
also subdivision subjects, e.g.	Cleaning under special
Apartment houses	Leather
Dairies	Machinery
Factories	

CLEANING compositions

A.S.T.M. committee D-12 meeting. New York, March 23-24. *Soap & San Chem* 24:102 Ap '48

Application of carboxymethyl cellulose to the wet processing of textiles. *Am Dyestuff Rep* 37:596-602 S 6 '48

Aqueous systems of non-ionic detergents as studied by X-ray diffraction. S. S. Marsden, Jr. and J. W. McBain. *bibliog il diags J Phys & Colloid Chem* 52:110-30 Ja '48

Breaking of oil emulsions with synthetic detergents. A. S. C. Lawrence. *Chem & Ind* p615-17 S 25 '48

British synthetic soap cake; Novosope. *Soap & San Chem* 23:69 N '47

CMC on firm ground. *il Chem Ind* 62:733-4 My '48

Chemical specialties attain greater stature; household specialties. D. A. Neidig. *Chem Ind* 63:391-2 S '48

Chemical specialties attain greater stature; industrial cleaners. D. Price. *Chem Ind* 63:394-5 S '48

Chemistry and application of detergents. J. A. Hill. *Soc Dyers & Col J* 63:319-22 O '47. Abstract. *Soap & San Chem* 24:65+ Ja '48

Dairy cleaners. M. A. Lesser. *bibliog il Soap & San Chem* 24:40-3+ My '48

Depolarized petroleum naphthas. C. Allen. *bibliog (43 ref) Ind & Eng Chem* 40:124-30 Ja '48

Detergency in the laundry. F. C. Harwood and J. Powney. *il Chem & Ind* p579-81 S 11 '48

Detergent production threatens natural glycerol supply; report of meeting of Association of American soap and glycerine producers. *Chem & Eng N* 26:452 F 16 '48

Detergents for automatic washing machines. C. A. Tyler. *il Soap & San Chem* 24:41-3+ Ap '48

Detergents for cleaning air conditioning filters. L. F. Hoyt. *il Soap & San Chem* 24:42-4+ Ag '48

Detergents from petroleum. R. H. Weil. *bibliog il Pet Refiner* 27:126-33 My '48

Detergents, wetting and emulsifying agents; SCI symposium. *Chem Age (Lond)* 58:433-4, 517-18 Ap 10-17 '48; *Chem & Ind* p250-1 Ap 17 '48

Development of synthetic detergents and future trends. F. H. Braybrook. *Chem & Ind* p404-7+ Je 26 '48

Diphase metal cleaners; preferential wetting by the two phases. I. Reich and F. D. Snell. *Ind & Eng Chem* 40:1233-7 Jl '48

Dry cleaning industry offers new services, requires new chemicals. L. H. Mantell. *il Chem Ind* 61:982-5 D '47

Economic outlook for synthetic detergents. M. Slittenfeld. *il Chem Ind* 62:584-5+ Ap '48

Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. P. H. Richards and J. W. McBain. *bibliog Am Chem Soc J* 70:1338-42 Ap '48

Effect of sodium carboxy methyl cellulose on synthetic detergent systems; abstract. T. H. Vaughn and C. E. Smith. *Soap & San Chem* 23:38-9 N '47

Electrolyte builders for surface active agents. J. C. Harris. *bibliog diags Am Dyestuff Rep* 37:266-70 Ap 19 '48

Flett elected president of American institute of chemists; production of synthetic detergents from petroleum; better way to manufacture azo dyestuffs. *Chem & Eng N* 26:2193 Jl 26 '48

Fundamental considerations of surface chemistry applied to the problem of detergency. E. K. Rideal. *Chem & Ind* p403+ Je 26 '48

German soapless detergents; abstract. *Chem & Ind* p332-3 My 22 '48

German synthetic detergents. *Soap & San Chem* 24:67+ Jl '48

How to establish a plant cleaning program; specially designed brushes, scrapers, hose nozzles and high pressure units, detergents and germicidal agents. I. I. Somers. *il diags Food Ind* 20:199-204+ F '48

Laundry and dry cleaning establishments now conducting a business volume of around \$1.8 billion annually. H. Stenerson. *Chem & Eng N* 26:488 F 16 '48

CLEANING compositions—Continued

- Laurate-ion activity in solutions of potassium laurate in the absence and presence of neutral salts. I. M. Kolthoff and W. F. Johnson. *bibliog J Phys & Colloid Chem* 52:22-7 Ja '48
- Liquid hand cleaners; new developments, including non-soap products. M. A. Lesser. *bibliog* (34 ref) *il Soap & San Chem* 24:37-40+ Je '48
- Magnetic cartons; Colgate Fab package. *il Mod Packaging* 21:121 Je '48
- Metal cleaning processes. L. Sanderson. *Chem Age (Lond)* 58:205-6+, 331-3, 459-61, 613-15, 779-80+ F 7, Mr 6, Ap 3, My 1, Je 5 '48
- New concepts and trends in the detergent field. A. M. Schwartz. *Soap & San Chem* 24:51-3+ Ap '48
- Non-ionic detergents. G. E. Barker. *Soap & San Chem* 24:46-8+ Je '48
- Nonionic detergents in the scouring of raw wool. H. C. Borghetty. *Am Dyestuff Rep* 36:676-8 N 17 '47
- Osmotic behavior of some colloidal electrolytes as determined by means of the Hill-Baldes vapor-tension apparatus. M. N. Fineman and J. W. McBain. *bibliog diag J Phys & Colloid Chem* 52:831-96 My '48
- Paint brush cleaners. M. A. Lesser. *bibliog Soap & San Chem* 24:32-6+ J '48
- Petroleum chemical detergents. M. Sittenfeld. *flow sheet. il Chem Eng* 55:120-2 Je '48; *Abstract. Soap & San Chem* 24:75+ Ag '48
- Problems created by detergents in sewage. *Water & Sewage* 86:51-2+ S '48
- Rayon economies with a synthetic detergent. C. M. Morgan. *Rayon* 29:95-6 Ap '48
- Relation between chemical structure and performance. W. D. Scott and D. S. P. Roebuck. *bibliog Chem & Ind* p627-31 O 2 '48
- Scoop's filler; new type of volumetric machine packs and seals detergent powder in glue-end cartons. *il Mod Packaging* 21:110-12 F '48
- Sidelines for the soaper. *Soap & San Chem* 24:73+ Mr '48
- Soapless cleaners and detergents. *il Consumers Res Bul* 21:25-7 Mr; 22:128-2 S '48
- Soapless soaps; what they can and can't do. *il Mod Ind* 15:40-4 My '48
- Soaps and synthetic detergents in the textile field. A. M. Schwartz. *Soap & San Chem* 24:47-9+ F '48
- Sodium CMC in synthetic detergents. T. H. Vaughn and H. E. Tremain. *il Soap & San Chem* 24:37-9+ Mr '48
- Solubilization of dimethylaminoazobenzene in solutions of detergents; the effect of temperature on the solubilization and upon the critical concentration. I. M. Kolthoff and W. Stricks. *bibliog J Phys & Colloid Chem* 52:915-41 Je '48
- Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr. *bibliog J Phys & Colloid Chem* 52:12-22 Ja '48
- Some aspects of wetting and detergency. C. A. Norris. *Textile Inst J* 39:P125-8; *Discussion*. P129-31 Ap '48
- Some correlating principles of detergent action. W. C. Preston. *bibliog diag J Phys & Colloid Chem* 52:84-97 Ja '48
- Symposium on new problems in sewage treatment with special reference to synthetic detergents; abstract. *Sewage Works J* 20:949-51 S '48
- Synthetic detergents for washing city streets. O. M. Morgan. *il Soap & San Chem* 23:42-3+ D '47
- Synthetic detergents have many uses. *Mech Eng* 70:439 My '48
- Synthetic detergents in textile processing. H. C. Borghetty. *Am Dyestuff Rep* 37:112-13+ F 23 '48; *Abstract. Textile World* 98:220+ F '48
- Synthetic detergents; main types, uses, properties and prospects; tabulation of properties of more than 400 commercial compounds. J. W. McCutcheon. *il Chem Ind* 61:811-24 N '47 [reprints 50c]
- Synthetic detergents on file. *il Soap & San Chem* 24:39-40 Ja '48
- Synthetic detergents seen better for fine wash; abstract. *Soap & San Chem* 24:77 Ag '48

- Synthetic detergents vs. soap. K. T. King. *Soap & San Chem* 24:53-4 F '48
- Terrazzo as affected by cleaning materials. D. W. Kessler. *il Am Concrete Inst J* 20:33-40 S '48
- Thousands of consumers boss Soil-Off's selling policies; Vera Nyman still rings doorbells. J. H. Collins. *Sales Management* 60:48+ Ja 15 '48
- Waterless hand cleaners. M. Lesser. *bibliog Soap & San Chem* 24:48-50, 181 Ap '48
- Wetting agents and auxiliary products. J. B. Speakman. *bibliog Chem & Ind* p456-60 J 17 '48
- White dye; optical bleaches. *il Chem Ind* 62:219-20 F '48
- See also*
- Nacconol NR Solvents
- Polishing materials Type washing
- Soap Advertising
- How business paper ads unearth leads for Turco. D. T. Buist. *il Sales Management* 61:110-11 N 1 '48
- Surf launching. *il Sales Management* 61:71 Ag 1 '48

Analysis

- Identification of cleaner ingredients. A. Treffer. *Soap & San Chem* 24:43-5+ Je '48
- Quantitative analysis of synthetic detergents; extension of Igepon T method to various agents containing the sulfonic acid group. D. A. Shiraeff. *Am Dyestuff Rep* 37:411-14 Je 14 '48

Manufacture

- Specialty soap lines; a review of newer developments in manufacture of items related to soap making. P. I. Smith. *Soap & San Chem* 24:41-2+ O '48
- Synthetic bar detergent. *Soap & San Chem* 24:71 Je '48

Patents

- Polymeric detergents; patents. *Soc Dyers & Col J* 64:194 My '48

Rating

- Dishwashing compounds. *Consumers Res Bul* 22:11-14 O '48

Testing

- Application research methods for synthetic detergents. L. H. Flett. *il Chem & Eng N* 26:368-70 My 10 '48
- Detergency comparator; abstract. *Nutting. Am Dyestuff Rep* 36:781-2 D 29 '47
- Determination of the industrial value of detergents; methods for determination of wetting power. J. P. Sisley. *bibliog diag Am Dyestuff Rep* 37:635-42 O 4 '48
- End-use testing of scrub soaps. A. DuBois. *bibliog il Soap & San Chem* 24:134-6 Mr '48
- Laboratory performance test for detergents; abstract. *W. G. Walter. Soap & San Chem* 24:85 My '48
- Performance testing of dishwashing detergents. S. Machlis and E. B. Michaels. *bibliog Soap & San Chem* 24:42-4 S '48
- Quantitative test method for evaluating wool scouring detergent systems. E. A. Leonard and A. R. Winch. *bibliog Am Dyestuff Rep* 37:202-8 Mr 22 '48
- Some improvements in the performance test for rating dishwashing detergents. F. I. Norris and C. C. Ruchhoff. *bibliog Pub Health Rep* 63:97-109 Ja 23 '48
- Studies in soiling and detergency. J. R. Clark and V. B. Holland. *bibliog Am Dyestuff Rep* 36:734-47 D 15 '47
- Testing company to produce standard soiled fabrics for evaluating detergents and washing machines. *Ind Stand* 19:125 S '48
- Testing of alkaline metal cleaners. A. Man-kowich. *Metal Finishing* 45:77-8+ D '47

CLEANING equipment

- How to establish a plant cleaning program; specially designed brushes, scrapers, hose nozzles and high pressure units, detergents and germicidal agents. I. I. Somers. *il diag Food Ind* 20:199-204+ F '48

CLEANING industry

- Dirty work at the cleaners. *Fortune* 37:126+ My '48

CLEANING industry—Continued

Dry cleaning industry offers new services, requires new chemicals. L. H. Mantell. *il Chem Ind* 61:982-5 D '47

CLEANING machinery

Device cuts drum cleaning costs. *il Food Ind* 20:547 Ap '48

Intricate equipment parts go to dry cleaner; solvent and compressed air cleans motor parts, radio equipment and aircraft instruments. *il Comp Air Mag* 53:119 My '48

Semi-automatic cleaning halves production cost. *il Factory Management* 106:126 Ja '48

Temperature control for dry-cleaning tumblers. *il Comp Air Mag* 53:201 Ag '48

Wells automatic dry cleaning machine. *il diags Product Eng* 19:92-4 Ap '48

CLEANLINESS

See also

Factories—Cleanliness

CLEARING houses

Members of 279 clearing houses now benefit from deferred posting. Bankers Mo 65:24+, 28 S '48

See also

Bank clearings

CLEARING machine corporation

What kind of salesmen for half-million dollar products? R. W. Glasner. *il Sales Management* 60:127+ Ja 15 '48

CLEARING of land

Civil engineering problems of the East African groundnuts scheme. D. Harrison. maps. *diag Engineer* 136:120-1 Jl 30 '48

Shervick industrial tractor for ground clearing. *il Engineer* 185:400-1, 430-1 Ap 23-30 '48; *Engineering* 165:513-14, 516 My 23 '48

CLELAND, Ethel Elizabeth, 1878-

Retirement. *Special Lib* 39:198 JI-Ag '48

CLERICAL workers. See Office workers**CLEVELAND****Commerce**

Cleveland as a world port; activity on up-grade. F. L. Roberts. *il For Comm W* 33:5-6+ O 30 '48

Industries

Industrial Cleveland, spring regional meeting, Hotel Hollenden, May 9-12, *Chem Eng Prog* 44:sup 14-19 Ap '48

Sewerage

Sludge pumping through long force mains; experiences and cost data during ten years of operation. J. J. Wirts. *il diags Water & Sewage Works* 95:345-50; Discussion. C. B. Townend. 350-1 O '48

Water supply

Cleveland's new water intake. F. J. Schwemler. *il Water & Sewage Works* 95:265-6 JI '48

Steel-drum crib for Cleveland intake. A. A. Burger. *il diags Eng* N 141:76-9 Ag 5 '48

CLEVELAND electric illuminating company

Bonds offered. *Comm & Fin Chr* 166:2417 D 15 '47

CLEVELAND world trade association

Cleveland forms potent world trade association. *For Comm W* 29:33 N 22 '47

CLIMACTICHNITES

Sense of climactichnites. T. H. Clark and J. L. Usher. *diags Am J Sci* 246:251-3 Ap '48

CLIMATE

Climate of the Arctic as viewed by the explorer and the meteorologist. W. H. Hobbs. *bibliog*(33 titles) *Science* 108:193-201 Ag 27 '48

Climatic effects on the corrosion of steel. J. Dearden. *bibliog Iron & Steel Inst J* 159:241-6 JI '48

CLIMATOLOGY

Geothermal gradients, recent climatic changes, and rate of sulfide oxidation in the San Manuel district, Arizona. T. S. Lovering. *bibliog map Econ Geol* 43:1-20 Ja '48

CLIMATOLOGY, Medical

Effects of climatic extremes; abstract. M. Critchley. *Nat Safety N* 57:56-7 F '48

Influence of weather, combat status and overcrowding on the incidence of disease and accidents aboard naval vessels. M. Morales and E. Tarver. *U S Naval Inst Proc* 74:210-17 F '48

Relation of reported cases of typhus fever to location, temperature, and precipitation. C. R. Eskey and F. M. Hemphill. *map Pub Health Rep* 63:941-8 JI 16 '48

CLINICS

Public health and plastics; Odenton clinic. P. Fuller. *il Mod Plastics* 25:92-4 Ja '48

CLINICS, Dental. See Dental clinics**CLINICS, Traveling**

Better health takes the highways; traveling medical units for oil workers. *il World Oil* 128:94-6 My '48

CLINTON national laboratory

Benefit plans can backfire; Oak Ridge and AEC-contractors squabble. *Chem Eng* 55:175-6+ Je '48

Laboratory in reorganization. *Chem & Eng* N 26:172 Ja 19 '48

Oak Ridge switch; Carbon & Carbide takes over. *Bsns W* p20-1 Ja 10 '48; *Elec World News* ed 129:12 Ja 10 '48

CLIPPER ships

First sharp clipper ship. C. C. Hanks. *Marine Eng* 53:67-8 O '48

CLIPPINGS

Williams file at Columbia is modernized. *il Ed & Pub* 81:28 My 29 '48

CLOCK radios. See Radio receiving apparatus—Clock radios**CLOCKS**

Clock manufacture, United Kingdom. *For Comm W* 29:25-6 N 29 '47

Exports of watches and clocks, Switzerland. *For Comm W* 32:32-3 S 25 '48

Heat motor automatically winds clock; Atmos clock, made by Jaeger-Le Coultre, Geneva. *il diags Product Eng* 18:100-1 D '47

Imports of clocks and watches, Nigeria; Clock imports, Kenya and Uganda. *For Comm W* 29:23-4 N 15 '47

U.S. exports of clocks and watches; 1946 and first nine months of 1947. *For Comm W* 29:22 N 22 '47

See also

Tower clocks

CLOCKS, Crystal. See Clocks, Electric**CLOCKS, Electric**

Evolution of the quartz crystal clock. W. A. Morrison. *il diags Bell System Tech J* 27:510-88 *bibliog*(140 titles, p583-8) JI '48

Frequency errors in timing with electric clocks. R. S. Craig, C. B. Satterthwaite and W. E. Wallace. *Anal Chem* 20:555-7 Je '48

Spinner device drains clock rotors. *diags Elec World* 129:154 My 22 '48

Telecontrolled clocks. *diag Electronics* 21:152+ N '48

CLOPAY corporation

New exchange listing extends paper specialty line. *Barron's* 23:34 Ja 12 '48

CLOROBEN. See Deodorizers**CLOSE corporations. See Corporations—Close corporations****CLOSED shops. See Open and closed shop****CLOSETS**

Low-price sliding closet panels are simply fabricated of composition board reinforced with steel tubing. *il diags Arch Forum* 88:129 Je '48

CLOSTRIDIUM

Effect of flavonols on clostridium botulinum. A. A. Andersen and J. A. Berry. *Science* 106:644-5 D 26 '47

Protoplasts from plant materials; properties of protoplasts released by anaerobic fermentation with clostridium roseum. J. W. White, Jr. and others. *bibliog Ind & Eng Chem* 40:293-7 F '48

CLOSURES (containers)

Closure liners; review of essential basic requirements. J. M. Wheaton. *diags Mod Packaging* 21:184-5 Ap '48

Kolynos' Jolly closure. *il Mod Packaging* 21:106-7 N '47

Polyethylene closures. *il Mod Packaging* 21:102-6+ Mr '48

Polyethylene hinge-cap; closure for squeeze-bottle atomizer. *il Mod Packaging* 22:109 O '48

Polystyrene closures re-usable as coasters. *il Mod Packaging* 22:101 S '48; *Mod Plastics* 26:170 N '48

Self-hinged closures. *il Mod Plastics* 26:160-1 O '48

CLOSURES (containers)—Continued

Toothpaste tube cap has hinged closure which cannot be lost; Jolly Kap. *il* Mod Plastics 25:180 D '47

See also

Bottle caps and seals

CLOTH folder. See Folding machines**CLOTHES driers**

Gas and electric clothes driers. Consumers

Res Bul 21:20-1 Je '48

Laundry driers, the new opportunity. H. E.

Merritt. Gas Age 102:27+ S 2 '48

New ways to increase base load; domestic

refuse incinerators and clothes driers. R.

J. Miller. Am Gas Assn Mo 30:32-3 Je '48

CLOTHES hanger rods

Display beautified with plastics rod. M.

Meyers. *il* Plastics 8:39-40 JI '48

CLOTHESLINES, Plastic

Clothesline has vinyl jacket over rayon core.

il Mod Plastics 25:148 JI '48

CLOTHING, Protective

Can you make us monkey-proof gloves?

leather's role in industrial safety. F. B.

Scheinfeld. *il* Safety Eng 95:12-13+ Mr '48

Dressing up the ladies; uniforms worn by

women employees of New England confec-

tionery co. E. J. Cook. Safety Eng 95:62-4

Je '48

From the shoulders down. F. J. Monaghan.

il Safety Eng 96:18-20+ O '48

Safety clothing. *il* Nat Safety N 57:47+ Mr

'48

See also

Byrd cloth

Gloves, Rubber

Hats, Safety

Helmets, Welders'

Shoes, Safety

CLOTHING and dress

Business suit; costuming of American enter-

prise. W. Hobson. *il* Fortune 38:102-5+

JI '48

Postwar changes in the quality of apparel.

L. J. Mack. Mo Labor R 67:34-9 JI '48

See also

Costume

Fashion

Hosiery

Men's suits

Textile fabrics

Uniforms

United States—Army

—Clothing

United States—Navy

—Clothing

Women's apparel

Work clothes

Children

New approach to apparel sizing problems. M.

Lonie. J Retailing 23:119-23 D '47

What's happening on clothing sizes. M. Lonie.

il Ind Stand 19:14-16 Ja '48

See also

Shoes, Children's

Hygienic aspects

Clothes that breathe. W. Schweisheimer.

Rayon 28:645-6 D '47

Effects of physical characteristics of fabrics

upon physiological heat load and subjective

reactions. W. R. Christensen. bibliog J Ind

Hygiene 30:251-5 JI '48

Measurement of temperature and relative hu-

midity on the skin and clothing of a hu-

man subject. L. W. Ogden and W. H. Rees.

bibliog *il* diag Textile Inst J 38:T371-86 N

'47

Thermal insulation and comfort characteris-

tics of fibrous glass-lined garments. C. P.

Yaglou. J Ind Hygiene 30:312-15 S '48

Thermal insulation of clothing. C. P. Yaglou.

Heating-Piping 20:107-10; Discussion, 110-

14 S '48

Ventilation of clothing and tolerance of man

to low environmental temperatures. S. M.

Horvath. *il* J Ind Hygiene 30:133-9 Mr '48

Wet textiles in warm and cold weather. W.

Schweisheimer. Rayon 29:71-2 Ag '48

Prices

Clothing price cut to spread? Bsns W p24

O 23 '48

Standards

New approach to apparel sizing problems.

M. Lonie. J Retailing 23:119-23 D '47

What's happening on clothing sizes. M. Lonie.

il Ind Stand 19:14-16 Ja '48

CLOTHING stores

See also

Men's stores

Tailor shops

Women's apparel

shops

CLOTHING trade

Can a camera make over the clothing busi-

ness? PhotoMetric tailoring. *il* Am Bsns

18:12-13+ Ag '48

Cluett, Peabody tests a new showroom tech-

nique. *il* Sales Management 59:43 N 10 '47

Display of showroom samples simplified by

industrial design; Cluett Peabody shows

many lines in various patterns and colors.

il Ptr Ink 222:36-7 Ja 9 '48

Fashion council for men's wear. *il* Textile

Col 70:31+ Je '48

PhotoMetric; new idea for men's clothing. *il*

Fortune 38:106-7+ JI '48

Trends in textiles and clothing. Survey of

Cur Bsns 28:7-9+ Mr '48

Union-management co-operation; experience

in the clothing industry. by K. Braun. Re-

view, by C. A. Myers. Mech Eng 70:280-1

Mr '48

See also

Dress industry

Fashion

Garment industry

Hats

Sportswear

Tailors

Work clothes

Advertising

Koret hikes sales, pares costs, in back-to-

school apparel promotion. E. Gidlow. *il*

Sales Management 61:44-5 Ag 1 '48

Finance

Financing California textiles. A. J. Gock. *il*

Burroughs Clearing House 32:24-5+ S '48

Statistics

Consumer panel shows apparel-home furnish-

ings buying in New York department

stores; New York Sun study. R. H. Ganly.

Ptr Ink 223:34-6 Je 18 '48

California

Financing California textiles. A. J. Gock. *il*

Burroughs Clearing House 32:24-5+ S '48

How to move California to Kalamazoo; Cal-

ifornia apparel creators' manual. *il* Sales

Management 60:76+ Je 1 '48

Great Britain

Concessions on clothing coupons. Economist

154:774 My 8 '48

Report on rubber-proofed clothing. Econ-

omist 153:1018 D 20 '47

Working party report on light clothing. Econ-

omist 153:736 N 1 '47

Kansas City, Missouri

Sleeping giant with a sewing machine. Tex-

tile Col 70:30 Je '48

Uruguay

Uruguay's trade. For Comm W 32:38 JI 3

'48

CLOUD chambers

Clearing field electrode for cloud chambers.

G. S. Klaiber and G. C. Baldwin. R Sci

Instr 18:798 O '47

Cloud-chamber energy measurement of photo-

neutron sources. D. J. Hughes and C. Eg-

gler. bibliog diag Phys R 72:902-7 N 15 '47

Cloud chamber illumination system. E. J.

Lofgren and others. diag R Sci Instr 19:271

Ap '48

Cloud-chamber study of electrons from meson

decay. J. L. Zar and others. diag Phys R

74:111-12 JI 1 '48

Cloud-chamber study of meson disintegra-

tion. R. W. Thompson. *il* diag Phys R 74:

490-1 Ag 15 '48

Cloud-chamber valves. F. Chu and G. E.

Valley. diags R Sci Instr 19:496-9 Ag '48

Cosmic rays; track studies with cloud cham-

bers. C. W. Hewlett. *il* diag Gen Elec R

51:23-5 My '48

Mean life of negative mesons. G. E. Valley

and E. Rossi. bibliog Phys R 73:177-8 Ja

15 '48

Method of photographing a cloud chamber

between the poles of an iron magnet. H. R.

Crane and G. M. Grover. diags R Sci Instr

18:796 O '47

Method of projected angles in cloud chamber

measurements. F. C. Barker. bibliog J Sci

Instr 25:65-7 Mr '48

Penetrating showers in lead. W. B. Fretter,

bibliog *il* Phys R 73:41-6 Ja 1 '48

CLOUD chambers—Continued

Positive particles occurring from P²² in the cloud chamber. J. S. Barlow and F. T. Rogers, jr. *bibliog* *Phys R* 74:700 S 15 '48
 Small cloud chamber for use with unmanned balloons. R. B. Leighton. *il* *diags R Sci Instr* 19:274-6 Ap '48
 Thin glass window to withstand high pressures. L. Seren. *diags R Sci Instr* 19:123 F '48

CLOUD points

Influence of cloud points of coumarone-indene resins on their use in rubber compounding; Chemigum N-3, a styrene-butadiene-type rubber (GR-S 38) and natural rubber. F. E. Stickney, L. E. Cheyney and P. O. Fowers. *bibliog Ind & Eng Chem* 40:267-71 F '48
 Method of following the course of the phenol-formaldehyde reaction. S. R. Finn and L. R. Rogers. *bibliog Soc Chem Ind J* 67:51-7 F '48

CLOUDS

Electric field intensity inside of natural clouds. R. Gunn. *bibliog J Ap Phys* 19:481-4 My '48

CLOVE

Clove cultivation and exports, Madagascar. For *Comm W* 29:19 D 13 '47
 Clove production and sales, British East Africa. For *Comm W* 32:34 S 4 '48

CLOVER

Combined straw again injurious to clover seedlings. C. J. Willard. *il* *Paper Tr J* 126:57-9 Ap 29 '48
 Stubble mulch studies; effect of sweetclover extract on corn germination. T. M. McCalla and F. L. Duley. *bibliog Science* 108:163 Ag 13 '48

Analysis

Determination of lignin in plant material of high protein content. E. R. Armitage, R. D. Ashworth and W. S. Ferguson. *bibliog Soc Chem Ind J* 67:241-3 Je '48

CLUBHOUSES

Efficiently planned for sociability; Downtown club, Dallas, Tex. *il* *plan Arch Rec* 104:132-3 Jl '48
 Sports club is part of hotel development for Huntington Hartford in Hollywood hills; design by F. L. Wright. *il* *plans Arch Forum* 88:100-6 Ja '48

CLUBHOUSES, Employees'

Butte boasts exceptional employees club. *il* *Min Cong J* 34:58-9 Mr '48

CLUBS

To the program committee; some suggestions on care and feeding of speakers; by a guest speaker. C. B. Larrabee. *Ptr Ink* 223:30-1 Ap 2; 5 Ap 30 '48

See also

Employees' clubs
 Foremen's clubs
 4-H clubs

CLUBS, Merchandizing

Of the month clubs. S. C. Hollander. *J Retailing* 24:111-16+ O '48

CLUTCHES

Controlled friction; clutches for airplane engine starters. E. O. Peters. *il* *Machine Design* 19:117-19 N '47
 Fluid film clutch. O. E. Wolff. *il* *diags Machine Design* 19:135-7 D '47
 Hydraulic clutch of the positive-displacement type; essential design information; evaluation of clutch performance. W. E. Wilson. *diags Machine Design* 20:115-19 Ja '48
 Industrial-power clutches. F. A. Annett. *diags Power* 92:83-98 F '48
 Internal-shoe clutches and brakes. O. Von Mehren. *diags A S M E Trans* 69:913-21; Discussion. 921-4 N '47
 Kinney overrunning clutch. *diag Machine Design* 20:105-6 S '48
 Motor driven machines; couplings and clutches. *Product Eng* 19:116 Mr '48
 Pivoted centrifugal friction clutches. H. F. Bariff. *il* *diags Product Eng* 19:140-3 F '48
 Pneumatic controls for clutches, brakes and linkages; used in type 81 power shovel manufactured by Osgood company. *il* *diags Product Eng* 19:96-8 Ja '48
 Power press clutch has safety features. *il* *diag Product Eng* 18:100-1 D '47

CLUTCHES, Magnetic

Eddy-current clutch for driving engine fan of Ford cars. *il* *diag Machine Design* 20:104-5 S '48
 Electromagnetic clutch, employing finely divided magnetic particles suspended in oil. *il* *diag Machine Design* 20:99-100 My '48
 Industrial-power clutches; magnetic operation. *diags Power* 92:95-6 F '48
 Magnetic fluid clutch of unique design. R. C. Mack. *il* *diags Automotive Ind* 58:38-40+ Ap 15 '48
 Magnetic fluid clutch to improve servomechanism performance. *il* *diags Instruments* 21:756+ Ag '48
 New clutch; magnetic fluid clutch. *il* *Bans W* p72 Ap 10 '48; *Steel* 122:96 Ap 19 '48; *Diesel Power* 26:45-9 My '48; *Mach* 54:179-81 My '48; *Mech Eng* 70:442-3 My '48; *Product Eng* 19:145-7 My '48; *Refrig Eng* 55:471-3 My '48; *R Sci Instr* 19:375-6 My '48
 Smoother control for power equipment. *il* *Mod Ind* 15:123-4 My '48

COAGULATION

Coagulant deposition of latices; natural latex. H. B. Morris and R. F. Hinderer. *bibliog and patent list Rubber Age* 63:745-7 S '48
 Coagulation of hydrous ferric oxide sols by electrolytes. E. F. Tuller and E. I. Fulmer. *bibliog J Phys & Colloid Chem* 52:787-808 My '48
 Development of the clay coagulation process for the reduction of electrolyte in GR-S. E. A. Willson and others. *Rubber Age* 62:183-6 N '47
See also
 Blood—Coagulation Water purification—
 Colloids Coagulation
 Emulsions

COAL

Activated carbon from coal; conversion and testing processes. *diag Chem Age* (Lond) 59:79-82 Jl 17 '48
 Anthracite coal conserves coke; gray iron foundry of Westinghouse electric corp. F. J. Fredriksen and E. Bremer. *il* *Foundry* 76:84-5+ S '48
 Carbon disulfide from sulfur dioxide and anthracite. C. W. Siller. *bibliog diag Ind & Eng Chem* 40:1227-33 Jl '48
 Chemical engineering unit processes; pyrolysis of coal and shale. C. H. Fien. *il* *Ind & Eng Chem* 40:1649-59 *bibliog* (316 ref, p 1657-9) S '48
 Coal for a growing nation. K. C. Richmond. *il* *map Coal Age* 53:58-63 Ja '48
 Coal on the locomotive front; immediate action necessary to curb Diesel growth. E. C. Payne. *il* *Coal Age* 52:74-8 D '47
 New fuel policy. G. E. Foxwell. *Chem Age* (Lond) 58:62-5 Ja 10 '48
 Outlook for coal as railroad fuel. E. C. Payne. *Ry Age* 124:1025-7 My 22 '48; Same cond. *Ry Mech Eng* 122:295-6+ Je '48
 Pott-Broche coal extraction process and plant of Ruhröl G.m.b.H. Bottrop-Welheim, Germany. H. H. Lowry and H. J. Rose. *bibliog 5pls U S Bur Mines Information Circ* 7420:1-12 '47
 Selection of coals for manufacture of coke. C. C. Russell. *il* *map Am Gas Assn Proc* 1947:733-56 *bibliog* (p756)
 Some recent conceptions of coal structure. A. McCulloch. *bibliog il* *Can Chem & Process Ind* 31:1012-16 N '47
 Substitute fuel for cupola use; use of anthracite. W. J. Reagan and C. C. Wright. *il* *diag Foundry* 76:74-6+ Ag '48
 Use of coal in zinc production. W. M. Peirce. *Min & Met* 29:286-8 My '48
 What will the industry do about fine coal? J. W. Woerner. *il* *Min Cong J* 34:34-6 Jl '48

See also

Briquetting (fuel)
 Coal burning equipment and other headings beginning Coal
 Lignite

Analysis

Analyses of Michigan, North Dakota, South Dakota, and Texas coals. *bibliog* 2 fold maps U S Bur Mines Tech Pa 700:1-106; pa 35c Supt. of doc. '48

COAL—Analysis—Continued

Sampling coal for analyzing purposes, 11 diags
Power Pl Eng 51:78-80 N '47

Briquetting

See Briquetting (fuel)

Calorific value

Heating-value loss of coal on air-drying, H. M. Cooper and others, bibliog U S Bur Mines Rep of Invest 4197:1-6 '48

Chemistry

American contemporary; Arno Carl Fieldner, A. D. McFadyen, Chem & Eng N 26:384-5 F 9 '48

Anodic oxidation of coal, R. Belcher, bibliog Soc Chem Ind J 67:213-16, 217-21, 265-70 My-Jl '48

Aromatic cyclodehydrogenation, M. Orchin and others, bibliog 2pls diags U S Bur Mines Tech Pa 708:1-40; pa 20c Supt. of doc. '48

Chemical characteristics of banded ingredients of coal, O. W. Rees, W. F. Wagner and W. G. Tilbury, bibliog Ind & Eng Chem 39: 1516-20 N '47

Distribution of nitrogen in the oxidation products of coals and selected nitrogen compounds, C. R. Kinney and others, Am Chem Soc J 70:392-4 Ja '48

Reaction of coal with oxygen in the presence of aqueous sodium hydroxide; effect of methylation with dimethyl sulfate, G. R. Yohe and E. O. Blodgett, bibliog diag Am Chem Soc J 69:2644-8 N '47

Geology

Beginnings of coal, R. E. Janssen, il Sci Am 179:46-51 Jl '48

Metamorphic gradient, Kent coalfield, England, H. W. Wellman, Econ Geol 43:499-508 S '48

Variable coalification; the processes involved in coal formation, J. M. Schopf, bibliog Econ Geol 43:207-25 My '48

Liquefaction

See Coal liquefaction

Moisture content

Determination of moisture in coal with the Brabender semi-automatic tester, H. M. Cooper and others, 2pls U S Bur Mines Rep of Invest 4304:1-15 '48

Nitrogen content

Distribution of nitrogen in the oxidation products of coals and selected nitrogen compounds, C. R. Kinney and others, Am Chem Soc J 70:392-4 Ja '48

Prices

Price structure of coal and its relationship to preparation and utilization; abstracts, E. S. Grumell, Gas J (Lond) 252:401-2 N 19 '47; Elec R (Lond) 141:666 O 31 '47; Discussion, Gas J (Lond) 252:520+ D 3 '47

Sulfur content

Desulfurization of coal during carbonization; abstract, R. E. Brewer and J. K. Ghosh, Am Gas J 169:37 S '48

Radioactive sulphur as a reagent, Metal Prog 53:884 Je '48

Sulfur in low-gravity fractions of some bituminous coals, T. Fraser and W. L. Crentz, bibliog 4pls U S Bur Mines Rep of Invest 4167:1-6 '47

Swelling

Investigation of a laboratory test for determination of the free-swelling index of coal; revision of R. I. 3989, W. A. Selvig and W. H. Ode, 5pls U S Bur Mines Rep of Invest 4238:1-11 '48

Testing

A.S.T.M. standards on coal and coke (with related information), 156p pa \$2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

Determination of moisture in coal with the Brabender semi-automatic tester, H. M. Cooper and others, 2pls U S Bur Mines Rep of Invest 4304:1-15 '48

Effect of oxidation upon the carbonizing properties of Pocahontas no. 3- and no. 4-bed coals from Eastgulf, Raleigh county, W. Va., J. D. Davis and others, bibliog il U S Bur Mines Tech Pa 702:1-18; pa 10c Supt. of doc. '47

Investigation of a laboratory test for determination of the free-swelling index of coal; revision of R. I. 3989, W. A. Selvig and W. H. Ode, 5pls U S Bur Mines Rep of Invest 4238:1-11 '48

Preparation and carbonization characteristics of low-volatile coal from Oyón region of Peru, T. Fraser and J. D. Davis, 2pls U S Bur Mines Rep of Invest 4222:1-9 '48

Preparation characteristics of Maryland coals, W. L. Crentz and T. Fraser, map U S Bur Mines Tech Pa 701:1-65; pa 15c Supt. of doc. '47

Survey of carbonizing properties of American coals; Bureau of mines coal carbonization laboratory, 1946-1947, J. D. Davis, il diag Am Gas Assn Proc 1947:87-98

Transportation

Hauling the coal to market; Utah railway co., G. S. Anderson, map Min & Met 29:572-3 O '48

Improvements speed coal and ore traffic; facilities for Chesapeake & Ohio's docks at Presque Isle, il map Ry Age 125:254-7 Jl 31 '48

Steel barges move 3,000,005 tons of coal annually in Philadelphia area, il Marine Eng 53:96 Mr '48

Strip mine truck haulage, L. E. Briscoe, il Min Cong J 34:32-6 Ap '48

See also
Coal delivery
Colliers

Alabama

Washability studies of the Clark and Gholson coal beds at Boothton, Ala., B. W. Gandrud and H. L. Riley, 10pls U S Bur Mines Rep of Invest 4160:1-11 '47

Alaska

Investigation of coal deposits for local use in the arctic regions of Alaska, and proposed mine development, A. L. Toenges and T. R. Jolley, 7pls U S Bur Mines Rep of Invest 4150:1-19 '47

Argentina

Calorific value of the typical coals and asphaltites of Argentina; abstract, J. R. Azcuenaga, Chem Eng 55:296+ Mr '48

Great Britain

Metamorphic gradient, Kent coalfield, England, H. W. Wellman, Econ Geol 43:499-508 S '48

Illinois

Demand for, supply and distribution of Illinois stoker coal; abstract, H. Herder, Coal Age 52:136+ D '47

Japan

Low-temperature carbonization of coal in Japan, W. T. Reid, 22pls U S Bur Mines Information Circ 7430:1-82 '48

Maryland

Preparation characteristics of Maryland coals, W. L. Crentz and T. Fraser, map U S Bur Mines Tech Pa 701:1-65; pa 15c Supt. of doc. '47

Michigan

Analyses of Michigan, North Dakota, South Dakota, and Texas coals, bibliog 2 fold maps U S Bur Mines Tech Pa 700:1-106; pa 35c Supt. of doc. '48

North Dakota

Analyses of Michigan, North Dakota, South Dakota, and Texas coals, bibliog 2 fold maps U S Bur Mines Tech Pa 700:1-106; pa 35c Supt. of doc. '48

Ohio

Some studies of Ohio coals, shales, and oils, T. H. Kerr, il maps Ohio State U Eng Exp Sta Bul 133:1-63 '48 (pa \$1)

COAL—Continued

Oregon

Mineable reserves, petrography, chemical characteristics, and washability tests of coal occurring in the Coos Bay coal field, Coos county, Oregon. A. L. Toenges and others. bibliog 11pls U S Bur Mines Tech Pa 707:1-56; pa 50c Supt. of doc. '48

Peru

Preparation and carbonization characteristics of low-volatile coal from Oyón region of Peru. T. Fraser and J. D. Davis. 2pls U S Bur Mines Rep of Invest 4222:1-9 '48

Preparation characteristics of anthracites in the Santa River valley, Peru. T. Fraser. 27pls U S Bur Mines Rep of Invest 4200:1-31 '48

Rhode Island

Investigation of meta-anthracite in Newport and Providence counties, R.I.; petrography, chemical characteristics, and geology of deposits. A. L. Toenges and others. 13pls U S Bur Mines Rep of Invest 4276:1-37 '48

South Dakota

Analyses of Michigan, North Dakota, South Dakota, and Texas coals. bibliog 2 fold maps U S Bur Mines Tech Pa 700:1-106; pa 35c Supt. of doc. '48

Texas

Analyses of Michigan, North Dakota, South Dakota, and Texas coals. bibliog 2 fold maps U S Bur Mines Tech Pa 700:1-106; pa 35c Supt. of doc. '48

Utah

America's own fossil resin. E. D. Lee. il map Paint Oil & Chem R 111:8-9+ Je 10 '48

Coal resin from Utah coal. il Chem Ind 62: 568-9 Ap '48

West Virginia

Effect of oxidation upon the carbonizing properties of Pocahontas no. 3- and no. 4-bed coals from Eastgulf, Raleigh county, W.Va. J. D. Davis and others. bibliog il U S Bur Mines Tech Pa 702:1-18; pa 10c Supt. of doc. '47

Western states

Résumé of Bureau of mines research and development work on western coals, 1942-47. V. F. Parry. bibliog 6pls U S Bur Mines Rep of Invest 4171:1-9 '48

COAL, Pulverized

Flow meter for coal-air mixtures. H. M. Carlson. il diag Power Generation 52:76-7 O '48

Meter for flowing mixtures of air and pulverized coal. H. M. Carlson and others. bibliog il diag A S M E Trans 70:65-74; Discussion. 74-9 F '48

Pilot plant for gasifying powdered coal entrained in oxygen and steam, Morgantown, West Virginia. L. D. Schmidt, J. P. McGee and M. C. Slone. flow sheet diags Chem Eng Prog 44:737-43; Discussion. 743-4 O '48

Pipes pulverized coal for standby fuel. il diags Heating-Piping 20:92 O '48

Production of water gas from pulverized coal; a continuous process. J. F. Foster. il diag Ind & Eng Chem 40:586-92 Ap '48

Pulverized coal system fires three rotary kilns. il Heat & Ven 45:104 S '48

Purification of synthesis gas produced from pulverized coal; specifications, purification processes, and analytical methods. A. E. Sands, H. W. Wainwright and L. D. Schmidt. bibliog flow sheets diags Ind & Eng Chem 40:607-20 Ap '48

Preparation

Firing several rotary kilns with one coal mill; Universal atlas cement co. E. Nordberg. il diags Rock Prod 51:74-7 My '48

Pulverizer performance; comparison of three types. V. Smith. Elec R (Lond) 143:553-5 O 8 '48

Testing

Experimental combustion of pulverized coal at atmospheric and elevated pressures. H. R. Hazard and F. D. Buckley. il diags A S M E Trans 70:729-37 Ag '48

COAL ash

Study of ash fusibility; recent French research on combustion of coal. Chem Age (Lond) 59:485 O 9 '48

COAL bins, Concrete

Concrete pumped to high sliding forms; coal bins at mine of United States coal & coke co. il Constr Methods 30:94-6 F '48

COAL breakers

Preparation at St Nicholas. O. P. Swartz and R. R. Richart. flow sheet il diags Coal Age 53:94-101 Ag '48

Quality preparation assured in Markson breaker design. R. R. Richart. flow sheet il diag Coal Age 52:82-7 N '47

COAL burning equipment

Anthracite's answer; new burner-boiler unit. Anthratube. il diag Bsns W p55-6 N 1 '47

Burns anthracite a new way. il Dom Eng 170: 149-+ D '47

Coal-burning gas-turbine locomotive. J. I. Yellott and others. Ry Age 124:254-6+ Ja '48; Same. Ry Mech Eng 122:118-20 Mr '48

Two anthratube models using new coal burning principle are now in production. Heat & Ven 44:116 N '47

COAL cars

Motor industry methods applied to hopper-car manufacture. il Steel 123:90-2 Ag 16 '48

COAL cleaning

Combination cleaning and dewatering process for treating fine sizes of coal; kerosene flotation. B. W. Gandrud and H. L. Riley. 9pls U S Bur Mines Rep of Invest 4306:1-25 '48

Heavy-density separation; a review of its literature. J. W. Hyer, jr. flow sheets il diags Colorado School of Mines [Golden] Quarterly v43 no 1:1-94 bibliog(p91-4) '48 (pa \$1)

Let magnetic separators remove tramp iron. R. F. Merwin. il diags Power 92:168-70 Mr '48

Process cleans coal and ores; Float-Sink concentrator. flow sheet il Blast F & Steel Pl 36:863-4 Jl '48

Recent developments convert the Baum jig into a heavy-medium process; abstract. E. Bird. Coal Age 52:150-+ N '47

Sales of loaders and cleaners in 1947. W. H. Young and R. L. Anderson. Coal Age 53: 87-9 F '48; Same. Min Cong J 34:58-60 F '48

See also

Coal preparation

Coal washing

COAL cutters

Coal mines of tomorrow; face preparation. diags Coal Age 53:87-92 Je '48

Machine cutting with tungsten carbide bits; abstract. H. H. Fletcher. Min Cong J 34: 57 Je '48

Mechanical kerf cleaning; abstract. V. D. Hanson. Min Cong J 34:58 Je '48

COAL delivery

ABC's that build good-will for retailers and routemen; Coal-Heat's delivery guide. Sales Management 59:54-5 N 20 '47

COAL distillation

Chemical engineering unit processes; pyrolysis of coal and shale. C. H. Prien. il Ind & Eng Chem 40:1649-59 bibliog(316 ref, p 1657-9) S '48

Effect of oxidation upon the carbonizing properties of Pocahontas no. 3- and no. 4-bed coals from Eastgulf, Raleigh county, W.Va. J. D. Davis and others. bibliog il U S Bur Mines Tech Pa 702:1-18; pa 10c Supt. of doc. '47

Gasification of subbituminous coal and lignite in externally heated retorts. V. F. Parry and others. bibliog diags Ind & Eng Chem 40:627-41 Ap '48

Low-temperature carbonization of coal in Japan. W. T. Reid. 22pls U S Bur Mines Information Circ 7430:1-82 '48

Low-temperature carbonization of coal produced most of Japs' synthetic oil. C. S. Goddin and D. P. Thornton, jr. il Pet Processing 3:121-2+ F '48

COAL distillation—Continued

Production of hydrogen and synthesis gas by the oxygen gasification of solid fuel. C. C. Wright, K. M. Barclay and R. F. Mitchell. bibliog. *il* diags *Ind & Eng Chem* 40:592-600 Ap '48

Résumé of Bureau of mines research and development work on western coals, 1942-47. V. F. Parry. bibliog. 6pls *U S Bur Mines Rep of Invest* 4171:1-9 '48

Some observations on coking practice in Germany; hydrogenation or low-temperature carbonization of true coal; metallurgical working up of small-grained iron ores. F. H. Reed. *U S Bur Mines Information Circ* 7462:53-68 '48

Some studies of Ohio coals, shales, and oils. T. H. Kerr. *il* maps *Ohio State U Eng Exp Sta Bul* 133:1-63 '48 (pa \$1)

Stretching fuel; U.A.W. sponsors Karrick process for low-temperature distillation of low-grade coal. *il* *Bsns W* p38 F 28 '48

Survey of carbonizing properties of American coals; Bureau of mines coal carbonization laboratory, 1946-1947. J. D. Davis. *il* diags *Am Gas Assn Proc* 1947:87-98

COAL docks

Car-a-minute coal dumper dedicated; rail-lake coal facilities of the Baltimore & Ohio at Lorain. *il* map *Ry Age* 124:396-7 My 8 '48

Modern lake port transfer facility open for business at Toledo, Ohio. *il* plan *Ry Age* 124:846-51 My 1 '48; Excerpts. *Marine Eng* 53:74-5 Je '48

New rail-water terminal at Toledo improves coal-ore transfer. *il* diags *Eng N* 141:48-51 S 30 '48

New railroad dock will increase coal handling capacity. *Iron Age* 161:154+- Ap 22 '48

COAL dredging

River coal production. *Heat & Ven* 45:102 My '48

COAL drying

Fine coal tabled and dried; Hanna coal co. R. E. Zimmerman. flow sheets *il* *Coal Age* 53:64-9 Ja '48

Heating-value loss of coal on air-drying. H. M. Cooper and others. bibliog. *U S Bur Mines Rep of Invest* 4197:1-6 '48

COAL dust

Control of coal dust in the operations of the Tennessee coal, iron & R.R. co. J. C. Gray. *il* diags *Coal Age* 53:76-9 Ja '48

High-pressure sprays trap dust on underground rotary dump at Old Ben's new no. 9 mine. *il* diags *Coal Age* 52:86-8 D '47

See also

Coal mines and mining—Rock dusting

COAL handling

Buils car-a-minute dumper at Lorain; electrically-operated facility of Baltimore & Ohio. *il* map *Ry Age* 124:246-9 Ja 31 '48

Cars changed while belt runs. *il* *Coal Age* 53:116 Ag '48

Coal handling with earth-moving equipment; synthetic-rubber of Polymer corporation. R. L. Hearn and R. F. Leggett. *il* plan diags *Mech Eng* 69:559-63 Jl '47; Discussion. 69:950-2 N '47

Coal must be stored, too; safe handling of Consolidated Edison system's electric station reserve coal. F. J. Lake. *il* *Safety Eng* 95:11+- Ja '48

Coal transferred from rail to river; modern coal-handling equipment installed by Truax-Traer. *il* *Min Cong J* 34:58-9 Ap '48

Flow of coal in chutes. E. F. Wolf and H. L. von Hohenleiten. diags *Mech Eng* 70:313-14+- Ap '48

Handling frozen coal. *Power Generation* 52:74-6 S '48

Magnetic separators for power plant coal handling. W. G. Hudson. *il* diags *Power Generation* 52:80-1 F '48

Modern coal handling system important unit in Lorain expansion. *il* plan *Iron & Steel Eng* 25:44-6 Mr '48

Ramp handles 2,000 tons per shift; used for loading coal. *il* *Coal Age* 53:130 Je '48

See also

Coal docks

Coaling stations

COAL lands

Land reclamation of Illinois coal strippers; abstract. J. W. Bristow. *Min Cong J* 34:73 Je '48

COAL liquefaction

Annual report of research and technologic work on coal, fiscal year 1947. A. C. Fieldner and P. M. Ambrose. pls *U S Bur Mines Information Circ* 7446:100-13 '48

Bench scale equipment and techniques; high pressure reactions. E. L. Clark and others. bibliog. flow diags diags *Ind & Eng Chem* 39:1555-64 D '47

Challenge to crude oil; U.S. producers must effect economies if impending competition of oils from natural gas and coal is met. L. J. Logan. *Pet Refiner* 26:145+- D '47

Coal gasification rather than hydrogenation urged. P. C. Keith. *Oil & Gas J* 46:39+- F 5 '48

Coal hydrogenation; abstract. C. A. Scarlott. *Mech Eng* 69:931-2 N '47

Coal-to-oil plants loom closer; Gulf-Koppers agreement for joint research on coal gasification. *il* *Pet Processing* 3:739-41 Ag '48

Conversion of coal to oil and gas. F. A. Howard. *Min & Met* 29:388-95 Jl '48; Abstract. *Oil & Gas J* 46:70 F 19 '48; Discussion. *Min & Met* 29:395 Jl '48

Diesel fuel from coal. *Diesel Power* 26:58-9 Jl '48

Effect of catalysts on the hydrogenolysis of coal. M. Pelipetz and others. *Ind & Eng Chem* 40:1259-64 Jl '48

Enter; synthetic fuel; commercial production of gasoline and oil from natural gas or coal. *il* *Bsns W* p21-3 Ja '48

Fischer-Tropsch research; tracer investigation by Gulf oil corporation. *il* *Chem Age* (Lond) 58:680-1 My 15 '48

French hydrogenation and fractionation; varied yields of low temperature processes; abstract. L. Thibaut. *Chem Age* (Lond) 59:85-6 Jl 17 '48

Frontiers of fuel technology. A. C. Fieldner. *Chem & Eng N* 26:1700-1 Je 7 '48

Fuels and lubricants from sources other than petroleum. G. T. Perry. *Can Chem & Process Ind* 32:624-9 Jl '48

Germany's synthetic oils. *Chem Age* (Lond) 58:717-18 My 22 '48

Hydrogenation resumed in W. Germany; fuel and other shortages hamper large expansion. *Chem Age* (Lond) 58:835-6 Je 19 '48

Liquid fuels and chemical products from petroleum and coal. F. H. Garner. *Inst Pet J* 33:678-86 N '47

Low-temperature carbonization of coal in Japan. W. T. Reid. 22pls *U S Bur Mines Information Circ* 7430:1-32 '48

Natural gas, coal, oil shale as sources of liquid fuels. E. V. Murphree. diags *Oil & Gas J* 45:66+- Ap 8 '48

Oxygen in the production of hydrogen or synthesis gas; Winkler, Koppers, Lurgi, Thyssen-Galocsy and Leuna processes. L. L. Newman. bibliog. flow diags *il* diags *Ind & Eng Chem* 40:559-82 Ap '48

Review of development of processes for synthesis of liquid fuels by hydrogenation of carbon monoxide. H. H. Storch. bibliog. flow diags *Chem Eng Prog* 44:469-80 Je '48

Sampling lag and purging time in mixing vessels in series. H. J. Kandiner. *Chem Eng Prog* 44:383-6 My '48

Solvation and hydrogenation of coal. M. Orchin and H. H. Storch. bibliog. *Ind & Eng Chem* 40:1385-9 Ag '48

Some observations on coking practice in Germany; hydrogenation or low-temperature carbonization of true coal; metallurgical working up of small-grained iron ores. F. H. Reed. *U S Bur Mines Information Circ* 7462:53-68 '48

Synthetic fuel laboratories dedicated; Bruce-ton laboratories of Bureau of mines. *Chem & Eng N* 26:1699 Je 7 '48

Synthetic liquid fuels in the United States. W. C. Schroeder. *il* *Mech Eng* 69:992-4 D '47

Synthetic liquid fuels studied from several viewpoints by Bureau of mines. *il* *Chem & Eng N* 26:610-11, 614-15 Mr 1 '48

Synthetic oil from coal; abstract. C. E. Hemminger. *Min Cong J* 34:69 Je '48

Synthetics; the great oil reserve. *il* *Fortune* 37:110-15+- My '48

COAL liquefaction—Continued

U.S. gas synthesis project; exploratory plant to cost more than \$1 million. *il Chem Age (Lond)* 53:556-7 *Ap* 24 '48
 Will coal help to meet the future needs for gaseous and liquid fuels? *J. Pursglove, jr. Am Gas Assn Proc* 1947:48-52; Same cond. *Pet Refiner* 26:198+ *N* '47; Same cond. *Am Gas Assn Mo* 30:39-40 *Ja* '48; Same cond. *il Min Cong J* 34:22-4 *Ja* '48

COAL loading machines

Coal mines of tomorrow; mechanical loading. *diags Coal Age* 53:82-6 *Je* '48
 Conveyor-loader. *T. E. Gettings. il Min Cong J* 34:86-7 *S* '48
 Duckbill working cycles; South-east coal co.'s Seco (Ky.) operation. *B. F. Glsh. il plan diags Coal Age* 53:102-5 *My* '48
 How to operate a loading machine safely. *R. Schell. Coal Age* 53:110+ *Ag* '48
 Low loaders serve new mine; Spangler, Cambria county, Pa. *J. H. Edwards. il plans Coal Age* 53:62-6 *Mr* '48
 More from wheels and axles; locomotives and loading machines. *F. W. Richart. il diags Coal Age* 53:105-7 *Ag* '48
 New loader works thin seam; Ebensburg coal co. mine. *il Coal Age* 53:80-2 *Ja* '48
 Sales of loaders and cleaners in 1947. *W. H. Young and R. L. Anderson. Coal Age* 53:87-9 *F* '48; Same. *Min Cong J* 34:58-60 *F* '48
 Trackless mining and shaker-conveyor loading with power duckbills; abstract. *L. Ahlen and M. Cunningham. Coal Age* 52:144+ *N* '47
 Tractor loader a versatile pit unit. *il Coal Age* 53:118 *Ag* '48

COAL miners

Anthracite miners assume role of producers in urging measures to combat competition. *Heat & Ven* 44:118+ *N* '47
 Attracting young men to coal mining. *K. L. Konnerth. il Min Cong J* 34:27-9 *My* '48
 Coal and defense. *il Coal Age* 53:74-6 *O* '48
 Coal miner round the world; wages, living conditions and costs; U.S. compared with ten other countries. *il Coal Age* 53:74-95 *My* '48
 Labor relations in coal mining. *V. B. Stith. il Min Cong J* 34:28-31 *Ja* '48
 Lewis on pensions. *Bsns W* p67 *D* 27 '47
 Maverick. *Fortune* 38:131 *S* '48
 Selling the coal miner; attention-catching publications, using the human approach; how they are produced and what they cost. *il Coal Age* 52:74-8 *N* '47
 Some economic aspects of the coal industry. *G. F. Campbell. flow diag Min Cong J* 34:41-3 *F* '48
 Tips on handling soldiering on the job in coal mines. *Coal Age* 52:106 *N* '47

See also

Coal strikes

Diseases and hygiene

Pneumoconiosis in coal workers in Wales; abstract. *J. Gough. Nat Safety* *N* 57:46+ *Ja* '48
 Tuberculo-pneumoconiosis of coal miners in Belgium; abstract. *A. Joutot. J Ind Hygiene* 30:sup93-4 *S* '48

Great Britain

Coal miners' wage increase; will output be maintained? *Economist* 153:833-4 *N* 22 '47
 Recruitment for the mines. *Economist* 153:738 *N* 1 '47

United States

Better bargaining for coal; how operators and union can work toward peaceful settlement of differences. *Coal Age* 53:75-9 *Ag* '48
 Coal negotiations yield new contract. *Mo Labor R* 67:48-9 *Jl* '48
 '49 coal demands. *Bsns W* p 110-11 *O* 16 '48
 How long can this go on? mines in constant uproar for year. *il Bsns W* p 100-4+ *Je* 26 '48
 Lewis' miners score victory. *Bsns W* p62 *Jl* 3 '48
 New contracts boost wages, welfare fund; captive mines refuse union-shop clause. *Coal Age* 53:115-16 *Jl* '48
 What can the operators do to rehabilitate employers' bargaining position? *Bsns W* p86-7 *Jl* 10 '48

COAL mines and mining

A.I.M.E. Coal division annual meeting. New York, Feb. 16-18. *Coal Age* 53:106+ *Mr* '48
 American mining congress. Coal division, annual conference of committees. Pittsburgh, Nov. 18. *Min Cong J* 33:53-5+ *D* '47
 American mining congress Coal division convention, Cincinnati, April 26-28; with abstracts of papers. *Coal Age* 53:138-40+ *My* '48; *Min Cong J* 34:53-74 *Je* '48
 Annual report of research and technologic work on coal, fiscal year 1947. *A. C. Fieldner and P. M. Ambrose. pls U S Bur Mines Information Circ* 7446:21-45 '48
 Coal conservation. *J. Boyd. il Min Cong J* 34:26-8+ *Je* '48
 Coal industry has biggest peacetime year; review of 1947. *E. Evans and others. il Min & Met* 29:127-35 *F* '48
 Coal mines of tomorrow. *il diags Coal Age* 53:73-121 *Je* '48
 Coal mining in the United States of America; comparison with British mines; review of report by *T. E. B. Young. R. A. S. Redmayne. Engineer* 185:538-9 *Je* 4 '48
 Coal-mining problems sifted at 40th annual meeting of West Virginia coal mining institute held jointly with fall meeting of Central Appalachian section. *A.I.M.E., Charleston, W.Va. Dec. 12-13. Coal Age* 53:114+ *Ja* '48
 Indiana coal conference, Terre Haute, Sept. 26. *Coal Age* 52:144+ *N* '47
 Kentucky mining institute annual meeting, Lexington, Dec. 12-13. *Coal Age* 53:122+ *Ja* '48
 Modern mechanized mining and coal preparation for metallurgical coal. *J. Griffen. diags Iron & Steel Eng* 25:107-9 *Ag* '48
 New trends in coal mining. flow diag *il Min Cong J* 34:38-44 *F* '48
 Rocky Mountain coal mining institute 44th annual meeting, Denver, June 21-23. *Coal Age* 53:126+ *Ag* '48
 West Virginia coal mining institute meeting, Beckley, June 11-12. *Coal Age* 53:128+ *Jl* '48

See also

Coal breakers

Coal miners

Coal mining machinery

Accidents and explosions

Butler mine wins trophy three times in a row. *il Explosives Eng* 26:153-4 *S* '48
 Butler mine wins two in a row; Jermyn-Green coal co. *K. A. Lambert. Explosives Eng* 25:147+ *S* '47
 Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1947. *D. Harrington and others. pl U S Bur Mines Information Circ* 7456:1-21 '48
 Electrical accidents in bituminous-coal mines; coal-mine accident-prevention course, section 6, bibliog *il diags U S Bur Mines Miners' Circ* 59:1-93; pa 30c Supt. of doc. '47
 Explosions mar safety record in 1947. *F. T. Moyer. Coal Age* 53:85-6 *F* '48
 Investigations completed on two mine accidents. *Coal Age* 53:150+ *O* '48
 Mine inspectors' institute of America 38th annual meeting, Columbus, June 6-9. *Coal Age* 53:136+ *Jl* '48
 Mine roof-fall fatalities. *P. H. Price and J. P. Nolting. il Min Cong J* 34:40-1 *O* '48
 Reducing mine haulage accidents. *il Min Cong J* 34:50-3 *Jl* '48
 Tests in the experimental coal mine to determine requirements for preventing propagation of coal-dust explosions in rooms. *H. C. Howarth and others. 16pls U S Bur Mines Rep of Invest* 4195:1-12 '48
 Union Pacific coal company again wins top safety honors. *Explosives Eng* 26:140-1+ *S* '48
 Whitehaven William colliery disaster, Cumberland, Aug. 15. *Engineer* 184:422 *O* 31 '47

See also

Coal mines and mining—Safety measures

COAL mines and mining—*Continued*

Blasting

- Earth vibrations from heavy blasting; abstract. J. E. Jenkins. *Min Cong J* 34:71 Je '48
- Fog gun cuts dust and gas after blasting. *il Coal Age* 53:114 Ag '48
- Fog gun for safer shooting; device provides a fine mist at the face during shooting. W. J. Evans and others. *il diags Coal Age* 52:93-5 N '47
- New coal field in West Virginia. C. J. Burton. *il diag Explosives Eng* 26:117-19+ J1 '48
- Shot-firing in coal mines. *Engineer* 185:577 Je 11 '48
- See also*
- Coal mines and mining—Explosives

Costs

- Gathering haulage with belt conveyors; with cost data. *il diag Min Cong J* 34:44-7 Ja '48
- Gathering haulage with mine cars. *il diag Min Cong J* 34:43-7 Ag; 46-7 O '48

Electric equipment

- A.I.E.E. winter meeting, Pittsburgh, Jan. 26-30; abstracts of papers. *Coal Age* 53:116+ Mr '48
- Automatic derail and trip position indicator; Heidelberg coal co. J. V. Mather. *il diags Min Cong J* 33:44-5 D '47
- Belt conveyors in the mechanization of the mining industry; abstract. A. W. Duncan. *Elec R (Lond)* 142:1023 Je 25 '48
- Better motor maintenance. C. E. Hugus. *il Coal Age* 53:99-101 O '48
- Better service from cables. *Coal Age* 53:67-9 Mr '48
- Coal face lighting panel. *il Engineer* 185:384 Ap 16 '48; *Abstract. Engineer* 165:452 My 7 '48
- Coal mines of tomorrow; electrification. *il Coal Age* 53:96-8 Je '48
- Deepwells put underground; Lake Superior nos. 3 and 4 mines. *il Coal Age* 52:98 D '47
- Dual-duty locomotives at Consol. *il diag Coal Age* 53:96-7 Ap '48
- Electrical accidents in bituminous-coal mines; coal-mine accident-prevention course, section 6, bibliog *il diags U S Bur Mines Miners' Circ* 59:1-93; pa 30c Supt. of doc. '47
- Electricity supplies for collieries; abstract. D. J. W. Harvey. *Inst E E J* 95 pt 1:122 Mr '48
- Grounding off-track mining equipment; report of the power committee. *il diags Min Cong J* 34:53-6; Discussion. 56-7 Mr '48
- Grounding off-track mining machinery and protection of equipment with circuit breakers. J. A. Setter. *il diags Coal Age* 53:107-11 S '48
- Improving power voltage; how foremen can help keep equipment on the job. *Coal Age* 52:104+ N '47
- Maumee electrical progress; stripping operations of the Maumee collieries. co. E. Bennington and R. R. Richart. *il diags Coal Age* 53:102-10 O '48
- Permissible mine equipment approved to Jan. 1, 1947. A. B. Hooker. *U S Bur Mines Information Circ* 7432:1-44 '47; Supplement. 7465:1-5 '48
- Pipe protects 2,300-volt cable; Consolidation coal co., W. Va. *il Coal Age* 53:74-5 Ja '48
- Preventing rectifier corrosion. D. W. Borst. *il diags Coal Age* 52:89-93 D '47
- Sectionalization at Isabella; new d.c. practice. G. L. Kemp and D. J. Baker. *il plan diags Coal Age* 53:102-6 F '48
- Trolleyphones at Lake Superior coal co. *il Coal Age* 52:100-2 N '47
- Truck mines haul on rubber. *il Coal Age* 53:91-3 S '48

Equipment

- All-stoker preparation plant; Freeman coal mining corp. W. C. McCulloch. flow sheet *il Min Cong J* 34:73-6 S '48
- Alloy cage dumps sideways; Christopher no. 6 mine. J. H. Edwards. *il diags Coal Age* 52:94-7 D '47

- Automatic belt dispatching. *il diag Coal Age* 53:82-5 J1 '48
- Boreholes replace shaft lines; use of transite pipe. B. Gleason. *diags Coal Age* 53:76-8 Mr '48
- Building up Galloway; new equipment and methods. J. H. Edwards. *il diags Coal Age* 53:78-85 Ap '48
- Cars changed while belt runs. *il Coal Age* 53:116 Ag '48
- Coal mines of tomorrow; transportation. *diags Coal Age* 53:93-5 Je '48
- Efficient truck mine; Cedar grove mining co. J. H. Edwards. *il diag Coal Age* 53:88-92 O '48
- Elevator for man-trips; Consolidation coal co. C. L. Brown. *N Min Cong J* 34:42-3 Ja '48
- Fan change helps ventilation. W. E. Crane. *il diags Coal Age* 53:89-91 J1 '48
- Fine coal tabled and dried; Hanna coal co. R. E. Zimmerman. flow sheets *il Coal Age* 53:64-9 Ja '48
- Haulage helps at New Jellico. *il Coal Age* 53:92-3 Ag '48
- Haulage system for operating track-mounted equipment; abstract. J. Bose and J. W. Anstead. *Min Cong J* 34:62 Je '48
- Modern methods reopen an old property; the Glenbrook mine of Stonega coke and coal co. H. W. Meador. *il plan diag Min Cong J* 33:23-8 N '47
- New facilities double efficiency; Consolidation coal co. (W. Va.). J. H. Edwards. *il Coal Age* 53:114-17 My '48
- Pneumatic decking and control plant for colliery tubs. *il diag Engineering* 164:608-10 D 26 '47
- Pond Creek productivity upped. J. H. Edwards. *il maps diags Coal Age* 52:82-5 D '47
- Preparation at Homestead. F. W. Gilbert and R. R. Richart. flow sheet *il diag Coal Age* 53:106-13 My '48
- Quonset portal construction; Consolidation coal co. (Ky.) mines. G. Keat and J. H. Edwards. *il map plans diag Coal Age* 53:96-101 Mi '48
- Shop modernization at Vesta. J. H. Edwards. *il plans diags Coal Age* 53:92-7 J1 '48
- Timber preservation, unsung ally in coal mining. J. M. Bray. *il Min Cong J* 33:33-5 N '47
- Tunnels reopen old sections; Philadelphia & Reading coal & iron co. R. R. Richart. *il diags Coal Age* 53:98-104 Ap '48
- See also*
- Coal cutters Coal mining machinery
- Coal loading machines chinery

Explosives

- Annual report of research and technologic work on explosives, explosions, and flames, fiscal year 1946. B. Lewis. bibliog 29pls *U S Bur Mines Rep of Invest* 4176:1-62 '47
- Fires and fire protection
- Burning refuse dumps at coal mines. D. Harrington and J. H. East, jr. *U S Bur Mines Information Circ* 7439:1-28 '48
- Fire car fights mine fires at long range. *il diag Coal Age* 52:110 D '47
- Mine fires; abstract. F. J. Bailey. *Coal Age* 52:128+ D '47
- Mine inspectors' institute of America 38th annual meeting. Columbus, June 6-9. *Coal Age* 53:136+ J1 '48
- Outcrop and underground mine fires in Allegheny county. Pa. G. W. Grove and E. E. Quenon. *U S Bur Mines Information Circ* 7434:1-6 '48
- Procedure used in fighting and sealing a fire in an Ohio coal mine and recovery of the mine by air-locking methods. G. W. Grove and others. 6pls *U S Bur Mines Information Circ* 7418:1-18 '47

Gas generation

- Contract signed for second U.S. underground gasification test. *Can Chem & Process Ind* 32:651 J1 '48; Same abr. *Heat & Ven* 45:116+ Ag '48; Same abr. *Power Generation* 52:132-3 O '48; Same cond. *Power* 92:570 S '48
- Gasification tests to be resumed. *Coal Age* 53:130+ Mr '48
- New coal test. *Bsns W* p35-6+ F 28 '48

COAL mines and mining—Gas generation—
Continued

Underground coal gasification test gets underway. J. Boyd. *Pet Eng* 19:68 Ag '48
Underground gasification. J. D. Clendenin. *bibliog* *diags Chem Eng Prog* 43:581-4 N '47
Underground gasification; experiments on coal conducted at Gorgas, Ala. M. H. Fies and W. C. Schroeder. *il plans diags Mech Eng* 70:127-35 F '48; Abstract and discussion. *Power* 91:854-5 D '47

Government ownership

Coal in 1947. R. A. S. Redmayne. *Engineer* 185:19-21, 39-41 Ja 2-9 '48

Insurance requirements

Coal properties cover difficulties encountered in West Virginia. D. S. Butler. *Weekly Underw* 157:1551 D 20 '47; Same cond. *Nat Underw* 51:11 D 18 '47

Lighting**See Mine lighting****Management**

Better coal-mine management; procedure and results. *Coal Age* 53:114-4 F '48
Building leaders via foremen's clubs. *Coal Age* 53:74-8 Jl '48
Developing supervisory personnel; abstract. R. W. Beamer. *Min Cong J* 34:64 Je '48
Handling disputes at the mine. V. E. Stith. *il Coal Age* 53:58-61 Mr '48
How to make workers more cost-conscious. *Coal Age* 53:90-4 Mr '48
How workers reflect attitudes shown by their foremen. *Coal Age* 53:124-4 Je '48
Mine foremen who give and demand value received. J. J. Rutledge. *Explosives Eng* 26:55-6 Mr '48
Modern mining at Gorgas. *il plans diags Coal Age* 53:80-90 S '48
Needler and the mine foreman. J. J. Rutledge. *Explosives Eng* 26:88-9 My '48
New mine, high efficiency; Middle Creek mine of the Floyd Elkhorn coal co. *il plan diag Coal Age* 53:80-3 Ag '48
Production management; raising machine output through modern management principles. V. C. Stephens. *Coal Age* 53:84-8 Mr; 105-9 Ap '48
Small mine foreman. J. J. Rutledge. *Explosives Eng* 26:120-1 Jl '48
Time studies in mechanized mining. P. R. Paulick. *il Min Cong J* 34:48-9 Mr '48

See also

Coal miners

Methods

Accomplishments of mechanization. G. B. Southward. *il Min Cong J* 33:34-7 D '47
Breaking coal with Airdox. J. S. Malesky. 12pls U S Bur Mines Information Circ 7480; 1-9 '48
Building up Galloway; new equipment and methods. J. H. Edwards. *il diags Coal Age* 53:78-85 Ap '48
Drilling and breaking down coal with Airdox; abstract. R. L. Adams. *Min Cong J* 34:59 Je '48
Duckbill working cycles; South-east coal co.'s Seco (Ky.) operation. B. F. Gish. *il plan diags Coal Age* 53:102-5 My '48
High extraction with duckbills; Wyatt coal co. J. W. Perfater. *il plan diags Coal Age* 53:94-7 S '48
Island mining with shakers. *il plan Coal Age* 53:86-7 O '48
Low loaders serve new mine; Spangler, Cambria county, Pa. J. H. Edwards. *il plans Coal Age* 53:62-6 Mr '48
Mechanical tunnel driving at Newkirk colliery. R. S. Davies. *il plans diags Can Min J* 69:55-7 S '48
Mechanization for greater productivity and lower costs. L. E. Young. *il Min Cong J* 34:16-21 Ja '48
Mining thin coal efficiently. *diags Coal Age* 52:88-92 N '47
Mining under very weak roof. A. E. Spottli. *il diags Min Cong J* 34:47-8 My '48
Mining with power duckbills. K. Snarr. *il diags Coal Age* 53:96-101 F '48
Modern mining at Gorgas. *il plans diags Coal Age* 53:80-90 S '48

Modernization and expansion program; mines of Imperial smokeless coal company of West Virginia. C. E. Hough. *il plan diag Min Cong J* 34:20-3 Ag '48

New loader works thin seam; Ebensburg coal co. mine. *il Coal Age* 53:80-2 Ja '48
Outcrop coal mining; a new development by Consolidation coal company (Ky.) in the Elkhorn field. G. B. Southward. *il plan diags Min Cong J* 34:30-4 Mr '48

Pillar mining under medium weak roof. D. C. Ridenour. *diags Min Cong J* 34:45-7 My '48

Pond Creek productivity upped. J. H. Edwards. *il maps diags Coal Age* 52:82-5 D '47

Two-story drill speeds highwall preparation. *il Coal Age* 53:120 Ap '48

Using air to shoot coal; pressurized air system. Airdox. *il Bsns W* p28-4 F 7 '48

See also

Coal mines and mining—Stripping operations

Power

Power supply for strip mining; abstract. A. Brown. *Coal Age* 53:116-4 Mr '48

Rock dusting

Tests in the experimental coal mine to determine requirements for preventing propagation of coal-dust explosions in rooms. H. C. Howarth and others. 16pls U S Bur Mines Rep of Invest 4195:1-12 '48

Safety measures

Central Appalachian A.I.M.E. discusses blasting practices, federal safety code. *Coal Age* 53:142-4 Je '48

Choosing a safety director. P. W. Graff. *il Coal Age* 53:98-100 Jl '48

Coal mines of tomorrow; mine safety. *diags Coal Age* 53:114-17 Je '48

Control of coal dust in the operations of the Tennessee coal, iron & R.R. co. J. C. Gray. *il diags Coal Age* 53:76-9 Ja '48

Control of roof and prevention of accidents from falls of rock and coal. J. J. Forbes and H. J. Sloman. U S Bur Mines Information Circ 7461:1-8 '48

Control of roof and prevention of accidents from falls of rock and coal. E. Thomas and others. 17pls U S Bur Mines Information Circ 7471:1-9 '48

Cutting haulage accidents. J. J. Plasky. *Coal Age* 53:112 Ag '48

Electrical accidents in bituminous-coal mines; coal-mine accident-prevention course, section 6. *bibliog il diags U S Bur Mines Miners' Circ* 59:1-93; pa 30c Supt. of doc. '47

Emergency escapeways from coal mines. R. T. Artz and O. V. Simpson. 12pls U S Bur Mines Information Circ 7478:1-11 '48

High-pressure sprays trap dust on underground rotary dump at Old Ben's new no. 9 mine. *il diag Coal Age* 52:86-8 D '47

How to operate a loading machine safely. R. Schell. *Coal Age* 53:110-4 Ag '48

Improper vs. systematic ventilation. W. R. Kinwood. *Coal Age* 53:122-4 My '48

Making the roof safe. D. Couch. *Coal Age* 53:104 Jl '48

Mine inspectors' institute of America 38th annual meeting, Columbus, June 6-9. *Coal Age* 53:136-4 Jl '48

Mine inspectors' institute of America 38th annual meeting, Columbus, Ohio, June 7-9. *Min & Met* 29:503-4 S '48

Modernization is the answer; substitution of compressed air for explosives. C. E. Hastings. *Can Min J* 69:85-6 Mr '48

Need for greater safety training stressed by Coal-mining section, National safety council. *Coal Age* 52:162-4 N '47

Neither mirrors nor magic; Union Pacific coal company won seven awards for safety in 1947. I. N. Bayless. *Nat Safety* N 53:58-9 Ag '48

Permissible mine equipment approved to Jan. 1, 1947, with appended list of available flame-lamp fuels. A. B. Hooker. U S Bur Mines Information Circ 7432:1-44 '47; Supplement. 7465:1-5 '48

Robena mine engineered for safety; program at H. C. Frick coal co. *il plan Safety Eng* 95:10-12 F '48

COAL mines and mining—Safety measures—

Continued

- Roof support with suspension rods. C. C. Conway, il diags Min Cong J 34:32-7 Je '48
- Safe timber recovery in coal mining. G. H. Sambrook, il Min Cong J 34:23-5 O '48
- Safety a joint responsibility of workmen, officials, owners, and inspectors. R. Maize. Min & Met 29:131 F '48
- Safety achievements of the continental mine. Continental-Archbald coal co., Scranton, Lackawanna county, Pa. E. H. McCleary and others. U S Bur Mines Information Circ 7459:1-18 '48
- Safety around belt conveyors. il Coal Age 53:136 Je '48
- Safety standards for anthracite mines; revision of I. C. 7282. U S Bur Mines Information Circ 7449:1-59 '48
- Safety, training, mine-sealing, topics at 32d annual meeting of Coal mining institute of the 15th bituminous district. Barnesboro, Pa. Nov. 29. Coal Age 53:128+ Ja '48
- Selling safety to the miner. W. A. Stanbury, jr. il Coal Age 53:74-9 S '48
- Some observations on coal-mine haulage hazards. H. E. Sanford. U S Bur Mines Information Circ 7467:1-13 '48
- Sparkproof cable for coal mines. Safety Eng 94:23 D '47
- Stop, look, and fix it! J. J. Rutledge. Explosives Eng 25:180-1 N '47
- Suspension roof support. E. Thomas, il diags Coal Age 53:86-8 J '48
- Teamwork for safety; management, miners and the union; joint program in the Beckley field. W. A. Stanbury, jr. il Coal Age 53:92-5 Ap '48
- Training for safety. B. H. Van Oot. il Coal Age 53:77-9 O '48
- See also*
- | | |
|---|------------------------------------|
| Coal mines and mining—Blasting | Coal mines and mining—Rock dusting |
| Coal mines and mining—Fires and fire protection | Derails |
| | Safety lamps, Electric |

Statistics

- Coal around the world; production, employment, import and export data. Coal Age 53:76 F '48

Stores systems

- System in handling supplies speeds storage, protects parts. il Coal Age 52:100+ D '47

Stripping operations

- Coal mines of tomorrow; strip mining. diags Coal Age 53:107-13 Je '48
- Concentrated stripping; Grafton coal co. J. H. Edwards, il Coal Age 53:84-91 Ag '48
- Dragline versus shovel in deep overburden; abstract. O. E. May. Min Cong J 34:70-1 Je '48
- Hillside stripping in West Virginia. H. L. Bailey, il Min Cong J 34:25-9 Jl '48
- Long range shovels and draglines for stripping. W. Barnes, il Engineer 186:314-16, 330-2, 354-7, 381-3, 407-10, 433-5 S 24-O 29 '48
- Maumee electrical progress; stripping operations of the Maumee collieries co. E. Bennington and R. R. Richart, il diags Coal Age 53:102-10 O '48
- Modern costing helps stripper; Geo. Bobo co. J. H. Edwards, il Coal Age 53:70-5 Mr '48
- Modern trends in deep bituminous coal stripping; abstract. R. M. Dickey. Coal Age 52:146+ N '47
- Mountain-top stripping; Edna coal co. il Coal Age 52:96-9 N '47
- Open-pit mining legislation; abstract. R. T. Laing. Min Cong J 34:72 Je '48
- Opencast mining in the Rhine brown coalfield. W. L. G. Muir, il map diags Engineer 185:344-6, 368-71, 392-4 Ap 9-23 '48
- Power supply for strip mining; abstract. A. Brown. Coal Age 53:116+ Mr '48
- Progress in strip-mine haulage; abstract. A. E. Coddington. Min Cong J 34:70 Je '48
- Radio phones in stripping. C. A. Osborne, il Coal Age 53:79-81 Jl '48
- Rubber-tired versus crawler-type bulldozers; West Virginia stripping operation. R. E. Morgan, il map Min Cong J 34:34-5 My '48
- Shovel and dragline stripping; Boots-Lippert corp. il diags Coal Age 53:102-6 S '48

- Strip mine truck haulage. L. E. Briscoe, il Min Cong J 34:32-6 Ap '48
- Strip mining coal in western Kentucky. J. R. McCloskey, il Explosives Eng 26:52-3 Mr '48
- Strip mining; open-pit coal operations continue to grow. T. C. Cheasley, il Min Cong J 34:48-51 F '48
- Strip progress accelerated. il Coal Age 53:70-3 Ja '48
- Stripper reworks old pits; Wingert contracting co. il Coal Age 53:86-91 Ap '48
- Strippers moved 12 miles. W. E. Parks, il Coal Age 52:79-81 D '47
- Sunnyhill's strip mine in Ohio coal. R. C. D. Hunt, jr. il Explosives Eng 26:147-9 S '48
- Tandem units boost dragline efficiency. R. R. Richart, il diag Coal Age 53:90-5 F '48

Truck mines

- Efficient truck mine; Cedar grove mining co. J. H. Edwards, il diag Coal Age 53:88-92 O '48

Waste disposal

- Acid mine water in the anthracite region of Pennsylvania. E. W. Felegy and others. bibliog il map U S Bur Mines Tech Pa 710:1-49; pa 15c Supt. of doc. '48
- Burning refuse dumps at coal mines. D. Harrington and J. H. East, jr. U S Bur Mines Information Circ 7459:1-23 '48
- Disposal of mine waste and washer rejects; abstract. S. Krickovic. Min Cong J 34:67 Je '48
- Refuse disposal from cleaner plants and breakers; abstract. F. J. Meyer. Min Cong J 34:66-7 Je '48
- Refuse disposal from cleaning plants; mid-west methods; abstract. J. R. Wilson, Min Cong J 34:67-8 Je '48
- See also*
- Coal waste

Australia

- Australian coal. Bsns W p98 F 23 '48
- Increasing production and improving methods. For Comm W 32:29-31 Ag 28 '48

China

- Production in China, 1946-1947. For Comm W 31:16 Ap 17 '48

France

- Le bassin à lignite landais. V. Charrin, diag Chimie & Ind 58:396-7 O '47

Germany

- Opencast mining in the Rhine brown coalfield. W. L. G. Muir, il map diags Engineer 185:344-6, 368-71, 392-4 Ap 9-23 '48
- Ruhr coalfield statistics. R. A. S. Redmayne. Engineer 185:587-8 Je 18 '48

Great Britain

- Coal and the Nation; comments on the first report of the National coal board. Economist 155:111-15 Jl 17 '48
- Coal board's quandary. Economist 154:847-8 My 22 '48
- Coal board's task. Economist 154:26-7 Ja 3 '48
- Coal in 1947. R. A. S. Redmayne. Engineer 185:19-21, 39-41 Ja 2-9 '48
- Cost of coal. Economist 154:236 F 7 '48
- Kent coalfield. G. le B. Diamond. Gas J (Lond) 252:414+, 464-5 N 19-26 '47; Discussion. 252:465-6 N 26 '47
- One of Britain's small mines. A. Bray, il Can Min J 69:68-9 Ja '48
- Transfer by shaking chutes; drift conveyors combine output of two seams; Mansfield colliery, Nottinghamshire. plans diags Can Min J 69:74-6 Ja '48

See also

- | | |
|---------------------------|--------------------------|
| Coal supply—Great Britain | Coal trade—Great Britain |
|---------------------------|--------------------------|

Kentucky

- New coal field opened in eastern Kentucky-Virginia. il map Min Cong J 34:67-8 Ap '48
- Strip mining coal in western Kentucky. J. R. McCloskey, il Explosives Eng 26:52-3 Mr '48

COAL mines and mining—Continued

Middle Western states

Analyses of Michigan, North Dakota, South Dakota, and Texas coals. bibliog 2 fold maps U S Bur Mines Tech Pa 700:1-106; pa 35c Supt. of doc. '48

Norway

Spitzbergen, Norway's Arctic coal treasure. O. Ljone. il Min & Met 29:330-2 Je '48

Oregon

Mineable reserves, petrography, chemical characteristics, and washability tests of coal occurring in the Coos Bay coal field, Coos county, Oregon. A. L. Toenges and others. bibliog 11pls U S Bur Mines Tech Pa 707:1-56; pa 50c Supt. of doc. '48
Southport ups Oregon capacity; coal development seen as coming Oregon industry. F. W. Hilton. il plan Coal Age 53:79-83 Mr '48

Pennsylvania

Acid mine water in the anthracite region of Pennsylvania. E. W. Felegy and others. bibliog il map U S Bur Mines Tech Pa 710:1-49; pa 15c Supt. of doc. '48
Anthracite water problem. H. H. Otto and others. bibliog il Coal Age 53:93-8 O '48; Same abr. Min Cong J 34:30-4 O '48
Flood-prevention projects at Pennsylvania anthracite mines, progress report for fiscal year ended June 30, 1947. S. H. Ash and others. 27pls U S Bur Mines Rep of Invest 4288:1-51 bibliog(40 titles, p48-51) '48

Poland

Situation in Poland. For Comm W 30:21 Ja 24 '48

South Africa

Pit for posterity; South Africa's Douglas colliery. W. R. Gordon. il plans Can Min J 69:75-9 Ag '48

United States

1947; big year for coal. il Coal Age 53:74-5+ F '48
Thickness of bituminous-coal and lignite seams mined in the United States in 1945. W. H. Young and R. L. Anderson. 4pls U S Bur Mines Information Circ 7442:1-17 '47

See also

Coal miners—United States
Coal trade—United States
Coal supply—United States

Utah

One quarter of Utah's commercial coal produced at King mine. S. J. Craighead. il Min & Met 29:569-72 O '48

Virginia

New coal field opened in eastern Kentucky-Virginia. il map Min Cong J 34:67-8 Ap '48

West Virginia

Hillside stripping in West Virginia. H. L. Bailey. il Min Cong J 34:25-9 Jl '48

Modernization and expansion program; mines of Imperial smokeless coal company of West Virginia. C. E. Hough. il plan diag Min Cong J 34:20-3 Ag '48

New coal field in West Virginia. C. J. Burton. il diag Explosives Eng 26:117-19+ Jl '48

3,000 feet to coal; C.&O. railroad's new tunnel opens vast reserves in Wise county, Va. il Manuf Rec 117:46 Ap '48

COAL mining institute of America

Annual meeting, 61st, Pittsburgh, Dec. 11-12. Coal Age 53:104+ Ja '48

COAL mining machinery

Accomplishments of mechanization. G. B. Southward. il Min Cong J 33:34-7 D '47

Better mining with bugdusters. R. G. Perry. il Coal Age 52:79-81 N '47

Continuous miner; abstract. S. Blose. Min Cong J 34:60-1 Je '48

For more efficient coal-mining; development of machine to cut and load coal. il diags Bsns W p57-8 Ap 10 '48

High extraction with duckbills; Wyatt coal co. J. W. Perfater. il plan diags Coal Age 53:94-7 S '48

Hydraulic control of mining equipment. J. J. Slomer. diags Coal Age 53:132+ Ap '48

Island mining with shakers. il plan Coal Age 53:86-7 O '48

Machine era spreads in coal. il Coal Age 53:80-4 F '48

Mechanization for greater productivity and lower costs. L. E. Young. il Min Cong J 34:16-21 Ja '48

Mining with power duckbills. K. Snarr. il diags Coal Age 53:96-101 F '48

Sales of loaders and cleaners in 1947. W. H. Young and R. L. Anderson. Coal Age 53:87-9 F '48; Same. Min Cong J 34:58-60 F '48

Strippers moved 12 miles. W. E. Parks. il Coal Age 52:79-81 D '47

Timber setting and recovery in trackless mining; abstract. G. W. McCaa. Min Cong J 34:58 Je '48

See also

Coal cutters
Coal loading machines
Excavating machinery

Conveyors

Automatic belt dispatching. il diag Coal Age 53:82-5 Jl '48

Belt care and maintenance to increase life; abstract. J. A. Bottomley. Min Cong J 34:63-4 Je '48

Belt conveyor gathering haulage; American mining congress, Coal division committee report. il Min Cong J 33:55+ D '47

Belt conveyors for main and gathering service; abstract. C. W. Thompson. Min Cong J 34:61-2 Je '48

Belt conveyors in the mechanization of the mining industry; abstract. A. W. Duncan. Elec R (Lond) 142:1023 Je 25 '48

Belt selection and installation. J. H. Edwards. il Coal Age 53:80-5 O '48

Coal mines of tomorrow; mechanical loading. diags Coal Age 53:82-6 Je '48

Developments in conveyor mining. F. R. Toothman. il Min Cong J 34:29-31 Ag '48

Drift conveyors combine output of two seams. il plan diags Mech Handling 34:653-8 D '47

Gathering haulage with belt conveyors; with cost data. il diag Min Cong J 34:44-7 Ja '48

Modern methods reopen an old property; the Glenbrook mine of Stonega coke and coal co. H. W. Meador. il plan diag Min Cong J 33:23-8 N '47

Safety around belt conveyors. il Coal Age 53:136 Je '48

Symposium on conveyor mining. il Min Cong J 34:33-7 S '48

Thin-seam mining with conveyor-loader; abstract. S. Hampton. Min Cong J 34:60 Je '48

Thin seam mining with self-loading conveyors; abstract. P. R. Paulick. Min Cong J 34:59-60 Je '48

Transfer by shaking chutes; drift conveyors combine output of two seams; Mansfield colliery, Nottinghamshire. plans diags Can Min J 69:74-6 Ja '48

Exhibitions

Bluefield show sets record. Coal Age 53:132+ O '48

Maintenance and repair

Coal mines of tomorrow; maintenance and supplies. Coal Age 53:102-6 Je '48

Preventive maintenance for face equipment; abstract. H. C. Bean. Min Cong J 34:63 Je '48

COAL preparation

Advantages of consistent preparation of medium quality coals from a utilization viewpoint; abstract. H. M. Faust. Coal Age 52:160+ N '47

All-stoker preparation plant; Freeman coal mining corp. W. C. McCulloch. flow sheet il Min Cong J 34:73-6 S '48

Coal mines of tomorrow; coal preparation. il Coal Age 53:118-21 Je '48

Coal mines of tomorrow; face preparation. diags Coal Age 53:87-92 Je '48

Coal preparation. H. Kinsman. il Min Cong J 34:43-4 F '48

COAL preparation—Continued

Fine coal tabled and dried; Hanna coal co. R. E. Zimmerman, flow sheets il Coal Age 53:64-9 J '48

Heavy-media separation processes; present status and potentialities. G. B. Walker, flow sheets il diag Min Cong J 34:38-41+ Mr '48

Modern mechanized mining and coal preparation for metallurgical coal. J. Griffen, diags Iron & Steel Eng 25:107-9 Ag '48

New bituminous and anthracite preparation facilities in 1947; tabulations. Coal Age 53: 82-4 F '48

Permanent magnets for coal. F. E. Parke, diag Coal Age 53:102-4 Ag '48

Preparation at Homestead. F. W. Gilbert and R. R. Richart, flow sheet il diag Coal Age 53:106-13 My '48

Preparation at St Nicholas. O. P. Swartz and R. R. Richart, flow sheet il diags Coal Age 53:94-101 Ag '48

Preparation characteristics of anthracites in the Santa River valley, Peru. T. Fraser, 27pls U S Bur Mines Rep of Invest 4200: 1-31 '48

Preparation of coal for coke production. P. E. Jordan, Iron & Steel Eng 25:56-9 My '48

Preparation of high-reject coal for discriminating markets by use of jigs, tabling plants, heat and centrifugal dryers; abstract. J. D. Reilly, Coal Age 52:156+ N '47

Price structure of coal and its relationship to preparation and utilization. E. S. Grumell, Gas J (Lond) 252:401-2 N 19 '47; Discussion. 252:520+ D 3 '47

Quality preparation assured in Markson breaker design. R. R. Richart, flow sheet il diag Coal Age 52:82-7 N '47

Variety of large coal preparation plants built and planned. T. W. Guy and others. Min & Met 23:130-1 F '48

What is new in coal preparation methods and equipment; abstract. H. O. Erb, Min Cong J 34:66 Je '48

See also

Coal, Pulverized— Coal sizing
Preparation Coal washing
Coal cleaning

COAL products

Chemical products of carbonisation. J. R. Campbell, Chem Age (Lond) 57:820-2; 58: 12-14, 102-4, 172-5 D 27 '47; Ja 3, 17, 31 '48; Discussion. 58:367-8 Mr '48

Coal chemicals, 1947. Chem Eng 55:115 F '48

Coal resin from Utah coal. il Chem Ind 62: 568-9 Ap '48

Lac, a by-product of bituminous coal. Comp Air Mag 53:45 F '48

Liquid fuels and chemical products from petroleum and coal. F. H. Garner, Inst Pet J 33:678-86 N '47

Petroleum-coal products rank fourth in southern industry. C. R. Walker, il Manuf Rec 117:36+ S '48

Wide variety of work going on to utilize coal for nonfuel purposes. J. L. G. Weysser. Min & Met 29:133-4 F '48

Will coal help to meet the future needs for gaseous and liquid fuels? J. Fursiglove, Jr. Am Gas Assn Proc 1947:48-52; Same cond. Pet Refiner 26:198+ N '47; Same cond. Am Gas Assn Mo 30:39-40 Ja '48; Same cond. il Min Cong J 34:22-4 Ja '48

See also

Coal distillation Coke manufacture—
Coal liquefaction By-products
Coal tar products Gas

COAL purchasing

Coal as the purchasing agent sees it. E. S. Bonnet, Ry Age 125:857 N 6 '48

Coal quality and coal buying. J. E. Tobey, Power Generation 52:80-1 Ag '48

Regional standards for locomotive fuel. E. C. Payne, il Ry Age 124:214-17 Ja 24 '48

COAL research

Annual report of research and technologic work on coal, fiscal year 1947. A. C. Fieldner and P. M. Ambrose, bibliog 44pls U S Bur Mines Information Circ 7446:1-113 '48

Carbonizing properties of coking coals; effect of oxidation in storage. R. E. Brewer and others, bibliog(69 ref) il Ind & Eng Chem 40:1243-54 Jl '48

Increasing the utilization of coal; abstract. J. I. Yellott, Min Cong J 34:68-9 Je '48

Interest and activity in coal research attained new high in 1947. C. C. Wright, il Min & Met 29:134-5 F '48

Reactivity of solid fuels to air and oxygen. A. A. Orning, S. Mallov and M. Neff, bibliog il diags Ind & Eng Chem 40:429-32 Mr '48

Résumé of Bureau of mines research and development work on western coals, 1942-47. V. F. Parry, bibliog 6pls U S Bur Mines Rep of Invest 4171:1-9 '48

Some observations on German coal research and developments. H. H. Lowry and H. J. Rose, bibliog 4pls U S Bur Mines Information Circ 7422:1-27 '47

COAL sampling
Sampling coal for analyzing purposes. il diags Power Pl Eng 51:78-80 N '47

COAL sizing
Data on anthracite sizes with which heating contractors should be conversant. P. A. Mulcey, diags Sheet Metal Worker 39:70+ O '48

Mathematical description of certain breakage mechanisms leading to the logaritmico-normal distribution. B. Epstein, bibliog Franklin Inst J 244:471-7 D '47

COAL stokers. See Stokers, Mechanical

COAL storage
Carbonizing properties of coking coals; effect of oxidation in storage. R. E. Brewer and others, bibliog(69 ref) il Ind & Eng Chem 40:1243-54 Jl '48

See also
Coal bins, Concrete

COAL strikes
Chemical firms shake off coal strike blow. H. S. Taylor, Barron's 28:7-8 Ap 26 '48

Coal burners' mileage cut by O.D.T. order; mine strike hits passenger service. Ry Age 124:629-30 Mr 27 '48

Coal strike depletes steel stocks. il Steel 122: 71-2+ Ap 26 '48

Coal strike losses hit steel users. Steel 122: 43-4 Ap 19 '48

Coal strike pinch. Bsns W p22 Mr 27 '48

Fines Lewis again. Bsns W p 110 Ap 24 '48

Key cases under the new labor law; national emergency strike; case of the soft coal industry. J. M. Gambatese, Factory Management 106:95-6 Je '48

Lewis stall. il Bsns W p 104+ Ap 3 '48

Mine pensions; costly peace? Bsns W p 19-21 Ap 17 '48

Pensions or power? il Coal Age 53:74-7 Ap 48

Steel's labor troubles die; compromise with Lewis. Bsns W p20 Jl 17 '48

T-H law invoked in coal tie-up. il Bsns W p 108 Mr 27 '48

COAL supply
Coking coal supply has improved substantially since last fall. G. F. Sullivan, il Iron Age 162:129-30 S 23 '48

La crise charbonnière. C. de Kownacki, Chimie & Ind 58:282-3 S '47

Marshall program; coal, key to recovery, map Factory Management 105:128b-128e+ D '47

Argentina

Supplies and requirements, 1946 and 1947. For Comm W 31:27 Je 5 '48

China

Oil prospects of China as related to the carbon ratio. W. Weng, maps Oil & Gas J 46:45-6+ Ja 22 '48

Europe

European coal organisation. Economist 154: 60-1 Ja 10 '48

France

Coal in France. Engineer 185:383-4 Ap 16 '48

Great Britain

British fuel and power industries. Gas J (Lond) 252:243-4+ O 29 '47

Coal considerations; Board's summer school. il Elec R (Lond) 143:377-8 S 3 '48

Comparisons between gas and electricity on the basis of coal economy. P. Schiller, bibliog Inst E E J 94 pt 1:355-63 Ag '47; Discussion. 94 pt 1:364-70; 95 pt 1:434-54 Ag '47, O '48

Electricity, coal and economic recovery; abstract 1:82 F '48; Electrician 139:1067 O 10 '47

COAL supply—Great Britain—Continued

Fuel utilization; coal economy measures. Elec R (Lond) 141:730 N 14 '47
 National coal board report. Electrician 141:276 JI 23 '48
 National fuel plan. W. M. Carr. Gas J (Lond) 252:399-400 N 19 '47
 Price structure of coal and its relationship to preparation and utilization. El. S. Grummell. Gas J (Lond) 252:401-2 N 19 '47; Discussion. 252:520+ D 3 '47

Italy

European fuel problem; reluctant use of low-grade coal. Chem Age (Lond) 59:212 Ag 14 '48

United States

Changing patterns of fuel consumption. Survey of Cur Bsns 28:8-9 JI '48
 Coal conservation. J. Boyd. Il Min Cong J 34:26-8+ Je '48
 Coal for a growing nation. K. C. Richmond. Il map Coal Age 53:58-63 Ja '48
 Coal hits stride. Bsns W p20 N 1 '47
 Coal; today's need exceeds that of peacetime period; abstract. F. S. McConnell. Mech Eng 70:147-8 F '48
 Coking coal survey started by Bureau of mines. Heat & Ven 45:69 Ag '48
 Nation's coal reserves can last 1500 years, says bituminous expert; abstract. H. J. Rose. Sci Am 178:29-30 Ja '48
 New appraisal of the fuel situation. J. Van Brunt. bibliog Paper Tr J 126:65-7+ Je 24 '48; Same cond. Dom Eng 171:152+ My '48
 New estimates place U.S. coal reserves at 250 years' supply; abstract. A. B. Crichton. Chem & Eng N 26:605 Mr 1 '48

COAL tar colors

Origin of the coal-tar dye industry. J. B. Gallent. Am Dyestuff Rep 37:319-21+ My 17 '48

COAL tar products

Coal-tar chemicals. G. A. Bieber. Chem Ind 63:381-2 S '48
 Economic trends in coal tar hydrocarbons. J. M. Weiss. Chem & Eng N 26:238-40 Ja 26 '48
 Solvent extraction of indene and coumarone from coal tar light oils. A. W. Gauger and J. N. Breston. bibliog Inst Pet J 33:687-94 N '47
 Supplies of benzene and naphthalene. J. M. Weiss. Chem Eng Prog 44:sup 16+ JI '48
 Tar and its derivatives. W. K. Hutchinson. Chem Age (Lond) 58:808-10 Je 12 '48

Prices

Average monthly quotations in 1947. Steel 122:328 Ja 5 '48
 Coal-tar chemicals; 1947 market trends. Oil Paint & Drug Rep 153:33-4 sec 2 F 16 '48

Statistics

Coal-tar chemicals. Published in weekly numbers of Oil, paint and drug reporter
 Coal-tar products imports in 1947 reported by U.S. Oil Paint & Drug Rep 153:4 My 17 '48
 Coal-tar products 1947 import totals. Oil Paint & Drug Rep 153:50 Je 7 '48

COAL tipples

Fast replacement saves heavy demurrage; tipple gear wheel. Il Ry Mech Eng 122:153-4 Ap '48

COAL trade

Annual Anthracite conference of Lehigh university, 6th, Bethlehem, Pa. May 6-7. Coal Age 53:144+ Je '48
 Helping coal via public talks; speeches by officials and salesmen back up company and industry advertising. H. C. Woods. Il Coal Age 53:118-20 My '48
 What will the industry do about fine coal? J. W. Woome. Il Min Cong J 34:34-6 JI '48

See also

Coal delivery

Advertising

How a misunderstood 'industry is telling the public the facts; Bituminous coal institute. R. C. Mulligan. Il Ptr Ink 222:36-7 Mr 26 '48

Trade association and retailers finance merchandising program; soft coal cooperative venture. J. N. Stuart. Il Ptr Ink 225:35-7 O 8 '48

Securities

Broader markets for coal? with statistical summary of leading companies. G. L. Merton. Il Mag of Wall St 81:481-3+ Ja 31 '48

Statistics

Anthracite and bituminous coal, 1941-1946. Survey of Cur Bsns 1947 Sup p 162-3 [supplemented in monthly numbers]

Austria

Production and imports. Austria, 1947. For Comm W 31:20-1 My 8 '48

Brazil

Imports of coal and coke into Brazil, 1946 and 1947; table. For Comm W 30:25 F 28 '48

Egypt

Coal; consumption, imports, and suppliers. Egypt, 1939, 1946, 1947. For Comm W 32:24 Ag 14 '48
 Coal imports and prices, Egypt; with data for selected years, 1937-1947. For Comm W 31:21-2 Ap 24 '48

Europe

European recovery; changing trade in coal. Economist 155:674-6 O 23 '48

Great Britain

Britain's coal industry. H. Ozanne. World Oil 127:42+ F '48
 Britain's nationalized coal industry reports on first year's results. Comm & Fin Chr 168:409 JI 29 '48
 Coal and the Nation; comments on the first report of the National coal board. Economist 155:111-15 JI 17 '48
 Coal board's first year. Economist 153:1055-6 D 27 '47
 Coal production problem. Economist 155:275-7 Ag 14 '48
 NCB's profitable by-products; close integration with iron, steel and chemicals. Chem Age (Lond) 59:149-50 JI 31 '48
 Questions about coal. Economist 154:679-80 Ap 24 '48

Netherlands

Netherlands coal situation as viewed by the Dutch. For Comm W 30:17 Ja 3 '48

Netherlands Indies

Production and imports, 1947. For Comm W 31:29 My 22 '48

Poland

Coal production and distribution, 1946 and 1947. For Comm W 30:25-6 F 28 '48

South Africa

South African coal position. W. R. Gordon. Can Min J 69:84-6 Je '48

Sweden

Swedish imports of coal and coke, 1947. For Comm W 31:30 My 29 '48

United States

Anthracite; annual review and forecast. R. Y. Williams. Il Min Cong J 34:89-91 F '48
 Buyers' market for coal. Bsns W p26 O 2 '48
 Coal industry has biggest peacetime year; review of 1947. El. Evans and others. Il Min & Met 29:127-35 F '48
 Coal situation. H. A. Glover. Comm & Fin Chr 167:2420+ Je 3 '48

COAL washing

Coal losses in washer rejects. J. D. Martin. Il Min Cong J 33:44-6 N '47

Cyclonic washing of fines; abstract. J. W. MacDonald. Coal Age 52:132+ D '47

Heavy medium in the Baum jig; new washing process. B. M. Bird. diags Coal Age 53:107-12 F '48

How the cyclone works on mineral separations; Driessen cyclone has proved ability as a thickener and as a concentrator in coal washing. Il diags Eng & Min J 148:74-5 D '47

COAL washing—Continued

- Preparation characteristics of Maryland coals. W. L. Crentz and T. Fraser, map U S Bur Mines Tech Pa 70:1-65; pa 15c Supt. of doc. '47
 Washability studies of the Clark and Gholson coal beds at Boothton, Ala. B. W. Gandrud and H. L. Riley, 10pls U S Bur Mines Rep of Invest 4160:1-11 '47
 Washery small but efficient; Brophy coal co. il diags Coal Age 53:98-101 S '48

COAL waste

- Coal losses in washer rejects. J. D. Martin. il Min Cong J 33:44-6 N '47
 Dried anthracite silt is fuel for Hunlock Station extension. O. E. Matter and D. W. Holloway. il diags Elec World 130:89-92 O '48
 New fuel source will be tapped by process for converting anthracite silt to gas. Heat & Ven 45:126-1 Ap '48
 Ten years' experience burning lignite and discarded slack coal. A. R. Eastcott, il diag Power 92:276-9 My '48

COALING stations

- Coaling-plant objectives. Ry Mech Eng 122:7-8 Ja '48

- COAST and geodetic survey.** See United States—Coast and geodetic survey

- COAST guard.** See United States—Coast guard

COASTAL plains

- North Carolina coastal plain floor. W. Berry. bibliog diag Geol Soc Bul 59:87-9, pl 1 F '48

- COATING materials.** See Finishing materials

- COAXIAL cables.** See Radio lines; Telephone cables—Coaxial cables; Television cables

COBALT

- Cobalt, 1947. H. W. Davis. Eng & Min J 149:87-8 F '48

- Electrolytic conductivity as a method for studying electronic transitions in elements; application to iron, nickel and cobalt. W. R. Ham and C. H. Samans. bibliog il diag Am Soc for Metals Trans 39:73-99; Discussion. 93-108 '47

- Fischer-Tropsch synthesis; tests of cobalt catalysts at atmospheric pressure. R. B. Anderson and others. bibliog flow diag Ind & Eng Chem 39:1548-54 D '47

- Fischer-Tropsch synthesis with cobalt catalysts. S. R. Craxford. bibliog Soc Chem Ind J 66:440-4 D '47

- Freezing points of cobalt and nickel. M. S. VanDusen and A. I. Dahl. bibliog diags J Res Nat Bur Stand 53:291-5 S '47; Same cond. Science 106:428-9 O 31 '47

- Kinetics, mechanism and activation energy of the cobaltous ion catalyzed decomposition of ozone. G. R. Hill. bibliog Am Chem Soc J 70:1306-7 Ap '48

- Optical properties of Ni, Co, Fe, Mn, and Cd. F. Bueche. bibliog diags Opt Soc Am J 38:806-10 S '48

- Review of cobalt properties. Cer Ind 51:73 S '48

- Spectral emissivity of iron and cobalt. H. B. Wahlen and H. W. Knop, Jr. Phys R 74:687-9 S 15 '48

- Studies of the Fischer-Tropsch synthesis; properties of reduced cobalt catalysts. R. B. Anderson, W. K. Hall and L. J. E. Hofer. bibliog diags Am Chem Soc J 70:2465-72 J '48

- Studies of the Fischer-Tropsch synthesis; properties of unreduced cobalt catalysts. R. B. Anderson and others. bibliog Am Chem Soc J 69:3114-19 D '47

Analysis

- Determination of cobalt; abstract. H. W. Chatfield and H. H. Topper. Paint Oil & Chem R 11:30 Ag 19 '48

- Spectrochemical determination of nickel in electrolytic cobalt using a current-regulated direct-current arc. C. A. Bridger and G. W. Marks. bibliog 2pls U S Bur Mines Rep of Invest 4198:1-7 '48

Isotopes

- Non-exchange of radioactive cobalt between hexammino cobaltic and cobaltous chlorides. K. J. McCallum and S. A. Hoshowsky. J Chem Phys 16:254-5 Mr '48
 Radioactive needles containing cobalt 60. W. G. Myers. Science 107:621 Je 11 '48

- (H³,p) reaction in Rh and Co and probable evidence of the di-neutron. D. N. Kundu and M. L. Pool. bibliog Phys R 73:22-6 Ja 1 '48

- Relative energies of the gamma-radiations from Co⁶⁰ and Zn⁶⁵. E. N. Jensen and others. bibliog Phys R 73:529 Mr 1 '48
 Resonance scattering of neutrons by cobalt. S. P. Harris and others. bibliog Phys R 72:866-7 N 1 '47

Metallography

- Transformation of cobalt. A. R. Troiano and J. L. Tokich. bibliog il diags Metals Tech 15:TP2348 1-12 Ap '48

Physiological effect

- Industrial hygiene aspects of the cemented tungsten carbide industry; abstract. L. T. Fairhall and others. Nat Safety N 58:118 O '48

- Trace metals in human nutrition; cobalt, copper, manganese and zinc as dietary essentials. W. F. J. Cuthbertson. bibliog Chem & Ind p391-3 Je 19 '48

COBALT alloys

- Age hardening copper-cobalt-manganese alloys. J. W. Fredrickson. bibliog il Am Soc for Metals Trans 38:593-617 '47

- Cobalt-chromium binary system. A. R. Elsey and others. bibliog il Metals Tech 15:TP2392 1-24 Je '48

- Deposition of nickel and cobalt by chemical reduction. A. Brenner and G. Riddell. il J Res Nat Bur Stand 39:385-95 N '47

- Development of a turbosupercharger bucket alloy. E. Epremian. bibliog Am Soc for Metals Trans 39:261-73; Discussion. 273-80 '47

- Effect of composition and structural changes on the rupture properties of certain heat resistant alloys at 1500 F. N. J. Grant. il Am Soc for Metals Trans 39:368-403 '47
 Electrodeposition of tungsten alloys containing iron, nickel, and cobalt. A. Brenner and others. bibliog il J Res Nat Bur Stand 39:351-83 O '47; Abstract. Steel 121:63+ D 29 '47

- Stress rupture and creep properties of heat resistant gas turbine alloys. N. J. Grant. bibliog il diags Am Soc for Metals Trans 39:281-325; Discussion. 325-34 '47

- Structural variations in gas turbine alloys revealed by the stress rupture test. N. J. Grant. il Am Soc for Metals Trans 39:335-59; Discussion. 359-67 '47

See also

- Iron alloys—Cobalt Iron alloys—Nickel
 alloys cobalt alloys

COBALT carbide

- Role of bulky cobalt carbide in the Fischer-Tropsch synthesis. S. Weller, L. J. E. Hofer and R. B. Anderson. bibliog Am Chem Soc J 70:799-801 F '48

- X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. bibliog Am Chem Soc J 69:2497-500 O '47

COBALT carbonyl

- Preparation of aldehydes from alkenes by the addition of carbon monoxide and hydrogen with cobalt carbonyls as intermediates. H. Adkins and G. Krsek. bibliog Am Chem Soc J 70:333-6 Ja '48

COBALT compounds

- Kinetics of carbiding and hydrocarbon synthesis with cobalt Fischer-Tropsch catalysts. S. Weller. bibliog diag Am Chem Soc J 69:2432-6 O '47

- Non-exchange of radioactive cobalt between hexammino cobaltic and cobaltous chlorides. K. J. McCallum and S. A. Hoshowsky. J Chem Phys 16:254-5 Mr '48

- Polarographic investigation of hexamminecobaltic chloride in various supporting electrolytes. H. A. Laitinen and others. bibliog Am Chem Soc J 70:2999-3002 S '48

- Quadridentate amines; some coordination compounds of cobalt(III) and triethylenetetramine. F. Basolo. bibliog Am Chem Soc J 70:2634-8 Ag '48

- Stereochemistry of complex inorganic compounds; configurations of some compounds as revealed by rotatory dispersion curves. T. D. O'Brien, J. P. McReynolds and J. C. Bailar, Jr. bibliog Am Chem Soc J 70:749-55 F '48

COBALT compounds—Continued

Stereochemistry of complex inorganic compounds; the diastereoisomers of *dextro-tartrato-bis-ethylenediamine cobaltic ion*. H. B. Jonassen, J. C. Bailar, Jr. and E. H. Huffman. *bibliog Am Chem Soc J* 70:756-8 F '48

See also

Vitamins—Vitamin B₁₂

COBALT metallurgy

Concentration of copper-cobalt ores from the Blackbird district, Lemhi county, Idaho. H. R. Wells and others. *4pls U S Bur Mines Rep of Invest* 4279:1-21 '48

Electrometallurgy

Electrolytic cobalt process commercially feasible. *Chem & Eng N* 26:562 F 23 '48

Electrowinning of cobalt from cobaltite concentrates; with cost data. F. K. Shelton and others. *bibliog 7pls U S Bur Mines Rep of Invest* 4172:1-98 '48

COBALT mines and mining**Idaho**

Concentration of copper-cobalt ores from the Blackbird district, Lemhi county, Idaho. H. R. Wells and others. *4pls U S Bur Mines Rep of Invest* 4279:1-21 '48

COBALT oxide

Cobalt as a glass color. *Cer Ind* 51:67 Ag '48

Cobalt colors other than blue. *Cer Ind* 51:92-3 O '48

COBALT plating

Deposition of nickel and cobalt by chemical reduction. A. Brenner and G. Riddell. *il J Res Nat Bur Stand* 53:385-95 N '47

COBALT thiocyanate

Detection of certain chlorinate tertiary aliphatic amines. A. J. Cruikshank and others. *Anal Chem* 19:849-50 N '47

COBALTINITRITES

Explosion of cobaltinitrite. O. Horowitz. *bibliog Anal Chem* 20:59 Ja '48

COCA-COLA export corporation

International house organ to build world understanding through trade; Coca-Cola publication reaches 6,000 in 70 countries. V. J. Dallaire. *il Ptr Ink* 223:30 Je 25 '48

COCAINE

Experimental and theoretical approach to the mechanism of cocaine action. A. M. Shanes. *bibliog Science* 107:679-81 Je 25 '48

COCHRANE, John D. Jr

Cochrane receives Hyatt award. *pers Chem & Eng N* 26:1768, cover Je 14 '48; *Mod Plastics* 25:115 Je '48

COCKERELL, Theodore Dru Alison, 1866-1948

Work on bees and other insects. H. F. Schwarz. *Science* 108:295-6 S 17 '48

COCKROACHES

Effect of ryanodine on the oxygen consumption of *periplaneta americana*. C. C. Hassett. *Science* 108:138-9 Ag 6 '48

Insecticidal activity of 2,2-bis-(2-chloro-thienyl)-1,1,1-trichloroethane. R. L. Metcalf. *bibliog Science* 108:84-5 Jl 23 '48

Newer insecticides against roaches. G. E. Gould. *Soap & San Chem* 24:147+ Mr '48

Roach powder evaluation. F. O. Hazard. *il Soap & San Chem* 24:125+ S '48

Super market's roach problem. D. DeLong. *il Soap & San Chem* 24:143+ Ag '48

COCOA

After the turn of the year; crux of the price situation. C. C. Day. *Comm & Fin Chr* 167:334 Ja 22 '48

Cadbury brothers, limited; statement by the chairman at 49th annual general meeting. L. Cadbury. *Economist* 154:689-90 Ap 24 '48

Cocoa demand goes up, supply comes down. V. McKay. *il Food Ind* 20:704-6 My '48

Cocoa may be still too high. *Barron's* 28:36-7 Ap 12 '48

Cocoa squeeze may not reach old peak. *Barron's* 28:37 Jl 12 '48

Dearer cocoa and chocolate. *Economist* 154:78 Ja 10 '48

Early Easter conspires with poor crop in new squeeze on cocoa prices. *Barron's* 28:36 Ja 26 '48

Gold Coast cocoa production; swollen shoot disease, a threat to industry. *Economist* 155:474 S 18 '48

Is cocoa too dear? *Economist* 153:769-70 N 8 '47

Spot cocoa cheaper at usual time of rise. *Barron's* 28:37 S 6 '48

West African cocoa supply likely to rise. *Barron's* 28:36-7 O 25 '48

COCONUT, Dried

Desiccated-coconut production and exports, Republic of the Philippines. *For Comm W* 31:27 My 1 '48

COCONUT oil

Changes in composition of the fatty phase during the Twitchell splitting of coconut oil; abstract. H. H. Mueller and E. K. Holt. *Soap & San Chem* 23:33 N '47

Coconut oil market. J. R. Skeen. *Soap & San Chem* 24:41+ Ja '48

Coconut or copra oil, 1941-1946. Survey of Cur Bsns 1947 Sup p 116 [supplemented in monthly numbers]

COCONUTS

Coconut stages a comeback; General Foods unit rebuilds bombed out plant in Philippines. *il Food Ind* 19:1660-4 D '47

COD liver oil

Norway's cod-liver-oil production, stocks, prices, and exports. *For Comm W* 32:34-5 S 25 '48

COEUR, Jacques, 1395-1456

Masters of money. *por Fortune* 37:93 Ap '48

COFFEE, Harry Buffington, 1890-

Sketch. *por(cover) Bsns W* p6 F 7 '48

COFFEE

Coffee powder; evaporating ice from frozen liquid extract of coffee; patent. *Food Ind* 20:474+ Mr '48

'48 Spice awards. *il Mod Packaging* 22:132-3 O '48

From waste pulp of the coffee bean comes a new corn-substitute cattle feed. *Science* 106:519 N 28 '47

Sheet metal work in coffee roasting; cyclone separators. *il Sheet Metal Worker* 39:53-4 Ap '48

Warehouses and coffee processing plant in São Paulo. *il plan diags Arch Forum* 87:109 N '47

Analysis

Determination of chlorogenic acid in coffee; ultraviolet absorption and iodometric oxidation methods. R. G. Moores, D. L. McDermott and T. R. Wood. *bibliog Anal Chem* 20:620-4 Jl '48

COFFEE, Frozen

Coffee powder; evaporating ice from frozen liquid extract of coffee; patent. *Food Ind* 20:474+ Mr '48

COFFEE brewers

Improving commercial coffee urns. H. J. Hense. *il diags Am Gas Assn Mo* 30:10-12 Ap '48

COFFEE filters

Hinged carton; single piece of board makes folding box with die-cut platform inside to display filter for coffee maker. *il Mod Packaging* 21:119+ N '47

COFFEE pots**Rating**

One more automatic coffee maker; Cory Automatic. *il Consumers Res Bul* 20:28 N '47

COFFEE trade

Coffee industry weighs increased promotion. *Ptr Ink* 222:98 F 6 '48

Coffee unaffected by commodity drop. *Barron's* 28:29 Ag 30 '48

Old coffee surpluses unlikely to recur. *Barron's* 28:37 O 25 '48

Statistics

Coffee, 1941-1946. Survey of Cur Bsns 1947 Sup p 135 [supplemented in monthly numbers]

Brazil

Brazil's coffee crop, stocks, and exports, 1947 and outlook for 1948. *For Comm W* 31:23-4 Ap 10 '48

Cameroons

Co-operative activities in the Cameroons; coffee planting societies. *Int Labour R* 56:350-1 S '47

COFFEE trade—Continued

Cuba

Cuban revolution; packaged ground coffee. *il* Mod Packaging 21:122-3 Je '48

Dominican Republic

Production and exports, 1947-48 crop. For Comm W 31:26 My 1 '48

Ecuador

Coffee crop and exports. For Comm W 29:23 D 6 '47

Great Britain

Coffee campaign by British government. Bsns W p 125-6 Mr 20 '48

Haiti

Coffee production and exports. For Comm W 29:22 N 8 '47

Italy

Coffee and coffee substitutes; sales tax increased. For Comm W 29:12 N 8 '47

Salvador

Coffee exports, El Salvador, 1947-48. For Comm W 32:29 Ag 21 '48

Coffee; legal basis for assessment of export tax modified; export tax established for 1947-48 crop year. For Comm W 29:17 D 6 '47

COFFEE urns. See Coffee brewers

COFFER personnel, Chicago

Matching the science-trained worker with his job. T. Coffey. J Chem Educ 25:571-3 O '48

COFFERDAMS

Century of progress marks many improvements in construction of locks and dams. C. E. Jansen. *il* map diag Civil Eng 18:628-33+ O '48

Cofferdam protects nearby foundations while Boston builders excavate. A. D. Quinn. *il* plan diags Eng N 140:1018-21 Je 24 '48

Earth filled cofferdam bored approach footings employed on Ohio highway bridge. *il* Roads & Sts 91:94-6 Je '48

New deep piers save old bridge; piles encased with concrete; bridge of Canadian national railway. N. S. Bateman. *il* Eng N 140:115-16 Ja 22 '48

River takes sliding for N.Y.C. twentieth century parade; major line change, eliminating curve at Little Falls, required carving new river channel. *il* plan Ry Age 123:904-7 N 22 '47

Rock-fill cofferdam in Soo rapids. *il* Constr Methods 30:36-41 O '48

Western Europe's biggest power dam; Genissiat hydro plant on the Rhone river. W. G. Bowman. *il* diags Eng N 140:1027-9 Je 24 '48

COFFERDAMS, Concrete

Concrete cofferdam at Bull Shoals. *il* plan diags Constr Methods 30:86-90 Ap '48

COFFIN foundation

Charles A. Coffin medal competition for 1947 announced. *il* Edison Elec Inst Bul 15:440 D '47

COFFINS

All steel burial caskets mass produced; Warren stamping co. J. R. Barefoot. *il* diag Iron Age 162:72-7 Jl 8 '48

COHEN, Ernst Julius, 1869-1944

Dr E. Cohen as historian of chemistry. C. A. Browne. pors J Chem Educ 25:302-7, front Je '48

E. J. Cohen memorial lecture. F. G. Donnan. pors Chem Soc J p 1700-6 D '47

Scientific work. A. L. T. Moesveld. J Chem Educ 25:308-14 Je '48

COHEN, George, sons, and company

Statement by the chairman. C. M. Cohen. Economist 155:556 O 2 '48

COHN, Edwin Joseph, 1892-

Theodore William Richards medal award. pors Chem & Eng N 26:1514-15, cover My 24 '48

COHU, La Motte Turck, 1895-

Cohu quits TWA. por Aviation W 48:13 My 10 '48

COILS, Pipe

Clearing water-cooling coils internally. Elec World 129:47-8 Ja 3 '48

Friction in pipe coils or bends. W. L. Nelson. Oil & Gas J 46:281 Ap 1 '48

Pipe coils for panels are shop fabricated. *il* Heat & Ven 44:69 D '47

Refinement of evaporator coils for packaged units. T. C. Gleason. diag Refrig Eng 55:549-51 Je '48

Selecting chilled water coils. J. A. Bishop. Heating-Piping 20:83-7 S '48

Simplified figuring of cooling coils too often unsatisfactory. Heating-Piping 19:102-3 D '47

COIN machines. See Vending machines

COIN operated devices

Coin switch with molded Durez phenolic base and cover. *il* Mod Plastics 26:264-5 S '48

COINAGE

Coinage in 1947. Economist 154:945 Je 5 '48

See also

United States—Mint

COINCIDENCE counting

Altitude dependence of high energy atmospheric showers. H. L. Kraybill. Phys R 73:632 Mr 15 '48

Coincidence circuit of medium resolution. H. L. Schultz and E. Pollard. diag R Sci Instr 19:617-20 O '48

Coincidence-counting system of high resolution. H. L. Schultz and R. Beringer. diags R Sci Instr 19:424-7 Jl '48

Coincidence device of 10^{-8} - 10^{-9} second resolving power. Z. Bay and G. Papp. *il* diag R Sci Instr 19:565-7 S '48

Coincidence experiments in antimony 124. E. T. Jurney and A. C. G. Mitchell. bibliog diag Phys R 73:1153-6 My 15 '48

Coincidence experiments on Sc⁴⁶, Ga⁷², Au¹⁹⁸, and Rb⁸⁶. E. T. Jurney. Phys R 74:1049-52 N 1 '48

Coincidence measurements; beta spectra. M. L. Wiedenbeck and K. Y. Chu. bibliog diags Phys R 72:1164-70 D 15 '47

Coincidence measurements; internal conversion. M. L. Wiedenbeck and K. Y. Chu. bibliog diags Phys R 72:1171-5 D 15 '47

Coincidence study of gold. C. E. Mandeville and M. V. Scherb. bibliog Phys R 73:634-5 Mr 15 '48

Effective path length through a vertical cosmic-ray telescope. E. E. Witmer and M. A. Pomerantz. bibliog diags Franklin Inst J 246:293-309 O '48

Geometric factors underlying coincidence counting with Geiger counters. H. E. Newell, jr. diags R Sci Instr 19:384-9 Je '48

High speed coincidence circuit. R. H. Dicke. diags R Sci Instr 18:907-14 D '47

High speed coincidence circuit used for multipliers. E. Baldinger and others. diags R Sci Instr 19:473-4 Jl '48

Proton-gamma-ray coincidence counting with cyclotron bombardment. B. B. Benson. bibliog *il* diags Phys R 73:7-15 Ja 1 '48

Self-delayed coincidences with scintillation counters. S. DeBenediti and others. Phys R 73:1404-5 Je 1 '48

Use of coincidence counting methods in determining nuclear disintegration schemes. A. C. G. Mitchell. bibliog diags Rs Mod Phys 20:296-304 Ja '48

COINS

Story of the new Benjamin Franklin half-dollar. N. T. Ross. Franklin Inst J 246:53-60 Jl '48

Bibliography

Numismatic literature. Published quarterly by American numismatic society, B'way between 155th and 156th sts, New York 32 (\$1)

Dictionaries

Dictionary of numismatic names, by A. R. Frey; with glossary of numismatic terms in English, French, German, Italian, Swedish, by M. M. Salton. 311p, 94p \$5 Barnes & Noble, 5th av. & 18th st, New York 3 '48

COKE

High ash content of coke cuts blast furnace output. Blast F & Steel Pl 36:361 Mr '48

New process extends steel industry's reserves of coal for making blast furnace coke. Blast F & Steel Pl 36:1104 S '48

Outlook for cupola raw materials; foundry coke. S. Weiss. *il* Foundry 75:80-1+ D '47

COKE—Continued

Production of a metallurgical coke from the resin of wallaba wood (*eperua* sp.), R. H. Farmer and W. G. Campbell, *Soc Chem Ind J* 67:233-4 Je '48

Production of hydrogen and synthesis gas by the oxygen gasification of solid fuel, C. C. Wright, K. M. Barclay and R. F. Mitchell, *bibliog il diags Ind & Eng Chem* 40:592-600 Ap '48

Proper sizing, screening and preparation of blast furnace coke, D. M. Cromwell and C. A. Covington, *Blast F & Steel* 36:965-71 Ag '48; Abstract, *Iron & Steel Eng* 25:109-10 Ag '48

Smoke abatement; the role of gas and coke; annual conference of the National smoke abatement society, *Gas J (Lond)* 252:355-6 N 12 '47

Prices

Furnace and foundry coke, Connellsville; monthly, 1929-1947; tabulations, *Iron Age* 161:302 Ja 1 '48

Testing

A.S.T.M. standards on coal and coke (with related information), 156p pa \$2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

Effect of coke quality on blast furnace iron tonnage, E. J. Gardner, *Blast F & Steel* 36:707-11 Je '48; Same, *Steel* 123:94+ O 4 '48; Excerpts, *Iron & Steel Eng* 25:110-11 Ag '48

COKE industry

Big demand for coke prompts higher efficiencies; quality not as good as formerly, C. C. Russell, *Min & Met* 29:132-3 F '48

Outlook for cupola raw materials; foundry coke, S. Weiss, *il Foundry* 75:80-1+ D '47

Statistics

Coke, 1941-1946, Survey of Cur Bsns 1947 Sup p 164 [supplemented in monthly numbers]

Germany

Some observations on coking practice in Germany, F. H. Reed, *bibliog 19pls U S Bur Mines Information Circ* 7462:1-74 '48

Great Britain

London and counties coke association; annual general meeting, London, Oct. 20, *Gas J (Lond)* 252:240-2 O 29 '47

COKE manufacture

Carbonizing properties of coking coals; effect of oxidation in storage, R. E. Brewer and others, *bibliog(69 ref) il Ind & Eng Chem* 40:1243-54 Jl '48

Desulfurization of coal during carbonization; abstract, R. E. Brewer and J. K. Ghosh, *Am Gas J* 169:37 S '48

Measurement of coking pressure in a small laboratory oven, B. W. Naugle and others, *bibliog 9pls U S Bur Mines Rep of Invest* 4285:1-15 '48

Modern coke plant, T. J. Ess, *bibliog flow sheets il plans diags Iron & Steel Eng* 25:C3-37 Ja '48

Preparation of coal for coke production, P. E. Jordan, *Iron & Steel Eng* 25:56-9 My '48

Selection of coals for manufacture of coke, C. C. Russell, *il map Am Gas Assn Proc* 1947:733-56 *bibliog(p756)*

Some observations on coking practice in Germany, F. H. Reed, *bibliog 19pls U S Bur Mines Information Circ* 7462:1-74 '48

Survey of carbonizing properties of American coals; Bureau of mines coal carbonization laboratory, 1946-1947, J. D. Davis, *il diag Am Gas Assn Proc* 1947:87-98

See also

Coke ovens
Coke plants

By-products

Mechanical dehydration of coke oven tar emulsion, E. W. Young, *Am Gas Assn Proc* 1947:698-700

Modern coke plant, T. J. Ess, *bibliog flow diag il plan diags Iron & Steel Eng* 25:C20-9 Ja '48

Recovery of coke-oven ammonia, P. J. Wilson and J. H. Wells, *bibliog flow diag diag Blast F & Steel Pl* 36:806-12, 961-4 Jl-Ag '48

U.S. Steel, into chemicals? *diag Bsns W* p30+ Ap 10 '48

See also

Coke oven gas
Coke plants, By-product

Cooling

Quenching car air conditioned; built of Mayari R low-alloy, high-strength steel; plant of Bethlehem steel co. *il Blast F & Steel Pl* 36:88 Ja '48

COKE-oven gas

English boiler house utilizes coke oven and blast furnace gas as fuel, *Blast F & Steel Pl* 35:1388+ N '47

Fuel utilization in iron and steel works, N. H. Turner and F. A. Gray, *diags Iron & Steel Inst J* 153:183-98 no 1 '46; Same abr. *Blast F & Steel Pl* 34:1408-12+ N '46; Discussion, *Iron & Steel Inst J* 153:199-216 no 1 '46

Gaseous and liquid fuels in iron and steel works, J. B. E. Brooke and J. S. Bryan, *il diags Iron & Steel Inst J* 158:111-24 Ja '48; Discussion, 160:35-94 S '48

Higher gas production from coke oven plants, W. C. Wardner, *Am Gas Assn Mo* 30:30-1+ O '48

New process for the recovery of ethylene from coke oven gas, P. M. Schuftan, *bibliog flow diag il Chem & Ind* p99-104 F 14 '48
Régénération des huiles de débenzolage usées, sans distillation; procédé des Houillères Nationales, J. Carabasse, *diags Chimie & Ind* 58:228-33 S '47

Analysis

Determination of acetylene in gas, J. A. Shaw and E. Fisher, *bibliog il Anal Chem* 20:533-6 Je '48

COKE ovens

Coke oven machinery, R. Berg, *il diags Iron & Steel Eng* 25:98-104; Discussion, 104-5 Ap '48

Les fours à coke, à libre dilatation, *il Génie Civil* 124:396-7 O 15 '47

Measurement of coking pressure in a small laboratory oven, B. W. Naugle and others, *bibliog 9pls U S Bur Mines Rep of Invest* 4285:1-15 '48

Modern coke plant, T. J. Ess, *bibliog il diags Iron & Steel Eng* 25:C9-18 Ja '48

National open hearth steel committee and the blast furnace, coke oven and raw materials committee of the American institute of mining and metallurgical engineers; conference program, *Blast F & Steel Pl* 36:sup 23-4+ Ap '48

One of world's largest coke oven batteries placed in operation; Allequippa works of Jones & Laughlin steel corporation, *il Blast F & Steel Pl* 36:1118 S '48

Some observations on coking practice in Germany; slanting type Didier coke ovens, *Städtische werke, Karlsruhe*, F. H. Reed, *3pls U S Bur Mines Information Circ* 7462: 69-74 '48

Testing manufacture of oil gas, R. R. Grant, *Am Gas Assn Mo* 29:545-9+ D '47

COKE plants**Equipment**

Annual coke production at Lorain works increased by 800,000 net tons, *il Blast F & Steel Pl* 36:325-31 Mr '48; Same cond, *Steel* 122:92+ Mr 22 '48; Same cond, *Iron & Steel Eng* 25:113-15 Ap '48

Coke oven machinery, R. Berg, *il diags Iron & Steel Eng* 25:98-104; Discussion, 104-5 Ap '48

Selection of engineering materials for coke plants, C. F. Pogacar, *il Blast F & Steel Pl* 36:439-42, 555-9 Ap-May '48; Same abr. *Steel* 122:111+ Je 7 '48

Waste

Pilot plant for treatment of phenol still (coke) wastes, N. L. Nussbaumer, *flow diag Sewage Works J* 20:872-5 S '48

COKE plants, By-product

Annual coke production at Lorain works increased by 800,000 net tons, *il Blast F & Steel Pl* 36:325-31 Mr '48; Same cond, *Steel* 122:92+ Mr 22 '48; Same cond, *Iron & Steel Eng* 25:113-15 Ap '48

COKE plants, By-product—Continued

- Modern coal handling system important unit in Lorain expansion. *il plan Iron & Steel Eng* 25:44-6 Mr '48
- Modern coke plant. T. J. Ess. bibliog flow sheets *il plans diags Iron & Steel Eng* 25: C3-37 Ja '48
- One of world's largest coke oven batteries placed in operation; Alliquippa works of Jones & Laughlin steel corporation, *il Blast F & Steel Pl* 36:1118 S '48

COKE quenching. See Coke manufacture—Cooling

COLBERT, William W. 1923-Sketch. *por Am Cer Soc Bul* 26:352-3 O 15 '47

COLCHICINE

- Structure of ring C-of colchicine. H. R. V. Arnstein and others. bibliog *Am Chem Soc J* 70:1669 Ap '48
- Studies on the structure of colchicine; syntheses in the biphenyl series. H. R. Frank, P. E. Panta, and D. S. Tarbell. *Am Chem Soc J* 70:2314-20 Jl '48

COLCORD, Bradford C. 1897-Sketch. *por Explosives Eng* 26:132-3 S '48

COLD

See also

- Cooling
- Refrigeration and refrigerating machinery
- Temperature, Low

Physiological effect

- Arctic research at Point Barrow, Alaska. L. Irving. *Science* 107:284-6 Mr 19 '48
- Survival time of various warm-blooded animals in extreme cold. S. M. Horvath and others. *Science* 107:171-2 F 13 '48

Therapeutic use

- Use of refrigeration as anesthetic and in preventing shock; abstract. E. A. Sellers. *Refrig Eng* 55:580 Je '48

COLD (disease)

- Columbus Mutual battles colds among employees. F. M. Green. *Nat Underw (Life ed)* 52:12 O 1 '48
- Common cold; a note regarding isolation of an agent. N. H. Topping and L. T. Atlas. *bibliog Science* 106:636-7 D 26 '47
- Common cold and influenza; abstract. D. A. Dukelow. *Nat Safety N* 57:44 Je '48
- Susceptibility to colds; an experimental investigation amongst factory workers; abstract. J. P. P. Stock. *J Ind Hygiene* 30: sup 17-18 Ja '48

COLD metal process company

- Steckel patent suit nears end of road. *Bsns W p26+* My 29 '48

COLD storage

- Cold room insulations. W. S. Woodside. *il Refrig Eng* 56:223-6+ S '48
- Low temperature storage retains quality of dried fruit; sugaring, darkening, growth of mold prevented by storage at 32 deg. F. and reduced humidity. W. R. Barger and others. *bibliog il Food Ind* 20:337-40 Mr '48
- Odor removal studies in refrigerated storage. M. Uota and R. M. Smock. *il Refrig Eng* 55:256-9+ Mr '48
- Refrigeration of lemons and grapefruit. H. M. Hendrickson and J. R. MacRill. *plans diags Refrig Eng* 56:1-10 sec 2 Jl '48

See also

- Apples—Storage
- Refrigeration and refrigerating machinery

Costs

- Freezer locker plant economics. G. H. Ward. *il Refrig Eng* 56:410-11+ N '48

COLD storage locker insurance. See Insurance, Cold storage locker**COLD storage locker plants**

- Locker plants construction calls for special technique. D. Clark. *il plan diags Am Bld* 69:76-7+ N '47
- Locker plants reach out; offer many services, including processing; Columbia and Susquehanna locker plants. B. H. Kline. *il plans diags Food Ind* 20:708-13 My '48

- Refrigeration piping and control for locker and processing plant. J. H. Carter. *il Heating-Piping* 20:81-3 Ag '48
- Unique locker plant floor design. E. Wilbuschewich. *il diags Refrig Eng* 55:264 Mr '48

Insurance requirements

- Cold storage locker plant coverage. U. M. Lelli. *Rough Notes* 91:20+ My '48

COLD storage warehouses

- Huge refrigerated warehouses bring model storage at Dallas. O. Leiding. *il plan Food Ind* 20:1284-8 S '48
- Materials handling in multi-story cold storage warehouses. P. B. Christensen and D. O. Haynes. *il diags Refrig Eng* 54:539-43+ D '47; Abstract. *Food Ind* 20:182-3 F '48; Discussion. *Refrig Eng* 55:64+ Ja '48
- Structural columns are over-insulated; designing cold storage plants. L. Bull. *Refrig Eng* 56:39+ Jl '48

Floors

- Freezing-room floors need heat to prevent log in earth underneath. A. W. Ruff. *flow diag il diags Power* 92:291-3 My '48
- New floor design for cold storage plants. R. F. Rea. *il diag Refrig Eng* 54:449-50 N '47

COLD treatment of metals. See Metals, Cold treatment of

COLD treatment of steel. See Steel, Cold treatment of

COLD welding. See Welding

COLD working of metals. See Metals, Cold working of; Steel, Cold working of

COLEMAN, Carroll D.

- Typographer, printer, instructor. F. S. Holowach. *por Inland Ptr* 121:62-3 My '48

COLEMAN, J. Shields. 1894-Portrait. *Bsns W p21 N 1 '47*

COLEMAN, Russell. 1913-President of the National fertilizer association. *por(cover) Chem & Eng N* 26:2953 O 4 '48

COLEMANITE

- Colemanite as a glaze material. L. Balsham. *Cer Ind* 51:100+ O '48

COLGATE-PALMOLIVE-PEET company

- Good quality stocks yielding seven per cent and over. *Mag of Wall St* 81:142 N 8 '47
- Short history of Colgate-Palmolive-Peet. *il Soap & San Chem* 24:48-9+ O '48

COLLAGEN

- Use of the double crystal spectrometer in the analysis of Bragg reflections at very small angles. P. Kaesberg and others. *bibliog Phys R* 74:71-3 Jl 1 '48

COLLARS

- Plastic stiffens men's collars. *il Mod Plastics* 25:93 Ag '48

COLLECTING of accounts

- Billing and collecting, accounts receivable; waterworks accounting. E. L. Gothard. *Water & Sewage* 86:82+ Ap '48
- Collection correspondence. W. C. Young. *Am Gas Assn Proc* 1947:166-9
- Collection letters have two jobs to do. W. H. Butterfield. *Ptr Ink* 224:53-4+ S 10 '48
- Collection practices from the standpoint of cost. J. C. Paris. *Edison Elec Inst Bul* 16: 145-8+ My '48
- Collections by group agency plan. E. N. Keller. *Am Gas Assn Mo* 30:27-8 Je '48
- Discount for prompt payments improves collections on loans. F. L. O'Hair. *Bankers Mo* 65:5-6 Ag '48
- Dunning letter; colonial style, written in 1672 by Samuel Green. *Inland Ptr* 120:45 Ja '48
- How to cut credit losses; ways to rehabilitate businesses. D. F. Sheridan. *Credit & Fin Management* 50:17-18+ Ja '48
- Is business at the turning point? doctors find more billings, slower pay. *il Sales Management* 61:44-6 O 1 '48
- Looking to the future in collections. C. E. Rowe. *Am Gas Assn Proc* 1947:357-61
- Suggestions on collecting. Sheet Metal Worker 39:84+ My; 55-6 Je '48
- They like to pay the easy way; drive-in pay stations and night depository systems used to help customers pay bills. H. S. Hahn. *il plans Am Gas Assn Mo* 30:9-12+ My '48

COLLECTING of accounts—Continued

Value of the credit and collection department to the company and to the industry. C. L. Havener. Am Gas Assn Proc 1947:310-16

COLLECTIVE bargaining

Agents have collective bargaining rights; abstracts. W. H. Bennett. East Underw 49: 21+ O 22 '48; Nat Underw 52:40 O 7 '48
Bargaining on employee benefits. E. S. Hewitt and C. L. Kluss. Personnel 25:23-30 J1 '48

Benefit plans under collective bargaining. E. K. Rowe and A. Weiss. Mo Labor R 67:229-34 S '48

Collective bargaining; grass roots or ivory tower. H. T. Stephens. Personnel J 26:284-7 F '48

Collective bargaining provisions; incentive wage provisions; time studies and standards of production. U S Bur Labor Statistics Bul 908-8:1-68; pa 20c Supt. of doc. '48

Collective bargaining provisions; vacations, holidays and week-end work. U S Bur Labor Statistics Bul 908-2:1-57; pa 15c Supt. of doc. '48

Collective bargaining under the Taft-Hartley act. B. H. Levy. Harvard Bsns R 26:468-79 J1 '48

Conferences on industry-wide collective bargaining. Mo Labor R 67:40-2 J1 '48

Employer must give pay facts, says NLRB. Bsns W p 101 O 2 '48

Engineers' bargaining group sets national convention; West Coast organizations ratify constitution of proposed nation-wide bargaining body for professionals. Eng N 140:333 Mr 4 '48

Engravers' chief raps lawyers obstruction. E. J. Volz. Ed & Pub 81:28 Ag 14 '48

Fringe issues and their cost. L. A. Freeman. Mass Transportation 43:570-5 D '47

Function of the controller in union negotiations; abstract. W. W. Miller. Management R 37:289-90 Je '48

Impact of anti-labor legislation on collective bargaining in the transit industry. O. D. Zimring. Mass Transportation 43:515-20 N '47

Is the picket line enough? can United electrical workers lose bargaining rights at Remington-Rand? Il Bsns W p68-9 N 29 '47

Labor contracts and efficiency. C. C. Higgins. Iron Age 161:66-7 Ja 22 '48

Labor relations in a nutshell. A. Puishes. Mech Eng 70:803-4+ O '48

Must bargain on pensions. Steel 122:44 Ap 19 '48

New bargaining group urges members to register as professional engineers. Eng N 140:457 Mr 25 '48

Tackling the labor problem. H. S. Simpson. Bus Transportation 27:44-5 Ag '48

Taft-Hartley act presents new wage contract problems. G. Moskowitz. Steel 122:48-50 F 23 '48

Telling the facts; Associated industries of Cleveland surveys for bosses, unions open door to bargaining. Bsns W p97-8 J1 24 '48

Union attitudes on the application of industrial engineering techniques to collective bargaining. W. Gomburg. Personnel 24:443-54 My '48

What can the operators do to rehabilitate employers' bargaining position? Bsns W p86-7 J1 10 '48

You must bargain on pensions, federal court decides. Bsns W p94+ O 2 '48

See also
National labor re- Trade unions—Juris-
lations board dictional disputes
Trade agreements

COLLECTIVISM

Fight for men's minds; collectivism is complete negation of democracy. M. Sayre. Comm & Fin Chr 168:213+ J1 15 '48

COLLEGE architecture

College planning; Architectural record's building types study. Il plans diags Arch Rec 102:70-105 D '47

For Florida southern college, Lakeland; organic campus group designed by F. L. Wright. Il plans Arch Forum 88:127-32 Ja '48

Form in universities. J. Hudnut. Il Arch Rec 102:88-93 D '47

Old Siwash builds; text and illustrations by J. Allcott. Arch Forum 89:83-5 J1 '48
University of Miami moves back to boom-bought campus in suburban Coral Gables. Il plans diags Arch Forum 89:75-82 J1 '48

COLLEGE buildings

Buildings for science and pharmacy; Drake university. Il plans diags Arch Rec 102:74-81 D '47

See also
Cornell university—
School of nutrition
Dormitories

Heating and ventilation

What is best way to supply steam, electricity to college buildings? plan diags Heating-Piping 20:97-100 S '48

Lighting

Classroom lighting. D. E. Spencer. bibliog Il Illum Eng 43:743-53 J1 '48

Power plants

Eleven years of Diesel power at New York university. L. Arnow. Il Diesel Power 26: 59-61 Je '48

Michigan state college power plant. diags Power 92:624-5 O '48

Supplying heat and power to college building group. diags Heating-Piping 20:107-8 O '48

University of Illinois growth requires Abbott power station expansion. G. V. Carlson. plans diags Power Generation 52:52-7 F '48

What is best way to supply steam, electricity to college buildings? plan diags Heating-Piping 20:97-100 S '48

COLLEGE education

What industry expects of a university. R. C. Newton. Chem & Eng N 26:386 F 9 '48

COLLEGE graduates

Competition for college graduates; college dean finds that banks are outbid. J. B. Trant. Il Banking 40:36-7 Ap '48

Conference board study on college recruitment. Mech Eng 70:433 My '48

Cooperation with universities; A.R.E.A. committee report. Ry Age 124:564-5 Mr 20 '48

Executive opportunities in retail stores in Michigan for recent college graduates. E. H. Gault. (Bur. of business research report no. 14) 20p pa \$1 Univ. of Michigan press, 311 Maynard st, Ann Arbor '48

Ivory hunting on the Charles; selecting Harvard men for business jobs. Fortune 37:116 Ja '48

Marketing executives should help raise the education level in marketing. D. K. Beckley. Ptr Ink 222:60 Ja 2 '48

Smaller demand for college graduates reported. F. S. Endicott. Chem & Eng N 25: 3857 D 29 '47

Trends in supply and demand of scientific personnel. E. Clague. Science 107:355-60 Ap 9 '48

Will graduates be unemployed? Economist 153:989-90 D 20 '47

See also
Engineering gradu-
ates

COLLEGE housing projects. *See* Housing projects, College

COLLEGE libraries
Flexible plan attained for library through modular design; Princeton university's new Harvey S. Firestone memorial library. Il plans Eng N 139:808-11 D 11 '47

Report of a survey of the libraries of Cornell university for the Library board of Cornell university, October 1947-February 1948. L. R. Wilson and others. 202p pa \$2 Cornell univ, Ithaca. New York '48

School and college libraries and the teacher in training. M. U. Robinson. J Doc 3:147-50 D '47

See also
Architecture

See Library architecture

COLLEGE newspapers

See also
Yale daily news

Advertising

Big-time promotion begins on the campus: Daily Kansan. T. S. Irvin. Ed & Pub 81:60 My 22 '48

COLLEGE professors and instructors**Salaries**

Discussion of report on present day salaries in engineering schools. T. Saville. J Eng Educ 38:262-6 D '47

COLLEGE students

How 1,014 college seniors rate selling work as a career. F. Salisbury. Sales Management 60:37-9 Ja '48

How undergraduates are hired; abstract. G. L. Bussard. Chem Eng 55:264+ Ag '48

Housing

See Housing projects, College

COLLEGES and universities

Colleges and universities; aviation education responsibilities. L. A. Bryan. Air Affairs 2:200-8 Winter '48

See also

Engineering colleges

also names of colleges and universities, e.g. George Washington university

Curriculum

Business education in a university. J. R. Rose. bibliog J Bsns 20:183-90 O '47

Chemical education in American institutions; University of Illinois. J. C. Bailar, Jr. J Chem Educ 24:550-5 N '47

Chemistry and liberal education. B. D. Van Evera. Chem & Eng N 26:446-9 F 16 '48

Colleges offering courses in personnel subjects, by research and records committee, Personnel club of New York. Personnel J 26:305-8 F '48

Directories

Directory of colleges, universities and professional schools offering training in occupations concerned with business and industry. M. M. Pendergrast, comp. 645p \$2.50 Institute of women's professional relations, Connecticut college, New London, Conn. '47

World of learning, 1948, 2d ed rev 824p 60s Europa publications, 39 Bedford square, London, W.C.1 '48

Enrollment

Stratified-random sample of a small finite population; survey of enrollments by mail questionnaire of 1800 colleges and universities in the United States. F. G. Cornell. Am Stat Assn J 42:523-32 D '47

Finance

Alma mater asks for \$2 billion. J Fortune 37:102-5+ F '48

See also

Colleges and universities—Investments

Graduate work

Philosophy of graduate training at Ph.D. level; committee on professional training of the American chemical society. Chem & Eng N 26:166-7 Ja 19 '48

Investments

Store realty sold by Abraham & Straus to Union college. Bsns W p60-1 D 27 '47

Utility securities in college endowment funds. O. Ely. Pub Util 41:172-3 Ja 29 '48

Patent policies

Preliminary report on the survey of university patent policies. Science 107:677-8 Jo 25 '48

Study of patent policies in educational institutions giving specific attention to the Massachusetts institute of technology. V. L. McKusick. diags Franklin Inst J 245:193-225, 271-300 bibliog(p291-3) Mr-Apr '48

Publicity

College gains publicity with reporting job. Ed & Pub 81:52 Mr 27 '48

Research

Business management of a college research laboratory. R. A. Hussey. J Eng Educ 38:425-31 Mr '48

College research to the aid of small business. S. C. Hooper. Inst Radio Eng Proc 36:1144-5 S '48

Department of industrial cooperation at the University of Maine. L. C. Jenness. J Paper Tr J 12:135-8 My 27 '48

Directory of commercial and college laboratories. A. E. Rapuzzi, comp. U S Nat Bur Stand Misc Pub M187:1-65; pa 30c Supt. of doc. '47

Educational problems of graduate student theses based on sponsored research. J. W. M. Bunker. J Eng Educ 38:385-9 Ja '48

Industry-sponsored university research. A. M. Palmer. bibliog Chem & Eng N 26:2042-5 JI 12 '48

Industry-sponsored university research. S. Tour. Chem & Eng N 26:2046-8 JI 12 '48

Industry support of university research; abstract. A. M. Palmer. Chem Eng 55:294+ Mr '48

Industry turning to universities for research work. Chem & Eng N 25:3490-1 N 24 '47

National science foundation, a peril to American universities. J. L. Rich. Science 107:505-6 My 14 '48; Reply. L. A. DuBridge. 107:646-7 Je 18 '48

Place of research in our national life. J. B. Conant. Harvard Bsns R 26:46-57 Ja '48

Relation of research to teaching in a liberal arts college. M. L. Sherrill. J Chem Educ 25:512-14 S '48

Relationship of industrial, government and university research in Canada. R. R. McLaughlin. Can Chem & Process Ind 32:143-4+ F '48

Science in the universities. W. H. Taliaferro. Science 108:145-8 Ag 13 '48

Send your problems to college. J Mod Ind 16:45-9 Ag '48

University of Florida sewage treatment research. J. E. Kiker, Jr. J plan Pub Works 79:30-1+ S '48

University research. A. M. Palmer and others. Oil Paint & Drug Rep 152:7+ N 3 '47

University research and its by-product of inventions; abstract. R. R. Williams. Oil Paint & Drug Rep 153:7+ My 3 '48

What industry expects of a university. R. C. Newton. Chem & Eng N 26:386 F 9 '48

See also

Colleges and universities—Patent policies Engineering colleges—Research

Student records

Flow chart for student records. F. H. Thomas. flow chart J Eng Educ 38:669-71 My '48

Argentina

Situation in Argentine universities. H. Grundfest. Science 107:167-8 F 13 '48

China

See also

Yenching university, Peiping, China

United States

Alma mater asks for \$2 billion. J Fortune 37:102-5+ F '48

American universities and colleges. A. J. Brumbaugh and M. Irwin, eds. 5th ed 1054p \$3 American council on education, 744 Jackson place, NW, Washington 6 '48

Colleges have a \$1 billion construction program. J Eng N 140:162 Ja 29 '48

Social science and the established order. E. Ginzberg. bibliog Science 107:607-11 Je 11 '48

See also United States—President's commission on higher education

COLLEGES for women

See also

Stephens college, Columbia, Missouri

COLLETS

Internal collet grips turnings for close concentric machining. G. W. Brown. diags Am Mach 92:118 F 26 '48

COLLIERS

Liberty ship converted to a collier. J Marine Eng 53:556-8 Ag '48

New Fulham collier. J Elec R (Lond) 141:923 D 19 '47; Electrician 139:1784 D 19 '47

Propelling machinery of M.V. Fulham VIII. J diags Engineering 165:32-4 Ja 9 '48

COLLIMATORS

Measure-scope. JI R Sci Instr 19:478 JI '48

- COLLINS, George Rowland, 1894-**
Sketch, por Comm & Fin Chr 168:413 J1 29 '48
- COLLISION phenomena**
Collision and saturation broadening in microwave spectra. H. S. Snyder and P. I. Richards. Phys R 73:1178-80 My 15 '48
Effect of non-central forces on the collisions of high energy neutrons with protons. H. S. W. Massey and others. Phys R 73:1403-4 Je 1 '48
Saturation in microwave spectroscopy. R. Karplus and J. Schwinger. Phys R 73:1020-6 My 1 '48
Temperature dependence of electron energy levels in solids. A. Radkowsky. bibliog Phys R 73:749-61 Ap 1 '48
- COLLISIONS at sea**
Liability limitation; Federal circuit court passes on questions dealing with filing of claims against petitioners. East Underw 49:26 Ja 3 '48
See also
Rule of the road at sea
- COLLOID mill**
Colloidal equipment applied to the homogenization of clay and paper coatings. D. E. Gould. il Paper Tr J 126:63-7 My 6 '48
- COLLOIDS**
Agglomeration of aerosols; increasing industrial uses of ultrasonics. Chem Age (Lond) 59:287 Ag 23 '48
Aluminum stearate gels for use as flame-thrower fuels. C. M. Cawley and others. bibliog pl diag Inst Pet J 33:721-55 D '47
Aluminum stearate gels in light hydrocarbon oils, development of incendiary mixtures for use in munitions. C. M. Cawley and others. bibliog 4pls diag Inst Pet J 33:649-72 N '47
Chemical corps sponsors colloid symposium. Chem & Eng N 26:2050-1 J1 12 '48
Colloidal stability of rubber latex. E. G. Cockbain. bibliog diag Rubber Age 62:649-51 Mr '48
Colloidal structures in binary soap systems. T. M. Doscher and R. D. Vold. bibliog diags J Phys & Colloid Chem 52:97-109 Ja '48
Colloids in science and industry. E. A. Houser. il diags Tech R 50:336-7 N '47
Critical micelle concentrations as determined by refraction. H. B. Klevens. -bibliog J Phys & Colloid Chem 52:130-48 Ja '48
Dark-field electron microscopy; studies of crystalline substances in dark-field. C. E. Hall. bibliog il diags J Ap Phys 19:198-212 F '48
Effect of size, shape, and flexibility of the solute molecules on the properties of colloidal solutions. M. L. Huggins. bibliog diags J Phys & Colloid Chem 52:248-59 Ja '48
Electroviscous effect with measurements on sodium polymethacrylate solutions. A. H. W. Aten, jr. bibliog J Chem Phys 16:636 Je '48
Flocculation of aerosols by intense high-frequency sound. H. W. St Clair and others. bibliog 11 pls U S Bur Mines Rep of Invest 4218:1-28 '48
Gelation and gel structure. E. A. Hauser. diags J Chem Educ 25:461-2 Ag '48
Isothermal and non-isothermal transformations of tactoid-forming particles of tungstic acid. W. Heller and others. il J Chem Phys 16:998-9 O '48
Mercury-balance method for the measurement of gel strength. Franklin Inst J 245:71-2 Ja '48
Method of determining the particle size of colloids from sedimentation data obtained with the Sharples supercentrifuge. S. A. Loukowsky and S. J. O'Brien. bibliog il diags Am Soc T M Proc 46:1437-51 '46
Monodisperse colloids and higher-order Tyndall spectra. V. K. La Mer. bibliog J Phys & Colloid Chem 52:65-76 Ja '48
Mooney viscosity and gel plasticity relationship for GR-S-xylene gels. J. C. Driskell and R. D. Kracke. il India Rubber World 118:68-7 Ap '48
Photoelectronic counter for colloidal particles. F. T. Gucker, jr. and others. bibliog diags Am Chem Soc J 69:2422-31 O '47
- Physical studies of gel microstructure. C. G. Shull, P. B. Elkin and L. C. Roess. bibliog Am Chem Soc J 70:1410-14 Ag '48
Potato-starch gels. R. T. Whittenberger and G. C. Nutting. bibliog il Ind & Eng Chem 40:1407-13 Ag '48
Practical applications discussed at 22d national colloid symposium, Cambridge, Mass. June 23-25. Chem & Eng N 26:2049-50 J1 12 '48
Radiocolloids; abstract. J. Schubert. Chem Eng 55:265+ J1 '48
Retention of aerosol particles in the human respiratory tract as a function of particle radius. I. B. Wilson and V. K. LaMer. bibliog (32 titles) diag J Ind Hygiene 30:265-80 S '48
Reversible photolysis of Ag sorbed on colloidal metal oxides. A. Goetz and E. C. Y. Inn. il diag Rs Mod Phys 20:131-42 Ja '48
Shape of X-ray diffraction lines from colloidal magnesium oxide. C. R. Berry. bibliog Phys R 72:942-7 N 15 '47
Silicic chemistry; a new branch of colloid science. E. A. Hauser. bibliog il diags J Phys & Colloid Chem 52:1165-74 O '48
Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr. bibliog J Phys & Colloid Chem 52:12-22 Ja '48
Some applications of surface chemistry to problems in colloid science. A. E. Alexander. bibliog Chem Soc J p 1422-5 O '47
Some correlating principles of detergent action. W. C. Preston. bibliog diags J Phys & Colloid Chem 52:84-97 Ja '48
Structure of micelles of colloidal electrolytes; a new long-spacing X-ray diffraction band, and the relations of other bands. R. W. Mattoon and others. bibliog J Chem Phys 16:644-58 J1 '48
Study on aerosols. L. Dautrebande and others. bibliog diags J Ind Hygiene 30:103-13 Mr '48
Testing of colloidal solutions by dye solubilization. J. M. Lambert and W. F. Busse. bibliog J Chem Phys 16:847-8 Ag '48
Use of egg albumin to demonstrate colloidal phenomena. L. C. King and R. E. Peterson. J Chem Educ 25:488 S '48
Weathering sequence of clay-size minerals in soils and sediments. M. L. Jackson and others. bibliog J Phys & Colloid Chem 52:1237-60 O '48
Zones of mutual protection against crystallization in dual-oxide systems. H. B. Weiser, W. O. Milligan and G. A. Mills. bibliog J Phys & Colloid Chem 52:942-9 Je '48
- See also*
- | | |
|-----------------|---------------------------|
| Adsorption | Gelatin |
| Catalysis | Micelles |
| Coagulation | Polysaccharides |
| Dialysis | Silica gel |
| Dispersion | Surface active substances |
| Electrophoresis | Thixotropy |
| Emulsions | |
- Nomenclature**
Nomenclature of colloid chemistry. E. A. Hauser. J Chem Educ 25:367-70 J1 '48
- COLOMBIA**
See also
- | | |
|---------------------------------------|---|
| Petroleum industry and trade—Colombia | Petroleum laws and regulations—Colombia |
|---------------------------------------|---|
- Commercial policy**
All imports reclassified for purposes of exchange control. For Comm W 32:17 J1 3 '48
Colombia's new exchange taxes. For Comm W 32:22-3 J1 24 '48
New decree affecting exchange control promulgated. For Comm W 32:15-16 J1 10 '48
New-type import permit created for use with negotiable gold certificates. For Comm W 31:8-9 Ap 3 '48
Regulatory exchange-control resolutions issued. For Comm W 32:17-18 Ag 21 '48
Various exchange-control modifications announced. For Comm W 31:21 My 15 '48

COLOMBIA—Continued

Economic conditions

U.S. embassy reports on Colombia; facts on rioting's aftermath. For Comm W 31:3 My 8 '48

Industries and resources

Classification of new industries; regulations with regard to the importation of capital. For Comm W 33:18-19 O 23 '48

Politics and government

Colombia; a liberal republic, map Economist 153:885 N 29 '47

COLONIAL airlines

Branch answers attack on decision. Aviation W 48:33 Mr 29 '48

Colonial president flays CAB policy. Aviation W 48:46 Mr 22 '48

COLONIAL life insurance company of America 50th anniversary. East Underw 48:1, 3-4 N 28 '47

COLONIAL mills, inc.

Newcomers on the New York stock exchange. Mag of Wall St 81:249 D 6 '47

COLOR

Color and constitution; Ufimtzev's coloured compounds; steric hindrance of resonance; *cis*-azobenzene; substitutivity of 4,4'-diamino-, *m*-, and *p*-terphenyls. H. H. Hodgson. bibliog Soc Dyers & Col J 64:184-6 My '48

Color and its description. D. Nickerson. bibliog diags Am Cer Soc Bul 27:47-55 F 15 '48

Color and the transition elements. I. H. Parsons. diags J Chem Educ 25:207-10 Ap '48

Color is functional. W. F. Otto. Am Cer Soc Bul 26:362-4 O 15 '47

Color order systems. C. E. Foss. Paper Tr J 125:149-52 D 4 '47

Color reactions of thiophene compounds with ceric nitrate alcohol reagent. H. D. Hartough. Anal Chem 20:860-1 S '48

Color test for identification of glucose. S. Hestrin and J. Mager. bibliog Anal Chem 19:1032-5 D '47

Correlation of brightness ratios and decoration. W. H. Kahler and J. A. Meacham. il diags Illum Eng 43:132-91 F '48

Description and specification of color. R. M. Evans. Paper Tr J 125:49-53 N 20 '47

Out of years of study of natural and man-made color combinations came the Quantacolor guide to harmony. Inland Ptr 120:41 Mr '48

Report presented to A.A.T.C.C. general research committee meeting; color. Am Dye-stuff Rep 37:494 JI 26 '48

Some theoretical, practical and psychological aspects of color. M. J. Monahan. Paint Oil & Chem R 111:15-16+ Ap 1 '48

Symposium on color. R. S. Hunter and others. diags Am Cer Soc Bul 27:43-63 F 15 '48; Discussion. 27:185 My 15 '48

Symposium on color and the electronic structure of complex molecules; dedicated to the memory of Gilbert Newton Lewis. bibliog il diags Chem R 41:199-419 O '47

To reduce color loss in strawberry preserves. Z. I. Kertesz and E. Sondheimer. bibliog il Food Ind 20:1300-2+ S '48

Understanding color. F. Birren. il Illum Eng 43:711-16 JI '48

See also

Automobiles—Color

Color printing

Color sense

Colorimeters and

colorimetry

Colorimetric analysis

Concrete—Coloring

Discoloration

Dyes and dyeing

Glass, Colored

Light, Colored

Moving pictures,

Colored

Paint—Color

Paper—Color

Pigments

Piping—Identification

Pleochroism

Radio facsimile—

Color

Television—Color

Mixing

See Color mixing

Psychology

Color in railroad transportation; effective tool in improving employee and public relations. G. D. Gaw. il Ry Age 124:391-3 F 21 '48

Color plays important role in increased work-efficiency. J. A. Meacham. il Manuf Rec 116:43+ D '47

Primer for selecting colors with sales appeal. L. Cheskin. Sales Management 60:86+ Je 15 '48

Standards

I.C.I. specifications of difference limens for Munsell hue, value, and chroma. J. G. Brennan and S. M. Newhall. bibliog Opt Soc Am J 38:696-702 Ag '48

Interrelation of color specifications. D. Nickerson. bibliog(48 titles) Paper Tr J 125:153-71 N 6 '47

More about Ridgway's color standards and color nomenclature. J. T. Zimmer. Science 108:356 O 1 '48

Report on the Ridgway color standards. W. I. Illman and D. H. Hamly. bibliog Science 107:626-8 Je 11 '48

Terminology

Color terms in the ceramic industry. R. S. Hunter. diags Am Cer Soc Bul 27:43-6 F 15 '48; Discussion. 27:185-6 My 15 '48

COLOR blindness

Case of unilateral deuteranopia. L. L. Sloan and L. Wollach. Opt Soc Am J 38:502-9 Je '48

COLOR codes

Color coding keeps loading safe at Utopia's truck and car racks. F. J. Sluze. il Pet Processing 3:431 My '48

Give safety a shot of color. C. H. Cole. Safety Eng 96:28+ S '48

Navy enlists color to promote safety, efficiency and good housekeeping in all shore installations. il Safety Eng 94:14-15+ N '47

COLOR in advertising

Ad box; ad illustration reproduced in six colors on a folding box for Universal electric blanket. il Mod Packaging 21:118-19 Ap '48

Display photography; direct-color shot for lithographic reproduction has distinct requirements. G. Greb. il Mod Packaging 21:102-5 F '48

Full-color advertising plus complete merchandising gets results for Tumble-Twist tugs. il Pk Ink 224:36-7 S 3 '48

How are size, color, bleed related to attention and readership? H. J. Rudolph. Ptr Ink 221:44-5 N 14 '47

IRC business paper advertising shoots for specific sales objectives; 32-page color insert in *Electronics* for International resistance co. T. Armstrong. il Sales Management 60:115-16+ Ja 15 '48

R.O.P. color offered now in 44 states. T. S. Irvin. Ed & Pub 81:54 S 11 '48

Using publication color plates for producing related advertising material. H. C. Latimer. il Ptr Ink 224:39 JI 9 '48

See also

Advertisements—

Inserts

COLOR in architecture

Color is functional. W. F. Otto. Am Cer Soc Bul 26:362-4 O 15 '47

See also

Concrete—Coloring

COLOR in industry

Appearance starts with color! H. Ketcham. il Machine Design 20:99-103+ S '48

Can the public choose colors? F. H. Rahr. Textile Col 69:30+ D '47

Color, an aid to safety engineering. C. H. Cole. Oil & Gas J 47:264+ JI 29 '48

Color and light for the shop. D. M. Miller and R. S. Fish. il Ry Mech Eng 122:29-31+ Ja '48

Color at work. il Nat Safety N 57:20 Mr '48

Color contrast aids packaging production; abstract. Management R 37:317-19 Je '48

Colour in industry with some reference to painting machinery. D. M. Buckland. Textile Inst J 39:P200-4 Je '48

Color plays important role in increased work-efficiency. J. A. Meacham. il Manuf Rec 116:43+ D '47

Colors for the consumer market. F. Birren. Am Cer Soc Bul 27:61-3 F 15 '48

Contrasting colors for metal templates. Prod-uct Eng 19:124 Ag '48

Functional color in industrial buildings. J. E. Garnsey. il Arch Rec 104:118-23 Ag '48

COLOR in industry—Continued

- Heating and plumbing truck color combinations, *il* Dom Eng 172:150-1 O '48
 Identify piping for safety, A. H. Zeilinger, *il* Heating-Piping 20:81-2 F '48
 Leak detection of refrigerants; color tracing system, D. H. Crampton and C. Winnefeld, *bibliog il* Refrig Eng 55:261-3 Mr '48
 Painting contrast in a paper mill, E. A. Dench, *Pulp & Pa of Can* 49:76-8 O '48
 Primer for selecting colors with sales appeal, L. Cheskin, *Sales Management* 60:36+ Je 15 '48
 When everything looks dark, try color, J. Lear, *il* Nat Safety N 53:22-3+ S '48

See also

Color in railroad operation

COLOR in office decoration

- Color and design conscious packaging corporation; Container corporation of America's new Chicago offices, *il* plan Arch Forum 88:65-9 F '48

COLOR in plastic materials

- Color; armored tubing, *il* Mod Plastics 25: 103-7 Je '48
 Coloring the plastics, Rayon 29:85 Ja '48
 Multiple-shot molded parts, *il* Mod Plastics 25:129-31+ Ap '48
 Plastics merchandise cutlery; variety of color and design; Englishtown Cutlery, New York, *il* Mod Plastics 25:124-5 D '47
 Plastics that glow in the dark, *il* Mod Plastics 26:88-91 O '48
 Some miscellaneous applications of dyes, J. P. Gill, *Soc Dyers & Col J* 64:215-17 Je '48

COLOR in railroad operation

- Color in railroad transportation; effective tool in improving employee and public relations, G. D. Gaw, *il* Ry Age 124:391-3 F 21 '48

COLOR in the ceramic industries

- Art potters use natural clays for colorful effects, *il* Cer Ind 50:71 F '48
 Cobalt colors other than blue, *Cer Ind* 51:92-3 O '48
 Color-labeling the modern way; ceramic label, *il* Cer Ind 51:73-9 N '48
 Color terms in the ceramic industry, R. S. Hunter, *diags Am Cer Soc Bul* 27:43-6 F 15 '48; Discussion, 27:185-6 My 15 '48
 Effect of variations in color stains and frits on colors produced in porcelain enamels, R. L. Cook and R. W. Pelz, *bibliog Am Cer Soc J* 31:50-8 F 1 '48
 Good blue colors in glazes, *Cer Ind* 51:102 S '48
 Pigments during and after the war, V. H. Remington, *Am Cer Soc Bul* 27:57-9 F 15 '48
 Possible colors of the future, W. A. Weyl, *Am Cer Soc Bul* 27:59-61 F 15 '48

COLOR in the textile industries

- Color will be the selling factor of future male fashions, *Textile Col* 70:23 Mr '48
 Coordinating color and design, R. Kay, *Textile Col* 70:27 Je '48
 Design and colour in textiles, P. Whiston, *Textile Inst J* 33:P193-9 Je '48
 Search for color, M. H. Rorke, *Textile Col* 70:31 My '48
 Textile color and design; abstract, *Textile Col* 70:49 Ja '48
See also
 Textile design

COLOR matching

- Description and specification of color, R. M. Evans, *Paper Tr J* 125:49-53 N 20 '47
 Example of metamerism; extreme example of color change with varying illuminant, F. C. Dexter and E. I. Stearns, *Opt Soc Am J* 38:816-17 S '48
 Illuminant in textile color matching, D. Nickerson, *bibliog il* diags Illum Eng 43: 416-64 Ap '48; Excerpts, *Opt Soc Am J* 38: 458-66 My '48; Discussion, *Illum Eng* 43: 464-7 Ap '48
 Two accessories of three-dimensional colorimetry; probable error of colorimetric tensor components as derived from a number of color matchings; determination of principal colorimetric axes at any point of the color threefold, L. Silberstein, *Opt Soc Am J* 36:464-8 Ag '46; Correction, 38:71-2 Jm '48

COLOR measurement

- Analytic representation of experimental spectroradiometric curves, P. Moon and D. E. Spencer, *bibliog Franklin Inst J* 244: 441-64 D '47
 I.C.I. specifications of difference limens for Munsell hue, value, and chroma, J. G. Brennan and S. M. Newhall, *bibliog Opt Soc Am J* 38:696-702 Ag '48
 Method of determining and mixing colors, O. Syreem, *Rayon* 29:83-9 Mr; 84 My; 91-3 Je; 85-6 Ag '48
 New applications of colour measurement in the dyeing of wool, H. J. Selling, *bibliog Soc Dyers & Col J* 63:419-24 D '47
 Non-adaptability of the ICI system to some near-whites which show absorption in the far blue region of the spectrum, A. E. Jacobsen, *Opt Soc Am J* 38:442-4 My '48; Discussion, A. C. Hardy, 38:650 J1 '48
 Photoelectric determination of the color of corn sirup, B. L. Scalet, *Anal Chem* 20: 591-2 Je '48
 Representations of color space and their applications, C. E. Foss, *Am Cer Soc Bul* 27:55-6 F 15 '48; Discussion, 27:186-7 My 15 '48
 Spectrophotometric evaluation of the color of ink marks on paper; handwriting on white paper, C. F. Bailey and R. S. Casey, *bibliog Anal Chem* 19:1020-2 D '47
 Syntheses of spectral-distribution curves, W. L. Brewer and F. R. Holly, jr, *Opt Soc Am J* 38:358-74 O '48
COLOR mixing
 Application of projective geometry to the theory of color mixture, F. J. Bingley, *Inst Radio Eng Proc* 36:709-23 Je '48
 Method of determining and mixing colors, O. Syreem, *Rayon* 29:83-9 Mr; 84 My; 91-3 Je; 85-6 Ag '48
 Modification of the Kardos shadow experiment for demonstrations of color mixing, C. W. Crannell, *Science* 108:190-1 Ag 20 '48
COLOR of man
 Color characteristics of human complexions; data applicable to lighting, color photography, lithography, television, etc, G. B. Buck, 2d and H. C. Froelich, *bibliog Illum Eng* 43:27-47; Discussion, 47-9 Ja '48
COLOR of plants
 Heredity and environment; colors of flowers, fruits, and leaves, W. D. Bancroft, *J Phys & Colloid Chem* 52:767-74 My '48
See also
 Anthocyanins
COLOR photography
 Color metallography; with black and white reproductions and color photomicrographs covering nine alloys, W. D. Forreng, *bibliog pl Iron Age* 162:130-3 O 14 '48
 Colour photography with azo-substituted couplers; abstract, *Soc Dyers & Col J* 64: 260 J1 '48
 Color photomicrography for the undergraduate chemistry student, W. S. Jones and J. F. Corwin, *bibliog J Chem Educ* 25:391-2 J1 '48
 Determination of exposure time in color photomicrography, R. M. Weiss and C. R. Noback, *Science* 108:362-3 O 1 '48
 Dispersy photography; direct-color shot for lithographic reproduction has distinct requirements, G. Greb, *il* Mod Packaging, 21: 102-5 F '48
See also
 Moving pictures,
 Colored
COLOR printing
 American type founder's new all-metal dark-room-type precision camera for large color work, *il* Inland Ptr 120:103 D '47
 Barnyard design; colorful cartoons of cows and chicks on burlap and cotton bags, *il* Mod Packaging 21:137 Je '48
 Better light for viewing colors in the press-room at night, *il* Inland Ptr 121:44-5 My '48
 Color correction in color printing, A. C. Hardy and F. L. Wurzburg, jr, *diag Opt Soc Am J* 38:300-7 Ap '48
 Coloring comics is job for experts, H. M. Staunton, *Ed & Pub* 81:44 Ja 17 '48
 Contemporary labels; Burnham & Morrill specimens, 19th century and today, W. Longyear, *il* Mod Packaging 21:118-23 D '47
 Controlling the flow of printing ink; abstract, G. S. Braznell, *Inland Ptr* 121:56 Ag '48

COLOR printing—Continued

- Electronic method for solving simultaneous equations. A. C. Hardy and E. C. Dench. *diags Opt Soc Am J* 38:308-12 Ap '48
- How not to use the second color. G. J. Church. *il Inland Ptr* 121:67 S '48
- Late afternoon winter; scene reproduced by offset lithography. *Inland Ptr* 121:57 Je '48
- Louisville plant is streamlined for gravure job. *il Ed & Pub* 81:62 Ap 10 '48
- Low cost color methods; determination chart ends guesswork. C. Jensen. *Ed & Pub* 81:56 F 14 '48
- New twist in old indirect process for color cuts time, saves negatives. *Ed & Pub* 81:62 F 14 '48
- Objective scrutiny of package printing processes; abstract. E. H. Balkema. *Mod Packaging* 21:145-6 Je '48
- Photoelectric method for preparing printing plates. A. C. Hardy and F. L. Wurzburg, Jr. *diags Opt Soc Am J* 38:295-300 Ap '48
- Roto plant gets two new cameras. *il Ed & Pub* 81:46 S 11 '48
- Speyer sees opportunity for newspaper ROP color. G. A. Brandenburg. *Ed & Pub* 81:54 J1 10 '48
- Three-star second color. G. J. Church. *il Inland Ptr* 121:43 Ag '48

COLOR sense

- Color adaptation to stimuli of different spectral composition but equal tristimulus values. J. Cohen. *Science* 108:159-60 Ag 13 '48
- Colour vision. *Engineering* 166:350 O 8 '48
- Color vision limit. *Sci Am* 178:75 F '48
- New determination of the Young-Helmholtz primaries. G. Szekeres. *Opt Soc Am J* 38:350-63 Ap '48
- Recent advances in color vision. H. Hart-ridge. *bibliog Science* 108:395-404 O 15 '48
- Standard response functions for protanopic and deuteranopic vision. D. B. Judd. *Opt Soc Am J* 35:199-221 *bibliog* (59 titles, p220-1) Mr '45; Discussion. Y. Le Grand. 38:815-16 S '48
- See also
- Color blindness

Testing

- Comparative study of five tests of color vision. A. Chapanis. *Opt Soc Am J* 38:626-49 *bibliog* (36 titles, p648-9) J1 '48
- Illuminant-stable color vision test. E. Freeman. *bibliog Opt Soc Am J* 38:532-8 Je '48

COLOR temperature

- Blue glass for approximate colour-temperature and intensity measurements. H. G. W. Harding. *J Sci Instr* 25:333-5 S '48
- Illuminant in textile color matching. D. Nickerson. *bibliog il diags Illum Eng* 43:416-64 Ap '48; Excerpts. *Opt Soc Am J* 38:458-66 My '48; Discussion. *Illum Eng* 43:464-7 Ap '48
- Sensitivity of various phototubes as a function of the color temperature of the light source. A. Cramwinckel. *Soc Motion Picture Eng J* 49:523-9 D '47
- COLOR vision. See Color sense

COLORADO

See also

- Irrigation—Colorado
- Mines and mineral resources—Colorado
- COLORADO and southern railway
- Has fund for bond buying. *Barron's* 28:34-5 O 4 '48
- COLORADO-BIG THOMPSON project
- Colorado-Big Thompson job; progress report. E. J. Cleary. *il maps Eng N* 139:792-9 D 11 '47
- Colorado-Big Thompson pumping plant. R. J. Willson. *il plan diags Eng N* 141:80-5 S 16 '48
- Hydraulic problems in connection with the design of the Granby pumping plant. E. B. Moses. *plan diags A S M E Trans* 70:459-69; Discussion. 469-71 J1 '48
- COLORADO fuel and iron corporation
- Booked well into next year. *Barron's* 28:35 J1 12 '48
- COLORADO river
- Battle over water in the West. A. M. Cooper. *Pub Util* 41:23-30 Ja 1 '48
- Calmr waters; Upper Basin states agree on division of water. *Bsns W* p81 Ag 7 '48

- Colorado drainage basin. H. E. Gregory. *bibliog Am J Sci* 245:694-705 N '47
- Colorado river, a political issue. *Bsns W* p26 S 25 '48
- Colorado river loses another battle; diversion at Davis dam. *il Constr Methods* 30:92-5 Ag '48
- Congress airs states' fight over Colorado River water. *Eng N* 140:915+ Je 3 '48
- Five upper basin states make pact to share waters of Colorado river. *Elec World News* 42:130-5 Ag 7 '48
- High explosives solve irrigation problem; blasting to correct bad habits of Colorado river. B. E. Wilson and C. O. Mayer. *il map Explosives Eng* 28:14-16+ Ja '48
- Important engineering and economic features of the proposed Colorado River development. W. S. Peterson. *maps Elec Eng* 66:1184-93 D '47
- No new Colorado River jobs until states agree on water. *Eng N* 139:851 D 25 '47
- Proposed projects develop power and irrigation potentials of Colorado River system. H. F. McPhail. *il map Civil Eng* 17:469-63+ Ag 47; Discussion. R. A. Hill. 18:101 F '48
- Ratify upper Colorado water compact. *Eng N* 141:9 O 21 '48
- Vexing Colorado River water supply problem. B. Avery. *Pub Util* 41:608-14 My 6 '48
- Water fight rages. *map Bsns W* p82+ J1 10 '48

Hoover Dam project

- Cement investigations for Boulder dam; results of tests on mortars up to age of ten years. R. E. Davis and others. *Am Concrete Inst J* 13:21-48 S '46; Correction. 19:48+48+ pt 2 D '47
- Power of the West; portfolio of colored photographs by Ezra Stoller of Boulder dam, Shasta, Grand Coulee, and Bonneville. *map Fortune* 37:98-107 Ja '48

COLORADO SPRINGS

- Pennsylvania stratigraphy of Colorado Springs quadrangle, Colorado. K. P. McLaughlin. *bibliog il maps diags Am Assn Pet Geologists Bul* 31:1936-81 N '47

COLORADO university

- University serves industry in controlling health hazards; Division of industrial medicine at the University of Colorado medical center. *il Nat Safety N* 57:26-7 Je '48

COLORED glass. See Glass, Colored**COLORED moving pictures. See Moving pictures, Colored****COLORFAX. See Radio facsimile****COLORIMETERS and colorimetry**

- Colorimeter tube adapter for the Pfaltz and Bauer fluorophotometer, model B. R. L. Durst and J. B. Lewis. *diag Anal Chem* 20:782 Ag '48
- Microptic colorimeter. *il J Sci Instr* 25:327 S '48
- Two accessories of three-dimensional colorimetry; probable error of colorimetric tensor components as derived from a number of color matchings; determination of principal colorimetric axes at any point of the color threefold. L. Silberstein. *Opt Soc Am J* 36:464-8 Ag '46; Correction. 38:71-2 Ja '48

See also

Colorimetric analysis**COLORIMETRIC analysis**

- Ammonium citrate in the colorimetric determination of copper. A. J. Hall and R. S. Young. *Anal Chem* 20:776-7 Ag '48
- Anthocyanin pigments; colorimetric determination in strawberries and strawberry products. E. Sondheimer and Z. I. Kertesz. *bibliog Anal Chem* 20:245-8 Mr '48
- Anthrone in estimating low concentrations of sucrose. E. E. Morse. *Anal Chem* 19:1012-13 D '47
- Chemical determination of tryptophan; study of color-forming reactions of tryptophan, p-dimethylaminobenzaldehyde, and sodium nitrite in sulfuric acid solution. J. R. Spies and D. C. Chambers. *bibliog Anal Chem* 20:30-9 Ja '48
- Colorimetric determination of certain alpha, beta-unsaturated aldehydes. R. B. Wearn and others. *bibliog Anal Chem* 20:922-4 O '48

COLORIMETRIC analysis—Continued

- Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English. *Anal Chem* 20:745-6 Ag '48
- Colorimetric determination of copper with carbon disulfide and diethanolamine; improved dithiocarbamate reagent. W. C. Woelfel. *bibliog Anal Chem* 20:722-4 Ag '48
- Colorimetric determination of fatty acids and esters. U. T. Hill. *Anal Chem* 19:332-3 N '47
- Colorimetric determination of iron with 4-hydroxybiphenyl-3-carboxylic acid. J. H. Yoe and A. E. Harvey, jr. *bibliog Am Chem Soc J* 70:648-54 F '48
- Colorimetric determination of iron with nitroso-R-salt. M. Griffing and M. G. Mellon. *Anal Chem* 19:1014-16 D '47
- Colorimetric determination of iron with various dioximes. M. Griffing and M. G. Mellon. *bibliog Anal Chem* 19:1017-20 D '47
- Colorimetric determination of less than 0.001 per cent sulphur as carbon disulphide in benzoles. T. A. Dick. *bibliog Soc Chem Ind J* 66:253-7 Ag '47
- Colorimetric determination of micro amounts of silver and silver halides. S. Siggia. *Anal Chem* 19:923-4 N '47
- Colorimetric determination of nitric and nitroso-sulfuric acids in nitration spent acids. F. L. English. *Anal Chem* 19:850-2 N '47
- Colorimetric determination of traces of gold. E. B. Sandell. *bibliog Anal Chem* 20:253-6 Mr '48
- Colorimetric estimation of tungsten in high speed steels using ammonium thiocyanate and titanous chloride. R. S. Emery and D. W. Curtis. *il Metallurgia* 38:113-14 Je '48
- Colorimetric methods for rapid analysis of silicate materials; abstract. R. Hedin. *Am Cer Soc J* 31 (Cer A):43-4 F 1 '48
- Colorimetric methods for rapid analysis of silicate materials; abstract. R. Hedin. *Rock Prod* 51:85 My '48
- Colorimetric microdetermination of formic acid based on reduction to formaldehyde. W. M. Grant. *bibliog Anal Chem* 20:267-9 Mr '48
- Colorimetric microdetermination of zirconium. D. E. Green. *bibliog Anal Chem* 20:370-2 Ap '48
- Critical examination of a perchloric acid colorimetric method of analysis for chromium in carbon and low alloy steel. *Metallurgia* 37:211-16 F '48
- Determination of alcohol-insoluble solids and sugar contents of vegetables. J. C. Moyer and K. C. Holgate. *bibliog Anal Chem* 20:472-4 My '48
- Determination of cyclopentadiene and methylcyclopentadiene in admixtures with other hydrocarbons. J. S. Powell, K. C. Edson and E. L. Fisher. *bibliog diag Anal Chem* 20:213-15 Mr '48
- Determination of diphenyl carbonate; three analytical methods for estimating in cloth. J. Goldenson and S. Sass. *bibliog Anal Chem* 20:730-2 Ag '48
- Determination of formaldehyde and other aldehydes; assessment of the methods. J. G. Reynolds and M. Irwin. *bibliog Chem & Ind* 44:21-2 J1 3 '48
- Determination of high molecular weight quaternary ammonium compounds as the triiodides. O. B. Eager and others. *bibliog Anal Chem* 19:885-8 N '47
- Determination of iron in glass sand. J. J. Diamond. *Am Cer Soc J* 31:243-5 S 1 '48
- Determination of major constituents of cedar oil vapor in cedar chests. F. W. Hayward and R. B. Seymour. *bibliog Anal Chem* 20:572-4 Je '48
- Determination of nitrogen in biological materials; improved Kjeldahl-Nessler method. G. L. Miller and E. E. Miller. *bibliog diags Anal Chem* 20:481-8 My '48
- Determination of nitrogen oxides in air; permanent color standards for use with method of Patty and Petty. F. R. Averell and others. *Anal Chem* 19:1040-1 D '47
- Determination of phenothiazine in dust and mixtures. V. Kniaseff. *bibliog Anal Chem* 20:329-31 Ap '48
- Determination of phosphorus, germanium, silicon, and arsenic by the Heteropoly blue method. D. F. Boltz and M. G. Mellon. *bibliog Anal Chem* 19:873-7 N '47
- Determination of phosphorus in hexaethyl tetraphosphate and tetraethyl pyrophosphate. M. Jacobson and S. A. Hall. *bibliog diag Anal Chem* 20:736-7 Ag '48
- Determination of silica in the presence of fluorine and phosphorus. J. A. Brabson and others. *bibliog Anal Chem* 20:504-10 Je '48
- Determination of small amounts of oxygen in organic compounds. W. W. Walton and others. *bibliog il diags J Res Nat Bur Stand* 40:443-7 Je '48
- Determination of sodium, potassium, aluminum, and zinc in derivatives of carboxymethylcellulose. E. P. Samsel and others. *bibliog il diag Anal Chem* 20:142-6 F '48
- Determination of starch in plant tissues. G. W. Pucher, C. S. Leavenworth and H. B. Vickery. *bibliog Anal Chem* 20:850-3 S '48
- Determination of thallium in urine. H. H. Ackerman. *bibliog J Ind Hygiene* 30:300-2 S '48
- Determination of the nitrosoamine content of propellant explosives stabilized with *sym*-diethyldiphenylurea. T. C. J. Ovenston and C. A. Parker. *Soc Chem Ind J* 66:394-5 N '47
- Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *bibliog Anal Chem* 20:630-4 J1 '48
- Determination of vitamin A ester in fortified poultry mash, with activated glycerol dichlorohydrin. M. E. Wall and E. G. Kelley. *bibliog Anal Chem* 20:757-9 Ag '48
- Determination of zinc in water, sewage and trade wastes. B. I. Corson. *il Water & Sewage Works* 95:40-2 Ja '48
- Determining small amounts of calcium in plant materials; a colorimetric method. E. H. Tyner. *bibliog Anal Chem* 20:76-80 Ja '48
- Determining vitamins D₂ by two physical chemical methods; oil solutions. D. T. Ewing and others. *bibliog Anal Chem* 20:317-20 Ap '48
- Effect of substituents upon the rate of fading of some sulfonphthalein indicators in alkaline solutions. E. E. Sager, A. A. Maryott and M. R. Schooley. *bibliog Am Chem Soc J* 70:732-6 F '48
- Equilibrium and kinetic studies on the formation and dissociation of ferroin and ferrin. I. M. Kolthoff, T. S. Lee and D. L. Leussing. *Anal Chem* 20:985 O '48
- Estimation of impurities in tetryl (2:4:6-trinitrophenylmethyl nitramine). I. A. Brownlie and W. M. Cumming. *bibliog Soc Chem Ind J* 67:206-10 My '48
- Estimation of small amounts of O,O-diethyl O,p-nitrophenyl thiophosphate. P. R. Averell and M. V. Norris. *Anal Chem* 20:753-6 Ag '48
- Estimation of thiophene in gasoline. H. C. McKee, L. K. Herndon and J. R. Withrow. *bibliog Anal Chem* 20:301-3 Ap '48
- Evaluation of the ferrous thiocyanate colorimetric method. C. D. Wagner, H. L. Clever and E. D. Peters. *bibliog diags Anal Chem* 19:980-2 D '47
- Glucose; direct colorimetric method for determining carbohydrates. G. H. Benham and J. E. Despaul. *bibliog Anal Chem* 20:933-5 O '48
- Heavy metals in altered rock over blind ore bodies. East Tintic district, Utah. T. S. Lovering and others. *bibliog maps diag Econ Geol* 43:384-99 Ag '48
- How to use color control tests for boiler water. F. R. McCrumb. *il Power Generation* 52:60-1+ My '48
- Hydroxylamine method of determining penicillins. J. H. Ford. *bibliog Anal Chem* 19:1004-6 D '47
- Microdetermination of bismuth in biological material; an improved photometric dithione method. D. M. Hubbard. *bibliog Anal Chem* 20:363-4 Ap '48
- Microdetermination of lead in biological material with dithione extraction at high pH. J. Chofak, D. M. Hubbard and R. E. Burkey. *bibliog diag Anal Chem* 20:671-2 J1 '48
- Microdetermination of tellurium. V. R. H. DeMeio. *Anal Chem* 20:488-9 My '48
- Modified glycerol dichlorohydrin reaction for vitamin D₂. J. A. Campbell. *bibliog Anal Chem* 20:766-71 Ag '48

COLORIMETRIC analysis—Continued

Molybdenum blue reaction, D. F. Clausen and J. H. Shroyer, bibliog Anal Chem 20:925-6 O '48

New series of reagents for the colorimetric determination of steroids, L. C. Clark, Jr. and H. Thompson, Science 107:429-31 Ap 23 '48

Organic reagents in colorimetric analysis; abstract, J. H. Yoe, Anal Chem 20:393 Ap '48

Photometric determination of arsenic in copper- and copper-base alloys, O. P. Case, bibliog Anal Chem 20:902-4 O '48

Precision determination of lead in high grade copper; dithizone color and electrodeposition gravimetric methods, L. Silverman, bibliog Anal Chem 20:906-9 O '48

Quantitative colorimetric microdetermination of methanol with chromotropic acid reagent, R. N. Boos, bibliog Anal Chem 20:964-5 O '48

Quantitative microdetermination of magnesium in plant tissue and soil extracts; rapid colorimetric method, M. Drosdoff and D. C. Nearpass, bibliog Anal Chem 20:673-4 JI '48

Rapid chemical test for some plant virus diseases, R. C. Lindner, Science 107:17-19 Ja 2 '48

Rapid colorimetric determination of copper in tin-base alloys, G. Norwitz, bibliog Anal Chem 20:469-70 My '48

Rapid method for estimation of use-dilution concentrations of quaternary ammonium germicides, J. F. Gain and C. A. Lawrence, bibliog Science 106:625-7 N 28 '47

Rapid routine method for testing stainless steels; procedure employing the Beckman spectrophotometer, J. B. Cubertson and R. M. Fowler, bibliog J Steel 122:108+ My 24 '48

Reaction of ferrous and ferric iron with 1,10-phenanthroline; dissociation constants of ferrous and ferric phenanthroline, T. S. Lee, I. M. Kolthoff and D. L. Leussing, bibliog Am Chem Soc J 70:2348-52 JI '48

Semimicrodetermination of fluorine in volatile organic compounds, W. C. Schumb and K. J. Radimer, bibliog diags Anal Chem 20:871-4 S '48

Some factors in the Nessler method of nitrogen determination, J. L. Leitch, Franklin Inst J 245:355-9 Ap '48

Spectrophotometric determination of diacetyl, J. C. Speck, Jr. bibliog Anal Chem 20:647-8 JI '48

Spectrophotometric determination of iodine, W. G. Gross, L. K. Wood and J. S. McHargue, bibliog Anal Chem 20:900-1 O '48

Spectrophotometric determination of phosphorus as molybdophosphoric acid, D. F. Boltz and M. G. Mellon, bibliog Anal Chem 20:749-51 Ag '48

Spectrophotometric estimation of tryptophan, D. C. Carpenter, bibliog Anal Chem 20:536-8 Je '48

See also

Indicators and test papers

COLORING matter in food

Dominican Republic; food colorants; standards established, use regulated, For Comm W 32:13-14 S 11 '48

Peru; regulations for coloring materials for food and beverages, For Comm W 31:17 Je 12 '48

COLUMBIA gas and electric corporation

Adds capacity to meet winter demand, Barren's 28:35 Ap 12 '48

Annual report, Comm & Fin Chr 167:939-40 Mr 1 '48

\$45,000,000 debentures offered, Comm & Fin Chr 167:1362 Mr 29 '48

Public utility securities, Comm & Fin Chr 168:615 Ag 12 '48

COLUMBIA river

Hydro kills the fishing industry; Columbia River salmon fishery, J. H. Cellars, Pub Util 41:17-25 Mr 25 '48

OK new Columbia basin work, Eng N 139:767 D 4 '47

Projected construction program develops Columbia River basin for irrigation, L. V. Downs, il map Civil Eng 18:494-9 Ag '48

Grand Coulee dam

Columbia basin slow down; irrigation project set back by appropriations cut, il map Bsns W p36+ N 8 '47

Radio to aid in use of caisson on Grand Coulee Dam repair, F. A. Banks, il Eng N 140:945 Je 10 '48

Power utilization

Grand Coulee power development, S. M. Denton, il Elec Eng 67:661 JI '48

COLUMBIA television, inc.

Stock offered, Comm & Fin Chr 168:248 JI 19 '48

COLUMBIA university

Graduate school of journalism

Columbia journalism school gets new aid, Ed & Pub 81:46 Ap 17 '48

COLUMBIUM

Deposition of tantalum and columbium from their volatilized halides, C. F. Powell and others, bibliog il Electrochem Soc J 93:258-65 Je '48

Stabilization of austenitic stainless steel, S. J. Rosenberg and J. H. Darr, bibliog il J Res Nat Bur Stand 40:321-38 Ap '48

Analysis

Determination of columbium in rustless and heat-resisting steels, B. Bagshawe and W. T. Elwell, Soc Chem Ind J 66:398-400 N '47

Routine chemical methods for analysis of niobium and tantalum bearing 18/8 steels, B. Rogers, bibliog Metallurgia 37:326-30 Ap '48

Isotopes

Study of the radiations from columbium (95), rhenium (188), osmium (191), and osmium (193), C. E. Mandeville and others, bibliog Phys R 74:883-93 O 15 '48

COLUMBIUM hydride

Superconductivity and structure of hydrides and nitrides of tantalum and columbium, F. H. Horn and W. T. Ziegler, bibliog diags Am Chem Soc J 69:2762-9 N '47

COLUMBIUM nitride

Infra-red sensitivity of superconducting bolometers, N. Fuson, bibliog il diags Opt Soc Am J 38:845-53 O '48

Measurements of radio frequency resistance of a piece of columbium nitride through the transition, J. V. Lebacqz, Phys R 73:1476 Je 15 '48

Strange behavior of metals at very low temperatures; super-conductivity, D. H. Andrews, bibliog il diags Refrig Eng 54:431-5+ N '47

Superconductivity and structure of hydrides and nitrides of tantalum and columbium, F. H. Horn and W. T. Ziegler, bibliog diags Am Chem Soc J 69:2762-9 N '47

COLUMBUS, Ohio

See also

Taxation—Columbus, Ohio

COLUMBUS and southern Ohio electric company

Annual report, Comm & Fin Chr 167:1692-3 Ap 19 '48

COLUMN (periodical)

American scene, Adv & Sell 41:87 JI '48

COLUMNISTS. See Newspapers—Columnists

COLUMNS

Analysis of stepped-column mill bents, D. S. Ling, diags Am Soc C E Proc 73:1271-92 O '47; Discussion, il diags 73:1553-4; 74:779-87, 901-15 D '47, My-Je '48

Bending rigidity and column strength of thin sections, P. E. Sanderoff, bibliog diags A S M E Trans 69:833-41 N '47

Buckling of a column with elastic supports, T. H. Lin and K. S. Ching, diags J Aeronautical Sci 15:347-50 Je '48

Hyperbolic column formulas for magnesium-alloy extrusions, E. H. Schuette, bibliog J Aeronautical Sci 15:523-9 S '48

Inelastic column theories and an analysis of experimental observations, C. Wang, bibliog diags J Aeronautical Sci 15:283-92 My '48

Rational explanation of column behavior, F. L. Ryder, Am Soc C E Proc 73:311-41 Mr '47; Discussion, 73:756-8, 969-72; 74:283-4 My-Je '47, F '48

COLUMNS—Continued

Structural columns are over-insulated; designing cold storage plants. L. Bull. Refrig Eng 56:39+ J1 '48

COLUMNS, Concrete

Casting three-story concrete pilasters; plant for Calco chemical division of American cyanamid co. *il* Concrete 55:16-18 N '47

Design of rectangular tied columns subject to bending with steel in all faces. D. R. Cervin, *diags* Am Concrete Inst J 19:401-12 Ja '48

Effect of eccentric loading protective shells, slenderness ratios, and other variables in reinforced concrete columns. F. E. Richart and others. *il* *diags* *il* U Eng Exp Sta Bul 368:1-128 bibliog(p 127-8) '47 (pa 81)

Formulas simplify design of concrete columns under axial load and skew bending. C. C. H. Tommerup, *diags* Civil Eng 18:705-6 N '48

Ground-assembled forms cast 312 monolithic exterior columns. *il* Civil Eng 18:7-8 Ja '48

COLUMNS, Steel

Critical collapsing load for columns of variable cross section. R. Laurenson and R. V. Bremer, *Civil Eng* 18:240-1 Ap '48

Perforated cover plates for steel columns; compressive properties of plates having ovaloid, elliptical, and square perforations. A. H. Stang and B. S. Jaffe, *il* *diags* J Res Nat Bur Stand 40:121-8 F '48

Perforated cover plates for steel columns; summary of compressive properties. A. H. Stang and M. Greenspan, *bibliog* *il* *diags* J Res Nat Bur Stand 40:347-59 My '48

Pipe columns for crane runway support increase rigidity. C. G. Herbruck, *il* Welding 26:993 N '47

Steel-column analysis. R. P. V. Marquardsen, *diags* Western Soc E J 52:171-81 D '47

Welded steel column assemblies designed by Alexander Baum replace wood posts in frame houses. *il* *diags* Arch Forum 89:115-16 J1 '48

COMBINATION packages. See Package goods—Combination packages

COMBING machines

Brush cost lowered by comb modification. T. F. Griffin, *diags* Textile World 97:119+ N '47

COMBUSTION

Air entrainment in gas burners. G. von Elbe and J. Grumer, *bibliog* *diags* Ind & Eng Chem 40:1123-9 Je '48

Automatic control of combustion. K. D. Sheldrick, *il* *diags* Pulp & Pa of Can 49: 91-105 J1 '48

Chemical engineering unit processes. B. Lewis and G. von Elbe, *Ind & Eng Chem* 40:1590-6 bibliog(144 ref, p 1594-6) S '48

Combustion. R. P. Wallis, *diags* Engineering 165:549-51 Je 4 '48

Combustion and efficiency. H. D. Wiant, *Pet Processing* 3:951-2 O '48

Combustion control; use of oxygen. H. Ziebolz, *diags* Iron & Steel Eng 25:67-71 O '48

Combustion of industrial gases. J. J. Turin and J. Huebler, *il* Am Gas Assn Mo 30: 25-7+ O '48

Combustion problems of various fuels. H. C. Carroll, *Western Soc E J* 52:181-8 D '47

Controls for multiple fuels. W. F. Pray, *diags* Iron & Steel Eng 25:61-5 Ag '48

Energy-temperature relations in the combustion of fuels in gas turbines. R. V. Kleinschmidt, *diag* A S M E Trans 70:821-2; Discussion, 826-8 O '48

Experimental application of combustion controls to a process heater. W. E. Boyle and P. R. Hoyt, *il* *diags* Pet Refiner 27:139-44 O '48; Excerpts, *Pet Processing* 3:945-6 O '48

Experimental combustion of pulverized coal at atmospheric and elevated pressures. H. R. Hazard and F. D. Buckley, *il* *diags* A S M E Trans 70:729-37 Ag '48

Experimental furnace for the investigation of open-hearth-furnace combustion problems. A. H. Leckie and others, *bibliog* *il* *diags* Iron & Steel Inst J 155:392-422; 160: 37-56 Mr '47, S '48; Discussion, 156:501-4; 157:201-6 Ag, O '47

Generalized thermodynamics of high-temperature combustion. H. C. Hottel and others, *bibliog* A S M E Trans 70:667-76 Ag '48

High-output combustion of ethyl alcohol and air. A. H. Shapiro and others, *bibliog* *diags* A S M E Trans 70:161-9 Ap '48

Influence of reaction interface extension in the combustion of gaseous fuel constituents. W. J. Wohlenberg, *bibliog* A S M E Trans 70:143-56; Discussion, 156-60 Ap '48

Infrared emission spectra of CO₂ and H₂O molecules. E. K. Plyler, *Science* 107:48 Ja 9 '48

Jet propulsion boosts interest in flame mechanics; 3rd symposium on combustion, flame, and explosion phenomena. *Chem & Eng N* 26:2892-3 S 27 '48

Mechanisms of combustion and their relation to oil-burner design. H. R. Heiple and W. A. Sullivan, *bibliog* *diags* A S M E Trans 70:343-8; Discussion, 349-50 My '48

Paris conference on combustion, April 26-May 1. *Chem & Eng N* 26:2454 Ag 16 '48

Research project studies the flame. Heating-Piping 20:101 Mr '48

Theory of burning velocity; square root law for burning velocity. C. Tanford and R. N. Pease, *bibliog* J Chem Phys 15:861-5 D '47

What the heating engineer can learn from jet and turbine combustion. W. J. King, *il* *diags* Heat & Ven 45:77-83 Ja '48

See also
Boilers—Firing Locomotive boilers
Flames —Firing
Fuel

COMBUSTION, Heat of

Definitions of heats of combustion of a fuel and current methods for their determination. E. F. Flock and others, *bibliog* *diags* A S M E Trans 70:811-18; Discussion, 823-9 O '48

Heat of combustion of phenyl-beta-naphthylamine (N-phenyl-2-naphthylamine). D. E. Roberts and R. S. Jessup, *bibliog* J Res Nat Bur Stand 40:281-3 Ap '48

Heats of combustion of some organic nitrogen compounds. D. J. Salley and J. B. Gray, *bibliog* Am Chem Soc J 70:2850-3 Ag '48

Measurement of heat of combustion of volatile hydrocarbons; liquid sample holder. R. L. LeTourneau and R. Matteson, *bibliog* *diag* Anal Chem 20:663-4 J1 '48

COMBUSTION, Surface

Surface combustion is employed in new carbon black furnace; patent, *diag* Pet Processing 3:599-600 Je '48

COMBUSTION analysis

Determination of gaseous hydrocarbons; combustion over precipitated copper oxide containing one percent iron oxide. R. E. Murdock, F. R. Brooks and V. Zahn, *Anal Chem* 20:65-7 Ja '48

Determination of small amounts of carbon in steel; evaluation of low-pressure combustion apparatus. J. J. Naughton and H. H. Uhlig, *diag* Anal Chem 20:477-80 My '48

Improved combustion technique speeds carbon analysis of steel. *il* Steel 122:96 F 16 '48; Same, *Iron & Steel Eng* 25:107-8 F '48

Microdetermination of sulfur in organic compounds. A. Steyermark, E. Bass and B. Littman, *bibliog* Anal Chem 20:587 Je '48

Sulphur in fuel oil determined rapidly by combustion method. K. R. Klumb, *diags* Steel 122:107+ F 2 '48

COMICS (books, strips, etc.)

Banshees' Silver lady awarded to Blondie. O. J. Rochelle, *il* Ed & Pub 81:42 O 23 '48

Business takes comics seriously. *il* Bsns W 556+ O 9 '48

Comics, a serious business. *Adv & Sell* 41:97 F '48

Comics and comics publishers launch public relations offensive to offset rising criticism. D. Bruner, *il* Ptr Ink 224:95+ Ag 13 '48

How comic booklets are used in advertising and public relations. L. P. Birk, *il* Ptr Ink 224:41-4 Ag 13 '48

COMICS (books, strips, etc.)—Continued

Serious work for the funny folk; comic strip characters to be used on safety posters. *il Nat Safety N 57:22-3 Ap '48*

See also

Advertisements, Pictorial—Comic strip Newspapers—Comic strip

Law

Los Angeles ordinance bans all crime comics. *Ed & Pub 61:18 O 2 '48*

Use in teaching

Comics' characters invade the classroom. *H. M. Staunton. Ed & Pub 81:66 Mr 6 '48*

COMMERCE

Advertising; powerful instrument for world-trade promotion. *G. L. Bell. For Comm W 31:8-9+ My 15 '48*

Developments in international finance and trade. *Survey of Cur Bsns 27:14-19 D '47*
Foreign inland-transport defects can snag U.S. trade flow. *S. T. R. Abt. il For Comm W 32:8-9+ Ag 7 '48*

New pattern of international trade. *A. N. Gentes. Comm & Fin Chr 168:1549+ O 14 '48*
Requirements for trade with ECA countries. *Paper Tr J 127:114+ Ag 19 '48*

Tense position of international trade; report of Bank for international settlements. *Fed Res Bul 34:1225-9 O '48*

United States and world trade. *F. W. Fetter. Ann Am Acad 255:166-75 Ja '48*

World trade and world stability. *H. V. Prochnow. Comm & Fin Chr 168:107+ Jl 8 '48*

World trade now exceeds prewar levels despite dislocations. *For Comm W 30:3-5+ Mr 27 '48*

See also

Aeronautics, Commercial	Interstate commerce commission
Balance of payments	Marketing
Banks and banking	Merchandizing
Business	Merchant marine
Commercial policy	Money
Commercial statistics	Ports
Competition	Prices
Credit	Purchasing
Exhibitions	Shipment of goods
Export trade	Shipping
Foreign exchange	Stock exchange
Imports	Stocks
Insurance, Marine	Tariff
International trade organization (proposed)	Trade marks
Interstate commerce	Transportation
	Trusts, Industrial—
	International trusts
	Waterways

Bibliography

World trade. 2 pts Cleveland Pub Lib Business Information Bur Bul v 19, no 2:3-12 My '48

COMMERCIAL arbitration. *See Arbitration*

COMMERCIAL associations

See also

Cleveland world trade association

COMMERCIAL chemical development association (formerly Technical service association)

Commercial research groups meet in New York; excerpts from papers. *Chem Eng 65:180+ Ap '48*

Meeting, Cleveland, Oct. 28. *Chem & Eng N 25:3357 N 17 '47; Oil Paint & Drug Rep 152:5+ N 3 '47*

Meeting, New York, March 10. *Oil Paint & Drug Rep 153:7+ Mr 15 '48*

Meeting, Pittsburgh, Oct. 5. *Chem & Eng N 26:3092-3 O 18 '48; Oil Paint & Drug Rep 154:7+ O 11 '48*

Symposium touches issue vital to industry. *Chem & Eng N 26:832-58 Mr 22 '48*

COMMERCIAL correspondence

Better letters improve policyholder relations for Mutual Benefit Life. *H. G. Kenagy. Weekly Underw 159:1045+ O 30 '48*

Brevity important to modern business letter writing. *R. W. Smiley. Nat Underw (Life ed) 52:21 Ap 9 '48*

Business's neglected art. *W. B. White. Credit & Fin Management 50:22+ O '48*

Collection correspondence. *W. C. Young. Am Gas Assn Proc 1947:166-9*

Cost control in the transcription department.

J. E. Thiele. Management R 36:572-5 N '47
Excellent business letters can be complete failures! careful follow-through can insure their success. *K. B. Horning. Ptr Ink 224:35 Ag 13 '48*

Handbook of business letters. *L. E. Fralley. 130lp \$12.50 Prentice-Hall, 70 Fifth av. New York 11 '48*

How Prudential letters are improved. *J. E. Thiele. East Underw 49:10 O 1 '48*

Index of insults; for writers of business letters. *H. Janis. Ptr Ink 225:42 N 5 '48*

More about business letters; correspondence is first line of sales attack. *D. A. Marquez. Credit & Fin Management 50:23-30 Ap '48*

Prudential will send all letter writers to school. *Weekly Underw 157:1392 N 29 '47*

Simplified letter; custom-built or custom-baited? abstract. *V. Fry. Management R 37:15-16 Ja '48*

Six ways to improve business letters. *R. Morrison. Ptr Ink 222:38 Ja 2 '48*

Technical letters and reports; review of principles of correspondence. *S. D. Distelhorst. il Ind Marketing 33:39-40+ F '48*

Utility customers are people; talk to them! making friends with letters. *C. L. Sullivan. Pub Util 41:151-7 Ja 29 '48*

Write as you talk, customers like it. *C. L. Sullivan. Am Gas Assn Proc 1947:316-20; Same. Edison Elec Inst Bul 15:165-8 My '47; Same. Am Gas Assn Mo 29:285-7+ Je '47*

Writing good letters better. *R. E. Roddy. Credit & Fin Management 49:20+ N '47*

Your letters are you! *C. P. Perrine. Credit & Fin Management 49:17-18+ D '47*

See also

Christmas letters	Files and filing
Collecting of accounts	(documents, etc.)
Complaints	Letterheads
	Mail order business
	Sales letters

Form letters

Form letters don't always pay. *J. A. H. Rehm. Adv & Sell 41:36 Je '48*

COMMERCIAL credit company

Annual report. *Comm & Fin Chr 167:1041 Mr 8 '48*

No earnings shoals ahead. *K. V. R. Townsend. Barron's 28:9-10 O 11 '48*

COMMERCIAL decal, inc.

Decal. *il Fortune 37:134+ Mr '48*

COMMERCIAL investment trust financial corporation

Gets permanent capital. *Barron's 28:33 Je 7 '48*

COMMERCIAL law

Business man's glossary; knowledge of legal terms vital to credit men. *C. B. Everberg. Credit & Fin Management 50:7-8 F; 7-8+ Mr; 14-15+ Ap '48*

Foreign marks-of-origin regulations. *R. P. Wakefield and N. M. Petruzzelli. rev ed of Trade promotion ser no. 199 U S Dept of Commerce, Economic ser 62:1-166; pa 35c Supt. of doc. '47*

Lawyer and business. *F. Hamilton. Fortune 38:179-80+ O '48*

What P.M.s are illegal? *G. H. Well. Ptr Ink 224:40+ Jl 2 '48*

See also

Advertising—Laws and regulations	Insurance law
Agency (law)	Mortgages
Attachment and garnishment	Patent laws and legislation
Banking law	Payment
Bills of lading	Prices—Regulation
Carriers	Promissory notes
Checks—Law	Public utilities—Law
Corporation law	Sales
Debtor and creditor	Trade marks—Law
Foreign exchange	Trusts, Industrial
Government regulation of industry	Trusts and trustees
Income tax	Vendors and purchasers

Examinations

American institute of accountants examination in commercial law, May 21, 1948. *J Account 85:525-8 Je '48*

Answers to uniform certified public accountant examination in commercial law, Nov. 1947. *S. Gordon. J Account 86:51-60 Jl '48*

COMMERCIAL law—Examinations—Continued
Uniform certified public accountant examinations, November, 1947, J Account 84: 490-3 D '47

Netherlands

Regulations governing establishment of commercial and industrial enterprises. For Comm W 32:23-4 S 4 '48

Panama

Licenses for traveling salesmen. For Comm W 33:21 O 16 '48

South Africa

Marking of containers, Union of South Africa; Weights and measures act. For Comm W 32:26-7 J 10 '48

Uruguay

Regulation of contracts between foreign firms and their Uruguayan representatives proposed. For Comm W 32:27 J 13 '48

COMMERCIAL paper

See also

Acceptances Promissory notes
Bills of exchange Warehouse receipts

COMMERCIAL policy

Austerity; the international crusade against luxuries. W. Ropke. Comm & Fin Chr 168: 497-4 Ag 5 '48

Current trends in foreign trade policies; review of 1947. H. Chalmers. For Comm W 30:3-6+ F 7; 6-9+ F 14; 6-9+ F 21 '48

Economic profile of the Americas. R. Beteta. Comm & Fin Chr 166:1946+ N 13 '47

General outlook for world trade; economic stability imperative. D. Bruce. il For Comm W 29:3-4+ N 8 '47

Import license and exchange control regulations in principal foreign countries; tabular summary. For Comm W 30:36 F 21; 31:48 Je 19 '48

Sterling area's characteristics change under world-stresses. C. L. Wood. For Comm W 32:3-7+ Ag 7 '48

Strategic problems in world trade and measures taken to meet them. R. P. Terrill. For Comm W 33:3-4+ O 30 '48

Trade controls and world finance; basic forces must be appraised. T. C. Blaisdell, jr. For Comm W 31:3-4+ My 1 '48

What foreign trade means to us; urges worldwide agreement on import and export practices. A. J. Wieland. Comm & Fin Chr 167:1216+ Mr 18 '48

World trade in a time of crisis. G. L. Bell. Comm & Fin Chr 167:2200+ My 20 '48

See also

Commercial treaties and agreements

Tariff

COMMERCIAL products

Commodity year book, 1948. 512p \$10 Commodity research bur, 82 Beaver st, New York 5 '48

See also

Luxuries

COMMERCIAL solvents corporation

CSC's two families; proper package design. H Mod Packaging 21:94-3 J 1 '48

Plans added diversification; big expansion of research facilities and staff included in program. Barron's 28:32 Mr 8 '48

COMMERCIAL statistics

International transactions of the United States during 1947. W. Lederer. Survey of Cur Bsns 28:17-23 Mr '48

Some trends in world trade. A. J. Brown. Textile Inst J 39:P438-45 Ag '48

Statistical note on world demand for exports. T. Chang. R Econ & Stat 30:106-16 My '48

Statistics of world trade, dollar volume by countries; 1946 total and monthly figures for Nov. 1946-Oct. 1947. For Comm W 30: 6-7 Ja 31 '48 [cont monthly]

United States foreign trade, total trade, distribution by countries and areas and by leading commodities, and figures for private relief shipments; figures for selected months Nov. 1946-Nov. 1947, 1936-38 11-month average, and Jan.-Nov. totals for 1946 and 1947. For Comm W 30:8-10 Ja 31 '48 [cont monthly]

World trade now exceeds prewar levels despite dislocations. For Comm W 30:3-6+ Mr 27 '48

COMMERCIAL travelers insurance organizations, International federation of. See International federation of commercial travelers insurance organizations

COMMERCIAL treaties and agreements

Anglo-Argentine agreement. Economist 154:

312-13 F 21 '48

Anglo-Argentine agreement; meat for railways. Economist 154:276-7 F 14 '48

Anglo-Soviet agreement. Economist 154:28

Ja 3 '48

Anglo-Soviet trade pact. P. Einzig. Comm & Fin Chr 166:2629 D 25 '47

Argentina; commercial and financial agreement with France signed. For Comm W

30:14-15 Ja 31 '48

Argentina; commercial and financial agreement with Rumania signed. For Comm W

29:9 N 22 '47

Argentina; protocol to trade agreement with

United Kingdom initialed. For Comm W

31:7 Ap 3 '48

Argentina signs commercial agreement with

Yugoslavia. For Comm W 32:14-15 J 17

'48

Argentina signs protocol to trade agreement

with Spain. For Comm W 31:18-19 My 15

'48

Argentina signs trade and financial agree-

ment with Netherlands. For Comm W 31:

16-18 My 15 '48; Oil Paint & Drug Rep

153:54 My 31 '48.

Argentina; trade agreement signed with

Italy. For Comm W 29:8-9 N 22 '47

Argentine beef for Britain; trade pact signed.

il Bsns W p 113-14 F 14 '48

Argentine-Bolivian trade and financial agree-

ment of March 26, 1947 brought into effect.

For Comm W 30:14-15 F 28 '48

Australia, New Zealand trade agreement.

Economist 155:22-3 J 13 '48

Austria; modification of trade agreement with

Belgium for exchange of goods. For Comm

W 29:16 N 29 '47

Brazil; payments agreement with Argentina

continued in effect. For Comm W 32:14-15

Ag 21 '48

Brazil; trade and payments agreement with

the United Kingdom signed. For Comm W

32:13-14 J 10 '48

Britain's agreement with Brazil. Economist

154:388-9 My 28 '48

Britain's agreement with Ceylon. Economist

154:354 My 22 '48

Britain's agreement with Portugal. Econ-

omist 154:112 Ja 17 '48

British payments and commercial agreement

with Switzerland. Economist 154:239 F 7 '48

Brussels agreement; Cripps' currency scheme,

a study in futility. P. Einzig. Comm & Fin

Chr 167:2208 My 20 '48

Chile; commercial agreement with Ecuador

extended indefinitely. For Comm W 29:16

D 16 '47

Chile signs new trade agreement with Peru.

For Comm W 29:11 N 22 '47

Chile; treaty of commerce and navigation

with Cuba extended throughout 1948. For

Comm W 31:12 My 22 '48

Concessions obtained from France at UN

conference in Geneva. For Comm W 29:6-

7-4 D 13 '47

Czechoslovakia; commercial and payment

agreements concluded with Hungary. For

Comm W 30:16 Ja 17 '48

Czechoslovakia; trade and payments agree-

ment with U.S.S.R. signed. For Comm W

30:11 Ja 3 '48

Denmark concludes agreements with Italy,

Norway, and United Kingdom. For Comm

W 33:15-16 O 30 '48

Eire trade pact with Britain. Economist 154:

1075-6 Je 26 '48

Europe; steps toward easing intra-continental

exchange; multilateral monetary compensa-

tion agreement. E. H. Weinwurm. Comm

& Fin Chr 167:1431+ Ap 1 '48

Extension of trade agreements act strongly

urged by the President; text of message

to Congress, March 1. For Comm W 30:5+

Mr 13 '48

Finland; broad most-favored-nation commer-

cial agreement with U.S.S.R. signed. For

Comm W 30:17 F 21 '48

COMMERCIAL treaties and agreements—Cont.
 France; commercial agreement concluded with Spain. For Comm W 32:19-20 Ag 7 '48
 Geneva agreement on tariffs and trade protocol of provisional application signed by 22 countries. For Comm W 32:48 JI 24 '48
 Geneva agreement should spur trade with Britain and colonies. C. A. Riches and D. M. Grady. *Il* For Comm W 30:3-5+ Ja 3 '48
 Geneva agreement; tariffs and trade. Economist 153:827-8 N 22 '47
 Geneva agreement; trade under the new tariff. Economist 153:848-50 N 22 '47
 Geneva agreement; United States and Chilean tariff concessions. A. J. Poirier. *Il* For Comm W 31:7+ Ap 17 '48
 Geneva conference; agreements affect large part of U.S. trade. Survey of Cur Bsns 27:19 D '47
 Geneva multilateral trade agreement concluded; final act signed Oct. 30, 1947. For Comm W 29:32 N 8 '47
 Geneva trade agreement; important tariff concessions; summary by country of tariff changes affecting major automotive items. E. Hardy. Automotive Ind 97:45-6+ D 1; 45+ D 15 '47
 Geneva trade agreement made public. For Comm W 29:32 N 22 '47
 Geneva trade-agreement negotiations; new general agreement on tariffs and trade. H. P. MacGowan. For Comm W 29:3+ N 29 '47
 Geneva trade agreement should be beneficial to petroleum and petroleum-equipment industries. N. Burns. World Oil 128:39+ My '48
 Geneva trade agreement status of eight nations reported. Oil Paint & Drug Rep 153:5+ Ja 19 '48
 Geneva trade agreements; world tariff barriers tumble. Bsns W p23-4 N 22 '47
 Geneva trade negotiations; concessions by the United States, by the British southern dominions and by India and Pakistan. For Comm W 29:13-16, 19-20 D 6 '47
 Germany; trade and payments agreements with Italy signed. For Comm W 29:11 N 8 '47
 Greece; trade agreement and payments protocol with Sweden effective. For Comm W 32:21-2 Ag 7 '48
 Guaranty Trust analyzes Trade agreements act. Comm & Fin Chr 168:16 JI 1 '48
 Is this reciprocity? planks on reciprocal trade agreements in Republican and Democratic platforms. W. B. Bullock. Paper Ind 30:729-31 Ag '48
 Issue in trade policy. Fortune 38:2 JI '48
 Italo-Swiss trade and payment agreement effective. For Comm W 29:13 D 27 '47
 Italy signs treaty of friendship, commerce, and navigation with United States. For Comm W 30:16-17 Mr 20 '48
 Italy; trade and economic agreement with Yugoslavia effective. For Comm W 30:16-17 F 7 '48
 Italy; trade and payment agreement with Portugal effective. For Comm W 29:15 D 20 '47
 Netherlands concludes supplementary trade agreement with Sweden. For Comm W 33:19-20 O 16 '48
 Netherlands signs trade agreement with Uruguay. For Comm W 32:19 S 11 '48
 Paper industry a victim of reciprocity. W. B. Bullock. Paper Ind 30:879-80 S '48
 Poland; agreement with Sweden governing exchange of goods and payments. For Comm W 33:21-2 O 16 '48
 Poland signs trade agreements for exchange of goods with United Kingdom and with Rumania. For Comm W 29:15-16 N 8 '47
 Polish-Soviet trade agreement. Economist 154:179-80 Ja 31 '48
 Reciprocal trade agreements act announcements. Published in Foreign commerce weekly
 Reciprocal trade agreements act; terms of the 1948 extension act. For Comm W 32:48 JI 24 '48
 Reciprocal trade agreements; present and prospective status of negotiations. For Comm W 31:16 My 1 '48

Reciprocal trade-agreements; revised procedures for administration of program. For Comm W 33:42-3 O 16 '48
 Spain; commercial agreement for exchange of goods concluded with Netherlands. For Comm W 30:22 F 28 '48
 Spain concludes commercial and payments agreement with Sweden. For Comm W 33:19 O 9 '48
 Sweden concludes supplementary trade understanding with United Kingdom. For Comm W 32:27-3 S 18 '48
 Tariff concessions gained by U.S. at Geneva. Oil Paint & Drug Rep 152:7 N 24 '47
 United Kingdom; trade and financial agreement signed with U.S.S.R. For Comm W 30:36 F 7 '48
 Wheat agreement. Economist 154:511-12 Mr 27 '48
 See also
 Customs unions
COMMISSION merchants
 Lower distribution costs with functional middlemen; manufacturer's agents, brokers, commission merchants and others. R. B. Smith. Adv & Sell 40:52+ N '47
 See also
 Factors
COMMISSIONS (compensation)
 See also
 Brokers—Commis. Salesmen—Salaries and commissions
 Insurance agents—
 Commissions
COMMISSIONS, Federal. See United States—Executive departments
COMMITTEE for cooperative development
 Co-op advisers. Bsns W p78+ My 1 '48
COMMITTEE for economic development
 New CED research aimed to bar slump in 1950's. P. G. Hoffman. Factory Management 105:228 D '47
 New high priest for C.E.D. gospel. Bsns W p26 My 29 '48
 New trustees chosen for CED will assist with policy studies. Iron Age 160:167 N 6 '47
COMMITTEE of European economic cooperation
 Committee of European economic cooperation manpower report. Mo Labor R 65:567-8 N '47
 Manpower report. Int Labour R 56:566-75 N-D '47
COMMITTEES (in management)
 Job evaluation by divisional committees. D. Timm. Personnel J 27:176-9 O '48
 Management by committee; its Trane's approach to sales; ten department heads guide sales policies. T. Hancock. Sales Management 61:37-9 O 15 '48
 Society's trade committees; what they are, how they operate. W. L. Faust. Sales Management 61:56+ O 15 '48
COMMODITY control
 Congress and the materials shortages. A. W. Zelomek. Comm & Fin Chr 167:603+ F 5 '48
 WPB-type controls return. Bsns W p 19-20 Ja 3 '48
COMMODITY credit corporation
 Congress double-crossed farmers in bill granting the Commodity credit corporation a federal charter. J. H. McGrath. Comm & Fin Chr 168:1110 S 16 '48
 Cost of crop support. Nat City Bank p 114-17 O '48
 New food dumping power. Barron's 27:30 D 29 '47
COMMODITY exchanges. See Exchanges
COMMODITY reserve standard. See Money—Commodity reserve standard
COMMON trust funds. See Trusts and trustees—Common trust funds
COMMONWEALTH and southern corporation
 Compromise likely in plans. Barron's 27:36 D 8 '47
 Finis draws near for Commonwealth & Southern. Barron's 28:40 O 25 '48
 Form of recap appearing in Commonwealth & Southern. Barron's 28:34 My 24 '48
 Plan amended. Comm & Fin Chr 168:248-9 JI 19 '48
 SEC approves financial transaction by corporation and subsidiaries. Comm & Fin Chr 163:1359 O 4 '48

COMMONWEALTH Edison company

Bonds offered, Comm & Fin Chr 68:446-7 Ag 2 '48

COMMUNICATION, Electric. See Electric communication**COMMUNICATION, International**

Ratification of international telecommunication convention, final protocol, and radio regulations. For Comm W 32:18 Jl 10 '48

See also

International telecommunication union

COMMUNICATION, Military

See also

Radio communication, Military

COMMUNICATION and traffic

See also

Airlines	Roads
Airways	Shipping
Factory communication	Street railroads
Highway transportation	Street traffic
Motor vehicles	Telephone
Radio communication	Teletype
Railroads	Television
Rapid transit	Transportation
	Waterways

Argentina

Argentina acts to coordinate transport and communications. For Comm W 31:40-1 My 22 '48

China

China's communications ministry has Ch. \$90,000,000,000,000 expenditure. For Comm W 32:27 Ag 7 '48

France

Rehabilitation of French communication facilities. For Comm W 32:36 Jl 10 '48

Germany

German communications under quadripartite government. E. H. Merrill, Pub Util 41:671-7 My 20 '48

India

Indian telecommunications developments during first year of independence. J. D. Walstrom. For Comm W 33:42 N 8 '48

Mexico

Mexico plans to modernize telecommunications system. For Comm W 31:31 Ap 10 '48

Peru

Peru takes steps to improve its communications services. For Comm W 32:35 Jl 10 '48

Rumania

Transportation and communications developments. For Comm W 31:37 Je 5 '48

Shanghai

Telecommunications developments in the Shanghai area. R. E. Kleinhans. For Comm W 31:34 My 1 '48

United States

Mobilization of communications; summary of Peebles report. Pub Util 42:40-1 Jl 1 '48

COMMUNICATIONS association, American. See American communications association**COMMUNICATIONS workers of America**

CWA quickens activities. Pub Util 41:365-6 Mr 11 '48

Double trouble in the spring? bargaining program. Pub Util 41:167-8 Ja 29 '48

COMMUNISM

Adolescent America, awake and challenge! T. Prince. Comm & Fin Chr 166:2615+ D 25 '47

Can American dollars save Europe from communism? J. H. Ball. Comm & Fin Chr 167:17+ Ja 1 '48

Capitalism and communism; church view. Trusts & Estates 87:216 S '48

Communism and world peace. J. F. Dulles. Comm & Fin Chr 168:805+ Ag 26 '48

Communism in south-east Asia. Economist 154:1003-4 Je 19 '48

Communists penetrate Wall Street. L. M. Cherne. Comm & Fin Chr 166:1855+ N 6 '47

Failure of Marxism; reprinted from Life, Jan. 19. J. Dos Passos. Edison Elec Inst Bul 16:11-14+ Ja '48

French and Italians support forces opposing communism; Gallup poll. Iron Age 161:125 Ap 1 '48

Great delusion; where Marx went wrong. C. E. Wilson. Mech Eng 69:658-60 Ag '47; Discussion. 69:1047-8 D '47

How to fight the Reds. J. F. Dulles. Comm & Fin Chr 167:2097+ My 13 '48

Marshall plan will aggravate communism in Europe. F. C. Smith. Comm & Fin Chr 167:1010+ Mr 4 '48

Marxist centenary; publication of Communist manifesto; its influence today. Economist 154:292-3 F 21 '48

Menace of communism's growth. J. E. Le-Rossignol. Comm & Fin Chr 167:102+ Ja 8 '48

One world versus an iron curtain world. J. S. Roucek. Ann Am Acad 258:59-65 Jl '48

One year of the Cominform. Economist 155:566-7 O 9 '48

Progress of communism in southeastern Asia. V. L. Horoth. Il map Mag of Wall St 82:583-5+ S 11 '48

Soviet system versus American way. H. Ford. 2d. Factory Management 106:208+ Ja '48

Will dollars save the world? review of pamphlet by H. Hazlitt. T. D. Ellsworth. J Retailing 24:37-9 F '48

See also

Russia—Politics and government	Trials (political crimes and offenses)—Russia
Trade unions—Communist problem	

China

Rally in China; Sino-American rural reconstruction commission to combat Communist influence. Economist 155:404-5 S 11 '48; Same, Iron Age 162:122+ S 23 '48

France

What the Communists have done to French industry. M. Marsh. Il Factory Management 106:108-12 F '48

Italy

Italy as key to coming European events. V. L. Horoth. Il map Mag of Wall St 82:19-21+ Ap 10 '48

Who will win Italy's electoral battle? Il Bsns W p 113-14+ Ap 10 '48

Scandinavia

Scandinavian perplexities; anti-Communist campaigns. Economist 154:801-2 My 15 '48

Yugoslavia

Chip off the eastern bloc; Marshal Tito disowned by the Cominform. Economist 155:2-4 Jl 3 '48

Tito's defiance. Economist 155:213-14 Ag 7 '48

COMMUNIST party (Bulgaria)

Bulgaria under the Communists. Economist 155:586 O 9 '48

COMMUNIST party (Chile)

Chile letter. Bsns W p 112 N 8 '47

COMMUNIST party (Czechoslovakia)

Action after Prague; Russia's coup in Czechoslovakia. Economist 154:361-2 Mr 6 '48; Same abr. Iron Age 161:98 Mr 18 '48

Communist setback in Czechoslovakia. Economist 154:61-2 Ja 10 '48

Fall of Prague; Communists' bloodless victory. Economist 154:330-2 F 28 '48

COMMUNIST party (Finland)

Communist defeat in Finland. Economist 155:65 Jl 10 '48

COMMUNIST party (France)

Paris letter. Bsns W p 114 D 13 '47

COMMUNIST party (Great Britain)

Can it happen here? action against the employment of professing Communists in the government service. Economist 154:441-2 Mr 20 '48

COMMUNIST party (India)

Communism in India. Economist 153:846 N 22 '47

COMMUNIST party (United States)

American Communists seen more loyal to Russia than U.S.; Gallup poll. Iron Age 160:113 D 18 '47

COMMUNIST party (United States)—Cont.

Favor registration of Communist party members; Gallup poll. Iron Age 161:125 Je 3 '48
 Red hearings confirm public suspicion of Communists; Gallup poll. Iron Age 162:127 S 2 '48

COMMUNITY advertising

Colorado develops industrial relocation exhibit; flying chamber of commerce, Fremont County development board. Ind Marketing 33:66+ O '48

Communities and states to spend \$7,000,000 for promotion. Ptr Ink 223:86 Je 25 '48

Drift to the bigger city stemmed by arousing pride in home town; Fulton (N.Y.) chamber of commerce and 22 local industries advertise in newspaper. Ptr Ink 224:33-9 Jl 2 '48

Facts, facts, facts; they're California's new gold; sales tools of New industries committee of Oakland chamber of commerce. D. M. Follett. Il Sales Management 60:126+ Je 15 '48

Grays Harbor's classic community-relations campaign. M. S. Munson. Il Ptr Ink 221:40-1 D 12 '47

Making friends for town enlarges customer area; St Joseph (Mo.) news press. T. S. Irvin. Ed & Pub 81:54 Ap 10 '48

Mr Small-City Printer; sell this idea for a printed piece to your local Chamber of commerce or use it as a promotion piece of your own. Inland Ptr 120:62 Ja '48

Why scores of new industries came to America's prune capital, Santa Clara county, Calif. Il Sales Management 60:128+ F 15 '48

COMMUNITY centers

Milwaukee's proposed memorial center. Il Arch Rec 102:74-7 N '47

COMMUNITY hospitals. See Hospitals, Rural**COMMUNITY property**

Changes in the marital deduction law. L. M. Bregy. Life Ins Courant 53:10-12 O '48

Community property and the split income tax. A. Handy. Comm & Fin Chr 167:598+ F 5 '48

Community property; Pennsylvania law declared unconstitutional. Trusts & Estates 85:582 D '47

Community property states. J. B. Scholefield. J Account 84:414 N '47

Computing the federal estate tax; effect of marital deduction. W. M. Tweedy. Trusts & Estates 86:481-3 Je '48; Reply. E. McCormick. 87:116-17 Ag '48

Constitutional and statutory provisions of the states. v7 80p pa \$1 Council of state governments, 1313 E. 16th st, Chicago 37 '48

Effects of new community property laws. R. M. Alton. Trusts & Estates 86:102-4 F '48

Estate analysis in community property states; effects of Revenue act of 1948. F. M. Flint. Trusts & Estates 86:473-8 Je '48

Estate and gift tax law radically changed; marital deduction permits cutting net taxable amount of estate in half. L. H. Hoffman. Barron's 28:33 Ap 26 '48

Estate planning in community property states. G. B. Jones. Trusts & Estates 85:527-30 D '47

Estate planning under the new tax law; marital deduction. D. H. McLucas. Trusts & Estates 87:261-74 O '48

Estate taxes under the new tax law. Life Ins Courant 53:9-11 Je '48

How 1948 tax law affects typical estate situations; marital deduction. J. H. Overbeck, Jr. Nat Underw (Life ed) 52:2+ Ap 30; 3+ My 7 '48

How to utilize marital deduction. R. F. Spindell. Nat Underw (Life ed) 52:9+ My 7 '48

Impact of estate and gift tax provisions of 1948 Revenue act. S. J. Foosaner. Life Ins Courant 53:41-3 My '48

Marital deduction and life insurance. H. R. Glenn. East Underw 49:52+ pt 2 O 8 '48

Marital deduction for estate taxes. D. H. McLucas. Trusts & Estates 86:445-8+ Je '48

Marital deduction; its effects on trusts. T. S. Kiley and J. R. Golden. Trusts & Estates 86:367-70 My '48

Marital deductions. M. H. Johnson. Weekly Underw 158:1412-13 My 8 '48

Nebraska community property law. E. N. Polisher. J Account 86:155-6 Ag '48

Need for insurance as effected by marital deduction. H. T. Powers. Trusts & Estates 87:23-5 Jl '48

Pennsylvania joint-property law held void in suit over policy. Nat Underw (Life ed) 51:1+ D 5 '47

Revenue act of 1948; Northwestern Mutual Life explains it to field force. East Underw 49:3+ Ag 13 '48

Revenue act of 1948; the estate tax marital deduction; abstracts. E. M. Thore. East Underw 49:10+ S 10 '48; Nat Underw (Life ed) 52:1+ S 10 '48; Trusts & Estates 87:199-206, 347-50 S-O '48

Spread of community property laws. A. T. Collier. East Underw 49:3-4 Ja 23 '48

Taxation of community property under Revenue act of 1948. S. Taylor. Trusts & Estates 87:27-32 Jl '48

Test Pennsylvania community property law role in insurance case. Nat Underw (Life ed) 51:7 N 28 '47

Trend toward income-splitting tax laws rolls up popular approval. map Bsns W p22-4 D 27 '47

Warns on slick schemes to gain marital deduction. E. H. McDermott. Nat Underw (Life ed) 52:4 Ap 23 '48

Worth of a wife. Fortune 38:122+ S '48

Your estate and the inevitable taxes; the marital deduction. H. Ackerman. Comm & Fin Chr 168:900+ S 2 '48

See also

Income tax—Joint returns

COMMUTATOR brushes. See Brushes (electric machinery)

COMMUTATORS

Automatic furnace for soldering Diesel-electric commutators. Il Iron Age 162:101 O 7 '48

Cleaning and inspecting commutator. diags Paper Ind 29:1347-8 D '47

Commutator improvement. diag Elec R (Lond) 142:732 My 7 '48

High-speed exciters; commutator troubles. R. G. Millard. diags Elec R (Lond) 143:13-16 Jl 2 '48

Turning commutators in place. E. Pagett. diags Power Generation 52:74-5 Je '48

Testing

Air-driven spinners for testing fast-rotating machine components up to bursting speeds, pose mysterious design problems. L. W. Wightman. Il diags Machine Design 20:121-5 My '48

COMPUTERS. See Railroads—Commuter service

COMPANY anniversaries. See Anniversaries, Company

COMPANY histories. See Business history

COMPANY stores

West Virginia coal company serves community through new store. F. Beury. Il Manuf Rec 117:50-1 O '48

COMPANY towns

How Pacific mills limited keeps employees contented. W. J. Granberg. Il Paper Ind 29:1604-5 F '48

Hub of a major industry. A. B. Sullivan. Il Pulp & Pa of Can 48:68-72 D '47

COMPANY unions

Union receiver; T. Reynolds to run New Jersey electrical union, pending outcome of court dispute. Bsns W p74+ Ja 31 '48

COMPARATORS

Combination grinder-comparator manufactured by Cincinnati milling and grinding machines, inc. Il diags Machine Design 20:149-50 Ja '48

Comparator-chart inspection of tapered pipe-thread gages. K. A. Clark. Il diag Mach 54:165-7 Ag '48

Comparator chart layout checks involute gears. F. E. Browning. diags Am Mach 92:89-92 My 20 '48

Design and applications of a new metals comparator. D. E. Bovey. Il diag Instruments 21:467-70 My '48; Abstract. Materials & Methods 26:116 N '47

COMPARATORS—Continued

Variable-frequency metals comparator; rapid checking of both magnetic and nonmagnetic materials for hardness, composition, or heat treatment. D. E. Bovey. *il diag Gen Elec R* 50:45-9 N '47

COMPARS. See Vinyl compounds

COMPASS

Developments in the correction of magnetic compasses. G. N. Harvey. *diags Engineer* 186:94-5 J1 23 '48

Kelvin-White new Constellation spherical compass. Marine Eng 53:128 F '48

COMPENSATION. See Payment; Wages

COMPENSATION, Deferred. See Deferred compensation

COMPENSATION, Workmen's. See Workmen's compensation

COMPENSATORS, Optical

Optical compensators for measurement of elliptical polarization. H. G. Jerrard. *bibliog diags Opt Soc Am J* 38:55-59 Ja '48

COMPETITION

Competition. R. W. Babson. *Comm & Fin Chr* 163:597+ Ag 12 '48

Get ready for competition. E. O. Shreve. *il Dun's R* 56:14-15+ My '48

Notes from a sales manager's handbook. C. F. Hatmaker. *Ptr Ink* 225:53 O 8 '48

See also

Monopolies

COMPETITIVE bidding. See Securities—Marketing

COMPLAINTS

Adjustments as a key to operating difficulties. E. Last. *J Retailing* 24:109-10 O '48

Capitalizing complaints. L. A. Watt. *Chem & Eng N* 26:1773-4 Je 14 '48

Customer squawks cue Braniff on improved sales appeals. C. E. Beard. *Sales Management* 59:96+ N 20 '47

COMPLEMENT fixation

Complement fixation test for histoplasmosis; preliminary results with human sera. M. L. Furcolow and others. *bibliog Pub Health Rep* 63:169-73 F 6 '48

Complement fixation test for histoplasmosis; technic and preliminary results on animal sera. D. J. Tenenbergs and A. Howell, Jr. *bibliog Pub Health Rep* 63:163-8 F 6 '48

Effect of relative concentration on complement fixation by identical amounts of antigen and antibody. I. Gordon and G. M. Gnesh. *bibliog Science* 107:148-50 F 6 '48

COMPLETED operations coverage. See Insurance, Products liability—Completed operations coverage

COMPLEX salts. See Salts, Complex

COMPOSTS. See Fertilizers

COMPREG. See Wood, Compressed

COMPRESSED air

Air gun tests airplane devices; built by Boeing aircraft company, designed primarily for evaluating performance of components of Boeing GAPA (ground to air pilotless aircraft) guided missiles. *il Comp Air Mag* 52:279 N '47

Air power aids ship refitting. *il Comp Air Mag* 53:17 Ja '48

Air power helps Odin build kitchen ranges. *il Comp Air Mag* 52:278 N '47

Air-powered light for night and underground work. *il Comp Air Mag* 53:73 Mr '48

Breaking coal with Airdox. J. S. Malesky. *12ps U S Bur Mines Information Circ* 7480: 1-3 '48

Compressed air at work; illustrations with text (cont). *Comp Air Mag* 52:302-3; 53: 36-7, 144-5 D '47, F, Je '48

Compressed air detects leak in reservoir. *diags Comp Air Mag* 53:44 F '48

Compressed air employed in the fabrication of pipe. *il Blast F & Steel Pl* 36:1116-17 S '48

Compressed air for instrument use. *plan Pulp & Pa of Can* 48:91-2 D '47

Compressed air helps thwart weeds and gophers; gunting and oil spraying irrigation canals. B. Peplow and E. Peplow. *il Comp Air Mag* 53:193-4 Ag '48

Compressed air in a large hotel; Lord Baltimore hotel. T. Trail. *il Comp Air Mag* 52:304-5 D '47

Compressed air in lighting equipment manufacture. *il Mill & Factory* 42:124-5 My '48

Compressed air in the manufacture of tires and tubes. *il Rubber Age* 63:53-6 Ap '48

Compressed air used as major power source in building conveyors. *il Steel* 122:80+ Ja 19 '48

Drilling and breaking down coal with Airdox; abstract. R. L. Adams. *Min Cong J* 34:59 Je '48

Engineering the air compressor installation for maximum efficiency. *il Paper Tr J* 127: 51-5 J1 15 '48; Same. *Glass Ind* 29:26-7+ Ja '48; Same. *Pet Eng* 19:84+ Ap '48

Filter tanks kept free of ice by compressed air. *Comp Air Mag* 53:73 Mr '48

Finishing metal surfaces by new process called liquid honing; mixture of abrasive and emulsion applied by compressed air. *il Comp Air Mag* 52:284 N '47

Freeing curb boxes of debris. H. H. Smith. *Pub Works* 78:39 N '47

Gas meter repair shop minimizes costs by utilizing compressed air; San Diego gas and electric co. *il Gas Age*, 100:20-2 D 25 '47

How one company utilizes compressed air power; Weber showcase & fixture co. of Los Angeles. *il Mill & Factory* 43:131-3 O '48

Hydraulic air-storage chambers in Swedish mines. S. Dalhammer. *il map diag Comp Air Mag* 53:30-3 F '48

Hydraulics of hydropneumatic installations; compressed air in tank provides pressure for water distribution. O. G. Goldman. *diags Am Water Works Assn J* 40:144-58 F '48

Improved traffic striping machines are 100 per cent air operated. *il Roads & Sts* 91: 94+ My '48

Influence of various deairing and compressed-air treatments on wearing qualities of mill balls and mill-brick linings. H. G. Schurecht. *diags Am Cer Soc J* 31:76-80 Mr 1 '48

Low air pressure; its causes, effects and remedies. *il Blast F & Steel Pl* 36:356-8 Mr '48; Same abr. *Ry Mech Eng* 122:152-3 Ap '48; Same cond. *Am Gas J* 167:24-5 D '47; Excerpts. *Chem Ind* 62:53 Ja '48

Marking highways for safety; California traffic striper uses compressed air. *il Comp Air Mag* 53:116-18 My '48

Modernization is the answer; substitution of compressed air for explosives. C. E. Hastings. *Can Min J* 69:85-6 Mr '48

Operation of pneumatic storage tanks. J. B. Wilkinson. *Water & Sewage Works* 95: 135-7 Ap '48

Pneumatic equipment speeds tunnel lining. *il diag Comp Air Mag* 53:199 Ag '48

Sheet metal operations in aircraft supply plant revolve about air power; Rohr aircraft corp. *il Steel* 123:97+ J1 26 '48

Spring steels air-fabricated at West Coast automotive parts plant. *il Steel* 123:110+ S 20 '48

Using air to shoot coal; pressurized air system. Airdox. *il Bsns W* p28+ F 7 '48

See also

Air compressors

Air receivers

Moisture content

How to figure moisture in compressed air. L. F. Wilson. *Heating-Piping* 19:82-3 N '47

COMPRESSED air lines

Changing compressed air piping improves operations at Martin. E. Elliott. *il diag Heating-Piping* 20:73-6 O '48

Compressed air line explosions. C. W. Parks; G. G. Avant. *Power Generation* 52:86-7 Ja '48

Vibration in piping systems. F. E. Davenport. *diags Heating-Piping* 20:104-6 Ja '48

COMPRESSED air sickness. See Caisson disease

COMPRESSED food. See Food, Compressed

COMPRESSED gas manufacturers' association

Annual meeting, 35th. New York, Jan. 19-20. *Chem & Eng N* 26:314 F 2 '48

COMPRESSED gases. See Gases, Compressed

COMPRESSIBILITY

Correlation through anharmonic force theory of the compressibility modulus and thermal expansion coefficient of KBr at low temperatures. C. Kittel. *J Chem Phys* 16:850 Ag '48

COMPRESSIBILITY—Continued

- Effects of compressibility on the two-dimensional subsonic wind-tunnel constriction correction. H. T. Epstein and L. U. Albers. *bibliog J Aeronautical Sci* 15:144-60 Mr '48
- Over-all specific volume, compressibility and resilience of fibrous materials in bulk. W. H. Rees. *bibliog il diags Textile Inst J* 39: T131-41 Ap '48
- Pressure-volume and pressure-compressibility relation of metals. P. Gombás. *Phys R* 72:1123-4 D 1 '47
- Sound velocity method for determining the compressibility of finely divided substances. R. J. Urick. *diag J Ap Phys* 18:983-7 N '47
- Thermodynamics of a strained elastomer; compressibility. L. E. Copeland. *diag J Ap Phys* 19:445-9 My '48
- Visco-elastic behavior of a highly plasticized nitrocellulose in compression under constant load. G. J. Doyle and R. M. Badger. *J Ap Phys* 19:373-7 Ap '48

COMPRESSORS

- Air-conditioned production area used to assemble precision parts for domestic refrigerator compressors; Westinghouse electric corp. R. J. Odabashian. *il Steel* 121: 90+ D 1 '47
- All sheet metal compressor housing. *il Product Eng* 19:103 F '48
- Application of centrifugal refrigeration to ultralow temperatures. E. P. Palmatier. *flow sheet il diags Chem Eng Prog* 44: 481-7; Discussion. 487-8 Je '48
- Axial flow compressor produced by Frederic Flader. *il Chem Eng* 55:159 S '48
- Choice of refrigerants for the centrifugal compressor with cost data. O. E. Garfinkil, jr. *il Refrig Eng* 55:363-8; Discussion. J. R. Chamberlain. 368+ Ap '48
- Compressor design. R. E. King. *il diags Refrig Eng* 55:461-3+ My '48
- Compressor installation pitfalls. C. W. Leegard. *diags Refrig Eng* 56:219-22 S '48
- Decentralized compressors assure continuous production. *il Mill & Factory* 42:164 Ja '48
- Design and construction of compressor plants for the compression of air and gas to be injected into partially depleted reservoirs. P. D. Torrey. *bibliog flow diags Pet Eng* 19:108+ D '47
- Drive motor torque must match compressor needs. H. B. Pownall. *Refring Eng* 55:447-51 My '48; Discussion. 55:570+ Je '48
- Fluids movement. *diag Chem Eng* 55:100-3 My '48
- Improving pump and compressor selection. I. Taylor. *il Chem Eng Prog* 44:336-8 Ap '48
- Instrumentation as applied to speed control. J. G. Wilson and others. *diags Pet Refiner* 27:120-9 Mr '48
- Modern developments in marine refrigeration. S. W. Brown. *bibliog il diags Refrig Eng* 55:36-41+ Ja '48; Same. *Marine Eng* 55:65-72 Je '48; Discussion. *Refring Eng* 55:90+ Ja '48
- Process engineer's guide to the centrifugal compressor. I. J. Karassik. *il diags Chem Eng* 54:110-14 O; 132-5 N; 126-8 D '47; 55: 118-21 Ja; 134-7 F '48
- Pumps, compressors, and expanders; new equipment announced 1947-48. *Chem Ind* 63:408-9 S '48
- Seal mechanism has made use of centrifugal compressors practical for refrigeration field. *diag Machine Design* 19:106-7 N '47

See also

- Air compressors
Gas compressors

Testing

- New machine speeds turbine blade contour measurement. W. A. Lloyd. *il diags Iron Age* 162:76-8 Ag 5 '48
- COMPTON, Karl Taylor, 1887-
Chairmanship of Research and development board. *Science* 108:408 O 15 '48
- COMPTON effect
Compton scattering and the emission of low frequency photons. R. Jost. *bibliog Phys R* 72:815-20 N 1 '47
- COMPULSORY labor. *See Labor, Compulsory*
- COMPULSORY saving. *See Saving, Compulsory*
- COMPUTERS. *See Calculating machines*

CONCENTRATION

- Freeze concentration becomes practical; concentrating heat-sensitive solutions. T. R. Olive. *il Chem Eng* 55:118-19 O '48; *Food Ind* 20:1432-3 O '48

CONCENTRATION cells

- Concentration cell corrosion. M. G. Fontana. *diags Ind & Eng Chem* 40:sup75A-6A Mr '48

CONCRETE

- Blasting concrete ballast in cargo ships. J. J. Hills. *Explosives Eng* 26:142+ S '47
- Concrete making in China. J. S. Cotton. *il Am Concrete Inst J* 19:381-98 Ja '48
- Lightweight concrete in Germany. F. O. Anderegg. *Rock Prod* 51:169 Mr '48
- Portland cement technology; abridgement. J. C. Witt. *Concrete* 56:16+ JI; 34+ Ag; 23-4+ O '48
- Progress with concrete, 1923-1948; symposium. *bibliog Am Concrete Inst J* 19:693-741 Ap '48
- Reasons for behavior of concrete for autobahnen. O. Graf. *Rock Prod* 51:156-8 O '48
- Some doubts about concrete; reprinted from *Eng N*, Feb. 1, 1923. *Am Concrete Inst J* 19:34-8 Ja '48
- What causes defective concrete? excessive additions of gypsum may be source of trouble. J. A. Slegten. *Rock Prod* 51:95+ O '48

See also

- | | |
|-----------------------|---------------------|
| Bridges, Concrete | Concrete lining |
| Cement | Grouting |
| Concrete, Reinforced | Pavements, Concrete |
| Concrete construction | Roads, Concrete |

Aggregate

- Aggregate reaction with cement alkalies. W. E. Parsons and H. Insley. *bibliog il Am Concrete Inst J* 19:825-32 Ap '48
- Burned shale and expanded slag concretes with and without air-entraining admixture. P. H. Petersen. *il diag Am Concrete Inst J* 20:165-75 O '48
- Chemical test for reactivity of aggregates with cement alkalies; chemical processes in cement-aggregate reaction. R. C. Mielenz and others. *bibliog diags Am Concrete Inst J* 19:193-221 N '47
- Convert waste stone to valuable by-products; North Carolina granite corporation produces poultry grits and concrete aggregates. W. B. Lenhart. *il Rock Prod* 51:85-6 JI '48
- Design and control of pumice concrete mixes. W. K. Wagner. *Rock Prod* 51:125-7+ S '48
- Design plant for pumice ready mixed concrete; Albuquerque gravel products co. plant facilities to handle pumice concrete. *il Rock Prod* 51:131-3 S '48
- Dual 12½ mile cableway to haul aggregates for Australian dam. H. B. Fletcher. *Concrete* 56:26 My '48
- Durability of aggregate; abstract. S. Walker. *Rock Prod* 51:95-6 Mr '48
- Effect of entrained air on concretes made with so-called sand-gravel aggregates. P. Klieger. *bibliog diags Am Concrete Inst J* 20:149-63 O '48
- Effect of various coarse aggregates upon the cement-aggregate reaction. C. H. Scholer and W. E. Gibson. *bibliog Am Concrete Inst J* 19:1009-32 Je '48
- Evaluation of aggregate performance in pavement concrete. H. S. Sweet and K. E. Woods. *bibliog Am Concrete Inst J* 19: 1033-40 Je '48
- Fiber concrete; abstract. C. D. Willson. *Rock Prod* 51:209 Ag '48
- Fibrous concrete has high fire resistance. *Concrete* 56:30 Je '48
- Fineness modulus worthy of wider use. S. Walker. *Roads & Sts* 91:107 Ja '48
- Flexibility marks Allatoona aggregate plant. *flow sheets il Constr Methods* 30:90-6 Mr '48
- Ft. Gibson aggregate plant. *flow sheet il Constr Methods* 30:80-4 F '48
- Grading of aggregates for machine tamped and vibrated pipe; abstract. C. M. Howard. *Concrete* 56:40 Ap '48
- How aggregates affect durability of concrete; abstract. C. H. Scholer. *Rock Prod* 51:114 Mr '48
- ICC revises upward basic freight rates on concrete aggregates. *Concrete* 56:44 S '48

CONCRETE—Aggregate—Continued

- Lightweight aggregate session develops interesting facts; A.C.I. annual meeting. Concrete 56:36+ Ap '48
- Lightweight aggregates cut costs in Prudential Insurance and General Petroleum buildings in Los Angeles. *il Arch Rec* 104: 147-8 O '48
- Lightweight aggregates win new attention. *il Arch Rec* 104:143-5 JI '48
- Lightweight concrete aggregate from phosphate waste. A. F. Greaves-Walker and P. P. Turner. Rock Prod 51:185 Je '48
- Mineral aggregates featured at A.S.T.M. meeting; symposium. Rock Prod 51:164+ Ag '48
- Modern plant makes lightweight aggregate; Carter-Waters corp. Eng N 141:100 S 16 '48
- Modernized plant supplies aggregates to meet increasing demand for concrete; Milne-Coulson. *il Rock Prod* 51:180-1 Je '48
- Modulus of elasticity of aggregates and its effect on concrete. H. A. LaRue. bibliog *il Am Soc T M Proc* 46:1298-310 '46
- New army engineer tests for aggregates. Rock Prod 51:110-11 S '48
- Perlite aggregate. Chem Eng 54:177-8 D '47
- Portable aggregate plant. V. J. Brown. *il diag Roads & Sts* 91:84-5+ JI '48
- Prefabricated housing of pumice concrete. *il Rock Prod* 51:129-30 S '48
- Processing pumice for aggregate; Cochiti pumice co. flow sheet *il Rock Prod* 51:102+ S '48
- Producing aggregates for Ft. Gibson dam; M. O. Weaver, Inc. G. C. Hawkins. flow sheets *il Rock Prod* 50:80-5 N '47
- Pumice concrete. Mech Eng 69:1046 D '47; Same. *Am Concrete Inst J* 19:1062-4 Je '48
- Pumice concrete houses at Muroc air base. *il Concrete* 56:14-15+ Je '48
- Ready mixed concrete invades Chicago area; use fly-ash as concrete additive; John Griffiths & son construction co. D. Mocine. *il Rock Prod* 51:147-8 O '48
- Rotary kilns start rolling at new Haydite plant. B. Nordberg. *il Rock Prod* 51:122-4 JI '48
- Specifying aggregates on a concrete strength basis; abstracts. C. E. Proudley. Concrete 56:30+ F '48; Rock Prod 51:99 Mr '48
- Story of pumice. *il Concrete* 56:3-7+, 10-12 Ag; 20+ S; 8-10+ O '48
- Strength and slip under load of bent-bar anchorages and straight embedments in Haydite concrete. C. C. Fishburn. *il diags Am Concrete Inst J* 19:289-305 D '47
- Study of alkali-aggregate reactivity by means of mortar bar expansions. T. M. Kelly and others. bibliog *Am Concrete Inst J* 20:57-80 S '48
- See also**
Concrete—Cinder concrete

Air entrainment

- Additive feed rate calculations for air-entraining cements. C. J. Knickerbocher. Rock Prod 51:105 F '48
- Burned shale and expanded slag concretes with and without air-entraining admixture. P. H. Petersen. *il diag Am Concrete Inst J* 20:165-75 O '48
- Control and measurement of air entrainment in concrete. E. M. Brickett. *il diags Roads & Bridges* 85:78-80+ N '47
- Effect of carbon black and black iron oxide on air content and durability of concrete. T. G. Taylor. *Am Concrete Inst J* 19:613-24 Ap '48
- Effect of entrained air on concretes made with so-called sand-gravel aggregates. P. Klieger. bibliog diags *Am Concrete Inst J* 20:149-63 O '48
- Effect on properties of concrete of natural and portland cement blends. A. G. Timms and others. *il Pub Roads* 25:30-40. D '47
- Haulage of air-entrained concrete. J. W. Shaver. *il diags Concrete* 55:8-11+ Je; 10 13 JI '47; 56:32-3+ Ja '48
- Innovations in bridge pier concrete; bridge at Chesapeake City, Md. C. C. Frech. *il diags Eng N* 140:174-8 F 5 '48
- Particle size of dispersed carbon black affects entrainment of air in concrete. F. J. Marduller. *Civil Eng* 18:165 Mr '48; Same. Concrete 56:33 Ap '48

- Proposed method for evaluating air-entraining admixtures. Concrete 56:20-14+ Ja '48
- Recent developments in concrete durability. H. L. Kennedy. bibliog *il Boston Soc C E J* 34:263-92 O '47
- Specifications on air entrainment; survey made by AASHO committee. Concrete 56: 11-13+ Ja '48
- Study of durability and void characteristics of concretes containing admixtures, principally of the air-entraining type. F. B. Hornbrook and others. bibliog *Am Soc T M Proc* 46:1320-32 '46

Cinder concrete

- Cinder block producers meeting, Atlantic City, Aug. 9-11. Rock Prod 51:149-50 O '48
- Cut down haulage costs to job; Atlas lime co., El Paso, Texas, uses volcanic cinders as aggregate. S. L. Meyers. *il plan diags Rock Prod* 51:146-9 Mr '48
- High-strength cinder concrete units; Universal concrete pipe co. *il Concrete* 56:38 Ag '48
- Inclosing a multiple-story skyscraper housing project; Stuyvesant Town. *il Eng N* 140:202-4 F 5 '48
- Manufacturer of concrete masonry units proves value of full-time laboratory control; Cinder concrete products, Inc. C. J. Ray. *il Concrete* 55:30-2 N '47
- Study of causes and prevention of staining and pop-outs in cinder concrete. S. G. Seaton. *il Am Concrete Inst J* 19:361-77 Ja '48

Coloring

- Colored block increase sales; Henry Logsdon, Fruitland, Idaho. W. B. Lenhart. *il Rock Prod* 50:130-1 N '47

Cooling

- Concrete cooled in building lofty Ross dam. P. W. Mourer, Jr. and L. W. Kemmish. *il Refrig Eng* 56:316-19 O '48
- Ice in mix precools concrete for dams; use of tube-ice machines. *il diag Comp Air Mag* 53:66-7 Mr '48
- Ice in the mix; concrete plant at Fort Gibson dam. *il Constr Methods* 30:89-91 Ja '48
- Refrigeration makes the big dams possible; artificial cooling used to dissipate heat of hydration. C. Rawhouser. bibliog *il diags Refrig Eng* 54:534-8+ D '47; Discussion. H. Sloan. 55:54 Ja '48

Curing

- Combine wet and dry-air curing system; Illinois brick co. *il diag Rock Prod* 51:150-1 F '48
- Curing, a problem in thermodynamics. G. A. Mansfield. Rock Prod 51:212-14+ Ag '48
- High temperature curing; Crescent concrete products corp., New Orleans. D. Mocine. *il Rock Prod* 51:115+ JI '48
- Modern curing methods; abstract. G. A. Mansfield. Rock Prod 51:157+ Mr '48

Durability

- Concrete durability; twenty-five years of progress. R. B. Young. bibliog *Am Concrete Inst J* 19:732-41 Ap '48
- Durability of concrete exposed to sea water and alkali soils; California experience. T. E. Stanton. *il diag Am Concrete Inst J* 19:821-47 My '48
- Effect of carbon black and black iron oxide on air content and durability of concrete. T. G. Taylor. *Am Concrete Inst J* 19:613-24 Ap '48
- How aggregates affect durability of concrete; abstract. C. H. Scholer. Rock Prod 51:114 Mr '48
- Recent developments in concrete durability. H. L. Kennedy. bibliog *il Boston Soc C E J* 34:263-92 O '47
- Salt water concrete. Pub Works 79:44 O '48
- Study of durability and void characteristics of concretes containing admixtures, principally of the air-entraining type. F. B. Hornbrook and others. bibliog *Am Soc T M Proc* 46:1320-32 '46

Expansion and contraction

- Expansive cement used for concrete arch keys. Eng N 140:433 Mr 18 '48
- Shrinkage cracking; abstract. R. E. Copeland. Rock Prod 51:192 Ap '48

CONCRETE—Expansion and contraction—*Cont.*
Study of alkali-aggregate reactivity by means of mortar bar expansions. T. M. Kelly and others, *bibliog Am Concrete Inst* J 20:57-80 S '48

Failure

Concrete deterioration in a shipway. R. D. Terzaghi, *bibliog il map diags Am Concrete Inst J* 19:977-1005 Je '48

Cracking of concrete masonry. R. E. Cope-land, *Concrete* 56:6-7+ Ap '48

Evaluation of aggregate performance in pavement concrete. H. S. Sweet and K. B. Woods, *bibliog Am Concrete Inst J* 19:1033-40 Je '48

What to do about concrete deterioration in food processing plants. H. C. Watts, *Am Concrete Inst J* 20:82-4 S '48

Freezing

Considerations involved in the making of freezing-and-thawing tests on concrete. M. O. Withey, *bibliog il Am Soc T M Proc* 46:1198-207; Discussion, *diags* 1208-51 '46

Roman concrete, not so good? freezing and thawing test on concrete from castle built in 135-139 A.D. *il Rock Prod* 51:146 Ap '48

Painting

Painting small concrete block buildings. Consumers Res Bul 22:23-4 Jl '48

Prestressing

Big prestressed pipe without liners. R. M. Doull, *il diag Eng N* 140:1010-15 Je 24 '48

Creep of steel and concrete in relation to prestressed concrete. G. Magnel, *diags Am Concrete Inst J* 19:485-500 F '48

Hydraulic testing press with pre-stressed concrete frame, *il diags, Engineering* 165:441 My 7 '48

Laying 60 mi. of pre-stressed pipe; Saginaw-Midland water line project, *il Eng N* 140:708-11 My 13 '48

New prestressed concrete tried on Orly runway, *Aviation W* 49:26 Ag 2 '48

Pre-stressed cast-in-situ concrete bridge, *il diags Engineering* 165:608-9, 612 Je 25 '48

Prestressed concrete for runways at Orly field, near Paris, *il diags Eng N* 141:104-5 S 16 '48

Prestressed reinforced concrete pressure pipe. M. W. Loving, *il diag Water & Sewage Works* 95:379-84 N '48

Reinforced concrete pressure pipe manufactured on two levels; prestressed pipe for Montreal water system. M. W. Loving, *il Rock Prod* 51:158-62+ F '48

What will be prestress loss due to creep? F. O. Anderegg, *Am Concrete Inst J* 20:86-7 S '48

Protection

Weatherproofing concrete-block houses, *il Eng N* 140:634-6 Ap 29 '48

Specifications

Specifications on air entrainment; survey made by AASHO committee, *Concrete* 56:11-13+ Ja '48

Stains

Study of causes and prevention of staining and pop-outs in cinder concrete. S. G. Seaton, *il Am Concrete Inst J* 19:361-77 Ja '48

Strength

Effect of order of mixing on concrete strength. H. H. Munger, *Am Concrete Inst J* 20:84-6 S '48

Relative strengths of portland cement mortar in bending under various loading conditions. J. P. Frankel, *diags Am Concrete Inst J* 20:21-32 S '48

Specifying aggregates on a concrete strength basis. C. E. Proudley, *Concrete* 56:30+ F '48

Strength of precast concrete floor joists. J. Feld, *il diag Am Concrete Inst J* 20:141-5 O '48

Twenty years of progress in high early strength cement concrete, *il Concrete* 56:5-8+ Je '48

Two decades of service prove structural soundness of high early strength cement, *il Civil Eng* 18:236-8+ Ap '48

Use of the dynamic modulus of elasticity in predicting the 28-day flexural strength of concrete. E. F. Preece, *bibliog Am Soc T M Proc* 46:1311-19 '46

Testing

Burned shale and expanded slag concretes with and without air-entraining admixture. P. H. Petersen, *il diag Am Concrete Inst J* 20:165-75 O '48

Chemical test for reactivity of aggregates with cement alkalies; chemical processes in cement-aggregate reaction. R. C. Mielenz and others, *bibliog diags Am Concrete Inst J* 19:193-221 N '47

Concrete tests from a 40-year old dam. H. S. Mattimore, *il diags Eng N* 139:731-3 N 27 '47

Considerations involved in the making of freezing-and-thawing tests on concrete. M. O. Withey, *bibliog il Am Soc T M Proc* 46:1198-207; Discussion, *diags* 1208-51 '46

Control and measurement of air entrainment in concrete. E. M. Erickett, *il diags Roads & Bridges* 35:73-80+ N '47

Effect of various coarse aggregates upon the cement-aggregate reaction. C. H. Scholer and W. E. Gibson, *bibliog Am Concrete Inst J* 19:1009-32 Je '48

Laboratory needs for the ready-mixed concrete operator. E. L. Howard, *il Concrete* 56:10-12 Je '48

Mobility tester for concrete; abstract. P. Nycander, *diags Am Concrete Inst J* 19:343-4 D '47

Modulus of elasticity of aggregates and its effect on concrete. H. A. LaRue, *bibliog il Am Soc T M Proc* 46:1293-310 '46

Proposed method for evaluating air-entraining admixtures, *Concrete* 56:20-1+ Ja '48

Rapid determinations of free moisture in aggregates. C. E. Proudley, *il Concrete* 56:40-1 Ag '48

Some concrete notes on 51st ASTM convention, Detroit, *Concrete* 56:24+ Ag '48

Study of causes and prevention of staining and pop-outs in cinder concrete. S. G. Seaton, *il Am Concrete Inst J* 19:361-77 Ja '48

Study of durability and void characteristics of concretes containing admixtures, principally of the air-entraining type. F. B. Hornibrook and others, *bibliog Am Soc T M Proc* 46:1320-32 '46

Use of the dynamic modulus of elasticity in predicting the 28-day flexural strength of concrete. E. F. Preece, *bibliog Am Soc T M Proc* 46:1311-19 '46

See also

Concrete laboratories

Transportation

Ready mixed concrete invades Chicago area; two types of delivery. D. Mocine, *il Rock Prod* 51:144-7 O '48

Transporting ready-mixed concrete in open dump trucks. R. A. Burmeister, *il Am Concrete Inst J* 20:41-53 S '48

Vibration

Paving attachment for vibrating concrete slab, *il Concrete* 56:48 F '48

CONCRETE, Effect of acids on

Food acids vs. concrete; use of Lassenite. E. L. Howard, *il Concrete* 56:16-18 Ja '48

CONCRETE, Effect of alkalies on

Aggregate reaction with cement alkalies. W. H. Parsons and H. Insley, *bibliog il Am Concrete Inst J* 19:625-32 Ap '48

Chemical test for reactivity of aggregates with cement alkalies; chemical processes in cement-aggregate reaction. R. C. Mielenz and others, *bibliog diags Am Concrete Inst J* 19:193-221 N '47

Durability of concrete exposed to sea water and alkali soils; California experience. T. E. Stanton, *il diag Am Concrete Inst J* 19:821-47 My '48

Study of alkali-aggregate reactivity by means of mortar bar expansions. T. M. Kelly and others, *bibliog Am Concrete Inst J* 20:57-80 S '48

- CONCRETE, Effect of sea water on**
Concrete deterioration in a shipway. R. D. Terzaghi. bibliog il map diags Am Concrete Inst J 19:977-1005 Je '48
- Durability of concrete exposed to sea water and alkali soils; California experience.** T. E. Stanton. il diag Am Concrete Inst J 19:821-47 My '48
- CONCRETE, Porous**
Rock riprap replaces porous concrete slope protection at Santee-Cooper project. H. H. Jewell. il map diags Civil Eng 18:2-6+ Ja '48
- CONCRETE, Ready-mixed.** See Concrete mixing—Ready-mixed concrete
- CONCRETE, Refractory**
New chrome-base concrete. Chem Age (Lond) 58:489 Ap 10 '48
Refractory concrete can support loads; Kromecast. Iron & Steel Eng 25:124-5 Ap '48
Testing of refractory concretes; abstract. P. D. Hartwell. Brick & Clay Rec 111:62+ D '47
Topaz as an admixture in refractory concrete. F. E. Lobaugh. il Am Cer Soc J 30:349-53 D 1 '47
- CONCRETE, Reinforced**
Advances in reinforced concrete during the past quarter of a century. F. E. Richart. Am Concrete Inst J 19:720-31 bibliog(p729-31) Ap '48
Air jets compact concrete around reinforcing in wall forms. diags Eng N 140:638 Ap 29 '48
Analysis of normal stresses in reinforced concrete sections under symmetrical bending. M. Bakhoun. diags Am Concrete Inst J 19:457-83 F '48
Analysis of rectangular reinforced concrete sections subjected to direct stress and bending in two directions. D. M. Goodall. Pub Roads 25:80-3 Je '48
Bundle reinforcing saves materials. diags Eng N 140:509-10 Ap 1 '48
Council appointed for experimental study of concrete reinforcement. Iron Age 162:154-5 Ag 26 '48
Design of rectangular tied columns subject to bending with steel in all faces. D. R. Cervin. diags Am Concrete Inst J 19:401-12 Ja '48
Effect of eccentric loading protective shells, slenderness ratios, and other variables in reinforced concrete columns. F. E. Richart and others. il diags il U Eng Exp Sta Bul 368:1-128 bibliog(p 127-8) '47 (pa \$1)
Highlights of the development of reinforced concrete and the study of bond. A. P. Clark. Am Concrete Inst J 19:437-40 F '48
Normal stresses in reinforced concrete sections under unsymmetrical bending. M. Bakhoun. diags Am Concrete Inst J 19:669-91 Ap '48
Possibility of damage from earthquakes in California leads to development of reinforced concrete masonry design. C. D. Wailes, jr. diags Concrete 55:23-5+ D '47
Precasting concrete pipe for the San Diego aqueduct. D. K. Woodin. il plan diags Am Concrete Inst J 19:261-88 D '47
Prestressed reinforced concrete pressure pipe. M. W. Loving. il diag Water & Sewage Works 95:379-84 N '48
Reinforced-concrete locomotive sheds. il diags Engineering 165:199-201, 204 F 27 '48
Reinforced concrete pressure pipe manufactured on two levels; prestressed pipe for Montreal water system. M. W. Loving. il Rock Prod 51:158-62+ F '48
See also
Pavements, Concrete
—Reinforcement
- Testing**
Bond and anchorage. T. D. Mylrea. il diags Am Concrete Inst J 19:521-52 Mr '48
Investigation of formation of cracks in reinforced concrete structures; abstract. G. Wastlund and P. O. Jonsson. Am Concrete Inst J 20:93-5 S '48
Plastic flow of thin reinforced concrete slabs. G. W. Washa. il Am Concrete Inst J 19:237-60 N '47
Protection of electric strain gages in concrete. R. H. Sherlock and A. Belgin. il diags Am Concrete Inst J 19:189-92 N '47
- Reinforced concrete wall and column footings. F. E. Richart. bibliog il diags Am Concrete Inst J 20:97-127, 237-60 O-N '48
Research on the action of concrete and reinforced concrete subjected to repeated stresses; abstract. B. La Camus. Am Concrete Inst J 19:341-3 D '47
Strength and slip under load of bent-bar anchorages and straight embedments in Haydite concrete. C. C. Fishburn. il diags Am Concrete Inst J 19:289-305 D '47
- CONCRETE arches.** See Arches, Concrete
- CONCRETE blocks**
Brick and concrete block mfrs. sell whole masonry wall. il Brick & Clay Rec 112:1+ F '48
Cinder block producers meeting. Atlantic City, Aug. 9-11. Rock Prod 51:149-50 O '48
Concrete masonry in 1948. E. W. Dienhart. Concrete 56:12+ F '48
Contract let to build articulated precast concrete unit jetties at Boys club beach, Riverhead, N.Y. Concrete 56:33 Je '48
Experimental concrete canal linings on the Kozs division of the Yakima project. il Concrete 56:8-10 Ja '48
Flexible concrete mattresses for river-bank protection. il Engineering 165:337-9, 348 Ap 9 '48
Flexure tests show strength of jetcreted dry wall block panel. il Concrete 56:32+ Je '48; Constr Methods 30:96-7 Je '48
National concrete masonry association, Southeastern group meeting, New Orleans, Nov. 8-11. Rock Prod 51:166-9+ Ja '48
Possibility of damage from earthquakes in California leads to development of reinforced concrete masonry design. C. D. Wailes, jr. diags Concrete 55:23-5+ D '47
Products business in the Southeast. J. W. Shaver. Concrete 55:12-14+ D '47
Ship-lap construction with block of unusual design; Dinaburg block co. il Rock Prod 51:129 My '48
- Manufacture**
Block producer sees big future in engineered precast concrete units; Columbia concrete products, inc. J. W. Shaver. il Concrete 56:10+ Jl '48
Colored block increase sales; Henry Logsdon, Fruitland, Idaho. W. B. Lenhart. il Rock Prod 50:130-1 N '47
Concrete block plant built for the future; Illinois brick co. R. S. Torgerson. il plans diag Rock Prod 50:122-6+ N '47
Continuous weigh-batch and mixing system; plant of L. Randolph, Ann Arbor, Mich. D. Mocine. il Rock Prod 51:118-19+ S '48
Cubing and block handling devices; abstract. J. E. Sheahan. Concrete 56:43+ Ap '48
Cut down haulage costs to job; Atlas lime co., El Paso, Texas, uses volcanic cinders as aggregate. S. L. Meyers. il plan diags Rock Prod 51:146-9 Mr '48
Design plant for economical operation; plant of G. W. Katterjohn. D. Mocine. il Rock Prod 51:152-3+ F '48
Design plant layout for future expansion; Arlington concrete products co. D. Mocine. il Rock Prod 51:151+ O '48
First Stearns 15 makes Comac at Rochester, N.Y. a well-designed one-machine concrete products plant. J. W. Shaver. il Concrete 56:32-4 F '48
From log cabin to modern block plant; S and C enterprises, inc. W. B. Lenhart. il Rock Prod 50:131+ D '47
Gravity batching system supplies concrete products and ready mix departments; Sager concrete products, co. D. Mocine. il Rock Prod 51:208-9 Ag '48
High block output on all-hydraulic machine. il Concrete 56:46 F '48
High-strength cinder concrete units; Universal concrete pipe co. il Concrete 56:33 Ag '48
Highly mechanized block plant; Cleveland builders supply co. D. Mocine. il Rock Prod 51:122-4+ S '48
Increased production with new kilns and block machines; Comac builders' supply co. W. B. Lenhart. il Rock Prod 51:145+ Mr '48
Lift trucks and conveyor belts reduce handling costs; North Carolina products co. W. B. Lenhart. il Rock Prod 51:184-5+ Ap '48

CONCRETE blocks—Manufacture—Continued

- Limestone fines for block and ready mix; Clinton construction co. D. Mocine. *il* Rock Prod 51:170-1 Ja '48
- Manufacturer of concrete masonry units proves value of full-time laboratory control; Cinder concrete products, inc. C. J. Ray. *il* Concrete 55:30-2 N '47
- Modern curing methods; abstract. G. A. Mansfield, Rock Prod 51:157+ Mr '48
- Mortarless block constructs new plant to meet demand. G. Clark. *il* Rock Prod 51:125 J '48
- New Cedar Rapids block plant is another monument to pioneering. J. W. Shaver. *il* diag Concrete 56:7-8+ S '48
- New techniques in block-making at Illinois Brick's new Chicago plant. *il* plans diag Concrete 55:3-12+ N '47
- One man controls two mixers and materials flow; Nashville Brecko block & tile co. D. Mocine. *il* Rock Prod 51:138-9 My '48
- Palletizing block handling; Linton Concrete Products. W. B. Lenhart. *il* Rock Prod 51:207+ Ag '48
- Pumice takes lead in the Southwest; Pumice manufacturing co., Albuquerque. W. B. Lenhart. *il* Rock Prod 51:186-7 Je '48
- Stearns 15 now offered products industry. *il* Concrete 56:60-1 F '48
- Transport block from machine to racks by endless cable conveyor; Ramsey bros. W. B. Lenhart. *il* Rock Prod 51:177-9 Je '48
- 20-man block plant features speed in cubing and handling. J. W. Shaver. *il* Concrete 56:3-5 My '48
- Veterans open up new block market; Malia and Thomas concrete block plant. B. Downer. *il* Concrete 56:9+ Je '48

CONCRETE bricks

- Possibility of damage from earthquakes in California leads to development of reinforced concrete masonry design. C. D. Wales, jr. *diag* Concrete 55:23-5+ D '47

Manufacture

- Combine wet and dry-air curing system; Illinois brick co. *il* diag Rock Prod 51:150-1 F '48
- Cubing concrete brick; Columbia concrete products co., inc., manufacturing modular concrete brick on block machine. D. Mocine. *il* Rock Prod 50:132-3 N '47

CONCRETE bridges. See Bridges, Concrete**CONCRETE buildings**

- Architectural concrete gymnasium using plywood forms. *il* Concrete 56:36-7 Mr '48
- 40-in. concrete houses big X-ray machine installed by the Babcock & Wilcox co.; abstracts. O. R. Carpenter. *il* Concrete 56:36 My '48; Safety Eng 95:32 My '48
- Story of 104-year-old concrete structure that gave way under pressure of alterations. *il* Eng N 141:10 J '48
- United air lines opens new maintenance depot. *il* Concrete 56:18 Je '48
- World's tallest concrete building; Banco do estado de São Paulo. L. Compagna. *il* diag Eng N 141:72-3 S '48

See also

Concrete houses
Silos, Concrete

CONCRETE catch basins. See Catch basins, Concrete**CONCRETE coal bins. See Coal bins, Concrete****CONCRETE cofferdams. See Cofferdams, Concrete****CONCRETE columns. See Columns, Concrete****CONCRETE conduits. See Conduits, Concrete****CONCRETE construction**

- Arch roof construction provides large column-free area; motor vehicle repair shop for New York Fire department. *il* Civil Eng 18:19+ Ja '48
- Australia developing federal capital at Canberra; Administrative offices building embodying design precautions against air raids. G. S. Boris. *il* map Civil Eng 18:290-1+ My '48
- British wind tunnels built of concrete. *il* Eng N 140:609 Ap 22 '48
- Casting three-story concrete pilasters; plant for Calco chemical division of American cyanamid co. *il* Concrete 55:16-18 N '47

Colorado-Big Thompson pumping plant. R. J. Willson. *il* plan diag Eng N 141:80-5 S 16 '48

Concrete equipment makers offer hope for lower construction costs. Concrete 56:5-7 F '48

Concrete making in China. J. S. Cotton. *il* Am Concrete Inst J 19:381-98 Ja '48

Concreting from the top down. Comp Air Mag 53:22 Ja '48

Concreting large volumes in small pours; Stuyvesant Town. *il* Eng N 140:198-9 F 5 '48

Construction of the Gorge plant addition. R. A. Galbreath. *il* Power Generation 52:116+ F '48

Continuous beams simplify design of footings for four-story building. *il* Eng N 139:377 D 25 '47

Development of tilt-up construction. C. A. Clark. *il* diag Am Concrete Inst J 19:813-20 My '48; Abstract. Concrete 56:30+ Ap '48

Double decks of precast concrete on steel frame enlarge Orange Bowl stadium. *il* diag Eng N 141:43-50 J '22 '48

East Malartic mines; construction of concrete head frame and surface buildings. A. J. Grant, jr. *il* map plan diag Can Min J 69:67-74 My '48

Innovations in bridge pier concrete; bridge at Chesapeake City, Md. C. C. Frech. *il* diag Eng N 140:174-8 F 5 '48

Insulated precast concrete wall panels prove economical substitute for brick; du Pont nylon plant at Chattanooga. C. H. Topping. *il* diag Civil Eng 18:578-81 S '48

Lightweight aggregates cut costs in Prudential Insurance and General Petroleum buildings in Los Angeles. *il* Arch Rec 104:147-8 O '48

Porch and bay window units precast on big housing project. *il* plan diag Constr Methods 30:82-6 S '48

Precast concrete structural units. *il* Concrete 56:3-5 Mr '48

Sandwich-type building material of high strength; blocks of concrete laid in panels coated with Jet-Crete. Comp Air Mag 53:223 S '48

Speeding up construction with large structural units; Cementstone corp. W. B. Lenhart. *il* diag Rock Prod 50:127-9 N '47

Stadium press box on stilts; concrete stands at Georgia school of technology's Grant field. J. J. Pollard. *il* Eng N 140:566-7 Ap 15 '48

Stadium roof features concrete cantilever; football stadium in Seattle, Wash. *il* Eng N 140:428-9 Mr 18 '48

Story of pumice; monolithic concrete hospital at Altus, Okla. *il* Concrete 56:8-10+ O '48

Stretching the concrete-building dollar. A. J. Boase. *il* plan diag Eng N 141:109-11 O 28 '48

Telescopic joists simplify soffit construction. *il* Concrete 56:12-13+ O '48

Twenty years of progress in high early strength cement concrete. *il* Concrete 56:5-8+ Je '48

Two decades of service prove structural soundness of high early strength cement. *il* Civil Eng 18:236-8+ Ap '48

See also

Bridges, Concrete
Coal bins, Concrete
Concrete, Reinforced
Concrete blocks
Concrete houses
Concrete lining
Concrete placing
Concrete plants
Dams, Concrete
Floors, Concrete
Flumes, Concrete

Footings, Concrete
Railroads—Concrete construction
Reservoirs, Concrete
Standpipes, Concrete
Walls, Concrete
Water pipes, Concrete
Water tanks, Concrete

Cost

Construction cost and volume trends. Concrete 56:6-8+ Mr '48

Lewiston has Northwest's first postwar swimming pool; with cost data. W. P. Hughes. *il* Pub Works 79:32-3+ Mr '48

Design

Analysis of normal stresses in reinforced concrete sections under symmetrical bending. M. Bakhoum. *diag* Am Concrete Inst J 19:457-83 F '48

CONCRETE construction—Design—Continued

Analysis of two-column symmetrical bents and Vierendeel trusses having parallel and equal chords. J. E. Goldberg. *Am Concrete Inst J* 19:225-34 N '47

Arch roof with dome-ends provides unobstructed area for skating; combination skating rink, bowling alley and garage in Washington, D.C. *il Eng N* 141:110-12 JI 8 '48

Design of rectangular tied columns subject to bending with steel in all faces. D. R. Cervin. *diags Am Concrete Inst J* 19:401-12 Ja '48

Economy in structural design. I. E. Morris. *diags Am Concrete Inst J* 19:349-59 Ja '48

Economy of precast four-in. Joistile beam appeals to southwest builders. *diags Brick & Clay Rec* 112:32-3 Je '48

Effect of eccentric loading protective shells, slenderness ratios, and other variables in reinforced concrete columns. F. E. Richart and others. *il diags III U Eng Exp Sta Bul* 368:1-128 bibliog(p 127-8) '47 (pa \$1)

Formulas simplify design of concrete columns under axial load and skew bending. C. C. H. Tommerup. *diags Civil Eng* 18:705-6 N '48

Investigation of U type tile-concrete beams. J. N. Thompson and W. D. Ramey. *il diags Texas U Bur of Eng Research Bul* 41:1-66 '47

Lattice analogy in concrete design. D. McHenry. *diags Am Concrete Inst J* 20:129-38 O '48

More exact analysis proposed for continuous beams over flat supports. A. Floris. *diags Civil Eng* 18:301-2 My '48

Normal stresses in reinforced concrete sections under unsymmetrical bending. M. Bakhoun. *diags Am Concrete Inst J* 19:669-91 Ap '48

Structural design for a steam plant in an earthquake area. R. A. Larsen and W. F. Swiger. *il diags Eng N* 140:430-3 Mr 18 '48

Fire resistance

Fibrous concrete has high fire resistance. *Concrete* 56:30 Je '48

Forms

Air jets compact concrete around reinforcing in wall forms. *diags Eng N* 140:638 Ap 29 '48

Architectural concrete gymnasium using plywood forms. *il Concrete* 56:36-7 Mr '48

Atlas Steel speed forms make low-cost concrete. *il Concrete* 56:62 F '48

Cantilever steel forms expedite work on Bull Shoals dam. *il Civil Eng* 18:95 F '48

Concrete deck forms are precast slabs; wharf at Richmond, Calif. *il diags Eng N* 139:646-9 N 13 '47

Concrete houses cast in box forms. *il Constr Methods* 30:42-5 O '48

Economical formwork on current jobs. H. W. Hunt. *il diags Eng N* 139:680-3 N 13 '47

Gantries move forms in assembly-line construction of flood wall. *il Civil Eng* 18:646-7 O '48; Same. *Concrete* 56:6-7 O '48

Ground-assembled forms cast 312 monolithic exterior columns. *il Civil Eng* 18:7-8 Ja '48

Lamolithic steel forms facilitate fast and economical construction. *il diags Arch Forum* 89:109-11 O '48

New concrete form cuts building costs. *il Concrete* 56:33 My '48

One-piece basement form speeds house erection. *il Eng N* 140:465 Mr 25 '48

Slip forms speed feed mill erection. *il Concrete* 56:5-+ Ap '48

Steel forms speed hollow wall construction. J. E. King. *il diags Eng N* 140:726 My 13 '48

Pipe embedding

Radiant heating pipes in an extra-thick slab reported O.K. *Heating-Piping* 20:88 O '48

Rapid construction

Rapid plant erection; mass-production concrete method in Sweden. *il Chem Age (Lond)* 59:177 Ag 7 '48

Slip forms speed feed mill erection. *il Concrete* 56:5-+ Ap '48

See also

Roads, Concrete—Construction schedules

Safety measures

Safety measures in pier erection. *il Concrete* 56:9 JI '48

Safety scaffolds built into bridge pier forms. *il Constr Methods* 30:75 S '48; Same. *Roads & Sts* 91:63 S '48

Standards

Industry-engineered house in concrete masonry. *il plans diags Am Bld* 69:104-5 D '47

CONCRETE construction, Subaqueous
Air cushion for tight tremie seal; Halifax River bridge. *il Constr Methods* 30:78-80 S '48

Concrete deterioration in a shipway. R. D. Terzaghi. bibliog *il map diags Am Concrete Inst J* 19:977-1005 Je '48

Sealing off flood water in the San Antonio mine. C. M. Syner. *diags Eng & Min J* 149:77-80 Mr '48

CONCRETE construction, Underground

See also

Concrete construction in mines

CONCRETE construction in mines
Concreting practice at Climax. R. Henderson. *il diags Min Cong J* 34:37-40 S '48

CONCRETE construction in winter
Concrete in cold weather construction. *Paper Ind* 29:1649 F '43

Plenty of snow, but footings go in at Boston airport. *il Constr Methods* 30:86-8 Mr '48

Proposed recommended practice for winter concreting methods. *Am Concrete Inst J* 19:309-27 bibliog(135 titles, p 322-7) D '47

Recommended practice for winter concreting methods (ACI 604-48). *Am Concrete Inst J* 20:1-18 bibliog(135 titles, p 13-18) S '48

Twenty below, but concreting continues on Union Falls Dam project for Central Maine power co. *il Constr Methods* 30:80-5 Mr '48

Wintertime guniting at the Soo; Davis lock at Sault Ste Marie. *il diags Eng N* 140:966-7 Je 10 '48

Bibliography

Winter concreting methods; selected references. *Am Concrete Inst J* 19:322-7 D '47

CONCRETE dams. See Dams, Concrete

CONCRETE floors. See Floors, Concrete

CONCRETE flumes. See Flumes, Concrete

CONCRETE handling

Eight-yd. dual concrete bucket to be used on Corps of engineers work. *il Concrete* 56:28-+ Ap '48

CONCRETE houses

Building houses using diversified line of products; Greystone concrete products, inc. W. B. Lenhart. *il Rock Prod* 51:205-6-+ Ag '48

Concrete home in Florida built by Lamolithic industries. *il plan diags Arch Forum* 89:101-5 O '48

Concrete houses cast in box forms. *il Constr Methods* 30:42-5 O '48

La construction en série de maisons en béton, moulées dans des coffrages mobiles. C. Delay. *diags Génie Civil* 124:477-8 D 15 '47

Four concrete beach houses built by Lamolithic industries in Florida. *il plans Arch Forum* 89:106-8 O '48

Homes in a hurry for Puerto Rico. *il Eng N* 141:6 Ag 12 '48

House near Phoenix, Ariz.; reinforced concrete; design by F. L. Wright. *il plan Arch Forum* 88:92 Ja '48

Industry-engineered house in concrete masonry. *il plans diags Am Bld* 69:104-5 D '47

Lamolithic steel forms facilitate fast and economical construction. *il diags Arch Forum* 89:109-11 O '48

Merchandising concrete and concrete products; home show exhibit built by Anchor concrete products, inc. *il Concrete* 56:22 JI '48

Monolithic houses produced at low cost by Tournalayer machines at Murco air force base, Calif. *il Am Bld* 70:132 S '48

CONCRETE houses—Continued

- New precast house panel plant of Tarran industries opens. *il Concrete* 56:25-6 J1 '48
- Oldest concrete structure in the United States? *Comp Air Mag* 53:228 S '48
- Plumbing for mass produced housing. *il Dom Eng* 172:123-4 J1 '48
- Poured concrete solves this builder's problem; Pumacrete Homes. *il plans Am Bld* 70:110-11 S '48
- Precast bungalows shelter navy families on Guam. *il Eng N* 139:666 N 13 '47; *Arch Rec* 102:10 N '47
- Precasting speeds house erection; Whitemarsh Village, near Philadelphia. *il Eng N* 139:664-6 N 13 '47
- Prefabricated housing of pumice concrete. *il Rock Prod* 51:129-30 S '48
- Prefabricated pumice concrete houses. H. L. Mathews. *il Am Concrete Inst J* 19:797-811 My '48; *Abstract. Concrete* 56:26+ Ap '48
- Pumice concrete houses at Muroc air base. *il Concrete* 56:14-15+ Je '48
- Security home built of Plasticrete units visited by thousands. *Concrete* 56:24 J1 '48
- Story of pumice; precasting house panels. A. V. Roemisch. *il Concrete* 56:10-12 Ag '48
- Sun deck house of poured concrete. *il plan Am Bld* 70:89 O '48
- Thermal insulation of concrete homes. A. Stone. *il plans diags Am Concrete Inst J* 19:849-74 My '48
- Thermo-Con house; Higgins improves his lightweight concrete for low cost houses. *il Arch Forum* 87:13 D '47; *plan Am Bld* 70:162+ F '48
- Today's problems and costs in building concrete masonry homes; abstract. J. Strandberg. *il Concrete* 56:38 Ap '48
- Weatherproofing concrete-block houses. *il Eng N* 140:634-6 Ap 29 '48

CONCRETE industry**Directories**

- Ready-mix concrete suppliers, Canada, Roads & Bridges 86:155 Je '48

China

- Concrete making in China. J. S. Cotton. *il Am Concrete Inst J* 19:381-98 Ja '48

CONCRETE joists. See Joists, Concrete**CONCRETE laboratories**

- Manufacturer of concrete masonry units proves value of full-time laboratory control; Cinder concrete products, inc. C. J. Ray. *il Concrete* 55:30-2 N '47

CONCRETE lining

- Canal lining methods on Gila project. *il Concrete* 55:18-20+ D '47
- Concreting operations for the Aguasabon power development. *il Roads & Bridges* 86:76-8+ My '48
- Experimental concrete canal linings on the Roza division of the Yakima project. *il Concrete* 56:8-10 Ja '48
- Mechanical trimmer and slip-form expedite canal lining operations; Delta-Mendota canal. R. H. Heitman. *il Civil Eng* 18:634-7 O '48
- Octopus speeds shaft job; device used to pour concrete. *il diags Eng & Min J* 149:82-3 My '48
- Pneumatic equipment speeds tunnel lining. *il diag Comp Air Mag* 55:199 Ag '48
- Precast reinforced concrete sewer tunnel lining provides sound, economical structure; Tel-Aviv, Palestine. A. M. Freudenthal. *il Civil Eng* 18:292-4 My '48
- Single arch converted to double arch in Mount Royal tunnel. C. P. Disney. *il diag Roads & Bridges* 86:65-8+ My '48
- Test-linings placed in small canals. *il Eng N* 141:74-7 J1 22 '48

CONCRETE manholes. See Manholes, Concrete**CONCRETE mixers**

- Dust problem in loading truck mixers. *diag Am Concrete Inst J* 19:418-19 Ja '48; *Eng N* 140:135-6 Ja 22 '48
- Mobile concrete mixer. *il Engineer* 186:245 S 3 '48
- New developments in concrete delivery units. *il diags Rock Prod* 50:185-7 D '47
- Revolving rear-end hopper features new Blaw-Knox high discharge Trukmixer. *il Concrete* 55:36 D '47
- Stothert and Pitt concrete-mixing machine. *il Engineering* 165:129 F 6 '48

- Truck mixer with octagon-shaped drum. *il Rock Prod* 51:137 My '48
- Truck mixers go rural. *il Roads & Sts* 91:94-7 S '48

CONCRETE mixing

- Automatic proportioning of concrete for big dam project near Cartersville, Ga. W. B. Lenhart. *il Rock Prod* 51:134-6 My '48
- Brackish water not harmful in concrete mix, navy study shows. *Civil Eng* 18:637+ O '48
- Concrete control on Allatoona dam. *il Concrete* 56:22-3 Je '48
- Concrete for products plants; practical methods of proportioning. B. Wilk and W. Grant. *Rock Prod* 51:172+ F '48
- Concrete mixing and placing on the Stewartville dam. *il Roads & Bridges* 85:59-61+ D '47
- Design and control of pumice concrete mixes. W. K. Wagner. *Rock Prod* 51:125-7+ S '48
- Effect of order of mixing on concrete strength. H. H. Munger. *Am Concrete Inst J* 20:84-6 S '48
- Hot cement effect on concrete mix temperature. M. A. Swayze. *Am Concrete Inst J* 19:330-1 D '47
- Ice in mix precools concrete for dams; use of tube-ice machines. *il diag Comp Air Mag* 53:66-7 Mr '48
- Ice in the mix; concrete plant at Fort Gibson dam. *il Constr Methods* 30:89-91 Ja '48
- Portland cement technology; abridgment. J. C. Witt. *Concrete* 56:16+ J1; 34+ Ag '48
- Producing dry-mix concrete. *il Rock Prod* 51:114+ J1 '48
- Salt water concrete. *Pub Works* 79:44 O '48
- Studies of lightweight concrete mix design and strength. E. L. Howard. *Rock Prod* 51:189 Je '48
- To what fineness should cement be ground? S. L. Meyers. *Rock Prod* 51:130-4 Ja '48
- Water for making concrete. *Am Concrete Inst J* 19:414-16 Ja '48

Ready-mixed concrete

- Air moves cement from barges to batching bins; Metropolitan sand and gravel co. W. B. Lenhart. *il diag Rock Prod* 51:154-6 F '48
- Big market for ready mix and concrete products. *Rock Prod* 51:96+ Ja '48
- Biggest ready mixed plant in 12 states; Colorado pre-mix concrete co. J. W. Shaver. *il Concrete* 56:28+ My '48
- Design plant for pumice ready mixed concrete; Albuquerque grave products co. plant facilities to handle pumice concrete. *il Rock Prod* 51:131-3 S '48
- Half-hour concrete haul without agitation; use of dump trucks in paving street in Milwaukee. *il Roads & Sts* 90:83-4 N '47
- Haulage of air-entrained concrete. J. W. Shaver. *il diags Concrete* 55:8-11+ Je; 10-13 J1 '47; 56:32-3+ Ja '48
- Labor requirements; sand and gravel and ready-mixed concrete. A. L. Stucke. *Mo Labor R* 66:630-5 Je '48
- Laboratory needs for ready-mixed concrete operator. E. L. Howard. *il Concrete* 56:10-12 Je '48
- Limestone fines for block and ready mix; Clinton construction co. D. Mocine. *il Rock Prod* 51:170-1 Ja '48
- Modernized plant supplies aggregates to meet increasing demand for concrete; Milne-Coulson. *il Rock Prod* 51:180-1 Je '48
- New developments in concrete delivery units. *il diags Rock Prod* 50:185-7 D '47
- Ready mix for Maine turnpike. *il Rock Prod* 51:156-7 F '48
- Ready mix survey of cement situation. V. Ahearn. *Concrete* 56:28+ S '48
- Ready mixed concrete invades Chicago area. D. Mocine. *il Rock Prod* 51:144-8 O '48
- Ready mixed industry looks ahead. F. P. Spratlan, Jr. *Concrete* 56:14-15 F '48
- Ready mixed operator believes a contract is a contract; Henry Nelch and son. *il Concrete* 56:6-8 J1 '48
- Reconverting a ready mix business from war to peace economy; Ready mixed concrete co. B. Nordberg. *il Rock Prod* 51:152-4 O '48
- Reduce haulage cost with four plants strategically located; Ready mixed concrete corp. D. Mocine. *il Rock Prod* 50:188-90+ D '47

CONCRETE mixing—Ready-mixed concrete—*Continued*

- Selling concrete in small communities; Sutherland ready-mix co. *il* Rock Prod 50:121+N '47
- Story of pumice; ready mixed concrete. *il* Concrete 56:20+S '48
- Transporting ready-mixed concrete in open dump trucks. R. A. Burmeister. *il* Am Concrete Inst J 20:41-53 S '48
- Unusual method of loading agitator trucks; Red ball concrete co. *il* Rock Prod 51:155 O '48
- Use of ready mixed concrete in highway construction; abstract. J. F. Barbee. Concrete 56:28+ F '48
- What is in store for the ready mixed concrete industry? Wabash Valley ready mixed concrete association meeting, Chicago, March 4-5. Rock Prod 51:197-8 Ap '48

CONCRETE pavements. See Pavements, Concrete**CONCRETE** piling

- Bridge piles driven by precision methods. *il* Eng N 141:80-2 Ag 5 '48
- Causeways built to withstand hurricanes; causeway across Biscayne bay at Miami. *il* Eng N 140:568-71 Ap 15 '48
- Cave-ins of sandy backfills. J. C. Gebhard. *il* plans diags Am Soc C E Proc 74:84-92 Ja '48
- Driving concrete piles on sewer job. J. J. Gass. *il* Concrete 56:3-5 JI '48
- Experiences with predetermining pile lengths. W. W. Moore. diag Am Soc C E Proc 73:1348-54 N '47
- Fitting foundations to variable ground; Stuyvesant Town buildings. *il* diags Eng N 140:194-7 F 5 '48
- Plenty of snow, but footings go in at Boston airport. *il* Constr Methods 30:86-8 Mr '48
- Precast concrete piling; Formigli corp. *il* Rock Prod 51:157 F '48
- Precast concrete units simplify construction of West Coast marine structures. B. C. Gerwick. *il* diag Civil Eng 18:512-16+ Ag '48
- Screw piles support Turkish pier. diags Eng N 140:53 Ja 8 '48
- See also*
- Piles and pile driving—Concrete encased piles

CONCRETE pipes. See Pipes, Concrete; Sewer pipes, Concrete**CONCRETE** placing

- Concrete mixing and placing on the Stewartville dam. *il* Roads & Bridges 85:59-61+ D '47
- Concrete placement on Bluestone dam. *il* Concrete 56:5-6 S '48
- Concrete pumped to high sliding forms; coal bins at mine of United States coal & coke co. *il* Constr Methods 30:94-6 F '48
- Long distance pumping of concrete; Pump-creting system. *il* diag Concrete 56:15-16+ My '48
- Octopus speeds shaft job; device used to pour concrete. *il* diags Eng & Min J 149:82-3 My '48
- 22-hr. continuous pour on slab for foundation of Pacific telephone & telegraph co. building, Oakland, Calif. *il* Constr Methods 30:106-7 F '48
- See also*
- Concrete lining

CONCRETE lining**CONCRETE** plants

- Automatic proportioning of concrete for big dam project near Cartersville, Ga. W. B. Lenhart. *il* Rock Prod 51:134-6 My '48
- Biggest ready mixed plant in 12 states; Colorado pre-mix concrete co. J. W. Shaver. *il* Concrete 56:28+ My '48
- Construction progress on Chain of Rocks locks. *il* map Concrete 56:16-18 S '48
- See also*

Concrete products plants**Employees**

- Labor requirements; sand and gravel and ready-mixed concrete. A. L. Stucke. Mo Labor R 66:630-5 Je '48

Equipment

- Blaw-Knox batching plant has new features. *il* Concrete 56:52 F '48

- 1949 buyers' directory; equipment and materials used in the production, handling, use and transportation of concrete, concrete products and ready-mixed concrete. Concrete 56:57-69 S '48

Ready mixed operator believes a contract is a contract; Henry Nelch and son. *il* Concrete 56:6-8 JI '48

Reconverting a ready mix business from war to peace economy; Ready mixed concrete co. B. Nordberg. *il* Rock Prod 51:152-4 O '48

- Reduce haulage cost with four plants strategically located; Ready mixed concrete corp. D. Mocine. *il* Rock Prod 50:188-90+ D '47
- Selling concrete in small communities; Sutherland ready-mix co. *il* Rock Prod 50:121+N '47

CONCRETE poles. See Poles, Concrete**CONCRETE** products*See also*

- | | |
|-----------------|-----------------------|
| Concrete blocks | Pipes, Concrete |
| Concrete slabs | Sewer pipes, Concrete |
| Concrete tiles | |

Manufacture

- Building houses using diversified line of products; Greystone concrete products, inc. W. B. Lenhart. *il* Rock Prod 51:205-6+ Ag '48
- Concrete for products plants; practical methods of proportioning. B. Wilk and W. Grant. Rock Prod 51:172+ F '48
- German precast concrete. F. O. Anderegg. Rock Prod 51:143 My '48
- If its concrete, we have it; Maule Industries, inc. W. B. Lenhart. *il* Rock Prod 51:120-1 S '48
- Poston sells packaged walls. *il* Concrete 56:3-5 O '48
- Precast concrete for beauty and utility; Durastone, inc. C. H. Leach. *il* Rock Prod 51:210-11 Ag '48
- Railway precast concrete depot. *il* Engineer 185:277-8 Mr 19 '48
- Sell complete concrete products line; Pinellas lumber co. W. B. Lenhart. *il* Rock Prod 51:130-3 My '48
- Speeding up construction with large structural units; Cementone corp. W. B. Lenhart. *il* diags Rock Prod 50:127-9 N '47

CONCRETE products industry

- Big market for ready mix and concrete products. Rock Prod 51:96+ Ja '48
- Colorado River control creates business for rock products industry. W. B. Lenhart. *il* Rock Prod 51:133+ Je '48
- Concrete products outlook. *il* Rock Prod 51:175-7 Ja '48
- Diversify production to increase sales; Basalt rock co. manufactures concrete roofing tile and concrete block, and sells steel reinforcing and other products as a complete package. M. W. Loving. *il* Rock Prod 51:186-8 Ap '48
- Wisconsin products association out to capture old prestige; 28th annual convention, Milwaukee, Jan. 29-30. Concrete 56:12-14+ Mr '48

Germany

- German precast concrete. F. O. Anderegg. Rock Prod 51:143 My '48

Southeastern states

- Products business in the Southeast. J. W. Shaver. Concrete 55:12-14+ D '47

CONCRETE products plants

- From one block machine to concrete specialties field; West Bend concrete products co. *il* Rock Prod 51:174+ Ja '48
- High temperature curing; Crescent concrete products corp., New Orleans. D. Mocine. *il* Rock Prod 51:115+ JI '48
- Joist manufacturer's new plant; North Shore concrete joist co. D. Mocine. *il* Rock Prod 51:203 Ap '48
- Keep workmen busy the year round; precast reinforced concrete staves for silo construction, manufactured by Mason & Lawrence. D. Mocine. *il* Rock Prod 51:161+ Ja '48
- Large concrete panels for industrial buildings; Allison steel manufacturing co., Phoenix, Ariz. casts reinforced concrete slabs. W. B. Lenhart. *il* Rock Prod 51:182-3 Je '48

CONCRETE products plants—Continued

Produce wide variety of concrete products; Yakima cement products co. W. B. Lenhart. *il* plan Rock Prod 50:182-4 D '47

See also

Concrete blocks—
Manufacture
Concrete bricks—
Manufacture

Concrete products
—Manufacture
Pipes, Concrete—
Manufacture

Equipment

Block producer sees big future in engineered precast concrete units; Columbia concrete products, inc. J. W. Shaver. *il* Concrete 56:10-+ J1 '48

Clark carloader has many concrete uses. *il* Concrete 56:41 F '48

Combine wet and dry-air curing system; Illinois brick co. *il* diag Rock Prod 51:150-1 F '48

Concrete block plant built for the future; Illinois brick co. E. S. Torgerson. *il* plans diag Rock Prod 50:122-6-+ N '47

Concrete products, foundation to roof; Concrete products corp. manufactures block, brick, joists, floor slabs, sills, lintels and coping. D. Mocine. *il* Rock Prod 51:184-5 Je '48

Concrete products machinery developments. *il* Rock Prod 50:191-2-+ D '47

Continuous weigh-batch and mixing system; plant of L. Randolph, Ann Arbor, Mich. D. Mocine. *il* Rock Prod 51:118-19-+ S '48

Conveyor system and large stockpiles solve materials problem; Hart concrete products co., Tampa, Fla. W. B. Lenhart. *il* Rock Prod 51:118-20 J1 '48

Cut down haulage costs to job; Atlas lime co., El Paso, Texas, uses volcanic cinders as aggregate. S. L. Meyers. *il* plan diags Rock Prod 51:146-9 Mr '48

Design plant for economical operation; plant of G. W. Katterjohn, D. Mocine. *il* Rock Prod 51:152-3-+ F '48

Design plant layout for future expansion; Arlington concrete products co. D. Mocine. *il* Rock Prod 51:151-+ O '48

Efficient aggregate handling for concrete products plants. *il* Rock Prod 51:164-+ Mr '48

First Stearns 15 makes Comac at Rochester, N.Y. a well-designed one-machine concrete products plant. J. W. Shaver. *il* Concrete 56:32-4 F '48

From log cabin to modern block plant; S and C enterprises, inc. W. B. Lenhart. *il* Rock Prod 50:181-+ D '47

Gravity batching system supplies concrete products and ready mix departments; Sager concrete products, co. D. Mocine. *il* Rock Prod 51:208-9 Ag '48

Highly mechanized block plant; Cleveland builders supply co. D. Mocine. *il* Rock Prod 51:122-4-+ S '48

Increased production with new kilns and block machines; Comac builders' supply co. W. B. Lenhart. *il* Rock Prod 51:145-+ Mr '48

Lift trucks and conveyor belts reduce handling costs; North Carolina products co. W. B. Lenhart. *il* Rock Prod 51:184-5-+ Ap '48

Limestone fines for block and ready mix; Clinton construction co. D. Mocine. *il* Rock Prod 51:170-1 Ja '48

Making long concrete joists and roof slabs; Formigli corp. W. B. Lenhart. *il* Rock Prod 51:149-+ F '48

New Cedar Rapids block plant is another monument to pioneering. J. W. Shaver. *il* diag Concrete 56:7-8-+ S '48

New precast house panel plant of Tarran industries opens. *il* Concrete 56:25-6 J1 '48

New techniques in block-making at Illinois Brick's new Chicago plant. *il* plans diags Concrete 55:3-12-+ N '47

1948 buyers' directory; equipment and materials used in the production, handling, use and transportation of concrete, concrete products and ready-mixed concrete. Concrete 56:57-69 S '48

One man controls two mixers and materials flow; Nashville Breko block & tile co. D. Mocine. *il* Rock Prod 51:138-9 My '48

Sell complete concrete products line; Pinellas lumber co. W. B. Lenhart. *il* Rock Prod 51:130-3 My '48

Speeding up construction with large structural units; Cemenstone corp. W. B. Lenhart. *il* diags Rock Prod 50:127-9 N '47

Stearns 15 now offered products industry. *il* Concrete 56:60-1 F '48

Transport block from machine to racks by endless cable conveyor; Ramsey bros. W. B. Lenhart. *il* Rock Prod 51:177-9 Je '48

20-man block plant features speed in cubing and handling. J. W. Shaver. *il* Concrete 56:3-5 My '48

Layout

Concrete block plant built for the future; Illinois brick co. R. S. Torgerson. *il* plans diag Rock Prod 50:122-6-+ N '47

New techniques in block-making at Illinois Brick's new Chicago plant. *il* plans diags Concrete 55:3-12-+ N '47

CONCRETE pumping. See Concrete placing**CONCRETE research**

Calcium chloride counteracts organic impurities in sand. I. Lyse. Eng N 141:62 J1 22 '48

Corps of engineers research on concrete pipe; abstract. H. K. Cook. Concrete 56:42-+ Ap '48

Curing; a problem in thermodynamics. G. A. Mansfield. Rock Prod 51:212-14-+ Ag '48

Effect of carbon black and black iron oxide on air content and durability of concrete. T. L. Taylor. Am Concrete Inst J 19:613-24 Ap '48

Effect on properties of concrete of natural and portland cement blends. A. G. Timms and others. *il* Pub Roads 25:30-40 D '47

Engineering foundation sponsors concrete research. A. B. Kinzel. Concrete 56:44 S '48

Laboratory research on concrete bridge floors. F. E. Richart. *il* Am Soc C E Proc 74:288-304 Mr '48

Long-time study of cement performance in concrete. F. R. McMillan and others. biblog *il* Am Concrete Inst J 19:441-53, 553-602, 745-95, 877-923 F-Mr '48

PCA to build large research center. *il* Concrete 56:20-2 My '48

Practical concrete research; developments in concrete pipe manufacturing. M. W. Loving. *il* Rock Prod 51:111-13-+ J1 '48

Progress(?) in cement and concrete research. N. C. Rockwood. Rock Prod 51:73 Ja '48

Progress with concrete, 1923-1948; symposium. biblog Am Concrete Inst J 19:693-741 Ap '48

Reinforced concrete wall and column footings. F. E. Richart. biblog *il* diags Am Concrete Inst J 20:97-127, 237-60 O-N '48

Research on the action of concrete and reinforced concrete subjected to repeated stresses; abstract. B. La Camus. Am Concrete Inst J 19:341-3 D '47

To what fineness should cement be ground? S. L. Meyers. Rock Prod 51:130-4 Ja '48

CONCRETE roads. See Roads, Concrete**CONCRETE roofs. See Roofs, Concrete****CONCRETE sewer pipes. See Sewer pipes, Concrete****CONCRETE silos. See Silos, Concrete****CONCRETE slabs**

Composite construction for I-beam bridges. C. F. Siess. diags Am Soc C E Proc 74:331-53 Mr '48

Concrete deck forms are precast slabs; wharf at Richmond, Calif. *il* diags Eng N 139:646-9 N 13 '47

Controlling the pumping action of concrete pavement slabs; use of bituminous materials, information on mixtures of soils and other materials for mudjacking. *il* diags Roads & Bridges 86:61-5-+ Ja '48

Dam refaced with precast concrete. *il* Eng N 139:650-4 N 13 '47

Design of I-beam bridges. N. M. Newmark. *il* diags Am Soc C E Proc 74:305-30 Mr '48

Effect on properties of concrete of natural and portland cement blends. A. G. Timms and others. *il* Pub Roads 25:30-40 D '47

Laboratory research on concrete bridge floors. F. E. Richart. *il* Am Soc C E Proc 74:288-304 Mr '48

Large concrete panels for industrial buildings; Allison steel manufacturing co., Phoenix, Ariz. casts reinforced concrete slabs. W. B. Lenhart. *il* Rock Prod 51:182-3 Je '48

CONCRETE slabs—Continued

- Laying 21-in. concrete runway slab at Paterson field. *Il Concrete* 56:3-7+ Ja '48
- Making long concrete joists and roof slabs; Formigli corp. W. B. Lenhart. *Il Rock Prod* 51:149+ F '48
- Restoration of Barker dam. R. E. Davis and others. *Il diags Am Concrete Inst J* 19: 633-67 Ap '48; *Abstract, Civil Eng* 18:78-83+ F '48
- Upstream face of dam refaced with precast slabs. L. B. Card. *Il Elec World* 128:90-1 D 6 '47

Testing

- Plastic flow of thin reinforced concrete slabs. G. W. Washa. *Il Am Concrete Inst J* 19: 237-60 N '47

CONCRETE standpipes. See **Standpipes, Concrete**

CONCRETE swimming pools. See **Swimming pools, Concrete**

CONCRETE ties. See **Railroad ties, Concrete**

CONCRETE tiles

- Diversify production to increase sales; Basalt rock co. manufactures concrete roofing tile and concrete block, and sells steel reinforcing and other products as a complete package. M. W. Loving. *Il Rock Prod* 51:186-8 Ap '48

CONCRETE towers. See **Towers, Concrete**

CONCRETE water tanks. See **Water tanks, Concrete**

CONCRETE wharves. See **Wharves, Concrete**

CONCRETE workers. See **Concrete plants—Employees**

CONCUSSION. See **Brain—Injuries**

CONDEMNATION of land. See **Eminent domain**

CONDENSATE wells. See **Gas, Natural—Disillate wells**

CONDENSATION

- Condensation nuclei; their significance in atmospheric pollution. H. Neuberger. *bibliog Mech Eng* 70:221-5 Mr '48
- Condensation of refrigerant vapors; apparatus and film coefficients for Freon-12. R. E. White. *bibliog Il diag A S M E Trans* 70:689-93 Ag '48; *Same. Refrig Eng* 55:375-9 Ap '48

Condensation of water, styrene, and butadiene vapors; pure components and constant boiling mixtures. D. A. Edwards, C. F. Bonilla and M. T. Cichelli. *bibliog diags Ind & Eng Chem* 40:1105-12 Je '48

CONDENSATION, Chemical

Aliphatic nitro-compounds; condensation of hydroxymethylalkylamines with nitro-paraffins. A. Lambert and J. D. Rose. *Chem Soc J p* 1511-13 N '47

Alkoxyalkoxyketones and their condensation with isatins. R. L. Sublett and P. K. Calaway. *bibliog Am Chem Soc J* 70:674-5 F '48

Butoxychlorosilanes; hydrolysis and condensation. R. K. Iler. *bibliog Ind & Eng Chem* 39:1384-8 N '47

Claisen benzoylation of certain methylene ketones with phenyl benzoate by the sodium amide method. C. R. Hauser and others. *bibliog Am Chem Soc J* 69:2649-51 N '47

Claisen condensation of methyl esters. E. E. Royals. *bibliog Am Chem Soc J* 70: 489-91 F '48

Condensation of benzamidine with α -diketones. J. W. Cornforth and H. T. Huang. *Chem Soc J p* 731-5 Je '48

Condensation of chloroacetone with formaldehyde. C. D. Hurd, W. D. McPhee and G. H. Morey. *Am Chem Soc J* 70:329-31 Ja '48

Condensation of cyclohexanone with nitriles. H. A. Bruson, E. Reiner and T. Reiner. *Am Chem Soc J* 70:483-4 F '48

Condensation of formaldehyde with lower aliphatic ketones; allylation as a means of structure proof. J. R. Roach, H. Wittcoff and S. E. Miller. *bibliog Am Chem Soc J* 69:2651-5 N '47

Condensation of isatin and of 1-methylisatin with barbituric acid. F. E. King, T. J. King and G. B. Thompson. *Chem Soc J p* 552-6 My '48

Condensation of phenylcycloalkenes with maleic anhydride; synthesis of 7-methoxy-3,4-benzophenanthrene. J. Szmuszkowicz and E. J. Modest. *bibliog Am Chem Soc J* 70:2542-3 J '48

Condensation of some tertiary octyl alcohols with benzene. R. C. Huston and others. *bibliog Am Chem Soc J* 70:1090-3 Mr '48

Condensation of some tertiary octyl alcohols with phenol. R. C. Huston, W. K. Langdon and L. J. Snyder. *bibliog Am Chem Soc J* 70:1474-5 Ap '48

Condensation of thiophene and certain derivatives with chloral. J. F. Feeman, J. R. Dove and E. D. Amstutz. *Am Chem Soc J* 70:3136-8 S '48

Condensation products from acetaldehyde. A. H. Andersen, R. M. Kitchen and C. H. Neufeld. *Am Chem Soc J* 70:861 F '48

Condensations of α -alkyl- α -carbethoxy- γ -butyric lactones. G. S. Skinner, A. Stokes and G. Spiller. *bibliog Am Chem Soc J* 69:3083-6 D '47

Condensations of unsymmetrical ketones; competition between methylene groups. R. P. Mariella and V. Kvinge. *Am Chem Soc J* 70:3126-8 S '48

Condensations of unsymmetrical ketones; condensations with ethyl formate. R. P. Mariella. *bibliog Am Chem Soc J* 69:2670-2 N '47

Employment of sodium hydride as a condensing agent. N. Green and F. B. LaForge. *Am Chem Soc J* 70:2287-8 Je '48

Essential steps in the catalytic condensation of aldehydes; nitroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J* 69:2608 N '47

Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. *bibliog Am Chem Soc J* 69:2605-7 N '47

Lignin-alcohol condensation; the reaction of lignin with amino- and nitro-butanol. A. Bailey. *bibliog Paper Ind* 29:1606-7+ F '48

Metallations of diphenylmethane and related compounds by potassium amide; condensations with carbonyl compounds. R. S. Yost and C. R. Hauser. *Am Chem Soc J* 69: 2325-8 O '47

New aspect of the Claisen condensation. T. S. Wheeler. *bibliog Chem & Ind* p753 D 6 '47

Poly-condensation of α -amino acid derivatives; poly-lysine. E. Katchalski, I. Grossfeld and M. Frankel. *bibliog Am Chem Soc J* 70:2094-2101 Je '48

Preparation of optically active hydrocarbons by the Wurtz reaction. R. L. Letsinger. *bibliog Am Chem Soc J* 70:406-9 Ja '48

Reaction of halogenomagnesium dialkylamides with nitriles; the preparation of N,N-disubstituted amidines. E. Lorz and R. Baltzly. *Am Chem Soc J* 70:1904-7 My '48

Reactions with tetraphenylcyclopentadienone; condensation with 1-phenyl-1,3-butadiene. O. Grummitt and E. I. Becker. *bibliog Am Chem Soc J* 70:149-54 Ja '48

Stobbe condensation with cyclohexanone. W. S. Johnson and others. *bibliog Am Chem Soc J* 70:3021-3 S '48

Stobbe condensation with sodium hydride. G. H. Daub and W. S. Johnson. *bibliog Am Chem Soc J* 70:418-19 Ja '48

Synthesis of alkylmalonic esters by oxalate condensations. D. E. Floyd and S. E. Miller. *bibliog Am Chem Soc J* 69:2354-5 O '47

Unit processes. H. J. Garber. *Ind & Eng Chem* 40:1684-6 *bibliog* (70 ref, p 1691-2) S '48

Vibrational spectra of phenolic derivatives and phenolic resins. R. E. Richards and H. W. Thompson. *Chem Soc J p* 1260-9 S '47

See also

Perkin reaction
Phenol condensation products

CONDENSERS

Condensation of refrigerants on finned tubes. D. E. Robinson and D. L. Katz. *Il Heat & Ven* 44:83-93 N '47

Condensation of vapors on outside of finned tubes. K. O. Beatty, Jr. and D. L. Katz. *bibliog flow sheet Il diags Chem Eng Prog* 44:55-69; *Discussion*. 69-70 Ja '48

CONDENSERS—Continued

- Evaporative condensers; their use in water shortage areas. R. J. Martin. biblog il Refrig Eng 55:452-5 My '48; Excerpts. Heating-Piping 20:80-1 My '48
- Friction loss; condenser tubes. W. L. Nelson. Oil & Gas J 46:207 Mr 25 '48
- Pressure drop; coil-in-box condensers. W. L. Nelson. Oil & Gas J 46:115 Mr 11 '48
- Resume of Sohio's experience in overhead condensing equipment. E. N. Salathe. il Pet Processing 3:555 Je '48

CONDENSERS (electricity)

- Absolute capacitance standard with a resistive shield. T. Slonczewski. il diag R Sci Instr 18:848-9 N '47
- Application problems of series capacitors. A. A. Johnson. il Westinghouse Eng 8:155-6 S '48
- Calibration of capacitors at the National physical laboratory, 1947. G. H. Rayner and L. H. Ford. biblog diags Inst E E J 95 Pt 2:312-18 Je '48
- Capacitor installations can be free from trouble. S. H. Pollock. il Elec World 130: 87+ Ag 28 '48
- Capacitor relocation aids regulator switching. R. A. Moulthrop and J. A. Jensen. diags Elec World 130:106 S 25 '48
- Capacitors; why and where to use. H. Brooks. il Factory Management 106:100-2 S; 122-5 O '48
- How many capacitors can be economically applied? S. H. Pollock. Elec World 128: 108+ N 22 '47
- Low voltage discharge between very close electrodes. L. H. Germer and F. E. Hawthorth. il Phys R 73:1121 My 1 '48
- New kraft capacitor paper. H. F. Miller and R. J. Hopkins. il Gen Elec R 50:20-4 D '47
- 100,000-volt pulses measured with capacitance voltage divider. S. C. Clark, jr. il diag Gen Elec R 51:20-1 My '48
- Paper capacitors containing chlorinated impregnants; benefits of controlled oxidation of the paper. D. A. McLean. il Ind & Eng Chem 39:1457-61 N '47
- Rotor removal from large machines. il diag Elec Eng 66:1214-15 D '47
- Series capacitors approach maturity. A. A. Johnson. il diags Westinghouse Eng 8:106-13 Jl '48
- Series capacitors on distribution circuits. R. E. Marbury and J. B. Owens. diag Elec Eng 67:158-62 F '48
- 66-kv 10,000-kva series capacitor for voltage regulation. il Elec Eng 67:236-41 Mr '48
- Stabilization of chlorinated diphenyl in paper capacitors. L. J. Berberich and R. Friedman. biblog il diag Ind & Eng Chem 40: 117-23 Ja '48
- Switched capacitors back bus regulation. F. M. Reed. diag Elec World 128:89 D 6 '47
- Theory of extreme values and its implications in the study of the dielectric strength of paper capacitors. B. Epstein and H. Brooks. biblog J Ap Phys 19:544-50 Je '48
- Use of capacitors in industrial plants. R. E. Marbury. il Westinghouse Eng 8:84-9 My '48

See also

Radio condensers

Control

- Amplidyne gives quick response on synchronous condenser fields. J. H. Vivian and F. V. Gillum. il diags Elec World 128:68-71 D 20 '47
- Selection of control equipment for automatic switching of capacitors. W. C. Bloomquist. il diags Elec World 128:88-91 N 22 '47

Manufacture

- Making power capacitors. il Elec R (Lond) 142:3-7 Ja 2 '48

CONDENSERS (steam)

- Condenser tube friction loss chart. Power Pl Eng 51:104 N '47
- Improvements in automatic rolling-in of small tubes. E. T. Cope. il diags Power Generation 52:64-5+ Je '48
- Rotary or steam-jet air pumps? W. C. Woodman. diags Power 92:470-3+ Ag '48
- Simple condenser proportioning. W. H. Armitage. Power Pl Eng 51:81-3 N '47

- Steam condensers with rolled-in tubes. W. H. Dunkley. il diags Engineering 164:592-4 D 19 '47

- Two stage condenser saves water and surface in high-steam-ratio steam distillations. J. F. Schnacky. Chem Eng 55:142 F '48

Cleaning

- Brush technique effective in condenser cleaning. il Power Generation 52:59 Je '48; Same cond. Steel 123:98 Ag 9 '48
- How Talleyrand's condenser operating experience varied over the years. T. W. Bostwick and others. Power 92:685-7+ N '48

Manufacture

- Building surface condensers; Allis-Chalmers mfg. co. il Steel 122:72-6 My 17 '48

Testing

- Fluorescent dye detects small leaks quickly. D. E. Hornbeck. Power 92:174 Mr '48

CONDENSERS, Radio. See Radio condensers**CONDITIONAL sales.** See Sales, Conditional**CONDON, Edward Uhler, 1902-**

- AEC reports on Condon. Chem & Eng N 26:2200 Jl 26 '48

- Scientists protest attack on Condon. Chem & Eng N 26:874 Mr 22 '48

CONDUCTIVITY, Electric. See Electric conductivity**CONDUCTIVITY, Heat.** See Heat conductivity**CONDUITS**

- Underground conduits; an appraisal of modern research. M. G. Spangler. biblog diags Am Soc C E Proc 73:555-84 Je '47; Discussion. 73:1543-6; 74:261-76, 381-5, 727-33 D '47, F-Mr, My '48

CONDUITS, Concrete

- Aussies cook concrete for circular cable ducts. il Constr Methods 30:113 Ap '48
- Tunnel for service lines returns first cost; De Laval steam turbine co. C. V. Schaefer. il diag Factory Management 106:82-3 Ja '48

CONESTOGA wagon. See Wagons**CONFECTIONERS' association, National.** See National confectioners' association**CONFECTIONERY**

- Confectioners consider key issues; Q & A forum highlights National confectioners' assn. meeting. Food Ind 20:1164-5 Ag '48

Manufacture

- Quality nut pastes by modern means; illustrations and flow diagram. Food Ind 20: 1278-80 S '48

CONFEDERACION Inter-americana de trabajadores. See Inter-American confederation of workers**CONFEDERATION of workers of Latin America**

- International labor confederations; CIT and CTAL. J. Barbash. Mo Labor R 66:499-503 My '48

CONFERENCES

- Tips on running a successful panel program. L. Lewis. Sales Management 60:116+ Je 15 '48

See also

- Business conferences
Conventions

CONFERENCES, Business. See Business conferences**CONFERENCES, Employees'.** See Employees' conferences; Foremen's conferences**CONFLICT of laws.** See International law, Private**CONFUSION mountains**

- Geology of the Confusion range, west-central Utah. C. S. Bacon, jr. biblog maps diags Geol Soc Bul 59:1027-52 O '48
- Key Permian section, Confusion range, western Utah. N. D. Newell. map diags Geol Soc Bul 59:1053-8 O '48

CONGO, Belgian*See also*

- Labor laws and legislation—Congo, Belgian
Mines and mineral resources—Congo, Belgian

Commerce

- Export trade in 1947. For Comm W 31:10 My 22 '48

CONGO, Belgian—Continued

Commercial policy

Collection of license fees and taxes from transient businessmen resumed. For Comm W 29:16-17 N 29 '47

CONGO red

Congo red solutions danger warning issued. Oil Paint & Drug Rep 154:3+ Ag 2 '48

CONGRESS (United States). See United States—Congress

CONGRESS of industrial organizations

C.I.O. begins careful crackdown on left wing. Bsns W p 108-9 O 23 '48

C.I.O. speaks up on Marshall plan. Bsns W p90+ D 13 '47

C.I.O.'s left clings to Wallace. Bsns W p70+ Ja 31 '48

C.I.O.'s tug-of-war over Wallace. Bsns W p88+ Ja 17 '48

Convention, 9th, Boston, Oct. 13-17. Int Labor R 57:397-400 Ap '48

Double play; 1948 political strategy of C.I.O.'s left. Bsns W p 103 F 21 '48

Eyes overseas; A.F.L. and C.I.O. interest in foreign labor movements. Bsns W p90-2 N 1 '47

Ninth constitutional convention. B. Stern and N. M. Bortz. Mo Labor R 65:531-4 N '47

Stolen thunder; C.I.O.'s right wing in Michigan is espousing consumer causes. Bsns W p 107-8 Ap 10 '48

Toward unity? C.I.O. and A.F.L. sit down together to discuss ERP with European unions. Bsns W p78+ Mr 6 '48

Trouble brewing; C.I.O.'s Operation Dixie. Bsns W p 107-8 My 8 '48

What chances of organic trade union unity? abstract. C. W. Mills and H. Schneider. Management R 37:20-1 Ja '48

Political action committee

Political pickle; right-left splits beset C.I.O. Bsns W p98-100+ My 1 '48

CONGRESSIONAL investigations. See Government investigations

CONIFERYL alcohol

Synthesis of coniferyl alcohol. C. F. H. Allen and J. R. Byers, jr. Science 107:269 Mr 12 '48

CONJUGATION (chemistry)

Hyperconjugation; the competitive bromination of benzene and *t*-butylbenzene. E. Berliner and F. J. Bondhus. bibliog Am Chem Soc J 70:854-8 F '48

Modes of addition to conjugated unsaturated systems; a discussion of mechanism and equilibrium, with a note on three-carbon prototropy. P. B. D. de la Mare, E. D. Hughes and C. K. Ingold. Chem Soc J p 17-27 Ja '48

Near-ultraviolet absorption spectra of monoalkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. bibliog Chem R 41: 273-9 O '47

Synthesis and spectrum of 2-cyclopropylpyridine. R. P. Mariella, L. F. A. Peterson and R. C. Ferris. bibliog Am Chem Soc J 70:1494-7 Ap '48

CONNECTICUT

Connecticut law for accident reduction. E. W. Martin. Nat Safety N 57:84-5 Ja '48

CONNECTING rods

Automatic assembly of pistons and connecting rods; Ford motor co. il Automotive Ind 98:28 F 15 '48

Pistons and con rods machine-assembled at the Rouge plant of the Ford motor co. C. S. Ricker. il diags Am Mach 92:111 Ap 8 '48

Telescoping hydraulic connecting rod for punch presses. il diag Product Eng 19:95 Mr '48

Manufacture

Connecting rod machining time and cost cut 20 per cent; Bendix Westinghouse automotive air brake co. il plan diags Steel 123:84-6 Ag 2 '48

CONNECTORS, Electric. See Electric connectors

CONNOLLY, Joseph Peter, 1890-1947

Memorial. D. H. McLaughlin. bibliog por(pl 8) Geol Soc Proc 1947:135-9 My '48

CONNOLLY, William N.

Connolly, who bought McGee and Molly for Johnson's wax 13 years ago, is ANA's head. por Ptr Ink 225:102 N 5 '48

CONSCRIPTION. See Military service, Compulsory

CONSEQUENTIAL damage insurance. See Insurance, Consequential damage

CONSERVATION of resources

Appraisal of our natural resources. W. G. Fritz. il Dun's R 56:14-16+ F '48

Concepts in conservation of land, water, and wild life. I. N. Gabrielson. Tech R 50:149-53 Ja '48

Conservation aspects of land programs. V. W. Johnson. Land Econ 24:303-9 Ag '48

Conservation of natural resources. T. J. Russell. Elec Eng 67:623-4 J1 '48

How long will our metals last? world's supply of metals can be prolonged by international co-operation, aided by conservation and research. C. E. Hayward. il Tech R 50:96-101+ D '47

Intensive study of natural resources launched; annual report of Secretary J. A. Krug. Chem & Eng N 26:455 F 16 '48

Relation of conservation to engineering projects. I. N. Gabrielson. il Tech R 50:205-8+ F '48

See also

Forest conservation Minerals—Stockpiling
Gas, Natural—Conservation Soil conservation

Study and teaching

New undergraduate major in conservation. Science 107:10 Ja 2 '48

CONSERVATION of wildlife. See Wildlife conservation

CONSERVATIVE party (Great Britain)

Towards a conservative policy. Economist 155:611-12 O 18 '48

CONSIGNMENT selling

Lost bread, result of consignment selling. Fortune 77:132 Mr '48

CONSOLIDATED Edison company of New York

Another look. S. Devlin. Mag of Wall St 81: 357-8 Ja 3 '48

Bonds offered. Comm & Fin Chr 166:2101-2 N 24 '47

Cons. Edison to get southwestern shot in arm; expects substantial earnings benefits from natural gas. E. R. Abrams. Barron's 28:35 S 13 '48

Debt issue won't dilute common earnings. Barron's 28:26 F 23 '48

Debtures offered. Comm & Fin Chr 167: 2255 My 24 '48

Debtures placed. Comm & Fin Chr 167: 2683 Je 21 '48

Employee-benefit program. A. Weiss and others. Mo Labor R 66:493-8 My '48

Financial news and comment. O. Ely. Pub Util 40:715-16 N 20 '47

Public utility securities. Comm & Fin Chr 166:1844 N 6 '47

Reappraising Consolidated Edison. Comm & Fin Chr 167:2333 My 27 '48

CONSOLIDATED grocers corporation

Grocery deal; Consolidated Grocers' buys out Rosenberg bros. of San Francisco. Bsns W 147:8+ Ja 10 '48

CONSOLIDATED natural gas company

Debtures offered. Comm & Fin Chr 167: 1805 Ap 26 '48

Drop in net ahead. Barron's 28:34 Je 21 '48

CONSOLIDATED statements

Certificates covering subsidiaries used with uncertified consolidated statements. J Account 84:501 D '47

Deferment of tax on intercompany profit. J Account 86:67-8 J1 '48

Effect of 1947 companies act on consolidated statements, auditors, prospectuses. J. L. Dohr. J Account 85:324-7 Ap '48

CONSOLIDATED Vultee aircraft corporation

Convair's prize deficit for 1947. S. Altschul. Aviation W 48:34 My 10 '48

Odium touch apparent at Convair. Aviation W 49:17-18 J1 12 '48

CONSOLIDATED (frigate)

Frigate Constellation puts to sea. L. C. Dunn. il U S Naval Inst Proc 74:1004-7 Ag '48

CONSTITUTIONAL law

See also

Switzerland—Constitutional law

CONSTITUTIONS

Yearbook on human rights for 1946. 450p \$5
United Nations, Lake Success, New York '47

CONSTRUCTION camps

Ras el Misha' ab; Arabian desert base camp.
il World Oil 128:217-20 O '48

CONSTRUCTION cars. See Cars, Construction**CONSTRUCTION equipment**

Big machinery year; survey of business conditions in the construction equipment industry. W. A. Danner. Roads & Svs 91:784-F '48

Building exhibition at Olympia, Nov. 19-Dec. 4. il Engineering 164:522-4 N 28 '47

Concrete equipment makers offer hope for lower construction costs. Concrete 56:5-7 F '48

Job success depends on wise use of equipment; Louisville's \$18,000,000 levee. il diag Civil Eng 18:234-5 Ap '48

Modernizing for better service; G. H. Godsall equipment ltd. il Roads & Bridges 86:142-Mr '48

Modernizing for better service; success achieved by construction-equipment distributors in Canada. il Roads & Bridges 85:92-Mr '47

Power tools and equipment help build more houses for more people; with list of manufacturers. il Am Bld 70:68-75 My '48

Public works contractors' plant. V. W. Bone and others. Inst Mech Eng J & Proc 157 (War emergency issue no 32):313-17, pl 1-2 '47

Self-propelled motorized equipment features construction of products line. F. H. Love. il Pet Eng 19:53-6 D '47

Service station on wheels supplies gasoline, lubricants, water etc. to construction equipment. il Comp Air Mag 53:72 Mr '48

Special equipment sets, 11 acres of precast roof slabs. il Constr Methods 30:98-100 Je '48

Thriving western business grew fast from small beginnings; Kane-Marr ltd. il Roads & Bridges 86:92-F '48

Toronto firm completes another phase of progress; Truck & tractor co. ltd. il Roads & Bridges 86:94-Mr '48

Twin City story is saga of rapid growth; construction equipment distribution business. il Roads & Bridges 85:84-D '47

See also

Cranes, derricks, etc. Roads—Construction
Excavating machinery equipment
Grading (earthwork) Tractors

Length of service

Depreciation schedule, U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, water works, gas and electric plants. Eng N 140:357-Mr '48

Maintenance and repair

Saving dollars with metallizing. il Roads & Svs 90:101-D '47

Prices

Index of construction machinery prices. Eng N 140:352 My 27 '48

Rental prices

Construction equipment rental rates. Eng N 140:351 My 27 '48

CONSTRUCTION industry advisory council

Meeting, Washington, D.C. Eng N 139:715-N 27 '47

CONSTRUCTION option. See Civil engineering—Study and teaching**CONSULTANTS, Business.** See Business consultants**CONSULTING chemists and chemical engineers.** Association of. See Association of consulting chemists and chemical engineers**CONSUMER credit.** See Credit; Instalment plan; Loans, Bank—Small loans**CONSUMER panels**

Bank has own consumer panel to attract ad agency business. Ptr Ink 223:90 My 7 '48

Buying behavior being studied by Columbia university's Bureau of applied social research. R. H. Ganly. Ptr Ink 224:91-Ag 6 '48

Comparison of consumer responses to weekly and monthly purchase panels. H. F. Lewis. J. Marketing 12:449-54 Ap '48; Discussion. R. Ferber. J. Marketing 13:223-4 O '48

Consumer packaging clinic; panel discussion. Mod Packaging 21:155-6 Je '48

Consumer panel shows apparel-home furnishings buying in New York department stores. New York Sun study. R. H. Ganly. Ptr Ink 223:34-6 Je 18 '48

JWT's panel shows how clients are doing. S. Rovner. Ed & Pub 81:14 My 8 '48

Retailer can size up markets in panel data; first report of Pittsburgh consumer panel. T. S. Irvin. Ed & Pub 81:74 Ap 24 '48

Trib's consumer panels vital research news. T. S. Irvin. Ed & Pub 81:54 Jl 24 '48

What's your favorite brand? product research panel of Marine midland trust company of New York for its advertising agency customers. J. L. Cooley. Banking 40:35-F My '48

CONSUMERS

Consumer in the coming decade. K. Dameron. il Ptr Ink 225:82-4 O 29 '48

Consumer meeting agenda; study in consumer interests. K. Dameron. J. Bsns 21:98-119 Ap '48

Consumer packaging clinic; panel discussion. Mod Packaging 21:155-6 Je '48

Consumers growl and get tough in face of high prices; S.M. survey. Sales Management 61:37-9 S 15 '48

Fortune survey; Fortune consumer outlook. E. Roper. Fortune 36:5-6+N '47; 37:5-6+Ap '48

Industry's obligation to the consumer. J. D. Mooney. il Dun's R 56:11-13 Mr '48

Measuring opinions, attitudes, and consumers wants. F. F. Stephan. Mech Eng 70:432-3 My '48

1948 survey of consumer finances. D. H. Rothhausen and others. Fed Res Bul 34:634-56, 768-80, 914-32, 1058-65 Je-S '48

Some varieties of consumer behavior described in the decisions of the Federal trade commission. G. B. Greig. bibliog J Bsns 20:191-200 O '47

CONSUMERS power company

Preferred stock offered. Comm & Fin Chr 167:2787 Je 28 '48

CONSUMERS' research, incorporated

Camera-testing service. Consumers Res Bul 22:18-19 O '48

CONSUMPTION (economics)

Additional view on the consumption function. N. Koffsky. R Econ & Stat 30:55-6 F '48

Austerity; the international crusade against luxuries. W. Ropke. Comm & Fin Chr 168:497-Ag 5 '48

Challenge to business; ability of public to consume could be doubled; address before Annual magazine forum, New York, April 28. A. H. Johnson. Comm & Fin Chr 167:1878-Ap 29 '48

Commodity prices vs. consumer demand. R. L. Hellbroner. Am Bsns 18:10-11+Mr '48; Same cond. Management R 37:170-2 Ap '48

Consumer meeting agenda; study in consumer interests. K. Dameron. J. Bsns 21:98-119 Ap '48

Demand performance and the stock market; the finale, American buying power. G. M. Haas and J. J. Quinn. Comm & Fin Chr 167:597-F 5 '48

Discretionary spending power at multiple levels. J. H. White. J. Marketing 13:1-11 Jl '48

Market potentials, 1948. A. H. Johnson. Harvard Bsns R 26:11-31 Ja '48

Reappraising consumer buying power. E. A. Krauss. il Mag of Wall St 81:516-18+ F 14 '48

Shifts in purchasing power; how they affect prospects of warm-air heating and sheet metal contractors. W. Alwyn-Schmidt. Sheet Metal Worker 39:40-3 S '48

Today's trends in consumer spending. W. Gates. Mag of Wall St 82:520-2+Ag 28 '48

Two more contributions on the consumption function; consumption-saving function; its algebra and philosophy. W. S. Woytinsky. R Econ & Stat 30:45-55 F '48

Use of the consumption function in short run forecasting. R. V. Rosa. R Econ & Stat 30:91-105 My '48

CONSUMPTION (economics)—Continued

What will they buy? an analysis and forecast of sales of consumer goods. W. H. Lough. *Comm & Fin Chr* 166:2366+ D 11 '47

See also

Buying habits
Consumers
Market research

Prices
Purchasing
Supply and demand

Statistics

Backlog demand for consumers' durable goods. L. J. Atkinson. *Survey of Cur Bsns* 28:15-21 Ap '48

Backlog of demand is still with us; Federal Reserve survey of consumer purchases in 1948. *Bsns W* p23-4 Je 5 '48

Consumer purchasing power and market potentials for 1949. A. H. Johnson. *Comm & Fin Chr* 168:1754+ O 28 '48

Consumer reserves high; Federal reserve board survey. *Bsns W* p26+ JI 17 '48

Consumers still very flush; Federal reserve board survey. *Bsns W* p23 Ag 21 '48

Dayton study compares purchases of upper half vs. lower half on 31 items. W. F. Gilbert and E. F. Reading. *Sales Management* 61:114+ O 1 '48

Expenditures of moderate-income families; 1934-36 and 1945. M. C. Ruark. *Mo Labor R* 66:822-6 Je '48

Federal Reserve analyzes consumer finances. *Comm & Fin Chr* 167:2431 Je 3 '48

Federal Reserve survey of consumer finances; uses of data in sales forecasting. D. M. Holthausen. *Comm & Fin Chr* 167:2745+ Je 24 '48

Food consumption, expenditures, and prices. M. Cohen. *Survey of Cur Bsns* 28:12-16 Ja '48

Higher family earnings and increased market potentials; address before Boston conference on distribution. A. H. Johnson. *Comm & Fin Chr* 168:1870 N 4 '48

Is there enough purchasing power? with chart showing data 1939-1947. *Bsns W* p92 Ja 31 '48; Discussion. p45-9 Mr 27 '48

1948 survey of consumer finances. *Mo Labor R* 67:286-7 S '48

1948 survey of consumer finances. D. H. Holthausen and others. *Fed Res Bul* 34:634-56, 766-80, 914-32, 1058-65 Je-S '48

Pattern of food expenditures. D. S. Brady and H. A. Barber. *biblog R Econ & Stat* 30:198-206 Ag '48

Personal consumption expenditures, 1941-1946. *Survey of Cur Bsns* 1947 Sup p38 [supplemented in monthly numbers]

Personal consumption expenditures by type of product, 1929-46; tabulation. *Survey of Cur Bsns* 27:sup41-4 JI '47

Personal consumption expenditures, by type of product, 1944-47; tabulation. *Survey of Cur Bsns* 28:24-5 JI '48

Retail sales and consumer income. C. Winston and M. A. Smith. *Survey of Cur Bsns* 28:12-19+ O '48

Studies in consumer expenditures (1901, 1918-19, 1922-24). H. G. Lewis and P. H. Douglas. *biblog J Bsns* 20 pt 2:1-55 [with appendix of statistical tables] O '47

Who has the buying power today? analysis of Federal reserve board survey of consumer income in 1947. J. C. Cresswill. *Mag of Wall St* 82:378-9+ JI 17 '48

See also

Market statistics

CONTACT angle

Hysteresis of the contact angle. S. J. Gregg. *biblog J Chem Phys* 16:549-50 My '48

CONTACT lenses

Right before your eyes; plastic frames for spectacles and sunglasses; contact lenses; molded eyeglass lenses. *il Mod Plastics* 25:75-81 JI '48

CONTACTS, Electric. See Electric contacts

CONTAINER corporation of America

Container Corp. builds ahead. *il Bsns W* p94+ Ap 24 '48

Container Corporation's design for business. H. Burnett. *il Ind Marketing* 33:34-9, 122 Ap '48

CONTAINER industry

Short term outlook for essential packaging materials; abstract. L. R. Forker. *Mod Packaging* 21:143-4 Je '48

Advertising

Container Corporation's design for business. H. Burnett. *il Ind Marketing* 33:34-9, 122 Ap '48

Securities

Battle of containers; metal vs. glass; with statistical data on leading container companies. W. Beecher. *il Mag of Wall St* 82:346-7+ JI 3 '48

Statistics

Containers; prospects for 1948. L. E. Browne. *il Steel* 122:154-5 Ja '48

Great Britain

Packaging. *For Comm W* 32:32 JI 3; 36-7 S 18 '48

CONTAINER research

Pre-testing techniques; intensive study for Lambert cream deodorant jars. *il Mod Packaging* 22:93-100 O '48

CONTAINER system (freight handling)

L.C.I. containers in experimental service; Illinois Central begins operation with truck-rail aluminum units. *il Ry Age* 124:257+ Ja 31 '48

Railroad handling method cuts shipment costs; aluminum truck-trailer body. *il Steel* 122:96 Mr 29 '48

Skidded container reduces l.c.i. handling. *il Ry Age* 125:11 JI 3 '48

CONTAINERS

Doll house carton doubles as display; contains pots and pans for bride. *il Sales Management* 61:83 S 1 '48

Doorstep orange juice; liquid-tight fibre can for frozen fresh juice, delivered daily by milkman. *il Mod Packaging* 21:117 F '48

Festive-occasion cakes; window packages encourage frequent purchase. *il Mod Packaging* 21:163 Ap '48

Interior coating of tubular containers; phenol-formaldehyde resins prevent decomposition of poison gases. L. P. Hubbuch and W. C. Johnson. *diags Ind & Eng Chem* 40:297-301 F '48

Low-pressure aerosols; adaptation of wartime bug bomb for pressure dispensers in insecticides, drugs, deodorants. *il Mod Packaging* 21:116-18 N '47

Most oil companies believe uniformity in containers would cut handling costs. C. Boyd, Jr. *Nat Pet* N 40:30+ Ag 4 '48

Possibilities of a flexible type of container. R. R. Melson. *Mod Packaging* 21:156-7 D '47

Possibilities of the use of a rigid container. C. O. Ball. *Mod Packaging* 21:156 D '47

Simplified pre-pack for consumer promotion of Waring Blender. *il Mod Packaging* 21:127 Je '48

See also

Bags
Bottles
Cans
Closures (containers)
Container industry
Cotton bags
Food containers
Glass containers
Labels

Package design
Package goods
Paper bags
Paper boxes
Paper containers
Pressure vessels
Tanks
Tin cans

Re-use

Chinese chest; candy container used as jewel case. J. C. Kazimier. *il Mod Plastics* 25:93-5 N '47

Mortarboards for keeps; three firms adopt same gift package; graduation-hat boxes. *il Mod Packaging* 21:142-3 My '48

State laws pave way for single use flour bags. J. A. J. Jones. *il Food Ind* 20:364-5 Mr '48

See also

Cotton bags

Testing

Tree-ripened peaches; Cell-type box. J. F. Hauck. *il Mod Packaging* 21:122-4+ Mr '48

CONTAINERS (for air transport)

Air cargo angles; pallets and mechanization. G. Johns. *il Mod Packaging* 21:138-41+ My '48

CONTAINERS (for shipping)

Bulk packaging of chemicals; Chem. and Met. report. *il Chem Eng* 56:127-34 Ap '48
Conquering the pilferage peril as regards cigarettes. *For Comm W* 32:35 Ag 14 '48

CONTAINERS (for shipping)—Continued

- Dravo develops new shipping container. *il* Marine Eng 52:102+ S '47; Iron Age 160: 149 Ag 7 '47; Ry Age 123:988 D 6 '47
- Export pack; survey of foreign port conditions. G. E. Bouton. bibliog *il* diags Mod Packaging 21:126-31+ D '47
- Fiber drum research to cut shipping losses. T. P. Callahan. Chem Ind 62:104+ Ja '48
- Improved shipping containers; illustrations. Automotive Ind 97:34 D 1 '47
- Ingenious shipper; mirrored vanity boxes in carton from single piece of corrugated. *il* Mod Packaging 21:140-2 Je '48
- Insulated plastic shipping case holds freezing temperatures. *il* Refrig Eng 56:34 JI '48
- Lentheric's export containers. *il* Mod Packaging 21:188+ Ag '48
- Load concentration in corrugated paper; abstract. J. H. Toulouse and P. J. Barcus. Glass Ind 29:507 S '48
- New bread-shipping basket. *il* Food Ind 20: 1469 O '48
- New shipping method transports foods at 120 F. *il* Refrig Eng 56:408+ N '48
- New Vus weatherproof box. A. W. Hoffman. *il* Mod Packaging 21:88-90+ Ja '48
- Packaging and shipping; the industrial frontier. Chem Ind 63:397-9 S '48
- Responsibility of the shipper to provide adequate containers; abstract. I. Lyons. Mod Packaging 22:151-2 S '48
- Shipping container clinic. Mod Packaging 21: 153-5 Je '48
- Shipping container study; progress report on fibre box and board industry's technical research. W. B. Lincoln, jr. *il* Mod Packaging 21:168-71+ Ap '48
- Stake of the strawboard industry in rule 41. J. R. Little. Paper Tr J 125:45-6 D 25 '47
- Standard pre-packed units cut Ansco's shipping cost. *il* Mod Packaging 21:138-9 Ag '48
- Testing and designing of fibreboard containers. J. D. Malcolmson. Paper Ind 30:942-4 S '48; Same. Paper Tr J 127:34-5 S 30 '48
- See also*
- | | |
|--------------------|--------------------|
| Boxes, Wirebound | Containers, Alumi- |
| Container system | num |
| (freight handling) | Containers, Steel |

Testing

- Conbur incline testing device. *il* diag Paper Tr J 127:33-4 S 30 '48

CONTAINERS, Aluminum

- Aluminum drums developed by Alcoa. R. W. Lahey. *il* Chem & Eng N 26:2160 JI 19 '48
- Indexing fixture for use in machining aluminum containers. D. A. Baker. diags Mach 54:185-6 F '48
- L.c.l. containers in experimental service; Illinois Central begins operation with truck-rail aluminum units. *il* Ry Age 124:257+ Ja 31 '48
- Railroad handling method cuts shipment costs; aluminum truck-trailer body. *il* Steel 122:96 Mr 29 '48

See also

- Barrels, Aluminum

CONTAINERS, Ceramic

- Package personality; the Cheneys' flavoring packaged in ceramic jugs. *il* Mod Packaging 21:120-1 N '47

CONTAINERS, Plastic

- Blade time-saver; plastic dispenser. *il* Mod Packaging 21:114-15 N '47; Mod Plastics 25: 103 D '47
- Cheese dish; molded of clear polystyrene. *il* Mod Packaging 21:91 Ja '48
- Chinese chest; candy container used as jewel case. J. C. Kazimier. *il* Mod Plastics 25:93-5 N '47
- Mortarboard caps; three companies use same graduation gift box. *il* Mod Plastics 25:98 My '48
- Packaging award to the Cudahy packing co. *il* Mod Plastics 26:164-5 S '48
- Rigid-type container ships flat, is strong; Vu-Lockbox. *il* Plastics 8:16 Je '48
- Seen through rigid plastics sheets. R. C. Evans. *il* Mod Plastics 25:87-91 JI '48
- Sold in molded plastics packages. *il* Mod Plastics 25:97-102 Je '48

- Splashy red carton lifts tools out of hiding. *il* Sales Management 60:55 Ap 15 '48

See also

- | | |
|------------------|--------------------|
| Bottles, Plastic | Containers, Trans- |
| Boxes, Plastic | parent |
| | Vials, Plastic |

CONTAINERS, Steel

- Bulk containers improve refuse handling at Richmond, Va.; use of large steel boxes transported by special pick-up trucks. *il* Eng N 140:120-1 Ja 22 '48
- Containers are still short. Bsns W p70+ Ag 21 '48
- Containers; prospects for 1948. L. E. Browne. *il* Steel 122:154-5 Ja 5 '48
- Reconditioning steel shipping drums. *il* Comp Air Mag 53:170 JI '48
- Steel drum reconditioning speeded; blast cleaning machine. *il* Iron Age 161:65 Ja 22 '48
- Steel exports would hit U.S. drum industry. Oil Paint & Drug Rep 152:7+ N 10 '47
- See also*
- Rheem manufactur-
- ing company

Manufacture

- Closely-controlled forming operations used to fabricate copper-bottom stainless containers; Norris stamping & mfg. co. G. E. Stedman. *il* Steel 122:102+ Mr 1 '48

CONTAINERS, Transparent

- Ayer adopts the transparent folding carton. *il* Mod Packaging 21:165 Ap '48
- Flame-sealed visibility; Edelmann's brass fittings packaged in polyethylene bags; displayed by jobber in polystyrene stock drawer. *il* Mod Packaging 21:112-14 Mr '48
- Ice cream in acetate. *il* Mod Packaging 22: 100-1 S '48
- Margarine squeeze. *il* Mod Packaging 21: 120-3+ Ap '48
- Package plus; powder puffs in permanent reuse containers of molded plastic. *il* Mod Packaging 22:106-8 O '48
- PermaHues on view; transparent box top for tumblers. *il* Mod Packaging 21:132-3 My '48
- Pre-sealed hosiery; transparent cylinder pack. *il* Mod Packaging 21:102-4 D '47
- Samplers; candy glamorized in clear acetate box; ties and jewelry in colored vinyl. *il* Mod Packaging 21:126-7 N '47
- Seen through rigid plastics sheets. R. C. Evans. *il* Mod Plastics 25:87-91 JI '48
- Transparent hemispheres; DeVilbiss perfume atomizer. *il* Mod Packaging 21:113 Ja '48
- Wright's ruffling redesigned to meet current production budgets. *il* Mod Packaging 21: 139 D '47

CONTAINERS, Vacuum. See Vacuum contain-**CONTEMPLATION of death (law)***See also*

- Gifts (law)
- CONTESTS. See Employees' contests; Safety contests and awards; Sales contests
- CONTINENTAL assurance company
- Has \$1 billion insurance in force. East Underw 49:1 O 22 '48; Nat Underw (Life ed) 62:3+ O 22 '48
- CONTINENTAL bank and trust company
- Bank stocks; proposed acquisition by Chemical bank & trust co. E. A. Van Deusen. Comm & Fin Chr 167:808 F 19 '48
- CONTINENTAL can company
- Annual report. Comm & Fin Chr 167:1362 Mr 29 '48
- CONTINENTAL motors corporation
- Brighter prospects. Barron's 28:35 JI 26 '48
- Common stock offered. Comm & Fin Chr 168:741 Ag 23 '48
- New engine is light, compact; high-output, air cooled gasoline engines for army. *il* Bsns W p46-8+ S 18 '48
- CONTINENTAL oil company
- Companies paying progressively higher dividends. H. F. Travis. Mag of Wall St 82:27 Ap 10 '48
- CONTINENTAL shelf
- Basic geology of the Gulf Coastal area and the continental shelf. J. B. Carsey. maps diag Oil & Gas J 47:246-7+ Je 24 '48
- Continental shelf activity intensified. L. J. Logan and C. Smith. *il* map World Oil 128: 37-40 JI '48

CONTINENTAL shelf—Continued

Engineering characteristics of the Gulf Coast continental shelf. M. B. Willey. maps Pet Eng (Ref annual) 19:97-8+ JI 1 '48
 Geological study of Gulf Coast continental shelf. il map diag Oil & Gas J 46:82-4+ D 13 '47

CONTINENTS

Bird migration and the concept of continental drift. A. Wolfson. bibliog maps Science 108: 23-30 JI 9 '48

CONTINGENT liability. See Liability, Contingent

CONTRACT bonds. See Insurance, Surety and fidelity—Contract bonds

CONTRACT information, Bureau of. See Bureau of contract information

CONTRACTORS

Advantages of pre-qualification of bidders to the contractor, bonding company, and public officials. E. T. Nettleton. Roads & Sts 91:68+ Ja '48

Close relationship between engineers, contractors is stressed. C. S. Proctor; D. W. Winkelman. Civil Eng 18:178 Mr '48

Contractors as credit risks; accounts need proper handling by credit department. D. E. Neiman. Credit & Fin Management 50: 14+ JI '48

Contractors look at jobber services; contractor opinions on jobber services revealed by survey. Dom Eng 171:120-3 Ja '48

Fuel and lubricants; rights under New York lien law and on payment bonds thereunder. C. G. Roth. Weekly Underw 157:1323-5, 1380-2 N 22-29 '47

Legal decisions involving plumbing, heating and air conditioning contractors. Dom Eng 171:113-14 My; 113+ Je; 172:104+ JI; 104-5 Ag '48

Tax problems in long-term contracts. H. W. Wolkstein. Eng N 140:61-3 Ja 8 '48

See also

Insurance, Surety and fidelity—Contract bonds	Subcontracting Women as contractors
---	-------------------------------------

Accounting

Current assets of contractors; an interpretation of ARB no. 30. J Account 86:339-40 O '48

Elimination of intercompany rentals. J Account 84:417-19 N '47

Directories

Contractors, Canada; roadbuilding, earthmoving, engineering construction. Roads & Bridges 86:125-6+ Je '48

Insurance requirements

Contractors' liability coverage. G. Watts and others. Rough Notes 91:21-6 Je '48

CONTRACTORS' equipment floater insurance. See Insurance, Contractors' equipment floater

CONTRACTORS' public liability insurance. See Insurance, Contractors' public liability

CONTRACTS

New law of gas contracts. L. T. Parker. Am Gas J 163:25-7 S '48

Validity of damage allowances. L. T. Parker. Am Gas J 163:39-41 Ja '48

See also

Arbitration	Roads—Contracts
Bills of lading	Sales
Engineering contracts	Subcontracting
Leases	Well drilling contracts
Mortgages	
Partnership	

CONTRACTS, Cost plus

Arguments over cost plus items can be avoided. E. T. Nettleton. Roads & Sts 91: 76-8 Ap '48

CONTRACTS, Government

Aid to aircraft makers proposed in two bills amending the Vinson-Trammell act. B. Ravits. Barron's 27:9 D 22 '47

AMC makes use of regional offices. Aviation W 49:59-60 S 6 '48

Congress readies new procurement laws. Aviation W 48:16 F 2 '48

Court denies recovery of increased dredging costs caused by hurricane; case of Arundel corp. versus the United States; case based on changed conditions. D. C. Webb. il Civil Eng 18:89-91+ F '48

Ghost orders start rolling. Bsns W p21 O 9 '48

Ghost war orders coming. Bsns W p21 Ag 21 '48

How law 413 streamlines buying for military requirements; Armed services procurement act of 1947. J. L. Howard. il Steel 122:69-73 Ap 19 '48

Military buying moves away from open bidding; non-competitive purchases will be rule under Armed services procurement act of 1947. W. C. Bryant. Barron's 28:30 Mr 1 '48

Navy offers incentive plan. Aviation W 49: 20-1+ S 6 '48

New pattern for military procurement; Armed services procurement act of 1947. L. Malman. il Dun's R 56:17-19+ O '48

New rules set for aircraft procurement. Aviation W 48:9-10 My 3 '48

Tighter military contracts. Bsns W p25 My 1 '48

Tips for contractors to the services. Aviation W 49:32 S 6 '48

Accounting

Accounting for military contracts. M. E. Peloubet. ed. J Account 86:240-2 S '48 [cont monthly]

Advertising of fixed price contractors o.k. Ed & Pub 81:66 JI 24 '48

Armed forces sift protests against regulation banning advertising as allowable contract cost. H. L. Stephen. Ptr Ink 224:78 JI 23 '48

Comptroller General's views on advertising as an expense. F. L. Yates. J Account 86: 329 O '48

Investigation of war contracts. J Account 84:355 N '47

Military to curb plus charges under new contract regulations. Am Mach 92:122 My 20 '48

NAM urges armed forces to reconsider and permit advertising as allowable contract cost. H. L. Stephen. Ptr Ink 224:92 Ag 6 '48

Protest meetings ask armed services lift ban on allowable expense in defense contracts. H. L. Stephen. Ptr Ink 224:86 JI 16 '48

What the U.S. will pay you; costs that the government will allow. Bsns W p21 O 23 '48

Insurance aspects

Scores high court opinion in Munsey case. B. Dew. East Underw 49:34+ S 10 '48

Labor problems

Handling poor risk cases; Westinghouse suspension of two jet-propulsion workers. il Bsns W p90 JI 24 '48

Renegotiation

Control of war contract profits. N. C. Parkin. Harvard Bsns R 26:230-50 Mr '48

How the Renegotiation act of 1948 works. J Account 86:328-9 O '48

Military bars contract renegotiation. il Eng N 141:15 Ag 12 '48

Military renegotiation formula drawn up for control of profits. Am Mach 92:131-2 Ag 12 '48

Practical alternative to renegotiation. C. H. Lanphier and C. L. Clark. N A C A Bul 30:13-20 S 1 '48

Renegotiation of defense contracts scored by National industrial conference board. Comm & Fin Chr 168:1014 S 9 '48

Renegotiation revived; key to profits. Aviation W 49:41 S 6 '48

Two boards to direct renegotiation act. Aviation W 49:11-12 Ag 9 '48

War contract test. Bsns W p22 My 8 '48

CONTRACTS, Letting of

Clear, precise specifications and contracts invite lower bids. G. B. Hills and C. F. Lovan. il Civil Eng 17:668-71+ N '47

Information for bidders on garbage and refuse incinerators. B. F. Lamson. il Water & Sewage 86:23-4+ F '48

Unit-price bid forms protect owner, contractor and engineer. R. B. Rothschild, jr. il Civil Eng 18:500-3+ Ag '48

See also

Contractors
 Roads—Contracts

CONTROL boards

- Centralized setup simplifies production control; Reliance Electric Co. Ashtabula, Ohio. *il Mill & Factory* 43:111 O '48
- Centralized set-up simplifies production control; Reliance electric & engineering co. *il Mach* 54:177-8 My '48
- Control boards cut written reports 75 per cent. E. W. King. *il Factory Management* 106:126-8 Mr '48
- Factory control at a glance; use of peg-board system at Pratt & Whitney aircraft engine plant. K. Kern. *il Aero Digest* 55:66-74 N '47
- Flexible charts aid in work, space allocation; Pioneer engineering and manufacturing co. A. M. Sargent. *il Mill & Factory* 43:136-7 Ag '48
- Master control system to check out design interferences before release of production drawings to shop; Glenn L. Martin co. J. Savage. *il plan diags Product Eng* 19:109-12 My '48
- Production control in a high alloy steel plant; Watervliet plant of Allegheny Ludlum steel corp. G. R. Reindel. *il Iron Age* 161:91-4 Je 3 '48
- Production up 15 per cent with roll-tape control board. J. M. Shank. *il Factory Management* 106:114-15 JI '48
- Visual control system; Product-control system used by Phillips petroleum co. to schedule refinery projects. L. S. McCaslin, Jr. *il Oil & Gas J* 47:109-12 Ag 19 '48
- Visual controls in paper trade. F. Ross. *il Paper Ind* 29:1137 N '47
- Visual planning board proves excellent investment in medium-sized plant. F. W. Reilly. *il Inland Ptr* 121:74-6 JI '48

CONTROL charts

- Control chart aids project development. W. J. Priske. *Elec World* 130:110 S 25 '48
- Control of the accuracy and precision of industrial tests and analyses. J. A. Mitchell. *bibliog diags Anal Chem* 19:961-7 D '47
- Industrial statistics; their place in the manufacture of pulp and paper. C. A. Bicking. *bibliog Pulp & Pa of Can* (Convention no) 49:181-8+ [F] '48

CONTROL equipment

- ABC's of multi-element control. C. H. Barnard. *diag Pet Processing* 3:946-7 O '48
- Air-operated automatic controllers; principles utilized in the principal types. W. G. Holzböck. *diags Instruments* 21:710-14 Ag '48
- Air transport maintenance and engineering aspects of powerplant controls. H. W. Nevin, Jr. *S A E J* 55:65-6 Ag '48
- Analysis of retarded control systems. L. A. Pipes. *bibliog diags J Ap Phys* 19:617-23 JI '48
- Analyzing the instrumentation of a continuous chemical process. A. L. Chaplin. *diags Instruments* 21:532-40, 617-19 Je-JI '48
- Application of instrumentation to sulphate digesters. E. A. Murphy and H. A. Scholl. *il diags Paper Tr J* 127:35-40 O 28 '48
- Askania devises regulator to control .1 per cent to 1.5 per cent consistency. *diags Paper Tr J* 126:32+ Mr 4 '48
- Automatic control in milling. I. M. LeBaron. *il diags Min Cong J* 34:26-9 O '48
- Automatic control of refinery operations. W. S. Ault. *diags Inst Pet J* 33:598-607 O '47
- Automatic controls and their functions. *Am Gas J* 168:19-20 F '48
- Automatic controls applied to lime manufacture; National gypsum co. B. Nordberg. *il diag Rock Prod* 50:135-41+ D '47
- Automatic process control; special considerations for the designer. L. Walter. *bibliog Chem Age* (Lond) 58:521-2 Ap 17 '48
- Basic design and field performance of the control and measurement instrumentation of an alkylation unit. H. F. Moore and G. W. Gross. *flow plans il Instruments* 21:368-74 Ap '48; Same. *Pet Processing* 3:441-4+ My '48
- Basic principles in process control. J. B. Arant. *il Pet Refiner* 27:96-9 F '48
- Consistency control. L. D. McClothlin. *diags Paper Tr J* 126:43-4 Mr 4 '48
- Control equipment for hazardous locations. B. M. Mimken. *il Pet Refiner* 26:122-4 N '47
- Derivative controller; compound proportioning bellows construction. V. V. Tivy. *diags Pet Processing* 3:679-82+ JI '48

- Designing industrial controllers by analog; use of electronic computer. G. A. Philbrick. *il diags Electronics* 21:108-11 Je '48
- Economics of instrumentation. C. W. Bowden. *jr. diags Am Dyestuff Rep* 37:647-51 O 4 '48
- Experimental application of combustion controls to a process heater. W. E. Boyle and P. R. Hoyt. *il diags Pet Refiner* 27:139-44 O '48; Excerpts. *Pet Processing* 3:946-6 O '48

- Fractionation instrumentation and control. D. M. Boyd, Jr. *diags Pet Refiner* 27:115-18 O; 114-17 N '48
- Industrial dyevat control. F. Blezzard. *il diags Soc Dyers & Col J* 63:439-44; Discussion. 444-5 D '47

- Instrument control of operation; Kimballton, Va. plant of National gypsum co.; abstract. C. B. Cox. *Rock Prod* 51:100-1 My '48
- Instrumentation and process control; new equipment announced 1947-48. *Chem Ind* 63:410-14 S '48

- Instrumentation as applied to speed control. J. G. Wilson and others. *diags Pet Refiner* 27:120-9 Mr '48

- Instruments and automatic control for the modern boiler plant. A. L. Stewart. *il diags Pulp & Pa of Can* 49:105-12 O '48

- Modern application of automatic control in textile processing. *il Rayon* 29:105-7 Ap '48
- Modern refinery instruments; installation and maintenance. G. A. Larsen. *il diags Pet Refiner* 27:103-7 Ja '48; Same cond. *Pet Processing* 2:821-6 N '47

- 1948 review of new power and mechanical equipment; controls. *il Power* 92:sup 158 Mid-Je '48

- Place of automatic control in industry. J. Hillen. *Pulp & Pa of Can* 48:83-4 '47

- Principles of automatic control as applied to natural gas operations. L. W. Parten. *il diags Pet Refiner* 26:121-8 O '47; Same. *Pet Eng* (Ref annual) 19:189-90+ JI 1 '48

- Principles of automatic control; report for executive in process industries. G. A. Philbrick and W. H. Kidd. *diags Chem Eng Prog* 44:875-80 S '48

- Program controls; guide to their selection. A. M. Patterson. *il Machine Design* 20:137-43 My '48

- Remote control engineering; abstract. O. C. Simpson. *Chem Eng* 55:260+ Ag '48

- Remote control with valves and gate valves in the chemical industry; abstract. V. E. Moroshkin. *Chem Eng* 55:282+ Ja '48

- Review of power and mechanical equipment; controls. *il Power* 91:893-5 Mid-D '47

- Selection of control equipment for automatic switching of capacitors. W. C. Bloomquist. *il diags Elec World* 128:88-91 N 22 '47

- Unusual drives and control elements of interesting machines. *il diags Machine Design* 20:126-30 Ap '48

- Working model simplifies theory of automatic control. G. F. Akins. *il diags Power* 92:536-40, 694-8 S, N '48

See also

- | | |
|--|---------------------------|
| Carrier current control | Hydraulic control |
| Dashpots | Magnetic control |
| Electric control | Pneumatic control |
| Electric motors | Pressure regulators |
| Electrohydraulic control | Servomechanisms |
| Governors (machinery) | Temperature regulators |
| also subdivision | Vacuum tubes—Control uses |
| subjects, e.g. | Control under special |
| Airplanes | Distillation apparatus |
| Boilers | Steam turbines |
| also Minneapolis-Honeywell regulator company | |

CONTROLLERS

- Executive nobody knows, the controller. E. B. Weiss. *Ptr Ink* 222:46+ Ja 16 '48
- Function of the controller in union negotiations; abstract. W. W. Miller. *Management R* 37:289-90 Je '48

- Need for a controller in administration of the Marshall plan. H. E. Howell and I. Swerdlow. *J Account* 85:392-401 My '48

- Profile of an accounting executive. E. C. Karmgard. *N A C A Bul* 29:1299-303 Je 15 '48

- Survey shows new concept of controller's functions. P. Eastman. *Am Esns* 18:26+ Ja '48

CONTROLLERSHIP foundation

Controllers group seeks ways to improve annual reports. D. J. Hennessy. Sales Management 60:107-8+ Ja 15 '48
Survey reveals financial information people want to know about a corporation. D. J. Hennessy. J Account 86:224-7 S '48

CONVAIR equipment corporation

Convaif forms plane-leasing subsidiary. W. Kroger. Aviation W 49:12-13 O 4 '48
Lift for Convaif; Odlum forms equipment-finance company. Bsns W p89-90 O 2 '48

CONVENTIONS

Businessman's party man; Abbie Greshler provides talent for entertaining conventions. Bsns W p80+ N 22 '47
How to organize and run a good convention or meeting; American management assn. E. J. Dever, jr. il Ptr Ink 224:27-30 JI 23 '48
1948 calendar of meetings and events. Chem & Eng N 26:330-1+ F 2 '48

CONVENTIONS, Dealer. See Dealer conventions
CONVENTIONS, Political. See Political conventions

CONVENTIONS, Sales. See Sales conventions

CONVERSION tables

Conversion factors; crude oil lengths, areas, weight and volumes. World Oil 128:55 sec 2 JI '48
CONVERSION tables, Temperature. See Temperature—Measurement

CONVERTAPLANE. See Airplanes—Design

CONVERTERS

Application of oxygen enrichment to side-blown-converter practice. J. L. Harrison and others. biblog diags Iron & Steel Inst J 159:281-90 JI '48
Economic advantages offered by side-blown converters. A. G. Gregg. il Steel 123:98+ Ag 23 '48
Oxygen in side blown converters. M. E. Davies. biblog diags Iron Age 162:87-91 S 2 '48

Side-blown converter practice. S. R. Robinson. Foundry 76:315-16+ My '48
Steelmaking in acid side blown converters. N. F. Duffy. biblog il diags Blast F & Steel Pl 36:683-90+ Je '48
See also Bessemer process

CONVERTERS, Electric. See Electric converters

CONVERTIBLE bonds. See Bonds, Convertible

CONVERTIBLE stocks. See Stocks, Preferred
—Convertible stocks

CONVEYANCING

Plan for transferring the farm from father to son. S. Henderson. Land Econ 24:82-5 F '48

CONVEYING machinery

Automatic take up for conveyor. J. A. Gagnon. diags Pulp & Pa of Can 49:71-2 My '48
Bailey bridging used for aggregate conveyor system at Des Joachims. H. M. Blake. flow sheet il map Roads & Bridges 86:82-5 Ap '48

Bulck's new sheet metal plant features energy saving equipment. il Automotive Ind 98:40-1+ Ja 1 '48

Chain and belt conveyors handle die-cast products. B. C. Brosheer. il plan Am Mach 92:116-18 Je 17 '48

Continuous work flow to abrasive cleaning machines maintained by clever arrangements. il Steel 122:74-7 Je 28 '48

Conveyor furnace anneals bimetal strips. C. F. Alban. il Am Mach 92:108-10 S 23 '48

Conveyor system features modernized aluminum foundry; Aluminum co. of America. W. G. Gude. il plan Foundry 76:72-8+ N '48

Conveyor system simplifies coil handling at Aliquippa. C. F. Seyler. flow chart il Iron Age 161:86-9 Je 10 '48

Conveyor system speeds production at Baltimore plant of National gypsum co. S. A. Lauer. il Manuf Rec 117:39+ Ap '48

Conveyorization increases steadily in metal-working plants. Steel 122:104+ My 10 '48

Conveyorized maintenance methods reduce airliner overhaul time; maintenance base of United air lines. il Steel 123:94+ JI 5 '48

Conveyors aid assembly of engines; Austin motor co. il Mech Handling 34:637-45 D '47

Conveyors break painting bottlenecks; wringer assemblies for washing machines. W. Rudolph. il Mill & Factory 43:118-19 S '48

Coordinated handling cuts labor costs 60 per cent; United Specialties conveys packaged air cleaners. A. Vander Meulin. il Factory Management 106:60-1 Ap '48

Cow conveyor speeds milking; Hiatt crystal dairy. il Elec World 129:112 Je 19 '48

Cupola spout to box car in 75 minutes; Wheeland co. W. G. Gude. il diag Foundry 76:68-73+ JI '48

Delco-Remy introduces new facilities for high-volume minimum-cost production. J. Geschelin. il plan Automotive Ind 97:36-7+ N 1 '47

Flexible conveyor ups production four-fold; Charles manufacturing co., Minneapolis. F. A. Westbrook. il Mill & Factory 43:112-13 O '48

Flowlink overhead conveyor system. il diag Engineering 166:331 O 1 '48

Hangers for electrostatic painting; reference book sheet. E. P. Miller. diags Am Mach 92:151, 153 Ag 12 '48

Hudson final assembly layout quite different than others. J. Geschelin. il Automotive Ind 98:28-9+ Ap 1 '48

Maintenance base; United air lines streamlines its operation at San Francisco installation. il plans Arch Forum 89:90-4 O '48

Material handling; conveyors. J. von Rosen. il S A E J 56:23-34 Mr '48

Materials handling offers opportunities to save; Avondale mills' Sycamore, Ala. plant. P. M. Thomas. il plans diags Textile World 97:120-1+ N '47

Mechanized wheel line; Norris stamping & manufacturing co.; illustrations with text. Steel 123:66-8 JI 26 '48

Mechanizing cleaner manufacture ups output, saves floor space; Electrolux corp. A. F. Murray. il Am Mach 92:110-13 My 20 '48

Merry-go-round conveyor system. il Mill & Factory 42:104 Mr '48

Merry-go-round conveys radio-chassis assembly; illustrations with text. H. Gillig. Am Mach 92:90-1 O 7 '48

Modernized foundry stresses good working conditions; Fairbanks, Morse & co. E. Bremer. il plan Foundry 76:120-5+ My '48

New layout and handling cut labor costs 72 per cent; portable storage conveyors. W. J. Perrie. il Factory Management 106:104-5 S '48

New layout for small assemblies returns first cost in six months; Weatherhead co. il plan Factory Management 106:100-3 JI '48

Overhead coil conveyor; Weirton steel co. il Steel 122:73 Ja 19 '48

Pointers on selection of conveyors for wet pulp. Pulp & Pa of Can 49:101-2 Ag '48

Radiator output increased 50 per cent by mechanized processing; Ford motor co. il Steel 122:94-7 My 3 '48

Shaker conveyors applied to the caving mining method. C. E. McWhorter. diags Min & Met 29:444-6 Ag '48

Transport block from machine to racks by endless cable conveyor; Ramsey bros. W. B. Lenhart. il Rock Prod 61:177-9 Je '48

Underground shaker and conveyor belt operation; Inland steel co.'s Sherwood mine. P. D. Pearson and R. O. Marsten. il plans Min Cong J 34:18-22+ O '48

Use of vibration as a means of industrial drive. C. A. M. Thornton. biblog il diags Inst Mech Eng J & Proc 157 (War emergency issue no 25):20-31 '47; Same cond. Machine Design 19:147-50 D '47

Vertical conveying system saves floor space in paint baking operations. il Steel 122:111 Mr 15 '48

Vertical system gives drying process savings. il Iron Age 162:94 JI 22 '48

Walking conveyor carries molds to Homer-Laughlin's new jiggers. il Cer Ind 51:86-7 N '48

See also Cableways
Coal handling
Coal mining machinery—Conveyors

Cranes, derricks, etc.
Electric driving—
Conveying machinery

CONVEYING machinery—See also—*Continued*

Hoisting machinery Mine haulage
Loading and unloading Monorail conveyors
 Ore handling
Mechanical handling Pneumatic conveying

Belt conveyors

Continuous ore transport; belt conveyor design and application. R. W. Rausch. *il Min & Met* 28:590-5 D '47
Conveyor belt system cuts material handling costs; Sangravl co. D. Mocine. flow plan *il Rock Prod* 51:92-6 F '48
Conveyor belt troughing idler. Blast F & Steel *Pl* 36:475-6 Ap '48
Flash-removal conveyor. *il Mod Plastics* 25: 112-13 Ag '48
How to minimize trouble with rubber conveyor belts. W. P. Halstein. *il Factory Management* 106:106-9 Je '48
Long belt conveyors reduce haulage cost; Wm. May sand and gravel corp. D. Mocine. *il plan Rock Prod* 51:78-9 My '48
Million dollar sand and gravel plant uses belts from pit to dock; New York trap rock corp. W. B. Lenhart. *il diags Rock Prod* 51:80-4 Jl '48
Phosphate, from train to ship; new Seaboard air line dock at Tampa, Fla. *il diags Ry Age* 125:328-31 Ag 14 '48
Radial stacker belts provide flexible operation; Wapak sand & gravel co. D. Mocine. *il Rock Prod* 51:74-5+ Jl '48
Some practical hints on operation and care of brick plant conveyor belts. M. C. Dow. *il Brick & Clay Rec* 113:48 S '48
Typical feeders, take-ups, drives and idlers for belt conveyors; drawings. *Product Eng* 19:114-15 Ag '48

Chain conveyors

Chain and its application in pulp and paper mills. W. M. Hufnagel. *Paper Tr J* 125: 143-6 D 4 '47
Multi-story handling by conveyor; steel drums and barrels ride conveyor up and down through four floors; Houghton oil manufacturing plant. *diag Factory Management* 106: 124-5 F '48
Traveling stockroom helps output in British plant; Standard Telephones & Cables conveyor, stores parts as well as moves them. *il plan Factory Management* 106:78-9 F '48
Trolley conveyors. S. Reibel. *il diags Factory Management* 105:105-16 N '47
Trucking eased with drag-chain conveyors. B. C. Brosheer. *il diags Am Mach* 92:102-4 Jl 29 '48
Types of trolley conveyor chain links and joints. S. Reibel. *diags Product Eng* 19: 122-3 Ja '48

Control

Panel-controlled conveyor line sorts automatically. *il Food Ind* 20:1309 S '48

Maintenance and repair

Alarm system minimizes conveyor downtime; Packard motor car co. L. R. Bogardus. *il Factory Management* 106:113 Jl '48

Manufacture

Compressed air used as major power source in building conveyors. *il Steel* 122:80+ Ja 19 '48

Safety measures

Burden bearers; new ASA code. *il Nat Safety* N 58:32-3+ Jl '48
First safety standard for conveyors. H. C. Keller. *il Ind Stand* 19:17-18 Ja '48
Give the goods a ride; based on Safety code for conveyors, cableways, and related equipment. *il Safety Eng* 96:14-17+ Jl '48

CONVEYOR belting. See Belting, Conveyor

CONWAY, Carle Cotter, 1877-
Portrait. *Bsns W* p21 N 1 '47

COOK, Hubert K.
Maverick. *Fortune* 38:181 S '48

COOK, James, 1728-1779

Bibliography

Captain Cook's voyages; a bibliography of the French translations, 1772-1800. S. Roberts. *J Doc* 3:160-76 D '47

COOKBOOKS

How to put beauty and brains into a cook book. M. Stegner. *il Sales Management* 59: 44-6 D 15 '47

COOKING ware

Cladmetals attract cooking utensil manufacturers. *Barron's* 28:6 Ja 5 '48
Closely-controlled forming operations used to fabricate copper-bottom stainless containers; Norris stamping & mfg. co. G. E. Stedman. *il Steel* 122:102+ Mr 1 '48

See also

Enameled ware

COOLING

Air conditioning crane cabs. *diag Heat & Ven* 45:73 Je '48

Air conditioning multi-story buildings by central station systems. A. B. Wason. *il plans Heat & Ven* 45:91-3 Mr '48

Cabin cooling for jet aircraft and strato-liners. D. O. Moeller. *Heat & Ven* 45:126+ Ag '48

Comfort conditioning for top floor space. *diags Heating-Piping* 20:100-1 S '48

Conditioning of hot humid air. R. E. Peck and C. J. Ryant, jr. *bibliog diags Refrig Eng* 55:417-21 N '48

Cooling the crane cab. *il diag Nat Safety* N 57:28-9+ Je '48; Same cond. *Safety Eng* 95:54-6+ Ap '48; Excerpt. *Blast F & Steel Pl* 36:sup78+ Ap '48

Cooling without refrigeration; Colonial dry-cleaners. *il plan Sheet Metal Worker* 39:86+ Ap '48

Crane cab cooling. *il diag Steel* 122:82 Mr 22 '48

Extending use of attic fan. M. E. Marsalis. *Sheet Metal Worker* 39:90 Jl '48

Extra capacity cooling; Katz super drug-store, St. Louis. *il Dom Eng* 170:155 N '47
Heat pump as a hobby. C. F. Boester. *diags Heat & Ven* 45:81-2 S '48

Heat pump in an office building. J. D. Kroeker and R. C. Chewning. *flow diags il plans diags Heating-Piping* 20:121-8 Mr '48

Heat pump, radiant panel, warm air; Oregonian building. Portland. *il diag Dom Eng* 172:125-6+ Ag '48

Heat-pump system using water storage; control building of the Tidd plant of the Ohio power co. P. Sporn and E. R. Ambrose. *il diags Mech Eng* 69:899-903+ N '47

How to improve conditions in top story drafting room. *diag Heating-Piping* 20:105-8 Ag '48

Investigating the economic possibilities of the heat pump. *Dom Eng* 172:116-18+ Jl '48
Principles of cooling by air motion. M. E. Marsalis. *Sheet Metal Worker* 39:116+ Mr '48

Refrigerated air-conditioning pays in half-house mill; Spalding knitting mills. E. D. White. *il Textile World* 98:137+ F '48

Review of some heat-pump installations; with cost data. E. B. Penrod. *bibliog* (42 titles) *flow diags il diags Mech Eng* 69: 639-47 Ag '47; Discussion. 70:258-61 Mr '48
Sell cooling to Main Street. *il Sheet Metal Worker* 39:74+ Ag '48

Simple ventilation vs refrigeration. F. H. Bridgers. *diags Heat & Ven* 45:84-6 Mr '48

Something for nothing; heat pump utilizing earth temperature. *map diags Diesel Power* 26:74-7 My '48

Summer cooling with ice water. A. Merle. *il diags Sheet Metal Worker* 39:160+ Ja '48

What are the right air conditions for comfort cooling? C. Tasker. *Heating-Piping* 20: 84-7 Ag '48

Winter heating, summer cooling; heat pump air conditioning for entire year cost \$66.21. C. Osborne. *il diags Dom Eng* 171:146-7+ Ap '48

See also

Air conditioning
Car cooling
Cold storage
Crane cabs—Air conditioning

Factories—Air conditioning
Refrigeration and refrigerating machinery

Tables, calculations, etc.

Hydraulic analogue for the solution of problems of thermal storage, radiation convection and conduction. C. S. Leopold. *bibliog il diags Heating-Piping* 20:105-11 Jl '48

COOLING—Tables, calculations, etc.—*Cont.*

Mechanism of heat transfer panel cooling; heat storage. C. S. Leopold. bibliog diags Refrig Eng 54:33-41; 55:571-7 JI '47, Je '48; Discussion. 54:41+; 55:577+ JI '47, Je '48

Solar heat gain through walls and roofs for cooling load calculations. J. P. Stewart. diags Heating-Piping 20:121-31; Discussion. 131-2 Ag '48

COOLING, Industrial

Air conditioned plant solves cotton-lint problem: Argentine installation; carding, spinning, and weaving controlled separately from central station. G. T. Lang. II Textile World 98:118-19+ Ap '48

Clarifying liquid soap; water vapor type refrigeration equipment prior to filtration. E. G. Thomssen. II diag Soap & San Chem 24:44-6 Ap '48

Controlled cooling holds plastics in shape; illustrations with text. Am Mach 92:123 S 23 '48

Cooling of gases through packed tubes. M. Leva and others. diag Ind & Eng Chem 40:747-52 Ap '48

Distillery mash cooled by evaporation. II Comp Air Mag 53:34-5 F '48

Dynamic cooling of adsorbent beds. E. Ledoux. bibliog Ind & Eng Chem 40:1970-7 O '48

Heat losses from tanks, vats and kettles. S. J. Friedman. bibliog diags Heat & Ven 45:94-108 Ap '48

Ice, how and when to use it in chemical processing; direct cooling in batch processes. E. Spencer. II Chem Eng 55:110-13 O '48

Multi-stage evaporative cooler. C. H. Rodgers. II diag Chem Eng 55:122-3 O '48

Night air solves cooling problem; Specialties paper co. II Mill & Factory 42:125 Je '48

Reducing refrigeration costs in the dairy plant. R. J. Ramsey. diags Food Ind 20:686-7+ My '48

Sand cooling plant. II diag Engineer 184:514 N 28 '47

Simple cooling device for offset film development. G. W. Perry. II Inland Ptr 121:67 My '48

Stratocold processing; application of sulfuric acid treating to certain types of petroleum distillates. flow diag Oil & Gas J 46:157 'Ap 1 '48

Temperature variations in warehousing citrus juice. D. W. Riester and others. bibliog II diag Food Ind 20:372-5+ Mr '48

See also

Cold storage
Cooling towers
Cooling water
Metals, Cold treatment of
also subdivision Cooling under various subjects, e.g.
Airplane engines—
Cooling

Steel, Quenching of
Testing laboratories—
Cold rooms

COOLING equipment

Freon versus air cycle cooling of automobiles. H. Woodhouse. diags Refrig Eng 56:313-15+ O '48

Frequency of starting room air conditioners; abstracts. J. W. Anderson. Edison Elec Inst Bul 16:142-4+ My '48; Elec World 129:72-4+ JI 17 '48

Mobile air-cooling units. II Elec World 128:114+ N 22 '47

Protecting cooling systems subject to electrolysis. E. W. Balis and H. A. Liebafsky. II diags Gen Elec R 51:40-5 S '48

Selecting chilled water coils. J. A. Bishop. Heating-Piping 20:83-7 S '48

Simplified figuring of cooling coils too often unsatisfactory. Heating-Piping 19:102-3 D '47

COOLING from central stations

Air conditioning from central station; shopping center of housing project in New York city. II Heat & Ven 45:102+ S '48

Central air conditioning serves stores at large housing project. II Heating-Piping 20:100-1 O '48

COOLING of fruits and vegetables

Controlled air distribution is secret of good apple storage. R. M. Smock and others. diags Refrig Eng 54:444-8+ N '47

Produce storage in small walk-in coolers. R. Hockman. II Refrig Eng 56:228-30 S '48

Temperature-reduction problems in sugar-beet storage. R. D. Barmington. A S M E Trans 70:685-7 Ag '48; Same abr. Refrig Eng 54:339-41 O '47

COOLING of meat

Ice slush cooling of dressed poultry. R. L. Bailey and others. bibliog Refrig Eng 55:369-71 Ap '48

COOLING of milk. See Milk cooling**COOLING of water**

Evaporative condensers; their use in water shortage areas. R. J. Martin. bibliog II Refrig Eng 55:452-5 My '48; Excerpts. Heating-Piping 20:80-1 My '48

Use of earth to cool water. W. L. Nelson. Oil & Gas J 47:73 S 2 '48

See also

Cooling towers
Electric water coolers

COOLING towers

Corrosion prevention by controlled calcium carbonate scale. S. T. Powell, H. E. Bacon and E. L. Knoedler. bibliog Ind & Eng Chem 40:453-7 Mr '48

Drizzle precipitation from water cooling towers. A. Blum. diags Engineer 186:128-30 Ag '48

Liquid bromine removes obstinate algae from 10,000 gpm tower for \$2.10/day. J. C. Albright. II Pet Processing 3:421-2 My '48

Maintenance of cooling towers. J. G. DeFlore. II Pet Eng 19:200-1 My '48; Same. Pet Refiner 27:145-9 My '48; Same. Heat & Ven 45:57-61 JI '48; Same abr. Oil & Gas J 46:192+ Ap 1 '48; Same abr. Power Generation 52:68-70+ N '48

Why does one cooling tower take more air? diags Power 92:112-13+ F '48

COOLING water

Case for the heat pump; economies in treatment of cooling water for space heating purposes. J. Butler. diag Chem Age (Lond) 57:757-60 D 13 '47

Cooling water requirements for natural gas booster stations. A. V. Mueller. II Gas Age 100:32-3 D 25 '47; Same. Oil & Gas J 46:66-7+ Ja 8 '48; Same. Am Gas J 168:35-7 Mr '48; Same. Pet Eng (Ref annual) 19:202+ JI 1 '48

Economical use of cooling water for heat insulation of presses and subsequently for space heating. J. Butler. Engineering 165:155-6 F 20 '48

Engine jacket water cooling systems. F. L. Kallam. Pet Refiner 27:115-23 JI '48

Gasoline plant process water treatment. J. C. Hutcheson. Pet Refiner 27:110-12 Mr '48; Same. Pet Eng (Ref annual) 19:184+ JI 1 '48; Discussion. J. S. Connors. Pet Refiner 27:113-15 Mr '48

Gasoline plant water treatment. J. C. Hutcheson and J. S. Connors. II Pet Processing 3:227-8+ Mr '48

Hydraulic model aids plant design; problems involving increased cooling water requirements. J. R. James. II plan Elec World 129:105-6 Mr 27 '48

Practical use of chromate inhibitors in engine cooling systems. D. D. Wright. bibliog flow sheet Can Chem & Process Ind 32:533-5 Je '48

Preventing rectifier corrosion. D. W. Borst. II diags Coal Age 52:89-93 D '47

Treatment and control of Diesel radiator water. C. W. Brown, Jr. and D. G. Drawbaugh, Jr. II Ry Mech Eng 122:487-8 S '48

Utilization of disposal plant effluent in refinery cooling water systems. G. W. Alexander. II Pet Refiner 27:92-4 Ja '48

COOPER, Carl L.

Seattle honors veteran writer as institution. F. V. Williams. por Ed & Pub 81:20 S 13 '48

COOPERATION

What the cooperatives mean to business; their challenge may lead to better distribution of goods. F. Smith. II Adv & Sell 40:46-1 D '47

See also

Advertising, Co-operative
Apartment houses—
Cooperative ownership

Banks and banking, Co-operative
Benefit societies
Building and loan associations

COOPERATION—See also—*Continued*

- | | |
|---|---|
| Cooperative associa-
tions | Farmers' cooperative
associations |
| Credit unions | Insurance, Mutual |
| Department stores,
Cooperative | Medical service—
Group and prepay-
ment plans |
| Electric service,
Rural—Cooperative
lines | Petroleum coopera-
tive associations |
| | Profit sharing |

Belgium

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:5-7 Ja '48

Burma

Revival of the co-operative movement in Burma. Int Labour R 57:388-90 Ap '48

Cameroons

Co-operative activities in the Cameroons; coffee planting societies. Int Labour R 56:350-1 S '47

Czechoslovakia

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:506 My '48

Europe

Cooperatives in postwar Europe. F. E. Parker. bibliog Mo Labor R 66:3-9, 386-91, 504-8, 613-16 Ja, Ap-Je '48

Finland

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:386-91 Ap '48

France

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:7 Ja '48

Germany

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:507-8 My '48

Great Britain

British co-operative movement. Int Labour R 57:665-6 Je '48

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:4-5 Ja '48

Hungary

Agricultural co-operation in Hungary. Int Labour R 56:89-90 Jl '47

New legislation in Hungary. Int Labour R 56:485-7 O '47

Italy

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:508 My '48

Netherlands

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:8 Ja '48

Philippine Islands

Co-operative movement in the Philippines. Int Labour R 56:89 Jl '47

Scandinavia

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:386-91 Ap '48

Sweden

Employer-worker relations in Swedish co-operatives. Int Labour R 56:348-50 S '47

Switzerland

Cooperatives in postwar Europe. F. E. Parker. Mo Labor R 66:3-9 Ja '48

United States

Consumer cooperation progress in U.S. reaches crisis stage; Co-ops must reorganize completely to compete with profit business. H. E. Green. Il Ptr Ink 224:23-5 S 3; 40-1+ S 10 '48; Abstract (pt 1). Nat Pet N 40:25 O 13 '48

Developments in consumers' cooperatives, 1947. F. E. Parker. Mo Labor R 66:261-4 Mr '48

Leaders act to rid co-ops of distributive weaknesses. Ptr Ink 224:80 Jl 23 '48

COOPERATIVE associations

Nobody's mad at the co-ops. Pub Util 41:99-100 Ja 15 '48

Union labor and nonfarm cooperatives. F. E. Parker. Mo Labor R 67:388-92 O '48

See also

- | | |
|--|---|
| Credit unions | National rural elec-
tric cooperative
association |
| Farmers' cooperative
oil associations | Petroleum coopera-
tive associations |
| National coopera-
tives, inc. | |

Employees

Employer-worker relations in Swedish co-operatives. Int Labour R 56:348-50 S '47

Management

Consumer cooperative progress in U.S. reaches crisis stage; Co-ops must reorganize completely to compete with profit business. H. E. Green. Il Ptr Ink 224:23-5 S 3; 40-1+ S 10 '48

Statistics

Consumers' cooperatives and credit unions; operations in 1946. U S Bur Labor Statistics Bul 922:1-19; pa 15c Supt. of doc. '47

Taxation

Co-ops pay fair share of taxes? let's look at the record. A. J. Smaby. Sales Management 60:42, 114+ My 20 '48

Equal business taxes for all? sure, but I say they aren't equal now. G. M. Lester. Sales Management 60:43-4+, 118 My 20 '48

N.A.C.M. gives views on tax free co-ops; statement before House ways and means committee. Credit & Fin Management 49:4-5+ N '47

Oil marketers seek end of handicap co-op tax exemptions put on business. map Nat Pet N 39:26-30+ N 12 '47

Treasury puts finger on tax aid for co-ops, but asks no remedy. Nat Pet N 39:23 N 5 '47

Tug-of-war on co-op tax status. Bsns W p30 N 15 '47

Your tax load is increasing; how co-ops' free ride adds to burden. G. C. Klippel. Credit & Fin Management 50:20-3 Mr '48

COOPERATIVE banking. See Banks and banking. Cooperative

COOPERATIVE department stores. See Department stores. Cooperative

COOPERATIVE development. Committee for. See Committee for cooperative development

COOPERATIVE education. See Business education—Cooperative plan; Engineering education—Cooperative plan; Industrial education—Cooperative plan

COOPERATIVE for American remittances to Europe

C.A.R.E., inc. Il map Fortune 36:126-31+ D '47

COOPERATIVE petroleum associations. See Petroleum cooperative associations

COOPERATIVE stores. Trade union

Auto union co-ops join national groups. Bsns W p80 S 4 '48

Labor fights inflation by resorting to co-op buying. R. Giles. Il Ptr Ink 221:34-6 D 12 '47

UAW plots permanent future for its retail warehouses. D. G. Baird. Sales Management 61:119-21 S 1 '48

COORDINATES

Mathematical shortcut for computing new coordinates. D. E. Sweet. diag Am Mach 92:115 F 26 '48

Symmetry matrices in normal coordinate analysis. J. E. Kilpatrick. bibliog J Chem Phys 16:749-57 Ag '48

COORDINATION (chemistry)

Coordination compounds of boron bromide and boron iodide. D. R. Martin. bibliog Chem R 42:581-88 Je '48

Coordination compounds of mercury. T. D. O'Brien. Am Chem Soc J 70:2771-2 Ag '48

Quadridentate amines; some coordination compounds of cobalt(III) and triethylene-tetramine. F. Basolo. bibliog Am Chem Soc J 70:2634-8 Ag '48

COOSA River newsprint company

Bonds placed privately. Comm & Fin Chr 167:1362-3 Mr 29 '48

COPÆNE. See Copene

COPENE

Constitution of copene. L. H. Briggs and W. I. Taylor. Chem Soc J p 1338-9 O '47

COPOLYMERS. See Polymers

COPPER

- Absorption of Na^{24} gamma-radiation in lead, copper, and aluminum. D. E. Alburger, bibliog diag Phys R 73:342-5 F 15 '48
- Accelerated aging of neoprene compounds; effect of copper. L. R. Mayo, R. S. Griffin and W. N. Keen, bibliog Ind & Eng Chem 40:1977-80 O '48
- Action of antifouling paints; use of glycine solutions as accelerated test of availability of toxic. B. H. Ketchum, bibliog Ind & Eng Chem 40:249-53 F '48
- Catalytic racemization and dehydrogenation of optically active secondary-butyl alcohol by copper and by zinc chromite. R. L. Burwell, jr. bibliog diag Am Chem Soc J 70:2865-9 S '48
- Catalytic reaction of hydrogen and oxygen on plane faces of a single crystal of copper. H. Leidheiser, jr. and A. T. Gwathmey, 2pls diags Am Chem Soc J 70:1200-6 Mr '48
- Characteristics of silver and copper for use as electrical contacts. B. W. Jones and L. L. Zickrick, il Product Eng 18:104-7 N '47
- Chemical engineering materials of construction; wrought copper and copper-base alloys. C. L. Bulow, bibliog(55 ref) Ind & Eng Chem 40:1785-8 O '48
- Copper-aluminum joints and combination materials made by upset welding. R. T. Gillette, il diag Materials & Methods 28:70-3 JI '48
- Copper and copper alloys; survey of technical information during 1947. E. Voce, bibliog Metallurgia 37:80-4, 141-5 D '47-Ja '48
- Corrosion resistant materials in brass and copper pickling. Iron Age 162:100-1 O 7 '48
- Crystal structure of anhydrous cupric chloride, and the stereochemistry of the cupric atom. A. F. Wells, diags Chem Soc J p 1670-5 D '47
- Effect of cold working on the magnetic properties of pure metals. J. Reekie and T. S. Hutchison, bibliog Phys R 74:610-20 S 1 '48
- Effect of the addition of amines on the electrode potential of copper in buffered acid solution. N. Hackerman and J. D. Sudbury, bibliog Electrochem Soc J 93:191-3 My '48
- Enameling on copper. M. Otten, il Cer Ind 50:105 Ap '48
- Foreign ion rejection in the growth of sodium chloride single crystals from the melt. R. H. McFee, bibliog diags J Chem Phys 15:856-61 D '47
- Kinetics of the reaction between copper and iodine in various solutions; solutions of iodine in organic solvents. L. L. Bircumshaw and M. H. Everdell, Chem Soc J p 1119-28 S '47
- Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander, bibliog diags Phys R 74:479-88 Ag 15 '48
- Nature of bond orbitals in quadrivalent complexes of transition elements. H. Kuhn, bibliog J Chem Phys 16:727-33 JI '48
- Reaction of metallic copper with titanium IV chloride. D. E. Koontz and D. G. Nicholson, Am Chem Soc J 70:1936-7 My '48
- Reactions of some highly chlorinated unsaturated C_6 hydrocarbons with chlorine and copper. R. W. Bost and J. A. Krynskiy, bibliog Am Chem Soc J 70:1027-9 Mr '48
- Slow neutron velocity spectrometer studies of Cu, Ni, Fe, Sn, and calcite. W. W. Havens, jr. and others, bibliog Phys R 73:963-72 My 1 '48
- Standard commercial wrought coppers and copper-base alloys; tabulation. Am Mach 92:106-7 My 6 '48
- Studies on some metal electrodes; oxide-film formation on copper, and the evaluation of the standard electrode potential of the metal. A. R. Tourky and S. E. S. El Wakkad, diags Chem Soc J p740-9 Je '48
- Studies on some metal electrodes; the behaviour of the copper electrode in dilute copper sulphate solutions. A. R. Tourky and S. E. S. El Wakkad, Chem Soc J p749-52 Je '48
- Thermodynamics of metallo-protein combinations; copper with bovine serum albumin. I. M. Klotz and H. G. Curme, bibliog Am Chem Soc J 70:939-43 Mr '48
- Threshold for the proton-neutron reaction in copper. W. E. Shoupp and others, bibliog diag Phys R 73:421-3 Mr 1 '48
- Vacuum melting and casting of copper. R. A. Stauffer, G. Fox and W. O. DiPietro, bibliog il diags Ind & Eng Chem 40:820-5 My '48

See also
Copper alloys

Analysis

- Ammonium citrate in the colorimetric determination of copper. A. J. Hall and R. S. Young, Anal Chem 20:776-7 Ag '48
- Analysis of copper and nickel slags and mattes. J. Kinnunen, Metallurgia 37:153-6 Ja '48
- Colorimetric determination of copper with carbon disulfide and diethanolamine; improved dithiocarbamate reagent. W. C. Woelfel, bibliog Anal Chem 20:722-4 Ag '48
- Determination of copper in carbon and low-alloy steels. Metallurgia 38:342-5 O '48
- Determination of silver and copper in one sample of plating solution. L. Silverman, Metal Finishing 45:80-2 N '47
- Determination of trace impurities in high-purity magnesium and calcium. S. Abbey, bibliog Anal Chem 20:630-4 JI '48
- Effect of manganese on the short iodide method for copper. E. T. Pinkney, R. Dick and R. S. Young, Soc Chem Ind J 66:342 O '47; Discussion. Chem & Ind p61-2 Ja 24 '48
- Improved spectrographic source. C. Braudo and H. R. Clayton, bibliog il diags Soc Chem Ind J 66:259-67 Ag '47
- Inorganic spot test for copper. F. Goldschmidt and B. R. Dishon, bibliog Anal Chem 20:373-4 Ap '48
- Photometric determination of arsenic in copper- and copper-base alloys. O. P. Case, bibliog Anal Chem 20:902-4 O '48
- Precision determination of lead in high grade copper; dithizone color and electrodeposition gravimetric methods. L. Silverman, bibliog Anal Chem 20:906-9 O '48
- Rapid colorimetric determination of copper in tin-base alloys. G. Norwitz, bibliog Anal Chem 20:469-70 My '48
- Spectrochemical determination of copper in copper-zinc and in copper-nickel alloys. W. M. Spicer, bibliog Anal Chem 20:557-8 Je '48
- Trace metal determination in fats; with special reference to copper in milk fat. R. D. Coleman, J. B. Thompson and I. Branum, il Anal Chem 20:365-8 Ap '48

Isotopes

- Beta-ray spectra from copper 64. W. E. Meyerhof and M. Goldhaber, bibliog Phys R 74:348-9 Ag 1 '48
- Beta-spectra of Cu^{64} as a test of the Fermi theory. C. S. Cook and L. M. Langer, bibliog Phys R 73:601-7 Mr 15 '48
- Concentration of copper 63 by the counter-current electromigration method. S. L. Madorsky and S. Straus, diag J Res Nat Bur Stand 41:41-4 JI '48
- Electro-disintegration of Cu^{64} , Ag^{107} , and Ag^{108} . L. S. Skaggs and others, bibliog Phys R 73:420 F 15 '48
- Magnetic moments of Cu^{63} and Cu^{65} . R. V. Pound, bibliog Phys R 73:523-4 Mr 1 '48
- Products of high energy deuteron and helium ion bombardments of copper. D. R. Miller and others, bibliog Phys R 74:347-8 Ag 1 '48
- Ratio of positives to negatives in Cu^{64} . L. Cranberg and J. Halpern, Phys R 73:259-60 F 1 '48
- Shape of the positron spectrum of Cu^{64} . C. S. Cook and L. M. Langer, Phys R 74:227-8 JI 15 '48
- X-ray yield curves for γ -n reactions. G. C. Baldwin and G. S. Klaiber, bibliog il Phys R 73:1156-63 My 15 '48

Metallography

- Copper-rich corner of the copper-aluminum-silicon diagram. F. H. Wilson, bibliog il Metals Tech 15:TP2329 1-12 F '48; Discussion. il 15:TP2449 41-50 Ag '48

COPPER—Metallography—Continued

Deformation lines in cold-rolled copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and others. *bibliog* *il* *Metals Tech* 15:TP2336 1-10 F '48

Kappa eutectoid transformation in the copper-silicon system. W. R. Hibbard, jr. and others. *bibliog* *il* *Metals Tech* 15:TP2441 1-9 S '48

Plastic deformation of large grained copper specimens. W. R. Hibbard, jr. *bibliog* *il* *diags* *Metals Tech* 15:TP2469 1-21 S '48

Wire textures of copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and M. Yen. *bibliog* *diags* *Metals Tech* 15:TP2334 1-10 F '48

Physiological effect

Trace metals in human nutrition; cobalt, copper, manganese and zinc as dietary essentials. W. F. J. Cuthbertson. *bibliog* *Chem & Ind* p391-3 Je 19 '48

Prices

Copper market seen coming into balance without price increase. J. Anthony. *Iron Age* 161:124+ Je 3 '48

Electrolytic copper, Connecticut valley; monthly, 1929-1947; tabulation. *Iron Age* 161:304 Ja 1 '48

Price, wholesale, electrolytic (N.Y.) 1941-1946. Survey of *Cur Bsns* 1947 Sup p 151 [supplemented in monthly numbers]

Testing

Influence of strain rate and temperature on the mechanical properties of monel metal and copper. D. J. McAdam, jr. and others. *il* *Am Soc T M Proc* 46:902-50 *bibliog* (p917-18) '46

Influence of the strain rate and the stress system on the mechanical properties of copper. D. J. McAdam, jr. and others. *bibliog* *diags* *Am Soc for Metals Trans* 38:561-76 '47

Strength and failure characteristics of thin circular membranes. W. F. Brown, jr. and G. Sachs. *bibliog* *il* *A S M E Trans* 70:241-9; Discussion. 249-51 Ap '48

COPPER, Powdered

Surface-area measurements on metal spheres and on carbon blacks. P. H. Emmett and M. Cines. *bibliog* *il* *J Phys & Colloid Chem* 51:1329-41 N '47

Titration of iron in high-temperature alloys; use of copper powder reduction method. L. Silverman. *il* *Steel* 122:66+ Ja 26 '48

COPPER acetylides

Copper acetylides. V. F. Brameld, M. T. Clark and A. P. Seyfang. *bibliog* *diags* *Soc Chem Ind* J 66:346-53 O '47

COPPER alloys

Age hardening copper-cobalt-manganese alloys. J. W. Fredrickson. *bibliog* *il* *Am Soc for Metals Trans* 38:593-617 '47

Application tables to guide in the selection of materials; sand cast copper alloys; reference book sheet. Z. Fox. *Product Eng* 18:167 D '47

Bearing metals; copper-base alloys. H. R. Clauser. *Materials & Methods* 28:82-3 Ag '48

Chemical engineering materials of construction; wrought copper and copper-base alloys. C. L. Bulow. *bibliog* (55 ref) *Ind & Eng Chem* 40:1785-8 O '48

Composition and properties of copper alloys for die casting; table. *Steel* 122:86 F 9 '48

Continuous casting; Asarco process. J. S. Smart, jr. and A. A. Smith, jr. *il* *diag* *Iron Age* 162:72-80 Ag 26 '48

Copper-aluminum-silicon alloys. *Engineer* 185:520 My 28 '48

Copper and copper alloys; survey of technical information during 1947. E. Voce. *bibliog* *Metallurgia* 37:80-4, 141-5 D '47-Ja '48

Copper-base alloy containing iron as a high-strength, high-conductivity wire material. W. Hodge and others. *bibliog* *il* *diag* *Metals Tech* 15:TP2422 1-10 Ag '48

Copper-chromium and copper-nickel-chromium alloys. *bibliog* *Engineer* 185:616 Je 25 '48

Copper-manganese alloys; properties of cold-worked and annealed alloys containing 2 to 20 per cent manganese. R. S. Dean and others. *bibliog* *Am Soc for Metals Trans* 38:577-91; Discussion. 591-2 '47

Copper-rich corner of the copper-aluminum-silicon diagram. F. H. Wilson. *bibliog* *il* *Metals Tech* 15:TP2329 1-12 F '48; Discussion. *il* 15:TP2449 41-50 Ag '48

Copper-titanium alloy coatings on mild steel. E. J. Chapin and C. R. Hayward. *bibliog* *il* *diag* *Am Soc for Metals Trans* 38:909-56 '47

Deformation lines in cold-rolled copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and others. *bibliog* *il* *Metals Tech* 15:TP2336 1-10 F '48

Designing copper-base alloy hot die pressings. F. S. Hyde. *diags* *Materials & Methods* 28:89-91 O '48

Developments in metals and alloys for chemical plant equipment. W. Z. Friend. *Chem Eng Prog* 44:502-3 Ji '48

Economies result when parts are designed for beryllium copper. R. W. Carson and W. Martin. *il* *diags* *Materials & Methods* 26:79-84 D '47

Electron diffraction study of oxide films formed on copper-nickel alloys at elevated temperatures. J. W. Hickman and E. A. Gulbransen. *bibliog* *Metals Tech* 15:TP2391 1-13 Je '48

High strength-high conductivity copper-silver alloy wire. W. Hodge and others. *bibliog* *il* *Metals Tech* 15:TP2366 1-17 Je '48

How to finish copper and copper alloys, by subcommittee of American society for metals. *il* *Am Mach* 92:95-106 F 26 '48

Kappa eutectoid transformation in the copper-silicon system. W. R. Hibbard, jr. and others. *bibliog* *il* *Metals Tech* 15:TP2441 1-9 S '48

Machining copper and its alloys. J. J. McGuinness. *il* *diags* *Am Mach* 92:101-12 My 6 '48

Mechanism of precipitation in a permanent magnet alloy; Cu-Ni-Co alloy (Cunico). A. H. Geisler and J. B. Newkirk. *bibliog* *il* *diags* *Metals Tech* 15:TP2444 1-20 Ag '48

Mechanism of precipitation in alloys of beryllium in copper. A. G. Guy and others. *bibliog* *il* *diags* *Metals Tech* 15:TP2341 1-23 F '48

New copper base alloys possess unusual properties; introduced by Fansteel metallurgical corp. *Steel* 123:104+ O 4 '48

New group of strong, conductive copper alloys; Trodaloy. H. A. Knight. *il* *Materials & Methods* 27:76-9 F '48

New nickel-bearing copper; abstract. *Materials & Methods* 27:108 Ja '48

Nominal chemical compositions of standard copper alloys; engineering file facts. *Materials & Methods* 27:107 Ap '48

Standard commercial wrought coppers and copper-base alloys; tabulation. *Am Mach* 92:106-7 My 6 '48

Stress-relief-hardening of beryllium copper. R. W. Carson. *il* *Mech Eng* 69:651-4 Ag '47; Discussion. 70:162-3 F '48

Tables to guide in the selection of materials; wrought copper and nickel alloys; reference book sheet. Z. Fox. *Product Eng* 18:169 N '47

Thermal expansion of some copper alloys. P. Hidnert and H. S. Krider. *bibliog* *J Res Nat Bur Stand* 39:419-24 N '47

Twinning in tetragonal alloys of copper and manganese. F. T. Worrell. *bibliog* *il* *diag* *J Ap Phys* 19:329-33 O '48

Wire textures of copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and M. Yen. *bibliog* *diags* *Metals Tech* 15:TP2334 1-10 F '48; Discussion. *il* 15:TP2449 94-9 Ag '48

See also

Brass Manganese bronze
Bronze Nickel silver

Analysis

Photometric determination of arsenic in copper and copper-base alloys. O. F. Case. *bibliog* *Anal Chem* 20:902-4 O '48

Spectrochemical determination of copper in copper-zinc and in copper-nickel alloys. W. M. Spicer. *bibliog* *Anal Chem* 20:557-8 Je '48

COPPER alloys—Continued

Testing

Constitution and properties of copper-rich copper-chromium and copper-nickel-chromium alloys. W. R. Hibbard, Jr. and others. *bibliog* *il* Metals Tech 15:TP2317 1-12 F '48

Fatigue properties of beryllium-copper strip and their relation to other physical properties. G. R. Gohn and S. M. Arnold. *il* diag Am Soc T M Proc 46:741-75; Discussion. 776-82 '46

Fatigue tests on some additional copper alloys. A. R. Anderson and others. *bibliog* Am Soc T M Proc 46:678-90; Discussion. 691-2 '46

COPPER arsenite

Production of copper arsenite. P. Miller, flow diag *il* Ind & Eng Chem 39:1521-30 N '47

COPPER bar arc welding. See Electric welding. Arc—Elin-Hafegut process

COPPER calcium oxychloride

Pseudostructures in electron microscope specimens. J. H. L. Watson. *il* J Ap Phys 19:713-20 Ag '48

COPPER chloride

Crystal structure of anhydrous cupric chloride, and the stereochemistry of the cupric atom. A. F. Wells, *diags* Chem Soc J p 1670-5 D '47

Determination of phenothiazine in dust and mixtures. V. Kniaseff. *bibliog* Anal Chem 20:329-31 Ap '48

Paramagnetic resonance absorption in salts of the iron group. R. L. Cumberow and others. *bibliog* diag Phys R 72:1233-40 D 15 '47

Replacement of calcite by atacamite in copper chloride solutions. R. M. Garrels and L. O. Stine. *il* Econ Geol 43:21-30 Ja '48

COPPER clad steel. See Steel, Copper clad

COPPER coating

Formation of copper films on non-conductors. S. Wein. *bibliog* (47 ref) Metal Finishing 46:58-60+ Ag '48

COPPER founding

Continuous casting; Asarco process. J. S. Smart, Jr. and A. A. Smith, Jr. *il* diag Iron Age 162:72-80 Ag 26 '48

COPPER halides

Crystal structure of CsCuCl_2 and the crystal chemistry of complex halides ABX₃. A. F. Wells. *diags* Chem Soc J p 1662-70 D '47

COPPER industry and trade

Copper outlook. J. A. Danaher. *Comm & Fin Chr* 167:2532+ Je 10 '48

See also

Kennecott copper corporation

Finance

Share of copper mines in metal's new price rise. *Barron's* 28:30 Ag 9 '48

Statistics

Copper, 1941-1946. Survey of Cur Bsns 1947 Sup p 150-1 [supplemented in monthly numbers]

Copper, 1947. H. H. Wanders. *Eng & Min J* 149:75-7 F '48

Rhodesia

Rhodesian copper prospects. *Economist* 154: 106-8 Ja 17 '48

United States

Are we a copper have-not? needs and resources indicate continued imports are required. C. D. Dallas. *Barron's* 28:5-6 Ap 19 '48

Copper: annual review and forecast. J. Douglas. *il* Min Cong J 34:79-82 F '48

Copper producers refuse set-asides for stockpile. *Barron's* 28:37 O 18 '48

Have we or have we not? C. S. Dunning. *Barron's* 28:38 My 17 '48

COPPER iodate

Interaction of ions and dipolar ions; the solubility of cupric iodate in glycine and in alanine solutions. R. M. Keefer. *bibliog* Am Chem Soc J 70:476-9 F '48

COPPER iodide

Electropotentials in growing halide and oxide layers on metals. A. Dravnieks and H. J. McDonald. *bibliog* *diags* Electrochem Soc J 93:177-90 My '48

Zone of metal phase consumption in gas-metal reactions. A. Dravnieks and H. J. McDonald. *bibliog* *diags* Electrochem Soc J 94:139-51 O '48

COPPER metallurgy

Concentration of copper-cobalt ores from the Blackbird district, Lemhi county, Idaho. H. R. Wells and others. 4pls U S Bur Mines Rep of Invest 4279:1-21 '48

Copper metallurgy; review of 1947. H. M. Shepard. *Min & Met* 29:95-6 F '48

Lixiviation of copper minerals by means of solutions of ammonium carbonate and ammonia; abstract. L. Brunner and P. Krassa. *Chem Eng* 55:276+ Ag '48

Mining and leaching secondary copper ores; Carroll county, Va. C. H. Thompson. *il* Min Cong J 34:32-3+ JI '48

COPPER mines and mining

Geology and the new mines; details of 37 ore deposits developed in North America in the past decade. I. B. Joralemon. *Min & Met* 29:227-8 Ap '48

Alabama

Stone Hill copper mine, Cleburne and Randolph counties, Ala. H. D. Pallister and J. R. Thoenen. 5pls U S Bur Mines Rep of Invest 4221:1-29 '48

Alaska

Diamond drilling at Rush & Brown copper mine, Kasaan bay, Prince of Wales island, southeastern Alaska. S. P. Holt and others. 5pls U S Bur Mines Rep of Invest 4349:1-7 '48

Arizona

Antler copper-zinc deposit, Mohave county, Ariz. T. M. Romslo. 9pls U S Bur Mines Rep of Invest 4214:1-14 '48

Christmas copper deposit, Gila county, Ariz. S. L. Tainter. 18pls U S Bur Mines Rep of Invest 4293:1-53 '48

Engineering and development problems at Morenci. W. C. Lawson. *il* plan Min Cong J 33:28-33 D '47

Open-pit operations at Inspiration. A. E. Millar. *il* Min Cong J 34:34-6, 99 S '48

Safety in blasting at Ajo, Ariz. A. D. Look and J. H. Bird. 2pls U S Bur Mines Information Circ 7431:1-17 '48

San Manuel copper deposit. J. T. Sherman. *Min & Met* 29:283 My '48

California

Blue Ledge copper-zinc mine, Siskiyou county, Calif. R. J. Hundhausen. 3pls U S Bur Mines Rep of Invest 4124:1-16 '47

Penn mine slag dump and mine water, Calaveras county, Calif. F. J. Wiebelt and S. Ricker. 2pls U S Bur Mines Rep of Invest 4224:1-6 '48

Chile

Chilex mine model revised. W. J. Waylett. *il* maps *Min & Met* 29:19-21 Ja '48

Congo, Belgian

Le développement de l'Union minière du Haut Katanga (Congo Belge). V. Charrin. *il* map Génie Civil 124:385-9 O 15 '47

Georgia

Diamond drilling at the Tallapoosa copper mine, Haralson county, Ga. T. J. Ballard and F. K. McIntosh. 6pls U S Bur Mines Rep of Invest 4316:1-6 '48

Idaho

Concentration of copper-cobalt ores from the Blackbird district, Lemhi county, Idaho. H. R. Wells and others. 4pls U S Bur Mines Rep of Invest 4279:1-21 '48

Maine

Investigation of the Cape Rosier zinc-copper-lead mine, Hancock county, Maine. S. B. Levin and R. S. Sanford. 14pls U S Bur Mines Rep of Invest 4344:1-8 '48

Michigan

Boston and Keweenaw; history of copper mining development. J. R. Van Pelt. *il* *Min & Met* 29:370-8 JI '48

Copper Range test augurs rich future for White Pine. *Barron's* 28:35 My 17 '48

COPPER mines and mining—Continued

Montana

- Butte; new mines, new life, *il* Bsns W p25 D 27 '47
 Greater Butte project, E. S. McGlone, *il* Eng & Min J 149:80-2 S '48

Nevada

- Mucking-machine draw points aid sublevel stoping; Copper Canyon mine, L. E. Snow, *il* plan diags Eng & Min J 148:58-62 D '47

North Carolina

- Conrad Hill copper and gold deposit, Davidson county, N.C. T. J. Ballard and A. B. Clayton, 10pls U S Bur Mines Rep of Invest 4290:1-7 '48
 Investigation of the Ore Knob copper mine, Ashe county, N. C. T. J. Ballard and A. B. Clayton, 5pls U S Bur Mines Rep of Invest 4341:1-8 '48

Rhodesia

- Roan antelope copper mines limited; Mufulira copper mines limited, general meetings, *Economist* 154:37 Ja 3 '48

South Africa

- Lucky ore find for O'okiep copper co. Barron's 28:34 O 13 '48

Tennessee

- Blast-hole drilling with diamond drills at the Tennessee copper co. mines, Ducktown, Tenn. W. A. Beck, 7pls U S Bur Mines Information Circ 7452:1-17 '48
 Burra Burra mine wins safety award, S. E. Sharp, *il* Explosives Eng 25:178+ N '47

Virginia

- Mining and leaching secondary copper ores; Carroll county, Va. C. H. Thompson, *il* Min Cong J 34:32-3+ JI '48

COPPER naphthenate

- Wood preservatives; effect on seam compounds and value as paint primers, W. Spackman, jr. and O. Tippo, bibliog *il* diags Ind & Eng Chem 40:1301-3 J '48

COPPER ores

See also

Chalcoite

COPPER oxides

- Copper oxide rectifier, bibliog *il* diags Elec Eng 67:1051-8 N '48

- Determination of gaseous hydrocarbons; combustion over precipitated copper oxide containing one percent iron oxide, R. E. Murdock, F. R. Brooks and V. Zahn, *Anal Chem* 20:65-7 Ja '48

- Studies on anti-fouling compositions; formation of copper soaps in the preparation of compositions containing cuprous oxide and rosin, H. Barnes, bibliog *Iron & Steel Inst J* 157:590-3 D '47

- Studies on anti-fouling compositions; relationship between leaching rate, copper loss, and anti-fouling performance, under raft and service conditions, H. Barnes, bibliog *Iron & Steel Inst J* 159:175-85 Je '48

- Susceptibility isotherms for supported copper oxide, P. W. Selwood and N. S. Dallas, *Am Chem Soc J* 70:2145-7 Je '48

COPPER oxychloride

See also

Atacamite

COPPER pentachlorophenate

- Preservation of fiber insulating board with chlorinated phenols, E. A. Behr, *il* Paper Ind 30:930-5 S '48

COPPER plating

- Anodes for electroplating; copper anodes, E. R. Thews, *il* Metal Finishing 46:70-4 Mr '48

- Concave metallic replica gratings, I. Simon, *il* diag R Sci Instr 18:894-6 D '47

- Copper plating; tabulated data; engineering data sheet, *Metal Finishing* 46:91 O '48

- Magnetic measurement of the thickness of composite copper and nickel coatings on steel, A. Brenner and E. Kellogg, *il* J Res Nat Bur Stand 40:295-9 Ap '48

- New plating processes developed by Hanson-Van Winkle-Munning co. *Chem Ind* 61:836+ N '47

- Process sheet for copper plating; reference book sheet, G. Black, *Am Mach* 92:139 S 9 '48

COPPER quiniolinolate

- Copper 8-quiniolinolate industrial preservative, P. G. Benignus, bibliog *Ind & Eng Chem* 40:1426-9 Ag '48

COPPER range company

- Copper Range test augurs rich future for White Pine, Barron's 28:35 My 17 '48

COPPER roofing. See Roofing, Copper

COPPER sulfate

- Action of copper sulfate on the phenylsazones of the sugars; gentiobiose phenylsotriazole, W. T. Haskins, R. M. Hann and C. S. Hudson, *Am Chem Soc J* 70:2288-9 Je '48

- Concentration of copper 63 by the counter-current electromigration method, S. L. Madorsky and S. Straus, *diag J Res Nat Bur Stand* 41:41-4 JI '48

- Control of slime growths in transmission lines, R. L. Derby, *il* Am Water Works Assn J 39:1107-14 N '47

- Copper sulphate aids sewer maintenance and sewage treatment; destruction of roots, J. W. Hood, *Water & Sewage Works* 95:275-7 Ag '48

- Copper-sulfate distributor, S. S. Anthony, *il* diags N E Water Works Assn J 61:253-9 S '47; Same, *Water & Sewage Works* 94:343-4 S '47

- Paramagnetic resonance absorption in salts of the iron group, R. L. Cummerow and others, bibliog *diag Phys R* 72:1233-40 D 15 '47

- Studies on some metal electrodes; the behaviour of the copper electrode in dilute copper sulphate solutions, A. R. Tourky and S. E. S. El Wakkad, *Chem Soc J* p749-52 Je '48

COPPER sulfides

See also

Chalcoite

COPPER sulfites

- Replacement of the diazonium by the nitro-group; decompositions by cupro-cupri sulphite, H. H. Hodgson, A. P. Mahadevan and E. R. Ward, *Chem Soc J* p 1392-4 O '47

- COPPER tubes. See Tubes, Copper

COPPERS, George H.

- Nabisco; the dough is rising, *por Fortune* 37:86-91, 204-6+ Je '48

COPPERWORK

- Arc-welding copper vessels, J. J. Vreeland, *il* diag Welding J 27:125-9 F '48

- Carbides speed copper machining, C. R. Morgan, *il* Am Mach 92:102-3 O 21 '48

- Controlled techniques developed to flash weld copper coils; magnet structure of Columbia university's cyclotron, *il* Steel 122:66-7 Ja 12 '48

- How to finish copper and copper alloys, by subcommittee of American society for metals, *il* Am Mach 92:95-106 F 26 '48

- Inert gas-shielded arc welding pure copper, J. W. Mortimer, *il* diags Welding J 27:715-22 S '48

- Machining copper and its alloys, J. J. McGuinness, *il* diags Am Mach 92:101-12 My 6 '48

- Seven jobs saved in inspecting copper wire bars, *il* Eng & Min J 149:79 Ap '48

COPPERWORK, Architectural

- Copper contract on seven schools; roofing, roof drainage, cornices and flashings, *il* diags Sheet Metal Worker 39:66-9 Mr '48

- Copper in Touraine cornice over 200 years old, B. B. Caddle, *il* Sheet Metal Worker 38:66-7 N '47

- Copper on large housing project; United nations housing project on Long Island, *il* diag Sheet Metal Worker 39:101-2 Ja '48
 New copper church tower; Church of the Transfiguration, New York, *il* Sheet Metal Worker 39:43-4 Ag '48

See also

Roofing, Copper

COPRA

- Copra gives us essential oil; pneumatic unloading, J. W. Frates, *il* Comp Air Mag 53:94 Ap '48

- Copra, 1941-1946, Survey of Cur Bsns 1947 Sup p 116 [supplemented in monthly numbers]

- Netherlands Indies copra output hits postwar peak, *For Comm W* 31:23 Ap 3 '48

COPROSMA

Chemistry of the coprosma genus; a synthesis of areolatin and an isomer, 3:5:6:7-tetrahydroxy-2-methylanthraquinone. L. H. Briggs, J. C. Dacre and G. A. Nicholls. *Chem Soc J* p990-2 J1 '48

Chemistry of the coprosma genus; the colouring matters from coprosma areolata. L. H. Briggs, M. R. Craw and J. C. Dacre. *Chem Soc J* p568-70 My '48

Chemistry of the coprosma genus; the colouring matters from coprosma australis. L. H. Briggs and J. C. Dacre. *Chem Soc J* p564-8 My '48

COPY preparation. See **Printing**, **Practical**—**Copy** preparation

COPYING processes

Reproduction techniques for reports and information service. B. H. Weil and J. C. Lane. *il J Chem Educ* 25:134-41 Mr '48

Savings in producing internal reports; Standard accident insurance company of Detroit uses copying machine to duplicate handwritten records. D. G. Baird. *il Am Bsns* 18:16-17+ Mr '48

Six ways to type copy for duplicating; making right-hand margins even. K. H. Mathus. *il Ptr Ink* 222:38-9 F 6 '48

COPYRIGHT

How agencies can avoid common legal pitfalls; dangers in use of group photographs, testimonials and proffered ideas. Adv & Sell 41:73-4+ Ag '48

How trade-marks, patents and copyrights protect your property. C. J. Hauk, Jr. *Ptr Ink* 221:41-6 D 19 '47

Television programs

Television as a problem in copyright registration. R. S. MacCarteney. *il Ptr Ink* 224:32-3 J 23 '48

CORAL reefs and islands

Coral reefs, a review. R. A. Daly. *bibliog Am J Sci* 246:193-207 Ap '48

Drilling on Bikini atoll, Marshall Islands. H. S. Ladd and others. *bibliog. maps Science* 107:51-5 Ja 16 '48

Emergent phosphate islands in Micronesia. L. E. Nugent, Jr. *bibliog maps Geol Soc Bul* 59:977-94, pl 1 O '48

Geological observations on Curaçao, N.W.I. H. P. Schaub. *bibliog il maps diags Am Assn Pet Geologists Bul* 32:1275-91 J1 '48

Reefs of Bikini, Marshall Islands. J. I. Tracey, Jr. and others. *il maps plans diags Geol Soc Bul* 59:861-78, pl 1-11 S '48

Submarine geology of Bikini atoll. K. O. Emery. *fold maps* (pl 1-3) *Geol Soc Bul* 59:855-9, pl 2, 4-5 S '48

CORBINO institute. See *Istituto nazionale di elettroacustica* O. M. Corbino, Rome, Italy

CORDAGE

British nylon cordage goes on wheels; demonstration motor truck of British ropes limited. *il Rayon* 29:77-8 F '48

See also

Rope

CORDIERITE

Cordierite bodies; major advantages. *Cer Ind* 51:93-4 O '48

Progress report on cordierite research at the Bureau of mines, Norris, Tenn.; abstract. K. G. Skinner. *Brick & Clay Rec* 112:70+ My '48

CORDITE

Determination of the nitrosoamine content of propellant explosives stabilized with *sym*-diethyldiphenylurea. T. C. J. Ovenston and C. A. Parker. *Soc Chem Ind J* 66:394-5 N '47

CORE ovens

Electronic oven. *il Chem Eng* 55:141-2 O '48

Factors influencing core baking. E. C. Troy. *diag Foundry* 76:92-5+ Je '48

CORES

Aluminum alloy castings. F. A. Lewis. *il Foundry* 76:90-3+ F '48

Cereal core binders. C. L. Mehlretter. *Foundry* 75:224+ D '47

Comparative strength and hardness of core binders. H. Brown. *Foundry* 76:76-9+ O '48

Core baking; Ther-monic core baking tunnel. *il Automobile Eng* 38:314 Ag '48; Abstract. *Franklin Inst J* 246:271-2 S '48

Factors influencing core baking. E. C. Troy. *diag Foundry* 76:92-5+ Je '48

Gases given off by core binders. H. Brown. *il diag Foundry* 76:84-7+ N '48

Green core handling simplified by special rack and truck. *il Iron Age* 161:90 Ap 29 '48

Importance of cores in die-casting design. C. R. Maxon. *il diags Mech Eng* 70:609-13 J1 '48; Excerpt. *Machine Design* 20:105+ Ag '48

Mold and core making; method developed by Croning & co., Hamburg, Germany. *Mech Eng* 70:23 Ja '48

Molding sheaves in dry sand cores; Manitoba bridge and iron works ltd. W. Pink. *il diags Foundry* 76:88-9 Ap '48

Properties of sand cores. V. Rowell. *il Foundry* 76:80-1+ F '48

Steel foundry uses wood plate on core blower; Crucible steel castings co. P. Dwyer. *il Foundry* 76:82-4+ Mr '48

Use of exothermic cores in pouring stainless steel. M. Beam. *il Steel* 122:76+ Ja 26 '48

See also

Foundry practice
Molds (for casting)

CORI, Carl Ferdinand, 1896-

Cori receives Gibbs medal. *por Chem & Eng* N 25:1694-5 Je 7 '48

Portrait. *Chem & Eng N* 25:3567 D 1 '47

Portrait. *Fortune* 38:111 O '48

CORI, Gerty Theresa, 1896-

American chemical society's women's award in chemistry. *por(cover) Chem & Eng N* 26:1347 My 10 '48

Portrait. *Chem & Eng N* 25:3567 D 1 '47

Portrait. *Fortune* 38:111 O '48

CORIOLIS' law. See **Acceleration**

CORK

Cork, an international product, plays big role in modern life; with data on U.S. imports 1937-1946 and first ten months of 1947. *il map For Comm W* 30:3-5+ Ja 10 '48

Cork for our future; McManus project for growing cork oaks in the U.S. G. B. Cooke. *il Comp Air Mag* 52:290-3 D '47

Cork manufacturers accused as trust. *Oil Paint & Drug Rep* 154:69 Ag 23 '48

Exports of cork and cork products from Portugal, 1946 and 1947; table. *For Comm W* 32:26 J1 31 '48

Fungicide for cork; salicylanilide. C. D. Cook and R. Harrington. *Product Eng* 19:107 Je '48

Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. *il Ind & Eng Chem* 40:262-7 F '48

CORN

Canned peas and canned corn. *il Consumers Res Bul* 22:7-11 J1 '48

Cash corn turns down despite season's end. *Barron's* 28:36-7 S 6 '48

Corn, 1941-1946. Survey of *Cur Bsns* 1947 Sup p 128 [supplemented in monthly numbers]

Cytogenetic effects in corn exposed to atomic bomb ionizing radiation at Bikini. L. F. Randolph and others. *Science* 108:13-15 J1 '48

Effect of low temperatures on the germination of inbred lines of sweet corn. G. Haskell. *Science* 107:150 F 6 '48

Experiments with peas and sweet corn treated with DDT insecticides. H. A. Lardy. *Ind & Eng Chem* 40:710-11 Ap '48

Influence of heredity on the carotene content of corn. L. W. Aurand and others. *Science* 106:493-4 N 21 '47

Low corn stocks to bring wheat crisis; carry-over law and feed needs are pincers. *Barron's* 28:36 Ja 19 '48

Maize. A. Herzka. *il diags Soc Chem Ind J* 66:396-7 N '47

Prevention of darkening in consumer-packed corn; immersing ears in acid-water before packaging. H. G. Gauch and L. E. Scott. *il Food Ind* 20:170-1 F '48

Stubble mulch studies; effect of sweetclover extract on corn germination. T. M. McCalla and F. L. Duley. *bibliog Science* 108:163 Ag 13 '48

Sucrose in the stalks of maize inbreds. W. R. Singleton. *Science* 107:174 F 13 '48

See also

Cornstarch

CORN—Continued**Drying**

Equipment and data on corn drying. *il Sheet Metal Worker* 39:60 Ap '48

CORN chips

Fritos by Doolin. *Fortune* 38:112+ J1 '48

Manufacture

Processing technics, machines boost corn chip business. R. Boyd. *flow diag il Food Ind* 20:1121-4 Ag '48

CORN harvesting machinery

Sales school on the farm. *il Bsns W* p58+ S 25 '48

CORN mash

Clarification of corn mash; preparation of malt-converted, degerminated mash for fermentation. F. A. Hilinski and C. L. Lovell. *il Chem Eng Prog* 44:783-8 O '48

CORN oil

Chromatographic study of autoxidized methyl linoleate; abstract. L. R. Dugan, Jr. and others. *Food Ind* 20:1232 Ag '48

Determining vitamins D₂ by two physical chemical methods; oil solutions. D. T. Ewing and others. *bibliog Anal Chem* 20:317-20 Ap '48

CORN products

Good supply, stable price, best for corn refiners. *Barron's* 28:26 Ag 16 '48

Korn Kurls in volume; Adams corporation, Beloit, Wis. processes and packages cheese-flavor-coated, deep-fat-cooked, puffed yellow corn shreds. E. S. Stateiler. *il Food Ind* 20:714-15 My '48

CORN products plants

Architect's dream becomes reality; Corn products refining co. plant at Corpus Christi, Tex. *il Chem Eng* 55:99-101 S '48

Continuous dry corn milling. J. J. Mullen. *flow diag il Food Ind* 20:1303-8 S '48

CORN products refining company

Drop in corn improves position of Corn Products. *Barron's* 28:27 Ap 5 '48

CORN sirup

Corn sirup coil; continuous conversion of corn starch. *diag Chem Ind* 61:979-80 D '47

Photoelectric determination of the color of corn sirup. B. L. Scallet. *Anal Chem* 20:591-2 Je '48

Analysis

Determination of amino nitrogen in corn sirup; modified Van Slyke method. B. L. Scallet. *bibliog il Anal Chem* 20:353-4 Ap '48

CORN sugar. See Glucose**CORNCOBBS**

Butyl alcohol from xylose saccharification liquors from corncobs. A. F. Langlykke, J. M. Van Lanen and D. R. Fraser. *Ind & Eng Chem* 40:1716-19 S '48

Esters of lima bean pod and corn cob hemicelluloses. J. F. Carson and W. D. MacLay. *bibliog Am Chem Soc J* 70:293-5 Ja '48

CORNELIUS, John Church, 1900-

Portrait. *Ptr Ink* 223:31 Ap 9 '48

CORNELL university**Laboratory of nuclear studies**

Cornell university opens Laboratory of nuclear studies. *Iron Age* 162:226+ O 14 '48; *Science* 108:375 O 8 '48

Libraries

Report of a survey of the libraries of Cornell university for the Library board of Cornell university, October 1947-February 1948. L. R. Wilson and others. 202p pa. \$2 Cornell univ, Ithaca, New York '48

School of nutrition

Savage hall, new headquarters. *Science* 106:466-7 N 14 '47

CORNICES

Copper in Touraine cornice over 200 years old. B. B. Caddle. *il Sheet Metal Worker* 38:66-7 N '47

CORNSTARCH

Continuous hydrolysis of corn starch. J. E. Dlouhy and A. Kott. *diag Chem Eng Prog* 44:399-404 My '48

Conversion of corn amylopectin by barley malt enzymes. T. M. Back, W. H. Stark and C. C. Vernon. *bibliog Ind & Eng Chem* 40:30-4 Ja '48

Correlations of the gel strength of paste walls and the shelf life of electric dry cells. W. J. Hamer. *bibliog J Res Nat Bur Stand* 40:251-62 Mr '48

Evaluating fungal amyolytic materials for saccharifying fermentation mashies. H. D. Reese, E. I. Fulmer and L. A. Underkoffler. *bibliog diag Anal Chem* 20:348-53 Ap '48

Ion-exchange refining of dextrose solutions. M. Handelman and R. H. Rogge. *il diags Chem Eng Prog* 44:583-7; Discussion. 588-90 Ag '48

Polysaccharide aryl carbamates. I. A. Wolff and C. E. Rist. *bibliog Am Chem Soc J* 70:2779-82 Ag '48

Production of 2,3-butanediol by fermentation of cornstarch. E. R. Kool, E. I. Fulmer and L. A. Underkoffler. *bibliog Ind & Eng Chem* 40:1440-5 Ag '48

Role of 5-(hydroxymethyl)-furfural in the discoloration of sugar solutions. B. Singh, G. R. Dean and S. M. Cantor. *bibliog Am Chem Soc J* 70:517-22 F '48

Manufacture

Centrifugals replace tables for separation of starch and gluten. R. L. Taylor. *il diags Chem Ind* 62:54-7 Ja '48

CORNUDAS mountain

Polished rocks of Cornudas mountain, New Mexico. W. B. Lang. *Science* 105:65 Ja 17 '47; Reply. C. Grant. 107:191-2 F 20 '48

CORONA (electricity)

Corona from a water drop. W. N. English. *bibliog il diags Phys R* 74:179-89 J1 15 '48

High voltages in electronics; correct spacing between conductors for prevention of sparking and corona effects. W. E. Peery. *diags Machine Design* 20:123-7 Je '48

Positive and negative point-to-plane corona in air. W. N. English. *diags Phys R* 74:170-8 J1 15 '48

Recent developments in analysis of the mechanisms of positive and negative coronas in air. L. B. Loeb. *bibliog il J Ap Phys* 19:832-97 O '48

Snow static on aircraft; neutralization of charge by artificially activating negative corona discharges. W. H. Bennett. *bibliog diags Elec Eng* 67:947-53 O '48

Space charge due to corona; abstract. O. J. M. Smith. *Elec Eng* 67:979 O '48

Threshold for the positive pre-onset burst pulse corona and the production of ionizing photons in air at atmospheric pressure. L. B. Loeb. *bibliog Phys R* 73:798-800 Ap 1 '48

CORONA (sun). See Anticorona; Sun**CORONAGRAPH**

Brief history of studies in solar radiation. J. T. Wilson. *Elec Eng* 66:1210-11 D '47

COROSAURUS. See Plesiosauria**CORPORATE names**

See also

Business names

CORPORATION law

Lawyer and business. F. Hamilton. *Fortune* 38:179-80+ O '48

See also

Banking law

Holding companies—

Laws and regulations

Insurance law

Public utilities—Law

Railroad law

Securities—Law

Trusts, industrial

Delaware

Ready for meeting time; agents for corporations chartered in Delaware get set. *il Bsns W* p26+ Ap 10 '48

Egypt

New company law provisions. *For Comm W* 29:15-16 D 27 '47

Great Britain

Accountants and the Companies act. *Economist* 154:943 Je 5 '48

Giving the facts to shareholders; Britain's version of the SEC; Companies act of 1947. A. L. Goodhart. *il Dun's R* 56:14-16+ Ap '48

CORPORATION law—Great Britain—Cont.

New companies act; accounting provisions. Economist 154:386-8, 464-5, 513-14 Mr 6, 20-27 '48

New English companies act changes requirements for financial statements. J. L. Dohr. J Account 85:196-203, 324-7 Mr-Apr '48

Rumania

Revaluation of company accounts decreed. For Comm W 29:16 N 8 '47

CORPORATION trust company

Ready for meeting time; agents for corporations chartered in Delaware get set. II Bsns W p26+ Ap 10 '48

CORPORATIONS

Transition in corporate controls; exit: the capitalists; enter: the managers. J. M. Juran. Advanced Management 13:126-30 S '48

Who owns big business? analysis of stock-holdings in largest corporations. Trusts & Estates 87:5-8 Jl '48

Who owns corporations? appraisal of CIO survey. Nat City Bank p93-5 Ag '48

See also

Banks and banking
Building and loan
associations
Corporation law
Electric utilities
Gas companies
Insurance companies
Investment trusts
Oil companies

Proxies
Public utilities
Railroads
Stockholders
Stocks
Street railroads
Trust companies
Trusts, industrial

Accounting

Beware of footnotes. Fortune 37:120 F '48
Business profits during inflation. D. T. Smith. Harvard Bsns R 26:26-29 Mr '48

Capital price adjustment method for deflating inflated profits. E. S. Freeman. N A C A Bul 29:635-58 F '48

Contingencies in Section 102 cases. W. L. Cary. J Account 86:245-6 S '48

Corporate investors need a better box score; recommendations of committee of American institute of accountants. M. H. Stans. Comm & Fin Chr 168:304+ Jl 22 '48

Current price level makes depreciation charges excessive. F. E. Taylor. J Account 86:302-3 O '48

Current replacement costs and corporate earnings. W. H. Garbade. Comm & Fin Chr 167:202+ Ja 15 '48; Abstract. J Account 86:49-50 Jl '48

Deferment of tax on intercompany profit. J Account 86:67-8 Jl '48

Distributions in kind; abstract. M. W. Singer. bibliog J Account 86:156-7 Ag '48

Dividend payments despite existence of operating deficit. J Account 85:257-9 Mr '48

Elimination of intercompany rentals. J Account 84:417-19 N '47

Excess of investment cost over related subsidiary book value. J Account 85:486-9 Je '48

Formula for recovering higher costs of depreciation, labor. K. Engelmann. J Account 84:456-8 D '47

How circumstances seem to alter corporate views of income. A. Herrick. J Account 85:291-2 Ap '48

How new standards of financial reporting grow from social responsibility of accountants. M. H. Stans. J Account 86:98-106 Ag '48

How to show effects of change in value of dollar yet preserve cost basis in accounts. E. S. Freeman. J Account 85:113-17 F '48

New companies act; accounting provisions. Economist 154:386-8, 464-5, 513-14 Mr 6, 20-27 '48

\$1 is \$1, or is it? Fortune 36:136 D '47

Problem of capital replacement; abstract. Management R 36:600-2 N '47

Problems in reporting corporation income. G. D. Bailey. Harvard Bsns R 26:513-26 S '48 (to be cont)

Property and inventory accounting as related to present-day price levels; summary and analysis of papers presented at conference in Chicago, Dec. 1947. J Account 85:406-12 My '48

Purchase of stock to reduce capitalization. J Account 85:70-1 Ja '48

Recent changes in corporate annual reports to stockholders. R. H. Gregory. J Account 84:386-96 N '47

Sansome trends. J Account 84:497-8 D '47
SEC discusses new developments in accounting and auditing. J Account 85:500-4 Je '48

SEC report of investigation of Drayer-Hanson case. J Account 85:435-41 My '48

Segregation of cash for depreciation reserve urged to prevent use for current expansion. Barron's 28:31 Ja 19 '48

Some shortcomings of financial statements from the security analyst's point of view. J. M. Galanis. J Account 84:368-75 N '47

Stock retirement by purchase below par. J Account 85:490-1 Je '48

Tax allocation. J Account 85:259-60 Mr '48

Transfer from capital to earned surplus when company's own securities are retired. J Account 84:501-3 D '47

See also

Income statements

Charities

Solving the donations problem; abstract. H. Fredman. Management R 37:6-7 Ja '48

Close corporations

Close corporation in trust; experience of industries committee of the Rhode Island hospital trust company. P. B. Simonds, jr. Trusts & Estates 86:226+ Mr '48

Holding close corporation securities; policy for corporate fiduciaries. A. H. Parker, jr. Trusts & Estates 86:113-17 F '48

Directors

Shadow of dead men's reasoning. J. F. Bell. Management R 36:620-2 D '47

Salaries

Cost of higher management. Economist 155:162-3 Jl 24 '48; Correction. 155:262 Jl 31 '48

Finance

Another treasure hunt for growth companies. E. A. Krauss. Mag of Wall St 81:228-30+ D 6 '47

Appraising normal earning power for ten dynamic companies. F. K. Dodge. Mag of Wall St 81:284-5+ D 20 '47

Big 1947 earnings not enough to maintain effective current assets at earlier level. Barron's 28:33 Mr 15 '48

Business financing in the postwar period. I. Friend. Survey of Cur Bsns 28:10-16+ Mr '48; Same. Comm & Fin Chr 167:1546+ Ap 8 '48

Business needs more new money. II Bsns W p 19-20 D 20 '47

Capital expansion; boom roared through 1947. Bsns W p28 Ap 17 '48

Capital outlays in 1948 nearly \$19 billion. Comm & Fin Chr 168:1333 S 30 '48

Capital spending slows down. Bsns W p22 Jl 17 '48

Character and grouping of new corporate issues in the United States for the 12 months ended Dec. 31 for five years; tabulation. Comm & Fin Chr 167:425 Ja 26 '48

Companies where product diversification is an asset. H. L. Blackburn. Mag of Wall St 82:82-3+ Ap 24 '48

Companies which expanded without new financing. J. C. Clifford. Mag of Wall St 82:274-5+ Je 19 '48

Companies whose order backlogs assure capacity operations. G. L. Merton. II Mag of Wall St 81:412-14 Ja 17 '48

Companies with large capital resources. F. K. Dodge. Mag of Wall St 82:30-1+ Ap 10 '48

Corn Refiners' lower net shows what happens when sales meet high break-even points. Barron's 28:32 My 3 '48

Corporate billion-dollar club at new peak. Bsns W p94 Je 19 '48

Corporate earnings climb to new records; third-quarter reports. Bsns W p99-101 O 30 '48

Corporate earnings in 1947; with table giving net income of leading corporations by industrial groups for the years 1946 and 1947. Nat City Bank p43-7 Ap '48

Corporate profits, 1929-1947; tabulation and chart. Automotive Ind 98:90 Mr 15 '48

CORPORATIONS—Finance—Continued

- Corporate sales and profits in the third quarter of 1947. Survey of Cur Bsns 28:5-6 Ja '48
- Corporate use of retained earnings. W. Gates. Mag of Wall St 83:115-17+ N 6 '48
- Current status of corporate cash resources; with statistical summary of postwar shifts in corporate assets, debt and capitalization. P. Dobbs. Mag of Wall St 81:131-3+ N 8 '47
- Declining corporate liquidity; with statistical summary of postwar shifts in corporate assets, debt and capitalization. W. Gates. Mag of Wall St 82:327-9+ JI 3 '48
- Diversified stake in stability; companies able to maintain their position; Ohio oil company; Pullman, Inc.; Thompson products, Inc.; Wheeling steel corporation. G. W. Mathis. Mag of Wall St 82:343-5 JI 3 '48
- Earnings; on the way to still another record. Bsns W p 19-20 JI 31 '48
- Earnings trends during the first half; what they reveal for the balance of 1948. H. L. Blackburn. Mag of Wall St 82:423-5+ JI 31 '48
- Ebb and flow of investment values; impact of postwar economic and political conditions for various companies. W. Gates. II Mag of Wall St 81:123-5+ N 8 '47
- Financial trends of large manufacturing corporations, 1936-46. K. C. Stokes. Survey of Cur Bsns 27:16-24 N '47
- First quarter earnings of leading corporations. Nat City Bank p54-5 My '48
- First-quarter profits mixed. Bsns W p21 My 1 '48
- Genuine growth companies for long term capital gains. Mag of Wall St 83:77-8+ O 23 '48
- Half year's earnings. Nat City Bank p91-3 Ag '48
- High earnings bring new cash needs. Bsns W p94 My 8 '48
- Increased cost of corporate living. L. E. Wilson. Comm & Fin Chr 163:313+ JI 22 '48
- Increasing corporate indebtedness; significance to investors. J. S. Williams. Mag of Wall St 83:22-4 O 9 '43
- IPA committee estimates industrial capital need at \$30 billions. Comm & Fin Chr 166:2507+ D 18 '47
- Industrial corporation 1947 reports; with data on manufacturing earnings for 1946 and 1947. Nat City Bank p81-4 Mr '48
- Industrial development and new capital sources. A. R. Koch. Comm & Fin Chr 167:2647+ Je 17 '48
- Industrial differences in large corporation financing; with tabulations showing composite sources and uses of funds statements, balance sheets, and selected income statement data for 1945-1947. C. H. Schmidt. Fed Res Bul 34:623-33 Je '48
- Latest trends in profit margins; a practical clue to future market values. E. A. Krauss. Mag of Wall St 82:324-6 JI 3 '48
- Long-term leases. J Account 86:247-9 S '48
- More speculation and equity financing needed. R. W. Courts. Comm & Fin Chr 166:2503 D 18 '47
- Need for more working capital pointed up by sharp rise in its turnover since 1940. Barron's 28:33 F 9 '48
- New financing trend; sell-and-lease industrial deals. Bsns W p96-8+ Ap 17 '48
- 1948 prospects of companies sheared of windfall earnings; with statistical data of companies which enjoyed substantial inventory profits. J. D. C. Weldon. Mag of Wall St 81:690-1+ Mr 27 '48
- 1948 special re-appraisals of values, earnings and dividend forecasts. Mag of Wall St 81:527-40+ 535-96+ 641-55+ 701-11+; 82: 482-91+ 534-47+ 586-95+ 634-45+ F 14-Mr 27, Ag 14-S 25 '48
- Outlook for capital outlays; National industrial conference board survey. Comm & Fin Chr 168:614 Ag 12 '48
- Preferred financing cheaper than common now, but charges might weigh heavily in bad times. Barron's 28:33 My 17 '48
- Problem of financing further business expansion. E. A. Krauss. Mag of Wall St 81:572-4+ F 23 '48
- Productive capacity vs. sales and profits. H. M. Tremaine. Mag of Wall St 82:386-8+ JI 17 '48
- Profit paradox. A. G. Bryant. Automotive Ind 99:25+ S 15 '48
- Profits and dividends, 1941-1946. Survey of Cur Bsns 1947 Sup p86-7 [supplemented in monthly numbers]
- Profits in 1947 lower than in 1940, relative to national income. Automotive Ind 98:81+ Mr 15 '48
- Recent developments in business finance. Fed Res Bul 34:615-22 Je '48; Same. Comm & Fin Chr 168:107+ JI 8 '48; Excerpts. Barron's 28:4 Je 28 '48
- Report on profits, prospects; third-quarter statements. Bsns W p21-2 N 1 '47
- Rising debt factor in corporate finances. W. Gates. Mag of Wall St 81:519-21 F 14 '48
- Rising plant and equipment costs. Nat City Bank p68-71 Je '48; Same. Comm & Fin Chr 167:2549-1 Je 10 '48
- Risk capital shortage; alternatives to corporate debt or stockholder freeze. A. M. Wolkiser. Trusts & Estates 86:466-71 Je '48
- Role of industry's profit dollar. W. Gates. Mag of Wall St 81:472-3+ Ja 31 '48
- Savings and capital expenditures. Nat City Bank p9-11 Ja '48
- Selecting growth companies for 1948. J. C. Clifford. II Mag of Wall St 81:461-3+ Ja 31 '48
- Sell-lease; new source of capital; firms sell real estate to insurance companies, universities, then lease it back. W. N. Augsburger. II Am Bsns 17:8-9+ D 47
- Significant trends in first quarter corporate reports. J. C. Clifford. Mag of Wall St 82:167-9+ My 22 '48
- Significant trends in second quarter earnings. J. C. Clifford. Mag of Wall St 82:471-3+, 523-5+ Ag 14-28 '48
- Small corporations outgained large ones in decade, but may be more vulnerable. Barron's 27:26 D 1 '47
- Third quarter earnings. Nat City Bank p 124-6 N '47
- Third quarter earnings. Nat City Bank p 124-6 N '48
- Third quarter earnings appraised; with composite picture of 1947 corporate profits. H. F. Travis. Mag of Wall St 81:190-1+ N 22 '47
- U.S. physical plant expansion not excessive; but high prices make burden of it on future earnings heavy. W. J. Nolle. Barron's 28:5-6 Ap 5 '48
- What year-end statements reveal for 1948; with data on selected companies. J. C. Clifford. Mag of Wall St 81:575-7+, 632-3+ F 28-Mr 13 '48
- Where growth, where maturity is indicated; divergent trends among individual companies. W. Gates. Mag of Wall St 83:8-10+ O 9 '48
- Where's the money coming from? E. L. Lindseth. Credit & Fin Management 50:21-2 Ag '48
- Who wants to invest anyway? equity financing highest when market rises. Barron's 28:31 Mr 1 '48
- Will profits stay up? with sales and profits of 50 corporations for 1946 and 1947. Bsns W p23-4 F 21 '48
- Working capital position of industry; with comparative balance sheet items of 30 selected companies. J. D. C. Weldon. Mag of Wall St 82:575-7+ S 11 '48
- See also
- Dividends Railroads—Finance
Profit Reserves
- Foreign subsidiaries
- Britain welcomes American subsidiaries, with some reservations. R. A. Foulke. II Dun's R 56:11-13+ F '48
- Consolidation of foreign subsidiaries. J Account 85:161-2 F '48
- How to handle foreign currencies in statements covering foreign subsidiaries. A. B. Hecker. J Account 85:26-9 Ja '48
- Reorganization
- Business purpose. H. M. Spear. bibliog J Account 86:333-4 O '48
- Recapitalizations; Bazley and Adams cases; abstract. J. A. Gilmore. J Account 85:414 My '48

CORPORATIONS—Reorganization—Continued

Sansone trends. J Account 84:497-8 D '47

See also

Railroads—Receiver-ships

Reports and yearbooks

Advocates changes in type of stockholder reports. D. J. Hennessy, Comm & Fin Chr 168:118+ JI 8 '48; Abstract, Paper Tr J 127:16 JI 8 '48

Annual reporting; a study in paradox; abstract. W. B. Marsh. Management R 36: 641-3 D '47

Annual reports win industry Oscars. il Am Gas Assn Mo 30:8-9 O '48

Art is nice, but nearly 50 per cent of annual reports don't give earnings, balance sheet comparisons. Barron's 28:26 Mr 8 '48

Charles Francis press stimulates use of elaborate annual reports to sell free enterprise system. il Inland Ptr 120:61 D '47

Controllers group seeks ways to improve annual reports. D. J. Hennessy, Sales Management 60:107-8+ Ja 15 '48

Corporate investors need a better box score; recommendations of committee of American institute of accountants. M. H. Stans. Comm & Fin Chr 168:304+ JI 22 '48

Facts behind figures covered in annual report; chain grocer presentation for employees, stockholders and suppliers. il Ptr Ink 222:41 F 13 '48

Footnotes in statements can be eliminated; abstract. J. M. Bowly. J Account 84:376 N '47

How to put human interest into your annual report. il Ind Marketing 33:83+ Je '48

Making figures talk; humanizing annual and interim reports. H. Gilbert. Bus Transportation 27:48-50 Ap '48

Misleading profits statements. Economist 153: 775-6, 856 N 8, 22 '47

Modern annual corporate reports. W. Schaefer. Am Pet Inst Proc 27(1):122-3 '47

Modern corporate reports to stockholders, employees and the public. L. Doris. 309p \$10 Prentice-Hall, Inc., 70 Fifth av, New York 11 '48

New survey of annual reports; abstract. W. Smith. Management R 37:484-6 S '48

1947 chemical company developments as reported to the stockholders; companies with sales over \$50 million. P. A. Singleton and J. A. Sprague. Chem Ind 62:748-51, 932-6 My-Je '48

Pleasing nobody; Roper survey. Bsns W p86-7 Ag '48

Problems in reporting corporation income. G. D. Bailey. Harvard Bsns R 26:513-26 S '48 (to be cont)

Public accountant and annual reports of corporations. N. L. McLaren. J Account 85: 381-5 My '48

Public suspicion; financial reports are disbelieved; public opinion survey by Controllership foundation. Dun's R 56:40+ F '48

Recent changes in corporate annual reports to stockholders. R. H. Gregory. J Account 84:386-96 N '47

Report by movie; Union oil co. report on celluloid and televised to stockholders. il Bsns W p 104-5 Ap 24 '48

Stockholder reports can benefit from these ten advertising techniques; illustrations taken from new reports. Ptr Ink 224:40-1 JI 9 '48

Survey reveals financial information people want to know about a corporation. D. J. Hennessy. J Account 86:224-7 S '48

To promote financial understanding; annual report awards feature public relations program of Detroit trust co. il Trusts & Estates 86:61-2 Ja '48

What one company learned about its stockholders; survey among women stockholders of General foods corp. B. Watson. il Adv & Sell 41:117-18+ Mr '48

What people want to know about a company; stockholders surveyed. Trusts & Estates 87:105-9 Ag '48

See also

Telephone companies —Reports

Bibliography

Annual reports as high points in interpreting business to its community. R. R. Mund, comp. (Business literature v. 20, no. 7) p79-80 Business library, Newark public lib, Newark, N.J. Mr '48

Size

Bigness in business; its economic, political and legal implications. W. E. Spahr. Comm & Fin Chr 168:797+ Ag 26 '48

Mass production vs. small business; technological developments favoring flexible decentralized plants. J. M. Blair. Trusts & Estates 87:217-21 S '48

Small corporations outgained large ones in decade, but may be more vulnerable. Barron's 27:26 D 1 '47

Subsidiaries

Elimination of intercompany rentals. J Account 84:417-19 N '47

See also

Corporations—Foreign subsidiaries

Taxation

Court holding company aftermaths; abstract. R. Magill. bibliog J Account 85:66-7 Ja '48

Dividend policy and section 102 of the Internal revenue code. R. S. Jessup. Comm & Fin Chr 166:2059+ N 20 '47

Double taxation of dividends. H. B. Sutter. Trusts & Estates 86:55-60 Ja '48; Excerpts. Comm & Fin Chr 166:2061+ N 20 '47

Expenses of mergers. J. J. Fuld. J Account 86:63-4 JI '48

Interdependent deductions under federal and New York taxes. J Account 85:69 Ja '48

Losses in subsidiary dissolutions. J Account 85:485 Je '48

Manufacturers and business firms must pay new District of Columbia franchise tax by April 15. E. C. Kreutzberg. Steel 122:64+ F 23 '48

Maybe your agency should be a partnership. J. K. Lasser. Adv & Sell 41:69-70 S '48

Must have risk capital or government ownership of industry; pleads for tax reduction in statement before Senate finance committee. R. W. Courts. Comm & Fin Chr 167:1211+ Mr 18 '48

Reduced taxes or capital shortage! H. L. Derby. Comm & Fin Chr 167:1990+ My 6 '48

Section 102; abstract. M. Austin. J Account 86:154-5 Ag '48

Tax aspects of dividing and merging a business. L. A. Diamond. bibliog J Account 86: 314-22 O '48

Tax carryovers; aids to business expansion. J. K. Lasser. il Dun's R 56:13-15+ Ja '48

Tax free recapitalizations; preferred exchanged for common. J Account 86:64-5 JI '48

Tax milestone on small business. K. R. Cravens. Banking 41:33-4+ JI '48

Truman urges higher taxes on business; message on state of the Union. Comm & Fin Chr 167:97+ Ja 8 '48

U.S. seen approving reserve advertising funds; abstract. W. A. Sutherland. Ptr Ink 221:78 D 26 '47

You can't escape taxes, but some business men manage to shift part of the load to customers. Barron's 28:33 Mr 22 '48

Excess profits tax Mine taxation

Insurance companies Railroads—Taxation

—Taxation

Treasurers

Financial organization; a blueprint of Treasury department functions. D. J. Erickson. Credit & Fin Management 50:22-6 Ap '48

CORRELATION (geology)

Correlation of the Mississippian formations of North America; with index to stratigraphic names by the Mississippian subcommittee. J. M. Weller, chairman. Geol Soc Bul 59:91-196, pl 1-2 bibliog(330 titles, p177-88) F '48

Geological correlation and paleoecology. R. S. Allan. bibliog Geol Soc Bul 59:1-10 Ja '48

CORRELATION (geology)—Continued

Intertonguing marine and nonmarine upper cretaceous deposits of New Mexico, Arizona, and southwestern Colorado. W. S. Pike, jr. (Memor 24) 103p, 12pls bibliog (p97-100) \$2.25 Geological soc. of America, 419 W. 117th st, New York '47

CORRELATION (statistics)

Oscillographic scatterplots illustrating various degrees of correlation. J. C. R. Licklider and E. Dzendolet. *il diags Science* 107:121-4 Ja 30 '48

CORRESPONDENCE principle

Asymmetric rotor; calculation of higher energy levels by means of the correspondence principle. G. W. King. bibliog diags *J Chem Phys* 15:820-30 N '47

CORRESPONDENCE schools and courses

Correspondence courses and their place in vocational education. J. N. Stephenson. *Paper Tr J* 126:50-1 My 20 '48; Same, *Pulp & Pa of Can* 49:53-5 My '48

New York Central offers correspondence course in public relations to its employees. *Ry Age* 124:1022-4 My 22 '48

CORRESPONDENT banks. See Banks and banking—Correspondent banks**CORRESPONDING states, Law of**

Critical densities and related properties of liquids. S. W. Benson. bibliog *J Phys & Colloid Chem* 52:1060-74 Je '48

CORROSION and anti-corrosives

Abrasion, erosion and corrosion; abstracts. C. H. Desch. *Chem Age (Lond)* 58:207 F '48; *Chem & Ind p* 122 F 21 '48

Air conditioning cuts rust spillage; production of ball bearings; S K F industries, inc. N. N. Wolpert. *il Heat & Ven* 45:81-2 F '48

Bacteria in mine drainage accelerates rust formation; abstract. M. E. Hinkle and W. A. Koehler. *Eng N* 139:873 D 25 '47

Boiler feed pump corrosion? here's what you can do about it. H. L. Ross. *il diags Power Generation* 52:104+ F '48

Chromated proteins halt corrosion. *Eng N* 140:661 Ap 29 '48; Same, *Metal Finishing* 46:110 Je '48; Same, *Metal Prog* 54:250+ Ag '48; Same, *World Oil* 128:162 Ag '48; Same abr. *Heat & Ven* 45:83 My '48; Same cond. *Mech Eng* 70:548 Je '48; Excerpts. *Mach* 54:178 Je '48

Concentration cell corrosion. M. G. Fontana. *diags Ind & Eng Chem* 40:sup75A-6A Mr '48

Condensation and rust on canned goods in storage. D. H. Rose and H. D. Johnson. *il Food Ind* 20:212-15+ F '48

Corrosion can be controlled in refrigeration systems. J. I. Montel. *il diags Refrig Eng* 56:35-8 Jl '48

Corrosion costs in the petroleum industry. F. A. Rohrman. *il Pet Eng* 19:115-16+ Je '48

Corrosion handbook. H. H. Uhlig, ed. 1188p \$12 John Wiley, 440 4th av, New York 16 '48

Corrosion in boiler feedwater treating systems. L. F. Collins. bibliog diags *Power Pl Eng* 51:74-6 O; 114-16 N; 114-16+ D '47; [cont abs] *Power Generation* 52:106+ Ja '48

Corrosion by isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst. N. Eragen, C. W. Nysewander and W. R. Hertwig. flow diag *il diags Ind & Eng Chem* 40:1133-8 Je '48

Corrosion in sulphuric acid towers; further study of acid-lead behaviour; abstract. F. Perkold and P. M. Müller. *Chem Age (Lond)* 57:787 D 20 '47

Corrosion of boiler steels by inhibited hydrochloric acid. P. H. Cardwell and S. J. Martinez. bibliog *Ind & Eng Chem* 40:1956-64 O '48

Corrosion of heating surfaces in boiler plants; further studies in deposit formation. J. R. Rylands and J. R. Jenkinson. *Engineer* 185:215-16; Discussion. 212-13 F 27 '48; *Elec R (Lond)* 142:359-60 Mr 5 '48

Corrosion of oil well equipment. L. C. Case. *Pet Eng* 19:150+ D '47

Corrosion of silver in a water saturated chlorine atmosphere. H. B. Linford and M. J. Ford. bibliog *Electrochem Soc J* 93:16-26 Ja '48

Corrosion prevention by controlled calcium carbonate scale. S. T. Powell, H. E. Bacon and E. L. Knoedler. bibliog *Ind & Eng Chem* 40:453-7 Mr '48

Corrosion problems of offshore structures. E. Sterrett. *World Oil* 128:84 S '48

Corrosion; processes and control. F. L. La-Que. diags *Pulp & Pa of Can* 49:81-94 Ap '48

Design of equipment in preventing and minimizing corrosion. M. G. Fontana. *Ind & Eng Chem* 40:sup95A-6A My '48

Dezincification and erosion-corrosion. M. G. Fontana. *il Metal Prog* 53:686-9 My '48

Dry corrosion investigated at Pittsburgh conference. *Chem & Eng N* 26:1901 Je 28 '48

Effect of inhibitors on the corrosion of zinc in dry-cell electrolytes. C. K. Morehouse and others. bibliog diag *J Res Nat Bur Stand* 40:151-61 F '48

Effects of hydrogen in the corrosion of steel; abstract. M. H. Bartz and C. E. Rawlins. *Iron Age* 161:93-4 Je 17 '48

Fluorine corrosion; high-temperature attack on metals by fluorine and hydrogen fluoride; behavior of insulated steel parts in fluorine cells. W. R. Myers and W. B. DeLong. bibliog diags *Chem Eng Prog* 44:359-62 My '48

Fretting corrosion; how to eliminate it. E. V. Albert. *il Steel* 122:72-4 Ap 5 '48

Galvanic corrosion and concentration cell corrosion. M. G. Fontana. *il diags Metal Prog* 53:382-6 Mr '48

Gas attack on rust; VPI offers packagers unique anti-corrosion weapon. *il Chem Ind* 63:591 O '48

How to combat corrosion through design. E. T. Collinsworth, jr. bibliog *il diags Machine Design* 20:116-22 F; 142-8 Mr '48

Inhibition of steel corrosion by sodium nitrite in water. M. Cohen. bibliog diags *Electrochem Soc J* 93:26-39 Ja '48

Inhibitor action in crankcase lubricants. A. F. Prutton. *Oil & Gas J* 47:70-3+ Je 10 '48

Mechanism of the corrosion of aluminum. J. M. Bryan. bibliog *Chem & Ind p* 135-6 F 28 '48

Microbiological problems in the manufacture of sugar from beet; corrosion in the diffusion battery and in the recirculation system. L. A. Allen and others. bibliog diags *Soc Chem Ind J* 67:70-7 F '48

National association corrosion engineers; digests of papers of interest to petroleum industry. *Oil & Gas J* 46:91-2 Ap 15 '48

National association of corrosion engineers regional group reports methods of combating corrosion. *Oil & Gas J* 47:152+ S 23 '48

New developments in corrosion protection; Electrochemical society symposium. flow sheet *Steel* 122:100+ My 17 '48

New rust inhibitor for pipelines; Sinclair's additive, RD-119. *Bsns W* p76 S 18 '48

Observation of corrosion cracking without stress. W. D. Robertson and H. H. Uhlig. *il J Ap Phys* 19:864-5 S '48

Petroleum rust preventives. A. E. Hickel. *il Pet Refiner* 27:94-6 Ag '48

Practical use of chromate inhibitors in engine cooling systems. D. D. Wright. bibliog flow sheet *Can Chem & Process Ind* 32:533-5 Je '48

Preventing corrosion of condensate return lines. R. T. Hanlon. *Heating-Piping* 20:36-8 My '48

Preventing rectifier corrosion. D. W. Borst. *il diags Coal Age* 52:89-93 D '47

Prevention of corrosion in sour wells with organic inhibitors. W. F. Gross and H. W. Andrews. *il Oil & Gas J* 47:76-9+ O 28 '48

Rate of breakdown and mechanism of nitrite inhibition of steel corrosion. R. Pyke and M. Cohen. *Electrochem Soc J* 93:63-78 Mr '48

Rust preventives; how they work, what they contain. H. Sellel. bibliog (42 ref) *il Chem Ind* 62:62-4 Ja '48

Selection of deep well pumps. A. O. Fabrin. *il diags Am Water Works Assn J* 40:415-22 Ap '48

Selection of engineering materials for coke plants. C. F. Pogacar. *il diags Blast F & Steel Pl* 36:556-8 My '48

Stress-corrosion and corrective measures. M. G. Fontana. *il Metal Prog* 53:838-40 Je '48

CORROSION and anti-corrosives—Continued

- Stress-corrosion cracking of steels in the presence of sulphur compounds, W. P. Rees, *Engineering* 164:489-90 N 21 '47
- Stress corrosion in materials; abstract, *Materials & Methods* 27:107-8 Ja '48
- Stress corrosion, one of eight visual forms of corrosion, M. G. Fontana, *il Ind & Eng Chem* 39:sup87A-8A N '47
- Three of the eight forms of corrosion, M. G. Fontana, *il Metal Prog* 53:231-3 F '48
- What to look for in hydraulic oils; non-corrosive qualities, A. J. Zino, jr. *il diag Am Mach* 92:126-8 F 12 '48
- Why pipe corroded only on one side of the building, T. W. Reynolds, *Heat & Ven* 45: 98 Je '48

See also

- | | |
|-------------------------------|-----------------------|
| Acid resisting materials | Metal protection |
| Aluminum—Corrosion | Paint, Protective |
| Aluminum—Protection | Passivity |
| Boilers—Corrosion | Petroleum pipe lines |
| Calorizing | —Corrosion |
| Corrosion research | Petroleum refineries |
| Corrosion resisting materials | —Corrosion |
| Electrolytic corrosion | Pipe coating |
| Gas, Natural—Dis- | Pipe lines—Protection |
| tillate wells—Cor- | Steel—Protection |
| rosion problem | Water purification— |
| | Corrosion control |

Testing

- Atmospheric corrosion tests of corrosion-resistant steel wires, A. P. Jahn, *Am Soc T M Proc* 46:618-20 '46
- Atmospheric corrosion tests on high-chromium steels, W. O. Binder and C. M. Brown, *il diag Am Soc T M Proc* 46:593-609 '46
- Corrosion of metals in red fuming nitric acid and in mixed acid, N. Kaplan and R. J. Andrus, *bibliog Ind & Eng Chem* 40:1946-7 O '48
- Corrosion test of screen wire at sewage works, R. S. Young, *Sewage Works J* 20: 550-1 My '48
- Corrosion tests of heater-tube materials for acid concentration service, H. F. Brown, *il Oil & Gas J* 46:134-7+ Ap 29 '48
- Demonstrations using the ferroxyl reagent, W. B. Meldrum, *diags J Chem Educ* 25: 254-5 My '48
- Determination of physical chemical factors in stress corrosion cracking of mild steel, M. G. Winterstein and others, *bibliog il diag Welding J* 26:sup723-6 D '47
- Electrolytic resistance in evaluating protective merit of coatings on metals, R. C. Bacon, J. J. Smith and F. M. Rugg, *bibliog il diag Ind & Eng Chem* 40:161-7 Ja '48
- Experiments on the corrosion resistance of porous bronze compacts produced by powder metallurgy, M. M. Hallett, *Soc Chem Ind J* 67:57-61 F '48
- Field test of corrosion inhibitor for low-pH flood water, J. N. Breston and K. Barton, *il Oil & Gas J* 46:91-2+ D 6 '47
- First report of the methods of testing (corrosion) sub-committee, British Iron and steel research association, *il 2pls diags Iron & Steel Inst J* 158:463-93 Ap '48
- High-temperature corrosion of stainless steels; parts of a gas turbine locomotive, W. E. Fontaine, *il diags Metal Prog* 54: 332-6 S '48
- Laboratory corrosion tests for steels; first report of the methods of testing (corrosion) sub-committee; summary, *Engineering* 165:619 Je 25 '48
- Laboratory corrosion tests of iron and steel pipes, G. A. Ellinger and others, *il diags Paper Tr J* 127:27-32 S 2 '48
- NDHA corrosion tester; why and how it's used, L. F. Collins, *diags Heating-Piping* 20:77-80 O; 83-7 N '48
- Preparation, suspension, and testing of corrosion specimens, W. Murray, *diags Iron & Steel Inst J* 158:200 F '48
- Protection of steel by various non-metallic coatings, J. C. Hudson and T. A. Banfield, *il 2pls Iron & Steel Inst J* 158:99-110 Ja '48
- Quantitative evaluation of intergranular corrosion of 18-8 Ti, F. J. Phillips, *bibliog il Am Soc for Metals Trans* 39:891-906; Discussion, 906-14 '47

- Report of subcommittee III on inspection of Annapolis tests, *Am Soc T M Proc* 46:146-53 '46
- Report of subcommittee V on exposure and corrosion tests, *Am Soc T M Proc* 46:244-58 '46
- Report of subcommittee VIII on field tests of metallic coatings, *Am Soc T M Proc* 46:154-67 '46
- Resistance of iron-nickel-chromium alloys to corrosion in air at 1600 to 2200 F, A. D. Brasunas and others, *il Am Soc T M Proc* 46:870-93; Discussion, 894-901 '46
- Resistance of sensitized stainless steels to boiling nitric acid, R. S. Stewart, *Metal Prog* 52:971-3 D '47
- Rust prevention in products pipe lines; Sinclair RD-119, E. W. Unruh and F. M. Watkins, *il Oil & Gas J* 47:63-4+ Je 17 '48
- Short-circuit tests predict performance of corroded connectors, R. M. Schaffer and W. H. Knutz, *Elec World* 129:80-2 F 14 '48
- Stress corrosion of manganese bronze castings, T. L. Sheehan and H. E. Dickerman, *il Foundry* 76:82-7+ J1 '48
- Stress-corrosion tests evaluate alloys, *il Aviation W* 49:25+ S 20 '48
- Stress-corrosion tests of high-strength aluminum alloys, H. Logan and H. Hessing, *Franklin Inst J* 246:344-7 O '48; Same *abr. Light Metal Age* 6:18+ O '48
- Stress-corrosion tests on high-strength aluminum alloy sheet in sodium chloride-hydrogen peroxide solution and in marine atmosphere, H. L. Logan and H. Hessing, *bibliog il J Res Nat Bur Stand* 41:69-86 J1 '48

See also

- Paint, Protective—
Testing

Underground corrosion

- Anodic behavior of sacrificial metals in specific environments, K. M. Wight and R. F. Hadley, *bibliog il diags Am Gas Assn Proc* 1947:771-800
- Behavior of experimental zinc-steel couples underground, I. A. Denison and M. Romanoff, *bibliog il diags J Res Nat Bur Stand* 40:301-13 Ap '48
- Cathodic protection of under-ground structures, *il Gas Age* 102:25+ J1 8 '48
- Chemical aspects of underground corrosion and corrosion prevention; abstract, I. A. Denison, *Am Gas Assn Mo* 30:30 S '48
- Corrosion of underground steam line supports, L. F. Collins and others, *il diags Heat & Ven* 45:83-5 Je '48
- Exterior corrosion of cast iron pipe, K. H. Logan, *Sewage Works J* 20:133-7 Ja '48
- Pipe corrosion mitigation practices, A. H. Cramer, *il diags Am Gas J* 168:23-7+ Je '48
- Promote cathodic protection to check corrosion of buried structures, *Pet Processing* 3:902-3 S '48
- Zinc combats corrosion of buried pipes, *Dom Eng* 172:124 J1 '48
- CORROSION engineers, National association of.** See National association of corrosion engineers
- CORROSION research**
- Appliance corrosion under attack; A.G.A. sponsored project at Battelle, H. A. Pray and others, *il diag Am Gas Assn Mo* 30: 19:23+ J1-Ag '48
- Application of electron diffraction techniques to the study of corrosion processes; abstract, E. A. Gulbransen, *Metal Prog* 54: 234+ Ag '48
- Cathodic corrosion protection studied at Dow Chemical's metals protection laboratory; use of magnesium as a galvanic anode, *il Steel* 121:106-7+ N 19 '47
- Chemical erosion of steel by hot gases under pressure, R. C. Evans and others, *bibliog diags J Phys & Colloid Chem* 51:1404-29 N '47
- Climatic effects on the corrosion of steel, J. Dearden, *bibliog Iron & Steel Inst J* 159:241-6 J1 '48
- Corrosion fatigue of oil well equipment, B. E. Morton, *il World Oil* 127:156+ Ap '48
- Corrosion of metals research; progress report of the chemical research laboratory, *Metallurgia* 38:282-5 S '48

CORROSION research—Continued

Corrosion potential. Ind & Eng Chem 40:sup 16A+ Ap '48

Corrosion-resistant steel sheet in marine atmospheres. W. Mutchler. *il* diags Am Soc T M Proc 46:621-39; Discussion. 640-1 '46

Corrosion testing project at Kure beach. Mech Eng 70:152 F '48

Effect of the addition of amines on the electrode potential of copper in buffered acid solution. N. Hackerman and J. D. Sudbury. *bibliog* Electrochem Soc J 93:191-8 My '48

Electropotentials in growing halide and oxide layers on metals. A. Dravnieks and H. J. McDonald. *bibliog* diags Electrochem Soc J 93:177-90 My '48

Iron and steel corrosion; work of corrosion committee of the British iron and steel research association; abstracts. *Engineer* 185: 501 My 21 '48; *bibliog* Metallurgia 38:104-6 Je '48

Marine corrosion testing; Kure Beach corrosion testing station. F. N. Speller. *il* Blast F & Steel Pl 36:950-3 Ag '48

Prevention of drill string failures in the Permian basin. R. C. McMaster. *il* diag World Oil 127:75-80+ Ap; 128:134+ My '48

Protection of iron and steel against corrosion; discussion. *il* Iron & Steel Inst J 157:349-68 N '47

Something more is done about the weather; Dow Chemical's magnesium corrosion tests. *il* Aero Digest 56:24 Ja '48

Study of the corrosion of tin plate by can washing compounds; abstract. R. D. Finley and M. J. Foter. *Food Ind* 20:648+ Ap '48

Use of wetting agents in conjunction with acid inhibitors. P. H. Cardwell and L. H. Eilers. *bibliog* *il* Ind & Eng Chem 40:1951-6 O '48

CORROSION resisting materials

Aluminum corrosion performance in contact with various chemical agents; table. Heat & Ven 45:86 P '48

Cast nickel-molybdenum and nickel-molybdenum-chromium alloys for severe corrosion services. W. A. Luce. *il* Chem Eng Prog 44:453-7; Discussion. 457-8 Je '48

Chemical engineering materials of construction; cements. C. R. Payne. *bibliog* (60 ref) *il* Ind & Eng Chem 40:1778-82 O '48

Construction materials for jet pumps. M. Richelson. *Chem Eng* 55:114-17+ S '48

Corrosion characteristics of some magnesium-zinc-calcium alloys. G. C. Kuczynski and F. Schonfeld. *bibliog* Electrochem Soc J 93:41-6 F '48

Corrosion in isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst. N. Fragen. C. W. Nysewander and W. R. Hertwig. *flow diag* *il* diag Ind & Eng Chem 40:1133-8 Je '48

Corrosion of boiler steels by inhibited hydrochloric acid. P. H. Cardwell and S. J. Martinez. *bibliog* Ind & Eng Chem 40:1956-64 O '48

Corrosion resistance as well as other properties of titanium metal make it an attractive material. M. G. Fontana. *Ind & Eng Chem* 40:sup9A-100 O '48

Corrosion-resistant aluminum-magnesium alloys. P. Brenner and W. Roth. *il* Engineering 166:44-7 JI 9 '48

Corrosion-resistant cements. V. Evans. *bibliog* Chem & Ind p307-11 My 15 '48

Design of exhaust systems; handling corrosion fumes and gases. F. H. Stebbins. *diags* Sheet Metal Worker 39:55-6+ My '48

Experiments on the corrosion resistance of porous bronze compacts produced by powder metallurgy. M. M. Hallett. *Soc Chem Ind J* 67:57-61 F '48

Fabrication of high nickel alloys and austenitic stainless steel. A. S. Tuttle, jr. *Pulp & Pa* of Can 49:74-80 Ap '48

Fluorine corrosion; high-temperature attack on metals by fluorine and hydrogen fluoride; behavior of insulated steel parts in fluorine cells. W. R. Myers and W. B. DeLong. *bibliog* diags Chem Eng Prog 44:359-62 My '48

Industrial alcohol versus construction materials; symposium. *Chem Eng* 55:247-8 S; 235-6+ O '48

Mechanism for rapid oxidation of high temperature-high strength alloys that contain molybdenum. M. G. Fontana. *il* Ind & Eng Chem 40:sup 103A-4A Je '48

Metallurgical methods for combating corrosion and abrasion in the petroleum industry. E. B. Morton. *bibliog* 8pls diags Inst Pet J 34:1-59; Discussion. 59-68 Ja '48

Metals for use with highly corrosive media; engineering file facts. *Materials & Methods* 28:87, 89 JI '48

New development of wrought corrosion-resistant alloy should find extensive use in the chemical industry; Carpenter stainless 20. M. G. Fontana. *Ind & Eng Chem* 40:sup87A-8A F '48

Nickel alloys in pulp and paper making. R. T. Barnes, jr. and E. H. J. Clarke. *Pulp & Pa* of Can 49:69-73 Ap '48

Nitric acid versus construction materials; symposium. *il* Chem Eng 55:233-4+ F; 225-6+ Mr '48 (to be cont)

Prevention of corrosion in refinery heat-exchanger equipment. M. A. Furth. *il* diags Am Pet Inst Proc 28(3):26-32 '48; Same. *Pet Refiner* 27:129-34 JI '48; Same abr. *Pet Processing* 3:549+ Je '48; Discussion. *Am Pet Inst Proc* 28(3):32-4 '48

Properties of chemical engineering materials of construction; tabulation. *Ind & Eng Chem* 40:1821-936 *bibliog* (p 1933-6) O '48; Correction. 40:242 D '48

Recent developments in corrosion-resistant aluminum-magnesium alloys; abstract and discussion. P. Brenner. *Engineering* 165:365 Ap 16 '48

Selection of valve material for petroleum applications. H. O. Teeple. *Am Pet Inst Proc* 28(3):35-41; Discussion. 41-3 '48

Shielding fan systems from corrosion. W. E. Langlois. *diags* Heat & Ven 45:70-2 JI '48

Sodium chloride versus construction materials; symposium. *il* Chem Eng 54:211-12+ O; 217-18+ N; 225-6+ D '47; 55:223-4+ Ja '48 [reprints 25c]

Sulphuric acid versus construction materials. *il* Chem Eng 55:235-6+ My; 223-4+ Je; 227-8+ JI; 219-20+ Ag '48

Systematic scheme for identifying corrosion resistant metals; electrographic method. C. J. Zeeh. *diags* Metal Prog 52:824, 824B+ N '47

See also

Acid handling Chromium steel
Acid resisting materials Corrosion and anti-corrosives
Chemical plants—Equipment Paint, Protective
Chromium nickel Steel, Stainless
steel Stoneware
 Teflon

Testing

Resistance of alloys to corrosion during the processing of some foods. J. F. Mason, jr. *il* Metallurgia 38:320-7 O '48

CORROSION resisting steel. See Steel, Corrosion resisting; Steel, Stainless

CORRUGATED paper board. See Paper board, Corrugated

CORSETS Advertising

Continuity is the best policy even for a fashion advertiser; experience of corset advertiser. C. J. Swan. *il* Ptr Ink 223:28-9+ Je 4 '48

Sales clerks' approval of new product helps gain distribution; Lilly of France corset co. *il* Ptr Ink 221:64+ N 28 '47

This campaign proves women want facts in advertising; Flexnit girdles. M. Adams. *il* Ptr Ink 224:60+ Ag 20 '48

Manufacture

Cases in work simplification; ladies' foundation garment industry. *il* Factory Management 106:84-5 Ja '48

CORUNDUM
Blue Metal corundum-andalusite deposit, Douglas county, Nev.; supplemental investigation. E. O. Blynon, 2pls U S Bur Mines Rep of Invest 4298:1 '48

Constitution and microhardness of fused corundum abrasives. N. G. Schrewelius. *bibliog* Am Cer Soc J 31:170-5 Je 1 '48

CORUNDUM—Continued

- Investigation of Rickard corundum mine, York county, S.C. T. J. Ballard, 2pls U S Bur Mines Rep of Invest 4310:1-6 '48
- Investigation of Track Rock corundum mine, Union county, Ga. T. J. Ballard, pl U S Bur Mines Rep of Invest 4309:1-5 '48
- Microscopical distinction of corundum among its natural and artificial associates; employing the Christiansen effect by transmitted, dark-field illumination. G. C. Crossmon. Anal Chem 20:976-7 O '48
- Mississippi Valley experiment station laboratory and pilot-plant concentration of corundum from Gallatin Gateway, Mont. for World war II. W. A. Calhoun and R. G. O'Meara. U S Bur Mines Rep of Invest 4161:1-27 '47

CORYCIUM enigmaticum Sederholm

- New evidence of the origin of pre-Cambrian carbon. K. Rankama. map diags Geol Soc Bul 59:389-416, pl 1-6 bibliog(p414-16) My '48

COSINE-fourth power law. See Photographic optics**COSMETICS**

- AANR presents study of market for cosmetics. Ed & Pub 81:32 F 7 '48
- Bacteriostasis application to toiletries investigated. A. R. Cade. Oil Paint & Drug Rep 153:40+ My 24 '48
- Congress convinced of inequity of 20 per cent toiletries tax. S. L. Mayham. Oil Paint & Drug Rep 153:39+ My 24 '48
- Cosmetic foresight; HQZ new merchandising-packaging program. II Mod Packaging 21:108-9+ F '48
- Cosmetic lines held needing simplification. M. J. Knight. Oil Paint & Drug Rep 153:40+ My 24 '48
- Cosmetic sales seen declining in 1948. J. Baker. Oil Paint & Drug Rep 153:42-3 My 24 '48
- Cosmetic season of reason. II Mod Packaging 22:118-23+ S '48
- Fuller's sideline. Bsns W p62 JI 10 '48
- Gary paper surveys sale of cosmetics. Ed & Pub 81:30 My 15 '48
- McKesson seeks solution to mystery of missing cosmetics customers; why have department stores taken the play away from drug stores? Sales Management 61:56+ S 15 '48
- Toiletry troubles; retail dollar volume off 2.6 per cent in 1947. Bsns W p80-2 Mr 13 '48
- Woodbury up-to-date; Andrew Jergens' second package redesign program in ten years. II Mod Packaging 21:85-92 JI '48
- See also*
- Lipsticks Toilet goods association
- Powder, Face

Advertising

- Mavis premium offer pushes one item, samples another. T. T. Toole. Sales Management 61:116-17 JI 15 '48
- Why Seventeen cosmetics shoots for a broader age market. B. Duffy. Sales Management 60:72+ Mr 1 '48

COSMIC noise*See also*

Radio noise, Solar

COSMIC physics

- Change of physical constants. E. Teller. Phys R 73:801-2 Ap 1 '48
- Comments on the theories interpreting the magnetism of celestial bodies. M. Forró. bibliog Phys R 74:218-19 JI 15 '48

COSMIC radio noise. See Radio noise, Cosmic**COSMIC rays**

- Abnormality in cosmic-ray absorption in lead in low altitudes. W. F. G. Swann and P. A. Morris. Phys R 72:1262 D 15 '47
- Absorption of cosmic radiation in meteorites. C. A. Bauer. Phys R 74:225-6 JI 15 '48
- Application of captive balloons to carry photographic emulsions. N. Arley. Phys R 72:1253 D 15 '47
- Artificial cosmic radiation; what keeps atomic nuclei from exploding? I. A. Getting. II diags Tech R 50:435-40+ Je '48
- Attempt to detect neutral particles produced by exchange of charge with cosmic-ray mesons. R. D. Rusk and A. Rosenbaum. Phys R 74:110-11 JI 1 '48

- Cosmic-ray counting rate of a single Geiger counter from ground level to 161 kilometers altitude. J. A. Van Allen and H. E. Tatel. bibliog diags Phys R 73:245-51 F 1 '48
- Cosmic-ray investigations on Mt McKinley. T. D. Carr and others. bibliog diags Phys R 73:1419-23 Je 15 '48

Cosmic rays. C. W. Hewlett. II diags Gen Elec R 51:11-16 Mr; 23-31 My '48

Cosmic rays at 30,000 feet. R. V. Adams and others. II Rs Mod Phys 20:334-49 Ja '48

Crawco cosmic ray conference, Oct. 6-11. Science 107:60-1 Ja 16 '48

Effective path length through a vertical cosmic-ray telescope. E. E. Witmer and M. A. Pomerantz. bibliog diags Franklin Inst J 246:293-309 O '48

Electronic sequence control circuit for the operation of a Wilson cloud chamber. F. L. Allen. bibliog II diags R Sci Instr 19:24-7 Ja '48

Energy distribution of neutrons in the atmosphere. S. A. Korff and others. Phys R 73:1133 My 1 '48

Heavy mesons and the cosmic rays far underground. K. I. Greisen. bibliog Phys R 73:521 Mr 1 '48

Interpretation of cosmic-ray phenomena. B. Rossi. diags Rs Mod Phys 20:537-83 bibliog(p582-3) JI '48

Interaction of cosmic-ray primaries with sunlight and starlight. E. Feenberg and H. Primakoff. bibliog Phys R 73:449-69 Mr 1 '48

Magnetic variable stars as sources of cosmic rays. H. W. Babcock. bibliog Phys R 74:489 Ag 15 '48

Natural radiocarbon from cosmic radiation. E. C. Anderson and others. bibliog Phys R 72:931-6 N 15 '47

Neutral mesons in cosmic rays. K. I. Greisen. bibliog Phys R 73:521-2 Mr 1 '48

New cosmic-ray telescope for high altitudes. A. T. Biehl and others. II diags Rs Mod Phys 20:353-9 Ja '48

Nuclear evaporation recorded in an emulsion near sea level. H. Yagoda. bibliog II Phys R 73:263-4 F 1 '48

Nuclear evaporations produced by cosmic rays. G. Bernardini and others. bibliog II Phys R 74:845-6 O 1 '48

Photographic study of the neutron spectra from Al(α) and Si(α n). R. A. Peck, jr. bibliog Phys R 73:947-55 My 1 '48

Plasma oscillations as a cause of acceleration of cosmic-ray particles. D. Bohm and E. P. Gross. bibliog Phys R 74:624 S 1 '48

Production of cosmic-ray mesons. G. F. Chew. bibliog Phys R 73:1128-9 My 1 '48

Production of mesotrons in cosmic-ray stars in the stratosphere. M. Schein and J. J. Lord. II Phys R 73:189-90 Ja 15 '48

Production of nuclear disruptions by the cosmic radiation. S. A. Korff. bibliog Rs Mod Phys 20:327-33 Ja '48

Production of nucleons by the cosmic radiation. S. A. Korff and others. bibliog Phys R 71:842-5; 73:1010-14 Je 15 '47, My 1 '48

Rate of production of helium in meteorites by cosmic radiation. C. A. Bauer. Phys R 74:501-2 Ag 15 '48

Robert Andrews Millikan as physicist and teacher. P. S. Epstein. bibliog Rs Mod Phys 20:21-5 Ja '48

Search for electrons in the primary cosmic radiation. R. I. Hulsizer and B. Rossi. bibliog Phys R 73:1402-3 Je 1 '48

Small cloud chamber for use with unmanned balloons. R. B. Leighton. II diags R Sci Instr 19:274-6 Ap '48

Solar activity as the origin of cosmic rays; abstract. D. H. Menzel and W. W. Salisbury. Science 106:506 N 28 '47

Symmetrical vector meson pair theory of nuclear interaction. O. Brulin and S. Hjalmar. bibliog Phys R 72:1126 D 1 '47

Tracks in emulsions at 100,000 feet. E. O. Salant and others. bibliog Phys R 74:694 S 15 '48

Use of nuclear plates in a magnetic field. I. G. Barbour. Phys R 74:507 Ag 15 '48

See also

Mesotrons

Azimuthal effect

- Azimuthal effect of cosmic rays at Bombay (magnetic latitude 9.5°N). P. S. Gill and G. H. Vaze. Phys R 73:1395-6 Je 1 '48

COSMIC rays—Azimuthal effect—Continued

Directional counter for the determination of the complete azimuthal effect of primary cosmic radiation, A. Baños, jr. and M. L. Perusquia, bibliog diags R Sci Instr 13: 239-43 Ap '48

Components

East-west asymmetry of the hard component of the cosmic radiation, M. Schein and others, bibliog Phys R 73:923-9 Ap 15 '48
Electronic component of cosmic rays in the low atmosphere, G. Bernardini and others, bibliog diags Phys R 73:328-39 F 15 '48
Evidence for heavy nuclei in the primary cosmic radiation, P. Freier and others, il Phys R 74:213-17 Jl 15 '48
Hard component of cosmic radiation as affected by the variation in air mass distribution with latitude, K. M. Kupferberg, Phys R 73:804-5 Ap 1 '48
Mass temperature coefficients of cosmic-ray components, F. M. Millican and D. H. Loughridge, Phys R 74:66-70 Jl 1 '48
Penetrating component of air showers, G. Salvini and G. Tagliaferri, diags Phys R 73:261-2 F 1 '48
Positive excess of slow mesotrons at an altitude of 3.5 km, M. Correll, bibliog il diags Phys R 72:1054-60 D 1 '47
Positive excess of the penetrating component at 17,000 feet, I. F. Quercia and others, bibliog diags Phys R 73:516 Mr 1 '48
Radioactive decay of slow positive and negative mesons, G. E. Valley, bibliog il diags Phys R 72:772-83 N 1 '47

Intensity

Cosmic-ray effects from solar flares and magnetic storms, H. V. Neher and W. C. Roesch, bibliog Rs Mod Phys 20:350-2 Ja '48
Directional intensity of cosmic rays at high altitudes, J. R. Winckler and others, bibliog Phys R 74:837-8 O 1 '48
Directional intensity of cosmic rays at several altitudes, M. Sands, bibliog diags Phys R 73:1338-40 Je 1 '48
Measurements of the east-west asymmetry of cosmic rays at Hobart, Tasmania, A. G. Fenton and D. W. P. Burbury, bibliog Phys R 74:589-91 S 1 '48
Temperature effect of cosmic radiation at 1000-m water equivalent depth, M. Forró, Phys R 72:868-9 N 1 '47

Ionization effects

Directional intensity of cosmic rays at several altitudes, M. Sands, bibliog diags Phys R 73:1338-40 Je 1 '48
Ionization of high energy cosmic-ray electrons, E. Hayward, bibliog il diags Phys R 72:937-42 N 15 '47
Specific primary ionization of 1-Mev electrons relative to sea level cosmic radiation, F. L. Hereford, bibliog Phys R 72:982-3 N 1 '47

Latitude effect

Latitude dependence of neutron densities in the atmosphere as a function of altitude, J. A. Simpson, jr, Phys R 73:1389-91 Je 1 '48
Recent studies of the cosmic-ray latitude effect at high altitudes, A. T. Biehl and others, bibliog il Rs Mod Phys 20:360-6 Ja '48
Sea level latitude effect of cosmic radiation, F. A. Morris and others, bibliog diags Phys R 74:1102-5 N 1 '48

Showers

Altitude dependence of high energy atmospheric showers, H. L. Kraybill, Phys R 73:632 Mr 15 '48
Analysis of extensive cosmic-ray shower data, H. W. Lewis, Phys R 73:1341-5 Je 1 '48
Cosmic-ray bursts in the upper atmosphere, H. E. Tatel and J. A. Van Allen, diags Phys R 73:87-8 Ja 1 '48
Cosmic-ray showers produced by penetrating particles, C. Y. Chao, il Phys R 74:492-4 Ag 15 '48
Energy distribution in cosmic-ray showers, A. A. Richards, jr. and L. W. Nordheim, diags Phys R 74:1106-13 N 1 '48

Experiments on the separation of low energy mesotrons from electrons, P. C. Bhattacharya, bibliog diags Phys R 74:38-43 Jl 1 '48
Extensive air showers and the cascade theory, G. Cocconi, bibliog Phys R 72:964-6 N 15 '47
Further results on burst production by penetrating cosmic-ray particles, H. Bridge and others, il diags Phys R 73:179-80 Ja 15 '48
High altitude measurements on extensive showers, R. Maze and others, Phys R 73: 413 F 15 '48
Lateral extension of auger showers, S. F. Singer, diags Phys R 74:844 O 1 '48
Origin of the neutrons associated with the extensive cosmic-ray showers, V. T. Cocconi, diags Phys R 74:226-7 Jl 15 '48
Penetrating component of air showers, G. Salvini and G. Tagliaferri, diags Phys R 73:261-2 F 1 '48
Penetrating particles in extensive air showers, J. E. Treat and K. I. Greisen, diags Phys R 74:414-23 Ag 15 '48
Penetrating showers in lead, W. B. Fretter, bibliog il Phys R 73:41-6 Ja 1 '48
Penetrating showers of cosmic radiation, G. Cocconi and K. Greisen, bibliog diags Phys R 74:62-5 Jl 1 '48
Presence of neutrons in the extensive cosmic-ray showers, V. Tongiorgi, diags Phys R 73:923-4 Ap 15 '48
Production of showers of penetrating particles, H. A. Meyer and others, bibliog Phys R 74:846-7 O 1 '48
Relation of frequency of occurrence of small cosmic-ray bursts to areas of sunspots and other variables, J. W. Broxon, Phys R 72: 1187-96 D 15 '47
Shower production by penetrating particles at 14,000 feet, H. Bridge and W. Hazen, bibliog il diags Phys R 74:579-88 S 1 '48
Study of cosmic-ray bursts, H. S. Bridge and others, bibliog il diags Phys R 74: 1083-102 N 1 '48
Variation of penetrating showers with altitude, J. Tinlot, bibliog diags Phys R 73: 1476-7; 74:1197-8 Je 15, N 1 '48

COSMOGONY

Dust cloud hypothesis; new theory for origin of stars and planets, F. L. Whipple, il Sci Am 178:34-45 My '48

COSOLUBILITY. See Solubility**COSOLVENTS. See Solvents****COST**

Designing with dollars; organization of cost data and its use by design engineering department; Glenn L. Martin co, J. Van Hamersveld, il diags Product Eng 19:31-6 Mr '48

Management's no. 1 problem, Bsns W p 19-20 O 2 '48

Short-sightedness vs. economic security; need of search for lower costs, E. A. Krauss, Mag of Wall St 83:60-2, 101-2 O 23 '48

See also

Cost accounting Power cost
Cost of living Sales costs
Labor cost

also subdivision Cost or Costs under special subjects, e.g. Marketing—Cost; Railroads—Costs

COST accounting

Accountants ignore economic costs, A. R. Wells, Comm & Fin Chr 165:2977+; 166: 1840+ Je 5, N 6 '47

Accurate job of cost analysis requires four types of figures, A. C. Kiechlin, Inland Ptr 120:71-2 Ja '48

Applications of generally accepted accounting principles to cost accounting, D. M. Russell, N A C A Bul 29:1533-48 Ag 15 '48

Applying point rating to the setting of machine hour rates, N. R. Reed, N A C A Bul 29:819-23 Mr 1 '48

Basic steps in developing a distribution cost system, F. L. Heath, N A C A Bul 29:949-54 Ap 1 '48

Cooperation of line and staff in the development and use of costs, R. P. Swartz, N A C A Bul 29:1149-55 My 15 '48

Cost accounting facts and fantasies, P. T. Norton, Jr, Manuf Rec 117:27-8+ Ja; 35-6+ F; 38+ Mr; 38+ Ap '48

Cost accounting; valuable business tool, W. F. Jones, World Oil 128:42-4+ S '48

COST accounting—Continued.

- Cost and financial trends for the veteran's business adventure. P. L. Procter. N A C A Bul 29:499-503 Ja 1 '48
- Cost control; a review of techniques. C. B. Nickerson. N A C A Bul 29:1399-408 Jl 15 '48
- Cost control fundamentals; management data sheet. B. A. Moski, jr. Factory Management 106:132, 134 S '48
- Cost estimating for long-term contracts in a machine shop; job order shops. F. W. Murray. N A C A Bul 29:1493-9 Ag 1 '48
- Cost knowledge is vital in growth toward efficiency in cotton mills. L. F. Sawyer. Textile World 97:155+ N '47
- Cost responsibility; principles and practices. P. Kellogg. Pulp & Pa of Can (Convention no) 49:143-6 [F] '48
- Costing for the laboratory. L. J. A. Haywood. Metallurgia 38:316-19 O '48
- Costs and profits; your break-even point today and tomorrow. J. B. Fenner. Credit & Fin Management 50:4-6+ O '48
- Critical areas of material cost control. I. W. Keller. N A C A Bul 29:1409-20 Jl 15 '48
- Determining the break-even point. T. Jasson. Credit & Fin Management 50:10-11+ Ja '48
- Developing total and unit costs by types of work on construction projects. M. J. Mazur. N A C A Bul 29:1077-86 My 1 '48
- Don't let profits deceive you; the financial aspects of break-even points. G. H. Blackett. Credit & Fin Management 50:14-15+ F '48
- Dynamic budgeting for cost control. E. J. Hockstad. N A C A Bul 30:115-30 O 1 '48
- Engineering data needed in accounting problems. R. U. Maddox. Pet Eng 19:74+ Je '48
- Finding and controlling the break-even point. N. St Peter. N A C A Bul 29:1211-18 Je 1 '48
- Formula for recovering higher costs of depreciation, labor. K. Engelmann. J Account 84:456-8 D '47
- Here are the answers to some troubling questions encountered in cost accounting. A. C. Kiechlin. Inland Ptr 121:59-60 Ag '48
- How to audit cost system to provide most useful service to management. E. A. Green. J Account 85:304-8 Ap '48
- How to determine break-even points with simple algebraic formulas. M. L. Pye. J Account 86:133-7 Ag '48
- How to show effects of change in value of dollar yet preserve cost basis in accounts. E. S. Freeman. J Account 85:113-17 F '48
- How to simplify cost calculations with simple algebraic formulas. M. L. Pye. J Account 86:201-3 S '48
- Inventory control of office forms. S. Hart. Management R 37:185-6 Ap '48
- Market research and testing. G. M. Arisman. N A C A Bul 29:745-50 F 15 '48
- Material and labor variance procedure in a sheet metal products plant. R. W. Leavitt. N A C A Bul 29:1059-68 My 1 '48
- Order cost system under budgetary control. J. C. Freeman. N A C A Bul 29:459-67 D 15 '47
- Three-way plan cuts Wrisley costs; new cost accounting, incentive and payroll system. J. Turner. Il Am Bsns 17:14-15+ N '47
- Tomorrow's cost system. B. E. Goetz. Advanced Management 12:172-8 D '47
- Waterworks cost accounting and water rates. S. H. Gillett. Water & Sewage 86:84+ Ap '48
- What is actual cost in depreciation accounting? W. A. Paton. J Account 85:206-7 Mr '48
- See also**
 Budget, Business
 Contracts, Government—Accounting
 Depreciation
 Factories—Accounting
 Foundry accounting
 Heat treatment—Accounting
 Inventories—Accounting
 Labor cost—Accounting

Standard costs

- Cost predetermination in volume planning as developed in cotton textile industry. L. F. Sawyer. J Account 85:236-41 Mr '48
- Embryo standard cost system for small manufacturing companies. N A C A Bul 30:179-92 O 15 '48
- Investigation of the uses of standard costs. R. P. Marple. J Account 85:402-5 My '48
- Organizing the business report. W. W. Neikirk. N A C A Bul 30:193-204 O 15 '48
- Standard costs applied to the manufacture of silverware. J. F. Mickelson. N A C A Bul 29:445-58 D 15 '47
- These bakeries benefit from standard cost control; Mayflower doughnut corp. H. S. Stevenson. Il Food Ind 20:1128-9+ Ag '48

COST of living

- Coal miner round the world; wages, living conditions and costs; U.S. compared with ten other countries. Il Coal Age 53:74-95 My '48
- Consumers price index, government's measure of the cost of living explained. E. Clague. Steel 122:44+ Ja 12 '48
- Cost-of-living wage clauses and UAW-GM pact. N. M. Bortz. Mo Labor R 67:1-7 Jl '48
- High cost of government produces the high cost of living. E. O. Shreve. Comm & Fin Chr 167:2212-13 My 20 '48
- Real persons cut more budget corners than do BLS' imaginary wage earners. Barron's 27:12 D 22 '47
- Stockholder's high cost of living; what to do about it. R. A. Gilbert. Comm & Fin Chr 167:2086+ My 13 '48

See also

- Budget, Household
 Prices
 Rent

Statistics

- Consumers' price index; relative importance of components. A. Hurwitz. Mo Labor R 67:156-60 Ag '48
- How the cost-of-living index is determined. Mill & Factory 43:102-3 Ag '48
- Index numbers of cost of living and food prices in various countries. Int Labour R 57:403-10, 684-91; 58:107-15, 410-18, 545-53 Ap, Je-Jl, S-O '48
- Methods of computation of statistics; cost-of-living index numbers. Int Labour R 57:692-702; 58:124-35, 267-77, 419-26, 562-8, 704-9 Je-N '48
- New yardstick for living costs; BLS issues variation on consumers' price index. Bsns W p92+ D 20 '47
- Prices and cost of living. Published in Monthly labor review
- Purchasing power of the dollar, 1941-1946. Survey of Cur Bsns 1947 Sup p26 [supplemented in monthly numbers]
- What's happening to the cost of living; monthly statistics. Published in Business week

California

- Food prices in Palo Alto. J. M. Luck. Science 108:425-6 O 22 '48

Germany

- Cost of living index numbers: manual worker's family, 1938, Oct. 1945, monthly from July 1946. Int Labour R 56:613 N-D '47

Great Britain

- Cost of living. Economist 155:295 Ag 21 '48 £6,250 a year; A.D. 1948. W. Wallace. Fortune 38:120+ Ag '48

Russia

- What an hour of work buys in Russia and U.S. Factory Management 106:123 F '48

San Francisco

- Quantity and cost budgets for dependent families or children; prices for San Francisco, September 1947. 56p pa 75c Univ. of Calif. Heller committee for research in social economics, Berkeley '47
- Quantity and cost budgets for three income levels; prices for San Francisco, September 1947. 106p pa \$1 Univ. of Calif. Heller committee for research in social economics, Berkeley '47

COST of living—Continued

United States

City worker's family budget; purpose and methods followed in BLS survey for 34 cities; with tables. L. S. Kellogg and D. S. Brady, bibliog *Mo Labor R* 66:133-70 F '48

Determinants of the increase in the cost of living in the United States. M. Kalecki. *R Econ & Stat* 30:22-4 F '48

Expenditures of moderate-income families; 1934-36 and 1945. M. C. Ruark. *Mo Labor R* 66:622-6 Je '48

Poll shows family of four needs \$50 minimum against \$30 weekly ten years ago. *Iron Age* 162:129 J1 29 '48

\$25,000 a year; A.D. 1948; how seven families in seven U.S. metropolitan areas are not quite managing to live on that income. *Fortune* 37:66-8+ Ja '48

COST of living bonus. See Wage payment plans—Cost of living bonus

COST plus contracts. See Contracts, Cost plus

COSTA RICA

Commercial policy

Importation of luxury items further restricted. *For Comm W* 33:26 N 8 '48

Politics and government

Costa Rica's civil war. *Economist* 154:676-7 Ap 24 '48

COSTAIN, Richard, limited

Statement by the chairman. R. R. Costain. *Economist* 154:738 My 1 '48

COSTUME

Costumes of the eastern world form inspiration for modern design and fashion; exhibition at the Costume Institute of the Metropolitan museum of art. *il Rayon* 29:41 F '48

COSTUME jewelry. See Jewelry trade

COTTAGES

See also

Country houses

COTTON

Cotton varieties are growing in importance; table comparing characteristics and manufacturing performance of eight leading varieties of cotton. P. M. Thomas. *il Textile World* 98:107-22 O '48 [reprints 25c]

Discovering cotton. L. Smith and G. S. Buck, jr. *Textile Col* 69:41+ N '47

Effect of urea on cellulosic textiles; presented by South central section, AATCC. bibliog *Am Dyestuff Rep* 37:10-15 Ja 12 '48

Moisture relationships of cellulose; the heat of wetting in water and in certain organic liquids. M. Wahba. bibliog diags *J Phys & Colloid Chem* 52:1197-208 O '48

Multicellular hairs in gossypium. A. S. Heiba. bibliog *il diags Science* 107:650-1 Je 18 '48

Partial carboxymethylation of cotton to obtain swellable fibers. J. D. Reid and G. C. Daul. bibliog *il Textile Res J* 18:551-6 S '48

Phosphorylated cotton cellulose as a cation-exchange material. J. F. Jurgens and others. *Textile Res J* 18:42-4 Ja '48

Re-examination of wetting tests; abstract. S. M. Edelstein and C. E. Draves. *Textile Col* 70:23 O '48

See also

Bleaching—Cotton Dyes and dyeing—
Cellulose Cotton
Cotton carding and
other headings be-
ginning Cotton

Analysis

Acidic properties of cotton cellulose and derived oxycelluloses. G. F. Davidson and T. P. Nevell. bibliog *Textile Inst J* 39: T59-130 Mr '48

Organic acid content of various samples of raw cotton fiber in relation to ash alkalinity and leaching by rain. E. R. McCall and others. bibliog *Science* 108:360-1 O 1 '48

Fires and fire protection

Cotton bale losses; five-point program. *Weekly Underw* 159:313+ Ag 14 '48

Grading

Cotton classification + inventory = uniform blends. S. Carter. *Textile World* 98:118-19+ F '48

Moisture content

Humidification cuts picker-room fires. R. G. Shepherd. *il Textile World* 98:110-11 Ag '48

Moisture meter calibrated for mill use. E. A. McMaster. *il diag Textile World* 98:141+ Ap '48

Prices

Exports boost cotton prices. *Barron's* 28:37 My 3 '48

How new parity basis will affect cotton price. D. Loomis. *il Textile World* 98:111-14 O '48

Uses

See also

Cotton fabrics—Uses
Cotton, Insulating

Egypt

Near East newsletter. S. A. El Khishen. *Chem & Ind* p410 Je 26 '48

COTTON, Effect of acids on

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon. P. C. Mehta and E. Pacsu. bibliog diags *Textile Res J* 18:337-95 J1 '48

Sulfuric acid steep at elevated temperatures for gray cotton fabrics. R. E. Hudson, Jr. and H. M. Waddle. bibliog *Textile Res J* 18:232-6 Ap '48

COTTON, Effect of light on

Cellulose behavior with filtered sunlight. P. J. Fynn and others. bibliog *Textile Res J* 18:350-7 Je '48

Photo-chemical degradation of undyed and dyed cellulose irradiated by the mercury spectrum. H. Lanigan. *il Textile Inst J* 39:T285-92 S '48

Role of hydrogen peroxide in the photochemical degradation of cotton sensitized by vat dyes and some metallic oxides. G. S. Egerton. bibliog *Textile Inst J* 39:T305-18 S '48

COTTON, Insulating

Behind the scenes in an insulation factory. *il Am Bld* 70:114-15 Je '48

Insulation from low-grade cotton; flame-proof product. *il Manuf Rec* 117:39+ Je '48

Labor requirements to produce home insulation. *il U S Bur Labor Statistics Bul* 919:1-19; pa 10c Supt. of doc. '47

COTTON, Surgical

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon. P. C. Mehta and E. Pacsu. bibliog diags *Textile Res J* 18:337-95 J1 '48

COTTON bags

Barnyard design; colorful cartoons of cows and chicks on burlap and cotton bags. *il Mod Packaging* 21:137 Je '48

Design of exhaust systems; bag cleaning installations. F. H. Stebbins. *il diags Sheet Metal Worker* 39:70-2 Mr '48

Pre-tests feed bag print dress designs. *Sales Management* 60:77 My 20 '48

Rot net; partially acetylated cotton. *il Chem Ind* 62:734-5 My '48

State laws pave way for single use flour bags. J. A. Jones. *il Food Ind* 20:364-5 Mr '48

Textile industry organizes to boost bag sales; paper bags have made big gains. *Esns W* p38-9+ J1 3 '48; Discussion. p60+ J1 24 '48

COTTON batting

Radiation drying of textiles; woven and matted wool felts, woven wool crepe, and absorbent cotton batting. G. T. Paul and R. H. Wilhelm. bibliog *il diags Textile Res J* 18:573-97 O '48

COTTON Belt railway. See St Louis southwestern railway

COTTON carding

Alabama mill men reveal carding practices. *il Textile World* 97:145+ D '47

Better cotton preparation is aim of Georgia mill men. plan diag *Textile World* 98:129+ My '48

Quality-control charts aid carding and spinning. A. D. Anthony and R. H. Souther. *il Textile World* 98:111-13 Mr '48

COTTON cords

Effect of alternate heating and cooling on the breaking strength and elongation of cotton and rayon tire cords; abstract. W. S. Lewis. *Am Dyestuff Rep* 38:663 N 17 '47

COTTON cords—Continued

Hysteresis, elastic modulus, and growth of tire cords under comparable loads. E. Honold and H. Wakeham. *bibliog Ind & Eng Chem* 40:131-4 Ja '48

Microscopical technique for determining latex distribution in tire cords. L. V. deGruy and M. L. Rollins. *bibliog il Textile Res J* 18: 371-3 Je '48

Testing

Cumulative extension test for plasticity in textile fibres. R. Meredith and F. T. Peirce. *bibliog diag Textile Inst J* 39:T159-84 My '48

Method for the absolute measurement of dynamic properties of linear structures at sonic frequencies. W. J. Lyons and I. B. Prettyman. *bibliog il diag J Ap Phys* 19: 473-80 My '48

COTTON dust

Review of the literature relating to affections of the respiratory tract in individuals exposed to cotton dust. B. H. Caminita and others. (Pub. health bul. 297) 86p. *bibliog* (267 titles, p73-86) U. S. Public health service, Washington; pa 25c Supt. of doc. '47

COTTON exchanges

See also

New York cotton exchange

COTTON fabrics

Cottons for college or career. *il Textile Col* 70:33 S '48

Detergency-solling, storage, and washing of cotton cloth. W. P. Utermohlen, Jr. and E. L. Wallace. *Am Dyestuff Rep* 37:75 F 9 '48

Discovering cotton. L. Smith and G. S. Buck, Jr. *Textile Col* 69:41+ N '47

New non-woven cotton and rayon drapery fabric. *il Textile Col* 70:25+ Ag '48

Phosphorylated cotton cellulose as a cation-exchange material. J. F. Jurgens and others. *Textile Res J* 18:42-4 Ja '48

Woman converter looks into the future. H. Skillman. *Textile Col* 70:30 Mr '48

See also

Byrd cloth
Chambray
Cotton weaving
Cotton webbing

Duck (textile)
Dyes and dyeing—
Cotton

Heat transmission

Effects of physical characteristics of fabrics upon physiological heat load and subjective reactions. W. R. Christensen. *bibliog J Ind Hygiene* 30:251-5 JI '48

Moisture absorption

Determination of the rate of water absorption of light-weight cotton fabrics. J. H. Kettering. *bibliog il Am Dyestuff Rep* 37:73-5 F 9 '48

Protection

Copper 8-quinolinate industrial preservative. P. G. Benignus. *bibliog Ind & Eng Chem* 40:1426-9 Ag '48

Resistance of resin-impregnated cotton fabrics to microorganisms. W. L. White and R. G. H. Siu. *il Ind & Eng Chem* 39:1628-30 D '47

Rot not; partially acetylated cotton. *il Chem Ind* 62:734-5 My '48

Weather protective treatments for cotton duck. *bibliog Am Dyestuff Rep* 36:705-10 D 1 '47; Abstract. *Textile World* 97:135 N '47

Rayon mixtures

See Rayon fabrics—Cotton mixtures

Shrinkage

Shrinkage of certain cotton woven fabrics caused by various laundering and pressing procedures. H. M. Fletcher and M. V. Jones. *Am Dyestuff Rep* 36:727-9 D 15 '47

Stabilizing cellulosic textiles; (shrinkproofing); glyoxal used; patent. *Am Dyestuff Rep* 37:475-6 JI 12 '48

Stabilizing cellulosic textiles; glyoxal and polyvinyl alcohol; patents. *Am Dyestuff Rep* 37:103 F 9 '48

Testing

Cellulose behavior with filtered sunlight. P. J. Fynn and others. *bibliog Textile Res J* 18:350-7 Je '48

Determination of the rate of water absorption of light-weight cotton fabrics. J. H. Kettering. *bibliog il Am Dyestuff Rep* 37: 73-5 F 9 '48

Effect of hypochlorite bleaching on the resistance to abrasive wear of cotton fabric. H. B. Cowles and J. G. Williams. *Textile Inst J* 39:P175-7 My '48; Discussion. 39: P504-6 Ag '48

Fastness to washing; A.A.T.C.C. national research committee. *Am Dyestuff Rep* 37: 405-6 Je 14 '48

Resistance of resin-impregnated cotton fabrics to microorganisms. W. L. White and R. G. H. Siu. *il Ind & Eng Chem* 39:1628-30 D '47

Serviceability study comparing an all-cotton chambray with a chambray of cotton warp and viscose rayon filling. P. E. Keeney and others. *il Rayon* 29:53-4 O; 63-5 N '48

Strip strength of plain cotton cloth woven from folded yarns. L. F. Pickup. *diags Textile Inst J* 39:T260-73 Ag '48

Summary of report on accelerated ageing of cotton textiles. J. Maas. *bibliog Am Dyestuff Rep* 36:660-1 N 17 '47

Uses

Cotton fabric laminates. R. K. Witt and others. *il Mod Plastics* 25:123-5+ My '48

Impregnated cloth of many uses; Celastic. *il Mod Plastics* 26:96-7 O '48

Peacetime market built by introducing new use for war product; Reeves brothers promote a work garment new look. R. H. Ganly. *il Ptr Ink* 224:30-1+ S 3 '48

Water resistance

Hydrodynamic test for water resistance. J. H. Skinkle and M. S. Lyra. *il diag Am Dyestuff Rep* 37:340-3+ My 17 '48

Imparting water-repellency to textiles by chemical methods; a review of the literature; quaternary nitrogen compounds. H. A. Schuyten and others. *Textile Res J* 18:403-15 *bibliog* (154 ref, p414-15) JI '48

Orifice test to evaluate yarns for swelling-type water-resistant fabrics. H. O. Smith and others. *bibliog il Textile Res J* 18:124-9 F '48

Partial carboxymethylation of cotton to obtain swellable fibers. J. D. Reid and G. C. Daul. *bibliog il Textile Res J* 18:551-6 S '48

Ventile venture; new rain-wear fabric. *Fortune* 37:122+ F '48

COTTON fibers

Cotton, a versatile textile fiber. E. E. Berkeley. *bibliog il diags Textile Res J* 18:71-88 F '48

Cotton fibers as a gear material. K. Rose. *il Materials & Methods* 28:63-71 Ag '48

Degree of polymerization of cellulose in cotton fibers. L. E. Hessler and others. *bibliog diags Textile Res J* 18:628-34 O '48

Effect of grinding on the crystallinity of cellulose fibers, as indicated by the acid-hydrolysis and other techniques. M. L. Nelson and C. M. Conrad. *bibliog Textile Res J* 18:155-64 Mr '48

Electron microscopical studies of natural cellulose fibers. W. G. Kinsinger and C. W. Hock. *bibliog* (37 ref) *il Ind & Eng Chem* 40:1711-16 S '48

Fiber testing aids the cotton classifier; summary of Dept. of agriculture bulletin. Cotton mills requirements as related to improved cotton quality and marketing practices. S. Carter. *Textile World* 97:110-11+ N '47

Improvements in the acid-hydrolysis method of determining the crystallinity of cellulose. M. L. Nelson and C. M. Conrad. *bibliog Textile Res J* 18:149-54 Mr '48

Multicellular hairs in gossypium. A. S. Helba. *bibliog il diags Science* 107:650-1 Je 18 '48

Permeability method for determining fiber fineness. J. P. Elting and J. C. Barnes. *bibliog il diags Textile Res J* 18:358-66 Je '48

COTTON fibers—Continued

Quantitative X-ray investigations on the crystallinity of cellulose fibers; background analysis. P. H. Hermans and A. Weidinger. bibliog il diags J Ap Phys 19:491-506 My '48

Relaxation and flow in cellulose fibres. R. Meredith. bibliog diag Textile Inst J 39: P245-51; Discussion. P251-2 J1 '48

Testing

Relation of specific strength of cotton fibers to fiber length and testing method. J. N. Grant and O. W. Morlier. bibliog Textile Res J 18:481-7 Ag '48

COTTON finishing

Anionic substantive softeners. E. D. McLeod. bibliog Am Dyestuff Rep 37:30-3 Ja 12 '48
Chemical finishes for cotton yarn and hosiery. M. S. Furry. il Rayon 29:58-60 Ja; 67-70 F; 65-6 bibliog(p66) Mr '48

Finishing of cottons and rayons. D. X. Klein. Am Dyestuff Rep 37:344-7 My 17 '48

Germans had few short-cuts in preparation and creping. C. N. Rabold. diags Textile World 98:122-3+ My '48

Grading the grey. A. Kahn. Textile Col 70:30-1 J1 '48

Minimum runs desired in napping flannel. E. D. White. il Textile World 97:131+ D '47

Oxycellulose defects can be avoided or cured. J. McCartney. il Textile World 98:116+ J1 '48

Permanent finishes; cellulose ethers; non coherent film; patent. Am Dyestuff Rep 36: 665 N 17 '47

Resin-curing range features high speed and heat at Avondale mills. il diag Textile World 98:123 O '48

Supersert, wrinkle resistant finish. R. E. Sumner. il Am Dyestuff Rep 37:311 My 3 '48; Same. Rayon 29:84 J1 '48

Textile finishing machinery. E. S. Pierce. il diags Am Dyestuff Rep 37:186-91 Mr 22 '48

See also

Bleaching—Cotton
Cotton sizing

Testing

Weather protective treatments for cotton duck. bibliog Am Dyestuff Rep 36:705-10 D 1 '47

COTTON flannel

Minimum runs desired in napping flannel. E. D. White. il Textile World 97:131+ D '47

COTTON growing

Industry on the plantation. Bsns W p26 O 23 '48

COTTON insurance. See Insurance, Cotton**COTTON linters**

Cellulose intercrystalline structure; study by hydrolytic methods. R. F. Nickerson and J. A. Habrie. bibliog Ind & Eng Chem 39: 1507-12 N '47

Laminates from purified cotton linters sheet. M. Gallagher and R. B. Seymour. Mod Plastics 25:117-18+ Ag '48

COTTON machinery

Cotton opening-picking; here's your chart to quality. S. Carter. il Textile World 98:110-11+ Ja '48

Cotton system easily adapted to rayon staple. il Textile World 98:141+ F '48

Cotton system excellent for warping Bemberg. J. Gassman. diags Textile World 98: 116-17 F '48

Slasher announced by West Point. il Textile World 97:158 N '47

Vertical opener has cylindrical housing. il Textile World 98:151-2 O '48

See also

Cotton picking machines

COTTON manufacture

Better cotton preparation is aim of Georgia mill men. plan diag Textile World 98:129+ My '48

Cotton classification + inventory = uniform blends. S. Carter. Textile World 98:118-19+ F '48

Cotton opening-picking; here's your chart to quality. S. Carter. il Textile World 98:110-11+ Ja '48

Slashing, weaving men hear new phases of old problems; fall meeting of Eastern Carolina div. Southern textile association. il Textile World 98:127+ Ja '48

Water quality essential to textile processes. V. J. Calise. il Textile World 98:101-3 J1 '48

See also

Cotton carding	Cotton sizing
Cotton finishing	Cotton spinning
Cotton machinery	Cotton weaving
Cotton mills	Cotton yarn

COTTON mills

Variations in productivity between cotton spinning mills. F. D. Vincent. Textile Inst J 39: P407-14 Ag '48

Accounting

Cost knowledge is vital in growth toward efficiency in cotton mills. L. F. Sawyer. Textile World 97:155+ N '47

LIFO basis of inventory valuation as applied to cotton mill inventories. E. G. Field. N A C A Bul 29:399-411 D 1 '47

Air conditioning

Air-conditioned plant solves cotton-lint problem; Argentine installation; carding, spinning, and weaving controlled separately from central station. G. T. Lang. il Textile World 98:118-19+ Ap '48

Electric equipment

Electric drive produces slasher improvement. E. J. Eaddy. il Textile World 98:139+ J1 '48
New roving-frame switch saves operator's time. C. M. Bowden. il Textile World 98: 124-5 F '48

Employees

Action at Dan River to set cotton wages. il Bsns W p66-7 J1 3 '48

Cotton textile trade unions and research. E. Thornton. Textile Inst J 39: P381-4; Discussion. P385-6 Ag '48

Cotton wages and output. Economist 154:198 Ja 31 '48

Employee foot clinic reduces absenteeism. E. D. White. il Textile World 98:135+ Je '48

Indian industrial committee on cotton textiles meeting. New Delhi, Jan. 12-14. Int Labour R 57:478-80 My '48

Review of the literature relating to affections of the respiratory tract in individuals exposed to cotton dust. B. H. Caminita and others. (Pub. health bul. 297) 86p bibliog(267 titles, p73-86) U.S. Public health service, Washington; pa 25c Supt. of doc. '47

Spirit of teamwork key to Shelton's fine labor program. J. M. Gregory. il Textile World 97:141+ N '47

Textile manufacture; earnings in April 1948. T. P. Kanninen. Mo Labor R 67:267-8 S '48

Visual classification and placement tests in the textile industry. J. M. Scott, Jr. Rayon 29:49-50 Ag; 93-4 S '48

Wages in cotton weaving; replacing the Uniform list. Economist 154:978+ Je 12 '48

Equipment

Automatic dispatch used for transporting yarn. C. M. Bowden. il plan Textile World 98:126-7 O '48

Beaumont has automatic starch control. C. M. Bowden. il diag Textile World 98:122-3 Ap '48

Cloth-room capacity doubled by modernization; Maverick mills. H. S. Knowlton. il plan Textile World 98:104-5 Ag '48

Joanna cotton mills, Goldville, S.C. makes major improvements. J. L. Delaney. il Textile World 98:141+ Mr '48

Materials handling offers opportunities to save; Avondale mills' Sycamore, Ala. plant. P. M. Thomas. il plans diags Textile World 97:120-1+ N '47

Mechanical lap handling system produces savings. W. B. McGuire. il diag Textile World 98:108-9 Ag '48

New opening room features better blending. P. M. Thomas. il diags Textile World 98: 118-19 Mr '48

See also

Cotton machinery

COTTON mills—Continued**Fires and fire protection**

Humidification cuts picker-room fires. R. G. Shepherd. *il Textile World* 98:110-11 Ag '48

Maintenance and repair

Metallizing useful in textile machine shop. R. Campbell. *il Textile World* 97:106-7+ D '47

Management

Cotton classification + inventory = uniform blends. S. Carter. *Textile World* 98:118-19+ F '48

Motion study in the textile industry. A. G. Shaw. *Textile Inst J* 38:P601-6 D '47

Musgrave mill experiment; Technique of re-employment. *Economist* 154:598-9 Ap 10 '48

Quality-control charts aid carding and spinning. A. D. Anthony and R. H. Souther. *il Textile World* 98:111-13 Mr '48

Power

New boiler room shows high efficiency; Avondale mills. *il Textile World* 98:131+ Ja '48

Safety measures

Cotton looms; industrial data sheet. *il diag Nat Safety N* 58:40+ Ag '48

COTTON openers. See Cotton machinery**COTTON picking machines**

Harvester finishing Memphis plant for making new cotton picker. *il Manuf Rec* 117:34-5+ Ja '48

More cotton pickers on way at International Harvester's assembly plant at Memphis; illustrations with text. *Bsns W* p70+ J1 10 '48

COTTON rat. See Rats**COTTON-rayon yarn. See Rayon yarn—Cotton mixtures****COTTON research**

A.A.T.C.C. general technical meeting; cotton symposium. *Textile Col* 70:22-3+ O '48

Organic acid content of various samples of raw cotton fiber in relation to ash alkalinity and leaching by rain. E. R. McCall and others. *bibliog Science* 108:360-1 O 1 '48

Sulfuric acid steep at elevated temperatures for gray cotton fabrics. R. E. Hudson, Jr. and H. M. Waddle. *bibliog Textile Res J* 18:232-6 Ap '48

See also
Cotton, Effect of light on

COTTON sizing

Beaumont has automatic starch control. C. M. Bowden. *il diag Textile World* 98:122-3 Ap '48

Electric drive produces slasher improvement. E. J. Eaddy. *il Textile World* 98:139+ J1 '48

Reeves' mill achieves slasher tension control. C. M. Bowden. *il Textile World* 98:122-3, 173+ Je '48

Slasher announced by West Point. *il Textile World* 97:158 N '47

Slashing practices receive close attention; fall meeting of Textile operating executives of Georgia. *Textile World* 97:145+ N '47

Slashing practices studied by Alabama men. *il Textile World* 98:137+ Ag '48

COTTON spinning

Aids to spinning interest Georgia mill men. *Textile World* 98:137+ Je '48

Case for variable speed ring spinning. R. Porter and J. D. Stanesby. *bibliog diag Textile Inst J* 39:P397-404; Discussion. P404-6 Ag '48

Cotton mills make better drawing sliver. S. Carter. *diag Textile World* 98:124+ S '48

Creelboard brackets lower spinning creel. L. E. Bugwell. *il Textile World* 98:166-6 J1 '48

End breakage in cotton ring spinning; Textile institute conference, Manchester, Nov. 6. *Textile Inst J* 38:P533-92 D '47

Long-draft roving has developed slowly. S. Carter. *Textile World* 98:133+ Je '48

Pneumafil installation cuts spinning costs. *il Textile World* 98:114-15 Je '48

Spinning control cuts labor and waste. P. M. Thomas. *il diag Textile World* 98:121+ Ag '48

Spinning data given by Alabama mill men. *il Textile World* 98:120-1 Ja '48

Textile machinery development and research. F. Heywood. *Textile Inst J* 39:P526-32 S '48

Variations in productivity between cotton spinning mills. P. D. Vincent. *Textile Inst J* 39:P407-14 Ag '48

Tables, calculations, etc.

Statistical studies of labour utilization in spinning. P. D. Vincent. *Textile Inst J* 38:P500-5 N '47

COTTON textile institute

Annual meeting, New York, Oct. 22-23. *Textile World* 97:153+ D '47

COTTON thread**Rating**

Sewing thread. Consumers Res Bul 21:12-13 Ja '48

COTTON trade

Big cotton crop demands facing of support problem. *Barron's* 28:44 S 13 '48

Contraction of world cotton trade. *Economist* 154:728-9 My 1 '48

Cotton figure today; crop rise assured. *Barron's* 28:36-7 Ag 9 '48

Cotton industry moves into synthetics; Mt Vernon-Woodberry diversifies. *il Bsns W* p80+ J1 17 '48

Cotton pipelines full, lower prices ahead. *Barron's* 28:36 Je 14 '48

Cotton problem. *il Bsns W* p34 F 7 '48

Current world cotton situation; developments and prospects. *For Comm W* 31:11-12+ Je 19 '48

Higher cotton acreage to send textiles down. *Barron's* 28:36-7 J1 12 '48

Lack of free competition threatens free enterprise; cites curtailed output of cotton textile manufacturers. W. G. Lightbowne. *Comm & Fin Chr* 168:610 Ag 12 '48

Long-term outlook for raw cotton strong, while textiles' position weakens. *Barron's* 28:36-7 F 9 '48

Outlook for cotton textile industry termed favorable despite recent price reductions. C. T. Murchison. *Comm & Fin Chr* 167:2436 Je 3 '48

Rise in cotton use brings extra tight squeeze as season nears its end. *Barron's* 28:36 My 24 '48

Shirt shortage? U.S. mills want government to import extra long-staple cotton from Egypt. *Bsns W* p22 Ja 10 '48

Supply-demand balance in cotton close; Marshall plan could run up prices. *Barron's* 27:36 N 17 '47

See also
Insurance, Cotton

Accounting

Cost predetermination in volume planning as developed in cotton textile industry. L. F. Sawyer. *J Account* 85:236-41 Mr '48

Exhibitions

Maid of cotton begins her international tour. *il Textile Col* 70:34 F '48

1948 Maid of cotton goes a-courting. M. Nail. *Textile Col* 70:42 Ja '48

Finance

Flurry in cotton textiles. *Fortune* 37:82-5 Je '48

Securities

Flurry in cotton textiles. *Fortune* 37:82-5 Je '48

Statistics

Cotton and cotton manufactures, 1941-1946. Survey of Cur Bsns 1947 Sup p 173-5 [supplemented in monthly numbers]

Africa, West

West African cottons. *il Textile Col* 70:34-5+ S; 28+ O '48

Australia

Australian cotton textile industry. C. H. McFadyen. *Textile Inst J* 39:P319-20 J1 '48

Production, imports, and consumption, in 1946-47. *For Comm W* 29:26 N 22 '47

Brazil

Smaller cotton crops lead Brazil to check up on conditions. *For Comm W* 32:48 S 25 '48

COTTON trade—Continued

California

California cotton fabric market. Textile Col 70:29+ S '48

Germany

New export market for cotton; army to set up \$150-million revolving fund for Germany and Japan. Bsns W p32-4 O 2 '48

Great Britain

Address before Lancashire section. R. Streat. Textile Inst J 39:P141-5 Ap '48

Controversy over cotton. Economist 154:551-2 Ap 3 '48

Cotton and wool again dearer. Economist 154:812 My 15 '48

Development council for the British cotton industry. Int Labour R 58:377-80 S '48

Developments in Manchester district. For Comm W 29:29 D 20 '47

Economic lessons of the cotton industry. W. Hagenbuch. Textile Inst J 39:P430-5; Discussion. P436-7 Ag '48

U.K.'s imports and exports in 1947. For Comm W 30:27 Mr 6 '48

India

Cotton industry and trade, India and Pakistan. For Comm W 31:36-7 Je 19 '48

Establishing policy for industry; trade, consumption, and stocks, India and Pakistan. For Comm W 30:26 Ja 3 '48

Situation in India and Pakistan. For Comm W 29:28 N 8 '47

Japan

New export market for cotton; army to set up \$150-million revolving fund for Germany and Japan. Bsns W p32-4 O 2 '48

Pakistan

Cotton industry and trade, India and Pakistan. For Comm W 31:36-7 Je 19 '48

Turkey

Cotton situation in Turkey. For Comm W 32:30 Ag 14 '48

COTTON waste

Textile waste used in infant industry; waste cotton ends bound together with plastic. Bsns W p60+ N 22 '47

COTTON weaving

Georgia mill reports on a 48-in. loom beam. il diag Textile World 97:135+ D '47

Kellogg loom has unique design features. W. A. Newell. il diag Textile World 98:118-21 Je '48

Loom checking is aid to good weaving. il Textile World 98:116-17+ Ag '48

Loom study by means of the cathode ray oscillograph; variations in individual warp-thread tension during the weaving cycle. N. H. Chamberlain and D. C. Snowden. bibliog il diags Textile Inst J 39:T23-43 F '48

Production per man hour in cotton manufacture. R. M. Marks. Textile Inst J 39:P35-6 Ja '48

Slasher-room improvements up production and quality. E. D. White. il Textile World 98:131, 292+ S '48

Strip strength of plain cotton cloth woven from folded yarns. L. F. Pickup. diags Textile Inst J 39:T260-73 Ag '48

Warner & Swasey introduces Sulzer weaving machine. W. A. Newell. il diag Textile World 98:110-13+ Je '48

COTTON webbing

Manufacture of web fabrics. M. A. Goldman. Rayon 28:591-3 N '47

COTTON workers

See also

Cotton mills—Employees

COTTON yarn

Automatic dispatch used for transporting yarn. C. M. Bowden. il plan Textile World 98:126-7 O '48

Chemical finishes for cotton yarn and hosiery. M. S. Furry. il Rayon 29:58-60 Ja; 67-70 F; 65-6 bibliog(p66) Mr '48

Economy of knitted headers should be tested by mill. Textile World 98:178+ Ja '48

Quality-control charts aid carding and spinning. A. D. Anthony and R. H. Souther. il Textile World 98:111-13 Mr '48

Rayon mixtures

See Rayon yarn—Cotton mixtures

Standards

Proposal for a reduced range of yarn counts; a basis for a range of standard counts. A. W. Bayes. bibliog Textile Inst J 38:P487-99 N '47

Testing

Composite frequencies in yarn-thickness variations; shown by an air-flow method. W. L. Balls. diag Textile Inst J 39:T225-31 Jl '48

Orifice test to evaluate yarns for swelling-type water-resistant fabrics. H. O. Smith and others. bibliog il Textile Res J 18:124-9 F '48

COTTONSEED

Insulating value of cottonseed hulls. W. E. Long. diags Refrig Eng 56:327-9 O '48; Abstract. Heat & Ven 45:138 O '48

Statistics

Cottonseed, 1941-1946. Survey of Cur Bsns 1947 Sup p 116 [supplemented in monthly numbers]

COTTONSEED oil

China's motor fuels from tung oil. C. Chang and S. Wan. bibliog flow sheets diag Ind & Eng Chem 39:1543-8 D '47

Color development in cottonseed oil; abstract. P. A. Williams and others. Food Ind 20:463 Mr '48

Cottonseed yield. Bsns W p28 N 22 '47

Directed interestification in glycerides. E. W. Eckey. bibliog Ind & Eng Chem 40:1183-90 Jl '48

Solvent extraction of vegetable oils. C. W. Bilbe. Chem Eng 55:99 Ag '48

Analysis

Delta-tocopherol; assay of individual tocopherols in mixtures containing delta-tocopherol. L. Weisler, C. D. Robeson and J. G. Baxter. bibliog Anal Chem 19:906-9 N '47

Lipides of the cottonseed; saponification number. V. L. Frampton and G. N. Martin. bibliog Anal Chem 20:661-3 Jl '48

Statistics

Cottonseed oil, 1941-1946. Survey of Cur Bsns 1947 Sup p 117 [supplemented in monthly numbers]

COTTONSEED products association, National. See National cottonseed products association

COULOMETER. See Voltmeters

COULOMETRIC titration. See Volumetric analysis

COUMALIC acid

Unsaturated lactones; some esters of acetic and coumalic acids. N. R. Campbell and J. H. Hunt. Chem Soc J p 1176-9 S '47

COUMARAN

Vitamin E; the coumaran isomer of α -tocopherol. L. I. Smith and G. A. Boyack. bibliog Am Chem Soc J 70:2690-5 Ag '48

COUMARIN

Observation on the mechanism of action of dicoumarol. R. L. MacMillan. bibliog Science 108:416-17 O 15 '48

COUMARONE. See Benzofuran

COUNCIL for technological advancement

Economic Evangelists would correct untruths. Barron's 28:33 S 20 '48

COUNCIL of economic advisers. See United States—Council of economic advisers

COUNCIL of national library associations. Miss Cole elected chairman. Special Lib 38:335-6 D '47

COUNTERBALANCES. See Locomotives—Counterbalances

COUNTERBORES

Quick-acting fixture designed for double counterboring. R. Mawson. diags Mach 55:202-3 S '48

COUNTERCURRENT processes

Identification of small amounts of organic compounds by distribution studies; purity of synthetic antimalarials. L. C. Craig and others. bibliog Anal Chem 20:134-9 F '48

COUNTERFEITS and counterfeiting
Slump in queer. *Fortune* 37:134 Ap '48

COUNTERS (electrons, ions, etc.)
Behavior of silver chloride crystal counters. R. Hofstadter and others. *Phys R* 72:977-8 N 15 '47
Characteristics of the parallel-plate counter. L. Madansky and R. W. Pidd. *Phys R* 73: 1215-16 My 15 '48
Coincidence circuit of medium resolution. H. L. Schultz and E. Pollard. *diag R Sci Instr* 19:617-20 O '48
Coincidence-counting system of high resolution. H. L. Schultz and R. Beringer. *diags R Sci Instr* 19:424-7 J 1 '48
Cosmic rays; detection by means of counters. C. W. Hewlett. *il diags Gen Elec R* 51: 24-6 My '48
Counter for low energy ionizing particles. H. C. Thomas and N. Underwood. *bibliog il diags R Sci Instr* 19:637-9 O '48
Crystal counter. W. Jentschke. *Phys R* 73: 77-8 Ja 1 '48
Crystals as detectors of nuclear radiation. *il Electronics* 20:144+ D '47
Cyclic electronic counter. G. T. Baker. *bibliog diags J Sci Instr* 25:127-9 Ap '48
Detection and measurement of nuclear radiation. G. W. Dunlap. *bibliog il diags Elec Eng* 67:325-32 Ap '48
Diamond crystal counters. R. Hofstadter. *bibliog Phys R* 73:631 Mr 15 '48
Diamond crystal counters. K. Lonsdale. *bibliog Phys R* 73:1467 Je 15 '48
Diamonds detect atomic radiation. *il Product Eng* 19:152 Ja '48; *Mech Eng* 69:1029 D '47; *Chem Ind* 62:456+ Mr '48; *Franklin Inst J* 245:337-9 Ap '48
Diamonds used to detect atomic radiation. A. W. Kramer. *il Power Pl Eng* 51:105-7 D '47
Effects of space charge on the detection of high energy particles by means of silver chloride crystal counters. L. F. Wouters and R. S. Christian. *Phys R* 72:1127-8 D 1 '47
Factors affecting operation of apparatus for counting alpha particles in an ion counting chamber. F. J. Davis. *diag J Res Nat Bur Stand* 39:545-9 D '47
Geiger tube; alpha- or soft beta-counter. *il R Sci Instr* 18:857 N '47
Hexade scaling circuit. E. L. Langberg. *diags R Sci Instr* 18:796-8 O '47
High altitude measurements on extensive showers. R. Maze and others. *Phys R* 73: 418 F 15 '48
High speed coincidence circuit. R. H. Dicke. *diags R Sci Instr* 18:907-14 D '47
High speed coincidence circuit used for multipliers. E. Baldinger and others. *diags R Sci Instr* 19:473-4 J 1 '48
Improved electron multiplier particle counter. J. S. Allen. *bibliog il diags R Sci Instr* 18: 739-49 O '47
Improvement of α -particle counters. M. A. Guimarães and P. A. Sampaio. *R Sci Instr* 19:475-6 J 1 '48
Inorganic crystals for the detection of high energy particles and quanta. R. J. Moon. *Phys R* 73:1210 My 15 '48
Measurement of radioactivity in solution. A. K. Solomon and H. D. Estes. *diag R Sci Instr* 19:47-50 Ja '48
Model 200 pulse counter; amplitude discriminator, scale-of-64, and register driver. W. A. Higginbotham and others. *il diags R Sci Instr* 18:706-15 O '47
Nucleometer. *il R Sci Instr* 19:197 Mr '48
Particle and quantum counters. D. R. Corson and R. R. Wilson. *bibliog diags R Sci Instr* 19:207-33 Ap '48
Precision alpha-proportional counter. J. A. Simpson, Jr. *il diags R Sci Instr* 18:884-93 D '47
Properties of some new types of counters. S. C. Curran and J. M. Reid. *bibliog diags R Sci Instr* 19:67-75 F '48
Pulse characteristics of anthracene scintillation counters. L. F. Wouters. *Phys R* 74: 489-90 Ag 15 '48
Quantitative measurement of tritium; hydrogen-alcohol-argon mixtures. M. L. Eidennoff. *bibliog diags Am Chem Soc J* 69:2504-7 O '47
Scale-of-hundred counting unit. J. Rotblat and others. *il diags J Sci Instr* 25:33-7 F '48

Scintillation counter for the detection of α -particles. R. Sherr. *diags R Sci Instr* 18: 767-70 O '47
Self-delayed coincidences with scintillation counters. S. DeBenedetti and others. *Phys R* 73:1404-5 Je 1 '48
Self-quenching halogen-filled counters. S. H. Liebson and H. Friedman. *bibliog R Sci Instr* 19:303-6 My '48
Some Geiger-Müller and proportional counters of spherical shape. G. Salvini. *bibliog diags R Sci Instr* 19:494-6 Ag '48
Thallium halide crystal counter. R. Hofstadter. *Phys R* 72:1120-1 D 1 '47
Use of anthracene as a scintillation counter. P. R. Bell. *Phys R* 73:1405-6 Je 1 '48

See also

Coincidence counting

COUNTERSINKS
Reciprocating countersink burrs cylindrical work. D. J. Mulholland. *diags Am Mach* 91:121 N 20 '47

COUNTING machines and devices
Capacitor counting circuit. B. Howland. *diags Electronics* 21:182+ Je '48
Electronic counters return first cost in seven months. *il Factory Management* 106:71 Ja '48
High-speed N-scale counters. T. K. Sharpless. *bibliog il diags Electronics* 21:122-5 Mr '48
High-speed revolution counter for testing supercharger impellers for aircraft cabins. A. B. Kaufman. *il diags Electronics* 21:80-2 S '48
Kick-coll operation of impulse registers or counters. R. L. Ives. *bibliog diags Instruments* 21:444-6 My '48
Megacycle stepping counter. C. B. Leslie. *diags Inst Radio Eng Proc* 36:1030-4 Ag '48
Photoelectric counter for colloidal particles. F. T. Gucker, Jr. and others. *bibliog diags Am Chem Soc J* 69:2422-31 O '47
Photoelectric drop counter. J. A. Riley. *diags Science* 108:390 O 8 '48
Plug-in scaler for industrial counting. C. H. Brown. *il diags Electronics* 21:90-1 J 1 '48
Predetermined counter for process control. R. J. Blume. *bibliog il diags Electronics* 21: 88-93 F '48
Rpm counter for testing gas turbine components. *il Electronics* 21:144+ O '48

COUNTRY banks. See Banks and banking—Country banks

COUNTRY clubs
Welded steel, 40,000-gallon golf ball rests on 65-ft tee; water tank for Tam O'Shanter country club. *il Civil Eng* 17:44-5 D '47

COUNTRY houses
Bone of a New Hampshire farmhouse are retained in this warm country home. *il plans diags Arch Forum* 88:81-5 Mr '48
Cliff house exploits a magnificent site in Vancouver, B.C. *il plans Arch Forum* 89: 96-100 O '48
Country house in San Fernando Valley. *il plans Arch Forum* 89:128-30 S '48
Country house in the Pennsylvania hills. *il plans Arch Rec* 104:104-7 O '48
Lake cottage of stone and fir. *il plan Am Bid* 69:114 N '47
Lakeside house fitted to a deceptively rural site within commuting distance of Manhattan. *il plans Arch Forum* 89:75-80 Ag '48
Leigh Stevens ranch group near Yemassee, South Carolina built out of cypress in swamp forest; design by F. L. Wright. *il plans diags Arch Forum* 88:95-6 Ja '48
Pergola-type house-group on high hill near Reading, Conn.; design by F. L. Wright. *il plan Arch Forum* 88:93-4 Ja '48
Planning for a site; house on ridge overlooking small lake near St Paul, Minn. *il plans diags Am Bid* 70:84-7 Ap '48
Snowflake, country home at Plymouth, Mich.; design by F. L. Wright. *il plan Arch Forum* 88:148-9 Ja '48

COUNTRY stores
It's so old it's new; Vermont country store. V. Orton. *il J Retailing* 24:60-2 Ap '48

COUNTY engineering
See also
Roads, County

COUNTY engineers
Directories
County engineers, Ontario. *Roads & Bridges* 86:167 Je '48

COUNTY roads. See Roads, County

COUPLERS, Car. See Car couplings

COUPLINGS

Application of bevel gears and curved-tooth couplings. A. L. Stewart. *il Mach* 54:164-7 My '48

Flexible couplings. E. Hagenlocher. *il diags Diesel Power* 26:40-1 Ap '48

Flexible couplings for shafts. J. H. Schmid. *il Product Eng* 19:90-1 F '48

High capacity eddy current coupling. *il diags Product Eng* 19:96-7 N '48

Hydraulic mounting technique for roller bearings. A. S. Murray. *il diags Paper Tr J* 127:55-60 J1 22 '48

Improved method for mounting bearings and couplings; oil injection method. A. S. Murray. *il diags Iron & Steel Eng* 25:61-5 Mr '48

Motor driven machines; couplings and clutches. *Product Eng* 19:116 Mr '48

Paper mill applications for flexible couplings. E. Hagenlocher. *il diags Paper Tr J* 127:43-5 J1 8 '48

Semiuniversal toothed couplings. E. Wildhaber. *il diags A S M E Trans* 69:925-30 N '47

See also

Car couplings

Joints, Universal

COURSEY, Philip Ray, 1892-

Sketch. *por Electrician* 139:1424 N 14 '47

COURTS

Bar studies court pix; bar them. M. W. Bingay. *Ed & Pub* 81:18 O 9 '48

COURTS, Industrial

Labor court in Eire; excerpt from Manchester guardian. *Factory Management* 106:246+ F '48

COURTS, Motor. See Tourist camps, hostels, etc.

COUTNEY, Worth C.

Hearst names Coutney publisher in Chicago. *por Ed & Pub* 81:7 S 4 '48

COVER plates. See Plates, Steel

COWIE, John Robert, 1882-1948

Sketch. *por Engineer* 186:164 Ag 13 '48

COX, Guy W. 1871-

Sketch. *por East Underw* 49:10 Je 25 '48

CRABS

Crabbing in the Bering. *Fortune* 38:114+ Ag '48

CRACKERS

Lactic fermentation and trace iron affect cracker quality. J. Micka. *bibliog il Food Ind* 20:34-9+ Ja '48

See also

Biscuits

CRACKING processes. See Petroleum distillation

CRAIG, Cornelius Abernathy, 1868-

80th birthday celebration. H. J. Burrigge. *por Nat Underw (Life ed)* 52:5 Je 18 '48

80th birthday celebration. W. E. Roesch. *por Spectator (Life ed)* 156:8-10+ J1 '48

CRAIG, Edwin Wilson, 1893-

Portrait. *Bsns W* p61 D 27 '47

CRAIG, John

Top man off the production line; J. Craig heads Crosley. *por Mod Ind* 16:67-8+ O '48

CRANBERRIES

Advertising

Chicken 'n' cranberries. *Sales Management* 61:70+ Ag 15 '48

CRANBERRY sauce

Advertising

As New England goes. *Sales Management* 60:80+ Mr 1 '48

CRANE, Evan Jay, 1889-

Appreciation. A. M. Patterson. *por(cover) Chem & Eng N* 25:3561 D 1 '47

Portrait. *Chem & Eng N* 26:158 Ja 19 '48

CRANE cabs

Air conditioning

Air conditioning crane cabs. *diag Heat & Ven* 45:73 Je '48

Air conditioning of crane cabs; abstract. R. D. Darrah. *Iron & Steel Eng* 25:82 S '48

Cooling the crane cab. *il diag Nat Safety N* 57:28-9+ Je '48; Same cond. *Safety Eng* 95:54-6 Ap '48; Excerpt. *Blast F & Steel P1* 36:sup78+ Ap '48; Abstract. *Mill & Factory* 42:139-40 My '48

Crane cab cooling. *il diag Steel* 122:82 Mr 22 '48

CRANE hooks

Photoelastic analysis of stresses in crane lade hooks. F. K. Chang and others. *bibliog il diags Iron & Steel Eng* 25:87-94 Ja '48

CRANES, derricks, etc.

Aluminum used for 15-ton bridge crane. *il Iron Age* 161:94 Je 17 '48

Cooling system installed on lade cranes. *il Blast F & Steel P1* 36:sup78+ Ap '48

Crane fabricated of aluminum. *il Civil Eng* 18:644-5 O '48

450-ton overhead traveling crane at United States navy yard at Hunter's Point, San Francisco. *il Engineering* 165:489-90 My 21 '48

Gantries move forms in assembly-line construction of blood wall. *il Civil Eng* 18:646-7 O '48

General-purpose mobile crane. *il Engineering* 164:439 N 7 '47

Giant crane to lift 500 tons at San Francisco naval shipyard. *il Elec West* 99:62-3 D '47

Handling materials in the foundry yard. R. H. Herrmann. *il Foundry* 76:70-7 Mr '48

Handling steel sewer sections. *il Engineer* 184:584-5 D 19 '47

In the open hearth area; designing crane runways. H. G. Tregillus. *diags Blast F & Steel P1* 36:954-6 Ag '48

Modern locomotive cranes; use of Diesel power. L. E. Coulter. *il Diesel Power* 26:38-41 Ja '48

Navy builds world's largest crane; San Francisco naval shipyard. *il diag Eng N* 139:878-81 D 25 '47

New foundation for 350-ton crane at the Brooklyn navy yard. W. M. Angas. *il diags Eng N* 141:63-7 J1 22 '48

No one lifts more than 10 lb; jib cranes cut down sources of fatigue and injury. D. A. Johnson. *diags Am Mach* 92:101 J1 29 '48

Pipe columns for crane runway support increases rigidity. C. G. Herbruck. *il Welding J* 26:993 N '47

Service trials of painting schemes applied to a steelworks gantry. J. C. Hudson. *2pls Iron & Steel Inst J* 159:60-6 My '48

Shop-made derrick on twin A-frames speeds truck repair. H. Kerwin. *il Eng N* 140:370 Je 10 '48

Structural use of aluminum. *il Engineer* 186:9-10 J1 2 '48; *Engineering* 166:127 Ag 6 '48

Traveler daylight gloomy trainshed at Pittsburgh. *il Constr Methods* 30:82-4 Ja '48

See also

Crane cabs

Crane hooks

Accidents

Safety-first in boom crane operations near power lines. *diag Elec World* 128:60 D 20 '47

Control

Remote control hydraulic system for crane bridge brake operation. *il diags Product Eng* 19:95 Ap '48

Electric equipment

A.c. crane control equipments. *diags Engineer* 185:287-8 Mr 19 '48

Adjustable-voltage control system; operating characteristics of a newly developed a.c. powered adjustable-voltage scheme for driving machines such as cranes. J. E. Jones. *il diag Product Eng* 19:127-30 F '48

Electric cranes and hoists. H. H. Broughton. *Inst Mech Eng J & Proc* 157 (War emergency issue no 32):306-8 '47

Electrical aspects of overhead travelling cranes. G. V. Sadler. *bibliog diags Inst E E J* 95 pt 2:139-55 Ap '48; Abstract. *Engineering* 164:617 D 26 '47; Discussion. *Inst E E J* 95 pt 2:156-60 Ap '48

Giant crane has cross-flux control. *il Elec World* 128:93 D 6 '47

Magnetorque a.c. crane control. *il Ry Mech Eng* 122:96-7 F '48; *Steel* 122:94 F 9 '48; *Blast F & Steel P1* 36:588 My '48

CRANES, derricks, etc.—Electric equipment—
Continued

Motor selection for EOT cranes. M. A. de Ferranti. bibliog diags Iron & Steel Eng 25:80-8 Mr '48; Same abr. Gen Elec R 51: 23-30 Jl '48

Gearing

Proposed new AISE crane specifications; crane specifications, gearing design. I. E. Madsen. Iron & Steel Eng 25:73-9 Mr '48

Models

Model guides guy derrick set-ups. Il Constr Methods 30:98-9 Mr '48

Safety measures

Foolproof access ladders stop accidents on navy cranes. Il Constr Methods 30:80 S '48
Safety hints for construction crane operation. Roads & Sts 91:80 Ja '48

Specifications

Proposed new AISE crane specifications. I. E. Madsen; M. A. de Ferranti. diags Iron & Steel Eng 25:73-88 Mr '48
Steel plant service requirements for cranes. I. E. Madsen. Iron & Steel Eng 25:96-9 S '48

Standards

AISE sling and crane chain standards. diag Iron & Steel Eng 25:66-8 F '48
Standardization of steel mill crane components; abstract. F. W. Cramer. Machine Design 20:180+ Jl '48

CRANKCASES

Taking the guesswork out of crankcase ventilation. B. G. Brown. diags S A E J 56:37-9 O '48

CRANKPINS

Influence of radial pressure from a press fit on the endurance limit of axles and crank pins. G. W. C. Hirst. bibliog Il diag Engineer 184:598-9 D 26 '47

Research to improve crank pin design; A.A.R. Mechanical division. diags Ry Mech Eng 122:414-16 Ag '48; Ry Age 125:59-61 Jl 10 '48

CRANKSHAFTS

Cast crankshafts; a survey of published information. R. J. Love. Il diags Iron & Steel Inst J 159:247-74 bibliog (116 titles, p 272-4) Jl '48

Chain angular displacement adjuster. diag Engineer 185:241 Mr 5 '48

Chicago, Burlington & Quincy Diesel crankshaft repairs; combination crankshaft- and axle-grinding machine. Il Ry Mech Eng 122: 121-5 Mr '48

Fatigue tests on crankshaft steels. P. H. Frith. bibliog 2 pls Il diags Iron & Steel Inst J 159:385-409 Ag '48; Abstract. Automobile Eng 38:384 O '48

Locating eccentric cranks. Il Ry Mech Eng 122:255-6 My '48

Notched skid bins solve crankshaft handling problem. Il Iron Age 161:130 Mr 11 '48

Reconditioning a 108-ton crankshaft. P. MacDonald. Il Marine Eng 53:84+ Ap '48

Manufacture

Automobile crankshaft forgings mass produced on 30-foot high press. Il Steel 123: 110 Ag 16 '48

Deep-drilling of crankshafts on transfer type machines. C. H. Wick. Il diags Mach 54: 153-6+ Ag '48

Grinding Packard crankshafts and camshafts. G. W. Deislinger. Il Iron Age 162:80-3 S 16 '48

High speed machining of crankshafts at Cadillac. Il Automotive Ind 99:54 Ag 15 '48
Multiple wheel grinding speeds-up crankshaft production; Studebaker corp. O. F. Mishler. Il Mach 55:162-9 N '48

Production of cast crankshafts. R. B. Templeton. Product Eng 19:126-8 Ag '48

Step-drilling machine for crankshafts. Il diags Product Eng 19:98-100 N '48

Transfer line drills Ford crankshafts. W. G. Patton. Il diag Iron Age 161:72-6 Je 17 '48

Testing

Hydraulic-electric system; machine for magnafux inspection of crankshafts and camshafts. W. E. Bock. Il diags Machine Design 19:107-11 D '47

Research on Diesel crankshafts in Germany. H. Hermanns. diags Diesel Power 26:60-1+ F '48

Tensile and fatigue tests of drop forged and cast crankshafts provide reliable data for design engineers; abstract. diags Product Eng 18:135 N '47

CRATES

Lighter and stronger crate saves shipping space. Il Mill & Factory 42:161 F '48

New unheated crate design. Il Mod Packaging 21:194+ My '48

Speedy scooter crating. Il Mill & Factory 42: 113 My '48

CRAWFISH. See Crayfish**CRAWFORD, James M.**

Portrait. Fortune 38:83 Ag '48

CRAWFORD, William Sterling, 1865-1948

Sketch. por East Underw 49:16-17 Jl 23 '48; Nat Underw 52:2+ Jl 22 '48; Nat Underw (Life ed) 52:2+ Jl 23 '48; Weekly Underw 159:166 Jl 24 '48

CRAWFISH

Crayfish in southern Nevada. H. H. Hobbs, Jr. and D. J. Zinn. Science 107:369 Ap 9 '48

Development of the crawfish industry, Tristan da Cunha. For Comm W 32:36 Jl 24 '48

Protection of synaptic transmission against block by nicotine. C. A. G. Wiersma and W. Schallek. Science 106:421 O 31 '47

CREAM separators

Skimmer disks produced faster by spinning; McCormick-Deering cream separators. G. H. Cottrell. Il diags Am Mach 92:78-80 Ag 26 '48

Special lathes turn tapers; cream-separator valves; illustrations with text. K. R. McKay. Am Mach 92:102-3 Ag 26 '48

CREAMERIES

Creamery features tile construction. Il Cer Ind 51:91 S '48

CREAMERIES of America, inc.

Newcomers on the New York stock exchange. Mag of Wall St 81:250 D 6 '47

CREAMS, Protective. See Ointments**CREASING of textiles**

Creaseproofing textiles; boric acid + borax as catalysts; patent. Am Dyestuff Rep 37: 243-4 Ap 5 '48

Creaseproofing textiles; dimethylolurea, solubilized; patent. Am Dyestuff Rep 37: 104 F 9 '48

Creaseproofing textiles; melamine condensates, stabilized with amino diphenyl; patent. Am Dyestuff Rep 37:539 Ag 9 '48

Creaseproofing textiles; wet, free shrinking treatment; patent. Am Dyestuff Rep 37: 384-5 My 31 '48

Effect of crease resistant finishes on stiffness resiliency; abstract. L. Fourt and others. Textile World 98:228+ Mr '48

Improved evaluation of the crease resistance of resin treated fabrics. R. D. DeWaard and others. bibliog Il diags Am Dyestuff Rep 37:513-18+ Ag 9 '48

Monsanto's wrinkle recovery meter. D. H. Powers. Il Textile Col 69:33 N '47

New wrinkle in wrinkleproofing; abstract. I. J. Grunfest and D. D. Gagliardi. Chem Eng 55:268+ Mr '48

New wrinkle recovery tester. Il Rayon 28: 596 N '47

CREATIVE

Infrared absorption spectra of some amino acids and their complexes. I. M. Klotz and D. M. Gruen. bibliog J Phys & Colloid Chem 52:961-8 Je '48

CREATIVE ability

Developing creative ability in an educational system. K. B. McEachron, Jr. J Eng Educ 38:122-8 O '47

CREDIT

Borderline credit applicants; Food industry training center recommended. C. A. Maguire. Credit & Fin Management 50:28-9 S '48

Changing values in financial appraisal statements. F. A. Royce. Credit & Fin Management 50:8-9+ Ap '48

Congress votes for inflation; housing bill and credit curbs. Bsns W p21-2 Ag 14 '48

Consumer credit; an appraisal of controls and recent trends. Index 28 no3:61-71 [S] '48; Excerpts. Comm & Fin Chr 168:1976 N 11 '48

CREDIT—Continued

Consumer credit and business trends. W. E. Hoadley, jr. *Comm & Fin Chr* 166:2173 N 27 '47

Consumer credit in the postwar period. L. F. McHugh. *Survey of Cur Bsns* 27:11-15+ N '47

Consumer credit structure. T. W. Rogers. *Comm & Fin Chr* 167:1763+ Ap 22 '48

Consumer credit trends. *Fed Res Bul* 34: 897-903 Ag '48

Contractors as credit risks; accounts need proper handling by credit department. D. E. Neiman. *Credit & Fin Management* 50: 14+ J1 '48

Cost of credit and capital. *Fed Res Bul* 34: 269-78 Mr '48

Credit developments. *Nat City Bank* p29-31, 90-1, 122-4 Mr, Ag, N '48

Credit in construction work; how to avoid some of the hazards. J. C. Hoffman. *Credit & Fin Management* 50:10-13+ Ap '48

Credit problems return with expansion of consumer debt. H. W. Ketchum. *Dom Comm* 35:3-8 S '47; Same. *Credit & Fin Management* 49:28-31 N '47

Current trends in consumer financing. T. W. Rogers. *Comm & Fin Chr* 168:4+ J1 '48

Determining the break-even point; credit concepts past and present. T. Jasson. *Credit & Fin Management* 50:10-11+ Ja '48

Diagnosis in business; symptoms of disease are shown in financial statements. G. C. Kippel. *Credit & Fin Management* 50:7-9+ S '48

Economics and credit. W. E. Hoadley, jr. *Credit & Fin Management* 49:20+ D '47

Have we too much or too little free savings? analysis indicates this is poor time to experiment with credit restriction. J. Hirsch. *Barron's* 28:7-8 Mr 15 '48

How to cut credit losses; ways to rehabilitate businesses. D. F. Sheridan. *Credit & Fin Management* 50:17-18+ Ja '48

Is consumer credit volume too high? A. A. Friedrich. *Banking* 40:51+ Mr '48

Is the two to one rule adequate? a rule of thumb for the current ratio. H. E. Gregory. *Credit & Fin Management* 50:6-8+ J1 '48

It can happen again; Vesty Gates, a practical credit man, analyzes some bankruptcy cases of the 30's. H. M. Sommers. *Credit & Fin Management* 50:16+ Ap; 8-9+ My; 24-5+ Je; 9-10+ J1; 12-13+ Ag; 22-7 S; 19-21 O '48 (to be cont)

Keynesian miracle; credit expansion performs miracle of turning a stone into bread. L. von Mises. *Comm & Fin Chr* 167: 2095+ My 13 '48

Men and machinery; credit men would do well to study human relations. C. H. Sondhaus. *Credit & Fin Management* 50:15-16 My '48

Need for sound credit. K. K. DuVall. *Comm & Fin Chr* 166:1851+ N 6 '47

Need for sound credit policies. D. H. Bellemore. *Credit & Fin Management* 49:12-13+ D '47

Our monetary and credit problems; address at annual stockholders meeting. Federal home loan bank of New York. M. S. Szymczak. *Comm & Fin Chr* 167:494+ Ja 29 '48

Pledge efforts against undue credit expansion; correspondence between J. W. Snyder and J. M. Dodge. *Comm & Fin Chr* 168:319 J1 22 '48

Raising income levels vs. consumer credit as inflation factor. E. C. Griffith. *Comm & Fin Chr* 167:100+ Ja 8 '48

Revised consumer credit series; with monthly figures, January 1929-June 1948. *Fed Res Bul* 34:933-7 Ag '48

Role of credit in present business expansion. *Survey of Cur Bsns* 27:9-11 D '47

Secretary Snyder on credit controls. *Comm & Fin Chr* 166:2275 D 4 '47

Setting credit limits. A. P. Brigham; H. H. Rasmussen. *Credit & Fin Management* 50: 6-8+ Ag '48

Sound credit; weapon for production. H. H. Helmann. *Manuf Rec* 117:144+ My '48

Statements in credit work; many factors to be considered in full analysis. G. F. Helwig. *Credit & Fin Management* 50:4-5+ Ap; 4-7 My; 11-12+ Je '48

Third dimension credits. P. M. Millions. *Comm & Fin Chr* 168:802+ Ag 26 '48

Three C's in peacetime; character, capital and capacity. C. W. Stille. *Credit & Fin Management* 50:22+ My '48

See also

Accounts receivable	Finance companies
Advertising agencies	Instalment plan
—Credit problems	Insurance—Credit aspects
Agricultural credit	Insurance, Credit
Bankruptcy	Letters of credit
Banks and banking	Loans, Small
Billing	Promissory notes
Charge accounts (retail trade)	Railroads—Passenger credit service
Collecting of accounts	Salesmen and credit
Credit unions	Warehouse receipts
Discount, Cash	—also National association of credit men

Statistics

Consumer credit, 1941-1946. *Survey of Cur Bsns* 1947 Sup p76-7 [supplemented in monthly numbers]

Consumer credit outstanding, end of month, 1929-1947; graph. *Survey of Cur Bsns* 28:6 Mr '48

Consumer short-term credit; revised data; monthly figures by type of credit, 1929-1946. *Survey of Cur Bsns* 28:24 Ap '48

Consumers borrow more to buy, 1941-1947; graph. *Bsns W* p24 F 14 '48

Recent consumer-credit trends; with graphs showing data, 1929-1948. *Survey of Cur Bsns* 28:2-3 S '48

Wholesalers' bad debt losses; a comparison between 1946 and 1947. J. Albright. *Credit & Fin Management* 50:9-10+ Je '48

Study and teaching

Education and professional advancement. C. D. Smith. *Credit & Fin Management* 50: 24-7 J1 '48

Subordination agreements

Business law as a credit tool; subordination agreements. C. B. Everberg. *Credit & Fin Management* 50:15-16 Ja '48

Latin America

Export credit information on Latin American countries. *For Comm W* 31:41 Je 5 '48

Further deterioration shown in 39th semi-annual Latin-American survey; with tables. P. J. Gray. *Credit & Fin Management* 50: 12-13+ Mr '48

Unexpected upset features 40th semi-annual survey of credit conditions in Latin America. P. J. Gray. *Credit & Fin Management* 50:18+ S '48

CREDIT, Agricultural. See **Agricultural credit**

CREDIT, Bank

Bank credits still aid airlines. S. Altschul. *Aviation W* 49:33 Ag 30 '48

Bankers start to put the brakes on credit. *Bsns W* p 19-20 F 28 '48

Booklet of Commerce dept. explains requirements for bank borrowers. *Credit & Fin Management* 49:23 D '47

Money, credit and inflation. K. K. Du Vall. *Comm & Fin Chr* 168:1317+ S 30 '48

New look in banking; inflation fight may modify bank credit policies. E. L. Hock. *Credit & Fin Management* 50:18-21 My '48

No likelihood of credit stringency in 1948. W. H. Hillyer. *Comm & Fin Chr* 167:1098+ Mr 11 '48

Small businessman and his bank. G. M. Francis. U S Dept of Com, Economic (Small Business) Ser 64:1-13; pa 10c Supt. of doc. '47

See also

Agricultural credit	Discount
Banks and banking—	Federal reserve
General security	board—Credit policy
agreement	Loans, Bank

CREDIT, Foreign

Credit problems in foreign trade. I. F. Baker. *Comm & Fin Chr* 167:902+ F 26 '48; Same. *Credit & Fin Management* 50:4-6+ Mr '48

Discrimination in foreign trade, need for creditor rights before international conferences. K. H. Nadelmann. *Credit & Fin Management* 50:28-9+ Je '48

See also

Credit—Latin America

CREDIT, Letters of. See Letters of credit
CREDIT and salesmen. See Salesmen and credit

CREDIT associations

See also

National association of credit men

Directories

Credit associations affiliated with NACM; listed by state and city. Credit & Fin Management 50:38-40 Ja '48

CREDIT departments

Broader phases of credit management. L. W. Bernhard. Credit & Fin Management 49:12-14+ N '47

Credit as a management aid; services not limited to accounts receivable. H. M. Sommers. Credit & Fin Management 50:12-14 Jm '48

Credit management for profit. J. L. Wood. Credit & Fin Management 50:4-5+ JI; 4-5+ Ag; 4-6 S '48

Inflation and credit; some factors to consider in formulating policy. H. Spero. Credit & Fin Management 50:32-3 O '48

Keep your eye on the ball; old accounts present greater problems than new. W. L. McElvaney. Credit & Fin Management 50:30-1 Je '48

Keeping outlets open; constructive credit department aids customers. W. R. Lenga. Credit & Fin Management 50:14-16+ Ag '48

More about business letters; correspondence is first line of sales attack. D. A. Marquez. Credit & Fin Management 50:28-30 Ja '48

Three views of credits. J. H. McNerney and others. Credit & Fin Management 50:4-9 Ja '48

Training field personnel. J. A. Walker. Credit & Fin Management 49:10-11+ D '47

What the credit department expects from management and sales. F. Griesinger. Credit & Fin Management 50:6-9 Ja '48

Writing good letters better. R. E. Roddy. Credit & Fin Management 49:20+ N '47

Your letters are you! C. P. Perrine. Credit & Fin Management 49:17-18+ D '47

See also

Credit managers
 Salesmen and credit

Records

Contractors as credit risks; accounts need proper handling by credit department. D. E. Neiman. Credit & Fin Management 50:14+ JI '48

Easiest way is best. C. V. Cox. II Credit & Fin Management 50:10-11+ S '48

CREDIT education

Improving your professional status. C. D. Smith. Credit & Fin Management 49:26 N '47

CREDIT insurance. See Insurance, Credit

CREDIT interchange bureaus

Your credit interchange system. V. S. Ames. Credit & Fin Management 50:26-9 My '48

CREDIT managers

Business law as a credit tool; why the executive should know principles. C. B. Everberg. Credit & Fin Management 50:15-16 Ja '48

Credit man should study selling. S. Z. Park. Credit & Fin Management 50:9-10+ F '48; Discussion. G. J. Bush. 50:9 Mr '48

Credit management problems; how can the credit man appraise his own efficiency? A. F. Chapin. Credit & Fin Management 49:17-18 N '47

Credit man's contribution. P. P. Gott. Credit & Fin Management 50:12-14+ O '48

Goodwill by personal contact. F. E. Ward. Credit & Fin Management 50:16-17 My '48

Our place in business. V. C. Eggerding. Credit & Fin Management 50:21-4 Ja '48

Planning for profit; credit man's relation to budgetary control. S. Havasey. Credit & Fin Management 50:22-3+ JI '48

Psychology in the credit department. S. J. Hunter. Credit & Fin Management 50:24+ Ag '48

Training field personnel. J. A. Walker. Credit & Fin Management 49:10-11+ D '47

What makes a business grow? how can the credit man help? M. Volper. Credit & Fin Management 49:28-9 D '47

What makes a good credit man? F. Harris. Credit & Fin Management 50:20-1+ JI '48

What the credit department expects from management and sales. F. Griesinger. Credit & Fin Management 50:6-9 Ja '48

When the boom is over; credit men can do much to cushion the shock. E. W. Lane. Credit & Fin Management 50:14+ S '48

CREDIT men, National association of. See National association of credit men

CREDIT unions

Consumers' cooperatives and credit unions; operations in 1946. U S Bur Labor Statistics Bul 922:1-19; pa 15c Supt. of doc. '47

Employee credit union; abstract. Management R 37:292-4 Je '48

How to help your employees with their financial problems. J. K. Lasser. Mill & Factory 42:118 Ap '48

On-the-job service for customers; Denver national bank cooperates with credit union to permit employees to bank through their firms. J. K. Sanbourne. II Burroughs Clearing House 33:26-7+ O '48

Wartime experience of Wisconsin credit unions. E. Shapiro. bibliog J Bsns 20:201-11 O '47

Statistics

Activities of credit unions in 1946. Mo Labor R 65:555-8 N '47

Operations of credit unions in 1947. Mo Labor R 67:385-8 O '48

CREDITS, School and college

Proficiency in general chemistry; method of integrating high school and college program. A. B. Garrett. J Chem Educ 25:24-6 Ja '48

CREEP of materials

Constant stress apparatus for the study of the creep properties of plastics. A. G. Ward and R. R. Marriott. bibliog II diags J Sci Instr 25:147-51 My '48

Creep and plastic flow of solid materials; abstract. H. Eyring. Science 106:507 N 23 '47

Creep and relaxation. B. Gross. bibliog J Ap Phys 18:212-21; 19:257-64 F '47, Mr '48

Creep of steel and concrete in relation to prestressed concrete. G. Magnel. diags Am Concrete Inst J 19:485-500 F '48

Creep, recovery, and permanent set for GR-S and hevea. S. D. Gehman. bibliog II diags J Ap Phys 19:456-63 My '48

Experimental study of the creep of rayon. M. T. O'Shaughnessy. bibliog diags Textile Res J 18:263-86 My '48

Long time load-deformation effects in viscoelastic materials. C. H. Adams and M. C. Thordahl. bibliog Mod Plastics 25:139-42+ Je '48

Relaxation and flow in cellulose fibres. R. Meredith. bibliog diags Textile Inst J 39: P245-51; Discussion. P251-2 JI '48

CREEP of metals

Abnormal creep in carbon steels; effect of manganese, silicon and molybdenum. J. Glen. II Iron & Steel Inst J 155:501-12 Ap '47; Abstract. Metal Prog 52:280+ Ag '47; Discussion. Iron & Steel Inst J 157:579-86; 160:143-50 D '47, O '48

Combined creep machine and X-ray spectrometer. H. J. Tapsell and others. II diags J Sci Instr 25:198-9 Je '48

Creep and creep-rupture testing. G. V. Smith and others. diags Steel 121:88-90+ D 8 '47

Creep measurement with wire gauges. Elec Eng 67:1049 N '48

Creep of metals; abstract. E. Orowan. Metal Prog 54:552+ O '48

Creep of steel and concrete in relation to prestressed concrete. G. Magnel. diags Am Concrete Inst J 19:485-500 F '48

Creep properties of molybdenum, chromium-molybdenum, and molybdenum-vanadium steels. J. Glen. bibliog Iron & Steel Inst J 155:37-80 Ja '48; Discussion. 160:143-50 O '48

Creep rate of various industrial leads; abstract. J. N. Greenwood and J. H. Cole. Product Eng 19:146-7 Mr '48

Creep tester for elevated temperature work. II diags Product Eng 19:96-7 My '48

CREEP of metals—Continued

- Creep tests on some extruded lead and lead-alloy sleeves and tapes. G. R. Gohn and others. *bibliog* *il* *diags* *Am Soc T M Proc* 46:990-1020; Discussion. 1021-4 '46
- Formula reduces number of variables involved in creep. *Product Eng* 19:163 S '48
- Fundamentals of creep. *Metal Prog* 53:225-6 F '48
- Influence of various factors on the creep of lead. J. N. Greenwood and J. H. Cole. *bibliog* *il* *Metallurgia* 37:285-9 Ap '48
- Low-temperature creep of steel. A. Portevin. *il* *Metal Prog* 54:188-9 Ag '48
- New creep testing machines. J. Marin. *il* *Automotive Ind* 38:46-74 My 15 '48
- Pressure and creep tests at constant hoop stress on lead and alloy E pipes; abstracts. A. Latin. *Engineering* 165:341 Ap 9 '48; *Metallurgia* 37:242+ Mr '48; Discussion. *Engineering* 165:341 Ap 9 '48
- Role of meehanite metal castings in engineering production. C. R. Austin. *il* *diag* *A S M E Trans* 70:103-5 F '48
- Stress rupture and creep properties of heat resistant gas turbine alloys. N. J. Grant. *bibliog* *il* *diags* *Am Soc for Metals Trans* 39:281-325; Discussion. 325-34 '47
- Structure of grain boundaries in metals. T. Kê. *bibliog* *Phys R* 73:267-8 F 1 '48
- Transient plastic deformation. R. P. Carreker and others. *diag* *Metals Tech* 15:TP2477 1-8 S '48

CRENOTHRIX. See Iron bacteria**CREOLE petroleum corporation**

- Major developments, 1948 plans discussed by Creole engineers in Venezuela. K. B. Barnes. *il* *Oil & Gas J* 46:98-9 Mr 25 '48
- Output and earnings increase. *Comm & Fin Chr* 167:2465 Je 7 '48

CREOSOTE

- Finding and fighting marine borers; creosote impregnation and poisoning. R. D. Chellis. *il* *Eng N* 140:555-8 Ap 15 '48
- Wood preservatives; characteristics and related toxicity of hydrocarbon oils. J. A. Vaughan. *bibliog* *Pet Processing* 3:237-8+ Mr '48

CREPE

- Crinkled fabrics; resins printed as resists; patent. *Am Dyestuff Rep* 37:384 My 31 '48
- Redraw crepe to clean and balance packages. S. J. Miller. *Textile World* 98:143 Jl '48

CREPING machines

- Germans had few short-cuts in preparation and creping. C. N. Rabold. *diags* *Textile World* 98:122-3+ My '48

CRESOL

- Cresylic acid reported in very short supply. *Oil Paint & Drug Rep* 154:7+ S 6 '48
- New source of cresylic acid. *Chem Eng (Lond)* 59:357 S 11 '48

Analysis

- Determination of phenol and *m*-cresol in complex biochemical mixtures; application of countercurrent distribution method. B. Warshowsky, E. J. Schantz and M. W. Rice. *Anal Chem* 20:951-4 O '48

CRESSMAN, Luther Sheeleigh, 1897-

- Portrait. *Science* 108:223 S 3 '48

CRESYLIC acid. See Cresol**CRIB sheets.** See Sheets, Waterproof**CRIBS**

- Steel-drum crib for Cleveland intake. A. A. Burger. *il* *diags* *Eng N* 141:76-9 Ag 5 '48

CRIME and criminals

- Laboratory's role in criminology; New York police laboratory. R. L. Demmerle. *il* *Chem & Eng N* 26:456-8 F 16 '48

See also

Arson
Embezzlement
Fraud

Radio telephone—
Police uses
Theft

Bibliography

- Crime problem in California. D. C. Tompkins. 16p Univ. of Calif. Bur. of public administration, Berkeley 4 '47

- Criminology: a college library resources checklist. E. Thomas, comp. 27p Research foundation, Oklahoma agricultural and mechanical college, Stillwater '48

Malayan Union

- Crime in Malaya. *Economist* 154:1070 Je 26 '48

CRIME comics. See Comics (books, strips, etc.)**CRIME reporting.** See Newspapers—Crime reporting**CRIMINAL law**

- Criminal code; amendments to Federal reserve act. *Fed Res Bul* 34:1113-19 S '48

Great Britain

- Criminal justice; government's bill amends criminal law. *Economist* 153:750-1 N 8 '47

CRIMPING of textiles

- Crimping textiles; especially yarns; patent. *diag* *Am Dyestuff Rep* 37:474 Jl 12 '48

CRINKLED fabrics. See Crepe**CRIPPS, Sir Richard Stafford, 1889-**

- Britain's minister for economic affairs. *por(cover)* *Bsns W* p6 O 9 '48
- Capital corps sizzles, press parley fizzles. J. J. Butler. *Ed & Pub* 81:26 O 9 '48

CRISTOBALITE

- Existence of beta cristobalite at room temperature. A. Grenall. *Am Chem Soc J* 70:423-4 Ja '48

CRITICAL constants

- Critical densities and related properties of liquids. S. W. Benson. *bibliog* *J Phys & Colloid Chem* 52:1060-74 Je '48

- Phase relations of a gas-condensate fluid at low temperatures, including the critical state. C. K. Eilerts and others. *bibliog* *il* *diags* *Pet Eng* 19:154+ F '48

CRITICAL solution temperature**See also**

Aniline point

CRITICISM, Dramatic. See Dramatic criticism**CRITTALL manufacturing company**

- Statement by the chairman at annual general meeting. V. Crittall. *Economist* 153:1026 D 20 '47

CROCKETT, California**Industries**

- This company and this town team up for living; California & Hawaiian sugar refining corp. *il* *Factory Management* 106:78-9 O '48

CROP insurance. See Insurance, Agricultural**CROPS**

- Big crops will cut prices, but effect can be delayed. *Barron's* 28:28-9 Ag 16 '48

- Bumper crop outlook. *Nat City Bank* p88-90 Ag '48

- Crop outlook. R. W. Babson. *Comm & Fin Chr* 167:1881 Ap 29 '48

- Forecasting productivity of irrigable lands. W. C. Muldrow. *Am Soc C E Proc* 73:97-101 F '47; Discussion. 73:729-32, 947-8, 1305-6, 1414-16, 1547-8; 74:725-6 My-Je, O-D '47, My '48

- Next year's crops; the key to domestic and international outlook. F. R. Walters. *il* *Mag of Wall St* 81:182-3+ N 22 '47

- Why some crop plants yield more than others; inverse yield-nitrogen law. O. W. Willcox. *Science* 108:38-9 Jl 9 '48

See also

Guar

CROSS, Hardy, 1885-

- Sketch. *por* *Civil Eng* 18:37 Ja '48

CROSSARMS. See Electric lines—Crossarms**CROSSER act.** See Railroad law; Railroads—Pensions**CROTONALDEHYDE**

- Butadiene-crotonaldehyde explosion. K. W. Greenlee. *Chem & Eng N* 26:1985 Jl 5 '48

Analysis

- Colorimetric determination of certain alpha, beta-unsaturated aldehydes. R. E. Wearn and others. *bibliog* *Anal Chem* 20:922-4 O '48

CROTONATES

- Reactions of β -keto esters with aromatic amines; syntheses of 2- and 4-hydroxy-quinoline derivatives. C. R. Hauser and G. A. Reynolds. *Am Chem Soc J* 70:2402-4 Jl '48

CROTONIC acid**See also**

- Naphthylideneacetic acid

CROTTY brothers, inc.
200,000 meals a day. *Fortune* 38:124+ S '48

CROTYLGLYCINE

Inhibition of microbiological growth by allyl-glycine, methallyl-glycine and crotyl-glycine. K. Dittmer and others, *bibliog Am Chem Soc J* 70:2499-501 JI '48

CROWN manufacturing company

Sound management principles underlie Crown college. C. H. Leach, *il Textile World* 98: 114-15+ JI '48

CRUCIBLES

Clay crucibles for high-density glasses, glazes and enamels. *Glass Ind* 29:269 My '48

Melting iron in gas-fired crucibles. *il diags Iron Age* 161:91-3 Ap 29 '48

CRUISES. See Ocean travel

CRUM, Bartley Cavanaugh

Crum and Barnes take active control of P.M. C. Hodge, *por Ed & Pub* 81:7-8 My 1 '48

CRUSHED stone. See Stone, Crushed

CRUSHING

Change in state of aggregation. *diag Chem Eng* 55:103-5 My '48

Crushing and grinding. L. T. Work, *bibliog Ind & Eng Chem* 40:9-10 Ja '48

Crushing limestone half mile underground; Pittsburgh plate glass co., Columbia chemical division. E. Nordberg, *il diag Rock Prod* 50:72-9+ N '47

Cut quarrying costs with two surge piles and relocation of crusher; Southern aggregates corporation, Neverson, N.C. plant. W. B. Lenhart, *il plan diags Rock Prod* 51:70-3 JI '48

Fractionation of potato starch; comparison with wheat starch. L. H. Lampitt and others, *bibliog il Soc Chem Ind J* 66:417-21 D '47

Mathematical description of certain breakage mechanisms leading to the logarithmic-normal distribution. B. Epstein, *bibliog Franklin Inst J* 244:471-7 D '47

CRUSHING machinery

Automatic control in milling. I. M. LeBaron, *il diags Min Cong J* 34:26-9 O '48

Automatic reset for the Allis-Chalmers crusher. *il Machine Design* 20:106 S '48

Economical and efficient secondary crusher; the Gyracone, *il diag Eng & Min J* 149:98-9 Mr '48

Grinding; new equipment announced 1947-48. *Chem Ind* 63:414 S '48

Impact flour milling; centrifugal impact machines, hitherto used for controlling insect infestation; Entoleter. A. N. Hibbs and others, *flow diag il Food Ind* 19:1626-30+ D '47

Manufacturers' ideas to meet difficult operating problems; developments in crushers; illustrated descriptions of latest equipment. N. C. Rockwood, *diags Rock Prod* 50:111-14 D '47

Michigan Silica completes three-year modernization program. D. Mocine, *il plan Rock Prod* 51:100-5 Ag '48

Modernizing the production of wet-ground mica. *il Eng & Min J* 149:86-8 Je '48

One jaw crusher, two portable plants; McMillan contracting co. limestone crushing plant. W. B. Lenhart, *il Rock Prod* 50:127 D '47

Pre-preparation plant at the Workington branch of the United steel companies, ltd. *flow diag il plans Iron & Steel Inst J* 159: 73-6 My '48

Portable aggregate plant. V. J. Brown, *il diag Roads & Sts* 91:84-5+ JI '48

Redesigned jaw-plate liners improve crusher operation. *diags Eng & Min J* 149:104 Ap '48

Skull breaker in a limestone quarry. M. Mosler, *pl U S Bur Mines Information Circ* 7472:1-4 '48

Syn motor solves crusher drive problem. *Elec World* 128:124+ N 8 '47

Up cement production with new crushing plant and long kiln; Oregon portland cement co. W. B. Lenhart, *il Rock Prod* 51: 96-9 O '48

See also

Ball mills

Pulverizers

Stamp mills

Wood grinders

CRUSTACEA

See also

Crayfish

CRUSTACEA, Fossil

See also

Trilobites

CRYOGENIC laboratories

Cryogenics; conference held at Ohio state university, Oct. 1947. *Mech Eng* 70:146-7 F '48

Georgia Tech constructs new low temperature laboratory. W. T. Ziegler, *il diag Refrig Eng* 56:402-4 N '48

Worst weather in the world; Mount Washington's natural testing laboratory. M. Sheridan, *il Sci Am* 178:154-6 Ap '48

CRYOGENIC research. See Cryogenic laboratories; Temperature, Low

CRYOLITE

Comparative toxicity of cryolite for rats and for rabbits. E. J. Largent, *J Ind Hygiene* 30:92-7 Mr '48

Nature of precipitated sodium fluoaluminates. J. M. Cowley and T. R. Scott, *Am Chem Soc J* 69:2596-8 N '47

CRYSCOPY. See Freezing points; Supercooling

CRYOSTATS

Collins helium cryostat, *il R Sci Instr* 18: 929 D '47; *Mech Eng* 70:18-19 Ja '48;

Paper Tr J 125:24 N 13 '47

Improved type of helium liquefier and cryostat. J. G. Daunt and K. Mendelssohn, *bibliog diags J Sci Instr* 25:318-20 S '48

New device for obtaining absolute zero; Collins helium cryostat. F. N. Hollingsworth, *il Heat & Ven* 45:90 O '48

Operation without lubricants; Collins helium cryostat, *diags Machine Design* 20:94 O '48

Strange behavior of metals at very low temperatures; superconductivity. D. H. Andrews, *bibliog il diag Refrig Eng* 54:481-5+ N '47

Transfer tube for the Collins helium cryostat. M. C. Desirant and W. J. Horvath, *diags R Sci Instr* 19:718-19 O '48

CRY O VAC containers

Cry O Vac, a new packaging material. R. W. Lahey, *Chem & Eng N* 26:2921+ S 27 '48

CRYPTOL

Reactions of α -unsaturated cyclic aldehydes and ketones; (+)-*cis*- and (-)-*trans*-cryptol from (-)-cryptone. D. T. C. Gillespie, A. K. Macbeth and J. A. Mills, *Chem Soc J* p996-9 JI '48

CRYPTONE

Reactions of α -unsaturated cyclic aldehydes and ketones; (+)-*cis*- and (-)-*trans*-cryptol from (-)-cryptone. D. T. C. Gillespie, A. K. Macbeth and J. A. Mills, *Chem Soc J* p996-9 JI '48

CRYSTAL clocks. See Clocks, Electric

CRYSTAL detectors. See Radio detectors

CRYSTAL diode

Crystal diode wave shaper. R. P. Turner, *il diags Radio N* 39:44+ My '48

Sensitive a.f.-r.f. signal tracer. R. P. Turner, *il diags Radio & Tv N* 40:38+ Ag '48

CRYSTAL models. See Crystallography—Models

CRYSTAL oscillators. See Oscillators, Crystal

CRYSTALLIZATION

Composition of commercial palm oils; component acids and glycerides of a Belgian Congo palm oil (studied with the aid of low-temperature crystallization). T. P. Hilditch and others, *bibliog Soc Chem Ind J* 66: 284-8 Ag '47

Continuous vacuum crystallization of ammonium nitrate. P. Miller and W. C. Saeman, *bibliog flow diag il diags Chem Eng Prog* 43:667-87; Discussion, 687-90 D '47

Contribution à l'étude de la cristallisation de la magnésie sous l'effet de températures croissantes; mécanisme du frittage. Y. Lortet and L. Halm, *bibliog il Chimie & Ind* 58:537-44 D '47

Crystallinity of hydro-celluloses. F. C. Brenner, V. Frllette and H. Mark, *Am Chem Soc J* 70:877-8 F '48

Crystallization. C. S. Grove, Jr. and J. B. Gray, *bibliog Ind & Eng Chem* 40:11-13 Ja '48

Crystallization of *p,p'*-DDT from binary melts. V. Gilpin and others, *bibliog Am Chem Soc J* 70:208-11 Ja '48

CRYSTALLIZATION.—Continued

- Crystallization of fertilizers; abstract. M. P. Applebey. *Chem & Ind* 1959 Ja 24 '48
- Crystallization of triacetin. B. Hancock, D. M. Sylvester and S. E. Forman. *Am Chem Soc J* 70:424 Ja '48
- Effect of crystal arrangement on secondary recrystallization in metals; abstracts and discussion. J. S. Bowles and W. Boas. *Engineering* 166:355 O 8 '48; *Metallurgia* 38: 335-8 O '48
- Effect of recrystallized grain size on grain growth. P. A. Beck. *J Ap Phys* 19:507-9 My '48
- Effect of temperature on reactions in gels; an honors course problem. H. H. Fillinger. *J Chem Educ* 25:102-3 F '48
- Few experiments on the crystallinity of polyamides. M. E. Bergmann and others. *bibliog* *il Textile Res J* 18:1-8 Ja '48
- Foreign ion rejection in the growth of sodium chloride single crystals from the melt. R. H. McFee. *bibliog* *diags J Chem Phys* 15: 856-61 D '47
- History of crystal growth revealed by fractography. C. A. Zapffe and others. *bibliog* *il Science* 107:320-1 Mr 28 '48
- Kinetics of solidification of killed steel ingots. J. W. Spretnak. *bibliog* *il diags Am Soc for Metals Trans* 39:569-619; *Discussion*, 619-26 '47
- Kinetics of sucrose crystallization; real massecuites. A. Van Hook. *bibliog* *il Ind & Eng Chem* 40:85-9 Ja '48
- Laboratory growing of quartz. D. R. Hale. *bibliog* *Science* 107:393-4 Ap 16 '48
- Liquid immiscibility in the system $H_2O-Na_2O-SiO_2$. O. F. Tuttle and I. I. Friedman. *il diag Am Chem Soc J* 70:919-26 Mr '48
- New theory of recrystallization; abstract. C. Peterson. *Materials & Methods* 27:11-12 Ap '48
- Phase diagrams for ceramists. F. P. Hall and H. Insley. *bibliog* *Am Cer Soc J* 30:1-152 pt 2 N 1 '47
- Properties of monocrystalline ammonium nitrate fertilizer. P. Miller and W. C. Saeman. *bibliog* *il Ind & Eng Chem* 40:154-60 Ja '48
- Pyrite geo-thermometer. F. G. Smith. *bibliog* *il diags Econ Geol* 42:515-23 S '47
- Side-chain crystallization in alkyl polyacrylates. H. S. Kaufman and others. *Am Chem Soc J* 70:347 S '48
- Silver nitrate crystals mass-produced by a new continuous process. *il Sci Am* 177:268-9 D '47
- Solubility and density isotherms; potassium and ammonium nitrates in ethanol solutions. A. R. Thompson and R. E. Vener. *bibliog* *il Ind & Eng Chem* 40:478-81 Mr '48
- Structure and properties of ethylene polymers; crystallization of polymers and waxes. R. B. Richards. *diags Inst Pet J* 34:240-4 Ap '48
- Structure and properties of regenerated cellulose. W. E. Roseveare and others. *bibliog* *il diags Textile Res J* 18:114-23 F '48
- Synthetic piezo crystals move into industry. L. Kramer. *bibliog* *il diags Chem Ind* 63: 40-2 JI '48
- Use of low-temperature crystallization in the determination of component acids of liquid fats; marine animal oils; the component acids and glycerides of a grey (Atlantic) seal. T. P. Hilditch and S. P. Pathak. *bibliog* *Soc Chem Ind J* 66:421-5 D '47
- Zones of mutual protection against crystallization in dual-oxide systems. H. B. Weiser, W. O. Milligan and G. A. Mills. *bibliog* *J Phys & Colloid Chem* 52:942-9 Je '48
- CRYSTALLOGRAPHIC SOCIETY OF AMERICA**
Joint meeting with A.S.X.R.E.D. New Haven, March 31-April 3. *Anal Chem* 20: 493-4 My '48
- Meeting in joint scientific sessions with American society for X-ray and electron diffraction. *Science* 107:419 Ap 23 '48
- Officers. *Science* 107:564 My 28 '48
- CRYSTALLOGRAPHY**
Achromatization of Debye-Scherrer lines. H. Ekstein and S. Siegel. *il diag Phys R* 73: 1207-8 My 15 '48
- Analytical discussion of the construction of pole figures. J. K. Wood. *diags J Ap Phys* 19:784-90 Ag '48
- Analytical treatment of multicomponent systems. L. A. Dahl. *bibliog* *J Phys & Colloid Chem* 52:698-729 Ap '48
- Basic fluorides of aluminum. J. M. Cowley and T. R. Scott. *bibliog* *diag Am Chem Soc J* 70:105-9 Ja '48
- British national committee for crystallography formed. *Science* 107:390 Ap 16 '48
- Cleavage patterns disclose toughness of metals. C. A. Zapffe and others. *il Science* 108:440-1 O 22 '48
- Clustering phenomena in solid solution. A. Opinsky and R. Smoluchowski. *Phys R* 74:343 Ag 1 '48
- Crystalline and molecular structure of certain dicarboxylic acids; diacetylenedicarboxylic acid dihydrate. J. D. Dunitz and J. M. Robertson. *diags Chem Soc J* p 1145-56 S '47
- Crystal radii of the heavy elements. W. H. Zachariasen. *Phys R* 73:1104-5 My 1 '48
- Crystal structure of ammonium nitrate III, and atomic scattering factors in ionic crystals. T. H. Goodwin and J. Whetstone. *diags Chem Soc J* p 1455-61 N '47
- Crystal structure of anhydrous cupric chloride, and the stereochemistry of the cupric atom. A. F. Wells. *diags Chem Soc J* p 1670-5 D '47
- Crystal structure of CsCuCl₂ and the crystal chemistry of complex halides ABX₂. A. F. Wells. *diags Chem Soc J* p 1662-70 D '47
- Crystal structure of element 43. R. C. L. Mooney. *Phys R* 72:1269 D 15 '47
- Crystal structure of hexagonal barium titanate. H. T. Evans, jr. and R. D. Burbank. *diags J Chem Phys* 16:634 Je '48
- Crystal structure of U₂F₆. W. H. Zachariasen. *J Chem Phys* 16:425 Ap '48
- Crystal structures of a series of rare earth phosphates. R. C. L. Mooney. *J Chem Phys* 16:1003 O '48
- Crystal structures of ammonium and potassium molybdatotellurates. H. T. Evans, jr. *Am Chem Soc J* p 1291-2 Mr '48
- Crystallographic data; contributed by Armour research foundation of Illinois institute of technology. *bibliog* *il diags Anal Chem* 20:274-7 Mr '48 [cont monthly]
- Effect of grinding on the crystallinity of cellulose fibers, as indicated by the acid-hydrolysis and other techniques. M. L. Nelson and C. M. Conrad. *bibliog* *Textile Res J* 18:155-64 Mr '48
- Electron diffraction investigation of the structure of adamantane. W. Nowacki and K. W. Hedberg. *bibliog* *diag Am Chem Soc J* 70:1497-500 Ap '48
- Improvements in the acid-hydrolysis method of determining the crystallinity of cellulose. M. L. Nelson and C. M. Conrad. *bibliog* *Textile Res J* 18:149-54 Mr '48
- Instantaneous rates of grain growth. P. A. Beck and others. *Phys R* 73:526-7 Mr 1 '48
- Phase determination with the aid of implication theory. M. J. Buerger. *Phys R* 73: 927-8 Ap 15 '48
- Pseudostructures in electron microscope specimens. J. H. L. Watson. *il J Ap Phys* 19:713-20 Ag '48
- Table of interplanar spacings in angstrom or KX. units in terms of 2 θ for different target materials. S. V. Beatty. *Phys R* 74:625-6 S 1 '48
- Three-figure cosine factors for Fourier analysis and synthesis. J. M. Robertson. *bibliog* *il J Sci Instr* 25:28-30, 216-18 Ja, Je '48
- UCl₅ type of crystal structure. W. H. Zachariasen. *J Chem Phys* 16:254 Mr '48
- Wire textures of copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, jr. and M. Yen. *bibliog* *diags Metals Tech* 15:TP2334 1-10 F '48; *Discussion*. *il* 15:TP2449 94-9 Ag '48
- See also
Crystallization
Polymorphism
Solutions, Solid
- Models
- Jig for the preparation of balls for the construction of crystal structure models. R. C. Evans. *diags R Sci Instr* 19:402-4 Je '48
- New crystal model construction set. F. C. Brenner. *il J Chem Educ* 25:371-2 JI '48

CRYSTALLOGRAPHY—Continued

X-ray studies

Alignment chart giving the polarization correction of equi-inclination Weissenberg photographic intensities. W. L. Bond. *J Ap Phys* 19:32-3 *Je* '48

Application of X-ray diffraction phase determinations to the study of the structures of crystals containing large molecules; abstract. D. Harker. *Science* 106:509 *N* 28 '47

Applied X-ray metallography. N. P. Goss. *Steel* 123:98+ *Jl* 5; 114+ *S* 6 '48

Convenient methods for obtaining d/n values from X-ray diffraction patterns. C. B. Stewart and E. S. Lutton. *J Ap Phys* 19: 507 *My* '48

Correction of X-ray intensities for polarization and Lorentz factors. W. Cochran. *J Sci Instr* 25:253-4 *Jl* '48

Crystal structure of ammonium pentachloroindate monohydrate. H. P. Klug, E. Kummer and L. Alexander. bibliog diags *Am Chem Soc J* 70:3064-8 *S* '48

Divergent beam X-ray photography of metallic single crystals. A. H. Geisler and others. *il Phys R* 72:983-4 *N* 15 '47

Double fluorides of potassium or sodium with uranium, thorium or lanthanum. W. H. Zachariasen. *Am Chem Soc J* 70:2147-51 *Je* '48

Effect of the piezoelectric properties of a crystal on diffuse X-ray reflections. D. C. Miller. bibliog *il diags Phys R* 74:166-9 *Jl* 15 '48

Nature of precipitated sodium fluoaluminates. J. M. Cowley and T. R. Scott. *Am Chem Soc J* 69:2596-8 *N* '47

New applications of X-ray and electron beams to metal research; report of fifth annual Pittsburgh conference on X-ray and electron diffraction. E. H. Alexander. *Metal Prog* 52:989-90+ *D* '47

Physical properties and crystal structure of CaF_2 . H. J. Christoffers, E. C. Lingafelter and G. H. Cady. bibliog *Am Chem Soc J* 69:2502-4 *O* '47

Plastic deformation of large grained copper specimens. W. R. Hibbard, jr. bibliog *il diags Metals Tech* 15:TP2469 1-21 *S* '48

Pole figures of the effect of some cold rolling mill variables on low carbon steel. J. K. Wood, jr. diags *Am Soc for Metals Trans* 39:725-36; Discussion. 736-40 '47

Polymorphism of red phosphorus. W. L. Roth, T. W. DeWitt and A. J. Smith. bibliog *il Am Chem Soc J* 69:2881-5 *N* '47

Recent advances in the study of the crystalline state. L. Bragg. diags *Science* 108:455-63 *O* 29 '48

Simple device for calculating X-ray structure factors. V. Vand. diags *J Sci Instr* 25: 352 *O* '48

Some recently developed devices for summing Fourier series for crystal structure analysis. C. L. Christ. bibliog *J Ap Phys* 18:1133 *D* '47

Structure of certain polysulphides and sulphonyl sulphides; a preliminary X-ray survey. I. M. Dawson, A. M. Mathieson and J. M. Robertson. *Chem Soc J* p322-8 *Mr* '48

Superconductivity and structure of hydrides and nitrides of tantalum and columbium. F. H. Horn and W. T. Ziegler. bibliog diags *Am Chem Soc J* 69:2762-9 *N* '47

Use of the double crystal spectrometer in the analysis of Bragg reflections at very small angles. P. Kaesberg and others. bibliog *Phys R* 74:71-3 *Jl* 1 '48

Versatile technique for X-ray single crystal structural analysis applied to benzaldehyde 2,4-dinitrophenylhydrazones and zinc salts of salicylic and benzoic acids. G. L. Clark and Hung Kao. *Am Chem Soc J* 70:2151-4 *Je* '48

What industry requires of its X-ray crystallographers, and some methods adopted for training them; X-ray conference discussion. *J Sci Instr* 25:90-2 *Mr* '48

X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. bibliog *Am Chem Soc J* 69:2497-500 *O* '47

X-ray goniometer for the study of preferred orientation in polycrystalline aggregates. W. A. Wooster. *il diags J Sci Instr* 25: 129-34 *Ap* '48

X-ray method of measuring Poisson's ratio. R. F. Hanstock and E. H. Lloyd. *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 26):52-4; Discussion. 55 '47

X-ray studies of twinning and untwinning in magnesium alloys. J. B. Hess and R. L. Dietrich. *il Metals Tech* 15:TP2323 1-5 *F* '48

X-ray study of the effect of high hydrostatic pressures on the perfection of crystals. L. Rosen. bibliog *il Am Soc for Metals Trans* 39:713-22; Discussion. 722-4 '47

CRYSTALLOGRAPHY, International union of. See International union of crystallography

CRYSTALS

Activation energy for the diffusion of coupled pairs of vacancies in alkali halide crystals. G. J. Dienes. bibliog diags *J Chem Phys* 16:620-32 *Je* '48

Adjustment of a crystal from X-ray rotation photographs. A. Baisrto. diags *J Sci Instr* 25:216-16 *Je* '48

Alkali halide scintillation counters. R. Hofstadter. bibliog *il Phys R* 74:100-1 *Jl* 1 '48

Anomalies in the appearance of glide ellipses. R. Maddin. *il diags Metals Tech* 15:TP2332 1-6 *F* '48

Application of punch cards; filing of optical properties of crystals. A. F. Kirkpatrick. bibliog *il Anal Chem* 20:847-9 *S* '48

Behavior of silver chloride crystal counters. R. Hofstadter and others. *Phys R* 72:977-8 *N* 15 '47

Binding energy for a self-trapped electron in NaCl. J. J. Markham and F. Seitz. bibliog *Phys R* 74:1014-24 *N* 1 '48

Breakdown directions in lithium halide crystals. J. W. Davison. *il diags Phys R* 73: 1194-201 *My* 15 '48

Catalytic reaction of hydrogen and oxygen on plane faces of a single crystal of copper. H. Leidheiser, jr. and A. T. Gwathmey, 2pls diags *Am Chem Soc J* 70:1200-6 *Mr* '48

Change of photo-conductivity of cadmium sulfide between room temperature and the temperature of liquid air. J. C. M. Brenntano and D. H. Davis. *Phys R* 74:711-12 *S* 15 '48

Conductivity pulses induced in single crystals of zinc sulfide by alpha-particle bombardment. A. J. Ahearn. *Phys R* 73:524 *Mr* 1 '48

Crystal counter. W. Jentschke. *Phys R* 73: 77-8 *Ja* 1 '48

Crystal orientation in Al by slow neutron diffraction. G. Arnold and A. H. Weber. bibliog *Phys R* 73:1385-9 *Je* 1 '48

Crystal that amplifies; experiments with a double-contact germanium type. C. E. Atkins. *il diags Radio & Tv N* 40:39+ *O* '48

Crystalline stark splitting and microwave resonance absorption in paramagnetic salts. C. Kittel and J. M. Luttinger. bibliog diags *Phys R* 73:162-72 *Ja* 15 '48

Cultured crystals. *il Tech R* 50:89-90 *D* '47

Dark-field electron microscopy; studies of crystalline substances in dark-field. C. E. Hall. bibliog *il diags J Ap Phys* 19:198-12 *F* '48

Diamond crystal counters. R. Hofstadter. bibliog *Phys R* 73:631 *Mr* 15 '48

Diffraction of neutrons by crystalline powders. E. O. Wollan and C. G. Shull. bibliog diags *Phys R* 73:330-41 *Ap* 15 '48

Diffusion during homogenization of a single crystal of alpha brass. R. Maddin. *il Metals Tech* 15:1-2 *S* '48

Dipolar broadening of magnetic resonance lines in crystals. J. H. Van Vleck. diags *Phys R* 74:1168-83 *N* 1 '48

Direct electron-microscopic thickness determinations of ultramicroscopically thin crystals. J. H. L. Watson and others. *il J Chem Phys* 16:999-1000 *O* '48

Direct-reading instrument for the measurement of noise factor, and its application to the testing of microwave mixer crystals. L. A. G. Dresel and others. diags *J Sci Instr* 25:295-8 *S* '48

Effect of size and shape of titanium oxide crystals on spectrophotometric properties of titanium-bearing porcelain enamels. A. L. Friedberg and others. bibliog *il Am Cer Soc J* 31:246-53 *S* 1 '48

CRYSTALS—Continued

- Effect of trapping centers on dielectric breakdown in alkali halides. C. F. Meyer and R. C. Herman. *bibliog J Chem Phys* 16:161-6 Mr '48
- Electrical conductivity of crystalline and liquid-crystalline soap-water systems. R. D. Vold and M. J. Heldman. *bibliog diags J Phys & Colloid Chem* 52:148-66 Ja '48
- Electron microscope and electron diffraction study of slip in metal crystals. R. D. Heidenreich and W. Shockley. *il diags J Ap Phys* 18:1029-31 N '47
- Electron microscope goniometry. A. F. Kirkpatrick and E. G. Davis. *il diags Anal Chem* 20:965-8 O '48
- Emission of alpha-particles from different faces of a radioactive crystal. K. B. Mather and F. N. D. Kurie. *Phys R* 73:1474 Je 15 '48
- Emission of alpha-particles from the different faces of a radioactive crystal. J. H. J. Poole and J. W. Bremner. *Phys R* 74:836 O 1 '48
- Extension of the polarizability theory of Raman effect. F. Matossi and R. Mayer. *bibliog Phys R* 74:449-55 Ag 15 '48
- High-frequency crystal voltmeter. B. F. Tyson. *diags Electronics* 21:150-1 Mr '48
- Improved technique for setting single crystals from zero layer-line photographs. O. Weisz and W. F. Cole. *il J Sci Instr* 25:213-14 Je '48
- Index of refraction for electrons in crystalline media. L. Sturkey. *Phys R* 73:183 Ja 15 '48
- Influence of butyl alcohol on shape of snow crystals formed in the laboratory. B. Vonnegut. *Science* 107:621-2 Je 11 '48
- Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler. *J Res Nat Bur Stand* 41:125-8 Ag '48
- Infrared study of the structure of glasses prepared by melting crystals. G. S. Bachman. *Glass Ind* 29:435-7+ Ag '48
- Infra-red vibrations in NaCl. J. J. Markham. *bibliog J Chem Phys* 16:580-6 Je '48
- Inorganic crystals for the detection of high energy particles and quanta. R. J. Moon. *Phys R* 73:1210 My 15 '48
- Low frequency dispersion in ionic crystals. R. G. Breckenridge. *bibliog J Chem Phys* 16:959-67 O '48
- Man-made crystals for products, research. *il Mod Ind* 16:133-4 O '48
- Mobility of electrons in pure non-polar insulators. F. Seitz. *bibliog Phys R* 73:549-64 Mr 15 '48
- Neutron diffraction studies on NaH and NaD. C. G. Shull and others. *Phys R* 73:842-7 Ap 15 '48
- New crystals for infrared spectrometry. *Franklin Inst J* 246:249-60 S '48
- Normal vibrations of a crystal lattice. W. V. Houston. *bibliog diag Rs Mod Phys* 20:161-5 Ja '48
- Nuclear resonance absorption in hydrated crystals; fine structure of the proton line. G. E. Pake. *bibliog il diags J Chem Phys* 16:327-36 Ap '48
- Nucleation of slip bands. J. G. Leschen and others. *bibliog diags Metals Tech* 15:TP 2476 1-8 S '48
- Order-disorder transition in solids. Y. Mutō. *J Chem Phys* 16:519-25 My '48
- Photoelastic properties of cubic crystals. E. Burstein and P. L. Smith. *bibliog Phys R* 74:229-30 Ji 15 '48
- Piezoelectric effect in polycrystalline barium titanate. W. L. Cherry, Jr. and R. Adler. *Phys R* 72:981-2 N 15 '47
- Pole figures of the effect of some cold rolling mill variables on low carbon steel. J. K. Wood, Jr. *diags Am Soc for Metals Trans* 39:725-36; Discussion. 736-40 '47
- Production of ferrite single crystals. F. G. Stone. *il Metals Tech* 15:3-5 Je '48
- Pyrite geo-thermometer. F. G. Smith. *bibliog il diags Econ Geol* 42:515-23 S '47
- Rapid X-ray method for the determination of the orientation of single crystals or large-grained polycrystalline aggregates. A. E. De Barr. *bibliog diags J Sci Instr* 25:102-4 Mr '48
- Resonance scattering of slow neutrons in crystals. R. Sternheimer. *bibliog Phys R* 74:335-40 Ag 1 '48
- Scattering of neutrons in polycrystals. R. J. Finkelstein. *bibliog Phys R* 72:907-13 N 15 '47
- Scattering of ultrasonic radiation in polycrystalline metals. W. Roth. *bibliog il diag J Ap Phys* 19:901-10 O '48
- Selective deposition of carbon on the (111) face of a nickel crystal in the catalytic decomposition of carbon monoxide. H. Leidelsner, Jr. and A. T. Gwathmey. *Am Chem Soc J* 70:1206 Mr '48
- Statistical factors affecting the intensity of X-rays diffracted by crystalline powders. L. Alexander and others. *diags J Ap Phys* 19:742-53 Ar '48
- Stereogoniometer. A. Taylor. *bibliog il diags J Sci Instr* 25:391-4 S '48
- Structure of grain boundaries in metals. T. Kē. *bibliog Phys R* 73:267-3 F 1 '48
- Symposium on crystal chemistry, 1st, New Brunswick, N.J. June 4. *Glass Ind* 29:387-4 Ji '48
- Technical crystals with abnormally large stress birefringence. C. D. West and A. S. Makas. *J Chem Phys* 16:427 Ap '48
- Technique for obtaining increased range and mobility of free electrons in silver chloride. J. R. Haynes. *R Sci Instr* 19:51 Ja '48
- Temperature dependence of electron energy levels in solids. A. Radkowsky. *bibliog Phys R* 73:749-61 Ap 1 '48
- Theory of ferromagnetic resonance absorption. C. Kittel. *Phys R* 73:155-61 Ja 15 '48
- Transient plastic deformation. R. P. Carreker and others. *diag Metals Tech* 15:TP2477 1-8 S '48
- Unpredicted cross-slip in single crystals of alpha brass. R. Maddin and others. *bibliog il diag Metals Tech* 15:TP2331 1-14 F '48; Discussion. 15:TP2449 15-21 Ag '48
- Vibrational spectra of molecules and complex ions in crystals; general theory. D. F. Hornig. *bibliog J Chem. Phys* 16:1063-76 N '48
- Vibrational spectrum and specific heat of a face-centered cubic crystal. R. B. Leighton. *Rs Mod Phys* 20:165-74 Ja '48
- X-ray study of the effect of high hydrostatic pressures on the perfection of crystals. L. Rosen. *bibliog il Am Soc for Metals Trans* 39:713-22; Discussion. 722-4 '47

See also

Pleochroism
Solutions, Solid

CRYSTALS, Liquid. See Liquid crystals

CRYSTALS, Piezoelectric

- Anomalous effects in hysteresis loops of a single crystal of BaTiO₃. A. de Bretteville, Jr. *il Phys R* 73:807-8 Ap 1 '48
- Artificial crystals mass-produced for telephone circuits. *Elec Eng* 66:1157-8 N '47
- Barium titanate and barium strontium titanate resonators. H. L. Donley. *bibliog RCA R* 9:218-28 Je '48
- Compressional piezoelectric coefficients of monoclinic crystals. H. Jaffe. *Phys R* 73:1467 Je 15 '48
- Crystal calibrator for hf and vhf. J. F. Gordon. *il diags Tele-Tech* 7:50-14 S '48
- Crystallographic data: ethylenediamine d-tartrate and dipotassium tartrate hemihydrate. *bibliog il diags Anal Chem* 20:491-2 My '48
- Crystals; quartz, synthetic piezoelectric. *diag Electronics* 21:M14-15 Mid-Je '48
- Determination of the elastic constants for beta-quartz. E. W. Kammer and others. *bibliog J Ap Phys* 19:265-70 Mr '48
- Dielectric behavior of single domain crystals of BaTiO₃. G. C. Danielson and others. *Phys R* 74:986-7 O 15 '48
- Domain structure and dielectric response of barium titanate single crystals. B. Matthias and A. von Hippel. *bibliog il diags Phys R* 73:1378-84 Je 1 '48
- Effect of the piezoelectric properties of a crystal on diffuse X-ray reflections. D. C. Miller. *bibliog il diags Phys R* 74:166-9 Ji 15 '48
- Electro- and magneto-optical shutters for aerial cameras. R. C. Gunter, Jr. *Opt Soc Am J* 38:419-20 Ap '48
- Electrostrictive effect in barium titanate. W. P. Mason. *Phys R* 72:869-70 N 1 '47
- Growth of barium titanate crystals. B. Matthias. *bibliog Phys R* 73:808-9 Ap 1 '48

CRYSTALS, Piezoelectric—Continued

- High-frequency plated quartz crystal units. R. A. Sykes, *Inst Radio Eng Proc* 36:4-7 Ja '48
- Light modulation by P-type crystals. G. D. Gotschall, *diags Soc Motion Picture Eng J* 51:13-20 J '48
- Phase change in barium titanate crystals induced by infra-red radiation absorption. N. J. Field and others, *bibliog Phys R* 72: 1119-20 D 1 '47
- Piezoelectric crystalline quartz still needed. H. H. Woesche, *il Min & Met* 29:22-3 Ja '48; Same, *Econ Geol* 43:66-8 Ja '48; Same, without *il*, *Am J Sci* 246:182-5 Mr '48
- Piezoelectric crystals of ethylene diamine tartrate, *Chem Eng* 55:182 Ja '48
- Piezoelectric effect in polycrystalline barium titanate. W. L. Cherry, jr. and R. Adler, *Phys R* 72:981-2 N 15 '47
- Piezoelectric or electrostrictive effect in barium titanate ceramics. W. P. Mason, *Phys R* 73:1398-9 Je 1 '48
- Precision measurement of electrical characteristics of quartz-crystal units. W. D. George and others, *bibliog diags Inst Radio Eng Proc* 36:1122-31 S '48
- Properties of electromechanical ceramics. H. Jaffe, *Electronics* 21:128+ J '48
- Quartz filter crystals with low inductance. J. J. Vormer, *diag Inst Radio Eng Proc* 36:802-4 Je '48
- Single shear plate crystal phonograph pick-up. A. M. Wiggins and F. S. Lewis, *il diags Acoustical Soc Am J* 20:448-50 J '48
- Single-sideband crystal filters. P. K. Taylor, *il diags Electronics* 21:116-20 O '48
- Synthetic piezo crystals move into industry. L. Kramer, *bibliog il diags Chem Ind* 63: 40-2 J '48
- Synthetic quartz crystals grown. *Chem & Eng N* 26:2453 Ag 16 '48
- Telephone industry uses artificial crystals. *il Eng & Min J* 149:87 Ap '48
- Theoretical analysis of the mercury delay line. H. J. McSkimin, *diags Acoustical Soc Am J* 20:418-24 J '48
- Theory of the dielectric behavior of BaTiO₃. J. M. Richardson and B. T. Matthias, *Phys R* 74:987-8 O 15 '48
- Theory of the ferroelectric effect and clamped dielectric constant of Rochelle salt. W. P. Mason, *bibliog Phys R* 72:854-65, 976 N 1-15 '47
- Thickness-shear vibrations of thin anisotropic plates. G. Hok, *Acoustical Soc Am J* 20: 406-17 J '48
- Ultrasonic delay lines. H. B. Huntington and others, *il diags Franklin Inst J* 245:1-23, 101-15 Ja-F '48
- Ultrasonic reflections by domains in rochelle-salt single crystals. W. J. Price, *Phys R* 73: 1132-3 My 1 '48
- Ultrasonic solid delay lines. D. L. Arenberg, *bibliog* (30 titles) *diags Acoustical Soc Am J* 20:1-26 Ja '48
- Variable frequency standard signal generator designed for measuring piezoelectric crystal characteristics. R. G. Stokes, *il diags Tele-Tech* 7:44-7 S '48
- Visual examination of crystal modes, *Electronics* 21:148+ S '48
- See also
Oscillators, Crystal
Radio frequency—
Crystal control

Bibliography

Radio progress during 1947; piezoelectric crystals. *Inst Radio Eng Proc* 36:540 Ap '48

CUBA

- See also
Geology—Cuba
Petroleum industry
and trade—Cuba
- Safety movement—
Cuba

Commercial policy

U.S. protests new Cuban labor decree shackling American firms; relates to agents of foreign firms. *Oil Paint & Drug Rep* 153:5 Ja 12 '48; Excerpt. *For Comm W* 30:15-16 Ja 17 '48

CUBIC equations, See Equations, Cubic**CUCUMBERS**

Pickle processing standardized by use of germicidal detergent. H. I. Bernstein and S. Epstein, *bibliog diags Food Ind* 20:350-14 Mr '48

CULLEN, William, 1867-1948

Sketch. L. A. Jordan, *por Chem & Ind* p573-4 S 4 '48

CULTURE

What is this culture? A. M. Buchan, *J Eng Educ* 38:350-7 Ja '48

CULTURE mediums

Effect of hydrogen-ion concentration on the yeastlike phase of histoplasma capsulatum (Darling). F. W. Cross, *bibliog Pub Health Rep* 63:739-46 Je 4 '48

See also

Bacteriology—Cul- Tissues—Culture me-
ture mediums diums

CULVERTS

Shaker Heights adds to property values; conversion of open ditch to residential boulevard. F. A. Pease, *il Water & Sewage Works* 95:119-20 Mr '48

CUMENE

Relative rates of propylation of monoalkylbenzenes. F. E. Condon, *bibliog Am Chem Soc J* 70:2265-7 Je '48

CUMENE hydroperoxide

Cumene hydroperoxide in redox emulsion polymerization. E. J. Vandenberg and G. E. Hulse, *bibliog Ind & Eng Chem* 40:932-7 My '48

New catalyst makes possible cheaper, better rubber. *Sci Am* 178:128-9 Mr '48

CUNARD steam ship company

Cunard White Star liners resume Atlantic services. *For Comm W* 32:35 Ag 14 '48

CUNEIFORM inscriptions, Sumerian

If a slave girl fled; law code of Lipit-Ishtar, antedates code of Hammurabi. F. R. Steele, *il Sci Am* 178:44-7 Je '48

CUNICO. See Copper alloys**CUPFERRON**

Polarographic behavior of nitrosophenylhydroxylamine. I. M. Kolthoff and A. Liberti, *bibliog Am Chem Soc J* 70:1885-9 My '48

CUPOLA furnaces

Cupola hot metal for the openhearth. E. S. Kopecki, *il diags Iron Age* 162:76-81 O 21 '48

Current melting problems in the gray iron foundry. D. J. Reese, *il Foundry* 76:78-9+ Mr '48

Designs small cupola for fast melting. V. V. Rogers, *diag Foundry* 76:216-18+ Ja '48

Gray iron shop course devoted to cupola operation; A.F.A. annual meeting. *Foundry* 76:130+ J '48

Induction-heated cupola, *diags Iron Age* 161: 76-8 F 5 '48

Mechanization speeds malleable output; Auto specialties mfg. co. H. L. Day, *il plan Iron Age* 161:64-9 F 5 '48

Outlook for cupola raw materials. B. S. Stephenson and others, *il Foundry* 76:78-83+ D '47

Utilizing cupola metal in open hearth charge. A. W. Gregg, *il plans Steel* 123:116+ J '10 '48

Water-cooled cupola features duplexing plant; Central iron and steel co. E. S. Kopecki, *il diags Iron Age* 162:81-5 Ag 19 '48

Air supply

Oxygen and cupola operation. A. W. Gregg, *il Foundry* 76:86-90 Je '48

Oxygen enriched cupola blasts; abstract. W. C. Wick, *Iron Age* 161:82-3 My 20 '48

Oxygen enrichment of the cupola blast. A. K. Higgins, *bibliog il diags Iron Age* 161: 72-7 Ap 22 '48

Charging

Cupola charge calculations. R. W. Heine, *Foundry* 76:88-9+ F '48

Fuel

Some factors influencing the performance of cupola fuels. C. C. Wright, *diag Iron Age* 162:72-7 Ag 12 '48

Substitute fuel for cupola use; use of anthracite. W. J. Reagan and C. C. Wright, *il diag Foundry* 76:74-5+ Ag '48

Use of anthracite as a cupola fuel. C. C. Wright, *diag Pennsylvania State College Mineral Industries Exp Sta Tech Pa* 119: 123-54 '47 (pa 50c)

CUPOLA furnaces—Continued

Lining

Joint meeting on desulphurization and dephosphorization of cupola, iron and pig iron; Institute of British foundrymen, iron and steel institute and British iron and steel research assn. Iron & Steel Inst J 158:201-5 E '48; Same cond. Engineer 183:259-61 Mr 28 '47

CUPRETHOL

Colorimetric determination of copper with carbon disulfide and diethanolamine; improved dithiocarbamate reagent. W. C. Woelfel. *bibliog* Anal Chem 20:722-4 Ag '48

CUPRIC arsenite. See Copper arsenite

CUPS

Overcasting handles on jiggered cups. R. Gould. *il Cer Ind* 49:89-90 O '47

CURAÇAO, Netherlands West Indies

See also
Geology—Curaçao,
N.W.I.

CURAÇAO, Venezuela

Commerce

Import and exchange controls tightened. For Comm W 29:15-16 N 15 '47

CURARE

Curare alkaloids; constitution of *dextro*-tubocurarine chloride. H. King. *Chem Soc J* p265-6 Mr '48

Curare alkaloids; constitution of *dextro*-tubocurarine chloride and its botanical origin; abstract and discussion. H. King. *Chem & Ind* p349 My 29 '48

Curare-like action of thiamine. J. A. Smith and others. *il Science* 108:412 O 15 '48

Curariform activity and chemical structure. L. E. Craig. *Chem R* 42:285-410 *bibliog* (226 ref. p405-10) Ap '48

Curariform activity and chemical structure; synthesis in the benzytetrahydroisoquinoline series. L. E. Craig and D. S. Tarbell. *bibliog* Am Chem Soc J 70:2783-5 Ag '48

CURIE point

Curie temperature alloys. J. Shaw. *bibliog* *il diags* Product Eng 19:158-63 Je '48

CURME, George Oliver, 1888-

American contemporary. A. D. McFadyen. *Chem & Eng N* 26:742 Mr 15 '48

CURRENCY. See Money

CURRIER and Ives prints

Travelers' Currier and Ives pictures have been on road show since 1945. *il East Underw* 49:35 S 24 '48

CURTAIN factories

Planned factory environment, answer to efficient production; Louis Hand curtain factory. W. H. Kayler and J. L. Steffenhagen. *il plan* diag Mill & Factory 42:128-30 Ap '48

CURTICE, Harlow Herbert, 1893-

GM's new executive vice president. D. G. Baird. *por Am Bsns* 18:8-9+ O '48

Newest executive vice-president of General Motors. *por(cover)* Bsns W p6 S 25 '48

Portrait. *Fortune* 38:7 O '48

CURTIS, Francis Joseph, 1894-

Sketch. *Chem & Ind* p655 O 25 '47

CURTIS, Harry Alfred, 1884-

Director of TVA. *por(cover)* Chem & Eng N 26:2122 JI 19 '48

Man of the month. *por Chem Eng* 55:235 Je '48

CURTIS publishing company

Earnings show gain. *Barron's* 28:38 Je 28 '48

CURTISS-WRIGHT corporation

Annual report. *Aviation W* 48:24 Ap 12 '48

Court battle may settle C-W control fight. *Aviation W* 48:13 My 3 '48

Curtiss-Wright business analyzed. S. Altschul. *Aviation W* 49:32 Ag 2 '48

C-W control; management victor in first court test. *Aviation W* 48:16 My 17 '48

C-W proxy fight. *Aviation W* 48:18 Ap 26 '48

Further capital cut still possible. S. Altschul. *Barron's* 28:40 O 4 '48

CURTISS reaction

Mechanism of the Schmidt reactions and observations on the Curtius rearrangement. M. S. Newman and H. L. Gildenhorn. *bibliog* Am Chem Soc J 70:317-19 Ja '48

Synthesis of β -carboline; 3-aminoharman and some of its derivatives. H. R. Snyder, S. M. Parmerter and H. G. Walker. *Am Chem Soc J* 70:237-9 Ja '48

CURVE fitting

Short-cut method of fitting a logistic curve. W. A. Spurr and D. R. Arnold. *Am Stat Assn J* 43:127-34 Mr '48

CURVE plotting

Analyzing graphical records of the motion of machine part as function of time. C. E. Balleisen. *diags Machine Design* 20:145-9 Je '48

Cooling time in Jominy bars to half-temperature. C. A. Liedholm. *Metal Prog* 51:266 F '47; Discussion. M. G. Corson. 52:828-9 N '47

Distribution curves. W. D. Harbert. *bibliog* diag Pet Refiner 27:94-100 O '48 (to be cont)

Fault currents estimated from curves. J. N. Banky. *diags Elec World* 129:108-9 Mr 13 '48

Proportional plotter. W. M. Bielak. *diag J Sci Instr* 25:205 Je '48

Simplified analysis; graphical methods provide practical solution to certain design problems. F. W. Cousins. *il Machine Design* 19:121-5 D '47

CURVES

Formulas for involute curve layouts. A. H. Candee. *diags Product Eng* 19:145 Ag '48

Photoelastic investigation of stress-relieving fillet curves. E. Chapman. *il Product Eng* 19:138-41 My '48

CUSTOMER relations

ABEs that build good-will for retailers and routemans; Coal-Heats's delivery guide. *Sales Management* 59:54-5 N 20 '47

Collection letters have two jobs to do. W. H. Butterfield. *Ptr Ink* 224:53-4+ S 10 '48

Customer is always right; Ford Motor's new booklet for its dealer service managers. *Sales Management* 60:152 F 15 '48

Customer relations vs. public relations; customers should come first. *Am Bsns* 18:12-13+ My '48

Customer squawks cue Braniff on improved sales appeals. C. E. Beard. *Sales Management* 59:96+ N 20 '47

Don't forget to say thank you; Personal finance company of America. R. K. Steinman. *Sales Management* 60:132+ Ja 15 '48

Must for 1948; better customer relations. E. Whitmore. *Am Bsns* 18:12-13+ Ja '48

Neighborhood gab-fests for farmers find new buyers for Humble Oil. F. A. Watts. *il Sales Management* 60:124+ F 15 '48

Simple courtesy is good business; careful handling of consumers' inquiries. *Ptr Ink* 224:55-8 JI 23 '48

Stimulate your sales by bringing back lost customers. H. Simmons. *Ptr Ink* 223:31 Je 25 '48

What does the consumer want? J. LaBarthe, Jr. *Textile Col* 70:27+ O '48

See also

Christmas letters
Gifts (in business)

CUSTOMERS as stockholders

Customer ownership of public utility securities. E. R. Abrams. *Pub Util* 42:147-52 JI 29 '48

CUSTOMS unions

France; customs union established with the Saar. *For Comm W* 31:11 Ap 24 '48

Grancolombiana nations sign Quito charter; Economic and customs union agreement. *For Comm W* 33:23 O 2 '48

See also

Benelux union

CUTLERY

Cutlery and craftsmanship; report of Working party. *Economist* 153:1017-18 D 20 '47

Plastics merchandise cutlery; variety of color and design; Englishtown Cutlery, New York. *il Mod Plastics* 25:124-5 D '47

Situation in cutlery industry, United Kingdom. *For Comm W* 31:33 Je 19 '48

CUTTING

See also

Ceramic materials—
Cutting
Electric cutting
Gear cutting
Metal cutting
Milling

Oxyacetylene cutting
Pipe cutting
Plastic materials—
Cutting
Steel cutting
Thread cutting

CUTTING, Oxyacetylene. See Oxyacetylene cutting

CUTTING machines

Billet conditioning with mechanical chippers; semi-finished steel, J. H. Vollmer, *Il Iron & Steel Eng* 25:91-5 Je '48

Mechanical mica splitter developed at Bureau of standards, *Il Product Eng* 19:163 Mr '48

Mechanical splitter for producing thin films of mica, *Il Machine Design* 19:113-14 D '47

See also

Cutting tools Paper cutting machines
Gear cutting machines Reamers
Metal cutting Rubber cutting
Milling cutters Saws
Oxyacetylene cutting Screw machines

CUTTING of metals. See Metal cutting

CUTTING off machines

Resistance welder makes cutoff machine, L. Tingley, *Il Am Mach* 92:120-1 Ag 12 '48

Spindle stop turns engine lathe into production cutoff machine, A. B. Nixon, *diags Am Mach* 92:122 F 26 '48

35th annual review, *Il Am Mach* 92:204-6 Ja 29 '48

CUTTING tools

Cutting tools for engine lathes, A. E. Rylander, *diags Tool Eng* 21:39-40 S '48

Fly cutter of wide range, R. Mawson, *diags Mach* 54:189 D '47

Fly-cutters are set progressively to distribute cutting load evenly, G. C. Allen, *diags Am Mach* 92:117 F 26 '48

Fundamentals of tool engineering; introduction to cutting tools, A. E. Rylander, *diags Tool Eng* 21:59-60 Ag '48

Modern uses of hard metals, H. Burden, *Il Metallurgia* 38:27-33 My '48; Abstract, *Product Eng* 19:137-8 N '48

Practical heat treatment of high speed steel cutting tools, W. E. Bancroft and W. W. Wight, *Il Metal Prog* 53:545-55 Ap '48

Tool and die materials; their selection, application and necessary treatment; sources, trade names and chemical analyses, Steel 123:98-100+ Ag 16; 82-4+ Ag 23; 64-6+ Ag 30; 96-100+ S 6; 106-10+ S 13; 92-4+ S 27; 84-6+ O 4 '48

Tool construction and maintenance by welding, E. H. Girardot, *Il diags Steel* 123:80-2+ JI 5 '48

See also

Forming tools
Milling cutters

Testing

Cast alloys vary in cutting efficiency; investigation on tool breakdown, life, speed and feed change, interrupted cuts and tool grinding, J. B. Dym and T. Badger, *diag Am Mach* 91:109-11 N 20 '47

CUTTING tools, Carbide

Accuracy in diverse operations; improved by precision boring with rigid solid carbide bars, *Il Steel* 122:100 F 9 '48

Black light shows flaws in carbides, F. Catlin, *Il Mill & Factory* 43:134-5 O '48

Carbide drills; reference book sheet, F. W. Lucht, *diags Am Mach* 92:133, 135, 137 Je 3 '48

Carbide inserts for single point tools, T. E. Lloyd, *Il diag Iron Age* 161:82-3 Ap 15 '48

Carbide-tipped all-depth drills have wide range of applications, F. W. Lucht, *diags Automotive Ind* 98:44-5+ Je 1 '48; *Mach* 54:156-60 Je '48; *Iron Age* 161:88-90 Je 17 '48

Carbide tool routs fiberglass; cutting glass reinforced laminated plastic, *Il Am Mach* 92:83 F 26 '48

Carbides speed copper machining, C. R. Morgan, *Il Am Mach* 92:102-3 O 21 '48

Die material changeover; manufacture of rod bearings for automotive socket tie rod assemblies, *Il Steel* 122:98 Ja 12 '48

Economy factors in carbide milling, A. O. Schmidt, *Il diag Iron Age* 161:72-7 My 27 '48

High-speed planing with carbide tools, W. P. Coomey, *Il diags Mach* 54:141-6 Ag '48

How carbide tools are handled in Finland, H. Branders, *Il plan diags Am Mach* 92:96-8 Ag 12 '48

How to gun-drill for fine finish, J. Harris, *Il diags Am Mach* 92:136-9 Mr 11 '48

How to polish industrial salesmanship to a shine; Carbocoy co., J. M. Bertotti, *Il Sales Management* 60:69+ Ja 1 '48

How Westinghouse standardized single-point carbide tools, J. C. Gumpner and T. Badger, *Il diags Mach* 54:162-7 Mr '48

Machine cutting with tungsten carbide bits; abstract, H. H. Fletcher, *Min Cong J* 34:57 Je '48

Machining plastics with carbide tipped tools, *diags Mill & Factory* 42:130-1 Je '48

Manufacture and application of sintered carbides; application in industry, H. Eckersley, *Il Engineer* 184:420-2 O 31 '47

Modern cutting tools and machine tool design, C. Eatough, *Il Engineering* 165:189-82 F 20 '48; Same cond. *Engineer* 185:153, 75-7 Ja 9-16 '48; Discussion, 185:52 Ja 9 '48

Planing cast iron with carbide tools, G. J. Raible, *Il diags Mach* 55:171-3 S '48

Recommended shank size for single-point carbide-tipped tools; data sheet, *Mach* 54:251 Je '48

Recommended thickness of carbide tips for single-point tools; chart; data sheet, *Mach* 54:235 My '48

Reconditioning cutting tools for maximum efficiency, H. A. Frommelt, *Il Steel* 121:102-5+ N 10 '47

Roll turning with carbide tools, F. R. Dinger, *Il Iron & Steel Eng* 25:66-9 S '48

Sharpening carbide reamers; reference book sheet, *Il Am Mach* 92:123, 125, 127 Ag 26 '48

Sharpening carbide tools, C. H. Wick, *Il Mach* 54:145-61 JI; 55:180-4 S; 162-7 O '48

Manufacture

Optical grinding; the latest development in tool making, C. H. Wick, *Il diags Mach* 54:154-60 Ap '48

CYANAMIDE

Cyanamides and melamine; new patented processes from France, *Chem Age (Lond)* 58:311 Je 12 '48

La préparation industrielle de cyanamide libre CN_2H_4 , A. J. Courtier, *Chimie & Ind* 58:545-7 D '47

CYANIDE process

Developments of carbon cyanidation at Getchell mine, Nevada, R. A. Hardy and F. W. McQuiston, Jr., *Il diag Min Cong J* 33:42-3 N '47

CYANIDES

Aliphatic nitro-compounds; preparation and reduction of 2-nitroalkyl cyanides, G. D. Buckley, R. L. Heath and J. D. Rose, *Chem Soc J p* 1500-3 N '47

Aliphatic nitro-compounds; preparation of heterocyclic bases by reduction of 3-nitroalkyl cyanides, G. D. Buckley and T. J. Elliott, *Chem Soc J p* 1508-11 N '47

Aliphatic nitro-compounds; preparation of 3-nitroalkyl cyanides by reaction of nitro-parafrins with unsaturated cyanides, G. D. Buckley and others, *Chem Soc J p* 1505-8 N '47

Aliphatic nitro-compounds; preparation of 3-nitro-1-arylalkyl cyanides by interaction of arylmethyl cyanides and α -nitro-olefins, G. D. Buckley, F. G. Hunt and A. Lowe, *Chem Soc J p* 1504-5 N '47

Amidines; preparation of amidines from cyanides, aluminum chloride, and ammonia or amines, P. Oxley, M. W. Partridge and W. F. Short, *Chem Soc J p* 1110-16 S '47

Amidines; preparation of amidines from cyanides, ammonia or an amine, and an ammonium or substituted-ammonium salt, P. Oxley, M. W. Partridge and W. F. Short, *Chem Soc J p* 803-9 Mr '48

Cyanide content of plating baths, J. B. Mohler and H. J. Sedusky, *Metal Finishing* 46:61-2+ Ja '48

Physical properties and chemical constitution; acetylenic compounds and cyanides, G. H. Jeffery and A. I. Vogel, *Chem Soc J p* 674-83 My '48

Preparation of nitriles, D. T. Mowry, *Chem R* 42:189-283 bibliog(647 ref, p270-83) Ap '48

Rapid method of preparing $NaC^{14}N$ from $BaC^{14}O_3$, A. W. Adamson, *Am Chem Soc J* 69:2564 O '47

Structure of the heavy metal cyanides, C. F. Callis, *bibliog diags J Chem Educ* 25:150-6 Mr '48

CYANIDES—*Continued*

Synthesis of α -aminoalkyl cyanides. A. A. Goldberg and W. Kelly. *Chem Soc J* p 1369-71 O '47

CYANINES

Bridge substituted hemicyanines. N. Picus and P. E. Spoerri. *biblog Am Chem Soc J* 70:3073-5 S '48

Some trinuclear cyanine dyes; synthesis of neocyanines. F. M. Hamer, R. J. Rathbone and B. S. Winton. *Chem Soc J* p 1434-43 N '47

See also
Carbocyanine
Neocyanine

CYANOACETAL

Preparation, alcoholysis and reduction of cyanoacetaldehyde diethylacetal; malonaldehyde tetraethylacetal. S. M. McElvain and R. L. Clarke. *biblog Am Chem Soc J* 69:2657-60 N '47

CYANOACETALDEHYDE

Preparation, alcoholysis and reduction of cyanoacetaldehyde diethylacetal; malonaldehyde tetraethylacetal. S. M. McElvain and R. L. Clarke. *biblog Am Chem Soc J* 69:2657-60 N '47

CYANOACETIC acid

Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylamino-methylpyrrole; proposed synthesis of β -2-pyrrolicanine. W. Herz, K. Dittmer and S. J. Cristol. *biblog Am Chem Soc J* 70:504-7 F '48

CYANOBENZENESULFINIC acid

Preparation of some *p*-alkylsulphonylbenzylammonium chlorides. J. Cymerman, A. Koebner and W. F. Short. *Chem Soc J* p 381-3 Mr '48

CYANOBUTADIENE

Reactions of α -cyanoprene (1-cyanobuta-1:3-diene); addition of nitro-paraffins. J. L. Charlish, W. H. Davies and J. D. Rose. *Chem Soc J* p 227-32 F '48

Reactions of α -cyanoprene (1-cyanobuta-1:3-diene); addition of reactive methylene compounds. J. L. Charlish, W. H. Davies and J. D. Rose. *Chem Soc J* p 232-4 F '48

CYANOETHYLATION

Chemistry of acrylonitrile; cyanoethylation of ketones and sulfones. H. A. Bruson and T. W. Riene. *biblog Am Chem Soc J* 70:214-17 Ja '48

CYANOETHYLNAPHTHOL

Preparation and some reactions of α -(ω -cyanoethyl)- β -naphthol. A. F. Hardman. *Am Chem Soc J* 70:2119-20 Je '48

CYANOGEN

Heats of dissociation of cyanogen. G. Glockler. *biblog J Chem Phys* 16:600-1 Je '48

CYANOGEN bromide

Interatomic distances and nuclear quadrupole couplings in ClCN, BrCN, and ICN. A. G. Smith and others. *biblog Phys R* 74:370-2 Ag '48

Microwave spectra of some linear XYZ molecules. C. H. Townes and others. *biblog diags Phys R* 74:1113-33 N 1 '48

Second-order corrections to quadrupole effects in molecules. J. Bardeen and C. H. Townes. *Phys R* 73:627-9 Mr 15 '48; Correction. 73:1204 My 15 '48

CYANOGEN chloride

Diffusion coefficients and molecular radii of hydrogen cyanide, cyanogen chloride, phosphene and chloropicrin. I. M. Klotz and D. K. Miller. *biblog Am Chem Soc J* 69:2557-8 O '47

Interatomic distances and nuclear quadrupole couplings in ClCN, BrCN, and ICN. A. G. Smith and others. *biblog Phys R* 74:370-2 Ag '48

Microwave spectra of some linear XYZ molecules. C. H. Townes and others. *biblog diags Phys R* 74:1113-33 N 1 '48

CYANOGEN compounds

Some exchange experiments involving hexacyanoferrate(II) and hexacyanoferrate(III) ions. R. C. Thompson. *biblog Am Chem Soc J* 70:1045-6 Mr '48

CYANOGEN iodide

Anomalies in the hyperfine structure of CH₃I and ICN. O. R. Gilliam and others. *Phys R* 73:635-6 Mr 15 '48

Interatomic distances and nuclear quadrupole couplings in ClCN, BrCN, and ICN. A. G. Smith and others. *biblog Phys R* 74:370-2 Ag '48

Microwave spectra of some linear XYZ molecules. C. H. Townes and others. *biblog diags Phys R* 74:1113-33 N 1 '48

Nuclear quadrupole coupling of nitrogen in ICN and N₂O. A. G. Smith and others. *biblog J Phys R* 73:633 Mr 15 '48

Second-order corrections to quadrupole effects in molecules. J. Bardeen and C. H. Townes. *Phys R* 73:627-9 Mr 15 '48; Correction. 73:1204 My 15 '48

CYANOQUANIDINE

Direct dyes; improving fastness by dicyandiamide condensates; British patent. *Am Dye-stuff Rep* 37:136 F 23 '48

Jobs for Dicy. *Chem Ind* 63:216 Ag '48

CYANOHYDRINS

Acetone-cyanohydrin available in quantity. *Chem & Eng N* 25:3746 D 15 '47

Allylic rearrangement in the pyrolysis of 3-acetoxy-3-cyano-1-butene. C. S. Marvel and N. O. Brace. *biblog Am Chem Soc J* 70:1775-6 My '48

CYANOMACLURIN

Experiments on the synthesis of cyanomaculurine. E. L. Fonseka. *Chem Soc J* p 1683-4 D '47

CYANOPHENOL

Steric inhibition of resonance; acid strengths of some nitro- and cyanophenols. G. W. Wheland, R. M. Brownell and E. C. Mayo. *biblog Am Chem Soc J* 70:2492-5 Ji '48

CYANOPHENYLTHIOACETIC acid

Some 1:3-oxazine derivatives of thionaphthen. E. W. McClelland and D. W. Stammers. *Chem Soc J* p 78-81 Ja '48

CYANOPRENE. See *Cyanobutadiene***CYANOSTYRENE**. See *Vinyl benzonitrile***CYANURIC acid**

Preparation of cyanuric acid and trichloriminocyanuric acid on a pilot plant scale. C. H. G. Hands and F. R. Whitt. *biblog diags Soc Chem Ind J* 67:66-9 F '48

CYCLEWELD cements. See *Cements***CYCLIC compounds**

Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Campen, Jr. and R. S. Shelton. *biblog Am Chem Soc J* 69:2902-6 N '47

Chemistry of the monocyclic α - and γ -pyrones. L. F. Cavalieri. *Chem R* 41:525-84 *biblog* (264 ref, p578-84) D '47

Cleavage of tetrahydropyran by acid chlorides in the presence of zinc chloride; the preparation of 5-diethylaminopentanol-1. M. E. Synerholm. *biblog Am Chem Soc J* 69:3581-2 N '47

Cyclic acetylenic compounds. T. J. Sworski. *J Chem Phys* 16:550 My '48

Cyclic dimethylpolymethylenedioxysilanes. R. H. Kriebel and C. A. Burkhard. *biblog Am Chem Soc J* 69:2689-92 N '47

Cyclization of δ -hydroxyacetals. W. E. Parham. *biblog Am Chem Soc J* 69:2449-51 O '47

French project for nomenclature. R. S. Cahn. *Chem & Ind* p 166 Mr 13 '48

Infra-red spectrum and depolarization factors of the Raman lines of spirooctane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. *biblog J Chem Phys* 15:742-58 O '47

Kinetics of the acid-catalyzed cyclization of citral and citronella. C. C. Price and M. L. Dickman. *biblog Ind & Eng Chem* 40:257-61 F '48

Many-membered carbon rings. A. T. Blomquist, R. D. Spencer and R. W. Holley. *biblog Am Chem Soc J* 70:30-9 Ja '48

Preparation and cyclization of certain insecticidally active α -acetyl- β -keto esters. H. Wachs and O. F. Hedenburg. *Am Chem Soc J* 70:2695-7 Ag '48

Preparation and polymerization of monomeric cyclic disulfides. F. O. Davis and E. M. Fettes. *biblog Am Chem Soc J* 70:2611-12 Ji '48

Pyrazinoindeole-1,4-diones; ring closure of 2-indolecarbonyl derivatives of α -aminoesters. J. R. Johnson, J. H. Andreen and A. D. Holley. *biblog Am Chem Soc J* 69:2370-2 O '47

CYCLIC compounds—Continued

Reaction kinetics of aliphatic tertiary β -chloroethylamines in dilute aqueous solution; the cyclization process. B. Cohen, E. R. Van Artsdalen and J. Harris. bibliog Am Chem Soc J 70:231-5 Ja '48

Reactions of $\alpha\beta$ -unsaturated cyclic aldehydes and ketones; (+)-*cis*- and (-)-*trans*-cryptol from (-)-cryptone. D. T. C. Gillespie, A. K. Macbeth and J. A. Mills. Chem Soc J p996-9 JI '48

Synthesis of ring systems related to morphine; 9,10-dioxo-13-cyanomethyl-5,8,9,10,13,14-hexahydrophenanthrene. M. Gates and W. F. Newhall. Am Chem Soc J 70:2261-3 Je '48

CYCLITOLS

Catalytic hydrogenation of polyhydric phenols; the synthesis of *meso*-inositol, scylitol and a new isomeric cyclitol. R. C. Anderson and E. S. Wallis. bibliog Am Chem Soc J 70:2931-5 S '48

CYCLOBUTANE

Cyclobutane derivatives; Ziegler bromination of methylenecyclobutane. E. R. Buchman and D. R. Howton. bibliog Am Chem Soc J 70:2517-20 JI '48

Raman effect of dichlorohexafluorocyclobutane. W. F. Edgell and F. E. Kite. bibliog J Chem Phys 15:882 D '47

CYCLODEHYDROGENATION. See Dehydrogenation

CYCLOGRAPH

Nondestructive inspection of mine hoist cable. P. E. Cavanagh and R. S. Segsworth. bibliog J Iclan Agm Soc for Metals Trans 38: 517-45; Discussion. 545-50 '47

CYCLOHEPTADECANE

Many-membered carbon rings; carboxylic acid derivatives of cycloheptadecane. A. T. Blomquist and R. W. Holley. bibliog Am Chem Soc J 70:36-9 Ja '48

CYCLOHEXADIENE

Electronic transitions in the simple unsaturated hydrocarbons. E. P. Carr. bibliog Chem R 41:293-9 O '47

CYCLOHEXANE

Distribution in hydrocarbon-solvent systems. T. F. Brown. bibliog Ind & Eng Chem 40: 103-6 Ja '48

Formation of quinone by the action of bromine oxide on benzene. M. S. Kharasch, P. B. Polen and W. H. Urry. Am Chem Soc J 69:2566 O '47

Heats, equilibrium constants, and free energies of formation of the alkylcyclopentanes and alkylcyclohexanes. J. E. Kilpatrick and others. bibliog J Res Nat Bur Stand 39: 523-43 D '47

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; equilibrium and side reactions. D. P. Stevenson and J. H. Morgan. bibliog Am Chem Soc J 70:2773-7 Ag '48

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; the nature of the catalyst. D. P. Stevenson and O. Beeck. bibliog Am Chem Soc J 70:2890-4 S '48

Isomerization of saturated hydrocarbons; the effect of cyclohexene upon the isomerization of methylcyclopentane and cyclohexane. H. Pines, B. M. Abraham and V. N. Ipatieff. diags Am Chem Soc J 70:1742-6 My '48

Measurements on the absorption of microwaves; losses of camphor dissolved in cyclohexane. D. H. Whiffen. bibliog diags Am Chem Soc J 70:2452-5 JI '48

Slow neutron cross section of H. W. B. Jones, Jr. bibliog diags Phys R 74:364-9 Ag 15 '48

Solubility of aluminum bromide in cyclohexane. P. A. Leighton and J. B. Wilkes. Am Chem Soc J 70:2600-1 JI '48

Thermodynamic properties and molecular structure of cyclohexane, methylcyclohexane, ethylcyclohexane and the seven dimethylcyclohexanes. C. W. Beckett, K. S. Pitzer and R. Spitzer. bibliog J Am Chem Soc J 69:2488-95 O '47

CYCLOHEXANECARBONITRILE

Preparation of stable ketimines from 2,2,6-trimethylcyclohexanecarbonitrile. H. L. Lichte and others. Am Chem Soc J 70:2012-15 J= '48

CYCLOHEXANEDIONE

Reaction of β -cyclohexanedione (dihydroresorcinol) and its ethyl enol ether with phenylmagnesium bromide. G. F. Woods and I. W. Tucker. bibliog Am Chem Soc J 70:2174-7 Je '48

CYCLOHEXANEDIONE dioxime

1,2-Cyclohexanedione dioxime; a reagent for nickel. R. C. Voter, C. V. Banks and H. Diehl. bibliog Anal Chem 20:458-60 My '48

1,2-Cyclohexanedione dioxime, a reagent for palladium. R. C. Voter, C. V. Banks and H. Diehl. bibliog Anal Chem 20:652-4 JI '48

CYCLOHEXANETRIONE

Dihydropyrogallol, a new ene-diol and its oxidation product; 1,2,3-cyclohexanetrione dihydrate; ketonic isomer of pyrogallol. B. Pecherer, L. M. Jampolsky and H. M. Wuest. bibliog Am Chem Soc J 70:2587-9 JI '48

CYCLOHEXANOL

2-Aryl- and 2-alkoxycyclohexanols. B. C. McKusick. bibliog Am Chem Soc J 70:1976-7 My '48

CYCLOHEXANONE

Action of alkali on cyclohexanones. T. L. Cairns, R. M. Joyce and R. S. Schreiber. Am Chem Soc J 70:1689-90 My '48

Condensation of cyclohexanone with nitriles. H. A. Bruson, E. Riener and T. Riener. Am Chem Soc J 70:483-4 F '48

cycloHexenone derivatives: intermediates and photographic sensitizing dyes; patent. Soc Dyers & Col J 64:199 My '48

Morphine studies; 2-(2',3'-dimethoxy-phenyl)-2-(β -ethoxyethyl)-cyclohexanone. E. C. Horning, M. G. Horning and E. J. Piatt. Am Chem Soc J 70:2072-5 Je '48

Stobbe condensation with cyclohexanone. W. S. Johnson and others. bibliog Am Chem Soc J 70:3021-3 S '48

CYCLOHEXENE

Heat capacities, heats of transition, heats of fusion and entropies of cyclopentene and cyclohexene. H. M. Huffman, M. Eaton and G. D. Oliver. bibliog Am Chem Soc J 70:2911-14 S '48

Isomerization of saturated hydrocarbons; the effect of cyclohexene upon the isomerization of methylcyclopentane and cyclohexane. H. Pines, B. M. Abraham and V. N. Ipatieff. diags Am Chem Soc J 70:1742-6 My '48

Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and *m*-xylene by dehydrogenation of corresponding cyclohexene intermediates. T. W. Reynolds and others. bibliog Ind & Eng Chem 40:1751-2 S '48

CYCLOHEXENE sulfide

Synthesis of mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. Am Chem Soc J 69:2675-7 N '47

CYCLOHEXENONE

Methylenedioxyphenyl cyclohexenones. O. F. Hedenburg and H. Wachs. Am Chem Soc J 70:2216-17 Je '48

CYCLOHEXOSE

Action of periodic acid on a cyclohexose osazone. B. Magasanik and E. Chargaff. bibliog Am Chem Soc J 70:1928-9 My '48

CYCLOHEXYL benzenesulfonate

Role of neighboring groups in replacement reactions; rates of acetylation of 2-substituted cyclohexyl benzenesulfonates. S. Winstein, E. Grunwald and L. L. Ingraham. bibliog Am Chem Soc J 70:821-8 F '48

CYCLOHEXYLETHYLAMINE

Preparation of α,α -dimethyl- and N,α -tri-methyl- β -cyclohexylethylamine. B. L. Zelnitz, E. B. Macks and M. L. Moore. bibliog Am Chem Soc J 70:955-7 Mr '48

CYCLOHEXYLMETHYL heptane

Synthesis of 2-cyclohexyl-6-methylheptane. D. H. Hey and D. S. Morris. Chem Soc J p48-9 Ja '48

CYCLOHEXYLOXOHENANOIC acid

Substitution products of 5-cyclopentyl-5-oxopentanoic acid and 6-cyclohexyl-6-oxohexanoic acid. J. English, Jr., G. W. Barber and L. J. Lapides. bibliog Am Chem Soc J 70:2859-62 S '48

CYCLONES

Three-dimensional modeling of cyclones in elementary meteorology. M. Schalk. Science 108:19 JI 2 '48

CYCLONITE

Chemical engineering unit processes; nitration. W. D. Crater. bibliog Ind & Eng Chem 40:1632-3 S '48

Analysis

Determination of nitro nitrogen in nitroguanidine and cyclotrimethylenetrinitramine. D. L. Kouba, R. C. Kicklighter and W. W. Becker. bibliog Anal Chem 20:948-9 O '48

CYCLOOCTADIENE

Cyclooctadienes from dienes. R. E. Foster and R. S. Schreiber. Am Chem Soc J 70:2303-5 JI '48

CYCLOOCTATETRAENE

Cyclic polyolefins; synthesis of cyclooctatetraene from chloroprene. A. C. Cope and W. J. Bailey. bibliog Am Chem Soc J 70:2305-9 JI '48

Cyclic polyolefins; synthesis of cyclooctatetraene from pseudopelletierine. A. C. Cope and C. G. Overberger. bibliog Am Chem Soc J 70:1432-7 Ap '48

Infra-red and Raman spectra of heavy cyclooctatetraene. E. R. Lippincott and others. bibliog J Chem Phys 16:548-9 My '48

Polymerisation of acetylene; first comprehensive study of I. G. Farben discovery. Chem Age (Lond) 58:169 Ja 31 '48

Polymerization of acetylene to cyclooctatetraene; abstract. Chem Eng 55:113 JI '48

CYCLOPENTADIENE

cis- and *trans*-piperelynes. R. L. Frank, R. D. Emmick and R. S. Johnson. bibliog Am Chem Soc J 69:2313-17 O '47

Electronic transitions in the simple unsaturated hydrocarbons. E. P. Carr. bibliog Chem R 41:293-9 O '47

Preparation and properties of methylocyclopentadiene. K. C. Edson, J. S. Powell and E. L. Fisher. bibliog Ind & Eng Chem 40:1526-8 Ag '48

Analysis

Chemical analysis of refinery C₅ hydrocarbon fractions. R. F. Robey and H. K. Wiese. bibliog Anal Chem 20:926-33 O '48

Determination of cyclopentadiene and methylocyclopentadiene in admixtures with other hydrocarbons. J. S. Powell, K. C. Edson and E. L. Fisher. bibliog diag Anal Chem 20:215-15 Mr '48

Spectroscopic determination of cyclopentadiene and methylocyclopentadiene. J. S. Powell and K. C. Edson. Anal Chem 20:510-11 Je '48

CYCLOPENTANE

Heats, equilibrium constants, and free energies of formation of the alkylcyclopentanes and alkylcyclohexanes. J. E. Kilpatrick and others. bibliog J Res Nat Bur Stand 39:523-43 D '47

Nitration of (*p*-bromophenyl)-cyclopentane. R. D. Kleene. Am Chem Soc J 70:866-7 F '48

Thermodynamics and molecular structure of cyclopentane. J. E. Kilpatrick, K. S. Pitzer and R. Spitzer. bibliog Am Chem Soc J 69:2483-8 O '47

CYCLOPENTANONE

Preparation of cyclopentenones from lactones. R. L. Frank and others. bibliog Am Chem Soc J 70:1379-81 Ap '48

Reactions of furan compounds; catalyzed rearrangement of 2,3-dihydropyran into cyclopentanone. C. L. Wilson. bibliog Am Chem Soc J 70:1311-13 Ap '48

CYCLOPENTANONE carboxylic acid

New condensation products of ethyl cyclopentanone-2-carboxylate with aromatic amines. H. C. Barany and M. Pianka. Chem Soc J p 1420-1 O '47

CYCLOPENTENE

Heat capacities, heats of transition, heats of fusion and entropies of cyclopentene and cyclohexene. H. M. Huffman, M. Eaton and G. D. Oliver. bibliog Am Chem Soc J 70:2911-14 S '48

CYCLOPENTENOPHENANTHRENE

Synthesis of 3-alkyl-1,2-cyclopentenophenanthrenes. B. Riegel, S. Siegel and D. Kritchinsky. bibliog Am Chem Soc J 70:2950-2 S '48

CYCLOPENTINDENE

Attempts to prepare new aromatic systems; cyclopentindene; phenylcyclopentane-carboxylic acids, and derived ketones. W. Baker and W. G. Leeds. Chem Soc J p974-80 JI '48

Attempts to prepare new aromatic systems; cyclopentindene, 2 and 3-phenylcyclopentane-carboxylic acids, and derived ketones; abstract. W. Baker and W. G. Leeds. Chem & Ind p756-7 D 6 '47

CYCLOPENTYLOXOPENTANOIC acid

Substitution products of 5-cyclopentyl-5-oxopentanoic acid and 6-cyclohexyl-6-oxohexanoic acid. J. English, Jr., G. W. Barber and L. J. Lapides. bibliog Am Chem Soc J 70:2859-62 S '48

CYCLOPHON

Cyclophor; a multipurpose electronic commutator tube. D. D. Grieg and others. II diags Inst Radio Eng Proc 35:1251-7 N '47

CYCLOPROPANE

Electric moments and ultraviolet absorption spectra of some derivatives of cyclopropane and of ethylene oxide. M. T. Rogers. bibliog Am Chem Soc J 69:2544-8 O '47

Phenyl-carbon-phenyl angle in 1,1-diphenylcyclopropane. M. Goldsmith and G. W. Wheland. bibliog diags Am Chem Soc J 70:2632-4 Ag '48

Reactions of furan compounds; thermal interconversion of 2,3-dihydrofuran and cyclopropane aldehyde. C. L. Wilson. bibliog Am Chem Soc J 69:3002-4 D '47

Synthesis and spectrum of 2-cyclopropylpyridine. R. P. Mariella, L. F. A. Peterson and R. C. Ferris. bibliog Am Chem Soc J 70:1494-7 Ap '48

Synthesis of some cyclopropane and spirane hydrocarbons. R. W. Shortridge and others. bibliog Am Chem Soc J 70:946-9 Mr '48

Analysis

Determination of cyclopropane by selective absorption. F. R. Brooks, R. E. Murdock and V. Zahn. bibliog Anal Chem 20:62-3 Ja '48

CYCLOPROPYLPYRIDINE

Synthesis and spectrum of 2-cyclopropylpyridine. R. P. Mariella, L. F. A. Peterson and R. C. Ferris. bibliog Am Chem Soc J 70:1494-7 Ap '48

CYCLOTRIMETHYLENETRINITRAMINE. See Cyclonite—Analysis**CYCLOTRON**

Alpha-particle and deuteron tracks in Eastman NTA photographic plates. R. L. Brock and E. Gardner. II R Sci Instr 19:299-303 My '48

Aluminum strips butt welded for cyclotron magnet coil. I. A. Oehler. II Iron Age 160:80-3 D 4 '47

Artificial production of mesons hailed as milestone of nuclear science. II Chem & Eng N 26:858-9 Mr 22 '48

Atom smashers; principle of operation of accelerators; betatron, cyclotron, and Van de Graaff generator. J. J. Teevan. bibliog II diag Radio N 39:39-41+ Mr '48

Carnegie Institute of technology new synchro-cyclotron. Science 107:217-18 F 27 '48

Concrete shields new cyclotron. II Elec West 99:65 D '47

Controlled techniques developed to flash weld copper coils; magnet structure of Columbia university's cyclotron. II Steel 122:66-7 Ja 12 '48

Cyclotron targets; preparation and radiochemical separation; Na²². J. W. Irvine, Jr. and E. T. Clarke. bibliog J Chem Phys 16:686-90 JI '48

Development of the frequency modulated cyclotron. J. R. Richardson and others. bibliog II diags Phys R 73:424-36 Mr 1 '48

Electromagnetic deflector for the beam of the 184-inch cyclotron. W. M. Powell and others. II diags R Sci Instr 19:506-12 Ag '48

Experimental basis for the study of atomic structure. W. E. Morrell. J Chem Educ 25:551-4 O '48

Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand. diag Phys R 73:1135-9 My 15 '48

Fixed frequency cyclotron; abstract. J. J. Livingood. Elec Eng 67:587-8 Je '48

CYCLOTRON—Continued

- Mesons produced by University of California cyclotron. A. W. Kramer. *diags* Power Generation 52:72-3+ My '48
- Nevis cyclotron; abstract. C. Ferstenberg. *Mech Eng* 70:756-7 S '48
- Nuclear reactions at high energies. R. Serber. *Phys R* 72:1114-15 D 1 '47
- Parts completed for a 2000-ton cyclotron magnet. *il Mach* 54:173 F '48
- Preliminary data on absorption of high energy neutrons from the 184-inch cyclotron. R. Hildebrand and B. J. Moyer. *diag Phys R* 72:1258-60 D 15 '47
- Production of mesons by the 184-inch Berkeley cyclotron. E. Gardner and C. M. G. Lattes. *il diags Science* 107:270-1 Mr 12 '48
- Proton-gamma-ray coincidence counting with cyclotron bombardment. B. B. Benson. *bibliog il diags Phys R* 73:7-15 Ja 1 '48
- R-f system for frequency modulated cyclotron. K. R. MacKenzie and V. B. Waithman. *bibliog il diags R Sci Instr* 18:900-7 D '47
- Recent developments in high energy physics. A. W. Kramer. *diags Power Generation* 52: 91-7 Ja '48
- Recent experiments with the 184-inch cyclotron; abstract. R. L. Thornton. *Science* 106: 508-9 N 28 '47
- Story of atomic energy. F. Soddy. *il Engineering* 165:315-16 Ap 2 '48
- Wide range frequency modulation. K. R. MacKenzie. *diag Phys R* 74:104-5 JI 1 '48
- World's accelerators; map showing those known to U.S. physicists. *Sci Am* 179:18-19 O '48

CYLINDERS

- Absorption and scattering for impedance boundary conditions on spheres and circular cylinders. M. Lax and H. Feshbach. *bibliog Acoustical Soc Am J* 20:108-24 Mr '48
- Forming thin-metal cylinders. W. C. Mills. *diags Am Mach* 91:96-103 D 4 '47
- Large plastic flow and the collapse of hollow cylinders. F. W. Bridgman. *il J Ap Phys* 19:302-5 Mr '48
- Temperature distribution in cylinder heated by point source moving along its axis. D. Rosenthal and R. H. Cameron. *diags A S M E Trans* 69:961-8 N '47
- Weight of rods or cylinders per running inch; data sheet. *Foundry* 76:107-8 F '48

CYLINDERS (engines, etc.)**Lining**

- Rings, pistons and liners; production methods employed by Hepworth and Grandage Ltd. *il Automobile Eng* 38:27-39, 51-61 Ja-F '48

Manufacture

- Brazing cast iron. S. D. Heron. *il diags Automobile Eng* 38:149-51 Ap '48
- Mechanized pouring in a Swedish foundry. I. Forslund. *il Foundry* 76:188-9 Ja '48
- New transfer process lines mean less handling, higher output; Buick Motor. D. G. Baird. *il Mill & Factory* 42:112-14 Mr '48
- Porous-chromium hardening of Diesel-engine cylinders. C. D. B. Williams. *Engineering* 165:139 F 6 '48

Testing

- Cylinder lubrication test. *Can Min J* 69:70 Ag '48

- Cylinder wear and distortion as measured with the cylinder contour gage; abstracts. M. E. Estey. *il diag Diesel Power* 26: 54-8 Je '48; *S A E J* 56:30-4 S '48

Wear

- Cylinder wear and distortion as measured with the cylinder contour gage; abstracts. M. E. Estey. *il(p39) diag Automotive Ind* 98:38+ My 1 '48; *Diesel Power* 26:54-8 Je '48; *S A E J* 56:30-4 S '48
- Cylinder wear studied in new laboratory. *il Automotive Ind* 99:49 S 15 '48
- Engine wear research. L. D. Thompson and others. *S A E J* 56:44-5+ JI '48
- Lubrication; its effect on reducing mechanical wear. W. M. Sopher. *diags S A E J* 55:48-50 N '47

- Measurement of wear on machinery surfaces by improved indentation method. *il Machine Design* 20:114-15 Mr '48

- U.S. naval engineering experiment station investigations on cylinder liner wear; abstracts. W. G. Payne and W. F. Joachim. *S A E J* 56:40-3 JI '48; *Automotive Ind* 98:32-3 F 1 '48

- Wear measurement; McKee gage. R. D. Haworth. *Metal Prog* 53:112+ Ja '48

- Wear resistance of gray iron Diesel engine liners. T. E. Eagan. *il Foundry* 76:134-9+ My '48

CYCLEVERSION process. See Gasoline—Manufacture**CYMENE**

- Hydrogen transfer; reaction of *p*-cymene with olefinic hydrocarbons in the presence of sulfuric acid and hydrogen fluoride catalysts. V. N. Ipatieff, H. Pines and R. C. Olberg. *bibliog Am Chem Soc J* 70:2123-8 Je '48

- Recovery of crude paracymene at the Fernandina, Florida plant of Rayonier Inc. J. G. Lewis. *Paper Tr J* 126:49-50 Ja 15 '48

CYPRESS

- Leigh Stevens ranch group near Yemassee, South Carolina built out of cypress in swamp forest; design by F. L. Wright. *il plans diag Arch Forum* 38:95-6 Ja '48

CYPRUS

- Perplexities of Cyprus. *Economist* 154:884+ My 29 '48

- Temperatures rising in Cyprus. *Economist* 155: 666-7 O 23 '48

Commerce

- Imports and exports in 1946. *For Comm W* 29:24 N 8 '47

Politics and government

- Can Cyprus think straight? *Economist* 155: 459-60 S 18 '48

CYSTEINE

- Mechanism of cysteine and glutathione protection against alloxan diabetes. A. Lazarow and others. *bibliog Science* 108:308-9 S 17 '48

- Some recent advances in catalysis; detoxication of catalyst poisons. E. B. Maxted. *bibliog Soc Chem Ind J* 67:93-7 Mr '48

- Spiro (steroid) thiazolidines. S. Lieberman, F. Brazeau and L. B. Hariton. *bibliog Am Chem Soc J* 70:3094-7 S '48

CYSTINE

- Relationship between cystine and pyridoxal or pyridoxamine in the nutrition of certain bacteria. M. L. Speck and D. A. Pitt. *bibliog Science* 108:420 O 31 '47

- Syntheses of the selenium analog of L-cystine. L. R. Williams and A. Ravve. *bibliog Am Chem Soc J* 70:1244-5 Mr '48

CYTISINE

- Papilionaceous alkaloids; baptisia australis (L.) R. Br. L. Marion and J. Ouellet. *bibliog Am Chem Soc J* 70:691-2 F '48

CYTOCHROMES

- Cytochrome oxidase. W. W. Wainio and others. *bibliog Science* 106:471 N 14 '47

- Effect of anoxia and cytochrome C on readily hydrolyzable phosphate of rat tissues. W. N. Miller and others. *Science* 107:421 Ap 23 '48

- Value of cytochrome C in anoxia of newborn guinea pigs. B. Benjamin and others. *Science* 107:142 F 6 '48

CZECHOSLOVAKIA**See also**

- | | |
|--|---|
| Airplane industry and trade—Czechoslovakia | Labor laws and legislation—Czechoslovakia |
| Chemical industries—Czechoslovakia | Newspapers—Czechoslovakia |
| Insurance, Social—Czechoslovakia | Textile industry—Czechoslovakia |

Commerce

- Czech-Pole trade gears begin to mesh. *il Bns W* p 117-18 My 22 '48
- Foreign trade during the first half of 1948. *For Comm W* 32:13 S 18 '48

Commercial policy

- Czechoslovak concessions in Geneva trade agreement. *For Comm W* 30:12-13 F 7 '48

CZECHOSLOVAKIA—Commercial policy—*Cont.*
Law authorizes nationalization and state organization of foreign trade. For Comm W 32:19 S 4; 33:22 O 2 '48

Economic conditions

Review for second quarter, '1948. For Comm W 32:19-20 Ag 28 '48

Economic policy

Nationalization extended to 92 percent of Czechoslovak industry and all wholesale and foreign trade. For Comm W 31:13-14 Je 12 '48

Economic relations

Poland

Joint planning by Czechs and Poles. Economist 155:23 JI 3 '48

Poland's program of cooperation with Czechoslovakia. For Comm W 30:20 Mr 27 '48

Industries and resources

A.B.C.M., in Czechoslovakia. Chem & Ind p650 O 9 '48

Further nationalization of industry. For Comm W 31:10 My 8 '48

Industrial production under the two-year plan. For Comm W 30:15 Mr 13 '48

Nationalization extended to 92 percent of Czechoslovak industry and all wholesale and foreign trade. For Comm W 31:13-14 Je 12 '48

Skoda; western industry's new competitor. Il Bsns W p 114+ Je 12 '48

Politics and government

Before the surrender. Economist 154:346-7 F 28 '48

Communist setback. Economist 154:61-2 Ja 10 '48

Fall of Prague; Communists' bloodless victory. Economist 154:330-2 F 28 '48

D

DDT (dichlorodiphenyltrichloroethane)

Crystallization of *p,p'*-DDT from binary melts. V. Gilpin and others. bibliog Am Chem Soc J 70:208-11 Ja '48

Crystallographic data. Il diags Anal Chem 20: 275-7 Mr '48

DDT makes playgrounds safer; practical and inexpensive control of dog ticks. Franklin Inst J 244:406 N '47

DDT residues in agricultural products. R. H. Carter. bibliog Ind & Eng Chem 40:716-17 Ap '48

Experiments with peas and sweet corn treated with DDT insecticides. H. A. Lardy. Ind & Eng Chem 40:710-11 Ap '48

Generation of insecticidal smokes. E. W. Bateman and G. D. Heath. Il Soc Chem Ind J 66:325-30 S '47

Guide to DDT formulations. R. D. Chisholm. bibliog Il Chem Ind 62:589-92 Ap '48

Insecticides applied on livestock. F. C. Bishopp and E. F. Knipping. Ind & Eng Chem 40:713-14 Ap '48

Large scale insect control problems. F. C. Bishopp. Il Soap & San Chem 24:143-5+ F '48

Mechanisms of insecticidal action; diethylnitrichloroethanes compared with DDT. R. L. Metcalf and F. A. Gunther. bibliog Am Chem Soc J 69:2579-81 N '47

Mothproofing; abstract. R. Burgess. Chem & Ind p284-5 My 1 '48

New jobs for DDT. Bsns W p60-1 F 7 '48

New technical DDT. Chem Ind 62:598 Ap '48

Penetration of DDT into wood surfaces. W. R. Schmitz and M. B. Goette. bibliog Il Soap & San Chem 24:118-21 Ja '48

Photosensitizing properties of some petroleum solvents. J. E. Dunn and F. S. Brackett. Ind Med 17:303-8 Ag '48

Preparation of α,α' -4,4'-pentachlorobiphenyl, an isomer of DDT. E. E. Fleck. bibliog Am Chem Soc J 70:2173 Je '48

Rapid method for preparing DDT in the laboratory. J. M. Ginsburg. bibliog Science 108:339-40 S 24 '48

Residual action of organic insecticides. E. E. Fleck. bibliog Ind & Eng Chem 40:706-8 Ap '48

Role of chemistry in recent developments of animal insecticides. R. S. Cahn. Chem & Ind p291-4 My 8 '48

Smoke dispensers for insecticides. H. L. Sweetman and others. Il Soap & San Chem 24:141+ O '48

Synthesis of DDT with chlorosulfonic acid as the condensation agent. W. A. Cook, K. H. Cook and W. H. C. Rueggeberg. bibliog Ind & Eng Chem 39:1683 D '47

Trends in horticultural chemistry; functional studies of copper and chlorine. Chem Age (Lond) 59:314 S 4 '48

Trichloro group in DDT; probable basis of insecticidal potency. R. W. Moncrieff. Chem Age (Lond) 59:312-13 S 4 '48

Fly control

Continuous fly control; new device vaporizing pure DDT. Il Food Ind 20:722+ My '48

Development of a strain of houseflies resistant to DDT. A. W. Lindquist and H. G. Wilson. bibliog Science 107:276 Mr 12 '48

Entomologists develop DDT-resistant flies. Chem & Eng N 26:194 Ja 19 '48

Susceptibility of DDT-resistant houseflies to other insecticidal sprays. H. G. Wilson and J. B. Gahan. bibliog Science 107:276-7 Mr 12 '48

Mosquito control

Importance of coverage in DDT residual house spraying for control of anopheles quadrimaculatus mosquitoes. R. H. McCauley and others. Pub Health Rep 63:401-7 Mr 26 '48

Mosquito-control practice with DDT. J. M. Henderson. Il Eng N 140:1034-7 Je 24 '48

Preflooding treatments with DDT for mosquito control. C. C. Deonier and others. bibliog Science 107:63-4 Ja 16 '48

Toxicity of DDT residues. R. W. Fay and others. Soap & San Chem 24:130-3+ Je '48

Physiological effect and food problem

Death following accidental ingestion of DDT. experimental studies; abstract. N. J. Smith. Nat Safety N 58:48+ S '48

Effect of cooking on the DDT content of beef. R. H. Carter and others. Science 107: 347 Ap 2 '48

Metabolism of chlorinated hydrocarbon insecticides. G. Woodard, B. Davidow and A. J. Lehman. bibliog Ind & Eng Chem 40: 711-12 Ap '48

Use of DDT insecticides on food products. O. G. Fitzhugh. bibliog Il Ind & Eng Chem 40:704-5 Ap '48; Abstract. Chem Eng 54: 242 N '47

Use of DDT on food products; abstract. O. G. Fitzhugh. Food Ind 20:136 Ja '48

Rat flea control

Combined typhus-malaria control; residual spray operations with five percent DDT emulsion. H. P. Nicholson and others. Pub Health Rep 63:1005-13 JI 30 '48

Comparison of the effectiveness of five and ten percent DDT dusts for the control of rat fleas. H. P. Nicholson. Il Pub Health Rep 63:129-36 Ja 30 '48

Preliminary report concerning DDT dusting and murine typhus fever in nine southeastern states. J. S. Wiley. Pub Health Rep 63:41-3 Ja 9 '48

Testing

DDT field experiments; abstract. F. Brescia and others. Soap & San Chem 23:147 N '47

Insecticidal surface coatings. S. S. Block. Il Soap & San Chem 24:138-41+ F; 151+ bibliog (p 153) Mr '48

Preparation of standard films of DDT crystals for toxicity studies. R. L. Patton and D. S. Sarkaria. Il Science 107:654 Je 18 '48

Residual toxicity; chlorinated camphene compared to DDT for toxic residual effects on various surfaces and in paints against the house fly. J. H. Beacher and W. L. Parker. Soap & San Chem 24:139+ Je '48

DDT (dichlorodiphenyltrichloroethane)—Testing—Continued

Residual toxicity tests on insecticidal protective coatings. S. S. Block, bibliog *il Soap & San Chem* 24:155+ Ap '48

Water pollution

Effect of DDT on fish, fish food and plankton. *Pub Works* 79:46-8 Ja '48
Effect of DDT spray on reservoir biological balance. M. S. Shane, *il Am Water Works Assn J* 40:333-6 Mr '48

DDT, Analogs of

Derivatives of 1,1,1-trichloro-2,2-diphenylethane. L. Haskeberg and D. Lavie, bibliog *Am Chem Soc J* 69:2267-8 O '47
Insecticidal activity of 2,2-bis-(2-chlorothiophenyl)-1,1,1-trichloroethane. R. L. Metcalf, bibliog *Science* 108:84-5 JI 23 '48
Thiophene analogs of DDT. P. Truitt, M. Mattison and E. Richardson, bibliog *Am Chem Soc J* 70:79-80 Ja '48

DFP. See Diisopropyl fluorophosphate

DMA. See Dimethyl chloroethylamine

DAIRIES

Advanced engineering is emphasized in new dairy, Morristown, N.J. A. V. Gemmill, *il plans Food Ind* 20:1117-20 Ag '48
Compact dairy barn. *il plan Am Bld* 70:108-9 Mr '48

See also

Creameries

Cleaning

Dairy cleaners. M. A. Lesser, bibliog *il Soap & San Chem* 24:40-3+ My '48

Equipment

Refrigeration in the dairy industry. R. J. Ramsey, *il Refrig Eng* 55:358-61 Ap '48

See also

Cream separators

Sanitation

Dairy plant, including ice-cream plant; abstract. J. G. Davis, *Chem & Ind* p618 S 25 '48
Quaternary ammonium compounds in the dairy industry. J. J. Portley, *il Food Ind* 20:196-8 F '48

DAIRY association, American. See American dairy association

DAIRY buildings. See Dairies

DAIRY farms

Cow conveyor speeds milking; Hiett crystal dairy, *il Elec World* 129:112 Je 19 '48

DAIRY products

See also

Butter
Cheese
Milk

Prices

Oleo aftermath; dairy industry seeks new price formulas. *Bsns W* p34+ My 15 '48

DAIRY research

ADA looks to research, *Food Ind* 20:728 My '48

See also

Milk research

DAIRY waste

Milk waste disposal. D. E. Bloodgood, *Sewage Works J* 20:695-706 bibliog (194 titles, p700-6); Discussion, A. J. Steffen, 707-8 JI '48

DAIRYING

Dairy farmers thriving. *Bsns W* p92+ S 11 '48

Dairy industry; a remarkable production and distribution system. *Index* 28 no 3:49-60 [S] '48

Dairy industry meets in Miami; IAICM members and associates, DISA, DISI and Milk industry foundation. *Food Ind* 19:1631-3+ D '47

Employee sweepstake opens 18,000 new outlets for Arden Farms. *Sales Management* 61:102-4 JI 1 '48

Survey of dairy industry indicates trend of conversion from coal to oil continues. *Nat Pet N* 40:19 Mr 3 '48

These milk men are learning creative selling skills; R. A. Shuey creamery, Oakland, Calif. *Sales Management* 59:44+ N 10 '47

See also National dairy products corporation

Argentina

Situation in Argentina. *For Comm W* 33:22 O 9 '48

Australia

Dairy products; production and exports, Australia. *For Comm W* 32:29-30 Ag 21 '48

Austria

Austria's production and utilization in 1947. *For Comm W* 31:23 Je 26 '48

Belgium

Production, consumption, and imports; 1947 trends. *For Comm W* 31:16-17 Ap 17 '48

Canada

Canadian production and consumption of dairy products in 1947. *For Comm W* 30:22-3 Ja 24; 31:24 My 15 '48

Production and exports in 1948. *For Comm W* 32:26-7 JI 17 '48

Cuba

Cuban production and imports during 1947. *For Comm W* 31:17 Ap 17 '48

Denmark

Situation in Denmark. *For Comm W* 31:28 Je 5 '48

France

Dairy products; production in France in 1947. *For Comm W* 31:24-5 Ap 10 '48

Production, stocks, and foreign trade. *For Comm W* 32:23 S 11 '48

Germany

New developments in the German dairying industry; abstract. *Chem & Ind* p332 My 22 '48

Ireland

Supplies and trade, Ireland (Eire). *For Comm W* 31:22 Ap 24 '48

New Zealand

Dairy products situation; with figures for 1946-47 season and comparisons with other years. *For Comm W* 30:20-1 F 21 '48

South Africa

Situation in Union of South Africa. *For Comm W* 30:24-5 Ja 31 '48

DALLAS

Land of the big rich; free-wheeling free enterprise in that capitalistic oasis, the Southwest, U.S.A. *il map Fortune* 37:98-103+ Ap '48

Insurance placement board

U.S. rules Dallas placement board not subject to federal income tax. *East Underw* 49:26 Ap 16 '48

DALLAS power and light company

Charter amendments. *Comm & Fin Chr* 167:152 Ja 12 '48

Debentures offered. *Comm & Fin Chr* 167:158-6 Ap 12 '48

DALMIA, Ramkrishna

India publisher bans criticism to gain peace. *por Ed & Pub* 81:8 O 23 '48

DALTON, Hugh, 1887-

Third act mystery; departure of Mr Dalton. *Economist* 153:847-8 N 22 '47

DAMAGES

Government held not liable for damage resulting from an act of employee; coast guard boat explosion while under repair. *East Underw* 48:30 N 21 '47

How to win gas explosion damage suits. L. T. Parker. *Am Gas J* 168:28-30 F '48

Important decision on alleged blasting damage; New York trap rock corp. *Rock Prod* 51:89 F '48

Important ruling made in Iowa damage suit case on indemnitee's liability. *Nat Underw* 52:17 Ag 5 '48

Sees day of auto accident recovery on compensation principle; modern applications of Lord Campbell's act. F. L. Spear. *Nat Underw* 52:24 Ag 5 '48

Validity of damage allowances. L. T. Parker. *Am Gas J* 168:39-41 Ja '48

See also

Employers' liability
Liability
Negligence

Personal injuries
Workmen's compensation

DAMPING of vibration. See Vibration**DAMPNESS in buildings**

Building papers as vapour barriers for dwellings. J. D. Babbitt. bibliog diags Pulp & Pa of Can 49:83-9 Ja '48

Condensation in buildings. R. S. Dill. il Heat & Ven 44:70-4 D '47

Controlling moisture in buildings; problem of crawl spaces. il diag Arch Rec 104:145-8 Ag '48

Excess condensation; problem in house. Dom Eng 171:132+ Ja '48

Prevention of dampness in basements. C. C. Fishburn. diags Am Concrete Inst J 19: 421-36 F '48

DAMS

Building an earth-fill dam in Arctic placer territory. J. B. Huttli. il Eng & Min J 149: 90-2 Jl '48

Century of progress marks many improvements in construction of locks and dams. C. B. Jansen. il map diag Civil Eng 18:628-33+ O '48

Constructing the Watauga project. G. K. Leonard and D. H. Mattern. il map diags Civil Eng 18:277-82+ My '48

Davis dam; last in series of coordinated structures below Hoover dam. L. A. Luther. il map plan Comp Air Mag 53:52-9 Mr '48

Deny Indian plea to halt McNary dam. il Eng N 140:619 Ap 29 '48

Design and construction of the Anderson Ranch dam. E. L. Armstrong. il maps plan diags Engineering 166:145-7, 156, 169-71, 180, 265-8, 289-91, 300, 313-15 Ag 13-20, S 17-O 1 '48

Extensive earthfill dams remove threat of severe floods at Houston, Tex. il Civil Eng 18:627+ O '48

\$15,000,000 irrigation project involves 4,000, 000-cu. yd. earth-fill dam; St Mary-Milk River irrigation project, Alberta. G. L. MacKenzie. il map diags Roads & Bridges 86:52-5+ Ja '48

Highest earth dam nears completion; Anderson Ranch dam in Idaho. il Civil Eng 18: 211 Ap '48

International congress on large dams. 3d. Stockholm, June 10-17. Engineering 166:64-5, 124-6, 162-3, 185-6, 232-3, 341-2, 473-4 Jl 16; Ag 20, S 3, O 8, N 12 '48

Inventory of major projects; with information on costs, sizes and features. il maps Eng N 140:301-6 F 19 '48

Investigation of drainage rates affecting stability of earth dams. F. H. Kellogg. diags Am Soc C E Proc 73:1065-88 S '47; Discussion. 74:239-47, 769-78, 1032-3 F, My-Je '48

North of Scotland hydro-electric board's Glascarnoch-Luichart-Torr Achilty scheme. il map Engineer 185:230 Mr 5 '48

OK new Columbia basin work. Eng N 139:767 D 4 '47

Pick-Sloan flood control plan develops resources of Missouri River basin. D. B. Freeman. il map Civil Eng 17:652-7 N '47

Planning the Watauga project; flood control and power project of Tennessee Valley authority. G. K. Leonard and D. H. Mattern. il maps Civil Eng 18:142-6+ Mr '48

Preview of Boysen dam, Wyoming; illustrations with text. Comp Air Mag 52:280 N '47

Projected construction program develops Columbia River basin for irrigation. L. V. Downs. il map Civil Eng 18:494-9 Ag '48

Quarrying at Watauga dam. O. Reed. il map plans Roads & Sts 91:68-72+ Mr '48

Rock fill diverts river at Davis dam. il Eng N 141:70-2 Ag 5 '48

Tainter gates of simplified design for use on army flood-control dams. D. A. Buzzell. il diags Eng N 140:500-1 Ap 1 '48

Union Village dam, Vermont; first step in program to control flood-waters of Connecticut river. J. I. Horty. il diag Explosives Eng 26:135-9 S '48

U.S. flood control drowns those who trust it; great power dams need full reservoirs; can't store water in peril. A. M. Cooper. Barron's 28:7 Je 28 '48; Discussion. 28:38 Ag 9 '48

Working frozen ground in the Arctic; building an earth-fill dam. il Constr Methods 30: 92-5 Ap '48

Design

Dams in permafrost. J. D. Lewin. diags Pub Works 73:22-3+ My; 33-4 Je; 57-8 bibliog(p58) Jl '48

Development and hydraulic design. Saint Anthony Falls stilling basin. F. W. Blaisdell. il diags Am Soc C E Proc 73:123-59 bibliog(p 157-9) F '47; Discussion. 73:1093-118, 1555-61; 74:711-22 S, D '47, My '48

Graphical methods for flow-net diagrams. S. Lellavsky. il diags Engineer 185:464-5, 488-90 My 14-21 '48

Horizontal shear plane separates gravity and arch sections of dam; Matilija dam for Ventura County flood control district. il diags Eng N 140:958-60 Je 10 '48

Latest developments of dams and hydro-electric power stations in France; abstract. A. Coyne. Engineering 164:613-14 D 26 '47

Ross dam third step nears completion. il Eng N 140:487-9 Ap 1 '48

Unusual design problems. Harlan County dam. L. G. Feil. diags Am Soc C E Proc 74:1071-82 S '48

Failure

Court holds owner liable for damage in collapse of old crib dam. Eng N 139:807 D 11 '47

Flashboards

Wooden dam with flash flood protection. il diag Eng N 140:354-5 Mr 4 '48

Foundations

Bull Shoals dam. C. H. Vivian. il Comp Air Mag 53:131-2 Je '48

Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. il Am Soc C E Proc 72:1077-89 O '46; Discussion. 73:709-17; 74:187-92 My '47, F '48

Dams in permafrost. J. D. Lewin. diags Pub Works 73:22-3+ My; 33-4 Je; 57-8 bibliog(p58) Jl '48

Earth-fill dam built on frozen ground; Hess Creek dam in Alaska; sprinkling found preferable in removing frozen overburden. il Eng N 140:182-4 F 5 '48

Economy in materials handling features Bluestone Dam construction; power and flood-control structure in West Virginia. O. Auhl. il diag Civil Eng 18:353-5 Je '48

Field tests indicate best procedure for unwatering of Davis dam. A. H. Ayres. il map plan Civil Eng 18:490-3+ Ag '48

Unusual design problems. Harlan County dam. L. G. Feil. diags Am Soc C E Proc 74:1073-6 S '48

Location

Optical theodolite speeds dam survey. C. O. Greenwood, Jr. il Eng N 140:956-7 Je 10 '48

Protection

New upstream slope protection added on Santee-Cooper earthfill dams. il diag Eng N 140:414-16 Mr 18 '48

Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 72: 1165-72, 1407-10; 73:59-78, 231-5, 735-55, 907-14; 74:211-14 O, D '46, F, My-Je '47, F '48

Review of slope protection methods; report of subcommittee on slope protection of committee on earth dams. Am Soc C E Proc 74:845-66 Je '48; Discussion. 74:1395-411 O '48

Rock riprap replaces porous concrete slope protection at Santee-Cooper project. H. H. Jewell. il map diags Civil Eng 18:2-6+ Ja '48

Repair

Repairs to dam at South Barre, Massachusetts. H. M. Turner. il plan diags Boston Soc C E J 34:321-9 O '47

Seepage

Graphical methods for flow-net diagrams. S. Lellavsky. il diags Engineer 185:464-5, 488-90 My 14-21 '48

Prevention of underground leakage; Shellperm process. L. E. Blakeley and V. A. Endersby. bibliog il plan diag Am Water Works Assn J 40:873-82 Ag '48; Excerpt. Eng N 140:952-3 Je 10 '48

DAMS—Seepage—Continued

Third congress on large dams; precautions to avoid the formation of piping. Engineering 166:232-3 S 3 '48

Uplift pressure

Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 73: 59-78, 231-5, 735-55, 907-14; 74:211-14 Ja-F, My-Je '47, F '48

Significance of pore pressure in hydraulic structures. L. F. Harza. diags Am Soc C E Proc 73:1507-28 D '47; Discussion. 74:973-84, 1185-209, 1369-74 Je-O '48

Third congress on large dams; measurement of uplift pressures and stresses. Engineering 166:124-6 Ag '48

DAMS, Concrete

Air aids operation of dam spillway gates; Possum Kingdom dam. A. Streiff. il diag Comp Air Mag 53:247-9 O '48

Augusta prepares for new industries; Clark Hill dam will bring supply of electric energy and improve Savannah River traffic. il Manuf Rec 117:30-1+ J1 '48

Automatic proportioning of concrete for big dam project near Cartersville, Ga. W. B. Lenhart. il Rock Prod 51:134-6 My '48

Bull Shoals dam. C. H. Vivian. il map diags Comp Air Mag 53:128-34 Je '48

California's \$36,000,000 Pine Flat dam; blasting for abutment. O. H. Barnhill. il Explosives Eng 25:176-7 N '47

Cantilever steel forms expedite work on Bull Shoals dam. il Civil Eng 18:95 F '48

Concrete control on Allatoona dam. il Concrete 56:22-3 Je '48

Concrete cooled in building lofty Ross dam. P. W. Mourer, Jr. and L. W. Kemmish. il Refrig Eng 56:316-19 O '48

Concrete making in China. J. S. Cotton. il Am Concrete Inst J 19:381-98 Ja '48

Concrete mixing and placing on the Stewartville dam. il Roads & Bridges 85:59-61+ D '47

Concrete placement on Bluestone dam. il Concrete 56:5-6 S '48

Concrete tests from a 40-year old dam. H. S. Mattimore. il diags Eng N 139:731-3 N 27 '47

Construction plans for Bull Shoals. il plan diags Constr Methods 30:85-9 My '48

Continuous-flow, self-cleaning diversion works increase water supply of Colorado steel plant. A. J. Ryan; R. L. Parshall. il plan diags Civil Eng 17:30-5+ D '47

Dual 12½ mile cableway to haul aggregates for Australian dam. H. B. Fletcher. Concrete 56:26 My '48

Economy in materials handling features Bluestone Dam construction; power and flood-control structure in West Virginia. O. Auhl. il map diag Civil Eng 18:352-7 Je '48

Flexibility marks Allatoona aggregate plant. flow sheets il Constr Methods 30:90-6 Mr '48

Ft. Gibson aggregate plant. flow sheet il Constr Methods 30:80-4 F '48

India to build highest dam in world. Concrete 56:22 Ag '48

International congress on large dams, 3d, Stockholm, June 10-17; experiences arising from the testing and the actual use of special cements for large dams. Engineering 166:341-2 O 8 '48

McNary dam includes highest lift lock. il maps Eng N 141:56-60 S 30 '48

Modern design practice and rigid controls produce sound concrete in Ross dam. H. F. Faulkner. il Civil Eng 18:562-7+ S '48

Ontario Hydro pushes work on power dam at Stewartville. il map plan diags Eng N 141:64-8 S 2 '48

Pipri (Rihand) dam, India. diags Engineer 185:495-6 My 21 '48

Refrigeration makes the big dams possible; artificial cooling used to dissipate heat of hydration. C. Rawhouser. biblog il diags Refrig Eng 54:534-8+ D '47; Discussion. H. Sloan. 55:54 Ja '48

River Erne power development. V. D. Hartly. il maps diags Comp Air Mag 53:2-6 Ja '48

Ross dam third step nears completion. il Eng N 140:487-9 Ap 1 '48

Sign \$43 million Hungry Horse contract. Eng N 140:618 Ap 29 '48

Significance of pore pressure in hydraulic structures. L. F. Harza. diags Am Soc C E Proc 73:1507-28 D '47; Discussion. 74:973-84, 1369-74 Je, O '48

Twenty below, but concreting continues on Union Falls Dam project for Central Maine power co. il Constr Methods 30:80-5 Mr '48

Western Europe's biggest power dam; Genisiat hydro plant on the Rhone river. W. G. Bowman. il map plan diags Eng N 140: 1024-30 Je 24 '48

See also

Cofferdams, Concrete

Cost

Navigation lock and spillway, McNary dam, Washington; unit prices. Eng N 141:115-16 O 28 '48

Repair

Dam refaced with precast concrete. il Eng N 139:650-4 N 13 '47

Grouted gravel fill and precast slabs provide new face for Barker dam. R. E. Davis and others. il Civil Eng 18:78-83+ F '48

Radio to aid in use of caisson on Grand Coulee Dam repair. F. A. Banks. il Eng N 140: 945 Je 10 '48

Repairing concrete hydraulic structures. C. Gliddon. il Am Concrete Inst J 19:513-18 Mr '48

Restoration of Barker dam. R. E. Davis and others. il diags Am Concrete Inst J 19:633-67 Ap '48; Excerpts. Concrete 56:11+ Ap '48; Abstract. Civil Eng 18:78-83+ F '48

Upstream face of dam refaced with precast slabs. L. B. Card. il Elec World 128:90-1 D 6 '47

DANFORTH, Donald, 1898-

Cow chows, and wow; story of Ralston Purina. por Fortune 37:84-91+ Ja '48

DANFORTH, William Henry, 1870-

Cow chows, and wow; story of Ralston Purina. por Fortune 37:84-91+ Ja '48

DANIELS, Josephus, 1862-1948

Daniels wills Raleigh paper to his four sons. Ed & Pub 81:60 Ja 31 '48

Sketch. H. O'Keef. Ed & Pub 81:59-60 Ja 24 '48

DANIELS, Thomas Leonard, 1892-

Portrait. Bsns W p32 D 13 '47

Sketch. por(cover) Bsns W p6 Ja 17 '48

DANUBE river

Danube navigation parley achieved no constructive results. W. A. Radius. For Comm W 32:3+ S 25 '48

DARDI, Virgil David

From groceries to sugar. por Bsns W p32+ Mr 13 '48

Portrait. Fortune 38:7 O '48

DARLING, Michael Frank, 1903-

Bosses like him. por Bsns W p72-4 N 29 '47

DARTMOUTH college

Dartmouth's course on press starts battle. Ed & Pub 81:26 O 30 '48

DARZENS reaction

Synthesis of products related to vitamin A; the application of the Darzens reaction to β -ionone. N. A. Milas and others. biblog Am Chem Soc J 70:1584-91 Ap '48

DASHPOTS

Damping characteristics of dashpots. J. B. Peterson. diag Product Eng 18:138-40 N '47

DATES

Date shipments from Iraq. For Comm W 29: 24 N 29 '47; 31:30 My 22 '48

Tunisia's date production. For Comm W 30: 27 F 28 '48

DATES (fruit)

Fruits of Arizona; citrus fruits and dates wrapped in piliofilm by semi-automatic machine. il Mod Packaging 21:108-11 Ag '48

DAVENPORT, Thomas, 1802-1851

Origin of the electric motor. J. C. Michalowicz. por Elec Eng 67:1035-40 N '48

DAVID W. Taylor model basin. See Ship model tanks**DAVIES, Paul Lewis, 1899-**

Sketch. por(cover) Bsns W p6 Ap 10 '48

DAVIS, Sir Herbert

Portrait. Fortune 37:79 F '48

DAVIS, J. Hugh, 1910-

Peacemaker between Hope and his sponsor is FC&B's Chicago operations v.-p. Ptr Ink 221:104 D 5 '47

- DAVIS, Watson, 1896-**
Portrait. Science 108:244 S 3 '48
- DAVIS manufacturing, inc., Wichita, Kansas**
Fast comer in farm machinery. *il* Fortune 38:96-101+ J1 '48
- DAVISON, Albert Watson, 1888-**
Portrait. *Am Cer Soc Bul* 27:134 Mr 15 '48
- DAVISON chemical corporation**
To use bigger profit for growth. *Barron's* 27:32 N 17 '47
- DAVISSON, Clinton Joseph, 1881-**
Davissou and Germer. K. K. Darrow. *por* Sci Am 178:50-3 My '48
- DAVV-FARADAY exhibition, Paris**
France commemorates fundamental research. *il* Chem Age (Lond) 59:183-4 Ag 7 '48
- DAY, Paul Louis, 1899-**
Fourth Midwest award recognizes vitamin M work of P. L. Day. *por(cover)* Chem & Eng N 26:2772+ S 20 '48
- DAY mines, inc.**
Idaho mines consolidate; twelve companies combine in Coeur d'Alene. H. Ingalls. *il* Min Cong J 33:59-60 N '47
- DAYLIGHT**
Analytic representation of experimental spectroradiometric curves. P. Moon and D. E. Spencer. *bibliog* Franklin Inst J 244:441-64 D '47
- Daylight movies; reflecting movie screen for schools. *il* Elec West 99:78 N '47
- Daylighting, a scientific solution in American Stove's new St. Louis building. *il* diags Arch Forum 89:76-7 O '48
- Illuminant in textile color matching. D. Nickerson. *bibliog* *il* diags Illum Eng 43: 416-64 Ap '48; Excerpts. *Opt Soc Am J* 38: 458-66 My '48; Discussion. *Illum Eng* 43: 464-7 Ap '48
- Prototype classroom in Seattle utilizes both clerestory and directional block, for even light distribution. *il* diags Arch Forum 89: 137 S '48
- Should California type schools be built elsewhere? daylight is bright enough everywhere if we are. C. D. Gibson. *il* diags Arch Rec 103:125-30 Mr '48
- DAYLIGHT, Artificial**
Illuminant in textile color matching. D. Nickerson. *bibliog* *il* diags Illum Eng 43: 416-64 Ap '48; Excerpts. *Opt Soc Am J* 38: 458-66 My '48; Discussion. *Illum Eng* 43: 464-7 Ap '48
- DAYLIGHT saving**
California on daylight saving time; industrial and farm power curtailed. *Elec World* 129: 93 Mr 13 '48
- DAYTON, Ohio**
Industries
Dayton's postwar boom gets into high gear. *il* Bsns W p28+ Je 19 '48
- DAYTON power and light company**
Bond's offered. *Comm & Fin Chr* 167:152 Ja 12 '48
- Gains exceed national increase. *Barron's* 28: 34 Ja 5 '48
- DEACETYLATION.** See Acetyl group
- DEAF**
Aid to deaf offered by State-federal program. *Nat Safety N* 57:92-3 Ja '48
- DEAF, Instruments for.** See Hearing aids, Mechanical
- DEAFNESS**
Construction and design of Parnly sound laboratory and anechoic chamber. P. J. Mills. *il* diags Acoustical Soc Am J 19:988-92 N '47
- Hearing loss from noise; abstract. L. R. Boies. *Safety Eng* 95:53 Ap '48
- Speech communication under conditions of deafness or loud noise. W. G. Radley. *Inst E E J* 95 pt 1:201-4, 544-50 My, D '48
- DEALER (term)**
When and how to be a dealer rather than an investor for tax purposes. J. P. Allison. *bibliog*(94 ref) *J Account* 85:38-49 J1 '48
- DEALER conventions**
Indicted; your sales ability; Bell & Howell mock trial. *il* Sales Management 61:42-3 S 1 '48
- Too small to stage a dealer sales meeting? Cambridge tile manufacturing co. sales seminar. *il* Sales Management 59:106+ D 1 '47
- DEALER helps**
Armour shows dealers the how of full-line selling; film demonstrating tested way to create more impulse sales. W. S. Shafer. *il* Sales Management 59:60+ D 15 '47
- Bigelow-Sanford promoting store modernization service. *Ptr Ink* 224:94 S 10 '48
- Car-record plan; Chevrolet's new method for keeping dealer accounts. *Bsns W* p48+ D 6 '47
- Company provides retail shop plans to regain ground lost in war; oilcloth shop. D. W. Klau. *il* *Ptr Ink* 222:37 F 27 '48
- Customer is always right; Ford Motor's new booklet for its dealer service managers. *Sales Management* 60:152 F 15 '48
- Daily management plan of Chevrolet Motors guides dealers. D. G. Baird. *Am Bsns* 18: 20-1 My '48
- Dealer's problem is the key to our sales approach; Koret of California helps dealers through timeless styles, tested fabrics, and merchandise and promotion packages backed by advertising. D. H. Hawkins. *il* Sales Management 61:102+ S 15 '48
- Developing and presenting a department-store promotion; recent Naylor promotion. E. B. Weiss. *il* *Ptr Ink* 223:40-1+ Ap 23 '48
- Free; kitful of store face-lifting ideas; Van Heusen offers plans. *Sales Management* 61: 77 J1 15 '48
- Fuel saving plan bucks oil shortage for Oil-O-Matic. W. A. Matheson. *il* Sales Management 60:108+ Je 15 '48
- Good turn for dealers builds sales. *il* Mod Ind 16:94 Ag '48
- How can big and little business cooperate? *Am Bsns* 18:20-1+ Ag '48
- How Plymouth worth chore charts aid distributor sales. W. A. Scherff. *il* Ind Marketing 33: 48+ J1 '48
- Industrial manufacturers interested in charging for catalogs, literature; IM survey. J. P. Allison. *Ind Marketing* 33:33+ My '48
- Industrial package lacks re-order problem; Lamson & Sessions' aircraft treasure chest; automatic buying, stock control, pricing and selling. J. E. Sorrell. *Sales Management* 60:99-100 Mr 1 '48
- It takes a key to open a door! manufacturers of electric water heaters and coolers plan aid to plumbing-contractor-dealers. *Dom Eng* 171:104-5+ Je '48
- McKesson seeks solution to mystery of missing cosmetics customers; why have department stores taken the play away from drug stores? *Sales Management* 61:56+ S 15 '48
- Merchandising laboratory is vehicle for dealer cooperation program; modernization of 1,500 Goodyear outlets is one result. C. J. Swan. *il* *Ptr Ink* 225:27-9 O 1 '48
- Nailing buyers; to locate your nearest dealer, call Western Union. *Bsns W* p78 J1 24 '48
- No-investment stock plan builds lucrative greeting card sales; G. E. Day keeps up a clean, timely, and moving stock of greeting cards for retailers. *il* Sales Management 61:113 Ag 15 '48
- Our dealers know all the answers; we tell them; General petroleum corp. F. C. Meunier. *il* *Ptr Ink* 225:37 O 15 '48
- Pay off for Bauer & Black in related item selling; departmentalization of drug stores. E. H. Brown. *il* Sales Management 61:42-3 O 15 '48
- Plumbers become merchants with assistance from Crane. H. A. Bergdahl. *il* Sales Management 60:44-6 Ja 1 '48
- Pumping new sales zip into distribution channels. *il* Mod Ind 16:54-6+ S '48
- Sales promotion policy and organization. E. B. Weiss. *il* *Ptr Ink* 222:50+ F 20 '48
- Sells color, and consumers buy paint. L. F. Thomann. *il* *Ptr Ink* 225:38-9 O 15 '48
- Shaver clinics in retail stores pay off for Remington. S. E. Anderson and G. Thomas. *il* Sales Management 61:113-15 J1 15 '48
- Store-modernization aid; 1,600 dealers have used Goodyear lab since war; illustrations. *Bsns W* p78+ My 29 '48
- What happens after your ads bring customers to the retailer? Engel & company helps to dealers and their salesmen in diamond selling. L. J. Engel. *il* *Ptr Ink* 224: 44 S 24 '48

DEALER helps—Continued

What Massey-Harris is doing to strengthen its dealers. E. F. Krein. *il Sales Management* 61:59-64 Ag 1 '48

See also

Advertising—Dealer Sales manuals, helps Dealers'
Advertising, Point-of-sale Tags

DEALER quotas. See Sales quotas, Dealers'

DEALER relations

Behind the scenes at Studebaker's '49 truck preview for dealers. *il Sales Management* 60:42-3 Je 15 '48

Dealer's problem is the key to our sales approach; Koret of California helps dealers through timeless styles, tested fabrics, and merchandise and promotion packages backed by advertising. D. H. Hawkins. *il Sales Management* 61:102+ S 15 '48

Eight vital factors in effective point-of-sale promotion. F. L. McKibbin. *il Sales Management* 61:52-4+ N 1 '48

Elaborate dealer relations program pays; Capitol records, inc. L. F. Thomann. *Ptr Ink* 224:40-1 Ji 16 '48

11 basic elements influencing dealer sales-training programs; Minneapolis-Moline power implement co. H. E. Green. *il Ptr Ink* 222:31-3+ Ja 16 '48

Full-color advertising plus complete merchandising gets results for Tumble-Twist rugs. *il Ptr Ink* 224:36-7 S 3 '48

How to cut a price without hurting dealer relations; dealer relations pass through a time of stress when price is cut. C. J. Swan. *Ptr Ink* 222:38-9+ F 27 '48

Intensive dealer cultivation wins market for Masland new line; hunting and fishing clothes. E. M. Kelley. *il Sales Management* 60:59-61 Je 15 '48

Kitchen makers plan for future; Mullins mfg. takes steps to prevent tie-in sales. *il Bsns W* p78 Ap 3 '48

Public relations aspects of relationship with dealers. C. J. Swan. *Ptr Ink* 224:34-5+ Ji 30 '48

Three-man territory setup keeps sales wheels greased for Standard Motors; territory man and field man work with wholesalers; dealer cooperation man serves dealers. J. F. Kenny. *il Sales Management* 60:94+ Ap 15 '48

Too small to stage a dealer sales meeting? Cambridge tile manufacturing co. sales seminar. *il Sales Management* 59:106+ D 1 '47

We shipped 3,380 screens without orders; dealers bought 89 per cent; Da-Lite screen co. O. N. Wilton. *il Sales Management* 61:138+ S 15 '48

What makes a successful bottler? Lyons tests get some answers. S. Zweig. *il Sales Management* 59:48+ D 15 '47

When a dealer says, I'm stocked, is he talking through his hat? Cory sent all salesmen into retail stores to itemize merchandise on hand. N. H. Schlegel. *il Sales Management* 61:37-9 Ji 1 '48

See also

Advertising—Dealer Mail order business—helps Selling to dealers
Christmas letters Sales manuals,
Exclusive agencies Dealers'
Sales quotas, Dealers'

DEALER schools

Bigelow tackles retail training with Carpet selling institute. *il Sales Management* 61:62+ O 1 '48

Goodyear trains 25,000 dealers with films in ten months. *il Sales Management* 60:111+ Mr 15 '48

Thorough training produces industrial salesmen who know the product; classes for distributors of Delta machine tools. W. E. Schutz. *il Ptr Ink* 224:34-5 S 3 '48

DEALERS' sales manuals. See Sales manuals, Dealers'

DEAMINATION

Studies on the mechanism of the deamination of diazonium salts with hypophosphorous acid. E. R. Alexander and R. E. Burge. *Am Chem Soc J* 70:786-7 F '48

DEATH valley**California**

Geology of the Tecopa area, southeastern California. J. F. Mason. *bibliog Geol Soc* Bul 59:333-52, pl 1-2 Ap '48

DEBATING

University debaters' annual; constructive and rebuttal speeches delivered in debates of American colleges and universities during the college year 1946-1947. E. M. Phelps and R. Ulman, eds. *bibliog* 316p \$2.25 H. W. Wilson co, New York '47

DEBENHAMS limited

Statement by the chairman at ordinary general meeting. F. Richmond. *Economist* 153:700 O 25 '47

DEBENTURE bonds. See Bonds, Debenture

DEBT

Keeping employees out of hock; Russell Electric plan. A. C. Norris. *il Mill & Factory* 43:120-1 O '48

Our rising private debt. H. F. Travis. *Mag of Wall St* 83:66-7+ O 23 '48

Public and private debt in 1947; with tabulations for selected years, 1939-1947. E. T. Bonnell. *Survey of Cur Bsns* 28:20-3 O '48

Savings and debt. J. M. Dodge. *Comm & Fin Chr* 167:2634+ Je 17 '48

See also

Bankruptcy

Credit

DEBTOR and creditor

Discrimination in foreign trade; need for creditor rights before international conferences. K. H. Nadelmann. *Credit & Fin Management* 50:28-9 Je '48

Priority of federal claims in insolvencies. L. Boston. *il Dun's R* 56:19-20+ Mr '48

Relief, rehabilitation or ruin; need for planning by creditors. C. B. Everberg. *Credit & Fin Management* 50:12-13+ S '48

Suppose the debtor dies; creditors should lose no time in filing claims. C. B. Everberg. *Credit & Fin Management* 50:11-12+ Ji '48

Trust receipts not voidable preferences under section 60-a of the Bankruptcy act. G. B. McGowan. *Credit & Fin Management* 50:4-6+ F '48

Where may creditor apply debtor's payment? C. B. Everberg. *Credit & Fin Management* 50:26-8 O '48

See also

Attachment and garnishment

Bankruptcy

DEBTS, Public

National advisory council figures reveal a tax and debt ridden world. *Comm & Fin Chr* 168:1219 S 23 '48

See also

Bonds, Government

Great Britain

Flash-back to gilt-edged rigging; departments go long. *Economist* 153:816 N 15 '47

More floating debt. *Economist* 153:1058 D 27 '47

United States

Age of managed money. P. F. Douglass. *Comm & Fin Chr* 167:1658 Ap 15 '48

Committee on public debt policy proposes steps to counteract dangers in huge public debt. *Comm & Fin Chr* 168:1543+ O 14 '48; Same. *Banking* 41:128 N '48

Debt management and government securities prices. H. F. Hagemann, Jr. *Comm & Fin Chr* 166:1942+ N 13 '47

Debt reduction vs. tax reduction. H. L. Lutz. *Comm & Fin Chr* 168:897+ S 2 '48

Federal debts, 1900-1947; tabulation. *Automotive Ind* 98:90 Mr 15 '48

Fiscal policy and debt management; address before Academy of political science, New York. A. L. M. Wiggins. *Comm & Fin Chr* 167:1521+ Ap 8 '48

Foresees no debt reduction next year. J. W. Snyder. *Comm & Fin Chr* 167:2324 My 27 '48

IBA government securities group reviews debt policies. *Comm & Fin Chr* 166:2508 D 18 '47

Let's admit part of U.S. debt is permanent. F. Quantius. *Barron's* 28:7 Ji 26 '48

Manageable public debt. B. M. Anderson. *Comm & Fin Chr* 167:2185+ My 20 '48

Meaning of the war debt. A. J. Cortese. *Comm & Fin Chr* 166:2616+ D 25 '47

DEBTS, Public—United States—Continued

National debt administration and savings banks. H. Bruere. *Comm & Fin Chr* 167: 2319+ My 27 '48

New and imponderable questions in credit and fiscal policy. A. G. Lanston. *Comm & Fin Chr* 167:1522+ Ap 8 '48

Problems in federal debt management. F. C. Broach. *Comm & Fin Chr* 168:1538+ O 14 '48

Public and private debt in 1947; with tabulations for selected years, 1939-1947. E. T. Bonnell. *Survey of Cur Bsns* 28:20-3 O '48

Public debt; gross debt outstanding, end of month, 1941-1946. *Survey of Cur Bsns* 1947 Sup p78 [supplemented in monthly numbers]

U.S. public debt; 1938-1950; graph. *Bsns W* p23 J 17 '48

We can meet our public debt. W. R. Burgess. *Trusts & Estates* 87:129 Ag '48

DEBYE-HÜCKEL theory

Ionic hydration and activity in electrolyte solutions. R. H. Stokes and R. A. Robinson. *bibliog Am Chem Soc J* 70:1870-8 My '48

DEBYE'S equation

Second sound and the heat conductivity in helium II; dispersion of second sound and of ordinary sound. W. Band and L. Meyer. *bibliog Phys R* 78:226-9 F 1 '48

Variation of the complex dielectric constant with frequency. H. C. Bolton. *bibliog J Chem Phys* 16:486-9 My '48

DECABORANE. See Boron hydrides**DECAHYDROISOQUINOLINE**

Preparation of *cis-* and *trans-* decahydroisoquinolines and of *bz-*tetrahydroisoquinoline. B. Witkop. *bibliog Am Chem Soc J* 70:2617-19 Ag '48

DECAHYDRONAPHTHALENE. See Decalin**DECAHYDROQUINOLINE**

Synthesis of piperidine derivatives; aryldecahydroquinolines; discussion. *Chem & Ind* p 155-6 Mr 6 '48

DECALOMANIA

Investigation of a new decal-application medium. L. R. Blair. *diags Am Cer Soc Bul* 27:374-6 O 15 '48

Study of decalomania blistering. L. R. Blair. *il Am Cer Soc Bul* 27:301-7 Ag 15 '48

DECALIN

Dielectric properties of solid and liquid *cis-* and *trans-*decahydronaphthalene. W. F. Seyer and G. M. Barrow. *bibliog diag Am Chem Soc J* 70:802-5 F '48

Interactions between non-bonded atoms, and the structure of *cis*-decalin. D. H. R. Barton. *Chem Soc J* p340-2 Mr '48

DECANE

Vapor-liquid equilibrium constants for carbon monoxide. L. C. Widdoes and D. L. Katz. *diag Ind & Eng Chem* 40:1742-6 S '48

DECANOIC acid. See Capric acid**DECANOL**

Branched-chain fatty acids; the synthesis of optically active 10-methyloctadecanoic acids. F. S. Prout, J. Cason and A. W. Ingersoll. *bibliog Am Chem Soc J* 70:298-305 Ja '48

DECARBOXYLATION. See Carboxyl group**DECARBURIZATION of steel. See Steel—Decarburization****DECATUR, Illinois****Water supply**

Causes and effects of sedimentation in Lake Decatur. C. B. Brown and others. *Am Water Works Assn J* 40:1135-6 O '48

DECCA records, inc.

Decca bundles up. *Bsns W* p57-9 D 27 '47

DECELOSTAT

Assures maximum braking effort; Decelostat equipment. C. F. Hammer. *il Machine Design* 20:116-17 Ap '48

DECENE

Polymerization of pentenes. V. N. Ipatieff and R. E. Schaad. *bibliog Ind & Eng Chem* 40:78-80 Ja '48

DECENTRALIZATION. See City and country; City planning**DECENTRALIZATION of industry. See Industry—Decentralization****DECIBEL (transmission unit)**

Recording and reproduction of sound; study of the decibel. O. Read. *il Radio N* 40:52-3+ J 48

DECIMAL system

Decimal dimensioning; what profit? O. E. Kirchner. *S A E J* 56:47-9 Ja '48

DECIMALS

Decimal equivalents of various gages; reference book sheet. *Am Mach* 92:135 Mr 25 '48

See also

Metric system

DECK coverings. See Ships—Deck coverings

DECOIC acid. See Capric acid

DECOLORIZATION

Treating dark-colored fat. *Soap & San Chem* 23:81 N '47

DECOMPOSITION

Absolute reaction rate of unimolecular decompositions. J. O. Hirschfelder. *J Chem Phys* 16:22-5 Ja '48

Catalytic action of salt pairs. G. Schwab and A. Karatzas. *bibliog diag J Phys & Colloid Chem* 52:1053-60 Je '48

Catalytic decomposition of ethane and ethane-hydrogen mixtures. C. Kemball and H. S. Taylor. *diag Am Chem Soc J* 70:345-51 Ja '48

Cinnolines; the alkaline decomposition of some quaternary salts of 4-substituted cinnolines. J. C. E. Simpson. *Chem Soc J* p 1653-6 D '47

Decomposition hazard of vacuum stills. K. C. D. Hickman and N. D. Embree. *bibliog diag Ind & Eng Chem* 40:135-8 Ja '48

Decomposition of benzoyl peroxide in solvents; ethers, alcohols, phenols and amines. P. D. Bartlett and K. Nozaki. *bibliog Am Chem Soc J* 69:2299-306 O '47

Decomposition of dibutylchloramine. G. F. Wright. *bibliog Am Chem Soc J* 70:1958-62 My '48

Decomposition of iodonium compounds; reaction with pyridine. R. B. Sandin and R. K. Brown. *bibliog Am Chem Soc J* 69:2253-4 O '47

Decomposition of *o*-methoxybenzene diazonium chloride. H. E. Woodward and A. A. Ebert. *jr. Am Chem Soc J* 70:1666-7 Ap '48

Decomposition reactions of sodium aryldiazates; replacement of the diazo- by the nitro-group in alkaline solution with sodium nitrite. H. H. Hodgson and E. R. Ward. *Chem Soc J* p556-9 My '48

Decomposition reactions of the aromatic diazo-compounds in aqueous solution explained on simple electronic theory, and without recourse to the current free-radical hypothesis. H. H. Hodgson. *Chem Soc J* p348-54 Mr '48

Decompositions of di-*t*-alkyl peroxides; kinetics in liquid phase. J. H. Raley, F. F. Rust and W. E. Vaughan. *Am Chem Soc J* 70:1336-8 Ap '48

Effect of temperature and solvent upon the fate of carboxyl groups in the decomposition of benzoyl peroxide. P. F. Hartman, H. G. Sellers and D. Turnbull. *bibliog Am Chem Soc J* 69:2416-19 O '47

Energy of the C-H bond in the three picolines (methyl pyridines). J. S. Roberts and M. Szwarc. *J Chem Phys* 16:931-3 O '48

Fundamental fallacy of the free radical hypothesis as applied to the decompositions of aromatic diazo-compounds; abstract. H. H. Hodgson. *bibliog Chem & Ind* p553-4 O 9 '48

Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. E. Harris and B. G. Lang. *bibliog J Phys & Colloid Chem* 51:1430-41 N '47

In situ study of the thermal decomposition of ethylene oxide by infra-red spectrometry. G. L. Simard and others. *J Chem Phys* 16:836 Ag '48

Influence exercised by the atmosphere of the furnace on the thermal decomposition of kaolin and on the reactivity of Al_2O_3 ; abstract. *Chem Eng* 55:280+ Ja '48

Kinetics and mechanism of the thermal decomposition of *n*-heptane. W. G. Appleby, W. H. Avery and W. K. Meerbott. *bibliog diags Am Chem Soc J* 69:2279-85 O '47

Kinetics, mechanism, and activation energy of the cobaltous ion catalyzed decomposition of ozone. G. R. Hill. *bibliog Am Chem Soc J* 70:1306-7 Ap '48

DECOMPOSITION—Continued

- Kinetics of the decomposition of trichloroacetic acid in formamide-water mixtures. C. N. Cochran and F. H. Verhoek. *bibliog Am Chem Soc J* 69:2937-8 D '47
- Photo-chemical decomposition of acetone at 3130 Å. L. M. Dorfman and W. A. Noyes. *jr. bibliog J Chem Phys* 16:557-60 Je '48
- Photo-chemical studies; the mechanism of the photo-chemical decomposition of acetone. W. A. Noyes, *jr.* and L. M. Dorfman. *bibliog J Chem Phys* 16:788-97 Ag '48
- Radiation chemistry; effect of molecular size. M. Burton. *bibliog J Phys & Colloid Chem* 52:810-19 My '48
- Reaction of sulphur and sulphur compounds with olefinic substances; thermal decomposition of organic polysulphides, and its contribution to the sulphur-olefin reaction. G. F. Bloomfield. *Chem Soc J* p 1547-51 N '47
- Reactions of iron pyrite; its thermal decomposition, reduction by hydrogen and air oxidation. G. M. Schwab and J. Phillis. *bibliog diag Am Chem Soc J* 69:2538-96 N '47
- Replacement of the diazonium by the nitro-group; decompositions by cupro-cupri sulphite. H. H. Hodgson, A. P. Mahadevan and E. R. Ward. *Chem Soc J* p 1392-4 O '47
- Thermal decomposition of ammonium nitrate. J. T. Kummer. *Am Chem Soc J* 69:2559 O '47
- Thermal decomposition of benzoyl peroxide. D. J. Brown. *bibliog Am Chem Soc J* 70:1208-9 Mr '48
- Thermal decomposition of explosives in the solid phase. J. Vaughan and L. Phillips. *Chem Soc J* p 1560-5 D '47
- Thermal decomposition of mono-olefins; isobutylene. F. O. Rice and W. S. Haynes. *bibliog diag Am Chem Soc J* 70:964-6 Mr '48
- Thermal decomposition of pentaerythritol tetranitrate, nitroglycerin, ethylenediamine dinitrate and ammonium nitrate. A. J. B. Robertson. *bibliog Soc Chem Ind J* 67:221-4 Je '48
- Thermal decomposition of tertiary butyl acetate. C. E. Rudy, *jr.* and P. Fugassi. *bibliog J Phys & Colloid Chem* 52:357-63 F '48
- Thermal decomposition of triphenylacetic acid and triphenylacetyl chloride. P. G. Scholefield and others. *bibliog Soc Chem Ind J* 66:447-9 D '47
- See also*
Pyrolysis
- DECOMPRESSION sickness.** *See* Caisson disease
- DECORATION and ornament**
Decorations applied when molding. *il Mod Plastics* 25:80-1 Ag '48
- See also*
Decalcomania
Glassware—Decoration
Textile design
Trimnings (for drapery, upholstery, etc.)
- Interior decoration
Pottery—Decoration
Sheet metal work, Decorative
- DECORATION and ornament, Architectural**
See also
Mural painting and decoration
- DEEP ROCK oil corporation**
Newcomers on the New York stock exchange. *Mag of Wall St* 81:251 D 6 '47
- DEEP sea trawlers, inc.**
Crabbing in the Bering. *Fortune* 38:114+ Ag '48
- DEERE and company**
Diversified stake in high leverage stocks. G. W. Mathis. *Mag of Wall St* 82:382 JI 17 '48
- Stock offered. *Comm & Fin Chr* 168:447 Ag 2 '48
- DEFALCATION.** *See* Embezzlement
- DEFECTIVE products.** *See* Products, Defective
- DEFENSE bases compensation act, 1941.** *See* Workmen's compensation—United States
- DEFENSE supplies corporation**
Defense Supplies recovers fire loss from balleys; Lawrence warehouse co. case. *Nat Underw* 52:10+ F 19 '48; *East Underw* 49:27 S 3 '48
- DEFENSE workers.** *See* Munition factories—Employees

DEFERRED compensation

- Deferred compensation contracts. H. M. McKay. *East Underw* 49:4 F 27 '48
- Executive plans are replacing dying "golden goose" of pensions. M. Beitman. *Nat Underw* (Life ed) 52:6 F 13 '48
- Hope Congress will clear up tax on deferred pay. M. D. Dundas. *Nat Underw* (Life ed) 52:3+ Ag 20 '48
- Tips on deferred compensation. J. F. Ramsey. *Nat Underw* (Life ed) 52:2+ My 14 '48
- Treasury said to want curb on deferred pay plans. *Nat Underw* (Life ed) 51:11 D 5 '47
- DEFERRED payment.** *See* Consumers; Installment plan
- DEFERRED payment insurance.** *See* Insurance, Deferred payment merchandize
- DEFLATION (finance)**
Deflation not likely. L. H. Haney. *Comm & Fin Chr* 168:1105-6 16 '48
- Drastic deflation; a graver danger than inflation. I. Wright. *Comm & Fin Chr* 167:797+ F 19 '48
- End of financial deflation inevitable? W. Gates. *Mag of Wall St* 82:66-7+ Ap 24 '48
- Is gold more than a deflation hedge? B. Griffith and B. Ellsworth. *Comm & Fin Chr* 168:1012-13 S 9 '48
- Northern trust co. of Chicago cites deflationary dangers in use of Treasury surplus. *Comm & Fin Chr* 167:597+ F 5 '48
- Risks in anti-inflation. L. S. Mott. *Comm & Fin Chr* 167:301+ Ja 22 '48
- DEFORMATION (mechanics)**
Compressional behavior of textile materials; measurement at a constant rate of deformation. R. B. Finch. *bibliog* (43 titles) *il diag Textile Res J* 18:165-77 Mr '48
- Compressional behavior of textile materials; measurement of compressional stress relaxation at constant deformation. R. B. Finch. *bibliog il diag Textile Res J* 18:237-43 Ap '48
- Deformation lines in cold-rolled copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, *jr.* and others. *bibliog il Metals Tech* 15:TP2336 1-10 F '48
- Deformation of metals during single and repeated tensile impact. J. A. Pope. *bibliog il diag Iron & Steel Inst J* 157:31-54 S '47; *Discussion*. 158:215-18 F '48
- Flow, fracture and ductility of metals. D. J. McAdam, *jr.* and others. *bibliog Metals Tech* 15:TP2296 1-30 Ja '48
- Flow of metals under various stress conditions. A. L. Nadai. *diag Inst Mech Eng J & Proc* 157 (War emergency issue no 28):121-60, pl 1-8 *bibliog* (p159-60) '47
- Influence of deformation on the thermoelectric power of metals; abstract. C. Crusard and F. Aubertin. *Engineer* 185:305 Mr 26 '48
- Long time load-deformation effects in viscoelastic materials. C. H. Adams and M. C. Thordahl. *bibliog Mod Plastics* 25:139-42+ Je '48
- Micro- and macro-deformations of metals and alloys under longitudinal impact loads. G. Welter. *il diag Metallurgia* 38:287-92, 328-30 S-O '48 (to be cont)
- New theory of the plastic deformation in wire-drawing. R. Hill and S. J. Tupper. *bibliog diag Iron & Steel Inst J* 159:353-9 Ag '48
- Nucleation of slip bands. J. G. Leschen and others. *bibliog diag Metals Tech* 15:TP2476 1-3 S '48
- Plastic deformation of carbon steels. R. Saxton. *il Metallurgia* 37:293-4 Ap '48
- Plastic deformation of large grained copper specimens. W. R. Hibbard, *jr.* *bibliog il diag Metals Tech* 15:TP2469 1-21 S '48
- Plastic deformational analyses on pure magnesium. L. A. Carapella and W. E. Shaw. *bibliog il diag Am Soc for Metals Trans* 38:729-50; *Discussion*. 750-6 '47
- Problem types in the theory of perfectly plastic materials. W. Prager. *bibliog diag J Aeronautical Sci* 15:337-41 Je '48
- Researches into the deformation of metals by cold rolling; abstract and discussion. H. Ford. *Engineer* 185:352-3 Ap 9 '48
- Rheological problems in the processing of plastics. R. Buchdahl and H. K. Nason. *bibliog diag Ind & Eng Chem* 40:642-51 Ap '48

DEFORMATION (mechanics).—Continued

- Statistical rate theory of metals; mechanism of flow and application to tensile properties. J. W. Fredrickson and H. Eyring, *bibliog diags Metals Tech* 15:TP2423 1-33 Ag '48
- Statistical theory of the elementary process of plastic deformation. W. J. Lyons, *diag Phys R* 73:413-14 F 15 '48
- Strain and deformation recording system. *il diag Iron Age* 160:74 D 4 '47
- Strain energy in greatly deformed elastic or inelastic anisotropic engineering metals. K. H. Swainger, *bibliog diags Franklin Inst J* 245:501-16 Je '48
- Theory of plastic flow versus theory of plastic deformation. W. Prager, *bibliog J Ap Phys* 19:540-3 Je '48
- Transient plastic deformation. R. P. Carreker and others, *diag Metals Tech* 15:TP2477 1-8 S '48

See also

- | | |
|--------------------|----------------------|
| Creep of materials | Plasticity |
| Creep of metals | Strains and stresses |
| Elasticity | |

DEGRAS. See Wool fat**DEGREASING**

- Innovations in degreasing tanks; solutions to remove rolling mill surface oil create ventilation problem. *il Sheet Metal Worker* 39:64-5 My '48
- Theory and practice of metal degreasing in aqueous media. P. D. Liddiard, *Chem & Ind* p435-7 J 10 '48
- Vapour degreasing; engineering data sheet. *Metall Finishing* 46:88 Ap '48

DEHUMIDIFIERS

- Conditioning of hot humid air. R. E. Peck and C. J. Ryant, *jr. bibliog diags Refrig Eng* 56:417-21 N '48
- Dehumidification protects materials from deterioration; preservation of interiors of ships. G. C. Wells, *il diags Heating-Piping* 20:75-80 Ag '48
- Dehumidifiers protect priceless documents on tour with the Freedom train. *il Heating-Piping* 20:97 O '48
- Stored natural gas is dehumidified. *Heating-Piping* 20:66 Je '48

DEHYDRATION

- Aliphatic nitro-compounds preparation of nitro-olefins by dehydration of 2-nitro-alcohols. G. D. Buckley and C. W. Scaife, *Chem Soc J* p 1471-2 N '47
- Alumina catalysts for vapour-phase organic dehydrations, deaminations, etc. G. Fea-chem and H. T. S. Swallow, *Chem Soc J* p267-72 Mr '48
- Effect of operating variables on methylamine production. R. S. Egly and E. F. Smith, *bibliog flow sheet il Chem Eng Prog* 44:387-96; Discussion. 396-7 My '48
- High vacuum dehydration and distillation. R. S. Morse, *bibliog il diags Chem & Ind sup* 13-19 O 9 '48
- Isomeric unsaturated esters; the dehydration of ethyl 3-hydroxy-2-ethyl-3-methylbutanoate. R. C. Huston, G. L. Goerner and H. H. Gyorgy, *bibliog Am Chem Soc J* 70:389-91 Ja '48
- Lanosterol hydrocarbons formed by the action of dehydrating agents. C. Dorée, J. F. McGhie and F. Kurzer, *Chem Soc J* p 1467-71 N '47
- Reactions of furan compounds; dehydration of tetrahydrofurfuryl alcohol to 2,3-dihydropyran and subsequent formation of acrolein and ethylene. C. L. Wilson, *bibliog Am Chem Soc J* 69:3004-6 D '47
- Reactions of isopropyl alcohol in the presence of catalysts containing magnesium oxide. L. L. Gershbein, H. Pines and V. N. Ipatieff, *bibliog Am Chem Soc J* 69:2888-93 N '47
- Vacuum dehydration using liquid absorbents. W. H. Tucker and T. K. Sherwood, *bibliog flow diag diags Ind & Eng Chem* 40:832-8 My '48

See also

- Gas, Natural—Dehydration

DEHYDRATION (drying). See Drying**DEHYDROABIETIC acid**

- Studies on resin acids; oxidation of diphenyl-*t*-dehydroabietinol; a postulated mechanism. H. H. Zeiss, *Am Chem Soc J* 70:858-60 F '48

DEHYDROASCORBIC acid

- Dehydroascorbic acid in frozen and cooked frozen vegetables. C. L. Bedford and M. A. McGregor, *bibliog Science* 107:251-2 Mr 5 '48

- Isolation and some properties of dehydro-l-ascorbic acid. J. Kenyon and N. Munro, *Chem Soc J* p 158-61 F '48

- Oxidation of ascorbic acid to dehydroascorbic acid. D. W. Bolin and L. Book, *Science* 106:451 N 7 '47

DEHYDROCITRYLIDENE cyanoacetate

- Polyenes; methyl dehydrodicytylidenecyanoacetate. W. G. Young and S. L. Linden, *bibliog Am Chem Soc J* 69:2912-13 N '47

DEHYDROCYCLIZATION. See Aromatization**DEHYDROERGOSTERYL acetate**

- Ozonization of the maleic anhydride adduct of dehydroergosteryl acetate. R. H. Levin, M. M. Wesner and E. M. Meinzer, *Am Chem Soc J* 70:2834-5 Ag '48

DEHYDROGENATION

- Aromatic cyclodehydrogenation. M. Orchin and others, *bibliog 2pls diags U S Bur Mines Tech Pa* 708:1-40; pa 20c Supt. of doc. '48
- Aromatic cyclodehydrogenation; rearrangements in the phenyl-naphthalene series. M. Orchin and L. Reggel, *bibliog Am Chem Soc J* 70:1245-7 Mr '48
- Aromatic cyclodehydrogenation; synthesis of ring oxygen compounds. M. Orchin, *Am Chem Soc J* 70:495-7 F '48
- N-Bromosuccinimide as a dehydrogenating agent. R. A. Barnes, *bibliog Am Chem Soc J* 70:115-7 Ja '48
- Butane dehydrogenation; pilot-plant investigations. K. Hachmuth and G. H. Hanson, *bibliog flow diags il diags Chem Eng Prog* 44:421-30 Je '48
- Catalytic dehydrogenation. flow diag Oil & Gas J 46:128 Ap 1 '48
- Catalytic dehydrogenation of ethylbenzene. R. R. Wenner and E. C. Dybdal, *bibliog diags Chem Eng Prog* 44:275-86 Ap '48
- Catalytic dehydrogenation of normal butenes to butadiene in the presence of steam. L. H. Beckberger and K. M. Watson, *bibliog flow chart diag Chem Eng Prog* 44:229-48 Mr '48
- Catalytic racemization and dehydrogenation of optically active secondary-butyl alcohol by copper and by zinc chromite. R. L. Burwell, Jr, *bibliog diag Am Chem Soc J* 70:2865-9 S '48
- Correlation of surface area and dehydrogenation activity for a chromia-alumina catalyst. J. R. Owen, *Am Chem Soc J* 69:2559-60 O '47
- Metal electrons and alloy catalysis; the system gold-cadmium. G. Schwab and S. Pesmatoglou, *bibliog diags J Phys & Colloid Chem* 52:1046-53 Je '48
- Phillips butane dehydrogenation process; special plant investigations. G. H. Hanson and H. L. Hays, *bibliog flow diag il diags Chem Eng Prog* 44:431-42 Je '48
- Reactions of isopropyl alcohol in the presence of catalysts containing magnesium oxide. L. L. Gershbein, H. Pines and V. N. Ipatieff, *bibliog Am Chem Soc J* 69:2888-93 N '47
- Studies in the indole series; yohimbine; the mechanism of dehydrogenation of yohimbine and related compounds. P. L. Julian and others, *bibliog Am Chem Soc J* 70:174-9 Ja '48
- Studies in the terpene series; effect of catalyst, solvent and temperature on the dehydrogenation of pinane and *p*-menthane. H. Pines, R. C. Olberg and V. N. Ipatieff, *bibliog Am Chem Soc J* 70:533-7 F '48
- Sulfur as a promoter for a nickel catalyst in dehydrogenation. H. Adkins and others, *Am Chem Soc J* 70:381-2 Ja '48
- Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and *m*-xylene by dehydrogenation of corresponding cyclohexene intermediates. T. W. Reynolds and others, *bibliog Ind & Eng Chem* 40:1751-2 S '48

DEHYDROISANDROSTERONE

- Dimercaptols of dehydroisandrosterone. R. H. Levin and J. L. Thompson, *Am Chem Soc J* 70:3140-1 S '48

DEHYDROISOANDROSTERONE acetate

Mercaptois of 17-keto steroids. L. Norymberska, J. Norymberski and A. Olalde. *Am Chem Soc J* 70:1256-7 Mr '48

DEHYDROTOXICAROL

Ultraviolet absorption spectrum of toxicarol and dehydrotoxicarol. S. Ch'en and F. Chao. *J Chem Phys* 16:658-60 J '48

DE-INKING. See Waste paper**DEITSCH, Mark B.**

Cinderella slipper; Prima Footwear's sales zoom. *por Bsns W* p80+ My 1 '48

DELACORTE, George T., Jr.

Publisher of 50 periodicals. L. Bell. *por Adv & Sell* 41:96+ O '48

DELAWARE

See also
Corporation law—
Delaware

DELAWARE and Hudson company

D. & H. makes hay as fuel oil rises. A. Jansen. *Barron's* 28:33-4 Ag 9 '48

DELAWARE, Lackawanna and western railroad

Lackawanna divisional bond lags behind system issues. *Barron's* 28:26 Ap 19 '48

Nickel Plate deal; Lackawanna railroad acquires substantial interest. *Bsns W* p78+ Ja 17 '48

DELAWARE power and light company

Bonds offered. *Comm & Fin Chr* 166:2417-18 D 15 '47

DELAWARE river

Will hydro cross the Delaware? proposal for combination hydro power and water supply project. J. L. Donnelly. *map Pub Util* 41:472-3 Ap 8 '48

DELAY allowances. See Time study**DELIVERY of goods**

Bottler tackles truck delivery problems; Minnehaha water co. distributes drinking water and soft beverages. *il Food Ind* 20:187 F '48
Doorstep orange juice; liquid-tight fibre can for frozen fresh juice, delivered daily by milkman. *il Mod Packaging* 21:117 F '48

Home delivery would up frozen food sales; industry needs light duty truck. *il Refrig Eng* 55:61+ Ja '48

Vendor delivery coming? demands from big retailers that manufacturers handle warehousing and delivery to user. *Bsns W* p54+ O 16 '48

See also

Coal delivery
Milk delivery
Motor truck drivers

Delivery to dealers

Kraft designs trailers for bigger loads. *il Food Ind* 20:871-2 Je '48

Tractor-trailers ease bakery distribution. *il map Food Ind* 20:1020-1 J '48

Truck charges geared to load's value; Holleb & co., grocery jobbers. *il Food Ind* 20:32-3 Ja '48

Trucks win Southwest; Griffin grocery co. operating its own canning and coffee roasting plants. *il map Food Ind* 19:1641-2 D '47

Trust cuts trucking costs; Holleb & co. grocery drivers share profits through retirement fund. *Food Ind* 20:349 Mr '48

DEL NORTE. See Steamboats**DELUSTERING of rayon**. See Rayon—Delustering**DEMAGNETIZATION**

Electricity in the navy; specialized equipment in H.M.S. Springtide. R. C. Gordon. *il Elec R (Lond)* 142:571-2 Ap 16 '48

DEMAND and supply. See Supply and demand**DEMAND meters**

Case for the thermal meter. A. J. Petzinger. *diag Elec World* 129:32-3 Je 19 '48

Key operated resetting device for cumulative demand registers aids meter reading. C. V. Morey and A. W. Fyfe. *il Edison Elec Inst Bul* 16:23+ Ja '48

Maximum demand alarm. *il Engineer* 185:504-5 My 21 '48

Maximum demand indicators. *il Electrician* 141:562 Ag 20 '48

New mechanical demand meter register. J. R. Macintyre and R. W. Snyder. *il diag Elec Eng* 67:20-1 Ja '48

DEMINERALIZATION

Demineralization of sugar cane juice; pilot plant study. A. B. Mindler. *bibliog flow diag* *il Ind & Eng Chem* 40:1211-15 J '48
Ion-exchange demineralizing of solutions. F. R. Riley and H. M. Day. *flow diag diag* *Chem Eng Prog* 44:353-8 My '48

Ion exchange; operation of commercial scale plant for demineralization of cane sirups and molasses. E. Bloch and R. J. Ritchie. *bibliog flow sheet* *il Ind & Eng Chem* 39:1581-4 D '47

See also

Water purification—

Demineralization

DEMOCRACY

American industry, democracy's ace in the hole. C. S. Wyand. *Mech Eng* 70:663-5 Ag '48

America's best export. E. Roper. *Comm & Fin Chr* 168:6+ J '48

For those who work for achievement. C. E. Wilson. *Gen Elec R* 50:11-13 N '47

How firm is your foundation. R. B. Mather. *Paint Oil & Chem R* 111:23-4, Ap 1 '48

In defense of competition; review of Democracy and progress. by D. M. Wright. R. E. Freeman. *Mech Eng* 70:683 Ag '48

What is democracy? H. B. Phillips. *bibliog Tech R* 50:433-4+ Je '48

DEMOCRATIC party

New deal accomplishments; keynote address to Democratic party convention. A. W. Barkley. *Comm & Fin Chr* 168:209+ J '48

DEMOLITION of buildings. See Wrecking

DEMONSTRATION houses. See Houses, Model

DEMONSTRATIONS. See Salesmanship—

Demonstrations

DENATURATION of proteins. See Proteins—

Denaturation

DENIGES reagent

Determination of the factor for pyrethrin I in the mercury method. G. T. Bray and others. *Soc Chem Ind J* 66:275-9 Ag '47

DENMARK

See also

Libraries—Denmark

Radio broadcasting—

Denmark

Wages—Denmark

Commerce

Danish trade in first six months of 1947 and 1948; table. *For Comm W* 32:19 S 18 '48

Commercial policy

Agreement for exchange of goods with Italy; exchange of goods and payments agreements with Norway; trade agreement with United Kingdom. *For Comm W* 33:15-16 O 30 '48

Goods-exchange agreement for 1948 concluded with Finland; agreement covering 1948 trade concluded with Switzerland. *For Comm W* 31:10-11 My 8 '48

New merchandise; exchange agreement concluded with Spain; one-year agreement for exchange of goods concluded with Sweden; payments agreement prolonged. *For Comm W* 31:10-11 Ap 24 '48

Summary of import license and exchange regulations. *For Comm W* 32:20 J '48

Supplementary protocol to trade and payments agreement with Yugoslavia signed. *For Comm W* 33:21 O 23 '48

Foreign relations

Denmark's foreign policy. *Economist* 154:590 Ap 10 '48

Politics and government

Danish socialists return to office. *Economist* 153:1046 D 27 '47

DENSITOMETERS

Density is important factor. C. F. King. *Inland Ptr* 121:39-42 Ag '48

More about the densitometer. C. F. King. *Inland Ptr* 121:72-4 S '48

Nouveau densimètre pour la mesure rapide de la densité des corps solides. J. Goguel. *diag Génie Civil* 124:459 D 1 '47

DENTAL caries. See Teeth—Diseases**DENTAL clinics**

Dental services received by children in a New York clinic. I. Altman. *Pub Health Rep* 62:1355-71 S 19 '47

DENTAL clinics—Continued

Dentist-time for children's services. E. Landsiedel and I. Altman. *bibliog Pub Health Rep* 63:1221-31 S 17 '48

DENTAL hygiene

Dental relations in a state industrial hygiene program. E. R. Aston. *Ind Med* 17:21-3 Ja '48

DENTAL laws and legislation

Dental research act. *Pub Health Rep* 63:1063-6 Ag 13 '48

DENTAL research

Dental research act. *Pub Health Rep* 63:1063-6 Ag 13 '48

Funds for the Office of naval research. *Science* 106:584 D 12 '47

DENTAL service

See also

Dental clinics

DENTAL service, Industrial

Conservative procedures in the treatment of acute dental injuries in industry. L. S. Morvay. *Ind Med* 17:87-8 Mr '48

DENTAL supplies industry

Management manual doubles as sales tool; Dentists' supply co. serves needs of dental laboratories. *Sales Management* 60:78-9 F 1 '48

DENTAL surveys

Dental caries prevalence and tooth mortality; a study of 24,092 Georgia children in twelve communities. T. L. Hagan. *bibliog map Pub Health Rep* 62:1757-72 D 19 '47

Dental effects of community waters accidentally fluorinated for nineteen years; differences in the extent of caries reduction among the different types of permanent teeth. H. Klein. *bibliog Pub Health Rep* 63:563-73 Ap 30 '48

Effect of topically applied fluoride on dental caries experience; experiments with sodium fluoride and calcium chloride. D. J. Galagan and J. W. Knutson. *bibliog Pub Health Rep* 63:1215-21 S 17 '48

DENTIFRICES

Effect of dentifrices; abstract. R. W. Phillips and G. VanHusen. *Soap & San Chem* 24:30 My '48

Kolynos' Jolly closure. *il Mod Packaging* 21:106-7 N '47

Ten commandments for launching a new product; Lyons tooth paste, from product development through advertising and allocation of orders. D. H. Williams. *il Adv & Sell* 40:33-44 N '47

DENTISTRY

Role of the dentist in oral cancer detection. R. S. Lloyd. *bibliog Pub Health Rep* 63:805-12 Je 18 '48

DENTURE adhesives

Three steps in product testing by mail; denture adhesive. A. E. Day. *il Ptr Ink* 222:33+ Ja 9 '48

DENVER

See also

Retail trade—Denver

Water supply

Denver rebuilds a water works reservoir. D. D. Gross. *il Pub Works* 79:23 Je '48

DENVER and Rio Grande western railroad

Traffic "reorganized" too; Geneva Steel volume may add 20 per cent to Road's prewar gross. C. Shipman. *Barron's* 28:31 Je 21 '48

DEODORIZATION

Air purification and deodorization by use of activated carbon. F. H. Munkelt. *bibliog Refrig Eng* 56:1-8 sec 2 S '48

Air quality control, fourth factor in air conditioning; Airkem system of odor removal. *il Sheet Metal Worker* 39:88+ My '48

Air recovery deodorizes conditioned air for economical recirculation. *il diags Arch Forum* 89:105-7 Ag '48

Odor removal studies in refrigerated storage. M. Uota and R. M. Smock. *il Refrig Eng* 53:256-9+ Mr '48

Taking odors out of air. G. A. Van Brunt. *il diag Factory Management* 106:105-7 Ag '48

DEODORIZERS

Stopette crashes cold market; sells 1,000,000 bottles in first year. W. A. Wright. *il Sales Management* 61:37-9 Ag 1 '48

Use of Chloroben for odor control. F. S. Taylor. *il Sewage Works J* 20:917-20 S '48

DEPARTMENT stores

Bullock's Palm Springs store, California; drive-in department store. M. Ketchum, Jr. *il plans Arch Rec* 103:123-7 Ap '48

Department store at Fort Lauderdale, Fla. has special foundations. *il Eng N* 140:10 Ja 1 '48

Department store mecca for motorists; May co., Los Angeles. *il plans diag Arch Forum* 88:108-9 My '48

Department store with recreation top for Gautam Sarabhai at Amehabad, India; design by F. L. Wright. *il plan Arch Forum* 88:120 Ja '48

How to sell to and through the new department store. E. B. Weiss. *il Ptr Ink* 221:31-4+ N 28; 39-40+ D 5; 42-3+ D 12; 36-7+ D 19; 38-9+ D 26 '47; 222:36-7+ Ja 2; 44+ Ja 9; 46+ Ja 16; 38-9+ Ja 23; 44+ Ja 30; 44+ F 6; 50+ F 13; 50+ F 20; 42-3+ F 27; 42+ Mr 5; 43-4+ Mr 12; 45-6+ Mr 19; 42+ Mr 26; 223:35+ Ap 2; 86+ Ap 9; 40+ Ap 16; 40-1+ Ap 23; 42+ Ap 30; 42-4+ My 7; 56+ My 14; 46-7+ My 21; 46+ My 28; 38-9+ Je 4; 42-3+ Je 11; 48+ Je 18 '48

Mr Fred of the Lazari. *il Fortune* 37:108-15+ Mr '48

Rich's expanding riches; mammoth Atlanta department store. *il Bsns W* p88+ Ap 24 '48

Store for the motorized carriage trade; Bullock's-Pasadena. *il plans Arch Forum* 88:102-5 My '48

Accounting

Audit of a department store; auditing case study no. 3. *J Account* 85:164 F '48

Department store inventory price indexes, by department groups, 1941-47. *Mo Labor R* 66:58 Ja '48

LIFO makes the grade; Bureau of internal revenue agrees to let retailers use the device. *Bsns W* p36-7+ Ja 3 '48

Advertising

Direct mail, Orphan Annie of department store promotion. E. B. Weiss. *il Ptr Ink* 222:45-6+ Mr 19 '48

Field store prepares ads without printers. G. A. Brandenburg. *Ed & Pub* 81:5-6 Mr 20 '48

48 ad pages in two weeks for Macy's San Francisco. *Ed & Pub* 81:20 F 21 '48

How department stores are using direct-mail, telephone and outside selling. E. B. Weiss. *il Ptr Ink* 221:38-9+ D 26 '47

How to get retailers to tie in with national advertising. J. C. Cumming. *Sales Management* 60:131-2+ Mr 15 '48

How to sell to and through the new department store. E. B. Weiss. *il Ptr Ink* 221:36-7+ D 19 '47

Intrastore television as a sales-promotion medium. H. Jonas. *J Retailing* 24:15-20 F '48

Manufacturers can help department stores promote their products. E. B. Weiss. *il Ptr Ink* 222:42-3+ F 27 '48

Radio and television promotions in the new department store. E. B. Weiss. *il Ptr Ink* 222:43-4+ Mr 12 '48

Sales promotion policy and organization. E. B. Weiss. *il Ptr Ink* 222:50+ F 20 '48

Syndicated Gimbel ads used by 180 customers. *Bsns W* p72+ D 6 '47

Air conditioning

Department stores require flexible air conditioning. T. W. Reynolds. *il plan diags Power* 92:526-8 S '48

Masterpiece in comfort; Foley's new department store, Houston. *il Dom Eng* 171:160-2+ Mr '48

Branch stores

Bonwit Teller takes over old museum; new Boston branch. *il Arch Rec* 102:12 N '47

How to sell to and through the new department store; department stores are becoming chain stores. E. B. Weiss. *il Ptr Ink* 221:39-40+ D 5 '47

Lord and Taylor's Westchester store, M. Ketchum, Jr. *il plans Arch Rec* 103:111-22 Ap '48

Macy's Jamaica is designed around merchandising methods. *il map plan diags Arch Forum* 88:100-4 F '48

DEPARTMENT stores—Branch stores—*Cont.*
Open-web girders simplify air-conditioning duct location; Macy's-Jamaica department store. *Il Eng N* 140:425 Mr 18 '48
What customers think about branch stores. J. M. Goloff. *J Retailing* 24:103-8+ O '48

Bride shops

How to capitalize on bridal business. A. Potts. *J Retailing* 24:69-73 Ap '48

Display managers

Department store window space. E. B. Weiss. *Ptr Ink* 223:86+ Ap 9 '48

Employees

Fall clearance at the big stores; union caught between T-H and non-complying locals. *Il Fortune* 33:147-8 O '48
Invitation to success; search for junior executive talent; Kaufmann department stores. M. Reid. *Personnel J* 26:218-21 D '47
Pay differentials. *Bsns W* p 110 O 23 '48
Solidarity wins in Pittsburgh; 16-day team-strike ended. *Bsns W* p 106-7 D 6 '47
Struck trucks roll; end delivery tie-up at Kaufmann's, Pittsburgh. *Bsns W* p 108 Ap 3 '48

See also United retail, wholesale and department store employees of America

Finance

Department store sales up but profit margins down. M. P. McNair. *Comm & Fin Chr* 167:2312+ My 27 '48
Federated unloads expensive real estate; stays in under lease. *Bsns W* p62-3 N 15 '47
Loop store dies; Chicago's Boston store. *Bsns W* p44-5 Jl 3 '48
Retailers need new money. *Bsns W* p78+ Mr 20 '48
Store realty sold by Abraham & Straus to Union college; will stay on long-term lease. *Bsns W* p60-1 D 27 '47
Wieboldt Stores to sell out to Equitable Life. *Bsns W* p68 F 14 '48
Word to the wise; liquidation of Pittsburgh's Boggs & Buhl. *Bsns W* p52-3 Ja 31 '48

Laboratories

Development of commodity standards for a department store; Kaufmann's commodity standards fellowship at Mellon Institute. J. Labarthe, Jr. *J Retailing* 24:83-8+ Ap '48

Layout

New concepts of store architecture affect store promotion. E. B. Weiss. *Ptr Ink* 222:42+ Mr 26 '48
Smart resort store, planned for changes in business and weather; Burdine's, Fort Lauderdale, Fla. *Il plans Arch Forum* 88: 112-14 My '48

Lighting

Lighting departmental stores; abstract and discussion. A. W. Jervis. *Electrician* 140: 1974-5 Je 25 '48

Something new in department stores at Bullock's, Pasadena. *Il Elec West* 99:55-8 D '47

Two miles of fluorescent strip; San Francisco department store. *Il Elec West* 100:79 Ap '48

Management

How a big store controller evaluates your wares. J. C. Cumming. *Sales Management* 59:122+ D 15 '47

How department stores are using direct-mail, telephone and outside selling. E. B. Weiss. *Il Ptr Ink* 221:38-9+ D 26 '47

How to woo customers and win friends; the story of Stuyvesant Town and Hearn's. J. Pearl. *J Retailing* 24:26-7+ F '48

Internal organization of department stores. E. B. Weiss. *Il Ptr Ink* 222:44+ Ja 9 '48

Leased department continues to play an important role in selling. E. B. Weiss. *Il Ptr Ink* 223:46-7+ My 21 '48

N.R.D.G.A. urges efficiency. *Bsns W* p36+ Ja 24 '48

Organization of the selling function in a department store. J. B. Brooks. *J Marketing* 13:189-94 O '48

Small town store keeps business at home; Breese's Oneonta (N.Y.) department store. A. H. Van Voris. *Il Am Bsns* 13:10-11+ My '48

Store executive who uses the statistics; the merchandise manager. E. B. Weiss. *Il Ptr Ink* 222:38-9+ Ja 23 '48

Stores join hands; cooperative Charga-plate service in New York city. *Bsns W* p79-80+ Ag 21 '48

Undepartmentizing trend makes slow headway. E. B. Weiss. *Il Ptr Ink* 223:42-4+ My 7 '48

Manufacturers' demonstrations

Demonstrators, mechanical demonstrators and intra-store television. E. B. Weiss. *Il Ptr Ink* 223:46+ My 28 '48

Tupperware makes whirlwind debut via big store demonstrations. B. G. Priestley. *Il Sales Management* 60:106+ Ap 15 '48

Purchasing

Big-store merchandise manager; how does he influence buying? J. C. Cumming. *Sales Management* 59:88+ N 20 '47

Changing role of manufacturer's salesman. E. B. Weiss. *Ptr Ink* 223:48+ Je 18 '48

Department store buyer must come of age. E. B. Weiss. *Ptr Ink* 222:44+ Ja 30 '48

Importance to department stores of strong resources. E. B. Weiss. *Il Ptr Ink* 222:36-7+ Ja 2 '48

Needed: a new buyer setup. L. Valenstein. *J Retailing* 24:45-51 Ap '48

Who's who of department stores in New York buying groups; memberships of 16 New York buying offices. *Sales Management* 61:59-62+ Ag 15 '48

You can't sell that! R. H. Macy's Bureau of standards often keeps other units from making sales. R. W. Riis. *Il Adv & Sell* 40:35-6+ N '47

See also

Department stores—
Laboratories

Securities

Diverse outlook for merchandise shares; with statistics on leading stocks. P. Dobbs. *Mag of Wall St* 82:587-9+ S 11 '48

Diverse prospects of merchandise shares; with statistics on leading stocks. J. C. Clifford. *Mag of Wall St* 82:22-4+ Ap 10 '48

Statistics

Consumer panel shows apparel-home furnishings buying in New York department stores: New York Sun study. R. H. Ganly. *Ptr Ink* 223:34-6 Je 18 '48

Department store problem; graphs showing sales data, 1939-1947. *Bsns W* p52 Jl 31 '48

Department store sales and stocks, January 1941 to July, 1948. 45p pa 25c Canada. Dominion bur. of statistics, Ottawa '48

Department store sales are up, so are costs. *Bsns W* p70+ Ap 3 '48

Department store sales; San Francisco Federal reserve district; revised series; monthly figures and annual index, adjusted and unadjusted, 1919-1946. Survey of Cur *Bsns* 28:23 Ap '48

Order placing stepped up by department stores; with graph showing trend of orders, receipts, and stocks for 296 department stores, 1945-1947. Survey of Cur *Bsns* 28: 5-6 Mr '48

Retail trade; department store sales, by Federal reserve districts, etc., 1941-1946. Survey of Cur *Bsns* 1947 Sup p44-5 [supplemented in monthly numbers]

Those department store sales figures. *Ptr Ink* 221:18+ D 5 '47

U.S. sales map shows postwar shifts in trade volume. *Bsns W* p66-8+ Ag 14 '48

Stock

Burnt once, retailers shy at high inventories; position of department stores. Bartron's 28:33 My 10 '48

Hard goods are still a hard problem. E. B. Weiss. *Il Ptr Ink* 223:38-9+ Je 4 '48

Hudson's fashions, eight new apparel shops in Detroit department store. *Bsns W* p79+ F 21 '48

Inventory turn-over in retail trade. C. Winston and M. L. Puglisi. Survey of Cur *Bsns* 28:16-21+ Je '48

DEPARTMENT stores—Stock—Continued

New inventory policies of department stores favor advertised brands. E. B. Weiss. *Pir Ink* 222:50+ F 13 '48

Six ways to set up a basic stock and automatic re-order system. J. C. Cumming. *Sales Management* 60:107-8+ Ap 1 '48

What manufacturers should know about price lining policies and practices of stores. E. B. Weiss. *Pir Ink* 222:44+ F 6 '48

Stockrooms

Gimbels mechanizes to cut costs. *il Bsns W* p92-3 O 23 '48

Wrapping departments

Measuring productivity in wrapping and packing; abstract. F. I. Swenson. *Management R* 37:247-9 My '48

DEPARTMENT stores, Cooperative

First co-op department store is open; others will follow. R. Giles. *il Pir Ink* 223:36-7 My 28 '48

DEPOLARIZATION (light)

Determination of the depolarization factors of highly polarized Raman lines. A. E. Douglas and D. H. Rank. *Opt Soc Am J* 38:281-7 Mr '48

Extension of the polarizability theory of Raman effect. F. Matossi and R. Mayer. *bibliog Phys R* 74:449-55 Ag 15 '48

Infra-red spectrum and depolarization factors of the Raman lines of spiropentane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. *bibliog J Chem Phys* 15:742-58 O '47

DEPOLYMERIZATION

Depolymerization of butylene polymers; analysis of isomeric octenes by the mass spectrometer. F. G. Ciapetta, S. J. Macuga and L. N. Leum. *bibliog Anal Chem* 20:699-704 Ag '48

Pyrolysis of high polymeric hydrocarbons. R. B. Seymour. *bibliog Ind & Eng Chem* 40:524-7 Mr '48

Thermal depolymerization of viscous isobutylene polymer. J. A. Reid and G. C. Bailey. *bibliog Ind & Eng Chem* 40:349-51 F '48

DEPOSIT insurance. See Banks and banking—Guaranty of deposits**DEPOSIT slips. See Bank deposits—Records****DEPRECIATION**

Adjustment of prior years' income for depreciation and disposal of fixed assets. D. Borth. *bibliog J Account* 85:470-4 Je '48

Current price level makes depreciation charges excessive. F. B. Taylor. *J Account* 86:302-3 O '48

Current problems in depreciation accounting. J. V. Toner. *Comm & Fin Chr* 166:2269+ D 4 '47; Same. *Edison Elec Inst Bul* 16:7-10 Ja '48

Current replacement costs and corporate earnings. W. H. Garbade. *Comm & Fin Chr* 167:202+ Ja 15 '48

Depreciated book cost not only measure of rate base. *Pub Util* 42:257-8 Ag 12 '48

Depreciation and maintenance. S. H. Withey. *Chem Age (Lond)* 59:249-51, 448-50 Ag 21, O 2 '48 (to be cont)

Depreciation as it affects economics of vehicle replacement. S. G. Page. *Am Gas Assn Proc* 1947:482-6

Depreciation in hospital accounting. *J Account* 85:344-5 Ap '48

Depreciation on cost prevents income being fairly stated. W. D. Cranstoun. *J Account* 85:207-9 Mr '48

Depreciation rates for office furniture and equipment. *il Am Bsns* 18:30+ Mr '48

Depreciation schedule. U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, waterworks, gas and electric plants. *Eng N* 140:857+ My 27 '48

Emergency facilities may be reinstated to show true income. *J Account* 85:117 F '48

Excerpts from annual reports regarding depreciation policy. *J Account* 86:249-51 S '48

Extension of accrual principles would help depreciation accounting. A. C. Littleton. *J Account* 86:21-2 Jl '48

Formula for recovering higher costs of depreciation, labor. K. Engelmann. *J Account* 84:456-8 D '47

Good old depreciation. W. I. McNeill. *Chem Eng* 55:130 Ja '48

How depreciation affects distributions of income from property held by trustee. J. F. Traver. *J Account* 85:320-3 Ap '48

If earnings drop, railroads can find cash for fixed charges in stepped-up depreciation. *Barron's* 27:33 N 10 '47

Impact of rising prices upon accounting procedures. S. J. Broad. *J Account* 86:10-21 Jl '48

Index figures for depreciation on replacement value. W. B. Sanders. *J Account* 85:64 Ja '48

Inflation and depreciation. *Automotive Ind* 98:27+ My 1 '48

Liberalized depreciation, industry's vital need. T. E. Lloyd. *bibliog Iron Age* 161:168-77 Ja 1 '48

Machine replacement and depreciation policy. T. Berna. *J Eng Educ* 38:542-7 Ap '48

Maintenance and repair and depreciation of assets. P. J. Tierney. *Inst E E J* 95 pt 1:118-19 Mr '48

New York court condemns straight-line depreciation; decision against public service commission. O. Ely. *Pub Util* 41:173-4 Ja 29 '48

\$1 is \$1, or is it? *Fortune* 36:136 D '47

Proper depreciation for rate cases. W. Oakley. *Pub Util* 41:803-4 Je 3 '48

Restricting funds for fixed asset replacement. *J Account* 86:337-8 O '48

Segregation of cash for depreciation reserve urged to prevent use for current expansion. *Barron's* 28:31 Ja 19 '48

Should the LIFO principle be considered in depreciation accounting when prices vary widely. G. O. May. *J Account* 84:453-6 D '47

Simulated plant-record method of life analysis of utility plant for depreciation-accounting purposes. A. E. Bauhan. *bibliog diags Land Econ* 24:129-36 My '48

Steelworkers favor depreciation on cost. O. Bubaker. *J Account* 84:458-9 D '47

Two commentaries on Anatomy of depreciation. H. E. Riggs; C. W. Thompson. *J Land & Pub Util Econ* 23:433-8 N '47; Discussion. E. W. Morehouse. *Land Econ* 24:79-81 F '48

Use of appraisals urged in present depreciation dilemma. R. N. Peck. *J Account* 84:459-60 D '47

Use of judgment in estimating life characteristics of depreciable property. G. T. Logan and C. T. Dwight. *Edison Elec Inst Bul* 16:153-8 My '48

Valuation and depreciation of public utility property. M. R. Scharff. *bibliog Am Soc C E Proc* 74:825-43 Je '48; Discussion. 74:1412-14 O '48

What is actual cost in depreciation accounting? W. A. Paton. *J Account* 85:206-7 Mr '48

Will straight-line depreciation become a modern Frankenstein's monster? P. T. Norton. *jr il Mill & Factory* 43:93-8 Ag '48

DEPTH sounding. See Sounding**DERAILS**

Automatic derail and trip position indicator; Heidelberg coal co. J. V. Mather. *il diags Min Cong J* 33:44-5 D '47

DERMATITIS. See Skin—Diseases**DERMATOME. See Surgical instruments and apparatus****DERRICKS, Oil well**

Big drill derrick folds up for transport. *il Constr Methods* 30:74 S '48

New design of portable rig speeds rigup and moving. *Jobs, G. M. Wilson, il World Oil* 128:71-8+ Jl '48

Track-wheel units quickly move complete drilling rig; actual time on $\frac{3}{4}$ -mile location shift is two hours. L. S. McCaslin, jr. *il Oil & Gas J* 47:72-4 Jl 15 '48

Wanted: more oil, lower cost, Shell's new portable derrick. *il Bsns W* p38 D 27 '47

Standards

Report of committee on the standardization of standard rigs and derricks. *Am Pet Inst Proc* 27(4):200-9 '47

Testing

Stanolind offshore rig makes a dry run. L. S. McCaslin, jr. *il diag Oil & Gas J* 47:79+ S 30 '48

DESENSITIZATION. See Photography—Desensitization.

DESERT houses. See Architecture, Domestic—Arizona.

DESERTS

Desert ice caves, E. R. Harrington, *il Comp Air Mag* 53:7-9 Ja '48

See also

Salt Lake desert

DESICCATION. See Drying

DESIGN
Characteristics of a good designer; abstract, E. L. Midgette and others, *Machine Design* 20:170-+ O '48

Clinical approach to weldment design, G. von Strohm, *il diags Welding J* 27:207-16 Mr '48; Same cond. *Steel* 122:68-72+ Ja 19 '48

Container Corporation's design for business, H. Burnett, *il Ind Marketing* 33:34-9, 122 Ap '48

Creative work in engineering, J. F. Calvert, *J Eng Educ* 38:732-44 Je '48

Design for the market, R. G. Cowan, *Am Cer Soc Bul* 27:155-7 Ap 15 '48

Design of arc-welded steel and its relation to costs, R. H. Davies, *il diags Welding J* 26:1087-90 D '47

Designing castings in gray iron, C. O. Burgess, *diags Foundry* 76:100-1+ S '48

Designing for die casting, H. C. Snyder and others, *il diags Product Eng* 19:86-91 O '48

Designing for low scrap to reduce cost, E. F. McCaleb, *il diags Product Eng* 19:150-2 Ap '48

Designing for shock resistance, G. Beling, *il diags Product Eng* 19:140-3 Ja '48

Designing from the outside in; plastics housing, W. Petzold and P. A. Belk, *Plastics* 8:12-13 S '48

Designing products to cut costs, *il Mod Ind* 16:115-16 Ag '48

Dispenser starts in paper cup promotion, *il Sales Management* 61:50 N 1 '48

Economics of cabinet design, C. Davies, *il diags Product Eng* 19:139-42 N '48

Effective marketing begins on the design board, G. C. Johnson, *J Marketing* 13:32-6 Jl '48

Equipment design is too functional and practical, C. O. Brown, *Ind & Eng Chem* 40:sup91A-2A O '48

Glassware designer's relation to production and advertising, M. G. Yutzev, *Am Cer Soc Bul* 27:153-4 Ap 15 '48

How brazing methods affect design of details, S. DeDomenico and A. Squire, *il diags Product Eng* 19:86-91 Ap '48

How the new look brought back the bike, J. D. Woolf, *il Adv & Sell* 41:52+ Ap '48

How to get the most out of your product designer, J. F. Barnes, *il Sales Management* 59:94+ N 10 '47

How to make a New Idea department pay off; Speidel corp., P. Levinger, *il Sales Management* 59:102-3 N 20 '47

How to organize for experimental stress analysis; techniques, advantages, limitations, cost, applications, results and savings, *il diags Product Eng* 19:113-36 Ap '48

Industrious designers, *Economist* 155:366-7 S 4 '48

It's the little things that count in design of product, A. F. Murray, *il Mech Eng* 70:519-22 Je '48; Same cond. *Machine Design* 20:126-8 My '48

More products in plastics are here and to come, say designers, *il diag Mod Plastics* 25:77-84+ N '47

Neglected factors in the design of consumer products, M. Brownshield, *il diags Product Eng* 19:81-4 Ag '48

Pre-design research as applied to product development, R. L. Nowland and others, *Mech Eng* 70:208-10+ Mr '48; Excerpts, *Machine Design* 20:195-6 Ja '48

Product designs that stop maintenance gripes, *il diag Mod Ind* 16:40-5 S '48

Sales up, cost down; design is the answer, W. N. Augsburg, *il Am Bsns* 18:18-19+ Je '48

To streamline or not to streamline, W. B. Petzold and P. Belk, *diags Plastics* 8:30-1+ F '48

Too small for effective use of product design? Welsh mfg. co. fountain pen and mechanical pencil, *il Sales Management* 60:70 Ap 1 '48

User research discloses unsuspected attitudes; abstract, E. E. Wachsmuth, *Machine Design* 20:196+ Ja '48

Using psychology in product design, *il diags Mod Ind* 15:50-4 Ap '48

See also

Architecture, Domestic—Designs and plans
Bridge design
Fashion

Naval architecture—Designs and plans
Package design
Streamlining (design)
Textile design

also subdivision Design under special subjects, e.g. Airplanes—Design; Machinery—Design

Protection

Design protection, F. Hepp, S. Gotshal, *Textile Col* 70:20+ Ja '48

DESIGN, Decorative

Decorative fabric house enters the wallpaper business, T. Greeff, *Textile Col* 70:34+ Ap '48

Modern conception for decorative design, *il Textile Col* 70:28-9 Ap '48

Insect forms

Bug buttons; bees, beetles, and other insects as buttons, buckles, jewelry, and pottery, *il Soap & San Chem* 24:150-1 Ap '48

DESIGNERS' offices

Office to make minutes count; Walter Dorwin Teague, design office for his own work, *il Am Bsns* 18:14-15 F '48

DESK-FAX. See Telegraph

DESK pen sets

Two new ink sets, *il Mod Plastics* 25:194+ N '47

DESKS

Design experiments in executive desks, *il Am Bsns* 18:16-17+ Je '48

Flexible furniture, *il diags Fortune* 37:116-19 Mr '48

Reader wants data on new office furniture; old square leg desks versus new desks, with island pedestals, *il Am Bsns* 18:26-8 Ag '48

DES MOINES and central Iowa railroad

Proposed reorganization, *Comm & Fin Chr* 167:1693 Ap 19 '48

Reorganization, *Comm & Fin Chr* 168:1360 O 4 '48

DESMOTROPSANTONIN

Studies in the santonin series; the introduction of nitrogen into the desmotroposantonin molecule, Huang-Minlon and S. Cheng, *bibliog Am Chem Soc J* 70:449-52 F '48

DESOXYALDOPENTOSE

Hydroxylation of 2,3-dihydropyran and the application of desoxyaldopentoses in the Browning reaction, C. D. Hurd and C. D. Kelso, *bibliog Am Chem Soc J* 70:1484-6 Ap '48

DESOXYBENZOIN

Secondary and tertiary amino ketones and alcohols derived from desoxybenzoin and 1,2-diphenylethanol; ring-chain tautomerism of the α -(β -hydroxyethylamino) ketones, R. E. Lutz, J. A. Freck and R. S. Murphey, *bibliog Am Chem Soc J* 70:2015-23 Je '48

DESOXYCHOLIC acid

Steroid acids and their transformation products; desulfurization of thiol esters of desoxycholic acid, G. B. Spero, A. V. McIntosh, Jr. and R. H. Levin, *bibliog Am Chem Soc J* 70:1907-10 Mv '48

DESOXYCORTICOSTERONE

Immediate pressor effect of desoxycorticosterone acetate, M. L. Goldman and H. A. Schroeder, *bibliog Science* 107:272-3 Mr 12 '48

Preparation of desoxycorticosterone acetate from 3-keto- Δ^1 -etiocolenic acid, A. L. Wilds and C. H. Shunk, *Am Chem Soc J* 70:2427-8 Jl '48

Some naphthalene analogs of desoxycorticosterone, C. C. Price, H. I. Enos, Jr. and W. Kaplan, *bibliog Am Chem Soc J* 69:2261-4 O '47

DESOXPENTOSE nucleic acid

Desoxypentose nucleic acids, J. M. Gulland and others, *Chem Soc J* p 1129-45 S '47

DESOXYRIBONUCLEASE

Isolation of crystalline desoxyribonuclease from beef pancreas, M. Kunitz, *il Science* 108:19-20 Jl 2 '48

- DESOXYRIBONUCLEIC acid**
Enzymatic hydrolysis of desoxyribonucleic acid prepared with the use of strong sodium hydroxide. C. A. Zittle, bibliog Franklin Inst J 245:78-80 Ja '48
Some quantitative aspects of the Feulgen reaction for desoxyribose nucleic acid, M. A. Lessler, bibliog Science 108:419-20 O 15 '48
- DESOXYSTREPTOSE**
Streptomyces antibiotics; the structures of bis-desoxystreptose, dihydrosesostreptose and tetraacetyl-bis-desoxystreptobiosamine, N. G. Brink and others, bibliog Am Chem Soc J 70:2085-91 Je '48
- DESOLY sugars.** See Sugars
- DESTHIOBENZYL PENICILLIN**
Desthiobenzylpenicillin, H. Adkins, F. J. Brutschy and M. McWhirter, Am Chem Soc J 70:2610 JI '48
- DESTHIOBIOTIN**
Synthesis and biological activity of 4-methyl-5-(α -sulfoamyl)-2-imidazolone, a sulfonic acid analog of desthiobiotin, R. Duschinsky and S. H. Rubin, bibliog Am Chem Soc J 70:2546-7 JI '48
- DESTHIOGLOTIOTOXIN**
Gliotoxin; synthesis of pyrazinoindolones and pyridinolones, J. R. Johnson and others, bibliog Am Chem Soc J 69:2364-70 O '47
- DESULFURIZATION** of thiol, See Thiols
- DETECTORS**
Pneumatic heat detector, H. A. Zahl and M. J. E. Golay, il diag R Sci Instr 17: 511-15 N '46; Same abr. Tele-Tech 7:44-5+ My '48
Ultimate sensitivity of radiation detectors, R. C. Jones, bibliog Opt Soc Am J 37:879-90 N '47
See also
Flame detectors Leak detectors
Gas detectors Radio detectors
- DETECTORS, Crystal.** See Radio detectors
- DETERGENTS.** See Cleaning compositions; Soap
- DETONATION**
Detonation wave in nuclear explosives, P. Caldirola, J Chem Phys 16:846-7 Ag '48
Equation of state for gases at extremely high pressures and temperatures from the hydrodynamic theory of detonation, M. A. Cook, bibliog J Chem Phys 15:513-24 JI '47; Discussion, S. Paterson, 16:159 F '48; Reply, 16:554-5 My '48; Rejoinder, 16:847 Ag '48
Fugacity determinations of the products of detonation, M. A. Cook, bibliog J Chem Phys 16:1081-6 N '48
- DETONATORS, Electric**
Vibrator-type multiple-shot blasting unit, F. C. Gibson and F. W. Brown, 3pls U S Bur Mines Rep of Invest 4136:1-5 '47
- DETROIT**
See also
Banks and banking
—Detroit
Industries
Rubber industry in the Detroit area, G. M. Wolf, il India Rubber World 119:63-5 O '48
Railroads
Revamping gives old station new look; Fort Street union depot, O. E. Hager, il plan Ry Age 125:412-17 Ag 28 '48
Sewerage
Operation data on sewage treatment at Detroit; annual report, Pub Works 78:33 O '47
Vacuum sludge filtration practices at the Detroit sewage treatment plant, F. H. Burley, il Sewage Works J 20:899-908 S '48
Wide range of design sections for large sewers, map diags Eng N 141:70-1 S 30 '48
Streets
Detroit heavy chloride user, F. Stang, Roads & Sts 91:66 S '48
Water supply
Design features of the Northeast Station reservoir, L. V. Garrity, bibliog plan diags Am Water Works Assn J 40:423-36 Ap '48
- DETROIT Edison company**
Annual report, Comm & Fin Chr 167:940 Mr 1 '48
Capital stock offered, Comm & Fin Chr 167: 1806 Ap 26 '48
- Stock offered, Comm & Fin Chr 167:153 Ja 12 '48
- DETROIT news (newspaper)**
Scripps cuts a cake for 75th anniversary, G. Parker, Ed & Pub 81:10 Ag 28 '48
- DEUTERANOPIA.** See Color blindness
- DEUTERIUM**
Cloud-chamber energy measurement of photo-neutron sources, D. J. Hughes and C. Egger, bibliog diag Phys R 72:902-7 N 15 '47
Hyperfine structure of atomic hydrogen and deuterium, D. E. Nagle and others, bibliog Phys R 72:971 N 15 '47
Hyperfine structure of deuterium, A. Bohr, bibliog Phys R 73:1109-11 My 1 '48
Hyperfine structure of hydrogen and deuterium, J. E. Nafe and E. B. Nelson, bibliog diag Phys R 73:718-28 Ap 1 '48
Interconversion of *ortho*- and *para*-deuterium due to the deuteron quadrupole moment, M. Hamermesh, Phys R 73:638-9 Mr 15 '48
Internal intensity ratio of H α and of D α , C. Hueh, bibliog il diags Phys R 74:670-6 S 15 '48
Mass spectrometric and infra-red study of rates of deuterium exchange, isomerization, and hydrogenation of the *n*-butenes, V. H. Dibeler and T. I. Taylor, J Chem Phys 16: 1008-9 O '48
Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz, L. J. Rainwater and others, Phys R 73:733-41 Ap 1 '48
Temperature variation of the thermal diffusion factors for binary mixtures of hydrogen, deuterium, and helium, E. F. Murphy, bibliog diag Phys R 72:834-7 N 1 '47
Yields of neutrons from photo-neutron sources, B. Russell and others, bibliog diags Phys R 73:545-9 Mr 15 '48
- Analysis**
- Determination of deuterium in water; mass spectrometric method, R. B. Fischer, R. A. Potter and R. J. Voskuyl, bibliog Anal Chem 20:571-2 Je '48
- DEUTERIUM compounds**
Determination of position of tracer atom in a molecule; mass spectra of some deuterated hydrocarbons, J. Turkevich and others, bibliog Am Chem Soc J 70:2638-43 Ag '48
Excited states of benzene, F. M. Garforth and others, diags Chem Soc J p406-517 Ap '48
Hydrogen exchange of phenols and phenol ethers with deuterio-alcohol, P. F. Tryon, W. G. Brown and M. S. Kharasch, bibliog Am Chem Soc J 70:2003-5 Je '48
Near ultraviolet absorption spectra of the vapors of the monodeuterated toluenes, A. R. Choppin and C. H. Smith, bibliog Am Chem Soc J 70:577-81 F '48
Problem of molecular asymmetry based on isotopic differentiation of hydrogen; an attempted asymmetric synthesis by the Marckwald method, D. J. G. Ives and M. R. Nettleton, Chem Soc J p 1085-8 JI '48
- DEUTERIUM OXIDE.** See Water—Heavy water
- DEUTERONS**
Alpha-particle and deuteron tracks in Eastman NTA photographic plates, R. L. Brock and E. Gardner, il R Sci Instr 19: 299-303 My '48
Angular distribution of neutrons from targets bombarded by 190-Mev deuterons, A. C. Helmholz and others, diag Phys R 72:1003-7 D 1 '47
Angular distribution of the (d,p) reactions making two low states of O ^{17} , N. P. Heydenburg and D. R. Inglis, bibliog diag Phys R 73:230-40 F 1 '48
Characterization of Tc activities produced by deuteron bombardment of separated Mo isotopes, E. E. Motta and G. E. Boyd, bibliog Phys R 74:220-2 JI 15 '48
Deuteron-induced reactions, D. C. Peaslee, bibliog Phys R 74:1001-13 N 1 '48
Deuteron problem with Gaussian potentials, S. Moszkowski and R. G. Sachs, Phys R 73:184-5 Ja 15 '48
Disintegration of the deuteron in flight, S. M. Dancoff, Phys R 72:1017-22 D 1 '47

DEUTERONS—Continued

- Elastic and inelastic scattering of 100- to 200-Mev protons or neutrons by deuterons. T. Wu and J. Ashkin, bibliog Phys R 73:986-1001 My 1 '48
- Elastic scattering of high energy nucleons by deuterons. G. F. Chew, Phys R 74:809-16 O 1 '48
- Energy distribution of protons from a target bombarded by 190-Mev deuterons. W. W. Chupp and others, bibliog il diags Phys R 73:742-9 Ap 1 '48
- Excitation curves for the reactions $C^{12}(d, dn)C^{11}$ and $C^{12}(\alpha, an)C^{11}$ at high energies. R. L. Thornton and R. W. Senseman, Phys R 72:872-3 N 1 '47
- High energy photo-disintegration of the deuteron. M. E. Rose and G. Goertzel, bibliog Phys R 72:749-57 N 1 '47
- Interconversion of *ortho*- and *para*-deuteronium due to the deuteron quadrupole moment. M. Hamermesh, Phys R 73:638-9 Mr 15 '48
- Low energy yield of $D(D, p)H^3$ and the angular distribution of the emitted protons. E. Bretscher and others, bibliog diags Phys R 73:815-21 Ap 15 '48
- Magnetic moment of the deuteron. A. Roberts, bibliog Phys R 72:979 N 15 '47
- Measurement of the deuteron proton magnetic-moment ratio. F. Bitter and others, Phys R 72:1271 D 15 '47
- Neutron and gamma-ray yields from deuterons on carbon. C. L. Bailey and others, bibliog diags Phys R 73:274-8 F 15 '48
- Nuclear reactions of arsenic with 190-Mev deuterons. H. H. Hopkins, Jr. and E. B. Cunningham, bibliog Phys R 73:1406-7 Je 1 '48
- Phase-shift analysis of the scattering of protons by deuterons. C. L. Critchfield, Phys R 73:1-6 Ja 1 '48
- Production of high energy neutrons by stripping. R. Serber, diags Phys R 72:1008-16 D 1 '47
- Products of high energy deuteron and helium ion bombardments of copper. D. R. Miller and others, bibliog Phys R 74:347-8 Ag 1 '48
- Radial dependence of the tensor force in the deuteron. W. G. Guindon, Phys R 74:145-9 Ji 15 '48
- Scattering of protons by deuterons. H. S. W. Massey and R. A. Buckingham, Phys R 73:260-1 F 1 '48
- Theoretical considerations concerning the $D-D$ reactions. E. J. Konopinski and E. Teller, bibliog Phys R 73:822-30 Ap 15 '48
- Transformation of organic substances by alpha particles and deuterons. I. A. Brøger, bibliog il diags J Phys & Colloid Chem 52:551-63 Mr '48
- DEVALUATION** of money. See Money—Devaluation
- DE VILBISS** company
Hopes its nebulizer will lift sales. Barron's 28:26 Ap 19 '48
- DEVINY**, John Joseph, 1882-
New U.S. public printer, por Inland Ptr 121:47 Ap '48
- DEVITRIFICATION**. See Glass—Devitrification
- DEW** points
Automatic dewpoint meter for the determination of condensable vapors. T. T. Puck, bibliog diags R Sci Instr 19:16-23 Ja '48
Dewpoint apparatus. il Sci Am 178:131-2 Mr '48
- Moisture measurement with an electronic dew point indicator. V. E. Suomi, bibliog diags Instruments 21:178-82 F '48
- New process control instruments for chemical industry; dew-point recorder. E. S. Lee, il(p267) Chem Eng Prog 44:265-6 Ap '48
- Novel instrument for measuring dew point; Foxboro Dewcel. R. H. Munch, il Ind & Eng Chem 40:sup67A-8A Ag '48
- DEWAR** flasks. See Vacuum containers
- DEWEY**, Thomas Edmund, 1902-
Dewey endorses TVA power job, spurns authorities for other areas. Elec World News ed 130:6 S 18 '48
Dewey got political baptism in father's newspaper office. J. E. Dingwall, por Ed & Pub 81:10 Ji 3 '48
Dewey makes a business of farming. pors Bsns W p31-4 O 9 '48
Dewey's long popularity climaxed by GOP nomination. Iron Age 162:125 Ji 8 '48

Mr Dewey's economics. Fortune 38:77-81+ O '48

Portrait. Bsns W p23 D 20 '47
Roundup shows Dewey strength among independents; Gallup poll. Iron Age 162:123 O 21 '48

DEXTRINASE

Measurement of enzymatic activity on limit dextrin. T. M. Back, W. H. Stark and R. E. Scalf, bibliog Anal Chem 20:56-60 Ja '48

DEXTRINS

Alpha and beta Schardinger dextrin nitrates. N. S. Gruenhut, M. L. Cushing and G. V. Caesar, bibliog il Am Chem Soc J 70:424-5 Ja '48

Measurement of enzymatic activity on limit dextrin. T. M. Back, W. H. Stark and R. E. Scalf, bibliog Anal Chem 20:56-60 Ja '48
Schardinger's dextrins derived from starch. K. Freudenberg and others, bibliog Chem & Ind p731-5 N 29 '47

DEXTRIPIMARIC acid

Resin acids; the isolation of dextropimaric acid and a new pimaric-type acid, isodextropimaric acid. G. C. Harris and T. F. Sanderson, bibliog Am Chem Soc J 70:2079-81 Je '48

Resin acids; the position of the ring double bond in dextropimaric acid and the structure of isodextropimaric acid. G. E. Harris and T. F. Sanderson, bibliog Am Chem Soc J 70:2081-5 Je '48

DEXTROSE. See Glucose

DEZINCIFICATION. See Brass—Corrosion

DIABETES

Is diabetes mortality increasing? I. M. Moriyama, Pub Health Rep 63:1334-9 O 8 '48

Mechanism of cysteine and glutathione protection against alloxan diabetes. A. Lazarow and others, bibliog Science 108:308-9 S 17 '48

Practicing physician and diabetes detection. H. F. Root, Ind Med 17:418 O '48

DIACETAMIDE

Amides; preparation of diacetimide. J. B. Polya and P. L. Tardrew, Chem Soc J p 1081-3 Ji '48

DIACETYL**Analysis**

Spectrophotometric determination of diacetyl. J. C. Speck, Jr. bibliog Anal Chem 20:647-8 Ji '48

DIACETYL peroxide

Reactions of atoms and free radicals in solution; the reactions of diacetyl peroxide with aliphatic ketones; a new synthesis of 1,4-diketones. M. S. Kharasch, H. C. McBay and W. H. Urry, bibliog Am Chem Soc J 70:1269-74 Mr '48

DIACETYL tetrahydropyridyl

Pyridines; the dissociation of N,N' -diacetyl-tetrahydro-4,4'-dipyridyl. R. L. Frank, F. Pelletier and F. W. Starks, bibliog Am Chem Soc J 70:1767-9 My '48

DIACETYLENEDICARBOXYLIC acid

Crystal and molecular structure of certain dicarboxylic acids; diacetylenedicarboxylic acid dihydrate. J. D. Dunitz and J. M. Robertson, diags Chem Soc J p 1145-56 S '47

DIAGNOSIS

Verification of the diagnosis of tuberculosis. C. E. Woodruff, bibliog Pub Health Rep 63:184-9 F 6 '48

See also**Complement fixation****DIAGNOSIS, Radioscopic**

Outline of statistical treatment of the problem of diagnosis. J. Neyman, Pub Health Rep 62:1449-56 O 8 '47

Preliminary report on a community-wide chest X-ray survey at Minneapolis, Minn. W. Roemmich and others, Pub Health Rep 63:1285-90 O 1 '48

Roentgenographic appearance of persistent pulmonary infiltrates associated with sensitivity to histoplasmin. M. L. Furcolow and others, bibliog Pub Health Rep 62:1711-18, pl 1-16 D 5 '47

Statistical problems in assessing methods of medical diagnosis, with special reference to X-ray techniques. J. Yerushalmy, Pub Health Rep 62:1432-49 O 3 '47

X-raying is simplified, il Westinghouse Eng 8:21-2 Ja '48

DIALS, Instrument

- Designing instrument dials for quick, accurate reading. W. F. Grether. *il* *diags Machine Design* 20:150-2+ Je '48; Abstract S A E J 56:44-5 S '48
- Making micrometer dials for machine tools. G. Black. *il* *Mach* 55:189-90 S '48
- Molding and finishing instrument dials. H. Chase. *il* *Mod Plastics* 25:105-8 Mr '48

DIALYSIS

- Apparatus for semimicro electrodialysis. K. F. Urbach and J. J. Svarz. *il* *diags Science* 108:93 Jl 23 '48
- Dialysis of protein solutions for electrophoresis. M. Reiner and R. L. Fenichel. *diag Science* 108:164-6 Ag 13 '48
- Lignin; purification of lignin sulfonic acids by continuous dialysis. Q. P. Peniston and J. L. McCarthy. *bibliog diag Am Chem Soc J* 70:1324-8 Ap '48
- Separation of lignin-sulphonic acids from sulphite waste liquor by batch dialysis. N. K. Hiesler and others. *bibliog Paper Tr J* 126:58-61 Ap 15 '48

DIALYZERS

- Studies on an artificial kidney; preliminary results with a new type of continuous dialyzer. L. T. Skeggs, Jr. and J. R. Leonards. *bibliog diag Science* 108:212-13 Ag 27 '48

DIAMAGNETISM

- Diamagnetic susceptibilities of shared electrons. T. Yang. *J Chem Phys* 16:865-71 S '48
- Diamagnetism; clarification of relations between fundamental molecular theories. S. J. Barnett. *Rs Mod Phys* 20:78-81 Ja '48

DIAMIDINES. See Amidines**DIAMINES. See Amines****DIAMINODIPHENYLAMINE**

- Improved preparations of 3:3'-dinitro- and 3:3'-diaminodiphenylamine, together with some derivatives. H. H. Hodgson and D. P. Dodgson. *Chem Soc J* p 1004-6 Jl '48

DIAMINODIPHENYLSULFONE

- Certain N-alkyl, N-carboxyalkyl and N-hydroxyalkyl derivatives of 4,4'-diaminodiphenyl sulfone. E. L. Jackson. *bibliog Am Chem Soc J* 70:680-4 F '48
- Succinic acid derivatives of 4-nitro-4'-aminodiphenylsulfone and of 4,4'-diaminodiphenylsulfone. H. Bauer. *bibliog Am Chem Soc J* 70:2254-6 Je '48

DIAMINOTHIAIXANTHONE dioxide

- Studies in the sulfone series; certain heterocyclic derivatives of 2,8-diaminothiaxanthone-5-dioxide. E. D. Amstutz, E. A. Fehnel and I. M. Hunsberger. *bibliog Am Chem Soc J* 70:133-8 Ja '48

DIAMOND alkali company

- Diamond alkali co. begins moving offices to Cleveland. *Paint Oil & Chem R* 110:48 O 16 '47

DIAMOND cutting

- Palestine diamond-cutting industry. *Economist* 154:650 Ap 17 '48

DIAMOND drilling. See Drilling and boring (earth and rocks)**DIAMOND mines and mining****Brazil**

- Diamond mining in Brazil. *il* *Eng & Min J* 149:74-5 Jl '48

Venezuela

- Diamond fields of Venezuela. J. C. Davey. *il* *map Eng & Min J* 149:74-8 Ap '48

DIAMONDS

- Amplification of electric current by bombarding diamond with electron beam. *il* *Machine Design* 20:113-14 Mr '48
- Belgian diamond trade. *For Comm W* 32:14 Ag 21 '48
- Conductivity induced in diamond by alpha-particle bombardment and its variation among specimens. A. J. Ahearn. *Phys R* 73:1113 My 1 '48
- Crystal counter. W. Jentschke. *Phys R* 73:77-8 Ja 1 '48
- Crystals as detectors of nuclear radiation. *il* *Electronics* 20:144+ D '47
- Current amplifier; shooting diamond chips with electron pulses. *il* *Bsns W* p72+ F 14 '48
- Diamond crystal counters. R. Hofstadter. *bibliog Phys R* 73:631 Mr 15 '48

- Diamond crystal counters. K. Lonsdale. *bibliog Phys R* 73:1467 Je 15 '48

- Diamonds better for decoration than as investments. R. M. Bleiberg. *Barron's* 28:8 Jl 26 '48

- Diamonds detect atomic radiation. *il* *Product Eng* 19:152 Ja '48; *Mech Eng* 69:1029 D '47; *Chem Ind* 62:456+ Mr '48; *Franklin Inst J* 245:337-9 Ap '48

- Diamonds used to detect atomic radiation. A. W. Kramer. *il* *Power El Eng* 51:105-7 D '47
- Mobility of electrons in pure non-polar insulators. F. Seitz. *bibliog Phys R* 73:549-64 Mr 15 '48

- Ultraviolet transmission of counting diamonds. H. Friedman and others. *il* *Phys R* 73:186-7 Ja 15 '48

DIAMONDS, Industrial

- Contour sawing hardened steels and carbides; diamond band saw. *il* *Iron Age* 161:73 F 26 '48

- Diamond bits. P. Adamson. *il* *Oil & Gas J* 47:82+ Jl 22 '48

- Diamond coring an Oklahoma well. R. M. Swesnik. *il* *World Oil* 128:92-4+ Jl '48

- Drilling with industrial diamonds. K. J. Klappa. *il* *World Oil* 128:98+ O '48

- How to use diamond bits in deep drilling. *il* *diags Pet Eng* 19:179+ S '48

- Industrial diamonds; annual review and forecast. S. H. Ball. *il* *Min Cong J* 34:107-8 F '48

- Recent diamond coring in California. W. C. Harrington and M. C. Eastman. *il* *diag Pet Eng* (Ref annual) 19:84+ Jl 1 '48

- Uncommon optical grinding and polishing materials. J. M. Holeman. *il* *Sci Am* 178:93-6, 142-4 F-Mr '48

Bibliography

- Bibliography of industrial diamond applications. Published monthly by Industrial diamond information bur, 32-34 Holborn viaduct, London, E.C. 1

DIAMYL peroxide

- Decompositions of di-t-alkyl peroxides; kinetics. J. H. Raley, F. F. Rust and W. E. Vaughan. *diags Am Chem Soc J* 70:88-94 Ja '48

DIANA stores corporation

- Rounds decade of growth. *Barron's* 28:27 Ag 2 '48

DIAPERS

- Textile waste used in infant industry; waste cotton ends bound together with plastic. *Bsns W* p60+ N 22 '47

DIAPHRAGMS

- Diffusivity of gases through synthetic elastomer diaphragms. L. E. Stout, R. Geisman and J. M. Mozley, Jr. *bibliog il* *diags Chem Eng Proc* 44:219-28 Mr '48

- Nonmetallic diaphragms, their design and application. J. H. Swartz. *il* *diags Machine Design* 20:153-8+ Je '48

- Radiation from a diaphragm struck periodically by a light mass. M. Strasberg. *diag Acoustical Soc Am J* 20:683-90 S '48

- Study on anaeroid capsules. E. W. Pike and N. E. Gibbs. *bibliog J Ap Phys* 19:106-8 Ja '48

- Temporary throttling diaphragm gives rated output from damaged turbine. G. G. Guthrie. *diags Elec World* 130:79-80 O 23 '48

DIARRHEA

- Diarrheal disease control studies; effect of fly control in a high morbidity area. J. Watt and D. R. Lindsay. *Pub Health Rep* 63:1319-34 O 8 '48

- Epidemic of acute watery diarrhea in Alabama. J. W. Smille and others. *bibliog Pub Health Rep* 63:233-43 F 20 '48

- Studies of the acute diarrheal diseases; epidemiology. A. V. Hardy and J. Watt. *Pub Health Rep* 63:363-78 Mr 19 '48

- Studies of the acute diarrheal diseases; further observations of chemotherapy in shigellosis; the efficacy of streptomycin and sulfacarzole. A. V. Hardy and S. P. Halbert. *bibliog Pub Health Rep* 63:790-2 Je 11 '48

- Studies of the acute diarrheal diseases; immunization in shigellosis. A. V. Hardy and others. *bibliog Pub Health Rep* 63:685-8 My 21 '48

DIARRHEA—Continued

Studies of the acute diarrheal diseases; salmonellosis in Florida. M. M. Galton and A. V. Hardy. *bibliog Pub Health Rep* 63: 847-51 Je 25 '48

DIASTEREOMERS. See Isomerism**DIATOMACEOUS earth**

Application and maintenance techniques for mill insulation; with specific reference to 85 per cent magnesia and diatomaceous silica. U. W. Smith. *Paper Tr J* 126:123-5 My 27 '48; Same *abr. Paper Ind* 30:476-7 Je '48

Application of diatomaceous earth filters to swimming pool recirculation systems; abstract. J. W. Engle. *Am Water Works Assn J* 40:274-5 F '48

Diatomaceous earth; its occurrences and applications. *Chem Age (Lond)* 58:524-5 Ap 17 '48

Diatomite from Skye. R. H. S. Robertson. *Chem Age (Lond)* 59:347-50 S 11 '48

Diatoms from Nevada; Eagle-Fischer co. Clark plant. *il Chem Ind* 62:74 Ja '48

Eagle-Fischer co. completes diatomaceous earth plant in Clark, Nev. *Chem & Eng N* 25:3576 D 1 '47

Fischer-Tropsch synthesis with cobalt catalysts. S. R. Cragford. *bibliog Soc Chem Ind J* 66:440-4 D '47

Industrial applications of diatomite filters. E. G. Kominek. *bibliog il Ind & Eng Chem* 39:1413-19 N '47

Investigation of pneumoconiosis due to diatomaceous earth (kieselguhr); abstract. M. Duvoir and others. *J Ind Hygiene* 29:sup 113-14 N '47

Les kieselguhrs algériens. *il Génie Civil* 124: 437 N 15 '47

Kieselguhrs; suitability as carriers in catalysts. R. B. Anderson and others. *bibliog il Ind & Eng Chem* 39:1618-28 D '47

Studies of the Fischer-Tropsch synthesis; properties of unreduced cobalt catalysts. R. B. Anderson and others. *bibliog Am Chem Soc J* 69:3114-19 D '47

X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-500 O '47

DIACYCLOHEXENE

Preparation and properties of 2-nitramino- Δ^2 -1,3-diazycloalkenes. A. F. McKay and G. F. Wright. *Am Chem Soc J* 70:430-1 Ja '48

DIACYCLOPENTENE

Preparation and properties of 2-nitramino- Δ^2 -1,3-diazycloalkenes. A. F. McKay and G. F. Wright. *Am Chem Soc J* 70:430-1 Ja '48

DIAXINE. See Pyrimidine**DIAZO compounds**

Decomposition reactions of sodium aryldiazates; replacement of the diazo- by the nitro-group in alkaline solution with sodium nitrite. H. H. Hodgson and E. R. Ward. *Chem Soc J* p556-9 My '48

Decomposition reactions of the aromatic diazo-compounds in aqueous solution explained on simple electronic theory, and without recourse to the current free-radical hypothesis. H. H. Hodgson. *Chem Soc J* p348-54 Mr '48

Estimation of diazo-compounds through decomposition by light. G. Spencer and F. J. Taylor. *diag Soc Dyers & Col J* 63:394-5 D '47

Free-radical reactions of the aromatic diazo-compounds; reply to Hodgson's criticisms. D. H. Hey and W. A. Waters. *Chem Soc J* p882-5 Je '48

Fundamental fallacy of the free radical hypothesis as applied to the decompositions of aromatic diazo-compounds; abstract. H. H. Hodgson. *bibliog Chem & Ind* p653-4 O 9 '48

Mechanism of the Gomberg reaction; an alternative to the free radical interpretation. H. H. Hodgson. *bibliog Soc Dyers & Col J* 64:99-104 Mr '48; Reply. D. H. Hey and W. A. Waters. *bibliog* 64:359-61 N '48

Mechanism of the tautomeric change of 5-hydroxy-1,2,3-triazole-4-carboxylic esters into aliphatic diazo-compounds. E. R. Brown and D. L. Hammick. *Chem Soc J* p 1384-6 O '47

Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; derivatives of 2'-chloro-5'-nitrobenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, A. T. Peters and Y. I. Rangwala. *Chem Soc J* p206-9 F '48

Reaction of diazo compounds with sulfamic acid. H. W. Grimmel and J. F. Morgan. *Am Chem Soc J* 70:1750-1 My '48

Review of the chemistry of arylthiadiazoles or internal diazo-sulphides. H. H. Hodgson and D. P. Dodgson. *bibliog Soc Dyers & Col J* 64:65-71 F '48

Thermal decomposition of explosives in the solid phase; the thermal decomposition in a vacuum of certain mono- and dinitrobenzenediazo-oxides, with a note on the kinetics of thermal breakdown of 2-nitrobenzene-4-diazo-1-oxide. J. Vaughan and L. Phillips. *Chem Soc J* p 1560-5 D '47

DIACYCANYDES

Cis-diazocyanides. R. J. W. Le Fèvre and J. Northcott. *Chem & Ind* p543 Ag 21 '48; Reply. H. H. Hodgson. p588-9 S 11 '48

Evidence for the existence of *cis*-azobenzene and *cis*-aryldiazocyanides. K. E. Calderbank and others. *bibliog Chem & Ind* p 158 Mr 6 '48; Discussion. p270-1, 301-2, 428-9 Ap 24, My 8, J 13 '48

DIAZOMETHANE

Experiments with diazomethane and its derivatives; action of diazomethane on (a) *N*-acyl compounds and (b) *o*-hydroxydiaryl sulphones and the corresponding *peri*-compounds. A. Schönberg and A. Mustafa. *Chem Soc J* p605-6 My '48

Halogenated ketones; the preparation of bromomethyl ketones by the diazomethane reaction. J. R. Catch and others. *Chem Soc J* p278 Mr '48

New method of preparation of diazomethane. A. F. McKay. *Am Chem Soc J* 70:1974-5 My '48

DIAZONIUM chlorides

Decomposition of *o*-methoxybenzene diazonium chloride. H. E. Woodward and A. A. Ebert, jr. *Am Chem Soc J* 70:1666-7 Ap '48

DIAZONIUM compounds

Mechanism of the Gomberg reaction; an alternative to the free radical interpretation. H. H. Hodgson. *bibliog Soc Dyers & Col J* 64:99-104 Mr '48

Printing diazonium salts, thinning avoided. *Am Dyestuff Rep* 37:245-6 Ap 5 '48

Replacement of the diazonium by the nitro-group; decompositions by cupro-cupri sulphite. H. H. Hodgson, A. F. Mahadevan and E. R. Ward. *Chem Soc J* p 1392-4 O '47

Studies on the mechanism of the deamination of diazonium salts with hypophosphorous acid. E. R. Alexander and R. E. Burge. *Am Chem Soc J* 70:876-7 F '48

DIAZO sulfide. See Benzothiadiazole**DIAZOSULFONATES**

Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; phthalazine derivatives from 4'-nitro-2'-5'-dimethoxybenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, R. L. Desai and A. T. Peters. *Chem Soc J* p281-4 Mr '48

Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of 2'-chlorobenzene-2-naphthol-1-diazosulphonate. C. I. Brodick, A. T. Peters and F. M. Rowe. *Chem Soc J* p 1026-9 J 11 '48

Reaction of diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of halogenobenzene-2-naphthol-1-diazosulphonates. A. T. Peters, G. T. Pringle and F. M. Rowe. *Chem Soc J* p597-601 My '48

DIAZOTIZATION

Studies in diazo-chemistry, with a criticism of the free-radical hypothesis; abstract. H. H. Hodgson. *Chem & Ind* p774 D 13 '47

DIBENZOFURAN

1-(β -Carboxyethyl)-3,4,7-trimethoxydibenzofuran. F. E. Fanta. *Am Chem Soc J* 70: 2602-3 J 11 '48

Three steps to a vinyl monomer. E. A. Kern and C. W. Wilson. *il diag Chem Eng* 55: 114-17 Je '48

DIBENZOTHIOPHENE

Some derivatives of dibenzothiophene. R. K. Brown, R. G. Christiansen and R. B. Sandin. *Am Chem Soc J* 70:1748-9 My '48

DIBENZOYLETHANE

Mannich reaction with 1,2-dibenzoylethane. P. S. Bailey and R. E. Lutz. *Am Chem Soc J* 70:2412-14 JI '48

DIBENZYL chloroethylamine

Numbed nerves; a new tertiary amine. *Chem Ind* 62:44 Ja '48

DIBENZYL ether

Determination of methylol groups and dibenzyl ether linkages in phenol alcohols and derived phenolic resins; ether linkages. H. S. Lilley and D. W. J. Osmond. *biblog Soc Chem Ind J* 66:425-7 D '47

DIBENZYLIDENE glyoxal

Dibenzylidene- and diisopropylidene-glyoxal. H. Raudnitz. *Chem Soc J* p763-4 Je '48

DIBENZYLIDENE perseltol

1,3,5,7-Dibenzylidene and 1,3,5,7-dimethylene acetals of the *p*-, *L*- and *D*-perseltols. A. T. Ness, R. M. Hann and C. S. Hudson. *biblog Am Chem Soc J* 70:765-70 F '48

DIBORANE. See Boron hydrides**DIBROMOBENZENE**

Apparatus for refined thermal analysis exemplified by a study of the system *p*-dichlorobenzene-*p*-dibromobenzene-*p*-chlorobromobenzene. A. N. Campbell and L. A. Prodan. *biblog diags Am Chem Soc J* 70:553-61 F '48

DIBROMOBUTENE

Organic reactions with aluminum chloride; the cyclo-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms. K. Sisido and H. Nozaki. *Am Chem Soc J* 70:1609-12 Ap '48

DIBROMOETHANE. See Ethylene bromide**DIBROMOFLUORENE**

9,9-Dibromofluorene and formation of a dangerous skin irritant. J. R. Sampey and S. J. Childress. *Am Chem Soc J* 70:1979 My '48

DIBUTYLCARBONATE

Preparation of di-*t*-butyl carbonate and *t*-butyl chlorocarbonate. A. R. Choppin and J. W. Rogers. *Am Chem Soc J* 70:2967 S '48

DIBUTYLCHLORAMINE

Decomposition of dibutylchloramine. G. F. Wright. *biblog Am Chem Soc J* 70:1958-62 My '48

DIBUTYL peroxide

Decompositions of di-*t*-alkyl peroxides; kinetics. J. H. Raley, F. F. Rust and W. E. Vaughan. *diags Am Chem Soc J* 70:88-94 Ja '48

Decompositions of di-*t*-alkyl peroxides; kinetics in liquid phase. J. H. Raley, F. F. Rust and W. E. Vaughan. *Am Chem Soc J* 70:1336-8 Ap '48

Decompositions of di-*t*-alkyl peroxides; reactions of the resultant free radicals. F. F. Rust, F. H. Seubold and W. E. Vaughan. *Am Chem Soc J* 70:95-9 Ja '48

DIBUTYL phenylenediamine

Technique for measuring reactivity of gas-liquid antioxidants with air; reactivity of *n*-butyl-*p*-aminophenol and *N,N'*-di-*sec*-butyl-*p*-phenylenediamine. B. R. Strickland. *diag Anal Chem* 20:55-6 Ja '48

DIBUTYL phthalate

Dibutyl phthalate; reaction rate of catalytic esterification. S. Berman, A. A. Melnychuk and D. F. Othmer. *biblog Ind & Eng Chem* 40:1312-19 JI '48

DICARBOXYLIC acids

Crystal and molecular structure of certain dicarboxylic acids; diacetylenedicarboxylic acid dihydrate. J. D. Dunitz and J. M. Robertson. *diags Chem Soc J* p 1145-56 S '47

Pyrimido[4,5-*b*]pyrazines (pteridines); pteridinemono- and -dicarboxylic acids. C. K. Cain, M. F. Mallette and E. C. Taylor, jr. *biblog Am Chem Soc J* 70:3026-9 S '48

DICHLORAMINE-T

Equilibrium studies on *N*-chloro compounds; the ionization constant of *N*-chloro-*p*-toluenesulfonamide. J. C. Morris, J. A. Salazar and M. A. Wineman. *Am Chem Soc J* 70:2036-41 Je '48

DICHLOROACETIC acid**Analysis**

Analysis of chloroacetic acid; determination of dichloroacetic and acetic acids. G. A. Dalin and J. N. Haimsohn. *Anal Chem* 20:470-2 My '48

DICHLOROARSINE

Volatility and vapor pressure of nine organic arsines. C. E. Redemann and others. *biblog Am Chem Soc J* 70:637-9 F '48

DICHLOROBENZENE

Apparatus for refined thermal analysis exemplified by a study of the system *p*-dichlorobenzene-*p*-dibromobenzene-*p*-chlorobromobenzene. A. N. Campbell and L. A. Prodan. *biblog diags Am Chem Soc J* 70:553-61 F '48

Determination of water in bleaching powder. J. Goldenson and C. E. Danner. *biblog diag Anal Chem* 20:359-60 Ap '48

Paradichlorobenzene; scarcity eases. J. R. Skeen. *Soap & San Chem* 24:157-+ F '48

DICHLOROBUTENE

Vapor-phase chlorination of butadiene. R. F. Taylor and G. H. Morey. *biblog diags Ind & Eng Chem* 40:432-5 Mr '48

DICHLORODIBUTYL ether

4,4'-Dichlorodibutyl ether and its derivatives from tetrahydrofuran. K. Alexander and L. E. Schniepp. *biblog Am Chem Soc J* 70:1839-42 My '48

DICHLORODIETHYLAMINE

Nitrogen-substituted chloroalkylamines. R. F. Phillips, C. H. Shunk and K. Folkers. *Am Chem Soc J* 70:1661-2 Ap '48

DICHLORODIETHYL sulfide

New organic sulphur vesicants; analogues of 2:2'-dichlorodiethyl sulphide and 2:2'-di-(2-chloroethylthio)diethyl ether. A. H. Williams and F. N. Woodward. *Chem Soc J* p38-42 Ja '48

DICHLORODIFLUOROMETHANE

Condensation of refrigerant vapors; apparatus and film coefficients for Freon-12. R. E. White. *biblog il diag A S M E Trans* 70:689-93 Ag '48; Same. *Refrig Eng* 55:375-9 Ap '48

Desirable desiccant properties for refrigerant water removal. P. L. Veltman and C. E. Waring. *Refrig Eng* 54:550-3+ D '47; Discussion. 55:49-52, 177+ Ja-F '48

Electronics simulates sense of smell; emission of ions from heated platinum increased in presence of halogen vapor compounds. W. C. White and J. J. Hickey. *il diags Electronics* 21:100-2 Mr '48

F-12 suction line selector chart and ΔP computer. H. E. Ferrill. *Refrig Eng* 54:436-7 N '47

Heat transfer rates to evaporating Freon-12 in a horizontal tube evaporator. W. T. Witzig and others. *diag Refrig Eng* 56:153-7 Ag '48

Analysis

Water determination in Freon-12 by infrared spectrophotometry. A. F. Benning and others. *il diags Refrig Eng* 55:166-70 F '48

DICHLORODIPHENYLACETIC acid

Trichloro group in DDT; probable basis of insecticidal potency. R. W. Moncrieff. *Chem Age (Lond)* 59:312-13 S 4 '48

DICHLOROETHANE. See Ethylene chloride**DICHLOROETHYLENE**

Condensation of saturated hydrocarbons with halocleffins; the reaction of isobutane with *cis*- and *trans*-dichloroethylene. L. Schmerling. *biblog Am Chem Soc J* 70:379-81 Ja '48

Configuration and adsorption; a comparison of the adsorption of the *cis* and *trans* isomers of dichloroethylene on activated carbon. D. H. Volman and L. J. Andrews. *biblog Am Chem Soc J* 70:457-62 F '48

Scrap filaments in air filters; vinylidene chloride monofilaments and metal. *il Mod Elastics* 25:103-5 Ap '48

Textiles battle for the consumer dollar; part played by monofilaments. *Vecon*. R. S. Firestone. *Textile Col* 70:22-3+ My '48

Vinylidene chloride, its polymerization and polymer properties. H. P. Staudinger. *biblog Chem & Ind* p685-9 N 8 '47

Vulcanization of chlorine-containing acrylic elastomers. W. C. Mast and C. H. Fisher. *biblog Ind & Eng Chem* 40:107-12 Ja '48

DICHLOROETHYLSULFIDE. See Mustard gas

DICHLOROETHYLTHIOETHANE

New organic sulphur vesicants; 1:2-di-(2-chloroethylthio)ethane and its analogues. E. J. Gasson and others. *Chem Soc J* p44-6 Ja '48

DICHLOROHXAFLUOROCYCLOBUTANE

Raman effect of dichlorohexafluorocyclobutane. W. F. Edgell and P. E. Kite. *bibliog J Chem Phys* 15:882 D '47

DICHLOROHXANE

Friedel-Crafts reaction of benzene and 3,4-dichlorohexane. K. Sisido and H. Nozaki. *Am Chem Soc J* 70:1283-9 Mr '48

DICHLOROMETHYL PROPENE

Allylic chlorides; preparation of the 1,3-dichloro-2-methyl-1-propenes. L. F. Hatch, J. J. Russ and L. B. Gordon. *bibliog Am Chem Soc J* 69:2614-16 N '47

DICHLOROPHENOXYACETIC acid

Aquatic growths in reservoirs; use of 2,4-D. *Pub Works* 79:36 Je '48

Control of grass weeds in sugar-cane fields in Puerto Rico. 2,4-D in oil. J. A. B. Nolla. *Science* 108:112-13 Jl '48

Cyclization of phenoxyacetic acid and some chlorophenoxyacetic acids. M. L. Kalinowski and L. W. Kalinowski. *bibliog Am Chem Soc J* 70:1970-1 My '48

Delayed maturity of bean plants sprayed with solutions of 2,4-dichlorophenoxyacetic acid of nonherbicidal concentrations. E. R. Stromme and C. L. Hamner. *il Science* 107:170-1 F '48

Differential effects of 2,4-D on aerobic, anaerobic, and facultative anaerobic microorganisms. W. A. Worth, Jr. and A. M. McCabe. *bibliog Science* 108:16-18 Jl '48

Effect of 2,4-dichlorophenoxyacetic acid on root development in bean cotyledons. E. K. Akamine. *il Science* 108:209 Ag '48

Inactivation of 2,4-D on sweet-potato slips with activated carbon. H. F. Arle and others. *Science* 107:247-8 Mr '48

Increase of herbicidal action of concentrate 40 and oil emulsion by 2,4-D. J. C. Mangual. *Science* 107:66 Ja '48

Killing weeds the easy way with 2,4-D. B. McDowell. *il Pub Works* 79:24-5 My '48

Liquid killer; output of 2,4-D is expanding. *Chem Ind* 62:224 F '48

Qualitative reaction for 2,4-dichlorophenoxyacetic acid. V. H. Freed. *bibliog Science* 107:98-9 Ja '48

Roadside weed spraying with 2,4-D. C. W. Magee. *il Roads & Bridges* 86:72-5+ F '48

Small scale synthesis of 2,4-dichlorophenoxyacetic acid. E. E. Buckles and S. Wawzonek. *J Chem Educ* 25:514 S '48

Turbidimetric method for determining the effect of 2,4-D upon the growth of yeast. F. R. West, Jr. and J. H. M. Henderson. *Science* 107:604 Je '48

Use of a plastic material (Geon 31X) to increase the action of the sodium salt of 2,4-D. C. L. Hamner and Kiang Chi-ken. *il Science* 107:572-3 My '48; Reply. J. H. M. Henderson. 108:483 O '48

Weed control, a liquid concentrate of the isopropyl ester of 2,4-D miscible with oil or water in any proportion. F. E. Hance. *Science* 108:303 S '48

Weed-killing dust ban seeks to avoid damage to broad-leaf crops. *CAA J* 9:84 Jl '48

Physiological effect

Effects of 2,4-dichlorophenoxyacetic acid on chicks. M. K. Bjorn and H. T. Northen. *Science* 108:479-80 O '48

DICHLOROPROPANE

Toxicology of 1,2-dichloropropane (propylene dichloride); effects of repeated exposures to a low concentration of the vapor. L. A. Heppel and others. *J Ind Hygiene* 30:189-91 My '48

DICHLOROPROPENE

Preparation of 1,2-dichloropropene-1. E. H. Huntress and F. Sanchez-Nieva. *Am Chem Soc J* 70:2813-14 Ag '48

DICHLOROPROPIONALDEHYDE

Reaction of α,β -dichloropropionaldehyde with a number of Grignard reagents. V. W. Floutz. *Am Chem Soc J* 70:2516-17 Jl '48

DICHLOROSTYRENE

Copolymerization rate constants in the system 2,6-dichlorostyrene-methyl acrylate. F. Leonard, W. P. Hohenstein and E. Merz. *Am Chem Soc J* 70:1283-4 Mr '48

Properties of polymers as functions of conversion; composition studies of rubber-like copolymers. F. T. Wall and others. *bibliog Am Chem Soc J* 70:1031-7 Mr '48

DICHLOROTOLUENE

Kinetics of the thermal chlorination of benzal chloride. H. A. Scheraga and M. E. Hobbs. *bibliog Am Chem Soc J* 70:3015-19 S '48

DICHRORA febrifuga Lour

Alkaloids of *dichroa febrifuga* Lour. F. A. Kuehl, Jr., C. F. Spencer and K. Folkers. *Am Chem Soc J* 70:2091-3 Je '48

Antimalarial constituents of Chinese drug, *Ch'ang Shan*, *dichroa febrifuga* Lour. T. Q. Chou, F. Y. Fu and Y. S. Kao. *Am Chem Soc J* 70:1765-7 My '48

DICHRISM

Infra-red dichroism in aligned polythene and parowax. L. Glatt and J. W. Ellis. *J Chem Phys* 15:884 D '47

Infra-red dichroism involving hydrogen bonds. L. Glatt and J. W. Ellis. *bibliog J Chem Phys* 15:880-1 D '47

Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. *bibliog diags J Chem Phys* 16:877-86 S '48

DICHROMATES

Process sheet for dichromate treatment of magnesium; reference book sheet. G. Black. *Am Mach* 92:135 My '48

DICKENS, Charles, 1812-1870

Hunted down; a short story. *il Spectator (Life ed)* 155:10-15+ D '47

DICKINSON lectures

1948 Dickinson lectures to be given by George D. Bailey. *J Account* 85:217 Mr '48

DICOUMAROL. See Coumarin

DICTATING machines

Memory test attracts capacity crowds for sales demonstration; Dictaphone corporation's Guess Who contest. *il Sales Management* 59:123 D '47

Sound recorded on ethyl cellulose; Memobelt used in Time-Master dictating machine. *il Mod Plastics* 26:272-3 S '48

DICYANDIAMIDE. See Cyanoguanidine

DICYCLOHEXYL

Sulfur as a promoter for a nickel catalyst in dehydrogenation. H. Adkins and others. *Am Chem Soc J* 70:381-2 Ja '48

DICYCLOPENTADIENE

exo-Dicyclopentadiene. P. D. Bartlett and I. S. Goldstein. *diags Am Chem Soc J* 69:2553 O '47

Analysis

Determining the purity of dicyclopentadiene concentrates; a cryoscopic method. G. C. Ray. *diag Anal Chem* 20:331-3 Ap '48

Quantitative determination of dicyclopentadiene. F. Bergmann and H. Japhe. *Anal Chem* 20:146-7 F '48

DIE casting

Acidic emulsion cleaner for zinc base die-castings; Dykasol. *Iron Age* 161:79 Je '48

Advantages of induction furnaces in zinc die casting. H. Chase. *il plan diags Steel* 121:108-9+ N '47

Application tables to guide in the selection of materials; die-casting alloys; reference book sheet. Z. Fox. *Product Eng* 18:167 D '47

Atmospheric and indoor aging studies on some aluminum and zinc-base die-casting alloys. G. R. Gohn and L. E. Menges. *bibliog il Am Soc T M Proc* 46:1064-94; Discussion. 1095-6 '46

Causes of diecasting irregularities. J. L. Erickson. *il Iron Age* 160:82-7+ N '48; 80-6 N '47

Chain and belt conveyors handle die-cast products. B. C. Brosheer. *il plan Am Mach* 92:116-18 Je '48

Designing for die casting. H. C. Snyder and others. *il diags Product Eng* 19:86-91 O '48

Die-casting about for new markets; Gerity-Michigan corp. pors *Mod Ind* 15:67-8+ My '48

Die-casting aluminum alloy; Hinduminium 51. *Engineer* 186:141 Ag '48

DIE casting—Continued

- Die-casting aluminum rotors on a vertical hydraulic press; Life-Line motor department, Westinghouse electric corp. *il* diag Mach 54:150-2 F '48
- Diecasting magnesium; plant of Litometal die-cast, inc. H. Chase. *il* Iron Age 161:68-72 F 26 '48
- Die casting progress. A. C. Street. *il* Metallurgia 37:3-6, 67-70, 201-4; 38:3-5 N-D '47, F My '48
- Diecastings in the '48 Packard. H. Chase. *il* Iron Age 161:78-81 Je 3 '48
- Die castings that cost less than screw machine products. H. Chase. *il* Materials & Methods 26:90-4 N '47
- Effect of alloy composition on surface quality of diecastings. A. W. Sundwick. Iron Age 160:71-4 D 4 '47
- 80-inch die casting die produces zinc alloy automobile strip. *il* Steel 122:84 Ap 5 '48
- Exhibition of zinc alloy die castings. *il* Metallurgia 38:10-1 Je '48
- High quality pressure die castings. J. L. Erickson. *il* Metallurgia 38:212-14 Ag '48
- How to make die castings. J. Van Voast. *il* diags Am Mach 91:103-18 D 18 '47
- Importance of cores in die-casting design. C. R. Maxon. *il* diags Mech Eng 70:609-13 JI '48; Excerpt. Machine Design 20:105+ Ag '48
- Machining Ford carburetor die-castings. H. Chase. *il* Mach 54:144-8 N '47
- Magnesium die casting; techniques used by the Mahle co., Bad Cannstatt, Germany. Mech Eng 70:22-3 Ja '48
- Making the Christmas tree express; pressed and die-cast metal and plastic replicas of real trains by the Lionel corporation. C. H. Wick. *il* diags Mach 54:147-54 D '47
- Modern die casting practice. R. J. Reel. *il* Steel 122:81-4+ F '9; 90-2+ F 16; 92-4+ F 23; 90-2+ Mr 1 '48
- Permanent mold casting of copper base alloys; review of British practice. J. L. Erickson. *il* Iron Age 162:84-9 JI 22 '48
- Plating on zinc die casting; abstracts of papers. Materials & Methods 27:113-15 My '48
- Plating zinc diecastings at Gerity-Michigan. W. MacLeay. *il* Iron Age 162:90-4 JI 29 '48
- Principles of die casting; booklet by Federated metals division of American smelting and refining co. diags Chem Age (Lond) 57:602+ N 1 '47
- Rapid machining operations on the castings; Brown-Lipe-Chapin div. of General motors corp. *il* Iron Age 162:162 Ag 19 '48
- Reverberatory melting of zinc base diecasting alloys. R. L. Wilcox. *il* diags Iron Age 161:80-2 Je 10 '48
- Shop shots from Stewart die casting; illustrations with text. Am Mach 92:108-9 JI 1 '48
- Small zinc alloy die castings; economic and design advantages. J. Saks. *il* diag Product Eng 18:86-9 N '47
- Structurally sound cast parts provided by aluminum base alloy pressure molding. J. L. Erickson. *il* Steel 122:98-100 My 3 '48
- Two-chamber induction melting furnace lowers aluminum die casting cost. F. J. Kamin. *il* diag Materials & Methods 28:69-72 S '48
- Worn and broken zinc die castings can be repaired by welding. A. E. Speck. *il* diag Materials & Methods 27:72-4 Mr '48

Estimates

- Estimating the cost of die casting. J. L. Erickson. *il* Light Metal Age 6:6-11 F '48

DIE casting machines

- Automatic mechanical ladling in die casting; Hydropress inc. E. F. Ross. *il* Steel 122:108+ Mr 15 '48
- High speed die closure with hydraulic system; Wickes no. 4 automatic die casting machine. *il* diags Product Eng 19:102-3 Ja '48
- How to make die castings. J. Van Voast. diags Am Mach 91:105-7 D 18 '47
- Hydropress 1000-ton diecasting machine. *il* diag Iron Age 161:78-9 Mr 25 '48
- Modern die casting practice. R. J. Reel. *il* diags Steel 122:90-2+ F 16 '48

- Novel toggle mechanism actuates, locks platen in die casting machine. *il* diags Machine Design 19:153-4 D '47
- 35th annual review; forming, forging, casting. *il* Am Mach 92:241 Ja 29 '48
- Wickman hydraulically operated die-casting machine. *il* Engineer 186:143-4 Ag 6 '48

DIE sinking

- Milling setup slips under spring to help cutter around die corner. D. Moore. *il* diag Am Mach 92:109 JI 29 '48

DIE sinking machines

- Pratt & Whitney power-operated die-sinking machine. *il* Mach 54:199-200 D '47

DIELAIDIN. See Elaidin**DIELECTRIC constants**

- Acid-base equilibrium constant and dipole moment of tribenzylammonium picrate in benzene from measurements of dielectric constant. A. A. Maryott. *il* Res Nat Bur Stand 41:7-9 JI '48
- Dielectric behavior of single domain crystals of BaTiO₃. G. C. Danielson and others. Phys R 74:986-7 O 15 '48
- Dielectric-constant and refractivity data. J. G. Miller. A S M E Trans 70:645-9 bibliog (67 titles, p648-9) Ag '48
- Dielectric constant in air-ambient electrostatic separation. F. Fraas and O. C. Ralston. *il* bibliog pl U S Bur Mines Rep of Invest 4278:1-12 '48
- Dielectric constant of several gases at a wave-length of 3.2 centimeters. C. M. Crain. diags Phys R 74:691-3 S 15 '48
- Dielectric properties of aqueous ionic solutions. J. B. Hasted and others. *il* bibliog diags J Chem Phys 16:1-21 Ja '48
- Dielectric properties of solid and liquid *cis*- and *trans*-decahydronaphthalene. W. F. Seyer and G. M. Barrow. *il* bibliog diag Am Chem Soc J 70:802-5 F '48
- Dielectric studies; dipole moments of solvents in nonpolar solvents of unknown molecular weights. N. C. C. Li, C. V. An and W. H. Wu. Am Chem Soc J 69:2558-9 O '47
- Dielectric studies; studies with gasoline. N. C. C. Li and T. D. Terry. Am Chem Soc J 70:341-5 Ja '48
- Dipole moments and molecular association of some picrates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Maryott. *il* bibliog J Res Nat Bur Stand 41:1-6 JI '48
- Measurement of the dielectric properties of soils and water at 3.2 cm. wave length. A. W. Stratton and C. W. Tolbert. *il* diag Franklin Inst J 246:13-20 JI '48
- Measurements of dielectric constant and dipole moment of gases by the beat-frequency method. J. G. Jelatis. *il* bibliog diags J Ap Phys 19:419-25 Ap '48
- Method for measuring the complex dielectric constant of gases at microwave frequencies by using a resonant cavity. C. K. Jen. *il* bibliog diags J Ap Phys 19:649-53 JI '48
- New method of determining the relaxation time and the dipole moment of polar substances; its application to fatty acids. G. Potapenko and D. Wheeler, Jr. diags Rs Mod Phys 20:143-50 Ja '48
- Optical properties of Ni, Co, Fe, Mn, and Cd. F. Eueche. *il* bibliog diags Opt Soc Am J 38:806-10 S '48
- Properties of barium-magnesium titanate dielectrics. G. R. Shelton and others. *il* bibliog Am Cer Soc J 31:205-12 JI 1 '48; Same. J Res Nat Bur Stand 41:17-26 JI '48
- Simplified instrument for wide-range dielectric constant measurement. R. B. Fischer. *il* bibliog diag Anal Chem 19:835-7 N '47
- Theory of the dielectric behavior of BaTiO₃. J. M. Richardson and B. T. Matthias. Phys R 74:987-8 O 15 '48
- Theory of the ferroelectric effect and clamped dielectric constant of Rochelle salt. W. P. Mason. *il* bibliog Phys R 72:854-65 N 1 '47
- Universal curves for dielectric-filled wave guides and microwave dielectric measurement methods for liquids. W. H. Surber, Jr. *il* bibliog diags J Ap Phys 19:514-23 Je '48
- Variation of the complex dielectric constant with frequency. H. C. Bolton. *il* bibliog J Chem Phys 16:486-9 My '48

DIELECTRIC constants—Continued

Waxes; dielectric, physical and chemical properties for insulating, coating and sealing applications; tabulation. *Electronics* 21: M38-9 Mid-Je '48

DIELECTRIC losses

Le chauffage diélectrique; étude bibliographique. F. Appell. *bibliog Chimie & Ind* 58:449-56 N '47

Dielectric behavior of solutions of electrolytes in solvents of low dielectric constant. H. A. Strobel and H. C. Eckstrom. *bibliog J Chem Phys* 16:817-31 Ag '48

Electrical quality classification of raw mica by a rapid, direct-reading test method. K. G. Coutlée. *il diags Am Soc T M Proc* 46: 1486-95; Discussion, 1496-7 '46

DIELECTRIC polarization. See Polarization, Dielectric

DIELECTRICS

Calculation of radiation patterns of dielectric rods. R. B. Watson and C. W. Horton. *J Ap Phys* 19:836-7 S '48

Ceramic dielectric materials. B. H. Marks. *il Electronics* 21:116-20 Ag '48

Cyclic variations of capacitance; effect of 50-c/s voltages on high-permittivity ceramics. W. Reddish. *bibliog il diags Wireless Eng* 25:331-7 O '48

Dielectric heating of thin films. T. C. Gams. *il diags Electronics* 21:83-5 S '48

Dielectric measurement of liquids at microwave frequencies. C. E. Grouch, Jr. *bibliog diags J Chem Phys* 16:364-71 Ap '48

Dielectric properties of oil sands. R. T. Wheeler. *bibliog il diags Pet Eng* 19:141+ Je '48

Dielectric strength measurements on varnished cambric. A. Ruffolo and H. K. Graves. *il Am Soc T M Proc* 46:1498-505 '46

Domain structure and dielectric response of barium titanate single crystals. B. Matthias and A. von Hippel. *bibliog il diags Phys R* 73:1378-84 Je '48

Electrostrictive effect in barium titanate. W. P. Mason. *Phys R* 72:869-70 N 1 '47

Electrostrictive effect in barium titanate ceramics. W. P. Mason. *bibliog diags Phys R* 74:1134-47 N 1 '48

Intrinsic electric strength of polythene and its variation with temperature. W. G. Oakes. *bibliog diags Inst E E J* 95 pt 1:36-44 Ja '48

Liquid dielectrics for transformers. J. G. Ford. *il Elec Eng* 67:1066-71 N '48

Metallic delay lenses; metal lens antennas. W. E. Kock. *il diags Bell System Tech J* 27:58-82 Ja '48

Physical interaction of electrons with dielectric media. T. L. Hill. *J Chem Phys* 16:394-9 Ap '48

Radiation patterns of dielectric rods; experiment and theory. R. B. Watson and C. W. Horton. *diags J Ap Phys* 19:661-70 Ji '48

Reflection from dielectric structures in wave guide. J. Shmoy's. *diag J Ap Phys* 19:797 Ag '48

Slow waves in cylindrical guides. A. A. Oliner. *J Ap Phys* 19:109-10 Ja '48; Same. *Elec Com* 25:157-9 Je '48

Small aerials in dielectric media; possibility of improvement in sensitivity of direction-finding systems. R. H. Barfield and R. E. Burgess. *diags Wireless Eng* 25:246-53 Ag '48

Temperature coefficients in electronic circuits. C. I. Soucy. *bibliog Electronics* 21:117-21 Ja '48

Theory of extreme values and its implications in the study of the dielectric strength of paper capacitors. B. Epstein and H. Brooks. *bibliog J Ap Phys* 19:544-50 Je '48

T_{MO} mode in circular wave guides with two coaxial dielectrics. S. Frankel. *J Ap Phys* 18:650-5 Ji '47; Same. *Elec Com* 25: 152-7 Je '48

Vacuum properties of synthetic dielectrics. B. G. Hogg and H. E. Duckworth. *R Sci Instr* 19:331-2 My '48

See also

Electrets

Insulating materials

Mica

DIELS-ALDER reaction

Diels-Alder reaction of 1-vinyl-6-methoxy-3,4-dihydronaphthalene with citraconic anhydride. W. E. Bachmann and J. M. Chermarda. *bibliog Am Chem Soc J* 70:1468-73 Ap '48

Isomerism in the Diels-Alder reaction. H. L. Holmes and others. *bibliog Am Chem Soc J* 70:141-2 Ja '48

Preparation of 1-(*p*-nitrophenyl)-1,3-butadiene. E. C. Coyner and G. A. Ropp. *Am Chem Soc J* 70:2283-4 Je '48

Reactions of 2,4-pentadienal. G. F. Woods and H. Sanders. *bibliog Am Chem Soc J* 69:2926-8 D '47

DIENONE-phenol rearrangement. See Molecular rearrangements

DIES

Alloy die steels. L. Sanderson. *Metallurgia* 38: 147-52 Ji '48

Cam-locking, delayed-action die force fits ball handle on upstroke. J. F. Budnick. *diag Am Mach* 92:124 S 9 '48

Carbide die maintenance. R. Saxton. *il diag Metallurgia* 38:314-15 O '48

Carbide dies cut costs. *il Bsns W* p58-60 Mr 13 '48

Carbide dies cut maintenance time in forming and blanking operation. *il Sci Am* 177: 265-6 D '47

Combination die to bend and cut wire. F. Strasser. *diags Tool Eng* 20:34 Ap '48

Compound die cuts off, forms, curls; making valves for air control device. J. J. McGuinness. *il diags Am Mach* 92:106-7 My 20 '48

Designing copper-base alloy hot die pressings. F. S. Hyde. *diags Materials & Methods* 28: 89-91 O '48

Details for die designers. D. A. Baker. *diags Mach* 54:175-8 Ag '48

Die maintenance system reduces production costs; Worcester pressed steel co. J. W. Gulliksen. *il Mach* 55:168-7 O '48

Die material changeover; manufacture of rod bearings for automotive socket tie rod assemblies. *il Steel* 122:98 Ja 12 '48

Die set for perforating sheet metal. H. E. Murphey. *diags Mach* 55:203-4 S '48

Die spring deflects under heavy shearing side load. R. Isetts. *diag Am Mach* 92: 120-1 O 7 '48

Die that forms eight right-angle bends in one press stroke. L. Kasper. *diags Mach* 54:197-9 Ji '48

Dies for drawing complex shapes. C. R. Cory. *diags Mach* 54:156-62 My '48

80-inch die casting die produces zinc alloy automobile strip. *il Steel* 122:84 Ap 5 '48

Fabricating automobile molding clips; Buick motor plant. H. Chase. *il plan diags Iron Age* 161:74-7 F 19 '48

Frozen dies form experimental parts; tripling the strength of Wood's metal dies by freezing in liquid nitrogen. C. S. Ricker. *il diag Am Mach* 91:110-11 D 4 '47

Galling tests of graphitic and regular oil hardening die steels. A. F. Sprankle and R. W. Dayton. *il diags Metal Prog* 54:65-9 Ji '48

Good die design lowers product cost. *il Plas-tics* 8:5 Ag '48

Hard die inserts. F. Lovell. *diags Steel* 123: 108 Ag 23 '48

High speed stamping of electrical terminal plugs; International business machines corp. H. Chase. *il diags Iron Age* 161:64-72 Mr 18 '48

How to get the most out of punch presses. E. H. Girardot. *diags Am Mach* 92:86-9 Ap 22; 114-17 My 6 '48

How to make die castings. J. Van Voast. *il diags Am Mach* 91:108-15 D 18 '47

Ingenious die design increases versatility of press brake. W. E. Peters. *il diags Mach* 54: 163-75 Mr '48

Kirksite dies for auto stampings. W. G. Patton. *il Iron Age* 161:78-81 Ap 15 '48

Mechanized handling eases wheel manufacture. Norris stamping and manufacturing co. H. S. Wharen. *diags Am Mach* 92:88 F 26 '48

Modern die casting practice; die design. R. J. Reel. *il Steel* 122:32-4+ F 23 '48

Modern die casting practice; die materials. R. J. Reel. *il Steel* 122:30-2+ Mr 1 '48

Multiple piercing dies for motor laminations. *il Mach* 54:189 Je '48

DIES—Continued

- New die frame design that saves labor and material. R. Mawson. diags Mach 54:197 Je '48
- New method for checking the profile of wire-drawing dies. J. G. Wistreich. il diag Iron & Steel Inst J 158:496 Ap '48
- Oscillating forming die. F. Strasser. diag Tool Eng 21:62 Ag '48
- Pilots for progressive dies; reference book sheets. J. R. Paquin. diags Am Mach 92: 127, 129, 131 My '48
- Procedures for drawing flanged shells. J. Walker. il diags Tool Eng 20:37-42 F '48
- Progressive die scores, trims and forms heavy shell. T. Oshinsky. il diags Am Mach 92:85 S 9 '48
- Progressive die slashes tooling; making terminals for fluorescent lamp sockets. il diag Am Mach 92:86-7 Ap '48
- Progressive dies; how to appraise their applicability. R. J. Harris. il Steel 122:78-80+ Je 28 '48
- Selection of stripper springs; reference book sheet. J. R. Paquin. diags Am Mach 91:153 D 18 '47
- Short run dies of wood, glass and concrete. W. Rudolph. il Automotive Ind 99:46-7+ Ag 1 '48
- Swaging dies. il diags Am Mach 92:80-2 Ap 22 '48
- Tool and die materials; their selection, application and necessary treatment; sources, trade names and chemical analyses. Steel 123:98-100+ Ag 16; 82-4+ Ag 23; 64-6+ Ag 30; 96-100+ S 6; 106-10+ S 13; 92-4+ S 27; 84-6+ O 4 '48
- Tungsten carbide blanking dies. E. J. Reittler and C. R. Harmon. diags Tool Eng 20:47-9 Mr '48
- Use of modified martempering for hardening intricately-shaped dies. W. Olson and G. Nevins. il diags Steel 121:88-9+ D 15 '47
- Which should you specify, drawing or forming dies? C. R. Cory. il diags Mach 54:176-82 D '47
- Why dies fail. C. A. Brenner. diags Mach 54: 155-9 Jl '48

Manufacture

- Economical short run stamping dies, made of low melting alloys chilled to -320°F in liquid nitrogen; Ford motor co. W. G. Patton. il Iron Age 161:84-6 F 19 '48
- Scientific design of refractory dies replaces cut and try construction. J. O. Everhart. il Brick & Clay Rec 113:66+ Jl '48
- Skilled die making permits intricate drawing of integrator housing; Bailey meter co. D. Reebel. il Steel 122:96-8 Mr 1 '48
- Soft alloys used to make short-run sheet metal dies; use of Corbend hardened in liquid nitrogen. K. Rose. il Materials & Methods 27:83-5 Mr '48
- DIES, Forging**
- Fundamentals of forging practice. W. Naujoks. il diags Steel 123:59-64+ Ag 30; 101-2+ O 11 '48
- Increased forging die life; forge shop of International harvester co. H. Chase. il Iron Age 161:88-94 My 27 '48
- DIESEL, Rudolf, 1858-1913**
- Memories of Dr Diesel. J. Santschl. Diesel Power 26:123-6 Mr '48
- Portrait. Diesel Power 26:79 Mr '48
- DIESEL—electric locomotives.** See Locomotives, Diesel—electric
- DIESEL engine manufacturers association**
- Annual meeting, Chicago, Dec. 10. Marine Eng 53:77 Ja '48
- DIESEL engine plants.** See Power plants—Diesel engine plants
- DIESEL engine stations.** See Electric plants (central stations)—Diesel engine stations
- DIESEL engines**
- Allis-Chalmers new Diesel tractor. il diag Automotive Ind 97:31 D 1 '47
- Auxiliaries and accessories. il Diesel Power 26:154-65 Mr '48
- Caterpillar announces new engines. il Diesel Power 26:56+ S '48
- Compressed air and the Diesel. il Diesel Power 25:70-4+ N '47
- Diesel-engine research; new Diesel laboratory at the Oklahoma agricultural and mechanical college. Mech Eng 70:626-7 Jl '48

- Diesel engines hold secure and promising field in oil drilling. T. W. Mayborn. il Diesel Power 26:56-9+ My '48
- Diesel engines; principles of operation. il diags Power Pl Eng 51:89-91 D '47; [cont as] Power Generation 52:76-8 Ja; 70-2 F; 73-9 Mr '48
- Diesels south of the border; Nordberg engine installed in Pedro-de-Valdivia power plant of Lautaro nitrate corporation, Chile. il Diesel Power 26:42-3 Ja '48
- Economics of gas-Diesel engine; with cost data. R. A. Darling. il World Oil 127:174-6+ F '48
- Four phases in the evolution of the Diesel engine. il Diesel Power 26:50-3+ My '48
- German Diesel engine research laboratory to be transplanted to Oklahoma A & M college. Science 107:418 Ap 23 '48
- Glimpse of engineering in industry. T. A. Boyd. Mech Eng 70:799-800 O '48
- Henry Meadows portable power plant. il Engineering 165:483 My 21 '48
- International's new Diesel. il Diesel Power 26:49-50 F '48
- Lima-Hamilton 1,200-hp. Diesel engine. il Ry Age 125:643-4 O 2 '48; Diesel Power 26:60-1 O '48
- Materials and design; abstract. C. G. A. Rosen. Machine Design 20:193+ F '48
- Modern Diesel engines. L. N. Rowley. il diags Power 92:193-230 Ap '48
- Modest locomotive cranes; use of Diesel power. L. E. Coulter. il Diesel Power 26:38-41 Ja '48
- Multi-cylinder Diesels. A. Regnaud. Elec R (Lond) 143:630 O 22 '48
- New Diesel manufactured by White-Roth machine corp. will operate on Diesel fuel, natural gas or butane. il diag Diesel Power 26:54-5 F '48
- New gas-Diesel development. il Diesel Power 25:66-7 N '47
- New Wolverine engine features simplicity. il Diesel Power 26:67 S '48
- Opposed piston Diesel engine in Manchester. N.H. pumping station. L. A. Harlow. il Diesel Power 26:42-4 My '48
- Power supply for cabooses. E. H. Musgrove. il Ry Mech Eng 121:714-18 D '47
- Recent and future developments in Diesel engines. il Diesel Power 26:106+ Mr '48
- Recent and future developments in Diesel engines. S. Belllove. S A E J 56:49-53 Ap '48
- Research on Diesel crankshafts in Germany. H. Hermanns. diags Diesel Power 26:60-1+ F '48
- Stamped cover reduces breakage. il diag Product Eng 19:101 O '48
- Stationary Diesel; beginning of an industry. il diag Diesel Power 26:92-7+ Mr '48
- U.S. naval engineering experiment station investigations on cylinder liner wear. W. G. Payne and W. F. Joachim. S A E J 56: 40-3 Jl '48
- Use of Diesel engines in locomotive, stationary and automotive applications. W. E. Corrigan. Diesel Power 26:51+ Ja '48
- Waukesha announces new big Diesel. il diags Diesel Power 26:90-1+ Je '48
- Wear resistance of gray iron Diesel engine liners. T. E. Eagan. il Foundry 76:134-9+ My '48

See also

Sulzer engines

Air supply

- Centrifugal blowers for two-cycle Diesel engines. R. Cramer, jr. diags Diesel Power 26:74-8 Jl '48
- Directing fuel to air for combustion in an engine. L. E. Johnson. diags S A E J 56: 49-51 Mr '48
- Getting air in and exhaust out. L. N. Rowley. il diags Power 92:210-13 Ap '48
- Open combustion chamber automotive Diesel engine in Britain. C. B. Dicksee. il diags S A E J 56:43-6 O '48

Bearings

- Diesel bearings cast in sheet-steel flasks; illustrations with text. C. O. Donley. Am Mach 92:89-91 N 4 '48
- For top-notch Diesel operation know your sleeve-bearing fundamentals. il diags Power 92:22-5+ Ja '48

DIESEL engines—Bearings—Continued

Modern bearing materials meet tough demands of Diesel service conditions. *il* *diag* Power 92:78-81 F '48
 New cure for your bearing headaches; gridded bearings. *il* *diag*s Diesel Power 26:47-8 F '48

Cold weather operation

Winterization. *diag*s Diesel Power 26:40-5 S '48
 Winterizing the Diesel engine. *il* *diag*s Diesel Power 25:44-59+ N '47

Control

Governor servicing. *il* Diesel Power 26:56-7+ F '48

Cooling

Cooling system servicing for winter operation. *diag*s Diesel Power 25:53-5+ N '47
 Treatment and control of Diesel radiator water. C. W. Brown, Jr. and D. G. Drawbaugh, Jr. *il* *Ry Mech Eng* 122:487-8 S '48
 Vapor phase cooling; patented cooling system designed to operate engines at or near the boiling point of the coolant. *diag*s Diesel Power 25:56-7 D '47
 What is an antifreeze? D. G. Zink. *diag*s Diesel Power 25:44-8 N '47

Cost of operation

Heavy-oil engine working costs. *Engineering* 165:62 Ja 16 '48
 New gas-Diesel development provides fuel economies; cost data. *Am Gas J* 167:51 N '47
 Power for Kansas farms; Central Kansas co-operative electrical association. *Diesel Power* 26:42-4+ J1 '48
 What it cost to run ten Diesels for four years. *il* *Power Generation* 52:100-2 Mr '48

Design

Design trends for future Diesel engines in India. M. Somaya. *Diesel Power* 26:94-5 Je '48
 Development of the Diesel. F. P. Grutzner. *diag*s Diesel Power 26:86-91 Mr '48
 High speed Diesel engine. *il* *Diesel Power* 26:127-42 Mr '48
 Nordberg radial Diesel. *il* *diag* Diesel Power 26:46-8 J1 '48
 Slant mechanisms; principles and application. T. L. Sherman. *diag*s *Machine Design* 19:135-40+ N '47

Directories

Diesel engine directory; manufacturers of engines and plant accessories. *Diesel Power* 26:56-7+ Ja; 66-86+ Je '48

Exhaust

DEMA, Texaco laboratory trip; further study of smoke and odor. *il* *Diesel Power* 26:62-4+ My '48

Diesel engines underground. *Safety Eng* 96:64 Ag '48

Diesel engines underground; use of Diesel locomotives in construction of the Delaware aqueduct; effect of exhaust gases upon quality of tunnel air. L. B. Berger and others. *bibliog* 2 pls U S Bur Mines Rep of Invest 4032:1-26 '47; Same cond. *Engineering* 165:54-5, 95-6, 114 Ja 16-30 '48
 Getting air in and exhaust out. L. N. Rowley. *il* *diag*s Power 92:210-13 Ap '48

Influence of injection characteristics on exhaust smoke. M. Berlyn. *Diesel Power* 26:40-1 F '48

Rating Diesel engines on smoke-curve basis. K. J. Fleck. *Diesel Power* 26:41-3 F '48

Recovering waste heat. *il* *diag*s Diesel Power 25:52-9 D '47

Removal of aldehydes from Diesel exhaust gas. R. F. Davis and M. A. Elliott. *bibliog* *diag*s A S M E Trans 70:745-50 Ag '48

Smoke in high speed Diesel engines. J. J. Broeze and C. Stillbroer. *diag*s Diesel Power 26:37-40 F '48

Smoking of Diesels being attacked from many angles; based on papers by H. D. Young and others. *diag*s S A E J 56:54-8 Ap '48

Successful operation of waste heat boilers; combination spark arrestor, silencer and waste heat boiler. W. R. Williamson. *il* *diag*s Diesel Power 25:50-2 D '47
 Technique of exhaust smoke measurement; C.R.C. smokeometer. J. P. Jung and F. L. Coers. *diag* Diesel Power 26:43-4 F '48
 Waste heat boilers and water heaters. *il* *Diesel Power* 25:53-5 D '47

Fires and fire protection

Dry chemical fire extinguishers. A. B. Guise. *il* *Diesel Power* 26:66-9+ My '48

Fuel

Combustion characteristics of Diesel fuels. E. W. Landen. *il* S A E J 56:43-6; Discussion. 46-7 My '48
 Compositions and properties of fuels highlight sessions on Diesels; S A E annual meeting. S A E J 56:71-4 '48
 Diesel combustion temperatures; Influence of fuels of selected combustion. P. S. Myers; O. A. Ueyhara. *diag*s S A E J 56:56-8 Ag '48
 Diesel fuel from coal. *Diesel Power* 26:58-9 J1 '48
 Diesel fuels; characteristics, heating value, viscosity, etc. *Power Generation* 52:76-8 Ja '48

Diesel fuels from catalytic cracking operations. T. L. Apjohn and F. L. Nelson. *il* *Pet Refiner* 27:90-8 J1 '48

Effect of Diesel fuel characteristics on engine deposits and wear. L. A. Blanc. S A E J 56:43-4 Mr '48

Engine wear research. L. D. Thompson and others. S A E J 56:41-5+ J1 '48

Evaluation of additives and blends for improving the cold starting characteristics of Diesel fuels. M. Smolak and F. L. Nelson. *Pet Refiner* 27:75-9 Ag '48

Ignition qualities of hydrocarbons in the Diesel-fuel boiling range. A. D. Puckett and B. H. Caudle. U S Bur Mines Information Circ 7474:1-14 *bibliog*(p7-8) '48

Modified procedure reduces sample size for routine cetane number determinations. J. O. Chase and A. D. Puckett. *diag* *Pet Processing* 3:120 F '48

New gas-Diesel development provides fuel economies; cost data. *Am Gas J* 167:51 N '47

Operating data on a dual-fuel Diesel. *il* *diag* *Power Generation* 52:118+ Ja '48

Production and performance of Diesel fuels. J. R. MacGregor and others. *Pet Refiner* 27:109-14 J1 '48; Same. *Diesel Power* 26:66+ Ag '48; Excerpts. S A E J 56:39-40 S '48; Abstract. *Oil & Gas J* 47:60 Je 10 '48

Production of high cetane number Diesel fuels by hydrogenation. J. A. Tilton, W. M. Smith and W. G. Hockberger. *bibliog* *Ind & Eng Chem* 40:1269-73 J1 '48

Solving the sludge problem in fuel oil. C. Gamlen. *Diesel Power* 26:45-6 F '48

Will there be fuel for Diesels? W. J. Sweeney. *il* *Ry Age* 124:856-60; Discussion. 860-1 My 1 '48

Locomotives, Diesel—
 Fuel

Fuel feeding

Bosch single-plunger Diesel engine pump. *il* *Automotive Ind* 93:46-4 Ap 1 '48

C.A.V. injection pump with hydraulic governor. *il* *diag*s *Automobile Eng* 38:392-5 O '48

Directing fuel to air for combustion in an engine. L. E. Johnson. *diag*s S A E J 56:49-51 Mr '48

Fuel injection; new single-plunger pump for small oil engines. *il* *diag*s *Automobile Eng* 38:315-17 Ag '48

Influence of injection characteristics on exhaust smoke. M. Berlyn. *Diesel Power* 26:40-1 F '48

Injecting fuel and burning it. L. N. Rowley. *il* *diag*s Power 92:214-21 Ap '48

New fuel injection pump broadens Diesels horizons. *il* *Diesel Power* 26:46-8+ Ap '48

Northwestern's fuel injection spray chamber; useful laboratory tool. *il* *diag* Diesel Power 26:62+ Ag '48

Open combustion chamber automotive Diesel engine in Britain. C. B. Dicksee. *il* *diag*s S A E J 56:43-6 O '48

DIESEL engines—Fuel feeding—Continued

Solid injection fuel valves on Diesels. Roads & Bridges 85:93 D '47

History

After 50 years; engineering advances and developments. *il* *diags* Diesel Power 26:82-165 Mr '48

Ignition

Combustion of Diesel fuel oils; abstract. M. A. Elliott. S A E J 56:87-8 Ja '48

Length of service

Case study in Diesel depreciation; study of a municipal power plant to answer the question, how long will our Diesels last? W. H. Gottlieb. *il* Pub Works 79:24-5 Ja '48

Lubrication

Anticipating engine troubles by oil analysis. *il* Diesel Power 26:65-70 S '48

Diesel engine maintenance problems and assistance from crankcase oil analysis; abstract. C. R. Stewart. S A E J 56:58 Mr '48

Diesel lubrication. bibliog *il* *diags* Power Generation 52:70-2 F '48

Effects of cooling on engine lubrication; winter operation. Diesel Power 25:52 N '47

Experience with Diesel lubricating oils; abstract. W. F. Joachim and others. S A E J 56:35 Mr '48

Importance of proper Diesel lubrication. T. Trail. *il* Power Generation 52:110+ Ja '48

Lubricating the Diesel. L. N. Rowley. *il* *diag* Power 92:222-3 Ap '48

Lubrication of the Diesel engine from the filter manufacturer's viewpoint. W. G. Nosstrand. *il* *diags* Diesel Power 26:62-5 O '48

Modern Diesel oil maintenance. T. A. LaBrecque. *il* *diags* Diesel Power 26:51-3 Je '48

Practical engine room tests of lubricating oil contaminants. F. L. Gerin. *il* *diags* Diesel Power 26:60-2+ JI '48

Maintenance and repair

Chicago, Burlington & Quincy Diesel crankshaft repairs; combination crankshaft and axle-grinding machine. *il* Ry Mech Eng 122:121-5 Mr '48

Diesel engine assembly platform; Omaha shops of the Union Pacific. *il* Ry Mech Eng 122:307 Je '48

Diesel maintenance pointers. Marine Eng 53:70-2 O '48

Drop pits for Diesel-engine maintenance. *il* Ry Mech Eng 122:24-5 Ja '48

Maintenance of Diesel nozzles. *il* *diags* Roads & Sts 90:105+ D '47

Measures adopted by Ajax Pipe Line to operate pump stations at high efficiency. C. P. Morgan. *il* *diags* Oil & Gas J 47:106-7+ Ag 19 '48

Metal spraying; its application to Diesel maintenance. R. Mansell. *il* Diesel Power 26:66-8+ JI '48

Manufacture

Advanced machining methods speed Diesel production and repair. *il* *diag* Diesel Power 26:36-40+ Ag '48

Diesel-engine construction. L. N. Rowley. *il* *diags* Power 92:205-9 Ap '48

Diesel-engine firm in Owen Sound rapidly growing in scope and activity; Russel brothers ltd. *il* Roads & Bridges 86:94+ Ap '48

Fabricated Diesel engine structures. C. B. M. Dale. *il* *diags* Welding J 27:531-5 JI '48

Porous-chromium hardening of Diesel-engine cylinders. C. D. B. Williams. Engineering 165:139 F 6 '48

What can precision investment casting offer the Diesel industry? *il* Diesel Power 26:50-3+ JI '48

Models

Baby Diesel for model airplanes. J. W. Korda. *il* Diesel Power 26:42-5 Ap '48

Mufflers

Silencing of internal combustion engines. J. G. Peirson. Diesel Power 26:46+ F '48

Noise

Silencing of internal combustion engines. J. G. Peirson. Diesel Power 26:46+ F '48

Rating

Rating Diesel engines on smoke-curve basis. K. J. Fleck. Diesel Power 26:41-3 F '48

Scavenging

Interesting European scavenging systems. *il* *diags* Diesel Power 26:60-2+ S '48

Specifications

Diesel engine specifications; data on engines manufactured by American Diesel engine builders. Diesel Power 26:51-3+ Ap '48

Starting

Booster heater warms engine. *il* *diag* Diesel Power 25:59 N '47

Cartridge starting of Diesel engines. *il* Engineer 186:93 JI 23 '48

Cold starting aid; Vapor-Clarkson heater. *il* *diag* Diesel Power 25:56-7 N '47

Diesel engine preheater. *il* Diesel Power 25:58+ N '47

Disassembly, repair and reassembly of cranking motors. *il* *diag* Diesel Power 26:46-50+ Ja '48

Double service by a control battery for starting a Diesel-electric unit. Elec World 123:62+ Ja 31 '48

Evaluation of additives and blends for improving the cold starting characteristics of Diesel fuels. M. Smolak and F. L. Nelson. Pet Refiner 27:75-9 Ag '48

Frigid starting and operation. E. W. Goodale. *il* *diag* Diesel Power 25:49-51 N '47

Warming up the Diesel; Youngstown Miller finned tube heater. *il* *diag* Diesel Power 25:57-8 N '47

Study and teaching

Alco's educational program matches rapid Dieselization of railroads. E. F. Carney. *il* Diesel Power 25:66-9+ D '47

Specialized Diesel instruction; Newark Diesel institute. *il* Diesel Power 26:80-1 Ja '48

Superchargers

Exhaust turbo-charging; Saurer system for transport Diesel engines. *il* *diags* Automobile Eng 38:3-13 Ja '48

Five supercharged Diesels supply power for New Bern, N.C. *il* Diesel Power 26:48-50 Je '48; Same cond. Pub Works 79:61 JI '48

High-pressure supercharging of Diesel engines for locomotives. S. N. Hedman. *il* Ry Age 125:240-3 JI 3 '48

Operating data on a dual-fuel Diesel. *il* *diag* Power Generation 52:118+ Ja '48

Producing Diesel engine turbosuperchargers. F. R. Ericson. *il* *diags* Iron Age 161:72-7 Mr 25 '48

Testing

I.C. engine research exhibition. *il* Engineer 185:119 Ja 30 '48

Standard practices; field test code. Diesel Power 25:80+ N '47

Vibration

Stop that vibration! *il* *diag* Diesel Power 26:87-9 Je '48

DIESEL engines, Automotive

Biggest in the business; Public service corporation of New Jersey. *il* map Diesel Power 25:74-7 D '47

Britain's first under the floor Diesel engine. W. F. Bradley. *il* Automotive Ind 99:46 JI 1 '48

Commercial vehicle horizontal Diesel engine. *il* Engineer 185:447 My 7 '48; Engineering 165:561-2 Je 11 '48

Compact Diesel engine features ease of servicing; drawing. Automotive Ind 98:39 Je 1 '48

Design, development, and production of high-speed compression-ignition engines. S. Markland and N. Tattersall. *diags* Inst Mech Eng J & Proc (Auto div pt 1):9-20, pl 1-4; Discussion. 20-9 '47-48

Diesel engines for excavating machines. T. Davidson. *il* S A E J 50:38-42 Ag '48

Diesel power underground; ore-hauling trucks in lead and zinc mining operations by the Eagle-Picher mining and smelting co. W. C. Huddleston. *il* Diesel Power 26:58-9 F '48

Diesels play prominent part in logging show. A. M. Johnson. *il* Diesel Power 26:62-3 F '48

DIESEL engines, Automotive—Continued

- Exhaust turbo-charging; Saurer system for transport Diesel engines. *il* diags Automobile Eng 38:3-13 Ja '48
- Federal's new Diesel and six-wheel trucks. *il* Automotive Ind 99:38-40+ Ag 15 '48
- G.M. Diesel. *il* Fortune 38:76-81+ J1 '48
- Hercules adds six Diesels and two gasoline engines to its line. *il* Automotive Ind 97:28-9+ N 1 '47
- High speed Diesel engine. *il* Diesel Power 26:127-42 Mr '48
- How the New York Board of transportation maintains its Diesel buses, flow chart *il* Diesel Power 26:46-8+ O '48
- International commercial motor transport exhibition, 14th, London, Oct. 1-9. *il* diags Engineer 186:359-61, 388-9 O 8-15 '48; Engineering 166:365-7, 372 O 15 '48
- Moving the Eye with Diesels; transporting Mount Palomar Observatory telescope mirror. *il* Diesel Power 26:48 F '48
- New crawler tractor takes the field. E. A. Braker. *il* diags Diesel Power 26:48-50+ Ag '48
- New Diesel engines highlight England's first show since 1937. W. F. Bradley. *il* diags Automotive Ind 99:30-3+ N 1 '48
- Open combustion chamber automotive Diesel engine in Britain. C. B. Dicksee. *il* diags S A E J 56:43-6 O '48
- Production of vehicle engines; F. Perkins, Ltd. *il* Engineer 184:479 N 21 '47
- 75-b.h.p. Diesel-engined goods vehicles. *il* Engineering 165:103-6 Ja 30 '48
- SAE National tractor and Diesel engine meeting, Milwaukee, Sept. 17-19. S A E J 56:82-9 O '48
- See also*
- Locomotives, Diesel-electric
- Specifications**
- Automotive Diesel and other heavy oil engines; tabulation. Automotive Ind 98:168-71 Mr 15 '48
- British Diesel and other heavy oil engines; tabulation. Automotive Ind 98:176-7 Mr 15 '48

DIESEL engines, Marine

- Baldwin engines used as French trawlers. *il* Marine Eng 53:47 Ap '48
- Bushey-built yard tug. *il* Marine Eng 53:86 J1 '48
- Consolidated alarm panels for Diesel engines. *il* Marine Eng 53:78 J1 '48
- Crossley 600-b.h.p. marine Diesel engine. *il* Engineering 165:189 E 20 '48
- Fairbanks-Morse 2-cycle model 31 marine Diesel engine. *il* Marine Eng 53:84+ Ja '48
- German devices supplied oxygen to submerged subs; possibilities of Diesel engine. C. G. A. Rosen. diags S A E J 56:22-4 S '48
- Hercules adds six Diesels and two gasoline engines to its line. *il* Automotive Ind 97:28-9+ N 1 '47
- New Werkspoor-Lugt engine. *il* diags Engineer 185:72-4, 98-100 Ja 16-23 '48; Marine Eng 53:48-52 Ap '48
- Oil engines and steam engines for marine propulsion. P. L. Jones. Inst Mech Eng J & Proc 157 (War emergency issue no 29): 171-4 '47
- Reconditioning a 108-ton crankshaft. P. MacDonald. *il* Marine Eng 53:84+ Ap '48
- See also*
- Motor ships

DIESEL locomotives. *See* Locomotives, Diesel

DIET

- Growth-promoting action of cellulose. F. Hoelzel and A. J. Carlson. Science 106: 616-17 D 19 '47
- Nutrition studies; methods of collecting dietary data. M. G. Eads and A. P. Meredith. Pub Health Rep 63:777-82 Je 11 '48
- Special dietary requirements in sickness and convalescence; abstract. D. P. Cuthbertson. Chem & Ind p347 My 29 '48
- Survey of eating habits; American can co., Hamilton, Ontario, plant. Ind Med 17:283-6 Ag '48
- Use of cellulose in diets. F. Davis and G. M. Briggs. Science 107:292 Mr 19 '48; Discussion. N. B. Guerrant. 108:82-3 J1 23 '48
- See also*
- Food
- Nutrition
- Vitamins

DIETHANOLAMINE

- Colorimetric determination of copper with carbon disulfide and diethanolamine; improved dithiocarbamate reagent. W. C. Woelfel. bibliog Anal Chem 20:722-4 Ag '48
- Investigation of a Girbotol unit charging cracked refinery gases containing organic acids. W. E. Norris and F. R. Clegg. flow diag Pet Refiner 26:107-9 N '47
- Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hofstijzer. bibliog Chem Eng Prog 44:529-36; Discussion. 536 J1 '48

DIETHOXYMETHYLISQUINOLINE

- Synthesis of 6:7-diethoxy-3-methylisquinolines. V. Bruckner and others. Chem Soc J p885-90 Je '48

DIETHYLAMINOCHLOROPROPANE

- Role of neighboring nitrogen atom in the displacement reaction; rearrangement in the hydrolysis of 1-diethylamino-2-chloropropane. S. D. Ross. bibliog Am Chem Soc J 69:2982-3 D '47

DIETHYLAMINO compounds

- Derivatives of diethylamino compounds. N. J. Leonard, F. M. Kraft and V. Wolfman. bibliog Am Chem Soc J 70:867-8 F '48

DIETHYLAMINOETHYL group

- Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Campen, Jr. and R. S. Shelton. bibliog Am Chem Soc J 69:2902-6 N '47

DIETHYLAMINOPENTANOL

- Cleavage of tetrahydropyran by acid chlorides in the presence of zinc chloride; the preparation of 5-diethylaminopentanol-1. M. E. Synerholm. bibliog Am Chem Soc J 69:2581-2 N '47

DIETHYLBENZENE**Analysis**

- Determination of unsaturation in dehydrogenated diethylbenzene; by use of mercuric acetate. R. P. Marquardt and E. N. Luce. bibliog Anal Chem 20:751-3 Ag '48

DIETHYLCHLOROETHYLAMINE

- Two chlorinated tertiary amines (diethyl- β -chloroethyl amine and dimethyl- β -chloroethyl amine); toxicity in industrial use. R. M. Watrous and others. Ind Med 17: 237-41 J1 '48

DIETHYLDIIPHENYLUREA

- Determination of the nitrosoamine content of propellant explosives stabilized with *sym*-diethylhydiphenylurea. T. C. J. Ovenston and C. A. Parker. Soc Chem Ind J 66:394-5 N '47

DIETHYLFUMARATE

- Copolymerization; effects of temperature and solvents on monomer reactivity ratios. F. M. Lewis and others. bibliog Am Chem Soc J 70:1519-23 Ap '48

DIETHYLISOPROPOXYLSILANE

- Some diethylisopropoxyhalogenosilanes and their hydrolysis products. P. A. McCusker and C. E. Greene. Am Chem Soc J 70:2807-8 Ag '48

DIETHYL ketone. *See* Pentanone

DIETHYLMALEATE

- Copolymerization; effects of temperature and solvents on monomer reactivity ratios. F. M. Lewis and others. bibliog Am Chem Soc J 70:1519-23 Ap '48

DIETHYL nitrophenylthiophosphate. *See* Parathion

DIETHYL oxalo-phenoxylacetate

- Diethyl oxalo-phenoxylacetate, diethyl oxalo-(8-phenylmercapto)-acetate and related compounds. E. H. Huntress and R. T. Olsen. bibliog Am Chem Soc J 70:2856-9 S '48

DIETHYLSTILBESTROL

- Effect of diethylstilbestrol on the thyroid glands of chicks receiving thiouracil. J. E. Selle and R. M. Selle. Science 107:394-5 Ap 16 '48
- Hydrodiethylstilbestrol compounds; racemic octahydro compounds. H. E. Ungnade and A. Ludutsky. bibliog Am Chem Soc J 69: 2629-32 N '47
- Introduction of double bonds into diethyl stilbestrol. M. J. Freiman. Am Chem Soc J 70:1278 Mr '48

DIETHYLSTILBESTROL—*Continued*

Preparation of new derivatives of diethylstilbestrol and hexestrol; extension of the Claisen rearrangement. E. Kaiser, A. L. Andersen, Jr. and J. J. Svarz. *Am Chem Soc J* 70:1248-9 Mr '48

Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds. K. Sissido and H. Nozaki. *bibliog Am Chem Soc J* 70:776-8 F '48

DIETHYLENE glycol maleate

Sawdust-binder compositions. A. E. Gabriel. *Mod Plastics* 25:145-7+ Ap '48

DIETHYNYL glycol

Synthesis of diethynyl glycols and their condensation with ketones. N. A. Milas, R. J. Brown and O. Phillips. *bibliog Am Chem Soc J* 70:2862-3 S '48

DIFFERENCE equations

Stagewise operations; graphical solutions of difference equations. F. M. Tiller. *bibliog diag Chem Eng Prog* 44:299-306 Ap '48

DIFFERENTIAL analyzers

Extensions in differential analyzer technique. J. G. L. Michel. *bibliog diags J Sci Instr* 25:357-61 O '48

Tracing of electron trajectories using the differential analyzer. J. P. Blewett and others. *diags Inst Radio Eng Proc* 36:69-83 Ja '48

DIFFERENTIAL equations

Approach to equilibrium in fractionation. W. Bartky and A. J. Dempster. *bibliog Rs Mod Phys* 20:123-7 Ja '48

Approximate solution of linear differential equations. M. C. Gray and S. A. Schelkunoff. *Bell System Tech J* 27:350-64 Ap '48

Approximate solution of one-dimensional wave equations. C. Eckart. *bibliog diags Rs Mod Phys* 20:399-417 Ap '48

Approximations involved in the linear differential equation for compressible flow. H. W. Sibert. *J Aeronautical Sci* 14:680-1 D '47

Automatic integration of linear sixth-order differential equations by means of punched-card machines. L. F. Hausman and M. Schwarzschild. *R Sci Instr* 18:877-83 D '47

Electric circuit models of partial differential equations. G. Kron. *bibliog li diags Elec Eng* 67:672-84 J '48

Electronic differential analyzer. J. S. Koehler. *diags J Ap Phys* 19:148-55 F '48

Method of solving differential equations with constant coefficients. W. V. Lyon. *diags Franklin Inst J* 246:159-64 Ag '48

New contributions to the optics of intensely light-scattering materials. P. Kubelka. *bibliog Opt Soc Am J* 38:448-57 My '48

Orbits of charged particles in constant fields. A. H. Taub. *Phys Rs* 73:786-98 Ap 1 '48

Refinement of the W.K.B. method. I. Imai. *Phys Rs* 74:13-31 J '48

Solutions of the transformed Weber equation as an aid in teaching Legendre polynomials and Bessel functions. F. M. Mallett. *bibliog J Eng Educ* 38:672-9 My '48

See also

Integral equations

DIFRACTION

Dark-field electron microscopy; studies of crystalline substances in dark-field. C. E. Hall. *bibliog li diags J Ap Phys* 19:198-212 F '48

Diffracton of electromagnetic waves. W. O. Tranter. *Phys Rs* 73:184 Ja 15 '48

Double current sheet in diffraction. W. R. Smythe. *bibliog diags Phys Rs* 72:1066-70 D 1 '47

Theory of diffraction by an aperture in an infinite plane screen. H. Levine and J. Schwinger. *bibliog diag Phys Rs* 74:958-74 O 15 '48

DIFRACTION of electrons. See Electrons—Diffraction

DIFRACTION of sound. See Sound—Diffraction

DIFRACTION of X rays. See X rays—Diffraction

DIFFUSERS, Air. See Air diffusers

DIFFUSION

Absolute reaction rate theory for diffusion in metals. J. C. Fisher and others. *bibliog Metals Tech* 15:TP2344 1-10 F '48; Discussion. 15:TP2448 37-40 Ag '48

Activation energy for the diffusion of coupled pairs of vacancies in alkali halide crystals. G. J. Dienes. *bibliog diags J Chem Phys* 16:620-32 Je '48

Alloying of metal powders by diffusion. S. Weinbaum. *bibliog diag J Ap Phys* 19:897-900 O '48

Calculations on countercurrent electromigration. G. Breit and F. L. Friedman. *J Res Nat Bur Stand* 39:397-409 N '47

Concentration of He³ by thermal diffusion. B. B. McInteer and others. *diag Phys Rs* 74:946-9 O 15 '48

Countercurrent gaseous exchange method for the separation of isotopes. R. B. Bernstein and T. L. Taylor. *bibliog diags J Chem Phys* 16:903-16 S '48

Diffusion across oil-water interfaces. E. Hutchinson. *bibliog J Phys & Colloid Chem* 52:897-908 My '48

Diffusion and sedimentation of sodium thymonucleate. H. Kahler. *bibliog J Phys & Colloid Chem* 52:676-89 Ap '48

Diffusion coefficient of nitroglycerin in rocket powder and in cellulose acetate. S. S. Penner and S. Sherman. *Am Chem Soc J* 70:869-70 F '48

Diffusion coefficients and molecular radii of hydrogen cyanide, cyanogen chloride, phosphene and chloropirrin. I. M. Klotz and D. K. Miller. *bibliog Am Chem Soc J* 69:2557-8 O '47

Diffusion in biological processes; abstract and discussion. P. Eggleston. *Chem & Ind* p755 D 6 '47

Diffusion, mobility and their interrelation through free energy in binary metallic systems. L. S. Darken. *bibliog Metals Tech* 15:TP2311 1-11 Ja '48; Discussion. 15:TP2449 53-60 Ag '48

Diffusion of direct dyes in cellulose. H. A. Standing and others. *bibliog Textile Inst J* 38:T335-49 O '47

Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient. J. Crank. *bibliog Soc Dyers & Col J* 63:412-16; Discussion. 416-18 D '47

Diffusion phenomena in solvent extraction of peanut oil; effect of cellular structure. H. P. Fan, J. C. Morris and H. Wakeham. *bibliog li Ind & Eng Chem* 40:195-9 F '48

Diffusivity of gases through synthetic elastomer diaphragms. L. E. Stout, R. Geisman and J. M. Mozley, Jr. *bibliog li diags Chem Eng Prog* 44:219-23 Mr '48

Effect of certain column variables on thermal diffusion. H. G. Drickamer and others. *bibliog J Chem Phys* 16:122-3 F '48

Effects produced by diffusion in aqueous systems containing membranes. R. B. Dean. *Chem Rs* 41:503-23 bibliog(109 ref, p521-3) D '47

Experimental tests of an interference method for the study of diffusion. L. G. Longworth. *bibliog li diags Am Chem Soc J* 69:2510-16 O '47; Abstract. *Science* 107:641 My 7 '48

Gaseous self-diffusion in long capillary tubes. W. G. Pollard and R. D. Present. *bibliog diag Phys Rs* 73:762-74 Ap 1 '48

Gaseous thermal diffusion; the effect of a third component. J. Chipman and M. N. Dastur. *J Chem Phys* 16:636-7 Je '48

Intrinsic viscosities and diffusion constants of flexible macromolecules in solution. J. G. Kirkwood and J. Riseman. *J Chem Phys* 16:565-73 Je '48

Intrinsic viscosity, diffusion, and sedimentation rate of polymers in solution. P. Debye and A. M. Bueche. *J Chem Phys* 16:573-9 Je '48

Kinetics of activation-diffusion controlled reactions in solution; the temperature dependence of the quenching of fluorescence. B. Williamson and V. K. La Mer. *bibliog Am Chem Soc J* 70:717-21 F '48

Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. *bibliog J Chem Phys* 16:190-4 Mr '48

Measurement of diffusion coefficients in liquids by radioactive tracers. A. Gemant. *Science* 107:622 Je 11 '48

Measurement of Na⁺ ion diffusion by means of radiodium. A. W. Adamson. *bibliog J Chem Phys* 15:762-3 O '47

New method of measuring diffusion coefficient in solids with radioactive tracers. G. C. Kuczynski. *diag J Ap Phys* 19:308-9 Mr '48

DIFFUSION—Continued

- Quantitative demonstration of Graham's law of diffusion. L. F. Leroy, *il diag J Chem Educ* 25:215-16 Ap '48
- Self-diffusion coefficient of argon. F. Hutchinson, *bibliog Phys R* 72:1256 D 15 '47
- Self-diffusion coefficient of nitrogen. E. B. Winn, *bibliog Phys R* 74:698-9 S 15 '48
- Self-diffusion coefficients and transference numbers of the small ions in colloidal electrolytes. A. P. Brady and D. J. Salley, *bibliog Am Chem Soc J* 70:914-9 Mr '48
- Solvent effects on the quenching of the fluorescence of uranin by aniline. K. C. Hodges and V. K. La Mer, *bibliog Am Chem Soc J* 70:722-6 F '48
- Theory of an interference method for the study of diffusion. G. Kegeles and L. J. Gosting, *bibliog diags Am Chem Soc J* 69:2516-23 O '47
- Thermal diffusion constant of nitrogen. A. K. Mann, *bibliog Phys R* 73:412-13 F 15 '48
- Viscous slip along grain boundaries and diffusion of zinc in alpha-brass. T. Kê, *bibliog J Ap Phys* 19:285-90 Mr '48
- See also
Osmosis
Permeability
- DIFFUSION pumps.** See Vacuum pumps
- DIFLUOROCAPRIC acid**
Synthesis and reduction of difluorodecanoic acid derivatives. M. S. Newman, M. W. Renoll and I. Auerbach, *bibliog Am Chem Soc J* 70:1023-4 Mr '48
- DIFLUORODIAZINE**
Electron diffraction investigation of the structure of difluorodiazine. S. H. Bauer, *bibliog Am Chem Soc J* 69:3104-8 D '47
- DIFLUOROFLOURENE**
9,9-Difluorofluorene. F. E. Ray and C. E. Albertson, *bibliog Am Chem Soc J* 70:1954-5 My '48
- DIFLUOROMALONIC acid**
Difluoromalonic derivatives from difluoropentane. A. L. Henne and E. G. DeWitt, *bibliog diag Am Chem Soc J* 70:1548-50 Ap '48
- DIFLUOROPENTANE**
Difluoromalonic derivatives from difluoropentane. A. L. Henne and E. G. DeWitt, *bibliog diag Am Chem Soc J* 70:1548-50 Ap '48
- DIGESTERS** (paper making)
Application of instrumentation to sulphate digesters. E. A. Murphy and H. A. Scholl, *il diags Paper Tr J* 127:35-40 O 28 '48
- Automatic digester controls. J. F. Keyes, *Paper Tr J* 126:55-6 Je 3 '48; Same abr. *Paper Ind* 30:635-6 J1 '48
- Time cycle pressure control for rotary digesters. L. D. McGlothlin, *diag Paper Tr J* 126:55-6 Ap 29 '48
- DIGLYCEROL**
Polyglycerols; identification of polyglycerol mixtures by the procedures of alkylation and acetonation; isolation of pure diglycerol. H. Wittecoff, J. E. Roach and S. E. Miller, *Am Chem Soc J* 69:2655-7 N '47
- DIHETEROLEVULOSAN**
Action of heat on D-fructose; isolation of diheterolevulosan and a new di-D-fructose dianhydride. M. L. Wolfson and M. G. Blair, *Am Chem Soc J* 70:2406-9 J1 '48
- DIHEXYL sodium sulfosuccinate.** See Aerosol MA
- DIHYDROANTHRACENE**
Studies in the anthracene series; *meso*-substituted 9,10-dihydroanthracene derivatives. E. L. May and E. Mosettig, *bibliog Am Chem Soc J* 70:688-91 F '48
- DIHYDROBENZOFURAN**
Morphine studies; 2-keto-7-methoxy-2,3-dihydrobenzofuran derivatives. E. C. Horning and R. U. Schock, Jr., *Am Chem Soc J* 70:2941-4 S '48
- DIHYDROBENZOPYRAN.** See Chroman
- DIHYDROCINEROLONE**
Constituents of pyrethrum flowers; revision of the structure of dihydrocinerolone. F. B. LaForge and S. B. Soloway, *bibliog Am Chem Soc J* 69:2932-5 D '47
- DIHYDROCINERONE**
Synthesis of some β -keto esters. S. B. Soloway and F. B. LaForge, *bibliog Am Chem Soc J* 69:2677-8 N '47

DIHYDRODESOXYSTREPTOSE

- Streptomycetes antibiotics; the structures of his-desoxystreptose, dihydrodesoxystreptose and tetraacetyl-bis-desoxystreptobiosamine. N. G. Brink and others, *bibliog Am Chem Soc J* 70:2085-91 Je '48
- DIHYDRODICYCLOPENTADIENE**
Dihydro-*exo*-dicyclopentadiene. H. A. Bruson and T. W. Riener, *Am Chem Soc J* 70:2809 Ag '48
- DIHYDROFURAN**
Reactions of furan compounds; thermal interconversion of 2,3-dihydrofuran and cyclopropane aldehyde. C. L. Wilson, *bibliog Am Chem Soc J* 69:3002-4 D '47
- DIHYDROISQUINOLINE**
Some dihydroisquinolines and their absorption spectra. J. L. Bills and C. R. Noller, *bibliog Am Chem Soc J* 70:957-62 Mr '48
- DIHYDRONAPHTHALENE**
Organic reactions with aluminum chloride; the cycli-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms. K. Sisido and H. Nozaki, *Am Chem Soc J* 70:1609-12 Ap '48
- DIHYDROPYRAN**
Chemical intermediates from furfural. O. W. Cass, *diag Ind & Eng Chem* 40:216-19 F '48
- Hydroxylation of 2,3-dihydropyran and the application of desoxyaldopentoses in the browning reaction. C. D. Hurd and C. D. Kelso, *bibliog Am Chem Soc J* 70:1484-6 Ap '48
- Reactions of furan compounds; catalyzed rearrangement of 2,3-dihydropyran into cyclopentanone. C. L. Wilson, *bibliog Am Chem Soc J* 70:1311-13 Ap '48
- Reactions of furan compounds; dehydration of tetrahydrofurfuryl alcohol to 2,3-dihydropyran and subsequent formation of acrolein and ethylene. C. L. Wilson, *bibliog Am Chem Soc J* 69:3004-6 D '47
- DIHYDROPYRIDINE**
N-Phenyl-3,5-diethyl-2-propyl-1,4-dihydropyridine. D. Craig, L. Schaefgen and W. P. Tyler, *bibliog Am Chem Soc J* 70:1624-9 Ap '48
- DIHYDROPYROGALLOL**
Dihydropyrogallol, a new ene-diol and its oxidation product; 1,2,3-cyclohexanetrione dihydrate; ketonic isomer of pyrogallol. B. Pecherer, L. M. Jampolsky and H. M. Wuest, *bibliog Am Chem Soc J* 70:2587-9 J1 '48
- DIHYDRORESORCINOL.** See Cyclohexanedione
- DIHYDROSTREPTOBIOSSAMINE.** See Streptobiosamine
- DIHYDROSTREPTOMYCIN.** See Streptomycin
- DIHYDROXYMALONANILIDE**
Some nuclear halogenated derivatives of α,α -dihydroxymalonanilide. B. Witten and H. E. Rosen, *Am Chem Soc J* 70:3143-4 S '48
- DIHYDROXYMETHYLBENZALDEHYDE.** See Atranol
- DIHYDROXYNAPHTHALENE.** See Chromotropic acid
- DIHYDROXYPHENYLALANINE**
New synthesis of 3,4-dihydroxyphenylalanine (dopa). R. H. Barry, A. M. Mattocks and W. H. Hartung, *bibliog Am Chem Soc J* 70:693-4 F '48
- DIHYDROXYPHENYLHEXANE**
New preparation of 3:4-bis-(3':4'-dihydroxyphenyl)-n-hexane. G. Fodor and J. Wehn, *Chem Soc J* p890-1 Je '48
- DIHYDROXYSTEARIC acid**
Chemistry of epoxy compounds; stereochemical relationships between the 9,10-epoxy-, chlorohydroxy- and dihydroxystearic acids. D. Swern, *bibliog Am Chem Soc J* 70:1235-40 Mr '48
- Hydroxylated stearic acids; the periodate oxidation of the 9,10-dihydroxystearic acids and the 1,9,10-trihydroxyoctadecanes. H. Wittecoff, O. A. Moe and M. H. Iwen, *bibliog Am Chem Soc J* 70:742-4 F '48
- DIIDODIFLUORESCIN**
Use of radioactive diiododifluorescein in the diagnosis and localization of brain tumors. G. E. Moore, *Science* 107:569-71 My 28 '48
- DIISOBUTYLENE**
Reactions of unsaturated compounds; the action of organic peracids on β -diisobutylene (2:4:4-trimethylpent-2-ene). A. Byers and W. J. Hickinbottom, *Chem Soc J* p284-8 Mr '48

DIISOPROPYLBENZENE

Isolation and physical properties of the diisopropylbenzenes. F. W. Melpolder, J. E. Woodbridge and C. E. Headington. bibliog Am Chem Soc J 70:335-9 Mr '48

DIISOPROPYL fluorophosphate

Anoxic survival and diisopropyl fluorophosphate (DFP). A. M. Freedman and H. E. Himwich. Science 108:41-2 J1 9 '48

DIISOPROPYL fluorophosphate

Esters containing phosphorus; diisopropyl fluorophosphate. B. C. Saunders and G. J. Stacey. Chem Soc J p695-9 My '48

DIISOPROPYLIDENE glyoxal

Dibenzylidene- and diisopropylidene-glyoxal. H. Raudnitz. Chem Soc J p763-4 Je '48

DIKES (geology)

High-potash dikes in the Homestake mine, Lead, South Dakota. J. A. Noble. bibliog diags Geol Soc Bul 59:227-39, pl 1 S '48
Orbicular structures in aplite dikes near Ramona, Calif. R. Merriam. bibliog maps diags Am J Sci 246:129-37, pl 1 Mr '48

DIKETENE

Diketene; infrared spectrum and structure. F. A. Miller and S. D. Koch, jr. bibliog Am Chem Soc J 70:1890-4 My '48
Ketene dimers from acid halides. J. C. Sauer. bibliog Am Chem Soc J 69:2444-8 O '47

DIKETONES. See Ketones**DIKETOPIPERAZINE. See Piperazinedione****DILATANCY (term)**

Sequestration, dispersion, and dilatancy; lecture demonstrations. T. H. Daugherty. bibliog il J Chem Educ 25:482-8 S '48

DILATOMETERS

Apparent molal expansibilities of potassium, barium and lanthanum chlorides as a function of concentration and temperature. G. Jones, E. F. Taylor and R. C. Vogel. bibliog diags Am Chem Soc J 70:966-77 Mr '48

DIMEDONE

Reaction of 5,5-dimethylcyclohexanedione-1,3 (dimedone) and its ethyl enol ether with phenylmagnesium bromide. G. F. Woods. bibliog Am Chem Soc J 69:2549-52 O '47

DIMENSIONAL analysis

Dimensional analysis; an approach from transformation theory and a criterion for scaling model experiments. J. C. Decius. Franklin Inst J 245:379-87 My '48

DIMENSIONS, Interior. See Architecture—Dimensions, Interior**DIMERCAPTANS. See Mercaptans****DIMERIZATION. See Polymerization****DIMETHOXYPHENETHYLAMINE**

Amines related to 2,5-dimethoxyphenethylamine; 2,5-diethoxy-, 2-hydroxy-5-methoxy and 2-hydroxy-5-ethoxyphenylalkanamines. W. S. Ide and R. Baltzy. Am Chem Soc J 70:1084-7 Mr '48

DIMETHOXYSTILBENE

Bromination of dimethoxystilbenes. F. Bergmann and H. Japhé. Chem Soc J p 1450-2 N '47

DIMETHYL acrylic acid

Reaction between tetralin and β,β -dimethylacrylic acid. L. I. Smith and C. Lo. bibliog Am Chem Soc J 70:2215-16 Je '48

DIMETHYLAMINE

Addition of dimethylamine to benzoquinone. R. Baltzy and E. Lorz. Am Chem Soc J 70:361-2 F '48

Analysis

Determination of small amounts of dimethylamine in aqueous solutions containing ammonia, mono- and trimethylamine. A. A. Smales and H. N. Wilson. diags Chem Ind J 67:210-13 My '48

DIMETHYL aminoazobenzene

Solubilization of dimethylaminoazobenzene in solutions of detergents; the effect of temperature on the solubilization and upon the critical concentration. I. M. Kolthoff and W. Stricks. bibliog J Phys & Colloid Chem 52:915-41 Je '48

DIMETHYL aminobenzaldehyde

Chemical determination of tryptophan; study of color-forming reactions of tryptophan, *p*-dimethylaminobenzaldehyde, and sodium nitrite in sulfuric acid solution. J. R. Spies and D. C. Chambers. bibliog Anal Chem 20:30-9 Ja '48

Photochemistry of tryptophan, *p*-dimethylaminobenzaldehyde and reaction products in sulfuric acid solution. J. R. Spies and D. C. Chambers. bibliog diags Am Chem Soc J 70:1682-5 My '48

DIMETHYL aminobenzoic anhydride

Preparation of *p*-dimethylaminobenzoic anhydride. W. S. Fones. Am Chem Soc J 70:1966-7 My '48

DIMETHYL aminochloropropane

Preparation and rearrangements of 1,2-dimethylaminochloropropanes. E. M. Schultz and J. M. Sprague. bibliog Am Chem Soc J 70:48-52 Ja '48

Reaction of 1-dimethylamino-2-chloropropane with diphenylacetoneitrile; the structure of amidone. E. M. Schultz, C. M. Robb and J. M. Sprague. bibliog Am Chem Soc J 69:2454-9 O '47

DIMETHYL anthracene

Two derivatives of 9,10-dimethylantracene. K. Sisido and T. Isida. bibliog Am Chem Soc J 70:1289 Mr '48

DIMETHYL butane

Experimental vapor heat capacities and heats of vaporization of *n*-hexane and 2,2-dimethylbutane. G. Waddington and D. R. Douslin. Am Chem Soc J 69:2275-9 O '47

Production of 2,3-dimethylbutane by alkylation. R. B. Thompson and J. A. Chenicek. bibliog diags Ind & Eng Chem 40:1265-9 J1 '48

DIMETHYL chloroethylamine

Two chlorinated tertiary amines (diethyl- β -chloroethyl amine and dimethyl- β -chloroethyl amine); toxicity in industrial use. R. M. Watrous and others. Ind Med 17:237-41 J1 '48

DIMETHYL cholanthrene

Carcinogenic hydrocarbons; 3,5-dimethylcholanthrene. B. Riegel and others. bibliog Am Chem Soc J 70:1073-6 Mr '48

DIMETHYL cyanoindole

Alkyl rearrangement in an alkylation by a quaternary ammonium salt. H. R. Snyder and E. L. Eliel. Am Chem Soc J 70:1857-60 My '48

DIMETHYL cyclohexane

Heats, equilibrium constants, and free energies of formation of the alkylcyclopentanes and alkylcyclohexanes. J. E. Kilpatrick and others. bibliog J Res Nat Bur Stand 39:523-43 D '47

Thermodynamic properties and molecular structure of cyclohexane, methylcyclohexane, ethylcyclohexane and the seven dimethylcyclohexanes. C. W. Beckett, K. S. Pitzer and R. Spitzer. bibliog il Am Chem Soc J 69:2488-95 O '47

DIMETHYL cyclohexanedione. See Dimedone**DIMETHYL cyclohexylethylamine**

Preparation of *o,o*-, *p,p*-, *m,m*-, and *o,m*-trimethyl- β -cyclohexylethylamine. B. L. Zenitz, E. B. Macke and M. L. Moore. bibliog Am Chem Soc J 70:955-7 Mr '48

DIMETHYL cyclopropane

Infra-red spectrum and depolarization factors of the Raman lines of spirpentane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. bibliog J Chem Phys 15:742-58 O '47

DIMETHYL cysteine. See Penicillamine**DIMETHYL ether. See Methyl ether****DIMETHYL furan**

C-Alkylation and O-alkylation in the synthesis of substituted furoic acids. C. D. Hurd and K. Wilkinson. bibliog Am Chem Soc J 70:739-41 F '48

Reaction of 2,5-dimethylfuran with *p*-nitrobenzenediazonium chloride. R. H. Eastman and F. L. Detert. bibliog Am Chem Soc J 70:962-4 Mr '48

DIMETHYL germanium oxide. See Germanium compounds**DIMETHYL glyoxime**

Contribution to the chemistry of the inner complex salts of dimethylglyoxime. F. Feigl and H. A. Suter. Chem Soc J p378-81 Mr '48

DIMETHYL hydrazine

Molecular structure of the two dimethylhydrazines by electron diffraction. W. H. Beamer. bibliog Am Chem Soc J 70:2979-82 S '48

DIMETHYL indole

Friedel-Crafts reaction with 1-acyl-2:3-dimethylindoles. W. J. Gaudion, W. H. Hook and S. G. P. Plant, *Chem Soc J* p 1631-4 D '47

DIMETHYL naphthols

Dienone-phenol rearrangement. R. T. Arnold, J. S. Buckley, Jr. and J. Richter, *bibliog Am Chem Soc J* 69:2322-5 O '47

DIMETHYL propane

Purification of neopentane by mercury photosensitization. B. D. Darwent and E. W. R. Steacie, *Am Chem Soc J* 70:2255-6 Je '48

Reaction of hydrogen atoms with the paraffin hydrocarbons. W. R. Trost and E. W. R. Steacie, *bibliog J Chem Phys* 16:361-4 Ap '48

Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes. R. S. Rasmussen, *bibliog diags J Chem Phys* 16:712-27 JI '48

DIMETHYL pyridine

Compounds related to 2:3-dimethylpyridine. A. Mustafa and M. K. Hilmy, *Chem Soc J* p 1698-9 D '47

DIMETHYL sulfate

Reaction of coal with oxygen in the presence of aqueous sodium hydroxide; effect of methylation with dimethyl sulfate. G. R. Yohe and E. O. Blodgett, *bibliog diag Am Chem Soc J* 69:2644-8 N '47

DIMETHYL sulfide

Studies in biological methylation; precursor of the dimethyl sulphide evolved by polysiphonia fastigiata; dimethyl-2-carboxyethylsulphonium hydroxide and its salts; abstract. F. Challenger and M. I. Simpson, *Chem & Ind* p756 D 6 '47

DIMETHYL thiazole

Conversion of sucrose into thiazole derivatives; 2:4-dimethylthiazole derivatives and 2:4:5-trimethylthiazole. H. Gregory and L. F. Wiggins, *Chem Soc J* p 1400-3 O '47

DIMETHYL trisulfide

Molecular structure of dimethyltrisulfide, (CH₃)₂S₃. J. Donohue and V. Schomaker, *bibliog J Chem Phys* 16:92-6 F '48

DIMETHYLENE perseitol

1,3,5,7-dibenzylidene and 1,3,5,7-dimethylene acetals of the D-, L- and D,L-perseitols. T. Noss, R. M. Hann and C. S. Hudson, *bibliog Am Chem Soc J* 70:765-70 F '48

DIMETHYLOUREA

Creaseproofing textiles; dimethylourea, solubilized; patent. *Am Dyestuff Rep* 37:104 F 9 '48

DINAPHTHYL

Some 1:1'- and 2:2'-dinaphthyl derivatives and a new synthesis of 3:3'-dinitro-1:1'-dinaphthyl. H. H. Hodgson and J. Habeshaw, *Chem Soc J* p 1573-4 D '47

DINAPHTHYLTHIOCARBAZONE

Determination of zinc in water, sewage and industrial wastes by means of di-beta-naphthylthiocarbazone. L. Rubin and A. Levine, *bibliog N E Water Works Assn J* 61:267-78 S '47

DINING alcoves

Snack spots. *il Am Bid* 70:108-9 JI '48

DINING cars

Diners and grill cars for the Eagles. *il plans Ry Age* 125:534-9 S 18 '48

DINITROBENZENE

Studies of retarders and inhibitors in the emulsion polymerization of styrene; retarders. I. M. Kolthoff and F. A. Bovey, *bibliog Am Chem Soc J* 70:791-9 F '48

Thermal decomposition of explosives in the solid phase; the thermal decomposition in a vacuum of certain mono- and dinitrobenzenediazo-oxides, with a note on the kinetics of thermal breakdown of 2-nitrobenzene-4-diazo-1-oxide. J. Vaughan and L. Phillips, *Chem Soc J* p 1560-5 D '47

Analysis

Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English, *Anal Chem* 20:745-6 Ag '48

DINITROBENZOATES**Analysis**

Separation of aliphatic alcohols by chromatographic adsorption of their 3,5-dinitrobenzoates. J. W. White, Jr. and E. C. Dryden, *bibliog Anal Chem* 20:853-5 S '48

DINITROBENZOIC acid

Decomposition of 2,5-dinitrobenzoic acid by alkali. W. D. Langley, *Am Chem Soc J* 70:1633-4 Ap '48

Studies of retarders and inhibitors in the emulsion polymerization of styrene; retarders. I. M. Kolthoff and F. E. Bovey, *bibliog Am Chem Soc J* 70:791-9 F '48

DINITROCRESOL**Analysis**

Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English, *Anal Chem* 20:745-6 Ag '48

DINITRODINAPHTHYL

Some 1:1'- and 2:2'-dinaphthyl derivatives and a new synthesis of 3:3'-dinitro-1:1'-dinaphthyl. H. H. Hodgson and J. Habeshaw, *Chem Soc J* p 1573-4 D '47

DINITRODIPHENYL

Preparation of symmetrical dinitrodiphenyls by the Ullmann reaction. W. Davey and E. W. Latter, *Chem Soc J* p264-5 Mr '48

DINITRODIPHENYLAMINE

Improved preparations of 3:3'-dinitro- and 3:3'-diaminodiphenylamine, together with some derivatives. H. H. Hodgson and D. P. Dodgson, *Chem Soc J* p 1004-6 JI '48

DINITRONAPHTHALENE

Replacement of the diazonium by the nitro-group; decompositions by cupro-cupril sulphite. H. H. Hodgson, A. F. Mahadevan and E. R. Ward, *Chem Soc J* p 1392-4 O '47

Analysis

Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English, *Anal Chem* 20:745-6 Ag '48

DINITROPHENOL**Physiological effect**

Toxicological studies on laboratory animals of certain alkyl dinitrophenols used in agriculture. H. C. Spencer and others, *bibliog J Ind Hygiene* 30:10-25 Ja '48

DINITROPHENYLHYDRAZINE

Estimation of ascorbic acid in food preparations. S. A. Goldblith and R. S. Harris, *bibliog Anal Chem* 20:649-51 JI '48

Identification of alcohols with 2,4-dinitrophenylhydrazine. F. R. Duke and R. C. Witman, *Anal Chem* 20:490 My '48

Identification of crystalline progesterone with 2,4-dinitrophenylhydrazine; quantitative determination of progesterone in oil. D. Klein, N. Weiner and S. M. Gordon, *bibliog Anal Chem* 20:174-6 F '48

DINITROPHENYLHYDRAZONE

Chromatographic separation of aliphatic 2,4-dinitrophenylhydrazones. J. W. White, Jr, *bibliog Anal Chem* 20:726-8 Ag '48

DINITROPHENYLSEMICARBAZONE

Absorption spectra of 2:4-dinitrophenylsemicarbazones. A. E. Gillam and D. G. Moss, *Chem Soc J* p 1387-90 O '47

DINITROPROPANE**Manufacture**

Continuous process for production of 2,2-dinitropropane. W. T. Denton and others, *flow diag il Ind & Eng Chem* 40:381-4 Mr '48

DINITROTOLUENE

Factors influencing the rate of nitration of 2:4 dinitrotoluene in a 2-phase system. G. M. Bennett and others, *bibliog Soc Chem Ind J* 66:288-93 Ag '47

Nitration in sulphuric acid; nitration of 2:4-dinitrotoluene in a two-phase system. G. M. Bennett and others, *Chem Soc J* p 1185-90 S '47

Analysis

Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English, *Anal Chem* 20:745-6 Ag '48

DINITROTOLUENE—Analysis—*Continued*

Determination of dinitrotoluene in smokeless powder by the titanous chloride-buffer method. P. G. Butts and others. *Anal Chem* 20:947-8 O '48

DINITROXYLENE**Analysis**

Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English. *Anal Chem* 20:745-6 Ag '48

DINOSAURIA

Type of clausaurus (?) affinis Wieland. J. T. Gregory. *Am J Sci* 246:29-30 Ja '48

DINSMORE, Ray Putnam, 1893-

Portrait. *Esns W p94 Mr* 27 '48

DIOCTYL phthalate

Photoelectric counter for colloidal particles. F. T. Gucker, Jr. and others. *bibliog diags Am Chem Soc J* 69:2422-31 O '47

DIOLEFINS. See Olefins**DIOSCOREA mexicana**

Steroidal sapogenins; nologenin and its degradation products. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2386-8 O '47

Steroidal sapogenins; pregnene derivatives from nologenin. R. E. Marker. *Am Chem Soc J* 69:2395-7 O '47

Steroidal sapogenins, structural relationship of botogenin; new steroidal sapogenin, to all other known sapogenins. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2397-8 O '47

DIOSGENIN

Steroidal sapogenins, structural relationship of botogenin; new steroidal sapogenin, to all other known sapogenins. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2397-8 O '47

DIOXADIENE

Structure of dioxadiene dibromide. G. R. Lappin and R. K. Summerbell. *Am Chem Soc J* 70:2600 JI '48

DIOXANE

Dipole moments and molecular association of some pterates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Marvott. *bibliog J Res Nat Bur Stand* 41:1-6 JI '48

Dipole moments of thiouracil and some derivatives in dioxane solution. W. C. Schneider and I. F. Halverstadt. *bibliog Am Chem Soc J* 70:2626-31 Ag '48

Mechanism for the reaction of dioxane sulfoxide with olefins; sulfonation of styrene. F. G. Bordwell and C. S. Ronsdestvedt, Jr. *bibliog Am Chem Soc J* 70:2429-33 JI '48

Some systems of silicon halides with dioxane. S. M. S. Kennard and P. A. McCusker. *bibliog Am Chem Soc J* 70:1039-43 Mr '48

Vapor pressure of isobutene over dioxane as basis of manometric kinetic studies; the dissociation of *t*-butyl benzoate. R. Alt-schul and J. Herbert. *Am Chem Soc J* 70:351-4 Ja '48

DIOXIMES. See Oximes**DIP and strike**, Determination of

Core orientation by graphical and mathematical methods. H. McClellan. *bibliog il diags Am Assn Pet Geologists Bul* 32:262-82 F '48

Knowledge of direction and angle of formation dip, key to solution of many Gulf Coast structural problems. *il diags Oil & Gas J* 47:257-4 Je 24 '48

Teaching dip and strike. L. Whitcomb. *Am J Sci* 245:725-6 N '47

DIPENTENE

Electrolytic oxidation of α -pinene, terpinolene and dipentene. S. Glasstone and H. E. Stanley. *diag Electrochem Soc Trans* 92 (preprint 41):543-50 '47

DIPHENYL

Stabilization of chlorinated diphenyl in paper capacitors. L. J. Berberich and R. Friedman. *bibliog il diag Ind & Eng Chem* 40:117-23 Ja '48

Steric effects; van der Waals potential energy curves. T. L. Hill. *bibliog J Chem Phys* 16:399-404 Ap '48

Steric hindrance and short wave length bands in the ultraviolet spectra of some naphthalene and diphenyl derivatives. R. A. Friedel, M. Orchin and L. Reggel. *bibliog Am Chem Soc J* 70:199-204 Ja '48

Studies on the structure of colchicine; syntheses in the biphenyl series. H. R. Frank, P. E. Fanta and D. S. Tarbell. *Am Chem Soc J* 70:2314-20 JI '48

Sulfur as a promoter for a nickel catalyst in dehydrogenation. H. Adkins and others. *Am Chem Soc J* 70:381-2 Ja '48

Thermodynamics of the system benzene-biphenyl. H. Tompa. *bibliog diags J Chem Phys* 16:292-302 Ap '48

DIPHENYLACETIC acid

Metallations of diphenylmethane and related compounds by potassium amide; condensations with carbonyl compounds. R. S. Yost and C. R. Hauser. *Am Chem Soc J* 69:2325-8 O '47

DIPHENYLACETONITRILE

Reaction of 1-dimethylamino-2-chloropropane with diphenylacetone; the structure of amidone. E. M. Schultz, C. M. Robb and J. M. Sprague. *bibliog Am Chem Soc J* 69:2454-9 O '47

DIPHENYLACRYLIC acid

Simplified synthesis of α -phenylcinnamic acid and α -phenyl-*p*-nitrocinnamic acid. R. E. Buckles and E. A. Hausman. *bibliog Am Chem Soc J* 70:415 Ja '48

DIPHENYLAMINE

Improved preparations of 3:3'-dinitro- and 3:3'-diaminodiphenylamine, together with some derivatives. H. H. Hodgson and D. P. Dodgson. *Chem Soc J p* 1004-6 JI '48

DIPHENYLBUTADIENE

Comparative study of the three stereoisomeric 1,4-diphenylbutadienes. J. H. Pinckard, B. Wille and L. Zechmeister. *bibliog diag Am Chem Soc J* 70:1938-44 My '48

DIPHENYL carbonate**Analysis**

Determination of diphenyl carbonate; three analytical methods for estimating in cloth. J. Goldenson and S. Sass. *bibliog Anal Chem* 20:730-2 Ag '48

DIPHENYLCYCLOPROPANE

Phenyl-carbon-phenyl angle in 1,1-diphenylcyclopropane. M. Goldsmith and G. W. Wheland. *bibliog diags Am Chem Soc J* 70:2632-4 Ag '48

DIPHENYLDEHYDROABIETINOL

Studies on resin acids; oxidation of diphenyl-*t*-dehydroabietinol; a postulated mechanism. H. H. Zeiss. *Am Chem Soc J* 70:853-60 F '48

DIPHENYLETHANOL

Secondary and tertiary amino ketones and alcohols derived from desoxybenzoin and 1,2-diphenylethanol; ring-chain tautomerism of the α -(8-hydroxyethylamino) ketones. R. E. Lutz, J. A. Freek and R. S. Murphey. *bibliog Am Chem Soc J* 70:2015-23 Je '48

DIPHENYL ether. See Phenyl ether

DIPHENYLETHYLENE

Attempts to find new chemotherapeutic amides; derivatives of 1:1-diphenylethylene and naphthalene. J. N. Ashley, J. F. Grove and T. Henshall. *Chem Soc J p* 261-4 Mr '48

DIPHENYLFURAN

Antimalarials. 2,5-diphenyl-3-furyl amino ketones and alcohols. R. E. Lutz and R. J. Rodwilt, Jr. *bibliog Am Chem Soc J* 70:1359-63 Ap '48

DIPHENYLHEXANE

Synthesis of some derivatives of 3:4-diphenyl-*n*-hexane. G. Fodor and J. Wein. *Chem Soc J p* 684-7 My '48

DIPHENYLINDONE

Formation of 1,3-diphenylisobenzofuran from 2,3-diphenylindone. C. F. H. Allen and J. A. VanAllan. *bibliog Am Chem Soc J* 70:2069-72 Je '48

DIPHENYLSOBNZOFURAN

Formation of 1,3-diphenylisobenzofuran from 2,3-diphenylindone. C. F. H. Allen and J. A. VanAllan. *bibliog Am Chem Soc J* 70:2069-72 Je '48

DIPHENYLMETHANE

Metallations of diphenylmethane and related compounds by potassium amide; condensations with carbonyl compounds. R. S. Yost and C. R. Hauser. *Am Chem Soc J* 69:2325-8 O '47

DIPHENYLNAPHTHOQUINONE

Preparation of 2,3-diphenyl-1,4-naphthoquinone and its reaction with phenylmagnesium bromide and phenyllithium. H. M. Crawford. *bibliog Am Chem Soc J* 70:1081-4 Mr '48

DIPHOSPHOPYRIDINE

Effect of α -tocopheryl phosphate on diphosphopyridine nucleotidase. W. M. Govier and N. S. Jetter. *bibliog Science* 107:146-7 F 6 '48

DIPHTHERIA

Appearance of minimus type diphtheria in Utah. T. W. Galbraith and others. *Pub Health Rep* 63:577-9 Ap 30 '48

Diphtheria epidemic in Utah in 1947. A. A. Jenkins. *Pub Health Rep* 63:573-7 Ap 30 '48

Production of starch-like material from glucose-1-phosphate by diphtheria bacilli. E. J. Hehre and others. *Science* 106:523-4 N 28 '48

Reduced tellurite medium for isolating and typing *C. diphtheriae*. T. W. Galbraith and others. *bibliog Pub Health Rep* 63:1203-5 S 10 '48

Studies on the denaturation of antibody; kinetic aspects of the inactivation of diphtheria antitoxin by urea. G. G. Wright and V. Schomaker. *bibliog Am Chem Soc J* 70:356-64 Ja '48

DIPOLE antennas. See **Radio antennas**

DIPOTASSIUM tartrate hemihydrate

Crystallographic data; ethylenediamine *d*-tartrate and dipotassium tartrate hemihydrate. *bibliog il diags Anal Chem* 20:491-2 My '48

DIPROPYLENE glycol

Germicidal aerosols. J. D. Fulton and others. *bibliog diag Soap & San Chem* 24:125-7+ My '48

DIRAC'S equation

Classical equations of motion of point charges. P. Havas. *bibliog Phys R* 74:456-63 Ag 15 '48

Different form for the interaction between Dirac's electron field (ψ) and Maxwell's electromagnetic field (Φ_A). F. J. Belinfante. *Phys R* 73:641 Mr 15 '48

Dirac's one-electron problem in momentum representation. A. Rubinowicz. *bibliog Phys R* 73:1330-3 Je 1 '48

Effect of nuclear motion of the hyperfine structure of the ground term of hydrogen. G. Breit and R. E. Meyerott. *bibliog Phys R* 72:1023-37 D 1 '47

Formal extension of Dirac's equation under continuous transformation groups. E. L. Hill. *bibliog Phys R* 73:910-15 Ap 15 '48

Resonance reactions involving Dirac-type incident particles. G. Goertzel. *Phys R* 73:1463-6 Je 15 '48

DIRECT mail advertising association

Annual conference, 31st, Philadelphia, Sept. 29-Oct. 1. *Sales Management* 61:100-2+ O 15 '48

Convention ad exhibit, Cleveland. *Inland Ptr* 120:96 D '47

DIRECT selling. See **Marketing**—**Direct selling**

DIRECTION, Sense of. See **Orientation**

DIRECTION finding apparatus

Development of c.w. radio navigation aids, with particular reference to long-range operation. R. V. Whelpton and P. G. Redgemant. *Inst E E J* 94 pt 1:489-90 O '47

Direction finder for locating storms. W. J. Kessler and H. L. Knowles. *bibliog il diags Electronics* 21:106-10 My '48

Fundamental problems in radio direction-finding at high frequencies (3-30 mc/s). W. Ross. *Inst E E J* 94 pt 1:479-80 O '47

H-type Adcock direction finders. W. Ross and R. E. Burgess. *diags Wireless Eng* 25: 168-79 Je '48

Instant-reading direction finder; electronic goniometer circuit modulates incoming signals with angle-of-arrival intelligence. P. C. Hansel. *il diags Electronics* 21:86-91 Ap '48

Low-cost automatic direction finding radio installation. L. Brady. *il diag Aero Digest* 56:74+ Je '48

Measurement of errors in radiogoniometers at high and very high frequencies. B. G. Pressey. *diags Inst E E J* 95 pt 3:221-8 Jl '48

Naval radio direction-finding. C. Crampton. *il Inst E E J* 94 pt 1:477-8 O '47

New developments in marine radio direction finders. H. Busignies. *il Elec Com* 25:196-203 Je '48

Position-finding by radio; first thoughts on the classification of systems. C. E. Strong. *diags Inst E E J* 95 pt 1:31-5 Ja '48; Same. *Inst E E J* 95 pt 3:2-6 Ja '48; Same. *Elec Com* 25:278-85 S '48; Same cond. *Engineer* 184:446-7 N 7 '47

Radiogoniometers for high- and very-high-frequency direction-finding. B. G. Pressey. *bibliog il diags Inst E E J* 95 pt 3:210-20 Jl '48

Small aerials in dielectric media; possibility of improvement in sensitivity of direction-finding systems. R. H. Barfield and R. E. Burgess. *diags Wireless Eng* 25:246-53 Ag '48

Sonic navigation system. S. R. Rich and A. H. Rosen. *il diags Electronics* 21:92-7 N '48

See also

Radio beacons (for aircraft)

Range finders

DIRECTIONAL antennas. See **Radio antennas**—**Directional antennas**

DIRECTORIES

Classified boom; phone book advertising; city directories. *Bsns W* p32+ S 6 '47; Discussion. p 102 N 1 '47

Contact book. Published semi-annually by Celebrity service, 150 E. 54th st, New York 22 (\$1 ea)

Syndicate store merchandiser directory of the variety market. 2d ed 538p \$10 Syndicate store merchandiser, inc. Directory div, 79 Madison av, New York 16 '48

See also

Airplane industry and trade—Directories Chemical engineers—Directories Engineers—Directories Gas appliance industry—Directories Geologists, Petroleum—Directories Laboratories—Directories Librarians, Special—Directories Mining engineers—Directories Newspapers—Directories	Newspapers—Syndicate service—Directories Petroleum refineries—Directories Plastic industries—Directories Printing supplies industry—Directories Publishers—Directories School supply industries—Directories Trade directories Trade journals—Directories
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Bibliography

World trade; world-wide product directories. Cleveland Pub Lib Business Information Bur Bul v 19, no 2:11-12 pt 2 My '48

DIRECTORS. See **Bank directors**; **Corporations**—**Directors**; **Insurance companies**—**Directors**

DISABILITY insurance. See **Insurance**, **Disability**

DISABLED

Protecting disabled workers for a full year; Schenley distillers corp. H. C. Phillips. *Factory Management* 106:123 Ag '48

See also

Handicapped

Rehabilitation

Cardiac rehabilitation in a sheltered workshop. M. Klapper. *bibliog Ind Med* 17:337-40 S '48

Medicine; cooperation needed in treating injured workers. C. W. Goff. *Ind Med* 17: 299-300 Ag '48

Occupational incapacity; can this dilemma in workmen's compensation be overcome? B. Hanman. *Ind Med* 17:383-402 O '48

Performance of physically impaired workers in manufacturing industries. H. S. Hammond and others. *U S Bur Labor Statistics Bul* 923:1-132 '48; Abstract. *Mo Labor R* 66:31-3 Ja '48

Placement of disabled workers. *Int Labour R* 56:533-42 N-D '47

Rehabilitation and placement of handicapped workers. W. P. McCahill. *Mo Labor R* 67: 282-5 S '48

DISABLED—Rehabilitation—Continued

- Rehabilitation of the disabled in mining industries. *Int Labour R* 57:43-61 Ja-F '48
 Socialized industrial medicine? P. B. Reaser. *bibliog Ind Med* 17:81-4 Mr '48
 Tuberculous ex-patients in industry. N. C. Kiefer and H. E. Hilleboe. *Safety Eng* 95: 65+ Mr '48

DISALICYLIDES. See Salicylides**DISARMAMENT**

- Disarmament after three years. *Economist* 155:630-1 O 16 '48

DISASTERS

- Sanitary engineers see need of catastrophe organization; National research council urges creation of sanitary-engineering unit in U.S. Public health service. *Eng N* 140: 473+ Ap 1 '48
 Seeks coordination in disaster relief. P. B. Fleming. *East Underw* 49:1+ Ag 20 '48

DISAZODICARBOXYLATES

- Synthesis and reactions of disazodicarboxylates. N. Rabjohn. *bibliog Am Chem Soc J* 70:1181-3 Mr '48

DISCHARGE of electricity. See Electric discharges**DISCHARGE** tubes. See Vacuum tubes**DISCOLORATION**

- Discoloration of packaged red meat. C. G. Lavers. *bibliog Mod Packaging* 21:125-7 Ja '48
 How to prevent off color in glassed carrots. F. J. Yourga. *Food Ind* 20:47+ Ja '48
 Prevention of bone darkening in frozen-packed chickens. J. C. Woodroof and E. Shelor. *bibliog il diags Food Ind* 20:48-52+ Ja '48
 Role of 5-(hydroxymethyl)-furfural in the discoloration of sugar solutions. B. Singh, G. R. Dean and S. M. Cantor. *bibliog Am Chem Soc J* 70:517-22 F '48

DISCOUNT

- Discount for prompt payments improves collections on loans. F. L. O'Hair. *Bankers Mo* 65:5-6 Ag '48

Rates

- Higher rate for commercial bills. *Economist* 154:201 Ja 31 '48
 Rediscount and bank rates raised. *Comm & Fin Chr* 168:712 Ag 19 '48

DISCOUNT, Cash

- Terms of sale. C. B. Everberg. *Credit & Fin Management* 50:9-11 Ag '48

DISCOUNT, Trade

- FTC now studying quantity discounts of automobile parts and tire industries. *Automotive Ind* 98:26+ Je 15 '48
 FTC vs. discounts; tire Big four file quantity schedules. *Bsns W* p82+ Ap 10 '48
 Moot discounts; Minneapolis-Honeywell's quantity discounts bring on cease-and-desist order. *Bsns W* p72+ F 21 '48
 Morton Salt case decision throws new light on Robinson-Patman act. *Oil Paint & Drug Rep* 153:3+ My 10 '48
 Quantity discounts hazardous; Supreme court decisions in Cement Institute and Morton Salt cases. W. R. Montgomery. *Credit & Fin Management* 50:26-7 Je '48

DISCOUNT companies

- Bill market documentary. *Economist* 155:154-5 J1 24 '48
 Discount market profits. *Economist* 154:147+ Ja 24 '48
 Ups and downs in short bonds. *Economist* 154:32 Ja 3 '48

DISCRIMINATION in employment

- Civil rights; new labor problem. *il Mod Ind* 15:113-14 My '48
 FEPC reference manual, 1948 edition. 70p
 National community relations advisory council, Committee on employment discrimination, 295 Madison av, New York 17 '48
 Fair employment practices legislation. R. Parkinson. *Harvard Bsns R* 26:115-28 Ja '48
 Fair employment practices scheme. D. R. Richberg. *Pub Util* 41:540-4 Ap 22 '48

DISCUSSION

- Tips on running a successful panel program. L. Lewis. *Sales Management* 60:116+ Je 15 '48

See also

- Chairmen
 Debating

DISEASES

- Water-borne disease outbreaks in the United States, 1938 to 1945. *Pub Works* 78:24-5 N '47

See also

- | | |
|---------------------|-----------------------|
| Causalgia | Rheumatism |
| Dysentery | Schistosomiasis |
| Heart—Diseases | Sickness |
| Histoplasmosis | Skin—Diseases |
| Infantile paralysis | Tsutsugamushi disease |
| Infants—Diseases | Tuberculosis |
| Infectious diseases | Typhemia |
| Lungs—Diseases | Typhoid fever |
| Mortality | Typhus fever |
| Pneumonia | |
| Public health | |

Statistics

- Brucellosis in industry. C. F. Jordan. *Ind Med* 17:176-80 My '48
 Negro mortality; course of mortality from specific causes, 1920-1944. M. Gover. *Pub Health Rep* 63:201-13 F 13 '48
 Notifiable diseases, fourth quarter, 1947. *Pub Health Rep* 63:278-82 F 27 '48
 Studies on the duration of disabling sickness; duration on table for specific causes of disability among male workers. W. M. Gafar and others. *bibliog Pub Health Rep* 63:901-23 J1 9 '48

See also

- Tuberculosis—Statistics

DISEASES, Industrial

- Benjamin William McCready and his essay. On the influence of trades, professions, and occupations in the United States in the production of disease. C. P. McCord. *Ind Med* 16:535-8 N '47

- Great Britain; industrial accidents and diseases, 1946. *Mo Labor R* 66:532-3 My '48

- Hygiene problems are still with us; report on occupational disease claims for 1947. W. E. Obetz. *Safety Eng* 96:63-5 S '48

- Industrial disease in glass plants. L. M. Merritt. *Safety Eng* 94:62-3 N '47

- New diseases from new chemicals and radioactive substances can mean lawsuits for employers when not compensable. *Bsns W* p66-7 S 25 '48

- Occupational diseases. G. B. Oliver. *Soc Dyers & Col J* 64:57-60 F '48

See also

- | | |
|---|-----------------------------|
| Beryllium—Physiological effect | Lead poisoning |
| Brucellosis | Miners—Diseases and hygiene |
| Caisson disease | Poisons, Industrial |
| Coal miners—Diseases and hygiene | Shaver's disease |
| Grain itch | Sickness |
| Hygiene, Industrial | Silicosis |
| Insurance, Workmen's compensation—Industrial diseases | Skin—Diseases |
| | Workmen's compensation |

DISELENIDES. See Selenides

- DISEMBARKATION, Military.** See Landing operations, Military

- DISHONESTY insurance.** See Insurance, Surety and fidelity

DISHWASHING

- Dishwashing compounds. *Consumers Res Bul* 22:11-14 O '48

- Performance testing of dishwashing detergents. S. Machlis and E. B. Michaels. *bibliog Soap & San Chem* 24:42-4 S '48

- Some improvements in the performance test for rating dishwashing detergents. F. I. Norris and C. C. Ruchhoft. *bibliog Pub Health Rep* 63:97-109 Ja 23 '48

DISHWASHING machines

- City department of health program on the improvement of mechanical dishwashing; abstract. W. L. Mallmann and others. *Nat Safety N* 57:44 Je '48

Rating

- Portable dishwashers. *il Consumers Res Bul* 21:9-10 F '48

- Three automatic dishwashing machines; final report. *il Consumers Res Bul* 21:23-4 Mr '48

DISINFECTION and disinfectants

- Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylamino-methylpyrrole; proposed synthesis of β -2-pyrrolealanine. W. Herz, K. Dittmer and S. J. Cristol. *bibliog Am Chem Soc J* 70: 504-7 F '48
- β -Aminophenylidimethylsulfonium β -naphthalenesulfonate and antibacterial activity. P. E. Wilcox, J. H. Owen and M. A. Stahmann. *bibliog Am Chem Soc J* 70:1931-3 My '48
- Bacterial activity of racemized casein, caseose, and the four diastereoisomeric leucyl-leucines. S. W. Fox and others. *bibliog Am Chem Soc J* 70:2404-6 J '48
- Biological and photo-chemical effects of high energy, electrostatically produced Roentgen rays and cathode rays. C. G. Dunn and others. *J Ap Phys* 19:605-16 *bibliog*(p615-16) J '48
- Certain N-alkyl, N-carboxyalkyl and N-hydroxyalkyl derivatives of 4,4'-diaminodiphenyl sulfone. E. L. Jackson. *bibliog Am Chem Soc J* 70:680-4 F '48
- Chemical components of onion vapors responsible for wound-healing qualities. E. F. Kohman. *bibliog Science* 106:625-7 D 26 '47
- Chemical specialties attain greater stature; disinfectants. A. S. DuBois. *Chem Ind* 63: 390-1 S '48
- Differential effects of 2,4-D on aerobic, anaerobic, and facultative anaerobic microorganisms. W. A. Worth, Jr. and A. M. McCabe. *bibliog Science* 103:116-18 J '48
- Disinfecting instruments; abstract. M. A. Lesser. *Soap & San Chem* 24:161+ Mr '48
- Effect of chemical agents on iron bacteria. K. Duchon and L. B. Miller. *bibliog Il Paper Tr J* 126:47-58 Ja 22 '48
- Equilibrium studies on N-chloro compounds; the ionization constant of N-chloro-*p*-toluenesulfonamide. J. C. Morris, J. A. Salazar and M. A. Wineman. *Am Chem Soc J* 70: 2036-41 Je '48
- Germicidal aerosols. J. D. Fulton and others. *bibliog diag Soap & San Chem* 24:125-7+ My '48
- Germicidal effects of free and combined sulphur dioxide. M. Ingram. *bibliog Soc Chem Ind J* 67:18-21 Ja '48
- How, when and where to sell disinfectants. J. C. Varley. *Soap & San Chem* 24:143-5+ Ap '48
- Influence of ethylene glycol and glycerol on the germicidal power of aliphatic and aromatic compounds. E. A. Cooper. *Soc Chem Ind J* 67:69-70 F '48
- Inhibitors for neutralizing the germicidal action of quaternary ammonium compounds. G. R. Weber and L. A. Black. *bibliog Soap & San Chem* 24:137+ S; 134-7+ O '48
- Naval stores chemicals in the disinfectant field. J. N. Borglin. *bibliog Soap & San Chem* 23:147+ D '47
- Novel synthesis of substituted phenylglyoxylic acids. I. M. Hunsberger and E. D. Amstutz. *Am Chem Soc J* 70:671-4 F '48
- Pickle processing standardized by use of germicidal detergent. H. I. Bernstein and S. Epstein. *bibliog diag Food Ind* 20:350-1+ Mr '48
- Practical aspects of the quaternaries. J. C. Varley. *Soap & San Chem* 23:130-3+ D '47
- Progress in drugs and fine chemicals; antibacterial uses of furane products. G. C. Green. *Chem Age (Lond)* 58:269-70 F 21 '48
- Quaternary ammonium compounds; abstract and discussion. J. C. L. Resuggan. *Chem & Ind* p249-50 Ap 17 '48
- Quaternary ammonium compounds in the dairy industry. J. J. Portley. *Il Food Ind* 20:196-8 F '48
- Quaternary ammonium studies. *Soap & San Chem* 24:157 Ja '48
- Rapid method for estimation of use-dilution concentrations of quaternary ammonium germicides. J. F. Gain and C. A. Lawrence. *bibliog Science* 106:525-7 N 28 '47
- Reactions of vanillin and its derived compounds; esters of vanillic acid. I. A. Pearl and J. F. McCoy. *bibliog Am Chem Soc J* 69:3071-2 D '47
- Sanitizing glasses; abstract. W. L. Mallmann. *Soap & San Chem* 23:147 N '47
- Structure of germicides; abstract. C. A. Lawrence and others. *Soap & San Chem* 24:145 My '48
- Studies in the sulfone series; certain heterocyclic derivatives of 2,8-diaminothioxanthone-5-dioxide. E. D. Amstutz, E. A. Fehnel and I. M. Hunsberger. *bibliog Am Chem Soc J* 70:133-8 Ja '48
- Studies on properties of sulfur jointing compounds containing various bactericides. W. W. Duecker and others. *bibliog Il Am Water Works Assn J* 40:715-28 J '48
- Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; some 5-amino-1:2:2':3'-pyridoacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p288-91 Mr '48
- See also*
- | | |
|-----------------------|--------------------|
| Antibiotic substances | Insecticides |
| Bacteriostasis | Resorcinol |
| Chloramine | Sanitary chemicals |
| Chlorination | Sulfonamides |
| Formaldehyde | Triethylene glycol |
| Fumigants | Water purification |
- Law**
- Economic poison laws; an outline of their development from 1910 to 1950. H. W. Hamilton. *Soap & San Chem* 23:114-15 N '47
- Testing**
- Concerning quaternaries. E. G. Klarman and E. S. Wright. *bibliog Soap & San Chem* 24:155+ Mr '48
- Determining quaternary content in sanitizing solutions. T. L. Flanagan, Jr. and others. *Soap & San Chem* 24:163+ Ap '48
- Germicidal behavior of a quaternary ammonium compound. J. W. Klimek and L. E. Umbreit. *bibliog Soap & San Chem* 24: 137+ Ja '48
- Germicidal test problems; abstract. L. Michaels. *Soap & San Chem* 24:145 My '48
- Practical aspects of disinfection. W. L. Mallmann. *bibliog Soap & San Chem* 24:141+ Mr '48
- Practical field test for quaternaries. M. W. Cucchi. *bibliog diag Soap & San Chem* 24:129+ Ag '48
- Quaternaries vs. phenolics; germicidal effectiveness reported; together with time-survival numbers of *E. typhosa* and *S. aureus*. L. H. James and G. Eckfeldt. *Soap & San Chem* 23:125+ N; 157+ D '47
- Quaternary test. W. J. Harper and others. *Soap & San Chem* 24:159+ F '48
- DISINTEGRATION** of atoms. *See* Atoms—Disintegration
- DISKS**
- Diffraction of sound by circular disks and apertures. R. D. Spence. *diag Acoustical Soc Am J* 20:381-6 J '48
- Directional characteristics of a clamped-edge disk. L. L. Merrill and F. H. Slaymaker. *diag Acoustical Soc Am J* 20:375-80 J '48
- DISKS, Rotating**
- Developments in high-speed rotating disk research at M.I.T. C. W. MacGregor and W. D. Tierney. *il diag Welding J* 27:sup 303-9 Ja '48
- Disk stresses; calculating stresses due to rotation and to interference fits. V. G. Guins and G. H. Heiser. *il diag Machine Design* 20:144-8+ F '48
- Estimation of stresses in turbine-disc rims. G. F. C. Rogers. *diag Engineering* 165: 1-4, 40-3 Ja 2-9 '48
- Heat transfer from a rotating disk to ambient air. C. Wagner. *J Ap Phys* 19:837-9 S '48
- Motor driven machines; WR² of parts, diag. *Product Eng* 19:126-7 Mr '48
- Prescribed-centrifugal-stress design of rotating discs. C. M. McDowell. *S A E J* 56:87 Ag '48
- DISMISSAL** of employees. *See* Employees, Dismissal of
- DISMISSAL** wage. *See* Wages—Dismissal wage
- DISPENSERS, Razor blade.** *See* Razor blade dispensers
- DISPENSING** apparatus
- Automatic merchandising evolves as a changing force in the Nation's stores. *Il Arch Forum* 88:121-2 Mr '48
- Dispenser stars in paper cup promotion. *Il Sales Management* 61:50 N 1 '48
- See also*
- Spraying apparatus

DISPERSING agents

Role of dispersants in lubricating oils. H. H. Zuidema. *bibliog Oil & Gas J* 46:58-9+ Ja 8; 84+ Ja 15; 93-6+ patent list (p95-6+) Ja 22 '48

See also

Emulsifiers**Patents**

Summary of U.S. patents on dispersants for use in lubricating oils; tabulation. *Oil & Gas J* 46:95-6+ Ja 22 '48

DISPERSION

Beaker-type centrifugal sedimentation of subviscous solid-liquid dispersions; theory. H. E. Robison and S. W. Martin. *bibliog diag J Phys & Colloid Chem* 52:854-81 My '48

Rapid calculation of the specific dispersion of saturated hydrocarbons. S. G. Hindin. *Pet Refiner* 27:91 Ja '48; Same abr. *Pet Eng* 19:290 My '48

Rheological state as a criterion of dispersion. J. Pryce-Jones. *Chem & Ind* p233 Ap 10 '48

Sequestration, dispersion, and dilatancy; lecture demonstrations. T. H. Daugherty. *bibliog il J Chem Educ* 25:482-8 S '48

See also

Colloids**Emulsification****Particles****DISPERSION of rays**

Empirical relationships between the partial dispersions of the ordinary types of optical glasses. D. H. Rank. *Opt Soc Am J* 38: 885-6 O '48

Low frequency dispersion in ionic crystals. R. G. Breckenridge. *bibliog J Chem Phys* 16:959-67 O '48

Stereochemistry of complex inorganic compounds; configurations of some compounds as revealed by rotatory dispersion curves. T. D. O'Brien, J. P. McKenney and J. C. Bailar, jr. *bibliog Am Chem Soc J* 70:749-55 F '48

DISPLACED persons. See Refugees**DISPLAY managers. See Department stores—Display managers****DISPLAY of merchandise**

Armour shows dealers the how of full-line selling; film demonstration tested way to create more impulse sales. W. S. Shafer. *il Sales Management* 59:60+ D 15 '47

Capturing customers at point-of-sale. *il Mod Ind* 15:93-4+ Je '48

Developing and presenting a department-store promotion; recent Naylor promotion. E. B. Weiss. *il Ptr Ink* 223:40-1+ Ap 23 '48

Display beautified with plastics rod. M. Meyers. *il Plastics* 8:39-40 Jl '48

Display installation. N. F. McKean. *il Mod Packaging* 22:134-6 O '48

Display of showroom samples simplified by industrial design; Cluett Peabody shows many lines in various patterns and colors. *il Ptr Ink* 222:36-7 Ja 9 '48

Effect of store modernization upon display needs; what retailers say about manufacturer-supplied materials. *il Ptr Ink* 222: 31-5+ Mr 12 '48

Eight vital factors in effective point-of-sale promotion. F. L. McKibbin. *il Sales Management* 61:52-4+ N 1 '48

Embedded in acrylic; displays with a jewel-like appearance. *il Mod Plastics* 25:91-3 F '48

Girdle hit; new package and display unit sell 7,000 girdles at Macy's during two days of biggest snowstorm in New York's history. *il Mod Packaging* 21:123 F '48

Hinged carton; single piece of board makes folding box with die-cut platform inside to display filter for coffee maker. *il Mod Packaging* 21:119+ N '47

Interior display practice is far from standardized. E. B. Weiss. *Ptr Ink* 223:35+ Ap 2 '48

New concepts of store architecture affect store promotion. E. B. Weiss. *Ptr Ink* 222: 42+ Mr 26 '48

No-investment stock plan builds lucrative greeting card sales; G. E. Day keeps up a clean, timely, and moving stock of greeting cards for retailers. *il Sales Management* 61:113 Ag 15 '48

Pay off for Bauer & Black in related item selling; departmentalization of drug stores. E. H. Brown. *il Sales Management* 61: 42-3 O 15 '48

Pin-up carton; window box with a hanger for attachment to display board; Lynn products co. *il Mod Packaging* 21:100-1 Jl '48

Punch-out window permits effective display of athletic balls in the package. *il diags Mod Packaging* 21:148-50 Ap '48

Self-displaying boxes; inner pulley-cord arrangement enables automatic opening; Silastic table mats. *il diags Mod Packaging* 22:124-5 O '48

Selling with plastics displays. *il diags Mod Plastics* 26:75-82 N '48

Seven competitors; packaging and display of luminous paints. *il Mod Packaging* 21:114-17 Ag '48

Too small for effective use of product design? Welsh mfg. co. fountain pen and mechanical pencil. *il Sales Management* 60: 70 Ap 1 '48

See also

Show windows**Showrooms****DISPROPORTIONATION**

o-Methoxy-, *p*-benzyl-, *o*-fluoro-, and *o*-cyano-styrenes; further examples of the disproportionation of phenylmethylcarbinols to ethylbenzenes. C. S. Marvel and D. W. Hein. *bibliog Am Chem Soc J* 70:1895-8 My '48

DISSERTATIONS, Academic

Better direction of thesis research. L. E. Grinner. *J Eng Educ* 38:548-50 Ap '48

Educational problems of graduate student theses based on sponsored research. J. W. M. Bunker. *J Eng Educ* 38:385-9 Ja '48

Bibliography

Abstracts of dissertations, accepted in partial fulfillment of the requirements for the degree of doctor of philosophy, 1945-7. 227p Univ. of Virginia, Charlottesville '48

Doctoral dissertations accepted by American universities, 1946-1947. A. H. Trotter, ed. v14 100p \$2.50 H. W. Wilson co, New York '47

Microfilm abstracts; a collection of abstracts of doctoral dissertations and monographs available in complete form on microfilm. (v. 8, no. 1) 160p University microfilms, 313 N. First st, Ann Arbor, Mich. '48

DISSOCIATION

Bond energies of hydrocarbons. L. Gerö. *bibliog J Chem Phys* 16:1011-13 N '48

Controlled-electron reactions. G. Glockler. *bibliog J Phys & Colloid Chem* 52:451-6 Mr '48

Dissociation energies of nitrogen and nitric oxide. H. D. Hagstrum. *bibliog J Chem Phys* 16:848-9 Ag '48

Dissociation energy of carbon monoxide and the heat of sublimation of carbon. H. D. Hagstrum. *bibliog Phys R* 72:947-63 N 15 '47

Dissociation energy of carbon monoxide and the heat of sublimation of carbon. J. G. Valatin. *bibliog Phys R* 74:350-1 Ag 1 '48

Dissociation of diborane by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog Am Chem Soc J* 70:987-9 Mr '48

Dissociation of SF₆, CF₄, and SiF₄ by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog J Res Nat Bur Stand* 40:25-9 Ja '48

Dissociation of the addition compound of trimethylamine with quinuclidine; further evidence for the steric configuration of triethylamine. H. C. Brown and Sei Sujishi. *bibliog diags Am Chem Soc J* 70:2878-81 S '48

Dissociation schemes of some carbonyl compounds. L. Gerö and J. G. Valatin. *bibliog J Chem Phys* 16:1014-17 N '48

Ionization and dissociation of formic acid monomer by electron impact. T. Mariner and W. Bleakney. *bibliog Phys R* 72:792-806 N 1 '47

Rates of dissociation of some tetraphenylxylylenes. R. R. Grunert, J. C. Nichol and R. E. Sandin. *bibliog Am Chem Soc J* 69:2254-6 O '47

DISSOCIATION—Continued

Repulsive forces in relation to bond energies, distances and other properties, K. S. Pitzer, bibliog diags Am Chem Soc J 70:2140-5 Je '48

Significance of appearance potentials of ions in a mass spectrometer, T. Mariner and W. Bleakney, bibliog Phys R 72:807-14 N 1 '47

Spontaneous dissociation of ions, J. A. Hipple, bibliog diag J Phys & Colloid Chem 52:456-62 Mr '48

Strains in methyl amines and hydrocarbons, E. Spitzer and K. S. Pitzer, bibliog Am Chem Soc J 70:1261-4 Mr '48

Thermochemistry of organic compounds, J. G. Valatin, bibliog J Chem Phys 16:1018-24 N '48

DISSOCIATION, Electrolytic. See Ionization, Electrolytic

DISSOCIATION, Heat of

Heat of dissociation of nitric oxide, G. Glockler, bibliog J Chem Phys 16:604-8 Je '48

Heats of dissociation of cyanogen, G. Glockler, bibliog J Chem Phys 16:600-1 Je '48

Heats of dissociation of the N_2 molecule and the NH radical, G. Glockler, bibliog J Chem Phys 16:602-4 Je '48

Magnetic studies on the dissociation and disproportionation of some hexaarylethanes, W. Byerly, H. G. Cutforth and P. W. Selwood, Am Chem Soc J 70:1142-3 Mr '48

DISTANCES**Measurement**

High-stability radio distance-measuring equipment for aerial navigation, H. Busignies, bibliog il diag Elec Com 25:237-43 S '48

DISTILLATE wells. See Gas, Natural—Distillate wells

DISTILLATION

Condensation of formaldehyde with lower aliphatic ketones; allylation as a means of structure proof, J. R. Roach, H. Wittcoff and S. E. Miller, bibliog Am Chem Soc J 69:2651-5 N '47

Continuous distillation of gum turpentine; staff-industry collaborative report, W. H. Shearon, Jr., E. L. Patton and G. P. Shingler, bibliog flow chart il diags Ind & Eng Chem 40:1695-702 S '48

Control of fractional distillation by means of refractive index measurements, R. Raw, Soc Chem Ind J 66:451-3 D '47

Deacidification of glyceridic oils; economic and technical merits of steam distillation, A. E. Williams, diag Chem Age (Lond) 59:245-8 Ag 21 '48

Decomposition hazard of vacuum stills, K. C. D. Hickman and N. D. Embree, bibliog diag Ind & Eng Chem 40:135-8 Ja '48

Determination of boiling range of methyl bromide, D. Williams and C. C. Meeker, diag Anal Chem 20:733-5 Ag '48

Determination of water in bleaching powder, J. Goldenson and C. E. Danner, bibliog diag Anal Chem 20:359-60 Ap '48

Developments in fatty acid distillation, C. Keleti, bibliog flow diags diag Can Chem & Process Ind 32:630-2 Jl '48

Distillation of sea water by the vapor-compression method, J. J. Campobasso, flow diag il Am Water Works Assn J 40:547-52 My '48

Distillation principles of formaldehyde solutions; liquid-vapor equilibrium and effect of partial condensation, E. L. Piret and M. W. Hall, bibliog diags Ind & Eng Chem 40:661-72 Ap '48

Distilling plant economy, A. M. Impagliazzo, diags Mech Eng 69:387-90 My '47; Discussion, 70:75-9 Ja '48

Effect of temperature on liquid phase activity coefficients, C. Berg and A. C. McKinnis, bibliog Ind & Eng Chem 40:1309-11 Jl '48

Elimination maxima of certain saturated cholesterol esters; analytical molecular distillation, G. L. Fletcher and others, bibliog Anal Chem 20:943-6 O '48

Fatty acid distillation; pictured flowsheet, Chem Eng 55:146-9 F '48

Fresh water from the sea, C. A. Hampel, bibliog il diags Chem & Eng N 26:1982-5 Jl 5 '48

Gas thermometer for automatic control of low temperatures; application to separation of gases by isothermal distillation, D. D. Tunnicliff, diag Anal Chem 20:962-4 O '48

High temperature distillation, T. J. Walsh, bibliog (61 ref) Ind & Eng Chem 40:13-16 Ja '48

High vacuum distillation, K. C. D. Hickman, bibliog Ind & Eng Chem 40:16-18 Ja '48

Laboratory fractionation; abstract, G. P. Gibson, Chem & Ind p333 My 22 '48

Pilot-plant distillation and purification of titanium tetrachloride, C. K. Stoddard and E. Pietz, bibliog 4pls U S Bur Mines Rep of Invest 4153:1-40 '47

Polyglycerols; identification of polyglycerol mixtures by the procedures of allylation and acetonation, isolation of pure diglycerol, H. Wittcoff, J. R. Roach and S. E. Miller, Am Chem Soc J 69:2655-7 N '47

See also

Coal distillation Petroleum distillation

Oil shales—Distillation Wood distillation

Tables, calculations, etc.

Application of zygograph to distillation of binary mixtures, Kuo Tsung Yu and J. Coull, bibliog diags Chem Eng Prog 44:795-800 O '48

Approach to equilibrium in fractionation, W. Bartky and A. J. Dempster, bibliog Rs Mod Phys 20:123-7 Ja '48

Calculation of theoretical plates in rectification, A. M. Eshaya, bibliog Chem Eng Prog 43:555-60 O '47; Discussion, 44:721-2 S '48

Distillation calculations in ideal and nonideal systems, R. B. Smith and T. Dresser, bibliog Chem Eng Prog 44:789-94 O '48

Distillation of phenolic brines, M. J. P. Bogart and A. S. Brunjes, bibliog flow diag il diag Chem Eng Prog 44:95-103; Discussion, 103-4 F '48

Effective absorption and stripping factors for multicomponent fractionation calculation, W. C. Edmister, Chem Eng Prog 44:615-18 Ag '48

Fractional distillation of multicomponent mixtures, A. J. V. Underwood, bibliog Chem Eng Prog 44:603-13; Discussion, 613-14 Ag '48

High range vapor pressures and Antoine equation constants of some C_3 to C_8 hydrocarbons, J. Griswold and W. B. Brooks, bibliog Pet Refiner 26:122-7 D '47

Nomograph gives number of theoretical contacts, W. H. Stanton, bibliog Chem Eng 55:124-5 Ap '48

Optimum feed tray in multicomponent distillation calculations, E. G. Scheibel and C. F. Montross, bibliog diags Ind & Eng Chem 40:1398-401 Ag '48

Stagewise operations; graphical solutions of difference equations, F. M. Tiller, bibliog diag Chem Eng Prog 44:299-306 Ap '48

Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components, O. Redlich and A. T. Kister, bibliog Ind & Eng Chem 40:345-8 F '48

Terminology

Clarification needed for distillation terms, M. G. Larian, Chem Eng 55:116-18 Mr '48; Discussion, 55:204-+ Je '48

DISTILLATION apparatus

All-glass laboratory still, G. E. Mallory and R. F. Love, il diag Anal Chem 20:94 Ja '48

Apparatus for distillation and filtration of organic liquids, J. P. E. Human and J. A. Mills, diags Chem & Ind p243-5 Ap 17 '48

Apparatus for distilling aniline, E. L. Ruh and J. L. Rossett, diag Anal Chem 19:338 N '47

Application of high vacua in the paint and plastics industries, J. C. Swallow and J. S. Gourlay, il diags Chem & Ind sup9-13 O 9 '48

Application of high vacuum distillation to the processing of triglyceride oils, E. W. M. Fawcett, bibliog Chem & Ind sup27-32 O 9 '48

Application of micro-pilot plant techniques to the unit operations laboratory, W. M. Langdon and others, bibliog diag J Eng Educ 38:751-6 Je '48

DISTILLATION apparatus—Continued

- Assemble safety valve for vacuum still from stopper and ground glass joint. *diags* *Pet Processing* 3:960 O '48
- Automatic vacuum take-off arrangement for fractional distillation. T. F. Brown and K. F. Coles. *diags Anal Chem* 19:935-6 N '47
- Bowman still; a high vacuum still. *il diag R Sci Instr* 19:53-5 Ja '48; *J Sci Instr* 25: 244-5 JI '48
- Centrifugal molecular still. *il R Sci Instr* 19:477-8 JI '48; Same. *Chem Ind* 63:102 JI '48
- Clarification needed for distillation terms. M. G. Larian. *Chem Eng* 55:116-18 Mr '48
- Composition of vapors from boiling solutions; improved equilibrium still. D. F. Othmer. *bibliog diags Anal Chem* 20:763-6 Ag '48
- Distillation equipment suitable for centigram and decigram quantities. C. W. Gould, Jr., G. Holzman and C. Niemann. *bibliog diags Anal Chem* 20:361-3 Ap '48
- Distillation; the invention of the rectifying column. R. J. Forbes. *Engineering* 165: 378-9 Ap 16 '48
- Distilling-plant economy. A. M. Impagliazzo. *diags Mech Eng* 69:387-90 My '47; *Discussion*. 70:75-9 Ja '48
- Electrical heating and bottom receivers for distillation equipment. W. M. Langdon. *bibliog diags Anal Chem* 20:338-40 Ap '48
- Engineering features of Hastings plant. J. J. Weatherly and E. N. Wade. *flow diag il diag Pet Refiner* 27:81-6 Ap '48
- Helical packing for small laboratory distilling columns. F. W. Mitchell, Jr. and J. M. O'Gorman. *bibliog il Anal Chem* 20:315-16 Ap '48
- High vacuum dehydration and distillation. R. S. Morse. *bibliog il diags Chem & Ind sup* 13-19 O 9 '48
- High vacuum distillation. K. C. D. Hickman. *bibliog Ind & Eng Chem* 40:16-18 Ja '48
- Improved steam-distillation apparatus; application to determination of nicotine in green and dry tobacco. R. E. Griffith and R. N. Jeffrey. *bibliog il diags Anal Chem* 20:307-11 Ap '48
- Isotope separation; new type of counter-current reflux molecular still. *diags J Chem Educ* 25:171-2 Mr '48
- Laboratory still features two safety devices for handling atmospheric or vacuum operations. *diags Pet Processing* 3:418 My '48
- Low-pressure steam-heated distilling plants for distillation of sea water. A. M. Impagliazzo and R. M. Bent. *flow diag il diag Marine Eng* 53:42-7 Je '48
- Pressure drop in fractionating towers. A. C. Eld. *Pet Refiner* 27:119-21 O '48
- Reflux-distillation adapter. F. Kipnis and J. Ornefelt. *diag Anal Chem* 19:934 N '47
- Résumé of Sohio's experience in overhead condensing equipment; various types of corrosion and attempts to control them. E. N. Salathe. *Am Pet Inst Proc* 28(3):22-5 '48
- Semimicro molecular still. I. A. Breger. *bibliog il diag Anal Chem* 20:980-2 O '48

Control

- Control of continuous fractionation columns. C. W. Hills, Jr. *diags Can Chem & Process Ind* 32:536-40 Je '48
- Control of narrow-boiling-range fractionating columns. G. G. Gallagher. *diags Pet Refiner* 27:116-17 Mr '48; Same. *cond. Oil & Gas J* 46:95+ F 5 '48; Same. *Pet Eng* 19: 82+ Mr '48

Design

- Calculation of plate columns for ternary distillation. R. R. White and W. T. Boyd. *diag Pet Processing* 3:143+ F '48
- Correlation of A.S.T.M. true boiling point and flash vaporization curves. W. L. Nelson and R. J. Harvey. *bibliog Oil & Gas J* 47:71-2+ Je 17 '48
- Decomposition hazard of vacuum stills. K. C. D. Hickman and N. D. Embree. *bibliog diag Ind & Eng Chem* 40:135-8 Ja '48
- Dibutyl phthalate; reaction rate of catalytic esterification. S. Berman, A. A. Melnychuk and D. F. Othmer. *bibliog Ind & Eng Chem* 40:1312-19 JI '48

- Economic distillation design; comparative importance of distillation variables. W. D. Harbert. *il Pet Refiner* 27:106-9 Ap '48
- Effective absorption and stripping factors for multicomponent fractionation calculation. W. C. Edmister. *Chem Eng Prog* 44: 615-18 Ag '48
- Hydrocarbon absorption and fractionation process design methods. W. C. Edmister. *bibliog Pet Eng* 19:66+ JI; 47-53 Ag; 128+ S '48
- Method for designing packed columns. M. J. Simon and M. A. G. Rau. *bibliog diag Ind & Eng Chem* 40:93-6 Ja '48
- Multi-component distillation calculations. E. G. Scheibel. *bibliog Pet Refiner* 27:92-105 Ap '48
- Optimum feed-tray in multicomponent distillation calculations. E. G. Scheibel and C. F. Montross. *bibliog diags Ind & Eng Chem* 40:1398-401 Ag '48
- Practical considerations in process design of fractionators. L. Bray. *bibliog diags Pet Refiner* 27:115-22 Ap '48
- Rate of approach to equilibrium of fractionating columns. C. Berg and I. J. James, Jr. *bibliog il Chem Eng Prog* 44:307-14 Ap '48
- Simplified multi-component fractionation calculations. R. V. Bailey and J. Coates. *bibliog Pet Refiner* 27:98-102 Ja; 113-15 F; 96-102 Mr '48
- Stripping and rectifying columns for ternary distillation; graphical methods for determining equilibrium plates. R. R. White and W. T. Boyd. *diags Pet Processing* 2: 862-7 N '47
- Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components. O. Redlich and A. T. Kister. *bibliog Ind & Eng Chem* 40:345-8 F '48
- Thermodynamics of non-electrolyte solutions and its technical applications; systems with associated components. O. Redlich and A. T. Kister. *bibliog J Chem Phys* 15:849-55 D '47
- Thermodynamics of nonelectrolyte solutions; x - y - t relations in a binary system. O. Redlich and A. T. Kister. *Ind & Eng Chem* 40: 341-5 F '48
- Vacuum distillation equipment; its selection and design. R. N. Blaize. *diags Pet Refiner (Process Handbook ed)* 27:108-10 S '48
- Vacuum distillation of petroleum residues. W. W. Kraft. *bibliog flow diag il diags Ind & Eng Chem* 40:807-19 My '48

DISTILLED water. See *Water, Distilled*

DISTILLERIES**Equipment**

- Distillery mash cooled by evaporation. *il Comp Air Mag* 53:34-5 F '48
- Multi-stage evaporative cooler. C. H. Rodgers. *il diag Chem Eng* 55:122-3 O '48
- New boiler-plant design features reliability and simple operation; Melchers distilleries. J. A. Kearns. *il plan diag Power* 92:4-7 Ja '48

DISTILLERS company, limited

- Statement by the chairman. H. J. Ross. *Chem Age (Lond)* 59:467-70 O 2 '48; Same. *Economist* 155:553-4 O 2 '48
- Statement by the chairman at annual general meeting. H. J. Ross. *Economist* 153:701 O 25 '47

DISTILLING industries

- Distillers fight grain controls. *Bsns W* p25-6 Ja 24 '48
- Distillers slapped. *Bsns W* p24 Ja 3 '48
- Distillers wary; plan big drive to get quota system. *Bsns W* p23+ N 1 '47
- Grain quotas fret distillers but boost sales. B. W. Corrado, Barron's 28:29-30 Ja 26 '48
- Looking ahead in liquor industry. S. B. Giraitis. *Comm & Fin Chr* 168:703+ Ag 19 '48
- Struggle for liquor markets intensified; some companies short of aged whiskey. J. C. Loeser. *Barron's* 28:29-30 O 25 '48

Accounting

- Inventory need causes whiskey accounting change; purchases of liquor in bulk otherwise cause sharp changes in earnings. G. W. Jennings. *Barron's* 28:31 My 3 '48

DISTILLING industries—Continued**Insurance requirements**

Lack adequate coverage for distillers' risks.
W. Schiff, East Underw 49:22+ S 24 '48

Securities

New factors in liquor industry. G. W. Mathis, il Mag of Wall St 81:146-7, 164+ N 8 '47

What's ahead for the liquors; with statistical summary of leading distillers. G. L. Merton, Mag of Wall St 82:641+ S 25 '48

Scotland

How the Scotch make it; more Scotch on the way, il Bsns W p24-6 Ja 31 '48

DISTRIBUTION (economics)

Formula for measuring productivity in distribution. W. Alderson, J Marketing 12: 442-8 Ap '48

Meaning and measurement of productivity in distribution. R. Cox, J Marketing 12: 433-41 Ap '48

What the cooperatives mean to business; their challenge may lead to better distribution of goods. F. Smith, il Adv & Sell 40:46+ D '47

See also

Chain stores	Jobbers
Cooperation	Marketing
Department stores	Retail trade

also Boston conference on distribution

Cost**See also**

Marketing—Cost

DISTRIBUTION, Electric. See Electric distribution

DISTRIBUTION council of national advertisers, inc.

Nailing buyers; to locate your nearest dealer, call Western Union. Bsns W p78 J1 24 '48

DISTRIBUTION of gas. See Gas distribution

DISTRIBUTION of water. See Water distribution

DISTRICT bank, limited

Statement by the chairman, T. D. Barlow.

Economist 154:162-3 Ja 24 '48

DISULFIDES

Magnetic measurements on 2,2'-benzothiazyl disulfide and bis-(9-ethoxy-10-phenanthryl) peroxide. H. G. Cutforth and P. W. Selwood, bibliog diag Am Chem Soc J 70: 278-81 Ja '48

N-Arylamides of mercaptoacetic acid; analogs of α -mercaptoacetamide and corresponding gold mercaptides. U. Weiss, bibliog Am Chem Soc J 69:2684-7 N '47

Oxidation-reduction potentials of thiol-disulfide systems; dithiobutiret-3,5-dimino-1,2,4-dithiazoline. P. W. Freisler and M. M. Bateman, bibliog Am Chem Soc J 69:2632-5 N '47

Preparation and polymerization of monomeric cyclic disulfides. F. O. Davis and E. M. Fettes, bibliog Am Chem Soc J 70:2611-12 J1 '48

Analysis

Determination of alkyl sulfides and disulfides. S. Siggia and R. L. Edsberg, bibliog Anal Chem 20:938-9 O '48

DITCHES

Explosives convert swamps into valuable pastures. W. F. Miller, il Explosives Eng 26: 20-1 Ja '48

Jeep-mounted scoop digs and cleans ditches. H. A. Crandell, il Eng N 141:79 J1 22 '48

Soil-cement ditch lining. il Roads & Sts 91:67 My '48

DITHIENYLTRICHLOROETHANE

Mechanisms of insecticidal action; dithienyltrichloroethanes; comparison with DDT.

R. L. Metcalf and F. A. Gunther, bibliog Am Chem Soc J 69:2579-81 N '47

DITHIOCARBAMIC acid

β -Propiolactone; reactions with dithiocarbamic acids, their salts and thiourea. T. L. Gresham, J. E. Jansen and F. W. Shaver, Am Chem Soc J 70:1001-2 Mr '48

DITHIODIGLYCOLIC acid

Esters of dithiodiglycolic acid. J. F. Mulvaney, J. G. Murphy and R. L. Evans, Am Chem Soc J 70:1069 Mr '48

DITHIOLS

Sulfur bond in vulcanizates; vulcanization by dithiols. C. M. Hull and others, bibliog Ind & Eng Chem 40:513-17 Mr '48

DITHIZONE

Determination of zinc in water, sewage and trade wastes. B. I. Corson, il Water & Sewage Works 95:40-2 Ja '48

Heavy metals in altered rock over blind ore bodies, East Tintic district, Utah. T. S. Lovering and others, bibliog il maps diag Econ Geol 43:334-99 Ag '48

Microdetermination of bismuth in biological material; an improved photometric dithizone method. D. M. Hubbard, bibliog Anal Chem 20:363-4 Ap '48

Microdetermination of lead in biological material with dithizone extraction at high pH. J. Cholak, D. M. Hubbard and R. E. Burkey, bibliog diag Anal Chem 20:671-2 J1 '48

Precision determination of lead in high grade copper; dithizone color and electrodeposition gravimetric methods. L. Silverman, bibliog Anal Chem 20:906-9 O '48

DIVCO corporation

Newcomers on the New York stock exchange. Mag of Wall St 81:251 D 6 '47

DIVELY, George Samuel

Portrait. Bsns W p23 My 22 '48

DIVERSIFICATION in industry

Better mousetrap; Gerity, inc. seeks to diversify. il Bsns W p24 My 29 '48

Chemical giant reaches out for new fields; International minerals & chemical corp. il Bsns W p24-6 Mr 27 '48

Companies where product diversification is an asset. H. L. Blackburn, Mag of Wall St 82:82-3+ Ap 24 '48

Die-casting about for new markets; Gerity-Michigan corp. il Mod Ind 15:67-8+ My '48

Diversification pays off for General Mills. il Bsns W p66+ F 28 '48

Diversified northwestern invades the East. il Bsns W p52+ Ag 28 '48

Drackett's stake in soybeans. il Bsns W p30+ My 8 '48

Food machinery corp.; a saga in diversity. il Bsns W p88+ Ap 10 '48

From groceries to sugar; Blair buys chunk of Spreckles sugar empire. il Bsns W p32+ Mr 13 '48

General Tire bets future on products of research. H. Jones, Barron's 28:31 Je 14 '48

Gillette begins to diversify; buys Toni corp. producer of home permanent wave sets. Bsns W p44-6 Ja 10 '48

Glidden emphasizes research. Bsns W p40+ D 20 '47

Local needs influence product planning; Heil's unusual diversification pays off. il Bsns W p44+ Ag 14 '48

Plane-maker's wheelbarrow; Bell aircraft corp.'s engine-driven Prime Mover. il Bsns W p39+ Ja 10 '48

See also

Products, Diversified

DIVERSITY factor

Load development planning based on diversity. Elec World 129:121-2 My 22 '48

DIVIDENDS

Bank capital and dividend policies. R. I. Robinson, Harvard Bsns R 26:398-409 J1 '48; Excerpts. Comm & Fin Chr 168:102+ J1 8 '48; Banking 41:116 Ag '48

Big '47 earnings will help industry offset capital drain of depression years' dividends. L. R. Driver, Barron's 27:28 D 29 '47

Candidates for year-end extras. H. S. Coffin, Mag of Wall St 83:32-3+ O 9 '48

Candidates for year-end extras. H. F. Travis, Mag of Wall St 81:136-7+ N 8 '47

Companies paying progressively higher dividends; with data on Underwood corp., Westinghouse air brake co., Continental oil co., Kennecott copper corp. H. F. Travis, Mag of Wall St 82:26-7 Ap 10 '48

Dividend limitation in practice. Economist 155:116 J1 17 '48

Dividend payments despite existence of operating deficit. J Account 85:267-9 Mr '48

Dividend payments; January-March 1948 box score. Bsns W p95 My 1 '48

Dividend payments; the 1947 record. Bsns W p69 Ja 31 '48

Dividend policy. J Account 85:342-3 Ap '48

DIVIDENDS—Continued

Dividend policy and section 102 of the Internal revenue code, R. S. Jessup. *Comm & Fin Chr* 166:2059+ N 20 '47

Dividends continue to climb sharply. *Bsns W* p 108 O 30 '48

Dividends declared and payable. Published in weekly Monday numbers of *Commercial and financial chronicle*

Dividends; the key to value. W. F. Stanley. *Pub Util* 42:545-51 O 21 '48

Earnings versus dividends as guide to stock prices. A. M. Hamburg. *Comm & Fin Chr* 168:1536+ O 14 '48

Holds tax cut will spur dividend payments. J. K. Lasser. *Comm & Fin Chr* 167:1987 My 6 '48

Market effect of large accrued dividend payment. O. K. Burrell. *Comm & Fin Chr* 167:1098+ Mr 11 '48

Net corporate dividend payments, by industry, 1929-46; tabulation. *Survey of Cur Bsns* 27:sup32-3 J1 '47

Net corporate dividend payments, by industry, 1944-47; tabulation. *Survey of Cur Bsns* 28:20 J1 '48

1947 dividend flood; a sampling. *Bsns W* p 108 D 13 '47

1948 special re-appraisals of values, earnings and dividend forecasts. *Mag of Wall St* 81:527-40+, 585-96+, 641-55+, 701-11+; 82: 482-91+, 534-47+, 586-95+, 634-45+ F 14-Mr 27, Ag 14-S 25 '48

Period of low dividends will come to an end. F. B. Dezenendorf. *Barron's* 28:29 S 6 '48

Profits and dividends, 1941-1946. *Survey of Cur Bsns* 1947 Sup p87 [supplemented in monthly numbers]

Shrinking ratio of dividends to earnings. P. Dobbs. *Mag of Wall St* 82:180-2+ My 22 '48

Stock market at a glance; price changes, earnings and dividends; New York stock and curb exchanges. Published in weekly numbers of *Barron's*

Stocks; cash dividend payments, rates and yields, 1941-1946. *Survey of Cur Bsns* 1947 Sup p93-4 [supplemented in monthly numbers]

Tax cut unlikely to bring big jump in dividends. F. B. Dezenendorf. *Barron's* 28:30 My 30 '48

Voluntary dividend limitation. *Economist* 154: 466-7, 557-8 Mr 20, Ap 3 '48

Which companies pay most liberal dividends? P. Bobbs. *Mag of Wall St* 81:187-9+ N 22 '47

Taxation

Double taxation of dividends. H. B. Sutter. *Trusts & Estates* 86:55-60 Ja '48; Excerpts. *Comm & Fin Chr* 166:2061+ N 20 '47

Impact of double taxation on dividends. F. Willard. *Trusts & Estates* 87:114 Ag '48

Securities affording tax advantages; dividends in the non-taxable class. F. K. Dodge. *Mag of Wall St* 81:192-3+ N 22 '47

DIVIDING (machine work)

Milling cams without a master or lay-out; disk cams for use on Brown & Sharpe automatic screw machines. *il Mach* 54:178-9 F '48

DIVING, Submarine

Deep-sea diving sphere is alloy steel casting; bathyscaphe designed by Professor Piccard. V. Delpont. *diags Foundry* 76:153+ N '48

See also

Caisson disease

DIVING bells

Miniature Cartesian diving bell and a water-sealed gas holder have been combined in the design of a sensitive pressure regulator. C. O. Brown. *il diag Ind & Eng Chem* 40:sup89A-90A Ap '48

DIVINYL benzene**Analysis**

Determination of unsaturation in dehydrogenated diethylbenzene; by use of mercuric acetate. R. P. Marquardt and E. N. Luce. *bibliog Anal Chem* 20:751-3 Ag '48

DIVORCE

Marital settlement incorporated into divorce decree. *bibliog J Account* 85:484-5 Je '48

DOCK labor. See Longshoremen**DOCKS**

See also

Coal docks

Piers

DOCUMENTATION

Co-ordination of information; a survey of schemes put forward in the last fifty years. E. M. R. Dittmas. *bibliog J Doc* 3:209-21 Mr '48

Documentation. S. C. Bradford. 156p 10s 6d Crosby Lockwood & son, ltd, 39 Thurlow st, South Kensington, London S.W. 7 '48
Royal society Scientific information conference, London, June 21-July 2, *Science* 108: 148-51 Ag 13 '48

See also

Abstracts

Bibliography

Cataloging

Classification—Books

Copying processes

Files and filing

(documents, etc.)

Indexing

Library science

Museums

Bibliography

Quarterly documentation survey. Published in quarterly numbers of the *Journal of documentation*

DODD, Alvin Earl, 1883-

Gantt and Dodd; an appraisal and an appreciation. J. M. Hancock. *Mech Eng* 70:125-6 F '48

Portrait. *Bsns W* p22 My 22 '48

Receives Gantt memorial medal. por(cover) *Bsns W* p6 D 13 '47

Retiring as AMA's president. *East Underw* 49:33 My 28 '48

DODECANESULFONIC acid

Studies of sulfonates; transference numbers and activity of 1-dodecanesulfonic acid in aqueous solutions at 40°. L. L. Neff and others. *bibliog Am Chem Soc J* 70:1989-92 Je '48

X-ray diffraction in aqueous systems of dodecyl sulfonic acid. S. S. Marsden, jr. and J. W. McBain. *Am Chem Soc J* 70: 1973-4 My '48

DODECYLAMMONIUM chloride

Conductivities of alkylammonium chlorides in aqueous solutions of their homologs. A. W. Ralston and D. N. Eggenberger. *bibliog Am Chem Soc J* 70:2918-21 S '48

Conductivities of aqueous solutions of dodecylammonium chloride. A. W. Ralston and D. N. Eggenberger. *Am Chem Soc J* 70:436 Ja '48

Effect of organic non-electrolytes upon the conductivities of aqueous solutions of cationic colloidal electrolytes. A. W. Ralston and D. N. Eggenberger. *bibliog Am Chem Soc J* 70:983-7 Mr '48

Effects of electrolytes upon the conductivity of aqueous solutions of dodecylammonium chloride. A. W. Ralston and D. N. Eggenberger. *bibliog Am Chem Soc J* 70:980-3 Mr '48

DODECYLANTHRACENE

Higher hydrocarbons; alkyl anthracenes and alkyl phenanthrenes. R. W. Schlessler, A. W. Rydina and F. C. Whitmore. *bibliog Am Chem Soc J* 70:529-30 F '48

DODECYLPHENANTHRENE

Higher hydrocarbons; alkyl anthracenes and alkyl phenanthrenes. R. W. Schlessler, A. W. Rydina and F. C. Whitmore. *bibliog Am Chem Soc J* 70:529-30 F '48

DODGE, Joseph Morrell, 1890-

Mister Dodge. por *Fortune* 37:120+ Je '48

Portrait. *Bsns W* p24 O 2 '48

DODGE manufacturing corporation

Debentures offered. *Comm & Fin Chr* 166: 2102 N 24 '47

DOG biscuit

Rearing houseflies and blowflies on dog biscuit. H. Frings. *bibliog Science* 107:629-30 Je 11 '48

DOG fleas. See Fleas**DOG food**

Outdoorsman study on dogs and cost of their maintenance. *Sales Management* 61:120 J1 15 '48

DOG soap

Dog soaps. M. A. Lesser. *bibliog il Soap & San Chem* 24:36-8+ Ja '48

DOGFISH liver oil

Furans in vegetable oil refining. S. W. Gloyer. *Ind & Eng Chem* 40:234-5 F '48

DOGS

Dayton glorifies dogs in novel promotion. T. S. Irvin. Ed & Pub 81:60 J1 17 '48
 Porphyria in lead-poisoned dogs. K. Salomon and G. R. Cowgill. bibliog J Ind Hygiene 30:114-18 Mr '48

DOISYNOLIC acid

Bis-dehydrodoisynolic acid. W. S. Johnson and R. P. Graber. Am Chem Soc J 70: 2612-13 J1 '48

D'OLIER, Franklin, 1877-

Retires as Prudential chairman. por East Underw 49:6 Ja 2 '48; Nat Underw (Life ed) 52:1 Ja 9 '48

DOLLS

New product introduced through unusual channels; Bozo, rag doll, sold thru record dealers. L. F. Thomann. il Ptr Ink 224:41 Ag 20 '48

DOLomite

Geochemistry and localization of dolomitization. C. H. Behre, jr. bibliog Econ Geol 42:540-2 S '47

Physical and chemical properties of Ellenburger rocks, Llano county, Texas. S. S. Goldich and E. B. Parmelee. bibliog maps diags Am Assn Pet Geologists Bul 31:1982-2020, pl 1 N '47

Processes for manufacturing of dead-burned magnesite and precipitated calcium carbonate from dolomite; abstract. R. D. Pike. flow sheet Brick & Clay Rec 112:82 Ja '48
 Refractories manufacturer develops precise processes to meet steelmakers' demands; Basic refractories, inc. C. Longenecker. il Blast F & Steel Pl 36:1085-8+ S '48

Salt-dolomite intergrowths. I. T. Schwade. il Am Assn Pet Geologists Bul 31:2208-14 D '47

Stabilized dolomite; abstract. W. de Keyser. Am Cer Soc J 31 (Cer A):103 My 1 '48

Use of dolomite as an auxiliary flux in floor tile. G. T. Morse. bibliog Am Cer Soc J 31:67-70 Mr 1 '48; Abstract. Cer Ind 49:86-7 O '47

Zones of Platin-Joachim of eastern Missouri. J. G. Grohskopf. il map Am Assn Pet Geologists Bul 32:351-65 Mr '48

DOMAN FRASIER helicopters, inc.

Stock offered. Comm & Fin Chr 166:1888 N 10 '47

DOMe mines, ltd.

Dome Mines progresses in proving new Campbell mine. Barron's 28:34 Mr 22 '48

DOMESTIC appliances

Films pay off as retail sales training tools; General Mills films on electric irons and pressure cookers. W. A. MacDonough. Sales Management 60:63-4 Ja 1 '48
 Lumber dealers key to home appliances sales; 94 per cent builders buy from yards. C. Pritchard. il Cer Ind 49:72-3 N '47

Team the two up for profit; appliance sales and service. Dom Eng 172:112-13 O '48

When a dealer says, I'm stocked, is he talking through his hat? Cory sent all their salesmen into retail stores to itemize merchandise on hand. N. H. Schlegel. il Sales Management 61:37-9 J1 1 '48

Will lumber dealers become a factor in appliance sales? il Sales Management 59:96+ D 15 '47

Will packaged units nose out the individual appliances; who will sell them? il Cer Ind 49:67 O '47

See also

Dishwashing machines	Freezers, Domestic
Electric apparatus and appliances, Domestic	Gas appliances, Domestic
	Stoves
	Washing machines

Merchandizing

Builds traffic for volume; J. C. Flood's plumbing, heating and major appliance shop. il Dom Eng 172:110-13 Ag '48

Levels out low spots with appliance merchandising; air conditioning contractor. W. F. Minglehoff. il Dom Eng 171:150-1+ F '48

Showmanship sells; R. A. Guinner of St Louis tells how to make showmanship pay off in appliance merchandising. il Dom Eng 171:114-15+ F '48

DOMESTIC architecture. See Architecture, Domestic

DOMESTIC engineering (periodical)

Plaque awarded to Domestic engineering in the national editorial contest for the campaign, Today's best buy is plumbing and heating. il Dom Eng 170:114-17 N '47

DOMESTIC finance

See also

Budget, Household
DOMESTIC service. See Servants

DOMINGE, Charles Carroll

Sketch. por(p 16) Spectator (Property ed) 13:17 F 12 '48

DOMINICAN REPUBLIC

See also

Insurance, Social— Newspapers—Dominican Republic

Economic policy

Secretariat of national economy created. For Comm W 31:21 Je 19 '48

DONALD, Kenneth

Portrait. Fortune 38:7 N '48

DONEGANI, Guido, 1877-1947

Guido Donegani and Montecatini of Italy. W. G. Cass. Chem & Eng N 25:3598 D 1 '47

La Montecatini ed l'ingénieur G. Donegani. G. Coppa-Zuccari. il Chimie & Ind 58: 392-5 O '47

DONLON, Mary Honor

G.O.P. follows woman. por Bsns W p 110 Je 26 '48

DOOLITTLE, James Harold, 1896-

Portrait. Aeronautical Eng R 7:16 F '48

DOOR chimes. See Doorbells

DOOR fittings

How you can speed that door fitting job. il diag Am Bld 69:112-13 D '47

DOOR frames

How to install a metal door frame. il diags Am Bld 70:112 Mr '48

DOOR operating devices

Sound tool engineering pays dividends; Yale & Towne mfg. co. door closers. R. S. Potter. il diags Mach 54:147-54 My '48

DOORBELLS

Doorbell that is different; neon tube relaxation oscillators provide any desired series of musical notes. R. H. Houston. il diags Radio N 39:46-7+ Ap '48

Rating

Door chimes. Consumers Res Bul 20:31-2 N '47

DOORS

New fireproof door passes rigid test; has core of Kaylo insulation. il Am Bld 70: 139 Ap '48

DOORS, Sliding

Low-price sliding closet panels are simply fabricated of composition board reinforced with steel tubing. il diags Arch Forum 88:129 Je '48

DOPA. See Dihydroxyphenylalanine

DOPPLER effect

Radio Doppler effect for aircraft speed measurements. L. R. Malling. il diags Inst Radio Eng Proc 35:1357-60 N '47

DORMITORIES

Aalto plan for M.I.T. dormitory; illustrations with text. Arch Forum 87:13 N '47

Dormitory that explores new ideas of student life; M.I.T. senior house. il plans diags Arch Rec 102:97-9 D '47

Main factors in the dormitory problem; plans for Drake university. il plans diags Arch Rec 102:82-7 D '47

DOUBLE bonds

Copolymerization; the effect of *meta*- and *para*-substitution on the reactivity of the styrene double bond. C. Walling and others. bibliog Am Chem Soc J 70:1537-42 Ap '48

Double bond index; a correlation useful for classification of aromatics and olefins in petroleum fractions. M. R. Lipkin, A. San-kin and C. C. Martin. bibliog Anal Chem 20:598-606 J1 '48

Electron levels in polyatomic molecules having resonating double bonds. K. F. Herzfeld. bibliog diags Chem R 41:233-56 O '47

Introduction of double bonds into diethyl stilbestrol. M. J. Freiman. Am Chem Soc J 70:1278 Mr '48

DOUBLE bonds—Continued

Lanosterol; hydrogenation of the inert double bond in lanosterol derivatives. C. Dorée, J. F. McGhie and F. Kurzer. *Chem Soc J* p988-90 J '48

Measurement of internal double bonds in polymers by perbenzoic acid addition. A. Saffer and B. L. Johnson. *bibliog Ind & Eng Chem* 40:538-41 Mr '48

Metallic model for the spectra of conjugated polyenes. N. S. Bayless. *bibliog diags J Chem Phys* 16:287-92 Ap '48

Naming of cis and trans isomers of hydrocarbons containing olefin double bonds. M. B. Epstein and F. D. Rossini. *Chem & Eng N* 26:2959 O 4 '48

Preparation of 1-C¹⁴-propene-1 and the mechanism of permanganate oxidation of propene. B. A. Fries and M. Calvin. *Am Chem Soc J* 70:2235-40 Je '48

Resin acids; the position of the ring double bond in dextropimaric acid and the structure of isodextropimaric acid. G. E. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:2081-5 Je '48

Role of neighboring groups in replacement reactions; the 5,6-double bond in cholesteryl *p*-toluenesulfonate as a neighboring group. S. Weinstein and R. Adams. *bibliog Am Chem Soc J* 70:838-40 F '48

See also

Polyenes

DOUBLE taxation. See Taxation, Double

DOUGH, Frozen

Improved bread made from frozen dough. C. M. McPherson and M. W. Lamb. *il Food Ind* 20:1289-91+ S '48

DOUGH mixers

Continuous presses step up production of macaroni. J. J. Winston and B. R. Jacobs. *il diags Food Ind* 20:344-8+ Mr '48

Gear motors in dough-mixers. L. S. Sherman. *il diags Food Ind* 19:1489-90 N '47

DOUGHERTY, Richard Erwin, 1880-
Inaugured as ASCE president. *por Civil Eng* 18:104-5 F '48

DOUGHNUTS

Doughnuts now big business; doughnut machines and doughnut factories. R. G. Skerrett. *il Comp Air Mag* 52:262-7 N '47
These bakeries benefit from standard cost control; Mayflower doughnut corp. H. S. Stevenson. *il Food Ind* 20:1128-9+ Ag '48

Advertising

Ten practical ideas for merchandising your publicity. G. R. Parnaby. *il Sales Management* 61:98+ JI 15 '48

DOUGLAS, George, 1858-1947

Sketch. W. S. Stansfield. *por Soc Dyers & Col J* 64:149-50 Ap '48

DOUGLAS aircraft company

Douglas forecast of transport market renews DC-9 speculation. W. Kroger. *Aviation W* 47:21-2 N 10 '47

DOUGLAS fir

Destructive distillation of Douglas fir lignin. T. L. Fletcher and E. E. Harris. *Am Chem Soc J* 69:3144-5 D '47

Douglas fir, 1941-1946. Survey of Cur Bsns 1947 Sup p 142 [supplemented in monthly numbers]

Effect of some manufacturing variables on the properties of fiberboard prepared from milled Douglas-fir. H. D. Turner and others. *diags Paper Tr J* 127:43-50 Ag 26 '48

Extractives of Douglas fir and Douglas fir lignin residue. I. L. Clark, J. R. Hicks and E. E. Harris. *Am Chem Soc J* 69:3142-3 D '47

Fermentation of wood hydrolyzates by torula utilis. E. E. Harris and others. *il Ind & Eng Chem* 40:1216-20 JI '48

Flavonone from Douglas-fir heartwood. J. C. Few. *bibliog Am Chem Soc J* 70:3031-4 S '48

DOUGLAS fir plywood association

Antitrust suit used for promotion. *Bsns W* p28 Mr 27 '48

DOW, Willard Henry, 1897-

American contemporary. A. D. McFadyen. *Chem & Eng N* 26:1840 Je 21 '48

DOW chemical company

Commercial chemical development; gearing to sales; development of ethylene dibromide. D. K. Ballman. *Chem & Eng N* 26:848-50 Mr 22 '48

Dow enters textile field with third joint venture; Saran textiles. *Barron's* 27:33 N 17 '47

DOW theory

Bond trend unfavorable for stock boom; financial background has supported the most successful Dow signals in the past. J. E. Banks. *Barron's* 28:25 JI 19 '48

Deflating prophets; forecasting errors. A. W. May. *Comm & Fin Chr* 166:1409+, 1633+, 1737+, 2265+ O 9, 23, 30, D 4 '47; Discussion. 166:1632, 1736+, 2160+, 2264+, 2368+, 2621 O 23, 30, N 27, D 4, 11, 25 '47

Dow theory not a gadget to be followed blindly. T. W. Phelps. *Comm & Fin Chr* 166:1943+ N 13 '47

Market trend-chasing continues; Dow theory in crisis. A. W. May. *Comm & Fin Chr* 163:1101+ S 16 '48

Mr Dow's wonderful invention. *Fortune* 38:110+ Ag '48

Opposing forces cut worth of Dow theory trends. A. J. Cortese. *Barron's* 27:29-30 N 17 '47

DOWEL pins

Adapting a lathe for turning special dowel pins. D. A. Baker. *diags Mach* 54:189-90 Ja '48

Semi-automatic device speeds production of short dowel pins. C. T. Bower. *diags Am Mach* 92:124 JI 15 '48

Wooden dowels solve fixturing problem in brazing steel laminations; repair of water wheel generator. S. DeDomenico and A. Squire. *il diags Materials & Methods* 28:74 JI '48

DOWEL. See Resinous products**DOYLE, Cloe E.**

Miss Doyle to head School division of N.Y. safety council. *Safety Eng* 96:47 Ag '48

DRACKETT company

Drackett's stake in soybeans. *il Bsns W* p30+ My 8 '48

DRAFT

Performance of fourteen masonry chimneys under steady state conditions. P. R. Achenbach and S. D. Cole. *il diags Heating-Piping* 20:119-28 O '48

DRAFT, Military. See Military service, Compulsory

DRAFT gears

Fabricating rolled steel draft gears for railroad cars. E. F. Ross. *il Steel* 121:46-8 D 29 '47

Hulson draft gear. *il Ry Mech Eng* 122:44 Ja '48; Same cond. *Ry Age* 123:954 N 29 '47

Report on couplers and draft gears; A.A.R. Mechanical division. *Ry Mech Eng* 122:431-3 O '48; Same cond. *Ry Age* 125:67-9 JI 10 '48

Steel tubing and plate replaces castings in heavy-duty parts; manufacture of draft gears. K. Rose. *il Materials & Methods* 26:68-70 D '47

DRAFTING room practice

Button holders solve impossible layout problems. F. Strasser. *diags Am Mach* 92:103 Ja 1 '48

Direct determination of compass settings for proportionate area pie-charts. H. Lasken. *Am Stat Assn J* 43:94-5 Mr '48

Formulas for involute curve layouts. A. H. Candee. *diags Product Eng* 19:145 Ag '48

Hints on effective use of reproductions. M. Grushky. *il Eng N* 141:88-90 Ag 19 '48

Planned shop production for a heating system. K. E. Duncan. *plan Sheet Metal Worker* 39:45-6+ Ag '48

Things not to do in drafting; recommendations for solving common problems prepared for inclusion in SAE aeronautical drafting manual. *diags S A E J* 56:35-8 S '48

See also

Airplanes—Manufacture—Drafting room Templates
practice

DRAFTING rooms**Air conditioning**

How to improve conditions in top story drafting room. *diags Heating-Piping* 20:105-8 Ag '48

Lighting

Better light in drafting room and main office. *il Factory Management* 106:98-9 Ap '48

DRAFTSMEN, American Institute of. See American institute of draftsmen

DRAIN tile

Facts to consider when planning a clay tile farm drainage system, diags Erick & Clay Rec 113:33 Jl '48

There's water in my basement! avoid such complaints; build them dry, plan diags Brick & Clay Rec 111:29-30 D '47

DRAINAGE

Consolidation of fine-grained soils by drain wells, R. A. Barron, bibliog il diags Am Soc C E Proc 73:811-35 Je '47; Discussion, 74:153-8, 707-10, 875-8 Ja, My-Je '48
Handbook of culvert and drainage practice, 474p \$3 Armco drainage & metal products, Middletown, Ohio '48

Hydraulics for the practical water works man; flow in streams, drains and open channels, R. W. Angus, diags Water & Sewage Works 94:405-8 N '47

Investigation of drainage rates affecting stability of earth dams, F. H. Kellogg, diags Am Soc C E Proc 73:1065-88 S '47; Discussion, 74:239-47, 769-78, 1032-3 E, My-Je '48
Maryland and Delaware construct big drainage project, il map Eng N 139:628-9 N 6 '47

Prevention of dampness in basements, C. C. Fishburn, diags Am Concrete Inst J 19: 421-36 F '48

Sanitary sewer system designed to lower ground water level, G. H. Brodrick, il diags Pub Works 79:26-7 Ja '48

See also

Ditches Roads—Drainage
Drain tile Wellpoint system

Cost

Drainage ditch on Mississippi river, Wisconsin; unit prices, Eng N 141:116 O 28 '48

DRAKE, Nathan Lincoln, 1898-

Cooperative approach urged in study of major diseases; presentation of Hillebrand award, R. C. Elderfield, por Chem & Eng N 26:864 Mr 22 '48

Hillebrand prize winner for antimalarials work, por(cover) Chem & Eng N 26:454 F 16 '48

DRAKE, Noah Fields, 1864-1945

Memorial, H. D. Miser, bibliog por(pl 9) Geol Soc Proc 1947:141-8 My '48

DRAKE, Robert Grant

Two with the knack; R. G. Drake and Frederick W. Richmond, fledgling foreign traders, por Fortune 37:120+ F '48

DRAKE university

University campus plan under way, il plans diags Arch Rec 102:71-87 D '47

DRAMA

See also

Newspapers—Drama

DRAMATIC criticism

No right to be dull, says Ashton Stevens, G. A. Brandenburg, Ed & Pub 81:78+ Ap 17 '48

DRAPERY

New non-woven cotton and rayon drapery fabric, il Textile Col 70:26+ Ag '48

Promoting decorative fabrics, B. Lange, Textile Col 70:28+ S '48

Seagoing decor, Textile Col 70:50+ Ja '48

Song of the loom; Dorothy Liebes unveils her designs for the future, il Textile Col 69:23-6 N '47

See also

Trimmings (for drapery, upholstery, etc.)

DRAPERY, Paper. See Paper drapery

DRAWBRIDGES. See Bridges, Bascule

DRAWING

See also

Chalk talks

DRAWING instruments

Draughting machine for isometric projection, il diags Engineer 185:518-19 My 28 '48; Engineering 165:536-7 Je 4 '48; Automobile Eng 38:235-6 Je '48

DRAYER-HANSON, Inc.

SEC report of investigation of Drayer-Hanson case, J Account 85:435-41 My '48

DREDGES

Dredge buckelines and upper tumblers; maintenance and repair through arc welding, R. J. McGuire, il Can Min J 69:81-3 My '48

Dredge Chicago sold to Argentina, il Marine Eng 52:108 D '47

Dredge, Comber, il diag Marine Eng 52:105+ N '47

Power plant of the Comber, J. A. Wasmund, il Marine Eng 53:60-4 Ja '48

Rotating regulator for seagoing hopper dredge propulsion, E. H. Hornbarger and J. A. Wasmund, diag Marine Eng 53:84+ F '48

Salvage of dredger at Port Talbot, W. F. Ware, plan diags Engineer 185:610-13 Je 25 '48

Sand dredger converted to Diesel-electric propulsion, il Marine Eng 53:80 S '48

Seagoing dredge to do huge channel-clearing job, Marine Eng 53:90 Ja '48

Seagoing dredges, Hains and Hoffman, il Marine Eng 52:97+ N '47

Seagoing hopper dredge, Comber, il plans diags Marine Eng 53:50-9 Ja '48

DREDGING

Court denies recovery of increased dredging costs caused by hurricane; case of Arundel corp. versus the United States; case based on changed conditions, D. C. Webb, il Civil Eng 18:89-91+ F '48

Dredged fill for a scenic freeway; Columbia River highway, il map diag Eng N 141:76-8 S 2 '48

Dredging a large sand deposit from a power plant forebay, il diag Eng N 139:818-19 D 11 '47

Raising ground level by sand pumping, il map Engineering 165:241-3, 252 Mr 12 '48

See also

Coal dredging Gold dredging
Dredges Tin dredging

DRESS forms

Inflated vinyls make display manikins, il Plastics 8:18+ Ja '48

DRESS goods

East is East, West is West; Ilza Hahlo's dress fabric designs, il Textile Col 70:22-3+ Ag '48

DRESS industry

Dreamlines for spring; full speed ahead in publicity urged on house dress manufacturers, Textile Col 70:30 Ja '48

One-shot big store promotion; how to plot and organize it; Dell Town promotion of Margaret O'Brien dresses, J. C. Cumming, Sales Management 60:112-4 Mr 1 '48

Price formula for manufacturing, J. Davis, Textile Col 70:31 Ap '48

What is a wash dress? E. Feldman, Textile Col 70:39+ Jl '48

Women's dress manufacture; earnings in Aug, 1947, K. B. Mohn, Mo Labor R 66: 518-20 My '48

DRESS patterns

See also

Newspapers—Dress pattern features

DRESSER industries, Inc.

Annual report, Comm & Fin Chr 167:153 Ja 12 '48

National Supply vs. Dresser Industries; a comparative audit, J. C. Clifford, il Mag of Wall St 81:194-6+ N 22 '47

Record oil demand to lift sales, Barron's 27:32 N 17 '47

DRESSING rooms

Better detail plate; built-ins, a feature of dual bath and dressing room, R. J. Alexander, plans diags Am Bld 70:114-15 Mr '48

DREXEL award

Du Pont receives 1948 Drexel award, Chem & Eng N 26:3278 N 1 '48

DREYFUS, Camille

Portrait, Fortune 37:86 My '48

DRIED eggs. See Eggs, Dried

DRIED food. See Food, Dried; Fruit, Dried; Meat, Dried; Milk, Dried; Vegetables, Dried

DRIFT

Iowan drift border of northwestern Iowa, G. D. Smith and F. F. Riecken, map Am J Sci 245:706-13 N '47

See also

Eskers

DRILLING and boring (earth and rocks)

Blast-hole diamond drilling in California mines. D. W. Butner. 4pls U S Bur Mines Information Circ 7451:1-11 '48

Blast-hole drilling with diamond drills at the Tennessee copper co. mines, Ducktown, Tenn. W. A. Beck. 7pls U S Bur Mines Information Circ 7452:1-17 '48

Boring for water connections with air power. il Comp Air Mag 52:272-3 N '47

Bucket-drilling the Coso mercury deposit, Inyo county, Calif. L. W. Dupuy. 11 pls U S Bur Mines Rep of Invest 4201:1-45 '48

Carving an airport from a mountain top, Mount Eltrick. W. P. Gillingham. 11 plan Comp Air Mag 53:234-7 O '48

Diamond-drilling blast holes, Bell mine, the Warner co., Centre county, Pa. M. Mosier. 11 U S Bur Mines Information Circ 7429:1-6 '48

Diamond drilling blast holes, Bellefonte mine, National gypsum co., Centre county, Pa. M. Mosier. U S Bur Mines Information Circ 7438:1-6 '48

Diamond-drilling blast holes, Eastern magnetite mine C. M. Mosier. 3pls U S Bur Mines Information Circ 7433:1-7 '48

Drilling and blasting at Tahawus. C. R. Begor and C. A. Quam. 11 Min Cong J 34:24-7 Ag '48

Drilling Florida dune sand. J. R. Thoenen and R. V. Spencer. 4pls U S Bur Mines Rep of Invest 4227:1-4 '48

Drilling water-service connections. J. R. Sullivan. 11 Eng N 140:794 My 27 '48

Economy in materials handling features Bluestone Dam construction; power and flood-control structure in West Virginia. O. Auhl. 11 map diag Civil Eng 18:352-7 Je '48

Jet-piercing up-to-date; drilling blast holes with oxygen flame and fluxing agent; abstracts. J. H. Zimmerman. 11 Eng & Min J 149:74-6 Mr '48; Min & Met 29:289-90 My '48

Long-hole diamond drilling in narrow ore bodies. R. H. Fox. 11 diags Explosives Eng 26:44-6+ Mr '48

Modern equipment and methods; drilling and blasting; pictorial review. Eng & Min J 148:96-101 N '47

Post-hole borer assisting the erection of overhead lines. 11 Elec R (Lond) 143:333 Ag 27 '48

Putting brakes on landslides. 11 diag Comp Air Mag 53:191-2 Ag '48

Stabilizing earth slopes by boring horizontal drains. T. E. Stanton. 11 diags Pub Works 79:20-2 F '48

See also
Mining methods
Pavements—Cutting
Petroleum—Well drilling

Rock drills
Tunnels and tunneling
Wells

DRILLING and boring (metal working, etc.)

Accurate drilling without a jig. C. E. Lambert. 11 diags Tool Eng 19:30 Ja '48

Bearing housings drilled with rail fixture; Dodge plant of Link-belt co. L. C. Heinlein. 11 diag Am Mach 92:114 Je 17 '48

Broken drills removed with dynamite. 11 Diesel Power 26:45-7 Ag '48

Carbides speed copper machining. C. R. Morgan. 11 Am Mach 92:102-3 O 21 '48

Drill jigs speed output of stove burners; Odin stove co. W. Rudolph. 11 Am Mach 92:124-5 F 12 '48

Drilling aluminum alloys with high-speed steel drills. Mach 54:173 Ag '48

Drilling 18-8 stainless steel. J. K. Matter. 11 diags Tool Eng 21:29-30 O '48

Drillpress heads bored in miller with fly cutter and shell reamer. G. C. Russell. 11 diags Am Mach 92:108 Ag 26 '48

Fixture for drilling spindle rails of various lengths. H. E. Murphey. 11 diags Mach 55:219 N '48

How to gun-drill for fine finish. J. Harris. 11 diags Am Mach 92:136-9 Mr 11 '48

Large panels drilled with press mounted on drill stand and plate. H. Stern. 11 diags Am Mach 92:118 Mr 25 '48

Machining copper and its alloys; turning and boring, drilling and reaming. J. J. McGuinness. 11 diags Am Mach 92:102-4 My 6 '48

Pin hole drilling simplified with all-purpose jig. R. Mawson. 11 diags Steel 122:91+ Ap 5 '48

Positive locating drilling jig; hydraulic jack body. P. Mawson. 11 diags Iron Age 161:83-5 Ap 1 '48

Proper jig; design permits its use for drilling of two different parts. R. Mawson. 11 diags Steel 123:119+ J1 12 '48

Restricted area complicates drilling. 11 Mill & Factory 43:149 J1 '48

Sapphire tip bores bushing. C. C. Scott. 11 diags Am Mach 92:83 J1 29 '48

Special tools bore aluminum castings at high speed. B. C. Brosheer. 11 diags Am Mach 92:90-2 Ag 12 '48

Speeds and feeds for boring; reference book sheet. Am Mach 92:149 F 12 '48

Staggered quintet of boring bits rough and finish pump-body holes. G. R. Milner. 11 diags Am Mach 92:131 S 23 '48

Tool fixture produces spherical holes using locomotive principle. C. T. Bower. 11 diags Am Mach 92:130-1 F 12 '48

Tools for boring operations. A. E. Rylander. 11 diags Tool Eng 21:39-40 O '48

Unilateral tolerances for drilled and reamed holes. E. A. Ryder. 11 diags Tool Eng 21:27-8 O '48

Use of single-tool boring tools; reference book sheet. 11 diags Am Mach 92:133, 135, 137 F 28 '48

Uses for double-end tool boring; reference book sheet. 11 diags Am Mach 92:199, 201 Mr 11 '48

See also
Drilling and boring machinery

DRILLING and boring machinery

Acfrb bench drilling machine. 11 Automobile Eng 37:507-8 D '47

Adcock and Shipley deep drilling machine. 11 Engineer 185:122 Ja 30 '48; Automobile Eng 38:157 Ap '48

Adcock and Shipley heavy duty production drilling machine. 11 Automobile Eng 37:508 D '47

Carbide drills; reference book sheet. F. W. Lucht. 11 diags Am Mach 92:133, 135, 137 Je 3 '48

Carbide-tipped all-depth drills have wide range of applications. F. W. Lucht. 11 diags Automotive Ind 98:44-5+ Je 1 '48; Mach 54:156-60 Je '48; Iron Age 161:88-90 Je 17 '48

Craven boring and turning mill. 11 Engineer 185:256-7 Mr 12 '48

Damped quill stops self-excited chatter. E. J. Tangeman. 11 diag Am Mach 92:93-5 My 6 '48

Deep-drilling of crankshafts on transfer type machines. C. H. Wick. 11 diags Mach 54:153-6+ Ag '48

Drill fixture for machine tool headstock. R. Mawson. 11 diag Tool Eng 20:38 Ap '48

Drilling by Falling. Fortune 37:120+ Ja '48

Drilling kinks cut machine downtime. C. S. Ricker. 11 diags Am Mach 92:94 Ap 22 '48

First transfer machine for drilling crankshaft oil holes; Ford motor co. 11 Automotive Ind 98:36+ Ap 1 '48

Head bore-matics for large work. 11 Mach 54:183-4 Ag '48

Head single- and double-end bore-matics. 11 Mach 54:203 Je '48

Heaters help accuracy of boring machine. R. T. Rudolphson. 11 Am Mach 92:96 J1 15 '48

Increase twist drill life by proper sharpening. W. L. Hardy. 11 diags Paper Ind 30:1083-4 O '48

Kitchen and Wade fishplate drilling machine. 11 Engineer 185:434 Ap 30 '48

Line of Bore-Matics by Heald furnished with multi-way units. 11 Am Mach 92:145 Ja 15 '48

Methods of driving straight-shank drills; diagrams; reference book sheet. Am Mach 92:145 Ap 8 '48

Microdrill. 11 R. Sci Instr 19:377-8 My '48

Microswitch cuts off drillpress as tripping lever hits button. 11 diags Am Mach 92:124 My 6 '48

Multiple-spindle drillhead powered by lathe faceplate. G. W. Dahl. 11 diags Am Mach 91:123 N 20 '47

Natco Holessteel multi-spindle drilling and tapping machines. 11 Mach 54:203-4 J1 '48

DRILLING and boring machinery—*Continued*.
Natick Holesteel vertical drilling, boring, and tapping machines. *il* Mach 55:225-6 N '48
Optical measuring system built into jig borer. *il* diag Machine Design 20:146-7 Ag '48

Oscillating cam made adjustable; drilling machine work-holding fixture. L. Kasper. *diags* Mach 54:193-4 Je '48
Pollard multiple unit drilling and tapping machine. *il* Engineer 185:217 F 27 '48
Snyder special automatic machine. *il* Automotive Ind 98:49 Ja 1 '48

Special chuck and fixture for precision taper boring. D. A. Baker. *diags* Mach 54:182-3 My '48

Spiral gear drive facilitates drill head spacing. *il* diag Machine Design 19:155 D '47

Step-drilling machine for crankshafts. *il* diags Product Eng 19:98-100 N '48
Stilts stretch radials to fit. E. C. Brosheer. *il* diag Am Mach 92:93-4 Ag 12 '48

35th annual review. *il* Am Mach 92:145-50, 156-66 Ja 29 '48

Time saved in drilling boilers. *il* Ry Mech Eng 122:271 My '48

Torsional stress analysis of twist-drill sections by membrane analogy. E. T. P. Neubauer and O. W. Boston. *il* diags A S M E Trans 69:897-902 N '47

Transfer line drills Ford crankshafts. W. G. Patton. *il* diag Iron Age 161:72-6 Je 17 '48

Work range of power drill magnified. *il* Sheet Metal Worker 39:41+ O '48

DRILLING muds. See Petroleum—Mud fluids

DRILLS, Oil well

Assembly-line machining used to produce rock bits for petroleum industry; Hughes tool co. G. E. Stedman. *il* Steel 123:91-2+ J 5 '48

Causes and prevention of drill pipe and tool joint troubles; revision of paper presented before American petroleum institute, Nov. 6, 1941. H. G. Texter and others. *il* diag World Oil 128:79-82+ O; 124+ N '48 (to be cont.)

Combination unit speeds workovers. G. M. Wilson. *il* World Oil 128:129-30 O '48

Diamond bits. P. Adamson. *il* Oil & Gas J 47:82+ J 1 22 '48

Drilling with industrial diamonds. K. J. Klappa. *il* World Oil 128:98+ O '48

Equipment details, Shell's portable electric rig; illustrations with text. Oil & Gas J 46:90-3 F 19 '48

Extending rig hose service. C. A. Franklin, jr. and P. J. Breden. *il* diags World Oil 128:92-4+ Ag '48

How to use diamond bits in deep drilling. *il* diags Pet Eng 19:179+ S '48

Many heavy-rig features in new portable rig for shallow-well drilling. L. S. McCaslin, jr. *il* Oil & Gas J 46:124-5+ Ap 29 '48

New design of portable rig speeds rigup and moving jobs. G. M. Wilson. *il* World Oil 128:71-8+ J 1 '48

New portable rig has safety and light weight. N. A. D'Arcy, jr. *il* Pet Eng 19:225-6+ Mr '48

Shell designs new portable 900 horsepower electric rig now drilling at Ventura, Calif. H. David. *il* Oil & Gas J 46:60-3+ D 20 '47

Shell develops new portable electric rig. R. Sneddon. *il* Pet Eng 19:80+ Ja '48

Thyatron braking for oil drilling rigs. R. L. Jaeschke. *il* diag Electronics 21:92-4 Ap '48

Turbine drill utilizes drilling fluid to rotate conventional rock bit. G. Weber. *il* diag Oil & Gas J 47:58-61 Je 3 '48

Standards

Report of committee on the standardization of rotary-drilling equipment. *diags* Am Pet Inst Proc 27(4):255-80 '47

DRINKING water, Packaging of

What can't they can? *il* Tech R 50:197 F '48

DRINKING water systems

Drinking water. Nat Safety N 57:175+ Mr '48
Steel stamping forms water cooler top. *il* Product Eng 19:101 S '48

DRISCOLL, Alfred Eastlack, 1902-Portrait. Bsns W p46 My 22 '48

DRIVE-in and curb services

Curb-side banking done with mirrors; illustration with text. Bsns W p94 Mr 20 '48

Drive-in laundry and dry cleaning establishment in Milwaukee, Wis.; design by F. L. Wright. *il* plans diags Arch Forum 88:107-9 Ja '48

Eating place for motorized diners; Welch's restaurant, Long Beach, Calif. *il* plan diags Arch Rec 104:120-5 J 1 '48

Good looks attract good trade; drive-in restaurant, Pasadena, Calif. *il* plan Am Bld 70:130-3 Ap '48

Two restaurants in one; Gwinn's restaurant, Pasadena, Calif. *il* plan Arch Rec 104:126-8 J 1 '48

DRIVE-in theaters. See Moving picture theaters, Open air

DRIVERS as salesmen

ABC's that build good-will for retailers and routemen. Coal-Heat's delivery guide. Sales Management 59:54-5 N 20 '47

These milk men are learning creative selling skills; R. A. Shuey creamery, Oakland, Calif. Sales Management 59:44+ N 10 '47

DRIVEWAYS

Reports success of heated driveways; abstract. Heating-Piping 20:79 Mr '48

DROPS

Corona from a water drop. W. N. English. *il* diags Phys R 74:179-89 J 1 15 '48

Photoelectric drop counter. J. A. Riley. *diags* Science 108:390 O 8 '48

Potentials of falling drops. A. Frumkin and J. Bagotskaja. *il* diags J Phys & Colloid Chem 52:1-11 Ja '48

Simple electronic electrolytic drop recorder. D. F. Marsh and C. E. Seibert. *il* diags Science 108:363-4 O 1 '48

DROSOPHILA

Formaldehyde as a mutagen in drosophila. W. D. Kaplan. *Science* 108:43 J 1 9 '48

New method for rearing drosophila. A. C. Hodson and H. C. Chiang. *il* Science 107:176-7 F 13 '48

Some observations on the larval growth rate and viability of two tumor strains of drosophila melanogaster. E. W. Hartung. *Science* 107:296-7 Mr 19 '48

DROUGHTS

Drought, a possible contributor to yellow birch dieback. Pulp & Pa of Can 49:156 O '48

Drought creates critical power shortage in northern California. Elec West 100:104+ Ap '48

Late snows ease drought. P. A. Ewing and R. A. Work. *il* map Elec West 100:68-70 My '48

Meeting the southwestern water shortage. O. A. Gierlich. *Am Water Works Assn J* 40:766-70 J 1 '48

Southwest drought brings trouble to California utility; Pacific Gas & Electric pleads for power conservation. Elec World 129:70-1 F 14 '48

Western areas face drought conditions as precipitation stays below normal. Eng N 140:316-17 F 26 '48

DROWNING

Workers form life-saving crew; U.S. rubber company employees organize to prevent drownings. *il* Nat Safety N 56:46 N '47

DRUG, chemical and allied trades section. See New York board of trade—Drug, chemical and allied trades section

DRUG factories

Brazilian pharmaceutical and cosmetic plant for Sydney Ross co. plans diags Arch Forum 87:108 N '47

Factories can be showplaces; Johnson & Johnson's Cranford, N.J. plant. *il* plan Am Bld 69:78-9 N '47

New plant to relieve a nation's headaches; Bayer co., Trenton, N.J. *il* diag Arch Rec 104:124-7 Ag '48

New process requires new plant; factory for Chas. H. Phillips co., Gulfport, Miss. *il* Arch Rec 104:128-31 Ag '48

Pharmaceutical plant; two-story scheme. flow chart *il* plans diags Arch Forum 89:98-100 Ag '48

Employees

In-plant training; experience in labeling courses. J. C. Clay. *il* Mod Packaging 21:108-11 Je '48

Sanitation

Drug plant sanitation principles established. Oil Paint & Drug Rep 154:5+ O 4 '48

DRUG factories—Sanitation—Continued

Drug plant sanitation recommendations. Oil Paint & Drug Rep 154:7+ O 11; 7+ O 18 '48

DRUG habit

See also

Morphine—Physiological effect

DRUG manufacturers association, American.

See American drug manufacturers association

DRUG stores

Baby departments roll up dollars for drug stores. *il* Sales Management 60:33-4 Ap 15 '48

Extra capacity cooling; Katz super drug-store, St Louis. *il* Dom Eng 170:155 N '47

Gas is king in new super drug store. *il* Am Gas Assn Mo 30:5+ F '48

McKesson seeks solution to mystery to missing cosmetics customers; why have department stores taken the play away from drug stores? *il* Sales Management 61:56+ S 15 '48

Pay off for Bauer & Black in related item selling; departmentalization of drug stores. E. H. Brown. *il* Sales Management 61:42-3 O 15 '48

Restrained suburban drug store. *il* plan Arch Forum 88:140 My '48

Rehall's new office in Los Angeles. F. Schmid. *il* Am Bsns 17:16-17+ N '47

Webb's City, \$12,000,000 drugstore. *il* Fortune 37:92-5+ Ja '48

DRUG trade

All Rexall; repackaging of 5,000 products. *il* Mod Packaging 21:91-8+ N '47

Drug manufacturers' fears stilled on trademark loss under new law. W. Derenberg. *il* Oil Paint & Drug Rep 154:3+ J1 19 '48

Drug resources advisory committee reactivated. *il* Oil Paint & Drug Rep 153:3+ My 31 '48

Drug sales are higher, but—. Bsns W p61-2 O 2 '48

11 points to consider when selling to chain store organizations; Walgreen drug co. measures its suppliers. H. E. Green. *il* Ptr Ink 221:32-4 D 19 '47

Five-way problem; ethical package for prescription salt substitute, Westsal, made in liquid form. *il* Mod Packaging 21:136-7 Ag '48

Grass roots training turns tyros into merchandisers for McKesson; salesmen as consultants to drug-dealer customers. C. D. Doerr. *il* Sales Management 60:104+ F 15 '48

How Lakeside unscrambled a muddled territory set-up. W. T. Doyle. *il* maps Sales Management 59:74+ N 10 '47

How wholesale drug salesmen spend their time; marketing pictographs. *il* Sales Management 59:71+ D 15 '47

New packages aid shift to national advertising; Rexall re-labeled 5,000 drug items. C. J. Swan. *il* Ptr Ink 223:32-3+ Je 25 '48

Pluto's new look; a world-famed trademark, red devil with pitchfork, becomes a friendly character. *il* Mod Packaging 21:102-3 Ja '48

Praises efficiency in distribution of drugs. W. J. Mooney. *il* Oil Paint & Drug Rep 154:65+ O 25 '48

Unmistakable drugs; Schering achieves stand-out appearance and positive identity. *il* Mod Packaging 21:132-4 N '47

Value and preparation of adequate packaging specifications; abstract. H. F. Coleman. *il* Mod Packaging 21:144-5 Je '48

Wages in wholesale drugs and allied products, Jan. 1947. K. B. Mohn. *Mo Labor R* 65:552-4 N '47

World needs outlined at American drug manufacturers assn. 36th annual meeting, Bretton Woods, June 7-10. *Chem & Eng N* 26:1838-9 Je 21 '48

See also

Medicines, Proprietary

Also American pharmaceutical manufacturers' association; National wholesale druggists association; Proprietary association of America

Advertising

Display installation. N. F. McKean. *il* Mod Packaging 22:134-6 O '48

McKesson's "American look" captures customers for druggists. *il* Sales Management 61:113 N 1 '48

Ensemble selling

Pay off for Bauer & Black in related item selling; departmentalization of drug stores. E. H. Brown. *il* Sales Management 61:42-3 O 15 '48

Finance

Drug makers trim sails to meet higher costs. F. B. Dezenfior. *Barron's* 28:29 Ap 12 '48

Regulation

FDA may revise drug import rules. *il* Oil Paint & Drug Rep 154:5 Ag 23 '48

See also

Drugs—Laws and legislation

Securities

Outlook for drug companies; with financial survey of leading stocks. H. S. Coffin. *il* Mag of Wall St 32:30-1+ Ap 24 '48

Statistics

Botanical drugs, spices, gums. Published in weekly numbers of Oil, paint and drug reporter

Botanicals imports in 1947 reported. *il* Oil Paint & Drug Rep 154:72 O 18 '48

Drug export sales up \$32,000,000 in '47. *il* Oil Paint & Drug Rep 153:3 Mr 1 '48

Drug store sales in 1947, *il* Sales Management estimates. *il* Sales Management 60:108 My 10 '48

Drugs and fine chemicals. Published in weekly numbers of Oil, paint and drug reporter

Drugs and fine chemicals; botanical drugs, spices, gums; 1947 market trends. *il* Oil Paint & Drug Rep 153:28-31 sec 2 F 16 '48

Medicinal chemicals 1947 output and sales. *il* Oil Paint & Drug Rep 154:65 O 4 '48

Medicinals, pharmaceuticals import figures for 1947. *il* Oil Paint & Drug Rep 153:70 My 24 '48

Argentina

Medicinal specialties; procedure for registration modified. *For Comm W* 29:10 N 8 '47

Brazil

Caffeine and theobromine sales by Brazil slump from 1947. *For Comm W* 32:41 Ag 28 '48

Colombia

Decree no. 0750 regulating pharmaceutical registration ruled unconstitutional. *For Comm W* 30:13 Ja 17 '48

Ecuador

Ecuadoran industry and exports, 1946-1947. *For Comm W* 31:27 Je 12 '48

New regulations established. *For Comm W* 31:25 My 8 '48; Same, *il* Oil Paint & Drug Rep 153:60 My 3 '48

France

Production of pharmaceuticals, monthly average, 1938, 1945-1947. *For Comm W* 30:23 Ja 3 '48

Great Britain

Britain acts to ban branded drug items. *il* Oil Paint & Drug Rep 154:4 J1 12 '48

British drug houses, limited, annual general meeting, London. *Economist* 155:34-5 J1 3 '48

United Kingdom's output and sales of medicines and drugs, 1937 and 1946. *For Comm W* 32:38 S 4 '48

Ireland

Production of crude drugs, Ireland (Eire). *For Comm W* 31:21-2 Ap 3 '48

Latin America

APMA views inter-American pharmaceutical industry trends. *il* Oil Paint & Drug Rep 153:5+ Ap 19 '48

Drug manufacturers seek to maintain Latin American trade. *Chem & Eng N* 26:1213 Ap 26 '48

New York (state)

Drug, chemical, paint firms dissolutions in N.Y. listed. *il* Oil Paint & Drug Rep 152:7 D 29 '47

DRUG trade—Continued

Poland

Pharmaceutical industry. For Comm W 29:26 N 8 '47

Spain

Spanish and Portuguese pharmaceutical progress. Chem & Eng N 26:2310-11, 2515-16 Ag 2, 23 '48; Chem Age (Lond) 59:121-2, 225-6 Jl 24, Ag 14 '48

Switzerland

Developments in Swiss pharmaceutical industry. For Comm W 30:23-4 Ja 10 '48
Pharmaceutical preparations; new labeling regulations. For Comm W 33:23 O 16 '48

Uruguay

Drug sales controls announced by Uruguay. Oil Paint & Drug Rep 154:66 Ag 16 '48

Products to be used in the manufacture of medicaments and pharmaceutical specialties; certain import-duty and internal-tax exemptions or reductions. For Comm W 30:21-2 Mr 13 '48

Regulations on the control of the sale of medicaments established. For Comm W 32:26-7 Jl 3 '48

DRUG trade conference, National. See National drug trade conference

DRUGGISTS. See Pharmacists

DRUGGISTS' liability insurance. See Insurance, Druggists' liability

DRUGS

Botanical drug collections decreased 50 per cent this year. Oil Paint & Drug Rep 154:5+ N 1 '48

Current need for pharmacy specialists cited. Chem & Eng N 26:2552-3 Ag 30 '48

Dose dispenser; Mucotin 50-tablet dose-dispenser package. Il Mod Packaging 21:140 F '48

Drug makers asked to screen products. P. B. Dunbar. Oil Paint & Drug Rep 154:3 Ag 23 '48

Drug research findings of German industry; Pervitin and strychnine derivatives. Oil Paint & Drug Rep 154:53 Ag 23 '48

Electronic preservation of food by exposure to pulsed cathode rays from a capacitor; sterilization of drugs also possible. W. Huber. Electronics 21:78-9 Mr '48

Fine chemicals for medical use. J. H. Burn. Chem & Ind p659-60 O 16 '48

Improved unit packages for drug and toilet-ries powders and tablets. Il Mod Packaging 21:164-5 Ap '48

Medicinal chemistry in 1947. C. M. Suter. Chem & Eng N 26:29-30 Ja 5 '48

Peak interest in antihistamine drugs noted at annual regional meetings of the American pharmaceutical manufacturers' association. Chem & Eng N 26:744-5 Mr 15 '48

Pharmaceuticals. E. H. Volwiler. Chem Ind 63:382-3 S '48

Pharmaceuticals; antibiotics; antihistamines, 1947. Chem Eng 55:114 F '48

Progress in drugs and fine chemicals, 1947. G. C. Green. Chem Age (Lond) 58:56-60, 106-7, 136-8+, 178-9, 202-3, 236-7, 269-70 Ja 10-F 21 '48

Some developments in organic chemical manufacture; pharmaceutical products. W. Smith and W. G. Reid. Chem & Ind p661-4 O 16 '48

Synthetic drugs in the fight against tropical diseases. J. Walker. Chem & Ind p 195-8 Mr 27 '48

See also

Analgesics
Anesthetics
Anesthetics, Local
Antibiotic substances
Antiseptics
Antispasmodics
Chemotherapy
Cocaine
Curare
Emetine
Ephedrine

Medicines, Proprietary
Nux vomica
Penicillin
Pharmaceutical research
Poisons
Quinine
Rutin
Sulfonamides

Laws and legislation

Federal drug law controls retail sales; Supreme court decision in Sullivan case. Oil Paint & Drug Rep 153:3+ Ja 26 '48

FDA acts to clear market of inert parenteral drugs. Oil Paint & Drug Rep 152:3 N 3 '47
FDA eases restrictions on some glandular products. Oil Paint & Drug Rep 153:3+ My 10 '48

FDA making important changes in policy on official publicity. Oil Paint & Drug Rep 154:3 O 4 '48

FDA progresses in move to regain seizure powers. Oil Paint & Drug Rep 153:3+ Ja 19 '48

Food, drug and cosmetic act at end of its first decade. C. W. Dunn and others. Oil Paint & Drug Rep 153:5+ Je 21 '48

Inert glandular products banned as drugs by FDA. Oil Paint & Drug Rep 153:3 Mr 22 '48

Inert glandular products marketing rules. P. B. Dunbar. Oil Paint & Drug Rep 153:68 Ap 26 '48

Thiamine hydrochloride labeling opinion given by Food and drug administration. Oil Paint & Drug Rep 153:56 Ap 5 '48

See also United States—Food and drug administration

Prices

Chemicals, oils and drugs price changes; Jan. 6, 1947 and Jan. 5, 1948 compared; tabulation by commodity. Oil Paint & Drug Rep 153:3+ sec 2 F 16 '48

Chemicals, oils and drugs price record, 1939, 1942, 1945-1947; tabulation. Oil Paint & Drug Rep 153:4 sec 2 F 16 '48

Drugs and fine chemicals; botanical drugs, spices, gums; 1947 market trends. Oil Paint & Drug Rep 153:28-31 sec 2 F 16 '48

Testing

Simple graphical solution for potency calculations of multidosse assays. R. A. Harte. Science 107:401-2 Ap 16 '48

DRUMLINS

Glaciation in north central British Columbia. J. E. Armstrong and H. W. Tipper. bibliog maps diagms Am J Sci 246:283-310, pl 1-4 My '48

DRUNKENNESS

Chemical tests for intoxication as an aid to traffic and industrial safety. R. N. Harzer bibliog Ind Med 17:52-6 F '48

See also

Alcoholism
Liquor problem

DRY cells. See Electric batteries

DRY cleaning. See Cleaning; Cleaning compositions; Cleaning industry

DRY docks

Railway dry docks restored at Ostend. Il Marine Eng 53:57 Je '48

See also

Ship railroads

DRY docks, Floating

Erie's navy gets floating dry dock. A. A. Visintainer. Il Ry Age 125:728-9 O 16 '48

Small steel dry dock for Erie fleet in New York harbor. Il Marine Eng 53:75-6 S '48; Same. Welding J 27:749-50+ S '48

DRY goods

See also

Department stores Knit goods
Hosiery Textile fabrics
also National retail dry goods association

DRY ice. See Carbon dioxide, Solid

DRYCLEANING. See Cleaning

DRYDEN, Hugh Latimer, 1898-

Presenting Hugh Dryden of NACA; new research director. R. McLarren. por Aviation W 48:12-13 Mr 8 '48

DRYING

Dehydration by squeeze-drying; Mantle process for partial dehydration of heat-sensitive materials. diag Chem Ind 62:759 My '48

Desirable desiccant properties for refrigerant water removal. P. L. Veltman and C. E. Waring. Refrig Eng 54:550-3+ D '47; Discussion. 55:49-52, 177+ Ja-F '48

Drying. S. J. Friedman. Ind & Eng Chem 40:18-22 bibliog(163 ref, p21-2) Ja '48

Drying of materials. L. Sanderson. Can Min J 69:82-4 Mr; 92-4 My '48

Improved freeze drying; foam suppression by low-speed centrifuge. Chem Age (Lond) 59:55 Jl 10 '48

DRYING—Continued

Modern drying techniques solve many processing problems. K. Ladenburg and A. Redniss. *il Chem Ind* 63:598-603 O '48
 Powdered ice cream mix; dried mix is gas packed in metal cans. W. J. Corbett. *il diag Food Ind* 20:534-7 Ap '48
 Proper instrumentation assures dehydration of hermetic units. C. C. Roberts. *il Refrig Eng* 56:231-2 S '48

See also

Bricks—Drying
 Ceramic materials—
 Drying
 Clay drying
 Drying apparatus
 Electric machinery—
 Drying

Infrared rays—In-
 dustrial heating
 Paint—Drying
 Paper drying
 Soap—Drying
 Textile drying
 Wood drying

Patents

Drying extract-solution; patent. *Food Ind* 20:537 Ap '48
 Freeze-dry fracas; patents in court; Lyophilic cryochem corp. *il Chem Ind* 63:372 S '48

DRYING (crops)

Challenge to the natural gas industry; its use in drying of crops. R. M. Hutchison. *Pet Eng* 19:96 Ap '48
 Equipment and data on corn drying. *il Sheet Metal Worker* 39:60 Ap '48
 Grain drying. E. C. Claydon. *diags Elec R (Lond)* 143:406-7 S 10 '48
 Trends in the dehydration of agricultural products using gaseous fuels. F. H. Dotterweich. *Pet Eng* 19:176+ N '47

DRYING (fruits and vegetables)

Dehydration of orange juice. A. L. Schroeder and R. H. Cotton. *bibliog Ind & Eng Chem* 40:303-7 My '48
 Development of a potato granule process. J. W. Greene and others. *Chem Eng Prog* 44:547-52; Discussion. 552 J1 '48
 Production of orange juice concentrate and powder; pilot plant. H. W. Schwarz and F. E. Penn. *bibliog flow diags il diag Ind & Eng Chem* 40:938-44 My '48
 Use of lyophilization in determination of moisture content of dehydrated vegetables. B. Makower and E. Nielsen. *Anal Chem* 20:856-8 S '48

DRYING agents

Gas drying by calcium chloride solutions; the mechanism of transfer. E. F. Thurston. *bibliog diags Soc Chem Ind J* 67:289-96 J1 '48
 New desiccant keeps quality in, moisture out; small packets or larger containers of desiccant preserve crispness of potato chips and baked goods, prevent hard candy from sticking, helps to dehydrate vegetables. K. D. Kahn. *il Food Ind* 20:18-19+ Ja '48
 Nobody would buy this war baby product; Filtril corp. now combating moisture in home and factory. *il Sales Management* 60:109-10 Mr 1 '48

See also

Drying oils

DRYING apparatus

Accelerated radiated heat drier. T. W. Garve. *diags Am Cer Soc Bul* 27:299-300 Ag 15 '48
 Air cycle heat pump. T. F. Thomas. *diags Inst Mech Eng J & Proc* 158:Proc 30-9 Je '48; Same cond. *Engineer* 184:180-1, 205-6 Ag 22-29 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 39-51 Je '48
 All-purpose drying oven for use in micro-chemical analysis. G. Ingram. *diags Metallurgia* 38:239-40 Ag '48
 Dryers and humidifiers; new equipment announced 1947-48. *Chem Ind* 63:402-3 S '48
 Electric vibrating process equipment. J. H. Whitelock. *flow sheet il diag Mech Handling* 34:629-36 D '47
 Flash drying; abstract. C. W. Gordon. *Chem Age (Lond)* 57:756 D 13 '47
 High vacuum dehydration and distillation. R. S. Morse. *bibliog il diags Chem & Ind sup* 13-19 O 9 '48
 Knowles China first with jet dryer. *il Cer Ind* 51:92 S '48
 Modern drying techniques solve many processing problems. K. Ladenburg and A. Redniss. *il Chem Ind* 63:598-603 O '48
 Moisture content measurement. *il Chem Age (Lond)* 58:577 Ap 24 '48

Production of stable spray-dried egg powder. J. W. Greene and others. *bibliog il diags Chem Eng Prog* 44:591-602 Ag '48
 Simplified method of figuring rotary dryer performance. J. F. Schnacky. *Chem Eng* 55:143-4 My '48
 Small soap spray dryer. E. G. Thomssen. *il Soap & San Chem* 24:77 J1 '48

See also

Clothes dryers

Ovens

Textiles

Cake drying speeded by high-frequency current. T. H. Story. *il diags Textile World* 98:114-15+ Ja '48
 Cloth swatches dried in three minutes by infrared. *il Elec World* 128:138 N 8 '47
 Heat for a drying room; Devconcraft corporation carpet finishing plant. *il diag Dom Eng* 172:153+ S '48
 New high-speed drying unit for slashers. *il Rayon* 29:68-9 Ap '48; *Textile World* 98:150+ Ap '48
 Textile drying. M. T. Fleming. *diags Am Dyestuff Rep* 37:333-9+ My 17 '48

DRYING oils

African drying oils; the seed oil of tetracarpidium conophorum. F. D. Gunstone and others. *Soc Chem Ind J* 66:293-6 Ag '47
 African nut promising drying oil source. *il Chem & Eng N* 26:2463 Ag 16 '48
 Applications of the spectrographic method for studying the resin-bodily of drying oils. F. J. Kolb, jr. and E. A. Hauser. *bibliog (41 titles) Paint Oil & Chem R* 110:104+ N 13 '47
 Drying oil polymerization; abstract. T. F. Bradley. *Paint Oil & Chem R* 110:38 O 30 '47
 Drying oils and resins from petroleum sources. R. J. Lee and others. *Paint Oil & Chem R* 111:16-18+ Ja 8 '48
 Drying oils; theory of drying, natural oils; modified natural oils, synthetics; CI report. G. M. Suthelm. *il diags Chem Ind* 62:65-72, 241-7 *bibliog (77 titles) Ja-F* '48
 Physical and chemical treatment of drying oils. A. C. Elm. *Paint Oil & Chem R* 111:11-12+ Je 24 '48
 Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with mono-olefins and with A1:5-diolefins. E. H. Farmer and F. W. Shipley. *Chem Soc J p* 1519-32 N '47
 Selective extraction of vegetable oils with furfural; drying oils from soybeans. R. L. Kenyon, S. W. Gloyer and C. C. Georgian. *il diags Ind & Eng Chem* 40:1562-70 J1 '48
 Study of soya-tung oil combinations by Pittsburgh paint and varnish production club. *Paint Oil & Chem R* 110:99-103 N 13 '47
 Tailored oils; Admerols. *il Chem Ind* 62:910-11 Je '48

See also

Linseed oil

DUBOISIA myoporoides

Minor alkaloids of duboisia myoporoides; valeriodine. W. Mitchell and E. M. Trautner. *diags Chem Soc J p* 1330-1 O '47

DUCK (textile)

Weather protective treatments for cotton duck. *bibliog Am Dyestuff Rep* 36:705-10 D 1 '47

DUEL, Morvin M. 1838-1948

Sketch. *por Nat Underw* 52:13 Ag 26 '48

DUELS

Abortive duel on Hicacal Point. D. W. Knox. *il U S Naval Inst Proc* 74:1080-5 S '48

DUFFY, Edmund, 1899-

Edmund Duffy retires from Baltimore sun. C. W. Duke. *por Ed & Pub* 81:11 Je 19 '48

DUHRSEN, Alfred

Decal. *Fortune* 37:134+ Mr '48

DUKE university

Chemical education in American institutions. L. A. Bigelow and others. *il J Chem Educ* 25:242-8 My '48

DULUTH, South Shore and Atlantic railway
 Securities exchange near. *Barron's* 28:34 Mr 15 '48

DUMONT, Allen B., laboratories, Inc.

Preferred stock offered. *Comm & Fin Chr* 168:644-5 Ag 16 '48

DUMPING appliances

Alloy cage dumps sideways; Christopher no. 6 mine. J. H. Edwards. *il* *diags* Coal Age 52:94-7 D '47
 Battery-driven dump truck. *il* *Engineer* 185: 167 F 13 '48
 Transporting ready-mixed concrete in open dump trucks. R. A. Burmeister. *il* *Am Concrete Inst* J 20:41-53 S '48

See also

Car dumpers

DUNLOP rubber company

Statement by the chairman at ordinary general meeting. G. Beharrell. *Economist* 154: 1043 Je 19 '48

DUNN, Samuel Orace, 1877-

S. O. Dunn's first 71 years. J. G. Lyne. *por* Ry Age 125:379-80 Ag 21 '48
 Sam Dunn day at the Railroad fair. *por* Ry Age 125:376-8 Ag 21 '48

DUOPOLY (term)

Gas and electricity in Britain a study in duopoly. F. R. Jervis. *Land Econ* 24:31-9 F '48

DUO-SOL process. See Lubricating oils—Manufacture**DUPLAN corporation**

Annual report. *Comm & Fin Chr* 168:1143 S 20 '48
 Record net may bring boost in dividends. *Barron's* 28:32 My 3 '48

DUPLEX apartments. See Apartment houses—

Duplex apartments

DUPLEX houses. See Architecture, Domestic

—Two-family houses

DUPLICATING machines (metal cutting)

Electrical and electronic controls for form-duplicating machines. H. C. Town. *diags* Mach 54:193-6 Jl '48
 Kelling speeds part duplication. W. G. Patton. *il* *Iron Age* 162:102-5 N 4 '48

DUPLICATING processes. See Copying processes**DU PONT de Nemours, E. I., and company**

Annual report. *Comm & Fin Chr* 167:1149 Mr 15 '48

Du Pont; after 146 years, still growing. *il* *Bsns W* p97-8+ My 15 '48

Engineers at work; the Du Pont engineering department. G. M. Read. *J Eng Educ* 38: 642-9 My '48

Executive personnel changes. *Chem & Eng N* 26:318 F 2 '48

Under investment microscope. S. Devlin. *il* *Mag of Wall St* 81:408-11 Ja 17 '48

DU PONT fellowships. See Scholarships and fellowships**DURABLE goods**

Backlog demand for consumers' durable goods. L. J. Atkinson. *Survey of Cur Bsns* 28:15-21 Ap '48

Consumer survey shows automobiles lead durable goods wanted by Detroiters. *Ptr Ink* 222:85-6 Ja 23 '48

Durable goods boom. W. Gates. *Mag of Wall St* 81:179-81+ N 22 '47

1948 survey of consumer finances; expenditures for durable goods. D. M. Holthausen. *Fed Res Bul* 34:634-48 Je '48

Production of consumers' durable goods; by quarters 1946 to third quarter of 1947; charts. *Survey of Cur Bsns* 27:5 N '47

See also

Machinery industry and trade

DURAIN. See Coal—Chemistry**DUREZ**

Phenolic improves jet pump. *il* *Mod Plastics* 26:116 N '48

DURHAM, North Carolina

Water supply

Manganese removal. R. S. Phillips. *Water & Sewage Works* 95:R143-5 Ap '48

DURIMET. See Nickel alloys**DURKIN, William A. 1885-**

Moles awards for 1948. R. K. Tomlin. *por* *Explosives Eng* 26:10+ Ja '48

Moles to honor two engineers. *por* *Comp Air* Mag 53:18 Ja '48

DUST

Air contamination during machining of beryllium stainless steel. A. C. Titus. *J Ind Hygiene* 30:29-31 Ja '48

Antimony trisulfide. F. M. R. Bulmer and J. H. Johnston. *J Ind Hygiene* 30:26-8 Ja '48

Conference on dust in industry. Sept. 28-30. *Chem & Ind* p647-8 O 9 '48

Dust chasers; installation of industrial hygiene laboratory by Bethlehem steel company. *il* *Safety Eng* 95:63-4 My '48

Dust problems in industry; Society of chemical industry's conference, Leeds, Sept. 28-30; abstracts of papers. *Chem Age (Lond)* 59:446-7 O 2 '48

Influence of particle size in dust exposure. T. Hatch and W. C. L. Hemeon. *bibliog* *diags* *J Ind Hygiene* 30:172-80 My '48

Measurement of alpha-active dust in the atmosphere. H. Carmichael and P. R. Tunnicliffe. *bibliog* *diags* *J Ind Hygiene* 30: 211-27 Jl '48

Photometric investigation of dust. D. E. Spencer and S. Malkiel. *diags* *Franklin Inst* J 245:389-402 My '48

Prevention of dust explosions caused by high explosive bombs in flour mills; incombustible dust. J. H. Burgoyne and D. J. Rashbash. *bibliog* *il* *Soc Chem Ind* J 67:130-9 Ap '48

Recognition and control of fume and dust exposure. V. J. Castrop. *il* *Nat Safety* N 57: 20-1+ F '48

Retention of air-borne particulates in the human lung. H. D. Landahl and R. G. Herrmann. *bibliog* *diag* *J Ind Hygiene* 30: 181-8 My '48

Silica bearing dust. L. E. Hamlin. *bibliog* *Ind Med* 17:216-20 Je '48

Static electrification of dust clouds. J. G. Miller and others. *bibliog* *Science* 107:144-6 F 6 '48

Studies on aerosols; coating and agglutinating of dust particles by aqueous aerosols. L. Dautrebande and others. *bibliog* *diag* *J Ind Hygiene* 30:103-13 Mr '48

Studies on aerosols; reduction of dust deposition in lungs of rabbits by aqueous aerosols. L. Dautrebande and others. *bibliog* *diags* *J Ind Hygiene* 30:103-7 Mr '48

See also

Aluminum dust	Flue dust
Cement dust	Foundry dust
Coal dust	Mine dust
Cotton dust	Silicosis
Dust removal	Soap dust

Analysis

Determination of phenothiazine in dust and mixtures. V. Kniaseff. *bibliog* *Anal Chem* 20:329-31 Ap '48

Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. *il* *diag* *J Ind Hygiene* 30: 145-59 My '48

Identification of free silica in dusts and fumes. W. H. Gitzen. *il* *Anal Chem* 20:265-7 Mr '48

Microdetermination of tellurium V. R. H. DeMeio. *Anal Chem* 20:438-9 My '48

Study of the health hazards of the tobacco stemming and redrying industry. W. E. McCormick and others. *bibliog* *flow sheet* *il* *J Ind Hygiene* 30:43-52 Ja '48

X-ray diffraction analysis of crystalline dusts. H. P. Klug and others. *bibliog* *J Ind Hygiene* 30:166-71 My '48

See also

Air—Analysis

DUST bowl. See Great Plains region

DUST cloud hypothesis. See Cosmogony

DUST collectors

Air-elutriator for use with coherent dusts. L. L. Katan. *diag* *Chem & Ind* p 119-20 F 21 '48

Design of exhaust systems; bag cleaning installations. F. H. Stebbins. *il* *diags* *Sheet Metal Worker* 39:70-2 Mr '48

Dust collector with pneumatic cleaner for filter bag. *il* *Comp Air Mag* 53:93 Ap '48

Dust precipitator; two applications of plastics as insulating materials. *il* *Mod Plastics* 25:173-4 D '47

Dust separation; new equipment announced 1947-48. *Chem Ind* 63:405 S '48

Factors in the design of cyclone dust collectors. M. W. Flirst and L. Silverman. *diags* *Heat & Ven* 45:80-6 Jl '48

DUST collectors—Continued

- Maintenance of foundry ventilation equipment. K. M. Smith. *il Heat & Ven* 45:70-3 Je '48
- Manufacturers' ideas to meet difficult operating problems; dust collection; illustrated descriptions of latest equipment. *il Rock Prod* 50:124-5+ D '47
- Pilot plant study of a multicclone unit operating on stack gases from a lime kiln. T. T. Collins, jr. *il Paper Tr J* 126:63-4 Mr 18 '48
- Production clinic; elimination of dust. E. G. Thomssen. *Soap & San Chem* 24:87 F; 79+ Mr '48
- Pulverizing machinery co.'s dust collector. *il Chem Eng* 55:154 F '48
- Separation of dust from hot gases in the open hearth furnace. J. Zimmerman. *Blast F & Steel Pl* 36:459 Ap '48
- Sheet metal work in coffee roasting; cyclone separators. *il Sheet Metal Worker* 39:53-4 Ap '48
- Taming the dust storm. H. M. Nichols. *il diags Safety Eng* 96:18-21+ JI '48
- Welding a Roto-Clone impeller. H. Powers. *il Welding J* 27:51-2 Ja '48
- Where will ultrasonics fit in the power field? C. R. Earle. *il diag Power Generation* 52: 86+ S '48

See also

- Dust sampling
- DUST counting. See Dust sampling
- DUST diseases. See Lungs—Dust diseases
- DUST explosions**
- Dust explosions in factories. S. H. Wilkes. *Engineering* 166:110 JI 30 '48; *Abstract. Chem Age (Lond)* 58:664 My 8 '48; *Same. Chem & Ind* p300-1 My 8 '48
- Inflammability in suspension of mixtures of combustible and incombustible dusts. P. C. Bowes and others. *bibliog diags Soc Chem Ind J* 67:125-30 Ap '48
- Prevention of dust explosions caused by high explosive bombs in flour mills; incombustible dust. J. H. Burgoyne and D. J. Rasbash. *bibliog il Soc Chem Ind J* 67:130-9 Ap '48
- Recent research on the explosibility of dust dispersions. I. Hartmann. *Ind & Eng Chem* 40:752-8 Ap '48
- DUST prevention**
- Sealing and dust laying, chief street activities in Birmingham, Ala., during past year. *il Roads & Sts* 90:70+ D '47

DUST removal

- Come clean with vacuum cleaning. O. J. Smith. *il diags Safety Eng* 95:10-12 Je '48
- Control of atmospheric dust in the fire-brick industry. W. W. Stalker and others. *flow sheet il Heat & Ven* 45:73-7 Ap '48
- Dust and mist removal in plant practice; abstract. G. L. Fairs. *Chem & Ind p* 108-9 F 14 '48
- Dust control; engineering data manual. *il diags Mill & Factory* 43:139-46 S '48 [reprints 25c]
- Dust elimination in the finishing room. *il Cer Ind* 49:108 N '47
- Dust in industry; exhibition of apparatus. *il Chem & Ind* p651 O 9 '48
- Exhausting dust or dollars? W. C. L. Hemeon. *il Safety Eng* 94:50-3 D '47
- Production clinic; elimination of dust. E. G. Thomssen. *Soap & San Chem* 24:87 F; 79+ Mr '48
- Ventilation and dust control. *il Nat Safety N* 57:15-16+ Mr '48
- Ventilation for control of dust from bagging operations. G. M. Hama. *il Heat & Ven* 45:91 Ap '48

See also

- Dust collectors
- Electric precipitation
- Exhaust systems
- DUST sampling**
- Dust-sampling apparatus. *il diag Engineering* 166:8-9 JI 2 '48
- Electrostatic method for determining dust in wet gases. E. A. K. Patrick. *bibliog il diags Soc Chem Ind J* 66:249-53 Ag '47
- Identification of free silica in dusts and fumes. W. H. Gitzel. *il Anal Chem* 20:265-7 Mr '48

Improvement of the M.S.A. electrostatic precipitator. G. D. Clayton. *bibliog il J Ind Hygiene* 29:400-2 N '47

Measurement of alpha-active dust in the atmosphere. H. Carmichael and P. R. Tunnicliffe. *bibliog diags J Ind Hygiene* 30:211-27 JI '48

Quantitative determination of dust in gas. A. H. Arbogast. *diags Iron & Steel Eng* 25:82-9 O '48

Silica dust census taken; experiments utilizing X-ray diffraction determine percentage of free silica in foundry dust. D. Huffman. *Safety Eng* 95:60-1 My '48

Slide rule solves gas flow and dust sampling problems. H. Richardson. *il Chem Eng* 55: 124-5 JI '48

DUST storms

Dust storms of 1948; marginal lands in New Mexico and west Texas. H. H. Finnell. *il map Sci Am* 179:7-11 Ag '48

DUTCH EAST INDIES. See Netherlands Indies

DUTCH GUIANA

Commerce

Imports of selected items into Surinam in 1946. *For Comm W* 29:24 N 15 '47

Economic conditions

News by countries; Surinam. *For Comm W* 29:22 D 20 '47; 31:47 My 29 '48

Economic policy

Prosperity scheme for Surinam. *For Comm W* 32:43 JI 10 '48

DU VIGNEAUD, Vincent, 1901-
Du Vigneaud to deliver Stieglitz lecture; biographical sketch. *por(cover) Chem & Eng N* 26:608 Mr 1 '48

DYE analysis

Effect of sodium silicates on the absorption spectra of some dyes. R. C. Merrill, R. W. Spencer and R. Getty. *bibliog Am Chem Soc J* 70:2460-4 JI '48

Estimation of diazo-compounds through decomposition by light. G. Spencer and F. J. Taylor. *diag Soc Dyers & Col J* 63:394-5 D '47

Estimation of vat printing paste on cloth and an electrometric analysis of the critical chemical. H. E. M. Specht. *bibliog Am Dyestuff Rep* 37:110-1+ F 23 '48

New reagent for the identification of vat dyes; acidified potassium permanganate. D. A. Derrett-Smith and B. C. Gee. *Soc Dyers & Col J* 63:401-4 D '47

Outline of qualitative dye analysis. W. E. Mathewson. *Am Dyestuff Rep* 37:709-25 N 1 '48

Replica studies of dyed nylon. F. A. Hamm and J. J. Comer. *bibliog il Anal Chem* 20: 861-70 S '48

See also

Methylene blue—
Analysis

DYE industry

Alphabetical list of new products developed since November, 1946; dyestuffs and pigments, textile chemicals, equipment. *il diags Am Dyestuff Rep* 36:679-94+ D 1 '47

Cooperation between mills and dyestuff manufacturers. *Am Dyestuff Rep* 37:37 Ja 12 '48

Dye export control idea to get further study by OIT, industry. *Oil Paint & Drug Rep* 153:3+ Ap 12 '48

Dye output catching up. *Chem Ind* 62:905-6 Je '48

History

Origin of the coal-tar dye industry. J. B. Gallant. *Am Dyestuff Rep* 37:319-21+ My 17 '48

Statistics

Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter

France

French dyestuffs reorganisation. *Chem Age (Lond)* 58:866 Je 26 '48

DYE industry—Continued**Germany**

Dyeing; a comparison between the changes in German and American practice. R. G. Fargher. Soc Dyers & Col J 63:425-7; Discussion. 427-9 D '47

Great Britain

United Kingdom's dye production and trade. For Comm W 32:28-9 S 25 '48; Same. Oil Paint & Drug Rep 154:3+ S 27 '48

DYE intermediates

Manufacture of intermediate products at German plants; abstract. N. N. Vorozhtsov. Chem Eng 54:268+ D '47

DYE laboratories

See also

Dye research**DYE patents**

Aromatic diamines, fixation of different dyestuff groups. Am Dyestuff Rep 37:104 F 9 '48

Blue or violet phthaloylacridone vat dyes. Soc Dyers & Col J 64:198-9 My '48

Direct dyes; improving fastness by diacyanamide condensates; British patent. Am Dyestuff Rep 37:136 F 23 '48

Dyeing wool; azo dyes with chrome-complex; formaldehyde added; patent. Am Dyestuff Rep 36:665-6 N 17 '47

Patent digest. Published in bi-weekly numbers of American dyestuff reporter

Polvazo dyes for cellulose. Soc Dyers & Col J 64:198 My '48

Resin condensates, improving the fastness of dyeings. Am Dyestuff Rep 37:290 My 3 '48

DYE plants. See Dyes and dyeing—Natural dyes

DYE research

American association of textile chemists and colorists general research meeting, Chicago, Oct. 24. Am Dyestuff Rep 36:778-84 D 29 '47

Chemical research hits full postwar stride; dyes. B. L. West. bibliog Chem Ind 63:386-7 S '48

Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient. J. Crank. bibliog Soc Dyers & Col J 63:412-16; Discussion. 416-18 D '47

Dyeing studies at elevated temperatures; use of temperatures between 200°F and 300°F. G. L. Royer and others. bibliog il diag Textile Res J 18:598-614 O '48

Experimental studies of vat dyeing. O. W. Clark. il diags Am Dyestuff Rep 37:82-91 F 9 '48

Gearing toward better textiles. J. R. Bonnar. Am Dyestuff Rep 36:765-6+ D 29 '47

Laboratory machine gives data on continuous dyeing. C. L. Zimmerman. il diags Textile World 97:116-17 D '47

Looking ahead with research; General aniline and film corp. E. Preston. il Comp Air Mag 53:167-9 J1 '48

DYE stripping. See Dyes and dyeing—Stripping

DYE testing

Application of spectrophotometry in the textile industry; testing dyestuff shipments. E. P. Mersereau and J. L. Barach. bibliog Textile Res J 18:436-9 J1 '48

Comparison of the effect on rayon fabrics of various gases under controlled conditions. F. K. Ray and others. bibliog Am Dyestuff Rep 37:391-6 Je 14 '48

Comparison of two current test procedures for testing fabric resistance to atmospheric gas fading. F. K. Ray. bibliog il Am Dyestuff Rep 37:76-9 F 9 '48

Construction and operation of accelerated aging cabinets. D. S. Lyle. bibliog il diags Am Dyestuff Rep 36:623-8+ N 3 '47

Control of fading lamps; use of light-sensitive paper. Am Dyestuff Rep 35:268 N 17 '47

Determination of the solubility of dyes. C. L. Zimmerman and H. R. McCleary. bibliog il Am Dyestuff Rep 37:47-51 Ja 26 '48 Abstract. Textile World 98:228 Mr '48; Discussion. Am Dyestuff Rep 37:51+ Ja 26 '48

Development of controlled equipment for testing fastness to atmospheric gases. F. K. Ray. bibliog il diags Am Dyestuff Rep 37:355-62 My 31 '48

Dyeing and finishing from the consumer angle. R. L. Elliott. Soc Dyers & Col J 64:179-83 My '48

Effect of laundering on gas fading performance of rayon fabrics. F. K. Ray and S. Davison. bibliog Am Dyestuff Rep 37:322-5 My 17 '48

Evaluation of uncontrolled gas fading equipment. F. K. Ray and others. bibliog il Am Dyestuff Rep 37:287-9 My 3 '48

Formulation of an accelerated gas fading test for rayon fabrics. F. K. Ray and others. bibliog Am Dyestuff Rep 37:629-30 S 20 '48

Instrumental methods applied to dyestuff testing described at winter meeting of Optical society of America, New York, March 4-6. Chem & Eng N 26:866 Mr 22 '48

Perspiration. Am Dyestuff Rep 37:407 Je 14 '48

Preliminary steps in the development of an accelerated aging test to light. D. S. Lyle and others. Am Dyestuff Rep 37:251-6+ Ap 19 '48

Second report of Society of dyers and colorists fastness tests committee. il Soc Dyers & Col J 64:133-45 Ap '48

Serviceability study comparing an all-cotton chambray with a chambray of cotton warp and viscose rayon filling. P. E. Keeney and others. il Rayon 29:63-5 N '48

Study of the effect of certain variables on gas fading tests made under controlled conditions. F. K. Ray and others. bibliog Am Dyestuff Rep 37:529-36 Ag 9 '48

DYEHOUSES**Accidents**

Textile dyeing and finishing; work injuries in 1945. F. S. McElroy and G. R. McCormack. Mo Labor R 67:20-5 J1 '48; Abstract. Textile World 98:125+ Ag '48

Equipment

Dye-tub heat exchanger saves coal, improves quality. Textile World 98:143 S '48

Hue variations caused by monel metal; pyrazol orange GH 225. Soc Dyers & Col J 64:252+ J1 '48

Industrial dyevat control. F. Biezzard. il diags Soc Dyers & Col J 63:439-44; Discussion. 444-5 D '47

Laboratory study of padding; cotton. C. L. Zimmerman and G. L. Royer. bibliog il diag Textile Res J 18:615-27 O '48; Excerpts. Textile World 98:124-5+ O '48

DYEING machines

Air bath agitation to expedite dyeing; panel meeting, northern New England section. Am Dyestuff Rep 37:549 Ag 23 '48

Dyeing; a comparison between the changes in German and American practice. R. G. Fargher. Soc Dyers & Col J 63:425-7; Discussion. 427-9 D '47

Dyeing apparatus for fibrous stock; patent. diag Am Dyestuff Rep 37:476 J1 12 '48

Dyeing industry from a mechanical viewpoint. W. A. Traver. Am Dyestuff Rep 37:307-9 My 3 '48

Laboratory machine gives data on continuous dyeing. C. L. Zimmerman. il diags Textile World 97:116-17 D '47

Latest trends and necessary developments of dyeing, printing and finishing machinery. M. Pagerie. Rayon 29:85-6 J1 '48

New continuous dyeing Duplex machine. M. J. Pagerie. il diags Rayon 29:93-4 Mr '48

Progress in dyeing machinery. E. Weller. il Rayon 29:130-2 S; 96-9 O '48

Rayon dyeing and finishing. H. F. Creegan. Am Dyestuff Rep 37:520-4 Ag 9 '48

Scientific study of rayon dyeing. G. L. Royer. bibliog il Am Dyestuff Rep 37:525-8 Ag 9 '48

Some factors in the dyeing of fur felt hats. H. H. Tucker. bibliog il diags Am Dyestuff Rep 37:483-93 J1 26 '48

Textile finishing machinery; abstract. E. S. Pierce. Textile World 98:147+ F '48

DYER, Bernard Shirley, 1856-1948

Appreciation. G. Taylor. por Chem & Ind p 185-6 Mr 20 '48

Sketch. G. Taylor. Chem Soc J p 896-8 Je '48

DYES, Fastness of

American association of textile chemists and colorists general research meeting; fastness to washing report. Am Dyestuff Rep 36:779-80 D 29 '47

American association of textile chemists and colorists general research meeting; light fastness report. Am Dyestuff Rep 36:782 D 29 '47

DYES, Fastness of—Continued

- Anionic substantive softeners. E. D. McLeod. *bibliog* Am Dyestuff Rep 37:30-3 Ja 12 '48
- Color problems in drycleaning. A. E. Johnson. Rayon 29:125-7 S '48
- Comparison of the effect on rayon fabrics of various gases under controlled conditions. F. K. Ray and others. *bibliog* Am Dyestuff Rep 37:391-6 Je 14 '48
- Comparison of two current test procedures for testing fabric resistance to atmospheric gas fading. F. K. Ray. *bibliog* il Am Dyestuff Rep 37:76-9 F 9 '48
- Construction and operation of accelerated aging cabinets. D. S. Lyle. *bibliog* il diags Am Dyestuff Rep 36:623-8+ N 3 '47
- Contribution to the problem of atmospheric fading. E. Meili. Rayon 29:81-3 My '48
- Development of controlled equipment for testing fastness to atmospheric gases. F. K. Ray. *bibliog* il diags Am Dyestuff Rep 37:355-62 My 31 '48
- Dyeing and fastness characteristics of aqueous-chlorinated wool. *bibliog* il Am Dyestuff Rep 37:221-36 Ap 5 '48
- Dyeing properties of chlorinated wool; fastness properties. J. Barritt and F. F. Elsworth. Soc Dyers & Col J 64:32-3 Ja '48
- Effect of fiber physical differences upon the dyeing of nylon staple. R. J. Thomas and B. F. Faris. il Am Dyestuff Rep 37:21-9 Ja 12 '48
- Evaluation of uncontrolled gas fading equipment. F. K. Ray and others. *bibliog* il Am Dyestuff Rep 37:287-9 My 3 '48
- Fast coloration of cellulose acetate rayon, with particular reference to shades of good fastness to scouring. A. Mellor and H. C. Olpin. Soc Dyers & Col J 63:396-9; Discussion. 399-400 D '47
- Formulation of an accelerated gas fading test for rayon fabrics. F. K. Ray and others. *bibliog* Am Dyestuff Rep 37:629-30 S 20 '48
- Improving the properties of fibres and dyeings by treatment with hydrophobic melamine-formaldehyde compounds. A. Landolt. *bibliog* 6pls Soc Dyers & Col J 64:93-7; Discussion. 97-9 Mr '48
- Observation on crocking fastness of naphthols. B. Celantano. Rayon 29:83 J1 '48
- Preliminary steps in the development of an accelerated aging test to light. D. S. Lyle and others. Am Dyestuff Rep 37:251-6+ Ap 19 '48
- Report presented to A.A.T.C.C. general research committee meeting; fastness to washing. Am Dyestuff Rep 37:495-6 J1 26 '48
- Second report of Society of dyers and colourists fastness tests committee. il Soc Dyers & Col J 64:133-45 Ap '48
- Study of the effect of certain variables on gas fading tests made under controlled conditions. F. K. Ray and others. *bibliog* Am Dyestuff Rep 37:529-36 Ag 9 '48
- Tendering of vat dyed textile materials on exposure to light. H. A. Turner. *bibliog* Soc Dyers & Col J 63:372-8; Discussion. 373-80 D '47
- DYES and dyeing**
- Affinity of fibers for dyes. J. W. Shirley. Rayon 29:87-8 Ag '48
- Alphabetical list of new products developed since November, 1946. il diags Am Dyestuff Rep 36:714-18 D 1 '47
- AATCC contest; abstracts of prize winning papers. Textile World 97:133+ N '47
- Correlation of the spectroscopic and thermal energy differences between the fluorescence and phosphorescence levels of dye molecules. M. Kasha and R. E. Powell. *bibliog* Am Chem Soc J 69:2909-10 N '47
- Dye application methods on stock and yarn analyzed. J. H. Hennessey. il Textile World 98:131+ Je '48
- Dyeing and finishing from the consumer angle. R. L. Elliot. Soc Dyers & Col J 64:179-83 My '48
- Dyeing studies at elevated temperatures; use of temperatures between 200°F and 300°F. G. L. Royer and others. *bibliog* il diags Textile Res J 18:598-614 O '48
- Effect of electrical charge in the application of dyestuffs. diags Am Dyestuff Rep 36:697-702+ D 1 '47
- I.C.I.'s new dyestuff; Alcyan Blue. Chem Age (Lond) 58:61, 371 Ja 10, Mr 13 '48; Chem & Eng N 26:703 Mr 8 '48
- Manufacturers' publications and pattern cards. Soc Dyers & Col J 63:328-30 O '47
- Metachromatic reaction of hexametaphosphate. J. M. Wiame. *bibliog* Am Chem Soc J 69:3146-7 D '47
- Method of determining and mixing colors. O. Syreeni. Rayon 29:85-9 Mr; 84 My; 91-8 Je; 85-6 Ag '48
- Modern American dyeing practice. H. F. Clapham. Soc Dyers & Col J 63:469-72 D '47
- New pH indicator for titration of sodium carbonate; disodium 4,4'-bis(2-amino-1-naphthylazo)-2,2'-stilbenedisulfonate. M. Taras. *bibliog* Anal Chem 20:680-1 J1 '48
- Newer uses of glycerine. M. A. Lesser and J. Cotter. *bibliog* Rayon 29:83-5 Ja '48
- Panel meeting, northern New England section, Andover, Mass., May 21. Am Dyestuff Rep 37:547-52 Ag 2 '48
- Review of the use of Rapidogen dyestuffs and related products in textile printing. F. F. Jacobs. Rayon 29:83-6 Mr '48
- Some miscellaneous applications of dyes. J. P. Gill. Soc Dyers & Col J 64:213-18 Je '48
- Symposium on recent advances in the theory and practice of dyeing. *bibliog* il diags Soc Dyers & Col J 63:365-472 D '47
- Zirconium as a fixative for dyes. W. B. Blumenthal. *bibliog* Rayon 29:87-9 O '48
- See also*
- | | |
|----------------------|---------------------|
| Bleaching | Dyeing machines |
| Color in the textile | Dyes, Fastness of |
| Industries | Methyl red |
| Color matching | Pigments |
| Color printing | Stains and staining |
| Cyanines | (microscopy) |
| Dye industry | Textile printing |
- Bibliography**
- Abstracts from British and foreign journals and patents. Published in monthly numbers of Journal of the Society of dyers and colourists
- Chemistry**
- Acid-base reactions in benzene and other organic solvents; behavior of bromphthalein magenta with different classes of organic bases. M. M. Davis and P. J. Schuhmann. il J Res Nat Bur Stand 53:221-63 *bibliog* (94 ref. p262-3) S '47
- Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene. M. M. Davis and others. *bibliog* J Res Nat Bur Stand 41:27-40 J1 '48
- Application of chemical controls to acid dyeing presented by Philadelphia section. *bibliog* Am Dyestuff Rep 37:149-65 Mr 8 '48
- Colour and constitution; Ufimtzev's coloured compounds; steric hindrance of resonance; *o*-azobenzene; substantivity of 4,4'-diamino-*o*, *m*, and *p*-terphenyls. H. H. Hodgson. *bibliog* Soc Dyers & Col J 64:184-6 My '48
- Combination of acid dyes with amine and amide groups in nylon fibre. P. W. Carlene and others. *bibliog* diags Soc Dyers & Col J 63:388-93 D '47
- β -Cyclopropionitriles; conversion into bis-2-(5-cyclopyrrolyl)azamethine salts. E. B. Knott. Chem Soc J p 1196-201 S '47
- β -Cyclopropionitriles; general synthesis and conversion into pyrrole dyes. E. B. Knott. Chem Soc J p 1190-5 S '47
- Diffusion of direct dyes in cellulose. H. A. Standing and others. *bibliog* Textile Inst J 38:T335-49 O '47
- Effect of temperature and impurities on certain photochemical reactions in solids; darkening of antimony oxide and bleaching of dye deposited upon titanium dioxide. C. F. Goodeve and M. R. Taylor. *bibliog* il diags J Phys & Colloid Chem 52:828-36 My '48
- Effects of salts and proteins on the spectra of some dyes and indicators. I. M. Klotz. *bibliog* Chem R 41:373-99 O '47
- Electrical theory of dyeing. W. Harrison. *bibliog* Soc Dyers & Col J 64:248-52 J1 '48
- Esters of 1-hydroxy-2-naphthoic acid, and naphthol-blue dyes therefrom. M. Pianka and H. C. Barany. Chem Soc J p309-10 Mr '48

DYES and dyeing—Chemistry—Continued

- Fixing of molecular orientation. J. F. Dreyer. *J Phys & Colloid Chem* 52:808-10 My '48
- Free electron model for absorption spectra of organic dyes. H. Kuhn. *bibliog J Chem Phys* 16:840-1 Ag '48
- Heats of reaction and affinities of direct cotton dyes for cuprammonium rayon, viscose rayon and cotton. W. J. Marshall and R. H. Peters. *bibliog Soc Dyers & Col J* 63:446-60; Discussion. 460-1 D '47
- pH control of dyeing. R. B. Seymour and others. *bibliog Am Dyestuff Rep* 37:689-90 O 18 '48
- Hydrosulphites; production, properties, and textile applications. G. Brearley and J. Starkie. *diag Soc Dyers & Col J* 64:278-83 Ag '48
- Methyl derivatives of 1:4:5:8-tetra-amino-anthraquinone. R. H. Hall and D. H. Hey. *Chem Soc J* p736-40 Je '48
- New synthesis of 4-pyridazones. J. F. Morgan. *bibliog Am Chem Soc J* 70:2253-4 Je '48
- Outline of qualitative dye analysis. W. E. Mathewson. *Am Dyestuff Rep* 37:709-25 N 1 '48
- Precipitation of basic dyes with modified hydrous zirconia. W. B. Blumenthal. *Am Dyestuff Rep* 37:285-6 My 3 '48
- Preparation of certain nuclear-substituted 2-aminophenolsulphonic acids. W. F. Beech. *Chem Soc J* p212-16 F '48
- Relation between the absorption spectra and the chemical constitution of dyes; induced non-coplanarity in symmetrical benzidine dyes. R. J. Morris and W. R. Brode. *Am Chem Soc J* 70:2485-8 Jl '48
- Reversible photobleaching of dyes and pigments. R. Livingston. *bibliog J Phys & Colloid Chem* 52:527-34 Mr '48
- Review of the chemistry of the arylthiadiazoles or internal diazo-sulphides. H. H. Hodgson and D. P. Dodgson. *bibliog Soc Dyers & Col* 64:65-71 F '48
- Role of chemistry in the development of dyeing and bleaching. S. M. Edelstein. *bibliog il J Chem Educ* 25:144-9 Mr '48
- Salinogenic or chelate forming dyes as analytical reagents. A. Steigmann. *Soc Chem Ind J* 66:353-5 O '47
- Solubilization of dimethylaminoazobenzene in solutions of detergents; the effect of temperature on the solubilization and upon the critical concentration. I. M. Kolthoff and W. Stricks. *bibliog J Phys & Colloid Chem* 52:915-41 Je '48
- Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr. *bibliog J Phys & Colloid Chem* 52:12-22 Ja '48
- Some aspects of the electro-chemistry of dyeing. S. M. Neale. *bibliog Soc Dyers & Col J* 63:368-70; Discussion. 370-1 D '47
- Some trinuclear cyanine dyes synthesis of neocyanines. F. M. Hamer, R. J. Rathbone and B. S. Winton. *Chem Soc J* p 1434-43 N '47
- Steric hindrance to planarity in dye molecules. L. G. S. Brooker and others. *bibliog Chem R* 41:325-51 O '47
- Synthesis of azo boronic acids; dyes from tetrazotized benzidine-2,2'-diboronic acid. H. R. Snyder and S. L. Meisel. *Am Chem Soc J* 70:774-6 F '48
- Testing of colloidal solutions by dye solubilization. J. M. Lambert and W. F. Busse. *bibliog J Chem Phys* 16:847-8 Ag '48
- Thionol and its semiquinone radical. S. Granick and L. Michaelis. *bibliog Am Chem Soc J* 69:2983-6 D '47
- Zirconyl and basic zirconyl compounds in acid dyestuffs. W. B. Blumenthal. *bibliog Ind & Eng Chem* 40:510-12 Mr '48
- Cotton**
- Application of dyeing theory to dyeing practice. E. B. Abbot and others. *bibliog Soc Dyers & Col J* 63:462-7; Discussion. 467-8 D '47
- Avondale re-equips for package dyeing. M. T. Barnhill. *il Textile World* 98:125 Ap '48
- Combined skills produce quality knitgoods finishing. E. S. Dunlap. *il Textile World* 98:108-9 Ap '48
- Diffusion of direct dyes in cellulose. H. A. Standing and others. *bibliog Textile Inst J* 38:T335-49 O '47
- Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient. J. Crank. *bibliog Soc Dyers & Col J* 63:412-16; Discussion. 416-18 D '47
- Heats and reaction and affinities of direct cotton dyes for cuprammonium rayon, viscose rayon and cotton. W. J. Marshall and R. H. Peters. *bibliog Soc Dyers & Col J* 63:446-60; Discussion. 460-1 D '47
- Hosiery dyeing. H. Unwin. *Soc Dyers & Col J* 64:245-8 Jl '48
- Laboratory study of padding; cotton. C. L. Zimmerman and G. L. Royer. *bibliog il diag Textile Res J* 18:615-27 O '48; Excerpts. *Textile World* 98:124-5+ O '48
- Naphthol dyeing, past and present; abstract. F. Tripp. *Am Dyestuff Rep* 37:241 Ap 5 '48
- Package dyeing of yarns. H. J. Jordan, jr. *Am Dyestuff Rep* 37:304-6 My 3 '48
- Photo-chemical degradation of undyed and dyed cellulose irradiated by the mercury spectrum. H. Lanigan. *il Textile Inst J* 38:T285-92 S '48
- Pigmented resin emulsions for printing and pad dyeing. M. Silverman. *bibliog Am Dyestuff Rep* 37:44-6; Discussion. 46+ Ja 26 '48
- Role of hydrogen peroxide in the photochemical degradation of cotton sensitized by vat dyes and some metallic oxides. G. S. Egerton. *bibliog Textile Inst J* 39:T305-18 S '48
- Second report of Society of dyers and colourists committee appointed by Council to discuss the dyeing properties of direct cotton dyes. *Soc Dyers & Col J* 64:145-6 Ap '48
- Second report of Society of dyers and colourists fastness tests committee. *Soc Dyers & Col J* 64:133-7 Ap '48
- Cotton—rayon**
- Hosiery dyeing. H. Unwin. *Soc Dyers & Col J* 64:245-8 Jl '48
- Felt hats**
- Some factors in the dyeing of fur felt hats. H. H. Tucker. *bibliog il diags Am Dyestuff Rep* 37:483-93 Jl 26 '48
- Fluorescence**
- Fluorescent dye detects small leaks quickly. D. E. Hornbeck. *Power* 92:174 Mr '48
- Luminescent pigments are easily applied. R. Campbell. *il Textile World* 98:137+ Jl '48
- Study of fluorescent dyes. H. E. Milson and E. I. Stearns. *il Am Dyestuff Rep* 37:423-32 Je 28 '48
- Fur**
- See also*
Dyes and dyeing—
Felt hats
- Hosiery**
- Current developments in hosiery dyeing. E. J. Siegrist. *Am Dyestuff Rep* 37:192-4 Mr 22 '48; Abstract. *Rayon* 28:654-5 D '47; Same abr. *Textile World* 98:218+ Ja '48; Discussion. *Am Dyestuff Rep* 37:194+ Mr 22 '48
- Hosiery dyeing. H. Unwin. *Soc Dyers & Col J* 64:245-8 Jl '48
- Pastel hose shades test dyers' techniques. H. Plumlee. *il Textile World* 98:107-9 Ap '48
- Synthetics major problem in hosiery dyeing. V. T. Hartquist. *il Textile World* 98:127+ Jl '48
- Jute**
- Studies on the absorption of methylene blue by jute fibre. P. B. Sarkar and H. Chatterjee. *bibliog Soc Dyers & Col J* 64:218-21 Je '48
- Metachrome process**
- Metachrome dyeing process; cation active substances added; patent. *Am Dyestuff Rep* 37:396-7 Je 14 '48
- Mohair—rayon**
- Mohair-rayon blends offer unique dyeing problems. K. E. Marsden. *Textile World* 97:262+ N '47
- Natural dyes**
- Chemistry of the coprosma genus; a synthesis of areolatin and an isomer. 3:5:6:7-tetrahydroxy-2-methylantraquinone. L. H. Briggs, J. C. Dacre and G. A. Nicholls. *Chem Soc J* p990-2 Jl '48

DYES and dyeing—Natural dyes—Continued

Chemistry of the coprosma genus; the colouring matters from coprosma areolata. L. H. Briggs, M. B. Craw and J. C. Dacre. *Chem Soc J* p565-70 My '48

Chemistry of the coprosma genus; the colouring matters from coprosma australis. L. H. Briggs and J. C. Dacre. *Chem Soc J* p564-8 My '48

Some ancient natural dye sources. B. Brown. *Rayon* 29:92-3 F; 97 Je; 89 JI '48

See also

Logwood

Nylon

Action of light on viscose rayon, silk and nylon, undyed and dyed with some vat dyes. G. S. Egerton. *bibliog Textile Inst J* 39:T293-304 S '48

Application of dyeing theory to dyeing practice. E. B. Abbot and others. *bibliog Soc Dyers & Col J* 63:462-7; Discussion. 467-8 D '47

Combination of acid dyes with amine and amide groups in nylon fibre. P. W. Carlene and others. *bibliog diag Soc Dyers & Col J* 63:388-93 D '47; Abstract, *Am Dyestuff Rep* 37:137 F 23 '48

Current developments in hosiery dyeing. E. J. Siegrist. *Am Dyestuff Rep* 37:192-4 Mr 22 '48; Abstract. *Rayon* 28:654-5 D '47; Same abstr. *Textile World* 98:218+ Ja '48; Discussion. *Am Dyestuff Rep* 37:184+ Mr 22 '48

Dyeing of nylon with logwood. H. R. Tisdale. *il Rayon* 29:79-81 JI '48

Effect of fiber physical differences upon the dyeing of nylon staple. R. J. Thomas and B. F. Faris. *il Am Dyestuff Rep* 37:21-9 Ja 12 '48; Excerpts. *Textile World* 98:147 F '48

Nylon dyeing. *Rayon* 29:73 O '48

Nylon dyeing. H. Clapham. *Am Dyestuff Rep* 37:299-301 My 3 '48; Correction. 37:373 My 31 '48

Pastel hose shades test dyers' techniques. H. Plumlee. *il Textile World* 98:107-9 Ap '48

Replica studies of dyed nylon. F. A. Hamm and J. J. Comer. *bibliog il Anal Chem* 20:861-70 S '48

Stripping of dyed textiles by the use of hydrosulphite compounds. J. Starkie. *Soc Dyers & Col J* 63:342-3 N '47

Studies on nylon dyeing; effect of dyeing procedures. L. I. Fiddell and others. *bibliog il Am Dyestuff Rep* 37:166-81 Mr 8 '48; Excerpts. *Textile World* 98:216+ Ja '48; Discussion. *Am Dyestuff Rep* 37:181-2 Mr 8 '48

Synthetics major problem in hosiery dyeing. V. T. Hartquist. *il Textile World* 98:127+ JI '48

Types of dyes for nylon and wool-nylon; panel meeting, northern New England section. *Am Dyestuff Rep* 37:548-9 Ag 23 '48

Package dyeing

Avondale re-equips for package dyeing. M. T. Barnhill. *il Textile World* 98:125 Ap '48

Influence of liquor flow rate in package dyeing. W. Armfield. *bibliog il diag Soc Dyers & Col J* 63:381-5; Discussion. 386-7 D '47

Package dyeing of yarns. H. J. Jordan, jr. *Am Dyestuff Rep* 37:304-6 My 3 '48

Paper

Effect of dyestuffs on paper strength; abstract. G. Wünschmann. *Paper Ind* 29:1854 Mr '48

Rayon

Action of light on viscose rayon, silk and nylon, undyed and dyed with some vat dyes. G. S. Egerton. *bibliog Textile Inst J* 39:T293-304 S '48

Classification of direct dyes; tabulations. J. A. Woodruff. *Am Dyestuff Rep* 37:691-6 O 18 '48

Combined skills produce quality knit-goods finishing. E. S. Dunlap. *il Textile World* 98:108-9 Ap '48

Comparison of the effect on rayon fabrics of various gases under controlled conditions. F. K. Ray and others. *bibliog Am Dyestuff Rep* 37:391-6 Je 14 '48

Contribution to the problem of atmospheric fading. E. Meili. *Rayon* 29:81-3 My '48

Current processing problems of acetate and viscose rayon fabrics. H. G. Scull. *Am Dyestuff Rep* 37:468-70 JI 12 '48

Development of controlled equipment for testing fastness to atmospheric gases. F. K. Ray. *il diag Am Dyestuff Rep* 37:355-62 My 31 '48

Discharge printing of acetate rayons. H. P. Baumann. *Rayon* 29:94-5 Je '48

Dyeing cellulose acetate; anthraquinoid vat dyes; patent. *diag Am Dyestuff Rep* 36:785-6 D 29 '47

Dyeing cellulose acetate by adding swelling agents; patents. *Am Dyestuff Rep* 37:397-8 Je 14 '48

Dyeing cellulose acetate; different classes of dyestuffs; British patent. *Am Dyestuff Rep* 37:243 Ap 5 '48

Dyeing cellulose acetate; thiocyanates used; British patent. *Am Dyestuff Rep* 37:243 Ap 5 '48

Effect of laundering on gas fading performance of rayon fabrics. F. K. Ray and S. Davison. *bibliog Am Dyestuff Rep* 37:322-5 My 17 '48

Electrical theory of dyeing. W. Harrison. *bibliog Soc Dyers & Col J* 64:248-52 JI '48

Fast coloration of cellulose acetate rayon, with particular reference to shades of good fastness to scouring. A. Mellor and H. C. Olpin. *Soc Dyers & Col J* 63:396-9; Discussion. 399-400 D '47

Formation of an accelerated gas fading test for rayon fabrics. F. K. Ray and others. *bibliog Am Dyestuff Rep* 37:629-30 S 20 '48

Fumeproofing; increasing the resistance by impregnating with cyanamid; patent. *Am Dyestuff Rep* 37:655 O 4 '48

Heats of reaction and affinities of direct cotton dyes for cuprammonium rayon, viscose rayon and cotton. W. J. Marshall and R. H. Peters. *bibliog Soc Dyers & Col J* 63:446-60; Discussion. 460-1 D '47

Hue variations caused by monel metal; Dyrzol orange GH 225. *Soc Dyers & Col J* 64:252+ JI '48

Immunizing of cellulose fibers; changes of affinity; patent. *Am Dyestuff Rep* 37:246 Ap 5 '48

Influence of liquor flow rate in package dyeing. W. Armfield. *bibliog il diag Soc Dyers & Col J* 63:381-5; Discussion. 386-7 D '47

Methyl derivatives of 1:4:5:8-tetra-amino-anthraquinone. R. H. Hall and D. H. Hey. *Chem Soc J* p736-40 Je '48

One-bath method of dyeing acetate developed black. L. S. Thompson. *Rayon* 28:495-6 S '47; Abstract. *Am Dyestuff Rep* 36:663 N 17 '47

Photo-chemical degradation of undyed and dyed cellulose irradiated by the mercury spectrum. H. Lanigan. *il Textile Inst J* 39:T285-92 S '48

Progress in the application of vat dyes to viscose rayon cakes. J. Boulton. *Am Dyestuff Rep* 37:438-9+ Je 28 '48

Rayon dyeing; abstract. G. L. Royer. *Rayon* 29:56 My '48

Rayon dyeing and finishing. H. F. Creegan. *Am Dyestuff Rep* 37:520-4 Ag 9 '48

Scientific study of rayon dyeing. G. L. Royer. *bibliog il Am Dyestuff Rep* 37:526-8 Ag 9 '48

Second report of Society of dyers and colourists committee appointed by Council to discuss the dyeing properties of direct cotton dyes. *Soc Dyers & Col J* 64:145-6 Ap '48

Second report of Society of dyers and colourists fastness tests committee. *Soc Dyers & Col J* 64:133-7, 142-3 Ap '48

Selection of dyes and dyeing procedures for viscose rayon cake dyeing. J. A. Woodruff. *il Am Dyestuff Rep* 37:435-8 Je 28 '48

Sizing of yarn dyed warps. J. J. Sussmuth. *diag Rayon* 29:48 My '48

Some factors affecting the dyeing of viscose rayon. J. M. Preston, P. Pal and A. H. Kapadia. *bibliog diag Soc Dyers & Col J* 63:430-7; Discussion. 437-8 D '47

Special handling required for some rayon knit goods. *il Textile World* 98:115+ Ap '48

Staining of viscose rayon cross sections. P. H. Hermans. *bibliog il diag Textile Res J* 18:9-17 Ja '48

Study of the effect of certain variables on gas fading tests made under controlled conditions. F. K. Ray and others. *bibliog Am Dyestuff Rep* 37:529-36 Ag 9 '48

DYES and dyeing—Rayon—Continued

Will competition force continuous vat dyeing?
A. R. Wachter. Textile Col 70:16+ Ag '48

See also

Dyes and dyeing— Mohair—rayon Dyes and dyeing— Wool—rayon

Silk

Action of light on viscose rayon, silk and nylon, undyed and dyed with some vat dyes. G. S. Egerton. bibliog Textile Inst J 39:293-304 S '48

Second report of Society of dyers and colourists fastness tests committee. Soc Dyers & Col J 64:143-4 Ag '48

Stripping

Electrolytic method for stripping color from dyed wool. E. R. Kaswell and G. Thomson. il diags Am Dyestuff Rep 37:119-30 F '48; Discussion. 37:302-3 My 3 '48

Electrolytic method for stripping dyed wool; abstract. Textile World 97:133 N '47

Hydrosulphites; production, properties, and textile applications. G. Brearley and J. Starkie. diag Soc Dyers & Col J 64:278-83 Ag '48

Stripping of dyed textiles by the use of hydrosulphite compounds. J. Starkie. Soc Dyers & Col J 63:340-3 N '47

Work horse of the dye-house; Lykopen. il Rayon 29:86-7 Mr '48

Synthetic fibers

Acryl polymerizate fibers, dyeing with naphthol dyes; patent. Am Dyestuff Rep 37:247 Ap 5 '48

Vat dyes

Action of light on viscose rayon, silk and nylon, undyed and dyed with some vat dyes. G. S. Egerton. bibliog Textile Inst J 39:293-304 S '48

Blue or violet phthaloylacridone vat dyes. Soc Dyers & Col J 64:198-9 My '48

Dyeing apparatus for continuous development of vat colors; patent. diags Am Dyestuff Rep 37:656 O 4 '48

Dyeing cellulose acetate; anthraquinoid vat dyes; patent. diag Am Dyestuff Rep 36:785-6 D 23 '47

Dyeing of woollen fibers and fabrics with vat colors. G. T. Hug. bibliog il Am Dyestuff Rep 37:365-73 My 31 '48

Experimental studies of vat dyeing. O. W. Clark. il diags Am Dyestuff Rep 37:82-91 F 9 '48

New reagent for the identification of vat dyes; acidified potassium permanganate. D. A. Derrett-Smith and B. C. Gee. Soc Dyers & Col J 63:401-4 D '47

Practical experience in vat acid dyeing. J. H. Hennessey. Am Dyestuff Rep 36:776-7-4 D 29 '47; Abstract. Textile World 98:139 Ja '48; Discussion. W. Boyd, jr. Am Dyestuff Rep 37:63 Ja 26 '48

Progress in the application of vat dyes to viscose rayon cakes. J. Boulton. Am Dyestuff Rep 37:438-9+ Je 28 '48

Role of hydrogen peroxide in the photochemical degradation of cotton sensitized by vat dyes and some metallic oxides. G. S. Egerton. bibliog Textile Inst J 39:T305-18 S '48

Tendering of vat dyed textile materials on exposure to light. H. A. Turner. bibliog Soc Dyers & Col J 63:372-8; Discussion. 378-80 D '47

Vat dyeing, developing in air-bubbles containing soap bath; French patent. Am Dyestuff Rep 37:290-+ My 3 '48

Vat dyeing; eliminating the tendering, influence of light; patent. Am Dyestuff Rep 37:568 Ag 23 '48

Will competition force continuous vat dyeing? A. R. Wachter. Textile Col 70:16+ Ag '48

Work horse of the dye-house; Lykopen. il Rayon 29:86-7 Mr '48

Wool

Acetic, formic or sulphuric acid in wool piece dyeing, and why; panel meeting, northern New England section. Am Dyestuff Rep 37:549-60 Ag 23 '48

Application of chemical controls to acid dyeing; presented by Philadelphia section. bibliog Am Dyestuff Rep 37:149-65 Mr 8 '48; Abstract. Textile World 97:133-+ N '47

Application of dyeing theory to dyeing practice. E. B. Abbott and others. bibliog Soc Dyers & Col J 63:462-7; Discussion. 467-8 D '47

Color fastness and shrinkage control in woollens; men's wear versus women's wear. Textile Col 69:32+ D '47

Crocking. Rayon 29:86 Ja '48

Dye behavior varies on chlorinated wool. Textile World 97:118 D '47

Dyeing and fastness characteristics of aqueous-chlorinated wool. bibliog il Am Dyestuff Rep 37:221-36 Ap 5 '48

Dyeing chlorinated tops; panel meeting, northern New England section. Am Dyestuff Rep 37:547 Ag 23 '48

Dyeing of woollen fibers and fabrics with vat colors. G. T. Hug. bibliog il Am Dyestuff Rep 37:365-73 My 31 '48

Dyeing properties of chlorinated wool. J. Barritt and F. F. Elsworth. bibliog pl Soc Dyers & Col J 64:19-33 Ja '48

Dyeing wool; azo dyes with chrome-complex; formaldehyde added; patent. Am Dyestuff Rep 36:665-6 N 17 '47

Effect of light exposure on animal fibers. A. N. Patterson. Rayon 29:97 Ap '48

Electrolytic method for stripping color from dyed wool. E. R. Kaswell and G. Thomson. il diags Am Dyestuff Rep 37:119-30 F 23 '48; Discussion. 37:302-3 My 3 '48

Experimental studies of vat dyeing. O. W. Clark. il diags Am Dyestuff Rep 37:82-91 F 9 '48

German woollen and worsted dyeing and finishing trades; survey; abstract. Textile Inst J 38:A503-4 N '47

Importance of pH control in wool processing. S. Mooradian and H. E. Millson. Rayon 29:8-5 Ag; 92-4 O; 94-5 bibliog(p94) N '48

Influence of chlorination on wool dyeing. H. Luttringhaus. Am Dyestuff Rep 37:464-5+; Discussion. 471-2 JI 12 '48

Manufacture and processing of quality blended fabrics. E. A. Richards. Am Dyestuff Rep 37:34-6 Ja 12 '48

Measurement of the affinity of monobasic acid dyes for wool. D. R. Lemlin and T. Vickerstaff. bibliog Soc Dyers & Col J 63:405-10; Discussion. 410-11 D '47

Method for the graphical representation of the dyeing properties of acid wool dyes. H. Ris and others. Soc Dyers & Col J 64:297-304 S '48

New applications of colour measurement in the dyeing of wool. H. J. Selling. bibliog Soc Dyers & Col J 63:419-24 D '47

Second report of Society of dyers and colourists fastness tests committee. Soc Dyers & Col J 64:137-42 Ap '48

Stripping of dyed textiles by the use of hydrosulphite compounds. J. Starkie. Soc Dyers & Col J 63:340-3 N '47

What advantages has diammonium phosphate in acid and/or chrome dyeing? panel meeting, northern New England section. Am Dyestuff Rep 37:547-8 Ag 23 '48

Wool dyeing assistants; abstract. S. Yates. Am Dyestuff Rep 36:643 N 3 '47

Wool dyeing process has critical crock point. H. E. Millson and others. il Textile World 98:127-+ My '48

Wool finishing technology bared at AATCC meeting. Textile World 98:125-+ S '48

Woolen mill dyehouse. E. Appeltoff. Am Dyestuff Rep 37:374-5 My 31 '48

Wool—nylon

Types of dyes for nylon and wool-nylon; panel meeting, northern New England section. Am Dyestuff Rep 37:548-9 Ag 23 '48

Wool—rayon

Use of rayon staple in woven fabrics in England. R. S. Greenwood. Rayon 29:45-6 Ja '48

DYES and dyeing, Photographic

Bridge substituted hemicyanines. N. Picus and P. E. Spoerri. bibliog Am Chem Soc J 70:3073-5 S '48

Densensitization by sensitizing dyes. J. Spence and B. H. Carroll. bibliog J Phys & Colloid Chem 52:1090-103 Je '48

cycloHexenone derivatives: intermediates and photographic sensitising dyes; patent. Soc Dyers & Col J 64:199 My '48

DMAXION houses. See Fuller houses, inc.

DYNAMIC symmetry. See Symmetry, Dynamic

DYNAMICS

Analysis of the dynamic forces in a cam-driven system. J. A. Hrones. diags A S M E Trans 70:743-9 JI '48; Excerpts. Machine Design 20:135-8 Ja '48; Discussion, A S M E Trans 70:479-82 JI '48

Solid body mechanics in relation to mechanical engineering. C. Inglis. Inst Mech Eng J & Proc 157 (War emergency issue no 31): 271-4 '47

See also

Aerodynamics	Mechanics
Electrodynamics	Moments of inertia
Hydrodynamics	Thermodynamics
Machinery—Design	Vibration

DYNAMITE

Broken drills removed with dynamite. II Diesel Power 26:45-7 Ag '48

DYNAMITE cartridges. See Cartridges, Dynamite

DYNAMOMETER cars

L.M.S. mobile testing plant. II Engineer 184: 144-6 Ag 15 '47; Same. Ry Age 124:752-4 Ap 17 '48; Same abr. Electrician 139:473-4 Ag 15 '47; Same cond. Elec R (Lond) 141: 290-2 Ag 22 '47

Mobile locomotive testing plant of the London, Midland and Scottish railway. H. I. Andrews. II plans diags Engineer 185:409-11, 434-5, 457-8 Ap 23-May 7 '48; Same abr. Engineering 165:596-9, 620-2 Je 18-25 '48; Discussion. Engineer 185:394-5 Ap 23 '48

Railroad dynamometer car of the University of Illinois and the Illinois central railroad. J. K. Tuthill. II plan diags Ill U Eng Exp Sta Circ 52:1-34 '47 (25c)

DYNAMOMETERS

Better tool; the dynamometer. E. B. Richardson. II Bus Transportation 26:67 D '47

Drilling stresses present in cable-tool operations. J. F. Kendrick. Oil & Gas J 46:80-1 D 13 '47

High precision dynamometer for small motor measurements. J. E. Duff. II diags Product Eng 19:132-3 My '48; Same abr. Elec World 129:96-1 Je 19 '48

Modern high-speed d-c dynamometers. K. R. McDougal. II Gen Elec R 50:15-17 N '47

Practical dynamometer card interpretation. W. H. Ritterbusch, jr. diags World Oil 127:152-4 Mr '48

Punched tape controls engine test cycle. II diags Product Eng 19:104-5 Ja '48

Ring dynamometer for pumping wells; abstract. D. O. Johnson. Oil & Gas J 47:106 O 14 '48

DYNAMOTORS

CQ mobile; details covering a simple rig using war surplus PE-103-A dynamotor. F. L. McGraw. II diags Radio & Tv N 40:60-2+ O '48

Dynamotor design. K. H. Fox. II Communications 28:14-16+ Ag '48

Modification of the PE-103-A. diags Q S T 32:31-1+ Ag '48

DYSENTERY

Diarrheal disease control studies; effect of fly control in a high morbidity area. J. Watt and D. R. Lindsay. Pub Health Rep 63:1319-34 O 8 '48

Studies of the acute diarrheal diseases; epidemiology. A. V. Hardy and J. Watt. bibliog Pub Health Rep 63:363-73 Mr 19 '48

Studies of the acute diarrheal diseases; further observations of chemotherapy in shigellosis; the efficacy of streptomycin and sulfacarazole. A. V. Hardy and S. P. Halbert. Pub Health Rep 63:790-2 Je 11 '48

Studies of the acute diarrheal diseases; immunization in shigellosis. A. V. Hardy and others. bibliog Pub Health Rep 63:685-8 My 21 '48

Studies of the acute diarrheal diseases; salmonellosis in Florida. M. M. Galton and A. V. Hardy. bibliog Pub Health Rep 63:847-51 Je 25 '48

DYSMENORRHEA. See Menstruation

E

E.M.F. See Potential, Electric

EAR

Construction material of the sound conduction system of the human ear. H. G. Kobrak. bibliog II diags Acoustical Soc Am J 20:125-30 Mr '48

Elasticity of the cochlear partition. G. v. Békésy. bibliog II diags Acoustical Soc Am J 20:227-41 My '48

EARTH

Life comes to a planet. A. E. Wilson. II maps diag Can Min J 69:57-65 JI; 80-4 Ag; 60-9 S '48

Origin of the ice; eccentricities in motion of the earth. G. Gamow. II map diags Sci Am 179:40-5 O '48

Symposium on origin of the earth; A.A.A.S. astronomy section. Science 107:160-1 F 13 '48

See also

Continents	Ore deposits
Geology	Paleontology
Geophysics	Volcanoes
Isostasy	Water, Underground
Magnetism, Terrestrial	

EARTH construction

See also

Adobe

EARTH movements

Crustal movement in the Great Lakes area. S. Moore. bibliog Geol Soc Bul 59:697-709, pl 1 JI '48

Subsidence (earth movements)

EARTH pressure

Charts facilitate determination of stresses under loaded areas. H. Gray and I. J. Hooks. Civil Eng 18:373-5 Je '48

Lateral earth pressures on flexible retaining walls; symposium. II plans diags Am Soc C E Proc 74:4-100 Ja '48; Discussion. 74: 1003-14, 1415-18 Je, O '48

EARTH temperature

Design of earth heat source systems. E. N. Kemler. diags Heat & Ven 45:70-3 Ag '48

Evidence for a steepening of geothermal gradients in some deep mines and drill holes. J. A. Noble. bibliog Am J Sci 246: 426-40 JI '48

Geothermal gradients, recent climatic changes, and rate of sulfide oxidation in the San Manuel district, Arizona. T. A. Lovering. bibliog map Econ Geol 43:1-20 Ja '48

Heat pump; how to analyze earth as a heat source. B. F. Raber and others. Heating-Piping 20:82-6 Mr '48

Heat source possibilities of the earth in the Milwaukee area. C. H. Randolph and O. O. Wagley. diags Heating-Piping 20:85-6 My '48

Joint AEIC-BEI heat pump committee suggests method for ground temperature measurements. diag Edison Elec Inst Bul 16: 35-6 F '48

Pyrite geo-thermometer. F. G. Smith. bibliog II diags Econ Geol 42:515-23 S '47

Something for nothing; heat pump utilizing earth temperature. map diags Diesel Power 26:74-7 Mr '48

Temperature and heat flow in a well near Colorado Springs. F. Birch. map Am J Sci 245:733-53 D '47

Theory of the ground pipe heat source for the heat pump. L. R. Ingersoll and H. J. Plass. bibliog Heating-Piping 20:119-22 JI '48

Thermal consequences of the capture of neutrinos by the earth. A. E. Benfield. Phys R 74:621 S 1 '48

Use of earth to cool water. W. L. Nelson. Oil & Gas J 47:73 S 2 '48

EARTHQUAKES

Earthquake calculations are made by punched card machines. II Eng N 141:110 S 16 '48

Mendota quake. C. C. Bradley. map Am J Sci 246:390 Je '48

Our navy and South America's greatest earthquake. H. C. Votaw. II U S Naval Inst Proc 74:344-9 Mr '48

Seismological society of America April meeting, Stanford University; abstracts of papers. Geol Soc Bul 58:1264-70 pt 2 D '47

EARTHQUAKES and building

- Plan earthquake design research body. Eng N 140:389 Mr 11 '48
- Possibility of damage from earthquakes in California leads to development of reinforced concrete masonry design. C. D. Walles, jr. diags Concrete 55:23-5+ D '47
- Prescription for an earthquake-proof power plant at Idaho Falls. II diags Diesel Power 26:72-3 JI '48
- S. C. Johnson and co. laboratory tower in earthquake cantilever construction; design by F. L. Wright. II plans diags Arch Forum 88:111-15 Ja '48
- Seismic factors control design of ten-story, steel-frame building for Los Angeles times. D. L. Narver. II diags Eng N 141:31-2 S 2 '48
- Sports club is part of hotel development for Huntington Hartford in Hollywood hills; design by F. L. Wright; earthquakeproof cantilever construction. II plans Arch Forum 88:100-6 Ja '48
- Structural design for a steam plant in an earthquake area. R. A. Larsen and W. F. Swiger. II diags Eng N 140:430-3 Mr 18 '48

EARTHWORK

- David dam; last in series of coordinated structures below Hoover dam. L. A. Luther. II map plan Comp Air Mag 53: 52-9 Mr '48
- Design and construction of the Anderson Ranch dam. E. L. Armstrong. II diags Engineering 166:289-91, 300, 313-15 S 24-O 1 '48
- Investigation of drainage rates affecting stability of earth dams. F. H. Kellogg. diags Am Soc C E Proc 73:1065-88 S '47; Discussion. 74:239-47, 1032-8 F. Je '48
- Job success depends on wise use of equipment; Louisville's \$18,000,000 levee. II diags Civil Eng 18:234-5 Ap '48
- San Francisco soils and equipment conference, April 8-9; with abstracts of papers. Roads & Sts 91:55-8+ My '48
- Subgrade soil practices. T. E. Shelburne. II Pub Works 79:26-7+ Je '48
- See also*
- | | |
|----------------------|-----------------------|
| Dams | Foundations |
| Ditches | Grading (earthwork) |
| Drainage | Hydraulic filling |
| Drilling and boring | Railroads—Earthwork |
| (earth and rocks) | Retaining walls |
| Earth pressure | Roads—Subgrades |
| Excavating machinery | Soil mechanics |
| Filling | Trenches |
| Foundation soils | Tunnels and tunneling |

Cost

- Contract unit bid prices. Eng N 140:898-9+ My 27 '48
- EAST Utah mining company**
Common stock offered. Comm & Fin Chr 166: 2309 D 8 '47
- EASTERN air lines, inc.**
Annual report. Comm & Fin Chr 167:2255-6 My 24 '48
- Awkward case of Eastern airlines. Fortune 38:100-2 N '48
- EASTERN association of electroencephalographers**
Meeting, Bethesda, Maryland; program. Science 107:471 My 7 '48
- EASTERN underwriters association**
Annual meeting, 21st, New York. East Underw 48:72+ D 19; 1+ D 26 '47; Nat Underw 51:1+ D 25 '47; Weekly Underw 157: 1622+ D 27 '47
- Midyear meeting, Manchester, Vt., June 21-22. East Underw 49:1+ Je 25 '48
- President's address at midyear meeting; abstracts. G. H. Duxbury. Weekly Underw 158:1817+ Je 26 '48; Nat Underw 52:2 Je 24 '48
- EASTMAN Kodak company**
Investment audit. C. F. Morgan. II Mag of Wall St 82:78-9+ Ap 24 '48
- News and views of investments. Barron's 28:26 Ag 23 '48
- Television may add millions to Kodak's sales. B. Ravits. Barron's 28:30 Ag 2 '48
- EATON, Cyrus Stephen, 1883-**
Kaiser-Eaton feud. por Fortune 38:88-9+ O '48

EAU CLAIRE, Wisconsin**Bridges**

- Erecting cantilever bridge. II Roads & Sts 91:66-7 Ja '48
- EBASCO services, inc.**
Ebasco expands its horizon. II Bsns W p58+ N 29 '47
- New consulting electrical engineer. R. E. Pierce. Elec World News ed 129:27-8 My 15 '48
- EBERLY, Marion Stevens**
Director of the Women's division, Institute of life insurance. R. Siegel. por Spectator (Life ed) 156:8-11+ Ag '48
- EBONITE**
Semi-ebonites. F. S. Rostler. India Rubber World 117:492-7 Ja '48
- ECCLES, Marriner Stoddard, 1890-**
Credit controls stay despite Eccles' demotion. por Bsns W p58-9 Ja 31 '48
- Eccles replaced as Federal Reserve chairman by T. B. McCabe. por Comm & Fin Chr 167:508 Ja 29 '48
- ECHO**
Construction and design of Parmy sound laboratory and anechoic chamber. P. J. Mills. II diags Acoustical Soc Am J 19: 988-92 N '47
- Echoes at Echo bridge. A. T. Jones. diags Acoustical Soc Am J 20:706-7 S '48
- Performance of the anechoic room of the Parmy sound laboratory. H. C. Hardy and others. Acoustical Soc Am J 19:992-5 N '47
- Reverberation in the sea. C. F. Eyring and others. II diags Acoustical Soc Am J 20:462-75 JI '48
- Time integral basic to optimum reverberation time. J. P. Maxfield. Acoustical Soc Am J 20:483-6 JI '48
- ECHO sounding.** See Sounding
- ECHOES, Radio.** See Radio echoes
- ECKER, Frederick H. 1867-**
1948 Russell award winner. East Underw 49:3 S 10 '48; Nat Underw (Life ed) 52:3+ S 10 '48
- Outstanding achievement award for N.Y. citizen goes to Ecker. East Underw 48:3+ N 7 '47
- ECLIPSES, Solar**
Annual eclipse of May 8-9. Science 107:164-5 F 13 '48
- Ionospheric eclipse of Oct. 1, 1940; variations in the critical frequencies of the various ionospheric layers over Queenstown, South Africa. J. A. Pierce. II map Inst Radio Eng Proc 36:8-15 Ja '48
- Observations from the seven stations. Science 107:542 My 21 '48
- ECOLOGISTS union**
Organization; first full slate of officers. Science 107:189 F 20 '48
- ECOLOGY**
Ecological applications of Lansing's physiological work on longevity in rotatoria. W. T. Edmondson. bibliog Science 108:123-6 Ag 6 '48
- See also*
Paleoecology
- ECOLOGY, Human.** See Man—Influence of environment
- ECONOMIC commission for Europe.** See United nations—Economic commission for Europe
- ECONOMIC conditions**
Economic outlook. A. H. Temple. Comm & Fin Chr 167:609 F 5 '48
- Economic situation; interview with M. S. Szymczak; radio broadcast, July 31, 1948. Comm & Fin Chr 168:505+ Ag 5 '48
- Economic situation; its strength and weakness. B. H. Beckhart. Comm & Fin Chr 168: 1200+ S 23 '48
- Fortune survey; Fortune consumer outlook. E. Roper. Fortune 36:5-6+ N '47; 37:5-6+ Ap '48
- Illegitimus non carborundum; gloomy outlook of Harper's weekly. Oct. 10, 1957. S. Krupnick. Ptr Ink 223:123 Je 4 '48
- Our dismal outlook. V. Jordan. Comm & Fin Chr 167:2081+ My 13 '48
- Passing world; abstract. H. Tizard. Chem & Ind p603 S 18 '48
- Runaway inflation or depression unlikely. R. A. Taft. Comm & Fin Chr 168:597+ Ag 12 '48

ECONOMIC conditions—Continued

Thinking about the world and its economics. B. Ruml. *Comm & Fin Chr* 167:1978+ My 6 '48

When do we go from here? R. Rodgers. *Comm & Fin Chr* 168:1851+ N 4 '48

Will 1948 see us closer to economic balance? graphic summary of long-range economic trends. R. E. Snyder. *Ind Marketing* 33: 38-9+ Ja '48

See also

Business conditions Labor supply

Cost of living Prosperity

Food supply

also subdivision Economic conditions under names of countries and regions, e.g. Germany—Economic conditions; United States—Economic conditions

ECONOMIC cooperation administration

ABCs of ERP transactions; U.S. food exports under the recovery program. D. A. Fitzgerald. *Food Ind* 20:1013-14 J '48

Basic function is that of investment bankers for recovery. P. G. Hoffman. *For Comm W* 32:14-15 J '48

Basic terms and objectives of ECA; address before Organization for European economic cooperation. Paris. P. G. Hoffman. *Comm & Fin Chr* 168:507+ Ag 5 '48

Building U.S. stockpiles under ECA program. *Bsns W* p25-6 S 18 '48

Cisler and DeForest to control power aid under ECA program. *Elec World News* ed 130:4 J '48

Clarification of certain vital points respecting business procedures under ECA. *For Comm W* 32:7 J '48

Companies supplying Europe oil deny phantom freight charges. *Oil & Gas J* 47:56 J '48

CEA report and Foreign assistance act of 1948. *Mo Labor R* 66:640-1 Je '48

Doing business under European recovery program. A. M. Strong. *Comm & Fin Chr* 168: 310+ J '48

ECA accounting futilities. *Economist* 155:277-8 Ag 14 '48

ECA apportionment and intra-European clearing. J. H. Richter. *Comm & Fin Chr* 168:1000+ S 9 '48

ECA calms fears of U.S. exporters. *Oil Paint & Drug Rep* 153:4+ My 10 '48

ECA delivers the goods. *Economist* 155:297-8 Ag 21 '48

ECA European payments plan. R. M. Bissell, jr. *Comm & Fin Chr* 168:512+ Ag 5 '48

ECA experts seek to cut U.S. ships' export share. P. A. Johnston. *Barron's* 28:4 O 18 '48

ECA gets under way. *Economist* 154:803-4 My 15 '48

ECA issues regulations covering financing of Marshall plan exports. *Oil Paint & Drug Rep* 153:5 My 24 '48

ECA regulations with respect to guaranties. *For Comm W* 32:44-5 J '48

ECA sacrifices goal to avert trade collapse. R. M. Bleiberg. *Barron's* 28:7 O 4 '48

ECA starts briskly up the wrong road. *Barron's* 28:1+ J '48

ECA takes stock of its first six months. *Bsns W* p 117-18 O 16 '48

ECA to open European trade when its own birth pains end. *Sales Management* 60:81 My 1 '48

ECA's ledger. *Bsns W* p36 J '48 [cont weekly]

ECA's strategic materials division. T. Falco. II maps Eng & Min J 149:70-4 S '48

Emblem to appear on shipments under recovery program. *For Comm W* 33:7 O 16 '48

ERP will break world oil market unless watched, official warns. *Oil & Gas J* 47:53 Ag 12 '48

French squabble on U.S. aid. *Bsns W* p 122-3 Je 26 '48

Going concern; look at Marshall plan's management and shape of its job. *Fortune* 33: 62-7 Ag '48

Harriman's men; architects of recovery. *Bsns W* p 105-6+ S 4 '48

How Hoffman will run ECA. *Bsns W* p 19-20 Ap 10 '48

How the Economic cooperation act of 1948 (Marshall plan) will be administered. *Mill & Factory* 42:insert Je '48

Industry role in aid program. P. G. Hoffman.

Oil Paint & Drug Rep 153:5+ My 3 '48

Invest in Europe. *Bsns W* p 117-18 Je 19 '48

Marshall plan is now the ECA. H. Bratter. Banking 40:53-4 My '48

Master plan of action by Europe, to embody creative forces, is called vital. P. G. Hoffman. *For Comm W* 32:9+ Ag 14 '48

Members of advisory committee on fiscal and monetary problems. *Comm & Fin Chr* 167:2324 My 27 '48

Men for the ECA; Counterpart funds. *Fortune* 37:3-4 Je '48

Need for a controller in administration of the Marshall plan. H. E. Howell and I. Swerdlow. *J Account* 85:392-401 My '48

Oil shipments financed by ECA; benefits likely. W. J. Levy. *For Comm W* 33:15 N 8 '48

Organization; with chart. *Bsns W* p24-5 J '48

Paul Hoffman's union men. *Fortune* 33:141-2+ O '48

Plans and procedures of ECA. J. M. Cleary. *Comm & Fin Chr* 168:301+ J '48

Private trade in foreign aid, a businessman's manual on ECA; by J. C. Borton and others; review. *For Comm W* 32:12+ S 25 '48

Progress of the ECA. *Nat City Bank* p 128-31 N '48

Progress, policies, procedures. *For Comm W* 31:44-6 Je 12 '48 [cont weekly]

Provisional allotments for China. *For Comm W* 33:16+ N 8 '48

Wants ECA to rehabilitate private business. R. W. Gifford. *Comm & Fin Chr* 168:715 Ag 19 '48

What ERP means to industry; how it works. *Mod Ind* 15:102-4+ Je '48

What pressure is the foreign-aid program exerting on U.S. economy? excerpt from mid-year report by Council of economic advisers. *For Comm W* 32:3+ Ag 14 '48

Will U.S. sell consumer goods to Europe under the Marshall plan. *Sales Management* 61:120+ O 1 '48

ECONOMIC history

Business records as a source of economic history with special reference to their selection preservation in libraries. W. E. Chaloner. *bibliog J Doc* 4:5-13 Je '48

ECONOMIC lot sizes. See Quantities (in production)**ECONOMIC penetration (term)**

Economic penetration and power politics. C. C. Abbott. *Harvard Bsns R* 26:410-24, 613-26 J '48

ECONOMIC planning

Budget and tax adjustments for prosperity and depression; positive instrument of economic control. R. A. Musgrave. *Comm & Fin Chr* 167:17+ Ja 1 '48

Capital cuts; Britain's program for 1948. *Economist* 153:928-30 D 6 '47

Capital formation in industry; government programme of capital investment for next year. *Economist* 155:344-6 Ag 28 '48

First national bank of Boston holds government planning leads to totalitarianism. *Comm & Fin Chr* 168:913+ S 2 '48

Free enterprise and planned economy. R. L. Garis. *bibliog Comm & Fin Chr* 167:9+ Ja 1 '48

Frontiers of planning; a commentary on Ordeal by planning. by John Jewkes. *Economist* 154:619-20 Ap 17 '48

Managed economy worldwide keynote. A. W. May. *Comm & Fin Chr* 168:1309+ S 30 '48

National planning won't work. R. Rodgers. *Comm & Fin Chr* 167:2087+ My 13 '48

Plan and pseudo-plan. *Economist* 155:291-2 Ag 21 '48

Planning and nationalisation in Great Britain. H. Finer. *Int Labour R* 57:157-86, 283-99 Mr-Apr '48

Question of controls; strategic, economic and political aspects. R. S. Meriam. *Harvard Bsns R* 26:454-67 J '48

Timing fiscal policy; advance planning to meet economic fluctuations. E. E. Hagen. *Comm & Fin Chr* 167:11+ Ja 1 '48

See also National planning association

ECONOMIC planning, International

Better investment climate? Economic pact of Bogota. *Bsns W* p 125-6 My 15 '48

ECONOMIC planning, International—Continued

- Economic agreement of Bogota; an inter-American milestone. H. Chalmers. *For Comm W* 31:3-6+ *Je* 12 '48
- European economic integration. P. Einzig. *Comm & Fin Chr* 168:705 *Ag* 19 '48
- ECONOMIC poison laws.** See Insecticides—Law
- ECONOMIC poisons control officials, Association of.** See Association of economic poisons control officials
- ECONOMIC policy**
- AEA economic policy commission presents program for economic stabilization. *Comm & Fin Chr* 167:1879 *Ap* 29 '48
- Balanced economy; labor's view. K. Eby. *Comm & Fin Chr* 168:611+ *Ag* 12 '48
- Does freedom lie in dissection? review of Decentralize for liberty, by T. Hewes. *Pub Util* 41:447-50 *Mr* 25 '48
- Dollar crisis in New England; economic fable for our times; satire. J. K. Gailbraith. *Fortune* 37:82-3 *Ap* '48
- Dollars and sense. O. W. Adams. *Comm & Fin Chr* 167:2744+ *Je* 24 '48
- Economic fallacies and business outlook. G. R. Collins. *Comm & Fin Chr* 168:1852+ *N* 4 '48
- Economic means to peace; increased productivity of European industries without restrictive trade barriers. R. M. Bissell, Jr. *Il Tech R* 50:499-500+ *JI* '48
- Economic outlook and what to do about it. H. Hazlitt; A. Temple. *Comm & Fin Chr* 166:2274 *D* 4 '47
- Economic stabilization in a troubled world. E. G. Nourse. *Comm & Fin Chr* 167:2191+ *My* 20 '48
- Economics collides with ethics. R. E. Flanders. *Comm & Fin Chr* 167:4+ *Ja* 1 '48
- Essentials for economic health. O. B. Jesness. *Comm & Fin Chr* 168:599+ *Ag* 12 '48
- Fortune survey; looking back; new deal reforms approved. *Fortune* 38:33-4+ *N* '48
- Foundations for constructive world leadership. M. Sayre. *Il Dun's R* 56:11-13+ *S* '48
- How to discourage prosperity. R. P. Jellett. *Trusts & Estates* 86:352 *Ap* '48
- International trade and economic reconstruction. J. D. Mooney. *Comm & Fin Chr* 166:2613+ *D* 25 '47
- Let's stay free; address before NAM annual congress of American industry. New York city. C. E. Wilson. *Comm & Fin Chr* 166:2376+ *D* 11 '47
- Lionel Robbins, and The economic problem. J. Davenport. *Fortune* 36:5-6 *D* '47
- Must 1929 repeat itself? T. Arnold. *Harvard Bsns R* 26:32-45 *Ja* '48
- Our basic economic problems. J. P. Wolcott. *Comm & Fin Chr* 166:2157+ *N* 27 '47
- Our economic dilemma and the way out. F. I. Kent. *Comm & Fin Chr* 168:1438-9+ *O* 7 '48
- Our economic system in the unsettled world. W. E. Spahr. *Comm & Fin Chr* 168:98+ *JI* 8 '48
- Production and prices. W. E. Spahr. *Comm & Fin Chr* 166:2047+ *N* 20 '47
- Profit motive and national security; urges protection of fair profits and healthy industry under private enterprise. J. S. Lawrence. *Comm & Fin Chr* 167:899+ *F* 26 '48
- Progress of economic reconversion. E. G. Nourse. *Comm & Fin Chr* 166:2171+ *N* 27 '47
- Six steps to stability. H. D. Scott, Jr. *Comm & Fin Chr* 168:1104+ *S* 16 '48
- Some basic foods, for thought. F. L. Whitmarsh. *Comm & Fin Chr* 167:808+ *F* 19 '48
- Stake of industry. M. Sayre. *Ann Am Acad* 253:113-21 *S* '48
- Ten economists on the inflation. S. E. Harris and others. *R Econ & Stat* 30:1-29 *F* '48
- Toward a stable economy. D. M. Keezer. *Comm & Fin Chr* 167:2093+ *My* 13 '48
- Two worlds. W. C. Mullendore. *Edison Elec Inst Bul* 16:299-302 *S* '48
- U.S. Chamber of commerce opposes new economic controls; suggests restraints. *Comm & Fin Chr* 168:316+ *JI* 22 '48
- Way out. J. Jacobs and W. G. Leon. *Comm & Fin Chr* 166:2478+ *D* 18 '47
- Where the candidates stand on matters vital to industry. *Factory Management* 106:66-75 *My* '48

Will dollars save the world? review of pamphlet by H. Hazlitt. T. D. Ellsworth. *J Retailing* 24:37-9 *F* '48

World requires a sound United States economy. A. M. Landon. *Comm & Fin Chr* 168:603+ *Ag* 12 '48

Year of decision. L. Saltonstall. *Comm & Fin Chr* 167:611+ *F* 5 '48

See also

Capitalism
Commercial policy (World war, 1939-1945)
Communism
Money

Reconstruction

(World war, 1939-1945)

Socialism

Tariff

Taxation

also subdivision Economic policy under names of countries, e.g. Great Britain—Economic policy; United States—Economic policy

ECONOMIC relations

Economic penetration and power politics. C. C. Abbott. *Harvard Bsns R* 26:410-24, 613-26 *JI-S* '48

See also subdivision Economic relations under names of countries, e.g. Italy—Economic relations; United States—Economic relations

ECONOMIC research

Development of Salter's conception of research. K. H. Parsons. *Land Econ* 24:175-8 *My* '48

See also

Bank research
Retail trade—Research

ECONOMIC statistics

Appraisals of Russian economic statistics. S. E. Harris and others. *R Econ Stat* 29:213-46; 30:34-41 *N* '47, *F* '48

Commercial surveys as an aid in the determination of public policy; a case study; Massachusetts bill for state-owned liquor stores and prohibition of private sale of packaged liquor. S. P. Hayes, Jr. *J Marketing* 12:475-82 *Ap* '48

Discussion of the new Department of commerce income series; national income; a new version. S. Kuznets. *bibliog R Econ & Stat* 30:151-79; Reply (Objectives of national income measurement). M. Gilbert and others. 179-95; Further comments. M. Kalleck. 195-7 *Ag* '48

Economic almanac for 1948. 472p \$5; pa \$4
Conference board, 247 Park av, New York 17 '47

Federal Reserve chart book as an aid to bank management. C. H. Schmidt. *Fed Res Bul* 34:382-90 *Ap* '48

Handbook of basic economic statistics; manual of basic economic data on industry, commerce, labor, and agriculture in the United States. Published monthly by Government statistics bur. of Washington, 631 Pennsylvania av, N.W. Washington 4

National income and product statistics of the United States, 1929-46; with detailed tabulations. Survey of Cur Bsns 27:sup 1-54 *JI* '47

National income and product statistics of the United States, 1944-47; with detailed tabulations. Survey of Cur Bsns 28:12-29 *JI* '48

Personal spending soars, but savings don't; with national income and product data for 1947 and comparisons with 1946. Bsns W p21 *Mr* 13 '48

Progress of the postwar transition; national product and national income in 1947; with figures for other years. Survey of Cur Bsns 28:4-11 *F* '48

See also

Business statistics
Consumption (economics)—Statistics
Employment—Statistics
Economics
Income—Statistics
Prices—Statistics
Production—Statistics
Saving—Statistics
Wages—Statistics

ECONOMIC surveys

City worker's family budget; purpose and methods followed in BLS survey for 34 cities; with tables. L. S. Kellogg and D. S. Brady. *bibliog Mo Labor R* 66:133-70 *F* '48

1948 survey of consumer finances. D. M. Holthausen and others. *Fed Res Bul* 34:634-6, 766-8, 914-32, 1058-65 *Je-S* '48

Studies in consumer expenditures (1901, 1918-19, 1922-24). H. G. Lewis and P. H. Douglas. *bibliog J Bsns* 20 pt 2:1-55 [with appendix of statistical tables] *O* '47

ECONOMICS

Application of three-dimensional dynamic graphics to the presentation of economic principles. J. D. Mooney and W. Fried. *il J Eng Educ* 38:374-84 Ja '48
 Keynesian miracle. L. von Mises. *Comm & Fin Chr* 167:2095+ My 13 '48
 Two interpretations of Keynesian economics. A. H. Hansen; A. F. Burns. *R Econ Stat* 29:247-68 N '47
 Veblen. *il Fortune* 36:132-5+ D '47

See also

Advertising—Economic aspects
 Agriculture—Economic aspects
 Balance of payments
 Banks and banking
 Business
 Capital
 Capitalism
 Commerce
 Consumption (economics)
 Cooperation
 Cost
 Cost of living
 Credit
 Debt
 Debts, Public
 Distribution (economics)
 Economic policy
 Finance
 Government regulation of industry
 Housing
 Income
 Index numbers (economics)
 Industrial relations

Industry
 Interest
 Labor and laboring classes
 Land
 Manufactures
 Money
 Monopolies
 Population
 Prices
 Production
 Profit
 Profit sharing
 Prosperity
 Rent
 Saving
 Socialism
 Speculation
 Standard of living
 Strikes
 Supply and demand
 Tariff
 Taxation
 Trade unions
 Transportation
 Trusts, Industrial
 Wage payment plans
 Wages—Economic aspects

Dictionaries

Dictionary of modern economics. B. J. Horton, J. Ripley, Jr. and M. B. Schnapper. 365p \$5 Public affairs press, 2153 Florida av, Washington 8, D.C. '48; Review. *Bsns W* p55 N 6 '48

Study and teaching

Engineering professor designs machine to register economic forces; Economist. *il Comm & Fin Chr* 168:913 S 2 '48

ECONOMICS, Mathematical

Electronic war production board; computing machine that could guide war economy. *il Bsns W* p22-4 O 9 '48

Mathematics for economists. J. Marschak. *R Econ Stat* 29:269-73 N '47

ECONOMICS laboratory, inc.

Economics laboratory, inc.; new plant at Lyndhurst, N.J. *il Factory Management* 105:B78-9 pt 2 Ap '48

ECONOMISTS

Mathematics for economists. J. Marschak. *R Econ Stat* 29:269-73 N '47

ECONOMISTS, Industrial

Increasingly important role played by economists. *Nat Underw* (Life ed) 52:2 Ja 9 '48
 Role of economists in life insurance management. C. L. Benner. *East Underw* 49:25+ pt 2 O 8 '48

ECONOMISTS' national committee on monetary policy

Newly elected officers. *Comm & Fin Chr* 167:215 Ja 15 '48

ECTON, Dale Y., 1912-

Airline adman heads DMAA. *Ptr Ink* 225:102 O 8 '48

ECUADOR*See also*

Petroleum industry and trade—Ecuador

Commercial policy

Certain imports exempt from exchange-control taxes; changes in classification of commodities for import and exchange control purposes. *For Comm W* 30:14 Mr 20 '48
 Modifications in the issuance of exchange permits. *For Comm W* 31:18-19 My 1 '48

Politics and government

Politics on the equator. *Economist* 153:926-7 D 6 '47

EDDY current brakes. *See* Brakes, Eddy current

EDDY currents

Application of eddy current coupling to wind tunnel drive; abstract. F. W. Sama. *Elec Eng* 67:701-2 J1 '48
 High capacity eddy current coupling. *il diags Product Eng* 19:96-7 N '48

Investigation of the eddy-current anomaly in electrical sheet steels. F. Brailsford. *bibliog diags Inst E E J* 95 pt 2:38-48 F '48

EDELEANU process. *See* Petroleum refining—Edeleanu process

EDEMA

Psychosomatic aspects of post-traumatic edema and allied states. E. J. Orbach. *bibliog Ind Med* 17:372-6 O '48

EDGE-marking card method. *See* Card system in statistical analysis

EDISON brothers stores

Edison bros. shoes. *il Fortune* 37:82-7+ F '48

EDISON electric institute

Action on recommendation for public information program taken by Board of directors; new committees authorized. *Edison Elec Inst Bul* 16:293 S '48

Annual meeting, 16th, Atlantic City. *Elec World* 123:80-1 Je 5 '48

Annual meeting, 16th, Atlantic City, June 1-3; abstracts of papers. *Edison Elec Inst Bul* 16:165-72+ Je '48; *Pub Util* 42:51-5 J1 1 '48

Annual meeting, 16th; program, speakers portraits. *Edison Elec Inst Bul* 16:65-72+ Mr '48

Annual sales conference, Chicago, April 6-8. *Edison Elec Inst Bul* 16:101-4+ Ap '48

EEL committees; pooling of talents, experiences and brains for a common purpose, a common goal. *Edison Elec Inst Bul* 15:353-62, 389-94+ O-N '47

Personnel of committees for 1948-1949. *Edison Elec Inst Bul* 16:309-20 S '48

Prime mover's committee; editorial. *Mech Eng* 70:397-8 My '48; Same. *Edison Elec Inst Bul* 16:254-5 J1 '48

Recent commercial division activities. *Edison Elec Inst Bul* 16:303-4+ S '48

Report of the prize awards committee. H. M. Sawyer. *Edison Elec Inst Bul* 16:195-7 Je '48

Transmission and distribution committee meeting, St Louis, Feb. 9-11. *Elec World News* ed 129:5-6 F 21 '48

EDISON medal

Joseph Slepan, Edison medalist for 1947; presentation by J. F. Fairman and M. W. Smith; response by J. Slepan. *Elec Eng* 67:258-64 Mr '48

Slepan of Westinghouse gets 1947 Edison medal. *Elec World News* ed 128:6 D 13 '47

EDITING

Editing of scientific papers. W. B. McDaniel, 2d. *Science* 106:491 N 21 '47

EDITORS*See also*

Newspapers—Editors

EDUCATION

Air Affairs special education issue. *Air Affairs* 2:161-277 Winter '48

Attitude and education. W. B. Wiegand. *J Chem Educ* 25:362-4+ J1 '48

Contributions of science and technology to education. N. W. Dougherty. *J Eng Educ* 38:187-93 N '47

Education for peace; what we can do to make ourselves indispensable to welfare of our fellow men. A. H. Compton. *Tech R* 50:501-3+ J1 '48

See also

Chemical education
 Colleges and universities
 Education of workers
 Employees, Training of
 Engineering education
 Industrial education
 Journalism schools
 Learning, Psychology of
 Consult Education Index for additional references

Libraries
 Mining schools and education
 Moving pictures in education
 Phonograph in education
 Specialization in education
 Technical education
 Vocational education

EDUCATION—Continued

Philosophy

Science and pragmatics in the education of planners; reprinted from Science Aug. 29, 1902; Training and work of a geologist. C. R. Van Hise. Land Econ 24:209-20 Ag '48

Belgium

Vocational guidance in Belgium. E. Lobet. Int Labour R 57:187-204 Mr '48

China

See also
Yenching university,
Peiping, China

Europe

Schools question in Europe: battle between communism and Catholicism. Economist 155:252-4 Ag 14 '48

Georgia

Georgia story. Il Manuf Rec 117:120-3 My '48

Great Britain

Fleming report in practice. Economist 154: 661-2 Ap 24 '48

Korea

Science education in Korea. G. A. Noble. Science 107:31-2 Ja 9 '48

New Zealand

Vocational guidance in New Zealand. R. Winterbourn. Int Labour R 56:393-407 O '47

Poland

Vocational guidance and training in Poland. Int Labour R 57:502-3 My '48
Vocational guidance in Poland. S. Hartman. Int Labour R 57:591-602 Je '48

Sweden

Vocational guidance in Sweden. E. Neymark. Int Labour R 57:438-55 My '48

United States

Vocational guidance in the United States. H. A. Jager. Int Labour R 57:300-14 Ap '48
See also United States—Education, Office of

EDUCATION, Cooperative. See Engineering education—Cooperative plan; Industrial education—Cooperative plan; Journalism—Study and teaching—Cooperative plan

EDUCATION, Higher

For quality in education; analyzing trends in higher education; M.I.T. annual report. K. T. Compton. Il Tech R 50:39-43 N '47
Higher education for American democracy; review of report by President's commission on higher education, v I. W. Embler. J Eng Educ 38:705-10 Je '48

EDUCATION and industry

Industry and education. P. S. Hopkins. Air Affairs 2:299-32 Winter '48

EDUCATION and state

Organized religion, the state, and the economic order; public funds for parochial schools. H. F. Ward. Ann Am Acad 256: 72-83 Mr '48

EDUCATION association, National. See National education association

EDUCATION of adults

Date with Plato and Thucydides; adult educational program of Harris trust and savings bank, Chicago, for its employees. Banking 40:30 My '48

EDUCATION of women

See also
Stephens college, Columbia, Missouri

EDUCATION of workers

Education bill; Congress due to kill it. Bsns W p 116-4 Ap 24 '48
Education for Chicago Commonwealth Edison employees; company issues booklet, Opportunities for self-improvement. Pub Util 41:381 Mr 11 '48
Progress of workers' education in 1947. A. A. Elder. Mo Labor R 66:406-8 Apr '48

EDUCATIONAL advertising. See Advertising, Educational

EDUCATIONAL guidance

Proposed engineering aptitude test for high school students. K. W. Vaughn. J Eng Educ 38:114-21 O '47

EDUCATIONAL laws and legislation

Education for freedom, as provided by state laws. W. W. Keesecker. (Bul. 11) 38p
Federal security agency, Office of education; pa 20c Supt. of doc. '48

EDUCATIONAL testing service

Merger of testing activities. Science 107:318 Mr 26 '48

EDUCATORS

Biography

Leaders in education. J. Cattell and E. E. Ross, eds. 3d ed rev 1208p \$13.50 Science press, Lancaster, Pa. '48

EFFICIENCY, Industrial

Beautiful plant is more efficient; Johnson & Johnson baby products plant, Cranford, N.J. H. G. Fromm. Il Factory Management 105:76-9 N '47

Belgium's contribution to production per man-hour. R. Caussin. Engineer 185:579 Je 11 '48

Cutting indirect labor costs; abstract. Management R 37:245-7 My '48

Engineering for profit; North star woolen mill co. E. B. Mathewson. J Eng Educ 38: 453-9 Mr '48

Evaluating departmental efficiency. H. T. Lewis. Harvard Bsns R 26:313-28 My '48
Hours of work and output. U S Bur Labor Statistics Bul 917:1-160; pa 35c Supt. of doc. '47

Important uses of industrial vision tests and the medical director. W. G. Morgan and N. F. Stump. Il Ind Med 17:253-8 Jl '48
Labor contracts and efficiency. C. C. Higgins. Iron Age 161:66-7 Ja 22 '48

Making job improvement everybody's job. R. C. Hasselhorn. Il Factory Management 105:100-1 D '47

Management-labor cooperation in cutting costs; statement by Labor committee on national policy of National planning association. Advanced Management 12:179-81 D '47

Milk and rest periods boost productivity, cut accidents; Thermoid co., Trenton, N.J. Iron Age 161:90 F 26 '48

Petroleum pumper activities; application of motion and time study techniques; abstract. H. G. Thuesen. plans Mech Eng 70: 240-2 Mr '48

Plantwide cost reduction raised output 50 per cent; Victor adding machine co. O. Madliger. Il plan Factory Management 105: 98-101 N '47

Production management; raising machine output through modern management principles. V. C. Stephens. Coal Age 53:84-8 Mr; 105:9-10 Apr '48

Professors pilot industrial confabs. Mod Ind 15:81-2+ F '48

Progress in scientific management. H. S. Person. bibliog Mech Eng 69:893-7 N '47

Studies of shorter work weeks disclose maximum hours of efficient production. A. W. Gray. Inland Ptr 121:48-9 S '48

Union participation in methods and time study; Oliver iron & steel corp. R. T. Walton. Il Iron Age 160:60-4 D 18 '47

What's happening to productivity. Factory Management 106:66-70 S '48

See also

Ability tests	Labor productivity
Control charts	Machine shop management
Employees—Rating	Machinery, Replacement of
Employment management	Machinery in industry
Executives	Mechanical handling
Factories—Lighting	Music in industry
Factory management	Office management
Fatigue	Planning
Foundry management	Production standards
Industrial engineering	Standardization
Industrial management	Time study

EFFUSIOMETERS

Microeffusimetry. L. K. Nash. bibliog diags Anal Chem 20:258-62 Mr '48

EGG albumin. See Albumin

EGG compartments, Refrigerator. See Refrigerator egg compartments

EGG-plum gum. See Gums and resins

EGG trade

Poultry and eggs, 1941-1946. Survey of Cur Bsns 1947 Sup p 134 [supplemented in monthly numbers]

Argentina

Egg and poultry exports in 1947. For Comm W 31:31-2 Je 26 '48

Increased production of chickens and eggs. For Comm W 33:25 O 9 '48

Ireland

Egg and poultry production and exports, Ireland (Eire). For Comm W 33:33 O 23 '48

EGG washing machine

Washes and pasteurizes eggs; Australian equipment. *il* Food Ind 20:341 Mr '48

EGGS

Preservation

See also

Eggs, Frozen

Prices

Egg support again. Barron's 28:37 F 2 '48

EGGS, Dried

Addition of ground egg shell to dried egg for use in cooking; abstract. E. H. Dawson and others. Food Ind 20:638+ Ap '48

Dried whole egg powder; occurrence of salmonella organisms in Canadian powder; abstract. N. E. Gibbons. Food Ind 20:302 F '48

Factors influencing rate deterioration in dried egg albumen. G. F. Stewart and R. W. Kline. *bibliog* Ind & Eng Chem 40: 916-19 My '48

Glucose-protein reaction in dried egg albumen. R. W. Kline and G. F. Stewart. *bibliog* Ind & Eng Chem 40:919-22 My '48

How Canada attacks some of her food preservation problems. J. A. Pearce. Chem & Ind p67-70 Ja 31 '48

Lifting power of dried whole egg when used in sponge cake; abstract. C. F. Miller and others. Food Ind 20:123-4 Ja '48

Oxygen absorption by dehydrated whole egg powders. B. Makower and T. M. Shaw. *bibliog* Ind & Eng Chem 40:1433-7 Ag '48

Production of stable spray-dried egg powder. J. W. Greene and others. *bibliog* *il* diags Chem Eng Prog 44:591-602 Ag '48

Storage

Survival of salmonella organisms in stored egg powder. M. E. Wilson. Food Ind 20: 873-4+ Je '48

EGGS, Frozen

Freezing of eggs. M. E. Pennington. *bibliog* plan diags Refrig Eng 55:1-7 sec 2 My '48

EGGS, Liquid

Pasteurization of liquid-egg products; destruction of coliforms; abstract. A. R. Winter and others. Food Ind 20:949+ Je '48

EGYPT

See also

Coal trade—Egypt

Geology—Egypt

Hydroelectric plants

—Egypt

Insurance, Social—

Egypt

Mines and mineral

resources—Egypt

Antiquities

Recent discoveries in the Egyptian Faiyum and Sinai; University of California Faiyum expedition. W. Phillips. Science 107:666-70 Je 25 '48

Commercial policy

Changes in Egyptian export policy. For Comm W 31:11 My 8 '48

Import licensing regulations for 1948. For Comm W 30:17-18 F 28 '48

EHASZ, Frank L.

Sketch. *por* (p33) Civil Eng 18:35 Ja '48

18-8 stainless steel. See Chromium nickel steel

EINSTEIN, Albert, 1879-

Russian scientists criticize Einstein; extracts from letter signed by S. Vavilov, and extracts from reply by A. Einstein. Metal Prog 53:678 My '48

EISENBERG, Daniel M.

Lost stockholders; Skip tracers co. adds search for missing securities holders. *por* Bsns W p95-6 Je 26 '48

EISENHOWER, Dwight David, 1890-

Eisenhower praises capitalist carriers. *por* Ed & Pub 81:66 O 16 '48

Eisenhower's story reaches print in fall. C. Hodge. Ed & Pub 81:54 My 15 '48

NYHTS to obtain Eisenhower memoirs. H. M. Staunton. Ed & Pub 81:56 Ja 10 '48

Portrait. Bsns W p22 D 20 '47

EJECTING devices (machine work)

Curved chutes aid work ejection; lamination punching on five-stage progressive die. H. S. Wharen. *il* diags Am Mach 92:88-9 Ap 8 '48

Plunger to eject work. J. Maltby. *diag* Tool Eng 21:42 S '48

ELADIC acid

Hydroxylated stearic acids; action of Prevost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids. H. Wittecoff and S. E. Miller. *bibliog* Am Chem Soc J 69:3138-9 D '47

ELAIDIN

X-ray investigation of glycerides; diffraction analyses of synthetic 1,3-dielaidin. B. F. Daubert and S. S. Sidhu. *bibliog* Am Chem Soc J 70:1848-9 My '48

ELASTIC fabrics

Proper feeding of rubber betters elastic knit goods. H. Wignall. *diags* Textile World 98: 139+ O '48

ELASTICITY

Anelastic properties of iron. T. Kê. *bibliog* *il* diags Metals Tech 15:TP2370 1-27 Je '48

Application of Laplace pairs to the analysis of relaxation curves. H. H. Macey. *bibliog* J Sci Instr 25:251-3 J '48

Applications of tensor analysis to elasticity and piezoelectricity. J. H. Jurmain. *bibliog* Franklin Inst J 245:475-500 Je '48

Bending modulus of animal fibres; human hair and wool. R. M. Khayatt and N. H. Chamberlain. *il* diags Textile Inst J 59: C135-97 My '48

Creep and relaxation. B. Gross. *bibliog* J Ap Phys 18:212-21; 19:257-64 F '47. Mr '48

Determination of the elastic constants for beta-quartz. E. W. Kammer and others. *bibliog* J Ap Phys 19:265-70 Mr '48

Determination of the elastic properties of horn keratin. F. L. Warburton. *bibliog* *diags* Textile Inst J 39:P297-307; Discussion. P307-8 J '48

Elastic N-substituted polyamides. E. L. Wittbecker, R. C. Houtz and W. W. Watkins. *bibliog* *il* Ind & Eng Chem 40:875-9 My '48

Elastic recovery of protein artificial fibres stretched in water. R. L. Wormell. Textile Inst J 38:T387-8 N '47

Elasticity of the cochlear partition. G. v. Békésy. *bibliog* *il* diags Acoustical Soc Am J 20:227-41 My '48

Formation and structure of vulcanizates. J. Bardwell and C. A. Winkler. *bibliog* India Rubber World 118:509-12+ J '48

Generalized concept of resilience. R. M. Hoffman. *bibliog* *il* diags Textile Res J 18:141-8 Mr '48

Hysteresis, elastic modulus, and growth of tire cords under comparable loads. E. Honold and H. Wakeham. *bibliog* Ind & Eng Chem 40:131-4 Ja '48

Investigation of the relationship between polymer structure and mechanical properties. R. S. Stein and A. V. Tobolsky. *bibliog* (76 ref) *diags* Textile Res J 18:201-23 Ap '48

Long time load-deformation effects in visco-elastic materials. C. H. Adams and M. C. Throdahl. *bibliog* Mod Plastics 25:139-42+ J '48

Measurement of hysteresis and dynamic elastic modulus of textile yarns and cords. G. Palandri. *il* *diag* Rubber Age 64:45-52 O '48

Measurement of Young's modulus at high temperatures. M. H. Roberts and J. Northcliffe. *diags* Iron & Steel Inst J 157:345-8 N '47

Mechanical properties of NaCl, KBr, KCl. J. K. Galt. *bibliog* Phys R 73:1460-2 Je 15 '48

ELASTICITY—Continued

- Mechanics of elastic performance of textile materials. W. J. Hamburger. bibliog Textile Res J 18:102-13 F '48
- Methods for measuring dynamic mechanical properties of rubber-like materials. A. W. Nolle. bibliog il diags J Ap Phys 19:753-74 Ag '48
- Moduli of aluminium alloys in tension and compression; abstract and discussion. S. F. Grover and others. Engineer 185:346-7 Ap 9 '48
- Modulus of elasticity of aggregates and its effect on concrete. H. A. LaRue. bibliog il Am Soc T M Proc 46:1298-310 '46
- New concept of the mechanical behavior of fibers. H. Burte and others. bibliog Textile Res J 18:449-69 Ag '48
- New theory of non-linear viscous elasticity; the curve shape factor. S. M. Katz and G. D. Halsey, jr. Textile Res J 18:557-9 S '48
- Non-linear viscous elasticity and the Eyring shear model. G. Halsey. bibliog diags J Ap Phys 18:1072-97 D '47
- Over-all specific volume, compressibility and resilience of fibrous materials in bulk. W. H. Rees. bibliog il diags Textile Inst J 39: T131-41 Ap '48
- Rational explanation of column behavior. F. L. Ryder. Am Soc C E Proc 73:311-41 Mr '47; Discussion. 73:756-8, 969-72; 74:283-4 My-Je '47, F '48
- Rheological problems in the processing of plastics. R. Buchdahl and H. K. Nason. bibliog diags Ind & Eng Chem 40:642-51 Ap '48
- Scattering of ultrasonic radiation in polycrystalline metals. W. Roth. bibliog il diag J Ap Phys 19:901-10 O '48
- Structure of grain boundaries in metals. T. Kê. bibliog Phys R 73:267-8 J 1 '48
- Temperature variation of Young's modulus of various steels. F. W. Jones and J. Northcliffe. Iron & Steel Inst J 157:535-6 D '47
- Tensile and elasticity testing of steel roller chain. il diags Product Eng 19:121 S '48
- Thermally reversible strains in plasticized polyvinyl chloride. W. F. O. Pollett. bibliog Soc Chem Ind J 66:319-23 S '47
- Thermodynamics of a strained elastomer; thermal coefficient of modulus and the statistical theory of elasticity. L. E. Copeland and M. Mooney. J Ap Phys 19:450-5 My '48
- Thermodynamics of irreversible processes; the theory of elasticity and anelasticity. C. Eckart. bibliog diags Phys R 73:373-82 F 15 '48
- Use of the dynamic modulus of elasticity in predicting the 28-day flexural strength of concrete. E. F. Prece. bibliog Am Soc T M Proc 46:1311-19 '46
- Viscoelastic properties of polymer solutions. J. D. Ferry. bibliog il diags J Res Nat Bur Stand 41:53-62 J 1 '48
- Visco-elastic properties of wool fibres. L. Peters and J. B. Speakman. bibliog diag Textile Inst J 39:P253-64 J 1 '48; Same. Textile Res J 18:511-18 S '48
- Young's modulus and strain coefficient of resistivity of some bismuth rich alloys. G. C. Kuczynski and J. T. Norton. bibliog J Ap Phys 19:683-6 J 1 '48
- Young's modulus of some aluminium alloys; abstracts. N. Dudzinski and others. Engineering 165:340 Ap 9 '48; Metallurgia 37:242 Mr '48; Discussion. Engineering 165:340-1 Ap 9 '48
- See also*
- Compressibility
- Creep of materials
- Deformation (mechanics)
- Friction, Internal
- Hysteresis (mechanics)
- Least work, Principle of
- Photoelasticity
- Plasticity
- Poisson's ratio
- Springs (mechanism)
- Strains and stresses
- Strength of materials
- Torsion

ELDER, Louise

Sketch. por Can Chem & Process Ind 32: 825 S '48

ELDRIDGE, Mark, 1882-

Mark Eldridge assumes supervision of military power supply problems. por(cover) Elec World News ed 129:11 Mr 6 '48

ELECTION returns. See Radio broadcasting—Election returns

ELECTIONS

See also

Voting

Voting machines

United States

Election tests 80th Congress. Bsns W p26 N 1 '47

Mobilizing the electorate. H. F. Gosnell. bibliog Ann Am Acad 259:98-103 S '48

Stock market trends in last six months of presidential election years since 1900 as reflected by the Dow Jones industrial averages; with graphs. Barron's 28:32 J 1 5 '48

See also

Presidential campaigns

Presidents (United States)—Election

ELECTRETS

Electret. F. Gutmann. il diags Rs Mod Phys 20:457-72 bibliog(47 titles, p471-2) J 1 '48

Electrets, nonmetallic magnets. Elec Eng 67: 939 O '48

Plastic electrets. il diag Machine Design 20: 107-8 F '48

ELECTRIC alarms

Alarm system minimizes conveyor downtime; Packard motor car co. L. R. Bogardus. il Factory Management 106:113 J 1 '48

Combination alarm and stalled rotor trip for motors. P. E. Benner. diags Power Generation 52:65 My '48

Consolidated alarm panels for Diesel engines. il Marine Eng 53:78 J 1 '48

Emergency alarms safeguard plant operations. C. S. Beard. diags Chem Eng 55:118-21 J 1 '48

Maximum demand alarm. il Engineer 185: 504-5 My 21 '48

Switchgear alarms and indications; discussion meeting. Inst E E J 94 pt 2:547-8 O '47

ELECTRIC analogies. See Heat transmission—

Electric analogies; Hydrodynamics—Electric analogies; Mechanics—Electric analogies; Petroleum—Electrolytic well models

ELECTRIC apparatus and appliances

Electrical and allied developments during 1947; appliances and construction materials. G. Bartlett. il Gen Elec R 51:42-4 Ja '48

Electrical engineering in 1947. il Engineer 185:34-5, 61-2, 86-9 Ja 9-23 '48

Low-alloy steels in the electrical industry. J. T. Rettalata. il Metal Prog 54:477-81 O '48

Metals and alloys used for solders, resistors, switches, etc. Electronics 21:M24-9 Mid-Je '48

New methods of heat control; abstract. F. E. Butcher. Electrician 140:582 F 20 '48

New uses and applications of electric service. Edison Elec Inst Bul 16:42 F '48

1947 engineering developments; illustrations with text. Elec Eng 67:22-31 Ja '48

Power, its generation, distribution and control; review of new developments. il Westinghouse Eng 8:2-9 Ja '48

Progress in power generation, 1940-46. bibliog il diags Elec Eng 67:59-75 Ja '48

See also

Commutators

Condensers (electricity)

Dynamometers

Electric apparatus

Electric converters

Electric fuses

Electric generators

Electric heaters

Electric instruments

Electric lamps

Electric machinery

Electric motors

Electric rectifiers

Electric switchgear

Electric transformers

Electricity in mining

Electricity on the farm

Electromagnets

Galvanometers

Oscillators

Photoelectric cells

Potentiometers

Radar

Radio apparatus

Refrigerators, Electric

Relays

Storage batteries

Synchroscope

Voltage regulators

Exhibitions

British exhibition in Copenhagen; studied attempt to supply Danish needs. il Electrician 141:985-8 O 1 '48

British industries fair; electrical exhibits; list of exhibitors. il Elec R (Lond) 142: 661-96, 753-69 Ap 30, My 14 '48

ELECTRIC apparatus and appliances—Exhibitions—Continued

Catering exhibition; electrical equipment displayed at Olympia. *il Electrician* 140:265-6 Ja 23 '48; *Elec R (Lond)* 142:137-8 Ja 23 '48
 Electricity in building; Olympia exhibition. *Elec R (Lond)* 141:801 N 28 '47
 Exhibits in Copenhagen. *Elec R (Lond)* 143:447-8 S 17 '48
 Mechanical handling exhibition, London; electrical features. *il Elec R (Lond)* 143:90-2 Jl 16 '48; *Electrician* 141:167-8 Jl 16 '48

Manufacture

Adhesives; their properties and use in electrical equipment. L. P. Hart, Jr. *il Machine Design* 20:122-6+ Ja '48
 Anthracite coal conserves coke; gray iron foundry of Westinghouse electric corp. F. J. Fredriksen and E. Bremer. *il Foundry* 76:84-5+ S '48
 Electric furnace brazing for mass production; Sunbeam corp. H. Eickelberg. *il Iron Age* 100:56-9 D 18 '47
 Finishing small electric appliances. G. E. Stedman. *il Metal Finishing* 46:78-80 Ja '48
 Impregnating plant; vacuum and pressure system. *il Elec R (Lond)* 143:179-80 Jl 30 '48
 Leicester company's expansion. *il Elec R (Lond)* 141:897 D 12 '47
 Production planning and scheduling at Westinghouse. L. A. Hradesky. *Mill & Factory* 42:134-8 My '48
 Resin bonding of silicon steels in electrical laminated cores. S. B. Ashkinazy and J. J. Freisler. *il Product Eng* 19:85-9 N '48
 Step-by-step control system provides spot checks on tool design and manufacture; Reliance electric & engineering co. F. S. Dobric. *Steel* 123:78-80+ N 1 '48
 Visit to M.E.M. works. *il Electrician* 141:795-6 S 10 '48

Merchandizing

Commercial sales; unlimited. P. M. Alden. *Edison Elec Inst Bul* 16:122-4 Ap '48
 Electrical West sales guide. Published in monthly numbers of *Electrical west*
 Improving load factor; commercial electrification at Southend-on-sea. *il Elec R (Lond)* 142:643-5 Ap 23 '48
 Sales training starts in north California for electrical dealers. *il Elec West* 100:92-3 Ja '48
 Selling selectively now for maximum future benefit. G. E. Whitwell. *Edison Elec Inst Bul* 16:217-20 Je '48; *Excerpts. Elec World* 129:92 Je 5 '48
 Tips on appliance merchandising; way to accept trade-ins at a profit. *Dom Eng* 170:92-4 D '47
 Utah. Sell all-electric, plans outlined. *Elec West* 100:98 My '48
See also
 Electric apparatus industry

Prices

G.E. takes a swing at prices. *Bsns W* p25 Ja 3 '48

Standards

NEMA celebrates 40 years of standardization. *Ind Stand* 19:66-8 Jl '48

Testing

Views on appliance testing. *Electrician* 140:861-2 Mr 19 '48

Transportation

Appliances damaged in transit; who's to blame. *il Elec West* 99:99-102 S '47; 100:95-6+ Ap '48

ELECTRIC apparatus and appliances, Domestic Appliances; prospects for 1948. J. C. Sullivan. *il Steel* 122:158-9 Ja 5 '48
 Domestic electrical appliances, sales billed, data as available, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 155 [supplemented in monthly numbers]

If girls dislike home; modernizing home economics classrooms with new appliances. *il plans Elec West* 100:94-6 Mr '48

See also

Electric irons	Electricity in the
Electric roasters	home
Electric stoves	Refrigerators, Elec-
Electric water heaters	tric
	Washing machines

Exhibitions

Electricity in the home; Ideal home exhibition. *il Elec R (Lond)* 142:395-7 Mr 12 '48; *Electrician* 140:717-18 Mr 5 '48
 I.M.E.A. exhibition. *il Elec R (Lond)* 142:884-82 Je 4 '48; *Electrician* 140:1715-29 Je 4 '48

Manufacture

Domestic appliance manufacture; Premier electric heaters, ltd. *il Elec R (Lond)* 142:369-70 Mr 5 '48
 Entering the appliance market; plant of H. Fisher (Oldham), ltd. *il Elec R (Lond)* 142:215-16 F 6 '48

Merchandizing

Effect of electric appliance prices on the buying public. W. E. Saylor. *Edison Elec Inst Bul* 15:435-9+ D '47
 Hard goods are still a hard problem. E. B. Weiss. *il Ptr Ink* 223:38-9+ Je 4 '48
 Just how do you sell an automatic electric iron, anyway? *Elec West* 99:86-7 D '47
 1,000 meetings take Hotpoint's university of sales to field men. L. C. Truesdell. *il Sales Management* 61:58+ Jl 15 '48
 Peek-a-boo demonstrators let prospects see product innards; Plexiglas models of electric appliances. T. Armstrong. *il Sales Management* 61:44-5 Ag 15 '48
 Prepare for sellers' markets. E. F. Jeffe. *Comm & Pin Chr* 168:11 Jl 1 '48
 Rent 'em, sell 'em; electrical appliances get boost from home rental service. *il Bsns W* p87+ Mr 20 '48
 To trade-in or not to trade-in? *Elec West* 100:103 My '48
 Westinghouse builds homes to display appliances. *Ind Marketing* 33:68 Jl '48

ELECTRIC apparatus industry

Appliance sales booming; some drop from '47 level. E. R. Abrams. *Barron's* 28:4 Jl 26 '48
 Appliances; prospects for 1948. J. C. Sullivan. *il Steel* 122:158-9 Ja 5 '48
 Art of selling now being revived in anticipation of buyers market; General electric co. soon to launch big promotion. B. Packard. *il Iron Age* 162:122-3 Ag 5 '48
 Credit rules for appliances mild. *Elec World News* ed 130:5 S 4 '48
 Electric goods pricing changed. *Steel* 121:40 D 22 '47
 Electrical industry production high in '47, to be higher in '48. *Elec World News* ed 129:11 Ja 10 '48
 Electrical manufacturers announce new plant expansion programs. *Elec World News* ed 129:21 My 15 '48
 How straight can we shoot in long-range sales forecasting? G.E. estimates on 18 electrical appliances. R. H. Colley. *Sales Management* 61:94+ Jl 1 '48
 How to train salesmen to use informative label in selling; Westinghouse Electric tags. E. J. Hegarty. *il Ptr Ink* 224:51-2+ S 24 '48
 Industrial demand for electrical equipment. *Pub Util* 42:440-1 S 23 '48
 Manufacturing; 1947 appliance production doubles 1946. *Elec World* 129:168-9 Ja 17 '48
 Medicine shows promote industrial equipment sales; Westinghouse electric corp. W. B. Montague. *il Ptr Ink* 224:34-7 Ag 20 '48
 NSRB surveys power equipment production. *Elec World News* ed 129:13 Je 12 '48
 Proctor's bonus bank; what it is, how it works; paying one-half of bonus monthly, banking the balance, and tying bonus rates to salesmen's expenses. J. Tiers. *il Sales Management* 60:67-9 Ap 15 '48
 Royal Electric Manufacturing sends product display on tour of country. *il Elec World News* ed 130:21 Ag 7 '48
 Sales aids that lend a professional air to selling; Hotpoint new sales tools. L. C. Truesdell. *il Sales Management* 59:40-2 N 10 '47
 Selective selling spells volume for Sylvania salesmen. T. Armstrong. *Sales Management* 61:114+ O 15 '48
 Selling farmers; Westinghouse steps up sales efforts. *Bsns W* p84-5 Je 19 '48
 Streamlined medicine shows help Westinghouse deliver concentrated sales stories. M. Montague. *il Ind Marketing* 33:37-9 Jl '48

ELECTRIC apparatus industry—Continued

Two switchgear manufacturers announce merger as of Nov. 1. Elec World News ed 128:20 N 15 '47

War orphans on shelf keep dealers from stocking appliances in demand. Elec World News ed 130:21 Ag 21 '48

Westinghouse, GE settlements show wage-price boost cycle resumed. Elec World 129: 21 Je 26 '48

See also National electrical manufacturers association

Advertising

Distributor invests \$25,000 in 21-day sales drive; Sampson co., Chicago appliance and radio distributor. P. Sampson. II Sales Management 60:98+ My 20 '48

How advertising ticks a sales training problem for Trumbull, T. D. MacLafferty. II Sales Management 61:60+ S 1 '48

IRC business paper advertising shoots for specific sales objectives; 32-page color insert in *Electronics* for International resistance co. T. Armstrong. II Sales Management 60:115-16+ Ja 15 '48

See also

Electric lamps, Fluorescent—Advertising

Directories

Directory of appliance service and repair parts; manufacturers' western service stations and parts depots. Elec West 100:82+ p 2 Ap '48

Directory of manufacturers; with list of principal western offices and sales representatives. Elec West 100:3-4+ p 2 Ap '48

Electronics buyers' guide. *Electronics* 21:D 1-172 Mid-Je '48; Additions and corrections. 21:244+ O '48

Finance

Banks share in time-buying; Westinghouse Electric plan. Bsns W p82+ S 11 '48

New plan for financing by banks; Westinghouse equity plan. C. F. Gilbert. II Banking 41:63-4 S '48

Westinghouse has financing, insurance plan for banks. Nat Underw 52:6 Ag 19 '48; East Underw 49:22 Ag 20 '48

Securities

Electrical industry under keener competition; with position of leading stocks. P. Dobbs. Mag of Wall St 81:586-7+ F 28 '48

Statistics

Electrical equipment, 1941-1946. Survey of Cur Bsns 1947 Sup p 155-6 [supplemented in monthly numbers]

Australia

Electrical industry in Australia. Electrician 141:1162 O 15 '48

Canada

Canada's electrical exports; 1946 and 1945 compared. Elec R (Lond) 142:368 Mr 5 '48

Canadian electrical exports; 1946 and 1947 compared. Elec R (Lond) 143:294 Ag 20 '48

Canadian electrical imports; 1947 compared with 1946; tabulation. Elec R (Lond) 143: 224 Ag 6 '48

Data on appliance and supply industry, 1946. For Comm W 31:30 My 22 '48

Electrical production in Canada. Electrician 141:641-2 Ag 27 '48

Production and imports of appliances. For Comm W 32:30 J1 3 '48

Trade with Canada; Mission's bid for increased markets. J. C. Hancock. Elec R (Lond) 143:295-6 Ag 20 '48

Ceylon

Ceylon's imports; 1946 and 1947 compared. Elec R (Lond) 143:263 Ag 13 '48

Egypt

Egyptian market for electrical household appliances. For Comm W 32:26 Ag 14 '48

Electrical trade with Egypt; United Kingdom exports lead all others. Electrician 141:485 Ag 13 '48

Great Britain

Batteries and accumulators; partial census of production. Electrician 141:556 Ag 20 '48

B.E.A.M.A. annual meeting, London. Elec R (Lond) 142:719 My 7 '48

Electric lighting fittings; partial census of production of the trade. Electrician 141: 628 Ag 27 '48

Electric wires and cables; partial census of production. Electrician 141:492 Ag 13 '48

Electrical engineering industry in postwar economy. G. L. Metz and R. L. Davies. Inst E E J 93 pt 1:334-41 Ag '46; Discussion. 93 pt 1:341-7; 95 pt 1:217-21 Ag '46, My '48

Electro-medical exports; present scope and future trade prospects. Electrician 141:790 S 10 '48

Engineering outlook. Engineering 165:268-71, 293-5 Mr 19-26 '48

E.R.P. in practice; Marshall aid and the electrical industry. J. C. Hancock. Elec R (Lond) 143:164 J1 30 '48

Export details. J. C. Hancock. Elec R (Lond) 141:893-4 D 12 '47

Export prospects. Elec R (Lond) 142:205-7, 251-2 F 6-13 '48

Manufacturers' problems; B.E.A.M.A. council's report. Elec R (Lond) 142:621-2 Ap 23 '48

Manufacturing progress. II Elec R (Lond) 142:32-3, 63-4, 100-2 Ja 2-16 '48

Monopoly bill; criticism of the Electric lamp manufacturers' association. Elec R (Lond) 142:659 Ap 30 '48

Overseas electrical trade; exports in first quarter. Elec R (Lond) 142:707-8 Ap 30 '48

Overseas electrical trade; half-year's exports. Elec R (Lond) 143:185-6 J1 30 '48

Overseas trade statistics; accuracy depends on individual exporters. J. C. Hancock. Elec R (Lond) 142:291-2 F 20 '48

Overseas trade; statistics for 1938, 1946-1947. Elec R (Lond) 142:165-7 Ja 30 '48

Paris fair; British representation in Electrical section. II Elec R (Lond) 142:813 My 21 '48

Production for export. II Elec R (Lond) 142: 253-5, 369-70, 519-21, 605-6, 827, 940-1, 951-5; 143:117-21, 216-18 F 13, Mr 5, Ap 2, 16, My 21, Je 11-18, J1 23, Ag 6 '48

What manufacturers are doing. II Electrician 139:1710, 1788, 1871; 140:52, 116, 195-6, 355 D 12 '47-Ja 16, 30 '48

India

Electrical production in India; development of motor and transformer industries. Electrician 141:499 Ag 13 '48

Japan

Output of selected household electrical appliances. Oct. 1947-Feb. 1948; production of light bulbs, Sept. 1947-Feb. 1948; tables. For Comm W 32:28 J1 31 '48

Malayan Union

Malayan electrical imports, 1947. Elec R (Lond) 142:408 Mr 12 '48

Malayan imports, 1946 and 1947 compared. Elec R (Lond) 143:412 S 10 '48

Netherlands

Dutch electrical trade. Elec R (Lond) 143: 335 Ag 27 '48

Production and new developments, Philips company. For Comm W 29:16-17 D 13 '47

Pacific coast

Appliances damaged in transit; who's to blame. II Elec West 99:99-102 S '47; 100: 95-6+ Ap '48

Spain

Spain's overseas trade, 1945 and 1946 compared. Elec R (Lond) 142:550 Ap 9 '48

Switzerland

Swiss electrical exports; 1946 and 1947 compared. Elec R (Lond) 143:491 S 24 '48

Swiss electrical imports; 1946. Elec R (Lond) 142:66 Ja 9 '48

Swiss electrical imports, 1946 and 1947 compared. Elec R (Lond) 143:570 O 8 '48

Swiss electrical trade, 1945 and 1946 compared. Elec R (Lond) 141:942 D 19 '47

Turkey

Electrical industry in Turkey. Electrician 141: 106 J1 9 '48

ELECTRIC apparatus industry—Continued**United States**

- Appliance makers face squeeze; industry appears to have over-expanded. *Elec World News* 40:130-5 O 2 '48
- Effect of electric appliance prices on the buying public. W. E. Saylor. *Edison Elec Inst Bul* 15:435-9+ D '47
- Electrical equipment; prospects for 1948. J. C. Sullivan. *Il Steel* 122:150-1 Ja 5 '48
- Electrical manufacturers get allocation assistance. *Elec World* 129:20-1 Ja 3 '48

Wales

- Enterprise in south Wales; new factory for Hoover washing machines opened. *Il Electrician* 141:1153-4 O 15 '48
- Industry in south Wales; cable-making and engineering works; Aberdare cables, ltd. *Il Electrician* 140:509-10 F 13 '48

Western states

- This electrical business. *Il Elec West* 100:92-110 F '48

ELECTRIC arc

- Arc phenomena with electrodes moving at high speed. W. B. Kouwenhoven and T. B. Jones. *bibliog il diags Welding J* 27:sup 470-5 S '48
- Condensed arc source unit for spectrochemical analysis. D. A. Sinclair. *bibliog diags Opt Soc Am J* 38:547-52 Je '48
- Construction and performance of a low voltage arc as a source of positive ions. S. K. Allison. *bibliog il diags R Sci Instr* 19:291-3 My '48
- Effect of wave shape in inert-arc welding circuits. R. W. Tuthill. *il diags Welding J* 27:785-8 O '48
- Electrical characteristics of the arc in heliarc welding. H. T. Herbst. *il diags Welding J* 27:600-4 Ag '48
- Investigation of methods for evaluating welding-arc stability and their application. R. A. Wyant and others. *bibliog diags Welding J* 27:sup502-14 O '48
- Low-voltage arcing-fault currents. C. F. Wagner and L. L. Fountain. *diag Elec Eng* 67:769-71 My '48
- Observations on arc discharges at low pressures. M. J. Kofoid. *il diag J Ap Phys* 19:399-404 Ap '48
- Some spectral characteristics of mercury arcs for use in study of the Raman effect. D. H. Rank and J. S. McCartney. *il Opt Soc Am J* 38:279-81 Mr '48
- Study of adjustments of a Zinn-type ion source. T. Jorgensen, jr. *diags R Sci Instr* 19:28-30 Ja '48

See also

Electric welding, Arc

ELECTRIC arc welding. See Electric welding, Arc

ELECTRIC associations

- What an association can't do, and what it can. W. A. Cyr. *Elec West* 100:65-8 Ap '48

ELECTRIC auto-lite company

- Auto-Lite builds near markets. *il map Bsns W* p80+ O 16 '48

- Cashing in on competitors' markets; emphasis on top personnel and buying right. *il Mod Ind* 15:67-8+ Je '48

ELECTRIC automobiles. See Electric vehicles

ELECTRIC batteries

- Air-depolarized primary cell with caustic alkali electrolyte. G. W. Heise and others. *diags Electrochem Soc Trans* 92 (preprint 21):241-9 '47
- Balanced alkaline dry cells. S. Ruben. *il diag Electrochem Soc Trans* 92 (preprint 19):219-29 '47
- Batteries for Dixie; major manufacturers building plants in Memphis. *Bsns W* p86 Je 19 '48
- Conductivity cell usable with viscous liquids, pastes, suspensions, and wetted solids. E. Otto. *diag R Sci Instr* 19:368 My '48
- Correlations of the gel strength of paste walls and the shelf life of electric dry cells. W. J. Hamer. *bibliog J Res Nat Bur Stand* 40:251-62 Mr '48
- Development of photoflash dry cells. R. C. Clock. *Electrochem Soc Trans* 92 (preprint 30):357-61 '47

- Effect of inhibitors on the corrosion of zinc in dry-cell electrolytes. C. K. Morehouse and others. *bibliog diag J Res Nat Bur Stand* 40:151-61 F '48
- Electrochemical sources of electric power. G. W. Vinal. *bibliog il diags Elec Eng* 67:354-7, 456-65 Ap-May '48
- Electrolyte equilibria in relation to dry cell performance. N. C. Cahoon. *bibliog Electrochem Soc Trans* 92 (preprint 17):203-16 '47
- Heavy duty chlorine-depolarized cell. G. W. Heise and others. *bibliog diags Electrochem Soc J* 94:99-105 S '48
- Lecture demonstrations of electrochemical reactions. D. R. Martin. *diags J Chem Educ* 25:495-7 S '48
- New battery developments described; battery symposium of the Chicago section of Electrochemical society. *Chem & Eng N* 26:524 F 23 '48
- Ruben alkaline dry-cell details now disclosed. *Elec World* 128:73 D 20 '47
- Signal corps reports battery developments. *Chem & Eng N* 26:1217 Ap 26 '48
- Zinc anode protection in dry cells. *Chem & Eng N* 26:2711 S 13 '48

See also

Electrolytic cells Standard cells

Photoelectric cells Storage batteries

Manufacture

- Mercury exposures in dry battery manufacture. C. R. Williams and others. *J Ind Hygiene* 29:378-81 N '47

Standards

- American standard specification for dry cells and batteries. *diags U S Nat Bur Stand Circ* C466:1-18; pa 10c Supt. of doc. '47
- Improvements in service mirrored in 1947 dry cell standard. G. W. Vinal. *il Ind Stand* 18:277-8+ N '47

ELECTRIC blankets

- Electronic blanket billed as defense against colds. *Ptr Ink* 224:30 Jl 16 '48
- Sleeping comfort; heat control unit of electric blanket manufactured by Proctor electric co. *il Product Eng* 19:134 S '48

Advertising

- Ad box; ad illustration reproduced in six colors on a folding box for Universal electric blanket. *il Mod Packaging* 21:118-19 Ap '48

Testing

- Results of further tests on electric blankets. *il Consumers Res Bul* 20:29-30 N '47

ELECTRIC boat company

- Canadair operations an aid to Electric Boat. *Barron's* 28:38 S 20 '48

ELECTRIC bond and share company

- Public utility securities. *Comm & Fin Chr* 168:1231 S 23 '48

ELECTRIC brakes. See Brakes, Electric

ELECTRIC cable reels

- Truck brake controls wire reel. *diags Elec World* 129:47 Ja 3 '48

ELECTRIC cables

- Better service from cables. *Coal Age* 53:67-9 Mr '48
- British stress safety in mining machine cables. R. A. Schatzel. *Elec World* 130:94+ Jl 17 '48
- Economics of high-voltage transmission by underground cables. R. N. Berry. *bibliog Inst E E J* 94 pt 2:573-84; Discussion. 585-90 D '47
- Engineering outlook; electric cable industry. *Engineering* 165:293-5 Mr 26 '48
- Essential characteristics of design and materials for mine trailing cables; abstracts. G. J. Crowdes. *Product Eng* 19:139 Jl '48; *Elec World* 130:110 Ag 14 '48
- Gas cable fortifies substation. C. F. Titus and J. D. Thomas. *il diags Elec World* 129:34-6 Ja 3 '48
- Influence of design and operational practice on the stability of large metropolitan cable systems. A. J. Gibbons and E. B. Powell. *diags Engineering* 166:165-7 Ag 13 '48
- New cable cuts shock hazard at the Saddle Creek, Florida, phosphate mine of American cyanamid company. *il Nat Safety N* 57:53 Ja '48

ELECTRIC cables—Continued

Operation of cables at over 100 kv in the United States of America; abstract. L. Komives and H. Halperin, *Engineering* 166: 102 J1 30 '48

Power cable data, C. C. Barnes, bibliog diags *Electrician* 140:413-17 F 6 '48

Pressurized oil-filled power line, *Comp Air Mag* 53:255-6 O '48

Salvaging used cable, W. H. Meade, diag *Elec World* 130:116+ J1 31; 126+ Ag 14; 90+ Ag 28; 132 S 11; 124+ S 25 '48

Sparkproof cable for coal mines, *Safety Eng* 34:23 D '47

Synthetic rubbers and resins as insulation for wires and cables, J. T. Blake, *India Rubber World* 118:216-18 My '48

Tapered coaxial junctions, S. Hershfield, diag *Electronics* 20:146 D '47

Use of electric cables in mines; abstracts of papers, A.I.E.E. winter meeting, *Elec Eng* 67:402-3 Ap '48

See also

Electric lines

Failure

Gas from cable insulation explodes in service vault, *Elec World News* ed 128:14 N 15 '47

Operations at Consolidated Edison New York plant disrupted by heat, *Elec World News* ed 130:12 S 4 '48

Installation

Aerial cable to combat rising costs, N. K. Yarnell, *diag Elec West* 100:72-3 My '48

Cable bridges for surface lines of London transport, *il Engineer* 186:42-3 J1 9 '48; *Electrician* 141:100 J1 9 '48

Electric bus ducts, *il Sheet Metal Worker* 39: 61, 65 Mr '48

Installing 110-kv oil-pipe cable in old New Orleans, M. J. Cade, *il plans diag Elec World* 129:70-3 F 28 '48

Longer cable pulls halve costs; abstract, R. G. Finnerty, *Elec World* 128:92 D 6 '47

New methods step up cable pulling job; illustrations with text, *Elec West* 101:78-9 Ag '48

New trailer, tension indicator, speed western cable job, F. E. Schullerts, *il plan Elec World* 130:77-8 Ag 28 '48

Power cable lowered with friction blocks, C. L. Moore, diags *Eng & Min J* 149:104 Ap '48

Precast concrete manholes speed installation time, F. J. Johnson, *il diag Elec World* 128:148+ My 22 '48

Racking cable in manholes, *diag Elec World* 128:68 Ja 31 '48

Spinner lashes aerial cable in field, J. A. Lasseter and F. E. Treat, *il Elec World* 128:69-72 Ap 24 '48

Steps in laying pipe-type compression cable; illustrations with text, *Elec World* 130:102-4 Ag 14 '48

Joints

Behaviour of high-voltage solid-type cable accessories in service, C. J. Armstrong and C. T. W. Sutton, *il diags Inst E E J* 95 pt 2:523-33 O '48; Same cond. *Engineer* 185:279-81 Mr 19 '48; Abstract, *Electrician* 140:871-3 Mr 19 '48; Discussion, *Inst E E J* 95 pt 2:533-45 O '48; *Electrician* 140:873-4 Mr 19 '48

How to joint braided cable to lead-covered, 600-v cable; engineering reference sheet, *diag Elec World* 128:106 D 6 '47

How to joint braided control cable to multi-conductor metal-taped cable; engineering reference sheet, *diag Elec World* 128:117 N 8 '47

How to joint two types of lead-covered, 600-v cables; engineering reference sheet, *diag Elec World* 128:78 D 20 '47

Safeguarding joints against moisture, *Elec World* 129:186+ Ja 17 '48

Manufacture

Aberdare cable works, *il Engineer* 185:276-7 Mr 19 '48

Cable production at Newport, *Elec R (Lond)* 141:698 N 7 '47

Fundamentals of plant layout; manufacture of insulated wire and cable, A. E. Rylander, *il plans diags Tool Eng* 20:31-6 F '48

Industry in south Wales; cable-making and engineering works; Aberdare cables, *ltd. il Electrician* 140:509-10 F 13 '48

Standard's new factory; making telecommunications gear, *Electrician* 139:1363-4 N 7 '47

Statistical methods in wire and cable processing, M. G. Woolfson, *Elec Eng* 67: 637 J1 '48

Protection

Changing pipe bells eliminates cable sheath corrosion, L. F. Greve, *il diags Elec World* 130:106 O 23 '48

General cable adopts new method to moisture-proof cable for shipment, *il Elec World News* ed 130:21 J1 24 '48

Install 25 ground plates to cathodically protect cable, L. F. Greve, diags *Elec World* 130:112+ S 11 '48

Pipe protects 2,300-volt cable; Consolidation coal co., W. Va., *il Coal Age* 53:74-5 Ja '48

Safeguarding joints against moisture, *Elec World* 129:186+ Ja 17 '48

Stubborn cable sheath corrosion problem defeated by cathodic protection, L. F. Greve, diags *Elec World* 130:102 S 25 '48

True dielectric breakdown strength of electric cable insulating papers; abstract, P. Cloke and B. Bates, diags *Elec Eng* 67:1072 N '48

Rating

Overload calculations for cable current ratings; engineering reference sheet, E. W. Davis, *Elec World* 129:134 Ap 10 '48

Rating of cables, *Electrician* 139:1425-6 N 14 '47

Thermal characteristics and current rating of paper insulated power cables, C. C. Barnes, bibliog diag *Electrician* 140:1915-17; 141:695-700, 1291-3, 1443-6 Je 18, S 3, O 29, N 12 '48

Repair

Milk-wagon truck for cable splicers, J. R. Kelley, *il Elec World* 130:87 Ag 28 '48

Sheathing

Aluminium sheathed cables, *il Electrician* 140: 1255-6 Ap 23 '48

Aluminium-sheathed power cables, *il Engineer* 185:398-9, 422-3 Ap 23-30 '48; Abstracts, *Engineering* 165:404 Ap 23 '48; *Elec R (Lond)* 142:629-30 Ap 23 '48

Behaviour of high-voltage solid-type cable accessories in service, C. J. Armstrong and C. T. W. Sutton, *il diags Inst E E J* 95 pt 2:523-33 O '48; Same cond. *Engineer* 185:279-81 Mr 19 '48; Abstract, *Electrician* 140:871-3 Mr 19 '48; Discussion, *Inst E E J* 95 pt 2:533-45 O '48; *Electrician* 140:873-4 Mr 19 '48

Creep tests on some extruded lead and lead-alloy sleeves and tapes, G. R. Gohn and others, bibliog *il diags Am Soc T M Proc* 46:990-1020; Discussion, 1021-4 '46

Effect of induction on cable sheaths, L. L. Young; R. G. Cazanjan, *Ry Mech Eng* 122: 323-4 Je '48

Mineral-insulated metal-sheathed conductors, F. W. Tomlinson and H. M. Wright, *il Inst E E J* 93 pt 2:325-35 Ag '46; Discussion, '93 pt 2:336-40; '94 pt 2:84-91; '95 pt 2:97-8 Ag '46, F '47, F '48

Polyethylene used as sheathing for extra high-voltage cables, *Rubber Age* 62:548 F '48; Abstracts, *Eng N* 140:655 Ap 29 '48; *Mod Plastics* 25:170 Je '48

Pressure and creep tests at constant hoop stress on lead and alloy E pipes; abstracts, A. Latin, *Engineering* 165:341 Ap 9 '48; *Metallurgia* 37:242+ Mr '48; Discussion, *Engineering* 165:341 Ap 9 '48

Stubborn cable sheath corrosion problem defeated by cathodic protection, L. F. Greve, diags *Elec World* 130:102 S 25 '48

Specifications

Factors governing specifications for electric power cables, W. Bowen, diags *Inst E E J* 95 pt 2:551-62; Discussion, 562-6 O '48; *Electrician* 141:1433-4 N 12 '48

Standards

Standardization of power cables, W. H. Lythgoe, *Inst E E J* 95 pt 2:234-49 Ap '48; Abstract, *Engineering* 164:558-9 D 12 '47; Discussion, *Inst E E J* 95 pt 2:250-6 Ap '48; *Elec R (Lond)* 141:767-8 N 21 '47; *Electrician* 139:1503 N 21 '47

ELECTRIC cables—Continued

Temperature

- Thermal characteristics and current rating of paper insulated power cables. C. C. Barnes. bibliog diag Electrician 140:1915-17; 141:695-700, 1291-3, 1443-6 Je 18, S 3, O 29, N 12 '48
Welding cables running hot? causes and cures. il Roads & Sts 91:104-5 My '48

Testing

- Cables with reduced thickness of insulation: abstract. M. Domenach. Engineering 166: 102-3 Jl 30 '48
Development of the gas-cushion cable system for the highest voltages. T. R. P. Harrison. bibliog il Inst E E 3 94 pt 2:233-42 Je '47; Discussion. 94 pt 2:242-6, 700-5; 95 pt 2:420-2 Je, D '47, Ag '48
Evaluating ozone by electronic means. W. H. Meade. il diag Elec World 130:114 Jl 31 '48
Impulse cable fault locator. F. W. Buck. il diag Elec World 128:82+ D 20 '47
Induction cable fault locator. il diag Engineer 186:61 Jl 16 '48
Locating faults in underground cables. D. F. Tulloch. diags Elec World 128:109-11 N 8 '47
Locating partial breaks in multi-core jumper cables. il diag Engineer 184:515 N 28 '47; Electrician 139:1571 N 28 '47
Measurement and investigation of ionization level of rubber-insulated cables. R. C. Graham and others. Elec Eng 67:968 O '48
Voltage characteristics of polythene cables. R. Davis and others. bibliog Inst E E J 94 pt 3:154-65 My '47; Discussion. il diag 94 pt 3:165-70; 95 pt 3:111-12 My '47, Mr '48
What is the best way of measuring the zero-sequence impedance of a cable? diags Electrician 140:193-4 Ja 16 '48

ELECTRIC cables, Submarine

- How New Orleans lays submarine cable. il Elec World 129:114+ Mr 13 '48
Submarine cables in Norway. C. W. Hirsch. il map Elec Com 25:3-9 Mr '48
33-kv submarine cable installation for Northern Ireland electricity board. il Electrician 141:929 S 24 '48; Elec R (Lond) 143:483-4 S 24 '48

ELECTRIC capacity

- Cyclic variations of capacitance; effect of 50-c/s voltages on high-permittivity ceramics. W. Reddish. bibliog il diags Wireless Eng 25:331-7 O '48
Sensitive capacitance meter. D. M. Neale. diag J Sci Instr 25:346-7 O '48
ELECTRIC cells. See Electric batteries; Electrolytic cells

ELECTRIC charges

- Charge distribution in nuclei and the scattering of high energy electrons. M. E. Rose. bibliog Phys R 73:279-84 F 15 '48
Effect of electrical charge in the application of dyestuffs. diag Am Dyestuff Rep 36:697-702+ D 1 '47
Electrical theory of dyeing. W. Harrison. bibliog Soc Dyers & Col J 64:248-52 Jl '48
Modulation of conductance of thin films of semi-conductors by surface charges. W. Shockley and G. L. Pearson. diag Phys R 74:232-3 Jl 15 '48
Theoretical evidence for the existence of a light-charged particle of mass greater than that of the electron. M. Hessaby. Phys R 73:1128 My 1 '48
Theory of magnetic poles. P. A. M. Dirac. Phys R 74:817-30 O 1 '48
See also
Electrets
Space charge

ELECTRIC circuit breakers

- Breaker interrupts 7½ million kva. il Power Generation 52:67 My '48
Circuit breaker modernization and faster fault clearing on single-phase electrified railroad; abstract. H. F. Brown and others. il Elec Eng 67:476 My '48
Circuit protection; circuit breakers. J. J. O'Connor. il diags Power 92:408-11 Ji '48
Cooke and Ferguson outdoor circuit breakers. il Engineer 135:266 Mr 12 '48
Earth leakage protection. Electrician 141:927-8 S 24 '48

- 18 don'ts when working on oil circuit breakers. Elec World 129:110+ Mr 27 '48
Emergency breaker interlock constructed on the job. J. I. Hursh. il diag Elec World 130:113+ O 9 '48
Experience with high-speed reclosing of transmission lines. G. E. Dana. bibliog diags Elec Eng 67:942-4 O '48
Higher interrupting capacity. S. B. Crary. diags Elec World 128:86-8 D 6 '47
Modern switchgear. J. M. Goodall. il diags Electrician 141:389-92 Ag 6 '48
Oil circuit recloser mountings and connections; engineering reference sheet. diags Elec World 129:124 Mr 13 '48
Sectionalization at Isabella; new d.c. practice. G. L. Kemp and D. J. Baker. il plan diags Coal Age 53:102-6 F '48
Switchgear and circuit breaker practice in the United States. M. H. Hobbs. il Elec Eng 67:900 S '48

Design

- Heavy duty electrical equipment; GE redesign of circuit breaker saves space and weight, through use of plastics. il diags Product Eng 19:130-1 S '48

Manufacture

- Precision cast stainless steel electrical parts reduce weight, save costs. H. C. Amtsberg. il Materials & Methods 28:73 S '48

Oilless

- Air blast circuit breakers for 220 kv and higher voltages for Swedish networks; abstract. K. I. Lindström. Engineering 166: 92 Jl 23 '48
Grounding off-track mining machinery and protection of equipment with circuit breakers. J. A. Setter. il diags Coal Age 53:107-11 S '48
Improved design of low-voltage panel-mounted air circuit breaker; abstract. L. H. Sperow and J. A. Favre. Elec Eng 67: 478 My '48
New Canadian sub uses air breakers. il Elec West 100:61 Ja '48
Pneumatic operation of air-blast circuit breakers; abstract. W. A. McNeill. Engineering 166:91-2 Jl 23 '48

Testing

- Circuit breaker interrupts 7½ million kva at Grand Coulee. il Westinghouse Eng 8:2-3 Ja '48
Measure closing currents of oil circuit breakers. diag Elec World 129:84+ F 28 '48
Test box checks timing of oil circuit breakers. diags Elec World 129:120 Mr 13 '48

Tripping

- Automatic tripping and reclosing of circuit breakers for line sectionalizing with a-c control; abstract. C. E. Winegartner and H. E. Bonheimer. Elec Eng 67:397 Ap '48
New overcurrent tripping device for low-voltage circuit breakers. H. L. Rawlins and J. Sandin. il diags Power Pl Eng 51: 71-3+ O '47; Same cond. Elec Eng 66:1194-7 D '47
Selective vs cascade tripping. W. N. Gittings. diags Elec World 130:39 O 23 '48

ELECTRIC circuits

- Analysis of the impulses from Geiger-Mueller tubes. S. C. Curran and E. R. Rae. bibliog R Sci Instr 18:871-6 D '47
Capacitor relocation aids regulator switching. R. A. Moulthrop and J. A. Jensen. diags Elec World 130:106 S 25 '48
Star diagram; its relation to three-phase star connected loads. G. W. Stubbings. diags Electrician 139:1563-5 N 28 '47
Circuit design for gas-discharge regulator tubes. W. G. Hoyle. diags Tele-Tech 7:46-7+ F '48
Critical analysis of voltage convention, and double-subscript notations. M. B. Reed and W. A. Lewis. bibliog diags Elec Eng 67: 41-8 Ja '48; Discussion. 67:420-1, 619-21, 832-3, 1028-30 Ap, Je, Ag, O '48
Design curves for parallel-T network. D. Espy. diag Electronics 21:114-15 Ji '48
Design of loudspeaker dividing networks. E. R. Schuler. diag Electronics 21:124-5 F '48
Diode circuit analysis. R. H. Dishington. diags Elec Eng 67:1043-9 N '48

ELECTRIC circuits—Continued

- Electric circuit models of partial differential equation. G. Kron, bibliog il diags Elec Eng 67:672-84 J1 '48
- Equivalent circuit for the repulsion motor. R. E. Vowels, diags Elec Eng 67:565-8 Je '48
- High speed coincidence circuit. R. H. Dicke, diags R Sci Instr 18:907-14 D '47
- High-voltage rectifier circuits. E. V. DeBileux, bibliog il diags Gen Elec R 51:22-5 F; 31-3 Mr; 42-7 Ap; 46-7 My '48
- Laboratory oscilloscope. V. L. Fitch and E. W. Titterton, bibliog il diags R Sci Instr 18:321-30 N '47
- Measurement of railway sleeper resistance. Engineering 166:188 Ag 20 '48
- Modern demonstration of MacDonald's equivalence theorem. A. G. Clavier, diags Elec Com 25:148-51 Je '48
- Network theory comes of age. R. L. Dietzold, bibliog Elec Eng 67:895-9 S '48
- Obtaining attenuation-frequency characteristics for servomechanisms; charts and design aids. H. Chestnut, diags Gen Elec R 50:38-44 D '47
- Organizing studio facilities with a filing system; providing indexing and filing of electrical circuits on a distribution frame. T. D. Reid, il Communications 28:28-9 Ag '48
- Paralleled circuits and ratios of R/X. P. E. Benner, il diags Elec World 128:100 D 6 '47
- Potential coefficients for ground return circuits. W. H. Wise, diag Bell System Tech J 27:365-71 Ap '48
- Simple network solution. C. J. Mitchell, diags Elec R (Lond) 143:199-200 Ag 6 '48
- Sketch for an algebra of relay and contactor circuits. G. A. Montgomerie, bibliog diags Inst E E J 95 pt 2:355-64 Je '48; Same, 95 pt 3:303-12 J1 '48
- Standard lag line for phase measurement. O. H. Schuck, il diags Acoustical Soc Am J 20:26-39 Ja '48
- Totalization of watthours; metering total consumption on two or more circuits; meter and transformer connections. H. S. Edgerly, il diags Gen Elec R 50:28-30 N '47
- Transient response of damped linear networks with particular regard to wideband amplifiers. W. C. Elmore, diags J Ap Phys 19:55-63 Ja '48
- Wheatstone bridge network. G. W. Stubbings, diags Electrician 140:493-4 F 13 '48
- See also*
- Electric contacts
- Impedance
- Radio circuits
- Printed circuits**
- Hearing aid uses printed wiring; Solo-pak, il Bsns W p72 N 8 '47
- Industry evaluates printed circuits, il Product Eng 19:158-60 Ap '48
- Metalized circuits. J. T. Collier, il Product Eng 19:141-3 Ap '48
- Operating characteristics of film resistors; producing thin resistance film and coatings for tv circuits; can be applied to printed circuit elements. J. Marsden and A. L. Fugh, jr, il Tele-Tech 7:46-8+ Mr '48
- Precision circuit printing. C. Tuttle, il Electronics 21:190+ O '48
- Printed circuit techniques. C. Brunetti and R. W. Curtis, bibliog il diags U S Nat Bur Stand Circ 468:1-43; pa 25c Supt. of doc. '47; Same, Inst Radio Eng Proc 36:121-61 Ja '48
- Printed circuits on plastic, il Mod Plastics 25:163 Ag '48
- Printed electronic circuits utilized by Allen-Howe electronics corp, to reduce the size of hearing aids, il Machine Design 20:107 F '48
- Printed vitreous enamel components; produced by sprayed-enamel printed-silver process. C. I. Bradford and others, il diags Electronics 20:106-8 D '47
- Sprayed wiring for control amplifier. R. T. Squier, il Electronics 21:128+ My '48
- ELECTRIC codes**
- Codes of wiring practice; how the codes are drawn up, Electrician 139:1287 O 31 '47
- Local wiring codes; abolish them. O. K. Coleman, Elec World 130:100-1 Ag 14 '48

Wiring codes of practice, Electrician 141:1151-2 O 15 '48

See also National electrical safety code

ELECTRIC coils

- Controlled techniques developed to flash weld copper coils; magnet structure of Columbia university's cyclotron, il Steel 122:66-7 Ja 12 '48
- Design of an air core synchrotron. J. P. Blewett, diags J Ap Phys 18:976-82 N '47
- How to design work coils for induction heating. B. H. Griffith, jr, and R. Skiba, il diags Am Mach 92:99-110 Ag 12 '48
- Magnetic field configurations due to air core coils. J. P. Blewett, bibliog diag J Ap Phys 18:968-76 N '47
- Tight traction motor coils; method of binding armatures. E. H. Horstkotte, il diag Ry Mech Eng 122:32-4 Ja '48
- See also*
- Petersen earth coil
- Radio coils
- Solenoids

Manufacture

- Automatic dispatching means minimum manpower; Western Electric, J. R. Dunn, il diag Factory Management 106:122-5 My '48

Testing

- Two simple methods of detecting short-circuited turns in coils. E. B. Brown, diags J Sci Instr 25:282 Ag '48

ELECTRIC communication

- Accuracy of impedance measurements in telecommunications. B. Secker, diags Elec Com 25:74-83 Mr '48
- Development and design of colonial telecommunication systems and plant. C. Lawton and V. H. Winslow, diags Inst E E J 94 pt 3:229-44 J1 '47; Discussion, 94 pt 3:251-9; 95 pt 3:79-87 J1 '47, Mr '48
- Mathematical theory of communication. C. E. Shannon, diags Bell System Tech J 27:379-423, 623-56 J1, O '48
- Relationship between rate of transmission of information, frequency bandwidth, and signal-to-noise ratio. C. W. Earp, Elec Com 25:178-95 Je '48
- Telecommunication research at Dollis Hill establishment of the post office, Electrician 141:101-2 J1 9 '48
- Telecommunications in the petroleum industry. Z. Friedberg, fold pl plan Inst Pet J 34:309-30 My '48
- Trends in electronic engineering. D. G. Fink, Elec Engr 67:647-50 J1 '48
- See also*
- Radio communication
- Telephone
- Radio telegraph
- Teletype
- Radio telephone
- Television
- Telegraph

ELECTRIC condensers. See Condensers (electricity)

ELECTRIC conductivity

- Breakdown directions in lithium halide crystals. J. W. Davisson, il diags Phys R 73:1194-201 My 15 '48
- Change of photo-conductivity of cadmium sulfide between room temperature and the temperature of liquid air. J. C. M. Brentano, and D. H. Davis, Phys R 74:711-12 S 15 '48
- Conductivity cell for viscous materials. Franklin Inst J 246:65-6 J1 '48; Can Chem & Process Ind 32:829+ S '48
- Conductivity induced in diamond by alpha-particle bombardment and its variation among specimens. A. J. Ahearn, Phys R 73:1113 My 1 '48
- Conductivity; lecture demonstration. F. E. Brown, J Chem Educ 25:256-7 My '48
- Conductivity of metals at microwave frequencies. B. Serin, Phys R 72:1261-2 D 15 '47; Discussion, A. B. Pippard and others, 73:920-1 Ap 15 '48
- Effect of annealing and gas content on the superconducting properties of tantalum. R. T. Webber, bibliog Phys R 72:1241-5 D 15 '47
- Electrical conductivity of crystalline and liquid-crystalline soap-water systems. R. D. Vold and M. J. Heldman, bibliog diags J Phys & Colloid Chem 52:148-66 Ja '48
- Electrical conductivity of lead dioxide. U. B. Thomas, bibliog diags Electrochem Soc J 94:42-9 Ag '48

ELECTRIC conductivity—Continued

- Electrical conductivity tests facilitated by improved fixture; control of aluminum for casting rotors. *il Steel* 122:112 F 2 '48
- Electrically conducting glasses. R. L. Green and K. B. Blodgett. *bibliog Am Cer Soc J* 31:89-100 Ap 1 '48
- Excess-defect germanium contacts. S. Benzer. *diags Phys R* 72:1267-8 D 15 '47
- Historic researches; conduction of electricity through gases. *diags Engineer* 185:248-50, 272-4, 296-3, 320-2 Mr 12-Ap 2 '48
- Historic researches; conduction of electricity through liquids. *diags Engineer* 184:404-6, 428-9, 452-3 O 31-N 14 '47
- Incipient superconductivity in titanium. R. T. Webber and J. M. Reynolds. *bibliog Phys R* 73:640 Mr 15 '48
- Magnetic threshold curves of superconductors. J. G. Daunt. *bibliog Phys R* 74:985-O 15 '48
- Measurement of the dielectric properties of soils and water at 3.2 cm. wave length. A. W. Stratton and C. W. Tolbert. *diag Franklin Inst J* 246:13-20 J 1 '48
- Measurement of water in gases by electrical conduction in a film of hygroscopic material and the use of pressure changes in calibration. E. R. Weaver and R. Riley. *bibliog diags J Res Nat Bur Stand* 40:169-214 Mr '48; Same cond. *Anal Chem* 20:216-29 Mr '48
- Moisture determination by electrolytic film; measuring water vapor in gases. *il diags Refrig Eng* 55:266-7 Mr '48
- Nature of negative ions in liquid hydrocarbons. A. Gemant. *Electrochem Soc J* 94:160-70 O '48
- Optical properties of Ni, Co, Fe, Mn, and Cd. F. Bueche. *bibliog diags Opt Soc Am J* 38:806-10 S '48
- Potentials of falling drops. A. Frumkin and J. Bagotskaja. *bibliog diag J Phys & Colloid Chem* 52:1-11 Ja '48
- Problem of the molecular theory of superconductivity. F. London. *bibliog Phys R* 74:562-73 S 1 '48
- Radiofrequency conductivity of gas-discharge plasmas in the microwave region. L. Goldstein and N. L. Cohen. *bibliog diag Phys R* 73:83 Ja 1 '48
- Some problems of application of conductivity equipment; non-mathematical review. A. L. Chaplin. *diags Instruments* 21:273-9 Mr '48
- Strange behavior of metals at very low temperatures; superconductivity. D. H. Andrews. *bibliog il diag Refrig Eng* 54:431-5+N '47
- Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel. *bibliog il diags J Chem Phys* 16:372-80 Ap '48
- Superconductivity and structure of hydrides and nitrides of tantalum and columbium. F. H. Horn and W. T. Ziegler. *bibliog diag Am Chem Soc J* 69:2762-9 N '47
- Superconductivity of lanthanum and cerium. W. T. Ziegler. *J Chem Phys* 16:838 Ag '48
- Temperature dependence of penetration depth in superconductors. J. de Launay and M. C. Steele. *bibliog Phys R* 73:1450-4 Je 15 '48
- Temperature dependence of penetration depth of a magnetic field in superconductors. J. G. Daunt and others. *bibliog Phys R* 74:842 O 1 '48
- Thallium halide crystal counter. R. Hofstadter. *Phys R* 72:1120-1 D 1 '47
- Thermoelectric properties and electrical conductivity of bismuth-selenium alloys. B. D. Cullity. *bibliog Metals Tech* 15:TP2313 1-8 Ja '48
- Treatment of milk; electrical conductivity and sterilization. F. A. Benson. *bibliog diags Elec R (Lond)* 143:133-5 J 23 '48

See also

- | | |
|----------------------|---------------------------|
| Dielectric constants | Electrolytes—Conductivity |
| Dielectrics | Hall effect |

ELECTRIC conductors

- Aluminum conductors used exclusively throughout new rolling mill of Aluminum company of America. *il diags Elec World* 129:81-4 Ap 24 '48

Capacitance effect of conductor in magnetic field; combination of gaseous tube rectifier and a d-c motor. W. Richter. *Elec Eng* 66:784-6 Ag '47; Discussion. 67:833, 1128-9 Ag, N '48

Conductor data; weights and diameters of commonly used conductors for overhead line construction; engineering reference sheet. *Elec World* 130:108 J 31 '48

Conductors; types, availability, and use. *diags Elec Eng* 67:645 J 1 '48

Cost of conductor losses quickly analyzed from graphs; engineering reference sheet. M. H. Atcheson. *Elec World* 130:98 Ag 28; 120 S 11 '48

Electrical conductivity and resistivity of copper conductors; tabulation; engineering reference sheet. *Elec World* 130:114 O 9 '48

Electrical wiring for motor driven machines; insulated electrical conductors, 600 volts. *il Product Eng* 19:120-21 My '48

Electrical wiring for motor driven machines; size of conductors. *il Product Eng* 19:122-3 My '48

Electronics for the power engineer; electron flow in conductors. F. A. Annett. *diags Power* 92:303-5+ My '48

Equations for the inductances of three-phase coaxial busses comprised of square tubular conductors. T. J. Higgins and H. P. Mesinger. *bibliog diags J Ap Phys* 18:1009-21 N '47

High voltages in electronics; correct spacing between conductors for prevention of sparking and corona effects. W. E. Peery. *diags Machine Design* 20:123-7 Je '48

Joints and clamps for aluminum conductors; abstract. G. B. Tebo. *Elec Eng* 67:986 O '48

New group of strong, conductive copper alloys; Trodaloy. H. A. Knight. *il Materials & Methods* 27:76-9 F '48

Service drops to customers' premises; engineering reference sheet. *Elec World* 130:118 Ag 14 '48

Skin effect in electrical conductors. F. C. DeWeese. *diag Power Pl Eng* 51:84-6 N '47

Tennessee utility adopts aluminum for distribution circuits. C. E. Bryan. *il Elec World* 129:64-6 F 28 '48

Wire connections need more attention; high inter-strand resistance shown as source of possible trouble. F. E. Sanford. *diags Elec World* 129:79-82 My 8 '48

See also

- | | |
|-------------------|---------------|
| Aluminum—Electro- | Electric wire |
| technical uses | Kelvin's law |
| Electric cables | Wave guides |

Semi-conductors

End resistance materials. P. G. Weiller. *Electronics* 21:172+ My '48

Energy distribution of photoelectrons from polycrystalline tungsten. L. Apker and others. *bibliog diag Phys R* 73:46-50 Ja 1 '48

Modulation of conductance of thin films of semi-conductors by surface charges. W. Shockley and G. L. Pearson. *diag Phys R* 74:232-3 J 15 '48

Semi-conductor replaces vacuum tubes; Transistor. *il diags Product Eng* 19:158-9 S '48; *Instruments* 21:636-8 J 1 '48; *Electronics* 21:68-71 S '48; *Power Generation* 52:83-5 O '48

Sintered semiconductors. H. H. Hausner. *il diags Electronics* 21:138+ Ja '48

Temperature coefficient of electrical resistivity for crystalline selenium containing various percentages of bromine. W. E. Blackburn. *diag J Ap Phys* 19:51-4 Ja '48

Thermo-electric and conductive properties of blue titanium dioxide. H. K. Henisch. *bibliog(30 titles) il diags Elec Com* 25:163-77 Je '48

Transistor. F. H. Rockett. *il diag Sci Am* 179:52-5 S '48

Transistor, a semi-conductor triode. J. Bardeen and W. H. Brattain. *diag Phys R* 74:230-1 J 15 '48

Transistor may replace vacuum tubes. *il diag Tele-Tech* 7:18-20+ Ag '48

Use of photo-conductive semiconductors as amplifiers. E. S. Rittner. *Phys R* 73:1212-13 My 15 '48

ELECTRIC conductors—Continued**Temperature**

Chart determines copper temperature rise; engineering reference sheet. G. F. Banks. Elec World 129:116 Je 5 '48

Temperature coefficient of electrical resistivity for crystalline selenium containing various percentages of bromine. W. E. Blackburn. diag J Ap Phys 19:51-4 Ja '48

Testing

Tests carried out as the 500-kv experimental station of Chevilly (France), especially on corona behavior of bundle conductors; abstract. F. Cahen. Elec Eng 67:972 O '48

ELECTRIC conduits

Channel conduit wiring. il Engineer 185:504 My 21 '48

Electrical wiring for motor driven machines; solid and flexible conduits. diags Product Eng 19:124-5 My '48

Standard sizes of rigid metal conduit and number of R, RP, RH, RW and V conductors it will carry; chart and table. Power Generation 52:84 S '48

ELECTRIC connectors

Connector limitations studied. R. M. Schahfer and W. H. Knutz. diag Elec World 129:46-9 Ja 31 '48

Connector provides high safety; electrical fire-wall connector to withstand attack by fire. C. J. Adams. il Aviation W 49:28-9 S 27 '48

Wire connections need more attention; high inter-strand resistance shown as source of possible trouble. F. E. Sanford. diags Elec World 129:79-82 My 8 '48

Testing

Short-circuit tests predict performance of corroded connectors. R. M. Schahfer and W. H. Knutz. Elec World 129:80-2 F 14 '48

ELECTRIC contactors

Design of contactors with regard to their industrial application. B. Feldbauer. bibliog diags Inst E E J 95 pt 2:439-448; Discussion. il 448-51 Ag '48; Electrician 140:351 Ja 30 '48

Metals for electrical switches and contacts; tabulation. Electronics 21:M28 Mid-Je '48

Sketch for an algebra of relay and contactor circuits. G. A. Montgomerie. bibliog diags Inst E E J 95 pt 2:355-64 Je '48; Same. 95 pt 3:303-12 Jl '48

ELECTRIC contacts

Bridge erosion of electrical contacts. J. J. Lander and L. H. Germer. bibliog il J Ap Phys 19:910-28 O '48

Calculation of the temperature development in a contact heated in the contact surface, and application to the problem of the temperature rise in a sliding contact. R. Holm. bibliog diag J Ap Phys 19:361-6 Ap '48

Characteristics of silver and copper for use as electrical contacts. B. W. Jones and L. L. Zickrick. il Product Eng 18:104-7 N '47

Electrical contact troubles. V. E. Heil. diag Power Generation 52:62-3 F Je '48

Suggested changes in temperature limits of present standards for stationary contact surfaces. bibliog Elec Eng 67:253-7 Mr '48

Wire connections need more attention; high inter-strand resistance shown as source of possible trouble. F. E. Sanford. diags Elec World 129:79-82 My 8 '48

Testing

Calculation of electrical contacts under ideal conditions. E. I. Shobert. 2d. bibliog diags Am Soc T M Proc 46:1126-44; Discussion. 1145-6 '46

ELECTRIC contractors

Accidents through negligence; contractors' responsibility towards customers. F. E. Sugden. Elec R (Lond) 143:645 O 22 '48

Compulsory registration and inspection. E. A. Pinto. Electrician 140:1497-8 My 14 '48

Control of electrical installation work. W. R. Watson. Inst E E J 93 pt 2:249-59 Je '46; Discussion. 93 pt 2:259-62; 94 pt 2:99-100, 705-8 Je '46, F. D '47

First foreman's meeting; contractor's supervisory staff share their knowledge. C. A. Langlais. Elec West 100:64 Ja '48

Idaho state electrical contractors' association 1st annual meeting. Boise, Feb. 16-17. Elec West 100:81-3 Mr '48

More production is the answer, how can we get it in contracting? C. A. Langlais. Elec West 99:63-9 D '47

Shops and warehouses; tenants' position when leases expire. F. E. Sugden. Elec R (Lond) 141:979 D 26 '47

Why and how of an adequate wiring program. M. R. Norton. il Elec World 129:92-3 Mr 27 '48

ELECTRIC control

Abstracts of papers read at the convention on automatic regulators and servo mechanisms. diags Inst E E J 94 pt 1:527-60 N '47

Adjustable-voltage control system; operating characteristics of a newly developed a-c powered adjustable-voltage scheme for driving machines such as cranes. J. E. Jones. il diag Product Eng 19:127-30 F '48

A-c mine-hoist control. J. W. Cooke and G. W. Heumann. il diags Gen Elec R 50:26-32 D '47

Assures accurate positioning; mold handling equipment used in vulcanizing air foam rubber cushions; Goodyear tire & rubber co. A. T. Bachelor. il diag Machine Design 20:144+ Mr '48

Automatic control of pulverizers. P. McShane. il diags Eng & Min J 149:86-7 S '48

Automatic lease operation. G. Weber. il diags Oil & Gas J 47:74+ Ag 5 '48

Automatic operation of flowing oil wells and tank batteries. J. N. Poore. il plan diags Pet Eng 19:70+ Ag '48

Design and operation of electrical control mechanisms in underground pumping plants. A. C. Durham. bibliog 7pls U S Bur Mines Information Circ 7476:1-21 '48

Domestic demand control; automatic limiting device. diags Elec R (Lond) 143:639-40 O 32 '48

Electric control gear for steel-mill auxiliaries. R. A. West. il diags Iron & Steel Inst J 158:357-75 Mr '48

Electrical and electronic controls for form-duplicating machines. H. C. Town. diags Mach 54:193-6 Jl '48

Electrical control of tension in the paper industry. G. E. Shaad. diags Paper Ind 29:1138-42 N '47

High-speed cycling; automatic electric controls utilized in turret lathe. R. H. Clark. il diag Machine Design 20:101-4 Ap '48

How to select and maintain definite-time-control relays. R. E. Taylor. il diag Factory Management 105:102-6 D '47

Industrial control; abstracts of papers. A.I.E.E. winter meeting. Elec Eng 67:400-2 Ap '48

Low-torque potentiometers simplify many control problems. H. D. Wright. il diags Machine Design 20:134-6 My '48

Multi-point furnace control panel. C. L. M. Cottrell. il diags Metallurgia 38:132-4 Jl '48

Operation and maintenance of automatic preset plate mill screwdown control. J. F. Skalka; R. G. Uhler. il diags Iron & Steel Eng 25:37-41; Discussion. 41-2 Jl '48

Operation of ingot buggies by remote control. K. S. Kuka. il diags Iron & Steel Eng 25:77-9 Je '48

Packaged servomechanism. W. C. Robinette. il diags Electronics 21:100-6 Ja '48

Practices and trends in steel-mill control. A. W. Schmitz. il diags Gen Elec R 51:34-7 My '48

Remote control for an irrigation scheme. il diag Engineer 186:10-11 Jl 2 '48

Sewer gate operation by remote control. L. L. Bradish and F. C. Lorenzen. il diag Eng N 139:812-13 D 11 '47

Solves solution mixing problem with push-button control layout; Eastman Kodak co. il diag Heating-Piping 20:98-9 My '48

Taking the mystery out of the amplydne. W. H. Wigington, jr. il diag Power Generation 52:69-71 Jl '48

Theory of servo systems, with particular reference to stabilization. A. L. Whiteley. diags Inst E E J 93 pt 2:353-67 Ag '46; Discussion. 93 pt 2:368-72; 94 pt 2:611-15 Ag '46, D '47

ELECTRIC control—Continued

Utilizing dielsyns in machines. W. J. Gorman, Jr. *il* *diags* Machine Design 20:116-21 Mr '48

See also

Carrier current control
Electric controllers
Electric motors—Control
Electric switchgear
Electrohydraulic control
Photoelectric cells—Control uses

Radio control
Rototrol
Servomechanisms
Thyratron
Vacuum tubes—Control uses
Voltage regulation

ELECTRIC controllers

Automatic acceleration for trolleybuses. *il* Engineer 186:346-7 O 1 '48; Engineering 166:451 N 5 '48

Electric traction equipment; new motors and controllers for railways and tramcars. *il* Electrician 139:1373 N 7 '47

High-acceleration controller for electric traction. *il* *diags* Engineering 165:368-9 Ap 16 '48

Improved electric traction equipment. *il* *diag* Engineer 184:558-9 D 12 '47

Trolley-bus control. *il* *Elec R* (Lond) 143:517-18 O 1 '48; Electrician 141:989-90 O 1 '48

See also

Rheostats**ELECTRIC converters**

A-c to d-c conversion equipment in the du Pont co. H. E. Houck. *il* *Elec Eng* 66:1077-82 N '47

Conversion equipment in the United States aluminum industry. J. Tompkins. *Elec Eng* 66:1068-70 N '47

Differential fields control converters serving large d-c industrial load; naval gun factory, Washington, D.C. R. A. Brady. *il* *diags* *Elec World* 130:96-8 S 11 '48

Mercury-arc power converters in North America. *il* *Elec Eng* 67:626 J1 '48

Paralleling rectifiers and converters; electrolytic zinc plant of the Anaconda copper mining co. R. J. Kennard. *il* *diag* *Elec Eng* 66:1074-6 N '47

When you have to convert a.c. to d.c. power. E. W. Hutton and E. A. Harty. *il* *Factory Management* 106:122-5 J1; 113-15 Ag '48

See also

Electric rectifiers**ELECTRIC cooking**

Catering exhibition: electrical equipment displayed at Olympia. *il* Electrician 140:265-6 Ja 23 '48; *Elec R* (Lond) 142:137-8 Ja 23 '48

Electric cooking attracts motorists; Whittson's drive-in restaurant. *il* *Elec World* 128:124+ D 6 '47

Electric cooking saves in every way. L. L. Koontz. *Elec World* 130:130+ Ag 14 '48

Experiment in heat-soak cooking. *il* Electrician 141:645 Ag 27 '48

Homemakers prove favorable gas cooking ratio; test by Long Island lighting company of comparative usage of gas and electricity in cooking. J. W. Carpenter. *Am Gas Assn* Mo 30:9-10+ F '48

Low-heat cooking; experiment in new technique. *il* *Elec* (Lond) 143:328 Ag 27 '48

What sells electric cooking? T. Scully. *Elec World* 130:136+ S 11 '48

Why electric cooking needs industry promotion. J. F. Burt. *il* *Elec World* 129:94-5 Mr 27 '48

See also

Electric roasters**ELECTRIC cords****Rating**

Coiled cords for electrical appliances. *il* Consumers Res Bul 21:24-5 My '48

ELECTRIC current limiters

New overcurrent tripping device for low-voltage circuit breakers. H. L. Rawlins and J. Sandin. *il* *diags* Power Pl Eng 61:71-3+ O '47; Same cond. *Elec Eng* 66:1194-7 D '47

ELECTRIC currents

Currents excited on a conducting plane by a parallel dipole. B. C. Dunn, Jr. and R. King. *bibliog* *diags* *Inst Radio Eng Proc* 36:221-9 F '48

Effect of d-c. component in a-c. inert-gas arc welding of aluminum. G. J. Gibson and G. R. Rothschild. *il* *diags* Welding J 27:sup496-501 O '48

Fault currents estimated from curves. J. N. Banky. *diags* *Elec World* 129:108-9 Mr 13 '48

Low-voltage arcing-fault currents. C. F. Wagner and L. L. Fountain. *diag* *Elec Eng* 67:769-71 Ag '48

Simplified calculation of fault currents. *Elec Eng* 67:1085-7 N '48

Surface currents on a conducting sphere excited by a dipole. C. H. Papas and R. King. *diags* *J Ap Phys* 19:808-16 S '48

See also

Electric circuits
Electric distribution
Electric transformers

ELECTRIC currents, Alternating

Alternating current for ships' auxiliaries. A. N. Savage. *diags* Engineering 165:214-16 F 27 '48

Alternating-current measurements of magnetic properties. H. W. Lamson. *diags* *Inst Radio Eng Proc* 36:266-77 F '48

A.c. network analysis. L. Tasny-Tschiasny. *bibliog* *diags* *Elec R* (Lond) 141:925-7, 963-5 D 19-26 '47

Economic studies of long-distance alternating-current power transmission; abstract. S. B. Crary. Engineering 166:55 J1 16 '48

Effects of overlapping joints in laminated magnetic cores on the m.m.f. and power required for their a.c. magnetization. O. I. Butler and C. Y. Mang. *bibliog* *diags* *Inst E E J* 95 pt 2:15-24 F '48

Versatile a-c load visualizer. P. J. Walton. *il* *diags* *Gen Elec R* 51:38-40 Ag '48

ELECTRIC cutouts**Testing**

A.B. Chance co. develops mobile lab to test circuit-interrupting devices. *il* *diag* *Elec World* News ed 130:21-2 O 30 '48

ELECTRIC cutting

Generator unit scrapped by electric arc cutting. *il* *Elec World* 130:103 S 25 '48

Oxyarc process

Experience with the oxygen arc method of cutting cast iron pipe. S. L. Rogers. *il* *Water & Sewage Works* 95:308-9 S '48

Flame cutting of ferrous metals; engineering file facts. R. S. Burpo, Jr., comp. *Materials & Methods* 28:87, 89 Ag '48

ELECTRIC detonators. See Detonators, Electric**ELECTRIC discharges**

Active nitrogen. J. Kaplan. *il* *Phys R* 73:494-6 Mr 1 '48

Breakdown of a gas at microwave frequencies. M. A. Herlin and S. C. Brown. *diag* *Phys R* 74:291-6 Ag 1 '48

Breakdown of gases in high frequency electrical fields. D. H. Hale. *Phys R* 73:1046-52 My 1 '48

Discharge spread in Geiger counters with methane and methane/argon fillings. C. Balakrishnan and others. *bibliog* *diag* *Phys R* 74:410-14 Ag 15 '48

Effect of trapping centers on dielectric breakdown in alkali halides. C. F. Meyer and R. C. Herman. *bibliog* *J Chem Phys* 16:161-6 Mr '48

Ejection of electrons by ions at high fields. R. R. Newton. *Phys R* 73:122 My 1 '48

Electrical breakdown of a gas between coaxial cylinders at microwave frequencies. M. A. Herlin and S. C. Brown. *Phys R* 74:910-13 O 15 '48

High-pressure mercury-vapour discharge and its applications. V. J. Francis and W. R. Stevens. *il* *Inst E E J* 94 pt 2:423-38 *bibliog* (95 ref, p437-8); Discussion. 439-42 O '47

Historic researches; conduction of electricity through gases. *diags* *Engineer* 185:248-50, 272-4, 296-3, 320-2 Mr 12-Ap 2 '48

Ionization currents in divergent fields in hydrogen and in air. G. W. Johnson. *bibliog* *diags* *Phys R* 73:284-97 F 15 '48

Ionization processes in a long discharge tube with application to lightning mechanism. F. H. Mitchell and L. B. Snoddy. *bibliog* *il* *diag* *Phys R* 72:1202-8 D 15 '47

Low voltage discharge between very close electrodes. L. H. Germer and F. E. Haworth. *il* *Phys R* 73:1121 My 1 '48

Microwave spark. D. Q. Posin. *bibliog* *diags* *Phys R* 73:496-509 Mr 1 '48

ELECTRIC discharges—Continued

- Observations on arc discharges at low pressures. M. J. Kofoid, *il diag J Ap Phys* 19:399-404 Ap '48
- Portable electrometer for measuring electrostatic charges and capacities. A. R. Boyle and F. J. Llewellyn, *diags J Sci Instr* 25:242-3 J '48
- Production of high velocity mercury vapor jets by spark discharge. J. R. Haynes, *bibliog il diag Phys R* 73:891-903 Ap 15 '48; Discussion, W. Finkelburg, 74:222-3 J 15 '48
- Radiofrequency conductivity of gas-discharge plasmas in the microwave region. L. Goldstein and N. L. Cohen, *bibliog diag Phys R* 73:83 Ja 1 '48
- Role of the cathode surface in sparking phenomena. H. Jacobs and A. P. LaRocque, *diags Phys R* 74:163-5 J 15 '48
- Self-quenching halogen-filled counters. S. H. Liebson and H. Friedman, *bibliog R Sci Instr* 19:303-6 My '48
- Statistical factors in spark discharge mechanisms. L. B. Loeb, *bibliog Rs Mod Phys* 20:161-60 Ja '48
- Theoretical criterion for streamer advance in an electrical field. L. B. Loeb and R. A. Wijman, *bibliog J Ap Phys* 19:797-9 Ag '48
- Theory of high frequency gas discharges. H. Margenau and L. M. Hartman, *bibliog Phys R* 73:297-328 F 15 '48
- Threshold for spark development by streamer mechanism in uniform fields. L. B. Loeb, *bibliog Phys R* 74:210-12 J 15 '48
- Transients in Townsend discharges. R. R. Newton, *bibliog Phys R* 73:570-83 Mr 15 '48
- Unit processes; reactions activated by electrical discharge. H. J. Garber, *Ind & Eng Chem* 40:1690-1 *bibliog (p 1694) S '48*
- See also*
- Cathode ray tubes Ionization, Gaseous Corona (electricity) Lightning Geissler tubes
- ELECTRIC distribution**
- Alternating current for ships' auxiliaries. A. N. Savage, *diags Engineering* 165:214-16 F 27 '48
- Aluminum conductors used exclusively throughout new rolling mill of Aluminum company of America, *il diags Elec World* 129:81-4 Ap 24 '48
- Artificial three-phase systems. A. J. Baggett and N. F. Lower, *il diags Elec R (Lond)* 143:126-8 J 23 '48
- Better for the power user? reliable, flexible, industrial power distribution systems. H. J. Finison, *il diag Elec World* 129:97-101 Mr 13 '48
- Centralized ripple control on high-voltage networks. T. W. Ross and R. M. A. Smith, *bibliog diags Inst E E J* 95 pt 2:470-80 O '48; Same, *Engineering* 165:309-10 Mr 26 '48; Excerpts, *Engineer* 185:158 F 13 '48; Discussion, *Inst E E J* 95 pt 2:480-91 O '48
- Distribution system modernization; symposium. H. E. Jung and others, *Elec Eng* 67:223-8 Mr '48
- Economics of subtransmission. D. K. Blake and others, *il diags Elec World* 130:93-5 S 11; 96-7 O 9 '48
- Electric power distribution systems; practices and trends in the United States, *diags Elec Eng* 67:1083-103 N '48
- Electricity distribution; reorganization on a regional basis for cost reduction; abstracts. R. C. Golding, *Elec R (Lond)* 142:923-4 Je 11 '48; *Electrician* 140:1814-20 Je 11 '48
- Extensions at Bedford, *il Elec R (Lond)* 142:445 Mr 19 '48
- Highlands load building, Scotland, *il map diag Elec R (Lond)* 141:683-8, 840-4; 142:343-5, 422-7, 833-6 N 7, D 5 '47, Mr 5, 19, My 28 '48
- Historical works survey; Hoffmann manufacturing co. *il Elec R (Lond)* 143:193-7 Ag 6 '48
- How to apply transformers on banked-secondary systems. W. A. Sumner and others, *diag Elec World* 130:81-5 O 23; 94 N 6 '48
- Increased energy supply for steel mill. H. A. P. Langstaff and K. N. Reardon, *il diag Elec World* 130:93-5 O 9 '48
- It paid to separate welding and power circuits; what Delco has gained. C. W. Wright, *il Factory Management* 106:76-9 J '48

- Medium-voltage distribution. R. B. Rowson, *diag Elec R (Lond)* 143:275-7 Ag 20 '48
- Meeting increasing demand; achievements of the Plympton St Mary undertaking, *il map Elec R (Lond)* 142:129-32 Ja 23 '48
- 100 per cent is 100 per cent; how long can utility add incremental loads without changing philosophy of distribution system planning and engineering? E. Fleischmann, *Elec West* 100:60 Ja '48
- Outgrown distribution system replaced; Chevrolet-Detroit forge division of General Motors corp. V. L. Drummond, *il diags Elec World* 130:74-6 Ag 28 '48
- Power distribution specifications. L. D. Siniff, *plan diags Min Cong J* 34:40-2 My '48
- Power, its generation, distribution and control; review of new developments, *il Westinghouse Eng* 8:2-9 Ja '48
- Record of experience on the Irish electricity supply system. A. Burke and others, *bibliog il map diags Inst E E J* 94 pt 2:591-606 D '47; Discussion, 94 pt 2:607-11; 95 pt 2:583-96 D '47, O '48
- Report on industrial voltage requirements; AIEE committee report, *diags Elec Eng* 67:358-74 Ap '48
- Rural electrification; the use of the single-phase system of supply. J. S. Pickles and W. H. Wills, *map diags Inst E E J* 93 pt 2:501-10 D '46; Discussion, 93 pt 2:510-16; 95 pt 2:452-68 D '46, Ag '48
- Secondary distribution design; engineering reference sheet. H. C. Bingham, *Elec World* 129:54 Ja 3 '48
- Selection of transformer-bank ratings for oil-field power distribution; engineering reference sheet, *Elec World* 130:86 J 17 '48
- Standard boxes unify underground secondaries. R. F. Burnham, *il plan Elec World* 128:80-1 N 22 '47
- Streamlined distribution for industrial plant. H. E. Stafford, *diags Elec World* 130:100 O 23; 100 N 6 '48
- Supply in a large works; chemical factory and oil refinery run by Trimpell, *il diag Elec R (Lond)* 141:873-8 D 12 '47
- Survey of metering practice on the British grid system. F. Byrne, *diags Inst E E J* 95 pt 2:291-301 Je '48; Excerpts, *Engineering* 165:342 Ap 9 '48; Discussion, *Inst E E J* 95 pt 2:301-8 Je '48
- Tennessee utility adopts aluminum for distribution circuits. C. E. Bryan, *il Elec World* 129:64-6 F 28 '48
- 13,800-volt distribution in the Bunker Hill mine; abstract, L. M. Griffith, *diag Elec Eng* 67:1065 N '48
- Three-phase distribution and electric welding and furnace loads. A. L. Morris, *diags Inst E E J* 93 pt 2:341-8 Ag '46; Discussion, 93 pt 2:348-52; 94 pt 2:691-7 Ag '46, D '47
- Transformer survey seeks better loading. R. C. Stevenson, jr., *il Elec World* 130:69-71 J 17 '48
- Westmorland rural network; abstract, G. G. Mallinson, *Electrician* 139:1301 O 31 '47
- What electric distribution system for your plant. J. S. Parsons, *il diags Factory Management* 106:97-111 My '48
- Wiring blocks of flats, *il diags Elec R (Lond)* 141:797-9 N 28 '47

See also

- | | |
|---------------------------------|-----------------------|
| Busbars | Electric service, |
| Electric circuit breakers | Rural |
| Electric conductors | Electric substations |
| Electric fuses | Electric switchgear |
| Electric lines | Electric transformers |
| Electric plants—Interconnection | Electric transmission |
| Electric rectifiers | Electric wiring |
| | Voltage regulation |

Change-over

- Change of frequency on the system of the Southern California Edison co. H. W. Tice and others, *il diags Elec Eng* 67:866-81 S '48
- Conversion equipment in the United States aluminum industry. J. Tompkins, *Elec Eng* 66:1068-73 N '47
- Delta-wye conversion brings metering problem. E. Lambert, *diags Elec World* 129:66-4 Ja 31 '48
- D-c power for magnesium plants. F. S. Glaza, *il Elec Eng* 66:1063-8 N '47

ELECTRIC distribution—Change-over—Cont.

- Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard. *il* diags Elec Eng 66:1059-63 N '47
- Power switch; Ontario to bring its Niagara system into line with others. Bsns W p 126-7 Mr 20 '48
- Urban areas served at generator voltage in New Orleans. F. E. Johnson, Jr. *il* plan diags Elec World 128:85-7 N 22 '47

Cost

- Cost of conductor losses quickly analyzed from graphs; engineering reference sheet. M. H. Atcheson. Elec World 130:98 Ag 28; 120 S 11 '48
- Determining least cost by Kelvin's law; making minimum cost calculations for meeting expanding loads. W. R. Bullard and C. Hutchinson. *il* Elec World 130:79-81 Ag 28 '48
- Economics of high-voltage transmission by underground cables. R. N. Berry. bibliog Inst E E J 94 pt 2:573-84; Discussion. 585-90 D '47
- Is long-distance electric power transmission economical? R. C. Buell. Pub Util 42:153-8 J1 29 '48
- Longer cable pulls halve costs; abstract. R. G. Finnerty. Elec World 128:92 D 6 '47

Grounding

- Comparative properties of grounding electrodes; engineering reference sheet. R. Rudenberg. diags Elec World 129:72 Ja 31 '48
- Earth leakage control panel. *il* diag Engineer 185:454 My 7 '48
- Earth-leakage protection. Electrician 139:1853-4 D 26 '47
- Earthing problems. R. W. Ryder. bibliog diags Inst E E J 95 pt 2:175-84 Ap '48
- Geophysical measurements, determined by electrode probing; search for low resistivity areas for good grounding. J. R. Leslie. *il* map Elec World 130:105+ O 9 '48
- Grounding off-track mining equipment; report of the power committee. *il* diags Min Cong J 34:53-6; Discussion. 56-7 Mr '48
- Grounding off-track mining machinery and protection of equipment with circuit breakers. J. A. Setter. *il* diags Coal Age 53:107-11 S '48
- High-voltage characteristics of earth resistances. G. M. Petropoulos. bibliog *il* diags Inst E E J 95 pt 2:59-70 F '48
- How to check grounds with a 20-amp fuse. *il* diag Elec World 128:94 N 22 '47
- Neutral earthing of three-phase systems, with particular reference to large power stations. J. R. Mortlock and C. M. Dobson. bibliog diags Inst E E J 94 pt 2:549-68 D '47; Discussion. 94 pt 2:568-72; 95 pt 2:566-82 D '47, O '48
- Six variables in ground resistance studied for 18 years. C. B. Downer. *il* plan Elec World 129:37-9 Ja 3 '48

Grounds and faults

- Double earth faults; automatic isolation in ring mains protected by Petersen coils. A. Salzmann. Electrician 140:29-32 Ja 2 '48; Discussion. C. H. Lackey. 140:419-29 F '48
- Earth leakage. Electrician 140:1731-2 Je 4 '48
- Earth-leakage directional relays. S. A. Daines. diags Elec R (Lond) 141:733-4 N 14 '47
- Experience with high-speed reclosing of transmission lines. G. E. Dana. bibliog diags Elec Eng 67:942-4 O '48
- Fault currents estimated from curves. J. N. Banky. diags Elec World 129:108-9 Mr 13 '48
- Ground halts generator phase test. E. J. Kelley. diags Power 92:699 N '48
- Impulse cable fault locator. F. W. Buck. *il* diag Elec World 128:82+ D 20 '47
- Induction cable fault locator. *il* diag Engineer 186:61 J1 16 '48
- Lhascope, an echo-ranging-type fault locator for high-voltage lines; abstract. J. R. Leslie and K. H. Kidd. *il* Elec Eng 67:987 O '48
- Locating faults in underground cables. D. F. Tulloch. diags Elec World 128:109-11 N 8 '47

- Low-voltage arcing-fault currents. C. F. Wagner and L. L. Fountain. diag Elec Eng 67:769-71 Ag '48
- Magnetic recorder for power systems. Elec Eng 67:357 Ap '48
- Method for detection of sustained earth-faults in rural overhead lines protected by Petersen coils. B. D. Zelikin. diags Inst E E J 95 pt 2:617-19 O '48
- New overcurrent tripping device for low-voltage circuit breakers. H. L. Rawlins and J. Sandin. *il* diags Power P1 Eng 51:71-3+ O '47; Same cond. Elec Eng 66:1194-7 D '47
- Petersen coil tuning determines performance. H. W. Hartzell and others. *il* diags Elec World 130:62-5 J1 17 '48
- Principles and practices of protective relaying in the U.S.A. E. L. Harder and W. E. Marter. diags Elec Eng 67:1075-81 N '48
- Service restoration used at three loop stations. W. M. Evans. diag Elec World 130:108+ O 9 '48
- Simple electronic fault recorder. L. R. Engvall. *il* diag Elec World 130:95+ J1 3 '48
- Transmission-line fault locator using fault-generated surges; abstract. R. F. Stevens and T. W. Stringfield. *il* Elec Eng 67:1060 N '48

Network analyzers

- A.c. network analyser. *il* diag Engineer 184:442-4 N 7 '47; Engineering 164:536-7 D 5 '47
- Engineering made easier; calculating devices. Westinghouse Eng 8:32 Ja '48
- Network analysis; inauguration of first machine in London. *il* Elec R (Lond) 141:737-9 N 14 '47; Electrician 139:1361-2 N 7 '47
- New a-c analyzers for the West. *il* Elec West 101:57 J1 '48
- Presenting calculating board power swing curves. W. A. Morgan. diag Elec World 128:72-3 D 20 '47
- Short circuit analysis of a 40,000 kva, 2300 volt power system on an a.c. network calculator. E. L. Cowan and W. V. Knight. *il* diags Paper Tr J 126:45-60 Mr 4 '48; Same cond. Paper Ind 30:283+ My '48

Stability

- Effect of angle regulator on power system stability. C. Concordia. Elec Eng 67:570 Je '48
- Electronic stabilizer for power transmission. E. F. W. Alexanderson and D. C. Prince. *il* diags Elec Eng 66:1053-7 N '47
- Influence of design and operational practice on the stability of large metropolitan cable systems. A. J. Gibbons and E. B. Powell. diags Engineering 166:165-7 Ag 13 '48
- Series capacitors approach maturity. A. A. Johnson. *il* diags Westinghouse Eng 8:106-13 J1 '48
- Series capacitors on distribution circuits. R. E. Marbury and J. B. Owens. diag Elec Eng 67:158-62 F '48
- 66-kv 10,000-kva series capacitor for voltage regulation. *il* Elec Eng 67:236-41 Mr '48
- Stabilization of carrier-frequency servomechanisms. A. Sobczyk. diags Franklin Inst J 246:21-43, 95-121, 187-213 J1-S '48
- Supply for farm welders no problem. A. H. Matthews and G. V. Patterson. Elec World 130:99-101 S 11 '48
- Sweden builds a 380-kv line; studies 440-kv d-c. E. Hansson. diags Elec World 129:114-16 Ap 10 '48
- Use of capacitors in industrial plants. R. E. Marbury. *il* Westinghouse Eng 8:84-9 My '48
- Tables, calculations, etc.
- A.c. network analysis. L. Tasny-Tschiasny. diags Elec R (Lond) 141:925-7, 963-5 D 19-26 '47
- Circle diagram; its relation to three-phase star connected loads. G. W. Stubbings. diags Electrician 139:1563-5 N 28 '47
- Economics of power factor correction. G. W. Stubbings. Electrician 141:773-4 S 10 '48
- Estimating unbalance factor of a three-phase load. G. W. Stubbings. diags Electrician 140:185-6 Ja 16 '48
- Estimating voltage drops caused by starting a-c motors. W. K. Boice. *il* Power Generation 52:102+ Ja '48
- Simplified calculation of fault currents. Elec Eng 67:1085-7 N '48

ELECTRIC distribution—Tables, calculations, etc.—*Continued*

Small negative-sequence components. G. W. Stubbings. *diag Elec R (Lond)* 142:99 Ja 16 '48

Symmetrical components. G. H. Rawcliffe. *diag Elec R (Lond)* 142:802-4 My 21 '48

Table shortens voltage drop calculations. C. C. Hoke. *Elec World* 129:110 Mr 27 '48

Unbalanced impedance star network; new graphical solution. E. Wilkinson. *diags Elec R (Lond)* 141:660-2 O 31 '47

ELECTRIC double layer

Electrical double layer and the theory of electrocapillarity. D. C. Grahame. *diags Chem R* 41:441-501 bibliog(95 ref, p500-1) D '47

Frequency dependence of the capacity of a diffuse double layer. J. D. Ferry. *bibliog J Chem Phys* 16:737-9 JI '48

ELECTRIC driving

A-c motor drives for modern elevators. M. A. de Ferranti. *il diag Gen Elec R* 51:41-5 Ag '48

A-c supply, d-c drive. *il Blast F & Steel Pl* 35:1526 D '47; Same. *Power Generation* 52: 73 Ap '48

Adjustable-voltage control system; operating characteristics of a newly developed a-c powered adjustable-voltage scheme for driving machines such as cranes. J. E. Jones. *il diag Product Eng* 19:127-30 F '48

Application of eddy current coupling to wind tunnel drive; abstract. F. W. Sama. *Elec Eng* 67:701-2 JI '48

Big winds for model planes; electric drives for wind tunnels. S. L. Lindbeck and L. A. Kilgore. *il diags Westinghouse Eng* 8:57-62 Mr '48

Coil-winder drive. *il diag Elec R (Lond)* 142: 1018 Je 25 '48

Constant potential or variable voltage for wire blocks; abstract. R. A. Gender. *Elec Eng* 67:700-1 JI '48

Converted Big Inch pioneers motorized centrifugals. W. H. Stueve. *il map diag Elec World* 129:86-8 Je 19 '48

Drive mechanism for high fidelity magnetic tape recorder. R. H. Ranger and R. H. Kinnapfel. *il diag Product Eng* 19:126-6 Ag '48

Drive motor torque must match compressor needs. H. B. Pownall. *Refring Eng* 55:447-51 My '48; Discussion. 55:570+ Je '48

Drives and power conversion; review of new developments. *il Westinghouse Eng* 8:10-18 Ja '48

Electric drive for aircraft. G. C. Crom. *Elec Eng* 66:1206-8 D '47

Electric equipment for plastic injection molding machines; abstract. M. Morgan. *Elec Eng* 67:697 JI '48

Electric power for gas transmission; with cost data. W. H. Stueve. *Pet Eng* 19:59-62 My '48

Electrical wiring for motor-driven machines. *il diags Product Eng* 19:113-28 My '48

Fish oil extraction; electricity revolutionizes methods at Grimsby works. *il Elec R (Lond)* 141:949-51 D 26 '47

Flexible electronic load-control method for motor-drive operations. G. C. Wilson. *il diags Instruments* 21:616-17 JI '48

High capacity eddy current coupling. *il diags Product Eng* 19:96-7 N '48

Increasing motor capacity. *Ry Mech Eng* 122: 39-40 Ja '48

Industrial-power clutches; electric drives. *diags Power* 92:97 F '48

Interlocks, electrical and mechanical. R. B. Immel. *il diags Machine Design* 20:131-48 Ap '48

Large electronic direct current motor drives. M. M. Morack. *bibliog il diags Iron & Steel Eng* 25:80-5 Je '48

Material handling plant; sequence control of driving motors with positive interlocking. P. C. Croft. *il Elec R (Lond)* 143:79-84 JI 16 '48

Modified Scotch yoke drive for hack saw. *il diags Product Eng* 19:93-4 N '48

Motor driven machines. *il diags Product Eng* 19:113-44 Mr '48

Motor-driven rheostats for automatic or remote control of motor drives. H. F. Littlejohn, jr. *il diags Machine Design* 19:129-34 D '47

Operation of induction motors in synchronous. T. F. Wall. *diags Engineering* 164: 577-80 D 19 '47

Papers digested for A.I.E.E. rubber and plastics conference. *il Elec Eng* 67:704-6 JI '48

Strip tension and velocity control; continuous cleaning, plating and coiling steel vegetable blindstock; Life time products corp. C. Diechert. *il diag Steel* 123:69-70+ JI 26 '48

Superphosphate manufacture; good examples of group drives. *il Elec R (Lond)* 143:231-5 Ag 13 '48

Variable speed control; electronic equipment. *il Electrician* 139:1508-9 N 21 '47

Variable-speed drives. E. L. Schwarz-Kast. *il diags Machine Design* 20:169-72 Ap '48

Variable voltage control on multimotor blocks; abstract. O. M. Bundy. *Elec Eng* 67:699-700 JI '48

What sizes of ac motors for pulsating loads. A. F. Lukens. *il Factory Management* 105: 80-2 N '47

When you design-in shell type motors. R. E. Arnold. *il diags Machine Design* 20:167-62+ Ap '48

Wound-rotor machine operation. H. Gibson. *diags Gen Elec R* 51:22-5 Ap '48

See also

Electric motors	Mine pumping, Electric
Electric tools, Portable	Pumping machinery, Electric
Holisting machinery, Electric	Rototrol
Locomotives, Diesel-electric	Ship propulsion, Electric
Machine tools—Electric driving	

Conveying machinery

Electric vibrating process equipment. J. H. Whitelock. *flow sheet il diags Mech Handling* 34:629-36 D '47

Machine tools

See Machine tools—Electric driving

Paper mills

Air-drying of surface-sized sheet at Hammer-mill. W. G. Hendrich and J. L. Van Nort. *il diag Paper Ind* 29:1297-300 D '47

Application of synchronous and induction motors to chippers. R. R. Baker and M. R. Lory. *il Elec Eng* 66:1099-103 N '47

Drive for the Carthage chipper. J. E. Rhodes. *il diag Paper Tr J* 125:94-6 N 6 '47

Electric power in the paper industry and textile industry. G. W. Knapp. *Gen Elec R* 51:24-5 Ag '48

Jones composite. C. H. Vickery. *il Paper Ind* 30:140+ Ap '48

Magnetic drives for paper mills. G. L. Oscarson. *il diags Paper Ind* 30:574-6+ JI '48

Modern paper machine drive. G. E. Plaisted. *il diags Paper Ind* 30:770-5 Ag '48

Multiple-generator power with electronic amplidyne control for sectional paper machine drive. L. K. Hart and G. E. Plaisted. *il diags Pulp & Pa of Can (Convention no)* 49:237-43 [F] '48

New developments in electrical and electronic applications. G. W. Knapp. *Paper Ind* 30: 1098-100+ O '48

Paper machine drives. H. W. Rogers. *diags Elec Eng* 66:1082-8 N '47

Spot conversion for adjustment speed. W. R. Hough and J. L. Van Nort. *Paper Tr J* 125: 104+ N 6 '47

Wood chipper. H. W. Rogers. *diag Paper Ind* 30:1042-7 O '48

Power plant auxiliaries

Generating station auxiliary services. W. Szwander. *diags Elec R (Lond)* 143:421-4 S 17 '48

Planning and development of the auxiliary system diagram for a modern generating station; abstract. A. S. Phillips. *Inst E E J* 95 pt 1:124 Mr '48

Printing offices

Ignitron motor control for a printing press. *il diag Engineer* 186:161 Ag 13 '48

ELECTRIC driving—Continued

Rolling mills

- Added facilities increase Republic's stainless steel capacity. R. T. Willson. *Il Blast F & Steel* PI 36:1203-6 O '48
- Control increases production 20 per cent. E. Frisch. *diag Iron & Steel Eng* 25:103-5 My '48
- Electric drive for precious metal rolling mill. *Il Metallurgia* 37:184 F '48; *Elec R (Lond)* 142:338 F 27 '48
- Electric motors over three hundred horsepower applied to main roll drives in the iron and steel and allied industries during 1947; tabulation. *Iron & Steel Eng* 25:69-71 Ja '48
- Electrical and allied developments during 1947; industrial equipment, applications. G. Bartlett. *Il Gen Elec R* 51:34-6 Ja '48
- Electrical developments in the steel industry during 1947. H. W. Poole. *Il Blast F & Steel* PI 36:76-82 Ja '48
- Electrical equipment for new-type cold metal process mill; abstract. J. S. Apperson. *3d. Steel* 122:115 My 10 '48
- Improved d-c generators for reversing mills. C. Lynn and W. H. Burr. *Il diags Iron & Steel Eng* 25:45-9; Discussion. 50-5+ F '48
- Jones & Laughlin improves facilities for the manufacture of tin plate. *Il Blast F & Steel* PI 36:317-21 Mr '48; Same abr. *Iron & Steel Eng* 25:98a-98d F '48
- Light metals cold rolling. *Il Elec R (Lond)* 142:153-6 Ja 30 '48
- Light metals hot rolling; Birmetals, Ltd. *Il Elec R (Lond)* 141:609-13 O 24 '47
- Mile-a-minute five-stand tandem mill now in operation; Weirton steel co. A. J. Winchester. *Il diags Elec Eng* 67:742-6 Ag '48
- Mill motor brake standardization; discussion at 1947 AISE annual convention. A. H. Myles and others. *Iron & Steel Eng* 25:71-7 F '48
- Modern electric equipment for cold-strip reduction mills. W. E. Miller. *bibliog Il diags Gen Elec R* 51:22-9 Mr '48
- New British mill rolls light special sections; Darlington & Simpson rolling mills Ltd. *Il Steel* 122:112+ Mr 15 '48
- New silicon strip cold mill; West Leechburg plant of the Allegheny Ludlum steel corp. F. R. Grant. *Il Iron Age* 160:79-83 N 20 '47
- Operation and maintenance of variable voltage control systems. A. D. Howry. *diags Iron & Steel Eng* 25:48-53; Discussion. 53-5 My '48
- Practices and trends in steel-mill control. A. W. Schmitz. *Il diags Gen Elec R* 51:34-7 My '48
- Primary hot-rolling-mill auxiliaries; electrical features. P. F. Grove. *Iron & Steel Inst J* 157:272-8 O '47; Discussion. 158:376-86 Mr '48
- Progress in steel plant electrical drives. A. F. Kenyon. *Il Blast F & Steel* PI 36:1216-21 O '48
- Rolling mill conversion; South Durham steel & iron co. *Il Elec R (Lond)* 142:267-70 F 20 '48
- Steel industry electrification trends. L. A. Umansky. *bibliog diag Elec Eng* 67:774-5 Ag '48
- Twin-motor drives for cold mills. R. H. Wright. *Il Iron & Steel Eng* 25:125-8; Discussion. 129-33 S '48
- Weirton Steel rolls tin plate on high speed mill. M. J. Wohlgemuth. *Il Blast F & Steel* PI 36:431-3 Ap '48

Rubber factories

- New developments in electric equipment for the rubber industry. B. J. Dalton. *flow diags Il diag Elec Eng* 67:119-24+ F '48
- Tyre manufacture; electrical applications. Dunlop factory at Speke, Liverpool. *Il Elec R (Lond)* 141:645-50 O 31 '47

Ships' auxiliaries

- Alternating current for ships' auxiliaries. A. N. Savage. *diags Engineering* 165:214-16 F 27 '48
- Marine boilers and marine auxiliary machinery. W. Gregson and H. Hillier. *diag Inst Mech Eng J & Proc* 157 (War emergency issue no 29):189-90 '47

Textile mills

- Digests of conference papers of North eastern district meeting, AIEE. *Elec Eng* 67:695-6 J1 '48
- Electric drive produces slasher improvement. E. J. Eaddy. *Il Textile World* 98:139+ J1 '48
- Electric power in the paper industry and textile industry. G. W. Knapp. *Gen Elec R* 51:24-5 Ag '48
- Electrical installation in a viscose rayon factory. C. F. Freeman and H. V. Mather. *Il diags Inst E E J* 95 pt 2:2-9 F '48; Abstract. *Engineering* 163:470 Je 6 '47; Discussion. *Inst E E J* 95 pt 2:10-14, 491-7 F, O '48
- Electrical progress in the textile industry. F. D. Snyder. *diags Rayon* 29:62-4 O; 68-70 N '48 (to be cont); Abstracts. *Elec Eng* 67:846 S '48; *Product Eng* 19:134-6 N '48
- Heart of a textile mill is efficient power transmission. *Il Rayon* 29:97-9 Mr '48
- Motor speed control in ring spinning as an aid to reducing yarn breakages. F. J. Stevenson. *Textile Inst J* 38:P586-9 D '47
- Quantity production of loom motors; Witton works of the General electric co. *Il Engineering* 165:176 F 20 '48
- Slasher and loom drives featured at AIEE meeting, New Haven, Conn. *Textile World* 98:129+ Je '48
- Tension controlled by variety of drives. A. P. Mansfield. *diags Textile World* 98:126-7+ F '48
- Textile mill driving. *Il Elec R (Lond)* 143:345-9, 383-7 S 3-10 '48
- ELECTRIC engineering**
- American electricians' handbook. T. Croft. 6th ed rev & enl 1773p \$6 McGraw-Hill book co 330 W 42d st, New York 18 '48
- A.I.E.E. Midwest general meeting, Chicago, Nov. 3-7. *Elec Eng* 66:1232-47 D '47
- AIEE Pacific general meeting, Spokane, Aug. 24-27. *Elec World News* ed 130:4 S 4 '48
- AIEE Pacific general meeting, Spokane, Wash. Aug. 24-27; abstracts of papers. *Elec Eng* 67:1104-5 N '48
- American institute of electrical engineers winter meeting, Pittsburgh, Jan. 26-31. *Power Generation* 52:98-9+ Mr '48
- American institute of electrical engineers winter meeting, Pittsburgh, Jan. 26-31; papers and discussions summarized. *Elec World* 129:88-95 F 14 '48
- AIEE Summer meeting technical paper abstracts. *Elec Eng* 67:907-8 S '48
- A.I.E.E. winter meeting, Pittsburgh, Jan. 26-31; with abstracts of papers. *Elec Eng* 67:272-97, 383-404 Mr-Apr '48
- Co-operative engineering; a method used in developing motors for industrial need. A. M. MacCutcheon. *Elec Eng* 67:751-3 Ag '48
- Electric power situation in the United States; electrical developments. *Il diag Power Generation* 52:69-71 Ja '48
- Electrical and allied developments during 1947. G. Bartlett. *Il diag Gen Elec R* 51:10-53 Ja '48
- Electrical engineering in 1947. *Il Engineer* 185:16-9, supp 1, 34-5, 61-2, 86-9 Ja 2-23 '48
- Electrical engineering overseas; abstract. C. W. Marshall. *Electrician* 140:262 Ja 23 '48
- Engineers, engineering and the Institution; abstract. D. D. Rayner. *Inst E E J* 95 pt 1: 86 F '48
- Load swings and load shedding discussed at AIEE midwest meeting, Milwaukee, Oct. 18-22. *Elec World News* ed 130:12-13 O 30 '48
- 1947 engineering developments; illustrations with text. *Elec Eng* 67:22-31 Ja '48
- Research in electrical engineering at an engineering school of London university. W. J. John. *Il diags Inst E E J* 95 pt 1:167-71 Ap '48; Abstracts. *Engineer* 184:483 N 21 '47; *Electrician* 139:1289 O 31 '47
- Technological trends still offer a promising future to younger engineer. J. P. Jollyman and J. A. Koontz. *Il Elec West* 100:99-102 Je '48
- See also
- | | |
|--------------------|------------------------|
| Electric apparatus | Electricity |
| and appliances and | Electricity in mining |
| other headings be- | Electricity in the pe- |
| ginning Electric | troleum industry |

ELECTRIC engineering—See also—*Continued*
 Electricity on the farm
 Electricity supply
 Hydroelectric plants
 Insulation (electric)
 Radio communication and other headings beginning Radio
 Voltage regulation

Railroads—Electric equipment
 Railroads—Electrification
 Ship propulsion, Electric
 Telegraph
 Telephone
 Voltage regulation

Bibliography

Accessions to the library (cont). Inst E E J 94 pt 1:436, 501, 599; 95 pt 1:13-14, 75-7, 113-15, 155-6, 195-7, 292-3, 379-80, 422 O '47-My, JI, S-O '48

E.E.I. publications and service material. Edison Elec Inst Bul 15:424-5 N '47
 Library notes on articles in technical journals. Published in monthly numbers of General electric review
 1947 book list issued for electrical engineers. Elec Eng 67:414-15 Ap '48

History

Electricity in the '48s; some coming centenaries. G. J. S. King. Elec R (Lond) 142: 85-6 Ja 16 '48

Safety measures

See also

National electrical safety code

Study and teaching

Correlation of mathematics and electrical engineering. H. K. Justice; W. E. Restemeyer. J Eng Educ 38:300-7 D '47
 Correlation of mathematics and electrical engineering courses. C. G. Brennecke. J Eng Educ 38:358-65 Ja '48

Electrical engineering graduate studies; program of the California Institute of Technology. R. W. Sorensen. Elec Eng 66:1049-53 N '47

Electrical engineering laboratory exercises. J. C. Michalowicz. J Eng Educ 38:766-7 Je '48

Evening graduate programs in electrical engineering. E. Weber. J Eng Educ 38:256-61 D '47

Philosophy and curricular content of a graduate program in electrical engineering. H. L. Hazen. J Eng Educ 38:129-40 O '47

Postwar curriculum emphasis. O. J. M. Smith. Inst Radio Eng Proc 35:1346-8 N '47
 Power courses await utility support. A. E. Knowlton. Il Elec World 129:77-9 Je 19 '48

Practical training of professional electrical engineers. Inst E E J 94 pt 1:437-46 O '47; Excerpts. Electrician 139:195-7 JI 18 '47; Discussion. Elec R (Lond) 141:803-4 N 28 '47; Electrician 139:1567-8 N 28 '47

Summer school in electrical engineering. Il diags Electrician 141:250-6 JI 23 '48; Abstract. Engineer 186:119 JI 30 '48

Teaching of the principles of electrical machine design. L. H. A. Carr. bibliog diags Inst E E J 94 pt 2:443-55 O '47; Discussion. 94 pt 2:456-62; 95 pt 2:99-106, 703-8 O '47, F, D '48

Tables, calculations, etc.

Application of statistical methods to electricity supply problems. P. Schiller. bibliog Inst E E J 95 pt 2:161-74 Ap '48

Calculation of power and VAR using the J notation. A. J. Eales. diags Electrician 140: 1712-14 Je 4 '48

Mathematics for engineers. E. G. Olds and others. diags Elec Eng 67:988-93, 1061-3 O-N '48 (to be cont)

Nomographs for computing exponential relationships; infrared spectroscopy; electrical application. A. H. Canada. Gen Elec R 51:44-7 Mr '48

Sketch for an algebra of relay and contactor circuits. G. A. Montgomerie. bibliog diags Inst E E J 94 pt 2:443-55 O '47; Discussion. 94 pt 2:512-22 O '47; Discussion. 94 pt 2:522-8; 95 pt 2:695-702 O '47, D '48

Symmetrical component analysis. T. F. Wall. Engineering 155:184 F 20 '48

Three-phase complex power. D. W. C. Shen. diags Elec R (Lond) 141:899-900 D 12 '47

See also

Thévenin theorem

Terminology

See also

Electric symbols

Europe

Engineering in Europe today. C. M. Foust. Il Elec Eng 67:13-19 Ja '48
 European engineering practices. M. J. DeLerno and F. V. G. Bird. Il Elec Eng 67: 835-42 S '48

Tropics

Electrical engineering problems in the tropics. R. Allan. Il diags Inst E E J 95 pt 2: 275-83 Je '48; Abstracts. Engineering 164: 594-5 D 19 '47; Elec R (Lond) 141:933 D 19 '47; Discussion. Inst E E J 95 pt 2:283-9 Je '48; Elec R (Lond) 141:933-4 D 19 '47

ELECTRIC engineers

Electric power engineer. P. Sporn. Pub Util 42:267-77 Ag 26 '48; Same. Edison Elec Inst Bul 16:295-8 S '48

Electrical engineer in commerce; abstracts. H. M. Speirs. Inst E E J 95 pt 1:84 F '48; Electrician 139:1222 O 24 '47

Eta kappa nu presents 1942-47 recognition awards. Elec Eng 67:308 Mr '48; Elec World News ed 129:11 Ja 24 '48

Power engineer's future is bright. A. C. Monteith. Power Generation 52:51+- Ag '48

Rewinning the campus; prerequisites to successful recruiting. A. E. Knowlton. Elec World 128:96-7+- N 8 '47

Supervising engineer; abstract. A. G. Ramsey. Electrician 141:1236 O 22 '48

ELECTRIC equipment

Electrical and allied developments during 1947. G. Bartlett. Il diags Gen Elec R 51:10-53 Ja '48

Electrical equipment for the 5000-hp Great Northern locomotives. H. S. Ogden and L. H. Burnham. Il diags Gen Elec R 51:18-23 Je; 32-8 JI '48

1948 review of new power and mechanical equipment; motors and switchgear, other electrical equipment. Il Power 92:sup 170-4 Mid-Je '48

Review of power and mechanical equipment; motors and switchgear, other electrical equipment. Il Power 91:909-13 Mid-D '47

See also

Condensers (electricity)	Electric instruments
Electric apparatus and appliances	Electric lighting
Electric cables	Electric switchgear
Electric driving	Electric wire
Electric fittings	Electricity in mining
also subdivision	Electricity on the farm
also special subjects e.g.	Electric equipment under special conditions

Airplanes

Coal mines and mining

Factories

Paper mills

Maintenance and repair

Effective electrical maintenance. Il Safety Eng 94:42-3 N '47

Electric equipment maintenance. W. L. Eliason. Elec Eng 66:1088-90 N '47; Same. Pulp & Pa of Can 49:73-4 F '48

Electrical maintenance check list. Coal Age 53:118 Ap '48

Electrical maintenance in a newsprint mill. J. Eytan. Elec Eng 66:1095-8 N '47

Electrical maintenance records that simplify work control; American can co. C. Schultz. Factory Management 106:112-15 O '48

General maintenance pointers for electrical equipment. Marine Eng 53:56 JI '48

Idle thoughts; maintenance of mine electrical equipment. C. E. Dunlop. Can Min J 63:905-6 D '47

Inspection, testing and maintenance of electrical equipment for stations and substations. A. C. Baumann and R. H. Mertz. Edison Elec Inst Bul 16:47-50 F '48

Instruments speed electrical maintenance. T. Trail. Il diags Mill & Factory 43:102-6 S '48

Maintenance of electrical machinery in iron and steel works. G. S. Martin and M. Y. Harvey. Il diags Iron & Steel Inst J 158: 510-20 Ap '48

Simplified electrical equipment maintenance. T. Baskin. Il Power Generation 52:68-70 F '48

Training maintenance electricians at Falk. R. H. Weaver. Il Factory Management 106:82-4 F '48

ELECTRIC equipment—Continued

Protection

- Circuit protection, J. J. O'Connor. *il diags*
Power 92:403-18 JI '48
- Control center whips moisture; protecting
electric equipment; South Berkeley cream-
ery. S. Beamer. *il Elec West* 99:76-7 N '47
- Grounding off-track mining machinery and
protection of equipment with circuit break-
ers. J. A. Setter. *il diags Coal Age* 53:
407-11 S '48
- How to cut fire risks in textile mills; ab-
stract. R. G. Shepherd. *Elec World* 129:79-80
F 28 '48
- Protective finishing of electrical equipment.
F. Widnall and R. Newbound. *il Inst E E J*
94 pt 2:512-22 O '47; Discussion. 94 pt 2:
522-8; 95 pt 2:695-702 O '47, D '48
- Thermoset varnish, the first line of defense.
G. F. Sutton and M. F. Hertel. *il Westing-
house Eng* 8:124-8 JI '48

Safety measures

- Control equipment for hazardous locations. B.
M. Mimken. *il Pet Refiner* 26:122-4 N '47
- Earth leakage control panel. *il diags Engineer*
185:454 My 7 '48
- Electric equipment. *il Nat Safety N* 57:133+
Mr '48
- Interlocks, electrical and mechanical. R. B.
Immel. *il diags Machine Design* 20:131-48
Ap '48
- Is that circuit live? use of lamps for indi-
cator or pilot light service. H. M. Ferree.
il Nat Safety N 58:35-6+ JI '48
- Safety controls for hi-pot testing. J. F. Gray.
il diags Elec World 128:124 N 8 '47
- Shockless electricity is within the realm of
possibility. N. H. Davis, Jr. *il Safety Eng*
95:8-9+ F '48
- Spray booth answer; California electrical
safety orders. *il Elec West* 100:80 Ap '48
- Statistical method of assessing the safety of
gaps between flanges of flameproof electri-
cal apparatus. C. E. R. Bruce and N. L.
Johnson. *diags Inst E E J* 95 pt 2:49-58 F
'48
- Where electrical fires start in industrial
plants. C. F. Hedlund. *il Factory Manage-
ment* 106:116-19 Je '48

Standards

- History and philosophy of standardization. P.
Good. *Inst E E J* 95 pt 1:19-22 Ja '48; Same
abr. *Engineer* 184:368-9 O 17 '47; Abstracts.
Elec R (Lond) 141:573 O 17 '47; *Electrician*
139:1137-8 O 17 '47
- Standardization by electrical manufacturers.
F. Thornton, Jr. *Elec Eng* 67:562 Je '48
- Suggested changes in temperature limits of
present standards for stationary contact
surfaces. *bibliog Elec Eng* 67:253-7 Mr '48

ELECTRIC fans

- Air traffic control increases fan output. *il
diags Westinghouse Eng* 8:122-3 JI '48

Advertising

- Split-second promotion melts stocks of fans.
il Sales Management 61:92+ S 1 '48

ELECTRIC fans, Ventilating

- Basement vs. attic fan for house ventilation.
Sheet Metal Worker 38:58 N '47
- Design, performance and selection of centri-
fugal fans. F. P. Bleier. *il diags Heat &
Ven* 45:68-80 S '48
- Electrical appliances award to Roto-Beam. *il
Mod Plastics* 26:128-9 S '48
- Joy axial flow adjustable blade fan. *il diags
Product Eng* 19:95 My '48
- Maintenance of foundry ventilation equip-
ment. K. M. Smith. *il diags Heat & Ven*
45:69-70 Je '48
- Principles of cooling by air motion. M. E.
Marshall. *Sheet Metal Worker* 39:116+ Mr
'48

Rating

- Fan selection by use of constants. A. C.
Stern and L. D. Horowitz. *Heating-Piping*
20:109-13 Je '48

ELECTRIC fences. See Fences, Electrified

ELECTRIC field

- Automatic plotting of electrostatic fields.
P. E. Green, Jr. *il diags R Sci Instr* 19:646-
53 O '48

Breakdown of a gas at microwave frequen-
cies. M. A. Herlin and S. C. Brown. *diags
Phys R* 74:291-6 Ag 1 '48

Electric field intensity inside of natural
clouds. R. Gunn. *bibliog J Ap Phys* 19:
481-4 My '48

Electric quadrupole coupling of the nuclear
spin with the rotation of a polar diatomic
molecule in an external electric field. U.
Fano. *bibliog J Res Nat Bur Stand* 40:
215-23 Mr '48

Electrical breakdown of a gas between coaxial
cylinders at microwave frequencies. M. A.
Herlin and S. C. Brown. *Phys R* 74:910-13 O
15 '48

Field of a dipole with a tuned parasite at
constant power. R. King. *bibliog diags Inst
Radio Eng Proc* 36:372-6 JI '48

Field surrounding an antenna in a wave-
guide. J. S. Gooden. *diags Inst E E J* 95
pt 3:346-50 S '48

Fields in nonmetallic waveguides. R. M.
Whitmer. *bibliog diags Inst Radio Eng Proc*
36:1105-9 S '48

Influence of an electric field on the depolari-
zation factors of Raman lines. A. E.
Douglas. *J Chem Phys* 16:849-50 Ag '48

Modern demonstration of MacDonald's equiv-
alence theorem. A. G. Clavier. *diags Elec
Com* 25:148-51 Je '48

Production of a positron-electron pair in the
electrostatic field of an electron. K. M.
Watson. *Phys R* 72:1060-5 D 1 '47

TM₀₁ mode in circular wave guides with two
coaxial dielectrics. S. Frankel. *J Ap Phys*
18:650-5 JI '47; Same. *Elec Com* 25:152-7 Je
'48

Theoretical criterion for streamer advance in
an electrical field. L. B. Loeb and R. A.
Wijsman. *bibliog J Ap Phys* 19:797-9 Ag '48

Vector fields to locate deep-seated defects
in steel; use of magnetic powders and
superimposed electrical fields. R. M. Killen.
il Materials & Methods 26:66-7 D '47

Velocity and two-directional focusing of
charged particles in crossed electric and
magnetic fields. N. Svartholm. *Phys R* 74:
108-9 JI 1 '48

See also

Stark effect

ELECTRIC filters

- High-voltage rectifier circuits. E. V. De-
Bileux. *diags Gen Elec R* 51:46-7 My '48
- Network theory comes of age. R. L. Dietzold.
bibliog Elec Eng 67:895-9 S '48

See also

Radio filters

ELECTRIC fires

- Automatic electrical-fire protection. S. G.
Freck. *il Power* 92:477 Ag '48
- Earth leakage. *Electrician* 140:1731-2 Je 4 '48
- Fires from static. *Nat Safety N* 57:165-6 Mr
'48
- Investigating fires on customers' premises.
Elec World 128:73+ D 20 '47
- Where electrical fires start in industrial
plants. C. F. Hedlund. *il Factory Manage-
ment* 106:116-19 Je '48

ELECTRIC fittings

- Automatic electric plug. *il Mod Plastics* 26:
162 O '48
- Design of fused-plugs and socket-outlets. En-
gineering 164:496-7 N 21 '47
- High speed stamping of electrical terminal
plugs; International business machines corp.
H. Chase. *il diags Iron Age* 161:64-72 Mr
18 '48
- Pin-up carton; window box with a hanger
for attachment to display board; Lynn
products co. *il Mod Packaging* 21:100-1 JI
'48
- Wire-gripping plug. *il Mod Plastics* 25:152 JI
'48

ELECTRIC furnaces

- Electric furnace combines olivine and phos-
phate; calcium magnesium phosphate pro-
duced by Magnesium products, inc. W. J.
Granberg. *il Rock Prod* 51:108+ O '48
- Electric melting of glass. Y. R. Cornelius. *il
diags Glass Ind* 29:71-2+ F '48
- Electrically heated glass tank. F. S. Entelis.
diags Glass Ind 28:572-3+ N '47
- Furnace brazing pulleys and sheaves cuts
production costs. T. E. Nelson. *il diags Iron
Age* 162:92-4 S 2 '48
- Furnace elements; improved resistors for
elevated temperatures. *Elec R (Lond)* 141:
812 N 28 '47

ELECTRIC furnaces—Continued

Furnace fixture for maintaining welding pre-heat, W. R. Patterson, *Il Iron Age* 161:141-2 Mr 11 '48

High angle X-ray diffraction at elevated temperatures, E. G. Steward, *bibliog Il diags J Sci Instr* 25:331-2 S '48

High temperature resistors, *diag Engineer* 185:505 My 21 '48

Phosphate plant for Idaho, *Il Elec West* 101:78 O '48

Atmosphere control

Electric furnace brazing for mass production; Sunbeam corp. H. Eickelberg, *Il Iron Age* 160:56-9 D 13 '47

Control

Controlling power input to arc furnaces, C. E. Valentine and E. H. Browning, *Il diags Elec World* 129:120+ Je 5 '48; Same, *Product Eng* 19:157 S '48

Furnace temperature control; energy regulator for small resistance types, G. B. Lamb, *Il diags Elec R (Lond)* 142:229-31 F 13 '48

Vacuum furnace control; thermistor operates indicating meter and relay; used in manufacture of electron tubes, F. F. Davis, *Il diag Electronics* 21:81 My '48

Power supply

Three-phase distribution and electric welding and furnace loads, A. L. Morris, *diags Inst E E J* 93 pt 2:341-8 Ag '46; Discussion, 93 pt 2:348-52; 94 pt 2:691-9 Ag '46, D '47

ELECTRIC furnaces, Annealing

Annealing malleable iron castings; Lake City malleable, inc. E. G. Billhardt, *Il Iron Age* 162:86-9 Ag 19 '48

Continuous annealing nonferrous strip, E. S. Kopecki, *Il diag Iron Age* 161:46-50 Ja 8 '48

Electric oven annealing of malleable iron castings; Lake City malleable co. F. W. Jacobs, *Il Foundry* 76:68-73+ S '48

Atmosphere control

Continuous furnace simplifies annealing austenitic stainless; Landers, Frary & Clark, L. F. Spencer, *Il diags Iron Age* 162:84-8 S 23 '48

ELECTRIC furnaces, Carburizing

Gas carburizing; Wild-Barfield process, *Il Automobile Eng* 38:215-16 Je '48; Engineer 185:551 Je 4 '48

ELECTRIC furnaces, Enameling

Electric firing cheap as gas, oil in shortest continuous furnace, *Il diags Cer Ind* 51:72-3 S '48

ELECTRIC furnaces, Forging

Furnaces on skids add forging flexibility, *Il Am Mach* 92:92 Ap 8 '48

ELECTRIC furnaces, Foundry

Arc furnace cuts costs in steel melting, H. E. Wilkins, *Il Elec World* 130:108 Ag 28 '48

How to prepare metals for precision castings, A. K. Higgins, *Il Steel* 123:88-90 Ag 2 '48

Induction-heated cupola, *diags Iron Age* 161:76-8 F 5 '48

ELECTRIC furnaces, Heat treating

Electrical heating of steel strip for continuous processing, A. R. Ryan and F. E. Ackley, *Il diags Iron & Steel Eng* 25:66-78; Discussion, 78-80 Ag '48

Heat-treating principles and their application to salt baths, H. Solakian, *diags Am Mach* 92:118-21 My 6 '48

Long work heat treated in vertical position; Ajax salt bath furnace, *Il Steel* 123:112 Ag 9 '48

Vital role of heat treating research in development and production of Mack trucks, buses, fire apparatus, and marine engines, C. C. Roberts, *Il Automotive Ind* 99:42-3+ J1 1 '48

Atmosphere control

Controlled-atmosphere electric furnaces; their present state and application, C. E. Peck, *Il Westinghouse Eng* 8:162-6 N '48

Heating methods for controlled atmosphere furnaces, W. H. Holcroft and M. R. Larson, *Il Steel* 122:100-3 Ap 26 '48

ELECTRIC furnaces, Heating

Electric power in industrial heating, R. M. Cherry, *Gen Elec R* 51:27-8 Ag '48

ELECTRIC furnaces, High frequency

Coreless induction furnaces, M. J. Marchbanks, *Il plan diags Inst E E J* 93 pt 2:517-29 D '46; Discussion, 93 pt 2:529-31; 95 pt 2:383-6 D '46, Ag '48

Induction melting; Birlec-Northrup high-frequency equipment, *Automobile Eng* 38:391 O '48

ELECTRIC furnaces, Laboratory

High-frequency induction furnace, G. J. Aitchison, *diag J Sci Instr* 25:136-7 Ap '48

Multi-point furnace control panel, C. L. M. Cottrell, *Il diags Metallurgia* 38:132-4 J1 '48

ELECTRIC furnaces, Melting

Melting metals by induction heating, N. R. Stansel, *Il diags Gen Elec R* 51:35-42 Mr '48

See also Electric furnaces, Foundry

ELECTRIC furnaces, Metallurgical

Comments on furnace practice in western Europe, W. B. Wallis, *Electrochem Soc J* 93:46N-50N Mr '48

Iron and power; electric furnace pig iron; with cost data, W. M. Bonham, *Il diags Can Min J* 69:55-9 Ja '48

ELECTRIC furnaces, Non-ferrous melting

Advantages of induction furnaces in zinc die casting, H. Chase, *Il plan diags Steel* 121:108-9+ N 10 '47

Efficient layout for bronze melting, B. Schafer, *Il diags Foundry* 76:212-13+ Ag '48

Precision casting; essentially electrical production, *Il Elec R (Lond)* 142:77-82 Ja 16 '48

Two-chamber induction melting furnace lowers aluminum die casting cost, F. J. Kamin, *Il diag Materials & Methods* 28:69-72 S '48

ELECTRIC furnaces, Steel making

Annual AIME electric furnace steel conference, 5th, Pittsburgh, *Iron Age* 160:105-7 D 11 '47

Duplexing steel operation affords greater use of stainless scrap in melt, D. Reebel, *Il plan diag Steel* 122:90+ Je 28 '48

Power and power factor in arc furnace operation, E. H. Browning, *bibliog Il diags Iron & Steel Eng* 25:79-84; Discussion, 84-6 Ja '48

Control

Control of maximum demand in steel works, *Il diags Engineering* 166:176-7 Ag 20 '48

Lining

Effects of refractories on steel cleanliness; abstract, J. G. Mravec, *Steel* 121:76+ D 22 '47

Recent developments in refractories, H. M. Kraner, *Il diags Iron & Steel Eng* 25:59-64 Ap '48

Refractories manufacturer develops precise processes to meet steelmakers' demands; Basic refractories, inc. C. Longenecker, *Il Blast F & Steel Pl* 36:1085-8+ S '48

ELECTRIC furnaces, Vacuum melting

High temperature vacuum furnace at the Chemical institute at Uppsala, Sweden, *Iron Age* 161:93 My 6 '48

Industrial vacuum melting, K. Fox and others, *bibliog Il diags Iron Age* 161:64-70 F 19; 78-84 F 26 '48

New graphite resistor vacuum furnace and its application in melting zirconium, W. J. Kroll and others, *Il diag Metals Tech* 15:TP2310 1-6 Ja '48

Vacuum melting techniques, J. D. Nisbet, *diags Iron Age* 161:79-82+ Mr 18 '48

ELECTRIC fuses

Blown fuse brings wiring information, J. H. Van Aernam, *Elec World* 129:136+ Mr 13 '48

Circuit protection; fuses, J. J. O'Connor, *Il diags Power* 92:404-7 J1 '48

Electronic fuse, *Electronics* 21:136+ N '48

How to check grounds with a 20-amp fuse, *diag Elec World* 128:94 N 22 '47

Testing

A.B. Chance co. develops mobile lab to test circuit-interrupting devices, *Il diag Elec World News* ed 130:21-2 O 30 '48

ELECTRIC gages. See Gages, Electric**ELECTRIC-gas operating companies**

Recent financial data for principal electric-gas operating company stocks, *Pub Util* 41:47 Ja 1 '48 [cont monthly]

ELECTRIC generator sets

- A.c. power system for trains, il diag Ry Mech Eng 122:260-3+ My '48
 Burned-out power plant speedily restored at Spencer, Iowa, utility resumes service with three Diesel-engine generators, il map Comp Air Mag 53:89-91 Ap '48
 Developments in turbine generator sets and gas turbines announced by General Electric, Blast F & Steel Pl 36:56 Ja '48
 Diesel-engined generating plant, il Engineering 165:465-6 My 14 '48
 Flywheel effect for Diesel-electric set, Power Generation 52:87-8 Ja '48
 Generating plant for military equipment, K. H. Tuson, bibliog il diags Inst E E J 94 pt 2:616-28; Discussion, 629-33 D '47
 Murex Diesel-driven welding-compressor set, il Electrician 139:1432 N 14 '47; Engineer 184:469 N 14 '47
 Power-generating units all in one, J. C. Spahr and others, il diag Westinghouse Eng 8:116-18 J '48
 Power networks for passenger trains; Waukesha motor company develops alternating-current Diesel-engine-generator sets for mounting on cars, il Ry Age 124:903-5 My 8 '48
 Turner compact generating set, il Engineer 185:219 F 27 '48

ELECTRIC generators

- Efficiency of thermoelectric generators, M. Telkes, bibliog J Ap Phys 18:1116-27 D '47
 Electric power situation in the United States; electric generation and transmission, il Power Generation 52:61-2 Ja '48
 Generator unit scrapped by electric arc cutting, il Elec World 130:103 S 25 '48
 Here's how to press-fit a large rotor on its shaft, N. L. Rea, il diags Power 92:335-7+, 682-4 Je, N '48
 More kw. output from axle-driven generators; power supply requirements of air-conditioned passenger cars, B. A. Widell, Ry Mech Eng 122:267-8 My '48
 Power supply for cabooses, E. H. Musgrove, il Ry Mech Eng 121:714-18 D '47
 Shunts and inductors for surge-current measurements, J. H. Park, bibliog il diags J Res Nat Bur Stand 39:191-212 S '47
 Thermoelectric generator designs, G. B. Ellis, diag Elec Eng 67:657-60 J '48; Abstract, Mech Eng 70:765-6 S '48
 Thermomagnetic generator, L. Brillouin and H. P. Iskenderian, bibliog diag Elec Com 25:300-11 S '48
 Tripping circuit for a multi-stage surge generator, E. L. White, bibliog diags J Sci Instr 25:307-9 S '48
See also
 Radio generators

Bearings

- Scored journal bearing resurfaced on the job, H. A. Noble, il Elec World 129:46 Ja 3 '48

Control

- Generator voltage regulators and their applications, C. E. Valentine, il diags Westinghouse Eng 8:167-72 N '48
 Power system governing, T. E. Curtis, bibliog diags Elec Eng 66:1197-200 D '47

Rating

- Generator ratings and load carrying capabilities of generating plants and systems, J. H. Foote, Edison Elec Inst Bul 15:399-401 N '47; Same cond, Elec World 128:72-3 N 22 '47

Repair

- Generator laminations reinsulated in the field; spraying with red oxide glyptal, F. R. Gould, il Elec World 129:171+ Ja 17 '48
 Wooden dowels solve fixturing problem in brazing steel laminations; repair of water wheel generator, S. DeDomenico and A. Squire, il diag Materials & Methods 28:74 J '48

Standards

- Small turbine generators now standardized, J. G. Partlow, il Blast F & Steel Pl 35:1508-9+ D '47; Same abr, Paper Tr J 125:96-7 D 4 '47; Excerpt, Mech Eng 69:1041 D '47

Testing

- For safer testing of generator leads; fatal accident, diag Elec World 129:110+ My 8 '48

ELECTRIC generators, Alternating current

- Engines operating on propane and Diesel fuels for air conditioning and generator operator on railway passenger cars; abstract, N. H. Willis, S A E J 56:93-4 O '48
 Generator erection at Coulee dam; abstract, A. F. Darland and J. L. Berry, il Elec Eng 67:1105 N '48
 Magnetic properties of generator rotors as affected by composition, G. S. Downing and others, il diag Metal Prog 3:87-91 Ja '48
 Magnetic properties of generator rotors as affected by treatment, G. S. Downing and others, il Metal Prog 53:235-40 F '48
 New method of predetermining the regulation of alternators at unity and lagging power factors, D. Harrison and C. V. Jones, Inst E E J 95 pt 2:374-7 Ag '48
 Removal of alternator shaft by cooling with brine and dry ice, il diags Engineering 166:32 J 9 '48
 Rototrol provides generator excitation, C. Lynn and C. E. Valentine, il diag Westinghouse Eng 8:34-6 Mr '48
 32-MW turbo-alternator set at Willesden, il diags Engineering 164:417-18, 420 O 31 '47
 Turbine-generator exciters keep pace with increased operation, C. Lynn, il diag Power 92:8-11+ Ja '48
 Variable frequency potentiometer alternator, il diag Engineer 186:92-3 J 23 '48
 Vertical shaft generators; abstracts and discussion, E. M. Johnson and C. P. Holder, Elec R (Lond) 142:314-15 F 27 '48; Electrician 140:645-6 F 27 '48
 Voltage regulating unit built into generator, R. L. Gomom, il diag Elec World 129:90 Ap 24 '48

Control

- Starting turbo-alternators, M. P. Henzell, il diag Elec R (Lond) 141:699-701 N 7 '47

Cooling

- Hydrogen-cooled alternator for Littlebrook B power station, il diag Engineer 185:565-7 Je 11 '48; Engineering 165:559-61, 564 Je 11 '48; Elec R (Lond) 142:927-9 Je 11 '48; Electrician 140:1823-4 Je 11 '48

Design

- Design of vertical-shaft water-turbine driven alternators, E. M. Johnson and C. P. Holder, diags Engineering 165:357-9 Ap 9 '48
 New sine-wave motor-generator set for wattmeter and other testing purposes, K. Aston, il diags Inst E E J 94 pt 2:543-6 O '47

Failure

- Fatigue cracking of retaining ring causes turbine accident, il Power Generation 52:104+ Mr '48

Parallel operation

- A-c power system for large aircraft, J. G. Hutton, il diags Gen Elec R 51:1149 F '48
 Automatic synchronization of Diesel-generators, diag Diesel Power 26:64+ Ja '48
 Parallel operation of ac generators, E. J. Kelley, il diags Power 92:465-6 Ag '48
 Thyatron frequency changers; designed to permit parallel operation of three-phase aircraft alternators driven at unequal speeds, O. E. Bowlus and P. T. Nims, bibliog il diags Electronics 21:126-30 Mr '48
 What the synchroscope does, and how it works, J. Wilson, il diags Power 92:146-9 Mr '48

Standards

- Power plant production; recommendations of Central electricity board regarding sizes and steam conditions of turbo-alternator sets; abstracts, Elec R (Lond) 141:766 N 21 '47; Electrician 139:1495 N 21 '47
 Standards for turbine-generators, S. H. Mortensen and others, Elec Eng 67:548-9 Je '48

Tables, calculations, etc.

- Load transmission; basic case of a load fed by two generators connected by a transmission line, T. A. Ledward, diags Electrician 141:693-4 S 3 '48

ELECTRIC generators, Alternating current
—Continued**Testing**

- Ground halts generator phase test. E. J. Kelley, diags Power 92:699 N '48
Water rheostat loads generators for testing. J. L. King, diags Power 92:110 F '48

Windings

- Mechanical aspects of electrical engineering; abstract. W. J. Carfrae, bibliog il diags Engineer 186:372-3 O 8 '48
Rotor windings; new development in turbo-alternator design. il diags Electrician 141:323-4 JI 30 '48

ELECTRIC generators, Direct current

- Engine-driven generator powers truck cooling system. il Refrig Eng 56:152+ Ag '48
Flame cutting notches laminated poles. H. E. Murphy. il diags Elec World 130:116 JI 31 '48
Improved d-c generators for reversing mills. C. Lynn and W. H. Burr. il diags Iron & Steel Eng 25:45-9; Discussion. 50-5+ F '48
Locomotive traction generator comes of age. R. Lamborn. il diags Ry Mech Eng 122:446-50+ Ag '48; Abstract. Elec Eng 67:550 Je '48
Modern plating generators. G. J. Berry. il diags Metal Finishing 46:57-63 My '48
Small generator has automatic voltage regulation. il Product Eng 18:98-9 D '47
Speed-time analyzer aids engine equipment designer. il diags Product Eng 19:104 Ap '48
Steady-state analysis of aircraft d-c generators; abstract. E. Van Valkenburg and W. Matthews. Elec Eng 67:1041 N '48
Trainphone power supply; axle-driven generator. il Ry Mech Eng 122:510-12 S '48
See also
Amplidyne generator
Rototrol

Testing

- Circulating currents; armature testing and adjustment methods. diags Elec R (Lond) 143:284-8 Ag 20 '48

ELECTRIC generators, Electrostatic

- Apparatus for nuclear research; high voltage particle accelerators at Stafford. il diags Electrician 140:259-61 Ja 23 '48
Atom smashers; principle of operation of accelerators; betatron, cyclotron, and Van de Graaff generator. J. J. Teevan, bibliog. il diags Radio N 39:39-41+ Mr '48
Compact electrostatic generator for the production of positive ions. W. E. Danforth and others, bibliog diags Phys R 73:1413-18 Je 15 '48
Electrostatic accelerator; pressurized Van de Graaff generator for University of California Los Alamos scientific laboratory. Mech Eng 70:691-2 Ag '48
Electrostatic accelerator to aid nuclear study. Gen Elec R 51:49 Mr '48
Electrostatic analyzer for 1.5-Mev protons. W. A. Fowler and others. il diags R Sci Instr 18:818-20 N '47
Electrostatic generator used in nuclear studies. W. E. Shoupp, diags Elec Eng 67:688-71 JI '48
Roentgen rays against cancer; use of electrostatic generators. J. G. Trump. il diags Tech R 50:91-5+ D '47
12 million volt electrostatic accelerator for Los Alamos. Power Generation 52:102 Ag '48; il Chem Age (Lond) 59:125 JI 24 '48

ELECTRIC generators, Synchronous

- Effect of angle regulator on power system stability. C. Concordia. Elec Eng 67:570 Je '48
Synchronous generators; influence of power-factor rating on stability. W. Szwander. Elec R (Lond) 142:651-4 Ap 30 '48

Testing

- Modified slip test for experimental study of synchronous reactance. H. B. Hansteen. bibliog diags Elec Eng 67:890-2 S '48

ELECTRIC hair clippers. See Hair clippers, Electric**ELECTRIC hardening. See Case hardening—Electric hardening****ELECTRIC heaters**

- Production for export; special fires for the American market. il Elec R (Lond) 142:519-21 Ap 2 '48
Super space heater for heating air at supersonic wind tunnel, Moffet field. il Elec West 101:70 JI '48
Two electric heaters. il Consumers Res Bul 22:24-5 O '48
See also
Motor truck engines
—Heaters, Electric

Manufacture

- Revamped fabricating procedure cuts assembly time of unit speed heaters. L. E. Browne. il Steel 122:116+ Je 14 '48

ELECTRIC heaters, Laboratory

- Electric heating and bottom receivers for distillation equipment. W. M. Langdon. bibliog diags Anal Chem 20:338-40 Ap '48

ELECTRIC heating

- Comparisons between gas and electricity on the basis of coal economy. P. Schiller. bibliog Inst E E J 94 pt 1:355-63 Ag '47; Discussion. 94 pt 1:364-70; 95 pt 1:434-64 Ag '47, O '48
Domestic electric heating. F. D. Parker. Electrician 140:179-80 Ja 16 '48; Discussion. E. A. Pinto. 140:338 Ja 30 '48; Reply. 141:1173 O 15 '48
Domestic heating; use of load-limiting relay. E. M. Ackery. Elec R (Lond) 142:391-2 Mr 12 '48
Electric heating developments. il Electrician 140:1249-52 Ap 23 '48 (to be cont)
Electric heating in industry and home; abstract. E. H. Jordan. Inst E E J 95 pt 1:120 Mr '48
E.R.A. heat pump; experimental installation at Perivale laboratories. il diags Elec R (Lond) 142:481-2 Mr 26 '48; Engineer 185:312 Mr 26 '48
Heat pump; symposium on electric house heating. S. W. Andrews and others, diags Elec Eng 67:338-48 Ap '48
Heating by electricity in the Tennessee Valley area; with cost data. B. H. Martin and T. W. Newberry. il map diags Heat & Ven 45:57-63 My '48
Heating with electricity; radiant heating and heat pump. C. F. Boester. il diags Heating-Piping 20:92-4 JI '48
House heating experience. C. E. Simpson. Elec World 130:102-4 O 9 '48
Infra-red heat lamps; with rating of lamps for home use. il Consumers Res Bul 20:20-3 N; 14 D '47
Possibilities of energy storage in heat pump applications. S. Oglesby, jr, and E. N. Kemler. diags Heat & Ven 44:69-73 N '47

Panel system

- Conductive rubber for space heating. diags Heat & Ven 45:64 My '48
Electric radiant heating; panels called Uskon heated by conductive rubber-resistance element. Mech Eng 70:350-1 Ap '48
Electric radiant heating systems. il diags Arch Rec 104:138-42 S '48
Heating with electricity; radiant heating. C. F. Boester. il Heating-Piping 20:92-3 JI '48
Low-voltage, high-current, radiant heat. R. S. Tice. il Elec West 99:66-7 D '47; Abstract. Elec World 129:39 Ja 3 '48
Pliotherm radiant heating is developed by Goodyear. Rubber Age 62:677 Mr '48
Radiant heating makes strides in Norway. H. Kinck. il Elec World 129:73-4 Ap 24 '48
Rubber radiant panels. il diags Dom Eng 171:165-6 Je '48
Uskon radiant heating panels. Rubber Age 63:56 Ap '48

ELECTRIC heating, Industrial

- Bending and forming of 75S-T aluminum at elevated temperatures. M. L. Ochiano. il Mach 54:158-61 Ja '48
Electric glass heating; patent. diags Glass Ind 29:505 S '48
Electric heat offers many advantages in the manufacture of asphalt roofing. J. C. Reid. il Pulp & Pa of Can 49:75-8 Ag '48
Electric heaters modernize calender. il Elec World 130:134+ S 25 '48

ELECTRIC heating, Industrial—Continued

- Electric heating for asphalt plants; municipal asphalt plant of the borough of Manhattan. L. H. Csanyi, *il diag Eng N* 140:502-5 Ap 1 '48
- Electric hot topping steel ingots. E. S. Kopecki, *il diags Iron Age* 161:80-6 Mr 25 '48
- Electric power in industrial heating. R. M. Cherry, *Gen Elec R* 51:27-8 Ag '48
- Electric radiant heaters for high heat intensity. *il Iron & Steel Eng* 25:168 Ag '48
- Electric rivet heater. *il Engineer* 186:372 O 8 '48
- Electrical resistance bar heating machines. *il Engineer* 185:576-7 Je 11 '48; *Engineering* 165:546 Je 4 '48
- Electrically heated pitch pots speed lens production. D. W. White, *il Elec World* 129:96-7 F 28 '48
- Electrothermal heating mantle. *il diag Engineering* 136:170 Ag 13 '48; *Engineering* 166:136 Ag 6 '48
- Four station electric resistance heater. *il diags Product Eng* 19:90-2 S '48
- Heaters help accuracy of boring machine. R. T. Rudolphson, *il Am Mach* 92:96 JI 15 '48
- Induction heating applications. N. R. Stansel, *il diags Gen Elec R* 51:44-50 F '48
- Industrial and commercial loads. *il Elec World* 129:118-20 My 22 '48
- Keep your powder dry; heat losses in insulating materials. Westinghouse Eng 8:154 S '48
- Little heat eases press-fit rotors on their shafts. N. L. Rea, *il diags Power* 92:682-4 N '48
- New type tank expedites plastic dipping operations. *il Iron Age* 161:72 Ja 15 '48
- New uses and applications of electric service. Edison Elec Inst Bul 16:42 F '48
- Some applications of electrical heating to methods of glass blowing. I. Lauder and E. C. M. Grigg, *diags R Sci Instr* 19:371-2 My '48
- Technical aid improves infrared performance; manufacture of ironing machines. F. J. Jolly, *il Edison Elec Inst Bul* 16:77-80 Mr '48
- Use electrically-heated bellows in rapid response valve design; patent. *diag Pet Processing* 3:262 Mr '48
- Weld repairs on tubing stress-relieved with water-cooled copper induction coils. E. K. Dewey, Jr, *diags Pet Processing* 3:845-6 S '48
- See also*
- | | |
|---------------------------|----------------------|
| Case hardening— | Electric welding |
| Electric hardening | Infrared rays—Indus- |
| Electric furnaces | trial heating |
| Electric heating elements | Kilns—Electric heat- |
| Electric water heaters | ing |
| | Thawing, Electric |
- High frequency heating**
- Application of high-frequency dielectric heating to rubber and plastics. C. Mann, *il India Rubber World* 118:68-70 Ap '48; *Abstract, Elec World* 129:120-1 My 8 '48; *Discussion, India Rubber World* 118:70-1 Ap '48
- Brazing and other applications of high-frequency heating. H. Bunte, *Welding J* 27:441-4 Je '48
- Cake drying speeded by high-frequency current. T. H. Story, *il diags Textile World* 98:114-15+ Ja '48
- Catalysis heat losses kept low by means of electronic device; patent. *diags Pet Processing* 3:165 F '48
- Le chauffage diélectrique; étude bibliographique. F. Appell, *bibliog Chimie & Ind* 58:449-56 N '47
- Compact 6-kW radio frequency heater. *il Engineer* 184:537 D 5 '47
- Core baking; Ther-monic core baking tunnel. *il Automobile Eng* 38:314 Ag '48
- Designing for silver brazing by induction heating. F. W. Curtis, *il diags Product Eng* 19:109-13 Ag '48
- Dielectric heat, wood-fabrication tool. T. P. Kinn and R. E. Kirby, *il diags Westinghouse Eng* 8:138-43 S '48
- Dielectric heating of the thin films. T. C. Gams, *il diags Electronics* 21:83-5 S '48
- Dielectric heating tube features rugged construction and easy installation. *Sci Am* 177:272 D '47
- Domain of radio frequency heating. T. P. Kinn, *il Sci Am* 178:66-9 F '48
- Economic aspects of radio-frequency heating. L. M. Duryee, *Elec Eng* 67:747 Ag '48
- Economics of radio frequency heating. A. P. Bock, *il Product Eng* 19:118-21 Ja '48
- Electronic box stayer; first commercial machine demonstrates a split-second way to seal acetate sheet through controlled high-frequency heat. *il Mod Packaging* 21:113-16+ F '48
- Experience with high-frequency heating. H. R. Winemiller and H. Bunte, *Elec Eng* 67:981-4 O '48
- Fixtures facilitate induction and flame hardening. V. E. Hillman, *il Iron Age* 161:90-4 Je 24 '48
- Heating metals by induction and high-speed gas methods. H. R. Clauser, *il Materials & Methods* 28:55-9 JI '48
- High-frequency heating; equipment for wide range of applications. *il diags Automobile Eng* 38:69-71 F '48
- High-frequency molding applied to compound curvatures in wood. P. H. Bilhuber, *il Mech Eng* 70:213-16 Mr '48
- High speed induction brazing with interchangeable fixtures; Victor adding machine co. A. E. Heideneck and J. W. Stead, Jr, *il Iron Age* 162:95-7 O 7 '48
- How to design work coils for induction heating. B. H. Griffith, Jr, and R. Skiba, *il diags Am Mach* 92:99-110 Ag 12 '48
- How to stop fires in induction heating equipment. E. E. Turkington, *il Factory Management* 106:105-6 F '48
- Induction and dielectric heating. G. W. Scott, Jr, *Elec Eng* 67:847 S '48
- Induction heated molds. H. Chase, *il Mod Plastics* 25:114 JI '48
- Induction heating for forging operations. J. M. Butler, *il Mach* 54:156-7 Ja '48; *Same, Steen* 122:98+ Ja 19 '48
- Induction heating for steel forging can reduce costs. K. Rose, *il Materials & Methods* 27:76-80 Ap '48
- Many uses seen for high-frequency heat. T. H. Story, *il Textile World* 98:122-3+ Mr '48
- Phillips high frequency induction heater. *il Metallurgia* 37:146 Ja '48
- Practical economics of radio frequency heating; making cost estimates. B. T. P. Kinn, *diags Iron Age* 161:72-9 Je 10 '48
- Proper frequency for induction heating of nonmagnetic metals. J. T. Vaughan and H. B. Osborn, Jr, *il diags Metal Prog* 54:46-50 JI '48
- Radio-frequency heating equipment. *il Engineer* 185:552 Je 4 '48
- R-f heating for cabinets. C. Dusenbury, *il Electronics* 21:152+ F '48
- Radio-frequency heating in the woodworking industry. F. L. Macaluso, *il diags A S M E Trans* 70:385-91 My '48
- Single vs multi-turn induction heating coils. F. W. Curtis, *diags Tool Eng* 21:38 O '48
- Special induction heating setup tempers spline bores of gears. P. A. Hassell, *il diag Automotive Ind* 98:44+ F 15 '48
- Steam and radio-frequency curing of natural rubber. A. H. Sharbaugh, *diags Ind & Eng Chem* 40:1254-8 JI '48
- Unique applications of induction heating; Pratt & Whitney aircraft division. *il Mach* 54:179-81 Je '48
- Welding of glass with a high-frequency electric torch. E. M. Guyer, *il Elec Eng* 67:446-7 My '48
- When and how to use induction heating. B. W. Depew, *il diags Mill & Factory* 43:104-7 Ag '48
- See also*
- Case hardening—
- Electric hardening
- ELECTRIC heating elements**
- Heat transfer from single horizontal wires to boiling water. W. H. McAdams and others, *bibliog diags Chem Eng Prog* 44:639-46 Ag '48
- ELECTRIC hoists.** *See* Hoisting machinery, Electric

ELECTRIC ignition

Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others, *diag J Chem Phys* 15:798-802 N '47
 Ignition of explosive gas mixtures by electric sparks; theory of the propagation of flame from an instantaneous point source of ignition. B. Lewis and G. von Elbe, *bibliog diag J Chem Phys* 15:803-8 N '47

ELECTRIC industries

Power sales habits need to change, *il Bsns W* p89 Je 19 '48

See also

Electric apparatus industry	Electrometallurgy
Electric contractors	Electroplating
Electric lighting	Radio apparatus industry
Electric utilities	

Materials

Adhesives; their properties and use in electrical equipment. L. P. Hart, jr. *il Machine Design* 20:122-6+ Ja '48
 Chemical engineer; his role in electrical manufacturing. N. R. Maleady, *il J Chem Educ* 25:365-6 JI '48
 Electrical and allied developments during 1947; chemical and metallurgical. G. Bartlett, *il Gen Elec R* (Lond) 51:45-7 Ja '48
 Electrical materials; production and prices in 1947. *Elec R* (Lond) 142:102-4 Ja 16 '48
 Growing importance of plastics in the electrical industry. G. Haefely, *Inst E E J* 94 pt 2:301-3 Ag '47; Discussion, 94 pt 2:308-12; 95 pt 2:107-12 Ag '47, F '48
 Low-alloy steels in the electrical industry. J. T. Rettaliata, *il Metal Prog* 54:477-81 O '48
 New alloy has improved electrical resistance properties; Evanohm, *Materials & Methods* 28:62-3 Ag '48
 Properties of materials basic to the manufacture of electronic devices and systems. *Electronics* 21:M1-40 Mid-Je '48
 Quantitative tests on finished mouldings. W. D. Owen, *bibliog il diags Inst E E J* 94 pt 2:635-44; Discussion, 645-9 D '47
 Variety of subjects covered at the symposium on new materials; A.I.E.E. winter meeting. *Elec Eng* 67:276-9 Mr '48

Statistics

Annual statistical issue. *Elec World* 129:139-70 Ja 17 '48

Africa, British West

Wiring in West Africa. G. M. Dunbar, *Elec R* (Lond) 142:857-8 My 28 '48

Belgium

Electrical industry in Belgium. *Electrician* 141:341 JI 30 '48

Brazil

Power development in Brazil. *Electrician* 141:555 Ag 20 '48

Canada

Annual review of electrical industry. D. C. Durland, *Water & Sewage* 86:25+ Ja '48; Same abr. *Roads & Bridges* 86:70+ Ja '48

Great Britain

British electrical development association annual meeting, London. *Elec R* (Lond) 142:463-6 Mr 26 '48

Industry and the House; parliamentary sessions. F. J. Erroll, *Elec R* (Lond) 141:697-8, 783, 880-1, 956-7; 142:209-10, 282, 435, 503, 577-8, 627-8, 737-8, 809-10, 937-8; 143:57-8, 131-2, 207, 746-7, 827-8, 911-12, 988-9 N 7, 21, D 12, 26 '47, F 6, 20, Mr 19, Ap 2, 16-23, My 7, 21, Je 11, JI 9, 23, Ag 6, N 12, 26, D 10, 24 '48

National outlook; economic survey for 1948. *Elec R* (Lond) 142:421 Mr 19 '48
 South eastern board's policy. *Elec R* (Lond) 143:621-2 O 22 '48

Supply engineer's view of some installation matters. R. H. Rawll, *Inst E E J* 95 pt 1:23-6 Ja '48; Abstract, *Electrician* 139:1217-18 O 24 '47

Training in the supply industry. Lord Citrine, *Electrician* 139:1290 O 31 '47

Northwestern states

Northwest parade. T. E. Roach, *Elec West* 100:84-5 Je '48

Norway

Radiant heating makes strides in Norway. H. Kinck, *il Elec World* 129:73-4 Ap 24 '48

South Africa

Electricity in South Africa. *Elec R* (Lond) 143:339 Ag 27 '48

Toledo, Ohio

They like the planned lighting program; how local electrical trade is reacting to Toledo Edison's lighting sales activity. J. C. Meier, *il Elec World* 130:100-2 JI 31 '48

United States

Annual statistical issue. *Elec World* 129:139-70 Ja 17 '48
 Potentialities of the electrical industry in shaping the destiny of America. P. Sporn, *Elec Eng* 67:630-6 JI '48; Same, *Gen Elec R* 51:9-16 JI '48
 Thirty thousand hours a minute. G. A. Price, *Edison Elec Inst Bul* 16:236-8+ JI '48

Western states

Accept the challenge. H. H. Courtright, *Elec West* 100:82-3 Je '48
 Electrical West annual review number. *il Elec West* 100:65-110 F '48
 New markets, new industries. *il Elec West* 101:67-78 O '48
 Staying out in front. J. A. Bullock, *Elec West* 100:83-4 Je '48

ELECTRIC instruments

Absolute electrical units and existing measuring instruments. *Engineering* 164:618 D 26 '47; *Engineer* 184:574 D 19 '47
 Application of electrical technique to the service of some other industries. H. C. Turner and G. M. Tomlin, *bibliog il diags Inst E E J* 94 pt 2:501-8; Discussion, 508-10 O '47; *Electrician* 138:365-6 Ja 31 '47
 Automatic limit bridge for production testing. R. D. Campbell and E. J. Totah, *il diags Electronics* 21:110-13 Ja '48
 Automatic opinion meter. R. R. Person and T. A. Rich, *Electronics* 20:142+ D '47
 Automatic plotting of electrostatic fields. P. E. Green, jr. *il diags R Sci Instr* 19:646-53 O '48
 Displacement-input remote-reading-and-control system; Atcotran precision measuring system, *diags Instruments* 21:806 S '48
 Effect of waveform on the accuracy of rectifier type instruments. A. Cunliffe, *J Sci Instr* 25:306-7 S '48
 Electric field meter for use on airplanes. R. C. Waddell, *bibliog il diags R Sci Instr* 19:31-5 Ja '48
 Electric flow meter. J. H. Laub, *il diags Elec Eng* 65:1216-19 D '47
 Electrical and allied developments during 1947; testing and measuring. G. Bartlett, *il Gen Elec R* 51:15-18 Ja '48
 Electrical instrument for solving second-degree algebraic equations. G. C. Curtis, *diags J Sci Instr* 25:341-3 O '48
 Electrical methods for measurement of forces required in chipless machining operations; abstract. F. Faulhaber, *diags Product Eng* 19:136-8 Je '48
 Electrical network for determining the eigenvalues and eigenvectors of a real symmetric matrix. A. Many and S. Meiboom, *il diags R Sci Instr* 18:831-6 N '47
 Electronic differential analyzer. J. S. Koehler, *diags J Ap Phys* 19:148-55 F '48
 Engineer's problems in the measurement of stress and pressure. J. G. G. Hempsom, *Engineer* 186:303-4 S 24 '48
 Extending the usefulness of laboratory instruments. M. A. Princi and H. S. Day, *il diags Gen Elec R* 51:15-17 O '48
 Fifty-point bridge balance unit for use with a Baldwin SR-4 strain indicator. N. C. Fick and N. A. Crites, *il Instruments* 21:329-30 Ap '48
 Induction instrument. E. H. W. Banner, *diags Elec R* (Lond) 142:548-50 Ap 9 '48
 Instrument design; abstract. D. C. Gall, *Elec R* (Lond) 141:654 O 31 '47
 Instrument for the rapid production of a decimal series of potentials and its application to ballistic measurements. H. S. Roberts and H. L. Curtis, *il diags J Res Nat Bur Stand* 41:45-51 JI '48

ELECTRIC instruments—Continued

- Instrumentation developments of Everett, Edgumbe and co. *il* *diag* *Electrician* 139: 1635-6 D 5 '47
- Instruments speed electrical maintenance. T. Trall. *il* *diags* *Mill & Factory* 43:102-6 S '48
- Kick-coil operation of impulse registers or counters. R. L. Ives. *bibliog* *diags* *Instruments* 21:444-6 My '48
- Maintenance of indicating and recording instruments of oil refineries. E. D. Nuneviller and D. M. Considine. *il* *diag* *Oil & Gas J* 46:90-1+ Ap 22 '48
- Modern design with basic parts; primary housings, electrical components, and bezels, molded of phenolic. *il* *Mod* *Plastics* 25:82-4 My '48
- Moisture determination in textiles by electrical meters. R. K. Toner and others. *il* *Textile Res J* 18:526-35 S '48
- Operation and care of circular-scale instruments. J. Spencer. *il* *diags* *Instruments* 21: 620-4+, 715-18+, 836-40+, 938-40+ *JI-O* '48 (to be cont)
- Précis of a discussion on Practical considerations in instrument design, London, 1948. *J Sci Instr* 25:122-4 Ap '48
- Precision a.c./d.c. comparator for power and voltage measurements. G. F. Shotton and H. D. Hawkes. *il* *diags* *Inst E E J* 93 pt 2: 314-19 Ag '46; *Discussion*. 93 pt 2:320-4; 95 pt 2:366-9 Ag '46, *Je* '48
- Primary detectors for measurements. E. E. Lynch and A. J. Corson. *diags* *Elec Eng* 67:849-59 S '48
- Radiation survey meter. T. Enns. *diag* *Franklin Inst J* 246:181-2 Ag '48
- Recent progress in the making of precision instruments; abstract. A. J. Philpot. *Electrician* 140:418 F 6 '48
- Resistance-thermometer bridge. S. S. Stack. *il* *diags* *Gen Elec R* 51:17-21 *JI* '48
- Sample holder for reflection type samples to be used in the G.E. electron diffraction instrument. E. I. Alessandrini. *il* *diags* *R Sci Instr* 19:52-3 Ja '48
- 60-cycle modulator. O. J. M. Smith. *diags* *R Sci Instr* 18:855-6 N '47
- Some aspects of instrumentation. D. C. Gall. *Inst E E J* 95 pt 1:27-30 Ja '48; *Same* *abr. Engineering* 164:390 O 24 '47; *Excerpts. Electrician* 139:1219 O 24 '47
- Theory of Wagner ground balance for alternating-current bridges. R. K. Cook. *bibliog* *diags* *J Res Nat Bur Stand* 40:245-9 Mr '48
- Two recently developed converter elements. R. H. Müller. *Anal Chem* 19:sup23A-4A D '47
- Versatile a-c load visualizer. P. J. Walton. *il* *diags* *Gen Elec R* 51:38-40 Ag '48
- Visual null indicator for use with audio-frequency bridges. *il* *diag* *J Sci Instr* 25: 88-9 Mr '48
- What has the electrical instrument industry to learn from developments in continental practice; discussion. *Inst E E J* 94 pt 2: 633-4 D '47; *Same. Engineering* 165:54 Ja 16 '48
- Wide-frequency-range capacitance bridge. *il* *R Sci Instr* 18:807-8 O '47
- See also*
- Ammeters**
Bolometers
Dynamometers
Electric meters
Electric testing
Electrotherapeutics—
 Apparatus and instruments
Gages, Electric
Galvanometers
Hearing aids, Mechanical
- Magnetic instruments**
Oscillators
Photoelectric cells
Potentiometers
Radio instruments
Recording instruments, Electric
Synchroscope
Vacuum tubes—
 Measurement uses
Voltmeters
Wheatstone bridge

Bibliography

- Bibliography on transducers, magnetic amplifiers, etc. [213 titles]. H. B. Rex, comp. *Instruments* 21:332+ Ap '48

Calibration

- Electrical instrument calibrating for industry. W. L. Kinsell. *il* *diags* *Instruments* 21:830-4 S '48

Exhibitions

- Electrical indicating and measuring instruments shown at the Physical society's exhibition. G. F. Shotton. *J Sci Instr* 25:181-2 *Je* '48
- Electronic measuring and recording instruments; exhibition. *Engineering* 165:186 F 20 '48
- Physical society exhibition, South Kensington. *il* *Elec R (Lond)* 142:585-93 Ap 16 '48; *Electrician* 140:1025-8 Ap 2 '48
- Physical society's exhibition, South Kensington. *il* *diags* *Engineer* 185:349-52, 373-5, 404-6 Ap 9-23 '48; *Engineering* 165:354-6, 366-7 Ap 9-16 '48

Manufacture

- Progressive industry; production achievement by George Kent, Ltd. *il* *Electrician* 141:172-4 *JI* 16 '48

ELECTRIC insulation. See Insulation (electric)**ELECTRIC inverters**

- Regulator for 400-cycle inverter. C. A. Helber. *il* *diag* *Electronics* 21:90-1 N '48

ELECTRIC irons

- Iron features phenolic and acetate. *il* *Mod* *Plastics* 26:95 O '48
- Just how do you sell an automatic electric iron, anyway? *Elec West* 99:86-7 D '47
- Towards an ideal flatiron. M. Brownshield. *diag* *Plastics* 8:43-9 Ja '48

Manufacture

- Precise processing produces flatirons faster; Yale & Towne electric appliance plant. L. J. Pantas. *il* *Am Mach* 92:98-100 N 4 '48

ELECTRIC kilns. See Kilns—Electric heating**ELECTRIC laboratories**

- 500-kv experimental station at Chevilly; abstract. P. Ailletet and F. Cahen. *Engineering* 166:55-6 *JI* 16 '48
- High-voltage laboratory; testing electrical sheet insulation. *il* *Elec R (Lond)* 142:795-9 My 21 '48
- High-voltage research; Nelson laboratories at Stafford. *il* *Elec R (Lond)* 141:721-4 N 14 '47; *Electrician* 139:1427-9 N 14 '47
- Nelson research laboratories. *il* *diag* *Engineer* 184:453-60, 480-1 N 14-21 '47; *Engineering* 165:56-8 Ja 16 '48
- Production for export; all-climate switchgear; special laboratory gives extreme conditions for testing. *il* *Elec R (Lond)* 142: 253-5 F 13 '48; *Electrician* 140:497-9 F 13 '48
- Short-circuit testing; high power equipment in the Nelson laboratories. *il* *Electrician* 139:1632-4 D 5 '47
- Sylvania breaks ground for first building at new Long Island research center. *Elec World News* ed 123:21 D 27 '47
- Telecommunications research establishment; Ministry of Supply establishment at Great Malvern. *Engineer* 185:528 My 28 '48; *il* *Elec R (Lond)* 142:901-2 *Je* 4 '48

*See also***Radio laboratories****ELECTRIC lamps**

- Adjustable lamp-holder of kinematic design. H. M. Ross. *diags* *J Sci Instr* 25:244 *JI* '48
- Application data for downlighting equipment. L. C. Brown and F. Presbrey. *diags* *Illum Eng* 43:13-25; *Discussion*. 25-6 *Ja* '48
- Electrical and allied developments during 1947; lighting equipment and applications. G. Bartlett. *il* *Gen Elec R* 51:39-40 *Ja* '48
- Growing family of lamps. *il* *Westinghouse Eng* 8:19-20 *Ja* '48
- Light on the lamp ring; Electrical lamp manufacturers' association. *Economist* 154:730+ My 1 '48
- Light where you need it; polystyrene lamp uses phenolic, urea, and vinyl for wire, plug, switch, socket. *il* *Mod* *Plastics* 25:97 F '48
- New lamp developments; abstract. *Electrician* 140:1975-6 *Je* 25 '48
- Photometric investigation of dust. D. E. Spencer and S. Malkiel. *diags* *Franklin Inst J* 245:389-402 My '48
- See also*
- Electric lighting**
Locomotive headlights
Safety lamps, Electric
- Searchlights**
Ultraviolet rays—
 Lamps

ELECTRIC lamps—Continued**Advertising**

Lamp sales publicity, *il* Electrician 141:361, 932, 1086 S 17-24, O 8 '48; *Elec R* (Lond) 143:460, 489, 567 S 17-24, O 8 '48

Flashing

Repetitive flashing of hot cathode fluorescent lamps, F. J. Vorlander and S. Stawicki, *il* diags Illum Eng 43:231-46; Discussion, 246-9 Mr '48

Heat radiation

Heating effect of lighting systems, D. E. Spencer and P. Mayo, *bibliog* Illum Eng 43:528-32 My '48

Manufacture

General Electric bulb machine; patent, *diag* Glass Ind 28:576 N '47
General Electric sealing-in machine; patent, *diags* Glass Ind 29:149+ Mr '48
General Electric sealing-in method for lamps; patent, *diag* Glass Ind 29:571 O '48
Lamp bulb sealing machine; patent, *diag* Glass Ind 29:45 Ja '48
Some recent developments in American glass manufacture; illumination, A. Silverman, *Am Cer Soc Bul* 26:372-4 N 15 '47

Night lamps**Rating**

Night lights, *il* Consumers Res Bul 21:33-4 Mr '48

Testing

Modern photometry of street lighting luminaires, G. A. Horton, *il* diags Illum Eng 43: 989-1014 *bibliog* (46 titles, p 1012-14) N '48
Scaled globe measures bulb light distribution, *il* Elec World 130:124+ S 11 '48
Sylvania Electric develops quality control device for measuring light distribution, *il* Glass Ind 29:394 J1 '48

ELECTRIC lamps, Arc

Photo-micrographic lamp; Zirconarc, *il* R Sci Instr 18:805-6 O '47
Strong electric corporation's new Grafarc high intensity lamps for photo-mechanical reproduction processes, *il* Inland Ptr 120: 106 D '47

See also

Moving picture machines—Light sources

ELECTRIC lamps, Fluorescent

Analytic representation of experimental spectroradiometric curves, F. Moon and D. E. Spencer, *bibliog* Franklin Inst J 244:441-64 D '47

Color characteristics of human complexions; data applicable to lighting, color photography, lithography, television, etc, G. B. Buck, 2d and H. C. Froelich, *bibliog* Illum Eng 43:27-47; Discussion, 47-9 Ja '48
Crescent fluorescent, *il* Sci Am 177:266 D '47
Developments in fluorescent lighting, Engineering 166:319 O 1 '48

Dimming fluorescent lamps, *diags* Elec R (Lond) 143:73 J1 9 '48

Fluorescent illumination for teaching laboratories using microscopes, D. H. Hamly, *il* diags Illum Eng 43:515-27 My '48

Fluorescent lamp ballasts, C. E. Hayes, *il* diags Power Generation 52:64-7+ Ag '48

Fluorescent lamp design; patent, *diag* Electrician 139:1374 N 7 '47

Fluorescent-lamp photometry, H. D. Einhorn and J. D. Sauermann, *diag* Inst E E J 95 pt 2:319-24 Je '48

Fluorescent lamps for high voltage direct current operation for New York subway cars, C. I. Brady, Jr. and others, *il* plan diags Illum Eng 43:50-64 Ja '48

Fluorescent lighting; abstract, J. W. Strange, *il* Electrician 141:103 J1 9 '48

Fluorescent lighting in a 'bus, *il* Electrician 139:1310 O 31 '47

Fluorescent lighting in a modern store, *il* Light & Lighting 40:204 N '47

Fluorescent lighting in Chislet colliery, Engineer 184:515 N 28 '47

Fluorescent lighting in homes and stores; abstract, J. W. Strange and H. H. Ballin, Light & Lighting 40:184 O '47

Fluorescent lighting in industry, *il* Elec R (Lond) 142:348 Mr 5 '48

Fluorescent lighting in mines, Light & Lighting 40:183 O '47

Fluorescent lighting in mines; Chislet colliery, *il* Electrician 140:115 Ja 9 '48; *Elec R* (Lond) 142:54 Ja 9 '48

Fluorescent lighting pays in meat sales cooler; Coronet packing co., Los Angeles, *il* Food Ind 20:1019 J1 '48

Fluorescent on 600-v d-c in New York subway cars, *diag* Elec World 128:113+ N 8 '47

Fluorescent street lighting in Kingsway, London, *il* Electrician 140:33-4 Ja 2 '48; *Elec R* (Lond) 142:19 Ja 2 '48

Fluorescent street lighting in the Southwest, *il* Light & Lighting 40:205 N '47

High ceiling fluorescent proves successful; California state capitol, *il* Elec World 129: 128+ Je 5 '48

High frequency operation of fluorescent lamps, J. H. Campbell, *diags* Illum Eng 43:125-38; Discussion, 138-40 F '48

Increasing efficiency of fluorescent lamps, *bibliog* *diag* Electronics 21:138+ F '48

Light distribution from fluorescent lamps, H. D. Einhorn and J. D. Sauermann, *diags* Inst E E J 94 pt 2:535-42 O '47

Lighting ideas offering new opportunities in the theater, C. M. Cutler and R. T. Dorsey, *il* diags Soc Motion Picture Eng J 50:571-92 Je '48

Lighting in coal mines; experimental fluorescent installations, *il* Elec R (Lond) 142:167 Ja 30 '48; *Electrician* 140:337 Ja 30 '48

Lighting in ships; use of fluorescent tubes, *il* Elec R (Lond) 141:707 N 7 '47

Lighting the hospital patient's room, W. Alphin and others, *il* diags Illum Eng 42: 1028-47; Discussion, 1047-8 D '47

Line of light makes tunnel driving safe and easy; new Brooklyn-Battery tunnel, L. Geenens, *il* diags Elec World 128:82-3 D 6 '47

Maidenhead's new street lighting; fluorescent illumination in three main roads, *il* Electrician 140:870 Mr 19 '48

Method for automatically plotting spectral energy distribution of luminescent materials, F. J. Studer, *il* Opt Soc Am J 38: 467-70 My '48

Modern lighting for manufacturing; fluorescent troffer lighting in General Electric's laminated plastics plant, *il* Elec World 128: 134+ N 8 '47

New Circlarc fluorescent lamp for theater lighting, E. W. Beggs, *il* diags Soc Motion Picture Eng J 50:593-600 Je '48

Repetitive flashing of hot cathode fluorescent lamps, F. J. Vorlander and S. Stawicki, *il* diags Illum Eng 43:231-46; Discussion, 246-9 Mr '48

Seven times the light after seven years; fluorescent lighting, Mutual benefit life insurance co. building, *il* Elec World 129:70 Ja 3 '48

Study of fluorescent lamp maintenance, E. F. Lowry, *bibliog* Illum Eng 43:141-51; Discussion, 152-4 F '48

Ten years of fluorescent fixture development, R. G. Maurette, *bibliog* *il* diags Illum Eng 43:272-85; Discussion, 285-9 Mr '48

Two miles of fluorescent strip; San Francisco department store, *il* Elec West 100:79 Ap '48

Typical fluorescent lighting system for a printing plant, W. S. Greenwood, plan Inland Ptr 121:52-3 Ag '48

Accidents

Beryllium case, C. F. Shook and J. P. Powell, *Ind Med* 17:403-4 O '48

Advertising

Curtis exploits 50th birthday in debut of new luminaire, G. T. Morrow, *il* Sales Management 60:54+ F 1 '48

Cold cathode

Cold cathode lighting; new factory for the manufacture of equipment; Austin Walters & son, *il* Elec R (Lond) 143:515 O 1 '48

Use of cold cathode fluorescent lighting in cove and cornice, A. E. Reynolds, *il* diags Illum Eng 43:497-514 My '48

ELECTRIC lamps, Fluorescent—Continued**Manufacture**

Fluorescent lamp manufacture. *Il Engineer* 185:396-8 Ap 23 '48; *Engineering* 165:391, 396 Ap 23 '48; *Elec R (Lond)* 142:618-20 Ap 23 '48
 Mass produced fluorescent lamps; General electric co. *Il Electrician* 140:1246-8 Ap 23 '48

Safety measures

Avoid fire hazards of fluorescent lighting installations. *Il diags Elec World* 130:109+ S 11 '48

Starters

Operating principles of fluorescent lamp starters; engineering reference sheet. E. Newhall. *diags Elec World* 129:112 Je 5 '48

Testing

Test your own fluorescent. L. R. Keiffer and C. L. Amick. *Il diags Am Mach* 92:80-3 J1 29 '48

ELECTRIC lamps, Incandescent

430-volt series incandescent; lighting Moffett Field hangar. *Il Elec West* 99:74 N '47
 Lighting the hospital patient's room. W. Allphin and others. *Il diags Illum Eng* 42:1028-47; Discussion, 1047-8 D '47
 Series 480-v lighting is economical; hangar located at naval air station, Moffett Field. O. O. Rands. *Il diag Elec World* 129:33 Ja 3 '48

Manufacture

Lamp industry research. B. P. Dudding. *Elec R (Lond)* 143:591-3 O 15 '48

ELECTRIC lamps, Krypton

Air force will test world's brightest lights for blind landings; krypton flash unit. Iron Age 162:146-7 S 23 '48
 Krypton lamp for all-weather landings. G. A. Freeman. *Il Westinghouse Eng* 8:90-1 My '48

Use of krypton improves 85-w fluorescent lamps. *Elec World News* 43:21-2 S 4 '48

ELECTRIC lamps, Mercury vapor

Applications of mercury-vapor lamps. E. W. Beggs. *Il Westinghouse Eng* 8:52-6 Mr '48
 Evolution of mercury vapor street lighting. D. W. Rowten. *Il diags Illum Eng* 43:290-313; Discussion, 313-18 Mr '48

480-volt series incandescent; lighting Moffett Field hangar. *Il Elec West* 99:74 N '47

High-pressure mercury-vapor discharge and its applications. V. J. Francis and W. R. Stevens. *Il Inst E E J* 94 pt 2:423-38 bibliog:95 ref, p437-8 O '47; Abstract. Light & Lighting 40:31-2 E '47; Discussion. *Inst E E J* 94 pt 2:439-42; 95 pt 2:497-504 O '47, O '48; *Electrician* 138:361-2 Ja 31 '47

How to light a tower beacon; Travelers insurance co. tower in Hartford. *Il diags Elec World* 129:107-8 Je 5 '48

Mercury lamps redesigned for improved light output and performance. E. B. Noel. bibliog *Il Illum Eng* 43:1044-60 N '48

Mercury lamps step up street lighting in Greeley, Colo. *Il Elec World* 128:114 N 22 '47

Mercury replaces magnetite arcs in Spokane, Wash. *Il Elec World* 129:130 Je 5 '48

New developments in mercury lamps for studio lighting. F. E. Carlson. bibliog *Il diag Soc Motion Picture Eng J* 50:122-33 F '48

New lamps reduce costs. D. W. Rowten. *diags Elec World* 129:112-13 Ap 10 '48

New techniques in black light for theater murals. R. J. Elliott. *Soc Motion Picture Eng J* 50:601-6 Je '48

Police praise mercury street lights at Rock Island, Illinois. *Il Elec World* 130:102 J1 17 '48

Series 480-v lighting is economical; hangar located at naval air station, Moffett Field. O. O. Rands. *Il diag Elec World* 129:33 Ja 3 '48

Spokane modernizes with mercury. A. Gruber. *Il diags Elec West* 100:82-3 My '48

ELECTRIC lamps, Neon

Cold cathode neon mural. *Il Elec West* 100:80 Mr '48

Neon timer releases oscillograph element. C. J. Tirk. *diags Elec World* 129:108 F 14 '48

Manufacture

Glass processing in the manufacture of neon signs. M. G. Hawkins. *Il Glass Ind* 28:574-5 N '47

ELECTRIC lamps, Photoflash

Development of photoflash dry cells. R. C. Clock. *Electrochem Soc Trans* 92 (preprint 30):357-61 '47

Electronic flashtube illumination for specialized motion picture photography. H. M. Lester. bibliog *Il diags Soc Motion Picture Eng J* 50:208-32 Mr '48

Electronic photoflash unit. W. G. Many. *Il diags Radio N* 38:44-5 D '47

Flash tube and its applications; abstract. J. N. Aldington and A. J. Meadowcroft. *Engineering* 166:31 J1 9 '48

High-speed motion pictures with synchronized multiflash lighting. R. A. Anderson and W. T. Whelan. *Il diags Soc Motion Picture Eng J* 50:199-207 Mr '48

Light meter for electric flash lamps. H. E. Edgerton. *Il diag Electronics* 21:78-81 Je '48

Microflash unit for ballistic photography. W. W. McCormick and others. *Il diags J Ap Phys* 19:221-5 Mr '48

Photo flash light; danger of ignition by radar. Bsns W p37 Ap 10 '48

Radar ignition of flash bulbs creates fire hazards. *Electronics* 21:245-6+ F '48

ELECTRIC lamps, Portable

Fluorescent lamp molded of polystyrene. *Il Mod Plastics* 25:96-7 N '47

Rating

Two portable electric lamps. Memcolite and Gide Lite. *Il Consumers Res Bul* 21:21-3 F '48

ELECTRIC lamps, Tungsten

Analytic representation of experimental spectroradiometric curves. P. Moon and D. E. Spencer. *diags Franklin Inst J* 241:441-64 D '47

ELECTRIC leakage

Current transformers; influence of leakage flux under various conditions. H. E. Forrest. *diags Elec R (Lond)* 143:51-4 J1 9 '48

ELECTRIC lighting

Century of electric light; abstract. W. J. Jones. *Electrician* 141:1037 O 8 '48

Electrical and allied developments during 1947; lighting equipment and applications. G. Bartlett. *Il Gen Elec R* 51:39-40 Ja '48

Guide to illumination from various lighting units; chart; engineering reference sheet. *Elec World* 128:100 N 22 '47

House lighting tailored for television. *Il Arch Rec* 102:126-7 N '47

How are things in Europe's lighting? B. McCrone. *Il Elec West* 101:85-9 S '48

Illuminating engineering; abstract. R. O. Ackerley. *Electrician* 141:1230 O 22 '48

Industrial and commercial loads. *Il Elec World* 129:118-20 My 22 '48

Kansas City Power & Light uses planned lighting in its new store and office building. *Il Edison Elec Inst Bul* 15:443-4 D '47

Lighting of farm buildings. A. C. Sandow. *Light & Lighting* 40:187-8 O '47

Modern lighting in a modern home. O. D. Westerberg. *Il plans diags Am Bid* 70:104-7 Je; 112-15 J1 '48

Modern lighting meets functional needs; four basic patterns for planned relighting of executive offices. N. H. Boynton. *Il Elec World* 128:65-7 D 20 '47

New equipment for planned lighting. C. L. Crouch and R. W. McKinley. *Il Arch Rec* 102:117-18 D '47

Planned lighting and the electrical league. J. S. Schuchert. *Il Edison Elec Inst Bul* 15:445-8 D '47

Planned lighting does build profit load. G. H. Maize. *Il Elec World* 129:98-9 Mr 27 '48

Selling lighting to small town merchants. C. E. Romberger. *Il Elec World* 130:86-8 O 23 '48

Selling planned lighting, why and how; the Toledo story. F. R. Innes and others. *Il maps Elec World* 130:87-102 J1 31 '48

Typical fluorescent lighting system for a printing plant. W. S. Greenwood. *plan Inland Ptr* 121:52-3 Ag '48

ELECTRIC lighting—Continued

Utility buys what it sells in planned lighting. *il Elec World 129:118 My 8 '48*

See also

Art galleries and museums—Lighting
Car lighting
Electric lamps
Factories—Lighting
also International commission on illumination

Control

Lighting by remote control. *il Am Bld 70: 112 Ag '48*
Low-voltage switching arrives; relay control of lighting circuits. *il diag Elec West 100: 66-7 Ja '48*

Exhibitions

Good light pays; second International lighting exposition, Chicago. *Bsns W p68+ N 15 '47*
Second International lighting exposition and conference competition; what planned lighting can do; list of winners. *Elec World News ed 128:16-17 N 29 '47*

ELECTRIC lighting, Decorative

See also

Fountains—Lighting

ELECTRIC lines

Connector limitations studied. R. M. Schahfer and W. H. Knutz. *diag Elec World 129:46-9 Ja 31 '48*

Experimental high-voltage power-transmission lines; Tidd 500-kV project. I. W. Gross and C. F. Wagner. *il diags Engineering 166:381-3 O 15 '48*

500-kv test program studies higher voltage transmission. *il plan Elec World 128:92-5+ N 8 '47*

500-kv. Tidd test project. *il Elec Eng 66: 1178-81 D '47*

500-kv transmission line symposium held by AIEE. *Elec World News ed 128:12-14 N 15 '47*

500,000-volt transmission tests; illustrations with text. *Elec West 99:72-3 N '47*

Laying the groundwork for extra-high voltages; experimental line. *il Westinghouse Eng 8:31-2 Ja '48*

Rigorous and approximate treatment of long line transmission problems by hyperbolic functions. S. Gerszonowicz. *diags Franklin Inst J 245:63-66 Ja '48*

Short-circuit tests predict performance of corroded connectors. R. M. Schahfer and W. H. Knutz. *Elec World 129:80-2 F 14 '48*

Super high voltage transmission research begins at Tidd 500-kv test project. *il Edison Elec Inst Bul 15:371-4 O '47*; Same cond. *Power Pl Eng 51:72-3+ N '47*; Abstract. *Elec World 128:84-6 O 11 '47*

Technical and economic aspects of the transmission of electrical energy over long distances. W. Wanger. *biblog(27 titles) il diags Inst E E J 96 pt 1:340-51 Ag '48*

Transmission tests at 500kv. *il Engineer 184: 525-6 D 5 '47*; *Engineering 165:7, 12 Ja 2 '48*

Unbalance squelcher. K. Tomiyasu. *il diags R Sci Instr 19:675-7 O '48*

See also

Electric cables
Electric plants—Interconnection
Electric railroads
Electric service, Rural
Electric transmission
also International conference on large high tension electric systems

Construction

Service drops to customers' premises; engineering reference sheet. *Elec World 130: 118 Ag 14 '48*

See also

Electric lines—Overhead construction

Crossarms

H-frame 230-kv wood pole crossarm design practice. A. A. Ospovich. *il Elec World 130: 99-101 S 25 '48*

Damage from air raids

How A-bombs would hit utilities; Hiroshima study. *il Bsns W p28+ N 8 '47*

Japanese appraisal of atomic bomb damage to Hiroshima utility system. R. M. Van Duzer, Jr. and E. J. Burger. *il map Elec World 128:98-103 N 8 '47*

Damage from storms

Pennsylvania power & light co. uses emergency radio to restore storm-wrecked electric service. *il Edison Elec Inst Bul 16:2 Ja '48*

Sleet storm batters utilities from Iowa to Atlantic coast. *il Elec World News ed 129: 4-5 Ja 10 '48*

Design

Mechanical design of 264-kv transmission lines in Great Britain; abstract. A. E. Percival. *Engineering 166:101-2 J1 30 '48*

Grounding

See Electric distribution—Grounding

Inductive interference

Survey of inductive co-ordination in rural areas; abstract. M. W. Rothpletz and H. S. Williams. *Elec Eng 67:1042 N '48*

Maintenance and repair

Clean energized insulators with burlap. H. L. Rudolph. *il Elec World 130:76+ J1 17 '48*

Helicopter earns acceptance; patrol of transmission systems of the West. *il Elec West 101:108-10 S '48*

Lineman's report form guides trouble analysis. *Elec World 129:116 Mr 13 '48*

Northwest patrol takes to the air. K. I. Jack. *Pub Util 41:683-7 My 20 '48*

Procedure for armor rodding 220-kv transmission lines while hot. *il Elec World 128: 104-5 N 8 '47*; *Elec West 99:60-1 D '47*

Semi-trailer line truck developed locally. H. E. Reeve. *il Elec World 130:109-10 Ag 14 '48*

Steps in splicing a hi-line hot; illustrated instructions. M. L. Fisher. *Elec World 128: 78-9 N 22 '47*

287 kv. worked hot for first time. *il Elec West 101:80-1 Ag '48*

See also

Electric distribution
—Grounds and faults

Overhead construction

Aerial cable to combat rising costs. N. K. Yarnell. *il diag Elec West 100:72-3 My '48*

Aluminum clamps cut magnetic losses. *il Elec West 99:64 D '47*

Capacitor installations can be free from trouble. S. H. Pollock. *il Elec World 130: 87-4 Ag 28 '48*

Conductor data; weights and diameters of commonly used conductors for overhead line construction; engineering reference sheet. *Elec World 130:108 J1 31 '48*

Dragging in the Yule log; electric transmission linemen's version. *il Elec West 99:59 D '47*

Guide for service attachments at poles and buildings; engineering reference sheet. *diags Elec World 129:74 Ja 31 '48*

Guy and strain insulator arrangements for urban line construction; engineering reference sheet. *diags Elec World 129:106 F 14 '48*

Improved materials handling cuts crew dead time; Sacramento (Cal.) Municipal utility district. C. L. Richey. *il Elec World 129: 80-1 Je 19 '48*

New boom truck saves man-hours in line construction and equipment installation; Oilfield electric co. *il Elec West 100:77 My '48*

Non-magnetic clamps increase power savings. J. M. Sheadel. *Elec World 128:86+ D 20 '47*

Oil circuit recloser mountings and connections; engineering reference sheet. *diags Elec World 129:124 Mr 13 '48*

Operational characteristics of modern h.v. wood-pole lines. G. T. Garwood. *biblog il diags Inst E E J 94 pt 2:481-93 O '47*; Discussion. 94 pt 2:493-7, 698-700; 95 pt 2: 780-3 O, D '47, D '48

Overhead line estimating. T. H. Guck. *Elec World 129:146 My 22; 108 Je 5; 100 Je 19; 130:98-9 J1 3 '48*

Overhead transmission lines for 380 kv in Sweden; abstract. O. D. Zeterholm. *Engineering 166:102 J1 30 '48*

ELECTRIC lines—Overhead construction—Cont.
Primary and secondary dead ends; engineering reference sheet. diags Elec World 129: 182 Ja 17 '48

Radio speeds sagging of long span over Carquinez strait. il Elec World 130:105 S 11 '48

Rural step-up station mounted on platform. il Elec World 129:190 Ja 17 '48

Sagging-in by radio saves time. il Elec West 100:67 Ja; 72 Ap '48

Sidewalk guy installation; drawing; engineering reference sheet. Elec World 130:106 J1 3 '48

Spinner lashes aerial cable in field. J. A. Lasseter and F. E. Treat. il Elec World 129:69-72 Ap 24 '48

Suspension clamp power loss tests. A. Bissiri. il Elec World 129:53+ Ja 3 '48

Tennessee utility adopts aluminum for distribution circuits. C. E. Bryan. il Elec World 129:64-6 F 28 '48

Two-way radio simplifies sagging-in procedure on transmission lines. il Elec World 129:60-1 Ja 31 '48

See also

Electric lines—Cross-

arms

Poles and towers

Angle pole construction for 11-kv and 22-kv lines; drawings; engineering reference sheet. Elec World 129:92 Ap 24 '48

Capped pole supports transmission tower. A. Bissiri. il Elec World 129:122+ Mr 27 '48

Guard makes pole erection safer. il Elec World 130:94 Ag 28 '48

Guide for pine pole material; engineering reference sheet. Elec World 130:116 Ag 14 '48

How to lash replaced poles temporarily; engineering reference sheet. diags Elec World 128:80 D 20 '47

How to select pole class for carrying stated wires. Elec World 130:118+ O 23 '48

James River span requires varied tower designs. H. W. Furlong. il diags Elec World 129:75-6 Je 19 '48

Mechanical loading of wood poles; engineering reference sheet. E. M. Adkins. Elec World 129:90-1 F 28 '48

New ASA standards for wood poles. L. G. Smith. Edison Elec Inst Bu 16:289 Ag '48

Pole framing for rural lines 7.2/12.5 Y kv, single phase; charts; engineering reference sheet. Elec World 129:120 Mr 27 '48

Post-hole borer assisting the erection of overhead lines. il Elec R (Lond) 143:333 Ag 27 '48

Steel tube pylons filled with concrete; abstract. R. Vögeli. Engineering 166:102 J1 30 '48

Symmetrical design for junction tower. il diag Elec World 129:76 Ja 31 '48

Terminal pole design for potheads and arresters. M. H. Powell. il Elec World 128: 120+ D 6 '47

Transmission line structures designed to utilize full pole strength. A. J. Borchers and T. N. Cofer. il diags Elec World 129:92-4 My 8 '48

Transmission tower relocated with rollers. il Elec World 130:100 Ag 23 '48

Treat pole tops for \$1.08. W. L. Montgomery. il Elec World 129:92+ Je 19 '48

Use of concrete poles in Mexico. J. Colon. il Elec World 129:106-7 Mr 13 '48

Wood pole constants; physical properties of western cedar, southern pine and Douglas fir; engineering reference sheet. Elec World 130:114 S 25 '48

See also

Electric lines—Cross-

arms

Protection

Earth leakage protection. Electrician 141:927-8 S 24 '48

Lightning-resistant transmission line performance. R. M. Schahfer and W. H. Knutz. Elec Eng 67:563 Je '48

Lightning surges on transmission lines in Ireland. R. C. Cuffe. biblog map diags Inst E E J 94 pt 2:270-7 Ag '47; Discussion. 94 pt 2:278-82; 95 pt 2:81-4 Ag '47, F '48

17-year lightning study gets results; Consolidated gas electric light & power co. of Baltimore. G. W. Maihl. Elec World 129: 105-7 Ap 10 '48

Triple-circuit line cuts lightning area. C. B. Downer. il Elec World 130:87-9 S 25 '48

River crossing

James River span requires varied tower designs. H. W. Furlong. il diags Elec World 129:75-6 Je 19 '48

6688-ft span used in canyon crossing; Snake River canyon. il diag Elec World 129:122, 136 Mr 27, Ap 10 '48

Safety measures

Concentrated hazard, and a remedy; pole-mounted distribution transformer installations. C. A. Coutts. il Nat Safety N 67: 30-1+ Je '48

Live line support clears working area. il Elec World 130:122+ Ag 14 '48

Tables, calculations, etc.

Sag-tension data for aluminum cable; engineering reference sheet. Elec World 128: 102 N 22 '47

Short method for calculating voltage regulation on transmission line; engineering reference sheet. R. N. Early. Elec World 129: 102-3 Je 19 '48

Testing

Procedure for testing transmission lines. R. R. Rhodes. il diag Elec World 130:108+ J1 3; 80 J1 17 '48

Tests of conductor ties. R. E. Jones. diags Elec World 129:78+ Ja 31 '48

Transmission-line fault locator using fault-generated surges; abstract. R. F. Stevens and T. W. Stringfield. il Elec Eng 67:1060 N '48

Tree problem

Organized tree trimming analyzed. Elec World 129:108+ Je 19 '48

Underground lines

Standard boxes unify underground secondaries. R. F. Burnham. il plan Elec World 128:80-1 N 22 '47

Vibration

Damping combination stops span vibration. E. M. Wright. il Elec World 129:114+ F 14 '48

Great Britain

Mechanical design of 264-kv transmission lines in Great Britain; abstract. A. E. Percivall. Engineering 166:101-2 J1 30 '48

Ireland

Lightning surges on transmission lines in Ireland. R. C. Cuffe. biblog map diags Inst E E J 94 pt 2:270-7 Ag '47; Discussion. 94 pt 2:278-82; 95 pt 2:81-4 Ag '47, F '48

Mexico

Use of concrete poles in Mexico. J. Colon. il Elec World 129:106-7 Mr 13 '48

Sweden

Overhead transmission lines for 380 kv in Sweden; abstract. O. D. Zetterholm. Engineering 166:102 J1 30 '48

Recent research and development work in Sweden on high-voltage a.c. and d.c. power transmission. W. Borgquist. maps diags Inst E E J 95 pt 1:157-66 Ap '48; Abstract. Engineering 166:43 Ja 9 '48

Sweden builds a 380-kv line; studies 440-kv d-c. E. Hansson. diags Elec World 129: 114-16 Ap 10 '48

Swedish 380-kv system; abstract. W. Borgquist and A. Vrethem. Engineering 166:55 J1 16 '48

Western states

Building for new loads in the West. il Elec West 100:68-91 F '48

ELECTRIC lines, Underground. See Electric lines—Underground lines

ELECTRIC locomotives

Electric locomotives for the Virginian. Ry Mech Eng 122:95 F '48

Electric traction for heavy short haul; Kennecott copper corporation using electric locomotives for hauling ore trains. R. J. Corfield. il map Ry Age 125:462-7 S 4 '48

ELECTRIC locomotives—Continued

- Electrical equipment for the 5000-hp Great Northern locomotives. H. S. Ogden and L. H. Burnham. *Il diag Gen Elec R* 51:18-23 *Je* 32-8 *Jl* '48
- Electricity in transportation. C. Kerr, jr. *il Ry Mech Eng* 122:375-80 *Jl* '48
- Electrification vs. Diesel-electrification. P. H. Hatch. *Ry Age* 125:9-10 *Jl* 3 '48
- Motive power trends on European railways. L. Armand. *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 30):243-4 '47
- Theory and practice of regenerative braking of d.c. locomotives, with particular reference to multiple-unit operation. O. H. Hahn. *diags Inst E E J* 95 pt 2:85-92 *F* '48

ELECTRIC locomotives, Mine

- Dual-duty locomotives at Consol. *il diag Coal Age* 53:96-7 *Ap* '48
- Hunslet mine locomotives; flameproof electrical equipment. *il Elec R (Lond)* 141:775 *N* 21 '47
- Rebuilding locomotive field frames. W. E. Wolfe. *il diags Coal Age* 53:106+ *Jl* '48
- Truck mines haul on rubber. *il Coal Age* 53:91-3 *S* '48

ELECTRIC logging. See Petroleum—Well logging**ELECTRIC losses**

- Cost of conductor losses quickly analyzed from graphs; engineering reference sheet. M. H. Acheson. *Elec World* 130:98 *Ag* 28; 120 *S* 11 '48
- Investigation of the eddy-current anomaly in electrical sheet steels. F. Bralsford. *bibliog diags Inst E E J* 95 pt 2:38-43 *F* '48
- Iron-loss measurements by a.c. bridge and calorimeter. J. Greig and H. Kayser. *bibliog il diags Inst E E J* 95 pt 2:205-12; Discussion. 212-16 *Ap* '48
- Non-magnetic clamps increase power savings. J. M. Sheadel. *Elec World* 128:86+ *D* 20 '47
- Some aspects of the theory of iron-testing by wattmeter and bridge methods. N. F. Astbury. *bibliog diags Inst E E J* 95 pt 2:607-16 *O* '48
- Suspension clamp power loss tests. A. Bis-siri. *il Elec World* 129:58+ *Ja* 3 '48

See also

Electric machinery—Losses**ELECTRIC machinery**

- Four rotating machinery sessions held at Dayton meeting; A.I.E.E. Middle eastern district. *Elec Eng* 66:1134-7 *N* '47
- Synchronous speeds of electrical machines; chart; data sheet. J. Hyam. *Power* 92:183 *Mr* '48

See also

- | | |
|-----------------------------------|-----------------------------|
| Brushes (electric machinery) | Electric welding machines |
| Commutators | Electricity in mining |
| Electric apparatus and appliances | Electricity on the farm |
| Electric converters | Hydroelectric plants |
| Electric driving | Mine hoisting, Electric |
| Electric generators | Pumping machinery, Electric |
| Electric locomotives | Refrigerators, Electric |
| Electric motors | Ship propulsion, Electric |
| Electric plants | Voltage regulators |
| Electric protective apparatus | |
| Electric transformers | |

Design

- Redesigning to withstand shock; high-speed movies hold key to analysis of mechanisms. D. L. Pierce. *il Machine Design* 20:127-32 *Ag* '48
- Teaching of the principles of electrical machine design. L. H. A. Carr. *bibliog diags Inst E E J* 94 pt 2:443-55; Discussion. 94 pt 2:456-62; 95 pt 2:99-106, 703-8 *O* '47, *F*, *D* '48

Drying

- Drying motor and generator windings. *Paper Ind* 29:1198 *N* '47

Losses

- Induction motor leakage reactance calculations; AIEE committee report. *bibliog diags Elec Eng* 67:430-4 *My* '48
- Influence of saturation on the differential leakage in squirrel cage motors. B. Heller. *Electrician* 141:477-81 *Ag* 13 '48

- Physical concept of leakage reactance. J. H. Kuhlmann. *bibliog il diags Elec Eng* 67:142-6 *F* '48
- Starting losses in windings of double squirrel-cage motors. W. Schuisky. *Inst E E J* 95 pt 2:325-7 *Je* '48
- Theory of induction-motor surface losses. J. H. Walker. *bibliog diags Inst E E J* 95 pt 2:597-606 *O* '48
- Tooth-ripple losses in unwound pole-shoes. W. J. Gibbs. *bibliog Inst E E J* 94 pt 2:2-12 *F* '47; Discussion. 95 pt 2:545-9 *O* '48

Maintenance and repair

- Maintenance of main drive motors and motor-generator sets. *Iron & Steel Eng* 25:96-8 *Mr* '48

Noise

- See also
Electric motors—Noise

Testing

- Bearing and lubricant center analyzes electrical machinery problems; Thomson laboratory, General electric co., D. F. Wilcock. *il diags Steel* 123:94-6 *S* 20 '48

Transportation

- Heavy plant transport; synchronous condensers in New Zealand. *il Elec R (Lond)* 143:354 *S* 3 '48
- 100,000-kw. stator shipped assembled. *il Elec West* 101:84 *O* '48

Vibration

- Analysis of vibration problems. A. J. King. *diags Inst E E J* 93 pt 2:435-53 *bibliog* (p446, 458) *O* '46; Discussion. 93 pt 2:458-62; 95 pt 2:92-6 *O* '46, *F* '48;
- Field problems in balancing rotating electric machinery. R. B. Barton. *bibliog Elec Eng* 67:150-3 *F* '48

Windings

- Doubly chorded or doubly shifted fractional-slot lap and wave windings. M. M. Liw-schitz. *diag Elec Eng* 67:848 *S* '48
- Life of winding on rotating machines. A. F. Ayres. *Elec World* 129:152+ *My* 22; 123-4 *Je* 5; 106-4 *Je* 19 '48
- Methods for bracing stator end windings. G. Gentilini. *il diags Iron & Steel Eng* 25:95-7 *Ja* '48
- Wound-rotor machine operation. H. Gibson. *diags Gen Elec R* 51:22-5 *Ap* '48

ELECTRIC measurements

- Accuracy of impedance measurements in telecommunications. B. Secer. *diags Elec Com* 25:74-83 *Mr* '48
- Bridge erosion of electrical contacts. J. J. Lander and L. H. Germer. *bibliog il J Ap Phys* 19:910-28 *O* '48
- Calibration of capacitors at the National physical laboratory, 1947. G. H. Rayner and L. H. Ford. *bibliog diags Inst E E J* 95 pt 2:312-18 *Je* '48
- Calibration of 2-cm diameter sphere-gaps. R. Cooper and others. *Inst E E J* 95 pt 2:309-11 *Je* '48
- Dynamic measurement of mains resistance. E. H. W. Banner. *il diag Electrician* 141:857-3 *S* 17 '48
- Electrostatic analyzer for 1.5-Mev protons. W. A. Fowler and others. *il diags R Sci Instr* 18:818-20 *N* '47
- Improved method for measuring Hall coefficients. I. Isenberg and others. *diags R Sci Instr* 19:685-8 *O* '48
- Iron-loss measurements by a.c. bridge and calorimeter. J. Greig and H. Kayser. *bibliog il diags Inst E E J* 95 pt 2:205-12; Discussion. 212-16 *Ap* '48
- Measure closing currents of oil circuit breakers. *diag Elec World* 129:84+ *F* 28 '48
- Measurement of short-duration recurrent voltage impulses by means of spark-gaps. R. Cooper. *bibliog diags Inst E E J* 95 pt 2:378-82 *Ag* '48
- Measuring voltage dip of resistance welding. F. W. Buck. *il diags Elec World* 128:99-100 *D* 6 '47
- 100,000-volt pulses measured with capacitance voltage divider. S. C. Clark, jr. *il diag Gen Elec R* 51:20-1 *My* '48
- Phantom repeater. *il R Sci Instr* 18:803 *O* '47
- Power factor measurement. R. A. Guest. *diags Elec R (Lond)* 142:407 *Mr* 12 '48

ELECTRIC measurements—Continued

Precision resistors and their measurement. J. L. Thomas. *il* diags U S Nat Bur Stand Circ 470:1-32; pa 20c Supt. of doc. '48

Sensitive capacitance meter. D. M. Neale. *diag* J Sci Instr 25:346-7 O '48

Shunts and inductors for surge-current measurements. J. H. Park. *bibliog* *il* diags J Res Nat Bur Stand 39:191-212 S '47

Simple and inexpensive method for accurately measuring steady-state and transient high voltages. H. L. Levinton. *il* diags Elec Eng 67:154-7 F '48

Simple relations for calculating certain transient responses. W. J. Cunningham. *bibliog* diags J Ap Phys 19:251-6 Mr '48

Some aspects of the theory of iron-testing by wattmeter and bridge methods. N. F. Astbury. *bibliog* diags Inst E E J 95 pt 2: 607-16 O '48

Some physical concepts in the field of materials and measurements; abstract. S. Whitehead. *Electrician* 141:1229 O 22 '48

Space charge due to corona; abstract. O. J. M. Smith. *Elec Eng* 67:979 O '48

Standard lag line for phase measurement. O. H. Schuck. *il* diags Acoustical Soc Am J 20:26-39 Ja '48

Telemetering equipment; indicating kwh and maximum demand at a distance. *diag* Elec R (Lond) 142:313-14 F 27 '48

Thermo-electric and conductive properties of blue titanium dioxide. H. K. Henisch. *bibliog* (30 titles) *il* diags Elec Com 25:163-77 Je '48

Totalization of watthours; metering total consumption on two or more circuits; meter and transformer connections. H. S. Edgerly. *il* diags Gen Elec R 50:28-30 N '47

Ultra-high-speed relays in the fields of protection and measurement. W. Casson and F. H. Last. *diags* Inst E E J 94 pt 2:667-85; Discussion. 685-91 D '47

Visual measurements of short pulses of direct current. P. F. Ordnung. *il* diags Franklin Inst J 245:37-51 Ja '48

What is the best way of measuring the zero-sequence impedance of a cable? *diags* *Electrician* 140:193-4 Ja 16 '48

See also

Dielectric constants	Magnetic measurements
Dielectrics	Oscillographs
Dynamometers	Photoelectric cells—
Electric engineering—	Measurement uses
Tables, calculations, etc.	Potential, Electric
Electric instruments	Radio measurements
Electric meters	Vacuum tubes—
Electric resistance	Measurement uses
Electric testing	Voltmeters
Electrometers	Watt hour meters
Frequency measurement	Wattmeters
Galvanometers	Wheatstone bridge

ELECTRIC meters

Application of recording type meters at electric pumping wells. R. E. Hammond. *il* Oil & Gas J 47:62-5+ Je 3 '48

Delta-wye conversion brings metering problem. R. Lambert. *diags* Elec World 129: 66+ Ja 31 '48

Induction-type instruments; theory of operation. E. Hughes. *diags* Elec R (Lond) 141: 615-18 O 24 '47

Load control; peak limitation and meter summation. *il* *diag* Elec R (Lond) 142: 607-8 Ap 16 '48

New long-scale instruments for modern switchboards. R. M. Rowell and N. P. Millar. *il* *diags* Gen Elec R 51:14-19 Ap '48

Rectifier meter for the indication and measurement of phase angles. G. H. Rawcliffe and C. M. Brownsey. *diags* Inst E E J 95 pt 2:227-33 Ap '48

Survey of metering practice on the British grid system. F. Byrne. *diags* Inst E E J 95 pt 2:291-301 Je '48; Excerpts. *Engineering* 165:342 Ap 9 '48; Discussion. *Inst E E J* 95 pt 2:301-8 Je '48

See also

Ammeters	Potentiometers
Demand meters	Voltmeters
Electric measurements	Watt hour meters
Frequency meters	Wattmeters
	Wave meters

Bearings

Lifetime bearing in new meter; magnetic-suspension bearing. *diags* Machine Design 20:143-4 Je '48

Magnetic suspension in meters. *il* *diag* *Electrician* 141:1083 O 8 '48

Revolutionary advances in watt-hour meter design; magnetic suspension of the moving element. I. F. Kinnard. *il* *diags* Gen Elec R 51:11-15 Je '48; Same. *Elec Eng* 67:627-9 Ji '48; Same cond. *Elec World* 129:104-6 Je 5 '48

Installation

Incorrect metering connections; calculating registration correction factors. A. Salzmann. *diags* Elec R (Lond) 143:171-4 Ji 30 '48

Philadelphia meter practice in pictures. N. Yeakeel. *il* *diags* Elec World 129:58-9 Ja 31 '48

Wood frame makes shallow meter box deeper. *il* *Elec World* 129:114 Mr 27 '48

Testing

Meter disk punch. J. Bowles. *il* *Elec World* 128:126+ N 8 '48

Meters shop-tested and reconditioned in 33 minutes. *flow* *diag* *il* *plan* *Elec World* 130: 66-8 Ji 17 '48

Periodic testing of meters done from mobile shop. E. N. Mitchell. *il* *plan* *Elec World* 130:90-1+ O 23 '48

Transportation

Shock mounts protect meters during transit. E. B. Kipp. *il* *Elec World* 129:86 F 23 '48

ELECTRIC mixers

Flame resistance in acetate. F. D'Alelio. *il* *Mod Plastics* 25:94-6 Ag '48

Simplified pre-pack for consumer promotion of Waring Blender. *il* *Mod Packaging* 21:127 Je '48

ELECTRIC moment

Acid-base equilibrium constant and dipole moment of tribenzylammonium picrate in benzene from measurements of dielectric constant. A. A. Maryott. *bibliog* J Res Nat Bur Stand 41:7-9 Ji '48

Calculation of nuclear quadrupole effects in molecules. J. Bardeen and C. H. Townes. *bibliog* *Phys R* 73:97-105 Ja 15 '48

Coordination compounds of boron trichloride; relationship of dipole moment of chlorides to compound formation. D. R. Martin. *bibliog* J Phys & Colloid Chem 51:1400-4 N '47

Dielectric studies; dipole moments of solvents in nonpolar solvents of unknown molecular weights. N. C. C. Li, C. V. An and W. H. Wu. *Am Chem Soc J* 69:2558-9 O '47

Dielectric studies; studies with gasoline. N. C. C. Li and T. D. Terry. *Am Chem Soc J* 70:344-5 Ja '48

Dipole moments and internal rotation in some substituted hydrocarbons. R. A. Oriani and C. P. Smyth. *bibliog* J Chem Phys 16:930 S '48

Dipole moments and molecular association of some picrates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Maryott. *bibliog* J Res Nat Bur Stand 41:1-6 Ji '48

Dipole moments of diazines. W. C. Schneider. *bibliog* *diags* *Am Chem Soc J* 70:627-30 F '48

Dipole moments of thiouracil and some derivatives in dioxane solution. W. C. Schneider and I. F. Halvenstadt. *bibliog* *Am Chem Soc J* 70:2626-31 Ag '48

Effect of large quadrupole interactions on nuclear radiofrequency spectra at twice Larmor frequency. N. F. Ramsey. *bibliog* *Phys R* 74:236-91 Ag 1 '48

Electric moments and ultraviolet absorption spectra of some derivatives of cyclopropane and of ethylene oxide. M. T. Rogers. *bibliog* *Am Chem Soc J* 69:2544-8 O '47

Electric moments of hydrogen fluoride, hydrogen chloride and hydrogen bromide in several non-polar solvents. A. J. Welch, Jr., M. E. Hobbs and F. M. Gross. *diags* *Am Chem Soc J* 70:805-11 F '48

Electric moments of some *p*-substituted phenyl selenocyanates and thiocyanates. T. W. Campbell and M. T. Rogers. *bibliog* *Am Chem Soc J* 70:1029-31 Mr '48

ELECTRIC moment—Continued

- Electric quadrupole coupling of the nuclear spin with the rotation of a polar diatomic molecule in an external electric field. U. Fano, bibliog J Res Nat Bur Stand 40:215-23 Mr '48
- Hyperfine structure and nuclear moments of chlorine. L. Davis, Jr. and others, bibliog Phys R 73:525-6 Mr 1 '48
- Interaction of nuclear electric quadrupole moments with molecular rotation in asymmetric-top molecules. J. K. Bragg, Phys R 74:533-8 S 1 '48
- Interconversion of *ortho*- and *para*-deuteronium due to the deuteron quadrupole moment. M. Hamermesh, Phys R 73:638-9 Mr 15 '48
- Magnetic field of a rotating molecule. G. C. Wick, bibliog Phys R 73:51-7 Ja 1 '48
- Measurements of dielectric constant and dipole moment of gases by the beat-frequency method. J. G. Jelatis, bibliog diags J Ap Phys 19:419-25 Ap '48
- New method of determining the relaxation time and the dipole moment of polar substances; its application to fatty acids. G. Potapenko and D. Wheeler, Jr. diags Rs Mod Phys 20:143-50 Ja '48
- Nuclear electric quadrupole interaction in molecular spectra. B. T. Feld, bibliog Phys R 72:1116-17 D 1 '47
- Nuclear quadrupole coupling of nitrogen in ICN and N₂O. A. G. Smith and others, bibliog J Phys R 73:633 Mr 15 '48
- Nuclear quadrupole interaction in CsF. J. W. Trischka, bibliog diags Phys R 74:718-27 O 1 '48
- Nuclear quadrupole interaction in the ICl rotational spectrum. R. T. Weidner, Phys R 73:254 F 1 '48
- Nuclear spins and quadrupole moments of B¹⁰ and B¹¹. W. Gordy and others, Phys R 74:1191 N 1 '48
- Radial dependence of the tensor force in the deuteron. W. G. Guindon, Phys R 74:145-9 J 15 '48
- Radiofrequency spectra of the sodium halides. W. A. Nierenberg and N. F. Ramsey, bibliog diags Phys R 72:1075-89 D 1 '47
- Second-order corrections to quadrupole effects in molecules. J. Bardeen and C. H. Townes, Phys R 73:627-9 Mr 15 '48; Correction, 73:1204 My 15 '48
- Spin and quadrupole moment of S³³. C. H. Townes and S. Geschwind, Phys R 74:626-7 S 1 '48
- Stark effect for a rigid asymmetric rotor. S. Golden and E. B. Wilson, Jr. bibliog J Chem Phys 16:669-85 J 1 '48
- Theory of the ferroelectric effect and clamped dielectric constant of Rochelle salt. W. P. Mason, bibliog Phys R 72:854-65, 976 N 1-15 '47
- Use of fluoro compounds in the determination of valency angles by electric dipole moment measurements. N. J. Leonard and L. E. Sutton, bibliog Am Chem Soc J 70:1564-71 Ap '48
- ELECTRIC motor generators**
- A-c to d-c conversion equipment in the du Pont co. H. E. Houck, J Elec Eng 66:1077-82 N '47
- New sine-wave motor-generator set for wattmeter and other testing purposes. K. Aston, J diags Inst E E J 94 pt 2:543-6 O '47
- ELECTRIC motors**
- Co-operative engineering; a method used in developing motors for industrial need. A. M. MacCutcheon, Elec Eng 67:751-3 Ag '48
- Drives and power conversion; review of new developments. J Westinghouse Eng 8:10-18 Ja '48
- Electric motors being put to some unusual functions in planes. Iron Age 161:87 Ja 29 '48
- Electrical and allied developments during 1947; industrial equipment, applications. G. Bartlett, J Gen Elec R 51:28-9 Ja '48
- Gear motors in dough-mixers. L. S. Sherman, J diags Food Ind 19:1489-90 N '47
- How Sterling picked the cities for 18 new district offices. J. H. Collins, Sales Management, 60:94+ Mr 1 '48
- Motor driven machines; characteristics of universal motors, Product Eng 19:140 Mr '48

- Motor driven machines; speed of motor. J Product Eng 19:129 Mr '48
- Normal supply near for electric motors. Esns W p71-2 N 8 '47
- What is your motor I Q? A. D. Robertson, Elec World 129:91 My 8 '48
- Wiring for electric motor circuits; reference book sheet. Am Mach 92:127 Ja 1 '48
- See also
- | | |
|------------------|--------------------|
| Commutators | Pumping machinery, |
| Electric driving | Electric |
| Gearmotors | |

Bearings

- Motor driven machines; bearings and lubrication. J Product Eng 19:123 Mr '48
- New developments in babbitting methods. J. T. Clenny, J Iron Age 160:62-8 D 25 '47

Control

- Closed-cycle motor control; what it is. B. Cooper, diags Factory Management 106:113-17 F; 122-5 Mr; 90-3 Ap '48
- Electric control gear for steel-mill auxiliaries. R. A. West, J diags Iron & Steel Inst J 158:357-75 Mr '48
- Electronic control of motors. A. L. Whiteley, J diags Engineer 186:219-21 Ag 27 '48
- Flexibility in multimotor multispinde tandem wire block control; abstract. D. E. Donaldson, Elec Eng 67:700 J 1 '48
- Ignitron motor control for a printing press. J diags Engineer 186:161 Ag 13 '48
- Material handling plant; sequence control of driving motors with positive interlocking. P. C. Croft, J Elec R (Lond) 143:79-84 J 16 '48
- Mill motor brake standardization; discussion at 1947 AISE annual convention. A. H. Myles and others, Iron & Steel Eng 25:71-7 F '48
- Motor-driven rheostats for automatic or remote control of motor drives. H. F. Littlejohn, Jr. J diags Machine Design 19:129-34 D '47
- Motor speed control in ring spinning as an aid to reducing yarn breakages. F. J. Stevenson, Textile Inst J 38:P586-9 D '47
- Motor speed control uses saturable-core reactor. L. Helterline, J diags Machine Design 20:137-9 S '48
- Operation and maintenance of variable voltage control systems. A. D. Howry, diags Iron & Steel Eng 25:48-53; Discussion, 53-5 My '48

Design

- Hysteresis motor. H. C. Roters, J Elec Eng 67:241-5 Mr '48
- Radial air-gap motors; patent literature and contemporary development. C. Ridley, Elec R (Lond) 143:245-7 Ag 13 '48
- When you design-in shell type motors. R. E. Arnold, J diags Machine Design 20:157-62+ Ap '48

Fractional horsepower

- Applying special small motors for powering engineered products. H. M. Fulmer, J diags Product Eng 19:144-8 Ja '48
- Detection and location of faults in fhp motor stator windings. M. C. Halleck, J diags Gen Elec R 51:20-5 O '48
- Hysteresis motor. H. C. Roters, J Elec Eng 67:241-5 Mr '48
- Method of selecting inherent overheat protectors based upon motor design information. V. G. Vaughan, Elec Eng 67:662 J 1 '48
- Midget motor; Electrotor type no. 001. J diags Power Generation 52:66-7 Mr '48; Refrig Eng 55:170+ F '48; Machine Design 20:115 Mr '48; Mach 54:166-7 Ap '48; Mech Eng 70:348 Ap '48
- Motor driven machines; ratings for fractional horsepower motors, Product Eng 19:137 Mr '48
- See through industrial model demonstrates motors; Fairbanks-Morse Air-Gap motors. J Sales Management 60:65 Je 15 '48
- Tests of ensilage cutters driven by 7½-hp motor. J. W. Hall and A. W. Cook, J Elec World 129:144+ Ap 10 '48
- Unusual tooling expedites midget electric motor output. F. R. Schulz, J Iron Age 160:64-7+ D 4 '47

ELECTRIC motors—Fractional horsepower— *Continued*

Standards

How much power in a horsepower? uniform basis of rating fractional horsepower motors by National electrical manufacturers association. W. W. Warner. Steel 121:94+ N 24 '47

Small-motor standards. A. N. D. Kerr. Elec R (Lond) 141:805-6 N 28 '47

Gearing

Motor driven machines; gear drives. il Product Eng 19:118 Mr '48

History

Origin of the electric motors. J. C. Michalowicz. il Elec Eng 67:1035-40 N '48

Lubrication

Lubricants for electric motors. H. A. McConville. Sci Am 178:73-4 F '48

Maintenance and repair

Better motor maintenance. C. E. Hugus. il Coal Age 53:99-101 O '48

Disassembly, repair and reassembly of cranking motors. il diag Diesel Power 26:46-50+ Ja '48

Manufacture

Centralized set-up simplifies production control; Reliance electric & engineering co. il Mach 54:177-8 My '48

Compact chute rack stores motor frames. J. F. Miller. il diags Am Mach 92:102-3 Je 17 '48

Curved chutes aid work ejection; lamination punching on five-stage progressive die. H. S. Wharen. il diags Am Mach 92:88-9 Ap 8 '48

Die-casting aluminum rotors on a vertical hydraulic press; Life-Line motor department; Westinghouse electric corp. il diag Mach 54:150-2 F '48

Efficient tool engineering cuts motor costs; Reliance electric and engineering co. W. N. Nordquist. il diag Tool Eng 20:33-4 My '48

Motor frames welded by submerged-arc. J. B. Arthur. il diags Am Mach 91:106-9 D 4 '47

Multiple piercing dies for motor laminations. il Mach 54:189 Je '48

Quantity production of loom motors; Witton works of the General electric co. il Engineering 165:176 F 20 '48

Tailored-to-the-job machines; Reliance electric & engineering co. E. Karpick. il Steel 123:74-7 Ag 9 '48

Triple-acting press assembles stators. H. H. Geimeier. il Am Mach 92:98 Mr 25 '48

Unusual tooling expedites midjet electric motor output. F. R. Schulz. il Iron Age 160:64-7+ D 4 '47

Welding conductors to commutator; assembling motors at Elwell-Parker electric co. il Steel 123:94 J 26 '48

Welding copper motor connections; Elwell-Parker plant. W. A. Lloyd. il Iron Age 162:64-6 S 30 '48

Work-handling devices simplify motor manufacture; illustrations with text. Am Mach 92:88-9 Je 3 '48

Mounting

Motor driven machines; bedplates, mounting brackets and flanges. diags Product Eng 19:128 Mr '48

Motor location factor in heavy service. Elec World 129:97+ F 14 '48

Motor-mount testing machine; abstract. L. E. Muller. il Mech Eng 70:340-1 Ap '48

Noise

Analysis of motor noise and how it can be minimized. W. O. Ordianz. diags Product Eng 18:110-15 D '47

Protection

Combination alarm and stalled rotor trip for motors. P. E. Benner. diags Power Generation 52:65 My '48

Insulation electrical and thermal; silicone insulating varnishes and molding compounds protect motors. il Product Eng 19:139 S '48

Insulation requirements for oil-industry motors. P. Hernick. diags Oil & Gas J 47:93-6 S 16 '48

Method of selecting inherent overheat protectors based upon motor design information. V. G. Vaughan. Elec Eng 67:662 JI '48

Motor driven machines; requirements for space and ventilation inclosures for ambient conditions. diags Product Eng 19:115 Mr '48

Novel arrangement for avoiding electric motor overloading. R. A. Hoot. diag Sewage Works J 20:543-4 My '48

Preventing motor damage from phase failure. Coal Age 53:112+ Ap '48

Silicone insulations reduce motor failures. F. S. Campbell. il Power Generation 52:76-7 F '48

Weatherproof housing for small selsyn motors. C. F. Donbar. diag Radio N 39:124 Ap '48

Standards

Performance standards for polyphase squirrel-cage motors; engineering reference sheet. Elec World 128:102 D 6 '47

Standard dimensions of flange-mounted type D, d.c. and a.c. motors; data sheet. Mach 54:235 D '47

Standards as applied to motors and motor applications. W. R. Hough. diags Elec Eng 67:969-71 O '48

Starting

Centrifugal switches for starting single-phase motors. il Engineer 185:217-18 F 27 '48

See also

Electric motors alter- Electric motors, In-
nating current— duction—Starting
Starting

Temperature

Higher ratings for totally-enclosed non-ventilated motors by using high temperature insulation; abstract. W. H. Formhals and G. F. Gibson. Product Eng 18:134-5 N '47

Testing

High precision dynamometer for small motor measurements. J. E. Duff. il diags Product Eng 19:132-3 My '48; Same abr. Elec World 129:96+ Je 19 '48

Making short-time motor-coast measurements. E. G. Downie. il diags Gen Elec R 51:18-20 Mr '48

Windings

Detection and location of faults in fhp motor stator windings. M. C. Halleck. il diags Gen Elec R 51:20-5 O '48

Motors rewired for new voltages. D. P. Ziemke. diags Am Mach 92:188 Mr 11 '48

ELECTRIC motors, Alternating current

A.c. motor trouble; symptom and cause; what to do; tabulation. W. L. Nelson. Oil & Gas J 47:91 S 2 '48

Artificial three-phase systems. A. J. Baggett and N. F. Lowry. il diags Elec R (Lond) 143:126-8 JI 23 '48

What sizes of ac motors for pulsating loads. A. F. Lukens. il Factory Management 105:80-2 N '47

See also

Electric motors, In- Electric motors, Syn-
duction chronous

Control

Speed control for small a-c motors; using small thyristors. W. N. Tuttle. il diags Electronics 21:106-9 F '48

Starting

Starting a.c. motors; joint committee's recommendation. Elec R (Lond) 142:207 F 6 '48

Starting of single-phase hermetically-sealed motors. R. L. Fillmore. diags Elec Eng 67:862-4 S '48

See also

Electric motors, In- Electric motors,
duction—Starting Synchronous—
Starting

Testing

New technique speeds locked rotor torque tests. il diag Elec World 130:122+ S 25 '48

Tracking down polyphase motor troubles. T. Trail. il diags Mill & Factory 42:140-3 Je '48

ELECTRIC motors, Direct current

- Ac lines drive dc motors by two types of rectifiers. Steel 121:66 D 29 '47; 'il Blast F & Steel Pl 35:1526 D '47; Power Generation 52:73 Ap '48
- Large electronic direct current motor drives. M. M. Morack. bibliog il diags Iron & Steel Eng 25:80-5 Je '48
- Motor driven machines; characteristics and types of direct-current motors. Product Eng 19:141 Mr '48
- Motor selection for EOT cranes. M. A. de Ferranti. bibliog diags Iron & Steel Eng 25:80-8 Mr '48; Same abr. Gen Elec R 51:23-30 JI '48
- Operating d-c motors from controlled rectifiers; abstract. A. Schmidt, Jr. and W. P. Smith. Elec Eng 67:516 Je '48

Control

- A-c supply, d-c drive; use of rectifiers and Mototrols. Westinghouse Eng 8:14-15 Ja '48
- Electronic control for dc motors. G. W. Heumann. il diags Power 92:703-5+ N '48
- Metropolitan-Vickers speed control of direct-current motors. il diags Engineering 165:464 My 14 '48
- New developments in electric equipment for the rubber industry. B. J. Dalton. flow diags il diag Elec Eng 67:119-24+ F '48
- New thyatron circuit for motor control. J. R. Devoy. diags Electronics 21:116-19 Ap '48
- Using available voltages increases speed range. diag Power 92:44 Ja '48
- Ward-Leonard system assures exact speed control for dc motors. H. Oman. il diags Power 92:546-7 S '48

Maintenance and repair

- Simplified d-c motor troubleshooting. T. Traill. il diags Mill & Factory 43:99-103 JI '48

Manufacture

- Manufacture of mill type motors. C. B. Hathaway. Iron & Steel Eng 25:105-6 Mr '48

ELECTRIC motors, Induction

- A-c motor drives for modern elevators. M. A. de Ferranti. il diag Gen Elec R 51:41-5 Ag '48
- Application of synchronous and induction motors to chippers. R. R. Baker and M. R. Lory. il Elec Eng 66:1099-103 N '47
- Can I turn down a squirrel-cage rotor? Power 92:176-7+ Mr '48
- General Electric adjustable speed motors. il Elec World 128:140+ N 8 '47
- Induction and synchronous motors with un laminated rotors. W. J. Gibbs. diags Inst E E J 95 pt 2:411-20 Ag '48
- Induction motor, stopgap power source. C. F. Dalziel. Elec West 100:68 Ap '48
- Influence of saturation on the differential leakage in squirrel cage motors. E. Heller. Electrician 141:477-81 Ag 13 '48
- Motor driven machines; built-in shell type motors. il diags Product Eng 19:142-4 Mr '48
- Motor driven machines; integral horsepower single-phase motors. Product Eng 19:138-9 Mr '48
- Motor driven machines; load and thermal capacity of induction motors. diag Product Eng 19:130-1 Mr '48
- Motor driven machines; polyphase squirrel-cage induction motors; speed-torque characteristics. Product Eng 19:132-3 Mr '48
- Motor driven machines; speed-torque characteristics of polyphase wound-rotor motors. Product Eng 19:136 Mr '48
- Operation of induction motors in synchronism. T. F. Wall. diags Engineering 164:577-80 D 19 '47
- Scherbius exciter and how it operates to vary speed or power factor of an induction motor. diags Electrician 140:427-8 F 6 '48
- Single-phase induction motor; modern model. il Westinghouse Eng 8:11 Ja '48
- Slip-ring motor speed-torque depends on resistor steps. diag Coal Age 53:112+ O '48
- Unbalanced resistance and speed-torque curves. E. W. Jones. diags Gen Elec R 51:32-7 S '48
- What causes broken rotor bars. Ry Mech Eng 122:332-3 JI '48

Control

- A-c mine-hoist control. J. W. Cooke and G. W. Heumann. il diags Gen Elec R 50:26-32 D '47
- Liquid rheostat gives smooth speed control. G. L. McFarland. il diags Power 92:280-2 My '48
- Speed control systems for high-speed squirrel-cage motors. G. W. Heumann. il diags Gen Elec R 51:23-34 F '48
- Variable speed a.c. motors. Electrician 140:635-8 F 27 '48

Design

- How is slipring-motor resistance calculated? Power 92:244-6+ Ap '48
- Induction motor leakage reactance calculations; AIEE committee report. bibliog diags Elec Eng 67:430-4 My '48

Maintenance and repair

- Selecting motors from the maintenance point of view. C. C. Leader. il Mill & Factory 42:137-40 F '48

Standards

- NEMA standards for integral-horsepower induction motors. Factory Management 105:124-5 D '47
- New performance standards for three-phase squirrel-cage motors issued by NEMA. Elec World News ed 128:21 N 15 '47
- Performance standards for integral horsepower electric motors crown 40 years of development by NEMA. Heat & Ven 44:112 N '47; Same abr. Mech Eng 69:1031 D '47
- Performance standards for polyphase squirrel-cage motors; engineering reference sheet. Elec World 128:102 D 6 '47

Starting

- Application problems of series capacitors. A. A. Johnson. il Westinghouse Eng 8:155-6 S '48
- Estimating voltage drops caused by starting a-c motors. W. K. Boice. il diags Power Pl Eng 51:76-81 D '47; [cont as]
- Power Generation 52:102-4 Ja; 90-3 F '48
- Single-phase motor starts heavy loads. Steel 122:112 F 2 '48
- Starting losses in windings of double squirrel-cage motors. W. Schuiskey. Inst E E J 95 pt 2:325-7 Je '48

Tables, calculations, etc.

- Current-locus diagrams of polyphase induction motors connected in synchronous tie. C. B. Wyatt. Elec R (Lond) 143:577-82 O 15 '48
- Equivalent circuit for the repulsion motor. R. E. Vowels. diags Elec Eng 67:565-8 Je '48

Testing

- Electronic slip indicator easily built. M. M. Flanders. diag Elec World 128:84+ D 20 '47
- Superimposed frequency test for induction motors. M. P. Romeira. diag Elec Eng 67:763 Ag '48

Windings

- Balanced fractional-slot wave windings. M. M. Liwischitz. diag Elec Eng 67:893 S '48
- Starting losses in windings of double squirrel-cage motors. W. Schuiskey. Inst E E J 95 pt 2:325-7 Je '48
- Theory of induction-motor surface losses. J. H. Walker. bibliog diags Inst E E J 95 pt 2:597-606 O '48

ELECTRIC motors, Railway

- Electric traction equipment; new motors and controllers for railways and tramcars. il Electrician 139:1373 N 7 '47
- Improved electric traction equipment. il diag Engineer 184:558-9 D 12 '47
- Motors and controls; with cost data; report of A.A.R. Mechanical division. Electrical section. il Ry Mech Eng 121:624-7 N '47
- Value of vacuum impregnation of railway traction motors with insulating varnish. il Ry Mech Eng 121:713 D '47

Maintenance and repair

- Field coil machine aids repairs. il Ry Mech Eng 122:153-4 Mr '48
- Reconditioning worn traction motor housings. D. M. Laffin. il Ry Mech Eng 122:507-9+ S '48

ELECTRIC motors, Railway—Maintenance and repair—Continued

Tight traction motor coils; method of binding armatures. E. H. Horstkotte. *Il diag Ry Mech Eng* 122:32-4 Ja '48

Temperature

Determining temperatures of traction motors. J. W. Teker and F. H. Catlin. *Il diag Gen Elec R* 51:27-9 O '48; Same. *Ry Age* 125:623-31 O 2 '48

ELECTRIC motors, Synchronous

Application of synchronous and induction motors to chippers. R. R. Baker and M. R. Lory. *Il Elec Eng* 66:1099-103 N '47

Induction and synchronous motors with unlaminated rotors. W. J. Gibbs. *diags Inst E E J* 95 pt 2:411-20 Ag '48

Phasing out synchronous motors; application of vectors. A. J. Caparo. *diags Power Pl Eng* 51:94-6 D '47

Syn motor solves crusher drive problem. *Elec World* 128:124+ N 8 '47

Starting

Estimating voltage drops caused by starting a-c motors. W. K. Boice. *Il diags Power Pl Eng* 51:76-81 D '47; [cont. as] *Power Generation* 52:102-4 Ja; 90-3 F '48

Provisions for starting 65,000-hp synchronous motors. *diag Elec World* 128:110+ D 6 '47

Testing

Modified slip test for experimental study of synchronous reactance. H. B. Hansteen. *bibliog diags Elec Eng* 67:890-2 S '48

ELECTRIC organ. See Organ, Electric**ELECTRIC plants**

Power without fuel; ethyl chloride and natural steam plants on island of Ischia in Bay of Naples. J. A. C. Pennycuik. *Il Electrician* 140:117-18 Ja '48; Excerpt. *Chem Age* (Lond) 58:114 Ja 17 '48

See also

Electric plants (central stations) Power plants
Electric substations Steam plants

Equipment

Electrical and allied developments during 1947; power, generation, distribution, transmission. G. Bartlett. *Il Gen Elec R* 51:10, 22-7 Ja '48

Interconnection

Application of carrier relaying to a three-terminal 115-kv line; abstract. V. J. Hayes. *Elec Eng* 67:698-9 J1 '48

Electric grid system. H. B. Bryans. *Pub Util* 42:201-3 Ag 12 '48

FPC authorizes Texas systems to interconnect. *Elec World News* ed 129:14 My 1 '48

FPC urges more interties to make best use of capacity. *Elec World News* ed 128:4 N 29 '47

Five-company power pool interconnects four states. *Elec World* 129:13 Je 26 '48

Mechanical computer would refine governing. T. E. Curtis. *Il diag Elec World* 129:78-9 F 28 '48

Power pinch; FPC recommends new interconnections. *Bsns W* p25 N 29 '47

Power system governing. T. E. Curtis. *bibliog diags Elec Eng* 66:1197-200 D '47

Industrial plants

Exhaust steam noise quieted by silencers; industrial turbine connected to utility system. *Il Elec World* 129:96 F 14 '48

Outgrown distribution system replaced; Chevrolet-Detroit forge division of General Motors corp. V. L. Drummond. *Il diags Elec World* 130:74-6+ Ag 28 '48

Purchased power held under control aids process plant. F. O. Wallene. *Il diags Power* 92:688-90 N '48

What is synchroscope connection reference? steam-electric, hydro and utility plant connected to bus. *diags Power* 91:862-4+ D '47

Isolated plants vs. purchased power

Central utility power service versus local plant generation in industry. A. H. Frampton. *Elec Eng* 67:882 S '48

Power; when to make, when to buy. D. M. Myers. *Factory Management* 106:81 Je '48

ELECTRIC plants (central stations)

Electric power situation in the United States; developments of 1947 in power station design. *Il map diags Power Generation* 52:66-9 Ja '48

Electric power situation in the United States; new generating installations. *map Power Generation* 52:62-3 Ja '48

Model gives preview of new plant; O. H. Hutchings plant of Dayton power & light co. *Il Power* 92:232 Ap '48

1948 listing of typical central-station and municipal power-plant installations; tabulation. B. G. A. Skrotzki, comp. *Power* 92:604-9 O '48

One of South's largest municipal utilities plans 60,000-kw station; Jacksonville, Fla. H. McClammy. *Il map Power* 92:288-90 My '48

Utilities in the United States having generating capacity other than 60 cycles; tabulation. *Elec World* 129:100 F 14 '48

See also

Boiler plants Electric utilities
Electric distribution Hydroelectric plants
Electric lines Steam plants

Control

Domestic-load control; relay operated by change in supply frequency. J. de Gruchy. *diag Elec R* (Lond) 143:141-2 J1 23 '48

Costs

Cost of materials, major equipment and steam electric plants; relative rise in costs for last two post-war periods; chart; engineering reference sheet. F. C. Gardner. *Elec World* 130:96 Ag 28 '48

Cost trends for steam electric stations; graph; engineering reference sheet. F. C. Gardner. *Elec World* 130:118 S 11 '48

Fifth steam station cost survey; data covering 113 stations. A. E. Knowlton. *Elec World* 130:71-94 J1 3 '48; Excerpts. *Mech Eng* 70:829-30 O '48

Progressive engineering offsets increased costs of steam-electric power generation. E. H. Krieg. *Civil Eng* 18:212-16; Discussion. 216-20 Ap '48

Trends in construction costs. J. P. Anderson. *Edison Elec Inst Bul* 15:411-16 N '47

Design

Constructional features of the new Ipswich station. Cliff Quay. *Il plan Elec R* (Lond) 142:457-61 Mr 26 '48

Economies in cost of structures minimize steam generated energy output costs. L. Elliott. *Il Civil Eng* 18:216-18 Ap '48

Economies in power-plant design. E. H. Krieg. *bibliog Il plan diags A S M E Trans* 70:171-9 Ap '48; Same. *Power Pl Eng* 51:117-13+ D '47; Discussion. *A S M E Trans* 70:179-83 Ap '48

Operation and maintenance of outdoor plants found practicable. R. M. Hanson. *Il map Elec World* 130:93-6 Ag 14 '48

Planning and development of the auxiliary system diagram for a modern generating station; abstract. A. S. Phillips. *Inst E E J* 95 pt 1:124 Mr '48

Plant design presents opportunity to control mounting steam power generation costs. W. F. Ryan. *Il Civil Eng* 18:218-20 Ap '48

Reliable simple steam plants cost less. J. A. Powell and M. J. Lowenberg. *diags Elec World* 128:61-4 D 20 '47

Some aspects of generating station development. J. Wright. *Il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 29): 207-20 '47

Sporn station design achieves efficient low-cost operation. P. Sporn. *diags Elec World* 129:30-2 Ja 3 '48

Structural design for a steam plant in an earthquake area. R. A. Larsen and W. F. Swiger. *Il diags Eng N* 140:430-3 Mr 18 '48

Survey spots utility design trends. *Power* 92:584-5 O '48

2000-psia, 1050 F, and 1000 F reheat cycle at the Philip Sporn and Twin Branch steam-electric stations. P. Sporn. *bibliog maps diags A S M E Trans* 70:287-94 My '48

Use of house turbines marks design of Philadelphia's Southwark station. A. R. Pettit and F. W. Myers. *Il plan diags Power* 92:134-9+ Mr '48

ELECTRIC plants (central stations)—Cont.**Diesel engine auxiliaries**

Nantucket installs a Diesel. *il* diags Diesel Power 26:38-43 O '48

Diesel engine stations

Butler, Missouri municipal plant. A. V. Reiter. *il* Diesel Power 26:34-6+ F '48

Case study in Diesel depreciation; study of a municipal power plant to answer the question, how long will our Diesels last? W. H. Gottlieb. *il* Pub Works 79:24-5 Ja '48

Diesel-electric power station of the Cia. F.C. de metropolitano, Madrid. *il* Diesel Power 25:59 D '47

Extension ups Grand Haven Diesel plant to 13,370 hp. J. B. Sims. *il* plan diags Power 92:462-4 Ag '48

Five supercharged Diesels supply power for New Bern, N.C. *il* Diesel Power 26:48-50 Je '48; Same cond. Pub Works 79:61 JI '48

43,950 Diesel hp. for Mexico city. *il* plan diag Diesel Power 26:52-3 F '48

Municipal power plant is civic asset; Harrisonville, Mo. A. V. Reiter. *il* Diesel Power 26:42-4 Ag '48

Power for Kansas farms; Central Kansas cooperative electrical association. Diesel Power 26:42-4+ JI '48

Prescription for an earthquake-proof power plant at Idaho Falls. *il* diags Diesel Power 26:72-3 JI '48

Employees

Power station staff salaries. Elec R (Lond) 143:516 O 1 '48

Equipment

Centralized control at Kern. *il* Elec West 101:79-80 O '48

Cliff Quay power station. *il* Electrician 140: 1029-31 Ap 2 '48

Control is centralized at Kern station. *il* plan Elec World 130:90-1 S 25 '48

Drilling rig made from salvaged material for removing slag from boilers. *il* Elec World 130:104 JI 31 '48

Essex; unit no. 1; Public service electric and gas co., Newark, N.J. plan diags Power 92:601-3 O '48

Guymon station takes on load. L. L. Nunley. *il* diag Power 92:483-4 Ag '48

Harbor steam plant nears completion. W. C. Rowse and J. P. Stratford. flow diag *il* plan diags Power Generation 52:56-62 Mr '48

How Talleyrand's condenser operating experience varied over the years. T. W. Bostwick and others. Power 92:685-7+ N '48

Hydraulic model aids plant design; problems involving increased cooling water requirements. J. R. James. *il* plan Elec World 129: 105-6 Mr 27 '48

Hydro, Diesel and steam, in unique combination, serve Salt River valley. *il* map diags Power 92:354-60 Je '48

Inspection, testing and maintenance of electrical equipment for stations and substations. A. C. Baumann and R. H. Mertz. Edison Elec Inst Bul 16:47-60 F '48

Insulating a 2,500 psi steam-electric power unit; Twin Branch plant of the Indiana & Michigan electric co. H. E. Quick. *il* diags Power Generation 52:64-6 F '48

Kingston power station. *il* plan Elec R (Lond) 142:381-6 Mr 12 '48

Lansing station; Interstate power co.'s new station. plan diags Power 92:595-7 O '48

Meaford generating station. *il* diags Engineer 186:342-4, 369-72, 385-8 O 1-15 '48

Mechanical plant for power stations on the continent of Europe. A. Meyer. *il* Inst Mech Eng J & Proc 157 (War emergency issue no 29):220-6 '47

Mechanical plant for steam power stations in the United States. A. G. Christie. *il* diags Inst Mech Eng J & Proc 157 (War emergency issue no 29):226-32 '47; Abstract, Mech Eng 70:757-8 S '48

NSRB surveys power equipment production. Elec World News ed 129:13 Je 12 '48

New one-boiler-per-turbine unit increases system capacity by 20 per cent; Blackhawk generating station of Wisconsin power and light co. L. M. Abrahamson. *il* plan diags Power 92:330-4 Je '48

New power plant at Clinton, Iowa; Beaver Channel station. G. A. Gaffert and S. L. Chapin. *il* map Comp Air Mag 53:139-42 Je '48

100,000-kw turbine generator in full operation; Essex generating station of the Public service electric and gas company, N.J. Blast F & Steel PI 36:465 Ap '48

Permian basin; Texas electric service co. installs outdoor station near Monahans, Texas. plan diags Power 92:598-600 O '48

Power, its generation, distribution and control; review of new developments. *il* Westinghouse Eng 8:2-9 Ja '48

Power station construction; progress at Lincoln. *il* plan Elec R (Lond) 142:39-44 Ja 9 '48

Progress in power generation, 1940-46. bibliog *il* diags Elec Eng 67:59-75 Ja '48

Redondo steam station brings needed power to southern California. W. C. Woodman. flow diag *il* plan diags Power Generation 52:52-7+ JI '48

Some electricity supply developments during the life of the old sub-centre; abstract. J. P. Tucker. Inst E E J 95 pt 1:78 F '48

Station C; Braddock light and power co. station at Alexandria, Va. plan diags Power 92:589-91 O '48

Steam-electric station. A. H. Jensen and J. F. Vogt, Jr. flow diag diag Mech Eng 70: 762-3 S '48

Storage batteries in generating stations and substations. E. R. Sanderson diags Elec R (Lond) 142:119-22 Ja 23 '48

32-MW turbo-alternator set at Willesden. *il* diags Engineering 164:417-18, 420 O 31 '47

Two years' operation at Jennison. W. Greacen. 3d. *il* plan diags Power Generation 52:54-6 My '48

Welding saves million dollars a year at Harbor steam plant. C. N. Barlow. *il* map diag Power 92:459-61 Ag '48

Extensions

Bedford electricity undertaking; new 33 kV main switching station inspected. *il* Electrician 140:363-4 Mr 19 '48

Beerbower, Ponca City plant of Oklahoma gas & electric co. plan diags Power 92: 592-4 O '48

Construction of the Gorge plant addition. R. A. Galbreath. *il* Power Generation 52:116-7 F '48

Dried anthracite silt is fuel for Hunlock Station extension. O. E. Matter and D. W. Holloway. *il* diags Elec World 130:89-92 O 9 '48

Electricity supply in Bradford. Engineering 164:451-2 N 7 '47

Extension ups Grand Haven Diesel plant to 13,370 hp. J. B. Sims. *il* plan diags Power 92:462-4 Ag '48

Extensions at Sheffield. *il* Elec R (Lond) 142: 91-2 Ja 16 '48

High-pressure boilers serve new condensing and topping turbines; Crawford station. T. Y. Mullen. *il* diags Power 92:670-3+ N '48

Leeds undertaking. *il* Electrician 140:787-90 Mr 12 '48

Letchworth undertaking. *il* Electrician 140: 1023-4 Ap 2 '48

New 50 MW set at Neepsend. Electrician 140: 183 Ja 16 '48

North Wilford power station; extensions opened. *il* Elec R (Lond) 142:469-70 Mr 26 '48

Philip Sporn and Twin Branch to have 2000-psi, 1050-F and 1000-F reheate cycles. *il* diags Power Generation 52:58-60 S '48

Power station construction; extension at Kearsley. *il* plan diag Elec R (Lond) 143: 463-8 S 24 '48

Progress of electricity supply in Sheffield. Engineering 165:91 Ja 23 '48

Station P; Pacific gas and electric co. extension in San Francisco. plan diags Power 92:586-8 O '48

Trenton channel adds 200,000 kw. *il* plan diags Power Generation 52:72-3 Ag '48

Fires and fire protection

Burned-out power plant speedily restored at Spencer, Iowa, utility resumes service with three Diesel-engine generators. *il* map Comp Air Mag 53:89-91 Ap '48

ELECTRIC plants (central stations)—Fires and fire protection—Continued
 Emphasis placed on realism at Consolidated Edison's fire school. *il* Gas Age 102:25+ S 16 '48; Same. *Safety Eng* 96:26+ S '48
 Fire-fighting instruction includes close contact with heat and smoke; Consolidated Edison co. of N.Y. W. E. Rossnagel. *il* Elec World 129:62-3 F 28 '48

Flood damage

Reminiscences of an old timer. E. R. Weber. *Power Generation* 52:74-5 J1 '48

Fuel

Dried anthracite silt is fuel for Hunlock Station extension. O. E. Matter and D. W. Holloway. *il* diags Elec World 130:89-92 O 9 '48

New appraisal of the fuel situation. J. Van Brunt. *bibliog Paper Tr J* 126:65-7+ Je 24 '48

Gas turbine auxiliaries

Gas turbines to meet peak loads. *il* diag Elec R (Lond) 142:715-17 My 7 '48
 3500-kw gas turbine raises station capability by 6000-kw. J. W. Blake and R. W. Tummy. *il* diags Power 92:518-25 S '48

Gas turbine stations

Beznau power station; open-cycle gas turbine plant. *il* Elec R (Lond) 143:477-8 S 24 '48

Gas turbines for public electricity supply; abstracts. H. G. Bell and D. M. Smith. *plan diags Engineer* 185:567-9 Je 11 '48; *Elec R (Lond)* 142:910-13 Je 11 '48; *Electrician* 140:1807-12 Je 11 '48; *Engineering* 166:7 J1 2 '48; *Discussion. Elec R (Lond)* 142:913-17, 1003-6 Je 11, 25 '48; *Electrician* 140:1812-13 Je 11 '48; *Engineering* 166:7-8 J1 2 '48

Heating and ventilation

Heat-pump system using water storage; control building of the Tidd plant of the Ohio power co. P. Sporn and E. R. Ambrose. *il* diags Mech Eng 68:899-903+ N '47

Lighting

Lighting of a modern generating station. A. A. Brainerd and G. C. Salneu. *il* plan diags Illum Eng 43:155-74 F '48

Lighting of power station control rooms studied at PEA symposium. *Elec World* 129:74-5 My 8 '48

New ideas in control board lighting. F. P. Kuhl. *il* plan diags Power Generation 52:52-5 Ag '48

Load

Daytime peaks make restaurant load desirable. *il* Elec World 130:118 J1 3 '48

Determining least cost by Kelvin's law; making minimum cost calculations for meeting expanding loads. W. R. Bullard and C. Hutchinson. *il* Elec World 130:79-81 Ag 28 '48

Domestic demand; suggestions for load limitation. G. H. Bowden. *Elec R (Lond)* 143:257-8 Ag 13 '48

Domestic heating; use of load-limiting relay. E. M. Ackery. *Elec R (Lond)* 142:391-2 Mr 12 '48

Effect of staggering on electrical demand. *Engineering* 164:618-19 D 26 '47; *Electrician* 139:1637-8 D 5 '47

Generator ratings and load carrying capabilities of generating plants and systems. J. H. Foote. *Edison Elec Inst Bul* 15:399-401 N '47; Same cond. *Elec World* 128:72-3 N 22 '47

Heat pump; its significance as a potential residential load. C. Bary. *diag Elec Eng* 67:340-4 Ap '48

Highlands load building, Scotland. *il* map diag Elec R (Lond) 141:683-8, 840-4; 142:343-5, 422-7, 497-9, 613-16, 833-6 N 7, D 5 '47, Mr 5, 19, Ap 2, 23, My 28 '48

House heating experience. C. E. Simpson. *Elec World* 130:102-4 O 9 '48

Increased facilities geared to analysis of load trend. M. R. Hansen. *Elec World* 130:84-6 Ag 28 '48

Load analysis is necessary to meet tomorrow's requirements. *il* Elec World 129:103-32 My 22 '48

Load spreading; inexpensive method of indicating approach of maximum demand. H. D. Irons and F. J. Hutton. *il* diag Elec R (Lond) 141:813-14 N 28 '47

Load transmission; basic case of a load fed by two generators connected by a transmission line. T. A. Ledward. *diags Electrician* 141:693-4 S 3 '48

100 per cent is 100 per cent; how long can utility add incremental loads without changing philosophy of distribution system planning and engineering? E. Fleischmann. *Elec West* 100:60 Ja '48

Power-system estimating; obtaining data rapidly from load curves. E. J. Wood. *Elec R (Lond)* 142:973-5 Je 18 '48

Probability theory helps determine system reserve generating capacity. G. Calabrese. *Power* 92:423-6 J1 '48

Prospects for future industrial power load. C. B. Stainback. *Edison Elec Inst Bul* 16:113-18+ Ap '48

Start now to build load; tomorrow may be too late. *il* Elec World 129:87-102 Mr 27 '48

Video sets favor cities' electric use. *Barron's* 28:34 Je 28 '48

What of the industrial load? H. J. Flagg. *Elec World* 130:82-3+ Ag 28 '48

Load dispatching

Load dispatching and the British grid system. A. R. Cooper. *diags Engineer* 185:327-9 Ap 2 '48; *Abstract and discussion. Elec R (Lond)* 142:501-2 Ap 2 '48

Train operators to dispatch reactive same as active power. E. R. Paige. *il* diags Elec World 128:94-6 D 6 '47

Maintenance and repair

Systematic inspection safeguards operation. R. H. Mertz and A. C. Baumann. *Elec World* 130:114+ O 23 '48

Protection

Neutral earthing of three-phase systems, with particular reference to large power stations. J. R. Mortlock and C. M. Dobson. *bibliog diags Inst E E J* 94 pt 2:549-68 D '47; *Discussion. 94 pt* 2:568-72; 95 pt 2: 566-82 D '47, O '48

Safety measures

Safety considerations in substation and power station design. W. T. Rogers. *Edison Elec Inst Bul* 16:93-5 Mr '48

Statistics

Annual statistical issue. *Elec World* 129:139-70 Ja 17 '48

Comparison of generating capacity and peak loads for private utilities; 1926-1946, 1947-51 (estimated) tabulation. *Pub Util* 41:300 F 26 '48

Steam distribution

New underground tie line boosts tail-end pressure; steam distribution system, Ohio Edison co., Akron. P. A. Hyde. *il* diags Heating-Piping 19:94-6 N '47

Arizona

Hydro, Diesel and steam, in unique combination, serve Salt River valley. *il* map diags Power 92:354-60 Je '48

England

Constructional features of the new Ipswich station, Cliff Quay. *il* plan Elec R (Lond) 142:457-61 Mr 26 '48

Electricity supply in Bradford. *Engineering* 164:451-2 N 7 '47

Extensions at Sheffield. *il* Elec R (Lond) 142:91-2 Ja 16 '48

Jubilee celebrations at Sheffield. *il* *Electrician* 140:102-3+ Ja 9 '48

Kingston power station. *il* plan Elec R (Lond) 142:381-6 Mr 12 '48

Leeds undertaking. *il* *Electrician* 140:787-90 Mr 12 '48

Meaford generating station. *il* *diags Engineer* 186:342-4, 369-72, 385-8 O 1-15 '48

New 60 MW set at Neepsend. *Electrician* 140:183 Ja 16 '48

North Wilford power station; extensions opened. *il* Elec R (Lond) 142:469-70 Mr 26 '48

ELECTRIC plants (central stations)—England*—Continued*

Power station construction; extension at Kearsley. *il plan diag Elec R (Lond) 143: 463-8 S 24 '48*

Power station construction; progress at Lincoln. *il plan Elec R (Lond) 142:39-44 Ja 9 '48*

Progress of electricity supply in Sheffield. *Engineering 165:91 Ja 23 '48*

Skelton Grange power station. *il Electrician 141:1214+ O 22 '48*

Europe

Mechanical plant for power stations on the continent of Europe. A. Meyer. *il Inst Mech Eng J & Proc 157 (War emergency issue no 29):220-6 '47*

Great Britain

Electrical engineering in 1947. *il Engineer 185:6-9, supp 1 Ja 2 '48*

Some aspects of generating station development. J. Wright. *il diags Inst Mech Eng J & Proc 157 (War emergency issue no 29): 207-20 '47*

See also

Electric plants (cen- Electric utilities—
tral stations)— Great Britain
England Electricity supply—
Great Britain

Italy

Geothermic power projects; utilising Italy's natural resources. *il Electrician 141:475-6 Ag 13 '48*

Japan

Japanese electric power system. E. J. Burger. *il map Elec Eng 66:1201-6 D '47*

Mexico (city)

43,950 Diesel hp. for Mexico city. *il plan diag Diesel Power 26:52-3 F '48*

New Mexico

Reclamation to seek congressional consent to New Mexico steam plant. *Elec World News ed 130:11 Ag 7 '48*

Switzerland

Beznau power station; open-cycle gas turbine plant. *il Elec R (Lond) 143:477-8 S 24 '48*

Western states

Building for new loads in the West. *il Elec West 100:68-91 F '48*

Calendar of new generation; tabulation. *Elec West 100:76 My '48*

ELECTRIC plants, Cooperative*See also*

Hydroelectric plants,
Cooperative

ELECTRIC plants, Municipal

Butler, Missouri municipal plant. A. V. Reiter. *il Diesel Power 26:34-6+ F '48*

Municipal power plant is civic asset; Harrisonville, Mo. A. V. Reiter. *il Diesel Power 26:42-4 Ag '48*

1948 listing of typical central-station and municipal power-plant installations; tabulation. B. G. A. Skrotzki, comp. *Power 92: 604-9 O '48*

One of South's largest municipal utilities plans 60,000-kw station; Jacksonville, Fla. H. McClammy. *il map Power 92:238-90 My '48*

ELECTRIC plugs. See Electric fittings**ELECTRIC potential. See Potential, Electric****ELECTRIC power**

Electric power and our national defense. W. L. Cislser. *il Elec Eng 67:319-24 Ap '48*; Same cond. *Power Generation 52:53+ My '48*; Excerpts. *Elec World 129:86-7 F 14 '48*; Abstract. *Mech Eng 70:898-900 N '48*

Electric power distribution systems; practices and trends in the United States. *diags Elec Eng 67:1088-103 N '48*

Electric power in industry; its past, present, and future. L. A. Umansky and others. *Gen Elec R 51:17-28 Ag '48*

Electric power in sewage-treatment plants. C. E. Miller. *Gen Elec R 51:25-7 Ag '48*

Electric power in the steel industry. H. W. Foote. *Gen Elec R 51:23-4 Ag '48*

Electric power situation in the United States. *il maps diags Power Generation 52:53-72 Ja '48*

Electric power sources. L. W. Matsch and W. C. Brown. *Elec Eng 66:880-1 S '47*; Same. *Power Pl Eng 51:111-12 D '47*

Electrical and allied developments during 1947; power, generation, distribution, transmission. G. Bartlett. *il Gen Elec R 51:10, 22-7 Ja '48*

Electrochemical sources of electric power. G. W. Vinal. *bibliog il diags Elec Eng 67:354-7, 456-65 Ap-May '48*

Future demand to make power industry hustle. *Bsns W p25 Ji 31 '48*

Future electric power needs of American industry. F. R. Benedict. *il Elec Eng 67:477-82 My '48*; Excerpts. *Welding J 27:450-2 Je '48*; *Product Eng 19:156-7 S '48*; Abstracts. *Elec World 129:91 Ap 10 '48*; *Steel 122:118+ Ap 12 '48*; *Mech Eng 70:449-50 My '48*

If you buy your electric power. D. M. Myers. *Factory Management 106:97 Ji '48*

Looking into the crystal ball; forecasting use of electric power for the next ten years; charts. *Elec World 130:120 Ji 3 '48*

Marshall plan electric power requirements; tabulation. *Elec World News ed 129:6 My 1 '48*

Means and ends; post-war scene; power resources. T. G. N. Haldane. *maps diags Engineer 186:392-4 O 15 '48*; Abstracts. *Elec R (Lond) 143:583-4 O 15 '48*; *Electrician 141: 1149-50 O 15 '48*

More power to America. J. O. Roser. *diags Edison Elec Inst Bul 16:271-4 Ag '48*

Potentialities of the electrical industry in shaping the destiny of America. P. Sporn. *Elec Eng 67:630-6 Ji '48*; Same. *Gen Elec R 51:9-16 Ji '48*

Power, fuel outlook fair. *il Steel 123:65-6 S 20 '48*

Power, production and progress; abstract. J. A. Walker. *Inst E E J 95 pt 1:121 Mr '48*

Power to operate these heat pumps. W. Herrmann. *Heating-Piping 20:137-9*; Discussion. 139-41 Ap '48

Power system design concepts and operating practices; with cost data. D. M. Jones. *Gen Elec R 51:9-14 S '48*

Progress in power generation, 1940-46. *bibliog il diags Elec Eng 67:59-75 Ja '48*

Prospects for future industrial power load. C. B. Stainback. *Edison Elec Inst Bul 16:113-18+ Ap '48*

Relationship of the power industry to national defense. J. W. Swaren. *Pub Util 42:135-46 Ji 29 '48*

Shortages may keep lid on industry power peak. L. Gorham. *Barron's 28:37 S 13 '48*

Three-phase complex power. D. W. C. Shen. *diags Elec R (Lond) 141:899-900 D 12 '47*

Weapon of tomorrow stalled by scarcity of power today; wind tunnels to test supersonic aircraft will require 1,500,000 kw. *Elec World News ed 129:4 F 21 '48*

World power line data; predominant voltages and frequencies in 165 foreign cities having over 200,000 population, for designers of electronic equipment intended for export; tabulation. *Electronics 21:132 Ap '48*

See also

Electric distribution	Electricity supply
Electric driving	Hydroelectric plants
Electric engineering	Power factor
Electric plants	Power plants
Electric plants (cen- tral stations)	Tidal power
Electric transmission	Vacuum tubes— Generating action
Electric welding— Power supply	Voltage regulation
also subdivision headings, e.g.	Power under special
Chemical plants	Petroleum engineer- ing
Coal mines and min- ing	Steel works

Economic aspects

Tools and power and progress. J. E. Bullard. *Pub Util 42:211-18 Ag 12 '48*

Interruptions

Causes of two breakdowns in electricity supply system in southern half of England. *Electrician 140:1637-8 My 28 '48*

Electricity failures; effect of sudden drop in temperature. *Elec R (Lond) 142:844 My 28 '48*

ELECTRIC power—Interruptions—Continued

Emergencies handled co-operatively; power and telephone systems in Connecticut; mutual assistance. *Elec World* 130:112+ J1 3; 78+ J1 17; 104 J1 3 '48
 Loss of generator field disrupts plant operations. *Elec World News* ed 129:6 Mr 20 '48
 Stand-by equipment pinch hits when services fail; gas, lighting and power. G. A. Van Brunt. *Il Factory Management* 105:124-5 N '47

Statistics

Output, 1947; with tabulated data, 1932-1947. *Elec World* 129:142-3 Ja 17 '48
 Production and sales to ultimate consumers, 1941-1946. Survey of Cur Bsns 1947 Sup p 121 [supplemented in monthly numbers]
 U.S. leads world in power output. Barron's 28:40 J1 26 '48

ELECTRIC power and light corporation

Earnings rise may force change in plan. Barron's 27:37-8 D 3 '47
 Offers new plan to SEC. *Comm & Fin Chr* 167:1463 Ap 5 '48
 Public utility securities. *Comm & Fin Chr* 167:1343 Mr 25 '48
 Wall Street comment on dissolution plan. O. Ely. *Pub Util* 42:678 N 4 '48

ELECTRIC precipitation

Air filter developed by American air filter co. *Il Blast F & Steel Pl* 36:1132 S '48
 Air filtration; electrostatic precipitation principle. *Il Elec R (Lond)* 142:858 My 28 '48
 Electric gas detarrers. *Il Electrician* 140:1511 My 14 '48
 Electrical separations. *diag Chem Eng* 55:120-1 My '48
 Electrostatic method for determining dust in wet gases. E. A. K. Patrick. *bibliog il diags Soc Chem Ind J* 56:249-53 Ag '47
 Eliminating oil fog and smoke by electronic collectors and precipitators; Bridgeport brass co. *Il Iron Age* 162:75 O 21 '48
 Improvement of the M.S.A. electrostatic precipitator. G. D. Clayton. *bibliog il J Ind Hygiene* 29:400-2 N '47
 Koppers company making new type precipitators. *Oil Paint & Drug Rep* 154:71 Ag 9 '48
 New electrostatic precipitators aiding industrial efficiency and smoke abatement. *Il Chem Age (Lond)* 59:181-2 Ag 7 '48
 Operating experiences with Cottrell precipitators on sulphate recovery furnace gases. L. M. Roberts and others. *Il plan diags Paper Tr J* 127:45-9 O 28 '48; *Excerpts. Paper Ind* 29:1168+ N '47
 Precipitating oil coolant mist electrostatically. *il diags Steel* 122:86-7+ F 23 '48
 Precipitators for industrial uses. F. H. Linthicum. *Paper Tr J* 127:45-6 Ag 19 '48; *Same cond. Blast F & Steel Pl* 36:1136 S '48

ELECTRIC propulsion of ships. See Ship propulsion, Electric**ELECTRIC protective apparatus**

Circuit protection. J. J. O'Connor. *il diags Power* 92:403-18 J1 '48
 Current and voltage transformers for protective-gear purposes; discussion meeting. *Inst E E J* 94 pt 2:528-30 O '47
 Electric power supply protection on aircraft. J. G. Hutton and P. C. Boglages. *il diags Gen Elec R* 51:27-32 Ap '48
 Interlocks, electrical and mechanical. R. B. Immel. *il diags Machine Design* 20:131-48 Ap '48
 Is backup protection always necessary? W. L. Ridenhour. *diag Elec World* 129:104-5 Mr 13 '48
 Protection of electrical power circuits and associated apparatus in paper mills. W. M. Emmons. *il diags Paper Tr J* 126:116-22 My 27 '48; *Same. Paper Ind* 30:446+ Je '48
 Ultra-high-speed relays in the fields of protection and measurement. W. Casson and F. H. Last. *diags Inst E E J* 94 pt 2:667-85; *Discussion. 685-91 D '47*

See also

Electric circuit breakers
 Electric distribution
 Grounding
 Electric fuses
 Electric lines—Protection
 Electric switchgear
 Electric transformers
 Protection
 Lightning arresters
 Lightning protection
 Petersen earth coil
 Relays

ELECTRIC railroads

Electricity in transportation. C. Kerr, jr. *il Ry Mech Eng* 122:375-80 J1 '48
See also
 Railroads—Electrification
 Street railroads
 Subways
 Rapid transit

Accidents

Collision at London Bridge station. *Engineering* 166:151 Ag 13 '48

Braking

Theory and practice of regenerative braking of d.c. locomotives, with particular reference to multiple-unit operation. O. H. Hahn. *diags Inst E E J* 95 pt 2:85-92 F '48

Fare collection

Ticket chopper comes back; turnstiles changed; New York subway fare increase. *il Comp Air Mag* 53:195 Ag '48

Power

Cable bridges for surface lines of London transport. *Il Engineer* 186:42-3 J1 9 '48; *Electrician* 141:100 J1 9 '48
 Circuit breaker modernization and faster fault clearing on single-phase electrified railroad; abstract. H. F. Brown and others. *il Elec Eng* 67:476 My '48

Rolling stock

Railway electrification; abstract. O. V. S. Bulleid. *Electrician* 141:862 S 17 '48

See also

Cars, Electric railroad

Track

Anti-freeze liquid distributors for conductor rails. *il Engineering* 164:479 N 14 '47

ELECTRIC railroads, Industrial

Electrification of an ore haulage system; abstract. R. J. Corfield. *il Elec Eng* 67:994 O '48

ELECTRIC rates

B.E.A. bulk supply tariff. *Electrician* 140:1039 Ap 2 '48; *Engineer* 185:327 Ap 2 '48
 C.G.&E. wins \$10-million in electric rate war. *Bsns W* p44 S 18 '48
 Current developments in electric rate making. P. W. McQuillen. *Pub Util* 42:620-8 O 21 '48
 Domestic electricity tariffs. *Elec R (Lond)* 143:567 O 8 '48
 Electric rate adjustments granted. *Pub Util* 42:235-6 Ag 12 '48
 Electric rate increases on the way? O. Ely. *Pub Util* 41:368-9 Mr 11 '48
 Electric rate patterns for residential service. M. Heslip. *Pub Util* 42:654-63 N 4 '48
 Electric rates for industrial customers seem too low. O. Ely. *Pub Util* 41:437-9 Mr 25 '48
 Electricity charges; necessity for increases. *Elec R (Lond)* 142:771-2, 805-6 My 14-21 '48
 Electricity prices continue decrease. M. Hammett. *Pub Util* 41:178-9 Ja 29 '48
 Electricity tariff increases; Electricity board statements. *Electrician* 140:1502-4, 1652 My 14, 28 '48
 Flood of rate probes coincidence, maintains FPC. *Elec World News* ed 130:4 S 18 '48
 Gas and electricity price changes in 1946. *Mo Labor R* 65:563 N '47
 Gas and electricity; price changes in 1947. *Mo Labor R* 67:39-40 J1 '48
 Gas rates move higher; electricity rates may follow. *Bsns W* p31-2 D 20 '47
 Home users asked to share rising utility costs; growing use of rate adjustment. E. R. Abrams. *Barron's* 28:30 J1 5 '48
 Illinois commission keeps control of Chicago rates under franchise. *Elec World* 129:81-2 Je 5 '48
 Importance of keeping the power industry financially sound. H. L. Hooker. *Edison Elec Inst Bul* 16:178-80+ Je '48; *Excerpts. Elec World* 129:93 Je 5 '48
 Inflation and distribution costs. C. F. Matthews. *Elec R (Lond)* 143:293-4 Ag 20 '48
 Life insurance company public opinion survey rates electricity best value for the money. *Edison Elec Inst Bul* 16:294 S '48
 Most power rates stay put. *Bsns W* p34+ J1 3 '48

ELECTRIC rates—Continued

Need for higher electric rates. N. W. Funk. Pub Util 41:799 Je 3 '48
 North of Scotland tariffs. Electrician 140:1919 Je 18 '48
 Power customers eye own plants as rates rise. E. R. Abrams. Barron's 28:30 Mr 22 '48
 PUC grants Cincinnati G & E rate increase, frees impounded funds. Elec World News ed 130:12 S 18 '48
 Rate boosts spread across the map. map Bsns W p44+ O 30 '48
 Rate increase trend develops. map Elec World News ed 130:5 O 30 '48
 Rates at Minnesota co-op plants called too high. Elec World News ed 130:13 S 4 '48
 Recent rise in rates for gas and electricity. M. Hammett. Pub Util 42:552-4 O 21 '48
 SEC may allow more utility bond financing; state commissions likewise will view requests for rate boosts sympathetically. E. R. Abrams and J. F. Falvey. Barron's 28:31 F 9 '48
 Should electricity be taxed? Economist 153:731-2 N 1 '47
 Sound rate design in tomorrow's economy. E. N. Strait. Edison Elec Inst Bul 16:221-4+ Je '48; Excerpts. Elec World 129:101 Je 5 '48
 Supply area tariffs. G. O. McLean. Elec R (Lond) 142:441-4 Mr 19 '48
 U.S. acts to force PG&E to serve federal agencies at exchange rate. Elec World 129:73 My 8 '48
 Views on tariff adjustments; abstract. Lord Citrine. Electrician 140:507-8 F 13 '48
 Washington plan passes; District of Columbia public utilities commission approves. McElfresh plan. Pub Util 41:363-4 Mr 11 '48
 What of the industrial load? H. J. Flagg. Elec World 130:82-3+ Ag 23 '48
 Wide variations in residential electric rates; EFC study. map chart Pub Util 40:848-9 D 18 '47
 Will power rates turn up? Bsns W p25 Ap 3 '48

ELECTRIC rectifiers
 A-c supply, d-c drive; use of rectifiers and Mototrols. Westinghouse Eng 3:14-15 Ja '48
 A-c to d-c conversion equipment in the du Pont co. H. E. Houck. il Elec Eng 66:1077-82 N '47
 Coming of age at Chippenhams; anniversary of metal rectifiers. il Electrician 141:325-6 S 24 '48
 Conversion equipment in the United States aluminum industry. J. Tompkins. Elec Eng 66:1070-3 N '47
 Copper oxide rectifier. bibliog il diags Elec Eng 67:1051-8 N '48
 D-c power for magnesium plants. F. S. Glaza. il Elec Eng 66:1063-8 N '47
 Electrolytic cleaning of rectifier tanks; abstract. C. K. Ittner. Elec Eng 67:186 F '48
 He wants a low-voltage transformer. J. L. Erlisman. diags Power Generation 52:83 F '48
 High-voltage rectifier circuits. E. V. DeBileux. bibliog il diags Gen Elec R 51:22-5 F 31; 31 Mr; 42-7 Ap; 46-7 My '48
 History and application covered, of copper oxide rectifiers; abstracts of papers. AIEE winter general meeting. Elec Eng 67:384-5 Ap '48
 Mechanical rectifier; contact converter developed by Siemens-Schuckert. diags Power Generation 52:58-61 Ap '48
 Mercury arc rectifiers at Sydney technical college. il Engineer 186:41-2 JI 9 '48
 Metal rectifiers; historical account of Westinghouse developments. il Elec R (Lond) 143:501-4 O 1 '48
 Nature of the forward current in germanium point contacts. W. H. Brattain and J. Bardeen. Phys R 74:231-2 JI 15 '48
 New method for improving the waveforms of rectifier equipments; the phase-doubled 12-phase connection. J. C. Read. il diags Inst E E J 95 pt 2:218-24; Discussion. 224-5 Ap '48
 Operating d-c motors from controlled rectifiers; abstract. A. Schmidt, jr. and W. P. Smith. Elec Eng 67:516 Je '48
 Paralleling rectifiers and converters; electrolytic zinc plant of the Anaconda copper mining co. R. J. Kennard. il diag Elec Eng 66:1074-6 N '47

Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard. il diags Elec Eng 66:1059-63 N '47
 Rectifier meter for the indication and measurement of phase angles. G. H. Rawcliffe and C. M. Brownsey. diags Inst E E J 95 pt 2:227-33 Ap '48
 Rectifiers for electroplating. L. W. Reinken. il diags Metal Finishing 45:73-7 F; 58-62 Ap; 72-4+ My; 88-90 Je; 75-8 S '47; 46:57-61 Mr; 67-72 Ap '48
 Rectifiers for electroplating; engineering data sheet. Metal Finishing 45:85 N '47
 Rectifiers supply power for adjustable speed motors. Am Mach 91:128 D 18 '47
 Resistance-welding characteristics of the dry disk rectifier welder. C. E. Smith and R. H. Blair. il diag Welding J 27:679-86 S '48
 Special magnetic alloys and applications. G. W. Elmen and E. A. Gaugler. diags Elec Eng 67:843-5 S '48; Same. Power Generation 62:64-7 S '48
 When you have to convert a.c. to d.c. power. E. W. Hutton and E. A. Harty. il Factory Management 106:122-5 JI; 113-15 Ag '48
 See also
 Ignitron
 Radio rectifiers

Manufacture

Automatic processing reduces 34 manual handlings to 11. W. Cross and I. R. Smith. flow chart il diag Factory Management 106:80-2 JI '48
 Production for export; transformers and rectifiers. il Elec R (Lond) 143:216-18 Ag 6 '48
 Twenty-five years of metal rectifier manufacture. Engineering 166:331-2 O 1 '48
 Twenty-one years of metal rectifiers. Engineer 186:319 S 24 '48

ELECTRIC relays. See Relays

ELECTRIC research
 British electrical and allied industries research association; annual report. Engineer 185:182 F 20 '48
 Electrical and allied developments during 1947; research and laboratory investigations. G. Bartlett. il Gen Elec R 51:12-15 Ja '48
 Electrical research; increasing cost and staffing difficulties affect E.R.A.'s activities. Elec R (Lond) 142:202-3 F 6 '48
 500-kv test program studies higher voltage transmission. il plan Elec World 128:92-5+ N 8 '47
 500-kv Tidd test project. il Elec Eng 66:1178-81 D '47
 500-kv transmission line symposium held by AIEE. Elec World News ed 128:12-14 N 15 '47
 Progress in research; developments by the B.T.H. laboratory in 1947. Electrician 140:422 F 6 '48
 Recent research and development work in Sweden on high-voltage a.c. and d.c. power transmission. W. Borgquist. maps diags Inst E E J 95 pt 1:157-66 Ap '48; Abstract. Engineering 165:43 Ja 9 '48
 Research in electrical engineering at an engineering school of London university. W. J. John. il diags Inst E E J 95 pt 1:167-71 Ap '48; Abstracts. Engineer 184:483 N 21 '47; Electrician 139:1289 O 31 '47
 Research in 1947; E.R.A. work on metals, dielectrics and horticulture. Electrician 140:495-6 F 13 '48
 Super high voltage transmission research begins at Tidd 500-kv test project. il Edison Elec Inst Bul 15:371-4 O '47; Same cond. Power El Eng 61:72-3+ N '47; Abstract. Elec World 128:84-6 O 11 '47
 Transmission tests at 500kv. il Engineer 184:525-6 D 5 '47; Engineering 165:7, 12 Ja 2 '48

History

Historic researches. diags Engineer 184:380-1, 404-5, 428-9, 452-3; 185:248-50, 272-4, 296-8, 320-2 O 24-N 14 '47, Mr 12-Ap 2 '48

ELECTRIC resistance
 Direct-reading silicon meter for electrical sheet steels and a note on resistivity. N. F. Astbury and S. P. Roper. diags J Sci Instr 25:191-3 Je '48
 Dynamic measurement of mains resistance. E. H. W. Banner. il diag Electrician 141:857-8 S 17 '48

ELECTRIC resistance—Continued

- Electric logging; factors affecting measured apparent formation resistivities. S. J. Pirson. Oil & Gas J 46:63+ N 22 '47
- Electrical resistance test for insulating oils. J. S. Forrest. diags Inst E E J 95 pt 2: 337-42; Discussion. 342-9 Je '48
- High-voltage characteristics of earth resistances. G. M. Petropoulos. bibliog il diags Inst E E J 95 pt 2:59-70 F '48
- Measurements of radio frequency resistance of a piece of columbium nitride through the transition. J. V. Lebacqz. Phys R 73: 1476 Je 15 '48
- Resistivity in the systems sodium-ammonia and lithium-ammonia. H. Jaffe. J Chem Phys 16:743 J1 '48
- Six variables in ground resistance studied for 18 years. C. B. Downer. il plan Elec World 129:37-9 Ja 3 '48
- Temperature coefficient of electrical resistivity for crystalline selenium containing various percentages of bromine. W. E. Blackburn. diag J Ap Phys 19:51-4 Ja '48
- Unbalanced resistance and speed-torque curves. B. W. Jones. diags Gen Elec R 51: 32-7 S '48
- Wire connections need more attention; high inter-strand resistance shown as source of possible trouble. F. E. Sanford. diags Elec World 129:79-82 My 8 '48
- Young's modulus and strain coefficient of resistivity of some bismuth rich alloys. G. C. Kuczynski and J. T. Norton. bibliog J Ap Phys 19:683-6 J1 '48

ELECTRIC resistors

- G.E. thermistors. il R Sci Instr 19:283 Ap '48
- Germanium varistors. il R Sci Instr 19:479 J1 '48
- High temperature resistors. diag Engineer 185:505 My 21 '48
- Loading resistor for testing Diesel power plants. E. F. Weiser. il diag Ry Mech Eng 122:504-6 S '48
- New alloy has improved electrical resistance properties; Evanohm. Materials & Methods 28:62-3 Ag '48
- Null temperature bridge with thermistor. E. L. Deeter. il diag Electronics 21:180+ My '48
- Operating characteristics of film resistors; producing thin resistance film and coatings for tv circuits; can be applied to printed circuit elements. J. Marsten and A. L. Pugh, jr. il Tele-Tech 7:46-8+ Mr '48
- Precision resistors and their measurement. J. L. Thomas. il diags U S Nat Bur Stand Circ 470:1-32; pa 20c Supt. of doc. '48
- Resistance and heater element alloys; tabulation. Electronics 21:M24-7 Mid-Je '48
- Resistor network for the approximate solution of the Laplace equation. D. C. dePackh. diags R Sci Instr 18:798-9 O '47
- Silicon carbide non-ohmic resistors. F. Ashworth and others. il diags Inst E E J 93 pt 1:385-401 bibliog(p393-4) S '46; Discussion. 93 pt 1:401-5, 595-8; 95 pt 1:244-6 S, D '46, Je '48
- Temperature control device employing thermistor and a saturable reactor. R. L. Burwell, jr. and others. bibliog diags R Sci Instr 19:608-9 S '48
- Thermistor bridges providing r-f power measurement up to two milliwatts. il R Sci Instr 18:860 N '47
- Thermistors, a new electronic component. F. E. Butler. il Radio N 39:49+ Ja '48
- Welded stamped grid resistors. W. J. Kitcher and A. L. Ward. il diag Welding J 27:827-30 O '48

Advertising

- IRC business paper advertising shoots for specific sales objectives; 32-page color insert in *Electronics* for International resistance co. T. Armstrong. il Sales Management 60:115-16+ Ja 15 '48

ELECTRIC roasters**Merchandizing**

- Roaster reasons to use in selling. Elec West 101:75 J1 '48
- ELECTRIC safety lamps.** See Safety lamps, Electric

ELECTRIC service, Rural

- Electric power supply to farm customers; review of the situation today. Edison Elec Inst Bul 16:33-4 F '48
- Farm service makes strides in Virginia. L. L. Koontz. Elec World 129:108 Ap 24 '48
- Farms; outlets for power. il Bsns W p31-2+ J1 3 '48
- Meeting increasing demand; achievements of the Plympton St Mary undertaking. il map Elec R (Lond) 142:128-32 Ja 23 '48
- Method for detection of sustained earth-faults in rural overhead lines protected by Petersen coils. B. D. Zelikin. diags Inst E E J 95 pt 2:617-19 O '48
- Pole framing for rural lines 7.2/12.5 Y kv. single phase; charts; engineering reference sheet. Elec World 129:120 Mr 27 '48
- Progress of farm electrification, 1944-1947; chart. Pub Util 41:701 My 20 '48
- Public utilities take a hand at rural development. R. L. Stone. Pub Util 42:647-53 N 4 '48
- Rural electrification from the power company viewpoint. G. C. Neff. Edison Elec Inst Bul 16:244-8 J1 '48
- Rural electrification; the use of the single-phase system of supply. J. S. Pickles and W. H. Wills. maps diags Inst E E J 93 pt 2:501-10 D '46; Discussion. 93 pt 2:510-16; 95 pt 2:452-68 D '46, Ag '48
- Rural lines; with tabulated data, 1943-1947; 1948 estimated. Elec World 129:165 Ja 17 '48
- Supply for farm welders no problem. A. H. Matthews and G. V. Patterson. Elec World 130:99-101 S 11 '48
- Survey of inductively co-ordination in rural areas; abstract. M. W. Rothpletz and H. S. Williams. Elec Eng 67:1042 N '48
- Utility sees ending of rural line program by 1950; Appalachian electric power co. L. L. Koontz. Elec World 130:106+ Ag 28 '48
- Westernmost rural network; abstracts. G. G. Mallinson. Electrician 139:1301 O 31 '47; Elec R (Lond) 141:691 N 7 '47; Inst E E J 95 pt 1:80 F '48
- See also
- | | |
|--------------------------------------|--------------------------|
| Electricity on the farm | Telephone service, Rural |
| Rural electrification administration | |

Cooperative lines

- Generating co-op heads call attack on power costs sheer propaganda. Elec World News ed 130:13 S 18 '48
- Power for Kansas farms; Central Kansas cooperative electrical association. Diesel Power 26:42-4+ J1 '48
- Rates at Minnesota co-op plants called too high. Elec World News ed 130:13 S 4 '48
- REA says generating cost study of three co-ops is distortion. Elec World 130:87 S 11 '48
- SPA planning sale of Bull Shoals energy to Sho-Me power co-op. Elec World News ed 130:6 O 2 '48
- Utility cooperation with the co-ops; case of Iowa electric light & power company and the REA cooperatives. S. Dows. Pub Util 41:604-7 My 6 '48
- See also National rural electric cooperative association

ELECTRIC shavers

- Ranger electronic inverter; device for improving electric shaver operation. il Consumers Res Bul 22:25-6 S '48
- Sell repair service by direct mail? Schick razor. Sales Management 60:84 Ap 15 '48
- Shaver clinics in retail stores pay off for Remington. S. E. Anderson and G. Thomas. il Sales Management 61:113-15 J1 15 '48

ELECTRIC ship propulsion. See Ship propulsion, Electric**ELECTRIC shock**

- Effects of electroconvulsive shock on innate and learned behavior in albino rats; abstract. C. P. Stone. Science 107:459-60 My 7 '48

ELECTRIC shops (repair)

- Allis-Chalmers establishes certified service shop plan to speed repairs. Elec World News ed 129:21 Je 12 '48

ELECTRIC shops (retail trade)

Be financially successful. K. L. Hampton. Elec West 99:110 S; 108 O; 94 N; 85-6 D '47; 100:88 Ja; 112 F; 98 Mr; 94 Ap; 104 My; 101:76 Jl; 102 Ag; 124 S; 104 O '48

How your service can sell; Garrett appliance co. il Elec West 101:98 O '48

In the Hollywood manner; Electra City. il Elec West 99:84 D '47

Spruce up for Christmas. Elec West 99:91-3 N '47

Utility store shows own lighting exhibit. il Elec World 129:136 Mr 13 '48

Watts in a name? shops of W. A. Watts of Seattle. il Elec West 100:89 Ja '48

Accounting

Be financially successful. K. Hampton. Elec West 99:110 S; 108 O; 94 N '47

ELECTRIC signal delay

Ultrasonic delay lines. H. B. Huntington and others. diags Franklin Inst J 245:1-23, 101-15 Ja-F '48

ELECTRIC signals

Automatic alarm board helps busy operators. J. C. Porter. diags Power 92:242 Ap '48

Elevator signal button consists of a cold cathode, gas triode. il diag Electronics 21: 150+ Jl '48

Peak load supervisory control. il Electrician 140:580 F 20 '48

See also

Electric alarms

Light signals

Railroads—Signals

ELECTRIC signs

Better signs with plastics. il Mod Plastics 25:102-7 N '47

Gallery; Douglas Leigh; king of the spectators. C. L. Walker. il Adv & Sell 41:84+ Jl '48

Glass processing in the manufacture of neon signs. M. G. Hawkins. il Glass Ind 28:574-6 N '47

Lighting practices for stores and other merchandising areas. diags Illum Eng 43:604-7 Je '48

Three dimensional sign uses plastic and water. il Mod Plastics 25:140 F '48

ELECTRIC smelting. See Smelting, Electric**ELECTRIC spark**

Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others. diags J Chem Phys 15:798-802 N '47

Ignition of explosive gas mixtures by electric sparks; theory of the propagation of flame from an instantaneous point source of ignition. B. Lewis and G. von Elbe, bibliog diag J Chem Phys 15:803-8 N '47

Machining by erosion; new Russian machine tools. B. R. Lazarenko and N. L. Lazarenko. diags Am Mach 91:120-1 D 18 '47

Microwave spark. D. Q. Posin. bibliog diags Phys R 73:496-509 Mr 1 '48

Spark breakdown at atmospheric pressure and above in relation to Paschen's law. C. G. Miller and L. B. Loeb. bibliog Phys R 73: 84-5 Ja 1 '48

Statistical factors in spark discharge mechanisms. L. B. Loeb. bibliog Rs Mod Phys 20: 151-60 Ja '48

Theoretical criterion for streamer advance in an electrical field. L. B. Loeb and R. A. Wilsman. bibliog J Ap Phys 19:797-9 Ag '48

Threshold for spark development by streamer mechanism in uniform fields. L. B. Loeb. bibliog Phys R 74:210-12 Jl 15 '48

ELECTRIC standards

AIEE organized to work for coordination of standards. Ind Stand 19:114-15 S '48

Feeder voltage regulator accuracy standards; abstract. W. E. Birchard. Elec Eng 67: 451 My '48

Sign of reactive power; AIEE committee report. bibliog Elec Eng 67:49-53 Ja '48

Standards of very small capacitance. Elec Eng 67:1063 N '48

See also subdivision Standards under special headings, e.g.

Electric motors, Induction—Standards
also International electrotechnical commission

ELECTRIC sterilizers. See Sterilizers, Electric**ELECTRIC storage battery company**

Battery case affects business abroad. Bsns W p25 D 20 '47

ELECTRIC stoves

British National Electrics model C.49 cooker. il Electrician 140:1264-5 Ap 23 '48

Electric ranges stimulate other uses. L. W. Frank. Elec World 129:84-5 Je 19 '48

Parnall (Yate) EC.5 cooker. il Electrician 140: 1263-4 Ap 23 '48

Production for export; electric cookers, meeting special requirements of overseas buyers. il Elec R (Lond) 142:605-6 Ap 16 '48

See also

Electric roasters

Installation

Attack on high wiring costs; appliance dealers worried about installation charges on electric stoves. Bsns W p47-51 Jl 31 '48

Manufacture

New enamel plant geared for top production; Pressed steel car co. turning to electric ranges. il plan Cer Ind 49:65-6+ N '47

Steel coils to ranges under one roof; Hotpoint's new plant in Chicago. il Bsns W p84-6+ O 9 '48

Titanium steel, sought in pure form for jets, is used on range tops. R. M. Beatty. Iron Age 161:148+ Ap 22 '48

World's largest range plant; Hotpoint's Chicago plant. il Cer Ind 51:45+ N '48

Merchandizing

Range show boosts dealer sales. il Elec World 128:92+ D 20 '47

Replace with electric. Elec West 100:121-2 Je '48

Why electric cooking needs industry promotion. J. F. Burt. il Elec World 129:94-5 Mr 27 '48

Rating

Electric ranges. il Consumers Res Bul 23:5-10 N '48

ELECTRIC substations

Electric traction of the Southern railway. C. M. Cook. plan diags Inst E E J 95 pt 2: 120-4 Ap '48; Same cond. Engineering 164: 597-8 D 19 '47

Costs

Quick way to estimate substation costs. L. M. Applegate. Elec World 129:88+ Ap 24 '48

Design

Bulk-power substation saves space with double-deck construction. A. M. De Bellis. il map diags Elec World 129:75-8 Ap 24 '48

Subs aloft clear main deck for action; San Francisco naval shipyard. il diag Elec West 100:78-80 My '48

Substation design remains flexible with Erection assembled sections. E. V. Sayles. il diags Elec World 128:106-8 N 8; 82-4 N 22 '47

Symmetrical layouts aid substation economy. il Elec World 129:84 F 28 '48

Unobtrusive residential subs; Southern California Edison co.'s evolutionary design. il Elec West 101:111 S '48

Equipment

Air-blast switchgear in South Wales. il diag Engineer 186:289-92 S 17 '48

Amplidyne gives quick response on synchronous condenser fields. J. H. Vivian and F. V. Gillum. il diags Elec World 128: 63-71 D 20 '47

Bedford electricity undertaking; new 33 kV main switching station inspected. il Electrician 140:863-4 Mr 19 '48

Bethnal Green bulk supply; new main substation. il Elec R (Lond) 141:773 N 21 '47

Gas cable fortifies substation. C. F. Titus and J. D. Thomas. il diags Elec World 129:34-6 Ja 3 '48

Inspection, testing and maintenance of electrical equipment for stations and substations. A. C. Baumann and R. H. Mertz. Edison Elec Inst Bul 16:47-50 F '48

New Canadian sub uses air breakers. il Elec West 100:61 Ja '48

ELECTRIC substations—Equipment—Continued
 Service restoration used at three loop stations. W. M. Evans, *diag Elec World* 130: 103+ O 9 '48
 66-kv, 10,000-kva, series capacitor for voltage regulation. *il Elec Eng* 67:236-41 Mr '48
 Spare 10,000-kva transformer switched hot. C. E. Plummer, *il diag Elec World* 128:112-13 N 8 '47
 Storage batteries in generating stations and substations. E. R. Sanderson, *diags Elec R (Lond)* 142:119-22 Ja 23 '48
 Systematic inspection safeguards operation. R. H. Mertz and A. C. Baumann, *Elec World* 130:114+ O 23 '48
 Underground vaults house storage batteries. J. Booth and W. A. Holland, *il Elec World* 129:128 Mr 13 '48

Lighting

Low cost lighting for unattended substations. *il Elec World* 130:88 J 17 '48

Protection

How to make earth resistance tests at substations. *diag Elec World* 129:102 My 8 '48

Remote control

See Electric substations—Supervisory control

Safety measures

Safety considerations in substation and power station design. W. T. Rogers, *Edison Elec Inst Bul* 16:93-5 Mr '48

Supervisory control

Control station apparatus. C. G. White, *il diags Elec Com* 25:43-9 Mr '48

Remote control. C. G. White, *il diags Elec Com* 25:35-42 Mr '48

Supervisory control permits decentralization of large systems. *il diag Elec World* 129: 53-5 Ja 31 '48

Supervisory decentralizes control; Southern California Edison's first installation. *il Elec West* 100:72-3 Mr '48

ELECTRIC substations, Automatic

Automatic control supplanting supervisory for 2,000,000-kva system. F. I. Lawson, *il diags Elec World* 128:56-9 D 20 '47

2,000,000-kva, system goes automatic, *il plan diags Elec West* 100:74-5 My '48

ELECTRIC substations, Outdoor

Fraser Valley electrification uses assembled unit substations. *il Elec West* 101:63 J 1 '48
 Unit substations reduce line losses at mill. *il Elec World* 129:138+ Ap 10 '48

ELECTRIC substations, Portable

Mobile unit substation. *il Mech Eng* 69:1035-6 D '47

Trailer-mounted transformers serve Ft. Randall Dam job. *il Constr Methods* 30: 77 Ag '48

ELECTRIC switches. See Electric switchgear

ELECTRIC switchgear

Air-blast switchgear in South Wales. *il diag Engineer* 136:289-92 S 17 '48

Automatic switch for protecting water-cooled X-ray tubes. K. E. Beu, *diag R Sci Instr* 18:926 D '47

Centrifugal switches for starting single-phase motors. *il Engineer* 185:217-18 F 27 '48

Coin switch with molded Durez phenolic base and cover. *il Mod Plastics* 26:264-5 S '48

Economies result when parts are designed for beryllium copper. R. W. Carson and W. Martin, *il diags Materials & Methods* 26: 79-84 D '47

Ferguson, Pallin, 132 kv outdoor switchgear. *Electrician* 140:196 Ja 16 '48

Higher interrupting capacity. S. B. Crary, *diags Elec World* 128:86-8 D 6 '47

Low-voltage switching arrives; relay control of lighting circuits. *il diag Elec West* 100:66-7 Ja '48

Metals for electrical switches and contacts; tabulation. *Electronics* 21:M28 Mid-Je '48

Microswitch cuts off drillpress as tripping lever hits button. *diags Am Mach* 92:124 My 6 '48

Modern switchgear. J. M. Goodall, *il diags Electrician* 141:389-92 Ag 6 '48

New roving-frame switch saves operator's time. C. M. Bowden, *il Textile World* 98: 124-5 F '48

New switch shows pressure discharge; for use in the Convair-liner fire extinguishing system. *il Aviation W* 48:24 My 24 '48
 Redesigning motor switch produced more economically in plastic. *il Mod Plastics* 25:118-19 D '47

Relay control circuits for stepping switches. C. J. Dorr and H. M. West, *il diags Electronics* 21:158+ Ja '48

Selection of control equipment for automatic switching of capacitors. W. C. Bloomquist, *il diags Elec World* 128:83-91 N 22 '47

Some observations on oil deterioration in transformers and switchgear. H. Hurworth, *il diag Inst E E J* 95 pt 2:328-36 Je '48;

Excerpts, *Engineer* 184:608-9 D 26 '47; Abstract, *Engineering* 165:78-9 Ja 23 '48; Discussion, *Inst E E J* 95 pt 2:342-8 Je '48

Switchgear alarms and indications; discussion meeting. *Inst E E J* 94 pt 2:547-8 O '47

Switchgear and circuit breaker practice in the United States. M. H. Hobbs, *il Elec Eng* 67:900 S '48

Switchgear, old and new; abstracts. J. B. Gwynne Lewis, *Inst E E J* 95 pt 1:87 F '48; *Electrician* 139:1223 O 24 '47

Three-way oil-disconnects switch underground transformers. F. A. Boilen, *il diag Elec World* 129:100+ Ap 24 '48

Two switchgear manufacturers announce merger as of Nov. 1. *Elec World News ed* 128:20 N 15 '47

See also

Electric circuit

breakers

Electric contacts

Manufacture

For intricate switch, bubble-free cast plastics. *il diag Plastics* 8:28+ J 1 '48

Plastics in electrical switchgear. W. H. Edmunds, *il diags Mod Plastics* 25:109+ Mr '48
 Production for export; small switchgear. *il Elec R (Lond)* 142:940-1 Je 11 '48

Standards

AISE standard dimensions for enclosed switches. *diags Iron & Steel Eng* 25:64 F '48

Standardization of switchgear. D. E. Lambert and J. Christie, *bibliog diags Inst E E J* 95 pt 1:296-311 J 1 '48; Same cond. *il Engineering* 165:282-3, 307 Mr 19-26 '48; Abstracts, *Elec R (Lond)* 142:141 Ja 23 '48;

Electrician, 140:271 Ja 23 '48; Discussion, *Inst E E J* 95 pt 1:311-22, 481-96 J 1 N '48; *Elec R (Lond)* 142:141-2 Ja 23 '48; *Electrician*, 140:271-3 Ja 23 '48

Switchgear standardization; abstracts and discussion. D. E. Lambert and J. Christie, *Elec R (Lond)* 142:141-2 Ja 23 '48; *Electrician* 140:271-3 Ja 23 '48

Testing

Production for export; all-climate switchgear; special laboratory gives extreme conditions for testing. *il Elec R (Lond)* 142:263-5 F 13 '48; *Electrician* 140:497-9 F 13 '48

Quality tests of mercury buttons made automatically. K. T. Sutton, *il diags Gen Elec R* 51:39-41 My '48

Time switches group tested on special panel. C. Morsher, *il Elec World* 130:128+ S 11 '48

ELECTRIC symbols

Critical analysis of voltage convention, and double-subscript notations. M. B. Reed and W. A. Lewis, *bibliog diags Elec Eng* 67: 41-8 Ja '48; Discussion, 67:420-1, 619-21, 832-3, 1028-30 Ap, Je, Ag, O '48

ELECTRIC testing

How to make earth resistance tests at substations. *diag Elec World* 129:102 My 8 '48

Short-circuit testing; high power equipment in the Nelson laboratories. *il Electrician* 139:1632-4 D 5 '47

See also

Dynamometers Electric measure-

Electric instruments ments

also subdivision Testing under special

headings, e.g. Electric transformers; In-

sulation (electric)

ELECTRIC testing of metals

Eddy current and electrical methods of crack

detection. A. M. Armour, *il diags J Sci*

Instr 25:209-10 Je '48

ELECTRIC tools

- Home workshops. *il* Fortune 37:108-15+ Ja '48
Improvements in automatic rolling-in of small tubes. E. T. Cope. *il* diags Power Generation 52:64-5+ Je '48
Machine tools gain versatility with auxiliary power unit; Versa-Mil. *il* Steel 123:108 JI 26 '48
Voltage regulated for high-frequency tools. R. L. Gomon. *il* Elec World 129:98+ My 8 '48

Manufacture

- Behind the scenes in a power tool factory. *il* Am Bid 70:104-5 Ag '48

Safety measures

- Flexible shaft tools; hazards and precautions; data sheet. Nat Safety N 57:42+ Ja '48

ELECTRIC tools, Portable

- Builder fabricates millwork with aid of power tools. *il* Am Bid 70:90-1 Je '48
Continued expansion seen in use of power-driven portable tools. Steel 122:102+ My 24 '48
Cutting costs with high-cycle electric portable tools. F. J. Hejduk. *il* Mach 54:140-3 N '47
Drill feed controlled by heat wires; model 100 Microdrill. *il* diags Product Eng 19:101 Ag '48
Power tools and equipment help build more houses for more people; with list of manufacturers. *il* Am Bid 70:68-75 My '48

Safety measures

- Hand and power tools; safety aspects. Nat Safety N 57:134 Mr '48
When you use portable electric tools. B. B. Ramey. *il* Nat Safety N 57:20-1+ Ap '48

ELECTRIC traction

- Electric traction equipment; new motors and controllers for railways and trolleys. *il* Electrician 139:1373 N 7 '47
Electric traction for heavy short haul; Kenecott copper corporation using electric locomotives for hauling ore trains. R. J. Corfield. *il* map Ry Age 125:462-7 S 4 '48
Electric traction progress. J. H. Cansdale. *il* Electrician 140:791-2 Mr 12 '48
Electrical and allied developments during 1947; land transportation. G. Bartlett. *il* diag Gen Elec R 51:50-1 Ja '48
Electricity in land transportation. C. Kerr, jr. Elec Eng 67:734 Ag '48
Electrogyro, something new under the sun; operated from energy stored in a rotating flywheel. *il* Power Generation 52:114 Mr '48; Abstract. Elec Eng 67:439 My '48
Flywheel energy source for electric vehicle; experimental electrogyro developed by Ate-lers de construction Oerlikon, Zurich. *il* diag Product Eng 19:103 Mr '48
High-acceleration controller for electric traction. *il* diags Engineering 165:368-9 Ap 16 '48
Improved electric traction equipment. *il* diag Engineer 184:558-9 D 12 '47
New electric traction circuit. *il* Electrician 141:166 JI 16 '48

See also

- | | |
|----------------------|------------------|
| Electric locomotives | Street railroads |
| Electric railroads | Subways |
| Electric trucks | Trolley buses |

ELECTRIC tractors, Industrial

- Electric pony express orange tow unit, small light-weight tug. *il* Sci Am 178:33-4 F '48

ELECTRIC transformers

- A.B.C. of current transformers. T. A. Ledward. Electrician 139:1777-8, 1855-7 D 19-26 '47
About transformers: design and construction. G. O. Castell. *il* diags Electrician 139:462-6, 533-7, 998-1001, 1140-4, 1291-5, 1496-500, 1703-6; 140:105-9, 566-70, 1019-21, 1639-43, 141:27-30, 541-4, 1077-81 Ag 15-22, O 3, 17, 31, N 21, D 12 '47, Ja 9, F 20, Ap 2, My 28, JI 2, Ag 20, O 8 '48
Current and voltage transformers for protective-gear purposes; discussion meeting. Inst E E J 94 pt 2:528-30 O '47
Current transformers; influence of leakage flux under various conditions. H. E. Forrest. diags Elec R (Lond) 143:51-4 JI 9 '48

- Dry-type transformers for underground use. W. W. Satterlee. *il* diag Westinghouse Eng 8:146-9 S '48

- Dry type transformers supply auxiliaries at Southwark. G. R. Monroe and W. E. Knouse. *il* diag Power Generation 52:94+ Ag '48

- Electrostatic transformer and its possible application to the direct utilization of nuclear energy; abstract. J. Mireles Malpica. diags Elec Eng 67:1074 N '48

- High-reactance transformers supply limited load current for many uses. J. A. Uttal. *il* diags Elec World 129:50-2 Ja 31 '48

- High-voltage rectifier circuits. E. V. De-Biaux. *il* diag Gen Elec R 51:22-5 F '48

- History and functions of domestic temperature control; electrical components used in temperature controls. C. W. Nessell. diag Sheet Metal Worker 39:76+ O '48

- How to apply transformers on banked-secondary systems. W. A. Sumner and others. diag Elec World 130:81-5 O 23; 94 N 6 '48

- Indoor transformers; comparison of askarel-filled and dry type. E. M. Hunter and T. E. Rodhouse. *il* diags Gen Elec R 50:31-7 N '47

- Largest 230-kv. transformers. *il* Elec West 100:70-1 Ap '48

- Liquid dielectrics for transformers. J. G. Ford. *il* Elec Eng 67:1066-71 N '48

- Moving-coil regulated transformer. E. T. Norris. *il* diag Electrician 141:393-4 Ag 6 '48

- No bottlenecks to power-transformer ratings; improved protection; small transformers. *il* Westinghouse Eng 8:5-7 F '48

- Report on industrial voltage requirements; AIEE committee report. diags Elec Eng 67:358-74 Ap '48

- Some observations on oil deterioration in transformers and switchgear. H. Hurworth. *il* diag Inst E E J 95 pt 2:328-36 Je '48; Excerpts. Engineer 184:608-9 D 26 '47; Abstract. Engineering 165:78-9 Ja 23 '48; Discussion. Inst E E J 95 pt 2:342-8 Je '48

- Spare 10,000-kva transformer switched hot. C. E. Plummer. *il* diag Elec World 128:112-13 N 8 '47

- Totalization of watt-hours; metering total consumption on two or more circuits; meter and transformer connections. H. S. Edgerly. *il* diags Gen Elec R 50:28-30 N '47

- Transformer operation at over-voltage. C. O. von Dannenberg. Power Generation 52:72-3 F '48; Discussion. 52:77-8 JI '48

- Transformer survey seeks better loading. R. C. Stevenson, jr. *il* Elec World 130:69-71 JI 17 '48

See also

- Radio transformers

Connections

- About transformers. G. O. Castell. diags Electrician 140:105-9 Ja 9 '48

- Earth-leakage directional relays. S. A. Daines. diags Elec R (Lond) 141:733-4 N 14 '47

- How do transformers in a power system affect the impedance of the system to zero-sequence components of current? diags Electrician 140:129-3 Ja 9 '48

- New method for improving the waveforms of rectifier equipments; the phase-doubled 12-phase connection. J. C. Read. *il* diags Inst E E J 95 pt 2:218-24; Discussion. 224-5 Ap '48

- Proper connection of open wye-open delta transformers. L. M. Hook. diags Elec World 128:104+ N 22 '47

- Three-way oil-disconnects switch underground transformers. F. A. Bolien. *il* diag Elec World 129:100+ Ap 24 '48

- Transformer connections for oil well pumping distribution systems. J. N. Poore. *il* diags World Oil 128:155-6 Je '48

- Why do transformer interconnections work this way? R. D. Carrington. diags Power Generation 52:78-9; Reply. C. O. von Dannenberg. 79-80 JI '48

Cooling

- About transformers. G. O. Castell. *il* Electrician 139:1496-500 N 21 '47

- Clearing water-cooling coils internally. Elec World 129:47-8 Ja 3 '48

ELECTRIC transformers—Cooling—Continued

Modern transformers are money savers. J. W. Butler. *il Elec World* 130:59-61 J1 17 '48

Design

High-voltage power-transformer progress. F. Snyder. *il diags Westinghouse Eng* 8:46-51 Mr '48; Same cond. *Elec World* 129:74-7 F 28 '48

Low-voltage, air-cooled transformers designed for 225C operation; silicone insulated development. J. F. Dexter and others. *bibliog il Elec World* 130:97-9+ Ag 14 '48

Modern transformers are money savers. J. W. Butler. *il Elec World* 130:59-61 J1 17 '48

Recent developments in dry type transformers for submersible service. W. W. Satterlee. *il plan diags Edison Elec Inst Bul* 16:37-46 F '48

Small single-phase transformers. F. A. Benson. *Electrician* 140:257-8 Ja 23 '48

Stepped core sections for power transformers; using grain oriented silicon irons, hipersil and crystalloy. A. L. Morris. *diags Engineer* 184:581-3 D 19 '47

Drying

Making best use of a transformer dryer. *Elec World* 129:114+ My 8 '48

Fires and fire protection

Providing fire protection for transformers; emulsion-forming spray system. J. J. Burri. *diag Elec World* 129:89-90 Je 19 '48

Inspection

Power transformer inspection routine; engineering reference sheet. F. I. Manvel. *Elec World* 130:118 S 25 '48

Installation

Concentrated hazard and a remedy; pole-mounted distribution transformer installations. C. A. Coutts. *il Nat Safety N* 57:30-1+ Je '48

New method of mounting three transformers. *il Elec West* 99:69 N '47

95-ton transformers righted without crane. *il Elec World* 129:95 My 8 '48

Precast concrete manholes speed installation time. F. J. Johnson. *il diag Elec World* 129:148+ My 22 '48

Precast vaults cut underground costs. C. F. Myers. *il Elec World* 130:96 O 23 '48

Urban areas served at generator voltage in New Orleans. F. E. Johnson, jr. *il plan diags Elec World* 128:85-7 N 22 '47

Manufacture

Allis-Chalmers raises transformer making capacity 40 per cent at Pittsburgh. *il Elec World News* ed 130:21 S 4 '48

Chemical engineer; his role in electrical manufacturing. N. R. Maleady. *il J Chem Educ* 25:365-6 J1 '48

Influence of various factors of manufacture on the magnetic properties of transformer sheet; abstract. G. Delbart and others. *Metal Prog* 54:242+ Ag '48

Production for export; transformers and rectifiers. *il Elec R (Lond)* 143:216-18 Ag 6 '48

Parallel operation

About transformers; parallel operation. G. O. Castell. *diags Electrician* 140:1639-43 My 28 '48

Protection

New bushing arrangement for distribution transformer. *il Elec World* 129:106 Je 5 '48

Rubber garters seal transformer leads. *il Westinghouse Eng* 8:173 N '48

Thermal protection of power transformers. C. L. Denault. *bibliog il diag Westinghouse Eng* 8:103-5 J1 '48

Rating

Fewer transformer ratings desirable. L. M. Applegate. *Elec West* 100:70-1 My '48

Selection of transformer-bank ratings for oil-field power distribution; engineering reference sheet. *Elec World* 130:86 J1 17 '48

Repair

Crimp lugs speed transformer repair. K. B. Hoffman. *diags Power* 92:541 S '48

Standards

American standards for transformers, regulators, and reactors. new & enl ed \$4 American standards assn, 70 E. 46th st, New York 17 '48

Data on transformers will help purchasers. V. M. Montsinger. *il Ind Stand* 19:109-11 S '48

International transformer standards and applications. A. Boyajian and others. *bibliog Elec Eng* 67:663-7 J1 '48; Excerpts. *Ind Stand* 19:111-12 S '48

Tables, calculations, etc.

How to calculate power factor of transformer type welders; engineering reference sheet. R. F. Wyer. *Elec World* 129:96 Ap 24 '48

Transformer temperatures; formulas, charts and graphical procedure. P. Narbutovskih. *Elec World* 129:40-2 Ja 3 '48

Transformer voltage regulation in oil-field service; engineering reference sheet. *Elec World* 130:112 J1 31 '48

Tap changing

About transformers; principles of ratio changing on load. G. O. Castell. *il diags Electrician* 140:1019-21 Ap 2 '48

Temperature

Compensated indicating temperature controller. *il diag Engineer* 186:393 O 15 '48; *Electrician* 141:1083 O 8 '48

Graphic method for determination of power transformer loading; engineering reference sheet. L. M. Applegate. *Elec World* 130:110-11 O 23 '48

Transformer temperatures; formulas, charts and graphical procedure. P. Narbutovskih. *Elec World* 129:40-2 Ja 3 '48

Testing

About transformers; routine tests. G. O. Castell. *diags Electrician* 141:27-30 J1 2 '48

About transformers; type tests. G. O. Castell. *il diags Electrician* 141:541-4 Ag 20 '48

Auto air valve checks transformer tightness. W. W. La Barr. *diag Elec World* 129:175 Ja 17 '48

Insulation test on O.C.B. current transformers. *Elec World* 129:46-7 Ja 3 '48

Lightning strength of power transformers. E. T. Norris. *bibliog diags Inst E E J* 95 pt 2:389-401 Ag '48; Same cond. *Engineer* 185:168-70 F 13 '48; Discussion. *il Inst E E J* 95 pt 2:401-6 Ag '48

Spectrometer detects transformer leaks. *il Elec World* 129:190+ Ja 17 '48

Test and inspect bushing transformers. *Elec World* 129:126+ Mr 27 '48

Windings

Calculation of errors in three-winding voltage transformers. T. Waterhouse. *diags Inst E E J* 95 pt 2:71-8 F '48

Damaged transformer carries unbelievable load. N. J. Galuppo. *il Elec World* 129:98 My 8 '48

Life of windings on power transformers. A. F. Ayres. *Elec World* 130:110+ J1 3 '48

Lightning strength of power transformers. E. T. Norris. *bibliog diags Inst E E J* 95 pt 2:389-401 Ag '48; Same cond. *Engineer* 185:168-70 F 13 '48; Abstract. *Electrician* 140:349 Ja 30 '48; Discussion. *il Inst E E J* 95 pt 2:401-6 Ag '48; *Electrician* 140:349-50 Ja 30 '48

Role that silver played in wartime power transformers. L. H. Burnham. *il Gen Elec R* 50:34-6 D '47

Three-winding transformers for feeder regulators. T. L. Rundlett. *il diags Elec World* 129:124 Ap 10 '48

ELECTRIC transient phenomena

Method of virtual displacements for electrical systems with applications to pulse transformers. P. D. Crout. *bibliog diags Inst Radio Eng Proc* 35:1236-47 N '47

Recording of electrical and optical transients; abstract. H. A. Prime and R. F. Saxe. *Engineering* 165:380 Ap 16 '48

ELECTRIC transient phenomena—Continued
Simple relations for calculating certain transient responses. W. J. Cunningham. bibliog diags J Ap Phys 19:251-6 Mr '48
Transients in Townsend discharges. R. R. Newton. bibliog Phys R 73:570-83 Mr 15 '48

ELECTRIC transmission

Development of the transmission system from the Grand Coulee power plant. B. V. Hoard and E. E. Helwitt. Elec Eng 67:973 O '48
D.c. transmission; estimated comparative costs. H. Gesbers. diags Elec R (Lond) 142:537-8 Ap 9 '48

Economic studies of long-distance alternating-current power transmission; abstract. S. B. Crary. Engineering 166:55 Jl 16 '48
Economics of high-voltage transmission by underground cables. R. N. Berry. bibliog Inst E E J 94 pt 2:573-84; Discussion. 585-90 D '47

Economics of long-distance energy transmission; abstract. R. E. Pierce and E. E. George. Elec Eng 67:955 O '48

Economics of subtransmission. D. K. Blake and others. diags Elec World 130:93-5 S 11; 92-6 S 25; 95-7-9 O 9 '48

Electronic stabilizer for power transmission. E. F. W. Alexanderson and D. C. Prince. diags Elec Eng 66:1053-7 N '47

Experimental high-voltage power-transmission lines; Tidd 500-kV project. I. W. Gross and C. F. Wagner. diags Engineering 166:381-3 O 15 '48

500-kV test program studies higher voltage transmission. il plan Elec World 128:92-5+ N 8 '47

500-kV Tidd test project. il Elec Eng 66:1178-81 D '47

500-kV transmission line symposium held by AIEE. Elec World News ed 128:12-14 N 15 '47

H.v.d.c. transmission and large power systems. F. Busemann. Engineer 186:70-1 Jl 16 '48

High voltage transmission, with particular reference to direct current. bibliog Electrician 141:1003-4 O 1 '48

Higher interrupting capacity. S. B. Crary. diags Elec World 128:86-8 D 6 '47

Is long-distance electric power transmission economical? R. C. Buell. Pub Util 42:153-8 Jl 29 '48

Power system design concepts and operating practices; with cost data. D. M. Jones. Gen Elec R 51:9-14 S '48

Recent research and development work in Sweden on high-voltage a.c. and d.c. power transmission. W. Borgquist. maps diags Inst E E J 95 pt 1:157-66 Ap '48; Abstract. Engineering 165:43 Ja 9 '48

Rigorous and approximate treatment of long line transmission problems by hyperbolic functions. S. Gerszonowicz. diags Franklin Inst J 245:53-66 Ja '48

Super high voltage transmission research begins at Tidd 500-kV test project. il Edison Elec Inst Bul 15:371-4 O '47; Same cond. Power Pl Eng 51:72-3+ N '47

Sweden builds a 380-kV line; studies 440-kV d.c. E. Hansson. diags Elec World 129:114-16 Ap 10 '48

Technical and economic aspects of the transmission of electrical energy over long distances. W. Wanger. bibliog (27 titles) il diags Inst E E J 95 pt 1:340-51 Ag '48; Abstract. Elec R (Lond) 143:397-8 S 10 '48
Transmission tests at 500kv. il Engineer 184:525-6 D 5 '47; Engineering 165:7, 12 Ja 2 '48

See also

Electric cables	Electric plants—Interconnection
Electric conductors	Electric switchgear
Electric distribution	Voltage regulation
Electric driving	
Electric lines	

also International conference on large high tension electric systems

ELECTRIC trucks, industrial

Baker small fork truck. il Ry Age 123:1031 D 13 '47

Battery-driven dump truck. il Engineer 185:167 F 13 '48

Electric hand trucks increase freight carloads. il Iron Age 160:79 D 25 '47

Elwell-Parker introduces industrial truck-scoop. il Midwest Eng 1:29 O '48

Freight station mechanization helps offset trend of rising costs; Pennsylvania's Polk Street station in Chicago. il Ry Age 124:898-900 My 8 '48

Glenshaw glass co. increases output, saves warehousing time. il Cer Ind 49:67-8 D '47

Handling of light metal parts. il Steel 123:77 Ag 30 '48

How storage battery powered trucks cut materials handling time; Tlestone & Hollingsworth co. il Paper Tr J 127:60-1 O 7 '48

Hydraulic steering for articulated fork truck. il diags Product Eng 18:92-4 D '47

Industrial truck storage battery maintenance. R. E. Miller. Iron & Steel Eng 25:64-5 S '48

Jackstacker. il Ry Age 124:1035 My 22 '48
LOF glass entrusted to battery trucks. il Cer Ind 51:81 N '48

Lowering costs by handling building materials with power equipment; Reserve supply co., St Paul, Minn. il Am Bid 70:88-9 My '48

Materials handling in multi-story cold storage warehouses. P. B. Christensen and D. O. Haynes. il diags Refrig Eng 54:539-43+ D '47

Power trucks cut costs, save space; Strietmann biscuit co. il Mill & Factory 42:118-19 My '48

Truck for each job achieves smoother materials flow; tinplate department of the Jones & Laughlin steel corp. il Steel 121:120+ N 10 '47

Truck handling of paper. il Paper Ind 30:118+ Ap '48

Variety of plant trucks used to relay work through processing lines; Chase brass & copper co. il Steel 123:107+ Jl 19 '48

Advertising

Post-war headache cleared by industry ad venture; Industrial truck statistical assn. campaign becomes fixture. C. J. Swan. il Ptr Ink 222:66+ Mr 19 '48

Statistics

Industrial electric trucks and tractors, 1941-1946. Survey of Cur Bsns 1947 Sup p 181 [supplemented in monthly numbers]

ELECTRIC units

Absolute electrical units and existing measuring instruments. Engineering 164:618 D 26 '47; Engineer 184:574 D 19 '47

Absolute units replace international electrical units. G. F. Gardner. il diags Gen Elec R 50:45-7 D '47

Standard cells and the change from international to absolute electrical units. G. W. Vinal. il diag Electrochem Soc J 93:95-101 Ap '48

ELECTRIC utilities

Electric power engineer. P. Sporn. Pub Util 42:267-77 Ag 26 '48; Same. Edison Elec Inst Bul 16:295-8 S '48

New uses increase appetite for power. il Bsns W p24-5 Ap 17 '48

Some aspects of foreign aid; implications for the American utilities industry. T. N. Sandifer. Pub Util 41:222-8 F 12 '48

Ten major objectives for the electric utility industry. C. E. Oakes. Pub Util 41:874-7 Je 17 '48

See also

Electric industries	Electric service,
Electric lines	Rural
Electric plants (central stations)	Electricity supply
also Pacific gas and electric company	

Accidents

Falls rank second in industry's fatal accidents. D. C. Stewart. Edison Elec Inst Bul 16:15+ Ja '48

Review and classification of 105 fatal accidents reported during 1946 within the electric light and power industry; tabulation. D. C. Stewart. Edison Elec Inst Bul 16:16-17 Ja '48

See also

Electricity, injuries from

Accounting

A.G.A.-E.E.I. accountants joint conference, St. Louis, April 12-14. Edison Elec Inst Bul 16:133-6+ My '48

ELECTRIC utilities—Accounting—Continued

Collection practices from the standpoint of cost. J. C. Faris. Edison Elec Inst Bul 16: 145-8+ Mr '48

Maintenance and repair and depreciation of assets. F. J. Tierney. Inst E E J 95 pt 1: 113-19 Mr '48

New billing system cuts time and errors for Commonwealth Edison company, Chicago; bills are machine-punched cards. Il Am Bsns 18:12-13+ Je '48

New York court condemns straight-line depreciation; decision against Public service commission. O. Ely. Pub Util 41:173-4 Ja 29 '48

Numbered diagrams simplify accounting procedure, diags Elec World 129:108+ F 14 '48

Use of judgment in estimating life characteristics of depreciable property. G. T. Logan and C. T. Dwight. Edison Elec Inst Bul 16:153-8 My '48

Advertising

Bigger job for the advertising manager. H. S. Metcalfe. Elec World 129:90-1 My 8 '48
Con Edison to you; where advertising runs the gamut of sales promotion and public relations. H. Obermeyer. Il Adv & Sell 41: 39-40+ Je '48

R.I. utility sells one out of three prospects replying to planned store lighting mailing pieces. Edison Elec Inst Bul 15:401 N '47

Should public utilities advertise? H. S. Metcalfe. Pub Util 41:144-50 Ja 29 '48

Some objectives for public utility advertising. R. W. Pratt. Edison Elec Inst Bul 16: 89-92 Mr '48; Pub Util 41:487-92 Ap 8 '48

Teleguizicals promotes television. R. Latimer. Elec World 129:120+ F 14 '48

What the utility president expects from the advertising manager. E. L. Lindseth. Edison Elec Inst Bul 16:261-2+ Ag '48

Why we push the Go all-electric program; Public service co. of Indiana. R. A. Gallagher. Il Elec World 129:88-9 Mr 27 '48

Buildings

Air conditioned building has double glass and glass block; Detroit Edison co.'s air conditioned service building. P. G. Heidman. Il Heating-Piping 20:63-71 Ap '48

Everything designed for service in new utility service building; New Orleans public service, inc. I. H. Purington. Il plans Elec World 129:109-11 Ap 10 '48

Kansas City Power & Light uses planned lighting in its new store and office building. Il Edison Elec Inst Bul 15:448+ D '47

Utility buys what it sells in planned lighting. Il Elec World 129:118 My 8 '48

Costs

Maintenance, 1947; with tabulated data. 1939-1946. Elec World 129:151 Ja 17 '48

Public utility construction cost index, 1921-1947. Eng N 140:809 My 27 '48

Trends in construction costs. J. P. Anderson. Edison Elec Inst Bul 15:411-16 N '47

Customer relations

Commercial development of electricity supply as a consumer-service. C. T. Melling. bibliog Inst E E J 94 pt 1:560-70; Discussion. 570-5 D '47; Electrician 138:1017-19 Ap 18 '47; Elec R (Lond) 140:631-2 Ap 18 '47

Counter proposal; suggestion for modernizing utility office. A. L. Hagerman. Elec West 100:56 Ja '48

Customer information manuals. B. M. Scherer and C. J. Berner. Edison Elec Inst Bul 15:149-52 My '48

Customer ownership of public utility securities. E. R. Abrams. Pub Util 42:147-52 Jl 29 '48

If I were a customer of yours. D. M. DeBard. Edison Elec Inst Bul 15:443-4 D '47

Investigating fires on customers' premises. Elec World 128:73+ D 20 '47

Operational research; its application to electricity supply. P. Schiller. Elec R (Lond) 142:347-8 Mr 5 '48

Three sound approaches to good customer relations. J. C. Faris. Edison Elec Inst Bul 16:275-6+ Ag '48

We like people. Edison Elec Inst Bul 15:402 N '47

Dealer relations

Commercial sales; unlimited. P. M. Alden. Edison Elec Inst Bul 16:122-4 Ap '48

Selling transition from direct merchandising to backing up dealer sales; British Columbia electric railway co. Il Elec West 100: 96-9 Je '48

We make a bigger market for our appliance dealers. R. E. Gale. Il Elec World 129:100-2 Mr 27 '48

Development work

Middle South development program opened by four ALMNO companies. R. N. Larkin. Elec World 129:89 Ap 10 '48

New Middle South three-state area promotion. B. L. Gough. Pub Util 41:663-70 My 20 '48

Power company's contest sparks better farming; Arkansas power and light co. D. Markstein. Sales Management 61:131 S 15 '48

Public utilities take a hand at rural development. R. L. Stone. Pub Util 42:647-53 N 4 '48

Emergency problems

Electric utilities aid army build trained reserves for emergencies. Elec World News ed 130:5 Ag 21 '48

Emergencies handled co-operatively; power and telephone systems in Connecticut; mutual assistance. Elec World 130:112+ Jl 3; 78+ Jl 17; 104 Jl 31 '48

Mobilization for utility emergencies. Elec World 128:110+ N 22 '47

Utility radio networks prove value to community in Portland flood area. W. A. Leidigh, jr. Il Edison Elec Inst Bul 16:266 Ag '48

Employees

Consolidated Edison's fire school learns by doing. Il Edison Elec Inst Bul 16:307 S '48

Cues for employe help in public relations; Washington State Power. Sales Management 61:128 N 1 '48

Day in the life of a meter man. Pub Util 40: 854-6 D 13 '47

Duquesne Light workers transfer allegiance to IBEW in NLRB vote. Elec World News ed 129:11 My 29 '48

Education for Chicago Commonwealth Edison employees; company issues booklet. Opportunities for self-improvement. Pub Util 41: 331 Mr 11 '48

Electric and gas utilities; wage structures in 1948. K. B. Mohn. Mo Labor R 67:377-80 O '48

Employee-benefit program of Consolidated Edison. A. Weiss and others. Mo Labor R 66:493-8 My '48; Abstract. Nat Safety N 58:43 S '48

Employee performance rating for accounting department and other office employees. E. R. Eberle and J. E. King. Edison Elec Inst Bul 16:277-86 Ag '48

Grade labeling of employees can backfire. K. Jack. Elec West 100:55-6 Ja '48

Helping the employee to know and like his job; information program of Public service company of Oklahoma. R. K. Lane. Pub Util 41:327-33 Je 17 '48

Joint consultation problems; British electricity authority and trades unions discuss setting up of negotiating and consultative machinery. Electrician 140:333-5 Ja 30 '48

Michigan utility anti-strike law ruled out; New Jersey act upheld. Elec World News ed 130:5 S 18 '48

NRECA establishes retirement and security program for co-ops. Elec World News ed 129:13 Ap 17 '48

Power courses await utility support. A. E. Knowlton. Il Elec World 129:77-9 Je 19 '48

Rewinning the campus; prerequisites to successful recruiting. A. E. Knowlton. Elec World 128:96-7+ N 8 '47

Security for light and power company employees. M. Hammett. Pub Util 40:768-71 D 4 '47

Supervisors study union relations; Detroit Edison co. L. J. Kaufman. Elec World 129: 56-7 Ja 31 '48

Training a technical staff; North of Scotland hydro-electric board's scheme. S. P. Smith. Elec R (Lond) 142:349-51 Mr 5 '48

ELECTRIC utilities—Employees—Continued

Twenty E.E.I. resuscitation medal awards earned by alert power company employees. M. B. Woods. Edison Elec Inst Bul 16:51-9 F '48

Utility employment and wages, 1947; with tabulated data, 1933-1947. Elec World 129: 166-7 Ja 17 '48

Utility supervisor under the Taft-Hartley law. A. M. Cooper. Pub Util 41:479-86 Ap 8 '48

VEPCO and IBEW fail in contract negotiations. Elec World News ed 129:12 F 21 '48

Wages of non-office utility workers up 30 per cent since '45. Elec World News ed 130:6 O 16 '48

Wanted, 32 high school seniors; Central Hudson gas and electric corp. of Poughkeepsie will conduct indoctrination courses for selected group; one will be awarded scholarship to Rensselaer polytechnic institute. H. E. Dexter. Elec World 129:106 Mr 27 '48

Washington water power co. seeks better service through service; program aimed both at employees and customers. K. Jack. il Elec World 129:84-5 F 14 '48

See also

Linemen

Equipment and supplies

Bomb trailers excellent for material transport for large line jobs. C. L. Richey. il Elec World 129:107 Mr 27 '48

Care and handling of a filter press truck. diags Elec World 129:85 Ap 24 '48

Maintenance and repair and depreciation of assets. P. J. Tierney. Inst E E J 95 pt 1: 118-19 Mr '48

New boom truck saves time on construction. il Elec World 129:120 Ap 10 '48

Finance

Building for new loads in the West. il Elec West 100:68-91 F '48

Capital for kilowatts. R. B. McEntire. Pub Util 41:738-45 Je 3 '48; Excerpts. Comm & Fin Chr 167:2437 Je 3 '48

Capital ratios of electric utilities. O. Ely. Pub Util 40:781-2 D 4 '47

Convertible debentures as a medium for financing. J. F. Childs. Pub Util 41:333-43 Mr 13 '48

Current utility statistics and ratios. O. Ely. Pub Util 42:558-9 O 21 '48

Debt ratio rises in utilities capital. Barron's 28:34 O 25 '48

Electric industry in 1948. C. E. Oakes. Edison Elec Inst Bul 16:174-6 Je '48; Same. Comm & Fin Chr 167:2548-9 Je 10 '48

Electric utility earnings face triple squeeze; industry has fighting chance to increase net over 1947 figure. J. F. Falvey. Barron's 28:5 Mr 8 '48

Electric utility financing. H. H. Scaff. Comm & Fin Chr 167:2639-4 Je 17 '48

Electric utility forecast. G. L. Nye. Comm & Fin Chr 167:9-4 Ja 1 '48

Financing the \$6 billion electric utility construction program. Comm & Fin Chr 168: 1770 O 28 '48

First quarter earnings favorable, considering drought handicap. O. Ely. Pub Util 41:791-2 Je 3 '48

Importance of keeping the power industry financially sound. H. L. Hooker. Edison Elec Inst Bul 16:178-80+ Je '48; Excerpts. Elec World 129:93 Je 5 '48

Income and expenses, budget, 1947; with tabulated data, 1933-1947. Elec World 129: 159-63 Ja 17 '48

Increasing importance of utility investor relations. T. P. Walker. Pub Util 41:531-9 Ap 22 '48

Inflation and the utilities. N. E. Funk. Edison Elec Inst Bul 16:73-6 Mr '48

Investment trends affecting utilities. L. D. Edie. Comm & Fin Chr 167:2524-4 Je 10 '48; Same. Edison Elec Inst Bul 16:191-4 Je '48

January electric earnings hurt by drought. O. Ely. Pub Util 41:627-8 My 6 '48

Look at utilities earnings; with graphs showing data, 1926-1947. A. H. Temple. Comm & Fin Chr 167:2523-4 Je 10 '48; Same. Edison Elec Inst Bul 16:181-5+ Je '48; Abstract. Elec World 129:103 Je 5 '48

Looming financial problems of electric utilities. C. Tatham, jr. Pub Util 41:285-92 F 26 '48

1940-1946; financial statistics, public utilities, electric and gas operating companies. 454p \$15 C. A. Turner, 208 South La Salle st, Chicago 4 '47

1947 record of the electric utility industry. O. Ely. Pub Util 41:364-6 Je 17 '48

Revenue, 1947; with tabulated data, 1934-1947. Elec World 129:156-7 Ja 17 '48

Revolutions and road blocks. C. H. Lang. Elec World 129:97 Je 5 '48

SEC may allow more utility bond financing. E. R. Abrams and J. F. Falvey. Barron's 28:31 F 9 '48

Tailored financing for utilities. Elec World 128:97 D 6 '47

Ten-year utility expansion forecast raises equity money problem; SEC man says it's easy. Barron's 28:33 Je 7 '48

Trend of sales and earnings of electric utilities, 1926-1947; graphs. Pub Util 42:373 S 9 '48

Trends in sales and revenue proportions. Elec World 129:106-9 My 22 '48

Unit sales up, unit revenue down. Elec World 129:104-5 My 22 '48

Utilities face their greatest test. D. Cowan. Comm & Fin Chr 167:605-4 F 5 '48

Utilities seek \$5 billion in four years. J. H. Falvey. Barron's 27:5-6 D 15 '47

Utility assets increase \$1,174,171,543 in 1947. Elec World News ed 130:19 O 30 '48

Utility earnings increased in 1947. Comm & Fin Chr 167:1575 Ap 8 '48

Utility financing boosts debt ratio. E. R. Abrams. Barron's 28:32 Ji 12 '48

Where's the money coming from? E. L. Lindseth. Credit & Fin Management 50:21-2 Ag '48

See also

Electric utilities—
Securities

Franchises

Chicago franchise effective; Commonwealth spurs financing. Elec World 129:69 Je 19 '48

43-year Chicago franchise voted Commonwealth Edison by Council. Elec World News ed 129:13 My 29 '48

Illinois commission keeps control of Chicago rates under franchise. Elec World 129:81-2 Je 5 '48

Government ownership

Britain's hard experience in socialism. W. H. Hayes. Pub Util 41:746-55 Je 3 '48

British electricity authority. Electrician 140: 504-5 F 13 '48

British electricity; review of progress made in preparing for transfer of undertakings to public ownership. Engineer 185:206-7 F 27 '48

India's electric power system threatened with nationalization. Pub Util 41:180-2 Ja 29 '48

National electricity supply; outline of the new organization. Elec R (Lond) 142:232-3 F 13 '48

Public power and taxes. R. A. Wehe. Pub Util 41:201-13 F 12 '48

TVA plan would break tie that binds federal power systems to rivers; requests fund to build steam-electric plant. il Elec World News ed 129:16-17 Mr 20 '48

Twentieth century fund study, Electric power and government policy; review. O. Ely. Pub Util 41:440-1 Mr 25 '48

Views on tariff adjustments; abstract. Lord Citrine. Electrician 140:507-8 F 13 '48

Management

Community builders; case history of an electric company; Monongahela power company. A. C. Spurr. Edison Elec Inst Bul 16:3-6+ Ja '48

Effective organization for industrial power sales. F. McQuillin. Edison Elec Inst Bul 16:267-9+ Ag '48

Lead development planning based on diversity. Elec World 129:121-2 My 22 '48

Lead research findings help to foresee future conditions. C. Bary. Elec World 129:127-32 My 22 '48

Lead research methods. il Elec World 129: 123-6 My 22 '48

ELECTRIC utilities—Management—Continued
 Need for selling service to the public. S. B. Williams. Pub Util 41:69-75 Ja 15 '48
 Sales are important. R. P. Wagner. Edison Elec Inst Bul 16:107-8 Ap '48
 Selling planned lighting, why and how; the Toledo story. F. R. Innes and others. II maps Elec World 130:87-102 JI 31 '48
 Selling selectively now for maximum future benefit. G. E. Whitwell. Edison Elec Inst Bul 16:217-20 Je '48
See also
 Electric utilities—Employees

Municipal ownership

Private enterprise feeding on itself; reprinted from the Bradenton, Fla. herald, Sept. 19, 1948. Elec World 130:77-8 O 9 '48
 San Francisco satisfied, Raker Act effect small. Elec World News ed 128:5 D 27 '47
Tax equivalents versus taxes of municipal and private utilities in Minnesota. A. M. Borak. bibliog J Land & Pub Util Econ 23:381-98 N '47; Abstract. Pub Util 41:507-10 Ap 8 '48

Public relations

Central Hudson books and film aimed at better employee-public understanding. Edison Elec Inst Bul 16:28 Ja '48
 Electricity and the public. W. K. Fleming. Elec R (Lond) 142:509-11 Ap 2 '48
 New year's message to employees and customers; radio speech addressed to employees and friends of the Alabama power company. T. W. Martin. Edison Elec Inst Bul 16:19-20 Ja '48
 Some objectives for public utility advertising. R. W. Pratt. Edison Elec Inst Bul 16:89-92 Mr '48; Pub Util 41:487-92 Ap 8 '48
 Three acres to harvest. H. S. Metcalfe. Edison Elec Inst Bul 16:119-21 Ap '48
 Utilities and the community. A. C. Spurr. Edison Elec Inst Bul 16:198-202 Je '48; Excerpts. Elec World 129:99 Je 5 '48; Abstract. Pub Util 42:182 JI 29 '48
 Washington water power co. seeks better service through service; program aimed both at employees and customers. K. Jack. II Elec World 129:84-5 F 14 '48

Radio communication

First single sideband carrier; Pacific power and light co. II Elec West 100:71 Mr '48
 Pennsylvania power & light co. uses emergency radio to restore storm-wrecked electric service. II Edison Elec Inst Bul 16:2 Ja '48
 Radio speeds sagging of long span over Carquinez strait. II Elec World 130:105 S 11 '48
 Role of radio in emergencies. J. H. Collins. Pub Util 41:851-7 Je 17 '48
 Sagging-in by radio saves time. II Elec West 100:57 Ja; 72 Ap '48
 Single-sideband carrier telephone gives high voice quality. F. S. Beale. II diag Elec World 129:103-4 Mr 27 '48
 Two-way fm radio speeds utility operations. II Elec World 129:186 Ja 17 '48
 Utilities having radio licenses or construction permits; list. Edison Elec Inst Bul 15:454-6 D '47
 Utility radio networks prove value to community in Portland flood area. W. A. Leidigh, Jr. II Edison Elec Inst Bul 16:266 Ag '48

Rates

See Electric rates

Records

Relay curve templates made from plastics. II Elec World 129:62+ Ja 3 '48

Regulation

Amendments to the Federal power act. C. L. Campbell. Pub Util 40:679-85 N 20 '47
 Federal power commission regulation of the natural gas and electric industries. B. Ross. Pub Util 42:603-14 O 21 '48
 Free enterprise and the utilities. E. O. Shreve. Pub Util 41:731-7 Je 3 '48
 Fundamental legislation for electricity supply to consumers. W. Fennell. Inst E E J 93 pt 1:300-9 JI '46; Discussion. 93 pt 1:309-16, 539-42; 95 pt 1:127-30 JI, N '46, Mr '48

PUC grants Cincinnati G & E rate increase, frees impounded funds. Elec World News ed 130:12 S 18 '48

Reports

Statistical data in 1947 utility reports. O. Ely. Pub Util 41:695-7 My 20 '48
 Utility company showmanship; Union Electric dramatizes annual report. W. G. Heren. Pub Util 42:359-63 S 9 '48

Safety measures

Cap Dinsmore's year; stunt program of Wisconsin power and light company. II Nat Safety N 58:18-19+ Ag '48
 Leadership in accident prevention. A. T. O'Neill. Edison Elec Inst Bul 16:207-9+ Je '48; Excerpts. Elec World 129:94 Je 5 '48
 Safety down in Cuba. B. Moas. II map Safety Eng 96:21-3 O '48
 Servicemen works safely; illustrations with text. Nat Safety N 56:26-7 N '47
 Twenty years after; two decades of accomplishment in accident prevention; Georgia power company. W. E. Mitchell. Nat Safety N 57:18-19+ Ja '48

Salesmen

Long range growth, a challenge to utility sales forces. W. L. Cisler. Edison Elec Inst Bul 16:111-12 Ap '48
 Relation of the power salesman to the utility problem. W. C. Beckford. Edison Elec Inst Bul 16:109-10 Ap '48
 Salesmen must be recruited and trained. Elec World 129:90-1 Mr 27 '48
 Scientific methods assure better selection of sales personnel. P. W. Siekman. II Elec World 129:43-5 Ja 3 '48
 What does \$6 billion mean to the utility salesman? C. E. Oakes. Edison Elec Inst Bul 16:105-6 Ap '48

Securities

Capital ratios of electric utilities. O. Ely. Pub Util 40:781-2 D 4 '47
 Case for electric utility securities. D. W. McKnight. Comm & Fin Chr 168:1865 N 4 '48
 Continued difficulties with preferred stock financing. O. Ely. Pub Util 42:371-2 S 9 '48
 Convertible debentures as a medium for financing. J. F. Childs. Pub Util 41:333-43 Mr 11 '48
 Customer ownership of public utility securities. E. R. Abrams. Pub Util 42:147-52 JI 29 '48
 Dividends; the key to value. W. F. Stanley. Pub Util 42:545-51 O 21 '48
 Don't sell utility equities short. Elec World 129:110 Mr 13 '48
 Electric utility stocks are better than ever! H. H. Scaff. Pub Util 42:286-93 Ag 26 '48
 Negotiated security sale can still work well; experience of Dayton power & light company. B. C. Taylor. Pub Util 41:762-7 Je 3 '48
 Outlook for electric and gas utilities. A. F. Tegen. Comm & Fin Chr 167:1866+ Ap 29 '48
 Outlook for utility securities. R. T. Shadoan. Comm & Fin Chr 166:2621+ D 25 '47
 Present and prospective electric utility securities markets. E. Hopkinson, Jr. Comm & Fin Chr 167:2521+ Je 10 '48; Same. Edison Elec Inst Bul 16:186-90+ Je '48; Abstract. Elec World 129:96 Je 5 '48
 Sinking funds added to new utility preferences to protect buyers against too thin markets. E. R. Abrams. Barron's 28:33 Ja 12 '48
 Taxes and the stockholder. L. P. Stack. Elec World 129:95 Je 5 '48
 Utilities face their greatest test. D. Cowan. Comm & Fin Chr 167:605+ F 5 '48
 Utilities, for income and profit. M. Hicks. Comm & Fin Chr 168:500+ Ag 5 '48
 Utilities lag in bull market. Comm & Fin Chr 167:2103 My 13 '48
 Utility industry outlook. P. P. Stathas. Comm & Fin Chr 168:1643+ O 21 '48
 Who are our stockholders? H. S. Sutton. Comm & Fin Chr 167:2524+ Je 10 '48; Same. Edison Elec Inst Bul 16:210-13 Je '48; Abstracts. Elec World 129:102 Je 5 '48; Trusts & Estates 87:9-10 JI '48

ELECTRIC utilities—Continued**Service**

Even free services have to be sold; what to do when there's no merchandising is solved by Washington water power co. *il Elec* West 100:90-1 Ja '48

Service companies

See also
Ebasco services, inc.

Statistics

Annual statistical issue. *Elec World* 129:139-70 Ja 17 '48
Customers vs population. *Elec World* 129:110-13 My 22 '48

Stores systems

Highlights on standardization in the Detroit Edison company. A. J. Beck, diag *Edison Elec Inst Bul* 15:403-6 N '47
Utilities' materials handling problems. R. A. Clark. *il map Power Generation* 52:54-7+S; 78-82 O '48

Taxation

Northampton company's rating; successful appeal against assessment. *Elec R (Lond)* 141:631 O 24 '47
Public power and taxes. R. A. Wehe. *Pub Util* 41:201-13 F 12 '48
Tax equivalents versus taxes of municipal and private utilities in Minnesota. A. M. Borak. *bibliog J Land & Pub Util Econ* 23:381-98 N '47; *Abstract. Pub Util* 41:507-10 Ap 8 '48

War problems

British grid system in war time. J. Hacking and J. D. Peattie. *il maps Inst E E J* 94 pt 2:463-76 O '47; Same cond. *Engineering* 163:225-7, 249-51 Mr 21-28 '47; *Discussion. Inst E E J* 94 pt 2:476-80 O '47
Mobilizing the Nation's power for national defense. P. L. Smith. *Pub Util* 41:756-61 Je 3 '48
Relationship of the power industry to national defense. J. W. Swaren. *Pub Util* 42:135-46 Ji 29 '48

Great Britain

Britain's hard experience in socialism. W. H. Hayes. *Pub Util* 41:746-55 Je 3 '48
British electricity authority. *Electrician* 140:504-5 F 13 '48
British electricity; review of progress made in preparing for transfer of undertakings to public ownership. *Engineer* 185:206-7 F 27 '48
Chairmen of area boards; complete list. *Electrician* 139:1779-80 D 19 '47
Clyde Valley electrical power company; Midland counties electric supply company, limited; annual meetings. *Economist* 154:564-5 Ap 3 '48
Electricity stock valuations. *Economist* 154:317 F 21 '48
Fundamental legislation for electricity supply to consumers. W. Fennell. *Inst E E J* 93 pt 1:300-9 Ji '46; *Discussion. 93 pt 1:309-16. 539-42; 95 pt 1:127-30 Ji, N '46. Mr '48*
Gas and electricity in Britain; a study in duopoly. F. R. Jervis. *Land Econ* 24:31-9 F '48
Joint consultation problems; British electricity authority and trades unions discuss setting up of negotiating and consultative machinery. *Electrician* 140:333-5 Ja 30 '48
National electricity supply; outline of the new organization. *Elec R (Lond)* 142:232-3 F 13 '48
Nationalisation in Great Britain. *Int Labour R* 57:491-4 My '48
Northampton company's rating; successful appeal against assessment. *Elec R (Lond)* 141:631 O 24 '47
Northmet power co.; County of London electric supply co., limited; British power and light corp., limited; general meetings. *Economist* 154:482, 484-5 Mr 20 '48
Scottish power company, limited, ordinary general meeting. *Economist* 154:524 Mr 27 '48
Views on tariff adjustments; abstract. Lord Citrine. *Electrician* 140:507-8 F 13 '48

India

India's electric power system threatened with nationalization. *Pub Util* 41:180-2 Ja 29 '48

Minnesota

Tax equivalents versus taxes of municipal and private utilities in Minnesota. A. M. Borak. *bibliog J Land & Pub Util Econ* 23:381-98 N '47; *Abstract. Pub Util* 41:507-10 Ap 8 '48

South Carolina

South Carolina authority loses plea to SEC to halt sale of private utility. *Elec World* 129:64 Ap 24 '48

Southern states

New Middle South three-state area promotion. B. L. Gough. *Pub Util* 41:663-70 My 20 '48
South's wide expansion of power facilities to add 1,000,000 kilowatts to 1948 production. S. A. Lauver. *il Manuf Rec* 117:36-7+ Ap '48

Turkey

Expansion in Turkey's electric-power industry. *For Comm W* 32:25-6 Ji 17 '48

United States

Electric industry in 1948. C. E. Oakes. *Comm & Fin Chr* 167:2521+ Je 10 '48; Same. *Edison Elec Inst Bul* 16:173-7+ Je '48; *Excerpt. Elec World* 129:89-90 Je 5 '48
Electric light and power industry in 1947. C. E. Oakes. *Edison Elec Inst Bul* 15:429-30 D '47
Future, a challenge. J. B. Thomas. *Edison Elec Inst Bul* 16:214-16+ Je '48; *Excerpts. Elec World* 129:98 Je 5 '48
National aspects of the electric power business. H. P. Liversidge. *Pub Util* 41:274-81 F 26 '48
Postwar position of the electric utilities; study by Guaranty trust company of New York. *Pub Util* 41:445-6 Mr 25 '48
Random observations of an itinerant business man. A. B. Collins. *Edison Elec Inst Bul* 15:407-10 N '47
Revolutions and roadblocks. C. H. Lang. *Edison Elec Inst Bul* 16:229-32+ Ji '48
\$6 billion or \$10 billion for construction. O. Ely. *Pub Util* 42:43-4 Ji 1 '48
Utilities' stake in soil conservation. H. H. Bennett. *Edison Elec Inst Bul* 16:203-6 Je '48
Washington utility outlook for 1948. F. X. Welch. *Pub Util* 41:14-22 Ja 1 '48
What is ahead for the electric light and power industry; abstract. J. W. McDonald, jr. *Pub Util* 42:109-11 Ji 15 '48

Venezuela

Expansion of Venezuela's electric industry progresses. *For Comm W* 31:34 Je 12 '48

Western states

Electrical West annual review number. *il Elec West* 100:65-110 F '48

Wisconsin

Wisconsin utilities will add 417,000 kw of plant capacity. *il Elec World News* ed 128:20 D 13 '47

ELECTRIC utilities and the plumbing trade
Ready and waiting, the water heating load. M. M. Feaman. *Elec World* 129:96-7 Mr 27 '48

ELECTRIC vehicles

Battery electric vehicles; current patents. *diags Automobile Eng* 38:63-8 F '48
Commercial motor show. *il Elec R (Lond)* 143:547-8 O 8 '48

Electric town cars. *il Elec R (Lond)* 143:288 Ag 20 '48

Electric vehicle association; speeches at annual luncheon. *Elec R (Lond)* 142:939 Je 11 '48

Progress of the electric vehicle. *Electrician* 141:1217 O 22 '48

See also

Electric trucks, Industrial

ELECTRIC water coolers

It takes a key to open a door! manufacturers of electric water heaters and coolers plan aid to plumbing-contractor-dealers. Dom Eng 171:104-5+ Je '48

Advertising

Tested advertising tripled our sales in five years; Sunroc refrigeration co. R. A. Angus. il Ptr Ink 225:29-31 N 5 '48

ELECTRIC water heaters

Electrotypes speeded with water heater. F. C. Hesck, jr. il Elec World 128:136-4 N 8 '47
Engineering principles applied to the design of domestic water-heating installations of the solid-fuel/electric type. R. Grierson and E. Jackson. il diags Inst E E J 93 pt 2: 463-89 O '46; Discussion. 93 pt 2:489-95; 95 pt 2:185-204 bibliog(p 204) O '46, Ap '48

Manufacture

Production for export; special water heaters. il Elec R (Lond) 142:827 My 21 '48

Merchandizing

In hot water again. Elec West 100:111 F '48
It takes a key to open a door! manufacturers of electric water heaters and coolers plan aid to plumbing-contractor-dealers. Dom Eng 171:104-5+ Je '48

Ready and waiting, the water heating load. M. M. Feaman. Elec World 129:96-7 Mr 27 '48

ELECTRIC waves

Effect of wave shape in inert-arc welding circuits. R. W. Tuthill. il diags Welding J 27:785-8 O '48

New method in the analysis of complex electric waves. W. E. Rogers. diag R Sci Instr 19:332-5 My '48

Voltmeter for the measurement and comparison of peak and r.m.s. values of recurrent voltage waves. D. E. M. Garfitt. bibliog diags Inst E E J 95 pt 2:407-10 Ag '48

See also**Radio waves****ELECTRIC welding**

Aluminum strips butt welded for cyclotron magnet coil. I. A. Oehler. il Iron Age 160: '80-3 D 4 '47

Applying resistance welding in tank production; White motor co. il Mach 54:156-8 N '47

Controlled techniques developed to flash weld copper coils; magnet structure of Columbia university's cyclotron. il Steel 122:66-7 Ja 12 '48

Copper-aluminum joints and combination materials made by upset welding. R. T. Gillette. il diag Materials & Methods 28: 70-3 JI '48

Defects in aluminum alloy spot-welds; micrographs. C. R. Dixon. Am Mach 92:98-101 Je 17 '48

Electric flash welding of steel strip; Aliquippa works of Jones & Laughlin steel corp. il Steel 122:84+ My 17 '48

Flash welding of structural aluminum alloys. R. M. Curran and R. C. Becker. il diags Welding J 26:sup664-72 N '47

Heat treatment of spot welds in steel plate. W. E. Hess and others. bibliog il diags Welding J 26:sup641-52 N '47

Manufacture and application of composite plates. O. R. Carpenter. il diags Welding J 27:279-87 Ap '48; Same cond. Steel 121: 64-6+ D 22 '47

Miniature resistance welding and its application in the radio tube industry. G. Freedman. il Welding J 27:838-44 O '48

Modern projection welding. R. A. Reich. il diags Welding J 27:610-12 Ag '48; Same abr. Machine Design 20:104 Ag '48

Multiple welding procedures; Briggs mfg. co. E. O. Courtemanche. il Steel 122:93-5 Je 14 '48; Abstract. S. A. E J 56:34-5 Je '48

New pressure-welding processes. P. Reed. il diags Oil & Gas J 46:64 D 20 '47

Precision welding jigs simplify stove assembly. W. Rudolph. il Am Mach 92:82-4 JI 1 '48

Resistance welding crossed wires. R. C. Jones. il diag Welding J 27:703-14 S '48

Resistance welding equipment used in steel mill strip processing; abstract. J. J. Riley. diags Elec World 129:110 Je 5 '48

Resistance welding in the steel industry. O. H. Griffith. il Iron & Steel Eng 25:58-61 JI '48

Resistance welding manual. R. T. Gillette. bibliog Materials & Methods 26:97-108 N '47
Seam welder cleaning attachment improves weld quality and finish. C. Kidwell. diag Am Mach 91:115 D 4 '47

Shrinkage stresses in spot-welded joints. V. Hauk. bibliog diags Welding J 27:sup453-6 S '48

Spot-welded aluminum components designed for repeated loads. R. C. McMaster and H. J. Grover. il diags Product Eng 18:158-61 D '47

Spot-welded aluminum lap joints designed for repeated loads. R. C. McMaster and H. J. Grover. il Product Eng 18:112-16 N '47

Spot welding guns standardized in seven basic designs. diag Steel 123:126 S 13 '48

Spot welding of mild steel in production. N. E. Wheeler. il Welding J 27:613-14 Ag '48

Three-part refrigerator liners joined in one operation; Seeger refrigerator co. il Steel 122:78 Mr 29 '48

Welded locomotive trucks. F. H. Brehob and W. H. Cochran. il Ry Mech Eng 122:359-60 JI '48

Welded stamped grid resistors. W. J. Kutcher and A. L. Ward. il diag Welding J 27:827-30 O '48

Welded studs cut costs and speed work on corrugated metal roofing job. R. C. Friedly. il Eng N 141:88-9 Ag 5 '48

Welding banjo type axles at Ford. W. Kroy. il Iron Age 162:96-101 S 23 '48

Welding body sections at Ford. D. Criteser. il Iron Age 162:88-94 S 9 '48

Welding dissimilar metals. D. R. Kananof. Pet Refiner 27:135 JI '48

Welding facilitates assembly of silicone engine dampers. J. Geschelin. il diag Automotive Ind 97:24-5 D 1 '47

Control

Functionalized electric controls for resistance welding. W. E. Large. il Iron Age 162:90-4 JI 8 '48

Electrodes

New group of strong, conductive copper alloys; Trolaloy. H. A. Knight. il Materials & Methods 27:76-9 F '48

Powdered iron in electrode coatings. Iron Age 160:75 N 27 '47

Power supply

D.-c. resistance welding utilizing kinetic energy storage. T. J. Crawford. il diag Welding J 27:359-62 My '48

How to calculate power factor of transformer type welders; engineering reference sheet. R. F. Wyer. Elec World 129:96 Ap 24 '48

It paid to separate welding and power circuits; what Delco has gained. C. W. Wright. il Factory Management 106:76-9 Ja '48

Measuring voltage dip of resistance welding. F. W. Buck. il diags Elec World 128:99-100 D 6 '47

Murex Diesel-driven welding-compressor set. il Electrician 139:1432 N 14 '47; Engineer 184:469 N 14 '47

Progress in welding technique. O. R. Carpenter. il Chem Age (Lond) 58:17-18 Ja 3 '48

Resistance-welding characteristics of the dry disk rectifier welder. C. E. Smith and R. H. Blair. il diag Welding J 27:679-86 S '48

Resorts to battery power in mass-welding phonograph turntables. Steel 121:76 D 29 '47

Supply for farm welders no problem. A. H. Matthews and G. V. Patterson. Elec World 130:99-101 S 11 '48

Three-phase distribution and electric welding and furnace loads. A. L. Morris. diags Inst E E J 93 pt 2:341-8 Ag '46; Discussion. 93 pt 2:348-52; 94 pt 2:691-7 Ag '46, D '47

See also

Electric welding, Arc
—Power supply

Submerged melt welding

See Electric Welding—Unionmelt process

ELECTRIC welding—Continued

Testing

- Cleavage fracturing and transition temperatures of mild steels. A. B. Bagsar, il diags Welding J 27:sup 123-31 Mr '48
- Development of cleavage fractures in mild steels. A. B. Bagsar, bibliog il diags A S M E Trans 70:751-77 O '48; Same, Welding J 27:sup97-123 Mr '48; Discussion, A S M E Trans 70:777-809 O '48
- Fatigue tests of spot welds; improvement of their endurance limit by hydrostatic pressure. G. Welter, bibliog il diags Welding J 27:sup285-98 Je '48
- How to maintain spotwelders. F. Albrecht, il Factory Management 105:84-8 N '47
- Macroscopic examination of spot welds in aluminum. G. H. Boss, bibliog il diags Metal Prog 53:227-30 F '48
- Metallurgical aspects of carbon steel spot welding. J. Heuschkel, il diags Steel 122: 93-5+ Mr 15; 67-9+ Mr 22 '48
- Nondestructive spot weld test for stainless steels; abstracts. A. M. Armour, Iron Age 180:100 N 6 '47; Materials & Methods 27: 107 Ja '48
- Preliminary test of spot-weld shunting in 24 ST Alclad. A. R. Hard, il diags Welding J 27:sup491-5 O '48
- Radiographic appraisal of spot welds in aluminum. G. H. Boss, bibliog il Metal Prog 53:522-7+ Ap '48
- Spot-welding schedules for nickel and nickel alloys. F. G. Harkins, il Welding J 27:695-702 S '48
- Study of projection welding. W. F. Hess and W. J. Childs, il diags Welding J 26:sup712-23 D '47
- Testing and control of spot welds in aluminum. G. H. Boss, bibliog Metal Prog 54: 344+ S '48

Unionmelt process

- Construction and maintenance of railroad equipment by submerged and gas-shielded electric welding. N. G. Schreiner and J. M. Tippet, il diags Welding J 27:431-7 Je '48
- Custom built installation boosts welded tank output. il Steel 122:104 F 9 '48
- Shape-welding by the submerged-melt welding process. J. A. Kratz, il Welding J 27: 5-10 Ja '48; Same cond. Mech Eng 70:153-6 F '48
- Submerged melt welding of hardenable steels. E. A. Clapp and E. L. Frost, il Welding J 26:1079-82 D '47
- Unionmelt automatic flexible welder, il Welding J 27:162+ F '48; Same abr. Blast F & Steel Pl 36:124+ Ja '48

ELECTRIC welding, Arc

- Aeromatic welding procedures lower hub costs; propeller hubs of arc-welded tubular design, il diags Aviation W 48:24-7 F 2 '48
- Arc welded propeller hub weights and costs less. il Automotive Ind 97:42 N 15 '47
- Arc welded propeller hubs reduce cost-weight. J. D. Waugh, il S A E J 56:33-9 J1 '48
- Arc welding a maintenance tool. G. F. Clippsham, il Mill & Factory 42:120-4 Je '48
- Arc welding broken locomotive frames. A. L. Havens, il Ry Mech Eng 122:74-5 F '48
- Arc-welding copper vessels. J. J. Vreeland, il diags Welding J 27:125-9 F '48
- Arc welding stainless impellers. W. L. Elliott and G. Handyside, il Steel 122:82-4 Ap 12 '48
- Automatic joining method; fabrication of liquefied petroleum tanks. G. E. Stedman, il Steel 121:106+ N 17 '47
- Automatic welding of steel mill equipment. W. W. Scherer and H. J. Ralston, il Iron Age 162:80-3 J1 15 '48
- Automatic welding speeds pipe line work. G. L. Revell and C. G. Herbruck, il Pet Eng 19:78+ Je '48
- Automatic welding speeds up box-car production; American car and foundry co. C. O. Herb, il Mach 54:143-50 F '48
- Channel-grid stiffener system; method for stiffening large flat machine panels; with cost data. C. Bailey and D. Boyd, il diags Machine Design 20:118-20 Ap '48
- Design and construction of arc welded steam platens. H. O. Lehman, il diags Rubber Age 62:545-6 F '48

- Design of arc-welded steel and its relation to costs. R. H. Davies, il diags Welding J 26:1087-90 D '47
- Development of arc-welded gas holder; with cost data. A. C. Thompson, il diags Welding J 27:363-3 My '48
- Development of arc-welded propeller hubs. C. C. Mast and others, il diags Welding J 27:605-9 Ag '48
- Dredge bucklines and upper tumbler; maintenance and repair through arc welding. R. J. McGuire, il Can Min J 69:81-3 My '48
- Economical method of changing valves on drips or take-offs on lateral lines by the electric arc method of welding. D. K. Stephens, diags Gas Age 101:23-4 F 5 '48
- Economics resulting from arc welding; repairing metallurgical equipment. W. G. Ough, diags Can Min J 69:60-3 Ja '48
- Electric arc stud welding. R. C. Singleton, il Welding J 26:1095-101 D '47
- Electric arc welding. A. C. Porter, Paper Tr 7 126:54-5 Je 3 '48
- Eliminating cracking in magnesium arc welds. F. F. George, bibliog il Materials & Methods 27:68-71 Ap '48
- Fabricated Diesel engine structures. C. B. M. Dale, il diags Welding J 27:531-5 J1 '48
- Hidden-arc process of welding, il Ry Mech Eng 122:325 Je '48
- High-speed photography of welding arcs. F. Brailsford and K. F. Shrubbs, il diags J Sci Instr 25:211-13 Je '48
- Hollow blades for axial flow compressor. R. Meredith and A. J. Phelan, il diags Metal Prog 53:841-7 Je '48
- How to weld clad steels. L. W. Williams, il diags Iron Age 162:72-80 J1 22; 82-8 J1 29 '48
- How trailbuilder units were designed for arc welding; with cost data. G. J. Storatz, il diags Machine Design 20:143-8+ Ja '48
- Investigation of methods for evaluating welding arc stability and their application. R. A. Wyant and others, bibliog diags Welding J 27:sup502-14 O '48
- Laying of flat bead increases production; fabrication of cabinets for teletype printers. il Steel 122:100 Ja 19 '48
- Manual hidden arc welding cuts welding time by 65 pct; Bucyrus Erie co. E. A. Hess, il Iron Age 162:78-9 J1 8 '48
- Manual hidden arc welding speeds manufacture of chemical and refinery equipment. J. L. Wolcott, il Steel 122:102+ My 10 '48
- Manual hidden arc welds hoist cylinders 300 per cent faster. A. Blewett, il Am Mach 92:106-7 J1 1 '48
- Manual use of hidden arc welding reduces welding time on U68 code work by 42 percent; M. W. Kellogg co. E. A. Smith, il Welding J 27:536-8 J1 '48
- Manual welding with a hidden arc. G. N. Bull, il Mill & Factory 43:138 J1 '48
- Motor frames welded by submerged-arc. J. B. Arthur, il diags Am Mach 91:106-9 D 4 '47
- Murex light-weight arc-welding set, il Engineering 164:453 N 7 '47
- Natural gas lines; electric arc welding against pressure. D. K. Stephens, diags Pet Eng 19:141-2+ Mr '48
- New bridges for old by welding at 40 per cent as much; with cost data. H. R. Craig, il Pub Works 79:26-7 F '48
- New high alloy hard-facing materials adapted to automatic arc welding, il Materials & Methods 27:78-9 Mr '48
- Now ACF welds hopper cars too; illustrations with text. Am Mach 92:116-17 J1 29 '48
- Penetration and travel speed in metal arc welding. R. Gunnert, diags Welding J 27: 542 J1 '48
- Portable equipment for shallow drilling; application of arc welding. A. L. Wait, jr, and J. W. Hornbrook, il Pet Eng 19:101-2 My '48
- Practical importance of hydrogen in metal-arc welding of steel. S. A. Herres, bibliog il diags Am Soc for Metals Trans 39:162-89; Discussion, 189-92 '47
- Rigid-frame church arches prefabricated by welding; Mission Baptist tabernacle in Chicago. il Constr Methods 30:100-2 F '48

ELECTRIC welding, Arc—Continued

Saving weight in a Diesel's welded under-frame; redesign and fabrication, L. Pompa. *il Ry Mech Eng* 122:115-17 Mr '48

Semi-automatic hidden arc welding, *il Blast F & Steel Pl* 36:740-4 Je '48

Some thermodynamical aspects of the formation of inclusions in mild-steel weld metal. E. C. Rollason and E. Bishop. *bibliog Iron & Steel Inst J* 153:161-3 F '48

Stampings for welded fabrication cut costs and increase production; Lincoln electric co. C. G. Herbruck. *il Iron Age* 160:102-4 D 11 '47

Structural dead weight eliminated in construction of four-story, all-welded steel building. E. D. Anderson. *il Welding J* 26:985-7 N '47

Submerged arc welding for maintenance. C. C. Keyser. *il Iron & Steel Eng* 25:37-42 S '48

Submerged arc welding of freight cars. E. A. Watson. *il Welding J* 27:789-93 O '48

Survey of automatic arc and gas welding processes as used in the automotive industry; committee report, *diags Welding J* 27:27-35 Ja '48

Technical aspects of hard-facing welding. J. C. Ehle. *Rock Prod* 51:182-3 Ap '48

Tubular air heaters of welded construction. A. N. Clark and others. *il diags Engineer* 185:289-91, 313-15 Mr 19-26 '48

Twenty-four layer welds used in fabricating propane decarbonizing towers. *il Steel* 123:96 Ag 23 '48

Use of arc welding in cracking and repair of fluid catalytic cracking units while in operation. R. H. Darling. *diags Pet Processing* 3:349-50 Ap '48

Welded beam design reduces production costs of continuous weighing machines. *il Steel* 121:108 D 15 '47

Welded fabrication. J. R. Stitt. *il diags Welding J* 27:48-51 Ja '48

Welded steel construction for hydroelectric power plants; with cost data. O. J. Affreth and A. J. Perry. *plans diags Power Generation* 52:98-4 F '48

Welding a highly accurate tubular structure; antenna pedestals for ship fire control mechanisms; Sperry gyroscope co. *il Mach* 54:152-3 Ap '48

Welding arc temperatures. W. R. Chynoweth and others. *Welding J* 27:sup426-7 Ag '48

Welding cables running hot? causes and cures. *il Roads & Sts* 91:104-5 My '48

Welding conductors to commutator; assembling motors at Elwell-Parker electric co. *il Steel* 123:94 J1 26 '48

Welding copper motor connections; Elwell-Parker plant. W. A. Lloyd. *il Iron Age* 162:64-6 S 30 '48

Welding proves economical on stack construction. *il Sheet Metal Worker* 39:68 F '48

Welding saves costly pump casings. C. Barlow. *il Power* 92:340-3 Je '48

Welding saves million dollars a year at Harbor steam plant. C. N. Barlow. *il map diag Power* 92:459-61 Ag '48

Welding spiral flights with automatic tractor inside 4-ft. diam. kiln. J. W. Hill. *il Welding J* 27:723-4 S '48

Welding stainless steel tanks. *il Steel* 122:110 F 2 '48

Welding techniques for cast iron. T. E. Kihlgren. *il diags Welding J* 27:19-25 Ja '48

Cost

Analysis of low pressure steam piping system construction costs; school building heating systems. H. A. Erickson. *diags Heat & Ven* 45:78-84 Ag '48

Arc weld design used for heating element. L. Kula. *diags Elec World* 130:116 S 11 '48

Welded design of a pulpwood grinder; with cost data. H. F. Brauns. *il Pulp & Pa of Can* 49:95-8 Je '48

Electrodes

Arc phenomena with electrodes moving at high speed. W. B. Kouwenhoven and T. B. Jones. *bibliog il diags Welding J* 27:sup470-5 S '48

Comparative behavior of mild steel welds made with E 6010 and E 6016 electrodes. F. W. Daniels and others. *bibliog il diags Welding J* 27:sup436-40 S '48

Contact electrodes and applications of contact arc welding. J. C. van der Willigen and G. Zoethout. *il diag Welding J* 27:615-20 Ag '48

Effect of manganese and molybdenum on the microstructure and mechanical properties of low-alloy ferritic weld metal. W. G. Benz. *jr. diags Welding J* 26:sup42-8 D '47

Effect of weld metal composition on the strength and ductility of 15 per cent Cr-35 per cent Ni welds. D. Rozet and others. *il Welding J* 27:sup481-91 O '48

High manganese steel and its deposition by arc welding. R. W. Edwards. *il Metallurgia* 38:12-14-4 My '48

Influence of CaCO₃ additions to the electrode coating on the composition of the arc atmosphere. M. W. Mallett. *Welding J* 27:sup28-9 Ja '48

Metal arc transfer as influenced by some materials in the covering of welding electrodes. C. T. Gayley. *bibliog Welding J* 26:sup693-704 N '47

New high-strength welding rod for aircraft landing gear. L. Tarnopol. *il diag Welding J* 27:517-21 J1 '48

New welding electrode specifications. T. E. Lloyd. *Iron Age* 162:70-3-4 O 28 '48

Nomenclature and applications of welding electrodes. F. W. Myers, jr. *il diags Tool Eng* 21:29-33 J1 '48

Overheating of electrodes. I. L. Stern. *il Welding J* 27:522-6 J1 '48

Some factors controlling the ductility of 25 percent Cr-20 percent Ni weld deposits. O. R. Carpenter and N. C. Jensen. *il Welding J* 26:sup727-40. Discussion. sup740-1 D '47

Toolweld electrode for hard-surfacing tools. *Mach* 54:189 F '48

Welding dissimilar metals with stainless electrodes. A. L. Schaeffler. *il diags Iron Age* 162:72-9 J1 1 '48

Ellin-Hafegut process

Copper-bar semiautomatic welding. F. W. Myers. *il diags Iron Age* 161:70-4 F 5 '48

Heliarc process

Aluminum fuel tank welding. *Steel* 123:104-4 Ag 23 '48

Electrical characteristics of the arc in Heliarc welding. H. T. Herbst. *il diags Welding J* 27:600-4 Ag '48

Heliarc welding for the difficult-to-weld metals and alloys. H. T. Herbst and F. J. Pilia. *il diags Product Eng* 19:127-31 Ja '48

Heliarc welding of aluminum frames for coin-operated phonographs. *il Mach* 54:170-1 J1 '48

Ten-ft. of automatic welding per minute; popcorn vending machines; Viking tool corp. *il Sheet Metal Worker* 39:69 Mr '48

Hydrogen process

Survey of automatic arc and gas welding processes as used in the automotive industry; committee report. *diag Welding J* 27:33 Ja '48

Hygienic aspects

Health of arc welders in steel ship construction; a survey made in cooperation with United States maritime commission and United States navy. W. C. Dreesen and others. (*Pub. health bul.* 298) 200p *bibliog*(p179-85) U.S. Public health service, Washington; pa 55c Supt. of doc. '47

Radiation from the welding arc; its effect on the eye. E. van Someren and E. C. Rollason. *Welding J* 27:sup448-52 S '48

Inert gas shielding

Arc welding red brass. L. P. Benua. *il Iron Age* 161:77-9 Je 17 '48

Construction and maintenance of railroad equipment by submerged and gas-shielded electric welding. N. G. Schreiner and J. M. Tippet. *il diags Welding J* 27:431-7 Je '48

Effect of d.-c. component in a.-c. inert-gas arc welding of aluminum. G. J. Gibson and G. R. Rothschild. *il diags Welding J* 27:sup496-501 O '48

Effect of wave shape in inert-arc welding circuits. R. W. Tuthill. *il diags Welding J* 27:785-8 O '48

ELECTRIC welding, Arc—Inert gas shielding
—Continued

- Equipment for inert-gas shielded arc welding. *il Materials & Methods* 26:134+ D '47
- Field-erected storage tanks of aluminum. F. L. Plummer. *bibliog il Welding J* 27:796-804 O '48
- How to use helium-shielded arc welding. H. O. Jones. *il diags Am Mach* 92:101-16 N 4 '48
- Inert-arc welding solves tricky problem in chemical plant; stainless steel welded into an endless belt. *Gen Elec R* 50:50 N '47
- Inert-gas-shielded arc welding. *il diags Sheet Metal Worker* 39:33-5 Ja; 66-3 Ap '48
- Inert-gas shielded-arc welding broadens its applications. H. O. Jones and H. A. Huff, Jr. *il diags Am Mach* 92:92-5 Mr 25 '48
- Inert gas shielded arc welding method. H. T. Herbst. *il diags Light Metal Age* 6:20-4 F '48; Same. *Welding J* 27:111-17 F '48; Excerpt. *Mach* 54:164-5 Ja '48
- Inert gas-shielded arc welding pure copper. J. W. Mortimer. *il diags Welding J* 27:715-22 S '48
- Inert-gas-welded aluminum pipe line to carry sour oil. *il Pet Eng* 19:45-6 Jl '48
- New applications of inert-arc welding. R. W. Tuthill. *Welding J* 27:299-301 Ap '48
- Power supply for inert-arc welding. A. U. Welch. *il Welding J* 27:376-8 My '48; Abstract. *Elec Eng* 67:386 Ap '48
- Silicon bronze welding problems overcome through inert-arc method. P. J. Gurklis. *il Materials & Methods* 27:66-9 F '48
- Survey of automatic arc and gas welding processes as used in the automotive industry; committee report. *diag Welding J* 27:34 Ja '48
- Welding stainless containers by inert-gas shielded arc process; illustrations with text. *Steel* 123:82-3 N 1 '48

Power supply

- Direct-current arc-welding generators and systems. J. C. Macfarlane and others. *bibliog diags Inst E E J* 93 pt 2:603-16 D '46; Discussion. 93 pt 2:617-20; 95 pt 2:352-4 D '46, Je '48
- Effect of d.-c. component in a.-c. inert-gas arc welding of aluminum. G. J. Gibson and G. R. Rothschild. *il diags Welding J* 27:sup496-501 O '48
- Effect of wave shape in inert-arc welding circuits. R. W. Tuthill. *il diags Welding J* 27:785-8 O '48
- Power supply for inert-arc welding. A. U. Welch. *il Welding J* 27:376-8 My '48
- Steel fabricator shifts to ac welding. F. Wendel. *il Iron Age* 161:88-9 Je 24 '48

Study and teaching

- Interpreting teaching of arc welding from an analysis of motor learning studies. W. J. Brooking. *bibliog Welding J* 26:1002-10 N '47

Testing

- Effect of manganese and molybdenum on the microstructure and mechanical properties of low-alloy ferritic weld metal. W. G. Benz, Jr. *diags Welding J* 26:sup742-8 D '47
- Effect of variations in welding technique on the transition behavior of welded specimens. C. E. Jackson and W. J. Goodwin. *il diag Welding J* 27:sup253-66 My '48
- Effect of weld metal composition on the strength and ductility of 15 per cent Cr-35 per cent Ni welds. D. Rozet and others. *il Welding J* 27:sup481-91 O '48
- Eliminating cracking in magnesium arc welds. P. F. George. *bibliog il Welding J* 27:sup273-6 Je '48
- Impact strength of single bead arc weld deposits as affected by temperature. R. Eisenberg and R. J. Raudenbaugh. *il diag Welding J* 27:sup433-5 S '48
- Metallurgical properties of high yield strength seamless line pipe. A. B. Wilder and J. D. Tyson. *il diags Welding J* 26:872-80 O '47; Same. *Pet Eng* 19:138+ F '48
- Research on arc-welded butt joints of mild steel. G. Welter. *il diags Welding J* 27:sup321-69 Jl '48
- Some additional tests on the Lehigh restraint specimen. R. D. Stout and others. *il diags Welding J* 26:sup673-82 N '47

- Some factors controlling the ductility of 25 percent Cr-20 percent Ni weld deposits. O. R. Carpenter and N. C. Jessen. *il Welding J* 26:sup727-40; Discussion. *sup740-1 D '47*
- State of stress in arc welds made under transverse restraint. E. F. Nippes and W. F. Savage. *il diags Welding J* 27:sup370-6 Jl '48
- Studies on the effects of red lead paints on the quality of metal-arc welds in structural steel. R. W. Bennett and others. *il diags Welding J* 26:sup653-63 N '47
- Tests of various designs of welded hatch corners for ships. E. P. DeGarmo. *il diags Welding J* 27:sup50-68; Discussion. *sup69-70 F '48*
- Weldability of alloys for high-temperature service. G. E. Linnert. *il diags Welding J* 27:sup385-405 Ag '48
- Weldability of steels and a new weld cracking test. P. L. J. Leder. *il diags Engineering* 165:573-5, 582-3 Je 11-18 '48

ELECTRIC welding machines

- Automatic arc welding in a single package; Weldomatic unit. *il Westinghouse Eng* 8:64 Mr '48
- Causes and remedies for common troubles with spotwelding machines; maintenance data sheets. F. Albrecht. *Factory Management* 106:134, 136 Jl '48
- Causes and remedies for troubles with d.c. arc welders; maintenance data sheet. J. Morrill. *Factory Management* 106:136, 138 Mr '48
- Conversion from spot to butt joining steps up wrench production. *il Steel* 122:98 Ap 19 '48
- How to handle and take care of d.c. arc welders. J. Morrill. *il Factory Management* 106:122-5 Ja '48
- Idle welding machine saves time and money in coach seat fabrication. *Sci Am* 178:30-1 Js '48
- Manually operated hidden-arc welding equipment applied in fabricating machine tool members. E. F. Arntzen and W. Lilly. *il Mach* 54:188-9 Je '48
- Phillips general-purpose spot welder. *il Engineering* 185:359-60 Ap 9 '48; *Engineering* 166:133 Ag 6 '48
- Resistance-welding machine and power supply. C. E. Smith. *diags Elec Eng* 67:865 S '48
- Seam weld attachments for spot welders of the rocker arm type. W. S. Horth. *il Welding J* 27:305-6 Ap '48
- Seam welding composite plates. O. R. Carpenter. *il diags Steel* 121:64-6+ D 22 '47; Abstract. *Chem Age (Lond)* 58:17-18 Ja 3 '48
- Shape-welding by the submerged-melt welding process. J. A. Kratz. *il Welding J* 27:5-10 Ja '48; Same cond. *Mech Eng* 70:153-6 F '48
- Standardized guns cut welding costs. R. Heath. *il diags Tool Eng* 21:36 S '48
- 24,000 spot welds per hour. *il diags Machine Design* 20:148-9 Jl '48
- Unionmelt automatic flexible welder, portable arc welder. *il Sci Am* 178:82 F '48
- Welding gun line designed with standardized interchangeable components. *diags Welding J* 27:572+ Jl '48
- Welding Hudson's Monobilt body-and-frame. C. H. Wick. *il Mach* 55:170-7 N '48

Maintenance and repair

- How to maintain spotwelders. F. Albrecht. *il Factory Management* 105:34-8 N '47
- Maintenance of resistance welding equipment. F. R. Woodward. *Welding J* 27:301-3 Ap '48
- Periodic inspection and preventive maintenance of arc-welding equipment. V. H. Speck. *Welding J* 27:303-4 Ap '48

Manufacture

- Diverse assembly methods used to build new type welder. J. DeBullis. *il plan Steel* 122:96-100 My 10 '48
- Stampings for welded fabrication cut costs and increase production; Lincoln electric co. C. G. Herbruck. *il Iron Age* 160:102-4 D 11 '47

ELECTRIC welding machines—Manufacture—*Continued*

Straight-line production techniques; manufacture of exciter-end brackets for direct-current welding sets; Lincoln electric co. il plan Steel 123:94-8 J1 19 '48

ELECTRIC wire

Aluminum wiring performs well, is becoming generally accepted. Sci Am 178:32 Ja '48
Copper-base alloy containing iron as a high-strength, high-conductivity wire material. W. Hodge and others, bibliog il diag Metals Tech 15:TP2422 1-10 Ag '48

High strength-high conductivity copper-silver alloy wire. W. Hodge and others, bibliog il Metals Tech 15:TP2386 1-17 Je '48

Synthetic rubbers and resins as insulation for wires and cables. J. T. Blake. India Rubber World 118:216-18 My '48

Vinyl covers wires, yarns, flexible or stiff, as desired, film provides abrasion resistance, electrical insulation, and built-in color possibilities; tensolizing. il Mod Plastics 26:113 N '47

Advertising

Utility plus humor means sales! case history of Copperweld calendar pad campaign. il Ind Marketing 32:60+ D '47

Manufacture

Fundamentals of plant layout; manufacture of insulated wire and cable. A. E. Rylander. il plans diag Tool Eng 20:31-6 F '48

Statistical methods in wire and cable processing. M. G. Woolfson. Elec Eng 67: 637 J1 '48

ELECTRIC wiring

Breeze system of electric wiring. Engineering 166:118 J1 30 '48

Careful planning pays off in wiring layout. E. Beamer, diag Elec West 100:65 Ja '48

Channel conduit wiring. il Engineer 185:504 My 21 '48

Coded vinyl-covered wire. il Mod Plastics 25:142 Ja '48

Codes of wiring practice; how the codes are drawn up. Electrician 139:1287 O 31 '47

Electrical wiring for motor driven machines. il diag Product Eng 19:113-23 My '48

Harness wiring; the latest Breeze applications. il Elec R (Lond) 143:123-4 J1 23 '48

How to assure adequacy in farm wiring. W. D. Hemker, plan diag Elec World 130: 98-101 O 9 '48

Installation problems. Electrician 140:571-2 F 20 '48

Installation standards. Electrician 140:187-8 Ja 16 '48

Interdependence pays; selling of adequate wiring to prevent circuit saturation. P. L. Lowry. Elec West 100:103-4 Je '48

Local wiring codes; abolish them. O. K. Coleman. Elec World 130:100-1 Ag 14 '48

Proper underground wiring maintenance. C. R. Burton. il Min Cong J 34:37-9+ Ag '48;

Excerpts, Steel 123:116-17 Ag 9 '48

Rising main installation. il Electrician 141: 1002 O 1 '48

Service drop attachment to buildings; engineering reference sheet, diag Elec World 130:116 O 9 '48

Supply engineer's view of some installation matters. R. H. Rawll. Inst E E J 95 pt 1: 23-6 Ja '48; Abstract. Electrician 139:1217-18 O 24 '47

Why and how of an adequate wiring program. M. R. Norton. il Elec World 129:92-3 Mr 27 '48

Wiring for electric motor circuits; reference book sheet. Am Mach 92:127 Ja 1 '48

Wiring in West Africa. G. M. Dunbar. Elec R (Lond) 142:857-8 My 23 '48

See also

Electric cables	Electric transmission
Electric codes	National electrical
Electric distribution	code
Electric fittings	National electrical
Electric lighting	safety code
Electric lines	

Cost

Effect of restrictive electrical codes and ordinances on building costs. A. F. Metz. Edison Elec Inst Bul 15:431-4 D '47

Diagrams

AISE standards for wiring diagrams. Iron & Steel Eng 25:69-70 F '48
Engineering the schematic diagram. J. M. Henry and M. G. Morgan, diag Electronics 21:74-7 Je '48

Safety measures

Ensuring public safety. P. Ridler. Electrician 141:627 Ag 27 '48

Keep up underground wiring. C. R. Burton. il Safety Eng 96:30-2+ O '48; Abstract.

Nat Safety N 58:52+ J1 '48

Wiring codes of practice. Electrician 141: 1151-2 O 15 '48

ELECTRIC wiring, interior

Blown fuse brings wiring information. J. H. Van Aernam. Elec World 129:136+ Mr 13 '48

Commercial building rewiring under new code provisions. H. Gerber. il Elec West 101: 90-1 O '48

Engineered house construction; electric service. il plans diag Am Bld 70:76-9 My; 104-7 Je; 112-15 J1; 107-11 Ag '48

Foreman and the plans; what he should know and do about them. Elec West 100:78 Mr '48

Lighting by remote control. il Am Bld 70:112 Ag '48

Old bugaboo of inflexible wiring and communication is whipped by special ceiling system in Equitable's Portland building. il diag Arch Forum 89:106 S '48

Old schools rewired. il Elec West 101:90-1 Ag '48

Powering the press in Portland; the Oregonian and the Oregon Journal. il Elec West 101:84-9 Ag '48

Push buttons cause blow-up; discussions by International association of electrical inspectors on low-voltage control for lighting. Elec West 101:165-6 J1 '48

Rewiring an abattoir. il Elec R (Lond) 142:555-6 Ap 9 '48

Well-engineered wiring at United. il Elec West 101:102-3 S '48

Wiring blocks of flats. il diag Elec R (Lond) 141:797-9 N 28 '47

Wiring installation problems. Electrician 141: 545-6 Ag 20 '48

Wiring modernization in large building. O. O. Rands. il Elec West 100:62-3 Ja '48

Cost

Attack on high wiring costs; appliance dealers worried about installation charges on electric stoves. Bsns W 94:51 J1 31 '48

ELECTRIC workers

Congress spotlights relations of UE, electrical manufacturers. Elec World 130:83 S 11 '48

Electrical trades union annual meeting. Great Yarmouth. Elec R (Lond) 142:778, 811 My 14-21 '48

Electrical training. W. Le Page. Elec R (Lond) 142:329-31 Ag 27 '48

Electricity boards and workers; conciliation machinery established. Elec R (Lond) 142: 720 My 7 '48

Paid vacations for wiremen? Elec West 99: 77-8 N '47

Pensions are becoming important. Elec World 130:81 O 9 '48

Training in the supply industry. Lord Citrine. Electrician 139:1290 O 31 '47

Training maintenance electricians at Falk. R. H. Weaver, il Factory Management 106: 82-4 F '48

VEPCO, IBEW headed for foremen's union fight. Elec World News ed 129:14 Ja 10 '48

Westinghouse, GE settlements show wage-price boost cycle resumed. Elec World 129: 21 Je 26 '48

See also

Electric utilities—
Employees
Linemen
also International brotherhood of electrical workers

ELECTRICAL association for women

Annual meeting, 23d. Southport, April 14-16. Electrician 140:1253-4 Ap 23 '48; Elec R (Lond) 142:637-8 Ap 23 '48

E.D.A.-E.A.W. conference. Elec R (Lond) 141:669-70 O 31 '47

ELECTRICAL association for women—Cont.
E.D.A., E.A.W. conference, London, June 28.
Electrician 141:35-6 J1 2 '48

ELECTRICAL contractors' association
Annual meeting, London. Electrician 141:43 J1 2 '48

President's report for 1947-48. N. Aish. Elec R (Lond) 143:67-8 J1 9 '48

ELECTRICAL engineering (periodical)
Changes in staff. Elec Eng 67:1000 O '48

ELECTRICAL equipment representatives association

Electrical equipment representatives form association at Chicago meeting. Elec World News ed 129:11 Ap 3 '48

ELECTRICIANS

Compulsory registration and inspection. Electrician 141:327-8 J1 30 '48

Electricians are a healthy lot; figures reveal that they live longer than the 65 year average. W. Schweisheimer. Power Generation 52:72-3 Ap '48

See also
Linemen

ELECTRICITY

Story of atomic energy; energy and electricity. F. Soddy. Il diags Engineering 164:457-61 N 14 '47

See also

Corona (electricity)	Lightning
Dielectrics	Photoelectric cells
Electric currents	Photoelectric effect
Electroacoustics	Piezoelectricity
Electrodynamics	Polarization (electricity)
Electrons	Potential, Electric
Electrophysiology	Radio communication
Electrostatics	Telegraph
Insulation (electric)	Telephone
Ionization, Electrolytic	Thermoelectricity

History

In defense of Benjamin Franklin, one of the great experimental scientists. I. B. Cohen. Il maps Sci Am 179:36-43 Ag '48

ELECTRICITY, Accidents from

See also

Electric equipment— Electricity, Injuries
Safety measures from

ELECTRICITY, Injuries from

Accidents in the home; causes of electrical mishaps. Elec R (Lond) 143:197 Ag 6 '48

Accidents through negligence; contractors' responsibility towards customers. F. E. Sugden. Elec R (Lond) 143:645 O 22 '48

Causes of electrical accidents. Engineering 165:157-8 F 13 '48; Abstracts. Elec R (Lond) 142:8 Ja 2 '48; Electrician 139:1858 D 26 '47

Concentrated hazard, and a remedy; pole-mounted distribution transformer installations. C. A. Coutts. Il Nat Safety N 57:30-1+ Je '48

Danger of low voltage; abstract. C. F. Dalziel. Marine Eng 53:75-6 Ag '48

For safer testing of generator leads; fatal accident. diag Elec World 129:110+ Mr 8 '48

Light voltage kills; abstract. C. G. Barth. Safety Eng 95:42+ Mr '48

Lineman is saved by pole top method. H. F. Lovering. Il Power Pl Eng 51:92-3 N '47

Pole top resuscitation; illustrated instructions; engineering reference sheet. Elec World 129:52 Ja 3 '48

Safety-first in boom crane operations near power lines. diag Elec World 128:60 D 20 '47

Twenty E.E.I. resuscitation medal awards earned by alert power company employees. M. B. Woods. Edison Elec Inst Bul 16:51-9 F '48

ELECTRICITY, Static

Fire hazards and protection of rubber cement. E. E. Turkington. diags Rubber Age 62:61-3 O '47

Fires from static. Nat Safety N 57:165-6 Mr '48

Ionotron static eliminator. Il Am Dyestuff Rep 37:388 My 31 '48

Snow static on aircraft; neutralization of charge by artificially activating negative corona discharges. W. H. Bennett. bibliog diags Elec Eng 67:947-53 O '48

Some experiments in frictional electricity. W. F. Helwig. diag Elec Eng 67:38-40 Ja '48

Static electricity encountered with nylon.

Rayon 28:601 N '47

Static electricity measuring; patent. diag Am Dyestuff Rep 36:644 N 3 '47

Static electrification of dust clouds. J. G. Miller and others. bibliog Science 107:144-6 F 6 '48

Static elimination; engineers propose use of polonium, which emits alpha rays. Aviation W 48:26-7 My 3 '48

Static eliminator; American stores co. acetate film for machine-wrapped tomato boats. Il Mod Packaging 21:174 Ap '48

Statiflux method for nondestructive inspection of nonconductors. Il Iron Age 161:68 F 12 '48

What of air safety? dangers from electrostatic discharge can be eliminated by utilization of ionizers. R. Beach. Il Elec Eng 67:423-9 My '48; Discussion. 67:928-30 S '48

ELECTRICITY in air conditioning

A.c. air conditioning. H. T. Hanft. Il Ry Mech Eng 122:147-9+ Mr '48; Abstract. Heating-Piping 20:106 Ap '48

Electrical and allied developments during 1947; air conditioning. G. Bartlett. Il Gen Elec R 51:41 Ja '48

540-ton heat-pump air conditions 12 story building. Il Elec World 130:122+ O 23 '48

Frequency of starting room air conditioners; abstracts. J. W. Anderson. Edison Elec Inst Bul 16:142-4+ My '48; Elec World 130:72-4+ J1 17 '48

Heat pump operation data; with cost. Elec World 129:118+ F 14 '48

Trends in air conditioning and refrigeration. W. E. Johnson. Il diags Gen Elec R 51:35-40 Je; 40-5 bibliog(p 45) J1 '48

ELECTRICITY in medicine. See Electrotherapeutics—Apparatus and instruments

ELECTRICITY in mining

A.I.E.E. winter meeting, Pittsburgh, Jan. 26-30; abstracts of papers. Coal Age 53:116+ Mr '48

Electric power in the mining industry. R. S. Sage. Gen Elec R 51:21-2 Ag '48

Electrical and allied developments during 1947; industrial equipment, applications. G. Bartlett. Il Gen Elec R 51:33-4 Ja '48

Essential characteristics of design and materials for mine trailing cables; abstracts. G. J. Crowdes. Product Eng 19:139 J1 '48; Elec World 130:110 Ag 14 '48

Fool-proof blasting switch. diags Eng & Min J 149:110 O '48

Idle thoughts; maintenance of mine electrical equipment. C. E. Dunlop. Can Min J 68:905-6 D '47

Power cable lowered with friction blocks. C. L. Moore. diags Eng & Min J 149:104 Ap '48

Power distribution specifications. L. D. Siniff. plan diags Min Cong J 34:40-2 My '48

Proper underground wiring maintenance. C. R. Burton. Il Min Cong J 34:37-9+ Ag '48; Excerpts. Steel 123:116-17 Ag 9 '48

13,800-volt distribution in the Bunker Hill mine; abstract. L. M. Griffith. diag Elec Eng 67:1065 N '48

Use of electric cables in mines; abstracts of papers. A.I.E.E. winter meeting. Elec Eng 67:402-3 Ap '48

See also

Coal mines and mining—Electric equipment	Electric locomotives, Mine
	Mine pumping, Electric

Safety measures

British stress safety in mining machine cables. R. A. Schatzel. Elec World 130:94+ J1 17 '48

Flameproof converter panel for mine lighting. Il Engineer 184:445 N 7 '47

Grounding off-track mining equipment; report of the power committee. Il diags Min Cong J 34:53-6; Discussion. 56-7 Mr '48

Intrinsic safety of electrical apparatus; the minimum igniting current in relation to circuit constants; abstract. G. Allison and others. Electrician 140:421 F 6 '48

Keep up underground wiring. C. R. Burton. Il Safety Eng 96:30-2+ O '48

ELECTRICITY in mining—Safety measures*—Continued*

New cable cuts shock hazard at the Saddle Creek, Florida, phosphate mine of American cyanamid company. *il Nat Safety N* 57:58 Ja '48

Sectionalization at Isabella; new d.c. practice. G. L. Kemp and D. J. Baker. *il plan diags Coal Age* 53:102-6 F '48

See also

Safety lamps, Electric

ELECTRICITY in refrigeration

Food freeze growth may squeeze power supply. E. M. Haller. *Barron's* 28:9-10 My 24 '48

High kilowatt-hour content for frozen foods. *il Elec World* 129:70+ Ja 3 '48

Trends in air conditioning and refrigeration. W. E. Johnson. *il diags Gen Elec R* 51:35-40 Je; 40-5 bibliog (p45) J '48

ELECTRICITY in the home

Data on domestic consumers. *Elec R (Lond)* 143:206 Ag 6 '48

Domestic demand control; automatic limiting device. *diags Elec R (Lond)* 143:639-40 O 22 '48

Domestic demand; suggestions for load limitation. G. H. Bowden. *Elec R (Lond)* 143:257-8 Ag 13 '48

Electric ranges stimulate other uses. L. W. Frank. *Elec World* 129:84-5 Je 19 '48

Electrical living for families today. *il Am Bld* 70:76-9 My '48

Four houses demonstrate four degrees of electrical living; Westinghouse Electric's project in Hartford, Conn. *il plans Am Bld* 70:100-3 Ag '48

Residential loads, old and new. *Elec World* 129:114-17 My 22 '48

Cost

Electric homes tailored to buyer incomes. *Elec World* 130:132 Ag 14 '48

ELECTRICITY in the petroleum industry

Automatic lease operation. G. Weber. *il diags Oil & Gas J* 47:74+ Ag 5 '48

Automatic operation of flowing oil wells and tank batteries. J. N. Poore. *il plan diags Pet Eng* 19:70+ Ag '48

Electric power generation in oil fields. G. L. Oscarson. *il diag Pet Eng* 19:66+ S '48

Electric power in the petroleum industry. T. R. Rhea. *Gen Elec R* 51:20-1 Ag '48

Equipment details, Shell's portable electric rig; illustrations with text. *Oil & Gas J* 46:90-3 F 19 '48

Insulation requirements for oil-industry motors. P. Hearnick. *diags Oil & Gas J* 47:93-6 S 16 '48

Oil production by electric power. W. G. Taylor. *il diags Gen Elec R* 51:21-30 S '48; Excerpts. *Elec Eng* 67:694 J '48

Portable oil well driller. *il Elec West* 101:77 O '48

Shell designs new portable 900 horsepower electric rig now drilling at Ventura, Calif. H. David. *il Oil & Gas J* 46:60-3+ D 20 '47

Shell develops new portable electric rig. R. Sneddon. *il Pet Eng* 19:80+ Ja '48

Transformer voltage regulation in oil-field service; engineering reference sheet. *Elec World* 130:112 J '48

Unitized connections speed rig power use. J. C. Albright. *il World Oil* 127:76 Ja '48

Why supervisory control equipment. W. R. Tackaberry. *il diags Oil & Gas J* 47:109+ S 16 '48

ELECTRICITY in war

Generating plant for military equipment. K. H. Tuson. bibliog *il diags Inst E E J* 94 pt 2:616-23 D '47; Discussion. 629-33 D '47; *Electrician* 138:1089-90 Ap 25 '47

ELECTRICITY on the farm

Agricultural shows; displays at York and Watford. *il Elec R (Lond)* 143:97 J '48

Baled hay cured at two kw-hr per bale. J. W. Hall and A. W. Cook. *il Elec World* 129:82 Ja 31 '48

Chickenhouse litter-stirrer saves work. *il Elec World* 129:108+ Ap 24 '48

Electric hay-drier increases farm income. *Elec World* 128:128 D 6 '47

Electric power supply to farm customers; review of the situation today. *Edison Elec Inst Bul* 16:33-4 F '48

Electricity aids processing of potatoes. P. P. De Moya. *il Elec World* 129:198 Ja 17 '48

Electricity and agriculture; electrical features at the Norfolk and York shows. *Electrician* 141:114-15 J '48

Electricity and agriculture; the Herts and Kent County shows. *il Electrician* 141:263-4 J '48

Electricity in agriculture; impressions of the Royal Ulster show. *il Electrician* 140:1825-6 Je 11 '48

Electro-agricultural research; expanding activities of the E.R.A. *il Elec R (Lond)* 142:573-4 Ap 16 '48

Farm electrification conference examines important problems. *Edison Elec Inst Bul* 15:417-18+ N '47

Grain drying. E. C. Claydon. *diags Elec R (Lond)* 143:406-7 S 10 '48

Hay curing averages 60 kw-hr per ton; farm of W. Prescott Adams. *il Elec World* 129:97 F 28 '48

How to assure adequacy in farm wiring. W. D. Hemker. *plan diags Elec World* 130:98-101 O 9 '48

Lighting of farm buildings. A. C. Sandow. *Light & Lighting* 40:187-3 O '47

Progress of farm electrification, 1944-1947; chart. *Pub Util* 41:701 My 20 '48

Small fairs bring rural service results. W. C. Buchanan. *il Elec World* 129:110 Ap 24 '48

Tests of 7½ hp motor for silo elevator. J. W. Hall and A. W. Cook. *il Elec World* 129:130 Mr 27 '48

See also

Electric service, Rural

Rural electrification administration

ELECTRICITY supply*See also*

Electric lines
Electric plants

Electric power
Electric utilities

Arizona

Navy orders removal of mobile plant from water-short Arizona. *Elec World News ed* 129:13 Ap 3 '48

Australia

State of Victoria boasts record electricity output. *For Comm W* 31:41-2 My 29 '48

Belgium

Electric-power consumption taxes Belgium's facilities. *For Comm W* 29:30 N 15 '47

California

California must stay on daylight saving time to aid power supply. *Elec World News ed* 130:11 Ag 21 '48

California on daylight saving time; industrial and farm power curtailed. *Elec World* 129:93 Mr 13 '48

Drought brings power cut in northern California. *il Bsns W* p21 Mr 20 '48

Drought creates critical power shortage in northern California. *Elec West* 100:104+ Ap '48

Hypowater; rains help out. *il Bsns W* p21 Ap 17 '48

Meeting our responsibilities. D. D. Smalley. *Elec West* 101:58-9 J '48

Reclamation agrees to let PG&E move Shasta power on own terms. *Elec World News ed* 129:5 Ap 3 '48

Shasta power controversy; Pacific gas and electric company vs. the Bureau of reclamation. J. E. Conant. *Pub Util* 42:11-20 J '48

Southwest drought brings trouble to California utility; Pacific Gas & Electric pleads for power conservation. *Elec World* 129:70-1 F 14 '48

State administrator to ration power appointed by California commission. *Elec World News ed* 129:13 Mr 20 '48

Canada

Canada reports 1943-47 electric-power output. *For Comm W* 30:32 Mr 27 '48

Canadian power position. *Engineering* 165:182 F 20 '48

Ceylon

Notes from Ceylon. *Electrician* 140:1613-14 My 14 '48

ELECTRICITY supply--Continued**Chicago**

Chicago franchise effective; Commonwealth spurs financing. Elec World 129:69 Je 19 '48
 43-year Chicago franchise voted Commonwealth Edison by Council. Elec World News ed 129:13 My 29 '48
 Illinois commission keeps control of Chicago rates under franchise. Elec World 129:81-2 Je 5 '48

China

China pushes power development. D. B. Gumenksy. Il map diags Eng N 141:94-7 S 16 '48
 Power industry in China. C. H. Chen and Y. S. Sun. Elec Eng 67:146-9 F '48

Cornwall, England

Electricity as applied to Cornish industries; abstract. J. Rodgers. Inst E E J 95 pt 1: 123 Mr '48

Dublin

Dublin electricity board; 21st annual report. Electrician 141:400 Ag 6 '48

Europe

Cisler and DeForest to control power aid under ECA program. Elec World News ed 130:4 JI 10 '48
 European recovery; planning Europe's power. Economist 155:543-4 O 2 '48
 Europe's progress with high-voltage systems wins Americans' respect. Il Elec World 130: 52 JI 17 '48
 Means and ends; post-war scene; power resources. T. G. N. Haldane. maps diags Engineer 186:392-4 O 15 '48; Abstracts. Elec R (Lond) 143:583-4 O 15 '48; Electrician 141: 1149-50 O 15 '48
 Power needs of Europe; House committee report. Pub Util 41:704-6 My 20 '48

Finland

Helsinki forced to curtail electric power consumption. For Comm W 29:31 N 15 '47

Georgia

Georgia Power contracts for Allatoona output. Il Manuf Rec 117:49 O '48
 Georgia Power signs ten-year pact for output of Allatoona Dam plant. Elec World 130:68 Ag 14 '48
 Georgia story; power. Il Manuf Rec 117:113-15 My '48

Great Britain

Annual report, 21st, of the electricity commissioners. Engineering 164:500 N 21 '47; Electrician 139:1436 N 14 '47
 Area board chairmen. Elec R (Lond) 141: 835-6 D 5 '47
 B.E.A. areas of supply. Electrician 139:1721-2 D 12 '47
 B.E.A. bulk supply tariff. Electrician 140: 1039 Ap 2 '48; Engineer 185:327 Ap 2 '48
 British electricity board issues annual report. For Comm W 31:38+ Je 12 '48
 British electricity; hopes for the future. Lord Citrine. Elec R (Lond) 142:575-6 Ap 16 '48
 British fuel and power industries. Gas J (Lond) 262:243-4+ O 29 '47
 British grid system in war time. J. Hacking and J. D. Peattie. Il maps Inst E E J 94 pt 2:463-76 O '47; Same cond. Engineering 163:225-7, 249-51 Mr 21-28 '47; Discussion. Inst E E J 94 pt 2:476-80 O '47
 Central electricity board; twentieth annual report. Engineering 165:302 Mr 26 '48; Engineer 185:310-11 Mr 26 '48; Elec R (Lond) 142:473-4 Mr 26 '48
 Data on domestic consumers. Elec R (Lond) 143:206 Ag 6 '48
 Effect of staggering on electrical demand. Engineering 164:618-19 D 26 '47; Electrician 139:1637-8 D 5 '47; Elec R (Lond) 141:886 D 12 '47
 824 MW deficit in 1951-52. Electrician 139: 1631 D 5 '47
 Electricity and the public. W. K. Fleming. Elec R (Lond) 142:509-11 Ap 2 '48
 Electricity areas; allocation of existing undertakings. Elec R (Lond) 141:837-8 D 5 '47

Electricity charges; necessity for increases. Elec R (Lond) 142:771-2, 805-6 My 14-21 '48
 Electricity, coal and economic recovery; abstracts. R. A. S. Thwaites. Inst E E J 95 pt 1:82 F '48; Electrician 139:1067 O 10 '47
 Electricity commissioners' annual report for 1946-47. Electrician 140:1266 Ap 23 '48; Engineering 165:451-2 My 7 '48
 Electricity distribution; reorganization as a regional basis for cost reduction; abstracts. R. C. Golding. Elec R (Lond) 142:923-4 Je 11 '48; Electrician 140:1814-20 Je 11 '48
 Electricity sales in Great Britain, 1945-46 and 1946-47. Electrician 139:1372 N 7 '47; Elec R (Lond) 141:710 N 7 '47
 Electricity supply in 1943-44. Engineering 164:566 D 12 '47; Electrician 139:1638 D 5 '47
 Electricity supply in 1944-45. Engineering 165: 614 Je 25 '48; Electrician 140:1985-6 Je 25 '48
 Electricity supply in 1945-46. Engineering 166:230 S 3 '48; Electrician 141:557-8 Ag 20 '48
 Electricity tariff increases; Electricity board statements. Electrician 140:1502-4, 1652 My 14, 28 '48
 Extensions at Bedford. Il Elec R (Lond) 142: 445 Mr 19 '48
 Gas and electricity in Britain; a study in duopoly. F. R. Jervis. Land Econ 24:31-9 F '48
 Inflation and distribution costs. C. F. Matthews. Elec R (Lond) 143:293-4 Ag 20 '48
 Load dispatching and the British grid system. A. R. Cooper. diags Engineer 185: 327-9 Ap 2 '48
 Load spreading arrangements. Electrician 141:165-6 JI 16 '48
 Means and ends; post-war scene; power resources. T. G. N. Haldane. maps diags Engineer 186:392-4 O 15 '48; Abstracts. Elec R (Lond) 143:583-4 O 15 '48; Electrician 141:1149-50 O 15 '48
 Meeting increasing demand; achievements of the Plympton St Mary undertaking. Il map Elec R (Lond) 142:129-32 Ja 23 '48
 National and area organization. H. Self. Electrician 140:1977-8 Je 25 '48
 Peak-load problems; the Clow committee's report. Elec R (Lond) 143:209-10 Ag 6 '48; Electrician 141:395-6 Ag 6 '48
 Provisional guide to the B.E.A. Electrician 140:1033-3 Ap 2 '48
 Review of the consumption of electricity during the past twenty years; abstract. W. S. Burge. Inst E E J 95 pt 1:85 F '48
 Should electricity be taxed? Economist 153: 731-2 N 1 '47
 Supply area tariffs. G. O. McLean. Elec R (Lond) 142:441-4 Mr 19 '48
 Survey of metering practice on the British grid system. F. Byrne. diags Inst E E J 95 pt 2:291-301 Je '48; Excerpts. Engineering 165:342 Ap 9 '48; Discussion. Inst E E J 95 pt 2:301-8 Je '48
 Vesting of electricity undertakers in area boards. map Engineer 184:536 D 5 '47
 Westmorland rural network; abstracts. G. G. Mallinson. Electrician 139:1301 O 31 '47; Elec R (Lond) 141:691 N 7 '47

See also

Electric plants (central stations)—Great Britain

Illinois

Gas and electric utilities in Illinois plan improvements. Il Midwest Eng 1:10-11 S '48

India

Electric development policy announced by Indian province of West Bengal. For Comm W 33:40 O 30 '48

Ireland

Electricity supply; a résumé of progress; abstract. J. McCandless. Inst E E J 95 pt 1:83 F '48
 Northern Ireland board; report for 1947. Electrician 141:340 JI 30 '48
 Progress in Eire. Elec R (Lond) 143:218 Ag 6 '48

ELECTRICITY supply—Ireland—Continued

Record of experience on the Irish electricity supply system. A. Burke and others. *bibliog il map diags Inst E E J* 94 pt 2:591-606 D '47; Discussion, 94 pt 2:607-11; 95 pt 2: 583-96 D '47, O '48; *Electrician* 138:1091-2 Ap 25 '47

Italy

Electricity output in Italy shows slight increase; with figures for September 1946 and 1947. *For Comm W* 29:30 D 20 '47
Electricity supply in Italy; financing new hydro projects; Italo-French agreement. *Electrician* 140:1512 My 14 '48
Italy's electric power production up in 1947. *For Comm W* 32:43 S 4 '48
Power development in Italy. *Electrician* 141: 784 S 10 '48

Japan

Japanese electric power system. E. J. Burger. *il map Elec Eng* 66:1201-6 D '47

Liverpool

Liverpool undertaking. *il Electrician* 140: 1709-11 Je 4 '48

London

Bethnal Green bulk supply; new main substation. *il Elec R (Lond)* 141:773 N 21 '47
County of London electric supply; passing of a great undertaking. R. Reynell. *Electrician* 140:885-90 Mr 19 '48
District heating in London. S. B. Donkin. *Elec R (Lond)* 141:624 O 24 '47
Load spreading for London. *Electrician* 141: 789 S 10 '48
London electricity board; new service centre. *Electrician* 141:322 J1 30 '48

Madras

Agriculture in Madras; important load development. *Elec R (Lond)* 143:331 Ag 27 '48

Malayan Union

Malayan reconstruction; abstract. F. P. Egerton. *Electrician* 139:1857 D 26 '47
Malayan Union issues electricity-output data for 1946. *For Comm W* 29:31 D 20 '47
Recovery in Malaya. *Elec R (Lond)* 141:848 D 5 '47

Mexico

Power development in Mexico. A. P. Urquidí and others. *Elec Eng* 67:741 Ag '48

Nevada

Power for Nevada's mines. J. A. Carpenter. *Min Cong J* 34:67+ S '48

New Orleans

Installing 110-kv oil-pipe cable in old New Orleans. M. J. Cade. *il plans diag Elec World* 129:70-3 F 28 '48
Urban areas served at generator voltage in New Orleans. F. E. Johnson, jr. *il plan diags Elec World* 128:85-7 N 22 '47

New York (city)

Operations at Consolidated Edison New York plant disrupted by heat. *Elec World News* ed 130:12 S 4 '48

New York (state)

Welcome rains; Niagara Hudson restores full power service. *Bsns W* p52 N 15 '47

New Zealand

Electricity supply in New Zealand. *Engineering* 164:518 N 28 '47
New Zealand power policy; abstract. F. T. M. Kissel. *Elec R (Lond)* 141:746 N 14 '47
New Zealand's power position. *Elec R (Lond)* 143:586 O 15 '48
New Zealand's power problems. *Electrician* 141:777 S 10 '48

Northwestern states

Bonneville power administration loss heaviest of NW power systems; due to floods. *Elec World* 129:13 Je 26 '48
Northwest kw outlook. R. A. Tudor. *il Elec West* 100:89-92 Je '48
Northwest power; Bonneville administration urges private utilities to expand. *Bsns W* p36 F 21 '48

Problems of coping with anticipated Northwest power shortage studied. *Elec World* 129:63 Ap 24 '48

Norway

Norway forced to ration power to electricity industry. *For Comm W* 29:27-8 N 22 '47
Submarine cables in Norway. C. W. Hirsch. *il map Elec Com* 25:3-9 Mr '48

Ontario

Power switch; Ontario to bring its Niagara system into line with others. *Bsns W* p 126-7 Mr 20 '48

Pakistan

Development of electrical power. *For Comm W* 32:26-7 J1-31 '48

Portsmouth, England

Load shedding warnings; use of radio relay service network at Portsmouth. *Electrician* 140:346 Ja 30 '48

Queensland

Progress in Queensland. *Elec R (Lond)* 141: 951 D 26 '47

Rumania

Electricification makes progress; with data for 1930-1942. *For Comm W* 31:38 Je 5 '48

San Francisco

San Francisco satisfied, Raker Act effect small. *Elec World News* ed 128:5 D 27 '47

Scotland

Highlands load building. *il map diag Elec R (Lond)* 141:683-8, 840-4; 142:343-5, 422-7, 497-9, 613-16, 833-6 N 7, D 5 '47, Mr 5, 19, Ap 2, 23, My 28 '48
North of Scotland tariffs. *Electrician* 140: 1919 Je 18 '48

South Africa

Electricity in South Africa; Supply commission's report; 25 years' progress. *Electrician* 141:715 S 3 '48
South African commission; extension of operations. *Elec R (Lond)* 143:413 S 10 '48

Spain

Spanish electric-power production rises sharply. *For Comm W* 31:38 Je 19 '48

Sweden

Sweden acts to increase electric-power output. *For Comm W* 31:37 Je 12 '48

See also
Electric lines—
Sweden

Switzerland

Electric-power developments. *For Comm W* 31:37-8 Je 12 '48
Switzerland announces new restrictions on use of power. *For Comm W* 29:30 D 6 '47

Tacoma, Washington

Redeveloping old hydro project ups output from 150 to 500 million kw/hr. *il plan diags Power* 92:268-72 My '48

Tennessee valley

Clapp believes U.S. must build TVA steam plant to live up to contracts. *il Elec World News* ed 130:13-14 Ag 7 '48

Texas

FPC authorizes Texas systems to interconnect. *Elec World News* ed 129:14 My 1 '48

Toledo, Ohio

Selling planned lighting, why and how; the Toledo story. F. R. Innes and others. *il maps Elec World* 130:87-102 J1 31 '48

Turkey

Turkey's electric power industry expands in 1947. *For Comm W* 31:40 My 22 '48

United States

Capacity expansion program grows. *Elec World* 130:71 O 23 '48
Defense agencies concerned about power supply. T. N. Sandifer. *Pub Util* 42:93-8 J1 15 '48

ELECTRICITY supply—United States—Cont.

Electric power and our national defense. W. L. Cisler. *il Elec Eng* 67:319-24 Ap '48; Same cond. *Power Generation* 52:53- My '48; Excerpts. *Elec World* 129:86-7 F 14 '48

Electric power in national economy and defense; abstract. W. L. Cisler. *Pub Util* 42:311-12 Ag 26 '48

Electric power situation in the United States. *il maps* diags *Power Generation* 52:58-72 Js '48

FPC urges more interties to make best use of capacity. *Elec World News* ed 128:4 N 29 '47

Future demand to make power industry hustle. *Bsns W* p25 Jl 31 '48

Future electric power needs of American industry. F. R. Benedict. *il Elec Eng* 67:477-82 My '48; Excerpts. *Welding J* 27:450-2 Je '48; *Product Eng* 19:156-7 S '48

Greater-than-seasonal drop in electric power output. *Barron's* 28:35 My 17 '48

How tight is the Nation's power supply? P. Sporn. *Pub Util* 41:112-16 Ja 15 '48

Long range growth, a challenge to utility sales forces. W. L. Cisler. *Edison Elec Inst Bul* 16:111-12 Ap '48

Major interconnections; FPC believes more are necessary; map. *Elec World News* ed 128:16-17 D 13 '47

More power to America. J. O. Roser. *diags Edison Elec Inst Bul* 16:271-4 Ag '48

Nation-wide power shortage? *Pub Util* 41:573-4 Ap 22 '48

Nationwide power shortage in rural areas. REA reports. *Elec World News* ed 128:12-13 D 13 '47

Output, 1947, with tabulated data, 1932-1947. *Elec World* 129:142-3 Ja 17 '48

Power industry successfully meets peak power demands. *Edison Elec Inst Bul* 16:1+ Ja '48

Power paradox; electric utilities aren't gaining on demand. *Bsns W* p34+ My 29 '48; Discussion. p64+ Jl 24 '48

Power pinch. *Bsns W* p25 N 29 '47

Power situation expected to stay tight until '51; abstracts. A. M. Hill. *Barron's* 28:30 My 24 '48; *Pub Util* 41:806-7 Je 3 '48

Prospects for future industrial power load. C. B. Stainback. *Edison Elec Inst Bul* 16:113-18+ Ap '48

Revolutions and roadblocks. C. H. Lang. *Edison Elec Inst Bul* 16:229-32+ Jl '48

Shortages of reserve capacity tax systems' capabilities. *il Elec World* 128:74-7 N 22 '47

10,000,000 kw needed in next five years; abstract. J. A. Krug. *Elec World News* ed 129:13 F 7 '48

Thirty thousand hours a minute. G. A. Price. *Edison Elec Inst Bul* 16:236-8+ Jl '48; Excerpts. *Elec World* 129:100 Je 5 '48

Tight power supply will continue; Northwest critical. NSRB reports. *Elec World News* ed 129:4-5 My 29 '48

Utilities meet record demand. *il Elec World News* ed 128:4 D 27 '47

Utilities over the hump. *Bsns W* p21 Ja 10 '48

Weapon of tomorrow stalled by scarcity of power today; wind tunnels to test supersonic aircraft will require 1,500,000 kw. *Elec World News* ed 129:4 F 21 '48

What power shortage? *il Fortune* 37:96-7 Ja '48

Who keeps plugging the power shortage. R. S. Byfield. *Pub Util* 42:186 Jl 29 '48

Winter power pinch to nip many areas of U.S. map *Bsns W* p 19-20 O 23 '48

Wales

Grid extensions in south Wales. *il Electrician* 141:41 Jl 2 '48

Western states

\$1.4 billion reclamation program would up capacity 7,392,600 kw. *Elec World News* ed 130:4 Ag 7 '48

West still builds. *il Elec West* 100:65-7 F '48

Why regiment power. maps *Elec West* 100:92-5 Je '48

Wyoming

Wyoming has brownout to conserve coal stocks. *Elec World News* ed 129:19 Ap 3 '48

ELECTROACOUSTIC transducers

Acoustic impedance from motional impedance diagrams. R. D. Fay and J. E. White. *bibliog* diags *Acoustical Soc Am J* 20:98-107 Mr '48

Characteristics of stepped-frequency transducer elements. F. P. Bundy. *diags Acoustical Soc Am J* 20:297-304 My '48

Cones as underwater transducer reflectors. R. E. Mueser. *bibliog* *il diags Acoustical Soc Am J* 19:952-5 N '47

Electrokinetic transducer for transformation of sonic to electrical energy. M. Williams. *bibliog* *il diags R Sci Instr* 19:640-6 O '48

Lamination designs for magnetostrictive underwater electroacoustic transducers. L. Camp. *diags Acoustical Soc Am J* 20:616-19 S '48

100 kc underwater magnetostrictive transducer. L. Camp and others. *il diag Acoustical Soc Am J* 20:611-15 S '48

Self-reciprocity calibration of electroacoustic transducers. E. L. Carstensen. *bibliog* diags *Acoustical Soc Am J* 19:961-5 N '47

Sonic navigation system. S. E. Rich and A. H. Rosen. *il diags Electronics* 21:92-7 N '48

Underwater sound transducers. H. F. Olson and others. *il diags RCA R* 8:698-718 D '47

See also

Loud speaking

apparatus

Microphone

ELECTROACOUSTICS

Radio progress during 1947; electroacoustics. *bibliog* *Inst Radio Eng Proc* 36:547-9 Ap '48

Report on the National electroacoustics institute O. M. Corbino (I.N.E.A.C.), Rome, Italy; with annotated bibliography. R. H. Bolt and A. Giacomini. *Acoustical Soc Am J* 20:328-43 My '48

ELECTROCAPILLARITY

Electrical double layer and the theory of electrocapillarity. D. C. Grahame. *diags Chem R* 41:441-501 *bibliog*(95 ref, p500-1) D '47

ELECTROCARDIOGRAPH

Instantaneous recording cardiachometer. R. E. Sturm and E. H. Wood. *il diag R Sci Instr* 18:771-6 O '47

ELECTROCHEMICAL analysis

Apparatus for the detection and estimation of small amounts of chloride. B. A. Scott. *diags Soc Chem Ind J* 67:1-2 Ja '48

Electrodeposition principles in analysis. *il diags Chem Age (Lond)* 59:386-9 S 18 '48

Electrolytic and polarographic determination of zinc in thorium. J. H. Patterson and C. V. Banks. *bibliog Anal Chem* 20:897-900 O '48

ELECTROCHEMICAL industries**Power**

D.c. prophecy; abstract. F. R. Benedict. *Chem Eng* 55:298+ S '48

Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard. *il diags Elec Eng* 66:1059-63 N '47

Statistics

Electrochemicals; for chlorine and fluorine, new cells. *Chem Eng* 55:118 F '48

Niagara area

Industries of the Niagara frontier; abstract. J. T. Rucker and others. *Chem Eng Prog* 43:sup 12+ N '47

Ohio

Electrochemical axis; area between Ashtabula and Painesville. Ohio. R. E. Cochran. *map Chem Eng* 55:106-7 Ap '48

ELECTROCHEMICAL society

Annual meeting, 92d, Boston, Oct. 15-18; abstracts of papers. *Steel* 121:98-100+ N 17 '47

Meeting, 93d, Columbus, Ohio, April 14-17; abstracts of corrosion symposium papers. *Steel* 122:100+ My 17 '48

Meeting, 94th, New York, Oct. 14-17. *Chem & Eng N* 26:3191-3+ O 26 '48

ELECTROCHEMICAL society—Continued

National meeting, 93d, Columbus, April 14-17, Chem & Eng N 26:1288 My 3 '48;
Can Chem & Process Ind 32:434 My '48

ELECTROCHEMISTRY

Chemistry of high-speed electrolytic facsimile recording, H. G. Greig, bibliog diag Inst Radio Eng Proc 36:1224-35 O '48

Development of electrochemical theories of the course of reactions of carbon compounds, R. Robinson, Chem Soc J p 1288-301 S '47

Dissolution of aluminum in sodium hydroxide solutions, M. A. Streicher, bibliog(45 ref) il diag Electrochem Soc J 93:285-316 Je '48

Electrochemical properties of mineral membranes; clay membranes for the determination of calcium, C. E. Marshall and A. D. Ayers, bibliog Am Chem Soc J 70:1297-302 Ap '48

Electrochemical properties of mineral membranes; clay membranes for the determination of magnesium, C. E. Marshall and L. O. Elme, Am Chem Soc J 70:1302-5 Ap '48

Electrochemical sources of electric power, G. W. Vinal, bibliog il diags Elec Eng 67:354-7, 456-65 Ap-May '48

Electrochemistry of indium, T. Moeller and E. S. Hopkins, bibliog(71 ref) Electrochem Soc J 93:84-93 Mr '48

Fundamentals in applied electrochemistry, C. G. Fink, J Chem Educ 25:219-21 Ap '48

Some aspects of the electro-chemistry of dyeing, S. M. Neale, bibliog Soc Dyers & Col J 63:368-70; Discussion, 370-1 D '47

See also

Electric precipitation	Electrolytic cells
Electrochemical analysis	Electrometallurgy
Electrodeposition of metals	Electroplating
Electrodes	Ionization, Electrolytic
Electrolysis	Reduction, Electrolytic
Electrolytes	

History

Historic researches; conduction of electricity through liquids, diags Engineer 184:404-5, 428-9, 452-3 O 31-N 14 '47

Study and teaching

Modern approach to the teaching of electrochemistry, A. W. Davidson, diag J Chem Educ 25:533-6 O '48

ELECTRODEPOSITION of metals

Alloys by electrodeposition, J. B. Mohler and H. J. Sedusky, bibliog diag Metal Finishing 45:65-70 D '47

Concave metallic replica gratings, I. Simon, il diag R Sci Instr 18:894-6 D '47

Deposition of tantalum and columbium from their volatilized halides, C. F. Powell and others, bibliog il Electrochem Soc J 93:253-65 Je '48

Electrodeposition and properties of tin-zinc alloys, J. W. Cuthbertson and R. M. Angles, bibliog il Electrochem Soc J 94:73-98 Ag '48

Electrodeposition of gamma manganese, D. Schlaun and J. D. Prater, bibliog il diag Electrochem Soc J 94:68-73 Ag '48

Electrodeposition of tungsten alloys, Mech Eng 70:34 Ja '48; Same cond. il Chem & Eng N 25:3590 D 1 '47; Abstract, Iron Age 160:70 D 4 '47

Electrodeposition principles in analysis, il diags Chem Age (Lond) 59:386-9 S 18 '48

Electroformed precision prisms, B. Goldberg, il Opt Soc Am J 38:409-12 Ap '48

Electroforming process; abstract, W. Orbaugh, il Product Eng 19:145-6 Mr '48

Electrolytic iron powder production, W. J. Granberg, il Iron Age 160:70-2 D 25 '47

Influence of internal stress on the structure of electro-deposits, M. R. J. Wyllie, bibliog il diags J Chem Phys 16:52-64 Ja '48

Metal plating on non-conductors, C. A. Marlies, il diags Metal Finishing 46:60-6+ O '48

New methods of electro-forming and depositing nickel, il Steel 123:106+ J 12 '48

Production of electroforming, T. S. Blair, il diag Iron Age 161:72-5 Ap 1 '48

See also

Electroplating

ELECTRODES

Absolute measurement of high voltages by oscillating electrode systems, E. Bradshaw and others, bibliog diags Inst E J 95 pt 2: 636-41; Discussion, 641-4 O '48

Anodes for electroplating, E. R. Thews, il Metal Finishing 46:68-75 Mr; 61-6+ Ap; 74-9 My '48

Bridge erosion of electrical contacts, J. J. Lander and L. H. Germer, bibliog il J Ap Phys 19:910-28 O '48

Cathodic protium-tritium separation factor; apparatus; platinum cathode-alkaline solution, M. L. Eidinoff, bibliog diags Am Chem Soc J 69:2507-9 O '47

Clearing field electrode for cloud chambers, G. S. Klaiber and G. C. Baldwin, R Sci Instr 18:798 O '47

Comparative properties of grounding electrodes; engineering reference sheet, R. Rudenberg, diags Elec World 129:72 Ja 31 '48

Contact liquid rheostat uses stationary electrodes, T. B. Montgomery and A. C. Halter, diags Elec World 129:144+ My 22 '48

Electroplating recessed areas with bipolar electrodes, U. C. Jones, il diag Iron Age 162:98-9 O 7 '48

Heavy duty chlorine-depolarized cell, G. W. Heise and others, bibliog diags Electrochem Soc J 94:99-105 S '48

Low voltage discharge between very close electrodes, L. H. Germer and F. E. Haworth, il Phys R 73:1121 My 1 '48

Magnesium anodes for pipe line protection, D. J. Walraven, il World Oil 128:182+ S '48

Manganous ion-manganese dioxide electrode, A. W. Hutchison, bibliog Am Chem Soc J 68:3051-4 D '47

Mechanism of the reduction of oxygen at the air electrode, R. S. Weisz and S. S. Jaffe, bibliog Electrochem Soc J 93:128-41 Ap '48

Polarographic study with a microelectrode past which an electrolyte is flowing, O. H. Müller, bibliog diags Am Chem Soc J 69:2992-7 D '47

Polarography in liquid ammonia; the electron electrode, H. A. Laitinen and C. J. Nyman, Am Chem Soc J 70:3002-8 S '48

Studies on some metal electrodes, A. R. Tourky, S. E. S. El Wakkad and A. A. Mousa, diags Chem Soc J p740-63 Je '48

Studies on some metal electrodes; does the antimony electrode behave simply as a metal-metal oxide electrode in air? A. R. Tourky and A. A. Mousa, Chem Soc J p752-6 Je '48

Surface electrodes for recording bioelectric potentials, J. L. Kennedy and R. C. Travis, Science 108:183 Ag 20 '48

Zinc anode protection installed during pipeline construction, O. C. Roddey, diags Oil & Gas J 46:87-8+ Ap 22 '48

See also

Cathodes

Electrical welding—
Electrodes

Electrodes

Electrodes, Glass

Concentric glass electrode assembly for pH measurements, M. D. Cannon, diags Science 106:597 D 12 '47

Effect of annealing and other heat treatments on the pH response of the glass electrode, D. Hubbard and G. F. Rynders, bibliog J Res Nat Bur Stand 40:105-12 F '48

Electrode function (pH response) of the soda-silica glasses, G. F. Rynders and others, Am Cer Soc J 31:269-73 O 1 '48; Abstract, Glass Ind 29:319 Je '48

Glass electrode; temperature-potential relationships, J. Jackson, bibliog Chem & Ind p7-10 Ja 3 '48

pH responsive glass electrode; patent, Glass Ind 29:504 S '48

Voltage anomalies of the glass electrode and the chemical durability of the glass, D. Hubbard and G. F. Rynders, bibliog J Res Nat Bur Stand 39:561-70 D '47

ELECTRODIALYSIS. See Dialysis

ELECTRODYNAMICS

Classical equations of motion of point charges, P. Havas, bibliog Phys R 74: 456-63 Ag 15 '48

ELECTRODYNAMICS—Continued

- Electromechanical feedback. J. de Boer and G. Schenkel. diags Acoustical Soc Am J 20: 641-7 S '48
- First-order variational principle for classical electrodynamics. F. J. Belinfante. bibliog Phys R 74:779-81 O 1 '48
- Infinities in generalized meson-field theory. A. E. S. Green. bibliog Phys R 73:26-9 Ja 1 '48
- Negative energies in generalized electrodynamics. J. Rayski. Phys R 74:629 S 1 '48
- Phenomenological quantum-electrodynamics. J. M. Jauch and K. M. Watson. Phys R 74: 350-7 O 15 '48
- Problem of the molecular theory of superconductivity. F. London. bibliog Phys R 74:562-73 S 1 '48
- Quantum-electrodynamics and the magnetic moment of the electron. J. Schwinger. bibliog Phys R 73:416-17 F 15 '48
- Reactive terms in quantum electrodynamics. H. W. Lewis. bibliog Phys R 73:173-6; Discussion, S. T. Epstein. 177 Ja 15 '48
- Relativistic cut-off for classical electrodynamics. R. P. Feynman. bibliog diag Phys R 74:939-46 O 15 '48
- Review of a generalized electrodynamics; review of five papers. B. Podolsky and P. Schwed. bibliog Rs Mod Phys 20:40-50 Ja '48
- Theory of magnetic poles. P. A. M. Dirac. Phys R 74:817-30 O 1 '48

ELECTROENCEPHALOGRAPHIC society. See American electroencephalographic society

ELECTROGRAPHIC analysis

- Systematic scheme for identifying corrosion resistant metals; electrographic method. C. J. Zeeh. diags Metal Prog 52:824, 824B+ N '47

ELECTROHORTICULTURE

- Application of electricity to horticulture. C. A. Cameron Brown and E. W. Golding. bibliog il diags Inst E E J 95 pt 2:423-33; Discussion. 434-8 Ag '48

ELECTROHYDRAULIC control

- Dura power actuation; hydro-electric systems for windows, seat adjustment, and coupé hoods. diags Automobile Eng 38:137-40 Ap '48
- Electric drives with fluid couplings for materials handling. E. W. Atz, Jr. il diag Paper Ind 30:462+ Je '48; Same abr. Elec Eng 67:466-8 My '48; Same cont. Paper Tr J 126:41-2 F 12 '48
- Hydraulic-electric system; machine for magnafux inspection of crankshafts and camshafts. W. E. Bock. il diags Machine Design 19:107-11 D '47
- Power-operated controls for the S.R. 45 flying boat. plan Engineer 186:134-5 Ag 6 '48

ELECTROLYSIS

- Anodic deposition of manganese dioxide; tr. by O. C. Ralston. P. Marx. U S Bur Mines Information Circ 7464:1-9 '48
- Calculations on countercurrent electromigration. G. Breit and F. L. Friedman. J Res Nat Bur Stand 39:397-409 N '47
- Chemistry of high-speed electrolytic facsimile recording. H. G. Grelg. bibliog diag Inst Radio Eng Proc 36:1229-35 O '48
- Demonstrations using a divided projection cell. W. B. Meldrum. diag J Chem Educ 25:490-2 S '48
- Electrolytic method for stripping color from dyed wool. E. R. Kaswell and G. Thomson. il diags Am Dyestuff Rep 37:119-30 F 23 '48; Discussion. 37:302-3 My 3 '48
- Electrolytic ozone. G. L. Putnam and others. bibliog diags Electrochem Soc J 93:211-21 My '48
- Electrolytic preparation of zinc dust; tr. by O. C. Ralston. W. Eckardt. U S Bur Mines Information Circ 7466:1-6 '48
- Electrolytic production of chlorates. N. C. White. flow sheet Electrochem Soc Trans 92 (preprint 25):295-301 '47
- Electrolyzing sodium sulphate waste from spinning bath recovery in viscose process. P. W. Frisk. bibliog diags Rayon 29:51-3 F '48
- Electronic power source for electrolysis. R Sci Instr 19:198-9 Mr '48; Same. Franklin Inst J 245:433-5 My '48

- Graphite anodes in brine electrolysis; application to chlorate cells. M. Janes. bibliog il diag Electrochem Soc Trans 92 (preprint 31):363-84 '47

See also
Electrochemical analysis Electrolytic cells
Electrolytic corrosion

ELECTROLYTES

- Analytical boundary method for the determination of transference numbers. A. B. Brady. bibliog diag Am Chem Soc J 70:911-14 Mr '48
- Anodic reactions of aluminum and its alloys in sulfuric and oxalic acid electrolytes. R. B. Mason and C. J. Slunder. bibliog Ind & Eng Chem 39:1602-7 D '47; Same. Metal Finishing 46:65-70 F '48
- Chain electrolytes. D. Edelson and R. M. Fuoss. Am Chem Soc J 70:2832 Ag '48
- Chemical reactions in moving boundary systems of weak electrolytes. R. A. Alberty and J. C. Nichol. Am Chem Soc J 70:2297 Je '48
- Coagulation of hydrous ferric oxide sols by electrolytes. E. F. Tuller and E. I. Fulmer. bibliog J Phys & Colloid Chem 52:787-808 My '48
- Concentration of copper 63 by the countercurrent electromigration method. S. L. Madorsky and S. Straus. diag J Res Nat Bur Stand 41:41-4 Jl '48
- Development of the clay coagulation process for the reduction of electrolyte in GR-S. E. A. Willson and others. Rubber Age 62: 183-6 N '47
- Effect of alkaline electrolytes on micelle formation in soap solutions. R. C. Merrill and E. Getty. bibliog J Phys & Colloid Chem 52:774-87 My '48
- Effect of inhibitors on the corrosion of zinc in dry-cell electrolytes. C. K. Morehouse and others. bibliog diag J Res Nat Bur Stand 40:151-61 F '48
- Electrolyte builders for surface active agents. J. C. Harris. bibliog diags Am Dyestuff Rep 37:266-70 Ap 19 '48
- Electrolyte effects in the hydration of isobutene. F. G. Ciapetta and M. Kilpatrick. bibliog il Am Chem Soc J 70:639-46 F '48
- Electrolyte equilibria in relation to dry cell performance. N. C. Cahoon. bibliog Electrochem Soc Trans 92 (preprint 17):203-16 '47
- General theory of the formation of liquid films. L. B. Robinson. bibliog J Chem Phys 16:734-6 Jl '48
- Interpretation of X-ray scattering from solutions of long-chain electrolytes on the basis of a spherical micelle. M. L. Corrin. bibliog J Chem Phys 16:844-5 Ag '48
- Ionic hydration and activity in electrolyte solutions. R. H. Stokes and R. A. Robinson. bibliog Am Chem Soc J 70:1870-8 My '48
- Osmotic behavior of some colloidal electrolytes as determined by means of the Hill-Baldes vapor-tension apparatus. M. N. Fineman and J. W. McBain. bibliog diag J Phys & Colloid Chem 52:881-96 My '48
- Polarographic investigation of hexamminecobaltic chloride in various supporting electrolytes. H. A. Laitinen and others. bibliog Am Chem Soc J 70:2999-3002 S '48
- Self-diffusion coefficients and transference numbers of the small ions in colloidal electrolytes. A. P. Brady and D. J. Salley. bibliog Am Chem Soc J 70:914-19 Mr '48
- Structure of micelles of colloidal electrolytes; a new long-spacing X-ray diffraction band, and the relations of other bands. R. W. Mattoon and others. bibliog J Chem Phys 16:644-58 Jl '48
- Transference numbers of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. L. W. Shemilt and others. bibliog J Chem Phys 16:340-3 Ap '48
- See also
Electric double layer
Electrolytic cells

Conductivity

- Conductance of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. H. I. Schiff and A. R. Gordon. bibliog J Chem Phys 16:336-9 Ap '48

ELECTROLYTES—Conductivity—Continued

- Conductivities of alkylammonium chlorides in aqueous solutions of their homologs. A. W. Ralston and D. N. Eggenberger. *bibliog Am Chem Soc J* 70:2918-21 S '48
- Conductivities of aqueous solutions of dodecylammonium chloride. A. W. Ralston and D. N. Eggenberger. *Am Chem Soc J* 70:436 Ja '48
- Conductivities of quaternary ammonium chlorides containing two long-chain alkyl groups. A. W. Ralston, D. N. Eggenberger and P. L. Du Brow. *bibliog Am Chem Soc J* 70:377-9 Mr '48
- Dielectric behavior of solutions of electrolytes in solvents of low dielectric constant. H. A. Strobel and H. C. Eckstrom. *bibliog J Chem Phys* 16:817-31 Ag '48
- Dielectric properties of aqueous ionic solutions. J. B. Hasted and others. *bibliog diags J Chem Phys* 16:1-21 Ja '48
- Effect of organic non-electrolytes upon the conductivities of aqueous solutions of cationic colloidal electrolytes. A. W. Ralston and D. N. Eggenberger. *bibliog Am Chem Soc J* 70:983-7 Mr '48
- Effects of electrolytes upon the conductivity of aqueous solutions of dodecylammonium chloride. A. W. Ralston and D. N. Eggenberger. *bibliog Am Chem Soc J* 70:980-5 Mr '48
- Electrical conductance and density of solutions of potassium 9,10-dihydroxystearate and potassium stearate at 60°. N. W. Gregory and H. V. Tartar. *bibliog Am Chem Soc J* 70:1992-5 Ja '48
- Electrical conductance of strontium chloride and strontium bromide in ethanol-water mixtures. R. L. Bateman and D. T. Ewing. *bibliog Am Chem Soc J* 70:2137-40 Je '48
- Electrolytic conductivity as a method for studying electronic transitions in elements; application to iron, nickel and cobalt. W. R. Ham and C. H. Samans. *bibliog il diag Am Soc for Metals Trans* 39:73-99; Discussion. 99-108 '47
- Electrophoretic mobilities and conductometric activities of potassium, sodium, and lithium salts of gum arabic. D. R. Briggs. *bibliog J Phys & Colloid Chem* 52:76-83 Ja '48
- Improved conductance bridge. W. L. Foy and A. E. Martell. *bibliog diag R Sci Instr* 19:628-32 O '48
- Properties of electrolytic solutions; conductance of some electrolytes in nitrobenzene at 25°. C. R. Witschonke and C. A. Kraus. *bibliog Am Chem Soc J* 69:2472-81 O '47
- Properties of electrolytic solutions; conductance of some electrolytes in pyridine at 25°. D. S. Burgess and C. A. Kraus. *bibliog Am Chem Soc J* 70:706-11 F '48
- Properties of electrolytic solutions; conductance of some inorganic and organic electrolytes in pyridine at 25°. W. F. Luder and C. A. Kraus. *bibliog Am Chem Soc J* 69:2481-3 O '47
- Properties of electrolytic solutions; conductance of some long chain electrolytes in methanol-water mixtures at 25°. E. C. Evers and C. A. Kraus. *bibliog Am Chem Soc J* 70:3049-54 S '48
- Properties of electrolytic solutions; conductance of some long chain salts in ethylene chloride and nitrobenzene at 25°. H. E. Weaver and C. A. Kraus. *bibliog Am Chem Soc J* 70:1707-9 My '48
- Properties of electrolytic solutions; the conductance of some salts in acetone at 25°. M. B. Reynolds and C. A. Kraus. *bibliog Am Chem Soc J* 70:1709-13 My '48
- Some problems of application of conductivity equipment; non-mathematical review. A. L. Chaplin. *diags Instruments* 21:273-9 Mr '48
- ELECTROLYTIC cells**
- Cathodic protium-tritium separation factor; apparatus; platinum cathode-alkaline solution. M. L. Eldinoff. *bibliog diags Am Chem Soc J* 69:2507-9 O '47
- Caustic purification by liquid-liquid extraction. H. C. Twiehaus and N. J. Ehlers. *il diag Chem Ind* 63:230-3 Ag '48
- Commercial production of perchlorates. J. C. Schumacher. *il diags Electrochem Soc Trans* 92 (preprint 24):287-94 '47
- Demonstrations using a divided projection cell. W. B. Meldrum. *diag J Chem Educ* 25:490-2 S '48
- Design of plating range cells. J. B. Mohler. *diags Metal Finishing* 46:59-61 S '48
- Electrowinning of manganese from chloride electrolytes. J. H. Jacobs and P. E. Churchward. *bibliog Electrochem Soc J* 94:108-21 S '48
- Evaluation of strip plating aided by use of circulating electrolyte cell. R. A. Dimon. *il diags Steel* 123:116-4 S 20 '48; Abstract. *Iron Age* 162:84-5 S 16 '48
- Frequency transformations for use with the electrolytic tank. W. H. Huggins. *diags Inst Radio Eng Proc* 36:421-4 Mr '48
- Graphite anodes in brine electrolysis; application to chlorate cells. M. Janes. *bibliog il diag Electrochem Soc Trans* 92 (preprint 31):363-84 '47
- Lead refining with sulfamate baths. R. Piontelli. *bibliog il Electrochem Soc J* 94:106-8 S '48
- Lecture demonstrations of electrochemical reactions. J. R. Martin. *diags J Chem Educ* 25:495-7 S '48
- Mercury cathode cell for rapid electrolysis. F. T. Rabbitts. *bibliog il diags Anal Chem* 20:181-2 F '48
- New electrolytic cell for magnesium and chlorine production. B. G. Hunt. *il Electrochem Soc J* 94:151-60 O '48
- New mercury cell makes its bow; Mathieson alkali works. W. C. Gardiner. *il diag Chem Eng* 54:108-12 N '47
- Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard. *il diags Elec Eng* 66:1059-63 N '47
- ELECTROLYTIC corrosion**
- Electrolysis; electrolytic corrosion of steel in concrete; report of electrolytic section, Engineering division, Association of American railroads. *il Ry Mech Eng* 122:541-3 O '48
- Electrolytic action in this boiler? C. C. Custer. *Power Generation* 52:88-9 Ja '48
- Method of electrically bonding high resistance pipe couplings without excavation. H. S. Riddle and H. S. Harris. *il Gas Age* 102:17-18+ J1 8 '48
- Polarity of d-c control. *bibliog Elec Eng* 67:985 O '48
- Protecting cooling systems subject to electrolysis. E. W. Balis and H. A. Liebhafsky. *il diags Gen Elec R* 51:40-5 S '48
- ELECTROLYTIC metal cleaning.** See Metal cleaning, Electrolytic
- ELECTROLYTIC polishing.** See Polishing, Electrolytic
- ELECTROLYTIC reduction.** See Reduction, Electrolytic
- ELECTROLYTIC well models.** See Petroleum—Electrolytic well models
- ELECTROLYTIC zinc.** See Zinc metallurgy—Electrometallurgy
- ELECTROMAGNETIC field**
- Analyzing electromagnetic field problems; analyzer designed on Kron principles. K. Spangenberg and others. *il diags Tele-Tech* 7:22-5+ Ag '48
- Electromagnetic field. G. R. Holm. *Western Soc E J* 53:87-92 Je '48
- Field distributions near a centre-fed half-wave radiating slot. J. L. Putman and others. *diags Inst E E J* 95 pt 3:282-9 J1 '48
- Hamiltonian for a particle in an electromagnetic field. P. I. Richards. *Phys R* 73:254 F 1 '48
- Method of measuring the field strength of high-frequency electromagnetic fields. R. Truett. *diag Inst Radio Eng Proc* 35:1249-51 O '48
- Methods of electromagnetic field analysis. S. A. Schelkunoff. *diags Bell System Tech J* 27:487-509 J1 '48
- Motion of an electron in the field of a magnetic pole. Harish-Chandra. *Phys R* 74:833-7 O 15 '48
- Orbits of charged particles in constant fields. A. H. Taub. *Phys R* 73:786-98 Ap 1 '48
- Scattering of electromagnetic radiation by a thin circular ring in a circular wave guide. E. Feuer and E. S. Akeley. *diags J Ap Phys* 19:39-47 Ja '48
- Some observable effects of the quantum-mechanical fluctuations of the electromagnetic field. T. A. Welton. *bibliog Phys R* 74:1157-67 N 1 '48

ELECTROMAGNETIC pumps. See Pumps, Electromagnetic

ELECTROMAGNETIC shielding

Construction of shielded room in vhf field. C. C. Pine, *il* diags *Electronics* 21:150+ Ap '48

Screening at v.h.f. B. Roston, diags *Wireless Eng* 25:221-30 Jl '48

ELECTROMAGNETIC theory

Diffraction of electromagnetic waves. W. O. Tranter, *Phys R* 73:184 Ja 15 '48

Dimensional analysis of electromagnetic equations. A. M. Winzemer, *Inst Radio Eng Proc* 35:1383-4 N '47

Double current sheet in diffraction. W. R. Smythe, bibliog diags *Phys R* 72:1066-70 D 1 '47

Radiation patterns of dielectric rods; experiment and theory. R. B. Watson and C. W. Horton, diags *J Ap Phys* 19:661-70 Jl '48

Theory of magnetic poles. P. A. M. Dirac, *Phys R* 74:817-30 O 1 '48

Waves and electrons traveling together; a comparison between traveling wave tubes and linear accelerators. L. Brillouin, diags *Phys R* 74:90-2 Jl 1 '48

ELECTROMAGNETISM

Cullwick's electromagnetic problems. G. W. O. Howe, diags *Wireless Eng* 25:273-4 S '48

Inversion applied to the solution of three-dimensional electromagnetic problems. A. Bloch, bibliog diags *J Ap Phys* 18:1064-71 D '47

Narrow gaps in microwave problems. W. R. Smythe, diags *Rs Mod Phys* 20:175-80 Ja '48

Resonant modes of the rising sun and other unstrapped magnetron anode blocks. N. M. Kroll and W. E. Lamb, jr, diags *J Ap Phys* 19:166-86 F '48

See also

Faraday effect
Magnetic field

ELECTROMAGNETS

Aluminum strips butt welded for cyclotron magnet coil. I. A. Oehler, *il* *Iron Age* 160: 80-3 D 4 '47

Design of large electromagnets. M. Kronick, *il* diags *Gen Elec R* 51:15-19 S '48

Electricity in the navy; specialized equipment in H.M.S. Springtide. R. C. Gordon, *il* *Elec R (Lond)* 142:571-2 Ap 18 '48

Experiments on the design of synchrotron magnets. W. C. Parkinson and others, diags *R Sci Instr* 18:734-8 O '47

Parts completed for a 2000-ton cyclotron magnet, *il* *Mach* 54:173 F '48

Revolutionary advances in wattour meter design; magnetic suspension of the moving element. I. F. Kinnard, *il* diags *Gen Elec R* 51:11-15 Je '48; Same, *Elec Eng* 67:627-9 Jl '48; Same cond, *Elec World* 129:104-6 Je 5 '48

See also

Lifting magnets
Magnetic separators
Solenoids

ELECTROMECHANICAL transducers

Magnetostriction generators. J. A. Osborn, bibliog diags *Elec Eng* 67:571-8 Je '48

Sensitive transducer; Atcotran, diags *Electronics* 21:136+ S '48

Theoretical analysis of the mercury delay line. H. J. McSkimin, diags *Acoustical Soc Am J* 20:418-24 Jl '48

Ultrasonic delay lines. H. B. Huntington and others, diags *Franklin Inst J* 245:1-23, 101-15 Ja-R '48

Vacuum-tube-type transducer for use in the reproduction of lateral phonograph recordings. J. F. Gordon, *il* diags *Inst Radio Eng Proc* 35:1571-5 D '47

Variable-resistance spring transducer developed at the National bureau of standards. *il* *Instruments* 21:880 O '48; *Machine Design* 20:93-4 O '48; *Elec World* 130:122+ O 9 '48; *Aviation W* 49:27-8 N 8 '48; *Electronics* 21: 168+ N '48; *Franklin Inst J* 246:423-4 N '48; *Product Eng* 19:149-50 N '48; *Mech Eng* 70: 1007 D '48

ELECTROMETALLURGY

Electrical developments in metallurgy. L. Sanderson, *Elec R (Lond)* 141:953-5 D 26 '47

Metallurgical developments. L. Sanderson, *Elec R (Lond)* 143:320-2 Ag 27 '48

See also

Chromium metallurgy
—Electrometallurgy
Electric furnaces,
Metallurgical
Electrodeposition of
metals
Iron metallurgy—
Electrometallurgy
Manganese metal-
lurgy—Electro-
metallurgy
Smelting, Electric
Steel metallurgy—
Electrometallurgy
Tin metallurgy—
Electrometallurgy
Zinc metallurgy—
Electrometallurgy

ELECTROMETERS

New balanced electrometer circuit. P. A. Caldwell, bibliog diags *R Sci Instr* 19:85-8 F '48

Portable electrometer for measuring electrostatic charges and capacities. A. R. Boyle and F. J. Llewellyn, diags *J Sci Instr* 25: 242-3 Jl '48

ELECTROMETRIC titration. See Volumetric analysis

ELECTRO-MOTIVE division. See General motors corporation—Electro-Motive division

ELECTROMOTIVE force. See Potential, Electric

ELECTRON accelerator

Acceleration of electrons by a resonant cavity. F. L. Hereford, jr, diags *J Ap Phys* 18:956-60 N '47

Apparatus for nuclear research; high voltage particle accelerators at Stafford, *il* diags *Electrician* 140:259-61 Ja 23 '48

Artificial cosmic radiation; what keeps atomic nuclei from exploding? I. A. Getting, *il* diags *Tech R* 60:435-40+ Je '48

Atom smashers; principle of operation of accelerators; betatron, cyclotron, and Van de Graaff generator. J. J. Teevan, bibliog *il* *diag Radio N* 39:39-41+ Mr '48

Azimuthal variation of betatron fields at injection time. G. D. Adams and others, *R Sci Instr* 18:799-801 O '47

Choice of operating mode for standing wave type linear accelerators for electrons. E. J. Lawton, *il* diags *J Ap Phys* 19:534-9 Je '48

Design of an air core synchrotron. J. P. Blewett, diags *J Ap Phys* 18:976-82 N '47

Design of linear accelerators. J. C. Slater, bibliog diags *Rs Mod Phys* 20:473-518 Jl '48

Electron linear accelerator developed at Stanford, *Elec Eng* 66:1161 N '47

Electronic techniques in nuclear science. S. A. Korff, diags *Electronics* 20:81-3 D '47

Electrostatic accelerator for electrons. W. W. Buechner and others, bibliog *il* diags *R Sci Instr* 18:754-66 O '47

Electrostatic deflection of a betatron or synchrotron beam. E. D. Courant and H. A. Bethe, *diag R Sci Instr* 19:632-7 O '48

Experimental results on standing wave type linear accelerators for electrons. E. J. Lawton and W. C. Hahn, bibliog *il* *diag J Ap Phys* 19:642-8 Jl '48

50,000,000-volt X-rays to be generated by G-E betatron. *Power Generation* 52:82 O '48

General Electric research laboratory has completed 50,000,000-volt betatron. *Science* 108:324 S 24 '48

High-energy particle accelerators. J. R. Woodward, bibliog *il* diags *Elec Eng* 67: 759-67 Ag '48

Irradiation of biological materials by high energy Roentgen rays and cathode rays. J. G. Trump and E. J. Van de Graaff, bibliog *il* *diag J Ap Phys* 19:599-604 Jl '48

Linear accelerator at Yale university, *il* *Mech Eng* 70:345-6 Ap '48

Linear electron accelerator. E. L. Ginzton and others, bibliog diags *R Sci Instr* 19: 89-108 F '48

Magnetic field configurations due to air core coils. J. P. Blewett, bibliog *diag J Ap Phys* 18:968-76 N '47

Measurement of the electron current in a 22-Mev betatron. L. Bess and A. O. Hanson, *il* *diag R Sci Instr* 19:108-10 F '48

Method of increasing betatron yield. G. D. Adams, diags *R Sci Instr* 19:607-8 S '48

Process aiding the capture of electrons injected into a betatron. D. W. Kerst, *Phys R* 74:503-4 Ag 15 '48

ELECTRON accelerator—Continued

- Radiation from electrons accelerated in a synchrotron. F. R. Elder and others. *bibliog* il Phys R 74:52-6 J1 '48
- Recent developments in high energy physics. A. W. Kramer. *diags* Power Generation 25:91-7 Ja '48
- Relative yields of some X-ray induced nuclear reactions. M. L. Perlman and G. Friedlander. *bibliog* Phys R 74:442-8 Ag 15 '48
- Research with 1m. volts. *Chem Age (Lond)* 58:330 Mr 6 '48
- Resonant cavity linear accelerator. A. B. Cullen, jr. and J. H. Greig. *diags* J Ap Phys 19:47-50 Ja '48
- Stanford university physicists working on an electron linear accelerator. *Science* 108: 323-4 S 24 '48
- 20-M.e.v betatron. W. Bosley and others. *bibliog* il *diags* Inst E E J 95 pt 1:352-8 Ag '48
- Unidirectional pulse operation of a 22-Mev betatron. H. W. Koch and C. S. Robinson. *diags* R Sci Instr 19:36-9 Ja '48
- University of Illinois College of medicine to have betatron for cancer treatment and research. *Science* 107:676-7 Je 25 '48
- Use of a cavity oscillator for a Kerr electro-optical light shutter. A. C. Lapsley and others. *J Ap Phys* 19:111-12 Ja '48
- Waves and electrons traveling together; a comparison between traveling wave tubes and linear accelerators. L. Brillouin. *diags* Phys R 74:90-2 J1 '48
- World's accelerators; map showing those known to U.S. physicists. *Sci Am* 179:18-19 O '48
- ELECTRON beams.** See **Electrons—Beams**
- ELECTRON diffraction cameras.** See **Cameras, Electron diffraction**
- ELECTRON gun**
- Electron optics and space charge in simple emission systems with circular symmetry. O. Klemperer and B. J. Mayo. *bibliog* *diags* Inst E E J 95 pt 3:135-41 My '48
- ELECTRON lenses.** See **Electron optics**
- ELECTRON metal**
- Manufacture and use of magnesium and its alloys; with special reference to the magnesium-zirconium-zinc range. C. J. P. Ball. *il* *diag* *Chem & Ind* p531-6 Ag 21 '48
- ELECTRON microscope**
- Adjustable aperture for electron microscope, RCA type EMU. J. T. Quyn. *diags* R Sci Instr 19:472-3 J1 '48
- Carbon film formation and commutator brushwear as revealed by the electron microscope. E. F. Fullam and R. H. Savage. *bibliog* il J Ap Phys 19:654-61 J1 '48
- Chromatic aberration and resolving power in electron microscopy. E. G. Ramberg and J. Hillier. *il* *diags* J Ap Phys 19:678-82 J1 '48
- Correlation of optical and electron microscopy. J. S. Bryner. *il* *diag* *Metals Tech* 15:TP2364 1-7 Je '48
- Dark-field electron microscopy; studies of colloidal carbon. C. E. Hall. *bibliog* il J Ap Phys 19:271-7 Mr '48
- Dark-field electron microscopy; studies of crystalline substances in dark-field. C. E. Hall. *bibliog* il *diags* J Ap Phys 19:198-212 F '48
- Design and construction of a new electron microscope. M. E. Haine. *bibliog* il *diags* Inst E E J 94 pt 1:447-59 O '47; Same cond. *Engineering* 164:20-4 J1 '47; Discussion. *Inst E E J* 94 pt 1:459-62; 95 pt 1: 497-500 O '47, N '48
- Direct electron microscopic thickness determinations of ultramicroscopically thin crystals. J. H. L. Watson and others. *il* J Chem Phys 16:999-1000 O '48
- Disappearance of salt from glass ice during low-temperature dehydration, and its implication in electron microscopy. D. C. Pease. *il* *Science* 106:543 D 5 '47
- Electron diffraction with the universal electron microscope. R. E. Dunaway and H. M. Barton. *il* *diag* J Ap Phys 19:799-800 Ag '48
- Electron eye assists oil research. C. A. Moore. *bibliog* il *diags* *World Oil* 128:135-6+ J1 '48
- Electron microscope and electron diffraction study of slip in metal crystals. R. D. Heidenreich and W. Shockley. *il* *diags* J Ap Phys 18:1029-31 N '47
- Electron microscope goniometry. A. F. Kirkpatrick and E. G. Davis. *il* *diags* *Anal Chem* 20:965-8 O '48
- Electron microscope increases usefulness in textiles. *il* *Textile World* 98:123 Mr '48
- Electron microscope investigation of opai glass. T. F. Bates and M. V. Black. *bibliog* il *diags* *Glass Ind* 29:487-92+ S '48
- Electron microscope society of America meeting; with abstracts of papers. *Chem & Eng N* 25:3860 D 29 '47
- Electron microscope specimen punch. C. E. Grey. *il* *diags* R Sci Instr 19:369-70 My '48
- Electron microscope study of gold smoke deposits. L. Harris and others. *il* J Ap Phys 19:791-4 Ag '48
- Electron-microscopic examination of rayon. C. W. Hock. *bibliog* il *Textile Res J* 18: 366-71 Je '48
- Electron-microscopical studies of natural cellulose fibers. W. G. Kinsinger and C. W. Hock. *bibliog* (37 ref) il *Ind & Eng Chem* 40:1711-16 S '48
- Electron microscopy; application and use in petroleum industry. S. G. Ellis. *bibliog* il *diags* *Pet Refiner* 27:80-5 Ag; 115-19 S '48
- Electron microscopy of radiation polymerization products. J. H. L. Watson. *J Phys & Colloid Chem* 52:470-4 Mr '48
- Electron microscopy of tooth structure by the shadowed collodion replica method. D. B. Scott and R. W. G. Wyckoff. *bibliog* *Pub Health Rep* 62:1513-16, pl 1-5 O 17 '47
- Electron microscopy of wool fibers by a shadowed replica method. Franklin Inst J 246:66-70 J1 '48; Same. *Am Dyestuff Rep* 37:456+ J1 12 '48
- Experimental electron microscope. *il* *Engineer* 185:517 My 28 '48
- Exploring the infinitesimal. T. Gootée. *il* *diags* *Radio N* 39:39-42+ Je '48
- First successful photograph of steel surface made with an electron microscope. R. F. Mehl and others. *Metal Prog* 52:988 D '47
- Identification of free silica in dusts and fumes. W. H. Gitzen. *il* *Anal Chem* 20:265-7 Mr '48
- Interferometric method for the calibration of electron microscope magnification. J. L. Farrant and A. J. Hodge. *bibliog* il J Ap Phys 19:840-4 S '48
- Investigation of specimen contamination in the electron microscope. J. Hillier. *il* *diags* J Ap Phys 19:226-30 Mr '48
- Kieselguhrs; suitability as carriers in catalysts. R. B. Anderson and others. *bibliog* il *Ind & Eng Chem* 39:1618-28 '47
- Magnetic field patterns shown by electron microscope. *il* *diags* *Electronics* 21:128+ O '48
- Measurement of carbon black particles by the electron microscope and low temperature nitrogen adsorption isotherms. R. B. Anderson and P. H. Emmett. *bibliog* J Ap Phys 19:367-73 Ap '48
- Method for the electron microscopy of wool. M. Sverdlow and G. S. Seeman. *bibliog* *Textile Res J* 18:536-50 S '48; Abstract. *Textile Col* 70:29+ Ag '48
- Mullitization of kaolinite. J. E. Comeforo and others. *bibliog* il *diags* *Am Cer Soc J* 31: 254-9 S 1 '48
- New electron microscope; a versatile aid to research. *diags* *Chem Age (Lond)* 58:558-60 Ap 24 '48
- New experimental electron microscope. G. Liebmann. *bibliog* il *diags* J Sci Instr 25: 37-43 F '48
- New vistas in water quality research. W. W. DeBerard and J. R. Baylis. *il* *diag* *Eng N* 140:639-42 Ap 29 '48
- 100-kV electron microscope. *il* *diag* *Engineer* 185:421-2 Ap 30 '48; *Elec R (Lond)* 142:976 Je 18 '48; *Engineering* 166:116 J1 30 '48
- Optical bench for electron optical studies. J. H. Reisner and R. G. Picard. *il* *diags* R Sci Instr 19:556-60 S '48
- Oxide replica technique for the electron microscope examination of stainless steel and high-nickel alloys. E. M. Mahla and N. A. Nielsen. *bibliog* il J Ap Phys 19: 378-82 Ap '48

ELECTRON microscope—Continued

- Particle size determinations with electron microscopes. J. H. L. Watson. bibliog il Anal Chem 20:576-84 Je '48
- Plant virus for electron microscopy. J. Johnson. bibliog Science 108:122 Ji 30 '48
- Plessey 50-kv electron microscope. il Engineering 166:152-3 Ag 13 '48
- Preparation and optical properties of gold blacks. L. Harris and others. bibliog diag Opt Soc Am J 38:582-9 Ji '48
- Pseudostructures in electron microscope specimens. J. H. L. Watson. il J Ap Phys 19:713-20 Ag '48
- Replica studies of dyed nylon. F. A. Hamm and J. J. Comer. bibliog il Anal Chem 20:861-70 S '48
- Report of the 6th Electron microscopy conference, London, March 20-21, 1947. il J Sci Instr 25:23-7 Ja '48
- Some observations on the Formvar replica method, with a note on glass surfaces. B. M. Deacon and others. bibliog il diag J Ap Phys 19:704-12 Ag '48
- Specimen contamination in electron microscopes. J. H. L. Watson. il J Ap Phys 19:110-11 Ja '48
- Summarized proceedings of Conference on electron microscopy, London, April 7-8, bibliog il diag J Sci Instr 25:328-31 S '48
- Summarized proceedings of 7th Conference on electron microscopy, Leeds, Sept. 16-17, bibliog il J Sci Instr 25:167-70 My '48
- Symposium integrates light and electron microscopy results. Chem & Eng N 26:1907 Je 28 '48
- Symposium on electron and light microscopy; abstracts of papers. Anal Chem 20:685-7 Ji '48
- ELECTRON microscope society of America**
- Annual meeting, 5th, Philadelphia, Dec. 11-13; abstracts of papers. J Ap Phys 19:118-26 Ja '48
- Annual meeting, 5th, Philadelphia, Dec. 11-13; with abstracts of papers of general interest. Anal Chem 20:90-2 Ja '48
- Annual meeting in Philadelphia's Franklin institute, Dec. 11-13. Chem & Eng N 25:3860 D 29 '47
- E. F. Burton memorial meeting, Toronto, Sept. 9-11. Anal Chem 20:990-3 O '48
- ELECTRON multipliers**
- Coincidence device of 10^{-8} - 10^{-9} second resolving power. Z. Bay and G. Papp. il diag R Sci Instr 19:565-7 S '48
- Detection of short-range particles from nuclear disintegrations by means of an electron multiplier tube; abstract. S. K. Allison. Science 107:464 My 7 '48
- Determination of pulse period of electron multiplier tubes. G. Papp. diag R Sci Instr 19:568-9 S '48
- Improved electron multiplier particle counter. J. S. Allen. bibliog il diag R Sci Instr 18:739-49 O '47
- Particle and quantum counters. D. R. Corson and R. R. Wilson. R Sci Instr 19:227-30 Ap '48
- Use of an electron multiplier tube as a new technique in disintegration experiments. L. del Rosario. bibliog diag Phys R 74:304-14 Ag 1 '48
- Use of the electron multiplier in emission spectroscopy; abstract. G. P. Mitchell and P. Popper. bibliog J Sci Instr 25:100-1; Discussion, 101-2 Mr '48
- ELECTRON optics**
- Brightness intensifier. G. A. Morton and others. diags RCA R 9:419-32 S '48
- Detection of isotopes by tracer micrography. Franklin Inst J 245:67-8 Ja '48
- Electron lenses of hyperbolic field structure. R. Rüdenberg. diags Franklin Inst J 246:311-33, 377-408 bibliog(p408) O-N '48
- Electron optical observation of magnetic fields. L. Marton. il diag J Ap Phys 19:863-4 S '48
- Electron optical Schlieren effect. Franklin Inst J 246:165-7 Ag '48
- Electron optical Schlieren effect. L. Marton. il diag J Ap Phys 19:687-8 Ji '48
- Electron optics and space charge in simple emission systems with circular symmetry. O. Klemperer and B. J. Mayo. bibliog diags Inst E E J 95 pt 3:135-41 My '48

- Electro-optical characteristics of television systems. O. H. Schade. bibliog il diags RCA R 9:5-37, 245-86, 490-530, 653-86 Mr-D '48
- Motion of electrons subject to forces transverse to a uniform magnetic field. P. K. Weimer and A. Rose. diags Inst Radio Eng Proc 35:1273-9 N '47
- Optical bench for electron optical studies. J. H. Reisner and R. G. Picard. il diags R Sci Instr 19:556-60 S '48

See also

- Electron microscope
- Television
- ELECTRON telescope**
- Infra-red pupilometer. M. Koomen and others. bibliog il diag Opt Soc Am J 38:719-22 Ag '48
- ELECTRON tubes.** See Vacuum tubes
- ELECTRONIC numerical integrator and computer.** See Calculating machines
- ELECTRONIC switch.** See Vacuum tubes—Control uses
- ELECTRONICS**
- Availability of RCA fellowships in electronics. Science 107:12 Ja 2 '48
- Electrical and allied developments during 1947; electronics. G. Bartlett. il Gen Elec R 51:19-21 Ja '48
- Electron in theory and practice; abstract. E. Appleton. Chem & Ind p395 Je 19 '48
- Electronic techniques in nuclear science. S. A. Korff. il diags Electronics 20:80-7 D '47
- Electronics comes of age. L. V. Berkner. il Elec Eng 67:32-7 Ja '48
- Electronics for the power engineer. F. A. Annett. diags Power 92:239-41+, 303-5+, 361-3+, 429-31+, 493-4, 554-6+, 709-11+ Ap-S '48
- Engineer in the electronics industry; prospects, preparation, pay. H. B. Richmond. Inst Radio Eng Proc 36:774-7 Je '48
- First automatic radio factory; British machine builds three radio circuits a minute. il Fortune 38:90-3 Ag '48
- Industrial electronics reference book. 680p. \$7.50 John Wiley & sons, inc. 440 4th av, New York 16 '48
- National electronics conference, Chicago, Nov. 3-5. Inst Radio Eng Proc 36:101 Ja '48
- National electronics conference; technical papers digested. Elec Eng 66:1220-9 D '47
- Properties of materials basic to the manufacture of electronic devices and systems. Electronics 21:M1-40 Mid-Je '48
- Radio and electronic frontiers. W. R. G. Baker. Inst Radio Eng Proc 36:893-4 Ji '48
- Trends in electronic engineering. D. G. Fink. Elec Eng 67:647-53 Ji '48
- See also**
- Electron microscope
- Electrons
- Oscillographs, Cathode ray
- Photoelectric cells
- Radio engineering
- Television
- Vacuum tubes

Bibliography

- Survey of world-wide reading. diags Tele-Tech 7:56-7+ Ja; 49 F; 68 S '48
- ELECTRONICS Park, Syracuse, New York**
- Report on Electronics park; headquarters of the Electronics department of the General electric co. il plans Electronics 21:77-100 O '48
- ELECTRONS**
- Abstracts of electron jubilee lectures. Inst E E J 95 pt 1:131-3 Mr '48
- Angular distribution in nuclear reactions and coincidence measurements. C. N. Yang. bibliog Phys R 74:764-72 O 1 '48
- Binding energy for a self-trapped electron in NaCl. J. J. Markham and F. Seitz. bibliog Phys R 74:1014-24 N 1 '48
- Calculation of self-energies in quantum theory by analytic continuation. S. B. Nilsson. bibliog Phys R 73:903-9 Ap 15 '48
- Chemical effects in nuclear electron emission. T. H. Davies. bibliog J Phys & Colloid Chem 52:595-603 Mr '48
- Cloud-chamber study of electrons from meson decay. J. L. Zar and others. diag Phys R 74:111-12 Ji 1 '48
- Conductivity pulses in liquid argon. N. Davidson and A. E. Larsh, jr. Phys R 74:220 Ji 15 '48

ELECTRONS—Continued

- Controlled-electron reactions. G. Glockler, bibliog J Phys & Colloid Chem 52:451-6 Mr '48
- Determination of ionospheric electron distribution. L. A. Manning, Inst Radio Eng Proc 35:1203-7 N '47
- Diamagnetic susceptibilities of shared electrons. T. Yang, J Chem Phys 16:865-71 S '48
- Does the electron have an intrinsic magnetic moment? G. Breit, bibliog Phys R 72:984 N 15 '47; Correction. 73:1410-11 Je 1 '48
- Effect of trapping centers on dielectric breakdown in alkali halides. C. F. Meyer and R. C. Herman, bibliog J Chem Phys 16:161-6 Mr '48
- Effects of hydrostatic pressure on electron flow in diodes. W. C. Hahn, Inst Radio Eng Proc 36:1115-21 S '48
- Electronic component of cosmic rays in the low atmosphere. G. Bernardini and others, bibliog diag Phys R 73:328-39 F 15 '48
- Electronics for the power engineer; electron flow in conductors. F. A. Annett, diags Power 92:303-5+ My '48
- Electronics for the power engineer; electron in electron tubes. F. A. Annett, diags Power 92:239-41+ Ap '48
- Excitation time of silver-activated zinc sulfide on electron bombardment. J. F. Mulvaney and others, Phys R 74:491-2 Ag 15 '48
- Experiments on the separation of low energy mesotrons from electrons. P. C. Bhattacharya, bibliog diags Phys R 74:38-43 Jl 1 '48
- Historic researches; conduction of electricity through gases, diag Engineer 185:320-2 Ap 2 '48
- Identification of beta-rays with atomic electrons. M. Goldhaber and G. Schaff-Goldhaber, bibliog diag Phys R 73:1472-3 Je 15 '48
- Influence of retardation on the London-van der Waals forces. H. B. G. Casimir and D. Polder, bibliog Phys R 73:360-72 F 15 '48
- Interaction between neutrons and electrons. E. Fermi and L. Marshall, diags Phys R 72:1139-46 D 15 '47
- Interaction of neutrons with electrons. J. M. Jauch and K. Watson, Phys R 72:1254 D 15 '47; Correction. 73:268 F 1 '48
- Internal conversion electrons from 70-day I^{131} . R. D. Hill and W. E. Meyerhof, Phys R 73:812-13 Ap '48
- Internal conversion pairs in carbon. C. B. Dougherty and others, bibliog Phys R 74:712 S 15 '48
- Intrinsic moment of the electron. H. M. Foley and P. Kusch, bibliog Phys R 73:412 F 15 '48
- Ionization and dissociation of formic acid monomer by electron impact. T. Mariner and W. Bleakney, bibliog Phys R 72:792-806 N 1 '47
- Ionization of high energy cosmic-ray electrons. E. Hayward, bibliog il diag Phys R 72:937-42 N 15 '47
- Ionization processes on tungsten filaments; the electron affinity of the oxygen atom. M. Metlay and G. E. Kimball, bibliog J Chem Phys 16:774-8 Ag '48
- Magnetic moment of the electron. P. Kusch and H. M. Foley, bibliog Phys R 74:250-63 Ag 1 '48
- Magnetic moment of the electron. J. M. Luttinger, bibliog Phys R 74:893-8 O 15 '48
- Metal electrons and alloy catalysis; the system gold-cadmium. G. Schwab and S. Pesmatiglou, bibliog diags J Phys & Colloid Chem 52:1046-53 Je '48
- Metallic model for the spectra of conjugated polyenes. N. S. Bayliss, bibliog diags J Chem Phys 16:287-92 Ap '48
- Momentum conservation in the beta-decay of P^{32} and the angular correlation of neutrinos with electrons. C. W. Sherwin, bibliog diags Phys R 73:216-25 F 1 '48
- Momentum distribution of the decay electrons from negative mesons. H. Primakoff, bibliog Phys R 74:878-82 O 15 '48
- Motion of an electron in the field of a magnetic pole. Harish-Chandra, Phys R 74:883-7 O 15 '48
- Motion of electrons subject to forces transverse to a uniform magnetic field. P. K. Weiner and A. Rose, diags Inst Radio Eng Proc 35:1273-9 N '47
- Motion of point electrons. U. Haber-Schaim, bibliog Phys R 74:836-7 O 1 '48
- Non-product wave function for a negative ion. E. Conwell, bibliog Phys R 74:268-76 Ag 1 '48
- Physical interaction of electrons with dielectric media. T. L. Hill, J Chem Phys 16:394-9 Ap '48
- Plotting electron paths. P. J. Selgin, Electronics 21:124+ S '48
- Production of a positron-electron pair in the electrostatic field of an electron. K. M. Watson, Phys R 72:1060-5 D 1 '47
- Quantum-electrodynamics and the magnetic moment of the electron. J. Schwinger, bibliog Phys R 73:416-17 F 15 '48
- Quantum theory of the point electron. M. Schönberg, bibliog Phys R 74:738-47 O 1 '48 (to be cont)
- Radiation from electrons accelerated in a synchrotron. F. R. Elder and others, bibliog il Phys R 74:52-6 Jl 1 '48
- Range of the electrons in meson decay. J. Steinberger, diags Phys R 74:500-1 Ag 15 '48
- Ratio of positives to negatives in Cu^{64} . L. Cranberg and J. Halpern, Phys R 73:259-60 F 1 '48
- Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing, bibliog diags Rs Mod Phys 20:112-22 Ja '48
- Role of electrons in interatomic relations. W. F. Ehret, diag J Chem Educ 25:291-5+ My '48
- Search for electrons in the primary cosmic radiation. R. I. Hulsizer and B. Rossi, bibliog Phys R 73:1402-3 Je 1 '48
- Search for positron-electron branching in certain beta emitting isotopes. W. C. Barber, bibliog diags Phys R 72:1156-9 D 15 '47
- Some effects of the intrinsic magnetic moment of the electron. G. Breit, bibliog Phys R 74:656-63 S 15 '48
- Specific primary ionization and energy loss of fast electrons in matter. F. L. Hereford, bibliog diags Phys R 74:574-9 S 1 '48
- Specific primary ionization of 1-Mev electrons relative to sea level cosmic radiation. F. L. Hereford, bibliog Phys R 72:982-3 N 15 '47
- Story of atomic energy. X-rays, radioactivity, and the electron. F. Soddy, il diags Engineering 164:505-8 N 23 '47
- Temperature dependence of electron energy levels in solids. A. Radkowsky, bibliog Phys R 73:749-61 Ap 1 '48
- Theoretical evidence for the existence of a light-charged particle of mass greater than that of the electron. M. Hessaby, Phys R 73:1128 My 1 '48
- Theory of high frequency gas discharges. H. Margenau and L. M. Hartman, bibliog Phys R 73:297-328 F 15 '48
- Tracing of electron trajectories using the differential analyzer. J. P. Blewett and others, diags Inst Radio Eng Proc 36:69-83 Ja '48
- Track of electron recorded, il Chem & Eng N 26:1544 My 24 '48
- Tracks of low ionizing particles in photographic emulsions. J. Spence and others, bibliog il Phys R 74:704-5 S 15 '48

See also

Beta rays	Ions
Cathode rays	Mesotrons
Electric discharges	Neutrons
Electromagnetic theory	Positrons
Electronics	Vacuum tubes

Beams

- Diamond-chip amplifier, il Sci Am 178:176-7 Ap '48; Tech R 50:259 Mr '48; Tele-Tech 7:72+ Mr '48
- Electron beam deflection tube for pulse code modulation. R. W. Sears, il diags Bell System Tech J 27:44-57 Ja '48
- Electrostatic deflection of a betatron or synchrotron beam. E. D. Courant and H. A. Bethe, diag R Sci Instr 19:632-7 O '48
- Possible fluctuations in electron streams due to ions. J. R. Pierce, J Ap Phys 19:231-6 Mr '48

ELECTRONS—Beams—Continued

Space-charge effects in beam tetrodes and other valves. C. S. Bull. bibliog Inst E E J 95 pt 3:17-24 Ja '48

Tangential electron emission. O. Klemperer. diag Tele-Tech 7:45+ Ja '48

Collisions

Theory of high frequency gas discharges; harmonic components of the distribution function. H. Margenau and L. M. Hartman. Phys R 73:309-15 F 15 '48

Theory of high frequency gas discharges; high frequency breakdown. L. M. Hartman. bibliog Phys R 73:316-25 F 15 '48

Theory of high frequency gas discharges; methods for calculating electron distribution functions. H. Margenau. bibliog Phys R 73:297-308 F 15 '48

Diffraction

Aids to analysis of patterns obtained in the diffraction of electrons by gases. H. J. Yearian and W. M. Barss. bibliog il diag J Ap Phys 19:700-4 Ag '48

Application of electron diffraction techniques to the study of corrosion processes; abstract. E. A. Gulbransen. Metal Prog 54: 234+ Ag '48

Davison and Germer. K. K. Darrow. il diags Sci Am 178:50-3 My '48

Electron diffraction for film and surface studies. G. A. Doxey. il diag Electronics 21:112-13 Je '48

Electron diffraction instrument for observing and measuring conditions of metallic and other surfaces. il Gen Elec R 50:50 N '47

Electron diffraction investigation of formic acid monomer. V. Schomaker and J. M. O'Gorman. bibliog diag Am Chem Soc J 69: 2638-44 N '47

Electron diffraction investigation of the structure of adamantane. W. Nowacki and K. W. Hedberg. bibliog diag Am Chem Soc J 70:1497-500 Ap '48

Electron diffraction investigation of the structure of difluorodiazine. S. H. Bauer. bibliog Am Chem Soc J 69:3104-8 D '47

Electron diffraction study of oxide films formed on copper-nickel alloys at elevated temperatures. J. W. Hickman and E. A. Gulbransen. bibliog Metals Tech 15:TP2391 1-13 Je '48

Electron diffraction study of oxide films formed on Hastelloy alloys A, B, C, and D. J. W. Hickman and E. A. Gulbransen. bibliog J Phys & Colloid Chem 52:1186-97 O '48

Electron diffraction study of oxide films formed on nickel-chromium alloys. J. W. Hickman and E. A. Gulbransen. bibliog Metals Tech 15:TP2372 1-15 Je '48

Electron diffraction with the universal electron microscope. R. E. Dunaway and H. M. Barton. il diag J Ap Phys 19:799-800 Ag '48

Electron microscope and electron diffraction study of slip in metal crystals. R. D. Heidenreich and W. Shockley. il diags J Ap Phys 18:1029-31 N '47

Improved microphotometer trace of radially symmetric patterns. I. L. Karle and others. il J Chem Phys 15:765 O '47

Index of refraction for electrons in crystalline media. L. Sturkey. Phys R 73:183 Ja 15 '48

Metal oxide films at elevated temperatures. J. W. Hickman. bibliog il diags Iron Age 162: 90-4 Ag 12; 90-4 Ag 19 '48

Molecular structure of nitrogen dioxide; re-investigation by electron diffraction. S. Claesson and others. bibliog diag J Chem Phys 16:207-10 Mr '48

Molecular structure of the two dimethylhydrazines by electron diffraction. W. H. Beamer. bibliog Am Chem Soc J 70:2979-82 S '48

Objective method for studying electron diffraction by gases. J. Karle and I. L. Karle. J Chem Phys 15:764-5 O '47

Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; and electron diffraction study. J. W. Hickman and E. A. Gulbransen. bibliog Anal Chem 20:158-65 F '48

Sample holder for reflection type samples to be used in the G.E. electron diffraction instrument. E. I. Alessandrini. il diags R Sci Instr 19:52-3 Ja '48

Structures of the hydrides of boron; decaborane. G. Silbiger and S. H. Bauer. bibliog Am Chem Soc J 70:115-19 Ja '48

Study of lubricating wax coatings by electron diffraction. C. R. Berry. Phys R 73: 1117 My 1 '48

Use of X-ray and electron diffraction as methods of analysis in biochemical chromatography. C. L. Christ and others. Science 108:91-2 Jl 23 '48

X-ray, electron, and neutron diffraction. C. G. Shull and E. O. Wollan. bibliog il Science 108:69-75 Jl 23 '48

Emission from metals

Ejection of electrons by ions at high fields. R. R. Newton. Phys R 73:122 My 1 '48

Energy distribution of photoelectrons from polycrystalline tungsten. L. Apker and others. bibliog diag Phys R 73:46-50 Ja 1 '48

Low voltage discharge between very close electrodes. L. H. Gerner and F. E. Haworth. il Phys R 73:1121 My 1 '48

Mechanism of electron emission at the cathode spot of an arc. J. Rothstein. bibliog Phys R 73:1214 My 15 '48; Correction, 74: 228-9 Jl 15 '48

Spectral emissivity and electron emission constants of thorium cathodes. T. E. Hanley. il diag J Ap Phys 19:583-9 Je '48

Surface phenomena useful in vacuum technique. L. Apker. bibliog Ind & Eng Chem 40:346-7 My '48

See also
Electrons—Thermionic emission

Mobility

Mobility of electrons in pure non-polar insulators. F. Seitz. bibliog Phys R 73:549-64 Mr 15 '48

Technique for obtaining increased range and mobility of free electrons in silver chloride. J. R. Haynes. R Sci Instr 19:51 Ja '48

Reflection, scattering, etc.

Angular distribution of pair-produced electrons and bremsstrahlung. P. V. C. Hough. Phys R 74:80-6 Jl 1 '48

Charge distribution in nuclei and the scattering of high energy electrons. M. E. Rose. bibliog Phys R 73:279-84 F 15 '48

Reactive terms in quantum electrodynamics. H. W. Lewis. bibliog Phys R 73:173-6; Discussion. S. T. Epstein. 177 Ja 15 '48

Secondary emission

Electron radiography and microradiography. J.-J. Trillat. bibliog il diags J Ap Phys 19:844-52 S '48

Secondary electron emission by fast neutral molecules and neutralization of positive ions. H. W. Berry. Phys R 74:848-9 O 1 '48

Secondary electron emission from targets of barium-strontium oxide. J. B. Johnson. bibliog diags Phys R 73:1058-73 My 1 '48

Secondary electron suppression. J. H. O. Harries. diags Wireless Eng 25:275-80 S '48

Secondary emission. L. R. Koller. bibliog diags Gen Elec R 51:33-40 Ap; 50-2 Je '48

Video storage by secondary emission from simple mosaics. R. A. McConnell. bibliog diags Inst Radio Eng Proc 35:1258-64 N '47

Thermionic emission

Anomalous values of the thermionic emission constant. H. F. Ivey. bibliog Phys R 74:983-4 O 15 '48

Anomalous values of the thermionic emission constant. E. P. Wohlfarth. Phys R 74:984-5 O 15 '48

Relationship between the emission constant and the apparent work function for various oxide-coated cathodes. H. Jacobs and others. bibliog diag Inst Radio Eng Proc 36:1109-14 S '48

Thermionic emission from oxide-coated cathodes; report of meeting of electronics group of Institute of physics, London, June 14, 1947. bibliog J Sci Instr 25:56-60 F '48

ELECTRONS—Thermionic emission—Cont.

Thermionic properties of chromium. H. B. Wahlin. *Phys R* 73:1458-9 Je 15 '48

Velocity

Valve noise and transit time. N. R. Campbell and others. *bibliog Wireless Eng* 25:148-57 My '48

See also

Electron accelerator

ELECTRO-OPTICS

See also

Kerr effect

ELECTROPHORESIS

Dialysis of protein solutions for electrophoresis. M. Reiner and R. L. Fenichel. *diag Science* 108:164-6 Ag 13 '48

Electric charge of red blood cells in malaria. W. B. Redmond. *bibliog Science* 107:199-200 F 20 '48

Electrophoresis apparatus. *il R Sci Instr* 19: 725-6 O '48

Electrophoretic and ultracentrifugal investigation of rabbit liver nucleoprotein. Q. Van Winkle and W. G. France. *bibliog J Phys & Colloid Chem* 52:207-16 Ja '48

Electrophoretic mobilities and conductometric activities of potassium, sodium, and lithium salts of gum arabic. D. R. Briggs. *bibliog J Phys & Colloid Chem* 52:76-83 Ja '48

Electrophoretic mobility of type II GR-S latex. S. H. Maron. *D. Turnbull and M. E. Elder. diag Am Chem Soc J* 70:532-7 F '48

Electrophoretic resolution of heparin and related polysaccharides. M. L. Wolfrom and F. A. H. Rice. *Am Chem Soc J* 69:2918-19 N '47

Fractionation and physical-chemical studies of a commercial preparation of the specific polysaccharide of type I pneumococcus. R. A. Alberty and M. Heidelberger. *bibliog Am Chem Soc J* 70:211-13 Ja '48

Homogeneity and the electrophoretic behavior of some proteins. R. A. Alberty, E. A. Anderson and J. W. Williams. *bibliog J Phys & Colloid Chem* 52:217-30 Ja '48

Introduction to electrophoresis. R. A. Alberty. *bibliog diag J Chem Educ* 25:426-33 Ag '48 (to be cont)

New compact Tiselius electrophoresis apparatus. D. H. Moore and J. U. White. *bibliog il diags R Sci Instr* 19:700-6 O '48

Quantitative study of reversible boundary spreading in the electrophoresis of proteins. R. A. Alberty. *bibliog Am Chem Soc J* 70:1675-82 My '48

Specific refractive increment of some purified proteins. G. E. Perlmann and L. G. Longworth. *bibliog Am Chem Soc J* 70: 2719-24 Ag '48

ELECTROPHYSIOLOGY

Charting the sea of brain waves. H. H. Jasper. *bibliog Science* 108:343-7 O 1 '48

Nervous system as an electrical instrument. B. H. C. Matthews. *bibliog il diags Inst E B J* 95 pt 1:397-402 S '48; *Abstract, Elec R (Lond)* 142:723-4 My '48

Simplified basal electrode for routine EEG use. C. W. Umlauf. *Science* 107:121 Ja 30 '48

Apparatus

Medical stimulus circuits; electronic circuits for medical diagnosis and research. W. E. Gilson. *il diags Electronics* 21:39-101 Ji '48

Radio frequency coupled tissue stimulator. O. H. Schmitt. *diags Science* 107:432 Ap 23 '48

Surface electrodes for recording bioelectric potentials. J. L. Kennedy and R. C. Travis. *Science* 108:183 Ag 20 '48

ELECTROPLATING

Adhesion of enamel finishes to electro-plated cadmium coatings. E. E. Halls. *Metallurgia* 38:75-8 Je '48

American electroplaters' society 35th annual convention, Atlantic City, June 28-July 1; abstracts of technical papers. *Steel* 122: 104+ Je 21 '48

Anodes for electroplating. E. R. Thews. *il Metal Finishing* 46:68-75 Mr; 61-6+ Ap; 74-9 My '48

Common plating bath troubles; their causes and cures. J. B. Mohler. *diags Iron Age* 160:98-101+ D 11 '47

Coordination compounds in the electrodeposition of chromium. R. W. Parry and others. *bibliog diag Electrochem Soc Trans* 92 (preprint 27):311-22 '47

Correction of modern plating difficulties. G. W. Slomin and E. Calderon. *il Mill & Factory* 43:134-5 Ag '48

Cyanide content of plating baths. J. B. Mohler and H. J. Sedusky. *Metal Finishing* 46:61-2+ Ja '48

Design of plating range cells. J. B. Mohler. *diags Metal Finishing* 46:59-61 S '48

Determination of silver and copper in one sample of plating solution. L. Silverman. *Metal Finishing* 45:80-2 N '47

Dow develops process for electroplating magnesium. *Automotive Ind* 99:78+ Ag 1 '48

Dow finds way to electroplate magnesium. *Bsns W* p64+ Ap 10 '48

Economical rinse tank design in electroplating operations and other processes. J. B. Mohler. *diags Iron Age* 161:76-7+ Ap 15 '48

Electrodeposition and properties of tin-zinc alloys. J. W. Cuthbertson and R. M. Angles. *bibliog il Electrochem Soc J* 94:73-98 Ag '48

Electrodeposition of lead from the ethylenesulfonate bath. F. C. Mathers and J. F. Suttle. *Electrochem Soc J* 93:47-8 F '48

Electrodeposition of nickel from orthophosphate baths. C. B. F. Young and E. S. Roszkowski. *bibliog Electrochem Soc J* 94: 176-93 O '48

Electrodeposition of tungsten alloys containing iron, nickel, and cobalt. A. Brenner and others. *bibliog il J Res Nat Bur Stand* 39:351-83 O '47; *Abstract. Steel* 121:63+ D 29 '47

Electroplate on magnesium; abstract. W. Loose. *Metal Prog* 54:223+ Ag '48

Electroplated coatings; properties, characteristics and types of electrolytes, etc. G. Black. *bibliog il Materials & Methods* 27:93-104 Je '48

Electroplated finishes on aluminum. R. Mansell. *Light Metal Age* 6:24+ Ag '48

Electroplaters' metals of the future; abstract. F. A. Lowenheim. *il Iron Age* 162:86-7 S 16 '48

Electroplating magnesium and its alloys. H. K. DeLong. *il Metal Finishing* 46:46-9+ Ji '48; *Excerpts. Materials & Methods* 27: 63-5 My '48

Electroplating methods used in one of the world's largest installations; Pontiac motor division of the General motors corp. *il Mach* 55:208-12 N '48

Electroplating on aluminum extends use of this material. H. A. Knight. *il Materials & Methods* 28:34-8 O '48

Electroplating on aluminum; preparation by zinc immersion process. M. B. Diggin. *il Metal Finishing* 45:67-9 N '47

Electroplating recessed areas with bipolar electrodes. U. C. Jones. *il diag Iron Age* 162:98-9 O 7 '48

Electro-zinc phosphate coatings for iron and steel. E. E. Halls. *Metallurgia* 38:34-6 My '48

Embrittlement of roller chains by plating after assembly. *il Product Eng* 19:105 S '48

Ferrostan electrolytic tinning line at Richard Thomas and Baldwins, Ltd., Ebbw Vale. *flow diag il diags Iron & Steel Inst J* 159: 297-314 Ji '48

Finishing small electric appliances. G. E. Stedman. *il Metal Finishing* 46:78-80 Ja '48

Fluid mechanics; forgotten factor in electroplating. J. B. Kushner. *diags Metal Finishing* 45:72-4 O '47; 46:63-7 Ja; 55-9+ Ji; 52-8 S '48

Hydrogen ion measurement in plating baths. J. B. Mohler and H. J. Sedusky. *il diags Metal Finishing* 46:85-9+ Je '48

Improved method of electroplating tungsten alloys. *Mach* 54:167 Ja '48

Introductory survey of electroplating. R. Mansell. *il Metal Finishing* 45:70-4 N; 79-81 D '47

Machine designed for high-speed metal plating. A. D. Canner and others. *il Materials & Methods* 26:79-82 N '47

Materials and requirements for decorative and protective plating. N. G. Meagley. *il Materials & Methods* 27:80-2 Mr '48

ELECTROPLATING—Continued

Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zapffe and M. E. Haslem. *bibliog Am Soc for Metals Trans* 39:241-58; Discussion. 258-60 '47

Mechanism of exfoliation of electrodeposited surfaces. A. T. Steer. *il Metal Finishing* 46:62-70 JI '48

Metal finishing; emphasis swings to utilitarian finishes. A. Bregman. *il Iron Age* 161:184-9 Ja 1 '48

Modern electroplating laboratory for development and pilot-plant studies; Westinghouse electric corp. G. Jernstedt. *il Metal Finishing* 46:52-6 My '48

New plating processes developed by Hanson-Van Winkle-Munning co. *Chem Ind* 61:836-7 N '47

1947 progress in metal finishing. W. A. Raymond. *bibliog (74 ref) il Metal Finishing* 46:56-60 Ja '48

Periodic reverse current plating; abstract. D. G. Foulke. *Steel* 122:132-7 Je 7 '48

Physical properties of electrodeposited chromium. A. Brenner and others. *bibliog il J Res Nat Bur Stand* 40:31-59 Ja '48; Excerpts. *Product Eng* 19:137-9 JI '48

Physical properties of electrodeposits; their determination and significance. S. Senderoff. *bibliog il diags Metal Finishing* 46:48-57 Ag '48

Plating on zinc die casting; abstracts of papers. *Materials & Methods* 27:113-15 My '48

Plating techniques for rebuilding aircraft engine parts. J. Albin. *il Iron Age* 161:82-5 My 6 '48

Plating zinc diecastings at Gerity-Michigan. W. MacLeay. *il Iron Age* 162:90-4 JI 29 '48

Pre-treatment for barrel plating. M. Mazzone and F. McKnight. *il Metal Finishing* 45:75-7-7 N '47

Process sheet for zinc electroplating; reference book sheet. G. Black. *Am Mach* 92:127 JI 1 '48

Removal of zinc from bright nickel baths by electrolytic treatment. H. D. Carter. *bibliog Metal Finishing* 46:85-8-4 O '48

Stress cracking of electroplated lockwashers. K. B. Valentine. *il Am Soc for Metals Trans* 38:488-94; Discussion. 494-504 '47

Tanks and linings for electroplating; engineering data sheet. *Metal Finishing* 45:91 D '47

Theory for the mechanism of chromium plating; a theory for the physical characteristics of chromium plate. C. A. Snively. *bibliog il diags Electrochem Soc Trans* 92 (preprint 35):445-84 '47

Training quality control personnel for electroplating operations. O. H. Doll and A. L. Jenny. *il Steel* 121:93-7 N 17 '47

Vinyl plastics for masking in electroplating. W. M. Martz. *Iron Age* 161:94 Ap 15 '48

Zinc film permits plating on magnesium. H. K. DeLong. *il Am Mach* 92:98-100 My 6 '48

Brush plating

Process sheet for brush electroplating; reference book sheet. G. Black. *Am Mach* 92:149 Ag 12 '48

Costs

Determining barrel plating costs. R. J. O'Connor. *Metal Finishing* 46:81-4 O '48

Standard direct labor costs for automatic electroplating processes. C. W. Reinert. *N A C A Bul* 30:29-31 S 1 '48

History

All our yesterdays: survey of articles on plating at turn of century. *il diags Metal Finishing* 43:452-3; 44:106-7, 161-3, 334-6-7, 522-4-7 N '45, Mr-Apr, Ag D '46; 45:77-81 JI '47; 46:81-5 Ja; 64-7 S '48

Power

Modern plating generators. G. J. Berry. *il diags Metal Finishing* 46:57-63 My '48

Rectifiers for electroplating. L. W. Reinken. *il diags Metal Finishing* 45:73-7 F; 58-62 Ap; 72-4 My; 88-90 Je; 75-8 S '47; 46:57-61 Mr; 67-72 Ap '48

Rectifiers for electroplating; engineering data sheet. *Metal Finishing* 45:85 N '47

Safety measures

Plating room health hazards; engineering data sheet. *Metal Finishing* 46:89 Mr '48

Use of plastic beads on chrome plating tanks. A. C. Stern and others. *Electrochem Soc J* 93:67N-8N My '48

Ventilating plating tanks. plan diag Sheet *Metal Worker* 39:39-40 JI '48

Specifications

Specifications for electroplated metals; tabulation; engineering data sheet. *Metal Finishing* 46:85 My '48

Standards

Thickness standards for cadmium and zinc electroplate; reference book sheets. G. Black. *Product Eng* 19:165, 167 Je '48

Thickness standards for nickel electroplate; tabulations; reference book sheet. G. Black. *Product Eng* 19:163 Ja '48

Stripping

Stripping of rhodium plating. M. Shapiro. *il Metal Finishing* 46:56-8-7 F '48

Tables, calculations, etc.

Electroplating calculations; engineering data sheet. *Metal Finishing* 46:75 Ag '48

Testing

Electrolytic thickness tester for plated metal coatings. H. T. Francis. *il diags Electrochem Soc J* 93:79-83 Mr '48

Evaluation of strip plating aided by use of circulating electrolyte cell. R. A. Dimon. *il diags Steel* 123:116-7 S 20 '48

Instrument for measuring stress in electrodeposits; Spiral contractometer; abstract. A. Brenner and S. Senderoff. *il Iron Age* 162:63-4 O 28 '48

Judging plated parts quality; abstract. W. M. Philips and F. L. Clifton. *Iron Age* 162:66 O 28 '48

Laboratory tests and equipment for plating tests. J. B. Mohler and H. J. Sedusky. *il diags Metal Finishing* 46:50-5 F; 76-83 bibliog (p83) Mr '48

Rapid plating range test. J. B. Mohler. *diag Iron Age* 160:75-6 D 4 '47

Throwing power of electroplating solutions. A. Mankowich. *bibliog il diags Metal Finishing* 46:50-4 JI '48

See also

Thickness measurement

ELECTROPNEUMATIC brakes. See Brakes,

Electropneumatic

ELECTROPNEUMATIC gages. See Gages,

Electropneumatic

ELECTROPSYCHOGRAPH. See Advertisements—Testing

ELECTROSTATIC generators. See Electric generators, Electrostatic

ELECTROSTATIC paint spraying. See Paint spraying, Electrostatic

ELECTROSTATICS

Electrostatic transformer and its possible application to the direct utilization of nuclear energy; abstract. J. Mireles Malpica. *diags Elec Eng* 67:1074 N '48

Frictional electricity. E. W. B. Gill. *Phys R* 74:842-3 O 1 '48

Infinities in generalized meson-field theory. A. E. S. Green. *bibliog Phys R* 73:26-9 Ja 1 '48

Polarizability of the neutron in an electrostatic field. K. M. Watson. *Phys R* 73:125-6 Ja 15 '48

Portable electrometer for measuring electrostatic charges and capacities. A. R. Boyle and F. J. Llewellyn. *diags J Sci Instr* 25:242-3 JI '48

See also

Condensers (electricity)

Electric discharges

Electricity, Static

Electrodynamics

ELECTROSTRICTION

Electrostrictive effect in barium titanate ceramics. W. P. Mason. *bibliog diags Phys R* 74:1134-47 N 1 '48

ELECTROSTRICTION—*Continued*

Piezoelectric or electrostrictive effect in barium titanate ceramics. W. P. Mason. *Phys R* 73:1398-9 Je 1 '48

ELECTROTECHNICAL commission, International. See International electrotechnical commission

ELECTROTHERAPEUTICS

Electric stimulus for muscles. *Il Gen Elec R* 51:48 S '48

Apparatus and instruments

Electrical and allied developments during 1947; electromedical equipment. G. Bartlett. *Il Gen Elec R* 51:47-3 Ja '48

Pulse generator for nerve stimulation. *Il Electrician* 140:1984 Je 25 '48

ELECTROTYPES

Plan for filing cuts and art. M. D. Harper. *Il Pir Ink* 221:36-7 N 14 '47

ELECTROTYPING

Electrotypes speeded with water heater. F. C. Hesch, jr. *Il Elec World* 128:136+ N 8 '47

ELEKTRON. See Electron metal

ELEMENTS, Chemical. See Chemical elements

ELEVATORS

Freight elevator costs. W. W. Bryant. *diags Eng N* 140:783-5 My 27 '48

Accidents

Elevators are safe; abstract. F. Hochstrasser. *Safety Eng* 95:31+ Je '48

Elevators, 11 in safety; analysis of causes of accidents. H. Young. *Spectator* (Property ed) 14:14 Ag 5 '48

Safety measures

Centrifugal governor in elevator service. F. Hymans. *diags A S M E Trans* 69:881-90 N '47

Guidance for in-plant trucks and elevators. J. D. Lynch. *Il Safety Eng* 95:26-9 F '48

ELEVATORS, Electric

A-c motor drives for modern elevators. M. A. de Ferranti. *Il diag Gen Elec R* 51:41-5 Ag '48

Automatic lifts on London underground railways. *Il Engineering* 165:213-14 F 27 '48

Modern electric lift practice. L. S. Atkinson. *Il diags Inst E E J* 92 pt 2:254-64 Ag '45; Discussion. 92 pt 2:265-8; 93 pt 2:310-12; 95 pt 2:370-2 Ag '45; Je '46; Je '48

Control

Elevator signal button consists of a cold cathode, gas triode. *Il diag Electronics* 21:150+ Jl '48

Otis controls elevators electronically. *Il Bsns W* p58-60+ Je 19 '48

Selectomatic, new elevator control handles peaks smoothly. *Westinghouse Eng* 8:7-8 Ja '48

Maintenance and repair

Planned maintenance of elevators. T. Trail. *Il Mill & Factory* 42:129-32 Mr '48

ELGIN watch company

Eleven values of employee-employer forums in cementing good relations; unions, non-union workers and executives at Elgin national watch co. H. E. Green. *Pir Ink* 222:33-5+ Mr 26 '48

ELIN-HAFERGUT process. See Electric welding, Arc—Elin-Hafergut process

ELINVAR

New timepiece hairspring made of Elinvar Extra; abstract. *Mech Eng* 69:941 N '47

ELK HILLS oil reserve. See Oil reserves (United States navy)

ELLIOTT company

Preference stock offered. *Comm & Fin Chr* 167:45 Ja 5 '48

Small companies with big earnings. *Mag of Wall St* 81:294 D 20 '47

ELLIPTIC functions. See Functions, Elliptic

ELM**Diseases and pests**

Elm diseases. *Il Consumers Res Bul* 22:15-17 S '48

Transmission by leaf hoppers of the virus causing phloem necrosis of American elm. W. L. Baker. *biblog Science* 108:307-8 S 17 '48

ELON. See Metol

EL PASO, Texas

Bridges

Unusual skewed bridges under way. *Il plan Roads & Sts* 91:88-9 F '48

EL PASO natural gas company

\$56,000,000 of securities placed privately. *Comm & Fin Chr* 168:1580 O 18 '48

EMBANKMENTS

Michigan studies backfill consolidation. R. L. Greenman. *Il Eng N* 141:88-90 S 16 '48

Panama canal; excavation slopes. W. V. Elinger and T. P. Thompson. *Il maps plan diags Am Soc C E Proc* 74:570-90 Ap '48

Review of slope protection methods; report of subcommittee on slope protection of committee on earth dams. *Am Soc C E Proc* 74:845-66 Je '48; Discussion. 74:1395-411 O '48

Setting slope stakes made easy. D. K. Heiple. *diag Roads & Sts* 91:70 S '48

Stabilisation of railway embankments near Gouda. J. L. A. Cuperus. *Engineering* 166:267 S 17 '48

Vertical sand drains for supporting embankments over marshes. T. E. Stanton. *Il diag Pub Works* 79:19+ My '48

See also

Causeways

Railroads—Earthwork

EMBELIN

Synthesis of embelin, rapanone and related quinones by peroxide alkylation. L. F. Pleser and E. M. Chamberlin. *biblog Am Chem Soc J* 70:71-5 Ja '48

EMBEZZLEMENT

Accounting transactions most frequently used to cover defalcations. R. R. Sevenich. *J Account* 85:293-7 Ap '48

Audit control may be had without an official auditor. *Bankers Mo* 65:32-3 Mr '48

Defalcations can be controlled by an audit program. W. H. McDaniel. *Bankers Mo* 65:40-4 Ag '48

Embezzlement up. *Bsns W* p87-8 S 4 '48

Forge ahead, is challenge of N.Y. police to embezzlers. G. C. Brown. *Nat Underw* 52:13 Jl 29 '48

How to avoid internal losses. A. F. Lafrentz. *Banking* 41:39+ O '48

EMBOLISM*See also*

Calsson disease

EMBOSSING

Hydrodynamic method of drawing and embossing. *Il diag Mach* 54:159-61 N '47

Skin game; copper plates reproduce the surfaces of tree bark, armadillo shells, and skins of kiwi birds. *Fortune* 37:122 Ja '48

EMBOSSING (textiles)

Embossing fabrics; printing resins and treating with swelling agents; patent. *Am Dye-stuff Rep* 37:697 O 18 '48

EMBOSSING machines

Paper finishes; embossing. *Pulp & Pa of Can* 49:89 S '48

EMBOSSING of plastics. See Plastic materials —Embossing

EMBRYOLOGY

Quantitative theory of autoradiography illustrated through experiments with ³²S in the chick embryo. H. Branson and L. A. Hansborough. *Il Science* 108:327-8 S 24 '48

Simple method for explanting and cultivating early chick embryos in vitro. N. T. Spratt, jr. *diag Science* 106:452 N 7 '47

See also

Reproduction

EMERALDS

Muzo emerald zone, Colombia, S.A. V. Oppenheim. *biblog Il map Econ Geol* 43:31-8 Ja '48

EMERALDS, Artificial

Synthetic emeralds. *Chem Eng* 55:173-4 F '48

EMERY, John Josiah, 1898-

Portrait. *Fortune* 38:117 O '48

EMERY'S, Thomas, sons, incorporated

Arrival in Cincinnati; Terrace Plaza hotel. *Il diag Fortune* 38:113-17+ O '48

EMETINE

Emetine production and exports, Brazil. *For Comm W* 31:28 My 15 '48

EMINENT domain

How to appraise housing for condemnation; Connecticut state highway department's rights-of-way division, Roads & Sts 91:112+ Ja '48

EMPIRE life and accident insurance company 40th anniversary, East Underw 49:46 My 7 '48

EMPIRE steel corporation

Empire Steel being sold to Studebaker, Iron Age 160:134-5 D 11 '47

EMPLOYEES

Compensation; position of the employee, bibliog J Account 86:61-3 JI '48

Employee's interest in his work, W. D. Freezee, Personnel J 26:345-6 Mr '48

Employees tell why they like their jobs; General Motors prize contest, II Mill & Factory 42:102-4 F '48

Finding out what your workers think; employees' opinion surveys, J. C. Bevis, Gas Age 101:17-19+ F 5 '48

Getting the low-down on employee thinking; Aeroquip corporation, D. G. Baird, Am Bsns 18:26+ JI '48

How to find out what your workers think about you; Standard Register's survey, Factory Management 106:81-91 Ag '48

Job security no. 1 factor affecting employee morale, Am Mach 92:109 Je 17 '48

Koppers' employees tell what they want most, Blast F & Steel Pl 36:sup70 Ap '48

Me, I work at Consolidated, H. E. Nelson, Ptr Ink 224:124 Ag 20 '48

More employees? U.S. agencies study broadened definition that would increase social security rolls, Bsns W p88+ D 20 '47

My employer and I, R. B. Rice, Chem & Eng N 26:3196-7 O 25 '48

Survey for employee thoughts, Mill & Factory 43:114 Ag '48

This small plant made a morale survey; Aeroquip corp. P. F. Hurst, Factory Management 106:78-9 My '48

21 steps for obtaining opinions and facts from employees, H. E. Green, II Ptr Ink 221:35-7+ N 28 '47

Workers ok Alger story; M.I. survey, Mod Ind 16:35 Ag '48

Workers OK boss; M.I. survey, II Mod Ind 16:35 S '48

See also

Ability tests
Absenteeism (labor)
Advertising—Employees, Appeal to Apprentices
Arbitration, Industrial
Bank employees
Bonus system
Building trades—
Labor conditions
Chemical workers
Collective bargaining
Credit unions
Dental service, Industrial
Disabled—Rehabilitation
Electric workers
Employees' benefit plans
Employees' representation in management
Employment management
Employment systems
Foremen
Government employees
Handicapped
Hygiene, Industrial
Industrial relations
Job analysis

Labor and laboring classes
Labor productivity
Medical service, Industrial
Metal workers
Motor truck drivers
Municipal employees
Negroes—Employment
Occupations
Office workers
Payrolls
Pensions, Industrial
Petroleum workers
Physical examinations
Radio workers
Research workers
Retail workers
Salesmen
Saving
Servants
Sickness
Steel workers
Supervisory workers
Textile workers
Transportation workers
Veterans—Employment
Wage payment plans
Wages
Watchmen
Woman—Employment

Employees under special

Motor bus lines
Moving picture industry
Munition factories
Paper mills
Petroleum refineries

Public utilities
Railroads
Sewage disposal plants
Shipyards
Telephone companies

Clothing**See also**

Clothing, Protective
Uniforms
Work clothes

Length of service

Employee anniversaries; program for recognizing employee service at Valley national bank, Phoenix, Ariz. B. Bush, II Burroughs Clearing House 32:29+ S '48
Sixty-one Lucas workers awarded watches, Paint Oil & Chem B 110:42 O 16 '47
To hold workers; Los Angeles firm is offering one-year vacations with pay after ten years' service, Bsns W p 110 N 22 '47
Union loses seniority fight; Boeing and machinists' union, II Bsns W p 108-10 S 25 '48

Promotion

Put your young employees ahead of college graduates, H. K. Tootle, Personnel J 26:346-7 Mr '48
Salaried personnel record system insures promotion from within, T. A. Beaver, II Personnel 24:437-43 My '48

Rating

Employee performance rating for accounting department and other office employees, E. R. Eberle and J. E. King, Edison Elec Inst Bul 16:277-86 Ag '48
Employee ratings help greatly in management-worker dealings; every employee in this British plant, Krisson Printing has talk with big boss every sixty days, F. W. Reilly, Factory Management 106:88-9 Mr '48

Field review method of employee evaluation and internal placement, G. W. Wadsworth, Jr. Personnel J 27:47-54, 99-106, 135-41, 183-90 Je-O '48 (to be cont)
Mutual rating; the key to employee participation, H. W. Shelton, Advanced Management 13:10-15 Mr '48
Periodic appraisal of employees, J. E. Vallil-lee, Pulp & Pa of Can 48:64-70 N '47
Rating jobs and men in maintenance, C. H. DeWolf, Factory Management 106:107-9 Ja '48

See also

Executives—Rating

Testing**See Ability tests**

EMPLOYEES, Age of. See Age and employment

EMPLOYEES, Dismissal of

Collective bargaining provisions; discharge, discipline, and quits; dismissal pay provisions, U S Bur Labor Statistics Bul 908-5: 1-63; pa 20c Supt. of doc. '48
When do violations of safety rules justify discharge? discussion, Nat Safety N 56:30-1+ N '47

EMPLOYEES, Interchange of

Employment market collaboration among the north European countries, Int Labour R 57:496-7 My '48

EMPLOYEES, Reports to

Annual report gets wide hearing; ATF, Inc. uses phonograph records, II Bsns W p92 JI 17 '48
Annual reports for employees aid better understanding; Champion paper & fibre company, Hamilton, Ohio, Pub Util 41:309-12 F 26 '48
Annual reports in the employee publication; abstract, R. D. Breth, Management R 37: 210-11 Ap '48
Daily report tells supervisors status of company business; Monarch machine tool co, J. A. Raterman, Factory Management 106:67 Ap '48

Effective tools for use in employee relations; what is employee reaction to your news letter? annual report? etc, R. Newcomb and M. Sammons, Ind Marketing 33:43+ S '48

also subdivision subjects, e.g.
Airplane factories
Automobile factories
Automobile shops
Brokers
Carpet factories
Cooperative associations
Cotton mills
Electric utilities
Gas companies
Hotels
Institutions, Public
Insurance companies
Jobbers

EMPLOYEES, Reports to—Continued

- Eleven values of employee-employer forums in cementing good relations; unions, non-union workers and executives at Elgin national watch co. H. E. Green. *Ptr Ink* 22:23-5+ Mr 26 '48
- Elgin information program! M. J. Hill. *Personnel J* 26:207-9 D '47
- Employee relations; John Morrell & co. Report to employees. M. O'Dea. *Ptr Ink* 22:92 F 20 '48
- Free speech under Taft-Hartley law. J. L. McCaffrey. *Factory Management* 105:240+ D '47
- How International Harvester talks with employees about profits. J. L. McCaffrey. *il Sales Management* 60:37-9 Ap 1 '48
- How to keep your employees informed. B. Finney. *il Am Mach* 92:99-106 Mr 25 '48
- Let's make workers feel they belong; Allegheny Ludlum Steel. H. G. Batcheller. *Factory Management* 106:90-3 F '48
- Misinformation employee. R. G. Walker. *Harvard Bus R* 26:267-81 My '48
- News and voice of management on public address system. *il Factory Management* 106:97 Ag '48
- Put the advertising approach into communications with employees. S. G. House. *Ptr Ink* 22:44+ S 10 '48
- Report to employees ties wages to profits; Cherokee textile mills. A. G. Heinsohn, jr. *Factory Management* 105:83 N '47
- Reports to employees that really get read; ATF's reports. B. F. McClancy. *il Factory Management* 106:126-8 Je '48
- Seven rules for telling employees about business and the U.S. economy; American central division, Avco mfg. corp. H. E. Green. *il Ptr Ink* 22:29-32 Ja 9 '48
- Telling employees about business operations; profits; abstract. *Management R* 37:489-90 S '48
- Trends in communicating with employees. H. A. Marple. *Am Gas J* 168:33-7 F '48
- What to tell your workers. E. R. Smith. *il Adv & Sell* 41:35+ Ap '48
- EMPLOYEES, Training of**
- Cadet engineer training program; Philadelphia electric co. M. S. Viteles and G. L. Harvey, jr. *Am Gas Assn Mo* 30:17-20+ Ja '48
- Collective bargaining provisions; apprentices and learners. U. S. Bur Labor Statistics. *Bul* 908:41-44; pa. 15c. *Supt. of doc.* '48
- Company training program for accounting personnel; Armstrong corp. co. J. R. Evans. *N A C A Bul* 29:509-16 Ja 1 '48
- Contributions of military psychology to personnel training. C. H. Lawshe and F. J. Harris. *bibliog Personnel* 25:127-36 S '48
- Crown Willamette paper school. A. G. Natwick. *Paper Tr J* 126:102+ My 27 '48; Same cond. *Paper Ind* 30:472+ Je '48
- Determining refinery training needs. A. H. Houseknecht. *Am Pet Inst Proc* 28(3):55-61 '48; Excerpts. *Pet Processing* 3:563 Je '48
- Developing better employees. W. H. Lough. *Am Gas Assn Mo* 30:31-2 F '48
- Employee training can be combined with research; Fieldcrest mills. *Textile World* 98:145, 206 Ap '48
- Evaluation of a training program in operation. *Personnel* 24:372-7 Mr '48
- Experience with apprentice mechanic training. A. W. Neumann. *S A E J* 56:44-5 Je '48
- Experiences in establishing organized training programs. W. J. McClintock. *Am Pet Inst Proc* 28(3):49-53; Discussion. 53-4 '48
- Five-day truck driver training program planned for operation at local level. H. Ridder. *il Nat Pet N* 40:31-2+ O 27 '48
- Flying squadron. Atlantic Refining's solution to peak loads. H. T. Yeager. *il Oil & Gas J* 47:83-4 Jl 8 '48
- Getting the most out of store personnel. E. J. Warmbier. *J Retailing* 23:138-45 D '47
- Helping the employee to know and like his job; information program of Public service company of Oklahoma. R. K. Lane. *Pub Util* 41:827-33 Je 17 '48
- How to save materials by training operators; Psychological corp. study in nylon-hosiery mill. *il Mod Ind* 15:128+ F '48
- In-plant training; experience in labeling courses. J. C. Clay. *il Mod Packaging* 21:108-11 Je '48
- Incentive plan for learners reduces turnover; pay for output over standard. K. A. Metzger. *il Factory Management* 106:86-7 F '48
- Independent jobber organizes on-the-job training program for service station men; Gaseteria, Inc. F. C. Sturtevant. *il Nat Pet N* 40:24+ Mr 3 '48
- Industrial employee training. E. Arter. *Manuf Rec* 116:39+ D '47; 117:36+ Ja '48; Abstract. *Cor Ind* 49:63 O '47
- Industrial training at Union bag and paper corporation, Savannah, Ga. J. H. Groves. *Paper Tr J* 126:55-8 Mr 18 '48; Same cond. *Paper Ind* 29:1841-2+ Mr '48
- Industry develops engineers. T. B. Jochem. *Mech Eng* 70:747-9+ S '48
- Industry looks to the screen. O. H. Coelln. *il Sci Am* 177:261-4 D '47
- Initial report on training practices in the refineries of the United States. J. R. D. Eddy. *Am Pet Inst Proc* 28(3):62-4 '48
- Instrument craftsmanship course; training schedule, textbooks used, and instruments demonstrated in classroom as developed in Lockport. Ill. refinery of the Texas co. G. A. Larsen. *il Pet Processing* 3:83-5 Ja '48
- It's a big job; color film produced for Los Angeles Transit; part of company's training program for street car, motor bus and trolley bus drivers. *il Bus Transportation* 27:74 Mr '48
- Meeting management's need for men trained in industrial accounting; Caterpillar tractor co. R. A. Morgan. *N A C A Bul* 29:1219-27 Je 1 '48
- Methods of instruction on the use and maintenance of mechanized logging equipment. A. D. Williscroft. *Pulp & Pa of Can* 49:138+ S '48
- Mill builds course to train fork lift truck operators; Arlington mills div. of William Whitman co. T. R. Hadfield and J. L. English. *il plan Textile World* 97:112-13 N '47
- New methods in training appliance servicemen. H. Luoma. *Gas Age* 102:12-14+ S 2 '48
- Nine-course training program increases worker output; Johnson & Johnson, New Brunswick, N.J. W. Machaver. *il Factory Management* 106:104-6 Ja; 86-7 My '48
- Plan of industrial training for chemists and engineers. General electric co. C. H. Kline, jr. *il Chem & Eng N* 26:2692-4 S 13 '48
- Planned maintenance school. Twin coach co. H. C. Arnot. *il Bus Transportation* 27:75-7 O '48
- Selective placement of chemists and chemical engineers through industrial training programs. C. H. Kline, jr. *J Chem Educ* 25:568-70 O '48
- Shuttle employee training program. W. A. White, jr. *Paper Tr J* 126:99-102 My 27 '48
- Something for everybody in this training plan; Merck & co. E. C. Bartell. *Factory Management* 106:73 Je '48
- Textile workers like plan that transforms mill into college; Crown manufacturing co., Pawtucket. *il Ptr Ink* 22:70 F 27 '48
- Train operators to dispatch reactive same as active power. E. R. Paige. *il diags Elec World* 128:94-6 D 6 '47
- Training a technical staff; North of Scotland hydro-electric board's scheme. S. P. Smith. *Elec R (Lond)* 142:3451 Mr 5 '48
- Training for all is Bigelow-Sanford objective. J. Gagnon. *il Textile World* 97:103-5+ D '47
- Training is a staff function. J. J. McCarthy. *J Retailing* 24:6-13 F '48
- Training maintenance electricians at Falk. R. H. Weaver. *il Factory Management* 106:82-4 F '48
- Training of process operators. H. A. Lutz and C. P. Baker. *Am Pet Inst Proc* 28(3):65-9 '48; Same. *Pet Refiner* 27:146-8 Jl '48; Same abr. *Pet Processing* 3:556+ Je '48
- Training operatives by activity analysis. L. G. Lindahl. *il Personnel* 24:297-305 Ja '48
- Training program for office workers. J. P. Flemming. *Am Gas Assn Proc* 1947:132-7
- Training quality control personnel for electroplating operations. O. H. Doll and A. L. Jenny. *il Steel* 121:93+ N 17 '47
- Union participation in methods and time studies; Oliver iron & steel corp. R. T. Walton. *il Iron Age* 160:60-4 D 18 '47

EMPLOYEES, Training of—Continued

Use of visual aids in training tractor operators. A. M. Stewart. Pulp & Pa of Can 49: 128+ S '48

We conducted our own secretarial class. F. Truesdale. Personnel J 27:13-15 My '48

Working model simplifies theory of automatic control. G. F. Akins. *il* diags Power 92: 536-40, 694-8 S, N '48

Wrong ends reduced by educating weavers. T. Vine. *diag* Textile World 97:173-4 N '47

See also

Apprentices Railroads—Employees
Bank employees— —Training
Training Safety instructions
Employees' manuals and training
Executives—Training Salesmen—Training
Foremen—Training Supervisory workers
Instructions —Training
Insurance, Life—
Agents—Training

Bibliography

Industrial training; a guide to selected readings. J. M. Brophy and I. B. Shaw. (Extension bul. no. 1) 32p New York state school of industrial and labor relations, Cornell univ, Ithaca, New York '48

Testing

Industrial trainers check their results. E. C. Keachie. Personnel 25:88-105 S '48

EMPLOYEES as customers

Your own factory folks; forgotten prospects? Roberts & Mander give pre-showing for plant employees. W. B. Eckenhoff. *il* Sales Management 60:104+ Mr 1 '48

EMPLOYEES as owners

Employee get Times-Herald under Mrs Patterson's will. J. J. Butler. Ed & Pub 81:6+ J1 31 '48

Patterson will contest weighed by attorneys. Ed & Pub 81:11 Ag 7 '48

EMPLOYEES as sales promoters

Employee sweepstake opens 18,000 new outlets for Arden Farms. *il* Sales Management 61:102-4 J1 1 '48

EMPLOYEES as stockholders

Fifty million stockholders. B. Cox. Advanced Management 12:148-53 D '47

Partners in ownership; Milwaukee Journal employees are stockholders under trust plan. Trusts & Estates 37:127-8 Ag '48

Shape of taxes to come; granting of options to employees as incentives. L. J. Freeman. Barron's 28:9-10 S 20 '48

Stock and profit-sharing plans for agency executives. J. K. Lasser. Adv & Sell 41:73-5 J1 '48

EMPLOYEES' associations**See also**

Company unions
Foremen's clubs

EMPLOYEES' benefit plans

Bargaining on employee benefits. E. S. Hewitt and C. L. Kluss. Personnel 25:23-30 J1 '48

Benefit plans can backfire; Oak Ridge and AEC-contractors squabble. Chem Eng 55: 175-6+ Je '48

Benefit plans under collective bargaining. E. K. Rowe and A. Weiss. Mo Labor R 67: 229-34 S '48

Capitalist at every desk and work-bench; employee security program of Standard oil company (New Jersey). F. W. Pierce. *il* Dun's R 56:17-18+ Mr '48

Economic fringe demands of unions; vacations, holiday pay, night-shift premiums, call-in pay, paid sick leave, and health and welfare plans, etc. R. C. Smyth. Personnel 24:243-56 bibliog(p254-6) Ja '48

Employee-benefit plans in basic steel analyzed. E. J. Hardy. Iron Age 161:96+ F 5 '48

Employee-benefit program of Consolidated Edison. A. Weiss and others. Mo Labor R 66:493-8 My '48; Abstract. Nat Safety N 58: 48 S '48

Employee benefit programs. H. F. North. Personnel J 26:248-51 Ja '48

Establishment of health and welfare funds under the Taft-Hartley act. V. P. Ahearn. Ind Med 17:150-1 Ap '48

Facing the facts on fringe issues. *il* Mod Ind

16:55-6+ J1 '48

He makes security profitable; Frank O. Wahlstrom, Southern states iron roofing co., has cut labor costs, boosted wages, lifted worker benefits. *il* Mod Ind 15:67-8+ F '48

Health, retirement benefits for utility employees. M. Hammett. Pub Util 42:343-9 S 9 '48

How do you spend your salary dollar? E. C. Schleh. Management R 37:396-8 Ag '48

Industry's voluntary social security plans; abstract. Management R 37:435-7 Ag '48

Patterns in fringe benefits. A. C. Croft. Personnel 25:11-17 J1 '48

Personnel services that serve. G. D. Meyer. Personnel J 27:191-3 O '48

Security for light and power company employees. M. Hammett. Pub Util 40:768-71 D 4 '47

Share of profits guarantees pay, pensions, and benefits; Hankins container co. Factory Management 106:113 S '48

Steelworkers ask security plan. Steel 122:74+ Ap 26 '48

Trends in employee benefit clauses; abstract. Management R 37:401-2 Ag '48

Welfare funds under the Taft-Hartley law. Factory Management 106:220+ F '48

See also

Employees' trusts
Pensions, Industrial
Sickness benefits
also Federation of employees' benefit associations

EMPLOYEES' booklets

Eight vital ingredients for employee and sales help booklets; illustrations. Ptr Ink 224:26-7 S 3 '48

EMPLOYEES' buildings

Foundry welfare in Sheffield. *il* Engineer 185: 544 Je 4 '48

Quonset portal construction; Consolidation coal co. (Ky.) mines. G. Keat and J. H. Edwards. *il* map plans *diag* Coal Age 53: 95-101 My '48

Separate building for personnel functions minimizes confusion; Chevrolet-Indianapolis. M. R. Harris. *il* Factory Management 106:106-7 O '48

Wash and change houses at American mines. D. Harrington and J. H. East, Jr. 18pls U S Bur Mines Information Circ 7423:1-44 '47

See also

Clubhouses, Employees'

EMPLOYEES' Christmas parties. See Christmas parties, Employees'

EMPLOYEES' clothing. See Clothing, Protective; Work clothes

EMPLOYEES' clubs

Butte boasts exceptional employee club. *il* Min Cong J 34:58-9 Mr '48

Recreational program for women; First Wisconsin national bank of Milwaukee. M. A. Ralston. *il* Burroughs Clearing House 32: 20-1+ Ja '48

EMPLOYEES' conferences

Guide to successful conference leadership. Personnel 24:328-40; 25:31-46 Mr, J1 '48 [reprinted as pamphlet]

Pullman men talk it over; third annual series of conferences. Ry Age 125:22-4 J1 3 '48

EMPLOYEES' contests

Beauty contest sparks women employee relations. W. J. Sheehan. Ptr Ink 224:42+ J1 23 '48

Contest promotes better relations with employees; Democrat printing and lithographing company, Little Rock, Ark. Inland Ptr 121:50 Je '48

Value of sawing contests in labour relations. M. R. Wilson. *il* Pulp & Pa of Can 49:102+ My '48

Why merchandise prizes spur Beatrice salesmen to extra effort; prizes are within reach of all, employees receive the tools to win, and prize books go into homes. L. A. Berger. *il* Sales Management 61:136+ O 15 '48

Will incentive contests solve your problem? *il* Am Bsns 18:22-3+ J1 '48

EMPLOYEES' contests—Continued**Quiz programs**

Quiz at lunch game builds interest in company information. *Ptr Ink* 224:60 J1 30 '48;
Abstract. *Bsns W* p92-3 J1 24 '48

EMPLOYEES' counselors

Basic principles and techniques of interviewing and counselling. L. E. Himler. *bibliog Ind Med* 16:529-34 N '47

Differences between clinical and industrial non-directive counseling. D. S. Arbuckle. *Personnel J* 26:374-6 Ap '48

Bibliography

Employee counseling services. 4p pa 10c Industrial relations section, Princeton univ. Princeton, N.J. '48

EMPLOYEES' insurance. See Insurance. Accident—Employees' insurance; Insurance. Group—Employees' insurance; Insurance. Life—Employees' insurance

EMPLOYEES' libraries

Botany's library helps employees get ahead; books for job improvement as well as for entertainment. *il Sales Management* 59:70 N 10 '47

EMPLOYEES' lunches. See Lunches, Employees'

EMPLOYEES' magazines

Annual reports in the employee publication; abstract. R. D. Breth. *Management R* 37:210-11 Ap '48

Banking's use of staff publications. L. C. Fink. *il Burroughs Clearing House* 32:28-31+ Je '48

Case study in industrial communication. W. A. Earl. *il Personnel* 24:427-34 My '48

Challenge to company publications. E. M. Van Duzer. *il Ind Marketing* 33:44-5+ F '48

Check list to measure employee publications. R. Newcomb. *Gas Age* 102:14 S 2 '48

Contents of 399 employee magazines; a report prepared for Metropolitan group policyholders. 72p Metropolitan life insurance co. 1 Madison av. New York 10 '48

Employee magazines stimulate personal pride in the bank, in employee's work. *il Bankers Mo* 65:8+ Je '48

Employee publications. R. Newcomb. *Factory Management* 106:210+ Ja '48

Ford Rouge news cops honors for best employee newspaper *Sales Management* 61:124+ S 15 '48

House organ growing up; medium of communication between company management and employees. R. Newcomb. *Pub Util* 42:77-85 J1 15 '48

Human relations program; Young radiator co. pamphlets. *il Mill & Factory* 42:132-3 Je '48

Industrial editor should be a salesman, too. R. W. Mulcahy. *Ind Marketing* 32:122+ N '47

International house organ to build world understanding through trade; Coca-Cola publication reaches 6,000 in 70 countries. V. J. Dallaire. *il Ptr Ink* 223:30 Je 25 '48

Keep the line open between employer and employee. R. Newcomb and M. Sammons. *il Ind Marketing* 33:38-9+ My; 48-9+ Je '48

Plant papers and employee relations. S. C. Sufrin and G. G. Gaynes. *Personnel* 24:288-92 Ja '48

Pointers on training plant reporters; abstract. *Management R* 37:355-6 J1 '48

Putting life into the safety story; employee publication is an effective medium. G. A. Riley. *il Nat Safety* N 55:25-7+ D '47

Selling the coal miner; attention-catching publications, using the human approach; how they are produced and what they cost. *il Coal Age* 52:74-8 N '47

Staff magazines educate and inspire employees. *il Bankers Mo* 65:32+ Ag '48

Teamwork benefits the bank; staff magazines promote teamwork. *il Bankers Mo* 65:40-3 S '48

This house organ is a public relations tool. *Sales Management* 59:78+ N 20 '47

Trends in communicating with employees. H. A. Marple. *Am Gas J* 168:33-7 F '48

Trends in the employee publication field. R. D. Breth. *Personnel* 24:413-16 My '48

Union news in the employee magazine; abstract. *Management R* 37:73-4 F '48

Union official looks at plant newspapers. L. Reagin. *Factory Management* 105:233+ N '47

Utility house organs are profit makers. D. Markstein. *Am Gas J* 169:22-3 S '48

We introduced our employees to our stockholders; United aircraft corporation's employees' magazine. R. Minard. *il Ptr Ink* 222:42-3 Ja 16 '48

See also
Salesmen's magazines

Law

Legal responsibilities of an employee publication. C. A. Weslager. *Ptr Ink* 221:40-2+ N 21 '47

Printing

Salesman's corner; selling employe magazine. F. Rundell. *Inland Ptr* 121:72-3 Ap '48

EMPLOYEES' manuals

Employee handbook is worth every cent we spent, enthusiastic printer reports. D. Markstein. *il Inland Ptr* 120:69-70 Ja '48

How to prepare office manuals; abstract. H. L. Wylie. *Management R* 37:69 F '48

Management doubles as teacher; manual defines scope of supervisory workers' authority; Public service electric and gas co., Newark, N.J. E. R. Eberle. *Am Gas Assn Mo* 30:27-9 J1-Ag '48

Manual explains Meredith to employees. *Sales Management* 61:69 S 15 '48

Manual gives workers wage incentive facts; Clark manufacturing co., Cleveland. J. F. Shuri. *Factory Management* 106:86-7 Ja '48

New York Central helps employees get on right track, booklet answers common questions. *il Ry Age* 126:470 S 4 '48

Policy manual helps supervisors in day-to-day management. T. J. Henley. *il Factory Management* 106:120-1 J1 '48

Welcome to Young & Rubicam. *il Adv & Sell* 41:56-7 O '48

Your employee information manual influences a vital audience. R. Newcomb and M. Sammons. *il Ind Marketing* 33:44-5+ J1 '48

EMPLOYEES' publications

Personnel workshop; school for management; A.M.A.'s display of employee publications. *il Bsns W* p 108 Mr 13 '48

Tell your story to employees. C. J. Allen. *Am Gas Assn Mo* 30:23-4+ O '48; Same. *Gas Age* 102:24-6+ O 14 '48

See also
Employees, Reports Employees' magazines Employees' manuals

EMPLOYEES' recreation. See Recreation**EMPLOYEES' representation in management**

Accident reduction through labor-management cooperation. E. Dale. *Management R* 37:432-5 Ag '48

British labor-management co-operation; joint consultation program. R. L. Roberts. *il Dun's R* 56:19-20+ S '48

Employee-management study by American management association. *Mech Eng* 70:143 F '48

Establishment of works committees in Italy. *Int Labour R* 57:72-5 Ja-F '48

Industrial skipper; Walter H. Wheeler, jr. sails Pitney-Bowes into calm waters of labor peace. *il Mod Ind* 16:67-8+ S '48

Joint production committees. Jan. 1948. F. S. McElroy and A. Moros. *Mo Labor R* 67:123-6 Ag '48

Labor and management team up for time studies; Oliver Iron & steel corp. R. T. Walton. *Factory Management* 106:75 J1 '48

Labour and the Nation; joint consultation. *Economist* 155:444-6 S 18 '48

Organization and conduct of the joint production committee. E. J. Lever and F. Goodell. *Advanced Management* 13:22-8 Mr '48

Participation as a tool of management. J. M. Pfiffner. *Personnel* 25:143-54 S '48

Study on the management prerogative issue. J. G. Turnbull. *Personnel* 25:106-24 S '48

Union-management co-operation; experience in the clothing industry, by K. Braun. Review, by C. A. Myers. *Mech Eng* 70:230-1 Mr '48

EMPLOYEES' representation in management—
Continued

Union participation in methods and time study; Oliver Iron & steel corp. R. T. Walton. *Il Iron Age* 160:60-4 D 18 '47

Wage incentives based on careful time studies; operational reviews by management-labor time study teams at Oliver Iron and Steel. R. T. Walton. *Il Steel* 122:63-6 My 31 '48

Works committees in Denmark. *Int Labour R* 57:365-7 Ap '48

EMPLOYEES' suggestions. See Suggestion systems**EMPLOYEES' trusts**

Payroll flexibility through employee trusts. G. Simons. *Harvard Bsns R* 26:441-53 J1 '48

EMPLOYERS' associations

See also

Associated industries of Cleveland

EMPLOYERS' liability

Insure the cars he doesn't own. G. A. Strader. *Rough Notes* 91:19-20+ S '48

New diseases from new chemicals and radioactive substances can mean lawsuits for employers when not compensable. *Bsns W* p66-7 S 25 '48

See also

Insurance, Employ- Workmen's compensation's liability sation

EMPLOYERS' liability insurance. See Insurance, Employers' liability**EMPLOYMENT**

Broadening investments of savings institutions; an aid in maintaining high employment. H. Jones. *Comm & Fin Chr* 167:13 Ja 1 '48

Employment resulting from U.S. exports. M. Hoffenberg. *Mo Labor R* 65:675-8 D '47

Employment situation. H. B. Byer. *Comm & Fin Chr* 167:1647+ Ap 15 '48

Factors affecting the employment outlook. H. B. Byer. *Comm & Fin Chr* 168:1867+ N 4 '48

Jobs go a-begging in '48. *Bsns W* p 19-20 F 7 '48

Meaning of full employment. E. Benoit-Smulian. *bibliog R Econ & Stat* 30:127-34 My '48

NLRB rules against featherbedding. *Eng N* 141:3 Ag 12 '48

Review of two books (Lerner and Hansen). J. W. Angell. *R Econ Stat* 29:290-2 N '47

Should full employment be guaranteed? E. B. George. *Il Dun's R* 55:17-19+ O; 20-2+ N; 18-20+ D '47

Timing fiscal policy; is timing employment policies fruitless? E. E. Hagen. *Comm & Fin Chr* 167:11+ Ja 1 '48

See also

Age and employment Unemployment

Applications for positions Veterans—Employment

Child labor Woman—Employment

Labor supply ment

Negroes—Employment

International aspects

Employment and international conditions. M. Hoffenberg; J. A. Flexner and J. Mintzes. *Mo Labor R* 65:675-84 D '47

Stability

Guaranteed pay; N.A.M. study showing techniques to cut down employment fluctuations. *Bsns W* p 110+ Ap 5 '48

How Procter & Gamble avoided serious labor trouble for 60 years. *Il Ptr Ink* 222:39-41 Ja 2 '48

How Seaboard's job-budget plan works; stabilized jobs for 2,700 shop workers. *Il Bsns W* p58+ Ja 3 '48

Management's task toward economic stability. R. R. Deupree. *Comm & Fin Chr* 167:1880+ Ap 29 '48; Same. *Il Dun's R* 56:11-12+ Ag '48; Excerpts. *Soap & San Chem* 24:45+ My '48

Regularized employment; a cost cutting tool. O. C. Cool. *Il Manuf Rec* 117:39+ J1 '48

Stabilization of employment in gray iron foundries. B. A. Krawczyk. *Foundry* 76:99+ Ja '48

Statistics

Chart book of employment and payrolls in Canadian industries; employment: 1933-

March 1, 1948, payrolls: 1941-March 1, 1948. 40p pa 50c Canada. Dominion bur. of statistics, Ottawa '48

Comparative employment levels; construction projects, 1941-47. *Mo Labor R* 65:562 N '47

Comparative employment levels; construction projects, 1946-47. *Mo Labor R* 66:58-9 Ja '48

County employment, taxable payrolls, and average monthly pay; employment as of first quarter 1946, eligible for old age and survivors' insurance program. *Sales Management* 60:112+ My 10 '48

Distribution of industrial markets by industries and states, measured by 1947 manufacturing employment figures; tabulation. *Ptr Ink* 222:56-9 Mr 26 '48

Employees in nonagricultural establishments by industry division, June 1946, 1947 and 1948; chart. *Survey of Cur Bsns* 28:3 Ag '48

Employment and pay rolls. Published in Monthly labor review

Employment statistics, 1941-1946. *Survey of Cur Bsns* 1947 Sup p47-55 [supplemented in monthly numbers]

Employment trends. *Survey of Cur Bsns* 28: 10-11+ O '48

Half-year's recruitment analysed; with figures for 1947-48. *Economist* 155:312-13 Ag 21 '48

High employment is too low. *Bsns W* p23 S 18 '48

Industrial employment in war and peace. E. B. Soltar. *Mo Labor R* 65:645-9 D '47

Key employment in aircraft centers; tabulation. *Aviation W* 49:22 S 20 '48

Number of full-time equivalent employees and full-time and part-time employees, by industry, 1944-47; number of persons engaged in production, by industry, 1944-47; tabulations. *Survey of Cur Bsns* 28:22-3 J1 '48

Number of full-time equivalent employees, by industry, 1929-46 and average number of full-time and part-time employees, by industry, 1933-46; tabulations. *Survey of Cur Bsns* 27:sup36-7 J1 '47

Production-worker employment and pay rolls in the baking, canning and preserving, and slaughtering and meat packing industries; revised data; monthly figures and monthly averages, 1933-1946. *Survey of Cur Bsns* 28:23 Ap '48

Production-worker employment and pay rolls in the chemicals industry; revised data; monthly figures and monthly averages, 1933-1946. *Survey of Cur Bsns* 28:22 Ap '48

Progress of the postwar transition; utilization of manpower in 1947; with figures for other years. *Survey of Cur Bsns* 28:24-6 F '48

Trends in agricultural employment. L. J. Ducoff and M. J. Hagood. *Mo Labor R* 65: 649-53 D '47

Unemployment, employment and hours of work. *Int Labour R* 57:411-18, 676-83; 58: 116-23, 402-9, 554-61 Ap, Je-J1, S-O '48

EMPLOYMENT act of 1946

Employment act and the act of employment. E. G. Nourse. *Il Dun's R* 55:11-14+ N '47

Free enterprise and National employment act. E. G. Nourse. *Comm & Fin Chr* 167: 715+ F 12 '48

EMPLOYMENT agencies

Employment market organization in Sweden. *Int Labour R* 57:367-72 Ap '48

Employment service organization; 30th session of the International labor conference. *Int Labour R* 56:271-4 S '47

Matching the science-trained worker with his job. T. Coffey. *J Chem Educ* 25:571-3 O '48

Rehabilitation and placement of handicapped workers. W. P. McCahill. *Mo Labor R* 67: 282-5 S '48

Seeking the man for the job. *Bsns W* p26+ My 22 '48

EMPLOYMENT agencies—Continued

Vocational guidance for juveniles in the United Kingdom; juvenile employment service. H. M. D. Parker. *Int Labour R* 57: 15-25 Ja-F '48

See also

Forty plus clubs
Handy associates, inc.

EMPLOYMENT contracts. See Labor contracts

EMPLOYMENT departments

Selection and promotion of a personnel staff. M. M. Mandell. *Personnel J* 25:125-7 S '48
Separate building for personnel functions minimizes confusion; Chevrolet-Indianapolis. M. R. Harris. *Il Factory Management* 106:106-7 O '48

Costs

Survey of personnel department costs. W. C. Jackson and J. D. Adams. *Personnel J* 26: 244-7 Ja '48

Records

ABC's of personnel administration; personnel records. C. E. Peterson. *Il Mill & Factory* 42:105-7 F '48

Personnel records, a new slant. P. S. D. Cabot. *Personnel J* 26:362-8 Ap '48

Salaryed personnel record system insures promotion from within. T. A. Beaver. *Il Personnel* 24:437-43 My '48

S-S-Sh! it's confidential. J. K. Gerdel. *Personnel J* 27:24-8 My '48

EMPLOYMENT management

Auto dealer looks to the future; M. J. Lanahan, inc. attempts to improve customer service by starting with its employees. W. N. Augsburg. *Il Am Bsns* 18:12-13+ Ap '48

Better human relations. F. A. Magoun and J. M. Shipton. *Food Ind* 20:1274-5 S '48

Big-plant personnel practices in a 225-man shop; Tri-Clover machine co. C. O. Nelson. *Factory Management* 106:118-19 F '48

Cartoon characters make good spokesmen for management. M. C. Faught. *Il Ptr Ink* 221: 33-9 N 28 '47

Chart your workers' duties to save time and snarls. L. W. Ellis. *Ptr Ink* 224:32-4 Ag '48

Company club helps junior executives; Majestic manufacturing company's management club. *Am Bsns* 17:27 D '47

Contest for the best program of a personnel association. *Personnel J* 27:62-3 Je '48

Continuing problems in employee relations. M. V. Cousins. *Gas Age* 102:50+ O 28 '48

Cutting labor costs economically. F. Federici. *Cer Ind* 51:69 N '48

Does a small plant need a personnel program? P. W. Kayser. *Personnel J* 27:22-3 My '48

Effective tools for use in employee relations; what is employee reaction to your news letter? annual report? etc. R. Newcomb and M. Sammons. *Ind Marketing* 33:43+ S '48

Employee ratings help greatly in management-worker dealings; every employee in this British plant, Krisson Printing, has talk with big boss every sixty days. F. W. Reilly. *Factory Management* 106:88-9 Mr '48

Employee relations. M. C. Hale. *Am Gas Assn Proc* 1947:235-40

Employee relations plan helps double small-plant productivity; Porter-Cable machine company, Syracuse. R. C. Tyo. *Il Factory Management* 105:78-80 D '47

Employer-employee relationships in water utilities. J. W. Heiney. *Water & Sewage Works* 95:16-18 Ja '48

Employees are persons, not numbers, at Falk. *Il Mill & Factory* 43:132-4 S '48

Engineers begin panels on administration of technical personnel. *Chem & Eng N* 26:2954 O 4 '48

Expanded personnel services are fixture in textile industry. C. M. Bowden. *Textile World* 98:115 F '48

Experiment in group dynamics. R. W. Kelly and H. F. Ware. *Advanced Management* 12: 116-19 S '47

Factors in good personnel administration. G. W. Wadsworth, Jr. and E. H. Adriance. *Edison Elec Inst Bul* 16:21-2+ Ja '48

Foreman's understanding builds better management team. C. W. Boyce. *Factory Management* 106:118-19 S '48

Friendship is keynote at May McEwen Kaiser co. J. M. Gregory. *Il Textile World* 98:131+ Ap '48

G-E promotes sound employee and community relations. *Il Mill & Factory* 42:93-7 Je '48

Gillette's product preview plan gives workers insight to marketing. J. P. Spang, Jr. *Il Sales Management* 60:78+ Mr '48

Handling employee relations as a sales challenge; G-E finds new use for consumer marketing techniques. R. H. Ganly. *Il Ptr Ink* 223:35-7+ Ap 16 '48

He makes security profitable; Frank O. Wahlstrom, Southern state iron roofing co., has cut labor costs, boosted wages, lifted worker benefits. *Il Mod Ind* 15:67-8+ F '48

Helping people to work together. J. F. Blair. *Am Bsns* 17:26+ N '47

How to find out what your workers think about you; Standard Register's survey. *Factory Management* 106:81-91 Ag '48

How to handle men. *Elec West* 100:81 Ap '48

How to improve mine labor supply. R. S. Hooper. *Il Min Cong J* 34:22-4+ J '48

How to make workers more cost-conscious. *Coal Age* 53:90+ Mr '48

How to reduce worker resistance to change. G. Gardiner. *Textile World* 98:167 O '48

How to run a successful open house program; Oliver iron and steel corp. J. B. Patton. *Il Mill & Factory* 42:137-9 Je '48

How you can help your men move up to bigger jobs. *Coal Age* 53:114+ S '48

Human engineering is stressed by ASME. H. Knowlton. *Textile World* 98:137+ Mr '48

Human engineering program pays off for Ford. *Il Bsns W* p88-90+ O 30 '48

Human relations program; Young radiator co. pamphlets. *Il Mill & Factory* 42:132-3 Je '48

Industrial psychology pays in this plant; how Dr Alfred Marrow operates Harwood textile mill. *Il Mod Ind* 16:67-8+ J '48

Industrial relations department, a service organization; United States smelting refining and mining co. O. A. Glaeser. *Min & Met* 29:557-9 O '48

Industrial relations today. D. V. Steger. *Midwest Eng* 1:31-5 S '48

Industrial skipper; Walter H. Wheeler, Jr. sails Pitney-Bowes into calm waters of labor peace. *Il Mod Ind* 16:67-8+ S '48

Industrial teamwork features St Louis boiler business. P. W. Treadway. *Il Manuf Rec* 116:38+ D '47

Job engineering. R. S. Dunham. *Iron & Steel Eng* 25:89-91 Ap '48

Keeping employees out of hock; Russell Electric plan. A. C. Norris. *Il Mill & Factory* 43:120-1 O '48

Labor aspects of public relations. G. W. Anderson. *Bus Transportation* 27:44-5+ J '48

Labor relations in coal mining. V. B. Stith. *Il Min Cong J* 34:28-31 Ja '48

Leadership and human relations at the places where people work. T. G. Spates. *Advanced Management* 13:98-102 S '48

Leadership and human relations; the ingredients of modern personnel administration. T. G. Spates. *Trusts & Estates* 86: 210-13 Mr '48

Making the most of morale surveys. F. F. Bradshaw and H. E. Krugman. *Personnel* 25:18-22 J '48

Management for more output. P. Mooney. *Advanced Management* 13:3-9 Mr '48

Management-labor harmony; it's a selling job. C. F. Mugridge. *Sales Management* 60: 46+ Je 15 '48

Management's responsibility to employees. R. R. Deupree. *Soap & San Chem* 24:42-4 J '48

Mr President, let's talk about the kid; a message for top management only. E. J. Warmbier. *J Retailing* 24:54-9 Ap '48

Nine ways to promote loyalty in a public accounting firm. F. Kircher. *J Account* 86: 310-13 O '48

EMPLOYMENT management—Continued

- Our job. A. E. H. Fair. Pulp & Pa of Can 49:65-8 F '48
- Personnel administration, by P. Pigors and C. A. Myers. Review, by A. Bavelas. Mech Eng 69:1025-6 D '47
- Plan for meter readers. A. G. Burnett. II Am Gas Assn Mo 30:31-2 Ja '48
- Pointers for supervisors. G. Gardiner. Textile World 98:154 My '48 [cont monthly]
- Problems in the field of employer-employee relations in the paper industry. E. G. Amos. Paper Tr J 126:7-+ Mr 4 '48
- Quaker Oats finds ways to keep its workers happy. W. M. McIlwain. II Food Ind 20:1144-5+ Ag '48
- Quitting time or washup time? J. K. Matter. Am Mach 92:117 Ag 12 '48
- Rating better people in our foundries. W. B. Given. Foundry 76:79+ N '48
- Reducing hidden costs through labor relations. O. C. Cool. Metal Finishing 46:73-5 Ap '48; Same. Paper Ind 30:399-401 Je '48
- Reducing waste of manpower. E. Motterhead. Mill & Factory 42:116-17 F '48
- SKF's Hornell plant serves as labor relations proving ground. S. Smoke. Iron Age 162:187-8 O 14 '48
- Slowdown, why? speed up, how? E. J. Warmbier. J Retailing 24:89-96+ O '48
- Some things every employee wants. H. R. Feil. Banking 40:134+ N '47
- Sound labor relations; a practical approach. O. C. Cool. Paper Ind 30:878+ S '48
- Spirit of teamwork key to Shelton's fine labor program. J. M. Gregory. II Textile World 97:141+ N '47
- Supervising people; closing the gap between what we think and what we do. M. Hall. Advanced Management 12:129-35 S '47
- Supervisors study union relations; Detroit Edison co. L. J. Kaufman. Elec World 129:56-7 Ja 31 '48
- Talking points for better bargaining. Mod Ind 16:46-9 S '48
- Task of labor relations is higher output; personnel programs increase productivity; abstract. L. A. Appley. Comm & Fin Chr 168:414 Jl 29 '48
- Tips on handling soldiering on the job in coal mines. Coal Age 52:106 N '47
- Trends of industrial relations in the fine paper industry. D. O. McLennan. Pulp & Pa of Can (Convention no) 49:231-3 [F] '48
- 21 steps for obtaining opinions and facts from employees. H. E. Green. II Ptr Ink 221:35-7+ N 28 '47
- Union participation in methods and time study; Oliver iron & steel corp. R. T. Walton. II Iron Age 160:60-4 D 18 '47
- Unusual management philosophy; Woodward governor co. I. C. Martin. II Am Mach 92:119-21 Je 17 '48
- What makes a supervisor easy to work for. J. W. Taylor. Factory Management 106:80-1 F '48
- What makes a supervisor hard to work for. J. W. Taylor. Factory Management 106:80-1 Ja '48
- What makes good industrial relations? G. K. Hendrick. Iron Age 160:70-2 N 20 '47
- What the advertising manager can do to promote good labor relations. M. D. Ormes. Ind Marketing 33:50+ O '48
- What to do about industrial fatigue. B. Melnitsky. II Steel 122:88-9+ Mr 8 '48
- Where are we going in industrial relations? J. C. Cameron. bibliog Pulp & Pa of Can 49:69-73 Ja '48
- White-collar morale; a problem in human relations. O. C. Cool. Paper Ind 29:1129+ N '47
- Your own factory folks; forgotten prospects? Roberts & Mander give pre-showing for plant employees. W. B. Eckenhooff. II Sales Management 60:104+ Mr 1 '48

See also

- Ability tests
- Absenteeism (labor)
- Apprentices
- Bank employees
- Bonus system
- Building trades—Labor conditions
- Collective bargaining
- Efficiency, Industrial
- Employees, Dismissal of
- Employees, Reports to
- Employees, Training of
- Employees' contests
- Employees' magazines

- Employees' manuals
- Employees' representation in management
- Employment departments
- Employment managers
- Employment systems
- Factory management
- Foremen
- Hours of labor—Shift schedules
- Industrial relations
- Job analysis
- Labor and laboring classes
- Labor turnover
- Lunches, Employees'
- Lunchrooms and cafeterias, Employees'
- Medical service, Industrial
- Mine foremen
- Music in industry
- Night work
- Paper mills—Employees
- Profit sharing
- Psychology, Industrial
- Recreation
- Research workers
- Rest periods
- Safety devices and measures
- Sales management
- Suggestion systems
- Time study
- Vacations
- Wage payment plans
- Woman—Employment

Alcohol problem

- Alcoholism in industry. S. D. Bacon. Ind Med 17:161-7 My '48
- Alcoholism plagues industry. Bsns W p25 Jl 10 '48
- Cost and remedy of the alcoholic hangover in industry. J. L. Norris. Ind Med 17:129-32 Ap '48
- Help for the man who can't handle liquor; Alcoholics anonymous. W. Augsburg. Am Bsns 18:20+ Mr '48
- Industrial conference on alcoholism, 1st, Chicago. Mill & Factory 43:246+ Jl '48

Bibliography

- Selected and annotated bibliography of recent literature on personnel administration and industrial relations. K. Davis. (Biblog no. 1) rev ed 20p Texas univ. Bur. of business research, College of business administration, Austin 12 '47

Discipline

- Discipline; a supervisor's confession of failure? R. Walls. Personnel J 27:142-8 S '48
- Discipline; the staff likes it. H. Goett. Personnel J 27:64-6 Je '48
- Foreman's guide for shop rules and penalties; management data sheet. Factory Management 106:134, 136 Je '48
- Tighter discipline for more output. II Mod Ind 15:46-9 F '48

Gambling problem

- How much do gamblers take from your plant? survey in seven big cities. II Bsns W p92+ Ag 21 '48

Grievances

- Handling grievances under the labor law; management data sheet. O. C. Cool. Factory Management 106:104, 106 Ap '48
- Keeping grievances down at Alabama dry dock & shipbuilding co. II Bsns W p99 S 4 '48
- Real reasons for grievances. F. C. Smith. Personnel J 26:252-5 Ja '48
- Study of grievances and aggrieved employees; abstract. A. C. Eckerman. Management R 37:466-7 S '48
- Ways to handle and prevent grievances. F. C. Williams. Factory Management 105:234+ D '47

Information sharing

- Economics for employees; Elgin national watch company discusses problems of management with employees. II Trusts & Estates 86:394-6 My '48
- Effective plant bulletin boards economical employee media. R. Newcomb and M. Sammons. II Ind Marketing 33:42-3+ Ag '48
- How we route public relations back into the plant; Bendix radio division exhibits news and advertising. J. M. Sitton. II Ptr Ink 221:42-3 N 14 '47
- Information-sharing comes first in human relations here; Towmotor corp. C. R. Schubert. II Factory Management 106:94-6 Ap '48
- Keep your executives and supervisors informed. A. R. Laney, jr. Personnel J 26:321-8 Mr '48

EMPLOYMENT management—Information sharing—*Continued*
 New teamwork, new morale, when American Central tells all to its employees. E. O. Johnson. *il Sales Management* 59:37-9 N 10 '47
 Put the advertising approach into communications with employees. S. G. House. *Ptr Ink* 224:44+ S 10 '48
 Two-way channels of personnel information. W. Powers. *Banking* 40:48+ Ja '48

New employees

Four-hour induction school gives job picture to new workers; White motor co. P. C. Williams. *il Factory Management* 105:117-19 N '47
 Let's get acquainted folder for employees. *Factory Management* 106:127 F '48
 Orienting the new employees in the services of the industrial health department. J. S. Felton. *il Ind Med* 16:519-25 N '47

See also

Employees' manuals
 Employment systems
 —Information sheets

Research

Personnel research. *Personnel J* 27:157-9 S '48

Study and teaching

Survey of the training and qualifications of personnel executives. D. S. Parks. *Personnel J* 26:256-66 Ja '48
 Teaching personnel administration by role playing. H. Wolozin. *Personnel J* 27:107-9 JI-Ag '48

EMPLOYMENT managers

Help wanted; personnel director. S. L. Warren. *Personnel J* 26:336-9 Mr '48
 Survey of the training and qualifications of personnel executives. D. S. Parks. *Personnel J* 26:256-66 Ja '48; Abstract. *Management R* 37:132-3 Mr '48
 Training personnel executives in the army. C. D. Leatherman. *Personnel* 25:46-8 JI '48
 Who qualifies for personnel work? H. C. Steinmetz. *Personnel* 24:257-61 Ja '48

EMPLOYMENT of children. See Child labor

EMPLOYMENT service. See United States—Employment service

EMPLOYMENT systems

Accidents, a broader approach; new tests for hiring car and bus operators. J. H. Collins. *Pub Util* 40:693-700 N 20 '47
 Advice to the aspiring copy writer; helping them to help themselves helps the copy chief. C. deBruler. *Ptr Ink* 221:40 D 19 '47
 Boxing the compass of chemical personnel. R. L. Demmerle. *Chem & Eng N* 25:3562-6 D 1 '47

Employer practice regarding engineering graduates; supplemental report. *Mech Eng* 70:13-16 Ja '48; Same. *Elec Eng* 67:53-7 Ja '48

Employers' conference evaluates accounting curriculums, recruitment, placement. L. A. Schmidt. *J Account* 86:292-6 O '48

Field review method of employee evaluation and internal placement. G. W. Wadsworth, jr. *Personnel J* 27:47-54, 99-106, 135-41, 183-90 Je-O '48 (to be cont)

Five things wrong with agency personnel selection procedures. K. Whitney. *il Ptr Ink* 223:32-3+ Ap 30 '48

How Hamilton hires; Hamilton watch co. J. L. Owen. *il Am Mach* 92:85-8 N 4 '48

How Seaboard's job-budget plan works; stabilized jobs for 2,700 shop workers. *il Bsns W* p58+ Ja 3 '48

How undergraduates are hired; abstract. G. L. Bussard. *Chem Eng* 55:264+ Ag '48

Industrial innovation; the villageless mill; American Enka Lowland plant employees can live on farm. L. H. Houck. *il Manuf Rec* 117:46-7 O '48

Job placement in accident control. W. H. Hollis. *Nat Safety N* 56:48+ D '47

Judging candidates by observing them in unsupervised group discussion. W. Brody. *Personnel J* 26:170-3 N '47

Meeting management's need for men trained in industrial accounting; Caterpillar tractor co. R. A. Morgan. *N A C A Bul* 29:1219-27 Je 1 '48

Outside the groove; junior executives moved from job to job. *Fortune* 37:116+ Ja '48
 Prisons train men for industry. *il Mod Ind* 16:133-4 JI '48
 Putting polish on your top brass; producing steady supply of good executives. *Mod Ind* 16:112+ O '48

Recent trends in personnel selection and induction. W. R. Spiegel and R. F. Wallace. *Personnel* 25:77-87 S '48

Selection of blue-collar and white-collar supervisors. M. M. Mandell. *Personnel* 24:321-7 Mr '48

Selection of supervisors. M. Mandell. *Management R* 37:79-80 F '48

65 per cent of the men we hire now stick and succeed; Todd co. G. L. Todd. *Sales Management* 59:99-104 D 1 '47

Special engineering requirements of the small industry. G. L. Hartman. *J Eng Educ* 38:622-6 My '48

Survey shows better placement can boost productivity. *Factory Management* 106:117 Ja '48

Systematic recruiting of supervisors; abstract. G. Westerlund. *Management R* 37:294-6 Je '48

Tuberculous ex-patients in industry. N. C. Kiefer and H. E. Hilleboe. *Safety Eng* 9:65+ Mr '48

Visual classification and placement tests in the textile industry. J. M. Scott, jr. *Rayon* 29:49-50 Ag; 93-4 S '48

What companies are doing to keep from getting behind the manpower eight-ball. L. Stessin. *Mill & Factory* 42:145-6 Je '48

See also

Ability tests	Handicapped
Disabled—Rehabilitation	Industrial personnel testing institute
Employees—Rating	Insurance, Life—
Employees, Dismissal of	Agents—Selection
Employees, Interchange of	Job analysis
Employment management	Labor turnover
	Physical examinations
	Salesmen—Selection

Advertising aids

Invitation to success; search for junior executive talent; Kaufmann department stores. M. Reid. *Personnel J* 26:218-21 D '47

Guaranty of employment

How Procter & Gamble avoided serious labor trouble for 60 years. *il Ptr Ink* 222:39-41 Ja 2 '48

Management's task toward economic stability. R. R. Deupree. *Comm & Fin Chr* 167:1880+ Ap 29 '48; Same. *il Dun's R* 56:11-12+ Ag '48; Excerpts. *Soap & San Chem* 24:45+ My '48

Information sheets

Development of a general information sheet for potential applicants. D. G. Paterson. *Personnel* 24:317-20 Mr '48

Interviews

Getting results from the exit interview. E. G. Michaels. *Management R* 37:77-8 F '48

More suggestions for interviewing college graduates. L. G. Lindahl. *Personnel J* 26:231-2 D '47

Non-directive employment interviewing. N. A. Moyer. *bibliog flow chart* *Personnel* 24:377-96 Mr '48

Scientific methods assure better selection of sales personnel. P. W. Siekman. *il Elec World* 129:43-5 Ja 3 '48

Ten ways to avoid aimless interviews with sales applicants. L. Llewellyn. *Sales Management* 59:82-5 N 20 '47

EMPLOYMENT tests. See Ability tests

EMPORIA gazette

Glory fades, but Emporia gazette prides itself on being local. P. Wyden. *il Ed & Pub* 81:16+ Ap 3 '48

EMULSIFICATION

Emulsions and emulsification. A. E. Alexander. *Chem Age (Lond)* 59:12 JI 3 '48

EMULSIFIERS

Emulsifying agents. *Chem Ind* 62:600+ Ap '48
 Evaluation of emulsifiers; abstract. I. R. Holtenberg. *Soap & San Chem* 24:79 Ag '48

EMULSIFIERS—Continued

- New edible colloidal gum from linseed oil meal cake can be used in soft drinks, candy, jelly, mayonnaise, ice cream mix, processed cheese. C. T. Mason and L. A. Hall. *il Food Ind* 20:382-3 Mr '48
- Polyvinyl alcohol as an emulsifying agent. C. F. Blehn and M. L. Ernberger. *il Ind & Eng Chem* 40:1449-53 Ag '48
- Role of emulsifying agents in polymerization. J. J. P. Staudinger. *bibliog diags Chem & Ind* p563-8 S 4 '48

See also

Colloid mill

EMULSIONS

- Breaking of oil emulsions with synthetic detergents. A. S. C. Lawrence. *Chem & Ind* p615-17 S 25 '48
- Chemical treatment of water gas tar emulsion. S. A. Petrino. *Am Gas Assn Proc* 1947:608-14
- Copolymers of butadiene with halogenated styrenes. C. S. Marvel and others. *bibliog Ind & Eng Chem* 39:1486-90 N '47
- Emulsifiable concentrates of chlordane. R. E. Lidov and others. *Soap & San Chem* 24:137-9 Mr '48
- Emulsion polishes. E. J. Schnieders and others. *Soap & San Chem* 24:145+ Je '48
- Emulsion polymerization of myrcene. A. J. Johanson, F. L. McKennon and L. A. Goldblatt. *Ind & Eng Chem* 40:500-2 Mr '48
- Emulsion polymerization of styrene. E. A. Hauser and E. Perry. *bibliog il J Phys & Colloid Chem* 52:1175-86 O '48
- Emulsions and emulsification. A. E. Alexander. *Chem Age (Lond)* 59:12 JI 3 '48
- Homogeneous emulsion of fat, protein, and glucose for intravenous administration. B. G. P. Shaffroff and C. Frank. *bibliog Science* 106:474-5 N 14 '47
- Insecticide emulsions easier to ship, safer to use. G. A. Mall. *il Chem Ind* 62:238-40 F '48
- Kinetics of emulsion polymerization. W. V. Smith and R. H. Ewart. *J Chem Phys* 16:592-9 Je '48
- Mechanical dehydration of coke oven tar emulsion. E. W. Young. *Am Gas Assn Proc* 1947:698-700
- Partition of acrylonitrile between styrene and water. W. V. Smith. *Am Chem Soc J* 70:2177-9 Je '48
- Pigmented emulsions for textile screen printing. G. W. Leffingwell and O.-S. Linkletter. *Rayon* 29:79-80 Ja '48
- Pigmented resin emulsions for printing and pad dyeing. M. Silverman. *bibliog Am Dyestuff Rep* 37:44-6; Discussion. 46+ Ja 26 '48
- Plant practice in mechanical dehydration of water gas tar emulsions. A. G. Hall and A. R. Bayer. *flow sheet diags Am Gas Assn Proc* 1947:713-17
- Sound velocity method for determining the compressibility of finely divided substances. R. J. Urlick. *diag J Ap Phys* 18:983-7 N '47
- Treatment and disposal of waste soluble oils. E. F. Eldridge and R. W. Purdy. *diags Sewage Works J* 20:849-56 S '48
- EMULSIONS, Photographic.** See **Photographic emulsions**
- EMULSOL. 607L**
- Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. P. H. Richards and J. W. McBain. *bibliog Am Chem Soc J* 70:1338-42 Ap '48
- ENAMEL and enameling**
- A.C.S. Enamel division program; abstracts. *Am Cer Soc Bul* 27:109-13 Mr 15 '48
- Building new customers; program of Ferro enamel corp. *Bsns W* p78+ N 15 '47
- Ceramic Industry predicts for porcelain enamel. *Cer Ind* 50:71 Je '48
- Ceramic materials show promise for high temperature mechanical parts. J. R. Bressman. *Materials & Methods* 27:68-70 Ja '48
- Choosing porcelain enamel for specific application; abstracts. J. E. Hansen. *Cer Ind* 49:56 O '47; *Machine Design* 20:190+ My '48
- Coatings that laugh at heat, wear, corrosion. *il Mod Ind* 16:40-4 Ag '48

Determination and effect of sulfur gases in plant atmospheres. B. J. Sweo and M. J. Bozsin. *bibliog Am Cer Soc Bul* 27:293-5 Ag 15 '48

- Effect of size and shape of titanium oxide crystals on spectrophotometric properties of titanium-bearing porcelain enamels. A. L. Friedberg and others. *bibliog il Am Cer Soc J* 31:246-53 S 1 '48; *Abstract. Cer Ind* 51:62 Ag '48
- Effect of slip adjustment on enamel properties. E. E. Marbaker and others. *Am Cer Soc J* 31:268 S 1 '48
- Effects of various clays used in mill additions on properties of a titania-opacified enamel. E. E. Marbaker and others. *il Am Cer Soc J* 31:260-7 S 1 '48
- Enameling on copper. M. Otten. *il Cer Ind* 50:105 Ap '48
- First in new ceramic era; Lustron's \$13 million plant. *il plan diag Cer Ind* 51:56-8+ Ag; 68-70 S '48
- First international congress: Institute of vitreous enamels meeting, London, Sept. 27-30. *Cer Ind* 51:47+ N '48
- Fluorspar; enamel opacifier, flux. *Cer Ind* 51:75 O '48
- Gas consumer demands of the enameller. E. W. B. Dunning. *Gas J (Lond)* 252:637-9 D 17 '47
- Improved physical properties of titanium enamels provide better steel finish. B. W. King. *bibliog Steel* 122:108+ Je 21 '48
- Improving enamels through lithium. P. A. Huppert. *Cer Ind* 51:72 N '48
- Measurement of enamel-slip consistency by means of the Brookfield viscosimeter. E. M. Oliver. *il diags Am Cer Soc J* 31:128-32 My 1 '48
- Modern porcelain enameling. G. H. Spencer-Strong and others. *il plans Cer Ind* 50:96+ Mr; 108-9+ Ap; 51:55+ JI; 68-9 O; 70-1 N '48 (to be cont.)
- New enamel plant geared for top production; Pressed steel car co. turning to electric ranges. *il Cer Ind* 49:65-6+ N; 61 D '47
- Operating the world's largest porcelain enameling plant; abstract. D. J. Cherry and R. J. Baker. *Am Cer Soc J* 31 (Cer A):68 Ap 1 '48
- Permanent scales and markings on glass. *J Sci Instr* 25:326 S '48
- Porcelain enamel institute 10th annual forum, Urbana, Ill. *Cer Ind* 51:64-5 N '48
- Porcelain enamel institute 16th annual meeting, Cleveland, directs aims to buyers' market. *Cer Ind* 49:69-70 N '47
- Porcelain enamel; its manufacture and application; lecture demonstrations. M. J. Bahnsen. *J Chem Educ* 25:493-5 S '48
- Preliminary study of ceramic coatings for the high-temperature protection of molybdenum; abstract. D. G. Moore and others. *Cer Ind* 50:83 My '48
- Recent trends in the ceramic industry. *il Chem Eng* 55:128-9 JI '48
- Refractory ceramic base coats for metal. W. J. Plankenhorn. *bibliog il Am Cer Soc J* 31:145-53 Je 1 '48
- Relations of ground coat enamels to surface texture of cover coat enamels. R. Foraker and P. Lubertine. *Cer Ind* 51:75 S '48
- Review of cobalt properties. *Cer Ind* 51:73 S '48
- Superopaque enamels of low SiO₂ content. W. J. Baldwin. *diags Am Cer Soc J* 31:115-22 My 1 '48
- Trends in porcelain enamel; abstract. J. J. Canfield. *Cer Ind* 50:74a My '48
- Unusual equipment speeds enamel plant production rates. *il Cer Ind* 50:96-7 Je '48
- Use of lithium compounds in enamels; abstract. W. M. Fentin. *Cer Ind* 50:79 My '48
- Vitreous enameling nameplates. A. Hall. *il Cer Ind* 51:74-5 O '48
- Vitreous enameling of chemical plant; abstract. J. D. Currie. *Am Cer Soc J* 31 (Cer A):152 JI '48
- What about porcelain enamel refrigerator finishes? F. L. Meacham. *il Refrig Eng* 56:332-4 O '48
- Zinc oxide increases enamel fusibility. *Cer Ind* 50:101 Je '48
- Zircon needs alumina to opacify. *Cer Ind* 51:60 Ag '48
- See also
- Porcelain enamel in- Sheet metal, En-
stitute ameled

ENAMEL and enameling—Continued

Bibliography

Ceramic abstracts. Published in monthly numbers of American ceramic society journal

Color

Decorating with full color porcelain enameled murals; work of Edward Winter, for the decoration of restaurant front. *Il Iron Age* 161:94 Ap 15 '48

Effect of variations in color stains and frits on colors produced in porcelain enamels. R. L. Cook and R. W. Peiz. *bibliog Am Cer Soc J* 31:50-8 F 1 '48

Defects

Factors affecting chipping of porcelain enamel on sheet iron. E. E. Bryant. *Il diags Am Cer Soc Bul* 26:300-3 O 15 '47

How to prevent defects in porcelain enameling holloware. F. A. Petersen. *Il Cer Ind* 50:50-1 F; 104 Mr; 85+ Ap; 51:59-60 JI; 59-60 Ag; 71-2 O; 73 N '48

Porcelain enamel process defects; causes and possible cures. M. E. McHardy. *Il Cer Ind* 50:49+ F; 102 Mr; 81+ Ap; 51:52+ JI; 61-2 Ag; 73+ O; 74-5 N '48

Equipment

First in new ceramic era: Lustron's \$13 million plant. *Il plan diags Cer Ind* 51:56-8+ Ag; 68-70 S '48

Failure

New method for studying fractures of porcelain enameled specimens. F. A. Petersen and others. *Il diags Am Cer Soc J* 31:186-93 JI 1 '48

Patents

Superopaque enamel; patent assigned to the Titanium alloy manufacturing co. *Glass Ind* 29:208-9 Ap '48

Plant equipment

Modern porcelain enameling; receiving, storing and handling enamel shop materials. J. B. Willis. *Il Cer Ind* 51:55+ JI; 68-9 O '48

Modernization triples output; Floyd-Wells co., Royersford, Pa. *Il Cer Ind* 51:70 O '48

Plant layout

Layout of Porcelain enameling department, Lustron corp. *Cer Ind* 51:68-9 S '48

Modern porcelain enameling. G. H. Spencer-Strong and others. *plans Cer Ind* 50:96+ Mr; 108-9+ Ap '48

Testing

Adherence of porcelain enamel; new testing apparatus using magnetic counting principle. *Il Steel* 122:112 F 16 '48

Determination of compressive stress present in porcelain enamel on sheet iron. E. E. Bryant and M. G. Ammon. *bibliog Il Am Cer Soc J* 31:28-30; Discussion. W. N. Harrison. 22 Ja 1 '48

Factors effecting the reproducibility of the flow button test; abstract. W. J. Plankenhorn. *Cer Ind* 50:83 My '48

Film detects glass, glaze, enamel defects. J. F. Dreyer and C. W. Ertel. *Il Cer Ind* 51:80 O '48

Improvements in the button test for determination of frit fluidity. E. E. Marbaker. *Il Am Cer Soc J* 30:354-62 D 1 '47

New method for studying fractures of porcelain enameled specimens. F. A. Petersen and others. *Il diags Am Cer Soc J* 31:186-93 JI 1 '48

Porcelain enamel adherence tester. A. C. Francisco. *Am Cer Soc Bul* 27:267 F 15 '47; Same cond. *Metal Prog* 52:812 N '47

Residual stresses in enameled sheet-iron specimens. R. A. Jones and A. I. Andrews. *bibliog Il Am Cer Soc J* 31:274-9 O 1 '48

ENAMEL and enameling (arts and crafts)

Hall-Kubinyi porcelain enamels; jewelry, bowls, boxes, ash trays, etc. *Il Cer Ind* 49:73+ O '47

Modern jewelers' enameling is an art and craft industry. F. Fox. *Il Cer Ind* 50:99+ Je '48

ENAMEL spraying

How to recover the loss in the 50 per cent enamel overspray. *Cer Ind* 51:61+ JI '48

Printed vitreous enamel components; produced by sprayed-enamel printed-silver process. C. I. Bradford and others. *Il diags Electronics* 20:106-8 D '47

Spray-gun motion study. L. W. Lammiman. *Il Cer Ind* 49:57-8 D '47

ENAMELED ware

Developments in enamelware industry, China. *For Comm W* 32:32 S 25 '48

Manufacture

Bright annealing cleans thoroughly in less space; abstracts. A. R. Mallonn. *Cer Ind* 49:65+ O '47; *Iron Age* 160:91 N 6 '47

How to prevent defects in porcelain enameling holloware. F. A. Petersen. *Il Cer Ind* 50:50-1 F; 104 Mr; 85+ Ap; 51:59-60 JI; 59-60 Ag; 71-2 O; 73 N '48

Modern porcelain enameling. G. H. Spencer-Strong and others. *Il plans Cer Ind* 50:96+ Mr; 108-9+ Ap; 51:55+ JI; 68-9 O; 70-1 N '48 (to be cont)

Porcelain enamel process defects; causes and possible cures. M. E. McHardy. *Il Cer Ind* 50:49+ F; 102 Mr; 81+ Ap; 51:52+ JI; 61-2 Ag; 73+ O; 74-5 N '48

ENAMELING electric furnaces. See Electric furnaces, Enameling

ENAMELING furnaces. See Furnaces, Enameling

ENANTHIC acid

Measurement of specific surfaces of calcined and hydrated alumina powders by adsorption of *n*-heptole acid from aqueous solutions. L. Saunders. *diags Chem Soc J* p969-73 JI '48

ENCALIA farinosa

Structure determination and synthesis of a plant growth inhibitor, 3-acetyl-6-methoxybenzaldehyde, found in the leaves of encalia farinosa. R. Gray and J. Bonner. *bibliog Am Chem Soc J* 70:1249-53 Mr '48

ENCEPHALITIS

Isolation from wild bird mites (*Iiponysus sylvium*) of a virus or mixture of viruses from which St Louis and western equine encephalitis viruses have been obtained. W. M. Hammon and others. *Science* 107:92-3 Ja 23 '48

See also

Newcastle disease

ENCEPHALOMYELITIS, Bovine

ICI has new antidote for sleeping sickness in cattle. *Chem Eng* 55:230 O '48

ENCYCLOPEDIAS

Britannica book of the year, 1948. W. Yust. ed. 842p Encyclopaedia Britannica, inc. 20 N Wacker drive, Chicago 6 '48

New encyclopedia; Sears, Roebuck's American peoples encyclopedia. *Bsns W* p 103-4 Mr 6 '48

Reader's encyclopedia; an encyclopedia of world literature and the arts. W. R. Benét, ed. 1242p \$6 Thomas Y. Crowell co, 432 Fourth av, New York 16 '48

ENEDIOLS. See Hydroxy compounds

ENEMY property

Alien property office revises patents policy. *Oil Paint & Drug Rep* 152:5 D 22 '47

Transferring jurisdiction over blocked assets to the attorney general. *For Comm W* 32:19 S 11 '48; Same. *Fed Res Bul* 34:1242-3 O '48

ENERGY. See Force and energy

ENGINEERING

American industries built upon engineering and science can save the world. E. G. Bailey. *Mech Eng* 70:891-2 N '48

Engineer and internationalism; power industry, an example of effective method of approach. E. G. Bailey. *Mech Eng* 70:399-403 My '48; Same. *Edison Elec Inst Bul* 16:249-53+ JI '48

Engineering and the medical sciences. L. de Florez. *Mech Eng* 70:661-2+ Ag '48

ENGINEERING—Continued

Engineering aspects of bolt variables. V. E. Hillman, *diags Iron Age* 160:62-8 N 20 '47
 Engineering developments in 1947. H. Schor, *il diag Product Eng* 19:81-6 F '48
 Engineering economics of magnesium. H. A. Knight, *il Materials & Methods* 26:61-5 D '47

Engineering materials. R. W. Bailey, *Inst Mech Eng J & Proc* 157 (War emergency issue no 31):274-7, pl 1-2 '47

Engineering principles in biophysics. K. Bess, *J Eng Educ* 38:290-3 D '47

Engineering uses for steel castings. J. A. Rassenfoss, *il Steel* 121:90-1+ D 15 '47

Glimpse of engineering in industry. T. A. Boyd, *Mech Eng* 70:797-802 O '48

Growth and influence of the engineering profession. E. W. O'Brien, *il Product Eng* 19:81-4 My '48

Headline news events of 1947. *Eng N* 140:242-3 F 19 '48

Interrelation of engineering and metallurgy. A. P. M. Fleming, *Engineering* 165:116 Ja 30 '48

Magnetic particle inspection in engineering. D. E. Roda, *il plan Iron Age* 162:79-83 Ag 5; 82-9 Ag 12 '48

Materials and power. C. Williams, *Mech Eng* 69:1012-15 D '47

Relation of conservation to engineering projects. I. N. Gabrielson, *il Tech R* 50:205-8+ F '48

Role of mearhanite metal castings in engineering production. C. R. Austin, *il diags A S M E Trans* 70:99-109 F '48

Rubber as an engineering material. K. Rose, *Materials & Methods* 27:93-104 My '48

Some engineering problems of atomic-energy research. O. C. Simpson, *il diags Mech Eng* 70:729-32 S '48

What is a profession? V. Bush, *Chem & Eng N* 26:1582-3 My 31 '48

World bank operations rely on engineering studies. *Eng N* 140:702-6 My 13 '48

See also

Aeronautic engineering

Air conditioning

Airports

Aqueducts

Automobile engineering

Biomechanics

Blasting

Breakwaters

Bridges

Building

Building materials

Chemical engineering

City planning

Civil engineering

Concrete construction

Construction equipment

Dams

Drainage

Drilling and boring

(earth and rocks)

Earthwork

Electric engineering

Engineers

Foundations

Gas engineering

Harbors

Heating

Highway engineering

Hydraulic engineering

Industrial engineering

Irrigation

Lighting

Machinery

Marine engineering

Mechanical engineering

Mechanical handling

Military engineering

Mining engineering

Pavements

Petroleum engineering

Pipe laying

Public works

Pumping

Radio engineering

Railroad engineering

Refrigerating engineering

Reservoirs

Roads

Sanitary engineering

Sewerage

Standards, Engineering

Steam engineering

Steam engines

Steel construction

Strains and stresses

Streets

Strength of materials

Structural engineering

Surveying

Technology

Telephone

Tunnels and tunneling

Ventilation

Water supply engineering

Bibliography

Directory of engineering data sources, 66p
 Southeastern research inst, 5009 Peachtree rd, Atlanta, Ga. '48

Engineering index, 1947, 1338p
Engineering index, inc, 29 W. 39th st, New York 18 '48

New books. Published in monthly numbers of
 Electrical engineering

Reviews of books and notes on books received in the Engineering societies' library. Published in monthly numbers of *Mechanical engineering*
 Sources of engineering information. B. H. Dalton, rev ed 109p \$4 Univ. of Calif. press, Berkeley '48

Geology

See *Engineering geology*

Social aspects

Engineering responsibilities in today's economy. E. F. Carter, *Inst Radio Eng Proc* 36:517-19 Ap '48

Status of technology as related to the questions of today. K. Holey, *Mech Eng* 70:888-90 N '48

Study and teaching

Engineering at Cambridge university; report for the year 1946-47. *Engineering* 165:449 My 7 '48

Engineering mathematics. V. G. Smith, *J Eng Educ* 38:308-12 D '47

How to teach engineering English. L. E. Shaffer, *Min & Met* 29:379-81 Jl '48

Industry develops engineers. T. B. Jochem, *Mech Eng* 70:747-9+ S '48

Laboratory instruction in an engineering curriculum. N. C. Ebaugh, *J Eng Educ* 38:659-62 My '48

See also

Engineering colleges

Engineering education

China

Engineers study China reconstruction. *Eng N* 140:1003 Je 24 '48

U.S. engineering-management firm named to supervise China aid program; J. G. White engineering corp. *Eng N* 141:77 O 14 '48

Great Britain

Tabular summary of civil engineering contracts, 1947. *Engineer* 185:supp 1-15 F 13 '48

India

Appraisal of India's water resources. L. G. Straub, *il Civil Eng* 18:702-4 N '48

British engineer in India; his monument, the future. S. Reed, *Engineer* 185:82-3, 106-7 Ja 23-30 '48

Liberia

Liberia development work includes major construction. *Eng N* 140:615+ Ap 29 '48

Mexico

Role of engineers and of Petroleos Mexicanos in the industrial development of Mexico; abstract. L. A. Guerrero, *Elec Eng* 67:940 O '48

Persia

U.S. engineering group to advise Iran on economics of rehabilitation scheme. *Eng N* 141:73 O 28 '48

South America

Problems of heavy construction contractor in South America. J. J. Collins, *il Civil Eng* 17:24-8+ D '47

Tanganyika

Civil engineering problems of the East African groundnuts scheme. D. Harrison, maps *diag Engineer* 186:120-1 Jl 30 '48; Abstract, *Engineering* 166:138 Ag 6 '48

ENGINEERING colleges

Analysis of mineral industries education in the western hemisphere. E. Steidle, *Min & Met* 29:430-1 Ag '48

New engineering school for Maryland university; Glenn L. Martin college of engineering and aeronautical sciences. *il plans Arch Rec* 102:100-5 D '47

Re-organization at Georgia institute of technology. *Eng N* 141:14 S 9 '48

Safety education in engineering colleges. G. H. Dunstan, *Nat Safety N* 56:56+ D '47

Training welding technicians on a college level; California state polytechnic college. R. C. Wiley, *il Welding J* 27:686-9 S '48

ENGINEERING colleges—Continued

What are the colleges doing to provide 23,000 engineers per year for the industry? K. B. Barnes, *Oil & Gas J* 46:108-9+ Ap 22 '48

See also

Engineering education	Engineering graduates
	Engineering students
also names of colleges, e.g.	
California institute of technology	Massachusetts institute of technology
Cambridge university, England—Engineering school	Pennsylvania state college—School of mineral industries
Illinois university—College of engineering	Texas university—College of engineering

Curriculum

Aeronautical engineering curriculum design. M. Nelles, *J Eng Educ* 38:574-8 Ap '48

Bifurcated curriculum. T. Saville, *Chem Eng* 55:192+ Ap '48

Construction option in the civil engineering curriculum at Purdue. R. E. Fadum, *J Eng Educ* 38:579-81 Ap '48

Control of the tangible factors of engineering education. G. C. Ernst, *J Eng Educ* 38:464-6 Mr '48

Correlation of mathematics and electrical engineering. H. K. Justice; W. E. Rستمeyer, *J Eng Educ* 38:300-7, D '47

Curriculum for metallurgical engineering. J. P. Spielman, *J Eng Educ* 38:148-55 O '47

Designing the undergraduate engineering curriculum. R. L. Sweigert, *J Eng Educ* 39:56-9 S '48

ECPD resumes accrediting of engineering curricula. *J Eng Educ* 38:209-10 N '47

Engineering education; proposal for three year curriculum. W. R. Abbott and W. B. Boast, *Elec Eng* 66:1058 N '47

Five-year plan for engineering education. T. L. Joseph, *Min & Met* 28:602-3 D '47

Growth of the humanistic stem. P. Patout, *J Eng Educ* 38:715-20 Je '48

Humanistic-social studies in an engineering education; some basic fallacies. M. Kranzberg, *J Eng Educ* 38:227-30 N '47

Judicious programming of structural courses. A. L. Miller, *J Eng Educ* 38:194-200 N '47

List of undergraduate engineering curricula accredited by ECPD as of Oct. 24, 1947. *Elec Eng* 65:1267-8 D '47

Most effective utilization of fundamental engineering subjects in agricultural engineering courses. A. W. Farrall, *J Eng Educ* 38:582-6 Ap '48

Naval reserve officers training corps program in the engineering colleges. J. H. Belknap, *J Eng Educ* 38:294-9 D '47

Postwar curriculum emphasis. O. J. M. Smith, *Inst Radio Eng Proc* 35:1346-8 N '47

Power courses await utility support. A. E. Knowlton, *Il Elec World* 129:77-9 Je 19 '48

Progress report of the committee on undergraduate curricula. *J Eng Educ* 38:201-4 N '47

Train technical men in marketing. G. B. Chandless, *Ind Marketing* 33:38 S '48

What management and economic courses should be included in all engineering education? E. L. Grant, *J Eng Educ* 38:612-15 My '48

Enrollment

Engineering schools enrollment soars to a quarter million. W. B. Plank, *Min & Met* 29:235-7 Ap '48

Report of the A.S.E.E. committee on manpower. *J Eng Educ* 38:110-13 O '47

Transfer of students from emergency institutions in New York state. N. S. Hilsbman, *J Eng Educ* 38:460-3 Mr '48

Undergraduate engineering students, enrollment as of Nov. 1, 1947. *J Eng Educ* 38:412-18 Ja '48

Graduate work

Better direction of thesis research. L. E. Grinter, *J Eng Educ* 38:548-50 Ap '48

Common field of graduate research in engineering; process design. O. A. Hougén, *J Eng Educ* 38:267-70 D '47

Electrical engineering graduate studies; program of the California institute of technology. R. W. Sorensen, *Elec Eng* 66:1049-55 N '47

Evening graduate programs in electrical engineering. E. Weber, *J Eng Educ* 38:256-61 D '47

Philosophy and curricular content of a graduate program in electrical engineering. H. L. Hazen, *J Eng Educ* 38:129-40 O '47

Laboratories

See Engineering laboratories

Professors and instructors

Civil engineer's plan for evaluating engineering teachers' salaries. S. B. Lilly, *J Eng Educ* 39:48-51 S '48

Discussion of report on present day salaries in engineering schools. T. Saville, *J Eng Educ* 38:262-6 D '47

Rated under new point method, teachers are placed in ASCE compensation schedule. *Civil Eng* 18:103 F '48

Training English teachers for engineers. W. G. Crouch and R. L. Zetler, *Elec Eng* 66:1182-4 D '47

Research

Administrative policies and objectives of research in engineering colleges. F. E. Terman, *J Eng Educ* 38:281-5 D '47

Common field of graduate research in engineering; process design. O. A. Hougén, *J Eng Educ* 38:267-70 D '47

Engineering experiment station as a stimulus to the graduate program. R. A. Morgen, *J Eng Educ* 39:52-5 S '48

Industry aided by university research; research station at Georgia Tech. H. B. Weil, *Il Manuf Rec* 117:36-7+ Ag '48

Research for education; advancement of M.I.T.'s educational objective is primary factor governing acceptance and priority of sponsored research. J. R. Killian, Jr, *Il Tech R* 50:29-31+ N '47; Same cond. *J Eng Educ* 38:181-6 N '47

Research in electrical engineering at an engineering school of London university. W. J. John, *Il diags Inst E E J* 95 pt 1:167-71 Ap '48; Abstract, *Engineer* 184:483 N 21 '47

Shop courses

New emphasis on welding and heat treating for mechanical and industrial engineers. R. S. Green, *J Eng Educ* 38:496-9 Mr '48

Student selection

ECPD sponsors extension of pre-engineering examinations. *Elec Eng* 67:305 Mr '48

ENGINEERING contracts

Clear, precise specifications and contracts invite lower bids. G. B. Hills and C. F. Lovan, *Il Civil Eng* 17:668-71+ N '47

Court denies recovery of increased dredging costs caused by hurricane; case of Arundel corp. versus the United States; case based on changed conditions. D. C. Webb, *Il Civil Eng* 18:89-91+ F '48

Legal decisions in connection with engineering or construction work. I. V. Werbin, *Eng N* 140:961 Je 10; 141:72 Ag 5; 80 S 2; 65 S 30; 105 O 14 '48

Problems of heavy construction contractor in South America. J. J. Collins, *Il Civil Eng* 17:24-8+ D '47

Tax problems in long-term contracts. H. W. Wolkstein, *Eng N* 140:61-3 Ja 8 '48

Unit-price bid forms protect owner, contractor and engineer. R. B. Rothschild, Jr, *Il Civil Eng* 18:500-3+ Ag '48

See also

Roads—Contracts**ENGINEERING departments**

Design for morale in the engineering department. H. A. Bolz, *Il Machine Design* 20:89-94 Ag '48

Designing with dollars; organization of cost data and its use by design engineering department. Glenn L. Martin co. J. Van Hamersveld, *Il diags Product Eng* 19:81-6 Mr '48

Efficiency and flexibility from a maintenance and engineering department. W. E. Jordan, *Paper Tr J* 126:113-15 My 27 '48

Engineering department; its function and organization. G. T. Trundle, Jr, *Machine Design* 20:125-8+ Jl '48

ENGINEERING departments—Continued

- Engineering responsibilities in creating new products. J. B. Davis and M. M. Brandt. *Il Product Eng* 19:81-5 S '48
- Engineers at work; the du Pont engineering department. G. M. Read. *J Eng Educ* 38: 642-9 My '48
- Functions of production engineering department at Buick; abstract. H. S. Golden. *S A E J* 56:61-2 Je '48
- Plan for engineering accomplishment; development committee plan outlined. C. R. Sutherland. *Il Machine Design* 20:112-17 S '48
- Tool engineering department; its organization and function. F. S. Dobric. *Il Iron Age* 162:72-9 J 15 '48

See also

Airlines—Engineering departments

ENGINEERING drawing

- Modern dimensioning practice; abstract. S. B. Elrod. *diags Product Eng* 19:123-5 O '48
- Perspective drawings; device for producing modified isometric projections. *Il Automobile Eng* 38:235-6 Je '48; *Engineering* 165: 536-7 Je 4 '48
- Simplified dimensioning system based on Cartesian co-ordinates has many advantages over conventional methods used in machine layout. N. W. Taylor. *diags Machine Design* 20:135-7 F '48

Study and teaching

- Boomerang in grading engineering drawing problems. M. C. Bishop. *J Eng Educ* 38: 768-70 Je '48

ENGINEERING economics

- Engineering an orderly lowering of prices. C. W. S. Parsons. *Mech Eng* 70:586-8 J '48
- Process design; chemical engineering economics. J. M. Harris, jr. *bibliog Il Chem Eng Prog* 44:333-5 Ap '48

Study and teaching

- Replacement of equipment from the viewpoint of a teacher of engineering economy. F. C. Dana. *J Eng Educ* 38:446-52 Mr '48

ENGINEERING education

- Control of the tangible factors of engineering education. G. C. Ernst. *J Eng Educ* 38:464-6 Mr '48
- Creative work in engineering. J. F. Calvert. *J Eng Educ* 38:732-44 Je '48
- Curriculum for development engineering. M. A. Edwards. *J Eng Educ* 38:568-73 Ap '48
- Developing creative ability in an educational system. K. B. McEachron, jr. *J Eng Educ* 38:122-8 O '47
- Difficulties young men contend with; suggested program in support of post-college engineering training. C. E. Davies. *Mech Eng* 70:815-17 O '48
- Education and the metric system. P. Johnson. *Engineering* 166:318-19 O 1 '48
- Education of the engineer. H. S. Rogers. *Mech Eng* 70:895-7 N '48
- Engineer administration training; abstract. D. B. Hoseason. *Mech Eng* 70:898 N '48
- Engineering education, plus. C. E. MacQuigg. *J Eng Educ* 39:11-17 S '48
- Engineering training. Instrument of progress. A. G. Conrad. *Elec Eng* 67:935-9 O '48
- Engineer's part. H. N. Davis. *Elec Eng* 67: 727-33 Ag '48
- Five-year plan for engineering education. T. L. Joseph. *Min & Met* 28:602-3 D '47
- For quality in education; analyzing trends in higher education; M.I.T. annual report. K. T. Compton. *Il Tech R* 50:39-43 N '47
- Future engineer. P. Parr. *Engineering* 165: 235 Mr 5 '48
- Humanistic-social studies in an engineering education; some basic fallacies. M. Kranzberg. *bibliog J Eng Educ* 38:227-30 N '47
- Industry's requirements for engineering graduates in research. A. E. Buchanan. *J Eng Educ* 38:551-3 Ap '48
- Integration in science, education, and society. R. E. Gibson. *Am Cer Soc Bul* 27:75-6 F 15 '48
- Licensing needs a plus; abstract. C. R. Young. *Civil Eng* 18:46 Ja '48
- Mathematical engineer or the industrial mathematician. K. L. Nielsen. *J Eng Educ* 38:175-80 N '47

Metallurgy and its place in engineering education. J. Chipman. *Metal Prog* 54:190-4 Ag '48

- Professional education; abstracts of papers read at Inter-professions conference on education for professional responsibility. *Mech Eng* 70:684-5 Ag '48
- Proposed engineering aptitude test for high school students. K. W. Vaughn. *J Eng Educ* 38:114-21 O '47
- Relative values in European and American systems of engineering education. L. E. Grinter. *J Eng Educ* 38:711-14 Je '48
- Report of the G. Westinghouse award committee for the year 1946-1947. *J Eng Educ* 38:627-9 My '48
- Situation in engineering; statement submitted to President's commission on higher education. H. H. Armsby. *J Eng Educ* 38: 587-9 Ap '48
- Teaching professional attributes. N. W. Dougherty. *J Eng Educ* 38:701-4 Je '48
- What every engineer should know; humanistic-social education of the engineering undergraduate. W. Embler. *J Eng Educ* 38:338-49 Ja '48
- What's wrong with engineering education? B. M. Larsen. *Min & Met* 29:333-5 Je '48
- Young engineer. T. R. Cave-Browne-Cave. *Engineer* 186:260-1, 292-3 S 10-17 '48; Same cond. *Engineering* 166:287-8, 295 S 17-24 '48; *Discussion. Engineer* 186:288-9 S 17 '48; *Engineering* 166:280-1 S 17 '48

See also

- Engineering colleges Westinghouse, Mining schools and George, award education
- also subdivision Study and teaching under engineering subjects, e.g.
- Agricultural engineering—Mechanical engineering—Study and teaching—Study and teaching
- Mathematics—Study Tool engineering—and teaching Study and teaching
- also American society for engineering education; Engineers' council for professional development

Cooperative plan

- Engineering education is joint industry-university responsibility. W. P. Schmitter. *Il Machine Design* 20:123-7 S '48; Same cond. *Mech Eng* 70:743-6 S '48
- In-service education; abstract. E. S. Burdell. *Mech Eng* 70:338 Ap '48
- Three-year scholarships in engineering offered by industrial firms. *Iron Age* 161: 162+ Ap 22 '48

History

- Growth of the humanistic stem. P. Fatout. *J Eng Educ* 38:715-20 Je '48

Canada

- Professional advancement in Canada. C. R. Young. *J Eng Educ* 38:485-90 Mr '48

New York (state)

- Transfer of students from emergency institutions in New York state. N. S. Hibshman. *J Eng Educ* 38:460-3 Mr '48

Switzerland

- Training and work of the Swiss engineer. C. L. Champion. *Engineer* 184:547-8 D 12 '47

ENGINEERING education, American society for. See American society for engineering education

ENGINEERING ethics

- Canons of ethics for engineers. *J Eng Educ* 38:323-5 D '47; Same. *Power Generation* 52:55 Mr '48; Same. *Mech Eng* 70:379-80 Ap '48; Same. *Civil Eng* 18:312+ My '48; Same. *Chem & Eng N* 26:2259 Ag 2 '48; Same. *Refriger Eng* 56:227+ S '48

ENGINEERING examiners, National council of state boards of. See National council of state boards of engineering examiners

ENGINEERING experiment stations

- Engineering experiment station as a stimulus to the graduate program. R. A. Morgen. *J Eng Educ* 39:52-5 S '48; Abstract. *Chem Eng* 55:290+ S '48
- Georgia Tech engineering experiment station, 1947-48. *Il Chem & Eng N* 26:2496-8 Ag 23 '48

ENGINEERING experiment stations—Cont.

Place of engineering experiment stations in agricultural engineering. R. M. Green. *J Eng Educ* 38:144-7 O '47

ENGINEERING foundation

Annual meeting of board. New York, Oct. 16. *Science* 106:517 N 28 '47

Annual report. A. B. Kinzel and E. H. Colpitts. *Mech Eng* 70:89 Ja '48; *Elec Eng* 67:210-11 F '48

Engineering foundation sponsors concrete research. A. E. Kinzel. *Concrete* 56:44 S '48

ENGINEERING geology

Report of committee on research in engineering geology. Society of economic geologists. *Econ Geol* 43:313-23 Je '48

ENGINEERING graduates

Difficulties young men contend with; suggested program in support of post-college engineering training. C. E. Davies. *Mech Eng* 70:815-17 O '48

Employer practice regarding engineering graduates; supplemental report. *Mech Eng* 70:13-16 Ja '48; Same. *Elec Eng* 67:53-7 Ja '48

Engineering graduating class of 1949. *Can Chem & Process Ind* 32:728-9 Ag '48; Same. *Pulp & Pa of Can* 49:106-7 Ag '48

McGill engineering graduates in the paper industry. H. O. Keay. *Pulp & Pa of Can* 49:63-6 Mr '48

More suggestions for interviewing college graduates. L. G. Lindahl. *Personnel J* 26:231-2 D '47

Preliminary survey of employer practice regarding engineering graduates. *Am Cer Soc Bul* 27:242-4 Je 15 '48

Report of the A.S.E.E. committee on manpower. *J Eng Educ* 38:110-13 O '47

Rewinning the campus; prerequisites to successful recruiting. A. E. Knowlton. *Elec World* 128:96-7+ N 8 '47

Special engineering requirements of the small industry. G. L. Hartman. *J Eng Educ* 38:622-6 My '48

Which job for the graduating engineer? H. F. Lange. *Mech Eng* 70:859-60 O '48

Why engineering graduates resist railroad employment. *Il Ry Age* 124:660-3 Ap 3 '48

See also

Engineering colleges
—Graduate work

ENGINEERING institute of Canada

Annual meeting, Banff. *Eng N* 140:985 Je 17 '48

ENGINEERING laboratories

Bearing and lubricants center analyzes electrical machinery problems; Thomson laboratory. General electric co. D. F. Wilcock. *il diags Steel* 123:94-6 S 20 '48

British welding research association, research station at Abington Hall. *il Engineer* 185:589-90 Je 15 '48

Diesel-engine research; new Diesel laboratory at the Oklahoma agricultural and mechanical college. *Mech Eng* 70:626-7 Jl '48

German Diesel engine research laboratory to be transplanted to Oklahoma A & M college. *Science* 107:418 Ap 23 '48

Jet engine test laboratory; General Electric's \$25,000,000 center. *il Aero Digest* 57:46-7 J '48

Lab speeds gas-turbine progress. *il plan Power* 92:99-101 F '48

Panel discussion on laboratory for mechanical engineers, advanced mechanical engineering laboratories. J. J. Ryan. *J Eng Educ* 38:235-8 N '47

Plant for testing full-scale components for gas turbines. R. C. McLeod. *il diags Engineering* 166:1-5, 12 J 2 '48

Post office engineering research station. *Engineering* 166:57-8 Jl 16 '48

Thornton research centre. *il Engineer* 185:526-8 My 28 '48

See also

Aeronautic laboratories
Automobile laboratories
Chemical engineering laboratories

Electric laboratories
Engineering experiment stations
Hydraulic laboratories

Electric equipment

Mercury arc rectifiers at Sydney technical college. *il Engineer* 186:41-2 Jl 9 '48

Research on liquid fuels; electrical applications to the testing of piston engines. *il diags Elec R (Lond)* 142:305-9 F 27 '48

ENGINEERING literature

How to teach engineering. English. L. E. Shaffer. *Min & Met* 29:379-81 Jl '48

See also

Technical writing

ENGINEERING materials. See Materials

ENGINEERING models. See Hydraulic models; Mechanical models

ENGINEERING news-record (periodical)

Editorial staff changes. *Eng N* 140:464 Mr 25 '48

ENGINEERING reports

How to teach engineering. English. L. E. Shaffer. *Min & Met* 29:379-81 Jl '48

Technical reports. D. S. Davis. *Paper Ind* 29:1302-3 D '47

ENGINEERING research

Engineering at Cambridge university; report for the year 1946-47. *Engineering* 165:449 My 7 '48

Experimental engineering research methods. C. E. Lucke. *Mech Eng* 70:793-5 O '48

Field research groups provide data for design of shore protection structures. *il Civil Eng* 18:363+ Je '48

Mechanical engineering research in Britain. T. C. Crawhall. *Mech Eng* 69:898+ N '47

Report of committee on research in engineering geology. Society of economic geologists. *Econ Geol* 43:313-23 Je '48

Research in Australia. *Engineering* 165:161-2, 245-6 F 13, Mr 12 '48

Research on rubber for mechanical engineers. J. F. D. Smith. *bibliog*(51 titles) *diags Mech Eng* 70:118-22 F '48

Scope of engineering research. L. W. Chubb. *J Eng Educ* 38:286-9 D '47

Simulation of high air temperatures by hydrogen mixtures. B. N. Cole. *Engineering* 165:508 My 28 '48

Training for research. E. A. Walker. *J Eng Educ* 38:239-43 N '47

What recent research offers the designer. N. C. Penfold. *il Machine Design* 20:107-12 Je '48

Why turbulence is important to engineers. J. S. McNown. *Power Generation* 57:51+ Ap '48

See also

Aeronautic research
Automobile research
Electric research
Engineering colleges
—Research
Engineering laboratories
Gas research

Highway research
Industrial research
Lighting research
Petroleum research
Railroad research
Refrigeration research
Scientific research

ENGINEERING societies

Bridges of stepping stones? degree to which youth should be aided by the experience of mature engineers. D. C. Jackson, jr. *Tech R* 50:212+ F '48

Engineering societies yearbook, 1948; published by the ASME; review. S. J. Berard. *Mech Eng* 70:470 My '48

Organization of an American engineering association. B. D. Hull. *Elec Eng* 67:313-17 Ap '48; Discussion. 67:721-4, 930-1 Jl, S '48

See also names of societies, e.g.

Engineers' council
for professional development
Engineers' guild
National society of professional engineers
Verein deutscher ingenieure

Directories

Associations and societies, Canada. *Roads & Bridges* 86:191 Je '48

ENGINEERING societies library, New York
Annual report. R. H. Phelps. *Elec Eng* 67:209-10 F '48

Engineering library has busiest year, survey shows. *Civil Eng* 18:43 Ja '48

ENGINEERING standards. See Standards, Engineering

ENGINEERING students

Essay contest to stimulate interest in highway engineering work. *Eng N* 141:78 O 14 '48

Habit of community service. M. L. Cooke. *Mech Eng* 69:1017-18 D '47

ENGINEERING teachers**Salaries**

Civil engineer's plan for evaluating engineering teachers' salaries. S. B. Lilly. J Eng Educ 39:48-51 S '48

ENGINEERS

Accent on youth. E. W. O'Brien. Mech Eng 70:5-7 Ja '48

Advancement of the engineer depends upon the individual, the school, and the employer. E. I. Fieseneiser. J Eng Educ 38: 686-9 My '48

Atomic energy and the engineer. D. E. Lillenthal. Mech Eng 70:8-11 Ja '48

Bridges or stepping stones? degree to which youth should be aided by the experience of mature engineers. D. C. Jackson, Jr. Tech R 50:212+ F '48

British engineer in India; his monument, the future. S. Reed. Engineer 185:82-3, 106-7 Ja 23-30 '48

Close relationship between engineers, contractors is stressed. C. S. Proctor; D. W. Winkelman. Civil Eng 18:178 Mr '48

Design for morale in the engineering department. H. A. Bolz. II Machine Design 20: 89-94 Ag '48

Engineering as a profession. I. A. Anson. Pet Refiner 27:101-3 Je '48

Engineering professional status as related to labor unions. J. F. D. Smith. J Eng Educ 38:630-7 My '48

EJC asks highest technical use of engineers under any new draft law. Civil Eng 18:310 My '48

Engineers joint council urges deferment of engineers at congressional hearing. Mech Eng 70:565 Je '48

Engineer's part. H. N. Davis. Elec Eng 67: 727-33 Ag '48; Excerpts. Pulp & Pa of Can 49:87-8 S '48

Future engineer. P. Parr. Engineering 165:235 Mr 5 '48

Future need for engineers. Power Pl Eng 51: 71 N '47

Growth and influence of the engineering profession. E. W. O'Brien. II Product Eng 19:81-4 My '48

Honours list. Engineering 165:15, 39 Ja 2-9 '48

Industry develops engineers. T. B. Jochem. Mech Eng 70:747-9+ S '48

Mathematician, the scientist, the engineer. J. Slepian. Elec Eng 67:261-4 Mr '48

Milwaukee plan of aptitude testing. E. C. Koerber. Mech Eng 70:750-1 S '48

Opportunities for engineers in the federal government. J. H. Belknap. J Eng Educ 38:517-21 Ap '48

Production pattern; Brown instrument co. survey of engineering colleges. Bsns W p53 My 22 '48

Professional recognition of engineers. Engineering 166:175 Ag 20 '48

Professional status of engineers. E. Kirkendall. Min & Met 29:402-3 Jl '48

Selective service modifications urged by Engineers joint council. L. W. Bass. Chem Eng Prog 44:sup21-2 My '48; Same. Min & Met 29:349-51 Je '48

Survey reveals war use of engineering profession. Mech Eng 70:380 Ap '48

Tomorrow's engineers; a reconnaissance survey. J. R. Van Pelt. J Eng Educ 38:167-74 N '47

Value of cooperation between engineers and architects emphasized by AIA president; abstract. D. W. Orr. Civil Eng 18:42-3 Ja '48

What is a profession? V. Bush. Chem & Eng N 26:1582-3 My 31 '48

What makes an engineer? D. Frederick. Power Generation 52:72-4 Je '48

What promise does applied mathematics future hold for engineers? M. Salvadori. Civil Eng 18:303 My '48

Why an engineer? W. V. Kahler. Midwest Eng 1:12-16 S '48

Young engineer. T. R. Cave-Browne-Cave. Engineer 186:260-1, 292-3 S 10-17 '48; Same cond. Engineering 166:287-8, 295 S 17-24 '48; Discussion. Engineer 186:288-9 S 17 '48; Engineering 166:280-1 S 17 '48

See also

Automobile engineers Civil engineers
Chemical engineers Directories

Electric engineers
Engineering colleges
Engineering education
Engineering graduates
Lighting engineers
Mining engineers
also Engineers' council for professional development

Municipal engineers
Petroleum engineers
Radio engineers
Sanitary engineers
Steam engineers
Technical writing
Women as engineers

Biography

Personality profiles; members of the Western society of engineers. Western Soc E J 53:75-6 Je '48
Who's who in engineering; a biographical dictionary of the engineering profession. 1948. W. S. Downs, ed. 6th ed 2357p \$15
Lewis historical pub. co, 80 8th av, New York 11 '48

Directories

Consulting engineers active in the electronics field. Electronics 21:C1-8 Mid-Je '48
Officers, council members, divisions, committees for 1947-48; with list of members. J Eng Educ 38:8-294 F '48
Western society of engineers year book. Western Soc E J 52:1-89 pt 2 S '47
See also
Sanitary engineers—
Directories

Foreign service

Court clarifies bona fide residence for income tax purposes; gives wide travel privileges to engineers in foreign service. Civil Eng 18:517 Ag '48
Engineers' part in foreign trade. F. Gannett. II Eng N 140:950-1 Je 10 '48
Income tax requirements affect foreign service of American engineers. E. H. Lang. II Civil Eng 17:610-12+ O '47; Discussion. E. F. Robinson. 18:102-3 F '48
Petroleum engineers abroad; suggestions to those preparing for foreign work. H. H. Power. bibliog Min & Met 29:493-4 S '48

Public relations

Challenge of national and international affairs to the engineer. J. R. Townsend. Am Soc T M Proc 46:36-40 '46
Citizen engineer, his job. L. J. Fletcher. Mech Eng 69:311-14 N '47
Engineer in civic affairs. H. T. Heald; S. M. Dean. Midwest Eng 1:17-20 S '48
Engineers and politics. R. V. Wright. Mech Eng 70:614-15 Jl '48
Engineers! come out of the kitchen! O. Eisen-schm. Power Generation 52:53+ S '48
Habit of community service. M. L. Cooke. Mech Eng 69:1017-18 D '47
Teaching our way of life; program of ASME engineers civic responsibility committee for 1948. F. A. Faville, bibliog Mech Eng 70:404-6 My '48

Registration

Compulsory licensing of tool engineers? R. B. Douglas. Tool Eng 21:21-2 O '48
Licensing needs a plus; abstract. C. R. Young. Civil Eng 18:46 Ja '48
NCSBEE reviews ramifications of interstate registration at Salt Lake City meeting. N. W. Dougherty. Civil Eng 18:642-3+ O '48
Washington modernizes its Engineers' registration act. Elec Eng 67:110 Ja '48

Salaries

Analysis of EJC report, The engineering profession in transition. J. Girard. Civil Eng 18:41-2 Ja '48
New AAE report suggests wage rate for city engineers. Eng N 139:765+ D 4 '47
Salaries of technical personnel. Pulp & Pa of Can 49:88-90 Mr '48
Starting salaries for engineers. Chem Ind 62: 572 Ap '48
See also

Engineering teachers Radio engineers—
—Salaries Salaries

Canada

Engineering graduating class of 1949. Can Chem & Process Ind 32:728-9 Ag '48; Same. Pulp & Pa of Can 49:106-7 Ag '48

ENGINEERS—Canada—Continued

Professional advancement in Canada. C. R. Young. Mech Eng 69:1019-20+ D '47

Great Britain*See also*

Engineers' guild

ENGINEERS as copy writers

From slide rule to typewriter; Allis-Chalmers gives engineers an internship in advertising. A. R. Toftte. II Ind Marketing 33:41-2+ Ap '48

ENGINEERS as executives

Making executives from engineers; abstract. W. Evans. Chem Eng 55:304+ S '48
Top man off the production line; John Craig heads Crosley. II Mod Ind 16:67-8+ O '48

ENGINEERS as salesmen

How to polish industrial salesmanship to a shine; Carboly co. J. M. Bertotti. II Sales Management 60:69+ Ja '48

What kind of salesmen for half-million dollar products? Clearing machine corp. R. W. Glasner. II Sales Management 60:127+ Ja '48

What use is technical service? F. G. Rice. Can Chem & Process Ind 32:155-8 F '48

Why neglect sales engineering? H. R. Beaty. J Eng Educ 38:559-64 Ap '48

ENGINEERS' council for professional development

Annual meeting, 15th, Montreal, Oct. 24-25. Eng N 139:632-3 N 6 '47; Mech Eng 69:1023-4 D '47; Civil Eng 18:45 Ja '48
ECPD resumes accrediting of engineering curricula. J Eng Educ 38:209-10 N '47
Raises professional standards of the engineer. Product Eng 18:144-6 N '47
Report to the council. J. W. Parker. Mech Eng 69:1021-3 D '47

ENGINEERS' guild

Engineers' guild meeting; discussion of the Guild as an association of professional engineers. Engineer 185:233 Mr 19 '48

ENGINEERS joint council

Engineers joint council offers services to UNESCO. R. M. Gates. Mech Eng 70:270 Mr '48

ENGINEERS public service company

Common stockholders of utilities favored by court decision. Barron's 28:26 Ap 5 '48
Engineers Public Service decision; retirement of senior holding company securities. O. Ely. Pub Util 41:565-8 Ap 22 '48

ENGINEHOUSES. See Roundhouses**ENGINES**

Engine indicated horsepower; chart; data sheet. F. M. Giordano. Power 92:117 F '48

See also

Air engines	Locomotives
Air turbines	Motor bus engines
Airplane engines	Motor truck engines
Automobile engines	Pistons
Crankshafts	Pumping machinery
Diesel engines	Steam engines
Gas turbines	Steam turbines
Internal combustion engines	

ENGLISH Channel tunnel

Channel tunnel scheme. G. J. Constantini. II map plan Comp Air Mag 53:161-5 Jl '48

ENGLISH language

Simpler readability formula is claimed. Ed & Pub 81:28 Je 12 '48

Dictionaries

American college dictionary. C. L. Barnhart, ed. text ed 1432p Harper & brothers, 49 E. 33d st, New York 16 '48 (\$5)

Study and teaching

Engineer hates grandfather's horse. W. G. Crouch and R. L. Zetler. J Eng Educ 38:73-6 S '47; Discussion (English is English). F. H. Gertz. 38:500-1 Mr '48

English in the chemistry curriculum. C. Sanford. bibliog Can Chem & Process Ind 31:1133-5 D '47

How to teach engineering English. L. E. Shaffer. Min & Met 29:379-81 Jl '48

Training English teachers for engineers. W. G. Crouch and R. L. Zetler. Elec Eng 66:1182-4 D '47

ENGRAVING

How to mark hard plastics; Acromark co. process called Oil engraving. H. O. Bates. II diag. Am Mach 91:119 D 18 '47

ENGRAVING machines

Gorton three-dimensional pantograph features Ratiobar. II diag Am Mach 91:141-2 D 4 '47; Mach 54:196-7 D '47; Machine Design 20:147-8 My '48

New pantograph simplifies duplicating. G. Skog. II diag Tool Eng 20:26 F '48

Newspaper gets first electronic photo-engraver. II Ptr Ink 221:77 D 26 '47

Papers now making cuts without zinc, chemicals; Fairchild direct photo-electric engraving machine. II Ed & Pub 81:7-8 F 7 '48

ENGRAVINGS**Prices**

American print prices paid; consolidating the records of America's important print sales, 1947. R. B. Holman, ed. 65p \$6 Holman's print shop, 172 Newbury st, Boston 16 '48

Printing

Better originals make better reproductions. I. Settel. Adv & Sell 41:104 O '48

*See also***Photoengraving****EN guardia (periodical)**

Brief history of En guardia. J. C. Stark. Ptr Ink 222:64+ Mr 5 '48

ENIAC. See Calculating machines**ENIWETOK ATOLL**

AEC begins preparations for experimentation at Eniwetok Atoll. Chem & Eng N 25:3730 D 15 '47

ENSILAGE. See Silage**ENTERPRISE development company**

New industrial trust. Bsns W p 101-2 Ap 17 '48

ENTERTAINERS

Businessman's party man; Abbie Greshler provides talent for entertaining conventions. Bsns W p80+ N 22 '47

ENTERTAINMENT of customers. See Salesmen—Entertainment of customers

ENTHALPY. See Thermodynamics**ENTOLETER.** See Crushing machines**ENTRANCES**

Better detail plate; rear entry with unusual arrangement. Am Bid 70:117 My '48

Entrance, a focal point of emphasis; better detail plate. diags Am Bid 70:142-3 Ap '48

Foursome of entries for brick builders; illustrations. Brick & Clay Rec 113:27 S '48

ENTROPY

Carbonyl chloride, entropy, heat capacity, vapor pressure, heats of fusion and vaporization; comments on solid sulfur dioxide structure. W. F. Glauque and W. M. Jones. bibliog Am Chem Soc J 70:120-4 Ja '48

Chemical reaction equilibria; estimating standard entropy changes. H. P. Meissner. bibliog Ind & Eng Chem 40:904-3 My '48

Entropy of ethyl chloride; heat capacity from 13 to 287° K; vapor pressure; heats of fusion and vaporization. J. Gordon and W. F. Glauque. bibliog Am Chem Soc J 70:1506-10 Ap '48

Heat capacities at low temperatures and entropies of 3CaO·B₂O₃, 2CaO·B₂O₃, CaO·B₂O₃, and CaO·2B₂O₃. K. K. Kelley, S. S. Todd and C. H. Shomate. bibliog Am Chem Soc J 70:1350-2 Ap '48

Heat capacity, heat of fusion and entropy of benzene. G. D. Oliver, M. Eaton and H. M. Huffman. bibliog Am Chem Soc J 70:1502-5 Ap '48

Irreversible production of entropy. R. C. Tolman and P. C. Fine. Rs Mod Phys 20:51-77 Ja '48

Relation between entropy and enthalpy of solution. O. K. Rice. bibliog J Chem Phys 15:875-9 D '47

Simple binary solid solutions. A. W. Lawson. bibliog J Chem Phys 15:831-42 N '47

ENVIRONMENT. See Man—Influence of environment

ENZYMES

Conversion of corn amylopectin by barley malt enzymes. T. M. Back, W. H. Stark and C. C. Vernon. bibliog Ind & Eng Chem 40:80-4 Ja '48

ENZYMES—Continued

Demonstration of reducing enzyme systems in neoplasms and living mammalian tissues by triphenyltetrazolium chloride. F. H. Straus and others. *bibliog Science* 108: 113-15 J 30 '48

Enzymatic synthesis of N-carbohenzoxy-D and L-o-fluorophenylalanylphenylhydrazides. E. L. Bennett and C. Niemann. *Am Chem Soc J* 70:2610-11 J 48

Enzymes in tumors; tr. from German. E. Waldschmidt-Leitz and others. *Franklin Inst J* 245:449-53, 535-40 My-Je '48

Gelproof juice; pectin-destroying enzyme permits apple juice to be concentrated without jelling. *Chem Ind* 61:799 N '47

Location of the reactive carbon in N¹-methylpicotinamide. W. E. Knox and W. I. Grossman. *bibliog Am Chem Soc J* 70: 2172 Je '48

Long range enzymatic action on films of antigen. A. Rothen. *Am Chem Soc J* 70: 2732-40 Ag '48

Measurement of enzymatic activity on limit dextrin. T. M. Back, W. H. Stark and R. E. Scafe. *bibliog Anal Chem* 20:56-60 Ja '48

Mechanism of enzymatic synthesis of polysaccharides; abstract of Harrison Howe lecture. C. F. Cori and G. T. Cori. *Chem & Eng N* 25:3567 D 1 '47

Mold enzymes produced by continuous tray method. G. A. Jeffreys. *il diags Food Ind* 20:688-90+ My '48

Oxidation processes; some biological implications in autoxidation mechanisms. J. E. LuValle. *bibliog Am Chem Soc J* 70:2234-5 Je '48

Oxidation-reduction potentials of thiol-disulfide systems; dithiobiuret-3,5-dimino-1,2,4-dithiazoline. P. W. Freiser and M. M. Bateman. *bibliog Am Chem Soc J* 69:2632-5 N '47

Recent advances in fermentation. *il Chem Eng* 54:141-8 D '47

What a foreman should know about enzyme action. A. K. Balls. *Food Ind* 20:169+ F '48

See also

Cholinesterase
Deoxyribonuclease
Fermentation
Glucuronidase
Invertase
Malt
Nucleases

Nucleotidases
Oxidases
Phosphatases
Phosphorylase
Ribonuclease
Tyrosinase

EOTVOS, Roland von, baron, 1848-1919
Sketch. *Engineer* 186:127 Ag 6 '48

EPHEDRINE

Diamines; the synthesis of amino analogs of adrenaline, arterenol and ephedrine. R. Duschinsky and others. *Am Chem Soc J* 69: 3150 D '47

Spinal anaesthetic effects of ephedrine sulfate; a preliminary report. J. E. Ruben and others. *Science* 107:223 F 27 '48

EPICHLOROHYDRIN

Researches on acetylenic compounds; the reaction between epichlorohydrin and sodium acetylides; a novel route to the ethynyl-ethylenic alcohol, pent-2-en-4-yn-1-ol. L. J. Haynes and others. *Chem Soc J* p 1533-5 D '47

EPIDEMICS

Diphtheria epidemic in Utah in 1947. A. A. Jenkins. *Pub Health Rep* 63:573-7 Ap 30 '48

Epidemic of acute watery diarrhea in Alabama. J. W. Smilie and others. *bibliog Pub Health Rep* 63:233-43 F 20 '48

Studies of the acute diarrheal diseases; epidemiology. A. V. Hardy and J. Watt. *Pub Health Rep* 63:363-78 Mr 19 '48

See also

Infectious diseases
Influenza

EPIGRAMS

Thesaurus of epigrams. E. Fuller, ed. 382p \$1.98 Garden City pub. co, Garden City, New York '48

EPILEPSY

See also

Anticonvulsants

EPOXYBUTANE

Configurations of active 2,3-epoxybutane and erythro-3-chloro-2-butanol. H. J. Lucas and H. K. Garner. *bibliog Am Chem Soc J* 70: 990-2 Mr '48

EPOXYBUTENE

Methanolysis of 3,4-epoxy-1-butene. P. D. Bartlett and S. D. Koss. *bibliog Am Chem Soc J* 70:326-9 Mr '48

EPOXY compounds

Chemistry of epoxy compounds; preparation of some hydroxy-ethers from 9,10-epoxystearic acid and 9,10-epoxyoctadecanol. D. Swern, G. N. Billen and J. T. Scanlan. *Am Chem Soc J* 70:1226-8 Mr '48

Chemistry of epoxy compounds; stereochemical relationships between the 9,10-epoxy-, chlorohydroxy- and dihydroxystearic acids. D. Swern. *bibliog Am Chem Soc J* 70:1235-40 Mr '48

Chemistry of epoxy compounds; thermal polymerization of the isomeric 9,10-epoxystearic acid. D. Swern, G. N. Billen and C. R. Eddy. *bibliog Am Chem Soc J* 70:1228-35 Mr '48

Synthesis of products related to vitamin A; the synthesis of 1-(cyclohexen-1'-yl)-3-methyl-3-epoxybutyne-1 and related products. N. A. Milas, M. S. MacDonald and D. M. Black. *bibliog Am Chem Soc J* 70: 1829-34 My '48

EPOXYOCTADECANOL

Chemistry of epoxy compounds; preparation of some hydroxy-ethers from 9,10-epoxystearic acid and 9,10-epoxyoctadecanol. D. Swern, G. N. Billen and J. T. Scanlan. *Am Chem Soc J* 70:1226-8 Mr '48

EPOXYSTEARIC acid

Chemistry of epoxy compounds; preparation of some hydroxy-ethers from 9,10-epoxystearic acid and 9,10-epoxyoctadecanol. D. Swern, G. N. Billen and J. T. Scanlan. *Am Chem Soc J* 70:1226-8 Mr '48

Chemistry of epoxy compounds; stereochemical relationships between the 9,10-epoxy-, chlorohydroxy- and dihydroxystearic acids. D. Swern. *bibliog Am Chem Soc J* 70:1235-40 Mr '48

Chemistry of epoxy compounds; thermal polymerization of the isomeric 9,10-epoxystearic acids. D. Swern, G. N. Billen and C. R. Eddy. *bibliog Am Chem Soc J* 70: 1228-35 Mr '48

EQUATION of motion

Meson field and equations of motion of point particles. R. C. Majumdar and A. S. Apte. *Phys R* 74:538-47 S 1 '48

EQUATION of state

Applications of thermodynamics to hydrocarbon processing; vapor pressures and equations of state. W. C. Edmister. *bibliog Pet Refiner* 27:100-7 F '48

Derivation of the complete Van der Waals' equation from statistical mechanics. T. L. Hill. *J Chem Educ* 25:347-8 Je '48

Equation of state for gases at extremely high pressures and temperatures from the hydrodynamic theory of detonation. M. A. Cook. *bibliog J Chem Phys* 15:518-24 J 1 '47; Discussion. S. Paterson. 16:159 F '48; Reply. 16:554-5 My '48; Rejoinder. 16:847 Ag '48

Equation of state for linear macromolecules in monolayers. S. J. Singer. *bibliog J Chem Phys* 16:872-6 S '48

Fugacity determinations of the products of detonation. M. A. Cook. *bibliog J Chem Phys* 16:1081-6 N '48

Theory of vapor pressures of liquids based on van der Waals' equation of state. F. T. Wall. *J Chem Phys* 16:508-12 My '48

Thermodynamics; the second law from the standpoint of the equation of state. J. L. Finck. *bibliog Franklin Inst J* 245:301-17 Ap '48

See also

Virial coefficients

EQUATIONS

Dimensional analysis of electromagnetic equations. A. M. Winzemer. *Inst Radio Eng Proc* 35:1383-4 N '47

Matrix development of Multhopp's equations for spanwise air-load distribution. S. U. Benscoter. *diags J Aeronautical Sci* 15: 113-20 F '48

Solution of equations simplified. A. S. Goodrich, Jr. *Machine Design* 19:141-2+ N '47

See also

Dirac's equation

EQUATIONS, Cubic

Graph solves cubic equation when Cardan's formula fails. W. R. Davis. *Civil Eng* 18: 100 F '48

- EQUATIONS, Differential.** See Differential equations
- EQUATIONS, Integral.** See Integral equations
- EQUATIONS, Quadratic**
Electrical instrument for solving second-degree algebraic equations. G. C. Curtis. *diags J Sci Instr* 25:341-3 O '48
- EQUATIONS, Second degree.** See Equations, Quadratic
- EQUATIONS, Simultaneous**
Automatic simultaneous equation computer and its use in solving secular equations. W. A. Adcock. *bibliog il diags R Sci Instr* 19:181-7 Mr '48
Compact analog computer for obtaining solutions of the simultaneous differential equations usually encountered in design engineering. S. Frost. *il diags Electronics* 21: 116-20+ JI '48
Details of the simultaneous equation solver. E. A. Goldberg. *il diags RCA R* 9:394-405 S '48
Electronic method for solving simultaneous equations. A. C. Hardy and E. C. Dench. *diags Opt Soc Am J* 38:308-12 Ap '48
Electronic simultaneous equation solver. E. A. Goldberg and G. W. Brown. *il diags J Ap Phys* 19:339-45 Ap '48
Variation of coefficients of simultaneous linear equations. B. L. Weiner. *Am Soc C E Proc* 73:1219-44 O '47; Discussion. 74: 814-18, 931-43 My-Je '48
- EQUILENIN**
New synthesis of fused ring structures related to the steroids; the 17-equilenones; a total synthesis of equilenin. W. S. Johnson, J. W. Peterson and C. D. Gutsche. *bibliog Am Chem Soc J* 69:2942-55 D '47
- EQUILENONE**
New synthesis of fused ring structures related to the steroids; the 17-equilenones; a total synthesis of equilenin. W. S. Johnson, J. W. Petersen and C. D. Gutsche. *bibliog Am Chem Soc J* 69:2942-55 D '47
Synthesis of 3-hydroxy-16-equilenone, a structural isomer of equilenin. A. L. Wilds and W. J. Close. *bibliog Am Chem Soc J* 69:3079-83 D '47
- EQUIPMENT industries**
Current and prospective plant and equipment expenditures. M. L. Merriam. *Survey of Cur Bsns* 23:12-14+ Ap '48
Federal reserve bank of New York predicts falling off in capital outlays. *Comm & Fin Chr* 187:2538 Je 10 '48
Plant and equipment expenditures of U.S. business; position as first quarter of 1948 opens. *Survey of Cur Bsns* 28:6-7 Ja '48
Plant and equipment survey; planned outlays for third quarter of 1948. *Survey of Cur Bsns* 28:3 JI '48
See also
Automobile accessories industry
Electric apparatus industry
Industrial market
Machine tool industry
Machinery industry
Office equipment industry
Petroleum equipment industries
Plumbing supplies industry
Railroad supplies industry
- Advertising
See also
Instruments—Advertising
- Directories
Canadian association of equipment distributors; list of members, with name of signing member of each firm. *Roads & Bridges* 86:213 Je '48
Equipment distributors, Canada; addresses of head and branch offices; list of principals they represent. *Roads & Bridges* 86:193-4+ Je '48
35th annual review number. *il Am Mach* 92: 128-294 Ja 29 '48
- Exhibitions
Tool Engineer's industrial exposition in preview. G. Skog. *il diag Tool Eng* 20:17-26 Mr '48
- Securities
Durable goods boom. W. Gates. *Mag of Wall St* 81:179-81+ N 22 '47
- Heavy industries and their securities. A. S. Rudd. *Comm & Fin Chr* 167:1214+ Mr 18 '48
- Statistics
Capital outlays by business stay high. *Bsns W* p23 Ja 17 '48
Producers' durable equipment, 1929-45; tabulation. *Survey of Cur Bsns* 27:sup45 JI '47
Producers' durable equipment, 1944-45; tabulation. *Survey of Cur Bsns* 27:sup45 JI '47
- Great Britain
Plant machinery & capital goods made in Britain, 21s Clerke and Cockeran, 66 Carter Lane, London, E.C.4 '47
- EQUIPMENT trust certificates.** See Airlines—Equipment trust certificates; Railroads—Equipment trust certificates
- EQUITABLE gas company**
Bonds offered. *Comm & Fin Chr* 168:344 JI 26 '48
- EQUITABLE office building corporation**
Revised plan confirmed. *Comm & Fin Chr* 166:1889 N 10 '47
- ERGOSTANOL**
Optical rotatory power of *epi*-ergostanol. K. J. Sax, L. Dorfman and S. Bernstein. *bibliog Am Chem Soc J* 70:2607 JI '48
- ERGOSTEROL**
Antibacterial action of inactivated ergosterol in the guinea pig and man. W. Raab. *bibliog Science* 106:546 D 5 '47
Determining vitamins D₂ by two physical chemical methods; oil solutions. D. T. Ewing and others. *bibliog Anal Chem* 20: 317-20 Ap '48
- ERKKO, Eljas**
Finn publisher finds old Brooklyn school. O. J. Rochelle. *Ed & Pub* 81:70 My 22 '48
- EROS (statue).** See Statues, Aluminum
- EROSION**
Beach erosion studies in Florida. H. J. Hansen. *il maps diags Florida Eng and Industrial Exp Sta, Univ of Florida [Gainesville] Bul* 16:1-68 bibliog(p67-8) '47
Erosion control in East Bay watersheds. F. B. Blanchard. *Am Water Works Assn J* 39: 1229-36 D '47
Erosion control in Los Angeles watersheds. B. S. Grant. *Am Water Works Assn J* 39: 1224-8 D '47
Soil erosion and some problems connected with its control. J. A. Vorster. *Engineer* 186:320-1 S 24 '48
See also
Dust storms
Soil conservation
- EROSION of metals**
Dezincification and erosion-corrosion. M. G. Fontana. *il Metal Prog* 53:687-9 My '48
Erosion in vent plugs, the effect of vent diameter. J. H. Wiegand. *bibliog il diags Franklin Inst J* 244:291-308, 363-84 O-N '47
Machining by erosion; new Russian machine tools. B. R. Lazarenko and N. I. Lazarenko. *diags Am Mach* 91:120-1 D 18 '47
Study of blast furnace downcomer failures. C. M. Searcy. *diags Blast F & Steel Pl* 35:1353-6+ N '47; Same. *Steel* 121:110+ N 24 '47
See also
Hydraulic machinery
—Cavitation
- ERRORS, Typographical**
Funny breaks of past told by old timer. M. A. Aldrich. *Ed & Pub* 81:30 Je 12 '48
- ERYTHROCYTES.** See Blood
- ESCALATORS**
Air system shields escalators from fire; J. C. Penney department store. *il diag Eng N* 141:51 JI 22 '48
Fire protection for wellways; exhaust-water spray system has been developed for moving stairways. *il Safety Eng* 95:10-11+ Ap '48
Method of fire control; combination of exhaust system and water curtain for cooling gases when fire is located adjacent to escalator. A. C. Bartlett. *il diags Heating-Piping* 19:117-22 N '47
Otis improved escalator. *il Ry Age* 123:989 D 6 '47

ESCAPEMENT mechanism

Mechanical escapement; Gisholt no. 12 automatic lathe. *Il Machine Design* 20:127-8 Ap '48

ESCHERICHIA coli. See *Bacillus coli*

ESKERS

Glaciation in north central British Columbia. J. E. Armstrong and H. W. Tipper. *bibliog maps diags Am J Sci* 246:283-310, pl 1-4 My '48

ESSELEN, Gustavus John, 1888-

Esselen honored at A.C.S. Northeastern section fiftieth anniversary. *pers Chem & Eng N* 26:514-15 F 23 '48

Presentation of James F. Norris award. *por Chem Eng* 55:241 Mr '48

ESSELEN, Herman B.

Esselen heads government bureau to help admen. *Ed & Pub* 81:20 Jl 10 '48

ESSENTIAL oil association

Annual meeting of scientific section, New York, Dec. 9. *Oil Paint & Drug Rep* 152:7-15 '47

ESSENTIAL oils

Antiseptics and disinfectants as formulated for the British market. J. M. Vallance. *bibliog Soap & San Chem* 23:133+ N '47

Constitution of copene. L. H. Briggs and W. I. Taylor. *Chem Soc J* p 1338-9 O '47

Dollars from scents. M. D. Hall. *J Chem Educ* 25:45-6 Ja '48

Essential-oil exports, Reunion. *For Comm W* 29:23-4 D 13 '47

Essential oil outlook. J. A. Huisking. *Soap & San Chem* 24:47 S '48

Essential oils 1947 exports of Nice consular district, France. *Oil Paint & Drug Rep* 153:73 Ap 12 '48

Essential oils 1947 imports show decrease with data for 1946; table. *Oil Paint & Drug Rep* 154:60 Ag 30 '48

Mexican tariff act hit by two industries; raising of import duties on essential oils and paints protested. *Oil Paint & Drug Rep* 153:5+ Mr 1 '48

Perfumery shipments from Nice to U.S. *For Comm W* 31:26 Ap 3 '48

Supply situation, India. *For Comm W* 32:37-8 S 25 '48

Prices

Essential oils, other aromatics; 1947 market trends. *Oil Paint & Drug Rep* 153:31-3 sec 2 F 16 '48

Statistics

Essential oils, other aromatics. Published in weekly numbers of Oil, paint and drug reporter

ESTATE planning

Art of estate planning. W. H. Robbins. *Life Ins Courant* 53:5+ Je '48

Art of estate planning. M. A. Shattuck. *Trusts & Estates* 87:13-21 Jl '48

Death, taxes and your business. G. J. Laikin. *Trusts & Estates* 85:372-4, 459-63, 517-22; 86:13-17, 145-51 O '47-F '48

Defining unauthorized law practice in estate planning. H. T. Powers. *Trusts & Estates* 85:524-5 D '47

Estate analysis in action. H. T. Powers. *Trusts & Estates* 86:33-4 Ja '48 [cont monthly]

Estate analysis in community property states; effects of Revenue act of 1948. F. M. Flint. *Trusts & Estates* 86:473-8 Je '48

Estate planning; abstract. W. H. Friedman. *J Account* 85:254-5 Mr '48

Estate planning approach under new tax law. H. Kemp. *Trusts & Estates* 86:382-3 My '48

Estate planning in community property states. G. B. Jones. *Trusts & Estates* 85:527-30 D '47

Estate planning in practice. E. M. Heffernan. *Comm & Fin Chr* 167:1745+ Ap 22 '48

Estate planning under the new tax law. D. H. McLucas. *Trusts & Estates* 87:261-74 O '48

Lawyer in estate planning. E. S. MacNeill. *Trusts & Estates* 86:307-12 Ap '48

New tax law's effect on adverse factors. H. T. Powers. *Trusts & Estates* 86:387-90 My '48

Savings bonds in estate planning. T. J. Lynch. *Trusts & Estates* 87:291-6 O '48

See also

Insurance, Life—Estate protection

ESTATE tax. See *Inheritance tax*

ESTATES (law)

Payment to estates by surviving partners. *J Account* 85:155-6 F '48

Proposed Uniform ancillary administration of estates act. *Trusts & Estates* 87:335-7 O '48

See also

Power of appointment

ESTERIFICATION

Alkyd resins today; trends in oil-modified alkyds. E. O. Phillips. *bibliog Chem & Ind* p3-5 Ja 3 '48

Alpha- and beta-hydroxyls of glycerol in preparation of alkyd resins. H. A. Goldsmith. *bibliog Ind & Eng Chem* 40:1205-11 Jl '48

Chemical engineering unit processes. E. E. Reid. *il Ind & Eng Chem* 40:1596-601 bibliog(163 ref, p 1600-1) S '48

Determination of the alcoholic hydroxyl group in organic compounds; phthalic anhydride method. P. J. Elving and B. Warshawsky. *bibliog Anal Chem* 19:1006-10 D '47

Dibutyl phthalate; reaction rate of catalytic esterification. S. Berman, A. A. Melnychuk and D. F. Othmer. *bibliog Ind & Eng Chem* 40:1312-19 Jl '48

Effect of esterification of the carboxyl groups of wool on supercontraction in sodium bisulphite and set in aqueous media. S. Blackburn and H. Lindley. *bibliog Soc Dyers & Col J* 64:310-12; Discussion, 312-14 S '48

Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. *bibliog Am Chem Soc J* 69:2605-7 N '47

Esterification of acylated α -amino acids. H. Rinderknecht and C. Niemann. *Am Chem Soc J* 70:2605-6 Jl '48

Esterification of tetrachlorophthalic anhydride. B. W. Nordlander and W. E. Cass. *bibliog Am Chem Soc J* 69:2679-82 N '47

Imparting water-repellency to textiles by chemical methods; a review of the literature; acids, acid halides, acid anhydrides, and other esterifying agents. H. A. Schuyten and others. *bibliog(78 ref) Textile Res J* 18:398-402 Jl '48

Kinetics of an esterification with cation-exchange resin catalyst. C. L. Levesque and A. M. Craig. *bibliog Ind & Eng Chem* 40:96-9 Ja '48

Pectin studies; the nitric acid ester (preliminary). L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:101-4 Mr '48

Polysaccharide acid esters as cation exchange media. F. C. McIntire and J. R. Schenck. *Am Chem Soc J* 70:1193-4 Mr '48

Polysilicic acid esters; preparation from sodium silicate. R. K. Iler and P. S. Pinkney. *bibliog Ind & Eng Chem* 39:1379-84 N '47

Reactions of vanillin and its derived compounds; esters of vanillic acid. I. A. Pearl and J. F. McCoy. *bibliog Am Chem Soc J* 69:28071-2 D '47

Rearrangement in the preparation of ester acid chlorides. S. Ståhlberg-Stenhagen. *Am Chem Soc J* 69:2568 O '47

Reversible dissociation of *t*-butyl esters; structural effects and reactions mechanism. R. Altschul. *Am Chem Soc J* 70:2569-72 Jl '48

ESTERS

Acylation of pyrrol carboxylic esters. A. H. Corwin and J. L. Straughn. *bibliog Am Chem Soc J* 70:2968-70 S '48

Allyl esters of phosphonic acids; preparation and polymerization of allyl and methallyl esters of some arylphosphonic acids. A. D. P. Toy. *bibliog Am Chem Soc J* 70:186-8 Ja '48

Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Carpen, Jr. and R. S. Shelton. *bibliog Am Chem Soc J* 69:2902-6 N '47

Claisen condensation of methyl esters. E. E. Royals. *bibliog Am Chem Soc J* 70:489-91 F '48

ESTERS—*Continued*

- Directed interesterification in glycerides. E. W. Ecker, *bibliog Ind & Eng Chem* 40: 1183-90 J1 '48
- Effect of structure on reactivity; ammonolysis of esters with special reference to the electron release effects, of alkyl and aryl groups. M. Gordon, J. G. Miller and A. R. Day, *bibliog Am Chem Soc J* 70:1946-53 My '48
- Ester and orthoester formation in the alcoholysis of iminoester hydrochlorides; a proposed mechanism. S. M. McElvain and C. L. Stevens, *bibliog Am Chem Soc J* 69: 2663-6 N '47
- Esters containing phosphorus; diisopropyl fluorophosphonate. B. C. Saunders and G. J. Stacey, *Chem Soc J* p695-9 My '48
- Esters containing phosphorus; esters of substituted phosphonic and phosphonous acids. B. C. Saunders and others, *Chem Soc J* p699-703 My '48
- Esters containing phosphorus; preparation of esters of fluorophosphonic acid by means of phosphorus oxydichlorofluoride. N. B. Chapman and B. C. Saunders, *diag Chem Soc J* p 1010-14 J1 '48
- Esters of (carboxymethylmercapto)-succinic acid. J. F. Mulvaney, J. G. Murphy and R. L. Evans, *Am Chem Soc J* 70:2428-9 J1 '48
- Esters of dithiodiglycolic acid. J. F. Mulvaney, J. G. Murphy and R. L. Evans, *Am Chem Soc J* 70:1069 Mr '48
- Esters of 4-hydroxybenzoic acid and related compounds; ethers of 4-hydroxybenzoic acid and their *n*-alkyl esters. G. W. K. Cavill and N. A. Gibson, *Soc Chem Ind J* 66:274 Ag '47
- Esters of lima bean pod and corn cob hemi-celluloses. J. F. Carson and W. D. Mac-lay, *bibliog Am Chem Soc J* 70:293-5 Ja '48
- Hydrogenation of esters to alcohols at 25-150°. H. Adkins and H. R. Billica, *bibliog Am Chem Soc J* 70:3121-5 S '48
- Hydrogenation of esters to alcohols over Raney nickel. H. Adkins and A. A. Pavlic, *bibliog Am Chem Soc J* 69:3039-41 D '47
- Hydrogenolysis of aromatic esters to alcohols. R. Mozingo and K. Folkers, *bibliog Am Chem Soc J* 70:229-31 Ja '48
- Hydrogenolysis of β -oxygenated esters to glycols. R. Mozingo and K. Folkers, *bibliog Am Chem Soc J* 70:227-9 Ja '48
- Imparting water-repency to textiles by chemical methods; a review of the literature; esters and urethanes. H. A. Schuyten and others, *bibliog Textile Res J* 18:490-2 Ag '48
- Isomeric unsaturated esters; the dehydration of ethyl 3-hydroxy-2-ethyl-3-methylbutanoate. R. C. Huston, G. L. Goerner and H. H. György, *bibliog Am Chem Soc J* 70: 389-91 Ja '48
- Nicotinic acid; miscellaneous esters. C. O. Badgett and C. F. Woodward, *bibliog Am Chem Soc J* 69:2907 N '47
- Physical properties and chemical constitution; aliphatic carboxylic esters. A. I. Vogel, *Chem Soc J* p624-44 My '48
- Piperidine derivatives; esters of substituted 4-piperidines. S. M. McElvain and K. Rorig, *bibliog Am Chem Soc J* 70:1826-8 My '48
- Preparation and cyclization of certain insecticidally active α -acetyl- δ -keto esters. H. Wachs and O. F. Hedenburg, *Am Chem Soc J* 70:2695-7 Ag '48
- Preparation of acetals or ketals from vinyl-type esters. W. J. Croxall, F. J. Glavis and H. T. Neher, *Am Chem Soc J* 70:2805-7 Ag '48
- Preparation of methyl esters. R. O. Clinton and S. C. Laskowski, *Am Chem Soc J* 70: 3135-6 S '48
- Preparation of some polymerizable esters of long-chain saturated aliphatic acids with unsaturated alcohols. D. Swern and E. F. Jordan, jr, *bibliog Am Chem Soc J* 70:2334-9 J1 '48
- Preparation of some polymerizable esters of oleic acid with unsaturated alcohols. D. Swern, G. N. Eilen and H. B. Knight, *bibliog Am Chem Soc J* 69:2439-42 O '47
- Reactions of atoms and free radicals in solution; the addition of bromo esters to olefins. M. S. Kharasch, P. S. Skell and P. Fisher, *bibliog Am Chem Soc J* 70:1055-9 Mr '48
- Reactions of β -keto esters with aromatic amines; syntheses of 2- and 4-hydroxyquinoline derivatives. C. R. Hauser and G. A. Reynolds, *Am Chem Soc J* 70:2402-4 J1 '48
- Rearrangement and substitution in anionotropic systems; test for bimolecular isomerization in α -phenylallyl esters. A. G. Catchpole and E. D. Hughes, *Chem Soc J* p 1-4 Ja '48
- Selective degradation of certain pyrrol polycarboxylic esters. A. H. Corwin and J. L. Straughn, *bibliog Am Chem Soc J* 70:1416-21 Ap '48
- Some amides and esters of fluoroacetic acid. J. C. Bacon and others, *Am Chem Soc J* 70:2653-5 Ag '48
- Study of new approaches to α -halogenated orthoesters. S. M. McElvain and C. L. Stevens, *bibliog Am Chem Soc J* 69:2667-70 N '47
- Synthesis of alkylmalonic esters by oxalate condensations. D. E. Floyd and S. E. Miller, *bibliog Am Chem Soc J* 69:2354-5 O '47
- Synthesis of some β -keto esters. S. B. Soloway and F. B. LaForge, *bibliog Am Chem Soc J* 69:2677-8 N '47
- Synthesis of some long-chain primary alcohols and related compounds. R. G. Jones, *bibliog Am Chem Soc J* 69:2350-4 O '47
- Synthetic estrogens; 3,4-bis-(*m*-methyl-*p*-hydroxyphenyl)-2,4-hexadiene, 3,4-bis-(*m*-methyl-*p*-hydroxyphenyl)-hexane and some of their organic esters. V. Niederl and others, *bibliog Am Chem Soc J* 70:508-11 F '48
- Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. Mac-lay, *Am Chem Soc J* 70:2220-3 Je '48
- Types of reaction of carboxylic esters with Grignard reagents. C. R. Hauser, P. O. Saperstein and J. C. Shivers, *bibliog Am Chem Soc J* 70:606-8 F '48

Analysis

- Colorimetric determination of fatty acids and esters. U. T. Hill, *Anal Chem* 19:932-3 N '47
- Elimination maxima of certain saturated cholesterol esters; analytical molecular distillation. G. L. Fletcher and others, *bibliog Anal Chem* 20:943-6 O '48
- Identification of esters of dibasic acids by the use of ethanalamine. W. H. Rauscher and W. H. Clark, *Am Chem Soc J* 70: 438 Ja '48

ESTIMATES

- How much will the new machine cost? C. Nyberg, *diags Machine Design* 19:101-5 N '47
- Taking the gamble out of rock excavation; suggested form for estimating. E. T. Nettleton, *il Roads & Sts* 91:94-7 Ag '48
- See also
Building—Estimates Die casting—Esti-
Chemical engineering mates
—Estimates Sales estimates

ESTRATRIENOLONE

- Synthesis of 1,3,5-estratrien-3-ol-16-one, a structural isomer of estrone. A. L. Wilds and T. L. Johnson, *bibliog Am Chem Soc J* 70:1166-75 Mr '48

ESTROGENIC activity

- Some naphthalene analogs of desoxycorticosterone. C. C. Price, H. I. Enos, Jr. and W. Kaplan, *bibliog Am Chem Soc J* 69:2261-4 O '47

ESTROGENS

- Bis-dehydrodoisynolic acid. W. S. Johnson and R. P. Graber, *Am Chem Soc J* 70: 2612-13 J1 '48
- Estrogenic substances labeling clarified. Oil Paint & Drug Rep 152:59 N 10 '47
- Interference with estrogen-induced tissue growth in the chick genital tract by a folic acid antagonist. R. Hertz, *bibliog Science* 107:300 Mr 19 '48
- New synthesis of fused ring structures related to the steroids; the 17-equilenones; a total synthesis of equilenin. W. S. Johnson, J. W. Petersen and C. D. Gutsche, *bibliog Am Chem Soc J* 69:2942-55 D '47

ESTROGENS—Continued

- Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds. K. Sisido and H. Nozaki, *bibliog Am Chem Soc J* 70: 776-8 F '48
- Preparation of synthetic estrogens; the synthesis of hexestrol and its homologs. K. Sisido and H. Nozaki, *bibliog Am Chem Soc J* 70:778-9 F '48
- Reaction of hydrazine hydrate on nitro-compounds and a new route to synthetic oestrogens. Huang-Minlon, *bibliog Am Chem Soc J* 70:2802-5 Ag '48
- Synthesis of 3-hydroxy-16-equilenone, a structural isomer of equilenin. A. L. Wilds and W. J. Close, *bibliog Am Chem Soc J* 69: 3079-83 D '47
- Synthetic estrogens; 3,4-bis-(*m*-methyl-*p*-hydroxyphenyl)-2,4-hexadiene, 3,4-bis-(*m*-methyl-*p*-hydroxyphenyl)-hexane and some of their organic esters. V. Niederl and others, *bibliog Am Chem Soc J* 70:508-11 F '48
- Synthetic estrogens; phenyl and benzyl hexestrols and dienestrols. J. B. Niederl and R. M. Silverstein, *Am Chem Soc J* 70:619-20 F '48
- Synthetic estrogens; tetraalkyl substituted analogs of diestrol and hexestrol. J. B. Niederl and P. Weiss, *Am Chem Soc J* 70: 2894-6 S '48
- Synthetic oestrogens of the triphenylethylene series. P. R. Carter and D. H. Hey, *Chem Soc J* p 150-5 F '48

See also

Hexestrol

- Presence of an alcoholic, ketonic derivative of estrone in human and rabbit blood. N. T. Werthessen and others, *bibliog Science* 107:64-6 Ja 16 '48
- Synthesis of 1,3,5-estratrien-3-ol-16-one, a structural isomer of estrone. A. L. Wilds and T. L. Johnson, *bibliog Am Chem Soc J* 70:1166-76 Mr '48
- Synthetic sterols; model experiments employing Hagemann's ester. J. A. Hogg, *bibliog Am Chem Soc J* 70:161-4 Ja '48

ETCHING (metals)

- Etchant for welds. G. H. Boss, *il Metal Prog* 53:372 Mr '48
- Metallographic etchant to reveal temper brittleness in steel. J. B. Cohen and others, *bibliog il Am Soc for Metals Trans* 39:109-36 '47; Abstract, *Iron Age* 158:57-8 N 28 '46; Discussion, *Am Soc for Metals Trans* 39:136-8 '47
- Rapid electropolish and etch. A. De Sy and H. Haemers, *il Metal Prog* 53:368-71 Mr '48
- Thermal etching of metals. R. Shuttleworth, *bibliog il Metallurgia* 38:125-31 JI '48
- Width of crack discoverable by deep etching. R. H. Lauderdale, *il Metal Prog* 52: 830-1 N '47

ETHANE

- Catalytic decomposition of ethane and ethane-hydrogen mixtures. C. Kemball and H. S. Taylor, *diag Am Chem Soc J* 70: 345-51 Ja '48
- Effect of temperature on liquid phase activity coefficients. C. Berg and A. C. McKinnis, *bibliog Ind & Eng Chem* 40:1309-11 JI '48
- Experimental determination of the intensities of infra-red absorption bands; carbon dioxide, methane, and ethane. A. M. Thorndike, *bibliog J Chem Phys* 15:368-74 D '47
- Fluorinated derivatives of ethane and ethylene. A. L. Henne and R. P. Ruh, *Am Chem Soc J* 70:1025 Mr '48
- Magnetic studies on the dissociation and disproportionation of some hexaarylethanes. W. Byerly, H. G. Cutforth and P. W. Selwood, *Am Chem Soc J* 70:1142-3 Mr '48
- Mercury photosensitized reactions of ethane. B. D. Darwent and E. W. R. Steacie, *bibliog J Chem Phys* 16:381-6 Ap '48
- Origin of the potential barrier hindering rotation in ethane and related substances. E. N. Lassetre and L. B. Dean, Jr, *bibliog J Chem Phys* 16:151-2 F '48; Correction, 16:553 My '48
- Reaction of hydrogen atoms with the paraffin hydrocarbons. W. R. Trost and E. W. R. Steacie, *bibliog J Chem Phys* 16:361-4 Ap '48

- Thermal cracking of ethane; German synthetic oil procedure. *Chem Age (Lond)* 58: 747 My 29 '48; Same, *Can Chem & Process Ind* 32:633 JI '48

ETHANOLAMINE

- Bleaching pretreatment with ethanolamine, ozone bleaching; patent, *Am Dyestuff Rep* 37:531 S 29 '48
- Identification of esters of dibasic acids by the use of ethanolamine. W. H. Rauscher and W. H. Clark, *Am Chem Soc J* 70: 438 Ja '48
- Improved design, operating techniques for Girbotol absorption processes. R. M. Reed, *flow diag il Pet Processing* 2:907-12 D '47

ETHERIFICATION

- Esters of 4-hydroxybenzoic acid and related compounds; ethers of 4-hydroxybenzoic acid and their *n*-alkyl esters. G. W. K. Cavill and N. A. Gibson, *Soc Chem Ind J* 66:274 Ag '47

ETHERS

- Aliphatic nitro-compounds; preparation of alkyl 2-nitroalkyl ethers. A. Lambert, C. W. Scaife and A. E. Wilder-Smith, *Chem Soc J* p 1474-7 N '47
- Allyl ethers of carbohydrates; polymerization of allyl ethers. A. N. Wrigley and E. Yanovsky, *bibliog Am Chem Soc J* 70: 2194-6 Je '48
- Cleavage of tetrahydropyran by acid chlorides in the presence of zinc chloride; the preparation of 6-diethylaminopentanol-1. M. E. Synerholm, *bibliog Am Chem Soc J* 69:2581-2 N '47
- Formation of ethers in the preparation of pentaerythritol. S. Wawzonek and D. A. Rees, *bibliog Am Chem Soc J* 70:2433-5 JI '48
- Heats of mixing of some fluorinated ethers with chloroform. J. R. Lacher, J. J. McKinley and J. D. Park, *bibliog Am Chem Soc J* 70:2598-600 JI '48
- Histamine antagonists; alkamine ethers. J. B. Wright, H. G. Koloff and J. H. Hunter, *bibliog Am Chem Soc J* 70:3098-100 S '48
- Hydrogen exchange of phenols and phenol ethers with deuterio-alcohol. P. E. Tryon, W. G. Brown and M. S. Kharasch, *bibliog Am Chem Soc J* 70:2003-5 Je '48
- Partial *para*-migration in the allylic rearrangement of *o*-acetamidophenyl allyl ether and of *o*-aminophenyl allyl ether. B. D. Tiffany, *Am Chem Soc J* 70:592-4 F '48
- Physical properties and chemical constitution; ethers and acetals. A. I. Vogel, *Chem Soc J* p616-24 My '48
- Polyfluoro alkyl ethers and their preparation. J. D. Park and others, *bibliog Am Chem Soc J* 70:1550-2 Ap '48
- Preparation of ethers of triphenylcarbinol from the triphenylcarbonium ion. H. A. Smith and R. J. Smith, *bibliog Am Chem Soc J* 70:2400-1 JI '48
- Space spray toxicity. W. A. Gersdorff and M. S. Schechter, *Soap & San Chem* 24: 155-4 Je '48
- Synthesis and purification of ethers. W. T. Olson and others, *bibliog Am Chem Soc J* 69:2451-4 O '47
- Synthesis of products related to vitamin A; the synthesis of biologically active vitamin A ethers. N. A. Milas and others, *bibliog Am Chem Soc J* 70:1597-607 Ap '48
- Synthesis of products related to vitamin A; the synthesis of [1-(2',6',6'-trimethylcyclohexen-1'-yl)-3,7-dimethyldeca-1,3,5,7-tetraenyl]-10-ethyl ether. N. A. Milas and others, *bibliog Am Chem Soc J* 70:1591-6 Ap '48

See also

Ethyl ether**ETHICS**

- Business and ethics. W. A. Orton, *Fortune* 38:118-20+ O '48

See also

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| Accounting ethics | Legal ethics |
| Advertising ethics | Medical ethics |
| Business ethics | Newspaper ethics |
| Engineering ethics | |

ETHIOPIA

See also

- Petroleum industry and trade—
Ethiopia

ETHOXY silicon isocyanates

Phenyl and ethoxy silicon isocyanates. G. S. Forbes and H. H. Anderson. *Am Chem Soc J* 70:1043-4 Mr '48

ETHYL acetamidoacetate

Ethyl acetamidoacetate. R. H. Wiley and O. H. Borum. *Am Chem Soc J* 70:1666 Ap '48

Preparation and some reactions of ethyl α -acetamidoacetate. N. F. Albertson and others. *bibliog Am Chem Soc J* 70:1150-3 Mr '48

ETHYL acetamidomalonalate

1,4-Addition reactions; the addition of acyl-amidomalonalates to acrolein. O. A. Moe and D. T. Warner. *Am Chem Soc J* 70:2763-5 Ag '48

ETHYL acetoacetate

Ethyl acetoacetate 4-nitrophenylhydrazones and 1-(4'-nitrophenyl)-3-methylpyrazolones. W. C. Sumpter and F. H. Wilken. *Am Chem Soc J* 70:1980-1 My '48

ETHYL acetylpyriduric acid

Cyclic acetals related to ethylacetylpyriduric acid. C. D. Hurd and M. L. McAuley. *Am Chem Soc J* 70:1650-2 Ap '48

ETHYL acetoxyacetate

Reaction of benzyl bromide with ethyl α -acetoxyacetate. N. Green and F. B. LaForge. *Am Chem Soc J* 70:2812-13 Ag '48

ETHYL acetylene. See Butyne**ETHYL acrylate**

Vulcanization of chlorine-containing acrylic elastomers. W. C. Mast and C. H. Fisher. *bibliog Ind & Eng Chem* 40:107-12 Ja '48

ETHYL alcohol. See Alcohol**ETHYL benzene**

Absolute absorption intensities of alkylbenzenes in the 2250-1700 Å region. J. R. Platt and H. B. Kleven. *bibliog Chem R* 41:301-10 O '47

Alkylbenzenes in the C₈ fraction from five different catalytic petroleum refining processes. A. J. Streif and F. D. Rossini. *bibliog J Res Nat Bur Stand* 53:303-8 O '47

Catalytic dehydrogenation of ethylbenzene. R. R. Wenner and E. C. Dybdal. *bibliog diags Chem Eng Prog* 44:275-86 Ap '48

Catalytic ethylation of benzene with ethanol in the gaseous phase. N. M. Cullinane, S. J. Chard and R. Meatyrd. *bibliog Soc Chem Ind J* 67:232 Je '48

Catalytic synthesis of thianaphthene from ethylbenzene. C. Hansch and F. Hawthorne. *Am Chem Soc J* 70:2495-6 Ji '48

o-Methoxy-, *p*-benzyl-, *o*-fluoro, and *o*-cyano-styrenes; further examples of the disproportionation of phenylmethylcarbidis to ethylbenzenes. C. S. Marvel and D. W. Hein. *bibliog Am Chem Soc J* 70:1895-8 My '48

Near-ultraviolet absorption spectra of monoalkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. *bibliog Chem R* 41:273-9 O '47

Relative rates of propylation of monoalkylbenzenes. F. E. Condon. *bibliog Am Chem Soc J* 70:2265-7 Je '48

Some catalysed gas-phase reactions of aromatic hydrocarbons; the interaction of benzene and ethylene. D. L. Hammick and M. Roberts. *Chem Soc J* p73-6 Ja '48

ETHYL benzenesulfonate

Electrodeposition of lead from the ethylbenzenesulfonate bath. F. C. Mathers and J. F. Suttle. *Electrochem Soc J* 93:47-8 F '48

Kinetic study of alkylation by ethyl arylsulfonates. M. S. Morgan and L. H. Crechter. *bibliog Am Chem Soc J* 70:375-8 Ja '48

ETHYL butadiene

Preparation of 2-alkylbutadienes. C. S. Marvel, R. L. Myers and J. H. Saunders. *bibliog Am Chem Soc J* 70:1694-9 My '48

ETHYLBUTYL ketone. See Heptanone**ETHYL cellulose**

Cellulosic plastics; properties, applications, etc. M. Bentivoglio and M. Demarest. *il diags reference book sheet*(p 153, 155) *Product Eng* 19:85-91 My '48

Ethyl cellulose for tool handles. *il Mod Plastics* 25:117 Ap '48

It had to be tough! ethyl cellulose as a molding material. *il Mod Plastics* 25:91-7 D '47

Looking toward 1948; raw materials. *Mod Plastics* 25:63-4 Ja '48

Scrap reprocessed under new service plan; Celanese corp. *Mod Plastics* 25:111 N '47

Sound recorded on ethyl cellulose; Memobelt used in Time-Master dictating machine. *il Mod Plastics* 25:272-3 S '48

Vacuum cleaner features ethyl parts. *il Plastics* 8:20-1, 40 Ji '48

ETHYL centralite

Rapid determination of nitroglycerin and ethyl centralite in rocket propellant powder. I. S. Hirschhorn. *bibliog Anal Chem* 19:880-2 N '47

ETHYL chloride

Catalytic action of salt pairs. G. Schwab and A. Karatzas. *bibliog diag J Phys & Colloid Chem* 52:1053-60 Je '48

Entropy of ethyl chloride; heat capacity from 13 to 287° K; vapor pressure; heats of fusion and vaporization. J. Gordon and W. F. Giaque. *bibliog Am Chem Soc J* 70:1506-10 Ap '48

Heats of adsorption; ethyl chloride on graphite. C. Pierce and R. N. Smith. *bibliog J Phys & Colloid Chem* 52:1111-15 O '48

Heats of adsorption; water, ammonia, ethyl chloride on graphite. R. N. Smith and C. Pierce. *bibliog J Phys & Colloid Chem* 52:1115-28 O '48

Manufacture of ethyl antiknock compound. C. C. Vogel. *J Chem Educ* 25:55-7 Ja '48

Open bottling of ethyl chloride. *Chem Ind* 61:1050 D '47

Power without fuel; ethyl chloride and natural steam plants on island of Ischia in Bay of Naples. J. A. C. Pennycook. *il Electrician* 140:117-18 Ja 9 '48; *Excerpt, Chem Age* (Lond) 58:114 Ja 17 '48

ETHYL chloromethylpyrrolidine

Ring enlargement by rearrangement of the 1,2-aminochloroalkyl group rearrangement of 1-ethyl-2-chloromethylpyrrolidine to 1-ethyl-3-chloropiperidine. R. C. Fuson and C. L. Zirkle. *bibliog Am Chem Soc J* 70:2760-2 Ag '48

ETHYL cinnamate

Kinetics of halogen addition to unsaturated compounds; iodine catalysis of chlorine and bromine addition to ethyl cinnamate. H. D. C. Waters, A. R. Caverhill and P. W. Robertson. *Chem Soc J* p 1168-72 S '47

ETHYL cyanide. See Propionitrile**ETHYL cyanoacetate**

Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylamino-methylpyrrole; proposed synthesis of 8-2-pyrroleaniline. W. Herz, K. Dittmer and S. J. Cristol. *bibliog Am Chem Soc J* 70:504-7 F '48

Synthesis of 2-iminobiphenyls from ethyl cyanoacetate and alkene sulfides. H. R. Snyder and W. Alexander. *bibliog Am Chem Soc J* 70:217-18 Ja '48

ETHYL cyanoformate

Novel synthesis of substituted phenylglyoxylic acids. I. M. Hunsberger and E. D. Amstutz. *Am Chem Soc J* 70:671-4 F '48

ETHYL cyclohexane

Thermodynamic properties and molecular structure of cyclohexane, methylcyclohexane, ethylcyclohexane and the seven dimethylcyclohexanes. C. W. Beckett, K. S. Pitzer and R. Spitzer. *bibliog il Am Chem Soc J* 69:2488-95 O '47

ETHYL ether**Analysis**

Determination of small amounts of ethyl ether in ethyl alcohol. W. E. Shaefer. *Anal Chem* 20:651-2 Ji '48

ETHYL ethoxymethylenemalonate

Preparation of 4-hydroxyquinoline derivatives from aromatic amines and ethyl ethoxymethylenemalonate. G. F. Duffin and J. D. Kendall. *Chem Soc J* p893-4 Je '48

ETHYL fluoroacetate

Making 1080 safe; case study in safe manufacture and distribution of a hazardous chemical. R. L. Jenkins and H. C. Koehler. *il Chem Ind* 62:232-5 F '48

ETHYL formate

Condensations of unsymmetrical ketones; competition between methylene groups. R. P. Mariella and V. Kvinge, *Am Chem Soc J* 70:3126-8 S '48

Condensations of unsymmetrical ketones; condensations with ethyl formate. R. P. Mariella, *bibliog Am Chem Soc J* 69:2670-2 N '47

ETHYL hydroxyethylmethylbutyrate

Isomeric unsaturated esters; the dehydration of ethyl 3-hydroxy-2-ethyl-3-methylbutanoate. R. C. Huston, G. L. Goerner and H. H. György, *bibliog Am Chem Soc J* 70:339-91 Ja '48

ETHYL magnesium bromide

Aliphatic nitro-compounds; reaction of nitro-paraffins with ethylmagnesium bromide. G. D. Buckley, *Chem Soc J* p 1492-4 N '47

ETHYL malonate

Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylamino-methylpyrrole; proposed synthesis of β -2-pyrroleaniline. W. Herz, K. Dittmer and S. J. Cristol, *bibliog Am Chem Soc J* 70:504-7 F '48

ETHYL methylbenzene. See Ethyl toluene**ETHYL methyl ketone**. See Butanone**ETHYL oxalate**

Reaction of *t*-butylmagnesium chloride with ethyl oxalate. G. F. Hennion and C. F. Raley, *Am Chem Soc J* 70:865-6 F '48

ETHYL pentachlorobenzene

Pentachlorophenyl derivatives; bromination of ethylpentachlorobenzene. S. D. Ross, M. Markarian and M. Nazzewski, *bibliog Am Chem Soc J* 69:2468-70 O '47

ETHYL phosphates

Alcoholysis of ethyl phosphate; the preparation of mixed ethyl butyl phosphates. W. H. C. Rueggeberg and J. Chernaack, *bibliog Am Chem Soc J* 70:1802-4 My '48

ETHYL phthalimidomalonate

1,4-Addition reactions; the addition of acylamidomalonates to acrolein. O. A. Moe and D. T. Warner, *Am Chem Soc J* 70:2763-5 Ag '48

ETHYL pyridine

2-Ethylpyridine and derivatives. E. C. Gregg, Jr. and D. Craig, *Am Chem Soc J* 70:3138 S '48

ETHYL silicates

Ethyl silicates. H. D. Cogan and C. A. Setterstrom, *bibliog (42 ref) Il Ind & Eng Chem* 39:1364-8 N '47

ETHYL thioacetate

Kinetics of the hydrolysis of ethyl thioacetate in aqueous acetone. J. R. Schaefgen, *Am Chem Soc J* 70:1308-11 Ap '48

ETHYL toluene

Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and *m*-xylene by dehydrogenation of corresponding cyclohexene intermediates. T. W. Reynolds and others, *bibliog Ind & Eng Chem* 40:1751-2 S '48

ETHYL trimethylsilylacetate

Synthesis and cleavage of ethyl trimethylsilylacetate. J. R. Gold, L. H. Sommer and F. C. Whitmore, *bibliog Am Chem Soc J* 70:2874-6 S '48

ETHYL vinyl ketone

Preparation and properties of ethyl vinyl ketone and of methyl isopropenyl ketone. E. M. McMahon and others, *bibliog diag Am Chem Soc J* 70:2971-7 S '48

ETHYLATION

Catalytic ethylation of benzene with ethanol in the gaseous phase. N. M. Cullinane, S. J. Chard and R. Meatyard, *bibliog Soc Chem Ind J* 67:232 Je '48

ETHYLENE

Alcohol from ethylene. E. K. Burger, *Chem Eng Prog* 44:sup 15 Ja '48

Chemical products of coal carbonisation; possible yields of acetylene and ethylene. J. R. Campbell, *Chem Age (Lond)* 58:12-14 Ja '48; Discussion, 58:367-8 Mr 13 '48

β , β -Diarylacrylic acids; a new synthesis of triarylethylenes. F. Bergmann, E. Dimant and H. Japhé, *bibliog Am Chem Soc J* 70:1618-20 Ap '48

β , β -Diarylacrylic acids; synthesis and properties of symmetrical and unsymmetrical β , β -diarylacrylic acids. F. Bergmann and others, *bibliog Am Chem Soc J* 70:1612-17 Ap '48

Electronic transitions in the simple unsaturated hydrocarbons. E. P. Carr, *bibliog Chem R* 41:293-9 O '47

Ethylene self-quenching G-M counters. K. H. Morganstern and others, *Phys R* 74:499-500 Ag 15 '48

Fluorinated derivatives of ethane and ethylene. A. L. Henne and R. P. Ruh, *Am Chem Soc J* 70:1025 Mr '48

Free radical-initiated reaction of ethylene with carbon tetrachloride. R. M. Joyce, W. E. Hanford and J. Harmon, *bibliog Am Chem Soc J* 70:2529-32 Jl '48

Heat and free energy of polymerization of ethylene. R. S. Jessup, *bibliog J Chem Phys* 16:661-4 Jl '48

Influence of substituents on the course of addition of maleic anhydride to diarylethylenes. F. Bergmann and J. Szmuszkowicz, *bibliog Am Chem Soc J* 70:2748-52 Ag '48

Liquid-vapor equilibrium relations in binary systems; ethylene-*n*-heptane system. W. E. Kay, *bibliog Ind & Eng Chem* 40:1459-64 Ag '48

Manufacture of ethanol from ethylene. R. S. Aries, *il diag Can Chem & Process Ind* 31:1004-7 N '47; Same, *Oil & Gas J* 46:108-10+ Mr 18 '48; Same, *Pet Refiner* 27:124-8 Ap '48

Mercury (^{201} Pb) photo-sensitized hydrogenation of ethylene. D. J. LeRoy and A. Kahn, *bibliog J Chem Phys* 15:816-19 N '47

Mercury photo-sensitized reactions of ethylene. G. A. Allen and H. E. Gunning, *J Chem Phys* 16:634-5 Je '48

α -Methylene reactivity in olefinic systems; the Diels reaction with ethylene and α -methylstyrene. J. W. Baker, *Chem Soc J* p89-93 Ja '48

Mixed crystal formation in linear copolyesters. C. S. Fuller, *Il Am Chem Soc J* 70:421-3 Ja '48

Reactions of furan compounds; dehydration of tetrahydrofurfuryl alcohol to 2,3-dihydropyran and subsequent formation of acrolein and ethylene. C. L. Wilson, *bibliog Am Chem Soc J* 69:3004-6 D '47

Reduction of acetylene to ethylene by chromous chloride. W. E. Barker and D. J. Kennedy, *bibliog diags Electrochem Soc Trans* 92 (preprint 20):231-40 '47

Simple expressions for the heat capacities of gases. B. L. Crawford, Jr. and R. G. Parr, *J Chem Phys* 16:233-6 Mr '48

Some catalysed gas-phase reactions of aromatic hydrocarbons; the interaction of benzene and ethylene. D. L. Hammick and M. Roberts, *Chem Soc J* p73-6 Ja '48

Some catalytic hydrogen exchange reactions of hydrocarbons. J. Aman, L. Farkas and A. Farkas, *bibliog diags Am Chem Soc J* 70:727-32 F '48

Structure and properties of ethylene polymers. R. B. Richards, *bibliog diags Inst Pet J* 34:237-46; Discussion, 246-54 Ap '48

Theory of ethylene. R. H. Busch, *bibliog J Chem Phys* 16:1004 O '48

Triplet state of ethylene. D. P. Craig, *J Chem Phys* 16:158 F '48

Twisting frequency and the barrier height for free rotation in ethylene. R. S. Mulliken and C. C. J. Roothaan, *bibliog Chem R* 41:219-31 O '47

Vapor pressure, specific volumes, and *p-v-T* data for H₂O, NH₃, CH₄, C₂H₄ with comments on mixtures. F. G. Keyes, *bibliog A S M E Trans* 70:641-4 Ag '48

See also

Polyethylene

Manufacture

Chemicals from petroleum. E. R. Smoley and others, *bibliog il diag Pet Refiner* 26:136-40 N '47

Design details, operating results of first commercial Hypersorber. W. E. Bland, *flow diag il diag Pet Processing* 3:635-8 Jl '48

Ethylene process; Stone & Webster engineering corp. flow sheet Pet Refiner (Process Handbook ed) 27:350-1 sec 2 S '48

ETHYLENE—Manufacture—Continued

- Ethylene recovery; commercial hypersorption operation. H. Kehde and others. flow diag 11 diag Chem Eng Prog 44:575-81 Ag '48; Excerpts. Chem Eng 55:280+ My; 264+ Je '48; Abstract. Pet Processing 3:537 Je '48; Discussion. Chem Eng Prog 44:581-2 Ag '48
- McCarthy unveils; will spend \$15 million at Winnie, Texas, to produce formaldehyde, acetaldehyde, ethylene and benzene. map Chem Ind 62:220-1 F '48
- New process for the recovery of ethylene from coke oven gas. P. M. Schuftan. bibliog flow diag 11 Chem & Ind p99-104 F 14 '48
- Thermal cracking of ethane; German synthetic oil procedure. Chem Age (Lond) 58: 747 My 29 '48; Same. Can Chem & Process Ind 32:633 J1 '48
- Thermoform pyrolytic cracking. S. C. Eastwood and A. E. Potas. diag Oil & Gas J 47:104-5+ Ag 26 '48; Same. Pet Eng 19:43-6 Ag '48; Same. Pet Processing 3:837+ S '48; Same. Pet Refiner (Process Handbook ed) 27:96-8 S '48; Abstract. Chem Eng 55:113 S '48

ETHYLENE bromide

- Commercial chemical development; gearing to sales; Dow chemical co. development of ethylene dibromide. D. K. Ballman. Chem & Eng N 26:348-50 Mr 22 '48
- Gas heat capacity and internal rotation in 1,2-dichloroethane and 1,2-dibromoethane. W. D. Gwinn and K. S. Pitzer. bibliog J Chem Phys 16:303-9 Ap '48
- Molecular-weight determinations of non-volatile substances based on the evaporation velocities of their solutions. A. Schönberg and M. Z. Barakat. diags J Phys & Colloid Chem 52:1074-81 Je '48
- Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Calingaert and H. Shapiro. bibliog 11 Ind & Eng Chem 40:332-5 F '48

ETHYLENE chloride

- Dissociation constants of some substituted phenyltrimethylammonium perchlorates in ethylene chloride; effect of ion asymmetry. J. B. Ramsey and E. L. Colichman. bibliog Am Chem Soc J 69:3041-5 D '47
- Gas heat capacity and internal rotation in 1,2-dichloroethane and 1,2-dibromoethane. W. D. Gwinn and K. S. Pitzer. bibliog J Chem Phys 16:303-9 Ap '48
- Organic reactions with aluminum chloride; the action of aluminum chloride upon ethylene chloride. K. Sisido and Y. Yosikawa. bibliog Am Chem Soc J 70:1608-9 Ap '48
- Polarization of Raman lines of *s*-dichloroethane. J. T. Neu and others. J Chem Phys 16:1004-5 O '48
- Properties of electrolytic solutions; conductance of some long chain salts in ethylene chloride and nitrobenzene at 25°. H. E. Weaver and C. A. Kraus. bibliog Am Chem Soc J 70:1707-9 My '48
- Solubility of tetraethylammonium iodide in benzene-ethylene dichloride mixtures. A. A. Vernon and J. L. Sheard. Am Chem Soc J 70:2055-6 Je '48

ETHYLENE chlorohydrin

- Kinetics of the reaction between ethylene chlorohydrin and hydroxyl or alkoxyl ions in mixed solvents. J. E. Stevens, C. L. McCabe and J. C. Warner. bibliog Am Chem Soc J 70:2449-52 J1 '48
- Studies in selective extraction and adsorption; selective solvents for ethylene chlorohydrin. C. Weizmann and others. bibliog Soc Chem Ind J 67:203-5 My '48
- Studies in selective extraction and adsorption; the isolation of ethylene chlorohydrin by adsorption. M. Sulzbacher and R. Pariser. Soc Chem Ind J 67:205-6 My '48

ETHYLENE compounds

- Physical properties and chemical constitution; ethylenic compounds. G. H. Jeffery and A. I. Vogel. Chem Soc J p658-73 My '48

ETHYLENEDIAMINE

- Nitrogen analogs of hexestrol; the synthesis of *N,N'*-dimethyl- α,α' -bis-(4-hydroxyphenyl)-ethylenediamine and derivatives. J. B. Niederl and M. I. Dexter. Am Chem Soc J 70:3071-3 S '48

- Polyamide resins from dilinoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. bibliog Am Chem Soc J 70:760-3 F '48

- Potentiometric titration of weak acids in anhydrous ethylenediamine. M. L. Moss, J. H. Elliott and R. T. Hall. bibliog diags Anal Chem 20:784-8 S '48

- Stereochemistry of complex inorganic compounds; configurations of some compounds as revealed by rotatory dispersion curves. T. D. O'Brien, J. F. McKeaynolds and J. C. Bailar, jr. bibliog Am Chem Soc J 70:749-55 F '48

- Stereochemistry of complex inorganic compounds; the diastereoisomers of *deoxo*-tartrato-*bis*-ethylenediamine cobaltic ion. H. B. Jonassen, J. C. Bailar, jr. and E. H. Huffman. bibliog Am Chem Soc J 70:756-8 F '48

- Synthesis of ethylene urea (imidazolidone-2); development of processes. J. F. Mulvaney and R. L. Evans. bibliog flow sheets Ind & Eng Chem 40:393-7 Mr '48

- Thermal decomposition of pentaerythritol tetrarnitrate, nitroglycerin, ethylenediamine dinitrate and ammonium nitrate. A. J. B. Robertson. bibliog Soc Chem Ind J 67:221-4 Je '48

ETHYLENEDIAMINE tartrate

- Compressional piezoelectric coefficients of monoclinic crystals. H. Jaffe. Phys R 73: 1467 Je 15 '48

- Crystallographic data. bibliog 11 diags Anal Chem 20:491-2 My '48

- Cultured crystals. 11 Tech R 50:89-90 D '47

ETHYLENE glycol. See Glycol**ETHYLENE imine. See Ethylenimine****ETHYLENE oxide**

- Electric moments and ultraviolet absorption spectra of some derivatives of cyclopropane and of ethylene oxide. M. T. Rogers. bibliog Am Chem Soc J 69:2544-8 O '47

- Glycol output shoots skyward. Chem Ind 62: 381-2 Mr '48

- In situ study of the thermal decomposition of ethylene oxide by infra-red spectrometry. G. L. Simard and others. J Chem Phys 16:836 Ag '48

- Mercury photosensitized reactions of ethylene oxide. M. K. Phibbs and others. bibliog J Chem Phys 16:33-44 Ja '48

- Metallation studies in the thiophene series; condensation of thienyl- and substituted thienyl-sodium compounds with ethylene oxide. J. W. Schick and H. D. Hartough. bibliog Am Chem Soc J 70:1646-7 Ap '48

- Preliminary analysis of the microwave spectrum of ethylene oxide. R. G. Shulman and others. Phys R 74:846 O 1 '48

- Reaction of hydrogen atoms with some oxygen-containing organic compounds. W. R. Trost and others. bibliog J Chem Phys 16: 353-7 Ap '48

- Vapor-phase hydration of ethylene oxide; silver oxide catalyst. E. R. Cartmell and others. bibliog flow diag Ind & Eng Chem 40:389-92 Mr '48

Manufacture

- Jefferson chemical company plant layout. G. W. Alexander. 11 maps Pet Refiner 27:87-92 My '48

- Jefferson Chemical enters petrochemicals field. J. V. Hightower. 11 Chem Eng 55: 112-13 Ap '48

- Jefferson Chemical plant now under full operation at Port Neches. 11 Oil & Gas J 47: 100+ My 6 '48; Pet Eng 19:231+ My '48

- Petroleum chemicals from Neches; Jefferson chemical co. 11 Chem Ind 62:569-70 Ap '48

ETHYLENE sulfide

- Synthesis of 2-iminothiophanes from ethyl cyanoacetate and alkene sulfides. H. R. Snyder and W. Alexander. bibliog Am Chem Soc J 70:217-18 Ja '48

ETHYLENE thiourea

- Ethylenethiourea. Chem & Eng N 26:887 Mr 22 '48

ETHYLENE urea.

- Synthesis of ethylene urea (imidazolidone-2); development of processes. J. F. Mulvaney and R. L. Evans. bibliog flow sheets Ind & Eng Chem 40:393-7 Mr '48

ETHYLENIMINE

Acute toxicity of ethylene imine to small animals. C. P. Carpenter and others. *bibliog J Ind Hygiene* 30:2-6 Ja '48
Comparison of acute toxicities of ethylene imine and ammonia to mice. S. D. Silver and F. P. McGrath. *bibliog J Ind Hygiene* 30:7-9 Ja '48

Manufacture and use of polyethylenimine in Germany. *Mod Plastics* 26:130-+ N '48
Reactions of ethylenimines; with ammonia and amines. L. B. Clapp. *bibliog Am Chem Soc J* 70:184-6 Ja '48

ETHYNYLATION

Acetylene chemistry. W. E. Hanford and D. L. Fuller. *bibliog flow sheet diag Ind & Eng Chem* 40:1171-7 J1 '48

ETHYNYLCARBINOOLS

Action of formic acid on ethynylcarbinols. J. D. Chanley. *bibliog Am Chem Soc J* 70:244-7 Ja '48

Researches on acetylenic compounds; the preparation of conjugated diacetylenic glycols by the oxidative coupling of various types of ethynylcarbinols. K. Bowden and others. *Chem Soc J p* 1579-83 D '47

ETHYNYL ketones

Reaction of $\alpha\beta$ -ethynyl ketones with active methyl and methylene compounds. A. W. Johnson. *Chem Soc J p* 1626-31 D '47

ETIOCHOLENIC acid

Preparation of desoxycorticosterone acetate from 3-keto- Δ^4 -etiocholenic acid. A. L. Wilds and C. H. Shunk. *Am Chem Soc J* 70:2427-8 J1 '48

ETIQUET**Bibliography**

Bibliography of etiquette books published in America before 1900. M. R. Bobbitt. comp. 35p. pa. 35c. New York public lib, 5th av & 42d st, New York '47

EUREKA Williams corporation

Eureka Williams. *il Fortune* 36:108-13+ D '47

EUROPE

Beginning of leadership; with paintings of Europe by Henry Koerner. *Fortune* 36:77-9 D '47

Wreck of Europe. E. Lengyel. *Ann Am Acad* 257:13-22 My '48

See also

Cooperation—Europe	Petroleum supply—Europe
Fuel supply—Europe	Roads—Europe
Mining industry and finance—Europe	Rubber industry and trade—Europe
Petroleum industry and trade—Europe	

Commerce

Brussels agreement; Cripps' currency scheme, a study in futility. P. Einzig. *Comm & Fin Chr* 167:2208 My 20 '48

Current trends in foreign trade policies; review of 1947; Europe and the occupied areas. H. Chalmers. *For Comm W* 30:6-9+ F 14 '48

ECA apportionment and intra-European clearing. J. H. Richter. *Comm & Fin Chr* 168:1000+ S 9 '48

ECA European payments plan. R. M. Bissell, jr. *Comm & Fin Chr* 168:512+ Ag 5 '48

ECA sacrifices goal to avert trade collapse. R. M. Bleiberg. *Barron's* 28:7 O 4 '48

European countries participating in the European recovery program; estimated distribution of trade with the United States, western Europe, eastern Europe, and all other areas 1938, 1946, and January-June 1947; tabulation. *For Comm W* 30:4 Mr 27 '48

European payments agreements, multilateral compensation and the European recovery program; report of Bank for international settlements. *Fed Res Bul* 34:1232-7 O '48

European payments scheme; trade rules for Europe. *Economist* 155:677-8 O 23 '48

European trade and payments. *Economist* 154:1027-9 Je 19 '48

Intra-European exchange of products shows encouraging upswing. *For Comm W* 33:8 O 30 '48

Keynes clearing plan for western Europe; to settle international balances. P. Einzig. *Comm & Fin Chr* 167:1999 My 6 '48

Marshall plan and world trade; groundwork for real recovery. T. C. Blaisdell, jr. *For Comm W* 33:3-5+ O 16 '48

Official of International monetary fund outlines steps toward currency stabilization and multilateral payments in Europe. *Comm & Fin Chr* 168:105+ J1 8 '48

Possibilities of restoring Europe's international balance. *il For Comm W* 32:3-9 J1 24 '48

Relations of individual western European countries with the western hemisphere; with data showing estimated current account deficits and projected imports, April 1948-June 1949. *Fed Res Bul* 34:148-51 F '48

Schemes for restoring intra-European trade. E. H. Weinwurm. *Comm & Fin Chr* 168:803+ Ag 26 '48

Steps toward easing European intra-continental exchange; multilateral monetary compensation agreement. E. H. Weinwurm. *Comm & Fin Chr* 167:1431+ Ap 1 '48

Trade between East and West. *Economist* 155:446-7 S 18 '48

Trade through the iron curtain. *Economist* 155:661 O 23 '48

United States balance of payments with ERP countries; estimates for 1947 and the first program year. *Survey of Cur Bsns* 28:5-7 My '48

U.S. exports to eastern Europe; quarterly report by Secretary of commerce. C. Sawyer. *Comm & Fin Chr* 168:811+ Ag 26 '48

Western European currency union? P. Einzig. *Comm & Fin Chr* 167:1434 Ap 1 '48

Commercial policy

Trade policy for Europe; problems created by ITO charter. *Economist* 154:212-13 F 7 '48

Economic conditions

Across the iron curtain. *Economist* 155:134-5 J1 24 '48

Economic means to peace; increased productivity of European industries without restrictive trade barriers. R. M. Bissell, jr. *il Tech R* 50:499-500+ J1 '48

Europe can be put on self sustaining basis. C. Gutt. *Comm & Fin Chr* 166:2481+ D 18 '47

Europe on the eve of ERP. V. L. Horoth. *il Mag of Wall St* 32:123-5+ My 8 '48

European shopping list; Paris report. H. Bratter. *Banking* 40:38-9+ N '47

Inflation in Europe. W. W. Aldrich. *Comm & Fin Chr* 167:1309+ Mr 25 '48

Recovery after two wars. *Fortune* 37:3 Je '48

Recovery in western Europe. *Fed Res Bul* 34:133-47 F '48

Recovery of Europe; E.C.E. report summarized. *il maps Sci Am* 179:9-15 J1 '48

Reed of Mergenthaler linotype co. tells Europe's plight. *Ed & Pub* 81:9 S 11 '48

Some economic aspects of the international situation. R. L. Garner. *Comm & Fin Chr* 167:1540+ Ap 8 '48

World and the dollar. *Economist* 154:1051-2; 155:4-5, 44-6 Je 26-J1 10 '48

See also

Cooperative for American remittances to Europe

Reconstruction

(World war, 1939-1945)—Marshall plan

Economic policy

As Romney sees Europe; interview with G. Romney. L. Westrate. *Automotive Ind* 97:29+ D 15 '47

Economy of Europe; problems facing Economic commission for Europe at Geneva. *Economist* 154:620-1 Ap 17 '48

Western Europe's attack on inflation. F. H. Klapstock. *Harvard Bsns R* 26:597-612 S '48

Industries and resources

Bottlenecks in European industry; situation early in 1948. *For Comm W* 32:4-6+ Ag 14 '48

European recovery; scope for industrial co-operation. *Economist* 155:543-4, 589-91, 634-6, 674-6, 715-16 O 2-30 '48

How rich is the eastern bloc? *Economist* 154:404-6 Mr 13 '48

Politics and government

Eastern Europe since Truman. *Economist* 153:950-1 D 13 '47

How strong is the eastern bloc. map *Economist* 154:363-4 Mr 6 '48

EUROPE—Politics and government—*Cont.*

What is the Bevin plan? union of western Europe, *Economist* 154:169-70 Ja 31 '48

See also

United States of Europe (proposed)

EUROPEAN cooperation administration

ECA press subsidy called lie. *Ed & Pub* 81:8 Je 5 '48

EUROPEAN economic cooperation, Committee of. *See* Committee of European economic cooperation**EUROPEAN war, 1914-1918****Peace**

Settlements of World wars I and II compared. T. V. Kalijarvi. *bibliog Ann Am Acad* 257:194-202 My '48

EUROPIUM

Beta-ray spectra of europium and tungsten. F. B. Shull. *diags Phys R* 74:917-25 O 15 '48

Effect of activator concentration on the infrared-sensitive phosphor, strontium sulfide-samarium, europium. K. F. Stripp and R. Ward. *diags Am Chem Soc J* 70:401-6 Ja '48

Radioactive europium, gadolinium, and terbium. N. L. Krisberg and others. *bibliog Phys R* 74:44-7 J 1 '48

Analysis

Quantitative spectrographic analysis of the rare earth elements; determination of samarium in neodymium; determination of europium in samarium. V. A. Fassel and H. A. Wilhelm. *bibliog diag Opt Soc Am J* 38:518-26 Je '48

Isotopes

Coincidences between beta-rays and conversion electrons in europium. K. Y. Chu and M. L. Wiedenbeck. *Phys R* 74:494 Ag 15 '48

Gamma-radiation from europium. J. M. Cork and others. *Phys R* 73:78 Ja 1 '48

Internally converted radiation from europium, hafnium, and osmium. J. M. Cork and others. *il Phys R* 72:1209-11 D 15 '47

Isotopic constitution of europium, gadolinium, and terbium. D. C. Hess, jr. *bibliog diag Phys R* 74:773-8 O 1 '48

EVANS, Earl Alison, 1910-

Mission on science and technology. *por(cover) Chem & Eng N* 25:3638 D 3 '47

EVANS, Evan, 1895-

Sketch. *por Explosives Eng* 26:100-1 J 1 '48

EVANS, John Clarence

Sketch. C. Axman. *por East Underw* 48:55 D 19 '47

EVANS, Raymond F. 1908-

Sketch. *por(cover) Bsns W* p6 Ap 3 '48

EVANS, Walker

Freeheeling cameraman. *por Fortune* 37:32 My '48

EVAPORATION

Continuous process vacuum evaporation plant. *il J Sci Instr* 25:89 Mr '48

Distillery mash cooled by evaporation. *il Comp Air Mag* 53:34-5 F '48

Electron microscope study of gold smoke deposits. L. Harris and others. *il J Ap Phys* 19:791-4 Ag '48

Evaporation. W. L. Badger and R. A. Lindsay. *bibliog Ind & Eng Chem* 40:22-5 Ja '48

Maximum possible rate of evaporation of liquids. S. S. Penner. *bibliog J Phys & Colloid Chem* 52:387-73 F '48

Melting and evaporation as rate processes. S. S. Penner. *bibliog J Phys & Colloid Chem* 52:949-54, 1262-3 Je, O '48

Metal coatings by high vacuum evaporation. P. Godley. *il diag Iron Age* 161:90-4 Ap 1 '48

Method for the evaporation of alloys. L. Harris and B. M. Siegel. *il diag J Ap Phys* 19:739-41 Ag '48

Molecular-weight determination of non-volatile substances based on the evaporation velocities of their solutions. A. Schöenberg and M. Z. Barakat. *diags J Phys & Colloid Chem* 52:1074-81 Je '48

Preparation and optical properties of gold blacks. L. Harris and others. *bibliog diag Opt Soc Am J* 38:582-9 J 1 '48

Preparation of aspherical refracting optical surfaces by an evaporation technique. L. G. Schulz. *bibliog il diags Opt Soc Am J* 38:432-41 My '48

Rate of evaporation of liquid hydrogen due to the ortho-para hydrogen conversion. A. H. Larsen and others. *bibliog diag R Sci Instr* 19:266-9 Ap '48

Solar radiation absorption by wetted roofs. W. R. Woolrich and W. M. Rice. *il Heat & Ven* 45:84-7 Ja '48

See also

Crystallization
Sublimation

EVAPORATORS

Evaporation. W. L. Badger and R. A. Lindsay. *bibliog Ind & Eng Chem* 40:22-5 Ja '48

Heat transfer rates to evaporating Freon-12 in a horizontal tube evaporator. W. F. Witzig and others. *diag Refrig Eng* 56:153-7 Ag '48

Heat transfer through boiling liquid films. F. Rumford. *bibliog diag Soc Chem Ind J* 66:309-12 S '47

Hydrogen brazing seals evaporator plates. *il Refrig Eng* 54:443+ N '47

Improved citrus concentrate depends on advanced technique. J. L. Heid and C. G. Beisel. *il Food Ind* 20:516-19 Ap '48

New evaporation process uses refrigeration for heating and cooling simultaneously in citrus juice canning plant. *diag Heat & Ven* 45:120+ Ag '48

Potable water from evaporators and pollution hazard in open sea shown by navy studies. *Pub Works* 78:36 N '47

Refinement of evaporator coils for packaged units. T. C. Gleason. *diag Refrig Eng* 55:549-51 Je '48

Revolutionary evaporator raises quality and lowers costs; successful for citrus and suitable for other juices, milk, eggs, pectin and sucrose solutions. J. A. Cross and A. V. Gemmill. *diag Food Ind* 20:1421-3 O '48

Cleaning

Cleaning evaporator tubes. F. G. Corneau. *Marine Eng* 53:94+ Ap '48

EVIDENCE (law)

Present legal status of microphotographed business records. D. F. Noll. *J Account* 86:28-33 J 1 '48

EXAMINATIONS

Examination for schools. *Economist* 154:702-3 My 1 '48

So, you are going to take an examination! C. F. Greene. *Power Generation* 52:74-6 Ap; 76-7 My; 76-7 Je '48

EXCAVATING machinery

Constant mesh transmission for 750 horsepower bulldozer. *il diag Product Eng* 19:90-2 N '48

Diesel engines for excavating machines. T. Davidson. *il S A E J* 56:38-42 Ag '48

Fitting earthmoving equipment to the job. E. A. Braker. *il Eng N* 141:80-2 O 28 '48

Hard facing prolongs cutting edges. *il Roads & Sts* 90:109-11 O '47

How to use a bulldozer. *il Pub Works* 78:38-9 D '47

Long range shovels and draglines for stripping. W. Barnes. *il Engineer* 186:314-16, 330-2, 354-7, 381-3, 407-10, 433-5 S 24-O 29 '48

Manufacturers' ideas to meet difficult operating problems; stripping, excavation; illustrated descriptions of latest equipment. R. S. Torgerson. *diags Rock Prod* 50:107-8 D '47

Modern trends in deep bituminous coal stripping; abstract. R. M. Dickey. *Coal Age* 52:146+ N '47

Push plates at operation earthmover. *il Constr Methods* 30:106 Je '48

Rippers, how to use 'em more effectively. *il diag Roads & Sts* 90:107-8 O '47

Rubber-tired versus crawler-type bulldozers; West Virginia stripping operation. R. E. Morgan. *il map Min Cong J* 34:34-5 My '48

Shovel and dragline stripping; Boots-Lippert corp. *il diags Coal Age* 53:102-6 S '48

Special wings on bulldozers help in sanitary fill operation. Long Beach, Calif. *il Pub Works* 79:40+ Mr '48

Stripper reworks old pits; Wingert contracting co. *il Coal Age* 53:86-91 Ap '48

EXCAVATING machinery—Continued

Tandem units boost dragline efficiency. R. R. Richart. *il* diag Coal Age 53:90-5 F '48

See also

Road making ma- Scrapers
chinery Trenching machinery
Rock drills

Advertising

Mechanized selling paves way to 'dozer market for LeTourneau. A. Andrews and E. E. Weyeneth. *il* map Ind Marketing 33:42-3+ J1 '48

Manufacture

Advantages of integrated manufacturing; plant of Omaha steel works where steel foundry, machine shop, fabricating and manufacturing departments co-operate closely. G. E. Stedman. *il* Steel 122:85-7+ F 16 '48

Manual hidden arc welding cuts welding time by 65 pct; Bucyrus Erie co. E. A. Hess. *il* Iron Age 162:78-9 J1 8 '48

Mass producing 15-ton bulldozers; Le Tourneau corp. W. J. Brooking. *il* Iron Age 162:82-6+ S 2 '48

Standards

Earthmoving machinery standards. diag S A E J 56:40-2+ Mr '48

EXCAVATION

Cofferdam protects nearby foundations while Boston builders excavate. A. D. Quinn. *il* plan diags Eng N 140:1018-21 Je 24 '48

Construction of the Gorge plant addition. R. A. Galbreath. *il* Power Generation 52:116+ F '48

Construction procedure for the foundation of the new John Hancock building. M. H. Parsons. diags Boston Soc C E J 34:316-20 O '47

Panama canal; construction planning and methods. J. J. Rose and others. *il* plan diags Am Soc C E Proc 74:609-32 Ap '48

Panama canal; excavation slopes. W. V. Binger and T. F. Thompson. *il* maps plan diags Am Soc C E Proc 74:570-90 Ap '48

Rocky going on biggest vet hospital. *il* Constr Methods 30:82-4 My '48

Taking the gamble out of rock excavation; suggested form for estimating. E. T. Nettleton. *il* Roads & Sts 91:94-7 Ag '48

See also

Blasting Shaft sinking
Ditches Trenching machinery
Drilling and boring Tunnels and tunnel-
(earth and rocks) ing
Excavating machin-
ery

Cost

Excavation prices vary widely. map Eng N 141:69 O 14 '48

Safety measures

Operation of power shovels, draglines, and similar equipment. *il* diags Nat Safety N 57:38-40+ Ap '48

EXCAVATION, Subaqueous

Design and construction of the Anderson Ranch dam. E. L. Armstrong. *il* Engineering 166:265-6 S 17 '48

Earth filled cofferdam bored approach footings employed on Ohio highway bridge. *il* Roads & Sts 91:94-6 Je '48

Mud-hog, air-lift subaqueous trencher. H. U. Fuller. diags Water & Sewage Works 95: E258 Ap '48

Panama canal; construction planning and methods. J. J. Rose and others. *il* plan diags Am Soc C E Proc 74:609-32 Ap '48

See also

Blasting, Subaqueous
Dredging

EXCERPTA medica (periodical)

Special rates for library edition of Excerpta medica. Special Lib 39:26-7 Ja '48

EXCESS profits tax

Computation of excess profits tax of a corporation which dissolved during the taxable year. Am Gas Assn Proc 1947:247-9

Disagreement over excess profits taxes. J Account 86:334-5 O '48

Eighteen months of excess profits tax developments. J. D. Bierman. bibliog J Account 86:138-49 Ag '48

Income from retirement or discharge of bonds in computing excess profits net income. Am Gas Assn Proc 1947:250-2

Tax carryovers; aids to business expansion. J. K. Lasser. *il* Dun's R 56:13-15+ Ja '48

EXCHANGE, Foreign. See Foreign exchange

EXCHANGE charges, Bank. See Banks and banking—Collection charges

EXCHANGE rates. See Foreign exchange

EXCHANGES

Commodity markets, volume of trading in grain futures, 1941-1946. Survey of Cur Bsns 1947 Sup p90 [supplemented in monthly numbers]

Commodity price drop shows value of futures market and speculation. Comm & Fin Chr 167:835 F 19 '48

Speculation not cause of rising prices; hedging through futures markets is form of insurance. W. J. Reid. Comm & Fin Chr 166:2266+ D 4 '47

See also names of exchanges, e.g.

Chicago board of New York cotton
trade exchange

London

In the City, you could buy any commodity. *il* Fortune 37:128-9 Ap '48

EXCHANGES, Stock. See Stock exchange

EXCISE tax

Canada; special excise taxes on wide range of durable consumer goods. For Comm W 30:11 Ja 17 '48

Congress convinced of inequity of 20 per cent toiletries tax. S. L. Mayham. Oil Paint & Drug Rec 153:39+ My 24 '48

Excise tax relief hope fades. Pub Util 41: 622 My 6 '48

Look at some soft spots in business as shown by U.S. excise tax collections. Bsns W p22-3 O 2 '48

Lower excise-tax yields. Survey of Cur Bsns 28:4 Je '48

Reduction of automobile excise tax unlikely next year. G. H. Baker. Automotive Ind 99: 54 N 1 '48

EXCITATION equipment

High-speed exciters; commutator troubles. R. G. Millard. diags Elec R (Lond) 143:13-16 J1 2 '48

Rototrol provides generator excitation. C. Lynn and C. E. Valentine. *il* diag Westinghouse Eng 5:34-6 Mr '48

Rototrols simplify excitation. *il* Westinghouse Eng 8:4-5 Ja '48

Scherbius exciter and how it operates to vary speed or power factor of an induction motor. diags Electrician 140:427-8 F 6 '48

Turbine-generator exciters keep pace with increased operation. C. Lynn. *il* diag Power 92:8-11+ Ja '48

EXCLUSIVE agencies

Is it smart distribution to play hard to get? B. E. Tacks. Sales Management 60:120+ F 1 '48

That perennial selling question; shall we confine our line to one store? E. B. Weiss. Ptr Ink 223:56+ My 14 '48

EXCLUSIVE sales contracts. See Restraint of trade

EXCURSION boats

Excursion boat, Delaware Belle. *il* Marine Eng 52:92+ N '47

EXECUTIVE ability

Test of leadership ability. J. F. Bender. Sales Management 61:44-6+ O 15 '48

EXECUTIVES

Aldens issues handbook of executive duties. Sales Management 61:135 S 15 '48

Are you in Sleepy Hollow? advice to metal-working executives. E. J. Tangerman. Am Mach 92:85-6 Ja 15 '48

Boss compares. T. H. Thompson. Ptr Ink 223:156 My 21 '48

Boss is on the spot. Mod Ind 16:168 Ag '48

Company club helps junior executives; Majestic manufacturing company's management club. Am Bsns 17:27 D '47

Doctor looks at executive deaths. I. H. Page. Am Bsns 17:23+ J1 '47; Excerpts, Management R 36:623-4 D '47

Effective controls for top management. A. E. Werolin. Advanced Management 12:120-8 S '47

EXECUTIVES—Continued

Fluff-doodle dodos in business. Am Bsns 17: 28+ D '47

Health examinations of industrial executives; a statistical analysis. E. F. Lutz. Ind Med 17:65-9; Discussion. 70-1 F '48

Human reactions to executive responsibilities. L. C. Lockley. J Retailing 24:97-8 O '48

Ideal administrators; abstract. D. K. David. Pub Util 42:131-2 J1 29 '48

Invitation to success; search for junior executive talent; Kaufmann department stores. M. Reid. Personnel J 26:218-21 D '47

Lick routine to allow time for planning. J. Garth. Am Bsns 18:26+ S '48

Management shortage. Bsns W p 19-20 O 16 '48

Men who manage our big companies; careers of 50 presidents of typically American companies. E. Whitmore. pors Am Bsns 18: 7-9+ Ap '48

Need a vice president? Handy associates, inc. specializes in recruiting persons for jobs paying a minimum of \$10,000. Fortune 36:140 D '47

Needed; a director of personal relations for business executives! H. Simmons. Ptr Ink 222:146 F 13 '48

Pattern for top executive action. W. S. Ford. Mech Eng 70:811-12+ O '48

Psychological evaluation of executives. E. N. Hay. Personnel J 26:267-9 Ja '48

Self-analysis quiz for supervisors and executives. R. Hersey. Personnel 24:454-76 My '48

These men at the top began at the bottom. W. Norris. Am Bsns 18:8-9+ S '48

Top executives who were salesmen. W. Norris. Am Bsns 18:8-9+ J1; 18-19+ Ag '48; Discussion. H. W. Steinkraus. 18:34 S '48

What it takes to be a good executive. Mod Ind 16:100-2+ Ag '48

What makes a good executive? Gardner tests based on pictures. Bsns W p24 J1 17 '48

What makes successful and unsuccessful executives? B. B. Gardner. Advanced Management 13:116-25 S '48; Excerpt. Pub Util 41:842-50 Je 17 '48

See also

Advertising managers	Factory management
Bonus system for executives	Foremen
Business management	Forty plus clubs
Credit managers	Organization in industry
Efficiency, Industrial	Sales managers
Employment management	Supervisory workers

Rating

You can rate your executive horsepower. Il Mod Ind 16:98-100+ S '48

Salaries

Compensating the general executive; abstract. Management R 37:368-70 J1 '48

Continuance of deceased executive's salary to his widow. G. Simons. East Underw 49: 10 My 21 '48

One way to pay deferred compensation. J Account 86:245 S '48

Salary directory of the principal American executives in amusement, banking, commerce, industry, insurance, railroads, utilities and professions; supplementary service, 1947-1948. (v3) 32p Universal syndicate, 110 Midland av, Montclair, N.J. '48

Stock and profit-sharing plans for agency executives. J. K. Lasser. Adv & Sell 41: 73-5 J1 '48

What makes the boss work? Il Fortune 37: 104-7+ Ap '48

Training

ATF school develops leadership talents. Sales Management 61:94-5 Ag 15 '48

Developing powers for decision in business education. J. D. Miller, Jr. Advanced Management 13:29-32 Mr '48

Discovering and developing leadership abilities in management personnel. K. H. Shaffer. Advanced Management 13:84-7 Je '48

Executive development today for increased profits tomorrow. E. W. Reilley and B. J. Muller-Thym. Personnel 24:401-12 My '48

Executive training forum pays off in greater teamwork; Century electric co. W. Kelsner. Factory Management 106:107 F '48

Executive understudies; a survey of the selection and training of understudies by manufacturing executives in Wisconsin. R. L. Moberly and E. S. Buffa. (Wisconsin commerce reports v 1, no 6) 24p pa \$1.10

Univ. of Wisconsin, Bur. of business research and service, 404 Sterling Hall, Madison '48

Making executives from engineers; abstract. W. Evans. Chem Eng 55:304+ S '48

Outside the groove; junior executives moved from job to job. Fortune 37:116+ Ja '48

Putting polish on your top brass; producing steady supply of good executives. Mod Ind 16:112+ O '48

EXECUTORS and administrators

Operation of business enterprises as executor and trustee. M. McHenry. Trusts & Estates 85:414-18 N '47

Proposed Uniform ancillary administration of estates act. Trusts & Estates 87:335-7 O '48

EXHAUST steam

Exhaust steam noise quieted by silencers; industrial turbine connected to utility system. Il Elec World 129:96 F 14 '48

EXHAUST systems

Air system shields escalators from fire; J. C. Fenney department store. Il diag Eng N 141:51 J1 22 '48

Control of atmospheric dust in the fire-brick industry. W. W. Stalker and others. flow sheet Il Heat & Ven 45:73-7 Ap '48

Design and installation of industrial exhaust systems; with cost data. E. J. Weiss. diag Heat & Ven 45:77-80 F '48

Design of exhaust systems (cont). F. H. Stebbins. plans diag Sheet Metal Worker 38:59-61 N; 58-60 D '47; 39:59-61+ F; 70-2 Mr; 61-3 Ap; 55-6+ May; 49-51 Je; 37-9 J1; 41-2+ Ag; 38-9+ S; 37-9 O '48

Dust control; engineering data manual. Il diag Mill & Factory 43:139-46 S '48 [reprints 25c]

Exhaust arrangement for double-ended tenoner. K. L. Whitaker. Il Heating-Piping 20:135 O '48

Exhaust system in luggage plant; Amelia Earhart luggage co. Il diag Sheet Metal Worker 38:64-6+ D '47

Exhausting dust or dollars? W. C. L. Hemeon. Il Safety Eng 94:50-3 D '47

Fire protection for wellways; exhaust-water spray system has been developed for moving stairways. Il Safety Eng 95:10-11+ Ap '48

How to control carbon monoxide in garages; flexible duct tailpipe exhaust systems. G. Hama. Il Heat & Ven 45:113-15 O '48

Innovations in degreasing tanks; solutions to remove rolling mill surface oil create ventilation problem. Il Sheet Metal Worker 39:64-5 My '48

Method of fire control; combination of exhaust system and water curtain for cooling gases when fire is located adjacent to escalator. A. C. Bartlett. Il diag Heating-Piping 19:117-22 N '47

New development in gas range venting with mechanical draft hood. F. A. Herr. Il diag Am Gas J 168:50-2+ My '48

New type woodworking shop exhaust system provided by clay pipe. Il Brick & Clay Rec 112:35 Ja '48

Removing lint from laundry unit. diag Sheet Metal Worker 38:62 D '47

Sixteen ways to exhaust welding fumes. M. E. Ringquist. Il diag Heat & Ven 45:69-77 My '48

Sizing exhaust system mains at branch junctions; with chart. F. A. Stanton and H. M. Nichols. Heat & Ven 45:111-12 O '48

Smoke, dust and sweat! grease fires in exhaust ducts. R. E. Woolley. Safety Eng 95:34-5 Ja '48

State laws concerning industrial exhaust ventilation. K. J. Caplan and A. D. Brandt. Heating-Piping 20:118-23 F '48

Steam vs. CO₂ for fire extinguishment in kitchen range hoods. T. W. Reynolds. Il plan diag Heat & Ven 44:75-82 N '47

Taming the dust storm. H. M. Nichols. Il diag Safety Eng 96:18-21+ J1 '48

EXHAUST systems—Continued

- Time and fuel-saving exhaust system; buffing room at Bridgeport brass co. *il* Sheet Metal Worker 38:53-8 N '47
- Trend in welding ventilation. *il* diags Sheet Metal Worker 39:86+ F '48
- Underground exhaust duct eliminates inconveniences of overhead systems. *il* Civil Eng 18:18 Ja '48
- Ventilation for control of dust from bagging operations. G. M. Hama. *il* Heat & Ven 45:91 Ap '48

Testing

- Testing exhaust ventilating systems; reference data. Heat & Ven 45:100a-100b Ja '48

EXHIBITION buildings

- Clever design and erection speed Texas fair structure. *il* Eng N 141:15 S 9 '48
- Tests of timber structures from Golden Gate international exposition. *il* diags Am Soc C E Proc 73:571-685 My '47; Discussion. 73:1444-7; 74:147-52, 423-6, 879-85 N '47, Ja, Mr, Je '48

EXHIBITION grounds

- Fairground improvements, Solano county, Calif.; unit prices. Eng N 141:121 Ag 19 '48

EXHIBITIONS

- ANA undertakes three research projects vital to industrial advertisers. *Ind Marketing* 38:64 My '48
- Fairs and exhibitions. *For Comm W* 30:31+ Ja 3 '48 [cont irregularly]
- Industrial shows and exhibits. Published in monthly numbers of *Industrial marketing*
- International fairs in Europe; observations and appraisals. J. Kunstenaar. *il* *For Comm W* 29:3-5+ D 13 '47
- Philadelphia plans again; exhibition designed to capture citizen support. *il* plans diags Arch Forum 87:65-88 D '47

See also

British industries fair

also subdivision Exhibitions under special subjects, e.g.

Automobiles	Household products
Chemical industries	industries
Electric lighting	Machine tools
Fairs	Machinery
Furniture industry	Motor boats
and trade	Railroads
	Vending machines

also National exposition of power and mechanical engineering

EXHIBITS

- Behind-the-scenes report on Ford's Operation Waldorf. *il* Sales Management 61:86+ Ag 1 '48
- Birthday party for 500,000. D. Dickow. *il* Ind Marketing 32:51-3+ D '47
- General Motors exhibit tells industry's story; educational displays at Museum of science and industry. *il* Ind Marketing 33:36-7+ Ja '48
- How to secure meaningful audits of your trade show audiences. R. B. Hanna. *Sales Management* 61:66+ S 1 '48
- Needlework exhibit glorifies story of thread. *il* Sales Management 59:67-8 D 15 '47
- Seeing is deceiving quiz draws exposition crowd; American electroplaters' society exposition; International Nickel exhibit. J. Albin. *il* Ind Marketing 33:100 O '48
- Thousands of women window shop at Philadelphia home center; permanent merchandise fair sponsored by Philadelphia bulletin. *il* Sales Management 59:110+ D 15 '47

See also

Banks and banking—Exhibits

EXHIBITS, Traveling

- Aluminum invades the oil field. *il* Bsns W p92+ My 15 '48
- Colorado develops industrial relocation exhibit; flying chamber of commerce, Fremont County development board. *Ind Marketing* 33:66+ O '48
- Electric kitchen takes to the road; project of Central Louisiana electric co. *il* Elec World 129:102-3 Mr 13 '48
- How to take your industrial sales story to buyers; display coach, Reynolds metals co. *il* Sales Management 60:45 My 20 '48

Pittsburgh plate glass co. model store caravan takes face-lifting ideas to Main street. H. R. Roberts. *il* Sales Management 60:42-3 Je 1 '48

Pittsburgh Plate Glass sends store modernization caravan on U.S. tour. *il* (p 16-17) Elec World News ed 129:21 Ap 3 '48

Royal Electric Manufacturing sends product display on tour of country. *il* Elec World News ed 130:21 Ag 7 '48

Television on wheels; traveling showroom to stimulate interest. R. P. Wakeman and T. T. Goldsmith, jr. *il* Radio N 40:46-7+ Jl '48

Travelers' Currier and Ives pictures have been on road show since 1945. *il* East Underw 49:35 S 24 '48

Insurance aspects

Fifteen companies carry coverage on Freedom train. *Nat Underw* 51:8 N 13 '47

EXPANDING universe. See Universe

EXPANSION (heat)

Apparent molar expansibilities of potassium, barium and lanthanum chlorides as a function of concentration and temperature. G. Jones, E. F. Taylor and R. C. Vogel. *bibliog diags Am Chem Soc J* 70:966-77 Mr '48

Chart for linear expansion of materials; expansion chart for steel. *Tool Eng* 21:34-5 O '48

Correlation through anharmonic force theory of the compressibility modulus and thermal expansion coefficient of KBr at low temperatures. C. Kittel. *J Chem Phys* 16:850 Ag '48

Dimensional instability affects design of precision equipment. F. C. Victory. *il* diags Am Mach 52:108-11 F 26 '48

Expansion of silica sand. H. H. Fairfield. *diags Foundry* 76:128-9 My '48

Thermal expansion of some copper alloys. P. Hidnert and H. S. Krider. *bibliog J Res Nat Bur Stand* 39:419-24 N '47

Thermal expansion properties of iron-cobalt alloys. M. E. Fine and W. C. Ellis. *bibliog diag Metals Tech* 15:TP2320 1-13 F '48

What size is hot work? both warm weather and operating heat must be considered when making close fits with aluminum and magnesium. L. W. Macomber and C. N. Weller. *il* Am Mach 91:101-4 N 20 '47

EXPERIMENT Incorporated

New research and consulting laboratory, Richmond, Va. *il* Chem & Eng N 26:2554-5 Ag 30 '48

EXPERIMENTAL medicine. See Medical research

EXPERIMENTS

Design of experiments in industrial research. H. M. Smallwood. *Anal Chem* 19:950-2 D '47

See also Research

EXPERIMENTS, Chemical. See Chemistry—Experiments; Chemical plants—Experimental plants

EXPLOSION insurance. See Insurance, Explosion

EXPLOSIONS

Accidental ignition of gas. A. W. Breeland. *Safety Eng* 94:36-40 D '47

Ammonium nitrate explosions at Texas City. J. E. Jacobson. *Mech Eng* 69:1054-5 D '47

Analyses of complex mixtures of gases; application to control and extinguish fires and to prevent explosions in mines, tunnels, and hazardous industrial processes. S. H. Ash and E. W. Felegy. 9 fold pls (in pocket) U S Bur Mines Bul 471:1-202 bibliog (p201-2); pa 75c Supt. of doc. '48

Annual report of research and technologic work on explosives, explosions, and flames, fiscal year 1946. E. Lewis. *bibliog* 29 pls U S Bur Mines Rep of Invest 4176:1-62 '47

Butadiene-crotonaldehyde explosion. K. W. Greenlee. *Chem & Eng N* 26:1985 Jl 5 '48

Cause of explosions occasionally observed during evaporation of solutions of aluminum hydride and related compounds. G. Barbaras and others. *Am Chem Soc J* 70:877 F '48

Chemical plant explosions at Ludwigshafen. *Engineer* 186:132 Ag 6 '48

EXPLOSIONS—Continued

- Compensation publicity; what Monsanto chemical company did for victims of disaster at Texas City, Texas. *Nat Safety* N 57:83 Ap '48
- Compressed air line explosions. C. W. Parks; G. G. Avant. *Power Generation* 52:86-7 Ja '48
- Continuous spectra and OH absorption in carbon monoxide, oxygen explosions. G. A. Hornbeck. *J Chem Phys* 16:845-6 Ag '48
- Could spontaneous ignition have caused this explosion? H. T. Livingston. *Power Generation* 52:89 Ja '48
- Disaster at Ludwigshafen. *il Chem Age (Lond)* 59:178-9 Ag 7 '48
- Effect of hydrocarbons and other gases upon the explosibility of acetylene. G. W. Jones and others. *bibliog pl U S Bur Mines Rep of Invest* 4196:1-8 '48
- Effect of non-contact explosions on warship machinery design. A. D. Bonny. *il diags Engineering* 165:477-9, 500-3, 525-6 My 14-28 '48
- Explosion in IG Farben plant at Ludwigshafen. *il Chem & Eng N* 26:2360 Ag 9 '48
- Explosion of cobaltinitrite. O. Horowitz. *bibliog Anal Chem* 20:89 Ja '48
- Explosion prevention in underground utility structures in Los Angeles and vicinity. *Sewage Works J* 20:665-78 Jl '48
- Explosion vents for fume hoods and a method for testing them. H. W. Stone and T. W. Campbell. *il J Chem Educ* 25:22-4 Ja '48
- Explosions at Hercules Powder plants. *Chem & Eng N* 26:1990 Jl 5 '48
- Explosions of ammonium nitrate fertilizer on board the S.S. Grandcamp and S.S. High Flyer at Texas City, Tex., April 16, 17, 1947. G. M. Kintz and others. *3pls U S Bur Mines Rep of Invest* 4245:1-57 '48
- Fatal explosion investigated; official report indicates steam valve failure. *Chem Age (Lond)* 58:260 F 21 '48
- Gas explosions; possible hazards of high pressure gas distribution. *Heat & Ven* 45:102-3 Jl '48
- Gas from cable insulation explodes in service vault. *Elec World News* ed 128:14 N 15 '47
- Handling acetylene under pressure. *Chem Ind* 62:399-400 Mr '48
- How to win gas explosion damage suits. L. T. Parker. *Am Gas J* 168:28-30 F '48
- Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others. *diag J Chem Phys* 15:798-802 N '47
- Ignition of explosive gas mixtures by electric sparks; theory of the propagation of flame from an instantaneous point source of ignition. B. Lewis and G. von Elbe. *bibliog diag J Chem Phys* 15:803-8 N '47
- Insulation saves adjacent tanks in oil mixer accident-explosion. *il Safety Eng* 94:26 D '47
- New approach to nitrate hazards; French contributor's unorthodox theory. H. Spinier. *Chem Age (Lond)* 58:132-3 Je 24 '48
- New explosion law suits. L. T. Parker. *Am Gas J* 169:33-5 Jl '48
- Pressure equipment hazard. E. S. Hanson. *Chem & Eng N* 26:2551 Ag 30 '48
- Reina del Pacifico explosion. *Engineer* 185:598 Je 18 '48
- Storage battery explosions. *Marine Eng* 53:90 Ap '48
- Vapors escaping from gasoline storage tank caused Westland Oil explosion, report finds. *Nat Pet N* 40:36 Ja 7 '48

See also

- | | |
|---------------------|----------------------|
| Boiler explosions | Fuel economizer ex- |
| Coal mines and min- | plosions |
| ing—Accidents and | Inflammable liquids |
| explosions | Inflammable mixtures |
| Dust explosions | Shock waves |

EXPLOSIONS, Subaqueous

- Energy partition in underwater explosion phenomena. A. B. Arons and D. R. Yen-nie. *bibliog Rs Mod Phys* 20:519-36 Jl '48
- Secondary pressure pulses due to gas globe oscillation in underwater explosions. A. B. Arons and others. *il Acoustical Soc Am J* 20:271-82 My '48

Surface waves from an underwater explosion. J. G. Kirkwood and R. J. Seeger. *bibliog J Ap Phys* 19:346-60 Ap '48

EXPLOSIVE rivets. See Rivets

EXPLOSIVES

- Ammonium nitrate; its properties and fire and explosion hazards. G. S. Scott and R. L. Grant. *4pls U S Bur Mines Information Circ* 7463:1-32 *bibliog* (115 titles, p25-32) '48
- Annual report of research and technologic work on explosives, explosions, and flames, fiscal year 1946. B. Lewis. *bibliog* 29pls U S Bur Mines Rep of Invest 4176:1-62 '47
- Detonation wave in nuclear explosives. P. Caldirola. *J Chem Phys* 16:846-7 Ag '48
- Explosives and petroleum. G. K. Bell, jr. *il Explosives Eng* 26:39-43, 76-8+ Mr-May '48
- Explosives surplus sales rules tightened by WAA. *Oil Paint & Drug Rep* 153:3 F 16 '48
- Explosives with lined cavities. G. Birkhoff and others. *bibliog il diags J Ap Phys* 19:563-82 Je '48
- Highly concentrated hydrogen peroxide; physical and chemical properties. E. S. Shanley and F. P. Greenspan. *bibliog il Ind & Eng Chem* 39:1536-43 D '47
- Investigations of explosion hazards of perchloric acid and mixtures of perchloric acid and organic materials. M. A. Elliott and F. W. Brown. *bibliog pl U S Bur Mines Rep of Invest* 4169:1-17 '48
- Jet propulsion boosts interest in flame mechanics; 3d symposium on combustion, flame, and explosion phenomena. *Chem & Eng N* 26:2892-3 S 27 '48
- Theory of the propagation of shock waves from infinite cylinders of explosive. S. R. Brinkley, jr. and J. G. Kirkwood. *bibliog Phys R* 72:1109-13 D 1 '47
- Thermal decomposition of explosives in the solid phase. J. Vaughan and L. Phillips. *Chem Soc J p* 1560-5 D '47
- See also**
- | | |
|----------------------|---------------------|
| Blasting | Detonation |
| Cartridges, Dynamite | Inflammable liquids |
| Cordite | Nitromethane |
| Cyclonite | Trinitrotoluene |

Analysis

- Rapid determination of nitroglycerin and ethyl centralite in rocket propellant powder. I. S. Hirschhorn. *bibliog Anal Chem* 19:380-2 N '47

Manufacture

- Manufacture of explosive compounds and explosives; abstract. A. G. White. *Chem & Ind p* 123 F 21 '48
- Oxyntation of benzene to picric acid; Wolfenstein-Bsters reaction. E. E. Aristoff and others. *bibliog il diags Ind & Eng Chem* 40:1281-90 Jl '48

Safety measures

- Safety in blasting at Ajo, Ariz. A. D. Look and J. H. Bird. *2pls U S Bur Mines Information Circ* 7431:1-17 '48

Storage

- Good powder storage house made of surplus materials. *il Eng N* 140:438 Mr 18 '48

Testing

- Effect of sheaths on gaseous products from permissible explosives. E. J. Murphy. *3pls U S Bur Mines Rep of Invest* 4220:1-57 '48
- Exothermal decomposition of mixtures containing ammonium nitrate. M. A. Elliott. *4pls U S Bur Mines Rep of Invest* 4244:1-11 '48
- Method for obtaining and analyzing sensitivity data. W. J. Dixon and A. M. Mood. *bibliog Am Stat Assn J* 43:109-26 Mr '48

Transportation

- Explosives air shipment rules revision planned. *Oil Paint & Drug Rep* 152:3 N 10 '47

EXPONENTIAL functions. See Functions, Exponential

EXPORT-import bank of Washington

- Export-import bank; address before Pan-American congress, Bogota. W. M. Martin, jr. *Comm & Fin Chr* 167:1998 My 6 '48

EXPORT-import bank of Washington—Cont.
 Export-import bank credit for important Egyptian enterprise. For Comm W 31:43 My 29 '48
 Export-import bank grants Italian and Norwegian credits. Comm & Fin Chr 167:1661 Ap 15 '48
 Export-import bank sets up credit for occupied Japan export-import revolving fund. Comm & Fin Chr 167:1894 Ap 29 '48
 Export-import bank's new credit to Nacional financiera of Mexico. For Comm W 30:13 Mr 13 '48
 Fifty million dollars for Belgium; private banks join with Export-import bank. For Comm W 31:12 Ap 3 '48
 Grants credit to Chilean concerns. Comm & Fin Chr 168:816 Ag 26 '48
 New credits to Chilean enterprises. For Comm W 33:23 N 8 '48
 Three credits for Mexico by Export-import bank. For Comm W 30:35 Ja 3 '48
 U.S. invites fresh Latin defaults on millions; bad loans concealed by juggling figures; huge new grant near. R. E. Beddingfield and J. I. Shute. Barron's 23:7-8 My 10 '48

EXPORT tax. See Tariff (export duties)

EXPORT trade
 Adequate protection prime essential of export packaging and shipping. M. Caffee. Il World Oil 128:292-4 My '48
 Analysis of the varied factors influencing foreign trade. H. M. Bratter. Comm & Fin Chr 168:397+ Jl 29 '48
 Converting textiles for export. H. Bernstein. Textile Col 70:43+ My '48
 Curious foreign customs affect export sales; often necessary to re-style, re-flavor, or repackage products. G. Bijur. Adv & Sell 41:35-6+ Ja '48
 ECA to open European trade when its own birth pangs end. Sales Management 60:81 My 1 '48
 Effect of lower prices on export and import trade. V. L. Horoth. Mag of Wall St 81: 639-40+ Mr 13 '48
 Employment resulting from U.S. exports. M. Hoffenberg. Mo Labor R 65:675-8 D '47
 Export outlook. Nat City Bank p41-3 Ap '48
 Export outlook for 1948. V. L. Horoth. Il Mag of Wall St 81:345-7+ Ja 3 '48
 Exports of aircraft and engines seen reaching post-war peak. W. Kroger. Aviation W 48: 17 Ja 19 '48
 For export planners; abstract. T. Perutz. Chem Eng 55:282+ S '48
 Foreign inland-transport defects can snag U.S. trade flow. S. T. R. Abt. Il For Comm W 32:8-9+ Ag 7 '48
 Import and export trade of the United States paper industry. E. G. Lagerloef. Paper Ind 30:725-8 Ag '48
 Improper packing is costing American industry hundreds of millions annually. W. H. Husted. Weekly Underw 158:1374+ My 8 '48; Abstract. Mod Packaging 21:148-50 Je '48
 Let's protect our export business with sound merchandising procedures; abstract. F. Granger. For Comm W 29:29 N 29 '47
 Marshall plan not broad enough to maintain U.S. exports at recent level. D. W. McKnight. Comm & Fin Chr 166:1847 N 6 '47
 Our future export market in Latin America. G. M. Galsier. Automotive Ind 98:34-5+ My 15 '48
 Philippines: how promising as a market for U.S. goods? E. Gidlow. Sales Management 61:108+ S 1 '48
 Practical procedures and operations affecting ERP shipments. For Comm W 31:13 My 22 '48
 Prospects for export advertising. D. Dickow. Ind Marketing 33:66-8 F '48
 Sees "off-shore" purchases by ECA, opportunity for demanding payments due on U.S. exports. W. Ward. Comm & Fin Chr 167:2207 My 20 '48
 Selling abroad at present time. A. M. Strong. Comm & Fin Chr 166:2057 N 20 '47
 So you want an assignment overseas. A. J. Wertis. Management R 37:282-4 Je '48
 Statistical note on world demand for exports. T. Chang. R Econ & Stat 30:106-16 My '48

Two with the knack; Robert G. Drake and Frederick W. Richmond, fledgling foreign traders. Fortune 37:120+ F '48
 U.S. chemicals to hold export dominance. S. B. Self. Barron's 27:7-8 N 17 '47
 U.S. exports decline expected to continue; survey by National industrial conference board. Oil Paint & Drug Rep 152:40 N 10 '47
 United States exports; their current status and outlook. S. L. Daniels. Comm & Fin Chr 167:2083+ My 13 '48
 What pressure is the foreign-aid program exerting on U.S. economy? excerpt from mid-year report by Council of economic advisers. For Comm W 32:3+ Ag 14 '48
 Where do we stand with ERP? S. E. Cohen. Ind Marketing 33:124+ Je '48
 Will U.S. sell consumer goods to Europe under the Marshall plan? Sales Management 61:120+ O 1 '48
 World trade, ERP and the banker, interview with T. C. Blaisdell, jr. H. Bratter. Il Banking 40:46-7+ My '48

See also
 American institute Packing for shipment
 for foreign trade Tariff
 Balance of payments United States—Com-
 Foreign exchange merce

Bibliography

World trade, compiled in recognition of World trade week, May 16-22, 1948. Cleveland Pub Lib Business Information Bur Bul v 19, no 2:3-6 My '48

Finance

Credit problems in foreign trade. I. F. Baker. Comm & Fin Chr 167:902+ F 26 '48; Same. Credit & Fin Management 50:4-6+ Mr '48
 New export market for cotton; army to set up \$150-million revolving fund for Germany and Japan. Bsns W p32-4 O 2 '48

See also

Banks and banking—
 Foreign banking
 service

Marketing

American overseas distributors need help. R. Murray. Adv & Sell 41:58+ My '48
 So you want to export! here's how to get your feet wet. M. M. Mora. Sales Management 61:86+ S 1 '48
 Some of the difficulties involved in research surveys abroad. L. Handel. Ptr Ink 222:42-3+ F 13 '48
 U.S. protests new Cuban labor decree shackling American firms; relates to agents of foreign firms. Oil Paint & Drug Rep 153:5 Ja 12 '48; Excerpt. For Comm W 30:15-16 Ja 17 '48
 Would your product sell in Latin America? J. C. Burt. Ind Marketing 33:106+ S '48

Regulation

Alkalies exporters hit by revised chemical licensing policy of U.S. Oil Paint & Drug Rep 153:3+ Ja 5 '48
 Appeals board on export controls is set up. For Comm W 31:47 Je 12 '48
 Business advises on export control; cooperation mutually helpful; commodity advisory panels. T. C. Blaisdell, jr. and A. E. Farwell. For Comm W 32:3-4+ Ag 28 '48
 Chemicals export quotas license cut-off dates revealed by OIT. Oil Paint & Drug Rep 153: 3 Je 14 '48
 Country export quotas for tinplate revealed by Department of commerce; tabulation. Iron Age 162:170 N 4 '48
 Doing business under new export controls. B. S. Van Rensselaer. Il Dun's R 56:20-2+ Ap '48
 Export advisory committees set up on commodity basis by OIT. Oil Paint & Drug Rep 153:3+ Ap 5 '48
 Export-control compliance program; vigorous measures instituted. N. Ostroff. For Comm W 32:3-4+ Jl 31 '48
 Export control furthers fundamental interests of Nation and world. F. E. McIntyre. For Comm W 32:3-6+ S 4 '48
 Export control; instrument of foreign policy. J. M. George. Comm & Fin Chr 168:100+ Jl 8 '48; Same. For Comm W 32:3-5+ Jl 3 '48

EXPORT trade—Regulation—Continued

- Export controls seek to cure one evil with another; backfire is started. *Barron's* 23: 12 Mr 1 '48
- Export licensing procedure revised. *Oil Paint & Drug Rep* 153:3 F 2 '48
- Export restrictions on multiple shipments of gift parcels. *For Comm W* 31:16 My 22 '48
- Exporters praise clarification of OIT's licensing procedure. *B. Packard, Iron Age* 161:121 Je 3 '48
- Licensing policy indicates how mechanics of distribution are to be handled under European recovery program; iron and steel items listed. *E. C. Kreutzberg, Steel* 122:44 Ja 19 '48
- New export-control policies safeguarding U.S. interests. *F. E. McIntyre, For Comm W* 30:3-5+ F 23 '48
- New export controls coming. *Il Bsns W* p 19-20 Ja 31 '48
- New export license policy now in effect. *For Comm W* 30:31 Ja 10 '48
- New export licensing policies of the Department of commerce; address before Chicago world trade conference, Feb. 16. *G. L. Bell, For Comm W* 30:5-6+ Mr 6 '48
- OIT establishes code of ethical standards for agents of exporters. *Oil Paint & Drug Rep* 154:5+ JI 12 '48
- OIT export policy lessens importance of price criteria. *Oil Paint & Drug Rep* 153:3+ My 24 '48
- OIT, industry agree on chemicals export plan. *Oil Paint & Drug Rep* 153:4+ Je 7 '48
- OIT revises export licensing regulations. *Oil Paint & Drug Rep* 153:3 Ja 19 '48
- OIT revision of export policies to narrow use of price criteria. *Oil Paint & Drug Rep* 153:3+ Ap 19 '48
- Salient export-control points; question-and-answer clarification; summary of O.I.T. export policy conference, Washington, Jan. 15. *For Comm W* 30:3-5+ F 14 '48
- Yes, we need export controls. *G. A. Renard, Oil Paint & Drug Rep* 153:5 F 9 '48; Discussion. 153:5+ F 23 '48

Sales management

- Socony's trade committees, what they are, how they operate. *W. L. Faust, Sales Management* 61:56+ O 15 '48

Statistics

- Extraordinary peaks attained by U.S. world trade in 1947; with charts and tabulations. *G. A. Witherow, Il For Comm W* 31:3-7+ My 15 '48
- Figures on U.S. foodstuffs trade last year. *For Comm W* 30:36 Mr 13 '48
- United States exports in 1947, by commodity groups and destinations. *R. L. Kraybill, Il Dun's R* 56:18-19 Ag '48
- U.S. exports; where they go; what they are. *Factory Management* 105:128f D '47
- United States' foodstuffs-trade figures reveal significant export and import trends. *For Comm W* 30:19 Ja 10 '48
- Value of exports by geographic regions and by leading countries, by economic classes and by principal commodities, 1941-1946. *Survey of Cur Bsns* 1947 Sup p97-100 [supplemented in monthly numbers]

EXPOSURE meter. See Photography—Exposure

EXPRESS cars. See Baggage and express cars

EXPRESSWAYS

- Big tunnel aids French expressway plan in Lyon. *Il map diags Eng N* 139:836-8 D 25 '47
- California's freeway design and construction; freeway in San Diego. *E. E. Sorenson, Il Pub Works* 78:26-7 N '47
- Chicago-Detroit expressway. *S. C. Hadden, map Roads & Sts* 91:86+ My '48
- Concrete pavements on the German autobahnen. *F. H. Jackson and H. Allen, Il maps diag Am Concrete Inst J* 19:933-76 Je '48; Same. *Pub Roads* 25:65-79 Je '48
- New York builds an expressway on shelves; three-level cantilever structure will carry Brooklyn-Queens connecting highway through narrow way. *Il diags Eng N* 140: 768-71 My 27 '48

- Planned service areas on controlled-access roadways. *S. Miller, Jr. Am Pet Inst Proc* 27(1):71-4 '47
- Progress on expressway construction in American cities; illustrations with text. *H. J. McKeever, plan diag Roads & Sts* 91: 58:67+ Ag; 56-64 S '48
- Sand piles hasten completion of California expressway; construction of vertical sand drains. *H. A. Simard, Il Roads & Sts* 90: 51-3+ D '47
- Streamlined construction on Houston interurban expressway. *Il diags Constr Methods* 30:74-9 JI '48
- Two new limited-access dual-lane highways at Toronto to cost \$9,000,000. *plan Roads & Bridges* 85:60 N '47
- Unique signal system for Houston's four-street expressway grid. *W. J. Van London, Il Roads & Sts* 90:87-3 N '47
- Washington's limited access highway. *L. R. Watson, Jr. and R. A. Boucher, Il Pub Works* 79:28-9 My '48
- What can the autobahnen teach us about concrete roads? *Il diags Roads & Bridges* 86:65-72+ JI '48

Bibliography

- Effect of limited access expressways on existing street systems. *D. Bright, comp. (Bibliography no. 1) 13p National research council, Highway research board, Division of engineering and industrial research, 2101 Constitution av., Washington* 25 '47

EXTENSOMETERS

- Constant stress apparatus for the study of the creep properties of plastics. *A. G. Ward and R. E. Marriott, bibliog Il diags J Sci Instr* 25:147-51 My '48
- Optical rectangular rosette extensometer for large strains. *K. H. Swainger and J. Twyman, bibliog Il diags J Sci Instr* 25:187-9 Je '48

EXTRA expense insurance. See Insurance, Extra expense

EXTRACTION apparatus

- Apparatus for the hot-extraction analysis for hydrogen in steel. *C. E. Sims and G. A. Moore, bibliog Il diags Metals Tech* 15: TP2369 1-10 Je '48
- Bench scale equipment and techniques; liquid-liquid and vapor-liquid extraction. *W. T. Knox, Jr. and others, diags Ind & Eng Chem* 39:1573-81 D '47
- Control of throughput, temperature, and purity of solvent in Soxhlet extraction. *K. J. Mysels, H. H. Pomeroy and G. H. Smith, diags Anal Chem* 20:878-9 S '48
- Counter-current liquid-solid extraction; the Kennedy continuous pilot plant. *F. Lerman, A. B. Kennedy and J. Loshin, flow sheet Il plan diag Ind & Eng Chem* 40:1753-8 S '48
- Fractional liquid extraction. *E. G. Scheibel, flow sheet diags Chem Eng Prog* 44:681-90, 771-82 bibliog(p782) S-O '48
- Large Soxhlet-type extractor. *E. V. Painter, diags Anal Chem* 20:377-8 Ap '48
- Microextraction procedure for phenol determination. *R. H. DeMeio, bibliog diag Science* 108:391-3 O '48
- Rapid evaluation of solvent extraction processes; new liquid-liquid extractor. *H. A. Bewick, J. E. Currah and F. E. Beamish, bibliog diag Anal Chem* 20:740-3 Ag '48
- Simple micromethod for rapid extraction of lipids. *S. S. Hsiao, diag Science* 107:24-5 Ja 2 '48

EXTRACTION processes

- Aluminum from clay. *J Chem Educ* 25:159-62 Mr '48
- Caustic purification by liquid-liquid extraction. *H. C. Twiehaus and N. J. Ehlers, Il diag Chem Ind* 63:230-3 Ag '48
- Dezincing lead under vacuum; abstract. *W. T. Isbell, diag Comp Air Mag* 53:45 F '48
- Diffusion phenomena in solvent extraction of peanut oil; effect of cellular structure. *H. P. Fan, J. C. Morris and H. Wakeham, bibliog Il Ind & Eng Chem* 40:195-9 F '48
- Distribution of thorium nitrate between water and certain alcohols and ketones. *B. F. Rothschild, C. C. Templeton and N. F. Hall, bibliog J Phys & Colloid Chem* 52: 1006-20 Je '48

EXTRACTION processes—Continued

- Duo-Sol solvent extraction process; Max B. Miller & co. flow diag Pet Refiner (Process Handbook ed) 27:178-9 sec 2 S '48
- Extraction of alumina from high-iron bauxites; pilot-plant tests employing the lime-soda sinter process. F. J. Cservenyak and others. bibliog 5pls U S Bur Mines Rep of Invest 4299:1-29 '48
- Extraction treatments in bleaching aspen neutral sulphite semichemical pulp. S. A. Trivedi and others. bibliog Paper Ind 29:1443-53 Ja '48
- Fish oil extraction; electricity revolutionizes methods at Grimsby works. il Elec R (Lond) 141:949-51 D 26 '47
- Fractional liquid extraction. E. G. Scheibel. flow sheet diag Chem Eng Prog 44:681-90, 771-82 bibliog(p782) S-O '48
- Fractional liquid extraction process; Otto H. York company, inc. flow sheet Pet Refiner (Process Handbook ed) 27:206-7 sec 2 S '48
- Gas conservation; extraction plants replace gas flares. il Pet Processing 2:857-60 N '47
- Gas once burned yields valuable products; natural-gasoline extraction plant built by the Magnolia petroleum co. il Comp Air Mag 53:63-5 Mr '48
- Polymer fractionation of heat-polymerized non-conjugated vegetable oils. I. M. Bernstein. bibliog J Phys & Colloid Chem 52:613-61 Ap '48
- Pott-Broche coal extraction process and plant of Ruhröl G.m.b.H. Bottrop-Welheim, Germany. H. H. Lowry and H. J. Rose. bibliog 5pls U S Bur Mines Information Circ 7420:1-12 '47
- Selective extraction of vegetable oils with furfural; drying oils from soybeans. R. L. Kenyon, S. W. Gloyer and C. C. Georgian. bibliog(52 ref) il diags Ind & Eng Chem 40:1162-70 Jl '48
- Semigraphical methods of solving leaching and extraction problems. B. F. Ruth. bibliog Chem Eng Prog 44:71-80 Ja '48
- Solubility of thorium nitrate tetrahydrate in organic solvents at 25°C. C. C. Templeton and N. F. Hall. bibliog J Phys & Colloid Chem 51:1441-9 N '47
- Solvent extraction. J. C. Elgin. bibliog(86 ref) Ind & Eng Chem 40:53-6 Ja '48
- Solvent extraction of indene and coumarone from coal tar light oils. A. W. Gauger and J. N. Breton. bibliog Inst Pet J 33:687-94 N '47
- Solvent extraction of oil from soybeans; staff-industry collaborative report. R. L. Kenyon, N. E. Kruse and S. P. Clark. bibliog flow sheets il Ind & Eng Chem 40:186-94 F '48
- Stagewise operations; graphical solutions of difference equations. F. M. Tiller. bibliog diag Chem Eng Prog 44:299-306 Ap '48
- Steam-saving process for benzole extractions. H. Deringer. diags Am Gas J 168:22-3 Ja '48
- Stoichiometric extraction of mixed acids. A. V. Branner. Soc Chem Ind J 66:453-6 D '47
- Straight-line chart determination of absorber-extraction efficiency. E. G. Ragatz. Oil & Gas J 46:78-9+ F 12 '48; Same, Pet Refiner 27:83-90 F '48
- Studies in selective extraction and adsorption; selective solvents for ethylene chlorohydrin. C. Weizmann and others. bibliog Soc Chem Ind J 67:203-5 My '48
- Systematic multiple fractional extraction procedures; principles of application to separation of (organic) mixtures. M. T. Bush and E. M. Densen. bibliog Anal Chem 20:121-9 F '48

See also

Solvents

Bibliography

Literature search on the solvent extraction of oleaginous materials; with additional reference to by-products from the solvent extraction of peanuts. B. H. Weil and others. Georgia School of Technology State Eng Exp Sta [Atlanta] Special Rep no 26:1-185 '48 (\$4)

EXTREME values, Theory of

Application of the theory of extreme values in fracture problems. B. Epstein. bibliog Am Stat Assn J 43:403-12 S '48

EXTRUSION process

- Cold extrusion of steel now being investigated for automotive use. R. C. Mack. il diags Automotive Ind 97:40-1+ N 1 '47
- Crep tests on some extruded lead and lead-alloy sleeves and tapes. G. R. Gohn and others. bibliog il diags Am Soc T M Proc 46:990-1020; Discussion. 1021-4 '46
- Dimensional control in extruded tubing. G. Jargstorff and C. Joslin. il diags Mod Plastics 26:191-3+ S '48
- Effect of single and multihole die extrusion on the properties of extruded aluminium-alloy bar. L. Northcott and others. il diag Engineering 166:93-5 Jl 23 '48
- Effective extrusion design in aluminum. H. Cohen. il diags Light Metal Age 6:8-12+ O '48
- Extruded acrylics have varied applications. il Plastics 8:41 Je '48
- Extruding refractories; some facts on blending, adding water, picking augers. J. O. Everhart. il Brick & Clay Rec 112:70+ Je '48
- Extrusion forging ready for mass production at Ford Canton foundry. il Automotive Ind 98:40+ Ap 1 '48
- Extrusion method of plastic finishing steel tubing. il Steel 123:104 Jl 19 '48
- Extrusion molding process; its potentialities as a means of processing gas turbine parts. H. E. Cook. il diag Iron Age 161:62-9 Ja 29; 79-86+ F 5 '48
- Extrusion of plastics. C. P. Fortner. il India Rubber World 118:671-4 Ag '48
- Extrusion of thermoplastics; abstract. S. Booth and others. Chem & Ind p 171-2 Mr 13 '48
- Factors affecting the tensile notch sensitivity of magnesium alloy extrusions. I. Cornet. bibliog il diags Metals Tech 15:TP2419 1-23 Ag '48
- How to design molded and extruded rubber parts. J. H. Gerstenmaier. il diag Machine Design 20:115-17 Ag '48
- Impact extrusion methods at western aluminum plant; collapsible tube manufacturing. H. Pierce. il Light Metal Age 6:20+ Ag '48
- Impact extrusions, their design and production. H. Chase. il diags Mach 54:147-52 Ag; 55:168-70 S '48
- Polyethylene extrusion. G. G. Himmeler. India Rubber World 117:228-9 N '47
- Production processes; their influence on design; hot extrusion of metals. R. W. Bolz. il diags Machine Design 20:107-14+ Ag '48
- Steel shapes formed by cold extrusion. K. Rose. diags Materials & Methods 27:68-71 My '48
- Theoretical analysis of the stresses and strains in extrusion and piercing. R. Hill. bibliog diags Iron & Steel Inst J 158:177-85 F '48
- When extruders market products. K. Genereux and D. H. Garrison, jr. il Mod Plastics 25:94-7 Mr '48

EYE

Sensitivity performance of the human eye on an absolute scale. A. Rose. bibliog il diags Opt Soc Am J 38:196-208 F '48

See also

Color sense Retina
Optics, Physiological Sight

Accommodation and refraction

Color adaptation to stimuli of different spectral composition but equal tristimulus values. J. Cohen. Science 103:159-60 Ag 13 '48

Diseases and defects

See also
Color blindness

Examination

- Cutting the cost of poor vision. R. W. Habersat and J. M. Davis. il Nat Safety N 57:26-7+ Ap '48
- Good vision program increases efficiency, improves employee morale. E. M. Soles. il Steel 121:96-7+ N 17 '47
- Important uses of industrial vision tests and the medical director. W. G. Morgan and N. F. Stump. il Ind Med 17:253-8 Jl '48

EYE—Examination—*Continued*

- Sight screener checks industry's vision. *Safety Eng* 94:26 D '47
 Visual classification and placement tests in the textile industry. J. M. Scott, Jr. *Rayon* 29:49-50 Ag; 93:4 S '48
 Visual tests can fit employees to jobs. W. C. Ezzell. *Il Textile World* 98:137+ Ap '48
See also
 Pupilometer

Injuries

- Chemicals and the eye; damage inflicted by acids and alkalis. *Chem Age (Lond)* 59:51+ JI 10 '48
 Radiation from the welding arc; its effect on the eye. E. van Someren and E. C. Rollason. *Welding J* 27:sup448-52 S '48
 Treatment of eye chemical burns. T. W. Nale. *Il Safety Eng* 96:58-63 Ag '48
 Use of hydrosulphosol (sulphydryl) in the treatment of chemical and/or thermal burns of the eyes. H. S. Kuhn. *bibliog Ind Med* 17:347-50 S '48

Protection

- Dark glasses; National bureau of standards reports on studies. *Il Nat Safety* N 58:34+ S '48; Same. *Franklin Inst J* 246:250-2 S '48
 Eye and face protection. *Il Nat Safety* N 57:27-8+ Mr '48
 Eyes are your most valuable machines. L. J. Mastache. *Am Mach* 92:107-9 Je 17 '48
 Eyesight conservation in the garment industry; abstract. L. Price. *Nat Safety* N 57:56 F '48
 Is your eye a target? *Il Safety Eng* 95:14-16+ Je '48
 Modern industrial safety equipment; eye and face protection. A. Ashburn. *Il diags Am Mach* 92:107-9 O 7 '48
 More than glasses; modern industrial eye care program. H. H. Joy. *bibliog Il Nat Safety* N 58:20-1+ Ag '48
 Plastics on guard! *Il Safety Eng* 96:24-7+ JI '48
 Standardization of the optical densities of industrial eye-protective glasses. R. Stair. *bibliog Glass Ind* 29:375-80+ JI '48
 Vision in industry; abstract. H. S. Kuhn. *Nat Safety* N 57:44-5 Ap '48

EYE (Insects)

- Insect vision. L. J. Milne and M. J. Milne. *Il diags Sci Am* 178:42-5 JI '48

EYRING theory of textile flow. *See Textile research***F**

FM. *See* Radio frequency modulation

F.O.B. and basing point price. *See* Price policies

FACE**Protection**

See Head—Protection

FACE powder. *See* Powder, Face

FACIAL paralysis. *See* Paralysis, Facial

FACSIMILE, Radio. *See* Radio facsimile

FACTOR of safety

- Bear-up requirements for aircraft; fatigue strength, the engineers call it. B. Lundberg. *Il Aero Digest* 55:56-8+ D '47

FACTORIES

- Beautiful factories; new plants are changing the American countryside. *col Il Fortune* 38:128-33 N '48
 Beautiful plant is more efficient; Johnson & Johnson baby products plant, Cranford, N.J. H. G. Fromm. *Il Factory Management* 105:76-9 N '47
 Brick and tile core wall, glazed tile interiors used in plastics plant. *Il diag Brick & Clay Rec* 111:31 D '47
 Built-up glass-fiber roofing covers large factory; New departure division of General Motors corp. *Il diag Eng N* 139:660-3 N 13 '47
 Enlightened look at a factory. R. Johnson. *Il Arch Rec* 104:108-11 Ag '48

- In this new plant workers come first; International Business Machines. *Il Factory Management* 106:74-7 O '48
 Industrial buildings; Architectural Record's building types study. *Il plan diags Arch Rec* 104:108-42 Ag '48
 Industrial plant buildings; fourteenth annual presentation. *Il Factory Management* 106:743-128 pt 2 Ap '48
 New plant devoted to laminating plastics; General electric co. *Il Product Eng* 18:150 N '47
 Operate first plant featuring completely controlled conditions; Simmonds saw and steel co. *Iron Age* 161:125-6 Ja 15 '48
 Precast concrete structural units. *Il Concrete* 56:3-5 Mr '48
 Quamby quonset factory. G. F. Burnley. *Il Mill & Factory* 42:109 Ap '48
 Ruralization method no.1; convert an old building; Munsingwear, inc. *Il Factory Management* 106:68-70 Ag '48
 Ruralization method no.2; build a new plant; James Lees & sons co. *Il Factory Management* 106:70-3 Ag '48
 Tile and terra cotta give plant clean, bright lines; plant of Johnson & Johnson at Cranford, N.J.; illustrations. *Brick & Clay Rec* 112:29 F '48
 Unique method of plant expansion; Caterpillar tractor co. *Il Automotive Ind* 99:48 S '48
 Workers in windowless factories are subject to claustrophobia. E. A. Dench. *Glass Ind* 29:147+ Mr '48

See also

- | | |
|--------------------------|----------------------------|
| Airplane factories | Lavatories |
| Automobile factories | Machine shops |
| Branch factories | Machine works |
| Brick works | Metallurgical plants |
| Canneries | Paint factories |
| Carpet factories | Paper box factories |
| Chemical plants | Paper mills |
| Clay products plants | Paper products plants |
| Concrete products plants | Petroleum refineries |
| Cotton mills | Potteries |
| Drug factories | Rayon mills |
| Factory management | Rock products plants |
| and other headings | Rolling mills |
| beginning Factory | Rubber factories |
| Flour mills | Shoe factories |
| Food factories | Soap factories |
| Foundries | Steel works |
| Garment factories | Textile mills |
| Glass factories | Tire factories |
| Industrial buildings | Water supply for factories |

Accounting

- Accountants divided by plant cost puzzles. *Barron's* 28:12 Je 28 '48
 Applying point rating to the setting of machine hour rates. N. R. Reed. *N A C A Bul* 29:319-23 Mr 1 '48
 Case study of small business controls. C. W. Bennett. *N A C A Bul* 29:991-1026 Ap 15 '48
 Cost accounting facts and fantasies. P. T. Norton, Jr. *Manuf Rec* 117:27-8+ Ja; 35-6+ F; 38+ Mr; 38+ Ap '48
 Cost predetermination in volume planning as developed in cotton textile industry. L. F. Sawyer. *J Account* 85:236-41 Mr '48
 Critical areas of material cost control. I. W. Keller. *N A C A Bul* 29:1409-20 JI 15 '48
 Embryo standard cost system for small manufacturing companies. *N A C A Bul* 30:179-82 O 15 '48
 Equipment selection and replacement. P. T. Norton, Jr. *Manuf Rec* 117:48+ Ag; 45+ S; 48+ O; 62-3 N '48
 Finding and controlling the break-even point. N. St Peter. *N A C A Bul* 29:1211-18 Je 1 '48
 How one company determines economic lot sizes; Osborn manufacturing co., Cleveland. W. W. Hannon. *Factory Management* 106:71-3 S '48
 Installing manual fixed asset records. D. R. Thompson. *N A C A Bul* 29:343-51 N 15 '47
 Principles of maintenance control; getting the job costs. C. L. Wallace. *Factory Management* 106:94-5 S '48
 Program of limited decentralization of accounting functions. T. H. Patterson. *N A C A Bul* 29:1191-200 Je 1 '48

See Branch factories, Foreign

FACTORIES—Continued

Heating and ventilation

Air and heat where you want it. Mill & Factory 43:108 S '48
 Ducted heaters; makeup air distributing system in factory with heavy spray booth exhaust. il Heat & Ven 45:116 Ag '48
 Dust control; engineering data manual. il diags Mill & Factory 43:139-46 S '48 [reprints 26c]
 Economical use of cooling water for heat insulation of presses and subsequently for space heating. J. Butler. Engineering 165: 185-6 F 20 '48
 Exhaust system in luggage plant; Amelia Barhart luggage co. il diags Sheet Metal Worker 38:64-6+ D '47
 Heating of industrial and commercial buildings. W. N. Blinks. Am Gas J 163:11-14 Ap '48
 Here's how to save heating steam. W. B. Pride. il Heating-Piping 20:72-5 Ap; 75-9 My '48
 Improved heating system saves cost in two years; change from low-pressure steam to vacuum system. C. D. Wolf. diag Factory Management 106:78-9 J1 '48
 Individual supply duct units heat and ventilate new plant; Reliance electric & engineering co. il Heating-Piping 20:73-4 My '48
 Industrial radiant heating. il Engineering 165:403 Ap 23 '48
 Keeping locker rooms well ventilated. H. E. Bovy, Jr. diag Mill & Factory 42:144-5 F '48
 Large industrial plant heated and ventilated by unit systems; Reliance electric & engineering co. il Heat & Ven 45:98 My '48
 New heating system reduces costs; improved type, oil-burning direct-fired space heater. il Mill & Factory 43:128 O '48
 Positive-pressure ventilation helps worker and product. il Factory Management 106: 113-19 My '48
 Power and heat from natural gas; Kato engineering company of Mankato, Minn. il Mill & Factory 43:148 O '48
 Recognition and control of fume and dust exposure. V. J. Castrop. il Nat Safety N 57:20-1+ F '48
 Saving space in factory ventilation; Reliance electric & engineering co. il Eng N 140: 946-7 Je 10 '48
 Tempering the fresh air intake; Homestead valve manufacturing co. il Nat Safety N 58:36-7 S '48
 Ventilation and dust control. il Nat Safety N 57:15-16+ Mr '48
 Ventilation in winter. Safety Eng 95:59 Ja '48
 Versatile heating job; installation providing comfortable heat for light manufacturing plant's present needs with provision for future expansion. il Dom Eng 170:150 N '47

See also

Carpet factories— Heating and ventilation	Exhaust systems Factories—Air conditioning
--	---

Layout

Better handling, double output, half the floor space; Emerson electric manufacturing co. H. C. Miller. il Factory Management 106:98-9 S '48
 Building profit with layout teamwork. Management R 37:85-6 F '48
 Container plant; finely composed masonry encloses an efficient factory; Greensboro, N.C., plant of Container corp. of America. il plans diags Arch Forum 89:90-5 Ag '48
 Disappearing boards show plant layout in sections. C. H. Parks. il Factory Management 105:81 D '47
 Floor layout and material handling in the light engineering industry. L. W. Bailey. il plan diags Mech Handling 34:620-7 D '47
 High stacking saves floor space; National cash register co. H. G. Sisson. il Mill & Factory 42:134-5 Je '48
 Improved handling and layout pay off in one year; Tappan stove co. G. L. Dobson. il Factory Management 106:72-3 O '48
 Introduction to plant layout. A. E. Rylander. il plans diags Tool Eng 19:17-24 Ja; 20:31-6 F; 41-6 Mr '48

Made a new layout to get assembly savings; Stewart-Warner. A. R. Collins. il Factory Management 106:84-7 Je '48
 Midwest Bab-O plant; one-story layout with room for storage and inside loading. il plan diags Arch Forum 87:89-92 D '47
 Moving materials with ease and economy; manufacture of a-c welders, Westinghouse Electric. il plan Mill & Factory 42:104-7 Ap '48
 New layout for small assemblies returns first cost in six months; Weatherhead co. il plan Factory Management 106:100-3 J1 '48
 No back-tracking of materials improves production; Electrical products corp., Los Angeles. il Mill & Factory 43:147 S '48
 Planned factory environment, answer to efficient production; Louis Hand curtain factory. il plan diag Mill & Factory 42:128-30 Ap '48
 Plant layout and design. il Nat Safety N 57:13-14+ Mr '48
 Plaster cost reduction raised output 50 per cent; Victor adding machine co. O. Madliger. il plan Factory Management 105:98-101 N '47
 Plastic templates held by magnets. il Mod Plastics 25:170-1 D '47
 Proposed ASME standards for plant layout models. il Factory Management 106:99-100 Ja '48
 Scale model cost \$400, will save thousands; Motorola's new television plant. E. V. Phillips. il Factory Management 106:76-7 F '48
 Scale model layout prevents bugs in assembly; White motor co. il Factory Management 106:82-3 Mr '48
 Sectional scale model, with complete color code; Upjohn company, Kalamazoo. W. S. Wheeler. il Factory Management 106:104-5 O '48
 Straight-line production pays off in four ways; Burroughs adding machine co. C. Dunlop. il Factory Management 106:82-5 My '48
 Templates; technique developed for plant layout. il Machine Design 19:113 D '47; Sci Am 177:271 D '47
 Three-level layout boosts assembly capacity 65 per cent; General Electric's Erie, Pa. plant. M. L. Disco. Factory Management 106:116-17 My '48
 Traveling stockroom helps output in British plant; Standard Telephones & Cables conveyor, stores parts as well as moves them. il plan Factory Management 106:78-9 F '48
 Use your headspace. il Food Ind 19:1518 N '47
 Using a combination of methods to get effective layout; Mechanics universal joint division, Borg-Warner corp. G. C. Gridley. il Factory Management 106:120-1 Je '48

See also

Automobile factories— Layout	Furniture factories— Layout
Enamel and enamel- ing—Plant layout	Machine shops— Layout

Lighting

Brighter and safer; factory of today. il Nat Safety N 57:26-7+ Ja '48
 Dollar value of light; relation between increases in illumination and decreases of accidents. H. L. Logan. Ry Age 124:433-4 F 28 '48
 Fluorescent lighting in industry. il Elec R (Lond) 142:348 Mr 5 '48
 High light for a new plant; Reliance electric & engineering co. il Mill & Factory 43:110 Ag '48
 Industrial lighting. il Nat Safety N 57:19+ Mr '48
 Industrial lighting; a selling job, Toledo Edison co. M. L. Bettinger. il Elec World 130: 97-8 J1 31 '48
 Modern lighting for manufacturing; fluorescent troffer lighting in General Electric's laminated plastics plant. il Elec World 128: 134+ N 8 '47
 Planned factory environment, answer to efficient production; Louis Hand curtain factory. il plan diag Mill & Factory 42:128-30 Ap '48
 Plant that was dark has seen the light; Haskell-Dawes machine co., Philadelphia. il Factory Management 106:114-15 My '48
 Relighting for real seeing. il Factory Management 106:86-7 Mr; 98-9 Ap '48

Factories—Lighting—Continued

Shot blasting won't break these lamps; PAR-38 lamps at Erie works. General electric co. il Nat Safety N 56:74+ N '47
Simplified maintenance of building lighting. il diags Mill & Factory 42:119-22 Ap '48
Time-saving light. R. H. Scott. bibliog il Nat Safety N 58:96-7+ O '48

Location

Industrial survival in an atomic war. il Mill & Factory 43:95-8 O '48
Preplanning for plant location. B. H. Shaffer and H. W. Lormer. Factory Management 106:95-102 O '48

See also

Chemical plants—
Location

Maintenance and repair

Alarm system minimizes conveyor downtime; Packard motor co. L. R. Bogardus. il Factory Management 106:113 JI '48
Close control of maintenance with three-form system; R. M. Hollingshead corporation, Camden, N.J. J. R. Taylor. il Factory Management 105:82-4 D '47
Control and planning of maintenance with an incentive bonus scheme. R. Talbot and G. F. Satow. Inst Mech Eng J & Proc 156: Proc 305-13; Discussion. 313-17 D '47
Formula controls maintenance costs. Mod Ind 16:123-4+ JI '48

Good practice in a maintenance stockroom; Edison plant, West Orange, N.J. J. Henderson. il Factory Management 106:76-8 Mr; 68-71 Ap '48

Instrument maintenance. H. A. Hulsberg. Chem. & Eng N 26:2424-6 Ag 16 '48

Keeping a medium-size plant in good condition; Electromaster, Inc. D. G. Baird. il Mill & Factory 42:139-41 Ap '48

Large and versatile maintenance department, Torrance, Calif., plant of National supply co. F. M. Burt. il Mill & Factory 42:102-5 My '48

Little more paperwork but it helps cut repair costs; Tool steel gear & pinion company, Cincinnati. R. Stroppel. Factory Management 105:107 D '47

Maintenance in a medium-size plant; Hays manufacturing co. Erie, Pa. W. Rudolph. il Mill & Factory 42:134-5 Mr '48

Management of maintenance. D. T. Ward. Factory Management 106:89-96 JI '48

New system slices ten per cent from maintenance labor costs. W. S. Johnston. flow chart Factory Management 106:122-5 Je '48

One plant or many; here's good maintenance control. T. A. D. Jones. Factory Management 106:114-16 Ja '48

Pipefitters' maintenance cart; Fisher Body Ternstedt plant. il diags Mill & Factory 43: 106 O '48

Plan maintenance for buildings old and new. Factory Management 106:B82+ pt 2 Ap '48

Principles of maintenance control. C. L. Wallace. Factory Management 106:87-96 S '48

Product designs that stop maintenance gripes. il diags Mod Ind 16:40-5 S '48

Rating jobs and men in maintenance. C. H. DeWolf. Factory Management 106:107-9 Ja '48

Repairs expedited by telephone. G. A. Wadsworth. il Factory Management 106:74-5 F '48

Safe structural loads concentrated at mid-spans of laterally unsupported members; maintenance data sheets. Factory Management 106:132, 134 O '48

Safety rules for maintenance men; Mathieson alkali works; maintenance data sheet. Factory Management 105:133-4+ N '47

Ten-step upkeep in a non-stop plant; Scott paper co. H. S. Godshall, Jr. Factory Management 105:120-3 N '47

Time saving aids hike maintenance efficiency; Reliance electric & engineering co. il Mill & Factory 43:135-6 S '48

We charge these expense items to maintenance. C. L. Brinkman. Factory Management 106:80-1 My '48

See also

Chemical plants—
Maintenance and repair

Factories—Electric equipment
Factories—Painting

Moving

Moving a plant 1,700 miles; Chance Vought aircraft division. il map Mill & Factory 43:130-1 S '48

Moving an airplane plant all-rail, New England to Texas. Ry Age 125:846-9 N 6 '48

Transplanting aircraft company across the Nation; Chance Vought's move from Connecticut to Texas. il Bsns W p24-6+ Ag 14 '48

When industry moves to the country; two practical ways to set up small units in small towns. il Factory Management 106: 66-73 Ag '48

Painting

Color at work. il Nat Safety N 57:20 Mr '48
Improved procedure for painting plants in the rubber industry. J. S. Thayer. il India Rubber World 117:349-50+ D '47

Painting contrast in a paper mill. E. A. Dench. Pulp & Pa of Can 49:76-8 O '48

Save the surface and you save money. E. E. Cady. il Mill & Factory 42:157-9 F '48

When everything looks dark, try color. J. Lear. il Nat Safety N 58:22-3+ S '48

Why do paint jobs go wrong? Chem Ind 62:450+ Mr '48

Protection**See also**

Factory fire brigades

Records

Close control of maintenance with three-form system; R. M. Hollingshead corporation, Camden, N.J. J. E. Taylor. il Factory Management 105:82-4 D '47

Electrical maintenance records that simplify work control; American can co. C. Schultz. Factory Management 106:112-15 O '48

Five simple forms cover all plant activities. D. E. McDonald. il Mill & Factory 42:130-1 F '48

Flexible charts aid in work, space allocation; Pioneer engineering and manufacturing co. A. M. Sargent. il Mill & Factory 43:136-7 Ag '48

Little more paperwork, but it helps cut repair costs; Tool steel gear & pinion company, Cincinnati. R. Stroppel. Factory Management 105:107 D '47

Management of maintenance. D. T. Ward. Factory Management 106:89-96 JI '48

New system slices ten per cent from maintenance labor costs. W. S. Johnston. flow chart Factory Management 106:122-5 Je '48

One plant or many; here's good maintenance control. T. A. D. Jones. il Factory Management 106:114-16 Ja '48

Order-billing plan aids management at Pennsylvania salt manufacturing co. R. Neumaier. il Am Bsns 18:12-13+ F '48

Principles of maintenance control. C. L. Wallace. Factory Management 106:87-96 S '48

Production control based on improved inventory records. F. O. Orthey. flow chart il Factory Management 105:98-9 D '47

Simplified control reduces paper work; requisition, blueprint and tag combine to control production effectively; Axelson manufacturing co. il Am Mach 92:92-3 F 26 '48

See also

Automobile factories

—Records

Production control

Roofs

Big roofing job set to fast tempo. il Constr Methods 30:88-91 S '48

Built-up glass-fiber roofing covers large factory; New departure division of General motors corp. il diags Eng N 139:660-2 N 13 '47

Pre-cast concrete roof extension; Plessey company. il Engineer 185:578 Je 11 '48

Umbrella trusses form low-weight roof for New Orleans factory. il diags Eng N 140: 774-5 My 27 '48

Visitors

See Visitors

Water supply

See Water supply for factories

FACTORIES—Continued**Yards****Lighting**

Centralize industrial yard lighting service. *Il Elec World* 129:112 F 14 '48

FACTORIES, Underground

Can chemicals dig in? survey of underground plants in other nations. *G. A. Van Brunt. Il Chem Eng* 55:106-8 Mr '48

For this new plant, underground quarters; Smith & Wesson. *Il Factory Management* 106:82-3 S '48

How underground factories performed. *Il plan Eng N* 141:107-9 O 14 '48

If industry ever had to go underground. *Il Factory Management* 106:97-9 Mr '48

Old Massachusetts small-arms plant moves half-way underground at no extra cost. *Il Arch Forum* 89:13-14 Ag '48

Smith & Wesson prepares to go underground. *Il Bsns W* p39-40 JI 24 '48

Underground plants will provide protection for storage, fabrication, and assembly. *S. P. Wimpfen. Il Min & Met* 28:596-7 D '47

Underground sites for factories. *B. W. Brown. Chem & Eng N* 25:3497 N 24 '47

FACTORS

Function of the factor in modern business. *W. D. Yankauer, Rayon* 29:50-1 Ap '48

FACTORY communication

Live wires for higher profits; improved communications in plant and office. *Il Mod Ind* 16:55-6+ Ag '48

Management communicator; Caterpillar tractor co.; tape recorder connected to telephone system. *G. W. Torrence. Management R* 37:236-8 My '48

News and voice of management on public address system. *Il Factory Management* 106:97 Ag '48

See also

Employees, Reports Railroads, Industrial
to —Radio communication

FACTORY fire brigades

Fire would find them ready; volunteer fire department, the Spicer manufacturing division of the Dana corp. *Il Nat Safety N* 58:30 S '48

Firemen-guards. *Bsns W* p 106-7 O 9 '48

Plant's defenses. *Il Nat Safety N* 57:161-2 Mr '48

FACTORY guards

Firemen-guards. *Bsns W* p 106-7 O 9 '48

Plant guard unions must be independent. *Bsns W* p 114 My 15 '48

Plant guards; NLRB problem; what kind of plant police union is legal. *Bsns W* p86+ F 28 '48

FACTORY insurance association

Activities in 1947. *C. W. Pierce. Weekly Underw* 158:21+ Ja 3 '48

Annual meeting, New York, March 24. *East Underw* 49:32 Mr 26 '48

FACTORY laws and legislation

Overhauling the Factories act. *Chem Age (Lond)* 59:277-8 Ag 28 '48

State laws concerning industrial exhaust ventilation. *K. J. Caplan and A. D. Brandt. Heating-Piping* 20:118-23 F '48

FACTORY management

Cashing in on competitors' markets; emphasis on top personnel and buying right; Electric auto-lite co. *Il Mod Ind* 15:67-8+ Je '48

Constructive curiosity reduces costs and improves quality; International harvester company department for research in reducing manufacturing costs, improving product quality. *E. J. Clement. Il Mill & Factory* 42:95-9 Ja '48

Co-ordinating materials handling with the manufacturing cycle. *S. C. Hoey. Il plans Mech Eng* 69:1007-11 D '47; Same cond. *Steel* 122:74-5+ F 9 '48

Cost-cutting conference brings out an idea a minute; Bigelow-Sanford carpet co. *E. I. Petersen. Factory Management* 106:94-6 My '48

Factory improvements suggested by employees. *E. A. Dench. Pulp & Pa of Can* 49:61-3 My '48

He makes big plant ideas pay; C. E. Price's formula for success. *Il Mod Ind* 15:67-8+ Ja '48

Here is a cost-reduction program for the smaller company; Duro-Test corp. *E. W. Cook. Factory Management* 106:91 O '48

Industrial administration. *G. H. Nelson and R. T. Mattinson. Inst Mech Eng J & Proc* 157 (War emergency issue no 32):301-4 '47

Junior executive's place in production. *J. T. Brown. Mech Eng* 69:904-6 N '47

Labor contracts and efficiency. *C. C. Higgins. Iron Age* 161:66-7 Ja 22 '48

Making job improvement everybody's job. *R. C. Hasselhorn. Il Factory Management* 105:100-1 D '47

New techniques + sound labor relations == nearly 400 per cent increase in labor productivity. *E. Marple. Il Mill & Factory* 42:122-4 F '48

Plantwide cost reduction raised output 50 per cent; Victor adding machine co. *O. Madliger. Il plan Factory Management* 105:98-101 N '47

Reducing operating waste reduces operating costs. *E. Mottershead. Mill & Factory* 42:127-8 Mr '48

Scrap report [hold-ups and breakdowns] cuts spoilage 73 per cent the first year; Dexion, Ltd., London, England. *D. Comino. Factory Management* 106:116-17 O '48

Self-liquidating incentive plan; Republic drill and tool company saving-sharing plan. *J. Turner. Il Am Bsns* 17:10-11+ D '47

Straight-line production pays off in four ways; Burroughs adding machine co. *C. Dunlop. Il Factory Management* 106:82-5 My '48

Supervisor's place in management. *L. J. Fletcher. Mech Eng* 70:893-4 N '48

Top man off the production line; John Craig heads Crosley. *Il Mod Ind* 16:67-8+ O '48

Turning loss into profit; neat trick, and he did it; Hewitt rubber co. salvaged by Thomas Robins, Jr. *Il Mod Ind* 16:67-8+ Ag '48

See also

Assembling methods

Branch factories

Bulletin boards

Chemical plants—

Management

Committees (in man-

agement)

Control boards

Dental service, In-

dustrial

Efficiency, Industrial

Employees

Employees' benefit

plans

Employees' representa-

tion in manage-

ment

Employment manage-

ment

Employment systems

Engineering depart-

ments

Executives

Factories—Cleanli-

ness

Factories—Main-

tenance and repair

Factories—Records

Factory transporta-

tion

Foremen

Foundry management

Hours of labor

Hygiene, Industrial

Industrial engineer-

ing

Industrial manage-

ment

Inspection

Inventories

Job analysis

Machine shop man-

agement

Machine works—

Management

Material control

Material handling

Mechanical handling

Medical service, In-

dustrial

Metal working plants

—Management

Music in industry

Night work

Noise

Office management

Orders

Packaging

Packing for shipment

Paper mills—Man-

agement

Photographic de-

partments

Piece work

Planning

Production and sales,

Coordination of

Production control

Purchasing

Quantities (in pro-

duction)

Routing systems

Safety devices and

measures

Salvage (waste, etc.)

Shipment of goods

Standardization

Steel works—Man-

agement

Stores systems

Subcontracting

Suggestion systems

Textile mills—Man-

agement

Time study

Tool engineering

Visitors

Wage payment plans

Watchmen

Parts purchasing

To make or to purchase? *P. T. Norton, Jr. Manuf Rec* 117:130+ My '48

FACTORY management—Continued

Quality control

Calculated risk. *Fortune* 37:124+ My '48

Collection and use of daily production statistical information. C. R. Tait and J. C. Wilson. *Pulp & Pa of Can* 49:77-8 Mr '48

Good inspection guarantees quality of product. E. J. Raves. *il Mill & Factory* 43:126-8 O '48

Industrial statistics; their place in the manufacture of pulp and paper. C. A. Bickling. *bibliog Pulp & Pa of Can* (Convention no) 49:181-8+ [F] '48

Integrated chain of quality controls assures better truck transmissions; Chevrolet-Toledo plant. J. Geschelin. *il Automotive Ind* 99:32-4+ S 15 '48

Is statistical quality control of value in manufacturing? no. B. D. Miller; yes. C. W. Kennedy. *Am Mach* 92:86-7 S 9 '48

Let the machine talk; samples forecast quality and anticipate inaccuracies. C. W. Kennedy. *Tool Eng* 20:17-20 Ap '48

Lot sampling of screw machine parts. G. M. Bowen. *il Iron Age* 161:74-6 Ja 29 '48

Meeting, Brighton, Sept. 13; discussion on application of statistics in engineering. *Engineer* 186:357-8 O 3 '48

Producer's quality control report aids inspection of incoming parts. G. R. Armstrong. *il Mach* 54:162-5 Ap '48

Production process control, what it can do for quality, costs, and volume. R. H. McCarrall. *il diags S A E J* 56:24-7 Je '48

Purchased-part quality controlled; statistical methods, applied to inspection of incoming parts; John Deere tractor co. E. L. Fay. *il Am Mach* 91:98-100 D 18 '47

Quality control and process control can be synonymous. N. Gildersleeve. *il diag Mill & Factory* 43:115-18 Ag '48

Quality control in a tractor plant; Minneapolis-Moline power implement co. J. Geschelin. *il Automotive Ind* 98:34-5+ Je 1 '48

Quality control in the textile industry. L. H. C. Tippet. *Textile Inst J* 38:P594-8; Discussion. P598-600 D '47

Quality control of aluminum sheet. A. Gelb. *il Iron Age* 161:72-7 My 13 '48

Quality paradox. J. O. Rice. *Management R* 37:177-8 Ap '48

Short cuts in safeguarding quality; laboratory workers have ideas for sales and production. *il Mod Ind* 15:49-53 My '48

Some engineering aspects of quality control. A. G. Dalton. *Mech Eng* 70:205-7+ Mr '48

Abstract. *Management R* 37:305-7 'Je '48

Statistical methods in the iron and steel industry. A. W. Swan. *Engineering* 166:379-80 O 15 '48

Statistical training for industry. S. S. Wilks. *Anal Chem* 19:953-4 D '47

Statistics, the insulation engineer's crystal ball. W. Schneider and G. L. Moses. *il Westinghouse Eng* 8:150-3 S '48

Technique of experimenting in the factory. L. A. Seder. *il Mech Eng* 70:593-8 Jl '48

Training quality control personnel for electroplating operations. O. H. Doll and A. L. Jenny. *il Steel* 121:93+ N 17 '47

Work and organization of a statistical department in heavy industry with particular reference to the steel industry. A. W. Swan. *bibliog diags Iron & Steel Inst J* 160:1-20 S '48

Workers aid boss; Apex electrical mfg. co. tackles problem of spotty quality of products. *Bsns W* p94+ N 15 '47

See also

Food factories—

Quality control

Study and teaching

Company gains when students analyze factory operations; A. G. Spalding & bros. W. T. Brown. *il Factory Management* 106:84-6 S '48

FACTORY sanitation

Effective control of insects in industrial plants. *il Mill & Factory* 42:98-100 Je '48

Rating plant improves plant sanitation. M. H. Solworth. *il plans Food Ind* 20:352-5+, 520-2 Mr-Ap '48

Sanitation practices in 82 industrial plants.

Factory Management 106:98-9 Ag '48

Washrooms and lockers. *il Nat Safety N* 57:173-4+ Mr '48

See also

Drug factories—Sanitation

Dust removal

Factories—Heating and ventilation

FACTORY transportation

Dispatch board controls moves by truck;

Kodak Park. E. L. Cook. *il Factory Management* 106:94-6 Mr '48

Shop carts carry all the tools; National

automatic tool co.; illustrations with text.

A. B. McCrear. *Am Mach* 92:110-11 Je 17 '48

Straight-line assembly served by elevators;

G. E. Erie plant. J. M. Scarlett. *il plan*

Factory Management 106:74-5 Je '48

See also

Conveying machinery

Electric trucks, Industrial

Material handling

Mechanical handling

Monorail conveyors

Motor trucks, Industrial

Pallets

Tractors, Industrial

Trucks

FACTORY visitors. See Visitors

FACTORY waste. See Trade waste

FADEOMETER

Control of fading lamps with light-sensitive

paper. Franklin Inst J 246:167-9 Ag '48

FADS

Six fads and fashions and how they began;

gin rummy, bare legs, backgammon, other

fads. J. D. Woolf. *il Adv & Sell* 40:43+ D '47

FAGARINE

Importance of the methoxy group in anti-

fibrillatory compounds. J. R. DiPalma and

J. J. Lambert. *bibliog Science* 107:66-8 Ja

16 '48

FAIR employment practices. See Discrimina-

tion in employment

FAIR labor standards act. See Labor laws and

legislation—United States

FAIR trade laws. See Price fixing, Resale

FAIRLESS, Benjamin Franklin, 1890-

Portrait. *Bsns W* p25 Je 5 '48

FAIRS

Big Top demonstrations win farm friends

for International. *il Sales Management* 60:

42-4 My 1 '48

Canada's great experiment in world-trade

promotion a success; International trade

fair, Toronto. J. Kunstenaar. *il For Comm*

W 32:6-8+ Ag 21 '48

Canadian international trade fair opens

vistas of opportunity. J. Kunstenaar. *il For*

Comm W 31:4-5+ My 8 '48

Expanding foreign sales through trade fairs.

il Mod and 16:103 O '48

Fairs and exhibitions. *For Comm W* 30:31+

Ja 3 '48 [cont irregularly]

How banks sell services at fairs. M. B.

Leach. *il Banking* 40:42-3+ Mr '48

Increased interest in fair liability. *Nat*

Underw 51:26 N 13 '47

International fairs in Europe; observations

and appraisals. J. Kunstenaar. *il For Comm*

W 29:3-5+ D 13 '47

Small fairs bring rural service results. W.

C. Buchanan. *il Elec World* 129:110 Ap 24

'48

Ties world business to local employees;

Kenosha manufacturers depict role of in-

dustry in community affairs. *Sales Management*

61:50 O 1 '48

Trade fairs plentiful in Europe and Canada;

summer list. *Bsns W* p 122 Ap 3 '48

FALK corporation

Employees are persons, not numbers. *il Mill*

& Factory 43:132-4 S '48

FALLS

Falls rank second in industry's fatal acci-

dents. D. C. Stewart. *Edison Elec Inst Bul*

16:15+ Ja '48

Slipperiness of walkway surfaces. P. A. Sig-

ler. *il diags Soap & San Chem* 24:147+ Ja

'48

FALVEY, Timothy James 1864-1947

Sketch. *por East Underw* 48:31+ D 5 '47;

Nat Underw 51:21 D 4 '47; *Weekly Underw*

157:1442-3 D 6 '47

FALVEY, Wallace J. 1894-
Sketch, por Nat Underw 51:21 D 25 '47

FAMILY

City worker's family budget; purpose and methods followed in BLS survey for 34 cities; with tables. L. S. Kellogg and D. S. Brady. bibliog Mo Labor R 66:133-70 F '48
How family status affects vocational adjustment. L. Stockford and K. R. Kunze. bibliog Am Mach 92:85-9 O 7 '48
Religion and the family. R. E. Baber. bibliog Ann Am Acad 256:92-100 Mr '48
Work adjustment in relation to family background; abstract. J. G. Friend. Management R 37:459-61 S '48

See also

Farm families

FAMILY allowances

Children's allowances in Sweden. Int Labour R 56:617-18 N-D '47

Family allowance schemes in 1947. bibliog Int Labour R 57:315-33, 456-77 Ap-May '48

FAMILY budget. See Budget, Household

FAMILY of products

How big-line firms handle the launching of new products. J. A. Murphy. Sales Management 60:46+ Ap 15 '48

FAMILY partnerships. See Partnership—Taxation

FANS, Automobile. See Automobile engines—Fans

FANS, Mechanical

Design, performance and selection of centrifugal fans. F. P. Bleier. Il diags Heat & Ven 45:68-80 S '48

Extending use of attic fan. M. E. Marsalis. Sheet Metal Worker 39:90 JI '48

Fan drive arrangement and direction of rotation; drawings. Power Generation 52:82 Je '48

Fan selection for forced and induced draft. Dom Eng 171:115-16+ My '48

Fan types, names and definitions. Pulp & Pa of Can 49:104 Je '48

Fans and fan laws. S. C. Moncher. Il diags Sheet Metal Worker 39:76+ S; 82+ O '48

Shielding fan systems from corrosion. W. E. Langlois. diags Heat & Ven 45:70-2 JI '48

See also

Fans, Mine

FANS, Mine

Automatic signal indicates fan breakdown. Il Coal Age 52:108 D '47

Fan change helps ventilation. W. E. Crane. Il diags Coal Age 53:89-91 JI '48

FAR EAST

Flaming East. A. Vandenbosch. bibliog Ann Am Acad 257:23-36 My '48

Orient; undeveloped economic frontier. P. V. McNutt. Il Dun's R 55:15-17+ N '47

See also

Petroleum industry and trade—Far East

Commerce

Status of United States private trade with the Far East; trade and exchange controls. For Comm W 32:40-7 JI 17 '48

FARADAY constant

Our knowledge of the atomic constants F , N , m , and h in 1947, and of other constants derivable therefrom. J. W. M. DuMond and E. R. Cohen. bibliog diags Rs Mod Phys 20:82-103 Je '48

FARADAY effect

Faraday effect at microwave frequencies. M. C. Wilson and G. F. Hull, Jr. Phys R 74: 711 S 15 '48

FARE collecting turnstiles. See Turnstiles, Fare collecting

FARE registers

Change-making fare box. Il Bus Transportation 27:193-4 Mr '48

FARES. See Airlines—Fares; Ferryboats—Fares; Motor bus lines—Fares; Railroads—Fares

FARM buildings

Lighting of farm buildings. A. C. Sandow. Light & Lighting 40:187-8 O '47
Standard frames for farm buildings. Engineering 165:211 F 27 '48

See also

Barns and stables

Farmhouses

Dairies

Swine houses

FARM credit. See Agricultural credit

FARM equipment and metal workers. See United farm equipment and metal workers of America

FARM families

Findings from the 1922-24 survey of farm families. H. G. Lewis and P. H. Douglas. J Bsns 20 pt 2:41-6 [with appendix B] O '47

FARM fires. See Fire protection, Rural; Insurance, Fire—Farm policies

FARM houses. See Farmhouses

FARM income

Cash farm income in 1947 and comparison with 1940; tabulation by states. Banking 40:104 Ap '48

Cash farm income in 1947 sets record. Bsns W p55 Mr 27 '48

Cash farm income, 1935-39 average, 1946-1947 and percent change 1947 from 1946; table. Survey of Cur Bsns 28:2 Ja '48

Cash receipts from farming; farm marketing and income, 1941-1946. Survey of Cur Bsns 1947 Sup p9-10 [supplemented in monthly numbers]

Farm income rise 1940-1947; unit and per capita farm income; tabulation. Sales Management 60:97, 99 Ap 1 '48

Farm income sustained at high level. Survey of Cur Bsns 28:6 JI '48

Farm income will stay high despite price slips. Il Bsns W p 19-20 Ag 7 '48

Net cash farm income per farm, 1947; graphs. Sales Management 60:63, 72 My 10 '48

Net farm dollars in 1947. Sales Management estimates. Sales Management 60:80 My 10 '48

Progress of the postwar transition; agricultural production and income in 1947; with figures for other years. Survey of Cur Bsns 28:26-7 F '48

Recent developments in crop prices and farm income. Survey of Cur Bsns 28:4 S '48

FARM journals

See also

Advertising mediums

—Farm papers

Reader interest

Continuing study of farm publications. D. B. Lucas. Ptr Ink 222:40-1+ Mr 5 '48

Continuing study shows farm-paper readers want localized, how-to advice. W. H. Olmsted. Ptr Ink 224:52+ S 3 '48

FARM labor

Admission of farm workers into the United States. Int Labour R 56:73-4 JI '47

Court injunction hits agricultural workers' long strike at Di Giorgio ranch, Arvin, Calif. Il Bsns W p74-6 JI 31 '48

Employment market collaboration among the north European countries. Int Labour R 57: 496-7 My '48

Trends in agricultural employment. L. J. Ducoff and M. J. Hagood. Mo Labor R 65: 649-53 D '47

FARM land values. See Land values

FARM loans. See Agricultural credit

FARM machinery. See Agricultural machinery

FARM market

Advertisers weigh teen-age farmers' demand. Ptr Ink 221:116 D 12 '47

Agriculture; farmers increasingly supply chemical industry with raw materials; also its best customers. P. H. Groggins. Chem Eng 55:114-18 Ap '48

Big Top demonstrations win farm friends for International. Il Sales Management 60: 42-4 Mr 1 '48

Farm state gas consumption up 30 per cent despite greater urban population gains. H. Ridder. Nat Pet N 40:29-30+ O 13 '48

Future of the farm market. G. Krieger. Comm & Fin Chr 167:2102 My 13 '48

How rich is the farm market? R. Hurley. Il Adv & Sell 41:27-8+ O '48

Need to conserve gasoline stressed at oil-farm meeting in Kansas City. Nat Pet N 40:17-18 Mr 24 '48

Neighborhood sab-fests for farmers find new buyers for Humble Oil. F. A. Watts. Il Sales Management 60:124+ F 15 '48

Selling farmers; Westinghouse steps up sales efforts. Bsns W p84-5 Je 19 '48

FARM market—Continued

Selling tools that put conviction into sales talks to farmers; Larrowe division, General Mills, R. Senusky, *il* Sales Management 60: 48+ Mr 1 '48

Today's farm market: it's big, it's rich, and it's undersold, E. H. Klaus, Sales Management 60:96-100+ Ap 1 '48

What Massey-Harris is doing to strengthen its dealers, E. F. Krein, *il* Sales Management 61:59-64 Ag 1 '48

What! the top 100 farm counties include 27 urban areas? J. White, Sales Management 60:150+ Ap 15 '48

See also

Advertising—Farm- Insurance, Life—
ers, Appeal to Farmers as pros-
Agricultural machin- pects
ery industry Plumbing trade—
Farm market

FARM mortgages. See Mortgages, Farm

FARM news. See Newspapers—Farm news

FARM population

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 rural families examined by the Farm security administration, 1940; variation of blood pressure and heart disease with age; and the correlation of blood pressure with height and weight, M. Gover, *Pub Health Rep* 63:1083-1101 bibliog(48 titles, p 1099-101) Ag 20 '48

See also

Farm families
Farm labor
Farmers

FARM produce

Agriculture's new day, C. F. Brannan, *il* Food Ind 20:1424-5 O '48

Nonfood agricultural uses studied; report of Bureau of industrial and engineering chemistry, *il* Chem & Eng N 26:245-7 Ja 26 '48

See also

Chemurgy Live stock
Crops Wheat
Grain

By-products

Agriculture; farmers increasingly supply chemical industry with raw materials; also its best customers, P. H. Groggins, *Chem Eng* 55:114-18 Ap '48

Marketing

Success, or else! marketing of perishable products like South Carolina peaches, J. A. H. Rehm, *il* Adv & Sell 40:37+ D '47

See also

Vegetables—Prepack-
aging

Prices

Agricultural price index numbers, A. G. Peterson, *Am Stat Assn J* 42:597-604 D '47

Another break in farm prices? F. Walters, *Mag of Wall St* 82:221-3+ Je 5 '48

Bumper crops change support price outlook, *Food Ind* 20:1490-2 O '48

Case against subsidies, F. R. Walters, *il* Mag of Wall St 82:426-7+ Ji 31 '48

Commodities will go separate ways at least until new crop years, Barron's 28:28-9 F 23 '48

Congress puts together two opposing farm bills, *Food Ind* 20:1176-7 Ag '48

Contrasting movements of crop and livestock prices, 1939-1948; graphs, Survey of Cur Bsns 28:1 S '48

Cost of crop support, Nat City Bank p 114-17 O '48

Farm price decline does not herald slump, E. B. George, *Comm & Fin Chr* 168:1871 N 4 '48

Farm prices to be kept high by political props, Barron's 28:36 Je 21 '48

General business conditions; farm prices out of line, Nat City Bank p25-6 Mr '48

How the government's farm-price supports operate, Bsns W p20 F 21 '48

Our farm problem; price supports, E. Schram, *Comm & Fin Chr* 168:1419+ O 7 '48

Parity faces another fight, Bsns W p28+ Ji 24 '48

Parity; one wrong answer for all farm problems, H. S. Taylor, Barron's 28:7-8 My 24 '48

Prices received and paid by farmers; 1941-1946, Survey of Cur Bsns 1947 Sup p22-6 [supplemented in monthly numbers]
Recent developments in crop prices and farm income, Survey of Cur Bsns 28:4 S '48
Stockpiling and farm price supports, Nat City Bank p74-5 Ji '48

Statistics

Cash receipts from farming; farm marketing and income, 1941-1946, Survey of Cur Bsns 1947 Sup p9-10 [supplemented in monthly numbers]

FARM publication reports, inc.

Farm publication reports, to measure lineage, revenue, *Ptr Ink* 222:97 Ja 16 '48

FARM relief. See Agriculture—United States—Farm relief

FARM underwriters association

Annual meeting, Chicago, Nat Underw 52:1 Ja 15 '48

FARMERS

Balance sheet of agriculture, 1947; annual report of U.S. Department of agriculture; abstract, N. J. Wall and others, maps Fed Res Bul 33:1357-72 N '47

Balance sheet of agriculture, 1948; United States Department of agriculture report; abstract, N. J. Wall and others, map Fed Res Bul 34:1067-82 S '48

What the farmers want, A. B. Kline, *Ann Am Acad* 259:122-7 S '48

See also American farm bureau federation

Insurance requirements

Coverages and forms; farmer's comprehensive personal liability form, *Spectator* (Property ed) 13:8-9 Mr 11 '48

Storekeepers and farmers policies now on counter, Nat Underw 52:13 Ja 22 '48; Same, Weekly Underw 158:304 Ja 24 '48

See also

Insurance, Fire— Insurance, Life—
Farm policies Farmers as pros-
Insurance, Liability— pects
Farm policies

FARMERS' cooperative associations

Establishment of business research programs, with special reference to farmers' regional purchasing associations, M. A. Abrahamson, *J Marketing* 12:348-61 Ja '48

Fertilizer cooperatives tax increase asked, Oil Paint & Drug Rep 152:3 N 17 '47

FARMERS' cooperative oil associations

Farm co-ops buy out Premier co. Oil & Gas J 47:38 Ag 5 '48

FARMHOUSES

Bones of a New Hampshire farmhouse are retained in this warm country home, *il* plans diags Arch Forum 88:81-5 Mr '48

Cornell's model farm-tenant house shows close study of a neglected type, *il* plans diags Arch Forum 88:93-5 F '48

Remodeled farm house in Connecticut, *il* plans Arch Forum 87:93-7 D '47

Toward a farm housing policy, R. J. Burroughs, maps Land Econ 24:1-22 F '48

FARMS

Method simplifies land-leveling operation for irrigated farms, L. S. Stanley, *Civil Eng* 18:168-70 Mr '48

New concept in land improvement; irrigated farm layout related to soil and topographic conditions, C. J. Francis, *il* map Eng N 141:53-5 S 30 '48

Research in the succession of farms; a comment on methodology, K. H. Parsons, bibliog Land Econ 24:293-302 Ag '48

Should bankers advise young men to buy farms? M. G. Via, *Banking* 40:56+ D '47

See also

Land settlement

Land tenure

FARREL-BIRMINGHAM company

One-hundredth anniversary of Ansonia plant, *il* Mach 55:198 S '48

FARRELL, James Augustine, 1901-

Shipping family honors own, por Bsns W p82-4 Ap 3 '48

FARRELL, John Joseph

Shipping family honors own, por Bsns W p82-4 Ap 3 '48

FASHION

About the girls; Heim-Jeunes-Filles sketch contest, *J. Heim. Textile Col* 69:28+ D '47

FASHION—Continued

- California is demanding fabrics suitable to western needs. J. J. Perlmutter, *Textile Col* 70:31+ Mr '48
- Carmel features cocoon and petal silhouettes in Forstmann and Miron wools. *il Textile Col* 69:41+ D '47
- Complete analysis of royal fashions; wedding of Princess Elizabeth, H. Huntington. *il Textile Col* 69:33+ D '47
- Fashion by the yard; Mrs Corn's fabric shop. *il Textile Col* 70:25 O '48
- Fashion fair, *il Textile Col* 70:29+ Je '48
- Fashions, à la carte; the Burlington family creates its own fashion. *Textile Col* 69:24+ D '47
- Fashions beyond the horizon. E. S. Marcus. *Textile Col* 70:31+ Ja '48
- Fashions of Louise; revival of opera. *il Textile Col* 70:26-7 Ja '48
- Golden jubilee for fabrics and fashions; presentation of styles of 1898 to 1948. A. A. Dahlerup. *Textile Col* 69:25 D '47
- Guild of New York dress designers base show's theme on Whistler. *Textile Col* 70:50 My '48
- New York guild of dress designers plan important projects. *Textile Col* 70:33 Mr '48
- Newspaper is store window in Spadea fashion feature. Ed & Pub 81:71 Ap 10 '48
- 1948 fashion fair, second edition scheduled for June. *il Textile Col* 70:35+ F '48
- Return of the natives; fabrics, colors and fashions emphasized in revue of Manufacturers and wholesalers assn. of San Francisco. *il Textile Col* 69:43+ N '47
- San Francisco saga. *Textile Col* 70:32 Mr '48
- Search for fashion. Carven. *Textile Col* 70:33 My '48
- Search for style. *Textile Col* 70:32+ My '48
- Selling fashion. J. Gardner. *Textile Col* 70:26+ S '48
- Styles in men's clothes. B. Russell. *il Textile Col* 70:28-9 Ja '48
- Success in fabric fashions. G. Andrée. *Textile Col* 70:31 Ag '48
- Suzanne Rothschild analyzes fabrics and fashions of the Paris openings. *Textile Col* 70:26-7+ Mr '48
- They do it on purpose; fashion changes criticized as wasteful by university professor. *Textile Col* 70:40+ Ja '48
- This promotion takes advantage of a trend; Stetson hats in the West. I. B. Jordan, jr. *il Ptr Ink* 221:35 D 19 '47
- Times fashion show is glamour production. *il Ed & Pub* 81:16 O 30 '48
- What mail order and volume retailers need in fabrics and fashions for 1948. R. Engelman. *Textile Col* 70:34 Ja '48
- Woman converter looks into the future. H. Skillman. *Textile Col* 70:30 Mr '48

See also

Fads

Women's apparel

FASTENINGS

- Fabricating automobile molding clips; Buick motor plant. H. Chase. *il plan diag Iron Age* 161:74-7 F 19 '48
- Fabricating steel hardware; fasteners and pole line hardware; Oliver iron & steel corp. *il diags Steel* 121:71-2+ D 22 '47
- Heat sealed zippers. *il Mod Plastics* 25:138 Ja '48
- Screw thread fasteners; engineering data manual. *diags Mill & Factory* 42:139-46 Mr '48 [reprints 25c]

See also

Bolts and nuts Rivets
Paper clips and fasteners Screws

FAT

- Effect of galactose on the utilization of fat. C. P. Richter. *bibliog Science* 108:449-50 O 22 '48
- Experimental syndrome of fatty liver, uric acid kidney stones, and acute pancreatic necrosis produced in dogs by exclusive feeding of bacon. J. Groen. *Science* 107:425-6 Ap 23 '48

FAT emulsions. *See Emulsions*

FATA MORGANA (mirage) *See Mirage*

FATIGUE

- Effects of illumination level on visual performance and fatigue. E. Simonson and J. Brozek. *bibliog Opt Soc Am J* 38:384-97 Ap '48

Fatigue states; their effect on individuals and industry. S. A. Portis. *Nat Safety N* 57:26-8+ F '48

How we set fatigue allowances that are fair to all; Motorola, inc. H. C. Ryner. *Factory Management* 106:118-19 Ja '48

Matter of fatigue allowances. E. A. Cyrol. *bibliog diag Mill & Factory* 43:110-16 Jl '48

Psychological effects, not merely too much or too hard work, are involved in industrial fatigue. W. von Pechmann. *Ind & Eng Chem* 40:93A-4A F '48

What to do about industrial fatigue. B. Melnitsky. *il Steel* 122:88-9+ Mr 8 '48

See also

Rest periods**FATIGUE in metals**

- Corrosion fatigue of oil well equipment. B. B. Morton. *il World Oil* 127:156+ Ap '48
- Effect of composition on the fatigue strength of decarburized steel. L. R. Jackson and T. E. Pochapsky. *diags Am Soc for Metals Trans* 39:45-57; Discussion. 57-60 '47
- Fatigue cracking of retaining ring causes turbine accident. *il Power Generation* 52:104+ Mr '48
- Fatigue properties of beryllium-copper strip and their relation to other physical properties. G. E. Gohn and S. M. Arnold. *il diag Am Soc T M Proc* 46:741-75; Discussion. 77-82 '46
- Fatigue strength of some magnesium sheet alloys. L. R. Jackson and H. J. Grover. *il Am Soc T M Proc* 46:783-95; Discussion. 79-8 '46
- Fatigue testing machine simulates service conditions on large parts. *il Materials & Methods* 28:121 S '48
- Fatigue testing production parts; machine developed at General motors corp. Research laboratories div. C. B. Griffin. *il diags Iron Age* 161:59-62 Ja 8 '48
- Fatigue tests of rail steel under compressive stress. R. S. Jensen and H. F. Moore. *il diags Am Soc T M Proc* 46:799-806; Discussion. 807-13 '46
- Fatigue tests of spot welds; improvement of their endurance limit by hydrostatic pressure. G. Welter. *bibliog il diags Welding J* 27:sup285-98 Je '48
- Fatigue tests of welding elbows and comparable double-mitre bends. A. R. C. Markl. *bibliog il diags A S M E Trans* 69:869-76 N '47; Same. *Welding J* 27:sup310-17 Je '48; Discussion. A S M E Trans 69:877-9 N '47; *Welding J* 27:sup317-20 Je '48
- Fatigue tests on crankshaft steels. F. H. Frith. *bibliog 2pls il diags Iron & Steel Inst J* 159:385-409 Ag '48; Abstract. *Automobile Eng* 38:384 O '48
- Fatigue tests on some additional copper alloys. A. R. Anderson and others. *bibliog Am Soc T M Proc* 46:678-90; Discussion. 691-2 '46
- Flexural fatigue strength of steel beams; a report of an investigation. W. M. Wilson. *diags Ill U Eng Exp Sta Bul* 377:1-32 '48 (20c); Same. *Welding J* 27:sup409-17 Ag '48
- Full-scale fatigue testing. C. B. Griffin. *il diags Mech Eng* 70:542-4 Je '48
- How processing affects bolt fatigue strength. N. B. Green. *il Machine Design* 19:138-40 D '47
- Low cycle fatigue of the aluminum alloy 24ST in direct stress. S. I. Liu and others. *bibliog il diags Metals Tech* 15:TP2338 1-22 F '48; Discussion. *il* 15:TP2449 79-84 Ag '48
- New wire fatigue testing method. F. A. Votta, jr. *il diags Iron Age* 162:78-81 Ag 12 '48
- Notch sensitivity in fatigue loading of some magnesium-base and aluminum-base alloys. G. H. Found. *il diags Am Soc T M Proc* 46:715-37; Discussion. 738-40 '46
- Obtaining fatigue-test data; Sonntag fatigue testing machine. J. A. Sauer and P. K. Roos. *il Machine Design* 20:115-17+ O '48
- Pneumatic fatigue machines. F. B. Quinlan. *diags Am Soc T M Proc* 46:846-51 '46
- Rate of propagation of fatigue cracks in 12-inch by ¾-inch steel plates with severe geometrical stress-raisers. W. M. Wilson and J. L. Burke. *il diags Ill U Eng Exp Sta Bul* 371:1-14 '47 (35c); Same. *Welding J* 27:sup405-8 Ag '48

FATIGUE in metals—Continued

- Rotating-load, elevated temperature fatigue-testing machine. J. McKeown and L. H. Back, *il* diags *Metalurgia* 38:247-54 S '48
- Shot quality, how it affects fatigue life. F. P. Zimmerli. *Steel* 123:126-9 O 18 '48
- Some new aspects of the fatigue of metals brought out by brittle transition temperature tests. C. W. MacGregor and N. Grossman. *bibliog il* *diag Welding J* 27:sup 132-43 Mr '48; Discussion. 27:sup 143-4, 428-32 Mr '48
- Stress concentration and fatigue failures. S. Timoshenko, *il* diags *Inst Mech Eng J & Proc* 157 (War emergency issue no 28):163-9, pl 1-4 '47; Same cond. *Engineer* 183:398-9, 421-2 My 9-16 '47; Discussion. O. Föppl. *Engineer* 185:114-15 Ja 30 '48
- Stress corrosion, one of eight visual forms of corrosion. M. G. Fontana. *il* *Ind & Eng Chem* 39:sup87A-8A N '47
- Study of the damaging effect of fatigue stressing on X4130 steel. J. A. Bennett. *bibliog diags Am Soc T M Proc* 46:693-711; Discussion. 712-14 '46
- Torsional-fatigue testing of marine shafting. S. F. Dorey. *il* diags *Engineering* 165:286-8, 310-12 Mr 19-26 '48; Abstract. *Engineer* 185:183-5; Discussion. 188-9 F 20 '48
- See also*
- Shot peening
- FATTY acids.** *See* Acids, Fatty
- FAULTS (electric distribution).** *See* Electric distribution—Grounds and faults
- FAULTS (geology)**
- Donner Pass zone of deformation, Sierra Nevada, Calif. F. S. Hudson. *Geol Soc Bul* 59:795-800, pl 1 Ag '48
- Geology of the Tecopa area, southeastern California. J. F. Mason. *bibliog Geol Soc Bul* 59:333-52, pl 1-2 Ap '48
- Geomorphology and structure of the west Kaibab fault zone and Kaibab plateau, Arizona. A. N. Strahler. *maps diags Geol Soc Bul* 59:513-40, pl 1-5 *bibliog* (p539-40) Je '48
- Northern Abitibi, Quebec; fracture zones and mineral possibilities. J. Claveau. *bibliog* (48 titles) *il* *maps Can Min J* 69:71-82 Ap '48
- Structural trends and fault systems in Eastern interior basin. S. K. Clark and J. S. Royds. *il* *maps diags Am Assn Pet Geol-ogists Bul* 32:1728-49 S '48
- See also*
- Rift valleys
- FEATHERBEDDING.** *See* Employment
- FEATHERBEDDING ban.** *See* Trade unions—Law
- FEATHERS**
- Stability of synthetic keratin fibers in alcohol-water mixtures; theoretical basis for a new method for solubilizing feather keratin. H. P. Lundgren and others. *bibliog diags J Phys & Colloid Chem* 52:180-206 Ja '48
- FEDDERS-QUIGAN corporation**
- Output below capacity despite peak sales. *Barron's* 27:33 D 22 '47
- FEDERAL agencies.** *See* United States—Executive departments
- FEDERAL aid to states.** *See* State finance—Federal aid
- FEDERAL barge lines**
- Sale of Federal barge lines urged by railroads. *Ry Age* 124:479-80 Mr 6 '48
- FEDERAL commissions.** *See* United States—Executive departments; also names of commissions, e.g. Federal trade commission
- FEDERAL communications commission**
- Congressional committee queries FCC. *Pub Util* 42:428-30 S 23 '48
- FCC limits radio chains. *Bsns W* p26+ Ag 28 '48
- FCC shows coolness to channel for press. J. J. Butler. *Ed & Pub* 81:65 O 16 '48
- Fundamental problems of radio engineers and the F.C.C. W. Coy. *Inst Radio Eng Proc* 36:771-3 Je '48
- New plans afoot to modify FCC. *Pub Util* 40:843-4 D 18 '47
- Ohio papers battle FCC intimidation. *Ed & Pub* 81:10 F 7 '48
- Petroleum industry and the Federal communications commission. J. E. Keller. *Am Pet Inst Proc* 27(5):89-96 '47
- Stop the money; FCC thinks many radio give-away programs are lotteries. *Bsns W* p22 Ag 21 '48

- Too little for too many; allocating the radio spectrum. B. C. Burden. *Pub Util* 41:834-41 Je 17 '48
- Truman FCC appointments keep pot from boiling. *Pub Util* 41:101-2 Ja 15 '48
- FEDERAL crop insurance corporation**
- FCC wins U.S. Supreme court decision; Merrill case. *Nat Underw* 51:14 N 13 '47
- Federal crop premiums top losses in 1947. *East Underw* 49:18 Ja 16 '48
- FEDERAL deposit insurance corporation**
- Banks under Federal Deposit Insurance. H. E. Cook. *Comm & Fin Chr* 166:1850+ N 6 '47
- FDIC and banking history. H. E. Cook. *Comm & Fin Chr* 165:9+ J1 1 '48
- FDIC explains payment methods; comparison with Federal savings and loan insurance corp. *Banking* 40:122-3 My '48
- FDIC to drive hard for more capital in banks; ratio of stockholders' funds to risk-bearing assets fell sharply in 1947. L. Wharton. *Barron's* 28:9-10 Ap 12 '48
- See also*
- Banks and banking—Guaranty of deposits
- FEDERAL government**
- Federalism as an answer. O. Halecki. *Ann Am Acad* 258:66-9 J1 '48
- Swiss constitutional problems and the International labour organisation. J. Secretan. *bibliog Int Labour R* 56:1-20 J1 '47
- FEDERAL housing administration**
- FHA land planning service. F. D. Richards. *Banking* 40:109-10 F '48
- Insured mortgage plan**
- Class three small home loans. *Burroughs Clearing House* 32:38 N '47
- Construction financing; let's take a good clear look at FHA's Title VI. *Arch Forum* 88:12-15 F '48
- Crabwalk; new FHA terms. *il* *plans Arch Forum* 89:11-13 S '48
- FHA breather. *Bsns W* p49 Ja 3 '48
- FHA mortgage-insurance program changes. *Survey of Cur Bsns* 28:4 O '48
- First 609 FHA insured loan processed; made to the Housemart, Inc., Cleveland. *il* *plans Am Bld* 70:96-7 Ap '48
- Government mortgage insurance rules discriminate among applicants. *Barron's* 28:12 Ja 5 '48
- Housing credit eased. *Burroughs Clearing House* 32:37-9 S '48
- Summary of the Housing act of 1948 applicable to FHA operations. *Am Bld* 70:142+ O '48
- Modernization credit plan**
- Economic evaluation of FHA's property improvement program. C. McFarland. *bibliog J Land & Pub Util Econ* 23:399-416 N '47
- FEDERAL industries, inc.**
- Stock offered. *Comm & Fin Chr* 167:1468 Ap 5 '48
- FEDERAL loans and grants**
- See also*
- State finance—Federal aid
- FEDERAL mediation and conciliation service.** *See* United States—Federal mediation and conciliation service
- FEDERAL national mortgage association**
- Secondary market regulations governing the purchase of mortgages. *Burroughs Clearing House* 33:30-1 O '48
- FEDERAL power act, 1935**
- Amendments to the Federal power act. C. L. Campbell. *Pub Util* 40:679-85 N 20 '47
- Need for amendments to the Federal power act. O. D. Smith. *Pub Util* 42:592-602 O 21 '48
- Riddle of "net investment". M. Leighton. *Pub Util* 41:465-71 Ap 8 '48
- FEDERAL power commission**
- Federal power commission and natural gas. W. A. Dougherty. *Pub Util* 42:585-92 O 21 '48
- Federal power commission regulation of the natural gas and electric industries. B. Ross. *Pub Util* 42:603-14 O 21 '48
- FPC reverses trend, takes step to limit own authority. *Elec World* 129:36-7 Ja 31 '48

FEDERAL power commission—Continued

FPC spells out gas industry's future. J. F. Falvey. *Barron's* 28:31-2 My 10 '48
 FPC under fire in Congress; senators irked by proposed amendments to the Natural gas act. *Elec World* 129:53-4 F 28 '48
 Gas feud flares; court action in Panhandle Eastern-Michigan Consolidated case. *Bsns W* p24 O 16 '48

U.S. overrules Iowa on power project; co-operative gets federal license despite state's protest. E. R. Abrams. *Barron's* 28:8 F 2 '48

FEDERAL public housing authority

FPHA insurance unit is cut back in economy move. *Nat Underw* 51:24 O 30 '47

FEDERAL reserve act

Criminal code; amendments. *Fed Res Bul* 34:1113-19 S '48

FEDERAL reserve bank notes

Seeks test of status of Federal Reserve notes; correspondence with Treasury. A. F. Davis. *Comm & Fin Chr* 167:616 F 5 '48

FEDERAL reserve bank of New York

Earnings decline shown by New York City reserve banks. *Comm & Fin Chr* 168:1016 S 9 '48

FEDERAL reserve banks

Classification of Reserve cities. *Fed Res Bul* 34:40-2 Ja '48

Government bond dealer attacks Federal Reserve open market methods. *Comm & Fin Chr* 167:1542+ Ap 8 '48

Directors

Directors of Federal reserve banks and branches. *Fed Res Bul* 34:170-82 F '48

Earnings

See also
 Federal reserve
 banks—Statistics

Member banks

All member banks; assets and liabilities on Dec. 31, 1947, by class of bank. *Fed Res Bul* 34:460 Ap '48

All member banks; assets and liabilities on June 30, 1948, by class of bank. *Fed Res Bul* 34:1302 O '48

Condition of banks; Federal reserve weekly reporting member banks, 1941-1946. Survey of Cur *Bsns* 1947 Sup p73-4 [supplemented in monthly numbers]

Cumulative changes in factors affecting excess reserves of member banks, December 31, 1947-March 31, 1948; graph. *Comm & Fin Chr* 167:2102 My 13 '48

Federal reserve board announces slight increase in reserve requirements; with text of supplement to Regulation D. *Comm & Fin Chr* 167:505 Ja 29 '48

Federal reserve board raises reserve requirements of member banks. *Comm & Fin Chr* 168:1118 S 16 '48

Member bank earnings, first half of 1947; with comparisons, 1943-1946. *Fed Res Bul* 33:1353-5 N '47

Member bank earnings, 1947 and comparisons with other years; with ratios and detailed figures of earnings and related items. *Fed Res Bul* 34:501-4, 576-86 My '48

Member bank operating ratios, 1947. *Fed Res Bul* 34:1019-21 Ag '48

Restrictive condition upon member bank by Board requiring withdrawal if bank holding company should acquire interest in such member. *Banking Law J* 64:855-6+ N '47

Suit regarding condition of membership; Peoples bank of Lakewood Village, Calif. v. Eccles, et al. *Fed Res Bul* 34:398-402 Ap '48

Rediscount rate

See Discount—Rates

Statistics

Condition of banks; Federal reserve banks, and Federal reserve weekly reporting member banks, 1941-1946. Survey of Cur *Bsns* 1947 Sup p73-4 [supplemented in monthly numbers]

Earnings and expenses of Federal reserve banks during 1947. *Fed Res Bul* 34:242-3 F '48

Earnings and expenses of Federal reserve banks for the six-month period ended June 30, 1948. *Fed Res Bul* 34:1022 Ag '48
 Member bank earnings, 1947 and comparisons with other years; with ratios and detailed figures of earnings and related items. *Fed Res Bul* 34:501-4, 576-86 My '48

FEDERAL reserve board

Arguing over U.S. bond supports. *Bsns W* p24-5 O 2 '48

Eccles replaced as Federal Reserve chairman by T. B. McCabe. *Comm & Fin Chr* 167:508 Ja 29 '48

Effect of lower government bond prices; Reserve system support; Monthly review of Federal reserve bank of New York. *Comm & Fin Chr* 167:107+ Ja 8 '48

Federal Reserve support of government securities market. *Fed Res Bul* 34:11-13 Ja '48

Gives N.Y. times answers to monetary queries. T. I. Parkinson. *East Underw* 49:1+ S 10 '48

Government bond support vital; address before New York state bankers association. A. Sproul. *Comm & Fin Chr* 167:485+ Ja 29 '48

Why money will cost more; Federal Reserve open market policy. *Bsns W* p52-3 Ja 3 '48

Credit policy

Banking policies not inflationary; memorandum prepared by Federal advisory council. *Comm & Fin Chr* 166:2275-6 D 4 '47

Business outlook and credit control policy. R. Rodgers. *Comm & Fin Chr* 168:1202+ S 23 '48

Can the Federal Reserve serve two masters? D. H. Bellemore. *Comm & Fin Chr* 167:97+ Ja 8 '48

Controlling bank credit. *Nat City Bank* p 136-41 D '47

Credit control; the Eccles plan. N. P. Gregory. *Burroughs Clearing House* 32:27-8 Ja '48

Credit controls stay despite Eccles' demotion. *Bsns W* p68-9 Ja 31 '48

Credit developments. *Nat City Bank* p29-31, 90-1, 122-4 Mr, Ag, N '48

Curbs on credit. *Nat City Bank* p99-103 S 17 S 9 '48; Abstract. *Barron's* 28:8 S 6 '48

Current credit problems; Chicago address, April 6. M. S. Szymczak. *Comm & Fin Chr* 167:1531+ Ap 8 '48

Explains "special reserve" proposal. M. S. Eccles. *Comm & Fin Chr* 166:2487+ D 18 '47

Fallacies and dangers in new credit curbs. J. M. Dodge. *Comm & Fin Chr* 168:600+ Ag 12 '48

Florida state comptroller opposes new credit curbs. C. M. Gay. *Comm & Fin Chr* 167:1646 Ap 15 '48

Government credit policy sound? J. T. Madden. *Credit & Fin Management* 49:24-7+ D '47

Government's handling of the current credit situation; statement before Joint committee on the economic report. A. Sproul. *Comm & Fin Chr* 167:2183+ My 20 '48

How Federal Reserve policies affect New York City banks. M. A. Schapiro. *Comm & Fin Chr* 168:1750+ O 28 '48

How some bankers feel about monetary controls. E. S. Adams. *Banking* 41:46-7+ Ag '48

How to control inflation. R. C. Leffingwell. *Comm & Fin Chr* 168:1418+ O 7 '48; Same. *Fortune* 38:90-1+ O '48

Increases in reserve requirements. *Nat City Bank* p 111-14 O '48

Inflation and bank credit. W. Thomas. *Comm & Fin Chr* 167:897+ F 26 '48

Inflation and bank credit policy. J. M. Dodge. *Banking* 40:33-4 Ja '48

Inflation; more than a monetary problem. T. B. McCabe. *Comm & Fin Chr* 168:1312+ S 30 '48

Legislation; consumer credit and bank reserves. *Fed Res Bul* 34:1103-12 S '48

McCabe and Szymczak on credit control. H. M. Bratter. *Comm & Fin Chr* 167:1417+ Ap 1 '48

FEDERAL reserve board—Credit policy—*Continued*

- Mr Eccles' chains and Mr Snyder's key; Treasury and Federal Reserve have ample anti-inflation power now. H. S. Taylor. *Barron's* 27:5 D 1 '47
- New credit controls; their import to banking. C. W. Williams. *il Burroughs Clearing House* 33:19-21+ O '48
- New Federal Reserve plan? *Bsns W* p98+ O 23 '48
- Our Federal Reserve policy today; address before 3d annual Federal Reserve forum, Minneapolis. M. S. Szymczak. *Comm & Fin Chr* 168:1648-9+ O 21 '48; Discussion. 168:1766 O 28 '48
- Presents Federal Reserve views on credit curbs to Congressional joint committee on economic report. April 13. M. S. Eccles. *Comm & Fin Chr* 167:1643+ Ap 15 '48; Same. *Fed Res Bul* 34:supp 1-7 Ap '48
- Problem of credit control. *Nat City Bank* p4-9 Ja '47; Excerpts. *Comm & Fin Chr* 167:117 Ja 8 '48
- Problems of postwar monetary policy. W. Thomas and R. H. Young. *bibliog Comm & Fin Chr* 167:611+ F 5 '48
- Program of tighter credit controls; inflationary forces; statement before Joint committee on the economic report. M. S. Eccles. *Comm & Fin Chr* 166:2158+ N 27 '47; Same. *Fed Res Bul* 33:1455-63 D '47
- Proposal for a special reserve requirement against the demand and time deposits of banks; statement filed by Chairman Eccles with Committee on banking and currency of the House of representatives, Dec. 8, 1947. *Fed Res Bul* 34:14-23 Ja '48
- Rep. Wolcott offers credit control bill. *Comm & Fin Chr* 168:511 Ag 5 '48
- Restraint on credit expansion. *Nat City Bank* p 14-18 F '48
- Secretary Snyder upholds credit curbs in statement to Senate banking and currency committee. *Comm & Fin Chr* 168:504+ Ag 5 '48
- Statement before House banking and currency committee on credit control provisions of Anti-inflation act of 1948. T. B. McCabe. *Fed Res Bul* 34:904-11 Ag '48; Same cond. *Comm & Fin Chr* 168:499+ Ag 5 '48
- Third move to tighten bank credit supports Reserve's pleas for more power. *Barron's* 28:12 Ja 26 '48
- Views on credit curbs; statement before Senate banking and currency committee. A. Sproul. *Comm & Fin Chr* 168:504+ Ag 5 '48
- What about money and credit? M. S. Szymczak. *Comm & Fin Chr* 167:2083+ My 13 '48
- What has happened to excess reserves? P. W. McCracken. *Comm & Fin Chr* 168:1866+ N 4 '48
- Whose money market? problem of government control. R. Rodgers. *Comm & Fin Chr* 167:1314+ Mr 25 '48
- FEDERAL reserve system**
Federal Reserve is free from political bias. T. B. McCabe. *Comm & Fin Chr* 168:1854+ N 4 '48
- FEDERAL savings and loan associations**
Reviews growth system. W. K. Divers. *Comm & Fin Chr* 168:828 Ag 26 '48
- Savings and loan associations are not banks. W. A. Kiehlmann. *Comm & Fin Chr* 168:102+ Jl 8 '48
- FEDERAL savings and loan insurance corporation**
FDIC explains payment methods; comparison with Federal savings and loan insurance corp. *Banking* 40:122-3 My '48
- FEDERAL services finance corporation**
Unique credit company for servicemen. *Bsns W* p96 Mr 27 '48
- FEDERAL telecommunication laboratories**. See Radio laboratories
- FEDERAL tort claims act**. See Government liability
- FEDERAL trade commission**
Court rules against Federal trade commission in International salt co. case. *Comm & Fin Chr* 168:835 Ag 26 '48
- Deciding the fate of your pricing system; court decisions in FTC cases. *Bsns W* p74-8+ Je 12 '48
- FTC broadens its field. *Bsns W* p26 Je 19 '48
- Federal trade commission complaint 5592, fine and wrapping paper, challenged by National paper trade association. *Paper Tr J* 127:9+ O 28 '48
- Federal trade commission in your business. J. D. Conner. *Soap & San Chem* 24:123-5+ Ja '48
- FTC monkey wrench in distribution machine. L. B. Mason. *Comm & Fin Chr* 168:1849+ N 4 '48
- FTC policy toward pricing practices; official statement. *Oil Paint & Drug Rep* 154:5+ O 18 '48
- FTC presses advantage won in cement ruling. *Barron's* 28:12 Je 21 '48
- FTC regards cement decision as ban to basing point system. G. Hardy. *Iron Age* 161:121 My 6 '48
- Federal trade commission v. Cement institute. R. S. Valle. *J Marketing* 13:224-6 O '48
- FTC wants bigness stopped. *Bsns W* p24 Jl 31 '48
- FTC warns industry to revise price systems to conform to law; cites Cement institute case. *Oil Paint & Drug Rep* 153:3+ My 3 '48
- Fitch case; hearing on Fitch dandruff remover shampoo. A. P. Federline. *Soap & San Chem* 23:40-1+ N '47
- How one-sided facts can wreck progress. *Barron's* 28:8 Ag 2 '48
- Law and economics of basing points. E. B. George. *il Dun's R* 56:14-18+ S; 11-14+ O '48 (to be cont)
- Moot discounts; Minneapolis-Honeywell's quantity discounts bring on cease-and-desist order. *Bsns W* p72+ F 21 '48
- O'Hara bill upheld, assailed at hearings; would limit FTC authority. *Oil Paint & Drug Rep* 153:3+ My 3; 5+ My 17 '48
- Push money hit; FTC attacks payments to salesmen; Philco's sell-'n-win campaign. *Bsns W* p85 N 22 '47
- Record on basing points cited against FTC views. R. M. Bleiberg. *Barron's* 28:8 O 25 '48
- Seeks to wipe out long-haul traffic; would regionalize production by forbidding absorption of freight charges needed to reach distant markets. L. Leighton. *bibliog Ry Age* 123:1071-3+, 1106-8 D 20-27 '47
- Some varieties of consumer behavior described in the decisions of the Federal trade commission. G. B. Greig. *bibliog J Bsns* 20:191-200 O '47
- What P.M.s are illegal? G. H. Weil. *Ptr Ink* 224:40+ Jl 2 '48
- FEDERAL water and gas corporation**
Liquidation plan. *Comm & Fin Chr* 168:149 Jl 12 '48
- Public utility securities. *Comm & Fin Chr* 167:604 F 5 '48
- SEC approves new plan. *Comm & Fin Chr* 168:545 Ag 9 '48
- FEDERATED department stores, inc.**
Federated unloads expensive real estate; stays in under lease. *Bsns W* p62-3 N 15 '47
- Mr Fred of the Lazari. *il Fortune* 37:108-15+ Mr '48
- Store realty sold by Abraham & Straus to Union college; will stay on long-term lease. *Bsns W* p60-1 D 27 '47
- FÉDÉRATION internationale des éditeurs de journaux et publications**. See International federation of newspaper publishers and editors
- FEDERATION of American scientists**
Loyalty clearance procedures in research laboratories; report of committee on secrecy and clearance. *bibliog Science* 107:333-7 Ap 2 '48
- Provision for admission of members-at-large. R. E. Marshak. *Science* 106:469 N 14 '47
- Scientists' committee on loyalty problems. *Science* 108:470 O 29 '48
- FEDERATION of employees' benefit associations**
Benefit association men cover million workers. *Iron Age* 162:194-5 N 4 '48
- FEDERATION of insurance counsel**
Annual convention, Mackinac Island, Mich. Aug. 2-4. *Weekly Underw* 159:286-7, 336+ Ag 7-14 '48

FEDERATION of paint and varnish production clubs

- Annual meeting, 25th, Atlantic City, Nov. 6-10, Oil Paint & Drug Rep 152:73-6+ N 17 '47
 Midyear conference, Detroit, May 14, Oil Paint & Drug Rep 153:7+ My 24 '48
 Program of 25th convention, Atlantic City, Nov. 6-10, Paint Oil & Chem R 110:12-13 O 16 '47
 Silver anniversary convention, Atlantic City, Nov. 6-10, Paint Oil & Chem R 110:11-12 N 13 '47

FEDERATION of sewage works associations

- Annual directory, map Sewage Works J 20: 366-439 Mr '48
 Annual meeting, 21st, Detroit, Eng N 141: 75 O 28 '48
 Board of control annual meeting, Philadelphia, Water & Sewage Works 94:423 N '47

FEED mechanism

- Automatic assembly jumps output 47 times; latch assemblies produced in progressive die equipped with a motor-driven hopper-feed mechanism, P. Bonness, il diag Am Mach 92:96-7 My 6 '48
 Automatic feeding devices, P. H. Winter, diags Tool Eng 19:39-41 Ja '48
 Automatic in-feed on the Lobdell roll grinder, il Machine Design 20:128 Ap '48
 Automatic transfer and feeding mechanism, W. C. Mills, diags Mach 54:166-8 N '47
 Ford handles by automation, R. LeGrand, il plan diags Am Mach 92:107-22 O 21 '48
 How to feed presses, il diags Am Mach 91: 85-100 N 20 '47
 Nonslip feed by simple wedge action, il diags Machine Design 20:131-2 O '48
 Pneumatic plunger in turret lathe replaces bar-feed mechanism, D. E. Eaton, diag Am Mach 92:128 O 21 '48
 Quick-acting intermittent feeding mechanism for winding paper intermittently on an automatic machine, F. Server, diags Mach 54:187-8 D '47
 Roller-grip pneumatic attachment feeds strip stock to punch press, S. H. Pearson, diags Am Mach 92:108 JI 29 '48
 Work loaders applied to machine tools, R. LeGrand, il diags Am Mach 92:149-72 Mr 11 '48

FEED water

- Degeration of boiler feedwater for atomic power plants, S. D. Distelhorst, il Power Pl Eng 51:107-8 D '47
 Feedwater chemistry conversions; chart; data sheet, J. F. Hyam, Power 92:313 My '48
 Foaming and carry-over in boilers, R. W. Seniff, bibliog Am Water Works Assn J 40: 961-70 S '48
 Operating condensate and feed water systems in a Victory ship, diags Marine Eng 53: 59-64 S '48
 Polyamide antifoams; relation between chemical constitution and effectiveness, A. L. Jacoby, bibliog J Phys & Colloid Chem 52:689-94 Ap '48

Testing

- Aspirin cures one water testing headache; aspirin tablets used in electrical conductivity testing of feedwater, R. S. Wise and R. S. Robertson, Power Generation 52:116+ Ja '48
 How to test water for calcium; illustrated instructions, Power 91:370 D '47
 How to use color control tests for boiler water, F. R. McCrumb, il Power Generation 52:60-1+ My '48
 Recent boiler water studies, F. G. Straub, Power Generation 52:51 Je '48

FEED water purification

- Automatic pH control in water and industrial waste treatment, R. T. Sheen, bibliog flow sheets il diags Ind & Eng Chem 39:1433-9 N '47
 Boiler feedwater treatment can produce savings, V. J. Calise, Textile World 98:137+ S '48
 Boiler water conditioning to prevent turbine deposits, C. E. Imhoff, diags Pet Refiner 27:108-11 Ag '48
 Boiler water treatment, R. C. Ulmer, diags Dom Eng 171:108-9+ My '48
 Changing feedwater treatment in boilers, C. W. Parks, Power Pl Eng 51:96-7 D '47

Charts simplify chemical dosage for treating boiler feedwater, W. D. Turner, Power 92:347-9 Ja '48

Chemical feed systems in modern water treatment, J. H. Richards, il diags Power Generation 52:62-3+ Ag; 61-3+ S '48

Corrosion in boiler feedwater treating systems, L. F. Collins, bibliog diags Power Pl Eng 51:74-6 O; 114-16 N; 114-16+ D '47;

[cont as] Power Generation 52:106+ Ja '48
 Economic considerations of feed water conditioning, F. N. Kemmer, Paper Tr J 126: 60-2 Ap 29 '48; Same abr. Paper Ind 30: 620-3 JI '48

Feedwater treatment removes troublesome coloring matter, W. F. London, il diag Power 92:480-1+ Ag '48

Fundamentals of feedwater treatment; special section, E. W. Feller, diags Power 91: 813-48 D '47

Gasoline plant process water treatment, J. C. Hutcheson, Pet Refiner 27:110-12 Mr '48; Same, Pet Eng (Ref annual) 19:184+ JI 1 '48; Discussion, J. S. Connors, Pet Refiner 27:113-15 Mr '48

Gasoline plant water treatment, J. C. Hutcheson and J. S. Connors, il Pet Processing 8:227-3+ Mr '48

How silica reduction in boiler feedwater improved paper mill power plant operation; use of Silimite; Southern advance bag & paper co, D. G. Cooper and J. B. Davis, il diag Paper Ind 29:1440-2+ Ja '48; Same, Power Generation 52:52-4+ Je '48

Improvements in an alum flocculation process, following difficulties with a domestic supply used as feed water for a high-pressure boiler plant, J. P. Beveridge and others, flow diag Soc Chem Ind J 66:267-73 Ag '47

Internal conditions of old boilers guide water treatment for new units, J. N. Walsh and others, diags Power 92:542-5 S '48

Mobile laboratory moves in on boiler feedwater treatment, E. Short, il Oil & Gas J 46:60-2 Ja 1 '48

Modern methods of feedwater conditioning for high pressure boiler plants, S. D. Distelhorst, Paper Tr J 125:41-4 JI 31 '47; Same, Iron & Steel Eng 25:53-7 JI '48

Prevention of turbine blade deposits, C. E. Imhoff, il diag Paper Tr J 127:39-43 JI 29 '48

Progress in railroad water conditioning, R. C. Bardwell and J. J. Dwyer, bibliog Ind & Eng Chem 40:1376-8 Ag '48

Railroad boiler-steam cracking controlled by nitrate treatment, A. A. Berk, bibliog diag Ind & Eng Chem 40:1371-5 Ag '48

Removal of silica in a sludge-blanket hot-process softener; Union bag & paper corp, J. D. Yoder and others, il diags Power 92:399-401+ JI '48

Silica-free boiler feed water by ion exchange, W. C. Bauman, J. Eichhorn and L. F. Wirth, bibliog il diags Ind & Eng Chem 39:1453-7 N '47

Silica removal by an improved ion-exchange process; comparison with the fluosilicic acid method, W. J. Calise and M. Lane, bibliog diags Chem Eng Prog 44:269-74 Ap '48

Silica removal with iron shavings, W. B. Leaf, il Am Water Works Assn J 40:980-8 S '48

Substitutes for soda ash in the treatment of boiler feed water, W. A. Tanzola, R. L. Reed and J. J. Maguire, bibliog Ind & Eng Chem 39:1440-3 N '47

Takes guess out of chemical feeding, A. R. Eastcott, diag Power 91:859 D '47

Trends in modern feedwater conditioning equipment, S. E. Applebaum, flow diags Power Generation 52:60-1+ Je; 66-8 JI '48

Water treatment for heating and air conditioning, W. H. Lang, bibliog il diag Heat & Ven 45:97-111 O '48

Why inorganic materials precipitate, R. C. Ulmer, il Power 92:233 Ap '48

FEEDER airlines. See Airlines—Feeder airlines

FEEDERS

Checking chart for dry chemical feeders, A. A. Hirsch, Water & Sewage Works 95:R272 Ap '48

Chemical feed systems in modern water treatment, J. H. Richards, il diags Power Generation 52:62-3+ Ag; 61-3+ S '48

FEEDERS—Continued

Chemical feeder, Chem Ind 62:786 My '48
 Lone Star feeds kiln with air lift, W. B. Lenhart, il diags Rock Prod 51:156-7 Ag '48
 Takes guess out of chemical feeding, A. R. Eastcott, diag Power 91:859 D '47

See also
 Glass furnaces—
 Charging

FEEDING, Intravenous. See Injections, Intravenous

FEEDING and feeding stuffs

Amino acid requirements of swine; tryptophan, W. M. Beeson and others, bibliog Science 107:599-600 Je 4 '48
 Barnyard design; colorful cartoons of cows and chicks on burlap and cotton bags, il Mod Packaging 21:137 Je '48
 Cow chows, and wows; story of Ralston Purina, il Fortune 37:84-91+ Ja '48
 Current researches in animal nutrition at the Rowett research institute; abstract and discussion, D. F. Cuthbertson, Chem & Ind p268-9 Ap 24 '48
 Early feeds begin retreat in price, Barron's 28:28-9 JI 5 '48
 Fodder yeast from wood hydrolyzates and still residues, E. E. Harris and others, bibliog il Ind & Eng Chem 40:1220-3 JI '48
 Fodder yeast production from sulfite waste liquor, R. G. Tyler and W. Maske, diag Sewage Works J 20:516-24 My '48
 From waste pulp of the coffee bean comes a new corn-substitute cattle feed, Science 106:519 N 28 '47
 Manganese content of some feeding stuffs, K. A. Hyde, Chem & Ind p393 Je 19 '48
 Microbiological proteins; food value for animals, R. Kraude, bibliog Chem & Ind p259-62 Ap 24 '48
 Nitrogen as stockfeed, Chem Age (Lond) 57:754 D 13 '47
 Nutritional value of British Columbia fish and meat meals, B. E. March and J. Biely, bibliog Can Chem & Process Ind 32:447-8+ My '48
 Production of fodder yeast, E. E. Harris and others, bibliog il diags Paper Tr J 125:34-7 N 27 '47; Same cond. Paper Ind 29:879-81 S '47
 Selling tools that put conviction into sales talks to farmers; Larowe division, General Mills, R. Semusky, il Sales Management 60:48+ Mr 1 '48
 Fight cellulose for feeding-stuffs; an aid in fighting the food shortage, Chem Age (Lond) 54:277-8 Mr 16 '46; Same cond, Pulp & Pa of Can 49:85-6 S '48
 Wood molasses as feed for swine; abstract, J. McGinnis and J. S. Carver, Chem & Eng N 26:2875 S 27 '48
 Wooden beefsteak; wood-sugar molasses; abstract, E. E. Harris, Chem Eng 55:272+ Ag '48

Analysis

Preformed vitamin A in mixed feeds; chemical estimation by chromatographic methods, M. Narod and D. Verhagen, bibliog diag Anal Chem 20:627-30 JI '48

FEES

See also
 Architects—Fees
 Trust fees

FELDSPAR

Argon 40 in potassium minerals, L. T. Aldrich and A. O. Nier, bibliog Phys R 74:876-7 O 15 '48
 Hydrothermal alteration of feldspars at 250° C. to 400° C., T. F. O'Neill, bibliog Econ Geol 43:167-80 My '48
 Occurrence of authigenic feldspar in non-metamorphic sediments, L. M. J. U. Van Straaten, bibliog Am J Sci 246:569-72 S '48

FELLOWSHIPS. See Scholarships and fellowships

FELS, Samuel S., 1860-

Portrait, Ptr Ink 223:33 Ap 2 '48

FELT

Carroting furs, nitrates of radioactive metals added to peroxide-sulfuric acid; patent, Am Dyestuff Rep 37:631-2 S 20 '48

See also
 Dyes and dyeing—
 Felt hats

Drying

Radiation drying of textiles; woven and matted wool felts, woven wool crepe, and absorbent cotton batting, G. T. Paul and R. H. Wilhelm, bibliog il diags Textile Res J 18:573-97 O '48

FELTING of wool. See Wool—Felting

FELTS (paper making)

Application of felts to board machines, L. M. Woodside, Paper Tr J 126:108+ My 27 '48; Same cond, Paper Ind 30:468+ Je '48

FENCES, Electrified**Control**

Plastics win in fence controller; transparent cellulose acetate butyrate housing, il Mod Plastics 25:102 Ap '48

FENDERS, Automobile. See Automobiles—Fenders

FENNER, Edward

Union reformer, por Bsns W p 104+ F 14 '48

FERGUSON, Harry, inc.

Ferguson; future, Bsns W p26 N 8 '47
 Ferguson suit seeks \$251-million from Ford, Bsns W p25 Ja 17 '48

FERGUSON, Samuel, 1896-

Public utility papers of S. Ferguson, C. W. Kellogg, por Edison Elec Inst Bul 16:305-6 S '48

FERMENTATION

Aerobic fermentor with good foam-control properties, J. F. Saeman, bibliog il diags Anal Chem 19:913-15 N '47

Alcoholic fermentation of acid-hydrolyzed grain mash; continuous process, E. W. Ruf and others, flow diag il diags Ind & Eng Chem 40:1154-8 Je '48

Butanol-acetone fermentation of wood sugar, R. H. Leonard, W. H. Peterson and G. J. Ritter, bibliog Ind & Eng Chem 39:1443-5 N '47

Butyl alcohol from xylose saccharification liquors from corncobs, A. F. Langlykke, J. M. Van Lanen and D. R. Fraser, Ind & Eng Chem 40:1716-19 S '48

Butyric acid fermentation and sulphite waste liquor, H. S. Daniels and J. L. McCarthy, bibliog diag Paper Tr J 126:43-6 Ja 29 '48

Chemical engineering unit processes, H. E. Silcox and S. B. Lee, bibliog (109 ref) il Ind & Eng Chem 40:1602-8 S '48

Citric acid; production by submerged fermentation with *Aspergillus niger*, P. Shu and M. J. Johnson, bibliog Ind & Eng Chem 40:1202-5 JI '48

Clarification of corn mash; preparation of malt-converted, degerminated mash for fermentation, F. A. Hilinski and C. L. Lovell, il Chem Eng Prog 44:783-8 O '48

Conversion of corn amylopectin by barley malt enzymes, T. M. Back, W. H. Stark and C. C. Vernon, bibliog Ind & Eng Chem 40:80-4 Ja '48

Degradation of the fermentation lactobacillus casei factor, E. L. R. Stokstad, B. L. Hutchings and others, bibliog Am Chem Soc J 70:5-13 Ja '48

Determination of glycerol in fermentation residues, P. J. Elving and others, Anal Chem 20:25-9 Ja '48

Evaluating fungal amylolytic materials for saccharifying fermentation mash, H. D. Reese, E. I. Fulmer and L. A. Underkoffer, bibliog diag Anal Chem 20:348-53 Ap '48

Fermentation of wood hydrolyzates by torula utilis, E. E. Harris and others, il Ind & Eng Chem 40:1216-20 JI '48

Fodder yeast from wood hydrolyzates and still residues, E. E. Harris and others, bibliog il Ind & Eng Chem 40:1220-3 JI '48

General purpose fermentation plant, W. L. Jacobs, R. K. Wright and F. M. Hildebrandt, flow sheet il diag Ind & Eng Chem 40:759-64 Ap '48

Glycerol by fermentation; patent, Can Chem & Process Ind 32:746 Ag '48

Influence of temperature on the production of glycerol during alcoholic fermentation, M. C. Brockmann and T. J. B. Stier, Am Chem Soc J 70:413-14 Ja '48

Isolation of the fermentation lactobacillus casei factor, B. L. Hutchings and others, bibliog Am Chem Soc J 70:1-3 Ja '48

FERMENTATION—Continued

- Lactic acid from fermentation of sulfate waste liquor. R. H. Leonard, W. H. Peterson and M. J. Johnson. *bibliog* *il Ind & Eng Chem* 40:57-67 Ja '48
- Lactic fermentation and trace iron affect cracker quality. J. Micka. *bibliog* *il Food Ind* 20:34-9+ Ja '48
- Mechanism of the methane fermentation. A. M. Buswell and F. W. Sollo, jr. *bibliog* *Am Chem Soc J* 70:1778-80 My '48
- Methane fermentation of a fiberboard waste. A. M. Buswell and F. W. Sollo, jr. *plan Sewage Works J* 20:687-94 Jl '48
- Production of 2,3-butanediol by fermentation of cornstarch. E. R. Kool, E. I. Fulmer and L. A. Underkoffler. *bibliog* *Ind & Eng Chem* 40:1440-5 Ag '48
- Protoplasts from plant materials; properties of protoplasts released by anaerobic fermentation with clostridium roseum. J. W. White, jr. and others. *bibliog* *Ind & Eng Chem* 40:293-7 F '48
- Quantitative determination of hemicellulose constituents by fermentation. A. H. Auernheimer, L. J. Wickerham and L. E. Schniepp. *bibliog* *Anal Chem* 20:876-7 S '48
- Recent advances in fermentation. *il Chem Eng* 54:141-8 D '47
- Role of the constituents of synthetic media for penicillin production. F. G. Jarvis and M. J. Johnson. *bibliog* *Am Chem Soc J* 69:3010-17 D '47
- Studies in selective extraction and adsorption; the adsorption of acetone, butyl alcohol and 2,3-butylene glycol from dilute solutions. C. Weizmann and others. *bibliog* *Soc Chem Ind J* 67:225-7 Je '48

See also

- | | |
|---------------------|---------|
| Alcohol—Manufacture | Brewing |
| Bacteriology | Enzymes |
| | Sugars |
- FERMI, Enrico, 1901-**
Beta-spectra of Cu⁶⁴ as a test of the Fermi theory. C. S. Cook and L. M. Langer. *bibliog* *Phys R* 73:601-7 Mr '48
- Portrait. *Fortune* 38:168 O '48
- FERMI-DIRAC statistics**
Statistical mechanics of mixtures of Bose-Einstein and Fermi-Dirac systems. W. Band. *J Chem Phys* 16:343-52 Ap '48
- FERRE, Antonio, family**
Island empire; Puerto Rico's Ferre family. *Bsns W p* 110+ My 29 '48
- FERRIIN**
Equilibrium and kinetic studies on the formation and dissociation of ferriin and ferritin. I. M. Kolthoff, T. S. Lee and D. L. Leussing. *Anal Chem* 20:985 O '48
- FERRO enamel corporation**
Building new customers. *Bsns W p* 78+ N 15 '47
- FERROALLOYS**
Adjusting iron composition by addition of ferroalloy briquets. J. N. Ludwig, jr. *Foundry* 76:115-16 O '48
- Ferro-alloy metals. 1947. C. W. Merrill and others. *Eng & Min J* 149:90-2 F '48
- Ferroalloy metals; review of 1947. R. G. Knickerbocker. *Min & Met* 29:109-10 F '48
- Ferroalloys in 1947. E. K. Jenckes. *il Min Cong J* 34:115-18 F '48

Prices

- Prices of some ferroalloys increased. *Blast F & Steel P* 36:100-1 Ja '48

Statistics

- Pig iron and ferroalloy production, monthly, 1929, 1939-1947; tabulation. *Steel* 122:327 Ja 5 '48
- World pig iron, steel ingot, castings, and ferroalloy production; by countries, 1940-1947; tabulation. *Steel* 122:326 Ja 5 '48

FERROELECTRIC effect

- Theory of the ferroelectric effect and clamped dielectric constant of Rochelle salt. W. P. Mason. *bibliog* *Phys R* 72:854-65 N 1 '47

FERRIIN

- Equilibrium and kinetic studies on the formation and dissociation of ferriin and ferritin. I. M. Kolthoff, T. S. Lee and D. L. Leussing. *Anal Chem* 20:985 O '48

FERROMANGANESE

Prices

- Ferromanganese, 80 per cent; monthly, 1929-1947; tabulation. *Iron Age* 161:308 Ja 1 '48

FERROSILICON

Prices

- 50 per cent ferrosilicon; monthly, 1929-1947; tabulation. *Iron Age* 161:306 Ja 1 '48

FERROXYL indicator

- Demonstrations using the ferroxyl reagent. W. B. Meldrum. *diags J Chem Educ* 25:254-5 My '48

FERRYBOATS

- Ferries use f-m in the Chesapeake Bay area. *il Electronics* 21:132 Ja '48
- Ferryboat for Venezuelan service. *il Marine Eng* 53:76-7 Jl '48
- Ferryboat operator gives in. *Bsns W p* 41-2 S 18 '48
- First two-way radio on ferryboats. *il Gen Elec R* 51:56 Ja '48
- Hazardous voyage of the 65-foot ferryboat. Ceuta. E. Johnson. *il Marine Eng* 53:70 Ag '48
- Narrows, electric ferry. *il Marine Eng* 52:112 N '47
- Puget Sound ferry, Chinook. *il diag Marine Eng* 52:113+ N '47
- See also
- Train ferries

Fares

- Ferryboat operator quits to keep going; Puget Sound navigation co. *il Bsns W p* 57-8 Mr 20 '48

FERTILIZATION of plants

- Convenient plant pollinating kit. C. A. Schroeder. *diag Science* 107:354 Ap 2 '48

FERTILIZER control officials, Association of American.

- See Association of American fertilizer control officials

FERTILIZER factories

Electric equipment

- Superphosphate manufacture; good examples of group drives. *il Elec R (Lond)* 143:231-5 Ag 13 '48

FERTILIZER industry

- Ammonium sulphate makers to get ten per cent of army's anhydrous ammonia. *Oil Paint & Drug Rep* 153:3 Je 28 '48
- Chemical bonanza; Farm belt fertilizer & chemical co. *Bsns W p* 72-3+ O 2 '48
- College course helps salesmen up sales; California's College of agriculture two-day seminar in plant food fundamentals. *il Sales Management* 59:109 N 20 '47
- Farm supplies for ERP; equipment and fertilizer. *Food Ind* 20:707 My '48
- Fertilizer industry; increasing output helps farmers overcome world food shortages. *Index* 28 no 1:14-23 [Mr] '48
- Fertilizer production to increase. *il Chem & Eng N* 26:1986+ Jl 5 '48
- IEFC sets 1948-49 nitrogen allocation. *Oil Paint & Drug Rep* 154:3+ Jl 12 '48
- Marshall plan to affect fertilizer situation. *Chem & Eng N* 25:3495 N 24 '47
- TVA fertilizer policies criticized. *Oil Paint & Drug Rep* 153:5 Ap 26 '48
- U.S. revises views on nitrogen outlook. *Oil Paint & Drug Rep* 153:5 Ja 12 '48

See also

- Lime as fertilizer
- National fertilizer association

Regulation

- Fertilizer dictatorship by U.S. asked in House; H.R. 4562. *Oil Paint & Drug Rep* 152:3 D 1 '47
- Fertilizer distribution rules fixed by ODC. *Oil Paint & Drug Rep* 154:5+ Ag 2 '48
- Nitrogen allocation proposal rejected by representatives of industry. *Oil Paint & Drug Rep* 153:3+ Ap 19 '48

Securities

- Boom for the fertilizer companies? P. Dobbs. *Mag of Wall St* 81:415-17+ Ja 17 '48

Statistics

- Agricultural chemicals. Published in weekly numbers of *Oil, paint and drug reporter*

FERTILIZER industry—Statistics—Continued
Consumption of ammonium nitrate as fertilizer in the United States. W. Scholl and others, *bibliog Chem & Eng N* 26:986-90 Ap 5 '48

Fertilizer chemicals in 1947. *Chem Eng* 55: 108-9 F '48

Fertilizer data, reported for July-December, 1947. *Oil Paint & Drug Rep* 154:43 Ag '30 '48

Fertilizer 1947-48 exports, imports reported by NFA. *Oil Paint & Drug Rep* 154:44 S 20 '48
Fertilizers in 1947-48. F. S. Lodge. *Chem & Eng N* 26:18-19 Ja 5 '48

Fertilizers, 1941-1946. Survey of Cur Bsns 1947 Sup p 112-13 [supplemented in monthly numbers]

Canada

Canada's synthetic nitrogen; war plants now serving agricultural needs. S. G. Barkley. *Chem Age (Lond)* 59:489-90 O 9 '48

Fertilizer industry of Canada aids world food production. *Can Chem & Process Ind* 31: 1048 N '47

Colombia

Regulations governing trade in fertilizers and soil regulators. *For Comm W* 33:14 O 9 '48

Egypt

Near East newsletter. S. A. El Khishen. *Chem & Ind* p410 Je 26 '48

Europe

U.S. ponders nitrogen requirements of Europe. *Oil Paint & Drug Rep* 152:3+ N 10; 5+ N 17 '47

India

New fertilizer plant going up in India. *Il Bsns W* p 125 S 11 '48

Italy

Too much fertilizer; Italian manufacturers resort to propaganda. *Chem Age (Lond)* 59:151 Jl 31 '48

Mexico

Mexico to make own nitrogen fertilizer. *Bsns W* p 113 Mr 6 '48

Peru

Fertilizer sales and supplies. *For Comm W* 32:24 Ag 14 '48

Spain

Spanish plans to raise nitrogen production dependent on more plant and electric power. *Chem Age (Lond)* 59:258 Ag 21 '48

United Kingdom chemical plant in Spain to increase production of nitrate fertilizer. *Il Chem Age (Lond)* 59:345 S 11 '48

United States

See also American plant food council; Association of American fertilizer control officials

FERTILIZERS

Ammonia as fertilizer; deep South has new source of concentrated nitrogen; cotton planters and their plants are eating it up. *Il Fortune* 33:100-3, Ag '48

Commerce department reviews current fertilizer status. *Oil Paint & Drug Rep* 152:3+ D 15 '47

Crystallization of fertilizers; abstract. M. P. Applebey. *Chem & Ind* p59 Ja 24 '48

Development of fertilizers; abstract. W. G. Ogg. *Chem Age (Lond)* 58:843-4 Je 19 '48

Down on the farm; ammonia gets a new chore. *Il Chem Eng* 55:114-17 Ja '48

Effect of radioactive materials on stimulating plant growth. C. B. French. *Can Chem & Process Ind* 32:225-6 Mr '48

Fertilizer 1948 supplies seen at peak but short of demand; House committee hearings. *Oil Paint & Drug Rep* 152:3+ D 15 '47

Fertilizer requirements of wheat as determined by field trials. G. A. Cowie. *bibliog Chem & Ind* p211-16 Ap 3 '48

How green is our valley; adding nitrogen to soil through use of ammonia, free and in the irrigation water. F. G. Sawyer. *Il Chem & Eng N* 26:3258-60 N 1 '48

Investigation on conditions of preparation of fused phosphates; abstract. K. I. Zagvozdkin and N. A. Barilko. *Chem Eng* 55:280 Jl '48

Microbiological changes in composts; abstract and discussion. D. M. Webley. *Chem & Ind* p201-2 Mr 27 '48

NFA urges House approval of National Fertilizer lab. *Oil Paint & Drug Rep* 153:7+ Ap 19 '48

New synthetic nitrogen fertilizer; preparation and properties of urea-form. K. G. Clark, J. Y. Yee and K. S. Love. *bibliog Ind & Eng Chem* 40:1178-83 Jl '48

Nitrogen distribution methods revision seen. *Oil Paint & Drug Rep* 152:5+ N 3 '47

Nitrogen needed for aid program set at 11,000 tons. *Oil Paint & Drug Rep* 152:3 D 8 '47

Non-metals in agriculture; abstracts. R. E. Miller. *Eng & Min J* 149:89 Jl '48; *Chem Eng* 55:286+ S '48

Pregel brothers report success with radioactivity on crops. *Comm & Fin Chr* 167: 1355 Mr 25 '48

Procedure for measurement of P³¹ and P³² in plant material. A. J. MacKenzie and L. A. Dean. *bibliog diag Anal Chem* 20:559-60 Je '48

Properties of monocrystalline ammonium nitrate fertilizer. P. Miller and W. C. Saeman. *bibliog Il Ind & Eng Chem* 40:154-60 Ja '48

Proposed method for measuring the movement of soluble fertilizer salts in the soil. J. B. Hester. *diag Science* 107:99-100 Ja 23 '48

Straw-sludge composts. P. Garrick. *Soc Chem Ind J* 66:257-9 Ag '47

Synthetic chemicals for agriculture; fertilizers and insecticides. R. H. Wellman. *Il Chem Ind* 62:914-21 Je '48

TVA calls on chemists. *Il Chem & Eng N* 26:40 Ja 5 '48

Toxicity to plants of flue dusts containing cyanides and thiocyanates. B. Dyer and others. *Soc Chem Ind J* 66:409-10 N '47

See also

Ammonium nitrate	Phosphates
Ammonium sulfate	Sewage sludge as
Lime as fertilizer	fertilizer
Manures	

Analysis

Determination of potash in fertilizers; effect of saturation of acid-alcohol with potassium chloroplatinate. M. A. Ewan, O. W. Ford and E. D. Schall. *bibliog Anal Chem* 20: 192-4 Mr '48

Manufacture

Compound fertilizer manufacture; new French method; abstract. B. Quanquin. *Chem Age (Lond)* 57:785 D 20 '47

Electric furnace combines olivine and phosphate; calcium magnesium phosphate produced by Magnesium products, Inc. W. J. Granberg. *Il Rock Prod* 51:108+ O '48

Fertilizer manufacture; man-hours per ton, 1939-46. *Mo Labor R* 67:258-60 S '48

Trail refuses to trail in chemical pioneering. S. D. Kirkpatrick. *flow sheet Il Chem Eng* 55:96-9 Ap '48

Patents

Prevention of frothing; patent procedure for mixed fertilizers. *Chem Age (Lond)* 57:666 N 22 '47

Prices

Agricultural chemicals; 1947 market trends. *Oil Paint & Drug Rep* 153:34-6 sec 2 F 16 '48

Storage

Iron compounds and phosphatic fertilizers; study of changes during storage. H. W. Lehecke. *Chem Age (Lond)* 57:698-700 N 29 '47

Testing

Vitamin C in English tomatoes. F. Wokes and others. *bibliog Soc Chem Ind J* 67:262-4 Je '48

FEULGEN reaction

Some quantitative aspects of the Feulgen reaction for desoxyribose nucleic acid. M. A. Lessler. *bibliog Science* 108:419-20 O 15 '48

FEVER*See also*Malaria
Q feverTyphoid fever
Typhus fever**FIBER, Vulcanized.** *See* Vulcanized fiber**FIBER board**

Fiberboard industry shows new growth; Armstrong cork co.'s new plant at Macon, Ga.; illustrations with text, Manuf Rec 117:36-7 J1 '48

Insulating board, wallboard, and hardboard. bibliog Pulp & Pa of Can 49:60-1 My '48

Methane fermentation of a fiberboard waste. A. M. Buswell and F. W. Solor, Jr. plan Sewage Works J 20:687-94 J1 '48

Preservation of fiber insulating board with chlorinated phenols. E. A. Behr. il Paper Ind 30:930-5 S '48

Studies on composition of bark; utilization for structural boards. L. P. Clermont and H. Schwartz. bibliog Paper Tr J 126:57-60 My '48; Same. Pulp & Pa of Can 49:90-4 Je '48

Testing and designing of fibreboard containers. J. D. Malcolmson. Paper Ind 30:942-4 S '48; Same. Paper Tr J 127:34-5 S 30 '48

Uses and abuses of fiberboard in modern construction. G. S. Clark. Paper Tr J 127:53-4 S 16 '48

Wood waste utilized in new French factory; fiber board plants. Chem & Eng N 26:2914-5 S 27 '48

FIBERGLAS. *See* Glass fibers**FIBERS**

Agricultural residue fibers for gas mask filters. S. I. Aronovsky and others. il Paper Ind 29:1300-3 D '47

Experiment stations develop Brazil's fiber plants. For Comm W 30:26 Ja 17 '48

Fibrous concrete has high fire resistance. Concrete 56:30 Je '48

Over-all specific volume, compressibility and resilience of fibrous materials in bulk. W. H. Rees. bibliog il diags Textile Inst J 39:T131-41 Ap '48

Wood-fiber production with revolving disk mills. C. K. Textor. flow sheet il Paper Tr J 126:47-53 Ap 15 '48

*See also*Broom fibers
Cotton fibers
Flax
Glass fibersHemp
Jute
Ramie
Textile fibers**Bibliography**

Chemical engineering materials of construction; annotated bibliography of 273 items. R. S. Casey and C. S. Grove, Jr. il Ind & Eng Chem 40:1793-8 O '48

FIBRIN

Solubility of fibrin clots. K. Laki and L. Löf-ránd. Science 108:280 S 10 '48

FIBRINOGEN

Preparation and properties of serum and plasma proteins; the separation of purified fibrinogen from fraction I of human plasma. P. R. Morrison, J. T. Edsall and S. G. Miller. bibliog diags Am Chem Soc J 70:3103-8 S '48

Studies on double refraction of flow; human fibrinogen and fraction I of human plasma. J. T. Edsall, J. F. Foster and H. Schein-berg. bibliog Am Chem Soc J 69:2731-8 N '47

Analysis

Preparation and properties of serum and plasma proteins; some factors influencing the quantitative determination of fibrinogen. P. R. Morrison. bibliog Am Chem Soc J 69:2723-31 N '47

FICKE, Florence

For quarter century PPA's secretary has kept eye on agencies' credit. por Ptr Ink 221:110 N 7 '47

FICTION

Businessman in action. J. Chamberlain. il Fortune 38:134-6+ N '48

FIDELITY insurance. *See* Insurance, Surety and fidelity**FIELD glasses**

Binocular of molded plastic. il Mod Plastics 25:110-11 N '47

Manufacture

One-ounce binocular shell machined to close tolerances; illustrations with text. A. Ash-burn. Am Mach 92:89-91 J1 15 '48

Testing

Comparison of computed and experimental detection ranges of objects viewed with telescopic systems from aboard ship. H. S. Coleman and W. S. Verplanck. bibliog Opt Soc Am J 38:250-3 Mr '48

FIELDNER, Arno Carl, 1881-
American contemporary. A. D. McFadyen. por(cover) Chem & Eng N 26:384-5 F 9 '48**FIERZ-DAVID, Hans Eduard, 1882-**
Sketch. R. E. Oesper. por(front) J Chem Educ 25:279 My '48**FIFE, Plastic**Laminated fire. il Mod Plastics 25:110 Je '48
Laminated tubing enters consumer's markets. il Plastics 8:46 F '48**FICS**

Syria's fig industry. For Comm W 29:24 N 29 '47

FIIJI islands*See also*Labor and laboring classes—Fiji islands
Labor laws and leg-
islation—Fiji is-
lands**Commercial policy**

Assessment of ad valorem import duties changed from an f.o.b. to c.i.f. basis; form of invoice modified. For Comm W 30:13 Ja 3 '48

FILAMENTS

Designing thoriated tungsten filaments. H. J. Dailey. il Electronics 21:107-9 Ja '48

Ionization processes on tungsten filaments. M. Metlay and G. E. Kimball. bibliog J Chem Phys 16:774-81 Ag '48

FILAMENTS, Plastic

Extruded polyethylene filaments. il Mod Plas-tics 25:120-1 N '47

FILE cabinetsFiles modernized with plastics; file cabinets. il Mod Plastics 25:82-3 F '48
Multi-celled letter file but 4 in. deep. il Sheet Metal Worker 39:158 Ja '48**FILES and filing (documents, etc.)**

Aid to filing analytical chemistry procedures. H. Kirtchik. Gen Elec R 51:43-4 My '48

Destruction of trust files; procedure suggested by trust operations committee of Penn-sylvania bankers association. Trusts & Estates 86:176 F '48

How do you file your dailies? Rough Notes 90:26-7 O '47

How N. W. Ayer files and finds its artwork; keeps track of 20,000 paintings, drawings and photos. M. Murdoch. il Adv & Sell 41:79-80 J1 '48

Life is easier when you use a topical instead of a general file. G. R. Ashbey. il Ptr Ink 224:38-9 S 10 '48

Modified punch card filing system for metal-lurgical literature. J. H. Westbrook and L. H. DeWald. Metal Prog 54:324-7 S '48

New filing system cuts time 80 per cent for Chicago Tribune's advertising department. il Am Bns 18:24+ Ap '48

Personal data file saves valuable time. G. O. Guesmer. Civil Eng 17:47 D '47

Plan for filing cuts and art. M. D. Harper. il Ptr Ink 221:36-7 N 14 '47

Punch card filing system for metallurgical literature. A. G. Guy and A. H. Geisler. il Metal Prog 52:993-1000 D '47

Punched card system for information data. Pet Processing 3:527-8 Je '48

Records management and filing operations. M. K. Odell and E. F. Strong. 342p \$4 McGraw-Hill book co, 330 W. 42d st, New York 18 '47

Safety information on tap: filing system. R. Parks. Nat Safety N 57:36 Je '48

School for customers: Ivan Allen-Marshall company teaches filing methods to em-ployees of customers. Am Bns 17:22 N '47

Use of punched cards in American libraries. J. W. Perry and others. Assn of Sp Lib & Inf Bur Proc 1947:40-50; Discussion. 50-4

W, for where is it? R. M. Yoder. Manage-ment R 37:13 Ja '48

FILES and filing (documents, etc.)—Cont.

Weeding the information file, M. O. Ball.
Special Lib 39:115-16 Ap '48

See also

Punched card system

FILES and rasps

See also

Nicholson file company

FILLING

Big fill carries highway over Ft. Gibson reservoir, il Constr Methods 30:83 Jl '48

Colorado river loses another battle; diversion at Davis dam, il Constr Methods 30:92-5 Ag '48; Eng N 141:70-2 Ag 5 '48

Dredged fill for a scenic freeway; Columbia River highway, il map diag Eng N 141:76-8 S 2 '48

Gas fires in a sanitary fill; spontaneous combustion ignites gases from decomposing garbage at San Francisco, il Eng N 140:40-1 Ja 8 '48

Grouted fill protects breakwater at Forestville, Quebec, R. F. Legget and P. A. Harakas, il map diag Eng N 141:72-4 S 30 '48

How D. W. Winkelman co. worked a 200,000 cu. yd. borrow pit; filling in swampy section on New York state's new Mohawk Thruway, il diags Roads & Sts 90:59-61 O '47

Mammoth earthmoving job features San Francisco international airport construction, O. H. Tucker, jr. il Civil Eng 18:518-20-4 Ag '48

Michigan studies backfill consolidation, R. L. Greenman, il Eng N 141:88-90 S 16 '48

Motor trucks replace gondolas on San Francisco's sanitary fill, il Eng N 141:110-11 O 14 '48

Philadelphia conducts extensive subsurface exploration prior to airport expansion, E. W. Scott, jr. il plans Civil Eng 18:96-8+ F '48

Proper compaction eliminates curing period in constructing fills, W. H. Rowan and W. W. Graham, Civil Eng 18:450-1 Jl '48

Sanitary fill operating experiences reveal performance factors, Eng N 139:817 D 11 '47

Sanitary fill operation; Winnetka, Ill., R. L. Anderson, il Pub Works 79:24-5+ Je '48

Special rig backfills and tamps canal slopes, il Constr Methods 30:92 F '48

Special wings on bulldozers help in sanitary fill operation; Long Beach, Calif., il Pub Works 79:40+ Mr '48

Subaqueous fill on soft bottom is support for raw salt storage, il plan diag Eng N 141:96-7 Ag 19 '48

See also

Hydraulic filling

FILLING devices

Multiple hand filler; Strong Cobb & co. devises portable vacuum head that can fill liquids in ten bottles simultaneously, il Mod Packaging 21:137 F '48

FILLING machines

Air plunger helps solve a packaging problem; filling boxes with soap flakes, Comp Air Mag 53:151 Je '48

Automatic for olives; machine that fills by weight eliminates overpack, il Mod Packaging 21:134-6 Mr '48

Comparative study of hand and machine filling by New England paint and varnish production club, Paint Oil & Chem R 110:57-8+ N 13 '47

Improved viscous filler, il Mod Packaging 21:154 Ap '48

Liquid filler, Pomona machine works, vacuum filler, R. W. Lahey, Chem & Eng N 26:487 F 16 '48

Liquid filling machine, il Chem & Eng N 26:3056 O 11 '48

Powder filling; vacuum principle in packaging powdered materials, P. E. Fischer, diags Mod Packaging 21:161-4 D '47

Rotary filler, il Mod Packaging 21:159 Ap '48

Scoop's filler; new type of volumetric machine packs and seals detergent powder in glue-end cartons, il Mod Packaging 21:110-12 F '48

Use of vibration as a means of industrial drive, C. A. M. Thornton, bibliog il diags Inst Mech Eng J & Proc 157 (War emergency issue no 25):20-31 '47; Same cond. Machine Design 19:147-60 D '47

FILLING materials

Superfine asbestos used as catalyst carrier, and as filler in plastics and rubber, A. Van Winsen and E. A. Brown, il Can Chem & Process Ind 32:129-32 F '48

See also

Plastic materials—

Fillers

Wood flour

FILMS

Bentonite film as a dielectric, J. T. Kendall, Soc Chem Ind J 67:210 My '48

Chromated protein films for the protection of metals, A. Brenner and others, il Electrochem Soc J 93:55-62 Mr '48

Chromated proteins halt corrosion, Eng N 140:661 Ap 29 '48; Same, Metal Finishing 46:110 Je '48; Same, Franklin Inst J 246:63-4 Jl '48

Decorating vinyl films, A. B. Sherry, il Rubber Age 62:59-60 O '47

Dielectric heating of thin films, T. C. Gams, il diags Electronics 21:83-5 S '48

Diffusion across oil-water interfaces, E. Hutchinson, bibliog J Phys & Colloid Chem 52:897-908 My '48

Electron diffraction for film and surface studies, G. A. Doxey, il diags Electronics 21:112-13 Je '48

Equation of state for linear macromolecules in monolayers, S. J. Singer, bibliog J Chem Phys 16:872-6 S '48

Gas coagulation theory; abstract, L. Auer, Paint Oil & Chem R 111:41 Jl 8 '48

General theory of the formation of liquid films, L. B. Robinson, bibliog J Chem Phys 16:734-6 Jl '48

Long range enzymatic action on films of antigen, A. Rothen, Am Chem Soc J 70:2732-40 Ag '48

Long-range forces may account for specific chemical reactions between molecules not in contact, T. Stern, pseud., il diags Sci Am 179:14-17 O '48

Measurement of water in gases by electrical conduction in a film of hygroscopic material and the use of pressure changes in calibration, B. R. Weaver and R. Riley, bibliog diags J Res Nat Bur Stand 40:169-214 Mr '48; Same cond. Anal Chem 20:216-29 Mr '48

Modulation of conductance of thin films of semi-conductors by surface charges, W. Shockley and G. L. Pearson, diag Phys R 74:232-3 Jl 15 '48

Moisture determination by electrolytic film; measuring water vapor in gases, il diags Refrig Eng 55:266-7 Mr '48

New Cry-O-Vac; oriented synthetic film applied semi-automatically to frozen poultry, meats and other foods, il Mod Packaging 21:115-19+ Mr '48

New tough films and bubbles, A. L. Kuehner, il J Chem Educ 25:211-12 Ap '48

New type of micelle; solubility by film penetration, W. D. Harkins and H. Oppenheimer, J Chem Phys 16:1000-2 O '48

Nomograph for paint film calculations; wet film thickness, spreading rate, and dry film thickness of paint and varnish coatings, H. A. Berman, bibliog Anal Chem 19:915-18 N '47

Noncrystalline polarizing material developed; Polacoat; abstract, J. F. Dreyer, Chem & Eng N 26:1097 Ap 12 '48

Operating characteristics of film resistors; producing thin resistance film and coatings for tv circuits; can be applied to printed circuit elements, J. Marsten and A. L. Pugh, jr. il Tele-Tech 7:46-8+ Mr '48

Optimum band width for two layer anti-reflection films, R. B. Muchmore, bibliog diags Opt Soc Am J 38:20-6 Ja '48

Orientation of the surface of glass, J. F. Dreyer and C. W. Ertel, il Glass Ind 29:197-8 Ap '48; Same cond. Cer Ind 51:80 O '48

Permeation through and sorption of water vapor by high polymers, P. M. Hauser and A. D. McLaren, bibliog diag Ind & Eng Chem 40:112-17 Ja '48

FILMS—Continued

- Photobromination of methylsiloxane films on glass surfaces. G. L. Vandervort and J. E. Willard. *Am Chem Soc J* 70:3148 S '48
- Preparation of aspherical refracting optical surfaces by an evaporation technique. L. G. Schulz. *bibliog il diags Opt Soc Am J* 38:432-41 My '48
- Preparation of dried latex films. S. H. Maron and B. Madow. *bibliog Anal Chem* 20:545-7 Je '48
- Preparation of standard films of DDT crystals for toxicity studies. R. L. Patton and D. S. Sarkaria. *il Science* 107:654 Je 18 '48
- Properties of freshly-formed surfaces. C. C. Addison and others. *diags Chem Soc J* p930-48 JI '48
- Properties of polyorganosiloxane surfaces on glass. M. J. Hunter and others. *bibliog Ind & Eng Chem* 39:1389-95 N '47
- Reduction of wear in rubber stern bearings by the flow controlled continuous film method. R. D. Smeallie. *il Rubber Age* 62:543-4 F '48; Same. *Mech Eng* 70:607-8 JI '48
- Some advances in techniques for the study of adsorbed monolayers at the liquid-air interface. H. W. Fox and W. A. Zisman. *bibliog R Sci Instr* 19:274 Ap '48
- Structure of antigen films and long-range forces. F. Karush and B. M. Siegel. *il Science* 108:107-8 JI 30 '48
- Studies of surface films by reflection of polarized light; more rigorous algebraic method for computing results. F. A. Lucy. *bibliog diags J Chem Phys* 16:167-74 Mr '48
- Study of the dielectric strength of paint, varnish and lacquer films by New York paint and varnish production club. *bibliog il diags Paint Oil & Chem R* 110:52-9 D 11 '47
- Tables for the determination of the refractive index and of the thickness of the thin film by the polarimetric method. A. Vašíček. *Opt Soc Am J* 37:979-80 D '47
- Tack of wax films. H. R. Broll and others. *bibliog il Soap & San Chem* 24:151+ Je '48
- Transmission of powder films in the infrared. R. L. Henry. *bibliog diag Opt Soc Am J* 38:775-89 S '48
- Unplasticized vinyl latices are versatile coatings. Geon latex 31X. J. L. Foster. *Materials & Methods* 28:81-3 O '48
- Vinyl covers wires, yarns, flexible or stiff, as desired, film provides abrasion resistance, electrical insulation, and built-in color possibilities; tensolizing. *il Mod Plastics* 25:113 N '47
- FILMS, Metallic**
- Dark-field electron microscopy; studies of crystalline substances in dark-field. C. E. Hall. *bibliog il diags J Ap Phys* 19:198-212 F '48
- Decarburization of chrome nickel alloys by their surface oxides in high vacua and at elevated temperatures. E. A. Gulbransen and others. *bibliog Metals Tech* 15:TP2438 1-14 S '48
- Electrochemical society debates mechanics of passivation at 93d national meeting, Columbus, April 14-17. *Chem & Eng N* 26:1288 My 3 '48
- Electron diffraction study of oxide films formed on copper-nickel alloys at elevated temperatures. J. W. Hickman and E. A. Gulbransen. *bibliog Metals Tech* 15:TP2391 1-13 Je '48
- Electron diffraction study of oxide films formed on Hastelloy alloys A, B, C, and D. J. W. Hickman and E. A. Gulbransen. *bibliog J Phys & Colloid Chem* 52:1186-97 O '48
- Electron diffraction study of oxide films formed on nickel-chromium alloys. J. W. Hickman and E. A. Gulbransen. *bibliog Metals Tech* 15:TP2372 1-15 Je '48
- Electron microscope study of gold smoke deposits. L. Harris and others. *il J Ap Phys* 19:791-4 Ag '48
- Evaporation process for applying metal films. *Chem & Eng N* 26:194 Ja 19 '48
- Formation of anodic films on aluminum; a lecture demonstration. R. C. Spooner and H. P. Godard. *diag J Chem Educ* 25:340-1 Je '48
- Formation of copper films on non-conductors. S. Wein. *bibliog(47 ref) Metal Finishing* 46:58-60+ Ag '48
- Formation of the natural oxide film on aluminum. F. Keller and J. D. Edwards. *il Metal Prog* 54:35-41, 195-200 JI-Ag '48
- High-frequency plated quartz crystal units. E. A. Sykes. *il diags inst Radio Eng Proc* 36:4-7 Ja '48
- Measurement of thickness of oxide coatings on aluminum alloys. R. B. Mason and W. C. Cochran. *bibliog Metal Finishing* 46:69-73 My '48
- Metal oxide films at elevated temperatures. J. W. Hickman. *bibliog il diags Iron Age* 162:90-4 Ag 12; 90-4 Ag 19 '48
- Optical properties of Ni, Co, Fe, Mn, and Cd. F. Bueche. *bibliog diags Opt Soc Am J* 38:806-10 S '48
- Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; an electron diffraction study. J. W. Hickman and E. A. Gulbransen. *bibliog Anal Chem* 20:158-65 F '48
- Oxide replica technique for the electron microscope examination of stainless steel and high nickel alloys. E. M. Mahla and N. A. Nielsen. *bibliog il J Ap Phys* 19:378-82 Ap '48
- Reflection and transmission interference filters. L. N. Hadley and D. M. Dennison. *diags Opt Soc Am J* 37:451-65; 38:483-96 Je '47, Je '48; Correction. 38:546 Je '48
- Sheet material coated with metal in a vacuum chamber. *Comp Air Mag* 53:228 S '48
- Study of films isolated from passive stainless steels. E. M. Mahla and N. A. Nielsen. *il diags Electrochem Soc J* 93:1-16 Ja '48
- Zinc film permits plating on magnesium. H. K. DeLong. *il Am Mach* 92:98-100 My 6 '48
- FILMS, Moving picture.** See Moving picture films
- FILMS, Photographic.** See Photography—Films
- FILTER cloth**
- Cutting thermoplastic filter cloth. R. A. Ghelardi. *Chem Eng* 54:146 N '47
- La filtration sur tissus en fils continus celluloseux et synthétiques. J. Alibert. *diags Chimie & Ind* 58:341-5 O '47
- FILTER paper**
- Agricultural residue fibers for gas mask filters. S. I. Aronovsky and others. *il Paper Ind* 29:1300-3 D '47
- FILTER presses**
- Care and handling of a filter press truck. *diags Elec World* 129:35 Ap 24 '48
- Operate filter presses with Moyno pump at Illinois Electric. *il diag Cer Ind* 51:91+ O '48
- FILTERS and filtration**
- Application of diatomaceous earth filters to swimming pool recirculation systems; abstract. J. W. Engle. *Am Water Works Assn J* 40:274-5 F '48
- Clarification and filtration plant supplies controlled purity water; Columbia steel co. flow diag *il Iron Age* 162:68-9 O 23 '48
- Filtering water continuously; Newton Falls paper co. *il diags Eng N* 140:650-1 Ap 29 '48
- How water requirements for sulphate pulp bleaching are met by Nekoosa-Edwards. T. A. Pascoe. *il plan diags Paper Ind* 29:1754-6 Mr '48
- New filters supplement spring supply; Johnson City, Tenn. R. F. Taylor. *il Pub Works* 79:37-8 Mr '48
- New measure of the filtrability of fluids with applications to water engineering; abstract. P. L. Boucher. *Am Water Works Assn J* 40:574-5 My '48
- Operation of small water filtration plants. A. E. Clark. *Water & Sewage Works* 95:253-4 JI '48
- Operation of water treatment plants; third edition, rewritten. *diag Pub Works* 79:54+ Ap '48
- Theory of the functioning of filters. H. E. Hudson, jr. *bibliog Am Water Works Assn J* 40:868-72 Ag '48
- What filter sizes are economical? H. A. Thomas, jr. *diags Eng N* 139:864-5 D 25 '47
- See also
- Filtration plants**
- Sewage disposal—Filtration**

FILTERS and filtration—Continued

Cleaning

Keeping filters clean. R. W. Haywood, jr. Am Water Works Assn J 40:410-14 Ap '48
Sulphur dioxide cleans filter sand in place; abstract. J. P. Harris. Eng N 140:643 Ap 29 '48

FILTERS and filtration (technical chemistry)

Apparatus for distillation and filtration of organic liquids. J. P. E. Human and J. A. Mills. diags Chem & Ind p243-5 Ap 17 '48

Clarification of corn mash; preparation of malt-converted, degerminated mash for fermentation. F. A. Hilinski and C. L. Lovell. il Chem Eng Prog 44:733-8 O '48

Clarification of paperboard mill white water. W. Rudolfs and E. J. Axe. bibliog diags Paper Tr J 126:51-7 Ap 8 '48

Contact finishing of lube oil stocks. il Pet Processing 2:853+ N '47

Filters vs. centrifugal separators in the brewery; differences in brewing and distribution practices in Europe and the United States. S. Laufer. diags Food Ind 20:208-11+, 378-81 bibliog(p381) F-Mr '48

Filtration. S. A. Miller. bibliog(73 ref) Ind & Eng Chem 40:25-7 Ja '48

Filtration by sintered glass. Chem Age (Lond) 59:256-7 Ag 21 '48

Filtration in the process industries. W. W. King. il diags Chem Eng Prog 44:717-20 S '48

Filtration of aerosols by granular charcoal. S. H. Katz and D. Macrae. J Phys & Colloid Chem 52:695-7 Ap '48

Filtration solves sulphur difficulties. J. A. Lee. il Chem Eng 55:119-21 Ap '48

La filtration sur tissu en fils continus celluloseux et synthétiques. J. Alibert. diags Chimie & Ind 58:341-5 O '47

Flow of fluids through porous media; application to rotary vacuum filtration. L. E. Brownell and D. L. Katz. bibliog il diags Chem Eng Prog 43:703-12 D '47

Industrial applications of diatomite filters. E. G. Kominek. bibliog il Ind & Eng Chem 39:1413-19 N '47

Influence of the properties of cellulose on the filtration of viscose. Pulp & Pa of Can 49:122-3 O '48

Preventing edge leaks from filter cloth. H. C. Leathart. Chem Eng 54:139-40 D '47

Production clinic. E. G. Thomssen. Soap & San Chem 23:79+ D '47

Slurry filters save coal; Peerless cement corp., Detroit. B. Nordberg. il plan diags Rock Prod 61:134-6+ Ag '48

Trickling filters for treating pulp and paper mill wastes. H. W. Gehm. il Water & Sewage Works 95:231-5, 271-4 bibliog(p274) Je-Jl '48

Using graded porosity pads for depth filtration; used in beverage industries to polish liquids, to improve ultra-violet sterilization and retention of carbonation. F. R. Hormann. il diags Food Ind 20:680-1+ My '48

White water treatment and recovery. W. Rudolfs and E. J. Axe. Water & Sewage Works 95:268-70 Jl '48

See also

Dialysis
Filter presses

FILTRATION plants

Chemical control at Chicago's South District filtration plant. J. R. Baylis. plans diags Ind & Eng Chem 40:1379-84 Ag '48

Operation of small filtration plants. A. E. Clark. Water & Sewage Works 94:277-8, 345-6, 415-16; 95:19-20, 97-8, 253-4, 375-6 Ag-S, N '47, Ja, Mr, Jl, O '48

See also

Filters and filtration

Equipment

Care and calibration of recording instruments. J. E. Kerslake and others. il Am Water Works Assn J 40:632-40 Je '48

Chicago's new filtration plant. flow diag il plan diags Pub Works 79:21-3 Mr '48

Filter tanks kept free of ice by compressed air Comp Air Mag 53:73 Mr '48

Trapping sand in water; Miami's water-filtration plant. L. Perry. il diags Eng N 140:127-9 Ja 22 '48

Two-story sedimentation basin features filter plant layout. L. C. Larson. plan diags Eng N 140:656-7 Ap 29 '48

FINANCE

See also

Banks and banking

Bonds

Budget

Capital

Corporations—Fi-

nance

Credit

Debts, Public

Deflation (finance)

Electric utilities—

Finance

Finance companies

Financial statements

Foreign exchange

Gold as money

Holding companies

Housing finance

Income

Income tax

Inflation (finance)

Insurance

Interest

Investment trusts

Investments

Loans, Bank

Local government—

Finance

Mining industry and

finance

Money

Municipal finance

Prices

Profit

Promissory notes

Public utilities—Fi-

nance

Railroads—Finance

Reserves

Roads—Finance

Scientific research—

Finance

Securities

State finance

Stock exchange

Stocks

Taxation

Trusts, Industrial

War finance

Waterworks—Finance

Arabia

Reorganization of the Ministry of finance in Saudi Arabia. For Comm W 32:26 Ag 7 '48

Austria

See also

Money—Austria

Belgium

Fifty million dollars for Belgium; private banks join with Export-Import bank. For Comm W 31:12 Ap 3 '48

Burma

Development in establishing independent financial system. For Comm W 29:13 D 27 '47

Canada

Canadian investment developments. J. A. Gairdner. Comm & Fin Chr 167:2760+ Je 24 '48

Terms of U.S.-Canada loan by Export-Import bank. For Comm W 30:10 Ja 24 '48

Ceylon

Ceylon's sterling balance agreement with the United Kingdom. For Comm W 32:16-17 Jl 17 '48

China

New financial and economic reforms introduced. For Comm W 32:12-13 S 11 '48

See also

Money—China

Europe

Wealth of thirty-three nations; post-war Europe and the United States; with tabulations giving per capita comparisons, data on national income and comparative balance sheets for 1946. R. R. Doane. Dun's R 56:21-3+ Mr '48

France

End of French inflation? Economist 153:1054-5 D 27 '47

France; the free gold market and the blocking of franc notes. R. Felsette. Comm & Fin Chr 167:1522+ Ap 8 '48

See also

Money—France

Georgia

Georgia story; state finance; taxes. Manuf Rec 117:116-17 My '48

Germany

See also

Money—Germany

Great Britain

Britain's exchange reserves. Economist 153:968-9 D 13 '47

British and American controls in the money markets. R. I. Robinson. il Dun's R 56:23-4+ Je '48

FINANCE—Great Britain—Continued

- Ceylon's sterling balance agreement with the United Kingdom. For Comm W 32:16-17 JI 17 '48
- City of London; world's center of financial probity, il map Fortune 37:118-29 Ap '48
- Cutting the coat; reducing the total of tax-financed expenditure. Economist 155:6-7 JI 3 '48
- Dollar arithmetic; US line of credit expenditures. Economist 153:814-15 N 15 '47
- Dollar deficit. Economist 153:692 O 25 '47
- Eclipse of cheap money in Britain. H. Wincott, Comm & Fin Chr 166:1837+ N 6 '47
- Fiscal year; below-line expenditure. Economist 154:556 Ap 3 '48
- Gold and dollar reserves. Economist 155:70-1 JI 10 '48
- Gold loan from South Africa to United Kingdom. For Comm W 29:20+ N 8 '47
- How to waste a lot of money; \$3.75 billion loan to Britain. Barron's 28:1+ Mr 8 '48
- Inquest on sterling convertibility. P. Einzig, Comm & Fin Chr 166:1854 N 6 '47
- Money and gilt-edged. Economist 154:770-1 My 8 '48
- New Chancellor and old policy. Economist 153:890-1 N 29 '47
- State of British finances for 1947. W. M. Dacey, Comm & Fin Chr 168:220 JI 15 '48
- Sterling releases; are accumulated balances on overseas account being released too fast? Economist 155:309-10 Ag 21 '48

Haiti

- Government revenue for the first six months of 1947-48. For Comm W 32:20 JI 3 '48

India

- India's sterling-balances agreement with the United Kingdom. For Comm W 32:22 Ag 21 '48

Indiana

- Indiana decides beggars can't be Hoosiers; starts movement to end system of federal grants. J. Bingham. Barron's 28:9 Ja 12 '48

Ireland

- Eire; receipts and expenditures for 1947-48. For Comm W 31:20 My 1 '48

Pakistan

- Pakistan; sterling-balance agreement with United Kingdom. For Comm W 32:44 S 11 '48

Philippine Islands

- Appropriation of excess monetary reserves. For Comm W 32:24 Ag 21 '48

South Africa

- Banking and foreign-exchange situation. For Comm W 31:27 My 22 '48
- Financial position reviewed by governor of the South African reserve bank. For Comm W 32:29-30 S 18 '48
- South Africa's boom borrowing. Economist 154:938 Je 5 '48

Sweden

- Holdings of hard currencies requisitioned by Sweden. Comm & Fin Chr 166:1859 N 6 '47
- Measures recommended by directors of the Swedish Riksbank to check Sweden's monetary crisis. For Comm W 29:18-19 N 8 '47

United States

- British and American controls in the money markets. R. I. Robinson. il Dun's R 56: 23-4+ Je '48
- Congressman Buffett offers bill to create monetary commission. Comm & Fin Chr 167:2757 Je 24 '48
- End of financial deflation inevitable? W. Gates. Mag of Wall St 82:66-7+ Ap 24 '48
- Federal finances; Miami address. J. W. Snyder. Comm & Fin Chr 168:1642+ O 21 '48
- Federal fiscal position. Survey of Cur Bsns 28:8-9 O '48
- Federal government finance, 1941-1946. Survey of Cur Bsns 1947 Sup p77 [supplemented in monthly numbers]
- Fiscal policies and inflation. G. B. Roberts. Comm & Fin Chr 168:1200+ S 23 '48

Fiscal policy and debt management; address before Academy of political science, New York. A. L. M. Wiggins. Comm & Fin Chr 167:1521+ Ap 8 '48

Fiscal program of the 80th Congress. J. A. Maxwell. Harvard Bsns R 26:63-73 Ja '48

40 years after the National monetary commission. H. Bratter. Banking 41:76 Ag '48

Government receipts and expenditures, 1929-46; tabulations. Survey of Cur Bsns 27:sup 21-3 JI '47

Government receipts and expenditures, 1944-47; tabulations. Survey of Cur Bsns 28:17-18 JI '48

Guaranty trust co. of New York cites inflationary federal policies. Comm & Fin Chr 167:12+ Ja 1 '48

How to control inflation. R. C. Leffingwell. Comm & Fin Chr 168:1418+ O 7 '48; Same. Fortune 38:90-1+ O '48

Inflationary bond standard. M. Palyi, Comm & Fin Chr 166:2261+ D 4 '47

National monetary commission favored by Chamber of commerce of United States. Comm & Fin Chr 168:1868 N 4 '48

Needed; a national monetary commission. T. I. Parkinson. Comm & Fin Chr 167:2757 Je 24 '48

Northern trust co. of Chicago cites deflationary dangers in use of Treasury surplus. Comm & Fin Chr 167:597+ F 5 '48

Our fiscal policy; Atlanta address and summary of Chicago address. J. W. Snyder. Comm & Fin Chr 167:800+ F 19 '48

Our government finances today; current status and outlook. W. Gates. Mag of Wall St 82:474-6+ Ag 14 '48

Problems of fiscal policy in inflation. W. H. Stead. Comm & Fin Chr 168:604+ Ag 12 '48

Problems of postwar monetary policy. W. Thomas and R. H. Young. bibliog Comm & Fin Chr 167:611+ F 5 '48

Progress of the postwar transition; financial developments in 1947. Survey of Cur Bsns 28:28-9 F '48

Rearmament and the money market. M. Nadler. Comm & Fin Chr 167:2755+ Je 24 '48

Rearmament program and money market. H. V. Roelse. Comm & Fin Chr 167:2534+ Je 10 '48

Shift in federal fiscal position; with chart showing data for fiscal years 1940 and 1946-48. Survey of Cur Bsns 28:1-2 JI '48

Snyder reports on Nation's finances and promises U.S. bonds above par; excerpts from annual report to Congress. Comm & Fin Chr 167:505 Ja 29 '48

Snyder reports surplus exceeds \$8 billion for fiscal year ended June 30, 1948. Comm & Fin Chr 168:635 Ag 12 '48

Taft replies; others mum on fiscal queries. P. A. Johnston. Barron's 28:7 Je 21 '48

Treasury surplus, bank reserves, and the money supply in the first quarter of 1948. Fed Res Bul 34:487-96 My '48; Same. Comm & Fin Chr 167:2310+ My 27 '48

U.S. revenues and expenditures, 1944-1950; graph. Bsns W p23 JI 17 '48

Wealth of thirty-three nations; post-war Europe and the United States; with tabulations giving per capita comparisons, data on national income and comparative balance sheets for 1946. R. R. Doane. Dun's R 56: 21-3+ Mr '48

See also

- | | |
|---------------------------------|---|
| Bonds, Government—United States | Income tax—United States |
| Budget—United States | Money—United States |
| Debts, Public—United States | Taxation—United States |
| Government expenditures | United States—Appropriations and expenditures |

FINANCE, International

- Developments in international finance and trade. Survey of Cur Bsns 27:14-19 D '47
- Foreign countries' gold and short-term dollar resources at end of June 1947; report of National advisory council. Fed Res Bul 34:163-6 F '48

Foreign credits of the United States government. R. C. Parmelee. Survey of Cur Bsns 27:20-4 D '47

Foreign grants and credits of the U.S. government. B. W. Ruffner. Survey of Cur Bsns 28:11-15+ Je '48

FINANCE, International—Continued

International transactions of the United States during 1947, W. Lederer. Survey of Cur Bsns 28:17-23 Mr '48

International transactions of the United States during the first quarter of 1948. Survey of Cur Bsns 28:8-10 Je '48

International transactions of the United States during the second quarter of 1948. Survey of Cur Bsns 28:6-9 S '48

Our foreign trade and the dollar problem. A. Maffry. Comm & Fin Chr 168:1640+ O 21 '48

Postwar international financial problems. D. N. Schoales. Am Pet Inst Proc 27(1):112-18 '47

Reports drain on foreign gold and dollar holdings. Comm & Fin Chr 167:1995+ My 6 '48; Same, Fed Res Bul 34:371-81 Ap '48

Sterling area; stumbling block to European recovery? V. L. Horoth. Mag of Wall St 32:227-9+ Je 5 '48

Sterling area's characteristics change under world-stresses. C. L. Wood. For Comm W 32:3-7+ Ag 7 '48

Trade controls and world finance; basic forces must be appraised. T. C. Blaisdell, jr. For Comm W 31:3-4+ My 1 '48

World and the dollar. Economist 154:1051-2; 155:4-5, 44-6 Je 26-Jl 10 '48

See also
Balance of payments International mone-
Foreign exchange tary fund
International bank Investments, Foreign
for reconstruction Loans, Foreign
and development

also National advisory council on interna-
tional monetary and financial problems

FINANCE, State. *See* State finance

FINANCE companies

For plan finance company cannot seize cars sold to purchasers. East Underw 49: 27 Ja 23 '48

Outlook for commercial finance companies. W. J. Drake. Comm & Fin Chr 167:219+ Ja 15 '48

Plan to facilitate finance company borrowing put into operation by Resolute fire insurance co. H. H. Erdmann. Burroughs Clearing House 32:14-15 Mr '48

Sales finance company operations in 1947. M. Moss. Fed Res Bul 34:781-6 Jl '48

See also Commercial credit company; Conair equipment corporation; Federal services finance corporation

Advertising

Don't forget to say thank you; Personal finance company of America. R. K. Steinman. Sales Management 60:132+ Ja 15 '48

Records

Management reports reveal trends; General finance corporation uses punched-card system. Il Am Bsns 18:18-19+ S '48

Securities

Public underwriting of securities of finance companies. M. E. Simond. Comm & Fin Chr 168:1757+ O 28 '48

Trend in consumer credit; with statistical data of leading companies. H. S. Coffin. Mag of Wall St 82:338-9+ Jl 3 '48

FINANCE corporation for industry, ltd. FCI's loss. Economist 155:33 Jl 3 '48

FINANCIAL advertisers association. *See* Financial public relations association

FINANCIAL advertising. *See* Bank advertising

FINANCIAL analysts societies, National federation of. *See* National federation of financial analysts societies

FINANCIAL employees' guild

Wall Street unions fall in year's drive. R. M. Bleiberg. Barron's 27:9 N 17 '47

FINANCIAL public relations association (formerly Financial advertisers association) Annual convention, 32d, New York, Oct. 6-9. Ptr Ink 221:92 O 10 '47; Banking 40:90+ D '47; Trusts & Estates 85:471-8 N '47

Introducing the F.P.R.A. Burroughs Clearing House 32:3-4+ N '47

FINANCIAL ratios

Behind the scenes in twenty-four wholesale trades; fourteen important ratios for 1946 for 24 wholesale trades and for wholesale groceries, by size (tangible, net worth) classes. Dun's R 55:18-19 N '47

Fourteen important ratios for 36 manufacturing industries, 1946, R. A. Foulke, comp. Dun's R 55:14-15 D '47

Is the two to one rule adequate? a rule of thumb for the current ratio. H. E. Gregory. Credit & Fin Management 50:6-8+ Jl '48

Retail operating ratios; a tool for management. R. L. Tebeau. J Retailing 23:129-37 D '47

Retail operating ratios as managerial guides. N. H. Comish. Il Dun's R 56:18-19+ Ja '48

What to look for in statements; four salient ratios which point up dangers. H. B. Renshaw. Credit & Fin Management 50:6-7 Ap '48

FINANCIAL reports. *See* Corporations—Reports and yearbooks; Financial statements

FINANCIAL statements

Adjustment of prior years' income for depreciation and disposal of fixed assets. D. Borth. Bibliog J Account 35:470-4 Je '48

Aids to statement analysis; graphs give a quick and reliable picture. M. F. Harter. Credit & Fin Management 49:10-11+ N '47

Beware of footnotes. Fortune 37:120 F '48

Changing values in financial appraisal statements. F. A. Royce. Credit & Fin Management 50:3-9+ Ap '48

Current problems in the presentation of financial information. C. G. Blough. J Account 86:284-91 O '48

Depreciation on cost prevents income being fairly stated. W. D. Cranston. J Account 85:207-9 Mr '48

Diagnosis in business; symptoms of disease are shown in financial statements. G. C. Kippel. Credit & Fin Management 50:7-9+ S '48

Disclosure in financial statements; codification of Institute pronouncements. J Account 86:112-18 Ag '48

Disclosure of replacement value of LIFO inventories. J Account 85:489-90 Je '48

Earmarking of funds dedicated to fixed asset expansion. J Account 85:345-6 Ap '48

Emergency facilities may be reinstated to show true income. J Account 85:117 F '48

Financial statements need not be failures as public relations tools for management. D. Knowlton. J Account 84:401-7 N '47

Funds statement can make financial statements easier to understand. G. D. McCarthy. J Account 85:309-11 Ap '48

How new standards of financial reporting grow from social responsibility of accountants. M. H. Stans. J Account 86:98-106 Ag '48

How to handle foreign currencies in statements covering foreign subsidiaries. A. B. Hecker. J Account 85:26-9 Ja '48

Impact of rising prices upon accounting procedures. S. J. Broad. J Account 86:10-21 Jl '48; N A C A Bul 29:1329-48 Jl 1 '48

Investment banker advocates current operating performance statements; abstract. R. V. Horton. J Account 85:257 Mr '48

New English companies act changes requirements for financial statements. J. L. Dohr. J Account 85:196-203, 324-7 Mr-Ap '48

Plague on Pacioli. H. E. Caffyn. J Account 86:150-1 Ag '48

Problems in reporting corporation income. G. D. Bailey. Harvard Bsns R 26:513-26 S '48 (to be cont)

Public acceptance of the facts and figures of business. D. J. Hennessy. Am Gas Assn Proc 1947:22-3

Recent changes in corporate annual reports to stockholders. R. H. Gregory. J Account 84:386-96 N '47

Recommendation made to clarify accountant's representations when opinion is not expressed. J Account 85:33-9 Ja '48

SEC says Thomascolor, Inc. statements misleading. J Account 85:170-3 F '48

Small businessman and his financial statements. G. M. Francis. Bibliog U S Dept of Com Economic (Small Business) Ser 70:1-26; pa 15c Supt. of doc. '48

Some shortcomings of financial statements from the security analyst's point of view. J. M. Galanis. J Account 84:368-75 N '47

FINANCIAL statements—Continued

Statements in credit work; many factors to be considered in full analysis. G. F. Helwig. *Credit & Fin Management* 50:4-5+ Ap; 4-7 My; 11-12+ Je '48

Three approaches to the preparation of simplified financial statements. L. Herbert. *J Account* 85:140-6 F '48

Weakness in financial reporting caused by improper use of reserves. M. H. Stans. *J Account* 85:190-5 Mr '48

What are profits? *J Account* 86:177-9 S '48

What the SEC requires in financial statements filed with the Commission. E. C. King. *J Account* 84:377-84 N '47

What to look for in statements; four salient ratios which point up dangers. H. B. Renshaw. *Credit & Fin Management* 50:6-7 Ap '48

See also

Income statements
Profit and loss statements

FINANCIAL statistics

Federal Reserve chart book as an aid to bank management. C. H. Schmidt. *Fed Res Bul* 34:382-90 Ap '48

Financial, industrial, and commercial statistics. Published in monthly numbers of Federal reserve bulletin

International financial statistics. Published in monthly numbers of Federal reserve bulletin

International financial statistics. Published monthly by International monetary fund, Washington, D. C.

Wealth of thirty-three nations; post-war Europe and the United States; with tabulations giving per capita comparisons, data on national income and comparative balance sheets for 1946. R. R. Doane. *Dun's R* 56:21-3+ Mr '48

See also

Banks and banking—
Statistics

FINANCIAL treaties and agreements

Anglo-Belgian payments agreement; renegotiations with Belgium. *Economist* 153:695 O 25 '47

Anglo-Egyptian agreement; generosity to Egypt? *Economist* 154:72 Ja 10 '48

Anglo-Egyptian financial agreement; Egypt's reservations. *Economist* 154:112 Ja 17 '48

Anglo-Swedish payments; supplementary agreement. *Economist* 153:892+ N 29 '47

Britain's agreement with Belgium; sterling conversion rights. *Economist* 154:468 Mr 20 '48

Britain's agreement with Brazil. *Economist* 154:888-9 Mr 29 '48

Ceylon's sterling balance agreement with the United Kingdom. *For Comm W* 32:16-17 Jl 17 '48

India's sterling-balances agreement with the United Kingdom. *For Comm W* 32:22 Ag 21 '48

Pakistan; sterling-balances agreement with United Kingdom. *For Comm W* 32:44 S 11 '48

FINISHING materials

Advancements in refrigerator finishes. O. E. Norberg. *Il Refrig Eng* 55:567-70; Discussion. 570+ Je '48

Annual engineering review; finishes and coatings. *Materials & Methods* 27:105-6 Ja '48

Case for synthetics; will they ultimately banish natural materials? *Chem Age (Lond)* 58:527 Ap 17 '48

Classification and uses of plastic coatings. J. L. Robertson. *Oil & Gas J* 47:72+ My 6 '48

Coatings for insulation, surface hardening, lubrication, paint bases, and protection for electronic equipment. *Electronics* 21:M10-13 Mid-Je '48

Contributions of Shell companies to protective coatings industry. T. F. Bradley. *bibliog Il Paint Oil & Chem R* 111:17-18+ Mr 13 '48

Floor sealers and hardeners. M. A. Lesser. *bibliog Soap & San Chem* 24:129+ S '48

New synthetic finish for ferrous and non-ferrous metals; Acraclad. C. L. Shapiro. *Il Materials & Methods* 27:62-4 Ja '48

Organic finishes for metal products. *bibliog Il diags Steel* 122:77-82 My 17; 56-9+ My 31; 96-8+ Je 14; 81-4+ Je 28; 123:97-8+ Jl 12; 71-3 Jl 26; 53-4+ Ag 3; 77-82+ Ag 23 '48

Organic finishes for metals. H. R. Clauser. *Il Materials & Methods* 26:95-106 D '47

Petroleum, basic raw material for surface coatings. R. F. Ruthruff. *Il Pet Processing* 3:21-4 Ja '48; Abstract. *Chem Eng* 55:276+ Ja '48

Protective coatings industry is based on chemicals; abstract. M. W. Reece and H. L. Wamper. *Chem Eng* 54:252+ D '47

Protective finishing of electrical equipment. F. Widnall and R. Newbound. *Il Inst E E J* 94 pt 2:512-22 O '47; Discussion. 94 pt 2:522-3; 95 pt 2:695-702 O '47-D '48

Protective organic coatings as engineering materials. J. J. Mattiello. *Il diags Am Soc T M Proc* 46:493-592 *bibliog* (54 titles. p590-2) '46

Santocel, a new material for the coating industry. C. L. Jones. *Paint Oil & Chem R* 110:88-9 N 13 '47

Surface coating; allyl starch. *Chem Eng* 54:175-6 N '47

Wrinkle finishes; 25 control points. E. A. Zahn. *Il Iron Age* 161:78-83 Ja 15 '48

See also

Lacquer and lacquer-
Paint
Polishing materials
Resinous products—
Finishing materials
Textile finishing
Varnish and varnishing

Testing

Evaluating the ideal industrial instrument finish. A. H. Keyser. *Il Product Eng* 19:134-7 My '48

Measurement of adherence of organic coatings to metal surfaces. H. Green and T. P. Lamattina. *bibliog Il diags Anal Chem* 20:523-7 Je '48

Temperature coefficient effects of rf coil finishes. C. I. Soucy. *bibliog Tele-Tech* 6:52-5+ D '47; 7:42-4+ Ja '48

Testing collapsible tubes; methods of rating performance of coatings, inks and enamels. M. Schor. *Il Mod Packaging* 21:148-51 F '48

FINLAND

See also

Geology—Finland
Metal working in—
Social laws and legislation—Finland
dustries—Finland

Commerce

Finland's bid for western trade. *Il Bsns W* p 100-1 Jl 10 '48

Commercial policy

Summary of import license and exchange regulations. *For Comm W* 32:20 Jl 31 '48

Foreign relations

Finnish treaty. J. H. Wuorinen. *bibliog Ann Am Acad* 257:87-96 My '48

Russia

Finns pull it off; Russo-Finnish treaty of mutual assistance. *Economist* 154:577-8 Ap 10 '48

Next stage in Finland; Russian proposal for an alliance, map *Economist* 154:380-1 Mr 6 '48

Politics and government

Communist defeat in Finland. *Economist* 155:65 Jl 10 '48

Elections in Finland. *Economist* 155:22 Jl 3 '48

Reparations

Finland works its passage. *Economist* 153:966 D 13 '47

FINLETTER, Thomas Knight, 1893-

Portrait. *Fortune* 37:97 Mr '48

Portrait. *Fortune* 38:67 Ag '48

FIR

See also

Balsam fir**FIRE alarms**

Automatic fire alarm protection can prevent many big fire losses. T. A. Fleming. *East Underw* 49:28 Je 11 '48

Automatic fire warden safeguards Diesel fuel supply of Third avenue transit corporation; electric detector activates carbon dioxide system. S. G. Freck. *Il Bus Transportation* 27:69 Ap '48

FIRE alarms—Continued

- Fire alarm device. Consumers Res Bul 21:26 Ja '48
 How is the heart of your alarm system? K. A. Vaughan. *il* Safety Eng 96:14-16+ S '48
 Quick alarm, low loss! P. P. Heinz. *il* Safety Eng 95:18-20+ Je '48
 Sprinkler fire-alarm. *il* Safety Eng 96:44-6+ O '48
 Throw your fire troubles away; central station services; fire detection, alarm and watchman's systems. R. K. Hyde. *il* diag Safety Eng 96:10-13+ Ag '48

FIRE apparatus

- Construct foam tower for less than \$1000 from odds and ends in Illinois plant. *il* Pet Processing 3:51-2 Ja '48
 Development center for forest-fire-control equipment. L. C. Funk. *il* Mech Eng 69:544-7 Jl '47; Discussion. 69:1053-4 D '47
 Fire would find them ready; volunteer fire department, the Spicer manufacturing division of the Dana corp. *il* Nat Safety N 58:30 S '48
 How to get a new product off to a blazing start; Fog Fire Fighter. H. E. Engman. *il* Sales Management 60:38+ Je 1 '48
 Obstructions reduce fire pump delivery. Safety Eng 95:24 Ja '48
See also
 Fire extinguishers

History

- Antique fire fighter; 1833 model fire truck. *il* Nat Safety N 56:25 D '47

FIRE apparatus, Motor

- Airport fire truck. *il* Safety Eng 95:26 Ja '48
 Fire fighting revolution; J. E. Holden converts oil truck into a fire engine. P. W. Kearney. Nat Safety N 57:30-1+ F '48

FIRE brick

- Basic brick in the open hearth furnace. V. W. Jones. *diags* Blast F & Steel Pl 36:813-16 Jl '48; Same cond. Iron & Steel Eng 25:126-8 Ag '48
 Evaluation of openhearth checkers. W. B. Bryant. *diags* Iron Age 160:76-81 N 13 '47
 Fundamentals of open-hearth checkerwork design. H. W. Potter. *il* Steel 121:112+ D 8 '47
 Here's a way to preheat castings; build a temporary firebrick. F. C. Gelbig. *diags* Welding J 27:591-2 Ag '48
 Observations on the shelling of checkerbrick. E. C. Petrie and D. P. Brown. *il* Am Cer Soc J 31:14-20 Ja 1 '48
 Operating with a basic main roof; with cost data. A. K. Moore. *il* Blast F & Steel Pl 36:86-8 Ja '48

Manufacture

- Armstrong cork company, ceramic manufacturer; glass containers, insulating firebrick, and glass insulators. K. C. Lyon and D. J. Townsend. *il* Am Cer Soc Bul 27:181-2 My 15 '48
 Control of atmospheric dust in the fire-brick industry. W. W. Stalker and others. *flow sheet* *il* Heat & Ven 45:73-7 Ap '48
 Crushing and storage; how they should be worked in a fire brick plant. J. O. Everhart. *diags* Brick & Clay Rec 112:66+ F '48
 Obtaining correct grain sizing and an even mix in a refractories plant. J. O. Everhart. *il* Brick & Clay Rec 112:74+ Mr '48

Testing

- Chemical and mineralogical changes in stack and hearth and hearth refractories of a blast furnace; abstract. L. H. Van Vlack. Iron Age 162:88 Jl 8 '48

FIRE brigades, Factory. See Factory fire brigades**FIRE clay**

- Casting clay crucibles for high-density glasses, glazes and enamels. *il* Cer Ind 50:137-8 Ap '48
 Clay crucibles for high-density glasses, glazes and enamels. Glass Ind 29:269 My '48
 Differential thermal analyses of some Missouri fire clays. W. D. Keller and J. F. Westcott. *bibliog* Am Cer Soc J 31:100-5 Ap 1 '48

- Fire clay property; prospecting and planning its development. J. O. Everhart. *il* Brick & Clay Rec 111:63+ N '47
 Physical changes occurring during re-pressing of fire-clay refractories. J. O. Everhart. *diags* Am Cer Soc J 30:345-8 N 1 '47
 Plan for maximum recovery when mining fire clay property. J. O. Everhart. *il* Brick & Clay Rec 111:58-9 D '47
 Reliability of workability index of fire-clay plastic refractories. R. A. Heindl and W. L. Pendergast. *il* Am Cer Soc J 30:329-34 N 1 '47

FIRE departments

- Inside the fire department; fire defenses of American cities have improved. Safety Eng 96:50 Ag '48

FIRE escapes

- Cellular fire escapes proposed to increase safety factor in multi-story hotel and apartment buildings. *plan diags* Arch Forum 87:165 N '47

FIRE extinction

- Analyses of complex mixtures of gases; application to control and extinguish fires and to prevent explosions in mines, tunnels, and hazardous industrial processes. S. H. Ash and E. W. Felegy. 9 fold pls [in pocket] U S Bur Mines Bul 471:1-202 *bibliog*(p201-2); pa 75c Supt. of doc. '48
 Avantages de l'emploi de l'eau pulvérisée pour éteindre les incendies. G. Nissou. Génie Civil 124:418-19 N 1 '47
 Emphasis placed on realism at Consolidated Edison's fire school. *il* Gas Age 102:25+ S 16 '48; Same. Safety Eng 96:26+ S '48; Same. Edison Elec Inst Bul 16:307 S '48
 Sisal fiber vs wet water. D. Powell. *il* Safety Eng 96:22-3+ Ag '48
 Steam vs. CO₂ for fire extinguishment in kitchen range hoods. T. W. Reynolds. *il* plan *diags* Heat & Ven 44:75-82 N '47
 Use of wetting agents in forest fire suppression. C. E. Edson and W. W. Parker. *il* Pulp & Pa. of Can 49:79-80+ F '48
 Wet water; progress in combating fires. W. H. Hackett. *il* Spectator (Property ed) 13:18-22 My 6 '48
 Wetter water pares fire losses. H. W. Zussman. *bibliog* *il* Chem Ind 61:994-5 D '47
 Wetter water penetrates better for fighting fires. D. S. Marstan. *il* Safety Eng 95:28-30 My '48
 Wetting agents in the fire-fighting industry. W. W. Parker. J Chem Educ 24:615-16 D '47
 What about this wet water? P. W. Kearney. Safety Eng 94:30-1 D '47
See also

**Fire extinguishers
Sprinkling systems****Study and teaching**

- Fire-fighting instruction includes close contact with heat and smoke; Consolidated Edison co. of N.Y. W. E. Rossmagel. *il* Elec World 129:62-3 F 28 '48
- FIRE extinguishers**
 Carbon tetrachloride OK in proper extinguisher. B. C. Hutchins. Power 92:375+ Je '48
 Dry chemical fire extinguishers for protection of Diesel engines. A. B. Guise. *il* Diesel Power 26:66-9+ My '48
 Fire-extinguisher fluid; CB, chlorobromethane. Chem Eng 55:173 My '48
 Fire extinguishers containing methyl bromide. Consumers Res Bul 22:18-19 Ag '48
 Fire-fighting foams. N. O. Clark. *bibliog* Chem & Ind p22-3; Discussion. 24-5 Ja 10 '48
 Fire protection for pump houses; Aer-o-foam. *il* plan Oil & Gas J 46:91 Ja 15 '48
 First-aid extinguishers. *il* Nat Safety N 57:153-4 Mr '48
 500,000 damaged extinguishers recalled by Pyrene manufacturing company. Safety Eng 95:60-1 My '48
 Inside your extinguisher. M. De Matteo. *il* Safety Eng 96:11-13+ S '48
 Is your fire defense sabotaged? M. De Matteo. *il* Safety Eng 96:40-2+ O '48
 Laboratory experiments with chemical warfare agents. W. Kintof. *diag* J Chem Educ 24:612-13 D '47

FIRE extinguishers—Continued

- Methyl bromide as fire extinguisher. S. Bangs. Aviation W 47:28 D 1 '47
 Modern industrial safety equipment; fire protection. A. Ashburn. il Am Mach 92:113-16 O 7 '48
 Production of fire-fighting equipment, Chile. For Comm W 30:24 Ja 24 '48
 Providing fire protection for transformers; emulsion-forming spray system. J. J. Burri. diag Elec World 129:89-90 Je 19 '48
 Pyrene's dilemma; product goes sour. Bsns W p26 Mr 20 '48
 Radio proximity fuze in fire fighting. Franklin Inst J 245:341-2 Ap '48

Advertising

- Direct mail with a real hook creates sales; fire extinguishers for yachts. S. Grant. il Ptr Ink 224:51-2 Ag 20 '48

FIRE extinguishers, Carbon dioxide

- Automatic electrical-fire protection. S. G. Freck. il Power 92:477 Ag '48
 Automatic fire warden safeguards Diesel fuel supply of Third avenue transit corporation; electric detector activates carbon dioxide system. S. G. Freck. il Bus Transportation 27:69 Ap '48
 Bottled death; shipboard casualties from carbon dioxide fire extinguishers. Marine Eng 53:94+ Mr '48
 Crash probes cite CO₂ danger; recommends precautions in use of extinguishers; proof sought that UAL pilots were asphyxiated. Aviation W 49:13-14 J1 5 '48
 Fire protection for flammable liquids. S. G. Freck. il Mill & Factory 42:144 Je '48
 Fire protection on liner Stockholm. A. M. Dossy. il Marine Eng 53:72-3 Je '48
 Freedom train is landmark in railroad security. P. W. Eberhardt. il Ry Age 123: 985+ D 6 '47
 Microwave tower automatic fire protection system; FTL tower at Nutley, N.J. S. G. Freck. il Communications 28:16 O '48
 Minimizing oil fire damage in quenching areas. F. C. Rodgers. il Steel 122:101-2+ Ap 19 '48
 Steam vs. CO₂ for fire extinguishment in kitchen range hoods. T. W. Reynolds. il plan diags Heat & Ven 44:75-82 N '47

FIRE hose

- New device prevents danger of bursting fire hose. Water & Sewage Works 94:462 D '47

FIRE inspection. See Insurance, Fire—Inspection**FIRE insurance. See Insurance, Fire****FIRE losses**

- Distribution of U.S. fire losses by causes in 1946, as estimated by the National fire protection association; table. Gas Age 100:22 N 27 '47
 Fire losses dip for first time in four years. Nat Underw 52:1 My 20 '48
 Fire losses in the United States over the past 35 years; tabulation. E. A. Van Deusen. Comm & Fin Chr 167:496 Ja 29 '48
 Fire losses, 1941-1946. Survey of Cur Bsns 1947 Sup p34 [supplemented in monthly numbers]
 Fires are inflationary; how current losses affect our national economy. J. A. North. Credit & Fin Management 50:10-11 Mr '48
 1947 fire destruction 20 per cent under top of 1926. H. Bond. East Underw 49:16+ Ja 9 '48; Same cond. Nat Underw 52:1 Ja 8 '48
 1947 fire losses are staggering \$692 million. Nat Underw 52:1 Ja 22 '48; Weekly Underw 158:281+ Ja 24 '48; Safety Eng 95:50-1 Mr '48

FIRE protection

- Accidental ignition of gas. A. W. Breeland. Safety Eng 94:36-40 D '47
 Are we really serious about fire prevention? P. D. Hein. il Nat Safety N 58:85+ O '48
 Automatic sprinklers reduce both insurance costs and fire losses. il Rayon 29:59-61 O '48
 Avoid fire hazards of fluorescent lighting installations. il diags Elec World 130:109+ S 11 '48
 Can we afford our fire losses? W. F. O'Connor. il Safety Eng 95:14-15+ F '48

- Chamber of commerce of the United States concludes test of high-value risks in Schenectady. East Underw 49:20 Je 4 '48
 Design, testing and calibration of a combustible-gas detector. R. Poole. bibliog il diags Inst E E J 95 pt 2:258-71; Discussion. 271-4 Je '48
 Fire hazards and protection of rubber cement. E. E. Turkington. diags Rubber Age 62: 61-3 O '47
 Fire prevention efforts offer meager returns. P. C. McAuliffe. Nat Underw 52:1+ My 13 '48
 Fire prevention in the chemical industry. G. B. James. il Chem Eng Prog 43:639-46 N '47
 Fire protection for wellways; exhaust-water spray system has been developed for moving stairways. il Safety Eng 95:10-11+ Ap '48
 Fire protection in laboratories; practical views on equipment and design. Chem Age (Long) 59:76 J1 17 '48
 Fire underwriting; welding and cutting. W. O. Lincoln. Spectator (Property ed) 13:13+ D 25 '47; 12+ Ja 8 '48
 Firefighting equipment in a medium-sized plant. il Factory Management 106:111 O '48
 Fires that don't happen; prevention of fires during inactive, shut-down periods. il Safety Eng 94:20+ N '47
 Gas, flames and sparks; safety considerations in oxy-acetylene applications. J. I. Banash. il diags Safety Eng 96:7-9+ Ag '48
 How to avoid cutting and welding fires. il Safety Eng 94:16+ N '47
 How to protect mortgaged buildings from fire losses. J. E. Lane. il Bankers Mo 64:588+ D '47
 How to put out a fire before it starts; deluge system acts before ignition temperature is reached. E. A. Clark. Safety Eng 96:28+ J1 '48
 How to stop fires in induction heating equipment. E. E. Turkington. il Factory Management 106:105-6 F '48
 Inspecting before trouble starts; National board of fire underwriters checks fire fighting facilities. il Spectator (Property ed) 13: 26-8 Mr 11 '48
 Keg of dynamite; your ventilating system may be loaded with dust and grease. G. L. Chandler. il Safety Eng 95:36+ My '48
 Method of fire control; combination of exhaust system and water curtain for cooling gases when fire is located adjacent to escalator. A. C. Bartlett. il diags Heating-Piping 19:117-22 N '47
 National cooperation for fire prevention; report on President's conference. A. B. Bielaski. Rough Notes 90:15-16+ O '47
 NFPA handbook of fire protection. R. S. Moulton, ed. 10th ed 1544p \$9.50 National fire protection assn, 60 Batterymarch st, Boston '48
 New building codes urged to cut fires; discusses Truman conference report. P. B. Fleming. East Underw 48:20+ O 31 '47
 Plant fire protection. S. G. Freck. il Mod Plastics 25:134+ Je '48
 Plant's defenses. il Nat Safety N 57:151-2 Mr '48
 Prepare now for Fire prevention week; gas company window displays. il Gas Age 102: 15 S 2 '48
 Preventive maintenance to avoid fires. H. M. Gallagher, jr. il Am Bsns 13:28+ O '48
 Problems of fire loss control. F. C. McAuliffe. Nat Underw 52:5 Ja 22 '48
 Protection for Freedom Train documents. P. W. Eberhardt. il Nat Safety N 57:44 F '48
 Safe mounting, clearances for heating equipment. W. G. Labes. Heating-Piping 20:80 F '48
 Safety suggestions for tire repair shops. Nat Safety N 56:105 N '47
 St. Louis cannot grant protection outside city limits. Weekly Underw 159:261+ Ag 7 '48
 Sell fire prevention; contractor-dealers can help eliminate fire hazards from buildings through self-inspection program. Dom Eng 172:161+ O '48
 Stop that fire; reason for merchandising heating controls. il diag Dom Eng 171:102-3+ Je '48
 13 ways not to burn your factory; cartoons. Paper Ind 29:1349 D '47

FIRE protection—Continued

Truman conference reports progress in reducing fire hazards. East Underw 49:19 J1 2 '48

Value of fire protection engineer. C. W. Pierce. Weekly Underw 157:1111+ N 1 '47
Water spray will stop fire at conveyor openings. N. J. Thompson. diags Factory Management 106:104-7 J1 '48

Where to look for spontaneous ignition hazards. il Mill & Factory 43:99-101 Ag '48

See also

Fire escapes	Fireproofing
Fire extinction	Forest fire patrol,
Fire extinguishers	Aerial
Fire resisting materials	Inflammable mixtures
Fire walls	Mine fires
Fireproof construction	Sprinkling systems
	Underwriters' laboratories
also subdivision	Fires and fire protection under special subjects, e.g.
Airplanes	Oil tanks
Churches	Piers
Hotels	Ships
Moving picture films	Tank trucks
Oil storage	
also National fire protection association	

Contests and awards

Fire prevention awards go to atom bomb city; Oak Ridge chief winner. East Underw 49:16 Ja 2 '48; Spectator (Property ed) 13: 32 Ja 8 '48

Fort Collins, Colo., prevention winner; National fire waste council gives honors to Chicago, Atlanta, at annual meet. Nat Underw 52:9 Ap 15 '48; East Underw 49:23 Ap 16 '48

National Board gold medal awards. East Underw 49:28 My 21 '48; Same. Weekly Underw 158:1357+ My '48

Laws and regulations

New York fire commissioner's authority to order sprinkler systems upheld. East Underw 48:24 D 12 '47

FIRE protection, Rural

Luckman asks aid in avoiding grain loss by fire; meeting of agricultural committee of National fire waste council, Chicago. Nat Underw 51:4+ N 13 '47

Private pond fire protection urged for rural property owners. W. Lyon. East Underw 49:24 Ag 20 '48

FIRE protection association, National. See National fire protection association

FIRE pumps. See Fire apparatus

FIRE resisting materials

CCA makes fire-resistant panel material; cellular cellulose acetate between two layers of carbon steel; Pyroply. il Plastics 8:15 F '48

C. & O. tests effect on track circuits of bridge ties treated to resist fire. H. M. Church. il Ry Age 125:580-2 S 25 '48

Fire research and buildings. S. H. Clarke. bibliog il Chem & Ind p263-4 Ap 24 '48

Fire-resistant paneling developed; Du Pont Strux cellular cellulose acetate plastic sandwiched between sheets of carbon steel. Safety Eng 95:44 Ja '48

Fire retardant; Albi-R. il Chem Eng 55:173 F '48

Flame resistance in acetate. F. D'Allelo. il Mod Plastics 25:94-6 Ag '48

Insulation checks fires. J. E. Lane. il Spectator (Property ed) 13:18-19 My 20 '48

Insulation from low-grade cotton; flameproof product. il Manuf Rec 117:39+ Je '48

New fireproof door passes rigid test; has core of Kaylo insulation. il Am Bld 70:139 Ap '48

New insulating material withstands fire; Owens-Illinois' Kaylo. il Bsns W p26+ F 14 '48

See also

Paint, Fire resisting

FIRE resisting paint. See Paint, Fire resisting

FIRE service (water supply)

Controlling industrial fire hazards. M. M. Braidech. Am Water Works Assn J 40:927-35 S '48

Flow requirements for fire protection. A. C. Hutson. Am Water Works Assn J 40:936-40 S '48; Abstract. Eng N 140:953 Je 10 '48

How cities charge for private fire protection services. Pub Works 79:30-2 My; 30 Je; 72 J1 '48

Methods of classifying communities for fire insurance ratings. H. R. Bogardus. Water & Sewage Works 95:423 N '48

Tentative standard specifications for cold water meters, fire service type. Am Water Works Assn J 39:173-83 F '47; Same. N E Water Works Assn J 61:sup[4] 1-9 S '47

Water works and fire protection. S. F. Newkirk, jr. Am Water Works Assn J 40:941-4 S '48

Wet water; progress in combatting fires. W. H. Hackett. il Spectator (Property ed) 13: 18-22 My 6 '48

FIRE underwriters, National board of. See National board of fire underwriters

FIRE underwriters association of the Pacific Annual meeting, San Francisco, March 3-4. Nat Underw 52:1+ Mr 4 '48

FIRE walls

Firewalls of steel gain tank capacity in limited space; Sun oil co. Newark, N.J. terminal. il diag Pet Processing 3:209, cover Mr '48

FIREARMS

War deaths in peacetime; danger from war souvenirs. H. Schneider. il Nat Safety N 58:26-7+ S '48

Sights*See also*

Guns, Aircraft—

Sights

FIREBOXES, Locomotive. See Locomotive fireboxes

FIREFLIES

Energy source for light emission in fireflies; abstract. W. D. McElroy. Science 107:463-4 My 7 '48

FIREMAN'S fund insurance company Stock sold. Comm & Fin Chr 168:1480-1 O 11 '48

FIREMAN'S insurance company of Newark Annual report, 1947. Comm & Fin Chr 168:645 Ag 16 '48

FIREPLACES

Better detail plate; corner view window and fireplace. diags Am Bld 70:149 O '48

It's smart to build and easy to relax by a brick fireplace; views. Brick & Clay Rec 111:24-5 D '47

FIREPROOF construction

Brick and tile fight fire! diags Brick & Clay Rec 113:36-40 O '48

Fire research and buildings. S. H. Clarke. bibliog il Chem & Ind p263-4 Ap 24 '48

Fireproof buildings can burn. C. C. Dominge. il Spectator (Property ed) 13:21+ D 11 '47

Fireproofing with clay tile. diags Brick & Clay Rec 113:42-3 O '48

Inclosing a multiple-story skyscraper housing project; Stuyvesant Town. il Eng N 140:202-4 F 5 '48

Insulation checks fires. J. E. Lane. il Spectator (Property ed) 13:18-19 My 20 '48

See also

Fire walls

FIREPROOFING

Vote fund to fireproof White House. Eng N 140:750 My 20 '48

FIREPROOFING of textiles

American association of textile chemists and colorists general research meeting; fire resistance of fabrics report. Am Dyestuff Rep 36:780-1 D 29 '47

Fire-proofing of fabrics. Rayon 29:96 Je '48

Flame and waterproofing at the same time; patent. Am Dyestuff Rep 36:785 D 29 '47

Flameproofing, antimony compounds in solution; patent. Am Dyestuff Rep 36:720-1 D 1 '47

Fyre-Bar. J. Neiman. Textile Col 70:24+ S '48

Phosphorylated cotton cellulose as a cation-exchange material. J. F. Jurgens and others. Textile Res J 18:42-4 Ja '48

Tent for mammoth plane; fireproof canvas structure protects H. Hughes flying boat. il Safety Eng 96:42 Ag '48

Trends in the evolution of fire-resistant textiles. R. W. Little. Am Dyestuff Rep 37: 114-18 F 23 '48; Abstract. Textile World 98:139 Ja '48

FIRES

- Air conditioning and blank walls introduce new fire problems. R. C. Corson. *il Civl Eng* 18:557-⁺ S '48
- Blame weed killer for roadside fire. *Eng N* 141:87 Ag 5 '48
- Fire fighting problems in 'windowless plants. *Nat Safety N* 57:164 Mr '48
- Gas fire in sewer manhole traced to sanitary-fill operation; abstract. L. C. Bailey. *Eng N* 139:863 D 25 '47
- Scio rebuilds in 62 days. *il Cer Ind* 50:56-7-⁺ My '48
- Smoke, soot and sweat! grease fires in exhaust ducts. R. B. Woolley. *Safety Eng* 95:34-5 Ja '48
- Study fire problems of the atomic age; North-eastern fire protection-prevention conference. *Nat Safety N* 58:48 N '47

See also

- Arson — Insurance, Fire
- Electric fires — Mine fires
- Fire extinction — Oil fires
- Fire protection — Piers—Fires and fire protection
- Inflammable liquids — protection
- FIRESTONE, Harvey Samuel, 1898-
Changes in command at Firestone tire & rubber co. por Bsns W p26 Ja 24 '48
- FIRESTONE tire and rubber company
Consolidated income account, including subsidiaries; 1944-47. *Comm & Fin Chr* 167:545 F 2 '48
- High-yield stocks selling less than five times earnings. *Mag of Wall St* 82:184 My 22 '48

FIREWALLS. See Fire walls

FIREWORKS, Military. See Military fireworks

FIRN. See Glaciers; Ross Shelf ice

FIRST advertising agency group
Annual convention, 1st, Jacksonville, Oct. 19-21. *Ed & Pub* 81:54 O 30 '48FIRST aid in illness and injury
Company employees learn first aid. *il Mill & Factory* 42:136 Je '48First-aid attendants. B. H. R. Brehaut. *Pulp & Pa of Can* 48:93-5 D '47First-aid treatment of burns. H. S. MacLean. *Nat Safety N* 56:32-3-⁺ D '47; Same. *il Safety Eng* 95:55-7 Ja '48Head injuries and shock. W. N. Kemp. *il Nat Safety N* 58:38-9 Ag '48Importance of first aid for accidents in lumbering. *Pulp & Pa of Can* 49:77 F '48Treatment of eye chemical burns. T. W. Nale. *il Safety Eng* 96:58-63 Ag '48Treatment of injuries. *il Nat Safety N* 57:187-8-⁺ Mr '48

See also

Burns and scalds

FIRST Boston corporation
New officers. *pors Comm & Fin Chr* 166:2491 D 18 '47FIRST guardian securities corporation
Stocks offered. *Comm & Fin Chr* 167:251 Ja 19 '48FIRST national stores, inc.
Diversified stake in merchandise shares. G. W. Mathis. *Mag of Wall St* 82:236 Je 5 '48FIRTH carpet company
New profit peak. *Barron's* 28:35 O 4 '48FIRTH river, Yukon
Firth river, Yukon territory; report submitted to the B. C. and Yukon Chamber of mines. R. W. Sandy. *maps Can Min J* 69:83-5 Jl '48FISCAL year
Advantages of the natural business year to management. S. Tepper. *N A C A Bul* 30:3-12 S 1 '48How to find your natural business year. L. C. J. Yeager. *Am Bsns* 18:49-50-⁺ O '48New fiscal year for advertising proposal gets slight support. *Ptr Ink* 223:74-⁺ Ap 9; 38-9 Ap 16 '48FISCHER reagent
Determination of moisture in lecithin and crude soybean oils. K. M. Brobst. *Anal Chem* 20:939-41 O '48Determination of small amounts of water in chloral. T. P. G. Shaw and T. Bruce. *Anal Chem* 19:884-5 N '47Determination of water in alkylation sulfuric acid. W. H. Goff, W. S. Palmer and R. F. Huhndorff. *bibliog diag Anal Chem* 20:344-6 Ap '48

Determination of water in dry food materials; Karl Fischer method. C. W. Schroeder and J. H. Nair. *bibliog* (43 ref) *il Anal Chem* 20:452-5 My '48

Rapid determination of moisture in liquid sulfur dioxide; comparison of phosphorus pentoxide and Karl Fischer method. B. R. Di Caprio. *diag Anal Chem* 19:1010-11 D '47

FISCHER-TROPSCH process

Appraisal of gas synthesis operations. R. C. Alden and A. Clark. *bibliog Pet Processing* 3:425-30 My '48

Catalytic treatment of synthetic gasoline. C. J. Helmers and others. *bibliog Oil & Gas J* 47:86-⁺ O 28 '48

Chemical products from the Fischer-Tropsch process; abstracts. C. C. Hall. *Chem & Ind* p722-3 N 22 '47; *Chem Age* (Lond) 57:701 N 29 '47

Comparison of major processes for synthetic liquid fuels; oil-shale, coal hydrogenation, or Fischer-Tropsch from natural gas or coal? W. C. Schroeder. *il Chem Ind* 62:574-7-⁺ Ap '48

Dual synthetic fuel program in development. *Power* 92:374-⁺ Je '48

Fischer-Tropsch alcohol. W. C. Schroeder. *Chem Eng Prog* 44:sup 15-17 Ja '48

Fischer-Tropsch research; tracer investigation by Gulf oil corporation. *il Chem Age* (Lond) 58:680-1 My 15 '48

Fischer-Tropsch synthesis; tests of cobalt catalysts at atmospheric pressure. R. B. Anderson and others. *bibliog flow diag Ind & Eng Chem* 39:1548-54 D '47

Fischer-Tropsch synthesis with cobalt catalysts. S. R. Craxford. *bibliog Soc Chem Ind J* 68:440-4 D '47

Kieselguhrs; suitability as carriers in catalysts. R. B. Anderson and others. *bibliog il Ind & Eng Chem* 39:1618-28 D '47

Kinetics of carbiding and hydrocarbon synthesis with cobalt Fischer-Tropsch catalysts. S. Weller. *bibliog diag Am Chem Soc J* 69:2432-6 O '47

Low-temperature carbonization of coal produced most of Japs' synthetic oil. C. S. Goddin and D. P. Thornton, jr. *il Pet Processing* 3:121-2-⁺ F '48

Oxygen in the production of hydrogen or synthesis gas. Winkler, Koppers, Lurgi, Thyssen-Galoesy and Leuna processes. L. L. Newman. *bibliog flow diag il diags Ind & Eng Chem* 40:559-82 Ap '48

Pilot plant for gasifying powdered coal entrained in oxygen and steam. Morgantown, West Virginia. L. D. Schmidt, J. P. McGee and M. C. Slone. *flow sheet diags Chem Eng Prog* 44:737-43; *Discussion*, 743-4 O '48

Product distribution in the synthesis of hydrocarbons from carbon monoxide and hydrogen. C. W. Montgomery and E. B. Weinberger. *bibliog J Chem Phys* 16:424-5 Ap '48

Purification of synthesis gas produced from pulverized coal; specifications, purification processes and analytical methods. A. E. Sands, H. W. Wainwright and L. D. Schmidt. *bibliog flow sheets diags Ind & Eng Chem* 40:607-20 Ap '48

Review of development of processes for synthesis of liquid fuels by hydrogenation of carbon monoxide. H. H. Storch. *bibliog flow diag Chem Eng Prog* 44:469-80 Je '48

Role of bulk cobalt carbide in the Fischer-Tropsch synthesis. S. Weller, L. J. E. Hofer and R. B. Anderson. *bibliog Am Chem Soc J* 70:799-801 F '48

Some problems associated with the Fischer-Tropsch process; abstract. E. Ayres and others. *Oil & Gas J* 47:112-⁺ O 21 '48

Studies of the Fischer-Tropsch synthesis; properties of reduced cobalt catalysts. R. B. Anderson, W. K. Hall and L. J. E. Hofer. *bibliog diags Am Chem Soc J* 70:2465-72 Jl '48

Studies of the Fischer-Tropsch synthesis; properties of unreduced cobalt catalysts. R. B. Anderson and others. *bibliog Am Chem Soc J* 69:3114-19 D '47

Study of fluidization of an iron Fischer-Tropsch catalyst. M. Leva and others. *il Chem Eng Prog* 44:707-16 S '48

Synthetic liquid fuels in the United States. W. C. Schroeder. *il Mech Eng* 69:990-3 D '47

FISCHER-TROPSCH process—Continued

Thermodynamic calculations concerning the possible participation of the carbides of iron as intermediate in Fischer-Tropsch synthesis. J. T. Kummer and others. *J Chem Phys* 16:739-40 *Jl* '48

Thermodynamics and stoichiometry of synthesis gas production by the partial oxidation of methane. C. W. Montgomery, E. B. Weinberger and D. S. Hoffman. *Ind & Eng Chem* 40:601-7 *Ap* '48

X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-500 *O* '47

See also

Gasoline, Natural—
Manufacture—
Hydrocol process

Bibliography

Fischer-Tropsch developments in Germany; list of reports, *Pet Processing* 3:327-8 *Ap* '48

FISH, Frozen

Canada tests fish freezing trailer train. *il Refrig Eng* 55:357 *Ap* '48

Freezing fish at sea. J. M. Lemon and C. E. Carlson. plans *diags Refrig Eng* 54:527-30+ *D* '47; Discussion. W. F. R. Karsten. 55:94+ *Ja* '48

Frozen fish; package function in preventing desiccation and spoilage. S. R. Pottinger. *il Mod Packaging* 21:120-3+ *Jl* '48

Maiden voyage proves value of mother ship in tuna fishing; cannerys are planning to convert more vessels for receiving and freezing tuna in tropical waters. C. E. Carlson. *il plans Food Ind* 20:43-6 *Ja* '48

Storage

Curb mackerel fillet rancidity with new dip-and-coat technic; combination of NDGA-in-oil and Irish moss extractive. L. S. Stoloff and others. *il Food Ind* 20:1130-2+ *Ag* '48

FISH, Smoked

Smoking and salting fish; abstract. J. M. Shewan. *Chem & Ind* p28 *Ja* 10 '48

**FISH and wildlife service. See United States—
Fish and wildlife service****FISH as food**

Present trends and future developments in the technology of fish. J. A. Lovern. *Chem & Ind* p751-2 *D* 6 '47

See also

Canned fish	Fish handling
Fish, Frozen	Tuna fish
Fish cakes	

Analysis

Comparison of chemical tests of the quality of fish. G. J. Sigurdsson. *bibliog*(61 ref) *il Anal Chem* 19:892-902 *N* '47

Preservation

Biological stability of canned marine products. E. P. Sidaway. *bibliog Chem & Ind* p547-50 *Ag* 28 '48

Curb mackerel fillet rancidity with new dip-and-coat technic; combination of NDGA-in-oil and Irish moss extractive. L. S. Stoloff and others. *il Food Ind* 20:1130-2+ *Ag* '48

Spoilage

Comparison of chemical tests of the quality of fish. G. J. Sigurdsson. *bibliog*(61 ref) *il Anal Chem* 19:892-902 *N* '47

FISH cakes

Here fish cakes are rolled; Japanese process inedible material into gelatin and fertilizer. *il Food Ind* 20:1008-9 *Jl* '48

FISH handling

Holst speeds fish handling and retort room work; Lake Shore canning co., Cleveland, Wis. *il Food Ind* 20:376-7 *Mr* '48

FISH meal**Analysis**

Nutritional value of British Columbia fish and meat meals. B. E. March and J. Biely. *bibliog Can Chem & Process Ind* 32:447-8+ *My* '48

FISH oil

Fish oil extraction; electricity revolutionizes methods at Grimsby works. *il Elec R (Lond)* 141:949-51 *D* 26 '47

Fish-oil processing, South Africa. *For Comm W* 32:31 *Jl* 17 '48

Fish oils. J. R. Skeen. *Soap & San Chem* 24: 45+ *Jl* '48

See also
Cod liver oil

Analysis

Chromatographic analysis of the unsaponifiable matter of marine animal oils. L. A. Swain. *Can Chem & Process Ind* 32:553-4 *Je* '48

Determining vitamins D₂ by two physical chemical methods; oil solutions. D. T. Ewing and others. *bibliog Anal Chem* 20: 317-20 *Ap* '48

South African fish products; composition of the liver oils of the basking shark (*Cetorhinus maximus*, Gunner) and the spiny shark (*Echinorhinus spinosus*, Gmelin). M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:104-7 *Mr* '48

South African fish products; the composition of the liver oil of the seven-gilled shark, *hepbranchias pectorosus* (Garman). M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:144-7 *Ap* '48

South African fish products; the composition of the liver oil of the soupfin shark; *galeorhinus canis*, Rond. M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:193-6 *My* '48

Statistics

Fish oils, 1941-1946. Survey of Cur Bsns 1947 *Sup p* 115 [supplemented in monthly numbers]

FISH poisons

Effect of DDT on fish, fish food and plankton. *Pub Works* 79:46-8 *Ja* '48

Method for studying the toxicity of industrial wastes. H. Heukelekian. *bibliog Water & Sewage Works* 95:285-7 *Ag* '48

Research in stream pollution; abstract. R. L. Winget. *Pub Works* 78:28 *N* '47

Water works reservoirs and fish management; use of rotenone or other poisons; abstract. H. B. Mills; G. W. Bennett. *Pub Works* 79:61 *S* '48

See also

Shellfish poisons

FISH products

Fish products price cut seen next year; meeting of by-products committee of National fisheries institute. *Oil Paint & Drug Rep* 153:5+ *Ap* 12 '48

South African fish products; composition of the liver oils of the basking shark (*Cetorhinus maximus*, Gunner) and the spiny shark (*Echinorhinus spinosus*, Gmelin). M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:104-7 *Mr* '48

South African fish products; the composition of the liver oil of the seven-gilled shark, *hepbranchias pectorosus* (Garman). M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:144-7 *Ap* '48

South African fish products; the composition of the liver oil of the soupfin shark; *galeorhinus canis*, Rond. M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:193-6 *My* '48

See also

Fish cakes
Fish oil

FISH trade

NFI develops program. *Food Ind* 20:882-3 *Je* '48

See also

Salmon

Statistics

Fish, 1941-1946. Survey of Cur Bsns 1947 *Sup p* 135 [supplemented in monthly numbers]

Denmark

State research in Denmark; problem of bringing modern scientific developments to attention of industry. M. Jul. *il plan Food Ind* 20:3-4+ *Ja* '48

FISH trade—Continued

Georgia

Georgia story: commercial fishing. *il* Manuf Rec 117:102-3 My '48

Newfoundland

Conditions in Newfoundland's industry. *For* Comm W 31:25 Ap 10 '48

Norway

Norway's 1948 catch. *For* Comm W 33:22 O 9 '48

Peru

Peru fishing industry undergoing modernization. J. Wilhelm. *il* Food Ind 20:388-90 Mr '48

Spain

Developments in Spain's fishing industry. *For* Comm W 29:13 D 13 '47

Spain's fish catch; 1946-1947. *For* Comm W 33:22-3 O 9 '48

FISHER, Chester G. 1881-

Fisher receives Pittsburgh award. *por* Chem & Eng N 25:3849-50 D 29 '47

FISHERIES

See also

Salmon

Tuna fish

By-products

Fish products price cut seen next year; meeting of by-products committee of National fisheries institute. Oil Paint & Drug Rep 153:5+ Ap 12 '48

Statistics

Fisheries statistics and the past oyster production of the Gulf coast of the United States. G. Gunter. Science 108:484-5 O 29 '48

Newfoundland

Fisheries outlook promising. *For* Comm W 29:14 N 8 '47

Recovery of Newfoundland's seal fishery. *For* Comm W 32:28 Ag 4 '48

Peru

Peru fishing industry undergoing modernization. J. Wilhelm. *il* Food Ind 20:388-90 Mr '48

FISHERIES institute, National. *See* National fisheries institute

FISHERY research

Fishery research ship commissioned. Food Ind 20:744-5 My '48

Organization of the University of North Carolina Institute of fisheries research. Science 107:388 Ap 16 '48

FISHES

Differential rate of death for large and small fishes caused by hard cold waves. G. Gunter. Science 106:472 N 14 '47

See also

Carp

Salmon

Tuna fish

Marking

Homing tendency of shad. E. H. Hollis. map Science 108:332-3 S 24 '48

South Africa

South African fish products. W. S. Rapson and others. bibliog Soc Chem Ind J 63: 313-16, 340-2, 367-72; 64:5-11, 44-50, 61-5, 114-18, 139-43, 172-7, 326-31; 65:13-15, 138-40, 249-51, 281-4, 425-8; 66:95-9, 124-5; 67:104-7, 144-7, 193-6 O '44-Je, D '45-Ja, My, S-O, D '46, Mr-Ap '47, Mr-My '48

FISHING

See also

Salmon

FISHING, Deep sea

Where are the fish? Hughes supersonic detector. Fortune 36:136+ D '47

FISHING boats

Baldwin engines used as French trawlers. *il* Marine Eng 53:47 Ap '48

Diesel trawler, Bonnie. *il* Marine Eng 52:87+ N '47

Freezing fish at sea. J. M. Lemon and C. B. Carlson. plans diags Refrig Eng 54:527-30+ D '47

Maiden voyage proves value of mother ship in tuna fishing; cannery are planning to convert more vessels for receiving and freezing tuna in tropical waters. C. B. Carlson. *il* plans Food Ind 20:43-6 Ja '48

Power for a versatile fishing boat; Reefer King. H. J. Barbour. *il* Marine Eng 53:69-70 O '48

Shrimp fisherman, Jim Melton. *il* Marine Eng 53:88+ Je '48

Surplus pontoons make boat harbor for fleet of fishing boats at Eureka, Calif. *il* diags Eng N 141:112-13 O 14 '48

Tuna clipper, Scarlet Queen. *il* Marine Eng 53:68-70 S '48

See also

Whaling vessels

FISHING clothes. *See* Sportswear

FISHING flies. *See* Flies, Artificial

FISHING tackle

Air power builds better fishing reels. Comp Air Mag 53:46 F '48

Bubble bait. *il* Bsns W p41 N 1 '47

Fish-net float; patent. diags Glass Ind 29:87 F '48

FITS (machinery)

Disk stresses; calculating stresses due to rotation and to interference fits. V. G. Guins and G. H. Heiser. *il* diags Machine Design 20:144-8+ F '48

Expansion fitting; liquid nitrogen used to shrink metal parts. *il* Sci Am 178:178-9 Ap '48; Same. Mech Eng 70:349 Ap '48

Find fits, finishes for engines differ; abstract. A. Sunnen, Jr. S A E J 56:89-90 Ag '48

Here's how to press-fit a large rotor on its shaft. N. L. Re. *il* diags Power 92:335-7+ 682-4 Je, N '48

Improved method for mounting bearings and couplings; oil injection method. A. S. Murray. *il* diags Iron & Steel Eng 25:61-5 Mr '48

Influence of radial pressure from a press fit on the endurance limit of axles and crank pins. G. W. C. Hirst. bibliog *il* diags Engineer 184:598-9 D 26 '47

What size is hot work? both warm weather and operating heat must be considered when making close fits with aluminum and magnesium. L. W. Macomber and C. N. Weiler. *il* Am Mach 91:101-4 N 20 '47

See also

Tolerance

FITZGERALD, Albert J. 1906-

Portrait. Bsns W p 114 S 11 '48

FIVE- and ten-cent stores

5 & 10's see better promotion offsetting the shrinking unit sale. T. H. McClure. *il* Sales Management 60:57-8+ My 1 '48

See also

Variety stores

FIXED assets. *See* Assets, Fixed

FIXTURES (law)

Vexing problem of fixtures; legal ambiguity demands credit caution. C. B. Everberg. Credit & Fin Management 50:22-3+ Je '48

FLAME detectors

Ultraviolet flame detector. diags Electronics 21:168+ Mr '48

FLAME hardening. *See* Case hardeningFLAME photometer. *See* Photometers

FLAME propagation

Flame propagation rates at reduced pressures. W. C. Johnston. diags S A E J 55: 62-5 D '47

High-speed Schlieren camera; its use for the observation of flame travel; abstract. Automobile Eng 35:116 Mr '48

Ignition of explosive gas mixtures by electric sparks; theory of the propagation of flame from an instantaneous point source of ignition. B. Lewis and G. von Elbe. bibliog diags J Chem Phys 15:803-8 N '47

Inflammability in suspension of mixtures of combustible and incombustible dusts. P. C. Bowes and others. bibliog diags Soc Chem Ind J 67:125-30 Ap '48

Jet propulsion boosts interest in flame mechanics; 3d symposium on combustion, flame, and explosion phenomena. Chem & Eng N 26:2892-3 S 27 '48

Mechanism of flame propagation. M. F. Hoare and J. W. Linnett. bibliog J Chem Phys 16:747-9 Ag '48

FLAME propagation—Continued

Prevention of dust explosions caused by high explosive bombs in flour mills; combustible dust, J. H. Burgoyne and D. J. Rasbash, *bibliog il Soc Chem Ind J* 67:130-9 Ap '48

FLAME throwers

Aluminium stearate gels for use as flame-thrower fuels, C. M. Cawley and others, *bibliog pl diag Inst Pet J* 33:721-55 D '47
Aluminium stearate gels in light hydrocarbon oils; development of incendiary mixtures for use in munitions, C. M. Cawley and others, *bibliog 4pls diag Inst Pet J* 33:649-72 N '47

Flame throwing seabees, G. F. Unmacht, *il U S Naval Inst Proc* 74:424-7 Ap '48

FLAMES

Cinema-spectrograph for photographing rapid spectral sequences, R. C. Herman and S. Silverman, *il diag Opt Soc Am J* 33:209-11 F '48

Flame failure protection; devices for use in protecting furnaces against explosions, *diags Power Generation* 52:58-9 F '48

Flames and organic sulphur compounds; valuable data provided by the gas industry, L. T. Minchin, *Chem Age (Lond)* 58:9-10 Ja '48

Ignition and flame stabilization in gases, B. Lewis and G. von Elbe, *bibliog il diags A S M E Trans* 70:307-14; Discussion, 314-16 My '48

Infra-red emission and absorption of the carbon monoxide-oxygen flame, S. Silverman and others, *bibliog J Chem Phys* 16:155-6 F '48

Infrared emission spectra of flames, E. K. Plyler and C. J. Humphreys, *J Res Nat Bur Stand* 40:449-56 Je '48

Infrared radiation from a Bunsen flame, E. K. Plyler, *bibliog J Res Nat Bur Stand* 40:113-20 F '48

Mass-spectrometric detection of free radicals, G. C. Elton, *diags J Phys & Colloid Chem* 52:463-9 Mr '48

Theory of burning velocity; square root law for burning velocity, C. Tanford and R. N. Pease, *bibliog J Chem Phys* 15:861-5 D '47

See also

Inflammable liquids
Oxyacetylene flame

FLANAGAN, Dennis, 1919-

Portrait, *Sales Management* 59:43 N 20 '47

FLANDERS, Ralph Edward, 1880-

Washington award for 1948 presented to R. E. Flanders; presentation Feb. 11 by T. G. LeClair; address by R. E. Flanders, *pers Western Soc E J* 53:2-18 Mr '48

FLANGES

Bending rigidity and column strength of thin sections, P. E. Sandorff, *bibliog diags A S M E Trans* 69:833-41 N '47

Flange design calculations, H. E. Longgren, *diags Pet Refiner* 26:130-4 N '47; 27:69-73 Ja; 116-19 F; 104-8 Jl; 145-6 O '48

Flanged joint design for welded tubular steel structures; model-towing carriage at the David W. Taylor model basin, G. A. DeShazer, *il diags Product Eng* 19:117-18 N '48

Statistical method of assessing the safety of gaps between flanges of flameproof electrical apparatus, C. E. R. Bruce and N. L. Johnson, *diags Inst E E J* 95 pt 2:49-58 F '48

FLASH points

Flash test, A. W. Trusty, *il Pet Refiner (Process Handbook ed)* 27:99-102 S '48

FLASH welding. See Electric welding**FLASHBOARDS. See Dams—Flashboards****FLASHING**

Sheet metal workers' catechism (cont), W. Neubecker, *diags Sheet Metal Worker* 39: 110 Ja; 64-5 Ap; 54 Je; 47-8 Ag; 46-8 O '48

FLASHING light. See Light—Flashing**FLATIRONS. See Electric irons; Steam irons****FLAVONES***See also*

Rutin

FLAVONONE

Flavonone from Douglas-fir heartwood, J. C. Pew, *bibliog Am Chem Soc J* 70:3031-4 S '48

Flavonones and related compounds; the oxidation of 2'-hydroxychalcones with alkaline hydrogen peroxide, T. A. Geissman and D. K. Fukushima, *bibliog Am Chem Soc J* 70:1686-9 My '48

FLAVOR

Flavor in cheddar cheese; abstract, A. C. Dahlberg and F. V. Kosikowski, *Food Ind* 20:1540+ O '48

Flavor of meat; abstract, E. C. Crocker, *Food Ind* 20:1538+ O '48

Food flavor from beet sugar byproduct, P. D. V. Manning, *flow sheet (p136-9) il Chem Eng* 55:100-1 Ap '48; Same, *Food Ind* 20: 510-15 Ap '48

Manufacture of monosodium glutamate, P. D. V. Manning, R. W. Shafer and F. H. Catterston, *flow sheet il Chem Eng Prog* 44:491-6; Discussion, 496 Jl '48

Oil chemists study flavor problems; abstract, J. C. Cowan and others, *Chem & Eng N* 25:3284-5 N 10 '47

Protein hydrolysate; source of glutamate flavor, L. A. Hall, *bibliog il Food Ind* 20: 1158-60+ Ag '48

Some statistical considerations in organoleptic tests; abstract and discussion, E. C. Wood, *Chem & Ind p* 107-8 F 14 '48

What glutamate does in food, S. E. Cairncross and L. B. Sjostrom, *Food Ind* 20:982-3+ Jl '48

FLAVORING extract manufacturers' association

Annual convention, 39th, New York, May 24-26, Oil Paint & Drug Rep 153:7+ My 31 '48

FLAVORING materials

Flavor, perfume materials data for 1947; production and sales, Oil Paint & Drug Rep 154:73 O 4 '48

Package personality; the Cheneys' flavoring packaged in ceramic jugs, *il Mod Packaging* 21:120-1 N '47

Table spice kits; stock drug vials and plastic poker chip rack make re-usable package for flavoring extracts, *il Mod Packaging* 22: 127 S '48

FLAX

Flax crop estimate realization expected, Oil Paint & Drug Rep 154:7 Ag 2 '48

Flax in Australia, *Textile Inst J* 39:P116 Mr '48

Foreign trade, flax and hemp, Belgium, 1946-47 and first quarter 1948; table, *For Comm W* 31:33 Je 12 '48

Research on linen; abstracts and discussion, A. J. Turner, *Chem Age (Lond)* 59:527-8 O 16 '48; *Chem & Ind* p668 O 16 '48

FLAX straw

Linen fabric made of fiber produced by the Minnesota method from seed flax straw, E. L. Phelps and others, *bibliog Rayon* 29:60-1 Ag; 90-1 S '48

Paper from linseed straw; prospects of chemical conversion of waste material, *Chem Age (Lond)* 59:45-6 Jl 10 '48

Possible utilization of linseed straw, *Paper Ind* 30:1110 O '48

FLAXSEED

Flaxseed situation and how the drop in meal prices brought on a market crisis, T. L. Daniels, *Paint Oil & Chem R* 111:9 S 2 '48
Flaxseed support cut aims to reduce crop, *Barron's* 28:29 N 1 '48

Linseed impasse, *Bsns W* p36+ S 11 '48

Soybeans, flaxseed near support levels, *Baron's* 28:31 S 27 '48

Prices

Flaxseed price support minimum set for 1949, Oil Paint & Drug Rep 154:3 O 25 '48

Statistics

Flaxseed, 1941-1946, Survey of Cur Bsns 1947 Sup p 117-18 [supplemented in monthly numbers]

FLEAS

Comparison of the effectiveness of five and ten percent DDT dusts for the control of rat fleas, H. P. Nicholson, *il Pub Health Rep* 63:129-36 Ja 30 '48

Fleedom at stake; chlordane dog shampoos, *Chem Ind* 63:588-9 O '48

FLEAS as carriers of infection

Fleas flec; unconventional specialty, Ridz.
Chem Ind 61:976 D '47

See also

DDT—Rat flea control

FLEMING, Sir Arthur Percy Morris, 1881-Sketch, por(cover) Chem & Eng N 26:1210 Ap 26 '48

Sketch, por Electrician 139:1776 D 19 '47

FLETCHER, Andrew, 1895-

Sketch, por Explosives Eng 25:132-3 S '47

FLETT, James, organization, Scrap efficiency; Flett organization. Bsns W 226+ F 28 '48

FLETT, Lawrence Hugo, 1896-Elected president of American institute of chemists, por(cover) Chem & Eng N 26:2193 JI 26 '48

FLEXIBILOMETER

Flexibilometer; abstract, Paint Oil & Chem R 111:43 Ja 8 '48

FLEXIBLE molds. See Molds (for casting)—Flexible molds

FLEXIBLE shafting. See Shafting, Flexible

FLEXIBLE tubes. See Tubes, Flexible

FLEXNER, Simon, 1863-1948

S. Flexner and medical discovery. P. Rous. Science 107:611-13 Je 11 '48

FLIES

Rearing houseflies and blowflies on dog biscuit, H. Frings, bibliog Science 107:629-30 Je 11 '48

Wing beat of the fly. Science 106:414 O 31 '47

See also

Fly sprays and repellents

FLIES, Artificial

Salmon flies; illustrations, J. McDonald, il Fortune 37:104-5 Je '48

FLIES as carriers of infection

Diarrheal disease control studies; effect of fly control in a high morbidity area, J. Watt and D. R. Lindsay, Pub Health Rep 63:1319-34 O 8 '48

War against flies in Illinois, Safety Eng 95:62 My '48

FLIGHT

Flight in nature and in human society, M. J. B. Davy, Roy Aeronautical Soc J 52:323-6 My '48

See also

Aviation

Birds—Flight

FLIN FLON, Manitoba**Water supply**

Water works and sewerage in the Far North; distribution system, M. A. Roche, il Pub Works 79:21-2+ Ag '48

FLOAT and sink process. See Sink and float process

FLOCCULATION

Flocculation of aerosols by intense high-frequency sound, H. W. St Clair and others, bibliog 11 pls U S Bur Mines Rep of Invest 4218:1-23 '48

FLOCK covered fabrics

Flocking device; patent, diag Am Dyestuff Rep 36:644-5 N 3 '47

FLOOD control

Constructing the Watauga project, G. K. Leonard and D. H. Mattern, il map diags Civil Eng 18:277-82+ My '48

Design and construction of the Anderson Ranch dam, E. L. Armstrong, il maps plan diags Engineering 166:145-7, 156, 169-71, 180, 265-6, 289-91, 300, 313-15 Ag 13-20, S 17-O 1 '48

Economy in materials handling features Bluestone Dam construction; power and flood-control structure in West Virginia, O. Auhl, il map diag Civil Eng 18:352-7 Je '48

Extensive earthfill dams remove threat of severe floods at Houston, Tex, il Civil Eng 18:627+ O '48

Flood control for Johnstown, A. H. McCaffrey, il map plan Pub Works 78:27-8 D '47

Horizontal shear plane separates gravity and arch sections of dam; Matilija dam for Ventura County flood control district, il diags Eng N 140:958-60 Je 10 '48

Inventory of major projects; with information on costs, sizes and features, il maps Eng N 140:301-6 F 19 '48

Middle Rio Grande project approved by Reclamation, army engineer chiefs, Eng N 139:625 N 6 '47

Operation and maintenance of Ironton's flood protection, K. R. Wentz, il Pub Works 78:31-2 N '47

Panama canal; flood control and development of sea-level canal, F. S. Brown, maps diags Am Soc C E Proc 74:481-500 Ap '48

Pick-Sloan flood control plan develops resources of Missouri River basin, D. B. Freeman, il map Civil Eng 17:652-7 N '47

Planning the Watauga project; flood control and power project of Tennessee Valley authority, G. K. Leonard and D. H. Mattern, il maps Civil Eng 18:142-6+ Mr '48

Le rétablissement du fleuve Jaune dans son cours antérieur (Chine), il map Génie Civil 124:414-15 N 1 '47

Single purpose flood control pays off in Ohio, J. P. Callahan, Pub Util 42:69-76, 159-66 JI 25-29 '48

Tainter gates of simplified design for use on Army flood-control dams, D. A. Buzzell, il diags Eng N 140:500-1 Ap 1 '48

Union Village dam, Vermont; first step in program to control flood-waters of Connecticut river, J. I. Horty, il diag Explosives Eng 26:135-9 S '48

U.S. flood control drowns those who trust it, A. M. Cooper, Barron's 28:7 Je 28 '48; Discussion, 28:38 Ag 9 '48

Cost

Earthwork and structures, Coachella, California; unit prices, Eng N 141:119 Ag 19 '48

Flood control levee, Missouri; unit prices, Eng N 141:85 JI 22 '48

Flood protection, Williamsport, Pa.; unit prices, Eng N 140:868 Ap 29 '48

Floodwall and appurtenances, Omaha, Nebraska; unit prices, Eng N 140:1045 Je 24 '48

Levee and floodwall, Kansas City, Mo.; unit prices, Eng N 141:82+ JI 22 '48

FLOODS

See also

Flood control

Great Britain

Flood damage in the North-East, il Engineer 186:184, 217-18 Ag 20-27 '48

Holyoke, Massachusetts

Swollen flood crest closes twenty Holyoke paper mills, Paper Tr J 126:7 Ap 1 '48

Iowa

Effect of recent floods on Iowa's water supply, J. A. Sampson, Am Water Works Assn J 40:139-43 F '48

Johnstown, New York

Flood control for Johnstown, A. H. McCaffrey, il map plan Pub Works 78:27-8 D '47

Northwestern states

Bonneville power administration loss heaviest of NW power systems; due to floods, Elec World 129:13 Je 26 '48

Floods left new forest fire danger, Paper Tr J 127:18 JI 29 '48

Floods on Columbia river curtail output of hydro generating plants, il Elec World News ed 129:5 Je 12 '48

Navions get workout in recent flood, il Aviation W 48:36+ Je 28 '48

Northwest counts cost as floods ease, il Eng N 141:3 JI 1 '48

Northwest flood damage report, Paper Tr J 126:7+ Je 10 '48

Northwest floods spread ruin; emergency called, Elec World 129:83 Je 5 '48

Pacific Northwest rivers near record flood stages, il maps Eng N 140:931+ Je 10 '48

Report on northwest floods credits, T. D. Weaver, map Eng N 141:43 JI 22 '48

What flood cost; raging Columbia river, Bsns W p20-1 Je 26 '48

Ohio

Single purpose flood control pays off in Ohio, J. P. Callahan, Pub Util 42:69-76, 159-66 JI 15-29 '48

Oregon

Diesel power and the Oregon floods, F. J. Clifford, il Diesel Power 26:57+ JI '48

FLOODS—Oregon—Continued

Utility radio networks prove value to community in Portland flood area. W. A. Leidigh, jr. *il* Edison Elec Inst Bul 16:266 Ag '48

Texas

Discharges given for 1948 floods on Rio Grande. L. M. Lawson. *Civil Eng* 18:588 S '48

Texas floods of 1940. S. D. Breeding. U S Geol S Water-supply Pa 1046:1-91, pl 1-7 '48

Vancouver, Washington

Gas crews at Portland, Oregon restore service to Vancouver following Columbia River flood. *il* Am Gas J 169:18 Ag '48

Washington (state)

Floods of the Puyallup and Chehalis River basins. I. E. Anderson. maps U S Geol S Water-supply Pa 968-B:61-124, pl 1; pa 25c Supt. of doc. '48

FLOOR cleaning

Maintenance of hard floor coverings in theaters. D. Fraad, jr. *Soc Motion Picture Eng J* 50:442-6 My '48

Sanitary chemicals in government building maintenance. C. C. Staadt. *Soap & San Chem* 24:147+ F '48

Terrazzo as affected by cleaning materials. D. W. Kessler. *il* Am Concrete Inst J 20: 33-40 S '48

FLOOR coverings

Attractive floor and wall finishes are selling aids for today's kitchens. *il* Am Bld 79: 98-9 JI '48

Floor cover drive by Sloane-Blabon corp. *Bsns W* p87 Ap 10 '48

Rubber or plastics; which material will win in what fields, and where will they join forces? *il* (p94) *Mod Plastics* 25:92-3 Je '48

Theater engineering conference; floor coverings. *Soc Motion Picture Eng J* 50:421-46; Discussion. 447-57 My '48

See also**Carpets****Advertising**

Keyed to plant expansion. *Sales Management* 60:64 Ap 1 '48

FLOOR polishers

Electric floor polisher, a preliminary report. *Consumers Res* Bul 21:11 Ja '48

Two vacuum cleaner floor-polishing attachments. *Consumers Res* Bul 21:13 F '48

FLOOR wax

F.T.C. holds conference on floor wax trade practices. *Soap & San Chem* 24:145+ S '48

Floor wax industry trade rules viewed. *Oil Paint & Drug Rep* 154:3+ S 13 '48

Floor wax market, a statistical survey. J. E. Skeen. *Soap & San Chem* 23:155+ D '47

Treasury floor wax bids. *Soap & San Chem* 24:59 Ja '48

Wax contender; A. S. Harrison co. markets Preen section by section. *Chem Ind* 62:45-6 Ja '48

FLOORING

Behind the scenes in an asphalt tile factory. *il* Am Bld 70:126-7 S '48

Consulting the floor doctor; plating room floors. G. Black. *bibliog il Metal Finishing* 45:62-4+ D '47

Hardwood flooring, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 144 [supplemented in monthly numbers]

Heated resilient flooring; three-year tests by the Armstrong cork co. *Heat & Ven* 45:124+ Ap '48

How to handle northern hard maple flooring. *Eng N* 141:71 S 30 '48

Measuring of impact sound transmission through floors. F. Ingerslev and others. *il* *diag Acoustical Soc Am J* 19:981-7 N '47

Selecting flooring materials for radiant heating jobs. *il* *Heating-Piping* 20:88-9 Ap '48

Use of alternatives for timber flooring; abstract and discussion. F. C. Harper. *Chem & Ind* p 155 Mr 6 '48

FLOORING, Plastic

Better wearing qualities with calendered vinyl floorings. *il* *Plastics* 8:28-9, 56-7 F '48

Modern Plastics competition; building materials award. *il* *Mod Plastics* 26:120-1 S '48

Operation underfoot; vinyl floors. *il* *Mod Plastics* 25:75-82 Mr '48

FLOORS

Floor paint vehicles by Golden Gate paint and varnish production club. *Paint Oil & Chem R* 110:72-4, 76 N 13 '47

Floor sealers and hardeners. M. A. Lesser. *bibliog Soap & San Chem* 24:129+ S '48

Poured resilient flooring for houses. *il* *Arch Rec* 103:115-16 Ja '48

Precast tile joist floor systems. *diags Brick & Clay Rec* 112:37 My '48

Radiant heating under wood floors in remodeling jobs. E. E. Scott. *diag Dom Eng* 170: 152+ N '47

See also

Bridges—Floors

Cold storage ware-

houses—Floors

Factories—Floors

Anti-slip surfaces

Factory flooring. *il* *Nat Safety N* 57:86+ Mr '48

Measurement of the slipperiness of walkway surfaces. P. A. Sigler and others. *il* *diag J Res Nat Bur Stand* 40:339-46 My '48

Oil absorbents. G. MacDonald. *il* *Nat Safety N* 58:100+ O '48

Safe walking; abstract. S. V. James. *Safety Eng* 95:28-9 Je '48

Slipperiness of walkway surfaces. P. A. Sigler. *il* *diags Soap & San Chem* 24:147+ Ja '48; Same. *Rubber Age* 62:296-7 D '47

FLOORS, Concrete

Concrete floors for weave rooms. C. J. McCormack. *Rayon* 29:89-90 Ja '48

Floor sealers and hardeners. M. A. Lesser. *bibliog Soap & San Chem* 24:129+ S '48

Food acids vs. concrete; use of Lassenite. E. L. Howard. *il* *Concrete* 56:16-13 Ja '48

Ground temperature distribution with a floor panel heating system. A. B. Algren. *plans diags Heating-Piping* 20:111-19 My '48

How to insulate concrete floors. L. Shuman. *diags Heat & Ven* 45:74-6 JI '48

Inclosing a multiple-story skyscraper housing project; Stuyvesant Town. *il* *Eng N* 140:202-4 F 5 '48

Insulation of concrete floors in dwellings; with time-saver standards. *diags Arch Rec* 103:120+ Ja '48

New floor design for cold storage plants. R. F. Rea. *il* *diag Refrig Eng* 54:449-50 N '47

Prevention of dampness in basements. C. C. Fishburn. *diags Am Concrete Inst J* 19: 421-36 F '48

Strength of precast concrete floor joists. J. Field. *il* *diag Am Concrete Inst J* 20: 141-5 O '48

Telescopic joists simplify soffit construction. *il* *Concrete* 56:12-13+ O '48

What to do about concrete deterioration in food processing plants. H. C. Watts. *Am Concrete Inst J* 20:82-4 S '48

Heating

Freezing-room floors need heat to prevent ice in earth underneath. A. W. Ruff. *flow diag il* *diags Power* 92:291-3 My '48

FLOORS, Terrazzo. See Terrazzo**FLOORS, Tile**

Infrared facilitates tile laying. H. V. Rickner. *il* *Elec World* 130:106 Ag 28 '48

FLORIDA

State of Florida. L. P. Lessing. *il* *Fortune* 37:65-73+ F '48

See also

Roads—Florida

Sand—Florida

Water supply—

Florida

FLORIDA east coast railway

Would leave F.E.C. in hands of A.C.L.; fourth supplemental report on plan of reorganization. *Ry Age* 124:679-80 Ap 3 '48

FLORIDA power and light company

Bonds offered. *Comm & Fin Chr* 167:2578 Je 14 '48

FLORIDA power corporation

Group offers preferred. *Comm & Fin Chr* 167:1586-7 Ap 12 '48

FLORIDA ramie products, inc.

Stock offered. *Comm & Fin Chr* 166:1889 N 10 '47

FLORIDA telephone corporation

Stock offered. *Comm & Fin Chr* 168:1798 N 1 '48

FLORIDA university

University of Florida sewage treatment research, J. E. Kiker, jr. *il plan Pub Works* 73:30-1+ S '48

FLORISTS' shops

Smart florist's shop, New York. M. Ket-chum, jr. *il plan Arch Rec* 103:138 Ap '48

FLOTATION plants**Equipment**

Million-ton flotation plant; Virginia-Carolina chemical corporation. W. B. Lenhart, flow sheet *il Rock Prod* 51:104-10+ Ap '48

FLOTATION process

Concentration at the Midvale mill; ores of lead, zinc, and iron treated by flotation; United States smelting refining and mining co. R. A. Pallanch, flow sheets *il Min & Met* 29:544-7 O '48

Flotation, J. B. Clemmer, bibliog(58 ref) *Ind & Eng Chem* 40:28-32 Ja '48

Flotation of beryllium ores. J. S. Kennedy and R. G. O'Meara, U S Bur Mines Rep of Invest 4166:1-18 '48

Froth flotation, L. A. Roe, bibliog *il Chem Eng* 55:96-8 Jl '48

High speed movies, taken through microscope, let you see bubble-particle contacts in flotation, *il Eng & Min J* 149:95-7 Jl '48

How oxidized lead ore is floated at St Anthony, E. V. Given, flow sheet *il Eng & Min J* 149:88-90 Ap '48

Investigations on flotation of the oxidized ores of zinc. F. H. Bunge and others, bibliog Mo U Sch Mines & Met Bul tech ser v 17 no 3:1-29 '46

Physical chemistry of flotation; kinetics of the flotation process. K. L. Sutherland, bibliog *il diag J Phys & Colloid Chem* 52:394-425 F '48

Radioactive tracers; how they can be used in flotation research, *il diags Eng & Min J* 149:53-5 Mr '48

Radioactive tracers in flotation; use of carbon 14 especially adaptable. A. M. Gaudin and others, bibliog diags *Min & Met* 29:432-5 Ag '48

FLOTATION process (coal)

Combination cleaning and dewatering process for treating fine sizes of coal; kerosene flotation. B. W. Gandrud and H. L. Riley, 9pls U S Bur Mines Rep of Invest 4306:1-25 '48

Froth-flotation plant; abstract. C. H. Matthews and D. W. Jones, *Coal Age* 53:144+ Je '48

FLOTATION process (non-metals)

Froth flotation (cont.), J. A. Barr, jr. *il Rock Prod* 50:88-90 N '47

Laboratory beneficiation of disseminated fluorospar ores. M. M. Fine and R. G. O'Meara, pl U S Bur Mines Rep of Invest 4158:1-19 '47

Million-ton flotation plant; Virginia-Carolina chemical corporation. W. B. Lenhart, flow sheet *il Rock Prod* 51:104-10+ Ap '48

FLOW

Appetizing flour; Fisher shifts to colorful carton wraps. *il Mod Packaging* 22:143+ S '48

Betty Sullivan awarded Osborne medal by American assn. of cereal chemists, *Chem & Eng N* 26:1767 Je 14 '48

Cereal core binders. C. L. Mehlretter, *Foundry* 75:224+ D '47

Edible oilcake flours in Europe. W. G. Cass, *Chem & Eng N* 26:1028 Ap 5 '48

Flour particle size; abstract. F. W. Wichser and others, *Food Ind* 20:464 Mr '48

Flour treatment; chemical agent for aging flour on trial; Agene, *Bsns W* p26+ Mr 20 '48

Inflammability in suspension of mixtures of combustible and incombustible dusts. P. C. Bowes and others, bibliog diags *Soc Chem Ind J* 67:125-30 Ap '48

New flour developed at Washington State, *Food Ind* 20:581-2 Ap '48

Poisonous chemical used in processing of flour. Consumers Res Bul 21:19-21 Mr '48

Production of maltose sirups from granular wheat flour. A. Efron and R. H. Blom, bibliog *Ind & Eng Chem* 40:412-15 Mr '48

State laws pave way for single use flour bags. J. A. J. Jones, *il Food Ind* 20:364-5 Mr '48

See also
Potato flour

Bleaching

Flour bleaches appraised; effect of Agene-treated flour on test animals. D. B. Pratt, jr. *il diags Food Ind* 20:843-4+ Je '48

Improved flour bleaching process using chlorine dioxide produced by an electric arc method; abstract. W. S. Hutchinson, *Food Ind* 20:638 Ap '48

Millers state their case for chlorine dioxide in flour. D. B. Pratt, jr. bibliog *il Food Ind* 20:1455+ O '48

Manufacture

Impact flour milling; centrifugal impact machines, hitherto used for controlling insect infestation; Entoleter, A. N. Hibbs and others, flow diag *il Food Ind* 19:1626-30+ D '47

FLOUR bags. See Cotton bags

FLOUR mills

Prevention of dust explosions caused by high explosive bombs in flour mills; incombustible dust. J. J. Burgoyne and D. J. Rasbash, bibliog *il Soc Chem Ind J* 67:130-9 Ap '48

Employees

Grain milling industry; wage structure, Jan. 1948. T. P. Kanninen, Mo Labor R 67:30-2 Jl '48

Equipment

Micrometer adjustment controls roll spacing in flour mill, *il diag Machine Design* 19:152 D '47

Millers want machinery, *Food Ind* 20:1030+ Jl '48

FLOUR trade

Federation promotes flour, *Food Ind* 20:1029-30 Jl '48

Fewer, healthier millers; International milling co. buys out Midland flour mills co. *Bsns W* p78-82 Jl 10 '48

Flour milling off, *Bsns W* p34+ Ap 17 '48

New procedure for licensing flour exports to certain destinations. *For Comm W* 31:31 Je 26 '48

Advertising

Millers' promotion, *Sales Management* 61:70 Ag 15 '48

Statistics

Wheat flour, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 131 [supplemented in monthly numbers]

Guatemala

Establishment of national flour-millers' association, *For Comm W* 30:16 F 7 '48

Philippine Islands

Imports of flour, first ten months of 1947, *For Comm W* 30:21 Ja 3 '48

FLOW diagrams

Equipment and design; flow diagrams. C. O. Brown, *Ind & Eng Chem* 40:sup77A-8A Ja; sup75A-6A F '48

FLOW meters

Automatic liquid balance, *il R Sci Instr* 19:535-6 Ag '48

Challenger fluid meter works on new principle, *il Water & Sewage* 86:30 F '48

Coefficients of discharge of sharp-edged concentric orifices in commercial 2-in., 3-in., and 4-in. pipes for low Reynolds numbers using flange taps. E. E. Ambrosius and L. K. Spink, diags A S M E Trans 69:805-8; Discussion. 808-12 N '47

Electric flow meter. J. H. Laub, *il diags Elec Eng* 66:1216-19 D '47

Field instrument for measuring volume and instantaneous flow rate of inspired air. L. Silverman and others, bibliog *il diags R Sci Instr* 19:513-26 Ag '48

Flow measurement and control. W. S. Yunker, *il diags Paper Tr J* 127:65-73 O 7 '48

Flow meter for coal-air mixtures. H. M. Carlson, *il diag Power Generation* 52:76-7 O '48

FLOW meters—Continued

Flowmeter for measuring small liquid flows. W. L. Dennis, *diag J Sci Instr* 25:317-18 S '48

Flow meters in the paper industry. C. H. Barnard, *diags Paper Tr J* 126:53-8 Ja '48; Same cond, *Paper Ind* 30:282-4 My '48

Hastings air flow meter. *il Sci Am* 178:183 Ap '48

Investigation of the airbox method of measuring the air consumption of internal combustion engines. L. J. Kastner, *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 34):387-96; Discussion. 396-404 '47

Mercury slug flowmeter. K. L. Yudowitch, *diag Anal Chem* 20:86 Ja '48

Meter for flowing mixtures of air and pulverized coal. H. M. Carlson and others, *bibliog il diag A S M E Trans* 70:65-74; Discussion. 74-9 F '48

New principle for flow measurement. *il Chem Eng Prog* 44:sup29 S '48

Polarographic study with a microelectrode past which an electrolyte is flowing. O. H. Müller, *bibliog diags Am Chem Soc J* 69:2992-7 D '47

Research on flow nozzles by the A.S.M.E. special research committee on fluid meters. S. R. Beitler and H. S. Bean, (Eng. Exp. Sta. Bul. 131) pa \$1 Ohio state univ, Columbus '48

Rotary displacement meters; their uses and abuses. C. S. Hazard, *il diags Factory Management* 105:120-3 D '47

Strobeflow. *il R S C Instr* 19:280-1 Ap '48

Stroboscopic-principle flow-rate indicator. *il Instruments* 21:435 My '48

Versatile flowmeter for small rates of liquid flow easily adaptable to recording and automatic controlling. I. Dostrovsky and D. R. Llewellyn, *diags J Sci Instr* 25:137 Ap '48

See also

Gas meters	Steam meters
Orifice meters	Venturi meters
Parshall flume	Water meters
Rotameters	

Manufacture

Skilled die making permits intricate drawing of integrator housing; Bailey meter co. D. Reebel, *il Steel* 122:96-8 Mr 1 '48

Testing

Analysis of tests on positive-displacement meters for liquid hydrocarbons. E. E. Ambrosius, *diag A S M E Trans* 70:703-8 Ag '48

Positive-displacement metering and gravimetric meter proving on crude-oil pipe lines. J. B. Smith, *il plan diags Oil & Gas J* 46:80-2 Ap 15 '48

FLOW regulators

Applications of mechanical cascade control systems. J. N. Swarr, *diags A S M E Trans* 70:57-63 Ja '48

Controls for multiple fuels. W. F. Pray, *diags Iron & Steel Eng* 25:61-5 Ag '48

Flow measurement and control. W. S. Yunker, *diags Paper Tr J* 127:70-3 O 7 '48

Give the control valve a chance! C. B. Nolte, *Oil & Gas J* 46:65-6-4 N 29 '47; 62-3-4 Ja 1 '48

Pneumatic transmission for flow controller. *il J Sci Instr* 25:89 Mr '48

Principles of automatic control as applied to natural gas operations. L. W. Parten, *il diags Pet Refiner* 26:121-8 O '47; Same, *Pet Eng (Ref annual)* 19:189-90-4 J 1 '48

Use of a flow controller instead of a pressure regulator and needle valve to control small air flows. R. H. Munch, *diags Ind & Eng Chem* 40:sup81A-2A F '48

FLOW sheets**Bibliography**

Index to Chemical Engineering pictured flow-sheets, 1939-1947. *Chem Eng* 54:204-4 D '47

FLOWER shops. See Florists' shops

FLOWERING of plants. See Plants, Flowering of

FLOWERS

Chrysanthemummies; chemical fixation preserves flowers. *il Chem Ind* 63:214-15 Ag '48

Package design paces fresh flowers into national markets. *il Sales Management* 60:107-10 F 1 '48

See also
Petunias

Transportation

Blankets for flowers; cellulose wadding, efficient insulating box liner. *il Mod Packaging* 21:123 Je '48

FLUE dust

Dust-sampling apparatus. *il diag Engineering* 166:8-9 J 12 '48

Quantitative determination of dust in gas. A. H. Arbogast, *diags Iron & Steel Eng* 25:82-9 O '48

Ready mixed concrete invades Chicago area; use fly-ash as concrete additive; John Griffiths & son construction co. D. Mocine. *il Rock Prod* 51:147-8 O '48

Separation of dust from hot gases in the open hearth furnace. J. Zimmerman, *Blast F & Steel Pl* 36:459 Ap '48

Sinter quality and effect of sinter on blast furnace practice. J. L. Mauthe, *Iron Age* 162:88-9 J 29 '48

Study of blast furnace downcomer failures. C. M. Squarcy, *diags Blast F & Steel Pl* 35:1353-6-4 N '47; Same, *Steel* 121:110-4 N 24 '47

Toxicity to plants of flue dusts containing cyanides and thiocyanates. B. Dyer and others. *Soc Chem Ind J* 66:409-10 N '47

What part does pulverized-coal firing play in air pollution? L. N. Rowley and J. C. McCabe, *il Power* 92:14-17 Ja '48

Where will ultrasonics fit in the power field? C. R. Earle, *il diag Power Generation* 52:86-8 S '48

FLUE gas

Determining furnace heat transfer by gas temperature measurement. H. F. Mullikin, *bibliog diags Power Generation* 52:68-71-4 Ag '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace; heat absorption efficiency as shown by temperature, composition, and flow of gases leaving the furnace. W. T. Reid and others, *plan diags A S M E Trans* 70:569-85 J 1 '48

Openhearth fume control; Venturi scrubbing unit. E. S. Kopecki, *il diags Iron Age* 162:78-80 S '48

Operating experiences with Cottrell precipitators on sulphate recovery furnace gases. L. M. Roberts and others. *il plan diags Paper Tr J* 127:45-9 O 28 '48

Performance of fourteen masonry chimneys under steady state conditions. P. R. Achenbach and S. D. Cole, *il diags Heating-Piping* 20:119-28 O '48

Pilot plant study of a multicell unit operating on stack gases from a lime kiln. T. T. Collins, jr, *il Paper Tr J* 126:63-4 Mr 18 '48

Recovery of heat and chemicals in sulphate recovery furnace stack gases. T. T. Collins, jr, and R. H. Collins, *Paper Ind* 29:1603-11, 1766-71 *bibliog(p1770-1)* F-Mr '48

Temperature of the chimney gas; indicator of boiler efficiency. *diag Can Min J* 69:76 Ja '48

Use of the Venturi-Scrubber on sulphate recovery furnace stack gases. T. T. Collins, jr, and others. *il Paper Tr J* 126:45-9 Ja 15 '48

Venturi-Scrubber, new device for cleaning stack gases, flow *diag il diags Power Generation* 52:57-9 My '48

Analysis

Method for the determination of small concentrations of SO₂ in the presence of larger concentrations of SO₂. D. Flint, *bibliog diags Soc Chem Ind J* 67:2-5 Ja '48

Phototurbidimetric method for the estimation of SO₂ in the presence of SO₂. P. F. Corbett, *bibliog diag Soc Chem Ind J* 67:227-30 Je '48

Quantitative determination of dust in gas. A. H. Arbogast, *diags Iron & Steel Eng* 25:82-9 O '48

Sampling and analyzing of sulphate recovery furnace stack gases; review of the literature. T. T. Collins, jr, *bibliog(32 titles)* *Paper Ind* 29:1437-9 Ja '48

FLUIDITY

Improvements in the button test for determination of frit fluidity. E. E. Marbaker. *il Am Cer Soc J* 30:354-62 D 1 '47

See also

Viscosity**FLUIDIZATION**

Applications of the fluid catalyst technique to catalytic cracking and hydrocarbon synthesis. R. W. Krebs. *bibliog il diag Pet Refiner* 27:115-20 My '48

Fluid catalytic cracking process; Standard oil development co. flow diag *Pet Refiner* (Process Handbook ed) 27:88-9 sec 2 S '48

Fluid catalytic cracking process; Universal oil products co. flow diags *Pet Refiner* (Process Handbook ed) 27:96-7 sec 2 S '48

Fluid solids technique; applications in the petroleum industry. E. V. Murphree and others. *diags Inst Pet J* 33:608-20 O '47; Same cond. *Pet-Processing* 3:355+, 361 Ap '48

Fluidization in non-catalytic operations; limestone calcination. R. P. Kite and E. J. Roberts. *flow diag diags Chem Eng* 54:112-15 D '47

Fluidization of solid non-vesicular particles. M. Leva and others. *Chem Eng Prog* 44:619-26 Ag '48

Fluidization of solid particles; sand, glass, silicate catalyst, and lead shot in air and water. R. H. Wilhelm and M. Kwauk. *bibliog diags Chem Eng Prog* 44:201-7; Discussion. 217-18 Mr '48

Fluidization used in making activated carbon. A. Godel. *diag Chem Eng* 55:110-11 Jl '48

Introduction to fluidization; counter-gravity flow of air, carbon dioxide, and helium through beds of round and sharp sands. M. Leva and others. *il diags Chem Eng Prog* 44:511-20 Jl '48

New and revolutionary method of lime manufacture; New England lime co. makes lime with new FluoSolids process. W. B. Lenhart and N. C. Rockwood. *flow diag il diags Rock Prod* 51:113-16 Ja '48

Producing active carbon; another application of the fluidised bed. *diag Chem Age* (Lond) 58:841 Je 19 '48

Study of fluidization of an iron Fischer-Tropsch catalyst. M. Leva and others. *il Chem Eng Prog* 44:707-16 S '48

Unit operations auxiliaries. *Chem Eng* 55:125-6 My '48

FLUIDS

Calculations for high vacuum systems. W. P. Dryer. *Chem Eng* 54:127-31 N; 122-4 D '47

Civil engineers share knowledge of fluid mechanics with many related professions; A.S.C.E. committee on fluid mechanics of the Hydraulics division. H. Rouse. *il Civil Eng* 17:37-9+ D '47

Coefficients of discharge of sharp-edged concentric orifices in commercial 2-in., 3-in., and 4-in. pipes for low Reynolds numbers using flange taps. E. E. Ambrosius and L. K. Spink. *diags A S M E Trans* 69:805-8; Discussion. 808-12 N '47

Dimensionless groups in fluid friction, heat, and material transfer. A. Klinkenberg and H. H. Mooy. *Chem Eng Prog* 44:17-36 *bibliog* (103 ref, p35-6) Ja '48

L'écoulement des fluides en régime turbulent; la formule de Colebrook. A. Vibert. *bibliog Génie Civil* 124:471-3 D 15 '47

Evaluation of Reynolds number by graphical methods. C. P. Loweke. *Mech Eng* 70:876+ N '48

Flow of fluids; eleven equations for use in pipe work. W. A. Hynes. *diags Power Generation* 52:78-81 Ja '48

Flow of fluids in pipes. E. C. Petrie. *il Dom Eng* 170:111-13+ N '47

Flow of fluids through porous media; application to rotary vacuum filtration. L. E. Brownell and D. L. Katz. *bibliog il diag Chem Eng Prog* 43:703-12 D '47

Flow of fluids through porous media; simultaneous flow of two homogeneous phases. L. E. Brownell and D. L. Katz. *bibliog flow diags Chem Eng Prog* 43:601-12 N '47

Flow properties of pseudoplastic fluids. C. C. Winding, G. P. Baumann and W. L. Kranich. *bibliog diags Chem Eng Prog* 43:527-36, 613-22 O-N '47

Fluid dynamics. D. F. Boucher. *Ind & Eng Chem* 40:32-8 *bibliog* (267 ref, p36-8) Ja '48

Fluid flow and heat transfer in artificially roughened pipes studied. V. L. Streeter. *Heating-Piping* 20:96 Mr '48

Fluid-flow diagrams; construction to include velocity head. G. P. Loweke. *Mech Eng* 70:666 Ag '48

Fluid mechanics. G. A. Hankins and E. F. Relf. *il diag Inst Mech Eng J & Proc* 157 (War emergency issue no 31):277-81 '47

Fluid mechanics; forgotten factor in electroplating. J. B. Kushner. *diags Metal Finishing* 45:72-4 O '47; 46:63-7 Ja; 65-9+ Ji; 52-8 S '48

Fluid pressure drop losses through smooth straight tubing. D. A. DiTirro. *Product Eng* 19:117-20 S '48

Fluids movement. *diag Chem Eng* 55:100-3 My '48

Friction in the flow of suspensions; granular solids in gases through pipe. E. G. Vogt and R. R. White. *bibliog flow diag il Ind & Eng Chem* 40:1731-8 S '48

From hydraulics to fluid mechanics. W. M. Lansford. *J Eng Educ* 38:565-7 Ap '48

Heat transfer and fluid mechanics institute attracts western scientists. *Chem & Eng N* 26:2053 Ji 12 '48

Heat transfer to vertical tubes in a mixing vessel. J. H. Rushton, R. S. Lichtmann and L. H. Mahony. *bibliog il diags Ind & Eng Chem* 40:1082-7 Je '48

Numerical evaluation of equations describing transient heat and mass transfer in packed solids. A. Klinkenberg. *bibliog Ind & Eng Chem* 40:1992-4 O '48

Stability of the laminar parabolic flow of a viscous fluid between parallel fixed walls. C. L. Pekeris. *bibliog Phys R* 74:191-9 Jl 15 '48

Theory of the anelastic fluid. C. Eckart. *diag Rs Mod Phys* 20:232-5 Ja '48

Vortices and streams caused by sound waves. C. Eckart. *bibliog diags Phys R* 73:68-76 Ja 1 '48

See also

Aerodynamics	Gases
Air flow	Hydraulics
Drops	Hydrodynamics
Equation of state	Liquids
Flow diagrams	Vapors
Flow meters	Viscosity
Fluidity	Water flow
Gas flow	
<i>also</i> American physical society—Division of fluid dynamics	

FLUKES

Effects of sewage treatment processes upon ova and miracidia of schistosoma japonicum. W. L. Newton and others. *Sewage Works J* 20:557-64 Jl '48

FLUMES

Charts for timber stop-logs aids selection of sizes. C. J. Posey. *diags Eng N* 139:750 N 27 '47

See also

Parshall flume

FLUMES, Concrete

Low-cost irrigation flume cover. L. R. Burzell. *il Eng N* 140:707 My 13 '48

FLUORENE

Exaggerated effect of iodine as carrier in the bromination of fluorene. J. R. Sampey and A. B. King. *Am Chem Soc J* 70:2606-7 Jl '48

Mammary carcinoma in female rats fed 2-acetylaminofluorene. R. W. Engel and D. H. Copeland. *bibliog Science* 108:336-7 S 24 '48

Resolution of 9,2-substituted fluorenes. F. E. Ray and E. Kreiser. *bibliog Am Chem Soc J* 69:3068-70 D '47

FLUORENYL isocyanate

p-Triphenylmethylphenyl and 2-fluorenyl isocyanates as reagents for alcohols. B. Witten and E. E. Reid. *bibliog Am Chem Soc J* 69:2470-2 O '47

FLUORESCIN

Fluorescein as an indicator of antihistaminic activity; inhibition of histamine-induced fluorescence in the skin of human subjects. S. C. Bukantz and G. J. Dammin. *bibliog Science* 107:224-5 F 27 '48

Significance of distribution of fluorescein in sarcoma 180. D. M. Shapiro and B. H. Landing. *il diag Science* 108:304-5 S 17 '48

FLUORESCIN—Continued

Use of radioactive difluorescein in the diagnosis and localization of brain tumors. G. E. Moore. *Science* 107:569-71 My 28 '48
See also
Uranin

FLUORESCENCE

Fluorescence efficiency and hole migration in zinc sulphides. M. E. Wise and H. A. Klasens. *bibliog Opt Soc Am J* 38:226-31 Mr '48

Fluorescence of acetone vapor. G. W. Luckey and others. *bibliog J Chem Phys* 16:407-10 Ap '48

Fluorescence of solid acetone. W. E. Kaskan and A. B. F. Duncan. *bibliog J Chem Phys* 16:223-4 Mr '48

Fluorescence of uranium trioxide hydrates. D. T. Vier and others. *Opt Soc Am J* 38:811-14 S '48

Fluorescent compounds used in screens of cathode-ray tubes. *Electronics* 21:M17 Mid-Je '48

Formation of fluorescing substances from amino acids. J. L. Chen, J. D. Medler and R. A. Harte. *Am Chem Soc J* 70:3145-6 S '48

Geiger counter spectrometer for X-ray fluorescence analysis. F. Friedman and L. S. Birks. *bibliog diag R Sci Instr* 19:323-30 My '48

Inadequacy of the measurement of emission characteristics of fluorescent substances without spectral resolution. Z. Bodó. *Opt Soc Am J* 38:815 S '48

Kemart highlight white; new process uses fluorescent surfaces with ultra-violet light to produce halftone negatives with full tonal range. *il Inland Ptr* 120:76-8 Ja '48

Kinetics of activation-diffusion controlled reactions in solution; the temperature dependence of the quenching of fluorescence. E. Williamson and V. K. La Mer. *bibliog Am Chem Soc J* 70:717-21 F '48

New techniques in black light for theater murals. R. J. Elliott. *Soc Motion Picture Eng J* 50:601-6 Je '48

Photochemical studies; a further study of the fluorescence of acetone. R. E. Hunt and W. A. Noyes, Jr. *bibliog diag Am Chem Soc J* 70:467-76 F '48

Practical method for the illumination of biological material with ultraviolet rays. B. V. Plisla. *il Science* 108:142-3 Ag '48

Quenching of fluorescence in solution. G. K. Rollefson and H. Boaz. *bibliog J Phys & Colloid Chem* 52:518-27 Mr '48

Radiation-induced fluorescence and fluorescence spectra of certain quinoline derivatives. C. C. Price, W. G. Jackson and A. Pohland. *Am Chem Soc J* 70:2983-8 S '48

Self-illuminated acrylic; Daylight Fluorescent Plexiglas. *il Mod Plastics* 25:164 My '48

Solvent effects on the quenching of the fluorescence of uranin by aniline. K. C. Hodges and V. K. La Mer. *bibliog Am Chem Soc J* 70:722-6 F '48

Spectroscopic evidence for activation of fluorescence by high valency manganese ions. G. Szegedi and others. *J Chem Phys* 15:881-2 D '47

X-ray fluorescence analysis. J. L. Abbott. *bibliog il diag Iron Age* 162:58-62 O 28; 121-4 N 4 '48

See also

Dyes and dyeing—
Fluorescence
Luminescence

FLUORESCENT dyes. See Dyes and dyeing—Fluorescence

FLUORESCENT lamps. See Electric lamps, Fluorescent

FLUORIDES

Double fluorides of potassium or sodium with uranium, thorium or lanthanum. W. H. Zachariassen. *Am Chem Soc J* 70:2147-51 Je '48

Halogen fluorides. H. S. Booth and J. T. Pinkston, Jr. *bibliog Chem R* 41:421-39 D '47

Preparation of aliphatic fluorides. F. W. Hoffmann. *Am Chem Soc J* 70:2596-7 JI '48

Silica-free boiler feed water by ion exchange. W. C. Bauman, J. Eichhorn and L. F. Wirth. *bibliog il diags Ind & Eng Chem* 39:1453-7 N '47

System cesium fluoride-hydrogen fluoride. R. V. Winsor and G. H. Cady. *bibliog diag Am Chem Soc J* 70:1500-2 Ap '48

See also
Cryolite

Analysis

Titration of fluoride ion with aluminum chloride. J. H. Saylor and M. E. Larkin. *bibliog Anal Chem* 20:194-6 Mr '48

FLUORINATION

Chemical engineering unit processes; halogenation. E. T. McBee. *bibliog Ind & Eng Chem* 40:1615-17 S '48

Difluoromalonic derivatives from difluoropentane. A. L. Henne and E. G. DeWitt. *bibliog diag Am Chem Soc J* 70:1543-50 Ap '48

Fluorinated derivatives of ethane and ethylene. A. L. Henne and R. P. Ruh. *Am Chem Soc J* 70:1025 Mr '48

Fluorination of organic compounds with anhydrous hydrogen fluoride. W. B. Whalley. *bibliog Soc Chem Ind J* 66:427-33 D '47

Fluorination of periodic acid. G. H. Rohrbach and G. H. Cady. *Am Chem Soc J* 70:2603-5 JI '48

Fluorination of thiophosphorylthoxydichloride. H. S. Booth, D. R. Martin and F. E. Kendall. *bibliog Am Chem Soc J* 70:2523-5 JI '48

Isomerization during allylic fluorination. A. M. Whaley and H. W. Davis. *bibliog Am Chem Soc J* 70:1026-7 Mr '48

Perfluorinated olefins. A. L. Henne and T. H. Newby. *bibliog Am Chem Soc J* 70:130-2 Ja '48

Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; some 5-amino-1 : 2 : 2' : 2' : 3'-pyridoacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p288-91 Mr '48

Vapor phase fluorination of acetyl fluoride. W. T. Miller, Jr. and M. Prober. *bibliog Am Chem Soc J* 70:2602 JI '48

FLUORINE

Determination of silica in the presence of fluorine and phosphorus. J. A. Brabson and others. *bibliog Anal Chem* 20:504-10 Je '48

Fluorine; a new factor in industry. W. J. Bull. *il diag Chem Age (Lond)* 58:454-6, 490-2 Ap 3-10 '48

Fluorine carrier. *Chem Ind* 62:742-3 My '48

Fluorine corrosion; high-temperature attack on metals by fluorine and hydrogen fluoride; behavior of insulated steel parts in fluorine cells. W. R. Myers and W. B. DeLong. *bibliog diags Chem Eng Prog* 44:359-62 My '48

Fluorine disposal; continuous process. R. Landau and R. Rosen. *flow sheet Ind & Eng Chem* 40:1389-93 Ag '48

Gamma-radiation from the bombardment of fluorine, boron, and beryllium by protons. J. A. Jacobs and others. *Phys R* 73:1130 My 1 '48

Gamma-ray spectrometer measurements of fluorine and lithium under proton bombardment. R. L. Walker and B. D. McDaniel. *bibliog diags Phys R* 74:315-27 Ag 1 '48

Ionization processes on tungsten filaments; the absorption of fluorine on tungsten. M. Metlay and G. E. Kimball. *J Chem Phys* 16:779-81 Ag '48

Resonances in the disintegration of fluorine and lithium by protons. T. W. Bonner and J. E. Evans. *bibliog Phys R* 73:666-74 Ap 1 '48

Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz. L. J. Rainwater and others. *Phys R* 73:733-41 Ap 1 '48

Analysis

Fluorine content of certain vegetation in a western Pennsylvania area. H. V. Churchill, R. J. Rowley and L. N. Martin. *Anal Chem* 20:69-71 Ja '48

Semimicrodetermination of fluorine in volatile organic compounds. W. C. Schumb and K. J. Radimer. *bibliog diags Anal Chem* 20:871-4 S '48

FLUORINE—Continued

Isotopes

- Relative cross sections of reactions induced by high energy neutrons in C, N, O, and F. W. J. Knox. *Phys R* 72:1264-5 D 15 '47
- Search for gamma-rays from He⁶ and F¹⁸. W. J. Knox. *bibliog Phys R* 74:1192-3 N 1 '48

Manufacture

- Fluorine progress. R. W. Porter. *il diag Chem Eng* 55:102-5 Ap '48

FLUORINE compounds

- Dissociation of SF₆, CF₄, and SiF₄ by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog J Res Nat Bur Stand* 40:25-9 Ja '48
- Effect of fluorine substitution on chemotherapeutic agents; synthesis of some fluorine-containing medicinals. H. L. Bradlow and C. A. VanderWerf. *bibliog Am Chem Soc J* 70:654-7 F '48
- Fluorine progress. R. W. Porter. *il diag Chem Eng* 55:102-5 Ap '48
- Heats of mixing of some fluorinated ethers with chloroform. J. R. Lacher, J. J. McKinley and J. D. Park. *bibliog Am Chem Soc J* 70:2598-600 J1 '48
- Inorganic insecticides. L. B. Norton. *bibliog Ind & Eng Chem* 40:691-3 Ap '48
- Polyfluoro alkyl ethers and their preparation. J. D. Park and others. *bibliog Am Chem Soc J* 70:1550-2 Ap '48
- Preparation of heterocyclic fluorine compounds by the Schiemann reaction; monofluoropyridines. A. Roe and G. F. Hawkins. *bibliog Am Chem Soc J* 69:2443-4 O '47
- Some diethylisopropoxyhalogenosilanes and their hydrolysis products. P. A. McCusker and C. E. Greene. *Am Chem Soc J* 70:2807-8 Ag '48
- Some fluorinated derivatives of propane. E. T. McBee, A. Truchan and R. O. Bolt. *Am Chem Soc J* 70:2023-4 Je '48
- Use of fluoro compounds in the determination of valency angles by electric dipole moment measurements. N. J. Leonard and L. E. Sutton. *bibliog Am Chem Soc J* 70:1564-71 Ap '48

See also

Fluorination Trifluoromethyl
Fluorocarbons group

Analysis

- Determination of silica in the presence of fluorine and phosphorus. J. A. Brabson and others. *bibliog Anal Chem* 20:504-10 Je '48

FLUORINE handling

- Fluorine disposal; continuous process. R. Landau and R. Rosen. *flow sheet Ind & Eng Chem* 40:1389-93 Ag '48

FLUORITE. See Fluorspar

FLUOROACETIC acid

- Some amides and esters of fluoroacetic acid. J. C. Bacon and others. *Am Chem Soc J* 70:2653-5 Ag '48

FLUOROACETYL chloride

- Preparation of fluoroacetyl chloride. W. E. Truce. *Am Chem Soc J* 70:2828 Ag '48

FLUOROBORIC acid

- Hydrolysis of fluoboric acid in aqueous solution. C. A. Wamser. *bibliog Am Chem Soc J* 70:1209-15 Mr '48

FLUOROCARBONS

- Fluorocarbon nomenclature. J. H. Simons. *Chem & Eng N* 26:1317 My 3 '48
- Fluorocarbon vapor balance. J. H. Simons, W. H. Pearson and W. A. Wilson. *diag Anal Chem* 20:983 O '48
- Physical properties and crystal structure of C₆F₆. H. J. Christoffers, E. C. Lingafelter and G. H. Cady. *bibliog Am Chem Soc J* 69:2502-4 O '47
- Ultrasonic velocity in some liquid fluorocarbons. R. T. Lagemann and others. *Am Chem Soc J* 70:2894-6 S '48

See also

Hexafluoropropene

FLUOROETHYLENE

- Addition of methyl alcohol to fluoroethylenes. W. T. Miller, Jr., E. W. Fager and P. H. Griswold. *Am Chem Soc J* 70:431-2 Ja '48

FLUOROFORM

- Fluorination of organic compounds with anhydrous hydrogen fluoride; the preparation of fluoroform and certain derivatives. W. E. Whalley. *bibliog Soc Chem Ind J* 66:427-30 D '47
- Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of fluoroform (CHF₃) from 2.4μ to 0.7μ. H. J. Bernstein and G. Herzberg. *il diags J Chem Phys* 16:30-9 Ja '48

FLUOROISOCYANATES

- Phosphorus fluoroisocyanates and difluoroisothiocyanate. H. H. Anderson. *bibliog Am Chem Soc J* 69:2495-7 O '47

FLUOROMETHYL acridine

- Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; 5-amino-2- and -4-trifluoromethylacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p32-5 Ja '48

FLUOROMETRIC analysis

- Effect of indole on the determination of N'-methylnicotinamide. B. S. Schweigert. *bibliog Science* 106:522-3 N 28 '47

FLUOROPHENYLALANINE

- Enzymatic synthesis of N-carbobenzoxy-D and L-α-fluorophenylalanylphenylhydrazides. E. L. Bennett and C. Niemann. *Am Chem Soc J* 70:2610-11 J1 '48

FLUOROPHOSPHATES

- Toxicity of dimethyl-, diethyl-, and diisopropyl fluorophosphate vapors. S. D. Silver. *J Ind Hygiene* 30:307-11 S '48

FLUOROPHOSPHONIC acid

- Esters containing phosphorus; preparation of esters of fluorophosphonic acid by means of phosphorus oxydichlorofluoride. N. B. Chapman and B. C. Saunders. *diag Chem Soc J* p 1010-14 J1 '48

FLUOROPYRIDINES

- Preparation of heterocyclic fluorine compounds by the Schiemann reaction; monofluoropyridines. A. Roe and G. F. Hawkins. *bibliog Am Chem Soc J* 69:2443-4 O '47

FLUOROSCOPY

- Bright fluoroscopic images! X-ray image amplifier. *il Westinghouse Eng* 8:114-15 J1 '48
- Brighter fluoroscopes. *il Safety Eng* 96:62-3 J1 '48; Same cond. *R Sci Instr* 19:477 J1 '48; Same cond. *Electronics* 21:146-1 J1 '48; Same cond. *Elec Eng* 67:944 O '48
- Fluoroscope as a flaw detector; effective substitute for radiography. L. Sanderson. *Chem Age (Lond)* 57:599-600 N 1 '47

FLUOROTHENE

- Preparation and uses of fluoroethene; polymer of trifluoromonomonochloroethene. abstract. S. H. Smiley. *Chem Eng* 55:266+ Ag '48

FLUOROTOLUENE

- Energy of the C—H bond in the fluorotoluenes. M. Szwarc and J. S. Roberts. *J Chem Phys* 16:609-11 Je '48
- Preparation and properties of some substituted benzyl fluorides. J. Bernstein, J. S. Roth and W. T. Miller, Jr. *bibliog Am Chem Soc J* 70:2310-14 J1 '48

FLUORSPAR

- Bedding-replacement fluorspar deposits of Spar valley, Eagle mountains, Hudspeth county, Texas. E. Gillerman. *bibliog map diags Econ Geol* 43:509-17 S '48
- Concentration of Colorado fluorite ores. J. V. Batty and others. *U S Bur Mines Rep of Invest* 4139:1-28 '47
- Concentration of fluorite ores from Arizona, California, Idaho, Montana, Nevada, and Wyoming. J. V. Batty and others. *U S Bur Mines Rep of Invest* 4133:1-29 '47
- Concentration of Utah fluorite ores. H. D. Snedden and others. *U S Bur Mines Rep of Invest* 4143:1-27 '47
- Core drilling at the Victory fluorspar mine, Hardin county, Ill. O. M. Bishop and A. S. Swanson. *2pls U S Bur Mines Rep of Invest* 4324:1-8 '48
- Fluorspar concentration by froth flotation. J. A. Barr, Jr. *il Rock Prod* 50:88-90 N '47
- Fluorspar data; 1947 and comparison with 1946. *Oil Paint & Drug Rep* 153:42 Mr 8 '48
- Fluorspar; enamel opacifier, flux. *Cer Ind* 51:75 O '48

FLUORSPAR—Continued

- Investigation of the Dubois fluorite property, Hardin county, Ill. A. S. Swanson, 2pls U S Bur Mines Rep of Invest 4315:1-7 '43
- Laboratory beneficiation of disseminated fluorspar ores. M. M. Fine and R. G. O'Meara, pl U S Bur Mines Rep of Invest 4158:1-19 '47
- Station-Curnell fluorspar prospect, Crittenden county, Ky. R. C. Hickman, 2pls U S Bur Mines Rep of Invest 4205:1-4 '48

FLUOSILICIC acid

- Silica removal by an improved ion-exchange process; comparison with the fluosilicic acid method. V. J. Calise and M. Lane, bibliog diags Chem Eng Prog 44:269-74 Ap '48

FLURY, Ferdinand, 1877-1947

- Sketch. R. A. Kehoe, J Ind Hygiene 30:1 Ja '48

FLUX

- Control of gas content during the melting of phosphor bronzes, gun metals and leaded bronzes. W. T. Pell-Walpole, il Metallurgia 37:119-28 Ja '48
- Progress of fluxing in hot galvanizing practice. A. T. Baldwin, il Steel 122:86+ My 31 '48
- Uses of flux-injection cutting for stainless steels. G. E. Bellew, il diag Welding J 27:118-24 F '48

FLUXMETERS

- Electronic fluxmeter. R. H. Dicke, diags R Sci Instr 19:533-4 Ag '48

FLY ash. See Flue dust**FLY sprays and repellents**

- Continuous fly control; new device vaporizing pure DDT. il Food Ind 20:722+ My '48

Testing

- Development and use of a small spray chamber. W. M. Hoskins and A. H. Caldwell, Jr, il diags Soap & San Chem 23:143-5+ Ap '47; 24:133 Ag '48
- Development of a strain of houseflies resistant to DDT. A. W. Lindquist and H. G. Wilson, bibliog Science 107:276 Mr 12 '48
- Entomologists develop DDT-resistant flies. Chem & Eng N 26:194 Ja 19 '48
- Insecticide resistant houseflies. R. L. Bickie and others, bibliog Soap & San Chem 24:139+ Ag '48
- Residual toxicity; chlorinated camphene compared to DDT for toxic residual effects on various surfaces and in paints against the house fly. J. H. Beacher and W. L. Parker, Soap & San Chem 24:139+ Je '48
- Residual toxicity tests on insecticidal protective coatings. S. S. Block, bibliog il Soap & San Chem 24:155+ Ap '48
- Space spray toxicity. W. A. Gersdorff and M. S. Schechter, Soap & San Chem 24:155+ Je '48
- Susceptibility of DDT-resistant houseflies to other insecticidal sprays. H. G. Wilson and J. B. Gahan, bibliog Science 107:276-7 Mr 12 '48
- Testing insecticide sprays. C. C. Roan and C. W. Kearns, diags Soap & San Chem 24:133+ My '48

FLYING bars (term)

- Flying bars. R. L. Nichols, il map diags Am J Sci 246:96-100 F '48

FLYING boats

- Antifouling paints; preparation of thin, light weight paints for application to high speed surfaces. A. L. Alexander, F. King and J. E. Cowling, bibliog Ind & Eng Chem 40:461-4 Mr '48
- B.O.A.C. flying-boat terminal. il Engineer 185:407-8 Ap 23 '48
- Flying boats; nonskid finds greater passenger capacity is advantageous. Aviation W 48:48 Je 21 '48
- Hughes answers Senate probe with first flying boat flight. S. Bangs, il Aviation W 47:11-12 N 10 '47
- I'll take the flying boat; virtues and vices of landplanes and flying boats weighed. J. G. Goodenough, il Air Transport 6:21-3 F '48
- Influence of aircraft gross weight upon the size and weight of hulls and fuselages. L. W. Rosenthal, il Roy Aeronautical Soc J 51:874-83 N '47

- Plane-sub team devised for navy for atomic bomb attacks. R. Hotz, il diag Aviation W 49:12-13 N 8 '48
- Power-operated controls for the S.R. 45 flying boat, plan Engineer 186:134-5 Ag 6 '48
- S.R. 45 flying boat under construction. il Engineer 185:97-8 Ja 23 '48
- Seaplanes can be good airplanes. C. J. Daniels, il diags Aero Digest 56:38-9+ F '48
- Turbine-powered 145-ton ships to fly in 1950; Saunders-Roe flying boats. il Automotive Ind 98:41 F 15 '48
- XP5Y-1; latest navy flying boat. il Aviation W 49:13-14 N 1 '48

Testing

- Petulant porpoise tests hulls. il Aviation W 49:15 J 12 '48

FLYING bombs. See Bombs, Flying**FLYING wing airplanes. See Airplanes, Flying wing****FLYSCH (term)**

- Flysch and molasse. A. J. Eardley and M. G. White, bibliog diags Geol Soc Bul 58:979-89, pl 1 N '47

FLYWHEELS

- Electrogyro, something new under the sun; operated from energy stored in a rotating flywheel. il Power Generation 52:114 Mr '48
- Flame-cut disk flywheels; Lukens steel co. il diags Product Eng 18:141-3 N '47
- Flywheel effect for Diesel-electric set. Power Generation 52:87-8 Ja '48
- How can I stop belt slippage on flywheel? diags Power 32:46-7+ Ja '48
- Todd installs first Liberty ship tailshaft flywheel for the purpose of reducing vibration. il Marine Eng 53:74 S '48

FOAM

- Fire-fighting foams. N. O. Clark, bibliog Chem & Ind p22-3; Discussion. 24-5 Ja 10 '48
- Foaming of mixtures of hydrocarbons. J. V. Robinson and W. W. Woods, bibliog J Phys & Colloid Chem 52:763-6 My '48
- Foaming properties of solutions of various chlorinated phenols. C. R. Haefele, il Paper Tr J 126:66-8 Ap 8 '48
- Polyamide foam inhibitors; mechanism of foam inhibition in steam generators. L. O. Gunderson and W. L. Denman, bibliog il Ind & Eng Chem 40:1363-70 Ag '48
- Steam bubble formation; effects of heating surface and use of antifoams. A. L. Jacoby and L. C. Bischmann, bibliog il diag Ind & Eng Chem 40:1360-3 Ag '48
- Styrofoam for low-temperature insulation. O. R. McIntire and R. N. Kennedy, bibliog Chem Eng Prog 44:727-30 S '48

FOG

- Fog preventive glass cleaner. R Sci Instr 18:935 D '47

FOLDING machines

- Movable cloth folder saves much handling. P. W. O'Neill, diag Textile World 98:163-4 Ap '48

FOLDS (geology)

- Application of Bríanchon's theorem to construction of geologic profiles. J. B. Mertie, Jr, bibliog diags Geol Soc Bul 59:767-85 Ag '48

FOLEY, Francis Benedict, 1887-

- Sketch. E. C. McDowell, Jr, por Metal Prog 52:968-70 D '47

FOLIC acid

- Action of pteroylglutamic conjugates on man. S. Farber and others, Science 106:619-21 D 19 '47
- Analog of pteroylglutamic acid; N¹⁰-alkylpterotic acid and derivatives. D. B. Cosulich and J. M. Smith, Jr, bibliog Am Chem Soc J 70:1922-6 My '48
- Ascorbic acid therapy of pteroylglutamic acid-deficient rats. B. C. Johnson and A. S. Dana, Science 108:210-11 Ag 27 '48
- Crystalline factor functionally related to folic acid. W. Shive and others, Am Chem Soc J 70:2299 Je '48
- Folic acid activity and antagonism of two structurally related derivatives of benzimidazole. P. C. Edwards and others, bibliog Science 107:119-20 Ja 30 '48
- Formylfolic acid, a functional derivative of folic acid. M. Gordon and others, Am Chem Soc J 70:878-9 F '48

FOLIC acid—Continued

- Interference with estrogen-induced tissue growth in the chick genital tract by a folic acid antagonist. R. Hertz. *bibliog Science* 107:300 Mr 19 '48
- Preparation of 2-amino-4-hydroxy-6-keto-5,5-dichlorodihydropyrimidine. R. B. Angier and others. *bibliog Am Chem Soc J* 70:1274-5 Mr '48
- Pteroylglutamic acid (folic acid), liver extract, and amino acids in the treatment of granulocytopenia in rats. F. S. Daft. *bibliog Pub Health Rep* 62:1785-92 D 26 '47
- Synthesis of pteroylglutamic acid (liver L. casei factor) and pterotic acid. C. W. Waller and others. *bibliog Am Chem Soc J* 70:19-28 Ja '48

FOLLANSBEE steel corporation

- Follansbee Steel deal probed. *Steel* 122:39+ Ja 19 '48

FOLLOW-up systems

- For better sales results follow up your follow-up; New Britain machine co. J. T. Vinbury. *Il Ptr Ink* 225:23-5 O 22 '48
- Why inquiries don't turn into orders. P. Vincent. *Ptr Ink* 224:57+ Ag 6 '48

FOLSOM, Frank Marion, 1894-

- Portrait. *Fortune* 33:82 S '48

FOOD

- Farm animals as converters of vegetable food for human use; abstracts and discussion. W. Godden; E. T. Halman. *Chem & Ind* p 188-9 Mr 20 '48
- Food consumption, expenditures, and prices. M. Cohen. *Survey of Cur Bsns* 28:12-16 Ja '48
- Highlights of 8th annual IFT conference, Philadelphia. *Il Food Ind* 20:994-8, 1152-3+ Jl-Ag '48
- Microbiological proteins; their synthesis, production and feeding value; microbiological and nutrition panels papers. E. F. Gale and others. *Chem & Ind* p738-9 N 29 '47
- Nation's manufactured foods; Nutrition panel's new series and meetings. *Chem & Ind* p585-6 S 11 '48
- Pattern of food expenditures. D. S. Brady and H. A. Barber. *bibliog R Econ & Stat* 30:198-206 Ag '48
- Possible role of food purification in the etiology of dental caries. R. F. Sognnaes. *Science* 106:447-8 N 7 '47
- Progress in foods and nutrition in 1947. C. G. King. *Il Chem & Eng N* 26:27-9 Ja 5 '48
- Significance of sterols in foodstuffs. *J Chem Educ* 25:46-7 Ja '48
- Specific heat of food required for boiling; abstract. *Product Eng* 19:181 My '48
- Symposium on insecticides in food production. J. M. Ginsburg; R. D. Glasgow and others. *bibliog Il Ind & Eng Chem* 40:673-717 Ap '48

See also

- | | |
|--------------------------------|-------------------|
| Bakers and bakeries | Food, Frozen |
| Bread | Food preservation |
| Butter | Food supply |
| Canned food | Fruit |
| Cornstarch | Meat |
| Cost of living | Milk |
| Dairy products | Nutrition |
| Diet | Potatoes |
| Drying (fruits and vegetables) | Poultry |
| Eggs | Restaurants |
| Farm produce | Sugar |
| Fish as food | Vegetables |
| Flavor | Vitamins |
| Flour | Yeasts |

Analysis

- See also**
- Food, Dried—Analysis
- Vegetables—Analysis

Bacteriology

- Mustiness in foods; abstract. L. B. Jensen. *Food Ind* 20:1228+ Ag '48
- Sanitation, key to frozen food quality. B. E. Proctor and J. T. R. Nickerson. *bibliog Il Refrig Eng* 55:456-9 My '48; Same abr. *Food Ind* 20:682-3+ My '48
- Significance of bacteria in frozen vegetables; abstract. C. S. Pederson. *Food Ind* 20:806+ My '48

Chemistry

- Physical chemistry of food with special reference to bakery products; abstract and discussion. W. Cunliffe. *Chem & Ind* p235-6 Ap 10 '48
- Reasons for caution; strange substances used in modern factory food preparation. E. Kaplan and F. A. Korff. *Consumers Res Bul* 21:25-6 Ap '48
- See also**
- Proteins

Color

- See also**
- Coloring matter in food

Contamination

- See Food Contamination**

Insect infestation

- Food growers warned against free use of new insecticides. *Food Ind* 20:892 Je '48
- Food plant sanitation. F. A. Korff. *Il Soap & San Chem* 24:139+ My '48
- Insecticidal barriers; British data on use of DDT and other insecticides as impregnants for packaging materials. B. Verdcourt. *Il Mod Packaging* 21:150-3 N '47

Manufacture

- Grocery stores best source of vitamins; food processors urged to retain or replace more of the essential nutrients. B. L. Oser. *Il Food Ind* 20:1440-2+ O '48
- Nutritional improvement challenges processors. H. Gee. *Il Food Ind* 20:1294-7+ S '48
- Processes that point the way; lower costs by continuous processing. L. V. Burton. *Il Food Ind* 20:853-4 Je '48
- Reasons for caution; strange substances used in modern factory food preparation. E. Kaplan and F. A. Korff. *Consumers Res Bul* 21:25-6 Ap '48
- See also**
- Food factories

Metal contamination

- See Food contamination**

Patents

- Patents. Published in monthly numbers of Food industries

Prices

- Arithmetic of the food subsidies. *Economist* 154:334-5 F 28 '48
- Food prices. J. S. Davis. *R Econ & Stat* 30:8-10 F '48
- Food prices in Palo Alto. J. M. Luck. *Science* 108:425-6 O 22 '48
- Food prices, wage rates, and inflation. R. B. Hefebower. *R Econ & Stat* 30:27-9 F '48
- Food supply and food prices. H. T. Cumming. *Comm & Fin Chr* 167:1437+ Ap 1 '48
- Index numbers of cost of living and food prices in various countries. *Int Labour R* 57:403-10, 684-91; 58:107-15, 410-18, 545-53 Ap, Je-Jl, S-O '48
- Prices received and paid by farmers, 1941-1946. *Survey of Cur Bsns* 1947 Sup p22-6 [supplemented in monthly numbers]
- Revision of retail food price index in Aug. 1947. W. Fazar. *Mo Labor R* 67:397-402 O '48

- Some reductions ahead in food prices. P. S. Willis. *Comm & Fin Chr* 168:713 Ag 19 '48

Spoilage

- See also**
- Fish as food—Spoilage

Standards

- New standards program stepped up by USDA. *Food Ind* 19:1634-6 D '47
- Some grade standards changed by F&DA. *Food Ind* 20:747-8+ My '48

Storage

- Trap for smells; elimination of odor exchange between foods stored together. *Il Chem Ind* 63:376 S '48
- See also**
- Food, Frozen—Storage

FOOD—Continued

Testing

Standard Brands' mobile lab learns consumers' food preferences. H. Brenner. *il* Pfr Ink 221:37 D 12 '47

Transportation

Freight rate changes require careful study by food shippers. Food Ind 20:1039 J1 '48
Overseas transport of some perishable foods; abstract. N. E. Holmes. Chem & Ind p412 Je 26 '48

Trucks win Southwest; Griffin grocery co. operating its own canning and coffee roasting plants. *il* map Food Ind 19:1641-2 D '47

See also

Food, Frozen—Trans- Refrigeration on cars, portation trucks, etc.

FOOD, Compressed

Compression and storage of dehydrated foods. C. A. Magoon. *il* Food Ind 20:384-6+ Mr '48

FOOD, Dried

Compression and storage of dehydrated foods. C. A. Magoon. *il* Food Ind 20:384-6+ Mr '48

See also

Eggs, Dried	Meat, Dried
Fruit, Dried	Milk, Dried
Ice cream mixes, Dried	Vegetables, Dried

Analysis

Apparatus for measurement of vapor pressure. R. R. Legault, B. Makower and W. F. Talburt. bibliog diags Anal Chem 20:428-30 My '48

Determination of water in dry food materials; Karl Fischer method. C. W. Schroeder and J. H. Nair. bibliog(43 ref) *il* Anal Chem 20:452-5 My '48

Moisture content

Determination of water in dry food materials; Karl Fischer method. C. W. Schroeder and J. H. Nair. bibliog(43 ref) *il* Anal Chem 20:452-5 My '48

FOOD, Frozen

Birds Eye opens new warehouse. *il* Bsns W 978+ Je 26 '48

Bright outlook for frozen foods reported at National association of frozen food packers convention, Chicago, March 15-18. Food Ind 20:726-7 My '48

California firm demonstrates a new kind of frozen foods wholesaling; Frozen City, in Redwood City, sells full lines of refrigeration equipment, to retailers and consumers. E. Gidlow. Sales Management 60:54+ Mr 1 '48

Field-to-consumer control assures quality frozen foods; California consumers corp. E. E. Todd. *il* Food Ind 19:1501-6 N '47

Flow method for determining water vapor permeability at 0°F. T. H. Cherepow. bibliog *il* diag Paper Tr J 125:110+ N 6 '47

Food freeze growth may squeeze power supply. E. M. Haller. Barron's 28:9-10 My 24 '48

High kilowatt-hour content for frozen foods. *il* Elec World 129:70+ Ja 3 '48

Mrs Consumer appraises frozen foods. E. Sweeney. Refrig Eng 55:362+ Ap '48

Mobile freezer aids growers with short operating seasons; two railroad cars, a freezer and a storage car. C. F. Ellis. *il* diag Food Ind 19:1634-6 D '47; Same cond. Refrig Eng 55:46-6+ Ja '48

More food freezing research needed. *il* Refrig Eng 55:273-5+ Mr '48

National association of frozen food packers annual meeting, Chicago. Mod Packaging 21:138+ My '48

Petrographic microscope presents a new freezing concept. J. M. Lebeaux. bibliog *il* Refrig Eng 54:531-3 D '47; Discussion. 55:52-3 Ja '48

Pointers on home freezing from The frozen food cook book. J. I. Simpson and D. M. Taylor. *il* Refrig Eng 56:324-6+ O '48

Prospects come to dinner, stay to buy Whiting home freezers. H. Roberts. *il* Sales Management 60:44-6 Je 1 '48

Refrigeration in Germany; abstract. E. C. Bate-Smith. Chem & Ind p363 Je 5 '48

Sanitation, key to frozen food quality. B. E. Proctor and J. T. R. Nickerson. bibliog *il* Refrig Eng 55:456-9 My '48; Same abr. Food Ind 20:682-3+ My '48

Significance of bacteria in frozen vegetables; abstract. C. S. Pederson. Food Ind 20:306+ My '48

Unique new food freezer needs no trays; automatically freezes 50 to 90 domestic-size packages per minute. *il* Food Ind 20:342-3+ Mr '48

See also

Eggs, Frozen	Fruit, Frozen
Fish, Frozen	Meat, Frozen
Freezers	Milk, Frozen
Freezing	Vegetables, Frozen

Bibliography

Literature search on the preservation of foods by freezing, first supplement January, 1946-July, 1947. B. Anderson and B. H. Weil. Georgia School of Tech State Eng Exp Sta [Atlanta] Special Rep 25:407-670 '48 (pa \$3)

Cost

Frozen food cost comparable to fresh edibles on serving basis; tabulation. Refrig Eng 56:424 N '48

Moisture content

Hydrocooling combats dehydration in frozen food. W. E. Helin. diag Refrig Eng 54:441-2+ N '47

Packages

Dulany goes pictorial. *il* Mod Packaging 22:118-20 O '48

Frozen dinners; favorable future is seen. J. V. Ziemba. *il* Food Ind 20:1434-7 O '48

Frozen fish; package function in preventing desiccation and spoilage. S. R. Pottinger. *il* Mod Packaging 21:120-3+ J1 '48

Frozen foods. *il* Mod Packaging 21:151-4 J1 '48

Frozen foods in tin. *il* Mod Packaging 22:124-6 S '48

New Cry-O-Vac; oriented synthetic film applied semi-automatically to frozen poultry, meats and other foods. *il* Mod Packaging 21:115-19+ Mr '48

Packers' frozen meats. *il* Mod Packaging 22:108-12+ S '48

Side-seam opening enhances utility of fibre-metal can for packaging frozen foods. *il* diags Mod Packaging 21:130-1 Ap '48

Snow crop wins acceptance. *il* Mod Packaging 22:120-1 O '48

Wife savers; Maxson's individual-portion package for pre-cooked frozen foods. *il* Mod Packaging 21:85+ Ja '48

Wrap-cartoned steaks. *il* Mod Packaging 22:113-15 S '48

Research

Frozen food research program is launched at Georgia Tech. F. Hellinger and T. W. Kethley. *il* Food Ind 20:859-61+ Je '48

Standards

Weight loss and the law. Mod Packaging 21:135+ N '47

Storage

Effect of fluctuating storage temperatures on quality of frozen foods. W. A. Gortner and others. bibliog Ind & Eng Chem 40:1423-6 Ag '48

Effect of 40 years' frozen storage on the quality of beef. J. R. Ramsbottom and others. bibliog *il* Refrig Eng 54:544-8+ D '47; Discussion. 55:53-4 Ja '48

Huge refrigerated warehouses bring model storage at Dallas. O. Leiding. *il* plan Food Ind 20:1284-8 S '48

See also

Cold storage locker plants

Transportation

Home delivery would up frozen food sales; industry needs light duty truck. *il* Refrig Eng 55:61+ Ja '48

Ice cream trucks serve in frozen food distribution. *il* plans Food Ind 20:720-1 My '48

FOOD, Frozen—Transportation—Continued

Insulated plastic shipping case holds freezing temperatures. *il* Refrig Eng 56:34 J1 '48

New shipping method transports foods at -120 F. *il* Refrig Eng 56:408+ N '48

FOOD adulteration and inspection

See also

Coloring matter in food

FOOD and agriculture organization of the United nations

Forestry and forest products division

Progress of forestry in F.A.O. J. D. B. Harrison. Pulp & Pa of Can 48:93+ N '47

FOOD and container institute for the armed forces, Associates of the. *See* Associates of the food and container institute for the armed forces**FOOD and drug administration. *See* United States—Food and drug administration****FOOD coloring. *See* Coloring matter in food****FOOD containers**

Side-seam opening enhances utility of fibre-metal can for packaging frozen foods. *il* diags Mod Packaging 21:130-1 Ap '48

What women like and dislike about packages today; housewives in ten cities supply criticism. A. R. Hahn. *il* Sales Management 59:48-50+ N 10 '47

See also

Candy boxes

Food packages

Tin cans

Self heating

Hotcan; self-heating food container. *il* Mod Packaging 21:122-3+ N '47

Testing

Flow method for determining water vapor permeability at 0°F. F. H. Cherepow. *iblog il* diag Paper Tr J 125:110+ N 6 '47

Method for the determination of the resistance of paper and paperboard to penetration by fungi. B. F. Shema. *il* Paper Ind 29:1831-2 Mr '48

Six ways to check vacuum in sealed containers. H. Bartenbach. *diags* Product Eng 19:124-6 Ja '48

FOOD contamination

Arsenic and lead are still getting into the food supply. Consumers Res Bul 21:11-12 My '48

Occurrence of metallic contaminants in foods. G. E. Forstner. *iblog* Chem & Ind p499-501 Ag 7 '48

Occurrence, physiological importance, and estimation of metallic contaminants in foodstuffs; Food group discussion. Chem & Ind p27 Ja 10 '48

Some effects of fumigants upon food; abstract and discussion. A. B. P. Page and O. F. Lubatti. Chem & Ind p 170 Mr 13 '48

See also

Food—Bacteriology

FOOD crops. *See* Crops**FOOD factories**

Processing technics, machines boost corn chip business. R. Boyd. *flow* diag *il* Food Ind 20:1121-4 Ag '48

What to do about concrete deterioration in food processing plants. H. C. Watts. Am Concrete Inst J 20:82-4 S '48

See also

Bakers and bakeries

Canneries

Packing houses

Poultry processing plants

Sugar factories

Employees

Help wanted! Food Ind 20:842 Je '48

Equipment

Food equipment news. Published in monthly numbers of Food industries

Food industry use of aluminum discussed in British report. *il* Food Ind 20:1281+ S '48

How to select equipment for food processing plants. J. G. Brown. *il* Food Ind 20:1010-12+, 1125-7 J1-Ag '48

Looking over the chemical industries show; new equipment of interest to food plant operators. A. V. Gemmill. *il* Food Ind 19:1643-7+ D '47

New machine eliminates stainless flange welds. H. Frankfort. *il* Chem Ind 62:752-3 My '48

Resistance of alloys to corrosion during the processing of some foods. J. F. Mason, Jr. *il* Metallurgia 38:320-7 O '48

Weight control; basic measurement in industry. D. M. Considine. *il* diags Food Ind 20:1443-54 O '48

See also

Evaporators

Floors

Better floors for food plants with acid-proof brick or tile when joined with sulfur or resin cement that is acid-proof. W. L. Sheppard, Jr. *il* Food Ind 19:1656-9+ D '47

Quality control

Field-to-consumer control assures quality frozen foods; California consumers corp. E. E. Todd. *il* Food Ind 19:1501-6 N '47

Foods kept up to snuff with quality control at Heinz plants. *il* Bsns W p36 Ag 7 '48

Sanitation, key to frozen food quality. B. E. Proctor and J. T. R. Nickerson. *iblog il* Refrig Eng 55:456-9 My '48; Same *abr.* Food Ind 20:682-3+ My '48

Sanitation

Food plant sanitation. F. A. Korff. *il* Soap & San Chem 24:139+ My '48

From mop bucket to sanitation bonanza; cleaning program at Post Cereal's Battle Creek plant. A. L. Freeman. *il* Food Ind 20:1276-7 S '48

How the food plant can use a sanitation rating system. M. H. Solworth. *il* Food Ind 20:520-2 Ap '48

How to establish a plant cleaning program. I. I. Somers. *il* diags Food Ind 20:8-12+, 199-204+ Ja-F '48

New packing tables designed with many sanitary features; stainless steel tables. J. V. Ziemba. *il* diags Food Ind 20:188-9 F '48

Poultry boning plants need bacteriological control. M. E. Gunderson and others. *iblog* flow chart Food Ind 19:1515-17+ N '47

These chlorine sprays improve processed green beans. R. Haynes and J. O. Mundt. *il* diag Food Ind 20:977-81+ J1 '48

Waste

Automatic controls solve sewage pumping problems; variable speed drives and electrical contact switches; Corn products refining co. E. S. Stater. *il* diags Food Ind 20:20-3 Ja '48

FOOD fair stores, inc.

New stores boost profit. Barron's 28:27 Ag 16 '48

FOOD handling

See also

Fish handling

FOOD industries (periodical)

Chief editor, L. V. Burton, joins Packaging institute. Food Ind 19:1637+ D '47

For greater service to the food industries; editorial staff expansion. M. A. Williamson. Food Ind 20:562 Ap '48

FOOD industry and trade

ABCs of ERP transactions; U.S. food exports under the recovery program. D. A. Fitzgeraid. Food Ind 20:1013-14 J1 '48

Borderline credit applicants; Food industry training center recommended. C. A. Maguire. Credit & Fin Management 50:28-9 S '48

Business stays on top. P. French. Food Ind 20:193 F '48

Chemicals used by the U.S. food industry; abstract. T. L. Swenson. Chem Eng 54:260 D '47

Figures on U.S. foodstuffs trade last year. For Comm W 30:36 Mr 13 '48

Food, at home and abroad; industry's role in establishing world's economic stability is stressed by GMA speakers. Food Ind 20:24-5+ Ja '48

Food for the press; conferences between food manufacturers and editors. Bsns W p53-5 N 8 '47

Food industries; chemical consumer. Chem Eng 55:118 Ap '48

Forget competition, shoot for higher per capita consumption; Bell Brand foods. *il* Sales Management 59:88+ D 1 '47

FOOD industry and trade—Continued

Four practical approaches to packaged food merchandising. F. L. McKibbin, jr. *il Sales Management* 60:37-40 F 1; 112- F 15 '48

General Foods check list for development of new products. R. H. Moulton. *Sales Management* 60:37-9 My 1 '48

General Foods' 1948 campaign marks return of free selling. W. R. Parker. *il Ptr Ink* 222:43-4+ Mr 19 '48

How to spellbind a bored buyer; demonstration kit of hot foods. *il Sales Management* 60:44-6 Ja 15 '48

Individual manuals combine sales and product stories; General Foods replacing bulky product manual, supplementing sales manual with small booklets. E. J. Dever, jr. *il Ptr Ink* 224:42-3 S 24 '48

Mid-year look at sales. R. P. Ulin. *Food Ind* 20:991-3 JI '48

Processed foods for ERP listed by Secretary Anderson. *Food Ind* 20:404 Mr '48

Relationship of food industry to the chemical industry; abstract. P. Lloyd. *Chem Ind* 61: 804 N '47

United States' foodstuffs-trade figures reveal significant export and import trends. *For Comm W* 30:19 Ja 10 '48

Wholesaler adds retailing; John Sexton & co., institutional grocer to sell to selected independent grocers. *il Bsns W* p52-3 Ap 17 '48

Why merchandise prizes spur Beatrice salesmen to extra effort; prizes are within reach of all, employees receive the tools to win, and prize books go into homes. L. A. Berger. *il Sales Management* 61:136+ O 15 '48

See also

Bakers and bakeries	Grain trade
Bread	Grocery trade
Candy trade	Market stores
Canned food	Meat industry and trade
Coffee trade	Milk trade
Dairy products	Packing houses
Food, Dried	Restaurants
Food, Frozen	Salad dressing
Food containers	Sugar industry and trade
Food packages	
Food stores	
Food supply	

also Fraser, Morris and company

Advertising

Basic appeals sell goods. J. A. H. Rehm. *Adv & Sell* 41:34 Ap '48

Copy research, how it works; testing and development of A. & P. ad. M. Wiseman. *il Adv & Sell* 41:48+ Ja '48

General Foods' policies on advertising and agencies; chairman's memo to Ralph Starr Butler. C. Francis. *il Ptr Ink* 221:29-31+ D 26 '47

How K&E uses its experimental kitchen. *il Adv & Sell* 41:74 O '48

Is anything wrong with our food advertising? 75 per cent of it is directed at only 10 per cent of our families. F. E. Fehlman. *Ptr Ink* 222:40-1 Ja 9 '48

Need for two food sections is emphasized. *Ed & Pub* 81:22 JI 24 '48

Team up go-together products for better advertising results; California cling peach board. *il Ptr Ink* 225:40-1 O 8 '48

Why General Foods will make a large investment in television. *Sales Management* 60:53 Ja 1 '48

See also

Advertisements—	Cereals, Prepared—
Cookbooks and	Advertising
recipes	Newspapers—Food sections

Bibliography

Catalogs, bulletins, Published in monthly numbers of Food Industries

Finance

Food business; profits continue high. *Bsns W* p84 N 8 '47

Food industry profit margins falling. J. V. Sherman. *Barron's* 28:29 Je 21 '48

Securities

Outlook for foods in second half; with statistics on leading processors. H. F. Travis. *il Mag of Wall St* 82:483-5+ Ag 14 '48

What's ahead for food stocks; with statistics on leading food processors. R. Colston. *il Mag of Wall St* 81:538-40+ F 14 '48

Statistics

Food Industries index of processed food production. *Food Ind* 20:1261-8 S '48 [cont monthly]

Food store sales in 1947. *Sales Management* estimates. *Sales Management* 60:104 My 10 '48

Foodstuffs, 1941-1946. Survey of Cur Bsns 1947 Sup p 125-36 [supplemented in monthly numbers]

Statements show sales up, profits down. *Food Ind* 20:741-2 My '48

Berkeley, California

Pattern of retail food stores in a small city. J. V. Coles. *J Marketing* 13:163-71 O '48

Chicago

Chicago's \$1,200,000,000 food market; review. *Am Bsns* 18:40 Mr '48

China

China moves to modernize its food processing. W. R. McReynolds. *Food Ind* 20:1124 Ag '48

India

Food-processing industries. *For Comm W* 29: 22 N 15 '47

Japan

Here fish cakes are rolled; Japanese process inedible material into gelatin and fertilizer. *il Food Ind* 20:1008-9 JI '48

See also

Food supply—Japan

Norway

Norwegian food industry packs in aluminum cans. D. Nickelsen. *il Food Ind* 19:1650-3 D '47

Southern states

Food maintains leadership in southern manufacturing. C. R. Walker. *Manuf Rec* 117: 35+ Je '48

Western states

Modern packaging; special western states section. *il Mod Packaging* 21:131-4+ JI '48

FOOD laboratories**See also**

Bakers and bakeries
—Laboratories

FOOD laws and legislation

In fairness to Mr Morrison. *Ptr Ink* 224:61 S 24 '48

State laws pave way for single use flour bags. J. A. J. Jones. *il Food Ind* 20:364-5 Mr '48

Weight loss and the law. *Mod Packaging* 21: 135+ N '47

See also

Oleomargarine
United States—Food and drug administration

Dominican Republic

Food colorants; standards established, use regulated. *For Comm W* 32:13-14 S 11 '48

Peru

Peru; regulations for coloring materials for food and beverages. *For Comm W* 31:17 Je 12 '48

FOOD machinery

Continuous presses step up production of macaroni. J. J. Winston and B. R. Jacobs. *il Diags Food Ind* 20:344-8+ Mr '48

Some progress seen in Soviet food machines. *Food Ind* 20:594+ Ap '48

Transparent machine; potato chips moved thru acrylic chutes and hoppers in unusual weigher and filler. *il Mod Packaging* 21:113-17+ My '48

See also

Dough mixers
Egg washing machine
Freezers

FOOD machinery corporation

Food Machinery to absorb Westvaco Chemical. Barron's 28:9 Je 21 '48
 Merger proposed between Food machinery corp. and Westvaco chemical corp. Chem & Eng N 26:1990 Jl 5 '48
 Rental income adding much to profits. Barron's 28:34 My 17 '48
 Saga in diversity, il Bsns W p88+ Ap 10 '48
 Westvaco takes a helpmate; merges with Food machinery corp. il map Chem Ind 62: 908-9 Je '48

FOOD mixers

Better marshmallow faster; new mixer may be used also for cake batters, etc. J. V. Ziembra, il Food Ind 20:988-90 Jl '48

FOOD mixers, Electric. See Electric mixers**FOOD mixes**

See also

Ice cream mixes
 Waffle mixes

FOOD packages

Appetizing flour; Fisher shifts to colorful carton wraps, il Mod Packaging 22:143+ S '48
 Bacon in vacuum; Armour's new package, il Bsns W p56 N 8 '47
 Cudahy's Curly; cartoon character moves onto package, il Mod Packaging 21:114-15 Je '48
 Eight vital factors in effective point-of-sale promotion, F. L. McKibbin, il Sales Management 61:52-4+ N 1 '48
 Eye appeal for ice cream; Dean's color-coded cartons for self-service selling in food stores, il Mod Packaging 21:100-1 F '48
 Four practical approaches to packaged food merchandising, F. L. McKibbin, jr. il Sales Management 60:37-40 F 1; 112-4 F 15 '48
 Fried bacon, rind strips win acceptance in South, il Food Ind 20:546-7 Ap '48
 Lift for Luer, il Mod Packaging 21:142-4 Ag '48
 Macy's fancy pantry, il Mod Packaging 21: 82-4 Ja '48
 Margarine squeeze, il Mod Packaging 21:120-3+ Ap '48
 Modern packaging; special western states section, il Mod Packaging 21:131-4+ Jl '48
 Moisture-set inks, il Mod Packaging 21:124-6 Je '48
 New gas packaging method retains quality of peanuts; Flex-Vac, W. V. Ziembra, il Food Ind 20:677-9+ My '48
 Package copy planning; General Foods Consumer service editorial division, il Mod Packaging 21:109-14+ Ap '48
 Package gives small processor advantage over big competition; Zausner cheeses, il Ptr Ink 22:174 N 14 '47
 Pectinate films; fruit by-product provides edible package, W. D. Maclay and H. S. Owens, il Mod Packaging 22:157-8 S '48
 Southern cooking; package appeal of new Dix'E'lea mixes, il Mod Packaging 21:118-20 Je '48

Transmission of odor through packaging materials, L. W. Elder, bibliog Paper Tr J 125:128+ N 6 '47

What women like and dislike about packages today; housewives in ten cities supply criticism, A. R. Hahn, il Sales Management 59: 48-50+ N 10 '47

Wrap-around pricer, il Mod Packaging 21: 129+ Ap '48

See also

Food, Frozen— Packages	Meat—Prepackaging Prepackaging
Food containers	Vegetables—Pre- packaging
Fruit—Prepackag- ing	

Protection

Bacteriology of food package materials, L. C. Barail, il Mod Packaging 21:145-9+ N '47

Insecticidal barriers; British data on use of DDT and other insecticides as impregnants for packaging materials, B. Verdcourt, il Mod Packaging 21:150-3 N '47

New desiccant keeps quality in, moisture out; small packets or larger containers of desiccant preserve crispness of potato chips and baked goods, prevent hard candy from sticking, helps to dehydrate vegetables, K. D. Kahn, il Food Ind 20:18-19+ Ja '48

Nitrogen pack; preservation for product with high butter-fat content, G. C. North, il Mod Packaging 21:116-17+ Ja '48
 Pitch-dipped meats; Swift Sealite package preserves hams and bacon slabs, il Mod Packaging 21:128-30 My '48

FOOD poisoning

Biological stability of canned marine products, E. P. Sidaway, bibliog Chem & Ind p547-50 Ag 28 '48
 Studies in enterococcal food poisoning, L. Buchinder and others, bibliog Pub Health Rep 63:109-18 Ja 28 '48

FOOD preservation

Bactericidal radiation, A. W. Ewell, bibliog il Refrig Eng 55:466-8 My '48
 Bacteriology of food package materials, L. C. Barail, il Mod Packaging 21:145-9+ N '47
 Biological and photo-chemical effects of high energy, electrostatically produced Roentgen rays and cathode rays, C. G. Dunn and others, J Ap Phys 19:605-16 bibliog(p615-16) Jl '48
 Electronic preservation of food by exposure to pulsed cathode rays from a capacitron; sterilization of drugs also possible, W. Huber, bibliog il diags Electronics 21:74-9 Mr '48
 How Canada attacks some of her food preservation problems, J. A. Pearce, Chem & Ind p67-70 Ja 31 '48
 What a foreman should know about enzyme action, A. K. Balls, Food Ind 20:169+ F '48

See also

Canned food	Cold storage
Canning and pre- serving	Food, Frozen

FOOD research

Compression and storage of dehydrated foods, C. A. Magoon, il Food Ind 20:384-6+ Mr '48
 Food and container associates plan to develop food research, Food Ind 19:1677 D '47
 Food production research cited as aid to Europe; abstract, C. Francis, Adv & Sell 40:62 D '47
 Food research program shows rapid development under R & M, Food Ind 19:1535 N '47
 How Canada attacks some of her food preservation problems, J. A. Pearce, Chem & Ind p67-70 Ja 31 '48
 New knowledge through research; Bureau of agricultural and industrial chemistry reports on new discoveries, Food Ind 20: 719+ My '48
 Petrographic microscope presents a new freezing concept, J. M. Lebeaux, bibliog il Refrig Eng 54:531-3 D '47; Discussion, 55: 52-3 Ja '48
 Research budget shows plans for coming year, Food Ind 20:406-7 Mr '48
 State research in Denmark; problem of bringing modern scientific developments to attention of industry, M. Jul, il plan Food Ind 20:3-4+ Ja '48

See also

Food, Frozen—Re- search
Milk research

FOOD stores

Automatic merchandising evolves as a changing force in the Nation's stores, il Arch Forum 88:121-2 Mr '48
 Cautious food chains hold down inventories, Barron's 28:26 Ag 30 '48
 Kroger pre-packaging; pilot store method of packaging meat, baked goods, produce and dairy products, il Mod Packaging 21:100-4 N '47
 Macy's fancy pantry, il Mod Packaging 21: 82-4 Ja '48
 Pattern of retail food stores in a small city, J. V. Coles, J Marketing 13:163-71 O '48
 Well-executed ductwork has nothing to hide! food store air conditioning; Donahoe's, inc. il Sheet Metal Worker 39:67-8 Je '48

See also

Grocery stores
Market stores

FOOD supply

Arid acres point to arid living; review of Road to survival, by William Vogt, Bsns W p80, 82-3 O 2 '48

Food supply and food prices, H. T. Cuming, Comm & Fin Chr 167:1437+ Ap 1 '48

FOOD supply—Continued

- Food surpluses ahead. E. J. Hirsch. *Comm & Fin Chr* 167:2201 My 20 '48
- Fungicides in food production. J. G. Horsfall. *bibliog Ind & Eng Chem* 40:681-2 Ap '48
- Insecticide industry's contribution to food production. L. S. Hitchner. *Ind & Eng Chem* 40:679 Ap '48
- Key to world's food in '48. *il Bsns W* p 19-20 N 29 '47
- Luckman food committee to quit by end of year. H. Davenport. *Barron's* 27:11 N 17 '47
- Marshall plan food shipments won't weigh too heavily on domestic markets. *Barron's* 28:36 Ja 5 '48
- World food outlook brighter. *Bsns W* p 19-20 Mr 6 '48

Canada

- How Canada attacks some of her food preservation problems. J. A. Pearce. *Chem & Ind* p67-70 Ja 31 '48

Europe

- ERP should include more packaged foods. P. S. Willis. *il Food Ind* 20:837-8+ Je '48
- Europe's food in five years. *Economist* 155: 138-90 J1 31 '48
- Food from eastern Europe. *Economist* 155: 103-4, 148+ J1 17-24 '48
- How wheat moves from U.S. to breadlines of Europe. *il Bsns W* p20-1 N 15 '47
- More U.S. farms for Europe's food; immigrants could make New England acres productive. J. E. Kelly. *Barron's* 27:9 N 24 '47
- Public recognizes need for food-saving program to help people of western Europe; Gallup poll. *Iron Age* 160:135 N 6 '47

France

- Food and the franc. *Economist* 154:100-1 Ja 17 '48

Germany

- Nutrition in post-war Germany and Austria. M. Pyke. *bibliog Chem & Ind* p747-50 D 6 '47

Great Britain

- Britain's food stocks. *Economist* 155:152-4 J1 24 '48
- Food and the future. *Economist* 155:94-5 J1 17 '48
- Food bargain; Canadian-British state trading deal on foods. *Bsns W* p72 Ja 3 '48
- Food for sterling. *Economist* 153:948-9 D 13 '47
- New Canadian food contracts. *Economist* 154: 71-2 Ja 10 '48
- 2,700 calories a day. *Economist* 153:714 N 1 '47

Japan

- Food and politics in Japan. *Economist* 154: 85-6 Ja 17 '48

Netherlands

- Situation in 1947. *For Comm W* 31:21-2 My 8 '48

Newfoundland

- Newfoundland; a problem in practical nutrition. D. P. Cuthbertson. *bibliog Chem & Ind* p699-702 N 15 '47

United States

- Changes in food supply in 1948. Survey of Cur *Bsns* 28:5-6 J1 '48
- Estimated production of major foods; table. *Bsns W* p20 Ag 28 '48
- Some '48 food supplies. *Food Ind* 20:13 Ja '48

FOOD technologists

- Recognize food technologists in emergency draft deferments. *Food Ind* 20:1487 O '48

- FOOD technologists, Institute of. See Institute of food technologists

- FOOD, tobacco and agricultural workers union FTA unions may prove troublesome to food industry. *Food Ind* 20:403 Mr '48

FOOT

- Employee foot clinic reduces absenteeism. E. D. White. *il Textile World* 98:135+ Je '48
- Foot clinic keeps workers on their feet. T. B. Stone. *il Factory Management* 106:79 Mr '48

Protection

- Foot protection. *il Nat Safety N* 57:31+ Mr '48

- FOOTBALL helmets. See Helmets, Football

FOOTINGS

- Eccentric wall footing presents another paradox. V. R. Bergman. *diags Civil Eng* 18: 30 Ja '48

FOOTINGS, Concrete

- Continuous beams simplify design of footings for four-story building. *il Eng N* 139: 877 D 25 '47
- Earth filled cofferdam bored approach footings employed on Ohio highway bridge. *il Roads & Sts* 91:94-6 Je '48
- Reinforced concrete wall and column footings. F. E. Richart. *bibliog il diags Am Concrete Inst* 7 20:97-127 237-40 O-N '48

FOOTPRINTS, Fossil

- Some Mississippian footprints from Indiana. E. H. Colbert and B. Schaeffer. *bibliog diags Am J Sci* 245:614-23, pl 1 O '47

FORAGE plants

- Range forage conditions in relation to annual precipitation. M. Clawson. *bibliog Land Econ* 24:264-80 Ag '48
- See also
Grasses

FORAMINIFERA, Fossil

- Description, correlation, and paleoecology of tertiary Cipero marl formation, Trinidad. B. W. I. R. M. Stainforth. *map diags Am Assn Pet Geologists Bul* 32:1292-330 *bibliog* (61 titles, p 1329-30) J1 '48
- National collections of foraminifera. L. G. Henbest. *Am Assn Pet Geologists Bul* 31: 2050-4 N '47

FORBES, Grant

- Portrait. *Bsns W* p85 Ag 7 '48

FORCE account system

- Expediting paving and drainage by force account. R. E. Edmondson. *il Pub Works* 79:29+ Ap '48

FORCE and energy

- Development of an air-operated force-measuring system; ThrusTorq system. A. A. Markson and R. S. Williams. *il diags A S M E Trans* 70:271-6; Discussion. 276-8 My '48
- Electrical methods for measurement of forces required in chipless machining operations; abstract. F. Faulhaber. *diags Product Eng* 19:136-8 Je '48
- Engineering units of force. K. S. Lennie. *Engineering* 165:40 Ja 9 '48; Discussion. 165:64, 88, 112, 280, 352, 496, 544-5; 166:40, 113 Ja 16-30, Mr 19, Ap 9, My 21, Je 4, J1 9, 30 '48
- Force at the stylus tip while cutting lacquer disk-recording blanks. H. E. Roys. *diags Inst Radio Eng Proc* 35:1360-3 N '47
- Mass-energy relation. W. F. G. Swann. *Phys R* 74:200-5 J1 15 '48
- Relation between energy and mass. F. Seitz, jr. *diag Elec Eng* 67:1-5 Ja '48
- Symposium on sources of energy to be held by AAAS. *Science* 107:673-4 Je 25 '48
- Transfer of energy in continuous media. C. Truesdell. *Phys R* 73:513-15 Mr 1 '48

See also

- | | |
|--------------|----------------|
| Dynamics | Motion |
| Dynamometers | Quantum theory |
| Mechanics | Torque |

FORD, Donald C.

- Combines duties of city engineer of Michigan City, Ind. with those of pastor of an Indiana church. *por Eng N* 140:456 Mr 25 '48

FORD, John Baptiste

- Giant of 60 years ago. J. M. Hammer. *Bsns W* p72 Ap 24 '48

FORD motor company

- All about Ford's new sales tool; marketing research. H. D. Everett, jr. *il Sales Management* 60:44-6 Mr 1 '48
- Answers to the foreman problem; what four able companies are doing. *il Mod Ind* 15: 40-4 Je '48
- Automobile assembly moves South; Ford motor company decentralization. *il Manuf Rec* 116:44-5 D '47
- Behind-the-scenes report on Operation Waldorf. *il Sales Management* 61:86+ Ag 1 '48
- Control of materials by a motorized laboratory; abstracts. H. A. Tuttle and G. A. Nahstoll. *il diags S A E J* 56:59-62 Ap '48; *Automotive Ind* 98:31-2 F 1 '48

FORD motor company—Continued

- Ferguson suit against Ford, seeking \$251 million in damages, given little chance of success. A. H. Allen. Steel 122:51 Ja 19 '48
- Ferguson suit seeks \$251-million from Ford. Bsns W p25 Ja 17 '48
- Figures on Ford. Bsns W p74 N 1 '47
- For future sales; Ford studies consumer preferences, solidifies its dealer organization; abstract. W. A. Williams. Bsns W p50+ D 13 '47
- Ford asks some questions; market analysis and sales promotion are combined in novel quiz. Il Bsns W p74-7 My 29 '48
- Ford blankets Nation with three-way direct mail blizzard. D. G. Baird. Il Sales Management 59:86+ N 10 '47
- Ford handles by automation. R. LeGrand. Il plan diags Am Mach 92:107-22 O 21 '48
- Ford in France; light car to be made abroad. Bsns W p65 My 1 '48
- Ford modernizes its buying methods. A. J. Browning. Il Automotive Ind 97:24-7+ N 1 '47
- Ford pay-play boost. Bsns W p68 D 27 '47
- Ford puts on a big show to introduce its new models. Il Bsns W p54+ Je 19 '48
- Ford's first postwar cars are introduced to the public; Mercury and Lincoln models. W. G. Patton. Iron Age 161:100+ Ap 22 '48
- Ford's oxygen. Bsns W p34 My 22 '48
- Ford's regional buying clicks on West coast. Bsns W p34 N 29 '47
- Ford's surplus rises \$48.8-million in year. Bsns W p99 S 25 '48
- Human engineering program pays off for Ford. Il Bsns W p88-90+ O 30 '48
- Mechanical muscles release manual labor. Il Bsns W p70-1 O 23 '48
- New body + new chassis equals completely new 1949 Ford. J. Geschelin. Il Automotive Ind 98:28-31 Je 15 '48
- New Ford has a new price; 1949 models. Il Bsns W p28+ Je 12 '48
- Production flow charts; automobiles. Factory Management 106:96a-96c Je '48
- R. H. McCarroll, Ford director of chemical engineering and metallurgical research dies after 33 years service. W. G. Patton. Iron Age 161:100+ Ap 15 '48
- Salaried personnel record system insures promotion from within. T. A. Beaver. Il Personnel 24:437-43 My '48
- Sued for \$251 million by Harry Ferguson. Comm & Fin Chr 167:251 Ja 19 '48
- Two-year wait faces average buyer, Ford warns. Il Ptr Ink 223:98 Je 18 '48
- Why Ford workers voted down the pension plan. Il Factory Management 105:66-70 N '47

FORD motor company, England

- Ford Motor; 1947 results. Economist 154:648-9 Ap 17 '48

FORD motor company of Germany

- German Ford plant produces for peace; illustrations with text. Bsns W p22-3 F 28 '48

FORECASTING (statistical methods)

- Choice of forecasting formulas. P. G. Hoel. Am Stat Assn J 42:605-11 D '47

FORECASTS (economics)

- Foreign aid on the economic horizon. S. E. Leland. Comm & Fin Chr 167:2328+ My 27 '48

- How well can management predict? examination of prognostic research, its utility and limitations. W. A. Hamor. Advanced Management 12:159-64 D '47

See also

- Business forecasting Stocks—Price forecasting—Forecasting casting
- FOREIGN assistance act of 1948.** See Economic cooperation administration
- FOREIGN correspondents.** See Newspapers—Foreign correspondents

FOREIGN exchange

- China; resale and repurchase of foreign exchange. For Comm W 32:14-15 Ag 14 '48
- Dollar value in United States import statistics. W. C. George and I. Weiss. Il For Comm W 32:7-8+ Ag 14 '48
- Exchange tangle hurts Japan; lack of official yen-dollar rate hampers trade relations. Bsns W p 121-2 Ap 17 '48
- Foreign exchange operations. T. E. Ward. Pet Eng 19:196+ My '48

- Gold and foreign exchange reserve requirements of foreign central banks; with tabular summary by country. Fed Res Bul 34:33-8 Ja '48

- How to handle foreign currencies in statements covering foreign subsidiaries. A. B. Hecker. J Account 85:26-9 Ja '48
- Latin American exchange situation. E. M. Bernstein. Comm & Fin Chr 168:1317+ S 30 '48

- U.N. unit reports on 1947 exchange exhaustion; position of devastated countries. Comm & Fin Chr 167:1443 Ap 1 '48

See also

- Balance of payments Income tax—Blocked Bank for international money income settlements

Rates

- Exchange rates and the International monetary fund. C. Gutt. R Econ & Stat 30:81-90 My '48
- Foreign exchange rate, 1941-1946. Survey of For Bsns 1947 Sup p84-6 [supplemented in monthly numbers]
- Foreign exchange rates. Published in weekly Monday numbers of Commercial and financial chronicle
- Foreign exchange rates, with data on official alterations, 1939-48. Fed Res Bul 34:1229-31 O '48
- Latin American exchange rates. Published in Foreign commerce weekly
- Problem of the cross-rates of exchange. C. B. Turroni. Comm & Fin Chr 168:602+ Ag 12 '48
- Realistic exchange rates. N. Alexander. Comm & Fin Chr 168:302+ Jl 22 '48
- Selected European and other exchange rates. Published in Foreign commerce weekly

Regulation

- Argentina's exchange policy. Economist 154:1079 Je 26 '48
- Brazil; exchange regulations revised. For Comm W 32:15-16 Jl 3 '48
- Canada's exchange disorders and the remedies. D. Gordon. Comm & Fin Chr 167:1008+ Mr 4 '48
- Chile's foreign-exchange budget for 1948. For Comm W 30:17-18 Mr 27 '48
- China introduces new import-export link system. For Comm W 32:20-1 Jl 24 '48
- Colombia; new decree affecting exchange control promulgated. For Comm W 32:15-16 Jl 10 '48
- Colombia; regulatory exchange-control resolutions issued. For Comm W 32:17-18 Ag 21 '48
- Colombia's new exchange taxes. For Comm W 32:22-3 Jl 24 '48
- Czechoslovakia; new foreign-exchange regulations for travelers. For Comm W 31:12-13 Ap 17 '48
- Exchange controls threaten world trade collapse. F. A. Truslow. Comm & Fin Chr 168:1869+ N 4 '48
- Foreign funds control; Treasury department releases. Published in monthly numbers of Federal reserves bulletin
- Foreign investments and fluctuating currencies; with summary of exchange control action in leading countries. A. G. Flume. Comm & Fin Chr 167:2098+ My 13 '48
- Franc devaluation; monetary fund and the export franc. Economist 154:146-7 Ja 24 '48
- Franc devalued. Economist 154:191-2 Ja 31 '48; Same abr. Iron Age 161:106-7 F 12 '48
- France; modification of exchange rates and creation of a free market for dollars and escudos. For Comm W 30:13-14 F 14 '48
- French chamber of commerce of U.S. explains franc devaluation. Comm & Fin Chr 167:1116-17 Mr 11 '48
- French franc devalued; texts of French communique, joint Anglo-French statement and statement of International monetary fund. R. Mayer. Comm & Fin Chr 167:502-3 Ja 29 '48
- Futility of establishing exchange rates by international agreement. W. Chamberlain. Comm & Fin Chr 168:1637+ O 21 '48
- Import license and exchange control regulations in principal foreign countries; tabular summary. For Comm W 30:36 F 21; 31:48 Je 19 '48
- Iraq; new exchange-control order issued. For Comm W 29:12 N 8 '47

FOREIGN exchange—Regulation—Continued

Italy; major modification in foreign exchange system. For Comm W 29:17-18 D 27 '47

Monetary fund on exchange policy. Economist 155:547-8 O 2 '48

Netherlands Indies exchange-control regulations modified. For Comm W 29:20 N 15 '47
Netherlands Indies; measures to protect foreign-exchange position. For Comm W 31:24 My 1 '48

New revaluation of French franc. For Comm W 33:17 O 30 '48

New Zealand pound; effects of new exchange rate. Economist 155:584-6 O 9 '48

No international stability without exchange stabilization. J. T. Madden. Comm & Fin Chr 166:2175+ N 27 '47

Peru; regulations implementing the exchange-control decree published. For Comm W 33:23-4 O 30 '48

Polish tourist exchange rate extended to other classifications of foreign-exchange receipts. For Comm W 29:31 D 20 '47

Revaluation of New Zealand pound. P. Einzig. Comm & Fin Chr 168:1111 S 16 '48

Revised exchange-control regulations affecting persons entering or leaving Spain. For Comm W 30:22 Ja 31; 31:19 Ap 10 '48

Should pound be devalued? P. Courtney. Comm & Fin Chr 167:1309+ Mr 25 '48

Sliding franc. Economist 155:673-4 O 23 '48

South African banking and foreign-exchange situation. For Comm W 31:27 My 22 '48

Spain; foreign assets must be declared to Foreign-exchange institute. For Comm W 31:29 Je 19 '48

Steps toward easing European intra-continental exchange; multilateral monetary compensation agreement. E. H. Weinwurm. Comm & Fin Chr 167:1431+ Ap 1 '48

Sterling area; stumbling block to European recovery? V. L. Horoth. Mag of Wall St 82:227-9+ Je 5 '48

Sterling area's characteristics change under world-stresses. C. L. Wood. For Comm W 32:3-7+ Ag 7 '48

Summary of Hungarian foreign-exchange regulations. For Comm W 31:14-15 Ap 24 '48

Unsatisfactory pattern of exchange rates, task of International monetary fund. C. Gutt. Comm & Fin Chr 167:912+ F 26 '48

Use of overseas foreign exchange held by Chinese nationals. For Comm W 32:17 Ag 28 '48

Western European currency union? P. Einzig. Comm & Fin Chr 167:1434 Ap 1 '48

FOREIGN insurance association, American. See American foreign insurance association

FOREIGN investments. See Investments, Foreign

FOREIGN language press
Hungary's free press. Printed in New York. O. J. Rochelle. Ed & Pub 81:68 Je 19 '48

FOREIGN language radio stations. See Radio broadcasting stations, Foreign language

FOREIGN loans. See Loans, Foreign

FOREIGN recovery activities corporation
New corporation will assist participation in ECA by members. Iron Age 162:156-7 O 7 '48

FOREIGN service. See United States—Foreign service

FOREIGN students in the United States
Foreign students. Sci Am 179:23 Ag '48

FOREIGN subsidiaries. See Corporations—Foreign subsidiaries

FOREIGN trade. See Commerce; Commercial policy; Export trade; Imports

FOREIGN trade, American institute for. See American institute for foreign trade

FOREIGN trade zones. See Free ports and zones

FOREMAN'S association of America
Blow to foremen; court rules employers may fire supervisory workers who join union. Bsns W p76 Ag 28 '48

FOREMAN
Answers to the foreman problem; what four able companies are doing. Il Mod Ind 15:40-4 Je '48

Balm for bosses; Ford leads way in making foremen part of management. Bsns W p 107-8 F 14 '48

Foreman and the plans; what he should know and do about them. Elec West 100:78 Mr '48

Foreman and the Taft-Hartley law. A. M. Cooper. Mill & Factory 42:106-8 My '48

Foreman at Phillips Group. R. Watson and others. Personnel J 26:174-7 N '47

Foreman blues or what a poor foreman goes through. Il Mill & Factory 43:106-7 Jl '48

Foreman, key man in plant safety; accident prevention work at New Jersey Standard refineries. W. C. Uhl. Il Pet Processing 3:211-14 Mr '48

Foreman's guide for shop rules and penalties; management data sheet. Factory Management 106:134, 136 Je '48

Foreman's status; management data sheet. Factory Management 106:132+ Ag '48

Foreman's understanding builds better management team. C. W. Boyce. Factory Management 106:118-19 S '48

Foremanship in labor relations. E. W. Mounce and R. D. Stevens. Manuf Rec 117:43-4 S '48

How to handle men. Elec West 100:81 Ap '48

Making and keeping the foreman a part of management; Armstrong cork co. T. G. Newton. Personnel J 26:210-17 D '47

Reasons and a suggested procedure for establishing a foremen's vocational organization on a basis acceptable to management. W. von Pechmann. Ind & Eng Chem 40:sup81A-2A Mr '48

Russian foreman. V. I. Bumagin. Il Iron Age 162:72-5 O 21 '48

Supervisor gets bonus when worker makes suggestion. C. E. Albert. Il Factory Management 106:84-5 Mr '48

What supervisors and foremen should know about the Taft-Hartley act. C. S. Hamilton, jr. Personnel 24:293-7 Ja '48

What the foreman can do to conserve materials. E. Mothershead. Mill & Factory 42:114-15 My '48

Workers OK boss; M.I. survey. Il Mod Ind 16:35 S '48

See also

Supervisory workers

Rating

Foremen's contest keeps costs within the budget; Dixie cup co. J. W. Kuebler. Factory Management 106:132-3 My '48

Training

Harvester school trains foremen. Il Am Bsns 18:30+ My '48

How effective is your foreman training program? H. K. Nissley. Mill & Factory 42:105-6 Mr '48

Monsanto tells the economic facts of life. Il Mill & Factory 42:110-11 F '48

Unionization

Blow to foremen; court rules employers may fire supervisory workers who join union. Bsns W p76 Ag 28 '48

FOREMEN'S clubs
Building leaders via foremen's clubs. Coal Age 53:74-8 Jl '48

FOREMEN'S conferences
Communication and training; the tools of supervisory development. W. J. Eisenberg and C. G. Donerly. Personnel J 27:87-92 Jl '48

Cost-cutting conference brings out an idea a minute; Bigelow-Sanford carpet co. E. L. Petersen. Factory Management 106:94-6 My '48

First foreman's meeting; contractor's supervisory staff share their knowledge. C. A. Langlais. Elec West 100:64 Ja '48

FOREST conservation
Championing scientific timber conservation; timber-cutting rights to Eastern corp. Il Paper Tr J 127:28 Jl 15 '48

Keeping America green; forestry program of the Florida bankers association. A. A. McKethan. Il Banking 40:16+ Ja '48

FOREST fire patrol, Aerial
Brush operator aids fire control; Bowler air service. Il Aviation W 48:37+ My 17 '48

FOREST fires
Canadian forestry association views the remains. Pulp & Pa of Can 49:109 Je '48

FOREST fires—Continued

- Development center for forest-fire-control equipment. I. C. Funk. *il Mech Eng* 69:544-7 J1 '47; Discussion. 69:1053-4 D '47
- Fire prevention on pulpwood logging in southern states. A. W. Nelson, jr. *il Paper Ind* 30:734-7+ Ag '48
- Forest fire control planning. E. L. Howie. *Pulp & Pa of Can* 49:106+ My '48
- Forest fire research. H. W. Beall. *Pulp & Pa of Can* 48:114+ N '47
- Forest fire survey in Canada, 1948. *Pulp & Pa of Can* 49:107 J1 '48
- Forest protection in New Brunswick, 1947. R. J. Gill. *Pulp & Pa of Can* 49:118 Ap '48
- Forest protection organizations in the province of Quebec during 1947. *Pulp & Pa of Can* 49:108+ Ap '48
- More fire prevention needed. *Paper Tr J* 127:114 Ag 5 '48
- New England amateurs aid in forest-fire emergency. *il QST* 32:54-6 Ja '48
- Northeast forest fires do heavy damage. *Eng N* 139:633 N 6 '47
- Quebec forests in 1947. *Pulp & Pa of Can* 49:116 Ap '48
- Some lessons taught by the New England fire disaster. R. B. Woolley. *il Pulp & Pa of Can* 49:109-12 Ag '48
- Use of wetting agents in forest fire suppression. C. E. Edson and W. W. Parker. *il Pulp & Pa of Can* 49:79-80+ F '48
- See also*
- Forest fire patrol, Aerial

FOREST management

- Business organization for effective use of forest products. W. A. Hosmer. *bibliog Harvard Bsns R* 26:581-96 S '48
- Changing focus of Woodlands thought. R. M. Fowler. *Pulp & Pa of Can* 49:90+ My '48
- Forest management at the Petawawa forest experiment station. A. Bickerstaff. *Pulp & Pa of Can* 49:151-2 O '48
- Forest management in Ontario. J. A. Brodie. *Pulp & Pa of Can* 48:111 D '47
- Forestry operations of the New Haven water co. R. C. Hawley. *NE Water Works Assn J* 61:235-7 S '47
- Green River project for the study of forest management in relation to spruce budworm control. *bibliog il map Pulp & Pa of Can* 49:136+ O '48
- Implementation of the industry's forest policy. B. F. Avery. *Pulp & Pa of Can* 48:112 N '47
- Implementing the forest policy. J. O. Wilson. *Pulp & Pa of Can (Convention no)* 49:254+ [F] '48
- Industry pushes reforestation to assure future timber supply. *il Bsns W* p22-4 J1 10 '48
- Reforestation programs help South maintain forest product leadership. *il Manuf Rec* 117:46-7+ S '48

FOREST mensuration

- Air photography and its application to forest inventory. J. M. Robinson. *Pulp & Pa of Can* 49:102+ Ja '48

FOREST products

- Business organization for effective use of forest products. W. A. Hosmer. *bibliog Harvard Bsns R* 26:581-96 S '48
- Reviewing Finland's forest industries, 1947. J. O. Soderhjelm. *Pulp & Pa of Can* 49:57-8 Ap '48

See also

- Lumber
- Naval stores
- Wood pulp
- FOREST products research society**
- Meeting, Chicago, March 22-24. *Oil Paint & Drug Rep* 153:7+ Mr 29 '48
- National meeting, 1st, Chicago, Oct. 31-Nov. 1. *Chem & Eng N* 25:3639 D 8 '47

FOREST reserves

- Case for national forest roads. N. Helburn. *J Land & Pub Util Econ* 23:371-80 N '47

FOREST roads

- Bituminous surface on main log hauling roads. W. Holder. *Pulp & Pa of Can* 49:146+; Discussion. N. W. McLeod. 153+ S '48
- Case for national forest roads. N. Helburn. *J Land & Pub Util Econ* 23:371-80 N '47
- Pole truck tracks. W. D. Bennett. *il diags Pulp & Pa of Can* 49:92+ Mr '48

FOREST service (United States). *See* United States—Forest service

FOREST surveys

- Air survey of forest lands. S. T. B. Losee. *Pulp & Pa of Can* 49:98+ My '48
- Forest survey tests the helicopter; with cost data. J. W. Cruikshank. *Pulp & Pa of Can* 49:106+ Ja '48

FORESTERS, Society of, American. *See* Society of American foresters

FORESTRY research

- Forest experimental areas. G. Tunstell. *Pulp & Pa of Can* 49:127+ Je '48
- Forest management at the Petawawa forest experiment station. A. Bickerstaff. *Pulp & Pa of Can* 49:151-2 O '48
- Green River project for the study of forest management in relation to spruce budworm control. *bibliog il map Pulp & Pa of Can* 49:136+ O '48
- Petawawa forest experiment station. G. A. Mulloy. *Pulp & Pa of Can* 48:104+ N '47
- Silvicultural aspects of the Green River project. D. E. Nickerson. *Pulp & Pa of Can* 49:122+ Je '48
- Woodlands research. A. Koroleff. *Pulp & Pa of Can* 49:94+ My '48

FORESTS, Municipal

- Forestry on reservoir lands. J. M. Heilman. *Am Water Works Assn J* 40:832-6 Ag '48

FORESTS and forestry

- Forest reproduction. J. L. Farrar. *Pulp & Pa of Can* 48:96+ N '47
- Problems of future wood supply. H. D. Long. *Pulp & Pa of Can* 48:100 N '47
- Tree; more wood, more products. C. A. Scarlett. *il Westinghouse Eng* 8:130-4 S '48
- White pine; influence in American history. D. C. Peattie. *il map Sci Am* 178:48-53 Je '48

See also

- Airplanes in forestry
- Forest conservation
- Forest companies—
- Forest properties
- and other headings
- beginning Forest
- Woodlots

Alaska

- Forest service accepts bid for Alaskan pulp timber. *Paper Ind* 30:696+ Ag '48
- Problems in Alaskan pulp development; abstract. H. E. Capehart. *Paper Tr J* 126:7+ F 12 '48

Alberta

- Alberta's forest resources. D. W. Emmerson. *il Pulp & Pa of Can* 49:125-6 O '48

British Columbia

- Forestry, forest resources, and forest industries in British Columbia. *il Pulp & Pa of Can* 49:65-6 J1 '48
- Mills protest application for forest management license by Canadian western timber co. *Paper Tr J* 126:7 Ja 8 '48

Canada

- Canada's forests and the war. *Pulp & Pa of Can (Convention no)* 49:296+ [F]; 110-15+ Mr; 124-8 Ap '48
- Implementing the forest policy. J. O. Wilson. *Pulp & Pa of Can (Convention no)* 49:254+ [F] '48

Finland

- Reviewing Finland's forest industries, 1947. J. O. Soderhjelm. *Pulp & Pa of Can* 49:57-8 Ap '48

Florida

- Keeping America green; forestry program of the Florida bankers association. A. A. McKethan. *il Banking* 40:16+ Ja '48

Georgia

- Georgia story; forest products. *il Manuf Rec* 117:98-101 My '48

Great Lakes states

- Ownership and availability of Lake States pulpwood. R. N. Cunningham. *maps Paper Ind* 30:736+ Ag '48

Latin America

- Latin-American forest resources. *Paper Tr J* 126:16 Je 10 '48

FORESTS and forestry—Continued**New Brunswick**

Forest protection in New Brunswick, 1947. R. J. Gill. Pulp & Pa of Can 49:118 Ap '48
Silvicultural aspects of the Green River project. D. E. Nickerson. Pulp & Pa of Can 49:122+ Je '48

New England

Business organization for effective use of forest products. W. A. Hosmer. bibliog Harvard Bsns R 26:581-96 S '48

Newfoundland

Growth of balsam fir in Newfoundland. Pulp & Pa of Can (Convention no) 49:280+ [F] '48

Northwestern states

Floods left new forest fire danger. Paper Tr J 127:18 JI 29 '48

Integrated forest utilization in the Pacific Northwest. O. H. Schrader, jr. bibliog flow chart *il Mech Eng* 68:999-1004 D '47; Discussion. 70:463-4 My '48

Pulp and paper industry and the forest economy of the Pacific NW. E. W. Tinker. Paper Ind 29:1486+ Ja '48; Same. Pulp & Pa of Can 49:104 Ja '48

Norway

Norway's forests can pay the bills. B. Vanberg. *il Paper Tr J* 127:12-13 Ag 5 '48

Ontario

Forest management in Ontario. J. A. Brodie. Pulp & Pa of Can 48:111 D '47

Forest protection during 1947 in Ontario. Pulp & Pa of Can 49:106 Ap '48

Royal commission investigating forest industry. Paper Tr J 127:18 O 21 '48

Quebec

Forest protection organizations in the province of Quebec during 1947. Pulp & Pa of Can 49:108+ Ap '48

Saskatchewan

Pulpwood resources of Saskatchewan. Pulp & Pa of Can 49:146+ O '48

South Africa

Reforestation. Union of South Africa. For Comm W 30:26 Mr 27 '48

Southeastern states

Reforestation aids the wood pulp industry; program of Seaboard railroad. W. J. Krebs. *il Manuf Rec* 117:74-5+ My '48

Southern states

Fire prevention on pulpwood logging in southern states. A. W. Nelson, jr. *il Paper Ind* 30:734-7+ Ag '48

Reforestation programs help South maintain forest product leadership. *il Manuf Rec* 117:46-7+ S '48

Texas

Tree farm's place in the Texas forestry program. N. Baser. map Paper Tr J 127:43-4 S 16 '48

United States

Industry pushes reforestation to assure future timber supply. *il Bsns W* p22-4 JI 10 '48

See also

United States—Forest service

Wisconsin

Future pulpwood for Wisconsin mills. M. N. Taylor. Paper Tr J 127:20+ O 14 '48

FORGE shops**Equipment**

Forgings for many industries; Cornell forge company. C. W. Gibbs. *il Comp Air Mag* 52: 294-7 D '47

Fundamentals of forging practice; facilities for cutting bars and billets, trimming and punching, coining and sizing must be available in any efficient plant. W. Naujoks. *il diags Steel* 123:100-3+ S 13 '48

Increased forging die life; forge shop of International harvester co. H. Chase. *il Iron Age* 161:88-94 My 27 '48

Power

Outground distribution system replaced; Chevrolet-Detroit forge division of General motors corp. V. L. Drummond. *il diags Elec World* 130:74-6+ Ag 28 '48

FORGERY**See also**

Checks, Fraudulent

FORGERY insurance. See Insurance, Forgery

FORGING

Calculation of press forging pressures and application to magnesium forgings. R. L. Dietrich and G. Ansel. *il diags Am Soc for Metals Trans* 38:709-28 '47

Development of low weight forgings; Maxiroll technique; abstract. J. H. Friedman. *il Automotive Ind* 98:40 My 1 '48

Drop forging of turbine blades eliminates machining operation. C. I. Schweizer. *Aviation W* 47:37-8 D 8 '47

Forging the impossible; fireman's tool. H. Chase. *il diags Am Mach* 92:114 JI 15 '48

Forging tolerances; chart. Steel 121:107 N 24 '47

French heavy forging group holds first technical meeting, Paris, May 27-29. Steel 123: 114 S 20 '48

Fundamentals of forging practice. W. Naujoks. *il diags Steel* 122:100-2+ Je 7; 98-102 Je 21; 123:76-9+ JI 5; 99-100+ JI 19; 91-4+ Ag 2; 94-7 Ag 16; 59-64+ Ag 30; 100-3+ S 13; 89-92+ S 27; 101-2+ O 11; 78+ O 25; 96-100+ N 8; 68-71+ N 22; 121-2+ D 6 '48

How Packard whips tough forging jobs. G. F. Daschke and H. Lawson. *il diags Am Mach* 92:73-7 JI 29 '48

How to work aluminum and its alloys; casting and forging. A. Ashburn. *il diags Am Mach* 92:94-6 JI 1 '48

Induction heating for forging operations. J. M. Butler. *il Mach* 54:156-7 Ja '48

Induction heating for steel forging can reduce costs. K. Rose. *il Materials & Methods* 27:76-80 Ap '48

Preforming in forging operations; application of Maxiroll. *il Mach* 54:185-6 JI '48; Abstract. *Am Mach* 92:129 JI 29 '48

Press forging. *il diags Automobile Eng* 37: 493-7 D '47

Production processes; their influence on design; roll die forging. R. W. Bolz. *il diags Machine Design* 19:129-34 N '47

Rules for upsetting bar stock and tubing; reference book sheet. *diags Am Mach* 92: 123, 125 Ja 1 '48

Shaping of die forged parts. H. Maller. *diags Product Eng* 18:130-4 N '47

Smaller valves using drop forged components accommodate higher temperatures and pressures; Ohio injector co. D. Reebel. *il Steel* 122:104-7 Ap 26 '48

Technical progress in metalworking; forging and forming. Steel 122:193+ Ja 5 '48

Tolerances for impression die forgings; chart; data sheet. Mach 55:251 O '48

FORGING machinery

Fundamentals of forging practice. W. Naujoks. *il Steel* 123:91-4+ Ag 2 '48

Hot pressing 575-pound propeller hubs. F. Welshner and A. A. Flout. *il diags Steel* 122: 90-2+ Mr 15 '48

Large hydraulic forging presses. M. D. Stone. *il diags A S M E Trans* 70:499-514 JI '48

New self-contained line for making stabilizer bars; Oldsmobile forge plant. *il Automotive Ind* 98:40-1 Je 1 '48

Robot press forges heavy-duty parts; illustrations with text. *Am Mach* 92:124-5 S 23 '48

World's largest mechanical forging press. *il Mach* 54:160 JI '48

Lubrication

Importance of lubrication in forging operations. A. F. Brewer and J. C. Van Gundy. *il Steel* 121:92-5+ D 1 '47

FORGINGS

Alloys for non-ferrous forgings; tabulations; reference book sheet. *Am Mach* 92:143 Ja 15 '48

FORGINGS—Continued

Forgings for many industries; Cornell forge company, C. W. Gibbs, *il Comp Air Mag* 52:294-7 D '47

How conversion to other materials solved malleable castings shortage; International harvester co., H. Chase, *il diags Materials & Methods* 27:89-92 My '48

Shot-peening aluminum forgings; Pratt & Whitney aircraft division of United aircraft corp., C. H. Wick, *il Mach* 54:133-9 N '47

See also
Steel forgings

FORM letters. See Commercial correspondence—Form letters

FORMALDEHYDE

Aminomethylation of thiophene; the reaction of thiophene with formaldehyde and ammonium salts, H. D. Hartough, S. J. Lukasiewicz and E. H. Murray, Jr., *bibliog Am Chem Soc J* 70:1146-9 Mr '48

Applications of periodate oxidation to some problems of carbohydrate chemistry, D. J. Bell, *Chem Soc J* p982-6 JI '48

Colorimetric microdetermination of formic acid based on reduction to formaldehyde, W. M. Grant, *bibliog Anal Chem* 20:267-9 Mr '48

Combination of formaldehyde with casein, A. P. Swain and others, *bibliog Ind & Eng Chem* 40:465-9 Mr '48

Condensation of chloroacetone with formaldehyde, C. D. Hurd, W. D. McPhee and G. H. Morey, *Am Chem Soc J* 70:329-31 Ja '48

Condensation of formaldehyde with lower aliphatic ketones; allylation as a means of structure proof, J. R. Roach, H. Wittcoff and S. E. Miller, *bibliog Am Chem Soc J* 69:2651-5 N '47

Determination of glycerol in fermentation residues, P. J. Elving and others, *Anal Chem* 20:25-9 Ja '48

Dissociation schemes of some carbonyl compounds, L. Gerö and J. G. Valatin, *bibliog J Chem Phys* 16:1014-17 N '48

Distillation principles of formaldehyde solutions; liquid-vapor equilibrium and effect of partial condensation, E. L. Piret and M. W. Hall, *bibliog diags Ind & Eng Chem* 40:661-72 Ap '48

Effect of formaldehyde on picea and tuga herbarium specimens; reply to F. R. Fosberg, A. G. Johnson, *Science* 107:294 Mr 19 '48

Formaldehyde as a mutagen in *Drosophila*, W. D. Kaplan, *Science* 108:43 JI 9 '48

Formulation of resorcinol-formaldehyde adhesives, E. G. Hancock, *bibliog Soc Chem Ind J* 66:337-40 O '47

Improving the properties of fibres and dyes by treatment with hydrophobic melamine-formaldehyde compounds, A. Landolt, *bibliog 6pis Soc Dyers & Col J* 64:93-7; Discussion, 97-9 Mr '48

McCarthy unveils; will spend \$15 million at Winnie, Texas, to produce formaldehyde, acetaldehyde, ethylene and benzene, *map Chem Ind* 62:220-1 F '48

Method of following the course of the phenol-formaldehyde reaction, S. R. Finn and L. R. Rogers, *bibliog Soc Chem Ind J* 67:51-7 F '48

New synthetic nitrogen fertilizer; preparation and properties of urea-form. K. G. Clark, J. Y. Yee and K. S. Love, *bibliog Ind & Eng Chem* 40:1178-83 JI '48

Partition coefficients of formaldehyde solution, H. G. Johnson and E. L. Piret, *Ind & Eng Chem* 40:743-6 Ap '48

Polyalkylbenzenes; the reaction between polymethyl-*p*-methoxyanilines and formaldehyde, L. I. Smith and W. M. Schubert, *bibliog Am Chem Soc J* 70:2656-61 Ag '48

Purification of formalin by ion-exchange treatment, G. A. Cristy and R. E. Lembecke, *diag Chem Eng Prog* 44:417-20 Je '48

Reaction of formaldehyde with nitriles, M. A. Gradsten and M. W. Pollock, *bibliog Am Chem Soc J* 70:3079-81 S '48

Reaction of formaldehyde with proteins; cross-linking between amino and primary amide or guanidyl groups, H. Fraenkel-Conrat and H. S. Olcott, *bibliog Am Chem Soc J* 70:2673-84 Ag '48

Studies on the reactions between formaldehyde and enediols, F. J. Reithel and E. S. West, *bibliog Am Chem Soc J* 70:898-900 Mr '48

Thiophene-formaldehyde condensation, P. D. Caesar and A. N. Sachanen, *bibliog flow sheet il Ind & Eng Chem* 40:922-8 My '48

Analysis

Determination of formaldehyde and other aldehydes; assessment of the methods, J. G. Reynolds and M. Irwin, *bibliog Chem & Ind* p49-24 JI 3 '48

FORMALIN. See Formaldehyde

FORMAMIDE

Kinetics of the decomposition of trichloroacetic acid in formamide-water mixtures, C. N. Cochran and F. H. Verhoek, *bibliog Am Chem Soc J* 69:2987-8 D '47

Leuckart reaction; a study of the mechanism, V. J. Webers and W. F. Bruce, *bibliog Am Chem Soc J* 70:1422-4 Ap '48

Studies on the mechanism of the Leuckart reaction, E. R. Alexander and R. B. Wildman, *bibliog Am Chem Soc J* 70:1187-9 Mr '48

FORMAMIDINE

New synthesis of *NN'*-diarylformamidines, W. B. Whalley, *Chem Soc J* p 1014-15 JI '48

FORMAT of periodicals. See Periodicals—Format

FORMIC acid

Action of formic acid on ethynylcarbinols, J. D. Chanley, *bibliog Am Chem Soc J* 70:244-7 Ja '48

Electron diffraction investigation of formic acid monomer, V. Schomaker and J. M. O'Gorman, *bibliog diag Am Chem Soc J* 69:2638-44 N '47

Investigation of a Girbotol unit charging cracked refinery gases containing organic acids, W. E. Norris and F. R. Clegg, *flow diag Pet Refiner* 26:107-9 N '47

Ionization and dissociation of formic acid monomer by electron impact, T. Mariner and W. Bleakney, *bibliog Phys R* 72:792-806 N 1 '47

Metal electrons and alloy catalysis; the system gold-cadmium, G. Schwab and S. Pessalloglou, *bibliog diags J Phys & Colloid Chem* 52:1046-53 Je '48

Quantitative determination of dicyclopentadiene, F. Bergmann and H. Japhe, *Anal Chem* 20:146-7 F '48

Analysis

Colorimetric microdetermination of formic acid based on reduction to formaldehyde, W. M. Grant, *bibliog Anal Chem* 20:267-9 Mr '48

FORMING tools

Determining the developing angles for circular forming tools, F. L. Keller, *diags Mach* 54:169-70 N '47

FORMS and blanks, Business

Controlling forms stock without perpetual inventory, L. G. Quick, *J Account* 86:258-9 S '48

How to start a form control plan, W. E. Sexton, *Am Bsns* 18:16-17+ Ja; 18-19+ F '48

Inventory control of office forms, S. Hart, *Management R* 37:186-6 Ap '48

You can save money on your new forms; abstract, G. L. Harris, *Management R* 37:126-7 Mr '48

See also

Advertising agencies Banks and banking
—Records —Forms, blanks, etc.

Printing

Specialization spells success for progressive printing firm; William Rylance & sons print forms used by savings and loan associations, G. C. Compton, *il Inland Ptr* 120:37-9 N '47

FORMVAR

Some observations on the Formvar replica method, with a note on glass surfaces, B. M. Deacon and others, *bibliog il diags J Ad Phys* 19:704-12 Ag '48

FORMYLIC acid

Formylfolic acid, a functional derivative of folic acid, M. Gordon and others, *Am Chem Soc J* 70:878-9 F '48

FORMYLPROPIONIC acid

Amino acid conversion products; some substituted 3-indoleacetic acids and some substituted phenylhydrazones of β -formylpropionic acid. F. J. Stevens and S. W. Fox. *bibliog* Am Chem Soc J 70:2263-5 Je '48

FORMYLTOLUIDINE

Indole from formyl-toluidine. A. Galat and H. L. Friedman. *Am Chem Soc J* 70:1280-1 Mr '48

FORSBERG, Franklin S. 1905-

Magazine maker, por Sales Management 60: 40 Ja 15 '48

FORSTERITE

Forsterite refractories from serpentine; abstract. V. M. Tsynkina. *Am Cer Soc J* 31 (Cer A):101 My 1 '48

FORT WAYNE, Indiana

See also
Housing—Fort
Wayne, Indiana

Sewerage

Plant effluent use at Fort Wayne. R. A. Hoot. *Sewage Works J* 20:908-9 S '48
Sewage treatment results. R. A. Hoot. *flow sheet* il *Pub Works* 79:21-3+ Ja '48

FORTUNE (periodical)

Fortune's wheel; changes in Fortune's content. *Fortune* 38:35-6+ O '48

FORTY plus clubs

Life begins at forty plus. il *Bsns W* p26 My 1 '48

FORUMS

See also
Newspapers—Forums

FORWARDING companies

Sanctions forwarder pacts with truckers; I.C.C. approves agreements. *Ry Age* 125: 690-1 O 9 '48

FORWARDING companies (air freight)

Air forwarding rights denied rail affiliates. *Ry Age* 125:556-7 S 18 '48

Air freight forwarder operations authorized for experimental period. *CAA J* 9:119 O 15 '48

CAB policy protested by airfreight group. *Aviation W* 49:49 O 18 '48

Freight forwarder plea denied; CAB rejects proposed exemption. *Aviation W* 48:42-3 Ap 12 '48

Freight forwarders win five-year tenure. *Aviation W* 49:71-2 S 20 '48

FOSSIL pollen. *See* Pollen, Fossil

FOSTER, William Chapman, 1897-

Harriman's men. por *Bsns W* p 105 S 4 '48

Portrait. *Fortune* 38:67 Ag '48

FOSTERITE-asbestos. *See* Resinous products—Insulating materials

FOTOFETTER. *See* Phototypesetting machine

FOUGNER, Arne

Sketch. por *East Underw* 49:21 Ap 16 '48;

Nat Underw 52:2 Ap 15 '48; *Spectator* (Property ed) 13:26+ My 6 '48

FOULING organisms

Chlorine and sodium pentachlorophenate as fouling preventives in sea water conduits. H. J. Turner, Jr., D. M. Reynolds and A. C. Redfield. *bibliog* Ind & Eng Chem 40: 450-3 Mr '48

Service tests of experimental anti-fouling compositions. H. Barnes and others. *Iron & Steel Inst J* 157:429-46 N '47

See also

Barnacles

FOUNDATION soils

Charts facilitate determination of stresses under loaded areas. H. Gray and I. J. Hooks. *Civil Eng* 18:373-5 Je '48

Experiences with soil types in naval construction. L. A. Palmer. *diag* Am Soc C E Proc 74:72-83 Ja '48

Soil stabilization by pneumatic pressure injection methods; Thomas A. Edison vocational and technical high school building, Elizabeth, N.J., il *diag* Concrete 56:40+ Mr '48

Testing

Is field CBR test adaptable to granular subgrades and bases? H. R. Cedergren. *diag* Civil Eng 18:449-50 Ji '48

Philadelphia conducts extensive subsurface exploration prior to airport expansion. E. W. Scott, Jr. il *plans* Civil Eng 18:96-8+ F '48

Rapid moisture-density test. F. A. Harris. il *diag* Roads & Sts 90:85-8 O '47

FOUNDATIONS

Cofferdam protects nearby foundations while Boston builders excavate. A. D. Quinn. il *plan* *diag* Eng N 140:1018-21 Je 24 '48

Concrete jacketing H-piles in soft mud; foundation for a turbine building at the Schenectady, N.Y., works of General electric co. il *Eng N* 140:179 F 5 '48

Construction procedure for the foundation of the new John Hancock building. M. H. Parsons. *diag* Boston Soc C E J 34:316-20 O '47

Elastic foundations analyzed by the method of redundant reactions. Z. Levinton. *Am Soc C E Proc* 73:1529-41 D '47; Discussion. 74:1173-84, 1375-83, 1630-6 S-O, D '48

Essentials of foundation design in permafrost. J. D. Lewin. il *diag* Pub Works 79:28-30 F; 27-30 Mr '48

Experiences with predetermining pile lengths. W. W. Moore. il *diag* Am Soc C E Proc 73:1341-58 N '47; Discussion. 74:957-67 Je '48

Fitting foundations to variable ground; Stuyvesant Town buildings. il *diag* Eng N 140: 194-7 F 5 '48

History of building foundations in Chicago; a report of an investigation. R. B. Peck. il *plans* *diag* Ill U Eng Exp Sta Bul 373: 1-62 '48 (40c)

Pile foundations for the new John Hancock building in Boston. A. Casagrande. *diag* Boston Soc C E J 34:297-315 O '47

See also

Basementless construction

Bridges—Foundations

Caissons

Concrete piling

Settlement

Vibration testing of friction piles. C. F. Dodge and W. F. Swiger. il *diag* Eng N 140:716-20 My 13 '48

Foundations, Charitable and educational

How to have your own foundation. *Fortune* 36:108-9+ Ag '47; Excerpts. *J Account* 84: 412-13 N '47

FOUNDATIONS, Subaqueous

See also

Bridges—Foundations and piers

Bulkheads

Piles and pile driving

FOUNDING. *See* Foundry practice; Iron founding

FOUNDRIES

Foundries in the middle. il *Bsns W* p56+ N 22 '47

Hamilton foundry plays host to the public. P. Dwyer. il *Foundry* 75:218-20 D '47

Institute of British foundrymen; presidential address. R. B. Templeton. *Engineer* 185: 577 Je 11 '48

Last word in brake shoe production; Brake shoe & castings division's foundry. il *Ry Age* 124:472-3 Mr 6 '48

Metallic shortages pinch foundries; hearing before subcommittee of the Senate small business committee. il *Steel* 121:34-5+ D 22 '47

New electro-alloy foundry. il *Diesel Power* 25:60-1 D '47

See also

Foundry accounting

Foundry management

Foundry practice

Accidents

Analyzing accident causes. J. C. Stennett. *Nat Safety* N 56:52+ D '47

Advertising

Sells castings and the foundry industry; new plant of the Paul M. Wiener foundry co. il *Foundry* 76:202+ Mr '48

Cleanliness

Care in housekeeping assists foundry production; foundry of Charles F. Elchinger. il *Foundry* 76:320 My '48

Dirty jobs made clean for better working conditions; alloy foundry of American brake shoe co. il *Mill & Factory* 42:121-3 Mr '48

FOUNDRIES—Continued

Electric equipment

Electric oven annealing of malleable iron castings; Lake City malleable co. F. W. Jacobs. *il Foundry* 76:68-73+ S '48
 Precision casting; essentially electrical production. *il Elec R (Lond)* 142:77-82 Ja 16 '48

See also

Electric furnaces,
 Foundry

Employees

Ferrous foundries; earnings in Nov. 1947. *Mo Labor R* 66:287-3 Mr '48
 Foundry welfare in Sheffield. *il Engineer* 185: 544 Je 4 '48
 Industrial relations conference held by Steel founders' society of America, St Louis, Sept. 23-24. *Foundry* 76:118+ N '48
 Rating better people in our foundries. W. B. Given. *Foundry* 76:79+ N '48
 Stabilization of employment in gray iron foundries. B. A. Krawczyk. *Foundry* 76:99+ Ja '48
 Veteran looks at jobs and employers. C. J. Freund. *Foundry* 76:126-7+ My '48
 Wages of foundry workers, October 1946. D. L. Helm. *Mo Labor R* 65:180-3 Ag '47;
 Same cond. *Foundry* 75:202-3 D '47
 What about your apprentice? pattern making and molding contests. F. C. Cech. *il diags Foundry* 76:66-70+ F '48
 Young men for the foundry industry. F. G. Seifing. *Foundry* 76:100 Mr '48

Equipment and supplies

Casting aluminum pistons in permanent molds; Thompson products inc. R. H. Herrmann. *il plan Foundry* 76:78-83+ S '48
 Chain and belt conveyors handle die-cast products. B. C. Brosheer. *il plan Am Mach* 92:116-18 Je 17 '48
 Compressed air used as major power source in building conveyors. *il Steel* 122:80+ Ja 19 '48
 Converts dairy into modern nonferrous foundry; Fischer-Sweeney bronze and aluminum co. P. Dwyer. *il Foundry* 75:90-3+ D '47
 Conveyor system features modernized aluminum foundry; Aluminum co. of America. W. G. Gude. *il plan Foundry* 76:72-8+ N '48
 Cupola spout to box car in 75 minutes; Wheelabrator co. W. G. Gude. *il diag Foundry* 76: 68-73+ J1 '48; Abstract. *Steel* 123:81+ Ag 30 '48
 Cutting the cost of portable tool operations. D. S. Linton. *il diags Foundry* 75:84-7+ D '47; 76:90-3+ Ja; 84-7+ F '48
 Diecasting magnesium; plant of Litometal dicast, inc. H. Chase. *il Iron Age* 161:68-72 F 26 '48
 Doubles foundry capacity with same floor area; Olney foundry division, Link-Belt co. W. G. Gude. *il plan Foundry* 76:72-7+ Ap '48
 Efficient handling in a small foundry. W. Rudolph. *il Foundry* 76:196-7+ N '48
 Electro-alloys foundry equipped with latest type of facilities. *il Blast F & Steel Pl* 35:1361-4 N '47
 Electromagnetic pumping of molten metals. M. Tama. *il diags Iron Age* 160:68-70 D 4 '47
 Foundry goes modern; Fairbanks-Morse Freeport, Ill. works; illustrations with text. *Eens W* p39-40+ Ja 31 '48
 Foundry handling set-up; Foundry division of Eaton mfg. co. D. Reebel. *il Steel* 123: 93-6 J1 12 '48
 Foundry of tomorrow, today. C. B. Dick. *il Sci Am* 177:252-4 D '47
 Foundry parting compounds. H. Brown. *il Foundry* 76:74-5+ F '48
 Foundry practices in the tropics; Department of operation and maintenance of the Panama canal. C. H. Rowsing. *il Foundry* 76: 222-3 S '48
 Gray iron foundry modernized; Crompton & Knowles loom works. V. E. Hillman. *il plan Iron Age* 161:84-9 Ap 22 '48
 Green core handling simplified by special rack and truck. *il Iron Age* 161:90 Ap 29 '48
 Handling materials in the foundry. C. H. Moeller. *il Foundry* 76:222-4+ F '48

Handling materials in the foundry yard. R. H. Herrmann. *il Foundry* 76:70-7 Mr '48
 High-alloy foundry; American brake shoe company. *il Mech Eng* 70:19-20 Ja '48
 Magnesium use in an iron foundry; Utica radiator corporation. A. J. Marotta. *il Foundry* 76:208-10+ F '48
 Mass-production methods applied to the manufacture of cast-steel bomb-bodies. P. H. Wilson. *il Engineering* 164:525-7, 550-2 N 28-D 5 '47
 Mechanization for the small foundry. A. W. Gregg. *il diags Foundry* 76:68-73+ Ag '48
 Mechanization speeds malleable output; Auto specialties mfg. co. H. L. Day. *il plan Iron Age* 161:64-9 F 5 '48
 Modernization helps output in a bottleneck industry; Electro-alloys division of American brake shoe co. *il Factory Management* 106:64-6 Ap '48
 Modernized foundry stresses good working conditions; Fairbanks, Morse & co. E. Bremer. *il plan Foundry* 76:120-5+ My '48
 Modernizes sheave foundry. P. C. Vogel. *il Foundry* 76:80-1 F '48
 New alloy foundry typifies modern design; Electro-alloys division, American brake shoe co. P. Dwyer. *il Foundry* 76:104-9+ F '48
 Old foundry has face lifted; Alten's foundry & machine works. P. Dwyer. *il Foundry* 76:76-9+ F '48
 Overhead handling system speeds foundry operations; Terre Haute malleable & mfg. corp. F. A. Westbrook. *il plan Foundry* 76:218-19 Mr '48
 Precision investment casting at Allis-Chalmers. *il Foundry* 76:78-81+ Ag '48
 Produces wide variety of iron and non-ferrous castings; Paxton-Mitchell co. G. E. Stedman. *il Foundry* 76:92-4 Ap '48
 Pulverized vermiculite has foundry applications. T. Willcox. *Foundry* 76:116 O '48
 Steel foundry uses wood plate on core blower; Crucible steel castings co. P. Dwyer. *il Foundry* 76:82-4+ Mr '48
 Works of the David Brown organisation. *il Engineer* 186:78-80 J1 23 '48

See also

Cupola furnaces
 Foundry ladles
 Foundry machinery
 Furnaces, Foundry

Fuel

Anthraccite coal conserves coke; gray iron foundry of Westinghouse electric corp. F. J. Fredriksen and E. Bremer. *il Foundry* 76:84-5+ S '48
 Some factors influencing the performance of cupola fuels. C. C. Wright. *diag Iron Age* 162:72-7 Ag 12 '48

Heating and ventilation

Maintenance of foundry ventilation equipment. K. M. Smith. *il diags Heat & Ven* 45:67-73 Je '48
 Ventilating hood aids working conditions. *il Foundry* 76:218 N '48

Layout

Casting aluminum pistons in permanent molds; Thompson products inc. R. H. Herrmann. *plan Foundry* 76:80-1 S '48
 Co-ordinating materials handling with the manufacturing cycle. S. C. Hoey. *plans Mech Eng* 69:1008-9 D '47
 Efficient layout for bronze melting. B. Schafer. *il diags Foundry* 76:212-13+ Ag '48
 Gray iron foundry modernized; Crompton & Knowles loom works. V. E. Hillman. *Iron Age* 161:85 Ap 22 '48
 Modernized foundry stresses good working conditions; Fairbanks, Morse & co. E. Bremer. *Foundry* 76:120-1 My '48

Lighting

Flood lamps illuminate large shot blasting room; Erie works of the General electric co. N. B. Burroughs. *il Foundry* 76:156 Mr '48

Safety measures

Better place to work; hygiene safety and medical service, American brake shoe co. W. B. Given, jr. *Foundry* 76:71+ F '48
 Safe operation of portable grinders. R. B. Fair. *il diags Foundry* 76:86-9+ S '48

FOUNDRIES—Continued

Statistics

Foundry statistics (cont). Foundry 76:191 My; 186 S; 178 O '48
Gray iron castings industry. R. L. Collier. Foundry 76:94-5+ Mr; 90-1+ Ap '48

Panama Canal zone

Foundry practices in the tropics; Department of operation and maintenance of the Panama canal. C. H. Rowsing. *il* Foundry 76:222-3 S '48

FOUNDRY accounting

Bases of cost distribution in a malleable and gray iron foundry. P. J. Esling. N A C A Bul 29:853-8 Mr 15 '48
Costing for pricing and control in a gray iron foundry. H. L. Dyer. N A C A Bul 29:847-52 Mr 15 '48

Determining costs by customers in a multi-metal jobbing foundry. B. G. Wise. N A C A Bul 29:865-7 Mr 15 '48

Production control and cost procedures in a foundry producing standard units. H. L. Abernathy. N A C A Bul 29:859-64 Mr 15 '48

FOUNDRY chemistry

Foundry parting compounds. H. Brown. *il* Foundry 76:74-5+ F '48

FOUNDRY costs

Mechanization for the small foundry. A. W. Gregg. *il* diags Foundry 76:68-73+ Ag '48
Two-chamber induction melting furnace lowers aluminum die casting cost. F. J. Kamin. *il* diag Materials & Methods 28:69-72 S '48

See also

Die casting—Estimates

FOUNDRY dust

Silica dust census taken; experiments utilizing X-ray diffraction determine percentage of free silica in foundry dust. D. Huffman. Safety Eng 95:60-1 My '48

FOUNDRY educational foundation

Officers and trustees. Foundry 76:119 Ag '48

Progress report. Foundry 76:179+ My '48

Reports on program financing. Foundry 76:112 Ja '48

FOUNDRY furnaces. See Electric furnaces, Foundry; Furnaces, Foundry

FOUNDRY laboratories

Wisconsin operating new metal casting laboratory. R. W. Heine. *il* Foundry 76:220-2+ Ag '48

FOUNDRY ladles

Automatic mechanical ladling in die casting; Hydropress inc. E. F. Ross. *il* Steel 122:103+ Mr 15 '48

Joint meeting on desulphurization and dephosphorization of cupola iron and pig iron; Institute of British foundrymen, iron and steel institute and British iron and steel research assn. Iron & Steel Inst J 158:205-8 F '48; Same cond. Engineer 133:281-2 Ap 4 '47

Life and ladle and spout linings increased with graphite base refractory. Steel 122:88+ Ap 5 '48

Mechanism of nozzle erosion in open hearth ladles. R. E. Snow and J. A. Shea. *il* Steel 123:88+ Jl 26 '48

Mechanized pouring in a Swedish foundry. I. Forsland. *il* Foundry 76:188-9 Ja '48

Photoelastic analysis of stresses in crane ladle hooks. F. K. Chang and others. *il* diags Iron & Steel Eng 25:87-94 Ja '48

FOUNDRY machinery

Economics of mechanical shakeout. J. L. Yates. *il* Iron Age 160:88-93 N 13 '47

Pneumatic straightener reclaims foundry core rods. *il* Comp Air Mag 53:44 F '48

Unusual shakeout arrangement speeds sand conditioning. *il* Iron Age 161:75 F 5 '48

See also

Die casting machines

Molding machines

Statistics

Foundry equipment, 1941-1946. Survey of Cur Bsns 1947 Sup p 154 [supplemented in monthly numbers]

FOUNDRY management

Better place to work; hygiene, safety and medical service. American brake shoe co. W. B. Given, jr. Ind Med 16:592-5; 17:137-40 D '47, Ap '48; Safety Eng 95:52-3+ Ja '48; Foundry 76:71+ F '48; Advanced Management 13:33-7 Mr '48

Extensive changes incorporated in Ford's foundry modernization program. A. H. Allen. Foundry 76:122 Ap '48

Foundry sand, uncontrolled. H. E. Henderson. Foundry 76:95+ Ap '48

Rating better people in our foundries. W. B. Given. Foundry 76:79+ N '48

Time study and methods development in the foundry. F. W. Mazur. Foundry 76:80-1+ F '48

See also

Foundry practice

FOUNDRY practice

Birmingham conference report. Foundry 76:113+ Ap '48

Casting developments in review; steel. C. W. Briggs. *il* Foundry 76:66-9+ Ja '48

Determinable variations in close tolerance castings. L. M. Nielsen. *il* Foundry 76:72-3 F '48

Electromagnetic pumping of molten metals. M. Tama. *il* diags Iron Age 160:68-70 D 4 '47

Extrusion molding process; its potentialities as a means of processing gas turbine parts. H. B. Cook. *il* diag Iron Age 161:62-9 Ja 29; 79-86+ F 5 '48

Foundry methods improve investment casting; illustrations with text. K. R. Geist. Am Mach 92:83-6 Je 3 '48

Foundry of tomorrow, today. C. B. Dick. *il* Sci Am 177:252-4 D '47

Foundry practices in the tropics; Department of operation and maintenance of the Panama canal. C. H. Rowsing. *il* Foundry 76:222-3 S '48

Friction cutting gates and risers by the band saw method. H. J. Chamberland. *il* Foundry, 76:94-7+ O '48

Gating systems for metal casting. W. H. Johnson and W. O. Baker. *il* diags Foundry 76:68-73+ O '48; Abstract. Product Eng 19:129 Ag '48

German method for light metal casting; Junghans method and Zunkel process. Light Metal Age 6:17 F '48

How to prepare metals for precision casting. A. K. Higgins. *il* Steel 123:88-90 Ag 2 '48

Internal risers on steel castings. T. Shute. *il* diag Foundry 76:82-3+ F '48

Michigan foundry conference, East Lansing, Oct 1-2. Foundry 76:116+ N '48

Multiple molding can increase production; Wisconsin Appleton co. W. G. Gude. *il* Foundry 76:66-9+ Mr '48

Ohio foundrymen hold successful conference, Cleveland, March 11-12. Foundry 76:286-8+ My '48

Patterns and molding methods for steel castings. J. H. Hall. *il* Foundry 76:80-3+ N '48 (to be cont)

Precision casting at Allis-Chalmers. *il* Iron Age 161:82-5 Je 3 '48

Precision casting with plastic patterns; the A.R.D. process. H. Chase. *il* diag Iron Age 162:88-94 O 7 '48

Precision castings in high-melting point alloys for general engineering purposes. F. Hudson. *il* diags Metallurgia 37:243-7 Mr '48

Precision in castings. *il* Bsns W p64+ My 15 '48

Realistic appraisal of the precision investment casting process. W. O. Sweeney. *il* diags Iron Age 160:86-90 N 6 '47

Screwball ideas sometimes work in the foundry. J. W. Horner, jr. Foundry 76:91+ Je '48

Simplified methods and improved equipment advances precision investment casting; Allis-Chalmers mfg. co. K. J. Yonker. *il* Steel 122:96-9 Je 7 '48

Steel casting-pit practice and ingot defects. R. N. Duncan. *il* diags Engineering 166:117-13 Jl 30 '48

Technical progress in metalworking; casting. Steel 122:194-7 Ja 5 '48

Use of exothermic cores in pouring stainless steel. M. Beam. *il* Steel 122:76+ Ja 26 '48

FOUNDRY practice—Continued

Vacuum melting and casting of copper. R. A. Stauffer, K. Fox and W. O. DiPietro. *bibliog il diags Ind & Eng Chem* 40:820-5 My '48

Vacuum metallurgy produces purer, denser, tougher and more ductile metals. H. A. Knight. *il diag Sci Am* 178:173-5 Ap '48

Wisconsin conference report. *Foundry* 76:214-16+ Ap '48

See also

Aluminum founding
Brass founding
Bronze founding
Cast iron
Casting, Centrifugal
Chilled iron
Cupola furnaces
Die casting
Electric furnaces, Foundry

Furnaces, Foundry
Iron founding
Lost wax process
Magnesium founding
Molds (for casting)
Pattern making
Sand, Foundry
Steel castings

Bibliography

German wartime casting techniques; Office of technical services reports. *Iron Age* 161: 77 Ap 22 '48

Study and teaching

Educational activities seen needing more emphasis; A.F.A. annual meeting. *Foundry* 76:152+ Je '48

New approach to foundry instruction; University of Illinois' Chicago undergraduate division. E. F. Ross. *il Foundry* 76:140-1+ My '48

Progress report on Foundry educational foundation. *Foundry* 76:179+ My '48

What about your apprentice? pattern making and molding contests. F. C. Cech. *il diags Foundry* 76:66-70+ F '48

Wisconsin operating new metal casting laboratory. R. W. Heine. *il Foundry* 76:220-2+ Ag '48

FOUNDRY research

Continuous casting research planned by British iron & steel research assn. *il Iron Age* 160:84 N 20 '47

Gating systems for metal casting. W. H. Johnson and W. O. Baker. *il diags Foundry* 76:68-73+ O '48

Heat transfer committee, A.F.A., reports on year's activities. *Foundry* 76:145+ Je '48

Solidification mechanism of tin bronzes. C. L. Frear. *il diags Foundry* 76:68-71+ Ap; 130-2+ My '48

See also

Foundry laboratories

FOUNDRY sand. See Sand, Foundry

FOUNDRY workers. See Foundries—Employees

FOUNTAIN pens

Ball-point pens and inks. C. H. Lindsly and others. *bibliog il Chem Ind* 63:50-1 Jl '48

Exports of writing instruments from U.S., 1946 and first three quarters of 1947. *For Comm W* 29:23 N 22 '47

Molding plastic pen components. W. Rudolph. *il Mod Plastics* 26:196+ S '48

Parker pen company offices, showroom and service room in New York. *il plan Arch Forum* 88:84-5 F '48

Too small for effective use of product design? Welsh mfg. co. fountain pen and mechanical pencil. *il Sales Management* 60: 70 Ap 1 '48

Advertising

Parker Pen sets sights on gift sales as HCL nips personal buying. J. N. Black. *il Sales Management* 61:74+ O 15 '48

FOUNTAINS**Lighting**

Trafalgar square reopened; floodlighting and illuminated fountains. *il Elec R (Lond)* 143: 629 O 22 '48

FOUR-family houses. See Architecture, Domestic—Four-family houses

4-H clubs

Advertisers weigh teen-age farmers' demand. *Ptr Ink* 221:116 D 12 '47

Industry rewards industrious youth; illustrations with text. *Bsns W* p76+ D 13 '47

FOURIER'S series

Graphical Fourier analysis. T. C. Blow. *Elec-tronics* 20:194+ D '47

Phases of Fourier coefficients directly from crystal diffraction data. D. Harker and J. S. Kasper. *J Chem Phys* 15:882-4 D '47

Some recently developed devices for summing Fourier series for crystal structure analysis. C. L. Christ. *bibliog J Ap Phys* 18:1133 D '47

Three-figure cosine factors for Fourier analysis and synthesis. J. M. Robertson. *bibliog il J Sci Instr* 25:28-30, 216-18 Ja, Je '48

FWELER, William B. 1911-
Business of their own; Fowler & Graham, Greenwich, Conn. *pors Fortune* 37:98-101+ My '48

FRAC TOGRAPHY. See Metallography

FRACTURE of metals. See Metals—Failure

FRACTURES (surgery)

Fractures about the ankle joint. B. B. Kaye. *bibliog il diags Ind Med* 17:181-6 My '48

Study of fractures of the lower extremity, from the records of the Workmen's compensation board of British Columbia. C. A. Ryan. *Ind Med* 17:97-9 Mr '48

FRAME, A. P.
Portrait. *Fortune* 37:115 My '48

FRAMED structures

Analysis of frames with elastic joints. R. W. Stewart. *diags Am Soc C E Proc* 73: 1499-506 D '47; Discussion. 74:993-1002, 1223-7, 1637-8 Je-S, D '48

Centroidal method of rigid-frame analysis. S. J. Bell. *diags Am Soc C E Proc* 73:1391-411 N '47; Discussion. 74:944-50, 1166-72 Je-S '48

Continuous frame analysis by elastic support action. J. C. Rathbun and C. W. Cunningham. *diags Am Soc C E Proc* 73: 413-49 Ap '47; Discussion. 73:1139-56, 1419-34; 74:101-15, 357-73, 669-73 S, N '47, Ja, Mr, My '48

Creative architectural design with welded rigid frames. M. P. Korn. *il diags Welding J* 27:369-75 My '48

Design of tall refinery frames. S. W. Lewaren. *diags Oil & Gas J* 46:95-6+ F 19 '48

Professor Grinter's method of frame analysis. F. A. Blakey and J. M. Stanley. *diags Western Soc E J* 53:92-5 Je '48

Rigid frames and arches; potentials for the building field. *il diags Arch Forum* 88: 105-8+ F '48

Rigid frames reduce cost at Boys Town. J. D. Griffiths. *il Eng N* 139:673-4 N 13 '47

FRAMING (building)

Loxide precut system adapted for architect-designed house; illustrations with text. *Arch Forum* 88:15 Je '48

Milled-end building framing takes thrust of Boston soil; New England telephone and telegraph building. H. D. Gurney. *diag Eng N* 140:1022-3 Je 24 '48

Seismic factors control design of ten-story, steel-frame building for Los Angeles times. D. L. Narver. *il diags Eng N* 141:81-2 S 2 '48

Stuyvesant Town framing saves steel. *il plan Eng N* 140:192-3 F 5 '48

FRANCE, William, Fenwick and company, limited

Statement of the chairman. K. R. Pelly. *Economist* 154:690-1 Ap 24 '48

FRANCE

France's problems; today and tomorrow. J. H. McGraw, jr. *Bsns W* p 105-6 Jl 24 '48

See also

Airlines—France Mineral industries—
Gas, Natural—France France
Housing—France Petroleum industry
Insurance, Social— and trade—France
France

Colonies

France maps development of African empire. *map Bsns W* p 117-18 Mr 27 '48

See also

Mines and mineral resources—France (colonies)

Commerce

Foreign trade expands sharply in March; with data for first quarter of 1948. *For Comm W* 31:21+ My 15 '48

Imports purchased under ECA financing; list of commodities and purchasing channels. *For Comm W* 33:23-4 O 23 '48

FRANCE—Commerce—Continued

Pattern of French exports; with Jan.-Oct. figures for 1938, 1946 and 1947. Economist 154:195-6 Ja 31 '48

Commercial policy

Additional products to be exchanged under the trade agreement with Finland; agreement involving New Zealand credit for purchase of New Zealand wool signed. For Comm W 30:10-11 Ja 10 '48

Argentina; commercial and financial agreement with France signed. For Comm W 30:14-15 Ja 31 '48

Commercial agreement concluded with Spain. For Comm W 32:19-20 Ag 7 '48

Concessions obtained from France at UN conference in Geneva. For Comm W 29:6-7+ D 13 '47

L'évolution des importations d'olagineux des territoires d'outre-mer en France. M. T. François. Génie Civil 124:430-3 N 15 '47

France zone financial relations with the United States revised; residents of certain countries may open free-franc accounts in France. For Comm W 30:16-17 Mr 13 '48

France; agreements for exchange of goods concluded with Sweden. For Comm W 32:19 S 18 '48

French chamber of commerce of U.S. explains franc devaluation. Comm & Fin Chr 167:1116-17 Mr 11 '48

French customs regulations applied to the Saar. For Comm W 30:19-20 F 28 '48

Import licensing procedure for certain goods included in American aid programs. For Comm W 31:18-20 Je 26 '48

Licensing procedure for imports under American aid program financed through American banks. For Comm W 32:17-19 JI 10 '48

Modification of exchange rates and creation of a free market for dollars and escudos. For Comm W 30:13-14 F 14 '48

New commercial agreement signed with Norway; commercial agreement with Portugal signed. For Comm W 33:24-5 O 23 '48

Regulations governing importation of merchandise not requiring financial settlement with foreign countries. For Comm W 31:15-16 Ap 10 '48

Economic conditions

Aspects of the French economy. P. Jolly. Harvard Bsns R 26:257-66 My '48

France leaves the goldruins. Economist 154:539-90 Ap 10 '48

France; the current crisis; plans for recovery. Index 28 no 1:1-13 [Mr] '48

France's perennial crisis. V. L. Horoth. II Mag of Wall St 82:631-3+ S 25 '48

French crisis and its solution. P. Einzig. Comm & Fin Chr 168:1761 O 28 '48

French production steps up. II Bsns W p 113-14 My 1 '48

French progress report. Economist 154:1020 Je 19 '48

Second annual report of the National credit council of France; economic development in 1947. Fed Res Bul 34:950-60 Ag '48

Sick man of Europe? Economist 155:419-20 S 11 '48

Economic policy

Economic policy in France. Int Labour R 56:452-4 O '47

Fighting French inflation. Bsns W p73-4 D 27 '47

From social insurance to social security; evolution in France. P. Laroque. Int Labour R 57:565-90 Je '48

Economic relations

Italy

Economic union for France and Italy. Economist 154:460 Mr 20 '48

United States

French squabble on U.S. aid. Bsns W p 122-3 Jn 26 '48

Local currency funds administering interim aid in France. Economist 154:42-4 Ja 10 '48

What franc devaluation means to U.S. business. Bsns W p23 Ja 31 '48

Foreign relations

Germany

France and Germany; French reactions to the six power agreement. Economist 154:955-6 Je 12 '48

Industries and resources

French production and the Monnet plan. Engineer 185:326 Ap 2 '48

Nationalised industry in France. Economist 155:542 O 2 '48

Plans for recovery; Monnet plan. Index 28 no 1:10-13 [Mr] '48

Politics and government

Another French crisis. R. Guise. Mag of Wall St 82:569+ S 11 '48

De Gaulle at Marseilles. Economist 154:676 Ap 24 '48

France in confusion. Economist 153:907-8 D 6 '47

France's perennial crisis. V. L. Horoth. II Mag of Wall St 82:631-3+ S 25 '48

French Communists and De Gaulle's party show gain; Gallup poll. Iron Age 162:167 N 4 '48

What de Gaulle would mean to France. Bsns W p25-6 O 15 '48

Who is for de Gaulle? Economist 153:747-8 N 8 '47

Who will save the Republic? Economist 153:884 N 29 '47

FRANKFURTERS. See Sausage

FRANKLIN, Benjamin, 1706-1790

Check list of Franklin imprints in the library of the Franklin institute. G. E. Pettengill, comp. Franklin Inst J 246:351-8 O '48

Franklin-Greene correspondence; abstract. W. G. Roelker. Science 106:630-1 D 26 '47

Franklin's return from France, 1785; abstract. C. F. Jenkins. Science 107:589-90 Je 4 '48

In defense of Benjamin Franklin, one of the greatest experimental scientists. I. B. Cohen. por Sci Am 179:36-43 Ag '48

Story of the new Benjamin Franklin half-dollar. N. T. Ross. Franklin Inst J 246:53-60 JI '48

FRANKLIN, J. C.
Portrait. Bsns W p50 Ap 10 '48

FRANKLIN institute
Research work of the Franklin institute during World war II on airborne fire control apparatus. R. H. McClarren. II Franklin Inst J 246:273-91 O '48

Library

Check list of Franklin imprints in the library of the Franklin institute. G. E. Pettengill, comp. Franklin Inst J 246:351-8 O '48

FRANKS, Sir Oliver Shewell, 1905-
Portrait. Bsns W p22 N 15 '47

FRARY, Francis Cowles, 1884-
American contemporary. A. D. McFadyen. por Chem & Eng N 26:2493 Ag 23 '48

ASM names Frary gold medal winner for 1948. por Oil Paint & Drug Rep 154:7 Ag 23 '48

FRASER, Alexander, 1889-
Portrait. Fortune 38:74 Ag '48

FRASER, Morris and company
Good-will payoff; overseas food parcels. Bsns W p 121 S 25 '48

FRATERNAL actuarial association
Mid-year meeting. Chicago. Nat Underw (Life ed) 52:2+ My 7 '48

FRATERNAL congress of America, National.
See National fraternal congress of America

FRATERNAL societies. See Benefit societies

FRAUD
It can happen again; how Vesty was hooked by crook. H. M. Sommers. Credit & Fin Management 50:12-13+ Ag '48

See also
Accounting—Fraudulent entries
Advertising, Fraudulent
Checks, Fraudulent
Insurance, Fire—Fraudulent claims
Insurance, Inland marine—Fraudulent claims
Tax fraud

FRAUD bonds. See Insurance, Surety and fidelity—Fraud bonds

FRAZIL ice. See Waterworks—Ice protection

FREE association tests. See Association (psychology)

FREE energy

Determination of the free energy of formation of the manganous ion from thermal data. A. Warkley, bibliog *Electrochem Soc J* 93:316-23 Je '48

Heat and free energy of polymerization of ethylene. R. S. Jessup, bibliog *J Chem Phys* 16:661-4 Jl '48

Heat of formation and free energy of chlorous acid. B. J. Fontana and W. M. Latimer, bibliog *Am Chem Soc J* 69:2598-9 N '47

Thermodynamics of non-electrolyte solutions and its technical applications; systems with associated components. O. Redlich and A. T. Kister, bibliog *J Chem Phys* 15:849-55 D '47

FREE enterprise. See Capitalism

FREE goods. See Sales policies—Free goods

FREE offers. See Advertising copy—Free offers

FREE ports and zones

Movement for foreign-trade zone at Los Angeles harbor. *For Comm W* 32:45 S 26 '48

New foreign-trade zone at port of San Francisco. *For Comm W* 30:18 Mr 20 '48

Role of foreign-trade zones in aiding ocean-borne commerce. T. E. Lyons, *il For Comm W* 29:5-6+ N 8 '47

San Francisco becomes free port no. 3. *Bsns W* p32 Je 26 '48

San Francisco joins family of foreign-trade zones. T. E. Lyons, *il For Comm W* 31:3-4+ My 22 '48

FREE radicals. See Radicals (chemistry)

FREE speech

Free speech under Taft-Hartley law. J. L. McCaffrey, *Factory Management* 105:240+ D '47

See also

Freedom of the press

FREE volume

Free-volume models for liquids. T. L. Hill, bibliog *J Phys & Colloid Chem* 51:1219-32 N '47

Free volumes of the metallic elements at their melting points. S. S. Penner, bibliog *J Chem Phys* 16:745-6 Jl '48

FREE will and determinism

Statistical freedom of the will. W. Weaver, *Rs Mod Phys* 20:31-4 Ja '48

FREEDOM of association

Freedom of association and industrial relations. *Int Labour R* 56:277-9 S '47

FREEDOM of information. See Freedom of the press; Scientific information, Freedom of

FREEDOM of information, United nations conference on. See United nations conference on freedom of information

FREEDOM of information and of the press. Subcommission on. See United nations—Subcommission on freedom of information and of the press

FREEDOM of the press

British press lords deny freedom confined by chains. O. J. Rochelle, *Ed & Pub* 81:11+ Jl 17; 9+ Jl 24; 11+ Jl 31 '48

Canadian newspapers ask freedom guaranty. *Ed & Pub* 81:57 Je 26 '48

How free press developed, portrayed in German show; joint German-United States exhibit on journalism in Munich. E. Cox, *Ed & Pub* 81:11+ Mr 13 '48

See also

Censorship

also United nations—Subcommission on freedom of information and of the press

International aspects

Barriers are still up. AP survey discloses. *Ed & Pub* 81:36 F 7 '48

Finnegan draft used in treaty with Italy. *Ed & Pub* 81:11 F 7 '48

More freedom, not more fetters, U.S. government reply to United nations. *Ed & Pub* 81:20 Jl 31 '48

Proposes AP-Reuters truth team. Lord Rothermere, *Ed & Pub* 81:19+ Ap 24 '48

Sulzberger offers newsprint to Britain. *Ed & Pub* 81:6+ S 4 '48

U.P. hits dangerous information compact. *Ed & Pub* 81:11 O 9 '48

U.S. mission to Paris aims to fight for press freedom. *Ed & Pub* 81:12+ S 18 '48

FREEDOM train

Boston Post's freedom pledge goes in archives. *Ed & Pub* 81:24 Ja 10 '48

Dehumidifiers protect priceless documents on tour with the Freedom train. *il Heating-Piping* 20:97 O '48

Fifteen companies carry coverage on Freedom train. *Nat Underw* 51:8 N 13 '47

Freedom train is landmark in railroading security. P. W. Eberhardt, *il Ry Age* 123:985+ D 6 '47

Protection for Freedom Train documents. P. W. Eberhardt, *il Nat Safety* N 57:44 F '48

FREEZER locker plants. See Cold storage locker plants

FREEZERS

Food freezers require proper lubrication. A. F. Brewer, *il diag Food Ind* 20:554-6+ Ap '48

McEvoy polyphase freezer. A. M. Wilson, *il diag Food Ind* 20:538-9 Ap '48

Moisture migration in refrigerators. S. V. Cook and F. F. Starr, *Refrig Eng* 56:149-51; Discussion. 151+ Ag '48

Unique new food freezer needs no trays; automatically freezes 50 to 90 domestic-size packages per minute. *il Food Ind* 20:342-3+ Mr '48

What causes ice formation in food freezer insulation? E. W. Comings, *diags Refrig Eng* 55:156-9 F '48

FREEZERS, Domestic

Big demand shown for combination refrigerator-freezer unit. *il Refrig Eng* 55:62 Ja '48

Construction and operation of the home freezer. M. Kalischer, bibliog *diags Refrig Eng* 55:405-8 N '48

Pointers of home freezing from The frozen food cook book. J. I. Simpson and D. M. Taylor, *il Refrig Eng* 56:324-6+ O '48

Prospects come to dinner, stay to buy Whiting home freezers. H. Roberts, *il Sales Management* 60:44-6 Je 1 '48

Safe and adequate food storage for modern living. *il Am Bid* 70:96-7 Jl '48

Start early with freezers. *Elec West* 100:93 Ap '48

Two-temperature refrigerator; design and construction. R. F. Roider and H. W. Timmerman, *il diag Refrig Eng* 56:134-6 Ag '48

Rating

Seven home and farm food freezers; CR's tests. *il Consumers Res Bul* 20:5-12 D '47

Two refrigerators and a refrigerator-freezer combination. *il Consumers Res Bul* 22:5-7 O '48

FREEZING

Effect of very rapid freezing on beef tenderness. J. E. Nicholas and others, *diags Refrig Eng* 54:438-40 N '47

Freeze concentration becomes practical; concentrating heat-sensitive solutions. T. R. Olive, *il Chem Eng* 55:118-19 O '48; *Food Ind* 20:1432-3 O '48

Freezing fish at sea. J. M. Lemon and C. B. Carlson, plans *diags Refrig Eng* 54:527-30+ D '47; Discussion. W. F. R. Karsten, 55:94+ Ja '48

Frozen food research program is launched at Georgia Tech. F. Bellinger and T. W. Kethley, *il Food Ind* 20:859-61+ Je '48

Handling frozen coal. *Power Generation* 52:74-6 S '48

Hydrocooling combats dehydration in frozen food. W. E. Helin, *diag Refrig Eng* 54:441-2+ N '47

Mobile freezer aids growers with short operating seasons; two railroad cars, a freezer and a storage car. C. F. Ellis, *il diag Food Ind* 19:1634-6 D '47; Same cond. *Refrig Eng* 55:45-6+ Ja '48

Petrographic microscope presents a new freezing concept. J. M. Lebeaux, bibliog *il Refrig Eng* 54:531-3 D '47; Discussion. 55:52-3 Ja '48

Prevention of bone darkening in frozen-packed chickens. J. C. Woodroof and E. Sheldor, bibliog *il diags Food Ind* 20:48-52+ Ja '48

Quick freezing of small pipes for repairs. J. L. Ford, *il Water & Sewage Works* 94:413-14 N '47; Abstract. *Eng N* 140:15 Ja 1 '48

FREEZING—Continued

Refrigerating capacity of two-component systems; glycerol-water and propylene glycol-water. F. T. Gucker, Jr. and G. A. Marsh. bibliog diag Ind & Eng Chem 40: 908-15 My '48

See also

Cold storage locker Freezers
plants Refrigeration and
Eggs, Frozen refrigerating ma-
Food, Frozen chinery
 Soils—Freezing

FREEZING points

Compounds involved in production of synthetic rubber; determination of purity by measurement of freezing points. A. R. Glasgow, Jr. and others. bibliog diags Anal Chem 20:410-22 My '48

Cryoscopic behavior of carbon tetrachloride. A. W. Davidson, W. J. Argersinger, Jr. and C. I. Michaelis. bibliog J Phys & Colloid Chem 52:332-9 F '48

Determination of safrole in the oil of ocotea cymbarum; a cryoscopic method. A. J. Shukis and H. Wachs. bibliog Anal Chem 20:248-9 Mr '48

Determination of the gamma-isomer content of benzene hexachloride. C. V. Bowen and M. A. Pogorelskin. bibliog Anal Chem 20: 346-8 Ap '48

Determining the purity of dicyclopentadiene concentrates; a cryoscopic method. G. C. Ray. diag Anal Chem 20:331-3 Ap '48

Double freezing-point method for determination of styrene purity. J. F. Masi and R. K. Cheney. bibliog diags Anal Chem 20: 321-5 Ap '48

Double freezing point method for styrene purity. diag Rubber Age 63:339-40 Je '48

Freezing point depression of sulfuric acid by siloxanes. F. P. Price. Am Chem Soc J 70:371-2 F '48

Freezing points of cobalt and nickel. M. S. VanDusen and A. I. Dahl. bibliog diags J Res Nat Bur Stand 39:291-5 S '47; Same cond. Science 106:428-9 O 31 '47

Immersion freezing solutions; a determination of the freezing point depressions of refrigerant solutions containing sugars and salt. W. Goldsmith and L. H. Bartlett. diag Refrig Eng 56:144-8+ Ag '48

Objective determination of freezing points. J. B. Hickman. bibliog diags J Chem Educ 25:163-7 Mr '48

Purification, purity, and freezing points of n-decane, 4 alkylcyclopentanes, 9 alkylcyclohexanes, 2 monoolefins, 1, 2-butadiene, and 2-butyne of the API-standard and API-NBS series. A. J. Streiff and others. bibliog J Res Nat Bur Stand 39:321-49 graphs(p 326-49) O '47

Purity control of styrene; effective determination by double freezing point. J. F. Masi. Chem Age (Lond) 58:817-18 Je 12 '48

Some physical properties of aqueous solutions of 1,3-butanediol. T. H. G. Michael and Y. C. Hopkins. Can Chem & Process Ind 32:341-2 Ap '48

Sorption-desorption hysteresis characteristics of the system $\text{SiO}_2\text{-H}_2\text{O}$ below the bulk freezing point of water. W. O. Milligan and H. H. Rachford, Jr. bibliog Am Chem Soc J 70:2922-4 S '48

System ammonium nitrate-ammonium sulfate. J. H. Thelin and P. A. van der Meulen. bibliog diags Am Chem Soc J 70: 1796-8 My '48

Systems ammonium sulfate-sodium sulfate and sodium sulfate-sodium nitrate. S. H. Laning and P. A. van der Meulen. Am Chem Soc J 70:1799-800 My '48

FREIGHT and freightage

Transportation pattern changes; shippers are shifting their traffic away from rail lines. Il Bsns W p 19-20 O 30 '48

See also

Air freight service Motor trucks in
Airplanes, Freight freight service
Bills of lading Packing for shipment
Freight cars Railroads—Freight
Freight handling Shipment of goods
Freight ships Shipping
 Transportation

FREIGHT car service

Box car supply seen taxed by crop output. Ry Age 125:606-7 S 25 '48

Car pinch eases. Il Bsns W p45 D 13 '47

Car supply and outlook. A. H. Gass. Ry Age 124:1288-9 Je 26 '48

Dollar volumes don't make carloads. A. H. Gass. Ry Age 125:435-6 Ag 28 '48

Effect of weather on car loadings and operations. W. C. Kendall. Ry Age 124:448-50 F 28 '48

Freight-car supply increasing. Il Ry Age 124: 966-9 My 15 '48

Freight-car supply worst in 20 years. C. B. Peck. Il Ry Age 124:22-3 Ja 3 '48

Freight traffic following '47 trend. W. C. Kendall. Ry Age 124:866-7 My 1 '48

Heavy traffic, high costs, hard problems mark freight service. Il Ry Age 124:936-40+ My 15 '48

Higher freight car output urged; abstract. J. M. Johnson. Ry Age 124:135-6 Ja 10 '48

Kendall report hails '47 loading record. Ry Age 124:263-4+ Ja 31 '48

Kendall's annual report finds car output disturbing. Ry Age 123:957-8 N 29 '47

Railroads still doing record-breaking job; abstract. W. C. Kendall. Ry Age 123:959+ N 29 '47

Reed group submits freight car report. Ry Age 124:229-31 Ja 24 '48

Shortage of box cars 50 per cent below last year. A. H. Gass. Ry Age 125:824-5 O 30 '48

Stretching cars. Ry Age 124:964+ My 15 '48

Wants car program at 14,000 a month; transportation report issued by House's Foreign-aid committee. Ry Age 124:396-7 F 21 '48

Why loadings are below 1947 level; abstract. W. C. Kendall. Ry Age 124:678 Ap 3 '48

See also

Container system Freight cars—Inter-
(freight handling) change

Car load

Bulkheads reduce l.c.l. damage bill on the Illinois Central. Il Ry Age 124:818-19 Ap 24 '48

L.c.l. hussy of the railroad business. Il Ry Age 124:970-1 My 15 '48

Union Pacific expedites l.c.l. freight handling. P. J. Lynch. Il Ry Age 125:429-31 Ag 28 '48

Union Pacific uses bulkheads for l.c.l. il diags Ry Age 124:477-8 Mr 6 '48

FREIGHT cars

Brake-cylinder-release valve speeds freight-car handling in yards. Ry Mech Eng 122: 312-14 Je '48; Same. Ry Age 125:161-2 Jl 17 '48

Car output declining in fall. A. H. Gass. Ry Age 125:258-9 Jl 31 '48

Freight car developments. J. A. Welsch. Ry Mech Eng 121:702-3 D '47

Freight car features urgently needing correction for improved service; abstract of committee report presented at annual meeting of Car department officers' association. Ry Age 123:663-4 O 18 '47; Same. Ry Mech Eng 122:11-12 Ja '48

Freight cars for improved service. Il Ry Age 124:974-6 My 15 '48

Future passenger and freight cars. L. K. Silcox. Ry Age 123:778-80+ N 8 '47

Hold-down clips for hopper cars. diags Ry Mech Eng 122:314 Je '48

Missouri Pacific tackles the car shortage. Il Am Bsns 17:24+ D '47

Pressure-treated wood for freight cars; abstract. P. D. Brentlinger. Ry Age 124:910 My 8 '48

Rail equipment job still to be done; huge postwar purchases haven't caught up with wear, retirements. P. A. Johnston. Barron's 28:40 My 3 '48

Roller bearings for freight cars. M. S. Downes. Ry Age 124:348-9 F 14 '48

Sets 14,000 monthly goal for car output. Ry Age 123:874-7 N 15 '47

See also

Air brakes
Freight car service
Refrigerator cars

Design

Approved side frame and bolster designs; regulations governing applications for approval. Ry Mech Eng 122:156-7 Ap '48

Committee on car construction; report of A.A.R. Mechanical division. diags Ry Mech Eng 122:426-9 Ag '48; Excerpts. Ry Age 125:66-7 Jl 10 '48

FREIGHT cars—Design—Continued

Evolution of side frames and bolsters. R. B. Cottrell. *diags Ry Mech Eng* 122:288-91 *Je '48*

Inspection

See Car inspection

Interchange

Federal court stays \$2 per diem order. *Ry Age* 123:874+ *N 15 '47*

Interchange rule revisions; recommendations by A.A.R. Mechanical division. *Ry Mech Eng* 122:435-9 *Ag '48*; *Excerpt. Ry Age* 125:61-2 *JI 10 '48*

I.C.C. gets briefs in two per diem cases. *Ry Age* 124:590-1 *Mr 20 '48*

I.C.C.'s \$2 per diem order set aside by court. *Ry Age* 123:946-7 *N 23 '47*

Problems of interline distribution and exchange of freight cars; committee report. American association of railroad superintendents. *Ry Age* 124:1217-18 *Je 19 '48*

Two per diem cases get further hearing. *Ry Age* 124:134-5+ *Ja 10 '48*

Why push return to car service rules? R. E. Clark. *Ry Age* 124:965 *My 15 '48*

Would dismiss two per diem complaints. *Ry Age* 125:389-90 *Ag 21 '48*

Manufacture

Advanced machining and welding methods in a car-building shop; Pullman-Standard car mfg. co. *il Mach* 55:163-5 *S '48*

A.C.F.'s welded hopper-car assembly line. *il Ry Age* 125:144-5 *JI 17 '48*

Automatic welding speeds up box-car production; American car and foundry co. C. O. Herb. *il Mach* 54:143-50 *F '48*

D.L.&W. 50-ton hopper cars. W. C. Osha. *il Welding J* 26:991-3 *N '47*

Freight car fabrication fixtured; illustrations with text. *Am Mach* 92:120-3 *F 12 '48*

Freight cars on the assembly line. *il Mill & Factory* 42:103-9 *Je '48*

Line assembly pays off in heavy industry; Pullman-Standard. A. A. Logmann. *il Factory Management* 106:80-1 *S '48*

Motor industry methods applied to hopper-car manufacture. *il Steel* 123:90-2 *Ag 16 '48*

New Missouri Pacific freight car shop designed for rapid production. *il plan Ry Age* 123:942-5 *N 29 '47*

Now ACF welds hopper cars too; illustrations with text. *Am Mach* 92:116-17 *JI 29 '48*

Production pattern; need for standardization in freight car design. *Bsns W* p62 *Ap 17 '48*

Submerged arc welding of freight cars. E. A. Watson. *il Welding J* 27:789-93 *O '48*

To speed freight-car output; American Car & Foundry streamlines Chicago plant; illustrations with text. *Bsns W* p50+ *F 21 '48*

Numbering

Car numbers grabbed by voice-recorder; New York, New Haven & Hartford yard in New Haven. *il Ry Age* 124:1283 *Je 26 '48*

Prices

Freight car prices; tabulation. *Ry Age* 124:66 *Ja 3 '48*

Reconstruction

C.&N.W. rebuilds 500 hopper cars; illustrations with text. *Ry Mech Eng* 122:20-2 *Ja '48*

Repair

Efficiency increased one-quarter in revamped rip-track procedure; Norfolk & Western light-repair yard. *il plan Ry Age* 125:452-6 *S 4 '48*; Same. *Ry Mech Eng* 122:473-6 *S '48*

Standards

Committee on car construction; report of A.A.R. Mechanical division. *diags Ry Mech Eng* 122:426-9 *Ag '48*

Statistics

Freight cars, equipment manufacturers, 1941-1946. Survey of Cur *Bsns* 1947 *Sup p* 180 [supplemented in monthly numbers] 120,051 freight cars ordered in 1947; tabulation. F. C. Miles. *Ry Age* 124:75-80 *Ja 3 '48*

Weight

Freight car weight reduction; editorial. *Ry Mech Eng* 122:134-5 *Mr '48*; Discussion. C. D. Stewart. 122:249-50 *My '48*

Highspeed freight train resistance its relation to average car weight. J. K. Tuthill. *diags Ill U Eng Exp Sta Bul* 376:1-77 *'48* (50c)

FREIGHT cars, Aluminum

Aluminum in freight-car construction. R. B. Boruck and E. A. Sipp. *il Ry Age* 124:610-13 *Mr 27 '48*; Same. *Ry Mech Eng* 122:136-9 *Ap '48*

Aluminum in freight-car construction. G. B. Hauser. *Ry Mech Eng* 122:237-8+ *My '48*

Illinois Central builds five aluminum hopper cars. *il Ry Mech Eng* 122:32-4 *F '48*; Discussion. F. D. Foote. 122:148 *Ap '48*

FREIGHT cars, Steel

Construction of all-steel wagons on the L.N.E.R. *il Engineer* 184:436-7 *N 7 '47*

Economics of lightweight freight cars; with cost data. A. F. Stuebing. *il Ry Age* 123:1024-8 *D 13 '47*

How the hopper car has developed. G. A. Suckfield. *Ry Age* 124:167-70 *Ja 17 '48*; Same *abr. Ry Mech Eng* 122:64-5+ *F '48*

Pullman-Standard develops general-service box car. *il Ry Mech Eng* 121:879-82 *D '47*; Same *abr. Ry Age* 123:733-6 *N 1 '47*

FREIGHT claims. See Railroads—Claims; Shipping—Claims

FREIGHT forwarders. See Forwarding companies; Forwarding companies (air freight)

FREIGHT handling

Class A transportation problem, loss and damage. *Ry Age* 124:958-60 *My 15 '48*

Emphasis on freight-handling facilities in property improvement programs. *il Ry Age* 124:386-90 *My 15 '48*

Freight station mechanization helps offset trend of rising costs; Pennsylvania's Polk Street station in Chicago. *il Ry Age* 124:898-900 *My 8 '48*

Handling time cut for export freight; Lackawanna mechanizes Hoboken terminal piers. *il diags Ry Age* 125:645-7 *O 2 '48*

How the railroads are fighting loss and damage. A. L. Green. *il Ry Age* 124:960-3 *My 15 '48*

Loss and damage prevention through improved materials handling. J. L. Webb. *il Ry Age* 124:422-3 *F 23 '48*

Materials-handling show a huge success; railroad men interested in equipment and technical sessions. *Ry Age* 124:213+ *Ja 24 '48*

Mechanical handling of freight widespread. *il Ry Age* 124:950-3 *My 15 '48*

Railroad materials handling problem. C. R. Opsahl. *Ry Age* 124:345-7 *F 14 '48*

Railroads set to handle unit loads. *il Ry Age* 124:954-7 *My 15 '48*

Union Pacific expedites l.c.l. freight handling. P. J. Lynch. *il Ry Age* 125:429-31 *Ag 28 '48*

See also

Cargo handling Loading and unloading—Cars

Container system ing—Cars

(freight handling) Loading and unloading—Ships

Freight houses Railroads—Freight

FREIGHT houses

This freight station has eye appeal; Atlantic Coast Line facility at Winter Park, Fla. *il plan Ry Age* 124:1204-6 *Je 19 '48*

This new freighthouse has everything; structure built by Santa Fe at Los Angeles. G. W. Varnum. *il plan Ry Age* 124:462-5 *Mr 6 '48*

FREIGHT rates

How to best those climbing freight rates; abstract. *Management R* 37:196-7 *Ap '48*

Post-war pangs affect transport; rail, trucks, boats and planes vie for rate advantage. *Ed & Pub* 81:520+ *Ap 24 '48*

Steel shipping changes limited. *Steel* 123:45 *Ag 23 '48*

FREIGHT rates, Airplane. See Air freight service—Rates

FREIGHT rates, Railroad. See Railroads—Rates

FREIGHT service, Air. See Air freight service

FREIGHT ships

Blasting concrete ballast in cargo ships. J. J. Hills. *Explosives Eng* 25:142+ *S '47*

C-3 cargo ship, African Star. *il diag Marine Eng* 52:98-9 *N '47*

FREIGHT ships—Continued

- Cargo liner, Mormacgulf, *il* Marine Eng 52: 109+ N '47
- Cargo ships built for Lloyd Brasileiro, *il* plans diags Marine Eng 53:38-51+ JI '48
- Cargo vessel for Brazil, Loide America, *il* diag Marine Eng 52:108+ N '47
- Conversion of Great Lakes bulk freighter Adam E. Cornelius to a self-unloader, G. F. Rankin and A. J. Zuehlke, *il* Marine Eng 53:46-51 S '48
- Conversion of lake bulk carrier, S. B. Way, to self-unloader, K. C. Thornton, *il* plans diags Marine Eng 53:40-9 Ag '48
- Dual-draft freighter, Angèle Higgins, *il* Marine Eng 52:77+ N '47
- Electric drive for cargo ships; marine engineers' discussion, Elec R (Lond) 141:731-2 N 14 '47
- Engining of cargo vessels of high power; symposium, Engineer 184:490-2 N 21 '47; Engineering 164:517-18 N 28 '47
- Gulf yard converts flat tops, *il* Marine Eng 53:64-5 F '48
- Inland Steels new lake freighter, E. B. Williams, Marine Eng 53:94 S '48
- Modern Dutch cargo ship, Triton, *il* Marine Eng 52:104+ N '47
- Modern marine power plant; C-3-S-DB3, A. W. Woods, Marine Eng 53:61-6 Ap '48
- More Great Lakes ships are wanted, *il* Bsns W p25-6 My 15 '48
- Refrigerated cargo ship, Parismina, *il* diags Marine Eng 52:102-3+ N '47
- Robin Line ship interiors, *il* Marine Eng 53: 64-5 JI '48
- Self-unloading bulk cargo vessels; tabulation, Marine Eng 53:52-5 Ag '48
- Self-unloading vessel, R. W. Elchenberger, Marine Eng 53:36-7; Discussion, G. B. Palmer, 37-8 Ag '48
- Ships for French council, Algeria, *il* diag Marine Eng 52:110-11 N '47
- Tampa yard builds ships for France; Algeria, first of six vessels, *il* plans diags Marine Eng 52:64-72 D '47
- Typical CI-N-AVI, motorship, Antrim, *il* Marine Eng 52:114-15+ N '47
- Yaque class reefers, *il* diag Marine Eng 52: 82-3+ N '47

See also

- | | |
|-----------------|------------|
| Colliers | Ore ships |
| Merchant marine | Tank ships |

FRENCH GUIANA

Commercial policy

- Tariffs and trade controls, For Comm W 31: 24 My 29 '48

FRENCH INDO-CHINA. See Indo-China.

French

FRENCH literature

Bibliography

- Bulletin critique du livre français, Published monthly by L'Association pour la diffusion de la pensée française, 10 rue Colbert, Paris 2°

FRENCH WEST INDIES. See West Indies, French**FREON.** See Chlorofluoromethanes**FREON 12.** See Dichlorodifluoromethane**FREON 22.** See Chlorodifluoromethane**FREQUENCY analyzers**

- Frequency characteristic analyzer, J. S. Sampson, *il* diags R Sci Instr 19:620-7 O '48

FREQUENCY changers

- Frequency converter performance calculations, F. R. Latzko, diag Elec Eng 67:625 JI '48

- Ionosphere reflections recorded mechanically by means of a repetition frequency converter, W. Stoffregen, *il* diags J Ap Phys 19:487-90 My '48

- Microwave converters, using point-contact silicon rectifiers, C. F. Edwards, diags Inst Radio Eng Proc 35:1181-91 N '47

- Selectivity in S.S.S.C. reception; balanced frequency-converter circuit for communications receivers, O. G. Villard, Jr. diag Q S T 32:19-22 Ap '48

- Speed control systems for high-speed squirrel-cage motors, G. W. Heumann, *il* diags Gen Elec R 51:28-34 F '48

- Thyratron frequency changers; designed to permit parallel operation of three-phase aircraft alternators driven at unequal speeds, O. E. Bowlus and P. T. Nims, bibliog *il* diags Electronics 21:126-30 Mr '48

FREQUENCY converters. See Frequency changers**FREQUENCY distribution (statistics)**

- Application of statistical methods to electricity supply problems, P. Schiller, bibliog Inst E E J 95 pt 2:161-74 Ap '48

- Let the machine talk; samples forecast quality and anticipate inaccuracies, C. W. Kennedy, Tool Eng 20:17-20 Ap '48

- Lorenz curve analysis of industrial decentralization, G. C. Smith, Jr. Am Stat Assn J 42:591-6 D '47

- Producer's quality control report aids inspection of incoming parts, G. R. Armstrong, *il* Mach 54:162-5 Ap '48

- Symmetrical bi-modal frequency curves, V. H. Gottschalk, Franklin Inst J 245:245-52 Mr '48

FREQUENCY dividers

- Counter circuits for television, A. Easton and P. H. Odyssey, diags Electronics 21: 120-3 My '48

- High-ratio multivibrator frequency divider, M. Silver and A. Shadowitz, diags Elec Com 25:160-2 Je '48

FREQUENCY measurement

- Frequency modulation in microwave spectroscopy, R. Karpus, Phys R 73:1027-34 My 1 '48

- Microwave secondary frequency standard, R. R. Unterberger and W. V. Smith, bibliog diags R Sci Instr 19:580-5 S '48

- Precision frequency measuring equipment, *il* diags J Sci Instr 25:246-7 JI '48

- Theory of frequency counting and its application to the detection of frequency-modulated waves, E. Labini, diags Inst Radio Eng Proc 36:323-39 JI '48

- Two new methods for detecting nuclear radio-frequency resonance absorption, A. Roberts, bibliog diags R Sci Instr 18:345-8 N '47

- Two portable substandards of frequency, R. Terlecki and J. W. Whitehead, *il* diags J Sci Instr 25:237-9 JI '48

FREQUENCY meters

- Accurate frequency measurement, L. A. Williams, *il* diag Q S T 32:28-32 S '48

- Direct-reading frequency meter for the audio and supersonic ranges, H. J. Reich and R. L. Ungvary, diags R Sci Instr 19:43-6 Ja '48

- Frequency monitor, diag Elec R (Lond) 142: 975 Je 18 '48

- Ideal grid dip oscillator, J. N. Whitaker, *il* diags Radio N 39:56-7+ My '48

- Pulse deviation meter, D. I. Lawson and E. R. Rout, diags J Sci Instr 25:309-11 S '48

FREQUENCY modulation. See Radio frequency modulation**FREQUENCY modulation association**

- Convention, 2d, Chicago, Ed & Pub 81:51 O 2 '48

- Fm versus television? as small to big daily, A. S. Keshen, Ed & Pub 81:54 JI 17 '48

FREQUENCY modulation receivers. See Radio receiving apparatus—Frequency modulation receivers**FREQUENCY modulators**

- Linear theory of bridge and ring modulator circuits, V. Belevitch, diags Elec Com 25: 62-73 Mr '48

- R-f system for frequency modulated cyclotron, K. R. MacKenzie and V. B. Waithman, bibliog *il* diags R Sci Instr 18:900-7 D '47

FREQUENCY stabilizers. See Oscillators—Frequency stabilization**FRESH water fauna**

- Effect of DDT on fish, fish food and plankton, Pub Works 79:46-8 Ja '48

See also

Rotifera

FRESNEL function

- Response of linear resonant systems to excitation of a frequency varying linearly with time, G. Hok, bibliog *il* diags J Ap Phys 19:242-50 Mr '48; Correction, 19:623 JI '48

FRESNO, California

- Lush farms make Fresno an economic paradise, *il* Bsns W p38+ O 16 '48

- FREUND, Clement Joseph, 1895-**
C. J. Freund, president, 1948-49, of Society for engineering education, *por* J Eng Educ 39:1-2 S '48
- FREUND, Herman R.**
Portrait, *Inland Ptr* 120:33 Mr '48
- FREUNDLICH equation**
Mathematical calculation of phenol value of an activated carbon; solving the Freundlich equation by the method of least squares, R. A. Hoot, *il* Water & Sewage Works 94:402-4 N '47
- FRICITION**
Apparatus for measuring the static frictional torques of instrument jewels, W. H. Pearse, *diag* J Sci Instr 25:344-6 O '48
Approximate formula for pipe friction factors, L. F. Moody, *Mech Eng* 69:1005-6 D '47
Calculation of the temperature development in a contact heated in the contact surface, and application to the problem of the temperature rise in a sliding contact, R. Holm, *bibliog diag* J Ap Phys 19:361-6 Ap '48
Friction coefficients in a large tunnel, G. H. Hickox and others, *bibliog* *il* plan diags Am Soc C E Proc 73:451-70 Ap '47; Discussion, 73:973-4, 1122-33, 1307-9, 1450-4; 74: 867-72 Je, S-N '47, Je '48
Friction equivalents for round, square and rectangular ducts, R. G. Huebscher, *bibliog* *il* *diag* Heating-Piping 19:127-35 D '47
Friction factors in pipes, W. L. Nelson, *Oil & Gas J* 47:111-12 J 22 '48
Friction in pipe coils or bends, W. L. Nelson, *Oil & Gas J* 46:281 Ap 1 '48
Friction in powder metallurgy, H. W. Greenwood, *Metallurgia* 37:283-4 Ap '48
Friction in the flow of suspensions; granular solids in gases through pipe, E. G. Vogt and R. R. White, *bibliog* *flow diag* *il* Ind & Eng Chem 40:1731-8 S '48
Friction losses in screwed iron tees, J. W. Hoopes and others, *bibliog* *il* diags Chem Eng Prog 44:691-5; Discussion, 695-6 S '48
Frictional properties of lead-base and tin-base bearing alloys; role of the matrix and the hard particles, D. Tabor, *il* Engineer 186:117-19 J 30 '48
Fundamental considerations regarding friction, A. Mitinsky, *Metal Prog* 53:102 Ja '48
Graphite lubrication, R. H. Savage, *bibliog* *il* J Ap Phys 19:1-10 Ja '48
Instrument for measuring the coefficient of friction of yarns against other materials, H. Buckle and J. Pollitt, *il* diags Textile Inst J 39:T199-210 Je '48
Load capacity and friction of pivoted-shoe bearings; engineering data sheet, H. A. S. Howarth, *diags* Machine Design 20:151-4 J 1; 149-51 Ag '48
Measurement of friction between single fibers, J. Lindberg and N. Gralen, *bibliog* *il* diags Textile Res J 18:287-301, 470-4 My, Ag '48
Measurement of the frictional properties of wool fibers, D. Frishman and others, *bibliog* *il* Textile Res J 18:475-80 Ag '48
Pressure loss for liquid flow in pipes; viscosity and pipe roughness corrections, R. D. Madison and W. R. Elliot, *bibliog* Chem Eng Prog 44:703-6 S '48
See also
Skin friction
- FRICITION, Internal**
Anelastic properties of iron, T. Kê, *bibliog* *il* diags Metals Tech 15:TP2370 1-27 Je '48
Internal friction and precipitation from the solid solution of N in tantalum, T. Kê, *bibliog* Phys R 74:914-16 O 15 '48
Internal friction in the interstitial solid solutions of C and O in tantalum, T. Kê, *bibliog* *diag* Phys R 74:9-15 J 1 '48
Mechanical behavior of high damping metals, C. Zener, *bibliog* J Ap Phys 18:1022-5 N '47
Method for the absolute measurement of dynamic properties of linear structures at sonic frequencies, W. J. Lyons and I. E. Pretzman, *bibliog* *il* *diag* J Ap Phys 19: 473-80 My '48
Stress relaxation by interstitial atomic diffusion in tantalum, T. Kê, *bibliog* Phys R 74:16-20 J 1 '48
- FRICITION materials**
Powdered-metal friction material, F. J. Lowey, *diags* Mech Eng 70:869-75 N '48
- FRICITIONAL electricity.** *See* Electricity, Static
- FRIEDEL-CRAFTS reaction**
Acylation reactions with organosilicon compounds, R. A. Benkeser and R. E. Currie, *bibliog* Am Chem Soc J 70:1780-2 My '48
Chemical engineering unit processes, P. H. Groggins, *bibliog* (31 ref) Ind & Eng Chem 40:1603-10 S '48
Cross-linking of vinyl polymers by Friedel-Crafts catalysts, J. C. Bevington and R. G. W. Norrish, *Chem Soc J* p771-4 Je '48
Friedel-Crafts reaction of benzene and 3,4-dichlorohexane, K. Sisido and H. Nozaki, *Am Chem Soc J* 70:1288-9 Mr '48
Friedel-Crafts reaction on highly methoxylated compounds, H. R. Frank and D. S. Tarbell, *Am Chem Soc J* 70:1276-8 Mr '48
Friedel-Crafts reaction with 1-acyl-2:3-di-methylindoles, W. J. Gaudion, W. H. Hook and S. G. P. Plant, *Chem Soc J* p 1631-4 D '48
Friedel-Crafts synthesis of α -aroyl aliphatic acids, D. Papa, E. Schwenk and H. Hankin, *bibliog* Am Chem Soc J 69:3018-22 D '47
Halogenated ketones; the application of the Friedel-Crafts reaction to the preparation of halogenated aliphatic ketones, J. R. Catch and others, *Chem Soc J* p278-81 Mr '48
p-Methylthiobenzenesulphonyl chloride and related compounds, H. Burton and P. F. Hu, *Chem Soc J* p604-5 My '48
Organic reactions with aluminum chloride; the action of aluminum chloride upon ethylene chloride, K. Sisido and Y. Yosikawa, *bibliog* Am Chem Soc J 70:1608-9 Ap '48
Organic reactions with aluminum chloride; the cycli-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms, K. Sisido and H. Nozaki, *Am Chem Soc J* 70:1609-12 Ap '48
Preparation and properties of some substituted benzyl fluorides, J. Bernstein, J. S. Roth and W. T. Miller, jr, *bibliog* Am Chem Soc J 70:2310-14 J 1 '48
Preparation of some substituted β -phenylisovaleric acids, J. Corse and E. Rohrmann, *bibliog* Am Chem Soc J 70:370-1 Ja '48
Removal of aluminum chloride from Friedel-Crafts mixtures containing water-labile phosphorus halides, W. T. Dye, jr, *Am Chem Soc J* 70:2595-6 J 1 '48
Synthesis of some *p*-arylsulphonylbenzaldehydes and related aldehydes and ketones, H. Burton and P. F. Hu, *Chem Soc J* p601-3 My '48
Synthesis of toluene by the Friedel-Craft's reaction, D. V. N. Hardy, *Soc Chem Ind* J 67:81-2 Mr '48
- FRIENDSHIP train**
Pearson wins friends with Friendship train, H. M. Staunton, *Ed & Pub* 81:10 Ja 31 '48
- FRISCH, Karl von, 1886-**
Language of the bees; Austrian researcher has deciphered the ritual, A. Krogh, *Sci Am* 179:18-21 Ag '48
- FRITOS.** *See* Corn chips
- FRITS**
Improvements in the button tests for determination of frit fluidity, E. E. Marbaker, *il* Am Cer Soc J 30:354-62 D 1 '47
Standard method for determining leachability of lead from lead frits, A. E. Currier, *il* Am Cer Soc J 30:335-8 N 1 '47
- FRITZ, John, medal**
Dr T. von Karman awarded medal for '48, *Elec World* 129:162+ Mr 13 '48
- FROCHOT, Francoise**
Countess finds U.S. ads superior, J. L. Collings, *por* Ed & Pub 81:18 S 11 '48
- FROST**
See also
Roads—Frost damage
- FROST protection**
Infrared protects fruit buds from frost, *il* Elec World 128:94+ D 20 '47
- FROUDE, William, 1810-1879**
Original Froude hull models, H. P. Spratt, *por* Mech Eng 70:136 F '48
- FROZEN beef.** *See* Beef, Frozen
- FROZEN eggs.** *See* Eggs, Frozen
- FROZEN food.** *See* Food, Frozen
- FROZEN ground.** *See* Soils—Freezing
- FROZEN oysters.** *See* Oysters, Frozen

FUEL—Continued

- Changing patterns of fuel consumption. Survey of Cur Bsns 28:7-11+ J1 '48
- Fuels for today and tomorrow. M. W. Ball. Am Gas Assn Proc 1947:125-9; Same abr. Am Gas Assn Mo 29:540+ D '47
- How to heat a house; perfect fuel nowhere in sight. *il* diags Fortune 88:108-13, 145 S '48
- How to select fuel for plants and buildings. F. Meyer. *il* diags Heating-Piping 20:78-82 Je '48
- National fuels conference; joint conferences held by committees of the ASME and AIME, Cincinnati, Oct. 20-21. Power Generation 52:122+ Ja '48
- New fuel policy. G. E. Foxwell. Chem Age (Lond) 58:62-5 Ja 10 '48
- Reactivity of solid fuels to air and oxygen. A. A. Orning, S. Mallov and M. Neff. bibliog *il* diags Ind & Eng Chem 40:429-32 Mr '48
- Will synthetics replace natural fuels? F. X. Welch. Pub Util 42:499-504 O 7 '48

See also

- | | |
|--------------------------------|-------------------------------------|
| Airplane engines—
Fuel | Furnaces
Gas as fuel |
| Automobile engines
—Fuel | Gasoline
Heating |
| Automotive fuel | Internal combustion
engines—Fuel |
| Benzol (commercial
benzene) | Kerosene |
| Blast furnace gas | Lignite |
| Boilers—Firing | Liquid fuel |
| Briquetting (fuel) | Locomotives—Fuel |
| Coal | Oil fuel |
| Coal, Pulverized | Peat |
| Coke | Petroleum coke |
| Coke-oven gas | Power plants—Fuel |
| Combustion | Steel works—Fuel |
| Diesel engines—Fuel | Waste fuel |
| Fuel economy | Wood as fuel |
| Fuel supply | |

Cost

- Economic problems in the use of alternate fuels; Btu cost of fuel for melting and processing. F. G. Schwalbe. Glass Ind 29:137-40+ Mr '48; Same, Cer Ind 50:60-2 Mr; 76-7+ Ap '48; Same, Brick & Clay Rec 113:55-7 J1; 54-6 Ag '48
- Synthetic fuels; Chem. & Met. report. *il* diags Chem Eng 55:131-3 Je '48
- Technological problems in the use of alternate fuels in the glass industry. R. S. Arrandale. bibliog *il* diags Glass Ind 29:309-13, 382-6+, 440-3+ Je-Ag '48

Prices

- Fuel prices moving up. Bsns W p21 Je 12 '48

FUEL economizer explosions

- Economiser explosion at Brimsdown A power station. *il* diag Engineer 185:231-2 Mr 5 '48

FUEL economizers

- Corrosion of heating surfaces in boiler plants; further studies in deposit formation. J. R. Rylands and J. R. Jenkinson. Engineer 185:215-16; Discussion, 212-13 F 27 '48; Elec R (Lond) 142:359-60 Mr 5 '48

FUEL economy

- Check that heating system! Sheet Metal Worker 39:82+ F '48
- Coal saving and pass-out turbines. D. Brownlee. Pulp & Pa of Can 49:89 Ag '48
- Comparisons between gas and electricity on the basis of coal economy. P. Schiller. bibliog Inst E E J 94 pt 1:355-63 Ag '47; Discussion, 94 pt 1:364-70; 95 pt 1:434-54 Ag '47, O '48
- Eliminating fuel waste; some of the things which a service engineer finds being done wrong. H. D. Elfret and A. MacHarg. *il* Power Generation 52:82-4 Ja '48
- Fuel and power economy, with special reference to heat pumps. S. J. Davies and F. G. Watts. diags Engineering 166:235-7, 309-12 S 17-24 '48
- Fuel and steam economy. M. Berkley. *il* diags Pet Eng 19:221-2+ My '48
- Fuel economies in firing lime kilns. V. J. Azbe. diags Rock Prod 51:106-9 F; 94-7 My '48
- Fuel efficiency exhibition, Glasgow. Engineer 185:361 Ap 9 '48

- Fuel saving plan bucks oil shortage for Oil-O-Matic. W. A. Matheson. *il* Sales Management 60:108+ Je 15 '48

Fuel utilization; coal economy measures. Elec R (Lond) 141:730 N 14 '47

- Fuel utilization in iron and steel works. N. H. Turner and F. A. Gray. diags Iron & Steel Inst J 153:183-98 no 1 '46; Same abr. Blast F & Steel Pl 34:1408-12+ N '46; Discussion, Iron & Steel Inst J 153:199-216 no 1 '46

Here's how to save heating steam. W. B. Pride. *il* Heating-Piping 20:72-5 Ap; 75-9 My '48

- How to have fuel with controls, instruments. *il* diag Dom Eng 170:144-5+ N '47

How to save money on oil heating. *il* diags Sheet Metal Worker 39:55-6 J1; 69+ Ag '48

- How to sell your customers fuel conservation at a profit! R. H. Emerick. *il* Dom Eng 172:118-21+ S '48

National fuel plan. W. M. Carr. Gas J (Lond) 252:399-400 N 19 '47

- Oil industry's conservation tips. *il* diag Dom Eng 170:133 D '47

Oil-O-Matic survey finds leak in oil heating installations. *il* Sheet Metal Worker 39:92-4 F '48

- Planned use of heat saves fuel in salt plant; Diamond Crystal Salt in St Clair. F. W. McCarthy. flow diags *il* Food Ind 20:540-5+ Ap '48

Problems in fuel efficiency. C. Hulse and R. J. Sarjant. bibliog Iron & Steel Inst J 153:165-81; Discussion, 199-216 no 1 '46

- Recover waste heat from cupolas; Tex-Ark rock wool corp. B. Nordberg. *il* plan diags Rock Prod 51:88-94 J1 '48

Review of British experiments in domestic heating; review and extracts of three papers. C. Tasker. *il* plans Heat & Vent 45:78-82 Je '48

- Save fuel with better heat cycles. S. D. Fulton. flow diags *il* Power Generation 52:55-8+ Je '48

Slurry filters save coal; Peerless cement corp., Detroit. B. Nordberg. *il* plan diags Rock Prod 51:134-6+ Ag '48

- Stop building heat leaks to save fuel this winter. E. A. Tyler. Heating-Piping 19:90-1 N '47

U.S. fuel economy; report prepared by United States national committee for the World power conference. Mech Eng 69:326-7 N '47

- What gas undertakings can do to further the economy campaign. E. Crowther. Gas J (Lond) 252:350 N 12 '47

What's the best way to save fuel for heating? Heating-Piping 20:104-5 Mr '48**See also**

- Waste heat

FUEL oil. See Oil fuel**FUEL pumps. See Pumps, Fuel****FUEL research**

- Bureau of mines reports its progress in synthetic liquid fuels research. Pet Processing 3:207-8 Mr '48

Coal-to-oil plants loom closer; Gulf-Koppers agreement for joint research on coal gasification. *il* Pet Processing 3:739-41 Ag '48

- Definitions of heats of combustion of a fuel and current methods for their determination. E. F. Flock and others. bibliog diags A S M E Trans 70:811-18; Discussion, 823-9 O '48

Desperate Japs tried to make avgas even from pine tree roots, needles. D. E. Thornton, Jr. *il* Pet Processing 2:315-20 N '47

- Electric power situation in the United States; energy revolution on the verge? *il* diags Power Generation 52:64-5 Ja '48

Low-temperature carbonization of coal produced most of Japs' synthetic oil. C. S. Goddin and D. P. Thornton, Jr. *il* Pet Processing 3:121-2+ F '48

- Synthetic fuel laboratories dedicated; Bruce laboratories of Bureau of mines. Chem & Eng N 26:1699 Je 7 '48

Synthetic fuels; government puts up \$30-million more for research. Bsns W p73-4 Mr 27 '48**FUEL supply**

- Cold empties factories; diversion of natural gas to home heating; oil shortage raises coal men's hopes. *il* Bsns W p22-3 F 7 '48

FUEL supply—Continued

- Fuel prospects aired at Interstate oil compact commission meeting. Pub Util 42:427 S 23 '48
- Fuels of the future; changes in mineral fuels supply indicate expansion of natural gas industry during next decade. L. F. Terry. Am Gas Assn Mo 30:13-16 Ap '48
- How much oil for Diesels? Bsns W p23 O 2 '48
- Looking ahead in fuels supply. R. A. Sherman. bibliog Am Gas Assn Proc 1947:441-6
- More fuel this winter. Bsns W p22-3 Ag 14 '48
- Nuclear energy and our vanishing fuel resources. A. W. Kramer. Power Generation 52:62-3+ J1 '48
- World energy and world peace. R. T. Haslam. Il Tech R 50:493-6+ J1 '48
- See also
- Coal supply
- Petroleum supply

Europe

- Fuel in west Europe during and after the second World war. J. H. Steinkamp. Gas Age 102:22-3+ J1 22 '48
- Petroleum in European recovery program. M. W. Ball. Am Assn Pet Geologists Bul 32: 1221-6 J1 '48

Great Britain

- Utilisation of peat. Engineering 166:14 J1 2 '48

Middle western states

- Fuel development in the Midwest. G. Egloff. Il Chem Eng 55:142-4 S '48

Sweden

- Coal replacing liquid fuel. For Comm W 32: 26 S 18 '48

United States

- Power, fuel outlook fair. Il Steel 123:65-6 S 20 '48

Western states

- Fuel and energy outlook in the West. M. E. Dice. Pet Eng 19:123+ F '48

FUGACITY

- Fugacities in gas mixtures. J. Joffe. bibliog Ind & Eng Chem 40:1738-41 S '48
- Fugacity determinations of the products of detonation. M. A. Cook. bibliog J Chem Phys 16:1081-6 N '48

FUGGER, Anton, 1493-1560

- Masters of money; the Fuggers. por Fortune 37:92 Ap '48

FUGGER, Jakob, 1459-1526

- Masters of money; the Fuggers. por Fortune 37:92 Ap '48

FULBRIGHT law. See Scholarships and fellowships, International

- FULLER, Walter Deane, 1882-
Portrait. Bsns W p21 N 1 '47

FULLER brush company

- Fuller's sideline; brush company adds cosmetics. Bsns W p62 J1 10 '48

FULLER houses, inc.

- What became of the Fuller house. Il Fortune 37:168 My '48

FULLMER research institute

- Fullmer institute, a counterpart of Mellon. Il Chem & Eng N 26:2120-1 J1 19 '48

Sponsored research in Britain. T. Bishop.

- Metal Prog 52:831-2 N '47

FUMARASES

- Kinetics of the fumarase system. E. M. Scott and R. Powell. bibliog Am Chem Soc J 70:1104-7 Mr '48

FUMARIC acid

- Reaction of anthracene with maleic and fumaric acid and their derivatives and with citraconic anhydride and mesaconic acid. W. E. Bachmann and I. B. Scott. bibliog Am Chem Soc J 70:1458-61 Ap '48

Reaction of 1-vinylnaphthalene and 6-methoxy-1-vinylnaphthalene with citraconic anhydride, fumaric acid and mesaconic acid. W. E. Bachmann and L. B. Scott. bibliog Am Chem Soc J 70:1462-8 Ap '48**Analysis**

- Fumarate content of certain tissues of the rat as determined by partition chromatography. L. M. Marshall and others. Science 108:92 J1 23 '48

FUMES

- Design of exhaust systems; handling corrosion fumes and gases. F. H. Stebbins. diags Sheet Metal Worker 39:55-6+ My '48
- Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. Il diag J Ind Hygiene 30:145-59 My '48
- Identification of free silica in dusts and fumes. W. H. Gitzel. Il Anal Chem 20: 265-7 Mr '48
- Manifold for disposal of fumes given off during macro-Kjeldahl digestive process. E. H. Tyner. diag Anal Chem 20:273 Mr '48
- Openhearth fume control; Venturi scrubbing unit. E. S. Kopecki. Il diags Iron Age 162: 78-80 S 9 '48
- Recognition and control of fume and dust exposure. V. J. Castrop. Il Nat Safety N 57:20-1+ F '48
- Sixteen ways to exhaust welding fumes. M. E. Ringquist. Il diags Heat & Ven 45:69-77 My '48

FUMIGANTS

- Some effects of fumigants upon food; abstract and discussion. A. B. P. Page and O. F. Lubatti. Chem & Ind p 170 Mr 13 '48
- Sorption of fumigant vapors by soil. I. Fuhr and others. bibliog Science 107:274-5 Mr 12 '48

FUNCTIONS

- Mathematics for engineers; fitting functions to engineering data. E. G. Olds and F. S. Acton. diags Elec Eng 67:988-93 O '48

FUNCTIONS, Bessel's. See Bessel's functions**FUNCTIONS, Elliptic**

- Smithsonian elliptic functions tables. G. W. Spenceley and R. M. Spenceley. (Misc Coll v 109) 366p Smithsonian inst, Washington, D.C. '47

FUNCTIONS, Exponential

- Geometry of the hyperbolic functions. G. W. Stubbings. diags Electrician 141:1215-16 O 22 '48

- Rigorous and approximate treatment of long line transmission problems by hyperbolic functions. S. Gerszonowicz. diags Franklin Inst J 245:53-66 Ja '48

FUNCTIONS, Hyperbolic. See Functions, Exponential**FUNCTIONS, Legendre's. See Legendre's functions****FUNERAL directors. See Undertakers****FUNGI**

- Essentiality of calcium in the nutrition of fungi. R. A. Steinberg. Science 107:423 Ap 23 '48

- Fungal decomposition of jute fibre and cellulose. S. N. Basu. bibliog Textile Inst J 39:7232-48 J1 '48

- Fungistatic properties of *p*-aminobenzoic acid and related compounds; growth curves obtained with *aspergillus niger*, *penicillium roqueforti* and *byssochlamys fulva*. G. W. K. Cavill and J. M. Vincent. bibliog diags Soc Chem Ind J 67:25-33 Ja '48

- Method for the determination of the resistance of paper and paperboard to penetration by fungi. B. F. Shema. Il Paper Ind 29:1831-2 Mr '48

- Protection of textiles from microbial attacks. A. Minich. Il Rayon 28:610-11, 661-2 N-D '48

See also

- | | |
|------------------|----------------|
| Histoplasma cap- | Molds (botany) |
| sulatum | Neurospora |
| Mildew | Ringworm |

FUNGI, Pathogenic

- Histoplasmosis; the unknown infection. M. Gumpert. Il Sci Am 178:12-15 Je '48

- Isolation of pathogenic fungi from experimentally inoculated guinea pigs. A. Howell, jr. bibliog Pub Health Rep 63:602-16 My 7 '48

- Studies of fungus antigens; preliminary report on the isolation of an immunologically active polysaccharide from histoplasmin. F. W. Cross and A. Howell, jr. bibliog Pub Health Rep 63:179-83 F 6 '48

- Studies of fungus antigens; sensitization of normal animals with skin test antigens. A. Howell, jr. bibliog Pub Health Rep 63:595-601 My 7 '48

- Testing of fungicidal materials against pathogenic fungi. L. C. Barail. Am Dyestuff Rep 37:257-8+ Ap 19 '48

FUNGICIDES

- Chemicals used in western agriculture; abstract. R. J. Hansberry. *Chem Ind* 61: 803-4 N '47
- Development of new insecticides and fungicides; relation of chemical research laboratories. M. D. Farrar. *Ind & Eng Chem* 40: 680-1 Ap '48
- Fungicide for cork; salicylanilide. C. D. Cook and R. Harrington. *Product Eng* 19: 107 Je '48
- Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. *Ind & Eng Chem* 40:262-7 F '48
- Fungicides in food production. J. G. Horsfall. *bibliog Ind & Eng Chem* 40:681-2 Ap '48
- Mildew preventives. M. A. Lesser. *bibliog*(40 ref) *il map Soap & San Chem* 23:119-21+ N '47
- Mildewproofing compounds. *Soap & San Chem* 24:171 Ap '48
- Mildewproofing compounds; new chemicals, new knowledge can curb fungus ravages. S. S. Block. *il map Chem Ind* 62:226-31 F '48
- Progress in drugs and fine chemicals; widening studies of fungistatic substances. G. C. Green. *Chem Age (Lond)* 58:236-7 F 14 '48
- Protection of textiles from microbial attacks. A. Minich, *il Rayon* 28:610-11, 661-2 N-D '47
- Sterilisation by liquid aerosols; distinctive advantages over wet sprays. A. E. Williams. *Chem Age (Lond)* 58:875-6 Je 26 '48
- Synthetic chemicals for agriculture. R. H. Wellman. *il Chem Ind* 63:223-6 Ag '48
- Toxicological studies on laboratory animals of certain alkylidinitrophenols used in agriculture. H. C. Spencer and others. *bibliog J Ind Hygiene* 30:10-25 Ja '48
- Treatment for prevention of decay in stacked straw. B. F. Stahl and H. L. Smith. *Paper Tr J* 125:52-4 D 11 '47
- Trends in horticultural chemistry; functional studies of copper and chlorine. *Chem Age (Lond)* 59:314 S 4 '48
- Turf fungicide. *Chem Ind* 62:772 My '48

Testing

- Copper 8-quinolinolate industrial preservative. P. G. Benignus. *bibliog Ind & Eng Chem* 40:1426-9 Ag '48
- Testing of fungicidal materials against pathogenic fungi. L. C. Barail. *Am Dyestuff Rep* 37:257-8+ Ap 19 '48

FUR

- New dimension in textiles; fur in fabric. F. Schachter. *il Textile Col* 70:33+ F '48
- Obsolescing furs. *Bsns W* p78-80 S 4 '48

FUR storage

- Sprinkler protection of fur vaults approved; results of tests. *East Underw* 49:31 F 20 '48; *Same. Safety Eng* 95:20 Mr '48

FUR trade

- See also*
Hudson's Bay company

Bibliography

- Tentative bibliography for the colonial fur trade in the American colonies: 1608-1800. J. P. Donnelly. *St Louis Univ Studies Monograph Ser, Social Sciences* no 2:1-48 '47 (pa \$1.50)

Canada

- Foreign trade in furs; with data on exports and imports, 1946-1947. *For Comm W* 31: 21 My 8 '48

China

- Fur exports from Tientsin, China, 1947. *For Comm W* 31:21 My 8 '48

Finland

- Finland's production and foreign trade in furs and skins during 1947. *For Comm W* 31:30 Je 19 '48

Great Britain

- Fur finance; balance of trade in furs. *Economist* 154:1035-6 Je 19 '48
- Fur trade blunders. *Economist* 154:649-50 Ap 17 '48

Norway

- Low prices affect Norway's fur industry. *For Comm W* 31:21 My 8 '48

FURAN

- Acylation of thiophene and furan by means of boron trifluoride. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 70: 867 F '48
- Acylation studies in the thiophene and furan series; direct acylation with carboxylic acids and phosphorus pentoxide. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3098-9 D '47
- Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3093-6 D '47
- Antihistamine agents; furan derivatives. J. R. Vaughan, Jr. and G. W. Anderson. *bibliog Am Chem Soc J* 70:2807-8 JI '48
- Catalytic hydrogenation of furan compounds. B. H. Wojcik. *bibliog Ind & Eng Chem* 40:210-16 F '48
- Conversion of sucrose into furan compounds; some aminotetrahydrofuran derivatives. F. H. Newth and L. F. Wiggins. *Chem Soc J p* 155-8 F '48
- Furan chemistry; symposium. *bibliog flow sheets il diags Ind & Eng Chem* 40:200-38 F '48
- Furan resins. A. J. Norton. *il Ind & Eng Chem* 40:236-8 F '48
- 2-Hydroxyacetyl furan. F. Kipnis, H. Soloway and J. Ornfeldt. *Am Chem Soc J* 70: 142-3 Ja '48
- Preparation of succinaldehyde and its derivatives from furan. J. Fakstorp and others. *Science* 108:302 S 17 '48
- Progress in drugs and fine chemicals; antibacterial uses of furane compounds. G. C. Green. *Chem Age (Lond)* 58:269-70 F 21 '48
- Reaction of 2,5-dimethylfuran with *p*-nitrobenzenediazonium chloride. R. H. Eastman and N. L. Detert. *bibliog Am Chem Soc J* 70:962-4 Mr '48
- Reaction of furan with maleic anhydride. R. B. Woodward and H. Baer. *Am Chem Soc J* 70:1161-6 Mr '48
- Reactions of furan compounds; catalytic reduction of methylfuran to 2-pentanone. C. L. Wilson. *Am Chem Soc J* 70:1313-15 Ap '48
- Reactions of furan compounds; catalyzed rearrangement of 2,3-dihydrofuran into cyclopentanone. C. L. Wilson. *bibliog Am Chem Soc J* 70:1311-13 Ap '48
- Reactions of furan compounds; dehydration of tetrahydrofurfuryl alcohol to 2,3-dihydrofuran and subsequent formation of acrolein and ethylene. C. L. Wilson. *bibliog Am Chem Soc J* 69:3004-6 D '47
- Reactions of furan compounds; thermal interconversion of 2,3-dihydrofuran and cyclopropane aldehyde. C. L. Wilson. *bibliog Am Chem Soc J* 69:3002-4 D '47
- Studies on furan compounds; conversion of 2-acetofuran to hexen-2-dion-4,5-acetal-1 and pyrocatechol. L. Vargha, J. Ramonczai and F. Bite. *bibliog Am Chem Soc J* 70: 371-4 Ja '48
- Synthesis of substituted furans. G. F. Wright and H. Gilman. *bibliog*(48 ref) *Ind & Eng Chem* 40:1517-22 Ag '48
- FURANO compounds**
Furano-compounds; a synthesis of karanjic acid. R. T. Foster and A. Robertson. *Chem Soc J p* 115-16 F '48
- FURCOGENIN**
Steroidal sapogenins; kappogenin and furcogenin. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2380-3 O '47
- FURFURAL**
Biography of a commercial chemical. L. B. Hitchcock. *Chem & Eng N* 26:1770-3 Je 14 '48
- Catalytic hydrogenation of furan compounds. B. H. Wojcik. *bibliog Ind & Eng Chem* 40:210-16 F '48
- Chemical interactions of amino compounds and sugars; the conversion of D-glucose to 5-(hydroxymethyl)-2-furaldehyde. M. L. Wolfson, R. D. Schuetz and L. F. Cavalieri. *bibliog Am Chem Soc J* 70:514-17 F '48

FURFURAL—Continued

- Chemical intermediates from furfural. O. W. Cass. *diag Ind & Eng Chem* 40:216-19 F '48
- Distillation calculations in ideal and non-ideal systems. R. B. Smith and T. Dresser. *bibliog Chem Eng Prog* 44:789-94 O '48
- Furans in vegetable oil refining. S. W. Gloyer. *bibliog flow sheet il diag Ind & Eng Chem* 40:228-36 F '48
- Furfural as a selective solvent in petroleum refining. L. C. Kemp, Jr., G. B. Hamilton and H. H. Gross. *bibliog flow diag il Ind & Eng Chem* 40:220-7 F '48
- Furfural formation and behavior. A. P. Dunlop. *bibliog Ind & Eng Chem* 40:204-9 F '48
- Furfural in phenol resin laminates; abstracts. H. Kline. *Mod Plastics* 25:101-2 D '47; *Paper Ind* 30:775-6+ Ag '48
- Furfural treating; refining lubricating oils and Diesel fuel oils. *flow diag Oil & Gas J* 46:153 Ap 1 '48
- Historical interest; abstract. L. B. Hitchcock. *Chem Eng* 55:278+ My '48
- Hydrogenation products of furfural. R. Paul. *Chem Age (Lond)* 57:794-7 D 20 '47
- Industrial development of furfural. H. J. Brownlee and C. S. Miner. *bibliog il Ind & Eng Chem* 40:201-4 F '48
- Industrial development of furfural. L. B. Hitchcock. *bibliog il Can Chem & Process Ind* 32:718-24 Ag '48
- Kinetics of furfural destruction in acidic aqueous media. D. L. Williams and A. P. Dunlop. *Ind & Eng Chem* 40:239-41 F '48
- Market development of furfural; abstract. L. B. Hitchcock. *Chem Eng* 55:304+ O '48
- Production of 2-methylfuran by vapor-phase hydrogenation of furfural. L. W. Burnette and others. *bibliog diag Ind & Eng Chem* 40:502-5 Mr '48
- Quaker Oats nurses a stepchild product to volume and profits. L. B. Hitchcock. *il Sales Management* 60:37-9 Ja 1 '48
- Selective extraction of vegetable oils with furfural; drying oils from soybeans. R. L. Kenyon, S. W. Gloyer and C. C. Georgian. *bibliog (52 ref) il diag Ind & Eng Chem* 40:1162-70 Jl '48

Analysis

- Colorimetric determination of certain alpha, beta-unsaturated aldehydes. R. B. Wearn and others. *bibliog Anal Chem* 20:922-4 O '48

Manufacture

- Commercial production of furfural in its twenty-fifth year. L. B. Hitchcock and H. R. Duffey. *bibliog flow sheet il Chem Eng Prog* 44:669-74 S '48
- FURMAN, Nathaniel Howell, 1892-**
First recipient of the Fisher award in analytical chemistry, por(cover) *Chem & Eng N* 26:2492 Ag 23 '48

FURNACE industry and trade**Advertising**

- Blowing hot and cold on furnace advertising. *il Ind Marketing* 33:91-2+ My '48

FURNACES

- Combustion and efficiency. H. D. Wiant. *Pet Processing* 3:951-2 O '48
- Comparison of systems for controlling gas-fired furnace process temperature. H. E. McClatchey. *diag Pet Processing* 3:878-80 S '48
- Fixation of atmospheric nitrogen in a gas heated furnace. N. Gilbert and F. Daniels. *bibliog il diag Ind & Eng Chem* 40:1719-23 S '48
- Furnaces save propeller costs. J. D. Waugh. *il diag Automotive Ind* 98:40-2+ My 15 '48
- Gas cyaniding small parts. H. N. Ipsen. *il diag Iron Age* 161:84-7 My 27 '48
- New batch-type gas cyaniding furnace. J. A. Dow. *il Metal Prog* 52:984-7 D '47
- Practice of theory vs theory of practice; furnace and boiler enclosures and settings. G. P. Reintjes. *il diag Power Generation* 52:84+, 135-6 Je '48

- Rupture testing a 48-bar furnace. J. D. Nisbet. *il diag Iron Age* 161:81-2 F 12 '48

See also

- | | |
|-------------------|----------------------|
| Blast furnaces | Kilns |
| Cement kilns | Lime kilns |
| Coke ovens | Oil burners |
| Cupola furnaces | Open hearth furnaces |
| Electric furnaces | Refractory materials |
| Glass furnaces | Refuse incinerators |
| Glass tanks | |

Atmosphere control

- Heat processing easily oxidized metals; hydrogen atmosphere for brazing, bright annealing and sintering. F. C. Kelley. *il diag Iron Age* 161:84-9 My 20 '48

FURNACES, Annealing

- Bright annealing cleans thoroughly in less space; abstracts. A. R. Mallonn. *Cer Ind* 49:65+ O '47; *Iron Age* 160:91 N 6 '47
- Bright annealing furnace for cleaning holloware. *il Cer Ind* 49:62 D '47
- British annealing furnace heat treats 45-ton plates. *il Steel* 122:104+ Ap 12 '48
- Conveyor furnace anneals bimetal strips. C. F. Alban. *il Am Mach* 92:108-10 S 23 '48
- Oven for annealing aluminum coil and sheet. *il Materials & Methods* 28:104 Jl '48
- Portable cover sheet annealing furnaces. L. G. A. Leonard. *il diag Metallurgia* 38:43-6 My '48

Atmosphere control

- Annealing of cast iron in hydrogen. J. Bernstein. *bibliog 2pls diag Iron & Steel Inst J* 159:11-15 My '48
- Atmospheres and controlled atmosphere furnaces for nonferrous metals. W. Lehrer. *il Metal Prog* 53:393-402 Mr '48
- Continuous annealing nonferrous strip. E. S. Kopecki. *il diag Iron Age* 161:46-50 Ja 8 '48
- Controlled atmosphere cycle annealing; Axle division of Eaton mfg. co. T. A. Frischman. *il Iron Age* 162:72-7 S 9 '48
- Various types of atmospheres applied to annealing of steels; abstract. C. E. Peck. *Steel* 122:119-20 My 10 '48

FURNACES, Boiler

- Air-cooled wall beats solid wall at Atlas brewing company. N. O. Kennicker. *il diag Power Generation* 52:72-3 Jl '48
- Determining furnace heat transfer by gas temperature measurement. H. F. Mullikin. *bibliog diag Power Generation* 52:68-71+ Ag '48
- Furnaces for by-product fuels. O. de Lorenzi. *il diag A S M E Trans* 70:351-8 My '48; *Excerpts. Power* 92:53 Ja '48; *Pet Processing* 3:140-1 F '48; *Discussion. A S M E Trans* 70:358-62 My '48
- Maintenance and repair of steam boilers and boiler furnaces. J. F. Shanley and G. R. Hull. *il diag Oil & Gas J* 46:200-1+ Ap 1 '48

Specifications

- Make your furnace-design specifications work for you. N. J. Connors. *Power* 92:300-2 My '48

Testing

- Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace. L. B. Schueler and others. *bibliog il plans diag A S M E Trans* 70:553-614; *Discussion. plans* 615-19 Jl '48

FURNACES, Carburizing

- Atmospheres for clean hardening and carburizing. F. E. Harris. *il Metal Prog* 54:337-43 S '48

FURNACES, Cupola. See Cupola furnaces**FURNACES, Enameling**

- How to prevent porcelain furnace troubles; abstract. E. W. Dany. *Cer Ind* 49:73 N '47
- Modern instrumentation for measuring temperature radiance in continuous porcelain enameling furnaces; abstract. M. J. Bozsin and C. A. Vana. *Cer Ind* 50:77+ My '48
- Production capacities of porcelain enameling furnaces. *Cer Ind* 51:62 Ag '48
- See also*
Electric furnaces,
Enameling

FURNACES, Forging

- Construction of cable tool bit forges. F. J. Spang. diags Pat Eng 19:55-6+ Ag '48
 Fundamentals of forging practice. W. Naujoks. *il* Steel 123:94-7 Ag 16 '48
 Rapid billet heating with gas. L. J. Stanbery and J. M. Brennan. *il* diag Iron Age 162:82-5 Ag 26 '48
 Special furnaces developed for producing hollow steel propellers. R. M. Hortvet. *il* diags Iron Age 162:72-9 S 16 '48

FURNACES, Foundry

- Melting furnaces in German steel foundries. H. Stein and K. Roesch. Metallurgia 38:85-9 Je '48
 Modern gas furnaces in gun factory. *il* Am Gas J 167:32 D '47
See also
 Cupola furnaces
 Electric furnaces
 Foundry

FURNACES, Heat treating

- Controlled vacuum heat treating: results of American gas association experiments. *il* Steel 121:80-3+ N 24 '47
 Dual-tempering treatment; continuous draw furnace constructed by Holcroft & co. *il* Steel 122:104 F 16 '48
 Furnaces and fuels for heat processing metals. F. E. Harris. *il* diags Steel 122:90-4 My 10 '48; Same. Metal Prog 53:817-22 Je '48
 Some recent heat-treatment furnace installations. *il* Metallurgia 38:50-7 My '48
 Special furnaces developed for producing hollow steel propellers. R. M. Hortvet. *il* diags Iron Age 162:72-9 S 16 '48
 35th annual review; welding and heat-treating. *il* Am Mach 92:254-7 Ja 29 '48
 Vertical furnaces reduce labor costs 20 per cent in treating high-speed steel broaches. W. L. Gibbons. *il* Materials & Methods 28:77-9 S '48

Atmosphere control

- Advantages and applications of carbon restoration. O. E. Cullen. *il* Steel 121:94-5+ N 17 '47
 Atmosphere for heat treatment without decarburization; abstract. R. A. P. Misra. Materials & Methods 27:109 Ja '48
 Atmospheres for the heat treatment of steel. F. E. Harris. *il* Metal Prog 54:175-9, 337-43 Ag-S '48
 Control of carbon content during heat treatment of steel in atmosphere furnaces. W. H. Holcroft and E. C. Bayer. Materials & Methods 28:59-61 Ag '48
 Heating methods for controlled atmosphere furnaces. W. H. Holcroft and M. R. Larson. *il* Steel 122:100-3 Ap 26 '48
 New lithium atmosphere furnace provides close control. *il* Materials & Methods 27:124 F '48
 Pit type furnace with lithium atmosphere. *il* Materials & Methods 28:110+ JI '48

FURNACES, Heating

- Design and performance of a refractory recuperator for soaking pits and slab reheating furnaces. E. G. Smith. *il* diags Iron & Steel Eng 25:106-12 Ap '48
 Evolution and absorption of hydrogen by steel in industrial reheating furnaces. J. Cameron. biblog Iron & Steel Inst J 157:609-15 D '47; Discussion. 159:71-2 My '48
 Furnaces and fuels for heat processing metals. F. E. Harris. *il* diags Steel 122:90-4 My 10 '48; Same. Metal Prog 53:817-22 Je '48
 Heat transfer in a recirculating furnace. M. J. Sinnott and C. A. Siebert. biblog diags Ind & Eng Chem 40:1039-44 Je '48
 Here's a way to preheat castings; build a temporary firebrick. F. C. Geibig. diags Welding J 27:591-2 Ag '48
 Maintenance of hearths in heating furnaces and soaking pits; abstract. C. N. Jewart. Iron Age 162:104 O 7 '48
 New slab heating furnace at Irvin works. *il* Iron Age 162:118-20 N 4 '48
 Radiative and convective heat transfer rates pertaining to heating processes; a theoretical comparison. J. Huebner. Ind & Eng Chem 40:1094-8 Je '48
 Rotary hearth furnaces find many uses in heating steel. R. E. Buckholdt. *il* Blast F & Steel Pl 36:397-41 Ag '48

- Soaking pits, submitted by Society of furnace builders. *il* diags Iron & Steel Inst J 158:125-37 Ja '48; Discussion. 159:415-24 Ag '48
 Some experiences with soaking pits. H. V. Flagg. *il* Iron & Steel Eng 25:59-63 O '48; Abstract. Steel 121:110+ O 13 '47; Discussion. Iron & Steel Eng 25:64-6 O '48
 Steel temperature measurement and control of billet heating furnaces; abstract. F. S. Bloom. Iron Age 162:103-4 O 7 '48

FURNACES, Heating (warm air). See Furnaces, Warm air**FURNACES, Iron founding**

- Melting iron in gas-fired crucibles. *il* diags Iron Age 161:91-3 Ap 29 '48
 Valve manufacturer expands foundry; Homestead valve co. J. C. Sullivan. *il* Foundry 76:208-10+ Ap '48
See also
 Cupola furnaces

FURNACES, Metallurgical

- Production of sponge iron; gaseous reduction of iron oxideglomerules in a shaft furnace. E. P. Barrett and C. E. Wood. 6pls U S Bur Mines Rep of Invest 4305:1-10 '48
 Vacuum metallurgy. R. A. Stauffer. biblog (54 ref) *il* Chem & Ind sup 19:26 O 9 '48
See also
 Blast furnaces
 Cupola furnaces
 Furnaces, Reverberatory
 Open hearth furnaces

Control

- Furnace pressure control in relation to performance. C. H. Stone. *il* Metallurgia 38:161-4 JI '48

FURNACES, Non-ferrous melting

- Aluminum alloy castings. F. A. Lewis. *il* Foundry 76:90-3+ Mr '48
See also
 Electric furnaces
 Non-ferrous melting

FURNACES, Open hearth. See Open hearth furnaces**FURNACES, Recuperative and regenerative**

- Design and performance of a refractory recuperator for soaking pits and slab reheating furnaces. E. G. Smith. *il* diags Iron & Steel Eng 25:106-12 Ap '48

FURNACES, Reverberatory

- Reverberatory melting of zinc base diecasting alloys. R. L. Wilcox. *il* diags Iron Age 161:80-2 Je 10 '48

FURNACES, Steel making

- Heat-flow meter for use in furnaces. R. H. Baulk and M. W. Thring. biblog diags Iron & Steel Inst J 153:41-66, pl 1 no 1 '48
 Mass-production methods applied to the manufacture of cast-steel bomb bodies. P. H. Wilson. *il* diags Engineering 164:501-3 N 21 '47
 Melting furnaces in German steel foundries. H. Stein and K. Roesch. Metallurgia 38:85-9 Je '48
 Novel design for British steel melting furnaces. I. Cox. Blast F & Steel Pl 36:561 My '48
See also
 Electric furnaces
 Steel making
 Furnaces, Heating
 Open hearth furnaces

Lining

- Pneumatic gun speeds furnace repair. *il* Comp Air Mag 53:70 Mr '48

FURNACES, Warm air

- Heating with floor furnaces. J. L. Shank. *il* map plan Am Bld 69:95-9+ D '47
 Illinois smokeless furnace. J. R. Fellows and others. *il* diags Ill U Eng Exp Sta Bul 370:1-78 '47 (75c)
 Installing the gas floor furnace. J. D. Eckles. map plan diags Gas Age 100:27-30+ D 11 '47
 Short cycling causes heating difficulties; oil fired warm air heating plant and an oil fired hot water heating plant. S. Lewis. Heating-Piping 20:100-1 Mr '48
 Stop that fire; reason for merchandising heating controls. *il* diag Dom Eng 171:102-3+ Je '48
 Summer furnace cleaning and conditioning. Dom Eng 171:148-50 Je '48

FURNACES, Warm air—Continued

Warm air furnaces responsible for half of U.S. house heating. Heat & Ven 45:108+ S '48

FURNESS, Withy and company

Statement by the chairman at annual general meeting. E. H. Murrant, Economist 153:940 D 6 '47

FURNITURE

Furniture; handicrafts in a machine age. *il* Arch Forum 89:156+ Ag '48

See also
Office furniture

Manufacture

Continuous-flow finishing in multi-story building; Willett furniture. F. M. Brandon. *il* plan Factory Management 106:102-5 Je '48

Furniture makers mechanize to beat costs. *il* Bsns W p34+ Je 26 '48

FURNITURE, Built-in

Better detail plate; built-ins, a feature of dual bath and dressing room. R. J. Alexander. plans diags Am Bld 70:114-15 Mr '48

Better detail plate; built-in's, feature of the modern living room. R. J. Alexander. diags Am Bld 70:140-1 F '48

FURNITURE, Metallic

Feasts, wine, and furniture; Salterini co. wrought-iron furniture. Fortune 37:124+ Je '48

Integrated cleaning and rust proofing; metal outdoor furniture; Noblitt-Sparks Industries, inc. *il* Steel 122:90-2 Ap 12 '48

FURNITURE, Outdoor

Integrated cleaning and rust proofing; metal outdoor furniture; Noblitt-Sparks Industries, inc. *il* Steel 122:90-2 Ap 12 '48

FURNITURE, Plastic

British plastic furniture. *il* Mod Plastics 25: 188-9 Ap '48

FURNITURE factories**Employees**

Wood and upholstered furniture; earnings in Sept. 1947. Mo Labor R 66:399-401 Ap '48

Equipment

Flexible conveyor ups production four-fold; Charles manufacturing co., Minneapolis. F. A. Westbrook. *il* Mill & Factory 43:112-13 O '48

Handling reduced 50 per cent in revamped furniture plant. W. Rudolph. *il* Mill & Factory 43:127-9 J '48

Layout

Continuous-flow finishing in multi-story building; Willett furniture. F. M. Brandon. *il* plan Factory Management 106:102-5 Je '48

Factory layout and equipment for the mass production of molded plywood furniture; abstract. E. S. Johnson. plans Mech Eng 70:634-5 J '48

Power

Power plant improvement at Stanley furniture company. D. L. Gusler. *il* plans diags Power Generation 52:52-5+ Ap '48

FURNITURE industry and trade

Furniture makers mechanize to beat costs. *il* Bsns W p34+ Je 26 '48

Furniture sales up. Bsns W p20-1 JI 31 '48
Here's a house magazine dealers really read! house organ in furniture field, *Seng book*. *il* Am Bsns 18:34+ My '48

More medium-priced goods. *il* Bsns W p81-2 JI 17 '48

Revamping a homey chain; A. G. Rhodes & son, Atlanta. Bsns W p50-1 My 15 '48

Vendor delivery coming? demands from big retailers that manufacturers handle warehousing and delivery to user. Bsns W p54+ O 16 '48

See also
Berkey and Gay
furniture company

Advertising

Our customers gave us our new copy theme; Drexel furniture co. interviews E. R. Tuxford. *il* Ptr Ink 225:26-7+ O 22 '48

Exhibitions

Quality furniture in demand; Grand Rapids show. *il* Bsns W p34-6 Ja 17 '48
Trend to modern continues; exhibits at semi-annual Chicago furniture market. *il* Bsns W p28+ Ja 17 '48

FURNITURE stores

Boosting home-furnishing sale; Barker bros., of Los Angeles. *il* Bsns W p50+ Mr 27 '48

Flexible and lightweight. Deskey's modular screening system is first step in Boston renovation job for John H. Pray & sons co. *il* diags Arch Forum 87:106-7 D '47
New designs; shop for modern furniture and accessories. *il* plans diag Arch Forum 89: 104-6 JI '48

Store that speaks for itself; House of modern chairs in Detroit. *il* plans Am Bld 70:100-1 Mr '48

Suburban furniture store, Long Beach, Calif. *il* plan Arch Forum 88:142 My '48

FURIOIC acid

C-alkylation and O-alkylation in the synthesis of substituted furic acids. C. D. Hurd and K. Wilkinson. bibliog Am Chem Soc J 70:739-41 F '48

FURRIERS' customers insurance. See Insurance, Furriers' customers

FURYL methyl ketone

Studies on furan compounds; conversion of 2-acetofuran to hexen-2-dion-4,5-acetal-1 and pyrocatechol. L. Vargha, J. Ramonczai and P. Bite. bibliog Am Chem Soc J 70: 371-4 Ja '48

FURYLTRIMETHYLSILANE

Acylation reactions with organosilicon compounds. R. A. Benkeser and R. B. Currie. bibliog Am Chem Soc J 70:1780-2 My '48

FUSAIN. See Coal—Chemistry**FUSED salts. See Salts, Fused****FUSED silica. See Silica, Fused****FUSES**

Estimating precision of measuring instruments and product variability; measuring burning time of powder train fuses. F. E. Grubbs. Am Stat Assn J 43:243-64 Je '48

Radio proximity fuse in fire fighting. Franklin Inst J 245:341-2 Ap '48

FUSES, Electric. See Electric fuses

FUSIBLE plugs

How should he install this fusible plug? Power Generation 52:83 S '48

FUSION, Heat of

Enthalpy, entropy and specific heat of liquid *p*-xylene from 0 to 300°; the heat of fusion. R. J. Corruccini and D. C. Ginnings. bibliog Am Chem Soc J 69:2291-4 O '47

FUTURES

Board of trade anniversary; Chicago grain exchange hopes to convince public, speculation is a necessary function. Bsns W p90+ Ap 3 '48

Commodity price drop shows value of futures market and speculation. Comm & Fin Chr 167:835 F 19 '48

See also

Hedging

G**GADGETS**

Gadgets gain attention for direct mail, but sometimes they backfire; five errors. E. N. Mayer, Jr. *il* Ptr Ink 222:34-5 Ja 9 '48

GADOLINIUM

Investigation of samarium and gadolinium by the photographic method. K. K. Keller and K. B. Mather. Phys R 74:624-5 S 1 '48

Polarographic reduction of gadolinium. S. W. Rabideau and G. Glockler. bibliog Am Chem Soc J 70:1342-4 Ap '48

Radioactive europium, gadolinium, and terbium. N. L. Krisberg and others. bibliog Phys R 74:44-7 JI 1 '48

Isotopes

Isotopic constitution of europium, gadolinium, and terbium. D. C. Hess, Jr. bibliog diag Phys R 74:773-8 O 1 '48

GAGES

- Cylinder wear and distortion as measured with the cylinder contour gage abstracts. M. E. Estey. *il diag Diesel Power* 26:54-8 Je '48; S A E J 56:30-4 S '48
- Decimal equivalents of various gages; reference book sheet. *Am Mach* 92:135 Mr 25 '48
- Gage-block assemblies form snap and limit-snap gages precisely. S. Framurz. *diags Am Mach* 92:117 Mr 25 '48
- Gage control and measuring techniques; inspection of camera parts. P. G. Fishback. *diags Tool Eng* 20:25-30 My '48
- Gage for determining end diameters of tapered holes. H. Moore. *diags Mach* 55:220-1 N '48
- Gage length marker for tensile test specimens. *il diags Iron Age* 161:93 Ap 29 '48
- Gage-zone system harmonizes delivery and acceptance inspection. J. Gaillard. *Am Mach* 92:100-5 F 12 '48
- Gages for tapered diameters. R. G. Winter. *diags Tool Eng* 21:62 Ag '48
- Gauging and metrology. J. E. Sears. *Inst Mech Eng J & Proc* 157 (War emergency issue no 32):298-301 '47
- Inspect parts speedily with gages like these. F. Hartley. *diags Am Mach* 92:121 Ja 15 '48
- Internal recess cut in cylinder checked by use of flush-pin gage. G. Shopbell. *diag Am Mach* 92:117 My 20 '48
- Mass-producing precision; Sheffield corp. of Dayton, Ohio. *il Bsns W* p42-5 My 1 '48
- Profile gage problem. H. R. Bowman. *Mach* 54:175 Ja '48; Discussion. R. Wakelee. 54:166-7 Je '48
- Report of correlating committee on gages and gaging practice. *diags Am Pet Inst Proc* 27(4):149-70 '47
- Simple gage for wire. E. Diskavitch. *diags Tool Eng* 20:41 Ap '48
- Some new types of slip gages. C. G. Greenham. *il diags Engineering* 164:436, 462-3 N 7-14 '47
- 35th annual review; layout and inspection. *il Am Mach* 92:258-60 Ja 29 '48
- Twist drill gauge. *il Engineer* 185:218 F 27 '48
- University maintains contact with industry; New York university College of engineering Ordnance gage laboratory. *il Product Eng* 19:142-3 Jl '48
- See also*
- | | |
|-----------------------|--------------|
| Measuring instruments | Strain gages |
| Pressure gages | Vacuum gages |
- Testing**
- Comparator-chart inspection of tapered pipe-thread gages. K. A. Clark. *il diag Mach* 54:165-7 Ag '48

GAGES, Electric

- Faster steel cutting promoted by electric measuring gage. *il Steel* 123:113 Jl 19 '48
- Portable ultrasonic thickness gage. N. G. Branson. *il diags Electronics* 21:88-91 Ja '48
- Thickness gage for moving sheets of glass and other nonmagnetic materials. J. W. Head. *il diag Electronics* 21:90-2 My '48
- Two useful electromagnetic gages. E. B. Brown. *diags J Sci Instr* 25:4-6 Ja '48

GAGES, Electropneumatic

- Sigma electropneumatic gauge. *diag Engineering* 165:455 My 7 '48

GAGES, Pneumatic

- Air gauge controls size of cylinder bore. *il diags Comp Air Mag* 53:143 Je '48
- Air jets, their characteristics for gaging devices. R. S. Elbert. *diags Machine Design* 20:117-14 Ja '48
- Gauge blocks checked for accuracy by means of air. *il Comp Air Mag* 53:97 Ap '48

GAGING

- Gaging methods and devices for pressure storage. E. O. Mattocks. *il diags Am Pet Inst Proc* 27(5):78-84 '47; Same cond. *Oil & Gas J* 46:62-3 N 29 '47
- Gaging methods in atmospheric and low-pressure storage. C. G. Keane. *Am Pet Inst Proc* 27(5):85-6 '47; Same. *Oil & Gas J* 46:285-+ N 15 '47

GALACTAN

- e*-Galactan of larch wood (*Larix decidua*). W. G. Campbell, E. L. Hirst and J. K. N. Jones. *Chem Soc J* p774-7 Je '48

- Pectic substances; constitution of the galactan from *Lupinus albus*. E. L. Hirst, J. K. N. Jones and Mrs W. O. Walder. *Chem Soc J* p 1225-9 S '47

GALACTIC systems

- Galaxies in flight; theory of expanding universe. G. Gamow. *il Sci Am* 179:20-5 Jl '48
- Light from distant galaxies; abstract. J. Stebbins and A. E. Whitford. *Science* 107:590 Je 4 '48
- Origin of elements and the separation of galaxies. G. Gamow. *Phys R* 74:505-6 Ag 15 '48

GALACTITOL

- 1,5-Anhydro-4-(β -D-glucopyranosyl)-D-glucitol. 1,5-anhydro-6-(β -D-glucopyranosyl)-D-glucitol and 1,5-anhydro-D-galactitol. H. G. Fletcher, Jr. and C. S. Hudson. *bibliog Am Chem Soc J* 70:310-14 Ja '48

GALACTOMANNAN

- Galactomannan of the lucerne seed. E. L. Hirst, J. K. N. Jones and W. O. Walder. *Chem Soc J* p 1443-6 N '47

GALACTOSE

- Effect of galactose on the utilization of fat. C. P. Richter. *bibliog Science* 108:449-50 O 22 '48

GALACTURONIC acid

- Occurrence of pectic materials in wood. W. W. Pigman, E. Anderson and R. L. Leaf, Jr. *bibliog Am Chem Soc J* 70:432-3 Ja '48
- Some derivatives of D-galacturonic acid. J. K. N. Jones and M. Stacey. *Chem Soc J* p 1340-1 O '47

GALLIC acid

- Tanning and allied chemicals in mercaptan removal processes. J. Happel and S. P. Cauley. *bibliog flow diag Ind & Eng Chem* 39:1655-9 D '47

GALLIUM

- Hyperfine structure of gallium. G. E. Becker and P. Kusch. *bibliog diag Phys R* 73:584-91 Mr 15 '48
- Intrinsic moment of the electron. H. M. Foley and P. Kusch. *bibliog Phys R* 73:412 F 15 '48
- Magnetic moment of the electron. P. Kusch and H. M. Foley. *bibliog Phys R* 74:250-63 Ag 1 '48

Isotopes

- Beta- and gamma-rays of Ga⁷². A. C. G. Mitchell and others. *bibliog diag Phys R* 73:1424-9 Je 15 '48
- Beta- and gamma-spectra of Ga⁷². S. K. Haynes. *bibliog Phys R* 73:187-3 Ja 15 '48
- Beta- and gamma-spectra of gallium irradiated by slow neutrons. S. K. Haynes. *bibliog Phys R* 74:423-32 Ag 15 '48
- Coincidence experiments on Sc⁴⁶, Ga⁷³, Au¹⁹⁸ and Rb⁸⁶. E. T. Jurney. *Phys R* 74:1049-52 N 1 '48
- Isotopic composition of meteoritic and terrestrial gallium. M. G. Inghram and others. *Phys R* 74:343-4 Ag 1 '48
- Nuclear moments of I¹²⁷, Ga⁶⁹, Ga⁷¹, and P³¹. R. V. Pound. *bibliog Phys R* 73:1112-13 My 1 '48
- Precision measurement of the ratio of the atomic 'g' values' in the ²P_{3/2} and ²P_{1/2} states of gallium. P. Kusch and H. M. Foley. *Phys R* 72:1256-7 D 15 '47

GALLS (botany)

- Initiation of the cone gall of witch hazel. I. F. Lewis and L. Walton. *Science* 106:419-20 O 31 '47

GALLUP, George Horace, 1901-

- Outstanding authority on what America thinks. *por(cover) Bsns W* p6 Je 19 '48

GALLUP polls

- How Gallup poll samples public opinion. *il Bsns W* p89-40-+ Je 19 '48
- Survey expert answers questions most often asked. G. Gallup. *Iron Age* 162:119 O 28 '48

GALEOS, Evariste, 1811-1832

- E. Galeos*; brief manuscripts contain vast mathematical riches. D. Landau and C. B. Landau. *bibliog por Tech R* 50:316-18-+ Ap '48

GALVANIZED steel. See Steel, Galvanized**GALVANIZING**

- Applications of zinc coatings by hot dipping. R. Steele. *il Metal Finishing* 45:71-6 D '47
- Organic coatings. F. M. Morrow and K. Ognowski. *Iron & Steel Eng* 25:130-1 Ag '48

GALVANIZING—Continued

- High production galvanizing of small parts; Buffalo bolt co. W. Rudolph. *il Metal Finishing* 46:62-3+ S '48
- Progress of fluxing in hot galvanizing practice; A. T. Baldwin. *il Steel* 122:86+ My 31 '48
- Uniform tank coatings produced by controlled automatic hot dip galvanizing process; Rheem manufacturing co. R. W. Thrasher. *bibliog il Steel* 122:76-80+ Ap 19 '48

GALVANOMETERS

- Construction of micro-galvanometer systems. A. C. Downing. *il J Sci Instr* 25:230-1 J1 '48
- Location of the galvanometer branch for maximum sensitivity of the Wheatstone bridge. F. R. Kotter. *diags J Res Nat Bur Stand* 40:401-4 My '48
- Moving-coil galvanometers of short period and their amplification. A. V. Hill. *diag J Sci Instr* 25:225-3, 284 J1-Ag '48
- Parastatic moving needle galvanometer. J. Strong. *diag Rs Mod Phys* 20:180-4 Ja '48
- Printer galvanometer. *il R Sci Instr* 19:376-7 My '48
- Time-lag in recording current with a galvanometer. A. V. Hill. *il J Sci Instr* 25:351 O '48

GAMBLE, Bertin Clyde, 1898-
Sketch, por(cover) Bsns W p6 Mr 13 '48

GAMBLE, Frederic Russell, 1896-
Portrait. *Ptr Ink* 223:31 Ap 9 '48

GAMBLE-SKOGMO, inc.

- Gamble store in St Cloud, Minn., sets pace for smaller cities. *il Am Bsns* 18:28 Ap '48
- Preferred stock offered. *Comm & Fin Chr* 167:2360 My 31 '48
- Progress in rural selling. *il Bsns W* p70+ Mr 13 '48

GAMBLING

- How much do gamblers take from your plant? survey in seven big cities. *il Bsns W* p92+ Ag 21 '48; Abstract. *Factory Management* 106:124-5 S '48

Jury thanks editors for help in gaming probe. *Ed & Pub* 81:59 O 9 '48

See also

Slot machines,

Gambling

GAMBLING machines. See Slot machines, Gambling

GAMES

- What's in a game? table quoits made of polystyrene, two kinds of vinyls and extruded and sheet acetate. W. Schack. *il Plastics* 8:20-2 F '48

See also

Bradley, Milton,
company

GAMMA benzene hexachloride. See Hexachloro-cyclohexane

GAMMA rays

- Absorption of Na²⁴ gamma-radiation in lead, copper, and aluminum. D. E. Alburger. *bibliog diag Phys R* 73:344-6 F 15 '48
- Absorption of 17-Mev gamma-rays in lead and aluminum. E. D. McDaniel and others. *diag Phys R* 72:985-6 N 15 '47
- Angular correlation of successive gamma-ray quanta. E. L. Brady and M. Deutsch. *bibliog Phys R* 72:870-1 N 1 '47
- Angular distribution in nuclear reactions and coincidence measurements. C. N. Yang. *bibliog Phys R* 74:764-72 O 1 '48
- Beta- and gamma-rays of Ga⁷². A. C. G. Mitchell and others. *bibliog diag Phys R* 73:1424-9 Je 15 '48
- Beta- and gamma-rays of Rb⁸⁶. D. J. Zaffarano and others. *diag Phys R* 74:682-6 S 15 '48
- Beta- and gamma-spectra of Cs¹³⁷. J. Townsend and others. *Phys R* 74:99-100 J1 '48
- Beta- and gamma-spectra of Ga⁷². S. K. Haynes. *bibliog Phys R* 73:187-3 Ja 15 '48
- Beta- and gamma-spectra of gallium irradiated by slow neutrons. S. K. Haynes. *bibliog Phys R* 74:423-32 Ag 15 '48
- Beta-rays and gamma-rays from arsenic (76). M. V. Scherb and C. E. Mandeville. *bibliog Phys R* 73:418-19 F 15 '48
- Cloud-chamber energy measurement of photon-neutron sources. D. J. Hughes and C. Egger. *bibliog diag Phys R* 72:902-7 N 15 '47
- Coincidence experiments on Sc⁴⁶, Ga⁷², Au¹⁹⁸, and Rb⁸⁶. E. T. Journey. *Phys R* 74:1049-52 N 1 '48

Coincidence study of gold. C. E. Mandeville and M. V. Scherb. *bibliog Phys R* 73:634-5 Mr 15 '48

Contributions to the nuclear processes introduced in magnesium by polonium alpha-particles. A. Szalay and E. Csongor. *bibliog diags Phys R* 74:1063-70 N 1 '48

Crystals as detectors of nuclear radiation. *il Electronics* 20:144+ D '47

Diamonds detect atomic radiation. *il Product Eng* 19:152 Ja '48; *Mech Eng* 69:1029 D '47; *Chem Ind* 62:456+ Mr '48; *Franklin Inst J* 245:337-9 Ap '48

Diamonds used to detect atomic radiation. A. W. Kramer. *il Power PI Eng* 51:105-7 D '47

Disintegration of antimony-124. I. Feister and L. F. Curtiss. *bibliog J Res Nat Bur Stand* 40:315-19 Ap '48

Disintegration of antimony 124. B. D. Kern and others. *bibliog diag Phys R* 73:1142-8 My 15 '48

Energies of the beta- and gamma-rays from antimony; magnetic spectrometer. C. S. Cook and L. M. Langer. *Phys R* 73:1149-52 My 15 '48

Energy of the Be⁹ gamma-ray. D. J. Zaffarano and others. *bibliog Phys R* 74:105-6 J1 '48

Excited states of B¹⁰. T. Lauritsen and others. *bibliog Phys R* 73:636-7 Mr 15 '48

γ -Radiation from Be⁸. S. Devons and M. G. N. Hine. *bibliog Phys R* 74:976-8 O 15 '48

Gamma-radiation from europium. J. M. Cork and others. *Phys R* 73:78 J1 '48

Gamma-radiation from excited states of light nuclei. W. A. Fowler and others. *bibliog diags Rs Mod Phys* 20:236-77 Ja '48

Gamma-radiation from granite. W. D. Urry. *bibliog Phys R* 73:596-601 Mr 15 '48

Gamma-radiation from light nuclei under proton bombardment. W. A. Fowler and others. *bibliog Phys R* 73:181-2 Ja 15 '48

Gamma-radiation from the bombardment of fluorine, boron, and beryllium by protons. J. A. Jacobs and others. *Phys R* 73:1130 My 1 '48

Gamma-radiation meter. *il R Sci Instr* 19:199 Mr '48

Gamma-ray spectrometer measurements of fluorine and lithium under proton bombardment. R. L. Walker and B. D. McDaniel. *bibliog diags Phys R* 74:315-27 Ag 1 '48

Gamma-ray studies; spectrum analysis and absorption measurements. J. L. Lawson. *il diag Gen Elec R* 51:47-50 O '48

Gamma-rays from alpha-particle reactions. D. E. Alburger. *bibliog diag Phys R* 73:104-19 My 1 '48

Gamma-rays from the alpha-particle bombardment of Na, Mg, Al, Si, P, S, E. Pollard and D. E. Alburger. *bibliog diag Phys R* 72:1196-201 D 15 '47

High energy part of the K⁴⁰ β -spectrum. S. Franchetti and M. Giovanozzi. *Phys R* 74:102-3 J1 '48

High energy photo-disintegration of the deuteron. M. E. Rose and G. Goertzel. *bibliog Phys R* 72:749-57 N 1 '47

High resolution nuclear spectrometer. L. M. Langer and C. S. Cook. *bibliog il R Sci Instr* 19:257-62 Ap '48

Identification of the surplus gamma-radiation from granite. V. F. Hess and J. D. Roll. *bibliog Phys R* 73:916-18 Ap 15 '48

In vivo Geiger-Müller gamma-ray counter for radioisotope distribution studies. N. Pace and others. *diags Science* 107:71-3 Ja 16 '48

Internally converted radiation from europium, hafnium, and osmium. J. M. Cork and others. *il Phys R* 72:1209-11 D 15 '47

Large-angle scattering of Na²⁴ gamma-radiation. E. Pollard and D. E. Alburger. *bibliog diags Phys R* 74:926-32 O 15 '48

Magnetic lens beta- and gamma-ray spectrometer. E. A. Quade and D. Halliday. *bibliog diags R Sci Instr* 19:234-9 Ap '48

Neutron and gamma-ray yields from deuterons on carbon. C. L. Bailey and others. *bibliog diags Phys R* 73:274-3 F 15 '48

New experiments concerning the surplus gamma-radiation from rocks. V. F. Hess and J. D. Roll. *Phys R* 73:592-5 Mr 15 '48

Nuclear dipole vibrations. M. Goldhaber and E. Teller. *Phys R* 74:1046-9 N 1 '48

GAMMA rays—Continued

- On γ -induced β -disintegration: experimental. R. L. Burling and F. N. D. Kurie. *Phys R* 74:109-10 J1 1 '48
- On γ -induced β -disintegration: theoretical. H. Primakoff. *Phys R* 74:110 J1 1 '48
- Pair production by γ -rays in the field of an electron. V. Votruba. *Phys R* 73:1463 Je 15 '48
- Penetration of gamma-radiation through thick layers; plane geometry, iron, and lead. J. O. Hirschfelder and E. N. Adams, 2d. bibliog *Phys R* 73:863-8 Ap 15 '48
- Penetration of gamma-radiation through thick layers; plane geometry, Klein-Nishina scattering. J. O. Hirschfelder and others. *diag Phys R* 73:852-62 Ap 15 '48
- Photo-effects in middle-weight nuclei. L. I. Schiff. bibliog *Phys R* 73:1311-13 Je 1 '48
- Polarization correlation of successive gamma-ray quanta. D. L. Falkoff. *Phys R* 73:518 Mr 1 '48
- Precision wave-length and energy measurement of gamma-rays from Au^{198} with a focusing quartz crystal spectrometer. J. W. M. DuMond and others. *Phys R* 73:1392-4 Je 1 '48
- Production of a positron-electron pair in the electrostatic field of an electron. K. M. Watson. *Phys R* 72:1060-5 D 1 '47
- Proton-gamma-ray coincidence counting with cyclotron bombardment. B. B. Benson. bibliog *il diag Phys R* 73:7-15 Ja 1 '48
- Radiations from scandium⁴⁵ and titanium⁴⁸. C. E. Mandeville and M. V. Scherb. bibliog *diag Phys R* 73:141-5 Ja 15 '48
- Radiations from 2.70-day Au^{198} . P. W. Levy and E. Greuling. *Phys R* 73:83-4 Ja 1 '48
- Reactions of carbon tetrachloride with bromine activated by isomeric nuclear transition and by the neutron-gamma reaction. J. E. Willard. bibliog *diag J Phys & Colloid Chem* 52:585-94 Mr '48
- Relative energies of the gamma-radiations from Co^{60} and Zn^{65} . E. N. Jensen and others. bibliog *Phys R* 73:529 Mr 1 '48
- Resonances in the disintegration of fluorine and lithium by protons. T. W. Bonner and J. E. Evans. bibliog *Phys R* 73:666-74 Ap 1 '48
- Search for gamma-radiation in the 2.2-microsecond meson decay process. E. P. Hincks and B. Pontecorvo. bibliog *diag Phys R* 73:257-8 F 1 '48
- Search for gamma-rays from He^6 and F^{18} . W. J. Knox. bibliog *Phys R* 74:1192-3 N 1 '48
- Some measurements of gamma-ray energies. F. N. D. Kurie and M. Ter-Pogossian. *Phys R* 74:677-82 S 15 '48
- Studies of self-absorption in gamma-ray sources. R. D. Evans and R. O. Evans. bibliog *diag Rs Mod Phys* 20:305-26 Ja '48
- Study of the radiations from iridium (194), iridium (192), lanthanum (140), antimony (124), and zirconium (95). C. E. Mandeville and M. V. Scherb. bibliog *Phys R* 73:1434-41 Je 15 '48
- GAMMEXANE.** See Hexachlorocyclohexane
- GANDHI, Mohandas Karamchand**, 1869-1948
- Assignment in India where bulb costs \$1.30. M. Desfor. *Ed & Pub* 81:54 S 18 '48
- India without Gandhi. *Economist* 154:211-12 F 7 '48
- GANGER, Robert Mondell**, 1905-
- Gallery; Bob Ganger. L. Bell. *por Adv & Sell* 40:120+ D '47
- GANTT, Henry Laurence**, 1861-1919
- Gantt and Dodd; an appraisal and an appreciation. J. M. Hancock. *Mech Eng* 70:125-6 F '48
- GARAGES**
- East Ohio Gas builds million-dollar garage. W. Rudolph. *il Gas Age* 100:25-6+ D 11 '47
- Garage owner liable for damage by auto on a public highway. *East Underw* 48:33 N 14 '47
- Long-span triple-deck parking station; Kansas City, Mo. D. K. Jackson. *il plans Eng N* 141:111-13 Ag 19 '48
- Spiral garage permits high space use. *il Eng N* 141:78 J1 22 '48

Cost

- Garage, East New York bus depot, Brooklyn, N.Y.; unit prices. *Eng N* 141:83+ S 30 '48
- Fires and fire protection**
- Proper habits essential to prevent garage fires. W. H. Rodda. *Weekly Underw* 158:1300 My 1 '48
- Heating and ventilation**
- How to control carbon monoxide in garages; flexible duct tailpipe exhaust systems. G. Hama. *il Heat & Ven* 45:113-15 O '48
- GARAGES, Motor bus.** See Motor bus lines—Garages
- GARBAGE disposal.** See Refuse disposal
- GARBAGE incinerators.** See Refuse incinerators
- GARDEN apartments.** See Apartment houses—Garden apartments
- GARDEN tools**
- Automatic handling for induction hardening; grass shear blades. G. P. Cardwell and M. Server. *il Am Mach* 91:91 D 18 '47
- GARDENS**
- Decorative brick walls, walks, terraces increase property value; illustrations. *Brick & Clay Rec* 113:26-7 J1 '48
- Indoor-outdoor planting beds; with time-saver standards. H. B. Aul. *il Arch Rec* 104:146-8 J1; 143-4, 155+ Ag '48
- See also
- Landscape gardening
- GARDINER, Mary**
- Canada's first woman managing editor. L. James. *por Ed & Pub* 81:34 S 18 '48
- GARDNER, Lester Durand**, 1876-
- Guggenheim medal to L. Gardner. *por Aviation* 74:13 F 2 '48
- GARMENT factories**
- Cases in work simplification; Dutchess underwear corp. R. T. Selver. *il Factory Management* 106:100-1 Mr '48
- Cases in work simplification; ladies' foundation garment industry. *il Factory Management* 106:84-5 Ja '48
- GARMENT industry**
- Fifty years from chevot and chambray; Reliance products. *il Textile Col* 70:24-5 Ap '48
- Garments by air. *Bsns W* p86 Mr 20 '48
- Insurance requirements**
- Garment contractors insurance. *Spectator (Property ed)* 13:8-9 N 13 '47
- New York**
- Old look returns; gangsterism in New York's garment industry. *il(p205) Fortune* 38:206+ N '48
- GARMENT workers**
- Cotton garment industries; wage structure. Sept. 1947. L. Badenhop. *Mo Labor R* 66:626-9 Je '48
- Eyesight conservation in the garment industry; abstract. L. Price. *Nat Safety N* 57:56 F '48
- Old look returns; gangsterism in New York's garment industry. *il(p205) Fortune* 38:206+ N '48
- Women's dress manufacture; earnings in Aug. 1947. K. B. Mohn. *Mo Labor R* 66:518-20 My '48
- GARNETT, Eleanor**
- Madame Garnett, a trend in the right direction. *Textile Col* 69:52-3 N '47
- GARNISHMENT.** See Attachment and garnishment
- GARRETT, Robert Ernest**, 1888-1947
- Sketch. J. V. Howell. *por Am Assn Pet Geologists Bul* 31:2082-4 N '47
- GARY, Indiana**
- Industries**
- Gary cuts loose; steel town takes on new industries. *il Bsns W* p50-2 F 14 '48
- GAS**
- Accidental ignition of gas. A. W. Breeland. *Safety Eng* 94:36-40 D '47
- Conversion of coal to oil and gas. F. A. Howard. *Min & Met* 29:388-95; Discussion. 395 J1 '48
- Gas carburising with town's gas. D. S. Laidler. bibliog *il Metallurgia* 38:46-9 My '48; Discussion. 38:91-4 Je '48

GAS—Continued

Gas from lignite shown possible by Dakota pilot plant operation. Heat & Ven 45:120+ Ja '48

Progress in gas chemistry, 1947. L. T. Minchin. bibliog Chem Age (Lond) 58:66-7 Ja 10 '48

See also

Blast furnace gas	Gas, Producer
Butane	Gases
Coal distillation	Liquefied petroleum
Coke-oven gas	gas
Flue gas	Propane
Gas, Natural and	Sewage sludge—Gas
other headings	production
beginning Gas	

Analysis

See Gas analysis

Dehydration

Australia using two-stage cooling to dry city gas. diag Chem Eng 55:197-8 Ap '48

Gas drying by calcium chloride solutions; the mechanism of transfer. E. F. Thurston. bibliog diags Soc Chem Ind J 67:289-96 J1 '48

Moisture content

Determination of moisture in producer gas. J. Pearson and R. Toye. bibliog diags Iron & Steel Inst J 159:410-14 Ag '48

Sulfur content

Appliance corrosion under attack? A.G.A. sponsored project at Battelle, H. A. Pray and others. il diag Am Gas Assn Mo 30:19-23+ J1-Ag '48

Flames and organic sulphur compounds; valuable data provided by the gas industry. L. T. Minchin. Chem Age (Lond) 58:9-10 Ja 3 '48

Report of organic sulfur committee. Am Gas Assn Proc 1947:591-602

See also

Gas, Natural—Sulfur content

GAS, Natural

Appraisal of gas synthesis operations. R. C. Alden and A. Clark. bibliog Pet Processing 3:425-30 My '48; Abstract. Nat Pet N 40:23 Ap 7 '48

Challenge to crude oil; U.S. producers must effect economies if impending competition of oils from natural gas and coal is met. L. J. Logan. Pet Refiner 26:145+ D '47

Changing patterns of fuel consumption. Survey of Cur Bsns 28:11 J1 '48

Chemicals from petroleum and natural gas. G. Egloff. Oil & Gas J 46:88-9+ Ag 30 '47; Same. il Chem & Eng N 25:3634-7 D 8 '47

Economy of natural gas as an enriching medium. C. R. Bellamy. Gas Age 101:28-9+ Mr 4 '48; Excerpts. Pub Util 41:702-4 My 20 '48

Engineering completed for new \$15,000,000 petrochemical plant; chemical-processing units, utilizing natural gas. J. E. Bludworth. flow diags il Oil & Gas J 46:48-9+ Ja 1 '48

Enter; synthetic fuel; commercial production of gasoline and oil from natural gas or coal. il Bsns W p21-3 Ja 24 '48

Fluid solids technique; applications in the petroleum industry. E. V. Murphree and others. diag Inst Pet J 33:617-19 O '47; Same. Pet Processing 3:358 Ap '48

Gas, no longer a wallflower. Pub Util 42:299 Ag 26 '48

Helium production process. P. V. Mullins. bibliog diags Chem Eng Prog 44:567-72; Discussion. 572 J1 '48

Independent natural gas association of America annual meeting, Tulsa, Oct. 26. Oil & Gas J 47:58-9 O 28 '48

Lab process goes commercial; acetylene gas by electric glow process. il Bsns W p78+ D 6 '47; Abstract. Pet Processing 3:104 F '48

Liquid fuels from natural gas; abstract. R. C. Alden and A. Clark. Oil & Gas J 47:111+ O 14 '48

Liquid fuels from natural gas; abstract. J. H. Rushton. Am Gas J 168:38 Mr '48

McCarthy unveils; will spend \$15 million at Winnie, Texas, to produce formaldehyde, acetaldehyde, ethylene and benzene. map Chem Ind 62:220-1 F '48

Natural-gas butane and motor-fuel vapor pressures. R. C. Alden and T. W. Legatski. Am Pet Inst Proc 28(3):94-100 '48; Same cond. Pet Processing 3:579-80+ Je '48; Discussion. Am Pet Inst Proc 28(3):100-7 '48

Natural gas, coal, oil shale as sources of liquid fuels. E. V. Murphree. diags Oil & Gas J 46:66+ Ap 8 '48

Natural gas industry; with statistical summary of leading companies. E. A. Barnes. il Mag of Wall St 83:132-3+ N 6 '48

Natural gas is on the up. Bsns W p26+ Mr 13 '48

Natural-gas processing plants continue efforts to meet demand. R. B. Tuttle. Oil & Gas J 47:210+ J1 29 '48

Natural-gas processing units on upgrade, with 107 projects in active status; tabulation. R. B. Tuttle. Oil & Gas J 47:88+ N 4 '48

Les nitroparaffines, matière première de nombreux composés organiques de valeur. P. M. E. Schmitz. bibliog Génie Civil 124: 427-30 N 15 '47

Operating problems of the independent gas producer. L. T. Potter. World Oil 128:44+ Je '48

Power turbines for natural-gas expansion. S. Benzec. diags A S M E Trans 70:541-6 J1 '48; Abstract. Power Generation 52:110+ Mr '48

Principles of automatic control as applied to natural gas operations. L. W. Parten. il diags Pet Refiner 26:121-8 O '47; Same. Pet Eng (Ref annual) 19:189-90+ J1 1 '48

Production and disposition of natural gas by California producers. E. K. Parks. diag Pet Eng 19:53+ Ap '48

Progress and prospects of the natural gas industry. O. Ely. Pub Util 42:511-15 O 7 '48

Refractory problems in production of hydrogen by pyrolysis of natural gas. R. E. Wright and H. I. Wolff. il diags Am Cer Soc J 31:31-8 F 1 '48

Significance of liquids from natural gas. C. R. Williams. map Oil & Gas J 46:108-11+ Mr 25 '48

Some aspects of the industrial oxidation of lower aliphatic hydrocarbons. J. E. Bludworth. bibliog il Pet Refiner 27:110-14 Ap '48; Same abr. Oil & Gas J 46:99+ Ap 22 '48

Synthetic liquid fuels and chemicals from natural gas. G. Roberts, jr. flow diags Pet Processing 2:905-6 D '47

Synthetic liquid fuels in the United States. W. C. Schroeder. il Mech Eng 69:990-2 D '47

Trained engineers for an expanding natural gas industry; natural gas engineering courses offered by Texas college of arts and industries. F. H. Dotterweich. il Am Gas J 168:23-6 My '48

Use of natural gas to increase manufactured gas plant capacity. R. E. Kruger. Am Gas J 168:27+ My '48

Viscosity of vapors, gasoline, gases; charts and tables. W. L. Nelson. Oil & Gas J 46:147 F 26 '48

Wall Street view of the natural gas industry; abstract of study by Kaib, Voorhis & co. Pub Util 41:245+ F 12 '48

What natural gas can do for the manufactured gas industry. H. H. Cuthrell. Am Gas Assn Proc 1947:65-9; Same. Am Gas J 167: 39-42 N '47; Same. Gas Age 100:38-9+ O 30 '47

See also

Gas as fuel—Natural Liquefied petroleum gas

Gasoline, Natural—Petroleum Manufacture

also American gas association—Natural gas department

Accounting

Internal auditing program of an integrated natural gas system. J. M. Trant. Am Gas Assn Proc 1947:229-31

Suggested revision of uniform system of accounts for natural gas companies. W. H. Ainsworth. Am Gas Assn Proc 1947:214-17

GAS, Natural—Continued

Change over

See Gas distribution—Change over

Compression

Centrifugal compressors come of age; first application of equipment to high pressure gas transmission, B. D. Goodrich, *il map diags Am Gas Assn Mo* 30:12-15+ *Je* '48; Same cond. *Oil & Gas J* 47:31+ *JI* 15 '48; Cities Service Gas compacts soil to form base for heavy engine foundations in Hugoton field, R. W. Hofsess, *il Oil & Gas J* 47:226+ *S* 23 '48

Clear Lake plant designed for propane-gasoline product, C. C. Pryor, flow sheet *il Pet Refiner* 27:87-90 *Ja* '48

Compression, dehydration plant provides full gas utilization, G. Weber, *il Oil & Gas J* 47:63+ *JI* 1 '48

Compressor stations add to line's capacity, F. H. Love, *il Pet Eng* 19:59-62 *Ja* '48

Computer for supercompressibility factors, F. C. Walters, *il Am Gas J* 169:57-8 *O* '48; Same, *Gas Age* 102:19+ *O* 14 '48

Cooling water requirements for natural gas booster stations, A. V. Mueller, *il Gas Age* 100:32-3 *D* 25 '47; Same, *Oil & Gas J* 46:66-7+ *Ja* 8 '48; Same, *Am Gas J* 168:35-7 *Mr* '48; Same, *Pet Eng* (Ref. annual) 19:202+ *JI* 1 '48

Cycling at high pressure vs. depletion and cycling at low pressure, E. O. Bennett, *Pet Eng* 19:120+ *Ja* '48 Same, *World Oil* 127:160+ *Mr* '48

Effect of added nitrogen on compressibility of natural gas, C. K. Ellerts and others, *il diags World Oil* 128:129-32+ *Je*; 144-6+ *bibliog*(p 160) *JI* '48

Electric power for gas transmission; with cost data, W. H. Stueve, *Pet Eng* 19:59-62 *My* '48

Gas conservation, high recovery provided by Magnolia Petroleum's Vanderbilt plant, G. Weber, *il Oil & Gas J* 46:122-4+ *Mr* 25 '48

Gas once burned yields valuable products; natural-gasoline extraction plant built by the Magnolia petroleum co, *il Comp Air Mag* 53:53-5 *Mr* '48

Gas transportation system calculations; compression of natural gas for transportation, B. Miller, *diags Gas Age* 101:31-6+ *My* 27; 28-33 *Je* 24; 102:26-31 *JI* 8; 29-35 *JI* 22; 32-6 *Ag* 5; 35-40 *S* 16; 84-8+ *S* 30; 32-7 *O* 14; 51-4+ *O* 28; 29-33 *N* 11; 31-5 *N* 25; 38-42 *D* 9; 25-30 *D* 23 '48

Gasoline plant design, V. E. Middlebrook, *il Oil & Gas J* 46:98+ *F* 12 '48

Hastings Field gasoline plant, H. F. Dawe and H. N. Wade, flow diag *il diag Pet Eng* 19:122+ *N* '47

High pressure gas measurement, E. E. Stovall, *il diags Gas Age* 102:27-32+ *Ag* 19 '48

Instrumentation on El Paso Natural's Texas-California line, E. L. Stark, *il plans diag Oil & Gas J* 47:213-14+ *S* 23 '48

Katy gas-cycling plant, W. T. Robertson and H. M. Stamper, flow diag *il diags Oil & Gas J* 47:64-7 *S* 9 '48

Magnolia completes gasoline plant at Vanderbilt, Texas, C. C. Pryor, flow diag *il Pet Refiner* 27:91-5 *F* '48

Modern compressor station of Colorado interstate gas co, *il Gas Age* 100:13+ *N* 27 '47

Modern gas pipe line compressors, R. L. Boyer, *il diags Pet Eng* 19:199-200+ *Mr* '48

Multi-pressure absorption process, flow diag *Pet Refiner* (Process Handbook ed) 27:310-11 sec 2 *S* '48

Natural gas goes north; centrifugal compressors helped Texas Eastern, B. D. Goodrich, map diags *Chem Eng* 55:108-9 *Je* '48; Same abr, *Mech Eng* 70:733-7 *S* '48

Natural gas stored in underground pipes, *il diags Comp Air Mag* 53:187-90 *Ag* '48

New compressor station is latest design, H. F. Dawe and W. H. Goontz, *il Pet Eng* 19:162+ *Mr* '48

New Gulf Oil plant in west Texas combines gas lift and repressuring, G. Weber, *il map Oil & Gas J* 46:96-7+ *D* 13 '47

New midjet gasoline plant, R. B. Tuttle, flow diag *Oil & Gas J* 46:77-8+ *Ap* 8 '48

Practical use of chromate inhibitors in engine cooling systems, D. D. Wright, *bibliog flow sheet Can Chem & Process Ind* 32:533-5 *Je* '48

Storage of natural gas in underground pipe sections, D. V. Meiller, *il diags Western Soc E J* 53:19-38 *Mr* '48; Excerpts, *Heating-Piping* 20:93-7 *My* '48; *World Oil* 128:171-2+ *S* '48

Stored natural gas is dehumidified, *Heating-Piping* 20:66 *Je* '48

Texas Eastern operates first high-pressure gas-transmission centrifugal compressors, P. Reed, *il map Oil & Gas J* 46:60-1+ *Ja* 22 '48

Use of natural gas in Italy for motor fuel, R. A. Ransom, *Gas Age* 100:28 *N* 27 '47

Conditioning

Combination scrubbing, dehydration, desulfurization plant, H. R. Weitzel and W. E. Muldrew, flow chart *Gas Age* 102:77+ *S* 30 '48

Improved design, operating techniques for Girbotol absorption processes, R. M. Reed, flow diag *il Pet Processing* 2:907-12 *D* '47

Nitrogen removal from natural gas, W. W. Deschner and W. W. Bodle, *bibliog flow diags Oil & Gas J* 46:76-9+ *Ap* 15; 92+ *Ap* 22 '48

Removal of excess nitrogen from natural gas, *Am Gas Assn Mo* 30:20 *O* '48; Same, *Am Gas J* 169:45 *O* '48; Same, *Gas Age* 102:37+ *O* 14 '48

Conservation

Conservation and utilization of natural gas; review of Peruvian operations, R. E. Moyar, maps *Oil & Gas J* 46:251-3+ *D* 27 '47

Conservation of oil and gas, H. M. Dow, *Am Pet Inst Proc* 27(1):49-53 '47; Excerpt, *World Oil* 127:37 *Ja* '48

Flare-gas waste greatly reduced, operators tell Texas Commission, D. M. Duff, *Oil & Gas J* 47:49-50 *N* 4 '48

Flaring of natural gas, D. A. Hulcy, *Pub Util* 42:523 *O* 7 '48

Gas conservation, extraction plants replace gas flares, *il Pet Processing* 2:857-60 *N* '47

Gas conservation program started in Venezuela by consultant group, *Oil & Gas J* 47:64 *Ag* 19 '48

Huge construction program cuts gas waste in Texas to minimum, D. M. Duff, *il Oil & Gas J* 46:40-1 *D* 20 '47

Huge gas-conservation project now in initial operation stage; Seeligson field of south-west Texas, G. Weber, *il Oil & Gas J* 47:60-1 *JI* 8 '48

Huge joint-company gasoline plant will conserve slaughter-casing-head gas, G. Weber, *il plan Oil & Gas J* 46:65-6 *D* 6 '47

Natural gas producers stress conservation and transmission efficiency, *Chem & Eng* N 26:1441 *My* 17 '48

Pressure-maintenance project operates on cooperative basis, E. Short, flow diag *il Oil & Gas J* 46:76-7 *F* 12 '48

Price of natural gas as a conservation factor, W. T. Pound, *World Oil* 128:54+ *O* '48

Recycling conserves U.S. natural gas, N. Uptegrove, *il Sci Am* 178:16-18 *Ja* '48

Dehydration

Adsorptive gas dehydration process; Houston oil field material co, diag *Pet Refiner* (Process Handbook ed) 27:270-1 sec 2 *S* '48

Compression, dehydration plant provides full gas utilization, G. Weber, *il Oil & Gas J* 47:63+ *JI* 1 '48

Distillate wells

Benton field unit; cooperative enterprise on unitization of gas-condensate properties, W. L. Horner and E. G. Trostel, *bibliog diag Oil & Gas J* 46:77-80+ *Mr* 4 '48

Condensate production and cycling, P. J. Jones, *World Oil* 127:136+ *Ja*; 154+ *F*; 148-50 *Mr*; 164+ *Ap*; 128:208+ *My*; 166+ *Je*; 162+ *JI*; 178+ *Ag*; 156+ *S* '48

Cycling at high pressure vs. depletion and cycling at low pressure, E. O. Bennett, *Pet Eng* 19:120+ *Ja* '48; Same, *World Oil* 127:160+ *Mr* '48

Laboratory studies and their relation to cycling problems, J. P. Sloan, *bibliog diags Oil & Gas J* 46:158+ *Mr* 25 '48

GAS, Natural—Distillate wells—Continued

Phase relations of a gas-condensate fluid at low temperatures, including the critical state. C. E. Eilerts and others. bibliog il diags Pet Eng 19:154+ F '48
 Pressure maintenance and cycling plants increase recovery. E. K. Parks. plant World Oil 127:138+ F '48
 Rich gas-condensate field will be developed rapidly by Shell; Elk City field, Oklahoma. Oil & Gas J 47:49 JI 22 '48
 Some high points in cycling plant design. V. E. Middlebrook. Oil & Gas J 46:100+ F 19 '48

Corrosion problem

pH determination in condensate well waters. D. A. Shock. il diag World Oil 128:141-2 JI '48
 Present day aspects of high pressure well equipment corrosion; with cost data. W. F. Rogers. il World Oil 128:154+ O '48

Government investigation

FPC issues natural gas investigation staff report. Gas Age 100:60+ D 11 '47

Hydrates

Storage of natural gas hydrate is suggested. Pet Processing 3:527 Je '48

Laws and regulations

Court upholds right of Reynosa pipe line co. to export gas to Mexico. Oil & Gas J 47:129 My 20 '48
 Federal power commission and natural gas. W. A. Dougherty. Pub Util 42:555-92 O 21 '48
 Federal power commission regulation of the natural gas and electric industries. B. Ross. Pub Util 42:603-14 O 21 '48
 FPC spells out gas industry's future; rate program, load requirements are fixed by U.S. agency. J. F. Falvey. Barron's 28:31-2 My 10 '48
 FPC under fire in Congress; senators irked by proposed amendments to the Natural gas act. Elec World 129:53-4 F 28 '48
 Law of interstate gas sales. L. T. Parker. Am Gas J 168:29-31 Ap '48
 Legal aspects of the unitization of oil and gas fields. R. M. Myers. bibliog Oil & Gas J 47:222-6+ My 20 '48
 Middle West gas tangle. Pub Util 42:227-8 Ag 12 '48
 Olds, Draper ask more authority for FPC, attack big companies. H. D. Ralph. Oil & Gas J 46:86+ F 25 '48
 Regulation and natural gas company investment. C. C. Brown. Comm & Fin Chr 168:502+ Ag 5 '48
 Regulation of gas utilities. N. L. Smith. Am Gas Assn Proc 1947:29-34; Same abr. Am Gas Assn Mo 29:489-91+ N '47
 Significance of ten years under the Natural gas act. W. A. Dougherty. il Am Gas Assn Mo 30:16-18+ Je '48; Same cond. bibliog Oil & Gas J 47:94+ JI 15 '48
 State has power to regulate gas pipe-line sales to industries; Public service commission of Indiana v. Panhandle eastern pipe line co. Pub Util 41:125-6 Ja 15 '48
 States, not FPC, have control over direct gas sales, court says. Oil & Gas J 46:37 D 20 '47
 Surprise FPC report on gas; Smith-Wimberly report. Pub Util 41:362-3 Mr 11 '48

Liquefaction

Liquefied gas industry. J. B. Garner. bibliog Pet Refiner 27:120-3 patent list(p 124-7) Ag '48

Measurement

Accurate wide range metering of natural gas with the differential type meter. L. K. Spink. il diags Am Gas J 168:23-6 Mr '48
 High pressure gas measurement. Z. C. Ambrose. il diag World Oil 128:188+ My '48
 High pressure gas measurement. E. E. Stovall. il diags Gas Age 102:27-32+ Ag 19 '48

Merchandizing

Balanced fuel economy. G. Symonds. Am Gas J 169:41-4 O '48
 Dump sales not essential to economical gas operations; report of the FPC natural-gas investigation. Oil & Gas J 46:57 D 6 '47

Outsider looks to natural gas. H. W. Reed. Am Gas Assn Mo 30:7-8 Je '48
 Southern union gas company system. C. H. Zachry. il map Am Gas J 168:32-5 My '48

Peak load

Gas-oil burner provides new protection for homes that are heated with gas. C. C. Young. il Am Gas J 169:34-6 S '48
 Peak gas economics. L. J. Eck. Gas Age 102:25+ Ag 19 '48

Pipe lines

Aerial pipe-line patrol saves expense on eastern line. E. H. Williamson. il map Oil & Gas J 47:265 S 23 '48
 Aluminum pipe lines for oil and gas. H. S. Bell and C. R. Holmes. World Oil 127:169-72 F '48
 Approval of big gas pipe line indicates FPC deadlock ended. H. D. Ralph. Oil & Gas J 47:36 Je 3 '48
 Automatic control of natural gas lines. W. A. Brewster. diags World Oil 128:179-80+ O '48
 Automatic field booster stations utilize low pressure gas. E. M. Myers. il Gas Age 102:78+ S 30 '48
 Biggest inch line delivers gas to California. il Gas Age 100:31-2+ D 11 '47; Am Gas Assn Mo 29:531 D '47
 Centrifugal compressors come of age; first application of equipment to high pressure gas transmission. B. D. Goodrich. il map diags Am Gas Assn Mo 30:12-15+ Je '48; Same cond. Oil & Gas J 47:81+ JI 15 '48
 Compressor stations add to line's capacity. F. H. Love. il Pet Eng 19:59-62 Ja '48
 Converted Big Inch pioneers motorized centrifugals. W. H. Stueve. il map diag Elec World 129:86-8 Je 19 '48
 Cooling water requirements for natural gas booster stations. A. V. Mueller. il Gas Age 100:32-3 D 25 '47; Same. Oil & Gas J 46:66-7+ Ja 8 '48; Same. Am Gas J 168:35-7 Mr '48; Same. Pet Eng (Ref annual) 19:202+ JI 1 '48
 Crossing of Mississippi at New Orleans. O. C. Irvine. il map Pet Eng 19:113-14+ N '47
 Design and development of a new pipe line. H. T. Heuple. il map Gas Age 101:37-9+ Ap 29 '48
 Directing pipe line inspection and maintenance. J. A. Martin and L. Tolbert. Gas Age 101:23-6+ My 27; 21-4+ Je 24 '48
 Drifting submerged towboat believed cause of break in pipe-line river crossing. N. A. Saigh. map Oil & Gas J 47:268+ S 23 '48
 Economical method of changing valves on drips or take-offs on lateral lines by the electric arc method of welding. D. K. Stephens. diags Gas Age 101:23-4 F 5 '48
 FPC faced with pipe-line petitions. Pub Util 42:424-5 S 23 '48
 Gas lines pulled across Ohio river. il Constr Methods 30:108-9 Je '48
 Gas logistics; problems involved in transportation, storage, and supply of gas between gas fields and consuming public. G. L. Johnson. Gas Age 101:26+ Je 24 '48
 Gas pipeline expansion won't overtake demand. E. R. Abrams. Barron's 28:29-30 Je 7 '48
 Gas pipeline to supply California from natural gas fields of Texas. il Heat & Ven 45:116-17 Ja '48
 Gas transportation system calculations; compression of natural gas for transportation. B. Miller. diags Gas Age 101:31-6+ My 27; 23-33 Je 24; 102:26-31 JI 8; 32-6 Ag 5; 35-40 S 16; 84-8+ S 30; 32-7 O 14; 51-4+ O 28; 29-33 N 11; 31-5 N 25; 38-42 D 9; 25-30 D 23 '48
 How Northern natural gas co. serves more than 500,000 customers. G. E. Stedman. Gas Age 101:20+ Je 24 '48
 Hustling pipe borrower; Tennessee gas transmission co. Esns W p26 Ag 7 '48
 Ingenious gas line leak detector proves effective. R. Sneddon. il Pet Eng 20:340 O '48
 Instrumentation on El Paso Natural's Texas-California line. E. L. Stark. il plans diag Oil & Gas J 47:213-14+ S 23 '48
 Interior cleaning for maximum flow efficiency in natural gas lines. D. K. Stephens. il Gas Age 101:27-30+ My 27 '48; Same. Oil & Gas J 47:97-8+ JI 22 '48

GAS, Natural—Pipe lines—Continued

Large volume automatic pressure regulation. W. A. La Violette. *il diags Gas Age* 102:73-6+ S 30 '48

Lavaca offshore gas pipe line laid on Texas coast. P. Reed. *il Oil & Gas J* 47:96-8 N 4 '48

Locating and repairing leaks in Biggest Inch natural-gas pipe line. H. David. *il diag Oil & Gas J* 47:103+ O 28 '48

Major pipe-line construction projects; tabulations. R. B. Tuttle. *Oil & Gas J* 47:250+ S 23 '48

Modern compressor station of Colorado interstate gas co. *il Gas Age* 100:13+ N 27 '47

Modern gas pipe line compressors. R. L. Boyer. *il diags Pet Eng* 19:199-200+ Mr '48

Modern machine shop speeds repairs; pipe line compressor station equipment; Arkansas Louisiana gas co. W. E. Nestor. *il Pet Eng* 19:216+ Mr '48

More pipe, new lines for natural gas. Bsns W p36 F 28 '48

Movie angles in a big construction job; Texas-Los Angeles pipe line filmed. J. H. Collins. *Pub Util* 42:486-92 O 7 '48

Moving natural gas by centrifugal compressors; abstract. W. H. Stueve. *Chem Eng* 55:288+ Mr '48

Natural gas and New England. C. G. Young. *Gas Age* 101:20-1+ Ap 15 '48

Natural gas goes north; centrifugal compressors helped Texas Eastern. B. D. Goodrich. *map diags Chem Eng* 55:106-9 Je '48; Same. *abr. Mech Eng* 70:733-7 S '48

Natural gas lines; electric arc welding against pressure. D. K. Stephens. *diags Pet Eng* 19:141-2+ Mr '48

Natural gas race for northeast market. Bsns W p56 Ap 10 '48

Natural gas system expansions compete with fuel oil; tabulation. *Nat Pet N* 40:56 O 13 '48

New company asks permit for 1,184-mile Gulf-Chicago gas line. *map Oil & Gas J* 47:36-7 S 2 '48

New compressor station is latest design. H. F. Dawe and W. H. Goontz. *il Pet Eng* 19:162+ Mr '48

New machines and methods set fast tempo for pipe-laying operations. *il Civil Eng* 18:20-1 Ja '48

Panhandle Eastern's 1947 expansion program. C. H. M. Burnham. *map Pet Eng* 19:214 Mr '48

Petroleum switch; California imports natural gas. Bsns W p26 N 29 '47

Pipeline absorption process. *diag Pet Refiner (Process Handbook ed)* 27:304-5 sec 2 S '48

Pipe line crews battle blizzards, floods. H. Fry. *il map Pet Eng* 19:94+ J1 '48

Pipe line extensions in southern California. *map Gas J* 168:50 Mr '48

Pipe-line movement of natural gas in 1948 will break all previous records. J. C. Casper. *Oil & Gas J* 47:191-2 S 23 '48

Pressure control and other problems of long line gas dispatching. A. L. Bristow. *Gas Age* 101:22+ My 27 '48; Same. *Am Gas J* 169:15-17 Ag '48

Principal domestic natural-gas projects; tabulation. *Oil & Gas J* 47:194+ J1 29 '48

17,000 more miles of large-diameter lines seen during next five years. H. D. Ralph. *Oil & Gas J* 46:194 Ja 29 '48

South America's longest pipe line moves toward southern gas fields. P. Reed. *il Oil & Gas J* 46:44 Mr 4 '48

Southern union gas company system. C. H. Zachry. *il map Am Gas J* 168:32-5 My '48

Tennessee Gas Transmission to start third line in 1949. *Oil & Gas J* 47:286 S 23 '48

Texas-California pipe line completed. R. Sneddon. *il Pet Eng* 19:116+ Ja '48

Texas-California pipe line completed to Los Angeles. F. A. Herr. *il Am Gas J* 167:11-13+ D '47

Texas Eastern operates first high-pressure gas-transmission centrifugal compressors. P. Reed. *il map Oil & Gas J* 46:60-1+ Ja 22 '48

Texas Eastern plans for expansion. *il maps Gas Age* 101:24-30 Ap 29 '48

Texas Gas Transmission merger is approved. *map Am Gas J* 168:38 Ap '48

Texas Gas Transmission starts 63-mile section. *Oil & Gas J* 47:115 S 30 '48

Texas natural gas moving into pipe lines. D. M. Duff. *il Oil & Gas J* 47:81-2 O 28 '48

Today's natural gas construction methods. P. Reed. *il map Oil & Gas J* 47:180-4+ S 23 '48

United completes new crossing of Mississippi at New Orleans. *il map Gas Age* 100:25-8 N 13 '47

See also

Panhandle eastern pipe line company

Costs

Electric power for gas transmission; with cost data. W. H. Stueve. *Pet Eng* 19:59-62 My '48

Finance

Fair profit? Texas eastern transmission corp. J. W. Welcker. *Harvard Bsns R* 26:207-15 Mr '48; Discussion (Profits and progress). J. S. Lawrence. 26:480-81 J1 '48

Gas pipelines' income soars, but costs rise faster. J. F. Falvey. *Barron's* 28:29-30 Mr 22 '48

Progress and prospects of the natural gas industry. O. Ely. *Pub Util* 42:511-15 O 7 '48

SEC o.k.'s financing plan for pipeline to serve Detroit and Milwaukee. Bsns W p21 Ja 10 '48

Gathering lines

Estimating gathering system meter run sizes. J. B. Arant. *World Oil* 128:206-7+ My '48

Maps

Pipe lines of the U.S.; maps. *World Oil* 127:176-7 Ja; 180-1 F; 128:240 My; 202 Ag; 194 S '48

Production estimates

Condensate production and cycling; payout and cycling life vs. permeability. P. J. Jones. *World Oil* 128:156+ S '48

Laboratory studies and their relation to cycling problems. J. P. Sloan. *bibliog diags Oil & Gas J* 46:153+ Mr 25 '48

Methods used in the estimation of natural gas reserves. H. J. Gruy and J. A. Crichton. *bibliog Pet Eng* 20:208+ O '48; Same. *cond. Oil & Gas J* 46:88-9+ O 25 '47

Production methods

Chocolate Bayou exemplifies good operating practice in high-pressure Gulf Coast fields. L. S. McCaslin, jr. *il map diag Oil & Gas J* 47:169-70+ Je 24 '48

Condensate production and cycling; cycling or water injection for a radial reservoir. P. J. Jones. *World Oil* 128:208+ My '48

Condensate production and cycling; water injection into a stratigraphic trap. P. J. Jones. *diags World Oil* 128:162+ J1 '48

Conservation and utilization of natural gas; review of Peruvian operations. R. E. Moyer. *maps Oil & Gas J* 46:251-3+ D 27 '47

Survey of dual completions. E. B. Miller, jr. *Oil & Gas J* 46:276-8 N 15 '47

Production rate

Condensate production and cycling. P. J. Jones. *World Oil* 128:178+ Ag '48

Proration

Texas part of Hugoton gas field put under commission proration. *Oil & Gas J* 47:57 S 30 '48

Rates

Contract demand, an innovation in rate making. M. C. Madsen and W. J. Quinlan. *map Pet Eng* 19:104+ My '48

FPC report foresees higher gas prices but no regulation needed. H. D. Ralph. *Oil & Gas J* 46:84-5 F 19 '48

Gas going up. Bsns W p30+ F 28 '48

High court refuses to open Attleboro gap for gas firms. *il Elec World* 128:46 D 20 '47

Natural gas price and supply. E. Falck. *Pub Util* 42:521-2 O 7 '48

Natural gas price in Turner valley. F. K. Beach. *il map Pet Eng* 19:57-63 S '48

Price of natural gas as a conservation factor. W. T. Pound. *World Oil* 128:54+ O '48

States rule rates; sales by pipeline companies direct to industrial users. Bsns W p25 D 20 '47

GAS, Natural—Rates—Continued

Surprise FPC report on gas; Smith-Wimberly report. Pub Util 41:362-3 Mr 11 '48

Recycling

- Absorption cycling process, diag Pet Refiner (Process Handbook ed) 27:300-1 sec 2 S '48
- Agua Dulce pressure-maintenance project. G. Weber. il Oil & Gas J 47:86+ Jl 8 '48
- Benton unit cycling plant. H. W. Manley. il map diag Oil & Gas J 47:82-6+ Ag 19 '48
- Condensate production and cycling. P. J. Jones. World Oil 128:166+ Je; 178+ Ag; 156+ S '48
- Construction under way will increase output of natural-gasoline, cycling plants. R. B. Tuttle. Oil and Gas J 46:145-6 Mr 25 '48
- Cycling at high pressure vs. depletion and cycling at low pressure. E. O. Bennett. Pet Eng 19:120+ Ja '48; Same. World Oil 127:160+ Mr '48
- Determination of cycling efficiencies in Cotton Valley Field gas reservoir. R. L. Hock. flow diag diags Oil & Gas J 47:63-4+ N 4 '48
- Economics of cycling. M. G. Arthur. bibliog Pet Eng 20:142+ O '48
- Gasoline and cycling plant operations; questions and answers. diags Pet Processing 3: 535-6 Je '48 [cont monthly]
- Katy gas-cycling plant. W. T. Robertson and H. M. Stamper. flow diag il diags Oil & Gas J 47:64-7 S 9 '48
- Laboratory studies and their relation to cycling problems. J. P. Sloan. bibliog diags Oil & Gas J 46:158+ Mr 25 '48
- Natural-gasoline, cycling-plant production may reach 17 million gallons daily. J. C. Casper. Oil & Gas J 46:129+ Mr 25 '48
- New cycling plant permits economical development of small fields. L. S. McCaslin, jr. flow diag il plan Oil & Gas J 47:198+ Je 24 '48
- New unit operation in Lake St John (La.) field; combination cycling, pressure-maintenance plant installation; combination crude-oil and gas-condensate reservoir produced and operated as unit. N. Williams. flow diag il map Oil & Gas J 46:99-102+ D 6 '47
- Practical aspects of cycling. M. G. Miller and M. R. Lents. Oil & Gas J 46:106-7+ Mr 11; 111-12+ Mr 18 '48
- Projected natural-gas processing units rated at billion-foot daily capacity; natural-gasoline and cycling-plant construction; tabulation. Oil & Gas J 47:181+ My 20 '48
- Recycling conserves U.S. natural gas. N. Uptegrove. il Sci Am 178:16-18 Ja '48
- Some high points in cycling plant design. V. E. Middlebrook. Oil & Gas J 46:100+ F 19 '48
- Study of cycling operations in the west Austin sands of Stratton-Agua Dulce. C. B. Johnson, jr. and F. H. Dotterweich. maps diag Oil & Gas J 46:112-15+ Mr 25 '48; Same. World Oil 128:178+ My '48
- Survey of cycling plants by states. Oil & Gas J 46:142 Mr 25 '48

Statistics

- Natural gas, customers, sales to consumers and revenue from sales to consumers, 1941-1946. Survey of Cur Bsns 1947 Sup p 123 [supplemented in monthly numbers]
- Natural gas production to exceed 1947's record 4.4 trillion feet; with tabulation, by states, by years, 1906-1947. World Oil 127: Yrbk 170-3 F '48
- Natural gas reserves; 1946; tables. Am Gas J 168:31 F '48
- Proved natural gas reserves rise; joint report by American gas association and American petroleum institute. Am Gas Assn Mo 30:25-8+ Ap '48
- United States; natural gas marketed production, 1906-1947; tabulation. World Oil 128: 103 sec 2 Jl '48

Storage

- Economics of B.t.u. storage. I. Resnick. bibliog Am Gas Assn Proc 1947:602-7; Same. Gas Age 100:64-6 O 30 '47
- Gas logistics; problems involved in transportation, storage, and supply of gas between gas fields and consuming public. G. L. Johnson. Gas Age 101:26+ Je 24 '48; Abstract. Am Gas J 169:31 Jl '48

Gas storage in water sand reservoir at Hastings. map diag World Oil 128:162+ O '48

- Natural gas stored in underground pipes. il diags Comp Air Mag 53:187-90 Ag '48
- Storage of natural gas in underground pipe sections. D. V. Meiller. il diags Western Soc E J 53:19-38 Mr '48; Excerpts. Heating-Piping 20:93-7 My '48; World Oil 128: 171-2+ S '48; Pub Util 42:481-5 O 7 '48
- Stored natural gas is dehumidified. Heating-Piping 20:66 Je '48

Underground storage of natural gas and propane; Consumers power company stores both in mixed form. il Am Gas J 169:29-30 S '48

Sulfur content

- Improved design, operating techniques for Girbotol absorption processes. R. M. Reed. flow diag il Pet Processing 2:907-12 D '47
- Treating units eliminate H₂S from process gas. flow diag il Pet Refiner 27:117-19 Ag '48

Unit operation of pools

- Benton field unit; cooperative enterprise on utilization of gas-condensate properties. W. L. Horner and E. G. Trostel. bibliog diag Oil & Gas J 46:77-80+ Mr 4 '48
- Legal aspects of the unitization of oil and gas fields. R. M. Myers. bibliog Oil & Gas J 47:222-6+ My 20 '48
- Nation's largest voluntary unit formed on Texas Gulf coast. L. S. McCaslin, jr. il map diag Oil & Gas J 47:84-6+ S 16 '48
- New unit operation in Lake St John (La.) field; combination cycling, pressure-maintenance plant installation; combination crude-oil and gas-condensate reservoir produced and operated as unit. N. Williams. flow diag il map Oil & Gas J 46:99-102+ D 6 '47

Well control

- How high pressure gas blowouts in a Texas field were brought under control. K. M. Fagin. il diags Pet Eng 19:94+ F '48

Well drilling

- United States; 1947 completions, footage drilled, and average depths; tabulation. World Oil 128:107 sec 2 Jl '48

Well pressure

- Back-pressure test for natural-gas wells; state of Texas. S. Smith. bibliog Oil & Gas J 47:81-4 Je 3 '48

Alberta

- Natural gas price in Turner valley. F. K. Beach. il map Pet Eng 19:57-63 S '48

Appalachian area

- Appalachian basin Ordovician symposium. J. T. Galey, M. Kay and others. bibliog maps diags Am Assn Pet Geologists Bul 32:1395-657 Ag '48

California

- Production and disposition of natural gas by California producers. E. K. Parks. diag Pet Eng 19:58+ Ap '48

California, Supply to

- Petroleum switch; California imports natural gas. Bsns W p26 N 29 '47

Denver, Supply to

- How mile-high Denver benefits from public service progressiveness. G. E. Stedman. il map Gas Age 100:13-16+ D 25 '47

France

- Gas-bearing structures of southern France. D. Schneegans. maps diags Am Assn Pet Geologists Bul 32:198-214 F '48
- Saint Gaudens gas fields important to French economy. E. N. Tiratsoo. il map World Oil 127:212+ F '48

Gulf Coast region

- Annual survey of Gulf Coast oil and gas fields, tabulated, maps Oil & Gas J 47:275+ Je 24 '48
- Gulf Coast's gas processing plants. D. M. Duff. il Oil & Gas J 47:156-9 Je 24 '48

GAS, Natural—Continued

Louisiana

- Benton field unit; cooperative enterprise on unitization of gas-condensate properties. W. L. Horner and E. G. Trostel, bibliog diag Oil & Gas J 46:77-80+ Mr 4 '48
- Benton unit cycling plant. H. W. Manley, il map diag Oil & Gas J 47:82-6+ Ag 19 '48
- Cycling plants stabilize crude oil. G. M. Liljenstein, flow sheets il Pet Refiner 27: 87-93 O '48
- Determination of cycling efficiencies in Cotton Valley Field gas reservoir. R. L. Hock, flow diag Oil & Gas J 47:63-4+ N 4 '48
- Louisiana report shows progress in oil and gas conservation. D. M. Duff, Oil & Gas J 47:44 JI 22 '48
- New unit operation in Lake St John (La.) field; combination cycling, pressure-maintenance plant installation; combination crude-oil and gas-condensate reservoir produced and operated as unit. N. Williams, flow diag il map Oil & Gas J 46:99-102+ D 6 '47

Memphis, Supply to

- Memphis carboscaling experience. A. E. Baheart and H. G. Howell, il Gas Age 101: 22-3+ Ap 15 '48

New England, Supply to

- Natural gas and New England. C. G. Young, Gas Age 101:20-1+ Ap 15 '48

New York (city), Supply to

- Cons. Edison to get southwestern shot in arm; expects substantial earnings benefits from natural gas. E. R. Abrams, Barron's 28:35 S 13 '48

Oklahoma

- Rich gas-condensate field will be developed rapidly by Shell; Elk City field, Oklahoma. Oil & Gas J 47:49 JI 22 '48

Peru

- Conservation and utilization of natural gas; review of Peruvian operations. R. E. Mayar, maps Oil & Gas J 46:251-3+ D 27 '47

Tennessee

- Oil and gas possibilities of southwestern Tennessee. C. A. Moritz, bibliog maps World Oil 128:160+ My '48

Texas

- Back-pressure test for natural-gas wells; state of Texas. S. Smith, bibliog Oil & Gas J 47:81-4 Je 3 '48
- Chocolate Bayou exemplifies good operating practice in high-pressure Gulf Coast fields. L. S. McCaslin, jr. il map diag Oil & Gas J 47:169-70+ Je 24 '48
- Huge construction program cuts gas waste in Texas to minimum. D. M. Duff, il Oil & Gas J 46:40-1 D 20 '47
- Huge gas-conservation project now in initial operation stage; Seeligson field of southwest Texas. G. Weber, il Oil & Gas J 47: 60-1 JI 8 '48
- Huge joint-company gasoline plant will conserve Slaughter casing-head gas. G. Weber, il plan Oil & Gas J 46:65-6 D 6 '47
- Nation's largest voluntary unit formed on Texas Gulf coast. L. S. McCaslin, jr. il map diag Oil & Gas J 47:84-6+ S 16 '48
- New cycling plant permits economical development of small fields. L. S. McCaslin, jr. flow diag il plan Oil & Gas J 47:198+ Je 24 '48
- Study of cycling operations in the west Austin sands of Stratton-Aguia Dulce. C. B. Johnson, jr. and E. H. Dotterweich, maps diag Oil & Gas J 46:112-15+ Mr 25 '48; Same, World Oil 128:178+ My '48
- Texas may close fields wasting gas; straight-hole rule looms. Oil & Gas J 47:71 O 21 '48
- Texas natural gas. E. O. Thompson, map Am Gas J 168:13-17 My '48; Same, Gas Age 101:33-6+ Ap 29 '48
- Texas natural gas moving into pipe lines. D. M. Duff, il Oil & Gas J 47:81-2 O 28 '48
- Texas part of Hugoton gas field put under Commission proration. Oil & Gas J 47:57 S 30 '48

United States

- Dynamic growth features natural gas industry. R. W. Hendee, Gas Age 101:27+ Ja 8 '48
- Gas for the future. C. G. Moulton, map Am Assn Pet Geologists Bul 32:1808-20 S '48
- Gas logistics; problems involved in transportation, storage, and supply of gas between gas fields and consuming public. G. L. Johnson, Gas Age 101:26+ Je 24 '48
- Growing debt burden in gas industry. E. M. Hanrahan, Comm & Fin Chr 168:1420+ O 7 '48
- Growth potentials of natural gas industry; with statistical summary of leading companies. E. A. Barnes, il Mag of Wall St 81: 360-1+ Ja 3 '48
- Industry faces new shortage of natural gas. E. R. Abrams, Barron's 27:10 N 17 '47
- National industrial conference board holds reserves of natural gas will last thirty years, Comm & Fin Chr 168:318 JI 22 '48
- Natural gas outlook for the glass industry. F. T. Rainey, map Glass Ind 29:81-2+ F '48; Same cond. Am Gas J 168:22 F '48
- Prospects for natural gas companies. H. F. Travis, Mag of Wall St 82:287-9+ Je 19 '48
- Proved natural gas reserves rise; joint report by American gas association and American petroleum institute. Am Gas Assn Mo 30:25-8+ Ap '48
- United States; natural gas marketed production, 1906-1947; tabulation. World Oil 128: 103 sec 2 JI '48
- U.S. oil and gas reserves. Pet Refiner 27: 171-2 Ap '48
- United States reserves unsatisfactory in relation to production. L. J. Logan, World Oil 127:44-6+ Ap '48

Venezuela

- Gas conservation program started in Venezuela by consultant group. Oil & Gas J 47:64 Ag 19 '48

Washington, D.C., Supply to

- Technical aspects of the Washington change-over. F. P. Lamb, Am Gas J 159:27-9 Ag '48
- Well-planned service changeover to natural gas. L. D. Farrar, Pub Util 42:467-80 O 7 '48

West Virginia

- New gas developments in southern West Virginia. E. H. Tollefson and others, map Oil & Gas J 47:82+ Ag 5 '48

GAS, Oil

- Catalytic reforming of hydrocarbons; process extended to include natural gas propane, commercial butane, and refinery oil gas used in the production of peak load gas. C. H. Riesz and others, Am Gas Assn Mo 30:17-20 Ap '48
- Some economic realizations of high B.t.u. oil gas. H. M. Henry, Gas Age 102:65-8+ S 30; 27-9+ O 14 '48
- Standby equipment relieves fuel gas shortage. R. R. Todd, il Factory Management 106:88-9 F '48
- Technological problems in the use of alternate fuels in the gas industry; oil-vapor gas, propane, anthracite gas. R. S. Arrandale, il diags Glass Ind 29:309-13 Je '48
- Testing manufacture of oil gas. R. R. Grant, Am Gas Assn Mo 29:545-9+ D '47
- Twin generator oil-gas process for production of high B.t.u. gas. R. J. Chambers, il diag Am Gas Assn Proc 1947:760-6; Same, Am Gas J 167:42-5 JI '47; Same, Gas Age 99:24-6+ Je 26 '47; Same, Am Gas Assn Mo 29:323-6 JI-Ag '47
- Twin generator process for high Btu oil gas production. Iron Age 161:89 Mr 25 '48
- Viscosity of vapors. W. L. Nelson, Oil & Gas J 46:109 F 12 '48
- GAS, Producer
- Determination of moisture in producer gas. J. Pearson and R. Toye, bibliog diags Iron & Steel Inst J 159:410-14 Ag '48
- Europe renews efforts to develop gas generator engines. Automotive Ind 99:90 O 1 '48
- Technological problems in the use of alternate fuels in the glass industry. R. S. Arrandale, il diag Glass Ind 29:382-6+ JI '48

GAS, Producer—Continued

Variations in producer-gas quality. J. E. de Graaf. Iron & Steel Inst J 157:183-90 O '47; Discussion, 158:456-62 Ap '48; Engineer 184:522 D 5 '47; Engineering 164:520-1 N 23 '47

GAS, Water

Chemical treatment of water gas tar emulsion. S. A. Petrino. Am Gas Assn Proc 1947:608-14

Plant practice in mechanical dehydration of water gas tar emulsions. A. G. Hall and A. R. Bayer. flow sheet diagms Am Gas Assn Proc 1947:713-17

Studies on water-gas tar. A. W. Gauger and others. Am Gas Assn Proc 1947:757-60

Manufacture

Economy of natural gas as an enriching medium. C. R. Bellamy. Gas Age 101:28-9† Mr 4 '48; Excerpts. Pub Util 41:702-4 My 20 '48

Experiences with silicon carbide linings in water gas generators. T. A. Corby. bibliog Am Gas Assn Proc 1947:620-30

Production of water gas from pulverized coal; a continuous process. J. F. Foster. il diag Ind & Eng Chem 40:586-92 Ap '48

Research on the mechanism of the water-gas reaction. J. F. Foster and D. A. Vorum. il Am Gas Assn Proc 1947:723-32

Safe maintenance and operation of standby plants. D. E. Barthel. Gas Age 102:19-20+ JI 22 '48

Steam generation at 600 psi 700° F as applied to carburetted water gas plant. A. D. Harrison. il diag Am Gas Assn Proc 1947:101-14; Same, without il. Gas Age 100:14-17+ N 27 '47

GAS analysis

Analyses of complex mixtures of gases; application to control and extinguish fires and to prevent explosions in mines, tunnels, and hazardous industrial processes. S. H. Ash and E. W. Felegy. 9 fold pls [in pocket] U S Bur Mines Bul 471:1-202 bibliog (p201-2); pa. 75c Supt. of doc. '48

Apparatus for determining CO₂ in a gas. J. J. Guy. diag Chem & Ind p600 S 18 '48

Apparatus for micro gas analysis. C. Kenty and F. W. Reuter, jr. bibliog diag R Sci Instr 18:918-24 D '47

Chemical analysis based on X-ray absorption measurements with a multiplier phototube; gases. E. H. Winslow and others. il Anal Chem 19:866-7 N '47

Chemical analysis of refinery C₃ hydrocarbon fractions. R. F. Robey and H. K. Wiese. bibliog Anal Chem 20:926-33 O '48

Continuous determination of oxygen concentration based on the magnetic properties of gases. R. D. Richardson. bibliog il diags A S M E Trans 70:211-15; Discussion, 215-16 Ap '48

Continuous estimation of oxygen in gases using a polarographic method. W. S. Wise. bibliog diag Chem & Ind p37-8 Ja 17 '48

Determination of acetylene in gas. J. A. Shaw and E. Fisher. bibliog il Anal Chem 20:533-6 Je '48

Determination of cyclopropane by selective absorption. F. R. Brooks, R. E. Murdock and V. Zahn. bibliog Anal Chem 20:62-3 Ja '48

Determination of gas-turbine combustion-chamber efficiency by chemical means. P. Lloyd. il diags A S M E Trans 70:335-41 My '48

Determination of hydrocyanic acid in crude or in refined coal gas. H. F. Taylor. Gas J (Lond) 252:293-4 N 5 '47

Determination of moisture in producer gas. J. Pearson and R. Toye. bibliog diags Iron & Steel Inst J 159:410-14 Ag '48

Determination of olefines in cracked gases. G. E. Mapstone and P. Beckmann. bibliog Pet Refiner 27:112-16 Ag '48

Determination of small amounts of oxygen in organic compounds. W. W. Walton and others. bibliog il diags J Res Nat Bur Stand 40:443-7 Je '48

Determination of thiophene, carbon oxysulfide, and carbon disulfide in producer gas; spectrophotometric method. L. J. Brady. bibliog diag Anal Chem 20:512-14 Je '48

Determination of water vapor; thermal conductivity methods. R. H. Cherry. bibliog diags Anal Chem 20:958-62 O '48

Electrostatic method for determining dust in wet gases. E. A. K. Patrick. bibliog il diags Soc Chem Ind J 66:249-53 Ag '47

Exhaust gas analysis. H. E. Styles. Automobile Eng 38:153-6 Ap '48

Experimental study of the Koppers-Hinckley-Podbielniak apparatus and method for the determination of conjugated dienes. M. Shepherd and others. J Res Nat Bur Stand 39:435-61 N '47

Gas analysis apparatus employing the velocity of sound. C. E. Crouthamel and H. Diehl. bibliog diags Anal Chem 20:515-20 Je '48

Hydraulic device for raising and lowering mercury in gas analyzers. H. F. Brubach and N. H. Smith. diags Science 108:383-9 O 8 '48

Infra-red gas analysers. il diag Engineer 186:40-1 JI 9 '48

Instrument for continuous measurement and recording of low concentrations of oxygen in gases. G. Cohn. bibliog il diags Anal Chem 19:832-5 N '47

Mass spectrometer in gas analysis. Franklin Inst J 244:401-2 N '47

Measurement of hydrogen sulphide in town gas. il diags Engineer 185:264-5 Mr 12 '48

Measurement of water in gases by electrical conduction in a film of hygroscopic material and the use of pressure changes in calibration. E. R. Weaver and R. Riley. bibliog diags J Res Nat Bur Stand 40:169-214 Mr 4 '48; Same cond. Anal Chem 20:216-29 Mr '48

Method for the determination of small concentrations of SO₂ in the presence of larger concentrations of SO₂. D. Flint. bibliog diags Soc Chem Ind J 67:2-5 Ja '48

Modern methods of gas analysis. W. D. Vint. il diags Metallurgia 37:150-2, 317-18 Ja, Ap '48

Moisture determination by electrolytic film; measuring water vapor in gases. il diags Refrig Eng 55:266-7 Mr '48

New developments in instruments. J. S. Yeaw. il diag Am Gas Assn Proc 1947:547-76

Paramagnetic oxygen analyzer. C. A. Dyer. bibliog il diags R Sci Instr 18:696-702 O '47

Potentiometric determination of oxygen using the dropping mercury electrode. H. A. Laitinen, T. Higuchi and M. Czuba. bibliog diag Am Chem Soc J 70:561-5 F '48

Purification of synthesis gas produced from pulverized coal; specifications, purification processes, and analytical methods. A. E. Sands, H. W. Wainwright and L. D. Schmidt. bibliog flow sheets diags Ind & Eng Chem 40:607-20 Ap '48

Rapid machine method; calculating results of infrared analyses of gaseous hydrocarbon mixtures. E. C. Daigle and J. H. Lee. bibliog Pet Refiner (Process Handbook ed) 27:120-3 S '48

Recording mass spectrometer for process analysis. A. O. Nier and others. bibliog diags Anal Chem 20:188-92 Mr '48

Rugged and inexpensive thermal conductivity cells for application in precise and dependable gas analysis. R. H. Müller. il Anal Chem 20:sup21A-2A My '48

Simple modification increases accuracy and ease of use of Orsat type gas analyzers. A. H. McKinney. diag Chem Eng 55:124 Mr '48

See also
Air—Analysis

Flue gas—Analysis
also subdivision Analysis under names of gases, e.g. Hydrogen, Nitrogen, Oxygen

GAS appliance industry
Appliance manufacturers are finding business brisk; over 26 per cent use LP-gas; abstract. H. Massey. Nat Pet N 39:38+ N 26 '47

Manufacturers faced with unprecedented demand for appliances. J. A. Robertshaw. Gas Age 101:25 Ja 8 '48; Same. Am Gas J 168:19 Ja '48

Responsibilities of increased production. D. P. O'Keefe. Am Gas Assn Proc 1947:35-8

GAS appliance industry—Continued**Directories**

Gas engineering and appliance directory. Gas Age 101:99-167 Je 10 '48

Statistics

G.A.M.A. reports 1947 appliance sales; tabulation. Gas Age 101:38 F 19 '48

GAS appliance manufacturers association

Annual meeting, 30th, Chicago, April 5-7; officers and division chairmen, 1948-49. Am Gas J 168:53 My '48

Directors meeting, Atlantic City. Gas Age 102:41-3 O 28 '48

Meeting, Cleveland; officers and chairmen. Gas Age 100:35-6 O 30 '47

GAS appliances

Automatic gas pressure control apparatus. diag Engineer 135:360 Ap 9 '48

Improving commercial coffee urns. H. J. Hense. il diags Am Gas Assn Mo 30:10-12 Ap '48

Problems solved in change-over to propane-air. O. W. Barends. il Am Gas J 168: 14-15 Ap '48

See also

Gas heaters

Gas stoves

Merchandizing

America eats out. P. P. Logan. Am Gas Assn Proc 1947:434-7

Gas sales potentials in laundrettes. H. B. Wilson. diag Gas Age 100:31+ D 25 '47

How California is training salesmen in gas and electric appliance selling. il Gas Age 101:25+ F 19 '48

It's later than you think. H. B. Brown. Am Gas Assn Proc 1947:403-5

Old timer comments on the appliance market. Am Gas J 168:41 Ap '48

Report of food service equipment committee. Am Gas Assn Proc 1947:452-6

Sales strategies for today and tomorrow. B. Sando. Am Gas J 168:47-9 My '48

Sales training guide manuals; Pacific coast gas association. F. A. Herr. Am Gas J 167: 47-50 N '47

Tips on appliance merchandising; way to accept trade-ins at a profit. Dom Eng 170: 92-4 D '47

Trends in appliance merchandising. R. H. Bolin. Gas Age 102:36+ Ag 19 '48

Upgrading drive sells new equipment to old heating customers. V. O'Brien. il Gas Age 101:31-2+ Ap 29 '48

Pilot lights

Prevention of pilot closure. H. J. Hense. il diags Am Gas Assn Mo 30:11-12 F '48

Standards

Approval standards revised. Am Gas Assn Mo 30:35+ My '48

Fact finding for sound standards. H. J. Hense. il Am Gas Assn Mo 30:14-16 Ja '48

Testing

Appliance corrosion under attack; A.G.A. sponsored project at Battelle. H. A. Pray and others. il diag Am Gas Assn Mo 30: 19-23+ Ji-Ag '48

Development of standards for testing gaseous fuels. A. W. Gauger. Am Gas Assn Proc 1947:116-21; Same abr. Am Gas Assn Mo 30:35-7 F '48

Ventilation

New development in gas range venting with mechanical draft hood. F. A. Herr. il diag Am Gas J 168:50-2+ My '48

Report of performance of a domestic kitchen ventilation hood. H. L. Warren. il diag Gas Age 101:28-31+ Ap 1 '48; Same. Am Gas Assn Mo 30:21-4 Ap '48

Seven rules for proper venting of gas appliances. il Dom Eng 172:119-21+ Ag '48

Venting heater rooms in apartment project. M. H. White. il Heating-Piping 20:101 O '48

GAS appliances, Domestic

Gas aids education for family living; home economics equipment at McKeesport high school. D. E. McKay and C. W. Marsico. il Gas Age 101:21-3 My 13 '48

Gas consumer demands of the enameller. E. W. E. Dunning. Gas J (Lond) 252:637-9 D 17 '47

Gas dream house for Mr Blandings. il Gas Age 102:29 Ag 5 '48

Laundry dryers; the new opportunity. H. E. Merritt. Gas Age 102:27+ S 2 '48

New-design household incinerator eliminates smoke and odor. L. T. Bissey. diags Gas Age 102:30-1+ Ag 5 '48

New ways to increase base load; domestic refuse incinerators and clothes dryers. R. J. Miller. Am Gas Assn Mo 30:32-3 Je '48

Relieving the housing shortage; appliances installed in housing projects in Boston area. il Am Gas Assn Mo 30:17-18 O '48

Merchandizing

Brooklyn Union uses six tools for New Freedom gas kitchen sales. M. Gibbons. il Gas Age 101:20-1+ F 5 '48; Same. Am Gas Assn Mo 30:14-16 Mr '48

Cashing in on the New Freedom gas kitchen program. C. S. Stackpole. Am Gas Assn Proc 1947:400-3

Demonstration using dealer kit. M. Huck. Am Gas Assn Proc 1947:410-12; Abstract. Am Gas Assn Mo 29:126+ Mr 47

Fort Worth promotes all gas kitchens. il Gas Age 102:21+ Ji 22 '48

Home service gets the new look. I. L. Muntz. il Am Gas Assn Mo 30:15-17 My '48

Mr Blandings cooks with gas; gas-equipped dream house opened for public inspection in California. il Am Gas Assn Mo 30:17+ Ji-Ag '48

Oklahoma features New Freedom. il Am Gas Assn Mo 30:28-9 O '48

Philadelphia offers kitchen planning. il Gas Age 100:17 D 25 '47

Residential gas mobilized for 1948. C. S. Stackpole. Gas Age 101:32-4+ Ja 8 '48

School kitchen replacement plan. A. G. Bur. Am Gas Assn Proc 1947:414-16; Same. Am Gas Assn Mo 29:556-7 D '47; Same. Am Gas J 168:38-9 F '48

GAS as fuel

A.G.A. conference on industrial and commercial gas. Windsor, Ontario, April 7-9. Am Gas Assn Mo 30:24-6 My '48

Experimental furnace for the investigation of open-hearth-furnace combustion problems. A. H. Leckie and others. bibliog il diags Iron & Steel Inst J 155:392-422; 160: 37-56 Mr '47, S '48; Discussion. 156:501-4; 157:201-6 Ag, O '47

Fuel economies in firing lime kilns. V. J. Azbe. diags Rock Prod 51:106-9 F '48

Fuels for today and tomorrow. M. W. Ball. Am Gas Assn Proc 1947:125-9; Same abr. Am Gas Assn Mo 29:540+ D '47

Gas for industry and commerce; perspectives of 1948. L. Ourusoff. Gas Age 101:29-31 Ja 8 '48

Gaseous and liquid fuels in iron and steel works. J. B. E. Brooke and J. S. Bryan. il diags Iron & Steel Inst J 158:111-24 Ja '48; Discussion. 160:85-94 S '48

Looking ahead in fuels supply. R. A. Sherman. bibliog Am Gas Assn Proc 1947:441-6

Methane gas survey; Italian studies of fuel and chemical relationships. Chem Age (Lond) 59:43 Ji 10 '48

National fuel plan. W. M. Carr. Gas J (Lond) 252:399-400 N 19 '47

New gas-Diesel development provides fuel economies; cost data. Am Gas J 167:51 N '47

Smoke abatement; the role of gas and coke; annual conference of the National smoke abatement society. Gas J (Lond) 252:355-6 N 12 '47

Stand-by equipment pinch hits when services fail; gas, lighting and power. G. A. Van Brunt. il Factory Management 105:124-5 N '47

Standby equipment relieves fuel gas shortage. R. R. Todd. il Factory Management 106: 88-9 F '48

Technological problems in the use of alternate fuels in the glass industry. R. S. Armandale. il diags Glass Ind 29:309-13, 382-6+ Je-Ji '48

GAS as fuel—Continued

Trends in the dehydration of agricultural products using gaseous fuels. F. H. Dotterweich. *Pet Eng* 19:176+ N '47

See also

Blast furnace gas	Gas heating, Industrial
Boilers—Gas firing	Gas ovens
Butane	Gas producers
Coke-oven gas	Gas stoves
Gas, Producer	Liquefied petroleum gas
Gas appliances	Propane
Gas appliances, Domestic	Sewage sludge—Gas production
Gas burners	
Gas cooking	
Gas heating	

Natural gas

Challenge to the natural gas industry; its use in drying of crops. R. M. Hutchison. *Pet Eng* 19:96 Ap '48

FFA urges selective marketing to solve gas-demand problems. *Oil & Gas J* 46:90 F 26 '48

Flame propagation rates at reduced pressures. W. C. Johnston. *diags S A E J* 55:62-5 D '47

Fuels of the future; changes in mineral fuels supply indicate expansion of natural gas industry during next decade. L. F. Terry. *Am Gas Assn Mo* 30:13-16 Ap '48

Gas-driven locomotives; natural gas as locomotive fuel in Russia; abstract. *diag Mech Eng* 70:146 F '48

How to estimate standby fuel required by interruptible gas users. A. B. Stickney. *Heating-Piping* 20:71-4 Ag '48

Influence of reaction interface extension in the combustion of gaseous fuel constituents. W. J. Wohlenberg. *bibliog A S M E Trans* 70:143-56; Discussion, 156-60 Ap '48

Natural gas outlook for the glass industry. F. T. Rainey. *map Glass Ind* 29:81-2+ F '48; Same cond. *Am Gas J* 168:22 F '48

Oil standby equipment proves value in gas shortage; Champion spark plug co. J. A. Soden. *il Iron Age* 162:93-4 S 16 '48

Possibilities in the extension of utility gas service. E. S. Pettyjohn. *Am Gas Assn Proc* 1947:69-75; Same. *Am Gas Assn Mo* 29:563-5+ D '47

Technical aspects of the Washington change-over. F. P. Lamb. *Am Gas J* 169:27-9 Ar '48

Use of natural gas in Italy for motor fuel. R. A. Ransom. *Gas Age* 100:28 N 27 '47

Zinc smelting in the horizontal retort fired with natural gas. G. L. Oldright. *bibliog 4pls U S Bur Mines Rep of Invest* 4333:1-71; 4334:1-41; 4335:1-42; 4336:1-111 '48

GAS boosters

Automatic field booster stations utilize low pressure gas. E. M. Myers. *il Gas Age* 102:78+ S 30 '48

Cooling water requirements for natural gas booster stations. A. V. Mueller. *il Gas Age* 100:32-3 D 25 '47; Same. *Oil & Gas J* 46:66-7+ Ja 8 '48; Same. *Am Gas J* 168:35-7 Mr '48; Same. *Pet Eng* (Ref annual) 19:202+ Jl 1 '48

GAS burners

Air entrainment in gas burners. G. von Elbe and J. Grumer. *bibliog diags Ind & Eng Chem* 40:1123-9 Je '48

Comparison of systems for controlling gas-fired furnace process temperature. H. E. McClatchey. *diags Pet Processing* 3:878-80 S '48

Five essentials in air-gas proportioning mix. *Cer Ind* 51:68 Ag '48

Gas burner units for immersion heating. *diags Am Gas J* 168:37 Ap '48

Gas-oil burner offers peak stand-by protection for homes. C. C. Young. *il Gas Age* 102:27-9+ Ag 5 '48

Hot blast stove gas burner gives soft mellow flame. S. P. Kinney. *il diags Blast F & Steel Pl* 36:217-19 F '48

Radiants aid broiler performance. H. J. Hense. *il Am Gas Assn Mo* 30:25-6+ Je '48

Selecting burners for day-tank operation. *Cer Ind* 51:75 Jl '48

Special burners in water heaters. *diags Am Gas Assn Mo* 29:541-2+ D '47

Zinc smelting in the horizontal retort fired with natural gas; burner design. G. L. Oldright. *4pls U S Bur Mines Rep of Invest* 4336:1-111 '48

Manufacture

Drill jigs speed output of stove burners; Odin stove co. W. Rudolph. *il Am Mach* 92:124-5 F 12 '48

GAS carburizing. See Case hardening—Gas carburizing

GAS companies

See also Pacific gas and electric company

Accounting

Accounting conference sponsored jointly by American gas association and Edison electric institute. St Louis, April 12-14. *Am Gas Assn Mo* 30:19-23+ My '48

Accounting for salvaged equipment and spare parts items. E. D. King. *Am Gas Assn Proc* 1947:227-8

Budget plan for payment of house heating bills. C. Hammel. *Am Gas Assn Proc* 1947:156-62

Bulk proof of cash receipts. G. J. Beswick and H. G. Littlewort. *il Am Gas Assn Mo* 30:29-31 Ap '48

Coordination of continuing property records, general accounting, operations, and engineering activities. A. J. Mayotte. *Am Gas Assn Proc* 1947:233-5

Determination and accounting for construction overheads. W. G. Pilgrim. *Am Gas Assn Proc* 1947:137-45

Functional or responsibility accounting; New Orleans public service inc. F. J. Labanca. *Am Gas Assn Proc* 1947:276-9

Functional or responsibility accounting; Philadelphia electric co. G. V. Buck, jr. *Am Gas Assn Proc* 1947:279-80

Internal auditing practice; Consolidated gas electric light and power company of Baltimore. C. J. Nichols. *Am Gas Assn Proc* 1947:281-6

Mechanics of irregular billing. J. D. Elliott. *Gas Age* 102:18-20+ S 2 '48

Methods of pricing retirements from mass property accounts. W. G. Pilgrim. *Am Gas Assn Proc* 1947:281-3

Organization and practice of the auditing department, Consolidated Edison company of New York, inc. C. G. Nye. *Am Gas Assn Proc* 1947:286-9

Outline of system of accounts exemplifying responsibility accounting; Detroit Edison co. L. C. Provencher. *Am Gas Assn Proc* 1947:290-1

Plant accounting and continuing property records. A. W. Egger. *Am Gas Assn Proc* 1947:246-7

Preparation of a utility's budget. W. H. Zimmer. *Am Gas Assn Proc* 1947:173-99

Procedure for periodic comparison of actual results with original budgets. F. H. Crissman. *Am Gas Assn Proc* 1947:200-13

Prorating of irregular period billing. F. W. Phelps. *Am Gas Assn Proc* 1947:321-5

Punched card payroll accounting. J. K. Brown. *Am Gas Assn Proc* 1947:273-5

Value of budget procedures to the utility industry. J. W. Mackie. *Am Gas Assn Proc* 1947:171-3

See also

Gas, Natural—Accounting

Gas companies—Records

Advertising

See Gas industry—Advertising

Appliance selling

Brooklyn Union uses six tools for New Freedom gas kitchen sales. M. Gibbons. *il Gas Age* 101:20-1+ F 5 '48; Same. *Am Gas Assn Mo* 30:14-16 Mr '48

Buildings

East Ohio Gas builds million-dollar garage. W. Rudolph. *il Gas Age* 100:25-6+ D 11 '47

Method of determining space requirements and forecasting future space requirements in utility buildings; Southern counties gas co. W. G. Barks, jr. *il plans Gas Age* 101:21-4+ Ja 22 '48

GAS companies—Continued

Customer relations

- Looking to the future in collections. C. E. Rowe. Am Gas Assn Proc 1947:357-61
- Maintaining good relations during critical times. R. S. Wenner. Am Gas Assn Proc 1947:446-50; Same. Am Gas J 167:14-15+ D '47
- Reflecting customer attitude accurately to top management. F. J. Porter, jr. Am Gas Assn Proc 1947:346-56
- Value of the credit and collection department to the company and to the industry. C. L. Havener. Am Gas Assn Proc 1947:310-16
- Write as you talk, customers like it. C. L. Sullivan. Am Gas Assn Proc 1947:316-20; Same. Am Gas Assn Mo 29:285-7+ Je '47

Dealer relations

- Brooklyn Union uses six tools for New Freedom gas kitchen sales. M. Gibbons. Il Gas Age 101:20-1+ F 5 '48; Same. Am Gas Assn Mo 30:14-16 Mr '48
- By all means, deal in the dealer. B. A. Seiple. Am Gas 100:23-5 N 27 '47; Same abr. Am Gas J 166:24-5 Ap '47; Same. Am Gas Assn Mo 29:451-2 O '47
- Contest started a department; Dealers' co-operative sales dept., Cincinnati gas and electric co. R. J. Paulsen. Il Gas Age 101:15-17+ Je 24 '48
- Demonstration using dealer kit. M. Huck. Am Gas Assn Proc 1947:410-12; Abstract. Am Gas Assn Mo 29:126+ Mr '47
- Easy way to dealer training. F. L. Fletcher and R. W. Pearson. Am Gas Assn Mo 30:27+ S '48
- Home service in dealer cooperation. J. M. Humphreys. Am Gas Assn Proc 1947:408-10
- Lone Star revitalized sales force with Gas has got it. W. C. Grant. Il Gas Age 101:25-6 F 5 '48
- Our sales policy, and the dealer. E. V. Bowyer. Gas Age 100:34+ D 25 '47
- Sales are made on the local level by Brooklyn Union; building water heating load. Il Am Gas Assn Mo 30:18+ Jl-Ag '48
- Up-grading gas heating installations through dealer education. C. L. Benn. diags Gas Age 102:70-1 S 30 '48

Emergency problems

- Gas crews at Portland, Oregon restore service to Vancouver, Wash. following Columbia River flood. Il Am Gas J 169:18 Ag '48

Employees

- Approach to driver education. W. F. Brown. Am Gas Assn Proc 1947:767-70
- Cadet engineer training program; Philadelphia electric co. M. S. Viteles and G. L. Harvey, jr. Am Gas Assn Mo 30:17-20+ Ja '48
- Continuing problems in employee relations. M. V. Cousins. Gas Age 102:58+ O 28 '48
- Developing better employees. W. H. Lough. Am Gas Assn Mo 30:31-2 F '48
- Electric and gas utilities; wage structures in 1948. K. B. Mohn. Mo Labor R 67:377-80 O '48
- Employee relations. M. C. Hale. Am Gas Assn Proc 1947:235-40
- Finding out what your workers think; employees' opinion surveys. J. C. Bevis. Gas Age 101:17-19+ F 5 '48
- Ideas pay off; Philadelphia Electric's employee suggestion system. S. W. Rubenstein. Am Gas Assn Mo 30:14-16 F '48
- Industrial relations round-table. Am Gas Assn Mo 30:19 S '48
- Job classification and evaluation; why and how. J. A. Whelpley. Am Gas Assn Proc 1947:801-4; Excerpt. Am Gas J 166:16-17 My '47
- Management doubles as teacher; manual defines scope of supervisors' authority; Public service electric and gas co., Newark, N.J. E. R. Eberle. Am Gas Assn Mo 30:27-9 Jl-Ag '48
- New methods in training appliance servicemen. H. Luoma. Gas Age 102:12-14+ S 2 '48
- Plan for meter readers. A. G. Burnett. Il Am Gas Assn Mo 30:31-2 Ja '48

- Supervisory training; keystone of good employee relations. J. D. Elliott and J. G. Ross. bibliog Am Gas Assn Proc 1947:291-310
- Supervisory training pays large dividends. J. H. Hinds. Am Gas Assn Mo 30:13-14+ Jl-Ag '48
- Tell your story to employees. C. J. Allen. Am Gas Assn Mo 30:23-4+ O '48; Same. Gas Age 102:24-6+ O 14 '48
- Training program for office workers. J. P. Flemming. Am Gas Assn Proc 1947:132-7
- Training program for utility car and truck drivers. F. A. Herr. Am Gas J 169:36-7 Jl '48
- Uniforming meter readers. W. R. Seidel. Am Gas Assn Proc 1947:148-55
- Utility house organs are profit-makers. D. Markstein. Am Gas J 169:22-3 S '48
- Wage structure of gas utilities in January 1947. T. P. Kanninen. Mo Labor R 66:55-8 Ja '48
- Wage structures of gas utilities. T. P. Kanninen. Pub Util 41:214-21 F 12 '48
- When injured employees receive compensation. L. T. Parker. Am Gas J 168:31-3 Mr '48
- Whys and results of job evaluation. F. R. Rauch. Gas Age 100:29-30+ D 25 '47; Same. Am Gas J 168:27-9 Ja '48

Equipment and supplies

- Adapting automotive equipment and construction apparatus to service in a public utility. T. C. Smith. Am Gas Assn Proc 1947:479-80
- Depreciation as it affects economics of vehicle replacement. S. G. Page. Am Gas Assn Proc 1947:482-6
- Report of American gas association committee on steel requirements of gas utility companies for distribution facilities and plant structures and equipment. Am Gas J 169:38 Jl '48
- Total gas industry steel requirements exceeded 4,000,000 tons. Gas Age 101:27+ My 13 '48
- Transportation in the gas industry. H. O. Mathews. Am Gas Assn Proc 1947:514-16
- See also
- Gas works—Equipment

Exhibits

- Gas plays major role in modern living; exhibit of the Washington gas light co. Il Am Gas Assn Mo 29:535+ D '47

See also

- Gas industry—Exhibitions

Finance

- Cons. Edison to get southwestern shot in arm; expects substantial earnings benefits from natural gas. E. R. Abrams. Barron's 28:35 S 13 '48
- Fundamentals of utility financing. E. Hopkinson, Jr. Am Gas Assn Mo 30:3-5+ My '48
- 1940-1946; financial statistics, public utilities, electric and gas operating companies. 454p \$15 C. A. Turner, 208 South La Salle st, Chicago 4 '47
- Regulation and natural gas company investment. C. C. Brown. Comm & Fin Chr 168:502+ Ag 5 '48
- See also
- Gas companies—Securities

Franchises

- Franchise vs Public service commission. L. T. Parker. Am Gas J 169:31-3+ Ag '48

Law

- Franchise vs Public service commission. L. T. Parker. Am Gas J 169:31-3+ Ag '48
- How to win gas explosion damage suits. L. T. Parker. Am Gas J 168:28-30 F '48
- New explosion law suits. L. T. Parker. Am Gas J 169:33-5 Jl '48
- New gas rate law. L. T. Parker. Am Gas J 168:39-41 Je '48
- New law of gas contracts. L. T. Parker. Am Gas J 169:25-7 S '48
- Validity of damage allowances. L. T. Parker. Am Gas J 168:39-41 Ja '48
- Validity of gas laws. L. T. Parker. Am Gas J 169:46-8 O '48

GAS companies—Law—Continued

What is confiscation, recent court decisions. L. T. Parker. Am Gas J 167:35-6 D '47
When injured employees receive compensation. L. T. Parker. Am Gas J 168:31-3 Mr '48
See also

Gas, Natural—Laws and regulations**Management**

Accountant's place in management. J. V. Toner. Am Gas Assn Proc 1947:223-6
Approvals, by management. A. A. Cullman. Am Gas Assn Mo 30:28-9+ Mr '48
Collection correspondence. W. C. Young. Am Gas Assn Proc 1947:166-9
Collections by group agency plan. E. N. Keller. Am Gas Assn Mo 30:27-8 Je '48
How mile-high Denver benefits from public service progressiveness. G. E. Stedman. il map Gas Age 100:13-16+ D 25 '47
How southern California companies serve one-quarter of state. G. E. Stedman. Gas Age 102:25-8+ JI 22 '48

Public relations

How Detroit has won public esteem. G. E. Stedman. il Gas Age 100:18-19+ N 27 '47
Industry-wide cooperation. F. H. Adams. Am Gas Assn Proc 1947:39-44; Same. Am Gas J 167:54-7 N '47; Same. Gas Age 100:29-32+ N 13 '47; Same cond. Am Gas Assn Mo 29:485-6+ N '47
Omaha emphasizes public relations. G. E. Stedman. il Gas Age 102:34-5+ Ag 19 '48

Radio communication

Industry seeks clear mobile radio. il Am Gas Assn Mo 30:3-6 Mr '48
Mobile telephone proves its worth. W. C. Grant. il plan Gas Age 101:18-19+ Ap 15 '48
Speeding up service calls by radio-phone; Southern California gas company. il Am Gas J 168:24-5 Ja '48

Records

Accounting records and files. W. A. Kelly. Am Gas Assn Proc 1947:361-3
Alphabetic tabulating card billing and accounts receivable plan. W. J. Taraldson. Am Gas Assn Proc 1947:366-8
Combination route book, customers' ledger operation. J. T. McKay. Am Gas Assn Proc 1947:369-71
Postal card bill and historical ledger card plan. F. W. Phelps. Am Gas Assn Proc 1947:364-6
Records and their interpretation. J. D. von Maur. Gas Age 102:20-4+ JI 8 '48
Streamlining gas distribution maps and records. H. G. Howell. il Gas Age 101:21-4+ Mr 4 '48

Safety measures

Principles of accident prevention. W. F. Brown. Am Gas J 169:15-18 S '48; Same cond. Am Gas Assn Mo 30:8-10+ S '48
Report of subcommittee on chemical aspects of safety and accident prevention. Am Gas Assn Proc 1947:532-5

Salesmen

Industrial and commercial gas section outlines school agenda. Am Gas Assn Mo 30:33-4 F '48
Revitalize your sales force. A. Michelson. Am Gas Assn Mo 30:29-31 Je '48
Sales training guide manuals; Pacific coast gas association. F. A. Herr. Am Gas J 167:47-50 N '47

Securities

Growing debt burden in gas industry. E. M. Hanrahan. Comm & Fin Chr 168:1420+ O 7 '48
Growth potentials of natural gas industry; with statistical summary of leading companies. E. A. Barnes. il Mag of Wall St 81:360-1+ Ja 3 '48
Income from retirement or discharge of bonds in computing excess profits net income. Am Gas Assn Proc 1947:250-2
Losses from unexercised stock rights. Am Gas Assn Proc 1947:257-9

Market for manufactured gas securities. E. Hopkinson, jr. Comm & Fin Chr 168:1416+ O 7 '48

Natural gas company stocks; with data on market action. G. A. Butler. Comm & Fin Chr 168:1545 O 14 '48

Natural gas industry; with statistical summary of leading companies. E. A. Barnes. il Mag of Wall St 83:132-3+ N 6 '48

Outlook for electric and gas utilities. A. F. Tegen. Comm & Fin Chr 167:1866+ Ap 29 '48

Prospects for natural gas companies. H. F. Travis. Mag of Wall St 82:287-9+ Fe 19 '48

Recent financial data on gas company stocks. Pub Util 41:246 F 12 '48 [cont monthly]

Service

A.G.A. annual workshop. Chicago, Jan. 21-24. Am Gas Assn Mo 30:8-11 Mr '48; Am Gas J 168:15+ Mr '48

Commercial service plan. R. G. Juergens. Am Gas J 168:13-14 Je '48
Fort Worth promotes all gas kitchens. il Gas Age 102:21+ JI 22 '48

Free service, problem of control; experiences of Southern California gas company. C. A. Renz. Am Gas Assn Mo 30:15-19+ S '48; Same cond. Am Gas J 169:25-7+ O '48; Same cond. Gas Age 102:21-4+ S 16 '48

Gas companies to sponsor food clinics. Am Gas Assn Mo 30:31+ Je '48

Home service department dramatizes modern cookery; Southern California gas company's playlet for high-school and junior college students. F. A. Herr. Am Gas J 168:31-2 Ja '48

Home service gets the new look. I. L. Muntz. il Am Gas Assn Mo 30:15-17 My '48

Home service greets new audiences; radio and theater demonstrations can play an increasingly important part. M. Schrock. il Am Gas Assn Mo 30:6-8 F '48

Home service in dealer cooperation. J. M. Humphreys. Am Gas Assn Proc 1947:408-10

How Home service can co-operate with local movie theatres. M. Dorn. il Gas Age 101:35+ F 5 '48; Excerpt. Am Gas Assn Mo 30:3+ F '48

Junior miss gets into hot water; Ohio Fuel Gas home service program uses novel approach to equipment lessons. H. L. Kirtland. il Am Gas Assn Mo 30:21-2+ O '48

Philadelphia offers kitchen planning. il Gas Age 100:17 D 25 '47

Philadelphia resumes kitchen service. il Am Gas Assn Mo 29:550 D '47

Reaching young America; gas cooking demonstrations in Cleveland high schools. D. E. Jones. Am Gas Assn Proc 1947:27-9

School kitchen replacement plan. A. G. Bur. Am Gas Assn Proc 1947:414-16; Same. Am Gas Assn Mo 29:556-7 D '47; Same. Am Gas J 168:38-9 F '48

Speeding up service calls by radio-phone; Southern California gas company. il Am Gas J 168:24-5 Ja '48

Study of servicemen's tool. J. R. Larson. Am Gas J 169:19-21 JI '48

Teen-agers. E. Morrison. Am Gas Assn Proc 1947:412-14; Same. il Am Gas Assn Mo 30:8-10 Ja '48

They like to pay the easy way; drive-in pay stations and night depository systems used to help customers pay bills. H. S. Hahn. il plans Am Gas Assn Mo 30:9-12+ My '48

Women have ideas. H. Robertson. Am Gas Assn Proc 1947:417-21; Same. Am Gas Assn Mo 29:532-4+ D '47

Shops

Gas meter repair shop minimizes costs by utilizing compressed air; San Diego gas and electric co. il Gas Age 100:20-2 D 25 '47

Show windows

Prepare now for fire prevention week; gas company window displays. il Gas Age 102:15 S 2 '48

Showrooms

Oklahoma features New Freedom. il Am Gas Assn Mo 30:28-9 O '48

GAS companies—Continued

Taxation

- Computation of excess profits tax of a corporation which dissolved during the taxable year. *Am Gas Assn Proc* 1947:247-9
- Functions of a tax department. H. W. Zie-then. *Am Gas Assn Mo* 30:29-30+ F '48
- Income from retirement or discharge of bonds in computing excess profits net income. *Am Gas Assn Proc* 1947:250-2
- Losses from unexercised stock rights. *Am Gas Assn Proc* 1947:257-9
- Memorandum of recent cases. *Am Gas Assn Proc* 1947:253-6
- Research, experimentation, exploration and development outlays; tax problems. *Am Gas Assn Proc* 1947:259-61
- Section 102, Internal revenue code. *Am Gas Assn Proc* 1947:261-3
- Validity of gas tax laws. L. T. Parker. *Am Gas J* 169:46-8 O '48

GAS compressors

- Centrifugal compressors come of age; first application of equipment to high pressure gas transmission. B. D. Goodrich. *Il map diags Am Gas Assn Mo* 30:12-15+ Je '48; Same cond. *Oil & Gas J* 47:81+ JI 15 '48
- Centrifugal compressors; German centrifugal-compressor manufacture. *Mech Eng* 70:23-4 Ja '48
- Cities Service Gas compacts soil to form base for heavy engine foundations in Hugoton field. R. W. Hofsess. *Il Oil & Gas J* 47:226+ S 23 '48
- Compressor stations add to line's capacity. F. H. Love. *Il Pet Eng* 19:59-62 Ja '48
- Converted Big Inch pioneers motorized centrifugals. W. H. Stueve. *Il map diag Elec World* 129:36-8 Je 19 '48
- Costly vibrations removed from compressor discharge; patent. *diag Pet Processing* 3:72 Ja '48
- Gas transportation system calculations. B. Miller. *Gas Age* 101:30-7 F 19; 32-7 Mr 4; 32-6 Ap 1; 42-7 Ap 29; 31-6+ My 27; 28-33 Je 24; 102:26-31 JI 8; 29-35 JI 22; 32-6 Ag 6; 37-41 Ag 19; 21-6 S 2; 35-40 S 16; 84-8+ S 30 '48
- How to drain compressor scrubber by liquid level control. *Il diag Pet Refiner* 27:144 F '48
- Modern gas pipe line compressors. R. L. Boyer. *Il diags Pet Eng* 19:199-200+ Mr '48
- Moving natural gas by centrifugal compressors; abstract. W. H. Stueve. *Chem Eng* 55:288+ Mr '48
- Natural gas goes North; centrifugal compressors helped Texas Eastern. B. D. Goodrich. *map diags Chem Eng* 55:106-9 Je '48; Same abr. *Mech Eng* 70:733-7 S '48
- New type compressor building for gasoline plant; Magnolia petroleum company's Vanderbilt, Texas plant. C. C. Pryor. *Il diag Pet Refiner* 27:129-32 Ap '48
- Texas Eastern operates first high-pressure gas-transmission centrifugal compressors. P. Reed. *Il map Oil & Gas J* 46:60-1+ Ja 22 '48
- See also*
Gas boosters

Cooling

- Cooling water requirements for natural gas booster stations. A. V. Mueller. *Il Gas Age* 100:32-3 D 25 '47

Repair

- Modern machine shop speeds repairs; pipe line compressor station equipment; Arkansas Louisiana gas co. W. E. Nestor. *Il Pet Eng* 19:216+ Mr '48

GAS containers

- Acetylene cylinder; industry's unique container. C. Ness. *Il Welding J* 27:445-9 Je '48

GAS cooking

- Atlanta dealer meeting features mass cooking demonstration. *Il Am Gas Assn Mo* 29:552 D '47
- Building a commercial gas load. L. J. Fretwell. *Am Gas J* 163:20-1 Ja '48; Same. *Gas Age* 101:22+ F 5 '48
- First commercial cooking film started. J. J. Bourke. *Am Gas Assn Mo* 30:31 Mr '48
- First commercial gas film completed. *Il Am Gas Assn Mo* 30:12-13+ S '48

- Gas companies to sponsor food clinics. *Am Gas Assn Mo* 30:31+ Je '48
- Gas is king in new super drug store. *Il Am Gas Assn Mo* 30:5+ F '48
- Home service department dramatizes modern cookery; Southern California gas company's playlet for high-school and junior college students. F. A. Herr. *Am Gas J* 163:31-2 Ja '48
- Homemakers prove favorable gas cooking ratio; test by Long Island lighting company of comparative usage of gas and electricity in cooking. J. W. Carpenter. *Am Gas Assn Mo* 30:9-10+ F '48
- Reaching young America; gas cooking demonstrations in Cleveland high schools. D. E. Jones. *Am Gas Assn Proc* 1947:27-9
- Schrafft's votes 46 to 1 for gas. V. O'Brien. *Il Gas Age* 102:23-4 Ag 19 '48
- Some facts about restaurant food; Mills restaurant, Cincinnati. J. Garretson. *Il Gas Age* 101:25-6+ Ja 22 '48
- Theatre cooking schools. A. Hubbs. *Am Gas Assn Proc* 1947:421-3

GAS detectors

- Design, testing and calibration of a combustible-gas detector. R. Poole. *bibliog Il diags Inst E E J* 95 pt 2:258-71 Je '48; Discussion. 95 pt 2:271-4 Je '48; *Electrician* 139:1785 D 19 '47
- Device for detecting gas hazards. *Il Water & Sewage* 36:28 My '48
- Electronics simulates sense of smell; emission of ions from heated platinum increased in presence of halogen vapor compounds. W. C. White and J. J. Hickey. *Il diags Electronics* 21:100-2 Mr '48
- Field tests for the detection of carbon monoxide. L. T. Minchin. *bibliog diags Chem & Ind p* 147-9 Mr 6 '48
- Instruments for testing gases. *Il Water & Sewage* 35:52-4 D '47
- New carbon monoxide detector used by Citizens Gas & Coke. *Il Gas Age* 102:46+ S 16 '48
- Simplified detection of toxic gases. *diags Chem Age (Lond)* 57:799 D 20 '47

GAS distribution

- Check valves, traffic cops of the pipe lines. H. J. Bartlett. *Il Gas Age* 101:26-8+ F 19 '48
- Discovery and control of leakage. H. D. Portwood. *Am Gas J* 167:27-9 D '47; Same. *Gas Age* 100:19+ D 25 '47
- Gas explosions; possible hazards of high pressure gas distribution. *Heat & Ven* 45:102-3 JI '48
- Gaseous and liquid fuels in iron and steel works. J. B. R. Brooke and J. S. Bryan. *diags Iron & Steel Inst J* 153:111-16 Ja '48
- Interchangeability of mixtures containing manufactured and natural gases with a 540 B.t.u. per cu. ft. manufactured gas. J. S. Yeaw and L. Shnidman. *bibliog Am Gas Assn Proc* 1947:659-89
- Large volume automatic pressure regulation. W. A. La Violette. *Il diags Gas Age* 102:73-6+ S 30 '48
- Load forecasting; method used by Boston consolidated gas co. in estimating daily outputs from weather forecasts. E. L. Sweeney. *Gas Age* 101:21-4 F 19 '48
- Method for demand metering. R. J. Ott. *Il Am Gas Assn Mo* 30:35-6 Mr '48
- Method of testing the adequacy of gas distribution systems. J. J. Pugh. *plans Am Gas Assn Proc* 1947:517-28
- Presidential address before Eastern association of gas engineers and managers. R. A. Weston. *Gas J (Lond)* 252:466+ N 26 '47
- Presidential address before Southern association of gas engineers and managers. H. J. Esereet. *Gas J (Lond)* 252:406-8+ N 19 '47
- Some aspects of gas distribution work. J. A. Gould. *diags Gas J (Lond)* 252:677-81; Discussion. 681-2+ D 24 '47
- What natural gas can do for the manufactured gas industry. H. H. Cuthrell. *Am Gas Assn Proc* 1947:65-9; Same. *Am Gas J* 167:39-42 N '47; Same. *Gas Age* 100:38-9+ O 30 '47
- See also*
Gas, Natural—Pipe lines
Gas governors
Gas pipes

GAS distribution—Continued

Change over

Problems solved in change-over to propane-air. O. W. Barescher. *il Am Gas J* 168: 14-15 Ap '48

Technical aspects of the Washington change-over. F. P. Lamb. *Am Gas J* 169:27-9 Ag '48

Well-planned service changeover to natural gas; Washington gas light company's experience. L. D. Farrar. *Pub Util* 42:467-80 O 7 '48

Cost

Economic factors for distribution design. G. A. S. Cooper. *Am Gas J* 169:11-14+ Ag '48

Peak gas economics. L. J. Eck. *Gas Age* 102:25+ Ag 19 '48

Long distance lines

See also

Gas, Natural—Pipe lines

Maps

Streamlining gas distribution maps and records. H. G. Howell. *il Gas Age* 101:21-4+ Mr 4 '48

GAS engine plants. See Power plants—Gas engine plants

GAS engineering

Production and chemical headlines; joint production and chemical conference sponsored by technical section. American gas association, Asbury Park, May 24-26, *Am Gas Assn Mo* 30:34-8 Jl-Ag '48

See also

Gas distribution
Gas heating
Gas manufacture

Bibliography

Current publications of the American gas association, Feb. 1, 1948; with prices. *Am Gas Assn Mo* 30:supp 1-18 F '48

Study and teaching

Cadet engineer training program; Philadelphia electric co. M. S. Violes and G. L. Harvey, jr. *Am Gas Assn Mo* 30:17-20+ Ja '48

Trained teachers for an expanding natural gas industry; natural gas engineering courses offered by Texas college of arts and industries. F. H. Dotterweich. *il Am Gas J* 168:23-6 My '48

Tables, calculations, etc.

Designing a special slide rule. R. M. Hutchison. *il Gas Age* 100:20-1+ N 27 '47

GAS engines

Economics of gas-Diesel engine; with cost data. R. A. Darling. *il World Oil* 127:174-6+ F '48

Oxnard, Calif. utilizes sewage treatment by-products; sludge gas for engine fuel. O. L. Isham. *il Water & Sewage Works* 95: 267 Jl '48

See also

Gas turbines
Internal combustion engine plants

Cooling

Practical use of chromate inhibitors in engine cooling systems. D. D. Wright. *bibliog flow sheet Can Chem & Process Ind* 32:533-5 Je '48

History

John Henry Hamilton and his work. H. J. Gibbons. *Engineering* 165:547-8, 558-9 Je 4-11 '48

GAS fading. See Dyes, Fastness of

GAS fitting

Installation of gas service piping, with practices; tabulated by sections. E. L. Henderson. *map Am Gas Assn Proc* 1947:805-23; Same abr. *Am Gas J* 166:19-21+ My '47; Same cond. *Am Gas Assn Mo* 29:455-7 O '47

GAS flow

Adiabatic flow of hydrogen gas through a rocket nozzle with and without composition change. S. S. Penner and D. Altman. *bibliog diag Franklin Inst J* 245:421-32 My '48

Adjustable glass capillary gas leak. J. H. Martin. *diag R Sci Instr* 19:404-5 Je '48

Allowance for losses due to exit, entrance, and fittings for a gas flowing in a pipe under high pressure drop. E. S. L. Beale and P. Docksey. *diag Inst Pet J* 34:602-9 Ag '48

Avoiding destructive velocity through adsorbent beds. E. Ledoux. *diags Chem Eng* 55:118-19 Mr '48

Calculations for high vacuum systems. W. P. Dryer. *Chem Eng* 54:127-31 N '47

Canonical form of the equations of steady motion of a perfect gas. M. M. Munk and R. C. Prim. *J Ap Phys* 19:957-8 O '48

Design of high vacuum systems. C. E. Normand. *bibliog Ind & Eng Chem* 40:783-7 My '48

Electrical strain gage measures gas flow. *il Elec World* 128:118+ D 6 '47

Experiments on gas flow in producer fuel beds. M. L. Hughes. *bibliog il Iron & Steel Inst J* 156:371-9 Jl '47; Discussion. 158:456-62 Ap '48

Experiments simulating first and second order gas reactions. C. C. Coffin. *diag J Chem Educ* 25:167-9 Mr '48

Extension of Crocco's theorems to flows having non-uniform stagnation enthalpy. R. C. Prim. *bibliog Phys R* 73:186 Ja 15 '48

Fugacities in gas mixtures. J. Joffe. *bibliog Ind & Eng Chem* 40:1738-41 S '48

Gas transportation system calculations (cont). B. Miller. *diags Gas Age* 100:42-6 O 30; 39-44 N 13; 29-34 N 27; 37-42 D 11; 24-8 D 25 '47; 101:28-31 Ja 22; 27-34 F 5; 30-7 F 19; 32-7 Mr 4; 32-6 Ap 1; 42-7 Ap 29; 31-6+ My 27; 28-33 Je 24; 102:26-31 Jl 8; 29-35 Jl 22; 32-6 Ag 5; 37-41 Ag 19; 21-6 S 2; 35-40 S 16; 84-8+ S 30; 32-7 O 14; 51-4+ O 28; 29-33 N 11; 31-5 N 25; 38-42 D 9; 25-30 D 23 '48

Gaseous self-diffusion in long capillary tubes. W. G. Pollard and R. D. Present. *bibliog diag Phys R* 73:762-4 Ap 1 '48

Influence of packing density in purifiers on resistance to gas flow. J. A. Speers. *Gas J* (Lond) 252:636-7 D 17 '47

Interferometric studies of faster than sound phenomena; gas flow around various objects in a free, homogeneous, supersonic air stream. R. Ladenburg and others. *bibliog il diags Phys R* 73:1359-77 Je 1 '48

Mass and heat transfer in tube banks. C. C. Winding and A. J. Cheney, jr. *bibliog diags Ind & Eng Chem* 40:1087-93 Je '48

Pressure drop in packed tubes; nomogram. M. Weintraub and M. Leva. *Chem Eng Prog* 44:801-2 O '48

Pressure drop of gases and vapors flowing through pipes; reference book sheet. A. H. Korn. *Product Eng* 19:151, 153 Jl '48

Pressure drop through packed tubes. M. Leva and M. Grummer. *Chem Eng Prog* 43:549-54, 633-8 O-N '47

Process engineer's guide to the centrifugal compressor. I. J. Karassik. *il diags Chem Eng* 54:110-14 O; 132-5 N; 126-8 D '47; 55: 118-21 Ja; 134-7 F '48

Slide rule solves gas flow and dust sampling problems. H. Richardson. *il Chem Eng* 55: 124-5 Jl '48

See also

Air flow
Fluidization

GAS governors

Automatic overloading of district regulator stations. C. C. Jones. *diags Gas Age* 101: 18-19+ Je 24 '48; Same. *Am Gas J* 169: 22-3 Jl '48

GAS heaters

Direct fired space heater serves comfort, processing requirements. M. H. Shorago. *il plan diag Heating-Piping* 20:95-6 Ag '48; Same. *Sheet Metal Worker* 39:55-7 O '48

Hot air in winter, cool air in summer. *il Mill & Factory* 42:142 Ap '48

Research in venting direct gas heaters when no chimney connections are available; progress report of work completed through Dec. 31, 1946. C. E. Blome and J. L. Bray. *bibliog il diags Purdue Univ Eng Exp Sta, Research Ser* 103:1-66 '48 (pa 25c)

GAS heating

Automatic controls and their functions. *Am Gas J* 168:19-20 F '48

GAS heating—Continued

- Budget plan for payment of house heating bills. C. Hammel. *Am Gas Assn Proc* 1947: 156-62
- Comparisons between gas and electricity on the basis of coal economy. P. Schiller. *bibliog Inst E E J* 94 pt 1:355-63 Ag '47; Discussion, 94 pt 1:364-70; 95 pt 1:434-54 Ag '47, O '48
- Effect of space heating on gas production. F. M. Birks. *Gas J (Lond)* 252:402+ N 19 '47
- Forecast of October gas heating load. *Gas Age* 102:91 S 30 '48 [cont monthly]
- Gas-oil burner provides new protection for homes that are heated with gas. C. C. Young. *il Am Gas J* 169:34-6 S '48
- Heating of industrial and commercial buildings. W. N. Blinks. *Am Gas J* 168:11-14 Ap '48
- Installing the gas floor furnace. J. D. Eckles. map plan diags *Gas Age* 100:27-30+ D 11 '47
- Low cost solution for heating basementless houses. H. P. Morehouse. *il plans diag Gas Age* 102:17-20 S 16 '48
- Peak gas economics. L. J. Eck. *Gas Age* 102:25+ Ag 19 '48
- Possibilities in the extension of utility gas service. E. S. Pettyjohn. *Am Gas Assn Proc* 1947:69-75; Same. *Am Gas Assn Mo* 29:563-5+ D '47
- Price discrimination in space heating. E. Troxel. *Land Econ* 24:281-92 Ag '48; Correction. 24:395 N '48
- Second report of the District heating committee of the Institution of gas engineers. *Gas J (Lond)* 252:513-16; Discussion. 516-19 D 3 '47
- Supplementary utility requirements for upgrading house heating. F. H. Tremblay, Jr. *Gas Age* 102:72+ S 30 '48
- Survey by Coleman co. indicates 6,390,447 gas-heated homes. *Gas Age* 102:32-3 J 8 '48
- Upgrading drive sells new equipment to old heating customers. V. O'Brien. *il Gas Age* 101:31-2+ Ap 29 '48
- Up-grading gas heating installations through dealer education. C. L. Benn. *diags Gas Age* 102:70-1 S 22 '48

GAS heating, Industrial

- Combustion of industrial gases. J. J. Turin and J. Huebler. *il Am Gas Assn Mo* 30: 25-7+ O '48
- Continuous gas-radiant fusion for electrolytic tinning. C. E. Cunningham. *il diags Iron & Steel Eng* 25:85-92 Ag '48
- Controlled heat cures heat-cure ills; automatic control ovens in rubber and allied industries; vulcanization of rubber-bonded abrasive cutting wheels. H. Gehrich. *il Chem Ind* 63:54-5 J 1 '48
- Direct fired space heater serves comfort, processing requirements. M. H. Shorago. *il plan diag Heating-Piping* 20:95-6 Ag '48; Same. *Sheet Metal Worker* 39:55-7 O '48
- Drying and curing of carpet backing compounds; Duraloom carpet mills, inc. *il Rubber Age* 64:61-2 O '48
- Fixation of atmospheric nitrogen in a gas heated furnace. N. Gilbert and F. Daniels. *bibliog il diags Ind & Eng Chem* 40:1719-23 S '48
- Flexible gas unit for infra red drying and baking. J. C. Hosken. *il Am Gas J* 168: 25-6 Ap '48
- Gas-fired dryers dry quickly, save space. C. N. Rabold. *flow diag il Textile World* 98: 122-3 S '48
- Glass tube heating apparatus; patent. *diag Glass Ind* 28:576-7 N '47
- Heat for a drying room; Devconcraft corporation carpet finishing plant. *il diag Dom Eng* 172:153+ S '48
- Heating metals by induction and high-speed gas methods. H. R. Clauser. *il Materials & Methods* 28:55-9 J 1 '48
- It's time to act on industrial gas heating; review of Battelle report, Induction heating in relation to industrial gas heating. G. A. Uhlmeier. *Am Gas Assn Mo* 30:5-8+ Ap '48
- Modern gas furnaces in gun factory. *il Am Gas J* 167:32 D '47
- New heating system for sludge digestion. E. R. Schofield and M. B. Tark. *il plan diag Water & Sewage Works* 95:172-4 My '48

- Rapid billet heating with gas. L. J. Stanbery and J. M. Brennan. *il diag Iron Age* 162:32-5 Ag 26 '48
- Removal of organic deposits from tubular heat exchangers; cleaning by burning. K. C. Edson and J. S. Powell. *il Oil & Gas J* 47:71-2 Je 3 '48

GAS holders

- Development of arc-welded gas holder; with cost data. A. C. Thompson. *il diags Welding J* 27:363-8 My '48
- Oil seal in low pressure holders. L. J. Willien. *il plan diag Gas Age* 102:29-34+ S 16 '48
- Radiographing and controlled low-temperature stress relieving of welded tanks for wet seal gas holder. R. Kraus. *bibliog il diags Welding J* 26:1073-9 D '47; Same. *Am Gas J* 168:11-16 F '48

Ice protection

- Simple jet devices prevent freezing of sealing water in gas holders. C. G. Blatchley. *il diags Am Gas J* 168:28 Mr '48

Models

- Wind-tunnel experiments on models of a spirally guided gasholder. S. M. Milbourne. *il Gas J (Lond)* 252:352+ N 12 '47

Protection

- Elastic coating for gas holder uses spray application. *il Am Gas J* 169:40 J 1 '48

Testing

- Electric strain gage analysis of a 50-ft. Hortonsphere. G. Brewer. *bibliog il diags Welding J* 27:sup476-80 S '48

GAS in air conditioning

- Air-conditioning study. G. E. May. *Am Gas Assn Mo* 29:549 D '47
- Air conditioning with gas. *Dom Eng* 171: 152-3 Je '48
- All year gas air conditioning finds varied markets in the Southwest; illustrations with text. *Gas Age* 102:30-1 O 14 '48
- Case for gas air conditioning. J. A. Gilbreath. *Am Gas J* 168:15-18 Je '48
- Gas air conditioning supported by electric companies in new pattern of promotion. *Heat & Ven* 45:104-5 J 1 '48
- Gas all-year air conditioning expands. *Am Gas Assn Mo* 30:47 J 1-Ag '48
- Prospects for gas air conditioning. *Dom Eng* 172:155 S '48
- What about all-year gas air-conditioning? F. C. Smith. tables *Am Gas Assn Proc* 1947: 375-99; Same, without tables. *Am Gas Assn Mo* 29:479-82+ N '47; Same abtr. *Gas Age* 100:36-8+ N 13 '47

GAS industry

- | | |
|------------------------|------------------|
| See also | |
| Gas appliance industry | Gas distribution |
| Gas companies | Gas works |

Advertising

- Association campaign. *il Sales Management* 59:56 D 1 '47
- Beethoven gets a public relations job; Los Angeles enjoys gas company radio programs of recorded music. J. H. Collins. *Pub Util* 41:545-61 Ap 22 '48
- Cincinnati, city closest to America; civic-minded utility promotes nation-wide advertising campaign to attract new industry. *il Am Gas Assn Mo* 30:13 Mr '48
- Equitable opens new radio show. *il Gas Age* 101:25+ Je 24 '48
- First commercial gas film completed. *il Am Gas Assn Mo* 30:12-13+ S '48
- Home service greets new audiences; radio and theater demonstrations can play an increasingly important part. M. Schrock. *il Am Gas Assn Mo* 30:6-8 F '48; Excerpt. *Am Gas J* 168:19-20 Mr '48
- How Home service can co-operate with local movie theatres. M. Dorn. *il Gas Age* 101: 35+ F 5 '48; Excerpt. *Am Gas Assn Mo* 30:8+ F '48
- Keys to effective advertising. J. J. Quinn. *Am Gas Assn Mo* 30:3-4+ J 1-Ag '48; Same. *Gas Age* 102:19+ J 1 '48
- Minneapolis wins advertising honors. *il Am Gas Assn Mo* 30:45 J 1-Ag '48

GAS industry—Advertising—Continued

Varied uses found for bill enclosures; Brooklyn union gas co. uses bill stuffers to send recipes and appliance news to customers. H. A. Praeger. *il Adv & Sell* 41:30+ O '48
 Ways to speak your piece. H. W. Smith, jr. *Am Gas Assn Mo* 30:30-2 J1-Ag '48
 What's new in gas has got it; all phases of advertising effort enter new year. *Am Gas Assn Mo* 30:7+ O '48

Exhibitions

Building exhibition, 1947, Olympia, Nov. 19-Dec. 4. *il Gas J (Lond)* 252:529-30 D 3 '47

Finance

See also
 Gas, Natural—Pipe lines—Finance Gas companies—Finance

Merchandizing

A.G.A. conference on industrial and commercial gas, Windsor, Ontario, April 7-9. *Am Gas Assn Mo* 30:24-6 My '48
 Building a commercial gas load. L. J. Fretwell. *Am Gas J* 168:20-1 Ja '48; Same. *Gas Age* 101:22+ F 5 '48
 Economic explorations; American gas association committee on economics. R. E. Ginna. *Am Gas Assn Mo* 30:15-16+ J1-Ag '48
 Gas for industry and commerce; perspectives of 1948. L. Oursouff. *Gas Age* 101:29-31 Ja 8 '48
 Gas has got it, going and coming. F. J. Nugent. *Am Gas J* 168:39-40 My '48
 Industry-wide cooperation. F. H. Adams. *Am Gas Assn Proc* 1947:39-44; Same. *Am Gas J* 167:54-7 N '47; Same. *Gas Age* 100:29-32+ N 13 '47; Same cond. *Am Gas Assn Mo* 29:435-6+ N '47
 Lone Star revitalized sales force with Gas has got it. W. C. Grant. *il Gas Age* 101:25-6 F 5 '48
 Mid-west regional gas sales conference, Chicago, March 30-April 1. *Am Gas Assn Mo* 30:28-30 My '48
 PAR carries the ball; gas industry's promotion, advertising and research program. *Am Gas Assn Mo* 29:527-30+ D '47
 Russianism, Americanism, and the new look in salesmanship. J. W. Lea. *Gas Age* 102:26+ Ag 19 '48
 Sales horizon sketched at Rye; New York-New Jersey regional gas sales council. *Am Gas Assn Mo* 30:33+ J1-Ag '48
 Sales ideas viewed at Pittsburgh; A.G.A. Eastern natural gas regional sales conference. *il Am Gas Assn Mo* 30:34-6 Ap '48
 School kitchen replacement plan. A. G. Bur. *Am Gas J* 168:38-9 F '48
 Tomorrow's sales opportunities. H. H. Cuthrell. *Am Gas Assn Mo* 30:3-4+ Ap '48; Same. *Gas Age* 101:26-7+ Ap 1 '48
 Where do we go from here? L. Ruthenborg. *Am Gas Assn Proc* 1947:424-30

See also
 Gas appliances—Merchandizing Gas companies—Salesmen
 Gas appliances, Domestic—Merchandizing Gas heating
 Gas companies—Appliance selling Gas in air conditioning

Model home exhibits

Mr Blandings cooks with gas; gas-equipped dream house opened for public inspection in California. *il Am Gas Assn Mo* 30:17+ J1-Ag '48
 Model homes unveiled in Chicago. *il Am Gas Assn Mo* 30:21 S '48; *Gas Age* 102:26-7 S 16 '48

Statistics

Gas industry forges ahead in 1947. H. W. Reed. *Gas Age* 101:21-4+ Ja 8 '48; Same. *Am Gas J* 168:11-15 Ja; 32 F '48; Same abr. *Am Gas Assn Mo* 30:3-6+ Ja '48
 Manufactured and mixed gas and natural gas, 1941-1946. Survey of Cur Bsns 1947 Sup p 122-3 [supplemented in monthly numbers]
 Statistics show the way; usefulness of A.G.A. statistical information. W. E. Caine. *Am Gas Assn Mo* 30:3-4+ F '48

Argentina

Argentina takes steps to nationalize gas services. *For Comm W* 32:43 S 4 '48

Europe

News from the continental gas press. L. T. Minchin. *Gas Age* 102:20-1+ O 14 '48

Great Britain

Gas and electricity in Britain; a study in duopoly. F. R. Jervis. *Land Econ* 24:31-9 F '48
 Gas charges order, 1947. *Gas J (Lond)* 252:247-8 O 29 '47
 Gas industry and its future. *Engineering* 165:326 Ap 2 '48
 Gas nationalization. *Elec R (Lond)* 142:283-4 F 20 '48
 National fuel plan. W. M. Carr. *Gas J (Lond)* 252:399-400 N 19 '47
 Nationalisation for gas. *Economist* 153:696 O 25 '47
 Nationalisation of gas. *map Economist* 154:133-4 Ja 31 '48
 Nationalisation of the gas industry. *Engineer* 185:119 Ja 30 '48
 1947: review of British gas industry. *Gas J (Lond)* 252:717-26+ D 31 '47
 Pattern for gas nationalization in Britain. *Pub Util* 42:183-4 J1 29 '48
 Presidential address before Eastern association of gas engineers and managers. R. A. Weston. *Gas J (Lond)* 252:466+, 589-90 N 26, D 10 '47
 Reorganization of British gas industry. *Chem & Eng N* 26:2382+ Ag 9 '48
 South-eastern gas corporation; statement by the chairman at 16th ordinary general meeting. A. E. Sylvester. *Economist* 154:1058 Je 26 '48
 What gas undertakings can do to further the economy campaign. E. Crowther. *Gas J (Lond)* 252:350 N 12 '47

United States

Address. H. W. Reed. *Am Gas Assn Proc* 1947:471-4
 Gas industry forges ahead in 1947. H. W. Reed. *Gas Age* 101:21-4+ Ja 8 '48; Same abr. *Am Gas Assn Mo* 30:3-6+ Ja '48; Same abr. *Am Gas J* 168:11-15 Ja '48
 Looking ahead in fuels supply. R. A. Sherman. *bibliog Am Gas Assn Proc* 1947:441-6
 Manufactured gas industry in 1948. H. H. Cuthrell. *Gas Age* 101:26+ Ja 8 '48
 Our industry's unified promotion and research program. E. A. Hornby. *il Gas Age* 101:39-42+ Ja 8 '48
 PAR carries the ball; gas industry's promotion, advertising and research program. *Am Gas Assn Mo* 29:527-30+ D '47
 Progress demands responsibility. R. H. Hargrove. *Am Gas Assn Proc* 1947:11-16; Same. *Am Gas J* 167:35-7+ N '47
See also American gas association

Wisconsin

Wisconsin utilities association discuss gas problems and progress at joint convention, Milwaukee. *Am Gas J* 168:35-7 Ja '48

GAS leakage

Discovery and control of leakage. H. D. Portwood. *Am Gas J* 167:27-9 D '47; Same. *Gas Age* 100:19+ D 25 '47
 Records and their interpretation. J. D. von Maur. *Gas Age* 102:20-4+ J1 8 '48

GAS lifts

Closed gas-lift system operating at League City. *il map Oil & Gas J* 47:62-4 J1 8 '48
 Gas lift as a production tool; a comparison of gas lift and rod pumping in the same field. E. L. Petree. *diags Oil & Gas J* 47:124+ Ag 26 '48
 Gas lifting low-fluid-level wells by use of a volume or accumulation chamber. A. C. Golden. *diags Oil & Gas J* 47:217 Je 24 '48
 New Gulf Oil plant in west Texas combines gas lift and repressuring. G. Weber. *il map Oil & Gas J* 46:96-7+ D 13 '47
 Temperature gradients in gas lift wells. R. E. Powers and B. C. Craft. *bibliog Pet Eng* 19:118+ Mr '48

GAS manufacture

Catalytic cracking gas plants increase peak hour supply as much as 35 percent. *Dom Eng* 172:176 J1 '48

GAS manufacture—Continued

- Catalytic cracking process as a means of peak load shaving. S. W. Horsefield, flow diag il Am Gas J 169:11-14+ JI '48; Same cond. Am Gas Assn Mo 30:9-11+ JI-Ag '48
- Catalytic gas, Long Island lighting co. il Chem & Eng N 26:1793 Je 14 '48
- Catalytic hydrocarbon-steam reaction under development. Pet Processing 3:925 O '48
- Coal gasification rather than hydrogenation urged. P. C. Keith. Oil & Gas J 46:39+ F 5 '48
- Desulfurization of coal during carbonization; abstract. R. E. Brewer and J. K. Ghosh. Am Gas J 169:37 S '48
- Equipment and processes for manufacturing higher Btu gases. J. P. Stephens, diag Am Gas J 169:15-16+ JI '48
- Establishing new high makes at Astoria. G. L. Bixby, Am Gas Assn Proc 1947:615-20
- Four years' developments at Preston. A. K. Collinge, il plan Gas J (Lond) 252:297-8+ N 5 '47
- Future possibilities in methods of gas manufacture. A. R. Powell, bibliog Am Gas Assn Proc 1947:631-53
- Higher gas production from coke oven plants. W. C. Wardner, Am Gas Assn Mo 30:30-1+ O '48
- Hydrogen and synthesis gas production; Girdler Hygirtol process. R. M. Reed and A. Eriksen, flow diag il Pet Eng 20:278+ O '48; Same, Pet Processing 3:1011-12+ O '48
- New fuel source will be tapped by process for converting anthracite silt to gas. Heat & Ven 45:126+ Ap '48
- New gas-making process on the line; catalytic cracking process for peak load gas. E. G. deCoriolis, il Gas Age 101:23-5 Ap 1 '48
- New type gas production plant now in operation; catalytic reforming process; Long Island lighting co. il Am Gas Assn Mo 30:7 Mr '48
- Oxygen gasification of anthracite in the Wellman-Galusha producer. C. C. Wright and L. L. Newman, bibliog diags Am Gas Assn Proc 1947:701-12; Excerpts, Chem Eng 54:114-15 Je '47
- Pilot plant for gasifying powdered coal entrained in oxygen and steam. Morgantown, West Virginia. L. D. Schmidt, J. B. McGee and M. C. Slone, flow sheet diags Chem Eng Prog 44:737-43; Discussion. 743-4 O '48
- Presidential address before Southern association of gas engineers and managers. H. J. Escreet. Gas J (Lond) 252:406-8+ N 19 '47
- Production of manufactured gas using gas turbine cycles. F. J. Jenny, diags Chem Eng 55:108-11 Ap '48
- Progress in gas chemistry, 1947. L. T. Minchin, bibliog Chem Age (Lond) 58:66-7 Ja 10 '48
- Survey of carbonizing properties of American coals; Bureau of mines coal carbonization laboratory, 1946-1947. J. D. Davis, il diag Am Gas Assn Proc 1947:87-98
- Symposium on production of synthesis gas. A. R. Powell; L. L. Newman and others, bibliog flow diags il diags Ind & Eng Chem 40:558-641 Ap '48
- Testing manufacture of oil gas. R. R. Grant. Am Gas Assn Mo 23:545-9+ D '47
- Thyssen Galocsky, Lurgi processes promising for gas manufacture. Chem Eng 56:121 Ap '48
- Use of natural gas to increase manufactured gas plant capacity. R. E. Kruger. Am Gas J 168:27+ My '48
- Will coal help to meet the future needs for gaseous and liquid fuels? J. Pursglove, Jr. Am Gas Assn Proc 1947:48-52; Same cond. Pet Refiner 26:198+ N '47; Same cond. Am Gas Assn Mo 30:39-40 Ja '48; Same cond. il Min Cong J 34:22-4 Ja '48

Coal mine gasification

- Contract signed for second U.S. underground gasification test. Can Chem & Process Ind 32:651 JI '48; Same abr. Heat & Ven 45:116+ Ag '48; Same abr. Power Generation 52:132-3 O '48; Same cond. Power 92:570 S '48
- Gasification tests to be resumed. Coal Age 53:130+ Mr '48

- Russians trying underground gasification of shale. Chem Eng 55:204+ Ag '48
- Underground coal gasification test gets underway. J. Boyd, Pet Eng 19:68 Ag '48
- Underground gasification/ J. D. Clendenin, bibliog diags Chem Eng Prog 43:581-4 N '47
- Underground gasification; experiments on coal conducted at Gorgas, Ala. M. H. Fies and W. C. Schroeder, il plans diags Mech Eng 70:127-35 F '48; Abstract and discussion. Power 91:854-5 D '47

Complete gasification processes

- Oxygen in the production of hydrogen or synthesis gas; Winkler, Koppers, Lurgi, Thyssen-Galocsky and Leuna processes. L. L. Newman, bibliog flow diag il diags Ind & Eng Chem 40:559-82 Ap '48

Lurgi process

- Gasification of solid fuels in Germany by the Lurgi, Winkler, and Leuna slagging-type gas-producer processes. W. W. Odell, 12pls U S Bur Mines Information Circ 7415:1-46 '47

- Oxygen in the production of hydrogen or synthesis gas; Winkler, Koppers, Lurgi, Thyssen-Galocsky and Leuna processes. L. L. Newman, bibliog flow diag il diags Ind & Eng Chem 40:559-82 Ap '48

Winkler process

- Gasification of solid fuels in Germany by the Lurgi, Winkler, and Leuna slagging-type gas-producer processes. W. W. Odell, 12pls U S Bur Mines Information Circ 7415:1-46 '47

GAS masks

- Agricultural residue fibers for gas mask filters. S. I. Aronovsky and others, il Paper Ind 29:1300-3 D '47
- Alteration of the size and distribution of pores in charcoals. J. Holmes and P. H. Emmett, bibliog J Phys & Colloid Chem 51:1276-307 N '47
- Filtration of aerosols by granular charcoal. S. H. Katz and D. Macrae, J Phys & Colloid Chem 52:695-7 Ap '48
- Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett, bibliog diag J Phys & Colloid Chem 51:1262-76 N '47
- Reaction of small enclosures on the human voice; analyses of vowels. C. T. Morrow, il diags Acoustical Soc Am J 20:487-97 JI '48
- Surface complexes on charcoal; gas evolution as a function of vapor adsorption and of high-temperature evacuation. R. B. Anderson and P. H. Emmett, bibliog diags J Phys & Colloid Chem 51:1308-29 N '47
- Use of adsorbents for protection against ammonia. J. C. Goshorn, bibliog il J Ind Hygiene 30:201-4 My '48

Testing

- Photoelectric counter for colloidal particles. F. T. Gucker, Jr. and others, bibliog diags Am Chem Soc J 69:2422-31 O '47

GAS meters

- Accurate wide range metering of natural gas with the differential type meter. L. K. Spink, il diags Am Gas J 168:23-6 Mr '48
- Method for demand metering. R. J. Ott, il Am Gas Assn Mo 30:35-6 Mr '48
- Objectives of the meter engineer. H. J. Sterk. Am Gas Assn Proc 1947:490-4

Repair

- Assembly line for meter repair. T. J. Hill, il diags Gas Age 101:15-18 Ja 22 '48
- Gas meter repair shop minimizes costs by utilizing compressed air; San Diego gas and electric co. il Gas Age 100:20-2 D 25 '47

GAS mixing

- Cons. Edison to get southwestern shot in arm; expects substantial earnings benefits from natural gas. E. R. Abrams, Barron's 28:35 S 13 '48
- Controls for multiple fuels. W. F. Pray, diags Iron & Steel Eng 25:61-5 Ag '48
- Economy of natural gas as an enriching medium. C. R. Bellamy, Gas Age 101:28-9+ Mr 4 '48; Excerpts. Pub Util 41:702-4 My 20 '48

GAS mixing—Continued

Gas industry turning to new fuel sources to augment supplies. A. L. Foster. Oil & Gas J 47:39 My 27 '48

Interchangeability of mixtures containing manufactured and natural gases with a 540 B.t.u. per cu. ft. manufactured gas. J. S. Yeaw and L. Shnidman. bibliog Am Gas Assn Proc 1947:659-89

Possibilities in the extension of utility gas service. E. S. Pettyjohn. Am Gas Assn Proc 1947:69-75; Same. Am Gas Assn Mo 29:563-5+ D '47

Send-out gas nomograph; calculation of amounts of propane and flue gas or air required to give mixture having specified heating value and specific gravity. H. E. Zeiger and W. W. Roberts, jr. Gas Age 102:11+ S 2 '48

Use of natural gas to increase manufactured gas plant capacity. R. E. Kruger. Am Gas J 163:27+ My '48

What natural gas can do for the manufactured gas industry. H. H. Cuthrell. Am Gas Assn Proc 1947:65-9; Same. Am Gas J 167:39-42 N '47; Same. Gas Age 100:38-9+ O 30 '47

GAS oil

Furfural as a selective solvent in petroleum refining. L. C. Kemp, jr., G. B. Hamilton and H. H. Gross. bibliog flow diag il Ind & Eng Chem 40:220-7 F '48

Lion Oil catalytically processes sour gas oil. W. Carney and others. il Oil & Gas J 47: 69-70+ N 4 '48

Oils for gas manufacture. W. L. Nelson. Oil & Gas J 46:143 F 26 '48

Analysis

Polarographic determination of naphthalenes in kerosene and light gas oils. D. P. Thornorton, jr. il Pet Processing 3:673-5 JI '48

Procedure for determination of the bromine number of olefinic hydrocarbons. H. L. Johnson and R. A. Clark. bibliog Anal Chem 19:869-72 N '47

GAS ovens

How to insulate heater units and recirculating fans on ovens. il Sheet Metal Worker 39:49-50 Ag '48

GAS ovens, Baking**Testing**

Factors of gas oven performance. H. J. Hense. diag Am Gas Assn Mo 30:25-6 JI-Ag '48

Testing oven controls. H. J. Hense. il Am Gas Assn Mo 29:483-4+ N '47

GAS pipes

Installation of gas service piping, with practices; tabulated by sections. E. L. Henderson. map Am Gas Assn Proc 1947:805-23; Same abr. Am Gas J 166:19-21+ My '47; Same cond. Am Gas Assn Mo. 29:455-7 O '47

Memphis carboasealing experience. A. E. Baheart and H. G. Howell. il Gas Age 101: 22-3+ Ap 15 '48

Report on coordination of utilities and regulatory authorities for controlling underground work. Am Gas Assn Proc 1947: 510-12

Service cut-offs in one foot square holes. F. Bell. il Gas J (Lond) 252:581 D 10 '47; Same. Am Gas Assn Mo 30:25+ Ja '48

Some aspects of gas distribution work. J. A. Gould. diags Gas J (Lond) 252:677-81; Discussion. 681-2+ D 24 '47

Use of small holes for work on gas services. il Engineering 164:584 D 19 '47

See also

Gas, Natural—Pipe lines

Cleaning

Cleaning gas and water mains. A. G. Holtam. il diag Engineer 186:142 Ag 6 '48

Cleaning of high pressure gas mains. H. Eisenberg. il diags Gas Age 101:20-1 Mr 18 '48

Interior cleaning for maximum flow efficiency in natural gas lines. D. K. Stephens. il Gas Age 101:27-30+ My 27 '48; Same. Oil & Gas J 47:97-8+ JI 22 '48

Failure

Drifting submerged towboat believed cause of break in pipe-line river crossing. N. A. Saigh. map Oil & Gas J 47:268+ S 23 '48

Protection

Anodic behavior of sacrificial metals in specific environments. K. M. Wight and R. F. Hadley. bibliog il diags Am Gas Assn Proc 1947:771-800

Method of electrically bonding high resistance pipe couplings without excavation. H. S. Riddle and H. S. Harris. il Gas Age 102:17-18+ JI 8 '48

Pipe corrosion mitigation practices. A. H. Cramer. il diags Am Gas J 168:23-7+ Je '48

Recent developments in cathodic protection of pipe lines. N. P. Peifer and F. E. Costanzo. il diag Gas Age 102:21-3 Ag 5 '48

Tables, calculations, etc.

Allowance for losses due to exit, entrance, and fittings for a gas flowing in a pipe under high pressure drop. E. S. L. Beale and P. Docksey. diag Inst Pet J 34:602-9 Ag '48

Gas transportation system calculations (cont). B. Miller. diags Gas Age 100:42-6 O 30; 39-44 N 13; 29-34 N 27; 37-42 D 11; 24-8 D 25 '47; 101:28-31 Ja 22; 27-34 F 5; 30-7 F 19; 32-7 Mr 4; 32-6 Ap 1; 42-7 Ap 29; 31-6+ My 27; 28-33 Je 24; 102:26-31 JI 8; 29-35 JI 22; 32-6 Ag 5; 37-41 Ag 19; 21-6 S 2; 35-40 S 16; 84-8+ S 30; 32-7 O 14; 51-4+ O 28; 29-33 N 11; 31-5 N 25; 38-42 D 9; 25-30 D 23 '48

Testing

Discovery and control of leakage. H. D. Portwood. Am Gas J 167:27-9 D '47; Same. Gas Age 100:18-19+ D 25 '47

Gas transportation system calculations. B. Miller. Gas Age 100:37-42 D 11 '47

Ingenious gas line leak detector proves effective. R. Sneddon. il Pet Eng 20:340 O '48

GAS pipes, Plastic

Plastic tubing used for gas service. il Heating-Piping 19:101 D '47

Plastics gas pipe extruded tubing replaces steel in home installations. il Sci Am 178: 31 Ja '48

GAS producers

Experiments on gas flow in producer fuel beds. M. L. Hughes. bibliog il Iron & Steel Inst J 156:371-9 JI '47; Discussion. 158:456-62 Ap '48; Engineer 184:522 D 5 '47; Engineering 164:520-1 N 28 '47

Fuel economies in firing lime kilns. V. J. Azbe. diags Rock Prod 51:106-9 F '48

Gas generator for standby use. J. M. Halloran and H. D. Stoddard. il Iron Age 161: 56-8 Ja 8 '48

Gasification of solid fuels in Germany by the Lurgi, Winkler, and Leuna slagging-type gas-producer processes. W. W. Odell. 12pls U S Bur Mines Information Circ 7415:1-46 '47

Incandescent heat company automatic gas producer. il diag Engineer 185:sup4-5 Ap 30 '48

Le méthanol de synthèse à partir du bois par le procédé de Lacotte; l'usine-pilote de Decazeville (Aveyron). R. Delaunay. diags Chimie & Ind 58:335-40 O '47

Modern gas producer. L. L. Swift. il diags Glass Ind 29:495-7+ S '48

Oxygen gasification of anthracite in the Wellman-Galusha producer. C. C. Wright and L. L. Newman. bibliog diags Am Gas Assn Proc 1947:701-12; Excerpts. Chem Eng 54:114-15 Je '47

See also

Gas, Producer

Testing

Distribution of fuel in gas producers. M. L. Hughes. il diags Iron & Steel Inst J 156: 55-74 My '47; Abstracts. Engineer 184:522 D 5 '47; Engineering 164:520 N 28 '47; Discussion. Iron & Steel Inst J 158:456-62 Ap '48; Engineer 184:522 D 5 '47; Engineering 164:520-1 N 23 '47

GAS purification

Electric gas detarrers. il Electrician 140:1511 My 14 '48

GAS purification—Continued

- French coal gas production; abstract. L. Fassina, *Chem Age (Lond)* 58:814 Je 12 '48
- Girbotol treating, flow diag Oil & Gas J 46: 160 Ap 1 '48
- Improved design, operating techniques for Girbotol absorption processes. R. M. Reed, flow diag *il Pet Processing* 2:907-12 D '47
- Investigation of a Girbotol unit charging cracked refinery gases containing organic acids. W. E. Norris and F. E. Clegg, flow diag *Pet Refiner* 28:107-9 N '47
- Liquid purification plant; Liverpool gas project, approved. *Chem Age (Lond)* 58:612 My 1 '48
- Plant fuel gas scrubber control system, diag *Pet Refiner* 27:156 Ap '48
- Purification of gases in low temperature processes; abstract. T. A. Hall and G. G. Haselden. *Chem Age (Lond)* 57:755 D 13 '47
- Report of organic sulfur committee. *Am Gas Assn Proc* 1947:591-602
- Some recent advances in catalysis; detoxication of catalyst poisons. E. B. Maxted. *Soc Chem Ind J* 67:93 Mr '48
- Treating units eliminate H₂S from process gas, flow diag *il Pet Refiner* 27:117-19 Ag '48
- Use of the Venturi-scrubber on sulphate recovery furnace stack gases. T. T. Collins, jr. and others, *il Paper Tr J* 126:45-9 Ja 15 '48
- Venturi-Scrubber, new device for cleaning stack gases, flow diag *il diags Power Generation* 52:57-9 My '48

Benzene removal

- Régénération des huiles de débenzologage usées, sans distillation; procédé des Houillères Nationales. J. Carabasse. *diags Chimie & Ind* 58:228-33 S '47

GAS purifiers

- Influence of packing density in purifiers on resistance to gas flow. J. A. Speers. *Gas J (Lond)* 252:636-7 D 17 '47

GAS rates

- Apportionment methods in fixing rates for gas utility. *Pub Util* 42:60-1 Jl 1 '48
- Costs and prices, a paramount gas industry challenge. H. Carlson and O. D. Fitz. *Gas Age* 101:40-1+ Ap 29 '48
- Gas and electricity price changes in 1946. *Mo Labor R* 65:563 N '47
- Gas and electricity; price changes in 1947. *Mo Labor R* 67:39-40 Jl '48
- Gas charges order, 1947. *Gas J (Lond)* 252: 247-8 O 29 '47
- Gas rates move higher. *Bsns W* p31-2 D 20 '47
- New gas rate law. L. T. Parker. *Am Gas J* 163:39-41 Je '48
- Price discrimination in space heating. E. Troxel. *Land Econ* 24:281-92 Ag '48; *Correction*. 24:395 N '48
- Recent rise in rates for gas and electricity. M. Hammett. *Pub Util* 42:552-4 O 21 '48
- What is confiscation? recent court decisions. L. T. Parker. *Am Gas J* 167:35-6 D '47

GAS regulators. See Gas governors**GAS research**

- Appliance corrosion under attack; A.G.A. sponsored project at Battelle. H. A. Pray and others *il diag Am Gas Assn Mo* 30: 19-23+ Jl-Ag '48
- Carbon oxygen steam reactions studied. J. D. Parent and S. Katz. *il diags Am Gas Assn Mo* 30:21-4 Ja '48
- Catalytic reforming of hydrocarbons; proposed peak load reforming process using either steam or steam and air with refinery propane. C. H. Riesz and others, flow diag *il Am Gas Assn Mo* 30:17-22 F '48
- Combustion of industrial gases. J. J. Turin and J. Huebler. *il Am Gas Assn Mo* 30: 25-7+ O '48
- Domestic gas research advances. R. J. Rutherford. *Am Gas Assn Mo* 30:19 O '48
- Gas production research keys industry's progress. N. K. Chaney. *Am Gas Assn Mo* 30: 9-11+ Je '48
- Gas research produces results; program of American gas association. B. L. Gough. *Pub Util* 42:493-8 O 7 '48
- Growth of gas research; synthesis and hydrogen sulphide recovery; abstract. H. Hollings. *Chem Age (Lond)* 57:720 D 6 '47

- Institution of gas engineers 13th autumn research meeting, London. *Gas J (Lond)* 252: 503-9, 511-19 D 3 '47
- Our industry's unified promotion and research program. R. A. Hornby. *il Gas Age* 101:39-42+ Ja 8 '48
- Progressing through cooperative research and promotion. E. R. Acker. *Am Gas Assn Proc* 1947:54-8
- PAR carries the ball; gas industry's promotion, advertising and research program. *Am Gas Assn Mo* 29:527-30+ D '47
- Research at work; Association's gas production research committee. *il Am Gas Assn Mo* 30:24 Jl-Ag '48
- Research at work; forty-seven gas projects in full swing under Association's new PAR plan. *Am Gas Assn Mo* 30:23+ F '48
- Research at work; oil laboratory; high speed gas heating report. *il Am Gas Assn Mo* 30:18 My '48
- Research at work; technical advisory groups for gas cooking and central gas space heating research. *Am Gas Assn Mo* 30:24 Je '48
- Research on the mechanism of the water-gas reaction. J. F. Foster and D. A. Vorum. *il Am Gas Assn Proc* 1947:723-32
- What's new in gas research. *il Am Gas Assn Mo* 30:17-18 Mr '48
- GAS retorts**
- Behaviour of refractory materials in carbonizing plant; observations in continuous vertical retorts. *il diags Gas J (Lond)* 252: 582-6, 639-40+ D 10-17 '47
- Gas retort bench top ironwork reconstruction. *diags Engineer* 185:473 My 14 '48
- GAS sampling**
- Continuous collector samples gases in proportion to main line flow. A. A. Reeves. *diag Chem Eng* 55:130 O '48
- Sampling and analyzing of sulphate recovery furnace stack gases; review of the literature. T. T. Collins, jr. *bibliog* (32 titles) *Paper Ind* 29:1437-9 Ja '48
- GAS scrubbers. See Gas purification**
- GAS storage**
- Economics of B.t.u. storage. I. Resnick. *bibliog Am Gas Assn Proc* 1947:602-7; *Same*. *Gas Age* 100:40-1+ O 30 '47
- GAS stoves**
- Domestic gas research advances. R. J. Rutherford. *Am Gas Assn Mo* 30:19 O '48
- New development in gas range venting with mechanical draft hood. F. A. Herr. *il diag Am Gas J* 168:50-2+ My '48
- New models of Universal ranges displayed in preview. *il Am Gas J* 168:45 Ja '48
- New range has upper level cooking and automatic features. *il Am Gas J* 168:45 F '48
- Radiants aid broiler performance. H. J. Hense. *il Am Gas Assn Mo* 30:25-6+ Je '48
- Range design technique. H. J. Hense. *il diag Am Gas Assn Mo* 30:13-14 My '48
- Report of performance of a domestic kitchen ventilation hood. H. L. Warren. *il diag Gas Age* 101:28-31+ Ap 1 '48; *Same*. *Am Gas Assn Mo* 30:21-4 Ag '48
- Roper displays new line of ranges at Chicago mart. *il Gas Age* 101:45 Ja 22 '48
- Story of upper level cooking. G. E. Stedman. *il Gas Age* 101:19-20+ Ja 22 '48
- Advertising**
- Fall range campaign gains speed. *il Am Gas Assn Mo* 30:10 O '48
- Gas has got it. J. J. Quinn. *Am Gas Assn Proc* 1947:44-7
- Manufacture**
- Drill jigs speed output of stove burners; Odin stove co. W. Rudolph. *il Am Mach* 92:124-5 F 12 '48
- Precision welding jigs simplify stove assembly. W. Rudolph. *il Am Mach* 92:82-4 Jl 1 '48
- Merchandizing**
- Contest started a department; Dealers' cooperative sales dept., Cincinnati gas and electric co. R. J. Paulsen. *il Gas Age* 101: 15-17+ Je 24 '48
- Join the domestic range campaign. *Am Gas Assn Mo* 30:14 S '48
- Record sales of automatic gas ranges; with financial position of leading firms, 1938, 1941, 1946-47. *Barron's* 28:32 Ap 5 '48; *Correction*. 28:32 Ap 26 '48

GAS stoves—Continued

Rating

Gas ranges, *il* Consumers Res Bul 21:5-10 Mr '48

Testing

Factors of gas oven performance, H. J. Hense, *diag* Am Gas Assn Mo 30:25-6 Jl-Ag '48

GAS supply

California

Estimating future peak loads, C. P. Smith, *Am Gas Assn* Mo 30:13-16+ O '48

Detroit

How Detroit has won public esteem, G. E. Stedman, *il* Gas Age 100:18-19+ N 27 '47

Great Britain

British fuel and power industries, *Gas J* (Lond) 252:243-4+ O 23 '47
Gas and electricity in Britain; a study in duopoly, F. R. Jervis, *Land Econ* 24:31-9 F '48

Manchester, England

Oil project to supply town gas for Manchester, *Chem Age* (Lond) 58:519 Ap 17 '48

Plymouth, England

Reconstruction at Plymouth, *il* *Gas J* (Lond) 252:347 N 12 '47

Toronto

Toronto, Canada records a century of gas service, *il* *Am Gas J* 168:43-5 My '48

Washington, D.C.

Washington, D.C. celebrates a century of gas service, H. F. Hetrick, *Am Gas J* 169:11-13 S '48

Washington gas light co. celebrates centennial of service, *il* *Gas Age* 102:24-5+ Ag 5 '48; *Pub Util* 42:241-3 Ag 12 '48

GAS testing

Development of standards for testing gaseous fuels, A. W. Gauger, *Am Gas Assn Proc* 1947:116-21; Same *abr.* *Am Gas Assn* Mo 30:35-7 F '48

GAS turbine locomotives. See Locomotives, Gas turbine

GAS turbines

Axial-flow compressors for gas turbines, A. I. Ponomareff, *il* *diags* A S M E Trans 70:295-304; Discussion, 305-6 My '48

British gas-turbine developments; abstract, D. Ferguson, *Mech Eng* 70:616-17 Jl '48

Ceramic materials show promise for high temperature mechanical parts, J. R. Bressman, *il* *Materials & Methods* 27:65-70 Ja '48

La chaudière à écoulement, associant la turbine à gaz et la turbine à vapeur, R. Papault, *il* *diags* *Génie Civil* 124:405-10 N 1 '47

Closed-cycle gas turbines; operation and advantages, *il* *diags* *Elec R* (Lond) 142:837-9 My 28 '48

Coal burning gas turbine for locomotive use; abstract, W. B. Tucker, *diag* *Diesel Power* 26:78 Jl '48

Developments in turbine generator sets and gas turbines announced by General Electric, *Blast F & Steel Pl* 36:56 Ja '48

Electric power situation in the United States; gas turbine in 1947, *Power Generation* 52:72 Ja '48

Gas and steam turbo plant, *diag* *Mech Eng* 70:691 Ag '48

Gas turbine applications in iron and steel works, A. T. Bowden and others, *il* *plans* *diags* *Iron & Steel Inst J* 156:98-118 My '47; Excerpts, *Blast F & Steel Pl* 36:228-30+ F '48; Discussion, *Iron & Steel Inst J* 157:115-30 S '47

Gas turbine in industry, F. W. Godsey, jr., *il* *diags* *Mill & Factory* 42:100-3 Ap '48

Gas turbine installation on natural gas line of Mississippi River fuel corp., *Chem Eng* 55:141 O '48

Gas-turbine laboratory, Massachusetts institute of technology, *Mech Eng* 69:1036 D '47

Gas turbine powerplant; its potentialities and development problems, M. J. Zucrow and W. J. Hesse, *il* *diag* S A E J 55:66-7 D '47

Gas turbines in chemical processes; abstract, W. E. P. Johnson, *Chem Age* (Lond) 58:608 My 1 '48

High-creep strength austenitic steel for gas turbines, D. A. Oliver and G. T. Harris, *Engineering* 163:533-6 Je 20 '47; Abstracts, *Product Eng* 19:132-4 Ja '48; *Metal Prog* 53:584+ Ap '48

High-creep strength austenitic steel tubes for use in heat exchangers of gas turbines, G. T. Harris and W. H. Bailey, *il* *Metallurgia* 38:189-92 Ag '48

High temperature properties of rotor discs for gas turbines as affected by variables in processing; abstract, J. W. Freeman and E. E. Reynolds, *Iron Age* 162:94 Jl 15 '48

How gas turbines fit into future power patterns, S. A. Tucker, *Mech Eng* 70:796+ O '48

Power turbines for natural-gas expansion, S. Benze, *diags* A S M E Trans 70:541-6 Jl '48; Abstract, *Power Generation* 52:110+ Mr '48

Precipitation-hardened alloys for gas-turbine service, H. Scott and R. B. Gordon, *il* A S M E Trans 63:583-99 Ag '47; Abstract, *Metal Prog* 53:589-90+ Ap '48

Prime movers in 1947, *il* *diags* *Engineer* 185:44-6, *supp* 1, 71-2, 95 Ja 9-23 '48

Production of manufactured gas using gas turbine cycles, F. J. Jenny, *diags* *Chem Eng* 55:108-11 Ap '48

Progress in power generation, 1940-46, *bibliog* *il* *diags* *Elec Eng* 67:65-8 Ja '48

Selection of high temperature materials for gas turbines, R. H. Smith, *bibliog* *il* *Iron Age* 161:56-60 Ja 22 '48

Stress rupture and creep properties of heat resistant gas turbine alloys, N. J. Grant, *bibliog* *il* *diags* *Am Soc for Metals Trans* 33:281-325; Discussion, 325-34 '47

Structural variations in gas turbine alloys revealed by the stress rupture test, N. J. Grant, *il* *Am Soc for Metals Trans* 39:335-59; Discussion, 359-67 '47

Technical briefs; engineering developments here and abroad, *diag* *Power* 92:118-19 F '48

What the heating engineer can learn from jet and turbine combustion, W. J. King, *il* *diags* *Heat & Ven* 45:77-83 Ja '48

See also

Electric plants (central stations)—Gas turbine auxiliaries	Locomotives, Gas turbine
Electric plants (central stations)—Gas turbine stations	Power plants—Gas turbine plants

Cooling

Raising turbine inlet temperature, R. McLaren, *bibliog* *Aviation W* 49:27-8 Jl 12 '48

Efficiency

Determination of gas-turbine combustion-chamber efficiency by chemical means, P. Lloyd, *il* *diags* A S M E Trans 70:335-41 My '48

Development and testing of a gas-turbine combustor, A. E. Hershey, *il* *diags* A S M E Trans 69:859-67 N '47

Gas-turbine plant combustion-chamber efficiency, A. L. London, *bibliog* *diag* A S M E Trans 70:317-23; Discussion, 323-8 My '48

Output and efficiency of gas turbines, M. Daniloff, *Engineering* 165:448 My 7 '48

Some effects of pressure loss on the open-cycle gas-turbine power plant, J. I. Yellott and E. F. Lype, *bibliog* A S M E Trans 69:903-8 N '47; Discussion, 69:908-11; 70:139-41 N '47, F '48

Fuel

Combustion problems associated with gas turbines; abstract, I. Lubbock and I. G. Bowen, *Elec R* (Lond) 143:505 O 1 '48

Energy-temperature relations in the combustion of fuels in gas turbines, R. V. Kleinschmidt, *diag* A S M E Trans 70:821-2; Discussion, 826-8 O '48

Experimental combustion of pulverized coal at atmospheric and elevated pressures, H. R. Hazard and F. D. Buckley, *il* *diags* A S M E Trans 70:729-37 Ag '48

GAS turbines—Continued

Manufacture

Hollow blades for axial flow compressor. R. Meredith and A. J. Phelan. *il diags Metal Prog* 53:341-7 *Je* '48
 Weldability of alloys for high-temperature service. G. E. Linnert. *il diags Welding J* 27:sup385-405 *Ag* '48

Study and teaching

Gas-turbine school. *il Mech Eng* 70:905-6 *N* '48

Temperature

Pneumatic method for measuring high-temperature gases. D. W. Moore, Jr. *il diags Aeronautical Eng R* 7:30-4 *My* '48
 Raising turbine inlet temperature. R. McLarren, *bibliog Aviation W* 49:27-8 *Jl* 12 '48
 Temperature measurements and combustion efficiency in combustors for gas-turbine engines. W. T. Olson and E. Bernardo. *bibliog diags A S M E Trans* 70:329-33; Discussion. 333-4 *My* '48

Testing

Development and testing of a gas-turbine combustor. A. E. Hershey. *il diags A S M E Trans* 69:859-67 *N* '47
 Lab speeds gas-turbine progress. *il plan Power* 92:99-101 *F* '48
 New machine speeds turbine blade contour measurement. W. A. Lloyd. *il diags Iron Age* 162:76-8 *Ag* 5 '48
 Operating experience of the 2000 h.p. gas turbine. T. J. Putz. *il Blast F & Steel Pl* 36:572-3+ *My* '48; Same *abr. Power* 92:150-2 *Mr* '48; Same. Westinghouse *Eng* 8:39-41 *Mr* '48; Same. *Ry Age* 124:713-15+ *Ap* 10 '48
 2000-hp gas-turbine tests. *il Mech Eng* 70:445-6 *My* '48

GAS turbines, Aircraft

Advantages of planes powered by turbine-driven propellers. F. Whittle. *Aviation W* 49:42 *S* 27 '48
 Aeroplane gas turbines. H. Constant. *Inst Mech Eng J & Proc* 157 (War emergency issue no 29):202-4 '47
 Afterburners for turbojet engines. F. A. Cleveland. *diag J Aeronautical Sci* 15:305-11 *My* '48
 Allison V-1710 exhaust turbine compounded reciprocating aircraft engine; abstracts. D. Gerdan and J. M. Wetzel. *il S A E J* 56:59-60 *Ja* '48; *Automotive Ind* 97:42-3 *N* 1 '47
 American aircraft propulsion machinery. W. J. King and W. R. Hawthorne. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 29):197-205, *pl* 1-2 '47
 Analysis of composite-powered aircraft. B. T. Salmon. *il S A E J* 55:34-9+ *D* '47
 Art of the aviation engine. F. R. Banks. *Roy Aeronautical Soc J* 52:542-9 *S* '48
 Axial-flow compressors are simple. J. A. King. *il diag Aero Digest* 55:42-5+ *D* '47
 British gas turbines. *Mech Eng* 69:1036-7 *D* '47
 Canada tests first home-built jet engine. *il Aviation W* 48:17 *My* 3 '48; *Mech Eng* 70:758-9 *S* '48; *Aero Digest* 57:106-7 *S* '48
 Ceramic bodies for turbojet blades; abstracts. R. F. Geller. *il S A E J* 56:46+ *Je* '48; *Machine Design* 20:196+ *F* '48
 Ceramic coatings for combustion-chamber liners and turbine buckets in gas turbines; abstract. L. Navias. *Mech Eng* 69:1043-4 *D* '47
 Ceramics for aircraft power plants. J. M. Neff. *il Iron Age* 162:60-3 *O* 21 '48
 Compounding the reciprocating piston engine. L. J. Fischer and W. O. Meckley. *Aero Digest* 56:74-5 *Mr* '48
 Concentration on jet research expected to yield greater gains. R. M. Hazen. *Aviation W* 47:29-30+ *N* 17 '47
 Contract for 8,000-hp. jet engine with low fuel consumption awarded Wright aeronautical corp. *il Oil & Gas J* 46:52 *Ap* 8 '48
 Development of a turbosupercharger bucket alloy. E. Epreman. *bibliog Am Soc for Metals Trans* 39:261-73; Discussion. 273-80 '47

First jet alloy specifications evolved by SAE group. *S A E J* 55:71-2 *N* '47
 First turboprop trainer nears completion; Britain's three-place Athena. *il diags Aviation W* 48:21-2+ *My* 3 '48
 Flow of a perfect fluid through an axial turbomachine with prescribed blade loading. P. E. Marble. *bibliog diags J Aeronautical Sci* 15:473-85 *Ag* '48
 Fluid dynamic aspects of axial-flow compressors and turbines. J. R. Weske. *diags J Aeronautical Sci* 14:651-6 *N* '47
 From supercharger to turbojet; small jet engine tested for military use; lightplane application possible. S. Bangs. *il diag Aviation W* 48:23-4 *Ap* 12 '48
 Gas turbines at Farnborough. P. H. Wilkinson. *il Aero Digest* 57:22-5+ *N* '48
 German turbojet at Spartan. *il Aero Digest* 56:58 *Ap* '48
 Greater turbojet fuel economy object of new West Coast design; JHARL 6000XA. *Aviation W* 47:22 *D* 22 '47
 Heat-resistant alloys for use in jet propulsion engines. J. W. Freeman and others. *bibliog J Aeronautical Sci* 14:693-702 *D* '47
 High speed turbine cooling unit; designed to control temperatures within pressurized cabins of jet engine aircraft. *il diag Product Eng* 19:98 *Je* '48
 High temperature ceramics. E. L. Olcott. *il Product Eng* 19:110-12 *Mr* '48
 Huge U.S. turboprop program under way. E. McLarren. *Aviation W* 49:11-12 *Jl* 19 '48
 Inlet conditions of centrifugal compressors for aircraft engine superchargers and gas turbines. H. Woodhouse. *diags J Aeronautical Sci* 15:403-6 *Jl* '48
 Jet training school at GE's aircraft gas-turbine factory, Lynn, Mass. R. C. Robin. *il Aero Digest* 56:34-5, 103 *Ja* '48
 Jets in England. M. Eddy. *il Aero Digest* 56:26-9+ *Ap* '48
 Lifting the secrecy lid on the Packard gas turbine research plant. *il Automotive Ind* 99:42-3 *Ag* 1 '48
 Metallurgical aspects of turbine wheels and nozzles; abstract. E. M. Phillips. *S A E J* 56:66-7 *Ja* '48
 Modern engineering in turboprop trainer; Britain's Boulton Paul Balliol. R. McLarren. *il Aviation W* 49:20+ *Ag* 2 '48
 NACA engine research plots new boosts for jet power. R. McLarren. *Aviation W* 48:9-10 *Mr* 29 '48
 New turbine cycle for long range. *Aero Digest* 56:57 *Ap* '48
 1948 reaction powerplants directory; illustrations and brief descriptions. *Aero Digest* 56:77-8+ *Mr* '48
 Northrop-Hendy Turbodyne (XT-37). *il Aero Digest* 56:56 *F* '48
 Packard reveals it's in supersonic race; illustrations with text. *Bsns W* p24-5 *Ag* 7 '48
 Piston engine boosted to 4000 hp. *Aviation W* 49:12-13 *Ag* 9 '48
 Problem of high temperature alloys for gas turbines. W. T. Griffiths. *bibliog il Roy Aeronautical Soc J* 52:1-20 *Ja* '48; Discussion. 52:20-6, 138-9 *Ja-F* '48
 Reaction-powered planes. *il Aero Digest* 55:38-40+ *D* '47; 56:16-18+ *Ja* '48
 Recent gas turbine progress analyzed; SAE national aeronautic meeting. *S A E J* 55:39-41 *N* '47
 Relative merits of rotary compressors. D. G. Samaras and R. A. Tyler. *bibliog J Aeronautical Sci* 15:625-31 *O* '48
 Reports on Britain's vast turbine program; abstract. W. T. Olson. *S A E J* 56:80 *Ja* '48
 Republic's P-34 Thunderjet designed around specific engine type, axial-flow J-35. R. McLarren. *il Aviation W* 48:18+ *My* 24 '48
 Review of the 3d National flight propulsion meeting. Cleveland. S. D. Black and others. *diags Aeronautical Eng R* 7:16-19+ *My*; 24-9+ *Je* '48
 Service experience with turbojet engines. J. W. Bailey. *Aeronautical Eng R* 7:30-6 *Je* '48
 Sheet metals for high temperature service. P. A. Haythorne. *il Iron Age* 162:89-95 *S* 23 '48
 S.B.A.C. flying display and exhibition; Napier Naiad and Bristol Proteus. *il Engineer* 186:317-19 *S* 24 '48

GAS turbines, Aircraft—Continued

Solar auxiliary-power turbine. *il Aviation W* 49:26-7 N 8 '48

Some of the refractory problems faced in research on jet propulsion units. *il Brick & Clay Rec* 112:58+ Ja '48

Summary of power comparisons; chart. *Aviation W* 48:22 Ja 19 '48

Supersonic role awaits turbojet, diags *Aviation W* 49:28-30 Ag 30 '48

TG-190 unveiled at last. *il Aero Digest* 56:57 Je '48

Trends in new-type powerplants. R. P. Kroon and others. *Aero Digest* 56:68-74 Mr '48

Turbine-powered 145-ton ships to fly in 1950; Saunders-Roe flying boats. *il Automotive Ind* 98:41 F 15 '48

Turbojet and turbopropjet developments; abstract. L. E. Shedenhelm. *S A E J* 56: 86-7 Ja '48

Unique laboratory speeds jet engine development. *il Aviation W* 47:30-1 D 1 '47

What the heating engineer can learn from jet and turbine combustion. W. J. King. *il diags Heat & Ven* 46:77-83 Ja '48

Wright's Turbo-Cyclone 18. *il Aero Digest* 57:59+ O '48

See also
Jet propulsion of aircraft

Blades

Blades for jet engines. *il Aero Digest* 57:57 O '48

Turbine blades that resist heat. H. Woodhouse, diags *Aero Digest* 57:74+ Ag '48

Turbojet operated with cold blades. *Aviation W* 49:28-9 O 11 '48

Control

Automatic control of turbojet engines; abstract. C. S. Cody, *diag Mech Eng* 70: 314-15 N '48

Gas turbine accessory systems. O. N. Lawrence, *il diags Roy Aeronautical Soc J* 52: 151-74; Discussion. 174-85 Mr '48

Power controls for turbojet engines; abstract. A. T. Colwell and others, *diag S A E J* 56:67 O '48

Cooling

Experimental study of cooling by injection of a liquid through a porous material. P. Duwez and H. L. Wheeler, jr. diags *J Aeronautical Sci* 15:509-21 S '48; Abstract. *Aeronautical Eng R* 7:16-17 My '48

Design

Aerodynamics of the gas turbine. A. R. Howell, *bibliog* (47 titles) *il diags Roy Aeronautical Soc J* 52:329-48; Discussion. 348-56 Je '48

Aerothermodynamic design of turbines for aircraft power plants. J. E. Talbert and J. C. Smith, *il diags J Aeronautical Sci* 15: 556-64 S '48

Armstrong Siddeley Mamba gas turbine propeller engine. *il diag Engineer* 185:301-3 Mr 26 '48

Design of turbojet installations. D. J. Jordan, diags *Aero Digest* 57:74+ O; 74+ N 48

Details of British Mamba turbo-prop; drawing. *Automotive Ind* 98:58 Je 15 '48

Evaluation of engine design compromises; abstract. N. Burgess. *Aeronautical Eng R* 7:19+ My '48

High-speed flow through cambered rotating grids. F. L. Wattendorf, diags *J Aeronautical Sci* 15:243-7 Ap '48

Jet engine design problems discussed before ASM panel. *Iron Age* 161:158-60 Ap 15 '48

Mamba gas-turbine propeller aircraft engine. *il diags Engineering* 165:583-6, 588 Je 18 '48

Mamba I gas turbine propeller engine. *il diag Aero Digest* 56:44-6 Je '48

N.A.C.A. cascade data for the blade design of high-performance axial-flow compressors. S. M. Borgdonoff. *il diags J Aeronautical Sci* 15:89-95 F '48

National flight propulsion meeting; symposium on design problems of turbojet powerplant installations. R. Hawthorne, diags *Aeronautical Eng R* 7:24-7 Je '48

New method for the aerodynamic design of multistage axial-flow compressors. H. Davis, diags *J Aeronautical Sci* 15:41-8 Ja '48

Some developments in gas turbine design; abstract. D. G. Shepherd. *S A E J* 56:78 Ja '48

TG-100B turbine-propeller engine; design analysis. H. E. Grantz. *il diags Aero Digest* 57:37-40+ N '48

Trends in turbojet design. R. P. Kroon. *Aero Digest* 56:68-9 Mr '48

Efficiency

Application of gas turbines to aircraft. A. N. Tifford. *Aeronautical Eng R* 7:33-41 JI '48

Engine compounding for power and efficiency; abstracts. E. F. Pierce and H. W. Welsh, diags *S A E J* 56:58-9+ Ja '48; *Automotive Ind* 97:45-6 N 1 '47

Equilibrium running of the simple jet-turbine engine. A. W. Morley, diags *Roy Aeronautical Soc J* 52:305-22 My '48

Flight thrust analysis. A. W. Gabriel, jr. *Aero Digest* 56:60+ Ap; 70-2+ My '48

National flight propulsion meeting; performance possibilities of aircraft engines utilizing gas turbines. R. P. Krebs. *Aeronautical Eng R* 7:27-9+ Je '48

Pressure recovery ups jet output. R. McLaren, *il Aviation W* 49:18+ O 4 '48

Raising turbine inlet temperature. R. McLaren, *bibliog Aviation W* 49:27-8 JI 12 '48

Range performance of turbojet airplanes. I. L. Ashkenas. *J Aeronautical Sci* 15:97-101 F '48; Discussion. E. G. Reid. 15:341-2 Je '48

Temperature measurements and combustion efficiency in combustors for gas-turbine engines. W. T. Olson and E. Bernardo, *bibliog diags A S M E Trans* 70:329-33; Discussion. 333-4 My '48

Turbojet engine performance characteristics with reference to methods of augmentation. E. Woll, diags *S A E J* 56:41-3 Je '48

Failures

Altitude blow-out of jet engines under widespread investigation. R. McLaren. *Aviation W* 47:22+ N 24 '47

Fuel

Aircraft turbine fuels and lubricants pose problem. *Pet Processing* 3:528 Je '48

Construction begins on the Texas co.'s turbojet engine laboratory. A. L. Foster, *diag Oil & Gas J* 46:82+ D 20 '47

Continuous fuel-injection system with rotating fuel chamber. A. Muraszew, diags *Engineering* 166:316-17 O 1 '48

Flame propagation rates at reduced pressures. W. C. Johnston, diags *S A E J* 55: 62-5 D '47

Fuel controls for jet engines. *il Automotive Ind* 98:52 Ja 15 '48

Fuel systems for the aero-gas turbine. E. A. Watson, diags *Inst Mech Eng J & Proc* 158:Proc 187-201 S '48; Same cond. *Engineer* 184:561-3, 576-7 D 12-19 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 201-8 S '48; *Engineer* 184:556-7 D 12 '47

Fuels for rocket and jet powerplants. E. L. Klein. *S A E J* 55:26-8 D '47

Fuels of the future; abstract. T. B. Rendel. *S A E J* 56:83-4 Ja '48

Gas turbine fuels and lubricants. H. A. Murray and B. S. Bailey, *il diags Aero Digest* 57:58-60+ JI '48

Jet engine combustion research. *il Aero Digest* 57:57+ JI '48

Jet engine fuel found serious hazard to asphalt pavements, joint sealing. *Eng N* 141:3 Ag 26 '48

Jet fuel shortage is big question. S. L. Colbert. *Aviation W* 48:15 Mr 15 '48

Jet fuels for aircraft. H. A. Murray, *Oil & Gas J* 46:53-5+ Ja 8 '48; Same. *il Pet Eng* 19:177+ Ag '48

Petroleum industry and jet propulsion. W. E. Kuhn, *il diags Aero Digest* 56:70-2+ F '48

Texas co. building laboratory to develop jet engine fuels. *Aviation W* 47:21-2 D 15 '47

Gearing

Inspection of precision aircraft gears. D. W. Dudley, *il diags Mach* 55:151-7 S '48

Installation

Engine installation problems in the XP-84 airplane. R. R. Higginbotham, *il diags S A E J* 56:53-7 Ja '48

GAS turbine, Aircraft—Continued

Lubrication

- Aircraft turbine fuels and lubricants pose problem. *Pet Processing* 3:528 Je '48
 Gas turbine fuels and lubricants. H. A. Murray and B. S. Bailey. *il Aero Digest* 57:58-60+ J1 '48

Maintenance and repair

- Overhauling jets for the air force. M. M. Eakes, jr. *il Aero Digest* 55:54-5 D '47

Manufacture

- British jet engines in production; illustrations with text. *Automotive Ind* 97:36-7 D 15 '47
 Broaching jet-propulsion engine parts. *il Mach* 54:169-70 D '47
 Centrifugal castings for jet engines. N. F. Silsbee. *il Aero Digest* 57:47+ N '48
 Drop forging of turbine blades eliminates machining operation. C. I. Schweizer. *Aviation W* 47:37-8 D 8 '47
 Extrusion molding process; its potentialities as a means of processing gas turbine parts. H. E. Cook. *il diag Iron Age* 161:62-9 Ja 29; 79-86+ F 5 '48
 High-temperature disk-forging developments for aircraft gas turbines. L. B. Fonda. *il diags A S M E Trans* 70:1-9; Discussion. 9-12 Ja '48
 J35-A-15 turbo-jet engine production at Allison. J. Geschelin. *il Automotive Ind* 98:35-7 Je 15 '48
 Manufacture of turbine blades for the Whittle engine. T. A. Kestell. *diags Inst Mech Eng J & Proc* 158:Proc 66-82, pl 1-6; Discussion. 83-94 Je '48
 Turbine engine blading; manufacturing technique and fastening methods. A. T. Colwell and R. E. Cummings. *diags S A E J* 56:32-5 F '48
 Turbojet development and production problems. R. M. Hazen. *Aero Digest* 56:69-70 Mr '48
 Welding in the development of jet propulsion engines; abstract. H. E. Lardge. *Engineering* 164:366 O 17 '47; Same. *Mech Eng* 70:24-5 Ja '48
 X-ray inspection of aluminum jet engine castings. W. A. Mader. *il Iron Age* 160:90-3 D 11 '47

Specifications

- Aircraft gas turbine engines; specifications, tabulated. *Automotive Ind* 98:44 Ap 15 '48

Starting

- Gas turbine accessory systems. O. N. Lawrence. *il diags Roy Aeronautical Soc J* 52:166-74; Discussion. 174-85 Mr '48

Symbols

- Symbols for turbojet and turboprop engines; prepared for the American standards assn. and the Aircraft industries assn. by Westinghouse engineers. *Aero Digest* 56:59 Ap '48

Testing

- Canada's turbojet test facilities. *il Automotive Ind* 99:28-9+ J1 15 '48
 Electronic analog systems for turbo-prop control systems; abstracts. G. A. Philbrick and others. *il diag S A E J* 56:63 Ja '48; *Automotive Ind* 97:84+ N 1 '47
 Endurance tests for British turbine engines. *il Aero Digest* 57:57-8 O '48
 Instrumentation for engine testing; development of Northrop-Hendy co. *il Aviation W* 48:27-8 My 10 '48
 Jet engine test laboratory; General Electric's \$25,000,000 center. *il Aero Digest* 57:46-7 J1 '48
 Laboratory for gas-turbine development. W. R. New. *il plans diags Mech Eng* 70:195-204 Mr '48; Same cond. *Aero Digest* 56:64-6+ F '48
 Nene passes with honors. *il Aero Digest* 57:26-7+ J1 '48
 New test laboratory for jet engine components. *il Product Eng* 19:150 N '48
 Plant for testing full-scale components for gas turbines. R. C. McLeod. *il diags Engineering* 166:1-5, 12 J1 2 '48

- Pneumatic method for measuring high-temperature gases. D. W. Moore, jr. *il diags Aeronautical Eng R* 7:30-4 My '48
 Problems of gas-turbine-propeller combinations. F. W. Davis. *il diags Aeronautical Eng R* 7:30-6 Ap '48
 Rpm counter for testing gas turbine components. *il Electronics* 21:144+ O '48
 Test turbines near 100,000 rpm; Boeing airplane co. *il Aviation W* 49:21 O 4 '48
 Testing turbine wheels. *il Aero Digest* 57:57 Ag '48
 Wright aero lab. *il plan Aero Digest* 57:22-3 O '48
 Wright's new facilities for testing high output turbines. *il diag Automotive Ind* 98:42-4+ Je 15 '48

Transportation

- Handling turbojets. *il Mech Eng* 69:1032-3 D '47
 Jet engine packaging. *il Aero Digest* 57:61 N '48
 Jet engine shipped safer by new packaging method; illustrations with text. *Aviation W* 49:24-5 O 25 '48

GAS turbines, Automotive

- Automotive gas turbines. G. G. Smith. *il Mech Eng* 70:692-3 Ag '48
 British disclose gas turbine projects for automobile power. W. F. Bradley. *il Automotive Ind* 98:32 Je 1 '48
 British progress toward motor vehicle gas-turbine. *il Product Eng* 19:149 J1 '48
 Development of gas turbine power plants for traction purposes in Germany. R. H. Bright. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 34):375-82; Discussion. 383-6 '47
 Gas turbine installation in a passenger car; schematic diagram. *Automotive Ind* 99:43 J1 15 '48
 Gas turbines; can they be adapted for use in motor vehicles? F. R. Brewster. *il Bus Transportation* 27:54-5 Ag '48
 Gas turbines for automobiles. F. L. Schwartz. *diag Automotive Ind* 98:30-1+ Je 1 '48; Abstract. *S A E J* 56:65 Ag '48
 Gas turbines for autos; British model on test. *Bsns W* p66+ My 29 '48; Abstract. *Pet Processing* 3:628 J1 '48
 Gas turbines; prospects in road transport. R. H. H. Barr. *il diags Automobile Eng* 38:305-10 Ag '48; Same cond. *Engineer* 186:19-21 J1 2 '48

GAS turbines, Marine

- Gas turbine as applied to marine propulsion. T. A. Crowe. *diags Inst Mech Eng J & Proc* 158:Proc 103-16, pl 1-2 Je '48; Same cond. *Engineering* 165:237-9, 261-4 Mr 5-12 '48; Same cond. *Engineer* 185:107-9, 131-2, 154-5+ Ja 30-F 13 '48
 Gas turbine propelled M.G.B. 2009. *diags Engineer* 185:621-4 Je 25 '48
 Naval development of the gas turbine. *il Engineer* 185:144-5 F 6 '48
 Reduction and reversing drives for adapting gas turbines to marine propulsion. W. E. Hammond. *diags Machine Design* 20:149-52+ F '48
 Steam and gas turbines for marine propulsion. T. W. F. Brown and others. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 29):177-83 '47; Excerpt. *Mech Eng* 70:537-8 Je '48

GAS water heaters

- Automatic gas water heater fundamentals. H. B. Kivlan and R. M. North. *diags Am Gas Assn Mo* 30:19-21+ Mr '48
 Gas-Mizer slashes water heating costs; description of reclaimer which has effected big savings in laundry field. *il Am Gas Assn Mo* 30:12+ Mr '48
 Gas sales potentials in laundrettes. H. B. Wilson. *diag Gas Assn* 100:31+ D 25 '47
 Large volume water heating; recovery water heating systems. M. B. Mackay. *diags Am Gas J* 167:22-4 S; 43-6 N '47; 169:26-30+ J1; 22-3 Ag '48
 Large volume water heating; revised mass feeding hot water requirements. M. B. Mackay. *Am Gas J* 169:31-3 S; 35-8 O '48
 Some things the retail salesmen should know about water heating. C. H. O'Donnell. *Am Gas J* 168:23-4+ Ap '48
 Special burners in water heaters. *diags Am Gas Assn Mo* 29:541-2+ D '47

GAS water heaters—Continued

Venting heater rooms in apartment project. M. H. White, *il* Heating-Piping 20:101 O '48

Advertising

California ties in with hot water magic. *il* Am Gas Assn Mo 30:6 O '48

Merchandizing

Gas builds a water heating program. F. A. McFerran, *Am Gas Assn Mo* 30:19-23 Je '48
 Helping the dealer sell; utility plan for water heaters. *il* Dom Eng 172:109-10 Jl '48
 Junior miss gets into hot water; Ohio Fuel Gas home service program uses novel approach to equipment lessons. H. L. Kirtland, *il* Am Gas Assn Mo 30:21-2+ O '48
 Let's sell hot water a la carte. L. J. Fretwell, *Gas Age* 101:24-5+ My 13 '48
 Nationwide gas water heating drive launched. *il* Am Gas Assn Mo 30:9 Ap '48
 Sales are made on the local level by Brooklyn Union; building water heating load. *il* Am Gas Assn Mo 30:18+ Jl-Ag '48

GAS works**Conversion**

Plant design for LP gas hinges on adequate supply for future deliveries. F. E. Drake, *il* Am Gas J 168:19 Ap '48
 Problems solved in change-over to propane-air. O. W. Barends, *il* Am Gas J 168:14-15 Ap '48
 Some economic realizations of high B.t.u. oil gas. H. M. Henry, *Gas Age* 102:65-8+ S 30; 27-9+ O 14 '48

Costs

Costs and prices, a paramount gas industry challenge. H. Carlson and O. D. Fitz, *Gas Age* 101:40-1+ Ap 23 '48
 Economic factors for distribution design. G. A. S. Cooper, *Am Gas J* 169:11-14+ Ag '48
 Public utility construction cost index, 1921-1947. *Eng N* 140:809 My 27 '48
 Some economic realizations of high B.t.u. oil gas. H. M. Henry, *Gas Age* 102:65-8+ S 30; 27-9+ O 14 '48

Damage from air raids

Reconstruction at Plymouth. *il* Gas J (Lond) 252:347 N 12 '47

Employees

See Gas companies—Employees

Equipment

Behaviour of refractory materials in carbonizing plant; observations in continuous vertical retorts. *il* diags Gas J (Lond) 252:582-6, 639-40+ D 10-17 '47
 Equipment and processes for manufacturing higher Btu gases. J. P. Stephens, *diag* Am Gas J 169:15-16+ Jl '48
 Experiences with silicon carbide linings in water gas generators. T. A. Corby, *bibliog* Am Gas Assn Proc 1947:620-30
 Four years' developments at Preston. A. K. Collinge, *il* plan Gas J (Lond) 252:297-8+ N 5 '47
 Gas engineering and appliance directory. *Gas Age* 101:99-167 Je 10 '48
 New gas-making process on the line; catalytic cracking process for peak load gas. E. G. deCoriolis, *il* Gas Age 101:23-5 Ap 1 '48
 Norwich group of undertakings; presidential address before Eastern association of gas engineers and managers. R. A. Weston, *Gas J* (Lond) 252:589-90 D 10 '47
 Twin generator oil-gas process for production of high B.t.u. gas. R. J. Chambers, *il* diag Am Gas Assn Proc 1947:760-6; Same, *Am Gas J* 167:42-5 Jl '47; Same, *Gas Age* 99:24-6+ Je 26 '47; Same, *Am Gas Assn Mo* 29:323-6 Jl-Ag '47

Fires and fire protection

Damage at Everett plant of Boston consolidated gas co. E. H. Eacker, *Am Gas J* 168:58 Je '48
 Emphasis placed on realism at Consolidated Edison's fire school. *il* Gas Age 102:25+ S 16 '48; Same, *Safety Eng* 96:26+ S '48

Load

Building a commercial gas load. L. J. Fretwell, *Am Gas J* 168:20-1 Ja '48; Same, *Gas Age* 101:22+ F 5 '48
 Effect of space heating on gas production. F. M. Birks, *Gas J* (Lond) 252:402+ N 19 '47
 Load forecasting; method used by Boston consolidated gas co. in estimating daily outputs from weather forecasts. E. L. Sweeney, *Gas Age* 101:21-4 F 19 '48

Management

Consolidated Edison meets winter peaks by advance planning. O. H. Smith, *il* Gas Age 102:17-18+ Jl 22 '48
 Establishing new high makes at Astoria. G. L. Bixby, *Am Gas Assn Proc* 1947:615-20
 Presidential address before Southern association of gas engineers and managers. H. J. Escreet, *Gas J* (Lond) 252:406-8+ N 19 '47

Peak load

Catalytic cracking gas plants increase peak hour supply as much as 35 percent. *Dom Eng* 172:175 Jl '48
 Catalytic cracking process as a means of peak load shaving. S. W. Horsefield, *flow diag* *il* Am Gas J 169:11-14+ Jl '48; Same, *cond* *Am Gas Assn Mo* 30:9-11+ Jl-Ag '48
 Catalytic reforming of hydrocarbons; process extended to include natural gas propane, commercial butane, and refinery oil gas used in the production of peak load gas. C. H. Riesz and others, *Am Gas Assn Mo* 30:17-20 Ap '48
 Catalytic reforming of hydrocarbons; proposed peak load reforming process using either steam or steam and air with refinery propane. C. H. Riesz and others, *flow diag* *il* Am Gas Assn Mo 30:17-22 F '48
 Consolidated Edison meets winter peaks by advance planning. O. H. Smith, *il* Gas Age 102:17-18+ Jl 22 '48
 Economics of B.t.u. storage. I. Resnick, *bibliog* *Am Gas Assn Proc* 1947:602-7; Same, *Gas Age* 100:40-1+ O 30 '47
 Estimating future peak loads. C. P. Smith, *Am Gas Assn Mo* 30:13-16+ O '48
 Gas industry turning to new fuel sources to augment supplies. A. L. Foster, *Oil & Gas J* 47:39 My 27 '48
 Gas reforming unit is started at Riverhead; next big plant will be built at Harrisburg, Pa. *Chem Eng* 55:208+ My '48
 New gas-making process on the line; catalytic cracking process for peak load gas. E. G. deCoriolis, *il* Gas Age 101:23-5 Ap 1 '48
 New type gas production plant now in operation; catalytic reforming process; Long Island lighting co. *il* Am Gas Assn Mo 30:7 Mr '48
 Possibilities in the extension of utility gas service. E. S. Pettyjohn, *Am Gas Assn Proc* 1947:69-75; Same, *Am Gas Assn Mo* 29:563-5+ D '47
 What natural gas can do for the manufactured gas industry. H. H. Cuthrell, *Am Gas Assn Proc* 1947:65-9; Same, *Am Gas J* 167:39-42 N '47; Same, *Gas Age* 100:38-9+ O 30 '47

Power

Steam generation at 600 psi 700° F as applied to carburetted water gas plant. A. D. Harrison, *il* diag *Am Gas Assn Proc* 1947:101-14; Same, without *il*, *Gas Age* 100:14-17+ N 27 '47

Safety measures

Safe maintenance and operation of stand-by plants. D. E. Barthel, *Gas Age* 102:19-20+ Jl 22 '48

GASEOUS ionization. See Ionization, Gaseous

GASES

Adsorption isotherms for binary gas mixtures. D. B. Broughton, *Ind & Eng Chem* 40:1506-8 Ag '48

Adsorption of gases on surfaces of powders and metal foils. R. T. Davis, Jr. and others, *bibliog* *J Phys & Colloid Chem* 51:1232-48 N '47

GASES—Continued

- Aids to analysis of patterns obtained in the diffraction of electrons by gases. H. J. Yearian and W. M. Barrs. *bibliog* *il* *diag* J Ap Phys 19:700-4 Ag '48
- Apparatus research laboratory: Air reduction company. *il* Mech Eng 70:31-2 Ja '48; Same cond. Blast F & Steel Pl 36:127-8 Ja '48; Abstracts. Chem & Eng N 25:3648 D 3 '47; Marine Eng 52:132 D '47
- Breakdown of gases in high frequency electrical fields. D. H. Hale. *Phys R* 73:1046-52 My '48
- Brief review of available data on the dynamic viscosity and thermal conductivity for twelve gases. G. A. Hawkins. A S M E Trans 70:655-9 *bibliog*(133 titles, p657-9) Ag '48
- Carbon concentration control; phase rule applied to all gas compositions which might be used in gas carburizing. F. G. de Coriolis and others. *Am Soc For Metals Trans* 38: 659-81; Discussion. 651-5 '47
- Chemical erosion of steel by hot gases under pressure. R. C. Evans and others. *bibliog* *diags* J Phys & Colloid Chem 51:1404-29 N '47
- Cooling of gases through packed tubes. M. Leva and others. *diag Ind & Eng Chem* 40: 747-52 Ap '48
- Design of exhaust systems; handling corrosion fumes and gases. F. H. Stebbins. *diags* Sheet Metal Worker 39:55-6+ My '48
- Detection of microwaves; absorption of microwaves by gases. *il* Electronics 21:124 S '48
- Determination of the gases in meteoritic and terrestrial irons and steels. L. K. Nash and G. P. Baxter. *bibliog* *diags* Am Chem Soc J 69:2534-44 O '47
- Dielectric-constant and refractivity data. J. G. Miller. A S M E Trans 70:645-9 *bibliog*(67 titles, p648-9) Ag '48
- Dielectric constant of several gases at a wave-length of 3.2 centimeters. C. M. Crain. *diags* Phys R 74:691-3 S 15 '48
- Diffusivity of gases through synthetic elastomer diaphragms. L. E. Stout, R. Geisman and M. Mozley, Jr. *bibliog* *il* *diags* Chem Eng Prog 44:219-28 Mr '48
- Effect of sheaths on gaseous products from permissible explosives. E. J. Murphy. 9pls U S Bur Mines Rep of Invest 4220:1-57 '48
- Effect of various gases on nitrogen fixation by azotobacter. D. M. Molnar, R. H. Burris and P. W. Wilson. *bibliog* Am Chem Soc J 70:1713-16 My '48
- Equation of state for gases at extremely high pressures and temperatures from the hydrodynamic theory of detonation. M. A. Cook. *bibliog* J Chem Phys 15:518-24 JI '47; Discussion. S. Paterson. 16:159 F '48; Reply. 16:554-5 My '48
- Experiments simulating first and second order gas reactions. C. C. Coffin. *diag* J Chem Educ 25:167-9 Mr '48
- Facilities for, and work under way in gas-properties research. R. V. Kleinschmidt. A S M E Trans 70:655-6 Ag '48
- Flow calorimeter measures specific heats of gases. *diag* Pet Eng 19:148 D '47
- Gas fires in a sanitary fill; spontaneous combustion ignites gases from decomposing garbage at San Francisco. *il* Eng N 140:40-1 Ja 8 '48
- Gaseous thermal diffusion; the effect of a third component. J. Chipman and M. N. Dastur. J Chem Phys 16:636-7 Je '48
- Generalized virial theorems. H. Einbinder. *bibliog* Phys R 74:803-5 O 1 '48
- Heat transfer to gases through packed tubes; effect of particle characteristics. M. Leva and M. Grummer. *diag Ind & Eng Chem* 40:415-19 Mr '48
- Heats of formation and chemical thermodynamic properties. F. D. Rossini. *bibliog* A S M E Trans 70:625-9 Ag '48
- Historic research; conduction of electricity through gases. *diags* Engineer 185:248-50, 272-4, 296-8, 320-2 Mr 12-Ap 2 '48
- Hypersorption provides precise concentration-separation of gases. A. L. Foster. *flow* *diag* *il* *diag* Oil & Gas J 47:70+ Ag 12 '48
- Ignition and flame stabilization in gases. B. Lewis and G. von Elbe. *bibliog* *il* *diags* A S M E Trans 70:307-14; Discussion. 314-16 My '48
- Imprisonment of resonance radiation in gases. T. Holstein. *Phys R* 72:1212-33 D 15 '47
- Industrial gases; tools and materials in steel bottles. *il* Sci Am 177:245-8 D '47
- Industry's debt to industrial gases. *il* Sheet Metal Worker 38:53-4+ D '47
- Industry's requirements for data on gas properties. N. A. Hall. A S M E Trans 70:661-3 Ag '48
- Influence of reaction interface extension in the combustion of gaseous fuel constituents. W. J. Wohlenberg. *bibliog* A S M E Trans 70:143-56; Discussion. 156-60 Ap '48
- Influence of retardation on the London-van der Waals forces. H. B. G. Casimir and D. Polder. *bibliog* Phys R 73:360-72 F 15 '48
- Mass emissivity of powder gases in solid fuel rockets. S. S. Penner. *bibliog* *diag* J Ap Phys 19:278-85 Mr '48
- Measurement of gas temperatures by means of thermocouples. W. L. Bolles. *bibliog* *diags* Pet Refiner 27:120-6 F '48
- Measurements of dielectric constant and dipole moment of gases by the beat-frequency method. J. G. Jelatis. *bibliog* *diags* J Ap Phys 19:419-25 Ap '48
- Molecular constants from spectroscopic data. G. Herzberg. *bibliog* A S M E Trans 70: 623-4 Ag '48
- Objective method for studying electron diffraction by gases. J. Karle and I. L. Karle. J Chem Phys 15:764-5 O '47
- Physical properties of inorganic gases, principal spectral lines of ionized gases, and characteristics of gaseous insulators. Electronics 21:M9 Mid-Je '48
- Quantum statistics and the N theorem. H. Einbinder. *bibliog* Phys R 74:805-8 O 1 '48
- Reactions of zirconium with gases at low pressure. W. G. Guldner and L. A. Wooten. *bibliog* *il* *diag* Electrochem Soc J 93:223-35 Je '48
- Relation between entropy and enthalpy of solution. K. Rice. *bibliog* J Chem Phys 15:875-9 D '47
- Relativistic Rankine-Hugoniot equations. A. H. Taub. *Phys R* 74:328-34 Ag 1 '48
- Removal of oxygen from gas streams. L. Meites and T. Meites. *Anal Chem* 20:984-5 O '48
- Simplified method for computing the equilibrium composition of gaseous systems. F. J. Krieger and W. B. White. *bibliog* J Chem Phys 16:358-60 Ap '48
- Sorption of gases on a plane surface of two stainless iron-chromium-nickel alloys at 20, -78 and -183°. M. H. Armbruster. *Am Chem Soc J* 70:1734-42 My '48
- Summary of experimental determinations of Joule-Thomson effects in gases. H. L. Johnston and D. White. A S M E Trans 70:651-4 *bibliog*(56 titles, p652-4) Ag '48
- Surface complexes on charcoal; gas evolution as a function of vapor adsorption and of high-temperature evacuation. R. B. Anderson and P. H. Emmett. *bibliog* *diags* J Phys & Colloid Chem 51:1308-29 N '47
- Tables of properties of gases with dissociation theory and its applications. E. W. Geyer and E. A. Bruzes. 102p \$3 Longmans, Green and co, 55 Fifth av, New York '48
- Theory of adsorption of gases on solids. M. A. Cook. *bibliog* Am Chem Soc J 70:2925-30 S '48
- Thermodynamic functions for molecular oxygen in the ideal gas state. H. W. Woolley. *bibliog* J Res Nat Bur Stand 40:163-8 F '48
- Transport properties for non-polar gases. J. O. Hirschfelder and others. J Chem Phys 16:968-81 O '48
- Viscosity of vapors, gasoline, gases; charts and tables. W. L. Nelson. Oil & Gas J 46:147 F 26 '48

See also

- | | |
|---------------------|-----------------------------|
| Absorption | Equation of state |
| Acetylene | Flue gas |
| Adsorption | Furnaces—Atmosphere control |
| Aerodynamics | Gas |
| Air | Gas, Natural |
| Ammonia | Gas analysis |
| Blast furnace gas | Gas flow |
| Carbon dioxide | Helium |
| Chlorine | Hydrogen |
| Coke-oven gas | Inflammable mixtures |
| Electric discharges | |

GASES—See also—*Continued*

Ionization, Gaseous Vapor pressure
Nitrogen Vaporization
Oxygen Vapors

Apparatus

Apparatus for micro gas analysis. C. Kenty and F. W. Reuter, jr. bibliog diag R Sci Instr 18:918-24 D '47

Apparatus for the detection and estimation of gases evolved in the analysis of carbonates, oxalates, sulphides, sulphites, etc. J. G. Reynolds, diags Metallurgia 37:160 Ja '48

Comparison of mercury diffusion pumping speeds for five gases. D. Fluke, R Sci Instr 19:665-6 O '48

Determination of carbon monoxide by absorption in the Haldane-type gas-analysis apparatus. L. B. Berger, 5pls U S Bur Mines Rep of Invest 4187:1-6 '47

Experimental study of the Koppers-Hinckley-Podbielniak apparatus and method for the determination of conjugated dienes. M. Shepherd and others. J Res Nat Bur Stand 39:435-51 N '47

Gas thermometer for automatic control of low temperatures; application to separation of gases by isothermal distillation. D. D. Tunnicliff, diag Anal Chem 20:962-4 O '48

Infra-red gas analysers, il diag Engineer 186: 40-1 Jl '48

Laboratory equipment for the analysis of mine atmospheres. L. B. Berger and H. H. Schrenk, bibliog 8pls U S Bur Mines Information Circ 7441:1-18 '48

Measurement of hydrogen sulphide in town gas, il diags Engineer 185:264-5 Mr 12 '48

Measurement of water in gases by electrical conduction in a film of hygroscopic material and the use of pressure changes in calibration. E. R. Weaver and R. Riley, bibliog diags J Res Nat Bur Stand 40: 169-214 Mr '48; Same cond. Anal Chem 20: 214-29 Mr '48

Method for measuring the complex dielectric constant of gases at microwave frequencies by using a resonant cavity. C. K. Jen, bibliog diags J Ap Phys 19:649-53 Jl '48

Modern methods of gas analysis; Graham-Lawrence apparatus and the McLuckie gas detector. W. D. Vint, il diags Metallurgia 37:160-2 Ja '48

Moisture determination by electrolytic film; measuring water vapor in gases, il diags Refrig Eng 55:266-7 Mr '48

New developments in instruments. J. S. Yeaw, il diags Am Gas Assn Proc 1947:547-90

Pneumatic method for measuring high-temperature gases. D. W. Moore, jr, il diags Aeronautical Eng R 7:30-4 My '48

Weirs and the gas calorimeter. J. H. Eiseman and R. F. Plapp, Am Gas Assn Mo 30:34-5 Je '48

See also

Effusimeters

Liquefaction

Georgia Tech constructs new low temperature laboratory. W. T. Ziegler, il diag Refrig Eng 56:402-4 N '48

Heatless helium; abstract. S. Collins, Chem Ind 61:796-7 N '47

Liquefied gas industry. J. B. Garner, bibliog Pet Refiner 27:120-8 patent list (p 124-7) Ag '48

See also

Liquid air

Patents

Patents relating to the liquefaction of gases; U.S., German, English and French; tabulation. Pet Refiner 27:125-7 Ag '48

Tables, calculations, etc.

Simple expressions for the heat capacities of gases. B. L. Crawford, jr, and R. G. Parr, J Chem Phys 16:233-6 Mr '48

GASES, Asphyxiating and poisonous

Design of exhaust systems; installations to avoid hazards of obnoxious or poisonous gas. F. H. Stebbins, il diags Sheet Metal Worker 38:58-60 D '47

Filtration of aerosols by granular charcoal. S. H. Katz and D. Macrae, J Phys & Colloid Chem 52:695-7 Ap '48

Simplified detection of toxic gases. diags

Chem Age (Lond) 57:799 D 20 '47

Toxicity and flame resistance of thermosetting plastics. L. B. Berger and others. 5pls U S Bur Mines Rep of Invest 4134: 1-11 '47

See also

Arsine

Carbon disulfide

Carbon monoxide

Chemical warfare

Chloropicrin

Fumigants

Hydrogen sulfide

Ketene

Methyl chloride

Mustard gas

Nitrogen oxides

Phosgene

Respiratory apparatus

Storage

Interior coating of tubular containers; phenol formaldehyde resins prevent decomposition of poison gases. L. P. Hubbuch and W. C. Johnson, diags Ind & Eng Chem 40:297-301 F '48

GASES, Compressed

Gas transportation system calculations; compression of gas. B. Miller, diags Gas Age 100:24-8 D 25 '47; 101:28-31 Ja 22; 27-34 F 5; 30-7 F 19; 32-7 Mr 4; 32-6 Ap 1; 102:37-41 Ag 19; 21-6 S 2 '48

Ultraviolet absorption spectra of substances dissolved in compressed gases. B. Vodar and S. Robin, bibliog J Chem Phys 16:996-7 O '48

See also

Gas, Natural—Compression

GASES, Kinetic theory of

Effects of hydrostatic pressure on electron flow in diodes. W. C. Hahn, Inst Radio Eng Proc 36:1115-21 S '48

Gas transportation system calculations; kinetic energy of gas. B. Miller, Gas Age 102:37-41 Ag 19 '48

Heat transfer to bodies traveling at high speed in the upper atmosphere. J. R. Stalder and D. Jukoff, bibliog diag J Aeronautical Sci 15:381-91 Jl '48

Story of atomic energy; kinetic theory of gases. F. Soddy, il Engineering 164:458 N 14 '47

GASES, Liquefied

Propellants for low-pressure liquefied gas aerosols. R. A. Fulton, Ind & Eng Chem 40:699-700 Ap '48

See also

Carbon dioxide, Liquid

Chlorine, Liquid

Gases—Liquefaction

Helium, Liquid

Hydrogen, Liquid

Oxygen, Liquid

GASES, Rare

Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others, diag J Chem Phys 15: 798-802 N '47

See also

Argon

Krypton

Neon

Xenon

GASES in metals. See Metals—Gas content**GASHOLDERS. See Gas holders****GASKETS**

Broaching gasket faces on Chevrolet engine blocks. il Iron Age 161:71 F 19 '48

Engineering studies in packings. H. G. Koch, il diag Paper Tr J 126:27-31 Ja 1 '48; Same cond. Paper Ind 29:1494-4 Ja '48

Flange design considerations; flanges with full-faced gaskets. H. E. Lonngrén, diag Pet Refiner 27:117-19 F '48

Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk, il Ind & Eng Chem 40:262-7 F '48

How to measure for a gasket. W. F. Schap-horst, diag Pet Eng 19:154 N '47

Improved polymerization techniques; use of puncture-sealing gaskets for polymerization in bottles. S. A. Harrison and E. R. Meincke, il Anal Chem 20:47-8 Ja '48

Selecting gaskets, diag Can Min J 68:902 D '47

Silicone window gasket, il Mod Plastics 25: 148 Ag '48

Simplified procedure; Victor Gasket cuts out its box-making department; reduces number of package sizes; streamlines packaging operation. W. F. Victor, il Mod Packaging 21:137-9+ Mr '48

GASOLINE

Aluminum stearate gels in light hydrocarbon oils; development of incendiary mixtures for use in munitions. C. M. Cawley and others. bibliog 4pls diag Inst Pet J 33:649-72 N '47

American chemical society, Petroleum division meeting, St Louis, Sept. 6-10; abstracts of papers. Pet Eng 19:171-2 S '48

Dielectric studies; studies with gasoline. N. C. C. Li and T. D. Terry. Am Chem Soc J 70:344-5 Ja '48

Effect of temperature and pressure on specific gravity. P. M. Reynolds. Oil & Gas J 46: 96+ Mr 11 '48

Engine knock and molecular structure of hydrocarbons; abstract. W. G. Lovell. Automotive Ind 98:33-4 F 1 '48

Flame propagation rates at reduced pressures. W. C. Johnston. diags S A E J 55: 62-5 D '47

Jet fuels for aircraft. H. A. Murray. Oil & Gas J 46:53-5+ Ja 8 '48; Same. il Pet Eng 19:177+ Ag '48

National motor-gasoline survey, winter 1947-48. O. C. Blade. 3pls U S Bur Mines Rep of Invest 4354:1-31 '48

Oil refiners have difficulty in supplying huge market for fuel oil and high-octane gasoline. W. Miller. il Min & Met 29:137-40 F '48

Storage stability of gasolines in automotive fuel systems; abstract. J. A. Bolt. S A E J 56:89-90 O '48

Survey of commercial aviation-gasoline characteristics, March 1947 production. W. C. Holliman and others. 7 pls U S Bur Mines Rep of Invest 4273:1-16 '48

Survey of commercial aviation gasoline characteristics, July 1947 production. W. C. Holliman and others. 7pls U S Bur Mines Rep of Invest 4353:1-16 '48

Technique for measuring reactivity of gasoline antioxidants with air; reactivity of *n*-butyl-*p*-aminophenol and *N,N*'-di-*sec*-butyl-*p*-phenylenediamine. B. R. Strickland. diag Am Chem 20:55-6 Ja '48

Viscosity of vapors, gasolines, gases; charts and tables. W. L. Nelson. Oil & Gas J 46:147 F 26 '48

See also

Airplane engines—	Internal combustion
Fuel	engines—Fuel
Automobile engines	Motor truck engines—
—Fuel	Fuel
Automotive fuel	Petroleum refining
Gasoline service	
stations	

Analysis

Determination of aromatic compounds in petroleum products; chromatographic method. A. L. Conrad. bibliog Anal Chem 20: 725-6 Ag '48

Determination of olefins in gasoline; application of infrared spectroscopy. R. W. B. Johnston, W. G. Appleby and M. O. Baker. bibliog Anal Chem 20:805-12 S '48

Determination of total aromatic plus olefin by sulfonation in the presence of phosphorus pentoxide. I. W. Mills and others. bibliog il diag Anal Chem 20:333-8 Ap '48

Estimation of thiophene in gasoline. H. C. McKee, L. K. Herndon and J. R. Withrow. bibliog Anal Chem 20:301-3 Ap '48

Evaluation of the ferrous-titanous method; comparison with sodium iodide isopropyl alcohol method. C. D. Wagner, R. H. Smith and E. D. Peters. bibliog Anal Chem 19: 982-4 D '47

Isomerization of certain olefins by silica gel at room temperature. W. S. Galloway and M. J. Murray. Am Chem Soc J 70:2584-6 J '48

Practical test for estimating storage stability of gasolines; adaptation of extrapolated gum time test. E. L. Walters and others. il Anal Chem 19:987-91 D '47

Procedure for determination of the bromine number of olefinic hydrocarbons. H. L. Johnson and R. A. Clark. bibliog Anal Chem 19:869-72 N '47

Some modifications of the lamp method for the determination of sulphur in petroleum products. G. E. Mapstone. diag Inst Pet J 34:486-9 J1 '48

Anti-knock and anti-knock mixtures

Alcohol-water fluid enriches gasoline. C. H. Van Hartesveldt. il S A E J 56:20-2 O '48

Anti-knock requirements of high compression ratio engines; abstract. R. W. Scott and others. Pet Eng 19:171 S '48

B. of M. report shows trend to higher octane continuing. O. C. Blade. Oil & Gas J 47: 128 Ag 19 '48

Economics of antidetonant injector through new automatic octane booster for engines; device tradenamed Vita-Meter; abstracts. C. H. Van Hartesveldt. il diag Oil & Gas J 46:103-4+ Mr 25 '48; Nat Pet N 40:45-6; Discussion. R. I. Potter. 45 Ap 7 '48

Effect of sulphur and phosphorus on aviation fuel performance. T. K. Hanson and K. F. Coles. Inst Pet J 33:589-97 O '47

Effect of sulfur compounds on octane number of leaded fuels. H. K. Livingston. bibliog Oil & Gas J 46:80-3+ Mr 11 '48

Efficient production and utilization of motor gasoline; abstracts. W. M. Holaday. S A E J 56:30-6 My '48; Automotive Ind 98:25-6+ Ja 15 '48; Nat Pet N 40:41-3 Ja 14 '48; Pet Processing 3:107-9 F '48

Front-end volatility as it affects processing of high-octane-number fuels. L. L. Davis. Am Pet Inst Proc 28 (3):111-14 '48; Same. Pet Processing 3:565-7 Je '48; Same. Pet Refiner 27:98-100 Je '48

Heavy European motor fuel demand may deter octane improvement. G. H. Schoenbaum. Oil & Gas J 47:142-3 Je 24 '48

Knock-free engine operation on low-octane gasolines; injection of a knock-suppressing liquid. Vitol. P. M. Heldt. il diag Automotive Ind 98:32-3+ Ja 15 '48

Octane booster goes on trial; Vitameter. il Bsns W p82+ O 30 '48

Octane race ended; abstract. M. W. Holaday. Oil & Gas J 46:40-1 Ap 8 '48

Problems of making high octane fuel, engine efficiency discussed by American chemical society; abstracts of papers. Nat Pet N 40:53 S 15 '48

Production of xylindines by high pressure hydrogenation; quality and performance characteristics. J. F. Kunc, Jr., W. C. Howell, Jr. and C. E. Starr, jr. bibliog Ind & Eng Chem 40:1530-8 Ag '48

Public introduced to fuel injection for cars; stations to sell anti-knock liquid for the Thompson Vitameter. H. Ridder. Nat Pet N 40:20 S 8 '48

Road and laboratory methods determine anti-knock quality of today's gasoline. E. H. Scott and K. L. Shull. Nat Pet N 40:34+ Ap 7 '48

Significance of fuel sensitivity in the performance of motor gasolines. E. J. McLaughlin and J. A. Miller. Pet Refiner 27: 112-16 Ja '48

Tests of 125 motor fuels show rise in octane rating. O. C. Blade. Oil & Gas J 46:111 F 26 '48

Use of anti-detonant injection in a high compression ratio engine. R. I. Potter. bibliog il diag Pet Refiner (Process Handbook ed) 27:125-32 S '48

Use of isooctane and normal heptane as reference fuels. H. M. Trimble and others. il diags Pet Processing 3:765-8+ Ag '48

See also

Xylidine

Blending

Blending methods in the preparation of motor fuel. F. D. Fuqua. Pet Refiner 27:108-12 F '48

Natural-gas butane and motor-fuel vapor pressures. R. C. Alden and T. W. Legatski. Am Pet Inst Proc 28(3):94-100 '48; Same cond. Pet Processing 3:579-80+ Je '48; Discussion. Am Pet Inst Proc 28(3):100-7 '48

Desulfurization

See Gasoline—Sulfur content

Ethyl mixtures

Ethyl road show. il Chem & Eng N 25:3803 D 22 '47

Manufacture of ethyl antiknock compound. C. C. Vogel. J Chem Educ 25:55-7 Ja '48

GASOLINE—Continued

Evaporation losses

Method for controlling in-transit and storage losses of oil products. E. L. Hoffman. *diag Nat Pet N* 39:26-9 D 31 '47

Preboiling evaporation losses in aircraft fuel tanks. L. M. Whitney and others, *bibliog J Aeronautical Sci* 14:703-6 D '47

Gum formation

Practical test for estimating storage stability of gasolines; adaptation of extrapolated gum time test. E. L. Walters and others, *il Anal Chem* 19:987-91 D '47

Suitability of gasoline as fuel; effect of contaminants extracted from synthetic vulcanizates. R. R. James and R. E. Morris. *bibliog il diags Ind & Eng Chem* 40: 405-11 Mr '48

Manufacture

Atlantic refining co.'s first year with Unisul process. R. D. Bent and J. H. McCullough. *bibliog il diag Oil & Gas J* 47:95+ S 9 '48

Butane isomerization process; Shell development co. flow sheet *Pet Refiner (Process Handbook ed)* 27:150-1 sec 2 S '48

Butane problem as viewed by an integrated refiner. H. R. Poland. *Am Pet Inst Proc* 28(3):83-4; Discussion. 100-7 '48

Catalytic desulfurization and reforming of naphthas over bauxite. C. J. Helmers and G. M. Brooner. *bibliog diag Pet Processing* 3:133-4+ F '48

Catalytic hydrogenation process; Shell development co. flow diag *Pet Refiner (Process Handbook ed)* 27:120-1 sec 2 S '48

Catalytic polymerization and its commercial application. E. C. Weinert and G. Egloff. *flow diags Pet Processing* 3:685-6+ Je '48

Catalytic polymerization; chamber and reactor types. *flow diags Oil & Gas J* 46:126-7 Ap 1 '48

Catalytic polymerization unit is feature of McMurrey improvement plan. D. C. DeLoach. *il Oil & Gas J* 47:74-5 S 30 '48; Same. *Pet Eng* 20:286-8 O '48; Same. *Pet Refiner* 27:136-8 O '48

Channeling effects in reactors of a commercial hydroformer. C. Berg, P. N. Fawcett and R. O. Dhondt. *flow diag il diags Chem Eng Prog* 43:719-23; Discussion. 723-30 D '47

Chemical and physical properties of aluminum polybdenum oxide catalysts for hydroforming. G. M. Webb and others. *bibliog Pet Processing* 2:334-40-1 N '47

Chemical engineering unit processes; pyrolysis of hydrocarbons. V. Haensel and M. J. Sterba. *il Ind & Eng Chem* 40:1660-70 *bibliog* (184 ref, p 1669-70) S '48

Clay treating process; Texaco development corp. flow diag *il Pet Refiner (Process Handbook ed)* 27:262-3 sec 2 S '48

Corrosion in isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst. N. Fragen, C. W. Nysewander and W. R. Hertwig. *flow diag il diag Ind & Eng Chem* 40:1133-8 Je '48

Cycloversion catalytic cracking. *flow diag Oil & Gas J* 46:122 Ap 1 '48

Cycloversion process; Phillips petroleum co. *diag Pet Refiner (Process Handbook ed)* 27:104-5 sec 2 S '48

Decoking process. *flow diag Oil & Gas J* 46: 162 Ap 1 '48

Design and operation of Leonard TCC unit. G. Kelso and others. *diag Pet Eng* 20:293-4+ O '48; Same *abr. Pet Refiner* 26:98-103 Ag '47

Efficient production and utilization of motor gasoline; abstracts. W. M. Holaday. *S A E J* 56:30-6 My '48; *Automotive Ind* 98:25-6+ Ja 15 '48; *Nat Pet N* 40:41-3 Ja 14 '48; *Pet Processing* 3:107-9 F '48

First turnaround of Leonard TCC unit. J. S. Pfarr. *il Pet Eng* 19:51-4 F '48; Same *cond. Oil & Gas J* 46:112-14+ F 19 '48; Same *cond. Pet Refiner* 27:106-9 Mr '48

Fluid bed catalytic cracking plant. R. P. Trainer, N. W. Alexander and F. Kunreuther. *flow diag il plan diags Ind & Eng Chem* 40:175-82 Ja '48

Fluid catalytic cracking process; Standard oil development co. flow diag *Pet Refiner (Process Handbook ed)* 27:88-9 sec 2 S '48

Fluid catalytic cracking process; Universal oil products co. flow diag *Pet Refiner (Process Handbook ed)* 27:96-7 sec 2 S '48

Hf alkylation. *flow diag Oil & Gas J* 46:130 Ap 1 '48

Houdry catalytic cracking. flow diag *Oil & Gas J* 46:123 Ap 1 '48

Hydroforming pilot unit. L. T. Yule and R. B. Bennett. *flow diag il Ind & Eng Chem* 40:1995-8 O '48

Hydroforming process. flow diag *Oil & Gas J* 46:135 Ap 1 '48

Improved design features used in Lion's 4500 b/d TCC unit (Thermoform process). *il Pet Processing* 2:920 D '47

Initial operation and test run of 100-octane aviation gasoline plant. U. Tsao. *flow diags il Pet Eng (Ref annual)* 19:161+ JI 1 '48

Investigation of a Girbotol unit charging cracked refinery gases containing organic acids. W. E. Norris and F. R. Clegg. *flow diag Pet Refiner* 26:107-9 N '47

Isoforming process; Standard oil company (Indiana). flow diag *Pet Refiner (Process Handbook ed)* 27:170-1 sec 2 S '48

Isomate process. flow diag *Oil & Gas J* 46: 134 Ap 1 '48

Isomerization; U.O.P. isomerization process. flow diag *Oil & Gas J* 46:132 Ap 1 '48

Lion oil company starts operation of TCC unit. F. L. Emert. flow sheet *il Pet Refiner* 26:85-9 D '47

Lion Oil completes its new streamlined T.C.C. unit. R. B. Tuttle. *flow diag il Oil & Gas J* 46:65+ D 20 '47

Liquid-phase isomerization. flow diag *Oil & Gas J* 46:133 Ap 1 '48

Mercapsof process. flow diag *Oil & Gas J* 46: 142 Ap 1 '48

Method for correlating thermal reforming yield data with operating conditions. H. F. Tighe. *Pet Processing* 3:986-8+ O '48

N.C.R.A. catalytic desulfurization reforming unit operates on variety of charging stocks. R. B. Tuttle. *il Oil & Gas J* 47: 86+ JI 15 '48

New sulfotizer unit has unique features for disulfide removal and regeneration. flow sheet *il diag Pet Processing* 2:965-6 D '47

Oil refining from the modern viewpoint. G. Egloff. *il Min & Met* 28:550-5 N '47

Oxidation inhibitors for gasoline. C. D. Lowry, Jr. *Oil & Gas J* 46:211-12+ Ap 1 '48

Percio catalytic reforming. flow diag *Oil & Gas J* 46:125 Ap 1 '48

Problems in the efficient utilization of refinery butanes. T. L. Apjohn and D. P. Heath. *Am Pet Inst Proc* 28(3):85-93 '48; Same *cond. Pet Processing* 3:573-4+ Je '48; Discussion. *Am Pet Inst Proc* 28(3): 100-7 '48

Processing Pennsylvania crude. D. Read. *diags Pet Eng* 19:122+ Je '48; Same *cond. Oil & Gas J* 46:72-4+ Mr 4 '48; Same *cond. Pet Processing* 3:329-30+ Ap '48

Processing west Texas crude. W. K. Jackson. *il Oil & Gas J* 46:170-1+ Ap 1 '48

Recent developments in the Cycloversion process. C. J. Helmers and others. *Oil & Gas J* 46:88+ D 13 '47

Refinery tools for producing high-octane gasoline. T. B. Kimball and J. A. Scott. *Am Pet Inst Proc* 28(3):121-32 '48; Same. *Pet Refiner* 27:116-23 Je '48; Same. *Pet Processing* 3:659-64+ JI '48; Discussion. *Am Pet Inst Proc* 28(3):133-6 '48; *Pet Processing* 3:666+ JI '48

Self-contained naphtha polyforming correlation. W. A. Goldtrap and E. L. Jones. *il diag Pet Eng* 20:269-72 O '48

Stratcold processing; application of sulfuric acid treating to certain types of petroleum distillates. flow diag *Oil & Gas J* 46:157 Ap 1 '48

Study of operating variables in Thermoform catalytic cracking. C. Bednars, D. M. Luntz and R. E. Bland. *Chem Eng Prog* 44:293-7; Discussion. 297-8 Ap '48

Sulfuric acid alkylation. flow diag *Oil & Gas J* 46:129 Ap 1 '48

Suspensoid catalytic cracking. flow diag *Oil & Gas J* 46:124 Ap 1 '48

Thermal cracking. flow diag *Oil & Gas J* 46: 138 Ap 1 '48

Thermal reforming. flow diag *Oil & Gas J* 46:136 Ap 1 '48

GASOLINE—Manufacture—Continued

- Thermal reforming process; Universal oil products co. flow chart Pet Refiner (Process Handbook ed) 27:56-7 sec 2 S '48
- Thermofor catalytic cracking, flow diag Oil & Gas J 46:120-1 Ap 1 '48
- TCC processing of Pennsylvania oil fractions, H. D. Noll and D. M. Luntz, Pet Eng 19: 162+ Ja '48; Same, Oil & Gas J 46:81+ Ja 15 '48
- Thermofor catalytic cracking unit, S. C. Eastwood, C. V. Hornberg and A. E. Potas, bibliog flow diag Ind & Eng Chem 39:1685-90 D '47
- Utilization of refinery gases by the polyform process, W. C. Offutt and others, bibliog flow sheet Pet Refiner 27:105-11 O '48

See also

Gasoline, Natural
—Manufacture

Measurement

- Product pipe-line metering practices, M. J. Dabney, flow diag map diag Am Pet Inst Proc 27(5):31-47 '47; Same, without map and diag, Oil & Gas J 46:216-18+ N 15 '47

Prices

- Arguments supporting need for increased gasoline margins, O. Skinner, Nat Pet N 40:26 O 13 '48
- Average for 1947; dealer and service station prices for regular-grade gasoline in 50 representative cities; tabulation, Nat Pet N 40:34 Ja 21 '48
- Ethyl's antiknock mix price goes up June 30; first boost in history, Nat Pet N 40: 14 Ap 21 '48
- Jobber council committee adopts sliding scale margin boost plan, Nat Pet N 40:12 Je 23 '48
- No general margin cut but jobber spread less in many cases, NPN survey discloses, A. R. Patla, Nat Pet N 40:28+ Je 16 '48
- Three more major suppliers boost prices on oil products; boost prompts protests to DJ, Nat Pet N 39:15 D 17 '47
- Wolvorton group reports on oil prices and profits, Nat Pet N 40:11-15+ Je 16; 17-19 Je 23 '48

Rating

- Aid to reliable fuel rating emerges from CRC test work, D. B. Brooks and R. B. Cleaton, S A E J 56:53-4 Je '48
- Automobile gasoline, Consumers Res Bul 21: 18 Ap '48
- Laboratory engines for fuel rating; abstract, R. Childs, S A E J 56:90-2 O '48

Rationing

- Supply and dollar shortage plague British oil industry; new gas rationing plan tried, W. C. Platt, Nat Pet N 40:21+ J1 21 '48

Specifications

- Specifications vs. performance for gasoline, fuel oils, and lubricants, R. J. S. Pigott, Oil & Gas J 46:56-9+ Ja 1 '48

Storage

- Almost half of jobbers pushing storage expansion to minimize winter hardships, A. R. Patla, Nat Pet N 40:37+ Ag 4 '48

Sulfur content

- Catalytic desulfurization, flow diag Oil & Gas J 46:139 Ap 1 '48
- Catalytic desulfurization and reforming of naphthas over bauxite, C. J. Helmers and G. M. Brooner, bibliog diag Pet Processing 3:133-4+ F '48
- Catalytic desulfurization process; Texaco development corp. flow diag Pet Refiner (Process Handbook ed) 27:266-7 sec 2 S '48
- Copper sweetening, flow diag Oil & Gas J 46:141 Ap 1 '48
- Effect of sulphur and phosphorus on aviation fuel performance, T. K. Hanson and K. F. Coles, Inst Pet J 33:589-97 O '47
- Effect of sulfur compounds on octane number of leaded fuels, H. K. Livingston, bibliog Oil & Gas J 46:80-3+ Mr 11 '48

- Lead sulfide sweetening, flow diag Oil & Gas J 46:143 Ap 1 '48
- Mercapsol gasoline treating process; Pure oil co. diag Pet Refiner (Process Handbook ed) 27:248-9 sec 2 S '48
- New solutizer unit has unique features for disulfide removal and regeneration, flow sheet il diag Pet Processing 2:965-6 D '47
- Phosphate desulfurization, flow diag Oil & Gas J 46:140 Ap 1 '48
- Regeneration steps cut cost of removing mercaptans, flow diag Pet Processing 3:435-8 My '48
- Socony-Vacuum uses time towers in gasoline treating, R. B. Tuttle, il diag Oil & Gas J 47:37 Je 3 '48
- Some modifications of the lamp method for the determination of sulphur in petroleum products, G. E. Mapstone, diag Inst Pet J 34:486-9 J1 '48
- Sulfur compounds in gasoline, A. Fookson and A. D. Bell, Pet Refiner (Process Handbook ed) 27:87-95 bibliog(p94-5) S '48
- Tannins and allied chemicals in mercaptan removal processes, J. Happel and S. P. Cauley, bibliog flow diag Ind & Eng Chem 39:1665-9 D '47
- Use of oxygen in gasoline treating; Hoover process, C. O. Hoover, il diag Pet Refiner 27:99-103 J1 '48

Bibliography

- Bibliography on sulfur compounds in gasoline; effects on octane number, lead response, and engine wear, A. Fookson and A. D. Bell, Pet Refiner (Process Handbook ed) 27:94-5 S '48

Taxation

- Fuel taxes; airlines hold line, with only two changes in state levies, Aviation W 49:51-2 Ag 16 '48
- 1947 gas taxes total over \$1 billion, Eng N 141:87 S 16 '48

Testing

- Buy on performance and depend on brands, R. J. S. Pigott, il Am Pet Inst Proc 27(2): 11-18 '47
- Correlation of predicted and observed storage stability of cracked gasoline, E. L. Walters, D. L. Yabroff and H. B. Minor, bibliog Ind & Eng Chem 40:423-8 Mr '48
- Measurement of heat of combustion of volatile hydrocarbons; liquid sample holder, R. L. LeTourneau and R. Matteson, bibliog diag Anal Chem 20:663-4 J1 '48
- Multiple unit bath for oxidation stability tests for gasoline, E. L. Ruh and others, il Pet Processing 3:45-6 Ja '48
- New approach to the evaluation of fuel volatility and associated engine variables; abstracts, J. E. Taylor and H. J. Gibson, Pet Processing 3:332-5 S '48; S A E J 56: 65-8 S '48
- Research by the mile; Ethyl corporation research laboratory at San Bernardino; research on engines and motor fuels, il Pet Eng 19:116+ Ap '48
- Road and laboratory methods determine antiknock quality of today's gasoline, E. H. Scott and K. L. Shull, Nat Pet N 40:34+ Ap 7 '48
- Road test data supports greater use of light ends in winter motor fuels, il Pet Processing 3:33-4+ Ja '48
- Road-testing gasoline; electronic spark-advance indicator and tachometer, R. R. Proctor, il diag Electronics 21:83-5 N '48
- Suitability of gasolines as fuel; effect of contaminants extracted from synthetic vulcanizates, R. R. James and R. E. Morris, bibliog il diag Ind & Eng Chem 40:405-11 Mr '48
- Use induction period calculator for oxidation stability tests, E. L. Korb, il Pet Processing 3:848-50 S '48
- Use of isooctane and normal heptane as reference fuels, H. M. Trimble and others, il diag Pet Processing 3:765-8+ Ag '48

Transportation

- See also
Gasoline delivery
Tank trucks

GASOLINE—Continued

Volatility

- Factor of gasoline tail-end volatility. J. B. Hill and W. C. Huffman, flow sheet Am Pet Inst Proc 28(3):115-19 '48; Same, Pet Refiner 27:94-7 Je '48; Same, abr. Pet Processing 3:557-7 Je '48; Discussion, Am Pet Inst Proc 28(3):119-20 '48
- Front-end volatility as it affects processing of high-octane-number fuels. L. L. Davis, Am Pet Inst Proc 28(3):111-14 '48; Same, Pet Processing 3:565-7 Je '48; Same, Pet Refiner 27:98-100 Je '48
- New approach to the evaluation of fuel volatility and associated engine variables; abstracts, J. E. Taylor and H. J. Gibson, Pet Processing 3:832-5 S '48; S A E J 56: 65-8 S '48

GASOLINE, Natural

- Grade and yield estimation of natural gasoline. D. Seeley, Oil & Gas J 47:86-9 J 30 '48
- Natural-gasoline and cycling plants will break own record in 1948. J. C. Casper, Oil & Gas J 46:181-2 Ja 29 '48
- Relation of 26-70 to AA grade gasoline. W. L. Nelson, Oil & Gas J 46:155 Ap 29 '48
- Significance of liquids from natural gas. C. R. Williams, map Oil & Gas J 46:108-11+ Mr 25 '48

Manufacture

- Absorption and stripping processes, diag Pet Refiner (Process Handbook ed) 27:308-9 sec 2 S '48
- Absorption cycling process, diag Pet Refiner (Process Handbook ed) 27:300-1 sec 2 S '48
- Absorption process; Flint, Keel corp, flow diag Pet Refiner (Process Handbook ed) 27: 238-9 sec 2 S '48
- Absorption processes; Jones & Laughlin supply co, flow diag Pet Refiner (Process Handbook ed) 27:292-3 sec 2 S '48
- Arkansas fuel oil co, completes Panola gasoline plant, C. D. Attaway, il Oil & Gas J 46:118-21 F 19 '48
- Benton unit cycling plant, H. W. Manley, il map diag Oil & Gas J 47:32-6+ Ag 19 '48
- Clear Lake plant designed for propane-gasoline product, C. C. Pryor, flow sheet il Pet Refiner 27:87-90 Ja '48
- Comparison of major processes for synthetic liquid fuels; oil-shale, coal hydrogenation, or Fischer-Tropsch from natural gas or coal? W. C. Schroeder, il Chem Ind 62: 574-7+ Ap '48
- Construction under way will increase output of natural-gasoline, cycling plants, R. B. Tuttle, Oil & Gas J 46:145-6 Mr 25 '48
- Cycling plants stabilize crude oil, G. M. Liljenstein, flow sheets il Pet Refiner 27: 87-93 O '48
- 85 million cubic feet of casing-head gas daily utilized by Shell in two newly completed plants, D. M. Duff, il Oil & Gas J 47:90-1+ O 21 '48
- Engineering completed for new \$15,000,000 petrochemical plant; chemical-processing units, utilizing natural gas, J. E. Bludworth, flow diag il Oil & Gas J 46:48-9+ Ja 1 '48
- Engineering features of Hastings plant, J. J. Weatherby and H. N. Wade, flow diag il diag Pet Refiner 27:81-6 Ap '48
- Enter; synthetic fuel; commercial production of gasoline and oil from natural gas or coal, il Bsns W p21-3 Ja 24 '48
- Evaluation of catalysts used in the synthesis of hydrocarbons, S. R. Wright and others, flow sheet Can Chem & Process Ind 32: 53-4+ Ja '48
- Fire protection for pump houses; Aer-o-foam, il plan Oil & Gas J 46:91 Ja 15 '48
- Fuels and lubricants from sources other than petroleum, G. T. Perry, Can Chem & Process Ind 32:624-9 J1 '48
- Gas conservation; extraction plants replace gas flares, il Pet Processing 2:857-60 N '47
- Gas conservation, high recovery provided by Magnolia Petroleum's Vanderbilt plant, G. Weber, il Oil & Gas J 46:122-4+ Mr 25 '48
- Gas once burned yields valuable products; natural-gasoline extraction plant built by the Magnolia petroleum co, il Comp Air Mag 53:63-5 Mr '48

- Gasoline and cycling plant operations, questions and answers, diag Pet Processing 3: 535-6 Je '48 [cont monthly]
- Gasoline plant design, V. E. Middlebrook, il Oil & Gas J 46:93+ F 12 '48
- Gasoline plant process water treatment, J. C. Hutcheson, Pet Refiner 27:110-12 Mr '48; Same, Pet Eng (Ref annual) 19:184+ J1 1 '48; Discussion, J. S. Connors, Pet Refiner 27:113-15 Mr '48
- Gasoline plant water treatment, J. C. Hutcheson and J. S. Connors, il Pet Processing 3: 227-8+ Mr '48
- Gulf Coast's gas processing plants, D. M. Duff, il Oil & Gas J 47:156-9 Je 24 '48
- Hastings Field gasoline plant, H. F. Dawe and H. N. Wade, flow diag il diag Pet Eng 19:122+ N '47
- Huge construction program cuts gas waste in Texas to minimum, D. M. Duff, il Oil & Gas J 46:40-1 D 20 '47
- Huge joint-company gasoline plant will conserve Slaughter casing-head gas, G. Weber, il plan Oil & Gas J 46:65-8 D 6 '47
- Increased economy at Tomconnor, C. C. Pryor, flow sheet il Pet Refiner (Process Handbook ed) 27:104-7 S '48
- Low temperature gas rectification process; Petroleum engineering, inc, flow diag Pet Refiner (Process Handbook ed) 27:284-5 sec 2 S '48
- Magnolia completes gasoline plant at Vanderbilt, Texas, C. C. Pryor, flow diag il Pet Refiner 27:91-5 F '48
- Maximum recovery of liquefied petroleum gases, J. A. Craig, Pet Refiner 27:108-10; Discussion, B. O. Bentley, 110-11 Ja '48
- Modern process methods to improve L.P.G. recovery, G. W. McCullough and others, biblog flow diag Oil & Gas J 46:116-13+ Mr 25 '48; Same, Pet Processing 3:307-10 Ap '48; Same, Pet Refiner 27:87-91 Ap '48
- More propane for less money; Southwest gas producing co, high-pressure gasoline-plant design, Z. C. Ambrose, flow diag Oil & Gas J 46:127+ Mr 25 '48
- Natural-gas processing plants continue efforts to meet demand, R. B. Tuttle, Oil & Gas J 47:210+ J1 29 '48
- Natural gasoline plant increases output by using propane refrigeration unit, J. C. Albright, flow diag il Pet Processing 3:867-8+ S '48
- New gasoline plant for Carthage field, D. Attaway, il Pet Eng 19:87+ My '48
- New gasoline plant; Stanolind oil & gas co., Hastings, Tex, E. Short, flow diag il Oil & Gas J 46:78-9+ D 13 '47
- New midjet gasoline plant, R. B. Tuttle, flow diag il Oil & Gas J 46:77-8+ Ap 8 '48
- New type compressor building for gasoline plant; Magnolia petroleum company's Vanderbilt, Texas plant, C. C. Pryor, il diag Pet Refiner 27:123-32 Ap '48
- New unit in gas conservation program; absorption-type gasoline plant owned by Humble oil and refining co, and Quintana petroleum corp, F. H. Love, il Pet Eng 19: 107+ S '48
- Plant for LPG and natural gasoline, F. H. Love, il Pet Eng 19:41-4 J1 '48
- Pressure maintenance and high pressure absorption, F. H. Love, il Pet Eng 19:155+ Ap '48
- Projected natural-gas processing units rated at billion-foot daily capacity; natural-gasoline and cycling-plant construction; tabulation, Oil & Gas J 47:181+ My 20 '48
- Stage separation cycling process; O. L. Olsen, flow diag Pet Refiner (Process Handbook ed) 27:296-7 sec 2 S '48
- Stanolind's gasoline plant program, K. B. Barnes, il Oil & Gas J 46:150-1+ Mr 25 '48
- Straight-line chart determination of absorber-extraction efficiency, E. G. Ragatz, Oil & Gas J 46:78-9+ F 12 '48; Same, Pet Refiner 27:83-90 F '48
- Synthetics; the great oil reserve, il Fortune 37:110-15+ My '48
- West Texas gasoline plant points trend in maximum utilization, il Oil & Gas J 47: 153 J1 29 '48

Hydrocol process

- Fuel synthesis by-products as a source of chemicals, F. W. Sullivan, jr, biblog il Chem Eng Prog 43:sup 13-17 D '47

GASOLINE, Natural—Manufacture—Hydrocol process—*Continued*
 Hydrocarbon synthesis, flow diag Oil & Gas J 46:163 Ap 1 '48
 Texaco licensing synthetic fuel production process, Chem & Eng N 26:616 Mr 1 '48; Pet Refiner 27:156 Mr '48
 Texaco now licensing process for synthetic-fuel production, A. L. Foster, II Oil & Gas J 46:68 F 12 '48

Synthol process

Hydrocarbon synthesis, flow diag Oil & Gas J 46:163 Ap 1 '48
 Synthetic liquid fuels and chemicals from natural gas, G. Roberts, Jr, flow diag Pet Processing 2:905-6 D '47

Statistics

Natural-gasoline, cycling-plant production may reach 17 million gallons daily, J. C. Casper, Oil & Gas J 46:129+ Mr 25 '48
 Natural gasoline output going up for 16th year in row; production of natural gasoline and allied products, by states, by years, 1911-1947; tabulations, World Oil 127:Yrbk 174-5 F '48
 Survey of cycling plants by states, Oil & Gas J 46:142 Mr 25 '48
 Survey of natural-gasoline plants by states, Oil & Gas J 46:135-6+ Mr 25 '48

GASOLINE, Substitutes for

Desperate Japs tried to make avgas even from pine tree roots, needles, D. P. Thornton, Jr, II Pet Processing 2:315-20 N '47
 Effects of substitute fuels on automotive engines, C. S. Bruce and others, bibliog II diag J Res Nat Bur Stand 41:135-49 Ag '48

GASOLINE delivery

Closed connection gasoline deliveries cut costs, save time, tests indicate, S. E. Drummond, diag Nat Pet N 40:31-2 Jl 21 '48
 Few gasoline jobbers by-pass bulk plants; results of survey, tabulated, Nat Pet N 40:34 Ag 11 '48
 Socony's night delivery system decreases costs, C. C. Benedict, II Nat Pet N 39:30-1+ N 26 '47

GASOLINE handling

See also
 Gasoline delivery

Safety measures

11 states require separate pumps, meters for split heating oil, gasoline delivery, A. R. Patla, Nat Pet N 40:34 S 29 '48

GASOLINE industry

Almost half of jobbers pushing storage expansion to minimize winter hardships, A. R. Patla, II Nat Pet N 40:37+ Ag 4 '48
 Close balance on supply-demand for winter seen in two reports to Compact commission; text of report of Compact's economics committee, Nat Pet N 40:45-7 S 8 '48
 Complaints to Washington on gas supplies dwindle; report from Senate small business oil group, Nat Pet N 40:13-15 Mr 17 '48
 Continue battle to boost supply, economists urge, Nat Pet N 40:11-12 S 1 '48
 Four independents express their views on monopoly, margins for marketers, Nat Pet N 40:27-8 Ja 28 '48
 Higher margin, opposition to federal control top jobber group resolutions, Nat Pet N 40:30+ My 26 '48
 Independent jobber outlines plan for better oil industry relations, J. H. White, Nat Pet N 39:45-6 D 10 '47
 Industry acts to erase military motor gasoline deficit, R. E. Bjorkback, Nat Pet N 40:15 Ag 4 '48
 Many jobbers buying at premium to get gasoline for customers in Ohio, Kentucky, Tennessee and Alabama, F. C. Sturtevant, Nat Pet N 40:19-20 Jl 21 '48
 Need to conserve gasoline stressed at oil-farm meeting in Kansas City, Nat Pet N 40:17-18 Mr 24 '48
 Partial text of Senate small business oil subcommittee report on supplies, Nat Pet N 39:22-3+ D 24 '47
 Product supplies to be adequate, economics committee reports, Oil & Gas J 47:46 S 9 '48

Tie-in sales, H. J. O'Rourke, Nat Pet N 40:54-5 S 15 '48

See also
 Socony-Vacuum oil company
 Travel bureaus

Accounting

Procedure for handling the retail receivables of an oil company, A. P. Yung, N A C A Bul 29:1273-88 Je 15 '48

Advertising

Cruise guide sells travel and gasoline; Mobil-gas' log provides boat owners with tips on where and how to go, Sales Management 59:73 N 20 '47
 Indiana Standard launches summer advertising campaign telling motorists how to save gas, Nat Pet N 40:34-5 My 26 '48

Service

See also
 Oil companies

Statistics

Farm state gas consumption up 30 per cent despite greater urban population gains, H. Ridder, Nat Pet N 40:29-30+ O 13 '48
 Gasoline consumption rises 8.79 per cent in 1947, Nat Pet N 40:17 Mr 17 '48
 Increase in volume of traffic on highways in U.S. exceeds gasoline consumption gains, study shows, Nat Pet N 40:28 S 15 '48
 Motor fuel, 1941-1946, Survey of Cur Bsns 1947 Sup p 167 [supplemented in monthly numbers]
 National motor-gasoline survey, summer 1947, O. C. Blade, 2pls fold map U S Bur Mines Rep of Invest 4248:1-31 '48

Eastern states

Socony-Vacuum allocates gas in East four per cent below '46, Nat Pet N 39:17-18 N 12 '47

Great Britain

Supply and dollar shortages plague British oil industry; new gas rationing plan tried, W. C. Platt, II Nat Pet N 40:21+ Jl 21 '48

Sweden

Sweden's gasoline supplies, For Comm W 21:37 My 29 '48

United States

Gasoline supply optimism grows despite big demand, Nat Pet N 40:15-16 Jl 14 '48

GASOLINE pipe lines

Self-propelled motorized equipment features construction of products line, F. H. Love, II Pet Eng 19:53-6 D '47

Pumping stations

Semi-automatic operation of stations, C. H. Lundt and F. O. Stivers, II diag Pet Eng 19:123-4+ Mr '48

GASOLINE pumps

New idea for elevator-type gas pumps at stations would eliminate islands, F. C. Sturtevant, II plans Nat Pet N 40:31+ O 20 '48

New pumps at stations add emphasis to displays of tires, batteries, accessories, F. C. Sturtevant, II Nat Pet N 40:26-7+ My 19 '48

Self-service stations use glamour, five cents lower price to attract business, II Nat Pet N 40:33-4 Ja 7 '48

Service station preventive maintenance; how it reduces labor and material costs, E. F. McCabe, Nat Pet N 40:31+ Ja 28 '48

GASOLINE service stations

Blow to one-supplier retailing; court rules out oil company's contracts with filling stations to sell only its line of products, Bsns W p24 Je 12 '48

Consumer-preference survey of service-station facilities and products, W. Hughes, Am Pet Inst Proc 27(2):38-40 '47

Discontinue small wayside stations; two types of distributing methods compared; abstract, N. A. McGee, Nat Pet N 40:19-20 F 4 '48

GASOLINE service stations—Continued

Ladies day idea stresses merchandising and cleanup. L. Castle. Nat Pet N 40:7+ Ag 4 '48

Motorists not satisfied with restrooms; agreeable to pay toilets, survey shows; Hearst newspapers' Second consumer study. Nat Pet N 39:25+ N 26 '47

New idea for elevator-type gas pumps at stations would eliminate islands. F. C. Sturtevant. il plans Nat Pet N 40:31+ O 20 '48

New idea for Los Angeles auto service station; has parking lot and free bus service to nearby shopping center. il plan Am Bid 70:107 S '48

Our dealers know all the answers; we tell them; General petroleum corp. F. C. Meunier. il Ptr Ink 225:37 O 15 '48

Plans free competition for oil on superhighways; New Jersey's new proposal for servicing motorists. Nat Pet N 39:36+ N 12 '47

Station appearance not always true index of type of service available. F. C. Sturtevant. il Nat Pet N 40:40+ JI 7 '48

Advertising

Small-space advertiser clicks with sprightly cartoons and copy; Carlson & Simpson, service garage, San Diego. J. H. Viissers. il Ptr Ink 223:40 Je 25 '48

Airplane service

Service aims to please fussy customers; facilities for aviators and motorists; Houchard oil co. H. Taylor. il plan Nat Pet N 39:42+ N 19 '47

Automobile accessories

Independent expands TBA program; new distribution chain being set up. F. C. Sturtevant. Nat Pet N 40:40 O 13 '48

New stations designed to stress eye appeal in pushing the sale of TBA. D. Sweeney. il Nat Pet N 40:34+ Ja 14 '48

Oil industry ready to spend money needed to build facilities for pushing TBA sales. G. L. Switzer. Nat Pet N 39:30-2 D 24 '47

Public put oil industry into the TBA business. L. Castle. Nat Pet N 40:11+ S 8 '48

TBA sales formula designed to add 7.5c per gal. profit. F. C. Sturtevant. Nat Pet N 40:40 F 11 '48

Cleanliness

Experience proves station housekeeping standards raised by use of NPN forms. Nat Pet N 40:36+ Mr 10 '48

Impartial inspection of housekeeping at stations can promote speedy clean up. F. C. Sturtevant. Nat Pet N 40:21+ Mr 17 '48

Public criticism, probable tight gas supply magnifies station clean-up need. Nat Pet N 40:33-4 Mr 3 '48

Readers comment on cleanliness at stations. Nat Pet N 40:52 O 6 '48

Construction and design

Guide to service station planning. H. Ridder. Nat Pet N 40:37-8+ JI 28 '48

New stations designed to stress eye appeal in pushing the sale of TBA. D. Sweeney. il Nat Pet N 40:34+ Ja 14 '48

Service store station uses eye-appeal for profitable appliance and TBA sales. F. C. Sturtevant. il plan Nat Pet N 40:25+ Ag 25 '48

Shopping center station patterned for sales, service. D. Sweeney. il plan Nat Pet N 40:25+ JI 7 '48

Employees

Independent jobber organizes on-the-job training program for service station men; Gaseteria, inc. F. C. Sturtevant. il Nat Pet N 40:24+ Mr 3 '48

Independent jobber's incentive pay plan cuts down labor turnover at stations. F. C. Sturtevant. Nat Pet N 40:24+ O 27 '48

Equipment

Equipment buying by oil suppliers hit in first Ploeser field hearing. L. Castle. Nat Pet N 40:17 S 8 '48

Jobber survey shows 34 per cent plan larger station tanks. A. R. Patla. Nat Pet N 40:37-40 S 8 '48

Service station preventive maintenance; how it reduces labor and material costs. E. F. McCabe. Nat Pet N 40:31+ Ja 28 '48

Finance

Gasoline dollar profit too slim. R. L. Williams. Nat Pet N 40:25-6 My 12 '48

Heating and ventilation

Independent jobber installs radiant heating at new station; finds it works satisfactorily. il Nat Pet N 40:37-8 Ja 14 '48

Hours of business

Survey shows public prefers station closing 8-10 p.m., opening 7-8 a.m. Nat Pet N 40:34 Ap 14 '48

Painting

Two majors repaint with new color scheme to push profits and better housekeeping. il Nat Pet N 39:25+ D 3 '47

Records

Business report system of Independent emphasizes dollars not gallons; Gaseteria, inc. F. C. Sturtevant. Nat Pet N 40:30+ Mr 10 '48

Regulation

Planned service areas on controlled-access roadways. S. Miller, jr. Am Pet Inst Proc 27(1):71-4 '47

Self service stations

California's self service stations still in limelight. D. Sweeney. Nat Pet N 40:9 My 26; 13 Je 2 '48

Houston gets its first self-service station; Salt Lake, Los Angeles definitely ban them. Nat Pet N 40:12 S 29 '48

Los Angeles city and county still disagree on self-serves. D. Sweeney. Nat Pet N 40:9 JI 28 '48

Seattle, Tacoma self-serves follow volume sales and low price formula. il Nat Pet N 40:32-3 Ag 18 '48

Self-service stations; new marketing pattern? il Bsns W p68+ JI 24 '48

Self-service stations still thriving on West coast. il Nat Pet N 40:26-8+ N 3 '48

Self-service stations use glamour, five cents lower price to attract business. il Nat Pet N 40:33-4 Ja 7 '48

Ten states prohibit self-service stations, four may enact legislation, survey shows. H. Ridder. Nat Pet N 40:30+ Ag 18 '48

Service

Service stations among last holdouts against tipping. L. Castle. Nat Pet N 40:7+ Ag 25 '48

Side line selling

Ploeser group hears complaints in two cities on exclusive dealing. Nat Pet N 40:18 O 13 '48

Service store station uses eye appeal for profitable appliance and TBA sales. F. C. Sturtevant. il plan Nat Pet N 40:25+ Ag 25 '48

France

Smart ideas used at some French stations but style and facilities lag behind U.S. W. C. Platt. il Nat Pet N 40:22-4 Ag 18 '48

Great Britain

Stations in England are owned and operated by non-oil companies. W. C. Platt. il Nat Pet N 40:22-4 Ag 25 '48

GASOLINE storage

Correlation of predicted and observed storage stability of cracked gasoline. E. L. Walters, D. L. Yabroff and H. B. Minor. bibliog Ind & Eng Chem 40:423-8 Mr '48

Method for controlling in-transit and storage losses of oil products. E. L. Hoffman. diag Nat Pet N 39:26-9 D 31 '47

Practical test for estimating storage stability of gasoline; adaptation of extrapolated gum time test. E. L. Walters and others. il Anal Chem 19:987-91 D '47

Vapors escaping from gasoline storage tank caused Westland Oil explosion, report finds. Nat Pet N 40:36 Ja 7 '48

Fires and fire protection

Safety hits the road; mobile units of the Ethyl corporation present unusual fuel-handling safety show. Safety Eng 94:27 D '47

GASOLINE tanks

Jobber survey shows 34 per cent plan larger station tanks. A. R. Patla, Nat Pet N 40:37-40 S 8 '48

GASPERI, Alcide de, 1881-

Portrait. Bsns W p 109 N 8 '47

GATES, Hydraulic

Air aids operation of dam spillway gates; Possum Kingdom dam. A. Streiff. II diag Comp Air Mag 53:247-9 O '48

Army tests new-type slide gate. diags Eng N 141:90-1 O 28 '48

Continuous-flow, self-cleaning diversion works increase water supply of Colorado steel plant. A. J. Ryan. II plan diags Civil Eng 17:31-3 D '47

Electrical supervisory control for New Zealand irrigation scheme. Engineering 166: 167-8 Ag 13 '48

Estimating data for reservoir gates. F. L. Boissonault. diags Am Soc C E Proc 73: 1027-46 S '47; Discussion. 74:143-6, 400-2, 793-800, 1029-31 Ja, Mr, My-Je '48

Gate cavitation avertable. Elec World 130: 124-4 Ag 14 '48

Remote control for an irrigation scheme. II diag Engineer 186:10-11 JI 2 '48

Sewer gate operation by remote control. L. L. Bradish and F. C. Lorenzen. II diag Eng N 139:812-13 D 11 '47

Tainter gates of simplified design for use on army flood-control dams. D. A. Buzzell. II diags Eng N 140:500-1 Ap 1 '48; Discussion. T. B. Rights. 140:972-3 Je 10 '48

GAULLE, Charles de, 1890-

What de Gaulle would mean to France. por Bsns W p25-6 O 16 '48

GAUMONT-BRITISH picture corporation

Statement by the chairman at annual general meeting. J. A. Rank. Economist 153: 1027 D 20 '47

GEAR cutting

How gear shaving works. S. Cornell. II diags Am Mach 92:94-8 Je 3 '48

New applications for subtractive-lead hobbing. J. W. Bergman. Am Mach 92:117-18 JI 15 '48

Stock allowance for gear finishing; reference book sheet. C. R. Staub. Am Mach 92:145 S 23 '48

GEAR cutting machines

Antifriction bearings. L. E. Browne. II diags Steel 122:73-4 Ja 12 '48

Brown & Sharpe introduces new automatic pinion turning machine. K. Stad. II Tool Eng 20:44 F '48

Cast iron gear-shaving increased 83 per cent; combining actions of two high-production underpass machines. II Steel 122:102 F 9 '48

Craven gear hobbing machine. II Engineer 185:255-6 Mr 12 '48

Fellows ten station rotary gear shaper. II diags Product Eng 19:92-4 My '48

Fellows 36-inch and turret type gear shapers. II Mach 54:197-8 Ja '48; Am Mach 91:155 D 18 '47

Gear cutting equipment found applicable for uses outside its original field. II Steel 122: 86-4 Ja 12 '48

Hey 10in. gear tooth rounding and chamfering machine. II Automobile Eng 38:157 Ap '48

New apron relief in gear shaper. II diag Machine Design 20:154-5 F '48

Red Ring, universal diagonal gear-shaving machine. II Mach 54:195 Ap '48

35th annual review. II Am Mach 92:199-203 Ja 29 '48

Underpass gear cutter. II Sci Am 178:129 Mr '48

Work loaders applied to machine tools. R. Le Grand. II diags Am Mach 92:153-5 Mr 11 '48

Testing

Measurement of periodic errors in gear-hobbing machines. C. Timms and others. II diags Engineering 166:337-40 O 8 '48

GEAR testing machines

David Brown gear testing machine. II Automobile Eng 38:191-2 My '48

Eastman Kodak gear-testing equipment. II Mach 54:193-4 Ap '48

New principle employed in gear checking machine. II diags Machine Design 20:128-30 Je '48

Small, simple machine, tests gears and lubricants. II Automotive Ind 98:46-1 My 1 '48

Universal worm gear testing machine made by David Brown tool co. II Engineer 184:418 O 31 '47; Engineering 164:488 N 21 '47

Worm-gear testing machine announced by David Brown tool co. II Mech Eng 70:24 Ja '48

Worm gears; David Brown universal testing machine no. 12A. II Automobile Eng 38: 117-18 Mr '48

Worm sectioned gaging element. II diag Product Eng 19:96 JI '48

GEARING

Apply right gear to the job to get longer service. J. K. Rewalt. II diags Power 92: 344-6 Je '48

Choosing the maintenance gears. E. L. Cady. II Mill & Factory 42:100-3 Mr '48

David Brown marine oil-operated reverse-reduction gear diags Engineer 185:442 My 7 '48; Automotive Ind 99:27-4 Ag 15 '48

Gear lubrication in modern industrial applications. A. F. Brewer. II Steel 123:88-92-4 JI 12 '48

Gears; their application, design and manufacture. L. J. Collins. Mach 54:160-2 D '47

It's easy to weld pulleys and gears; how to use blowpipe for preheat. F. F. Mooney. diags Welding J 27:728 S '48

Load-carrying capacity of the oil film between gear teeth. E. M'Ewen. diag Engineer 186:234-5 S 3 '48

OTR report describes bronze coated gears. Diesel Power 26:76-8 S '48

Rack and gear assembly for intermittent rotary motion. L. Kasper. diags Mach 55:199-200 S '48

Speed-increasing gearbox for special test plant. S. A. Couling. II diags Engineering 164:412-14 O 31 '47

2000 s.h.p. marine reverse reduction gear. II Engineer 185:550-1 Je 4 '48

Typical methods of providing lubrication for gear systems; drawings. Product Eng 19: 106-7 JI '48

Welding pulleys and gears without a preheating furnace. diags Coal Age 53:112 JI '48

See also
Chain gear

Design

Backlash considerations when designing gears. L. D. Martin. diags Product Eng 19:108-12 JI '48

Bevel differential, an operational analysis. G. H. Logan. diags Aero Digest 56:47-4 Je '48

Designing instrument gearing. L. D. Martin. II diags Machine Design 20:163-8 Ap '48

Designing tapered gears. B. Bloomfield. II diags Machine Design 20:125-30 Mr '48

Double enveloping right angle gear drives. F. E. Birtch. II diags Product Eng 19:85-91 Ag '48

Gear trains for multiple speeds. L. Dodge. biblog diags Product Eng 19:144-8 F '48

Instrument-gear standards and design. G. W. Kuntz. biblog II diags A S M E Trans 70:739-43 Ag '48

Intermeshing non-circular algebraic gears. C. Temperley. diags Engineering 165:49-52 Ja 16 '48

New differential insures greater drive-wheel traction. R. G. LeTourneau. II diags Machine Design 20:143-4 JI '48

Pythagorean numbers; designing spur gears, connecting shafts at different levels of a machine. O. Lichtwitz. diag Engineering 165:112-13 Ja 30 '48

Failure

Why and how gears fail. A. F. Brewer. II Mill & Factory 43:113-17 S '48

Manufacture

Automatic broaching speeds output of auto window pinions. H. Chase. II diags Steel 122:89 Ap 12 '48

Fast replacement saves heavy demurrage; tippie gear wheel. II Ry Mech Eng 122: 153-4 Ap '48

How to prevent gear-grinding troubles. L. P. Tarasov. II Am Mach 92:116-19 S 9; 104-7 S 23 '48; Abstract. Iron Age 161:80-1 Je 24 '48

GEARING—Manufacture—Continued

Integrated chain of quality controls assures better truck transmissions; Chevrolet-Toledo plant. J. Geschelein, *il* Automotive Ind 99:32-44 S 15 '48
 Special induction heating setup tempers spline bores of gears. P. A. Hassell, *il* diag Automotive Ind 98:44+ F 15 '48
 Works of the David Brown organisation. *il* col pl Engineer 186:4-6, 33-5, 67-9, 78-81 J1 2-23 '48

Measurement

Gear measurement over non-standard pins; reference book sheet. E. J. Rantsch, *diags* Am Mach 92:301 Ja 29 '48; Discussion. 92: 109-10 Je 3 '48
 Gear tooth inspection method as an index of performance. L. D. Martin, *il* *diags* Product Eng 19:87-9 F '48

Noise

Gear noise exposes naval ships to detection by the enemy; how the problem is being attacked. G. Wohlberg, *il* diag Machine Design 20:133-7+ Ag '48
 Offset pivot reduces sector gear noise. H. F. Bariffi, *diags* Machine Design 20:131-2+ Je '48

Standards

British standard specifications for gearing. W. A. Tuplin, Engineer 185:549 Je 4 '48
 Clearances for fine-pitch gears; American gear manufacturers standards 470.01; reference book sheet. Am Mach 91:149, 151 D 13 '47
 Instrument-gear standards and design. G. W. Kuntzy, *bibliog* *il* *diags* A S M E Trans 70:739-43 Ag '48
 Load rating of gears. E. Buckingham, Tool Eng 20:33-5 Je '48
 New high-speed helical and herringbone gear standard; engineering data sheet, Machine Design 19:157-8 D '47

Tables, calculations, etc.

Charts for calculating root stresses in spur gears; reference book sheet. W. H. Bookmiller, Product Eng 19:161+ F '48
 Comparator chart layout checks involute gears. F. E. Browning, *diags* Am Mach 92: 59-92 My '48
 Graphical determination of gear contact ratios. D. W. Dudley, *il* *diags* Product Eng 19:152-5 Mr '48
 Mathematical formula locates idler in offset gear-pinion mechanism. H. L. Ahner, *diag* Am Mach 92:126 Je 17 '48
 Quick method of calculating gear changes not listed on gearbox plate. W. F. Hoag, *diag* Am Mach 92:131-2 F 12 '48

Testing

Criteria for surface failure. R. Howard, *bibliog* Engineer 185:203-4 F 27 '48
 Inspection of precision aircraft gears. D. W. Dudley, *il* *diags* Mach 55:151-7 S '48

See also
 Gear testing machines

GEARING, Bevel

Application of bevel gears and curved-tooth couplings. A. L. Stewart, *il* Mach 54:164-7 My '48
 Bevel differential, an operational analysis. G. H. Logan, *diags* Aero Digest 55:47+ J '48
 Bevel gears; the design of straight tooth types for automotive drives. F. Shaw, *diags* Automobile Eng 38:177-82, 217-21 My-Je '48

GEARING, Helical, See Gearing, Spiral**GEARING, Herringbone**

New high-speed helical and herringbone gear standard; engineering data sheet, Machine Design 19:157-8 D '47

GEARING, Non-metallic

Bearings and gears of molded nylon. *il* Product Eng 19:140-1 S '48
 Cotton fibers as a gear material. K. Rose, *il* Materials & Methods 28:68-71 Ag '48

GEARING, Planetary

Applying planetary gears to differential drives; engineering data sheet, *diags* Machine Design 20:165-8 Je '48

Modified approach permits flexible planetary design. S. G. Guins, *diags* Machine Design 20:141-2 S '48
 Planetary gear calculations; engineering data sheet. C. Carmichael, *diags* Machine Design 20:165-8 Mr '48; Discussion. W. A. Wolfe, 20:133 My '48

GEARING, Spiral

New high-speed helical and herringbone gear standard; engineering data sheet, Machine Design 19:157-8 D '47

GEARING, Spur

Charts for calculating root stresses in spur gears; reference book sheet. W. H. Bookmiller, Product Eng 19:161+ F '48
 Charts for designing long-short addendum spur gears; reference book sheet. W. H. Bookmiller, Product Eng 19:167, 169 Mr '48
 Contact ratio charts for designing spur gears; reference book sheet. W. H. Bookmiller, Product Eng 19:167-8 Ap '48
 Pythagorean numbers; designing spur gears, connecting shafts at different levels of a machine. O. Lichtwitz, *diag* Engineering 165:112-13 Ja 30 '48

GEARING, Worm

Combination worm drives for reciprocating machine beds. *il* diag Machine Design 20: 128-9 Ap '48

Manufacture

Production of small worm gears for experimental work. A. M. Gunner, *diags* Inst Mech Eng J & Proc 156:Proc 368-72, pl 1-2 D '47
 Worm gears gashed and hobbed on large gap-type engine lathe. N. MacLeod, *il* diag Am Mach 92:132-3 F 12 '48

Testing

Universal worm gear testing machine made by David Brown tool co. *il* Engineer 184: 418 O 31 '47; Engineering 164:488 N 21 '47
 Worm-gear testing machine announced by David Brown tool co. *il* Mech Eng 70:24 Ja '48
 Worm gears; David Brown universal testing machine no. 12A. *il* Automobile Eng 38:117-18 Mr '48

GEARMOTORS

Gear motors based on unit design. W. P. Schmitter, *il* *diags* Product Eng 19:153-7 Je '48

Standardized and simplified design of gearmotor. *il* Machine Design 20:98-9 My '48

GEIGER-MÜLLER counters

Analysis of the impulses from Geiger-Mueller tubes. S. C. Curran and E. R. Rae, *bibliog* R Sci Instr 13:371-6 D '47
 Calibrating multivibrator for use in radio-isotope studies. A. Mauro and M. C. Barry, *diags* R Sci Instr 13:356 N '47
 Circuit incorporating a chronoscope recorder, for use with particle counters. H. D. Evans, *bibliog* J Sci Instr 25:145-7 My '48
 Cosmic-ray counting rate of a single Geiger counter from ground level to 161 kilometers altitude. J. A. Van Allen and H. E. Tatel, *bibliog* *diags* Phys R 73:245-51 F 1 '48
 Counting-rate meter for radioactivity measurements. *il* R Sci Instr 18:859 N '47
 Dead-time reduction in self-quenching counters. P. E. Smith, *bibliog* R Sci Instr 19: 453-7 J1 '48
 Decimal Geiger-Müller scaler. *il* R Sci Instr 19:281-2 Ap '48
 Directional counter for the determination of the complete azimuthal effect of primary cosmic radiation. A. Baños, jr. and M. L. Perusquia, *bibliog* *diags* R Sci Instr 19: 239-43 Ap '48
 Discharge spread in Geiger counters. J. D. Craggs and A. A. Jaffe, *bibliog* *diags* Phys R 72:784-92 N 1 '47
 Discharge spread in Geiger counters with methane and methane/argon fillings. C. Balakrishnan and others, *bibliog* *diag* Phys R 74:410-14 Ag 15 '48
 Discharge spread in Geiger-Mueller counters. S. H. Liebson, *Phys R* 74:694-5 S 15 '48
 Effect of the composition of the gas mixture in self-quenching Geiger-Müller tubes on their plateau characteristics. S. J. du Toit, *bibliog* *Phys R* 73:1473-4 Je 15 '48
 Electronic techniques in nuclear science. S. A. Korff, *diags* Electronics 20:84-5 D '47

GEIGER-MÜLLER counters—Continued

- Ethylene self-quenching G-M counters. K. H. Morganstern and others. *Phys R* 74:499-500 Ag 15 '48
- Experiments on the separation of low energy mesotrons from electrons. P. C. Bhattacharya, bibliog *diags Phys R* 74:38-43 J1 1 '48
- Geiger-counter analysis unit. *il diag R Sci Instr* 18:932-3 D '47
- Geiger counter spectrometer for X-ray fluorescence analysis. F. Friedman and L. S. Birks, bibliog *diag R Sci Instr* 19:323-30 My '48
- Geometric factors underlying coincidence counting with Geiger counters. H. E. Newell, jr. *diags R Sci Instr* 19:384-9 Je '48
- In vivo Geiger-Müller gamma-ray counter for radioisotope distribution studies. N. Pace and others. *diags Science* 107:71-3 Ja 16 '48
- Industrial application of Geiger-Müller counters to the analysis of phosphorus in steels. F. R. Bryan and G. A. Nahstoll, bibliog *Opt Soc Am J* 38:510-17 Je '48
- Inside Geiger-Müller counter for soft beta-emitters; assay of radioactive sulfur 35 or carbon 14. L. W. Labaw, bibliog *diag R Sci Instr* 19:390-5 Je '48
- Investigation of the use of Geiger-Müller photoelectron counters in the spectrographic analysis of phosphorus in steel. R. Hanau and R. A. Wolfe, bibliog *il Opt Soc Am J* 38:377-83 Ap '48
- Life of self-quenching counters. S. S. Friedland, bibliog *Phys R* 74:898-901 O 15 '48
- Method for measuring short period activities. A. D. Schelberg and others, *diag R Sci Instr* 19:458-61 J1 '48
- Multiple Geiger counters for the observation of particle tracks. W. H. Chambers, *diags R Sci Instr* 19:467-70 J1 '48
- New cosmic-ray telescope for high altitudes. A. T. Biehl and others, *il diags Rs Mod Phys* 20:353-9 Ja '48
- New quenching circuit for Geiger counters. H. Maier-Leibnitz, *diags R Sci Instr* 19:500-2 Ag '48
- Percentages of alloying components in metals determined by Geiger counter, *diag Steel* 122:108 Je 7 '48
- Photoelectric effect in self-quenching Geiger-Mueller counters. M. V. Scherb, bibliog *Phys R* 73:86-7 Ja 1 '48
- Plug-in scaler for industrial counting. C. H. Brown, *il diag Electronics* 21:90-1 J1 '48
- Preferred orientation determination using a Geiger counter X-ray diffraction goniometer. B. F. Decker and others, *diags J Ap Phys* 19:388-92 Ap '48
- Properties and measurement of carbon 14. A. F. Reid, A. S. Weil and J. R. Dunning, bibliog *diag Anal Chem* 19:824-7 N '47
- Radiation chemistry of the Geiger-Mueller counter discharge. P. B. Weisz, bibliog *diag J Phys & Colloid Chem* 52:578-85 Mr '48
- Rebuilding of metal Geiger counting tubes. G. E. Hagen and D. H. Loughridge, *Phys R* 73:1131 My 1 '48
- Recent studies of the cosmic-ray latitude effect at high altitudes. A. T. Biehl and others, bibliog *il Rs Mod Phys* 20:360-6 Ja '48
- Recovery time of Geiger counters for X-ray intensity measurement. R. Pepinsky and others, *R Sci Instr* 19:51-2 Ja '48
- Reduction of insensitive time in Geiger-Müller counters. A. L. Hodson, bibliog *diags J Sci Instr* 25:11-13 Ja '48
- Resolving time and genuine coincidence loss for Geiger-Mueller counters. C. E. Mandeville and M. V. Scherb, bibliog *diag Phys R* 73:90-1 Ja 1 '48; Correction, 73:639 Mr 15 '48
- Scale-of-hundred counting unit. J. Rotblat and others, *il diags J Sci Instr* 25:33-7 F '48
- Sea level latitude effect of cosmic radiation. P. A. Morris and others, bibliog *diags Phys R* 74:1102-5 N 1 '48
- Short time delays in Geiger counters. C. W. Sherwin, bibliog *diags R Sci Instr* 19:111-15 F '48
- Some experiments with Geiger-Müller counters. J. D. Craggs and others, bibliog *diags J Sci Instr* 25:67-71 Mr '48

- Some Geiger-Müller and proportional counters of spherical shape. G. Salvini, bibliog *diags R Sci Instr* 19:494-6 Ag '48
- Specific primary ionization and energy loss of fast electrons in matter. F. L. Hereford, bibliog *diags Phys R* 74:574-9 S 1 '48
- Study of the deterioration of methane-filled Geiger-Müller counters. E. C. Farmer and S. C. Brown, *Phys R* 74:902-5 O 15 '48
- Thin window counter with special mica-to-glass seal. C. S. Wu and others, bibliog *il R Sci Instr* 18:693-5 O '47
- Ultraviolet flame detector, *diags Electronics* 21:168+ Mr '48
- Velocity of discharge propagation in Geiger counters. A. J. Knowles and others, bibliog *diag Phys R* 74:627-8 S 1 '48

Testing

- Circuit for testing efficiency of Geiger counters. G. E. Hagen and D. H. Loughridge, *diag R Sci Instr* 19:526-8 Ag '48

GEISSLER tubes

- Internal intensity ratio of Ha and of Da. C. Hsueh, bibliog *il diags Phys R* 74:670-6 S 15 '48

GELATIN

- Gelation and gel structure. E. A. Hauser, *diags J Chem Educ* 25:461-2 Ag '48
- Heat degradation of gelatin. W. M. Ames, bibliog *Soc Chem Ind J* 66:279-84 Ag '47
- Mechanical properties of substances of high molecular weight; rigidities of gelatin gels; dependence on concentration, temperature and molecular weight. J. D. Ferry, bibliog *Am Chem Soc J* 70:2244-9 Je '48
- Waste treatment plant of Eastman gelatine corporation; caustic lime removal. A. C. Bolde, *diag Boston Soc C E J* 34:331-2 O '47
- Weight control in packaging gelatin desserts. K. A. Fitch, *Food Ind* 20:550-1 Ap '48

GELATION

- Determination of functionality in methyl silicon systems. G. F. Roedel, bibliog *Anal Chem* 20:705-7 Ag '48

GELOSE. See Galactan**GELS. See Colloids****GELSEMIN**

- Gelsemine. B. Witkop, bibliog *Am Chem Soc J* 70:1424-7 Ap '48

GENERAL American transportation corporation

- Preferred stock offered, *Comm & Fin Chr* 166:1992-3 N 17 '47

GENERAL aniline and film corporation

- General Aniline will remain in government hands. R. M. Bleiberg, *Barron's* 28:29-30 Ja 5 '48

GENERAL electric company

- Dwindling cash, new plants change G.E.'s dividend ideas. *Barron's* 28:35 Ja 26 '48
- G.E. inflation drive shows results, *Mod Ind* 15:154+ Ap '48
- G-E promotes sound employee and community relations. *il Mill & Factory* 42:93-7 Je '48
- GE's new model job becomes product research project. L. R. Boulware, *Ed & Pub* 81:28 Ja 3 '48
- Plan of industrial training for chemists and engineers. C. H. Kline, Jr. *il Chem & Eng N* 26:2692-4 S 13 '48
- Westinghouse vs. General Electric; a comparative study. F. K. Dodge, *il Mag of Wall St* 82:290-2+ Je 19 '48

Electronics department

- See Electronics Park, Syracuse, New York

GENERAL foods corporation

- What one company learned about its stockholders; survey among women stockholders of General foods corp. B. Watson, *il Adv & Sell* 41:117-18+ Mr '48

GENERAL instrument corporation

- Profits restored, *Barron's* 28:29 S 27 '48
- Tuning in profits, *Fortune* 36:140+ D '47

GENERAL mills, inc.

- Annual report, *Comm & Fin Chr* 168:545 Ag 9 '48
- Diversification pays off. *il Bsns W* p66+ F 28 '48
- Professors roam corporate campuses. L. Fitzmaurice, *Sales Management* 61:46+ S 1 '48

GENERAL motors corporation

- Annual report. Comm & Fin Chr 167:1364 Mr 29 '48
- Aviation pays for General Motors; sale of North American stock. S. Altschul. Aviation W 48:41 Je 14 '48
- Comparative investment audit; Chrysler versus General Motors. F. K. Dodge. Mag of Wall St 81:246-8+ D 6 '47
- Control of G.M. shifts to Detroit. II Bsns W p24-6 S 25 '48
- Cost-of-living wage clauses and UAW-GM pact. N. M. Bortz. Mo Labor R 67:1-7 JI '48
- General Motors as a market forecaster; analysis of movements of shares over last 30 years. S. J. Sanford. Comm & Fin Chr 167:2743+ Je 24 '48
- G.M. boss passes wage idea to personnel executives. Bsns W p98-9 Je 5 '48
- G.M. cited; NLRB's first complaint against an employer under T-H law. Bsns W p95 F 7 '48
- G.M. Diesel. II Fortune 38:76-81+ JI '48
- G.M. makes sweeping changes in its executive staff. W. G. Patton. Iron Age 162:106+ S 23 '48
- General Motors net sales top billion for first quarter. Iron Age 161:164+ My 20 '48
- General Motors planning to sell Bendix Aviation stock interest. S. Altschul. Aviation W 48:36 Ja 19 '48
- General Motors realigns top executives. A. H. Allen. Steel 123:79-80 S 20 '48
- G.M. spends \$70-million in Cleveland expansion. Bsns W p46+ My 29 '48
- GM's pay plan, good or bad? Factory Management 106:108-12 JI '48
- New field for standards; General Motors sponsors cooperative study to standardize machine tools and other production equipment. II Bsns W p61-2+ My 29 '48
- Styling for the future; General Motors practices. L. Westrate. II Automotive Ind 97:42-3+ D 15 '47
- U.A.W. lure; sponsors contest with \$75,000 in prizes to win new members in G.M. plants. Bsns W p98 F 14 '48

Electro-Motive division

- Electro-Motive anniversary. II Diesel Power 25:70-1+ D '47

Oldsmobile division

- Fifty years of merry Oldsmobiles. II Automotive Ind 98:32-3+ My 1 '48

GENERAL Motors medical conference

- Conference, Indianapolis, Nov. 12-14, 1947. Ind Med 17:35-6 F '48

GENERAL plywood corporation

- Preferred stock offered. Comm & Fin Chr 168:448 Ag 2 '48

GENERAL portland cement company

- Southern growth adds General Portland Cement. P. A. Murphy. Barron's 28:29-30 Je 14 '48

- GENERAL security agreement. See Banks and banking—General security agreement

GENERAL telephone corporation

- Adds new customers; profits recover. Barron's 27:33 N 24 '47
- Big order backlog. Barron's 28:27 JI 19 '48; Correction. 28:35 JI 26 '48
- Common stock offered. Comm & Fin Chr 168:45 JI 5 '48

GENERAL tire and rubber company

- General Tire bets future on products of research. H. Jones. Barron's 28:31 Je 14 '48

- GENERATORS, Electric. See Electric generators

- GENERATORS, Radio. See Radio generators

GENES

- Genes of men and molds. G. W. Beadle. II Sci Am 179:30-9 S '48
- Number of genes in man. J. N. Spuhler. Science 108:279-80 S 10 '48
- Symposium on genes and cytoplasm, A.A.A.S. centennial celebration. Science 108:52-3 JI 16 '48

GENETICS**See also**

- Genes
- Human genetics society of America
- GENETICS, International congress of. See International congress of genetics

GENEVA stop

- Design factors in 35-mm intermittent mechanisms; Geneva-type. A. Hayek. diags Soc Motion Picture Eng J 49:405-14 N '47
- Modified Geneva drive for hi-speed machines. P. H. Winter. diags Tool Eng 20:23-4 My '48

- Neglected design detail; external Geneva wheel. S. Rappaport. diags Machine Design 20:140 S '48

- GENEVA trade agreements. See Commercial treaties and agreements

GENINS. See Aglucones**GENTER, Albert Legrand, 1881-**

- Sketch. por(p33) Civil Eng 18:35-6 Ja '48

GENTIOBIOSE

- Action of copper sulfate on the phenyllosazones of the sugars; gentiobiose phenyllosotriazol. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 70:2288-9 Je '48

GEOCHEMISTRY

- Age determination of quartz veins and pegmatites in Brazil. D. Guimarães. bibliog II diag Econ Geol 43:100-18 Mr '48
- Geochemistry and localization of dolomitization. C. H. Behre, jr. bibliog Econ Geol 42:540-2 S '47
- Heavy metals in altered rock over blind ore bodies, East Tintic district, Utah. T. S. Lovering and others. bibliog maps diag Econ Geol 43:384-99 Ag '48
- Nature of the iron compounds in red and yellow sandstone. L. J. E. Hofer and S. Weller. bibliog Science 106:470 N 14 '47
- Some mechanisms for the fixation of uranium in certain sediments. A. F. Frederickson. Science 108:184-5 Ag 20 '48
- Zinc content of plants on the Friedensville zinc slime ponds in relation to biogeochemical prospecting. W. O. Robinson and others. bibliog Econ Geol 42:572-82 S '47

See also

- Mineralogy Rocks—Analysis
- Ore deposits Rocks, Igneous

GEODESY

- Field methods; atemporal Polaris correction. R. L. Ives. diags Econ Geol 43:418-26 Ag '48

See also

- Isostasy
- GEOGRAPHICAL names. See Names, Geographical

GEOGRAPHICAL research

- Goals and trends of research in geology and geography. J. L. Rich. Science 107:581-4 Je 4 '48

GEOGRAPHY

- Geography and aviation. E. Huntington. Air Affairs 2, no 1:46-60 [S] '47
- Scope and status of urban geography; an assessment. R. E. Dickinson. bibliog Land Econ 24:221-38 Ag '48

- GEOLOGICAL age. See Geological time

GEOLOGICAL maps

- Accurate mapping, Great Basin. S. G. Lasky. Econ Geol 42:556-7 S '47
- Lithofacies maps and regional sedimentary-stratigraphic analysis. W. C. Krumbein. bibliog maps diags Am Assn Pet Geologists Bul 32:1909-23 O '48
- Rapid method for transferring distances from one map to another of different scale. J. F. Rominger. diags Am Assn Pet Geologists Bul 32:689-90 Ap '48

See also

- Isopachous maps
- GEOLOGICAL research
- Geological society of America project grants. Science 108:54 JI 16 '48

- Goals and trends of research in geology and geography. J. L. Rich. Science 107:581-4 Je 4 '48

- Report of committee on basic research in the field of industrial minerals and rocks. J. L. Gillson and R. H. Jahns. Econ Geol 42:737-46 D '47

- Report of committee on research in engineering geology. Society of economic geologists. Econ Geol 43:313-23 Je '48

- Report of the committee on research on ore deposits of the Society of economic geologists. bibliog Econ Geol 42:524-62 S '47

See also

- National research council—Committee on interrelations of pleistocene research

GEOLOGICAL societies

Geology and geologists, 1907-1947. H. D. Miser. *Am Assn Pet Geologists Bul* 32: 1340-2 JI '48

GEOLOGICAL society of America

Abstracts of papers at meeting, Ottawa, Dec. 29-31, 1947. *Geol Soc Bul* 58:1161-243 pt 2 D '47

Abstracts of papers at meeting, Stanford University, California, April 11-12, 1947. *Geol Soc Bul* 58:1245-70 pt 2 D '47

Annual meeting, 60th, Ottawa, Dec. 29-31. *Eng N* 140:85 Ja 15 '48

Proceedings volume for 1947. *Geol Soc Proc* 1947:1-235, pl 1-15 My '48

Project grants. *Science* 108:54 JI 16 '48

GEOLOGICAL survey. See United States—Geological survey**GEOLOGICAL surveys, Marine****Bibliography**

Annotated bibliography of marine geophysical and geological surveys. R. A. Geyer. *Geol Soc Bul* 59:671-95 JI '48

GEOLOGICAL time

Molecular spectroscopic evidence of the existence of strontium isotopes Sr^{88} , Sr^{87} , and Sr^{86} . L. H. Ahrens. *il Phys R* 74:74-7 JI 1 '48

Ore deposits and geologic age. S. Miholic. *bibliog Econ Geol* 42:713-20 D '47

GEOLOGISTS

Careers in geology. *il Eng & Min J* 149:95-8 O '48

Geologist in uniform; World war II. D. M. Delo. *Am Assn Pet Geologists Bul* 32:1691-711 S '48

Geology and geologists, 1907-1947. H. D. Miser. *Am Assn Pet Geologists Bul* 32: 1340-8 JI '48

Jobs and degrees for geologists. J. W. Harrington. *Min & Met* 29:453-4 Ag '48

Science and pragmatics in the education of planners; reprinted from *Science* Aug. 29, 1902; Training and work of a geologist. C. R. Van Hise. *Land Econ* 24:209-20 Ag '48

See also

Miser, Hugh Dinsmore

GEOLOGISTS, Petroleum

Our national responsibility as geologists. A. I. Levorsen. *Am Assn Pet Geologists Bul* 32:1378-80 JI '48

See also

Levorsen, Arville Plummer, Frederick Irving Byron

Directories

American association of petroleum geologists membership list. *Am Assn Pet Geologists Bul* 32:390-499 Mr '48

GEOLOGY

Abstracts of papers at Geological society of America meeting, Ottawa, Dec. 29-31, 1947. *Geol Soc Bul* 58:1161-243 pt 2 D '47

Application of geology to tunneling problems. E. E. Wahlstrom. *diags Am Soc C E Proc* 73:1245-56 O '47; Discussion. *il* 74: 116-20, 389-96, 690-704 Ja, Mr, My '48

Geological significance of meteorites. H. H. Nininger. *bibliog Am J Sci* 246:101-8 F '48

Geological studies can avoid costly mistakes. G. B. Clark. *plan diags Eng & Min J* 149: 94-6 Ag '48

Geology and geologists, 1907-1947. H. D. Miser. *Am Assn Pet Geologists Bul* 32: 1340-8 JI '48

Geology is useful; applied geology in petroleum and mining industries and in engineering. I. H. Cram. *Am Assn Pet Geologists Bul* 32:1-10 Ja '48

Projective geology and the search for new ore deposits. J. J. Beeson. *il map diag Min Cong J* 34:44-9+ JI '48

Tectonic control of lithologic associations. E. C. Dapples and others. *bibliog maps diags Am Assn Pet Geologists Bul* 32:1924-47 O '48

See also

Catastrophism (geology) Correlation (geology)
Coal—Geology Dikes (geology)
Continental shelf Dip and strike,
Coral reefs and islands Determination of
Drift
Drumlins

Faults (geology)

Geophysics
Geosyncline
Glacial geology
Glaciers
Isostasy
Metasomatism
Mineral waters
Mines and mineral resources
Ore deposits

Paleogeography

Paleontology
Petroleum—Geology
Rift valleys
Rocks
Rocks, Igneous
Salt domes
Sedimentation and deposition
Volcanoes
Water, Underground

Bibliography

Bibliography and index of geology exclusive of North America, v 12, 1947. M. Siegrist and E. Tatge. 359p Geological society of America, 419 W. 117th st, New York 27 '48 (\$3.50)

Study and teaching

Problems of training in geology. *Science* 107: 290-1 Mr 19 '48

Survey of college students majoring in geology; graphs. A. I. Levorsen. *Am Assn Pet Geologists Bul* 32:1356-7 JI '48

Teaching dip and strike. L. Whitcomb. *Am J Sci* 245:725-6 N '47

Terminology

Flysch and molasse. A. J. Eardley and M. G. White. *bibliog diags Geol Soc Bul* 58:979-89, pl 1 N '47

New Mississippian stratigraphic names. J. M. Weller. *Am J Sci* 246:150-1 Mr '48

Africa, East

Rift valleys of Africa. G. F. S. Hills. *Am J Sci* 246:171-81 Mr '48

Alaska

Geologic notes on Adak island and the Aleutian chain, Alaska. C. C. Bradley. *bibliog maps diags Am J Sci* 246:214-40, pl 1-4 Ap '48

Arctic regions

Reconnaissance geology of portions of Victoria, island and adjacent regions, arctic Canada. A. L. Washburn. (Memoir 22) 142p, 32 pls *bibliog* (p 123-33) \$4 Geological soc. of America, 419 W. 117th st, New York '47

Arizona

Geomorphology and structure of the west Kaibab fault zone and Kaibab plateau, Arizona. A. N. Strahler. *maps diags Geol Soc Bul* 59:513-40, pl 1-5 *bibliog* (p539-40) Je '48

Geomorphology of the valley of the Little Colorado river, Arizona. O. E. Childs. *bibliog map diags Geol Soc Bul* 59:353-88, pl 1-4 Ap '48

Geothermal gradients, recent climatic changes, and rate of sulfide oxidation in the San Manuel district. T. A. Lovering. *bibliog map Econ Geol* 43:1-20 Ja '48

High-level gravels of western Grand canyon. D. Koons. *Science* 107:475-6 My 7 '48

Permian stratigraphy and structure, northern Canelo hills, Arizona. J. H. Feth. *bibliog il maps diags Am Assn Pet Geologists Bul* 32: 82-108 Ja '48

Bikini Island

Drilling on Bikini atoll, Marshall Islands. H. S. Ladd and others. *bibliog maps Science* 107:51-5 Ja 16 '48

Bolivia

Ore deposits of the eastern Andes of Bolivia; the Cordillera Real. F. S. Turneaure and K. K. Welker. *bibliog maps Econ Geol* 42:595-625 N '47

Tin-silver veins of Oruro, Bolivia. F. M. Chace. *bibliog maps plans diags Econ Geol* 43:333-83, pl 1-8, 435-70, pl 1-12 Ag-S '48

Brazil

Age determination of quartz veins and pegmatites in Brazil. D. Guimarães. *bibliog il diag Econ Geol* 43:100-18 Mr '48

British Columbia

Glaciation in north central British Columbia. J. E. Armstrong and H. W. Tipper. *bibliog maps diags Am J Sci* 246:283-310, pl 1-4 My '48

GEOLOGY—British Columbia—Continued

Partly vitrified xenoliths in pillow basalt. K. D. Watson and W. H. Mathews. bibliog pl maps Am J Sci 246:601-14 O '48

California

Abstracts of papers at meeting, Stanford University, April 11-12, 1947; Cordilleran section of the Geological society of America. Geol Soc Bul 58:1245-59 pt 2 D '47

Batholith and associated rocks of Corona, Elsinore, and San Luis Rey quadrangles, southern California. E. S. Larsen, jr. (Memoir 29) 182p, 8 pls bibliog(p172-5) \$4.50 Geological soc. of America, 419 W. 117th st, New York '48

Donner Pass zone of deformation, Sierra Nevada, Calif. F. S. Hudson. Geol Soc Bul 59:795-800, pl 1 Ag '48

Genesis and evolution of Los Angeles basin, California. H. L. Driver. maps diags Am Assn Pet Geologists Bul 32:109-25 bibliog(102 titles, p 122-5) Ja '48

Geology of the Tecopa area, southeastern California. J. F. Mason. bibliog Geol Soc Bul 59:333-52, pl 1-2 Ap '48

Orbicular structures in aplite dikes near Ramona, Calif. R. Merriam. bibliog maps diags Am J Sci 246:129-37, pl 1 Mr '48

California, Lower

Buried topography, initial structures, and sedimentation in Santa Rosalia area, Baja California, Mexico. L. F. Wilson. maps diags Am Assn Pet Geologists Bul 32:1762-807 bibliog(p 1803-7) S '48

Colombia

Muzo emerald zone, Colombia, S.A. V. Oppenheim. bibliog il map Econ Geol 43:31-8 Ja '48

Colorado

Guide to the geology of central Colorado; with index map showing major geologic structure and significant oil and gas information. il Colorado School of Mines [Golden] Quarterly 43 no 2:1-176, p 1-14 Ap '48 (pa \$3)

Pennsylvanian stratigraphy of Colorado Springs quadrangle, Colo. K. F. McLaughlin. bibliog il maps diags Am Assn Pet Geologists Bul 31:1936-81 N '47

See also

Water, Underground

—Colorado

Colorado drainage basin

Colorado drainage basin. H. E. Gregory. bibliog Am J Sci 245:694-705 N '47

Connecticut

Two tills and the development of glacial drainage in the vicinity of Stafford Springs, Connecticut. S. E. White. bibliog maps Am J Sci 245:754-78 D '47

Cuba

Geology and chromite deposits of the Camagüey district, Camagüey province, Cuba. D. E. Flint and others. map diags U S Geol S Bul 954-B:39-63, pl 18-19[in pocket] '48

Curaçao, N.W.I.

Geological observations on Curaçao. H. P. Schaub. bibliog il maps diags Am Assn Pet Geologists Bul 32:1275-91 J1 '48

Egypt

Tin-tungsten deposit in Egypt. M. S. Amin. bibliog il maps Econ Geol 42:637-71 N '47

Finland

Archean geology of the Turku district in southwestern Finland. A. Hietanen. il maps diags Geol Soc Bul 58:1019-84, pl 1-4 bibliog(p 1081-2) N '47

New evidence of the origin of pre-Cambrian carbon. K. Rankama. map diags Geol Soc Bul 59:389-416, pl 1-6 bibliog(p414-16) My '48

France

Gas-bearing structures of southern France. D. Schneegans. maps diags Am Assn Pet Geologists Bul 32:198-214 F '48

Great Basin

Critique of the time-stratigraphic concept. H. E. Wheeler and E. M. Beesley. bibliog map diags Geol Soc Bul 59:75-85 Ja '48

Great Lakes area

Crustal movement in the Great Lakes area. S. Moore. bibliog Geol Soc Bul 59:697-709, pl 1 J1 '48

Great Plains region

Pleistocene of the Great Plains. E. H. Colbert and others. bibliog map diags Geol Soc Bul 59:641-680, pl 1 Je '48

Gulf Coast region

Artesian salt formations. B. Willis. bibliog il maps diag Am Assn Pet Geologists Bul 32:1227-64 J1 '48

Basic geology of the Gulf Coastal area and the continental shelf. J. B. Carsey. maps diag Oil & Gas J 47:246-7+ Je 24 '48

See also

Wilcox formation

Haiti

Aluminous lateritic soil of the Republic of Haiti. W. L. S. S. Goldich and H. R. Bergquist. maps U S Geol S Bul 954-C:63-111, pl 20-2; pa 40c Supt. of doc. '48

Idaho

Geology of the Borah Peak quadrangle, Idaho. C. P. Ross. maps diags Geol Soc Bul 58:1085-160, pl 1-13 bibliog(p 1158-60) D '47

Role of the Idaho batholith during the Laramide orogeny. A. L. Anderson. bibliog maps Econ Geol 43:84-99 Mr '48

Illinois

Geology of Benton field, Franklin county, Illinois. J. V. Howell. maps diags Am Assn Pet Geologists Bul 32:745-66 My '48

Structural trends and fault systems in Eastern interior basin. S. K. Clark and J. S. Royds. il maps diags Am Assn Pet Geologists Bul 32:1728-49 S '48

Bibliography

List of publications on the geology, mineral resources, and mineral industries of Illinois and list of published maps. 74p Ill. state geological survey, Urbana '48

Indiana

Structural trends and fault systems in Eastern interior basin. S. K. Clark and J. S. Royds. il maps diags Am Assn Pet Geologists Bul 32:1728-49 S '48

Iowa

Iowan drift border of northwestern Iowa. G. D. Smith and F. F. Riecken. map Am J Sci 245:706-13 N '47

Islands of the Pacific

Drilling on Bikini atoll, Marshall Islands. H. S. Ladd and others. bibliog maps Science 107:51-5 Ja 16 '48

Emergent phosphate islands in Micronesia. L. E. Nugent, jr. bibliog maps Geol Soc Bul 59:977-84, pl 1 O '48

Major structural features of the western North Pacific, an interpretation of H.O. 5485, bathymetric chart, Korea to New Guinea. H. H. Hess. maps diags Geol Soc Bul 59:417-45, pl 1-2 bibliog(p443-5) My '48

Iwo Jima

Geology and ground-water resources of Iwo Jima. F. A. Swenson. bibliog maps Geol Soc Bul 59:995-1008, pl 1-2 O '48

Petrography of Iwo Jima. G. A. Macdonald. bibliog maps Geol Soc Bul 59:1009-18 O '48

Japan

Sakawa orogenic cycle and its bearing on the origin of the Japanese islands. T. Kobayashi. Am J Sci 246:57-61 Ja '48

Kansas

Hugoton embayment of Anadarko basin in southwestern Kansas, southeastern Colorado, and Oklahoma panhandle. J. C. Maher and J. B. Collins. maps Am Assn Pet Geologists Bul 32:313-16 My '48

GEOLOGY—Kansas—Continued

Late Cenozoic climatic conditions in the High Plains of western Kansas. C. W. Hibbard. bibliog diags Geol Soc Bul 59: 592-7 Je '48

So-called Maquoketa of Barber county, Kansas. W. A. Ver Wiebe. Am Assn Pet Geologists Bul 32:126-8 Ja '48

Kentucky

Trenton and pre-Trenton of Kentucky. A. C. McFarlan and W. H. White. map diags Am Assn Pet Geologists Bul 32:1627-46 bibliog(p 1645-6) Ag '48

See also

Water, Underground
—Kentucky

Marshall islands

Reefs of Bikini, Marshall islands. J. L. Tracey, jr. and others. il maps plans diags Geol Soc Bul 59:861-78, pl 1-11 S '48

Maryland

Trenton and sub-Trenton of outcrop areas in New York, Pennsylvania, and Maryland. F. M. Swartz. maps diags Am Assn Pet Geologists Bul 32:1493-595 bibliog(p 1591-5) Ag '48

Mexico

Observations of relative gravity at Paricutin volcano. V. E. Barnes and F. Romberg. Geol Soc Bul 59:1019-25, pl 1 O '48

Stratigraphic relations of certain Jurassic formations in eastern Mexico. R. W. Imlay and others. bibliog map Am Assn Pet Geologists Bul 32:1750-61 S '48

Submarine geology of Ranger Bank, Mexico. K. O. Emery. bibliog 2pls maps Am Assn Pet Geologists Bul 32:790-805 My '48

See also

Geology—California,
Lower

Michigan

Cambrian and Ordovician rocks in Michigan basin and adjoining areas. G. V. Cohee. bibliog maps diags Am Assn Pet Geologists Bul 32:1417-48 Ag '48

Mississippian Marshall formation of Michigan. V. B. Monnett. il maps diags Am Assn Pet Geologists Bul 32:629-88 bibliog(p686-8) Ap '48

Minnesota

Geology and underground waters of north-eastern Minnesota. G. A. Thiel. (Minnesota geol. survey bul. 32) 247p pa \$1 Univ. of Minnesota press, Minneapolis '47

Missouri

Zones of Plattin-Joachim of eastern Missouri. J. G. Grohskopf. il map Am Assn Pet Geologists Bul 32:351-65 Mr '48

Montana

Significance of Sloss and Laird's paper on Devonian system in central and northwestern Montana. C. E. Erdmann. Am Assn Pet Geologists Bul 32:836-8 My '48

Nebraska

Stratigraphy and geomorphology of the pleistocene of Nebraska. E. C. Reed. Geol Soc Bul 59:613-16 Je '48

New Hampshire

Trace elements in rocks of the Oliverian magma series of New Hampshire. C. A. Chapman and G. K. Schweitzer. bibliog maps Am J Sci 245:597-613 O '47

New Mexico

Eocene of the San Juan basin, New Mexico. G. G. Simpson. fold map diags Am J Sci 246:363-85 bibliog(p383-5) Je '48

Geology and ore deposits of the Little Hatched mountains, Hidalgo and Grant counties, New Mexico. S. G. Lasky. bibliog maps diags U S Geol S Professional Pa 208:1-101, pl 1-27 '47

Jurassic overlap in western New Mexico. C. Silver. il map diag Am Assn Pet Geologists Bul 32:68-81 Ja '48

Salt-dolomite intergrowths. I. T. Schwade. il Am Assn Pet Geologists Bul 31:2208-14 D '47

Shallow, high-temperature pegmatites, Grant county, New Mexico. V. C. Kelley and O. T. Branson. bibliog maps diags Econ Geol 42:699-712 D '47

New York (state)

New York subsurface geology. E. T. Heck. maps diag Am Assn Pet Geologists Bul 32: 1449-56 Ag '48

Trenton and sub-Trenton of outcrop areas in New York, Pennsylvania, and Maryland. F. M. Swartz. maps diags Am Assn Pet Geologists Bul 32:1493-595 bibliog(p 1591-5) Ag '48

North America

Correlation of the Mississippian formations of North-America; with index to stratigraphic names by the Mississippian subcommittee, J. M. Weller, chairman. Geol Soc Bul 59:91-196, pl 1-2 bibliog(330 titles, p177-88) F '48

North Carolina

North Carolina coastal plain floor. W. Berry. bibliog diag Geol Soc Bul 59:87-9, pl 1 F '48

Origin of the hot springs at Hot Springs, N.C. G. W. Stose and A. J. Stose. il maps diag Am J Sci 245:624-44 O '47

North Dakota

Correlation of Sentinel Butte shale in western North Dakota. R. W. Brown. bibliog il diag Am Assn Pet Geologists Bul 32: 1265-74 Jl '48

Newly discovered outcrops of the Cannonball formation in North Dakota. R. W. Brown and R. W. Lemke. Science 107:624-5 Je 11 '48

Bibliography

First supplement, 1948. Bibliography of the geology and natural resources of North Dakota. C. E. Budge. (Bul. no. 4) 90p North Dakota research foundation, Bismarck '48

Northwest Territories, Canada

Giant glacial grooves in northwest Canada. H. T. U. Smith. bibliog maps Am J Sci 246: 503-14, pl 1-5 Ag '48

Reconnaissance geology of portions of Victoria island and adjacent regions, arctic Canada. A. L. Washburn. (Memoir 22) 142p, 32 pls bibliog(p 123-33) \$4 Geological soc. of America, 419 W. 117th st, New York '47

Regional structural features of the Yellowknife area. N. Campbell. map Econ Geol 42:687-98 D '47

Oklahoma

Clarification of upper Cambrian stratigraphy in Oklahoma. E. A. Frederickson. Am Assn Pet Geologists Bul 32:1349-52 Jl '48

Hugoton embayment of Anadarko basin in southwestern Kansas, southeastern Colorado, and Oklahoma panhandle. J. C. Maher and J. B. Collins. maps Am Assn Pet Geologists Bul 32:813-16 My '48

Pennsylvanian stratigraphy and structure, Velma pool, Stephens county, Oklahoma. W. W. Mallory. bibliog maps diags Am Assn Pet Geologists Bul 32:1948-79 O '48

Oregon

Siletz River volcanic series, northwestern Oregon. P. D. Snively, jr. and E. M. Baldwin. bibliog il map Am Assn Pet Geologists Bul 32:806-12 My '48

Pacific coast

Abstracts of papers at meeting, Stanford University, April 11-12, 1947; Cordilleran section of the Geological society of America. Geol Soc Bul 58:1245-59 pt 2 D '47

Pennsylvania

Geomorphic studies in the Appalachians of Pennsylvania. P. de Bethune. bibliog maps diag Am J Sci 246:1-22 Ja '48

Summary of middle Ordovician bordering Allegheny synclorium. M. Kay. bibliog maps diag Am Assn Pet Geologists Bul 32:1397-416 Ag '48

GEOLOGY—Pennsylvania—Continued

Trenton and sub-Trenton of outcrop areas in New York, Pennsylvania, and Maryland. R. M. Swartz. maps diags Am Assn Pet Geologists Bul 32:1493-595 bibliog(p 1591-5) Ag '48

Peru

Incandescent tuff flows in southern Peru. C. N. Fenner. bibliog map Geol Soc Bul 59: 879-93, pl 1-5 S '48

Pleistocene climate and topography of the Arequipa region, Peru. C. N. Fenner. bibliog Geol Soc Bul 59:895-917, pl 1-5 S '48

Puerto Rico

Geology and ground-water resources of Puerto Rico. C. L. McGuinness. il Econ Geol 42:563-71 S '47

Quebec (province)

Geological sketch and metallic mineral deposits of the province of Quebec. B. T. Denis. il maps diags Can Min J 69:127-35 O '48

Northern Abitibi, Quebec; fracture zones and mineral possibilities. J. Claveau. bibliog(48 titles) il maps Can Min J 69:71-82 Ap '48

Progress of geological investigation in Quebec. I. W. Jones. map Can Min J 69: 116-26 O '48

Rocky Mountain region

Limnology and the eocene lakes of the Rocky Mountain region. W. H. Bradley. bibliog diags Geol Soc Bul 59:635-48, pl 1-2 JI '48

Tertiary-pleistocene transition at the east margin of the Rocky mountains. W. W. Atwood and W. W. Atwood, Jr. Geol Soc Bul 59:605-8 Je '48

Scotland

Subsequent topography along the highland boundary fault, Roseneath, Scotland. F. B. van Houten. bibliog maps Am J Sci 246: 23-8, pl 1 Ja '48

Siberia

Petroleum problem of Siberia. D. A. Shanazarov. bibliog maps Am Assn Pet Geologists Bul 32:153-97 F '48

South America

Paleogeography of South America. L. G. Weeks. map Geol Soc Bul 59:249-81, pl 1-16 bibliog(p267-81) Mr '48

South Dakota

High-potash dikes in the Homestake mine, Lead, South Dakota. J. A. Noble. bibliog diags Geol Soc Bul 59:327-39, pl 1 S '48

Stratigraphy and metamorphism in a part of the northern Black Hills and the Homestake mine, Lead, South Dakota. J. A. Noble and J. O. Harder. Geol Soc Bul 59: 941-75, pl 1-3 bibliog(p971-2) S '48

Southeastern states

Gold deposits of the southern Piedmont. J. T. Pardee and C. F. Park, Jr. maps(in pocket) plans diags U S Geol S Professional Pa 213:1-156, pl 1-60 bibliog(p3-8) '48

Southwestern states

Intertonguing marine and nonmarine upper cretaceous deposits of New Mexico, Arizona, and southwestern Colorado. W. S. Pike, Jr. (Memoir 24) 103p, 12pls bibliog(p97-100) \$2.25 Geological soc. of America, 419 W. 117th st, New York '47

Tennessee

Channels and channel-filling sediments of Richmond age in south-central Tennessee. C. W. Wilson, Jr. bibliog maps diags Geol Soc Bul 59:733-65, pl 1-2 Ag '48

Trenton and sub-Trenton stratigraphy of northwest belts of Virginia and Tennessee. C. E. Prouty. bibliog maps diags Am Assn Pet Geologists Bul 32:1596-626 Ag '48

Upper Devonian bentonite in Tennessee. W. H. Hass. map Am Assn Pet Geologists Bul 32:816-19 My '48

Texas

Bedding-replacement fluorspar deposits of Spar valley, Eagle mountains, Hudspeth county, Texas. E. Gillerman. bibliog map diags Econ Geol 43:509-17 S '48

Geology of the Blanco beds of west Texas. G. L. Evans. Geol Soc Bul 59:617-19 Je '48

Physical and chemical properties of Ellensburg rocks, Llano county, Tex. S. S. Goldich and E. B. Parmelee. bibliog maps diags Am Assn Pet Geologists Bul 31:1982-2020, pl 1 N '47

Tobago

Geology of Tobago, British West Indies. J. C. Maxwell. map diags Geol Soc Bul 59:801-54, pl 1-6 bibliog(p852-4) Ag '48

United States

See also United States—Geological survey

Utah

Geology and geography of central Kane county, Utah. H. E. Gregory. bibliog map diag Geol Soc Bul 59:211-47, pl 1-9 Mr '48

Geology of the Confusion range, west-central Utah. C. S. Bacon, Jr. bibliog maps diags Geol Soc Bul 59:1027-52 O '48

Heavy metals in altered rock over blind ore bodies, East Tintic district, Utah. T. S. Lovering and others. bibliog il maps diag Econ Geol 43:384-99 Ag '48

Key Permian section, Confusion range, western Utah. N. D. Newell. map diags Geol Soc Bul 59:1053-8 O '48

Some features of the Navajo formation in Zion national park, Utah. R. K. Grater. diag Am J Sci 246:311-18, pl 1-2 My '48

Venezuela

Outline of sedimentation in Maracaibo basin, Venezuela. H. P. Schaub. bibliog map Am Assn Pet Geologists Bul 32:215-27 F '48

Virginia

Stratigraphy of the Arvonja slate, Virginia. G. W. Stose and A. J. Stose. bibliog maps diags Am J Sci 246:393-412, pl 1 JI '48

Trenton and sub-Trenton stratigraphy of northwest belts of Virginia and Tennessee. C. E. Prouty. bibliog maps diags Am Assn Pet Geologists Bul 32:1596-626 Ag '48

West Indies

Geology of Tobago, British West Indies. J. C. Maxwell. map diags Geol Soc Bul 59:801-54, pl 1-6 bibliog(p852-4) Ag '48

West Virginia

Summary of middle Ordovician bordering Allegheny synclinorium. M. Kay. bibliog maps diag Am Assn Pet Geologists Bul 32: 1397-416 Ag '48

GEOLOGY, Engineering. See Engineering geology

GEOLOGY, Military.

Geologist in uniform; World war II. D. M. Delo. Am Assn Pet Geologists Bul 32:1691-711 S '48

GEOLOGY, Stratigraphic

Colorado drainage basin. H. E. Gregory. bibliog Am J Sci 245:694-705 N '47

Critique of the time-stratigraphic concept. H. E. Wheeler and E. M. Beesley. bibliog map diags Geol Soc Bul 59:75-85 Ja '48

Geology of the Borah Peak quadrangle, Idaho. C. P. Ross. maps diags Geol Soc Bul 58:1085-160, pl 1-13 bibliog(p 1158-60) D '47

Outline of sedimentation in Maracaibo basin, Venezuela. H. P. Schaub. bibliog map, Am Assn Pet Geologists Bul 32:215-27 F '48

Stratigraphy of the Arvonja slate, Virginia. G. W. Stose and A. J. Stose. bibliog maps diags Am J Sci 246:393-412, pl 1 JI '48

Time-stratigraphic classification of sedimentary rocks. H. D. Hedberg. bibliog Geol Soc Bul 59:447-62 My '48

Nomenclature

Revision of stratigraphic names. R. C. Moore. Am Assn Pet Geologists Bul 32: 1980-3 O '48

Stratigraphic commission; notes. Am Assn Pet Geologists Bul 32:866-81 Mr '48

Archean

Archean geology of the Turku district in southwestern Finland. A. Hietanen. il maps diags Geol Soc Bul 58:1019-84, pl 1-4 bibliog(p 1081-2) N '47

GEOLOGY, Stratigraphic—Continued

Cambrian

Cambrian and Ordovician rocks in Michigan basin and adjoining areas. G. V. Cohee. bibliog maps diags Am Assn Pet Geologists Bul 32:1417-48 Ag '48

Clarification of upper Cambrian stratigraphy in Oklahoma. E. A. Frederickson. Am Assn Pet Geologists Bul 32:1349-52 Jl '48

Trenton and sub-Trenton of outcrop areas in New York, Pennsylvania, and Maryland. F. M. Swartz. maps diags Am Assn Pet Geologists Bul 32:1493-595 bibliog(p 1591-5) Ag '48

Cretaceous

Geology of Tobago, British West Indies. J. C. Maxwell. map diags Geol Soc Bul 59:801-54, pl 1-6 bibliog(p862-4) Ag '48

Intertonguing marine and nonmarine upper cretaceous deposits of New Mexico, Arizona, and southwestern Colorado. W. S. Pike, jr. (Memoir 24) 103p. 12pls bibliog(p97-100) \$2.25 Geological soc. of America, 419 W. 117th st, New York '47

Devonian

Upper Devonian bentonite in Tennessee. W. H. Hass. map Am Assn Pet Geologists Bul 32:816-19 My '48

Eocene

Eocene of the San Juan basin, New Mexico. G. G. Simpson. fold map diags Am J Sci 246:363-85 bibliog(p383-5) Je '48

Wilcox (eocene) stratigraphy, a key to production. D. J. Echols and D. S. Malkin. bibliog maps diags Am Assn Pet Geologists Bul 32:11-33 Ja '48; Correction. 32:310 F '48

See also
Green River formation

Jurassic

Jurassic overlap in western New Mexico. C. Silver. il map diag Am Assn Pet Geologists Bul 32:68-81 Ja '48

Stratigraphic relations of certain Jurassic formations in eastern Mexico. R. W. Imlay and others. bibliog map Am Assn Pet Geologists Bul 32:1750-61 S '48

Mississippian

Correlation of the Mississippian formations of North America; with index to stratigraphic names by the Mississippian subcommittee, J. M. Weller, chairman. Geol Soc Bul 59:91-196, pl 1-2 bibliog(330 titles, p177-8) F '48

Hugoton embayment of Anadarko basin in southwestern Kansas, southeastern Colorado, and Oklahoma panhandle. J. C. Maher and J. B. Collins. maps Am Assn Pet Geologists Bul 32:813-16 My '48

Mississippian Marshall formation of Michigan. V. B. Monnett. il maps diags Am Assn Pet Geologists Bul 32:629-88 bibliog(p686-8) Ap '48

New Mississippian stratigraphic names. J. M. Weller. Am J Sci 246:150-1 Mr '48

Symposium on Problems of Mississippian stratigraphy and correlation. Science 107: 55-6 Ja 16 '48

Ordovician

Appalachian basin Ordovician symposium. J. T. Galey, M. Kay and others. bibliog maps diags Am Assn Pet Geologists Bul 32:1395-657 Ag '48

Zones of Platin-Joachim in eastern Missouri. J. G. Grohskopf. il map Am Assn Pet Geologists Bul 32:351-65 Mr '48

Paleocene

Correlation of Sentinel Butte shale in western North Dakota. R. W. Brown. bibliog il diag Am Assn Pet Geologists Bul 32:1265-74 Jl '48

Paleozoic

Geology of the Confusion range, west-central Utah. C. S. Bacon, jr. bibliog maps diags Geol Soc Bul 59:1027-52 O '48

Pennsylvanian

Pennsylvanian stratigraphy and structure, Velma pool, Stephens county, Oklahoma. W. W. Mallory. bibliog maps diags Am Assn Pet Geologists Bul 32:1948-79 O '48
Pennsylvanian stratigraphy of Colorado Springs quadrangle, Colorado. K. P. McLaughlin. bibliog il maps diags Am Assn Pet Geologists Bul 31:1936-81 N '47

Permian

Key Permian section, Confusion range, western Utah. N. D. Newell. map diags Geol Soc Bul 59:1053-8 O '48

Permian stratigraphy and structure, northern Canelo hills, Arizona. J. H. Feth. bibliog il maps diags Am Assn Pet Geologists Bul 32:82-108 Ja '48

Pleistocene

Friends of pleistocene geology 11th annual field reunion, Toronto, May 22-23. Science 107:619-20 Je 11 '48

Pleistocene of the Great Plains. E. H. Colbert and others. bibliog map diags Geol Soc Bul 59:541-630, pl 1 Je '48

Study of the pleistocene epoch. R. F. Flint. Science 107:442-3 Ap 30 '48

See also
Glacial geology

Pliocene

Beginning of the pleistocene in eastern United States. R. F. Flint. bibliog Geol Soc Bul 59:543-8 Je '48

Buried topography, initial structures, and sedimentation in Santa Rosalia area, Baja California, Mexico. T. F. Wilson. maps diags Am Assn Pet Geologists Bul 32:1762-807 bibliog(p 1503-7) S '48

Ogallala and post-Ogallala sediments. M. K. Elias. bibliog Geol Soc Bul 59:609-12 Je '48

Pleistocene of the Great Plains. E. H. Colbert and others. bibliog map diags Geol Soc Bul 59:541-630, pl 1 Je '48

Pliocene-pleistocene boundary in the Great Plains; evidence and problems. J. C. Frye. bibliog map Geol Soc Bul 59:598-604 Je '48

Pre-Cambrian

New evidence of the origin of pre-Cambrian carbon. K. Rankama. map diags Geol Soc Bul 59:389-416, pl 1-6 bibliog(p414-16) My '48

Stratigraphy and metamorphism in a part of the northern Black Hills and the Homestake mine, Lead, South Dakota. J. A. Noble and J. O. Harder. Geol Soc Bul 59:941-75, pl 1-3 bibliog(p971-2) S '48

Tertiary

Tertiary-pleistocene transition at the east margin of the Rocky mountains. W. W. Atwood and W. W. Atwood, jr. Geol Soc Bul 59:605-8 Je '48

Triassic

Geology of the Confusion range, west-central Utah. C. S. Bacon, jr. bibliog maps diags Geol Soc Bul 59:1027-52 O '48

GEOMETRY

Geometry of rectangular waveguides. A. C. Bartlett. diags Wireless Eng 25:202-10 Jl '48
Gravitational, electromagnetic, and vector meson fields and the similarity geometry. B. Hoffmann. bibliog Phys R 73:30-5 Ja 1 '48

See also

Angles

Trisection of angle

GEOMETRY, Analytic

See also

Coordinates

GEOMETRY, Projective

Application of projective geometry to the theory of color mixture. F. J. Bingley. Inst Radio Eng Proc 36:709-23 Je '48

GEON

Use of a plastic material (Geon 31X) to increase the action of the sodium salt of 2,4-D. C. L. Hamner and Kiang Chi-kien. Science 107:572-3 My 28 '48; Reply. J. H. M. Henderson. 108:483 O 29 '48

GEOPHYSICAL instruments

Dull tools are costly; geophysical instruments need redesigning to find more oil and ore. F. Rieber. Min & Met 29:24-7 Ja '48

GEOPHYSICAL instruments—Continued

Portable crystal-controlled frequency standard used in submarine gravity survey, R. L. B. Cooper, *il Elec Com* 25:30-4 Mr '48

GEOPHYSICS

Geophysics and the radioactivity of potassium, F. Birch, *Phys R* 72:1128 D 1 '47
Gulf tells public how its magnetometer works, B. R. Quayle, *Nat Pet N* 40:20 Ag 11 '48

Radioactive decay constants of K^{40} as determined from the accumulation of Ca^{40} in ancient minerals, L. H. Ahrens and R. D. Evans, *Phys R* 74:279-86 Ag 1 '48

Significance of the radioactivity of potassium in geophysics, T. Gráf, *bibliog Phys R* 74: 331-2 O 1 '48

Total half-life period of K^{40} , T. Gráf, *diag Phys R* 74:1199-200 N 1 '48

See also

Atmospheric electricity	Meteorology
California university	Petroleum—Prospecting—Geophysical methods
—Institute of geophysics	Prospecting—Geophysical methods
Continents	Rocks, Igneous
Isostasy	Sedimentation and deposition
Magnetism, Terrestrial	

Bibliography

Geophysical abstracts 130, July-September 1947, V. L. Skitsky, *U S Geol S Bul* 957-C: 117-77; pa 20c Supt. of doc. '47

Geophysical abstracts 131, Oct.-Dec. 1947, V. L. Skitsky, *comp. U S Geol S Bul* 957-D: 179-265; pa 25c Supt. of doc. '48

Geophysical abstracts 132, January-March 1948, V. L. Skitsky and S. T. Vesselowsky, *U S Geol S Bul* 959-A:1-85; pa 25c Supt. of doc. '48

Geophysical abstracts 133, April-June 1948, V. L. Skitsky and S. T. Vesselowsky, *U S Geol S Bul* 959-B:87-175; pa 25c Supt. of doc. '48

Indexes

Cumulative index of the publications of the Society of exploration geophysicists, 127p \$2.50; pa \$1.50 The society, Box 1614, Tulsa 1, Okla. '48

GEORGE WASHINGTON university

George Washington university, *il Science* 108: 273-4 S 10 '48

GEORGETOWN university

Georgetown university, *il Science* 108:274-6 S 10 '48

GEORGIA

See also

Iron mines and mining—Georgia	Mines and mineral resources—Georgia
	Roads—Georgia

Industries and resources

Georgia story, *il map Manuf Rec* 117:77-128 My '48

GEORGIA institute of technology

Georgia Tech constructs new low temperature laboratory, W. T. Ziegler, *il diag Refrig Eng* 56:402-4 N '48

Georgia Tech engineering experiment station, 1947-48, *il Chem & Eng N* 26:2496-8 Ag 23 '48

Re-organization, *Eng N* 141:14 S 9 '48; *Chem & Eng N* 26:2570 Ag 30 '48

GEORGIA-PACIFIC plywood and lumber company

Stocks offered, *Comm & Fin Chr* 167:1807-8 Ap 26 '48

GEORGIA power company

Bonds offered, *Comm & Fin Chr* 166:2419 D 15 '47

Getting Georgia money, Georgia Power's problem, *Elec World News* ed 128:13 N 29 '47

GEOSYNCLINE

Geosynclinal theory, A. Knopf, *maps diag Geol Soc Bul* 59:649-69 *bibliog*(p667-9) J1 '48

GERITY, James, Jr.

Die-casting about for new markets; Gerity-Michigan corp. *pors Mod Ind* 15:67-8+ My '48

GERITY-MICHIGAN corporation

Better mousetrap, *il Bsns W* p24 My 29 '48

GERMANIUM

Artificially radioactive Se^{76} and Se^{76} produced by alpha-particle bombardment of germanium, W. S. Cowart and others, *Phys R* 73:1454-7 Je 15 '48

Crystal that amplifies; experiments with a double-contact germanium type, C. E. Atkins, *il diag Radio & Tv N* 40:39+ O '48

Excess-defect germanium contacts, S. Benzer, *diag Phys R* 72:1267-8 D 15 '47

Germanium crystal rectifier, *J Sci Instr* 25: 247 J1 '48

Germanium varistors, *il R Sci Instr* 19:479 J1 '48

Magnetic field strength meter employing the Hall effect in germanium, G. L. Pearson, *il diag R Sci Instr* 19:263-5 Ap '48

Mobility of electrons in pure non-polar insulators, F. Seitz, *bibliog Phys R* 73:549-64 Mr 15 '48

Nature of the forward current in germanium point contacts, W. H. Brattain and J. Bardeen, *Phys R* 74:231-2 J1 15 '48

Nonmagnetic magnetometer; using germanium probe as the sensing element, *diag Electronics* 21:166+ Ag '48

Non-rectifying germanium, W. C. Dunlap, Jr. and E. F. Hennesly, *Phys R* 74:976 O 15 '48

Transistor, a crystal triode, *il diag Power Generation* 52:33-5 O '48

Transistor, a semiconductor triode, J. Bardeen and W. H. Brattain, *diag Phys R* 74:230-1 J1 15 '48

Analysis

Determination of phosphorus, germanium, silicon, and arsenic by the heteropoly blue method, D. F. Boltz and M. G. Mellon, *bibliog Anal Chem* 19:373-7 N '47

Isotopes

Short-lived isomeric states of Se^{83} and Ge^{77} , J. R. Arnold and N. Sugarman, *bibliog J Chem Phys* 15:703-12 O '47

GERMANIUM chloride

Trimethylgermanium chloride, E. G. Rochow, *Am Chem Soc J* 70:436-7 Ja '48

GERMANIUM compounds

Dimethylgermanium sulfide and dimethylgermanium oxide, E. G. Rochow, *bibliog Am Chem Soc J* 70:1801-2 My '48

Preparation of substituted tricyclohexylgermanes, O. H. Johnson and W. H. Nebergall, *Am Chem Soc J* 70:1706-7 My '48

GERMANIUM hydride

Preparation and some properties of hydrides of elements of the fourth group of the periodic system and of their organic derivatives, A. E. Finholt and others, *bibliog Am Chem Soc J* 69:2692-6 N '47

GERMANS in France

German free workers in France, *Int Labour R* 58:227-30 Ag '48

GERMANS in Guatemala

German investments in Guatemala, J. F. Rippy, *J Bsns* 20:212-19 O '47

GERMANY

Problem of German recovery, C. E. Saltzman, *Ann Am Acad* 258:74-8 J1 '48

Problem of Germany today; as I see it, J. H. McGraw, Jr. *Bsns W* p 109-10 J1 17 '48

Prosperous Germany is essential! J. Goudriaan, *Comm & Fin Chr* 166:2370+ D 11 '47

Report on Germany, O. J. Taylor, *Mech Eng* 70:688-9 Ag '48

Western conference; the London talks on the future of western Germany, *Economist* 154: 332-3 F 28 '48

See also

Accountants, Public—Germany	Labor and laboring classes—Germany
Airlines—Germany	Patents—Germany
Cotton trade—Germany	Petroleum industry and trade—Germany
Investments, Foreign—Germany	Roads—Germany
Journalism—Germany	

Allied military government

Air lift to Berlin, *Economist* 155:652-3 O 23 '48

Airlines backstop Berlin airlift, *Aviation W* 49:63-4 S 20 '48

Airlines to lend pilots to airlift, *Aviation W* 49:43 O 18 '48

GERMANY—Allied military government—

Continued

- Are we doing our own job in Europe? B. Walker, *Comm & Fin Chr* 166:2045+ N 20 '47
- Berlin air lift. C. J. V. Murphy, *il map Fortune* 38:89-93 N '48
- Berlin speedup; U.S., U.K. lifts are merged. Aviation W 49:16 O 25 '48
- Concrete program for Germany; summary of Report on Germany. L. H. Brown, *Comm & Fin Chr* 166:1840+ N 6 '47
- Currency reform in Germany; can planners plan? M. J. Bonn, *Comm & Fin Chr* 168:1097+ S 16 '48
- Deutschemark; currency reform. *Economist* 154:1072-3 Je 26 '48
- Dilemma of postwar Germany. J. E. Johnsen, comp. Ref Shelf v 20, no 3:1-304 bibliog(p271-304) '48 (\$1.50)
- End of Potsdam. *Economist* 154:1049-50 Je 26 '48
- Fabulous I. G. Farben disintegrates. J. J. Christie, *Chem Eng* 55:98-102 Ja '48
- German communications under quadripartite government. E. H. Merrill, *Pub Util* 41:671-7 My 20 '48
- German economy in 1947. *Economist* 154:139-41 Ja 24 '48
- Germany; the real issue. *Economist* 153:945-6 D 13 '47
- New central bank for United States and British zones of Germany; with text of U.S. area of control law no. 60. Fed Res Bul 34:279-83 Mr '48
- New deal for Germany. *Economist* 153:707-8 N 1 '47
- New legislation for restitution of identifiable property located in western Germany. For *Comm W* 29:14-15 D 20 '47
- Peace settlement with Germany; political and military. C. J. Friedrich, *Ann Am Acad* 257:119-28 My '48
- Power for Frankfurt. *Economist* 154:121-2 Ja 24 '48
- Receipts and expenditures of the zone land governments, fiscal year ended March 3, 1947; table. For *Comm W* 30:14 Mr 6 '48
- Release of certain non-German securities and currencies. For *Comm W* 33:16-17 O 16 '48
- Report from Germany. *Economist* 154:674-6, 716-17, 767-8 Ap 24-My 8 '48
- Rough justice in Germany; denazification. *Economist* 155:665-6 O 23 '48
- Statement by Secretary of State George C. Marshall on the London recommendations. For *Comm W* 31:19 Je 19 '48
- Struggle for Germany. *Economist* 154:617-18 Ap 17 '48
- Stymying Germany by monetary and fiscal methods. M. Palyi, *Comm & Fin Chr* 168:1637+ O 21 '48
- Tax reform in the U.S.-U.K. zones. For *Comm W* 32:26 Ji 24 '48
- Terms for Mr Molotov. *Economist* 155:169-70 Ji 31 '48
- West German merger due. map *Bsns W* p69 Ja 3 '48
- Western Germany; portent of Europe's economic future. W. Ropke, *Comm & Fin Chr* 167:1861+ Ap 29 '48
- What next for Germany? *Economist* 153:987-8 D 20 '47
- What to do about Germany? M. S. Szymczak. *Banking* 40:40+ N '47

American zone

- American opinion shows overwhelming support for strong policies in Berlin. *Iron Age* 162:127 Ag 19 '48
- Labor relations in the U.S. zone of Germany. O. Weigert, *Mo Labor R* 66:378-85 Ap '48
- U. S. military government laws and regulations published before Oct. 4, 1948; list. For *Comm W* 33:26-7 O 23 '48
- What is our purpose in Germany? J. H. Hill-dring, *Ann Am Acad* 255:77-83 Ja '48

French zone

- Legal provisions in French zone for restitution of property subjected to acts of spoliation. For *Comm W* 30:14-15 Mr 6 '48

Russian zone

- East bids for Germany. *Economist* 154:973-4 Je 12 '48
- Russia milks its German zone. *il Bsns W* p 109-10 Mr 6 '48

Russian tactics in Berlin. *Economist* 155:339 Ag 28 '48

- Soviet zone: government-controlled wholesale offices established; procedure for procurement of food and consumer goods as incentives for export workers in U.S.-U.K. zones. For *Comm W* 31:19 My 1 '48
- Summary of 1947 trade agreements of the Soviet zone of occupation with other countries. For *Comm W* 30:14 Mr 6 '48
- Two-year plan for the Russian zone. *Economist* 155:231-2 Ag '48

Commerce

- Belgo-Luxembourg economic union; commercial and payment agreements for exchange of goods signed with the Soviet military government in Germany. For *Comm W* 30:9-10 Ja 24 '48
- Bizonia lowers trade bars. *Bsns W* p 106 F 7 '48
- Changes in Bizonia's foreign trade. *Economist* 154:767-8 My 8 '48
- Commercial agreement between the French zone of occupation in Germany and Greece signed. For *Comm W* 33:16 O 16 '48
- Export incentive plans of the French and Soviet zones; gift shipments through commercial channels permitted to U.S.-U.K. zones. For *Comm W* 30:15 F 7 '48
- Export procedure for commercial and industrial samples from U.S.-U.K. zones; French zone's *modus vivendi* and commercial and payment agreements with Turkey effective. For *Comm W* 32:21 Ag 7 '48
- Exports from American and British zones in 1947. For *Comm W* 30:13 Mr 6 '48
- German firms in the U.S.-U.K. zones now licensed to sell through commission agents abroad. For *Comm W* 31:19-20 My 1 '48
- Increase in Bizonia export contracts. For *Comm W* 32:20 Ag 7 '48
- New trade agreement concluded with Sweden. For *Comm W* 31:25-6 My 29 '48
- Payments agreement between military governments for Germany (U.S.-U.K.) and Bulgaria signed; measures designed for export stimulation in Soviet zone; French customs regulations applied to the Saar. For *Comm W* 30:18-20 F 23 '48
- Procedure for financing foreign trade of the Bizonal area. For *Comm W* 30:14-15 Ja 24 '48
- Production and trade of Soviet zone increased during 1947; foreign and interzonal trade; interzonal trade agreement signed. For *Comm W* 31:12-13 Ap 24 '48
- Summary of 1947 trade agreements of the Soviet zone of occupation with other countries. For *Comm W* 30:14 Mr 6 '48
- Trade agreement between Bizonal area and India concluded; trade and payments agreement between Bizonal area and Norway signed. For *Comm W* 32:21 Ag 28 '48
- Trade and payments agreements with Italy signed. For *Comm W* 29:11 N 8 '47
- Trade with Bizonia; British policy. *Economist* 154:113 Ja 17 '48
- Trading with postwar Germany; Department of Commerce pamphlet reviewed. For *Comm W* 32:39 Ji 10 '48

Economic conditions

- Business in Bizonia; western Germany trying to develop one of Europe's few free economies. G. Burck, *il Fortune* 38:114-19+ S '48
- German economy in 1947. *Economist* 154:139-41 Ja 24 '48
- Germany's biological destruction; excerpts from German realities. G. Stolper, *Fortune* 37:92-3+ My '48
- Germany's sorry outlook. J. Van Galen, *Comm & Fin Chr* 167:106+ Ja 8 '48
- Peace settlement with Germany; economic and social. C. J. Friedrich, bibliog *Ann Am Acad* 257:129-41 My '48
- Report from Germany. *Economist* 154:674-6, 716-17, 767-8 Ap 24-My 8 '48
- Western Germany on its feet. *Economist* 155:524-6 O 2 '48
- Western Germany; portent of Europe's economic future. W. Ropke, *Comm & Fin Chr* 167:1861+ Ap 29 '48

GERMANY—Continued

Foreign relations

France

France and Germany; French reactions to the six power agreement. *Economist* 154: 955-6 Je 12 '48

Russia

When Stalin toasted Hitler; comments on the book Nazi-Soviet relations, 1939-1941. *Economist* 154:229-30 F 7 '48

Industries and resources

Bizonia bogs down industrially. *Bsns W* p80 J1 3 '48

Germans will again raise their beer steins. *Bsns W* p121 My 22 '48

Goods in German ruins; U.S. foreign corp. makes deal with Westphalian city of Pforzheim. *Bsns W* p 120-1 Mr 27 '48

Increased trade and industrial production in bizonal area. *For Comm W* 33:16 O 16 '48

Industrial production in 1947. *For Comm W* 31:16-18 My 22 '48

Manufacturing advances in wartime Germany; machines and processes now available to U.S. industry. *J. L. Kent. il Sci Am* 178:161-4 Ap '48

No future for dismantling. *Economist* 155: 575 O 9 '48

Production and trade of Soviet zone increased during 1947. *For Comm W* 31:12-13 Ap 24 '48

Reparations news: German reparations plants available for allocation. Published in Foreign commerce weekly

Revival of hide and skin trade, Germany. *For Comm W* 31:23-4 Ap 24 '48

Russia milks its German zone. *il Bsns W* p 109-10 Mr 6 '48

Why the Ruhr is lagging. *J. Joesten. Comm & Fin Chr* 167:1423+ Ap 1 '48

Will Germans resist dismantling? *Economist* 153:678-9 O 25 '47

See also

Krupp works, Essen

Navy

Factors in the growth of the Reichsmarine (1919-1939). *W. A. Wiedersheim. 3d. il U S Naval Inst Proc* 74:316-25 Mr '48

Politics and government

Peace settlement with Germany; political and military. *C. J. Friedrich. Ann Am Acad* 257:119-28 My '48

Reparations

German chemical plants available for reparation. *Oil Paint & Drug Rep* 152:4 D 1 '47

German reparations; thirty-nine chemical plants officially listed. *Chem Age (Lond)* 67: 667 N 22 '47

No future for dismantling. *Economist* 155:575 O 9 '48

Reparations; industrial capital equipment allocated to the Inter-allied reparations agency. *Engineer* 185:232-3 Mr 5 '48

Reparations news; German reparations plants available for allocation. Published in Foreign commerce weekly

GERMER, Lester Halbert, 1896-Davison and Germer, K. K. Darrow. *por Sci Am* 178:50-3 My '48

GERMINATION

Comparative study of zygote germination in the saprolegniaceae. *A. W. Ziegler. Science* 107:506 My 14 '48

Effect of crude polyporin on seed germination and root growth; a preliminary study. *S. R. Bose and others. bibliog il Science* 107: 63 Ja 16 '48

Effect of low temperatures on the germination of inbred lines of sweet corn. *G. Haskell. Science* 107:150 F 6 '48

Human saliva as a germination inhibitor. *D. Yardeni. Science* 108:62-3 J1 16 '48; Discussion. *M. Kramer and K. Silberschmidt. 108:410 O 15 '48*

Stubble mulch studies; effect of sweetclover extract on corn germination. *T. M. McCalla and F. L. Duley. bibliog Science* 108:163 Ag 13 '48

GERRARD Industries, limited

Statement by the chairman at 24th annual general meeting. *K. Harrison. Economist* 155:355 Ag 28 '48

GIANNINI, Amadeo Peter, 1870-Battling again; Giannini banking empire. *por Bsns W* p92-5 O 16 '48

GIANT portland cement company Stock offered. *Comm & Fin Chr* 167:942 Mr 1 '48

GIBBS, Willard, medal Cori receives Gibbs medal. *il Chem & Eng N* 26:1594-5 Je 7 '48

GIBBS-DUHEM equation

Osmotic and activity coefficients; the rational type versus the practical type. *P. Van Rysseberghe and G. J. Hunt. bibliog J Chem Educ* 25:87-9 F '48

GIBBS theory of surface tension. See Surface tension

GIBALTAR chronicle

Gibraltar's tiny paper got scoop on Trafalgar. *D. Plimmer. Ed & Pub* 81:26 J1 3 '48

GIBSON Island research conferences. See Gordon research conferences

GIEGENGACK, Augustus E., 1890-Giegegack resigns as public printer. *Paper Tr J* 126:8+ Mr 18 '48; *Inland Ptr* 121:47 Ap '48

GIFT advertising. See Advertising copy—Gift appeal

GIFT packages. See Package goods—Gift packages

GIFT programs. See Radio advertising—Gift programs

GIFT tax

Estate and gift tax law radically changed; marital deduction permits cutting net taxable amount of estate in half. *L. H. Hoffman. Barron's* 28:33 Ap 26 '48

Estate and gift tax provisions of the Revenue act of 1948. *W. T. Sherwood, jr. J Account* 85:463-4 Je '48

Impact of estate and gift tax provisions of 1948 Revenue act. *S. J. Foosaner. Life Ins Courant* 53:41-3 My '48

Integration and correlation of federal taxes; Treasury study penalizes flexible trusts and concentrates wealth. *M. Miller. Trusts & Estates* 86:18-24 Ja '48

Marital settlement incorporated into divorce decree. *bibliog J Account* 85:484-5 Je '48

Should estate and gift taxes be combined? analysis of Treasury study. *M. M. Lore. Trusts & Estates* 85:375-6, 464-6+, 571-4 O-D '47

State and federal taxation; A.E.A. committee report. *Trusts & Estates* 87:299-309 O '48

Your estate and the inevitable taxes. *H. Ackerman. Comm & Fin Chr* 168:900+ S 2 '48

GIFTS

Standard merchandise manual; America's blue book of gifts. *J. L. Albert, ed. 2d ed 71p Neida publications, 503 West 43d st, New York 18 '48 (\$6)*

GIFTS (in business)

Gifts and specialties as advertising aids. *H. W. Dunk. il Adv & Sell* 41:40+ Ag '48

See also

Premiums (merchandizing)

GIFTS (law)

Testamentary nature of life insurance; transfers in contemplation of death; recent tax decisions. *F. L. Morton. Spectator (Life ed)* 155:16-17+ F '48

See also

Gift tax

GIGARTINA stellata

Polysaccharides of carrageen; the gigartina stellata polysaccharide. *E. T. Dewar and E. G. V. Percival. Chem Soc J* p 1622-6 D '47

GILLETTE, King Camp, 1855-1932

Story of the safety razor. *D. Wharton. por Adv & Sell* 41:119-20+ Mr '48

GILLETTE safety razor company

Gillette begins to diversify; buys Toni co., producer of home permanent wave sets. *Bsns W* p44-6 Ja 10 '48

Good quality stocks yielding seven per cent and over. *Mag of Wall St* 81:142 N 8 '47

GILLIAMS, John Farr, 1886-

Sketch. *por Nat Underw* 51:1 D 18 '47

GILSONITE

Oil-paper dielectrics; effect of asphalt as a contaminant in oil and in impregnated paper. J. D. Piper, P. Treend and K. S. Bevis. *bibliog Ind & Eng Chem* 40:323-8 F '48

GIMBEL brothers, inc.

Syndicated Gimbel ads used by 180 customers. *Bsns W* p72+ D 6 '47

GIRBOTOL process. See Gas purification**GIRDERS.** See Beams and girders**GIRDLES.** See Corsets**GITT, Josiah William, 1884-**

Gift ignores radical label, backs Wallace; *York gazette.* por Ed & Pub 81:7+ O 9 '48

GLACIAL drift. See Drift**GLACIAL epochs**

Origin of the ice; eccentricities in motion of the earth. G. Gamow. *il map diags Sci Am* 179:40-5 O '48

See also

Geology, Stratigraphic—Pleistocene

GLACIAL geology

Crustal movement in the Great Lakes area. S. Moore. *bibliog Geol Soc Bul* 59:697-709, pl 1 J1 '48

Geologic notes on Adak island and the Aleutian chain, Alaska. C. C. Bradley. *bibliog maps diags Am J Sci* 246:214-40, pl 1-4 Ap '48

Giant glacial grooves in northwest Canada. H. T. U. Smith. *bibliog maps Am J Sci* 246:503-14, pl 1-5 Ag '48

Glaciation in north central British Columbia. J. E. Armstrong and H. W. Tipper. *bibliog maps diags Am J Sci* 246:283-310, pl 1-4 My '48

Pleistocene climate and topography of the Araucaria region, Peru. C. N. Fenner. *bibliog Geol Soc Bul* 59:895-917, pl 1-5 S '48

Two tills and the development of glacial drainage in the vicinity of Stafford Springs, Connecticut. S. E. White. *bibliog maps Am J Sci* 245:754-78 D '47

See also

Drift**GLACIERS**

Further observations on the Ross Shelf ice, Antarctica. A. D. Howard. *bibliog Geol Soc Bul* 59:919-26, pl 1 S '48

GLARE

Analysis of reflected glare. W. G. Darley. *il diags Illum Eng* 43:85-95; Discussion. 95-103 Ja '48

Highway lighting as a customer's problem. J. A. Stoops. *diags Illum Eng* 42:864-76 N '47

Laminated plastic polarizer reduces glare; *Polaply.* *Product Eng* 19:148 My '48

New glare killer; light polarizing medium, *Polaply.* *diag Bsns W* p56+ N 1 '47

New product introduced to reduce reflected glare; *Polaply.* *Elec World* 129:43 Ja 31 '48

GLASER, Rudolf William, 1888-1947

Sketch. W. Trager. *Science* 107:131-2 F 6 '48

GLASS

Acid-resistant glass containing phosphorus pentoxide. *Chem Ind* 61:480 N '47

Adsorption of butane on glass spheres. R. T. Davis and T. W. DeWitt. *bibliog Am Chem Soc J* 70:1135-41 Mr '48

A.C.S. Glass division program; abstracts. *Am Cer Soc Bul* 27:114-17 Mr 15 '48; Same abr. *Glass Ind* 29:192-3+ Ap '48

American ceramic society Glass division 29th annual meeting, Chicago, April 25-30; with abstracts of papers. *Glass Ind* 29:316-21+ Je '48

Approximate calculation of viscosity of glass for given composition; abstract. M. V. Okhotin. *Am Cer Soc J* 31(Cer A):174 Ag 1 '48

Chemical aspects of some mechanical properties of glass; abstract. W. A. Weyl. *Am Cer Soc J* 31 (Cer A):30-1 F 1 '48

Effect of boric oxide on properties of soda-dolomitic lime-silica glass; contribution of the Owens-Illinois glass company general research laboratory. *bibliog Am Cer Soc J* 31:8-14 Ja 1 '48

Effect of heat-treatment on the density and constitution of high-silica glasses of the borosilicate type. A. Q. Tool. *Am Cer Soc J* 31:177-86 J1 1 '48

Glass conference concentrates on fuels, raw materials, and handling; 9th conference on glass problems. *Cer Ind* 50:63-4+ Ja '48

Pacific coast American ceramic society regional meeting, Los Angeles, Oct. 16-17. *Glass Ind* 28:567-8+ N '47

Properties of soda-strontium oxide-alumina-silica glasses. *bibliog Am Cer Soc J* 31:1-8 Ja 1 '48; Abstract. *Glass Ind* 29:333 Je '48

Recent trends in the ceramic industry. *il Chem Eng* 55:130-1 J1 '48

Scale of acidity and basicity in glass. K. Sun. *Glass Ind* 29:73-4+ F '48

Some energy relations in the systems PbO-EuO₃ and PbO-SiO₂. L. Shartsis and E. S. Newman. *bibliog diags J Res Nat Bur Stand* 40:471-8 Je '48; Same. *Am Cer Soc J* 31:213-19 Ag 1 '48

Stability of lead glasses and polarization of ions. K. Fajans and N. J. Kreidl. *diag Am Cer Soc J* 31:105-14 Ap 1 '48

Surface tension of compositions in the systems PbO-B₂O₃ and PbO-SiO₂. L. Shartsis and others. *bibliog Am Cer Soc J* 31:23-7 Ja 1 '48; Same. *J Res Nat Bur Stand* 40:61-6 Ja '48

Symposium on crystal chemistry, 1st. New Brunswick, N.J. June 4. *Glass Ind* 29:387+ J1 '48

Use of color and fluorescence indicators for determining the structure of glasses. W. A. Weyl. *J Ap Phys* 17:628-39 J1 '46; Abstract. *Am Cer Soc J* 30 (Cer A):223-4 N 1 '47

Viscosity studies of system CaO-MgO-Al₂O₃-SiO₂: CaO-Al₂O₃-SiO₂. J. S. Machin and T. B. Yee. *Am Cer Soc J* 31:200-4 J1 1 '48

What the armed forces want in plastics; glass combinations. *il Mod Plastics* 25:75-9+ Ag '48

See also

Enamel and enamel- ing	Photography on glass
Glass manufacture	Silica. Fused
Glassware	Stained glass
Insurance, Plate glass	

Bibliography

Ceramic abstracts. Published in monthly numbers of American ceramic society journal

Coating

Coating glass with silica; patent. *diag Glass Ind* 29:448 Ag '48

Conducting film on glass. *R Sci Instr* 19:539-40 Ag '48

Depositing metal on glass; patent. *Glass Ind* 29:28-9 Ja '48

Formation of copper films on non-conductors. S. Wein. *bibliog(47 ref) Metal Finishing* 46:58-60+ Ag '48

Forming films on glass; patent. *diag Glass Ind* 29:331+ Je '48

Low reflective film for glass; patent. *diag Glass Ind* 29:505-6 S '48

Method of coating glass with quartz; patent. *Glass Ind* 29:85 F '48

Optical lens coating. H. W. Coles and others. *il Mod Plastics* 25:123-6+ J1 '48

Optimum band width for two layer anti-reflection films. R. B. Muchmore. *bibliog diags Opt Soc Am J* 38:20-6 Ja '48

Production coating under high vacuum. *il Mod Plastics* 25:128 N '47

Tables for the determination of the refractive index and of the thickness of the thin film by the polarimetric method. A. Vasiček. *Opt Soc Am J* 37:979-80 D '47

Coloring

Cobalt as a glass color. *Cer Ind* 51:67 Ag '48

Effect of coloring oxide additions on the spectral transmission of a soda-lime-silica glass. G. S. Bachman. *bibliog Glass Ind* 28:630-4+ D '47

Glass fiber dyeing; coating with organosilicon compounds; patent. *Am Dyestuff Rep* 37:568-9 Ag 23 '48

Glass fibers dyeing; coating with magnesium silicate as mordant; patent. *Am Dyestuff Rep* 37:568 Ag 23 '48

See also

Glass, Colored

GLASS—Continued

Defects

Impact marks on glass; abstract, J. G. Holmes, *Glass Ind* 28:579 N '47

Devitrification

Changes in refractive indices and liquidus of a dense barium crown glass containing lanthanum oxide produced by partial substitution of some oxides; abstract, E. H. Hamilton and others, *Glass Ind* 29:319 Je '48

Effect of alumina on devitrification of sodium oxide, dolomite lime, silica glasses, *Cer Ind* 50:59 F '48

Prevention of devitrification in colored glasses, *Cer Ind* 49:80 N '47

Durability

Electrode function (pH response) of the soda-silica glasses, G. F. Rynders and others, *Am Cer Soc J* 31:269-73 O 1 '48

Voltage anomalies of the glass electrode and the chemical durability of the glass, D. Hubbard and G. F. Rynders, *bibliog J Res Nat Bur Stand* 39:561-70 D '47

Electric properties

Ceramics and glass used in electronics, *Electronics* 21:M4-5 Mid-Je '48

Corning insulating glass; patent, *Glass Ind* 29:570 O '48

Electrically conducting glasses, R. L. Green and K. B. Blodgett, *bibliog Am Cer Soc J* 31:89-100 Ap 1 '48; Excerpt, *Glass Ind* 29:395+ J1 '48

See also

Electrodes, Glass

Expansion and contraction

Expansion effects shown by some pyrex glasses, A. Q. Tool and J. B. Saunders, *bibliog diags J Res Nat Bur Stand* 40:67-83 Ja '48

Fracture

Mechanism of fracture of glass and similar brittle solids, N. W. Taylor, *bibliog diags J Ap Phys* 18:943-55 N '47

Time effect in the fracture of glass and other materials, E. Saibel, *J Chem Phys* 15:760-1 O '47

Heat transmission

Heat-resisting and heat-absorbing glass, *Engineering* 163:235 Mr 28 '47; *Engineer* 183:249 Mr 21 '47; *Product Eng* 19:139 F '48

Heat transmission through insulating glass units; reference data, Heat & Ven 45:88a-88b F '48

Measurements of solar heat transmission through flat glass, G. V. Parmelee and others, *il diag Heating-Piping* 20:158-66 Ja '48

Solar and total heat gain through double flat glass, G. V. Parmelee and W. W. Aubele, *il diags Heating-Piping* 20:116-26 Je '48

Infrared rays transmission

Effect of coloring oxide additions on the spectral transmission of a soda-lime-silica glass, G. S. Bachman, *bibliog Glass Ind* 28:630-4+ D '47

Infrared study of the structure of glasses prepared by melting crystals, G. S. Bachman, *Glass Ind* 29:435-7+ Ag '48

Transmittance of near infrared energy by some three-component glasses; abstract, J. M. Florence and others, *Glass Ind* 29:318-19 Je '48

Water content and infrared transmission of simple glasses, A. J. Harrison, *bibliog Am Cer Soc J* 30:362-6 D 1 '47

Iron content

Color variations in glasses containing iron, J. W. Forrest and others, *bibliog Opt Soc Am J* 38:554-60 Je '48

Joining to metal

Effect of various treatments on the stresses in glass-to-metal seals, G. D. Redston and J. E. Stanworth, *il diag J Sci Instr* 25:138-40 Ap '48

New techniques in glass-to-metal sealing; glass-to-Kovar seals, J. A. Pask, *il Inst Radio Eng Proc* 36:286-9 F '48; Excerpts, *Product Eng* 19:136-7 F '48

Round table discussion on glass-metal sealing, *Cer Ind* 49:77 O '47

Sealing metal to glass; patent, *diags Glass Ind* 29:30+ Ja '48

Sealing wires into glass; patent, *diag Glass Ind* 28:577-8 N '47

Lead content

Electrically conducting glasses, R. L. Green and K. B. Blodgett, *bibliog Am Cer Soc J* 31:89-100 Ap 1 '48

Stability of lead glasses and polarization of ions, K. Fajans and N. J. Kreidl, *diag Am Cer Soc J* 31:105-14 Ap 1 '48

Light transmission

Absorption glass for windows in airplanes; patent, *diag Glass Ind* 29:504-5 S '48

Effect of coloring oxide additions on the spectral transmission of a soda-lime-silica glass, G. S. Bachman, *bibliog Glass Ind* 28:630-4+ D '47

Optimum band width for two layer anti-reflection films, R. B. Muchmore, *bibliog diags Opt Soc Am J* 38:20-6 Ja '48

Marking

Permanent scales and markings on glass, *J Sci Instr* 25:326 S '48

Opacity

Past and present practice and theory of opaque glass, C. H. Commons, jr, *Am Cer Soc Bul* 27:337-44 *bibliog*(65 titles, p343-4) S 15 '48

Polishing

Orientation of the surface of glass, J. F. Dreyer and C. W. Ertel, *il Glass Ind* 29:197-8 Ap '48; Same cond. *Cer Ind* 51:80 O '48

Rare earth oxides for glass polishing, R. W. Urie and A. W. Wylie, *bibliog il diag Soc Chem Ind J* 66:433-6 D '47; Same, *Engineering* 166:189-91 Ag 20 '48

Strength

Effect of abrasion on glass surface strength; abstract, D. W. Mueller and C. D. Mylchreest, *Cer Ind* 49:76 O '47

Mechanism of fracture of glass and similar brittle solids, N. W. Taylor, *bibliog diags J Ap Phys* 18:943-55 N '47

Theory of the behavior of glassware in service, J. L. Glathart and F. W. Preston, *bibliog Am Cer Soc J* 31:153-70 Je 1 '48

Time effect in the fracture of glass and other materials, E. Saibel, *J Chem Phys* 15:760-1 O '47

Surface

Adsorption of water vapor on glass surfaces, R. I. Razouk and A. S. Salem, *bibliog il diag J Phys & Colloid Chem* 52:1208-27 O '48

Forming films on glass; patent, *diag Glass Ind* 29:331+ Je '48

Orientation of the surface of glass, J. F. Dreyer and C. W. Ertel, *il Glass Ind* 29:197-8 Ap '48; Same cond. *Cer Ind* 51:80 O '48

Photobromination of methylsiloxane films on glass surfaces, G. L. Vandervort and J. E. Willard, *Am Chem Soc J* 70:3148 S '48

Properties of polyorganosiloxane surfaces on glass, M. J. Hunter and others, *bibliog Ind & Eng Chem* 39:1389-95 N '47

Some observations on the Formvar replica method, with a note on glass surfaces, B. M. Deacon and others, *bibliog il diags J Ap Phys* 19:704-12 Ag '48

Surface properties of glass as affected by heavy metal ions; abstracts, W. A. Weyl, *Cer Ind* 50:92 My '48; *Glass Ind* 29:320 Je '48

Surface tensions of some optical glasses, *Glass Ind* 28:579+ N '47

Terminology

Glass glossary; announcement, *Glass Ind* 29:558+ O '48

Glass glossary; compiled and submitted by the Glass division committee on classification, nomenclature, and glossary, June, 1948, *Am Cer Soc Bul* 27:353-62 S 15 '48

GLASS—Continued

Testing

- Hygroscopicity of soda-lime-silica container glasses; abstract, F. R. Matson, *Glass Ind* 29:321 Je '48
 Low-temperature viscosity of alkali-silicate glasses; abstract, J. P. Poole, *Glass Ind* 29:321 Je '48

Ultraviolet rays transmission

- Corning ultraviolet transmitting glass; patent, *diags Glass Ind* 29:83-4 F '48
 Effect of coloring oxide additions on the spectral transmission of a soda-lime-silica glass, G. S. Bachman, *bibliog Glass Ind* 28:630-4+ D '47

Water content

- Water content and infrared transmission of simple glasses, A. J. Harrison, *bibliog Am Cer Soc J* 30:362-6 D 1 '47

GLASS, Cellular

- Adsorption of argon, nitrogen, and butane on porous glass, P. H. Emmett and M. Cines, *bibliog J Phys & Colloid Chem* 51:1248-62 N '47

- Cellular-glass insulation for low-temperature equipment, V. Sanders, *il Chem Eng Prog* 44:804-6 O '48

- Cellular glass slag; patent, *diag Glass Ind* 29:392 JI '48

- Differential heats of adsorption and desorption of nitrogen on porous glass, L. G. Joyner and P. H. Emmett, *bibliog Am Chem Soc J* 70:2359-61 JI '48

- Investigation of low-temperature nitrogen adsorption at high relative pressures, J. Holmes and P. H. Emmett, *bibliog diag J Phys & Colloid Chem* 51:1262-76 N '47

- Multicellular glass; abstract, *Glass Ind* 29:269+ My '48

GLASS, Colored

- Amber glass; patent, *Glass Ind* 29:391-2 JI '48

- Blue glass for approximate colour-temperature and intensity measurements, H. G. W. Harding, *J Sci Instr* 25:333-5 S '48

- Color variations in glasses containing iron, J. W. Forrest and others, *bibliog Opt Soc Am J* 38:554-60 Je '48

- Constitution of colored glasses, *Glass Ind* 29:88+ F '48

- Corning blue glass; patent, *Glass Ind* 29:84 F '48

- Corning colored glass; patent, *Glass Ind* 29:83 F '48

- Effect of coloring oxide additions on the spectral transmission of a soda-lime-silica glass, G. S. Bachman, *bibliog Glass Ind* 28:630-4+ D '47

- Glass fibers; coloring by coating processes; patent, *Am Dyestuff Rep* 37:383 My 31 '48
 How much selenium for ruby glass? *Cer Ind* 51:82 O '48

- Possible colors of the future, W. A. Weyl, *Am Cer Soc Bul* 27:60 F 15 '48

- Prevention of devitrification in colored glasses, *Cer Ind* 49:80 N '47

GLASS, Heat resisting

- Heat-resisting and heat-absorbing glass, *Engineering* 163:235 Mr 28 '47; *Engineer* 183:249 Mr 21 '47; *Product Eng* 19:139 F '48

- GLASS, Insulating, See *Glass Electric properties*

GLASS, Opal

- Electron microscope investigation of opal glass, T. F. Bates and M. V. Black, *bibliog il diags Glass Ind* 29:487-92+ S '48

GLASS, Optical

- Acid-resistant glass containing phosphorus pentoxide, *Chem Ind* 61:840 N '47

- Athermalization of optical systems, D. S. Grey, *il Opt Soc Am J* 38:542-6 Je '48

- Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides, E. H. Hamilton and others, *bibliog Am Cer Soc J* 31:132-44 My 1 '48; *Same, J Res Nat Bur Stand* 40:361-74 My '48

- Corning optical glass having an index of refraction for the D line (nD) greater than 1.60; patent, *Glass Ind* 29:149 Mr '48

- Empirical relationships between the partial dispersions of the ordinary types of optical glasses, D. H. Rank, *Opt Soc Am J* 38:885-6 O '48

- Optical glass at the National bureau of standards, F. W. Glaze and C. H. Hahner, *bibliog il diag Glass Ind* 29:562-7+ O '48
 Optical lens coatings, H. W. Coles and others, *il Mod Plastics* 25:123-6+ JI '48
 Surface tensions of some optical glasses, *Glass Ind* 28:579+ N '47

See also

Lenses

Manufacture

- Care and skill keynote optical glass manufacture at Bausch & Lomb, *il Cer Ind* 51:66-8 JI '48

- Centenary of optical glass manufacture in England, H. Chance, *Chem & Ind* p795-800+ D 27 '47

- Early recollections of the Chance works, A. Trobridge, *Chem & Ind* p312-13 My 15 '48

- Rare earth oxides for glass polishing, K. W. Urie and A. W. Wylie, *bibliog il diag Soc Chem Ind J* 66:433-6 D '47; *Same, Engineering* 166:189-91 Ag 20 '48

- Report on Japanese optical glass manufacture, *Glass Ind* 29:270 My '48

- Some recent developments in American glass manufacture, A. Silverman, *bibliog Am Cer Soc Bul* 26:370-2 N 15 '47

- Study of time and temperature effects on glass in annealing range, P. W. Collyer, *bibliog Am Cer Soc J* 30:338-44 N 1 '47

Patents

- Eastman Kodak optical glass; patents, *Glass Ind* 29:84-5 F '48

- Patent assigned to American optical company by Harold R. Moulton, *Glass Ind* 29:208 Ap '48

Standards

- Standardization of the optical densities of industrial eye-protective glasses, R. Stair, *bibliog Glass Ind* 29:375-80+ JI '48

GLASS, Photosensitive

- Corning develops new photo process with glass, *il Cer Ind* 50:55 F '48

- Photosensitive glass developed, *il Chem & Eng N* 25:3504-5 N 24 '47

GLASS, Porous, See *Glass, Cellular*

GLASS, Powdered

- Absorption of water vapor on glass surfaces, R. I. Razouk and A. S. Salem, *bibliog il diag J Phys & Colloid Chem* 52:1208-27 O '48

- Filtration by sintered glass, *Chem Age (Lond)* 59:256-7 Ag 21 '48

GLASS, Safety

Manufacture

- Making automotive glass, R. A. Miller, *diags S A E J* 56:65-6 O '48

GLASS, Stained, See *Stained glass*

GLASS, Structural

- Deft remodeling; new office for Owens-Corning fiberglass corp.; emphasis on display and use of fiberglass products, *il diags Arch Forum* 88:87-91 Je '48

- Don't overlook glass; a basic material for homes and commercial structures, *il Am Bld* 69:84-5+ N '47

- Fiberglass building in New York for Owens-Corning fiberglass corp, *il Arch Rec* 103:140-1 F '48; *Am Bld* 70:98-9 Mr '48

- See also

Glass blocks

Glass construction

GLASS beads

- Machine for molding beads on wire; patent, *diag Glass Ind* 29:268, 284 My '48

- Method of making glass beads; patent, *diag Glass Ind* 29:209 Ap '48

GLASS blocks

- Knock-down glass partitions and picture windows built easily with new mechanically-connected aluminum frames; *Temprex Livingwall, il diags Arch Forum* 88:130 Je '48

- Layout tables for glass block panels based on modular coordination; how to install glass blocks, *diags Brick & Clay Rec* 112:34-5 F '48

- Measurements of solar heat transmission through flat glass, G. V. Parmelee and others, *il diag Heating-Piping* 20:158-66 Ja '48

- Specializing in glass masonry, *il Am Bld* 69:86 N '47

GLASS blocks—Continued

Tricks in laying glass block. *il Constr Methods* 30:92-4 Je '48; Same abr. *Eng N* 141:17 S 9 '48; Same abr. *Brick & Clay Rec* 113:35 J1 '48

Manufacture

Glass building blocks, L. H. Houck, *il Comp Air Mag* 53:225-6 S '48

New \$2 million plant makes glass block. flow chart *il Cer Ind* 50:120+ Ap '48

GLASS blowing and working

Glass in the laboratory; bench moulding as an aid to glass blowing, I. C. P. Smith. *diags Chem Age (Lond)* 57:702-3 N 29 '47

Los Angeles plant blows, welds, mercury seals processing glass ware. T. A. Dickinson. *il Cer Ind* 51:78-9 O '48

Some applications of electrical heating to methods of glass blowing, I. Lauder and E. C. M. Grigg. *diags R Sci Instr* 19:371-2 My '48

Study and teaching

University of Delaware inaugurates glass blowing course. M. G. Hawkins. *il Glass Ind* 29:25 Ja '48

GLASS cleaning

Beating life's little annoyances; Anti-Fog 41. *il Bsns W* p31-2 S 18 '48

Glass cleaning material; patent. *Glass Ind* 29:571-2 O '48

Glass cleaning solvents. E. M. Doss, *J Chem Educ* 24:537 N '47

Glass wax sales success brings imitation. lawsuits. Soap & San Chem 24:39-40 J1 '48

GLASS construction

Air conditioned building has double glass and glass block; Detroit Edison co.'s air conditioned service building. P. G. Heidman. *il Heating-Piping* 20:69-71 Ap '48

Better detail plate; frames in glass block panels. *diags Am Bld* 70:119 Je '48

Better detail plate; ventilation in glass block panels. *Am Bld* 70:123 Ag '48

Displays novel ideas; functional, decorative uses of glass featured in offices of Libby-Owens-Ford glass company in Toledo. *il diags Arch Rec* 104:135-7 S '48

Navy building features glass exterior; shop building under construction at San Francisco naval shipyard. *il Eng N* 140:351-3 Mr 4 '48

Precursor of the glass block or bottle your own building; garage built of old bottles and other waste materials. H. M. Cloutier. *il Glass Ind* 29:141 Mr '48

Usonian dwelling at Quasqueton, Iowa, with glass walls; planned on unit system; design by F. L. Wright. *il plan Arch Forum* 88:77 Ja '48

See also

Solar heating

GLASS container industry

Duraglas lab boosts container sales by market service. *il Bsns W* p72-4+ S 4 '48

Glass makers hurt by holding down prices. *Barron's* 28:26 J1 5 '48

Renewed battle for the container market. *il Bsns W* p72+ Je 5 '48

Advertising

One-way bottle boost. *Sales Management* 61:56+ S 1 '48

GLASS container manufacturers institute

Annual meeting, White Sulphur Springs, May 3-5. *Glass Ind* 29:314-15+ Je '48

Semi-annual meeting, Miami, Nov. 3-5. *Glass Ind* 28:627-9+ D '47

GLASS containers

Big market shaping for glass containers. *Cer Ind* 49:53 O '47

Hygroscopicity of soda-lime-silica container glasses; abstract. F. R. Matson. *Glass Ind* 29:321 Je '48

Liquid soaps in glass containers; role of sequestering agents in preserving clarity. H. Kranich. *bibliog Soap & San Chem* 23:33-5 N '47

Owens-Illinois opens the Duraglas center. *il Glass Ind* 29:498-9 S '48

Private glass or stock? practices and plans of four glass-using industries. *il Mod Packaging* 21:95-100 D '47

See also

Bottles

Glass jars

Manufacture

Container glass compositions, 1932-1946. H. Moore and A. K. Lyle. *Glass Ind* 28:563-6+ N '47

Container glass compositions, 1947. A. G. Allen and A. K. Lyle. *Glass Ind* 29:493-4+ S '48

Modern equipment and layout distinguish the Neville Island plant. *il Glass Ind* 28:569-71+ N '47

GLASS electrodes. See Electrodes, Glass

GLASS fabrics

Glass blanket for stretch forming. R. Heath. *il Tool Eng* 21:58 Ag '48

Spun glass aids in metal forming. *il Aviation W* 49:27 J1 26 '48; *Mach* 54:199 J1 '48; *Steel* 123:94 Ag 9 '48; *Light Metal Age* 6:17 Ag '48

GLASS factories

Glass fibers, inc. swings into full operation; Vitron, a new fibrous glass material. F. E. Butler. *il Glass Ind* 28:623-6+ D '47

Latchford-Marble, Los Angeles, installs tower type batch mixing and storage plant. *il Glass Ind* 29:438-9+ Ag '48

Missouri glass block plant opened at Sedalia. L. H. Houck. *il Manuf Rec* 116:47 N '47

Modern equipment and layout distinguish the Neville Island plant. *il Glass Ind* 28:569-71+ N '47

New glass plant engineering department at Hartford-Empire co. *Glass Ind* 28:580 N '47

New \$2 million plant makes glass block. flow chart *il Cer Ind* 50:120+ Ap '48

Package handling in glass plants. P. J. Barcus. *Glass Ind* 29:253-4 My '48

Traveling reporter. *Cer Ind* 49:86+ N '47

Employees

Industrial disease in glass plants. L. M. Merritt. *Safety Eng* 94:62-3 N '47

Safety glasses for glass workers. H. V. Gardner. *Nat Safety N* 57:62-3 Je '48

60-years peace; sales promotion scheme started by glass workers' union and employers. *il Bsns W* p 106-8 O 16 '48

Wage structure in glassware. M. Hammett. *Glass Ind* 29:255-6+ My '48

Wages in glassware industry, Jan. 1947. J. M. Sherman. *Mo Labor R* 65:549-51 N '47

Equipment

Batching plant for glass manufacture. *il diags Engineer* 185:380-3 Ap 16 '48

Centralized compressor plant delivers air at 1/2 labor cost; Ball bros. co., Muncie, Ind. *il Cer Ind* 51:66-7 Ag '48

Equipment installations at Ball Brothers new plant. *il Cer Ind* 49:80-3 O '47

Glass plant conveys batch by air; vacuum handles all raw materials; McKee glass co. *il plans Cer Ind* 50:104-6+ Je '48

Handling costs cut to bone in new stemware plant. *il Cer Ind* 50:118+ Ap '48

Improved plant design lowers cost of maintenance. *il Cer Ind* 49:65-6 D '47

LOF glass entrusted to battery trucks. *il Cer Ind* 51:81 N '48

Owens-Corning Fiberglas cuts costs with own water system. *il Cer Ind* 51:78-9 S '48

Payloader saves 42 man hours per car. *il Cer Ind* 50:128 Ap '48

Pivoting pipes deliver materials to silos. *il Cer Ind* 51:82 S '48

Tough but gentle handling. *il Mill & Factory* 42:131 Ap '48

See also

Glass tanks

Fuel

Economic problems in the use of alternate fuels; Btu cost of fuel for melting and processing. F. G. Schwalbe. *Glass Ind* 29:137-40+ Mr '48; Same. *Cer Ind* 50:60-2 Mr; 76-7+ Ap '48; Same. *Brick & Clay Rec* 113:55-7 J1; 54-6 Ag '48

Modern gas producer. L. L. Swift. *il diags Glass Ind* 29:495-7+ S '48

GLASS factories—Fuel—Continued

Technological problems in the use of alternate fuels in the glass industry. R. S. Arrandale, bibliog il diags Glass Ind 29:309-13, 382-6+, 440-3+ Je-Ag '48

Management

Ten production principles. Cer Ind 51:71-2 JI '48

GLASS fibers

Acoustical board processed glass fibers treated with a phenol-formaldehyde resin. il Mod Plastics 25:141 Ja '48

Built-up glass-fiber roofing covers large factory; New departure division of General Motors corp. il diag Eng N 139:660-3 N 13 '47

Commercial desalting unit employing fiberglass as a contacting agent; abstract. J. G. Hayes and others, Pet Processing 3:537 Je '48

Construction and design of Parnly sound laboratory and anechoic chamber. P. J. Mills, il diags Acoustical Soc Am J 19:988-92 N '47

Control of structural temperatures in jet-propelled aircraft. G. F. Anisman and M. W. Blackstone, bibliog il diags A S M E Trans 70:677-84 Ag '48

Deft remodeling; new office for Owens-Corning fiberglass corp; emphasis on display and use of fiberglass products. il diags Arch Forum 88:87-91 Je '48

Electrical field leads in use of glass fiber. il Textile World 98:116-18 S '48

Fiberglass building in New York for Owens-Corning fiberglass corp. il Arch Rec 103:140-1 F '48; Am Bld 70:98-9 Mr '48

Fiberglass packing in gas-absorbing systems. G. C. Williams, R. B. Akell and C. P. Talbott, diags Chem Eng Prog 43:586-96 N '47

Fiberglass unveils its New York home. il Sales Management 60:98 Ja 15 '48

Fiberglass; what, why, where, when? abstract. A. W. Davidson, Cer Ind 50:73 My '48

Fibrous glass, electrical insulating materials. H. O. Collis, il Iron & Steel Eng 25:82-7; Discussion, 87-8 Ap '48

Glass fiber dyeing; coating with organosilicon compounds; patent, Am Dyestuff Rep 37:568-9 Ag 23 '48

Glass-fiber insulation at liquid-air temperatures. B. M. Palmer and R. E. Taylor, il diag Chem Eng Prog 44:652-4 Ag '48

Glass fibers dyeing; coating with magnesium silicate as mordant; patent, Am Dyestuff Rep 37:568 Ag 23 '48

Glass fibers, inc. swings into full operation; Vitron, a new fibrous glass material. F. E. Butler, il Glass Ind 28:623-6+ D '47

Glass fibers; types, properties, and uses, tabulated; engineering file facts. K. Rose, comp. Materials & Methods 26:113 N '47

Glass wool pipe covering; patent, diags Glass Ind 28:578+ N '47

Insulation for ducts. il Heat & Ven 45:73 JI '48

Interferometric method for the calibration of electron microscope magnification. J. L. Farrant and A. J. Hodge, bibliog il J Ap Phys 19:840-4 S '48

Plastic ducts to assist designers fabricated from fiberglass impregnated with resin. il Aviation W 45:26-7 Ja 12 '48

Strength and elasticity of glass fibers. J. J. Bikerman and G. H. Passmore, bibliog Glass Ind 29:144-6+ Mr '48

Thermal insulation and comfort characteristics of fibrous glass-lined garments. C. P. Yaglou, J Ind Hygiene 30:312-15 S '48

Versatility of fiberglass. Barron's 28:38 F 9 '48

Visit to the house of fiberglass. il Sheet Metal Worker 39:108+ Mr '48

See also

Glass wool

Plastic materials—
Glass reinforcement

Plastic materials,
Laminated—Glass
reinforcement

Bibliography

Fiberglass bibliography; annotated references to selected articles. 2d ed 47p Owens-Corning fiberglass corp, 16 E. 56th st, New York 22 '46

Manufacture

Owens-Corning Fiberglas cuts costs with own water system. il Cer Ind 51:78-9 S '48

Patents

Method of making glass fibers. diag Glass Ind 29:570 O '48

Owens-Corning fiberglass machine; patent, diags Glass Ind 29:29-30 Ja '48

GLASS fibers, inc.

Stock offered. Comm & Fin Chr 167:546 F 2 '48

GLASS flow

Convection currents in a glass tank, by I. Peychès; tr. from bulletin de l'Institut du verre (Paris) for June, 1947, by L. Sutton and S. R. Scholes, bibliog il diags Glass Ind 29:19-22+, 75-8+, 142-3+, 206-7+, 259-61+ Ja-My '48

GLASS furnaces

Comments on clay flux block. W. L. Fabianic, il Am Cer Soc Bul 26:393-7 D 15 '47

Plug charging port in 20 seconds. G. H. Terrill, il Cer Ind 51:69 JI '48

Pyrometry for the ceramic industries; with an introduction to principles of automatic control. V. L. Parsegian, bibliog il diags Am Cer Soc Bul 27:1-24 Ja 15 '48

See also

Glass tanks

Charging

Check-list for efficient batch charger operation. il Cer Ind 49:76-7 N '47

Electric heating

Electric melting of glass. Y. R. Cornelius, il diags Glass Ind 29:71-2+ F '48

Electrically heated glass tank. F. S. Entelis, diags Glass Ind 28:572-3+ N '47

Some applications of electricity to glass manufacture; abstract. P. C. Barnes, Inst E E J 95 pt 1:79 F '48

Patents

Kent-Owens stacker. diag Glass Ind 29:209+ Ap '48

GLASS heating

Electric glass heating; patent, diags Glass Ind 29:505 S '48

GLASS jars

Better jelly jar. il Mod Packaging 22:130-1 O '48

GLASS laboratories

Bausch & Lomb builds underground laboratory. Glass Ind 29:270 My '48

GLASS lining

Repairing glass-lined equipment. E. F. Meier, diags Chem Eng 54:116-13 D '47

Simple kit for field repair of glass linings. diags Cer Ind 51:71 S '48

Sludge digester insulated with glass. il Eng N 140:1005 Je 24 '48

GLASS machinery**Patents**

Inventions and inventors. Published in monthly numbers of Glass industry

GLASS making materials

Better raw materials for the glass industry. A. Ottosen, Glass Ind 29:251-2+ My '48

Outlook for soda ash in the glass industry. M. E. Clark, Glass Ind 29:322-4+ Je '48

Raw materials procurement problems in the glass industry. C. L. Rice, Glass Ind 29:194-6+ Ap '48

GLASS manufacture

Batching plant for glass manufacture. il diags Engineer 185:380-3 Ap 16 '48

Boric oxide, its chemistry and role in glass technology. W. A. Weyl, Glass Ind 29:131-6+, 200-4+, 264-6+, 328-9+, 388-90+, 444-5+, 500-2+, 559-61+ Mr-O '48

Container glass compositions, 1932-1946. H. Moore and A. K. Lyle, Glass Ind 28:563-6+ N '47

Container glass compositions, 1947. A. G. Allen and A. K. Lyle, Glass Ind 29:493-4+ S '48

Convection currents in a glass tank, by I. Peychès; tr. from bulletin de l'Institut du verre (Paris) for June, 1947, by L. Sutton and S. R. Scholes, bibliog il diags Glass Ind 29:19-22+, 75-8+, 142-3+, 206-7+, 259-61+ Ja-My '48

GLASS manufacture—Continued

Effect of annealing and other heat treatments on the pH response of the glass electrode, D. Hubbard and G. F. Rynders, bibliog J Res Nat Bur Stand 40:105-12 F '48

Effect of heat-treatment on the density and constitution of high-silica glasses of the borosilicate type, A. Q. Tool, Am Cer Soc J 31:177-86 J1 '48

Glass processing in the manufacture of neon signs, M. G. Hawkins, il Glass Ind 28:574-5 N '47

Pyrometry for the ceramic industries; with an introduction to principles of automatic control, V. L. Parsegian, bibliog il diags Am Cer Soc Bul 27:1-24 Ja 15 '48

Reduction of sodium sulfate in glass manufacture; abstract, N. I. Kitaigorodskii and others, Glass Ind 28:636 D '47

Review of higher court law suits affecting glass manufacturers, L. T. Parker, il Cer Ind 50:57-8 F '48

Scale of acidity and basicity in glass, K. Sun, Glass Ind 29:73-4+ F '48

Some applications of electricity to glass manufacture; abstract, P. C. Barnes, Inst E E J 95 pt 1:79 F '48

Some recent developments in American glass manufacture, A. Silverman, bibliog Am Cer Soc Bul 26:367-77 N 15 '47

Study of time and temperature effects on glass in annealing range, P. W. Collyer, bibliog Am Cer Soc J 30:333-44 N 1 '47; Abstract, Glass Ind 29:150 Mr '48

Urbana glass conference, 9th, Dec. 4-5, Glass Ind 29:23+ Ja '48

What to do about seeds, Cer Ind 49:79 N '47

Why put borax in glass batches? Cer Ind 50:56 F '48

See also

Glass, Optical—
Manufacture
Glass factories

Glass furnaces
Glass tanks
Glassware—Manufacture

Patents

Inventions and inventors. Published in monthly numbers of Glass industry

GLASS melting

Effects of some major and minor constituents on glassmelting; abstract, J. P. Poole and others, Cer Ind 50:32 My '48

Effects of the major and some of the minor constituents on glass melting; abstract, D. P. Enright and others, Glass Ind 29:320 Je '48

Electric melting of glass, Y. R. Cornelius, il diags Glass Ind 29:71-2+ F '48

Interfacial microreactions in glass melts, H. Jebens-Marwedel, il diags Glass Ind 29:553-7 O '48 (to be cont)

Special method of glass melting, P. Baldermann, Glass Ind 29:447 Ag '48

Studies in the distribution of temperature through molten glass in a tank-melting furnace, Glass Ind 29:88 F '48

GLASS pipes, See Pipes, Glass**GLASS pots**

Casting clay crucibles for high-density glasses, glazes and enamels, il Cer Ind 50:137-8 Ap '48

GLASS reinforcement of plastics. See Plastic materials, Laminated—Glass reinforcement**GLASS research**

Boric oxide, its chemistry and role in glass technology, W. A. Weyl, Glass Ind 29:131-6+, 200-4+, 264-5+, 323-9+ Mr-Je '48

Changes in refractive indices and liquidus of a dense barium crown glass containing lanthanum oxide produced by partial substitution of some oxides; abstract, E. H. Hamilton and others, Glass Ind 29:319 Je '48

Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides, E. H. Hamilton and others, bibliog Am Cer Soc J 31:132-44 My 1 '48; Same, J Res Nat Bur Stand 40:361-74 My '48

Effect of boric oxide on properties of soda-lime-silica glass; contribution of the Owens-Illinois glass company general research laboratory, bibliog Am Cer Soc J 31:8-14 Ja 1 '48

Electron microscope investigation of opal glass, T. F. Bates and M. V. Black, bibliog il diags Glass Ind 29:487-92+ S '48

Infrared study of the structure of glasses prepared by melting crystals, G. S. Bachman, Glass Ind 29:435-7+ Ag '48

Interfacial microreactions in glass melts, H. Jebens-Marwedel, il diags Glass Ind 29:553-7 O '48 (to be cont)

Optical glass at the National bureau of standards, F. W. Glaze and G. H. Hahner, bibliog il diags Glass Ind 29:562-7+ O '48

Owens-Illinois opens the Duraglas center, il Glass Ind 29:498-9 S '48

Properties of soda-strontium oxide-alumina-silica glasses, bibliog Am Cer Soc J 31:1-8 Ja 1 '48; Abstract, Glass Ind 29:333 Je '48

Some examples of radioactive tracing in glass technology; abstract, S. A. Lindroth, Glass Ind 29:320 Je '48

Strength and elasticity of glass fibers, J. J. Bikerman and G. H. Passmore, bibliog Glass Ind 29:144-6+ Mr '48

Study of time and temperature effects on glass in annealing range, P. W. Collyer, bibliog Am Cer Soc J 30:333-44 N 1 '47

Systematic study of the effect of oxide constituents on the viscosity of silicate glasses; abstract, J. P. Poole and M. Gensamer, Glass Ind 29:321+ Je '48

Theoretical basis of adhesion, W. A. Weyl, bibliog Am Cer Soc T M Proc 46:1506-16; Discussion, 1517-19 '46

GLASS sand. See Sand

GLASS stoppers. See Stoppers, Glass

GLASS tanks

Color oxides affect heat gradients, Cer Ind 51:82 N '48

Convection currents in a glass tank, by I. Pèychès; tr. from bulletin de l'Institut du verre (Paris) for June, 1947, by L. Sutton and S. E. Scholes, bibliog il diags Glass Ind 29:19-22+, 75-8+, 142-3+, 206-7+, 259-61+ Ja-My '48

Convection currents in glass tanks; elementary theory of the motions of convection; abstract, I. Pèychès, Am Cer Soc J 31 (Cer A):31 F 1 '48

Glass tank reversal methods, diags Cer Ind 49:68+ D '47

Laclede-Christy tank; patent, diag Glass Ind 29:568 O '48

Observations on the shelling of checker-brick, E. C. Petrie and D. P. Brown, il Am Cer Soc J 31:14-20 Ja 1 '48

Oxygen firing furnaces of industry is placing new demands on refractories, il Brick & Clay Rec 112:56 Ja '48

Rate of wear of tank blocks in service; abstract, Whittaker and Seddon, Glass Ind 29:333+ Je '48

Requirements of a glass tank refractory and characteristics of Monofrax; abstract, J. C. McMullen and A. P. Thompson, Cer Ind 49:77 O '47

Selecting burners for day-tank operation, Cer Ind 51:75 J1 '48

Studies in the distribution of temperature through molten glass in a tank-melting furnace, Glass Ind 29:88 F '48

Testing

Miniature glass test tank, J. C. McMullen, il diags Am Cer Soc Bul 26:365-6 N 15 '47

GLASS tempering machine

Flat glass tempering machine; patent, diags Glass Ind 29:449+ Ag '48

GLASS trade

Ceramic Industry predicts for the glass industry, Cer Ind 50:73 Je '48

Flat glass monopoly trial opens in Toledo, Glass Ind 29:199+, 262-3+, 325-7 Ap-Je '48

Glass makers hurt by holding down prices, Barron's 28:26 J1 5 '48

1947 glass production and development traced; abstract, R. Brenner, Cer Ind 50:74b My '48

Statistics

Glass products, 1941-1946. Survey of Cur Bsns 1947 Sup p 171-2 [supplemented in monthly numbers]

Austria

Austria developing its glass industry, Glass Ind 29:446+ Ag '48

GLASS trade—Continued

Great Britain

Design for glass; Working party report on the hand-blown glassware industry. Economist 153:1057 D 27 '47

Oklahoma

Survey shows expansion of Oklahoma glass industry. Chem Eng 55:190+ Ja '48

GLASS tubing

Tube bending machine; patent. diag Glass Ind 29:330 Je '48

Manufacture

Eisler tube flanging machine; patent. diag Glass Ind 29:506 S '48

Eisler tubing machine; patent. diag Glass Ind 29:569 O '48

Glass tube heating apparatus; patent. diag Glass Ind 28:576-7 N '47

Machine for forming bottoms on tubes; patent. diag Glass Ind 29:568-9 O '48

Tube drawing machine; patent. diag Glass Ind 29:267 My '48

GLASS walls. See Walls, Glass

GLASS wax

Glass wax, a new household cleaning specialty. *il* Consumers Res Bul 22:22 O '48

Neat operation in North Dakota; Harold Schafer, the president of a household-wax company and Glass wax. Fortune 38:10 O '48

Ten reasons why Glass wax blitzed 131 major markets. H. E. Green. *il* Ptr Ink 224:33-5+ S 17 '48

GLASS wool

Absorption of water vapor on glass surfaces. R. I. Razouk and A. S. Salem. bibliog *il* diag J Phys & Colloid Chem 52:1208-27 O '48

GLASS workers. See Glass factories—Employees

GLASS yarn

New glass-yarn company in production. *il* Textile World 98:119 S '48

GLASSINE

Moisture locked in; Richmond-Chase protects product with all-paper package. *il* Mod Packaging 21:126-9 Mr '48

Manufacture

Glassine paper; pictured flow sheet. Chem Eng 54:148-51 N '47

GLASSWARE

Glassware designer's relation to production and advertising. M. G. Yutzey. Am Cer Soc Bul 27:153-4 Ap 15 '48

Late 19th century glass shown at Metropolitan. *il* Cer Ind 49:89 D '47

See also

Bottles

Decoration

Art of copper wheel glass engraving flourishes in Washington. H. Helfer. Cer Ind 49:85 O '47

If it's glass, we'll decorate it; Ceramic decorating co., Los Angeles. *il* Cer Ind 50:124+ Ap '48

Manufacture

Handling costs cut to bone in new stemware plant. *il* Cer Ind 50:118+ Ap '48

Los Angeles plant blows, welds, mercury seals processing glass ware. T. A. Dickinson. *il* Cer Ind 51:78-9 O '48

Some recent developments in American glass manufacture; scientific glassware. A. Silberman. bibliog Am Cer Soc Bul 26:374-6 N 15 '47

Welding of glass with a high-frequency electric torch. E. M. Guyer. *il* Elec Eng 67:446-7 My '48

Testing

Theory of the behavior of glassware in service. J. L. Glathart and F. W. Preston. bibliog Am Cer Soc J 31:153-70 Je 1 '48

GLASSWARE, Laboratory

Method for making Cartesian divers. C. L. Clafl. diags Science 107:202-3 F 20 '48

Modified Warburg vessel. E. Kun. diag Science 106:550 D 5 '47

Simple adaptation of the mercury calibration of Warburg manometer sets to insure interchangeability. S. C. Allen. Science 107:604-5 Je 4 '48

Simple micro-beaker for use with the Beckman pH meter (model G). V. H. Dietz. diags Science 108:338-9 S 24 '48

Tools of the trade. Chem & Ind p82 F 7 '48; Discussion. p 126-7, 172-3, 190, 237-8, 317-18 F 21, Mr 13-20, Ap 10, My 15 '48

GLASSY state

Nature of the glassy state and the behavior of liquids at low temperatures. W. Kauzmann. Chem R 43:219-56 bibliog (104 ref, p253-6) O '48

GLAZES

Ceramic glaze composition; patent. Glass Ind 29:268 My '48

Colemanite as a glaze material. L. Balsham. Cer Ind 51:109+ Q '48

Development of California Crackle. *il* Cer Ind 49:100 N '47

Glazes from Kansas volcanic ash. J. S. Carey. bibliog Am Cer Soc Bul 27:225-8 Je 15 '48

Good blue colors in glazes. Cer Ind 51:102 S '48

How to make green, blue-green glazes. Cer Ind 51:110 N '48

Lithium in clear glazes. Cer Ind 50:68 F '48

Standard method for determining leachability of lead from lead frits. A. E. Currier. *il* Am Cer Soc J 30:335-8 N 1 '47

Stearite becomes a major ceramic with a big future. H. H. Hausner and A. Gunzenhauser. Cer Ind 51:90-1 S '48

Zinc oxide prevents crazing. Cer Ind 50:121 Je '48

Zircon reduces crazing tendency. Cer Ind 51:84+ Ag '48

GLENDALE, Arizona

Streets

How Glendale settled the dust. D. E. Smith. *il* Pub Works 79:30-1 Ag '48

GLIDDEN company

Companies paying higher dividends on split shares. Mag of Wall St 82:132 My 8 '48

Glidden emphasizes research. Bsns W p40+ D 20 '47

Investment audit. J. C. Clifford. *il* Mag of Wall St 81:138-9+ N 8 '47

GLIDERS

Bureau asks comment on plan to revise glider pilot rules. CAA J 9:98 S 15 '48

Cargo plane evolves from glider; MS-7. A. E. Smyser, jr. *il* diag Aviation W 48:23-4+ Ja 5 '48

MacCready new soaring champion. *il* Aviation W 49:16 J1 19 '48

1948 annual glider directory; illustrations, miniature plans and brief descriptions. Aero Digest 56:48-9 Mr '48

Two-seat sailplanes. W. Czerwinski and B. S. Shenstone. *il* diags Aero Digest 56:46-8+ My '48

Ultimate performance possibilities of sailplanes; résumé of symposium, joint meeting of the Institute of the aeronautical sciences and the Soaring society of America. bibliog *il* diags Aeronautical Eng R 7:34-40 S '48

GLIOTOXIN

Gliotoxin; synthesis of pyrazinoidolones and pyridinolones. J. R. Johnson and others. bibliog Am Chem Soc J 69:2364-70 O '47

Pyrazinoidole-1,4-diones; ring closure of 2-indolecarbonyl derivatives of α -aminoesters. J. R. Johnson, J. H. Andreen and A. D. Holley. bibliog Am Chem Soc J 69:2370-2 O '47

GLOBE aircraft corporation

SEC rejects faulty handling of inventory losses, note liability, working capital needs. J Account 84:409-11 N '47

GLOBULINS

Biophysical studies of blood plasma proteins; separation and properties of the γ -globulins of the sera of normal cows. E. L. Hess and H. F. Deutsch. bibliog Am Chem Soc J 70:84-8 Ja '48

Biophysical studies of blood plasma proteins; separation of γ -globulins from the sera of various animals. J. C. Nichol and H. F. Deutsch. bibliog Am Chem Soc J 70:80-3 Ja '48

GLOBULINS—Continued

- Function of Ac-globulin in blood clotting. A. G. Ware and others. *bibliog Science* 106: 618-19 D 19 '47
- Heterogeneity of crystalline beta-lactoglobulin. T. L. McMeekin and others. *Am Chem Soc J* 70:881-2 F '48
- Homogeneity and the electrophoretic behavior of some proteins. R. A. Alberty, E. A. Anderson and J. W. Williams. *bibliog J Phys & Colloid Chem* 52:217-30 Ja '48
- Pure immune blood protein for therapeutic use; abstract. J. W. Williams. *Can Chem & Process Ind* 31:1144 D '47
- Studies on double refraction of flow; human serum γ -globulin and crystallized bovine serum albumin. J. T. Edsall and J. F. Foster. *bibliog Am Chem Soc J* 70:1860-6 My '48

See also

Myoglobin

GLOVE fabrics**Testing**

- Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Calingaert and H. Shapiro. *bibliog J Ind & Eng Chem* 40: 332-5 F '48

GLOVES

- Glove manufacture, Australia. *For Comm W* 30:29 F 28 '48
- Glove manufacture, Grenoble, France. *For Comm W* 32:37 JI 24 '48

Advertising

- Simple courtesy is good business; careful handling of consumers' inquiries. *Ptr Ink* 224:55-8 JI 23 '48

Rating

- Men's leather gloves. *il diags Consumers Res Bul* 21:5-8 Ja '48

Statistics

- Leather manufactures; gloves and mittens, 1941-1946. *Survey of Cur Bsns* 1947 Sup p 139 [supplemented in monthly numbers]

GLOVES, Protective

- Factory-sealed gloves; new packaging for Wagon Brand gloves reduces pilferage, saves 15 per cent of board, permits six boxes to do the work of 12. *il Mod Packaging* 21:124-5 F '48
- Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Calingaert and H. Shapiro. *bibliog J Ind & Eng Chem* 40:332-5 F '48

GLOVES, Rubber

- Survey of rubber glove practice. I. R. Dohr. *Edison Elec Inst Bul* 16:84+ Mr '48

GLUCAMINE

- Anhydrides of polyhydric alcohols; the conversion of glucamine into 1:4-anhydrosorbitol; the constitution of benzylidene 1:4-anhydrosorbitol. V. G. Bashford and L. F. Wiggins. *Chem Soc J* p299-303 Mr '48

GLUCITOL

- 1,5-Anhydro-4-(β -D-glucopyranosyl)-D-glucitol, 1,5-anhydro-6-(β -D-glucopyranosyl)-D-glucitol and 1,5-anhydro-D-galactitol. H. G. Fletcher, Jr. and C. S. Hudson. *bibliog Am Chem Soc J* 70:310-14 Ja '48

GLUCOFURANOSULFATE

- Carbohydrate sulphuric esters; production of a derivative of 5:6-anhydroglucose by the hydrolysis of a sulphate. R. B. Duff and E. G. V. Percival. *Chem Soc J* p 1675-8 D '47

GLUCOLYSIS

- Inhibition of glycolysis in vitro by impure penicillin. E. Kun. *Science* 108:117-18 JI 30 '48

GLUCONIC acid

- Gluconic acid in the textile industry. G. B. Stone. *Am Dyestuff Rep* 37:633-4+ O 4 '48

GLUCOPYRANOSIDE

- Methyl 2,6-dimethyl- α -D-glucopyranoside. R. E. Reeves. *bibliog Am Chem Soc J* 70:259-60 Ja '48

GLUCOSE

- Amino acid impairment in casein heated with glucose. A. R. Patton and others. *bibliog Science* 107:623-4 Je 11 '48

- Chemical interactions of amino compounds and sugars; the conversion of D-glucose to 5-(hydroxymethyl)-2-furaldehyde. M. L. Wolfrom, R. D. Schuetz and L. F. Cavallieri. *bibliog Am Chem Soc J* 70:514-17 F '48
- Deposition of protein in the liver following intravenous injection of an amino acid mixture (hydrolyzed protein) and glucose. C. A. Ross and R. Elman. *il Science* 108:441-3 O 22 '48

- Effect of the injection of glucose into the cerebrospinal fluid. R. W. Lackey. *Science* 106:618 D 19 '47

- Electrolytic reduction of hexoses. E. A. Parker and S. Swann, Jr. *bibliog il diags Electrochem Soc Trans* 92 (preprint 23): 261-86 '47

- Glucose-protein reaction in dried egg albumen. R. W. Kline and G. F. Stewart. *bibliog Ind & Eng Chem* 40:919-22 My '48
- Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. E. Harris and B. G. Lang. *bibliog J Phys & Colloid Chem* 51:1430-41 N '47

- Inactivation of nutrients by heating with glucose. A. R. Patton and E. G. Hill. *Science* 107:68-9 Ja 16 '48

- Ion-exchange refining of dextrose solutions. M. Handelman and R. H. Rogge. *il diags Chem Eng Prog* 44:583-7; Discussion. 588-90 Ag '48

- Open-chain sugars; absorption in ultraviolet of D-glucose and L-arabinose in acid solution. E. Pacsu and L. A. Hiller, Jr. *bibliog Am Chem Soc J* 70:523-6 F '48

- Role of 5-(hydroxymethyl)-furfural in the discoloration of sugar solutions. B. Singh, G. R. Dean and S. M. Cantor. *bibliog Am Chem Soc J* 70:517-22 F '48

- Sorbitol from corn sugar by catalytic reduction; Atlas powder co.'s process. R. W. Porter. *il Chem Eng* 54:114-17 N '47

- Structure of an enzymatically synthesized reducing disaccharide D-glucosido-L-arabinose. W. Z. Hassid and others. *bibliog il Am Chem Soc J* 70:306-10 Ja '48

- Structure of glycogen; ratio of non-terminal to terminal glucose residues. T. G. Halsall, E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1399-400 O '47

See also

Nitrodesoxyglucose

Analysis

- Color test for identification of glucose. S. Hestrin and J. Mager. *bibliog Anal Chem* 19:1032-5 D '47

- Glucose; direct colorimetric method for determining carbohydrates. G. H. Benham and J. E. Despaul. *bibliog Anal Chem* 20:933-5 O '48

GLUCOSE phosphates

- α -L-Glucose-1-phosphate. A. L. Potter and others. *bibliog Am Chem Soc J* 70:1761-2 My '48

- Production of starch-like material from glucose-1-phosphate by diphtheria bacilli. E. J. Hehre and others. *Science* 106:523-4 N 28 '47

GLUCOSIDES

- Barium 2-ketolactobionate and the corresponding barium bromide double salt. W. W. Walton and H. S. Isbell. *bibliog il J Res Nat Bur Stand* 41:119-23 Ag '48

- Experiments on the synthesis of purine nucleosides; a synthesis of 9-D-glucopyranosido-adenine. A. Holland, B. Lythgoe and A. R. Todd. *Chem Soc J* p965-7 JI '48

- Experiments on the synthesis of purine nucleosides; the preparation of 4-glycofuranosidaminopyrimidines, and a synthesis of 9-L-arabofuranosido-2-methylthioadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. *Chem Soc J* p957-64 JI '48

- Steroidal saponin; structure of the saponin glycosides. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2389-92 O '47

- Structure and synthesis of cardiac genins. R. B. Turner. *Chem R* 43:1-42 *bibliog* (205 ref. p38-42) Ag '48

See also

Methyl altroside
Ribopyranosido-
xanthine

GLUCURONIC acid

Constitution of mesquite gum; 4-methoxy-D-glucuronic acid. E. V. White. bibliog Am Chem Soc J 70:367-9 Ja '48

GLUCURONIDASE

Beta-glucuronidase. L. D. Odell and others. Science 108:355-6 O 1 '48

GLUE

Dielectric heat, wood-fabrication tool. T. P. Kinn and R. E. Kirby. il diags Westinghouse Eng 8:138-43 S '48

Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. il Ind & Eng Chem 40:262-7 P '48

Glue statistics for 1947 reported by Census bureau. Oil Paint & Drug Rep 153:86 Ap 26 '48

Glues of animal, fish and vegetable origin. K. Rose. il Materials & Methods 27:102-4 F '48

Micro-organisms and adhesives; comparison of synthetic and natural glues; abstract. Chem Age (Lond) 58:434 Mr 27 '48

Phenolic resin glues for plywood. F. G. Sawyer, T. S. Hodgins and J. H. Zeller. bibliog flow sheet il plan Ind & Eng Chem 40:1011-18 Je '48

Testing

Results of accelerated tests and long-term exposures on glue joints in laminated beams. T. R. Truax and M. L. Selbo. il A S M E Trans 70:393-400 My '48

GLUING machines

R-f heating for cabinets. C. Dusenbury. il Electronics 21:152+ Je '48

GLUTAMIC acid

Amino acids; new syntheses of DL-tryptophan, DL-ornithine and DL-glutamic acid. D. T. Warner and O. A. Moe. Am Chem Soc J 70: 2765-7 Ag '48

Manufacture

Food flavor from beet sugar byproduct. P. D. V. Manning. flow sheet(p136-9) il Chem Eng 55:100-1 Ap '48; Same. Food Ind 20: 510-15 Ap '48

Manufacture of monosodium glutamate. P. D. V. Manning, R. W. Shafor and F. H. Catterton. flow sheet il Chem Eng Prog 44: 491-6; Discussion. 496 Jl '48

Physiological effect

Does glutamic acid have any effect on learning? E. Stellar and W. D. McElroy. bibliog Science 108:281-3 S 10 '48

GLUTATHIONE

Evidence for the involvement of glutathione in the mechanism of penicillin action. R. Pratt and J. Dufrenoy. bibliog Am Chem Soc J 70:1671 Ap '48

Mechanism of cysteine and glutathione protection against alloxan diabetes. A. Lazarow and others. bibliog Science 108:308-9 S 17 '48

GLYCERALDEHYDE

Glyceraldehyde ineffective in tooth decay. Chem & Eng N 26:2003-4 Jl 5 '48

Tooth decay inhibitor. Chem & Eng N 26: 336 F 2 '48

GLYCERIDES

Alpha- and beta-hydroxyls of glycerol in preparation of alkyl resins. H. A. Goldsmith. bibliog Ind & Eng Chem 40:1205-11 Jl '48

Application of high vacuum distillation to the processing of triglyceride oils. E. W. M. Fawcett. bibliog Chem & Ind sup27:32 O 9 '48

Component acids and glycerides of neat's foot oil. T. P. Hilditch and R. K. Shrivastava. bibliog Soc Chem Ind J 67:139-42 Ap '48

Component acids and glycerides of whale oil. T. P. Hilditch and L. Maddison. bibliog Soc Chem Ind J 67:253-7 Je '48

Composition of commercial palm oils; component acids and glycerides of a Belgian Congo palm oil (studied with the aid of low-temperature crystallization). T. P. Hilditch and others. bibliog Soc Chem Ind J 66:284-8 Ag '47

Configuration of naturally occurring mixed glycerides; the configuration of the major component glycerides of palm oil. M. L. Meara. Chem Soc J p722-6 Je '48

Directed interesterification in glycerides. E. W. Eckey. bibliog Ind & Eng Chem 40: 1183-90 Jl '48

Furans in vegetable oil refining. S. W. Gloyer. bibliog flow sheet il diags Ind & Eng Chem 40:228-36 F '48

Monoglycerides activity; abstract. B. Latteur. Soap & San Chem 24:87+ S '48

Polymorphism of 1-monostearin and 1-monopalmitin. E. S. Lutton and F. L. Jackson. bibliog Am Chem Soc J 70:2445-9 Jl '48

Polymorphism of the mixed triglycerides of palmitic and stearic acids. E. S. Lutton, F. L. Jackson and O. T. Quimby. bibliog Am Chem Soc J 70:2441-5 Jl '48

Swift & co.'s new industrial oil processing plant; new source of glycerides and fatty acids. Paint Oil & Chem R 111:12 S 16 '48

Triple chain-length structures of saturated triglycerides. E. S. Lutton. bibliog diags Am Chem Soc J 70:248-54 Ja '48

X-ray and thermal examination of the glycerides; the polymorphism of simple triglycerides. C. E. Clarkson and T. Malkin. pl Chem Soc J p985-7 Jl '48

X-ray investigation of glycerides; diffraction analyses of synthetic 1,3-dilaidin. B. F. Daubert and S. S. Sidhu. bibliog Am Chem Soc J 70:1848-9 My '48

Analysis

Use of low-temperature crystallization in the determination of component acids of liquid fats; marine animal oils; the component acids and glycerides of a grey (Atlantic) seal. T. P. Hilditch and S. P. Pathak. bibliog Soc Chem Ind J 66:421-5 D '47

GLYCERIN

Alkyl resins today; trends in oil-modified alkyls. E. O. Phillips. bibliog Chem & Ind p3-5 Ja 3 '48

Alpha- and beta-hydroxyls of glycerol in preparation of alkyl resins. H. A. Goldsmith. bibliog Ind & Eng Chem 40:1205-11 Jl '48

Detergent production threatens natural glycerol supply; report of meeting of Association of American soap and glycerine producers. Chem & Eng N 26:462 F 16 '48

Glycerine in aluminum treatments. M. A. Lesser. bibliog Light Metal Age 6:22+ O '48

Glycerine in textiles. M. A. Lesser. Textile Col 70:20+ Je '48

Glycerol vapour vacuum pump. P. Alexander. J Sci Instr 25:313-14 S '48

Influence of ethylene glycol and glycerol on the germicidal power of aliphatic and aromatic compounds. E. A. Cooper. Soc Chem Ind J 67:69-70 F '48

Influence of temperature on the production of glycerol during alcoholic fermentation. M. C. Brockmann and T. J. B. Stier. Am Chem Soc J 70:413-14 Ja '48

Newer uses of glycerine. M. A. Lesser and J. Cotter. bibliog Rayon 29:83-5 Ja '48

Refrigerating capacity of two-component systems: glycerol-water and propylene glycol-water. F. T. Gucker, jr. and G. A. Marsh. bibliog diags Ind & Eng Chem 40:908-15 My '48

Use of glycerin. C. F. King. Inland Ptr 120: 53-4 Ja '48

Analysis

Determination of glycerol in fermentation residues. P. J. Elving and others. Anal Chem 20:25-9 Ja '48

Polyglycerols; identification of polyglycerol mixtures by the procedures of allylation and acetonation; isolation of pure diglycerol. H. Wittcoff, J. R. Roach and S. E. Miller. Am Chem Soc J 69:2655-7 N '47

Manufacture

Commercial synthesis of glycerol begins at new Shell chemical corp. plant. il diags Chem & Eng N 26:2770-1, 2774-5 S 20 '48

Glycerine by synthesis; pictured flow sheet. Chem Eng 55:134-7 O '48

Glycerin first produced in United States in 1848. Oil Paint & Drug Rep 154:7+ S 27 '48

Glycerine from gas; Shell chemical corp.'s petroleum-based glycerine. il Chem Ind 63: 374-5 S '48

GLYCERIN—Manufacture—Continued

- Glycerine from petroleum. J. V. Hightower. *il diag Chem Eng* 55:96-8 S '48
- Glycerine from petroleum. Shell chemical corp. D. P. Thornton, jr. flow diag *il Pet Processing* 3:931-4 O '48
- Glycerol by fermentation; patent. *Can Chem & Process Ind* 32:746 Ag '48
- Shell to get chemical achievement award for synthetic glycerine. *Chem Eng* 55:193 S '48
- Synthetic glycerine, a milestone in petrochemical progress. *il diag Chem Eng* 55:100-4 O '48
- Synthetic glycerin plant goes on stream. A. L. Foster. *il diag Pet Eng* 20:274-7 O '48
- Synthetic glycerine plant opened at Houston by Shell. flow diag *il diag Chem Eng Prog* 44:sup 16-18 O '48
- Synthetic glycerine; Shell Chemical's new, eight million dollar Texas plant and process. J. W. McCutcheon. *il diag Soap & San Chem* 24:37-9+ S '48
- Water absorption of proteins; contribution of the peptide group. E. F. Mellon, A. H. Korn and S. R. Hoover. *bibliog Am Chem Soc J* 70:3040-4 S '48
- World's first synthetic glycerine plant opens at Houston. L. S. McCaslin, jr. flow chart *il Pet Refiner* 27:112-14 O '48; Same cond. *Oil & Gas J* 47:88-90+ S 16 '48

Statistics

- Sharp reductions in glycerol supply. H. Stenerson. *Chem & Eng N* 26:1536 Je 28 '48

GLYCERIN dichlorohydrin

- Determination of vitamin A ester in fortified poultry mashes, with activated glycerol dichlorohydrin. M. E. Wall and E. G. Kelley. *bibliog Anal Chem* 20:757-9 Ag '48
- Modified glycerol dichlorohydrin reaction for vitamin D₂. J. A. Campbell. *bibliog Anal Chem* 20:766-71 Ag '48

GLYCERIN tristearate. See Stearin**GLYCEROGEN**

- Synthetic glycols; Germany's varied products of invert sugar; abstract. R. M. Goepf, jr. *Chem Age (Lond)* 57:817 D 27 '47

GLYCERYLPHOSPHORYLCHOLINE

- L- α -Glycerolphosphorylcholine. E. Baer, and M. Kates. *bibliog Am Chem Soc J* 70:1394-9 Ap '48

GLYCEINE

- Action of antifouling paints; use of glycine solutions as accelerated test of availability of toxic E. H. Ketchum. *bibliog Ind & Eng Chem* 40:249-53 F '48
- Conversion of α -amino acids to acylamido ketones and oxazoles. R. H. Wiley and O. H. Borum. *Am Chem Soc J* 70:2005-6 Je '48
- Influence of dipolar ions on the solubility of some sparingly soluble salts. F. Lee and L. Luh. *bibliog Am Chem Soc J* 70:113-14 Ja '48
- Infrared absorption spectra of some amino acids and their complexes. I. M. Klotz and D. M. Gruen. *bibliog J Phys & Colloid Chem* 52:961-8 Je '48
- Interaction of ions and dipolar ions; the solubility of cupric iodate in glycine and in alanine solutions. R. M. Keefer. *bibliog Am Chem Soc J* 70:476-9 F '48
- Use of glycine in the disruption of bacterial cells. E. S. Maculla and P. B. Cowles. *Science* 107:376-7 Ap 9 '48

GLYCINONITRILE

- Studies in the azole series; the interaction of aminoacetonitrile and carbon disulphide. A. H. Cook, I. Heilbron and A. L. Levy. *Chem Soc J* p201-6 F '48

GLYCOGEN

- Structure of glycogen; ratio of non-terminal to terminal glucose residues. T. G. Halsall, E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1399-400 O '47

GLYCOL

- Air purification by glycol vapor. J. W. Spiselman. *bibliog il Soc Motion Picture Eng J* 51:70-8 J1 '48
- Essential steps in the catalytic condensation of carbonyl compounds; action of metallic alkoxides. F. J. Villani and F. F. Nord. *bibliog Am Chem Soc J* 69:2605-7 N '47
- Influence of ethylene glycol and glycerol on the germicidal power of aliphatic and aromatic compounds. E. A. Cooper. *Soc Chem Ind J* 67:69-70 F '48

- Polymerization of dimethacryl ether of ethylene glycol; abstract. A. A. Berlin and I. P. Bogdanov. *Chem Eng* 55:274+ Ag '48
- Systems: glycol-n-amyl alcohol-water and glycol-n-hexyl alcohol-water. G. S. Laddha and J. M. Smith. *bibliog Ind & Eng Chem* 40:494-6 Mr '48
- Three chemicals compete for anti-freeze market. *Chem Ind* 62:764+ My '48

Manufacture

- Ethylene glycol produced in Canada. A. W. Dyck. *il Can Chem & Process Ind* 32:218-20 Mr '48
- Glycol output shoots skyward. *Chem Ind* 62:381-2 Mr '48
- Jefferson chemical company plant layout. G. W. Alexander. *il maps Pet Refiner* 27:87-92 My '48
- Jefferson Chemical enters petrochemicals field. J. V. Hightower. *il Chem Eng* 55:112-13 Ap '48
- Jefferson Chemical plant now under full operation at Port Neches. *il Oil & Gas J* 47:100+ My 6 '48; *Pet Eng* 19:231+ My '48
- Petroleum chemicals from Neches; Jefferson chemical co. *il Chem Ind* 62:569-70 Ap '48
- Vapor-phase hydration of ethylene oxide; silver oxide catalyst. R. R. Cartmell and others. *bibliog flow diag Ind & Eng Chem* 40:389-92 Mr '48

GLYCOLS

- Acetylenic glycols related to natural polyenes. L. F. Deemer, L. Lutwak and F. M. Strong. *bibliog Am Chem Soc J* 70:154-7 Ja '48
- Cyclic dimethylpolymethylenedioxysilanes. R. H. Krieble and C. A. Burkhard. *bibliog Am Chem Soc J* 69:2683-92 N '47
- Flammability of the higher boiling liquids and their mists. M. V. Sullivan, J. K. Wolfe and W. A. Zisman. *bibliog il diag Ind & Eng Chem* 39:1607-14 D '47
- Hydrogenolysis of β -oxygenated esters to glycols. R. Mazing and K. Folkers. *bibliog Am Chem Soc J* 70:227-9 Ja '48
- New glycols. *Chem Ind* 63:634 O '48
- Researches on acetylenic compounds; the preparation of conjugated diacetylenic glycols by the oxidative coupling of various types of ethynylcarbinols. K. Bowden and others. *Chem Soc J* p 1579-83 D '47
- Solubility of soaps and of some salts in mixtures of solvents, one of which is of glycolic type. S. R. Palit. *bibliog Am Chem Soc J* 69:3120-9 D '47
- Study of organic parachors; the additive nature of structural units in the parachors of ditertiary glycols and chlorides. T. P. Johnston and O. R. Quayle. *bibliog Am Chem Soc J* 70:479-82 F '48
- Study of ultrasonic velocity and absorption in liquid mixtures. C. J. Burton. *bibliog diag Acoustical Soc Am J* 20:186-99 Mr '48
- Synthesis of diethynyl glycols and their condensation with ketones. N. A. Milas, R. J. Brown and O. Phillips. *bibliog Am Chem Soc J* 70:2862-3 S '48
- Synthetic glycols; Germany's varied products of invert sugar; abstract. R. M. Goepf, jr. *Chem Age (Lond)* 57:817 D 27 '47
- Textile applications of the glycol fatty acid esters. J. H. Dollinger. *Rayon* 29:98-9 Ap; 83 My '48
- Theory and kinetics of specific oxidation; periodate-glycol reaction. F. R. Duke. *Am Chem Soc J* 69:3054-5 D '47
- Theory and kinetics of specific oxidation; trivalent manganese-oxalate reaction. F. R. Duke. *bibliog Am Chem Soc J* 69:2885-8 N '47
- Thermal conductivity of liquids. G. Palmer. *bibliog Ind & Eng Chem* 40:89-92 Ja '48
- See also
- Triethylene glycol

Physiological effect

- Toxicity of polyethylene glycols by repeated epidermal applications. F. P. Ludena and others. *bibliog J Ind Hygiene* 29:390-2 N '47

GLYCOLYSIS. See Glucolysis**GLYCOSIDES. See Glucosides**

GLYOXAL

- Dibenzylidene- and diisopropylidene-glyoxal. H. Raudnitz, Chem Soc J p763-4 Je '48
 Stabilizing cellulosic textiles; glyoxal and polyvinyl alcohol; patents. Am Dyestuff Rep 37:103 F 9 '48
 Stabilizing cellulosic textiles; (shrinkproofing); glyoxal used; patent. Am Dyestuff Rep 37:475-6 J1 12 '48

GLYOXIME

- Contribution to the chemistry of the inner complex salts of dimethylglyoxime, F. Feigl and H. A. Suter, Chem Soc J p378-81 Mr '48

GLYOXYLIC acid

- Novel synthesis of substituted phenyl glyoxylic acids. I. M. Hunsberger and E. D. Amstutz, Am Chem Soc J 70:671-4 F '48

GMLIN'S Handbuch der anorganischen chemie

- Present status of Beilstein and Gmelin. H. B. Hass, Chem & Eng N 26:1430-3 My 17 '48

GOAD, Louis Clifford, 1901-

- Portrait. Fortune 38:13 O '48

GODDARD, Robert Hutchings, 1882-1945

- R. H. Goddard rocket project. W. W. Atwood. Science 108:58-60 J1 16 '48
 Rocket exhibit; exhibition of Goddard inventions and research materials. Il Mech Eng 70:538-40 Je '48

GOFF, Bruce, 1904-

- Pride of the prairie designs in a strikingly regional idiom. por Arch Forum 88:94-101+ Mr '48

GOGGLES

- Blind don't weld. Il Safety Eng 95:17+ My '48
 Eye and face protection. Il Nat Safety N 57: 27-8+ Mr '48
 Eye protection isn't that simple! mass purchase of goggles isn't enough. L. J. Mastache and others. Nat Safety N 57:41+ Ja '48
 Plastics on guard! Il Safety Eng 96:24-7+ J1 '48
 Properties and use of eye-protective glasses. Franklin Inst J 246:250-2 S '48
 Safety glasses for glass workers. H. V. Gardner, Nat Safety N 57:62-3 Je '48
 Standardization of the optical densities of industrial eye-protective glasses. R. Stair, bibliog Glass Ind 29:375-80+ J1 '48

Manufacture

- Duplex press cuts costs. Il Mod Plastics 25: 137 Ap '48

GOITER

- Preparation of some 6-substituted-2-thiouracils. M. Jackman, A. J. Bergman and S. Archer, bibliog Am Chem Soc J 70:497-500 F '48
 Synthesis of some 6-substituted-2-thiouracils. W. H. Miller, A. M. Dessert and G. W. Anderson, bibliog Am Chem Soc J 70:500-3 F '48

GOLD

- Coincidence measurements; internal conversion. M. L. Wiedenbeck and K. Y. Chu, bibliog diags Phys R 72:1171-5 D 15 '47
 Director of mint clarifies restrictions on gold refined from foreign ore. N. T. Ross, Comm & Fin Chr 167:133 Ja 8 '48
 Electron microscope study of gold smoke deposits. L. Harris and others, Il J Ap Phys 19:791-4 Ag '48
 Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand, diag Phys R 73:1135-9 My 15 '48
 Free gold markets change with the times. H. M. Bratter, Comm & Fin Chr 167:2419+ Je 3 '48
 Gold black markets and hoarding; excerpts from annual report of Bank for international settlements, Comm & Fin Chr 168:110+ J1 8 '48
 Gold dealings at Macao. Economist 154:639 Ap 17 '48
 Gold dealings in New York. Economist 153: 738 N 1 '47
 Gold in the news. H. M. Bratter, Comm & Fin Chr 167:98+ Ja 8 '48
 Gold, 1947. Eng & Min J 149:71-3 F '48
 Is gold more than a deflation hedge? with graphs showing data on gold production, etc., 1911-1947 and gold price trends, etc., 1250-1940. B. Griffith and B. Ellsworth, Comm & Fin Chr 168:1012-13 S 9 '48

- London bullion market; traffic in free gold. Economist 154:641-2 Ap 17 '48
 Mass spectrometer analysis of mercury made by neutron attachment to gold. P. Bradt and F. L. Mohler, Phys R 73:925-6 Ap 15 '48
 Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander, bibliog diags Phys R 74:479-88 Ag 15 '48
 Nature of bond orbitals in quadrivalent complexes of transition elements. H. Kuhn, bibliog J Chem Phys 16:727-33 J1 '48
 Preparation and optical properties of gold blacks. L. Harris and others, bibliog diag Opt Soc Am J 38:582-9 J1 '48
 Restore free gold market in U.S. N. O'Donnell, Comm & Fin Chr 167:1221+ Mr 18 '48
 Why not license some of our gold for export? C. P. Herbert, Min & Met 29:151 F '48

Analysis

- Assaying gold and silver in works products. C. C. Downie, Can Min J 68:821-3 N '47
 Colorimetric determination of traces of gold. E. B. Sandell, bibliog Anal Chem 20:253-6 Mr '48

Isotopes

- Beta-spectrum of Au¹⁹⁸. D. Saxon, bibliog Phys R 73:811-12 Ap 1 '48
 Coincidence experiments on Sc⁴⁶, Ga⁷², Au¹⁹⁸, and Rb⁹⁶. E. T. Jurney, Phys R 74:1049-52 N 1 '48
 Coincidence study of gold. C. E. Mandeville and M. V. Scherb, bibliog Phys R 73:634-5 Mr 15 '48
 Disintegration of scandium⁴⁶, gold¹⁹⁸, and tungsten¹⁸⁷. C. I. Peacock and R. G. Wilkinson, bibliog Phys R 74:297-303 Ag 1 '48
 Precision wave-length and energy measurement of gamma-rays from Au¹⁹⁸ with a focusing quartz crystal spectrometer. J. W. M. DuMont and others, Phys R 73:1332-4 Je 1 '48
 Radiations from platinum (193) and gold (199). C. E. Mandeville and others, bibliog Phys R 74:601-5 S 1 '48
 Radiations from 2.70-day Au¹⁹⁸. P. W. Levy and E. Greuling, Phys R 73:83-4 Ja 1 '48
 Some isotopes of platinum and gold. G. Wilkinson, bibliog Phys R 73:252-3 F 1 '48

Prices

- Barclay's bank review sees U.S. controlling world gold price, Comm & Fin Chr 168: 911+ S 2 '48
 Gold prices receded in Europe in 1947, but advanced in the Orient. Barron's 28:23 Ja 12 '48
 Higher gold price? effect on the American dollar. H. M. Tremaine, Mag of Wall St 82:468-70+ Ag 14 '48
 What price gold? R. H. Bedford, Min & Met 29:16-18 Ja '48; Discussion, 29:244-5, 348-9 Ap, Je '48

Statistics

- Annual world gold production, 1845-1945; graph. Banking 40:36 D '47
 Gold and silver, 1941-1946. Survey of Cur Bsns 1947 Sup p84-5 [supplemented in monthly numbers]
 Gold output in 1947. Economist 154:519-20 Mr 27 '48

GOLD alloys

- Metal electrons and alloy catalysis; the system gold-cadmium. G. Schwab and S. Pesmatjoglou, bibliog diags J Phys & Colloid Chem 52:1046-53 Je '48
 Method for the evaporation of alloys. L. Harris and B. M. Siegel, Il diag J Ap Phys 19:739-41 Ag '48

GOLD as money

- Conflicting views regarding the gold standard. P. D. Bordwell; W. E. Spahr, Comm & Fin Chr 168:1198+ S 23 '48; Discussion, P. D. Bordwell, 168:1418+ O 7 '48
 Economists' national committee on monetary policy recommends enactment of Buffett bill to restore gold coin standard. Comm & Fin Chr 167:1437 Ap 1 '48
 Gold ahead? interviews with J. W. Bell and W. T. G. Hackett. Banking 40:41+ N '47

GOLD as money—Continued

Gold and foreign exchange reserve requirements of foreign central banks; with tabular summary by country. Fed Res Bul 34: 33-8 Ja '48

Gold and silver. J. Dana. *il* Mag of Wall St 81:340-1+ Ja 3 '48

Gold coin standard to halt inflation. H. H. Buffett. Comm & Fin Chr 166:2262+ D 4 '47

Gold in the news. H. M. Bratter. Comm & Fin Chr 167:98+ Ja 8 '48

Gold; its past and its future. R. C. Rowe. *il* Can Min J 69:63-70 Ap '48

Gold, 1947. Eng & Min J 149:71-3 F '48

Gold; review and forecast. D. H. McLaughlin. *il* Min Cong J 34:67-71 F '48; Same abr. Min & Met 29:222-5 Ap '48; Excerpt. Comm & Fin Chr 167:902+ F 26 '48

Gold standard advocates ignore changed conditions. F. G. Smola. Comm & Fin Chr 167:814 F 19 '48

Gold standard as government spending check. H. Buffett. Comm & Fin Chr 167:491+ Ja 29 '48

Gold standard, key to liberty. P. Cortney. Comm & Fin Chr 167:1521+ Ap 8 '48

Gold standard return urged by NAM. Comm & Fin Chr 167:2100 My 13 '48

Higher gold price? effect on the American dollar. H. M. Tremaine. Mag of Wall St 82:468-70+ Ag 14 '48

How to find true value of paper dollar; free gold market our greatest need. L. Haney. Comm & Fin Chr 167:1995 My 6 '48

Human freedom rests on gold redeemable money; address before Conference of American small business organizations. Washington, D.C., May 4. H. Buffett. Comm & Fin Chr 167:1973+ My 6 '48

Ideal money; no other standard better than gold. I. Wright. Comm & Fin Chr 167:1641+ Ap 15 '48

Irredeemable money; privilege without responsibility; analysis of resolution of New York Chamber on return to gold standard. W. E. Spahr. Comm & Fin Chr 167:2522+ Je 10 '48

N.Y. Chamber of commerce committee urges delay on return to gold standard. Comm & Fin Chr 167:616 F 5 '48

New York Chamber of commerce recommends no change in monetary standard; text of report on Proffitt proposal. Comm & Fin Chr 167:1994+ My 6 '48

Program for gold standard return. E. J. W. Proffitt. Comm & Fin Chr 168:1200+ S 23 '48

Restore free gold market in U.S. N. O'Donnell. Comm & Fin Chr 167:1221+ Mr 18 '48

Reviews gold standard controversy. W. E. Spahr. Comm & Fin Chr 168:1869 N 4 '48

Senator McCarran wants free gold market with text of S. 2583. Comm & Fin Chr 167:1994 My 6 '48

Should the U.S. make its currency redeemable in gold? W. E. Spahr; E. M. Bernstein. Comm & Fin Chr 168:1751+ O 28 '48

Small business favors gold standard. F. A. Virkus. Comm & Fin Chr 168:815 Ag 26 '48

Stop inflation by use of the gold standard. P. M. McKenna. Comm & Fin Chr 168:707+ Ag 19 '48

Thoughts on the tomb at Ft. Knox. P. Einz. *il* Banking 40:35-6+ D '47

Urges a free gold market as anti-inflation move. F. H. Brownell. Comm & Fin Chr 167:315 Ja 22 '48

Urges restoration of gold standard; with text of proposed bill. H. Buffett. Comm & Fin Chr 167:309 Ja 22 '48

Wants New York Chamber of commerce to support revival of gold standard. E. J. W. Proffitt. Comm & Fin Chr 167:220+ Ja 15 '48

Wants study of return to gold standard. T. Graham. Comm & Fin Chr 168:1765 O 28 '48

What price gold? R. H. Bedford. Min & Met 29:16-18 Ja '48; Discussion. 29:244-5, 348-9 Ap, Je '48

What to do about gold. M. Palyi. Comm & Fin Chr 168:201+ JI 15 '48

Who has the gold? I. B. Joralemon. Eng & Min J 149:76-9 JI '48

Statistics

New York reserve bank reviews gold movements. Comm & Fin Chr 168:516-17 Ag 5 '48

China

China proclaims a gold yuan currency. Comm & Fin Chr 168:813 Ag 26 '48

Great Britain

Britain losing her gold. P. Einz. Comm & Fin Chr 167:914 F 26 '48

Britain's dwindling gold reserve. P. Einz. Comm & Fin Chr 166:2273 D 4 '47

Britain's heavy gold losses. P. Einz. Comm & Fin Chr 166:2373 D 11 '47

International gold pounds; guaranteeing sterling balances. P. Einz. Comm & Fin Chr 166:2061 N 20 '47

Switzerland

Switzerland's gold and dollar policy. M. A. Kriz. Comm & Fin Chr 167:1976+ My 6 '48

GOLD COAST, Africa

Riots in Accra. Economist 154:422 Mr 13 '48

Industries and resources

Industrial development corporation established. For Comm W 30:16 Ja 17 '48

GOLD compounds

N-Arylamides of mercaptoacetic acid; analogs of α -mercaptoacetanilide and corresponding gold mercaptides. U. Weiss. *ibid* Am Chem Soc J 69:2684-7 N '47

Trimethylgold. H. Gilman and L. A. Woods. *ibid* Am Chem Soc J 70:550-2 F '48

GOLD dredging

Dredging at Similkameen. H. R. Rice. flow sheet *il* maps plan diags Can Min J 69:66-71 JI '48

Dredging for gold in Alaska; United States smelting refining and mining co. J. D. Crawford and others. *il* Min & Met 29:574-80 O '48

Modern equipment and methods; modern placer dredging; pictorial review. Eng & Min J 148:132-5 N '47

GOLD metallurgy

Gold mining and milling; review of 1947. N. Herz. Min & Met 29:86-7 F '48

Gold refinery moving to mine; Golden cycle corp.; illustrations with text. Bsns W p39-40+ JI 17 '48

Madsen Red Lake gold mines. D. C. McLaren. *il* Can Min J 68:804-8 N '47

See also**Cyanide process****GOLD mines and mining**

Gold; review and forecast. D. H. McLaughlin. *il* Min Cong J 34:67-71 F '48; Same abr. Min & Met 29:222-5 Ap '48; Excerpt. Comm & Fin Chr 167:902+ F 26 '48

How to salt a gold mine. Fortune 37:126 F '48

Policy statements on gold subsidies by International monetary fund and Secretary of the Treasury. Fed Res Bul 34:39 Ja '48

History

California looks back on its gold rush. A. S. Park. *il* map Comp Air Mag 53:208-11 S '48

Placer mining**See also****Gold dredging****Alaska**

Building an earth-fill dam in Arctic placer territory. J. B. Huttel. *il* Eng & Min J 149:90-2 JI '48

Dredging for gold in Alaska; United States smelting refining and mining co. J. D. Crawford and others. *il* Min & Met 29:574-80 O '48

British Columbia

Dredging at Similkameen. H. R. Rice. flow sheet *il* maps plan diags Can Min J 69:66-71 JI '48

California

California looks back on its gold rush. A. S. Park. *il* map Comp Air Mag 53:208-11 S '48

Centennial of California gold. *il* Banking 40:16 F '48

Salute to the Golden state; history of California mining. *il* Eng & Min J 149:52-5 Ja '48

GOLD mines and mining—Continued

Canada

Geology and the new mines; details of 37 ore deposits developed in North America in the past decade. I. B. Joralemon. *Min & Met* 29:231-2 Apr '48

Gold bonus plan to aid small Canadian companies. Barron's 28:4 F 9 '48

International monetary fund forces revision of Canada's gold subsidy plan. *Comm & Fin Chr* 166:2546 D 18 '47

Production planning; suggestions for Canadian gold mining. J. S. Carman. *diags Can Min J* 69:84-91 My; 87-91 Je '48

Top management planning; potentialities in Canadian gold mining. J. S. Carman. *il map Can Min J* 68:809-18, 892-902 N-D '47

Colorado

Famous western mines; million dollar cow pasture (Cripple Creek). J. McCaleb. *Can Min J* 69:95-6 My '48

Famous western mines; streets of gold, Victor, Col. J. McCaleb. *Can Min J* 69:57-8 S '48

Gold Coast, Africa

Bibiani (1927), limited; Ashanti goldfields corporation, limited, ordinary general meetings. *Economist* 154:904 My 29 '48

Montana

Reopening three shipping-grade mines; the U. S. Grant, Alameda-Bamboo Chief and Easton-Pacific mines. W. H. Myers. *il plan Min Cong J* 34:78-81 Apr '48

Nevada

Developments of carbon cyanidation at Getchell mine, Nevada. R. A. Hardy and F. W. McQuiston, jr. *il diag Min Cong J* 33:42-3 N '47

Famous western mines; golden sands of Rockweef. J. McCaleb. *Can Min J* 69:79 Je '48

North Carolina

Conrad Hill copper and gold deposit, Davidson county, N.C. T. J. Ballard and A. B. Clayton. *10pls U S Bur Mines Rep of Invest* 4290:1-7 '48

Ontario

Development shaft at Miles (Red Lake). P. G. Cross. *diags Can Min J* 69:59-70 Ag; 70-7 S '48

Madsen Red Lake gold mines. D. C. McLaren. *flow sheets il plan diags Can Min J* 68:791-808 N '47

Ontario mining review, 1947. J. C. Browning. *il Can Min J* 69:102-8 F '48

Philippine Islands

Untamed capitalist of Luzon; Judge John Haussermann and the rich byproducts of a gold-mining fortune. *il map Fortune* 37:116-19+ My '48

Quebec (province)

East Malartic mines; construction of concrete head frame and surface buildings. A. J. Grant, jr. *il map plan diags Can Min J* 69:67-74 My '48

Gold in Quebec. H. R. Rice. *flow sheet il map Can Min J* 69:182-96 O '48

Rhodesia

Mine workings are sealed off to serve as air receiver. C. Pengilly. *diags Eng & Min J* 149:94-5 My '48

Russia

Russian gold. *map Economist* 154:883-4 My 29 '48

South Africa

New Union Goldfields questions. *Economist* 153:734+, 812-14 N 1, 15 '47

New Union Nemesis. *Economist* 153:888-90 N 29 '47

Union corporation, limited, ordinary general meeting, Johannesburg. *Economist* 154:991-2 Je 12 '48

See also

Gold mines and mining—Transvaal

Southeastern states

Gold deposits of the southern Piedmont. J. T. Pardee and C. F. Park, jr. *maps(in pocket) plans diags U S Geol S Professional Pa* 213:1-156, pl 1-60 *bibliog(p3-8)* '48

Transvaal

Blyvooruitzicht gold mining company, limited, extra-ordinary general meeting, Johannesburg. *Economist* 154:117 Ja 17 '48

Blyvooruitzicht gold mining company, limited; Nourse mines, limited; Consolidated main reef mines and estate, limited; Modderfontein east, limited; annual general meetings. *Economist* 153:859-61 N 22 '47

Conditions adversely affect Rand gold mining. *Min & Met* 29:94 F '48

Driving the Grootvlei 45 haulageway. *il diags Eng & Min J* 149:80-5 O '48

General mining and finance corporation, limited; statement by the chairman at 48th ordinary general meeting. C. S. McLean. *Economist* 155:126 J 17 '48

Middle Witwatersrand inquiry; Johannesburg stock exchange report. *Economist* 153:894+ N 29 '47

Mining gold in South Africa. H. W. Haynes. *il Explosives Eng* 26:103-7 J 1 '48

Nourse—City Deep merger. *Economist* 155:512-13 S 25 '48

Rand mines, limited; City Deep, limited; Crown mines, limited, annual meetings. *Economist* 154:858-60 My 22 '48

St Helena gold mines, limited, and others, ordinary general meetings. *Economist* 154:1039-41 Je 19 '48

Wales

Welsh gold mining redivivus. *Can Min J* 69:88 J 1 '48

Washington (state)

Knob Hill mine prospers on newer ore discoveries. J. B. Huttli. *flow sheet il diag Eng & Min J* 149:56-9 Mr '48

Wyoming

Carissa mine in Wyoming revived. C. S. Barker. *il Eng & Min J* 149:91 Apr '48

Famous western mines; Big Horn mystery. J. McCaleb. *Can Min J* 69:84-5 Ag '48

Yukon territory

Firth river, Yukon territory; report submitted to the B. C. and Yukon Chamber of mines. R. W. Sandy. *maps Can Min J* 69:83-5 J 1 '48

1947 mining in Yukon territory. F. H. Stephens. *il Can Min J* 69:81-2 F '48

GOLD ores

Field test for gold ores; iodine solution detector. *Can Min J* 68:907-8 D '47

Gold deposits of the southern Piedmont. J. T. Pardee and C. F. Park, jr. *maps(in pocket) plans diags U S Geol S Professional Pa* 213:1-156, pl 1-60 *bibliog(p3-8)* '48

Madsen Red Lake gold mines. D. C. McLaren. *flow sheets il plan diags Can Min J* 68:791-808 N '47

GOLD reserves. See Gold as money

GOLD standard. See Gold as money

GOLDBERG, Reuben Lucius, 1883-

Reaches Olympus by circuitous route. O. J. Rochelle. *por Ed & Pub* 81:13 My 8 '48

GOLDEN, Clinton Strong, 1888-

Paul Hoffman's union men. *por Fortune* 38:141-2+ O '48

GOLDENROD

Isolation of a saponin from the leaves of solidago canadensis L. R. C. Burrell and F. G. Houston. *Am Chem Soc J* 70:862 F '48

Isolation of β -amyrin and a fatty acid of high molecular weight from solidago leavenworthii T. and G. R. C. Burrell and F. G. Houston. *Am Chem Soc J* 70:447 F '48

Rubber from goldenrod. F. L. McKennon and others. *flow chart il India Rubber World* 118:655-9+, 802-3+ Ag-S '48

Terpenes of oil sweet goldenrod. B. R. Holland. *Am Chem Soc J* 70:2597-8 J 1 '48

GOLDFISH

Physiological adjustments in chloride balance of the goldfish. D. K. Meyer. *Science* 108:305-7 S 17 '48

- GOLDSBOROUGH**, Thomas Alan, 1877-U.S. district judge. por(cover) Bsns W p6 My 29 '48
- GOLDSCHMIDT**, Victor Moritz, 1888-1947 Memorial. I. Oftedal. por(pl 10) Geol Soc Proc 1947:149-54 bibliog(p 153-4) My '48
- GOLF balls**
Silicone golf-ball center. Mech Eng 70:343-4 Ap '48; Gen Elec R 51:50-1 Ap '48
- Manufacture**
- Electronic tension control in golf ball winding. K. E. Wilhelm and others. il diags Rubber Age 63:331-3 Je '48
- GOLF clubs**
Name your clubs; autographed golf clubs. Fortune 38:110-4 Je '48
- GOMBERG**, Moses, 1866-1947
Sketch. C. S. Schoepfle and W. E. Bachman. por(front) Am Chem Soc J 69:2921-5 bibliog(p2924-5) D '47
- GOMBERG reaction**
Mechanism of the Gomberg reaction; an alternative to the free radical interpretation. H. H. Hodgson. bibliog Soc Dyers & Col J 64:99-104 Mr '48; Reply. D. H. Hey and W. A. Waters. bibliog 64:359-61 N '48
- GOMULKA**, Wladyslaw, 1906-
Lesson for Poles; collectivizing the farms. por Bsns W p 120-1 O 9 '48
- GONIOMETERS**
Preferred orientation determination using a Geiger counter X-ray diffraction goniometer. B. F. Decker and others. diags J Ap Phys 19:388-92 Ap '48
Rapid X-ray method for the determination of the orientation of single crystals or large-grained polycrystalline aggregates. A. E. De Barr. bibliog diags J Sci Instr 25:102-4 Mr '48
Stereogoniometer. A. Taylor. bibliog il diags J Sci Instr 25:301-4 S '48
X-ray goniometer for the study of preferred orientation in polycrystalline aggregates. W. A. Wooster. il diags J Sci Instr 25:129-34 Ap '48
- GONIOMETRY**
Electron microscope goniometry. A. F. Kirkpatrick and E. G. Davis. il diags Anal Chem 20:965-8 O '48
- GONORRHEA**
Prevention of gonorrhea with penicillin tablets. H. Eagle and others. Pub Health Rep 63:1411-15 O 29 '48
- GOOD will in business**
Building your business on customer goodwill. K. L. Hampton. Elec West 100:94 Ap '48
- GOODHOPE island**. See Niuafoof island
- GOODLASS wall and lead industries, limited**
Statement by the chairman at annual general meeting. H. S. Tasker. Economist 154:1044 Je 19 '48
- GOODMAN**, Fred
Oil scout; F. Goodman of Midland, Texas. por Fortune 38:120-4 S '48
- GOODRICH**, B. F., company
Annual report. Comm & Fin Chr 167:1808 Ap 26 '48
Six well-entrenched dividend payers. Mag of Wall St 83:129 N 6 '48
- GOODYEAR medal**
Oenslager to receive Goodyear medal. Chem & Eng N 26:930 Mr 29 '48
- GOODYEAR tire and rubber company**
Annual report. Comm & Fin Chr 167:1150-1 Mr 15 '48
Goodyear announces organizational appointments. il India Rubber World 117:236-7 N '47
Goodyear reelects officers; new developments reported. il India Rubber World 118:258-4 May '48
Merchandising laboratory is vehicle for dealer cooperation program; modernization of 1,500 Goodyear outlets is one result. C. J. Swan. il Ptr Ink 225:27-9 O 1 '48
Store-modernization aid; 1,600 dealers have used Goodyear lab since war; illustrations. Bsns W p78-4 My 29 '48
- GORDON**, Harold R. 1895-1948
Sketch. por East Underw 49:28-4; 31-2 Jl 16 '48; Nat Underw 52:17 Jl 15 '48; Nat Underw (Life ed) 52:1 Jl 16 '48; Weekly Underw 159:135 Jl 17 '48
- GORDON research conferences**
Conference on vitamins and on instrumentation; programs. Science 108:77-8 Jl 23 '48
Gordon research conferences, AAAS, 1948; Colby junior college, New London, New Hampshire, June 21-September 3; program. Science 107:308-12 Mr 26 '48; Same abr. Chem & Eng N 26:932-4 Mr 29 '48
- GOSSYPIUM**. See Cotton
- GOUDY**, Frederic W. 1865-1947
Deepdene, where Goudy cut famous types, to be sold. R. M. Aiello. Ed & Pub 81:60 Ap 3 '48
- GOULD**, Alan Jenks, 1898-
AP's new executive editor. C. Hodge. por Ed & Pub 81:9 My 8 '48
- GOVERNMENT**, Reports to. See Business—Reports to government
- GOVERNMENT accounting**
Need for a controller in administration of the Marshall plan. H. E. Howell and I. Swerdlow. J Account 85:392-401 My '48
- See also*
- Budget United States—General
Income tax—Auditing eral accounting office
- GOVERNMENT advertising**
Advertising department in the Cabinet? E. F. Howard; H. C. Sieck. Ptr Ink 223:40-1 My 14 '48
- GOVERNMENT bonds**. See Bonds, Government
- GOVERNMENT bureaus**. See United States—Executive departments
- GOVERNMENT contracts**. See Contracts, Government
- GOVERNMENT corporations**
Government corporations and other business-type agencies; assets, liabilities, etc., 1941-1946. Survey of Cur Bsns 1947 Sup p79-80 [supplemented in monthly numbers]
- See also*
- Commodity credit Home owners' loan
corporation corporation
Federal deposit in- Reconstruction fi-
surance corpora- nance corporation
tion
- GOVERNMENT employees**
ASCE policy stated on use of engineers employed by units of government. Civil Eng 18:176-7 Mr '48
Labor unions can't do business with government. A. M. Cooper. Pub Util 42:86-92 Jl 15 '48
Top management view of the public service. D. C. Stone. Advanced Management 13:103-10 S '48
Total federal employment, total federal pay rolls, and total government employment and pay rolls in Washington, D.C. by branch and agency group; selected years 1939-1944 and monthly Nov. 1946-Nov. 1947. Mo Labor R 66:95-7 Ja '47 [cont monthly]
- See also*
- Civil service Loyalty tests
- Loyalty clearance procedures in research laboratories; report of committee on secrecy and clearance, Federation of American scientists. bibliog Science 107:333-7 Ap 2 '48
- Salaries and wages**
- Salaries in public boards. Economist 154:297 F 21 '48
Salaries of federal employees by major pay groups. L. C. Ursell and J. W. Mitchell. Mo Labor R 67:12-15 Jl '48
Salaries of federal employees, July 1945-July 1947. L. C. Ursell and J. W. Mitchell. Mo Labor R 66:255-60 Mr '48
- GOVERNMENT employees insurance company**
New setup; Goodwin president. Nat Underw 52:25 Ap 1 '48
- GOVERNMENT expenditures**
Congress and high cost of government. C. A. Halleck. Comm & Fin Chr 166:2172-4 N 27 '47
First national bank of Boston calls for economy in non-defense items. Comm & Fin Chr 167:2000 My 6 '48
Foreign grants and credits of the U.S. government. B. W. Ruffner. Survey of Cur Bsns 28:11-15-4 Je '48
Gold standard as government spending check. H. Buffett. Comm & Fin Chr 167:491-4 Ja 29 '48

GOVERNMENT expenditures—Continued

- Government spending; key to business outlook. E. A. Krauss. *Mag of Wall St* 83:112-14+ N 6 '48
- High cost of government produces the high cost of living. E. O. Shreve. *Comm & Fin Chr* 167:2212-13 My 20 '48
- Hoover restores hopes of government savings. H. Davenport. *Barron's* 28:11 Je 14 '48
- Increased spending can hasten war with Russia. H. L. Lutz. *Comm & Fin Chr* 167:2081+ My 13 '48
- Legislative outlook; heavy spending is threatening Nation's solvency. J. W. Martin, jr. *Comm & Fin Chr* 166:2277+ D 4 '47
- Military demands won't hurt; service budget unlikely to cramp business. *Bsns W* p21 J1 17 '48
- Supporting America's high-level economy; with charts showing comparison with conditions after World war I. *Bsns W* p 19-21 S 13 '48
- Taxes and government spending. E. D. Miliken. *Comm & Fin Chr* 167:1097+ Mr 11 '48
- Warns against deficit spending. W. R. Burgess. *Comm & Fin Chr* 168:4 J1 '48
- Where's that war boom? *Bsns W* p23 O 30 '48
- See also*
- Budget—United States
- United States—Appropriations and expenditures
- War finance

GOVERNMENT investigations

- Defects of congressional investigations. C. E. Wyzanski, jr. *Fortune* 38:180+ N '48

GOVERNMENT laboratories

- See also*
- United States—Navy Laboratories
- United States—Standards, National bureau of—National applied mathematics laboratories

GOVERNMENT liability

- Disallow soldier's claim against the United States; action brought under Federal tort claims act. J. L. Roesch. *Spectator* (Property ed) 14:24-5+ O 7 '48
- Insurance carriers made parties to suit against U.S. for bridge damage. *East Underw* 49:26 O 22 '48

GOVERNMENT libraries

- See also*
- International libraries of information
- Library of Congress
- United States—Tariff commission—Library

GOVERNMENT loans and grants

- Federal groups complete pollution control plans. *Eng N* 141:77 Ag 19 '48; *Oil Paint & Drug Rep* 154:3, 43 Ag 16 '48
- Government corporations and other business-type agencies; assets, liabilities, etc., 1941-1946. *Survey of Cur Bsns* 1947 Sup p79-80 [supplemented in monthly numbers]
- New U.S. policy needed in financing hydroelectric projects. S. B. Morris. *Il Elec West* 100:86-9 Je '48
- Plane development bill fought; would authorize government financing of developmental costs on commercial transport and cargo prototypes. *Aviation W* 49:38-9 Ag 9 '48

- See also*
- Rural electrification administration

GOVERNMENT ownership

- British transport commission. map *Engineer* 184:523-4 D 5 '47
- Labor unions can't do business with government. A. M. Cooper. *Pub Util* 42:86-92 J1 15 '48
- Much of labor fears government as an employer. A. M. Cooper. *Barron's* 28:7-8 J1 12 '48
- Nationalisation for gas. *Economist* 153:696 O 25 '47
- Nationalisation in Great Britain; trade union co-operation in the transport and electricity industries. *Int Labour R* 67:491-4 My '48
- Nationalization in Norway. J. Brunaes. *Comm & Fin Chr* 168:1007+ S 9 '48
- Nationalization of Britain's transport. *Pub Util* 41:307-8 F 26 '48
- Nationalisation of Bulgarian industries and banks. *Int Labour R* 58:375-7 S '48

Nationalisation of gas. map *Economist* 154:193-4 Ja 31 '48

Nationalization of utilities and industries draws criticism. W. Churchill; Lord Inverchapel. *Pub Util* 40:785-7 D 4 '47

Nationalized industry in France. *Economist* 155:542 O 2 '48

New types of national enterprises in Hungary. *For Comm W* 33:28-9 O 23 '48

Petroleum board's great record helps British oil industry escape socialism; description of post-war Great Britain. W. C. Platt. *Il Nat Pet N* 40:22-4+ J1 14 '48; Same.

Pet Processing 3:742-3+ Ag '48

Planning and nationalisation in Great Britain. H. Finer. *Int Labour R* 57:283-99 Ap '48

Public corporations in Britain. Lord Knollys. *Pub Util* 41:515-18 My 6 '48

State and public; is nationalisation economically efficient? *Economist* 155:441-2 S 18 '48; Same abr. *Iron Age* 162:88+ S 30 '48

See also

- Banks and banking
- Government corporations
- Government ownership
- Hydroelectric plants—Government ownership
- Coal mines and mining—Government ownership
- Municipal ownership
- Electric utilities—Government ownership
- Retail stores, Government

GOVERNMENT plants. *See* Industrial demobilization—Government plants

GOVERNMENT printing office. *See* United States—Government printing office

GOVERNMENT publications

- Memorandum for a Conference on bibliographical control of government scientific and technical reports. M. Taube. *Special Lib* 39:154-60 My-Je '48

Bibliography

Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries, 1910-46. S. J. Davenport. *U S Bur Mines Tech Pa* 705:1-154; pa 30c Supt. of doc. '48

Publications of the Department of state; a semi-annual list cumulative from October 1, 1929. 56p Supt. of doc. '48

Publications of the National bureau of standards, 1901 to June 30, 1947. *U S Nat Bur Stand Circ* 460:1-375; pa 75c Supt. of doc. '48

GOVERNMENT purchasing. *See* Purchasing, Government

GOVERNMENT regulation of industry

Fortune survey; controls and centralization. *Fortune* 38:37-8 N '48

Government peacetime controls won't work. J. H. Middlekamp. *Automotive Ind* 98:25+ F 15 '48

Price-control smokescreen; Truman's anti-inflation program. *Bsns W* p25-6 N 22 '47

Question of controls; strategic, economic and political aspects. R. S. Meriam. *Harvard Bsns R* 26:454-67 J1 '48

See also

- Certificates of convenience and necessity
- Commercial policy
- Commodity control
- Electric utilities—Regulation
- Export trade—Regulation
- Federal trade commission
- Food laws and legislation
- Government investigations
- Government ownership
- Grain trade—Regulation
- Industry and state
- Insurance companies—Regulation
- Interstate commerce commission
- Labor laws and legislation
- Moving picture industry—Regulation
- Petroleum industry and trade—Regulation
- Priorities—Regulation
- Priorities and allocations, Industrial
- Railroads and state
- Trade marks—Law
- Trusts, Industrial—Law
- Wages—Regulation

GOVERNMENT research

- Administration of federal research. W. V. Lambert. *Science* 107:179-83 F 20 '48
- Advisory council on scientific policy; first annual report. *Electrician* 141:277 J1 23 '48

GOVERNMENT research—Continued

- Contributions of organic chemistry to the war effort; synthetic rubber. R. F. Dunbrook. bibliog India Rubber World 117:203-7, 355-9+, 486+, 617-19, 745-8 N '47-Mr '48
- Development of inventions. S. T. Madeley. Metallurgia 38:131-2 JI '48
- Federal research; industry may profit by co-operating. J. W. Boyer. Chem & Eng N 26:241-2 Ja 26 '48
- Good order in federal research. J. W. Boyer. Chem & Eng N 26:2960-2 O 4 '48
- Interdepartmental committee on research and development headed by Dr. Wetmore; other members. Oil Paint & Drug Rep 153:7+-F 23 '48
- Largest aero research program; U. S. government outstrips the world. R. McLaren. il Aviation W 48:42-4+-F 23 '48
- Mechanical engineering research in Britain. T. C. Crawhall. Mech Eng 69:898+-N '47
- New cooperative research setup to aid reconstruction in France. il diags Eng N 140: 426-7 Mr 18 '48
- Post office engineering research station. Engineering 166:57-8 JI 16 '48
- Relationship of industrial, government and university research in Canada. R. R. McLaughlin. Can Chem & Process Ind 32:143-4+-F '48
- Research and development board. L. R. Hafstad. J Eng Educ 38:538-41 Ap '48
- Research in Britain sponsored by government. il Product Eng 19:150-2 F '48
- Science in relation to the public services. J. Anderson. Chem & Ind p483-8 JI 31 '48
- Scientific leaders divided on federal research foundation. Chem & Eng N 25:3799 D 22 '47
- State research in Denmark; problem of bringing modern scientific developments to attention of industry. M. Jul. il plan Food Ind 20:3-4+-Ja '48
- Tax-supported research, pro and con; abstract. R. E. Wilson. Chem Eng 55:272 Mr '48
- Telecommunications research establishment; Ministry of Supply establishment at Great Malvern. Engineer 185:528 My 23 '48; il Elec R (Lond) 142:901-2 Je 4 '48
- U.S. to broaden research activities; Interdepartmental committee for scientific research and development set up. Oil Paint & Drug Rep 153:3+-Ja 5 '48
- Washington, science center of the Nation. il Chem & Eng N 26:2500-1 Ag 23 '48
- Work of the chemical research laboratory of the Department of scientific and industrial research. Engineering 166:29 JI 9 '48; Abstract, Engineer 186:16 JI 2 '48

See also

- | | |
|---|---|
| National science foundation (proposed) | United States—Quartermaster corps—Research laboratory |
| United States—Naval research, Office of | |
- GOVERNMENT statistics**
- War production board's statistical reporting experience. D. Novick and G. A. Steiner. Am Stat ssn J 43:201-30, 463-88 Je-S '48
- See also**
- | | |
|--------------------------|--------------------------|
| Great Britain—Statistics | United States—Statistics |
|--------------------------|--------------------------|

GOVERNORS (machinery)

- A-c power system for large aircraft. J. G. Hutton. il diags Gen Elec R 51:12-15 F '48
- C.A.V. injection pump with hydraulic governor. il diags Automobile Eng 38:392-5 O '48
- Centrifugal governor in elevator service. F. Hymans. diags A S M E Trans 69:881-90 N '47
- Governor servicing. il Diesel Power 26:56-7+-F '48
- Mechanical computer would refine governing. T. B. Curtis. il diag Elec World 129:78-9 F 23 '48
- Power system governing. T. E. Curtis. bibliog diags Elec Eng 66:1197-200 D '47

GOVERNORS, Gas. See Gas governors**GRACE, Eugene Gifford, 1876-**

Portrait. Bsns W p25 Je 5 '48

GRADE crossing accidents

- 1947 crossing accidents. Ry Age 124:1290 Je 26 '48

One second from eternity! railroad fireman directs plea to reckless drivers through open letter in newspaper. Nat Safety N 57:83-4 Ap '48

Truck driver blamed for wreck fatal to railroad passengers; accident at Kremlin, Okla. Ry Age 125:28-9 JI 3 '48

GRADE crossing elimination

Bridges over railways. L. Loch. il plans diags Roads & Bridges 85:66-75+-N '47

GRADERS, Road. See Road making machinery

GRADING (earthwork)

Baltimore airport grading; three types of rigs for various hauls. il Constr Methods 30:102-5 Ja '48

Method simplifies land-leveling operation for irrigated farms. L. S. Stanley. Civil Eng 18:168-70 Mr '48

New concept in land improvement; irrigated farm layout related to soil and topographic conditions. C. J. Francis. il maps Eng N 141:53-5 S 30 '48

Operation earthmover; scrapers move 250,000 cu. yd. in 40 hr.; site of Exposition Gardens, Peoria, Ill. il Constr Methods 30:80-3 JI '48

GRADUATE work. See Engineering colleges—Graduate work

GRADY, James Thomas, 1879-
Grady leaves ACS news service post. por Chem & Eng N 26:100-1 Ja 12 '48

GRAFTING

Heteroplastic grafts. L. G. Nickell. il Science 108:389 O 8 '48

GRAHAM, Frank, 1911-

Business of their own; Fowler & Graham, Greenwich, Conn. por Fortune 37:98-101+-My '48

GRAHAM, William J, 1877-
Sketch. por East Underw 49:3 JI 23 '48

GRAHAM-PAIGE motors corporation
Offering of common shares. Comm & Fin Chr 166:2103 N 24 '47

GRAHAM'S law of diffusion. See Diffusion

GRAIN

AACC considers grains at 33d annual meeting, Cincinnati. Food Ind 20:1028-9 JI '48

Grain drying. E. C. Claydon. diags Elec R (Lond) 143:406-7 S 10 '48

Grain-saving campaign's on-again-off-again act. Bsns W p20 N 29 '47

Grain surplus can't halt meat price rise soon. Barron's 28:28-9 JI 19 '48

See also

- | | |
|-------|--|
| Flour | Prices |
| Wheat | Speculation and the price of grain. R. S. Vaile. J Marketing 12:497-8 Ap '48 |

Transportation

596-foot grain carrier steered by propellers. il Marine Eng 53:79 Ja '48

GRAIN bins, Concrete

Slip forms speed feed mill erection. il Concrete 56:5+-Ap '48

GRAIN elevator insurance. See Insurance, Grain elevator

GRAIN elevators

Grain under control; 4,000,000-bu. Australian wheat terminal. il Food Ind 20:548-9 Ap '48

Ice control from a grain elevator; storage of rock salt. il Roads & Bridges 86:57-60+-Ja '48

Safety measures

Tramp iron in grain elevators; use of magnetics. G. R. Wellmon. il diags Nat Safety N 57:29-30+-Ap '48

GRAIN growth in metals. See Metallography

GRAIN handling

Design of exhaust systems. F. H. Stebbins. diags Sheet Metal Worker 39:41-2+-Ag '48

Handling and storage of grain and other bulk materials. J. M. Fleming. flow diag il diag Inst Mech Eng J & Proc 157 (War emergency issue no 32):309-12 '47

GRAIN itch

Grain itch; report of first outbreak in the city of Baltimore. F. A. Glass. bibliog Ind Med 17:95-6 Mr '48

GRAIN mills. See Flour mills

GRAIN storage

See also
Grain bins, Concrete

GRAIN trade

Decline in the grain markets. Nat City Bank p28-9 Mr '48

Feed grains not so tight. Barron's 28:29 My 31 '48

Grain trade wins belated victory on ECA exporting. Barron's 28:36 S 6 '48

World grain situation eases, but floor under prices will avert rout. Barron's 28:36-7 F 16 '48

See also

Chicago board of trade

Regulation

Distillers fight grain controls. Bsns W p25-6 Ja 24 '48

Menace of government in grain market. R. F. Uhlmann. Comm & Fin Chr 168:1548+ O 14 '48

Statistics

Grains and grain products, 1941-1946. Survey of Cur Bsns 1947 Sup p 128-31 [supplemented in monthly numbers]

Cuba

Grain situation. For Comm W 32:34 S 18 '48

Peru

Peru's grain supplies. For Comm W 30:21-2 Ja 10; 32:27-8 Jl 31 '48

Philippine Islands

Corn and wheat supply. Republic of the Philippines. For Comm W 32:36-7 Jl 24 '48

Russia

Little Russian grain for export likely; peasants' rubles confiscated to force them to sell their crops. P. Wohl. Barron's 28:38 Ja 5 '48

GRAININESS (photography)

Photographic granularity and graininess; visual acuity thresholds; dynamic versus static assumptions. L. A. Jones and G. C. Higgins. bibliog diags Opt Soc Am J 38: 393-405 Ap '48

GRAMICIDIN

Peptide derivative related to gramicidin. J. S. Fruton. Am Chem Soc J 70:1280 Mr '48

GRAMINE

Alkylation of aliphatic nitro compounds with gramine; a new synthesis of derivatives of tryptamine. H. R. Snyder and L. Katz. bibliog Am Chem Soc J 69:3140-2 D '47

Alkylation with the methiodide of 1-methyl-3-dimethylaminomethylindole (1-methylgramine). H. R. Snyder and E. L. Eliel. bibliog Am Chem Soc J 70:1703-5 Mr '48

GRANCOLOMBIANA nations agreements. See

Customs unions

GRAND COULEE dam. See Columbia river—

Grand Coulee dam

GRAND FALLS, Newfoundland

Hub of a major industry. A. B. Sullivan. Il Pulp & Pa of Can 48:68-72 D '47

GRAND HAVEN, Michigan

Redevelopment plan. Il plans Arch Rec 103: 92-7 F '48

GRANITE

Cantera Guaimaro quarry in Cuba. R. Martinez de Castro, jr. Il diags Explosives Eng 26:150-2 S '48

Convert waste stone to valuable by-products; North Carolina granite corporation produces poultry grits and concrete aggregates. W. B. Lenhart. Il Rock Prod 51:35-6 Jl '48

Gamma-radiation from granite. W. D. Urry. bibliog Phys R 73:596-601 Mr 15 '48

Identification of the surplus gamma-radiation from granite. V. F. Hess and J. D. Roll. bibliog Phys R 73:916-18 Ap 15 '48

Is your well still drilling granite wash or have you reached solid granite? use of magnetic property measurements. map diags Oil & Gas J 47:84+ S 2 '48

New experiments concerning the surplus gamma-radiation from rocks. V. F. Hess and J. D. Roll. Phys R 73:592-5 Mr 15 '48

Ore and granitization. C. J. Sullivan. Econ Geol 43:471-98 bibliog(71 titles, p496-8) S '48

Origin of granite (conference at meeting of the Geological society of America, held in Ottawa, Canada, December 30, 1947). bibliog (Memoir 28) 139p Geological soc. of America, 419 W. 117th st, New York 27 '48 (\$1.80)

Petrographic criterion for the possible replacement origin of rocks. F. Chayes. Am J Sci 246:413-25 Jl '48

Quarrying a mountain of granite; Penmaen-mawr & Welsh granite co. on the coast of Wales. J. R. Shennan. Il Rock Prod 51: 128-34 Je '48

GRANODIZING

Low temperature phosphate coating for steel easily applied; Granodizing process. N. P. Gentieu. Il Materials & Methods 27:74-5 F '48

GRANTS-in-aid

Research corp. grants announced. Chem & Eng N 26:1854 Je 21 '48

Apportionment formulas

State-local grant-in-aid formulas. A. L. Chapman and C. Greve. bibliog Pub Health Rep 63:673-7 My 21 '48

GRANULAR materials

Friction in the flow of suspensions; granular solids in gases through pipe. E. G. Vogt and R. R. White. bibliog flow diag Il Ind & Eng Chem 40:1731-8 S '48

Heat transfer into cylindrical columns of bone char. V. R. Deitz and H. E. Robinson. diags Ind & Eng Chem 40:1070-5 Je '48

Heat transfer to granular materials; settled beds moving downward through vertical tubes. M. S. Brinn and others. bibliog Il diags Ind & Eng Chem 40:1050-61 Je '48

GRANULOCYTOPENIA

Pteroylglutamic acid (folic acid), liver extract, and amino acids in the treatment of granulocytopenia in rats. F. S. Daft. bibliog Pub Health Rep 62:1785-92 D 26 '47

GRAPEFRUIT

Refrigeration of lemons and grapefruit. H. M. Hendrickson and J. R. MacRill. plans diags Refrig Eng 56:1-10 sec 2 Jl '48

Advertising

Display and demonstration help dealers tie in with national ads; campaigns of Bendix home laundry units and California-Arizona grapefruit. Il Ptr Ink 224:48+ Jl 23 '48

GRAPES

Grape packaging simplified with mechanized packing unit. J. V. Ziemba. Il diag Food Ind 20:1154-5 Ag '48

GRAPESEED oil

French oilseeds industry. Il Chem Age (Lond) 58:267-8 F 21 '48

GRAPHIC methods

A.c. network analysis. L. Tasny-Tschiasny. diags Elec R (Lond) 141:925-7, 963-5 D 19-26 '47

Analyzing graphical records of the motion of machine part as function of time. C. E. Balleisen. diags Machine Design 20:145-9 Je '48

Angle trisected by graphical methods. J. B. Goodwin. diags Civil Eng 18:27-8 Ja '48; Discussion. 18:172-3 Mr '48; Reply. 18:243-4 Ap '48

Application of three-dimensional dynamic graphics to the presentation of economic principles. J. D. Mooney and W. Fried. Il J Eng Educ 38:374-84 Ja '48

Core orientation by graphical and mathematical methods. H. McClellan. bibliog Il diag Am Assn Pet Geologists Bul 32:262-82 F '48

Currents excited on a conducting plane by a parallel dipole. B. C. Dunn, jr. and R. King. bibliog diags Inst Radio Eng Proc 36:221-9 F '48

Direct determination of compass settings for proportionate area pie-charts. H. Lasken. Am Stat Assn J 43:94-5 Mr '48

Dynamic cooling of adsorbent beds. E. Ledoux. bibliog Ind & Eng Chem 40:1970-7 O '48

Estimating gathering system meter run sizes. J. E. Arant. World Oil 128:206-7+ My '48

Evaluation of Reynolds number by graphical methods. G. P. Lowke. Mech Eng 70:876+ N '48

Graph for determining size of sanitary sewers. J. G. Montgomery. Water & Sewage Works 95:160-1 Ap '48

Graph solves cubic equation when Cardan's formula fails. W. R. Davis. Civil Eng 18:100 F '48

GRAPHIC methods—*Continued*

- Graphic comparison of specific strengths, T. R. C. Wilson, Civil Eng 18:99-100 F '48
- Graphic method for determination of power transformer loading; engineering reference sheet, L. M. Applegate, Elec World 130: 110-11 O 23 '48
- Graphical correlation; its application to steel mill problems, C. R. Taylor, Iron Age 160: 78-84 N 6 '47
- Graphical determination of gear contact ratios, D. W. Dudley, II diags Product Eng 19:152-5 Mr '48
- Graphical determination of heat transfer film coefficient for air, B. F. Raber and F. W. Hutchinson, Heat & Ven 45:109-11 Ap '48
- Graphical determination of heat transfer film coefficient for ammonia vapor, B. F. Raber and F. W. Hutchinson, Heat & Ven 45: 100-2 F '48
- Graphical determination of heat transfer film coefficient for carbon dioxide vapor, B. F. Raber and F. W. Hutchinson, Heat & Ven 45:88-90 S '48
- Graphical determination of heat transfer film coefficient for methyl chloride vapor, B. F. Raber and F. W. Hutchinson, Heat & Ven 45:92-4 Ag '48
- Graphical determination of heat transfer film coefficient for sulfur dioxide vapor, B. F. Raber and F. W. Hutchinson, Heat & Ven 45:98-100 Mr '48
- Graphical determination of percent harmonic distortion, R. W. Buchheim, Electronics 21:170-2 JI '48
- Graphical Fourier analysis, T. C. Blow, Electronics 20:194+ D '47
- Graphical methods for flow-net diagrams, S. Lellavsky, II diags Engineer 185:464-5, 488-90 My 14-21 '48
- Graphical representation of the Johansson system of machining tolerances; reference book sheet, H. Woodhouse, Product Eng 19:169 O '48
- Graphical residual; its application to phase relations of oxygen and nitrogen, H. A. Koch, Jr. and V. C. Williams, bibliog Chem Eng Prog 43:623-32 N '47
- Graphical solution of a direct equation for radiant panel areas; using equivalent conductance, W. P. Chapman and R. E. Fischer, diags Heat & Ven 45:88-92 Ja '48
- Graphs help to solve ammonia absorption system problems, A. B. Stickney, diags Refriger Eng 54:451-7 N '47; Discussion, 55: 96+ Ja '48
- Gyrogams, H. O. Fuchs, diags J Ap Phys 19:796-7 Ag '48
- Gyrogams for simple harmonic systems subjected to external forces, V. Rojansky, diags J Ap Phys 19:297-301 Mr '48
- Hydrocarbon absorption and fractionation process design methods; Sherwood graphical method for absorption and stripping calculations, W. C. Edmister, Pet Eng 19: 200+ O; 55-8+ N '47
- Income determination; a graphic solution, T. C. Schelling, bibliog R Econ & Stat 30:227-9 Ag '48
- Inverse Nyquist plane in servomechanism theory, G. B. Criss, diags Inst Radio Eng Proc 35:1503-4 D '47
- Multivibrator design by graphic methods, A. E. Abbot, diags Electronics 21:118-20 Je '48
- Numerical-graphical method of characteristics for axially symmetric isentropic flow, L. L. Cronvich, bibliog J Aeronautical Sci 15:155-62 Mr '48
- Plotting electron paths, P. J. Selgin, Electronics 21:124+ S '48
- Profile graphs, J. V. Spielmans, Am Stat Assn J 43:96-108 Mr '48
- Semigraphical method of computing stick forces for spring-tab controls having nonlinear hinge-moment characteristics, R. A. Mendelsohn, diags J Aeronautical Sci 15: 107-12 F '48
- Semigraphical methods of solving leaching and extraction problems, B. F. Ruth, bibliog Chem Eng Prog 44:71-80 Ja '48
- Stagewise operations; graphical solutions of difference equations, F. M. Tiller, bibliog diags Chem Eng Prog 44:299-306 Ap '48
- Stripping and rectifying columns for ternary distillation; graphical methods for determining equilibrium plates, R. R. White and W. T. Boyd, diags Pet Processing 2: 862-7 N '47
- Transformer temperatures; formulas, charts and graphical procedure, P. Narbutovskikh, Elec World 129:40-2 Ja 3 '48
- Unbalanced impedance star network; new graphical solution, E. Wilkinson, diags Elec R (Lond) 141:660-2 O 31 '47
- See also*
Charts (calculating) Nomographs
Control charts Zygograph
Curve plotting
- Study and teaching**
New horizons in the field of graphics, A. S. Levens, J Eng Educ 38:663-8 My '48
- GRAPHIC statics**
Analysis of strain and its graphical representation, A. H. Willis, diags Engineering 165:457-60 My 14 '48
- Graphic method of determining torque on pumping reducer from polished-rod and counterweight data, J. C. Slonneger, diags Am Pet Inst Proc 27(4):326-32 '47
- Theory of inelastic bending with reference to limit design, A. Hrennikoff, Am Soc C E Proc 73:255-89 Mr '47; Discussion, 73: 944-6, 1293-301; 74:277-82, 377-80 Je, O '47, F-Mr '48
- GRAPHITE**
Carbon film formation and commutator brushwear as revealed by the electron microscope, E. F. Fullam and R. H. Savage, bibliog II J Ap Phys 19:654-61 JI '48
- Chemical and physical adsorption of gases on carbon dust, R. H. Savage and C. Brown, II Am Chem Soc J 70:2362-6 JI '48
- Colloidal graphite assembly lubrication, E. A. Smith, II diags Engineering 165:505-7 My 28 '48
- Graphite anodes in brine electrolysis; application to chlorate cells, M. Janes, bibliog II diags Electrochem Soc Trans 92 (preprint 31):363-84 '47
- Graphite lubrication, R. H. Savage, bibliog II J Ap Phys 19:1-10 Ja '48
- Heats of adsorption; ethyl chloride on graphite, C. Pierce and R. N. Smith, bibliog J Phys & Colloid Chem 52:1111-15 O '48
- Heats of adsorption; water, ammonia, ethyl chloride on graphite, R. N. Smith and C. Pierce, bibliog J Phys & Colloid Chem 52: 1115-28 O '48
- How colloidal graphite aids metal forming; reference book sheet, G. C. Giles, Am Mach 92:143 Je 17 '48
- Industrial alcohol versus construction materials; carbon and graphite, J. F. Revilock, Chem Eng 55:236+ O '48
- Life of ladle and spout linings increased with graphite base refractory, Steel 122:83+ Ap 5 '48
- New graphite resistor vacuum furnace and its application in melting zirconium, W. J. Kroll and others, II diags Metals Tech 15: TP2310 1-6 Ja '48
- Search for a resonance absorption of neutrons in graphite, S. Bernstein, II diags Phys R 73:956-62 My 1 '48
- Studies in boundary lubrication; the wear of carbon brushes in dry atmospheres, W. E. Campbell and R. Kozak, bibliog II A S M E Trans 70:491-7; Discussion, 497-8 JI '48
- Surfaces of solids; the heats of emersion and desorption of water from graphite at 25°, P. R. Basford, G. Jura and W. D. Harkins, bibliog Am Chem Soc J 70:1444-50 Ap '48
- Tellurium-graphite use in foundry work, Ry Mech Eng 122:257-8 My '48
- TVA phosphoric acid plant sports a new phosphorus combustion system; graphite combustion chamber, L. H. Almond and H. K. Steinbiss, II diags Chem Eng 55: 105-9 O '48
- Thermodynamics of adsorption from solutions; the molality and activity coefficient of adsorbed layers, Y. Fu, R. S. Hansen and F. E. Bartell, J Phys & Colloid Chem 52:374-86 F '48
- Vapor pressure and heat of sublimation of graphite, L. Brewer and others, bibliog diags J Chem Phys 16:797-807 Ag '48

GRAPHITE—Continued

Vapor pressure and heat of sublimation of graphite. L. H. Long, bibliog J Chem Phys 16:1087 N '48

See also

Cast iron—Graphitization

GRAPHITIZATION of iron. See Cast iron—Graphitization

GRAPHITIZATION of piping. See Piping (power plants)—Graphitization

GRAPHOLOGY

How personal character is revealed by handwriting. C. H. Fletcher, Bankers Mo 65:20, 22 O '48

GRAPTOLITES

Affinities of the graptolites. G. W. Sinclair, Am J Sci 246:526-8 Ag '48

GRASSES

Control of grass weeds in sugar-cane fields in Puerto Rico; 2,4-D in oil. J. A. B. Nolla, Science 108:112-13 Jl 30 '48

Grass, ninth yearbook of the Department of agriculture. W. R. Chapline, il Sci Am 179: 56-9 S '48

See also

Airports—Surfaces, Grass

Analysis

Determination of carotene in alfalfa and cereal grasses. H. L. Mitchell and H. H. King, bibliog Anal Chem 20:637-8 Jl '48

GRASSHOPPERS

Simplified procedure for breaking diapause in grasshopper eggs. E. H. Slifer, Science 107: 152 F 6 '48

GRASSY ISLAND

Date of the last rise of sea level in southern New England, with remarks on the Grassy Island site. E. S. Deevey, jr, bibliog maps Am J Sci 246:329-52 Je '48

GRAVEL

Construction of asphalt road-mix pavements with crushed-gravel. G. E. Putnam, il Roads & Bridges 86:76-8+ Ap '48

High-level gravels of western Grand canyon. D. Koons, Science 107:476-6 My 7 '48

Unsteady-state heat transfer between air and loose solids. G. O. G. Löf and R. W. Hawley, bibliog il diags Ind & Eng Chem 40:1061-70 Je '48

GRAVEL handling

Bailey bridging used for aggregate conveyor system at Des Joachims. H. M. Blake, flow sheet il map Roads & Bridges 86:82-5 Ap '48

Manufacturers' ideas to meet difficult operating problems; hydraulic equipment; illustrated descriptions of latest equipment. plan diags Rock Prod 50:118-21 D '47

GRAVEL washing

Solving the problem of little gravel, much clay. N. C. Rockwood, diag Rock Prod 51:102-4 F '48

GRAVIMETRIC analysis

Accumulation of traces of arsenate by coprecipitation with magnesium ammonium phosphate. I. M. Kolthoff and C. W. Carr, bibliog Anal Chem 20:728-30 Ag '48

Analysis and composition of lead dioxide. R. G. Myers, bibliog Anal Chem 20:654-7 Jl '48

Analysis of thorium-chromium mixtures. R. E. Ewing and C. V. Banks, bibliog diag Anal Chem 20:233-5 Mr '48

Analytical methods for ruthenium. R. Thiers, W. Graydon and F. E. Beamish, bibliog (41 ref) diags Anal Chem 20:831-7 S '48

1,2-Cyclohexanedione dioxime, a reagent for palladium. R. C. Voter, C. V. Banks and H. Diehl, bibliog Anal Chem 20:652-4 Jl '48

Determination of acetylene in gas. J. A. Shaw and E. Fisher, bibliog il Anal Chem 20:533-6 Je '48

Determination of carbon monoxide in air by use of red mercuric oxide. J. D. McCullough, E. A. Crane and A. O. Beckman, bibliog diags Anal Chem 19:999-1002 D '47

Determination of cellulose in agricultural residues; modifications of the Norman-Jenkins method. E. E. Lewis, bibliog Anal Chem 19:910-13 N '47

Determination of formaldehyde and other aldehydes; assessment of the methods. J. G. Reynolds and M. Irwin, bibliog Chem & Ind p419 Jl 3 '48

Determination of silica in the presence of fluorine and phosphorus. J. A. Brabson and others, bibliog Anal Chem 20:504-10 Je '48

Determination of small amounts of ethyl ether in ethyl alcohol. W. E. Shaefer, Anal Chem 20:651-2 Jl '48

Determination of small concentrations of calcium and magnesium by titration with standard soap solution; comparison with gravimetric results. J. W. McCoy, Anal Chem 19:1002-3 D '47

Gravimetric determination of thallium with tetraphenylarsonium chloride. V. T. Smith, jr, bibliog Anal Chem 20:337-8 O '48

Identification of crystalline progesterone with 2,4-dinitrophenylhydrazine; quantitative determination of progesterone in oil. D. Klein, N. Weiner and S. M. Gordon, bibliog Anal Chem 20:174-6 F '48

Improved gravimetric determination of silicon in aluminium alloys, developed in Germany during the war. W. Stross, bibliog Metallurgia 38:63-5 My '48

Organic reagents for gravimetric analysis; abstract. J. F. Flagg, Anal Chem 20:392 Ap '48

Precision determination of lead in high grade copper; dithizone color and electrodeposition gravimetric methods. L. Silverman, bibliog Anal Chem 20:906-9 O '48

Procedure for measurement of P^{32} and P^{33} in plant material. A. J. MacKenzie and L. A. Dean, bibliog diag Anal Chem 20:559-60 Je '48

Rapid determination of moisture in liquid sulfur dioxide; comparison of phosphorus pentoxide and Karl Fischer method. B. R. DiCaprio, diag Anal Chem 19:1010-11 D '47

GRAVITATION

Behavior of an interferometer in a gravitational field; application to a planetary orbit. H. E. Ives, bibliog Opt Soc Am J 38: 413-16 Ap '48

Generalized theory of gravitation. A. Einstein, Rs Mod Phys 20:35-9 Ja '48

Gravitational, electromagnetic, and vector meson fields and the similarity geometry. B. Hoffmann, bibliog Phys R 73:30-5 Ja 1 '48

Phase rule and the action of gravity. W. Swietoslawski, diags J Chem Educ 24:606-8 D '47

Question of non-singular solutions in the generalized theory of gravitation. A. Papapetrou, bibliog Phys R 73:1105-8 My 1 '48

Trajectories of charged meson test particles in the similarity geometry. B. Hoffmann, bibliog Phys R 73:1042-6 My 1 '48

GRAVITOMETERS

Interfacial mixing characteristics of products in products pipe lines. S. S. Smith and R. K. Schulze, flow diag il plans diags Am Pet Inst Proc 27(5):48-72 '47; Same abr. Pet Eng 19:94+ S '48 (to be cont)

Positive-displacement metering and gravimetric meter proving on crude-oil pipe lines. J. B. Smith, il plan diags Oil & Gas J 46:80+ Ap 15 '48

GRAVITY

Portable crystal-controlled frequency standard used in submarine gravity survey. R. I. B. Cooper, il Elec Com 25:30-4 Mr '48

GRAY iron founders' society

Annual meeting, 20th, Atlantic City, Oct. 14-15. Steel 123:43 O 25 '48

GRAY market. See Profitteering**GRAYSON-ROBINSON stores, inc.**

N records in sight. Barron's 28:27 Ag 30 '48

GRAZING

See also

Ranges

GREASE

Grease resistance; report on a modification of the TAPEI test method, with ratings for various packaging materials. C. G. Lavers, diag Mod Packaging 21:147-9 Mr '48

Smoke, soot and sweat! grease fires in exhaust ducts. R. B. Woolley, Safety Eng 95: 34-5 Ja '48

See also

Lubricating greases

GREASEPROOF paper. See Paper, Greaseproof**GREAT BASIN**

See also

Geology—Great Basin

GREAT BRITAIN

See also

Airlines—Great Britain
 Automobile industry and trade—Great Britain
 Finance—Great Britain
 Labor and laboring classes—Great Britain
 Machinery industry—Great Britain
 Army
 New territorials. Economist 155:131-2 JI 24 '48

Cabinet

Cripps vs. Dalton. P. Einzig. Comm & Fin Chr 166:2167 N 27 '47
 Dalton-Cripps-Bevin triangle. P. Einzig. Comm & Fin Chr 167:2645 Je 17 '48
 More ministries? Economist 155:526-7 O 2 '48
 Third act mystery; departure of Mr Dalton. Economist 153:847-8 N 22 '47

Colonies

Bread and the vote; British colonial policy. Economist 155:172-4 JI 31 '48
 Colonial Africa; Britain's new frontier. map Bsns W p 109-10+ O 2 '48
 Colonial issues at Bogotá; British Honduras and the Falkland Islands; claims against Britain. Economist 154:549 Ap 3 '48
 Development and design of colonial telecommunication systems and plant. C. Lawton and V. H. Winson. diags Inst E E J 94 pt 3:229-44 JI '47; Discussion. 94 pt 3:251-9; 95 pt 3:79-87 JI '47, Mr '48
 Development of economic resources in the British colonies. B. Blänkenheimer. il map For Comm W 33:3-7+ O 2 '48
 Significant colonial development legislation enacted. For Comm W 31:18-19 My 8 '48

Commerce

Anglo-Russian trade. Economist 154:988 Je 12 '48
 Anglo-Russian trade falters. il Bsns W p 118+ My 22 '48
 Bridging the trade gap. Economist 154:152-3 Ja 24 '48
 Britain hampered by higher import price. Comm & Fin Chr 168:815 Ag 26 '48
 Britain hits target; present balance of payments position. S. Cripps. Comm & Fin Chr 168:1213+ S 23 '48
 Britain's balance of payments in 1947; comments on the White paper. Economist 154:273-5 F 14 '48
 Britain's balance of payments; press conference statement. Feb. 10, 1948. S. Cripps. Comm & Fin Chr 167:815+ F 19 '48
 Britain's balance of payments; striking transformation. Economist 155:504-5 S 25 '48
 Britain's export trade under post-war conditions. J. Shepherd. Textile Inst J 39:P21-6 Ja '48
 Britain's trade with Russia. P. Einzig. Comm & Fin Chr 168:1213 S 23 '48
 Buyers' delegation welcomed; cementing trade relations with British Columbia. Chem Age (Lond) 58:649 My 8 '48
 Capital investment program of England cut by \$800 million to support the export drive. Iron Age 160:135+ N 13 '47
 Current British crisis and the broad dollar problem. J. M. Cassels and F. L. Hall. For Comm W 29:4-7+ N 29 '47
 Direction of Britain's trade; with data for 1938 and 1947-48. Economist 155:342-4 Ag 28 '48
 Direction of British trade; with data for 1938, 1946-1947. Economist 154:355-6 F 28 '48
 Dollar arithmetic. Economist 153:729-31 N 1 '47
 Export-import race. Economist 154:684-5 Ap 24 '48
 Export task; progress towards the mid-1948 target. Economist 154:278 F 14 '48
 Geneva agreement should spur trade with Britain and colonies. C. A. Riches and D. M. Grady. il For Comm W 30:3-5+ Ja 3 '48
 Imports still dearer; frustrated exports. Economists 155:239 Ag 7 '48

Progress report by Sir Stafford Cripps, on the payments position. Economist 155:482-4 S 25 '48
 Record exports in May; Imports and the level of stocks. Economist 154:1076+ Je 26 '48
 Soft pedal for the deficit. Economist 154:934-6 Je 5 '48
 Tide of prices; impact on Britain's imports of raw materials and food. Economist 154:1025-7 Je 19 '48
 Trade through the iron curtain. Economist 155:661 O 23 '48
 Trade with Bizonia; British policy. Economist 154:113 Ja 17 '48
 U.S. purchase of British goods up 50 per cent. Comm & Fin Chr 168:810+ Ag 26 '48

Commercial policy

Agreement with Brazil. Economist 154:888-9 My 29 '48
 Agreement with Iraq; Anglo-Irish trade. Economist 153:854-5 N 22 '47
 Anglo-Argentine agreement. Economist 154:312-13 F 21 '48
 Anglo-Soviet trade pact. P. Einzig. Comm & Fin Chr 166:2629 D 25 '47
 Argentina; protocol to trade agreement with United Kingdom initialed. For Comm W 31:7 Ap 3 '48
 Argentine beef for Britain; trade pact signed. il Bsns W p 113-14 F 14 '48
 Brazil; trade and payments agreement with the United Kingdom signed. For Comm W 32:13-14 JI 10 '48
 Britain raises export goals. il Bsns W p85-6 Ja 24 '48
 Britain's bad bargains. P. Einzig. Comm & Fin Chr 167:105 Ja 8 '48
 Britain's policy seen based on slogan; charity begins abroad. P. Einzig. Comm & Fin Chr 168:409 JI 29 '48
 Britain's wasted exports; repayment of wartime sterling balances has been excessive. P. Einzig. Comm & Fin Chr 167:207 Ja 15 '48
 British imperial preference and the Marshall plan. J. K. Javits. Comm & Fin Chr 166:2614+ D 25 '47
 Cart before the horse in British exports. F. B. Makin. Banking 40:148+ F '48
 Eire trade pact with Britain. Economist 154:1075-6 Je 26 '48
 Future of the sterling area. Economist 153:930-1 D 6 '47
 International gold pounds; guaranteeing sterling balances. P. Einzig. Comm & Fin Chr 166:2061 N 20 '47
 Pound's devaluation some distance away; falling exports will be signal when time is at hand. R. M. Bleiberg. Barron's 28:38 Ap 12 '48
 Present status of British Token Import plan. For Comm W 30:34-5 Mr 20 '48
 Revised export targets. Economist 154:645-6 Ap 17 '48
 Shape of sterling policy. Economist 154:142-4 Ja 24 '48
 Sterling area. Economist 154:699-700, 751-2 My 1-8 '48
 Sterling area; stumbling block to European recovery? V. L. Horoth. Mag of Wall St 82:227-9+ Je 5 '48
 Sterling area's characteristics change under world-stresses. C. L. Wood. For Comm W 32:3-7+ Ag 7 '48
 Sterling dilemma in empire trade. V. L. Horoth. il Mag of Wall St 81:522-3+ F 14 '48
 Sweden concludes supplementary trade understanding with United Kingdom. For Comm W 32:27-8 S 18 '48
 Trade under the new tariff; Geneva agreement. Economist 153:848-50 N 22 '47
 United Kingdom; trade and financial agreement signed with U.S.S.R. For Comm W 30:36 F 7 '48

Committee on industrial productivity

Letter from London; from Mission on science and technology. Science 107:289-90 Mr 19 '48

Constitution

Labour and the constitution; the Parliament bill and the Electoral reform bill. Economist 154:213-14 F 7 '48

GREAT BRITAIN—Continued

Cultural relations

See also

British council

United States

Mission on science and technology. *Chem & Eng N* 25:3638 D 8 '47; *Science* 106:518 N 28 '47

Defenses

Revised defence. *Economist* 155:523-4 O 2 '48

Economic conditions

Address before Lancashire section. *R. Streat. Textile Inst J* 39:P141-5 Ap '48

Britain hits target; recovery of country's economy during past half-year. *S. Cripps. Comm & Fin Chr* 168:1213-5 S 23 '48

Britain starts on the long road to recovery. *il Bsns W* p 117-18+ O 9 '48

Britain; the outlook for its recovery. *Bsns W* p 101-2+ Ag 14 '48

Britain's economic defenses. *P. Einzig. Comm & Fin Chr* 168:508 Ag 5 '48

Britain's economic survey for 1948; official summary. *Fed Res Bul* 33:391-6 Ap '48

Britain's position; capital investment program for 1948; address before House of commons. Dec. 13, 1947. *S. Cripps. Comm & Fin Chr* 167:212+ Ja 15 '48

British industry; four years after the rockets. *H. B. Ward. il Dun's R* 56:15-16+ O '48

British inflation and deflation fears. *P. Einzig. Comm & Fin Chr* 168:600 Ag 12 '48

Disinflation in jeopardy. *Economist* 155:385-6 S 4 '48

Ebb tide? disinflation beginning to bear fruit. *Economist* 154:745-6 My 8 '48

Economic survey for 1948. *Economist* 154:424-6 Mr 13 '48

Interim progress report; comments on Sir Stafford Cripps' speech on the capital white paper. *Economist* 153:1035-6 D 27 '47

Is British trade recession coming? end of inflationary boom. *P. Einzig. Comm & Fin Chr* 167:2317 My 27 '48

Long-term economic problems. *Economist* 154:786-7, 329-30, 868-9, 1054-5; 155:6-7 My 15-29, Je 26-Jl 3 '48

Petroleum board's great record helps British oil industry escape socialism. *W. C. Platt. il Nat Pet N* 40:22-4+ Jl 14 '48

Processing 3:742-3+ Ag '48

Sink or swim? economic survey for 1948. *Economist* 154:401-2 Mr 13 '48

United Kingdom economic survey for 1948. *Int Labour R* 58:205-11 Ag '48

Economic policy

Britain's crisis at the outset of Marshall aid; strategy of recovery. *G. F. Shirras. Comm & Fin Chr* 167:2314+ My 27 '48

Capital budget; projected capital investment programme. *Economist* 154:720-2 My 1 '48

Capital cuts; Britain's program for 1948. *Economist* 153:928-30 D 6 '47

Capital formation in industry; government programme of capital investment for next year. *Economist* 155:344-6 Ag 28 '48

Capital levy? disinflationary policy. *Economist* 154:81-2 Ja 17 '48; Discussion. 154:133 Ja 24 '48

Capital levy in Britain. *P. Einzig. Comm & Fin Chr* 167:1765 Ap 22 '48

Economic survey for 1948. *Economist* 154:424-6 Mr 13 '48

Exorcising the symptoms; proposal to stabilize wages and reduce prices. *Economist* 154:291-2 F 21 '48

How Britain fights inflation. *P. Einzig. Comm & Fin Chr* 167:1007 Mr 4 '48

Inconsistencies of British economic policy. *A. M. Sakolski. Comm & Fin Chr* 168:315+ Jl 22 '48

Is Britain's austerity drive slackening? *P. Einzig. Comm & Fin Chr* 167:2526 Je 10 '48

Lessons in failure of socialism in Britain. *V. L. Horoth. Mag of Wall St* 83:19-21+ O 9 '48

Malthus at Manchester; Mr Churchill's criticism of the government's policy. *Economist* 153:947-8 D 13 '47

Nationalization of utilities and industries draws criticism. *W. Churchill; Lord Inverchapel. Pub Util* 40:785-7 D 4 '47

Now everything is "utility" to the British. *H. B. Walker. Pub Util* 40:750-5 D 4 '47

Planning and nationalisation in Great Britain. *H. Finer. Int Labour R* 57:157-86, 283-99 Mr-Apr '48

Production at any cost. *Economist* 155:171-2 Jl 31 '48

Rationing by the purse. *Economist* 155:249-50 Ag 14 '48

Reduction in capital investment; British government's proposals; abstract. *For Comm W* 30:17 Ja 3 '48

Significance of new British economic program. *V. L. Horoth. Mag of Wall St* 81:242-3+ D 6 '47

Too much equality? need for pressure for maximum efficiency. *Economist* 154:915-16 Je 5 '48

What shall we do to be saved? *Economist* 154:697-8 My 1 '48

Whither bound? comments on Sir John Anderson's Manchester address. *Nat City Bank* p 118-19 O '48

Economic relations

Sterling, the sterling area and ERP. *S. Cripps. Comm & Fin Chr* 167:2645+ Je 17 '48

United States

Britain; a few impressions of an American sales executive. *R. A. Whitney. Sales Management* 61:sup8-5 N 1 '48

Foreign relations

Great powers in the new world order. *R. Strauss-Hupé. Ann Am Acad* 257:47-56 My '48

Guatemala

Colonial issues at Bogotá; British Honduras and the Falkland Islands; claims against Britain. *Economist* 154:549 Ap 3 '48

Iraq

What does Iraq want? repudiation of Anglo-Iraqi treaty of alliance. *Economist* 154:172-3 Ja 31 '48

United States

Continuing need for Anglo-American co-operation. *Earl of Halifax. il Dun's R* 55:16-17+ D '47

Industrial productivity, Committee on

See Great Britain—Committee on industrial productivity

Industries and resources

Britain needs modernization. *Bsns W* p81-2 Jl 31 '48

British industry; four years after the rockets. *H. B. Ward. il Dun's R* 56:15-16+ O '48

Capital formation in industry; government programme of capital investment for next year. *Economist* 155:344-6 Ag 28 '48

Capital investment in 1948. *Engineer* 184:528-9 D 5 '47

Federation of British industries sees mutual advantages in proposed Anglo-American joint council on productivity. *For Comm W* 32:12 S 4 '48

Gabriel Jars's visit to England in 1764. *M. J. Chevalier. Engineer* 185:529-31 My 28 '48

Industrial productivity. *Economist* 155:273-5 Ag 14 '48

Interim index of industrial production. *For Comm W* 32:26-7 Ag 7 '48

Research and educational efforts vital to British recovery. *A. P. M. Fleming. Chem & Eng N* 26:1210-11 Ap 26 '48

Tools; pointers for commonwealth developments. *Chem & Ind* p525-6 Ag 14 '48

Twilight sleep; proposal for a British-American council of productivity. *Economist* 155:209-11 Ag 7 '48

U.S. advice to British industry; creation of Anglo-American joint advisory council for British industry. *P. Einzig. Comm & Fin Chr* 168:810 Ag 26 '48

Juvenile employment service

Vocational guidance for juveniles in the United Kingdom; juvenile employment service. *H. M. D. Parker. Int Labour R* 57:15-25 Ja-F '48

GREAT BRITAIN—*Continued*

National advisory council for industry and commerce

Training hands and brains for industry and commerce. Textile Inst J 39:P206-7 Je '48

National physical laboratory, Teddington

Metallurgical research at the National physical laboratory. N. P. Allen. *il Metallurgia* 38:267-70 S '48

N.P.L. activities. Elec R (Lond) 142:1008 Je 25 '48; Electrician 140:1981-2 Je 25 '48
National physical laboratory's exhibition. Engineer 185:625-6 Je 25 '48; Engineering 165:617 Je 25 '48

Navy

His Majesty's navy's. Holloway plan. U S Naval Inst Proc 74:110-14 Ja '48

History as a guide to naval policy. L. W. Batten, 3d. *il U S Naval Inst Proc* 74:742-7 Je '48

Navy estimates, 1948-49. Engineer 185:239-40 Mr 5 '48

Royal navy and nuclear power. R. J. Daniel. Engineer 185:337-9, 362-3 Ap 2-9 '48; Same cond. Engineering 165:428-31 Ap 30 '48; Discussion. Engineer 185:333-4 Ap 2 '48; Engineering 165:330-1 Ap 2 '48

Samuel Pepys, naval administrator extraordinary. J. M. Sheehan. *il U S Naval Inst Proc* 74:864-75 Jl '48

State of the navy. *il Engineer* 185:2-4, 30-1 Ja 2-9 '48

Work of naval dockyards. Engineer 186:195 Ag 20 '48

Parliament

Labour and the constitution; reform of the House of lords. Economist 154:213-14 F 7 '48

Parliament bill. Economist 153:745-6 N 8 '47

Parliamentary and scientific committee

Scientist and politician as partners; British parliamentary and scientific committee. H. Linstead. Science 108:47-50 Jl 16 '48

Politics and government

Above the law; abuse of the powers of the Executive. Economist 154:956-7 Je 12 '48

Crown and commonwealth. Economist 155:41-3 Jl 10 '48

How the commonwealth consults. Economist 155:458-9 S 18 '48

Labor party losing prestige in eyes of British people; polls by the British institute of public opinion. Iron Age 161:119 F 12 '48

Opposition party now leads in popularity in Britain; British Institute poll. Iron Age 160:131 N 13 '47

What is the commonwealth? Economist 155:561-3 O 9 '48

Social conditions

Middle class. Economist 154:125-6, 173-4, 254-5, 294-5 Ja 24-31, F 14-21 '48; Same(pt 1). Iron Age 161:108-9 F 5 '48

Statistics

British central statistical office interim index of industrial production. For Comm W 31:18 Ap 24 '48

Top secret; policy about disclosure not consistent. Economist 154:406-7 Mr 13 '48

GREAT LAKES

Crustal movement in the Great Lakes area. S. Moore. *bibliog Geol Soc Bul* 59:697-709, pl 1 Jl '48

See also

Shipping—Great Lakes

GREAT LAKES states

See also

Forests and forestry —Great Lakes states

GREAT men

Poll shows Truman, MacArthur, Eisenhower and Dewey as best known of notable Americans. Iron Age 160:115 N 20 '47

GREAT northern railway

Equipment trusts offered. Comm & Fin Chr 168:1581 O 18 '48

GREAT PLAINS region

Dust storms of 1948; marginal lands in New Mexico and west Texas. H. H. Finnell. *il map Sci Am* 179:7-11 Ag '48

See also

Geology—Great Plains region

GREBE, John Joseph, 1900-

J. Grebe accepts new Chemical corps advisory post. *por(cover) Chem & Eng N* 26:2890 S 27 '48

GREECE

War against Markos. Economist 155:233 Ag 7 '48

Commercial policy

Import procedure for merchandise ordered prior to Dec. 26, 1946. For Comm W 32:20 Jl 3 '48

Summary of import license and exchange regulations. For Comm W 32:26-7 Jl 24 '48

Economic conditions

Greece; problem in poverty. W. H. McNeill. *il Dun's R* 56:15-16-*il* Jl '48

What progress in Greece? American mission has warned off economic chaos. *il Bsns W* p97-8 N 1 '47

Foreign relations

United States

Greece and American aid. Economist 153:886 N 29 '47

Our Near Eastern policy in the making. W. L. Wright, jr. *Ann Am Acad* 255:93-104 Ja '48

Politics and government

Strategy for Greece. map Economist 154:1-2 Ja 3 '48

GREEN River formation

Limnology and the eocene lakes of the Rocky Mountain region. W. H. Bradley. *bibliog diags Geol Soc Bul* 59:635-48, pl 1-2 Jl '48

GREEN River project. See Forests and forestry—New Brunswick

GREENCASTLE, Indiana

Water supply

Saving with electricity. O. J. Stewart. *il Pub Works* 79:55-6 O '48

GREENE, Charles Sumner

Greene and Greene; their turn-of-the-century work in California. J. M. Bangs. *por Arch Forum* 89:30-9 O '48

New appreciation of Greene and Greene. *por Arch Rec* 103:138-40 My '48

GREENE, Henry Mather

Greene and Greene; their turn-of-the-century work in California. J. M. Bangs. *por Arch Forum* 89:30-9 O '48

New appreciation of Greene and Greene. *por Arch Rec* 103:138-40 My '48

GREENEWALT, Crawford Hallock, 1902-

Changes in command at du Pont. *por Bsns W* p26 Ja 24 '48

Du Pont's new president. *por(cover) Bsns W* p6 My 15 '48

Elected du Pont president. *por Oil Paint & Drug Rep* 153:5-*il* Ja 26 '48; Paint Oil & Chem R 111:43 F 5 '48

GREENFIELD, Massachusetts

Town plugs national brands; Greenfield merchants, Chamber of commerce join with Brand names foundation in 17-day campaign. *il Bsns W* p42-*il* N 1 '47

GREENHOUSES

Hot house food by the ton; Japanese occupation forces utilize controlled vegetable raising method. *il Food Ind* 20:190-2 F '48

It pays to be original; building for Ramona Gardens nursery. *il plan Am Bld* 70:80 My '48

Air conditioning

Technical features of greenhouse air conditioning. L. C. Marshall and others. *bibliog diags Refrig Eng* 55:151-4+, 269-72-*il* F-Mr '48

Heating and ventilation

Application of electricity to horticulture. C. A. Cameron Brown and E. W. Goding. *Inst E E J* 95 pt 2:427-9 Ag '48; Abstract. Elec R (Lond) 142:238 F 13 '48; Discussion. Electrician 140:577-8 F 20 '48

GREENLAND

Climate of the Arctic as viewed by the explorer and the meteorologist. W. H. Hobbs. *bibliog Science* 108:193-201 Ag 27 '48
New vistas in Greenland. map *Economist* 155: 460+ S 18 '48

GREENWICH royal observatory

Annual report of the Astronomer Royal. *Engineering* 166:317-18, 363-4 O 1, 15 '48

GREER hydraulics, inc.

Adding new markets for its accumulator. *Barron's* 28:34 My 10 '48

GREETING card industry

No-investment stock plan builds lucrative greeting card sales; G. E. Day keeps up a clean, timely, and moving stock of greeting cards for retailers. *il Sales Management* 61:113 Ag 15 '48

GREGORY, Helen

H. Gregory recalls pre-jet aviation beat. *Ed & Pub* 81:30 Ag 7 '48

GRESHLER, Abner J.

Businessman's party man. *por Bsns W* p80+ N 22 '47

GREYHOUND corporation

Greyhound boom; makes money carrying foreign travelers from U.S. ports. *Bsns W* p39-40 Mr 27 '48

GRIEVANCES. See Employment management—Grievances**GRIGNARD reagents**

Addition of Grignard reagents to the olefin, bidiphenyleneethylene. R. C. Fuson and H. D. Porter. *bibliog Am Chem Soc J* 70:395-7 Mr '48

Aliphatic nitro-compounds; reaction of nitro-paraffins with ethylmagnesium bromide. G. D. Buckley. *Chem Soc J* p 1492-4 N '47

p-Alkoxybenzyl Grignard reagents. M. G. Van Campen, D. F. Meisner and S. M. Parmerter. *Am Chem Soc J* 70:2296-7 Je '48

Allylic rearrangements; reaction of the sodium derivative of allylbenzene with carbonyl compounds. T. W. Campbell and W. G. Young. *bibliog Am Chem Soc J* 69:3066-8 D '47

Anionic chain polymerization. R. G. Beaman. *bibliog Am Chem Soc J* 70:3115-18 S '48

Competitive reactions between trialkylchlorosilanes and alkylmagnesium bromides. L. H. Sommer, G. T. Kerr and F. C. Whitmore. *bibliog Am Chem Soc J* 70: 434-5 Ja '48

Derived steroids; cholesteryl ketones. R. H. Baker and E. N. Squire. *bibliog Am Chem Soc J* 70:1487-90 Ap '48

Grignard reagent from 3-chloro-1,1,1-trifluoropropane. E. T. McBee and A. Truchan. *Am Chem Soc J* 70:2910-11 S '48

Mechanism of addition of Grignard reagents to nitriles. C. G. Swain. *bibliog Am Chem Soc J* 69:2306-9 O '47

Modified apparatus for determination of groups active to the Grignard reagent. P. M. Maginnity and J. E. Cloke. *bibliog diag Anal Chem* 20:378-9 O '48

Purification of neopentane by mercury photosensitization. E. D. Darwent and E. W. R. Steacie. *Am Chem Soc J* 70:2285-6 Je '48

Reaction of α,β -dichloropropionaldehyde with a number of Grignard reagents. V. W. Ploutz. *Am Chem Soc J* 70:2516-17 Jl '48

Techniques in the use of carbon 14. W. G. Dauben, J. C. Reid and P. E. Yankwich. *bibliog diag Anal Chem* 19:828-32 N '47

Types of reaction of carboxylic esters with Grignard reagents. C. R. Hauser, P. O. Saperstein and J. C. Shivers. *bibliog Am Chem Soc J* 70:606-8 F '48

GRILLES, Plastic

Phenolic grilles. *il Mod Plastics* 25:166 N '47

GRIMES, Walter H.

Grimes is here to stay; story of a small fixed-base operator. I. F. Angstadt. *por Aero Digest* 57:48-9+ N '48

GRINDERS, Wood. See Wood grinders**GRINDING**

Centreless plunge-grinding. *il diag Metal-lurgia* 38:285-6 S '48

Experimental study of cylindrical grinding. R. E. McKee and others. *diag A S M E Trans* 69:891-6 N '47

Fixtures that increase production in parallel-surface grinding. R. D. Gardner. *il Mach* 54:176-9 Ja '48

Getting the most out of mounted wheels and points. E. C. Bleam. *il diag Iron Age* 162: 84-7+ Ag 5 '48

Grinding attachment for vertical turret lathe. H. E. Murphey. *diag Mach* 54:182 My '48

Grinding dovetail slideways of machine tools. *il diag Engineering* 165:392 Ap 23 '48

Grinding Packard crankshafts and camshafts. G. W. Deislinger. *il Iron Age* 162:80-3 S 16 '48

Grinding, polishing and buffing of monel; tabulation; engineering file facts. E. Rosen. *Materials & Methods* 27:107 Je '48

Ground finishes eliminate lapping. H. J. Chamberland. *il Aero Digest* 57:62+ Ag '48

How carbide tools are handled in Finland. H. Branders. *il plan diag Am Mach* 92: 96-8 Ag 12 '48

How to prevent gear-grinding troubles. L. P. Tarasov. *il Am Mach* 92:116-19 S 9; 104-7 S 22 '48

Injuries in ground surfaces. L. P. Tarasov. *il diag Steel* 122:71-4+ Mr 22 '48

It pays to experiment; flood cooling and right grinding wheels increase production. G. W. Bruck. *diag Tool Eng* 20:36 Je '48

Multiple wheel grinding speeds-up crankshaft production; Studebaker corp. O. F. Mishler. *il Mach* 55:162-9 N '48

Production grinding. Alnico rotors. R. E. Roberts. *il diag Am Mach* 92:94-5 Ag 12 '48

Production processes; their influence on design, production grinding, design factors. R. W. Bolz. *il diag Machine Design* 20: 111-17 My '48

Reconditioning cutting tools for maximum efficiency. H. A. Frommelt. *il Steel* 121:102-5+ N 10 '47

Valve-stem guides finish ground automatically; Motor truck division, International harvester co. R. R. Coulette. *il Am Mach* 92:125 Je 17 '48

See also**Grinding machines****GRINDING (ores, etc.). See Crushing****GRINDING machines**

ABC of grinding machine tool slideways. R. E. Andrews. *diag Tool Eng* 20:30 Je '48

A.c. compressor valve and seal grinder. *il Ry Mech Eng* 122:163-4 Ap '48

Automatic in-feed on the Lobdell roll grinder. *il Machine Design* 20:128 Ap '48

Brown & Sharpe cutter and tool grinding machine. *il Mach* 54:200-1 D '47

Centerless grinder ways protected by simple design. *il diag Machine Design* 20:146-7 My '48

Chicago, Burlington & Quincy portable gear-tooth grinder. *il Ry Mech Eng* 122:136-7 Mr '48

Churchill auto-action centreless grinder. *il Automobile Eng* 38:106 Mr '48

Churchill automatic centreless grinding machine. *il Engineering* 165:282 Mr 19 '48

Churchill automatic internal-grinding machine. *il Engineering* 165:417 Ap 30 '48

Churchill cam grinders. *il Automobile Eng* 37:405-6 N '47

Churchill crankpin-grinding machine. *il Engineering* 165:9 Ja 2 '48; *Engineer* 185:219 F 27 '48; *Automobile Eng* 38:107-8 Mr '48

Cincinnati cutter and tool grinder. *il Ry Mech Eng* 122:325-6 Je '48

Cincinnati Filmatic no. 2 centerless grinder announced. *il Am Mach* 92:132 Ja 1 '48

Combination grinder-comparator manufactured by Cincinnati milling and grinding machines, inc. *il diag Machine Design* 20: 149-50 Ja '48

Concentricity to a tenth with special fixture on surface grinder. D. Olson. *il Am Mach* 92:123 Jl 15 '48

DoAll cool grinding device. *il Sci Am* 178:82 F '48; *Machine Design* 20:109-10 Ja '48

Dovetail slideway grinding. *il Engineer* 185: 359 Ap '48

Grand Rapids drill grinder no. CWA designed to sharpen twist drills. *il Am Mach* 92:139 Je 3 '48

Grinder rotary table checked by grinding of two thin bars. S. Framurz. *diag Am Mach* 92:133 F 12 '48

Grinding machine uses cam to control cycle. *il diag Product Eng* 19:103 Ag '48

Heald bore-matics and centerless internal grinders. *il Mach* 54:198-9 D '47

GRINDING machines—Continued

- Head internal grinders designed for handling small work. *il Mach* 54:189-90 My '48
- Jones grinding machine. *il Engineer* 184:422 O 31 '47
- Landis hydraulic gap grinding machine. *il Ry Mech Eng* 122:519 S '48
- Landis plain and roll grinder. *il Ry Mech Eng* 121:720-1 D '47; *Mach* 54:198-9 Ja '48
- Landis tool co. multiple-wheel cylindrical grinder. *il diags Mach* 54:187-8 My '48; *Am Mach* 92:133 My 20 '48
- Multiple grinding of automotive shafts jumps production rate. *il diags Steel* 123:101 Ag 9 '48
- Needle bearing stabilizers maintain alignment; Hill Acme horizontal spindle hydraulic surface grinders. *il diags Product Eng* 19:104-5 F '48
- New drive for a new machine for a new technique; Landis centerless grinder. W. E. Happel. *diags Product Eng* 18:128-9 D '47
- New techniques in conditioning stainless steel. A. E. Hamilton, Jr. *il diags Iron & Steel Eng* 25:73-84 F '48; *Abstract. Iron Age* 160:99-100 N 6 '47; *Discussion. Iron & Steel Eng* 25:85-7 F '48
- Oblique alignment for automatic grinding. *il diags Product Eng* 18:100-1 N '47
- Oliver instrument co. automatic cutter grinder has noteworthy design features. *il diags Machine Design* 20:160-2 Mr '48
- Optical grinding; the latest development in toolmaking. C. H. Wick. *il diags Mach* 54:154-60 Ap '48
- Production processes; their influence on design; production grinding. R. W. Bolz. *il diags Machine Design* 20:135-41 Mr '48
- Radlip tool grinder. *il Automobile Eng* 37:507 D '47
- Set-ups for grinding milling cutters. F. C. Duston. *il diags Mach* 54:150-7 Mr; 163-73 Ap '48
- Taft-Peirce spline and gear grinder takes 8-in. arbor between centers. *il Am Mach* 92:129 Ja 1 '48
- 35th annual review. *il Am Mach* 92:181-96 Ja 29 '48
- Tooling for high production on automatic grinding machines; Consta-Contac high-speed automatic grinding machines. *il diags Mach* 55:158-62 S '48
- Work carrier for centreless plunge grinding. *il diags Engineering* 166:57 J 16 '48
- Work loaders applied to machine tools. R. Le Grand. *il diags Am Mach* 92:166-9 Mr 11 '48
- See also*
Polishing machines

Control

- Electronic control of motors; external grinding of ball-bearing rings. *il Electrician* 141:1157 O 15 '48

GRINDING wheels

- Getting the most out of mounted wheels and points. E. C. Bleam. *il diags Iron Age* 162:84-7+ Ag 5 '48
- Novel thrust shoulder for grinding-wheel spindle. D. A. Baker. *diags Mach* 54:197-8 Jm '48
- Selecting the right size of grinding wheel. J. F. Fischer. *il Mach* 54:162-3 Ja '48
- Sharpening carbide tools. C. H. Wick. *il Mach* 54:145-51 J 1 '48
- Ten rules for better grinding and wheel life. E. T. Larson. *Pulp & Pa of Can* 49:102-3 Je '48
- Twenty grinder wheel pointers. *Paper Ind* 29:1821-2 Mr '48
- Use classification for grinding wheels; reference book sheet. *diags Am Mach* 92:299 Ja 29 '48
- Wheels for grinding tools; reference book sheet. *diags Am Mach* 92:297 Ja 29 '48

Manufacture

- Continuous tunnel kiln improves quality of abrasive wheels. *il Steel* 123:149 S 20 '48
- Working conditions emphasized in new Norton grinding wheel plant. *il Steel* 123:125 S 13 '48

Safety measures

- Flying saucers of industry; abstracted from appendices to Safety code for the use, care, and protection of abrasive wheels. *il Safety Eng* 95:24-7+ Je '48

- Safe operation of portable grinders. R. B. Fair. *il diags Foundry* 76:86-9+ S '48

Truing

- Abrasive-wheel dresser controlled hydraulically from templet. N. Hoglund. *il diags Mach* 55:200-1 S '48
- Dressing attachment crush-forms to true grinding-wheel surface. C. T. Bower. *diags Am Mach* 92:112 J 1 '48
- Fixture regulates wheel dresser for accurate radius and arc cuts. A. B. Nixon. *diags Am Mach* 92:96 Ap 22 '48
- Radius-truing centerless grinder wheels. *il Iron Age* 160:93 D 11 '47

- GRIT blasting. *See Metal cleaning*

- GRIT chambers. *See Sewage disposal—Grit chambers*

GROCERY manufacturers of America

- Annual convention, 39th, New York. *Food Ind* 20:24-5+ Ja '48

- GMA's '48 public relations to explain food prices. N. Kelne. *Ptr Ink* 221:114 N 21 '47

GROCERY stores

- Air conditioning aids food sales; C. H. Morgan grocery co. *il Heating-Piping* 20:79 F '48
- Urge to splurge; Du Pont survey of impulse buying in service (clerk-operated) grocery stores. *Bsns W* p72 My 22 '48

See also

- Food stores

- Market stores

GROCERY trade

- After the turn of the year. J. A. Hartford. *Comm & Fin Chr* 167:348 Ja 22 '48
- Big advertisers use grocery inventory data. *Ed & Pub* 81:9 My 1 '48
- Bureau of advertising wins standardization of monthly grocery audits in 13 cities. W. H. Davis. *Ptr Ink* 223:97 My 7 '48
- Dealer salesmen appraise faults and virtues of their bosses; member firms of Grocery manufacturers of America cooperate in survey. P. Salisbury. *Sales Management* 61:41-4 J 15 '48
- Eight vital factors in effective point-of-sale promotion. F. L. McKibbin. *il Sales Management* 61:52-4+ N 1 '48
- Food for thought; meeting of Grocery manufacturers of America. *Bsns W* p86+ N 22 '47
- Four practical approaches to packaged food merchandising. F. L. McKibbin, Jr. *il Sales Management* 60:37-40 F 1; 112+ F 15 '48
- Grocery audits will include 25 basic items. *Ed & Pub* 81:14 My 8 '48
- Grocery deal; Consolidated Grocers' buys out Rosenberg bros. of San Francisco. *Bsns W* p47-8+ Ja 10 '48
- Reducing distribution costs in the grocery field; a case study; Roundup grocery company, cost plus wholesaling operation. E. D. Tousey. *J Marketing* 12:455-61 Ap '48
- Truck changes geared to load's value; Holleb & co., grocery jobbers. *il Food Ind* 20:32-3 Ja '48
- Trucks win Southwest; Griffin grocery co. operating its own canning and coffee roasting plants. *il map Food Ind* 19:1641-2 D '47
- Trust cuts trucking costs; Holleb & co. grocery drivers share profits through retirement fund. *Food Ind* 20:349 Mr '48
- Two new chains; independent grocers expand voluntary cooperatives. *Bsns W* p50-1 O 2 '48
- Wholesale groceries; earnings in large cities, July 1947. *Mo Labor R* 66:238 Mr '48
- Wholesaler adds retailing; John Sexton & co., institutional grocer to sell to selected independent grocers. *il Bsns W* p52-3 Ap 17 '48
- Why this company has no formal public relations department; Jewel Tea. H. E. Green. *il Ptr Ink* 224:31-3 Ag 13 '48

See also

- Canned food

- Chain stores

- Coffee trade

*also Fraser, Morris and company***Advertising**

- Display installation. N. F. McKean. *il Mod Packaging* 22:134-6 O '48

Food industry and trade

GROCERY trade—Advertising—Continued

- High cost of low readership revealed; 979 newspaper grocery advertisements analyzed. H. S. Barnes. *il Adv & Sell* 41:33-4+ Ja '48
- Independent grocers alliance schedules price promotion in heavy magazine campaign. *Ptr Ink* 222:95 F 13 '48
- IGA's spring campaign exploits national brands in 6,000 groceries; ties in with *Life* in two-week test. J. F. Grimes. *il Sales Management* 60:94+ My 1 '48
- Making contests do double-duty; Kroger ties up a big package of national contests. *il Bsns W* p58+ O 16 '48

GROG

- Investigation of the effect of low-fired grogs on properties of soft-mud brick. R. R. Bowman and R. B. Burdick. *Am Cer Soc J* 31:71-6 Mr 1 '48

GROOVING

- Bush oil-groove cutting machine. *il Engineer* 185:480 My 14 '48
- Tool for oil grooving. J. Satoski. *diags Tool Eng* 21:36 J1 '48

GROSS, Ernest Arnold

- Portrait. *Fortune* 36:85 D '47

GROUND fault neutralizer. See Petersen earth coil**GROUND water.** See Water, Underground**GROUNDNUTS.** See Peanuts**GROUPS and faults.** See Electric distribution—Grounds and faults**GROUP bonus.** See Wage payment plans—Group bonus**GROUP insurance.** See Insurance, Group**GROUP life insurance.** See Insurance, Group life**GROUP medicine.** See Medical service—Group and prepayment plans**GROUP selling.** See Salesmanship—Group selling**GROUTING**

- Dam refaced with precast concrete. *il Eng N* 139:650-4 N 13 '48
- Design and construction of the Anderson Ranch dam. E. L. Armstrong. *il Engineering* 166:265-6 S 17 '48
- Grouted fill protects breakwater at Forestville, Quebec. R. F. Legget and P. A. Harakas. *il map diag Eng N* 141:72-4 S 30 '48
- Grouting repair of masonry arch. E. C. Harding. *il Am Concrete Inst J* 19:502-3 F '48
- Grouting stops compressor sway. *il diags Eng & Min J* 149:93-4 J1 '48
- Restoration of Barker dam. R. E. Davis and others. *il diags Am Concrete Inst J* 19: 633-67 Ap '48; Abstract. *Civil Eng* 18:78-83+ F '48
- Soil stabilization by pneumatic pressure injection methods; Thomas A. Edison vocational and technical high school building, Elizabeth, N.J. *il diag Concrete* 56:40+ Mr '48

GROWTH curves

- Short-cut method of fitting a logistic curve. W. A. Spurr and D. R. Arnold. *Am Stat Assn J* 43:127-34 Mr '48

GROWTH inhibiting substances

- Biosyntheses involving pantothenic acid. W. Shive and others. *bibliog Am Chem Soc J* 69:2667-8 O '47
- Differential effects of 2,4-D on aerobic, anaerobic, and facultative anaerobic microorganisms. W. A. Worth, Jr. and A. M. McCabe. *bibliog Science* 108:16-18 J1 2 '48
- Human saliva as a germination inhibitor. D. Yardeni. *Science* 108:62-3 J1 16 '48; Discussion. M. Kramer and K. Silberschmidt. 108:410 O 15 '48
- Inadequacy of proteolytic enzyme inhibition as explanation for growth depression by lima bean protein fractions A. A. Klose and others. *bibliog Science* 108:88-9 J1 23 '48
- Inhibition of microbiological growth by allylglycine, methallylglycine and crotylglycine. K. Dittmer and others. *bibliog Am Chem Soc J* 70:2499-501 J1 '48
- Pantothenic acid studies; growth effect of pantoic acid analogs. V. H. Cheldelin and C. A. Schink. *bibliog Am Chem Soc J* 69: 2625-8 N '47

- Structure determination and synthesis of a plant growth inhibitor, 3-acetyl-6-methoxybenzaldehyde, found in the leaves of *encella farinosa*. R. Gray and J. Bonner. *bibliog Am Chem Soc J* 70:1249-53 Mr '48
- Synthesis and biological activity of 4-methyl-5-(α -sulfoamyl)-2-imidazolidone, a sulfonic acid analog of desthiobiotin. R. Duschinsky and S. H. Rubin. *bibliog Am Chem Soc J* 70:2546-7 J1 '48

See also

- Dichlorophenoxyacetic acid Weeds—Chemical control
- Polyporin

GROWTH promoting substances

- Control of phases of plant growth by means of chemical regulators. M. A. H. Tincker. *bibliog (128 ref) Chem & Ind p* 163-5, 181-4 Mr 13-20 '48

See also

- Auxins Root forming substances
- Rhizopterlin

GRUMMAN aircraft engineering corporation

- Happy days at Grumman. *il Fortune* 37:112-15+ Je '48

GUAM**See also**

- Architecture, Domes-tic—Guam

GUANIDINE

- Guanidine soaps; properties as detergents. M. Z. Pollakoff and G. E. L. Smith. *bibliog Ind & Eng Chem* 40:335-7 F '48

GUANIDINIUM compounds

- Method of preparing guanidinium and substituted guanidinium salts. J. H. MacGregor. *Soc Chem Ind J* 66:343-4 O '47

GUANIDINO compounds

- Synthetic antimalarials; 2-arylguanidino-4-aminoalkylaminopyrimidines; further variations. W. H. Cliffe and others. *Chem Soc J* p574-81 My '48
- Synthetic antimalarials; some 4-arylguanidino-2- and -6-dialkylaminoalkylaminopyrimidines. A. F. Crowther, F. H. S. Curd and F. L. Rose. *Chem Soc J* p586-93 My '48

GUAR

- Branched structure of guaran. R. L. Whistler, Tsiang Kwang Li and W. Dvornch. *bibliog Am Chem Soc J* 70:3144-5 S '48
- Chemical composition and properties of guar polysaccharides. E. Heyne and R. L. Whistler. *bibliog Am Chem Soc J* 70:2249-52 Je '48

- Guar, a new industrial crop. R. L. Whistler. *il Chem Ind* 62:60-1 Ja '48

- Investigation of the reserve carbohydrates of leguminous seeds; periodate oxidation. O. A. Moe, S. B. Miller and M. H. Iwen. *bibliog Am Chem Soc J* 69:2621-5 N '47

GUARANTEED mortgage certificates. See Mortgage participation certificates**GUARANTEED wages.** See Wage payment plans—Guaranty of earnings**GUARANTY of deposits.** See Banks and banking—Guaranty of deposits**GUARANTY of employment.** See Employment systems—Guaranty of employment**GUARANTY of products**

- Carp with class; Lakefish canning co. acetate-laminated label and double-money-back guarantee. *il Mod Packaging* 21:112-13 Je '48

GUARDS, Factory. See Factory guards**GUATEMALA**

- German investments in Guatemala. J. F. Rippy. *J Bsns* 20:212-19 O '47

See also

- Petroleum laws and regulations—Guatemala

Economic policy

- Law of industrial development. *For Comm W* 30:17-18+ F 21 '48

Foreign relations**Great Britain**

- British Honduras; dispute with Guatemala. *map Economist* 154:384 Mr 6 '48

- Colonial issues at Bogotá; British Honduras and the Falkland Islands; claims against Britain. *Economist* 154:549 Ap 3 '48

Industries and resources

- Law of industrial development. *For Comm W* 30:17-18+ F 21 '48

GUATEMALA tropical research center. See Iowa state college of agriculture and mechanical arts—Guatemala tropical research center

GUAYULE

Chemical investigation in guayule: the structure of parthenol, a sesquiterpene alcohol from guayule. A. J. Haagen-Smit and C. T. O. Fong. *bibliog Am Chem Soc J* 70: 2075-9 *Je* '48

Recovery of rubber latex from guayule shrub. E. P. Jones. *bibliog flow sheet il Ind & Eng Chem* 40:864-74 *My* '48

Rubber from guayule. M. S. Nichimura, F. N. Hirotsawa and R. Emerson. *bibliog diag Ind & Eng Chem* 39:1477-85 *N* '47

GUEST houses

Guest house for a mountain site; Lake Arrowhead, Calif. *il plan Arch Rec* 103:102-5 *F* '48

Guesthouse tomorrow, a small dwelling now. *il plan Arch Forum* 88:130 *Ap* '48

This guest house doubles as home. *il plan Am Bld* 69:110 *D* '47

GUGGENHEIM, Daniel, medal

Guggenheim medal to Lester Gardner. *Aviation W* 48:13 *F* 2 '48

GUIANA, British. See British Guiana

GUIANA, French. See French Guiana

GUIDED missiles. See Bombs, Flying

GULF, Mobile and Ohio railroad

Bonds offered. *Comm & Fin Chr* 167:2788 *Je* 28 '48

Railroad securities. *Comm & Fin Chr* 166: 1954 *N* 13 '47

Railroad securities. *Comm & Fin Chr* 168: 1553 *O* 14 '48

GULF of Mexico. See Mexico, Gulf of

GULF oil corporation

Common stock oversubscribed. *Comm & Fin Chr* 167:546-7 *F* 2 '48

Investment audit. J. C. Clifford. *il Mag of Wall St* 82:232-4+ *Je* 5 '48

Mellon interests relinquish new Gulf Oil stock rights. *Barron's* 28:34 *Ja* 26 '48

GULF states utilities company

Bonds offered. *Comm & Fin Chr* 167:1808 *Ap* 26 '48

Common stock offered. *Comm & Fin Chr* 166: 2553 *D* 22 '47

Common stock subscriptions. *Comm & Fin Chr* 167:252 *Ja* 19 '48

GUM arabic

Electrophoretic mobilities and conductometric activities of potassium, sodium, and lithium salts of gum arabic. D. R. Briggs. *bibliog J Phys & Colloid Chem* 52:76-83 *Ja* '48

Gum arabic production and export. Anglo-Egyptian Sudan. *For Comm W* 29:24 *N* 15 '47

GUMMED tape. See Adhesive tape

GUMS and resins

America's own fossil resin. E. D. Lee. *il map Paint Oil & Chem R* 111:8-9+ *Je* 10 '48

Microbial decomposition of resinous stabilizing agents in soil; abstract. P. C. T. Jones. *Chem & Ind* p201 *R* 27 '48

New edible colloidal gum from linseed oil meal cake can be used in soft drinks, candy, jelly, mayonnaise, ice cream mix, processed cheese. C. T. Mason and L. A. Hall. *il Food Ind* 20:382-3 *Mr* '48

Production of a metallurgical coke from the resin of wallaba wood (*eperua* sp.). R. H. Farmer and W. G. Campbell. *Soc Chem Ind* 67:233-4 *Je* '48

Properties of oleoresins, rosins, and turpen- tines from chemically stimulated slash and longleaf pines. L. W. Mims and M. C. Schopmeyer. *bibliog il Ind & Eng Chem* 39:1504-6 *N* '47

Structure of egg-plum gum; the hydrolysis products obtained from the methylated de- graded gum. E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 120-3 *F* '48

Treatment of wastes from natural gums in chewing gum manufacture. R. P. Logan and W. Rudolfs. *Ind & Eng Chem* 39:1673-5 *D* '47

Waterproofing of soils by resinous materials; abstract and discussion. K. E. Clare. *Chem & Ind* p379-80 *Je* 12 '48

See also

Guar	Naval stores
Karaya gum	Resinous products
Mesquite gum	

Prices

Botanical drugs, spices, gums; 1947 market trends. *Oil Paint & Drug Rep* 153:29-31 *sec 2 F* 16 '48

Statistics

Botanical drugs, spices, gums. Published in weekly numbers of *Oil, paint and drug reporter*

Brazilian production of natural gums. *For Comm W* 32:29 *Jl* 31 '48

GUN metal

Control of gas content during the melting of phosphor bronzes, gun metals and leaded bronzes. W. T. Pell-Walpole. *il Metallurgia* 37:119-23 *Ja* '48

Solidification mechanism of tin bronzes. C. L. Frear. *il diag Foundry* 76:68-71+ *Ap*; 130-2+ *My* '48

GUN sights. See Guns, Aircraft—Sights

GUNITE

Compressed air helps thwart weeds and go- phers; guniting and oil spraying irrigation canals. B. Peplow and E. Peplow. *il Comp Air Mag* 53:193-4 *Ag* '48

Experimental concrete canal linings on the Roza division of the Yakima project. *il Con- crete* 56:9-10 *Ja* '48

Gunite lined tanks save on thickener cost. *Chem Eng* 54:140 *D* '47

Gunite repair to outfall chamber of Winni- peg sewage plant. D. L. McLean. *il Water & Sewage* 86:15-16 *O* '48

Low-cost irrigation flume cover. L. R. Bur- zell. *il Eng N* 140:707 *My* 13 '48

Raising sunken gutters by guniting. J. C. Seelye. *il Pub Works* 79:35 *F* '48

Wintertime guniting at the Soo; Davis lock at Sault Ste Marie. *il diag Eng N* 140: 966-7 *Je* 10 '48

GUNNERY

Good shooting from Shooting Stars; gunnery tests. *il Aero Digest* 56:37 *F* '48

See also

Target practice

GUNS

Theory of the internal ballistics of the hoch- und-niederdruck kanone. J. Corner. *bibliog diag Franklin Inst J* 246:233-48 *S* '48

Manufacture

Old Massachusetts small-arms plant moves half-way underground at no extra cost. *il Arch Forum* 89:13-14 *Ag* '48

GUNS (ordnance)

Chemical erosion of steel by hot gases under pressure. R. C. Evans and others. *bibliog diag J Phys & Colloid Chem* 51:1404-29 *N* '47

Erosion in vent plugs, the effect of vent di- ameter. J. H. Wiegand. *bibliog il diag Franklin Inst J* 244:291-308, 363-84 *O-N* '47

Problems encountered by the Royal electrical and mechanical engineers in the field. E. B. Rowcroft. *diag Inst Mech Eng J & Proc* 158:Proc 178-81 *S* '48; Same cond. *Engi- neering* 165:117 *Ja* 30 '48; Same cond. *Engi- neer* 184:604-5 *D* 26 '47

Manufacture

Ingot factors in the production of seamless gun tubes. J. W. Spretnak and others. *bib- liog il diag Am Soc for Metals Trans* 39: 627-50 *47*

GUNS, Aircraft

Sights

New type of reflecting sight. J. Vogl and S. Tacklind. *il diag Opt Soc Am J* 37:975-8 *D* '47

Research work of the Franklin institute during World war II on airborne fire control apparatus. R. H. McClarren. *il Franklin Inst J* 246:273-91 *O* '48

GUNS, Industrial

- Air gun tests airplane devices; built by Boeing aircraft company, designed primarily for evaluating performance of components of Boeing GAPA (ground to air pilotless aircraft) guided missiles. *il Comp Air Mag* 52:279 N '47
- Celebrate 100,000th gun perforating job. R. Sneddon. *il Pet Eng* 19:84+ JI '48
- Jet caster for opening iron notches in blast furnaces; abstract. J. R. Barnes. *Steel* 122: 107 F 16 '48
- Pneumatic gun speeds furnace repair. *il Comp Air Mag* 53:70 Mr '48
- Study of gun perforating. V. L. Forsyth. *il World Oil* 128:142+ O '48

GURLEY, Fred G. 1889-
Santa Fe; no. 1 railroad. *por Fortune* 38: 122-7+ N '48

GURLEY, W. & L. E.
Gurley firm stages open house in See-us-at-work program. *il Paper Tr J* 126:20 Ja 8 '48

GUTT, Camille Adolph, 1884-
Director of International monetary fund. *por(cover) Bsns W* p6 Je 5 '48

Gutt of the fund. *por Fortune* 37:112-17+ Ap '48

GUTTERS

- Flow through gutter inlet gratings; abstract. C. L. Larson. *Pub Works* 79:32 Je '48
- Raising sunken gutters by guniting. J. C. Seelye. *il Pub Works* 79:35 F '48

GUTTERS (roof)

- Copper contract on seven schools; roofing, roof drainage, cornices and flashings. *il diags Sheet Metal Worker* 39:66-9 Mr '48

GWALTNEY, J. Parks, 1893-
Sketch. H. Ridder. *por Nat Pet N* 40:28-9 F 25 '48

GWYNEDDOSAURUS

- Notes on gwyneddosaurus. F. von Huene. *bibliog diags Am J Sci* 246:208-13 Ap '48

GYMNASIUMS

- Gymnasium addition to small school uses exterior brick for inside walls. *il plan diag Arch Forum* 89:116-17 S '48

GYMNOSPERMS

- Interpretation of lignin; the synthesis of gymnosperm lignin. A. Russell. *bibliog Am Chem Soc J* 70:1060-4 Mr '48

GYPSUM

- Les gisements de gypses français. V. Charrier. *il maps Génie Civil* 124:455-7 D 1 '47
- Gypsum and products, 1941-1946. Survey of Cur Bsns 1947 Sup p 172 [supplemented in monthly numbers]

- Influence of gypsum on the hydration and properties of portland cement pastes. W. Lerch. *bibliog il diags Am Soc T M Proc* 46:1252-92; Discussion. 1293-7 '46

- What causes defective concrete? excessive additions of gypsum may be source of trouble. J. A. Slegten. *Rock Prod* 51:95+ O '48

See also

Plaster of Paris

GYPSUM products

- Australia's new gypsum wallboard plant. K. O. Brown. *il Rock Prod* 51:110-12+ F '48
- Baltimore gypsum plant starts making lath for needed residential building. *il Manuf Rec* 117:29+ Ja '48

- Conveyor system speeds production at Baltimore plant of National gypsum co. S. A. Lauver. *il Manuf Rec* 117:39+ Ap '48

- Gypsum 1947 statistics reported by Mines bureau. *Oil Paint & Drug Rep* 153:79 Ap 12 '48

- Gypsum products sold or used, 1941-1946. Survey of Cur Bsns 1947 Sup p 172 [supplemented in monthly numbers]

- Gypsum squabble: Baltimore's plan to finance new plant for National Gypsum. *il Bsns W* p35-6 Ap 10 '48

See also

National gypsum company

Prices

- Gypsum product prices only 29.4 per cent above 1939; abstract. J. C. Best. *Am Bld* 70: 190+ Ap '48

GYROGRAMS. See Graphic methods

GYROSCOPE

- Gyroscopes and their applications. K. A. Oplinger. *il diags Westinghouse Eng* 8: 75-9 My '48; Same. *Machine Design* 20: 101-5+ JI '48

- Light-weight automatic pilot for planes uses rate gyroscopes. *Mach* 54:167 Ap '48
- Servo and gyroscopic controls; abstract. K. Hohenemser. *Aero Digest* 56:65+ Je '48
- Teaching engineering gyroscopes. W. R. Weems. *il diags J Eng Educ* 38:313-19 D '47

GYROSCOPIC effect

- Gyroscopic effects in a vibratory system. G. S. Bennett. *diag J Ap Phys* 18:1110-12 D '47

H

h. See Planck's constant

HAASE, Eric

- E. Haase leaves ANA to put to work his ideas on business public relations. *por Ptr Ink* 222:100 Ja 23 '48

HACKING, John, 1888-

- Sketch. *por Electrician* 139:1494 N 21 '47

HADFIELD, limited

- Statement by the chairman. D. G. Gordon. *Economist* 154:740 My 1 '48

HADLEY, Nelson B. 1867-1948

- Sketch. *por East Underw* 49:15+ Je 11 '48

HAFNIUM**Isotopes**

- Internally converted radiation from europium, hafnium, and osmium. J. M. Cork and others. *il Phys R* 72:1209-11 D 15 '47

HAFNIUM bromide

- Anhydrous lower bromides of hafnium. W. C. Schumb and C. K. Morehouse. *bibliog diag Am Chem Soc J* 69:2696-7 N '47

HAGEBOECK, Arthur E.

- Grav. Iron Founders award first gold medal. *por Foundry* 76:120+ N '48

HAGEMANN ester

- Synthetic sterols; model experiments employing Hagemann's ester. J. A. Hogg. *bibliog Am Chem Soc J* 70:161-4 Ja '48

HAIL insurance. See Insurance, Hail

HAIR

- Hair loss in neoprene manufacture. W. L. Ritter and A. S. Carter. *J Ind Hygiene* 30: 192-5 My '48

- Inhibition of hair growth by the percutaneous application of certain adrenal cortical preparations. W. L. Whitaker and B. L. Baker. *bibliog il Science* 108:207-9 Ag 27 '48

- Production of unshrinkability by cross-linkage formation in wool; the rate of reaction of mercuric acetate with animal fibres. J. Menkart and J. B. Speakman. *2pls Soc Dyers & Col J* 63:322-4 O '47

Testing

- Bending modulus of animal fibres; human hair and wool. R. M. Khayatt and N. H. Chamberlain. *il diags Textile Inst J* 39: T185-97 My '48

HAIR balls

- Prevention of trichobezoar in the cotton rat, *sigmodon hispidus hispidus*. S. R. Howell and others. *bibliog Science* 107:424-5 Ap 23 '48

HAIR clippers, Electric**Rating**

- Electric hair clippers. *il Consumers Res Bul* 22:23-4 Ag '48

HAIR preparations

- Save your money, hair tonics cannot save your hair. *il Consumers Res Bul* 21:14-16 Ja '48

- \$36,700,000 hair dressing market, and its brand opportunities. V. Meredith. *il Ptr Ink* 222: 62+ Ja 16 '48

HAIRDRESSING**Permanent wave kits**

See Permanent wave kits

HAIRE, Andrew Joseph, 1881-

- Gallery; Andy Haire. *business paper publisher. por Adv & Sell* 40:118+ N '47

HAIRSPRING. See Springs (mechanism)

HAITI

See also

- Child labor laws--

Haiti

HALE, Clayton G.
Joins Spectator staff, por Spectator (Property ed) 14:15 S 23 '48

HALIBUT oil

Vitamin A acetate as a vitamin A standard, N. B. Guerrant and others, bibliog Anal Chem 20:465-9 My '48

HALIDES

Aliphatic nitro-compounds; preparation of nitro-paraffins by 1:4-addition of organometallic halides to α -nitro-olefins, G. D. Buckley and E. Ellery, Chem Soc J p 1497-500 N '47

Crystal structure of CsCuCl₂ and the crystal chemistry of complex halides ABX₃, A. F. Wells, diags Chem Soc J p 1662-70 D '47

Electropotentials in growing halide and oxide layers on metals, A. Dravnieks and H. J. McDonald, bibliog diags Electrochem Soc J 93:177-90 My '48

Ionic hydration and activity in electrolyte solutions, R. H. Stokes and R. A. Robinson, bibliog Am Chem Soc J 70:1870-8 My '48

Ketene dimers from acid halides, J. C. Sauer, bibliog Am Chem Soc J 69:2444-8 O '47

Kinetic evidence for a termolecular mechanism in displacement reactions of triphenylmethyl halides in benzene solution, C. G. Swain, bibliog Am Chem Soc J 70:1119-28 Mr '48

Preparation of *p*-phenylphenacyl iodide, and redetermination of the melting points of some phenacyl halides, H. Rheinboldt and M. Perrier, bibliog Am Chem Soc J 69:3148-9 D '47

Role of neighboring groups in replacement reactions; general theory of neighboring groups and reactivity, S. Winstein and E. Grunwald, Am Chem Soc J 70:828-37 F '48

Ultrasonic velocity in some organic halides; constitutive effects, R. T. Lagemann, J. S. Evans and D. R. McMillan, jr. Am Chem Soc J 70:2996-9 S '48

See also

Alkyl bromides

Alkyl halides

Bromides

Chlorides

Fluorides

Grignard reagents

Iodides

Tetrahalides

Analysis

Improved method for the determination of volatile halogenated hydrocarbons in blood and other biological materials, W. C. Alford, bibliog diag J Ind Hygiene 29:396-9 N '47

HALL effect

Hall and Kerr effects at microwave frequencies, S. P. Cooke, diags Phys R 74:701-2 S 15 '48

Improved method for measuring Hall coefficients, I. Isenberg and others, diags R Sci Instr 19:685-8 O '48

Magnetic field strength meter employing the Hall effect in germanium, G. L. Pearson, il diags R Sci Instr 19:263-5 Ap '48

HALLIBURTON oil well cementing company

Common stock offered, Comm & Fin Chr 167:2132-3 My 17 '48

Halliburton growing, servicing oil boom, Barron's 28:33 O 4 '48

HALOGEN compounds

Addition of halogen compounds of phosphorus to organic compounds; abstract, M. I. Kabachnik, Chem Eng 55:308+ O '48

Application of the halogen-metal interconversion reaction to syntheses with isotopic carbon, A. Murray, 3d, W. W. Foreman and W. Langham, bibliog diag Am Chem Soc J 70:1037-9 Mr '48

Copolymers of butadiene with halogenated styrenes, C. S. Marvel and others, bibliog Ind & Eng Chem 39:1486-90 N '47

Electronics simulates sense of smell; emission of ions from heated platinum increased in presence of halogen vapor compounds, W. C. White and J. J. Hickey, il diags Electronics 21:100-2 Mr '48

Force constants and frequency assignments for some substituted methylacetylenes, A. G. Meister, bibliog J Chem Phys 16:950-9 O '48

Force constants for some halomethanes, J. C. Decius, bibliog diags J Chem Phys 16:214-23 Mr '48

Halogen fluorides, H. S. Booth and J. T. Pinkston, jr. bibliog Chem R 41:421-39 D '47

Metalation studies in the thiophene series; preparation of 2-thienylsodium and the 5-halo-2-thienylsodiums, J. W. Schick and H. D. Hartough, bibliog Am Chem Soc J 70:286-8 Ja '48

Reaction of halogenomagnesium dialkylamides with nitriles; the preparation of N,N-disubstituted amidines, E. Lorz and R. Baltzly, Am Chem Soc J 70:1904-7 My '48

Reaction of ketene with organic halogen compounds, A. T. Blomquist, R. W. Holley and O. J. Sweeting, bibliog Am Chem Soc J 69:2356-8 O '47

Reaction of ketone with 2-nitro-4-chlorophenylsulfenyl chloride and other organic halogen compounds, A. Roe and J. W. McGeehee, bibliog Am Chem Soc J 70:1662 Ap '48

Sensitive halogen leak detector, il diag Product Eng 19:99 O '48

Sensitive leak detector locates halogen compounds, R. H. Munch, il diag Ind & Eng Chem 40:sup69A-70A Jl '48

Synthesis of 5-halogeno-2-thiouracil and 6-methyl-5-halogeno-2-thiouracil derivatives, H. W. Barrett, I. Goodman and K. Dittmer, bibliog diag Am Chem Soc J 70:1753-6 My '48

Trimethylhalosilane preparations, B. O. Pray and others, bibliog Am Chem Soc J 70:433-4 Ja '48

Analysis

Quantitative volumetric analysis of carbon-bonded halogen with sodium naphthalene, F. L. Benton and W. H. Hamill, Anal Chem 20:269-70 Mr '48

HALOGENATION

Acid-base catalysis in non-aqueous solvents; the halogenation of acetone by various N-halogen compounds in chlorobenzene solution at 50°, R. P. Bell and A. D. S. Tantram, Chem Soc J p370-4 Mr '48

Addition of halogens to an acetylenic ketone, C. L. Bickel, Am Chem Soc J 70:763-4 F '48

Chemical engineering unit processes, E. T. McBee, Ind & Eng Chem 40:1611-19 bibliog (207 ref, p 1617-19) S '48

Correlation of rates of halogenation of methylbenzenes, F. E. Condon, bibliog Am Chem Soc J 70:1963-4 My '48

Halogenated ketones; the application of the Friedel-Crafts reaction to the preparation of halogenated aliphatic ketones, J. R. Catch and others, Chem Soc J p278-81 Mr '48

Halogenation of *m*-5- and *m*-2-xylenol; mixed chlorobromo-derivatives, S. W. Glead and A. T. Peters, Chem Soc J p209-11 F '48

Halogenation of *m*-5- and *m*-2-xylenols; preparation and structure of certain polyhalogeno-*m*-5- and -*m*-2-xylenols, C. H. R. Elston, A. T. Peters and F. M. Rowe, Chem Soc J p367-70 Mr '48

Kinetics of aromatic halogen substitution; the 1-halogenonaphthalenes and related compounds, P. E. D. de la Mare and P. W. Robertson, Chem Soc J p 100-6 F '48

Kinetics of halogen addition to unsaturated compounds; iodine catalysis of chlorine and bromine addition to ethyl cinnamate, H. D. C. Waters, A. R. Caverhill and P. W. Robertson, Chem Soc J p 1168-72 S '47

Kinetics of halogen addition to unsaturated compounds; α -unsaturated ketones and quinones, H. P. Rothbaum, I. Ting and P. W. Robertson, Chem Soc J p380-4 Jl '48

Ortho and para substituted derivatives of benzotrifluoride, R. G. Jones, bibliog Am Chem Soc J 69:2346-50 O '47

Products from petroleum halogenation, G. Egloff, Oil & Gas J 47:112-14 O 14 '48

Some nuclear halogenated derivatives of α,α -dihydroxymalonanilide, B. Witten and H. H. Rosen, Am Chem Soc J 70:3143-4 S '48

Study of new approaches to α -halogenated orthoesters, S. M. McElvain and C. L. Stevens, bibliog Am Chem Soc J 69:2667-70 N '47

See also

Bromination

Chlorination

Fluorination

Iodination

HALOGENS

Displacement of halogen; lecture demonstration. E. C. Gillette, Jr. and F. S. Rose. J Chem Educ 25:257-8 My '48

Halogen-halogen distances in halogen-polymer complexes. R. E. Rundle. bibliog J Chem Phys 15:880 D '47

Physical properties and chemical constitution; the parachors and the refractivities of the halogens. A. L. Vogel. Chem Soc J p644-54 My '48

Self-quenching halogen-filled counters. S. H. Liebson and H. Friedman. bibliog R Sci Instr 19:303-6 My '48

See also

Bromine	Fluorine
Chlorine	Iodine

Analysis

Approximate method for the determination of active halogens. J. R. Sampey, A. E. King and B. C. Blitch. Am Chem Soc J 70: 2606 JI '48

Bomb methods in microchemistry. J. H. Beaucourt. Metallurgia 38:297-9 S '48

Micro methods for the determination of halogens. J. H. Beaucourt. bibliog Metallurgia 38:353-5 O '48

Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others. bibliog Anal Chem 19:1035-9 D '47

HAM

Pitch-dipped meats; Swift Sealite package preserves hams and bacon slabs. il Mod Packaging 21:123-30 My '48

HAMILTON, John Henry, 1858-1932

John Henry Hamilton and his work. H. J. Gibbons. Engineering 165:547-8, 558-9 Je 4-11 '48

HAMM, Edward Frederick, 1908-

New president of Associated business papers. Ptr Ink 223:104 Je 11 '48

HAMMERS

See also

Pneumatic hammers

HAMMERS, Drop

Versatility in drop hammer work. il Sheet Metal Worker 39:45-6 S '48

HAMMERS, Pneumatic. See Pneumatic hammers

HAMMURABI, Code of

If a slave girl led; law code of Lipit-Ishtar, antedates code of Hammurabi. F. R. Steele. il Sci Am 178:44-7 Je '48

HAND, Learned, 1872-

Antitrust campaign. por Fortune 38:62-7 JI '48

HAND

Liquid hand cleaners; new developments, including non-soap products. M. A. Lesser. bibliog(34 ref) il Soap & San Chem 24:37-40+ Je '48

Marked men; calluses and other occupational stigma. diags Tech R 50:148+ Ja '48

Waterless hand cleaners. M. Lesser. bibliog Soap & San Chem 24:43-50, 181 Ap '48

See also

Left and right handedness

Injuries

Secondary closure of wounds of the hand. M. L. Mason. il Ind Med 17:12-16 Ja '48

Protection

Hands and arms. Nat Safety N 57:59-61 Mr '48

HANDICAPPED

Employment of cardinals. H. B. Sprague. bibliog Ind Med 17:279-82 Ag '48

Handicapped workers on the job. il Am Bsns 18:224+ My '48

Performance of physically impaired workers in manufacturing industries. H. S. Hammond and others. U S Bur Labor Statistics Bul 923:1-132 '48; Abstract. Mo Labor R 66:31-3 Ja '48

Rehabilitation and placement of handicapped workers. W. P. McCahill. Mo Labour R 67:282-5 S '48

See also

Blind	Disabled—Rehabilitation
Deaf	Deaf

Bibliography

Employment of the physically handicapped; selected references. H. M. Steele and L. A. Wyckoff, comps. 68p. U.S. Dept. of labor, Washington 25, D.C. '48

HANDICRAFT

Revival of handicraft industries, Spain. For Comm W 29:25-6 D 6 '47

HANDLES, Plastic

Ethyl cellulose for tool handles. il Mod Plastics 25:117 Ap '48

Iron features phenolic and acetate. il Mod Plastics 26:95 O '48

Molding a universal handle. W. Schack. il diag Plastics 8:22-4+ Ja '48

Phenolics break into paint brush field. il diags Plastics 8:16-17+ F '48

Manufacture

Plant fire protection. S. G. Freck. il Mod Plastics 25:134+ Je '48

HANDLING, Mechanical. See Mechanical handling

HANDLING of materials. See Material handling

HANDS, Artificial. See Artificial limbs

HANDWRITING. See Graphology

HANDY associates, Inc.

Specializes in recruiting persons for jobs paying a minimum of \$10,000. Fortune 36:140 D '47

HANGARS

Form on traveler speeds arch concreting; two hangars built at Chicago airport. N. Gray. il Eng N 141:108-10 Ag 19 '48

Reinforced concrete shells span 257 ft. wide airplane hangars for American airlines at Chicago. il diags Arch Forum 89:138-9 S '48

Shortage of hangars bar to private flying. Aviation W 48:37 Mr 8 '48

Thin-shell arch hangars span 257 ft. B. G. Anderson. il diags Eng N 141:55-7 JI 22 '48

Fires and fire protection

Excess hangar losses. Rough Notes 90:37 D '47

Hangar fire losses can be reduced. E. B. Rumble. il Aero Digest 56:52-3+ Ja '48

Heating and ventilation

Report on radiant heating; General electric company's test hangar. J. L. Ottenheimer. il Eng N 141:101-2 S 16 '48

Lighting

480-volt series incandescent; lighting Moffett Field hangar. il Elec West 99:74 N '47

Series 480-v lighting is economical; hangar, located at naval air station, Moffett Field. O. O. Rands. il diag Elec World 129:33 Ja 3 '48

HANNA, Hugh Sisson, 1879-1948

Sketch. Mo Labor R 66:sup2 Ja '48

HANNA, M. A., company

Common falls behind market. Barron's 28: 35 Je 21 '48

HANRAHAN, Edmond M. 1906-

Named chairman of SEC. por Comm & Fin Chr 167:2189 My 20 '48

Portrait. Bsns W p69 Ja 24 '48

Portrait. Bsns W p36 My 29 '48

HANSARD, John Henry

Portrait. Fortune 37:79 F '48

HAPTENS

Reactions of antiserum homologous to the p-azosuccinylate ion group. D. Pressman, J. H. Bryden and L. Pauling. bibliog Am Chem Soc J 70:1352-8 Ap '48

HARBOR plywood corporation

Stock offered. Comm & Fin Chr 166:2103-4 N 24 '47

HARBORS

Emergency repairs to continental ports. il map Engineering 164:337-8, 348, 385-7, 433-4, 444, 481-2, 492 O 10, 24, N 7, 21 '47

European harbor installations; attempts to reduce silting. G. F. Dixon. Civil Eng 18: 244 Ap '48

HARBORS—Continued

Surplus pontoons make boat harbor for fleet of fishing boats at Eureka, Calif. *il diags Eng N 141:112-13 O 14 '48*

See also

Breakwaters	Ports
Piers	Wharves
also subdivision Harbor under names of cities, e.g.	
Cherbourg, France	Marseilles
Havre, France	New York (city)

HARD FACING

Carbide welding rods developed for hard-facing. Steel 123:119 N 1 '48

Effect of welding practice on abrasion resistance of hard facings. R. D. Haworth. *il Iron Age 162:82-7 O 7 '48*

Hard faces live long. H. R. Clauser. *il Sci Am 177:255-7 D '47*

Hard facing improves tool life; Glenn L. Martin co., L. Barrett. *il Am Mach 92:94-5 Ap 8 '48*

Hard facing prolongs cutting edges. *il Roads & Str 90:109-11 O 4 '47*

Hard surfacing by fusion welding; abstract. H. S. Avery. *Oil & Gas J 46:111 Ap 22 '48*

Hard surfacing by fusion welding. H. S. Avery. *il Steel 123:96-100+ O 11 '48*

High manganese steel and its deposition by arc welding. R. W. Edwards. *il Metallurgia 38:12-14+ My '48*

Increase life of farm equipment parts by hard-facing; illustrations with text. J. E. Dato. *Welding J 27:726-7 S '48*

Regular hard-facing of ten machinery parts cuts upkeep cost ten per cent at Belden. *il Brick & Clay Rec 112:56+ Je '48*

Simple steps in hard-facing. *diags Coal Age 53:100 Mr '48*

Some considerations in hard surfacing. D. B. Rankin. *il Iron Age 161:91-3 Je 17 '48*

Technical aspects of hard-facing welding. J. C. Ehle. *Rock Prod 51:182-3 Ap '48*

Toolweld electrode for hard-surfacing tools. *Mach 64:189 F '48*

HARDENING

Effect of thermal-mechanical history on the strain hardening of metals. J. E. Dorn and others. *bibliog il diags Metals Tech 15:TP2445 1-20 S '48*

Precipitation-hardened alloys for gas-turbine service. H. Scott and R. B. Gordon. *il A S M E Trans 69:583-99 Ag '47; Abstract. Metal Prog 53:589-90+ Ap '48*

Stress-relief-hardening of beryllium copper. R. W. Carson. *il Mech Eng 69:651-4 Ag '47; Discussion. 70:162-3 F '48*

See also

Case hardening
Metals—Aging
Steel, Hardening of

HARDING, Charles Barney, 1899-
Shade of Jay Cooke, *por Fortune 37:132+ Ap '48*

HARDNESS

Hardness ranges for various materials; tabulation; engineering file facts. S. D. Smoke, comp. *Materials & Methods 27:105, 107 My '48*

Testing

Constitution and microhardness of fused corundum abrasives. N. G. Schrevelius. *bibliog Am Cer Soc J 31:170-5 Je 1 '48*

Determination of Knoop hardness numbers independent of load. L. P. Tarasov and N. W. Thibault. *bibliog Am Soc for Metals Trans 38:331-48; Discussion. 348-53 '47*

Dynamic hot hardness testing (with special reference to isothermal transformations. G. M. Enos and others. *il diag Metal Prog 54:51-5 J1 '48*

Hard surfacing by fusion welding; abstract. H. S. Avery. *Oil & Gas J 46:111 Ap 22 '48*

Hardenability of shallow hardening steels determined by the P-V test. B. F. Shepherd. *il diags Am Soc for Metals Trans 38:354-85; Discussion. 385-97 '47*

Hardness testing of metals and alloys at elevated temperatures. F. P. Bens. *bibliog il diag Am Soc for Metals Trans 38:505-13; Discussion. 513-16 '47*

Hardness testing of soft metals. T. H. Gray. *bibliog Iron Age 161:82-7+ Je 24 '48*

Hardness testing with a ball tracing machine; abstract. H. Haultman. *diags Product Eng 18:124-6 D '47*

How to make and interpret hardness tests on plastics. V. E. Lysaght. *il Materials & Methods 27:84-8 My '48*

Impact strength and hardness of aircraft alloys down to — 423°F. M. G. Fontana and J. L. Zambrow. *il diags Metal Prog 53:97-101 Ja '48*

Measured Knoop hardness of hard substances and factors affecting its determination. N. W. Thibault and H. L. Nyquist. *bibliog il Am Soc for Metals Trans 38:271-323; Discussion. 323-30 '47*

Measuring the micro-hardness of steel. *il Mach 54:166-7 Ja '48*

Methods and instruments for hardness testing. A. M. White. *il Steel 123:74-6+ J1 26 '48*

Micro-hardness testing of metals. E. W. Taylor. *il Engineering 166:261-4 S 10 '48; Abstract. Engineer 186:307 S 24 '48; Discussion. Engineering 166:305-6 S 24 '48; Engineer 186:307-8 S 24 '48*

New micro-hardness tester; abstract. M. R. Girschig. *Materials & Methods 27:108-9 Ja '48*

Production hardness testing speeds manufacture of aluminum extrusion and tube products. O. L. Mitchell. *Steel 122:104+ My 3 '48*

Simple, accurate microhardness testing device. E. B. Bergsman. *il Metal Prog 54:183-8 Ag '48*

Theory of static and dynamic hardness. D. Tabor. *Engineering 165:289-92 Mr 26 '48*

Use of the Jominy test in studying commercial age-hardening aluminum alloys. B. M. Loring and others. *diag Metals Tech 15:TP2337 1-9 F '48*

See also

Brinell hardness test

HARDWARE

Dealer's choice; hardware retailers told Scovill mfg. co. what they wanted. *il Mod Packaging 21:111 J1 '48*

Palletizing doubles warehouse capacity of pole line hardware manufacturer; Oliver iron & steel corp. W. W. Hiller. *il Steel 122:103, 119 F 2 '48*

Manufacture

Infrared oven unit triples production at Yale & Towne mfg. co.'s plant; enameling of locks and builders' hardware. *il Elec World 129:198+ Ja 17 '48*

HARDWARE industry

Plastics parts make sales for the hardware dealer. M. Meyers. *il Plastics 8:46-8+ Mr '48*

Traffic items build appliance and fixture sales; dealer picks hardware as showroom traffic builder. *il Dom Eng 170:94-5+ D '47*

Advertising

Hardware industry shows promise of heavier advertising. N. Kelné. *Ptr Ink 225:82 O 22 '48*

HARDWARE stores

Business of their own; Fowler & Graham, Greenwich, Conn. *il Fortune 37:98-101+ My '48*

HARDY, Edward Roche

Retiring as secretary of Insurance institute of America, *por East Underw 49:18+ Ja 30 '48; Nat Underw 52:13+ Ja 29 '48; Weekly Underw 158:350 Ja 31 '48*

HARMAN

Synthesis of β -carboline; 3-amino-harman and some of its derivatives. H. R. Snyder, S. M. Parmerter and H. G. Walker. *Am Chem Soc J 70:237-9 Ja '48*

Synthesis of derivatives of β -carboline; the nitration of harman. H. R. Snyder, S. M. Parmerter and L. Katz. *bibliog Am Chem Soc J 70:222-5 Ja '48*

HARMONIC analysis

See also

Bessel's functions

HARMONIC motion. See Vibration**HARMONICA**

Harmonica merry-go-round; turntable assembly line. *il Bsns W p32 Ja 3 '48*

- HARMONICA, Plastic**
Musical instruments award to Magnus harmonica corporation. *il Mod Plastics* 26:148-15 S '48
- HARMONICS (electric waves)**
Frequency measurement by sliding harmonics. J. K. Clapp. *diags Inst Radio Eng Proc* 36:1285-8 O '48
Graphical determination of percent harmonic distortion. R. W. Buchheim. *Electronics* 21:170-2 J '48
Influence of saturation on the differential leakage in squirrel cage motors. B. Heller. *Electrician* 141:477-81 Ag 13 '48
- HARNED, Samuel A.**
25-year BBD&O veteran shoulders huge Lucky Strike account. *por Ptr Ink* 223:110 Ap 23 '48
- HARNESSES**
World-wide business in a side street store; Miller harness co. shifts to riding equipment. E. Whitmore. *il Am Bsns* 18:10-11+ J '48
- HARP, Electric**
Acoustical patent. *diag Acoustical Soc Am J* 19:1013 N '47
- HARRIMAN, William Averell, 1891-**
Portrait. *Fortune* 38:66 Ag '48
- HARRIMAN memorial medals for safety**
Bestow Harriman awards for 1947 safety records. *Ry Age* 125:589-91 S 25 '48; *Abstract. Nat Safety N* 58:102 O '48
Harriman medals awarded for passenger safety. *Nat Safety N* 56:60 N '47
- HARRINGTON, Daniel, 1878-**
Appreciation. C. Fish. *por Nat Safety N* 57:54 Je '48
Honored by many organizations. *por Nat Safety N* 58:60+ S '48
Well done. Dan Harrington. *por Eng & Min J* 149:69 Ap '48
- HARRISON, George Leslie, 1887-**
Portrait. *Bsns W* p90 My 22 '48
- HARRISON, William Henry, 1892-**
Portrait. *Bsns W* p80 J '48
- HARRISONS and Crosfield**
Great merchant adventurer; Harrisons & Crosfield makes money in anything, all over the world. G. Burck. *il Fortune* 38:82-9+ J '48
- HARRODS, limited**
Statement by the chairman at 58th annual general meeting. R. Burbidge. *Economist* 154:480-1 Mr 20 '48
- HARSHAW chemical company**
Subscriptions to stock. *Comm & Fin Chr* 167:847 F 23 '48
- HARTENHEIM, Max, 1873-**
Ceramic abstracter. *por Am Cer Soc Bul* 27:430 O 15 '48
- HARTFORD, Connecticut**
Streets
Better riding streets at lower cost. R. W. Thompson. *il Pub Works* 79:19-20 Mr '48
- HARTLEY, Earnald George Justinian, 1875-1947**
Sketch. M. P. Applebey. *Chem Soc J* p899-901 Je '48
- HARTOG, Arthur**
Portrait. *Fortune* 37:79 F '48
- HARTOG, Philip Joseph, 1864-1947**
Sketch. D. McKie. *Chem Soc J* p901-3 Je '48
- HARVARD university**
Graduate school of business administration
Ivory hunting on the Charles; selecting Harvard men for business jobs. *Fortune* 37:116 Ja '48
- HARVESTING machinery**
See also
Corn harvesting machinery
HARVEY, Julien Harris, 1884-
Receives Williams medal. *East Underw* 49:35 S 24 '48
- HASTELLOY. See Nickel alloys**
- HASTINGS, Glover Street, 1864-1948**
Sketch. *East Underw* 49:3 Ag 6 '48; *Nat Underw (Life ed)* 52:11 Ag 6 '48
- HATCH covers**
New lighterage barge has full-opening hatch cover. *il Marine Eng* 53:100 Mr '48
- HATCHERIES, Poultry. See Poultry hatcheries**
- HATFIELD, William Herbert, 1882-1943**
Services to metallurgy of the late Dr W. H. Hatfield. F.R.S. G. B. Waterhouse. *Iron & Steel Inst J* 153:369-75 no 1 '46; *Same cond. Engineering* 161:461 My 17 '46
- HATS**
See also
Dyes and dyeing—
Felt hats
Millinery
Advertising
This promotion takes advantage of a trend; Stetson hats in the West. I. B. Jordan. *jr. il Ptr Ink* 221:35 D 19 '47
- HATS, Safety**
Head protection. *il Nat Safety N* 57:32 Mr '48
- HAULAGE**
Manufacturers' ideas to meet difficult operating problems; haulage; illustrated descriptions of latest equipment. *il Rock Prod* 50:109-11 D '47
See also
Conveying machinery
Electric trucks, industrial
Locomotives
Mine haulage
Motor trucks
Tractors
Trucks
- HAUSERMANN, John William, 1867-**
Untamed capitalist of Luzon. *por Fortune* 37:116-19+ My '48
- HAVANA, Cuba**
See also
Rain and rainfall
Havana
- HAVEG**
Sulphuric acid versus construction materials. E. P. Mampe. *Chem Eng* 55:236 J '48
- HAVRE, France**
Harbor
France rebuilds her ports. W. G. Bowman. *il plan Eng N* 141:99-101 Ag 19 '48
- HAWAIIAN electric company, ltd.**
Stocks offered. *Comm & Fin Chr* 168:546 Ag 9 '48
- HAWAIIAN ISLANDS**
See also
Kalakaua, David (king of Hawaii)
Sugar industry and trade—Hawaiian Islands
Water supply—Hawaiian Islands
Economic conditions
Economic and labor conditions in Hawaii. J. H. Shoemaker. *Mo Labor R* 66:488-92 My '48
Economic and market highlights of the Territory of Hawaii. *Sales Management* 60:504 My 10 '48
Effect of the war upon the distribution system of the Territory of Hawaii. S. Banks. *J Bsns* 20:220-9 O '47
Industries and resources
Four props to Hawaii's economy. *il Bsns W* p74+ Ag 7 '48
- HAWAIIAN-PHILIPPINE company**
Preferred stock offered. *Comm & Fin Chr* 167:650 F 9 '48
- HAY**
Diversity of amino acids in legumes according to the soil fertility. V. L. Sheldon and others. *Science* 108:426-8 O 22 '48
- HAY drying**
Baled hay cured at two kw/hr per bale. J. W. Hall and A. W. Cook. *il Elec World* 129:82 Ja 31 '48
Electric hay-drier increases farm income. *Elec World* 128:128 D 6 '47
Hay curing averages 60 kw/hr per ton; farm of W. Prescott Adams. *il Elec World* 129:97 F 28 '48
- HAY handling**
Why hand pick buyers for a new product? Allis-Chalmers' hay baler. *Sales Management* 59:111 D 1 '47
- HAYDITE aggregate. See Concrete—Aggregate**
- HAYES, Hammond Vinton, 1860-1947**
H. V. Hayes; his contribution to telephony. E. L. Bowles. *por Inst Radio Eng Proc* 36:443-5 Ap '48
- HAZELTINE corporation**
Reserves, development costs slow Hazel-tine's dividends. *Barron's* 28:33 Ap 12 '48

HEAD

Protection

Eye and face protection, *il* Nat Safety N 57:27-8+ Mr '48

Head protection, *il* Nat Safety N 57:32 Mr '48

Wounds and injuries

Head injuries and shock, W. N. Kemp, *il* Nat Safety N 58:38-9 Ag '48

HEADFRAMES

East Malartic mines; construction of concrete head frame and surface buildings, A. J. Grant, jr. *il* map diags Can Min J 69:67-74 My '48

HEADING machines

Fundamentals of cold heading, H. E. Linsley, diags Am Mach 92:99-110 Ap 8 '48

HEADLIGHTS, Automobile. See Automobiles—Lighting

HEADLIGHTS, Locomotive. See Locomotive headlights

HEADLINES

What the business paper editor can learn from the advertising man; plea for more thought in fewer words, L. Gibson, *Ind Marketing* 33:41+ Ja '48

See also

Advertising copy—Headlines

HEALTH and accident underwriters conference

Accident insurance wins public acclaim; review of 1947 activities, G. W. Kemper, *il* Weekly Underw 158:85-6 Ja 3 '48

Annual meeting, 47th, San Francisco, May 10-13, East Underw 49:30-1 My 14; 34+ My 21 '48; Nat Underw 52:17 My 13 '48; Nat Underw (H.&A. conference no) 52:3-15 My 14 '48; Nat Underw (Life ed) 52:1 My 14 '48; Spectator (Property ed) 13:14 My 20 '48; Weekly Underw 158:1425+, 1454-61 My 15 '48

Committees named, East Underw 49:38 O 8 '48; Same abr. Nat Underw 52:34 S 23 '48

Midyear meeting, Chicago, Feb. 3-5, East Underw 49:27+ F 6; 36-8+ F 13 '48; Weekly Underw 158:526-8 F 14 '48

HEALTH centers

Medical service plans under collective bargaining; Labor health institute in St Louis and the Union health center in Philadelphia, J. Silver and L. Janis, *Mo Labor R* 66:34-9 Ja '48

HEALTH education

Role of health education in a public health program, M. Derryberry, *Pub Health Rep* 62:1629-41 N 14 '47

Directories

Directory of colleges, universities and professional schools offering training in occupations concerned with health, C. B. Benson, comp. 171p pa \$2 Institute of women's professional relations, Connecticut college, New London, Conn. '45

HEALTH insurance. See Insurance, Health

HEALTH resorts, watering places, etc.

Spa for the Elizabeth Arden co. on mountain desert tract near Phoenix; design by F. L. Wright, *il* plan Arch Forum 88:85-6 Ja '48

HEARING

Atonal interval, I. Pollack, bibliog diags Acoustical Soc Am J 20:146-9 Mr '48

Effect of noise in one ear upon the loudness of speech in the other ear, J. P. Egan, diags Acoustical Soc Am J 20:58-62 Ja '48

Effects of differentiation, integration, and infinite peak clipping upon the intelligibility of speech, J. C. R. Licklider and I. Pollack, bibliog diags Acoustical Soc Am J 20:42-51 Ja '48

Elasticity of the cochlear partition, G. v. Békésy, bibliog *il* diags Acoustical Soc Am J 20:227-41 My '48

Influence of interaural phase on interaural summation and inhibition, I. J. Hirsh, bibliog diags Acoustical Soc Am J 20:536-44 Ji '48

Influence of interaural phase relations upon the masking of speech by white noise, J. C. R. Licklider, bibliog *il* diags Acoustical Soc Am J 20:150-9 Mr '48

Loudness of repeated short tones, W. R. Garner, bibliog *il* diags Acoustical Soc Am J 20:513-27 Ji '48

Masking of tones by repeated bursts of noise.

G. A. Miller and W. R. Garner, diags Acoustical Soc Am J 20:691-6 S '48

Monaural and binaural threshold sensitivity for tones and for white noise, I. Pollack, bibliog diags Acoustical Soc Am J 20:52-7 Ja '48

Perception of repeated bursts of noise, G. A. Miller and W. G. Taylor, bibliog diags Acoustical Soc Am J 20:171-82 Mr '48

Perception of short bursts of noise, G. A. Miller, bibliog Acoustical Soc Am J 20:160-70 Mr '48

Time integral basic to optimum reverberation time, J. P. Maxfield, Acoustical Soc Am J 20:483-6 Ji '48

See also

Deafness

Noise

Ear

Sound

Hearing aids, Mechanical

Testing

Feasibility of group audiometry, C. K. Myers and others, bibliog *Ind Med* 17:245-52 Ji '48

Massachusetts hearing test, P. W. Johnston, *il* diags Acoustical Soc Am J 20:697-703 S '48

HEARING aids, Mechanical

Communications award to Paravox, *il* Mod Plastics 26:122-3 S '48

Comparative performance of an experimental hearing aid and two commercial instruments, C. V. Hudgins and others, bibliog *il* diags Acoustical Soc Am J 20:241-58 My '48

Hearing aid uses printed wiring; Solo-pak, *il* Bsns W p72 N 8 '47

Hearing aid uses 22 plastics parts, *il* Plastics 8:13-15+ Ja '48

Humanizing the business letter; Sonotone keeps customer sold, C. C. Agate, *Ptr Ink* 224:64-5+ Ji 16 '48

Induction heated molds, H. Chase, *il* Mod Plastics 25:114 Ji '48

Influence of body-baffle effects on the performance of hearing aids, E. H. Nichols, jr. and others, bibliog *il* Acoustical Soc Am J 19:343-51 N '47

Precision soldering of small parts; Zenith hearing aid, *il* Iron Age 162:77 S 9 '48

Printed circuits on plastics, *il* Mod Plastics 25:163 Ag '48

Printed electronic circuits utilized by Allen-Howe electronics corp. to reduce the size of hearing aids, *il* Machine Design 20:107 F '48

Selling a product that nobody wants to buy; Sonotone subtle sales methods, L. Reed, *il* Adv & Sell 40:33-4+ D '47

Speech communication under conditions of deafness or loud noise, W. G. Radley, *Inst E E J* 95 pt 1:201-4 My '48

Sub-miniature valves for hearing aids, Engineer 185:145 F 6 '48

Testing

Cavity pressure method for measuring the gain of hearing aids, E. L. R. Corliss and G. S. Cook, diags J Res Nat Bur Stand 40:85-91 Ja '48; Same, Acoustical Soc Am J 20:131-6 Mr '48

HEARN department stores, inc.

How to woo customers and win friends; the story of Stuyvesant Town, J. Pearl, *J Retailing* 24:26-7+ F '48

HEARNE, Texas

Hearne's municipal utilities show a profit, N. L. McCarver, *il* Pub Works 78:29-30 N '47

HEARST, William Randolph, 1863-

Hearst views compiled in 765-page booklet, C. Watson, Ed & Pub 81:8 O 2 '48

HEART

Structure and synthesis of cardiac genins, R. B. Turner, Chem R 43:1-42 bibliog(205 ref. p38-42) Ag '48

See also

Cardiographometer

Diseases

Aggravation of heart disease, Safety Eng 94:53 D '47

Cardiac case in industry; abstract, H. H. Steinberg, *Ind Med* 16:548 N '47

HEART—Diseases—Continued

Cardiac rehabilitation in a sheltered workshop. M. Klapper. *bibliog Ind Med* 17:337-40 S '48

Cardiovascular problems in railroad industry. R. W. Edmonds and H. Fell. *Ind Med* 17:7-8 Ja '48

Employment of cardinals. H. B. Sprague. *bibliog Ind Med* 17:279-82 Ag '48

Importance of the methoxy group in antifibrillatory compounds. J. R. DiPalma and J. J. Lambert. *bibliog Science* 107:66-8 Ja 16 '48

Life insurance medical research fund; grants in aid of research in cardiovascular disease. *Science* 107:468-70 My 7 '48

New public health laws; National heart act. *Pub Health Rep* 63:1059-63 Ag 13 '48

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 rural families examined by the Farm security administration, 1940; variation of blood pressure and heart disease with age; and the correlation of blood pressure with height and weight. M. Gover. *Pub Health Rep* 63:1083-1101 *bibliog* (48 titles, p1099-101) Ag 20 '48

Statistical studies of heart diseases; heart diseases and allied causes of death in relation to age changes in the population. I. M. Moriyama and M. Gover. *bibliog Pub Health Rep* 63:537-45 Ap 23 '48

Statistical studies of heart diseases; important factors in heart disease mortality trend. T. W. Woolsey and I. M. Moriyama. *bibliog Pub Health Rep* 63:1247-73 S 24 '48

See also

Blood pressure
National heart institute

HEART institute, National. *See* National heart institute

HEAT

Heat and entropy. H. H. Steinnour. *bibliog J Chem Educ* 25:15-20 Ja '48

See also

Bolling points	Pyrometers and pyrometry
Calorimeters and calorimetry	Specific heat
Combustion	Steam
Electric heating	Temperature
Evaporation	Thermochemistry
Expansion (heat)	Thermodynamics
Flames	Thermoelectricity
Heating	Thermometers and thermometry
Insulation (heat)	Waste heat
Melting points	

HEAT capacity. *See* Specific heat

HEAT conduction

Heat transfer to granular materials; settled beds moving downward through vertical tubes. M. S. Brinn and others. *bibliog* *il diags Ind & Eng Chem* 40:1050-61 Je '48

HEAT conductivity

Anomalous physical properties of processed atmospheric nitrogen. C. C. Minter. *J AP Phys* 19:217 F '48

Brief review of available data on the dynamic viscosity and thermal conductivity for twelve gases. G. A. Hawkins. *A S M E Trans* 70:655-9 *bibliog* (133 titles, p657-9) Ag '48

Determination of water vapor; thermal conductivity methods. R. H. Cherry. *bibliog diags Anal Chem* 20:958-62 O '48

Factors that influence thermal conductivity of porous-type insulating materials. A. V. Butterworth. *bibliog diag Chem Eng Prog* 43:597-600 N '47

Influence of relaxation on the two velocity field model of helium II. W. Band and L. Meyer. *bibliog Phys R* 74:386-94 Ag 15 '48

Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. *bibliog J Chem Phys* 16:190-4 Mr '48

Modified Fitch thermal conductivity apparatus. Z. V. Harvalik. *diags R Sci Instr* 18:815-17 N '47

Nomograph for determination of the thermal conductivity of liquids. D. S. Davis. *Chem Ind* 63:286+ Ag '48

0.0000146; thermal conductivity of the gas uranium hexafluoride; abstract. P. A. Agron and A. H. Taylor. *Chem Eng* 55:260 Ag '48

Relaxation theory of thermal conduction in helium II. L. Meyer and W. Band. *Phys R* 74:394-6 Ag 15 '48

Rugged and inexpensive thermal conductivity cells for application in precise and dependable gas analysis. R. H. Müller. *il Anal Chem* 20:sup21A-2A My '48

Second sound and the heat conductivity in helium II; dispersion of second sound and of ordinary sound. W. Band and L. Meyer. *bibliog Phys R* 73:226-9 F 1 '48

Thermal conductivity of liquids. G. Palmer. *bibliog Ind & Eng Chem* 40:89-92 Ja '48

See also

Heat transmission

HEAT convection

Comparison of infrared and convection oven baking by New York paint and varnish production club. *il Paint Oil & Chem R* 110:64-6+ N 13 '47

Heat transfer by free convection from heated vertical surfaces to liquids. Y. S. Touloukian and others. *bibliog diags A S M E Trans* 70:13-18 Ja '48

Natural convection in panel heating. J. R. Carroll, Jr. *bibliog Heat & Ven* 45:70-6 Ja '48

Radiative and convective heat transfer rates pertaining to heating processes; a theoretical comparison. J. Huebler. *Ind & Eng Chem* 40:1094-8 Je '48

Temperature gradients for convection in well models. M. J. Auld. *J AP Phys* 19:218 F '48

HEAT detectors. *See* Detectors

HEAT exchangers

Air cycle heat pump. T. F. Thomas. *Inst Mech Eng J & Proc* 158:Proc 37-8 Je '48; Same cond. *Engineer* 184:205-6 Ag 29 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 39-51 Je '48

Chemical fixation of oxygen; problem of corrosion in industrial water supplies. D. J. Pye. *flow diag il Am Water Works Assn J* 39:1121-7 N '47

Determining heat transfer coefficients in heat exchangers; amplification of article, Liquid-vapor heat exchangers, which appeared in Dec. 1943; with supplementary material in series of reference data sheets. W. Parkerson. *Heat & Ven* 45:74-7 Ag '48

Dye-tub heat exchanger saves coal, improves quality. *Textile World* 98:143 S '48

Economics of heat exchanger exchangers. A. M. Whistler. *Pet Refiner* 27:83-6 Ja '48

Fränkl regenerator packings; heat transfer and pressure drop characteristics. G. Lund and B. F. Dodge. *bibliog diags Ind & Eng Chem* 40:1019-32 Je '48

Heat exchange; new equipment announced 1947-48. *Chem Ind* 63:405-6 S '48

Heat exchanger features unusual fin design. R. M. Armstrong. *il diags Refrig Eng* 55:47-8 Ja '48

Heat exchanger for engine cooling. *il diag Engineering* 164:441 N 7 '47

Heat exchanger studies; abstract. F. E. Romie. *Chem & Eng N* 26:2058 J1 12 '48

Heat transfer with extended surface; determination of the local heat transfer coefficient from the average coefficient. C. F. Bonilla. *Ind & Eng Chem* 40:1093-101 Je '48

High creep strength austenitic steel tubes for use in heat exchangers of gas turbines. G. T. Harris and W. H. Bailey. *il Metallurgia* 38:189-92 Ag '48

How to keep your heat exchangers comfortable. *il diag Mill & Factory* 43:138-9 Ag '48

Improvements in automatic rolling-in of small tubes. E. T. Cope. *il diags Power Generation* 52:64-5+ Je '48

Maintenance and repair of heat exchangers. M. B. Swain, Jr. *il Oil & Gas J* 47:89-90+ J1 15 '48

New commercial tonnage oxygen system. B. H. Van Dyke. *flow diag il Steel* 123:103-4+ S 20 '48; Same. *Pet Refiner* 27:122-6 O '48; Same cond. *Blast F & Steel* 36:1212-15 O '48; Same cond. *bibliog Chem Ind* 63:604-8 O '48; Same cond. *Oil & Gas J* 47:112-13 D 9 '48; Same cond. *Power Generation* 52:104-5+ D '48

Pressure tubing for high temperatures. chart(p 104) *Power PI Eng* 51:97-8 D '47

Preventing rectifier corrosion. D. W. Borst. *il diags Coal Age* 52:89-93 D '47

HEAT exchangers—Continued

- Prevention of corrosion in refinery heat-exchanger equipment. M. A. Furth, *il* diags Am Pet Inst Proc 28(3):26-32 '48; Same, *Pet Refiner* 27:129-34 J1 '48; Same abr. *Pet Processing* 3:549+ Je '48; Discussion. Am Pet Inst Proc 28(3):32-4 '48
- Required process and design data for heat exchangers. P. S. Otten, *il* Chem Eng Prog 44:411-13 My '48
- Rosenblad spiral heat exchanger. *il* diags Engineering 166:56 J1 16 '48
- Shell and tube heat exchangers F. L. Rubin, bibliog diags *Pet Refiner* 27:139-45 J1 '48
- Sludge digestion experiences with the exterior heat exchanger; abstract. W. M. Kunsch. *Water & Sewage Works* 95:279-80 Ag '48
- Special tools simplify job of removing worn-out tubes from heat exchangers. diags *Pet Processing* 3:117 F '48
- Suction line heat exchangers; why they're used in refrigeration work. H. E. Ferrill. *diag Heating-Piping* 20:90-2 Ap; 90-3 Je '48
- Wasted B.t.u.'s recovered by heat exchanger. W. T. Harding, jr. *il* diag *Textile World* 98:120-1 Ap '48
- Which heat saver system is most economical? diags *Power* 92:714-15 N '48

Cleaning

- Removal of organic deposits from tubular heat exchangers; cleaning by burning. K. C. Edson and J. S. Powell, *il* Oil & Gas J 47:71-2 Je 3 '48

Design

- Nomograph for determination of the diameter of a heat exchanger tube sheet. D. S. Davis. *Chem Ind* 62:294 F '48
- Pressure drop across tube banks; critical comparison of available data and of proposed methods of correlation. D. F. Boucher and C. E. Lapple. bibliog *il* Chem Eng Prog 44:117-32; Discussion. 132-4 F '48

HEAT exhaustion

- Ten ways given to combat heat exhaustion. W. Schweisheimer, *il* *Textile World* 98:133+ Ag '48

HEAT of adsorption. See Adsorption, Heat of

HEAT of combustion. See Combustion, Heat of

HEAT of dissociation. See Dissociation, Heat of

HEAT of formation. See Thermochemistry

HEAT of isomerization. See Isomerization, Heat of

HEAT of mixing. See Mixing, Heat of

HEAT of neutralization. See Neutralization, Heat of

HEAT of polymerization. See Polymerization, Heat of

HEAT of solution. See Solution, Heat of

HEAT of sublimation. See Sublimation, Heat of

HEAT of wetting. See Wetting, Heat of

HEAT pump

- Air cycle heat pump. T. F. Thomas. diags *Inst Mech Eng J & Proc* 158:Proc 30-9 Je '48; Same cond. *Engineer* 184:180-1, 205-6 Ag 22-29 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 39-51 Je '48

Air heat pump; abstract. E. B. Penrod. diags *Mech Eng* 70:346-7 Ap '48

Case for the heat pump; economies in treatment of cooling water for space heating purposes. J. Butler. *diag Chem Age (Lond)* 57:757-60 D 13 '47

Design of earth heat source systems. E. N. Kemler. diags *Heat & Ven* 45:70-3 Ag '48

Economic and technical aspects of the heat pump. W. E. Johnson, maps diags *Heating-Piping* 19:119-26 D '47; Same cond. *Arch Rec* 103:145-9 Ap '48; Excerpts. *Power* 92:315 My '48; Abstract. *Heat & Ven* 45:90-1 F '48; Same. *Mech Eng* 70:237 Mr '48

Economical use of cooling water for heat insulation of presses and subsequently for space heating. J. Butler. *Engineering* 165:185-6 F 20 '48

Electric heating developments. *il* *Electrician* 140:1249-52 Ap 23 '48 (to be cont)

E.R.A. heat pump; experimental installation at Perivale laboratories. *il* *diag Elec R (Lond)* 142:481-2 Mr 26 '48; *Engineer* 185:312 Mr 26 '48

Emphasis on heat pump at A.S.H.V.E. meeting. New York, Feb. 2-5. *Dom Eng* 171:163-4 Mr '48

Experimental heat pump. *il* *diag Engineering* 165:392-3 Ap 23 '48

540-ton heat-pump air conditions 12 story building. *il* *Elec World* 130:122+ O 23 '48

Fuel and power economy, with special reference to heat pumps. S. J. Davies and F. G. Watts. diags *Engineering* 166:285-7, 309-12 S 17-24 '48; Discussion. 166:352-3 O 8 '48

Heat pump as a hobby. C. F. Boester. diags *Heat & Ven* 45:81-2 S '48

Heat pump; how to analyze earth as a heat source. B. F. Raber and others. *Heating-Piping* 20:32-6 Mr '48

Heat pump in an office building. J. D. Kroeker and R. C. Chewing. flow diags *il* plans diags *Heating-Piping* 20:121-8 Mr '48

Heat pump operation data; with cost. *Elec World* 129:118+ F 14 '48

Heat pump, radiant panel, warm air; Oregonian building, Portland. *il* *diag Dom Eng* 172:125-6+ Ag '48

Heat pump; symposium on electric house heating. S. W. Andrews and others. *diag Elec Eng* 67:338-48 Ap '48

Heat-pump system using water storage; control building of the Tidd plant of the Ohio power co. P. Sporn and E. R. Ambrose. *il* diags *Mech Eng* 69:899-903+ N '47

Heat pump; with cost data. C. R. Erickson. map diags Am *Water Works Assn J* 40:585-98 bibliog(46 titles, p597-8) Je '48

Heat pumps, cool and heat Equitable's Portland building. *il* diags *Arch Forum* 89:102-3 S '48

Heat source possibilities of the earth in the Milwaukee area. C. H. Randolph and O. O. Wagley. diags *Heating-Piping* 20:85-6 My '48

Heating device uses heat from the ground. diags *Bsns W* p63-4 Ap 10 '48

Heating with cold water; potentially important new development for heating and cooling the home. A. R. Greenleaf. *Consumers Res Bul* 20:24-6 N '47

Heating with electricity; heat pump. C. F. Boester. diags *Heating-Piping* 20:93-4 J1 '48

Heating without heating fuel; system employing Diesel as source of power, air conditioning for space and heat for domestic water supply; heat pump as an auxiliary, also reversed for cooling. *il* diags *Sheet Metal Worker* 39:131-2+ Ja '48

How to use groundwater without pumping it from wells; heat pump installations. G. E. Clancy. *il* diags *Heating-Piping* 19:90-3; Discussion. R. R. Storm. 104-5 D '47

Initial survey of heat pump research. *Edison Elec Inst Bul* 16:85-7 Mr '48

Investigating the economic possibilities of the heat pump. *Dom Eng* 172:116-18+ J1 '48

Joint AEIC-EEI heat pump committee suggests method for ground temperature measurements. *diag Edison Elec Inst Bul* 16:35-6 F '48

Joint AEIC-EEI heat pump committee survey. map *Edison Elec Inst Bul* 16:256-7 J1 '48

Members of AEIC-EEI heat pump committee establish zones to gather field test data. map *Edison Elec Inst Bul* 16:18+ Ja '48

Norwich heat pump. J. A. Sumner. *il* diags *Inst Mech Eng J & Proc* 158:Proc 22-9 Je '48; Same abr. *Engineering* 164:116-20 Ag 1 '47; Abstract. *Elec R (Lond)* 140:554 Ap 4 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 39-51 Je '48

Possibilities for heat pump expansion. E. N. Kemler. *il* diags *Heat & Ven* 45:80-5 O '48

Possibilities of energy storage in heat pump applications. S. Oglesby, jr. and E. N. Kemler. diags *Heat & Ven* 44:69-73 N '47

Power to operate these heat pumps. W. Herrman. *Heating-Piping* 20:137-9; Discussion. 139-41 Ap '48

Problems to be solved in applying heat pump. M. S. Oldacre. *Heating-Piping* 20:84-5 My '48

Progress report on heat transfer tests of a buried copper pipe. W. C. Pease and others. plan *Heat & Ven* 45:87-90 Mr '48

HEAT pump—Continued

- Quick look at the heat pump; abstract. C. A. Williams and E. H. Walton. *Elec Eng* 67:702 J1 '48
- Research aspects of the heat pump. E. N. Kemler and N. Kulik. *diags Heating-Piping* 20:107-12 Ap '48
- Reverse cycle for Portland office building. *il Elec West* 100:76-8 Ap '48
- Review of some heat-pump installations; with cost data. E. B. Penrod. *bibliog*(42 titles) *flow diags il diags Mech Eng* 69:639-47 Ag '47; *Discussion*. 70:258-61 Mr '48
- Something for nothing; heat pump utilizing earth temperature. *map diags Diesel Power* 28:74-7 My '48
- Theory of the ground pipe heat source for the heat pump. L. R. Ingersoll and H. J. Plasse. *bibliog Heating-Piping* 20:119-22 J1 '48
- Winter heating, summer cooling; heat pump air conditioning for entire year cost \$66.21. C. Osborne. *il diags Dom Eng* 171:146-7+ Ap '48
- HEAT radiation**
- New instrument for measuring the thermal radiation of the environment; abstract. J. D. Hardy and C. H. Richards. *Science* 107:461 My 7 '48
- Radiants aid broiler performance. H. J. Hense. *il Am Gas Assn Mo* 30:25-6+ Je '48
- Radiation and total heat transfer in panel heating. J. R. Carroll, jr. *diag Heat & Ven* 45:62-6 J1 '48
- Radiative and convective heat transfer rates pertaining to heating processes; a theoretical comparison. J. Huebler. *Ind & Eng Chem* 40:1094-8 Je '48
- Some considerations of the effect of radiation on the performance of liquid fuel rockets. S. S. Penner and S. Weinbaum. *diags Opt Soc Am J* 38:599-603 J1 '48
- See also*
- Electric lamps—
Heat radiation

HEAT resisting alloys. See Alloys, Heat resisting**HEAT resisting materials**

- American ceramic society 50th annual meeting, Chicago; abstracts of papers on heat resisting materials. *Iron Age* 162:86-9 J1 8 '48
- Carbides for high temperature applications; Kennametal grade K 138. *il Materials & Methods* 26:85-6 D '47
- Ceramic bodies for turbojet blades; abstracts. R. F. Geller. *il S A E J* 56:46+ Je '48; *Machine Design* 20:196+ F '48
- Ceramic-coated steel. *Mech Eng* 70:349-50 Ap '48
- Ceramic coatings for combustion-chamber liners and turbine buckets in gas turbines; abstract. L. Navias. *Mech Eng* 69:1043-4 D '47
- Ceramic developments for aircraft power plants. W. H. Duckworth. *Am Cer Soc Bul* 27:93-5 Mr 15 '48
- Ceramic materials show promise for high temperature mechanical parts. J. R. Bressman. *il Materials & Methods* 27:65-70 Ja '48
- Ceramics for aircraft power plants. J. M. Neff. *il Iron Age* 162:60-3 O 21 '48
- Heat resisting aluminium coatings. G. Kremer and K. E. Volk. *il Engineer* 184:506 N 28 '47
- Heat-resisting lubricants; molybdenum sulphide and boron nitride. G. L. Sumner. *Mech Eng* 70:30-1 Ja '48
- High-temperature ceramic coatings for molybdenum. W. N. Harrison. *S A E J* 56:47-8 Je '48
- High temperature ceramics. E. L. Olcott. *il Product Eng* 19:110-12 Mr '48
- New heat-resistant materials that slash process costs. *il Mod Ind* 16:40-5 O '48
- Silicone oils designed for high temperature use. *Elec World* 129:174-5 Ja 17 '48
- Thermal effects on flexural strength of laminates. F. Norelli. *il Mod Plastics* 26:121-8+ N '48
- See also*
- | | |
|-----------------------|-----------------------|
| Alloys, Heat resist- | Refractory materials |
| ing | Silicones |
| Glass, Heat resisting | Steel, Heat resisting |
| Insulation (heat) | Teflon |

HEAT resisting paint. See Paint, Heat resisting**HEAT sealing paper. See Paper, Heat sealing****HEAT storage**

- Demand-controlled radiant house heating. *il Elec West* 100:58-9 Ja '48
- Heat-pump system using water storage; control building of the Tidd plant of the Ohio power co. F. Sporn and E. B. Ambrose. *il diags Mech Eng* 69:899-903+ N '47
- Hydraulic analogue for the solution of problems of thermal storage, radiation convection and conduction. C. S. Leopold. *bibliog il diags Heating-Piping* 20:105-11 J1 '48
- Mechanism of heat transfer panel cooling; heat storage. C. S. Leopold. *bibliog diags Refrig Eng* 54:33-41; 55:571-7 J1 '47, Je '48; *Discussion*. 54:41+; 55:577+ J1 '47, Je '48
- Possibilities of energy storage in heat pump applications. S. Oglesby, jr. and E. N. Kemler. *diags Heat & Ven* 44:69-73 N '47
- Utilizes Bu's in boiler water for night heating of rectory. I. W. Cotton. *il diag Heating-Piping* 19:114-16 N '47
- HEAT transmission**
- Air conditioning coils, their heat transfer problems. D. D. Wile. *diag Refrig Eng* 56:320-3 O '48
- Changes in energy of kinetic state. *diags Chem Eng* 55:107-12 My '48
- Condensation of refrigerant vapors; apparatus and film coefficients for Freon-12. R. E. White. *bibliog il diag A S M E Trans* 70:689-93 Ag '48; *Same*. *Refrig Eng* 55:375-9 Ap '48
- Condensation of refrigerants on finned tubes. D. B. Robinson and D. L. Katz. *il Heat & Ven* 44:83-93 N '47
- Design of earth heat source systems. E. N. Kemler. *diags Heat & Ven* 45:70-3 Ag '48
- Dimensionless groups in fluid friction, heat, and material transfer. A. Klinkenberg and H. H. Mooy. *Chem Eng Prog* 44:17-36 *bibliog*(1003 ref, p35-6) Ja '48
- Fluid flow and heat transfer in artificially roughened pipes studied. V. L. Streeter. *Heating-Piping* 20:96 Mr '48
- General results of N.A.C.A. flight research in natural icing conditions during the winters of 1945 and 1946. N. R. Berglund. *bibliog il Aeronautical Eng R* 7:20-7 Ja '48
- Ground temperature distribution with a floor panel heating system. A. B. Algren. *plans diags Heating-Piping* 20:141-19 My '48
- Heat-flow analyzer. *Mech Eng* 70:541-2 Je '48
- Heat-flow meter for use in furnaces. R. H. Baulk and M. W. Thring. *bibliog diags Iron & Steel Inst J* 153:41-66, pl 1 no 1 '46
- Heat pump; how to analyze earth as a heat source. B. F. Raber and others. *Heating-Piping* 20:82-6 Mr '48
- Heat transfer. G. T. Skaperdas. *bibliog Ind & Eng Chem* 40:39-41 Ja '48
- Heat transfer and fluid mechanics institute attracts western scientists. *Chem & Eng N* 26:2058 J1 12 '48
- Heat transfer and nuclear energy. A. W. Kramer. *diags Power Generation* 52:85-9 F '48
- Heat transfer committee, A.F.A., reports on year's activities. *Foundry* 76:145+ Je '48
- Heat transfer from a rotating disk to ambient air. C. Wagner. *J Ap Phys* 19:837-9 S '48
- Heat transfer from single horizontal wires to boiling water. W. H. McAdams and others. *bibliog diags Chem Eng Prog* 44:639-46 Ag '48
- Heat transfer in industry. C. E. Lucke. *Mech Eng* 70:11-12 Ja '48
- Heat transfer in jacketed vessels; abstract. R. W. Brown, R. Scott and C. Toyne. *Chem Age (Lond)* 58:10 Ja 3 '48
- Heat transfer in liquid helium II by internal convection. F. London and P. R. Zilsel. *bibliog Phys R* 74:1148-56 N 1 '48
- Heat transfer symposium. *bibliog il diags Ind & Eng Chem* 40:1019-122 Je '48
- Heat transfer symposium; Oak Ridge, Tenn. *Chem Eng* 55:134 Ja '48
- Heat transfer through boiling liquid films. F. Rumford. *bibliog diag Soc Chem Ind J* 66:309-12 S '47

HEAT transmission—Continued

- Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace. L. B. Schueler and others. *bibliog il plans diags* A S M E Trans 70:553-614; Discussion. 615-19 JI '48
- Measurements of solar heat transmission through flat glass. G. V. Parmelee and others. *il diag Heating-Piping* 20:158-66 Ja '48
- Numerical evaluation of equations describing transient heat and mass transfer in packed solids. A. Klinkenberg. *bibliog Ind & Eng Chem* 40:1992-4 O '48
- Precision of heat transfer measurements with thermocouples; geometric errors. W. A. Mohun and W. S. Peterson. *bibliog il diags Can Chem & Process Ind* 31:908-13 O '47
- Progress report on heat transfer tests of a buried copper pipe. W. C. Pease and others. *plan Heat & Ven* 45:87-90 Mr '48
- Some recent developments in heat transfer. W. H. McAdams. *il diags Purdue Univ Eng Exp Sta. Research Ser* 104:1-54 *bibliog* (p51-4) '48 (pa 25c)
- Theoretical thermal studies of steel ingot solidification. V. Paschakis. *diags Am Soc for Metals Trans* 38:117-47 '47
- Thermal anti-icing survey on Mt Washington. A. G. Guibert. *il A S M E Trans* 69:829-32 N '47
- Thermal fin effect in heat anti-icing corrugations. J. Jonas. *diag J Aeronautical Sci* 15:163-6 Mr '48
- Thermal resistance of metal contacts. W. B. Kouwenhoven and J. H. Potter. *bibliog il diags Welding J* 27:sup15-20 O '48
- War-time techniques disclosed at I&EC symposium. *Chem & Eng N* 26:164-5 Ja 19 '48
- See also*
- | | |
|-------------------------|-----------------------------------|
| Glass—Heat transmission | Heat radiation |
| Heat conductivity | Insulation (heat) |
| Heat convection | Textile fabrics—Heat transmission |
| Heat exchangers | |
- Electric analogies**
- Fin heat transfer by geometrical electrical analogy. C. F. Kavan. *bibliog diags Ind & Eng Chem* 40:1044-9 Je '48
- Heat and mass flow analyzer; tool for heat research. V. Paschakis. *bibliog il plan diags Metal Prog* 52:813-18 N '47
- Reaction rate, heat transfer, and temperature distribution in fixed-bed catalytic converters; solution by electrical network. R. H. Wilhelm and others. *bibliog il diags Chem Eng Prog* 44:105-16 F '48
- Theoretical thermal studies of steel ingot solidification. V. Paschakis. *diags Am Soc for Metals Trans* 38:123-30, 141-3 '47
- Hydraulic analogies**
- Hydraulic analogue for the solution of problems of thermal storage, radiation convection and conduction. C. S. Leopold. *bibliog il diags Heating-Piping* 20:105-11 JI '48
- Tables, calculations, etc.**
- Cooling of gases through packed tubes. M. Leva and others. *diag Ind & Eng Chem* 40:747-52 Ap '48
- Determining furnace heat transfer by gas temperature measurement. H. F. Mullikin. *bibliog diags Power Generation* 52:68-71+ Ag '48
- Determining heat transfer coefficients in heat exchangers; amplification of article, Liquid vapor heat exchangers, which appeared in Dec. 1943; with supplementary material in series of reference data sheets. W. Parkerson. *Heat & Ven* 45:74-7 Ag '48
- Fin heat transfer by geometrical electrical analogy. C. F. Kavan. *bibliog diags Ind & Eng Chem* 40:1044-9 Je '48
- Graphical determination of heat transfer film coefficient for air. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:109-11 Ap '48
- Graphical determination of heat transfer film coefficient for ammonia vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:100-2 F '48
- Graphical determination of heat transfer film coefficient for methyl chloride vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:92-4 Ag '48
- Graphical determination of heat transfer film coefficient for sulfur dioxide vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:98-100 Mr '48
- Heat losses from tanks, vats and kettles. S. J. Friedman. *bibliog diags Heat & Ven* 45:94-108 Ap '48
- Heat transfer by free convection from heated vertical surfaces to liquids. Y. S. Touloukian and others. *bibliog diags A S M E Trans* 70:13-18 Ja '48
- Heat transfer; local and average coefficients for air flowing inside tubes. A. Cholette. *bibliog il Chem Eng Prog* 44:81-8 Ja '48
- Heat transfer rates to evaporating Freon-12 in a horizontal tube evaporator. W. F. Witzig and others. *diag Refrig Eng* 56:163-7 Ag '48
- Heat transfer to bodies traveling at high speed in the upper atmosphere. J. R. Stalder and D. Jukoff. *bibliog diag J Aeronautical Sci* 15:381-91 JI '48
- Heat transfer to gases through packed tubes; effect of particle characteristics. M. Leva and M. Grummer. *diag Ind & Eng Chem* 40:415-19 Mr '48
- Heat transfer to molten metals. R. C. Martinelli. *bibliog diags A S M E Trans* 69:947-56; Discussion. 956-9 N '47
- Heat transfer to vertical tubes in a mixing vessel. J. H. Rushton, R. S. Lichtmann and L. H. Mahony. *bibliog il diags Ind & Eng Chem* 40:1082-7 Je '48
- Heat transfer to water boiling under pressure. E. A. Farber and R. L. Scoriah. *bibliog il diags A S M E Trans* 70:369-80; Discussion. 380-4 My '48
- Heat transfer with extended surface; determination of the local heat transfer coefficient from the average coefficient. C. F. Bonilla. *Ind & Eng Chem* 40:1098-101 Je '48
- Heat transfer with extended surface; no mixing parallel to the extended surface. W. E. Dunn, Jr. and C. F. Bonilla. *Ind & Eng Chem* 40:1101-4 Je '48
- Mass and heat transfer in tube banks. C. C. Winding and A. J. Cheney, Jr. *bibliog diags Ind & Eng Chem* 40:1087-93 Je '48
- Mechanism of heat transfer panel cooling; heat storage. C. S. Leopold. *bibliog diags Refrig Eng* 54:33-41; 55:571-7 JI '47, Je '48; Discussion. 54:41+; 55:577+ JI '47, Je '48
- Natural convection in panel heating. J. R. Carroll, Jr. *bibliog Heat & Ven* 45:70-6 Ja '48
- Periodic heat transfer at the inner surface of a homogeneous wall. H. A. Johnson. *bibliog Heating-Piping* 20:121-31 My '48
- Pressure drop across tube banks; critical comparison of available data and of proposed methods of correlation. D. F. Boucher and C. E. Lapple. *bibliog il Chem Eng Prog* 44:117-32; Discussion. 132-4 F '48
- Radiation and total heat transfer in panel heating. J. R. Carroll, Jr. *diag Heat & Ven* 45:62-6 JI '48
- Solar heat gain through walls and roofs for cooling load calculations. J. P. Stewart. *diags Heating-Piping* 20:121-31; Discussion. 131-2 Ag '48
- Structural columns are over-insulated; designing cold storage plants. L. Bull. *Refriger Eng* 56:39+ JI '48
- Temperature distribution in cylinder heated by point source moving along its axis. D. Rosenthal and R. H. Cameron. *diags A S M E Trans* 69:961-8 N '47
- Temperature distribution in some simple bodies developing or absorbing heat at a linear function of temperature. M. Jakob. *A S M E Trans* 70:25-8; Discussion. 28-30 Ja '48
- Unsteady-state heat transfer between air and loose solids. G. O. G. Löf and R. W. Hawley. *bibliog il diags Ind & Eng Chem* 40:1061-70 Je '48
- HEAT treatment**
- Constitution and properties of copper-rich copper-chromium and copper-nickel-chromium alloys. W. R. Hibbard, Jr. and others. *bibliog il Metals Tech* 15:TP2317 1-12 F '48
- Effect of composition and structural changes on the rupture properties of certain heat resistant alloys at 1500 F. N. J. Grant. *il Am Soc for Metals Trans* 39:368-403 '47

HEAT treatment—Continued

Effect of heat-treatment on the density and constitution of high-silica glasses of the borosilicate type. A. Q. Tool. *Am Cer Soc J* 31:177-86 J1 '48

Heat-treating principles and their application to salt baths. H. Solakian. *Il Am Mach* 92: 95-8 Ap '8; 90-3 Ap '22; 118-21 My '6 '48

Salts for heat-treatment. E. Hague. *Il Metallurgia* 38:39-43 My '48

Salvage of cast iron through heat treatment. D. Von Ludwig. *diag Materials & Methods* 26:87-9 N '47

35th annual review; welding and heat-treating. *Il Am Mach* 92:254-7 Ja '29 '48

Transformation of cobalt. A. R. Troiano and J. L. Tokich. *bibliog Il diags Metals Tech* 15:TP2348 1-12 Ap '48

Vital role of heat treating research in development and production of Mack trucks, buses, fire apparatus and marine engines. C. C. Roberts. *Il Automotive Ind* 99:42-3+ J1 '48

See also

Aluminum alloys, Sintering
Heat treatment of Steel, Heat treat-
Annealing ment of
Case hardening Tempering
Furnaces, Heat treat-
ing

Accounting

Introduction to the costing of heat treating operations. L. F. Spaulding. *N A C A Bul* 29:809-18 Mr '48

Study and teaching

New emphasis on welding and heat treating for mechanical and industrial engineers. R. S. Green. *J Eng Educ* 38:496-9 Mr '48

HEAT treatment of steel. See Steel, Heat treatment of

HEATERS

Built-in bathroom heaters. *Il Am Bld* 70:84 Ag '48

Dual fuel heater uses gas for mild weather and oil for peak loads. Heat & Ven 45: 120+ Je '48; Same abr. *Mech Eng* 70:687-8 Ag '48

Refrigerator car heater. *Il Ry Age* 124:1086 My '29 '48

Tempering the fresh air intake; Homestead valve manufacturing co. *Il Nat Safety N* 58:36-7 S '48

See also

Electric heaters Hot water heaters
Gas heaters Steam heaters

HEATING

Abstracts of technical papers presented at ASHVE's 54th annual meeting. Heat & Ven 45:90-3 F '48

Case for the heat pump; economies in treatment of cooling water for space heating purposes. J. Butler. *diag Chem Age (Lond)* 57:757-60 D '13 '47

Check that heating system! Sheet Metal Worker 39:82+ F '48

Comparisons between gas and electricity on the basis of coal economy. P. Schiller. *bibliog Inst E E J* 94 pt 1:355-63 Ag '47; Discussion. 94 pt 1:364-70; 95 pt 1:434-54 Ag '47, O '48

Consumer preferences in heating. Sheet Metal Worker 39:80 O '48

Experience is my classroom. T. W. Reynolds. *diags Heat & Ven* 45:106-8 Ja '48 [cont monthly]

Fuel and power economy, with special reference to heat pumps. S. J. Davies and F. G. Watts. *diags Engineering* 166:285-7, 309-12 S 17-24 '48; Discussion. 166:352-3 O '8 '48

Heat pump as a hobby. C. F. Boester. *diags Heat & Ven* 45:81-2 S '48

Heat pump in an office building. J. D. Kroeker and R. C. Chewing. *flow diags Il plans diags Heating-Piping* 20:121-8 Mr '48

Heat pump; with cost data. C. R. Erickson. *map diags Am Water Works Assn J* 40: 585-98 bibliog (46 titles, p597-8) Je '48

Heating preferences established by consumer panel. Heat & Ven 45:138+ O '48

Heating, ventilation, and air conditioning. O. Faber. *Inst Mech Eng J & Proc* 157 (War emergency issue no 33):355-7 '47

How to heat a house; perfect fuel nowhere in sight. *Il diags Fortune* 38:108-13, 145 S '48

Investigating the economic possibilities of the heat pump. *Dom Eng* 172:116-18+ J1 '48

Norwich heat pump. J. A. Sumner. *Il diags Inst Mech Eng J & Proc* 158:Proc 22-9 Je '48; Same abr. *Engineering* 164:116-20 Ag 1 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 39-51 Je '48

Oil-O-Matic survey finds leak in oil heating installations. *Il Sheet Metal Worker* 39: 92-4 F '48

Radiant baseboards; abstract. W. S. Harris. *Sci Am* 178:28-9 Ja '48

Recent developments in residence heating. S. Konzo and R. W. Roose; W. S. Harris. *Il plans diags Arch Rec* 102:121-5 N '47; 103:145-8 Mr '48

Review of British experiments in domestic heating; review and extracts of three papers. C. Tasker. *Il plans Heat & Ven* 45:78-82 Je '48

Review of some heat-pump installations; with cost data. E. B. Penrod. *bibliog (42 titles) flow diags Il diags Mech Eng* 69: 639-47 Ag '47; Discussion. 70:258-61 Mr '48

Something for nothing; heat pump utilizing earth temperature. *map diags Diesel Power* 26:74-7 My '48

Use of wood for heating logging camps. J. H. Jenkins. *Pulp & Pa of Can* 49:114+ Ag '48

What the heating engineer can learn from jet and turbine combustion. W. J. King. *Il diags Heat & Ven* 45:77-83 Ja '48

What's best way to save fuel for heating? Heating-Piping 20:104-5 Mr '48

Winter heating, summer cooling; heat pump air conditioning for entire year cost \$66.21. C. Osborne. *Il diags Dom Eng* 171:146-7+ Ap '48

See also

Air conditioning	Hot water heating
Boilers, Heating	Insulation (heat)
Building—Heating as-	Lighting—Heating
pects	aspects
Electric heating	Oil burners
Fuel	Oil fuel
Furnaces, Warm air	Solar heating
Gas heating	Steam heating
Heaters	Ventilation
Heating from central	
stations	
also subdivision	Heating and ventilation
under special subjects, e.g.	
Airplanes	Factories
Apartment houses	School buildings

Bibliography

Abstracts and reviews; books and pamphlets. Published in monthly numbers of Heating and ventilating

Control

Heating system controls. J. L. Shank. *Il diags Am Bld* 70:134-8 Ap '48

History and functions of domestic temperature control. C. W. Nessell. *Il diags Sheet Metal Worker* 39:71+ F; 81-2+ Mr; 71-2+ Ap; 73-4+ My; 80+ Je; 64+ Ag; 67+ S; 76+ O '48 (to be cont)

How to save money on oil heating. *Il diags Sheet Metal Worker* 39:69+ Ag '48

Simplifying comfort control for radiant heating. W. P. Chapman and R. E. Fischer. *bibliog Heat & Ven* 45:74-7 Je '48

Stop that fire; reason for merchandising heating controls. *Il diag Dom Eng* 171:102-3+ Je '48

See also

Thermostats

Cost

Comparative heating costs; tabulation. A. D. Snedden and G. H. Pike. *Elec West* 101:70 J1 '48

Fuel oil vs. LP-gas cost test for heating made by jobber. L. Castle. *Nat Pet N* 40: 7+ S 29 '48

Heating with cold water; potentially important new development for heating and cooling the home. A. R. Greenleaf. *Consumers Res Bul* 20:24-6 N '47

HEATING—Continued

Estimates

Illustrating importance of scientific estimating. Sheet Metal Worker 38:88 N '47

Panel system

Convection or panel warm air heating. *il* diags Dom Eng 172:153-4+ Ag '48
 Graphical solution of a direct equation for radiant panel areas; using equivalent conductance. W. P. Chapman and R. E. Fischer. diag Heat & Ven 45:88-92 Ja '48
 Ground temperature distribution with a floor panel heating system. A. B. Algren. plans diags Heating-Piping 20:111-19 My '48
 Heat pump, radiant panel, warm air; Oregonian building, Portland. *il* diag Dom Eng 172:125-6+ Ag '48
 Industrial radiant heating. *il* Engineering 165:403 Ap 23 '48
 Let's ventilate these heating questions. S. Lewis. Heating-Piping 19:102-3 O '47; Discussion. 20:100-1 F '48
 Measurement of heat output of a one square foot panel. R. S. Leigh and R. G. Vanderwell. diags Heating-Piping 20:107-10 F '48
 Natural convection in panel heating. J. R. Carroll, jr. bibliog Heat & Ven 45:70-6 Ja '48
 Radiant heating with warm air. J. L. Shank. *il* plan diags Am Bld 70:81-5 Ja '48
 Radiation and total heat transfer in panel heating. J. R. Carroll, jr. diag Heat & Ven 45:62-6 JI '48
 Simplifying comfort control for radiant heating. W. P. Chapman and R. E. Fischer. bibliog Heat & Ven 45:74-7 F '48
 Some problems I've met in radiant heating. T. N. Adlam. diags Heating-Piping 20:84-9 Je '48; Discussion. F. E. Giesecke. 20:98-100 JI '48; Reply. diags 20:102-5 S '48
 Test shows performance of two types of heating. S. Konzo and R. W. Roose. Heating-Piping 20:83-4 My '48

See also

Hot water heating
 —Panel system

Specifications

Simplified procedure for specification writing; supplement (cont). G. W. Campbell. Heating-Piping 20:128-9 Ja; 102-3 F; 106-7 Mr; 104-5 Ap; 109-10 My '48

Tables, calculations, etc.

Distribution of heating loads by months; 199 cities; tabulation; reference data. Heat & Ven 45:108a-108b Ap; 80a-80b My '48
 New method for selecting winter design temperatures; study of temperatures for 120 cities as obtained from Weather bureau and covering 23 heating seasons from Nov. 1914 to March 1937. C. M. Humphreys. Heating-Piping 20:167-72 Ja '48
 Number of sunshine hours in heating season; reference data. Heat & Ven 45:86a-86b JI; 84a-84b Ag '48

HEATING, Industrial

Application of combustion controls to a process heater. W. E. Boyle and P. R. Hoyt. *il* diags Pet Refiner 27:133-44 O '48
 Application of heat to swaged tungsten permits parts to be machined. D. White and J. J. Aust, jr. *il* Materials & Methods 27:81 Ap '48
 Comparison of infrared and convection oven baking by New York paint and varnish production club. *il* Paint Oil & Chem R 110:64-6+ N 13 '47
 Cost of heating glass covered sludge drying beds. A. B. Kozma. bibliog Water & Sewage Works 94:456-62 D '47
 Develop new heat transfer unit using inorganic salt mixture; Beth-Tec unit. W. C. Uhl. *il* Pet Processing 3:65-6 Ja '48
 Harnessing heat from reaction vessels; economies at a Russian chemical works. Chem Age (Lond) 57:653 N 15 '47
 Heat losses from tanks, vats and kettles. S. J. Friedman. bibliog diags Heat & Ven 45:94-108 Ap '48
 Heat supply machine; use of nitrate-nitrite salt mixtures. *il* Chem Eng 55:153 Ja '48
 Heat supply unit operates without pressure; uses non-corrosive salt as heat transfer fluid; Hi-Tec. *il* Food Ind 20:195 F '48

Heat transfer in industry. C. E. Lucke. Mech Eng 70:11-12 Ja '48
 Heating reduces tank bottom reconditioning. M. H. Pearce. *il* World Oil 128:152-3 Je '48
 Let contraction do the heavy work; using oxyacetylene flame for straightening welded parts. E. F. Kurzinski. diags Welding J 27:37-8 Ja '48
 Paul De Vries uses chrome steel tubes for char retorts. diag Chem Eng 54:223-4+ N '47
 Preheating thermoplastic materials. R. R. Leiske. India Rubber World 117:227 N '47
 Pyroferous package; unit for heating and circulating molten salt; Beth-Tec. *il* Chem Ind 62:44-5 Ja '48; Paint Oil & Chem R 111:10 Ja 22 '48
 Residual stress and dimensional changes caused by welding and other local heating processes. L. C. Bibber. Steel 122:107 My 24 '48
 Straight-line heating provides fast method of processing long straight metal stock. S. M. Stoler. plan diag Steel 123:105-6 S 13 '48
 U.S. Rubber develops improved melting equipment for highway joints. *il* Rubber Age 62:434 Ja '48
 Use of direct-fired warm air heaters aids production of rubber latex toys. *il* Rubber Age 62:416 Ja '48; Same. Dom Eng 171:152 F '48
 Wasted B.t.u.'s recovered by heat exchanger. W. T. Harding, jr. *il* diag Textile World 93:120-1 Ap '48

See also

Drying	Metallurgy
Drying apparatus	Oil fuel
Electric heating, Industrial	Oil tanks—Heating
Foundry practice	Open hearth process
Furnaces, Heating	Ovens
Gas heating, Industrial	Oxyacetylene flame
Heat treatment	Paint—Drying
Hot water heating, Industrial	Paper drying
Infrared rays—Industrial heating	Steel, Heat treatment of Welding

Cost

Economic problems in the use of alternate fuels; Btu cost of fuel for melting and processing. F. G. Schwalbe. Glass Ind 29:137-40+ Mr '48; Same. Cer Ind 50:60-2 Mr; 76-7+ Ap '48; Same. Brick & Clay Rec 113:55-7 JI; 54-6 Ag '48

HEATING, Warm air

Advances in warm air heating. S. Konzo and R. W. Roose. *il* plans diags Arch Rec 102:121-5 N '47
 Air cycle heat pump. T. F. Thomas. diags Inst Mech Eng J & Proc 158:Proc 30-6 Je '48; Same cond. Engineer 184:180-1 Ag 22 '47; Discussion. Inst Mech Eng J & Proc 158:Proc 39-51 Je '48
 Carefully engineered installation; warm-air conditioning system. R. B. Duncan. *il* plan diag Sheet Metal Worker 39:154+ Ja '48
 City hall, a source of business; uncovering orders by contacting building departments; Peerless air conditioning co. *il* Sheet Metal Worker 39:168+ Ja '48
 Convection or panel warm air heating. *il* diags Dom Eng 172:153-4+ Ag '48
 Detailed preparation for a heating installation. R. B. Duncan. plans diag Sheet Metal Worker 39:96+ Ap '48
 Display room is feature of Stengel's new shop. *il* plan diag Sheet Metal Worker 39:145-6+ Ja '48
 Downward projection of heated air. L. Helander and C. V. Jakowatz. *il* Heating-Piping 20:129-35 Mr '48
 Ducted heaters; makeup air distributing system in factory with heavy spray booth exhaust. *il* Heat & Ven 45:116 Ag '48
 Ground temperature distribution with a floor panel heating system. A. B. Algren. plans diags Heating-Piping 20:111-19 My '48
 Heating system for high ceiling buildings; plant of Penn iron works. *il* Blast F & Steel Pl 36:221-3 F '48
 Heating with floor furnaces. J. L. Shank. *il* map plan Am Bld 69:95-9+ D '47

HEATING, Warm air—Continued

- How to heat a big tent for International Harvester exhibition. *il* Heating-Piping 20: 79 My '48
- Illustrating importance of scientific estimating. *Sheet Metal Worker* 38:88 N '47
- Individual supply duct units heat and ventilate new plant; Reliance electric & engineering co. *il* Heating-Piping 20:73-4 My '48; *Heat & Ven* 45:98 My '48
- Low cost solution for heating basementless houses. H. P. Morehouse. *il* plans *diag* *Gas Age* 102:17-20 S '48
- Old sol gets another job; housing project at Northbrook, Ill. uses sun's heat in combination with warm air, radiant, floor panel heat. *il* plans *diags* *Am Bid* 70:82-7 F '48
- One method of heating the Quonset hut. *il* *Heat & Ven* 45:77 Ag '48
- Planned shop production for a heating system. R. B. Duncan. *plan* *Sheet Metal Worker* 39:45-6+ Ag '48
- Planning; the answer to low-cost heating installations. C. M. Toolear. *il* *Sheet Metal Worker* 38:90+ N '47
- Preheated air helps carry panel load; Shell chemical corporation's experimental laboratory. *il* *Heat & Ven* 45:81 Ap '48
- Prospects for 1948. *Sheet Metal Worker* 39: 85-8 Ja '48
- Radiant heating with warm air. J. L. Shank. *il* *plan* *diags* *Am Bid* 70:81-5 Ja '48
- Reheaters for each supply register improve heating and cooling system. S. R. Lewis. *Heating-Piping* 19:98-9 D '47
- Self-service food stores go for air conditioning; H. C. Bohack, inc. *il* *plans* *Sheet Metal Worker* 38:86-8 D '47
- Test shows performance of two types of heating. S. Konzo and R. W. Roose. *Heating-Piping* 20:83-4 My '48
- Three warm air systems in single room give homeowner data in season of tests. *Heat & Ven* 45:124 Ag '48
- Use of direct-fired warm air heaters aids production of rubber latex toys. *il* *Rubber Age* 62:416 Ja '48; *Same*. *Dom Eng* 171:152 F '48
- Which one for maximum comfort; radiant heating or circulating warm air? J. W. Norris. *diags* *Sheet Metal Worker* 39:53-4+ Ag '48
- See also*
Registers (heating)
- HEATING boilers.** *See* Boilers, Heating
- HEATING contracts**
Detailed preparation for a heating installation. R. B. Duncan. *plans* *diag* *Sheet Metal Worker* 39:96+ Ap '48
- Higher court decisions affecting heating contractors. L. T. Parker. *Heat & Ven* 45:105-7 Mr '48
- How the higher courts have ruled. L. T. Parker. *Heat & Ven* 45:83-5 S '48
- Law on defective material. L. T. Parker. *Heat & Ven* 45:114+ My '48
- HEATING equipment**
Gas-oil burner offers peak stand-by protection for homes. C. C. Young. *il* *Gas Age* 102:27-9+ Ag '48
- Safe mounting, clearances for heating equipment. W. G. Labes. *Heating-Piping* 20:80 F '48
- Valves for heating and ventilating. R. Irmirer. *il* *Heat & Ven* 45:77-83 Mr '48
- See also*
Coal burning equipment
Heat pump
- HEATING from central stations**
District heating; abstract and discussion. A. Stubbs. *Engineer* 185:375-7 Ap 16 '48
- District heating in London. S. B. Donkin. *Elec R (Lond)* 141:624 O 24 '47
- National district heating association 39th annual meeting, St. Louis, May 18-21. *Heating-Piping* 20:97-100 Ag '48
- National district heating association 39th annual meeting, St. Louis, May 18-21; abstracts of papers. *Heat & Ven* 45:114+ Je '48
- New underground steam piping decreases line pressure drop. E. J. Flahie. *il* *Heating-Piping* 20:88-90 Ag '48
- Second report of the District heating committee of the Institution of gas engineers. *Gas J (Lond)* 252:513-16; *Discussion*. 516-19 D 3 '47
- Steam main pushed under highway for Cleveland's central heating system. G. W. Hamlin. *il* *Heat & Ven* 45:87-8 F '48
- See also*
Electric plants (central stations)—
Steam distribution
- HEATING furnaces.** *See* Furnaces, Heating
- HEATING industry**
Check that heating system! *Sheet Metal Worker* 39:82+ F '48
- City hall, a source of business; uncovering orders by contacting building departments; Peerless air conditioning co. *il* *Sheet Metal Worker* 39:158+ Ja '48
- Eggs in many baskets; plumbing, heating and retail merchandising operation developed by A. E. Mayer. *il* *Dom Eng* 171:110-12+ My '48
- Heating survey in your town. *il* *Dom Eng* 171:116-21+ F '48
- How essential is plumbing, heating and air conditioning? industries' need for steel products. *il* *Dom Eng* 171:108-19+ Mr; 98-100 Ap; 118-19+ My '48
- How the higher courts have ruled. L. T. Parker. *Heat & Ven* 45:83-5 S '48
- How to increase the dollar value of a sale; offering the customer a related item when you are making a service call. G. A. Voorhees. *Sheet Metal Worker* 38:71+ N '47
- How to sell your customers fuel conservation at a profit! R. H. Emerick. *il* *Dom Eng* 172:118-21+ S '48
- Legal decisions involving plumbing, heating and air conditioning contractors. *Dom Eng* 171:113-14 My; 113+ Je; 172:104+ Jl '48
- Legal decisions of interest to contractor-dealers. *Dom Eng* 169:128+ F; 126+ Ap; 170:109+ O; 111-12 D '47
- Merchandising plan for the heating industry. H. L. Spindler. *Sheet Metal Worker* 38:81-2+ D '47
- More materials on way for plumbing and heating. *Dom Eng* 172:106-7+ Jl '48
- Prospects for 1948. *Sheet Metal Worker* 39: 85-8 Ja '48
- Sell fire prevention; contractor-dealers can help eliminate fire hazards from buildings through self-inspection program. *Dom Eng* 172:161+ O '48
- Shifts in purchasing power; how they affect prospects of warm-air heating and sheet metal contractors. W. Alwyn-Schmidt. *Sheet Metal Worker* 39:40-3 S '48
- Special events merchandising. *il* *Dom Eng* 170:98-101+ N '47
- Suggestions on collecting. *Sheet Metal Worker* 39:84+ My; 55-6 Je '48
- Ten musts for successful selling of merchandise through plumbing and heating dealers. A. E. Thiesfeldt. *Dom Eng* 171: 172+ Ap '48
- This is our industry; program to prove plumbing and heating industries' right to steel. *Dom Eng* 171:98-101+ F '48
- Three-point formula for sales; A. A. Hokom plumbing, heating and appliance co. *il* *Dom Eng* 172:98-9+ O '48
- Tips on winter heating sales. *Dom Eng* 171: 123-4 Ja '48
- See also*
Furnace industry and trade
Oil burner industry
- Advertising**
1948 price and value program opens; selling aids. *il* *Dom Eng* 171:102-11 F; 120-7 Mr; 106-17 Ap; 101-7 My; 106-9 Je '48
- Plaque awarded to Domestic engineering in the national editorial contest for the campaign. Today's best buy is plumbing and heating. *il* *Dom Eng* 170:114-17 N '47
- Plumbing and heating is high in value, low in price; selling aids. *il* *Dom Eng* 172:97-105 S '48
- Sending a new heating product to market; Dole thermostat air control. S. G. Phillips. *il* *Ind Marketing* 33:36-7+ S '48
- Seven keys to profit; success story of Hilbor, inc. *il* *Dom Eng* 171:108-11+ Ja '48

HEATING Industry—Advertising—Continued

What advertising has done for us. C. E. Hendricks. Dom Eng 172:122-3+ S '48

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 39:193-208 Ja '48

1948 directory of heating, piping, and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names and manufacturers' addresses. Heating-Piping 20:301-415 Ja '48

Exhibitions

International heating and ventilating exposition, 8th, New York, Feb. 2-6. Dom Eng 171:132-3+ Mr '48; Sheet Metal Worker 39:98+ Mr '48

Meet the people: how home show and county fairs may help you increase business. Il Dom Eng 172:114-17 Ag '48

Preview of the 8th International heating and ventilating exposition; with list of exhibitors. Il plans Sheet Metal Worker 39:117-24 Ja '48

Remodeling

Big need for modernization of older heating systems. G. M. Fraser. Il Heating-Piping 20:80-1 Mr '48

Radiant heating under wood floors in remodeling jobs. E. E. Scott. diag Dom Eng 170:152+ N '47

Statistics

Heating apparatus, St Louis 1946. Survey of Cur Bsns 1947 Sup p 153-4 [supplemented in monthly numbers]

Denver

Reporter visits Denver. Il Dom Eng 171:116-17+ Ja '48

St Louis

Heat conservation, St Louis style; oil shortage crisis; heating and plumbing dealers in city-wide campaign to stretch supplies. Il Dom Eng 171:114-15+ Ja '48

Salt Lake City

Reporter visits Salt Lake City. Il Dom Eng 170:96-8 D '47

Seattle

Reporter visits Seattle. Il Dom Eng 170:102-3+ N '47

HEATING pipes

Aluminum pipe and tubing; use for heating and ventilating work. P. Brandt. Heat & Ven 45:83-6 F '48

Piping arrangements for convector-radiator jobs. diags Dom Eng 171:148-9+ Ja '48

Tables, calculations, etc.

Flow of fluids in pipes. E. C. Petrie. Il Dom Eng 170:111-13+ N '47

Simplified pipe sizing for hot water heating systems. G. D. Beals. Heating-Piping 20:76-7 S '48

HEATING, piping and air conditioning contractors national association

Annual convention, 59th, Pittsburgh, June 2-4; with abstracts of papers. Dom Eng 172:111-15 Jl '48; Heating-Piping 20:76-9 Jl; 101-4 Ag '48

Annual meeting, Pittsburgh, June 2-4. Heat & Ven 45:105-6 Jl '48

HEATING research

Advances in boiler-type heating; results of tests in I-B-R research home, University of Illinois. W. S. Harris. Il diags Arch Rec 103:145-8 Mr '48

Calorimeter building for domestic-heating research. Il diags Engineering 166:79-81 Jl 23 '48; Abstract. Elec R (Lond) 143:55 Jl 9 '48

Convection or panel warm air heating. Il diags Dom Eng 172:153-4+ Ag '48

Downward projection of heated air. L. Helander and C. V. Jakowatz. Il Heating-Piping 20:129-35 Mr '48

Measurement of heat output of a one square foot panel. R. S. Leigh and R. G. Vanderweil. diags Heating-Piping 20:107-10 F '48

1947 annual report of committee on research. Il diag Heating-Piping 20:115-20 Mr '48

Panel heat with copper tubing; experiment in practice. D. L. Mills and L. J. Latart. Il Heat & Ven 44:65-9 O; 95-8 N; 75-8 D '47

Panel heating research program; committee report, American society of heating and ventilating engineers. Heating-Piping 20:130-2 Ap '48

Research aspects of the heat pump. E. N. Kemler and N. Kulik. diags Heating-Piping 20:107-12 Ap '48

Solar and total heat gain through double flat glass. G. V. Parmelee and W. W. Aubele. Il diags Heating-Piping 20:116-26 Je '48

Temperature distribution in a test bungalow. Franklin Inst J 245:68-70 Ja '48

HEAVY density separation. See Sink and float process

HECHT, Selig, 1892-1947

Sketch. B. O'Brien and others. Science 107:105-6 Ja 30 '48

HEDGE clippers**Rating**

Electric hedge trimmers. Il Consumers Res Bul 22:16-17 Jl '48

HEDGING

Fallacy of equities as a hedge against inflation. A. M. Bernstein. Comm & Fin Chr 168:697+ Ag 19 '48

Is gold more than a deflation hedge? B. Griffith and B. Ellsworth. Comm & Fin Chr 168:1012-13 S 9 '48

Speculation not cause of rising prices; hedging through futures markets is form of insurance. W. J. Reid. Comm & Fin Chr 166:2266+ D 4 '47

HEELS

Use of high styrene resins in non-marking soles and heels. M. E. Jones and D. M. Pratt. Il India Rubber World 117:609-10 F '48

HEIKES, Victor Conrad, 1867-1948

Sketch. G. C. Heikes. por Min & Met 29:473-4 Ag '48

HEIL company, Milwaukee

Local needs influence product planning; Heil's unusual diversification pays off. Il Bsns W p44+ Ag 14 '48

HEIM, Jacques

About J. Heim. M. Montmerle. por Textile Col 69:29+ D '47

HEISENBERG, Werner

Problem of the molecular theory of superconductivity; Heisenberg's superlattice theory. F. London. biblog Phys R 74:562-73 S 1 '48

HELICAL gearing. See Gearing, Spiral

HELICOPTERS

American helicopter society 4th annual forum, Philadelphia. Aviation W 48:13 My 3 '48

American helicopter society 4th annual forum, Philadelphia, April 22-24; with abstracts of papers. Aero Digest 56:62+ Je; 57:53+ Jl '48

Bell, Sikorsky explore market with new two-place helicopters. Il Aviation W 47:17 D 22 '47

Bendix helicopter, model K. Il Aero Digest 56:54+ Ap '48

Blowing bubbles for helicopters; transparent cabin enclosures. K. Rose. Il Automotive Ind 98:40-1 Ja 15 '48

Canada's bid in helicopter field; first production model of SG Mark VI-D rotorcraft. I. Stone. Il Aviation W 48:21-2 Ap 5 '48

Captive helicopter for research work. Il Aero Digest 57:70 Ag '48

CAA to compromise 'copter violation in helicopter photographic work. Aviation W 48:40 Je 14 '48

Ejector cooling of the XR-10 helicopter power plant; abstract. L. L. Douglas. Il S A E J 56:65-6 Je '48

Helicopter airmail for Chicago? map Aviation W 48:42 My 17 '48

Helicopter earns acceptance; patrol of transmission systems of the West. Il Elec West 101:108-10 S '48

Helicopter engineering (cont). A. Klemin. Il Aero Digest 55:49+ N '47

HELICOPTERS—Continued

Helicopter mail sees economy ax. Aviation W 49:41 JI 26 '48

Helicopter mail volume booms, but Los Angeles airways finds itself in red. Aviation W 48:40 Ap 5 '48

Helicopter's air power implications. A. E. Smyser, Jr. il Aviation W 48:39-40 F 23 '48

Helicopters by night; special advantages of flying after dark. A. Klemin. il Aero Digest 55:51+ D '47

He's patterned a paying 'copter service; L. Plympton of New England helicopter service. C. O. Witze. il Air Transport 6:38-9+ Mr '48

Hiller helicopter gets certificate. il Aviation W 49:15 O 25 '48

Hoppli-Copter in second test phase. il Aviation W 48:26 Mr 8 '48

How's the helicopter doing? L. D. Bell. Aero Digest 56:59+ Mr '48

Institute of the aeronautical sciences 16th annual meeting, New York; abstracts of papers on rotating wing aircraft. diag Aeronautical Eng R 7:30-3 Mr '48

JOV-3 tandem rotorcraft, low price 'copter entering field. il Aviation W 48:21 Ja 19 '48

Jensen helicopter. M Aero Digest 57:54+ O '48

Jet blades tested in outdoor pit. il Aviation W 48:18 My 3 '48

Kaman plans production in 1949; industrial helicopter nearing end of certification tests. W. Kroger. il Aviation W 49:17-18 Ag 2 '48

Kellett control; Hughes, Fairchild fight for rights to helicopters USAF may order. Aviation W 49:17 JI 26 '48

Leading helicopters of the U.S.; tabulation. il Aviation W 48:37 F 23 '48

Los Angeles helicopter service. A. Klemin. il Aero Digest 56:51-2+ My '48

McDonnell files ramjet helicopter. R. McLaren. il Aviation W 47:14 N 24 '47

Measuring the ramjet helicopter. W. B. Brozowski. il diags Aero Digest 56:68-9+ F '48

New blades for better helicopters. Aviation W 48:23-4+ Je 14 '48

New coaxial rotor helicopter; Jensen helicopter co. il Aviation W 49:25-6 Ag 2 '48

New copiers; U.S. and U.K.; illustrations with text. Aviation W 49:16 O 11 '48

Operation whirlwind; helicopters proven; editorial. R. H. Wood. Aviation W 49:50 O 11 '48

Pentecost single passenger helicopter. Iron Age 162:142 N 4 '48

Pulsejet helicopter. il Mech Eng 70:903-4 N '48

Ramjet helicopter. il Mech Eng 70:27-8 Ja '48; Product Eng 19:153 F '48

Ram-jet helicopter. A. Klemin. il Aero Digest 56:45+ Ja '48

Rotary wing world (cont.). il diags Aero Digest 55:50-1+ N; 52-3 D '47; 56:46-7 Ja; 52-4 F; 53-4+ Ap; 57:70+ Ag; 54-5+ N '48

Rotorcraft airworthiness. A. Klemin. il Aero Digest 57:51-2+ O '48

Six helicopter papers form successful symposium; Philadelphia section of S.A.E. S A E J 56:86-8 F '48; Aero Digest 56:51+ F '48

Social uses of the helicopter. L. D. Bell. Air Affairs 2:380-92 JI '48

Test case on helicopter air rules; photographic mission stirs CAA complaint. A. McSurely. Aviation W 48:14 My 10 '48

Twin rotors counteract torque reaction; XR-10 helicopter; illustrations with text. Product Eng 18:88-91 D '47

Versatile windmills. M. W. Cagle. il U S Naval Inst Proc 74:332-5 JI '48

West Coast helicopter builders press work on four designs. S. Bangs. Aviation W 47:18+ N 17 '47

X-ray to help cut helicopter costs. Aviation W 47:16 N 17 '47

Agricultural use

Fighting the Adirondack black fly. il Aero Digest 57:54 O '48

Helicopter for crop spraying. il Engineering 166:104 JI 30 '48

Control

Flying qualities of helicopters; abstract. J. P. Reeder and F. B. Gustafson. Aero Digest 56:62+ Je '48

Helicopter control and stability hovering flight. R. H. Miller. bibliog diags J Aeronautical Sci 15:453-72 Ag '48

Helicopter control rotor. J. Stuart, 3d. il diags Aeronautical Eng 7:33-7 Ag '48

Helicopter controls for pitch-power coordination. A. F. Donovan and H. Hirsch. diags S A E J 56:63-8 Ap '48

New ideas in helicopter control; Hiller 360. A. Klemin. il diag Aero Digest 56:51-2+ Ap '48

Ring deflection due to loads normal to plane of curvature calculated readily with the aid of curves helicopter control mechanisms. H. D. Tabakman. Machine Design 20:131-4+ Mr '48

Rotor blade spoilers aid control. S. Bangs. il Aviation W 48:24-5 Mr 29 '48

Servo and gyroscopic controls; abstract. K. Hohenemser. Aero Digest 56:65+ Je '48

Cost of operation

Economic factors relating to helicopter air mail operations; abstract. J. E. Rothman. Aero Digest 57:82+ JI '48

Design

Chordwise and beamwise bending frequencies of hinged rotor blades. G. Horvay. J Aeronautical Sci 15:497-502 Ag '48

Coaxial design promises success; Bendix helicopter. I. Stone. il Aviation W 48:21-2+ My 17 '48

Copters checked in service role; engineer-operator team vital for design improvement. il Aviation W 48:28+ Mr 15 '48

Details of the Kaman K-190. A. Klemin. il Aero Digest 57:51-2+ N '48

Engineering problems of the helicopter. F. N. Piasecki. il diag S A E J 55:55-8 D '47

Leading-edge jet indicates added lift; wind tunnel investigations of model airfoil fitted with leading-edge cold-air jet installation. I. Stone. il diags Aviation W 47:38+ D 15 '47

Helicopter control and stability in hovering flight. R. H. Miller. bibliog diags J Aeronautical Sci 15:453-72 Ag '48

New rotor suppresses vibration; Doman-Frasier. G. N. Montgomery. il Aviation W 48:21-2+ F 2 '48

Rigid-blade helicopter undergoing tests. S. Bangs. il Aviation W 49:21-2+ Ag 9 '48

Static thrust analysis for helicopter rotors and airplane propellers. W. Castles, Jr. and A. L. Ducoffe. bibliog diags J Aeronautical Sci 15:293-9 My '48

Unique rotor affords new safety; Doman-Frasier helicopters. G. N. Montgomery. diags Aviation W 48:28-30 Ja 26 '48

Directories

1948 annual directory of rotary wing aircraft; illustrations, miniature plans and brief descriptions. Aero Digest 56:60+ Mr '48

Floats

Fabric floats for Sikorsky XR-5. Aero Digest 56:53 F '48

Forestry use

Forest survey tests the helicopter; with cost data. J. W. Cruikshank. Pulp & Pa of Can 49:106+ Ja '48

Maintenance and repair

Maintenance of the Bell helicopter. A. Klemin. il Aero Digest 57:67-8+ Ag '48

Manufacture

Acrylic in helicopters. il Mod Plastics 25:85 JI '48

Development of rotor blades. G. H. Linna-berry. il diags Aero Digest 57:54-5+ JI '48

Operations in the production of helicopters at the Bell Aircraft plant. E. L. Kramer. il Mach 54:164-8 D '47

Piasecki helicopter corporation; new plant at Morton, Pa. il Factory Management 106: B50-1 pt 2 Ap '48

HELICOPTERS—Continued

Military use

- Helicopters in the air force. A. T. Culbertson.
 il Aero Digest 57:73-4+ S '48

Performance

- Bristol helicopter aims at new performance goals. I. Stone. il diag Aviation W 47:22-4+ D 29 '47
 New way to gage hovering performance. P. H. Stanley. Aviation W 49:21-2 O 25 '48

Petroleum prospecting

- Exploring for oil by helicopter. Aero Digest 57:55+ N '48

Specifications

- U.S. rotary wing aircraft tabulation. Automotive Ind 98:156 Mr 15 '48

Stability

- Disturbed flapping motion of helicopter rotor blades. H. Parkus. bibliog J Aeronautical Sci 15:103-6 F '48
 Hiller 'copter has built-in stability. S. Bangs. il Aviation W 47:25-6+ D 15 '47

Testing

- Accelerated testing of helicopter drive mechanisms. M. A. Wachs. il S A E J 56:43-51 My '48
 Flight testing of helicopters. W. Stewart. bibliog il diags Roy Aeronautical Soc J 52:261-92; Discussion. 293-304 My '48
 Helicopter instability investigated: NACA research. Aviation W 49:26-7 Ag 23 '48
 How a helicopter is tested for CAA certification. il Aviation W 49:22-4 N 1 '48
 Military gets close-up of S-52. il Aviation W 48:14 Je 28 '48
 Sikorsky S-52 performance. Aero Digest 57:72+ Ag '48
 Testing of rotors for fatigue life. J. Winson. diags J Aeronautical Sci 15:392-402 Jl '48
 Whirling test stand aids rotor studies. il Aviation W 49:28+ S 13 '48

Vibration

- New rotor suppresses vibration; Doman-Fraser. G. N. Montgomery. il Aviation W 48:21-2+ F 2 '48

HELIUM

- Availability of helium. A. G. Arend. Metalurgia 38:173 Jl '48
 Calibration of a Ra+Be neutron source by the B(n, α)Li reaction. F. G. P. Seid and S. P. Harris. bibliog R Sci Instr 18:897-9 D '47
 High-purity helium saves money on aluminum welds. W. A. Mays. Welding J 27:609 Ag '48
 Introduction to fluidization; counter-gravity flow of air, carbon dioxide, and helium through beds of round and sharp sands. M. Leva and others. il diags Chem Eng Prog 44:511-20 Jl '48
 Products of high energy deuteron and helium ion bombardments of copper. D. R. Miller and others. bibliog Phys R 74:347-8 Ag 1 '48
 Rate of production of helium in meteorites by cosmic radiation. C. A. Bauer. Phys R 74:501-2 Ag 15 '48
 S-level shift in ionized helium. G. R. Fowles. il diag Phys R 74:219-20 Jl 15 '48
 Structure of the ionized helium line $\lambda 1640$. G. R. Fowles. Phys R 73:639 Mr 15 '48
 Suggested experiment to detect the shift of $1^3S_{1/2}$ level of H and He⁺. T. Wu. Phys R 72:976-7 N 15 '47
 Temperature variation of the thermal diffusion factors for binary mixtures of hydrogen, deuterium, and helium. B. F. Murphey. bibliog diag Phys R 72:834-7 N 1 '47
 Theory of high frequency gas discharges; high frequency breakdown. L. M. Hartman. bibliog Phys R 73:316-25 F 15 '48
 Vapor pressure, specific volume, p - v - T data for H₂, N₂, O₂, CO, CO₂, air, He, A, Hg, S. Gratch. A S M E Trans 70:631-40 bibliog(154 titles, p637-40) Ag '48
 Isotopes
 Concentration of helium 3. A. Andrew and W. R. Smythe. Phys R 74:496-7 Ag 15 '48

- Concentration of He³ by evaporation of liquid helium at temperatures below the λ -point. B. V. Rollin and J. Hatton. Phys R 74:508 Ag 15 '48
 Concentration of He³ by thermal diffusion. B. B. McInteer and others. diag Phys R 74:946-9 O 15 '48
 Distribution of He³ between liquid and vapor He⁴. H. A. Fairbank and others. bibliog diags Phys R 73:729-32 Ap 1 '48
 Experiments on He³ at low temperatures. J. G. Daunt and others. bibliog Phys R 74:495-6 Ag 15 '48
 Helium isotopes separated by fluid-flow. Chem & Eng N 25:3289 N 10 '47
 He³ separation by a heat flux in liquid helium II. C. T. Lane and H. A. Fairbank. diag Phys R 73:256-7 F 1 '48
 Increase in vapor pressure of liquid helium due to He³ in solution. H. A. Fairbank and others. Phys R 74:345-6 Ag 1 '48
 Isotopic shift in the helium line spectrum. A. Andrew and W. W. Carter. Phys R 74:833-9 O 1 '48
 Magnetic exchange moment for He³ and He⁴. H. L. Anderson. bibliog Phys R 73:919-20 Ap 15 '48
 Magnetic moment of H³ and He³ in the Moller-Rosenfeld theory of nuclear forces. A. Thellung and F. Villars. Phys R 73:924-5 Ap 15 '48
 Magnetic moment of He³. H. L. Anderson and A. Novick. Phys R 73:919 Ap 15 '48
 New isotopic effect in liquid helium. J. G. Daunt and others. bibliog diag Phys R 73:638 Mr 15 '48
 Newly observed structure in He II λ 4686. J. E. Mack and N. Austern. Phys R 72:972 N 15 '47
 Phenomenological theory of exchange currents in nuclei. R. G. Sachs. bibliog Phys R 74:433-41 Ag 15 '48
 Reaction He(α, p)H³ and the neutrino mass. D. J. Hughes and C. Egger. il Phys R 73:809-10 Ap 1 '48
 Search for gamma-rays from He³ and F¹⁹. W. J. Knox. bibliog Phys R 74:1192-3 N 1 '48
 Second-order transformations in two-component systems; application to solutions of He³ in He⁴. J. W. Stout. Phys R 74:605-9 S 1 '48
 Separation of the isotopes He³ and He⁴ in the liquid phase. J. G. Daunt and others. bibliog diag J Chem Phys 15:759-60 O '47
 Solutions of He³ in He⁴. F. London and O. K. Rice. bibliog Phys R 73:1183-93 My 15 '48

Manufacture

- Helium production process. P. V. Mullins. bibliog diags Chem Eng Prog 44:567-72; Discussion. 572 Jl '48

HELIUM, Liquid

- Collins helium cryostat. il R Sci Instr 18:929 D '47; Paper Tr J 125:24 N 13 '47;
 Mech Eng 70:18-19 Ja '48
 Concentration of He³ by evaporation of liquid helium at temperatures below the λ -point. B. V. Rollin and J. Hatton. Phys R 74:508 Ag 15 '48
 Experiments on He³ at low temperatures. J. G. Daunt and others. bibliog Phys R 74:495-6 Ag 15 '48
 Heat transfer in liquid helium II by internal convection. F. London and P. R. Zilsel. bibliog Phys R 74:1148-56 N 1 '48
 Heatless helium; abstract. S. Collins. Chem Ind 61:796-7 N '47
 He³ separation by a heat flux in liquid helium II. C. T. Lane and H. A. Fairbank. diag Phys R 73:256-7 F 1 '48
 Improved type of helium liquefier and cryostat. J. G. Daunt and K. Mendelsohn. bibliog diags J Sci Instr 25:318-20 S '48
 Increase in vapor pressure of liquid helium due to He³ in solution. H. A. Fairbank and others. Phys R 74:345-6 Ag 1 '48
 Influence of relaxation on the two velocity field model of helium II. W. Band and L. Meyer. bibliog Phys R 74:336-94 Ag 15 '48
 Low temperature and some of its effects upon the behavior of matter. S. C. Collins. bibliog Science 107:327-33 Ap 2 '48
 New device for obtaining absolute zero; Collins helium cryostat. F. N. Hollingsworth. il Heat & Ven 45:90 O '48

HELIUM, Liquid—Continued

New isotopic effect in liquid helium. J. G. Daunt and others. *bibliog diag Phys R* 73: 638 Mr 15 '48

Operation without lubricants; Collins helium cryostat. *diags Machine Design* 20:94 O '48

Pulsed second sound in liquid helium II. J. R. Pellam. *bibliog il Phys R* 74:841 O 1 '48

Pyrex glass Dewar vessels and metal transfer tubes for liquid helium. W. F. Giauque. *R Sci Instr* 18:852-4 N '47

Relaxation theory of thermal conduction in helium II. L. Meyer and W. Band. *Phys R* 74:394-6 Ag 15 '48

Second-order transformations in two-component systems; application to solutions of He³ in He⁴. J. W. Stout. *Phys R* 74:605-9 S 1 '48

Second sound and the heat conductivity in helium II; dispersion of second sound and of ordinary sound. W. Band and L. Meyer. *bibliog Phys R* 73:226-9 F 1 '48

Separation of the isotopes He³ and He⁴ in the liquid phase. J. G. Daunt and others. *bibliog diag J Chem Phys* 15:759-60 O '47

Solutions of He³ in He⁴. F. London and O. K. Rice. *bibliog Phys R* 73:1188-93 My 15 '48

Theory of liquid helium. L. Tisza. *bibliog Phys R* 72:838-54 N 1 '47

Ultrasonic velocity and absorption in liquid helium. J. E. Pellam and C. F. Squire. *bibliog diags Phys R* 72:1245-52 D 15 '47

Wave transmission and reflection phenomena in liquid helium II. J. R. Pellam. *diag Phys R* 73:608-17 Mr 15 '48

HELLSTROM, Carl Reinhold, 1895-Sketch. *por(cover) Bsns W* p6 Jl 24 '48

HELMETS, Aviators'

Helmet design aims at wide protection. *il Aviation W* 49:24 O 4 '48

New crash helmet offers greater protection; utilizing fiberglass cloth, selectron polyester resin and cellular cellulose acetate. *il diag Plastics* 8:34-6 F '48

HELMETS, Football

One-piece football helmet of cellulose acetate butyrate. *il Mod Plastics* 25:84 F '48

HELMETS, Welders'

Comparative performance of air-supplied welding helmets. M. Eisenbud and L. Silverman. *il diag Welding J* 27:287-9 Ap '48

HELMINTHIASIS. See Worms, Intestinal and parasitic

HEMATITE

Diagenesis of the Clinton hematite ores of New York. H. L. Alling. *maps diags Geol Soc Bul* 58:991-1018, pl 1-3 *bibliog(p 1015-17)* N '47

Hematite of Labrador and New Quebec. W. M. Bonham. *il maps Can Min J* 69:67-70 Je '48

HEMIACETALS. See Acetals

HEMICELLULOSE

Effect on pulp quality of the stepwise removal and replacement of the hemicelluloses from aspen holocellulose. R. E. March. *bibliog Paper Tr J* 127:51-7 O 21 '48; Same cond. *Paper Ind* 29:1833-44 Mr '48

Esters of lima bean pod and corn hemicelluloses. J. F. Carson and W. D. Maclay. *bibliog Am Chem Soc J* 70:293-5 Ja '48

Hemicelluloses from maple holocellulose; yield and composition. R. L. Mitchell, S. C. Rogers and G. J. Ritter. *bibliog Ind & Eng Chem* 40:1528-9 Ag '48

Hemicelluloses of jute fibre. P. B. Sarkar and others. *bibliog Textile Inst J* 39:T44-58 F '48

Method for isolation of hemicelluloses directly from maple wood. S. C. Rogers, R. L. Mitchell and G. J. Ritter. *bibliog Anal Chem* 19:1029-32 D '47

Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. Maclay. *Am Chem Soc J* 70:2220-3 Je '48

Analysis

Estimation of hemicelluloses in holocellulose from nonwoody plant material. E. Bennett. *bibliog Anal Chem* 20:642-3 J '48

Quantitative determination of hemicellulose constituents by fermentation. A. H. Auernheimer, L. J. Wickerham and L. E. Schniepp. *bibliog Anal Chem* 20:876-7 S '48

HEMICYANINES. See Cyanines

HEMIMELLITENE

Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and *m*-xylene by dehydrogenation of corresponding cyclohexene intermediates. T. W. Reynolds and others. *bibliog Ind & Eng Chem* 40:1751-2 S '48

HEMISPHERIC insurance conference

Large U.S. delegation expected at hemispheric conference in Mexico; review of recent achievements. A. L. Kirkpatrick. *East Underw* 49:25-6 Ja 30 '48

Meeting, 2d, Mexico City, Oct. 25-30. *East Underw* 49:1-4, 24 O 29 '48; *Nat Underw* 52:10 N 4 '48; *Weekly Underw* 159:1009+, 1024-5+, 1027-30, 1072+ O 30-N 6 '48

HEMLOCK

Yield and quality of pulp and waste liquor in sulphite pulping of softwoods. M. Baum and others. *bibliog Paper Tr J* 126:130+ F 22 '48

HEMOGLOBIN

Sir Joseph Barcroft memorial conference on hemoglobin. *Science* 108:203-4 Ag '48

HEMOLYSIS

Hemolysis of human red cells by saponin following viral action. B. A. Briody. *bibliog Science* 107:450-1 Ap 30 '48

HEMOPHILIA

Hemophilia; the mechanism of development and action of an anticoagulant found in two cases. J. S. Lawrence and C. G. Craddock, Jr. *bibliog Science* 106:473-4 N 14 '47

HEMORRHAGE

Control of hemorrhagic syndrome and reduction in X-irradiation mortality with a flavanone. P. E. Rekers and J. B. Field. *bibliog Science* 107:16-17 Ja '48

HEMP

Foreign trade, flax and hemp, Belgium, 1946-47 and first quarter 1948; table. *For Comm W* 31:33 Je 12 '48

Large scale fibre growing experiments in Nelspruit, Transvaal; wilde stokroos (*Decan hemp*). *Chem & Ind* p298 My 8 '48

See also Manila, hemp Sisal, hemp

HENDERSON, Nevada

Nevada gamble; potential major chemical producing center. *il Chem Ind* 61:797-9 N '47

Story of Henderson, Nevada. T. B. Gibson. *il Chem Eng* 54:132-5 D '47

HENDRICKS, Allen E.

Takes part in study of model building code for cities. *por Nat Underw* 52:5 S 30 '48

HENEQUEN

Henequen production, consumption, and exports, Cuba. *For Comm W* 31:30 Ap 10 '48

HENNESSY, John L.

Food's the thing; thirty-five years with *Hotels Statler co*, *por Fortune* 38:108+ Ag '48

HENNINGER, George Ross, 1898-

To be editor and publications director of I.E.S. *por Illum Eng* 43:772-4 S '48; Abstract. *Elec World* 130:86 S 11 '48

HENNOCK, Frieda B.

Portrait. *Bsns W* p90 My 29 '48

HEPARIN

Effect of heparin and dicoumarol on sludge formation. H. Laufman and others. *Science* 108:283-4 S 10 '48

Electrophoretic resolution of heparin and related polysaccharides. M. L. Wolfson and F. A. H. Rice. *Am Chem Soc J* 69:2918-19 N '47

Similarity to heparin of the clotting inhibitor in acute leucemia and the significance of hyperheparinemia in estrapenic cholinergic states. R. D. Barnard. *bibliog il Science* 107:571-2 My 28 '48

HEPATITIS, Infectious. See Jaundice

HEPTABENZOYLSTREPTIDINE

Streptomycetes antibiotics; heptabenzoystreptidine from streptomycin. R. L. Peck and others. *bibliog Am Chem Soc J* 70:2321-5 Jl '48

HEPTANE

Kinetics and mechanism of the thermal decomposition of *n*-heptane. W. G. Appleby, W. H. Avery and W. K. Meerbott. *bibliog diags Am Chem Soc J* 69:2279-85 O '47

Liquid-vapor equilibrium relations in binary systems; ethylene-*n*-heptane system. W. B. Kay. *bibliog Ind & Eng Chem* 40:1459-64 Ag '48

HEPTANE—Continued

Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components. O. Redlich and A. T. Kister. *bibliog Ind & Eng Chem* 40:345-8 F '48

Use of isooctane and normal heptane as reference fuels. H. M. Trimble and others. *il diags Pet Processing* 3:765-8+ Ag '48

HEPTANONE

Condensations of unsymmetrical ketones; competition between methylene groups. R. P. Mariella and V. Kvinge. *Am Chem Soc J* 70:3126-8 S '48

HEPTENAL

Preparation of 2-heptenal and 2-nonenal. C. J. Martin, A. I. Schepartz and B. F. Dautbert. *Am Chem Soc J* 70:2601-2 JI '48

HEPTENE

Polymerization to lubricating oils of *n*-heptene-1 and *n*-pentadecene-1. G. H. Dazeley and C. C. Hall. *bibliog Soc Chem Ind J* 67:22-3 Ja '48

HEPTOIC acid. See Enanthic acid

HEPTYL bromide

Products of the interaction of potassium dihydrogenphosphide and *n*-heptyl bromide in liquid ammonia. G. W. Watt and R. C. Thompson, Jr. *Am Chem Soc J* 70:2295 Je '48

HERBICIDES. See Weeds—Control

HEREDITY

Genes, cytoplasm, and environment in the control of cellular heredity; abstract. T. M. Sonneborn. *Science* 107:469 My '48

Heredity and environment; colors of flowers, fruits, and leaves. W. D. Bancroft. *J Phys & Colloid Chem* 52:767-74 My '48

Influence of heredity on the carotene content of corn. L. W. Aurand and others. *Science* 106:493-4 N 21 '47

See also

Genes

HERNIA

Relationship of neuralgia and referred pain to hernia compensability; cause of diagnostic error. F. W. Slobe. *il Ind Med* 17:259-62 JI '48

HERRING

Comparison of chemical tests of the quality of fish. G. J. Sigurdson. *bibliog*(61 ref) *il Anal Chem* 19:892-902 N '47

Oils and proteins from herring. *Chem Ind* 62:770 My '48

HERRINGBONE gearing. See Gearing, Herringbone

HERRINGTON, Barbour Lawson, 1904-

1948 winner of Borden award. *por*(cover) *Chem & Eng N* 26:2426 Ag 16 '48

HERRON, LeRoy W. 1878-1948

Sketch. *por Ed & Pub* 81:16 O 16 '48

HERSCHEL effect

Red and infra-red filters for the study of the Herschel effect. H. Bäckström and J. Basberg. *bibliog il Opt Soc Am J* 37:891-8 N '47

HERTER, Christian Archibald, 1895-
Portrait. *Bsns W p24 Ja* 24 '48

HERTY medal

Rudd sees science education as key to southern progress; accepts Herty medal. *Chem & Eng N* 26:1434 My 17 '48

HETEROAUXIN. See Indoleacetic acid

HETEROCYCLIC compounds

Application of the Hofmann reaction to the synthesis of heterocyclic compounds; the synthesis of 9-*p*-mannopyranosidoxanthine and of 9-*p*-ribopyranosidoxanthine. R. A. Baxter, A. C. McLean and F. S. Spring. *Chem Soc J* p523-5 Ap '48

Chemistry of simple heterocyclic systems; reactions of 6- and 7-nitro-4-hydroxyquinazoline and their derivatives. J. S. Morley and J. C. E. Simpson. *Chem Soc J* p360-6 Mr '48

Heterocyclic basic compounds; derivatives of 8-(3-aminopropylamino)-6-methoxyquinoline. G. W. Moersch and others. *bibliog Am Chem Soc J* 69:2619-21 N '47

Iodination of certain phenylsulfonamido- and amino-heterocycles. R. G. Shepherd and C. E. Fellows. *bibliog Am Chem Soc J* 70:157-60 Ja '48

New synthesis of cinnoline derivatives; heterocyclic steroid analogs. E. C. Kornfeld. *bibliog Am Chem Soc J* 70:1373-6 Ap '48

Reactive methyl groups of heterocyclic tertiary bases. J. C. Roberts. *bibliog Chem & Ind* p658-60 O 25 '47

Studies in the sulfone series; certain heterocyclic derivatives of 2,8-diaminothiaxanthone-5-dioxide. E. D. Amstutz, E. A. Fehnel and I. M. Hunsberger. *bibliog Am Chem Soc J* 70:133-8 Ja '48

HEUSER, Emil, 1882-

Honored by TAPPI. *por*(cover) *Chem & Eng N* 26:675 Mr 8 '48

TAPPI awards medal to Dr E. Heuser. *por Paper Tr J* 126:7+ F 12 '48; Same. *Paper Ind* 29:1788 Mr '48

HEXACHLOROCYCLOHEXANE

Benzene hexachloride and poultry meat. P. D. Harwood. *Science* 107:113 Ja 30 '48

Effect of benzene hexachloride on the flavor of poultry meat. E. Hixson and M. H. Muma. *Science* 106:422-3 O 31 '47

Insecticide resistant houseflies. R. L. Blicke and others. *bibliog Soap & San Chem* 24:139+ Ag '48

Manufacture of 666. J. Neil and others. *il diags Can Chem & Process Ind* 32:335-8+ Ap '48

Metabolism of chlorinated hydrocarbon insecticides. G. Woodard, B. Davidson and A. J. Lehman. *bibliog Ind & Eng Chem* 40:711-12 Ap '48

Role of chemistry in recent developments of animal insecticides. R. S. Cahn. *Chem & Ind* p291-4 My 8 '48

Analysis

Analysis of 1,2,3,4,5,6-hexachlorocyclohexane for gamma isomer; a polarographic method. G. Dragt. *bibliog diags Anal Chem* 20:737-40 Ag '48

Determination of gamma-benzene hexachloride by partition chromatography. O. T. Aeppli, P. A. Munter and J. F. Gall. *bibliog il diags Anal Chem* 20:610-13 JI '48

Determination of the gamma-isomer content of benzene hexachloride. C. V. Bowen and M. A. Pogorelskin. *bibliog Anal Chem* 20:346-8 Ap '48

Determination of the gamma isomer of hexachlorocyclohexane. J. B. La Clair. *bibliog Anal Chem* 20:241-5 Mr '48

Physiological effect

Toxicity of γ -benzene hexachloride in clothing. R. G. Horton and others. *Science* 107:246-7 Mr 5 '48

HEXACHLORODISILOXANE

Some organic derivatives of hexachlorodisiloxane. H. J. Emeléus and D. S. Payne. *Chem Soc J p* 1590-2 D '47

HEXACHLOROETHANE

Combating liver fluke. *Chem & Eng N* 26:404 F 9 '48

HEXADECANE

Colloidal structures in binary soap systems. T. M. Doscher and R. D. Vold. *bibliog diags J Phys & Colloid Chem* 52:97-109 Ja '48

HEXADIENE

Synthetic estrogens; 3,4-bis-(*m*-methyl-*p*-hydroxyphenyl)-2,4-hexadiene, 3,4-bis-(*m*-methyl-*p*-hydroxyphenyl)-hexane and some of their organic esters. V. Niederl and others. *bibliog Am Chem Soc J* 70:508-11 F '48

HEXAETHYL tetraphosphate

Hexaethyl tetraphosphate and tetraethyl pyrophosphate. S. A. Hall and M. Jacobson. *bibliog Ind & Eng Chem* 40:694-9 Ap '48

Statistical concepts make better insecticides; abstract. L. F. Audrieth and O. F. Hill. *Chem Eng* 55:260+ Ap '48

Analysis

Determination of phosphorus in hexaethyl-tetraphosphate and tetraethyl pyrophosphate. M. Jacobson and S. A. Hall. *bibliog diags Anal Chem* 20:736-7 Ag '48

HEXAFLUOROETHANE

Force constants for CF_4 and C_2F_6 . E. L. Pace, bibliog J Chem Phys 16:74-7 Ja '48
 Infra-red absorption spectrum of hexafluoroethane gas. J. R. Nielsen and others, bibliog J Chem Phys 16:67-73 Ja '48
 Thermodynamics of hexafluoroethane from calorimetric and spectroscopic data. E. L. Pace and J. G. Aston, bibliog Am Chem Soc J 70:568-70 F '48

HEXAFLUOROPROPENE

Identification of C_3F_4 . F. A. M. Buck and R. L. Livingston, bibliog Am Chem Soc J 70:2817-13 Ag '48
 Molecular structure of ("cyclic") C_3F_4 . W. F. Edgell, bibliog Am Chem Soc J 70:2816-17 Ag '48
 Structure of C_3F_4 . E. G. Young and W. S. Murray, Am Chem Soc J 70:2814-15 Ag '48

HEXAHYDROPHENANTHRENE

Sex hormones; synthesis of 1-keto-7-methoxy-1,2,3,4-tetrahydrophenanthrene and of 1-keto-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene. G. Stork, bibliog Am Chem Soc J 69:2936-9 D '47

HEXAHYDROXYBENZENE

Oxidation-reduction potentials and ionization constants of the reversible series; hexahydroxybenzene-tetrahydroxyquinone-rhodizonic acid. P. W. Preisler, L. Berger and E. S. Hill, Am Chem Soc J 70:871 F '48

HEXAMETHYLENEDIAMINE

Polyamides in Germany; intermediates. Mod Plastics 25:125-6+ Mr '48

HEXAMETHYLENETETRAMINE

Preparation of benzylamines from benzyl halides and hexamethylenetetramine. J. Graymore, Chem Soc J p 1116-18 S '47

HEXAMINE

Science provided the torches, Chem Age (Lond) 59:156 JI 31 '48

HEXANE

Absorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. F. Othmer, bibliog Il diag Ind & Eng Chem 40:739-43 Ap '48
 Experimental vapor heat capacities and heats of vaporization of n -hexane and 2,2-dimethylbutane. G. Waddington and D. R. Douslin, Am Chem Soc J 69:2275-9 O '47
 Synthetic estrogens; 3,4-bis-(m -methyl- p -hydroxyphenyl)-2,4-hexadiene, 3,4-bis-(m -methyl- p -hydroxyphenyl)-hexane and some of their organic esters. V. Niederl and others, bibliog Am Chem Soc J 70:508-11 F '48
 Thermodynamics of nonelectrolyte solutions; α - y - t relations in a binary system. O. Redlich and A. T. Kister, Ind & Eng Chem 40:341-5 F '48

HEXANOIC acid, See Caproic acid**HEXANOLAMINE oleate**

Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr, bibliog J Phys & Colloid Chem 52:12-22 Ja '48

HEXAPHENYLETHANE

Effects of inhibitors on the polymerization of styrene. F. R. Mayo and R. A. Gregg, bibliog Am Chem Soc J 70:1284-6 Mr '48
 Magnetic studies on the dissociation and disproportionation of some hexaarylethanes. W. Byerly, H. G. Cutforth and P. W. Selwood, Am Chem Soc J 70:1142-3 Mr '48

HEXESTROL

Hexahydro derivatives of meso-hexestrol. A. L. Wilds and W. B. McCormack, Am Chem Soc J 70:884-5 F '48

Preparation of new derivatives of diethylstilbestrol and hexestrol; extension of the Claisen rearrangement. E. Kaiser, A. L. Andersen, jr, and J. J. Svarz, Am Chem Soc J 70:1248-9 Mr '48

Preparation of synthetic estrogens; the synthesis of hexestrol and its homologs. K. Sisido and H. Nozaki, bibliog Am Chem Soc J 70:778-9 F '48

Synthetic estrogens; phenyl and benzyl hexestrols and dienestrols. J. B. Niederl and R. M. Silverstein, Am Chem Soc J 70:619-20 F '48

HEXESTROL, Analogs of

Nitrogen analogs of hexestrol; the synthesis of N,N' -dimethyl- α,α' -bis-(4-hydroxyphenyl)-ethylenediamine and derivatives. J. B. Niederl and M. I. Dexter, Am Chem Soc J 70:3071-3 S '48

Synthetic estrogens; tetraalkyl substituted analogs of dienestrol and hexestrol. J. B. Niederl and F. Weiss, Am Chem Soc J 70:2894-6 S '48

HEXONE, See Cyclonite**HEXYL alcohol**

Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and N. F. Hall, bibliog J Phys & Colloid Chem 52:1006-20 Je '48

Systems: glycol- n -amyl alcohol-water and glycol- n -hexyl alcohol-water. G. S. Laddha and J. M. Smith, bibliog Ind & Eng Chem 40:494-6 Mr '48

HEYDEN chemical company

Debentures offered. Comm & Fin Chr 166:1993 N 17 '47

HEYWORTH, Geoffrey

Portrait, Fortune 37:79 F '48

HEYWORTH, Laurence

Portrait, Fortune 37:79 F '48

HICKORY

Shagbark hickory. D. C. Peattie, Il Sci Am 179:40-3 S '48

HIDDEN products, See Products, Identification of**HIDES and skins**

Buyers' resistance forcing hides down. Barron's 28:37 S 20 '48

Fire underwriting; hides and skins. W. O. Lincoln, Spectator (Property ed) 13:12 N 27 '47

Flow of hides and skins reversed; buying of Argentine hides by U.S. importers. Barron's 27:37 N 24 '47

Hide and skin production, consumption, and exports, Mexico. For Comm W 33:27-8 O 9 '48

Production and sales, India. For Comm W 30:23 F 7 '48

Production of and trade in hides and skins, Netherlands. For Comm W 33:29 O 9 '48

Revival of hide and skin trade, Germany. For Comm W 31:23-4 Ap 24 '48

Speculation not cause of rising prices; hedging through futures markets is form of insurance. W. J. Reid, Comm & Fin Chr 166:2266+ D 4 '47

Temporary factors put hide prices up; permanent realities point lower. Barron's 28:36 My 17 '48

United Kingdom imports of hides and skins, Sept. 1946 and 1947. For Comm W 29:26-7 D 8 '47

See also

Leather**Prices**

Hide prices buoyant. Barron's 28:37 Ja 26 '48

Hide prices decline with shoe demand. Barron's 28:29 Ag 16 '48

Statistics

Hides and skins, 1941-1946. Survey of Cur Bsns 1947 Sup p 138 [supplemented in monthly numbers]

HIGH buildings

General remarks on the design of the new John Hancock building in Boston. C. N. Godfrey, Il Boston Soc C E J 34:293-6 O '47

World's tallest concrete building; Banco do Estado de São Paulo. L. Compagna, Il diags Eng N 141:72-3 S 2 '48

HIGH frequency heating, See Electric heating, Industrial—High frequency heating**HIGH school students**

Gas aids education for family living; home economics equipment at McKeesport high school. D. E. McKay and C. W. Marsico, Il Gas Age 101:21-3 My 13 '48

Home service department dramatizes modern cookery; Southern California gas company's playlet for high-school and junior college students. F. A. Herr, Am Gas J 168:31-2 Ja '48

Junior miss gets into hot water; Ohio Fuel Gas home service program uses novel approach to equipment lessons. H. L. Kirtland, Il Am Gas Assn Mo 30:21-2+ O '48

HIGH school students—Continued

Reaching young America; gas cooking demonstrations in Cleveland high schools. D. E. Jones. *Am Gas Assn Proc* 1947:27-9

HIGH schools

Establishing a demonstration store in a high school; Edison vocational and technical high school in Mount Vernon. S. A. Stanlits. *J Retailing* 24:30-6 F '48

See also American society for engineering education—Committee on secondary schools

HIGH speed steel. See **Tool steel****HIGH voltages**

Absolute measurement of high voltages by oscillating electrode systems. E. Bradshaw and others. *bibliog diags Inst E E J* 95 pt 2:636-41; Discussion. 641-4 O '48; *Electrician* 140:649-50 F 27 '48

Behaviour of high-voltage solid-type cable accessories in service. C. J. Armstrong and C. T. W. Sutton. *diags Engineer* 185:279-81 Mr 19 '48

Centralized ripple control on high-voltage networks. T. W. Ross and R. M. A. Smith. *bibliog diags Inst E E J* 95 pt 2:470-80 O '48; Same. *Engineering* 165:309-10 Mr 26 '48; Excerpts. *Engineer* 185:158 F 13 '48; Discussion. *Inst E E J* 95 pt 2:480-91 O '48

Development of the gas-cushion cable system for the highest voltages. T. R. P. Harrison. *bibliog il Inst E E J* 94 pt 2:233-42 Je '47; Discussion. 94 pt 2:242-6, 700-5; 95 pt 2:420-2 Je, D '47. *Ag* '48

Economics of high-voltage transmission by underground cables. E. N. Berry. *bibliog Inst E E J* 94 pt 2:573-84; Discussion. 586-90 D '47

Experimental high-voltage power-transmission lines; Tidd 500-kv project. I. W. Gross and C. F. Wagner. *il diags Engineering* 166:381-3 O 15 '48

500-kv test program studies higher voltage transmission. *il plan Elec World* 128:92-5+ N 8 '47

500-kv Tidd test project. *il Elec Eng* 66:1178-81 D '47

500-kv transmission line symposium held by AIEE. *Elec World News* ed 128:12-14 N 15 '47

500,000-volt transmission tests; illustrations with text. *Elec West* 99:72-3 N '47

Gaseous insulation for high-voltage apparatus; sulphur hexafluoride possesses superior insulating qualities. G. Camilli and J. J. Chapman. *diags Gen Elec R* 51:35-41 F '48

High-voltage characteristics of earth resistances. G. M. Petropoulos. *bibliog il diags Inst E E J* 95 pt 2:59-70 F '48

H.v.d.c. transmission and large power systems. F. Busemann. *Engineer* 186:70-1 Jl 16 '48

High-voltage laboratory; testing electrical sheet insulation. *il Elec R (Lond)* 142:795-9 My 21 '48

High-voltage power-transformer progress. F. Snyder. *il diags Westinghouse Eng* 8:46-51 Mr '48; Same cond. *Elec World* 129:74-7 F 28 '48

High-voltage rectifier circuits. E. V. De-Bleux. *bibliog il diags Gen Elec R* 51:22-5 F 31-3 Mr; 42-7 Ap; 46-7 My '48

High-voltage research; Nelson laboratories at Stafford. *il Elec R (Lond)* 141:721-4 N 14 '47; *Electrician* 139:1427-9 N 14 '47

High voltage transmission, with particular reference to direct current. *bibliog Electrician* 141:1003-4 O 1 '48

High voltages in electronics; correct spacing between conductors for prevention of sparking and corona effects. W. E. Peery. *diags Machine Design* 20:123-7 Je '48

Higher interrupting capacity. S. B. Cray. *diags Elec World* 128:86-8 D 6 '47

Laying the groundwork for extra-high voltages; experimental line. *il Westinghouse Eng* 8:31-2 Ja '48

Measuring temperature of energized hv equipment. R. Bailey. *il diag Elec World* 130:100+ O 23 '48

Nelson research laboratories. *il diag Engineer* 184:458-60, 480-1 N 14-21 '47; *Engineering* 165:56-8 Ja 16 '48

100,000-volt pulses measured with capacitance voltage divider. S. C. Clark, jr. *il diag Gen Elec R* 51:20-1 My '48

Polyethylene used as sheathing for extra high voltage cables. *Rubber Age* 62:548 F '48

Recent research and development work in Sweden on high-voltage a.c. and d.c. power transmission. W. Borquist. *maps diags Inst E E J* 95 pt 1:157-66 Ap '48; Abstract. *Engineering* 165:43 Ja 9 '48

Short-circuit testing; high power equipment in the Nelson laboratories. *il Electrician* 139:1632-4 D 5 '47

Shunts and inductors for surge-current measurements. J. H. Park. *bibliog il diags J Res Nat Bur Stand* 53:191-212 S '47

Simple and inexpensive method for accurately measuring steady-state and transient high voltages. H. L. Levinton. *il diags Elec Eng* 67:164-7 F '48

Standard very-high voltages; international aspects that affect choice of levels. P. Allieret. *Elec R (Lond)* 142:59-60 Ja 9 '48

Super high voltage transmission research begins at Tidd 500-kv test project. *il Edison Elec Inst Bul* 15:371-4 O '47; Same cond. *Power Pl Eng* 51:72-3+ N '47; Abstract. *Elec World* 128:84-6 O 11 '47

Transmission tests at 500kv. *il Engineer* 184:525-6 D 5 '47; *Engineering* 165:7, 12 Ja 2 '48

Voltage characteristics of polythene cables. R. Davis and others. *bibliog Inst E E J* 94 pt 3:154-65 My '47; Discussion. *il diag* 94 pt 3:165-70; 95 pt 3:111-12 My '47. Mr '48

HIGHER education. See **Education, Higher****HIGHWAY administration**

Annual highway need of \$4 billion places emphasis on planning. G. D. Kennedy. *il Eng N* 140:626-30 Ap 29 '48

Comprehensive analysis shows extent of highway needs in Michigan. *il Civil Eng* 18:296-8+ My '48

Highway administration in Ontario. G. H. Doucett. *il Roads & Bridges* 86:111-15+ Mr '48

Highway development in the provinces of Canada. A. Talbot. *Roads & Bridges* 86:92-4 S '48

Highway situation in Ontario. W. J. Moore. *Roads & Bridges* 86:107-11 Mr '48

How big the contract section? nation-wide survey. *Roads & Sts* 91:91-3 S '48

How local and urban highways are being improved in the United States. B. F. Ostergren. *Roads & Bridges* 86:124+ Mr '48

How to appraise housing for condemnation; Connecticut state highway department's rights-of-way division. *Roads & Sts* 91:112+ Ja '48

Long-range planning studies. G. D. Kennedy. *Roads & Sts* 91:101-3 Ja '48

Possible cuts in highway costs; opinions of contractors and engineers. D. W. Winkelman and others. *il Eng N* 141:120-7 Jl 8 '48

Secondary road program in Nova Scotia. G. S. Stairs. *Roads & Bridges* 85:76+ D '47

Three-year highway construction plan develops northwest area. S. L. Taylor. *il Civil Eng* 18:156-9+ Mr '48

Would highways be the same if there were no trucks? E. J. Buhner. *Roads & Bridges* 86:84+ My '48

See also

Highway research

Roads—Maintenance and repair

HIGHWAY contracts. See **Roads—Contracts****HIGHWAY departments**

Directory, provincial highway officials; organization charts, provincial highways departments, Canada. *Roads & Bridges* 86:107-8+ Je '48

Pre-qualification methods used by the State highway department of Connecticut. E. T. Nettleton. *Roads & Sts* 91:86 F '48

See also

Highway administration Radio telephone—
Highway officials Highway department uses

Equipment

Highway and sanitation equipment repair procedures. R. K. Sawyer. *Pub Works* 79:40-2 F '48

Improved traffic stripping machines are 100 per cent air operated. *il Roads & Sts* 91:94+ My '48

HIGHWAY departments—Continued

Public relations

Our public relations job; present the facts; panel discussion. Roads & Sts 90:89-90 N '47

Shops

How they keep 'em rolling in Connecticut. il plan Roads & Sts 91:104+ Je '48

HIGHWAY engineering

Accelerated highway program calls for new design and construction techniques; annual report of ASCE Highway division committee. il Civil Eng 18:346-51 Je '48
 Arizona relocation involved 100,000-yd. granite cut. il Roads & Sts 91:75-7 F '48
 Building a 27-mile timber-limit service road through swamp and soupy clay; gravel-surfaced road for Abitibi power & paper co. in northern Ontario. G. C. McDougall. il Roads & Bridges 86:69-74+ Ap '48
 Building the Maine turnpike. il Eng N 139:741-5 N 27 '47

California's freeway design and construction; freeway in San Diego. E. E. Sorenson. il Pub Works 78:26-7 N '47

California's heaviest road job; Winston Bros. company contracts for realignment and widening of US 99. H. J. McKeever. il diag Roads & Sts 91:49-57 Je '48

Design of arterial routes in urban areas. J. Barnett. il Roads & Bridges 86:71-2+ Ag '48

Dredged fill for a scenic freeway; Columbia River highway. il map diag Eng N 141:76-8 S 2 '48

Dual-lane bypass road at Norfolk incorporates triple-level bridge. il map Eng N 140:700-1 My 13 '48

Essay contest to stimulate interest in highway engineering work. Eng N 141:78 O 14 '48

High-speed dual parkway relieves Washington-Baltimore traffic congestion. H. J. Spelman. il map plan Civil Eng 18:424-8 Jl '48
 Highways are tailor-made in Kansas. W. J. Arndt. il map Roads & Sts 91:91-2+ Jl '48

How D. W. Winkelman co. worked a 200,000 cu. yd. borrow pit; filling in swampy section on New York state's new Mohawk Thruway. il diags Roads & Sts 90:59-61 O '47

Important highway construction operations in Saskatchewan. H. R. MacKenzie. il map Roads & Bridges 86:57-9+ Ag '48

Improved specifications reduce highway costs. D. W. Winkelman. il Civil Eng 18:284-7 My '48

Labor saving methods speed water bound macadam job; Ohio project. C. R. Hanes. il diag Roads & Sts 91:104-8 F '48

Moving mountains to make a highway. il Eng N 141:73-5 Ag 5 '48

New York builds an expressway on shelves; three-level cantilever structure will carry Brooklyn-Queens connecting highway through narrow way. il diags Eng N 140:768-71 My 27 '48

North Santiam highway follows difficult route near Cascade summit. J. F. Cameron. il map diag Civil Eng 18:506-11+ Ag '48

Ohio highway engineering conference, Columbus, March 18-19. Ohio State U Eng Exp Sta [Columbus] Bul 129:1-100 '47 (pa \$1)

Roads and amenities. B. M. Roberts. Pub Works 79:32-4 S '48

\$75,000,000 highway program for Ontario. J. D. Millar. il Roads & Bridges 86:120-2+ Mr '48

Shall we build vehicles to suit the highways or highways to suit the vehicles? C. M. Upham. il Roads & Bridges 85:84+ N '47

Special highway section. il maps plans diags Eng N 141:119-44 Jl 8 '48

Strong company rebuilds 14 miles of U.S. 40, Nevada. il Roads & Sts 90:56-7+ N '47

Subgrade soil practices. T. E. Sheburne. il Pub Works 79:26-7+ Je '48

Virginia launches record highway reconstruction program. il plan diag Civil Eng 17:18-22+ D '47

See also

Bridge design	Roads
Bridges	Snow removal
Expressways	Streets
Highway research	Traffic engineering
Pavements	

Bibliography

Highway and airport digest. Published in monthly numbers of Public works

Tables, calculations, etc.

General principles of highway transition curve design. J. J. Leeming. Am Soc C E Proc 73:1257-69 O '47; Discussion. 74:139-42 Ja '48

Speed change lanes given design refinements in California; computation methods. diags Roads & Sts 90:63 O '47

HIGHWAY engineers

Better relations between engineers and contractors. J. Cohan. Roads & Sts 91:69+ My '48

Highway engineer shortage is laid to low pay and insecurity. Civil Eng 18:386 Je '48

Shortage of highway engineers begins in college; survey of employment preferences by June 1948 civil engineering graduates; abstract. J. A. Anderson. Eng N 140:944 Je 10 '48

Salaries

Engineers found scarce and underpaid; joint study conducted by Highway research board and American association of state highway engineers. Eng N 139:846 D 18 '47

HIGHWAY law

Planned service areas on controlled-access roadways. S. Miller, jr. Am Pet Inst Proc 27(1):71-4 '47

Toll road legislation in 1947. Roads & Sts 91:95 Ja '48

HIGHWAY officials

Directories

Directory, provincial highway officials; organization charts, provincial highways departments, Canada. Roads & Bridges 86:107-8+ Je '48

Municipal road officials in incorporated cities and towns, Canada. Roads & Bridges 86:169-70+ Je '48

Road superintendents and township road officials, Ontario. Roads & Bridges 86:157-8+ Je '48

HIGHWAY research

Abstracts from Highway research board papers. il Pub Works 78:31-2 Je '48

Accelerated highway program calls for new design and construction techniques; annual report of ASCE Highway division committee. il Civil Eng 18:346-51 Je '48

Closing the gap between research and practice. C. A. Hogentogler. Roads & Sts 91:83 Jl; 98-100 Ag; 75-7+ S '48

Cooperative study of structural design of nonrigid pavements. A. C. Benkelman and F. R. Olmstead. il diags Pub Roads 25:21-9 D '47; Same cond. Roads & Bridges 85:67-71+ D '47

Developing a highways research program in Ontario. W. S. McKay. il Roads & Bridges 86:125-6+ Mr '48

Highway research board's 27th annual meeting, Washington, Dec. 2-6. Eng N 139:833+, 854-6 D 18-25 '47; Roads & Sts 91:72+ Ja; 96-7 F '48

Highway research developments. N. C. Rockwood. Rock Prod 51:63 Mr '48

HIGHWAY transportation

Canada releases annual motor-transport census. For Comm W 32:41-2 Ag 7 '48

Future commercial highway transportation. J. S. Worley. S A E J 56:53-4+ S '48

Highway transportation congress, 2d, Washington, May 6-7. Roads & Sts 91:57 Je '48

Highway transportation planning; abstract. H. S. Fairbank. Roads & Sts 91:85 Mr '48

Research under way on truck economics. Roads & Sts 91:84-5 S '48

Role of commercial highway transportation in America's progress. J. V. Lawrence. Am Pet Inst Proc 27(1):80-3 '47

Shall we build vehicles to suit the highways or highways to suit the vehicles? C. M. Upham. il Roads & Bridges 85:84+ N '47

Studying highway problems; 2d Highway transportation congress, Washington. Bns W p36+ My 22 '48

HIGHWAY transportation—Continued

Traffic trends on rural roads in 1946. T. B. Dimmick and M. E. Kipp. Pub Roads 25: 41-8 Mr '48

See also

Motor bus lines	Railroads—Motor ve-
Motor trucks and	hicle auxiliaries
roads	Road traffic
Motor trucks in	Roads
freight service	Street traffic

HILL, Charles Shattuck, 1868-1948

Sketch. por Eng N 140:84 Ja 15 '48

HILLSIDE architecture

Adroit handling of wood marks this hilltop house in Los Angeles. il plans Arch Forum 87:102-3 D '47

Cliff house exploits a magnificent site in Vancouver, B.C. il plans Arch Forum 89: 96-100 O '48

Country house in the Pennsylvania hills. il plans Arch Rec 104:104-7 O '48

Custom-designed for a steep site; house in Los Angeles. il plan Arch Rec 104:114-16 S '48

Exploiting the mid-level entrance; house on sloping site in Kensington, Conn. il plans Arch Rec 104:97-9 S '48

Guest house for a mountain site; Lake Arrowhead, Calif. il plan Arch Rec 103: 102-5 F '48

Hillside type of the Usonian scheme; design by F. L. Wright. il plans Arch Forum 88:72, 74 Ja '48

House-group in high hills of Santa Monica, Calif.; design by F. L. Wright. il plans Arch Forum 88:99 Ja '48

Houses; a portfolio of progress in design. Arch Forum 88:104-5, 110-15, 139-41 Ap '48

Oriented for a view; house on hillside lot overlooking Lake Washington and the Olympic Mountain range. il plans diags Am Bld 70:80-3 Ap '48

Redwood house, Hollywood, Calif, cantilevered over steep bank from brick wall masses. il plan Arch Forum 88:151 Ja '48

Vertical house built at the top of a sloping Maine meadow. il plans diags Arch Forum 89:81-3 Ag '48

HINMAN, John Holmes

International paper company president. por (cover) Bsns W p6 Jl 10 '48

HIRING halls. See Trade agreements—Hiring provisions

HIROSHIMA, Japan

Effect of atomic bombing on building materials. A. C. Tester. Geol Soc Bul 59:787-94, pl 1-4 Ag '48

Japanese appraisal of atomic bomb damage to Hiroshima utility system. R. M. Van Duzer, Jr. and E. J. Burger. il map Elec World 128:98-103 N 8 '47

Sewerage

Effects of atomic bombing on sewerage and refuse collection in Hiroshima and Nagasaki. Pub Works 78:36+ O '47

HISTAMINE

Absence of protective action of rutin in anaphylactic and histamine shock. L. W. Roth and I. M. Shepperd. Science 108:410-11 O 15 '48

Aminoesters of substituted alicyclic carboxylic acids. C. H. Tilford, M. G. Van Campen, Jr. and R. S. Shelton. bibliog Am Chem Soc J 69:2902-6 N '47

Antihistamine agents; furan derivatives. J. E. Vaughan, Jr. and G. W. Anderson. bibliog Am Chem Soc J 70:2607-8 Jl '48

Clinical observation on a new synthetic antihistamine. J. K. Martins. Ind Med 17:133-4 Ap '48

Effect of cations upon recovery of the guinea pig gut from inhibition by antihistamines. M. Rocha e Silva and W. T. Beraldo. bibliog Science 108:162-3 Ag 13 '48

Effect of rutin on anaphylactic and histamine shock. R. J. Raiman and others. Science 106:368 O 17 '47; Reply. R. H. Wilson and F. DeEds. Science 107:369-70 Ap 9 '48

Fluorescein as an indicator of antihistaminic activity; inhibition of histamine-induced fluorescence in the skin of human subjects. S. C. Bukantz and G. J. Dammin. bibliog Science 107:224-5 F 27 '48

Histamine antagonists; alkamine ethers. J. B. Wright, H. G. Kolloff and J. H. Hunter.

bibliog Am Chem Soc J 70:3098-100 S '48

Histamine antagonists; N-(pyrrolidylalkyl)-phenothiazines. W. E. Reid, Jr. and others. Am Chem Soc J 70:3100-2 S '48

New development in antihistaminic therapy. E. F. Roberts. bibliog Ind Med 17:263-5 Jl '48

Peak interest in antihistamine drugs noted at annual regional meetings of the American pharmaceutical manufacturers' association. Chem & Eng N 26:744-5 Mr 15 '48

2-Thenyl substituted diamines with antihistaminic activity. F. Leonard and U. V. Solmassen. bibliog Am Chem Soc J 70:2064-7 Je '48

HISTIDINE

Reactions of mustard-type vesicants with α -amino acids. V. du Vigneaud and others. Am Chem Soc J 70:1620-1 Ap '48

Use of ion exchange resins for separation of basic amino acids. B. A. Hems and others. bibliog Soc Chem Ind J 67:77-80 F '48

HISTOPLASMA capsulatum

Effect of hydrogen-ion concentration on the yeastlike phase of histoplasma capsulatum (Darling). F. W. Cross. bibliog Pub Health Rep 63:739-46 Je 4 '48

Efficiency of methods for the isolation of histoplasma capsulatum. A. Howell, Jr. bibliog il Pub Health Rep 63:173-8 F 6 '48

Isolation of pathogenic fungi from experimentally inoculated guinea pigs. A. Howell, Jr. bibliog Pub Health Rep 63:602-16 My 7 '48

HISTOPLASMIN

Complement fixation test for histoplasmosis; preliminary results with human sera. M. L. Furcolow and others. bibliog Pub Health Rep 63:169-73 F 6 '48

Complement fixation test for histoplasmosis; technic and preliminary results on animal sera. D. J. Tenenbergs and A. Howell, Jr. bibliog Pub Health Rep 63:163-8 F 6 '48

Depression of tuberculin and histoplasmin sensitivity associated with critical illness. M. L. Furcolow and others. bibliog Pub Health Rep 63:1290-3 O 1 '48

Geographic distribution of histoplasmin and tuberculin reactors among Ohio state university freshmen and student nurses training in Columbus, Ohio hospitals. J. A. Prior and M. F. Allen. bibliog maps Pub Health Rep 62:1608-17 N 7 '47

Precipitin reactions in experimental histoplasmosis and blastomycosis. A. L. Pates. Science 108:383-5 O 8 '48

Roentgenographic appearance of persistent pulmonary infiltrates associated with sensitivity to histoplasmin. M. L. Furcolow and others. bibliog Pub Health Rep 62:1711-18, pl 1-16 D 5 '47

Studies of fungus antigens; preliminary report on the isolation of an immunologically active polysaccharide from histoplasmin. F. W. Cross and A. Howell, Jr. bibliog Pub Health Rep 63:179-83 F 6 '48

Studies of fungus antigens; sensitization of normal animals with skin test antigens. A. Howell, Jr. bibliog Pub Health Rep 63:595-601 My 7 '48

Variations in histoplasmin sensitivity in certain cities in eastern Kansas. I. L. Bunnell and M. L. Furcolow. bibliog Pub Health Rep 63:1298-305 O 1 '48

HISTOPLASMOSIS

Complement fixation test for histoplasmosis; preliminary results with human sera. M. L. Furcolow and others. bibliog Pub Health Rep 63:169-73 F 6 '48

Complement fixation test for histoplasmosis; technic and preliminary results on animal sera. D. J. Tenenbergs and A. Howell, Jr. bibliog Pub Health Rep 63:163-8 F 6 '48

Histoplasmosis in wild rats; occurrence and histopathology. C. W. Emmons and L. L. Ashburn. bibliog il Pub Health Rep 63:1416-22 O 29 '48

Histoplasmosis; the unknown infection. M. Gumpert. il Sci Am 178:12-15 Je '48

Naturally occurring histoplasmosis in mus musculus and rattus norvegicus. C. W. Emmons and others. bibliog Pub Health Rep 62:1642-6 N 14 '47

Report on ten proved cases of histoplasmosis. I. L. Bunnell and M. L. Furcolow. bibliog Pub Health Rep 63:299-316 Mr 5 '48

HISTORICAL libraries

Types of service offered by an historical society library. M. D. Gidney. Special Lib 39:13-15 Ja '48

HISTORY

Attempt at perspective; abstract. R. B. Warren. Science 107:591 Je 4 '48

See also

Business history

Economic history

also subdivision History under special subjects, e.g. New York (city)—History; Television—History

HISTORY, Modern**Bibliography**

Twentieth century world: a reading guide. F. D. Scott and A. Rockefeller, Jr. 9th ed rev & enl 43p pa. 75c Chandler's inc, 630 Davis st, Evanston, Ill. '48

HITCHCOCK, Hugh W. 1899-

Gallery. S. Jones. por Adv & Sell 41:86-7+ Je '48

HOARDING

Federal reserve bank of New York sees reduced currency hoarding. Comm & Fin Chr 168:219 Jl 15 '48

Proposes a new U.S. currency to reveal hoarding. F. L. Sundstrom. Comm & Fin Chr 167:614 F 5 '48

HOBBIES

Massachusetts institute of technology hobby shop. Il Tech R 50:441-3+ Je '48

See also

Workshops, Home

HOBGING

Hobs for spline shafts; abstract. A. F. Zamis. Machine Design 20:103-4 Ag '48

New applications for subtractive-lead hobbing. J. W. Bergman. Am Mach 92:117-18 Jl 15 '48

HOBGING machines

Sykes H.V. 14 universal hobbing machine. Il Automobile Eng 38:237 Je '48

HOBSBS act. See Labor laws and legislation—United States**HOBS**

Performance of German giant hobs. Il Engineering 166:128-9 Ag 6 '48; Same cond, Iron Age 162:81 Ag 26 '48

Testing

Shadowgraph a sample to find tool errors; manufacture of interchangeable parts by Lockheed aircraft corp. C. H. Bodner. Il diag Am Mach 91:87-90 D 18 '47

HOFFMAN, Paul Gray, 1891-

Going concern; look at Marshall plan's management and shape of its job. por Fortune 38:62-7 Ag '48

How Hoffman will run ECA. por Bsns W p 19-20 Ap 10 '48

Sketch. por(cover) Bsns W p6 Ap 17 '48; Sales Management 60:sup2-H. My 1 '48

Studebaker's Paul G. Hoffman, in driver's seat as administrator of foreign assistance program. por Steel 122:50+ Ap 19 '48

HOFFMANN reaction

Application of the Hoffmann reaction to the synthesis of heterocyclic compounds; the synthesis of 9-D-mannopyranosidoxanthine and of 9-D-ribosepyranosidoxanthine. R. A. Baxter, A. C. McLean and F. S. Spring. Chem Soc J p523-5 Ap '48

Synthesis of β -carbolines; 3-aminoharman and some of its derivatives. H. R. Snyder, S. M. Farmer and H. G. Walker. Am Chem Soc J 70:237-9 Ja '48

HOENTOGLER, Chester Allen, 1887-

Sketch. por Roads & Sts 91:92+ Je '48

HOISTING

See also

Lifting magnets

Safety measures

Chain for industrial use. Il Nat Safety N 57:120 Mr '48

Hoists and trucks. Il Nat Safety N 57:117-18+ Mr '48

Rigged for safety; working loads of ropes, hooks and blocks. W. R. Stewart. Safety Eng 96:36-7+ Jl '48

HOISTING machinery

Giving maintenance a lift; hoists and lifting devices in Brooklyn shops of New York City transit system. L. G. Kurtz. Il plans diag Bus Transportation 27:62-5 Je '48

Portal frames make Rhine bridge raising look easy. Il diag Constr Methods 30:92-6 Ja '48

Russian power lift for direct-mounted implements. diag Automotive Ind 97:78+ D 15 '47

See also

Conveying machinery Mine hoisting Cranes, derricks, etc. Wire rope

Manufacture

Manual hidden arc welds hoist cylinders 300 per cent faster. A. Elewett. Il Am Mach 92:106-7 Jl 1 '48

Safety measures

Trouble-free hoist keeps production moving. W. E. Rossnagel. Il Safety Eng 94:17+ D '47

Testing

Speed recorder for winding-engine tests. Engineering 165:537-8 Je 4 '48

HOISTING machinery, Electric

Cardiff electric hoist. Il Engineer 185:529 My 28 '48; Elec R (Lond) 143:106 Jl 16 '48

Electric cranes and hoists. H. H. Broughton. Inst Mech Eng J & Proc 157 (War emergency issue no 32):306-8 '47

Hoist speeds fish handling and retort room work; Lake Shore canning co., Cleveland, Wis. Il Food Ind 20:376-7 Mr '48

HOLDING companies

Downstairs mergers. K. Foster. J Account 85:482-3 Je '48

Holding company integration. E. Troxel. bibliog Land Econ 24:86-9 F '48

New uses for the holding company. D. Cowan. Pub Util 41:768-75 Je 3 '48

Survival of the holding company. Comm & Fin Chr 167:2437 Je 3 '48

Utility debutants of 1948; holding company integration introduces new utility names; details of leading developments. Pub Util 41:370-3 Mr 11 '48

See also

Banks and banking—Holding companies

Laws and regulations

Holding company overhaul now half completed. O. Ely. Pub Util 41:410-16 Mr 25 '48

Progress with holding company plans. O. Ely. Pub Util 41:501-4; 42:44+, 435-6 Ap 8, Jl 1, S 23 '48

Stock redemption under holding company act held involuntary; plan of New England public service co. Pub Util 41:61-2 Ja 1 '48

Year-end review of progress with holding company integration plans. O. Ely. Pub Util 41:43-6 Ja 1 '48

Securities

Engineers Public Service decision; retirement of senior holding company securities. O. Ely. Pub Util 41:565-8 Ap 22 '48

Position and prospects of leading utility holding company equities; tabulation. Mag of Wall St 82:285 Je 19 '48

Preferred stockholder's rights under attack as SEC and courts enforce Holding company act. J. Preston. Barron's 28:31-2 S 6 '48

Recent financial data for principal electric-gas holding company stocks. Pub Util 41:48 Ja 1 '48 [cont monthly]

United corp. plan awaits federal court's approval. Barron's 28:27 Ag 23 '48

Taxation

Family holdings determine holding company status. O. M. Cordle. J Account 85:385 My '48

HOLDING devices

Fixtures facilitate induction and flame hardening. V. E. Hillman. Il Iron Age 161:90-4 Je 24 '48

High speed induction brazing with interchangeable fixtures; Victor adding machine co. A. E. Heidenreich and J. W. Stead, Jr. Il Iron Age 162:95-7 O 7 '48

HOLDING devices—Continued

Jigs and fixtures facilitate economic mass welding. O. L. Dubie. *Jl Steel* 122:90-3 My 3 '48
Welding jig guarantees accurate cabinet making. *Jl Sheet Metal Worker* 39:44 S '48

HOLIDAYS

Collective bargaining provisions; vacations, holidays and week-end work. U S Bur Labor Statistics Bul 908-2:1-57; pa 15c Supt. of doc. '48
Practical negotiation of vacation and holiday clauses. H. A. Lien. *Personnel* 25:48-54 JI '48

See also

Bank holidays
Vacations

HOLLAND, Irwin F.

Portrait. *Bsns W* p68 Mr 20 '48

HOLLIS, Mark Dexter, 1909-

Named assistant surgeon general. *por Eng N* 140:26 Ja 8 '48

HOLLMANN, Frank

Pigeon fancier to editor easy for Missourian; owner of Warrenton banner. W. R. Suda. *Ed & Pub* 81:52 JI 17 '48

HOLLOMON, John H.

Mining engineer wins 1947 Alfred Nobel prize. *por Civil Eng* 18:40 Ja '48

HOLLOWAY, J. Henry

Retires after fifty years in education field. *Inland Ptr* 121:73 Je '48

HOLLY sugar corporation

Preferred stock offered. *Comm & Fin Chr* 168:1255 S 27 '48

HOLLYWOOD, California

Hollywood, world center of motion picture production. C. M. Zierer. *Ann Am Acad* 254:12-17 N '47

HOLMAN, Eugene, 1895-

Portrait. *Fortune* 38:70 Ag '48

HOLMES, Burton, 1870-

My first fifty years in motion pictures; experiences as partner of travelog exponent. Burton Holmes. O. B. Dupue. *Soc Motion Picture Eng J* 49:481-93 D '47

HOLMES, David

Harry and David, personal farmers to the U.S.A. F. J. Taylor. *Jl Adv & Sell* 41:33+ O '48

HOLMES, Harry

Harry and David, personal farmers to the U.S.A. F. J. Taylor. *Jl Adv & Sell* 41:33+ O '48

HOLMES safety association

Curtis receives Holmes medal. *Concrete* 55:28+ D '47

HOLOCELLULOSE

Chemical analysis of western woods. E. F. Kurth. *diag Paper Tr J* 126:56-7 F 5 '48
Effect on pulp quality of the stepwise removal and replacement of the hemicelluloses from aspen holocellulose. R. E. March. *bibliog Paper Tr J* 127:51-7 O 21 '48; Same cond. *Paper Ind* 29:1833-4+ Mr '48

Estimation of hemicelluloses in holocellulose from nonwoody plant material. E. Bennett. *bibliog Anal Chem* 20:642-3 JI '48

Hemicelluloses from maple holocellulose; yield and composition. R. L. Mitchell, S. C. Rogers and G. J. Ritter. *bibliog Ind & Eng Chem* 40:1528-9 Ag '48

Papermaking properties of straw holocellulose; abstract. G. A. Adams and A. E. Castagne. *Paper Ind* 30:488 Je '48

HOLYOKE, Massachusetts*See also*

Floods—Holyoke, Massachusetts

Industries

Paper makers argue federal power plan; claim canal system of Holyoke will be imperilled. *Paper Tr J* 125:9 D 18 '47

HOLYOKE college. See Mount Holyoke college

HOME aid service. See Housekeeping service (social work)

HOME builders council of New York, New Jersey and Connecticut

Reports improved home building outlook in New York area. E. M. Spiegel. *Comm & Fin Chr* 166:2373 D 11 '47

HOME economics*See also*

Housekeeping service (social work)

Study and teaching

Gas aids education for family living; home economics equipment at McKeesport high school. D. E. McKay and C. W. Marsico. *Jl Gas Age* 101:21-3 My 13 '48

If girls dislike home; modernizing home economics classrooms with new appliances. *Jl plans Elec West* 100:94-6 Mr '48

HOME furnishing. See Furniture stores; Household products industries

HOME insurance company of New York

Company cooperated with department; statement to commissioners; abstracts. R. E. Dineen. *East Underw* 48:20+ N 28 '47; *Net Underw* 51:2+ N 27 '47

Merger terms. *Comm & Fin Chr* 167:1151 Mr 15 '48

Overwhelming vote by stockholders of Home given merger. *East Underw* 49:1+ Ap 9 '48

HOME owners loan corporation

HOLC healthy. *Bsns W* p82-3 JI 10 '48

HOLC points with pride. *Bsns W* p81 Ja 17 '48

HOME ownership

Bank's library of new homes; Dime savings bank of Brooklyn opens home buyers' exhibit. J. L. Cooley. *Jl Banking* 41:64-5 JI '48

Home ownership, our nation's strength. *Jl Am Bid* 69:68-9 D '47

Progress in low-income families home ownership. M. Bodfish. *Comm & Fin Chr* 168:320 JI 22 '48

Theme of house talk is changing. R. E. Saberson. *Am Bid* 70:116-17 JI '48

Finance

Government-guaranteed home loans to veterans. *Survey of Cur Bsns* 28:8-10 Ap '48

House for less than \$4,000; home loan program of Valley national bank of Phoenix, Arizona. *Jl Banking* 40:66 Je '48

How veterans got houses in Baton Rouge; Legion Village. *Jl Banking* 41:60+ JI '48

Interest stiffens; comparison of home-finance costs to the veteran. *Arch Forum* 89:12 Ag '48

1948 survey of consumer finances; housing expenditures and finance. C. L. Fauver. *Fed Res Bul* 34:1058-65 S '48

Will financing problems halt building boom? J. D. C. Weldon. *Jl Mag of Wall St* 82:389-90+ JI 17 '48

HOME workshops. See Workshops, Home

HOMES, Institutional

Rigid frames reduce cost at Boys Town. J. D. Griffiths. *Jl Eng N* 139:673-4 N 13 '47

HOMES for the aged. See Old age homes

HOMESTAKE mine. See Mines and mineral resources—South Dakota

HOMESTEAD law

Homestead tax exemption; a tenure improvement measure? R. Barlowe. *bibliog J Land & Pub Util Econ* 23:360-70 N '47

HOMING pigeons. See Pigeons

HOMOGENIZATION

Colloidal equipment applied to the homogenization of clay and paper coatings. D. E. Gould. *Jl Paper Tr J* 126:63-7 My 6 '48

HOMOGENIZED milk. See Milk, Homogenized

HOMOSERINE. See Aminohydroxybutyric acid

HOMOTRYPTOPHAN

Synthesis of *dl*-homotryptophan. H. R. Snyder and F. J. Pilgrim. *Am Chem Soc J* 70:1962-3 My '48

HOMOVANILLIN

Homovanillin. A. A. L. Challis and G. R. Clemo. *diag Chem Soc J* p 1692-7 D '47

HONEY

Current decline in honey markets. *El Salvador. For Comm W* 32:31-2 Ag 7 '48

HONEY locust

Investigation of the reserve carbohydrates of leguminous seeds; periodate oxidation. O. A. Moe, S. E. Miller and M. H. Iwen. *bibliog Am Chem Soc J* 69:2621-5 N '47

HONG KONG, China

Hong Kong boom; China bust. *Jl Fortune* 38:86-7+ S '48

Commerce

Entrepot of the Far East. *Economist* 154:550 Ap 3 '48

Foreign trade declined in June. *For Comm W* 32:16 S 11 '48

HONG KONG, China—Commerce—Continued

- Free trade in Hongkong. *Economist* 155:304 Ag 21 '48
 Hongkong entrepot trade; with figures for first half of 1947 and 1948. *Economist* 155:352+ Ag 28 '48
 Revival of Hongkong. *Economist* 154:384 Mr 6 '48

Commercial policy

- Status of United States private trade with the Far East; trade and exchange controls. *For Comm W* 32:42-3 Jl 17 '48
 United States dollar exchange granted only for a few items; reexport of specified Chinese commodities restricted. *For Comm W* 30:20 Ja 31 '48

HONGKONG and Shanghai banking corporation

- Statement by the chairman at ordinary general meeting. A. Morse. *Economist* 154:437 Mr 13 '48

HONING

- Align honing eliminates bearing scraping; bearings of Bliss presses. H. E. Linsley. *Il Am Mach* 32:38-9 Ja 15 '48
 New developments in honing. C. H. Wick. *Il diags Mach* 54:145-50 Je; 162-9 Jl '48

HONING machines

- New line of heavy-duty Microhoning machines. *Il Mach* 54:202-3 Mr '48
 Production processes; their influence on design; honing and lapping. R. W. Bolz. *Il diags Machine Design* 20:133-9 Je '48
 Sizing control for automatic honing of bores. *diags Machine Design* 19:107-8 N '47
 35th annual review. *Il Am Mach* 92:196-8 Ja 29 '48

- HOOK, Charles Ruffin**, 1880-1947 recipient. ASM medal for the advancement of research. H. W. Wright. *por Metal Prog* 54:482-4 O '48
 Portrait. *Bsns W* p51 My 8 '48

HOOKER electrochemical company

- Offers rights to new preferred shares. *Comm & Fin Chr* 168:1799-800 N 1 '48

HOOKS, Crane. See Crane hooks**HOOPER, Claude Ernest**, 1898-

- Are U.S. Hooperatings projectable? H. Zeisel. *Ptr Ink* 224:52+ Jl 9 '48

HOOPER, David, 1858-1947

- Sketch. T. A. Henry. *Chem Soc J* p253-5 F '48

HOOPER, Calvin Bryce, 1897-

- Harriman's men. *por Bsns W* p 105 S 4 '48

HOPCALITE

- Field tests for the detection of carbon monoxide. L. T. Minchin. *bibliog diags Chem & Ind* p 147-9 Mr 6 '48

HOPKINS, Alice Lucile, 1882-

- Retirement. *Special Lib* 39:198-9 Jl-Ag '48

HOPKINS, Frederick Gowland, 1861-1947

- Hopkins memorial lecture. E. Mellanby. *por (Pl) Chem Soc J* p713-22 My '48

HOPKINS, Joseph M.

- Portrait. *Ptr Ink* 225:44 O 29 '48

HOPLEY, Russel James, 1895-

- Civil defense planner. *por Bsns W* p99 Mr 20 '48

HOPPERS

- Automatic hoppers speed assembling. A. E. Rylander. *Il diags Tool Eng* 21:17-19 S '48
 Pattern for diagonal transformer. O. W. Kothe. *diags Sheet Metal Worker* 38:64-5 N '48

HOPS

- Belgian hops situation; Hops and malt production and trade, Canada. *For Comm W* 31:14-15 Ap 17 '48

- Canadian production and exports. *For Comm W* 33:35 O 2 '48

- Hop producing and importing, Union of South Africa. *For Comm W* 29:21 D 6 '47

- Hops situation in Denmark. *For Comm W* 33:27-8 O 30 '48

- Supply and consumption of hops, Sweden. *For Comm W* 30:21 Mr 20 '48

HORMEL foundation, Austin, Minnesota

- Pure unsaturated fatty acids and fatty acid esters manufactured by Hormel foundation. *Science* 107:368 Ap 9 '48

HORMEL institute, Austin, Minnesota

- Hormel institute continues to grow. H. O. Halvorson and W. O. Lundberg. *Il Chem & Eng N* 26:1526 My 24 '48

HORMONES

- Bromination of 3-ketosteroids in acetic acid and the effect of trace substances in the solvent. C. Djerassi and C. R. Scholz. *bibliog Am Chem Soc J* 69:2404-10 O '47

- Hydrodiethylstilbestrol compounds; racemic octahydro compounds. H. E. Ungnade and A. Luditsky. *bibliog Am Chem Soc J* 69:2629-32 N '47

- Mechanism of steroid hormone activity investigated; symposium sponsored by University of Wisconsin. *Chem & Eng N* 26:2891 S 27 '48

- New synthesis of cinnooline derivatives; heterocyclic steroid analogs. E. C. Kornfeld. *bibliog Am Chem Soc J* 70:1373-6 Ap '48

- Perbenzoic acid oxidation of 20-ketopregnanes. L. H. Sarett. *bibliog Am Chem Soc J* 69:2899-901 N '47

- Sex hormones from tall oil; abstract. T. Enkvist. *Paper Ind* 29:1676 F '48

- Sex hormones; synthesis of 1-keto-7-methoxy-1,2,3,4-tetrahydrophenanthrene and of 1-keto-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene. G. Stork. *bibliog Am Chem Soc J* 69:2936-9 D '47

- Sterols; A²⁰-pregnenes from *bisnor*-steroid acids. P. L. Julian, E. W. Meyer and H. C. Printy. *Am Chem Soc J* 70:887-92 Mr '48

See also

- | | |
|-----------|--------------|
| Equilenin | Progesterone |
| Estrogens | Sapogenins |

HORMONES, Plant

- Plant hormones with special reference to selective weedkillers. E. Holmes. *Chem & Ind* p355-8; Discussion. 358-9 Je 5 '48

See also**Auxins****HORN**

- Determination of the elastic properties of horn keratin. F. L. Warburton. *bibliog diags Textile Inst J* 39:P297-307; Discussion. P307-8 Jl '48

- HORN antennas.** See Radio antennas—Directional antennas

HORNS

- Calculation of the directivity index for various types of radiators. C. T. Molloy. *diags Acoustical Soc Am J* 20:387-405 Jl '48

HORROCKSES, Crewdson and company

- Directors' report for year ended Aug. 31, 1947. *Economist* 153:1028 D 20 '47

HORSE racing

- Palace revolution. *Fortune* 37:120+ My '48
 Race course photo finish equipment. *Il Electrician* 139:1708 D 12 '47; *Elec R (Lond)* 141:946 D 19 '47

HORSEPOWER

- Cutting and horsepower formula and chart. *Tool Eng* 21:34-5 S '48

- Engine indicated horsepower; chart; data sheet. F. M. Giordano. *Power* 92:117 F '48

- Motor driven machines; torque and horsepower; multiplication of torque. *diags Product Eng* 19:120-1 Mr '48

HORSES

- Evolution of the horse brain. T. Edinger. (Memoir 25) 177p. 4pls bibliog(p170-4) \$2 Geological soc. of America, 419 W. 117th st. New York '48

- Objectives of Canadian cooperative processors, Ltd.; disposal of surplus horses. *For Comm W* 32:29-30 Jl 31 '48

HORTICULTURE

- Application of electricity to horticulture. C. A. Cameron Brown and E. W. Golding. *bibliog Il diags Inst E E J* 95 pt 2:423-33; Discussion. 434-8 Ag '48

See also

- Color of plants

Statistics

- Sampling methods applied to estimating numbers of commercial orchards in a commercial peach area. F. E. McVay. *Am Stat Assn J* 42:533-40 D '47

HOSE

- Extending rig hose service. C. A. Franklin, Jr. and P. J. Breden. *Il diags World Oil* 128:92-4+ Ag '48

- Flexible hose in rotary drilling operations. L. Cranston and R. Leonard. *diags Oil & Gas J* 47:77+ Je 3 '48

- Separate rig handles high-pressure jet hose. *Il Constr Methods* 30:101 Je '48

HOSE—Continued

Typical visible defects found in various types of rubber hose. T. A. Werkenthin. *il Rubber Age* 63:187-94 My '48

HOSE, Plastic

Direct-to-dealer sales strategy brings cheers from wholesalers; Resin Industries garden hose. *il Sales Management* 59:62+ D 1 '47
Hardware award to Industrial synthetics corp. *il Mod Plastics* 26:132-3 S '48

HOSIERY

Dyeing and finishing from the consumer angle. R. L. Elliott. *Soc Dyers & Col J* 64:179-83 My '48
Evaluation of shrinkage controlled wool socks; purpose of the A.A.T.C.C. sub-committee tests. *Am Dyestuff Rep* 37:405 Je 14 '48

Nylon staple in hosiery. W. B. Vincent. *Am Dyestuff Rep* 37:271-4 Ap 19 '48
Shrinkproofing, dyeing and finishing men's hosiery of wool and nylon blends; abstract. V. T. Hartquist. *Am Dyestuff Rep* 37:447 Je 28 '48

Shrink-resistant sock treatment revealed by QMC; halogenation, resin, alcoholic potassium-hydroxide, and enzyme processes compared. *il Textile World* 98:111-14+ Ap '48

Socks from nylon staple. *Rayon* 29:80-1 Ap '48

Manufacture

Chemical finishes for cotton yarn and hosiery. M. S. Furry. *il Rayon* 29:58-60 Ja; 67-70 F; 65-6 bibliog(p66) Mr '48

Control of waste requires an adequate system. H. B. LeFeaux. *il Textile World* 98:122-3+ F '48

Developments in nylon hosiery dyeing and finishing; abstract. E. J. Siegrist. *Rayon* 28:654-5 D '47; Same abr. *Textile World* 98:218+ Ja '48

New devices aid seamless knitting. *il Textile World* 98:139+ Mr '48

Nylon-seaming techniques refined for 10 and 15 denier. H. B. LeFeaux. *il diag Textile World* 98:133+ My '48

Nylon staple in hosiery. W. B. Vincent. *Rayon* 28:651-4 D '47; Abstract. *Textile World* 97:141 D '47

Flexiglas protects nylon thread, boosts hosiery production. *il Rayon* 28:599-600 N '47
Seamless-hose streaks can be eliminated. C. W. Arrowood. *il Textile World* 98:106-7 Ag '48

10- and 15-den. nylon intensifies knitting problems. H. B. LeFeaux. *il diag Textile World* 98:123+ Ja '48

See also

Hosiery machines

Standards

Hosiery manufacturers join ASA as member-body. *Ind Stand* 19:121 S '48

Voluntary standards set for full-fashioned hosiery. W. C. Idol, jr. *il diag Textile World* 98:124-5+ Mr '48

Testing

Measurement of shrinkage in socks by the Schiefer measuring device. G. Smith. bibliog *il diag Textile Inst J* 39:S11-20 Ap '48

Simple tester for evaluating the snag resistance of nylon hosiery. J. E. Smith and T. D. Johnson, jr. *il diags Am Dyestuff Rep* 37:195-200 Mr 22 '48; Abstracts. *Textile World* 97:139+ D '47; *Rayon* 29:70-1 Ja '48; Discussion. *Am Dyestuff Rep* 37:200-1+ Mr 22 '48

Voluntary standards set for full-fashioned hosiery. W. C. Idol, jr. *il diag Textile World* 98:124-5+ Mr '48

HOSIERY machines

How to save materials by training operators; Psychological corp. study in nylon-hosiery mill. *il Mod Ind* 15:128+ F '48

Instruction saves half-hose quality; Banner wrap-reverse machine. C. W. Arrowood. *il Textile World* 97:137+ N '47

It pays to recondition full-fashioned machines. H. B. LeFeaux. *il diags Textile World* 98:123A-123B+ Je '48

Self-cleaning disks aid woolen-yarn knitters. W. A. Simond. *diag Textile World* 98:160 Je '48

Tension on knitting yarns can be quickly adjusted. W. A. Simond. *diag Textile World* 98:165-6 F '48

Waldensian makes another seamless first. C. M. Bowden. *il Textile World* 98:133+ S '48

Advertising

Sells machines but advertises stockings; Scott & Williams, inc. *il Ptr Ink* 223:44-5 My 21 '48

Lubrication

Full-fashioned machines require good lubrication. H. B. LeFeaux. *il Textile World* 97:143+ D '47

HOSIERY mills

Belvedere; the house built for full-fashioned equipment; illustrations with text. C. M. Bowden. *Textile World* 97:116-18 N '47

Quality control in the textile industry. L. H. C. Tippet. *Textile Inst J* 35:F694-8; Discussion. F695-600 D '47

Sapphire hosiery corporation; new plant at Telford. Pa. *il Factory Management* 106: B48-9 pt 2 Ap '48

Air conditioning

Planned for precise climate control; new plant for Sapphire hosiery corp., Telford, Pa. *il Arch Rec* 104:140-2 Ag '48

Refrigerated air-conditioning pays in half-hose mill; Spalding knitting mills. E. D. White. *il Textile World* 98:137+ F '48

Employees

Friendship is keynote at May McEwen Kaiser co. J. M. Gregory. *il Textile World* 98:131+ Ap '48

Hosiery manufacture; earnings in Sept. 1947. T. P. Kanninen. *Mo Labor R* 66:516-18 My '48

On-the-job feeding brings hot meals to knitters. C. M. Bowden. *il Textile World* 98:114-15 Ag '48

Testing for aptitude promises efficiency and savings; Shannon hosiery mills. P. M. Thomas. *il Textile World* 98:143+ F '48

Vision standards must be related to mill's own loopers. N. C. Kephart. bibliog *Textile World* 98:141+ My '48

Equipment**See also**

* Hosiery machines

Fires and fire protection

Hosiery mill has first rate-of-rise sprinklers. *il plan Textile World* 98:128-9 O '48

Heating and ventilation

New ventilation method aids boarding room. C. M. Bowden. *il diag Textile World* 98:108-9 Jl '48

Waste

Control of waste requires an adequate system. H. B. LeFeaux. *il Textile World* 98:122-3+ F '48

HOSIERY trade

Eleventh hosiery industry conferences. H. R. Mauersberger. *Rayon* 29:40-1 Je '48

Gift hosiery; Schiaparelli's packaging. *il Mod Packaging* 22:116-17 O '48

National hosiery association report on nylon hosiery; abstract. E. Constantine. *Rayon* 29:79-80 Ap '48

Nylon holds ascendant position in present hosiery demand. W. A. Davidson. *Rayon* 29:74-5 Mr '48

Pre-sealed hosiery; transparent cylinder pack. *il Mod Packaging* 21:102-4 D '47

Rayon in the production of hosiery; yarn supply; new fibers. W. D. Benson. *Rayon* 29:63-4 Je '48

Vendor package; \$1 pack of nylons. *il Mod Packaging* 21:86-7+ Ja '48

Statistics

Hosiery, 1941-1946. Survey of Cur Bns 1947 Sup p 173 [supplemented in monthly numbers]

HOSPITAL libraries

Manual for hospital librarians. C. E. A. Bedwell, ed. 120p 10s 6d Library assn, Chaucer House, Malet place, London, W.C. 1 '47

HOSPITALIZATION insurance. See Insurance, Hospitalization

HOSPITALS

- Graded hospitals. Sci Am 179:22-3 Ag '48
 Hospital construction costs can be cut. I. Rosenfield. *il plans* diag Eng N 141:96-8 O 28 '48
 Hospital survey and construction act amendments. Pub Health Rep 63:1068-70 Ag 13 '48
See also
 Leprosy—Hospitals
 Tuberculosis—Hospitals and sanatoriums

Accounting

- Accounting control of the operations of a small hospital. D. J. Morrison. N A C A Bul 29:1289-98 Je 15 '48
 Depreciation in hospital accounting. J Account 85:344-5 Ap '48

Air conditioning

- Cost and capacity data for hospital air conditioning; abstract. G. C. Dittman. Heating-Piping 20:106 F '48

Costs

- Hospital cost hurdle; private rooms are too costly. Arch Forum 88:16 Ap '48

Designs and plans

- 25 beds; general hospital of minimum size. *il plan* Arch Rec 103:92-3 Je '48
 Two hospital projects for Mexico. *il plans* Arch Rec 103:98-101 F '48
 Type plans for the general hospital; building types study. *il map plans* Arch Rec 103:92-114 Ja '48

Equipment

- Oxygen and suction piping for hospitals. S. Lewis. Heating-Piping 20:94-5 F '48
 Urea molds main parts of signal lights; hospital signal units for nurses. *il Mod Plastics* 25:91-2 N '47
See also
 Sutures

Federal aid

- Aid for civil hospitals OK'd by USPHS. Eng N 140:159 Ja 29 '48
 Approve first application for federal hospital money; Alabama group gets funds. Eng N 139:637 N 13 '47

Heating and ventilation

- Hospital suggests unusual ideas on heating and air conditioning. J. D. Dillon and R. P. Goemann. *diags* Heating-Piping 20:89-92 O '48

Lighting

- Lighting the hospital patient's room. W. Allphin and others. *il diags* Illum Eng 42:1028-47; Discussion. 1047-8 D '47

Purchasing

- How to sell sanitary supplies to hospitals. A. LaBelle. *il Soap & San Chem* 24:129+ My '48

Safety measures

- Safety program for hospitals. G. E. Decker. Safety Eng 95:59-60 Je '48

X ray rooms

- Planning X-ray departments for hospitals; with time-saver standards. *plans diags* Arch Rec 104:149-52, 157, 159 O '48

Brazil

- Foreigners' hospital in Rio de Janeiro; maternity home for University hospital in São Paulo. *il plans* diag Arch Forum 87:84-7 N '47

Canada

- Directory of hospitals in Canada, 1945-46, 87p pa 50c Canada. Dominion bur. of statistics, Ottawa '47

Mexico

- Two hospital projects for Mexico. *il plans* Arch Rec 103:98-101 F '48

HOSPITALS, Industrial

- Modern industrial hospital; Heppenstall co., Pittsburgh. *il Mill & Factory* 42:160 Mr '48

HOSPITALS, Maternity

- Maternity home for University hospital in São Paulo. *il diags* Arch Forum 87:86-7 N '47

HOSPITALS, Military

- Award \$22 million VA hospital jobs. Eng N 140:339 Mr 4 '48
 Design of a skyscraper hospital; Ft Hamilton veterans hospital; with unit prices. *il plan diags* Eng N 140:778-82 My 27 '48
 Tripler general hospital built for U.S. army on Oahu. *il Eng N* 141:4 S 9 '48
 Use of 16-mm motion pictures for educational reconditioning at the Walter Reed general hospital. E. W. Schultz. *il Soc Motion Picture Eng J* 51:424-30 O '48
 VA-army hospital building program made ready for new year speed-up. Eng N 140:7 Ja 1 '48

HOSPITALS, Rural

- Bingham plan; little-known foundation in New England. L. Engel. *il map* diag Sci Am 179:7-13 O '48
 Community clinics with nursing units for rural areas. *il plans* Arch Rec 103:96-7 Ja '48
 Large hospital for a rural area; Crittenden County general hospital, West Memphis, Ark. *il plans* Arch Rec 103:94-6 Je '48

HOT blast stoves. See Blast furnace stoves**HOT-box alarms. See Cars—Bearings****HOT cargo act of California. See Labor laws and legislation—California****HOT houses. See Greenhouses****HOT SPRINGS, North Carolina**

- Origin of the hot springs at Hot Springs. G. W. Stose and A. J. Stose. *il maps* diag Am J Sci 245:624-44 O '47

HOT springs

- Hot springs harnessed for ice control in Klamath Falls, Oregon. R. H. Baldock. Roads & Sits 91:67 Mr '48
 Origin of the hot springs at Hot Springs, North Carolina. G. W. Stose and A. J. Stose. *il maps* diag Am J Sci 245:624-44 O '47
 Power without fuel; ethyl chloride and natural steam plants on island of Ischia in Bay of Naples. J. A. C. Pennyquick. *il Electrician* 140:117-18 Ja 9 '48; Excerpt. Chem Age (Lond) 58:114 Ja 17 '48
 Volcanic emanations as keys to ore transport. C. S. Ross. *bibliog Econ Geol* 42:537-9 S '47

HOT water heaters

- Triple service heating system provides hot water for heating laundries and for baths and lavatories. *il Am Bld* 70:129 F '48

HOT water heating

- Advances in boiler-type heating; results of tests in I=B=R research home, University of Illinois. W. S. Harris. *il diags* Arch Rec 103:145-8 Mr '48
 Does oil and gas heating demand extra radiator surface? A. G. Canar. Heat & Ven 45:65-6 S '48
 Fabricated hot-water boiler. *il diag Engineer* 185:146 F 6 '48
 Heating fundamentals at I-B-R course. Dom Eng 170:109-11 N '47
 High pressure hot water. J. R. Kell. *il diags* Heating-Piping 20:93-7 Ap; 97-102 Je; 91-4 Ag; 85-8 O '48; Discussion. 20:103-4 My; 101-2 Jl '48; Reply. 20:109-10 Ag '48
 Piping arrangements for convector-radiator jobs. *diags* Dom Eng 171:143-9+ Ja '48
 Triple service hot water heating system. *il diags Product Eng* 19:94-5 S '48
 Utilizes But's in boiler water for night heating of rectory. I. W. Cotton. *il diag Heating-Piping* 19:114-16 N '47
See also

Hot water heaters**Control**

- Adequate temperature controls provide improved apartment house heating. R. A. Lawder. *diags* Heat & Ven 45:85-8 Ag '48

Panel system

- All rooms can be heated to individual temperatures in this split circuit radiant installation. *il diags* Arch Forum 88:100 Je '48
 Answers to questions frequently asked regarding radiant heating. R. G. Vanderweil. Heat & Ven 45:101-4 Mr '48

HOT water heating—Panel system—Continued
 Cold bending of pipe coils for radiant heating installations facilitated by new benders. *il* *diags* Arch Forum 87:108 D '47
 Demand-controlled radiant house heating. *il* Elec West 100:58-9 Ja '48
 Design method for panel heating systems using copper tubing. R. G. Vanderweil. *diags* Heating-Piping 19:123-7 N '47
 Don't neglect zoning with solar heat jobs. S. Lewis. Heating-Piping 20:107-8 Je '48
 Economical use of cooling water for heat insulation of presses and subsequently for space heating. J. Butler. Engineering 165: 185-6 F 20 '48
 Heated resilient flooring; three-year tests by the Armstrong cork co. Heat & Ven 45: 124-4 Ap '48
 Independent jobber installs radiant heating at new station; finds it works satisfactorily. *il* Nat Pet N 40:37-8 Ja 14 '48
 Labor saved by copper tubing for radiant heating. *il* Constr Methods 30:110-11 Mr '48
 Mexican government installs radiant heat in the private car of President Aleman. *il* Ry Age 125:854-6 N 6 '48
 Panel heat with copper tubing; experiment in practice. D. L. Mills and L. J. Latart. *il* Heat & Ven 44:65-9 O; 95-8 N; 75-8 D '47
 Panel heating research program; committee report, American society of heating and ventilating engineers. Heating-Piping 20: 130-2 Ap '48
 Pipe coils for panels are shop fabricated. *il* Heat & Ven 44:69 D '47
 Practical pointers on radiant heating design. R. G. Vanderweil. *il* *diags* Heating-Piping 19:69-71 JI; 97-9 S '47; 20:97-8 Mr '48; Discussion, 19:107-9 N '47; 20:100-1 Ap '48
 Preheated air helps carry panel load; Shell chemical corporation's experimental laboratory. *il* Heat & Ven 45:81 Ap '48
 Radiant baseboard heating. J. L. Shank. *il* plans *diags* Am Bld 70:91-5 Mr '48
 Radiant floor panel heating with hot water. J. L. Shank. *il* plan *diags* Am Bld 70:120-5 F '48
 Radiant heat for chicks; radiant heated brooder house. *il* Heat & Ven 45:122 F '48
 Radiant heating for -32 F weather; American Procure building erected for the Sisters of Mercy of the Holy Cross at Merrill, Wis. Heating-Piping 19:78 D '47
 Radiant heating pipes in an extra-thick slab reported O.K. Heating-Piping 20:88 O '48
 Radiant heating quiz; answers to questions frequently asked by architects, engineers and contractors. Eng N 141:83-4 S 2 '48
 Radiant heating under wood floors in remodeling jobs. E. E. Scott. *diag* Dom Eng 170:152-3 N '47
 Report on radiant heating; General electric company's test hangar. J. L. Ottenheimer. *il* Eng N 141:101-2 S 16 '48
 Selecting flooring materials for radiant heating jobs. *il* Heating-Piping 20:88-9 Ap '48
 Simplified procedure for design of panel heating. F. W. Hutchinson. Heating-Piping 20: 81-3 My '48
 Some of the considerations involved in applying radiant heating to new and old buildings. S. Lewis. Heating-Piping 20:111-12 Ag '48
 Which one for maximum comfort; radiant heating or circulating warm air? J. W. Norris. *diags* Sheet Metal Worker 39:53-4-+ Ag '48

Tables, calculations, etc.

Simplified pipe sizing for hot water heating systems. G. D. Beals. Heating-Piping 20: 76-7 S '48

HOT water heating, Industrial

High pressure hot water. J. R. Kell. *il* *diags* Heating-Piping 20:93-7 Ap; 97-102 Je; 91-4 Ag; 85-8 O '48; Discussion, 20:103-4 My '48; Reply, 20:109-10 Ag '48

HOT water supply

Advances in boiler-type heating; results of tests in I=B=R research home, University of Illinois. W. S. Harris. *il* *diags* Arch Rec 103:147-8 Mr '48

Automatic gas water heater fundamentals. H. B. Kivian and R. M. North. *diags* Am Gas Assn Mo 30:19-21-+ Mr '48

Engineering principles applied to the design of domestic water-heating installations of the solid-fuel/electric type. R. Grierson and F. Jackson. *il* *diags* Inst E E J 93 pt 2:463-89 O '46; Discussion, 93 pt 2:489-95; 95 pt 2: 185-204 bibliog(p204) O '46, Ap '48
 Fabricated hot-water boiler. *il* *diag* Engineer 185:146 F 6 '48

Figuring hot water demand; sizing water heaters for commercial, industrial and domestic installations. R. H. Emerick. *diag* Dom Eng 172:98-101-+ Ag '48

Gas builds a water heating program. F. A. McFerran. Am Gas Assn Mo 30:19-23 Je '48
 Gas-Mizer slashes water heating costs; description of reclaiming which has effected big savings in laundry field. *il* Am Gas Assn Mo 30:12-+ Mr '48

Heating water with waste heat. L. G. Janet. *diags* Paper Tr J 126:53-6 Mr 25 '48; Same cond. Paper Ind 29:1662-4 F '48

High pressure hot water. J. R. Kell. *il* *diags* Heating-Piping 20:93-7 Ap; 97-102 Je; 91-4 Ag; 85-8 O '48; Discussion, 20:103-4 My '48; Reply, 20:109-10 Ag '48

How to sell and install water heating for commercial kitchens. *il* *diags* Dom Eng 172:116-23-+ O; 118-20-+ N '48 (to be cont)
 Indirect heating of domestic hot water. *diag* Dom Eng 170:130-+ N '47

Large volume water heating; recovery water heating systems. M. B. Mackay. *diags* Am Gas J 167:22-4 S; 43-6 N '47; 169:26-30-+ JI; 22-3 Ag '48

Large volume water heating; revised mass feeding hot water requirements. M. B. Mackay. Am Gas J 169:31-3 S; 35-8 O '48
 Let's sell hot water a la carte. L. J. Fretwell. Gas Age 101:24-5-+ My 13 '48

Solar heating for domestic hot water. *il* *diags* Dom Eng 171:124-5-+ Je; 172:120-2-+ JI '48
 Tankless water heaters. *il* *diags* Consumers Res Bul 21:13-16 My '48

Triple service hot water heating system. *il* *diags* Product Eng 19:94-5 S '48

See also

Electric water heaters

HOT water tanks

Explosions

Tanks exploded at demonstration to show importance of temperature control. *il* Heat & Ven 45:134-+ O '48

Protection

Cathodic protection with magnesium anodes prevented underwater corrosion of hot water tanks. M. G. Fontana. Ind & Eng Chem 40:sup 105A-6A S '48

HOT weather

Month of mayhem; working in August. Fortune 38:104-7 Ag '48

Summer tyrants; heat and humidity. Nat Safety N 57:28-+ My '48

HOTBEDS, Electric

Application of electricity to horticulture. C. A. Cameron Brown and E. W. Golding. *il* *diags* Inst E E J 95 pt 2:423-7 Ag '48; Abstract. Elec R (Lond) 142:238 F 13 '48; Discussion. Electrician 140:577-8 F 20 '48

Electro-horticulture; research problems under investigation by the E.R.A. Electrician 140: 1267-8 Ap 23 '48

HOTCHKISS, George Burton, 1884-

Silver medal award to G. B. Hotchkiss in recognition of his distinguished services to advertising education. R. S. Butler. por Adv & Sell 41:3 Mr '48

HOTELS

Answer man for hotel problems; Yogg's printed press. L. Mackall. *il* Adv & Sell 41:36-7 My '48

Hotel faced with plastic and aluminum; Laurentien hotel in Montreal. *il* *diags* Eng N 141:70-3 JI 22 '48

Hotels fight to stay in black. *il* Bsns W p90-2-+ O 9 '48

Hotels woo tourists to boost occupancy rates. *il* Bsns W p24 Ag 28 '48

Laurentien, Montreal hotel uses pulp and paper product in construction; arborite, lignin enriched laminated paper. *il* Pulp & Pa of Can 49:57-9 F '48

HOTELS—Continued

Plastics solve 13 design problems of hotels. W. P. Margulies. *il* *Plastics* 8:10-14+ Ag '48

Ultra-modern hotel faced with Norman brick laid in block bond. *il* *Brick & Clay Rec* 113:32 S '48

See also subdivision *Hotels, restaurants, etc.* under names of cities, e.g. Cincinnati —Hotels, restaurants, etc.; New York (city) —Hotels, restaurants, etc.

Air conditioning

Air conditioning the institution. *il* *Dom Eng* 171:154+ Je '48

Central refrigeration handles load; Terrace Plaza hotel, Cincinnati. flow diag *il* *diag Power* 92:393-5 Jl '48

Skilful planning ticks problems of air-conditioning installation; Ansley hotel, Atlanta. Ga. F. A. Ketterson. *il* *Power* 92:140-2 Mr '48

Designs and plans

Centralization; hotel to be built in Dallas, Tex. for Rogers Lacy; design by F. L. Wright. *il* *plans diag Arch Forum* 88:121-6 Ja '48

Hotel re-do; new front desk by Margulies houses all service operations for Hotel Ten Eyck, Albany, N.Y. *il* *plans Arch Forum* 88:13 Mr '48

Employees

Settle Pittsburgh hotel group fight. Nat Underw 52:20 S 30 '48; Same. Nat Underw (Life ed) 52:10 O 1 '48

Staffs of hotels in Toronto being offered group insurance. East Underw 48:12 N 14 '47

Equipment

Compressed air in a large hotel; Lord Baltimore hotel. T. Trail. *il* *Comp Air Mag* 52:304-5 D '47

Video for hotel rooms. *Electronics* 21:152+ F '48

Finance

Horwath & Horwath analyze 1947 hotel results. *Comm & Fin Chr* 168:insert 8 S 16 '48

Sees continued high level of hotel business in New York. F. O. Cosgrove. *Comm & Fin Chr* 166:2056 N 20 '47

Waldorf's profits. *Bsns W p* 101 S 18 '48

Fires and fire protection

Hotel rebuilds; Chicago's hotel LaSalle. M. Rapp. *il* *Nat Safety* N 57:39-40 Ja '48

Incinerator for transients? fire protection program of Hotel Suburban, East Orange, N.J. S. G. Freck. *il* *Safety Eng* 96:32-3 Ag '48

Steam vs. CO₂ for fire extinguishment in kitchen range hoods. T. W. Reynolds. *il* *plan diags Heat & Ven* 44:75-82 N '47

Management

Arrival in Cincinnati; Terrace Plaza hotel. *il* *diag Fortune* 38:113-17+ O '48

Don't slice the meat too thin; when sales slacken, give customers more for their money. E. J. Jacobs. *Ptr Ink* 225:38-9 O 1 '48

Rates

Wants controls lifted on residential hotels. F. O. Cosgrove. *Comm & Fin Chr* 167:2431 Je 3 '48

Statistics

Average sale per occupied room, rooms occupied, restaurant sales index, 1941-1946. Survey of Cur Bsns 1947 Sup p 108 [supplemented in monthly numbers]

Bavaria

Bavarian hotels opened to commercial and tourist travelers. *For Comm W* 33:41 O 9 '48

Brazil

Tourist hotel at Ouro Preto; small resort hotel at Tijuca; luxury beach hotel at Praia Vermelha. *il* *plans diag Arch Forum* 87:71-5 N '47

South America

Hotels Pan America. *Fortune* 38:110 Jl '48

Uruguay

El Ventorillo at Lavelleja, designed by Julio Vilamajo. *il* *map plan Arch Forum* 88:104-5 Je '48

HOTELS Statler company

Food's the thing. *Fortune* 38:108+ Ag '48

HOUDRY process

Houdry catalytic cracking. flow diag *Oil & Gas J* 46:123 Ap 1 '48
Industrial catalysis; recent developments, current trends. J. H. Boyd. *bibliog il Chem Ind* 63:594-6+ O '48

HOURS of business. See Gasoline service stations—Hours of business; Retail trade—Hours of business

HOURS of labor

Can we win the peace with a 40-hour week?

C. E. Wilson. *Comm & Fin Chr* 167:2094+ My 13 '48

Hours of work and output. U S Bur Labor Statistics *Bul* 917:1-160; pa 35c Supt. of doc. '47

Hours of work and rest days in China. *Int Labour R* 57:85-7 Ja-F '48

How 20 top executives feel about a longer work week. *Factory Management* 106:113 Ja '48

Rubber workers stretch six-hour day. *Bsns W p* 75-6 N 29 '47

Studies of shorter work weeks disclose maximum hours of efficient production. A. W. Gray. *Inland Ptr* 121:48-9 S '48

Wages and hours. *Economist* 154:808-9 My 15 '48

Women and young persons in the United Kingdom; hours of work in factories using electricity. *Int Labour R* 57:519-20 My '48

Working hours, vacations, holidays, and excused absences; abstract. *Management R* 37:450-1 S '48

See also

Night work

Overtime

Law

Prospective changes in wage and hour law.

N. C. Rockwood. *Rock Prod* 51:129+ Ja '48

Regulation of working hours in Hungary.

Int Labour R 58:99-100 Jl '48

Should the 40-hour week be suspended? yes, L. H. Haney; no, L. B. Schwellenbach. *Mod Ind* 15:110-11+ Mr '48

Shift schedules

Double day-shift system in Great Britain.

Int Labour R 57:661-2 Je '48

How to schedule watchmen. E. Guilbert. *Safety Eng* 95:48-9 F '48

Industrial innovation; the villageless mill; American Enka Lowland plant employees can live on farm. L. H. Houck. *il* *Manuf Rec* 117:46-7 O '48

Statistics

Earnings and hours. Published in Monthly labor review

Hourly and weekly earnings and hours worked per week in the U.S. 1941-1947; employment, earnings and hours worked, by years, 1929-1947; tabulations. *Automotive Ind* 98:88-9 Mr 15 '48

Labor conditions; average weekly hours, 1941-1946. Survey of Cur Bsns 1947 Sup p60-3 [supplemented in monthly numbers]

Union wages and hours; building trades, July 1, 1947. H. W. Callaway. U S Bur Labor Statistics *Bul* 930:1-36; pa 20c Supt. of doc. '48

Union wages and hours in the printing trades, July 1, 1946. U S Bur Labor Statistics *Bul* 912:1-67; pa 15c Supt. of doc. '47

Union wages and hours; local transit operating employees, Oct. 1, 1947. U S Bur Labor Statistics *Bul* 933:1-7; pa 10c Supt. of doc. '48

Union wages and hours; motor truck drivers and helpers, July 1, 1947. U S Bur Labor Statistics *Bul* 928:1-32; pa 15c Supt. of doc. '48

Union wages and hours of motortruck drivers and helpers, July 1, 1946. J. P. Corkery. U S Bur Labor Statistics *Bul* 911:1-42; pa 15c Supt. of doc. '47

HOUSE decoration

See also

Interior decoration

HOUSE lighting

Ready to go, but when? conditions not yet favorable for extensive home lighting promotion. M. E. Dadds. *Elec World* 130:99 J1 31 '48

Bibliography

Current articles on lighting. Published in monthly numbers of *Illuminating engineering*

HOUSE moving. See Moving of structures

HOUSE organs

Here's a house magazine dealers really read! house organ in furniture field, Seng book. *il Am Bsns* 18:34+ My '48

House organ and press conference teach industry an involved new-product lesson. *Ptr Ink* 225:52 O 15 '48

How to blueprint a popular sales organ; Willard storage battery co., *The Sales-maker*, H. E. Evans, *Sales Management* 60:127 F 15 '48

How to test interest in your house organ. H. Manischewitz. *il Adv & Sell* 41:35-6+ J1 '48

Profitable external company magazine. H. M. Terrell. *il Ind Marketing* 33:34-5+ O; 49-50+ N '48 (to be cont)

Six types of external house organs. H. Manischewitz. *il Ptr Ink* 223:35-6+ Je 11 '48

See also
Employees' magazines

Editors

Industrial editor should be a salesman too. R. W. Mulcahy. *Ind Marketing* 32:122+ N '47

Printing

Practical copy sheet for house organ editors. *il Ptr Ink* 224:63 J1 9 '48

HOUSE organs, Employees. See *Employees' magazines*

HOUSE plants

Indoor-outdoor planting beds; with time-saver standards. H. B. Aul. *il Arch Rec* 104:146-8 J1; 143-4, 155+ Ag '48

HOUSE-to-house selling

Chocolate man cracks urban market with trucks; door-to-door delivery of candies in New York City's suburbs. *il Sales Management* 60:113 Je 1 '48

HOUSE trailers. See *Automobile trailers*

HOUSEHOLD budget. See *Budget, Household*

HOUSEHOLD finance corporation
Annual report. *Comm & Fin Chr* 167:1809 Ap 26 '48

HOUSEHOLD furniture insurance. See *Insurance, Household furniture*

HOUSEHOLD products

Boosting home-furnishing sale; Barker bros., of Los Angeles. *il Bsns W* p50+ Mr 27 '48

Thousands of women window shop at Philadelphia home center; permanent merchandise fair sponsored by Philadelphia bulletin. *il Sales Management* 59:110+ D 15 '47

HOUSEHOLD products industries

Taking the by-guess-and-by-gosh out of quota-setting; Wholesale appliance division, Jenkins music co. K. G. Gillespie, map *Sales Management* 60:72+ F 1 '48

See also
Pressure cookers

Exhibitions

Trend to modern continues; exhibits at semi-annual Chicago furniture market. *il Bsns W* p28+ Ja 17 '48

HOUSEKEEPING service (social work)

Home aides services. *Int Labour R* 56:39-46 J1 '47

HOUSER, Theodore V.

Portrait. *Fortune* 38:36 Ag '48

HOUSES

Building papers as vapour barriers for dwellings. J. D. Babbitt, bibliog *diags Pulp & Pa of Can* 49:83-9 Ja '48

Ceramics in the future of housing; abstract. W. H. Scheick. *Cer Ind* 50:73 My '48

Engineering approach to house design; Bureau of standards report; abstracts. *il diags Arch Rec* 104:149-50 Ag '48; *Civil Eng* 18:417+ J1 '48

Examples of low cost housing. *il plans Am Bld* 70:110-15 S '48

40 houses; a portfolio of progress in American house design. *Arch Forum* 88:93-144 Ap '48

Quick transition creates homes from barracks. *il Eng N* 141:13 J1 15 '48

University builds small homes to compare construction methods. J. T. Lendrum. *il Ind Stand* 19:32-5 My '48

See also
Apartment houses
Architecture, Domestic
Erick houses
Cabins
Concrete houses
Country houses
Farmhouses
Guest houses
Home ownership
House lighting
Housing
Steel houses
Stone houses
Week-end houses

Mechanical equipment

Building products on review; illustrations with text. *Am Bld* 70:76-106+ F '48

Packaged mortgages gain favor in realty field; one payment covers house, lot and major operating gadgets. W. H. Lillyer. *Barron's* 27:39-40 D 3 '47

HOUSES, Concrete. See *Concrete houses*

HOUSES, Model

Cornell's model farm-tenant house shows close study of a neglected type. *il plans diags Arch Forum* 88:93-5 F '48

Design features cut model home building cost for Milwaukee architect, E. J. Schrang. *il plans Am Bldg* 70:98-9 Je '48

Designed for comfortable living; featured at 1948 Indianapolis home show. *il plan Am Bld* 70:116-17 S '48

Gas dream house for Mr Blandings. *il Gas Age* 102:29 Ag 5 '48

Hats off to the ladies; demonstration house sponsored by Good housekeeping constructed by woman builder of Milwaukee. *il plans diags Am Bld* 70:76-81 F '48

Lumber dealer demonstrates industry engineered house to public at Chicago home show. *il Am Bld* 70:96-7 Je '48

Model house built for luxury; Utah centennial home. *il plans Am Bld* 69:70-3 D '47

Model low cost home attracts thousands at Louisiana housing exposition. *il plan Am Bld* 70:85 Ja '48

St Paul's prize house, a cooperative effort. *il plan Am Bld* 69:103 N '47

77 dream houses; General electric co., national manufacturers, local banks and others cooperate in Blandings' Dream House promotion. *il Banking* 41:66+ J1 '48

See also
Gas industry—Model
home exhibits

HOUSES, Prefabricated

All-metal Italian prefab; Turin ABC house. *il plans Arch Forum* 87:156-7 N '47

Big capital; Lustron is the only one to raise it. *Arch Forum* 88:10-11+ My '48

Brazil makes plastic panels for low-cost houses. *For Comm W* 29:35 N 22 '47

Experimental paper house; made of sulfur impregnated chipboard. J. A. Van den Akker and W. A. Wink. *il diags Paper Ind* 30:231-8 My '48

Fast work on student housing at Pennsylvania state college. *il Eng N* 141:106-7 S 16 '48

First million homes are the hardest. R. E. Saberson. *il Am Bld* 70:140-1 Ap '48

First 609 FHA insured loan processed; made to the Housemart, inc., Cleveland. *il plans Am Bld* 70:96-7 Ap '48

Forming aluminum for new type dwellings. W. J. Granberg. *il Sheet Metal Worker* 39:55-6 Ap '48

Houses delivered to your lot; Lustron corp. *il Bsns W* p42-4 O 16 '48

Interlocking metal frame used with lightweight insulating panels in economical new modular structural system; Haig house. *il diags Arch Forum* 88:128-9 Je '48

Mass construction of houses by Kaiser; blend of factory and field operations. S. A. Garrett. *il Mill & Factory* 42:132-3 Ap '48

Network; Harry Levey's Adirondack Homes. *Arch Forum* 89:16 S '48

Panel-houses for industrial communities. W. Sibley. *Paper Ind* 29:1584 F '48

HOUSES, Prefabricated—Continued

Porcelain prefab nearly ready; Lustron porcelain-enamel steel homes. *il Bsns W 33:4- Ap 24 '48*

Pre-assembly speeds Florida housing project at Hialeah. *il Constr Methods 30:90-2 F '48*

Precast bungalows shelter navy families on Guam. *il Eng N 139:666 N 13 '47*

Precasting speeds house erection; White-marsch Village, near Philadelphia. *il Eng N 139:664-6 N 13 '47*

Prefab stalled; FHA's Philadelphia office does not like architect Lescage's flat roof. *il plan Arch Forum 88:11 Mr '48*

Prefabricated housing of pumice concrete. *il Rock Prod 51:129-30 S '48*

Prefabricated pumice concrete houses. H. L. Mathews. *il Am Concrete Inst J 19:797-811 My '48; Abstract. Concrete 56:26+ Ap '48*

Sandwich wall construction developed for aircraft is under study as boon to low-cost housing. *il Heat & Ven 44:110+ D '47*

Steel allocation is approved for prefab home builders. *Eng N 141:73+ Ag 19 '48*

Steel-framed structures alleviate Britain's low-cost housing problem. D. H. Lee. *il diag Civil Eng 18:370-2 Je '48*

Story of pumice; precasting house panels. A. V. Roemisch. *il Concrete 56:10-12 Ag '48*

\$3,695 buys this packaged economy house; Delta corp. Los Angeles. *il plans Am Bid 70:80-1 Je '48*

Unions agree to build prefabs. Steel 121:63 N 17 '47

What's new in old field housing? A. Reese. *il plans diags World Oil 128:53-4 S; 78-82 N '48*

See also

Fuller houses, inc.

HOUSES, Remodeled

Bones of a New Hampshire farmhouse are retained in this warm country home. *il plans diags Arch Forum 88:81-5 Mr '48*

Low-cost houses; Virginia builder creates 181-house development from surplus barracks. *il plan Arch Forum 87:11-12 N '47*

Pennsylvania house is rebuilt without a wagon wheel in sight. *il plans Arch Forum 88:86-7 Mr '48*

Remodeled farm house in Connecticut. *il plans Arch Forum 87:93-7 D '47*

HOUSES, Row

Improved housing for Washington, D.C.; development for J. B. Tiffey and son. *il plans Arch Rec 103:132-4 F '48*

Multiple housing finds ready market; Baltimore builders group house. *il plans Am Bid 69:104-5 N '47*

HOUSES, Week-end. See Week-end houses**HOUSING**

Housing the American family. P. Meadows. *J Bsns 21:80-91 Ap '48*

See also

Architecture, Domes-	Federal housing ad-
Building	ministration
City planning	Housing laws
Company towns	Housing projects
	Negroes—Housing
	Rent

Bibliography

Neighborhood unit plan, its spread and acceptance; a selected bibliography with interpretative comments. J. Dahir, comp. 91p pa \$1 Russell Sage foundation, 130 E. 22d st, New York 10 '47

Costs

Cost trends for low-rent projects. *Eng N 140:790-1 My 27 '48*

Housebuilding costs. *Economist 155:67-9 JI 10 '48*

Index of small house costs; cost index for standard house in 47 cities, 1939, 1944-1947. *Eng N 140:861, 863 My 27 '48*

Known property taxes help determine rental rates; housing project in Aberdeen, S.D. *il plan Am Bid 70:106 Mr '48*

Hygienic aspects

Local health department program in housing. L. M. Board. *Pub Health Rep 62:1327-36 S 12 '47*

Negroes

See Negroes—Housing

Statistics

Housing statistics, 1946 and 1947; sampling methods and survey techniques. E. M. Gordon. *Mo Labor R 67:161-4 Ag '48*

Argentina

Housing problem in Argentina. *For Comm W 33:32-3 N 8 '48*

Baltimore

Multiple housing finds ready market; Baltimore builders group house. *il plans Am Bid 69:104-5 N '47*

Baton Rouge, Louisiana

How veterans got houses in Baton Rouge; Legion Village. *il Banking 41:60+ JI '48*

Brooklyn, New York

Plan for middle income rental housing; pentagonal plan for Farragut apartments, New York city. C. A. Vollmer. *il plans Arch Rec 102:80-5 N '47*

Canada

It didn't work in Canada; yield insurance program. J. C. Smith. *il Arch Rec 103:170+ Mr '48*

Chicago

Chicago's housing prospects for 1947. J. Loeb and others. *Western Soc E J 52:119-28 S '47*

Two for rebuilding; slum and blighted areas to be cleared. *il plan Arch Forum 89:15-16 Ag '48*

Chicago area

American community builders; construction of Park Forest. *il maps plans Arch Forum 89:70-4 Ag '48*

Cincinnati

Four-family apartments yield rentals in Cincinnati. *il plans Am Bid 69:106-7 D '47*

Columbus, Ohio

A.B.C.'s of rental planning; Broadland Place apartments. *il plans Am Bid 70:96-7 Mr '48*

Cuba

Homes for Cuba; first large-scale, modern housing development in Luyanó, on outskirts of Havana. *il plans Arch Forum 89:14-16 O '48*

Detroit

Controlled development assures value; Colonial Farms subdivision, Detroit. *il plans Am Bid 70:99-101 S '48*

Housing for all incomes; projects of Practical home builders, Detroit. *il plans Am Bid 70:102-5 F '48*

Neighborhood planned from the ground up; Meadowood of Birmingham, a suburb of Detroit. *il plans Am Bid 70:90-3 S '48*

Fort Wayne, Indiana

Looking to the future; Fort Wayne builder trains veterans while building three subdivisions. *il plans Am Bid 69:90-3 D '47*

France

Housing in France. C. S. Bertheim. *Land Econ 24:49-62 F '48*

In Britain and France; no private builders; no housing volume. F. W. Cortright. *Am Bid 70:128+ F '48*

Great Britain

Building slump. *Economist 154:577 Ap 10 '48*

Homes for the aged; new British bill spotlights planning requirements for old people. *Arch Forum 88:12-13 Ja '48*

Housebuilding costs. *Economist 155:67-9 JI 10 '48*

Housing; programmes and performance. *Economist 155:24-5 JI 3 '48*

Housing; what is temporary? *Economist 153: 876 N 29 '47*

In Britain and France; no private builders; no housing volume. F. W. Cortright. *Am Bid 70:128+ F '48*

Steel-framed structures alleviate Britain's low-cost housing problem. D. H. Lee. *il diag Civil Eng 18:370-2 Je '48*

Timber for houses. *Economist 154:848-50 My 22 '48*

Victory for Mr Bevan; revised housing programme. *Economist 153:714+ N 1 '47*

HOUSING—Continued

Italy

All-metal Italian prefab; Turin ABC house. il plans Arch Forum 87:156-7 N '47

Lake Forest, Illinois

Meadowood, acre estates; private estate subdivided into one acre home sites. il plans Am Bld 69:87-9 D '47

Minneapolis

Variety adds value to Penn Model Village. il plans Am Bld 70:86-9 S '48

New Orleans

1,000 vets homes planned for 300 acre tract; Chalmette Vista subdivision. il plans Am Bld 70:98-9 F '48

New York (city)

How to woo customers and win friends; the story of Stuyvesant Town and Hearn's. J. Pearl. J Retailing 24:26-7+ F '48

More insurance company housing for New York city; New York life insurance co. apartment project; illustrations with text. Arch Forum 88:11 Ja '48

NYC housing pattern; new apartments built with millions of brick and tile. il diags Brick & Clay Rec 112:33-41 Ap '48

Postwar co-op's; City investing company; Carnegie Hill apartment house in Manhattan. il plans diags Arch Forum 88:92-100 Je '48

Rent hikes; Metropolitan Life ups rents at Parkchester. Bsns W p67 Ag 28 '48
Stuyvesant Town; rebuilding a blighted city area. il plans diags Eng N 140:185-203 F 5 '48

New York (state)

Equity housing; banks find yesterday's golden opportunity turning into today's expensive headache. il Arch Forum 88:14-16 Ja '48

New York area

Only Caucasian; a study of race covenants; Queens county, Nassau county, and southern Westchester county. J. P. Dean. J Land & Pub Util Econ 23:428-32 N '47

Norway

1948 housing program outlined. For Comm W 30:13 F 7 '48

Oklahoma City

Planning and building city of quality homes; Midwest City built by W. F. Atkinson Oklahoma City. il plan Am Bld 69:115-17 D '47

Orléans, France

Public housing in Orléans. L. Vaillat. il Arch Rec 104:168+ S '48

Portsmouth, Virginia

Low-cost houses; Virginia builder creates 181-house development from surplus barracks. il plan Arch Forum 87:11-12 N '47

Puerto Rico

Puerto Rico tackles slum clearance problem. Eng N 140:642 Ap 29 '48

Salt Lake City

Builders deliver reasonable priced homes; Rose Park, Salt Lake City. il plans diags Am Bld 70:74-7 Ja '48

San Francisco

Two for rebuilding; slum and blighted areas to be cleared. il Arch Forum 89:15-16 Ag '48

Spokane, Washington

Big demand for modern small apartments. il plans Am Bld 70:124-5 S '48

Sweden

Sweden plans its housing policy. H. Dickson. bibliog J Land & Pub Util Econ 23:417-27 N '47

United States

American Legion; its housing parade marches down the middle of the road. Arch Forum 87:10-11 D '47

Bankers view the housing prospects; situation in principal cities. Banking 40:60+ Ap; 76+ My '48

Challenge to the construction industry. A. Wilson. Brick & Clay Rec 112:30-1 F '48
Dewey's housing policy. Arch Forum 89:16+ J1 '48

Federal Reserve statements on housing situation. Fed Res Bul 34:764-5 J1 '48

First million homes are the hardest. R. E. Saberson. il Am Bld 70:140-1 Ap '48

Here's what the next president of the U.S. thinks about housebuilding. il Arch Forum 88:12-14 Je '48

Home prices stay up. Bsns W p32+ Ap 24 '48

Homebuilding keeps booming. il Bsns W p23 S 11 '48

Houses, houses everywhere! R. E. Saberson. Am Bld 70:116-17 Ag '48

Housing boom nearing stop, look, listen stage. Barron's 28:8 Ag 23 '48

Housing facts without distortion; a reply to Nathan Straus. Am Bld 70:100-1+ F '48
Housing, future prospects. Dom Eng 172:135-6+ O '48

Housing problem's lengthening shadow. Barron's 28:1+ Ag 9 '48

Housing results by bureaucratic formulas doomed to dismal failure. R. E. Saberson. Am Bld 70:114-15 My '48

Housing situation and government policy. R. A. Gamble. Comm & Fin Chr 168:1103+ S 16 '48

Is labor to blame for housing lag? two congressional committees disagree. il Bsns W p84-6+ Ja 10 '48

NAM view. Arch Forum 88:11-12 Ja '48

Okayed compromise housing law omits many features urged by Truman. Eng N 141:3 Ag 12 '48

Perspective on housing. il Eng N 140:283-6 F 19 '48

President's housing program; a paradox. E. M. Dirksen. Comm & Fin Chr 168:509+ Ag 5 '48

Private industry can provide economically sound housing. J. C. Thompson. Comm & Fin Chr 168:1327+ S 30 '48

Score construction industry in NAM report on housing. Eng N 139:781+ D 11 '47

Should we subsidize housing? M. Palyi. Comm & Fin Chr 167:2413+ Je 3 '48

There is too much loose talk about housing. R. E. Saberson. Am Bld 70:116-17 Je '48

Urge 1.5 million yearly housing rate; report by joint House-Senate committee on housing. Eng N 140:477 Ap 1 '48

Warns of depression in building industry; need for union of public and private enterprise to solve housing problem. Comm & Fin Chr 168:1214 S 23 '48

See also

Federal housing administration

Washington, D.C.

Improved housing for Washington, D.C.; development for J. B. Tiffey and son. il plans Arch Rec 103:132-4 F '48

HOUSING, Cooperative

See also

Apartment houses—
Cooperative ownership

HOUSING, Rural

Toward a farm housing policy. R. J. Burroughs. maps Land Econ 24:1-22 F '48

HOUSING finance

American community builders; construction of Park Forest, satellite town, south of Chicago. il maps plans Arch Forum 89:70-4 Ag '48

Housing. L. D. Meredith. il Spectator (Life ed) 155:8-9+ Mr '48

Housing the American family. P. Meadows. J Bsns 21:80-91 Ap '48

It didn't work in Canada; yield insurance program. J. C. Smith. il Arch Rec 103:170+ Mr '48

Toward a farm housing policy. R. J. Burroughs. maps Land Econ 24:1-22 F '48

See also

Federal housing administration

HOUSING laws

United States

- Crabwalk; new housing legislation, il plans Arch Forum 89:11-13 S '48
- Federal Reserve warns housing legislation is inflationary. M. S. Eccles, Comm & Fin Chr 167:1657 Ap 15 '48
- Housing act of 1948; summary of sections of interest to private builders. Am Bld 70: 142+ O '48
- Housing aid stalled; Taft-Ellender-Wagner bill. Bsns W p25-6 My 29 '48
- Housing measures fail in Congress. Nat City Bank p77 Jl '48
- Main provisions of the T-E-W housing bill (S.866). Arch Forum 88:11 My '48
- New housing bill aim; to encourage builders to construct rental units. Brick & Clay Rec 113:39-40 S '48
- Warns Taft-Ellender-Wagner bill will obstruct rather than facilitate new housing output. G. L. Bliss, Comm & Fin Chr 168: 518 Ag 5 '48
- HOUSING projects**
- American community builders; construction of Park Forest, satellite town, south of Chicago. il maps plans Arch Forum 89:70-4 Ag '48
- Bathrooms help sell the houses; Gerholz Community Homes, Flint, Mich. il plans Am Bld 70:94-5+ Ag '48
- Builders deliver reasonable priced homes; Rose Park, Salt Lake City. il plans diags Am Bld 70:74-7 Ja '48
- Building economy houses in a 30-unit project; Sunnyside Homes, Red Wing, Minn. il plans diags Am Bld 70:76-9 Je '48
- Building permanent real estate value; suburban development of County homes, inc., Westchester county. il plans Am Bld 70: 68-73 Mr '48
- Building to satisfy the critical public; Newell & Daniel, Lake Success, Long Island project. il plan Am Bld 69:104-7 O; 96-7 N '47
- Close supervision, careful checking cuts building costs; Berne company's Merrick Crest development, Jamaica, N.Y. il plans Am Bld 70:92-3 Ja '48
- Getting ready for a buyer's market; Sutton Park project in Hartford, Conn. il plans Am Bld 70:73-9 Ja '48
- Good value sells itself; 66-house project in Springfield, Mass., by Joseph Chapdelaine. il plans Am Bld 70:87-9 Mr '48
- Homes in a hurry for Puerto Rico. il Eng N 141:6 Ag 12 '48
- House, lot and landscaping \$7,700; Indianapolis subdivision. il plans Am Bld 70:74-5+ Je '48
- Housing design for construction economy; Hancock Village, garden-type home community in the Brookline-West Roxbury area of Boston. il plans Eng N 139:874-6 D 25 '47
- Housing for all incomes; projects of Practical home builders, Detroit. il plans Am Bld 70: 102-5 F '48
- Housing project near Pittsfield, Mass.; Cloverleaf ground subdivision; design by F. L. Wright. il plans Arch Forum 88:80-1 Ja '48
- How to plan, build and sell housing developments. il plans Am Bld 70:92-101 Ap '48
- Insurance company builds homes; John Hancock Mutual Dearborn project. il Bsns W p25 O 9 '48
- Insurers wary of housing. il Bsns W p81-4+ Je 5 '48
- Keeping an apartment city clean; Parkchester development in Bronx county. F. J. Reilly, il Soap & San Chem 24:147-9+ Ap '48
- Known property taxes help determine rental rates; housing project in Aberdeen, S.D. il plan Am Bld 70:106 Mr '48
- Looking to the future; Fort Wayne builder trains veterans while building three subdivisions. il plans Am Bld 69:90-3 D '47
- Low cost housing by mass production; Byrne-Moline communities, inc. erects low-priced steel frame houses in Moline, Ill. il Am Bld 69:102-3 D '47
- Mass production does it; a house for \$6,700; Essex Village, near Miami, Fla. il plans Am Bld 70:68-72 Je '48

- Meadowood, acre estates; private estate in Lake Forest, Ill. subdivided into one acre home sites. il plans Am Bld 69:87-9 D '47
- Merrionette Manor; three-level duplex ranch houses in Chicago. il plans Am Bld 70:64-5 Ja '48
- On-site fabrication keeps costs down on this project in Detroit area. il plans diags Am Bld 70:92-5 Je '48
- Out beyond the water mains; modern, tankless water-pump installation. il plan Am Bld 69:114 D '47
- Park Forest, Fortune 38:13-1- N '48
- Play center a new idea for community developers; builder donates recreational center to residents of Los Angeles Lakewood Gardens. il Am Bld 69:109 D '47
- Precasting speeds house erection; White-marsh Village, near Philadelphia. il Eng N 139:664-6 N 13 '47
- Private builder meets challenge of housing shortage; Glen Oaks Village in New York's borough of Queens. il plans Am Bld 70: 107-11 Ap '48
- Production by mass methods keeps costs down; Maurice J. Fishman's Parma Heights project, near Cleveland. il plans Am Bld 69:80-1 D '47
- Public demand determines style; Columbus, Ohio builder follows the traditional; Mayfair Boulevard addition. il plans Am Bld 70:88-91 F '48
- Setting the pace in a high cost area with economy houses; Alvin Manor subdivision, South Bound Brook, N.J. il plans Am Bld 70:102-3 Je '48
- Six rooms, two and one-half baths, \$18,500; Levitt homes in Strathmore-at-Roslyn, Long Island. il plans Am Bld 69:74-5 D '47
- Size of residential building projects. Mo Labor R 66:636 Je '48
- Slide-rule homebuilding; Smith & Hill inc., Chicago builders, have adapted mass production and new financing techniques to small-scale operation. il plans Arch Forum 88:74-8 F '48
- Street of modern homes; Clayton Gardens subdivision, Clayton, Mo. il plans Am Bld 70:80-5 S '48
- Stuyvesant Town; rebuilding a blighted city area. il plans diags Eng N 140:185-208 F 5 '48
- \$3,995 buys veteran a home; Creith lumber company's housing project, Columbus, Ohio. il plans Am Bld 70:71-3 Ja '48
- 28 moderns in a group; project at Altadena, Calif. il plan Am Bld 70:94-7 F '48
- Two-bedroom houses for \$7,825, with attached garages; Norwalk Manor near Los Angeles. il plans Am Bld 70:74-6 Mr '48
- Unique packaged service given by builders; Green Valley homes, inc., Lombard, Ill. il plans Am Bld 69:110-13 N '47
- HOUSING projects, College**
- Fast work on student housing at Pennsylvania state college. il Eng N 141:106-7 S 16 '48
- Georgia Tech housing; two veterans' apartment groups. il plans diags Arch Forum 89:131-6 S '48
- Student apartments in Texas. il plan Arch Rec 103:126-7 F '48
- University of Miami's veterans' housing project. il plan Arch Forum 89:82 Jl '48
- HOUSING projects, Company**
- Companies get rid of housing. il Bsns W p46+ O 16 '48
- Houses for miners; two companies build them; Bunker Hill and Sunshine companies, Idaho. il plans Eng & Min J 149:86-90 Ag '48
- Panel-houses for industrial communities, W. Sibley, Paper Ind 29:1584 F '48
- Quality homes for industrial employees; Indiana limestone co.'s housing development. il plans diags Am Bld 70:94-7 My '48
- See also
- Company towns
- HOUSING projects, Government**
- Five projects in Brazil. il plan Arch Forum 87:102-5 N '47
- HOUSING projects, Municipal**
- Plan for middle income rental housing; pentagonal plan for Farragut apartments, New York city. C. A. Vollmer. il plans Arch Rec 102:80-5 N '47

HOUSING research

Design and site fabrication economies coordinated in small house test program of University of Illinois. J. T. Lendrum. *il* diag Arch Rec 103:141-5 My '48

Experimental house of Aluminum company of America at New Kensington, Pa. *il* plan diag Arch Forum 89:140 S '48

HOUSING studies, Institute of. See Institute of housing studies

HOUSING surveys

Housing statistics, 1946 and 1947; sampling methods and survey techniques. E. M. Gordon. *Mo* Labor R 67:161-4 Ag '48

1948 survey of consumer finances; housing expenditures and finance. C. L. Fauver. *Fed Res Bul* 34:1058-65 S '48

HOUSTON, John M. 1890-

NLRB appointment may bring labor-law fight. *por* *Bsns W* p 110 My 8 '48

HOUSTON, Texas

Houston millionaire beats Jones on zoning. *Bsns W* p48 F 14 '48

Land of the big rich; free-wheeling free enterprise in that capitalistic oasis, the Southwest, U.S.A. *il* map *Fortune* 37:98-103+ Ap '48

See also
Retail trade—Houston, Texas

Floods

Extensive earthfill dams remove threat of severe floods. *il* *Civil Eng* 18:627+ O '48

Sewerage

Houston sludge disposal studies favor fertilizer production; with cost data. *Eng N* 140:559-61 Ap 15 '48

Streets

Progress on expressway construction in American cities; illustrations with text. H. J. McKeever. plan diag *Roads & Sts* 91:58-67+ Ag '48

Unique signal system for Houston's four-street expressway grid. W. J. Van London. *il* *Roads & Sts* 90:87-8 N '47

HOUSTON lighting and power company
Industrial growth lifts Houston Lighting's gross. *Barron's* 28:35 Ja 12 '48

HOUSTON oil company

Record net reflects rise in oil price. *Barron's* 27:34 D 22 '47

HOVING, Walter, 1897-

Mr Hoving of Fifth avenue. *por* *Fortune* 38:94-5+ S '48

HOVING corporation

Mr Hoving of Fifth avenue. *Fortune* 38:94-5+ S '48

HOWARD, Leland Ossian, 1857-

Portrait(cover). *Science* 108:218 S 3 '48

HOWE, David Willard, 1892-

Gallery; Yankee publisher. L. Bell. *por* *Adv & Sell* 41:72+ Ap '48

HOWES, Alfred Pettis, 1885-1948

In memoriam. L. A. Olney. *Am Dyestuff Rep* 37:730 N 1 '48

Publisher of the American dyestuff reporter and Textile colorist. *por* *Am Dyestuff Rep* 37:571-2 S 6 '48; Same abr. *Textile Col* 70:20 S '48

HOWEY, Walter Crawford, 1882-

Featured in *Cosmopolitan*. Ed & Pub 81:56 Je 19 '48

HUBBARD, Stewart Butler

Sketch. S. A. Williamson. *por* *Soc Dyers & Col J* 64:151-2 Ap '48

HUDSON, George, 1800-1871

Railway king. *Economist* 155:325-6 Ag 28 '48

HUDSON and Manhattan railroad

Bondholders committee. *Comm & Fin Chr* 167:46 Ja 5 '48

Divisions received by H. & M. found reasonable by I.C.C. *Ry Age* 125:266-7 Jl 31 '48

HUDSON motor car company

Time to reap. *Barron's* 28:26 My 31 '48

HUDSON'S Bay company

Hudson's Bay co., giant of the North. *il* *Bsns W* p86+ O 2 '48

HUFSTADER, William F.

Portrait. *Fortune* 38:13 O '48

HUGHES, Francis

Where are the fish? Hughes supersonic detector. *por* *Fortune* 36:136+ D '47

HUGHES, Howard Robard, 1905-

Hughes answers Senate probe with first flying boat flight. S. Bangs. *il* *Aviation W* 47:11-12 N 10 '47

Hughes, Bennett Meyers testify on \$200,000 loan proposal. *Aviation W* 47:14-15 N 17 '47

Hughes vs. Brewster: last chapter; Senate committee report. *por* *Aviation W* 48:14-15 Ap 26 '48

Minority report backs Hughes. *Aviation W* 48:10-11 My 24 '48

HUMAN genetics society of America

Organized. *Science* 103:55 Jl 16 '48

HUMAN rights commission. See United nations—Commission on human rights

HUMANITIES

Growth of the humanistic stem. P. Fatout. *J Eng Educ* 38:715-20 Je '48

HUMELSINE, Carlisle H.

Portrait. *Fortune* 36:85 D '47

HUMIDIFICATION

Adsorption and humidification. H. C. Carlson. *bibliog Ind & Eng Chem* 40:5-7 Ja '48

Humidification cuts picker-room fires. R. G. Shepherd. *il* *Textile World* 98:110-11 Ag '48

HUMIDITY

Control of humidity by saturated salt solutions; table showing percentage relative humidities over saturated solutions at various temperatures. F. E. M. O'Brien. *bibliog J Sci Instr* 25:73-6 Mr '48

Divided flow, low-temperature humidity test apparatus designed primarily for testing radiosonde hygrometers. A. Wexler. *il* *diags J Res Nat Bur Stand* 40:479-86 Je '48

Effect of temperature and humidity on mechanical properties of molded cellulose acetate plastics. W. E. Welch and others. *bibliog Am Soc T M Proc* 46:1452-64 '46

Humidity in refrigeration. D. L. Fiske. *diags Heat & Ven* 44:63-8 N; 95-7 D '47; 45:103-5 Ja '48

Measurement of temperature and relative humidity on the skin and clothing of a human subject. L. W. Ogden and W. H. Rees. *bibliog il* *diags Textile Inst J* 38:T371-86 N '47

Moisture measurement with an electronic dew point indicator. V. E. Suomi. *bibliog diags Instruments* 21:178-82 F '48

New humidity test apparatus. *il* *diags Refrig Eng* 56:415-16 N '48

Novel instrument for measuring dew point; Foxboro Dewcel. R. H. Munch. *il* *Ind & Eng Chem* 40:sup67A-8A Ag '48

Store paper bags properly; maintain moisture. T. P. Callahan. *il* *Chem Ind* 62:442+ Mr '48

Weston all-metal humidity indicator. *il* *R Sci Instr* 19:123-4 F '48

You can simplify calculations for humidity and air compression. W. T. Rice. *Chem Eng* 55:116-18 O '48

See also

Dampness in buildings

HUMPHREY, Richard Sears, 1898-

Gallery; Dick Humphrey, New England agent. A. B. McIntire. *por* *Adv & Sell* 41:94+ S '48

HUMUS

Polyethylene bags for humus. *Mod Plastics* 26:282 S '48; *il* *Mod Packaging* 22:132-3 S '48

Sense for humus; polyethylene bags and liners for peat humus and potting soil. *il* *Mod Packaging* 22:132-3 S '48

HUNGARIAN daily. See Foreign language press

HUNGARY

See also

Banks and banking—Hungary

Labor and laboring classes—Hungary

Labor supply—Hungary

Petroleum industry and trade—Hungary

Taxation—Hungary

Commerce

Foreign trade during first half of 1948. *For Comm W* 32:20 S 4 '48

See also

Chambers of commerce—Hungary

Commercial policy

Foreign-trade plan for first quarter of 1948. *For Comm W* 30:15 Mr 6 '48

HUNGARY—Commercial policy—*Continued*
Summary of Hungarian foreign-exchange regulations. For Comm W 31:14-15 Ap 24 '48

Economic policy

Economic planning in Hungary. Int Labour R 57:633-5 Je '48
Hungary's social programme. Int Labour R 57:65-7 Ja-F '48
Hungary's three year plan. Int Labour R 58:54-62 Jl '48
Legislation affecting interests in Hungarian enterprises; nationalization of 500 industrial enterprises. For Comm W 31:16-17 Je 5 '48
Three year plan. Economist 153:806 N 15 '47

Economic relations

Russia

Soviet stakes in Hungary. Economist 153:764+, 806 N 8-15 '47

Industries and resources

Legislation affecting interests in Hungarian enterprises; nationalization of 500 industrial enterprises. For Comm W 31:16-17 Je 5 '48
New types of national enterprises. For Comm W 33:28-9 O 23 '48
Recent developments. For Comm W 33:17-18 O 30 '48

Reparations

Soviet stakes in Hungary; control through reparations. Economist 153:764+, 806 N 8-15 '47

HUNGRY HORSE dam. See Dams, Concrete

HUNT, Reid, 1870-1948

Sketch. G. F. Grabfield. Science 108:127 Ag 6 '48

HUNT, Roy Arthur, 1881-

Portrait. Fortune 38:67 Jl '48

HUNT, Thomas Sterry, 1826-1892

Sketch. por Chem & Eng N 26:1080 Ap 12 '48

HUNT foods, inc.

Regional food-packer hits big time. il Bsns W p80-1 O 30 '48

HUNTER, Dard, 1883-

Here's something unique in printing plants in this age of specialization; makes its own paper, designs and casts its own type, and prints its own books. W. Ingersoll. por Inland Ptr 120:40-2 F '48

HUNTINGTON, Ellsworth, 1876-1947

Sketch. S. S. Visher. Science 106:632-3 D 26 '47

HURLBERT, Zell Hart

Small-town gal sells national advertising. J. L. Collings. por Ed & Pub 81:10 O 23 '48

HURON, Lake

80-mi. pipeline taps Lake Huron; with cost data. il map Eng N 140:646-9 Ap 29 '48

HURRICANES

Causeway built to withstand hurricanes; causeway across Biscayne bay at Miami. il Eng N 140:568-71 Ap 15 '48

Court denies recovery of increased dredging costs caused by hurricane; case of Arundel corp. versus the United States; case based on changed conditions. D. C. Webb. il Civil Eng 18:89-91+ F '48

HUSBAND and wife

See also

Community property

HUSSEY, George Frederick, 1894-

Heads Standards group. por Bsns W p38 D 20 '47

New secretary of ASA. por(cover) Ind Stand 19:1 Ja '48

HUTCHESON, John A.

Portrait. Bsns W p48 Ap 3 '48

HUTCHESON, William Levi, 1874-

Portrait. Fortune 38:203 N '48

HUTCHINSON, Bernice Edwin, 1888-

Portrait. Fortune 38:104 O '48

HUTSON, A. Cary

Leaves National Board after 43 years service. por East Underw 49:35 My 7 '48

HUTT, Gordon M. 1902-

Ceramic abstracter. bibliog por Am Cer Soc Bul 27:307 Ag 15 '48

HUTTON, James, 1726-1797

Anniversaries of interest to scientists. J. F. Fulton. Science 106:488 N 21 '47

HYATT, John Wesley, award

Cochrane receives Hyatt award. Chem & Eng N 26:1768 Je 14 '48; Mod Plastics 25:115 Je '48

HYDANTOINS

5-Alkyl- (or 5-phenyl)-5-propoxymethylhydantoin. H. R. Henze, J. W. Melton and E. O. Forman. Am Chem Soc J 70:2438-9 Jl '48

Preparation of some substituted thiohydantoin and thioimidazoles. M. Jackman and others. bibliog Am Chem Soc J 70:2884-6 S '48

Synthesis of 1-R-5-R'-5-phenylhydantoin. L. M. Long, C. A. Miller and H. D. Troutman. bibliog Am Chem Soc J 70:900-3 Mr '48

HYDRAFRAC process. See Petroleum—Production methods

HYDRANTS

Care and maintenance of valves and hydrants. P. Amundson. Water & Sewage Works 95:36 Ja '48

Fire hydrant flow gage. A. A. Hirsch. Water & Sewage Works 95:R108 Ap '48

Hydrant and valve maintenance. J. G. Carless, Jr. Water & Sewage Works 95:67-8 F '48; Same. il Water & Sewage 86:19-20+ My '48

Know your valves and hydrants. A. G. Scheinert. Water & Sewage Works 95:215-17 Je '48

Protecting hydrants against traffic damage. diags Pub Works 79:36 Ja '48

HYDRATES

Barium aluminate hydrates. E. T. Carlson and L. S. Wells. bibliog il J Res Nat Bur Stand 41:103-9 Ag '48

Fluorescence of uranium trioxide hydrates. D. T. Vier and others. Opt Soc Am J 38:811-14 S '48

HYDRATION

Chemical engineering unit processes; hydration and hydrolysis. W. J. Tapp. bibliog(87 ref) il Ind & Eng Chem 40:1619-23 S '48

Electrolyte effects in the hydration of isobutene. F. G. Ciapetta and M. Kilpatrick. bibliog il Am Chem Soc J 70:639-46 F '48

Transference numbers and hydration of some quaternary ammonium salts. C. H. Hale and T. De Vries. bibliog diags Am Chem Soc J 70:2473-5 Jl '48

Vapor-phase hydration of ethylene oxide; silver oxide catalyst. R. R. Cartmell and others. bibliog flow diags diags Ind & Eng Chem 40:389-92 Mr '48

HYDRATION, Heat of

Refrigeration makes the big dams possible; artificial cooling used to dissipate heat of hydration. C. Rawhouser. bibliog il diags Refrig Eng 54:534-8+ D '47

HYDRATROPIC acid

See also

Benzoyl hydratropic acid

HYDRAULIC accumulators

Hydraulic accumulators. il diags Fortune 38:161-4+ N '48

Hydraulic system designed as package. J. Kendall. diags Machine Design 20:181 Ap '48

HYDRAULIC analogies. See Heat transmission —Hydraulic analogies

HYDRAULIC brakes. See Brakes, Hydraulic

HYDRAULIC classifiers. See Classifiers

HYDRAULIC control

Abrasive-wheel dresser controlled hydraulically from temple. N. Hoglund. il diags Mach 55:200-1 S '48

Automatic drilling control. M. E. True and R. R. Crockston. il diags Pet Eng 19:136+ D '47

Bendix's new hydraulic system for commercial vehicles; equipment for operation of brakes, steering, windshield wiper, doors and throttle undergoing road tests on bus. G. W. Pontius. il diags Automotive Ind 97:30-3+ N 1 '47; Excerpts. Bus Transportation 27:60-2 Ap '48; Abstract. S A E J 55:51-3 N '47

Dayton Rogers mfg. co. hydraulic mechanism for preventing overload of punch presses. diags Mach 54:183-4 Ap '48

High pressure hydraulic control system. diags Product Eng 19:93 S '48.

HYDRAULIC control—Continued

High speed die closure with hydraulic system; Wickes no. 4 automatic die casting machine. *il* diags Product Eng 19:102-3 Ja '48

Hydraulic control of mining equipment. J. J. Slomer. diags Coal Age 53:132-4 Ap '48

Hydraulic steering for articulated fork truck. *il* diags Product Eng 18:92-4 D '47

Hydraulic system seats and lifts oil well pump; Kobe free type pumping system. *il* diags Product Eng 19:106-7 F '48

Hydraulic transfer, locating and clamping expedite manifold production in multi-station machine. G. Hubbard. *il* Steel 123:74-6 Ag 23 '48

Indicates speed from hydraulic circuit; records locomotive performance. J. A. Roberts. diag Machine Design 20:114-15 Ap '48

Pneumatics or hydraulics? E. L. Holbrook. *il* Comp Air Mag 53:220-4 S '48

Power steering; Vickers-Detroit hydraulic booster. *il* diags Automobile Eng 37:409-11 N '47

Remote hydraulic control. H. P. Kupiec. *il* diags Product Eng 18:136-7 N '47

Reversing hydromatic and its control. C. F. Baker. diags S A E J 56:21-3 Je '48

See also

Electrohydraulic control

HYDRAULIC engineering

Deferred maintenance endangers sea wall on China's Chien Tang river. A. N. May. *il* diags Civil Eng 18:694-8 N '48

Development and hydraulic design, Saint Anthony Falls stilling basin. F. W. Blaisdell. *il* diags Am Soc C E Proc 73:123-59 biblog(p 157-9) F '47; Discussion. 73:1093-118, 1555-61; 74:711-22 S D '47, My '48

Equipment and procedure for long line hydraulic studies. F. C. Scobey. biblog *il* Am Water Works Assn J 39:1191-203 D '47

Hydraulic air-storage chambers in Swedish mines. S. Dalhammer. *il* map diag Comp Air Mag 53:30-3 F '48

Hydraulic problems in connection with the design of the Granby pumping plant. E. B. Moses. plan diags A S M E Trans 70:459-69; Discussion. 469-71 JI '48

Measuring gallery expansion and elasticity of rock. W. Muller. Engineer 185:267 Mr 12 '48

Panama canal; construction planning and methods. J. J. Rose and others. *il* plan diags Am Soc C E Proc 74:609-32 Ap '48

Panama canal; design of channel. J. E. Reeves and E. H. Bourquard. diags Am Soc C E Proc 74:550-69 Ap '48

Sea level plan for Panama canal. J. G. Clayburn. maps diags Am Soc C E Proc 73:175-96 F '47; Discussion. 74:236-8, 921-5 F, Je '48

See also

Aqueducts
Breakwaters
Bridges—Foundations and piers
Caissons
Cofferdams
Dams
Drainage
Flood control
Gates, Hydraulic
Harbors
Hydraulic filling
Hydraulic machinery
Hydraulic models
Hydraulic transmission
Hydraulics
Hydrodynamics
Hydroelectric plants
Irrigation
Jetties

Levees
Locks (hydraulic engineering)
Mattresses (hydraulic engineering)
Piers
Pumping machinery
Pumping stations
Pumps
Ranney water collectors
Reservoirs
Rivers—Regulation
Stream measurement
Tidal power
Water flow
Water supply engineering
Waterworks
Wells

Estimates

Estimating data for reservoir gates. F. L. Boissonault. diags Am Soc C E Proc 73:1027-46 S '47; Discussion. 74:143-6, 400-2, 793-800, 1029-31 Ja, Mr, My-Je '48

Tables, calculations, etc.

Centrifugal pumps; an alternative theory. H. H. Anderson. diags Inst Mech Eng J & Proc 157 (War emergency issue no 27):57-63 '47; Same abr. Engineer 182:106-7 Ag 2 '46; Discussion. Inst Mech Eng J & Proc 157 (War emergency issue no 27):63-84 '47

Dimensionless constants for hydraulic elements of open-channel cross-sections. P. Z. Kirpich. diags Civil Eng 18:649-51 O '48

Investigation of drainage rates affecting stability of earth dams. F. H. Kellogg. diags Am Soc C E Proc 73:1065-88 S '47; Discussion. 74:239-47, 769-78, 1032-8 F, My-Je '48

Submerged-weir discharge studies; based on an application of the superposition principle. J. R. Villemonte. diags Eng N 139:866-9 D 25 '47

HYDRAULIC filling

Cave-ins of sandy backfills. J. C. Gebhard. *il* plans diags Am Soc C E Proc 74:84-92 Ja '48

Highway fill pumped into place; Columbia River highway, Oregon. *il* Constr Methods 30:74-6 Ag '48

Raising ground level by sand pumping. *il* map Engineering 165:241-3, 252 Mr 12 '48

Working frozen ground in the Arctic; building an earth-fill dam. *il* Constr Methods 30:92-5 Ap '48

HYDRAULIC gates. See Gates, Hydraulic**HYDRAULIC jacks**

Positive locating drilling jig; hydraulic jack body. R. Mawson. diags Iron Age 161:83-5 Ap 1 '48

HYDRAULIC laboratories

Design, construction and testing of waterworks pumps. H. Umann. *il* diag Water & Sewage 86:21-6-1 JI '48

Equipment and methods used in the Newport News hydraulic laboratory; abstract. C. H. Hancock. Marine Eng 53:55 JI '48

Hydrodynamics laboratory of the California institute of technology. R. T. Knapp and others. *il* plans diags A S M E Trans 70:437-57 JI '48

HYDRAULIC machinery

Complete hydraulic operation simplifies paper cutter. *il* diags Product Eng 19:98-9 S '48

Hydraulic components; use of plastics. *il* diags Product Eng 19:150-2 S '48

Hydraulic machinery; positive displacement pumps and hydraulic machines. H. R. Lupton and others. diags Inst Mech Eng J & Proc 157 (War emergency issue no 33):336-9, pl 1-2 '47

150-ton universal structure testing machine. *il* diags Engineer 184:594-6 D 26 '47

Strainers protect costly hydraulic systems. J. H. Schmid. diag Iron Age 162:89 JI 8 '48

Survey of resilience and the development of resilient compounds; packing materials for hydraulic mechanisms. R. F. Shaw. biblog(65 titles) *il* India Rubber World 118:796-801 S '48

See also

Airplanes—Hydraulic equipment
Archimedeian screw
Hydraulic presses
Pumps
Turbines
Valves, Hydraulic
Water wheels

Cavitation

Efficiency and cavitation of fluid machines. H. H. Anderson. biblog Inst Mech Eng J & Proc 157 (War emergency issue no 27):85-7 '47; Same. Engineering 162:334-5 O 4 '46; Discussion. Inst Mech Eng J & Proc 157 (War emergency issue no 27):88-92 '47

Selecting alloys to resist cavitation erosion. R. Beeching. *il* diags Product Eng 19:110-13 Ja '48

Design

Designing for economical manufacture. B. N. Ashton. *il* diags Machine Design 20:101-6 F '48

Hydraulic circuit analysis. H. M. Reese. *il* diag Machine Design 20:149-52 Mr '48

Hydraulic shock absorber orifice designs and equations. J. Brown. *il* diags Product Eng 19:92-5 F '48

Liquid springing. A. E. Bingham. *il* diags Engineering 164:289-91 S 26 '47; Same cond. Mech Eng 69:1044-5 D '47

HYDRAULIC machinery—Design—Continued
Two-pressure aircraft hydraulic system. T. C. Hill and E. G. Riley. *il diags Machine Design* 20:123-8 F '48

HYDRAULIC mining

See also

Gold dredging

Tin dredging

HYDRAULIC models

Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. *il Am Soc C E Proc* 72:1077-89 O '46; Discussion. 73:709-17; 74:187-92 My '47, F '48

Development and hydraulic design, Saint Anthony Falls stilling basin. F. W. Blaisdell. *il diags Am Soc C E Proc* 73:123-59 bibliog(p 157-9) F '47; Discussion. 73:1093-118, 1555-61; 74:711-22 S, D '47, My '48

Hydraulic model aids plant design; problems involving increased cooling water requirements. J. R. James. *il plan Elec World* 129:105-6 Mr 27 '48

Model tests help navy choose breakwater design; harbor at Hunter's Point, Calif. *Eng N* 140:715 My 13 '48

Panama canal; tidal currents. J. S. Meyers and E. A. Schultz. *il plans diags Am Soc C E Proc* 74:501-20 Ap '48

Tidal model of the Firth of Forth. *il Engineer* 185:478-9 My 14 '48

HYDRAULIC presses

Deep-drawing washer tubs with less than one percent loss. *il Cer Ind* 50:47-8 F '48

Die-casting aluminum rotors on a vertical hydraulic press; Life-Line motor department, Westinghouse electric corp. *il diag Mach* 54:150-2 F '48

Drawing auto engine rocker arm covers; Buick motor div. of General motors corp. T. E. Lloyd. *il diags Iron Age* 161:84-6 Ja 15 '48

H-P-M hydraulic double-action drawing presses. *il Mach* 54:204-5 Jl '48

Hydraulic forming of stainless steel; pail of milk unit. W. C. Brice. *il diag Materials & Methods* 26:68-70 N '47

Hydraulic sewer pipe presses give push button power; cut down boiler costs. C. Sutherland. *il Brick & Clay Rec* 112:60+ F; 52+ Mr '48

Hydrodynamic method of drawing and embossing. *il diag Mach* 54:159-61 N '47

Large hydraulic forging presses. M. D. Stone. *il diags A S M E Trans* 70:499-514 Jl '48

Metal density assured by powder press equipment. *il Steel* 122:96 F 9 '48

Triple-acting press assemblies staters. H. H. Geimeier. *il Am Mach* 92:98 Mr 25 '48

Welded construction for light tonnage hydraulic forming press. *il diags Product Eng* 18:92-3 N '47

Tables, calculations, etc.

Chart solves pressure conversions for hydraulic presses of any ram size. H. R. Frisbie. *Chem Eng* 55:130 Je '48

HYDRAULIC rams

Hydraulic circuit analysis. H. M. Reese. *il diag Machine Design* 20:149-52 Mr '48

HYDRAULIC research

ASCE committee on hydraulic research outlines program of investigation; list of problems. *Civil Eng* 18:555-6 O '48

HYDRAULIC structures research, International association for. See International association for hydraulic structures research

HYDRAULIC transmission

Aircraft hydraulic packings. L. E. Cheyney and T. J. McCuiston. *diags Mech Eng* 70:675-9 Ag '48

A-c power system for large aircraft; variable ratio transmission between engine and generator. J. G. Hutton. *il diags Gen Elec R* 51:11-15 F '48

Automatic hydraulic stripping on piercing unit. *il Machine Design* 19:114 D '47

Automobile transmissions; some recent developments and a forecast of the future trend. E. M'Ewen. bibliog diags *Automobile Eng* 38:111-16 Mr '48

Buick car producer to offer torque-converter. W. G. Patton. *Iron Age* 161:78+ Ja 22 '48

Buick Dynaflow drive. C. A. Chayne. *il diag S A E J* 56:23-9 Ap '48

Buick reveals design of new Dynaflow transmission. J. Geschelin. flow diag *il diags Automotive Ind* 98:28-31+ Ja 15 '48

Buick's Dynaflow drive built to aircraft tolerances. C. H. Wick. *il Mach* 54:135-42 Ap '48

Buick's new Dynaflow transmission. *il diags Product Eng* 19:96-102 F '48

Built-in overload protection for control valve; Clark carloaders. F. Sherriff. *il Machine Design* 20:180-1 Ap '48

Combination torque converter and fluid coupling drive; with description of Salerni transmitter. B. J. Tams; A. L. Gatiss. *il diags Inst Mech Eng J & Proc* 158:Proc 95-101; Discussion. 101-2 Je '48

Development of ultra high-pressure hydraulic systems. S. M. Parker. *diags Inst Mech Eng J & Proc* 156:Proc 282-5; Discussion. 293-304 D '47

Fluid coupling for washing machine agitator. *il diags Machine Design* 20:108-9 Ja '48

Fluid drive adapted to textile machinery. *il Rayon* 29:91 Jl '48

Fraser hydraulic clutch uses radial cylinders. W. P. Bradley. *il diags Automotive Ind* 98:26-7+ F 15 '48

Frequency-response measurements of a hydraulic power unit. M. R. Hannah. bibliog *il diags A S M E Trans* 70:525-34; Discussion. 535-9 Jl '48

High-speed movie solves tricky problem in perfecting high-pressure hydraulic transmission. S. G. Guins. *il diags Machine Design* 19:126-8 D '47

High-temperature face seals for hydraulic coupling and torque converter. F. F. Ruhl. *il diags Machine Design* 20:127-32 Ja '48

How Buick builds the Dynafow. C. Ricker. *il diags Am Mach* 92:91-5 O 21 '48

Hydraulic clutch of the positive-displacement type; essential design information; evaluation of clutch performance. W. E. Wilson. *diags Machine Design* 20:115-19 Ja '48

Hydraulic cylinder equalizer; Moline HD-13 driller. *il Machine Design* 20:129 Ap '48

Hydraulic drive for cold strip rolling mills. *diag Engineer* 186:145 Ag 6 '48

Hydraulic drives. C. C. Lindblom. *diags S A E J* 56:53-7 O '48

Hydraulic pumps for shallow oil wells. A. A. Hardy and W. C. Norris. *il diags Pet Eng* 19:113-14+ F '48; Same cond. *Oil & Gas J* 46:102-4 O 25 '47

Hydraulic pumps; some unorthodox designs. *diags Automobile Eng* 38:185-90 My '48

Hydraulic system designed as package. J. Kendall. *diag Machine Design* 20:181 Ap '48

Hydraulic transmission on mines locomotives. *Engineer* 186:43 Jl 9 '48

Hydraulic units power machine elements; International harvester co.; illustrations with text. L. W. Court. *diags Am Mach* 92:83-6 Ag 12 '48

Industrial power clutches; hydraulic drives. *diags Power* 92:98 F '48

Inverted relief valves for hydraulic pressure control. H. G. Conway. *diags Machine Design* 20:129-33 My '48

Jet pumps with liquid drive. R. G. Folsom. bibliog *diags Chem Eng Prog* 44:765-70 O '48

Materials used in the new Buick automatic transmission. H. Chase. *il diag Iron Age* 161:74-7 Ja 15 '48

Modern rotary drilling; hydraulic transmission for power slush pumps. J. Zaba. *Oil & Gas J* 45:105 Ja 22 '48

Motor driven machines; hydraulic couplings. *il Product Eng* 19:119 Mr '48

New road machines feature hydraulic controls. *il Machine Design* 20:135-6 S '48

Practical hydraulic coupling design modifications; abstract. W. F. Shurts. *il Automotive Ind* 97:37+ D 1 '47

Propelling machinery of M. V. Fulham VIII. *il diags Engineering* 165:32-4 Ja 9 '48

Selecting hydraulic pressure control valves. L. S. Linderth, jr. *diags Machine Design* 20:105-12 Ap '48

Single-stage torque converters. R. Brunken and W. Howard. *diag Machine Design* 20:155-6 Ap '48

3600-rpm fluid drives adjust feed-pump speed to boiler load. J. D. Rosebrough. *il Power* 92:12-13 Ja '48

Three-stage torque converters. W. B. Gibson. *il Machine Design* 20:152-5 Ap '48

Torque converter drive. *il Diesel Power* 25:64-5+ D '47

HYDRAULIC transmission—Continued

- Torque-converter drive for Buick automobiles. *diag Mach* 54:176-7 F '48
 Torque converter drive for new Buicks. *il diags Machine Design* 20:122-4+ Mr '48
 Transmissions that shift for themselves. L. H. Nagler. *il diags S A E J* 56:36-9 Mr '48
 Two-pressure aircraft hydraulic system. T. C. Hill and E. G. Riley. *il diags Machine Design* 20:123-8 F '48
 Variable-speed fluid drives. J. D. Rosebrough. *il diags Machine Design* 20:149-52 Ap '48
 What to look for in hydraulic oils. A. J. Zino, jr. *il diag Am Mach* 91:93-6 N 6; 112-16 N 20; 112-14 D 4; 94-5 D 18 '47; 92:96-9 Ja 1; 97-100 Ja 15; 126-8 F 12 '48

HYDRAULICS

- Fluid mechanics; forgotten factor in electroplating. J. B. Kushner. *diags Metal Finishing* 45:72-4 O '47; 46:63-7 Ja; 55-9+ JI; 52-8 S '48
 From hydraulics to fluid mechanics. W. M. Lansford. *J Eng Educ* 38:565-7 Ap '48
 Graphical methods for flow-net diagrams. S. Lellavsky. *il diags Engineer* 185:464-6, 488-90 My 14-21 '48
 Hydraulics of hydropneumatic installations; compressed air in tank provides pressure for water distribution. O. G. Goldman. *diags Am Water Works Assn J* 40:144-58 F '48
 Proceedings of the third hydraulics conference, June 10-12, 1946, J. W. Howe and J. S. McNowen, eds. Univ of Iowa (Iowa City) *Studies in Engineering Bul* 31:1-332 '47 (pa \$2.50)

See also

- | | |
|-----------------------|--------------------|
| Cavitation | Hydrodynamics |
| Floods | Liquids |
| Flow meters | Nozzles |
| Fluids | Stream measurement |
| Hydraulic engineering | Water flow |
| | Wells |

Tables, calculations, etc.

- Fluid-flow diagrams; construction to include velocity head. G. P. Loweke. *Mech Eng* 70:666 Ag '48
 Friction losses in screwed iron tees. J. W. Hoopes and others. *bibliog il diags Chem Eng Prog* 44:691-5; Discussion, 695-6 S '48
 Hydraulics for the practical water works man (cont). R. W. Angus. *diags Water & Sewage Works* 94:405-8; 95:13-16, 85-7 N '47, Ja, Mr '48
 Pressure loss for liquid flow in pipes; viscosity and pipe roughness corrections. R. D. Madison and W. R. Elliot. *bibliog Chem Eng Prog* 44:703-6 S '48
 Quick method for finding Reynolds numbers. E. M. DeForest. *Chem Eng* 55:142-4 F '48
 Research on flow nozzles by the A.S.M.E. special research committee on fluid meters. S. R. Beitler and H. S. Bean. (Eng. Exp. Sta. Bul. 131) pa \$1 Ohio state univ, Columbus '48
 Use of Reynolds number; fact or fancy? C. H. Capen. *bibliog il diags Water & Sewage Works* 95:125-31 Ap '48

HYDRAZIDES

- Side reaction of acid hydrazides in qualitative organic analysis. L. Sattler and F. W. Zerban. *Am Chem Soc J* 70:873 F '48
 Sulfanilamide derivatives containing urea, thiourea or hydrazide groupings. E. Niemiec. *bibliog Am Chem Soc J* 70:1067-8 Mr '48

HYDRAZINE

- Contributions to the chemistry of synthetic antimalarials; hydrazine hydrolysis and radical exchange reactions of *N*-substituted phthalimides in relation to the constitution of the antimalarial R.63. H. J. Barber and W. R. Wragg. *Chem Soc J* p 1331-7 O '47
 Molecular structure of the two dimethylhydrazines by electron diffraction. W. H. Beamer. *bibliog Am Chem Soc J* 70:2979-82 S '48
 Reaction of hydrazine hydrate on nitro-compounds and a new route to synthetic oestrogens. Huang-Minlon. *bibliog Am Chem Soc J* 70:2802-5 Ag '48

HYDRAZOIC acid

- Mechanism of the Schmidt reactions and observations on the Curtius rearrangement. M. S. Newman and H. L. Gildenhorn. *bibliog Am Chem Soc J* 70:317-19 Ja '48

Physiological effect

- Observations on hydrazoic acid. J. D. P. Graham and others. *bibliog il J Ind Hygiene* 30:98-102 Mr '48

HYDRAZONES

- Amino acid conversion products; some substituted 3-indoleacetic acids and some substituted phenylhydrazones of β -formylpropionic acid. F. J. Stevens and S. W. Fox. *bibliog Am Chem Soc J* 70:2263-5 Je '48
 Chromatographic separation of aliphatic 2,4-dinitrophenylhydrazones. J. W. White, jr. *bibliog Anal Chem* 20:726-8 Ag '48
 Ethyl acetoacetate 4-nitrophenylhydrazone and 1-(4'-nitrophenyl)-3-methylpyrazolone-5. W. C. Sumpter and P. H. Wilken. *Am Chem Soc J* 70:1980-1 My '48

HYDRIDES

- Compounds of hydrogen with metals and metalloids. T. R. P. Gibb, jr. *bibliog Electrochem Soc J* 93:198-211 My '48
 Heats of dissociation of the N_2 molecule and the NH radical. G. Glockler. *bibliog J Chem Phys* 16:602-4 Je '48
 Hydrides; a brief review of their nature and properties. T. R. P. Gibb, jr. *bibliog il diag J Chem Educ* 25:577-82 O '48
 Preparation and some properties of hydrides of elements of the fourth group of the periodic system and of their organic derivatives. A. E. Finholt and others. *bibliog Am Chem Soc J* 69:2692-6 N '47
 Stability of systems containing a light positive particle. A. Ore. *bibliog Phys R* 73:1313-17 Je 1 '48

HYDRIODIC acid

- Kinetics of the photolysis of methyl iodide and the hydrogen halides; photolysis of hydrogen iodide in the presence of iodine, hydrogen bromide and hydrogen chloride. R. R. Williams, jr. and R. A. Ogg, jr. *bibliog diag J Chem Phys* 15:691-6 O '47

Analysis

- Microdetermination of alkoxyl groups. A. Steyermark. *bibliog il diag Anal Chem* 20:368-70 Ap '48

HYDROABIETYL alcohol

- Rosin derived alcohol. *Chem Eng* 55:173 Ja '48; *Sci Am* 178:128 Mr '48
 Stump alcohol; hydroabietyl alcohol, made from cheap, high-molecular-weight rosin acid. *Chem Ind* 61:974-5 D '47

HYDROBROMIC acid

- Electric moments of hydrogen fluoride, hydrogen chloride and hydrogen bromide in several non-polar solvents. A. J. Weith, jr., M. E. Hobbs and P. M. Gross. *diags Am Chem Soc J* 70:805-11 F '48
 Kinetics of the photolysis of methyl iodide and the hydrogen halides; photolysis of hydrogen iodide in the presence of iodine, hydrogen bromide and hydrogen chloride. R. R. Williams, jr. and R. A. Ogg, jr. *bibliog diag J Chem Phys* 15:691-6 O '47
 Simple method for the preparation of hydrobromic acid. F. Goldschmidt and B. R. Dishon. *bibliog Soc Chem Ind J* 66:444-5 D '47
 Vapor pressure studies in the system, aluminum bromide-hydrogen bromide-paraffin hydrocarbon. C. M. Fontana and R. J. Herold. *bibliog diag Am Chem Soc J* 70:2881-3 S '48

HYDROCARBAZOLES

- One-step synthesis of 1,2,3,4-tetrahydrocarbazole and 1,2-benzo-3,4-dihydrocarbazole. C. U. Rogers and E. B. Corson. *bibliog Am Chem Soc J* 69:2910-11 N '47

HYDROCARBONS

- Action of sulfuric acid on an optically active hydrocarbon. R. L. Burwell, jr. and G. S. Gordon, 3d. *bibliog Am Chem Soc J* 70:3128-32 S '48
 Advances in the field of chlorination of hydrocarbons in the last ten years; abstract. L. S. Solodar and V. V. Markin. *Chem Eng* 55:308+ S '48
 API research project 43c; studies of the effect of radioactivity in the transformation of marine organic materials into petroleum hydrocarbons. *Am Pet Inst Proc* 27(4):139-41 '47

HYDROCARBONS—*Continued*

- Analysis of tests on positive-displacement meters for liquid hydrocarbons. E. E. Ambrosius, *diag A S M E Trans* 70:703-8 Ag '48
- Applications of thermodynamics to hydrocarbon processing. W. C. Edmister, *bibliog Pet Refiner* 26:77-82 JI; 83-8 Ag; 105-11 S; 99-105 O; 110-17 N; 112-18 D '47; 27: 74-82 Ja; 100-7 F; 83-9 Mr; 134-42 Ap; 93-100 My; 104-11 Je '48 (to be cont)
- Bond energies of hydrocarbons. L. Ger6, *bibliog J Chem Phys* 16:1011-13 N '48
- Brominations with N-bromosuccinimide and related compounds; the Wohl-Ziegler reaction. C. Djerassi, *Chem R* 43:271-317 bibliog(125 ref, p296, 312-14, 316-17) O '48
- Catalysts in petroleum refining. R. Heine-mann, *bibliog II Pet Refiner* 27:133-44 My '48
- Catalytic reforming of hydrocarbons; process extended to include natural gas propane, commercial butane, and refinery oil gas used in the production of peak load gas. C. H. Riesz and others, *Am Gas Assn Mo* 30:17-20 Ap '48
- Catalytic reforming of hydrocarbons; proposed peak load reforming process using either steam or steam and air with refinery propane. C. H. Riesz and others, *flow diag II Am Gas Assn Mo* 30:17-22 F '48
- Chemical engineering unit processes; oxidation. L. F. Marek, *bibliog Ind & Eng Chem* 40:1635-7 S '48
- Chemical engineering unit processes; pyrolysis of hydrocarbons. V. Haensel and M. J. Sterba, *II Ind & Eng Chem* 40:1660-70 bibliog(184 ref, p1669-70) S '48
- Chemical products of carbonisation. J. R. Campbell, *Chem Age (Lond)* 57:820-2; 58: 12-14, 102-4, 172-5 D 27 '47-Ja 3, 17, 31 '48
- Composition and boiling points of binary azeotropes. H. P. Meissner and S. H. Greenfeld, *bibliog Ind & Eng Chem* 40:438-42 Mr '48
- Condensation of saturated hydrocarbons with haloolefins; the reaction of isobutane with *cis*- and *trans*-dichloroethylene. L. Schmerling, *bibliog Am Chem Soc J* 70:379-81 Ja '48
- Correlation of azeotropic data. H. Skolnik, *bibliog Ind & Eng Chem* 40:442-50 Mr '48
- Corrosion in isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst. N. Fragen, C. W. Nysewander and W. R. Hertwig, *flow diag II diag Ind & Eng Chem* 40:1133-8 Je '48
- Depolarized petroleum naphthas. C. J. Allen, *bibliog(43 ref) Ind & Eng Chem* 40:124-30 Ja '48
- Determination of position of tracer atom in a molecule; mass spectra of some deuterated hydrocarbons. J. Turkevich and others, *bibliog Am Chem Soc J* 70:2638-43 Ag '48
- Dipole moments and internal rotation in some substituted hydrocarbons. R. A. Oriani and C. P. Smyth, *bibliog J Chem Phys* 16:930 S '48
- Distribution in hydrocarbon-solvent systems. T. F. Brown, *bibliog Ind & Eng Chem* 40: 103-6 Ja '48
- Economic trends in coal tar hydrocarbons. J. M. Weiss, *Chem & Eng N* 26:238-40 Ja 26 '48
- Effect of hydrocarbons and other gases upon the explosibility of acetylene. G. W. Jones and others, *bibliog pl U S Bur Mines Rep of Invest* 4196:1-8 '48
- Effect of petroleum-like constituents on road tars, and a test for determining the homogeneity of road tars. R. H. Lewis and W. J. Halstead, *II Pub Roads* 25:53-64 Mr '48
- Electronic transitions in the simple unsaturated hydrocarbons. E. P. Carr, *bibliog Chem R* 41:293-9 O '47
- Engine knock and molecular structure of hydrocarbons; abstract. W. G. Lovell, *Automotive Ind* 98:33-4 F '48
- Evaluation of certain hydrocarbon resins by Cincinnati-Dayton-Indianapolis-Columbus paint and varnish production club. *Paint Oil & Chem R* 110:78-82, 84-5 N 13 '47
- Foaming of mixtures of hydrocarbons. J. V. Robinson and W. W. Woods, *bibliog J Phys & Colloid Chem* 52:763-6 My '48
- Gaps in physical constants data for hydrocarbons. N. Corbin, M. Alexander and G. Eglolf, *J Phys & Colloid Chem* 52:387-94 F '48
- Heat and the external work of vaporization of twenty-two hydrocarbons. J. E. Hagenmacher, *bibliog Ind & Eng Chem* 40: 436-7 Mr '48
- High lights of present day Russian chemical research. J. G. Tolpin, *Chem & Eng N* 26:3096-104+ bibliog(211 ref, p3102-4+) O '48
- High range vapor pressures and Antoine equation constants of some C₃ to C₈ hydrocarbons. J. Griswold and W. B. Brooks, *bibliog Pet Refiner* 26:122-7 D '47
- Higher hydrocarbons; alkyl anthracenes and alkyl phenanthrenes. R. W. Schiessler, A. W. Rytina and F. C. Whitmore, *bibliog Am Chem Soc J* 70:529-30 F '48
- Hydrocarbon conversion at high temperatures and pressures. E. A. Kelso and J. A. Snyder, *flow diag II Ind & Eng Chem* 40: 1332-6 JI '48
- Hydrocarbon sulfonylation. W. H. Lockwood, *bibliog(72 ref) II Chem Ind* 62:760-3 My '48
- Hydrogen and synthesis gas production; hydrocarbon-steam process. R. M. Reed and A. E. Eriksen, *flow diag II Pet Eng* 20:278+ O '48; Same, *Pet Processing* 3:1011-12+ O '48
- Ignition qualities of hydrocarbons in the Diesel-fuel boiling range. A. D. Puckett and B. H. Caudle, *U S Bur Mines Information Circ* 7474:1-14 bibliog(p7-8) '48
- Ionization potentials of some hydrocarbon series. R. E. Honig, *bibliog diag J Chem Phys* 16:105-12 F '48
- Isomerization of saturated hydrocarbons; the effect of cyclohexene upon the isomerization of methylcyclopentane and cyclohexane. H. Pines, B. M. Abraham and V. N. Ipatieff, *diags Am Chem Soc J* 70:1742-6 My '48
- Knock characteristics of 16 pure gaseous hydrocarbons. F. E. Frey and others, *bibliog Oil & Gas J* 47:61+ S 2 '48
- Lanosterol; hydrocarbons formed by the action of dehydrating agents. C. Dorée, J. F. McGhie and F. Kurzer, *Chem Soc J* p 1467-71 N '47
- Measurements of heat of vaporization and heat capacity of a number of hydrocarbons. N. S. Osborne and D. C. Ginnings, *bibliog diags J Res Nat Bur Stand* 39:453-77 N '47
- Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler, *bibliog J Chem Phys* 15:712-26 O '47
- Metastable transitions in mass spectra of fifty-six hydrocarbons. E. G. Bloom and others, *J Res Nat Bur Stand* 40:437-42 Je '48
- Nature of negative ions in liquid hydrocarbons. A. Gemant, *Electrochem Soc J* 94: 160-70 O '48
- New type gas production plant now in operation; catalytic reforming process; Long Island lighting co. *II Am Gas Assn Mo* 30:7 Mr '48
- Oxidative degradation of polymeric materials. A. V. Tobolsky, *India Rubber World* 118:363-4+ Je '48
- Petroleum, basic raw material for surface coatings. R. F. Ruthruff, *II Pet Processing* 3:21-4 Ja '48; Abstract, *Chem Eng* 55:276+ Ja '48
- Phase relations of a gas-condensate fluid at low temperatures, including the critical state. C. K. Ehlerts and others, *bibliog II diags Pet Eng* 19:154+ F '48
- Physical constants of hydrocarbons; research unlimited, *bibliog Ind & Eng Chem* 40: sup69A Ja '48
- Prediction of vapour-liquid equilibria for ternary mixtures from the data of binary systems. Y. Li and J. Coull, *bibliog Inst Pet J* 34:692-704 S '48
- Properties of hydrocarbons; tabulations. W. L. Nelson, *Oil & Gas J* 47:121 Ag 19 '48
- Purification, purity, and freezing points of *n*-decane, 4 alkylcyclopentanes, 9 alkylcyclohexanes, 2 monoolefins, 1, 2-butadiene, and 2-butyne of the API-standard and API-NBS series. A. J. Streiff and others, *bibliog J Res Nat Bur Stand* 39: 321-49 graphs(p326-49) O '47

HYDROCARBONS—Continued

- Pyrolysis of high polymeric hydrocarbons. R. B. Seymour, *bibliog Ind & Eng Chem* 40: 524-7 Mr '48
- Rapid calculation of the specific dispersion of saturated hydrocarbons. S. G. Hindin, *Pet Refiner* 27:91 Ja '48; Same *abr. Pet Eng* 19:290 My '48
- Reactions of diborane with hydrocarbons. D. T. Hurd, *Am Chem Soc J* 70:2053-5 Je '48
- Reactions of some highly chlorinated unsaturated C_8 hydrocarbons with chlorine and copper. R. W. Bost and J. A. Krynit-sky, *bibliog Am Chem Soc J* 70:1027-9 Mr '48
- Refractive index of several hydrocarbons in the near ultraviolet wave-length region. J. L. Lauer, *bibliog diag J Chem Phys* 16: 612-19 Je '48
- Restricted bond rotation and shape of un-branched saturated hydrocarbon chain molecules. H. Kuhn, *bibliog J Chem Phys* 15:843-4 N '47
- Smoke point versus other properties. W. L. Nelson, *bibliog Oil & Gas J* 47:119 O 14 '48
- Solubility of hydrocarbon resins and their behavior in rubber compounds. P. O. Pow-ers, *bibliog India Rubber World* 117:351-4 D '47
- Solubility of soaps and of some salts in mix-tures of solvents, one of which is of glycolic type. S. R. Palit, *bibliog Am Chem Soc J* 69:3120-9 D '47
- Solubility of water in hydrocarbons. C. Black and others, *diag J Chem Phys* 16:537-43 My '48
- Some aspects of the chemistry of hydro-carbons. C. N. Hinshelwood, *Chem Soc J* p531-8 Ap '48
- Some aspects of the industrial oxidation of lower aliphatic hydrocarbons. J. E. Blud-worth, *bibliog J Pet Refiner* 27:110-14 Ap '48; Same *abr. Oil & Gas J* 46:99+ Ap 22 '48
- Some catalytic hydrogen exchange reactions of hydrocarbons. J. Aman, L. Farkas and A. Farkas, *bibliog diags Am Chem Soc J* 70:727-32 F '48
- Some characteristic frequencies in the Raman spectra of saturated aliphatic hydrocarbons. N. Sheppard, *bibliog diags J Chem Phys* 16:690-7 JI '48
- Story of the composition of petroleum; map-type presentation. H. M. Smith, *Oil & Gas J* 47:60-1 N 4 '48
- Strains in methyl amines and hydrocarbons. R. Spitzer and K. S. Pitzer, *bibliog Am Chem Soc J* 70:1261-4 Mr '48
- Ultraviolet transmission limits of some liquids and solids. H. B. Klevens and J. R. Platt, *bibliog Am Chem Soc J* 69:3055-62 D '47
- Use of zinc alkyls in the preparation of hy-drocarbons with a quaternary carbon atom. F. R. Buck and others, *diags Inst Pet J* 34:339-69 *bibliog*(68 ref, p 369) My '48
- Vapor-liquid equilibria in hydrocarbon sys-tems. S. T. Hadden, *bibliog*(61 ref) charts *Chem Eng Prog* 44:37-54, 135-51 Ja-F '48; *Discussion*, 44:152-6 F '48
- Vapor-liquid equilibrium constants for car-bon monoxide. L. C. Widdows and D. L. Katz, *bibliog Ind & Eng Chem* 40:1742-6 S '48
- See also*
- | | |
|-------------------|----------------|
| Acetylene | Methane |
| Benzene | Naphthalene |
| Butadiene | Octane |
| Butane | Olefins |
| Coal tar products | Paraffins |
| Ethane | Petroleum |
| Fischer-Tropsch | Propane |
| process | Styrene |
| Heptane | Terpenes |
| Hexane | Toluene |
| Isoprene | Wurtz reaction |
- Analysis**
- Alkylbenzenes in the C_8 fraction from seven representative crude petroleum. A. F. For-zati and F. D. Rossini, *bibliog J Res Nat Bur Stand* 39:425-33 N '47
- Analysis of hydrocarbon mixtures by the use of compounds with high internal pres-sure; abstract. A. A. Bocharov and R. D. Obolentsev, *Chem Eng* 54:254 N '47
- Aromatics in petroleum fractions; separation and determination from high boiling petro-leum fractions by adsorption. M. R. Lipkin and others, *bibliog diag Anal Chem* 20:130-4 F '48
- Chemical analysis of refinery C_8 and hydro-carbon fractions. R. F. Robey and H. K. Wiese, *bibliog Anal Chem* 20:926-33 O '48
- Determination of aromatic compounds in petro-leum products; chromatographic meth-od. A. L. Conrad, *bibliog Anal Chem* 20: 725-6 Ag '48
- Determination of aromatics and olefins in hydrocarbon mixtures; acid solubility test. C. Berg and F. D. Parker, *bibliog Anal Chem* 20:456-7 My '48
- Determination of bromine addition numbers; electrometric method. H. D. DuBois and D. A. Skoog, *bibliog il diags Anal Chem* 20:624-7 JI '48
- Determination of chlorinated hydrocarbons in air. J. P. Fahy, *bibliog diag J Ind Hygiene* 30:205-7 My '48
- Determination of cyclopentadiene and methyl-cyclopentadiene in admixtures with other hydrocarbons. J. S. Powell, K. C. Edson and E. L. Fisher, *bibliog diag Anal Chem* 20:213-15 Mr '48
- Determination of ethylacetylene and vinyl-acetylene in C_4 hydrocarbon gases. P. R. Thomas, L. Donn and H. C. Becker, *bibliog diags Anal Chem* 20:209-13 Mr '48
- Determination of gaseous hydrocarbons; com-bustion over precipitated copper oxide containing one percent iron oxide. R. E. Murdock, R. E. Brooks and V. Zahn, *Anal Chem* 20:55-7 Ja '48
- Determination of total aromatic plus olefin by sulfonation in the presence of phos-phorus pentoxide. I. W. Mills and others, *bibliog il diag Anal Chem* 20:333-8 Ap '48
- Determination of traces of organic bases in benzol and the like. H. N. Wilson, *Soc Chem Ind J* 67:237-8 Je '48
- Double bond index; a correlation useful for classification of aromatics and olefins in petroleum fractions. M. R. Lipkin, A. San-kin and C. C. Martin, *bibliog Anal Chem* 20:598-606 J '48
- Evaluation of the ferrous thiocyanate colori-metric method. C. D. Wagner, H. L. Clever and E. D. Peters, *bibliog diags Anal Chem* 19:980-2 D '47
- Evaluation of the ferrous-titanous method; comparison with sodium iodide isopropyl al-cohol method. C. D. Wagner, R. H. Smith and E. D. Peters, *bibliog Anal Chem* 19:982-4 D '47
- Improved method for the determination of volatile halogenated hydrocarbons in blood and other biological materials. W. C. Al-ford, *bibliog diag J Ind Hygiene* 29:396-9 N '47
- Infrared analysis of organic mixtures using C—H band structure resolved by a lithium fluoride prism. E. L. Saier and N. D. Cog-geshall, *bibliog il Anal Chem* 20:812-17 S '48
- Infrared analytical techniques for analyzing C_8 mixtures. V. Thornton and A. E. Herald, *Anal Chem* 20:9-10 Ja '48
- Infra-red spectra of hydrocarbons; analysis of octane mixtures by the use of infra-red spectra obtained at low temperatures. W. H. Avery and J. R. Morrison, *bibliog il diags J Ap Phys* 18:960-7 N '47
- Laboratory studies and their relation to cycling problems. J. P. Sloan, *bibliog diags Oil & Gas J* 46:158+ Mr 25 '48
- Mass spectrometer analysis of some liquid hydrocarbon mixtures. R. A. Brown and others, *Anal Chem* 20:5-9 Ja '48
- Mass-spectrometric detection of free radi-cals. G. C. Eltenton, *diags J Phys & Col-loid Chem* 52:463-9 Mr '48
- Pure compounds from petroleum; purifica-tion and purity of hydrocarbons. F. D. Ros-sini, *bibliog Anal Chem* 20:110-21 F '48
- Rapid machine method, calculating results of infrared analyses of gaseous hydrocar-bon mixtures. E. C. Daigle and J. H. Lee, *bibliog J Pet Refiner* (Process Handbook ed) 27: 120-3 S '48
- Shale-oil naphthas; analysis of small sam-ples by the silica gel adsorption method. G. U. Dinneen and others, *bibliog diag Anal Chem* 19:992-8 D '47

HYDROCARBONS—Analysis—Continued

Special applications of absorption spectroscopy. F. W. Crawford and C. K. Buell. *Pet Processing* 2:923-5+ D '47

See also

Olefins—Analysis

Carcinogenic effect

Carcinogenic hydrocarbons; 9,11-dimethylbenz[a]anthracene and 8,9,11-trimethylbenz[a]anthracene. B. Riegel and J. G. Burr, jr. *bibliog Am Chem Soc J* 70:1070-3 Mr '48

Carcinogenic hydrocarbons; 3,5-dimethylcholanthrene. B. Riegel and others. *bibliog Am Chem Soc J* 70:1073-6 Mr '48

Microbial utilization of carcinogenic hydrocarbons. F. D. Sisler and C. E. ZoBell. *Science* 106:521-2 N 28 '47

Physiological effect

Les huiles d'anthracène; utilisation et hygiène professionnelle. R. Barthe. *Chimie & Ind* 58:439 N '47

Separation processes

Adsorption; a tool in the preparation of high-purity saturated hydrocarbons. A. E. Hirschler and S. Amon. *bibliog Ind & Eng Chem* 39:1585-96 D '47; Correction. 40:937 My '48

Hydrocarbon absorption and fractionation process design methods. W. C. Edmister. *bibliog flow diag diags Pet Eng* 18:156+ My; 57+ Je; 39-44+ Jl; 49-54+ Ag; 130+ S; 19:200+ O; 55-8+ N; 83+ D '47; 63+ Ja; 76+ F; 57-61 Mr; 128+ Ap; 47-54 Je; 66+ Jl; 47-53 Ag; 128+ S '48

Hypersorption provides precise concentration-separation of gases. A. L. Foster. *flow diag il diag Oil & Gas J* 47:90+ Ag 12 '48

Obtain nearly pure hydrocarbon with separator for paraffin wax; patent. *diag Pet Processing* 2:872 N '47

Standards

New hydrocarbon standards. *R Sci Instr* 18: 813 O '47

Standard samples of hydrocarbons. *il Pet Eng* 19:105+ F '48

Synthesis

Applications of the fluid catalyst technique to catalytic cracking and hydrocarbon synthesis. R. W. Krebs. *bibliog il diag Pet Refiner* 27:115-20 My '48

Catalysts for hydrocarbon synthesis. C. H. Riesz and others. *bibliog diag Ind & Eng Chem* 40:718-22 Ap '48

Catalytic synthesis of hydrocarbons from carbon monoxide and hydrogen; abstract. V. A. Karzhavin. *Chem Eng* 55:276+ Jl '48

Commercial application of hydrocarbon synthesis in the United States. J. E. Latta and S. W. Walker. *diags Chem Eng Prog* 44: 173-6 F '48

Evaluation of catalysts used in the synthesis of hydrocarbons. S. R. Wright and others. *flow sheet Can Chem & Process Ind* 32:53-4+ Ja '48

Fischer-Tropsch synthesis with cobalt catalysts. S. R. Craxford. *bibliog Soc Chem Ind J* 66:440-4 D '47

Product distribution in the synthesis of hydrocarbons from carbon monoxide and hydrogen. C. W. Montgomery and E. B. Weinberger. *bibliog J Chem Phys* 16:424-5 Ap '48

Production of synthesis gas by reacting light hydrocarbons with steam and carbon dioxide. R. E. Reitmeier and others. *bibliog il Ind & Eng Chem* 40:620-6 Ap '48

Synthesis of some cyclopropane and spirane hydrocarbons. R. W. Shortridge and others. *bibliog Am Chem Soc J* 70:946-9 Mr '48

Terminology

Naming of cis and trans isomers of hydrocarbons containing olefin double bonds. M. E. Epstein and F. D. Rossini. *Chem & Eng N* 26:2959 O 4 '48

Testing

Two-stage ignition of higher hydrocarbons at atmospheric pressure. G. Friedlander and L. Grunberg. *bibliog diag Inst Pet J* 34: 490-510 Ag 15 '48

HYDROCARBONS, Aromatic

Aromatic absorption index as a rapid method for approximating catalyst activity. W. W. Scheumann and A. R. Rescorla. *bibliog Am Pet Inst Proc* 27(3):34-7 '47; Same. *Oil & Gas J* 46:231-2+ N 15 '47; Same. *Pet Refiner* 26:119-21 D '47

Aromatic adsorption index for the estimation of surface area and catalytic activity. T. W. Pratt. *diag Am Pet Inst Proc* 27(3):38-47 '47

Aromatics in petroleum fractions; separation and determination from high boiling petroleum fractions by adsorption. M. R. Lipkin and others. *bibliog diag Anal Chem* 20:130-4 F '48

Attempts to prepare new aromatic systems; cyclopentindene; phenylcyclopentanecarboxylic acids, and derived ketones. W. Baker and W. G. Leeds. *Chem Soc J* p974-80 Jl '48

Attempts to prepare new aromatic systems; cyclopentindene, 2 and 3-phenylcyclopentane carboxylic acids, and derived ketones; abstract. W. Baker and W. G. Leeds. *Chem & Ind* p756-7 D 6 '47

Engineering completed for new \$15,000,000 petrochemical plant; chemical-processing units, utilizing natural gas. J. E. Bludworth. *flow diags il Oil & Gas J* 46:48-9+ Ja 1 '48

Hydroforming pilot unit. L. T. Yule and R. B. Bennett. *flow diag il Ind & Eng Chem* 40:1995-8 O '48

Liquid-phase alkylation of aromatic hydrocarbons. A. W. Francis. *diags Chem R* 43: 257-69 bibliog(79 ref, p268-9) O '48

Oxidation of carcinogenic hydrocarbons by osmium tetroxide. J. W. Cook and R. Schoental. *Chem Soc J* p 170-3 F '48

Production of aromatic hydrocarbons from petroleum. C. Weizmann and others. *bibliog Soc Chem Ind J* 67:114-18 Mr '48

Properties of alkylbenzenes; list of 397 alkylbenzenes, with observed properties which are recorded in the literature. A. W. Francis. *Chem R* 42:107-62 bibliog(425 ref, p 152-62) F '48

Proposed method of test for aromatic hydrocarbons in mixtures with naphthenes and paraffins by silica gel adsorption. *diags Am Soc T M Proc* 46:356-64 '46

Significance of the transition state in aromatic substitution. W. A. Waters. *Chem Soc J* p727-31 Je '48

Some catalysed gas-phase reactions of aromatic hydrocarbons; the interaction of benzene and ethylene. D. L. Hammick and M. Roberts. *Chem Soc J* p73-6 Ja '48

Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and *m*-xylene by dehydrogenation of corresponding cyclohexene intermediates. T. W. Reynolds and others. *bibliog Ind & Eng Chem* 40:1751-2 S '48

Thermofor pyrolytic cracking. S. C. Eastwood and A. E. Potas. *diag Oil & Gas J* 47:104-5+ Ag 26 '48; Same. *Pet Eng* 19:43-6 Ag '48; Same. *Pet Processing* 3:837+ S '48; Same. *Pet Refiner* (Process Handbook ed) 27:96-8 S '48; Abstract. *Chem Eng* 55:113 S '48

Ultraviolet absorption bands of iodine in aromatic hydrocarbons. H. A. Benesi and J. H. Hildebrand. *Am Chem Soc J* 70:2832-3 Ag '48

Wood preservatives; characteristics and related toxicity of hydrocarbon oils. J. A. Vaughan. *bibliog Pet Processing* 3:237-8+ Mr '48

HYDROCELLULOSE

Crystallinity of hydro-celluloses. F. C. Brenner, V. Frléte and H. Mark. *Am Chem Soc J* 70:877-8 F '48

HYDROCEPHALUS

Inadequate maternal nutrition and hydrocephalus in infant rats. L. R. Richardson and J. DeMottier. *Science* 106:644 D 26 '47

HYDROCHLORIC acid

Acid-cleaning boilers. J. L. Wasco and F. N. Alquist. *Mech Eng* 70:28-30 Ja '48

HYDROCHLORIC acid—Continued

- Acid cleaning of boilers. W. H. Betz and L. D. Betz, *diag Paper Ind* 29:1197-8 N '47
- Acid cleaning of boilers; abstract. S. K. Adkins, *Power Generation* 52:89+ F '48
- Acid hydrolysis of egg albumin; kinetic studies. H. B. Bull and J. W. Hahn, *bibliog Am Chem Soc J* 70:2128-31 Je '48
- Action of hydrogen chloride on isoprene. A. J. Ultee, *Chem Soc J* p530 Ap '48
- Aliphatic nitro-compounds; reaction of α -nitro-olefins with hydrochloric acid. R. L. Heath and J. D. Rose, *Chem Soc J* p 1485-6 N '47
- Boiling temperature successful as control variable for muriatic acid absorber. R. C. Rahn, *diag Chem Eng* 55:124 Ap '48
- Cellulose intercrystalline structure; study by hydrolytic methods. R. F. Nickerson and J. A. Habrie, *bibliog Ind & Eng Chem* 39: 1507-12 N '47
- Chemical removal of clays. P. H. Cardwell, *bibliog diags Oil & Gas J* 46:130-3+ F 26 '48
- Corrosion of boiler steels by inhibited hydrochloric acid. P. H. Cardwell and S. J. Martinez, *bibliog Ind & Eng Chem* 40:1956-64 O '48
- Determination of the free energy of formation of the manganous ion from thermal data. A. Walkley, *bibliog Electrochem Soc J* 93:316-23 Je '48
- Electric moments of hydrogen fluoride, hydrogen chloride and hydrogen bromide in several non-polar solvents. A. J. Weith, Jr., M. E. Hobbs and P. M. Gross, *diags Am Chem Soc J* 70:805-11 F '48
- Electrolyte effects in the hydration of isobutene. F. G. Clapetta and M. Kilpatrick, *bibliog il Am Chem Soc J* 70:639-46 F '48
- Hydrogen chloride absorption; abstract. J. Coull and others, *Chem Eng* 55:258+ Je '48
- Kinetics of the photolysis of methyl iodide and the hydrogen halides; photolysis of hydrogen iodide in the presence of iodine, hydrogen bromide and hydrogen chloride. R. R. Williams, Jr. and R. A. Ogg, Jr., *bibliog diag J Chem Phys* 15:691-6 O '47
- Partition of hydrogen chloride between water and benzene. J. E. Such and R. H. Tomlinson, *bibliog Soc Chem Ind J* 67:110-14 Mr '48
- Quantitative separation of calcium, barium, and strontium. S. Kallmann, *bibliog Anal Chem* 20:449-51 My '48
- Reduction of antimony solutions with metallic nickel. H. Holness, *bibliog Soc Chem Ind J* 67:238-41 Je '48
- Some free radical reactions of hydrogen chloride. J. H. Raley, F. F. Rust and W. E. Vaughan, *Am Chem Soc J* 70:2767-70 Ag '48
- Use of wetting agents in conjunction with acid inhibitors. P. H. Cardwell and L. H. Eilers, *bibliog il Ind & Eng Chem* 40:1951-6 O '48
- Waste hydrogen chloride? *il Chem Ind* 46:371-2 S '48
- Water scale removal from cooling units. R. L. Wilson, *il Pet Refiner* 27:97 Ag '48

Analysis

- Determination of hydrogen chloride in presence of chlorine. H. N. Barham and T. R. Thomson, *bibliog diag Anal Chem* 20:60-1 Ja '48

Manufacture

- Anhydrous hydrogen chloride process; Girdler corp. flow sheet *Pet Refiner* (Process Handbook ed) 27:340-1 sec 2 S '48
- Synthetic hydrogen chloride. A. H. Maude, *bibliog diag Chem Eng Prog* 44:179-82 Mr '48

HYDROCHLORIDES

- α -(Di-n-aminolaminomethyl) - 2 - methoxy-1-naphthalenemethanol hydrochloride. T. L. Jacobs and R. I. Akawie, *Am Chem Soc J* 69:3148 D '47

HYDROCHLORINATION

- Mass spectrometer; hydrochlorination analysis of butenes. F. W. Melpolder and R. A. Brown, *Anal Chem* 20:139-42 F '48

- HYDROCOL process.** See Gasoline, Natural—Manufacture—Hydrocol process

HYDROCYANIC acid

- Determination of hydrocyanic acid in crude oil in refined coal gas. H. F. Taylor, *Gas J* (Lond) 252:293-4 N 5 '47

- Diffusion coefficients and molecular radii of hydrogen cyanide, cyanogen chloride, phosgene and chloropirrin. I. M. Klotz and D. K. Miller, *bibliog Am Chem Soc J* 69:2557-8 O '47

- Preparation of nitriles. D. T. Mowry, *Chem R* 42:189-283 bibliog(647 ref, p270-83) Ap '48

Analysis

- Determination of small quantities of hydrogen cyanide in insects and plant tissue. R. A. Fulton and M. J. Van Dyke, *diag Anal Chem* 19:922-3 N '47

HYDRODYNAMICS

- Cavity drag in two and three dimensions. M. S. Plesset and P. A. Shaffer, Jr., *bibliog J Ap Phys* 19:934-9 O '48
- Contact times of continuous-flow reacting systems with volume change. S. R. Brinkley, Jr. *Ind & Eng Chem* 40:303-7 F '48
- Dimensional analysis; an approach from transformation theory and a criterion for scaling model experiments. J. C. Decius, *Franklin Inst J* 245:379-87 My '48
- Drag in cavitating flow. M. S. Plesset and P. A. Shaffer, Jr., *diags Rs Mod Phys* 20: 228-31 Ja '48
- Effect of particle shape on free-settling rates of isometric particles. E. S. Pettyjohn and E. B. Christiansen, *bibliog il diags Chem Eng Prog* 44:157-72 F '48
- Explosives with lined cavities. G. Birkhoff and others, *bibliog il diags J Ap Phys* 19: 563-82 Je '48
- Fluid dynamics. D. F. Boucher, *Ind & Eng Chem* 40:32-3 bibliog(267 ref, p36-8) Ja '48
- Fluidization of solid particles; sand, glass, silicate catalyst, and lead shot in air and water. R. H. Wilhelm and M. Kwauk, *bibliog diags Chem Eng Prog* 44:201-17; Discussion. 217-18 Mr '48
- Friction coefficients in a large tunnel. G. H. Hickox and others, *bibliog il plan diags Am Soc C E Proc* 73:451-70 Ap '47; Discussion. 73:1122-38, 1307-9, 1450-4; 74:867-72 S-N '47, Je '48
- Fugacity determinations of the products of detonation. M. A. Cook, *bibliog J Chem Phys* 16:1081-6 N '48
- Heat transfer in liquid helium II by internal convection. F. London and P. R. Zilsel, *bibliog Phys R* 74:1148-56 N 1 '48
- Hydrodynamic design of 48-in. water tunnel to be used in research on torpedo propellers. D. Ross and others, *diags Engineering* 166:68-72 JI 16 '48; Abstract. *Marine Eng* 53:53-4 JI '48
- Hydrodynamic properties of sea wave at the front of a shock wave. J. M. Richardson and others, *bibliog J Chem Phys* 15:785-94 N '47
- Hydrodynamics laboratory of the California Institute of technology. R. T. Knapp and others, *il plans diags A S M E Trans* 70: 437-57 JI '48
- Hydrosphere; spherical bearing capable of hydrodynamically supporting loads of great magnitude; abstract. M. C. Shaw and C. D. Strang, Jr., *Machine Design* 20:202+ Mr '48
- Influence of atmospheric pressure on the phenomena accompanying the entry of spheres into water. D. Gilbarg and R. A. Anderson, *il diags J Ap Phys* 19:127-39 F '48
- Stability of the laminar parabolic flow of a viscous fluid between parallel fixed walls. C. L. Pekeris, *bibliog Phys R* 74:191-9 JI 15 '48
- Surface waves from an underwater explosion. J. G. Kirkwood and R. J. Seeger, *bibliog J Ap Phys* 19:346-60 Ap '48
- Theory of liquid helium. L. Tisza, *bibliog Phys R* 72:838-54 N 1 '47
- Theory of the anelastic fluid. C. Eckart, *diag Rs Mod Phys* 20:232-5 Ja '48
- Wave transmission and reflection phenomena in liquid helium II. J. R. Pellam, *diag Phys R* 73:608-17 Mr 15 '48
- See also
- | | |
|---------------------|---------------|
| Aerodynamics | Viscosity |
| Hydraulic machinery | Vortex motion |
| —Cavitation | Waves |
| Turbulence | |

HYDRODYNAMICS—Continued

Electric analogies

Analogy between tides and a.c. electricity.
J. Van Veen. map diags Engineer 184:498-500, 520-1, 544-5 N 28-D 12 '47

HYDROELECTRIC plants

Inventory of major projects; with information on costs, sizes and features. 11 maps Eng N 140:301-6 F 19 '48

Measuring gallery expansion and elasticity of rock. W. Muller. Engineer 185:267 Mr 12 '48

Progress in power generation, 1940-46, bibliography 11 diags Elec Eng 67:59-75 Ja '48

Recent tendencies and present position of hydraulic machinery (water power plant). F. W. Seewer. diags Inst Mech Eng J & Proc 157 (War emergency issue no 33):345-52 '47

See also

Federal power act, 1935

Combination with steam plants

Combined operation of steam and hydro stations. V. A. Thiemann. map Power Generation 52:60-3 F '48

Hydro, Diesel and steam, in unique combination, serve Salt River valley. 11 map diags Power 92:354-60 Je '48

Operation of the Conowingo hydroelectric plant. R. E. Turner. map Am Soc C E Proc 73:1359-78 N '47; Discussion, 74:968-72, 1161-5, 1639-41 Je-S, D '48

What is synchroscope connection reference? steam-electric, hydro and utility plant connected to bus. diags Power 91:862-4+ D '47

Woodfibre modernizes its power plant; British Columbia pulp & paper co. B. Dekking. Paper Tr J 125:66-7 D 4 '47; Same. Pulp & Pa of Can 48:81-2 D '47

Construction

Bailey bridging used for aggregate conveyor system at Des Joachims. H. M. Blake. flow sheet 11 map Roads & Bridges 86:82-5 Ap '48

Concreting operations for the Aguasabon power development. 11 Roads & Bridges 86:76-8+ My '48

Constructing the Watauga project. G. K. Leonard and D. H. Matern. 11 map diags Civil Eng 18:277-82+ My '48

Construction operations on Vancouver Island power plant. T. Hogg. 11 Roads & Bridges 85:83+ N '47

Davis dam; last in series of coordinated structures below Hoover dam. L. A. Luther. 11 map plan Comp Air Mag 53:52-9 Mr '48

High head penstock shop welded and field riveted; Mokelumne project. 11 Eng N 141:88-9 O 28 '48

More power at Shawinigan falls. 11 plan Eng N 140:497-9 Ap 1 '48

River Erne power development. V. D. Harty. 11 maps diags Comp Air Mag 53:2-6 Ja '48

Rock-fill cofferdam in Soo rapids. 11 Constr Methods 30:36-41 O '48

Uruguay's Rincon del Bonete project supplies country's first hydro power. L. Giorgi. 11 maps Civil Eng 18:14-18+ Ja '48

Costs

Economies in design, construction and operation control rising costs of hydro power. M. G. Salzman. 11 Civil Eng 18:221-5 Ap '48; Abstracts. Power Generation 52:67 Mr '48; Pub Util 41:575-6 Ap 22 '48; Discussion, Civil Eng 18:225-7 Ap '48

Pumped storage hydro costs per kw are competitive. N. N. Wolff. 11 Elec World 129:83-5 My 8 '48

United States Department of the interior, Bureau of reclamation, program of power development, fiscal years 1948-1957; statistical data by states. Elec World News ed 130:16-17 S 4 '48

Design

Fort Peck hydro plant provides for three power units. H. Miller. 11 diags Eng N 140:408-12 Mr 18 '48

Shimsha hydro-electric scheme. 11 map diags Engineer 184:502-4 N 28 '47

Welded steel construction for hydroelectric power plants; with cost data. O. J. Afreth and A. J. Perry. plans diags Power Generation 52:98+ F '48

Efficiency

Operation of the Conowingo hydroelectric plant. R. E. Turner. map Am Soc C E Proc 73:1359-78 N '47; Discussion, 74:968-72, 1161-5, 1639-41 Je-S, D '48

Equipment

Development of the 230-kv ring bus for Grand Coulee power plant; abstract. N. G. Holmdahl and C. L. Killgore. 11 Elec Eng 67:967 O '48

Metals in service. P. M. Hess. 11 Iron & Steel Eng 25:65-75; Discussion, 75-6 Je '48

Redeveloping old hydro project uses output from 150 to 500 million kw/hr; Tacoma, Wash. 11 plan diags Power 92:268-72 My '48

Temporary installation of Shasta turbine at Grand Coulee. H. H. Sloane. 11 diags A S M E Trans 70:49-56 Ja '48

Finance

New U.S. policy needed in financing hydroelectric projects. S. B. Morris. 11 Elec West 100:86-9 Je '48

Government ownership

Current and future power development on Bureau of reclamation projects; tabulation. Elec West 100:80 F '48

Federal government plays important role in development of hydroelectric energy. H. B. Pettit. 11 Civil Eng 18:358-62+ Je '48

Hydroelectric projects constructed and operated by government agencies. map Power 92:636-7 O '48

It's time to start fighting; government competition in power industry. C. E. Oakes. Elec World 129:89-90 Je 5 '48; Same. Edison Elec Inst Bul 16:176-7+ Je '48

Power makers argue federal power plan; claim canal system of Holyoke will be imperilled. Paper Tr J 125:9 D 18 '47

Power income main source for reclamation repayments. Elec World News ed 129:5 Ja 24 '48

Promoting public power. M. W. Straus. Pub Util 41:379-81 Mr 11 '48

Quadruple power output rise by Reclamation bureau. Eng N 141:1 Ag 12 '48

Rationalized federal power development. T. M. Robins. Elec West 101:55-7 J1 '48; Excerpts. Eng N 141:6 J1 1 '48

Secretary of Interior's annual report for 1947 deals with public power activities. Pub Util 41:376-9 Mr 11 '48

Some adverse effects of a federal power monopoly; situation in the Pacific Northwest. E. C. Potts. Pub Util 40:811-17 D 18 '47

SPA planning sale of Bull Shoals energy to Sho-Me power co-op. Elec World News ed 130:6 O 2 '48

United States Department of the interior, Bureau of reclamation, program of power development, fiscal years 1948-1957; statistical data by states. Elec World News ed 130:16-17 S 4 '48

Wanted; a new federal power policy. G. A. Dondero. Pub Util 42:333-42 S 9 '48

Why regiment power. maps Elec West 100:92-5 Je '48

See also

Bonneville power administration

Irrigation water use

Pumping for power in the Colorado Rockies; abstract. F. M. Wilson. map Elec Eng 67:980 O '48

Maintenance and repair

Dredging a large sand deposit from a power plant forebay. 11 diag Eng N 139:818-19 D 11 '47

Specially developed equipment simplifies heavy rotor handling. D. J. Copps. 11 Elec World 128:84-5 D 6 '47

Storage type

Economic possibilities of pumped storage hydro-electric plants. N. N. Wolff. 11 Eng N 140:631-3 Ap 29 '48; Discussion. C. J. Seibert. 140:972 Je 10 '48

HYDROELECTRIC plants—Storage type—*Cont.*
Pumped storage hydro costs per kw are competitive. N. N. Wolff, *il Elec World* 129:83-5 My 8 '48

Waterworks plants

Low-cost by-product power from municipal water supply; hydroelectric development at Quabbin reservoir; with cost data, *il map diags Elec World* 130:102-4 S 11 '48

Will hydro cross the Delaware? proposal for combination hydro power and water supply project. J. L. Donnelly, *map Pub Util* 41:472-8 Ap 8 '48

Australia

Water power in Victoria, *Elec R (Lond)* 143: 311 Ag 27 '48

British Columbia

Construction operations on Vancouver Island power plant. T. Hogg, *il Roads & Bridges* 85:83+ N '47

California

High head penstock shop welded and field riveted; Mokelumne project, *il Eng N* 141: 88-9 O 28 '48

More power for the San Francisco area; driving tunnels for Mokelumne project. L. A. Luther, *il map Comp Air Mag* 53:104-8 My '48

103,000-hp turbines at Shasta dam. J. F. Roberts, *il plan diags A S M E Trans* 70: 217-24; Discussion, 225-6 Ap '48

Reclamation will oppose utility's plan for Kings river, *Elec World News* ed 129:13 F 21 '48

Shasta power controversy; Pacific gas and electric company vs. the Bureau of reclamation. J. E. Conant, *Pub Util* 42:11-20 J1 1 '48

Canada

Canada's hydro-electric development. W. J. McKay, *Comm & Fin Chr* 168:412 J1 29 '48

Canada's 2,000,000 h.p. programme. *Electrician* 140:500 F 13 '48

Canadian hydroelectric progress, *Mech Eng* 70:340 Ap '48

Canadian water power; large schemes under construction, *Elec R (Lond)* 142:528 Ap 2 '48

80 per cent of Canada's hydro power resources still undeveloped despite many recent projects, *Roads & Bridges* 85:54 D '47

Hydro advances in U.S. and Canada with over 7,000,000 hp on order, *Power* 92:635 O '48

Hydro-electric progress in Canada during 1947, *Pulp & Pa of Can* 49:116 F '48

Hydroelectric projects built or on order in the United States and Canada in 1947; tabulation. F. A. Annett, comp., *Power* 92:638-41 O '48

China

China pushes power development, D. B. Gumensky, *il map diags Eng N* 141:94-7 S 16 '48

Le projet d'aménagement hydroélectrique sur le cours moyen du fleuve Bleu (Chine), *il map Génie Civil* 124:435-7 N 15 '47

Egypt

Hydro-electric power from the Nile, *Engineering* 165:277-8 Mr 19 '48

Nile control by hydro-electric means, A. A. B. Ahmed, *map diag Engineering* 165:577-8 Je 18 '48

France

Latest developments of dams and hydro-electric power stations in France; abstract, A. Coyne, *Engineering* 164:613-14 D 26 '47

Western Europe's biggest power dam; Genissiat hydro plant on the Rhone river. W. G. Bowman, *il map plan diags Eng N* 140: 1024-30 Je 24 '48

Georgia

Georgia Power contracts for Allatoona output, *il Manuf Rec* 117:49 O '48

Georgia Power signs ten-year pact for output of Allatoona Dam plant, *Elec World* 130:68 Ag 14 '48

Idaho

\$55,000,000 Idaho power co. program to develop 150,000 kw, *il Elec West* 101:60-2 J1 '48

India

Indian irrigation and power projects, *Engineer* 185:112-13 Ja 30 '48

Pipri (Rihand) dam, India, *diags Engineer* 185:495-6 My 21 '48

Power for India; Madras province maps irrigation and power project, *map Bsns W* p 117 F 21 '48

Shimsha hydro-electric scheme, *il map diags Engineer* 184:502-4 N 28 '47

Iowa

U.S. overrules Iowa on power project; co-operative gets federal license despite state's protest. E. R. Abrams, *Barron's* 28:8 F 2 '48

Ireland

River Erne power development. V. D. Harty, *il maps diags Comp Air Mag* 53:2-6 Ja '48

Italy

Electricity supply in Italy, *Electrician* 141: 1163-4 O 15 '48

Hydro-electricity in Italy; developments on the Vomano river and Nera basin, *il Electrician* 141:261-2 J1 23 '48

Italian hydro-electric plant, *il Elec R (Lond)* 142:842-3 My 28 '48

Jamaica

Hydro-electric plant for Jamaica, *Electrician* 141:482 Ag 13 '48

Maine

See also
Passamaquoddy tidal power project

Manitoba

Manitoba government to control power output, *For Comm W* 32:40-1 Ag 7 '48

Maryland

Operation of the Conowingo hydroelectric plant. R. E. Turner, *map Am Soc C E Proc* 73:1359-78 N '47; Discussion, 74:968-72, 1161-5, 1639-41 Je-S, D '48

Mexico

Hydroelectric potentiality of Mexico, A. G. Quintero, *Elec Eng* 67:860 S '48

Utilization of Mexico's hydraulic resources, A. Orive Alba, *map Elec Eng* 67:758 Ag '48

Montana

Fort Peck hydro plant provides for three power units, H. Miller, *il diags Eng N* 140: 408-12 Mr 18 '48

Nevada

Davis dam; last in series of coördinated structures below Hoover dam. L. A. Luther, *il map plan Comp Air Mag* 53:52-9 Mr '48

North Carolina

Half was not told; address presented at the ceremony naming the Walters hydroelectric plant of the Carolina power & light co. D. H. Ramsey, *il Edison Elec Inst Bul* 15: 441-2+ D '47

Northwestern states

Development of hydro energy in Pacific Northwest is economic asset to entire Nation; abstract, P. J. Raver, *Civil Eng* 18: 527 Ag '48

Some adverse effects of a federal power monopoly; situation in the Pacific Northwest, E. C. Potts, *Pub Util* 40:811-17 D 18 '47

Ontario

Bailey bridging used for aggregate conveyor system at Des Joachims, H. M. Blake, flow sheet *il map Roads & Bridges* 86:82-5 Ap '48

Concrete mixing and placing on the Stewartville dam, *il Roads & Bridges* 85:59-61+ D '47

Concreting operations for the Aguasabon power development, *il Roads & Bridges* 86: 76-8+ My '48

HYDROELECTRIC plants—Ontario—Continued
Ontario hydro pushes work on power dam at Stewartville. il map plan diag Eng N 141: 64-8 S 2 '48

Pakistan

Hydro-electricity for Pakistan. Electrician 141:388 Ag 6 '48

Philippine Islands

Five-year hydro program will raise Philippine capacity by 238,000 kw. Elec World 129: 91 Mr 13 '48

Power for Philippines. Bsns W p 117 Ap 10 '48

Puerto Rico

Largest hydro-electric project in Puerto Rico nears completion. il Concrete 56:24-5 Je 48
Puerto Rico advances its hydro-electric program. il Eng N 140:466-7 Mr 25 '48

Quebec (province)

More power at Shawinigan falls. il plan Eng N 140:497-9 Ap 1 '48

Russia

Huge Soviet dam going up in Azerbaijan at Mingechaur. map Bsns W p 113 N 8 '47

Scotland

Developments in waterpower resources, Scotland, U.K. For Comm W 32:25 Ag 14 '48
Major hydro-electric scheme in the Rannoch area. il diag Elec R (Lond) 142:422-7 Mr 19 '48

North of Scotland hydroelectric board; annual report. Engineer 185:626 Je 25 '48; Elec R (Lond) 142:1009 Je 25 '48; Electrician 140:1970 Je 25 '48

North of Scotland hydro-electric board; annual report, 1947. Engineering 166:38 Jl 9 '48

North of Scotland hydro-electric board Garry and Moriston schemes, maps Engineer 185: 496 My 21 '48; Abstract. Elec R (Lond) 142:818 My 21 '48

North of Scotland hydro-electric board's Glascarnoch-Luichart-Torr Achilty scheme. il map Engineer 185:230 Mr 5 '48

North of Scotland hydro-electric projects. Engineer 186:269 S 10 '48

Spain

New hydroelectric power plant operating in Spain at Salto de las Conchas. For Comm W 33:40 O 16 '48

Sweden

Water power in Sweden. Elec R (Lond) 142:16 Ja 2 '48

Switzerland

Production of hydroelectric power high in Switzerland. For Comm W 32:44 S 4 '48

Le projet d'aménagement hydroélectrique de la vallée du Brenno (Suisse), map diag Genie Civil 124:416-17 N 1 '47

Tramways serve Swiss hydro tunnels. il Constr Methods 30:112-13 Je '48

Tennessee

Constructing the Watauga project. G. K. Leonard and D. H. Mattern. il map diag Civil Eng 18:277-82+ My '48

Planning the Watauga project; flood control and power project of Tennessee Valley authority. G. K. Leonard and D. H. Mattern. il maps Civil Eng 18:142-6+ Mr '48

Uganda

Owen Falls hydro-electric scheme. il map diag Engineer 186:38-40 Jl 9 '48; Elec R (Lond) 143:27 Jl 2 '48; Electrician 141:37-8 Jl 2 '48

United States

Hydro advances in U.S. and Canada with over 7,000,000 hp on order. Power 92:635 O '48

Hydroelectric projects built or on order in the United States and Canada in 1947; tabulation. F. A. Annett, comp. Power 92: 638-41 O '48

Uruguay

Uruguay's Rincon del Bonete project supplies country's first hydro power. L. Giorgi. il maps Civil Eng 18:14-18+ Ja '48

Wales

Dolgarrog hydro-electric extension. map Engineer 186:183 Ag 20 '48

Washington (state)

Redeveloping old hydro project ups output from 150 to 500 million kwhr; Tacoma. il plan diag Power 92:268-72 My '48

Western states

Calendar of new generation; tabulation. Elec West 100:76 My '48

Electra ups western hydro capacity; calendar of new generation. il Elec West 101:77 Ag '48

Power of the West; portfolio of colored photographs by Ezra Stoller of Boulder dam, Shasta, Grand Coulee, and Bonneville. map Fortune 37:98-107 Ja '48

Wisconsin

Correction of tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. il Am Soc C E Proc 72:1077-89 O '48; Discussion. 73:709-17; 74:187-92 My '47, F '48

Wyoming

Kortes will firm U.S. Bureau of reclamation power. il Elec West 99:67 N '47

Yugoslavia

Plans for hydroelectric power. N. Petrovic. For Comm W 33:40 O 30 '48

HYDROELECTRIC plants, Cooperative

U.S. overrules Iowa on power project; cooperative gets federal license despite state's protest. E. R. Abrams. Barron's 28:8 F 2 '48

HYDROELECTRIC power

Important engineering and economic features of the proposed Colorado River developments. W. S. Peterson. maps Elec Eng 66: 1184-93 D '47

Observations on economics, water power and some electrical phenomena; abstracts. E. S. Ritter. Inst E E J 95 pt 1:81 F '48; Electrician 139:1148 O 17 '47

Power of the West; portfolio of colored photographs by Ezra Stoller of Boulder dam, Shasta, Grand Coulee, and Bonneville. map Fortune 37:98-107 Ja '48

Proposed projects develop power and irrigation potentials of Colorado River system. H. F. McPhail. il map Civil Eng 17:459-63+ Ag '47; Discussion. R. A. Hill. 18:101 F '48
Weather, water and power. I. P. Krick. il Elec West 100:67-70 Mr '48

See also

Bonneville pn
administration
Hydroelectric plants

HYDROFLUORIC acid

Dielectric polarization and molecular association of hydrogen fluoride vapor. R. A. Oriani and C. P. Smyth. Am Chem Soc J 70:125-30 Ja '48

Electric moments of hydrogen fluoride, hydrogen chloride and hydrogen bromide in several non-polar solvents. A. J. Weith, jr., M. E. Hobbs and P. M. Gross. diags Am Chem Soc J 70:805-11 F '48

Fluorination of organic compounds with anhydrous hydrogen fluoride. W. B. Whalley. bibliog Soc Chem Ind J 66:427-33 D '47

Fluorine corrosion; high-temperature attack on metals by fluorine and hydrogen fluoride; behavior of insulated steel parts in fluorine cells. W. R. Myers and W. B. DeLong. bibliog diags Chem Eng Prog 44: 359-62 My '48

Fluorine disposal; continuous process. R. Landau and R. Rosen. flow sheet Ind & Eng Chem 40:1389-93 Ag '48

HF alkylation. flow diag Oil & Gas J 46: 130 Ap 1 '48

Hydrofluorination in the presence of boron fluoride. A. L. Henne and R. C. Arnold. bibliog Am Chem Soc J 70:758-60 F '48

Hydrogen transfer; reaction of *p*-cymene with olefinic hydrocarbons in the presence of sulfuric acid and hydrogen fluoride catalysts. V. N. Ipatieff, H. Pines and R. C. Olberg. bibliog Am Chem Soc J 70:2123-8 Je '48

Identification of free silica in dusts and fumes. W. H. Gitzel. il Anal Chem 20: 265-7 Mr '48

HYDROFLUORIC acid—Continued

- Relative association of hydrogen and deuterium fluorides in the liquid state, J. H. Hildebrand and A. Gee, bibliog Am Chem Soc J 70:427-3 Ja '48
- Simple potential functions for HF and [F—H—F], M. Davies, bibliog J Chem Phys 15:739-41 O '47
- Squeeze bottle for acid; polyethylene with spray valve for liquid rust remover containing hydrofluoric, il Mod Packaging 21: 106-7 Ag '48
- Structure of the hydrogen fluoride dimer; (hypothetical) (HF)₂, G. E. Evans and G. Glockler, bibliog diags J Chem Phys 16: 324-6 Ap '48
- System cesium fluoride-hydrogen fluoride, R. V. Winsor and G. H. Cady, bibliog diag Am Chem Soc J 70:1500-2 Ap '48

Analysis

- Determination of silica in the presence of fluorine and phosphorus, J. A. Brabson and others, bibliog Anal Chem 20:504-10 Je '48

Physiological effect

- Dental conditions in workers chronically exposed to dilute and anhydrous hydrofluoric acid; abstract, P. P. Dale and H. B. McCauley, Nat Safety N 58:120+ O '48

HYDROFORMERS

- Channeling effects in reactors of a commercial hydroformer, C. Berg, P. N. Fawcett and R. O. Dhondt, flow diag il diags Chem Eng Prog 43:719-23; Discussion, 723-30 D '47
- Hydroforming pilot unit, L. T. Yule and R. B. Bennett, flow diag il Ind & Eng Chem 40: 1995-8 O '48

HYDROFORMING process. See Gasoline—Manufacture**HYDROGEN**

- Adiabatic flow of hydrogen gas through a rocket nozzle with and without composition change, S. S. Penner and D. Altman, bibliog diag Franklin Inst J 245:421-32 My '48
- Bond energies in peroxides, and the energy evolved in the reaction $H + O_2 = HO_2$, A. D. Walsh, Chem Soc J p331-9 Mr '48
- Carbon-carbon and carbon-hydrogen bond energies, G. Glockler, bibliog J Chem Phys 16:842-4 Ag '48
- Catalytic decomposition of ethane and ethane-hydrogen mixtures, C. Kemball and H. S. Taylor, diag Am Chem Soc J 70:345-51 Ja '48
- Catalytic reaction of hydrogen and oxygen on plane faces of a single crystal of copper, H. Leidheiser, jr, and A. T. Gwathmey, 2pls diags Am Chem Soc J 70:1200-6 Mr '48
- Cathodic protium-tritium separation factor; apparatus; platinum cathode-alkaline solution, M. L. Eidinoff, bibliog diags Am Chem Soc J 69:2507-9 O '47
- Chemical and physical adsorption of gases on carbon dust, R. H. Savage and C. Brown, il Am Chem Soc J 70:2362-6 Jl '48
- Critical review of chemistry of oxo synthesis for production of alcohols from olefins, carbon monoxide, and hydrogen, I. Wender and M. Orchin, pl U S Bur Mines Rep of Invest 4270:1-26 '48
- Effect of various gases on nitrogen fixation by azotobacter, D. M. Molnar, R. H. Burris and P. W. Wilson, bibliog Am Chem Soc J 70:1713-16 My '48
- Electromagnetic shift of energy levels, F. J. Dyson, Phys R 73:617-26 Mr 15 '48
- Equilibrium of iron-carbon-silicon and of iron-carbon-manganese alloys with mixtures of methane and hydrogen at 1000°, R. P. Smith, bibliog Am Chem Soc J 70: 2724-9 Ag '48
- Factorization method, hydrogen intensities, and related problems, T. E. Hull and L. Infeld, bibliog Phys R 74:905-9 O 15 '48
- Free-volume models for liquids, T. L. Hill, bibliog J Phys & Colloid Chem 51:1219-32 N '47
- Gasification of subbituminous coal and lignite in externally heated retorts, V. F. Parry and others, bibliog diags Ind & Eng Chem 40:627-41 Ap '48

- Hydrogen exchange of phenols and phenol ethers with deuterio-alcohol, P. F. Tryon, W. G. Brown and M. S. Kharasch, bibliog Am Chem Soc J 70:2003-5 Je '48
- Hydrogen transfer; reaction of *p*-cymene with olefinic hydrocarbons in the presence of sulfuric acid and hydrogen fluoride catalysts, V. N. Ipatieff, H. Pines and R. C. Olberg, bibliog Am Chem Soc J 70:2123-8 Je '48
- Infra-red dichroism involving hydrogen bonds, L. Glatt and J. W. Ellis, bibliog J Chem Phys 15:880-1 D '47
- Internal intensity ratio of H α and of Da, C. Hsueh, bibliog il diags Phys R 74:670-6 S 15 '48
- Ionization currents in divergent fields in hydrogen and in air, G. W. Johnson, bibliog diags Phys R 73:284-97 F 15 '48
- Kinetics of methane synthesis, W. W. Akers and R. R. White, bibliog (47 ref) diag Chem Eng Prog 44:553-66 Jl '48
- Manufacture of hydrogen sulphide; the reaction between hydrogen and pyrites, L. M. Clark and H. M. Spittle, Soc Chem Ind J 67:5-8 Ja '48
- Manufacture of hydrogen sulphide; the utilization of the by-product ferrous sulphide from the hydrogen-pyrites reaction, L. M. Clark and H. M. Spittle, bibliog Soc Chem Ind J 67:9-10 Ja '48
- Preparation of aldehydes from alkenes by the addition of carbon monoxide and hydrogen with cobalt carbonyls as intermediates, H. Adkins and G. Krsek, bibliog Am Chem Soc J 70:383-6 Ja '48
- Production of synthesis gas, by catalytic decomposition of methane, H. S. Seelig and R. F. Marschner, flow diag Ind & Eng Chem 40:583-6 Ap '48
- Pumping speed of an oil diffusion pump for hydrogen, R. J. Gibson, jr, R Sci Instr 19:276-7 Ap '48
- Pumping speed of an oil diffusion pump for hydrogen, R. B. Setlow, R Sci Instr 19:533 Ag '48
- Quantum efficiency of the mercury sensitized photochemical decomposition of hydrogen, L. B. Thomas and W. D. Gwinn, bibliog diag Am Chem Soc J 70:2643-8 Ag '48
- Range of nuclear forces in the neutron-proton triplet interaction, C. G. Shull and others, Phys R 73:262 F '48
- Reduction of oxides by hydrogen and carbon monoxide, W. E. Garner, Chem Soc J p 1239-44 S '47
- Scattering of slow neutrons by ortho- and parahydrogen, R. B. Sutton and others, bibliog diags Phys R 72:1147-56 D 15 '47
- Slow neutron cross section of H, W. B. Jones, jr, bibliog diags Phys R 73:364-9 Ag 15 '48
- Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz, L. J. Rainwater and others, Phys R 73:733-41 Ap 1 '48
- Some catalytic hydrogen exchange reactions of hydrocarbons, J. Aman, L. Farkas and A. Farkas, bibliog diags Am Chem Soc J 70:727-32 F '48
- Specific primary ionization and energy loss of fast electrons in matter, F. L. Hereford, bibliog diags Phys R 74:574-9 S 1 '48
- Study of the hydrogen, oxygen, and nitrogen contents of foundry pig-iron, J. E. Hurst and R. V. Riley, diags Iron & Steel Inst J 159:130-6 Je '48
- Suggested experiment to detect the shift of 18.4 level of H and He*, T. Wu, Phys R 72:976-7 N 15 '47
- Temperature variation of the thermal diffusion factors for binary mixtures of hydrogen, deuterium, and helium, B. F. Murphy, bibliog diag Phys R 72:834-7 N 1 '47
- Theory of burning velocity; square root law for burning velocity, C. Tanford and R. N. Pease, bibliog J Chem Phys 15:861-5 D '47
- Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties, B. H. Sage, R. H. Olds and W. N. Lacey, bibliog Ind & Eng Chem 40:1453-9 Ag '48
- Vapor pressure, specific volume, *p-v-T* data for H₂, N₂, O₂, CO, CO₂, air, He, A, Hg, S. Gratch, A S M E Trans 70:631-40 bibliog(154 titles, p637-40) Ag '48

HYDROGEN—Continued

Wave functions for H^- obtained by variation method. E. Conwell, *Phys R* 74:277-8 Ag 1 '48

See also

Hydrogenation
Steel—Hydrogen effect

Analysis

Pressure regulator for use in microdetermination of carbon and hydrogen. M. F. Furter and A. Steyermark, *bibliog il diag Anal Chem* 20:257-8 Mr '48

Reaction of lithium aluminum hydride with compounds containing active hydrogen. J. A. Krynetsky, J. E. Johnson and H. W. Carhart, *bibliog diag Am Chem Soc J* 70:486-9 F '48

Atomic hydrogen

Associating effect of the hydrogen atom; the N-H-O bond; esters of carbamic acid. M. Barker, L. Hunter and N. G. Reynolds, *Chem Soc J* p874-81 Je '48

Effect of nuclear motion of the hyperfine structure of the ground term of hydrogen. G. Breit and R. E. Meyerott, *bibliog Phys R* 72:1023-37 D 1 '47

Hyperfine structure of atomic hydrogen and deuterium. D. E. Nagle and others, *bibliog Phys R* 72:971 N 15 '47

Hyperfine structure of hydrogen and deuterium. J. E. Nafe and E. B. Nelson, *bibliog diag Phys R* 73:718-28 Ap 1 '48

Magnetic moment of the deuteron. A. Roberts, *bibliog Phys R* 72:979 N 15 '47

Reaction of atomic hydrogen with acetylene. E. L. Tollefson and D. J. Le Roy, *bibliog diag J Chem Phys* 16:1057-62 N '48

Reaction of hydrogen atoms with some oxygen-containing organic compounds. W. R. Trost and others, *bibliog J Chem Phys* 16:353-7 Ap '48

Reaction of hydrogen atoms with the paraffin hydrocarbons. W. R. Trost and E. W. R. Steacie, *bibliog J Chem Phys* 16:361-4 Ap '48

See also

Electric welding,
Arc—Hydrogen process

Industrial applications

Annealing of cast iron in hydrogen. J. Bernstein, *bibliog 2pls diags Iron & Steel Inst J* 159:11-15 My '48

Heat processing easily oxidized metals; hydrogen atmosphere for brazing, bright annealing and sintering. F. C. Kelley, *il diags Iron Age* 161:84-9 My 20 '48

Hydrogen brazing seals evaporator plates. *il Refrig Eng* 54:443-4 N '47

Hydrogen-cooled alternator for Littlebrook B power station, *il diag Engineer* 185:565-7 Je 11 '48; *Engineering* 165:559-61, 564 Je 11 '48; *Elec R (Lond)* 142:927-9 Je 11 '48; *Electrician* 140:1823-4 Je 11 '48

Simulation of high air temperatures by hydrogen admixtures. B. N. Cole, *Engineering* 165:508 My 28 '48

See also

Electric welding,
Arc—Hydrogen process

Isotopes

Cathodic protium-tritium separation factor; apparatus; platinum cathode-alkaline solution. M. L. Eldinoff, *bibliog diags Am Chem Soc J* 69:2507-9 O '47

Comparison of the ionization cross sections of H_2 and D_2 . R. E. Honig, *bibliog J Chem Phys* 16:837-8 Ag '48

Energy of H_2^+ and H_3^+ by the method of molecular orbitals. R. G. Pearson, *J Chem Phys* 16:502-4 My '48

Magnetic exchange moment for He^3 and He^4 . H. L. Anderson, *bibliog Phys R* 73:919-20 Ad 15 '48

Magnetic moment of H^3 and He^3 in the Møller-Rosenfeld theory of nuclear forces. A. Thellung and F. Villars, *Phys R* 73:924-5 Ap 15 '48

Relative nuclear moments of H^1 and H^3 . F. Bloch and others, *bibliog Phys R* 72:1125-6 D 1 '47

See also

Deuterium
Tritium

Manufacture

Hydrogen and synthesis gas production; hydrocarbon-steam process. R. M. Reed and A. Eriksen, *flow diag il Pet Eng* 20:278-9 O '48; Same, *Pet Processing* 3:1011-12-1 O '48

Hydrotol hydrogen manufacture, *flow diag Oil & Gas J* 46:161 Ap 1 '48

Oxygen in the production of hydrogen or synthesis gas; Winkler, Koppers, Lurgi, Thyssen-Galocsy and Leuna processes. L. L. Newman, *bibliog flow diag il diags Ind & Eng Chem* 40:559-82 Ap '48

Production of hydrogen and synthesis gas by the oxygen gasification of solid fuel. C. C. Wright, K. M. Barclay and R. F. Mitchell, *bibliog il diags Ind & Eng Chem* 40:592-600 Ap '48

Refractory problems in production of hydrogen by pyrolysis of natural gas. R. E. Wright and H. I. Wolff, *il diags Am Cer Soc J* 31:31-8 F 1 '48

HYDROGEN, Liquid

Rate of evaporation of liquid hydrogen due to the ortho-para hydrogen conversion. A. H. Larsen and others, *bibliog diag R Sci Instr* 19:266-9 Ap '48

Sound absorption and velocity in liquefied argon, oxygen, nitrogen, and hydrogen. J. K. Galt, *bibliog diag J Chem Phys* 16:505-7 My '48

HYDROGEN compounds

See also

Hydrides

Hydrocarbons

HYDROGEN cyanide. See Hydrocyanic acid

HYDROGEN fluoride. See Hydrofluoric acid

HYDROGEN halides

Hemihydrohalides of 3(α)-hydroxy steroids. V. R. Mattox, B. F. McKenzie and E. C. Kendall, *bibliog Am Chem Soc J* 70:2662-3 Ag '48

Kinetics of the photolysis of methyl iodide and the hydrogen halides. R. R. Williams, Jr. and R. A. Ogg, Jr, *bibliog diag J Chem Phys* 15:691-702 O '47

HYDROGEN ion concentration

Acidic properties of cotton cellulose and derived oxycelluloses; ion-exchange reactions with various cations. G. F. Davidson, *Textile Inst J* 39:T87-92 Mr '48

Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions. R. G. Bates, *bibliog J Res Nat Bur Stand* 39:411-17 N '47

Automatic pH control in water and industrial waste treatment. R. T. Sheen, *bibliog flow sheets il diags Ind & Eng Chem* 39:1433-9 N '47

Calculation of the pH of saturation of tricalcium phosphate. J. Green and J. A. Holmes, *bibliog Am Water Works Assn J* 39:1090-6 N '47

Carbon pH and structure in rubber compounding. H. A. Braendle and others, *bibliog India Rubber World* 119:57-62-4 O '48

Concentric glass electrode assembly for pH measurements. M. D. Cannon, *diags Science* 106:597 D 12 '47

Control of the pH of jams. C. L. Hinton, *il Soc Chem Ind J* 66:381-6 N '47

Definitions of pH scales. R. G. Bates, *Chem R* 42:1-61 *bibliog*(164 ref, p57-61) F '48

Effect of annealing and other heat treatments on the pH response of the glass electrode. D. Hubbard and G. F. Rynders, *bibliog J Res Nat Bur Stand* 40:105-12 F '48

Effect of hydrogen-ion concentration on the yeastlike phase of histoplasma capsulatum (Darling). F. W. Cross, *bibliog Pub Health Rep* 63:739-46 Je 4 '48

Electrolyte equilibria in relation to dry cell performance. N. C. Cahoon, *bibliog Electrochem Soc Trans* 92 (preprint 17):203-16 '47

Field test of corrosion inhibitor for low-pH flood water. J. N. Breston and K. Barton, *il Oil & Gas J* 46:91-2-4 D 6 '47

HYDROGEN ion concentration—Continued

- pH control of dyeing, R. B. Seymour and others, *bibliog* Am Dyestuff Rep 37:689-90 O 18 '48
- pH determination in condensate well waters, D. A. Shock, *il diag* World Oil 128:141-2 JI '48
- Hydrogen ion measurement in plating baths, J. B. Mohler and H. J. Sedusky, *il diag*s Metal Finishing 46:85-9+ Je '48
- pH scales may be standardized, Eng N 140:57 Ja 8 '48; Same, *Chem Age* (Lond) 57:645-6 N 15 '47; Same, *Franklin Inst* J 245:163-4 F '48; Same cond. *il Chem Ind* 62:990+ Je '48; Same, *Pulp & Pa of Can* 49:99 Je '48
- pH zones of import in water supply and sewage treatment practice; charts, *Water & Sewage Works* 95:R265 Ap '48
- Importance of pH control in wool processing, S. Mooradian and H. E. Millson, *Rayon* 29:83-5 Ag; 121-4 S; 92-4 O; 94-5 *bibliog*(p94) N '48
- Lactic fermentation and trace iron affect cracker quality, J. Micka, *bibliog* *il Food Ind* 20:34-9+ Ja '48
- Lecture demonstrations for general chemistry; chemical equilibrium; the common ion effect, C. H. Sorum, *J Chem Educ* 25:489-90 S '48
- Line-operated pH meter, *il R Sci Instr* 18:859-60 N '47
- Line-operated pH meter, H. S. Anker, *diag* *Electronics* 21:134 F '48
- Microdetermination of lead in biological material with dithizone extraction at high pH, J. Cholak, D. M. Hubbard and R. E. Burkey, *bibliog* *diag* *Anal Chem* 20:671-2 JI '48
- New pH indicator for titration of sodium carbonate; disodium 4,4'-bis(2-amino-1-naphthylazo)-2,2'-stilbenedisulfonate, M. Taras, *bibliog* *Anal Chem* 20:680-1 JI '48
- Observations on the pH and related properties of meat, E. C. Bate-Smith, *bibliog* *Soc Chem Ind J* 67:83-90 Mr '48
- Second dissociation constant of oxalic acid from 0° to 50° C, and the pH of certain oxalate buffer solutions, G. D. Pinching and R. G. Bates, *bibliog* *J Res Nat Bur Stand* 40:405-16 My '48
- Simple micro-beaker for use with the Beckman pH meter (model G), V. H. Dietz, *diag*s *Science* 108:338-9 S 24 '48
- Symposium on pH measurement, 79p pa \$1.50 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '47
- Universal hydrogen-ion indicator for chemistry demonstrations, H. J. Goeckel, *J Chem Educ* 25:258 My '48

HYDROGEN peroxide

- Action of hydrogen peroxide on symmetrical triketones, C. H. Hassall, *Chem Soc J* p50-2 Ja '48
- Concentrated hydrogen peroxide, M. E. Bretschger and E. S. Shanley, *il Electrochem Soc Trans* 92 (preprint 36):487-96 '47
- Density of aqueous hydrogen peroxide solutions, C. E. Huckaba and F. G. Keyes, *Am Chem Soc J* 70:2578-81 JI '48
- Flavonones and related compounds; the oxidation of 2'-hydroxychalcones with alkaline hydrogen peroxide, T. A. Geissman and D. K. Fukushima, *bibliog* *Am Chem Soc J* 70:1686-9 My '48
- Highly concentrated hydrogen peroxide; physical and chemical properties, E. S. Shanley and F. P. Greenspan, *bibliog* *il Ind & Eng Chem* 39:1536-43 D '47
- Mechanism of the reduction of oxygen at the air electrode, R. S. Weiss and S. S. Jaffe, *bibliog* *Electrochem Soc J* 93:128-41 Ap '48
- Oxidation of 2-hydroxyquinoxaline and its derivatives with hydrogen peroxide, G. T. Newbold and F. S. Spring, *Chem Soc J* p519-23 Ap '48
- Plastics for peroxide; Parke, Davis new 15-spout filler, *il Mod Packaging* 21:114-15 JI '48
- Role of hydrogen peroxide in the photochemical degradation of cotton sensitized by vat dyes and some metallic oxides, G. S. Egerton, *bibliog* *Textile Inst J* 39:T305-18 S '48

Ultraviolet absorption spectrum of hydrogen peroxide, R. B. Holt and others, *bibliog* *J Chem Phys* 16:225-9 Mr '48; Correction, *J Chem Phys* 16:638 Je '48

Analysis

Accuracy of estimation of hydrogen peroxide by potassium permanganate titration, C. E. Huckaba and F. G. Keyes, *bibliog* *diag* *Am Chem Soc J* 70:1640-4 Ap '48

Manufacture

High strength hydrogen peroxide, V. W. Slater and W. S. Wood, *bibliog* *diag* *Chem Age* (Lond) 59:279-82, 315-17, 351-3 Ag 28-S 11 '48

How the Germans made high-test H₂O₂, *il diag*s *Chem Eng* 55:102-7 Ag '48

Hydrogen peroxide process; production by electrolysis, *Chem Age* (Lond) 57:604 N 1 '47

New hydrogen peroxide plant; Laporte's building at Warrington, *il Chem Age* (Lond) 58:833-4 Je 19 '48

HYDROGEN selenide

Photochemistry of selenium; the photochemical oxidation of hydrogen selenide, D. J. G. Ives and R. W. Pittman, *diag* *Chem Soc J* p766-9 Je '48

HYDROGEN sulfide

Application of infra-red analysis to the study of the reaction of certain olefins with hydrogen sulphide, N. Sheppard and G. B. B. M. Sutherland, *Chem Soc J* p 1540-6 N '47

Effect of hydrogen sulphide in Winnipeg sewage, G. C. Laidlaw, *il Water & Sewage* 86:16-17+ O '48

Group separations in inorganic qualitative analysis; schemes based on sulphuretted hydrogen, F. R. M. McDonnell and C. L. Wilson, *Metallurgia* 38:115-17, 177-9 Je-JI '48

Hydrogen sulfide; killer that may not stink, H. H. Fawcett, *J Chem Educ* 25:511 S '48

Measurement of hydrogen sulphide in town gas, *il diag*s *Engineer* 185:264-5 Mr 12 '48

Phosphate desulphurization process; Shell development co. flow diag, *Pet Refiner* (Process Handbook ed) 27:278-9 sec 2 S '48

Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with mono-olefins, di-isoprenes, and rubber, R. F. Naylor, *Chem Soc J* p 1532-9 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; rubber vulcanization, G. F. Bloomfield, *Soc Chem Ind J* 67:14-17 Ja '48

Some bacteriological aspects of hydrogen sulfide production from sewage, H. Heukelekian, *Sewage Works J* 20:490-8 My '48

Stress-corrosion cracking of steels in the presence of sulphur compounds, W. P. Rees, *Engineering* 164:489-90 N 21 '47

Thermodynamic properties of hydrogen sulfide, J. R. West, *bibliog* *Chem Eng Prog* 44:287-92 Ap '48

Treating units eliminate H₂S from process gas, flow diag *il Pet Refiner* 27:117-19 Ag '48

Analysis

Determination of hydrogen sulfide in digester gas, F. E. Nussberger, *bibliog* *diag* *Sewage Works J* 20:499-501 My '48

Manufacture

Manufacture of hydrogen sulphide, L. M. Clark and H. M. Spittle, *bibliog* *Soc Chem Ind J* 67:5-10 Ja '48

Physiological effect

Two outbreaks of carbon disulfide poisoning in rayon staple fiber plants in Poland, E. A. Paluch, *J Ind Hygiene* 30:37-42 Ja '48

HYDROGENATION

Agitation in experimental rocking-type autoclaves, A. N. Hoffmann, J. B. Montgomery and J. K. Moore, *diag* *Ind & Eng Chem* 40:1708-10 S '48

Aminative reduction of ketones, L. Haskelberg, *Am Chem Soc J* 70:2811-12 Ag '48

HYDROGENATION—*Continued*

- Catalysts for hydrocarbon synthesis. C. H. Riesz and others. bibliog *Ind & Eng Chem* 40:718-22 Ap '48
- Catalytic hydrogenation of furan compounds. E. H. Wojcik. bibliog *Ind & Eng Chem* 40:210-16 F '48
- Catalytic hydrogenation of polyhydric phenols; the synthesis of *meso*-inositol, scyllitol and a new isomeric cyclitol. R. C. Anderson and E. S. Wallis. bibliog *Am Chem Soc J* 70:2931-5 S '48
- Catalytic hydrogenation process; Shell development co. flow diag *Pet Refiner* (Process Handbook ed) 27:120-1 sec 2 S '48
- Cleavage of benzyl ethers with hydrogen. R. H. Baker, K. H. Cornell and M. J. Cron. bibliog *Am Chem Soc J* 70:1490-2 Ap '48
- Coal hydrogenation; abstract. C. A. Scarlott. *Mech Eng* 69:931-2 N '47
- Comparison of nickel catalysts in the hydrogenation of β -naphthol. H. Adkins and G. Krsek. *Am Chem Soc J* 70:412 Ja '48
- Controlled hydrogenation of polyalkylphenols. A. C. Whitaker. bibliog *Am Chem Soc J* 69:2414-15 O '47
- Effect of ratio of catalyst and other factors upon the rate of hydrogenation. H. Adkins and H. R. Billica. *Am Chem Soc J* 70:3118-20 S '48
- French hydrogenation and fractionation; varied yields of low temperature processes; abstract. L. Thibaut. *Chem Age (Lond)* 59:85-6 Jl 17 '48
- Hydrdiethylstilbestrol compounds; racemic octahydro compounds. H. E. Ungnade and A. Ludusky. bibliog *Am Chem Soc J* 69:2629-32 N '47
- Hydrogenation of esters to alcohols at 25-150°. H. Adkins and H. R. Billica. bibliog *Am Chem Soc J* 70:3121-5 S '48
- Hydrogenation of esters to alcohols over Raney nickel. H. Adkins and A. A. Pavlic. bibliog *Am Chem Soc J* 69:3039-41 D '47
- Hydrogenation of *m*- and *p*-hydroxybenzoic acid. R. H. Levin and J. H. Pendergrass. bibliog *Am Chem Soc J* 69:2436-8 O '47
- Hydrogenation of phenolic acids. H. E. Ungnade and F. V. Morriss. bibliog *Am Chem Soc J* 70:1898-9 My '48
- Hydrogenation products of furfural. R. Paul. *Chem Age (Lond)* 57:794-7 D 20 '47
- Italian work on butadiene; selective hydrogenation of di-olefins. *Chem Age (Lond)* 57:816+ D 27 '47
- Lanosterol; hydrogenation of the inert double bond in lanosterol derivatives. C. Dorée, J. F. McGhie and F. Kurzer. *Chem Soc J* p988-90 Jl '48
- Low pressure reductive alkylation method for the conversion of ketones to primary amines. E. R. Alexander and A. L. Misegades. *Am Chem Soc J* 70:1315-16 Ap '48
- Low-temperature carbonization of coal produced most of Japs' synthetic oil. C. S. Goddin and D. P. Thornton, jr. *il Pet Processing* 3:121-24 F '48
- Mass spectrometric and infra-red study of rates of deuterium exchange, isomerization, and hydrogenation of the *n*-butenes. V. H. Dibeler and T. I. Taylor. *J Chem Phys* 16:1008-9 O '48
- Mercury (Pp) photo-sensitized hydrogenation of ethylene. D. J. LeRoy and A. Kahn. bibliog *J Chem Phys* 15:816-19 N '47
- Mercury photosensitized hydrogenation of propylene. W. J. Moore. bibliog *J Chem Phys* 16:916-19 S '48
- New hydrogenation equipment; rapid hardening of edible oils. *il Chem Age (Lond)* 58:815 Je 12 '48
- New xylidine process revealed. R. J. DeLarge and others. *il diag Chem Eng* 55:124-6 O '48
- Preparation of Raney nickel catalysts and their use under conditions comparable with those for platinum and palladium catalysts. H. Adkins and H. R. Billica. bibliog *diags Am Chem Soc J* 70:695-8 F '48
- Production of high cetane number Diesel fuels by hydrogenation. J. A. Tilton, W. M. Smith and W. G. Hockberger. bibliog *Ind & Eng Chem* 40:1269-73 Jl '48
- Production of 2-methylfuran by vapor-phase hydrogenation of furfural. L. W. Burnette and others. bibliog *diags Ind & Eng Chem* 40:502-5 Mr '48
- Production of xylidines by high pressure hydrogenation. A. Voorhies, jr., W. M. Smith and R. E. Mason. *il plan Ind & Eng Chem* 40:1543-8 Ag '48
- Production of xylidines by high pressure hydrogenation; process development. C. L. Brown, W. M. Smith and W. G. Scharmann. bibliog *diags Ind & Eng Chem* 40:1538-42 Ag '48
- Production of xylidines by high pressure hydrogenation; quality and performance characteristics. J. F. Kunc, jr., W. C. Howell, jr. and C. E. Starr, jr. bibliog *Ind & Eng Chem* 40:1530-8 Ag '48
- Review of development of processes for synthesis of liquid fuels by hydrogenation of carbon monoxide. H. H. Storch. bibliog *flow diag Chem Eng Prog* 44:469-80 Je '48
- Solvation and hydrogenation of coal. M. Orchin and H. H. Storch. bibliog *Ind & Eng Chem* 40:1385-9 Ag '48
- Some recent advances in catalysis; detoxication of catalyst poisons. E. B. Maxted. bibliog *Soc Chem Ind J* 67:93-7 Mr '48
- Studies on lignin and related compounds; high pressure hydrogenation of maple wood. J. M. Pepper and H. Hibbert. bibliog *Am Chem Soc J* 70:67-71 Ja '48
- Studies on lignin and related compounds; high pressure hydrogenation of maple wood; hydrol lignin. C. P. Brewer, L. M. Cooke and H. Hibbert. bibliog *Am Chem Soc J* 70:57-9 Ja '48
- Studies on lignin and related compounds; hydrogenation of dimers related to lignin. S. B. Baker and H. Hibbert. *Am Chem Soc J* 70:63-7 Ja '48
- 1-Thiosorbitol. M. W. Farlow and others. *Am Chem Soc J* 70:1392-4 Ap '48
- Use of dissociated ammonia for hydrogenation; abstract. A. Van de Erve, W. A. Jacob and R. A. Bates. *Soap & San Chem* 23:33 N '47
- Vanadium oxide; a hydrogenation catalyst. V. I. Komarewsky, L. B. Bos and J. R. Coley. bibliog *Am Chem Soc J* 70:428-30 Ja '48

See also

Dehydrogenation
Fischer-Tropsch
process

HYDROGENOLYSIS

Hydrogenolysis of aromatic esters to alcohols. R. Mozingo and K. Folkers. bibliog *Am Chem Soc J* 70:229-31 Ja '48

Hydrogenolysis of β -oxygenated esters to glycols. R. Mozingo and K. Folkers. bibliog *Am Chem Soc J* 70:227-9 Ja '48

HYDROGRAPHIC surveying

See also

Sounding

Bibliography

Annotated bibliography of marine geophysical and geological surveys. R. A. Geyer. *Geol Soc Bul* 69:671-95 Jl '48

HYDROLYSIS

Acid hydrolysis of egg albumin; kinetic studies. H. B. Bull and J. W. Hahn. bibliog *Am Chem Soc J* 70:2128-31 Je '48

Acid hydrolysis of egg albumin; molecular weight distribution of peptides. H. B. Bull and J. W. Hahn. *Am Chem Soc J* 70:2132-5 Je '48

Butanol-acetone fermentation of wood sugar. R. H. Leonard, W. H. Peterson and G. J. Ritter. bibliog *Ind & Eng Chem* 39:1443-5 N '47

Butoxychlorosilanes; hydrolysis and condensation. R. K. Iler. bibliog *Ind & Eng Chem* 39:1384-8 N '47

Carbohydrate sulphuric esters; production of a derivative of 5:6-anhydroglucose by the hydrolysis of a sulphate. R. B. Duff and E. G. V. Percival. *Chem Soc J* p 1675-8 D '47

Cellulose intercrystalline structure; study by hydrolytic methods. R. F. Nickerson and J. A. Habrie. bibliog *Ind & Eng Chem* 39:1507-12 N '47

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon. P. C. Mehta and E. Pacsu. bibliog *diags Textile Res J* 18:387-95 Jl '48

HYDROLYSIS—Continued

- Chemical engineering unit processes; hydration and hydrolysis. W. J. Tapp. bibliog (87 ref) *Ind & Eng Chem* 40:1619-23 S '48
- Continuous hydrolysis of corn starch. J. E. Dlouhy and A. Kott. *diag Chem Eng Prog* 44:399-404 My '48
- Conversion of corn amylpectin by barley malt enzymes. T. M. Back, W. H. Stark and C. C. Vernon. bibliog *Ind & Eng Chem* 40:80-4 Ja '48
- Degradation of the fermentation lactobacillus casei factor. E. L. R. Stokstad, B. L. Hutchings and others. bibliog *Am Chem Soc J* 70:5-13 Ja '48
- Determination of tetraethyl pyrophosphate in mixtures of ethyl phosphate esters. M. N. Dvornikoff and H. L. Morrill. *Anal Chem* 20:935-6 O '48
- Fermentable sugars from unfermented reducing substances in cane molasses. C. Erb and F. W. Zerban. bibliog *diag Ind & Eng Chem* 39:1597-602 D '47
- Further studies of the action of pancreatic amylase; extent of hydrolysis of starch. R. B. Alfin and M. L. Caldwell. bibliog *Am Chem Soc J* 70:2534-9 Jl '48
- Hydrolysis of fluoboric acid in aqueous solution. C. A. Wamser. bibliog *Am Chem Soc J* 70:1209-15 Mr '48
- Hydrolysis of some β -alkoxypropionitriles. R. V. Christian, jr. and R. M. Hixon. bibliog *Am Chem Soc J* 70:1333-6 Ap '48
- Hydrolysis of steroid esters on activated alumina. W. Dasler. *Science* 107:369 Ap 9 '48; Discussion, 108:82 Jl 23 '48
- Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. E. Harris and B. G. Lang. bibliog *J Phys & Colloid Chem* 51:1430-41 N '47
- Improvements in the acid-hydrolysis method of determining the crystallinity of cellulose. M. L. Nelson and C. M. Conrad. bibliog *Textile Res J* 18:149-54 Mr '48
- Kinetics of anionotropic rearrangement; the simultaneous rearrangement and hydrolysis of propenylethynylcarbinyl acetate; general discussion of the mechanism of anionotropy and a comparison of the mobility of the hydroxyl and the acetoxy group. E. A. Braude. *diag Chem Soc J* p794-804 Je '48
- Kinetics of the hydrolysis of ethyl thioacetate in aqueous acetone. J. R. Schaeffgen. *Am Chem Soc J* 70:1308-11 Ap '48
- Low temperature hydrolysis of commercial proteins. E. J. Bird and L. J. Minor. bibliog *J Food Ind* 20:216-18 F '48
- Mechanism of the alkaline cleavage of β -ketoalkylpyridinium salts. R. G. Pearson and R. L. Dillon. bibliog *Am Chem Soc J* 70:1933-6 My '48
- Role of neighboring groups in replacement reactions; rates and medium effects in the alcoholysis and hydrolysis of α -bromopropionate ion; the carboxylate ion group. E. Grunwald and S. Winstein. bibliog *Am Chem Soc J* 70:841-6 F '48
- Role of neighboring nitrogen atom in the displacement reaction; rearrangement in the hydrolysis of 1-diethylamino-2-chloropropane. S. D. Ross. bibliog *Am Chem Soc J* 69:2982-3 D '47
- HYDROMECHANICS**
- British hydromechanics research association. *Engineering* 164:469-70 N 14 '47
- Civil engineers share knowledge of fluid mechanics with many related professions; A.S.C.E. committee on fluid mechanics of the Hydraulics division. H. Rouse. *il Civil Eng* 17:37-9+ D '47
- HYDROPEROXIDES.** See Peroxides
- HYDROPHONE**
- Hydrophone suspension system. D. C. Garland and C. H. Tindal. *il diags Acoustical Soc Am J* 20:293-6 My '48
- HYDROPONICS.** See Plants—Soilless culture
- HYDROQUINONE**
- Hydroquinone derivatives. *Chem Eng* 55:176+ Ja '48
- Structure of molecular compounds; the clathrate compound of quinol and methanol. D. E. Palin and H. M. Powell. *diag Chem Soc J* p571-4 My '48
- Structure of molecular compounds; the β -type clathrate compounds of quinol. D. E. Palin and H. M. Powell. *diags Chem Soc J* p815-21 Je '48
- Tannins and allied chemicals in mercaptan removal processes. J. Happel and S. P. Cauley. bibliog flow diag *Ind & Eng Chem* 39:1655-9 D '47
- HYDROSTATICS**
- Effects of hydrostatic pressure on electron flow in diodes. W. C. Hahn. *Inst Radio Eng Proc* 36:1115-21 S '48
- Significance of pore pressure in hydraulic structures. L. F. Harza. *diags Am Soc C E Proc* 73:1507-28 D '47; Discussion, 74:973-84, 1185-209, 1369-74 Je-O '48
- HYDROSULFITES**
- Stripping of dyed textiles by the use of hydrosulphite compounds. J. Starkie. *Soc Dyers & Col J* 63:340-3 N '47
- HYDROSULFOSOL**
- Use of hydrosulphosol (sulphydryl) in the treatment of chemical and/or thermal burns of the eyes. H. S. Kuhn. bibliog *Ind Med* 17:347-50 S '48
- HYDROTHERMAL differentiation.** See Ore deposits
- HYDROTROPY**
- Chemical copula; sodium xylenesulfonate joins incompatible substances. *Chem Ind* 62:741-2 My '48
- HYDROXYACETYL FURAN**
- 2-Hydroxyacetylfuran. F. Kipnis, H. Soloway and J. Ornfeldt. *Am Chem Soc J* 70:142-3 Ja '48
- HYDROXY acids**
- Hydroxylated stearic acids; the periodate oxidation of the 9,10-dihydroxystearic acids and the 1,9,10-trihydroxyoctadecanes. H. Witteoff, O. A. Moe and M. H. Iwen. bibliog *Am Chem Soc J* 70:742-4 F '48
- HYDROXYALDEHYDES.** See Aldehydes
- HYDROXYAMIDES**
- N,N-Dialkyl- β -hydroxyamides via the Reformatsky reaction. N. L. Drake, C. M. Eaker and W. Shenk. bibliog *Am Chem Soc J* 70:677-80 F '48
- Hydroxyalkylamides of 4-arsonophenoxy- and 4-arsonoanilinoacetic acids. C. K. Banks and others. bibliog *Am Chem Soc J* 70:738-9 F '48
- HYDROXYBENZENEARSONIC acid**
- Derivatives of 3-amino-4-hydroxybenzenearsonic acid. L. A. Sweet and others. bibliog *Am Chem Soc J* 69:2258-9 O '47
- HYDROXYBENZOIC acid**
- Esters of 4-hydroxybenzoic acid and related compounds; esters of 4-hydroxybenzoic acid and their *n*-alkyl esters. G. W. K. Cavill and N. A. Gibson. *Soc Chem Ind J* 66:274 Ag '47
- Hydrogenation of *m*- and *p*-hydroxybenzoic acid. R. H. Levin and J. H. Pendergrass. bibliog *Am Chem Soc J* 69:2436-8 O '47
- Hydrogenation of phenolic acids. H. E. Ungnade and F. V. Morris. bibliog *Am Chem Soc J* 70:1398-9 My '48
- HYDROXYBENZOIC acid, Ortho.** See Salicylic acid
- HYDROXYBIPHENYLCARBOXYLIC acid**
- Colorimetric determination of iron with 4-hydroxybiphenyl-3-carboxylic acid. J. H. Yoe and A. E. Harvey, jr. bibliog *Am Chem Soc J* 70:648-54 F '48
- HYDROXYCHALCONE**
- Flavonones and related compounds; the oxidation of 2'-hydroxychalcones with alkaline hydrogen peroxide. T. A. Geissman and D. K. Fukushima. bibliog *Am Chem Soc J* 70:1686-9 My '48
- HYDROXYCHOLENIC acid**
- Steroid acids and their transformation products; desulfurization of thiol esters of 3(β)-hydroxy-5-choleonic and -bisor-5-choleonic acids. A. V. McIntosh, jr., E. M. Meinzer and R. H. Levin. bibliog *Am Chem Soc J* 70:2955-8 S '48
- HYDROXY compounds**
- Aliphatic nitro-compounds; condensation of hydroxymethylalkylamines with nitroparaffins. A. Lambert and J. D. Rose. *Chem Soc J* p 1511-13 N '47
- Chemistry of epoxy compounds; preparation of some hydroxy-ethers from 9,10-epoxystearic acid and 9,10-epoxyoctadecanol. D. Swern, G. N. Billen and J. T. Scanlan. *Am Chem Soc J* 70:1226-8 Mr '48
- Cyclization of δ -hydroxyacetals. W. E. Parham. bibliog *Am Chem Soc J* 69:2449-51 O '47

HYDROXY compounds—Continued

Dihydroxyprogallo, a new ene-diol and its oxidation product; 1,2,3-cyclohexanetriene dihydrate; ketonic isomer of pyrogallol. B. Pecherer, L. M. Jampolsky and H. M. Wuest, bibliog Am Chem Soc J 70:2587-9 J1 '48

Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds. W. H. Lemon, bibliog Am Chem Soc J 69:2998-3000 D '47

Hemihydrohalides of 3(α)-hydroxy steroids. V. R. Mattox, B. F. McKenzie and E. C. Kendall, bibliog Am Chem Soc J 70:2662-3 Ag '48

Hydroxymethyl derivatives of phenols. I. W. Ruderman, bibliog Am Chem Soc J 70:1662-3 Ap '48

Studies on the mechanism of the Cannizzaro reaction; hydroxy and amino aldehyde derivatives. E. R. Alexander, Am Chem Soc J 70:2592-4 J1 '48

HYDROXYCOUMARIN

Chemistry of the insoluble red woods; a new synthesis of 4-hydroxycoumarins. J. Boyd and A. Robertson, Chem Soc J p 174-6 F '48

HYDROXYEQUILENONE

Synthesis of 3-hydroxy-16-equilenone, a structural isomer of equilenin. A. L. Wilds and W. J. Close, bibliog Am Chem Soc J 69:3079-83 D '47

HYDROXYETHYLAMIDES

Biosynthesis of penicillins: N-2-hydroxyethylamides of some polycyclic and heterocyclic acetic acids as precursors. R. G. Jones and others, bibliog Am Chem Soc J 70:2843-8 S '48

Biosynthesis of penicillins; substituted phenylacetic acid derivatives as penicillin precursors. J. W. Corse and others, bibliog Am Chem Soc J 70:2837-43 S '48

HYDROXYETHYLMORPHINE

Hydroxyethylmorphine. W. W. Carlson and L. H. Cretcher, Am Chem Soc J 70:2284 Jc '48

HYDROXYFORMANILIDE

Reduction of *p*-hydroxyformanilide by lithium aluminum hydride to *N*-methyl-*p*-aminophenol. J. Ehrlich, Am Chem Soc J 70:2286-7 Jc '48

HYDROXYISOBUTYRONITRILE

Acetone cyanohydrin. Chem Eng 55:176 F '48

HYDROXYKETONES. See Ketones**HYDROXYKETOPREGNANE**

New method for the preparation of 17(α)-hydroxy-20-ketopregnanes. L. H. Sarett, bibliog Am Chem Soc J 70:1454-8 Ap '48

HYDROXYMETHYL CINNOLINE

Cinnolines; 4-hydroxy-3-methylcinnolines. J. R. Keneford and J. C. E. Simpson, Chem Soc J p354-8 Mr '48

HYDROXYMETHYLFURFURAL

Chemical interactions of amino compounds and sugars; the conversion of *D*-glucose to 5-(hydroxymethyl)-2-furaldehyde. M. L. Wolfrom, R. D. Schuetz and L. F. Cavaliere, bibliog Am Chem Soc J 70:514-17 F '48

Role of 5-(hydroxymethyl)-furfural in the discoloration of sugar solutions. B. Singh, G. R. Dean and S. M. Cantor, bibliog Am Chem Soc J 70:517-22 F '48

HYDROXYMETHYLPHTHALIMIDE

Purification of *N*-hydroxymethylphthalimide through a molecular compound with pyridine. E. J. Sakellarios, Am Chem Soc J 70:2822 Ag '48

HYDROXYNAPHTHOIC acid

Esters of 1-hydroxy-2-naphthoic acid, and naphthol-blue dyes therefrom. M. Planka and H. C. Barany, Chem Soc J p309-10 Mr '48

HYDROXYPHENYLACETIC acid

Hydrogenation of phenolic acids. H. E. Ungnade and F. V. Morriss, bibliog Am Chem Soc J 70:1898-9 My '48

Preparation of *o*-hydroxyphenylacetic acid. J. Levine, T. E. Eble and H. Fischbach, bibliog Am Chem Soc J 70:1930 My '48

HYDROXYPROPYLPYPERIDINE

Convenient synthesis of octahydroxyprocaine and 2-(*γ*-hydroxypropyl)-piperidine. V. Boekelheide and S. Rothchild, Am Chem Soc J 70:3864 F '48

HYDROXYQUINOLINE

Application of Pfitzinger reactions to the synthesis of quinoline derivatives; a novel route to 4-hydroxyquinolines. Buu-Hoi and R. Royer, Chem Soc J p 106-10 F '48

Chemistry of 4-hydroxyquinolines. R. H. Reitsema, Chem R 43:43-68 bibliog (190 ref, p64-8) Ag '48

Concentration methods in spectrographic analysis; recovery of trace constituents in plant materials and soil extracts by mixed organic reagents. R. L. Mitchell and R. O. Scott, Soc Chem Ind J 66:330-6 S '47

Ionization constants of some substituted 8-hydroxyquinolines. J. P. Phillips and L. L. Merritt, Jr, bibliog Am Chem Soc J 70:410-11 Ja '48

Preparation of 4-hydroxyquinoline derivatives from aromatic amines and ethyl ethoxymethylenemalonate. G. B. Duffin and J. D. Kendall, Chem Soc J p893-4 Jc '48

Reactions of β-keto esters with aromatic amines; syntheses of 2- and 4-hydroxyquinoline derivatives. C. R. Hauser and J. A. Reynolds, Am Chem Soc J 70:2402-4 J1 '48

HYDROXYQUINOXALINE

Oxidation of 2-hydroxyquinoxaline and its derivatives with hydrogen peroxide. G. T. Newbold and F. S. Spring, Chem Soc J p519-23 Ap '48

HYDROXYTETRONIC acid

Studies on the reactions between formaldehyde and enediols. F. J. Reithel and E. S. Wiest, bibliog Am Chem Soc J 70:898-900 Mr '48

HYDROXYTHIONAPHTHENE

Formation of hydroxythionaphthens by the interaction of benzenesulphonylbenzothiazolone and substances containing a reactive methylene group. A. W. H. Barton and E. W. McClelland, Chem Soc J p 1574-8 D '47

HYDROXYL group

Alpha- and beta-hydroxyls of glycerol in preparation of alkyl resins. H. A. Goldsmith, bibliog Ind & Eng Chem 40:1205-11 J1 '48

Steroids and the Walden inversion; (a) derivatives of 6-ketocholestanol; (b) a direct proof of the stereochemical orientation of the hydroxyl group in cholesterol. C. W. Shoppee, pt Chem Soc J p 1032-43 J1 '48

Analysis

Determination of hydroxyl groups in organic compounds. B. L. Johnson, bibliog diag Anal Chem 20:777-8 Ag '48

Determination of primary hydroxyl groups in cellulose acetate by tosylation and iodination. C. J. Malm, L. J. Tanghe and B. C. Laird, bibliog Am Chem Soc J 70:2740-7 Ag '48

Determination of the alcoholic hydroxyl group in organic compounds; phthalic anhydride method. P. J. Elving and B. W. Showsky, bibliog Anal Chem 19:1006-10 D '47

HYDROXYLAMINE

Hydroxylamine method of determining penicillins. J. H. Ford, bibliog Anal Chem 19:1004-6 D '47

Ketoxime-*O*-sulfonic acids. P. A. S. Smith, bibliog Am Chem Soc J 70:323-6 Ja '48

New synthesis of *O*-substituted hydroxylamines. P. Truitt, L. M. Long and M. Mattison, Am Chem Soc J 70:2829 Ag '48

HYDROXYLAMINE hydrochloride

Optimum conditions for titrimetric determinations; determination of acetone. W. B. Huckabay, C. J. Newton and A. V. Mettler, bibliog Anal Chem 19:838-41 N '47

HYDROXYLATION

Hydroxylated stearic acids; action of Prévost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids. H. Witteoff and S. E. Miller, bibliog Am Chem Soc J 69:3133-9 D '47

Hydroxylated stearic acids; the periodate oxidation of the 9,10-dihydroxystearic acids and the 1,9,10-trihydroxystearic acids. H. Witteoff, O. A. Moe and M. H. Iwen, bibliog Am Chem Soc J 70:742-4 F '48

Hydroxylation of 2,3-dihydroxypropan and the application of desoxyaldopentoses in the Browning reaction. C. D. Hurd and C. D. Kelso, bibliog Am Chem Soc J 70:1484-6 Ap '48

HYGIENE

Doctor looks at executive deaths. I. H. Page. Am Bsns 17:23+ J1 '47; Excerpts. Management R 36:623-4 D '47
 Summer tyrants; heat and humidity. Nat Safety N 57:28+ My '48

See also

Air pollution	Physical examinations
Diet	Public health
Disinfection and disinfectants	Sickness
Fatigue	Temperature—
Food	Physiological effect
Hot weather	Ventilation
Mental hygiene	Water pollution
Nutrition	Water purification
	Water supply

HYGIENE, Industrial

Better place to work; hygiene safety and medical service, American brake shoe co.; abstracts. W. B. Given, Jr. Foundry 76:71+ F '48; Ind Med 16:592-5 D '47; Safety Eng 95:52-3+ Ja '48; Factory Management 106:236+ F '48; Advanced Management 13:33-7 Mr '48
 Cleanliness roundup; excerpts from various papers dealing with dermatoses, cleanliness, and industrial sanitation. Safety Eng 95:24-6+ My '48
 Comparative relationship of medical, nursing and safety personnel in industry. R. T. Collins. Ind Med 17:295-6 Ag '48
 Control of solvent exposures. E. C. Barnes. Nat Safety N 57:20-1+ Ja '48
 Correlated health program. J. N. Porter. Safety Eng 96:59-60 J1 '48
 Current official industrial hygiene activities. J. J. Bloomfield. Ind Med 17:187-90 My '48
 Dental relations in a state industrial hygiene program. E. R. Aston. Ind Med 17:21-3 Ja '48
 Dust chasers; installation of industrial hygiene laboratory by Bethlehem steel co. il Safety Eng 95:63-4 My '48; Same. Steel 122:110+ Je 14 '48; Same. plan Nat Safety N 57:22-3+ My '48
 Educational program controls dermatitis; West Allis plant of the Allis-Chalmers mfg. co. W. F. Scholtz. il Am Mach 91:106-8 N 20 '47
 General Motors health maintenance program. H. W. Anderson. Ind Med 17:61-4 F '48
 Health examinations of industrial executives; a statistical analysis. E. F. Lutz. Ind Med 17:65-9; Discussion. 70-1 F '48
 Health of workers exposed to sodium fluoride at open hearth furnaces. (Pub. health bul. 299) 64p U.S. Public health service, Washington; pa. 25c Suppl. of doc. '48
 Health safeguards in industry; 9th International congress on industrial medicine, Sept. 13-17. Chem Age (Lond) 59:418-19+ S 25 '48
 Les huiles d'antracène; utilisation et hygiène professionnelle. R. Barthe. Chimie & Ind 58:439 N '47
 Hygiene concerned with jobs. R. E. Moser. Safety Eng 94:49 D '47
 Hygiene in the small plant. W. A. Cook. Nat Safety N 58:31+ S '48
 Illness absenteeism in manufacturing plants, 1947. F. S. McElroy and A. Moros. Mo Labor R 67:235-9 S '48
 Industrial health and hygiene; review 1947. H. H. Steinberg. bibliog(67 titles) Ind Med 17:105-15 Ap '48
 Industrial hygiene and medicine; tomorrow measured by today. C. R. Walmer. Ind Med 17:333-6 S '48
 Industrial hygiene for the supervisor. A. D. Hosey. Safety Eng 94:47-8 D '47
 Industrial hygiene foundation of America 12th annual meeting, Pittsburgh, Nov. 19-21; abstracts of proceedings. Ind Med 17:135-51 Ap '48
 Industrial hygiene services available to industry from U.S. Public health service. Chem Ind 62:812 My '48
 Industrial hygienist takes a walk; plant inspection methods. R. L. Gade. Safety Eng 95:70-1 Mr '48
 Industrial hygienists discuss radiation hazards at 9th annual meeting, Boston, March 30-April 1. Chem & Eng N 26:1074-5 Ap 12 '48

Industrial medicine and hygiene; abstracts of proceedings of industrial health meetings at Boston, March 27-April 4. Ind Med 17:225-32 Je '48
 Industry's interest in health and safety services. H. W. Schwartz. Ind Med 17:287-9 Ag '48
 Industry's part in venereal disease control. H. M. Soloway. Nat Safety N 56:28-9+ N '47
 Orienting the new employee in the services of the industrial health department. J. S. Felton. il Ind Med 16:519-25 N '47
 Our ageing workers; program to keep older people productive. A. A. Morey. Nat Safety N 57:24-5+ My '48; Same cond. Safety Eng 95:11-12+ My '48
 Practical experiences with dangers and illnesses from plastics. C. S. McKinley. Ind Med 16:432-4 S '47; Same cond. il diags Safety Eng 94:14-16+ D '47
 Recognition and control of fume and dust exposure. V. J. Castrop. il Nat Safety N 57:20-1+ F '48
 Report of Industrial hygiene foundation 12th annual meeting. W. R. Bradley. Chem & Eng N 25:3724-5 D 15 '47
 Safety congress features hygiene. Safety Eng 94:53-4 N '47
 Serological tests for industrial workers. W. Clarke. Ind Med 16:567-9 D '47
 Sickness absenteeism among industrial workers, first and second quarters of 1947. W. M. Gafafer. Pub Health Rep 62:1773-4 D 19 '47
 Sickness absenteeism among industrial workers, third and fourth quarters of 1947; trend of disabling morbidity, 1938-47. W. M. Gafafer. Pub Health Rep 63:689-92 My 21 '48
 Sickness absenteeism among male and female industrial workers, 1937-46, inclusive. W. M. Gafafer. Pub Health Rep 62:1538-41 O 24 '47
 Skin; the fragile element in industrial production. G. E. Morris. Ind Med 17:213-15 Je '48
 Studies on the duration of disabling sickness; duration table for specific causes of disability among male workers. W. M. Gafafer and others. bibliog Pub Health Rep 63:901-23 J1 9 '48
 Study of the health hazards of the tobacco stemming and redrying industry. W. E. McCormick and others. bibliog flow sheet il J Ind Hygiene 30:43-52 Ja '48
 Survey of eating habits; American can co. Hamilton, Ontario, plant. Ind Med 17:283-6 Ag '48
 Trends in industrial health administrative practices; abstracts. C. O. Sappington. Management R 36:649-50 D '47; Ind Med 17:sup 18-19 F '48
 University serves industry in controlling health hazards; Division of industrial medicine at the University of Colorado medical center. il Nat Safety N 57:26-7 Je '48
 Unusual uses for vacuum cleaning. il Safety Eng 96:87-92+ O '48
 Vision in industry; abstract. H. S. Kuhn. Nat Safety N 57:44-5 Ap '48

See also

Air sampling	Medical service, Industrial
Benzene poisoning	Mental hygiene, Industrial
Coal miners—Diseases and hygiene	Miners—Diseases and hygiene
Cold (disease)	Noise
Dental service, Industrial	Nurses and nursing, Industrial
Diseases, Industrial	Physical examinations
Dust removal	Posture
Electric welding	Rest periods
Arc—Hygienic aspects	Safety devices and measures
Eye—Examination	Solvents—Physiological effect
Factories—Cleanliness	Temperature—Physiological effect
Factory sanitation	Welding—Hygienic aspects
Fatigue	
Lavatories	
Lead poisoning	
Lunchrooms and cafeterias, Employees	
Lungs—Dust diseases	

HYGIENE, Industrial—Continued

Research

Results of Foundation field research. T. F. Hatch. *Il Ind Med* 17:141-3 Ap '48

Study and teaching

Industrial health education in Indiana; course in industrial medicine for junior medical students. L. W. Spolyar. *Ind Med* 17:57-8 F '48

HYGIENE, Military. See Military hygiene

HYGIENE, Naval. See Naval hygiene

HYGIENE, Rural

Physical impairments of members of low-income farm families; 11,490 persons in 2,477 rural families examined by the Farm security administration, 1940; variation of blood pressure and heart disease with age; and the correlation of blood pressure with height and weight. M. Gover. *Pub Health Rep* 63:1083-1101 bibliog(48 titles, p 1099-101) Ag 20 '48

HYGIENIC laboratories

Dust chasers; installation of industrial hygiene laboratory by Bethlehem steel co. *Il Safety Eng* 95:63-4 My '48; Same. *Steel* 122:110-1 Je 14 '48; Same. *plan Nat Safety N* 57:22-3+ My '48

HYGIROLOG process. See Hydrogen—Manufacture

HYGROMETERS

Electrical hygrometer. *Il Elec R (Lond)* 142: 982 Je 18 '48

Moisture measurement with an electronic dew point indicator. V. E. Suomi. *bibliog diag Instruments* 21:178-82 F '48

Testing

Divided flow, low-temperature humidity test apparatus designed primarily for testing radiosonde hygrometers. A. Wexler. *il diag J Res Nat Bur Stand* 40:479-86 Je '48

New humidity test apparatus. *il diag Refrig Eng* 56:415-16 N '48

HYGROSCOPIC adsorbents. See Adsorbents

HYGROSCOPICITY

Hygroscopicity of soda-lime-silica container glasses; abstract. F. R. Matson. *Glass Ind* 29:321 Je '48

HYLEAN Amazon institute

Future of the Amazon. P. van Dresser. *il map Sci Am* 178:11-15 My '48

HYPERBOLIC functions. See Functions, Exponential

HYPERCONJUGATION. See Conjugation (chemistry)

HYPERSORBERS

Ethylene recovery; commercial hypersorption operation. H. Kehde and others. *flow diag il diag Chem Eng Prog* 44:575-81 Ag '48; Excerpts. *Chem Eng* 55:280+ My; 264+ Je '48; Discussion. *Chem Eng Prog* 44:581-2 Ag '48

HYPERTENSION. See Blood pressure

HYPNOTICS

Derivatives of urethan; azamalonate esters. L. G. R. Tompkins and E. F. Degering. *bibliog Am Chem Soc J* 69:2616-18 N '47

HYPNOTISM

Prolonged hypnotic states with local signs induced in guinea pigs. W. T. Liberson. *il Science* 108:40-1 Jl 9 '48; Discussion. R. M. True. 108:436-7; Reply. 437 O 22 '48

HYPOBROMOUS acid

Photo-chemistry of some ions in solution. L. Farkas and F. S. Klein. *bibliog diag J Chem Phys* 16:386-93 S '48

HYPOCHLORITES

Hypochlorite solutions, stabilized with aromatic sulfonamides; patent. *Am Dyestuff Rep* 37:631 S 20 '48

Using hypochlorites. *il Pub Works* 79:36+ S '48

HYPOPHOSPHOROUS acid

Studies on the mechanism of the deamination of diazonium salts with hypophosphorous acid. E. R. Alexander and R. E. Burge. *Am Chem Soc J* 70:876-7 F '48

HYPOPROTEINEMIA

Studies on hypoproteinemia; lymphoid hyperplasia and redistribution of nitrogen caused in mice by transplanted tumors (sarcoma 180 and breast adenocarcinoma EO 771). F. Homburger. *bibliog Science* 107:648-9 Je 18 '48

HYPOTHALAMUS

Body temperature, blood pressure, and hypothalamus. S. Rodbard. *bibliog Science* 108:413-15 O 15 '48

HYSTERESIS

Alternating-current measurements of magnetic properties. H. W. Lamson. *diag Inst Radio Eng Proc* 36:266-77 F '48

HYSTERESIS (mechanics)

Hysteresis and heating in vulcanized rubber. S. Oberto and G. Palandri. *il diag Rubber Age* 63:725-34 S '48

Hysteresis, elastic modulus, and growth of tire cords under comparable loads. E. Honold and H. Wakeham. *bibliog Ind & Eng Chem* 40:131-4 Ja '48

Hysteresis of the contact angle. S. J. Gregg. *bibliog J Chem-Phys* 16:549-50 My '48

Measurement of hysteresis and dynamic elastic modulus of textile yarns and cords. G. Palandri. *il diag Rubber Age* 64:45-52 O '48

I

I. G. farbenindustrie. See Interessen gemeinschaft farbenindustrie aktiengesellschaft

IBEC technical services corporation

Mr Rockefeller implements engineering abroad. *Eng N* 140:387 Mr 11 '48

ICE

Effect of chipped ice packing on fresh kale preservation. M. Potgieter and C. Cowell. *bibliog Refrig Eng* 56:399-401+ N '48

Ice, how and when to use it in chemical processing; direct cooling in batch processes. E. Spencer. *il Chem Eng* 55:110-13 O '48

Ice slush cooling of dressed poultry. R. L. Bailey and others. *bibliog Refrig Eng* 55: 369-71 Ap '48

Natural way. *Fortune* 38:128+ S '48

Nuclear relaxation in ice at -180°C. G. E. Pake and H. S. Gutowsky. *bibliog Phys R* 74:979-80 O 15 '48

Production of ice crystals by the adiabatic expansion of gas. B. Vonnegut. *J Ap Phys* 19:959 O '48

Special ice-salt mixtures may lower refrigerator car temperatures. J. M. Carbert and W. H. Cook. *bibliog diag Refrig Eng* 55: 251-5+ Mr '48

Weather under control; Langmuir and Schaefer discover how to make it rain or snow. *il diag Fortune* 37:106-11+ F '48

What causes ice formation in food freezer insulation? E. W. Comings. *diag Refrig Eng* 55:156-9 F '48

See also
Airplanes—Ice protection
Cooling
Glacial geology
Glaciers
Ice breaking vessels
Ice on rivers, lakes, etc.
Refrigerating and refrigerating machinery
Roads—Ice control

Manufacture

Experiments with a new process for rapid and economical utilization of natural cold; abstract. S. Zimmermann. *Food Ind* 20: 1223 Ag '48

See also

Ice machines

ICE breaking vessels

Ice-breaking car ferry, Abegweit. *il Engineer* 184:489-90 N 21 '47

U.S.C.G. ice breaker, Mackinaw. *il diag Marine Eng* 52:106-7+ N '47

ICE caves

Desert ice caves. E. R. Harrington. *il Comp Air Mag* 53:7-9 Ja '48

ICE cream

Consumers prefer low overrun; ice cream tasting trial. *Food Ind* 19:1490+ N '47

Eye appeal for ice cream; Dean's color-coded cartons for self-service selling in food stores. *il Mod Packaging* 21:100-1 F '48

Ice cream in acetate. *il Mod Packaging* 22: 100-1 S '48

Packaged vs. bulk ice cream. *Mod Packaging* 21:246 Jl '48

ICE cream—Continued**Manufacture**

Lower operating costs in the ice cream plant. R. J. Ramsey. *il diag Food Ind* 20:1312-13+ S '48

Manufacture of ice cream. C. J. Bell. *diag Refrig Eng* 55:1-7 sec 2 Ja '48 [reprints 35c]

Testing

Observations on the proposed grading of ice cream by a methylene blue test. D. H. F. Claydon and D. G. Pirie. *bibliog Soc Chem Ind J* 67:147-50 Ap '48

ICE cream delivery

Trailers for curb sales; ice cream trucks replaced by specially designed tractor-trailer units. *il Food Ind* 20:560-1 Ap '48

ICE cream factories

Refrigeration in the dairy industry. R. J. Ramsey. *Refring Eng* 55:360-1 Ap '48; Same *abr. diags Food Ind* 20:686-7+ My '48

ICE cream industry**Advertising**

Consumer quiz wins driver-salesmen's support; Golden State's unionized salesmen Gold Rush contest. *Sales Management* 61: 54 S 1 '48

ICE cream manufacturers, International association of. See International association of ice cream manufacturers**ICE cream mixes**

Simple arithmetic cuts ice cream mix costs. N. A. Perry and C. D. Dahle. *il Food Ind* 20:1004-7 JI '48

ICE cream mixes, Dried

Powdered ice cream mix; dried mix is packed in metal cans. W. J. Corbett. *il diag Food Ind* 20:534-7 Ap '48

ICE industry

Natural way. *Fortune* 38:128+ S '48

ICE machines

Ice in mix preools concrete for dams; use of tube-ice machines. *il diag Comp Air Mag* 53:66-7 Mr '48

Ice in the mix; concrete plant at Fort Gibson dam. *il Constr Methods* 30:89-91 Ja '48

Tube ice machine. *il Pet Eng* 19:170 Ja '48

ICE on rivers, lakes, etc.

Blasting river ice in Michigan. A. D. Carsley. *il map diags Explosives Eng* 25:144-6+ S '47

Breakup can be foretold; method of forecasting opening dates of streams, rivers and lakes in relation to effective driving. M. J. Stankiewicz. *Pulp & Pa* of Can 48:118+ D '47

See also

ICE breaking vessels

See also

ICELAND
Motor bus lines—
Iceland**Economic policy**

Anti-inflation law. *For Comm W* 31:15 Ap 24 '48

ICHTHYOSAURIA

Ichthyosaur ancestors. A. S. Romer. *bibliog diags Am J Sci* 246:109-21 F '48

ICONOSCOPE

Television tubes by the thousands; manufacture of iconoscopes and kinescopes. F. E. Butler. *il Radio N* 38:39-42+ D '47

IDAHO

See also

Cobalt mines and mining—Idaho
Copper mines and mining—Idaho
Geology—Idaho
Lead mines and mining—Idaho

Mines and mineral resources—Idaho
Silver mines and mining—Idaho
Tungsten mines and mining—Idaho
Zinc mines and mining—Idaho

IDAHO power company

Common stock offered. *Comm & Fin Chr* 187:2030 My 10 '48

IDDLES, Alfred, 1889-

Portrait. *Bsns W* p77 Ap 24 '48

IDEAS in business

How to make a New idea department pay off; Speidel corp. P. Levinger. *il Sales Management* 59:102-3 N 20 '47

IDENTIFICATION of piping. See Piping—Identification**IDITOL**

Alcohols of the sugar group; 2,5-anhydro-L-iditol. L. Vargha, T. Puskás and E. Nagy. *bibliog Am Chem Soc J* 70:261-2 Ja '48

Anhydrides of polyhydrolic alcohols; 1:4-3:6-dianhydro-d- and l-iditol. L. F. Wiggins. *Chem Soc J* p 1403-5 O '47

IDLEWILD airport. See Airports—New York (city)**IGAMID**

Polyamides in Germany; preparation and applications. *Mod Plastics* 25:148-50+ Ap '48

IGEON T**Analysis**

Quantitative analysis of synthetic detergents; extension of Igepon T method to various agents containing the sulfonic acid group. D. A. Shiraef. *Am Dyestuff Rep* 37:411-14 Je 14 '48

IGNEOUS rocks. See Rocks, Igneous**IGNITION**

Accidental ignition of gas. A. W. Breeland. *Safety Eng* 94:36-40 D '47

Determination of ignition temperatures of combustible liquids and gases; modification of the drop method apparatus. G. S. Scott, G. W. Jones and F. E. Scott. *bibliog il diags Anal Chem* 20:233-41 Mr '48

Ignition and flame stabilization in gases. B. Lewis and G. von Elbe. *bibliog il diags A S M E Trans* 70:307-14; Discussion, 314-16 My '48

Ignition of n-butane by the spontaneous oxidation of zinc dimethyl. E. J. Badin, D. R. Walters and R. N. Pease. *Am Chem Soc J* 69:2586-8 N '47

Ignition qualities of hydrocarbons in the Diesel-fuel boiling range. A. D. Puckett and B. H. Caudle. *U S Bur Mines Information Circ* 7474:1-14 *bibliog*(p7-8) '48

Spontaneous ignition of nickel carbonyl vapor; the ignition of n-butane. E. J. Badin, P. C. Hunter and R. N. Pease. *bibliog Am Chem Soc J* 70:2055-6 Je '48

Two-stage ignition of higher hydrocarbons at atmospheric pressure. G. Friedlander and L. Grunberg. *bibliog diag Inst Pet J* 34:490-510 Ag 15 '48

Wall effects in the oxidation of boron triethyl vapor; ignition of n-butane. R. S. Brokaw, E. J. Badin and R. N. Pease. *bibliog Am Chem Soc J* 70:1921-2 My '48

See also

Electric ignition**IGNITRON**

Ignitron motor control for a printing press. *il diag Engineer* 186:161 Ag 13 '48

Ignitron valve; notes on operation under experimental conditions. H. D. Knight. *bibliog il diags J Sci Instr* 25:273-5 Ag '48

Ignitrons in broadcast service. H. E. Zuvers. *il diags Tele-Tech* 7:27-9+ Ap '48

Large electronic direct current motor drives. M. M. Morack. *bibliog il diags Iron & Steel Eng* 25:80-5 Je '48

Preventing rectifier corrosion. D. W. Borst. *il diags Coal Age* 2:89-93 D '47

Pumped ignitrons go to higher voltage. *il Westinghouse Eng* 3:10-11 Ja '48

Trends in electron tube design. W. C. White. *il Elec Eng* 67:527-30 Je '48

IKEDA, Seiin, 1867-

Masters of money; Mitsuis. *por Fortune* 37:96 Ap '48

ILKOVIC equation

Validity of the Ilkovic equation in polarographic analysis; abstracts. F. L. Steghart. *Chem & Ind* p 157 Mr 6 '48; *Metallurgia* 37:278 Mr '48

ILLINOIS

See also

Petroleum industry and trade—Illinois
Retail trade—Illinois

Geological survey

Increased appropriations. *Science* 106:541 D 5 '47

Industries and resources

Illinois' Egypt on way to comeback; drive for industry has employed hundreds. *il Bsns W* p24-5 Mr 6 '48

- ILLINOIS bankers life assurance company**
Old policyholders to get stock. Nat Underw (Life ed) 51:6 N 28 '47
- ILLINOIS Bell telephone company**
Bonds offered. Comm & Fin Chr 167:2467 Je 7 '48
Phone dividend baits hook for new capital. Barron's 28:27 S 27 '48
- ILLINOIS Central railroad**
Equipment trusts offered. Comm & Fin Chr 167:1922; 168:1482, 1582 My 3, O 11, 18 '48
Illinois Central acts to consolidate debt. Barron's 28:34 F 16 '48
- ILLINOIS institute of technology**
Development and expansion program. Science 106:581-2 D 12 '47
Illinois Tech; technology center. Il Power Generation 52:110 F '48
- ILLINOIS power company**
Arranges for retirement of preferred stock. Comm & Fin Chr 168:743 Ag 23 '48
Bonds offered. Comm & Fin Chr 167:847-8 F 23 '48
Public utility securities. Comm & Fin Chr 168:821 Ag 26 '48
- ILLINOIS river**
See also
Illinois waterway
- ILLINOIS state academy of science**
Annual meeting, 41st, Benton, May 7-8. Science 107:645 Je 18 '48
- ILLINOIS university**
Chemical education in American institutions. J. C. Bailar, jr. Il J Chem Educ 24:550-5 N '47
Chemistry center under way at Urbana. Il Chem & Eng N 26:193 Ja 19 '48; Excerpt. Science 107:185 F 20 '48
New approach to foundry instruction; University of Illinois' Chicago undergraduate division. E. F. Ross. Il Foundry 76:140-1+ My '48
University builds small homes to compare construction methods. J. T. Lendrum. Il Ind Stand 19:32-5 My '48
University of Illinois growth requires Abbott power station expansion. G. V. Carlson. plans diag Power Generation 52:52-7 F '48
- College of engineering**
University of Illinois College of engineering; addition to teaching staff. Science 107:162-3 F 13 '48
- ILLINOIS waterway**
Rail rate raises chase midwestern shippers to Illinois waterway. D. I. Brown. map Iron Age 161:119-21 My 20 '48
- ILLUMINATING engineering society**
Address given before I.E.S. Midwestern regional conference. R. W. Staud. Illum Eng 43:693-8 J1 '48
Annual meeting, New Orleans, Sept. 15-19. Illum Eng 42:813-19 N '47
Annual report of the general secretary, 1946-1947. W. Sturrock. Illum Eng 42:915-54 D '47
Conferences, Vancouver and Los Angeles. Elec West 99:70-4 D '47; 100:68-9 Ja '48
How the I.E.S. serves its members, the electrical industry and the public; objectives and program for 1947-48. R. W. Staud. Illum Eng 42:853-63 N '47
National technical conference, Boston. Elec World News ed 130:11 O 2 '48
1947 progress report of the committee on progress, bibliog il diag Illum Eng 42:955-98 D '47
President's annual address, G. K. Hardacre. Illum Eng 42:841-51 N '47
- ILLUMINATING engineering society, London**
Summer meeting. Elec R (Lond) 142:999-1002 Je 25 '48; Electrician 140:1971-3 Je 25 '48
- ILMENITE**
Drilling and blasting at Tahawus. C. R. Begor and C. A. Quam. Il Min Cong J 34:24-7 Ag '48
Titanium, 1947. H. M. Meyer. Eng & Min J 149:39 F '48
Travancore tussle; holdup on titanium ore. map Chem Ind 62:47 Ja '48
- IMAGE orthicon.** See Television cameras
- IMHOFF tanks**
Community sewage disposal. J. i. Cahalan, jr. il diag Dom Eng 171:136+ Mr '48
Digestion of sewage solids. L. W. Van Kleeck. il Water & Sewage Works 95:155-9 Ap '48
Operating Imhoff tanks. diag Pub Works 79:68 Ag '48
- IMIDAZOLINE**
Synthesis of imidazolines from 1,2-diamines and carboxylic acids. J. L. Riebsomer. Am Chem Soc J 70:1629-32 Ap '48
- IMIDAZOLINIUM compounds**
Imidazolium and imidazolinium salts as topical antiseptics. E. R. Shepard and H. A. Shonle. bibliog Am Chem Soc J 69:2269-70 O '47
- IMIDAZOLIUM compounds**
Imidazolium and imidazolinium salts as topical antiseptics. E. R. Shepard and H. A. Shonle. bibliog Am Chem Soc J 69:2269-70 O '47
- IMIDAZOLONE**
Synthesis of imidazolones structurally related to biotin by means of N-bromosuccinimide. R. Duschinsky and L. A. Dolan. bibliog Am Chem Soc J 70:657-62 F '48
- IMINES**
Preparation of stable ketimines from 2,2,6-trimethylcyclohexanecarbonitrile. H. L. Lochte and others. Am Chem Soc J 70:2012-15 Je '48
Some isomers of amidone and related compounds. N. R. Easton and others. Am Chem Soc J 70:76-8 Ja '48
- IMINOCARBETHOXYTHIOPHANE**
Synthesis of 2-iminothiophanes from ethyl cyanoacetate and alkene sulfides. H. R. Snyder and W. Alexander. bibliog Am Chem Soc J 70:217-18 Ja '48
- IMMIGRATION and emigration**
International labour organisation; second session of the Permanent migration committee. Int Labour R 58:47-53 J1 '48
Some aspects of the international migration problem. A. Sauvy. Int Labour R 58:18-37 J1 '48
- Argentina**
- Immigration board in Argentina. Int Labour R 58:390-1 S '48
New agreement between Italy and Argentina. Int Labour R 57:654-6 Je '48
- Australia**
- Australian immigration policy. Int Labour R 56:184-5 Ag '47
Immigration measures in Australia. Int Labour R 56:332-3 S '47
- Canada**
- Admission of immigrants to Canada. Int Labour R 56:75-8, 330-2, 609-10 J1, S, N-D '47
Migration to and from Canada. Int Labour R 57:242-5 Mr '48
- India**
- Position of Indian emigrants. Int Labour R 57:505-7 My '48
- Italy**
- Italian regulation of emigration. A. Oblath. Int Labour R 56:408-25 O '47
New agreement between Italy and Argentina. Int Labour R 57:654-6 Je '48
- New Zealand**
- Government assists British workers in entering country. For Comm W 31:15 Je 12 '48
Immigration policy in New Zealand. Int Labour R 56:186 Ag '47
Immigration to New Zealand. Int Labour R 56:333-4 S '47
- Sweden**
- Immigration into Sweden. Int Labour R 57:507-9 My '48
Organised immigration to Sweden. Int Labour R 57:81-3 Ja-F '48
- United States**
- Admission of farm workers into the United States. Int Labour R 56:73-5 J1 '47
Immigration and emigration, fiscal year 1947. Mo Labor R 66:405-6 Ap '48

IMMIGRATION and emigration—Continued

Venezuela

Immigration in Venezuela; active government encouragement stimulates movement. For Comm W 31:20 Ap 10 '48

IMMIGRATION law Mexico

New population act in Mexico. Int Labour R 57:503-5 My '48

IMMUNITY

Immuno-logic; confusion with serologic. M. S. Marshall. Science 108:377-8 O 8 '48; Discussion. A. Boyden. 108:635 D 3 '48
Mechanism of immunity and allergy in tuberculosis. J. K. Weissfeiler. Pub Health Rep 63:190 F 6 '48

See also

Allegory	Infectious diseases
Antigens and antibodies	Toxins and anti-toxins
Complement fixation	Vaccines

IMPACT

Change in mechanical properties of mild steel under repeated impact. F. V. Warnock and J. A. Pope. bibliog il diags Inst Mech Eng J & Proc 157 (War emergency issue no 26): 33-44; Discussion. 45-51 '47

Comparison of the brittle transition temperatures as determined by the Charpy impact and the M.I.T. slow bend tests. C. W. MacGregor and N. Grossman. bibliog il diags Welding J 27:sup 16-19, sup 159-60 Ja, Mr '48

Designing for shock resistance. G. Beling. il diags Product Eng 19:140-3 Ja '48

Impact loading of structures. D. L. Thornton. diags Engineering 165:409-12 Ap 30 '48

Impact strength of single bead arc weld deposits as affected by temperature. R. Eisenberg and R. J. Raudebaugh. il diags Welding J 27:sup 433-5 S '48

Impact testing of weldments. W. C. Long. il Metal Prog 54:43-5 Jl '48

Redesigning to withstand shock; high-speed movies hold key to analysis of mechanisms. D. L. Pierce. il Machine Design 20:127-32 Ag '48

Study of the geometry of the tension-impact specimen. N. A. Kahn and E. A. Imbebo. bibliog il diags Am Soc T M Proc 46:1179-90; Discussion. 1191-7 '46

IMPEDANCE

Accuracy of impedance measurements in telecommunications. E. Secker. diags Elec Com 25:74-83 Mr '48

Amplifier load impedance reduction. B. M. Hadfield. diag Tele-Tech 7:33-5+ My '48

Applications of screen-grid supply impedance in pentodes. P. G. Sulzer. diags Communications 28:10-11+ Ag '48

Circle diagrams of impedance or admittance for four-terminal networks. J. Rybner. bibliog diags Inst E E J 95 pt 3:243-52 Jl '48

Conical dipole of wide angle. P. D. P. Smith. bibliog diags J Ap Phys 19:11-23 Ja '48

Contribution to the approximation problem. R. F. Baum. Inst Radio Eng Proc 36:863-9 Jl '48

D.c. stabilized power supply of low impedance. V. H. Attree. diags J Sci Instr 25: 263-8 Ag '48

Dynamic impedance circuit. Y. P. Yu. diags Tele-Tech 7:29-9+ Ag '48

Elements of wave propagation using the impedance concept. H. G. Booker. bibliog diags Inst E E J 94 pt 3:171-98 My '47; Discussion. 94 pt 3:199-202; 95 pt 3:203-4 My '47, My '48

Frequency-scanning vhf impedance meter. L. L. Libby. il diags Electronics 21:94-7 Je '48

How do transformers in a power system affect the impedance of the system to zero-sequence components of current? diags Electrician 140:122-3 Ja 9 '48

Impedance matching half-wave transformer; constructed from coaxial cable and N connectors. H. E. Dinger and H. G. Paine. il diags Tele-Tech 7:41-3+ My '48

Impedance matching techniques. W. J. Kessler. diag Communications 28:26+ Jl '48

Input impedances of centre-fed slot aerials near half-wave resonance. J. L. Putman. diags Inst E E J 95 pt 3:290-4 Jl '48

Measured impedances of helical beam antennas. O. J. Glasser and J. D. Kraus. il diags J Ap Phys 19:193-7 F '48

Method of determining and monitoring power and impedance at high frequencies. J. F. Morrison and E. L. Younker. il diags Inst Radio Eng Proc 36:212-16 F '48

Mutual impedance between vertical antennas of unequal heights. C. R. Cox. diag Inst Radio Eng Proc 35:1367-70 N '47

Optimum band width for two layer anti-reflection films. R. B. Muchmore. bibliog diags Opt Soc Am J 33:20-6 Ja '48

Oscillographic method of presenting impedances on the reflection-coefficient plane. A. L. Samuel. il diags Inst Radio Eng Proc 35:1279-83 N '47

Unbalanced impedance star network; new graphical solution. E. Wilkinson. diags Elec R (Lond) 141:660-2 O 31 '47

IMPEDANCE, Acoustic. See Acoustic impedance

IMPERIAL chemical industries, limited Continued expansion of I.C.I. Chem Age (Lond) 58:673 My 15 '48

I.C.I. Chemicals division; 12,000 workers at 15 factories. il Chem Age (Lond) 57:651-2 N 15 '47

ICI prospectus. Economist 155:313-14 Ag 21 '48

ICI record income. Economist 154:648 Ap 17 '48

ICI reports on 1947. Chem & Eng N 26:1929 Je 28 '48

Statement by the chairman at 21st ordinary general meeting. Lord McGowan. Economist 154:861 My 22 '48

IMPERIAL tobacco company (of Great Britain and Ireland)

Statement by the chairman at 46th annual ordinary general meeting. R. J. Sinclair. Economist 154:434-6 Mr 13 '48

IMPORTS

Administration of import controls. J. H. Berry. Roads & Bridges 86:99-100+ Je '48

Expanding United States imports; broad efforts serve vital ends. F. P. Forbes. il For Comm W 32:5-7+ Ag 28 '48

Foreign aid programs and U.S. foreign trade; need for increased imports. W. M. Martin, jr. Comm & Fin Chr 168:1314+ S 30 '48

Fundamental facts on foreign trade; need of greater U.S. imports. G. W. Wolf. Comm & Fin Chr 167:2651+ Je 17 '48

Implications of our rising purchases abroad. V. L. Horoth. il Mag of Wall St 82:335-7+ Jl 3 '48

Import and export trade of the United States paper industry. E. G. Lagerloef. Paper Ind 30:725-8 Ag '48

Import license and exchange control regulations in principal foreign countries; tabular summary. For Comm W 30:36 F 21; 31:48 Je 19 '48

Import trade promotion. P. J. Stevenson. Comm & Fin Chr 166:1635+ O 23 '47; Same. For Comm W 29:8+ D 6 '47

Imports at United States ports; list by ports of chemical products, with amounts and consignors. Published in weekly numbers of Oil, paint and drug reporter

Let's close the import gap. W. C. Haddon. Comm & Fin Chr 167:1124+ Ja 8 '48

U.S. imports rise. Nat City Bank p65-8 Je '48

Why and how of imports; facing up to a challenge. E. M. Braderman. il For Comm W 33:7-8+ N 8 '48

See also

Statistics

Dollar value in United States import statistics. W. C. George and I. Weiss. il For Comm W 32:7-8+ Ag 14 '48

Extraordinary peaks attained by U.S. world trade in 1947; with charts and tabulations. G. A. Witherow. il For Comm W 31:3-7+ My 15 '48

Value of imports by geographic regions and by leading countries, by economic classes and by principal commodities, 1941-1946. Survey of Cur Bns 1947 Sup p 101-3 [supplemented in monthly numbers]

INCANDESCENT electric lamps. See Electric lamps, Incandescent

INCENDIARY bombs. See Bombs, Incendiary

INCENDIARY materials

Incendiary gels; abstract. W. H. C. Rueggeberg. *Chem Eng* 55:282+ My '48
Laboratory experiments with chemical warfare agents. W. Kinttor. *J Chem Educ* 24: 609-11 D '47

See also
Inflammable materials

INCENTIVES in industry

Incentives, a British approach; abstract. W. L. Sachs. *Nat Safety N* 57:89-91 Je '48
Production must increase with wages; management should sell workers on need for more output and offer sound plan for production. C. White. *Ptr Ink* 223:33+ My 21 '48

Profit sharing as an incentive. F. W. Willey. *Mech Eng* 69:907-8+ N '47
Significance of incentives in the national economy. J. W. Nickerson. *Mach* 54:171-3 D '47

Slowdown reversed by incentive plan; Hi-Shear rivet tool co. *Mill & Factory* 43:144-6 Ag '48

See also
Bonus system
Profit sharing
Wage payment plans

INCH, S. S.

Portrait. *Sales Management* 60:41 Je 15 '48

INCINERATORS, Refuse. See Refuse incinerators**INCOME**

Additional view on the consumption function. N. Kofsky. *R Econ & Stat* 30:55-6 F '48
Comparing national incomes; problems, progress, and facts. J. B. D. Derksen. *Dun's R* 56:14-16+ Je '48

More investment needed to increase real incomes. F. D. Newbury. *Comm & Fin Chr* 167:2638+ Je 17 '48

Raising income levels vs. consumer credit as inflation factor. E. C. Griffith. *Comm & Fin Chr* 167:100+ Ja 8 '48

Relationship between per capita income and mortality, in the cities of 100,000 or more population. M. E. Altenderfer. *bibliog Pub Health Rep* 62:1681-91 N 28 '47

\$25,000 a year; A.D. 1948; how seven families in seven U.S. metropolitan areas are not quite managing to live on that income. *Fortune* 37:66-8+ Ja '48

Two more contributions on the consumption function; consumption-saving function; its algebra and philosophy. W. S. Woytinsky. *R Econ & Stat* 30:45-55 F '48

See also
Farm income
Salaries
Wages

Accounting

Current problems in the presentation of financial information. C. G. Blough. *J Account* 86:284-91 O '48

How depreciation affects distributions of income from property held by trustee. J. F. Traver. *J Account* 85:320-3 Ap '48

Postulates of income accounting. G. O. May. *J Account* 86:107-11 Ag '48

See also

Income statements**Bibliography**

International bibliography on income and wealth; annotated quarterly report. Published by International assn. for research in income and wealth. National bur. economic research, 1819 Broadway, N.Y. 23

Statistics

Americans' personal income; how it's grown and where it goes; chart showing data for 1939-1947. *Bsns W* p21 Mr 13 '48

Appraisal of the errors involved in estimating the size distribution of a given aggregate income. D. Durand. *R Econ & Stat* 30:63-8 F '48

Comparability of national income statistics of English-speaking countries. W. I. Abraham. *bibliog R Econ & Stat* 30:207-14 Ag '48

Comparative functional analysis of the national income of European nations and the United States, year 1946; tabulation. *Dun's R* 56:22 Mr '48

Consumer incomes; how they moved up in '47; new Federal reserve board figures. *Bsns W* p21-2 Je 19 '48

Discussion of the new Department of commerce income series; national income; a new version. S. Kuznets. *bibliog R Econ & Stat* 30:151-79; Reply (Objectives of national income measurement). M. Gilbert and others. 179-95; Further comments. M. Kallecki. 195-7 Ag '48

Disposition of personal income, 1939-1947; chart. *Survey of Cur Bsns* 27:3 D '47

Family incomes and cost of family budgets; Indianapolis study. A. Hurwitz. *Mo Labor R* 66:176-8 F '48

Incentive for saving halved since 1929; dividends, interest, rents now yield only 11 per cent of U.S. income. *Weekly Underw* 158: 982 Mr 27 '48

Income determination; a graphic solution. T. C. Schelling. *bibliog R Econ & Stat* 30:227-9 Ag '48

Keeping tabs on markets; regional shifts in income; wartime migration. *map Bsns W* p40+ O 9 '48

More families in higher income groups; Macfadden Publications estimate. *Ptr Ink* 223: 84 My 7 '48

National income and product statistics of the United States, 1929-46; with detailed tabulations. *Survey of Cur Bsns* 27:sup 1-54 Jl '47

National income and product statistics of the United States, 1944-47; with detailed tabulations. *Survey of Cur Bsns* 28:12-29 Jl '48

National income, 1941-1946. *Survey of Cur Bsns* 1947 Sup p6 [supplemented in monthly numbers]

National product and income in the third quarter of 1947. *Survey of Cur Bsns* 27:7-9 N 4 D '47

National product and income in the first quarter of 1948. *Survey of Cur Bsns* 28:3-5 My '48

National product and income in the second quarter of 1948. *Survey of Cur Bsns* 28:4-7 Ag '48

1948 survey of consumer finances; consumer saving and the allocation of disposable income. D. M. Holthausen and I. Schweiger. *Fed Res Bul* 34:914-32 Ag '48

1948 survey of consumer finances; distribution of consumer income in 1947. D. M. Holthausen. *Fed Res Bul* 34:649-56 Je '48

Personal income, 1941-1946. *Survey of Cur Bsns* 1947 Sup p8 [supplemented in monthly numbers]

Physicians' 1947 income triple depression low. *Barron's* 28:9 S 13 '48

Progress of the postwar transition; national product and national income in 1947; with figures for other years. *Survey of Cur Bsns* 28:4-11 F '48

Regional trends in income payments; with data for selected years, 1929-1947. C. F. Schwartz. *Survey of Cur Bsns* 28:10-21 S '48

Retail sales and consumer income. C. Winston and M. A. Smith. *Survey of Cur Bsns* 28: 12-19+ O '48

Shifts in the concentration of income. M. W. Smelker. *bibliog R Econ & Stat* 30: 215-22 Ag '48

State income payments in 1947; with tabulations for selected years, 1929-1947, giving income by states and regions and by type of payment. C. F. Schwartz and R. E. Graham, Jr. *map Survey of Cur Bsns* 28:10-21 Ag '48

Studies in consumer expenditures (1901, 1918-19, 1922-24). H. G. Lewis and P. H. Douglas. *bibliog J Bsns* 20 pt 2:1-65 [with appendix of statistical tables] O '47

Total net effective buying income in 1947. *Sales Management* estimates. *Sales Management* 60:76, 78, 97-8, 100 My 10 '48

Who has the buying power today? analysis of Federal reserve board survey of consumer income in 1947. J. C. Cresswill. *Mag of Wall St* 82:378-9+ Jl 17 '48

Great Britain

Comparability of national income statistics of English-speaking countries. W. I. Abraham. *bibliog R Econ & Stat* 30:207-14 Ag '48

National income; comment on annual White paper. *Economist* 154:595-7 Ap 10 '48

INCOME—Continued

Russia

National income and product of the U.S.S.R. in 1940. P. A. Baran. R Econ Stat 29:226-34 N '47
 Russian income and production statistics. C. Clark. R Econ Stat 29:215-17 N '47

Southern states

South registers substantial income gains. Manuf Rec 117:38 O '48

United States

Comparability of national income statistics of English-speaking countries. W. I. Abraham. bibliog R Econ & Stat 30:207-14 Ag '48
 Discussion of the new Department of commerce income series; national income; a new version. E. Kuznets. bibliog R Econ & Stat 30:151-79; Reply (Objectives of national income measurement). M. Gilbert and others. 179-95; Further comments. M. Kalecki. 195-7 Ag '48
 Higher family earnings and increased market potentials; address before Boston conference on distribution. A. H. Johnson. Comm & Fin Chr 168:1870 N 4 '48
 National income and product statistics of the United States, 1929-46; with detailed tabulations. Survey of Cur Bsns 27:sup 1-54 JI '47
 National income and product statistics of the United States, 1944-47; with detailed tabulations. Survey of Cur Bsns 28:12-29 JI '48
 Outlook for national income. S. M. Livingston. Comm & Fin Chr 166:1947+N 13 '47
 Progress of the postwar transition; national product and national income in 1947; with figures for other years. Survey of Cur Bsns 28:4-11 F '48
 Regional trends in income payments; with data for selected years, 1929-1947. C. F. Schwartz. Survey of Cur Bsns 28:10-21 S '48
 Shows roads' contribution to national income; I.C.C. bureau puts 1947 proportion at 2.89 per cent. Ry Age 124:626-7 Mr 27 '48

INCOME statements

Accountants debate what should go into net income. Barron's 27:33 D 22 '47
 Analysis of the three principal types of supplementary income statements. A. Williams. J Account 86:23-7 JI '48
 Depreciation on cost prevents income being fairly stated. W. D. Cranstoun. J Account 85:207-9 Mr '48
 Income and earned surplus. Accounting research bulletin no. 32. J Account 85:20-5 Ja '48
 Income debate; what should be included in financial statements to give true picture of net earnings. Bsns W p24-5 F 21 '48
 Income statement; problem child of accountancy. E. C. King. Comm & Fin Chr 167:2424+ Je 3 '48
 Income statements showing fixed and variable items. K. J. Lindner. J Account 85:413 My '48
 Increasing significance of the income statement. G. D. Bailey. J Account 85:10-19 Ja '48
 SEC rejects faulty handling of inventory losses, note liability, working capital needs; Globe Aircraft case. J Account 84:409-11 N '47
 Three-part income statement reflects cost and current basis. J Account 85:214-15 Mr '48

INCOME tax

Husband and wife should be allowed to share income for tax purposes in all states; Gallup poll. Iron Age 160:121+ N 27 '47
 Silverston tax plan for professional men. J Account 85:481 Je '48
 State and federal taxation; A.B.A. committee report. Trusts & Estates 87:299-309 O '48
 Tax problems in long-term contracts. H. W. Volkstein. Eng N 140:61-3 Ja. 8 '48

Accounting

Accrual of income tax liability provides a more accurate statement. F. J. Sudekum. Bankers Mo 65:5-6+ Ja '48
 Depreciation, depletion; abstract. R. Ash. Rock Prod 51:101-2 Mr '48

Employee income tax status under a qualified pension plan; abstract. D. B. Maduro. Management R 37:322-4 Je '48; Same. East Underw 49:9 My 14; 11 Je 4 '48
 LIFO makes the grade; Bureau of Internal Revenue agrees to let retailers use the device. Bsns W p36-7+ Ja 3 '48
 Tax allocation. J Account 85:259-60 Mr '48
 Tax liability in interim statements. J Account 85:418-19 My '48
 When is taxpayer dealer in real estate? J Account 86:335-60 O '48

See also

Income tax—Deductions

Auditing

Treasury audit. J Account 86:243-4 S '48

Blocked money income

Taxability of income received in blocked currency. S. I. Roberts. bibliog J Account 86:231-7 S '48

Capital gains tax

Assigning trust income. J Account 86:336 O '48
 Capital gains and losses as applied to security dealers; text of I.T. 3891 of Internal revenue code. Comm & Fin Chr 167:1530 Ap 8 '48
 Clears up tax liability on loaned stock. J. C. Korn. Comm & Fin Chr 167:2000 My 6 '48
 Income taxes from investor's viewpoint. L. S. Mott. Comm & Fin Chr 166:2271+ D 4 '47
 IEA taxation committee scores capital gains tax. Comm & Fin Chr 166:2511 D 13 '47
 Shape of taxes to come; non-resident aliens' capital gains. L. J. Freeman. Barron's 28:9 S 6 '48
 Special tax problems in purchase and sale of securities. I. Sack. Comm & Fin Chr 167:702+ F 12 '48
 Tax committee of Association of customers' brokers proposes change in capital gains tax. Comm & Fin Chr 167:1117 Mr 11 '48

Deductions

Amortization of non-deductible expenses of professional men. M. Greenberger. J Account 86:152-3 Ag '48
 Continuance of deceased executive's salary to his widow. G. Simons. East Underw 49:10 My 21 '48; Same abr. Management R 37:486-8 S '48
 How banks now use the reserve method to account for bad debts. W. J. L. Patton. J Account 86:299-302 O '48
 Institutional copy tax deduction studied. Ed & Pub 81:78 My 22 '48
 Interdependent deductions under federal and New York taxes. J Account 85:69 Ja '48
 Liberalized depreciation, industry's vital need. T. E. Lloyd. bibliog Iron Age 161:163-77 Ja 1 '48
 Losses on sales of business property as net operating loss deductions. F. C. Scott. J Account 86:219-23 S '48
 Net operating loss. J Account 84:415 N '47
 Rationed charity; limitation on deductible charitable contributions. Fortune 37:4 My '48
 Tax benefit rule; abstract. L. E. Cohn. bibliog J Account 85:251-2 Mr '48
 Tax carryovers; aids to business expansion. J. K. Lasser. II Dun's R 56:13-15+ Ja '48
 Tax saving method on convertibles upheld. L. H. Hoffman. Barron's 28:10 Je 21 '48
 Time for another look at reserves for bad debts. D. Horne. Banking 40:33-9+ Je; 41:46-7 S '48
 When can accrued taxes be allowed as tax deductions. C. M. Edelman. J Account 85:328-37 Ap '48

Joint returns

Community property and the split income tax. A. Handy. Comm & Fin Chr 167:598+ F 5 '48
 Division of family income; a tax red herring. H. L. Lutz. Comm & Fin Chr 166:2261+ D 4 '47
 Trend toward income-splitting tax laws rolls up popular approval. map Bsns W p22-4 D 27 '47

Refunds

See Tax refunds

INCOME tax—Continued

Brazil

Income-tax changes. For Comm W 29:10-11 D 20 '47

Colombia

Special income tax imposed on large incomes. For Comm W 32:17-18 Ag 7 '48

Great Britain

Finance bill commentary; expenses allowances for income tax purposes; special contribution. Economist 154:889-90 My 29 '48

Guatemala

Capital tax law implemented. For Comm W 29:14 D 13 '47

Malayan Union

Income tax in Malaya. Economist 153:953 D 13 '47

United States

Agents' federal taxes; status of the agent's commission interest. R. W. Hamilton. Life Ins Courant 53:19-21 Ap '48

Compensation; position of the employee. bibliog J Account 86:61-3 Jl '48

Confiscation continues under the new tax reduction act. A. W. May. Comm & Fin Chr 167:1525+ Ap 8 '48

Estate analysis in action; effects of new tax law. H. T. Powers. Trusts & Estates 88:285-9 Ap '48

Federal incentive income tax plan proposed by accountant. F. W. Main. J Account 84:466-8 D '47

Federal income tax revision; Institute's recommendation compared with other plans. J Account 85:132-9 F '48

Federal tax outlook; address before American institute of accountants. R. Magill. Comm & Fin Chr 166:1944+ N 13 '47

First national bank of Boston warns high taxes are drying up chief source of capital. Comm & Fin Chr 168:117 Jl 8 '48

General tax reduction inflationary; First national bank of Boston. Comm & Fin Chr 167:116 Ja 8 '48

GOP hopes don't reach to full Knutson tax bill. H. Davenport. Barron's 27:7 D 29 '47

Grounds for tax reduction; statement before Senate committee on finance. R. Magill. Comm & Fin Chr 167:1113 Mr 11 '48

Guaranty trust co. of N.Y. holds reduced tax on high incomes benefits all. Comm & Fin Chr 167:2000 My 6 '48

High taxes causing capital shortage; Northern trust company of Chicago. Comm & Fin Chr 167:120 Ja 8 '48

High taxes no longer serve as an inflation deterrent. W. F. Hauhart. Comm & Fin Chr 167:1417+ Ap 1 '48

Highlights of new tax law. S. J. Foosaner and M. M. Lore. Trusts & Estates 86:277-9 Ap '48

How the new tax laws affect your agency. H. C. Crawford. Rough Notes 91:17-18+ S '48

Incentive plan for the forgotten man; end double tax on dividends and place ceiling on income tax. G. A. Price. Comm & Fin Chr 168:1432-3+ O 7 '48; Excerpts. Trusts & Estates 87:354-5 O '48

Income tax requirements affect foreign service of American engineers. E. H. Lang. Il Civil Eng 17:610-12+ O '47; Discussion. E. F. Robinson. 18:102-3 F '48

Income taxes should be readjusted, to increase flow of individual savings into industry. O. Ely. Pub Util 42:676-7 N 4 '48

Integration and correlation of federal taxes; Treasury study penalizes flexible trusts and concentrates wealth. M. Miller. Trusts & Estates 86:18-24 Ja '48

Keep tax savings in mind when handling business transactions. A. C. Kiechlin. Inland Ptr 120:37-8 Mr '48

Knutson's tax bill promises \$5.5-billion relief. Bsns W p24 D 27 '47

NAM holds tax reduction is not inflationary. Comm & Fin Chr 167:21 Ja 1 '48

National poll shows public sentiment is now veering toward cutting income tax. Iron Age 161:107+ Ja 22 '48

New tax law and speculation. J. K. Lasser. Comm & Fin Chr 167:2640 Je 17 '48

1948 tax-cut law whipped into shape. Bsns W p 19-20 Mr 13 '48

Our capital needs and the tax program. E. Bunting. Il Dun's R 55:11-13+ D '47

Prospects for tax cuts and inequities in tax laws; address before the National industrial conference board. R. Magill. Comm & Fin Chr 166:2169+ N 27 '47

Receiving end of the income tax; how tax dollars affect banks; illustrations with text. Banking 40:46-8 Mr '48

Reduced budget before tax cut. J. D. Mooney. Comm & Fin Chr 167:597+ F 5 '48

Reforms urged on Congress by Magill group and C.E.D. Bsns W p26+ N 15 '47

Revenue act of 1948 as it relates to reduction in taxes on individuals. M. E. Richardson and D. Blair-Smith. J Account 85:370-80 My '48

Revenue act of 1948; effect of income tax provisions. Survey of Cur Bsns 28:6-8 Ap '48

Shape of taxes to come. L. J. Freeman. Barron's 28:9-10 Jl 26; 29 Ag 9; 9 S 6; 13-14 S 13; 9-10 S 20; 10 O 4; 10 O 18; 9-10 D 6 '48

Sobering realities regarding tax burdens. E. E. Lincoln. Comm & Fin Chr 167:1420+ Ap 1 '48

Tax pinch may affect markets in first quarter. G. E. Shea, Jr. Barron's 28:7-8 Ja 12 '48

Tax policies must not stifle venture capital; abstract. G. Terborgh. Pub Util 41:171-2 Ja 29 '48

Tax prospects brighten with election year. P. A. Johnston. Barron's 27:7-8 N 10 '47

Tax reduction essential to obtain risk capital; statement before Senate finance committee. E. Schramm. Comm & Fin Chr 167:1104+ Mr 11 '48

Tax reduction; statement to Senate committee on finance. March 1. J. W. Snyder. Comm & Fin Chr 167:1009 Mr 4 '48

Tax revision in 1948; the Magill report. F. L. Morton. Spectator (Life ed) 155:20-1+ Ja '48

Taxability of income received in blocked currency. S. I. Roberts. bibliog J Account 86:231-7 S '48

Taxability of teachers' income. J. M. Maguire. J Account 86:330-1 O '48

Taxes absorb risk capital. E. D. Millikin. Pub Util 42:314-16 Ag 26 '48

Taxes and government spending. E. D. Milliken. Comm & Fin Chr 167:1097+ Mr 11 '48

Taxes and the stockholder. L. P. Stack. Edison Elec Inst Bul 16:239-43 Jl '48

Their influence on venture capital. L. du Pont. Comm & Fin Chr 167:500+ Ja 29 '48

Truman urges higher taxes on business; message on state of the Union. Comm & Fin Chr 167:97+ Ja 8 '48

U.S. taxpayers to enjoy substantial relief. H. J. Ashe. Inland Ptr 121:51-2 My '48

Voters favor limit of 50 per cent on income taxes; Gallup poll. Iron Age 161:123 Ja 15 '48

Will tax reduction mean more inflation? A. M. Sakolski. Comm & Fin Chr 167:1529+ Ap 8 '48

Your 1948 taxes. Bsns W p26 Ja 17 '48

Your postwar tax cut; how it works. Bsns W p21-2 Ap 3 '48

Decisions

Are strike benefits taxable as income? J Account 86:244-5 S '48

Assignments to the wife. J Account 85:67-8 Ja '48

Court clarifies bona fide residence for income tax purposes; gives wide travel privileges to engineers in foreign service. Civil Eng 18:517 Ag '48

Danger to taxpayer under Section 41 suggested by Carver case. M. B. Kincheloe. J Account 86:212 S '48

Income tax upon assigned income. J Account 85:252-3 Mr '48

INCOME tax—United States—Decisions—Cont.

- Interest on world bank bonds paid to foreign corporations trading in U.S. ruled tax-exempt. *Comm & Fin Chr* 168:513+ Ag 5 '48; Same. *East Underw* 49:1+ Ag 13 '48
- Proceeds on sale of a right to income for life. *J Account* 86:55-6 JI '48
- Properties acquired through statutory reorganization cannot be tax-depreciated on previous basis by new owner. *L. T. Parker. Cer Ind* 51:80 N '48
- Stockholder purchases at less than fair market value. *E. H. Schwenk. J Account* 85: 253-4 Mr '48
- Summary of family partnership decisions since Aug. 1946. *G. Simons. J Account* 85: 233-5 Mr '48
- Tax benefit doctrine more widely recognized. *C. W. Tye. J Account* 85:341 Ap '48
- Tax saving on lump-sum brokerage fee; court permits spreading income over long-term negotiations. *L. H. Hoffman. Barron's* 28:9 JI 12 '48
- Understanding the tax laws. *V. R. Wolder. Comm & Fin Chr* 166:2278+ D 4 '47
- U.S. rules Dallas insurance placement board not subject to federal income tax. *East Underw* 49:26 Ap 16 '48
- When and how to be a dealer rather than an investor for tax purposes. *J. P. Allison. bibliog* (94 ref) *J Account* 86:38-49 JI '48
- World bank bonds held by non-residents non-taxable. *Comm & Fin Chr* 166:2174 N 27 '47

INCOME tax, Municipal. See Municipal taxation**INCOME tax, State**

- State finds income tax solves financial woes; Iowa tax cut; Michigan problem. *Bsns W* p24 Ja 3 '48

INCORPORATED municipal electrical association

- Final convention. *Eastbourne. June 7-11. Engineer* 185:573 Je 11 '48; *Engineering* 166:7-8, 30 JI 2-9 '48; *Elec R (cond)* 142:909-24, 963, 70 Je 11-18 '48; *Electrician* 140:1800-21, 1905-11 Je 11-18 '48

INDANAMINE

- Physiologically active indanamines; compounds substituted in the aromatic ring. *R. V. Heinzelmann. H. G. Kolloff and J. H. Hunter. bibliog Am Chem Soc J* 70:1386-90 Ap '48

INDENE

- Coumarone-indene resins in rubber compounding. *T. A. Bulifant. Rubber Age* 62: 300-2 D '47
- Derivatives of indene and of butyric acid. *J. S. H. Davies and D. S. Morris. Chem Soc J* p 1697-8 D '47
- Solubility of hydrocarbon resins and their behavior in rubber compounds. *P. O. Powers. bibliog India Rubber World* 117: 351-4 D '47
- Solvent extraction of indene and coumarone from coal tar light oils. *A. W. Gauger and J. N. Breston. bibliog Inst Pet J* 33:687-94 N '47

INDEPENDENT grocers alliance

- Independent grocers alliance schedules price promotion in heavy magazine campaign. *Ptr Ink* 222:95 F 13 '48
- IGA's spring campaign exploits national brands in 5,000 groceries; ties in with *Life* in two-week test. *J. F. Grimes. Il Sales Management* 60:94+ My 1 '48
- Reducing distribution costs in the grocery field; a case study; Roundup grocery company, cost plus wholesaling operation. *R. D. Tousley. J Marketing* 12:455-61 Ap '48

INDEPENDENT insurers, National association of. See National association of independent insurers**INDEPENDENT natural gas association of America**

- Annual meeting, 3d. *Oklahoma City. Oct. 24; with abstracts of papers. Oil & Gas J* 46:40-1 N 1 '47; *Gas Age* 100:33-4+ N 13 '47
- Annual meeting, Tulsa, Oct. 26. *Oil & Gas J* 47:58-9 O 28 '48

INDEPENDENT petroleum association of America

- Annual meeting, 19th. *San Antonio. Oil & Gas J* 47:46+ S 30 '48
- Annual meeting of directors, Wichita, April 26-27. *Oil & Gas J* 46:54-5 Ap 29 '48

INDEX numbers (economics)

- Agricultural price index numbers. *A. G. Peterson. Am Stat Assn J* 42:597-604 D '47
- American appraisal company construction cost trend index, 1914-1947. *Eng N* 140:303 My 27 '48
- American Machinist index of metalworking production. Published in *American machinist*
- American Machinist index of metalworking production, 1935-1947. *Am Mach* 92:121-6 Ja 29 '48
- Better business index; revision of Business Week's index of business activity. *Bsns W* p20-1 Je 5 '48
- British central statistical office interim index of industrial production. *For Comm W* 31: 18 Ap 24 '48
- Building and construction cost indexes, 1913-1947. *Eng N* 140:799 My 27 '48
- BS productivity index revised. *Factory Management* 106:226+ Ja '48
- CPI; a summary of its essential features. *E. Clague. Mo Labor R* 67:8-11 JI '48
- Consumers' price index; relative importance of components. *A. Hurwitz. Mo Labor R* 67:156-60 Ag '48
- Department store inventory price indexes, by department groups, 1941-47. *Mo Labor R* 66:58 Ja '48
- ENR construction and building cost indexes, 1903-1947. fold chart *Eng N* 140:798 My 27 '48
- Equipment cost indexes for process industries; Marshall and Stevens indexes carried back to 1913. *R. W. Stevens. Chem Eng* 54:124-6 N '47
- How the cost-of-living index is determined. *Mill & Factory* 43:102-3 Ag '48
- Methods of computation of statistics; cost-of-living index numbers. *Int Labour R* 57: 692-702; 58:124-35, 267-77, 419-26, 562-8, 704-9 Je-N '48
- New index of industrial production of Central statistical office. *Economist* 154:413 Mr 13 '48
- New industrial barometer. *Economist* 154: 300 F 21 '48
- New weekly index of wholesale prices. *S. R. Mitchell. Mo Labor R* 67:290-8 S '48
- Revised indexes of agricultural machinery and equipment prices. *E. V. Minson. Mo Labor R* 67:403-5 O '48
- Revision of retail food price index in Aug. 1947. *W. Fazar. Mo Labor R* 67:397-402 O '48
- Wholesale price index; policy on revisions and corrections. *S. R. Mitchell. Mo Labor R* 67:153-5 Ag '48

INDEXES

- Books in print, an author-title-series index to the Publishers' trade list annual, 1948. *B. A. Uhlendorf, ed. 1200p R. R. Bowker co, 62 W 45th st, New York 19 '48*

See also

- Bibliography Paintings—Indexes
Geophysics—Indexes Periodicals—Indexes

INDEXING

- CA today. *E. J. Crane. Chem & Eng N* 26: 2190-2 JI 26 '48
- Index for X-ray powder diffraction patterns. *S. E. Q. Ashley and R. C. Newton. Il Anal Chem* 20:657-8 JI '48
- Index to melodies. *J. B. White. Special Lib* 39:116-18 Ap '48
- Indexing abstracts. *C. L. Bernier and E. J. Crane. Il Ind & Eng Chem* 40:725-30 Ap '48
- Indexing, classifying, and coding the chemical literature. *J. W. Perry. Ind & Eng Chem* 40:476-7 Mr '48
- Indexing Office of scientific research and development war reports. *J. P. Sondheimer. Special Lib* 39:35-9 F '48
- Information service using both hand and machine sorted cards; Socony-Vacuum laboratories. *G. S. Crandall and E. M. Brown. J Chem Educ* 25:195-9+ Ap '48
- Punched-card system of indexing to meet special requirements. *W. E. Batten. Assn of Sp Lib & Inf Bur Proc* 1947:37-9
- Recent progress in patent classification. *S. W. Cochran. Ind & Eng Chem* 40:731-3 Ap '48
- Subject analysis, a rising star. *J. Orne. Special Lib* 39:42-6 F '48

INDEXING—Continued

Use of punched cards for indexing and classifying biochemical literature. S. R. Ames and W. F. Kujawski. *Special Lib* 39:233-8 S '48

Visual indexing. D. Tunstell. *Special Lib* 39:39-42 F '48

See also

Cataloging
Files and filing
(documents, etc.)

INDEXING (machine work)

Comparison of braking required for different indexing mechanisms. M. Knott and G. Levesque. *diags Mach* 54:181-2 F '48

Handbook of vertical surface-broaching fixtures; index fixtures. B. C. Brosheer. *il diags Am Mach* 92:85-90 Ja 1 '48

Indexing fixture for use in machining aluminum containers. D. A. Baker. *diags Mach* 54:185-6 F '48

Lock for Geneva index table. C. W. Frank. *diag Tool Eng* 21:41 S '48

Milliholland automatic indexing machine. *il Mach* 55:211- O '48

Modified Geneva drive for hi-speed machines. P. H. Winter. *diags Tool Eng* 20:23-4 My '48

INDIA

British or united? *Economist* 154:532-3 Ap 3 '48

India's role in one world. A. Ali. *Ann Am Acad* 258:22-6 Jl '48

Kashmir and Hyderabad; dispute between India and Pakistan. *Economist* 155:211-12 Ag 7 '48

Rehabilitation of displaced persons in India. *Int Labour R* 58:187-98 Ag '48

See also

Aluminum industry
and trade—India
Engineering—India
Fertilizer industry—
India
Immigration and
emigration—India
Labor laws and leg-
islation—India

Paper mills—India
Political parties—
India
Railroads—India
Shipping—India
Steel industry and
trade—India
Telegraph—India
Telephone—India

Commerce

India as market for U.S.A. V. L. Horoth. *Mag of Wall St* 83:71-3+ O 23 '48

Commercial policy

Geneva tariff agreement concluded; principal concessions granted by India and Pakistan of interest to the United States. *For Comm W* 29:19-20 D 6 '47

Items subject to monetary limits from dollar areas. *For Comm W* 31:13-14 Ap 3 '48

New import license regulations for iron and steel products. *For Comm W* 30:15-16 Mr 6 '48

New import-licensing regulations; items to be licensed liberally from dollar area, etc. *For Comm W* 32:22-3 Ag 21 '48

New import trade controls; principles governing the issue of import licenses for the period January-June 1948. *For Comm W* 30:12-16 Ja 10 '48; Excerpts. *Oil Paint & Drug Rep* 153:71 F 2 '48

New procedure for licensing imports of capital goods. *For Comm W* 31:19-20 My 22 '48

Revaluation of Indian import licenses extended for certain items. *For Comm W* 30:14-15 Ja 3 '48

Validity periods for import licenses. *For Comm W* 32:20-1 Jl 17 '48

Economic conditions

Inflation in India. *Economist* 155:633-4 O 16 '48

New Delhi letter. *Bsns W* p70 Ja 3 '48

Economic policy

Industrial policy in India. *Int Labour R* 57:626-9 Je '48; Abstract. *For Comm W* 32:27 Jl 3 '48

Foreign relations

India; a new great power. *Economist* 155:650-2 O 23 '48

Industries and resources

Government of India's industrial policy. *For Comm W* 32:27 Jl 3 '48

India gives investors chance in new industry.

R. S. Eswaran. *Barron's* 28:4 Je 14 '48

India industries conference. *Int Labour R* 58:64-9 Jl '48

Plan to boost India's output formulated.

Steel 122:64-5 Mr 8 '48

Partition

India; is it working? *Economist* 153:828-9 N 22 '47

Indo-Pakistan agreement. *Economist* 153:952-3 D 13 '47

Politics and government

Forewell to India. *Economist* 154:101, 188-9 Ja 17, 31 '48

India's Mountbatten year. *Economist* 154:1067-8 Je 26 '48

INDIANA and Michigan electric company

Bonds offered. *Comm & Fin Chr* 168:1146 S 20 '48

INDIANAPOLIS

Economic conditions

Family incomes and cost of family budgets. A. Hurwitz. *Mo Labor R* 66:176-8 F '48

INDIANAPOLIS news

Star and News merged in Indianapolis deal; Pulliam heads new company. G. A. Brandenburg. *Ed & Pub* 81:5-+ S 4 '48

INDIANAPOLIS power and light company

Common stock offered. *Comm & Fin Chr* 166:1890, 1994 N 10, 17 '47

Preferred stock offered. *Comm & Fin Chr* 166:2559 D 22 '47

INDIANAPOLIS water company

Preferred stock offered. *Comm & Fin Chr* 167:2467-8 Je 7 '48

INDIANS of North America

Government relations

Many believe federal government treats Indians fairly; Gallup poll. *Iron Age* 160:113 D 18 '47

INDIANS of South America

Health and hygiene

Absence of sickling phenomenon of the red blood corpuscle among Brazilian Indians. E. M. da Silva. *bibliog Science* 107:221-2 F 27 '48

INDICATORS

Indicator attachment sets rough and finish diameters. T. H. Hanley. *diags Am Mach* 92:120 Ja 15 '48

INDICATORS (for internal combustion engines)

Pressure indicating for internal combustion engines. R. Stansfield and J. G. Withers. *diags Engineer* 186:152-5, 178-9, 208-9 Ag 13-27 '48

INDICATORS and test papers

Acid-base reactions in benzene and other organic solvents; behavior of bromophthalein magenta with different classes of organic bases. M. M. Davis and P. J. Schuhmann. *il J Res Nat Bur Stand* 59:221-63 bibliog(94 ref, p262-3) S '47

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene. M. M. Davis and others. *bibliog J Res Nat Bur Stand* 41:27-40 Jl '48

Detection of certain chlorinated tertiary aliphatic amines. A. J. Cruikshank and others. *Anal Chem* 19:849-50 N '47

Effect of substituents upon the rate of fading of some sulfonphthalein indicators in alkaline solutions. E. E. Sager, A. A. Maryott and M. R. Schooley. *bibliog Am Chem Soc J* 70:732-6 F '48

Effects of salts and proteins on the spectra of some dyes and indicators. I. M. Klotz. *bibliog Chem R* 41:373-99 O '47

Two new total alkalinity indicators. M. Taras. *Am Water Works Assn J* 40:468-72 Ap '48

INDIGOSOL printing. See Textile printing

INDIUM

Electrochemistry of indium. T. Moeller and B. S. Hopkins. *bibliog(71 ref) Electrochem Soc J* 93:84-93 Mr '48

Magnetic moment of the electron. P. Kusch and H. M. Foley. *bibliog Phys R* 74:250-63 Ag 1 '48

INDIUM—Continued

Isotopes

- Excitation curves of (α,n); ($\alpha,2n$); ($\alpha,3n$) reactions on silver. S. N. Ghoshal. *Phys R* 73:417-18 F 15 '48
- Radiations from tantalum (182), antimony (122), and indium (116). C. E. Mandeville and M. V. Scherb. *bibliog Phys R* 73:340-3 F 15 '48
- Radioactive indium isotopes of mass numbers 111 and 112. D. J. Tendam and H. L. Bradt. *Phys R* 73:1118-19 D 1 '47

INDIUM alloys

- Constitution of the system indium-tin. F. N. Rhines and others. *bibliog Il Am Soc for Metals Trans* 39:694-711; Discussion. 711-12 '47

INDIUM foil

- Range of Ra- α -Be neutrons in water determined by means of indium foil activations. J. H. Rush. *diag Phys R* 73:271-3 F 15 '48

INDIUM hydroxide

Analysis

- X-ray diffraction analysis of indium hydroxide and "indium chromate". A. Palm. *bibliog Il J Phys & Colloid Chem* 52:959-61 Je '48

INDIUM plating

- Indium plated lead bearings withstand high stresses. J. Albin. *Il Materials & Methods* 27:88-9 Je '48
- Process sheet for indium plating; reference book sheet. G. Black. *Am Mach* 92:139 My 6 '48

INDIVIDUALITY

- Biochemical approach to individuality; abstract. R. J. Williams. *Science* 107:459 My 7 '48

INDO-CHINA, French

See also

- Radio broadcasting—
Indo-China, French

Commercial policy

- Sino-Indochina economic agreement. *For Comm W* 29:14-15 N 22 '47

Politics and government

- New start in Indo-China. *map Economist* 154:22-3 Ja 3 '48

INDOLE

- Effect of indole on the determination of N'-methylnicotinamide. B. S. Schweigert. *bibliog Science* 106:522-3 N 28 '47
- Indole from formyl-toluidine. A. Galat and H. L. Friedman. *Am Chem Soc J* 70:1280-1 Mr '48
- Mechanism of indole formation from phenacylarylamines; the conditions and mechanism of the isomerisation and indolisation of phenacylarylamines. F. Brown and F. G. Mann. *Chem Soc J* p858-70 Je '48
- Mechanism of indole formation from phenacylarylamines; the stability and reactions of phenacyl-N-alkylarylamines. F. Brown and F. G. Mann. *Chem Soc J* p847-58 Je '48
- Pyrazinoindole-1,4-diones; ring closure of 2-indolecarbonyl derivatives of α -aminoesters. J. R. Johnson, J. H. Andreen and A. D. Holley. *bibliog Am Chem Soc J* 69:2370-2 O '47
- Studies in the indole series; yohimbine. P. L. Julian and others. *bibliog Am Chem Soc J* 70:174-83 Ja '48

INDOLEACETIC acid

- Amino acid conversion products; some substituted 3-indoleacetic acids and some substituted phenylhydrazones of β -formylpropionic acid. F. J. Stevens and S. W. Fox. *bibliog Am Chem Soc J* 70:2263-5 Je '48
- Effect of organic manures on the auxin content of soils and the auxin balance in soils. J. H. Hamence. *Soc Chem Ind J* 67:277-81 Jl '48
- Indole-3-acetic acid and flowering. M. Green and H. J. Fuller. *Science* 108:415-16 O 15 '48

INDOLEBUTYRIC acid

- Effect of hormone on root formation in *artocarpus communis*. T. J. Muzik. *Science* 107:225 F 27 '48

INDONESIAN REPUBLIC

- No headway on Indonesia. *Economist* 153:723 N 1 '47
- Report from Indonesia; business stands still while natives and Dutch wage their shooting truce. G. Burck. *Il Fortune* 38:90-1+ Jl '48
- United States and the Netherlands East Indies. S. K. Hornbeck. *Ann Am Acad* 255:124-35 Ja '48
- See also
Netherlands Indies

Economic conditions

- Economic recovery in eastern Indonesia. *map Economist* 154:845-6 My 22 '48

INDOPHENOL

- Estimation of ascorbic acid in food preparations. S. A. Goldblith and R. S. Harris. *bibliog Anal Chem* 20:649-51 Jl '48

INDORSEMENT

- Intermediate endorser not liable where note was endorsed back to payee. *Banking Law J* 64:982-8 D '47
- Legal terms must always be spelled as they are spelled in the statutes; indorsement not endorsement. C. E. Dahlin. *Bankers Mo* 65:20 Je '48

INDUCTANCE

- Calculating mutual inductance; co-axial and co-planar multilayer coils. R. C. de Holzer. *diag Wirelss Eng* 25:286-9 S '48
- Electronics for the power engineer; self-induction and mutual induction. F. A. Annett. *diag Power* 92:709-11+ N '48
- Equations for the inductances of three-phase coaxial busses comprised of square tubular conductors. T. J. Higgins and H. P. Mesinger. *bibliog diag J Ap Phys* 18:1009-21 N '47

- Shunts and inductors for surge-current measurements. J. H. Park. *bibliog Il diag J Res Nat Bur Stand* 39:191-212 S '47

INDUCTANCE coils

- New shunt and inductor designs. *diag Elec Eng* 67:1040 N '48

INDUCTION coils

- Single vs multi-turn induction heating coils. F. W. Curtis. *diag Tool Eng* 21:38 O '48

INDUCTION motors. See Electric motors, Induction

INDUCTOGRAPHY. See Physiological apparatus

INDUSTRIAL accidents. See Accidents, Industrial

INDUSTRIAL advertisers' association, National. See National industrial advertisers' association

INDUSTRIAL allocations. See Priorities and allocations, Industrial

INDUSTRIAL and commercial finance corporation, Ltd.

- Filling a financial gap. *Economist* 153:737 N 1 '47

INDUSTRIAL and engineering chemistry (periodical)

- ACS official report, 1947. *Chem & Eng N* 25:553-4 F 23 '48

- Does life begin at forty? forecast of editorial content in anniversary year. *Ind & Eng Chem* 39:1533-5 D '47

INDUSTRIAL arbitration. See Arbitration, Industrial

INDUSTRIAL arts

See also

- | | |
|-----------------------|------------------------|
| Agriculture | Manufactures |
| Architecture | Mechanical engineering |
| Building | ing |
| Ceramics | Metal work |
| Chemical engineering | Metallurgy |
| Chemistry, Technical | Paint |
| Clay products | Paper making |
| Design | Patents |
| Dyes and dyeing | Photography |
| Electric engineering | Plumbing |
| Engineering | Pottery |
| Factories | Printing |
| Foundry practice | Production |
| Glass manufacture | Rubber |
| Industrial research | Shipbuilding |
| Inventions | Soap |
| Machine shop practice | Technology |
| Machine shops | Textile industry |
| Machinery | Weaving |

INDUSTRIAL buildings

Analysis of stepped-column mill bents. D. S. Ling. diags Am Soc C E Proc 73:1271-92 O '47; Discussion. *il* diags 74:779-87, 901-15 My-Je '48

Experiences with panel construction; Country Life Press building at Garden City, L.I.; Federal telecommunications laboratory at Nutley, N.J. and the Doubleday publishing plant at Hanover, Pa. L. F. Booth. *il* Eng N 139:670-3 N 13 '47

Firm prices are returning to industrial building. *il* Bsns W p 19-20 J1 17 '48

First costs don't tell the whole story; operating expense may dictate plant design. N. Gray. *il* diags Eng N 141:102-3 O 28 '48

Industrial plant buildings; fourteenth annual presentation. *il* Factory Management 106:B43-128 pt 2 Ap '48

Industrial plants packaged to order. F. S. Merritt. *il* Eng N 139:667-9 N 13 '47

Rigid-frame base supports heavy loads of five-story bottling plant; Coca Cola bottling company of New York. *il* Eng N 140:37-9 Ja 8 '48

Trends in industrial plant design. *il* Eng N 140:575-7 Ap 15 '48

See also

Chemical plants
Creameries
Factories
Foundries
Machine shops

Metallurgical plants
Office buildings, Industrial
Petroleum refineries
Warehouses

Air conditioning

Industrial air conditioning; equipment arrangement with truss roofs. F. F. Stevenson and J. F. Salsburg. plans diags Heating-Piping 20:93-7 O '48

Heating and ventilation

One method of heating the Quonset hut. *il* Heat & Ven 45:77 Ag '48

INDUSTRIAL cooperation

Cooperative marketing; Gerber and Armour package and sell meats for babies. *il* Mod Packaging 21:107 Mr '48

Gulf oil corp. and Koppers co., inc. sign pact to engage in cooperative research and development of processes for synthetic liquid fuels. Chem & Eng N 26:1778 Je 14 '48

Industrial combine; Allis-Chalmers mfg. co. and RCA Victor distribution of industrial electronic equipment. Sales Management 60:62 Ap 1 '48

Machine tool pool orders are planned. Aviation W 49:63 S 6 '48

Small plants gain big-plant economies; cooperative manufacturing facility; the General iron works. H. S. Wharen. *il* Am Mach 92:94-5 My 20 '48

Voluntary allocation plan, minus teeth, developing into junior WPB. Am Mach 92:125-4 Ja 15 '48

INDUSTRIAL councils

Let's settle it here, say local labor-management groups; Toledo, Louisville and other plans. A. N. Weckler. Mill & Factory 42:93-8 F '48

INDUSTRIAL courts. See Courts, Industrial**INDUSTRIAL demobilization****Government plants**

Sale of surplus plants realizes 43 per cent of cost. Am Mach 92:320-4 Ja 29 '48

WAA blast furnace at Cleveland is hub of bitter arguments. J. Anthony. *il* Iron Age 162:125-6 Ag 26 '48

WAA ordered to dispose of all remaining surplus holdings. K. Rannels. Iron Age 162:123 S 2 '48

War plant leased; magnesium plant in Spokane to make metallic zinc, steel alloying materials. *il* Bsns W p22 Mr 20 '48

INDUSTRIAL design. See Design**INDUSTRIAL education**

Approach to industrial education; Crown Zellerbach corp. F. A. Olmsted. Paper Tr J 126:69-72 My 6 '48

Plan of industrial training for chemists and engineers, General electric co. C. H. Kline, Jr. *il* Chem & Eng N 26:2692-4 S 13 '48

Soviet Union; industrial training. El. Nash. Mo Labor R 65:569-71 N '47

Study it or do it? discussion. Am Mach 92:164-4 Ja 15 '48

Training program provides tailor-made classes to fit needs of various groups; Socony-Vacuum training center. Nat Pet N 40:30-4 My 19 '48

See also

Employees, Training of
Engineering education
Industrial engineering—Study and teaching

Paper making—Study and teaching
Printing, Practical—Study and teaching
Vocational education

Cooperative plan

Company gains when students analyze factory operations; A. G. Spalding & bros. W. T. Brown. *il* Factory Management 106:84-6 S '48

Construction-worker training that works; Montreal contractors, unions and Quebec provincial government jointly operating school for construction apprentices. *il* Eng N 140:1038-9 Je 24 '48

Education for the paper industry. S. V. Bal-lou and B. E. Lauer. bibliog Paper Tr J 126:116-4 F 26 '48

Industry, college provide course in sales engineering designed expressly for the machine tool industry, will be conducted by Cornell university. Iron Age 161:117 F 12 '48

Directories

Directory of colleges, universities and professional schools offering training in occupations concerned with business and industry. M. M. Pendergrast, comp. 645p \$2.50 Institute of women's professional relations, Connecticut college, New London, Conn. '47

INDUSTRIAL engineering

American industry, democracy's ace in the hole. C. S. Wyand. Mech Eng 70:663-5 Ag '48

Industrial engineering in refinery maintenance organization. W. H. Reynolds. Pet Refiner 27:112-15 Je '48

National convention of the Institution of production engineers, 1st, Bournemouth, Sept. 23-25. Engineer 186:337 O 1 '48

Role of industrial engineering in the paper industry. A. W. Holloway. Paper Tr J 127:36-7 S 30 '48

Some engineering aspects of quality control. A. G. Dalton. Mech Eng 70:205-7-4 Mr '48

Union attitudes on the application of industrial engineering techniques to collective bargaining. W. Gomberg. Personnel 24:443-54 My '48

See also

Industrial management
Time study

Study and teaching

Training in manufacturing processes. L. J. Fletcher and W. C. Van Dyck. J Eng Educ 38:491-5 Mr '48

INDUSTRIAL engineers

Plant engineer's formula helps to end labor dispute; sets work standard. Ed & Pub 81:9 Ja 10 '48

Reasons why chemical workers often resent changes recommended by industrial engineers. W. von Pechmann. Ind & Eng Chem 39:sup93A-4A N '47

INDUSTRIAL guns. See Guns, Industrial

INDUSTRIAL heating. See Electric heating, Industrial; Heating, Industrial; Infrared rays—Industrial heating

INDUSTRIAL hygiene. See Hygiene, Industrial

INDUSTRIAL hygiene foundation of America

Annual medical conference, 2d, Pittsburgh, Nov. 19. Ind Med 17:sup 18-20 Mr '48

Annual meeting, 12th, Pittsburgh, Nov. 20. Chem & Eng N 25:3724-5 D 15 '47

Annual meeting, 12th, Pittsburgh, Nov. 19-21; abstracts of proceedings. Ind Med 17:135-51 Ap '48

INDUSTRIAL insurance. See Insurance, Industrial

INDUSTRIAL insurers conference. See Life insurers conference

INDUSTRIAL lighting. See Factories—Lighting; Lighting, Industrial

INDUSTRIAL locomotives. See Locomotives, Industrial

INDUSTRIAL management

Achieving production per man-hour in industry. E. H. Dyson. Engineer 185:602-3 Je 18 '48

Dynamic approach to management; increased production through improved human relations. E. Buckley. bibliog Advanced Management 12:165-71 D '47

Full responsibility of management. W. J. Meinel. Franklin Inst J 246:45-51 J '48

Gantt and Dodd; an appraisal and an appreciation. J. M. Hancock. Mech Eng 70:125-6 F '48

How his company's management looks to the sales engineer. Mach 54:185-6 My '48

How well can management predict? examination of prognostic research, its utility and limitations. W. A. Hamor. Advanced Management 12:159-64 D '47

Human relations; rare, medium, or well-done? review of five books. F. J. Roethlisberger. Harvard Bsns R 26:89-107 Ja '48

Industrial administration. G. H. Nelson and R. T. Mattinson. Inst Mech Eng J & Proc 157 (War emergency issue no 32):301-4 '47

Long-range industrial planning. D. C. Prince. Mech Eng 70:137-42 F '48

Pattern for top executive action. W. S. Ford. Mech Eng 70:811-12+ O '48

Productivity, prices and markets. A. E. Dodd. Mech Eng 70:123-5 F '48; Same abr. Factory Management 106:228+ F '48

Progress in scientific management. H. S. Person. bibliog Advanced Management 12: 95-102 S '47; Same. Mech Eng 69:893-7 N '47

See also

Business management	Insurance, Business Inventories
Coal mines and mining—Management	Job analysis
Company towns	Machine shop management
Efficiency, Industrial	Machinery, Replacement of
Employees' representation in management	Mine management
Employment management	Office management
Engineering departments	Organization in industry
Factory management	Planning
Foremen	Public relations
Foundry management	Purchasing
	Railroads—Management
Hygiene, Industrial	Suggestion systems
Industrial relations	Time study
Inspection	Wage payment plans

INDUSTRIAL market

Basing point rulings may force vast industrial market shifts. S. E. Cohen. Ind Marketing 33:39+ Ag '48

Does it pay to launch an industrial product with a fanfare? Norton co. 32 Alundum. il Sales Management 60:100+ Mr 15 '48

How do you uncover a brand new industrial market? exploring by Celanese in fabric construction. il Sales Management 60:95+ F 15 '48

How industrial buying is done; report on NIAA research project. W. D. Creley. Ind Marketing 33:36+ J 1 '48

How industrial marketers can spot undernourished sales areas; employment volume yardstick. A. H. Dix. Ptr Ink 222:54+ Mr 26 '48

How to develop sales control facts from your own company records. R. D. Crisp. Ind Marketing 33:33+ O '48

How to size up the sales potential for industrial products; Sterling sanders. J. A. Proven. Sales Management 61:78+ Ag 1 '48

How to stage an industrial sales demonstration in a jiffy; DoAll co. demonstration trailers. L. R. Rothenberger. il Sales Management 60:90+ Ap 1 '48

Marketing research as a tool of management in industrial goods problems. P. W. Atwood. J Marketing 12:295-304 Ja '48

Origins of business. J. T. Fosdick. flow chart Ind Marketing 33:41-3 My; 36-8+ Ag '48

Pennsalt X-rays industrial market with six simple record forms. T. Armstrong. il Sales Management 59:103-4+ N 10 '47

Research ABC's for exploring the smokestack market. W. J. Stokes. Sales Management 61:106+ J 15 '48

Selling in the postwar market; H. E. Dickerman mfg. co. R. V. Wheeler. map Steel 122:84-5+ F 23 '48

Short cuts develop markets quickly for Kobe's free pump. J. H. Collins. Sales Management 60:91-2+ My 20 '48

Using newspaper advertising to spot industrial buyers. W. Ferdinand. il Ind Market-ing 33:46+ Ag '48

When industrial prospects say, let's see it work! demonstration with movies. G. E. Collins. il Sales Management 60:37-9 Mr 1 '48

INDUSTRIAL medicine. See Medical service, Industrial

INDUSTRIAL mills, inc.

Financial fun after fifty; Otto Boheim now has 12 small firms in his industrial mills, inc. il Mod Ind 15:67-8+ Ap '48

INDUSTRIAL mobilization

Air force industrial mobilization now moves into second phase. Aviation W 48:17 F 2 '48

Blueprint for industrial mobilization. T. J. Hargrave. il Dun's R 56:11-13+ Je '48

Boom and defense. K. Bloch. Fortune 38:104-5 N '48

Bottlenecks and shortages from stepped-up preparedness program. P. Dobbs. Mag of Wall St 82:126-7+ My 8 '48

Build the stockpile now for national security. Factory Management 106:50-5 Ap '48

Concepts of industrial mobilization planning being broadened. K. Rannels. Iron Age 162:137-8 O 7 '48

Effect on our economy, under defense mobilization, under all-out preparedness. E. A. Krauss. Mag of Wall St 82:60-2+ Ap 24 '48

Electronic war production board; computing machine that could guide war economy. il Bsns W p22-4 O 9 '48

Get ready for industrial mobilization; abstract. Management R 37:470-1 S '48

How can industry prepare now for defense? Munitions board's guide for joint industry-military procurement planning. S. P. Spalding. il Dun's R 56:15-17+ Ag '48

Increased spending can hasten war with Russia. H. L. Lutz. Comm & Fin Chr 167: 2081+ My 13 '48

Industrial blueprint for war. Mill & Factory 42:131+ My '48

Industrial mobilization: mailed fist for peace; abstract. Management R 37:4-5 Ja '48

Industrial mobilization plans of armed services require revision of antitrust laws. A. Leggin. Chem & Eng N 25:3627 D 8 '47

Industrial planning for national defense; what the government is doing; case study of Koppers co. Mill & Factory 42:126-9 Je '48

Industrial planning progressing. map Aviation W 49:42+ S 6 '48

Industrial preparedness. S. M. Robbins and T. E. Murphy. Harvard Bsns R 26:329-52 My '48

Industry mobilization planning. Steel 122:71-2 My 24 '48

Industry orders and materials policy. Factory Management 106:64a-64b O '48

Industry plans for mobilization. Bsns W p21 Mr 6 '48

Industry sizing up new military program. Steel 122:46-7+ Ap 5 '48

Joint industry-military procurement planning. J Account 86:323-7 O '48

Labour-management co-operation in United States war production; a study of methods and procedure. 405p \$2.25 International labour office, Washington branch, 1825 Jefferson place N.W. Washington 6, D.C. '48

Lag in preparedness causes industry crisis. Aviation W 48:32+ F 23 '48

Manpower needs of the expanded defense program. H. Wool and H. L. Lewis. Mo Labor R 67:373-6 O '48

Military expects industry to provide nucleus of trained oil reserve unit; API forum. Nat Pet N 39:14 N 12 '47

INDUSTRIAL mobilization—Continued

- Mobilization guidebook for U.S. industry. Bsns W p24 Je 5 '48
- Mobilization plan takes form; industrial, military and civilian activities to be coordinated under National security resources board. Steel 121:36-7 D 22 '47
- Mobilization plans affecting oil would correct errors in last war. S. H. Scheibla. Nat Pet N 40:40-1 Ap 14 '48
- Mobilizing the Nation's power for national defense. P. L. Smith. Pub Util 41:756-61 Je 3 '48
- Munitions board plans for industrial mobilization. P. W. Timberlake. Midwest Eng 1:14-15 O '48
- NSRB coordinates mobilization for war. Aviation W 49:60 S 6 '48
- NSRB is blueprinting new WPB in plan for industrial mobilization. Elec World News ed 130:11 O 30 '48
- New York quartermaster office industrial mobilization planning. J. V. McDowell. Textile Col 70:32+ F '48
- Opinions and facts about industrial mobilization. Factory Management 106:480-48f Ap '48
- Procurement machinery oiled. Il Steel 122:58+ Ap 12 '48
- Procurement practices and policies of the armed forces. W. J. Marshall. Paper Tr J 126:72 My 27 '48
- Progress being made toward industrial mobilization. R. H. Rush. Mill & Factory 43:104-5 O '48
- Ready for overnight conversion to war products; Bowser Fort Wayne plant. Il Mill & Factory 43:124-6 S '48
- Rearmament and the money market. M. Nadler. Comm & Fin Chr 167:2755+ Je 24 '48
- Rearmament program and money market. H. V. Roelse. Comm & Fin Chr 167:2534+ Je 10 '48
- U.S. planners try to prepare for next war; emphasize avoiding mobilization mistakes of last conflict. S. H. Scheibla. Barron's 28:9 My 10 '48
- U.S. pushes mobilization preparations. Steel 122:63-4 Mr 15 '48
- Utilizing small industrial plants in event of national emergency. J. A. McPherson. Mech Eng 69:309-10 N '47
- We must be sure of our machine tools for national security. Il Factory Management 106:66-72 Je '48
- What new problems will army boom create? effect of armaments expenditures on business. R. L. Heilbronner. Il Am Bsns 18:18-19+ Ap '48
- What we are doing about national security. Factory Management 106:66-73 Mr '48
- What's ahead for industry if the cold war warms up. Factory Management 106:66-71 Jl '48
- Which securities under preparedness? companies likely to benefit. F. K. Dodge. Il Mag of Wall St 82:63-5+ Ap 24 '48
- Will not convert steel, aluminum plant output for war mobilization. Iron Age 161:122+ Ap 15 '48

See also

- Contracts, Government United States—National security resources board
- INDUSTRIAL motor trucks.** See Motor trucks, Industrial
- INDUSTRIAL museums**
See also
Museum of science and industry, Chicago
- INDUSTRIAL nursing.** See Nurses and nursing, Industrial
- INDUSTRIAL office buildings.** See Office buildings, Industrial
- INDUSTRIAL packaging engineers association**
Election of new officers. Mod Packaging 21:152 Ja '48
- INDUSTRIAL pensions.** See Pensions, Industrial
- INDUSTRIAL personnel testing institute**
Personnel testing institute established. Chem & Eng N 26:313 F 2 '48
- INDUSTRIAL photography.** See Photography—Industrial applications

INDUSTRIAL psychology. See Psychology, Industrial

INDUSTRIAL railroads. See Railroads, Industrial

INDUSTRIAL relations

- Adventures in advertising. J. O. Young. Ptr Ink 223:42-3+ My 14 '48
- Are your employees better educated than you are? H. Swift. Mass Transportation 43:526-30 N '47
- Basic principles behind good employee relations and sound collective bargaining (1946). Harvard Bsns R 26:370-1 My '48
- Blueprint for an effective and happy organization; rights and obligations of stockholders, management, employees. I. Goldenenthal. J Retailing 24:52-3 Ap '48
- Botany and union-issue joint training text; sets forth practical ways to insure free interchange of ideas between management and labor. Sales Management 60:117+ Mr 15 '48
- Business good, but plant closes; American Zinc dismantles Langloeth, Pa. factory. Bsns W p80 Ja 31 '48
- Causes of industrial peace. C. Francis. Mill & Factory 42:insert Ja '48; Abstract. Factory Management 106:236+ Ja '48
- Challenge of industrial relations; abstract. S. H. Slichter. Management R 37:17-19 Ja '48
- Challenge to American management; abstracts. A. S. Igleheart. Ry Age 124:424-6+ F 28 '48; Management R 37:274-6 Je '48
- Determining industrial relations policies, a survey; abstract. H. Baker. Management R 37:403-6 Ag '48
- Detroit case study in the group-talking technique. K. Anderson. Personnel J 27:93-8 Jl-Ag '48
- Easel technique; getting facts of Britain's economic situation to workers. R. Desbrow. Ptr Ink 223:38-9 Je 25 '48
- Eleven values of employee-employer forums in cementing good relations; unions, non-union workers and executives at Elgin national watch co. H. E. Green. Ptr Ink 222:33-5+ Mr 26 '48
- Employee relations; today's challenge. E. G. Taylor. Pulp & Pa of Can 49:73-6 S '48
- Functional roles of union and management. N. W. Chamberlain. Advanced Management 12:143-7 D '47
- GE's new model job becomes product research project. L. R. Boulware. Ed & Pub 81:28 Ja 3 '48
- Getting workers' help in cutting costs. Il Mod Ind 15:40-5 Ap '48
- Good labour relations; I.C.I. chairman on collaboration with unions; abstract. Lord McGowan. Chem Age (Lond) 58:739 My 29 '48
- Highlighting labor peace; National planning assn. report on Pacific Coast paper industry. Bsns W p 110-12 S 18 '48
- How S. Buchsbaum and co. raincoat manufacturer, raises wages, cuts prices; harmony in labor relations is the key. Am Bsns 18:20+ Ap '48
- How to build industrial peace and prevent strife; unions should educate public, employers, and their own members. E. L. Bernays. Advanced Management 12:154-8 D '47
- Human factors in industry; conference. Engineer 185:481 My 14 '48
- Human relations are everybody's business. D. Orton. Il Dun's R 56:16-17+ Ja '48
- Human relations program gets glad hand from union; Alleghany Ludlum's program to develop better relations in plant communities. G. F. Sullivan. Iron Age 161:123+ Ap 29 '48
- Human relations; rare, medium, or well-done? review of five books. F. J. Roethlisberger. Harvard Bsns R 26:89-107 Ja '48
- Industrial relations conference held by Steel founders' society of America, St Louis, Sept. 23-24. Foundry 76:118+ N '48
- Industrial-relations idyll; Crown Zellerbach. Fortune 38:148+ O '48
- Industrial relations round-table. Am Gas Assn Mo 30:19 S '48
- Industrial relations with professional workers. H. R. Northrup. Harvard Bsns R 26:543-59 S '48

INDUSTRIAL relations—Continued

Industrial wage earners want more information from management; wage earner forum, *Ptr Ink* 221:59 D 26 '47

Information, please; what the workers chiefly want to know. *Chem Age (Lond)* 58:111-12 Ja 17 '48

International Harvester's attack on radical labor leadership, *il Factory Management* 105:66-73 D '47

Is industrial peace on the horizon? J. W. Keener. *Am Gas Assn Proc* 1947:58-62; Same. *Am Gas Assn Mo* 29:477-8+ N '47

Labor and management either float or sink together, R. G. Johnstone. *Pulp & Pa of Can* 48:70-1 N '47

Labor leader looks at industry's human relations; abstract, H. W. Brown. *Management R* 37:121-3 Mr '48

Labor-management conflict or co-operation? P. Pigors. *bibliog Mech Eng* 70:531+ Je '48

Labour-management co-operation in United States war production; a study of methods and procedure. 405p. \$2.25 International labour office, Washington branch, 1825 Jefferson place N.W. Washington 6, D.C. '48

Labor-management picture in the bus industry, F. Kane. *Bus Transportation* 27:50-1 F '48

Labour-management relations, E. M. Little. *Pulp & Pa of Can* 49:53-6 Ap '48

Labour-management relations in the United States, *Int Labour R* 58:218-23 Ag '48

Labor, 1948; peace or pickets, W. V. Packard. *Iron Age* 161:178-83 Ja 1 '48

Labor organization, management's fault? F. C. Smith. *Personnel J* 27:127-9 S '48

Labor peace gains ground, *il Bsns W* p84+ Ag 14 '48

Labor relations in the U.S. zone of Germany, O. Weigert. *Mo Labor R* 68:378-85 Ap '48

Labor relations information needed, W. Shurtliff and B. Meyer. *Personnel J* 27:180-2 O '48

Labor relations mumbo-jumbo; interpretation of language of labor and management, E. W. Mounce and R. D. Stevens. *Manuf Rec* 117:39-40 Ag '48

Leadership in the navy and industry, E. M. Eller. *il U S Naval Inst Proc* 74:671-81 Je '48

Let's make workers feel they belong; Allegheny Ludlum Steel, H. G. Batcheller. *Factory Management* 106:90-3 F '48

Let's raise the iron curtain between employer and employee, W. DeLong. *Pulp & Pa of Can* 49:56-7 Mr '48

Man power vs. machine power, R. V. Wright. *Ry Mech Eng* 121:640-1 N '47

Men and machinery; credit men would do well to study human relations, C. H. Sondhaus. *Credit & Fin Management* 50:15-16 My '48

Misinformed employee, R. G. Walker. *Harvard Bsns R* 26:267-81 My '48

Mutuality of labour and management, G. M. Minard. *Pulp & Pa of Can* 49:56-8 My '48

New challenge in industrial relations, E. Bunting. *Comm & Fin Chr* 168:111+ Jl 8 '48

New industrial citizenship for America's workers, A. M. Rosenberg. *Factory Management* 106:110-12 Ag '48

Pittsburgh labor-management committee. *Personnel J* 26:201-2 N '47

Practical approach to sound labor relations, O. C. Cool. *il Chem Ind* 62:397+ Mr '48

Printers' Ink, American Heritage employee relations competition. *Ptr Ink* 222:33-40 F 20; 41-2 Mr 12 '48

Printer's Ink presents awards in American Heritage employee relations competition; C. E. Wilson accepts award to General Electric. *Ptr Ink* 226:128+ O 29 '48

Proceedings of the Personnel and industrial relations conference at Purdue university, May 19-20, 1947, F. L. Cason, comp. *Purdue Univ, Eng Ext Dept Bul* 62:1-65 '47

Proceedings of the Personnel and industrial relations conference at Purdue university, May 17-18, 1948, F. L. Cason, comp. *Purdue Univ Eng Extension Ser* 65:1-53 '48

Productivity, prices and markets, A. E. Dodd. *Mech Eng* 70:123-5 F '48; Same abr. *Factory Management* 106:228+ F '48

Quest for maturity in labor relations; review of Selekmán's Labor relations and human relations. B. W. Levy. *Personnel J* 26:35-61 Ap '48

Role of government in labor relations, C. S. Ching. *Edison Elec Inst Bul* 16:233-5 Jl '48

Selling the coal miner; attention-catching publications, using the human approach; how they are produced and what they cost. *il Coal Age* 52:74-8 N '47

Selling the idea of free enterprise, E. C. Bursk. *Harvard Bsns R* 26:372-84 My '48

60-year peace; sales promotion scheme started by glass workers' union and employers, *il Bsns W* p 106-8 O 16 '48

Sound relations stressed for public, employee, community; Southern industrial relations conference. *Textile World* 98:149+ O '48

Special libraries and research in labor and industrial relations, P. Bradley. *Special Lib* 39:82-6 Mr '48

Study on the management prerogative issue, J. G. Turnbull. *Personnel* 25:106-24 S '48

Successful formula for industrial peace; labor-management committee of Portland, Ore. Mill & Factory 43:148-9 S '48

Trends in communicating with employees, H. A. Marple. *Am Gas J* 168:33-7 F '48

Union and management cooperate to establish incentive system, *il Mill & Factory* 42:95-9 Mr '48

Union education of workers in management procedure, C. S. Golden. *Advanced Management* 12:111-15 S '47

What's ahead in employee relations, C. Robinson. *Ry Age* 124:1114-16+ Je 5 '48

What's wrong with our economic set-up? W. J. Smith. *Comm & Fin Chr* 167:507 Ja 29 '48

Where are we going? H. S. Straus. *Paper Tr J* 126:14+ Je 10 '48

Will to work; greatest resource of American industry, P. Bradley. *Advanced Management* 13:65-72 Je '48

Winning team pays off; human relations as practiced by McCormick & co. C. P. McCormick. *il Dun's R* 56:11-13+ Ap '48

See also

Arbitration, Industrial	Labor and laboring classes
Building trades—Labor conditions	Labor disputes
Collective bargaining	Moving picture industry—Employees
Company towns	National labor-management panel
Employees	National labor relations board
Employees, Reports to	Open and closed shop
Employees' benefit plans	Personnel administration (term)
Employees' contests	Profit sharing
Employees' magazines	Psychology, Industrial
Employees' representation in management	Safety devices and measures
Employment management	Strikes
Incentives in industry	Suggestion systems
Labor and capital	Trade agreements
	Trade unions
	Unemployment
	Wage payment plans

Bibliography

Labor-management relations. Booklist [ALA] 44:411-14 pt 2 Ag '48

Study and teaching

Colleges offering courses in personnel subjects, by research and records committee, Personnel club of New York. *Personnel J* 26:305-8 F '48

INDUSTRIAL relations associations

Professional associations in manpower management, D. Yoder. *Personnel J* 27:43-6 Je '48

INDUSTRIAL research

Application research in industry, F. L. Matthews. *J Chem Educ* 25:174-6 Mr '48

Application research methods for synthetic detergents, L. H. Flett. *il Chem & Eng* N 26:1368-70 My 10 '48

British industry plans for expanded research, *Bsns W* p46 D 20 '47

College research to the aid of small business, S. C. Hooper. *Inst Radio Eng Proc* 36:1144-5 S '48

INDUSTRIAL research—Continued

- Constructive curiosity reduces costs and improves quality; International harvester company department for research in reducing manufacturing costs, improving product quality. E. J. Clement. *il Mill & Factory* 42:95-9 Ja '48
- Cooperation of science and industry in the development of the antibiotics. R. T. Major. *il Chem & Eng N* 26:3186-90+ O 25 '48
- Department of industrial cooperation at the University of Maine. L. C. Jenness. *il Paper Tr J* 126:135-8 My 27 '48
- Design of experiments in industrial research. H. M. Smallwood. *Anal Chem* 19:950-2 D '47
- Development of thermosetting plastics. V. E. Meharg. *Chem & Eng N* 26:1282-3 My 3 '48
- Does patent consciousness interfere with cooperation between industrial and university research laboratories? L. A. Hawkins. *Science* 105:326-7 Mr 28 '47; Same. *Elec Eng* 67:135-6 F '48
- Federal research; industry may profit by co-operating. J. W. Boyer. *Chem & Eng N* 26:241-2 Ja 26 '48
- Fulmer institute, a counterpart of Mellon. *il Chem & Eng N* 26:2120-1 Ji 19 '48
- Functions of a use-development organisation in the textile industry. H. A. Thomas. *Textile Inst J* 39:P44-60 Ag '48
- Functions of science and scientists in industry; abstracts. E. Appleton. *Chem Age (Lond)* 58:420 Mr 27 '48; *Engineer* 135:311 Mr 26 '48
- Georgia story; research. *il Manuf Rec* 117:118-19 My '48
- Glidden emphasizes research. *Bsns W* p40+ D 20 '47
- Good order in federal research. J. W. Boyer. *Chem & Eng N* 26:2960-2 O 4 '48
- How collective genius contributes to industrial progress; reprinted, with revisions from General electric review, May 1941. K. K. Paley. *Advanced Management* 13:76-83 Je '48
- How do you uncover a brand new industrial market? exploring by Celanese in fabric construction. *il Sales Management* 60:95+ F 15 '48
- Industrial consultants; Foster D. Snell, inc. D. H. Killeffer. *il Sci Am* 178:122-6 Mr '48
- Industrial research. *Economist* 153:796 N 15 '47
- Industrial research in Great Britain; abstract. H. K. Whalley. *Chem & Ind* p252 Ap 17 '48
- Industrial research in South Africa. *Chem & Eng N* 26:480-1 F 16 '48
- Industry is spending more for research. *Bsns W* p58 N 1 '47
- Industry-sponsored university research. A. M. Palmer. *bibliog Chem & Eng N* 26:2042-5 Ji 12 '48
- Industry-sponsored university research. S. Tour. *Chem & Eng N* 26:2046-8 Ji 12 '48
- Industry's requirements for engineering graduates in research. A. E. Buchanan. *J Eng Educ* 38:551-8 Ap '48
- Infra-red spectrophotometer for industrial research. E. J. Martin and others. *il diags Opt Soc Am J* 37:923-31 N '47
- International Harvester opens 3½ million research building. *il plan Automotive Ind* 97:30-1+ N 15 '47
- New horizons for industrial research. C. F. Rassweiler. *Paint Oil & Chem R* 110:21-4 N 13 '47
- New research policies urged; meeting of Industrial research institute. *Chem & Eng N* 26:451 F 16 '48
- New style reserve by A. O. Smith insures retention of firm's brains in depression. *Barron's* 27:31 N 17 '47
- Northern Ireland research council. *Chem Age (Lond)* 58:166 Ja 31 '48
- Partners in research; excerpts from eleventh annual report of Armour research foundation. *Chem & Eng N* 26:2994-6 Ap 5 '48
- Passing world. H. Tizard. *Engineering* 166:256-7, 306-7 S 10, 24 '48; *Excerpts. Engineer* 136:282 S 17 '48; *Abstract. Electrician* 141:772 S 10 '48
- Philosophy of new product development. K. H. Kilpstein. *Chem & Eng N* 26:1691-3 Je 7 '48
- Process research. A. H. Aston. *Engineer* 186:2-3, 28-9 Ji 2-9 '48
- Public library establishes research group; Industrial research service foundation, associated with Detroit public library. *Pet Processing* 2:900 D '47
- Relationship of industrial, government and university research in Canada. R. R. McLaughlin. *Can Chem & Process Ind* 32:143-4+ F '48
- Remarques sur l'organisation des laboratoires industriels. I. Psychès. *il plan diags Chimie & Ind* 58:603-7 D '47
- Research and educational efforts vital to British recovery. A. P. M. Fleming. *Chem & Eng N* 26:1210-11 Ap 26 '48
- Research becomes major business in itself. *Barron's* 27:11 D 8 '47
- Research creates competition; abstract. C. E. Wilson. *Pub Util* 40:787-91 D 4 '47
- Research for profit. T. S. Taylor. *Textile Col* 70:28, 61 My; 33+ Je '48
- Research in Australia. *Engineering* 165:161-2, 245-6 F 13, Mr 12 '48
- Research in Britain sponsored by government. *il Product Eng* 19:150-2 F '48
- Research in industry. H. E. Keeler. *il Refrig Eng* 55:355-7+ Ap '48
- Research in rural peace; Air reduction company apparatus research laboratory. *il Mill & Factory* 42:109 F '48
- Research progress at Midwest research institute. *il Chem & Eng N* 25:3498-502 N 24 '47
- Research specialists launch survey on clay products industry problems. *Brick & Clay Rec* 112:68+ Ap '48
- Scope of engineering research. L. W. Chubb. *J Eng Educ* 38:286-9 D '47
- Send your problems to college. *il Mod Ind* 16:45-9 Ag '48
- Some controversial points in the management of research. N. A. Shepard. *Chem & Eng N* 26:1508-10 My 24 '48
- Sondes Plac research institute. *il Chem & Ind p* 448 Ji 10 '48
- Southwest research institute, newest member of Slick foundation. G. Weber. *il Oil & Gas J* 46:108+ D 13 '47
- Time—money in research. H. L. Barnebey. *il Chem Eng* 55:103-5 Je '48
- Trends in industrial research and patent practices; abstract. *Management R* 37:448-50 S '48

See also

- | | |
|-----------------------|------------------------|
| Agricultural research | Market research |
| Cement research | Metallurgical research |
| Ceramic research | Milk research |
| Chemical research | Paint research |
| Corrosion research | Paper research |
| Cotton research | Petroleum research |
| Dye research | Railroad research |
| Electric research | Refrigeration research |
| Engineering research | Rubber research |
| Food research | Scientific research |
| Foundry research | Steel research |
| Gas research | Textile research |
| Glass research | Welding research |
| Laboratories | Wood research |
| Management research | Wool research |
- Calso Ontario—Research commission; Pittsburgh university. Mellon institute of industrial research
- INDUSTRIAL sand association, National.** See National industrial sand association
- INDUSTRIAL statistics**
- Automotive Industries annual statistical issue. *Automotive Ind* 98:81-128+ Mr 15 '48
- Capital expansion boom; industry's plans for new plant and equipment. *il Bsns W* p65-72 F 7 '48 [reprints 20c]
- Current and prospective plant and equipment expenditures. M. L. Merriam. *Survey of Cur Bsns* 28:12-14+ Ap '48
- Industrial differences in large corporation financing; with tabulations showing composite sources and uses of funds statements, balance sheets, and selected income statement data for 1945-1947. C. H. Schmidt. *Fed Res Bul* 34:623-33 Je '48
- Long-range industrial planning. D. C. Prince. *Mech Eng* 70:137-42 F '48
- McGraw-Hill completes census of industry. H. Burnett. *Ind Marketing* 32:54-5+ D '47

INDUSTRIAL statistics—Continued

- Plant and equipment expenditures, 1941-1946. Survey of Cur Bsns 1947 Sup p9 [supplemented in monthly numbers]
- Plant and equipment expenditures of U.S. business; position as first quarter of 1948 opens. Survey of Cur Bsns 28:6-7 Ja '48
- Plant and equipment survey; planned outlays for third quarter of 1948. Survey of Cur Bsns 28:3 Jl '48
- Sulfuric acid index of production follows industrial activity. C. C. Concannon and F. M. Hoffheins. Chem & Eng N 26:1072-3 Ap 12 '48
- Town's industry tells how it spends its income; New Britain, Conn. il Factory Management 106:126-8 Jl '48
- War production board's statistical reporting experience. D. Novick and G. A. Steiner. Am Stat Assn J 43:201-30, 468-88 Je-S '48

See also

- Employment—Statistics Production—Statistics
- Market statistics Wages—Statistics
- also subdivision Statistics under names of industries, e.g. Petroleum industry and trade—Statistics

Bibliography

- Current list of selected information sources. P. B. B. Andrews, comp. Sales Management 60:140+ Ap 15; 101-2+ My 1 '48

INDUSTRIAL surveys

- Capital expansion boom; industry's plans for new plant and equipment. il Bsns W p65-72 F 7 '48 [reprints 20c]

INDUSTRIAL trusts. See Trusts, Industrial**INDUSTRIAL waste. See Trade waste****INDUSTRY**

- American industries built upon engineering and science can save the world. E. G. Bailey. Mech Eng 70:891-2 N '48
- Another treasure hunt for growth companies. E. A. Krauss. Mag of Wall St 81:228-30+ D 6 '47
- Backed-up industrial needs of 'thirties barely met. L. J. Zitnik. Barron's 28:7-8 Je 14 '48
- Business and economic implications of waning industrial expansion. E. A. Krauss. Mag of Wall St 82:620-2+ S 25 '48
- Creative destruction; capitalism jettisons enterprises it no longer needs. Fortune 38:4 Jl '48
- Problems confronting industry. B. F. Fairless. Comm & Fin Chr 167:1310+ Mr 25 '48
- Return to seasonal patterns in industry. W. Gates. il Mag of Wall St 82:375-7+ Jl 17 '48
- Selecting growth companies for 1948. J. C. Clifford. il Mag of Wall St 81:461-3+ Ja 31 '48
- Where ERP dollars will benefit American business. W. Gates. il Mag of Wall St 82:118-19+ My 8 '48
- Which industries offer best prospects for 1948? G. W. Mathis. il Mag of Wall St 81:392-5+, 457-60+ Ja 17-31 '48
- Which securities under preparedness? companies likely to benefit. F. K. Dodge. il Mag of Wall St 82:63-5+ Ap 24 '48

See also

- | | |
|---|-----------------------------|
| Business | Labor and laboring |
| Cities and towns— | classes |
| Industries | Location in industry |
| Corporations | Manufactures |
| Diversification in industry | Moving pictures in industry |
| Efficiency, Industrial | Planning |
| Factories | Production |
| Government regulation of industry | Standardization |
| Handicraft | Trade associations |
| Industrial market and other headings beginning Industrial | Unemployment |
- also names of industries, e.g.
- Chemical industries
- Petroleum industry and trade
- Plastic industries

Decentralization

- Decentralization; defense against atomization? C. I. Barnard. Pub Util 41:597-603 My 6 '48

- Industrial dispersion pushing new public works. J. W. Follin. Eng N 141:109 S 16 '48
- Lorenz curve analysis of industrial decentralization. G. C. Smith, Jr. Am Stat Assn J 42:591-6 D '47
- Mass production vs. small business; technological developments favoring flexible decentralized plants. J. M. Blair. Trusts & Estates 87:217-21 S '48
- Program of limited decentralization of accounting functions. T. H. Patterson. N A C A Bul 29:1191-200 Je 1 '48
- Social aspects of decentralization. D. G. Mitchell. Mech Eng 70:532-4 Je '48
- South to gain from industrial decentralization. S. Fish. Manuf Rec 117:35+ S '48
- Spreading out; industry decides to scatter. Arch Forum 89:18+ O '48
- When industry moves to the country; two practical ways to set up small units in small towns. il Factory Management 106:66-73 Ag '48

Migration

- America's changing industrial map; a McGraw-Hill study of the migration of industry in the U.S. Bsns W p65-72 Ag 7 '48 reprints [10c]
- Changing U.S. industrial map. J. C. Cresswill. map Mag of Wall St 83:118-19+ N 6 '48
- Fifty-year record of industry migration, map Factory Management 106:94-6 Ag '48
- Industrial migration. maps Chem Eng 55:110-12 Ag '48
- Industry moves west. map Elec West 101:69-76 Ag '48; Excerpts. Elec World News ed 130:16-17 Ag 7 '48
- Is metalworking moving? map Am Mach 92:11-14 Ag 12 '48
- Migration of industry; bus companies will do well to study resultant changes, map Bus Transportation 27:41-3 Ag '48
- Textile migration continues, but with glacial slowness. W. B. Dall. Textile World 98:99+ Ag '48

See also

- Factories—Moving

Reports to government

- See Business—Reports to government

Ruralization

- See Industry—Decentralization

Social aspects

- Industry's obligation to the consumer. J. D. Mooney. il Dun's R 56:11-13 Mr '48
- Toward new horizons; management reconstructs its thinking. E. H. Schell. il Dun's R 56:11-13+ My '48; Abstract. Management R 37:388-90 Ag '48

Yearbooks

- International industry yearbook; the encyclopedia of industrial progress. L. J. Hughlett, ed. 414p \$10 International industry yearbook, 551 Fifth av. New York 17 '48

INDUSTRY and education. See Education and industry**INDUSTRY and state****See also**

- | | |
|---|----------------------------|
| Business—Reports to government | Industrial demobilization |
| Certificates of convenience and necessity | Industrial mobilization |
| Commercial policy | Labor laws and legislation |
| Economic planning | Public utilities |
| Economic policy | Railroads and state |
| Government ownership | Right to labor |
| Government regulation of industry | Tariff |
| | Taxation |

Great Britain

- Britain's grandmotherly bureaucracy. F. B. Makin. Banking 40:35 Je '48
- Public corporations in Britain. Lord Knollys. Pub Util 41:615-18 My 6 '48

United States

- 850-billion dollar question; blend between private action and government functions vital for free enterprise. L. H. Keyserling. Comm & Fin Chr 167:2744+ Je 24 '48

INDUSTRY and state—United States—Cont.

Government aids to the mining industry. P. M. Tyler. *il Min & Met* 28:544-8 N '47
 Reversion from government paternalism. H. A. Vilas. *Comm & Fin Chr* 167:2325+ My 27 '48

Scores businessmen for failure to combat unlimited government. W. C. Mullendore. *Comm & Fin Chr* 168:1533+ O 14 '48

See also

Government investigations

INERTIA, Moments of. *See* Moments of inertia

INFANT mortality

Experience on infants found to be favorable. R. J. Learson. *East Underw* 49:14 My 21 '48

Statistics

Births, infant mortality and maternal mortality in the United States, 1944. N. J. Brombacher. *maps Pub Health Rep* 62:1555-74 O 31 '47

Illness among infants, with comparative mortality data. S. D. Collins. *bibliog Pub Health Rep* 63:637-62 My 14 '48

INFANTILE paralysis

Antiviral synthetic hush mouse polio. *Chem & Eng N* 26:2710 S 13 '48

Changes in age selection of fatal poliomyelitis. A. G. Gilliam. *bibliog Pub Health Rep* 63:677-84 My 21 '48

Dally's appeal gets hospital for crippled; Stories of filth with pictures help polio fight. *Ed & Pub* 81:41 Ag 7 '48

International poliomyelitis conference first meeting, New York, July 12-17, 1948. *Science* 107:187-8 F 20 '48

International poliomyelitis conference, 1st, New York. *Science* 108:34-5 JI 9 '48

Isolation of poliomyelitis virus from human serum by direct inoculation into a laboratory mouse. H. Koprowski and others. *bibliog Pub Health Rep* 62:1467-76 O 10 '47

Laboratory test for the virus of poliomyelitis. P. R. Lépine. *Science* 108:134-5 Ag 6 '48

More polio research scheduled. *Dom Eng* 171:118-19 Ja '48

Paralytic shellfish disease and poliomyelitis; abstract. R. R. Scobey. *Am Water Works Assn J* 40:570-1 My '48

Polio on the air, and at meetings helps public relations. *Dom Eng* 171:124-5 Ap '48

\$275,000 given for hospital in North Carolina. *Ed & Pub* 81:6 Ag 14 '48

Unidentified, filtrable agent isolated from the feces of children with paralysis. G. Dall-dorf and G. M. Sickles. *Science* 108:61-2 JI 16 '48

See also

International poliomyelitis conference

Statistics

Incidence of poliomyelitis in 1947. C. C. Dauer. *map Pub Health Rep* 63:393-6 Mr 26 '48

Poliomyelitis cases increase. *Pub Health Rep* 63:1075 Ag 13 '48

Poliomyelitis in England and Wales in 1947. *Pub Health Rep* 63:1370-2 O 15 '48

Poliomyelitis in England and Wales in 1947. W. H. Bradley and A. H. Gale. *Pub Health Rep* 63:397-400 Mr 26 '48

Poliomyelitis in Great Britain and Europe. *Pub Health Rep* 62:1387-8 S 19 '47

Poliomyelitis incidence exceeds 1946 figure. *Pub Health Rep* 63:1344-5 O 8 '48

INFANTILE paralysis insurance. *See* Insurance, Infantile paralysis

INFANTS

Predictiveness of infant behavior traits; abstract. A. Gesell. *Science* 106:512 N 28 '47

Diseases

Illness among infants, with comparative mortality data. S. D. Collins. *bibliog Pub Health Rep* 63:637-62 My 14 '48

INFANTS, Newborn

Beta-glucuronidase. L. D. Odell and others. *Science* 108:355-6 O 1 '48

INFANTS' chairs

Specialty selling solves problem of product that needs demonstration. A. E. Puls. *Ptr Ink* 224:40 JI 23 '48

INFANTS' food

Cooperative marketing; Gerber and Armour package and sell meats for babies. *il Mod Packaging* 21:107 Mr '48

INFANTS' supplies

Baby departments roll up dollars for drug stores. *il Sales Management* 60:83-4 Ap 15 '48

Plastics in the nursery. *il Plastics* 8:14-15 Je '48

See also

Toilet seats, Infants

Advertising

Specialty selling solves problem of product that needs demonstration. A. E. Puls. *Ptr Ink* 224:40 JI 23 '48

Manufacture

Beautiful plant is more efficient; Johnson & Johnson baby products plant, Cranford, N.J. H. G. Fromm. *il Factory Management* 105:76-9 N '47

INFECTIOUS diseases

Allergy; a definition. B. Schick. *il Sci Am* 179:26-9 JI '48

Analysis of water-borne outbreaks, 1938-45. R. Eliassen and R. H. Cummings. *Am Water Works Assn J* 40:509-28 My '48

Diseases carried by water. *Nat Safety N* 57:94-5 Ja '48

Sanitary significance of ventilation. W. F. Wells. *bibliog diag Heating-Piping* 20:115-21 S '48

Studies on the air transmission of micro-organisms derived from the respiratory tract. H. du Buy and others. *bibliog diag Pub Health Rep* 62:1391-413 S 26 '47

See also

Brucellosis

Chemotherapy

Dysentery

Epidemics

Histoplasmosis

Infantile paralysis

Influenza

Malaria

Newcastle disease

Plague

Pneumonia

Q fever

Tsutsugamushi disease

Tuberculosis

Tularemia

Typhoid fever

Typhus fever

Viruses

Whooping cough

Statistics

Morbidity reporting in local areas. M. D. West. *bibliog Pub Health Rep* 63:329-39, 1187-202 Mr 12, S 10 '48

Notifiable diseases, second quarter, 1947. *Pub Health Rep* 62:1372-6 S 19 '47

Notifiable diseases, third quarter, 1947. *Pub Health Rep* 62:1752-6 D 12 '47

Notifiable diseases, fourth quarter, 1947. *Pub Health Rep* 63:278-82 F 27 '48

Notifiable diseases, year 1947. *Pub Health Rep* 63:388-92 Mr 19 '48

Notifiable diseases, first quarter, 1948. *Pub Health Rep* 63:950-4 JI 16 '48

Notifiable diseases, second quarter, 1948. *Pub Health Rep* 63:1424-8 O 29 '48

Studies of the acute diarrheal diseases; epidemiology. A. V. Hardy and J. Watt. *Pub Health Rep* 63:363-78 Mr 19 '48

INFECTIOUS hepatitis. *See* Jaundice

INFLAMMABLE liquids

Control of solvent exposures. E. C. Barnes. *Nat Safety N* 57:20-1+ Ja '48

Emergency handling of hot flammable liquids. J. H. Johnsen. *diag Chem Ind* 62:398-9 Mr '48

Explosive substances. *Nat Safety N* 57:163-4 Mr '48

Fire protection for flammable liquids. S. G. Freck. *il Mill & Factory* 42:144 Je '48

Flammability of the higher boiling liquids and their mixtures. M. V. Sullivan, J. K. Wolfe and W. A. Zisman. *bibliog il diag Ind & Eng Chem* 39:1607-14 D '47

Plane crash fire danger studied by fuel engineers. W. E. Kuhn. *il Aviation W* 48:24-5 Ja 19 '48

Pouring temperatures for liquids. W. L. Nelson. *Oil & Gas J* 47:239 My 20 '48

INFLAMMABLE materials

Ammonium nitrate; its properties and fire and explosion hazards. G. S. Scott and R. L. Grant. *4pls U S Bur Mines Information Circ* 7463:1-32 bibliog(115 titles, p25-32) '48

INFLAMMABLE materials—Continued

- Controlling industrial fire hazards. M. M. Braidech. Am Water Works Assn J 40:927-35 S '48
- Fire hazards and protection of rubber cement. E. E. Turkington. diags Rubber Age 62:61-3 O '47
- Fire meter; flammability of polyvinyl chloride plasticizers. II diags Chem Ind 62:388-9 Mr '48
- Handling and storage of sulfur; hazards and precautions; industrial data sheet. bibliog il Nat Safety N 57:40+ F '48
- Housekeeping and hazards. diags Nat Safety N 57:156 Mr '48
- Sisal fiber vs wet water. D. Powell. II Safety Eng 96:22-3+ Ag '48
- Statistical method of assessing the safety of gaps between flanges of flameproof electrical apparatus. C. E. R. Bruce and N. L. Johnson. diags Inst E E J 95 pt 2:49-58 F '48

See also

- Bombs, Incendiary Textile fabrics—Inflammability
- Nitrocellulose

Testing

- Determination of ignition temperatures of combustible liquids and gases; modification of the drop method apparatus. G. S. Scott, G. W. Jones and F. E. Scott. bibliog il diags Anal Chem 20:238-41 Mr '48

INFLAMMABLE mixtures

- Analyses of complex mixtures of gases; application to control and extinguish fires and to prevent explosions in mines, tunnels, and hazardous industrial processes. S. H. Ash and E. W. Felegy. 9 fold pls [in pocket] U S Bur Mines Bul 471:1-202 bibliog (p201-2); pa 75c Supt. of doc. '48
- Annual report of research and technologic work on explosives, explosions, and flames, fiscal year 1946. B. Lewis. bibliog 29pls U S Bur Mines Rep of Invest 4176:1-62 '47
- Design, testing and calibration of a combustible-gas detector. R. Poole. bibliog il diags Inst E E J 95 pt 2:258-71; Discussion. 271-4 Je '48
- Effect of hydrocarbons and other gases upon the explosibility of acetylene. G. W. Jones and others. bibliog pl U S Bur Mines Rep of Invest 4196:1-8 '48
- Explosive substances. Nat Safety N 57:163-4 Mr '48
- Ignition and flame stabilization in gases. B. Lewis and G. von Elbe. bibliog il diags A S M E Trans 70:307-14; Discussion. 314-16 My '48
- Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others. diags J Chem Phys 15:798-802 N '47
- Ignition of explosive gas mixtures by electric sparks; theory of the propagation of flame from an instantaneous point source of ignition. B. Lewis and G. von Elbe. bibliog diags J Chem Phys 15:803-8 N '47
- Inflammability in suspension of mixtures of combustible and incombustible dusts. P. C. Bowes and others. bibliog diags Soc Chem Ind J 67:125-30 Ap '48

See also

- Labels—Law

INFLATION (finance)

- Administration anti-inflation program; statement before House banking and currency committee. J. W. Snyder. Comm & Fin Chr 166:2158+ N 27 '47
- Again urges inflation controls; message to Congress, July 30, 1948. H. S. Truman. Comm & Fin Chr 168:497+ Ag 5 '48
- ABA announces anti-inflation program. Comm & Fin Chr 167:115 Ja 8 '48
- A.B.A.'s voluntary credit control program. Burroughs Clearing House 32:24-7 F '48
- Anatomy of inflation; illustrations with text. Banking 40:40-2 Ja '48
- Another look at inflation. C. S. Young. Comm & Fin Chr 168:1638+ O 21 '48
- Anti-inflationary role of savings. R. G. Taylor. Banking 40:39+ F '48
- Attacks Truman anti-inflation plan. J. W. Martin, Jr. Comm & Fin Chr 167:1755 Ap 22 '48

- Bankers deride Parkinson's inflation weapon. W. F. McHale. Barron's 28:25 Ag 30 '48
- Discussion. T. I. Parkinson. 23:33 S 6 '48
- Banking economics and the inflationary boom. R. Rodgers. Comm & Fin Chr 167:2633+ Je 17 '48
- Banks, inflation and credit control; address at Pilot meeting for ABA anti-inflation program. New York, Feb. 27, J. M. Dodge. Comm & Fin Chr 167:998+ Mr 4 '48; Abstract. Trusts & Estates 86:107-8 F '48
- Banks; the whipping boy of inflation. C. W. Williams. Comm & Fin Chr 168:1655+ O 21 '48
- Business profits during inflation. D. T. Smith. Harvard Bsns R 26:216-29 Mr '48
- Can we beat inflation, and how? H. M. Tremaine. Mag of Wall St 81:467-8+ Ja 31 '48
- Capital price adjustment method for deflating inflated profits. E. S. Freeman. N A C A Bul 29:635-53 F 1 '48
- CIO, bankers share inflationary policy. Barron's 27:1+ D 8 '47
- Congress votes for -flation; housing bill and credit curbs. Bsns W p21-2 Ag 14 '48
- Current economic situation; Buffalo address. M. S. Szymczak. Comm & Fin Chr 168:1750+ O 28 '48
- Danger of an increase in the velocity of circulation; unsettled government bond market. J. H. Kugel. Comm & Fin Chr 166:2159+ N 27 '47
- Defense of Truman's anti-inflation program. L. Keyserling. Comm & Fin Chr 168:700+ Ag 19 '48
- Dropping of U.S. bonds by life companies inflationary, says Federal Reserve. Nat Underw (Life ed) 52:1+ O 29 '48
- Easy money policy; the end of an illusion; effective anti-inflation fight impossible without money tightening. L. A. Hahn. Comm & Fin Chr 166:2473+ D 18 '47
- Economics and morals of inflation. R. E. Flanders. Comm & Fin Chr 167:204+ Ja 15 '48
- Economists' National committee on monetary policy makes recommendations for combating inflation. Comm & Fin Chr 167:218 Ja 15 '48
- Effects of the anti-inflation brake; report on A.B.A. credit control program. L. E. Shippee. Banking 41:50-1+ Ag '48
- Fallacy of equities as a hedge against inflation. A. M. Bernstein. Comm & Fin Chr 168:697+ Ag 19 '48
- Fighting inflation at the source. T. I. Parkinson. Comm & Fin Chr 166:2485 D 18 '47
- Fighting inflation is everybody's job; General electric company's campaign. J. L. Cooley. Banking 40:50+ F '48
- Financial leaders' row invites political fire. Barron's 28:12 O 11 '48
- Fire that rings the world. II Fortune 37:78-81+ Ap '48
- First Boston corporation holds government financing and credit policies gave impetus to postwar inflation. Comm & Fin Chr 168:1117 S 16 '48
- Fiscal policies and inflation. G. B. Roberts. Comm & Fin Chr 168:1200+ S 23 '48
- Forces shaping business outlook; comments on Truman's proposals to combat inflation. N. H. Jacoby. Comm & Fin Chr 166:2157+ N 27 '47
- General business conditions; Truman's proposals for combating inflation. Nat City Bank p 133-6 D '47
- General tax reduction inflationary; First national bank of Boston. Comm & Fin Chr 167:116 Ja 8 '48
- Gold coin standard to halt inflation. H. H. Buffett. Comm & Fin Chr 166:2262+ D 4 '47
- Gold; review and forecast. D. H. McLaughlin. II Min Cong J 34:57-71 F '48; Excerpt. Comm & Fin Chr 167:902+ F 26 '48
- Guaranty trust co. of New York cites inflationary federal policies. Comm & Fin Chr 167:12+ Ja 1 '48
- Guaranty trust company of N.Y. holds profits no cause of inflation. Comm & Fin Chr 168:916-17 S 2 '48
- High taxes no longer serve as an inflation deterrent. W. F. Hauhart. Comm & Fin Chr 167:1417+ Ap 1 '48
- Honest approach to inflation. J. S. Lawrence. Comm & Fin Chr 167:713 F 12 '48

INFLATION (finance)—Continued

- How to control inflation. R. C. Leffingwell. Comm & Fin Chr 168:1418+ O 7 '48; Same. Fortune 33:90-1+ O '48
- How to deal with inflated profits; LIFO compared with other inventory valuation methods. K. Engelmann. J Account 85:218-23 Mr '48
- How to fight inflation. C. E. Wilson. Factory Management 106:218+ Ja '48
- Impact of rising prices upon accounting procedures. S. J. Broad. J Account 86:10-21 Jl '48; N A C A Bul 29:1329-48 Jl 1 '48
- Inflation, a product of new deal blundering. J. W. Hanes. Comm & Fin Chr 167:490+ Ja 29 '48
- Inflation, a world problem. A. A. Potter. Comm & Fin Chr 168:711+ Ag 19 '48
- Inflation affects the masses. R. B. Richardson. Comm & Fin Chr 168:1658+ O 21 '48
- Inflation and bank credit. W. Thomas. Comm & Fin Chr 167:897+ F 26 '48
- Inflation and bank credit policy. J. M. Dodge. Banking 40:33-4 Ja '48
- Inflation and credit. H. Spero. Credit & Fin Management 50:32-3 O '48
- Inflation and credit controls. J. M. Dodge. Comm & Fin Chr 166:1941+ N 13 '47; Same abr. Banking 40:43+ D '47
- Inflation and depreciation. Automotive Ind 93:27+ My 1 '48
- Inflation and private price policy; abstract. J. Dean. Management R 37:423-5 Ag '48
- Inflation and the banking position. P. H. Lohman. Comm & Fin Chr 167:2+ Ja 1 '48
- Inflation and the stock market. M. Palyi. Comm & Fin Chr 167:1+ Ja 1 '48
- Inflation and the utilities. N. E. Funk. Edison Elec Inst Bul 16:73-5 Mr '48
- Inflation as it affects middle classes. H. W. Prentiss, Jr. Comm & Fin Chr 168:1315+ S 30 '48
- Inflation control in a democracy. I. S. Olds. Comm & Fin Chr 167:897+ F 26 '48
- Inflation endangers economy; address before Society of newspaper editors, Washington, D. C. H. S. Truman. Comm & Fin Chr 167:1745+ Ap 22 '48
- Inflation fight fallacies; address before American bankers association, Detroit. J. M. Dodge. Comm & Fin Chr 168:1413+ O 7 '48
- Inflation in Europe. W. W. Aldrich. Comm & Fin Chr 167:1309+ Mr 25 '48
- Inflation in India. Economist 155:633-4 O 16 '48
- Inflation is a state of mind; statement before Joint committee on the economic report. E. Schram. Comm & Fin Chr 167:2196+ My 20 '48
- Inflation; more than a monetary problem. T. B. McCabe. Comm & Fin Chr 168:1312+ S 30 '48
- Inflation on the move. E. A. Krauss. Mag of Wall St 82:372-4 Jl 17 '48
- Inflation tide going out! H. Neisser. Comm & Fin Chr 167:1323+ Mr 25 '48
- Inflation; time to get serious. Fortune 33:2-3 S '48
- Inflation trends; excerpt from annual report of Federal reserve bank of New York. A. Sproul. Comm & Fin Chr 167:1764+ Ap 22 '48
- Inflation; where does it go from here? R. L. Heilbroner. Il Am Bsns 18:10-11+ Ag '48
- Inflationary aspects of housing finance; statement before Joint committee on the economic report. M. S. Eccles. Fed Res Bul 33:1463-5 D '47
- Inflationary bond standard. M. Palyi. Comm & Fin Chr 166:2261+ D 4 '47
- Inflationary trend and how to correct it. P. H. Nystrom. Comm & Fin Chr 167:1879+ Ap 29 '48
- Inflations abroad and trend in U.S. Barron's 28:1+ Ag 16 '48
- Is soundness of the dollar affected? address before Mortgage bankers association of America. W. E. Spahr. Comm & Fin Chr 167:485+ Ja 29 '48
- Labor and inflation. W. Green. Comm & Fin Chr 168:1009+ S 9 '48
- Life companies augment inflation by selling governments and buying corporate bonds with proceeds, bankers say. Nat Underw (Life ed) 52:1+ Ag 27 '48
- Loans spur special session; sharp upturn in business borrowing increases danger of inflation. Bsns W p 19-20 N 1 '47
- Looking at banking in an inflated economy; with charts showing action of inflationary factors, 1929-1947. C. W. Williams. Burroughs Clearing House 32:22-3+ F '48
- Looking toward Main street; program to beat inflation. C. E. Wilson. Gen Elec R 51:11-12 Ap '48
- Military outlays increasing inflation. J. I. Bogen. Comm & Fin Chr 167:1627+ Ap 8 '48
- Mr Eccles' chains and Mr Snyder's key; Treasury and Federal Reserve have ample anti-inflation power now. H. S. Taylor. Barron's 27:5 D 1 '47
- Money and the special session. T. I. Parkinson. Comm & Fin Chr 166:1949+ N 13 '47
- Money, credit and inflation. K. K. Du Vall. Comm & Fin Chr 168:1317+ S 30 '48
- Money supply; the crux of inflation. J. D. C. Weldon. Mag of Wall St 82:526-7+ Ag 28 '48
- Money's revenge. Economist 153:985-6 D 20 '47
- Much ado about the wrong thing. S. Dickover. Comm & Fin Chr 168:798 Ag 26 '48
- NAM cites price effects of increased money supply. Comm & Fin Chr 166:1855 N 6 '47
- NAM holds tax reduction is not inflationary. Comm & Fin Chr 167:21 Ja 1 '48
- NAM see no serious inflation threat. Comm & Fin Chr 168:18 Jl 1 '48
- New anti-inflation law is preliminary step. E. Bunting. Comm & Fin Chr 167:111 Ja 8 '48
- New deal policy aggravates inflation. T. E. Dewey. Comm & Fin Chr 167:213 Ja 15 '48
- New look at inflation; address at Bank auditors and comptrollers conference, Chicago. C. S. Young. Comm & Fin Chr 167:993+ Mr 4 '48
- No magic formula to cure inflation. G. Whitney. Comm & Fin Chr 167:485+ Ja 29 '48
- Oil firm's loan fuel for banker-insurance dispute; inflationary loans. Barron's 28:33 O 25 '48
- Our economic dilemma; Des Moines address. M. S. Eccles. Comm & Fin Chr 168:1745+ O 28 '48
- Position of life insurance on the current inflation of money supply explained. T. I. Parkinson. Weekly Underw 169:404-5 Ag 21 '48
- Present inflation and President's program. P. A. Porter. Comm & Fin Chr 168:502+ Ag 5 '48
- President scores GOP anti-inflation act. Comm & Fin Chr 167:15 Ja 1 '48
- President signs GOP anti-inflation bill. Comm & Fin Chr 168:713 Ag 19 '48
- President's Advisers stress inflationary trends; report covering first three months of year. Comm & Fin Chr 167:1644+ Ap 15 '48
- President's economic report renews plea for inflation curbs; abstract. Comm & Fin Chr 167:201+ Ja 15 '48
- President's message to special session of Congress; anti-inflation program. Nat City Bank p85-8 Ag '48; Same abr. Comm & Fin Chr 168:513+ Ag 5 '48
- Problem of rising prices. P. H. Nystrom. Comm & Fin Chr 167:609+ F 5 '48
- Problems of fiscal policy in inflation. W. H. Stead. Comm & Fin Chr 168:604+ Ag 12 '48
- Production is answer to inflation. M. Sayre. Comm & Fin Chr 168:503+ Ag 5 '48
- Production, not controls, will curb inflation. F. W. Sutton, Jr. Comm & Fin Chr 166:2377+ D 11 '47
- Program of tighter credit controls; inflationary forces; statement before Joint committee on the economic report. M. S. Eccles. Comm & Fin Chr 166:2158+ N 27 '47; Same. Fed Res Bul 33:1455-63 D '47
- Progress and effects of inflation. Nat City Bank p79-83 Jl '48
- Questions and answers on combating inflation. W. E. Spahr. Comm & Fin Chr 167:702+ F 12 '48
- Raising income levels vs. consumer credit as inflation factor. E. C. Griffith. Comm & Fin Chr 167:100+ Ja 8 '48

INFLATION (finance)—Continued

- Remove pegs on government bonds; inflationary supply of money, rather than its use, is crucial. T. I. Parkinson. *Comm & Fin Chr* 168:1539+ O 14 '48
- Renewed inflationary upsurge not inevitable; address before Chamber of commerce of the U.S., Washington, D.C., April 27. A. Temple. *Comm & Fin Chr* 167:1864-5 Ap 29 '48
- Riding for another spasm of inflation. *Barron's* 23:1+ Je 7 '48
- Risks in anti-inflation. L. S. Mott. *Comm & Fin Chr* 167:301+ Ja 22 '48
- Save and produce; anti-inflation program of the American bankers association. map *Banking* 40:33-43+ F '48
- Sees inflation increasing Reserve bondholdings. J. T. Madden. *Comm & Fin Chr* 167:2201+ My 20 '48
- Signposts to inflation; with chart showing changes in money supply, national income, population, prices, production, and debt. O. Ely. *Pub Util* 42:303-6 Ag 26 '48
- Solution rests with us; we are all responsible for inflation. J. H. Rawlings. *Credit & Fin Management* 49:6-7+ D '47
- Southern California economists' recommendations on curbing inflation; memorandum to Joint committee on the economic report. *Comm & Fin Chr* 166:2482+ D 18 '47
- Stop inflation by use of the gold standard. P. M. McKenna. *Comm & Fin Chr* 168:707+ Ag 19 '48
- Surrender to inflation; address before National industrial conference board. W. E. Spahr. *Comm & Fin Chr* 168:1309+ S 30 '48
- Taft committee attributes inflation trend to government expenditures and taxation. *Comm & Fin Chr* 167:2330 My 27 '48
- Ten economists on the inflation. S. E. Harris and others. *B Econ & Stat* 30:1-29 F '48; Correction [p 17, 20]. 30:230 Ag '48
- This talk about anti-inflation. W. Witherpoon. *Comm & Fin Chr* 167:607 F 5 '48
- Three percent government bond for curb inflation. E. J. Schlesinger. *Comm & Fin Chr* 166:2625 D 25 '47
- Uncontrolled inflationary tendencies. D. E. Brumbaugh. *Comm & Fin Chr* 167:2418+ Je 3 '48
- Wage and price restraints to combat inflation; testimony before House committee on banking and currency. L. B. Schwellenbach. *Comm & Fin Chr* 166:2267+ D 4 '47
- Washington decides to promote inflation; with synopsis of Temporary price recontrol act of 1947. H. S. Taylor. *Barron's* 27:7-8 D 22 '47

We can't let ghosts balk inflation war. *Barron's* 27:1+ D 1 '47

Western Europe's attack on inflation. F. H. Klopstock. *Harvard Bsns R* 26:597-612 S '48

What is accounting accounting for now? nature and measurement of business capital and income in a changing price economy. W. Blackie. *N A C A Bul* 29:1349-78 Jl 1 '48

What kind of money? steps to avoid further inflation. J. D. Mooney. *Comm & Fin Chr* 167:2084+ My 13 '48

What to do about inflation. T. E. Dewey. *Comm & Fin Chr* 168:1325+ S 30 '48

Will new experiments work in halting inflation? E. A. Krauss. *Mag of Wall St* 82:164-6 My 22 '48

Will tax reduction mean more inflation? A. M. Sakolski. *Comm & Fin Chr* 167:1629+ Ap 8 '48

See also

Deflation (finance)
Hedging
Money

Bibliography

Inflation and deflation. Booklist [ALA] 44:406-10 pt 2 Ag '48

INFLUENCE lines

Influence lines for continuous structures by geometrical computation. D. F. Peterson, Jr. *diags Am Soc C E Proc* 73:1009-25 S '47; Discussion. 73:1666-6; 74:736-45, 887-8 D '47, My-Je '48

INFLUENZA

Commission on influenza, army epidemiological board maintains a center for study of influenza virus. *Science* 106:542 D 5 '47

Influenza epidemic at Chevrolet gray iron foundry. R. D. Mudd. *Ind Med* 16:528 N '47

Results of influenza vaccination in industry during the 1947 epidemic. A. M. Baetjer. *biblog Ind Med* 17:171-5 My '48

INFORMATION service

Reproduction techniques for reports and information service. B. H. Weil and J. C. Lane. *J Chem Educ* 25:134-41 Mr '48

Weeding the information file. M. O. Ball. *Special Lib* 39:115-16 Ap '48

INFORMATION service, Government

National clearinghouse of information on the social sciences established by Office of education. *Science* 108:31 Jl 23 '48

Need for vigilance in security problems; discussion before ASNE. *Ed & Pub* 81:122-3 Ap 24 '48

Our public relations abroad; open letter to Hon. George V. Allen. C. Rheinstrom. *Ptr Ink* 223:37 Ap 30 '48

Science and security. E. U. Condon. *Science* 107:659-65 Je 25 '48

See also

International libraries of information

Directories

1948 information services and commercial representatives of foreign countries in the United States. 20p pa \$1 information services, 119 W. 57th st, New York 19 '47

INFRARED communication. See *Light telephone*

INFRARED rays

Efficient, convenient polarizer for infra-red radiation. R. Newman and R. S. Halford. *R Sci Instr* 19:270-1 Ap '48

Excitation of infra-red phosphors by alpha- and beta-particles. R. H. Thompson and R. T. Ellickson. *Phys R* 73:185-6 Ja 15 '48

Infra-red emission and absorption of the carbon monoxide-oxygen flame. S. Silverman and others. *biblog J Chem Phys* 16:155-6 F '48

Infra-red instrumentation and techniques. V. Williams. *biblog(210 ref) il diags R Sci Instr* 19:135-78 Mr '48

Infra-red pupillometer. M. Koomen and others. *biblog il diag Opt Soc Am J* 38:719-22 Ag '48

Infrared radiation from a Bunsen flame. E. K. Plyler. *biblog J Res Nat Bur Stand* 40:113-20 F '48

Infra-red sensitivity of superconducting bolometers. N. Fuson. *biblog il diags Opt Soc Am J* 38:845-53 O '48

Infra-red stimulability of $\text{CaSiO}_3\text{:Pb}$ and $\text{CaSiO}_3\text{:Pb+Mn}$. J. H. Schulman and others. *Opt Soc Am J* 38:817-18 S '48

Infra-red vibrations in NaCl. J. J. Markham. *biblog J Chem Phys* 16:580-6 Je '48

New tool for infrared studies. R. Bailly. *il Science* 108:143 Ag 6 '48

Olfaction and infrared radiation theories. C. W. Young and others. *Science* 108:411-12 O 15 '48

Phase change in barium titanate crystals induced by infra-red radiation absorption. N. J. Field and others. *biblog Phys R* 72:1119-20 D 1 '47

Polarization of infra-red radiation. A. Elliott and others. *biblog diags Opt Soc Am J* 38:212-16 F '48

Preparation and optical properties of gold blacks. L. Harris and others. *biblog diag Opt Soc Am J* 38:582-9 Jl '48

Prism spectrometry from 24 to 37 microns. E. K. Plyler. *J Chem Phys* 15:885-6 D '47

Red and infra-red filters for the study of the Herschel effect. H. Bäckström and J. Basberg. *biblog il Opt Soc Am J* 37:891-8 N '47

Tensile properties of rolled silver chloride. B. M. Axilrod and J. J. Lamb. *J Ap Phys* 19:213-16 F '48

Transmission of powder films in the infrared. R. L. Henry. *biblog diag Opt Soc Am J* 38:775-89 S '48

INFRARED rays—Continued

Industrial applications

- Determination of small amounts of water in gases and liquids by infrared spectrometry. A. F. Benning, A. A. Ebert and C. F. Irwin. *il Anal Chem* 19:867-8 N '47
- Estimation of moisture in timber; infrared and electronic moisture testers. *il Engineer* 185:497 My 21 '48
- Water determination in Freon-12 by infrared spectrophotometry. A. F. Benning and others. *il diag Refrig Eng* 55:166-70 F '48

Industrial heating

- Cloth swatches dried in three minutes by infrared. *il Elec World* 128:138 N 8 '47
- Comparison of infrared and convection oven baking; by New York paint and varnish production club. *il Paint Oil & Chem R* 110: 64-6+ N 13 '47
- Considerations of radiant energy and moisture removal. I. J. Barber, Pulp & Pa of Can 49:79-83 Mr '48
- Flexible gas unit for infra red drying and baking. J. C. Hosken. *il Am Gas J* 168:25-6 Ap '48
- How to maintain infra-red ovens. I. J. Barber. *il Factory Management* 106:120-3 F '48
- Infrared dries rugs faster. W. W. Clouse. *il Elec World* 130:100 JI 17 '48
- Infra-red drying details on approved practices and booth design. *il Sheet Metal Worker* 39:48-50 JI '48
- Infra-red drying of sheet rubber. Rubber Age 63:606 Ag '48
- Infra-red drying ups production 25 per cent; cuts bating and check loss to zero. R. S. Allday. *il Brick & Clay Rec* 113:48 JI '48
- Infrared facilitates tile laying. H. V. Rickner. *il Elec World* 130:106 Ag 28 '48
- Infrared heating. P. H. Goodell. *il Mech Eng* 70:622-4 JI '48
- Infrared makes short work of wet blankets. *il Elec World* 128:124 D 6 '47
- Infrared oven unit triples production at Yale & Towne mfg. co.'s plant; enameling of locks and builders' hardware. *il Elec World* 129:198+ Ja 17 '48
- Infra-red rays useful for drying ink. E. St. John. *Inland Ptr* 121:53-4 Je '48
- Infrared saves laundry investment. *il Elec World* 129:144 Ap 10 '48
- Infra-red sheet heaters are valuable aids. *Inland Ptr* 121:63 Ag '48
- Infra-red toasting unit speeds wheat-germ processing. D. B. Pratt, Jr. flow sheet *il Food Ind* 20:184-6 F '48
- Radiant heat; RapiRadia car stoving system. *il Automobile Eng* 38:14 Ja '48
- Rapid electrical heating; laboratory and commercial uses of infra-red radiation. A. E. Williams. *il diag Chem Age (Lond)* 58:569-71 Ap 24 '48
- Technical aid improves infrared performance; manufacture of ironing machines. F. J. Jolly. *il Edison Elec Inst Bul* 16:77-80 Mr '48
- Tenter frame, preheating with infrared lamps; British patent. *Am Dyestuff Rep* 37:133 F 23 '48

Lamps

- Infra-red heat lamps; with rating of lamps for home use. *il Consumers Res Bul* 20: 20-3 N; 14 D '47
- Infrared protects fruit buds from frost. *il Elec World* 128:94+ D 20 '47

Physiological effect

- Radiation from the welding arc; its effect on the eye. E. van Someren and E. C. Rollason. *Welding J* 27:sup448-52 S '48

INFRARED spectrum. See Spectrum, Infrared

INGERSOLL, Ontario

Water supply

- Reconditioning of waterworks standpipe. R. D. McCollum. *il Water & Sewage* 86:21-2+ Mr '48

INGLES, Harry Clyde, 1888-

Portrait. *Fortune* 38:83 S '48

INGOTS, Steel. See Steel Ingots

INGRAM, Jonas Howard, 1886-
South Atlantic; a diplomatic campaign. F. Pratt. *il U S Naval Inst Proc* 74:690-3 Je '48

INHALATION (therapeutics)

Inhalation of norisodrine sulfate dust. L. R. Krasno and others. *bibliog il Science* 108: 476-8 O 29 '48

INHERENT vice (term)

Inherent vice. W. M. Mortimer. *Weekly Underw* 159:580-1 S 11 '48

INHERITANCE and succession

Research in the succession of farms; a comment on methodology. K. H. Parsons. *bibliog Land Econ* 24:293-302 Ag '48

Social meaning of inheritance; New York University forum. *Trusts & Estates* 86: 408 My '48

INHERITANCE tax

- Computing the federal estate tax; effect of marital deduction. V. M. Tweedy. *Trusts & Estates* 86:481-3 Je '48; Reply. E. McCormick. 87:116-17 Ag '48
- Death, taxes and your business. G. J. Laikin. *Trusts & Estates* 85:372-4, 459-63, 517-22; 86:13-17, 145-51 O '47-F '48
- Estate and gift tax law radically changed; marital deduction permits cutting net taxable amount of estate in half. L. H. Hoffman. *Barron's* 28:33 Ap 26 '48
- Estate and gift tax provisions of the Revenue act of 1948. W. T. Sherwood, Jr. *J Account* 35:456-64 Je '48
- Estate taxes under the new tax law. *Life Ins Courant* 53:9-11 Je '48
- How 1948 tax law affects typical estate situations; marital deduction. J. H. Overbeck, Jr. *Nat Underw (Life ed)* 52:2+ Ap 30; 8+ My 7 '48
- How to utilize marital deduction. R. F. Spindell. *Nat Underw (Life ed)* 52:9+ My 7 '48
- Impact of estate and gift tax provisions of 1948 Revenue act. S. J. Foosaner. *Life Ins Courant* 53:41-3 My '48
- Integration and correlation of federal taxes; Treasury study penalizes flexible trusts and concentrates wealth. M. Miller. *Trusts & Estates* 86:18-24 Ja '48
- Life insurance trusts are not barred from estate tax marital deduction; situation as to options. *Nat Underw (Life ed)* 52:1 Ap 23 '48
- Marital deduction for estate taxes. D. H. McLucas. *Trusts & Estates* 86:445-8+ Je '48
- Should estate and gift taxes be combined? analysis of Treasury study. M. M. Lore. *Trusts & Estates* 85:375-6, 464-6+, 571-4 O-D '47
- Social aspects of estate taxation. R. M. Alton. *Trusts & Estates* 87:285-8 O '48
- State and federal taxation; A.B.A. committee report. *Trusts & Estates* 87:299-309 O '48
- Taxation of community property under Revenue act of 1948. S. Taylor. *Trusts & Estates* 87:27-32 JI '48
- Testamentary nature of life insurance; transfers in contemplation of death; recent tax decisions. F. L. Morton. *Spectator (Life ed)* 155:16-17+ F '48
- Warns on slick schemes to gain marital deduction. E. H. McDermott. *Nat Underw (Life ed)* 52:4 Ap 23 '48
- Will drafting under new tax law. M. L. Gordon. *Trusts & Estates* 87:93-7 Ag '48
- Worth of a wife. *Fortune* 38:122+ S '48
- Your estate and the inevitable taxes. H. Ackerman. *Comm & Fin Chr* 168:900+ S 2 '48

INHIBITION

Dynamics of inhibition. R. W. Gerard. *il diag Sci Am* 179:44-9 S '48

INHIBITORS

- Effects of inhibitors on the polymerization of styrene. F. R. Mayo and R. A. Gregg. *bibliog Am Chem Soc J* 70:1284-6 Mr '48
- Inhibitor for acids. *Chem Ind* 62:258+ F '48
- Oxidation inhibitors for gasoline. C. D. Lowry. *Jr. Oil & Gas J* 46:211-12+ Ap 1 '48
- Role of inhibitors in soybean. H. S. R. Desikachar and S. S. De. *bibliog Science* 106:421-2 O 31 '47

See also

Corrosion and anti-corrosives

INJECTIONS, Intravenous

- Deposition of protein in the liver following intravenous injection of an amino acid mixture (hydrolyzed protein) and glucose. C. A. Ross and R. Elman. *il Science* 108:441-3 O 22 '48
- Homogeneous emulsion of fat, protein, and glucose for intravenous administration. B. G. P. Shafiroff and C. Frank. *bibliog Science* 106:474-5 N 14 '47

INJUNCTIONS

- Decisions of interest to labor; temporary injunctions against union unfair labor practices; private injunctions. *Mo Labor R* 66:307-9 Mr '48
- How well can militia enforce injunctions? *il Bsns W* p98 My 29 '48
- Injunction rule; Supreme court issues first clarifying decision on T-H law. *Bsns W* p 110+ Mr 27 '48
- I.T.U. injunction; court issues first T-H order. *Bsns W* p 102-3 Ap 3 '48
- Labor injunction boom. *Bsns W* p 100-1 My 29 '48
- NLRB issues first T-H injunction; A.F.L. teamsters union secondary boycott case. *il Bsns W* p80+ Ja 10 '48

INJURIES (law) See Personal injuries**INJURIES, Industrial.** See Accidents, Industrial**INJURIES from electricity.** See Electricity, Injuries from**INK**

- Ball-point pens and inks. C. H. Lindsly and others. *bibliog il Chem Ind* 63:50-1 JI '48
- Chalky blue ink. *Inland Ptr* 121:53-4 Ap '48
- Consistency and temperature of oils and printing inks at high shearing stresses. E. N. Weltmann. *bibliog diags Ind & Eng Chem* 40:272-80 F '48
- Printing ink aid; Pentalyn 802-A. *Chem & Eng N* 25:3872 D 29 '47
- Right ink makes difference. E. St John. *Inland Ptr* 120:73-4 D '47
- Rub- and scratch-proof inks. *Inland Ptr* 121:54-6 Je '48
- Spectrophotometric evaluation of the color of ink marks on paper; handwriting on white paper. C. F. Bailey and R. S. Casey. *bibliog Anal Chem* 19:1020-2 D '47
- Testing printability of paper with ink. O. P. Berberich and others. *il diags Paper Tr J* 127:53-7 Ag 12: 53-4 Ag 26 '48
- Waxes and kindred materials; complex functions in printing inks; abstract. L. Ivanovsky and A. C. Healey. *Chem Age (Lond)* 53:457 Ap 3 '48
- What's new in news ink? W. G. Forster and G. H. Morrill. *Paper Ind* 29:1366-8 D '47

Drying

- Infra-red rays useful for drying ink. E. St. John. *Inland Ptr* 121:53-4 Je '48
- Ink drying by absorption and oxidation. E. St. John. *Inland Ptr* 120:63-4 Ja '48
- Moisture-set inks. *il Mod Packaging* 21:124-6 Je '48

Manufacture

- Deionized water for writing-ink manufacture. C. S. Grove, Jr. and R. S. Casey. *bibliog flow sheet il Chem Eng Prog* 44:733-6 O '48

Rating

- Inks. *Consumers Res Bul* 21:30-2 Mr '48

Statistics

- Mechanical equipment of 1884; U.S. and Canadian dailies; tabulation. *Ed & Pub* 81:1-51 sec 2 O 30 '48

INK, Lithographic

- Need standards for offset inks. C. F. King. *Inland Ptr* 121:83-5 JI '48

INK blot test. See Personality tests**INLAND daily press association**

- Annual meeting, 64th, Chicago. *Ed & Pub* 81:9+ O 16 '48
- Meeting, Chicago. *Ed & Pub* 81:7+ My 29 '48
- Mid-winter meeting, Chicago. *Ed & Pub* 81:9+ F 14 '48

INLAND marine insurance. See Insurance, Inland marine**INLAND marine insurance bureau**

- Perrin new head; I.M.U.A. now is trade advisory organization. *Nat Underw* 52:11 Je 3 '48

INLAND steel company

- Sale of bonds. *Comm & Fin Chr* 168:647 Ag 16 '48

INLAND waterways corporation

- Barge lines profit-bound. *il Bsns W* p40+ D 13 '47

INOSITOL

- Catalytic hydrogenation of polyhydric phenols; the synthesis of *meso*-inositol, scyllitol and a new isomeric cyclitol. R. C. Anderson and E. S. Wallis. *bibliog Am Chem Soc J* 70:2931-5 S '48
- Cyclization of 6-nitrodexoxyaldohexoses to nitrodexoxyinositols. J. M. Grosheintz and H. O. L. Fischer. *bibliog Am Chem Soc J* 70:1479-84 Ap '48
- Methylation of *meso*-inositol. J. C. McGowan. *bibliog Soc Chem Ind J* 66:446 D '47

INSECT cages

- Simple insect test cage. L. R. Gillogly. *il Soap & San Chem* 24:161+ Je '48

INSECT control committee for Micronesia

- Scientific investigations of the insect problems. *Science* 107:189 F 20 '48

INSECT repellents

- 1-Alkyl-1,2,3,4-tetrahydro-2-naphthols. B. C. McKusick. *bibliog Am Chem Soc J* 70:2196-8 Je '48
- N,N-Dialkyl- β -hydroxyamides via the Reformatsky reaction. N. L. Drake, C. M. Eaker and W. Shenk. *bibliog Am Chem Soc J* 70:677-80 F '48
- Field tests with tick repellents. J. M. Brennan. *Pub Health Rep* 63:339-46 Mr 12 '48
- Large scale insect control problems. F. C. Bishopp. *il Soap & San Chem* 24:143-5+ F '48
- New compounds as insect repellents. B. C. McKusick. *Am Chem Soc J* 70:1982-3 My '48

See also

- Fly sprays and repellents

INSECTICIDAL paint. See Paint, Insecticidal**INSECTICIDE and disinfectant manufacturers.** National association of. See National association of insecticide and disinfectant manufacturers**INSECTICIDE and fungicide association, Agricultural.** See Agricultural insecticide and fungicide association**INSECTICIDES**

- Ambitious aerosols. *Chem Ind* 61:975 D '47
- Bug problems; abstract. T. W. Reed. *Chem Eng* 55:256+ Je '48
- Chemical specialties attain greater stature; household insecticides. G. A. Mail. *Chem Ind* 63:391 S '48
- Chemicals used in western agriculture; abstract. R. J. Hansberry. *Chem Ind* 61:803-4 N '47
- Chlordane, J. E. Bussart and A. Schor. *Soap & San Chem* 24:126-8 Ag '48
- Chlordane is superior to DDT for controlling insect pests. *il diags Food Ind* 20:172-5 F '48
- Constituents of pyrethrum flowers; revision of the structure of dihydrocinerolone. F. B. LaForge and S. B. Soloway. *bibliog Am Chem Soc J* 69:2932-5 D '47
- Control of flies breeding in percolating sewage filters; abstract. T. G. Tomlinson and S. H. Jenkins. *Sewage Works J* 20:354-6 Mr '48
- Dutch insecticides and fungicides. *Chem Age (Lond)* 59:526 O 16 '48
- Effective control of insects in industrial plants. *il Mill & Factory* 42:98-100 Je '48
- Emulsifiable concentrates of chlordane. R. E. Lidov and others. *Soap & San Chem* 24:137-9 Mr '48
- Fleas flea; unconventional specialty. *Ridz. Chem Ind* 61:976 D '47
- Generation of insecticidal smokes. E. W. Bateman and G. D. Heath. *il Soc Chem Ind J* 66:325-30 S '47
- Government and industry cooperate on tetrathyl pyrophosphate report. *Chem & Eng N* 25:2356 Ag 9 '48
- Insecticidal activity of 2,2-bis-(2-chlorothiényl)-1,1,1-trichloroethane. R. L. Metcalf. *bibliog Science* 108:84-5 JI 23 '48

INSECTICIDES—Continued

- Insecticidal barriers; British data on use of DDT and other insecticides as impregnants for packaging materials. E. Verdcourt. *Il Mod Packaging* 21:150-3 N '47
- Insecticide emulsions easier to ship, safer to use. G. A. Mail. *Il Chem Ind* 62:238-40 F '48
- Insecticide forum; what's wrong with the insecticide business? Soap & San Chem 24:130-1+ J1 '48
- Insecticide; Pyrenone. Chem Eng 55:178 My '48
- Insecticides nouveaux; les dérivés chlorés de la série terpénique. L. Desabres and R. Labatut. *bibliog Chimie & Ind* 58:443-8 N '47
- Large scale insect control problems. F. C. Bishopp. *Il Soap & San Chem* 24:143-5+ F '48
- Low pressure aerosols. R. B. Stoddard. Soap & San Chem 24:147+ J1 '48
- Mechanisms of insecticidal action; dithienyl-trichloroethanes; comparison with DDT. R. L. Metcalf and F. A. Gunther. *bibliog Am Chem Soc J* 69:2579-81 N '47
- Methylenedioxyphenyl cyclohexenones. O. F. Hedenburg and H. Wachs. *Am Chem Soc J* 70:2216-17 Je '48
- Monodisperse colloids and higher-order Tyndall spectra. V. K. La Mer. *bibliog J Phys & Colloid Chem* 52:65-76 Ja '48
- Natural insecticides. Chem Age (Lond) 58:16 Ja 3 '48
- New insecticide has a wider range of effectiveness; Thiophos 3422. Barron's 27:24 D 22 '47; Chem Eng 55:178 Ja '48
- Non-metallics in agriculture; abstract. R. E. Miller. Eng & Min J 149:89 J1 '48
- Non-toxic insect killer; Marlite. Chem Eng 55:163 Ap '48
- One shot treatment controls cattle lice; Pyrenones. Chem Ind 63:690 O '48
- Parathion offered by American Cyanamid. Chem & Eng N 26:118 Ja 12 '48
- Plant insecticides; ryanodine, a new alkaloid from ryania speciosa Vahl. E. F. Rogers and others. *bibliog Am Chem Soc J* 70:3086-8 S '48
- Preparation and cyclization of certain insecticidally active α -acetyl- δ -keto esters. H. Wachs and O. F. Hedenburg. *Am Chem Soc J* 70:2695-7 Ag '48
- Role of chemistry in recent developments of animal insecticides. R. S. Cahn. Chem & Ind p291-4 My 8 '48
- Specialty blitz; Sherwin-Williams nonpaint lines. Chem Ind 62:43 Ja '48
- Stability of aerosol formulations. E. G. Young. *Il Soap & San Chem* 23:116-17+ N '47
- Statistical concepts make better insecticides; abstract. L. F. Audrieth and O. F. Hill. Chem Eng 55:260+ Ap '48
- Symposium on insecticides in food production. J. M. Ginsburg; R. D. Glasgow and others. *bibliog Il Ind & Eng Chem* 40:673-717 Ap '48
- Synthetic chemicals for agriculture; fertilizers and insecticides. R. H. Wellman. *Il Chem Ind* 62:914-21 Je '48
- Tetraethyl pyrophosphate insecticide. Chem Ind 62:78 Ja '48
- Toxicological studies on laboratory animals of certain alkyldinitrophenols used in agriculture. H. C. Spencer and others. *bibliog J Ind Hygiene* 30:10-25 Ja '48
- Trichloro group in DDT; probable basis of insecticidal potency. R. W. Moncrieff. Chem Age (Lond) 59:312-13 S 4 '48
- Work on arsenic insecticides; the quest for non-toxic preparations. Chem Age (Lond) 59:87-8 J1 17 '48

See also

- DDT Hexaethyl tetraphosphate
Fly sprays and repellents Mothproofing preparations
Fumigants Parathion
Hexachlorocyclohexane Pyrethrum
Ryanodine

Analysis

- Detection of chlordane (octachloro-4,7-methano-tetrahydroindane) in insecticide oil sprays. J. S. Ard. *Anal Chem* 20:858-9 S '48

Determination of tetraethyl pyrophosphate in mixtures of ethyl phosphate esters. M. N. Dvornikoff and H. L. Morrill. *Anal Chem* 20:935-6 O '48

Application

- Application of insecticides; old and new methods. R. D. Glasgow. *bibliog Il Ind & Eng Chem* 40:675-9 Ap '48
- Smoke dispensers for insecticides. H. L. Sweetman and others. *Il Soap & San Chem* 24:141+ O '48
- Sprayers, up to date. E. G. Thomssen. Soap & San Chem 24:122-4+ S; 145+ O '48

History

- Insecticides derived from plants. E. J. Seiferle and D. E. H. Frear. *Ind & Eng Chem* 40:683-91 *bibliog* (194 ref, p689-91) Ap '48

Law

- Applying new insecticide act; eighteen questions with their answers. W. G. Reed. Soap & San Chem 23:141+ D '47
- Economic poison laws; an outline of their development from 1910 to 1950. H. W. Hamilton. Soap & San Chem 23:114-15 N '47
- Federal pesticides law interpreted by Department of agriculture. Oil Paint & Drug Rep 154:3+ J1 5; 7+ J1 26 '48
- Federal trade commission in your business. J. D. Conner. Soap & San Chem 24:123-5+ Ja '48
- Insecticides import rules uncontested. Oil Paint & Drug Rep 152:5+ N 24 '47
- NAIDM speakers probe aspects of new Federal insecticide act. Oil Paint & Drug Rep 152:5+ D 8 '47
- Registration procedure under the new Federal insecticide act. S. J. Hill. Soap & San Chem 24:151+ F '48
- Registration procedure under the new Federal insecticide law. W. G. Reed. Soap & San Chem 24:133+, 151+ J1 '48
- Statement before Association of economic poisons control officials. H. W. Hamilton. Soap & San Chem 24:127-8 J1 '48

Physiological effect

- Food growers warned against free use of new insecticides. Food Ind 20:892 Je '48
- Metabolism of chlorinated hydrocarbon insecticides. G. Woodard, B. Davidow and A. J. Lehman. *bibliog Ind & Eng Chem* 40:711-12 Ap '48

Specifications

- Propose new specification for liquid insecticide; Federal specifications board. Soap & San Chem 23:141+ N '47

Testing

- Biological methods of testing insecticides. H. H. Shepard. *bibliog Ind & Eng Chem* 40:702-4 Ap '48
- Development and use of a small spray chamber. W. M. Hoskins and A. H. Caldwell, Jr. *Il diags Soap & San Chem* 23:143-5+ Ap '47; 24:133 Ag '48
- Insecticidal efficiency of saturated petroleum fractions; influence of molecular weight and structural constitution; eggs of oriental fruit moth, *grapholitha molesta* Busck used as test material. G. W. Pearce, P. J. Chapman and D. E. H. Frear. *bibliog Ind & Eng Chem* 40:284-93 F '48
- Insecticidal surface coatings. S. S. Block. *Il Soap & San Chem* 24:138; 41+ F; 151+ *bibliog* (p 153) Mr '48
- Newer insecticides against roaches. G. E. Gould. Soap & San Chem 24:147+ Mr '48
- Residual toxicity tests on insecticidal protective coatings. S. S. Block. *bibliog Il Soap & San Chem* 24:155+ Ap '48
- Roach powder evaluation. F. O. Hazard. *Il Soap & San Chem* 24:125+ S '48
- Susceptibility of DDT-resistant houseflies to other insecticidal sprays. H. G. Wilson and J. B. Gahan. *bibliog Science* 107:276-7 Mr 12 '48
- Testing insecticide sprays. C. C. Roan and C. W. Kearns. *diags Soap & San Chem* 24:133+ My '48

INSECTS

Staining procedure for the study of insect musculature. S. Kramer. Science 108:141-2 Ag 6 '48

See also

Ants	Flies
Carpet beetles	Food-Insect infestation
Cockroaches	Mosquitoes
Design, Decorative-Insect forms	Moths
Drosophila	Spruce budworms
Flies	

Analysis

Determination of small quantities of hydrogen cyanide in insects and plant tissue. R. A. Fulton and M. J. Van Dyke. diag Anal Chem 19:922-3 N '47

Collection and preservation

Improved method for mounting small insects. G. B. Fairchild and M. Hertig. Science 108:20-1 J1 2 '48

Eggs

Simplified procedure for breaking diapause in grasshopper eggs. E. H. Slifer. Science 107:152 F 6 '48

Eyes

See Eye (insects)

INSERTS, Package. See Package inserts

INSPECTION

Conditioned area for inspection and assembly; Frigidaire division, General Motors. H. Bogue. il Factory Management 106:116-17 J1 '48

Flow inspection cuts rejects 90 per cent; re-layout of Diesel fuel pump machine shop of C.A.V., limited, Acton, England. il plans Factory Management 106:72-4 J1 '48

Gage-zone system harmonizes delivery and acceptance inspection. J. Gaillard. Am Mach 92:100-5 F 12 '48

Gear tooth inspection method as an index of performance. L. D. Martin. il diags Product Eng 19:87-9 F '48

Good inspection guarantees quality of product. E. J. Raves. il Mill & Factory 43:126-8 O '48

Inspecting Oldsmobile's new V-eight engine; unique inspection machines. S. C. Starnaman. il Mach 55:184-93 N '48

Inspection by projection. K. F. Kirchhofer. il Mill & Factory 43:108-9 J1 '48

Inspection of precision aircraft gears. D. W. Dudley. il diags Mach 55:151-7 S '48

New ways to trim inspection waste. il Mod Ind 16:40-5 J1 '48

Producer's quality control report aids inspection of incoming parts. G. R. Armstrong. il Mach 54:162-5 Ap '48

Progress of electronic inspection. il diag Chem Age (Lond) 58:115 Ja 17 '48

Purchased-part quality controlled; statistical methods, applied to inspection of incoming parts; John Deere tractor co. E. L. Fay. il Am Mach 91:98-100 D 18 '47

Rigid aircraft inspection demands scientific instruments. W. E. Luff and M. T. Shelmimer. il Automotive Ind 99:41-2+ S 1 '48

Seven jobs saved in inspecting copper wire bars. il Eng & Min J 149:79 Ap '48

Some aspects of engineering inspection. R. B. Fairthorne. Engineering 166:163-4 Ag 13 '48

Technical progress in metalworking; inspection and testing. Steel 122:211-12+ Ja 5 '48

35th annual review; layout and inspection. il Am Mach 92:258-66 Ja 29 '48

See also

Car inspection

Magnetic testing

INSTALLMENT PLAN

Bank tests time-sales market; survey of the Los Angeles area by Security-first national bank. D. Z. Albright. Banking 40:48-9+ D '47

Consumer credit and business trends. V. Yager. Comm & Fin Chr 166:2165+ N 27 '47

Consumer credit in the postwar period. L. F. McHugh. Survey of Cor Bsns 27:11-15+ N '47

Consumer credit structure. T. W. Rogers. Comm & Fin Chr 167:1763+ Ap 22 '48

Consumer credit trends. Fed Res Bul 34:897-903 Ag '48

Do's and don'ts to avoid time payment headaches. Sales Management 60:62-4 Je 15 '48

Facing facts on consumer credit. A. A. Friedrich. Banking 41:53+ J1 '48

Protecting the retail installment buyer. J. R. Vincens. Banking 40:47+ D '47; 50-1+ Ja '48

Revamping a homey chain; A. G. Rhodes & son. Atlanta furniture chains. Bsns W 950-1 My 15 '48

Trend in consumer credit; with survey of consumer income and demand. H. S. Coffin. Mag of Wall St 82:338-9+ J1 3 '48

See also

Finance companies

Loans, Bank-Small

loans

Finance

Banks given lever on installment loans; guaranty by manufacturer, paper work by retailer, permit extra low rates. H. Murphy. Barron's 28:33-4 S 13 '48

Banks share in time-buying; Westinghouse Electric plan. Bsns W p82+ S 11 '48

Commercial banks and competitive trends in consumer installment financing. W. P. Mors. bibliog J Bsns 21:133-67 J1 '48

New plan for financing by banks; Westinghouse equity plan. C. F. Gilbert. il Banking 41:63-4 S '48

Save and produce; consumer credit; A.B.A.'s productive loans campaign. Banking 40:36-7 F '48

See also

Finance companies

Regulation

After regulation W; Financial public relations association clinic. Banking 40:56 N '47

ABA opposes consumer credit control. Comm & Fin Chr 166:2173+ N 27 '47

A.B.A. president's statement on reimposition of Regulation W. J. M. Dodge. Banking 40:43 D '47

Automobile appraisal guides designated by Federal reserve system for purposes of regulation W. Fed Res Bul 34:1240-2 O '48

Consumer credit; an appraisal of controls and recent trends. Index 28 no 3:61-71 [S] '48; Excerpt. Comm & Fin Chr 168:1976 N 11 '48

Consumer installment credit; with text of the new regulation. Fed Res Bul 34:1066, 1104-112 S '48; Excerpt. Comm & Fin Chr 168:815 Ag 26 '48

Credit controls won't bother banks following A.B.A. guide. Banking 41:72+ O '48

Credit rules for appliances mild. Elec World News ed 130:5 S 4 '48

Discontinuance of installment credit controls. Fed Res Bul 33:1356 N '47

Easy credit curbs; revised Regulation W. Bsns W p60 Ag 28 '48

Federal Reserve warns against relaxing terms. Credit & Fin Management 49:27 N '47

How effective are consumer credit controls? A. A. Friedrich. Banking 40:46+ D '47

Importance of consumer credit in our national economy; question of renewed government restrictions. L. Plummer. Comm & Fin Chr 166:2057+ N 20 '47

Jewelers worry; fear return of controls over credit. Bsns W p48+ Ag 7 '48

Proposed regulation of consumer installment credit; statement before Senate banking and currency committee. R. M. Evans. Fed Res Bul 33:1466-8 D '47

Regulation of consumer installment credit; statement before House banking and currency committee. Aug. 2, 1948. R. M. Evans. Fed Res Bul 34:912-13 Ag '48

Warns Federal Reserve against imposition of restrictive consumer credit controls. A. O. Dietz. Comm & Fin Chr 168:608 Ag 12 '48

Statistics

Retail credit survey, 1947. K. P. Reil. Fed Res Bul 34:787-93 J1 '48

Revised consumer credit series; with monthly figures, January 1929-June 1948. Fed Res Bul 34:933-7 Ag '48

INSTITUTE of actuaries, London

Centenary assembly, London, June 21-25. East Underw 49:3-4, 6, 17-19 Je 25; 1-1, 3-5 JI 2; 12-13 JI 16 '48; Nat Underw (Life ed) 52:2-11 Je 25; 11 JI 2 '48; Weekly Underw 158:131-4 Je 26 '48; Spectator (Life ed) 156:16-19+ JI '48

INSTITUTE of aeronautical sciences

I.A.S. lets contracts for Los Angeles, San Diego buildings. plan(p 16-17) Aeronautical Eng R 7:5 O '48

INSTITUTE of boiler and radiator manufacturers

Annual meeting, Rye, New York. Dom Eng 171:160+ Ja '48

INSTITUTE of British foundrymen

Annual meeting, 45th, London, June 9-11; with abstracts of papers. Foundry 76:94-5+ Ag '48

INSTITUTE of ceramic engineers

Factors affecting earnings of ceramic engineers. C. E. Taylor. Mo Labor R 67:381-3 O '48

Report on the survey of the economic status of members. Am Cer Soc Bul 27:308-15 Ag 15 '48

INSTITUTE of fisheries research. See North Carolina university—Institute of fisheries research**INSTITUTE of food technologists**

Annual conference, 8th, Philadelphia, June 6-10. Food Ind 20:94-8, 1152-3+ JI-Ag '48

INSTITUTE of gas heating industries

Program for 1948. F. A. Herr. Am Gas J 168:37-8 Je '48

INSTITUTE of gas technology

I.G.T. fellows build own futures. Am Gas Assn Mo 29:551 D '47

INSTITUTE of geophysics. See California university—Institute of geophysics**INSTITUTE of housing studies**

Conference, 1st, New York, June 2-4. Arch Rec 104:158+ JI '48

INSTITUTE of life insurance

Annual meeting, 8th, New York, Dec. 19. East Underw 48:3-4 D 26 '47; Nat Underw (Life ed) 51:1 D 26 '47; Weekly Underw 157:1617-18 D 27 '47; Spectator (Life ed) 155:22-4+ Ja '48

D. F. Barnes to join staff. East Underw 49:4 JI 9 '48

Educators authorize studies aimed at high school courses in family financial security in cooperation with Institute. Weekly Underw 158:777 Mr 6 '48; Same cond. Nat Underw (Life ed) 52:20 Mr 5 '48

154 companies now in Institute. East Underw 48:28 D 19 '47

Women's division. R. Siegel. Spectator (Life ed) 156:8-11+ Ag '48

INSTITUTE of metals

Annual meeting, 40th, London, March 16-18; with abstracts of papers. Engineering 165:304-5, 328-9, 340-1, 365 Mr 26-Ap 16 '48; Metallurgia 37:237-42+ Mr '48; Engineer 185:299-300, 322-3, 346-8 Mr 26-Ap 9 '48

Autumn meeting, Cambridge, Sept 14-17. Engineer 186:307-8, 340-2 S 24-O 1 '48; Engineering 166:305-6, 330, 355-6 S 24-O 8 '48; Metallurgia 38:331-9 O '48

Forty years of the Institute of metals. A. Smout. Engineering 185:235 Mr 19 '48; Abstract. Engineer 185:276 Mr 19 '48

INSTITUTE of navigation

Interplanetary committee appointed. Marine Eng 53:77-8 JI '48

INSTITUTE of newspaper controllers and finance officers

Annual meeting, 1st, Chicago. Ed & Pub 81:5+ O 2 '48

INSTITUTE of numerical analysis

Unit of National bureau of standards established at the University of California at Los Angeles. Franklin Inst J 245:342-3 Ap '48

INSTITUTE of paper chemistry. See Lawrence college—Institute of paper chemistry**INSTITUTE of petroleum**

Annual meeting, 34th, London, April 9, 1947; annual report. Inst Pet J 34:610-24 Ag '48

INSTITUTE of polymer research

Fifth annual series of summer laboratory clinics. Science 107:643-4 Je 18 '48

INSTITUTE of radio engineers

Annual meeting, New York, March 22-25. Electronics 21:72-5 My '48; Tele-Tech 7:28-9+ My '48

Awards for 1948. Electronics 21:146 Ja '48
Committees, representatives in colleges and on other bodies, 1948. Inst Radio Eng Proc 36:1264-8 O '48

Institute committees, 1948; technical committees, May 1, 1948-May 1, 1949; Institute representatives in colleges, 1948; sections. Inst Radio Eng Proc 36:760-4 Je '48

I.R.E. awards; portraits. Inst Radio Eng Proc 36:756-9 Je '48

I.R.E. in 1948. A. N. Goldsmith. Inst Radio Eng Proc 36:894-5 JI '48

New professional group system. Inst Radio Eng Proc 36:570 My '48

Petition for amendment of article II, sections 1-c and 2-c, of the constitution. Inst Radio Eng Proc 36:636-7 My '48

Pictorial tour of the home of the I.R.E. plan. Inst Radio Eng Proc 36:89-100 Ja '48

Report of the committee on professional status of the Canadian council. Inst Radio Eng Proc 36:115-16 Ja '48

Report of the secretary, 1947. H. Pratt. Inst Radio Eng Proc 36:745-50 Je '48

URSI-I.R.E. joint meeting, Washington, Oct. 20-22; titles and authors of papers. Inst Radio Eng Proc 36:103-4 Ja '48

INSTITUTE of the aeronautical sciences

Annual meeting, 16th, New York, Jan. 26-29. Aeronautical Eng R 7:5-12 Mr '48

Annual meeting, 16th, New York, Jan. 26-29. Aviation W 48:13 F 2; 18 F 9 '48

Annual meeting, 16th, New York, with abstracts of technical session papers. Aeronautical Eng R 7:22-33 Mr; 16-28 Ap '48

Annual summer meeting, Los Angeles, July 15-16. Aviation W 49:14 JI 26 '48

Annual summer meeting, Los Angeles; technical sessions. Aeronautical Eng R 7:22-31 S '48

Can further development extend personal aircraft utility? excerpts from the talks and discussions at I.A.S. personal aircraft meetings in Detroit, Wichita, and Dayton, June 7-11. Aeronautical Eng R 7:20-32 Ag '48

Experts call for improved planes; IAS flying forums held in Detroit, Wichita and Dayton. Aviation W 49:40 JI 19 '48

Historical associate grade of membership approved. Aeronautical Eng R 7:6 O '48

Honors night. Aviation W 48:13 Ja 26 '48

I.A.S. awards and honors for 1947. Aeronautical Eng R 7:6-7 F '48

Joint conference with Royal aeronautical society, London, Sept. 3-5. Roy Aeronautical Soc J 51:931-45 N '47; Aero Digest 55:25+ O '47

1947 I.A.S. fellows; portraits. Aeronautical Eng R 7:8 F '48

Northrop president for 1948; other officers elected. Aeronautical Eng R 7:5 Ja '48

Officers for 1948; portraits. Aeronautical Eng R 7:11 F '48

INSTITUTE on the United nations. See Mount Holyoke College institute on the United nations**INSTITUTION of civil engineers**

Annual conversazione, London, June 24. Engineer 186:7 JI 2 '48; Engineering 166:6 JI 2 '48

INSTITUTION of electrical engineers

Annual report. Elec R (Lond) 142:773 My 14 '48; Electrician 140:1509 My 14 '48

Future titles of installations and transmission sections. Electrician 141:868 S 17 '48

Institution and international scientific collaboration. Inst E E J 95 pt 1:67, 285-6, 415 F, JI, O '48

New president, council and section chairmen. Elec R (Lond) 143:93-4 JI 16 '48

Report of the council for the year 1947-48. Inst E E J 95 pt 1:247-68 Je '48

INSTITUTION of gas engineers

Autumn research meeting, 13th, London. Gas J (Lond) 252:503-9, 511-19 D 3 '47

INSTITUTION of mechanical engineers

Annual report of the council for the year 1946. Inst Mech Eng J & Proc 156:Proc 318-33 D '47

Annual report of the council for the year 1947. Inst Mech Eng J & Proc 158:Proc 129-82 S '48; Abstract. Engineer 185:308-9 Mr 26 '48

Presidential address. D. Gordon. Engineering 164:475-6, 487 N 14-21 '47

INSTITUTION of mining and metallurgy

Present position of the Institution and observations on the future. *Engineering* 165: 622-3 *Je* 25 '48

INSTITUTION of naval architects

Autumn meeting, London, Sept. 21-24. *Engineer* 186:332-4, 367-8, 395-6 *O* 1-15 '48; *Engineering* 166:327-8, 353-5, 377-9, 389-90 *O* 1-22 '48

Spring meeting, London. *Engineering* 165: 281, 306-7, 329-31, 352-3, 376-8, 400-2 *Mr* 19-*Ap* 23 '48; *Engineer* 185:284-5, 307-8, 332-4, 356-7, 371-2 *Mr* 19-*Ap* 16 '48

INSTITUTION of production engineers

Annual meeting, 1st, Bournemouth, Sept. 23-25. *Engineer* 186:337 *O* 1 '48

INSTITUTIONAL homes. See Homes, Institutional**INSTITUTIONAL market**

See also
Hospitals—Purchasing

INSTITUTIONS, Public

See also
Homes, Institutional
Hospitals
Prisons

Employees

Institutional employee maintenance. *J. C. Crowley*. (Publication no. 99) 14p pa \$1
Public administration service, 1313 East 60th st, Chicago 37 '47

INSTRUCTION cars. See Cars, Instruction**INSTRUCTION in use of product**

Package copy planning; General Foods Consumer service editorial division. *Il Mod Packaging* 21:109-14+ *Ap* '48
Production pattern. *Bsns W p40 Ag* 28 '48

INSTRUCTION manuals

Birth of a service note; data sheets which accompany new receivers are the result of engineering skill plus practical servicing know-how. *H. D. Hooton*. *Il Radio N* 39:50+ *Mr* '48

How Do-All's school program lays ground work for industrial sales. *L. R. Rothenberger*. *Il Sales Management* 60:89+ *My* 1 '48

Manual guides Draper loom fixing. *Textile World* 98:120-1 *P* '48

Methods manual for small shop; American welding & manufacturing co. *H. H. Alden*. *Factory Management* 105:85 *D* '47

Preparation of instructional and servicing handbooks. *D. Vine*. *Engineer* 185:274-5 *Mr* 19 '48

INSTRUCTION plates

Step towards making machinery foolproof; metal instruction plates that resist corrosion. *Safety Eng* 96:38-9 *S* '48

INSTRUCTIONS

On-the-line training, with job instruction sheets; Crosley division, Aviation corp. *F. X. Droegge*. *Il Factory Management* 105: 72-3 *N* '47

See also
Employees' manuals
Safety instructions
and training

INSTRUMENT dials. See Dials, Instrument**INSTRUMENT laboratories**

Instrument laboratory at University of Wisconsin. *Science* 107:11 *Ja* 2 '48

INSTRUMENT society of America

Annual conference and exhibit, 3d, Philadelphia, Sept. 13-17; technical program; with abstracts; descriptive list of exhibits. *Instruments* 21:699-708 *Ag* '48

Annual conference, 3d, Philadelphia, Sept. 13-17. *Pet Processing* 3:935-6 *O* '48
Highlights of the 1948 conference, Philadelphia, Sept. 13-17. *Instruments* 21:910-11 *O* '48

National instrument conference and exhibit, Philadelphia, Sept. 13-17; technical program; exhibitors. *Steel* 123:78+ *Ag* 30 '48
Photographs of the 1948 conference and exhibit. *Instruments* 21:905-11 *O* '48

INSTRUMENTS

Application of instruments to the machine-tool industry; abstract. *R. J. Teetsell*. *diag Instruments* 21:550+ *Je* '48

Chemical process control with radioactivity. *A. P. Schreiber*. *diags Chem Eng* 55:103-5 *Ja* '48

Compressed air for instrument use. *plan Pulp & Pa* of *Can* 48:91-2 *D* '47

Designing instrument gearing. *L. D. Martin*. *Il diags Machine Design* 20:163-8 *Ap* '48

Evaluating the ideal industrial instrument finish. *A. H. Keyser*. *Il Product Eng* 19: 134-7 *My* '48

First report of the open-hearth instruments sub-committee. *F. L. Robertson*. *Iron & Steel Inst J* 160:72-4 *S* '48

Flexible operation achieved through instruments at Roosevelt oil co. refinery. *S. D. Ross*. *flow diags Il diag Oil & Gas J* 47: 76+ *Ag* 12 '48

Fractionation instrumentation and control. *D. M. Boyd, Jr.* *diags Pet Refiner* 27:115-18 *O*; 114-17 *N* '48

Historical museum on paper of American instruments in science and industry; 1784 to the present time. *Il diags Instruments* 21: 35-52+, 128-48+, 248-50+, 334-8+ *Ja*-*Ap* '48
Infra-red instrumentation and techniques. *V. Williams*. *bibliog* (210 ref) *Il diags R Sci Instr* 19:135-78 *Mr* '48

Installation and use of instruments on open-hearth melting furnaces. *R. C. Baker*. *Il diags Iron & Steel Inst J* 157:81-8 *S* '47; *Discussion*. 159:376-84 *Ag* '48

Instrument application in groundwood pulp mills. *C. D. De Mers*. *Il diags Pulp & Pa* of *Can* 49:96-100 *S* '48

Instrument applications in the sulphite mill. *E. J. Sheare*. *Il diags Pulp & Pa* of *Can* 49:13-19 *O* '48

Instrument-gear standards and design. *G. W. Kuntz*. *bibliog Il diags A S M E Trans* 70:739-43 *Ag* '48

Instrument society of America 3d annual conference, Philadelphia, Sept. 13-17. *Pet Processing* 3:935-6 *O* '48

Instrumentation. *R. H. Munch*. Published in monthly numbers of *Industrial and engineering chemistry*

Instrumentation and process control; new equipment announced 1947-48. *Chem Ind* 63: 410-14 *S* '48

Instrumentation is key to greater economy in automobile production. *R. B. Colten*. *Il Automotive Ind* 99:40+ *S* 1 '48

Instrumentation of a modern kraft mill. *F. H. Ludwig*. *flow charts Pulp & Pa* of *Can* 49:89-94 *O* '48

Instrumentation on El Paso Natural's Texas-California line. *E. L. Stark*. *Il plans diag Oil & Gas J* 47:213-14+ *S* 23 '48

Instruments and automatic control for the modern boiler plant. *A. L. Stewart*. *Il diags Pulp & Pa* of *Can* 49:105-12 *O* '48

Instruments and their application to textile machinery; abstract. *W. H. Ridley*. *Rayon* 29:90 *Ja* '48

Instruments guide industry; Analog is one. *Il diag Bsns W p68+ S* 25 '48

Manufacturers' ideas to meet difficult operating problems; instrumentation; illustrated descriptions of latest equipment. *B. Nordberg*. *Il diag Rock Prod* 50:102-6 *D* '47

Modern instrumental methods of analysis; symposium. *Anal Chem* 20:389-92 *Ap* '48

Modern trends in instrumentation. *R. L. Galley*. *Automotive Ind* 99:39+ *S* 1 '48

National instrument conference and exhibit, 3d, Philadelphia, Sept. 13-17; with list of technical papers. *Anal Chem* 20:993 *O* '48

New developments in pulp and paper mill instrumentation. *G. D. Zimmerman* and *J. Garibay y R.* *Il diags Paper Ind* 30: 89-92 *Ap* '48

New process control instruments for chemical industry. *E. S. Lee*. *Il Chem Eng Prog* 44:263-7; *Discussion*. 267-8 *Ap* '48

1948 review of new power and mechanical equipment; meters and instruments. *Il diag Power* 92:sup 165-8 *Mid-Je* '48

No torque instrument pickup. *Il R Sci Instr* 18:804 *O* '47

Practical considerations in instrument design; discussion. *Engineer* 185:257 *Mr* 12 '48

Process instrumentation in chemical engineering curriculum. *J. B. Arant*. *Chem Educ* 25:283-5 *My* '48

INSTRUMENTS—Continued

- Progress of electronic inspection. *il diag Chem Age (Lond)* 58:115 Ja 17 '48
- Review of power and mechanical equipment; meters and instruments. *il diags Power* 91: 903-7 Mid-D '47
- Rigid aircraft inspection demands scientific instruments. W. E. Luff and M. T. Shelhimer. *il Automotive Ind* 99:41-2+ S 1 '48
- Symposium on modern methods of analytical chemistry; instrumentation. *Anal Chem* 20: 23A-4A F '48
- Test methods and some instruments. E. B. Stead. *il diags Engineering* 165:333-5 Ap 2 '48

See also

- | | |
|-----------------------------------|-----------------------|
| Aeronautic instruments | Micrometers |
| Balances | Optical instruments |
| Control equipment | Radio instruments |
| Dynamometers | Recording instruments |
| Electric instruments | Scientific apparatus |
| Magnetic instruments | and instruments |
| Measuring instruments | Surgical instruments |
| Medical instruments and apparatus | and apparatus |
| | Verniers |

Advertising

- Industrial instrument advertising seen rising 50 per cent by '53. *Ptr Ink* 224:96 S 17 '48

Bibliography

- Bibliography on transducers, magnetic amplifiers, etc. [213 titles]. H. B. Rex, comp. *Instruments* 21:332+ Ap '48
- Manufacturers' new literature pertaining to instrumentation. *Instruments* 21:88-92 Ja '48 [cont monthly]

Exhibitions

- New products at the Instrument show. *il Automotive Ind* 99:43-7+ S 1 '48

Lubrication

- Comprehensive laboratory testing of instrument lubricants. G. E. Barker and others. *bibliog il diags Am Soc T M Proc* 46:1540-59 '46

Maintenance and repair

- Instrument maintenance. H. A. Hulsberg. *Pet Refiner* 27:111-13 My '48; Same. *Pet Eng (Ref annual)* 19:178+ Jl 1 '48
- Maintenance of temperature indicating and recording instruments. H. C. Morrow. *Iron & Steel Eng* 25:93-6 Mr '48
- Modern refinery instruments; installation and maintenance. G. A. Larsen. *il diags Pet Refiner* 27:103-7 Ja '48; Same cond. *Pet Processing* 2:821-6 N '47
- Organizing and training an instrument department. J. W. Graeb. *Pulp & Pa of Can (Convention no)* 49:147-50+ [F] '48; Same cond. *Paper Ind* 30:148-9+ Ap '48

Study and teaching

- Instrument craftsmanship training course. G. A. Larsen. *bibliog il Instruments* 21:436-8 My '48; Same. *Pet Processing* 3:83-5 Ja '48
- Successful instrumentation course held in Montreal. *Pulp & Pa of Can* 49:84-9 Je '48
- Summary of proceedings of 1946 Texas A. & M. short course on instrumentation for the process industries. R. H. Munch. *Ind & Eng Chem* 39:sup85A-6A D '47

INSULATING board. See Fiber board

INSULATING cotton. See Cotton, Insulating

INSULATING materials

- Ceramics and glass used in electronics. *Electronics* 21:M4-5 Mid-Je '48
- Electrical insulating materials and varnish. E. F. McNamara. *il Iron & Steel Eng* 25: 69-75 Jl '48
- Fibrous glass, electrical insulating materials. H. O. Collis. *il Iron & Steel Eng* 25:82-7; Discussion. 87-8 Ap '48
- Insulating compounds; dielectric and physical properties. *Electronics* 21:M18-19 Mid-Je '48

- Insulation properties of Buna S and natural rubber; charts; engineering reference sheet. E. W. Davis. *Elec World* 128:118 Mr 27 '48
- Low-voltage, air-cooled transformers designed for 225°C operation; silicone insulated development. J. F. Dexter and others. *bibliog il Elec World* 130:97-9+ Ag 14 '48
- Mica; its preparation and some applications. A. E. Williams. *il Engineer* 185:227-9 Mr 5 '48
- Mineral-insulated metal-sheathed conductors. F. W. Tomlinson and H. M. Wright. *il Inst E E J* 93 pt 2:325-35 Ag '46; Discussion. 93 pt 2:336-40; 94 pt 2:84-91; 95 pt 2: 97-8 Ag '46, F '47, F '48

- Mobility of electrons in pure non-polar insulators. F. Seitz. *bibliog Phys R* 73:549-64 Mr 15 '48

- Mycalex 410; glass-bonded mica in molded form. F. L. Yerzley. *il India Rubber World* 118:374-6 Je '48
- Plastics in electrical switchgear. W. H. Edmunds. *il diags Mod Plastics* 25:109+ Mr '48

- Properties and uses of technical ceramics. H. Thurnauer. *il Materials & Methods* 26: 87-92 D '47

- Properties of some new insulating and magnetic materials; from symposium presented at 1948 winter meeting of ATEE. *Product Eng* 19:147-8 Mr '48

- Refractory and insulating materials; recent developments by U.S. chemical engineers. *Chem Age (Lond)* 58:297-8 F 28 '48

- Silicones for electrical insulation. K. N. Mathes. *Paper Ind* 29:1516-17+ Ja '48

- Some modern developments in electrical insulation. R. Snadow. *Engineer* 186:170-1 Ap 13 '48

- Terratex, thin flexible inorganic insulation manufactured from asbestos fiber. T. R. Walters. *il Elec Eng* 67:452-4 My '48

- Three steps to a vinyl monomer. E. A. Kern and C. W. Wilson. *il diag Chem Eng* 55: 114-17 Je '48

- Waxes; dielectric, physical and chemical properties for insulating, coating and sealing applications; tabulation. *Electronics* 21: M38-9 Mid-Je '48

See also

- | | |
|---------------------------|-----------------------|
| Barium titanate | Porcelain, Insulating |
| Cotton, Insulating | Resinous products— |
| Glass—Electric properties | Insulating materials |
| Insulating oil | Rubber, Artificial |
| Mica | Electric properties |
| Paper, Insulating | Steatite |
| | Varnish, Insulating |

Testing

- Dielectric strength measurements on varnished cambric. A. Rufolo and H. K. Graves. *il Am Soc T M Proc* 46:1498-605 '46

- Insulation variability; a general equation for strength distribution curves. M. C. Holmes. *Franklin Inst J* 245:159-62 F '48

- Intrinsic electric strength of polythene and its variation with temperature. W. G. Oakes. *bibliog diags Inst E E J* 95 pt 1: 36-44 Ja '48

- New measuring circuit for conductance meter. W. A. McCool. *il diags Tele-Tech* 7:30-1+ Je '48

- Study of the dielectric strength of paint, varnish and lacquer films by New York paint and varnish production club. *bibliog il diags Paint Oil & Chem R* 110:52-9 D 11 '47

INSULATING oil

- About transformers. G. O. Castell. *diag Electrician* 139:1291-5 O 31 '47

- Are new types of transformer oil needed? F. M. Clark. *il Gen Elec R* 51:9-14 My; 43-7 Je '48

- Characteristics of some oil impregnated capacitors. E. Dempster. *Electronics* 21:168+ My '48

- Insulating oil purification offers operating economies. H. V. Miles. *il diag Elec World* 130:92-4 O 23 '48

- Liquid dielectrics for transformers. J. G. Ford. *il Elec Eng* 67:1066-71 N '48

INSULATING oil—Continued

Low-cost reconditioning of transformer oil. *diag Comp Air Mag* 52:285 N '47

Oil-paper dielectrics; effect of asphalt as a contaminant in oil and in impregnated paper. J. D. Piper, P. Treend and K. S. Bevis. *bibliog Ind & Eng Chem* 40:323-8 F '48

Preventive maintenance of electric oils; abstract. C. J. Egger. *Iron & Steel Eng* 25: 91-2 S '48

Some observations on oil deterioration in transformers and switchgear. H. Hurworth. *il diag Inst E E J* 95 pt 2:323-36 Je '48; *Excerpta. Engineer* 184:608-9 D 26 '47; *Abstract. Engineering* 165:78-9 Ja 23 '48; *Elec R (Lond)* 141:887 D 12 '47; *Discussion. Inst E E J* 95 pt 2:342-8 Je '48; *Electrician* 139: 1781-2 D 19 '47

Testing

Electrical resistance test for insulating oils. J. S. Forrest. *diags Inst E E J* 95 pt 2:337-42; *Discussion*, 342-9 Je '48

Inhibited insulating oil promises longer life. R. G. Larsen and T. E. Reamer. *il Elec World* 130:106-8 S 11 '48

Laboratory evaluation of oil deterioration. R. G. Larsen. *bibliog il Anal Chem* 20:547-55 Je '48

Predicting life of oils by i.f.t. tests; abstract. P. S. Barnum. *diags Elec World* 130:114 Ag 14 '48

Water determination in new and used insulating oils by Doble method. F. C. Doble. *il diag Am Soc T M Proc* 46:1475-81; *Discussion*, 1482-5 '46

INSULATING paper. See Paper, Insulating

INSULATING varnish. See Varnish, Insulating

INSULATION (electric)

Breakdown of a gas at microwave frequencies. M. A. Herlin and S. C. Brown. *diag Phys R* 74:291-6 Ag 1 '48

Electrical breakdown of a gas between coaxial cylinders at microwave frequencies. M. A. Herlin and S. C. Brown. *Phys R* 74:910-13 O 15 '48

Electrical wiring for motor driven machines; insulated electrical conductors, 600 volts. *il Product Eng* 19:120-1 My '48

Forming oxide films on electrical steel. P. L. Schmidt. *Elec Eng* 67:538 Je '48

Generator laminations reinsulated in the field; spraying with red oxide glyptal. F. R. Gould. *il Elec World* 129:171+ Ja 17 '48

Higher ratings for totally-enclosed non-ventilated motors by using high temperature insulation; abstract. W. H. Formhals and G. P. Gibson. *Product Eng* 18:134-5 N '47

Impregnating plant; vacuum and pressure system. *il Elec R (Lond)* 143:1179-80 Jl 30 '48

Insulation requirements for oil-industry motors. P. Hernick. *diags Oil & Gas J* 47: 93-6 S 16 '48

Properties of Buna S insulation for wires and cables; tables; engineering reference sheet. E. W. Davis. *Elec World* 129:122 Mr 13 '48

Silicone insulations reduce motor failures. F. S. Campbell. *il Power Generation* 52:76-7 F '48

Testing

Cables with reduced thickness of insulation; abstract. M. Domenach. *Engineering* 166: 102-3 Jl 30 '48

Detection and location of faults in fhp motor stator windings. M. C. Halleck. *il diags Gen Elec R* 51:20-5 O '48

Direct-reading insulation resistance meter. *il diag J Sci Instr* 25:248 Jl '48

For safer testing of generator leads; fatal accident. *diag Elec World* 129:110+ My 8 '48

Gaseous insulation for high-voltage apparatus; sulphur hexafluoride possesses superior insulating qualities. G. Camilli and J. J. Chapman. *diags Gen Elec R* 51:35-41 F '48

High-voltage laboratory; testing electrical sheet insulation. *il Elec R (Lond)* 142:795-9 My 21 '48

Insulation test on O.C.B. current transformers. *Elec World* 129:46-7 Ja 3 '48

Statistics, the insulation engineer's crystal ball. W. Schneider and G. L. Moses. *il Westinghouse Eng* 8:150-3 S '48

INSULATION (heat)

AIChE New Orleans meeting features refractories and insulation. *Chem & Eng N* 26: 606-7 Mr 1 '48

Application and maintenance techniques for mill insulation; with specific reference to 85 per cent magnesia and diatomaceous silica. U. W. Smith. *Paper Tr J* 126:123-5 My 27 '48; *Same abr. Paper Ind* 30:476+ Je '48

Cellular-glass insulation for low-temperature equipment. V. Sanders. *il Chem Eng Prog* 44:304-6 O '48

Cold room insulations. W. S. Woodside. *il Refrig Eng* 56:223-6+ S '48

Control of structural temperatures in jet-propelled aircraft. G. F. Anisman and M. W. Blackstone. *bibliog il diags A S M E Trans* 70:677-84 Ag '48

Economic thickness of insulation; tables and charts. W. L. Nelson. *Oil & Gas J* 47:117 O 14 '48

Factors that influence thermal conductivity of porous-type insulating materials. A. V. Butterworth. *bibliog diag Chem Eng Prog* 43:597-600 N '47

Four case studies in the insulation of tanks. J. C. Moore. *il Chem Eng* 55:110-11 Je '48

Glass-fiber insulation at liquid-air temperatures. B. M. Palmer and R. E. Taylor. *il diag Chem Eng Prog* 44:652-4 Ag '48

Heat transmission through insulating glass units; reference data. *Heat & Ven* 45:38a-88b F '48

High-temperature insulation; abstract. L. Parker and J. J. Foster. *Chem Eng* 55:298+ My '48

How can we insulate and waterproof concrete tank? *diags Power* 92:497-8 Ag '48

How to figure weight of pipe insulation. S. S. Ulrich and T. H. Dickson, jr. *il Heating-Piping* 20:84-5 F '48; *Same. Power Generation* 52:86, 88 Mr '48

How to insulate concrete floors. L. Shuman. *diags Heat & Ven* 45:74-6 Jl '48

How to insulate heater units and recirculating fans on ovens. *il Sheet Metal Worker* 39:49-50 Ag '48

Infant industry matures; insulating board. *il Am Bid* 70:96-7 Ja '48

Insulating a new 300-hp Scotch boiler at Supreme textile printers. *il Power Generation* 52:92-3 O '48

Insulating a 2,500 psi steam-electric power unit; Twin Branch plant of the Indiana & Michigan electric co. H. E. Quick. *il diags Power Generation* 52:64-6 F '48

Insulating equipment shipboard. *Marine Eng* 53:73 Jl '48

Insulating material resists high heat; developed for aircraft use. *Aviation W* 49:24 O 4 '48

Insulating refinery equipment. J. C. Albright. *il Pet Eng* 19:128+ D '47

Insulating techniques at new kraft mill of Brown company. A. L. Sargent. *il Paper Ind* 30:563-6 Jl '48

Insulating value of cottonseed hulls. W. E. Long. *diags Refrig Eng* 56:327-9 O '48; *Abstract. Heat & Ven* 45:138 O '48

Insulation choice for a home refrigerator. W. A. Kuenzli. *bibliog il Refrig Eng* 55:560-5+ Je '48

Insulation for ducts. *il Heat & Ven* 45:73 Jl '48

Insulation improves equipment efficiency and operator comfort. W. S. Wheeler. *il Factory Management* 106:76-7 F '48

Insulation material; plastic-foam. *Mech Eng* 70:627 Jl '48

Insulation of concrete floors in dwellings; with time-saver standards. *diags Arch Rec* 103:120+ Ja '48

Insulation saves adjacent tanks in oil mixer accident-explosion. *il Safety Eng* 94:26 D '47

Internally insulated piping and pressure vessels for high-temperature service. P. E. Darling. *diags Pet Refiner* 26:129-34 O '47; *Same cond. Pet Processing* 3:339-40+ Ap '48

Johns-Manville insulating board plant at Natchez is opened. *il Paper Ind* 30:693-4 Ag '48

INSULATION (heat)—*Continued*

- Labor requirements to produce home insulation. *il* U S Bur Labor Statistics Bul 919: 1-19; pa 10c Supt. of doc. '47
- Low-temperature insulation; new plastic, Flotofoam, E. C. Van Buskirk and C. C. Surland, *Chem Eng Prog* 44:803-4 O '48
- Low-temperature insulation; problems and developments. J. F. White, *bibliog* *Chem Eng Prog* 44:647-51; Discussion, 651-2 Ag '48
- Method for calculating insulation economies developed by HHFA technical staff, *Arch Rec* 103:141-4 Je '48
- Mineral wool insulation for processing equipment. *il* *Pet Eng* 19:64+ Ag '48
- New fireproof door passes rigid test; has core of Kaylo insulation. *il* *Am Bld* 70:139 Ap '48
- New floor design for cold storage plants. R. F. Rea, *il* *diag* *Refrig Eng* 54:449-50 N '47
- New insulating material withstands fire; Owens-Illinois' Kaylo, *il* *Bsns W p26+* F 14 '48
- Pipe insulation at Tide Water Associated's Bayonne refinery. U. W. Smith, *il* *diags* *Oil & Gas J* 47:88+ J 22 '48
- Plant operating costs cut by mineral wool insulation of ducts. *il* *Chem Ind* 61:999-1000 D '47
- Quick way to find economical insulation thickness. *Power* 92:478-9 Ag '48
- Sludge digester insulated with glass. *il* *Eng N* 140:1005 Je 24 '48
- Ston heat loss in flanges. *diags* *Dom Eng* 171:154 Ja '48
- Structural columns are over-insulated; designing cold storage plants. L. Bull, *Refrig Eng* 58:39+ J 1 '48
- Styrofoam for low-temperature insulation. O. R. McIntire and R. N. Kennedy, *bibliog* *Chem Eng Prog* 44:727-30 S '48
- Techniques of using mineral wool insulation. *il* *diags* *Am Bld* 70:131 O '48
- Tests prove value of insulation for dairy barns. *il* *diags* *Am Bld* 70:118-19 S '48
- Thermal insulation and comfort characteristics of fibrous glass-lined garments. C. P. Yaglou, *J Ind Hygiene* 30:312-15 S '48
- Thermal insulation for low-temperature application. C. B. Bradley and J. F. Stone, *bibliog* *diag* *Chem Eng Prog* 44:723-6 S '48
- Thermal insulation of clothing. C. P. Yaglou, *Heating-Piping* 20:107-10; Discussion, 110-14 S '48
- Thermal insulation of concrete homes. A. Stone, *il* *plans* *diags* *Am Concrete Inst J* 19:849-74 My '48
- Vermiculite; what it is, how it works and where it's used in buildings. G. B. Coggins, *il* *diags* *Brick & Clay Rec* 111:36-8 N '47
- What causes ice formation in food freezer insulation? E. W. Comings, *diags* *Refrig Eng* 55:156-9 F '48

See also

- | | |
|--------------------------|----------------------|
| Building—Heating aspects | Mineral wool |
| Fire brick | Refractory materials |
| Glass fibers | Steam pipe coverings |

INSULIN

- Adsorption of water vapour on insulin and plasma albumin. R. A. Robinson, *Chem Soc J p* 1083-5 J 1 '48
- Chemical studies on vesicant-treated proteins. F. H. Carpenter and others, *Am Chem Soc J* 70:2561-3 J 1 '48
- Effect of the injection of glucose into the cerebrospinal fluid. R. W. Lackey, *Science* 106:618 D 19 '47
- High insulin tolerance in an inbred strain of mice. H. B. Chase and others, *bibliog* *Science* 107:297-9 Mr 19 '48
- Insulin shortage seen eased by new process; Lindner process, *Oil Paint & Drug Rep* 154:5 S 6 '48
- New Insulin sources, *Chem & Eng N* 26:1928 Je 28 '48
- Norway to extract insulin from whales. *For Comm W* 31:32 My 15 '48
- Reaction of some radioactive mustard-type vesicants with purified proteins. J. L. Wood and others, *bibliog* *Am Chem Soc J* 70:2547-50 J 1 '48
- Regeneration of insulin from insulin fibrils by the action of alkali. D. F. Waugh, *bibliog* *Am Chem Soc J* 70:1850-7 My '48

- Structure of insulin. D. Wrinch, *bibliog* *J Chem Phys* 16:1007-8 O '48
- Studies on acid hydrolysates of vesicant-treated insulin. C. M. Stevens and others, *Am Chem Soc J* 70:2554-6 J 1 '48

INSURABLE interest

- All risk policy on diamond ring; Ludeau v. Phoenix insurance co. J. L. Roesch, *Spectator* (Property ed) 13:10-11 D 11 '47
- Assured's insurable interest in diamond set in engagement ring lost when given to fiancée, *Weekly Underw* 157:1606 D 20 '47
- Insurable interest. J. D. Renn, *Weekly Underw* 157:174-6+ J 19 '47; Same, *Life Ins Courant* 53:14-18 Ja '48

INSURANCE

- Counts new years blessings of insurance. C. W. Seabury, *Nat Underw* 52:1+ Ja 8 '48
- 1948 promises to be most important year in history of U.S. insurance. J. M. Haines, *East Underw* 48:82+ D 19 '47
- No lack of writing capacity. J. A. Diemand, *Weekly Underw* 157:1162+ N 8 '47; Same cond. *Nat Underw* 51:1 N 6 '47

See also

- | | |
|---|---|
| Atomic energy commission (United States)—Insurance problems | Liquor problem—Insurance aspects |
| Benefit societies | Pension trusts |
| Contracts, Government—Insurance aspects | Sports—Insurance aspects |
| Exhibits, Traveling—Insurance aspects | Surplus products—Insurance aspects |
| Insurance companies and other headings beginning Insurance | Trade unions—Insurance plans |
| Liquefied petroleum gas—Insurance aspects | United nations relief and rehabilitation administration—Insurance program |
| also subdivision under various subjects, e.g. | War damage corporation |
| Banks and banking—Insurance requirements | |
| Churches—Insurance requirements | Garment industry—Insurance requirements |
| Coal mines and mining—Insurance requirements | Merchants—Insurance requirements |
| Cold storage locker plants—Insurance requirements | Port authorities—Insurance requirements |
| Contractors—Insurance requirements | Radio broadcasting stations—Insurance requirements |
| Farmers—Insurance requirements | Warehouses—Insurance requirements |
| also American bar association—Insurance section; American management association—Insurance division; Chamber of commerce of the United States—Insurance department; New York board of trade—Insurance section | |

Accounting (insured's)

- How accounting services determine loss for insurance purposes. F. S. Glendening, *J Account* 86:119-22 Ag '48

Adjustment of claims

- Advises buyer to negotiate with claims men on value of losses. J. W. Culkin, *East Underw* 48:33 N 28 '47
- California adjusters hear plain talk from company side. F. W. White, *Nat Underw* 52:1+ O 21 '48
- Claim payments help us build our agency. W. W. Hargert, *Rough Notes* 91:16+ Ja '48
- Handling of claims forms public opinion. W. K. Lloyd, *Weekly Underw* 158:1180-1 Ap 17 '48
- How to adjust small losses. *il* *Rough Notes* 91:15+ Ja '48
- Insurers held in two cases for agents' alleged neglect. *Nat Underw* 52:23 Ap 8 '48
- Insuring clause catch-all phrases frequently interpreted by courts. S. Daynard, *East Underw* 48:26 N 28 '47
- Loss situation factors commented on by Western underwriters association committee. *Weekly Underw* 158:1434+ My 15 '48

INSURANCE—Adjustment of claims—Cont.

New York claim association meeting, New York. Nat Underw 52:22+ O 28 '48
 Out-of-court claim settlements increase. Nat Underw 52:13 Ap 29 '48
 Underwriting errors are frequently cause of adjustment complications. A. C. Guy, East Underw 49:25 Jl 16 '48
 What to tell your clients after a loss. W. C. Moore, II Rough Notes 91:17-18 Ap '48
 Winning public good will. T. F. Buchanan, Rough Notes 91:27 Ja '48

See also

Insurance adjusters National association of independent insurance adjusters
 International claim association
 also subdivision Adjustment of claims under special subjects e.g. Insurance, Fire—Adjustment of claims

Loan receipts

Auto claims men may ask new law on loan receipt issue. Nat Underw 52:2 S 16 '48
 Case of the loan receipt. S. N. Zipser. Weekly Underw 159:450-2, 507-9, 1438 Ag 23-S 4, D 18 '48; Excerpts. East Underw 49:26+ S 10 '48

Advertising*See also*

Insurance, Life—Advertising
 Insurance agents—Advertising
 Insurance adverti- Insurance companies
 ing conference —Advertising

Atomic power risks

Meaning of atomic age for insurance. M. A. Snell. Nat Underw 52:16 S 2 '48
 Study atomic energy cover. Nat Underw 52:1 O 14; 11 O 21 '48

Binders

Insurers bound by agent's word. Nat Underw 52:4 S 23 '48
 Kentucky department issues rules on use of binders. Weekly Underw 159:315 Ag 14 '48
 Urges real binding receipt despite risks involved. A. T. Collier. Nat Underw (Life ed) 52:28 O 8 '48

Biography

Who's who in insurance. 369p \$5 Underwriter printing and pub. co, 116 John st, New York 7 '48

Cancellation

Calculating short rate on policies of irregular term. C. Markel. Nat Underw 52:7 Ag 5 '48
 New short rate table gets rid of inconsistencies. Nat Underw 51:23+ O 30 '47; Discussion. C. R. Storch. 52:9+ Ap 1 '48
 Proposed short rate table, casualty, fire and inland marine. Spectator (Property ed) 13: 8-9 N 27 '47; Same. East Underw 48:26 N 14 '47
 Significance of revised short rate tables and procedures now being filed. East Underw 43:33 D 5 '47

See also

Insurance, Automobile—Cancellation

Claim complaints

Complaints increase at New York; argue most over injury claims. Nat Underw 52:2 Jl 29 '48

Claims

See Insurance—Adjustment of claims

Classification

Insurance libraries. O. W. Pendleton, J Doc 3:246-9 Mr '48

Coinurance*See also*

Insurance, Fire—Coinurance

Collecting of premiums

See Insurance—Premiums, Payment of

Coverage

Are you making these mistakes? coverage you forgot to recommend can later prove embarrassing. Rough Notes 91:20+ O '48

Complete sales approach; examination, diagnosis and prescription. J. B. Roach, Spectator (Property ed) 14:20-2 Ag 5 '48
 How the accountant can help his client obtain proper insurance coverage. D. B. Tweedy. J Account 85:147-50 F '48
 I thought I was insured. L. Holmes. Am Bid 70:146-7 O '48
 Kinds of insurance; editorial. Nat Underw 52:14 Ja 15 '48; Discussion. 52:5+ Ja 29; 2 F 12 '48
 Supplemental coverages for residences. Rough Notes 91:21-6+ My '48

Credit aspects

Credit men pose questions on all lines of coverage; insurance panel forum of New York credit men's assn. Nat Underw 52: 15+ My 6 '48
 Insurance needs when credit bureau takes over. R. E. Brown; E. A. Luther. Nat Underw 52:15 S 30 '48

Directories

Insurance almanac; who, what, when and where in insurance, an annual of insurance facts, 1947, 1312p \$5 Underwriter printing and publishing co, 116 John st, New York 7 '47

Employees' insurance

Foresee immense growth in union welfare programs; trend may eliminate much of employers' insurance initiative. Nat Underw (Life ed) 52:1+ Jl 9 '48

See also

Insurance, Accident	Insurance, Health—
—Employees' insurance	Employees' insurance
Insurance, Group—	Insurance, Life—
—Employees' insurance	Employees' insurance
	Pension trusts
	Pensions, Industrial

Farmers as prospects

Farm risks profitable if sound underwriting rules are followed. D. C. Smith. East Underw 49:40 S 17 '48; Abstract. Nat Underw 52:17+ S 16 '48

Fraudulent claims

See also Insurance, Fire—Fraudulent claims

Fraudulent statements*See also*

Insurance, Life—
 Fraudulent statements

Government policies*See also*

Contracts, Government—Insurance aspects

Hemispheric conference

See Hemispheric insurance conference

International aspects

Hemisphere insurance relations better. A. L. Kirkpatrick. Weekly Underw 158:5+ Ja 3 '48

U.S. insurance should get into world arena. W. H. Leonhart. Nat Underw 51:6 D 25 '47

See also

Hemispheric insurance conference	Insurance companies
Insurance companies—Foreign branches	—Foreign business

Law

See Insurance agents—Law; Insurance law

Losses

General adjustment bureau gives report on catastrophe loss adjustments. Nat Underw 51:6 N 20 '47

Insurance loss at Texas City over \$90 million. Nat Underw 52:7 F 26 '48

Loss situation factors commented on by Western underwriters association committee. Weekly Underw 158:1434+ My 15 '48
 Monsanto claim is biggest in insurance history. F. A. Ulmer. Nat Underw 52:3 Je 3 '48

INSURANCE—Losses—Continued

Monsanto payment in Texas City explosion largest settlement in history. Nat Underw 52:1+ O 14 '48; Weekly Underw 159:905+ O 16 '48
 Texas City, one year later. fl Spectator (Property ed) 13:14-15+ Ap 8 '48
 Total of Texas City claims. Nat Underw (Life ed) 51:10 N 7 '47
 Western Adjustment reports; 1947 hits record high with 426,610 cases. Nat Underw 52:1+ Ja 29 '48

Mail order selling

Congress allows \$10,000 for mail insurance probe. East Underw 49:33+ Ap 16 '48; Same. Weekly Underw 158:1155 Ap 17 '48
 Eye Washington program as to mail order insurers. Nat Underw 51:21 N 6 '47; Same. Nat Underw (Life ed) 51:2 N 7 '47
 Federal vs. state regulation an issue; commissioners face problem in Federal trade commission mail-order study. Weekly Underw 159:425+ Ag 28 '48
 Indiana issues regulations on advertising. Nat Underw 52:17 J1 15 '48; Same. Nat Underw (Life ed) 52:3 J1 16 '48
 Indict six Chicagoans in mail order drive. Nat Underw 52:27 S 16 '48; Same. Nat Underw (Life ed) 52:2 S 17 '48
 Mail-order A. & H. code may be sweeping in scope. R. L. Hogg. Nat Underw 52:27 O 7 '48; Same. Nat Underw (Life ed) 52:35 O 8 '48
 N.A.I.C. finds no answer to mail order problems. Nat Underw 52:19 Je 10 '48; Same. Nat Underw (Life ed) 52:6 Je 11 '48
 Questions mail-order move to FTC. L. J. Kavanaugh. Weekly Underw 159:535 S 11 '48; Same cond. Nat Underw 52:23 S 16 '48
 Snide mail order insurers again tackled by N.A.I.C. Nat Underw 51:24 D 11 '47; Same abr. Nat Underw (Life ed) 51:15 D 12 '47
 Sullivan warns against mail order insurance. Weekly Underw 157:1627 D 27 '47
 Two mail-order insurers indicted on fraud counts. Nat Underw 51:15 O 30 '47; Same. Nat Underw (Life ed) 51:1 O 31 '47

Merchandizing uses

N.Y. bans plan to furnish cover with retail purchases; problems of free insurance and sales in combination involved. East Underw 49:1+ Ag 27 '48; Excerpts. Nat Underw 52:2 Ag 26 '48

Municipal policies

All phases of municipal insurance treated in N.A.I.A. forum; abstracts. W. J. Welsh and others. Nat Underw 52:17+ 46+ 56 O 7 '48; East Underw 49:28+ O 15 '48
 Clarifies views on municipal cover. A. E. Shepperd. Nat Underw 52:7 O 21 '48
 Local placement plan finds favor in Texas. D. G. Foreman. Weekly Underw 159:806 O 9 '48
 Municipalities need variety of coverages. C. A. Meriwether. Spectator (Property ed) 14: 56-7+ O 21 '48

See also

Dallas—Insurance placement board

Periodicals

A. J. Davis forms new insurance publication in New Orleans; Southern insurance. Nat Underw 52:24 S 2 '48
 Greater vision; importance of role of insurance trade press in public relations picture; address before Insurance advertising conference. A. E. Spottke. Weekly Underw 158: 638+ F 28 '48; Same cond. East Underw 49: 27-8 F 27 '48
 Insurance press functions. F. C. Crowell, jr. East Underw 49:36 O 8 '48

Premiums, Payment of

C.O.D. box used by local agency has eliminated collection problems. J. M. Hoffman. East Underw 49:20+ Ja 2 '48
 Continental Casualty offers collection plan; creates form for agents. East Underw 49: 30 Ag 13 '48; Same. Weekly Underw 159: 343 Ag 14 '48

How to keep from collecting your money. R. C. Dreher. Rough Notes 90:20 N '47

Premiums, Recovery of**See also**

Insurance, Aviation—
 Premiums, Recovery of

Preventive work

Mid-West buyers association shows safety consciousness; panel discussion. Nat Underw 52:22 Ap 22 '48

Prospects

How to figure the background for your business. J. L. Schatz. Spectator (Property ed) 14:18-19 O 21 '48
 Midland agents blind to overseas prospects in their communities. Nat Underw 52:8 F 19 '48

See also

Insurance—Farmers as prospects	Insurance, Fire—Prospects
Insurance—Women as prospects	Insurance, Group life—Prospects
Insurance, Accident—Prospects	Insurance, Inland marine—Prospects
Insurance, Aviation—Prospects	Insurance, Life—Prospects
Insurance, Business—Prospects	Insurance, Marine—Prospects

Purchasing

Atlantic monthly gives results of insurance survey among its readers. Nat Underw 52: 8 S 16 '48
 Buyers' council urged. J. C. Stott. East Underw 49:26 Je 25 '48; Same abr. Weekly Underw 158:1822 Je 26 '48
 Buyers hear treatise on stock, mutual, reciprocal at A.M.A. insurance conference. J. A. Robinson. Nat Underw 52:2 My 27 '48; Same cond. East Underw 49:33 My 28 '48
 Buyers' insurance problems given thorough airing at A.M.A. insurance section meeting. Nat Underw 52:1+ 2 My 27 '48
 Buying coverage according to plan highly important. E. F. Gebelein. Weekly Underw 158:1721 Je 12 '48; Same. East Underw 49:30 Je 13 '48
 Capacity problem well delineated at buyers' parley of American management association at Chicago. Nat Underw 51:1+ 25+ N 20 '47
 Complete market chief insurance need. E. L. Clark. Weekly Underw 157:1089+ N 1 '47; Excerpts. East Underw 48:24 N 7 '47
 Difficulties in proposals to increase capacity. W. E. Alvin. Nat Underw 51:6 N 20 '47
 Explains buyer-broker relations. P. H. Schindler. Spectator (Property ed) 13:26-7 N 27 '47
 Helpful facts on buying insurance. W. D. O'Gorman. East Underw 48:42 N 14 '47
 Holds buyers partly responsible for lack of market; abstracts. J. V. Herd. East Underw 48:1+ N 28 '47; Weekly Underw 157:1353+ N 29 '47
 Industry fails to keep pace. P. D. Betterly. Weekly Underw 158:1832+ Je 26 '48
 Insurance needs of Erewhon manufacturing company discussed at AMA meeting. East Underw 49:31 Je 4 '48
 Mid-West buyers association shows safety consciousness; panel discussion. Nat Underw 52:22 Ap 22 '48
 New Jersey governor signs anti-coercion measure. East Underw 49:16 Ag 27 '48
 Public will have greater voice in insurance. K. C. Bell. East Underw 48:1+ N 7 '47
 Sees insurance protection as affording last line of defense. H. L. Hubbell. East Underw 48:32 N 28 '47
 Suggestions to improve protection. P. L. Bachman. Weekly Underw 158:1160-1 Ap 17 '48
 Tells buyers what brokers expect. T. W. Bailey. East Underw 49:22+ S 24 '48
 What manufacturer expects of agent and company; abstracts. R. B. Gallagher. Nat Underw 52:3+ O 28 '48; Weekly Underw 159:957+ O 23 '48

INSURANCE—Purchasing—Continued

What will it cost to replace your personal property today? expiring contents policies and personal property floaters should be increased to cover today's values (cont). Rough Notes 90:56 N '47; 91:38 F; 44 My; 52 Ag '48

See also subdivision Purchasing under various insurance headings, e.g. Insurance, Life—Purchasing

Rates

Argues for amendments to proposed Article VIII; testifies at New York hearing. R. Murphy. East Underw 48:31+ N 21 '47

Asks agents' acceptance of rate regulation. D. A. Forbes. Nat Underw 51:6 N 6 '47

California brokers much confused by new rate law. Nat Underw 52:15 F 12 '48

California commissioner explains new provisions for rate regulation. East Underw 49:19 J 2 '48

Commissioners explore interstate rate problems for three days; Chicago meeting. Nat Underw 52:21+ Ap 22 '48; East Underw 49:1+, 41+ Ap 23 '48; Weekly Underw 158:1223+ Ap 24 '48

Companies, agents want rates based on underwriting profits; N.Y. legislative hearing on rating regulation. East Underw 48:1+ N 21 '47

Companies are up in air on California rate law. Nat Underw 52:19 F 5 '48

Holding hearing on rating in New York; with extracts from Dineen bill. East Underw 48:22+ N 14 '47

Independents express attitude on rating. A. H. Rust. Weekly Underw 157:1405+ D 6 '47

Legislative committee and industry leaders review proposed New York rate law changes. Weekly Underw 157:1239+ N 15 '47

Legislative record on rating bills; list by states. Spectator (Life ed) 156:40 J1 '48; Same, Spectator (Property ed) 14:15 J1 8 '48

Mahoney report critical of fire and surety rates; New York insurance study. Weekly Underw 158:567 Mr 20 '48; East Underw 49:1+ Mr 19 '48

Ohio's answer to the challenge of P.L. 15. W. H. Brewster. East Underw 49:42 My 14 '48

OK mutual rating plans in Washington state. Nat Underw 52:16 Ja 8 '48

Outlines basic philosophy of rating of National assn. of independent insurers. V. Lemmon. Nat Underw 52:4+ Mr 18 '48

Place of advisory organizations in the rate regulation pattern. R. Matthias. Nat Underw 52:19 Je 3 '48

Problems of rating interstate risks; address before Michigan agents; abstracts. J. M. Cahill. East Underw 49:33+ Mr 5 '48; Nat Underw 52:21+ Mr 4 '48; Weekly Underw 158:896+ Mr 20 '48

Rhode Island agents analyze new state rate regulatory statutes. East Underw 49:26 Je 4 '48

Rhode Island rate regulatory laws. Nat Underw 52:4 My 13 '48; East Underw 49:36 My 7 '48

Sees present rate laws as satisfying McCarran act; Columbia (university) law review. Nat Underw 52:19 F 19 '48

States should act on interstate rating. J. P. Gibbs. East Underw 49:30+ Je 4 '48

Texas law doesn't require one rate for all insurers; U.S. Guarantee wins decision in lower court. Nat Underw 52:15 Ag 5 '48

Zone five conducts rating forum at Little Rock, Arkansas. Nat Underw 52:21+ Mr 11 '48

Rating bureaus**See also**

Insurance, Aviation— Insurance, Surety
Rating bureaus and fidelity—Rating
Insurance, Fire— bureaus
Rating bureaus
also National bureau of casualty underwriters

Records

Aetna C.&S. issues new Plandex, an all-in-one visible sales record for policyholders. fl East Underw 49:33 My 21 '48

Keeping track of insurance; adequate records are essential. J. L. Davis, Credit & Fin Management 50:15-18 O '48; Same abr. Rough Notes 91:29 J1; 28 Ag '48

Reinsurance

Deplores idea of government aid to insurance; proposal for federally financed reinsurance corporation. J. C. Stott. East Underw 48:20+ N 23 '47

Does reinsurance need more capital? W. J. Langler. Nat Underw 51:16 D 25 '47

Excess Underwriters sues Security Mutual on reinsurance setup. Nat Underw 52:9 Ag 26 '48

Factors facing U.S. reinsurance in international market. J. J. Butler. Nat Underw 51:18-19+ D 25 '47

Facultative market is having its troubles, too. Nat Underw 51:2 D 25 '47

Insurance buyer backs plan for new large reinsurance company. E. L. Clark. East Underw 48:24 N 7 '47

International reinsurance from British viewpoint; market developments are traced. W. Juul. Nat Underw 51:17+ D 25 '47

N.Y. court affirms order of attachment; declines to vacate warrant against China insurance co. East Underw 49:26 My 21 '48

Reinsurance contract and arbitration; American reserve insurance co. v. China Insurance co. J. L. Roesch. Spectator (Property ed) 13:24-5 Je 24 '48

Reinsurance in western Europe; Review of London. East Underw 49:15 Ja 9 '48

Reinsurance review. Nat Underw 51:13-14+, 16-19+ D 25 '47

Security Mutual Casualty denies charges of Excess Underwriters. Nat Underw 52:32 S 23 '48

Swiss Reinsurance gives world results for 1947. Nat Underw 52:9 J1 15 '48

Those reinsurance fantasies; editorial. Nat Underw 51:13 N 6 '47

U.S. insurance should get into world arena. W. H. Leonhart. Nat Underw 51:6 D 25 '47

See also subdivision Reinsurance under special subjects, e.g. Insurance, Fire—Reinsurance

Self insurance

Benefits and dangers of self insurance; abstracts. P. Drake. Spectator (Property ed) 13:24-6 N 27 '47; East Underw 48:36 N 21 '47; Nat Underw 51:25 N 20 '47

Pennsylvania department self-insurance definition. East Underw 49:31 Ja 16 '48

Should I self-insure? E. H. Kingsbury, Spectator (Property ed) 13:12-13 Je 10 '48

See also

Insurance, Marine—

Self insurance

Study and teaching

A. Duncan Reid award to Argentinian. East Underw 48:34 D 26 '47

Capable insurance instructors in demand; S. S. Huebner foundation has increased offer of fellowship and scholarship awards. Weekly Underw 158:349+ Ja 31 '48

Education and training activities of insurance companies and associations; a survey. R. D. Kip. 44p Wharton school of finance and commerce, Univ. of Pennsylvania, Philadelphia 4 '47

Insurance education held vital to industry progress. W. W. Clement. Weekly Underw 158:721+ Mr 6 '48

Insurance education; universities and industry will benefit from close cooperation. S. S. Huebner. East Underw 49:10 Ja 2 '48; Same. Weekly Underw 158:10+ Ja 3 '48; Same cond. Nat Underw 52:2 Ja 1 '48; Same cond. Nat Underw (Life ed) 52:3+ Ja 2 '48

Mutual Life liberalizes educational refund plan. East Underw 48:13 N 14 '47; Same cond. Weekly Underw 157:1271 N 15 '47

New interest shown in office staff training. J. H. Kohlerman. Weekly Underw 157:1391 N 29 '47; Same cond. Nat Underw (Life ed) 51:8 N 28 '47

University of Illinois director gives views on insurance training. R. Mehr. Nat Underw (Life ed) 51:9 D 5 '47

INSURANCE—Study and teaching—Continued
Wharton center provides modern insurance school. Weekly Underw 158:494+ F 14 '48

See also

Insurance, Life— Insurance agents—
Agents—Training Training
also subdivision Study and teaching under various insurance headings, e.g. Insurance, Life—Study and teaching
also American association of university teachers of insurance; American institute for property and liability underwriters; Insurance institute of America; Insurance society of New York

Tables

New short rate table gets rid of inconsistencies. Nat Underw 51:23+ O 30 '47; Discussion. C. R. Storch. 52:9+ Ap 1 '48
Proposed short rate table, casualty, fire and inland marine. Spectator (Property ed) 13:8-9 N 27 '47; Same. East Underw 48:26 N 14 '47

Taxation

See also
Insurance, Life— Insurance companies
Taxation —Taxation

Terminology

Insuring clause catch-all phrases frequently interpreted by courts. S. Daynard. East Underw 48:26 N 28 '47

Valuation of property

Annual appraisals urged; abstracts. G. L. Patchin. East Underw 49:30+ Je 4 '48; Spectator (Property ed) 13:19 Je 10 '48

See also

Insurance, Fire— Insurance, inland marine—
Valuation of property—Valuation of property

Wholesale insurance

See also
Insurance, Accident
—Wholesale insurance

Women as prospects

Women held excellent prospects for sale of casualty and property insurance by agents. E. Wolf. East Underw 49:22 S 10 '48

Chile

Superintendent of insurance for Chile; Luis Merino. East Underw 49:32 Mr 12 '48

Connecticut

What insurance means to state of Connecticut. W. R. Dickerson. East Underw 49:13 Ap 9 '48

Dallas

See also
Dallas—Insurance
placement board

Great Britain

Encouraging future for insurance; address before Insurance Institute of London. E. B. Ferguson. East Underw 49:17+ Ja 2 '48

International reinsurance from British viewpoint; market developments are traced. W. Juul. Nat Underw 51:17+ D 25 '47

Japan

Fire and marine problems; interview with L. Morganstern. East Underw 49:21 My 28 '48

Latin America

Adjustments reflect type and volume of Latin American insurance; experience of Dargan & co. J. F. Ryan. Nat Underw 52:4 F 19 '48

Missouri

Superintendent Jackson reports on results in Missouri for 1947. Weekly Underw 159:898+ O 16 '48

Netherlands Indies

New property insurance plan developed. For Comm W 31:27 My 29 '48

New York (state)

Mahoney report critical of fire and surety rates. Weekly Underw 158:867 Mr 20 '48; East Underw 49:1+ Mr 19 '48

What N.Y. committee wants; Mahoney group to study pools, directorates, commissions. W. J. Mahoney. Nat Underw 51:1+ D 18 '47

See also

Insurance law—New
York (state)

Saskatchewan

Saskatchewan Socialist party on warpath against private companies. A. B. Jordan. East Underw 49:29 JI 16 '48

Southeastern states

Present underwriting and administrative conditions in south-eastern states. B. F. Weaver. Weekly Underw 157:1170+ N 8 '47

Southern states

Insurance volume high in South. W. L. Hays. Weekly Underw 158:359 Ja 31 '48

Sweden

Education for insurance in Sweden. C. Baldwin. East Underw 49:15 Je 18 '48
Swedish visitor compares U.S. insurance scene and his; interview with Sven Bladh. Nat Underw 52:20 Je 17 '48; East Underw 49:27 Je 18 '48

Texas

1947 results in Lone star state. A. Johnson. Weekly Underw 158:288+ Ja 24 '48

Turkey

Report on insurance in Turkey in 1947. East Underw 49:19 JI 16 '48

Western states

Coast area continues march of progress. W. M. Sidebotham. Weekly Underw 158:14+ Ja 3 '48

INSURANCE, Accident

A. & H. Chicago session; uniform bill to be redrafted; program for reporting loss experience. East Underw 48:34 N 14 '47
A. & H. conserves assets, salvages income. W. R. Dignan. Nat Underw 51:27 D 18 '47
Accident and health industry must prepare to face new regulations. H. R. Gordon. East Underw 49:26 Ja 2 '48

A.&H. leaders recoil from Maryott program. Nat Underw 52:17 Je 10 '48; Same. Nat Underw (Life ed) 52:2+ Je 11 '48

A. & H. picture in 1947. East Underw 48:88+ D 19 '47

A. & H. proposals to get further study by N.A.I.C. Nat Underw 51:25 D 11 '47

A. & H. underwriting forum at Bureau meeting, Virginia Beach, was successful. East Underw 49:31+ O 22 '48

Asks for attack on A.&H. trouble spots; abstracts. W. Downey. Nat Underw (H.&A. conference no) 52:3 My 14 '48; Nat Underw (Life ed) 52:3 My 14 '48; East Underw 49:31 My 14 '48

Chamber of commerce keeping in close touch with A.&H. legislative developments at Capitol. Weekly Underw 159:816+ S 18 '48; Same cond. East Underw 49:50 S 17 '48

Final A.&H. actions taken by NAIC at Philadelphia. East Underw 49:23 Je 18 '48

Four items in finding sound policy value. V. J. Skutt. Nat Underw 52:24 My 20 '48
Guarantee Mutual Life enters accident field. Weekly Underw 158:852-3 O 9 '48; Same cond. Nat Underw (Life ed) 52:2 O 8 '48

Improvement in A. & H. industry-commissioners relations. J. F. Follmann, jr. East Underw 49:58 O 15 '48

Industry committee to study A.&H. minimum benefits. Nat Underw 52:21+ Ap 15 '48; Same abr. Nat Underw (Life ed) 52:3+ Ap 16 '48

Joint committee makes industry survey report. East Underw 48:35+ N 28 '47; Same. Weekly Underw 157:1353+ N 29 '47; Same abr. Nat Underw 51:24 N 27 '47

Life companies' problems in writing A. & H. F. H. Haviland and others. Nat Underw 51:25+ D 4 '47

Lively session on H.&A. problems at Dallas. J. E. Puckette. East Underw 49:30 Ja 23 '48

INSURANCE, Accident—Continued

N.A.I.C. group rejects industry's minimum benefits report. Nat Underw 52:19+ O 28 '48; Same abr. Nat Underw. (Life ed) 52:3+ O 29 '48

Present status of A. & H. state regulation. D. Knowlton. Weekly Underw 159:1041+ O 30 '48

Road ahead; Boston address. J. F. Follmann, Jr. Life Ins Courant 53:49-50 My '48; Same abr. Weekly Underw 153:1050+ Ap 3 '48

Tackling spread of collectivistic idea in A.&H. industry; abstracts. B. J. Faulkner. Nat Underw. (Life ed) 52:4+ S 24 '48; East Underw 49:38-9 S 24 '48; Weekly Underw 159:702+ S 25 '48

Urges revamping of A.&H. to meet public obligations. L. C. Callow. Nat Underw 52:30 My 6 '48; Same, Nat Underw (Life ed) 52:18 My 7 '48

Wants life companies to expand in A.&H. field. B. A. Hedges. Nat Underw 52:14+ S 2 '48; Same. Nat Underw (Life ed) 52:3+ Ag 27 '48

Ways and means of meeting present challenge in A.&H. A. M. Kunis. East Underw 49:31+ Ja 23 '48

See also

Insurance, Disability Insurance, Work-
Insurance, Liability men's compensa-
Insurance, Life—Dis- tion
ability provisions

also Bureau of accident and health underwriters; Health and accident underwriters conference; National association of accident and health underwriters

Accounting

Requirements for reporting A.&H. experience modified. Nat Underw 52:17+ Je 10 '48; Same, Nat Underw (Life ed) 52:2+ Je 11 '48

Adjustment of claims

Arthritis contributing to overall disability no bar to recovery of benefits under accident policy. Weekly Underw 158:203 Ja 10 '48

Causal connection not needed to bar recovery. Nat Underw 52:30 Ag 12 '48

Five commandments of claim handling. E. Rasmussen. Rough Notes 90:52 D 47

Sees liberal policy interpretations; abstracts. R. J. Watterlin. East Underw 49:37+ My 14 '48; Nat Underw (H.&A. conference no) 52:4+ My 14 '48

Trends in litigation. C. C. Fraizer. Weekly Underw 158:1458-9 My 15 '48; Same, East Underw 49:36+ My 14 '48

Agents

A. & H. the door-opener extraordinaire. M. L. Lane. East Underw 48:91 D 19 '47

Brokers flock to A. & H. early birds' meet in New York. East Underw 48:28 O 31 '47

Career of Wm. E. Lebby in A.&H. production field an inspiration. E. Rupp. East Underw 49:33 Jl 2 '48

Definite objective and workable plan recommended to accident producers. W. S. Stuart. Weekly Underw 158:822 Mr 13 '48

Master salesmen tell how they sell accident-health. W. Ryan and others. Nat Underw 52:25, 34 Mr 13 '48

Must sell A.&H. on emotional basis. R. Tuchbreiter. Nat Underw 52:31 S 23 '48

Policy drafting problems discussed at seminar of Bureau of accident and health underwriters in New York. Weekly Underw 158:1393 My 8 '48; Same, East Underw 49:42 My 7 '48

Sales power in A.&H. field, if it is developed; Chicago address. O. J. Breidenbaugh. Nat Underw 52:18 Ap 29 '48; Same, Nat Underw (Life ed) 52:12 Ap 30 '48

Selling the larger buyer. G. J. Richards. East Underw 49:32 Ja 16 '48

Seven attributes a quality accident salesman should possess. R. C. Laub. Weekly Underw 158:1523-4 My 22 '48

Star accident salesman explains methods employed. F. L. Jewell. Weekly Underw 158:1788 Je 19 '48

Successful selling of A.&H. insurance within easy reach of all producers. J. L. Ullman. East Underw 49:38 S 10; 40-1 S 24 '48

25 prestige building qualities; social uplift most helpful. E. Putnam. East Underw 49:31 Jl 2 '48

Urges accident and health men get back to fundamentals; Pittsburgh address. O. J. Breidenbaugh. Weekly Underw 158:1117-18 Ap 10 '48

Urges more A.&H. selling hours; easy days are gone. R. Caldwell. East Underw 49:43 Mr 19 '48

Commissions

Life companies' problems in writing A. & H.; agents compensations. R. H. Belknap and others. Nat Underw (Life ed) 51:10+ N 21 '47

Aviation risks

Coverages and forms; basic aviation accident policy. Spectator (Property ed) 14:20-1 Ag 19 '48

Loss trend from aviation risk exposure not unfavorable; report of Bureau of accident and health underwriters. Weekly Underw 159:919 O 16 '48

New aviation policy; flexible contract offered by Associated aviation underwriters. Weekly Underw 157:1312 N 22 '47

Slot-machine insurance opposition is withdrawn by Texas agents. A. Ragland, Jr. Weekly Underw 158:1639 Je 5 '48; Excerpts. Nat Underw 52:25 Je 3 '48

Supreme court to hear aviation death case; King vs. Order of united commercial travelers of America. East Underw 48:28 D 12 '47

Claim complaints

How Cincinnati better business bureau handles A. & H. cases. G. C. Young. Nat Underw 51:28 D 25 '47

Employees' insurance

Business A.&H. is a currently popular line. Nat Underw 52:28 F 26 '48; Same, Nat Underw (Life ed) 52:2 F 27 '48

Group premium total for '47 topped billion; L.I.A. survey; A. & H. made best gain. Nat Underw (Life ed) 52:1+ Jl 16 '48; Same abr. Nat Underw 52:17 Jl 15 '48

How to sell business accident. E. M. Stevens. Rough Notes 91:52-4 My '48

Three dailies give boys accident insurance. G. A. Brandenburg. Ed & Pub 81:52 Mr 20 '48

Finance

Accident and health insurance by states, 1947; hospitalization plans included; tabulation. Spectator (Property ed) 14:24 O 21 '48

A.&H. premiums near billion dollar mark. J. L. Schatz. Spectator (Property ed) 14:12-14+ S 9 '48

A. & H. volume in 1947 expected to reach \$775 million; ten-month results; summaries for selected companies. East Underw 48:106 D 19 '47

Leading producers of group A. & H. premiums; ranking individual positions nationally and by states based on net premiums written in 1945 and 1946; tabulation. Spectator (Life ed) 155:44-7 O '47

1947 A.&H. net premiums of leading companies show sizable gains over 1946. East Underw 49:36-7 F 20; 34 F 27 '48

Operating and financial aggregates for 1946 and 1947 of the accident and health business; tabulation. Spectator (Property ed) 14:36-7 S 9 '48

Noncancellable policies

Current trends in non-cancellable accident and health insurance. W. B. Hulse. East Underw 48:35-6 D 5 '47

Provident Life & Accident enters non-can A. & H. field. East Underw 49:37 O 8 '48; Same cond. Nat Underw 52:21 S 30 '48; Same cond. Nat Underw (Life ed) 52:22 O 1 '48

Security Mutual Life enters non-cancellable field. East Underw 49:48+ S 17 '48; Excerpts. Nat Underw 52:36 S 23 '48; Nat Underw (Life ed) 52:9 S 24 '48

Policies

A.&H. standard provisions revision explained in NAIC memorandum. East Underw 49:41-2 Je 11 '48

INSURANCE, Accident—Policies—Continued

Coverages and forms; personal accident insurance. Spectator (Property ed) 13:18-19 Je 10 '48

New A.&H. industry committee gets under way with policy form project. East Underw 49:39 My 7 '48

Report of standard provisions committee of Health and accident underwriters' conference. Weekly Underw 158:1465 My 15 '48; Same cond. Nat Underw (H.&A. conference no) 52:15 My 14 '48

Uniform sickness and accident policy provisions law proposed to NAIC. East Underw 48:30 D 12 '47

See also

Insurance, Accident	Insurance, Accident
—Aviation risks	—Noncancellable policies

Prospects

Develop this profitable habit. S. L. Stratton. Rough Notes 91:58 Ja '48

Now is the time to insure grid teams for accidents. Nat Underw 52:21 S 9 '48; Same. Nat Underw (Life ed) 52:13-14 S 10 '48

Selling accident to your general insurance clients. H. W. Jamison. Rough Notes 91:32+ Ap '48

Time is now. J. De Young. Rough Notes 91:54-5 Je '48

Publicity

A. & H. and press relations. W. L. Clapp. East Underw 49:55+ O 15 '48

Rates

New York charges rate discrimination in compulsory states. Nat Underw 52:17-18 O 21 '48; Same. Nat Underw (Life ed) 52:1+ O 22 '48

New York department charges discrimination in group A. & H. rates. East Underw 49:30 O 22 '48; Same. Weekly Underw 159:958 O 23 '48

Risks

Can alcoholic ever be insurable risk for A.&H? Nat Underw 52:21 S 30 '48; Same. Nat Underw (Life ed) 52:22 O 1 '48

Sizeup of A.&H. risk selection. W. Ford. East Underw 49:27-8 J1 23 '48

Underwriting forum of Health and accident underwriters conference brings out current thinking on risk handling. W. L. Clapp. East Underw 49:36+ F 13 '48

See also

Insurance, Accident	Insurance, Accident
—Aviation risks	—Substandard risks

Statistics

Growth of A.&H. insurance, 1920-1947; chart. East Underw 49:27 Ag 6 '48

Substandard risks

Companies would like to cover heart victims, but are still leery. Nat Underw 51:22-3 D 13 '47; Same abr. Nat Underw (Life ed) 51:18 D 19 '47

Efforts to cover impaired, over age risks reviewed. D. B. Alport. Nat Underw 52:24 My 20 '48

Wholesale insurance

Accident and health franchise business today. P. G. Korn. East Underw 48:90+ D 19 '47

Growth of franchise business very rapid. P. G. Korn. Weekly Underw 158:1455 My 15 '48

Sell franchise insurance. A. Strachan. Rough Notes 91:46-7 J1 '48

Specialists needed to sell franchise A.&H. P. G. Korn and others. East Underw 49:38 F 13 '48

INSURANCE, Accountants' liability

Accountants liability insurance. R. T. Wood. Weekly Underw 158:435-7 F 7 '48

Accountants liability policy; analysis. Rough Notes 91:77 Ap '48

Coverages and forms; accountants liability policy. Spectator (Property ed) 13:8-9 F 12 '48

Revised accountants coverage. East Underw 49:32 Ja 30 '48; Same cond. Nat Underw 52:13 Ja 29 '48

INSURANCE, Accounts receivable

Accounts receivable policy. Rough Notes 90:61-2 D '47

Accounts receivable protects credit. G. S. Mahon. Rough Notes 91:32+ S '48

Insuring accounts receivable. B. J. Weldon. il Rough Notes 91:19-20+ F '48

INSURANCE, Additional living expense

Supplemental coverages for residences. E. H. Browne; J. C. Schroeder. Rough Notes 91:23-5 My '48

INSURANCE, Agricultural

Crop insurance finds little favor with companies. East Underw 49:28 F 20 '48

Crop reinsurance; FCIC will entertain proposals from private carriers. Weekly Underw 157:1109 N 1 '47

Position of local agents on government crop insurance draws sharp fire. Weekly Underw 159:170-1 J1 24 '48

See also

Federal crop in-	Insurance, Cotton
surance corporation	Insurance, Hail

INSURANCE, Automobile

Annual automobile insurance issue. Rough Notes 91:17-27+ Mr '48

Automobile and aviation insurance number. Nat Underw (Auto & aviation no) 52:1-24a Ap 23 '48

Foreign auto cover accepted readily. Nat Underw 52:3 J1 29 '48

General revision of auto manual is effected by National bureau of casualty underwriters. Nat Underw 52:21+ D 4 '47; Same abr. East Underw 48:37 D 5 '47; Same abr. Weekly Underw 157:1436 D 6 '47; Same abr. Rough Notes 91:34 Ja '48

Insurers behind on auto property damage as much as last year. Nat Underw 52:22 S 16 '48

Realistic talk on automobile insurance problems. R. I. Catlin. East Underw 49:33+ Ap 16 '48

What about automobile liability lines? review of 1947. A. E. Spottke. Weekly Underw 158:74+ Ja 3 '48

See also

Insurance, Automobile	Insurance, Motor
trailer	truck

Insurance, Motor	Insurance, Taxicab
bus	

also National automobile underwriters' association

Adjustment of claims

Absent knowledge of fraud before loss; retention of premium thereafter not basis of waiver; McCracken v. Car and general insurance corporation. Weekly Underw 158:339 Ja 24 '48

Arbitration plan urged for auto men to settle subrogation cases. J. K. Kenneally. Nat Underw 52:2+ O 21 '48

Assumption of defense constitutes election by insurer to treat assured's liability as covered by policy. Weekly Underw 159:466 Ag 28 '48

Assured's mere hope that injured party recover in damage suit not breach of cooperation clause. Weekly Underw 158:557 F 14 '48

Auto claims men may ask new law on loan receipt issue. Nat Underw 52:2 S 16 '48

Chicago plan cuts auto damage repair costs about 20 per cent; work of Auto damage appraisers. Nat Underw 52:5+ Ag 26 '48

Damage to assured's car used by federate to escape after robbery not covered by collision policy. Weekly Underw 159:582 S 11 '48

Failure to settle claim within policy limits; Dumas v. Hartford accident & indemnity company. J. L. Roesch. Spectator (Property ed) 13:10-11+ Ja 8 '48

General use of car as taxi bars recovery under auto fire and theft policy. Nat Underw 52:15 S 9 '48

Gray market gives auto men problems on collision cover; claim men and underwriters discuss situation at New York meeting. Nat Underw 52:2+ Mr 18 '48; East Underw 49:28 Mr 19 '48

Insurance connection of jurors; Wheeler v. Rudek. J. L. Roesch. Spectator (Property ed) 13:10-11+ O 23 '47

Insurer is held for \$20,000 beyond limit of policy; Royal transit, inc. vs. Central Surety. Nat Underw 52:16 Je 24 '48

INSURANCE—Automobile—Adjustment of claims—Continued

Insurer wins on garage exception. Nat Underw 52:16 Ag 26 '48
 Insurer wins proof of loss case; Dailey and Brink vs. Mid-States. Nat Underw 52:11 JI 15 '48
 Insurer's liability after sale of car; Virginia auto mutual insurance company v. Brillhart, J. L. Roesch, Spectator (Property ed) 13:10-11+ Ap 8 '48
 Liability for fire and explosion following accident. R. P. Hobson. Weekly Underw 158:1035-8, 1139-41 Ap 3-10 '48
 Loose rock damaging oil pan is not collision. Nat Underw 51:32 N 6 '47
 Mechanic not agent of assured owner in taking car to garage for repairs; garage exception applicable. Weekly Underw 159: 658 S 18 '48
 Necessity of countersignature does not extend period of liability as specifically stated in collision policy. Weekly Underw 157:1462 D 6 '47
 Out-of-court talks proposed to settle inter-company suit. G. Copeland. Nat Underw 52:4 Ja 22 '48
 Recovery under Illinois dram shop act denied insurer settling claims against intoxicated assured. Weekly Underw 159:362 Ag 14 '48
 Statutory requirement of omnibus coverage does not prevent exclusion of liability for injury to named assured. Weekly Underw 158:406 Ja 31 '48
 Tractor or "automobile"? endorsement relating to use of other automobiles. J. L. Roesch. Spectator (Property ed) 14:30+ S 9 '48
 U.S. Supreme court upholds company in auto case; Thibaut vs. Car and general insurance corp. East Underw 48:31+ D 5 '47
 Visual help in reducing casualty claims; use of drawings to indicate details of damage to automobiles in collision. W. H. Brumund. Weekly Underw 159:397-8 Ag 21 '48
 What is a public convenience? exclusion clauses in a policy; McDaniel v. Glens Falls indemnity company. J. L. Roesch, Spectator (Property ed) 13:10-11+ My 6 '48
See also
 Insurance, Automobile—Theft claims

Adjuster training

School for auto adjusters is on continuing basis; project of General adjustment bureau. Nat Underw 52:10 O 14 '48

Advertising

Advertising to produce more auto premiums; bank-agent cooperative promotion program. J. W. Mason. Rough Notes 91:30+ Ag '48

Agents

Auto men's arguments weighed by producers; why dealers should not engage in insurance business. G. E. Gillis; C. J. Schoen. Weekly Underw 158:1512+ My 22 '48
 Governor Herbert is target of Ohio agents' fire; firing General Motors dealers as insurance agents at issue. Nat Underw 52:17 S 23 '48
 Individual auto dealers seek licensing in Ohio. Nat Underw 52:2 My 20 '48
 Ohio superintendent tells stand on dealer licensing; statements by others. Nat Underw 52:11+ O 28 '48
 Tennessee Supreme court decides licensing case; Motors insurance corporation case. Weekly Underw 157:1407+ D 6 '47
 Urges diversification; sees auto commissions at 12½ per cent in ten years. R. Tuchbreiter. Nat Underw 51:21 N 20 '47; Correction, 51:19+ D 18 '47
 What's wrong with auto insurance? R. Clarke. Rough Notes 90:17-18+ D '47

Commissions

Canadian commission reductions affect auto rate changes. East Underw 49:19 Ja 16 '48
 Extracts from Pennsylvania ruling barring commissions to automobile dealers. East Underw 49:20 F 6 '48

Assigned risks

Agree on assigned risk plan for Massachusetts. East Underw 49:28 O 22 '48

Angles of assigned risk plan. A. E. Spottke. Weekly Underw 158:1242 Ap 24 '48
 Assails auto assigned risk program. H. P. Jackson. East Underw 49:32 S 10 '48
 Assigned risk plan changes before NAIC. East Underw 49:33+ Je 11 '48
 Assigned risk plan extended in Ontario. East Underw 48:38 N 28 '47
 Assigned risk plans reviewed. R. Wagner. Weekly Underw 158:1698+ Je 12 '48
 Auto assigned risk plans fill real need if they are properly used. W. S. Attridge. East Underw 49:23 JI 30 '48
 Broad-form assigned risk plan adopted in Kentucky. East Underw 49:34 S 3 '48
 California assigned risk plan approved. Nat Underw 51:29 D 18 '47
 Explains new California statute. G. T. Conklin. East Underw 49:32 Ja 23 '48
 Extend assigned risk plan in Massachusetts. Weekly Underw 158:1777 Je 19 '48
 Florida auto assigned risk bureau functions smoothly. Nat Underw 52:21 Ag 26 '48
 Gross rate classification; problem of young driver; editorial. Nat Underw 52:12 Je 24 '48
 Headaches of assigned risk plan outlined; panel discussion. L. Power and others. Nat Underw 51:17+ N 27 '47
 How the assigned risk plan works. A. R. Goodale. Rough Notes 91:20-1+ Mr '48
 Industry views on assigned risks. E. Day. Nat Underw 51:20 D 11 '47
 Iowa approves new assigned risk plan. Nat Underw 52:14 Mr 25 '48
 Iowa cracks down on American fidelity & casualty insurance company. Nat Underw 52:16 My 13 '48
 NAIC approves auto risk plan changes. East Underw 48:81 D 19 '47
 N.A.I.C. debates American F.&C. assigned risk position. Nat Underw 52:19 Je 17 '48
 New York association seeks to better service under assigned risk plan. East Underw 49:31 S 3 '48
 Ohio's new assigned risk plan. R. H. Miller. East Underw 49:35 O 8 '48
 Position of American Fidelity & Casualty on assigned risk. Nat Underw 52:21 My 27 '48
 See end to auto assigned risk angularities; meeting of N.A.I.C. casualty committee. Nat Underw 51:17+ D 18 '47
 Summer brings boom to assigned risk managers. Nat Underw 52:15 Je 17 '48
 Uniform auto assigned risk plan developed. East Underw 49:42 Mr 19 '48; Nat Underw 52:21+ Mr 11 '48; Weekly Underw 158:812+ Mr 13 '48; Rough Notes 90:73-4 Ap '48

Cancellation

Cancellation for misrepresentation of auto policy is upheld by court. East Underw 49:24 Ja 2 '48
 New short-rate table. J. C. Bishop. Rough Notes 91:30 Mr '48

Finance

Auto line to cost companies money again in '47. Nat Underw 52:15 Ja 8 '48
 Auto premiums and losses much higher in 1947; with tabulation by company. East Underw 49:28+ Mr 12 '48
 Auto premiums and losses of mutual fire companies for 1946 and 1947; tabulation. Nat Underw (Auto & aviation no) 52:17 Ap 23 '48
 Auto premiums and losses of stock fire companies in 1947 and 1946; tabulation. Nat Underw (Auto & aviation no) 52:16+ Ap 23 '48
 Auto underwriters continue to report large premium gains. East Underw 49:1+ JI 16 '48
 Auto underwriting losses out in half in 1947; with tabulations showing data for stock, mutual and reinsurance companies and figures for property damage experience. Nat Underw 52:18, 23, 25 Je 10 '48
 Automobile premiums and losses of stock casualty, reciprocal, Lloyds, stock full cover and mutual companies, 1947 and comparisons; tabulation. Nat Underw (Auto & aviation no) 52:18-23 Ap 23 '48
 Automobile premiums of fire and stock casualty companies, 1944-1947. East Underw 49:29-38 Ap 23 '48

INSURANCE, Automobile—Finance—Cont

Group auto premiums for 1946 and 1947 for stock and non-stock and mixed companies; tabulation. Nat Underw (Auto & aviation no) 52:15+ Ap 23 '48; Correction. 52:26 My 6 '48

Motor vehicle production and loss records, 1943-1947; all stock fire companies; tabulation. Spectator (Property ed) 14:32 O 21 '48

Financed automobiles

Advertising to produce more auto premiums; bank-agent cooperative promotion program. J. W. Mason. Rough Notes 91:30+ Ag '48

Aetna Casualty & Surety conducts bank-agent plan survey. East Underw 49:28 Ag 20 '48; Same. Weekly Underw 159:391 Ag 21 '48

Bank-agent plan aspects. C. G. Hallowell. Weekly Underw 158:1106 Ap 10 '48; Same abr. East Underw 49:23 Ap 9 '48; Excerpts. Nat Underw 52:3 Ap 8 '48

Bank and agent auto plan; report by NAIA committee. East Underw 49:40 O 15 '48

End of Regulation W won't bring speculative financing. Nat Underw 51:2 O 30 '47

Extracts from Pennsylvania ruling barring commissions to automobile dealers. East Underw 49:20 F 6 '48

Finance insurance men give and take at Chicago meet. Nat Underw 51:7 N 20 '47

How one bank-agent auto plan works in New Haven. J. W. Mason. Il Banking 41:38-9 Jl '48

Pennsylvania rules auto finance cover must be replaced by seller if insurer fails. Nat Underw 52:4 S 30 '48

Reputable insurers suffer from loan racket in Washington, D.C. East Underw 49:22 Ja 9 '48

Financial responsibility laws

Problems under new California responsibility law. Nat Underw 52:20 Je 17 '48

Study Michigan example in responsibility law field. Nat Underw 52:22 Mr 4 '48

Garage owners' and dealers' liability policies

Garage and parking lot liability; wrongful use of automobile by employee. C. S. Bishop. bibliog Weekly Underw 157:1534-6 D 20 '47

Guest liability

Effect of OPA letter on ride sharing construed. Nat Underw 52:20 My 20 '48

International aspects

UN commission studies auto insurance exchange to facilitate risk handling in European countries. Nat Underw 52:27 O 7 '48

Losses

Comprehensive auto may form bulk of Coast flood losses. Nat Underw 52:7 Je 10 '48

Nonownership policies

Insure the cars he doesn't own. G. A. Strader. Rough Notes 91:19-20+ S '48

Policies

Agency personnel training course; instructions for policywriters and office personnel; writing the automobile bodily injury and property damage policy. Rough Notes 91:29 Ag '48

Automobile insurance policy (fire, theft, windstorm, comprehensive and collision). Rough Notes 91:73-4 Mr '48

Clarified policy language would define defense. J. W. Hughes. Nat Underw 52:30 S 9 '48

Comprehensive automobile liability. W. H. Brewster. Rough Notes 91:18-19 Mr '48

Coverages and forms; basic automobile physical damage and liability insurance. Spectator (Property ed) 14:22-3+ O 7 '48

Liberty Mutual develops machine writing of automobile policies; uses punched cards. J. H. Forest. Nat Underw 52:2 O 28 '48

Revision of standard auto policy. East Underw 48:31 N 21 '47; Same. Nat Underw 51:25 N 20 '47; Same. Weekly Underw 157:1313 N 22 '47; Same. Rough Notes 90:54 D '47; Same abr. Spectator (Property ed) 13:9 N 27 '47

Preventive work

Aetna Casualty & Surety picture shows accident cost. Weekly Underw 159:838 O 9 '48

Association of casualty and surety companies compiles useful kit for 1948 safety drive. East Underw 49:23 Ja 16 '48

Delaware wins award in car driving education presented by C.&S. assn. East Underw 49:26 Jl 30 '48

Driver educational clinic of Massachusetts Bonding doing effective job. Il East Underw 49:30 Je 18 '48

Expert traffic surveys bring desired results; experience of three Mid-West cities. Weekly Underw 157:1132 N 1 '47

Highway safety; what local agents and brokers can do. H. J. Stack. Rough Notes 91:26+ Mr '48

Invitation to live, this winter. Spectator (Property ed) 13:30-1 D 25 '47

Local agent; key man of safety. J. H. Harvey. Nat Underw (Auto & aviation no) 52:6+ Ap 23 '48

Safety leaders endorse plan for youthful driver training award. East Underw 49:32 Ja 9 '48

Strong impetus given to highway safety work at Illinois agents convention. Nat Underw 52:23 S 23 '48

Traffic safety program gets steam behind it; accident prevention conference at N.A.I.A. midyear meeting. Nat Underw 52:22 Ap 15 '48

Urges safety work to protect agency system. J. D. Dorsett. Weekly Underw 159:812-13 O 9 '48; Same abr. East Underw 49:44+ O 15 '48

Yorkshire's crusade for uniformity in traffic rules. East Underw 49:34 S 24 '48

Rates

Age classifications proposed for Massachusetts compulsory rates. Nat Underw 52:27 O 7 '48

Auto rate increase still well below living cost rise. Nat Underw 52:17 Ag 5 '48

Auto rates revised in 12 more states and Alaska; table. Nat Underw 52:15 Ap 22 '48

Canadian commission reductions affect auto rate changes. East Underw 49:19 Ja 16 '48

Commissioners committee on rates and rating considers interstate automobile rating at Chicago hearing. Nat Underw 52:1+ Ap 22 '48

Connecticut auto rates not excessive. W. E. Allyn. Nat Underw 52:16 Jl 29 '48

Dineen approves rise in auto liability rates. East Underw 49:25+ Jl 23 '48; Same. Weekly Underw 159:167+ Jl 24 '48; Same cond. Nat Underw 52:13 Jl 22 '48

Iowa insurance department hits discrimination in short-term auto risks. East Underw 49:27 Ag 20 '48; Same abr. Nat Underw 52:14 Ag 19 '48

Leslie and Downey debate auto rate rule at California hearing. East Underw 49:35 Jl 2 '48

Maryland rate increases. East Underw 49:26 Jl 30 '48; Nat Underw 52:11 Jl 29 '48; Weekly Underw 159:338 Ag 14 '48

National automobile underwriters assn. eyes auto physical damage rates; may not be enough. Nat Underw 52:2 F 5 '48

New auto rates effective in six areas under new program of National bureau of casualty underwriters. Nat Underw 52:23 Mr 18 '48

Proposes retrospective rating idea be extended to automobile lines. J. P. Gibbs. Weekly Underw 158:1714 Je 12 '48

Puts finger on car makers, public for insurance costs. H. Perlet. Nat Underw 52:2 My 27 '48

Rates cuts and increases shown in new auto schedule for Canada. East Underw 49:16 Ja 2 '48

Revision of automobile liability rates announced by National Bureau. Weekly Underw 158:1840 Je 26 '48

Texas auto rates are revised. Weekly Underw 158:1243 Ap 24 '48; East Underw 49:38 Ap 23 '48

Virginia auto liability rates advanced. East Underw 49:38 O 1 '48

Why auto rates are rising. Il Bsnß W p26+ Jl 3 '48

INSURANCE, Automobile—Continued

Risks

Automobile risks as viewed today; with specimen inspection form for agents. H. Dimling. Weekly Underw 157:1261-2 N 15 '47
 Effects of occupation and age on auto underwriting and reporting. S. B. Hecker. East Underw 49:39 Ap 23 '48
 Mutual men counsel constructive approach to young driver problem at Chicago conference. Nat Underw 52:23+ Mr 25 '48
 Teen age car drivers causing concern. Weekly Underw 157:1225+ N 15 '47
 United Casualty of Cedar Rapids, Ia. uses special young driver charges. Nat Underw 52:15 Jl 8 '48
 Young driver classification rate plan corrected by new class. Nat Underw (Auto & aviation no) 52:12 Ap 23 '48

See also

Insurance, Automobile—Assigned risks

Statistics

Automobile premiums of fire and stock casualty companies, 1944-1947. East Underw 49:29-38 Ap 23 '48

Theft claims

Country boy is city slicked out of car; recovers. Nat Underw 52:4 Ag 26 '48

Arkansas

Charges Arkansas rating law unfair to free trade; North Little Rock transportation co. against National bureau of casualty underwriters. Nat Underw 52:15+ Ag 26 '48; East Underw 49:25+ Ag 27 '48

California

Leslie and Downey debate auto rate rule at California hearing. East Underw 49:35 Jl 2 '48

Europe

UN commission studies auto insurance exchange to facilitate risk handling in European countries. Nat Underw 52:27 O 7 '48

Massachusetts

Insurers agree to retain auto risks. Nat Underw 51:21 N 6 '47
 Massachusetts agents offer plan for easing auto market stress. Nat Underw 52:30 S 23 '48
 Massachusetts automobile cover plans. C. F. J. Harrington. Weekly Underw 157:1157+ N 8 '47; Same abr. East Underw 48:27+ N 7 '47

San Francisco

San Francisco "available garage" plan explained. Nat Underw 52:6 Jl 29 '48

Texas

Retrospective rating, long haul truck issues up in Texas. Nat Underw 52:21 Ap 8 '48

Washington (state)

Agents would eliminate daily stamping. Weekly Underw 157:1405+ D 6 '47

INSURANCE, Automobile trailer

Recommendations for insuring trailers. J. C. O'Connor. Rough Notes 91:22+ Mr '48

INSURANCE, Aviation

Aero insurance underwriters close-down final in three months. Nat Underw 52:2 O 14 '48
 Aero insurance underwriters to quit aviation field. Weekly Underw 157:1247 N 15 '47; East Underw 48:22+ N 14 '47; Nat Underw 51:1 N 13 '47
 Aircraft industry has had headaches, but here's why we're optimistic on future. L. A. Partridge. East Underw 49:8+ pt 2 Je 18 '48
 Associated aviation underwriters changes policy forms, raises rates. Nat Underw 51:19 N 27 '47
 Aviation insurance no bonanza. D. D. M. Scarritt. East Underw 48:58 D 19 '47
 Aviation insurers' fingers crossed on 1948 business. Nat Underw 52:2 F 26 '48
 Aviation picture so poor that it can only improve. Nat Underw 51:33 D 25 '47
 Aviation problems. E. L. Stephenson. Nat Underw 52:24 O 28 '48

Facts regarding aviation insurance of which producing agents should be informed; excerpts from booklet issued by Associated aviation underwriters. Weekly Underw 158:656+; 735+ F 23-Mr 6 '48

NAA's aviation section meeting. New York, April 7. East Underw 49:34-5 Ap 16 '48; Nat Underw 52:3 Ap 15 '48

Recognize basic aviation worth; post war years have hit industry hard. G. L. Lloyd. Weekly Underw 158:58 Ja 3 '48

Safety record improvement essential; aviation insurance hits rock bottom. D. J. Reap. Nat Underw (Auto & aviation no) 52:2+ Ap 23 '48; Discussion, 52:40 My 6 '48

Withdrawal of Aero Insurance may hurt personal plane market. S. Altschul. Aviation W 47:18 N 24 '47

See also

Insurance, Accident	Insurance, Life—
Aviation risks	Aviation risks
Insurance, Employers' liability—	
Aviation risks	

Adjustment of claims

Adjusting aircraft losses in the Southwest; insurance man uses airplane. O. W. Baker. Weekly Underw 158:592 F 21 '48
 Aviation losses; adjustment service. G. L. Ingebritson. il Rough Notes 91:26+ Jl '48

Agents

Aviation insurance. J. C. Conklin, jr. and others. il Rough Notes 91:20-6+ Jl '48
 Developments in aviation insurance from viewpoint of producing agents; NAA report. Weekly Underw 159:837+ O 9 '48
 Getting started in aviation. N. Volk. Rough Notes 91:54-5 S '48
 How we sell aviation. H. T. Holland. Rough Notes 91:60-1 Mr '48

Finance

Aircraft experience reported for 1947; tabulation by company. Nat Underw 52:8 Mr 18 '48

Losses

'47 airline losses exceed premiums by \$5 to \$9 million. W. E. Blain. Nat Underw 52:7 Ja 15 '48
 Insurance angles to crash of DC-6 plane near Mount Carmel, Pa. East Underw 49:30+ Ja 25 '48
 Loss heavy in DC-6 crash at Mt Carmel, Pa. Nat Underw 52:8 Je 24 '48
 Losses exceed \$1,500,000; Alaska and Bryce Canyon airline crashes are insured by U.S. Aviation group. Nat Underw 51:6 O 30 '47

Policies

Coverages and forms; aircraft hull insurance. Spectator (Property ed) 14:26-7 Ag 5 '48

See also

Insurance, Accident	Insurance, Life—
Aviation risks	Aviation risks

Premiums, Recovery of

Calculation of return premium, when craft is laid up, held inconsistent. G. J. Stewart. Weekly Underw 159:80 Jl 10 '48

Prospects

Aviation insurance; the feeder airline. J. R. Kemp. Rough Notes 91:24-5 Jl '48
 Industrial aid planes are good business. A. Ragland, jr. Rough Notes 91:22-3 Jl '48

Rates

General rate revision made by Associated aviation underwriters. Weekly Underw 157:1372 N 29 '47; Same. East Underw 48:20 D 5 '47
 How to reduce insurance costs; causes of accidents. J. Lederer. Aviation W 48:34 Je 21 '48

Rating bureaus

New aviation rating bureau embraces AAU member companies only. East Underw 49:34 Jl 16 '48; Nat Underw 52:6 Jl 22 '48

Risks

Charter service risks. B. W. Roos. Rough Notes 90:42+ O '47
 Excess hangar losses. Rough Notes 90:37 D '47

INSURANCE, Bailees' customers

Bailee coverage poses many unsolved problems. B. Cotton. Nat Underw 51:12 O 30 '47

Bailees' customers floater policies; (cleaners and dyers form; laundry form; rug cleaners form; tailor shop form). Rough Notes 91:73-4 My '48

Bailees' customer's insurer wins fraud issue; Automobile vs. Barnes-Manley laundry co. Nat Underw 52:3 Je 3 '48

Laundry bailee suit to Supreme court; Barnes-Manley case. Nat Underw 52:6 S 30 '48

Malicious damage done by burglars held covered by theft and burglary provision in bailee's customer's policy. Nat Underw 51:6 D 18 '47

See also

Insurance, Furriers' customers

INSURANCE, Bicycle

N.Y. bans plan to furnish cover with retail purchases; problems of free insurance and sales in combination involved. East Underw 49:1+ Ag 27 '48; Excerpts. Nat Underw 52:2 Ag 26 '48

INSURANCE, Boiler

Boiler premiums up but losses may bring higher rates. Nat Underw 52:20 F 19 '48

Heating boiler insurance. G. W. Glennie and others. il Rough Notes 91:21-6 O '48

How the extended coverage explosion and boiler policies overlap. R. Williams. Rough Notes 91:32+ My '48

See also

Insurance, Power plant

INSURANCE, Bridge

Cover new Tacoma Narrows bridge for \$11,200,000 all-risk. Nat Underw 52:8 Ap 15 '48

INSURANCE, Builders' risk

Builder's risk insurance has wide market all over the country today. J. E. Tedlow, Jr. East Underw 48:28 D 5 '47

Coverages and forms; builders' risk insurance. Spectator (Property ed) 14:56-7 O 21 '48

Adjustment of claims

Producer liable for loss following failure to obtain builder's policy. East Underw 49:25 Ag 20 '48

INSURANCE, Burglary

Burglary and theft coverages provide necessary protection for large and small stores. Spectator (Property ed) 14:26-7 S 9; 22-3 S 23 '48

Correctives needed in burglary line; Pittsburgh address. J. J. Iago. Nat Underw 52:20 Ap 8 '48

December snowstorm cut crime 50 per cent in New York; tips to improve risks. M. F. McDonald. East Underw 49:42 F 20 '48

How to improve burglary risks. F. J. Parry. Rough Notes 91:30+ J1 '48

Mercantile open stock burglary. J. J. Iago and others. Rough Notes 91:19-24+ Ja '48

See also

Insurance, Theft

Adjustment of claims

Evidence must be very clear to prove mutual mistake; mercantile open stock burglary policy. J. L. Roesch. Spectator (Property ed) 14:22-3 Ag 19 '48

Forcible entry issue is won by insurer. Nat Underw 52:22 Ag 26 '48

Storekeeper's burglary and robbery policy held not to cover loss of money from cash register. Weekly Underw 158:930 Mr 20 '48

Transom fastened with bent nail held locked within requirement for coverage under burglary policy. Weekly Underw 158:1346 My 1 '48

INSURANCE, Burial

Funerals prepaid; California mortuaries thrive on insurance sideline. il Bsns W p60-1 Ja 17 '48

South Carolina law divorcing mortuaries and insurers held void. Nat Underw (Life ed) 52:7 Ag 20 '48

INSURANCE, Business

Against limiting approach to business cover; opportunity to discover other life insurance needs. A. H. Kollenberg. Nat Underw (Life ed) 52:4 S 24 '48

Business insurance. L. L. Mackey. Spectator (Life ed) 156:25+ S '48

Business insurance. S. N. Murphy. Life Ins Courant 63:13-14 J1 '48

Business needs a will just as much as individual. W. F. Haldeman. Nat Underw (Life ed) 52:19 Ja 9 '48

Death, taxes and your business. G. J. Laikin. Trusts & Estates 85:372-4, 459-63, 517-22; 86:13-17, 145-51 O '47-F '48

Fixing the problem biggest part of business cover sale. L. B. Scheuer. Nat Underw (Life ed) 51:10 D 5 '47

How to go about selling business life insurance. J. Walter; J. L. Craig. Nat Underw (Life ed) 52:3+ J1 30 '48

Key man insurance. A. J. Raumann. Life Ins Courant 63:5-8 Ap '48

Marital deduction promotes business cover. D. B. Maduro. Nat Underw (Life ed) 52:3+ O 1 '48

Selling keyman insurance. J. Walter. East Underw 49:6 J1 30 '48

Sole proprietor business excellent market. S. Scrudato. East Underw 49:13 Je 18 '48

Stabilizing effect of business life insurance. C. Spahn. Weekly Underw 158:70-1 sec 2 My 8 '48

Valuation of business interests. W. J. Wheeler. Life Ins Courant 52:455-6+ 501-6 N-D '47; Same abr. Nat Underw (Life ed) Daily ed 51:6+ S 10 '47; Excerpts. East Underw 48:12 S 12 '47; Spectator (Life ed) 155:13+ Je '48

Valuation of good will difficult; important factor in writing business insurance. D. C. Davis. Nat Underw (Life ed) 52:21 F 27 '48

Warns on linking key-man policy, deferred pay plan. R. B. Thompson. Nat Underw (Life ed) Daily ed 52:18 S 17 '48

Partnership interest

Revenue bureau clarifies ruling on partnerships. Nat Underw (Life ed) 51:3 D 5 '47

Prospects

Prospects for business insurance constantly developing in every community. T. E. McCary, Jr. Weekly Underw 158:1345 My 1 '48

Stock liquidation agreements

Buy-sell agreements. J. L. Craig. East Underw 49:4+ J1 30 '48

Marital deduction should aid stock purchase approach. H. R. Schultz. Nat Underw (Life ed) 52:2 Ap 16 '48

Some dangers in buy and sell agreements. S. Huber. Nat Underw (Life ed) 52:8+ Je 11 '48

INSURANCE, Business interruption. See Insurance, Use and occupancy**INSURANCE, Camera**

Camera floater policy. Rough Notes 91:64-6 My '48

INSURANCE, Casualty

Acquisition control in other states is given up by New York Conference. Nat Underw 52:13 J1 8 '48

C.&S. acquisition cost conferences to continue as advisory bodies. East Underw 49:23 J1 2 '48

Casualty insurance has ability to absorb increased load; abstracts. A. M. Best. East Underw 48:34+ D 5 '47; Weekly Underw 157:1374 N 29 '47

Casualty lines hit by three influences; review of 1947. G. Gleason. Weekly Underw 158:63-4+ Ja 3 '48

Casualty-surety executives view prospects for last half of year. East Underw 49:29-31 Ag 20; 26 Ag 27 '48

Companies expect sales to increase 25 per cent during 1948 on basis of first quarter results. Nat Underw 52:13+ Ap 29 '48

Market conditions. A. E. Spottke. Weekly Underw 157:1213 N 8 '47

Midwestern independent statistical service and Illinois bureau of casualty insurers, first annual meeting, Springfield. Nat Underw 52:10+ My 27 '48

INSURANCE, Casualty—Continued

Optimism replaces gloom in outlook for the casualty-surety business, W. L. Clapp. East Underw 49:28-9 Jz 30 '48
 Research in casualty insurance, J. D. Dorsett. East Underw 49:19-20 Ap 2 '48
 Sales level off as quality of writings shows improvement. Nat Underw 52:1+ Ag 5 '48

See also

Insurance, Accident
 Insurance, Automobile
 Insurance, Aviation
 Insurance, Burglary
 Insurance, Hail
 Insurance, Liability
 Insurance, Money
 and securities
 Insurance, Motor
 truck
 Insurance, Plate
 glass
 Insurance, Power
 plant
 Insurance, Rain
 Insurance, Surety
 and fidelity
 Insurance, Theft
 Insurance, Tornado
 Insurance, Valuable
 papers
 Insurance, Work-
 men's compensa-
 tion

also Association of casualty and surety companies; Casualty actuarial society; National bureau of casualty underwriters

Accounting

Dineen releases report on casualty accounting. East Underw 48:27 D 12 '47

Adjustment of claims

Swedish claim man draws contrast between methods of writing casualty insurance and handling claims here and in Sweden. S. Bladh. East Underw 49:27 O 29 '48

Agents

Future looks bright for qualified agent developing casualty lines. W. C. Jainsen. Weekly Underw 157:1314+ N 22 '47; Excerpts. Nat Underw 51:28 N 20 '47
 Many sales possibilities pointed out; Chicago insurance day address, R. A. Duffus. Nat Underw 52:17 Ap 1 '48
 National association of casualty and surety agents specifies standards for public to measure agents. Nat Underw 52:11 JI 29 '48; East Underw 49:30 JI 30 '48

See also

National association of casualty and surety agents

Commissions

Method of meeting problem of casualty commissions. Nat Underw 52:21 F 19 '48

Finance

California 1947 casualty net premiums and paid losses; tabulation. Nat Underw 52:32-4 Mr 18; 32 Ap 1 '48
 California premium leaders in 1947 and four-year record; tabulation. Nat Underw 52:28 Ap 8 '48
 Canadian figures for 1947 released by Department. East Underw 49:28 Ap 30 '48
 Casualty assets; ten year growth of assets of stock casualty and surety companies. Spectator (Property ed) 14:9 O 21 '48
 Casualty expense exhibit for the year ending Dec. 31, 1947; tabulations. Nat Underw 52:18, 28 My 27 '48
 Casualty premium total nears \$3.5 billion; grand total increased nearly 30 per cent. Argus chart shows. Nat Underw 52:23 My 6 '48
 Casualty volume hit all-time high in '47; National Bureau results. East Underw 49:30+ My 23 '48; Nat Underw 52:19 My 27 '48
 Comparative financial and operating results of stock casualty companies for year ending Dec. 31, 1947 and 1946; tabulation. Spectator (Property ed) 13:13 F 26 '48
 Country-wide underwriting results, 1943-47, of companies licensed in New York state; tabulations. East Underw 49:6-7+, 10+ pt 2 Je 18 '48
 Dunne's fire and casualty insurance report, 1947. 552p \$7.50 Insurance index, 110 William st, New York 7 '47
 Financial growth, 1938-1947; stock casualty companies; tabulation. Spectator (Property ed) 14:40 O 21 '48
 Geyer & co. issues appeal for the forgotten man, the stockholder; position of fire and casualty stocks. Nat Underw 52:1+ JI 1 '48

Illinois casualty premiums written and losses paid in 1947; tabulation. Nat Underw 52:18+ Ap 1 '48
 Illinois premium leaders in 1947; five-year record; tabulation. Nat Underw 52:35 Ap 15 '48
 Iowa premiums written and losses paid in 1947; tabulation. Nat Underw 52:20+ Ap 15 '48
 Kansas premiums written and losses paid in 1947; tabulation. Nat Underw 52:31-2 Ap 15 '48
 Michigan 1947 leaders; five-year record; tabulation. Nat Underw 52:30 Ap 15 '48
 Michigan premiums written and losses paid in 1947; tabulation. Nat Underw 52:23+ Ap 1 '48
 Minnesota premiums written and losses paid in 1947; tabulation. Nat Underw 52:14-15 Ap 29 '48
 Missouri 1947 leaders; five-year record; tabulation. Nat Underw 52:27 Ap 22 '48
 Missouri premiums written and losses paid in 1947; tabulation. Nat Underw 52:31-3 Ap 8 '48
 New Jersey casualty-surety writings during 1947 totaled \$135,832,150; tabulations. East Underw 49:39-41+ Mr 26 '48
 New York casualty premium leaders in 1947 and five-year record; tabulation. Nat Underw 52:27 Ap 8 '48
 New York net premiums and paid loss record in 1947; tabulation. Nat Underw 52:22+ Mr 11; 34 Mr 18 '48
 New York state casualty premiums \$515 million in 1947. Nat Underw 52:14 Mr 25 '48
 News of the casualty companies; figures from annual statements. Nat Underw 52:23 F 5; 21-2 F 12; 25-7 F 19; 21-4 F 26; 28-32 Mr 4; 30-2 Mr 11; 29-31 Mr 18; 29-30 Mr 25 '48
 1947 casualty-surety results of all companies for New York state; tabulation. East Underw 49:12+ pt 2 Je 18 '48
 Ohio premiums written and losses paid in 1947; tabulation. Nat Underw 52:16-17 Ap 22 '48
 Oregon net premiums and losses paid in 1947; tabulation. Nat Underw 52:17 Ap 29 '48
 Origin of two to one formula for the casualty business. Nat Underw 51:26 N 20 '47
 Pennsylvania casualty net premiums and paid losses in 1947; tabulation. Nat Underw 52:24 Mr 18; 15-16+ Mr 25 '48
 Pennsylvania premium leaders in 1947; five-year record; tabulation. Nat Underw 52:24 Ap 15 '48
 Premium volume of carriers licensed in New York up \$1,436,061,197. Weekly Underw 158:1575-6 My 29 '48
 Premiums, stock casualty and surety companies, 1937-1947; tabulation. Spectator (Property ed) 14:12-13 O 21 '48
 Ranking by assets and premiums of top 50 in multiple line casualty for 1947 and 1946. Nat Underw 52:21 Ap 15 '48
 Record of casualty-surety year by Argus chart; tabulations. Nat Underw 52:24 My 6 '48
 Regional distribution of casualty premiums, 1947. Spectator (Property ed) 14:32 O 7 '48
 Surplus premium ratio test meaningless. A. M. Best. Nat Underw 51:13 N 27 '47
 Underwriting and investment profits and losses of 100 casualty, surety and miscellaneous companies in 1946; tabulation. Spectator (Property ed) 13:20-1 N 27 '47
 Washington net premiums and losses paid in 1947; tabulation. Nat Underw 52:11 Ap 29 '48
 Wisconsin premiums written and losses paid in 1947; tabulation. Nat Underw 52:22-3+ My 20 '48

Investments

Stock company investments; with charts and tables showing data for 1938-1947. Spectator (Property ed) 14:27-31 O 21 '48

Policies

"Other insurance" clauses in casualty policies. J. B. Donovan. Weekly Underw 159:626-8 S 18 '48; Abstract. Management R 36:646-8 D '47

INSURANCE, Casualty—Continued**Premiums, Payment of**

Drop discount for burglary, glass, public liability installment term. Nat Underw 52: 21 Mr 4 '48

Preventive work

Accidents chief target of casualty men; Association of casualty and surety companies leader in campaign. J. D. Dorsett. Weekly Underw 158:62+ Ja 3 '48

Attacks accident problem from company angle. J. D. Dorsett. Nat Underw 52:40 O 7 '48

Child safety effort has saved many lives. Weekly Underw 157:1260 N 15 '47

Insurance plays strong part in National safety congress in Chicago. Nat Underw 52:20 O 28 '48

Insurance role in National safety council program. J. S. Cuthbert. East Underw 49:33 O 22 '48

Loss prevention as important as selling. I. R. Zerzan. East Underw 49:29 Jl 23 '48

Many insurance men attend President's Safety congress. Nat Underw 52:14 S 30 '48
Williams medal awarded to Harvey. East Underw 49:35 S 24 '48

Purchasing

Insurance buyer looks searchingly at current casualty-surety problems. R. B. Gallagher. East Underw 49:11+ pt 2 Je 18 '48

Rates

Agents explore modern rate plans and rate making; panel discussion at N.A.I.A. New York meeting. Nat Underw 52:23+ Ap 15 '48

All except mutuals favor District of Columbia legislation; hearing in casualty rating bill. Nat Underw 52:21+ Mr 11 '48

Cites need for adequate rates. A. E. Spotke. East Underw 48:29+ N 7 '47

State casualty rating views of mutuals; memorandum filed with commissioners. Weekly Underw 157:1473+ D 13 '47

Reinsurance

Fire companies are scraping the bottom of the reinsurance barrel; casualty experience. F. G. Krueger. Weekly Underw 159:744-5 O 2 '48

Thumping increase features a record casualty reinsurance year. Nat Underw 51:16-19+ D 25 '47

Sweden

Swedish claim man draws contrast between methods of writing casualty insurance and handling claims here and in Sweden. S. Bladh. East Underw 49:27 O 29 '48

INSURANCE, Cold storage locker

Companies covering home food lockers. Nat Underw 51:31-2 D 18 '47

INSURANCE, Compulsory

Brookings report assails compulsory health cover idea. Nat Underw 52:23 Mr 18 '48; Same abr. Nat Underw (Life ed) 52:3 Mr 19 '48

Compulsory health insurance advocated. B. M. Baruch. East Underw 48:35 N 23 '47

Compulsory health insurance scored by Brookings report. Weekly Underw 158:927 Mr 20 '48; Same abr. East Underw 49:43 Mr 19 '48

Compulsory national health system proposed. O. R. Ewing. East Underw 49:19 S 17 '48

Realistic view of compulsory social security; Pittsburgh address. E. H. O'Connor. Comm & Fin Chr 167:1652+ Ap 15 '48

Small federal group promotes compulsory cover. E. H. O'Connor. Weekly Underw 158:605-6 F 21 '48

See also

Insurance, Automobile—Financial
responsibility laws
Insurance, Social

INSURANCE, Consequential damage

Coverages and forms; consequential damage clauses. Spectator (Property ed) 13:8 Ja 22 '48

INSURANCE, Contractors' equipment floater
Scheduled property floater held to cover loss though load and not conveyance collided with concrete pillar. Weekly Underw 158: 627 F 21 '48

INSURANCE, Contractors' public liability
Completed operations question. H. F. Gee; B. R. Kimsey. Rough Notes 91:34+ S '48
Contractors' liability coverage. G. Watts and others. Rough Notes 91:21-6 Ja '48
I thought I was insured. L. Holmes. Am Bid 70:146-7 O '48

INSURANCE, Cooperative

Provides life insurance without paying premiums; Consumers cooperative services of Madison. Nat Underw (Life ed) 51:20 N 21 '47

INSURANCE, Cotton

Cotton interests cooperate to reduce bale fire losses. East Underw 49:21 Ag 27 '48
New cotton insurance schedules in Texas. East Underw 49:23 Ag 13 '48; Nat Underw 52:15 Ag 12 '48; Weekly Underw 159:318 Ag 14 '48

INSURANCE, Credit

Advantages of credit insurance to the advertising agency. W. H. Kinsall. Ptr Ink 222: 49 F 13 '48

Borrowers group life tops half billion mark. East Underw 48:10 N 7 '47; Same abr. Weekly Underw 157:1135 N 1 '47

Credit opportunities. Life Ins Courant 52:511-12 D '47

Life insurance may not be required of borrower; Virginia commission says \$200 loan may not be conditioned on life protection. Weekly Underw 158:174 Ja 10 '48

INSURANCE, Crop. See Insurance, Agricultural

INSURANCE, Deferred payment merchandize
Deferred payments insurance. F. A. Keller. Rough Notes 90:18+ O '47

Westinghouse has financing, insurance plan for banks. Nat Underw 52:6 Ag 19 '48; East Underw 49:22 Ag 20 '48

See also

Insurance, Automobile—Financed
automobiles

INSURANCE, Depreciation

Explaining depreciation insurance. J. E. Clark. Rough Notes 91:19+ O '48

Hearing on depreciation cover; Washington insurance department prepares to issue rules under new code. Weekly Underw 157: 1420+ D 6 '47

Spectator survey; the depreciation endorsement. Spectator (Property ed) 14:14-15 Jl 22 '48

INSURANCE, Disability

Advisory council report on disability insurance. Mo Labor R 67:146-7 Ag '48

Arthritis contributing to overall disability no bar to recovery of benefits under accident policy. Weekly Underw 158:203 Ja 10 '48

Cash sickness insurance a new field. F. S. Abbott. East Underw 49:104 pt 2 O 8 '48

Cash sickness legislation. A. Pike, jr. Weekly Underw 159:1175-7 N 13 '48; Same abr. East Underw 49:60-1 O 15 '48; Same cond. Nat Underw 52:22+ O 14 '48; Same cond. Nat Underw (Life ed) 52:1+ O 15 '48

Changes in disability compensation laws; cash compensation for illness in Rhode Island and California. Mo Labor R 66:62-3 Ja '48

Companies get ready to write TDB line in N.J. Nat Underw 52:14 S 30 '48; Same. Nat Underw (Life ed) 52:2+ S 24 '48

Continental Casualty TDB setup for New Jersey. W. K. Boger, jr. East Underw 49:34 Ag 20 '48

Continental devises first TDB plan for small firms. Nat Underw 52:22+ O 28 '48; Same. Nat Underw (Life ed) 52:3+ O 29 '48

Disability clauses; court decisions and interpretations. L. Hocker, jr. Life Ins Courant 53:14-19 Ag '48; Excerpt. Weekly Underw 157:1133 N 1 '47

Home owners' disability policy put on market by Employers' fills need. East Underw 48:102 D 19 '47

Industrial disability and double indemnity; underwriting for specific loss. B. Coarsey. Life Ins Courant 53:26-9 S '48

INSURANCE, Disability—Continued

- Opportunities for public health in disability insurance programs. M. I. Roemer. *bibliog Pub Health Rep* 62:1657-67 N 21 '47
- Problem of non-work disability. C. J. Haugh. *East Underw* 48:33 N 21 '47; *Excerpt. Nat Underw (Life ed)* 51:15 N 21 '47
- Prudential's group disability plan; covers few as four employees. E. B. Whittaker. *East Underw* 49:4 Ag 13 '48
- SS council weighs disability cover. *Nat Underw* 51:25 D 11 '47
- Socialized industrial medicine? P. B. Reaser. *bibliog Ind Med* 17:31-4 Mr '48
- State TDB better than private plans for some types of groups. E. B. Whittaker. *Nat Underw (Life ed)* 52:3 O 22 '48
- Survey of New Jersey TDB picture points to 24 companies active in field; with details on individual companies. *East Underw* 49:34-5 O 1 '48

See also

- Insurance, Accident Insurance, Life—Disability provisions
Insurance, Health

Rates

- New York charges rate discrimination in compulsory states. *Nat Underw* 52:17-18 O 21 '48; Same. *Nat Underw (Life ed)* 52:1+ O 22 '48
- New York department charges discrimination in group A. & H. rates. *East Underw* 49:30 O 22 '48; Same. *Weekly Underw* 159:958 O 23 '48

INSURANCE, Druggists' liability

- Druggists' liability; analysis of policy; underwriting. *Rough Notes* 91:61-2 J1 '48
- How to write druggists' liability. C. H. Olson and E. H. Morgan. *Rough Notes* 91:30+ My '48

INSURANCE, Employers' liability**See also**

- Insurance, Workmen's compensation

Aviation risks

- Aviation compensation practices are studied. J. C. Conklin, jr. *Weekly Underw* 158:1109 Ap 10 '48
- Employers aviation indemnity contract. *Rough Notes* 91:65-6 Ja '48

INSURANCE, Employers' public liability. See Insurance, Liability**INSURANCE, Explosion**

- Explosion manual revised; many rule, rate changes. *Nat Underw* 52:1 Ja 1 '48
- Heavy loss results from explosion at Seattle. *Nat Underw* 52:4 J1 15 '48
- How the extended coverage explosion and boiler policies overlap. R. Williams. *Rough Notes* 91:32+ My '48

INSURANCE, Extra expense

- Chicago bank gets \$100,000; story of largest ever extra expense loss. *Nat Underw* 51:1+ N 6 '47

See also

- Insurance, Additional living expense

INSURANCE, Fidelity. See Insurance, Surety and fidelity**INSURANCE, Fire**

- Capacity problem often stems from curable conditions. W. H. Birkemeier. *East Underw* 49:26 J1 16 '48
- Fire companies held 1947 stage. C. G. Hale. *Spectator (Property ed)* 13:20-4+ Ja 8 '48; Discussion. W. Jones. 13:14-15 F 26 '48
- Fire insurance in other lands. E. W. Elwell. *East Underw* 49:30 Je 11; 18 Je 18; 24 Je 25 '48
- Fire reciprocals booming; Associated reciprocal exchanges. *Bsns W* p28 J1 3 '48
- Idea of deductible is getting much attention today. J. C. O'Connor. *Nat Underw* 52:7 My 20 '48
- Lack of capacity hits less than 1 per cent of risks. W. Fetzner, jr. *Nat Underw* 52:3 Ap 29 '48
- Magic of fire insurance protection demonstrated in rapid restoration of Texas City from explosion disaster. E. M. Ackerman. *Il Weekly Underw* 158:1022+ Ap 3 '48
- National Board film on rebuilt Texas City; portrays insurance service. *East Underw* 49:18 J1 16 '48

New setup of William Penn Fire. Nat

- Underw* 52:3 O 28 '48
- Public relations tools are described by National Board. *East Underw* 49:19+ Ap 23 '48

- Restrictions in market and underwriting conditions. E. F. Gallagher. *Weekly Underw* 157:1482+ D 13 '47; Same cond. *East Underw* 48:18+ D 12 '47; Abstract. *Nat Underw* 51:2 D 11 '47

- Sales level off as quality of writings shows improvement. *Nat Underw* 52:1+ Ag 5 '48

- Score dearth of interstate markets at N.A.I.A. meeting. E. N. Eager. *East Underw* 49:25+ O 15 '48

- Stock fire companies strongest in history; address before National Board. J. M. Haines. *Spectator (Property ed)* 13:14+ Je 10 '48; Excerpts. *Weekly Underw* 158:1553+ My 29 '48

- Switzerland General expands in fire field through Innis. *Nat Underw* 52:2 O 14 '48

- What will it cost to rebuild your property? expiring policies should be increased to cover today's values (cont). *Rough Notes* 91:28 Ja; 36 Ap; 37-3 J1; 32 O '48

- What will it cost to replace your personal property today? expiring contents policies and personal property floaters should be increased to cover today's values (cont). *Rough Notes* 90:56 N '47; 91:38 F; 44 My; 52 Ag '48

- What's happening to values? problem of insurance to value. E. H. Boeckh. *Rough Notes* 90:17-18+ N '47

See also

- Insurance, Builders' Insurance, Marine risk
Insurance, Cotton Insurance, Use and occupancy
also Factory insurance association; Fire underwriters association of the Pacific; Home insurance company of New York; Interstate underwriters board; National board of fire underwriters; New York fire insurance exchange; Western underwriters association

Accounting

- Don't kill the fire insurance industry! threats implied in McCullough report. S. C. Davis. *Comm & Fin Chr* 168:1324+ S 30 '48; Excerpts. *East Underw* 49:21 S 10 '48; *Nat Underw* 52:3 S 9 '48

- Effect of term cover on surplus of the companies. E. K. Scribner. *Nat Underw* 52:2 My 13 '48

- NAIC recommendation for new profit formula. *East Underw* 48:18+ N 7 '47; Same. *Weekly Underw* 157:1159+ N 8 '47; Same cond. *Nat Underw* 51:1+ N 6 '47

- National Board replies to charges by McCullough on investment income; excerpts from statement to National association of insurance commissioners. *East Underw* 49:19+ Ag 20; 18-19 Ag 27; 19 S 3; 24 S 10 '48

- National Board replies to McCullough charges. *East Underw* 49:20+ Je 11 '48; *Nat Underw* 52:1+ J1 1 '48

- Present underwriting profit formula upheld; address before West Virginia agents. E. F. Gallagher. *East Underw* 49:17-18 Ag 13 '48; Same abr. *Nat Underw* 52:1 Ag 12 '48; Same abr. *Nat Underw* 159:813+ Ag 14 '48

- Reserves eat up the surpluses; reprinted from Feb. 1948, issue of Review, published by Cravens, Dargan & co. *Nat Underw* 52:5 Mr 11 '48

- Revision of profit formula. R. C. McCullough. *Nat Underw* 51:2 N 13 '47

- Unearned premium reserve equity. F. G. Krueger. *Weekly Underw* 158:880 Mr 20 '48

Adjustment of claims

- Agent must pay for Lloyds warranty policy fault; Progress laundry co. case. *Nat Underw* 51:9 D 4 '47

- Appraisal of loss held regularly made; insured's action is dismissed; Mehl vs. Patriotic insurance company. *East Underw* 48:30 D 5 '47

- Business years for relief from small loss burden. *Nat Underw* 52:4 My 6 '48

- Does a company pay for an agent's negligence? State farm fire insurance co. v. Rakes. J. L. Roesch. *Spectator (Property ed)* 14:60-1 O 21 '48

- Insurer's right to appraisal postponed until after filing of proof of loss by insured. *Weekly Underw* 159:886 O 9 '48

INSURANCE, Fire—Adjustment of claims— *Continued*

Restrictive clause in fire policy; *Glover v. Rowan mutual fire insurance co. J. L. Roesch, Spectator (Property ed) 13:10-11+ Ja 22 '48*

Agents

Commissions

Cite insurers under Ohio anti-compact law; action of fire companies in adopting identical scales of commissions. *Nat Underw 52:1 Ja 8 '48*

Colorado agents head tells woes of agents in extended coverage line. *L. A. Beck, Nat Underw 52:2 F 19 '48*

Commission reduction opposed by Missouri association of insurance agents. *Weekly Underw 157:1617+ D 27 '47*

Company official answers charge of selfishness. *Nat Underw 52:4+ Ja 1 '48; Discussion. 52:11 Ja 8; 4+ Ja 15 '48*

Contingent pacts are being revised. *Nat Underw 52:2 Je 24 '48*

Idea of graduated contingent plan is advanced in Chicago. *Nat Underw 52:6 My 27 '48*

No commission problem for agents in ordinary territory; Syracuse address. *D. C. Bowersock, East Underw 49:26+ My 7 '48; Same cond. Nat Underw 52:1+ My 6 '48*

Opinions on maximum commissions are adopted for EUA territory. *East Underw 48:18+ D 26 '47*

Reappraisal of practices should prove beneficial. *W. M. Sheldon, East Underw 49:21 Mr 5 '48*

W.U.A. reviews six months of commission ills. *Nat Underw 52:1+ Ap 29 '48*

Applications

Insurer must pass on application within reasonable time where premium paid at time of signing. *Weekly Underw 158:270 Ja 17 '48*

Binders

See Insurance—Binders

Claims

See Insurance, Fire—Adjustment of claims; Insurance, Fire—Fraudulent claims

Classification of risks

Applying the mercantile schedules; methods of classifying mercantile buildings. *C. C. Dominge, Spectator (Property ed) 13:14-16 Mr 25 '48*

Methods of classifying communities for fire insurance ratings. *H. R. Bogardus, Water & Sewage Works 95:423 N '48*

Coinurance

How to explain coinurance. *E. R. Ledbetter, Rough Notes 91:20+ Ap '48*

Coverage

Coverages and forms; consequential damage clauses. *Spectator (Property ed) 13:8 Ja 22 '48*

See also

Insurance, Fire—
Policies—Extended
coverage endorse-
ments

Demolition and replacement policies

Demolition endorsement problem analyzed. *Nat Underw 52:4 JI 8 '48*

Economic aspects

Underwriters bears in a bull market; index of wholesale prices moves upward as insurance underwriting profits drop. *V. L. Gallagher, East Underw 49:15 JI 2 '48*

Extended coverage

See Insurance, Fire—Policies—Extended coverage endorsements

Farm policies

Finds rejection of farm policy not effectively communicated to insured; *St Paul F. & M. vs. Creach, Nat Underw 51:7 D 4 '47*

Finance

Actual cash earnings; 50 largest stock fire insurance companies, 1943-1947; tabulation. *Spectator (Property ed) 14:22-3 O 21 '48*

Comparative financial and operating results of fire companies for year ending Dec. 31, 1947 and 1946; tabulation. *Spectator (Property ed) 13:12 F 26 '48*

Dunne's fire and casualty insurance report, 1947, 552p \$7.50 Insurance index, 110 William st, New York 7 '47

Earnings of 25 leading fire insurance companies in 1947 and comparison with the five-year period 1937-1941. *E. A. Van Deusen, Comm & Fin Chr 168:610 Ag 12 '48*

Financial growth, 1938-1947; stock fire companies; tabulation. *Spectator (Property ed) 14:40 O 21 '48*

Fire assets; ten year growth of assets of stock fire marine companies. *Spectator (Property ed) 14:8 O 21 '48*

Fire company experience in 1947 by lines; tabulation. *Nat Underw 52:15 F 5; 13 F 12; 2 F 19; 11 F 26; 25 Mr 4; 40 Mr 11; 13 Mr 18; 19 Mr 25 '48*

Fire company 1947 statement figures; tabulation. *Nat Underw 52:15 F 5; 13 F 12; 2 F 19; 10 F 26; 30 Mr 4; 2 Mr 11; 12 Mr 18; 19 Mr 25 '48*

Fire company results in New York state in 1947; net premiums and paid losses; tabulation. *Nat Underw 52:14 Mr 11; 10 Mr 18 '48*

Fire insurance experience; countrywide and N.Y. state aggregate results for the years 1944 to 1947 inclusive; tabulation. *East Underw 49:20 Ag 13 '48*

Fire insurance experience, four-year aggregates, 1944-1947 and stock company 1947 experience. *Spectator (Property ed) 14:18 Ag 19 '48*

Fire insurance in the United States in 1947; tabulation by company. *Spectator (Property ed) 13:12-17 Je 24 '48*

Fire insurance stocks for investment in 1948. *E. A. Van Deusen, Comm & Fin Chr 167:906 F 26 '48*

Fireman's Fund moves to add \$14-15 million to resources. *Nat Underw 52:1 Je 24 '48*

Geyer & co. issues appeal for the forgotten man, the stockholder; position of fire and casualty stocks. *Nat Underw 52:1+ JI 1 '48*

High loss era waning for insurance stocks; but renewed income tax load will lessen rise in earnings. *J. C. Clendenin, Barron's 28:11-12 Ap 26 '48; Excerpts. Nat Underw 52:6 My 6 '48*

Illinois fire company results for 1947; tabulation. *Nat Underw 52:6+ Ap 1 '48*

Insurance profits in the public interest. *S. C. Davis, Comm & Fin Chr 167:2318+ My 27 '48; Excerpts. East Underw 49:23 My 21 '48; Nat Underw 52:2+ My 20 '48*

Middle Atlantic states produce greatest fire premium volume; with summary of miscellaneous lines by states in 1947 and 1946. *Spectator (Property ed) 14:11-15 Ag 19 '48*

Nation-wide fire insurance net premiums and losses paid in 1947; tabulation by company. *East Underw 49:34 Mr 12 '48*

Net operating earnings of 25 fire companies, per share of stock, for 1947, and averages for the five-year period ending with 1946. *E. A. Van Deusen, Comm & Fin Chr 168:406 JI 29 '48*

Net premium and loss figures for 1947 on fire companies allied lines; with tabulation by company. *East Underw 49:1+ Mr 12 '48*

New Jersey 1947 premiums and losses paid of fire and marine companies; tabulation by company. *East Underw 49:26 Mr 26 '48*

New York city standard fire classification report, 1946; tabulation. *Spectator (Property ed) 13:18-19 N 13 '47*

New York fire classification report for 1946; abstract. *Nat Underw 51:1 N 13 '47*

New York makes detailed study of fire insurance experience for 1947; tabulation by company. *Nat Underw 52:2+ Ag 12 '48; Correction. 52:3 S 23 '48*

New York state fire insurance net premiums, losses paid during 1947; tabulation by company. *East Underw 49:29+ Mr 12 '48*

New York state standard fire classification report, 1946; tabulation. *Spectator (Property ed) 13:16-17 N 13 '47*

1947 earnings for 21 representative stock fire insurance companies and comparisons for 1945-1946; tabulation. *E. A. Van Deusen, Comm & Fin Chr 167:1318 Mr 25 '48*

INSURANCE, Fire—Finance—Continued

1947 mutual fire results; tabulation by company. Nat Underw 52:9 Ja 22; 6 Ja 29; 14 F 6; 23 F 12; 10 F 19; 8 F 26; 4 Mr 4; 39 Mr 11 '48

1947 stock fire premiums exceed \$2 billion. Spectator (Property ed) 13:18 Ap 22 '48

1947 underwriting record shows improvement. Spectator (Property ed) 14:16-17 Ag 5 '48

Premiums, stock fire and marine companies, 1938-1947; tabulation. Spectator (Property ed) 14:10-11 O 21 '48

Profit prospects good for fire companies. H. Murphy. Barron's 28:33 S 6 '48

Proportions of premiums written in 73 years of fire insurance, 1874-1947; tabulation. Spectator (Property ed) 14:54 O 21 '48

Sees no general formula as guide to premium writings; favors preferred stock issues; comments on loss trends and their effect on insurance costs. A. M. Best. East Underw 49:24 Ja 30 '48

Stock fire insurance 1947 experience by lines, from Argus fire chart; tabulation by company. Nat Underw 52:2-4 Mr 25 '48

Stock fire premiums up 16.4 per cent in 1947; with Argus fire chart data showing fire companies record for 1947 in the aggregate. Nat Underw 52:1+ Ap 8 '48

Underwriters bears in a bull market; index of wholesale prices moves upward as insurance underwriting profits drop. V. L. Gallagher. East Underw 49:15 Jl 2 '48

Fraudulent claims

Reviews legal decisions bearing on fraud in fire insurance. A. Kaplan. East Underw 49:23 Ja 30 '48; Excerpts, Nat Underw 52:2 Ja 29 '48

General cover contract

See Insurance, Fire—Multiple location policies

Improvements and betterments policies

Improvements, betterments problem. H. O. Wolfe. Nat Underw 52:4+ F 5 '48

Inspection

Field man's job. R. R. Mittelbush. Rough Notes 91:34+ Jl '48

How insurance society of New York trains young men for field work. Weekly Underw 153:1522 My 22 '48

Would step up engineering services. B. F. Weaver. East Underw 48:19 N 7 '47

Instalment premiums

North America installment plan rejected by Virginia supreme court. Nat Underw 52:3 My 6 '48

Investments

Changes in investment bond portfolios, stock fire companies, 1932 and 1946; chart. Spectator (Property ed) 13:21 Ja 22 '48

Stock company investments; with charts and tables showing data for 1938-1947. Spectator (Property ed) 14:27-31 O 21 '48

Stock market rise adds to company portfolio values. Nat Underw 52:1+ O 28 '48

Liability property damage policies

Buyers acutely aware of fire legal liability; problem discussed by Midwest buyers assn. Nat Underw 51:1+ O 30 '47

Fire legal liability cover; address before American bar association. G. W. Clarke. Nat Underw 52:10+ S 9 '48

New headaches in tenant fire liability cover. Nat Underw 51:2 N 27 '47

Tips on fire legal liability problem. W. M. Snider. Nat Underw 52:16 S 2 '48

Losses

Conflagrations hit U.S.A. hard in 1947. Weekly Underw 158:8+ Ja 3 '48; Same. East Underw 49:19 Ja 2 '48; Same cond. Nat Underw 52:1 Ja 1 '48

Find common denominator in many fires today; blame inadequate personnel, carelessness and indifference of employees. Nat Underw 52:12 Mr 11 '48

Loss ratio climbs on dwelling class. Nat Underw 52:7 S 30 '48

Maine insurance loss may reach \$6,000,000. East Underw 48:28 N 21 '47

Maine losses underinsured; won't reach \$5 million. Nat Underw 51:9 N 6 '47

Mounting losses show rate raise need. Weekly Underw 158:1757+ Je 19 '48

'47 sets new fire-loss record. Bsns W p21 D 27 '47

Phenomenon; study of fire insurance premiums and losses, 1860-1947. Spectator (Property ed) 14:12-14 S 23 '48

Waterfront fire cause could not be determined; loss resulting from pier 57 disaster placed at \$3,050,000. Weekly Underw 157:1309 N 22 '47

Mortgagee interest

Mortgagee's failure to report sale of property. J. L. Roesch. Spectator (Property ed) 13:20-1+ Je 10 '48

Recovery under standard mortgage clause barred by failure of mortgagee to give notice of change of ownership. Weekly Underw 158:1670-1+ Je 5 '48

Value of mortgagee requiring rent insurance. R. J. Stewart. Nat Underw 52:12+ My 6 '48

Multiple location policies

Developments in reporting form field. S. W. Tebbetts. East Underw 49:24 Ap 23 '48; Excerpt. Nat Underw 52:6 Ap 8 '48

Dineen frowns on advisory type of interstate setup. Nat Underw 52:1+ Ag 26 '48

Dineen strongly favors discounts, debits in multiple location rating; with text of letters to North America and Pearl. East Underw 49:15+ Ag 27 '48; Excerpts, Weekly Underw 159:378 Ag 21 '48

General adjustment bureau eyes multiple location and general cover contracts. Nat Underw 52:1+ Ag 5 '48

How to instruct your insureds on reporting values. G. W. Keck. Rough Notes 90:30+ D '47

New York department accepts multiple risk plans of North America and Pearl. East Underw 49:18 Ag 20 '48; Nat Underw 52:17 Ag 19 '48

Municipal policies

Court refuses to rule that mutual cover is cheaper; Mobile housing board purchase of stock insurance. Nat Underw 51:6 D 4 '47

Policies

Agency personnel training course; instructions for policywriters and office personnel; fire insurance policies. Rough Notes 91:29 O; 29 N '48

Dwelling and contents form 49. E. F. Holman. Rough Notes 91:30+ S '48

Extras in dwelling and contents form. Rough Notes 91:21-2+ My '48

Mercantile building, fixtures and stock form (used on fire or windstorm policies and extended coverage endorsement). Rough Notes 91:65 Ja '48

More merchants need reporting covers; single location risks. Rough Notes 90:30 O '47

Standard fire insurance policy. R. T. Nelson. Weekly Underw 159:682-4, 750-2+, 829-30+, 911-12, 970-1+, 1039-40 S 25-O 30 '48

See also

Insurance, Fire—Demolition and replacement policies	Insurance, Fire—Liability property damage policies
Insurance, Fire—Farm policies	Insurance, Fire—Multiple location policies
Insurance, Fire—Improvements and betterments policies	Insurance, Fire—Municipal policies

Extended coverage endorsements

Deductible or curtailed cover seen sure for extended coverage. Nat Underw 52:1+ Ag 5 '48

Derelict mines of Japs cause problem on Coast; do concussion losses come under extended coverage? Nat Underw 51:14 D 4 '47

Don't overlook your vandalism prospects; providing insurance protection through vandalism and malicious mischief endorsements. J. B. Harris. Rough Notes 91:30 Ap '48

How the extended coverage explosion and boiler policies overlap. R. Williams. Rough Notes 91:32+ My '48

INSURANCE, Fire—Policies—Extended coverage endorsements—Continued
 New England changes may be harbingers.
 Nat Underw 52:6 O 21 '48

Term policies

Dineen move may presage doom of five year contract. Nat Underw 52:1+ Je 17 '48
 Figures show large amount of fire business is term. Nat Underw 52:4 Je 24 '48
 Suggests applying casualty term plan to fire. L. Sandelman. Nat Underw 52:2 Ja 15 '48
 Term discount must be valid to face possible FTC probe. R. E. Dineen. Nat Underw 52:1+ S 30 '48; Discussion. Nat Underw 52:6 O 14 '48

Premiums, Payment of

See also

Insurance, Fire—
 Instalment premiums

Preventive work

Agent helped National Board's 1947 gold medal winner. *il Spectorator (Property ed)* 13:20-1 My 20 '48
 Automatic sprinkler campaign planned by National fire waste council. East Underw 49:26 Mr 19 '48
 Close-up view of fire prevention; work of Ohio state fire prevention association. E. Knoop, Jr. Nat Underw 52:3 S 23 '48
 Field man's job. R. R. Mittelbush. Rough Notes 91:34+ J1 '48
 Inspecting before trouble starts; National board of fire underwriters checks fire fighting facilities. *il Spectorator (Property ed)* 13:26-8 Mr 11 '48
 Joint fire safety fact-finding group set up. Nat Underw 52:6 S 23 '48
 Start ad campaign against fire; drive of National Board. Weekly Underw 158:1757+ Je 19 '48; Same. East Underw 49:22 Je 18 '48
 Stresses value of prevention service. B. F. Weaver. East Underw 49:16+ Je 4 '48
 To conduct town fire inspections in Eastern Underwriters territory. East Underw 49:16 Ap 2 '48; Same cond. Nat Underw 52:2 Ap 1 '48

See also

Underwriters' laboratories

Prospects

Sources of residence fire prospects. R. G. Bostwick. Rough Notes 91:29 Je '48

Purchasing

Big assureds must cut losses to get adequate insurance. F. B. Flahive. East Underw 48:22 N 28 '47
 Buyer says fire insurance is too slow in making change. R. S. Gillan. Nat Underw 52:10 F 26 '48
 Explain business covers to buyers. E. Reske and others. Nat Underw 52:10 My 6 '48
 Midwest insurance buyers assn. meeting. Chicago. Nat Underw 51:1+ O 30 '47

Rates

Analysis of court's findings in District of Columbia fire rate case involving stock carriers and Superintendent Jordan. L. B. Harrison. East Underw 49:18 Ap 30 '48
 Applying the mercantile schedules; methods of classifying mercantile buildings; how building and contents rates are computed. C. C. Dominge. *Spectorator (Property ed)* 13:14-16 Mr 25 '48
 California fire rate reductions made. East Underw 49:18 J1 2 '48
 Canadian fire term rates are increased. East Underw 49:21 Ap 30 '48
 Defends use of credits and debits on rating multiple locations; address before Ohio agents; abstracts. R. F. Dineen. East Underw 49:23+ S 24 '48; East Underw 52:1+ S 23 '48
 Dineen frowns on advisory type of interstate setup. Nat Underw 52:1+ Ag 26 '48
 Dineen strongly favors discounts, debits in multiple location rating; with text of letters to North America and Pearl. East Underw 49:15+ Ag 27 '48; Excerpts. Weekly Underw 159:378 Ag 21 '48

District of Columbia rate case remanded for further findings. East Underw 49:22+ Ap 16 '48

Five steps taken in New York to better fire rates; address before American management assn. R. E. Dineen. East Underw 49:18+ My 28 '48; Excerpts. Weekly Underw 158:1555 My 29 '48

Frowns on preferred rates for multiple locations. H. Perlet. Nat Underw 52:26+ S 23 '48

Interstate rating proposals for fire risks made to commissioners by industry committee. East Underw 49:18+ Ap 23 '48; Same abr. Weekly Underw 158:1153+ Ap 17 '48

Michigan extended cover rates must be cut. D. A. Forbes. East Underw 49:31 F 20 '48
 Michigan warns on multiple risk status; holds rates must be filed. D. A. Forbes. East Underw 49:16 J1 9 '48

Modernization of fire, surety rate structures under way; address before Risk research institute. R. E. Dineen. Nat Underw 52:13+ Ap 29 '48; Excerpts. East Underw 49:16+ Ap 30 '48

Multiple location rate plans withdrawn by Interstate underwriters board. Weekly Underw 159:325+ Ag 14 '48

New England states adopt \$7.50 as minimum for fire policies. East Underw 49:22 Ja 2 '48

New extended coverage and sprinkler leakage rating plan devised in New England. Nat Underw 52:10 Mr 11 '48

New fire rating adjustments put into effect by Pacific fire rating bureau. Nat Underw 52:1+ J1 29 '48

New multiple location risk rating plan presented. East Underw 49:16+ Ag 13 '48

New rating program in Pennsylvania unveiled to agents. C. H. Hill. Nat Underw 52:3 S 23 '48

New York department accepts multiple risk plans of North America and Pearl. East Underw 49:18 Ag 20 '48; Nat Underw 52:17 Ag 19 '48

New York probes rate chiseling. Nat Underw 51:9 O 30 '47

North America files second plan for multiple location coverage. East Underw 49:14 Ag 27 '48

North America tells basic principles of proposed rate plan for multiple location risks. East Underw 49:1+ S 3 '48; Nat Underw 52:1+ S 2 '48

North Carolina fire rate revision reduces overall level. Nat Underw 52:28 Je 10 '48
 Ohio department gives views on rating multiple location risks. East Underw 49:33 S 17 '48

Ohio turns down Pearl rating plan; Bureau filing O.K'd. Nat Underw 52:1+ S 30 '48

Pier rates advanced in New York city. Weekly Underw 159:283 Ag 7 '48

Ponders legality of term discount plan. W. H. Bennett. Nat Underw 52:1 S 2 '48

Problem of fire term rates studied in New York. East Underw 49:16+ Ag 6 '48

Seek to avoid further litigation in District of Columbia rate case. Nat Underw 52:1 Ap 22 '48

Time for action on term discounts may be near. Nat Underw 52:2 J1 1 '48
 Uniform interstate rating plan urged by commissioners for multiple-location risks. Weekly Underw 159:477+ S 4 '48

Rating bureaus

Agree on changes in Pacific fire rating bureau rules. Nat Underw 52:2 Ag 26 '48
 Debate I.U.B. future before commissioners. H. C. Conick and others. Nat Underw 52:9+ Je 10 '48

Homer Rice new head of New York fire insurance rating organization. Nat Underw 52:1 J1 8 '48; East Underw 49:16+ J1 9 '48

Licensing of Pacific fire rating bureau is still in doubt. Nat Underw 52:2 My 6 '48

New England fire insurance rating association expanding jurisdiction. East Underw 48:20 N 21 '47

No Pacific Board control of Pacific fire rating bureau shown. Nat Underw 52:1 Ap 29 '48

INSURANCE, Fire—Rating bureaus—Cont.

Pacific Board's place in new day, P. F. McKown, Nat Underw 52:4 My 20 '48
 Pacific fire rating bureau denied California license, East Underw 49:16 JI 30 '48; Nat Underw 52:1+ JI 29 '48
 Pacific fire rating bureau gets license in California, East Underw 49:22 O 1 '48
 Pacific fire rating bureau issue; organization prepares statement of defense, Nat Underw 52:1+ Mr 11 '48
 Resist Massachusetts move to eliminate confidential data, Nat Underw 52:1+ S 16 '48
 Supervisors attack advisory status of IUB for multiple location risks, East Underw 49:18-19 Je 11 '48

Reinsurance

Clarifies stand on jumbo reinsurance plan, E. L. Clark, Nat Underw 52:13 Ja 22 '48
 Fire companies are scraping the bottom of the reinsurance barrel, F. G. Krueger, Weekly Underw 158:744-5 O 2 '48
 Fire reinsurers gorged by year end, K. Force, Nat Underw 51:14+ D 25 '47
 Pennsylvania superior court finds reinsurer waives limit of liability feature; Commonwealth Mutual Fire dispute over reinsurance recovery from Eagle Fire of New Jersey, Nat Underw 52:2 Ag 26 '48
 Super reinsurance proposal to solve volume capacity issue, A. R. W. Wang, Weekly Underw 157:1360 N 29 '47
 Why reinsurer can extend self farther than direct writer, Nat Underw 51:33 D 25 '47

Reserves

Reserves eat up the surpluses; reprinted from Feb. 1948, issue of Review, published by Cravens, Dargan & co, Nat Underw 52:5 Mr 11 '48
 Unearned premium reserve equity, F. G. Krueger, Weekly Underw 158:880 Mr 20 '48

Risks

Blighted area underwriting plan for Chicago; selective system based on inspections is desired by the state, Nat Underw 52:1 F 19 '48
 Fire underwriting, W. O. Lincoln, Spectator (Property ed) 13:12 N 13; 12 N 27; 13+ D 25 '47; 12+ Ja 8; 12+ Ja 22; 12+ F 12; 20+ F 26 '48
 New York city standard fire classification report, 1946; tabulation, Spectator (Property ed) 13:18-19 N 13 '47
 New York state standard fire classification report, 1946; tabulation, Spectator (Property ed) 13:16-17 N 13 '47

See also

Insurance, Fire—Inspection Insurance, Fire—Whisky risks

Valuation of property

Appraisal issue squarely joined in Michigan suit; Masonic temple case at Grand Rapids, Nat Underw 52:1 Ja 29; 10 Mr 25 '48
 Court rules on establishing value of lost property without records, East Underw 48:29 D 5 '47
 How to instruct your insureds on reporting values, G. W. Keck, Rough Notes 90:30+ D '47
 Revised form of South Carolina valued policy law, J. Calhoun, Weekly Underw 157:1427-8 D 6 '47
 Warns agents against making appraisals, F. P. O. Potter, Nat Underw 51:3 N 20 '47

Whisky risks

Lack adequate coverage for distillers' risks, W. Schiff, East Underw 49:22+ S 24 '48
 Whiskey coverage held difficult to obtain, East Underw 49:21 JI 16 '48

Canada

Fire insurance loss ratio drops in Canada, East Underw 49:20 Mr 19 '48

Chicago

Blighted area underwriting plan for Chicago; selective system based on inspections is desired by the state, Nat Underw 52:1 F 19 '48

Europe

Fire insurance in other lands, E. W. Elwell, East Underw 49:18 Je 18 '48

France

Fire insurance in other lands, E. W. Elwell, East Underw 49:30 Je 11 '48

Great Britain

Fire insurance in other lands, E. W. Elwell, East Underw 49:30 Je 11 '48

Missouri

Missouri bureau installs replacement cost, uniform short rate, Nat Underw 52:2 Mr 18 '48

Washington, D.C.

Analysis of court's findings in District of Columbia fire rate case involving stock carriers and Superintendent Jordan, L. B. Harrison, East Underw 49:18 Ap 30 '48
 District of Columbia rate case remanded for further findings, East Underw 49:22+ Ap 16 '48

INSURANCE, Forgery

Depositors forger bond revised, Spectator (Property ed) 13:9 My 20 '48
 Fidelity-forgery covers are broadly improved by Surety association of America, Nat Underw 52:17+ Ap 1 '48; Same, Weekly Underw 158:1046-7 Ap 3 '48

See also

Bankers' blanket bond

INSURANCE, Fraternal, See Benefit societies

INSURANCE, Funeral, See Insurance, Burial

INSURANCE, Furriers' customers

Bailee may limit liability for own negligence; Schoen vs. Wallace, Nat Underw 52:7 Je 17 '48

Furriers' customers basic policy, Rough Notes 91:61-2 F '48

Furriers' customers excess legal liability endorsement, Rough Notes 91:78 Ap '48

Furriers' customers floater policy, C. W. Alkire and others, Rough Notes 91:21-6 F '48

Insurer liable for full value of fur coat despite limit in receipt, East Underw 49:25 S 3 '48

Storage limit not binding in event of conversion, Nat Underw 51:17 N 6 '47

INSURANCE, Grain elevator

Moves to cut losses in grain elevators; National Board's warning, East Underw 48:21 O 31 '47; Same, Weekly Underw 157:1108 N 1 '47

Price drop eases capacity problems of Underwriters grain assn, Nat Underw 52:2 F 26 '48

Underwriters grain assn, ceiling restricts market, Nat Underw 51:1+ O 30 '47

INSURANCE, Group

Blanket student accident cover gains acceptance; Continental Casualty's plan, Nat Underw 52:28 S 9 '48

Contrasts group A.&H., social and individual insurance, W. A. Milliman, East Underw 49:38 JI 2 '48

Dangerous trends seen in A. & H. group competition; symposium of Health and accident underwriters conference, Chicago, J. E. Hellgren and others, Nat Underw (Life ed) 52:2 F 13 '48; Same abr. Nat Underw 52:17+ F 12 '48

Factors for growing popularity of group disability insurance, J. E. Hellgren, East Underw 49:34+ My 21 '48

Group insurance and group annuity coverage; United States business, 1946 and 1947; all life, accident and health, and casualty insurance companies; tabulation, Life Ins Courant 53:32 Ag '48

Group morbidity studies now getting under way, Nat Underw (Life ed) 52:11 Ja 2 '48

Group production hits doldrums, Nat Underw (Life ed) 52:9 JI 2 '48; Same, Nat Underw 52:23 Ag 5 '48

Group underwriting, E. A. Green, East Underw 48:96 pt 2 O 8 '48

Growth of groups, W. J. Graham, East Underw 49:5 JI 2 '48

INSURANCE, Group—Continued

Guardian turns thumbs down on writing group. I. Rosenthal, Nat Underw (Life ed) 52:1+ JI 30 '48
 Home Life to enter group field. East Underw 49:6 O 1 '48; Nat Underw (Life ed) 52:1 O 1 '48
 Leading producers of group A. & H. premiums; ranking individual positions nationally and by states based on net premiums written in 1945 and 1946; tabulation. Spectator (Life ed) 155:44-7 O '47
 Pennsylvania group laws are being studied to correct abuses. Nat Underw 51:22 D 25 '47; Same, Nat Underw (Life ed) 51:5 D 26 '47
 Prudential officer sees extension of group to small units as state compensation defense; Houston address. E. B. Whittaker. Weekly Underw 157:1452 D 6 '47
 Some group plans violate law in Massachusetts; licensed foreign company must issue policies only through licensed resident agents. East Underw 48:36 N 14 '47

See also

Insurance—Employees' Insurance Insurance, Hospitalization

Agents

New group men come of age, reduce the ranks of chronic drifters in field. Nat Underw 52:23 O 28 '48; Same, Nat Underw (Life ed) 52:7 O 29 '48
 Specializing producer emerges as sovereign figure in group field. Nat Underw 51:21+ D 18 '47; Same, Nat Underw (Life ed) 52:6 Ja 9 '48

Employees' insurance

Deposit administration group annuity plan underwritten for retailer by Prudential. Weekly Underw 153:610 F 21 '48
 Free coverage after 65 in General Motors group plan. Nat Underw (Life ed) 52:6 Ja 30 '48
 General Motors increases group on 359,000 workers. Weekly Underw 157:1384 N 29 '47
 G.M. insurance; auto company announces added benefits. Bsns W p74-5 N 29 '47
 Group and workmen's compensation. C. C. Clarke. Life Ins Courant 53:23-4 JI '48; Excerpts. East Underw 49:38 My 28 '48; Nat Underw 52:22 My 27 '48
 Group development through collective bargaining. E. B. Whittaker. East Underw 49:6+ Je 25 '48
 Group inclusion in union contracts seen on upgrade. Nat Underw 52:22 S 6 '48; Same, Nat Underw (Life ed) 52:16 S 17 '48
 Group premium total for '47 topped billion; L.I.A. survey. Nat Underw (Life ed) 52:1+ JI 16 '48; Same abr. East Underw 49:1+ JI 16 '48; Same abr. Nat Underw 52:17 JI 15 '48; Same abr. Weekly Underw 159:143+ JI 17 '48; Same abr. Spectator (Life ed) 156:48-9 Ag '48
 Hospitalization is key to group. J. A. Churchman. Nat Underw 52:21 Ja 8 '48; Same, Nat Underw (Life ed) 51:15 D 5 '47
 It's up to producers to keep group programs geared to living costs. Nat Underw 52:23 JI 15 '48; Same, Nat Underw (Life ed) 52:8 Ag 20 '48
 More Pittsburgh firms pay all of employees group insurance cost. Iron Age 160:143-4 N 13 '47
 Must prepare to carry group in layoff periods. M. E. Segal. Nat Underw (Life ed) 52:20 My 28 '48
 NLRB holds group A.&H. collective bargaining subject. Nat Underw 52:21 Je 24 '48; Nat Underw (Life ed) 52:4 Je 25 '48; Weekly Underw 158:1849 Je 26 '48
 Northwestern National will expand group to cover entire employe benefit field. Weekly Underw 157:1654 D 27 '47
 Prudential's group disability plan; covers few as four employees. E. B. Whittaker. East Underw 49:4 Ag 13 '48
 Publishers' group open; non-profit fund offers coverage to small printing houses. Weekly Underw 157:1451 D 6 '47
 Sees Taft-Hartley law as spur to group coverage. M. Woll. Nat Underw (Life ed) 52:3 Ja 9 '48

Settle Pittsburgh hotel group fight. Nat Underw 52:20 S 30 '48; Same, Nat Underw (Life ed) 52:10 O 1 '48
 Social responsibility of the group insurance industry. E. B. Whittaker. East Underw 49:3+ Mr 5 '48; Excerpts. Weekly Underw 158:767-8 Mr 6 '48
 Some group men act as bargainers for the assured; offer to lower group premiums for percentage of balance saved. Nat Underw 52:18 F 19 '48; Same, Nat Underw (Life ed) 52:9 F 13 '48; Reply (Purpose of the independent group counselor). E. D. Goodier. Nat Underw 52:25 F 26 '48; Same, Nat Underw (Life ed) 52:3+ F 27 '48
 Staffs of hotels in Toronto being offered group insurance for themselves and their dependents. East Underw 48:12 N 14 '47
 Trends in a rising group market. M. A. Gulick. East Underw 49:89 pt 2 O 8 '48
 Wide use of voluntary group health is shown. R. A. Hohaus. East Underw 49:11 My 7 '48; Same, Weekly Underw 158:1481 My 15 '48; Excerpts. Nat Underw 52:30 My 6 '48; Nat Underw (Life ed) 52:2 My 7 '48

Prospects

All signs indicate this is the time to sell group. Nat Underw (Life ed) 51:1 O 24 '47; Same, Nat Underw 51:24 N 13 '47
 Debit agents prove group "bird dogs"; seek prospects in neighborhoods they canvass. Nat Underw (Life ed) 52:7 F 13 '48

INSURANCE, Group life

Actuaries study direction of group definition changes at Chicago. Nat Underw (Life ed) 52:7 My 7 '48
 Borrowers' group life tops half billion mark. East Underw 48:10 N 7 '47; Same abr. Weekly Underw 157:1135 N 1 '47
 Commissioners' life committee views group angle if employees lose jobs in depression. East Underw 49:1+ My 7 '48
 Commissioners report on group definition. East Underw 48:17 N 28 '47
 Conflicting views on what to do about mass selling. Nat Underw (Life ed) 51:3+ N 14 '47
 Differences lessened on mass selling at New York conference at Saratoga Springs. Nat Underw (Life ed) 52:1+ 4 Mr 5 '48
 Equitable declines group questionnaire. Nat Underw (Life ed) 52:8 Ap 9 '48; Same, East Underw 49:6 Ap 9 '48
 Expansion in permanent plan group contracts. D. N. Warters. East Underw 49:19 Je 25 '48
 Fears flareback from mass sales fight. B. A. Hedges. Nat Underw (Life ed) 52:6 Ag 20 '48
 Gain is foreseen in group life insurance. E. C. McDonald. Weekly Underw 157:1140 N 1 '47
 Group definition changes urged by NALU committee. Nat Underw (Life ed) Daily ed 52:10+ S 16 '48
 Group expansion as general agents in Flint, Mich. see it. East Underw 48:1+ D 26 '47
 Group for state's employees in Connecticut. East Underw 48:12 N 7 '47
 Group life business grows. Bsns W p57-8 Ja 17 '48
 Group premium total for '47 topped billion; L.I.A. survey. Nat Underw (Life ed) 52:1+ JI 16 '48; Same abr. East Underw 49:1+ JI 16 '48; Same abr. Weekly Underw 159:143+ JI 17 '48; Same abr. Spectator (Life ed) 156:48-9 Ag '48
 Group protection on workers at 17 million at end of 1947. Institute reports. East Underw 49:13 My 7 '48
 Harrington, Allyn in hot debate on group cover; Mass. commissioner attacks N.A.I.C. definition. Nat Underw (Life ed) 51:1 D 12 '47
 Hobbs heads NALU committee on mass distribution. East Underw 48:5 D 12 '47
 Home Life to enter group field. East Underw 49:6 O 1 '48; Nat Underw (Life ed) 52:1 O 1 '48
 Indiscriminate group sales perils agency system. R. R. Reno, Jr. Nat Underw (Life ed) 51:8 N 14 '47
 Joint group insurance research is backed by NALU committee. Weekly Underw 158:920 Mr 20 '48

INSURANCE, Group life—Continued

Life insurance has underplayed value of guaranteed benefits in group field. J. B. Glasser. Nat Underw (Life ed) 52:10 S 24 '48

Little threat in mass coverages. W. M. Anderson. East Underw 49:12+ My 23 '48

Mass cover groups study quiz answers. Nat Underw (Life ed) 52:1 My 21 '48; Weekly Underw 158:1526 My 22 '48

Mass coverage study of NALU and the Agency management association. Spectator (Life ed) 156:63-4 J1 '48

Mass merchandising of life insurance. F. K. Radar. Spectator (Life ed) 156:45-7 Ag '48

Mass merchandising of life insurance; address before ALC. J. B. Baumann. Spectator (Life ed) 155:9+ N '47; Abstracts. Weekly Underw 157:913, 915 O 11 '47; East Underw 48:5 O 10 '47; Nat Underw (Life ed) 51:24 O 10 '47

Mass merchandising of life insurance; letter to J. B. Baumann. L. A. Lincoln. Spectator (Life ed) 155:3 N '47; Same. East Underw 48:14 N 7 '47; Same. Weekly Underw 157:1206 N 8 '47; Same abr. Nat Underw (Life ed) 51:2 N 7 '47

Mass merchandising of life insurance; symposium. J. S. Thompson and others. Spectator (Life ed) 155:16-19+ D '47; 28-31 Ja '48

Mass selling expands market for policies. C. M. Shanks. East Underw 49:6 O 23 '48

Mass selling held against public interest; address before L.I.A.M.A. J. Baumann. Weekly Underw 157:1272 N 15 '47

Mass selling trends as seen by NALU. P. B. Hobbs. East Underw 49:44- Mr 5 '48

Must stimulate average agent to write his share of group cases. P. B. Hobbs. Nat Underw (Life ed) 52:5 My 23 '48

N.A.I.C. life committee hears group suggestions at Chicago. Nat Underw (Life ed) 52:6+ Ap 30 '48

N.A.I.C. life committee holds hearing on group definition at Philadelphia. Nat Underw (Life ed) 52:3+ Je 11 '48

NALU considers mass cover situation at St Louis meeting. Nat Underw (Life ed) Daily ed 52:14+ S 17 '48

Need for improvement in group conversion methods. R. E. Dineen. East Underw 49:1+ Je 25 '48; Excerpt. Nat Underw (Life ed) 52:6 Je 25 '48

New York insurance department opinion stops medical group policy; proposed group life insurance contract to cover members of medical society and their employees. Weekly Underw 158:1270 Ap 24 '48

Not enough agents to handle group on individual basis. C. W. Wyatt. Nat Underw (Life ed) 52:2 S 10 '48

Optimistic view on mass sales. E. Fitzgerald. Nat Underw (Life ed) 52:19 Je 11 '48

Prudential tells why it declines to answer mass cover query. Nat Underw (Life ed) 52:1 Mr 19 '48

Prudential will drop mortgage loan group. East Underw 48:16 N 28 '47

Prudential's position on mass coverage. E. B. Whittaker. East Underw 48:5+ N 23 '47; Abstract. Nat Underw (Life ed) 51:1+ N 28 '47

Public good demands unfettered group expansion. W. M. Werber. Nat Underw (Life ed) 52:7 S 3 '48

Social responsibility of the group insurance industry. E. B. Whittaker. East Underw 49:3+ Mr 5 '48; Excerpts. Weekly Underw 158:767-8 Mr 6 '48

State-wide pension plan; group insurance plan and trustee pension plan for West Virginia bank employees. Trusts & Estates 87:131 Ag '48; Banking 41:114 S '48

Stresses need for group for smaller employers. H. L. Plumley. Nat Underw (Life ed) 52:2+ O 15 '48

Tax exclusion for all employer-paid premiums is sought; A.L.C.-L.I.A. memorandum. Nat Underw (Life ed) 52:2 Mr 5 '48

Prospects

Ideas for group prospecting. G. L. Doyle. East Underw 49:13 J1 23 '48

Small town territories contain group prospects. Nat Underw (Life ed) 52:4 O 15 '48

INSURANCE, Hail

Crop-hail insurance actuarial association now in full swing as advisory body. Nat Underw 52:10 Ap 15 '48

Extensive hail loss in Kansas, Missouri. Nat Underw 52:23 Je 24 '48

\$50 wind and hail deductible goes into effect in Georgia. Nat Underw 52:1 J1 15 '48

Hail experience for 1947; tabulation by company. Nat Underw 52:10 Mr 18 '48

Hail in El Dorado, Arkansas causes \$1,200,000 property damage. Nat Underw 52:6 Ap 15 '48

Hail premiums in 1948 to be about even with '47. Nat Underw 52:7 S 2 '48

Hail premiums may be down in 1948. Nat Underw 52:5 My 27 '48

Hail premiums picking up in northern states. Nat Underw 52:6 J1 1 '48

Hail premiums show record 40 per cent increase. Nat Underw 51:1 D 4 '47

1,200 hail claims on corn, soybeans from Illinois storms. Nat Underw 52:4 S 2 '48

Sell hail business now. C. A. Dawson. Rough Notes 91:19+ Ap '48

INSURANCE, Health

Compulsory health insurance advocated. B. M. Baruch. East Underw 48:35 N 23 '47

Compulsory health insurance issues. R. A. Hohaas. Nat Underw (Life ed) 52:26+ O 1 '48

Compulsory national health system proposed. O. R. Ewing. East Underw 49:19 S 17 '48

CIO group health insurance scheme; propose government health program. Weekly Underw 158:1392 My 8 '48

Health insurance; reflections and suggestions. H. S. Cramer. Weekly Underw 157:1211-12 N 8 '47

Importance of medical statistics in social insurance. N. Marx. Int Labour R 56: 21-38 J1 '47

Industry committee to study A.&H. minimum benefits. Nat Underw 52:21+ Ap 15 '48; Same abr. Nat Underw (Life ed) 52:3+ Ap 16 '48

National health assembly debates health insurance. East Underw 49:36 Je 25 '48

National health programmes. Economist 155: 462-3 S 18 '48

Progress in group medical-hospital expense field. A. Pike, Jr. East Underw 49:30 Ja 2 '48

Progress of health security legislation in the United States. Int Labour R 57:26-42 Ja-F '48

Road ahead; Boston address. J. F. Pollmann, Jr. Life Ins Courant 53:49-50 My '48; Same abr. Weekly Underw 158:1050+ Ap 3 '48

Small federal group promotes compulsory cover. E. H. O'Connor. Weekly Underw 158:605-6 F 21 '48

State-sponsored cash sickness plans. L. P. Henry. Nat Underw 52:19+ Je 3 '48

Trends in voluntary medical care programs; symposium of American association of university teachers of insurance, Dec. 29, Chicago; abstracts. F. Lang and others. East Underw 49:27+ Ja 2 '48; Nat Underw 52: 13 Ja 1 '48; Nat Underw (Life ed) 52:6 Ja 2 '48

See also

Insurance, Accident	Insurance, Surgical
Insurance, Disability	expense
Insurance, Hospitalization	Medical service—
Insurance, Medical	Group and prepay-
expense	ment plans

also Bureau of accident and health underwriters; Health and accident underwriters conference; National association of accident and health underwriters

Employees' insurance

Labor consultant tells how to ward off federal plan. M. E. Segal. Nat Underw 52:19 O 23 '48; Same. Nat Underw (Life ed) 52:6 O 29 '48

Sickness insurance; its meaning for management. J. J. Wittmer. Ind Med 17:149-50 Ap '48

Wide use of voluntary group health is shown. R. A. Hohaas. East Underw 49:11 My 7 '48; Same. Weekly Underw 158:1481 My 15 '48; Excerpts. Nat Underw 52:30 My 6 '48; Nat Underw (Life ed) 52:2 My 7 '48

INSURANCE, Health—Continued

Finance

- Accident and health insurance by states, 1947; hospitalization plans included; tabulation. Spectator (Property ed) 14:24 O 21 '48
- A.&H. premiums near billion dollar mark. J. L. Schatz. Spectator (Property ed) 14:12-14+ S 9 '48
- Leading producers of group A. & H. premiums; ranking individual positions nationally and by states based on net premiums written in 1945 and 1946; tabulation. Spectator (Life ed) 155:44-7 O '47
- 1947 A.&H. net premiums of leading companies show sizable gains over 1946; tabulation. East Underw 49:36-7 F 20; 34 F 27 '48
- Operating and financial aggregates for 1946 and 1947 of the accident and health business; tabulation. Spectator (Property ed) 14:36-7 S 9 '48

Legislation, Proposed

- A.&H. men hear discussion of U.S. health bills. B. Furman. Nat Underw 51:27 O 30 '47; Same. Nat Underw (Life ed) 51:16 O 31 '47
- Brookings institution survey under attack; review issued by Senate subcommittee. East Underw 49:25 Ag 6 '48
- Brookings report assails compulsory health cover idea. Nat Underw 52:23 Mr 18 '48; Same abr. Nat Underw (Life ed) 52:3 Mr 19 '48
- Chamber of commerce keeping in close touch with A.&H. legislative developments at Capitol. Weekly Underw 159:616+ S 18 '48; Same cond. East Underw 49:50 S 17 '48
- Compulsory health insurance scored by Brookings report. Weekly Underw 158:927 Mr 20 '48; Same abr. East Underw 49:43 Mr 19 '48
- Concerned over state health insurance bills. H. E. Ritter. East Underw 49:31 JI 2 '48
- Opposes federal health insurance. H. R. Gordon. East Underw 49:28 Je 18 '48; Same. Nat Underw 52:15 Je 17 '48
- Peril in socialization trends. G. H. Knight. East Underw 49:44 Mr 12 '48
- Testimony on federal health bills before health subcommittee of Senate's committee on labor and public welfare. M. Shearson. East Underw 49:40 Mr 5 '48
- Truman asks extension of social security; favors health insurance. East Underw 49:9 Ja 16 '48
- U.S. Chamber discusses federal cash sickness plans. East Underw 49:50 S 17 '48

Mathematics

- Actuarial estimates for public sickness insurance plans. A. M. Niessen. bibliog Am Stat Assn J 43:61-73 Mr '48

Risks

- Underwriting forum of Health and accident underwriters conference brings out current thinking on risk handling. W. L. Clapp. East Underw 49:36+ F 13 '48

Statistics

- Growth of A. & H. insurance, 1920-1947; chart. East Underw 49:27 Ag 6 '48
- Half employed population has sick coverage; U.S. Chamber survey. Nat Underw 52:21 S 16 '48; Same. Nat Underw (Life ed) Daily ed 52:14 S 16 '48

Connecticut

- Connecticut medical plan termed hoax; J. Peters. Weekly Underw 157:1383 N 29 '47
- Health plans galore proposed in Connecticut. Nat Underw 51:26 D 11 '47; Same. Nat Underw (Life ed) 51:10 D 12 '47
- 75 per cent of Connecticut workers have sickness insurance. Nat Underw 52:21 JI 15 '48; Same. Nat Underw (Life ed) 52:2 JI 16 '48

Great Britain

- Appointed day; national health service. Economist 154:789-90 My 15 '48; Correction. 154: 836 My 22 '48

Greece

- Insurance against tuberculosis in Greece. Int Labour R 58:395-6 S '48

Rhode Island

- Rhode Island medical society approves covers; contracts submitted by five carriers agreeable to medical men. Weekly Underw 158: 316-17 Ja 24 '48

San Francisco

- San Francisco worried by health service system; city employees covered under compulsory system may be left without care as physicians resign. Weekly Underw 157: 1265 N 15 '47

Sweden

- National sickness insurance in Sweden. Int Labour R 56:193-5 Ag '47

Wisconsin

- Urges agents to support Wisconsin plan. J. D. Rogers. Nat Underw 51:28 N 13 '47; Same. Nat Underw (Life ed) 51:14 N 14 '47

INSURANCE, Horse

- North America discontinues writing race horse mortality. Nat Underw 51:2 N 27 '47

INSURANCE, Hospitalization

- Accident and health insurance by states, 1947; hospitalization plans included; tabulation. Spectator (Property ed) 14:24 O 21 '48
- Adequacy of Blue Cross payments to hospitals studied; analysis is under way at Philadelphia. Nat Underw 52:21 Ag 12 '48
- British Columbia hospital insurance; government plan ousts Blue Cross; modifies company plans. East Underw 49:3 Ag 20 '48
- British Columbia insurers won't drop group cover because of government plan. Nat Underw 52:32 S 23 '48; Same. Nat Underw (Life ed) 52:15 O 1 '48
- Chicago Blue Cross raise doesn't bring insurers business. Nat Underw (Life ed) 52:9 Ag 20 '48; Same. Nat Underw 52:6 S 23 '48
- Chicago Blue Cross rate hike provides group insurers entree. Nat Underw 52:33 My 6 '48
- Continental Casualty has new hospital policies. East Underw 49:35 My 21 '48
- Hospitalization is key to group. J. A. Churchman. Nat Underw 52:21 Ja 8 '48; Same. Nat Underw (Life ed) 51:15 D 5 '47
- John Marshall fined \$600 for Michigan group violations. Nat Underw 52:13 Ja 22 '48; Same. Nat Underw (Life ed) 52:4 Ja 23 '48
- New York Blue cross to assist hospitals in crisis; payment of \$1,300,000 in additional funds. Weekly Underw 157:1588 D 20 '47
- New York Blue cross uses fluctuating payment basis. Nat Underw 52:25+ S 9 '48
- Rhode Island medical journal upholds profit motive in hospital-medical coverage. Nat Underw 52:18 JI 15 '48; Same. Nat Underw (Life ed) 52:2+ JI 16 '48
- Today's hospital policies more favorable to policyholders; Conference companies have greatly improved coverage. I. A. Weaver. East Underw 49:25+ JI 23 '48; Same. Weekly Underw 159:165+ JI 24 '48; Same cond. Nat Underw 52:13 JI 22 '48; Same cond. Nat Underw (Life ed) 52:3+ JI 23 '48
- Trend toward broader hospital cover. I. A. Weaver. East Underw 48:34 N 21 '47; Same. Weekly Underw 157:1316 N 22 '47
- Underwriting is big weakness of Blue Cross plans; abstract. W. C. Hodges. Nat Underw 52:24 Mr 25 '48; Same. Nat Underw (Life ed) 52:3 Mr 26 '48
- See also
- Insurance, Medical expense Insurance, Surgical expense
- INSURANCE, Household furniture
Dwelling and contents form 49. E. F. Hol-loran. Rough Notes 91:30+ S '48
- INSURANCE, Improvements and betterments.
See Insurance, Fire—Improvements and betterments policies
- INSURANCE, Industrial
Debit ordinary nipped by high cost of living, group boom. Nat Underw (Life ed) 52:1 Ja 9 '48

INSURANCE, Industrial—Continued

Economic place of industrial. M. B. Williams. Nat Underw (Life ed) 52:16 O 1 '48
 Monthly ordinary placed on basis like industrial; Southern Life and Health sets up ordinary debits. Weekly Underw 158:389 Ja 31 '48
 Some factors lowering industrial expense. M. E. Davis. East Underw 49:4 Je 25 '48
 Work of industrial companies should be extended. J. D. Moynahan. East Underw 49:11 My 21 '48

Adjustment of claims

Recovery under industrial policy conditioned on surrender of policy by beneficiary within 30 days of insured's death. Weekly Underw 159:414 Ag 21 '48

Agents

Debit agents prove group "bird dogs"; seek prospects in neighborhoods they canvass. Nat Underw (Life ed) 52:7 F 13 '48
 Knowledge in action is power. E. L. Walker. Life Ins Courant 53:21-5 Je '48
 Looking at a debit career. R. L. Walker. Life Ins Courant 53:17-20 My '48
 Visual selling tools. R. L. Walker. Life Ins Courant 53:19-20+ S '48

Salaries and commissions

Expense limit effect on retroactive pay boost left to N.Y. state court; case of Paris and others against Metropolitan Life. Nat Underw (Life ed) 52:10 My 21 '48

Service

Service attitude pays off. R. L. Walker. Life Ins Courant 53:9-11 Jl '48

Statistics

Life insurance by states, industrial; 1946 and comparisons; tabulation. Spectator (Life ed) 155:17 O '47
 Life insurance by states, industrial; 1947 and comparisons; tabulation. Spectator (Life ed) 156:23 O '48

INSURANCE, Infantile paralysis

Companies insure against polio in current epidemic in North Carolina. East Underw 49:30 Ag 27 '48
 Polio insurers in Texas join to improve practices. Nat Underw 52:22+ O 14 '48; Same. Nat Underw (Life ed) 52:8 O 15 '48

INSURANCE, Inland marine

Inland marine capable of meeting conditions. D. H. Davies. Weekly Underw 158:1170+ Ap 17 '48

See also

Insurance, Ballees' customers	Insurance, Furriers' customers
Insurance, Camera	Insurance, Jewelry
Insurance, Cold storage locker	Insurance, Motor truck contents
Insurance, Contractors' equipment	Insurance, Musical instruments
floaters	Insurance, Parcel post

also Inland marine insurance bureau

Adjustment of claims

Circumstantial evidence sufficient to prove loss by theft within coverage of inland marine policy. Weekly Underw 157:1539 D 13 '47

Courts hold Railway Express receipts limit liability. Nat Underw 51:16 N 6 '47
 Inherent vice. W. M. Mortimer. Weekly Underw 159:580-1 S 11 '48

Inland marine adjusters should be conversant with "invisible terms" of policy. H. S. Daynard. Weekly Underw 158:232-3+ Ja 17 '48; Excerpts. East Underw 49:22 Ja 16 '48

Marine rule on concealment goes for inland cover. Nat Underw 52:5 Jl 15 '48

Salesmen's floater policy; which concealment rule, marine or ordinary? J. L. Roesch. Spectator (Property ed) 14:24-5+ Jl 22 '48
 Son member of father's household within coverage of personal property floater though absent in military service. Weekly Underw 158:1414 My 8 '48

Timely filing of claims of importance to all concerned. H. S. Daynard. Weekly Underw 159:754-6+ O 2 '48

Uniform bill of lading presents problems to inland marine claims men. bibliog Weekly Underw 158:651+, 803+, 887-9+ F 28, Mr 13-20 '48
 Use of phrase "or otherwise" in transit policy does not extend basic coverage. East Underw 49:27 Ag 20 '48

Agents

Inland marine lines offer big possibilities. P. J. Leen. Nat Underw 52:7 Mr 4 '48
 Sales ideas given on jewelry, furs PPF, cold storage locker plants. L. B. Menner. East Underw 48:24 O 31 '47; Same cond. Nat Underw 51:11 N 13 '47
 Taking a realistic look at personal property floater; inland marine means commissions. E. M. Kelly. Weekly Underw 158:1172+ Ap 17 '48

All-risk policies

What does all risks mean? W. H. Rodda. Rough Notes 91:38-40 Ag '48; Same cond. Nat Underw 52:2+ Jl 29 '48; Abstract. Weekly Underw 158:1232 Ap 24 '48

Claims

See Insurance, Inland marine—Adjustment of claims; Insurance, Inland marine—Fraudulent claims

Coverage

Agents and brokers, handling inland marine, should meet coverage needs of assureds. E. J. Moran. Weekly Underw 158:1098+ Ap 10 '48; Same abr. East Underw 49:23 Ap 30 '48; Excerpts. Nat Underw 52:2 Ap 8 '48

Finance

Direct premiums on inland marine for 1947; with tabulation of premiums and losses by lines for stock and mutual companies. East Underw 49:1+ Ag 6 '48; Same. Nat Underw 52:10 Ag 5 '48

How the company groups stand on inland marine income in 1947; tabulations. East Underw 49:35-8+ Mr 19 '48

Inland marine lines show large premium increases for 1947. East Underw 49:1+ Ja 2 '48

Inland marine lines show premium gains for first six months. East Underw 49:1+ Jl 9 '48

Inland marine premium writings for 1947 and comparisons for 1944-1946; with tabulation by company. East Underw 49:31+ Mr 19 '48

Inland marine premiums-losses for 1947; tabulation by company. East Underw 49:40+ Mr 19 '48

PPF results in Canada; 1947 loss ratio 58 per cent. East Underw 49:26 My 14 '48

Fraudulent claims

Need of inland marine claim bureau. S. Berger. Nat Underw 51:2 N 6 '47; Same cond. East Underw 48:26 N 7 '47

Policies

Coverages and forms; garment contractors insurance. Spectator (Property ed) 13:8-9 N 13 '47

Sell pattern floaters. Rough Notes 90:44-6 D '47

Personal property floater

\$50 deductible PPF form issued by mutuals. East Underw 48:27 D 5 '47; Nat Underw 51:1 D 4 '47; Weekly Underw 157:1410 D 6 '47

How to sell the personal property floater. C. A. Kirkland and others. Rough Notes 91:21-6 S '48

Marked growth in personal property floater insurance. L. M. Baldwin. East Underw 48:1+ D 19 '47

Personal property floater. H. O'Loughlin. Weekly Underw 157:1366+ N 29 '47

Personal property floater; analysis of policy. Rough Notes 91:69-70 S '48

Personal property floater contract contains some interesting angles for claim men. Weekly Underw 157:1114-17+ N 1 '47

Personal property floater selling discussed. U.M. Leill. East Underw 49:22 O 29 '48

INSURANCE, Inland marine—Continued

Prospects

All who ship or receive are prospects for transportation cover, P. J. Leen. Nat Underw 52:2 My 13 '48
\$5 and \$10 business. C. Von Pechmann. Rough Notes 91:54-5 Mr '48

Risks

Weigh television set coverage, Nat Underw 52:9 JI 15 '48

Valuation of property

Estimating PPF values, Rough Notes 91:60-1 Je '48
How to make inventories for personal property floaters, B. Bailey. Rough Notes 91:32+ JI '48

Wisconsin

Inland marine auditing rule in Wisconsin big issue, Nat Underw 52:3 JI 8; 1 JI 15 '48

INSURANCE, Jewelry

All risk policy on diamond ring; Ludeau v. Phoenix insurance co. J. L. Roesch, Spectator (Property ed) 13:10-11 D 11 '47
Assured's insurable interest in diamond set in engagement ring lost when given to fiancée, Weekly Underw 157:1606 D 20 '47
Classification of diamonds; how to describe the various cuts on your inland marine applications, Rough Notes 91:48-9 Ja '48

INSURANCE, Leasehold

Lease agreement problems, G. E. Myers. Rough Notes 90:28+ O; 36 D '47

INSURANCE, Liability

Contingent liability exposures and coverages, H. P. Stellwagen. Weekly Underw 158:723-5+, 851-2 Mr 6-13 '48; Excerpts. East Underw 49:27+ F 27 '48; Management R 37:323-30 Je '48
Don't overlook your vandalism prospects; value of comprehensive personal liability, J. B. Harris. Il Rough Notes 91:30 Ap '48
Increased interest in fair liability, Nat Underw 51:26 N 13 '47
Must strive for correct measure of public liability exposure, J. O. Honeywell. Nat Underw 52:19 O 28 '48
Radio station liability, J. B. Walker. Rough Notes 91:20+ F '48

See also

Insurance, Accountants' liability
Insurance, Automobile
Insurance, Contractors' public liability
Insurance, Druggists' liability
Insurance, Employers' liability
Insurance, Fire—
Liability property damage policies
Insurance, Liquor law liability
Insurance, Malpractice liability

Insurance, Morticians' liability
Insurance, Motor bus
Insurance, Motor truck
Insurance, Owners', landlords' and tenants' public liability
Insurance, Products liability
Insurance, Warehousemen's liability
Insurance, Workmen's compensation

Adjustment of claims

Allegation of suit governs insurer's duty to defend; Goldberg vs. Lumber Mutual Casualty, Nat Underw 52:30 Ap 8 '48
Complaint alleging state of facts within coverage of policy obligates insurer to defend assured, Weekly Underw 158:854 Mr 13 '48
Duty to defend and duty to pay; public liability policies covering business operations, J. L. Roesch, Spectator (Property ed) 13:10-11 Mr 25 '48
Duty to defend; Goldberg v. Lumber mutual casualty insurance co. of New York, J. L. Roesch, Spectator (Property ed) 13:10-11+ F 26 '48
Insurer's duty to defend actions, J. P. Faude. East Underw 49:28+ S 3 '48
Lloyds wins Hotel La Salle issue, Nat Underw 52:22 Je 17 '48
Minor illegally employed held not employee within exemption of public liability policy, Weekly Underw 159:103 JI 10 '48
Water damage exclusion in liability policy upheld, Nat Underw 52:28 Ag 12 '48

Agents

How to sell comprehensive general liability, A. H. Criddle and others, Rough Notes 90:19-24 O '47
Practical tips on selling liability, R. D. Hodson, Nat Underw 52:33-4 S 23 '48
Sales clinic on ways to sell personal liability, H. Huston; A. L. Mader, Rough Notes 91:18+ Ja '48

Farm policies

Companies cool off on farm liability policy, Nat Underw 52:17 JI 15 '48
Coverages and forms; farmer's comprehensive personal liability form, Spectator (Property ed) 13:8-9 Mr 11 '48
Farmers comprehensive personal liability policy, Rough Notes 91:57-8 Ag '48
How we are selling farm liability, R. E. Austin, Rough Notes 91:20+ S '48
New farmer's comprehensive personal liability policy, C. J. Haugh, Weekly Underw 158:1462-4, 1521+ M 15-22 '48; Excerpts. East Underw 49:34-5 Ap 16 '48; Nat Underw 52:12 Ap 15 '48

Policies

Coverages and forms; storekeeper's liability policy, Spectator (Property ed) 13:3 Mr 25 '48
Good news for your grocer; storekeeper's liability policy, H. W. Mueller, Rough Notes 91:19-20 My '48
Lauds storekeepers liability form, F. W. Potter, Nat Underw 52:22 Mr 4 '48
Storekeepers and farmers policies now on counter, Nat Underw 52:13 Ja 22 '48; Same, Weekly Underw 153:394 Ja 24 '48
Storekeeper's liability policy, A. H. Criddle, Weekly Underw 158:1184-6 Ap 17 '48; Excerpts, Nat Underw 52:17 Ap 8 '48
Storekeeper's liability policy, Rough Notes 91:69-70 Je '48

Purchasing

Metered liability protection; preparing a comprehensive general liability policy for a typical manufacturing plant, J. Wightman, Jr. Il Spectator (Property ed) 14:10-13 JI 22 '48

Rates

Plan D effective in 35 states for one or more lines, Nat Underw 52:17 F 26 '48
Some aspects of new rating plans for workmen's compensation, liability, S. E. Smith, Nat Underw 51:21 D 11 '47

INSURANCE, Libel

Newspapers buy libel and slander excess cover; radio stations need it, too, East Underw 48:87+ D 19 '47

INSURANCE, Life

Actuaries relate reaction to new CSO policies, rates, Nat Underw (Life ed) 52:4 My 21 '48
Adequate marketing research called greatest life business need, A. C. Nielsen, Weekly Underw 158:1473 My 15 '48; Same abr. East Underw 49:5 My 14 '48; Excerpts, Nat Underw (Life ed) 52:1 My 14 '48
Administration operations of life insurance companies, E. Fitzgerald and others, Il East Underw 49:11-13+ pt 2 O 8 '48
Endorsement of life insurance; presidents, railroad executives, educators, actors and actresses, etc. Spectator (Life ed) (Endorsement no 1947-1948) 155:5-36, 38-49+ N '47
Eyes minus, plus factors at midyear, C. J. Zimmerman, Nat Underw (Life ed) 52:1 JI 2 '48; Same abr. Weekly Underw 159:5+ JI 3 '48
Great production years ahead; Chicago address, D. B. Woodward, Nat Underw (Life ed) 51:14 D 5 '47
John Newton Russell award, East Underw 49:12 My 28 '48
Life insurance companies can speak for America, P. F. Clark, Weekly Underw 158:1587+ My 29 '48
Management's responsibility; address before Penn Mutual club conference, Boca Raton, Fla., J. A. Stevenson, Life in Court 63:6-9 S '48; Abstracts, East Underw 49:12-13 Ap 23 '48; Weekly Underw 158:1053+ Ap 3 '48

INSURANCE, Life—Continued

- Metropolitan Life analyzes market before entering new territory. Nat Underw (Life ed) 52:6 O 22 '48
- Review of 1947. C. C. Klocksins. East Underw 49:3+ Ja 2 '48; Same. Life Ins Courant 53: 6-9+ F '48; Same. Nat Underw (Life ed) 52:2+ Ja 2 '48; Same. Spectator (Life ed) 155:16-19 Ja '48
- Russell award goes to F. H. Ecker. Nat Underw (Life ed) 52:3+ S 10 '48; East Underw 49:8 S 10 '48
- Seven federal laws affect regulation of all insurance; significance to life insurance. R. M. Trump. East Underw 49:1+ Ag 6 '48
- Some interesting aspects of the 1948 life insurance market; sound demand shown. H. R. Smith. Weekly Underw 158:36-7+ sec 2 My 8 '48
- Superior performance is defense against attacks; abstracts. R. Hull. Weekly Underw 158:1537 My 22 '48; Nat Underw (Life ed) 52:6 My 21 '48
- Treats issues of hour with frankness; address before New York City Life underwriters assn. L. A. Lincoln. Nat Underw (Life ed) 52:1+ F 27 '48
- Unfolds fascinating vista of market research's role. A. C. Nielsen. Nat Underw (Life ed) 51:6 N 21 '47
- What's ahead? life insurance markets; address before L.I.A.A. D. B. Woodward. Spectator (Life ed) 155:17-18 N '47
- Why life insurance? by J. S. Drewry; review. East Underw 49:86-7+ pt 2 O 8 '48
- With American railroaders; leaders of railroads believe in life insurance. Il Spectator (Life ed) (Endorsement no 1947-1948) 155:8-23 N '47
- Zurich Life of N.Y. organized; to write group life. East Underw 48:1+ O 31 '47

See also

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|-----------------------|---------------------------------------|
| Annuities | Insurance, Military and naval service |
| Benefit societies | Insurance, Business |
| Insurance, Business | Military service—Insurance aspects |
| Insurance, Group life | Savings banks—Insurance selling |
| Insurance, Industrial | |
- also Actuarial society of America; American Institute of actuaries; American life convention; Colonial insurance company of America; Continental assurance company; Illinois bankers life assurance company; Institute of life insurance; John Hancock mutual life insurance company; Life insurance agency management association; Metropolitan life insurance company; Prudential insurance company of America

Actuaries**See Insurance actuaries****Adjustment of claims**

- Deposit of premium without knowledge of applicant's death not waiver of lack of approval of application. Weekly Underw 157:1147 N 1 '47
- Down to cases. L. A. Burke. Spectator (Life ed) 155:65-6 Ja '48 [cont monthly]
- Lay testimony made question of health of insured for jury despite medical opinion to contrary. Weekly Underw 158:1542 My 22 '48
- Operations of the claim department. J. B. Northrop. East Underw 49:36 pt 2 O 8 '48
- Penalty for bad faith refusal to pay sustained although age of insured was question for jury. Weekly Underw 158:1866 Je 26 '48
- Prudential authorizes local payment system for handling death claims. East Underw 49:7 Je 18 '48; Same. Weekly Underw 158: 1799 Je 19 '48; Same cond. Nat Underw (Life ed) 52:2 Je 18 '48

See also

- | | |
|-------------------|----------------------|
| Insurance, Life— | Insurance, Life— |
| First-year claims | Suicide death claims |
- Advertising**
- Agent and advertising; how the company can build prestige for the agent. E. Churchill. Life Ins Courant 53:26-32 My '48
- Co-operative advertising in Canada. R. L. Foster. Spectator (Life ed) 155:30 N '47
- Copy clinic. B. Tyler. Il Adv & Sell 41:37+ Ap '48

- Distribution major problem of business; management viewpoint on advertising. V. B. Coffin. East Underw 49:7 O 29 '48
- Institute ads have favorable response. M. F. Hanson. East Underw 49:14 My 14 '48
- Institute contacts through publications. W. E. Schneider. East Underw 49:14-15 My 14 '48
- Life Advertisers awards. Nat Underw (Life ed) 51:3 O 31 '47
- Material to motivate agents; a survey of life insurance advertising and sales promotion literature. K. H. Mathus. Spectator (Life ed) 155:32-4+ Ja; 8-15 F; 12-18+ Mr; 18-21+ Ap; 18-25+ My; 18-24+ Je '48
- National magazine advertising. K. H. Mathus. Il Spectator (Life ed) 156:24-9+ Jl '48
- Newspaper advertising. K. H. Mathus. Il Spectator (Life ed) 156:20-5+ Ag '48
- 1948 advertising by life insurance companies in magazines of national circulation. C. E. Mayfield. East Underw 49:44+ pt 2 O 8 '48
- \$3,262,348 spent by life companies in 1947 magazine advertising. Nat Underw (Life ed) 52:6 F 13 '48
- Urges promotional material geared to top grade agents; abstracts. W. R. Jenkins. Nat Underw (Life ed) 51:3+ O 31 '47; Weekly Underw 157:1138-9 N 1 '47

See also

- Life insurance advertisers association

Agency management

- Agency cashier can fortify good will. H. B. Underwood. Weekly Underw 158:469-70 F 7 '48
- Annual midwest management conference. French Lick, Ind. Nat Underw (Life ed) 52:52-6+ Ap 16 '48
- Closer relations between agent and manager needed. Nat Underw (Life ed) 52:17 Ag 20 '48
- Conference of general agents and managers section of New York state life underwriters association, Saratoga Springs, N.Y. Feb. 27-28. East Underw 49:1+ 4+ Mr 5 '48
- Excellent discussions feature Provident Mutual general agents' meeting at Banff, Canada. Weekly Underw 159:650+ S 18 '48
- Financing of new men in field. H. C. Skiff. East Underw 48:8 N 28 '47
- First New England management conference, Swampscott, Mass. May 20-21. Nat Underw (Life ed) 52:3+ My 28 '48; East Underw 49: 10 Je 11 '48
- Home office agency department operations. E. G. Johnson. East Underw 49:17+ pt 2 O 8 '48
- Illinois managers hear talks on recruiting, training. Nat Underw (Life ed) 51:8 D 5 '47
- Merchandising trends. J. A. McLain. East Underw 49:7+ Mr 5 '48
- Must know financial facts of an agency. E. J. Moorhead. East Underw 49:13 My 28 '48
- Painstaking planning key to Campbell's no. 1 rank. R. E. Richman. Nat Underw (Life ed) 52:9+ O 1 '48
- Quiz in Los Angeles on supervisory methods. Nat Underw (Life ed) 51:16 N 28 '47
- Responsibility and response in agency management. C. J. Zimmerman. East Underw 49:120+ pt 2 O 8 '48
- Responsibility to agents is stressed by managers at NALU Louisville meeting. Nat Underw (Life ed) 52:2+ Mr 26 '48
- Sun is rising for management. J. M. Holcombe, jr. Nat Underw (Life ed) 51:5 N 21 '47
- Training techniques highlight managers' New York forum of Atlantic alumni of L.I.A.M.A. school. Nat Underw (Life ed) 52:1+ Ap 30 '48
- West coast session on management at Los Angeles. Nat Underw (Life ed) 52:13 My 28 '48
- What's ahead? sales management; abstracts. W. R. Jenkins. Spectator (Life ed) 155: 18-20 N '47; Nat Underw (Life ed) 51:3+ O 31 '47; Weekly Underw 157:1138-9 N 1 '47

See also

- Life insurance agency management association

INSURANCE, Life—Agency management—
*Continued**Accounting*

Life agency expense rule cited; New York department interprets voucher requirements as to general agents. Weekly Underw 159:425-+ Ag 28 '48; East Underw 49:11 Ag 27 '48; Nat Underw (Life ed) 52:14 Ag 27 '48

Agency managers

C. W. Hamlin, Jr., using father's ideas, new associate general agent, Mutual Benefit, Buffalo, East Underw 49:18 F 13 '48
Conference of general agents and managers section of New York state life underwriters association, Saratoga Springs, N.Y., Feb. 27-28. East Underw 49:1-+, 4-+ Mr 5 '48
Connecticut Mutual general agents meet in Florida, East Underw 49:3-+ Ja 16 '48
Managerial functions, O. Bethea, East Underw 48:14 N 7 '47
Massachusetts Mutual general agents association meeting, Coronado, Calif. East Underw 48:10 O 31 '47
Most New York city general agents see successful period ahead. Nat Underw (Life ed) 52:19 Ap 9 '48
Seeks local study classes at supervisory level, B. A. Hedges. Nat Underw (Life ed) 52:1-+ Ag 6 '48
Urges managers to take more interest in public relations, G. Griswold. Nat Underw (Life ed) 52:6 My 14 '48

See also

Life managers' association of greater New York

Agents

Agent's importance, B. Epstein. Life Ins Courant 53:16-17 S '48
Agent's role in underwriting, H. W. Dingman, J. C. Benson. Nat Underw (Life ed) 52:20 F 27 '48
Appraising sales procedure in today's market, H. Krueger, Weekly Underw 158:200-2, 245-7 Ja 10-17 '48; Same abr. Spectator (Life ed) 155:28-30-+ My '48; Excerpts, East Underw 49:12 Ja 23 '48; Nat Underw (Life ed) 52:4 Ja 16 '48
Are you an executive? characteristics of the successful underwriter, H. Van Cleave. Life Ins Courant 53:6-12 Ag '48
Are you willing to pay the price for success? C. J. King. Spectator (Life ed) 156:12-13-+ JI '48; Same cond. Life Ins Courant 53:22-4 My '48
Average man can increase stature, P. F. Clark, East Underw 49:13 Mr 26 '48
Be different, B. Epstein. Life Ins Courant 53:19-20 Je '48
Changes to CSO basis generate sales ideas. Nat Underw (Life ed) 52:17 Ap 9 '48
Composite million dollar round table member shown in survey, East Underw 49:8 S 24 '48
Contests; value of special campaigns or president's months, B. Epstein. Life Ins Courant 53:5 Ag '48
Daily work schedule of a successful agent offered as foundation for self-discipline, D. G. Liggett, Weekly Underw 157:1143 N 1 '47
Doing what comes naturally, J. S. Spencer, II Life Ins Courant 53:47-8 My '48
Field for marketing technique, W. C. Jainsen, East Underw 49:32 My 28 '48
Finding time to sell, M. L. Lane, Rough Notes 91:52-3-+ Je '48
Gold book of life insurance selling, East Underw 49:11-153 pt 2 O 8 '48
Habit and time control, J. V. Le Laurin, Life Ins Courant 53:15-17 Je '48
How agent paid for 101½ lives, H. J. Stoltz, East Underw 49:4-+ JI 30 '48
How to be your own efficiency expert, S. Hayes, Nat Underw (Life ed) Daily ed 52:6-+ S 17 '48; Excerpt, Weekly Underw 159:858-+ O 9 '48
How to write a lot in a small town; interview with L. J. Kuder, L. K. Porritt, Life Ins Courant 53:19-21 O '48
How to write a million a year and more, R. Stever, Spectator (Life ed) 155:10-12-+ Je '48

If the insurance agent is a professional man, why must he solicit business? Life Ins Courant 53:41 Ap '48
Illinois association confab with local, N.A.L.U. men stirs interest. Nat Underw (Life ed) 51:1-+ N 28 '47
Improving on "street agent"; editorial, Nat Underw (Life ed) 52:12 Ap 9 '48
Jamison & Phelps again top agency of Northwestern Mutual, Nat Underw (Life ed) 52:6 Ja 16 '48
John Hancock's new motivator; The patriot, II Spectator (Life ed) 155:35 Ja '48
John Hancock's new publication for district agents, East Underw 48:3-+ N 7 '47
John W. Yates 25 years with Massachusetts Mutual Life, East Underw 49:3 Ag 20 '48
Know the answers to the prospect's objections, A. D. Panet, Spectator (Life ed) 155:18-19 F '48
Life underwriting as a professional career, by T. B. Sweeney; review, East Underw 49:14 JI 16 '48
Million dollar policy, J. H. Greene, Life Ins Courant 53:12-13 Je '48
Million-dollar producer; nine outstanding qualifications, J. G. Ranni, Weekly Underw 157:1387 N 29 '47
Million dollar round table at new peak; roster of members, Nat Underw (Life ed) 52:1-+ S 10 '48; Nat Underw (Life ed) Daily ed 52:22-3-+ S 17 '48
Million dollar round table meeting, French Lick Springs, Ind. East Underw 49:10 S 24 '48; Nat Underw (Life ed) 52:1-+ S 24 '48; Spectator (Life ed) 156:78-80 O '48
Murrell brothers survey shows success of transplanted agents in California, East Underw 49:19 O 15 '48; Same cond. Nat Underw (Life ed) 52:17 O 15 '48
Mutual Benefit's Miami agency, East Underw 49:13 My 14 '48
Mutual Benefit's new Analograph fits into coat pocket; mechanical device for use of agents, II East Underw 48:3-+ O 3 '47; Spectator (Life ed) 155:42 N '47
National quality award, Life Ins Courant 53:37 Ap '48
1948 earnings; a plan to help you forecast your own production, Life Ins Courant 53:16-17 F '48
Objections; ways to handle them, Life Ins Courant 53:23 F '48
Organize today for maximum efficiency, L. Ramsey, Spectator (Life ed) 156:20-3-+ JI '48
Producers must accept share of responsibility placed upon American people as a result of our position in world affairs, J. F. Malone, Jr. East Underw 48:4-+ D 5 '47
Production insurance, G. S. Cutini, Spectator (Life ed) 156:12-13-+ Ag '48
Publications addressed to agents, K. H. Mathus, II Spectator (Life ed) 155:8-15 F '48
Put more stress on retirement income; twenty rules for sale of life insurance, R. G. Engelsman, East Underw 49:3-+ Mr 12 '48; Excerpts, Nat Underw (Life ed) 52:1 Mr 12 '48
Sales philosophy, G. A. Walter, Life Ins Courant 53:20-1-+ Ja '48
Sharpen your salesmanship, E. Doyle, Life Ins Courant 53:31-2 Ap '48
Shep Homans 50 years in Equitable, C. Axman, East Underw 49:3 S 3 '48
Slumps; how to combat them, B. Epstein, Life Ins Courant 53:19-20 JI '48
Snowball effect of making extras stick, Q. L. Ching, Nat Underw (Life ed) Daily ed 52:10-+ S 17 '48
Stresses asset value of field forces, A. E. Patterson, Nat Underw (Life ed) 52:7 S 17 '48
Success essential; co-ordinate management, capital and labor, D. A. Kaufman, Spectator (Life ed) 155:28-30-+ Je '48
Successful selling, F. H. Beach, Life Ins Courant 53:33-5 Ag; 39-41 S '48
Those listed in Prominent life underwriters of America came from many fields, East Underw 49:3 Je 18 '48
Tips from NALU Million dollar round table speakers on current selling issues, R. W. Brinton and others, Weekly Underw 159:704-+ S 25 '48

INSURANCE, Life—Agents—Continued

20 basic selling principles. R. G. Engelsman. Spectator (Life ed) 156:15+ Ag '48
 Use sales allies for alert selling. E. M. Schwemm. Life Ins Courant 53:10-14 S '48
 Vets now being employed prove to be good agents. Nat Underw (Life ed) 52:3 Je 4 '48
 What's ahead? fieldman's viewpoint. E. S. Churchill. Spectator (Life ed) 155:26-7 N '47
 Why I chose life insurance. H. O. Griffith. East Underw 49:4 S 24 '48
 Work programs; address at NALU convention. P. L. McFarlane. Spectator (Life ed) 156:16-19 S '48; Same cond. Nat Underw (Life ed) Daily ed 52:8+ S 17 '48
 You must build good will. M. Lane. Rough Notes 91:60-1 Ja; 56-7 F '48
 Your most precious asset; right use of your time. R. W. Campbell. Life Ins Courant 53: 21-2 Jl '48

*See also***Insurance, Life—Prospects**

also Life underwriters association of the city of New York; National association of life underwriters

Advance cards and letters

Blotter service gives agent a track to run on; Macauley system. Nat Underw (Life ed) 52:27 O 15 '48

Approach

Always insists on telephone date; first job is to resell. R. Moore. Nat Underw (Life ed) 52:19 S 24 '48
 Equitable Society's social security manual for agents. East Underw 49:8 F 27 '48
 I believe it. F. A. Ritchie. Life Ins Courant 53:37 Je '48
 Keep it simple; social security as an aid to selling life insurance. E. H. Ames. Life Ins Courant 53:6-8 Jl '48
 My stork club gives bountiful harvest; childrens policies lead to sales to adults. M. C. McKeon. Nat Underw (Life ed) Daily ed 52:29+ S 17 '48; Same. Spectator (Life ed) 156:23-4 S '48
 People; understanding your prospect. R. J. DePau, jr. Spectator (Life ed) 155:8-9+ Je '48
 Personality in action. G. Drake. Spectator (Life ed) 156:26 S '48
 Pre-approach in prospecting. L. R. Agatstein. East Underw 49:32 pt 2 O 8 '48
 Sell 'em the easy way; an effective presentation. J. O. Todd. Spectator (Life ed) 156: 32-4+ Ag '48
 Sell 'em through their hearts; emotional appeal. A. H. Jones. Life Ins Courant 53:7-9 O '48
 Telephone technique. H. R. Kuhn. Life Ins Courant 53:55-8 My '48
 Tell 'em, sell 'em, P. Mucci. Spectator (Life ed) 156:30+ Jl '48
 Uses narrative to show benefits of life program. J. E. Bragg. Nat Underw (Life ed) 51:14-15 D 5 '47

Commissions

Agents' federal taxes; status of the agent's commission interest. R. W. Hamilton. Life Ins Courant 53:19-21 Ap '48
 Georgia court decides commission suit; Camp vs. Mutual Life. Nat Underw (Life ed) 52: 17 Ag 6 '48
 Level group commissions prove increasingly popular. Nat Underw (Life ed) 52:3 O 22 '48; Same. Nat Underw 52:31 N 4 '48

*See also***Insurance, Life—Agents—Salaries***Company relations*

Asks companies to make agents employees. S. D. Weissman. Nat Underw (Life ed) 52:3+ Jl 9 '48
 Difficulty in offering choice of agency contracts. R. C. Guest. Nat Underw (Life ed) 52:3 My 21 '48; Reply. A. S. Carstens. 52:2+ Ag 13 '48
 Factors in rapid growth of Franklin Life; relations with agents. H. J. Burridge. Nat Underw (Life ed) 52:4 Ap 16 '48

Group and pension plans for agents show steady increase; NALU committee report. Nat Underw (Life ed) Daily ed 52:37 S 16 '48
 Home office agency department operations. E. G. Johnson. East Underw 49:17+ pt 2 O 8 '48

Life underwriters association of the city of New York holds field underwriters town meeting. East Underw 49:3 Je 4 '48; Nat Underw (Life ed) 52:1+ Je 4 '48

Metropolitan's compensation plan; awards for agents based on years of service; two per cent collection fee. East Underw 49:10 F 13 '48

NALU requests companies to recognize their agents as employees. East Underw 49:1+ Mr 26 '48; Nat Underw (Life ed) 52:1+ Mr 26 '48

New Pan-American contract recognizes quality factors. Nat Underw (Life ed) 51:6 D 5 '47; Spectator (Life ed) 155:63 Ja '48

Wants companies to have own agents associations; abstracts. S. D. Weissman. East Underw 49:3 Ja 30 '48; Weekly Underw 158: 329 Ja 24 '48

Conventions

Arkansas life underwriters association annual meeting. Little Rock. Nat Underw (Life ed) 52:2 Ap 9 '48

Florida association of life underwriters annual meeting. St Petersburg. Nat Underw (Life ed) 52:2 Je 4 '48

Illinois state association of life underwriters annual meeting. Chicago. Nat Underw (Life ed) 52:2+ Ap 9 '48

Iowa state association of life underwriters annual meeting. Davenport. Nat Underw (Life ed) 52:17 My 21 '48

New Jersey life underwriters association annual meeting. Asbury Park. Nat Underw (Life ed) 52:16 My 21 '48

New York state association of life underwriters annual meeting. Binghamton. May 20. East Underw 49:3-4 My 28 '48; Nat Underw (Life ed) 52:28 My 28 '48

Ohio life underwriters association annual meeting. Cleveland. Nat Underw (Life ed) 52:11 My 21 '48

Pennsylvania association of life underwriters annual meeting. Allentown. May 20-22. Nat Underw (Life ed) 52:1+ My 28 '48

Wisconsin state association of life underwriters annual meeting. Milwaukee. Nat Underw (Life ed) 52:7+ My 28 '48

Legal status

Agents urged to fight for social security rights by defeating Gearhart bill. S. D. Weissman. Weekly Underw 158:752+ Mr 6 '48; Abstract. Nat Underw (Life ed) 52:3 Mr 5 '48

Await regulations on social security status of agents. Nat Underw (Life ed) 51:2+ N 21 '47

Complex character of employment relations; issues involved in Gearhart resolution. E. Thore. East Underw 49:16 Mr 26 '48

Gearhart law poses questions on past deals. Nat Underw (Life ed) 52:3 Je 18 '48

NALU requests companies to recognize their agents as employees. East Underw 49:1+ Mr 26 '48; Nat Underw (Life ed) 52:1+ Mr 26 '48

Reviews agents' social security status; abstracts. V. A. Lutnick. East Underw 49:7 O 8 '48; Nat Underw (Life ed) 52:4 O 8 '48

Senate finance committee hearing on Gearhart resolution. Nat Underw (Life ed) 52: 1 Ap 9 '48

Tentative ruling points to employe status for agents. Nat Underw (Life ed) 51:1+ D 5 '47; East Underw 48:1+ D 5 '47

Letters to prospects

Direct mail. H. C. Coutret. Life Ins Courant 53:17-18 Jl '48

Direct mail cardinal principles. E. N. Mayer, jr. Nat Underw (Life ed) 52:20 O 29 '48

Pensions

Group and pension plans for agents show steady increase; NALU committee report. Nat Underw (Life ed) Daily ed 52:37 S 16 '48

INSURANCE, Life—Agents—Pensions—Cont.

New Pan-American contract recognizes quality factors; pension basis. Nat Underw (Life ed) 51:6-7 D 5 '47; Spectator (Life ed) 155: 63 Ja '48

Northwestern National offers retirement plan to agents. Weekly Underw 158:191+ Ja 10 '48; Same abr. East Underw 49:3 Ja 9 '48; Same abr. Nat Underw (Life ed) 51:6 D 26 '47

Public relations

Wants the agent coached as public relations envoy. R. L. Foster. Nat Underw (Life ed) 51:9 N 21 '47

Salaries

Guardian Life salary experiment. J. A. McLain. Nat Underw (Life ed) 52:15 Mr 5 '48; Same. Weekly Underw 158:769 Mr 6 '48

Incentive salary program by Prudential. Weekly Underw 158:390 Ja 31 '48

Petition U.S. Supreme court in extra-pay case; Metropolitan Life, respondent. Nat Underw (Life ed) 52:4 Ag 13 '48

Sales conventions

Berkshire Life's annual field conference, Palm Beach. East Underw 49:1+, 6 Ja 16 '48

Connecticut Mutual agents conference, Jasper Park, Canada, June 24-26. East Underw 49:1+ JI 9 '48; Nat Underw (Life ed) 52:9 JI 9 '48

Continental assurance company field convention, Chicago. East Underw 49:3+ O 22 '48

Equitable of Iowa convention, Atlantic City, June 21-25. East Underw 49:13 Je 25 '48

Fidelity Mutual field convention, Atlantic City. East Underw 49:3+ My 14 '48

John Hancock leaders meet at Atlantic City. East Underw 49:21 S 17 '48; Nat Underw (Life ed) 52:3+ S 10 '48

John Hancock district agents meeting, Atlantic City. East Underw 49:1+ Mr 19 '48

Massachusetts Mutual leaders club at French Lick, Ind, May 31-June 2. East Underw 49: 3-4 Je 11 '48; Nat Underw (Life ed) 52: 1+ Je 4 '48

Mutual Life top club meeting at Mackinac Island. East Underw 49:3+ S 10 '48

Northwestern Mutual's annual eastern regional meeting, New York, Jan. 2-3. East Underw 49:3-4 Ja 9 '48

Northwestern Mutual's association of agents convention, Milwaukee. East Underw 49:1, 3-4+ JI 30 '48; Nat Underw (Life ed) 52: 1+, 6 JI 30 '48

Ordinary sales opportunities told at Chicago regionals. N. F. Capella and others. Nat Underw (Life ed) 51:6-7 N 7 '47

Peoria sales congress has parade of stars. Nat Underw (Life ed) 51:2 N 28 '47

Producers of \$500,000 discuss topics at Penn Mutual conference, Boca Raton, Fla. Weekly Underw 158:1124-5 Ap 10 '48

Provident Mutual has record turnout at its Banff Springs convention. Nat Underw (Life ed) 52:5+ S 10 '48; East Underw 49: 12+ S 10 '48

Sales congresses hunting new talent. C. Axman. East Underw 49:3 Mr 12 '48

State Mutual Life leaders conference, Mackinac Island, Mich., Sept. 5-7. East Underw 49:3-5, 18-19 S 24 '48

Wisconsin National Life's 1948 agency convention, Mackinac Island, July 19-21. Nat Underw (Life ed) 52:6+ JI 23 '48

Selection

Companies hire fewer agents survey shows. East Underw 49:17 Mr 26 '48

42 per cent of 1946 recruits will be out by end of '47. S. R. Wallace. Nat Underw (Life ed) 51:11 N 14 '47

Hard to find: competition from outside slows agent recruiting. Nat Underw (Life ed) 52: 18 Ap 9 '48

L.I.A.M.A. adopts new basis for recruiting study. Nat Underw (Life ed) 52:2 Je 18 '48

Machine measures aptitude for job; interaction chronograph. Nat Underw (Life ed) 52:6 Ap 9 '48

Mature men found best as recruits. H. C. Skiff. Nat Underw (Life ed) 51:16 N 28 '47

Personnel erosion compelling agencies to recruit younger talent. Nat Underw (Life ed) 52:4 O 22 '48

Recruiting material; a survey of life companies' programs, booklets and advertising. K. H. Mathus. II Spectator (Life ed) 156: 30-3+ S '48

Recruiting plans in action. A. B. Rosborough; S. B. Johnson. East Underw 48:10+ O 31 '47

Suggests new method of picking agents; use of Sheldon studies on personality-physique correlation. V. Howell. Nat Underw (Life ed) 52:29-30 O 8 '48

Urges reciprocity between agency recruiters. H. Kelley. Nat Underw (Life ed) 52:20 My 21 '48

Service

Against limiting approach to business cover; opportunity to discover other life insurance needs. A. H. Kollenberg. Nat Underw (Life ed) 52:4 S 24 '48

Association and community activities will help you bounce out of that rut! W. A. Craig. Spectator (Life ed) 156:26-8+ Ag '48

How and when to plan retirement; helping the prospect to prepare mentally and physically as well as financially. F. W. Pennell. East Underw 49:13 S 24 '48

Keep sights high; underwriting limits shouldn't be wet blanket; programming an individual's insurance needs. R. E. Moyer. Nat Underw (Life ed) 52:1+ S 17 '48

Programming. R. D. Hinkle; E. P. Gunn. Nat Underw (Life ed) 52:8 F 20 '48

Service to policyholders. P. Hanawalt. Life Ins Courant 53:8-9 Mr '48

Training

Animated exhibits put lessons across vividly; methods used by A. J. Schick. Nat Underw (Life ed) 52:6+ My 7 '48

Companies using modern training. K. H. Kreder. Nat Underw (Life ed) 52:3 Ag 6 '48

Falling agents hit poor field training as cause; L.I.A.M.A. report. Nat Underw (Life ed) 52:1 Mr 19 '48; Same. Weekly Underw 158:910 Mr 20 '48

Guide for training proves worth for New York Life. Nyli-Track. Nat Underw (Life ed) 52:2+ JI 2 '48

Importance of training; program of Mutual Life. W. Phelps. East Underw 48:11 N 14 '47; Same cond. Nat Underw (Life ed) 51:5 N 14 '47

Insurance college training for new men in the business; Liberty Life's program. R. Bourland. East Underw 49:84+ pt 2 O 8 '48

Metropolitan and John Hancock agents head list; ninety-one agents complete Life underwriter training council course. Weekly Underw 159:293-4 Ag 7 '48; Same cond. Nat Underw (Life ed) 52:1 Ag 6 '48

Monarch Life's training program. F. S. Vanderbrouk. East Underw 49:12 F 27 '48

Prudential uses movies in new educational plan. Nat Underw (Life ed) 52:2 Ap 2 '48

Purdue results substantiate L.I.A.M.A. findings. Nat Underw (Life ed) 52:5 Ap 16 '48

Purdue's life insurance marketing institute. East Underw 49:106+ pt 2 O 8 '48

Suggests use of training plans from other fields. C. J. North. Nat Underw (Life ed) 51:4 N 14 '47

Training a new underwriter. F. A. Johnson. Life Ins Courant 53:13-15 My '48

Training agents. H. B. Palmer. East Underw 49:8+ Ap 16 '48

Training antidote for high turnover. C. J. Zimmerman. Nat Underw (Life ed) 52:16 My 28 '48

See also

Insurance schools

Life underwriter training council

Women agents

Human touch in life insurance selling; woman underwriter says experience is basis of appeal. F. W. Reimenschneider. Weekly Underw 158:1407 My 8 '48

Insurance market for women agents. F. S. Johnson. East Underw 49:68-70 pt 2 O 8 '48

INSURANCE, Life—Agents—Women agents—
Continued

Los Angeles women's agency has big plans; headed by Mary La Bella. East Underw 49: 5+ F 13 '48
 Quarter million dollar women of NALU give their views on phases of selling. Weekly Underw 159:640-1+ S 18 '48
 64 qualify for women's quarter million table. East Underw 49:6 JI 2 '48
 Speaking of women; Hermine R. Kuhn. R. Siegel. Spectator (Life ed) 156:14-15+ JI '48
 Thanks dame fortune. N. Wasson. Spectator (Life ed) 156:22-3 S 48
 Women's quarter million round table committee makes study of successful women producers. East Underw 49:13 S 17 '48
 Same. Nat Underw (Life ed) Daily ed 52:15+ S 17 '48; Same abr. Weekly Underw 159:711+ S 25 '48

Chicago

Full-time life agents appear to be gaining against Chicago's brokers. Nat Underw (Life ed) 52:4 Ag 6 '48

New England

Analysis made of agents inducted in New England in 1947. Nat Underw (Life ed) 52:8 Ag 6 '48

Annuities

See Annuities

Applications

Applicants declined and accepted in 1947. Weekly Underw 158:26 sec 2 My 8 '48

Aviation risks

Asks certiorari in air death case; Massachusetts Mutual litigation with Selene R. Smith. Nat Underw (Life ed) 52:4 JI 30 '48
 Failure to mention war in aviation endorsement rendered insurer liable for death in military aviation service. Weekly Underw 158:481 F 7 '48
 Insurer wins final round on aviation exclusion; Onstad vs. Minnesota. Mutual Life. Nat Underw (Life ed) 52:6 Ag 20 '48
 New pilots, over-confident, have high fatality rate. J. E. Hoskins. East Underw 49:18 Je 25 '48

Beneficiaries

See Insurance, Life—Policy beneficiaries

Binders

See Insurance—Binders

Biography

We have with us today; some interesting personalities in the life insurance business, their careers and backgrounds. pors East Underw 48:10-11 D 19 '47

Business beneficiaries

See Insurance, Business

Children's policies

Babies good insurance prospects. I. F. Morgan. East Underw 49:136 pt 2 O 8 '48
 Bundle from heaven; new parents are prospects. Life Ins Courant 53:25 Ag '48
 Connecticut General modifies its juvenile issue in New York. Nat Underw (Life ed) 52: 15 Ap 30 '48
 Grandfather-grandchild insurance; investment value of juvenile policies. I. Hirschfeld. East Underw 49:9 Ap 30 '48
 Have you provided life insurance estates for your children? H. A. Hirsh. Spectator (Life ed) 155:32 My '48
 Juvenile sales set record in 1947. Nat Underw (Life ed) 52:3 Ap 2 '48
 My stork club gives bountiful harvest; children's policies lead to sales to adults. M. C. McKeon. Nat Underw (Life ed) Daily ed 52:29+ S 17 '48; Same. Spectator (Life ed) 156:23-4 S '48

Claims

See Insurance, Life—Adjustment of claims; Insurance, Life—First year claims; Insurance, Life—Suicide death claims

Cost

Average annual net cost history of ordinary life policies issued in 1927 per \$1000. J. Horan. Spectator (Life ed) 155:28 O '47
 Higher costs call for public relations skill. C. M. Shanks. Nat Underw (Life ed) 52:2+ O 8 '48
 Twenty year histories; dividends actually paid on life policies issued in 1928; average yearly payments; net costs. Life Ins Courant 53:42-3 O '48

Disability provisions

Annuity loss cut to \$5,142,585; with tabulation by company showing 1947 figures for annuities, disability and double indemnity. K. O. Force. Nat Underw (Life ed) 52:19-20 Mr 12 '48
 Letters claiming insured totally and permanently disabled not due proof of disability as required by policy. Weekly Underw 158: 1746 Je 12 '48

Double indemnity provisions

Cause of death immaterial under clause terminating double indemnity provisions upon insured entering military service. Weekly Underw 158:1278 Ap 24 '48
 Industrial disability and double indemnity; underwriting for specific loss. B. Coarsey. Life Ins Courant 53:26-9 S '48
 Life insurance double indemnity payments up. East Underw 48:6 N 7 '47
 Status of insured as soldier basis of insurer's exemption from liability for double indemnity; Jorgenson v. Metropolitan Life. Weekly Underw 157:1342 N 22 '47

Economic aspects

Agents urged to teach conservation, stress inflation's evil effects on life insurance. H. J. Johnson. Weekly Underw 158:386 Ja 31 '48
 Committee on public debt policy wants stable prices as protection of future dollars of insurance policyholders. Comm & Fin Chr 167:1996 My 6 '48; Same. Weekly Underw 158:1402 My 8 '48; Same abr. Banking 40: 133+ Je '48; Excerpts. Nat Underw (Life ed) 52:3 My 7 '48
 Current trends forum of New York chapter CLU. East Underw 49:1, 3-4 Ap 23 '48; Nat Underw (Life ed) 52:3+ Ap 23 '48; Spectator (Life ed) 155:8-9+ My '48
 Economic situation. W. P. Stillman. East Underw 49:3 Ap 16 '48
 Extra-ordinary production horizon. D. B. Woodward. Spectator (Life ed) 155:26-7 My '48; Same cond. Nat Underw (Life ed) 52:1 Ja 23 '48
 Favorable outlook to last years; Quebec address. D. B. Woodward. East Underw 48: 13+ O 31 '47
 High living costs held challenge to agent to give best possible policyholder service. C. O. Fischer. Weekly Underw 158:261 Ja 17 '48
 Life bosses stifled inflation criticism. T. I. Parkinson. Weekly Underw 158:182 Ja 10 '48
 Life insurance dollars successful inflation wedge. H. L. Amber. East Underw 49:6 Ja 16 '48
 Life insurance now a great stabilizing force for the national economy; address before Industrial insurers conference. H. J. Johnson. Weekly Underw 158:1525+ My 22 '48
 Position of life insurance on the current inflation of money supply explained. T. I. Parkinson. Weekly Underw 159:404-5 Ag 21 '48
 Steals show from bankers in Detroit speech; cites effect of inflation on savers. T. I. Parkinson. Nat Underw (Life ed) 52:1 O J '48
 Tells policyholders that Treasury's monetary policy injures them, in booklet. Dollars, prices and you. T. I. Parkinson. Comm & Fin Chr 168:1442 O 7 '48; Same. Weekly Underw 159:354 O 9 '48; Same. Nat Underw (Life ed) 52:1 O 8 '48
 Value of thrift; how life insurance combats inflation trend. H. J. Johnson. Weekly Underw 158:1037+ Ap 3 '48
 What's ahead on the economic front? J. T. Bryden. Spectator (Life ed) 155:13-16 N '47

INSURANCE, Life—Continued

Educational endowment policies

Educational policies; do you mean I can't go back? Life Ins Courant 53:21-2 S '48
Selling educational plans. E. V. Gettys. East Underw 49:10+ J1 30 '48

Employees' insurance

Deferred compensation. G. B. Gordon. Weekly Underw 157:1536-8 D 13 '47
Tips on deferred compensation. J. F. Ramsey. Nat Underw (Life ed) 52:2+ My 14 '48

Estate protection

Art of estate planning. W. H. Robbins. Life Ins Courant 53:5+ Je '48
Cautions as to estate planning; not job of one man. H. S. Redeker. East Underw 49:15 Ap 16 '48

Estate planning. F. L. Morton. Spectator (Life ed) 156:64+ O '48

Estate planning distinct profession. S. D. Weissman. Nat Underw (Life ed) 52:6 O 1 '48

Insurance in estate planning; a trust officer's view. T. Grant, jr. Trusts & Estates 86:315-18 Ap '48

Marital deduction. B. K. Elliott. Nat Underw (Life ed) 52:18-19 S 17 '48

Marital deduction promotes business cover; urges revision of estates. D. B. Maduro. Nat Underw (Life ed) 52:3+ O 1 '48

More life insurance dollars to meet inflation. D. Stock. Spectator (Life ed) 156:29+ Ag '48

Need for insurance as affected by marital deduction. H. T. Powers. Trusts & Estates 87:23-5 J1 '48

Solomon Huber agency holds sixth annual estate planners forum. East Underw 49:15 O 8 '48; Nat Underw (Life ed) 52:5 O 22 '48

Specialized service of the estate planner conserves property by exact techniques. S. Huber. Weekly Underw 158:42-3+ sec 2 My 8 '48

Tax consultant cites the common errors of agents. J. Garrison. Nat Underw (Life ed) 51:9 N 14 '47

Warns of risks in some marital deduction plans. D. B. Maduro. Nat Underw (Life ed) 52:1+ S 24 '48

See also

Estate planning

Family income policies

John Hancock has family income form; Wisconsin Life has new family income riders. Nat Underw (Life ed) 52:16 Ag 6 '48

Farmers as prospects

Money management for the farmer. A. B. Dill. Life Ins Courant 52:496-8 D '47

Sell the farmer, but don't sell 'im short! J. E. Grant. Spectator (Life ed) 156:18-19+ Ag '48

Selling insurance to farmers. L. E. Moline. East Underw 49:112 pt 2 O 8 '48

Fiction

Hunted down; a short story. C. Dickens. il Spectator (Life ed) 155:10-15+ D '47

Finance

Annuity loss cut to \$5,142,595; with tabulation by company showing 1947 figures for annuities, disability and double indemnity. K. O. Force. Nat Underw (Life ed) 52:19-20 Mr 12 '48

California 1947 figures, new business and in force; tabulation. Nat Underw (Life ed) 52:19-20 Ap 23 '48

California-Western States and George Washington Life are placed on CSO 2½ per cent basis; Prudential's new rates and cash values. Nat Underw (Life ed) 51:22-4 N 14 '47

Companies' interest bases for CSO cash values. Nat Underw (Life ed) 52:1 Ja 16 '48
Companies now on CSO basis. Nat Underw (Life ed) 51:23 N 21 '47

Dunne's international insurance reports, covering legal reserve life insurance companies and prominent fraternal beneficial societies operating in the United States and Canada. 1435p \$20 Insurance index, 110 William st, New York 7 '47

Effect of interest used for calculating policy values on net costs; tabulation. Spectator (Life ed) 155:26 O '47

Figures from companies' 1947 annual statements; tabulation. Nat Underw (Life ed) 52:4 Ja 23; 4 Ja 30; 20 F 6; 20 F 13; 4 F 20; 8 F 27; 6 Mr 6; 2 Mr 12; 6 Mr 19; 19 Mr 26 '48

Figures in new annual statements; excerpts from company reports. Nat Underw (Life ed) 52:1+ Ja 30; 1+ F 6; 1+ F 13; 1 F 20; 1+ F 27; 20 Mr 5; 16 Mr 12; 8 Mr 19; 8 Mr 26 '48

Great-West goes to 2½ per cent C.S.O. basis. Nat Underw (Life ed) 51:18 D 26 '47

How each dollar of total life insurance income was used in 1946; tabulation by company. Spectator (Life ed) 155:24-6 O '47
Idaho 1946 business, all classes; tabulation. Life Ins Courant 52:480 N '47

Illinois 1947 results, new business and in force; tabulation. Nat Underw (Life ed) 52:22-3 Ap 9 '48

Insurance billions; John Hancock Life. il Fortune 37:110-11+ Ap '48

Iowa figures for 1947, new business and in force; tabulation. Nat Underw (Life ed) 52:5 Mr 26 '48

Life insurance aggregates, 1947; tabulation. Spectator (Life ed) 156:34-5 S '48

Life insurance companies; business of 1947 and condition Dec. 31, 1947; tabulation. Weekly Underw 158:76-80 sec 2 My 8 '48

Life insurance investments earn less, so premiums are going up. Bsns W p 19-20 D 8 '47

Make-up of 1947 insurance dollar. East Underw 49:8 J1 23 '48

Many policy changes to be made by Jan. 1; most companies changing guaranteed rate of interest to be used in computing reserves. East Underw 48:16 N 14 '47

Metropolitan Life plans changes; new schedule of premium rates and new editions of policy forms. Spectator (Life ed) 155:49-51 D '47

Michigan 1947 figures, new business and in force; tabulation. Nat Underw (Life ed) 52:23 Ap 9 '48

Minnesota figures for 1947, new business and in force; tabulation. Nat Underw 52:5 Mr 19 '48

Mutual Benefit's comment on its new dividend scale. J. S. Thompson. East Underw 49:1+ Ja 23 '48

National Life changes based on CSO table. East Underw 48:15 D 26 '47; Spectator (Life ed) 155:62-3 Ja '48

New England Mutual changes to CSO 2.5 per cent basis; policy liberalized. Life Ins Courant 52:514-15 D '47

New Hampshire 1947 figures, new business and in force; tabulation. Nat Underw (Life ed) 52:22 Ap 9 '48

New York figures for 1947, new business and in force; tabulation. Nat Underw (Life ed) 52:17 Mr 12 '48

1946 business, ordinary, group and industrial for Illinois and Washington. Life Ins Courant 52:521 D '47

1947 insurance results and comparison with 1946; new business and in force; tabulation by company. Nat Underw (Life ed) 52:3 Ja 16; 2 Ja 23; 2 Ja 30; 19 F 6; 18 F 13 '48

1947 records all-time highs. B. E. Shepherd. Spectator (Life ed) 155:8-13 Ja '48; Same abr. Weekly Underw 157:1598-600 D 20 '47; Same cond. East Underw 48:45+ D 19 '47; Abstract. Nat Underw (Life ed) 51:1+ D 19 '47

Ohio 1947 figures, new business and in force; tabulation. Nat Underw (Life ed) 52:20 Ap 23; 21 My 21 '48

Pan-American goes on 2½ per cent reserve basis; new rates and values. Nat Underw (Life ed) 51:22 N 7 '47

Peak performance; excerpts from 1947 annual statements. Spectator (Life ed) 155:30-4 F; 20+ Mr; 32-3+ Ap '48

Penn Mutual changes to CSO 2.25 per cent basis; other changes. Life Ins Courant 52:516-17 D '47

Pennsylvania 1947 results, new business and in force; tabulation. Nat Underw (Life ed) 52:7 Mr 26 '48

INSURANCE, Life—Finance—Continued

Provident Mutual announces changes. Spectator (Life ed) 155:60-1 D '47

Prudential changes to CSO 2.5 per cent basis; other changes. Life Ins Courant 52:517-18 D '47

Prudential effects liberalizations in shift to CSO 2½ per cent. Nat Underw (Life ed) 51:2-4 O 31 '47

Rank of leading life insurance companies on January 1, 1948 by insurance in force, new business paid for, premium income, payments to policyholders, admitted assets and surplus funds. Weekly Underw 158:1663-6 Je 5 '48

Ranking of companies for 1947 shown by assets, total income, premium income, insurance written, insurance gained, paid policyholders, ordinary in force and group in force. Nat Underw (Life ed) 52:8-11 My 28 '48

Rankings; group, industrial and ordinary, as of Dec. 31, 1947; tabulation by company. Life Ins Courant 53:6-7 Je '48

Results of operations of life insurance companies as of Dec. 31, 1947 and 1946; tabulation by company. Spectator (Life ed) 155:21-2, 24 Mr '48

Rhode Island 1947 figures, new business and in force; tabulation. Nat Underw (Life ed) 52:22 My 28 '48

Slump following CSO shift sure but harmless. Nat Underw (Life ed) 51:2 D 26 '47

Sun Life Assurance announces changes. Spectator (Life ed) 155:60-1 Ja '48

Sun Life, Canada, CSO rates, dividends. Nat Underw (Life ed) 51:30 D 5 '47

Wisconsin 1947 figures, new business and in force; tabulation. Nat Underw (Life ed) 52:21 My 21 '48

Wisconsin 1946 business, ordinary, group and industrial; tabulation. Life Ins Courant 52:480 N '47

See also

Insurance, Life—Investments

First year claims

\$23,850,000 paid in 1947 on 31,500 ordinary and industrial first year deaths; with case histories. Weekly Underw 158:3-6+ sec 2 My 8 '48

Fraudulent statements

Concealment of prior consultation of physician defense in action on non-medical policy. Weekly Underw 159:304 Ag 7 '48

Health conservation service

Health conservation foundation formed; seeks insurers' backing. Nat Underw (Life ed) 52:1 Je 18 '48; Weekly Underw 158:1790+ Je 19 '48

Statistics help Metropolitan Life plan its public welfare drives. L. I. Dublin. Nat Underw (Life ed) 52:25 O 15 '48

Income policies

See Insurance, Life—Family income policies; Insurance, Life—Retirement income policies

Investment value

Grandfather-grandchild insurance; investment value of juvenile policies. I. Hirschfeld. East Underw 43:9 Ap 30 '48

Life insurance ideal investment. K. S. Reed. Weekly Underw 158:58-9+ sec 2 My 8 '48

Investments

AIC financial section meeting, Chicago. Nat Underw (Life ed) 52:23+, 26-7+ O 8 '48; Spectator (Life ed) 156:44+ O '48

Answers critic of Equitable railroad bond purchase. T. I. Parkinson. Nat Underw (Life ed) 52:5 JI 30 '48

Bankers contend insurance company sales of government bonds aid inflation. Comm & Fin Chr 168:816 Ag 26 '48

Broadening investments of savings institutions; an aid in maintaining high employment. H. Jones. Comm & Fin Chr 167:13 Ja 1 '48

Buoyant trend in interest. Nat Underw (Life ed) 51:5 N 21 '47

Controversy over inflation; life companies selling governments and reinvesting in business obligations. E. L. Hall. Spectator (Property ed) 14:34+ S 9 '48

Defends life insurance bond purchases. G. Adams. Comm & Fin Chr 168:1553 O 14 '48

Distribution of life insurance assets since 1900; tabulation. T. J. V. Cullen. Spectator (Life ed) 155:30 O '47

Dropping of U.S. bonds inflationary, says Federal Reserve. Nat Underw (Life ed) 52:1+ O 29 '48

Earning rate on life insurance funds down; drop to new low of 2.88 per cent. East Underw 49:16 My 7 '48

Equity vs. debt financing; problem as it affects life company investments. E. Schram. Nat Underw (Life ed) 52:1+ S 3 '48

Estimates 1948 life insurance new capital absorption at \$5 billions. S. M. Foster. Comm & Fin Chr 167:614-15 F 5 '48

For broader investment concepts. J. T. Bryden. East Underw 48:3+ O 31 '47

Government role key to investments. D. N. Warters. Nat Underw (Life ed) 52:1+ My 7 '48

Gross rate of interest earned on mean invested funds by one hundred life insurance companies from 1927 to 1946; tabulation. Spectator (Life ed) 155:32-3 O '47

Higher rates needed; defends companies' refusal of GI mortgages. C. L. Benner. Nat Underw (Life ed) 52:3+ Ap 16 '48; Same cond. East Underw 49:1+ Ap 9 '48

Hits ban on stock obtained via convertible issues. T. I. Parkinson. Nat Underw (Life ed) 52:1 JI 23 '48

Institute of life insurance estimates corporate stocks held by life insurance companies at \$1½ billion. Comm & Fin Chr 168:1768 O 28 '48

Institute of life insurance sees life insurance funds huge capital source. Comm & Fin Chr 167:2127 My 13 '48; Same. East Underw 49:6 My 21 '48

Institutional investment problems; discussions at centenary assembly of the Institute of actuaries. Economist 154:1080+ Je 26 '48

Insurance billions. Fortune 37:108-11+ Ap '48

Insurance companies move out of governments. Barron's 28:35 My 3 '48

Interest in common stocks looming larger. Nat Underw (Life ed) 52:3+ Ag 6 '48

Investment situation in U.S.A. A. J. McDaniel and F. J. McDiarmid. East Underw 49:3+ Je 26 '48

Justice dept. suit seeks to enjoin alleged agreement; complaint against investment bankers lists six life companies. Nat Underw (Life ed) 51:10+ N 7 '47

Let life insurance companies satisfy our capital needs! B. J. Buttenweiser. Comm & Fin Chr 167:98+ Ja 8 '48

Life companies among purchasers of world bank bonds. East Underw 48:27 D 19 '47

Life companies augment inflation by selling governments and buying corporate bonds with the proceeds, bankers say. Nat Underw (Life ed) 52:1+ Ag 27 '48

Life companies extend mortgage holdings by 20 per cent in 1947. Nat Underw (Life ed) 52:13 O 1 '48

Life companies increase corporate bond and mortgage holdings; with figures for first half of 1947 and 1948. Comm & Fin Chr 168:816 Ag 26 '48

Life company investments and the capital markets. F. J. McDiarmid. Am Stat Assn J 43:265-73 Je '48

Life insurance; admitted assets, 1941-1946. Survey of Cur Bsns 1947 Sup p81 [supplemented in monthly numbers]

Life insurance companies and equity financing. G. L. Harrison. Comm & Fin Chr 167:1750+ Ap 22 '48; Same cond. East Underw 49:1+ Ap 23 '48; Excerpts. Weekly Underw 158:1221+ Ap 24 '48; Trusts & Estates 86:402-4 My '48; Discussion. Barron's 28:39 Ap 26 '48

Life insurance companies must be permitted to buy utility stocks to help finance construction program. O. Ely. Pub Util 42:673-6 N 4 '48

INSURANCE, Life—Investments—Continued

Life insurance investments in Southeast increase at twice the rate for entire nation. Weekly Underw 158:676 F 28 '48

Life men exchange ideas with mortgage bankers. Nat Underw (Life ed) 52:6 O 1 '48

Life officers investment seminar, Lake Geneva, Wis. Nat Underw (Life ed) 52:7+ Je 25 '48

Life presidents' views of equities; comments on G. L. Harrison's address. G. A. White and others. East Underw 49:1+ Ap 30 '48

Mortgage bankers annual convention; summaries of addresses of insurance interest. East Underw 49:4 O 1 '48

Mortgage purchases in '47 put at \$2 1/2 billions. East Underw 49:11 F 13 '48; Same cond. Nat Underw (Life ed) 52:3 Ja 2 '48

Mortgages under GI loans as investment medium, attractive. J. Malzo. East Underw 49:1+ Ja 2 '48; Abstract. Nat Underw (Life ed) 51:3 D 26 '47

New insurance investments. Bsns W p89-90+ My 22 '48

1947 records all-time highs; investment trends. B. E. Shepherd. Spectator (Life ed) 155:8-13 Ja '48; Same abr. Weekly Underw 157:1598-600 D 20 '47; Same cond. East Underw 48:45+ D 19 '47; Abstract. Nat Underw (Life ed) 51:1+ D 19 '47

Oil firm's loan fuel for banker-insurance dispute; inflationary loans. Barron's 28:33 O 25 '48

Private lending. W. W. Bodine. Weekly Underw 158:554-6 F 14 '48

Private placements; a new medium of financing. S. C. Badger. Comm & Fin Chr 168:1547+ O 14 '48; Excerpts. East Underw 49:8 O 8 '48

Prudential buys block of C.I.T. preferred. Bsns W p96 Je 26 '48

Refutes critics on bid for P.R.R. bonds. T. I. Parkinson. Nat Underw (Life ed) 52:3+ Ji 9 '48

Ruling factors behind today's utility financing problems. F. J. McDiarmid. Pub Util 42: 278-85 Ag 26 '48

Secretary Snyder asks insurers to avoid inflationary loans. Nat Underw (Life ed) 52: 1+ O 29 '48

Sees shifting from equity financing to get life money. F. J. McDiarmid. Nat Underw (Life ed) 52:5 Ja 2 '48

Sees three per cent yield for Equitable in 1948. T. I. Parkinson. Nat Underw (Life ed) 52:7 My 21 '48

Sees wider investment range. O. J. Lacy. East Underw 49:8+ O 8 '48

Stock market as a guide in managing life insurance portfolios. T. W. Phelps. Comm & Fin Chr 168:1547+ O 14 '48

Study investment trends. D. W. Gordon. East Underw 49:10 O 8 '48

Take New York airport bonds; three insurance carriers aid in developing port. Weekly Underw 158:1838 Je 26 '48

Three insurers making direct loan to Canada. Nat Underw (Life ed) 52:1 Ag 13 '48

Treasury and investment operations of a life insurance company. D. C. Bevan. East Underw 49:15+ pt 2 O 8 '48

Vets make strong bid in home loan market; more than half billion advanced by life companies. Spectator (Life ed) 155:52 N '47

Voluntary control of inflationary loans asked by Treasury. G. L. Harrison. East Underw 49:1+ O 29 '48; Same abr. Weekly Underw 159:1042+ O 30 '48

Warns on common stocks for life companies. M. A. Linton. Nat Underw (Life ed) 52:1 S 10 '48

See also

Insurance, Life—
Real estate operations

Lapses and surrenders

Grace period extended if it ends on a Sunday. Nat Underw (Life ed) 52:7 Ji 23 '48

Life insurance lapse rate far below pre-war. Weekly Underw 159:238 Ji 31 '48; Nat Underw (Life ed) 52:2 Ji 9 '48; East Underw 49:13 Ag 20 '48

Ratio of lapses and surrenders for New York licensed insurers in 1947; tabulation by company. Nat Underw (Life ed) 52:3 Mr 12 '48

Reinstatement rejection cause should be stressed. P. E. Smith. Nat Underw (Life ed) 52:8 O 8 '48

Reinstatement; satisfaction. B. Epstein. Life Ins Courant 53:45-6 O '48

Saturday closing extends grace days. Nat Underw (Life ed) 51:27 D 5 '47

Surrenders and lapses up; with figures for 1946 and 1947. Weekly Underw 158:30-1 sec 2 My 8 '48

Terminations by lapse and surrender, 1927 to 1946; tabulation by company. Spectator (Life ed) 155:29 O '47

See also

Insurance, Life—
Policies—Non-forfeiture benefits

Lawyers' cooperation

NALU and American bar association announce approval of cooperation principles. East Underw 49:11 Ap 23 '48

National statement of guiding principles for lawyers and life underwriters presented at NALU Louisville meeting; text. East Underw 49:10+ Mr 26 '48

Need for greater agent-lawyer cooperation. A. J. Casner. Nat Underw (Life ed) 52: 19-20 Ja 9 '48

New national statement of principles of cooperation between life underwriters and lawyers; with text. Trusts & Estates 86: 291-6 Ap '48

Legal departments

Importance to management of legal departments. J. S. Sinclair. East Underw 48:46+ D 19 '47

See also

Association of life insurance counsel

Mathematics

Mortality progress; sample values, endowment at 85, CSO 2 per cent, 2.25 per cent and 2.75 per cent. N L; charts. Life Ins Courant 53:28-9 F; 30-1 Mr; 14-15 Ji '48

Mutual Benefit's new Analograph fits into coat pocket; mechanical device for use of agents. il East Underw 48:3+ O 3 '47; Spectator (Life ed) 155:42 N '47

Problems with sampling procedures for reserve valuations. G. C. Campbell. Am Stat Assn J 43:413-27 S '48

Recent developments in graduation and interpolation. T. N. B. Greenville. Am Stat Assn J 43:428-41 bibliog(p440-1) S '48

Sample values, whole life, CSO 3.25 per cent and 2 per cent. N L; charts. Life Ins Courant 52:470-1 N; 512-13 D '47

Sampling errors in mortality and other statistics in life insurance. D. D. Cody. bibliog Am Stat Assn J 43:442-50 S '48

They call it qx; how life agents can use mortality tables; with CSO table showing deaths per 1,000. Life Ins Courant 53:24-7 F '48

Medical departments

See also Association of life insurance medical directors of America

Medical examinations

Medical underwriting. D. G. Friend. East Underw 49:96+ pt 2 O 8 '48

Medical research

Companies boosted Medical fund donations in 1947. Nat Underw (Life ed) 52:5 Ji 2 '48

Heart research fund grants \$103,000. Nat Underw (Life ed) 52:8 Je 25 '48

Life companies give additional \$500,000 to battle heart disease in 1948. Weekly Underw 158:1061 Ap 3 '48

Life insurance medical research fund; grants in aid of research in cardiovascular disease. Science 107:468-70 My 7 '48

Report on Medical research fund. M. A. Linton. East Underw 49:6 Ji 9 '48

Mortality statistics

See Mortality—Statistics

INSURANCE, Life—*Continued*

Mortgage redemption policies

Prudential will drop mortgage loan group. East Underw 48:16 N 28 '47
Selling tips from the home office; follow the carpenters. Life Ins Courant 53:41 Ap '48

Policies

Bankers Life changes to CSO mortality table; new policies introduced. East Underw 49:13 Ja 2 '48
Connecticut General policy changes. East Underw 48:3 D 12 '47
Continental Assurance announces new features. Spectator (Life ed) 155:57-8 F '48
Equitable, N.Y., changes in policies and rates. East Underw 48:6 N 7 '47; Same cond. Nat Underw (Life ed) 51:10 N 14 '47

Illustrative data for age 35 shown for 44 companies; tabulation. Nat Underw (Life ed) 52:20 F 13 '48

Lincoln National liberalizing many contracts Jan. 1. Nat Underw (Life ed) 51:30-1 D 5 '47

Massachusetts Mutual has new contracts. Nat Underw (Life ed) 52:16 JI 16 '48

Massachusetts Mutual issues new family protection provision rider. East Underw 49:29 S 17 '48

Metropolitan's new premium rate schedule and new policy forms. East Underw 48:8+ N 21 '47; Same cond. Weekly Underw 157:1336-7 N 22 '47; Same cond. Nat Underw (Life ed) 51:11 N 21 '47

Mutual Life's policy changes. East Underw 48:15 D 26 '47

Northwestern National issues new policy line. East Underw 48:13 D 26 '47

Penn Mutual announces changes. Spectator (Life ed) 155:60-1 N '47

Prudential effects liberalizations in shift to CSO 2½ per cent. Nat Underw (Life ed) 51:2+ O 31 '47

Shenandoah Life states revisions. Spectator (Life ed) 155:61-3 F '48

See also

Insurance, Life—Children's policies	Insurance, Life—Family income policies
Insurance, Life—Disability provisions	Insurance, Life—Mortgage redemption policies
Insurance, Life—Double indemnity provisions	Insurance, Life—Retirement income policies
Insurance, Life—Educational endowment policies	Insurance, Life—War risks

Non-forfeiture benefits

C.S.O.; the company, the standard, the opportunity; standard non-forfeiture and valuation laws; address before Million dollar round table. A. N. Guertin. Weekly Underw 157:700-2, 761-3 S 20-27 '47; Same. Life Ins Courant 53:4-10 Ja '48; Same cond. Nat Underw (Life ed) Daily ed 51:16+ S 10 '47

Standard non-forfeiture legislation. J. S. Thompson. II Spectator (Life ed) 155:28-9+ F '48

Term policies

Too much emphasis on term. R. L. Foster. East Underw 49:17 O 8 '48

Policy beneficiaries

Problem of simultaneous deaths. L. E. Thompson. Nat Underw (Life ed) 52:16 O 22 '48

Revocation of beneficiary not rendered ineffective by attempted designation of new beneficiary then deceased. Weekly Underw 159:50 JI 3 '48

Policy dividends

Application of policyholders' dividends during 1946; tabulation by company. Spectator (Life ed) 155:22 O '47

Canada Life; extra dividends reduced. Life Ins Courant 53:29-30 Ag '48

Comparisons; dividend scales in effect for 1938 compared with actual histories; tabulation by company. Life Ins Courant 53:36-40 O '48

Dividend actions, interest rates for 1948. Nat Underw (Life ed) 51:18 D 26 '47

Dividend actions since issue of 1947 Compend; tabulation by company. Life Ins Courant 53:34 Ja '48

Equitable Society 1948 ordinary dividends down 9 per cent. Nat Underw (Life ed) 51:4 D 26 '47

Fidelity Mutual has new dividend scale. Nat Underw (Life ed) 52:24 O 1 '48

\$537 million paid policyholders in '47. Nat Underw (Life ed) 52:19 My 28 '48; Weekly Underw 158:1697 My 29 '48

Leaflets, sent to policyholders, cut complaints about reduced dividends. Nat Underw (Life ed) 52:17-18 O 22 '48

Mutual Benefit dividends. Nat Underw (Life ed) 51:13 D 12 '47

Mutual Benefit's comment on its new dividend scale. J. S. Thompson. East Underw 49:1+ Ja 23 '48

North American of Canada dividend scale. Nat Underw (Life ed) 52:14 Ag 13 '48

Northwestern Mutual revises dividend scale. East Underw 49:13 O 8 '48

Provident Mutual dividends revised for 1948. Life Ins Courant 52:517 D '47

Provident Mutual's new dividends. Nat Underw (Life ed) 51:8+ N 21 '47

Twenty year histories; dividends actually paid on life policies issued in 1928; average yearly payments; net costs. Life Ins Courant 53:42-3 O '48

Policy holders

Certiorari petition attacks Ohio law on mutualization; Western and Southern Life case. Nat Underw (Life ed) 52:6 Ag 13 '48

Newspapers help hunt out lost insureds. J. S. Myrick. Weekly Underw 158:102 Ja 3 '48

Policyholder meetings and their value. M. F. Barber. Weekly Underw 159:104+ O 30 '48; Same. East Underw 49:15 N 5 '48

Prominent life payments in 1947; by occupation, by state and by town. Nat Underw (Life ed) 52:6+ sec 2 My 28 '48

Western & Southern Life answers policyholder brief. Nat Underw (Life ed) 52:8 S 10 '48

See also

Insurance, Life—First year claims

Policy liens

Central Life removes liens from Illinois Life policies. Spectator (Life ed) 155:63 F '48

Policy loans

Total yield under year before N.Y. Mutual cut policy loan interest; volume doubled. Weekly Underw 158:334 Ja 24 '48; Same abr. Nat Underw (Life ed) 52:2 Ja 23 '48

Policy settlement

Arranging life insurance to qualify for marital deduction. E. N. Polisher. Trusts & Estates 86:485-6 Je '48

Effect on settlement options of the 1948 revenue act. H. S. Redeker. East Underw 49:54+ pt 2 O 8 '48

Income use of life benefits gained in '47. East Underw 49:8 JI 23 '48

Option opportunities. Life Ins Courant 53:35-6 Je '48

Tax seduction under T. D. 5515; indiscriminate use of the installment settlement options in life insurance policies. H. E. Haiman. Trusts & Estates 86:33-4 Ja '48; Same. Life Ins Courant 53:14-15 Mr '48

Trend of use of optional modes of settlements in 1930, 1940 and 1946; tabulation. Spectator (Life ed) 155:27 O '47

Unclaimed policies

Companies file Supreme court brief on New York escheat law. Nat Underw (Life ed) 51:2 D 5 '47

Connecticut Mutual enters New York escheat case as rehearing is asked. Nat Underw (Life ed) 52:1 Ap 16 '48

New method of tracing unclaimed equities developed by Prudential. Nat Underw (Life ed) 52:17 Mr 12 '48

INSURANCE, Life—Policy settlement—Un-
claimed policies—Continued
 New York abandoned policies law upheld by
 Supreme court. Weekly Underw 158:1056 Ap
 3 '48; Nat Underw (Life ed) 52:14- Ap 2
 '48
 Scope of Connecticut escheat law found un-
 certain. Nat Underw (Life ed) 51:11 N 7
 '47

Policy valuation

C.S.O.: the company, the standard, the op-
 portunity; standard non-forfeiture and
 valuation laws; address before Million dol-
 lar round table, A. N. Guertin. Weekly
 Underw 157:700-2, 761-3 S 20-27 '47; Same.
 Life Ins Courant 53:4-10 Ja '48; Same cond.
 Nat Underw (Life ed) Daily ed 51:16+ S
 10 '47; Excerpts. East Underw 48:10+ S 12
 '47

Premium financing

Bank loan-policy purchase plans for tax sav-
 ing rapped. Nat Underw (Life ed) Daily
 ed 52:33 S 16 '48

Premiums, Payment of

California-Western States Life seeks test
 suit on VA duns for Civil relief act ad-
 vances. Nat Underw (Life ed) 51:1 N 7
 '47

Preventive work

See Insurance, Life—Health conservation
 service

Prospects

Family circle prospecting. G. E. Leatherbar-
 row. Life Ins Courant 53:22-3 Ap '48
 Finding good prospects. L. C. Brownson. Life
 Ins Courant 53:25 Ap '48
 How the leaders do it. J. D. Miller and
 others. Life Ins Courant 53:28+ Je '48
 Prospecting. S. Hayes. Life Ins Courant 53:
 11-12 Ja '48
 Prospecting. J. O. Todd; W. R. Jenkins. Nat
 Underw (Life ed) 52:3 F 13 '48
 Prospecting for quality business. R. L.
 Walker. Life Ins Courant 53:21-4 Ag '48
 Referred lead plan helps Philadelphia agent
 make sales. Nat Underw (Life ed) 52:16
 O 1 '48
 See better times for men in the \$3-6,000
 bracket. Nat Underw (Life ed) 52:3 J1 2 '48
 Sensible prospecting made easier by use of
 telephone. M. C. Safran. Nat Underw (Life
 ed) 52:3 F 27 '48
 Sources of prospects; ten-year case history
 of sales made by member of Million dol-
 lar round table. Life Ins Courant 53:39 Ap
 '48
 Student opportunities for the life under-
 writer in a college town. Life Ins Courant
 53:23-4 Mr '48
 Survey shows how 2,129 policyholders got
 on prospect lists. O. S. Cummings. Nat
 Underw (Life ed) 52:9 O 22 '48
 Why Mutual sticks to family man field. R.
 Hull. Nat Underw (Life ed) 52:2 O 1 '48

See also

Insurance, Life—
 Farmers as pros-
 pects

Insurance, Life—
 Women as pros-
 pects

Public attitude

How are you doing? C. B. Reeves. Life Ins
 Courant 53:7-11 My '48
 Public approval; our continuing challenge.
 E. W. Craig. Spectator (Life ed) 156:12-
 15+ S '48; Same abr. Weekly Underw 159:
 634+ S 18 '48; Same cond. Nat Underw
 (Life ed) Daily ed 52:6+ S 16 '48
 Texas town talks in favor of life insurance;
 survey of opinion in Waxahachie. W.
 E. Roesch. il Spectator (Life ed) (Endorse-
 ment no 1947-1948) 155:24-36 N '47

See also

Institute of life in-
 surance

Publicity

Home office publicity department. C. W.
 Van Beynum. East Underw 49:24 pt 2 O 8
 '48
 How facts on insurance reach press, maga-
 zines; press bureau representatives of J.
 Walter Thompson co. East Underw 49:3
 Ja 30 '48

Mutual Life gets results from specific and
 continuous public relations effort. Nat
 Underw (Life ed) 52:3+ J1 16 '48
 Women's division; Institute of life insurance.
 R. Siegel. Spectator (Life ed) 156:8-11+ Ag
 '48

Purchasing

American magazine survey on insurance
 holdings. East Underw 49:11 S 10 '48
 Classification of purchasers of ordinary life
 policies by occupation, 1946; chart. Spec-
 tator (Life ed) 155:20 O '47
 Classification of purchasers of ordinary life
 policies, 1947; chart. Spectator (Life ed)
 156:24 O '48
 Life insurance purchases during 1947 in-
 crease two percent. Weekly Underw 158:320
 Ja 24 '48
 Life insurance tops United States savings
 media in 1948. Weekly Underw 159:781
 O 2 '48
 Living costs seen limiting 1948 life sales.
 Weekly Underw 158:114 Ja 3 '48
 92 percent of husbands consulted wives be-
 fore buying life insurance, survey dis-
 closes. Weekly Underw 158:331 Ja 24 '48

Rates

Bankers Life of Iowa, goes to CSO 2 ¼ per
 cent reserve basis; new rates; tables. Nat
 Underw (Life ed) 52:15 Ja 2 '48
 Fidelity Mutual's new C.S.O. rates. Nat
 Underw (Life ed) 51:19 D 26 '47
 Life insurance investments earn less, so
 premiums are going up. Bsns W p 19-20 D
 6 '47
 Massachusetts Mutual's new C.S.O. premium
 rates; tabulations. Nat Underw (Life ed)
 51:20 O 31 '47
 Metropolitan's new premium rate schedule.
 East Underw 48:3+ N 21 '47; Same cond.
 Weekly Underw 157:1336-7 N 22 '47
 New England Mutual Life's new rates; tabu-
 lations. Nat Underw (Life ed) 51:23 N 21
 '47
 Penn Mutual goes to C.S.O. 2¼ per cent re-
 serve basis; new rates. Nat Underw (Life
 ed) 51:29 D 5 '47
 Provident Mutual's new rates. Nat Underw
 (Life ed) 51:8+ N 21 '47

Real estate operations

Banish slums forever; Metropolitan's ac-
 complishments in New York; address before
 Conference of mayors, New York, Feb. 16.
 F. H. Becker. Weekly Underw 158:611 F 21
 '48; Excerpts. Nat Underw (Life ed) 52:1
 F 27 '48
 Connecticut Mutual erecting office building
 for 90 doctors; illustration with text. Week-
 ly Underw 158:833 Mr 13 '48
 Extensive real estate purchases; housing
 plans shelved. Spectator (Life ed) 156:42+
 J1 '48
 Housing. L. D. Meredith. il Spectator (Life
 ed) 155:8-9+ Mr '48
 Institute of life insurance reports increased
 real estate investment by life insurance
 companies. Comm & Fin Chr 167:1016-17
 Mr 4 '48
 Insurance company builds homes; John Han-
 cock Mutual Dearborn project. il Bsns W
 p25 O 9 '48
 Insurers wary of housing. il Bsns W p81-4+
 Je 5 '48
 It didn't work in Canada; yield insurance
 program. J. C. Smith. il Arch Rec 103:170+
 Mr '48
 Life companies purchase non-housing real
 estate; properties valued at \$122 millions
 bought in year 1947; often leased for long
 terms to sellers. Weekly Underw 158:683 F
 28 '48
 Life companies widen real estate investment
 field. Nat Underw (Life ed) 52:24 F 27 '48
 Michigan high court upholds investment in
 housing projects. Nat Underw (Life ed)
 52:13 O 1 '48
 More insurance company housing for New
 York city; New York life insurance co.
 apartment project; illustrations with text.
 Arch Forum 88:11 Ja '48
 Needles companies for lethargy on rental
 housing. F. H. Allen. Nat Underw (Life
 ed) 52:26+ O 8 '48

INSURANCE, Life—Real estate operations—
Continued

New financing trend; sell-and-lease industrial deals. Bsns W p96-8+ Ap 17 '48

New type garden apartments planned by New York Life. 1l Weekly Underw 158:115 Ja 3 '48

No danger insurers will freeze properties. G. McHugh. Nat Underw (Life ed) 52:8 Je 25 '48

Pennsylvania court upholds housing act in New York Life test case. East Underw 48:9 D 6 '47

Prudential mortgage loans hit all-time company record. Nat Underw (Life ed) 52:2 Ag 6 '48; East Underw 49:11 Ag 6 '48

Prudential steps up real estate buying. Bsns W p75 N 1 '47

Real estate changes. L. D. Meredith. East Underw 49:11 Ja 16 '48

Realty investing as Connecticut Mutual officer views it. F. J. Eberle. East Underw 49:1+ Ap 16 '48

Realty investments involving unusual monetary features; Portland Oregonian deal and Hampshire House transaction. East Underw 49:1+ Ag 27 '48

Sell-lease; new source of capital; firms sell real estate to insurance companies, universities, then lease it back. W. N. Augsburg. 1l Am Bsns 17:8-9+ D '47

Wieboldt Stores to sell out to Equitable Life. Bsns W p68 F 14 '48

Reinstatement

See Insurance, Life—Lapses and surrenders

Reinsurance

Life reinsurance. L. T. Kalmbach. Life Ins Courant 53:11-12+ Mr '48

Propose excess of loss life reinsurance abroad; abstract. W. Juul. Nat Underw (Life ed) 51:7 D 26 '47

Reserves

Challenge boost in Missouri State Life reserves as unconstitutional. Nat Underw (Life ed) 52:3 S 3 '48; Same. East Underw 49:4 S 3 '48

Retirement income policies

Advantages in retirement income selling. R. R. Lounsbury. East Underw 49:11 My 21 '48

Risks

Experience on infants found to be favorable. R. J. Learson. East Underw 49:14 My 21 '48

Home office underwriting department. R. E. Moyer and others. East Underw 49:18+ pt 2 O 8 '48

How underwriting service has been expanded; selection of risks. C. F. Harris. East Underw 49:4+ S 24 '48

Life insurance rejected in 1946; map. Spectator (Life ed) 155:33 O '47

Operating objectives of home office underwriting. A. J. Robinson. East Underw 49:38+ pt 2 O 8 '48

Present practice in selection procedure. W. C. Menge. East Underw 49:14 My 28 '48; Same. Weekly Underw 158:1650+ Je 5 '48; Excerpt. Nat Underw (Life ed) 52:5 Je 4 '48

See also

Insurance, Life—Aviation risks	Insurance, Life—War risks
Insurance, Life—Substandard risks	

Salary savings plan

Employers more receptive to salary savings plans. M. R. Burr. Nat Underw (Life ed) 51:9 N 7 '47

How to sell salary allotment. M. L. Lane. Rough Notes 91:65-7 Mr; 62-4 Ap; 56-8 My '48

Social aspects

Broad aspects surrounding insurance. J. L. Loomis. East Underw 49:3 Jl 9 '48

Family man foundation of free society. R. Hull. Weekly Underw 159:425+ Ag 28 '48

Lack of insurance can lead to crime; loss of the family breadwinner. East Underw 48:16 N 21 '47

Life insurance policy vital for security. C. O. Fischer. Weekly Underw 158:1726 Je 12 '48

Life insurance touches whole population. L. A. Lincoln. East Underw 48:3-4 D 26 '47

Youth needs educating in personal economics; uses and benefits of life insurance. C. H. Orr. Nat Underw (Life ed) 52:36 O 8 '48

Statistics

Life insurance; admitted assets, insurance written, payments and premium collections, 1941-1946. Survey of Cur Bsns 1947 Sup p81-3 [supplemented in monthly numbers]

Life insurance owned at new mid-year high. East Underw 49:11 Je 25 '48; Same abr. Weekly Underw 158:1856 Je 26 '48

1947 life insurance distributions; names of insured and statistics. Nat Underw (Life ed) 52:1-48 sec 2 My 28 '48

1947 life insurance fact book. 2d ed 98p Inst. of life insurance, 60 E. 42d st, New York 17 '47

1948 Little Gem brings wealth of vital CSO data. L. H. Martin. Nat Underw (Life ed) 52:2+ My 21 '48

Ordinary life in force increased 8.2 per cent in 1947. Weekly Underw 158:689 F 28 '48

Payments by Prudential \$9,500,000,000 in 72 years. Weekly Underw 158:1395 My 8 '48; Same. East Underw 49:4 My 7 '48

Policy size; company ranking, 1947 and comparisons. Life Ins Courant 53:33-4 S '48

Ranking of life companies by in force; tabulation. Nat Underw (Life ed) 52:3+ Ap 9 '48; Correction. 52:7 Ap 16 '48

Rankings; group, industrial and ordinary, as of Dec. 31, 1947; tabulation by company. Life Ins Courant 53:6-7 Je '48

Spectator, statistical issue. Spectator (Life ed) 155:5, 10-26+ O '48

Spectator, statistical issue. Spectator (Life ed) 155:9-33+ O '47

U.S. policyholders add record new insurance in 1947. East Underw 49:7 Ja 16 '48

See also

Insurance, Life—Finance	Insurance, Life—First year claims
-------------------------	-----------------------------------

Study and teaching

Colleges leave students ignorant about insurance. C. J. Zimmerman. Weekly Underw 159:42 Jl 3 '48

L.O.M.A. drops fellowship thesis. Nat Underw (Life ed) 52:6 My 28 '48

New York insurance society's school gives life courses. East Underw 49:3 Jl 16 '48

60 enrollees enjoy informal study at University of Connecticut. S. Perry. Nat Underw (Life ed) 52:1+ Ag 6 '48

Training course now launched for fall in 38 localities by LUTC. East Underw 49:1+ Ja 30 '48

See also

American college of life underwriters	Life office management association
Insurance, Life—Agents—Training	Life underwriter training council
Insurance schools	

Substandard risks

1½ billion new "extra rate" insurance in 1947; underwriting of impaired risks. Weekly Underw 159:785 O 2 '48

Suicide death claims

Suicide clause held invalid on wording, because of phrase "sane or insane." East Underw 49:7 Jl 30 '48; Nat Underw (Life ed) 52:7 Jl 30 '48; Weekly Underw 159:718 S 25 '48

Taxation

Arranging life insurance to qualify for marital deduction. E. N. Polisher. Trusts & Estates 86:485-6 Je '48

Beneficiaries have broad interest in Zahn estate case. East Underw 49:1+ F 6 '48

Benson gratified by Magill report; Woll in strong opposition. Nat Underw (Life ed) 51:6 N 14 '47

Changes in the marital deduction law. L. M. Bregy. Life Ins Courant 53:10-12 O '48

Congress clarifies estate tax status; pass Joint resolution 429. East Underw 49:15 Je 25 '48; Nat Underw (Life ed) 52:1+ Je 25 '48

INSURANCE, Life—Taxation—Continued

Does this win the \$64? estate tax marital deduction; editorial. *Nat Underw* (Life ed) 52:8 My 14 '48

Effect on settlement options of the 1948 revenue act. H. S. Redeker. *East Underw* 49:54+ pt 2 O 8 '48

Estate taxes under the new tax law. *Life Ins Courant* 53:9-11 Je '48

How 1948 tax law affects typical estate situations; marital deduction. J. H. Overbeck, Jr. *Nat Underw* (Life ed) 52:2+ Ap 30; 8+ My 7 '48

How to utilize marital deduction. R. F. Spindell. *Nat Underw* (Life ed) 52:9+ My 7 '48

Hypothetical cases show what can be done under new tax law. H. G. Swanson; H. C. Chaney. *Nat Underw* (Life ed) 52:1+ Ap 23 '48

Income taxation of proceeds; editorial. *Nat Underw* (Life ed) 52:8 Ap 16 '48

Insurers vary on future marital-deduction woes. *Nat Underw* (Life ed) 52:4+ JI 23 '48

Keep weather eye on Zahn-Equitable case in New York; danger of decision that might necessitate death payment delays. *Nat Underw* (Life ed) 52:3 Ja 30 '48

Liability for federal estate tax; Zahn case. F. L. Morton. *Spectator* (Life ed) 155:14-17+ Je '48

Life insurance trusts are not barred from estate tax marital deduction; situation as to options. *Nat Underw* (Life ed) 52:1 Ap 23 '48

Magill report for removing tax bias against insurance. *Nat Underw* (Life ed) 51:1+ N 7 '47

Magill report goes beyond N.A.L.U. on some points. *Nat Underw* (Life ed) 51:28 D 5 '47

Marital deduction and life insurance. H. R. Glenn. *East Underw* 49:52+ pt 2 O 8 '48

Marital deduction bill signed; new option rules issued. *Nat Underw* (Life ed) 52:1 JI 9 '48

Marital deduction for estate taxes; implications for insurance. D. H. McLucas. *Trusts & Estates* 86:448+ Je '48

Marital deductions. M. H. Johnson. *Weekly Underw* 158:1412-13 My 8 '48; Excerpts. *Nat Underw* (Life ed) 52:1+ Ap 30 '48

On the tax horizon. F. L. Morton. *Spectator* (Life ed) (Endorsement no 1947-1948) 155:64-7 N '47

Proceeds section of tax law needs amending. B. C. Bentley. *Nat Underw* (Life ed) 52:3+ My 21 '48

Recent tax decisions (cont). F. L. Morton. *Spectator* (Life ed) 155:32+ N; 31+ D '47; 30-1+ Ap; 156-11+ JI '48

Return on single premium life and annuities not taxable as an annuity. *Nat Underw* (Life ed) 52:4 JI 2 '48

Revenue act of 1948; its application to life insurance and annuity contracts; address before American bar association; abstracts. E. M. Thore. *East Underw* 49:10+ S 10 '48; *Nat Underw* (Life ed) 52:1+ S 10 '48; *Trusts & Estates* 87:199-206, 347-50 S-O '48

Revenue act of 1948; Northwestern Mutual Life explains it to field force. *East Underw* 49:3+ Ag 13 '48

Revenue bureau clarifies ruling on partnerships. *Nat Underw* (Life ed) 51:3 D 5 '47

Reversal of Zahn case decision relief to business; N.Y. court holds Equitable Society not liable for taxes. *Nat Underw* (Life ed) 52:6 Ap 9 '48

Settlement situations that need liberalizing; problems raised by estate tax marital deduction. K. R. Clark. *Nat Underw* (Life ed) 52:6+ Ap 30 '48

Tax exclusion for all employer-paid premiums is sought; A.L.C.-L.I.A. memorandum. *Nat Underw* (Life ed) 52:2 Mr 5 '48

Tax lawyer urges caution regarding amended section of internal revenue code. B. C. Bentley. *Nat Underw* (Life ed) 52:4 JI 23 '48

Tax revenue act of 1948; what it means to the underwriter and the public. F. L. Morton. *Spectator* (Life ed) 155:15-17+ My '48

Tax revision in 1948; the Magill report. F. L. Morton. *Spectator* (Life ed) 155:20-1+ Jn '48

Tax seduction under T. D. 5515; indiscriminate use of the installment settlement options in life insurance policies. H. E. Haiman. *Trusts & Estates* 86:33-4 Ja '48; Same. *Life Ins Courant* 53:14-15 Mr '48

Taxation of life insurance versus other property. F. L. Morton. *Spectator* (Life ed) 155:30+ Mr '48

Testamentary nature of life insurance; transfers in contemplation of death; recent tax decisions. F. L. Morton. *Spectator* (Life ed) 155:16-17+ F '48

Transfer of life insurance and the federal estate tax; abstract. A. S. Guterman. *East Underw* 49:17 Mr 26 '48

Treasury advocates revised tax laws for 1948 enactment. *East Underw* 49:1+ Mr 12 '48; Same cond. *Nat Underw* (Life ed) 52:1 Mr 5 '48

Taxation problems

Expect new U.S. tax law to boost life sales. *Nat Underw* (Life ed) 52:1 Ap 9 '48

Terminology

Improving on "street agent"; editorial. *Nat Underw* (Life ed) 52:12 Ap 9 '48

Swedes study limitations of insurance terms following study of public misconceptions. *Weekly Underw* 158:997 Mr 27 '48

Unclaimed policies

See Insurance, Life—Policy settlement—Unclaimed policies

War risks

Cause of death immaterial under clause terminating double indemnity provisions upon insured entering military service. *Weekly Underw* 158:1278 Ap 24 '48

Modern warfare may outmode war mortality data. H. R. Bassford. *East Underw* 49:3+ Je 25 '48

Six recent court decisions hinge on war clauses. *Nat Underw* (Life ed) 52:4 JI 9 '48

Status of insured as soldier basis of insurer's exemption from liability for double indemnity; Jorgenson v. Metropolitan Life. *Weekly Underw* 157:1342 N 22 '47

War clause studied urged by Commissioners' committee. *Weekly Underw* 157:1384 N 29 '47

Women agents

See Insurance, Life—Agents—Women agents

Women as prospects

Little women mean big business. M. F. Barber. *Spectator* (Life ed) 155:22-5+ Ap '48; Same cond. *East Underw* 49:3+ F 27 '48

Selling angles; feminine gender; abstracts. E. Kidd. *Spectator* (Life ed) 155:20-2 N '47; *Weekly Underw* 158:195 Ja 10 '48

Women's market. A. S. Liston. *East Underw* 49:10+ JI 30 '48

Women's attitude

Insurance a big factor in family continuity. M. S. Eberly. *East Underw* 49:12 Mr 26 '48

U.S. working girls no longer waiting heaven's protection. M. Baker. *Weekly Underw* 158:999 Mr 27 '48

Alaska

1946 business, all classes; tabulation. *Life Ins Courant* 52:521 D '47

Canada

Life insurance in Canada in 1947. W. M. Anderson. *East Underw* 49:12 Ja 2 '48

See also

Canadian life insurance officers association

Europe

How life insurance has survived in European countries. H. R. Bassford and J. G. Beatty. *East Underw* 49:3 O 29 '48

Great Britain

Boom in life assurance. *Economist* 154:73 Ja 10 '48

Britannic assurance company, limited; Prudential assurance company, limited; annual meetings. *Economist* 154:610-12 Ap 10 '48

INSURANCE, Life—Great Britain—*Continued*
Equity & law life assurance society; Standard life assurance co.; Scottish life assurance co.; National mutual life assurance society; Scottish equitable life assurance society; annual meetings, Economist 154: 476, 478-9, 481, 485 Mr 20 '48
Wesleyan and general assurance society, annual general meeting, Economist 154:653 Ap 17 '48

Hawaiian Islands

1946 business, ordinary, group and industrial; tabulation, Life Ins Courant 52:522 D '47

Los Angeles

Los Angeles takes important place as company center, Nat Underw (Life ed) 52: 14 O 1 '48

Nova Scotia

1946 business, ordinary, group and industrial; tabulation, Life Ins Courant 52:481 N '47

Philippine Islands

Filipinos buying more insurance, J. McCall, Weekly Underw 157:1390 N 29 '47

South Africa

Insurance business on upgrade in South Africa, R. H. Woffindin, Nat Underw (Life ed) 52:6 J1 30 '48

INSURANCE, Liquor law liability

Could Illinois dram liability embrace the mortgagee? W. K. Faust, Nat Underw 51:24 O 30 '47

INSURANCE, Longshoremen's and harbor workers' compensation

Longshoremen's and harbor workers' compensation endorsement, Rough Notes 91:52-3 S '48

INSURANCE, Machinery

See also

Insurance, Power plant

INSURANCE, Malpractice liability

Coverages and forms; physician's liability policy, Spectator (Property ed) 13:3-9 Ja 8 '48

First time; malpractice rates, rules and coverage are set up, Nat Underw 52:19+ J1 15 '48

What you should know about the professional liability coverages, D. T. Ratcliffe, Rough Notes 91:19+ J1 '48

See also

Insurance, Druggists' liability

INSURANCE, Marine

Consider big marine insurance setup for Marshall plan goods, East Underw 49:1+ J1 23 '48; Same, Weekly Underw 159:176 J1 24 '48

ECA will not act to put marine risks in American market, East Underw 49:1+ S 17 '48; Same, Weekly Underw 159:609+ S 18 '48

Export control issue is still undecided; insurance on illegal transactions, S. Klaus, Nat Underw 52:12 S 23 '48

How Fireman's Fund got marine insurance start, Weekly Underw 158:884+ Mr 20 '48

Marine interests confer on matters of ECA cover, Nat Underw 52:2 Ag 19 '48

Marine market dealt with problems in competent and aggressive manner, P. Chubb, 2d, East Underw 48:78-9 D 19 '47

Marine syndicates and Salvage association elect officers and manager for 1948, East Underw 49:36 Mr 26 '48

Marine underwriters did not ask ECA to place risks in U.S.; issue letter to Hoffman, East Underw 49:1+ S 24 '48; Same, Weekly Underw 159:685+ S 25 '48

Midwest wet marine volume holding up well in 1948, Nat Underw 52:5 My 27 '48

New York retains jurisdiction in suit for insurance on Federal motorship corporation vessel, East Underw 49:23 Je 18 '48

Partial loss claims plagued marine men; with 1947 developments, E. R. King, 11 Weekly Underw 158:50+ Ja 3 '48

Seizure of cargoes in Egypt, due to Palestine trouble, concerns underwriters, Weekly Underw 159:386-7 Ag 21 '48

U.S. Chamber unit takes strong stand on ECA cover, Nat Underw 52:21 S 16 '48
U.S. marine interests lose out in ECA setup, Nat Underw 52:3+ S 9 '48

See also

Insurance, Longshoremen's and harbor workers' compensation
Insurance, Motor boat
International marine insurance union
Salvage

Adjustment of claims

Reasoning of House of lords in Priam case; Post magazine of London, Weekly Underw 158:160 Ja 10 '48

Shipowner held obligated to insure fire risks of cargo ashore from S.S. Mormacmar at Wellington, Weekly Underw 157:1492+ D 13 '47

Finance

Marine experience for 1947, tabulation by company, Nat Underw 52:6 Mr 18 '48

New Jersey 1947 premiums and losses paid of fire and marine companies; tabulation by company, East Underw 49:26 Mr 26 '48

1947 peak peacetime year for ocean marine, K. Force, Nat Underw 52:6 Ja 15 '48

Ocean marine premiums and losses much higher in 1947; with tabulation by company, East Underw 49:28+ Mr 12 '48

Premiums, stock fire and marine companies, 1938-1947; tabulation, Spectator (Property ed) 14:10-11 O 21 '48

Underwriting experience of carriers for different marine lines in 1947; tabulation by company, Weekly Underw 158:958-9 Mr 27 '48

International aspects

Hits marine restrictions; address at Hemispheric insurance conference, J. T. Byrne, Weekly Underw 159:1024-5+ O 30 '48; Same abr, East Underw 49:20-1 O 29 '48; Excerpts, Nat Underw 52:4 O 28 '48

Losses

American marine hull market has eleven total losses in two years, East Underw 49:22 J1 2 '48

See also

Insurance, Marine—

Theft losses

Policies

Revised American institute port risk form adopted by underwriters, East Underw 49: 28 O 1 '48

Prospects

Ocean marine insurance; types now being written in every inland area, W. Melone, Rough Notes 91:30+ F '48

Prospects for ocean marine, D. J. Gladwin, Rough Notes 91:50 J1 '48

Rates

British hull rates; Post magazine of London, Weekly Underw 158:1510 My 22 '48

Underwriters up rates due to continued riots; action reflects concern over conditions in France, Italy and Near East, Weekly Underw 157:1495 D 13 '47

Risks

Hazards of navigation in Alaskan waters of interest to underwriters, Weekly Underw 159:75+ J1 10 '48

Self insurance

Views differ on UNRRA self-insurance results, H. C. Hallam, Nat Underw 51:4-5 D 25 '47

Study and teaching

Insurance society of New York announces expanded marine course, Weekly Underw 159:493+ S 4 '48; Same abr, East Underw 49:31 S 10 '48

Theft losses

Security men would check every pier user, Weekly Underw 159:26 J1 8 '48
Theft and pilferage; ten-point scheme to combat evil, Weekly Underw 157:1246 N 15 '47

INSURANCE, Marine—Theft losses—Cont.

Thefts, pilferage major problem for marine companies. E. E. Conroy. Nat Underw 52: 14 F 19 '48

War risks

Cut war risk cargo binders to seven days. Nat Underw 52:4 O 7 '48
 Importer recovers premiums for war risk on cargo taken over by the CCC. East Underw 49:32 F 20 '48
 Incidence of marine insurance when shipping route is changed by war. East Underw 48:30 N 28 '47
 Mines menace shipping in all parts of world. Weekly Underw 158:586 F 21 '48
 Reasoning of House of lords in Priam case; Post magazine of London. Weekly Underw 158:160 Ja 10 '48
 War risk insurance stimulated on Pacific; mines sighted. Weekly Underw 157:1367 N 29 '47

Argentina

Argentine law view; U.S. embassy believes that interior point means any place in that country. East Underw 49:20 My 28 '48
 Argentine marine rules causing much speculation. Nat Underw 52:5 My 27 '48; East Underw 49:1+ My 21 '48

Belgium

Comparison of Antwerp and British marine insurance policies. H. Voet. Weekly Underw 159:24+ J1 3 '48

Great Britain

Address at annual general meeting of Institute of London underwriters. H. H. Mumery. Weekly Underw 158:508+ F 14 '48
 British marine companies report good 1947 operating results. Weekly Underw 159:549 S 11 '48
 Comparison of Antwerp and British marine insurance policies. H. Voet. Weekly Underw 159:24 J1 3 '48
 Continue \$10,000,000 fund; non-admitted British carriers' trust to run 10 additional years. Weekly Underw 158:1097 Ap 10 '48; Same. Nat Underw 52:9 Ap 15 '48
 Coverage of goods affected by London dock strike. Weekly Underw 159:224 J1 31 '48

INSURANCE, Medical expense

Medical expense in insurance. J. S. Thompson. Weekly Underw 158:1582-4, 1743-5 My 29, Je 12 '48
 Medical insurance demand being met by private A.&H. companies. W. Washburn. East Underw 49:41 My 14 '48
 More companies writing medical care coverage. Weekly Underw 157:1333 N 29 '47
 Physician fee coverage. Life Ins Courant 53: 23-5 S '48
 Possibilities beyond catastrophe level explored by medical group of H.&A. Conference. Nat Underw (H.&A. conference no) 52:8 My 14 '48
 Progress in group medical-hospital expense field. A. Pike, jr. East Underw 49:30 Ja 2 '48
 Selling need might create demand for medical coverage; H. & A. Conference forums. Nat Underw 51:26+ N 20 '47; Same abr. Nat Underw (Life ed) 51:2+ N 21 '47
 Statistical problems in developing voluntary medical expense insurance plans. M. D. Miller. bibliog Am Stat Assn J 43:290-8 Ja '48
 United medical service increases benefits. Spectator (Property ed) 13:33 Ja 8 '48

See also

Insurance, Surgical expense

Fraudulent promotion

Many complaints on California medical benefit plans. Nat Underw 52:21 J1 15 '48

INSURANCE, Mercantile open stock burglary.
See Insurance, Burglary**INSURANCE, Military and naval service**

Argue retroactive changes in NSLI act; hearings on H. 5045. H. Lando. Weekly Underw 158:392-3 Ja 31 '48
 Army, navy OK free insurance for armed forces. Nat Underw (Life ed) 52:1 J1 16 '48

Army officer tried twisting to place NSLI policy. M. C. Latta. Nat Underw (Life ed) 52:3 O 1 '48

Charges double bookkeeping on NSLI; demands redress of overcharge blame from life companies. P. W. Shafer. Weekly Underw 158:840-1 Mr 13 '48

Defends VA record at House committee hearing. H. W. Breining. Nat Underw (Life ed) 51:6 D 19 '47

D'Olier to direct study of V. A. insurance. Weekly Underw 158:186-7+ Ja 10 '48

Gratuitous plan for army-navy cover is unveiled. Nat Underw (Life ed) 52:14 Mr 5 '48

National service insurance; recent developments. H. W. Breining. East Underw 49: 49+ pt 2 O 8 '48

NSLI situation in 1947. H. W. Breining. East Underw 48:34 D 19 '47

NSLI term policies can be renewed for five years more. Nat Underw (Life ed) 52:6 J1 2 '48

New laws explained. H. W. Breining. Weekly Underw 159:263 Ag 7 '48

Printing snails delaying issuance of new NSLI policies. Nat Underw (Life ed) 52:3 J1 30 '48

Reports slow but steady progress in solving VA's many insurance problems. V. Howell. Weekly Underw 158:929 Mr 20 '48

VA explains application of new NSLI extension. Nat Underw (Life ed) 52:9 J1 16 '48

VA insurance chief not to quit; hits back at critics. Nat Underw (Life ed) 51:3 N 7 '47

VA's troubles; National service life insurance has brought order from chaos. Il Bsns W p52+ My 15 '48

Wants U.S. terminal date for NSLI fixed. J. B. Baumann. East Underw 48:1+ N 14 '47

Lapses and surrenders

Reinstatements put huge load on NSLI branches. Nat Underw (Life ed) 52:7 O 15 '48

Policy dividends

Truman sees NSLI dividend between one and two billion. Nat Underw (Life ed) 52:1 Ja 16 '48

Policy settlement

Lesson from the Zavoz case; editorial. Nat Underw 52:12 J1 '48; Same. Nat Underw (Life ed) 12 Je 25 '48

VA nightmare; Zavoz case. Bsns W p20 D 13 '47

Zavoz case reversed in unanimous opinion by Supreme court. East Underw 49:1+ Je 18 '48; Nat Underw (Life ed) 52:1 Je 18 '48

Zavoz case review before Supreme court. East Underw 48:10 N 28 '47; Weekly Underw 157:1388 N 29 '47

Reinstatement

See Insurance, Military and naval service—Lapses and surrenders

INSURANCE, Money and securities

Prospects are in your files; burglary policyholders already on your agency's books. M. W. Bergen. Rough Notes 90:19+ N '47

INSURANCE, Mortgage

Home owner's disability policy put on market by Employers' fills need. East Underw 48: 102 D 19 '47

See also

Insurance, Life—Mortgage redemption policies

INSURANCE, Morticians' liability

Liability problems of funeral directors. Rough Notes 90:32+ N '47

INSURANCE, Motor boat

Breach of winter lay-up warranty in yacht policy bar to recovery. East Underw 49: 41 S 17 '48

Coverages and forms; yacht insurance. Spectator (Property ed) 14:20-1 J1 22 '48

It's time to write yacht business. J. D. Hartline. Il Rough Notes 91:30+ Je '48

NFPA revises motor boat standard. East Underw 49:26 My 14 '48

INSURANCE, Motor boat—Continued

Wide waterways to boating pleasure; crowds out to see National motor boat show in New York indicate big market is open to yacht underwriters. *By J. Malley, 11 Spectator (Property ed) 13:14-18, 36-7 Ja 22 '48*

See also

Yacht clubs—Insurance requirements

INSURANCE, Motor bus

Self-insurance plan for New Jersey buses hits snag; to submit pooling plan. *Nat Underw 51:29 D 4 '47*

Statutory motor carrier public liability and property damage insurance. *D. Duval, Weekly Underw 158:602-4, 667-9 F 21-23 '48*

INSURANCE, Motor truck

ATA insurance advisory committee being set up for 11 western states. *East Underw 49:43 S 17 '48; Nat Underw 52:26 S 9 '48*
Companies planning truck syndicate; address before American trucking assns. *W. S. Attridge, Nat Underw 52:21+ O 14 '48; Same cond. East Underw 49:25 O 22 '48*
Long haul trucking panel of N.A.I.A. delineates company troubles. *Nat Underw 52:46 O 7 '48*

NAIA committee recommendations to improve long haul truck risks. *East Underw 49:32 Ap 16 '48; Nat Underw 52:4 Ap 15 '48; Weekly Underw 158:1176+ Ap 17 '48*

Placing truck business can be easier. *W. W. Belson, Rough Notes 91:30+ O '48*

Score dearth of interstate markets at N.A.I.A. meeting. *E. N. Eager, East Underw 49:25+ O 15 '48*

Truck insurance market; address at NAIA meeting. *W. S. Attridge, East Underw 49:31 O 15 '48*

Trucking and insurance advisory group formed. *East Underw 49:36 Mr 12 '48*

Adjustment of claims

Appeals to U.S. high court judgment of \$17,500 over limit of policy; Royal Transit case. *Nat Underw 52:17 S 2 '48*

Assured settling claim must prove negligence of his driver to hold insurer liable. *Weekly Underw 158:1074 Ap 3 '48*

Broker is agent of assured, Illinois high court finds; William France vs. Citizens Casualty. *Nat Underw 52:24 Ap 22 '48*

Court finds for insurer on employee issue; State Farm Mutual vs. Braxton et al. *Nat Underw 52:31 My 6 '48*

Employee exclusion clause in liability policy; Lumber mutual casualty insurance co. v. Stukes. *J. A. Roesch, Spectator (Property ed) 13:10-11 F 12 '48*

Illegally hired minor covered under truck B.I. policy. *Nat Underw 52:20 Je 3 '48*

Injury by falling over lump of coal comes under loading, unloading clause. *Nat Underw 52:22 S 30 '48*

Insurer wins on issue involving permission. *Nat Underw 52:17 Ag 12 '48*

Limitation of liability policy effective against the assured motor carrier though not against public. *Weekly Underw 158:1006 Mr 27 '48*

INSURANCE, Motor truck contents

Airport truck cargo theft risks. *East Underw 49:23 Je 18 '48*

Cargo loss and damage payments by Class 1 motor carriers shows increase; analysis by American trucking associations. *Weekly Underw 159:399 Ag 21 '48; Same abr. Nat Underw 52:5 Ag 19 '48*

Injuries to trucker by thefts from trucks. *J. Selde, Weekly Underw 159:914 O 16 '48*

Loss prevention devices prevent truck losses. *Weekly Underw 157:1174 N 8 '47*

Thefts can be reduced; measures to prevent hijacking. *J. E. Hoover, Weekly Underw 158:46-7 Ja 3 '48*

Truck cargo selling. *U. M. Leill, East Underw 49:22 O '49 '48; Same, Rough Notes 91:48-9 N '48*

Truck cargo theft trends during 1947. *J. Selde, Weekly Underw 158:54+ Ja 3 '48*

Adjustment of claims

Decision clarifies meaning of due course of transit; Starlight fabrics inc. v. Glens Falls insurance company. *J. L. Roesch, Spectator (Property ed) 14:28 Ag 5 '48*

Goods loaded on trailer no longer in use held not to be "in transit". *East Underw 49:30 Mr 26 '48*

Imposter-truckman gets cargo from shipper; no cover; Starlight fabrics, inc. vs. Glens Falls. *Nat Underw 52:6+ J1 15 '48*

New York Court of appeals reverses judgment in Starlight Fabrics case. *East Underw 49:29 My 28 '48*

INSURANCE, Multiple location. See Insurance, Fire—Multiple location policies

INSURANCE, Municipal

See also

Insurance—Municipal policies

INSURANCE, Musical instruments

Musical instruments floater. *Rough Notes 91:66-7 Ap '48*

INSURANCE, Mutual

Auto premiums and losses of mutual fire companies for 1946 and 1947; tabulation. *Nat Underw (Auto & aviation no) 52:17 Ap 23 '48*

Certiorari petition attacks Ohio law on mutualization; Western and Southern Life case. *Nat Underw (Life ed) 52:6 Ag 13 '48*

Country-wide underwriting results, 1943-47, of companies licensed in New York state; tabulation. *East Underw 49:10 pt 2 Je 18 '48*

Court refuses to rule that mutual cover is cheaper; Mobile housing board purchase of stock insurance. *Nat Underw 51:6 D 4 '47*

Factory Mutuals show decrease in net losses in 1947. *Nat Underw 52:6 Mr 11 '48*

How rating laws affect factory mutuals. *A. B. Kelly, Nat Underw 52:19 My 27 '48*

Iowa dept. survey on fraternal; problem of transformation to mutual legal reserve insurance companies. *East Underw 49:9 S 3 '48; Same cond. Nat Underw (Life ed) 52:13 Ag 27 '48*

Must prepare to face fundamental issues; address before National association of mutual insurance agents. *E. J. Brookhart, Nat Underw 52:10+ Je 3 '48*

Mutualization plan for A.O.U.W. of North Dakota is approved. *Nat Underw (Life ed) 51:19 O 31 '47*

Mutuals faced difficult 1947 problems. *B. G. Sager, Weekly Underw 158:22-3 Ja 3 '48*

1947 mutual fire results; tabulation by company. *Nat Underw 52:9 Ja 22; 6 Ja 29; 14 F 5; 23 F 12; 10 F 19; 8 F 26; 4 Mr 4; 39 Mr 11 '48*

Recent dividend changes of mutuals. *Nat Underw 52:15 Ja 8 '48*

Set up farm bureau insurers in three more states. *Nat Underw 52:22 S 2 '48*

32 farm bureau insurers in field. *Nat Underw 52:22 Ap 8 '48*

Treasury tells principles of mutual taxation. *Nat Underw 51:6 N 6 '47*

Western & Southern joins ranks of mutual companies. *Nat Underw (Life ed) 52:1 J1 23 '48*

Western & Southern Life answers policyholder brief. *Nat Underw (Life ed) 52:8 S 10 '48*

Wisconsin mutual convention reviews current problems. *Nat Underw 51:8 N 6 '47*

See also

Mutual general agents association	National association of mutual insurance agents
Mutual insurance statistical association	National association of mutual insurance companies

INSURANCE, Owners', landlords' and tenants' public liability

O.L.&T. experience poor, especially on hotel type risks. *Nat Underw 52:12 J1 29 '43*

Medical payments coverage

Medical pay with O.L.&T. is easy sale, many agents find. *Nat Underw 51:9 O 30 '47*

INSURANCE, Parcel post

Nickels and dimes add up. *J. W. Huggins, 11 Rough Notes 90:34 N '47*

INSURANCE, Pattern floater. See Insurance, Inland marine—Policies

INSURANCE, Personal property floater. See Insurance, Inland marine—Policies—Personal property floater

INSURANCE, Physicians' and surgeons' liability. See Insurance, Malpractice liability

INSURANCE, Plate glass

Complete revision of plate glass manual announced by National Bureau. Weekly Underw 159:31 J1 3 '48; Same. Nat Underw 52:15 J1 1 '48; East Underw 49:35 J1 2 '48
Coverages and forms; comprehensive glass policy. Spectator (Property ed) 14:24-5 J1 8 '48

Adjustment of claims

Unauthorized plate glass contract. Spectator (Property ed) 13:10-11+ My 20 '48

Rates

Oklahoma glass rates up. East Underw 48:31 N 7 '47

INSURANCE, Power plant

Boiler and machinery consequential damage endorsement. Rough Notes 91:70 Je '48
Boiler and machinery panel staged by Risk research institute. East Underw 48:32 D 5 '47; Abstract. Nat Underw 51:24 D 4 '47
Boiler and machinery policy. Rough Notes 91:69-70 O '48
Boiler insurers stand firm against rewriting. Nat Underw 52:21 Ag 12 '48
Boiler-machinery freeze date is extended to Nov. 1. Nat Underw 52:15 S 2 '48
Boiler-machinery woes related to buyers at New York. R. P. Griffin. Nat Underw 51:17-18 N 27 '47
Boiler rate increase decision stirs the field. Nat Underw 52:11 J1 29 '48
Schedules for boiler and machinery insurance. Rough Notes 90:70 O '47

INSURANCE, Products liability

Insurers watch fight for permanent wave business. Nat Underw 52:20 J1 15 '48
Products field is taking on new stature. Nat Underw 52:21+ O 28 '48
Products liability insurance. J. M. Crawford. Weekly Underw 158:1786-7, 1846-8; 159:20-2+ Je 19-J1 3 '48; Excerpts. East Underw 49:31 Je 4 '48
Products suit settled in case of children's playthings of flammable plastic. Nat Underw 52:6 J1 29 '48

Completed operations coverage

Completed operations coverage is product liability protection for contractors. Rough Notes 91:23+ Je '48

Reinsurance

Lloyds loses products suit in reinsurance dispute with Employers Mutual Liability. Nat Underw 52:36 S 23 '48

INSURANCE, Public liability. See Insurance, Liability

INSURANCE, Race horse. See Insurance, Horse

INSURANCE, Rain

Rain insurance has unrealized potentials. Nat Underw 52:5 S 2 '48

INSURANCE, Reciprocal

Fire reciprocals booming; Associated reciprocal exchanges. Bsns W p28 J1 3 '48

INSURANCE, Rent

Rents and rental value. W. L. Reid. Rough Notes 91:22-3 My '48
Value of mortgagee requiring rent insurance. R. J. Stewart. Nat Underw 52:12+ My 6 '48

INSURANCE, Replacement

Jersey authorizes replacement form; with text. Spectator (Property ed) 13:9 O 23 '47
Market for replacement cost has wide range. Nat Underw 52:4 J1 22 '48
No replacement cost cover on dwellings in Missouri. Nat Underw 52:9 Ap 1 '48
Repair or replace insurance. M. B. Dalton. Management R 37:263-5 My '48
Replacement cost cover authorized in Ohio. Nat Underw 52:2 Ap 29 '48
Replacement cover rules issued in Washington. Weekly Underw 158:432+ F 7 '48; Excerpt. Nat Underw 52:26 Ja 8 '48

INSURANCE, Residence and outside theft. See Insurance, Theft

INSURANCE, Robbery. See Insurance, Burglary; Insurance, Theft

INSURANCE, Safe deposit box

Coverages and forms; comprehensive safe depository liability. Spectator (Property ed) 13:8 Ap 22 '48
New safe depository liability policy of Indemnity of North America. East Underw 49:29 J1 16 '48

Safe deposit box burglary and robbery policy for industrial lessees. Rough Notes 90:69-70 O '47

Safe depository liability policy revision. Weekly Underw 158:1110+ Ap 10 '48; Same. Nat Underw 52:19+ Ap 8 '48; Same abr. East Underw 49:24 Ap 9 '48

INSURANCE, Self. See Insurance—Self insurance; Insurance, Marine—Self insurance

INSURANCE, Sickness. See Insurance, Health

INSURANCE, Social

Decries stand of SS officials at international meet at Rio. A. L. Kirkpatrick. Nat Underw 51:18 D 11 '47

Inter-American conference on social security, 2d, Rio de Janeiro. Int Labour R 57:481-6 My '48

International social security association 8th general meeting. Geneva, Oct. 4-9. Int Labour R 57:205-17 Mr '48

Socialized industrial medicine? P. B. Reaser. Bibliog Ind Med 17:31-4 Mr '48

Vast business seen for casualty companies meeting demand for social insurance. C. J. Haugh. Weekly Underw 157:1326-7 N 22 '47

See also

Insurance, Compul-

sory

Insurance, Health

Insurance, State

Insurance, Unem-

ployment

Old age pensions

Cost

Costs in social insurance. J. Bingham. Comm & Fin Chr 168:907+ S 2 '48

Finance

Employee contributions for social insurance, 1929-46; tabulation. Survey of Cur Bsns 27:sup46 J1 '47

Employee contributions for social insurance, 1944-47; tabulation. Survey of Cur Bsns 28:26 J1 '48

Social insurance funds, 1929-46; tabulation. Survey of Cur Bsns 27:sup23 J1 '47

Social insurance funds, 1944-47; tabulation. Survey of Cur Bsns 28:18 J1 '48

Social security administration has cost taxpayers \$246,400,000 to date. A. J. Altmeyer. Weekly Underw 157:1647 D 27 '47

Canada

Cost of Canada social insurance. J. Hunter. East Underw 49:13 Ag 13 '48

Czechoslovakia

Miners' pension scheme in Czechoslovakia. Int Labour R 57:384-7 Ap '48

Social security in Czechoslovakia. Int Labour R 58:151-86 Ag '48

Denmark

Danish National insurance act. Int Labour R 58:95-6 J1 '48

Dominican Republic

Dominican social insurance act. Int Labour R 56:338-43 S '47

Egypt

Social insurance plan for Egypt. Int Labour R 56:477-81 O '47

France

From social insurance to social security; evolution in France. P. Laroque. Int Labour R 57:565-90 Je '48

Social security in France. Int Labour R 56:81-3 J1 '47

Germany

Social insurance in post-war Germany. M. Bloch. bibliog Int Labour R 58:306-44 S '48

Great Britain

National insurance act. Chem Age (Lond) 58:264 F 21 '48

National minimum; insurance benefits. Economist 154:922-3 Je 5 '48

INSURANCE, Social—Great Britain—Cont.

New poor law; National assistance bill. Economist 153:748-50 N 8 '47

Hungary

Post-war changes in Hungarian social insurance, Int Labour R 56:198-9 Ag '47

India

Social security plan for Indian seafarers, Int Labour R 56:436-41 O '47

Ireland

Changes in Irish schemes, Int Labour R 57:525-7 My '48

Japan

Mission to Japan asks cradle-to-grave plan; Dr Shearon and Congressman Harkness attack proposal, East Underw 49:3+ Ag 27 '48

Recommend wider social security system for Japan, Nat Underw 52:14 Jl 29 '48

New Zealand

Social security in New Zealand, Int Labour R 56:619-20 N-D '47

Russia

Insurance in Russia; Post magazine of London. Weekly Underw 157:1264-5 N 15 '47

Sweden

National sickness insurance in Sweden, Int Labour R 56:193-5 Ag '47

Switzerland

Swiss compulsory old-age and survivors' insurance scheme, Int Labour R 56:190-2 Ag '47

Swiss old-age and survivors' insurance scheme, A. Saxer, bibliog Int Labour R 56:543-65 N-D '47

United States

Advisory council report concerning public assistance programs; abstract, Weekly Underw 159:533+ S 11 '48

Advisory council report on disability insurance; abstract, Mo Labor R 67:146-7 Ag '48

Advisory council report on old-age and survivors insurance; abstract, Mo Labor R 66:641-3 Je '48

Agents' social security status; abstracts, V. A. Lutnicki, East Underw 49:7 O 8 '48; Nat Underw (Life ed) 52:4 O 8 '48

Agents urged to fight for social security rights by defeating Gearhart bill, S. D. Weissman, Weekly Underw 158:752+ Mr 6 '48; Abstract, Nat Underw (Life ed) 52:3 Mr 5 '48

Ask speedy action to get SS cover for agent, S. D. Weissman and others, Nat Underw (Life ed) Daily ed 52:17+ S 16 '48

Await regulations on social security status of agents, Nat Underw (Life ed) 51:2+ N 21 '47

Bar Association to offer special SS plan for self-employed, Nat Underw (Life ed) 52:2 S 3 '48

Both political parties working for social security extension, M. Shearon, East Underw 49:29+ Jl 2 '48; Excerpts, Nat Underw (Life ed) 52:3 Jl 2 '48

Complex character of employment relations; issues involved in Gearhart resolution, E. Thore, East Underw 49:16 Mr 26 '48

Equitable Society's social security manual for agents, East Underw 49:8 F 27 '48

Fear staff may hamper social security revision; former Altmeyer aids employed by Senate committee advisory council, H. C. Hallam, Nat Underw (Life ed) 52:1+ Ja 16 '48

Gearhart law poses questions on past deals, Nat Underw (Life ed) 52:3 Je 15 '48

How to bring agents under OASI cover is big question at NALU meeting, Nat Underw (Life ed) Daily ed 52:6+ S 16 '48

How to improve our social security program; abstract, H. G. Waltner, jr, Management R 37:215-17 Ap '48

Keep it simple; social security as an aid to selling life insurance, E. H. Ames, Life Ins Courant 53:6-8 Jl '48

Make an issue of it! J. Bingham, Comm & Fin Chr 168:800+ Ag 26 '48

More employees? U.S. agencies study broadened definition that would increase social security rolls, Bens W 338+ D 20 '47

Realistic view of compulsory social security; Pittsburgh address, E. H. O'Connor, Comm & Fin Chr 167:1652+ Ap 15 '48

Social insurance in the U.S., M. A. Linton, East Underw 49:4+ Je 25 '48

Social security administration has cost taxpayers \$246,400,000 to date, A. J. Altmeyer, Weekly Underw 157:1647 D 27 '47

Social security advisory council urges doubling present OASI benefits; report to Senate finance committee, Nat Underw (Life ed) 52:1 Ap 23 '48

SS advisory council weighs extensions, chronic disability cover, Nat Underw (Life ed) 51:3 S 13 '47

Social security coverage; abstract of annual report of Social security administration, East Underw 49:18 F 20 '48

Tentative ruling points to employee status for agents, Nat Underw (Life ed) 51:1+ D 5 '47; East Underw 48:1+ D 5 '47

Truman asks broader coverage in social security, East Underw 49:1+ My 28 '48; Nat Underw (Life ed) 52:4 My 28 '48

Truman asks extension of social security; favors health insurance, East Underw 49:9 Ja 16 '48

Two federal court decisions treat employee status; have important bearing on social security eligibility, Nat Underw (Life ed) 52:1+ S 3 '48

INSURANCE, Soldiers' and sailors'. See Insurance, Military and naval service

INSURANCE, Sprinkler leakage

Coverages and forms; sprinkler leakage insurance, Spectator (Property ed) 13:8-9 D 25 '47

Virginia agents hit abrupt end to NCI procedure; ask postponement of effective date of burying competitive instrument, Nat Underw 52:7 Ja 8 '48

Rates

New extended coverage and sprinkler leakage rating plan devised in New England, Nat Underw 52:10 Mr 11 '48

INSURANCE, State

Non-government medical plans; monopolistic insurance of state found wanting in past wherever tried, F. Lang, Weekly Underw 158:82+ Ja 3 '48

Problem of non-work disability; danger of federal monopoly, C. J. Haugh, East Underw 48:33 N 21 '47

Saskatchewan Socialists claim insurers finance opposition, Nat Underw 52:2 My 6 '48

State-sponsored oash sickness plans, L. P. Henry, Nat Underw 52:19+ Je 3 '48

Tackling spread of collectivistic idea; abstracts, E. J. Faulkner, Nat Underw (Life ed) 52:4+ S 24 '48; East Underw 49:38-9 S 24 '48; Weekly Underw 159:702+ S 25 '48

Wants no part of government control of medicine, P. R. Hawley, Weekly Underw 158:248 Ja 17 '48

Warns insurers of trends toward government compulsion in insurance; address before Industrial Insurers conference, E. H. O'Connor, Weekly Underw 158:1533 My 22 '48

See also

Insurance, Military and naval service
Insurance, Social
Insurance, Unemployment

INSURANCE, Storekeepers' burglary. See Insurance, Burglary

INSURANCE, Student

Blanket student accident cover gains acceptance; Continental Casualty's plan, Nat Underw 52:28 S 9 '48

INSURANCE, Surety and fidelity

Bonding industry will meet state requirements; Pittsburgh address; abstracts, M. W. Lewis, Weekly Underw 158:1112-13 Ap 10 '48; Nat Underw 52:19 Ap 8 '48

Bonding trends in 1947, and a 1948 forecast, J. P. Madigan, East Underw 48:86+ D 19 '47

Casualty-surety executives view prospects for last half of year, East Underw 49:29-31 Ag 20 '48

INSURANCE, Surety and fidelity—Continued
Continental's crime insurance campaign produces 80 per cent gain in writings. East Underw 49:30 JI 9 '48

Federal government bond limits as of Nov. 1. Weekly Underw 157:1258 N 15 '47; Same. East Underw 48:35 N 14 '47

Fidelity quiz. Spectator (Property ed) 13: 8-9 O 23 '47

Fighting industrial thefts. II Bsns W p49-50 Mr 20 '48

Install systems; trust all, but bond them adequately. G. Fox. Nat Underw 51:20 D 18 '47

Lloyd's truce ending creates stir among surety underwriters. Nat Underw 52:1 My 13 '48

New bond manual. H. F. Gee. Rough Notes 90:20+ D '47

New look in fidelity bonds. W. L. Bates. East Underw 49:28-9 pt 2 Je 13 '48

1947 bonding premium volume increases. A. F. Lafrentz. Weekly Underw 158:66-8 Ja 3 '48

Optimism replaces gloom in outlook for the casualty-surety business. W. L. Clapp. East Underw 49:28-9 Ja 30 '48

Revise surety manual as to financial institutions. Nat Underw 52:19 My 27 '48

Survey shows need for higher fidelity limits; public accountants quizzed. East Underw 49:29 S 3 '48

Treasury qualifying list, April 1948, April, 1947, and October, 1947; tabulation by company. Nat Underw 52:15+ My 13 '48

Treasury releases new surety qualifying list; figures for Oct. 1946, April 1947 and Oct. 1947. Nat Underw 51:19+ N 13 '47

See also

Bankers' blanket Surety association of
bond America
Insurance, Forgery

Adjustment of claims

Auditing a fidelity claim. D. A. Angus. Weekly Underw 158:380-2 Ja 31 '48

Subrogation rights of fidelity insurers against non-negligent banks. F. E. Pausch. Weekly Underw 157:1644-6; 158:313-15 D 27 '47, Ja 24 '48; Excerpts. East Underw 48:38 S 26 '47; Nat Underw 51:25 O 2 '47

Agents

Fidelity and surety conference of National association of insurance agents, New York, April 7. Nat Underw 52:22 Ap 15 '48; East Underw 49:24 Ap 9 '48

Fidelity-surety bond sales have paved the way to other profitable lines. Z. C. Goodell. East Underw 48:102 D 19 '47

National association of surety bond producers meeting, New York, March 8-11. East Underw 49:37+ Mr 12 '48

Contract bonds

Cement; producer's rights, problems, and procedures under mechanics' lien laws and surety payment bonds. C. G. Roth. Weekly Underw 159:234-5, 276-7, 347-8 JI 31-Ag 14 '48

Chicago housing project furnishes \$250,000 in bond premiums. Nat Underw 51:24 N 6 '47

Contract bond men starting along royal road of volume. Nat Underw 52:17 Ja 15 '48

Contract bond outlook. J. E. Gibbons. East Underw 49:42 Ap 23 '48

Contract bond underwriters give views on specific field problems. E. K. Cathcart and others. East Underw 49:26 Je 18 '48

Finances for a boom; abstract. A. Westphal. Management R 36:651-2 D '47

\$43,431,000 bond is signed by Continental Casualty covering Hungry Horse Dam project. Weekly Underw 158:1519 My 22 '48

Fuel and lubricants; rights under New York lien law and on payment bonds thereunder. C. G. Roth. Weekly Underw 157: 1323-5, 1380-2 N 22-29 '47

How to sell contract bonds. W. A. Sehlhorst and others. Rough Notes 91:21-6+ Ap '48

Performance bond; labor and material payment bond. Rough Notes 91:78 Ap '48

Scores high court opinion in Munsey case. B. Dew. East Underw 49:34+ S 10 '48

Summons agents to conquer private construction bond field. C. G. Roth. Nat Underw 52:20+ Je 3 '48

Surety's subrogation rights. W. R. McKelvy. East Underw 49:44-5 S 17 '48

What's ahead in contract bond field? W. L. Clapp. East Underw 49:3+ pt 2 Je 18 '48

Coverage

Fred Allen calls on bonding men for help; insurers' listeners against give away program loss. Weekly Underw 159:338 O 9 '48; East Underw 49:34 O 8 '48; Nat Underw 52:35 O 7 '48

Fiduciary bonds

Investment of trust funds by fiduciary as the problem affects surety companies. G. Fiedler. Weekly. 158:1248-50, 1307-9 Ap 24-My 1 '48

See also
Insurance, Surety
and fidelity—Pro-
bate bonds

Finance

Country-wide underwriting results, 1943-47, of companies licensed in New York state; tabulations. East Underw 49:6-7+, 10+ pt 2 Je 18 '48

Fidelity-surety 1947 score card, stock, mutual and reinsurance companies; tabulations. Nat Underw 52:15+ Je 24 '48

New Jersey casualty-surety writings during 1947; tabulations. East Underw 49:39-41+ Mr 26 '48

1947 casualty-surety results of all companies for New York state; tabulation. East Underw 49:12+ pt 2 Je 18 '48

Premiums, stock casualty and surety companies, 1937-1947; tabulation. Spectator (Property ed) 14:12-13 O 21 '48

Record of casualty-surety year by Argus chart. Nat Underw 52:24 My 6 '48

Underwriting and investment profits and losses of 100 casualty, surety and miscellaneous companies in 1946; tabulation. Spectator (Property ed) 13:20-1 N 27 '47

Fraud bonds

Coverages and forms; fraud bond. Spectator (Property ed) 13:8 D 11 '47

Judicial bonds

Judicial bond outlook. H. C. Griffith. East Underw 49:42 Ap 23 '48

Losses

Judge pleads guilty to bank theft; embezzlement of Columbus trust co. funds covered under \$200,000 bond. East Underw 49:28 JI 16 '48

Policies

Complete revision of 3-D contract. Nat Underw 52:17 Ap 1 '48; Same. Weekly Underw 158:1044 Ap 3 '48

Comprehensive 3-D for mercantile risks. L. S. Wilson and others. Rough Notes 91: 21-6 Ag '48

Continental revamps broad crime cover; new 3C policy; its version of revised comprehensive 3D policy. Nat Underw 52:13 Mr 25 '48

Coverages and forms; analysis of changes in the comprehensive dishonesty, disappearance and destruction policy, forms A and B; revision of Feb. 1, 1948. Spectator (Property ed) 13:8-9 Ap 8 '48

Coverages and forms; blanket position bond. Spectator (Property ed) 13:8-9 My 20 '48

Coverages and forms; primary commercial blanket bond. Spectator (Property ed) 13: 8 My 6 '48

Fidelity-forgery covers are broadly improved by Surety association of America. Nat Underw 52:17+ Ap 1 '48; Same. Weekly Underw 158:1046-7 Ap 3 '48

Sizeup of 3-D policy. J. P. Madigan. East Underw 49:45 Ap 23 '48

Some underwriting and selling views of 3D policy. Nat Underw 51:22 D 4 '47

Preventive work

Loss prevention program for state banking groups. W. L. Flynn. Nat Underw 52:29 My 6 '48

INSURANCE, Surety and fidelity—Continued**Probate bonds**

Probate bonds lead agent to other line prospects. A. H. Russell. Nat Underw 51:13 N 6 '47

Purchasing

Insurance buyer looks searchingly at current casualty-surety problems. R. B. Gallagher. East Underw 49:11+ pt 2 Je 18 '48

Rates

Downward trend in bond rates. E. C. Anderson. East Underw 49:41 Mr 19 '48
Experience rating plan for banks is revised by Surety association of America. Nat Underw 52:30 S 23 '48

Modernization of fire, surety rate structures under way. R. E. Dineen. Nat Underw 52:13+ Ap 29 '48

New problems arising out of rate regulation will be solved if cooperative attitude continues. P. T. Morehouse. East Underw 49:23-9 Ja 16 '48

Wartime and postwar surety experience no rate making guide. J. Backman. Weekly Underw 158:1712 Je 12 '48; Same. East Underw 49:34+ Je 11 '48; Same cond. Nat Underw 52:21 Je 10 '48

Rating bureaus

Surety association of America absorbs Towner rating bureau. Nat Underw 51:23 O 30 '47; East Underw 48:25+ O 31 '47; Weekly Underw 157:1121 N 1 '47

INSURANCE, Surgical expense

Actuaries report on surgical benefit claims. East Underw 49:36 My 21 '48; Excerpts. Nat Underw 52:17 My 20 '48; Nat Underw (Life ed) 52:20 My 28 '48

Insurers altering surgical benefit schedule structure. H. W. Wenning. Nat Underw 52:23 Je 3 '48; Same. Nat Underw (Life ed) 52:3 Je 4 '48

New proposed carrier offers surgical cover in Connecticut; to operate on non-profit basis; Connecticut medical service, inc. Weekly Underw 158:173 Ja 10 '48

Rhode Island medical society approves covers; contracts submitted by five carriers agreeable to medical men. Weekly Underw 158:316-17 Ja 24 '48; Same cond. Nat Underw (Life ed) 52:3 Ja 16 '48

United medical service increases benefits. Spectator (Property ed) 13:33 Ja 8 '48

Wisconsin doctors disavow Milwaukee surgical care plan. Nat Underw 52:24 O 14 '48; Same. Nat Underw (Life ed) 52:20 O 15 '48

INSURANCE, Taxicab

Kentucky taxi insurer licensing row over Latonia. Casualty. Nat Underw 52:14 My 20 '48

INSURANCE, Theft

Coverages and forms; residence and outside theft policy. Spectator (Property ed) 13:22-3 Je 24 '48

Police official offers plan for cooperation on lost and stolen property. F. Leuci. East Underw 49:22 Je 25 '48; Same cond. Nat Underw 52:16 Je 24 '48

Residence and outside theft policy revised. East Underw 49:29 O 1 '48; Same. Nat Underw 52:13+ S 30 '48; Same. Weekly Underw 159:729+ O 2 '48

See also**Insurance, Burglary****INSURANCE, Tornado**

Company leaders study wind risk in Florida. East Underw 48:18+ D 5 '47

\$50 wind and hail deductible goes into effect in Georgia. Nat Underw 52:1 J1 15 '48

Floridians highly pleased with windstorm parley. Nat Underw 51:1+ D 11 '47

Idea of wind deductible is extensively aired. Nat Underw 52:13 S 23 '48

No buyer resistance to wind deductible. B. F. Weaver. Nat Underw 52:5 O 28 '48

Wind deductible introduced in Louisiana. Nat Underw 52:15 O 7 '48

Wind deductible is fast becoming established feature. Nat Underw 52:9 O 14 '48

Adjustment of claims

Florida storm claimants are belligerent. Nat Underw 51:7 O 30 '47

Insurer held liable under windstorm policy despite records showing maximum wind velocity of 23 miles. Weekly Underw 159:155 J1 17 '48; East Underw 49:23 Ag 6 '48

Losses

Florida hurricane loss will run less than \$900,000. Nat Underw 52:7 S 30 '48

Kansas storm to cost insurers at least \$2 million. Nat Underw 52:1 J1 22; 20 J1 29 '48

Mississippi coast loss pegged at \$4 million. Nat Underw 51:9 D 11 '47

S.E.U.A. publishes report of Florida hurricane loss. Nat Underw 52:6 Ja 22 '48

Tri-state storm score; 100,000 claims, \$10 million loss in Illinois, Indiana and Ohio. Nat Underw 52:1+ Ap 1 '48

Wind loss at McKinney. Tex. may reach \$3 million; Midwest damage minor. Nat Underw 52:1 My 6 '48

Rates

Larson allows doubled wind rates in South Florida. Nat Underw 52:1 Ag 12 '48

INSURANCE, Tuition fees

Tuition fees insurance. D. W. McStea. Rough Notes 91:18+ J1 '48

INSURANCE, Turkey

Turkey cover placed on inland marine basis by Farm owners mutual insurance co. of St Paul. Weekly Underw 158:442 F 7 '48

INSURANCE, Unemployment

Failure of some to cover employees responsible for UCD demands; unemployment compensation symposium. H. H. Leavey and others. Nat Underw 52:21+ O 14 '48; Same. Nat Underw (Life ed) 52:9+ O 15 '48

Socialized industrial medicine? P. B. Reaser. bibliog Ind Med 17:81-4 Mr '48

Unemployment compensation tax issue viewed by jobbers. L. Castle. Nat Pet N 40:7+ My 26 '48

What management should know about unemployment compensation. P. Stanley. il Mill & Factory 42:95-9 Ap '48

Finance

National industrial conference board estimates unemployment reserves at \$7 billion. Comm & Fin Chr 167:1017 Mr 4 '48

Statistics

Unemployment compensation (Social security administration); claims and benefit payments, 1941-1946. Survey of Cur Bsns 1947 Sup p64 [supplemented in monthly numbers]

California**Disability benefits**

Changes in disability compensation laws; cash compensation for illness in Rhode Island and California. Mo Labor R 66:62-3 Ja '48

Smooth operation of California's UCDI program. T. H. Mugford. East Underw 49:30 My 14 '48; Same cond. Nat Underw (H.&A. conference no) 52:14 My 14 '48

Japan

Unemployment insurance in Japan. Int Labour R 57:664-5 Je '48

New Jersey**Disability benefits**

Cash sickness benefit law enacted. East Underw 49:31+ My 21 '48; Same abr. Weekly Underw 158:1585 My 29 '48

Companies get ready to write TDB line in New Jersey. Nat Underw 52:14 S 30 '48; Same. Nat Underw (Life ed) 52:2+ S 24 '48

Continental Casualty TDB setup for New Jersey. W. K. Boger, Jr. East Underw 49:34 Ag 20 '48

Continental devises first TDB plan for small firms. Nat Underw 52:22+ O 28 '48; Same. Nat Underw (Life ed) 52:3+ O 29 '48

Hancock men tell producers of new temporary disability benefits law. C. W. Wyatt and others. East Underw 49:1+ J1 23 '48

New Jersey cash sickness benefits law represents challenge to producers. W. L. Clapp. East Underw 49:31-2 O 1 '48

INSURANCE, Unemployment—New Jersey—Disability benefits—*Continued*
 New Jersey Federation of labor opposed to TDB business in private companies. East Underw 49:32 O 1 '48
 New Jersey plan for UCD; cash sickness compensation proposal. Nat Underw 52:15 Ap 1 '48; Same. Nat Underw (Life ed) 52:4 Ap 2 '48
 New Jersey unemployment compensation disability bill has penalty feature on private cover. Nat Underw (Life ed) 52:3 F 6 '48
 New Jersey's TDB law superior to others. H. G. Waltner. East Underw 49:36 S 10 '48
 Pass UCD bills in New Jersey. Nat Underw 52:19 My 20 '48; Same. Nat Underw (Life ed) 52:2 My 21 '48
 Prudential opposes penalty in N.J. disability bill. Nat Underw 52:21 Mr 4 '48
 Prudential UCD plan in N.J. to surpass state's. Nat Underw 52:27 Ag 12 '48; Nat Underw (Life ed) 52:3 Ag 13 '48; Weekly Underw 159:313-4 Ag 14 '48
 Solons seek to solve cash sickness snarl. East Underw 49:22 Ap 2 '48
 State sickness benefits. Bsns W p46+ My 22 '48
 Survey of New Jersey TDB picture points to 24 companies active in field; with details on individual companies. East Underw 49:34-5 O 1 '48

New York (state)

Jobless umbrella hasn't felt rain yet in New York. Barron's 28:8 JI 19 '48

Rhode Island

Disability benefits

Changes in disability compensation laws; cash compensation for illness in Rhode Island and California. Mo Labor R 66:62-3 Ja '48
 Opportunities for public health in disability insurance programs. M. I. Roemer. Pub Health Rep 62:1658-9 N 21 '47

South Africa

Unemployment insurance in South Africa. Int Labour R 56:195-7 Ag '47

United States

Directors serving without salary are not employees by court decision; unemployment taxes paid on them may be recovered. A. E. Probst. Bankers Mo 65:18-19 JI '48

INSURANCE, Use and occupancy

Business interruption bottlenecks. H. C. Klein. Rough Notes 91:32+ Je '48
 Business interruption premium adjustment endorsement. Rough Notes 90:62 D '47
 Gross earnings for merchants. F. Wilson and others. Rough Notes 90:21-6 N '47
 How accounting services determine loss for insurance purposes. F. S. Glendening. J Account 86:119-22 Ag '48
 Important business interruption move in New England. Nat Underw 52:1 Ag 12 '48
 Items often overlooked in selling business interruption. H. T. Lewis. East Underw 49:30 Ap 16 '48; Excerpts. Nat Underw 52:2 Ag 8 '48
 Move to drop gross earnings U.&O. for service risks. Nat Underw 52:9 Mr 11 '48
 Successful loss adjustments prove big selling point for U. & O. risks. B. Jones. East Underw 48:74-5 D 19 '47
 U.&O. loss cannot be assigned to purchaser of burned theatre. East Underw 49:22 JI 16 '48
 Visual sales talk that sells gross earnings. G. V. Whitford. Rough Notes 91:17-18+ My '48
 What to tell your insured about gross earnings adjustments. W. C. Feimster, Jr. ii Rough Notes 90:18-19 D '47

INSURANCE, Valuable papers

Valuable papers coverage. W. J. Purcell. Rough Notes 91:34+ O '48

INSURANCE, Vandalism. See Insurance, Fire—Policies—Extended coverage endorsements

INSURANCE, War risk

British Malaya; claims for war-damage and war-risk insurance. For Comm W 29:13 N 15 '47

General of Seattle again is writing war risk. Nat Underw 52:4 Je 10 '48

See also

Insurance, Life—	Insurance, Military
War risks	and naval service
Insurance, Marine—	War damage cor-
War risks	poration

INSURANCE, Warehousemen's liability

Interest policy is well suited to warehouseman. J. T. Even. Nat Underw 52:12 O 7 '48

INSURANCE, Water damage

Coverages and forms; water damage policy. Spectator (Property ed) 13:8-9 F 26 '48
 Water damage is a client service. H. F. Webber. Rough Notes 91:25 My '48

Adjustment of claims

Insured wins \$72,000 water damage issue. Nat Underw 52:4 O 7 '48
 Water damage policy; meaning of the words "backing up of sewers or drains". J. L. Roosch. Spectator (Property ed) 13:10+ Mr 11 '48

INSURANCE, Weather. See Insurance, Hail; Insurance, Rain; Insurance, Tornado

INSURANCE, Windstorm. See Insurance, Tornado

INSURANCE, Workmen's compensation

Discusses Rio conference; sees success of efforts to persuade U.S. delegation not to influence compensation socialization. A. L. Kirkpatrick. East Underw 48:39+ D 19 '47
 Group and workmen's compensation. C. C. Clarke. Life Ins Courant 53:23-4 JI '48; Excerpts. East Underw 49:38 My 28 '48; Nat Underw 52:22 My 27 '48
 NAIC asks for continuance of workmen's compensation studies. East Underw 49:24-5+ Je 18 '48
 State fund director answers union critic. L. Bueffer. Nat Underw 52:21 My 13 '48
 Suggests U.S. retire from hemispheric group; claims objective of Inter-American conference on social security is socialization of workmen's compensation insurance. A. L. Kirkpatrick. East Underw 49:34+ F 13 '48
 Workers not covered, says committee report to National conference on labor legislation. East Underw 49:29 Ja 2 '48

See also

Employers' liability	Workmen's compen-
Insurance, Long-	sation
shoremen's and	
harbor workers' compensation	

Adjustment of claims

Amputation compensable as specific loss where employee capable of carrying on work performed prior to injury. Weekly Underw 157:1283 N 15 '47
 Assault by foreman on truckman not such serious or willful misconduct as to bar compensation. Weekly Underw 158:134 Ja 3 '48
 Compensation for loss of eye warranted where eye enucleated though sightless at time of accident. Weekly Underw 159:946 O 16 '48
 Employee cannot defeat compensation carrier's lien by suing third party merely for mental pain and suffering. Weekly Underw 158:1142 Ap 10 '48
 Injury due to horseplay compensable as arising out of and in course of employment. Weekly Underw 157:1214 N 8 '47
 N.Y. Appeals court remits horseplay case to Compensation board; injury caused by prank not compensable. East Underw 49:29 Ag 6 '48; Weekly Underw 159:786 O 2 '48
 Presumption of injury by accident does not support conclusion that injury arose out of employment. Weekly Underw 158:1806 Je 19 '48
 Right of control, not method of payment, determines whether claimant is employee or independent contractor. Weekly Underw 157:1659 D 27 '47
 Salesman ruled covered while at ball game. Nat Underw 52:21 My 13 '48
 Wife abandoned by husband cannot recover compensation unless receiving support at the time of his death. Weekly Underw 158:778 Mr 6 '48

INSURANCE, Workmen's compensation—Cont.**Finance**

New York compensation expense exhibit study; tabulation by company. Nat Underw 52:18+ Je 17 '48

Industrial diseases

Heart ruling; heart attack, a compensable accident. Bsns W p 118+ S 18 '48
New occupational disease problems. A. St Clair. East Underw 49:37+ S 24 '48; Excerpts. Nat Underw 52:26 S 9 '48
Occupational disease insurance in Spain. Int Labour R 56:481-3 O '47

Preventive work

Safety practices build business. S. W. Mears. Rough Notes 91:30 Ja '48

Rates

Base rates on compensation insurance for construction, April 1, 1948. Eng N 140:845 My 27 '48
Compensation insurance rates for construction; Nevada, North Dakota, Ohio, West Virginia and Wyoming. Eng N 140:847 My 27 '48
Compensation rates drop steadily as benefits rise. Nat Underw 51:21 D 4 '47
Interstate compensation rating action again deferred by N.A.I.C. Nat Underw 52:17+ Je 17 '48
Mississippi names compensation rates. East Underw 49:46 S 17 '48
Missouri compensation raise in partial rates approved; interstate experience rating plan approved. East Underw 49:28+ J 16 '48
Missouri compensation rate change is approved. Weekly Underw 157:1514 D 13 '47
New Jersey compensation rates are reduced. East Underw 49:25 Ap 30 '48
New York compensation rates raised 4.6 per cent. East Underw 49:23+ J 2 '48; Weekly Underw 159:7+ J 3 '48; Nat Underw 52:15+ J 1 '48
New York department denies contractors' appeal; refuses application of labor and construction interests for downward revision in rates. East Underw 49:42 Mr 19 '48
North Dakota state fund lowers rates. East Underw 49:30 J 16 '48
Rate level adjustment factor is advanced; report to National association of insurance commissioners. W. F. Roerber. Nat Underw 51:17 D 13 '47
Report on compensation insurance as general manager, National council; abstracts W. F. Roerber. East Underw 48:28 D 12 '47; Nat Underw 51:17+ D 11 '47
Report to NAIC on rate level adjustment. W. F. Roerber. East Underw 49:25+ Je 18 '48
Some aspects of new rating plans for workmen's compensation, liability. S. E. Smith. Nat Underw 51:21 D 11 '47
Texas compensation rate schedule issued. Weekly Underw 157:1506 D 13 '47

Retrospective plan

New plan in rating compensation risks; retrospective plan D; editorial. East Underw 48:52 D 19 '47
New York basic premium ratios up 14 per cent for policies under retrospective rating plan. East Underw 49:27 J 9 '48
S.E.U.A. aftermath; headaches of retrospective rating only beginning. L. F. Miller. Nat Underw 52:14 Ja 22 '48
Stock and mutual spokesmen join in championing plan D; N.A.I.C. rating committee meeting, Chicago. Nat Underw 52:21+ Ap 15 '48

Great Britain

Industrial injuries fund. Chem Age (Lond) 58:807 Je 12 '48

Missouri

New Missouri comp program. Nat Underw 52:16 My 13 '48

New Jersey

New Jersey department's compensation rating and inspection bureau. A. Query. East Underw 48:89+ D 19 '47

Valid ceremonial marriage must be shown to warrant discontinuance of compensation payments to widow. Weekly Underw 159:1051 O 30 '48

New York (state)

Compensation awards rise in New York state in 1947. East Underw 49:39 Mr 12 '48
N.Y. insurance group saves 59.8 per cent; New York state sheet metal roofing & air conditioning contractors association. Sheet Metal Worker 39:150+ Ja '48
Report as general manager of Compensation Insurance rating board of New York; abstracts. H. D. Sayer. Nat Underw 52:19+ F 5 '48; East Underw 49:30 F 6 '48
Would assess companies under Condon bill; sets up economic stabilization fund for payment of deficiency compensation; re-opening of cases. East Underw 49:34 F 20 '48

Rhode Island

Why compensation experience is bad. Weekly Underw 157:1127 N 1 '47

Virginia

Virginia high court's ruling on hernia case may mean higher compensation rates. East Underw 49:42 O 8 '48

INSURANCE, Yacht. See Insurance, Motor boat

INSURANCE accountants association
Annual conference, Philadelphia. Nat Underw 52:3+ O 28 '48

INSURANCE accounting and statistical association

Annual meeting, Cleveland, May 19-21. Nat Underw 52:3 My 27 '48; Nat Underw (Life ed) 52:15 My 28 '48; Spectator (Life ed) 155:50 Je '48

INSURANCE actuaries

Activities of the actuarial department. R. D. Murphy. East Underw 49:20+ pt 2 O 8 '48
Actuarial leader expresses doubt that the between-wars lessons have been learned. J. G. Beatty. Weekly Underw 158:1398+ My 3 '48
Asks government standardization of actuarial calling. D. C. Bronson. Nat Underw (Life ed) 52:7+ Ag 13 '48
Education of actuaries. H. R. Bassford. Weekly Underw 158:1475 My 15 '48
Essential role of university not recognized in U.S.; opportunities for advanced study needed. C. A. Spoerl. East Underw 49:12 Ag 13 '48
Moore becomes actuary of National association of insurance agents. East Underw 49:31 Ja 30 '48
Ponder non-member actuaries' status in proposed merger. Nat Underw (Life ed) 51:5 O 31 '47
Prudential's search for actuarial talent; address before Institute of actuaries, London. E. B. Whittaker. East Underw 49:12 Ag 6 '48

See also

Actuarial society of America
Casualty actuarial society
American institute of actuaries
Institute of actuaries, London

INSURANCE adjusters

Adjusters carried extra heavy burden in 1947. P. B. Reed. Weekly Underw 158:20+ Ja 3 '48
Adjusters merchandise insurance. R. C. Williams. East Underw 48:59+ D 19 '47
Adjusting aircraft losses in the Southwest; adjuster uses airplane. O. W. Baker. Weekly Underw 158:592 F 21 '48
Adjustments reflect type and volume of Latin American insurance; experience of Dargan & co. J. F. Ryan. Nat Underw 52:4 F 19 '48
California adjusters hear plain talk from company side. F. W. White. Nat Underw 52:1+ O 21 '48
California association of independent insurance adjusters annual meeting, Los Angeles. Nat Underw 52:17+ O 21 '48
Handling of claims forms public opinion. W. K. Lloyd. Weekly Underw 158:1180-1 Ap 17 '48
Improving adjustment standards. D. B. Sherwood. East Underw 49:24 J 16 '48

INSURANCE adjusters—Continued

Independent adjusters commended for excellent work. E. C. Niver. East Underw 49:21 J1 16 '48

Insurance adjuster plays big role. J. F. Miazza. Weekly Underw 158:1493+ My 22 '48; Same. East Underw 49:18 J1 9 '48

Terms adjuster ambassador for insurance company. H. G. Helm. Nat Underw 51:10 N 13 '47

See also

National association of independent insurance adjusters

INSURANCE advertising conference

Annual meeting, 25th, New York, June 3. East Underw 49:1+ Je 1 35 Je 11 '48; Nat Underw 52:6 Je 3 2+ Je 10 '48; Spectator (Property ed) 13:26 Je 10 '48; Weekly Underw 158:1613+ 1617+ Je 5 '48

Annual meeting, Chicago, Sept. 30-Oct. 1. East Underw 49:21-2+ O 8 '48; Nat Underw 52:3+ O 7 '48

Mid-winter meeting, New York, Feb. 20. East Underw 49:23-30 F 27 '48; Weekly Underw 158:642+ F 28 '48; Nat Underw 52:17 F 26 '48

INSURANCE advisers

Some group men act as bargainers for the assured; offer to lower group premiums for percentage of balance saved. Nat Underw 52:18 F 19 '48; Same. Nat Underw (Life ed) 52:9 F 13 '48; Reply (Purpose of the independent group counselor). E. D. Goodier. Nat Underw 52:25 F 26 '48; Same. Nat Underw (Life ed) 52:3+ F 27 '48

INSURANCE agents

Advises more emphasis on policy turnover. W. C. Jainsen. Nat Underw 52:25 Je 3 '48

Agent Paul DiBenedetto of Rahway has won success without sight. East Underw 49:30 Ag 6 '48

Agents' views on market facilities. C. I. Fisher and others. East Underw 48:56+ D 19 '47

H. O. Rasmussen agency wins president's award of Penn Mutual Life. II Weekly Underw 158:1724 Je 12 '48

Planned sales management means more insurance sales; research used to determine needs; extra services to build confidence. F. Lang. Ptr Ink 221:42+ N 7 '47

Principles salesmen can't neglect. F. W. Potter. Weekly Underw 157:589+ S 13 '47; Same. East Underw 48:27 O 31 '47

RFC man gives rhapsodic conception of the salesman. J. J. Hagerty. Nat Underw 51:14 N 6 '47; Same. Nat Underw (Life ed) 51:2 N 7 '47

Sales hints to assist production. A. Ragland, Jr. Weekly Underw 159:120-1 J1 17 '48

Seller's market problems. W. B. Allyn. Weekly Underw 157:1364+ N 29 '47

Syracuse course graduate tells how he got started in business. C. L. Rowley, Jr. East Underw 48:24 N 14 '47

Ten practical tips for insurance success. H. P. Gregory. East Underw 48:41 N 14 '47

Use of telephone survey. P. McDowell. Life Ins Courant 53:35-6 Ap '48

See also

Insurance brokers

Insurance companies

—Branch offices

also American association of insurance general agents; Insurance agents association of Minneapolis; National association of insurance agents; National association of mutual insurance agents

also subdivision Agents under various forms of insurance, e.g. Insurance, Industrial—Agents; Insurance, Life—Agents

Accounting

Agency balances important item. E. H. Porkel. Weekly Underw 159:797+ O 9 '48

Commingle in connection with office system. O. Beling. Weekly Underw 158:422+ F 7 '48; Same abr. East Underw 49:30 F 13 '48; Excerpt. Nat Underw 52:9 F 5 '48

New premium handling rules are promulgated by Superintendent Dineen. Weekly Underw 157:1234+ N 15 '47; Excerpt. Nat Underw 51:1 N 13 '47

New regulations on commingling will aid producers. C. Typpermass. East Underw 49:25 Ja 23 '48

Text of new New York regulation on bank accounts for premium funds. East Underw 48:26 N 21 '47

Advertising

Agent and advertising. E. Churchill. Life Ins Courant 53:26-32 My '48

Agents of same name unite in joint ad. Nat Underw (Life ed) 51:5 N 21 '47

Constantly repeated advertising message brings sound career for small town agent. W. S. Lowry. Weekly Underw 158:1273 Ap 24 '48

Effective ad technique. S. Lance. Nat Underw 52:39 S 23 '48

How to advertise your agency. S. W. Schellenger. Rough Notes 91:27+ F '48

How to get more from your newspaper space. R. J. Walker. Rough Notes 90:17+ O '47

Agency management

Agency management school at Storrs, Conn. offers big bargain in ideas. Nat Underw 52:1+ Ag 19 '48

Agency management session gives tips to Connecticut agents. Nat Underw 51:10 D 4 '47

Agency management session, New York state association of insurance agents, Syracuse, May 3. East Underw 49:20+ My 14 '48

Agency personnel training course; instructions for policywriters and office personnel. Rough Notes 91:29 Ag; 29 O; 29 N; 29 D '48

Agency relations problems reviewed at meeting of National association of mutual insurance companies. Nat Underw 51:12 N 27 '47

Better selection, training of agents bring prestige. R. C. Laub. Nat Underw (H.&A. conference no) 52:7+ My 14 '48

Claim payments help us build our agency. W. W. Hargett. Rough Notes 91:16+ Ja '48

Commingle in connection with office system. O. Beling. Weekly Underw 158:422+ F 7 '48; Same abr. East Underw 49:30 F 13 '48

Companies again are on the hunt for good agencies; elimination of unprofitable accounts completed. Nat Underw 52:1 Ap 22 '48

Contact by mail; general agency sends monthly illustrated pamphlet to agents. E. W. Smith. Rough Notes 91:66-8 O '48

Development of a successful one-man agency. C. R. Satterthwaite of Salem, Illinois. J. R. Gregory. Rough Notes 91:17-19+ F '48

Discuss agent hiring, training, pay at H.&A. Conference agency management session. Nat Underw (H.&A. conference no) 52:6 My 14 '48

Handling sub-producers' business. R. J. Layton. Rough Notes 91:28 S '48

How do you file your dailies? Rough Notes 90:26-7 O '47

How the new tax laws affect your agency. H. C. Crawford. Rough Notes 91:17-18+ S '48

How to start a successful agency; experience of Clyde DeLay of Dallas. J. R. Gregory. Rough Notes 91:17+ J1 '48

Many management problems for agent. O. Beling. Nat Underw 52:4 S 30 '48

N.A.I.A. forum on agency management, New York. Nat Underw 52:1 Ap 15 '48

Office routine shortcuts. M. L. Lane and others. East Underw 49:23+ pt 2 Je 18 '48

Office shortcuts. R. J. Layton. Rough Notes 91:28-9 Ap '48

Restless field men concern executives. Nat Underw 51:5 D 18 '47; Discussion. 52:3 Ja 8 '48

Uses Dow theory in long range agency planning. D. F. Giberson. East Underw 49:62 O 15 '48

Waste due to policy errors; need for agency efficiency. J. C. Stott. East Underw 49:18 O 1 '48

Work out a system for loss handling. J. W. Shenk. Rough Notes 91:26 Ja '48

Costs

Cost study by NAIA shows agent gets modest return. Nat Underw 52:39 O 7 '48

INSURANCE agents—Agency management—Costs—Continued

Requests agents to appraise positions; producers must know agency costs. W. M. Sheldon. Weekly Underw 158:537+ F 23 '48
 What it costs to run an insurance agency in 1948; survey of insurance agency income, expense and financial standing. J. R. Gregory. Rough Notes 91:17-19+ Je; 17+ Ag '48

Agency managers

General agents face critical situation today. Nat Underw 52:1 F 12 '48; Editorial comment. 52:16-17 Mr 4 '48
 Hiring an agency manager. K. Jones. Rough Notes 91:62-3 Mr '48

See also

Mutual general agents association

Agency system

Agency system is atomic power in insurance. H. P. Skoglund. Nat Underw 52:20 O 21 '48; Same. Nat Underw (Life ed) 52:2 O 22 '48
 Agency system threats. H. A. Gullledge. Weekly Underw 157:1256-7 N 15 '47
 Agents are essential to companies and public; abstracts. E. F. Gallagher. East Underw 49:26 O 1 '48; Weekly Underw 159:674-5 S 25 '48

General agents face critical situation today. Nat Underw 52:1 F 12 '48; Editorial comment. 52:16-17 Mr 4 '48

Agents' wives

Wives smile in ads; Minnesota. Mutual's trade journal campaign. Weekly Underw 157:1138 N 1 '47

Approach

Definite sale fundamentals, followed close, spell success for local agents. F. W. Potter. Weekly Underw 158:1649+ Je 5 '48
 How to get attention. W. Zell. Rough Notes 91:50-1 S '48

Collecting of premiums

See Insurance—Premiums, Payment of

Commissions

Agents progressing on commission problems; summary of action at NAIA mid-year meeting. Spectator (Property ed) 13:16-17 Ap 22 '48; Nat Underw 52:2+ Ap 15 '48
 Agents' stand on commissions. J. C. Stott. East Underw 48:20 N 21 '47; Same. Weekly Underw 157:1293+ N 22 '47
 Big assured is heard from on commission question. E. W. Rolley. Nat Underw 52:4 Ja 1 '48
 Chicago agents see reverse English in commission cut; committee analysis produces theory average producer gets 2½ per cent more. Nat Underw 51:2+ D 18 '47
 Cleveland agent calls commission cut wrong approach. R. D. Mock. Nat Underw 51:8 O 30 '47
 Commission control; Philadelphia address. J. C. Stott. East Underw 49:20 Je 18 '48
 Commission problem. J. C. Stott; D. C. Bowersock. Spectator (Property ed) 13:30 My 20 '48
 New agency reduction program broached in Canada. Nat Underw 51:19 N 13 '47
 Commission revision program in Canada. Nat Underw 51:2 D 4 '47; East Underw 48:1+ D 5 '47
 Commission revisions are now being studied by Canadian organizations. F. J. Jordan. East Underw 48:27 N 21 '47
 Commission situation; address before Iowa agents. J. A. Diemand. Nat Underw 52:3+ O 7 '48; Same abr. Weekly Underw 159:729+ O 2 '48; Same abr. East Underw 49:20+ O 8 '48
 Commissions cut in British Columbia. East Underw 49:22 Ag 13 '48; Nat Underw 52:7 Ag 12 '48
 Concerted action on commissions favored at New York hearing of Joint legislative committee on insurance rates and regulation. East Underw 49:1+ F 20 '48
 Court action on Chicago commission cut threatened by Chicago Board. Nat Underw 51:2+ N 20 '47

Excepted city commission scales become more varied. Nat Underw 52:1 Mr 25 '48
 Finds agents concerned over commissions; Rochester address. J. C. Stott. Weekly Underw 158:569+ F 21 '48; Same cond. East Underw 49:23 F 20 '48; Excerpts. Nat Underw 52:1+ F 19 '48

Gives producers counsel on commissions; cites Massachusetts rating law provisions. C. F. J. Harrington. Nat Underw 52:1+ Mr 18 '48

Kansas City leader gives report on commission parley. C. S. Stubbs, 3d. Nat Underw 52:2 Mr 4 '48

Legislative view; comment on agency voice in commissions by Mahoney Joint legislative committee. Nat Underw 52:2 Ap 29 '48

Look to Texans for counsel on commission issue. Nat Underw 51:3 D 11 '47

Mississippi 1948 commission rates are set. East Underw 49:16 Ja 9 '48

N.A.I.C. executive committee takes up commission issue. Nat Underw 51:6+ D 11 '47

New Jersey agents' association not in favor of commission law change. E. N. Eager. East Underw 49:14 Ap 2 '48

Preferred business problem is acute for Chicago agents. Nat Underw 52:2 S 16 '48

Probes facts on commissions; Syracuse address; abstracts. J. C. Stott. East Underw 49:21 My 7 '48; Weekly Underw 158:1364+ My 8 '48

Profit commission formula held by Canadian agents as cut in income. East Underw 48:24 N 23 '47

Some excepted city men broach idea of flat commission. Nat Underw 52:2+ Ja 1 '48

Views on commission control; address before midyear meeting of National association of insurance agents; abstracts. R. E. Dineen. East Underw 49:14+ Ap 9 '48; Nat Underw 52:19+ Ap 8 '48; Weekly Underw 158:1085+ Ap 10 '48

Views on commission negotiation. W. H. Bennett. Nat Underw 51:11 O 30 '47

Want the extra five per cent; many survey agents decide to write own policies. Nat Underw 52:2 Ja 22 '48

Warns against change in commission scale. W. E. Allyn. East Underw 48:31+ N 21 '47

See also

Insurance, Accident
 —Agents—Commissions

Insurance, Automobile—Agents—Commissions

Insurance, Casualty
 —Agents—Commissions

Insurance, Fire—Agents—Commissions

Insurance, Industrial—Agents—Salaries and Commissions

Insurance, Life—Agents—Commissions

Company relations

Agents have collective bargaining rights; abstracts. W. H. Bennett. East Underw 49:21+ O 22 '48; Nat Underw 52:40+ O 7 '48

Independent agents' clubs hang fire in several companies. Nat Underw (Life ed) 52:5 F 20 '48

Joint council of companies and producers is advocated. J. C. Stott. East Underw 49:24 Mr 19 '48; Same cond. Nat Underw 52:40 Mr 11 '48

New agency agreement presented to NAIA for consideration; with text. East Underw 49:21 Ap 9 '48

Opposes changing of agency contracts by company action alone; address before N.A.I.A. New York meeting. J. C. Stott. East Underw 49:24 Ap 16 '48

Conventions

Alabama association of insurance agents annual meeting, Birmingham. Nat Underw 52:3+ S 16 '48

Arkansas association of insurance agents annual convention, Hot Springs, May 14-15. Nat Underw 52:19+ My 20 '48

California association of insurance agents annual convention, San Francisco. Nat Underw 52:1+ O 23; 6 N 4 '48

California association of insurance agents annual meeting, Coronado. Nat Underw 51:1+ N 20 '47

INSURANCE agents—Conventions—Continued
 Colorado association of insurance agents annual convention, Troutdale-in-the-Pines. Nat Underw 52:5 S 16 '48
 Connecticut association of insurance agents annual meeting, Hartford. Nat Underw 51:2 N 20 '47

Eastern agents regional conference, New York. East Underw 49:20-1 Ap 9 '48

Florida association of insurance agents annual meeting, Belleair. Nat Underw 52:2+ Ap 1 '48

Illinois association of insurance agents annual meeting, Rockford. Nat Underw 52:23-5 S 23 '48

Illinois farm insurance agents association annual meeting, Peoria. Nat Underw 52:9 Je 3 '48

Illinois fire underwriters association annual meeting, Delavan, Wis. Nat Underw 52:9-10 Je 17 '48

Indiana association of insurance agents annual meeting, Indianapolis. Nat Underw 51:20+ N 20 '47

Iowa association of insurance agents annual meeting, Des Moines. Nat Underw 52:6+ S 30; 23 C 7 '48

Kansas association of insurance agents annual meeting, Topeka. Nat Underw 51:16+ O 30 '47

Kansas association of insurance agents annual meeting, Wichita. Nat Underw 52:14-16 O 23 '48

Kentucky association of insurance agents annual meeting, Louisville. Nat Underw 51:1+ N 27 '47

Maryland association of insurance agents annual convention, Baltimore. Nat Underw 51:1+ N 27 '47

Massachusetts association of insurance agents annual convention, Springfield. Nat Underw 51:21+ N 6 '47

Michigan association of insurance agents annual convention, 50th, Grand Rapids. Nat Underw 52:17-18+ S 16 '48

Michigan association of insurance agents midyear convention, Detroit. Nat Underw 52:1+ Mr 4 '48

Minnesota association of insurance agents annual meeting, St Paul. Nat Underw 52:4+ S 23 '48

Mississippi association of insurance agents annual meeting, Edgewater Park. May 13-15. Nat Underw 52:2+ My 20 '48

Missouri association of mutual insurance agents meeting, Kansas City. Nat Underw 52:3 My 13 '48

Montana association of insurance agents annual convention, Helena. Nat Underw 52:8 O 7 '48

Mutual agents association of the state of New York seventh annual convention, New York. May 3-4. East Underw 49:38+ My 7 '48; Weekly Underw 158:1361+ My 3 '48

New Jersey association of insurance agents annual meeting, 56th, Asbury Park. Sept. 23-24. East Underw 49:30+ O 1 '48; Nat Underw 52:13+ S 30 '48

New Mexico association of insurance agents annual convention, Silver City. Nat Underw 51:5 O 30 '47

New Mexico association of insurance agents annual convention, Albuquerque. Nat Underw 52:9 S 16 '48

New York state association of insurance agents annual convention, 66th, Syracuse. May 2-5. East Underw 49:1+, 21-31 My 7; 22 My 14 '48; Nat Underw 52:1+, 40 My 6 '48; Weekly Underw 158:1357+, 1364-9 My 8 '48

North Carolina association of insurance agents annual meeting, Pinehurst. Nat Underw 52:14 My 6 '48

North Carolina association of mutual insurance agents meeting, Atlantic Beach. Nat Underw 52:2 Je 24 '48

Ohio association of insurance agents annual convention, Columbus. Nat Underw 52:26+ S 23 '48

Ohio association of mutual insurance agents annual meeting, Columbus. Nat Underw 52:7 Ap 15 '48

Oklahoma association of insurance agents meeting, Tulsa. Nat Underw 52:15 Je 10 '48

Oregon association of insurance agents annual meeting, Gearhart. Nat Underw 52:2+ S 30 '48

Pennsylvania association of insurance agents annual meeting, Bedford, Sept. 21. East Underw 49:24 S 24 '48; Nat Underw 52:1+ S 23 '48

Rhode Island association of insurance agents annual meeting, Providence. Nat Underw 51:3+ N 20 '47

Rhode Island association of insurance agents annual meeting, Providence. Nat Underw 52:15 O 21 '48

South Carolina association of insurance agents 50th anniversary meeting, Augusta, Ga. Nat Underw 52:2, 22 Je 17 '48

Tennessee association of insurance agents annual convention, Knoxville. Nat Underw 51:21+ N 6 '47

Texas association of insurance agents annual convention, Waco, May 21-22. Nat Underw 52:1+ My 27 '48

Utah association of insurance agents annual meeting, Salt Lake City. Nat Underw 52:4+ S 23 '48

Virginia association of insurance agents 50th annual meeting, Virginia Beach. Nat Underw 52:3 Je 3 '48

Washington association of insurance agents annual convention, Bellingham. Nat Underw 52:2 S 23 '48

West Virginia association of insurance agents annual meeting, White Sulphur Springs. Nat Underw 52:5 Ag 12 '48

Wisconsin association of insurance agents annual meeting, Milwaukee. Nat Underw 51:20 O 30 '47

Wyoming association of insurance agents annual meeting, Sheridan. Nat Underw 52: 15 Ag 26 '48

See also

Insurance, Life—
 Agents—Conventions

Law

Agents have collective bargaining rights; abstracts. W. H. Bennett. East Underw 49: 21+ O 22 '48; Nat Underw 52:40 O 7 '48

Agents licensing law parley of N.A.I.A. evokes many ideas. Nat Underw 52:8 Ap 8 '48

Checks payable to insurance companies and deposited in agency accounts. Banking 40: 84 Je '48

Florida adopts code of ethics covering life insurance agents. East Underw 49:15 Ag 20 '48

Hildebrand attacks California exclusion of Michigan agents. Nat Underw 52:1+ Ag 26 '48

Indiana ruling clarified; soliciting business by phone. Nat Underw 52:3 My 13 '48

Issue rules under new Wisconsin non-resident law. Nat Underw 52:2 F 26 '48

NATA releases results of agent-licensing study. Weekly Underw 158:496 F 14 '48; East Underw 49:24 F 13 '48; Nat Underw 52:1 F 12 '48

New premium handling rules are promulgated by Superintendent Dineen. Weekly Underw 157:1234+ N 15 '47; Excerpt. Nat Underw 51:1 N 13 '47

New Washington code; license set-up plan of special interest to producers. Weekly Underw 157:1228+ N 15 '47

New Wisconsin law; non-resident agents may be licensed but may not countersign. Weekly Underw 158:640 F 28 '48

Pacts to remain out of competition still valid. L. U. Jeffries. Nat Underw 52:3 S 23 '48

Pennsylvania insists on compliance with non-resident law. Nat Underw 52:4 S 9 '48

Report of legislative advisory committee of N.A.I.A. Weekly Underw 159:798 O 9 '48

Review of model licensing bill. J. R. Berry and others. East Underw 49:21 Ap 9 '48

Tennessee Supreme court decides licensing case. Motors insurance corporation case. Weekly Underw 157:1407+ D 6 '47

Text of new New York regulation on bank accounts for premium funds. East Underw 48:26 N 21 '47

What of the future under P.L. 15? status of producers. E. W. Sawyer. East Underw 49: 5+ pt 2 Je 18 '48

See also

Insurance, Life—

Agents—Legal

status

INSURANCE agents—Continued

Multiple line selling

Brokers miss much life business by not prospecting. O. J. Wheeler. Nat Underw 51:32 N 13 '47; Same. Nat Underw (Life ed) 51:20 N 7 '47
 Combination A.&H. and life policy recommended. T. T. Wallace. East Underw 49: 42:3 F 13 '48
 Manager for multiple line agency makes brokers life conscious. E. O. Johnson. Nat Underw 52:18 F 19 '48; Same. Nat Underw (Life ed) 52:6 F 6 '48
 Travel specialist; New York agent finds accident, baggage cover profitable. Nat Underw 51:17 D 4 '47
 Urges diversification. R. Tuchbreiter. Nat Underw 51:21 N 20 '47; Correction. 51:19+ D 18 '47

Offices

Narrowest agency; making the most of a long narrow space. Il plan Rough Notes 91:41 Ja '48

Public relations

Agent; key man in public relations. F. J. Malley. Spectator (Property ed) 14:26-8 Ag 19 '48
 Civic activity, good appearance help build good will for agents. East Underw 49:24 O 1 '48

Records

Continental Casualty offers collection plan; creates form for agents. East Underw 49: 30 Ag 13 '48; Same. Weekly Underw 159: 343 Ag 14 '48
 Producers' bookkeeping eliminated through package punch card system. East Underw 49:24 pt 2 Je 18 '48
 What kind of records should you keep? Rough Notes 90:28-9 D '47

Rural agents

Farm risks profitable if sound underwriting rules are followed. D. C. Smith. East Underw 49:40 S 17 '48; Abstract. Nat Underw 52:17 S 16 '48

Sales conventions

Chicago insurance day proves helpful to producers. Nat Underw 52:6+ Mr 25; 4+ Ap 1 '48
 500 agents gather sales tips at Kansas City congress. Nat Underw 52:26 My 6 '48
 Long haul lines, deductibles Southern conference topics. Nat Underw 52:36 O 7 '48

Service

Agent helped National Board's 1947 gold medal winner. Il Spectator (Property ed) 13:20-1 My 20 '48
 Complete sales approach; examination, diagnosis and prescription. J. B. Roach. Spectator (Property ed) 14:20-2 Ag 5 '48
 Favor brother's keeper idea for agents; address before North Carolina agents. H. D. Combs. East Underw 49:41 My 7 '48
 How to make insurance surveys. R. D. Byrne and others. Rough Notes 90:21-6 D '47
 How to make insurance surveys. W. G. Dithmer. Rough Notes 91:17-18+ O '48
 Insured's peace of mind rests on competent agency's service; address before Detroit agents. H. D. Combs. East Underw 49:35 My 28 '48; Same cond. Nat Underw 52:20 My 27 '48
 Suggests agents try "product control" in insurance. A. H. Criddle. Nat Underw 52:37 O 7 '48
 Survey selling value. R. D. Cole. Weekly Underw 157:1238+ N 15 '47
 What to tell your clients after a loss. W. C. Moore. Il Rough Notes 91:17-18 Ap '48

Training

Aetna issues Panorama of progress, marking 100th sales course session. East Underw 49:35 Ap 16 '48; Same cond. Nat Underw 52:20 Ap 8 '48
 Aetna's C. & S. home office school. E. Money. East Underw 48:96 D 19 '47
 Brink agency of Detroit testing isolation training for new agents. East Underw 49: 28 Ja 9 '48

Describes ambitious North America schools. H. P. Abbott. Nat Underw 52:11-12 Ja 1 '48
 Downey issues standards for training courses. East Underw 49:43 My 14 '48
 Outlines pattern of Monarch college; new man should be trained at home office instead of by general agent. R. C. Laub. East Underw 49:35+ My 14 '48
 Travelers graduates its 100th class of agents in training. East Underw 49:1+ Je 11 '48

See also

Insurance—Study and teaching Insurance, Life—Agents—Training

Unions

Communist control blocks Prudential's bargaining with UOPWA. Nat Underw (Life ed) 52:1+ O 8 '48
 Lincoln sends letter to agents in three states on UOPWA situation. East Underw 49:8 O 29 '48
 Prudential asks for bargaining clarification. Nat Underw (Life ed) 52:2 Ag 20 '48
 Threatened strike by agents of Prudential; position of company. East Underw 49:11+ O 8 '48
 Union fracas may snarl wage talks. Nat Underw (Life ed) 52:3 Jl 23 '48
 UOPWA failure to sign as non-Reds may prove costly. Nat Underw (Life ed) 52:2+ Ag 13 '48
 UOPWA to bring \$1 million suit against Prudential. Nat Underw (Life ed) 52:1 O 15 '48

Women agents

See also

Insurance, Life—Agents—Women agents

California

California exams receive attention at A.L.C. regional. Nat Underw (Life ed) 52:5 My 14 '48
 Downey issues standards for training courses. East Underw 49:43 My 14 '48

Canada

Commission revision program in Canada. Nat Underw 51:2 D 4 '47; East Underw 48:1+ D 6 '47
 Commission revisions are now being studied by Canadian organizations. F. J. Jordan. East Underw 48:27 N 21 '47
 Profit commission formula held by Canadian agents as cut in income. East Underw 48: 24 N 28 '47

INSURANCE agents, National association of. See National association of insurance agents

INSURANCE agents association of Minneapolis
 Extracts from opinion of court in Minneapolis local board case. East Underw 49:26 Je 25 '48

Minneapolis board wins Miller case in state high court. Nat Underw 52:8 Je 17 '48

INSURANCE associations

C.&S. acquisition cost conferences to continue as advisory bodies. East Underw 49: 23 Jl 2 '48

New York ex-fieldmen hold annual meeting. East Underw 49:17 Je 4 '48

Place of advisory organizations in the rate regulation pattern. R. Matthias. Nat Underw 52:19 Je 3 '48

See also

Factory insurance Insurance agents as-
 association sociation of Min-
 Federation of in- neapolis
 surance counsel Interstate underwrit-
 Institute of life in- ers board
 surance National association
 of insurance agents

INSURANCE brokers

Broker is agent of assured, Illinois high court finds; William France vs. Citizens Casualty. Nat Underw 52:24 Ap 22 '48

Brokers push annual Chicago license fee. Nat Underw (Life ed) 51:4 N 14 '47

Brooklyn group eyes broker problem. Nat Underw 51:4 N 13 '47

Dependence on insurance brokers. J. Account 86:161 Ag '48

Full-time life agents appear to be gaining against Chicago's brokers. Nat Underw (Life ed) 52:4 Ag 6 '48

INSURANCE brokers—Continued

Further comments on dependence on insurance brokers. J. C. Harris; F. W. Reils. J Account 86:342-3 O '48
 General brokers association, twenty-second annual dinner, New York. East Underw 48:23 O 31 '47
 New Marsh & McLennan offices feature safety service. Il Safety Eng 95:22+ Je '48
 Substantial license fees loom for Chicago brokers. Nat Underw 51:2 O 30 '47
 Tells buyers what brokers expect. T. W. Bailey. East Underw 49:22+ S 24 '48
See also Insurance brokers' association of New York; National association of insurance brokers

Commissions

Advantages in fixing uniform commission rate to brokers. G. F. Sullivan. East Underw 49:18-19+ O 29 '48
 Brokers object to competitive slicing of fees on group. Nat Underw (Life ed) 51:5 N 28 '47; Same. Nat Underw 52:17 Ja 8 '48
 Real effort is being made to solve existing market situation; question of regulation of commissions. G. F. Sullivan. Weekly Underw 157:1101+ N 1 '47

INSURANCE brokers, National association of. See National association of insurance brokers

INSURANCE brokers' association of New York

Annual meeting, 50th. Weekly Underw 158:1303+ My 1 '48

INSURANCE commissioners

Armand Harris is named Minnesota commissioner. Nat Underw 51:1 N 20 '47; Same. Nat Underw (Life ed) 51:10 N 21 '47
 Commissioner Johnson of Minnesota resigns; Armand Harris succeeds to office. Weekly Underw 157:1295 N 22 '47
 Forbes is given notable salute in home state. L. Cartwright. Nat Underw 51:2+ N 13 '47

What happens to commissioners after leaving departments? East Underw 48:95+ D 19 '47
 Wisconsin appoints John Sonderegger. Nat Underw 52:3 S 9 '48; Same. Nat Underw (Life ed) 52:10 S 10 '48

See also National association of insurance commissioners

INSURANCE commissioners, National association of. See National association of insurance commissioners

INSURANCE companies

Insurance almanac: who, what, when and where in insurance, an annual of insurance facts, 1947. 1312p \$5 Underwriter printing and publishing co, 116 John st, New York 7 '47

New companies organized in 1947; mergers, changes of control, etc. Weekly Underw 158:128-30 Ja 3 '48

Organization of Midwestern insurance company of Oklahoma City. Nat Underw 52:16 Je 24 '48; East Underw 49:32 Je 25 '48

T. A. Manning & sons launch \$3 million Texas insurer; Southwestern fire & casualty co. Nat Underw 52:2+ Mr 11 '48

See also

Lloyd's, London
 Subrogation of insurer

Accounting

Accountants study how to comply with New York uniform accounting regulation 30. Nat Underw 52:1+ S 16 '48

Accounting's role as management factor stressed at Pittsburgh meeting of Life office management association. Nat Underw (Life ed) 52:12 My 28 '48

Analyzes status of New York insurance department regulation no. 30. J. A. Mills. East Underw 49:26+ Ag 13 '48; Same. Nat Underw 52:22+ Ag 12 '48

Approach to problems of equity and surplus distribution. E. W. Marshall. East Underw 49:19 Je 25 '48

Big day in property insurance; New York requires uniform accounting methods. Bsns W p20-1 J1 10 '48

Bookkeeping woes of uniform accounting plan. R. W. Griffith. Nat Underw 52:20 J1 1 '48

Companies, agents want rates based on underwriting profits. East Underw 48:1+ N 21 '47

Critics speak on NAIC uniform accounting plan. T. F. Tarbell and others. East Underw 49:33 Je 11 '48

Disbursement from administration of life company standpoint. G. A. White. East Underw 49:22 pt2 O 8 '48

Don't kill the fire insurance industry! threats implied in McCullough report. S. C. Davis. Comm & Fin Chr 168:1324+ S 30 '48; Excerpts. East Underw 49:21 S 10 '48; Nat Underw 52:3 S 9 '48

Fallacies in statement analyses. R. T. Smith. East Underw 49:30 O 8 '48

Formal hearing on New York's proposed regulation no. 30. Nat Underw 52:6+ Je 24 '48; East Underw 49:22-3 Je 25 '48

Frustrated figuremen; accountants ask simplified premium tax payment forms. Nat Underw 52:25 Ja 8 '48

Home office accounting department. J. L. Batchler. East Underw 49:28+ pt 2 O 8 '48

How business can inspire and maintain confidence; address before Insurance accountants association. J. A. Diemand. Nat Underw 51:2+ N 6 '47

Industry asks more time on uniform accounting. Nat Underw 52:19+ My 20 '48

Issue arises over adjusting expense treatment; National Bureau and independents at odds. Nat Underw 52:18+ Je 3 '48

Life agency expense rule cited; New York department interprets voucher requirements as to general agents. Weekly Underw 159:425+ Ag 28 '48; East Underw 49:11 Ag 27 '48; Nat Underw (Life ed) 52:14 Ag 27 '48

Move to harmonize accounting rules, statement blanks; commissioners group names liaison committee to reconcile differences. Nat Underw 52:29 S 23 '48

NAIC committee adopts expense classes of New York's regulation 30. Nat Underw 52:1+ O 28 '48

National Board replies to charges by McCullough on investment income; excerpts from statement to National association of insurance commissioners. East Underw 49:19+ Ag 20; 18-19 Ag 27; 19 S 3; 24 S 10 '48

National Board replies to McCullough charges. East Underw 49:20+ Je 11 '48; Nat Underw 52:1+ J1 1 '48

New York accounting rule contains last minute changes. Nat Underw 52:1+ J1 8 '48

New York dept. answers objections to promulgation of new expense rules. W. F. Martineau. East Underw 49:22 J1 9 '48

New York expense allocation proposals completed. East Underw 49:20 My 7 '48; Same. Nat Underw 52:23 My 5 '48

Present underwriting profit formula upheld; address before West Virginia agents. E. F. Gallagher. East Underw 49:17-18 Ag 13 '48; Same abr. Nat Underw 52:1 Ag 12 '48; Same abr. Weekly Underw 159:313+ Ag 14 '48

Problems of revised life blank for annual statement. C. O. Shepherd. Nat Underw (Life ed) 52:3+ S 24 '48

Rebuts critics of uniform accounting; abstracts. T. C. Morrill. East Underw 49:34+ My 28 '48; Nat Underw 52:3 My 27 '48

Revision of profit formula. R. C. McCullough. Nat Underw 51:2 N 13 '47

Square off for fight on limiting profit in New York law; proposed revisions in section VIII. Nat Underw 51:3+ N 20 '47

Uniform accounting promulgated in New York; industry's views. Spectator (Property ed) 14:22 J1 8 '48

Uniform accounting proposals are studied by NAIC group at New York meeting, Oct. 20-22. East Underw 49:14+ O 29 '48

Uniform expense rules promulgated in New York. East Underw 49:14 J1 2 '48

Views on uniform accounting; abstracts. F. S. Perryman. East Underw 49:34 Je 11 '48; Weekly Underw 158:1703-4 Je 12 '48

Advertising

Advertising needs new look; safety advertising by insurance companies. H. Armand. Safety Eng 95:34+ Mr '48

INSURANCE companies—Advertising—Cont.

Agents tell what they want in company advertising. *L. A. Beck*. East Underw 49:24 O 8 '48

Buyer's view of insurance ads. *E. L. Clark*. East Underw 49:29+ F 27 '48; Same cond. Nat Underw 52:4 F 26 '48

Institutional ads to inform public proposed. *C. W. Pierce*. East Underw 49:1+ Je 4 '48; Same cond. Nat Underw 52:6 Je 3 '48

National magazine advertising. *K. H. Mathus*. il *Spectator* (Life ed) 156:24-9+ J1 '48

Newspaper advertising. *K. H. Mathus*. il *Spectator* (Life ed) 156:20-5+ Ag '48

Policyholder and public relations; radio programs of life companies. *K. H. Mathus*. il *Spectator* (Life ed) 155:18-21, 24+ Je '48

Wives smile in ads; Minnesota Mutual's trade journal campaign. Weekly Underw 157: 1138 N 1 '47

Branch offices

Branch offices bane of agents' existence; NAIA committee report; abstracts. Weekly Underw 159:810 O 9 '48; East Underw 49:36 O 15 '48

Consolidation

Home's farewell to fleet plan spells many changes. Nat Underw 52:1 Ja 22 '48

John Marshall is being merged in Bankers Life & Casualty. Nat Underw 52:26 Ag 12 '48; Same. Nat Underw (Life ed) 52:6 Ag 13 '48

Merger plans of Home win complete approval of stockholders. Weekly Underw 153:1088+ Ap 10 '48; East Underw 49:1+ Ap 9 '48; Nat Underw 52:4 Ap 8 '48

Terms of proposed merger into Home of affiliated companies. East Underw 49:21 Mr 12 '48

To merge Clement Stone setup into Combined Insurance co. Nat Underw 51:26 N 20 '47 To merge National of Colorado and William Penn in Rhode Island. Nat Underw 52:1 J1 15 '48

Costs

Operations audits used as curb on rising costs. Nat Underw (Life ed) 52:7 J1 2 '48

Directors

Board of directors. *J. A. Fulton*. East Underw 49:14+ pt 2 O 8 '48

Economics departments

Increasingly important role played by economists. Nat Underw (Life ed) 52:2 Ja 9 '48 Role of economists in life insurance management. *C. L. Benner*. East Underw 49:25+ pt 2 O 8 '48

Employees

Columbus Mutual battles colds among employees. *F. M. Green*. Nat Underw (Life ed) 52:12 O 1 '48

Companies caught in inflation-caused personnel squeeze. Nat Underw 52:5+ My 20 '48

Describes ambitious North America schools. *H. P. Abbott*. Nat Underw 52:11-12 Ja 1 '48 Employees offer Prudential 40,000 suggestions. Nat Underw (Life ed) 52:4 S 24 '48

Full-time employees in life industry over 300,000. Weekly Underw 158:1398 My 8 '48; Same. East Underw 49:11 My 14 '48

Good employee relations vital. *J. N. Cosgrove*. East Underw 49:30 Je 11 '48

Incentive plans for office workers show good results at Aetna Life. Nat Underw (Life ed) 51:4 N 7 '47

Keeping people of home office informed about company. *J. L. Cameron*. East Underw 49: 4 My 21 '48

Metropolitan's compensation plan; more compensation for district office and field clerks. East Underw 49:10 F 13 '48

Mutual Life liberalizes educational refund plan. East Underw 48:13 N 14 '47; Same cond. Weekly Underw 157:1271 N 15 '47

New interest shown in office staff training. *J. H. Kohlman*. Weekly Underw 157: 1391 N 29 '47; Same cond. Nat Underw (Life ed) 51:8 N 28 '47

Northwestern Mutual has employe program; explains 1947 operations. East Underw 49: 8 Mr 12 '48

Physical check-ups for Prudential employees. East Underw 49:5 J1 23 '48

Prudential will send all letter writers to school. Weekly Underw 157:1392 N 29 '47; Nat Underw (Life ed) 51:8 D 26 '47

School profitable; Mutual Life plan tempts employees to further study. Nat Underw (Life ed) 51:8 N 7 '47

\$2,500 paid for an idea sets Prudential record. Weekly Underw 157:1193 N 8 '47

Wages in home offices of life insurance companies. *K. B. Mohn*. Mo Labor R 66:10-13 Ja '48; Same cond. Nat Underw (Life ed) 52:11 O 1 '48

Training

Metropolitan Life builds reservoir of management. Nat Underw (Life ed) 52:5 Ag 27 '48

Personnel selection and training. *G. A. Harper*. East Underw 49:26 pt 2 O 8 '48

Employees' pensions

Northwestern National offers retirement plan to agents; new program for employees. Weekly Underw 153:191+ Ja 10 '48

Proposed retirement plan for active employees of Home (fire) insurance co. East Underw 49:7 Mr 12 '48

Examination

Home insurance company cooperated with department; statement to commissioners; abstracts. *R. E. Dineen*. East Underw 48: 20+ N 28 '47; Nat Underw 51:2+ N 27 '47

Exhibits

Travelers' Currier and Ives pictures have been on road show since 1945. il East Underw 49:35 S 24 '48

Finance

Bill in Congress permits RFC aid to insurance; *S. 2287*. Weekly Underw 158:1019 Ap 3 '48

Canadian fire and casualty premiums and losses showed large gains during 1947. East Underw 49:17 Ap 30 '48

Dineen presents case for RFC position; recommends power to aid companies through preferred stock medium be restored. East Underw 49:28 Ja 23 '48

Dunne's fire and casualty insurance report, 1947. 552p \$7.50 Insurance index, 110 William st, New York 7 '47

Dunne's international insurance reports, covering legal reserve life insurance companies and prominent fraternal beneficial societies operating in the United States and Canada. 1435p \$20 Insurance index, 110 William st, New York 7 '47

National income of insurance industry shown in survey by Dept. of commerce. East Underw 49:1+ Ag 20 '48; Same. Weekly Underw 159:373 Ag 21 '48; Same cond. Nat Underw 52:2 Ag 6 '48; Same cond. Nat Underw (Life ed) 52:6 Ag 6 '48

Net premium and loss figures for 1947 on fire companies allied lines; with tabulation by company. East Underw 49:1+ Mr 12 '48

Operations of fire and casualty companies analyzed by First Boston corporation. Weekly Underw 158:1821-2 Je 26 '48; Same abr. Nat Underw 52:1 Je 24 '48

Profit prospects good for fire companies. *H. Murphy*. Barron's 28:33 S 6 '48

Record of five Hartford (Conn.) insurance companies; 1938 and 1947 compared. *E. A. Van Deusen*. Comm & Fin Chr 167:2198 My 20 '48

Rule-of-thumb test of insurer called unreliable. *R. T. Smith*. Nat Underw 52:13 O 14 '48

Stock companies graded by assets and premiums; tabulation showing dollar value as of Dec. 31, 1947 and comparative standing 1938-1947. Nat Underw 52:1 Mr 18 '48

Stock fire insurance 1947 experience by lines, from Argus fire chart; tabulation by company. Nat Underw 52:2-4 Mr 25 '48

Underwriting and investment profits and losses of 100 casualty, surety and miscellaneous companies in 1946; tabulation. *Spectator* (Property ed) 13:20-1 N 27 '47

INSURANCE companies—Continued

Foreign branches

North America companies enlarge facilities in foreign fields. East Underw 49:1+ F 13 '48

Foreign branches (in United States)

First Chinese company admitted to write fire-marine in U.S.; Central trust of China (United States insurance branch). East Underw 49:1+ Ap 16 '48; Same abr. Weekly Underw 158:1156 Ap 17 '48

Foreign business

Administration of foreign business by a Canadian life insurance company. F. J. Cunningham. East Underw 49:40 pt 2 O 8 '48

American coverage increasingly popular with foreigners. Nat Underw 52:11 Mr 11 '48
Big opportunity for agents to write foreign coverage. Nat Underw 52:13+ O 21 '48

Foreign business means premium; role of American foreign insurance assn. F. J. Malley. II Spectator (Property ed) 14:12-14 J1 8 '48

Headaches of coverage on foreign risks. A. L. Pither. Nat Underw 52:13 My 27 '48

Restrictions encountered by American companies wishing to operate abroad. J. Sachs. Weekly Underw 158:1834 Je 26 '48; Excerpts. East Underw 49:28 Je 25 '48

Forms, blanks, etc.

Automobile risks as viewed today; with specimen inspection form for agents. H. Dimling. Weekly Underw 157:1261-2 N 15 '47

Commissioners blanks committee calls for policy experience in 1949. Nat Underw 52:5 Ap 15 '48

Companies fight New York plan to amend gain-loss exhibit; commissioners blanks committee adopts A.&H. change. Nat Underw (Life ed) 52:1 Ap 16 '48

Frustrated figuremen; accountants ask simplified premium tax payment forms. Nat Underw 52:25 Ja 8 '48

Move to harmonize accounting rules, statement blanks; commissioners group names liaison committee to reconcile differences. Nat Underw 52:29 S 23 '48

Problems of revised life blank for annual statement. C. O. Shepherd. Nat Underw (Life ed) 52:3+ S 24 '48

Proposed revision of blank completed; fire and casualty accountants submit combined statement. Nat Underw 51:15 N 6 '47

Reach accord with commissioners on gain-loss exhibit; companies for Dineen plan. Nat Underw (Life ed) 52:3 Je 11 '48; East Underw 49:8 Je 11 '48

Study shows claims forms too complex. East Underw 49:6 Ag 13 '48; Same. Life Ins Courant 53:23 N '48; Excerpt. Nat Underw (Life ed) 52:5 Ag 6 '48

Investments

Broderick contests Michigan ban on certain investments. Nat Underw 52:5 J1 29 '48

Insurance firms' investment return now rising; fire and casualty companies. E. R. Abrams. Barron's 27:32 N 10 '47

International Bank interest to foreign insurers not taxable. East Underw 49:1+ Ag 13 '48

Investment ills during inflation; address at Hemispheric insurance conference. L. Kappes. Nat Underw 52:7 O 28 '48; Same. Nat Underw (Life ed) 52:4 O 29 '48

Investments. E. L. Hall. Published in bi-weekly numbers of Spectator (Property edition)

Stock company investments; with charts and tables showing data for 1938-1947. Spectator (Property ed) 14:27-31 O 21 '48

Suggestions for mutual company investments. S. C. Davis. Nat Underw 52:9 O 21 '48

See also
Insurance, Fire—Investments Insurance, Life—Investments

Valuation

Bond yield test for amortization remains unchanged. Nat Underw 52:1 Je 10 '48; Same. Nat Underw (Life ed) 52:1+ Je 11 '48

Canadian security valuation question is resolved. Nat Underw (Life ed) 51:11 D 19 '47

Security valuation study launched. Nat Underw (Life ed) 52:2 My 28 '48

Valuation rules reported by commissioner's group. Weekly Underw 157:1407+ D 6 '47

Legal departments

Life insurance law departments. L. W. Dawson. East Underw 49:16+ pt 2 O 8 '48

Management

Administration operations of life insurance companies. E. Fitzgerald and others. II East Underw 49:11-13+ pt 2 O 8 '48

Companies again are on the hunt for good agencies; elimination of unprofitable accounts completed. Nat Underw 52:1 Ap 22 '48

Decentralization idea is studied. Nat Underw 52:2 O 14 '48

How Prudential letters are improved. J. E. Thiele. East Underw 49:10 O 1 '48

Let's look at the record; how improved office methods and equipment can help insurance companies; interview with D. Maggin. II Spectator (Property ed) 13:20-5 Ap 22 '48; Same. Spectator (Life ed) 155:10-14 My '48

Liberty Mutual develops machine writing of automobile policies; uses punched cards. J. H. Forest. Nat Underw 52:2 O 28 '48

Machines in a life insurance office. R. W. Cobb. East Underw 49:32 pt 2 O 8 '48

Management's responsibility. J. A. Stevenson. Life Ins Courant 53:6-9 S '48; Abstracts. East Underw 49:12-13 Ap 23 '48; Weekly Underw 158:1053+ Ap 3 '48

Need more profit to ease capacity load. W. Fetzer, jr. Nat Underw 52:40+ O 7 '48

Operations audits' use as expense curb; abstracts. E. F. O'Toole. Nat Underw (Life ed) 52:4+ Ag 20 '48; East Underw 49:126+ pt 2 O 8 '48

Review of company operations; how various functions are integrated. J. A. McLain. East Underw 49:13 S 24 '48

Multiple line writing

Commissioners approve proposal for full multiple line powers. East Underw 48:54+ D 13 '47

Guarantee Mutual Life enters accident field. Weekly Underw 159:852-3 O 9 '48; Same cond. Nat Underw (Life ed) 52:2 O 8 '48

Industry recommendations; ask end of Appleton rule. Nat Underw 51:13 D 11 '47

Life companies' problems in writing A. & H. F. H. Haviland and others. Nat Underw 51:25+ D 4 '47

Obtain multiple line powers in California. East Underw 49:23 F 27 '48

Property carriers should write all coverage forms. S. Cowman. Weekly Underw 159:693+ S 25 '48; Same cond. Nat Underw 52:4 S 23 '48

Scores lack of multiple line writing. W. K. Downey. East Underw 49:20+ O 8 '48; Excerpts. Nat Underw 52:8 O 7 '48

Status of multiple line underwriting laws summarized. Weekly Underw 157:1551 D 20 '47

Wants life companies to expand in A.&H. field. B. A. Hedges. Nat Underw 52:14+ S 2 '48; Same. Nat Underw (Life ed) 52:3+ Ag 27 '48

Negro companies

Fewer, bigger, more economical Negro insurers counseled. M. C. Clarke. Nat Underw (Life ed) 52:6 Je 25 '48

Officials

Brief review of events occurring in 1947; official changes in 1947; death roll. Weekly Underw 158:122-8, 130-3+ Ja 3 '48

Caverly and Kerr advanced to be vice presidents of America Fore group. Weekly Underw 158:360-1 Ja 31 '48

Chief executive changes by John Hancock. Weekly Underw 159:113+ J1 17 '48

Jackson president of St. Paul F.&M.; Codere is chairman. East Underw 49:1+ Ja 23 '48

John G. Yost elected head of American bonding co. Weekly Underw 159:344 Ag 14 '48

INSURANCE companies—Officials—Continued

Lincoln National home office promotions. East Underw 49:6 F 13 '48
 Martin retires as U.S. manager of Atlas; C. M. Gallagher succeeds him. East Underw 49:14 J 2 '48
 Massachusetts Mutual makes executive changes. East Underw 49:3+ F 6 '48
 Metropolitan advances many officers; Brady now actuary; Fitzhugh moved to home office. Weekly Underw 157:1602 D 20 '47
 Nelson board chairman; Mahon, Owens presidents; executive changes made by New Amsterdam and U.S. Casualty. East Underw 49:23+ O 29 '48; Nat Underw 52:19+ O 28 '48
 North American Reassurance changes. East Underw 49:3+ Mr 19 '48
 Phoenix Assurance changes; Irvine retires; Haines takes additional titles. Nat Underw 52:2 Ap 1 '48
 Pressing need for trained executive reserves. E. W. Reilley. Nat Underw (Life ed) 52:12 O 1 '48
 Royal-Liverpool executive changes. Nat Underw 52:9 My 27 '48

Police cooperation

Police official offers plan for cooperation on lost and stolen property. F. Leuci. East Underw 49:22 Je 25 '48; Same cond. Nat Underw 52:16 Je 24 '48

Public relations

Everyone plays a public relations role. R. Hull. East Underw 49:10 Mr 5 '48
 Forum on company public relations; LAA-Institute joint meeting. New York; March 30-31. East Underw 49:3+ Ap 9; 12, 18-19 Ap 16 '48; Nat Underw (Life ed) 52:3+ Ap 2 '48; Spectator (Life ed) 155:10-15+ '48; Trusts & Estates 86:399-400 My '48
 Good public relations at insurance department level most needed. D. S. Walker. East Underw 49:27 J 2 '48
 Greater vision; importance of role of insurance trade press in public relations picture; address before Insurance advertising conference. A. E. Spottke. Weekly Underw 158:638+ F 28 '48; Same cond. East Underw 49:27-8 F 27 '48
 How are you doing? C. B. Reeves. Life Ins Courant 53:7-11 My '48
 How to make friends with the newspapers. H. Barsantee. Weekly Underw 159:1049 O 30 '48; Same. East Underw 49:3+ N 5 '48
 Mutual Life gets results from specific and continuous public relations effort. Nat Underw (Life ed) 52:3+ J 16 '48
 New York managers hear experts discuss public relations topics. East Underw 49:14 My 14 '48
 Penn Mutual gets award of American public relations association. East Underw 49:4 Je 4 '48; Same cond. Nat Underw (Life ed) 52:6 Je 4 '48
 Public approval; our continuing challenge. E. W. Craig. Spectator (Life ed) 156:12-15+ S '48; Same abr. Weekly Underw 159:634+ S 18 '48; Same cond. Nat Underw (Life ed) Daily ed 52:6+ S 16 '48
 Public attitude towards insurance. J. F. Malone, Jr. Weekly Underw 159:840+ O 9 '48
 Public information department created by Prudential. East Underw 48:18 D 19 '47
 Public relations. R. J. Wetterlund. Life Ins Courant 53:15-17 O 48
 Public relations called job for everyone. H. J. Johnson. Weekly Underw 158:104-5+ Ja 8 '48
 Public relations tools are described by National Board. East Underw 49:19+ Ap 23 '48
 Public relations top management duty; abstracts. T. J. Ross. East Underw 48:1+ D 26 '47; Spectator (Property ed) 13:32-3 D 25 '47
 Public understanding held important. W. M. Sidebotham. Weekly Underw 158:705+ Mr 6 '48
 Research program urged for industry; studying public needs, and testing ability to satisfy them, will improve insurance service. J. D. Dorsett. Weekly Underw 158:971 Mr 27 '48

Urges planned public relations spearheaded by top management. C. W. Young. East Underw 49:34+ My 14 '48

Real estate operations

See also
 Insurance, Life—
 Real estate operations

Records

Company's size determines type of rate book used. Nat Underw (Life ed) 52:5 Ap 9 '48
 Let's look at the records; how improved office methods and equipment can help insurance companies; interview with D. Maggin. II Spectator (Property ed) 13:20-5 Ap 22 '48; Same. Spectator (Life ed) 155:10-14 My '48
 Savings in producing internal reports; Standard accident insurance company of Detroit uses copying machine to duplicate handwritten records. D. G. Baird. II Am Bsns 18:16-17+ Mr '48
 Storage of records; editorial. Life Ins Courant 53:31 S '48

Regulation

Adequate regulation in all states needed to keep U.S. out. W. H. Bennett. East Underw 48:24 N 21 '47; Same. Weekly Underw 157:1293+ N 22 '47
 Administration key to success of state regulation; abstracts. A. J. Bohlinger. Nat Underw 52:3 Ap 29 '48; East Underw 49:19 Ap 30 '48
 Administrative procedures taken up by commissioners' rating group. Nat Underw 51:5 D 11 '47
 After the moratorium, what? address before Risk research institute. E. W. Sawyer. East Underw 49:30-1 Je 26 '48; Same cond. Nat Underw 52:3+ J 1 '48
 Anti-trust law for insurance in N.Y. opposed by stock fire and casualty companies. E. M. Ackerman. Weekly Underw 157:1619+ D 27 '47
 Big day in property insurance. Bsns W p20-1 J 10 '48
 Chamber of commerce opposes entrance of government into business. East Underw 49:1+ Ap 30 '48; Same abr. Weekly Underw 158:1289+ My 1 '48
 Commissioners get fair trade practice report at Chicago meeting. Weekly Underw 159:731 O 2 '48; East Underw 49:29+ O 1 '48
 Concert rate making in interest of public; Pittsburgh address. J. F. Malone, Jr. Weekly Underw 158:1087 Ap 10 '48
 Congress allows \$10,000 for mail insurance probe. East Underw 49:33+ Ap 16 '48; Same. Weekly Underw 158:1155 Ap 17 '48
 Criticizes appeasement of commissioners; companies' attitude rapped. G. H. Knight. Nat Underw 52:15 J 1 '48; Same. Nat Underw (Life ed) 52:2 J 2 '48
 Deplores idea of government aid to insurance; proposal for federally financed reinsurance corporation. J. C. Stott. East Underw 48:20+ N 28 '47
 Effectiveness of Canadian supervision. S. W. Taylor. East Underw 49:36 S 17 '48
 Encouraging future for insurance; address before Insurance Institute of London. E. B. Ferguson. East Underw 49:17+ Ja 2 '48
 English system of less regulation is held not adaptable to New York; Bohlinger and Morrill survey. East Underw 49:17 Ap 2 '48; Nat Underw 52:7 Ap 1 '48; Weekly Underw 158:1003 Mr 27 '48
 Federal anti-trust moratorium ended; new status exists; American bar association's survey. East Underw 49:1+ J 2 '48
 FTC maps insurance moves; nothing radical in '48. H. C. Hallam. Nat Underw 52:2 J 15 '48; Same. Nat Underw (Life ed) 52:5-6 J 16 '48
 FTC must spend year evaluating state laws. W. T. Kelley. Nat Underw 52:23+ My 6 '48; Same. Nat Underw (Life ed) 52:2+ My 7 '48
 Federal trust laws will apply after July first; abstracts. P. McCarran. Weekly Underw 158:1493+ My 22 '48; Nat Underw 52:1+ My 20 '48

INSURANCE companies—Regulation—Cont.

Federal vs. state regulation an issue; insurance commissioners face problem in Federal trade commission mail-order study. Weekly Underw 159:425+ Ag 28 '48

Finds regimented confusion on regulation issue. G. W. Kemper. Nat Underw (H.&A. conference no) 52:3+ My 14 '48

Foresees no federal regulation. E. J. Devitt. East Underw 49:26 S 24 '48

Insurance deadline nears. Bsns W p82+ F 14 '48

Insurers waist deep in regulation maze. R. Z. Alexander. Nat Underw 52:23 S 16 '48

Legislative program under P.L. 15 almost complete. J. V. Herd. East Underw 49:19+ My 28 '48

Life insurance association of America book-let presents anti-trust acts with comments; review. Nat Underw 52:26 Je 3 '48

Looks under covers at FTC inquiry; move is first step in broader federal program. L. J. Kavanaugh. Nat Underw (Life ed) 52:3 S 17 '48

Michigan commissioner hits open competition; upholds all-industry laws. D. A. Forbes. East Underw 48:22+ N 14 '47

Moratorium extension opposed. W. C. Fieser. Weekly Underw 158:493+ F 14 '48

Move to integrate audit, rating bureaus in West; stamping work to be departmentalized. Nat Underw 52:1 F 26 '48

N.A.I.C. cites 14 steps taken in P.L. 15 situation. Nat Underw 52:27 O 7 '48; Same. Nat Underw (Life ed) 52:1 O 8 '48

Need for closer work of insurance commissioners and companies. J. E. Larson. East Underw 49:9 O 8 '48

1948 promises to be most important year in history of U.S. insurance. J. M. Haines. East Underw 48:82+ D 19 '47

No needs for anti-trust law at state level. E. L. Williams. East Underw 48:19 D 26 '47

OK anti-monopoly law for New York to bolster state rule. C. G. Taylor. Nat Underw (Life ed) 52:4 Ja 2 '48

Present status of A. & H. state regulation. D. Knowlton. Weekly Underw 159:1041+ O 30 '48

Real effort made to preserve supervision; work of state insurance commissioners. S. B. Thompson. Weekly Underw 158:1681+ Je 12 '48; Excerpt. Spectator (Property ed) 13:28 Je 10 '48

Regulation angles; address before National association of independent insurers; abstracts. A. L. Kirkpatrick. Weekly Underw 157:1358+ N 29 '47; East Underw 48:29 N 28 '47

Sees present rate laws as satisfying McCarran act; Columbia (university) law review. Nat Underw 52:19 F 19 '48

Self-interest moves opposing rating law philosophies. F. B. McConnell. East Underw 48:30 O 31 '47

Seven federal laws affect regulation of all insurance; significance to life insurance. R. M. Trump. East Underw 49:1+ Ag 6 '48

Some states making chore of routine under rate control. Nat Underw 51:18 D 18 '47

Specific provision for FTC insurance studies lacking. Nat Underw 52:19+ F 5 '48; Same abr. Nat Underw (Life ed) 52:1 F 6 '48

State regulation now carries heavier burden. R. Murphy. Weekly Underw 158:1447 My 15 '48

State supervision; address before Institute of actuaries centenary assembly in London. B. E. Shepherd. Weekly Underw 158:1819+ Je 26 '48

Transitions under new regulatory laws; address before American bar association; abstracts. J. F. Malone, Jr. East Underw 49:1+ S 10 '48; Weekly Underw 159:533+ S 11 '48

U.S. Chamber urges states to finance new regulation. Nat Underw 52:1 Je 17 '48

Urges West Virginia to enact P.L. 15 legislation. J. M. McFall. Nat Underw 52:21 Ag 12 '48; Same. Weekly Underw 159:334 Ag 14 '48

Will moratorium law be extended? action by state legislatures to preserve supervision of insurance. R. Murphy. Weekly Underw 158:34+ Ja 3 '48

See also
Insurance Life—Investments

Reports

Annual report to policyholders. H. J. Johnson. East Underw 49:30+ pt 2 O 8 '48

Eighteen life companies cited for annual reports. Nat Underw (Life ed) 52:20 Ag 6 '48

Home insurance companies annual report in new cover. East Underw 49:19 Mr 12 '48

North America wins annual report award. East Underw 49:32 S 17 '48

Revised statement form for life companies. East Underw 49:12 Ap 30 '48; Nat Underw (Life ed) 52:3 Ap 30 '48; Weekly Underw 158:1331 My 1 '48

Securities

Fire insurance company stocks as investment trust holding. G. W. Jennings. Trusts & Estates 87:126 Ag '48

Fire insurance stocks for investment in 1948. E. A. Van Deusen. Comm & Fin Chr 167: 906 F 26 '48

Geyer & co. issues appeal for the forgotten man, the stockholder; position of fire and casualty stocks. Nat Underw 52:1+ J1 1 '48

Geyer & co. see favorable insurance stock factors. Nat Underw 52:2 Mr 11 '48

High loss era waning for insurance stocks; but renewed income tax load will lessen rise in earnings. J. C. Clendenin. Barron's 28:11-12 Ap 26 '48; Excerpts. Nat Underw 52:6 My 6 '48

Insurance profits in the public interest. S. C. Davis. Comm & Fin Chr 167:2318+ My 27 '48; Excerpts. East Underw 49:23 My 21 '48; Nat Underw 52:2+ My 20 '48

Insurance shares respond to upsurge. Nat Underw 52:1 My 20 '48

Insurance stocks attractive purchases for investors. G. Geyer. East Underw 49:29+ F 13 '48

Insurance stocks enjoy some gains in bull market. Nat Underw 52:2 Ap 15 '48

Range of insurance stocks in 1947; tabulation. H. W. Cornelius, comp. Nat Underw 52:9 Ja 8 '48

Service to government

Insurance to have part in defense plans against atomic bomb attacks. East Underw 49:20 J1 16 '48

Statistics

How 25 cities stand on home insurer totals; tabulations. Nat Underw 52:1+ Ag 26 '48; Same. Nat Underw (Life ed) 52:2+ Ag 27 '48

Ranking by assets and premiums of top 50 in multiple line casualty for 1947 and 1946. Nat Underw 52:21 Ap 15 '48

Spectator, statistical issue. Spectator (Life ed) 155:9-33+ O '47

Spectator, statistical issue. Spectator (Life ed) 156:5, 10-26+ O '48

Spectator, statistical issue. Spectator (Property ed) 14:7-24+ O 21 '48

Taxation

Decatur, Ga. rescinds premium tax; state action eyed. Nat Underw 52:4 S 9 '48

Life companies explain federal tax situation. East Underw 49:9 Ja 2 '48; Same abr. Weekly Underw 158:88 Ja 3 '48

No income tax on companies unless formula is changed. Nat Underw (Life ed) 51:1 D 26 '47

Rules for use of schedule P in reporting for taxes. Nat Underw 52:13 J1 8 '48

Setting the tax record straight; life companies' income taxes; editorial. Nat Underw (Life ed) 52:10 Ja 30 '48

State insurance tax collections reach \$191 million. Nat Underw 52:1 S 2 '48; Same. Nat Underw (Life ed) 52:1 S 3 '48

Taxes (including real estate taxes), life, fire and casualty, 1938-1947; chart. Spectator (Life ed) 156:11 O '48

INSURANCE companies—Taxation—Cont.

Treasury shows life company ⁴⁵ U.S. income tax totals. Nat Underw (Life ed) 52:2 JI 16 '48; Nat Underw 52:3 JI 15 '48; East Underw 49:23 JI 16 '48
Treasury tells principles of mutual taxation. Nat Underw 51:6 N 6 '47
United States life insurance companies pay \$150 millions average tax bill each year. Weekly Underw 158:390 Ja 31 '48; Same abr. Nat Underw (Life ed) 52:4 Ja 30 '48
U.S. tax refunded to five insurers. Nat Underw 52:16 F 12 '48

War problems

How great British company decentralized operations during World war II; Prudential assurance of London. II East Underw 48:8+ D 19 '47

Canada

Alberta General's unusual setup. Nat Underw 52:28 My 20 '48
Canadian questionnaire on fleet limitation stirs companies. Nat Underw 52:10 Ag 12 '48
Effectiveness of Canadian supervision. S. W. Taylor. East Underw 49:36 S 17 '48
Fewer companies goal of Canadian dept; results of survey. East Underw 49:19 O 29 '48; Same cond. Nat Underw 52:4 O 28 '48
Urges all Canadian stock companies to cooperate to meet socialistic threat. R. L. Stalling. East Underw 49:20 JI 9 '48

Chile

Impressions of some Chilean insurance leaders. C. Baldwin. East Underw 49:26+ Mr 12 '48

China

First Chinese company admitted to write fire-marine in U.S.; Central trust of China (United States insurance branch). East Underw 49:14 Ap 16 '48; Same abr. Weekly Underw 158:1156 Ap 17 '48

Denmark

Nye Danske insurance co. of Copenhagen. C. Baldwin. East Underw 49:21 Je 25 '48
Royal Chartered of Denmark celebrates its 150 years' jubilee. C. Baldwin. East Underw 49:19+ My 7 '48

Germany

Problems of German companies. A. Lauinger. East Underw 49:17 Ap 23 '48

Great Britain

Caledonian insurance company; London assurance; Alliance assurance company, limited; annual meetings. Economist 154:780 My 8 '48
How great British company decentralized operations during World war II; Prudential assurance of London. II East Underw 48:8+ D 19 '47
Liverpool & London & Globe operations for 1947. P. R. England. Weekly Underw 158:1616+ Je 5 '48; Same. East Underw 49:26 Je 4 '48; Same abr. Nat Underw 52:3 Je 3 '48
London & Lancashire head office report analyzed. A. S. Rogers. Nat Underw 52:4 Je 3 '48
Mercantile and general reinsurance company, limited, annual general meeting. Economist 155:646 O 16 '48
Phoenix assurance company, limited, ordinary general meeting, London. Economist 154:994-5 Je 12 '48
Royal exchange assurance; Royal London mutual insurance society, limited; North British and mercantile insurance company, limited; Clerical, medical and general life assurance society; Midland employers' mutual assurance, limited; annual meetings. Economist 154:737, 738, 739, 742 My 1 '48
Royal insurance company, limited, operations for 1947. P. R. England. Weekly Underw 158:1692+ Je 12 '48
Scottish union and national insurance company; Royal insurance company, limited; Norwich union insurance societies; Commercial union assurance company, limited; annual meetings. Economist 154:819-20, 822 My 15 '48

United Kingdom provident institution, annual general meeting. Economist 154:693 Ap 24 '48

See also
Prudential assurance company

Massachusetts

Allstate licensing issue in Massachusetts is threshed over. Nat Underw 52:15 S 2 '48
Some group plans violate law in Mass.; licensed foreign company must issue policies only through licensed resident agents. East Underw 48:36 N 14 '47

Norway

Storebrand, insurance company of Oslo. East Underw 49:21 S 24 '48

Peru

Leading Peruvian insurance companies. C. Baldwin. East Underw 49:17 Ja 16; 19+ Ja 23 '48

Puerto Rico

New law to limit insurance capacity. Nat Underw 52:15 Je 3 '48

Saskatchewan

Saskatchewan Socialist party on warpath against private companies. A. B. Jordan. East Underw 49:29 JI 16 '48

Sweden

Skandia insurance co. C. Baldwin. East Underw 49:17 Je 11 '48
Thule of Sweden; how large Stockholm insurance organization operates. C. Baldwin. East Underw 49:8 Je 4 '48

INSURANCE company buildings

Construction procedure for the foundation of the new John Hancock building. M. H. Parsons. diags Boston Soc C E J 34:316-20 O '47
General remarks on the design of the new John Hancock building in Boston. C. N. Godfrey. II Boston Soc C E J 34:293-6 O '47
Pile foundation for the new John Hancock building in Boston. A. Casagrande. diags Boston Soc C E J 34:297-315 O '47

INSURANCE conventions

First annual meeting of Midwestern independent statistical service and Illinois bureau of casualty insurers, Springfield, Ill. Nat Underw 52:10+ My 27 '48
Twenty-second annual Pittsburgh insurance day meeting, April 5. East Underw 49:36 Ap 16 '48; Nat Underw 52:3+, 20 Ap 8 '48; Nat Underw (Life ed) 52:7 Ap 9 '48; Spectator (Property ed) 13:26-7 Ap 22 '48

See also

Insurance, Life—
Agents—Conventions

Insurance agents—
Conventions

INSURANCE counsel, International association of. See International association of insurance counsel

INSURANCE counselors. See Insurance advisers

INSURANCE departments

Departmental duties to industry as well as to public. G. W. Kemper. East Underw 49:32+ My 14 '48
Departments' job to regulate, not manage. C. C. Fraizer. Nat Underw 52:20 My 27 '48; Same. Nat Underw (Life ed) 52:11 My 28 '48
Good public relations at insurance department level most needed. D. S. Walker. East Underw 49:27 JI 2 '48
How supervisory work has become magnified. L. H. Sanford. Nat Underw 52:5+ Ag 5 '48
Need for closer work of insurance commissioners and companies. J. E. Larson. East Underw 49:9 O 8 '48
New Jersey department of banking and insurance; history and personnel. A. Query. East Underw 48:3-4+ D 19 '47
Protest proposal to remove District of Columbia department. East Underw 49:30 F 20 '48
Renews plea for better insurance departments. J. M. McCormack. East Underw 48:20 D 5 '47; Same cond. Nat Underw 51:6 D 4 '47; Same cond. Nat Underw (Life ed) 51:5 D 5 '47

INSURANCE departments—Continued

Reports to American bar association on discretionary powers of insurance departments. C. C. Fraizer. East Underw 49:34 S 10 '48; Abstract. Nat Underw 52:17 S 9 '48

INSURANCE ethics

Florida adopts code of ethics covering life insurance agents. East Underw 49:15 Ag 20 '48

National statement of guiding principles for lawyers and life underwriters presented at NALU Louisville meeting; text. East Underw 49:10+ Mr 26 '48

New national statement of principles of co-operation between life underwriters and lawyers; with text. Trusts & Estates 86: 291-6 Ap '48

INSURANCE inspection service. See Service review inc.**INSURANCE institute of America**

Annual meeting, 39th, New York. East Underw 48:18+ O 31 '47

Annual meeting, 40th, New York. East Underw 49:25 O 29 '48

Falls named secretary. East Underw 49:22 F 6 '48

Reports on Institute work. L. E. Falls. Weekly Underw 159:1009+ O 30 '48

INSURANCE law

Building held destroyed where fire required structural changes and rendered it substantially uninhabitable. Weekly Underw 159:200 J 24 '48

C.S.D.; the company, the standard, the opportunity; standard non-forfeiture and valuation laws; address before Million dollar round table, A. N. Guertin. Weekly Underw 157:700-2, 761-3 S 20-27 '47; Same. Life Ins Courant 53:4-10 Ja '48; Same cond. Nat Underw (Life ed) Daily ed 51:16+ S 10 '47; Excerpts. East Underw 48:10+ S 12 '47

Disability clauses; court decisions and interpretations. L. Hocker, Jr. Life Ins Courant 53:14-19 Ag '48; Excerpt. Weekly Underw 157:1133 N 1 '47

Federal regulation of insurance. J. W. Cowee. (Wisconsin commerce reports v 2, no 3) 89p bibliog(p83-9) pa \$1.10 Univ. of Wisconsin. Bur of business research and service, 404 Sterling Hall, Madison '48

Insurance experienced most active legislative year in its history. E. M. Ackerman. Weekly Underw 158:7 Ja 3 '48

Insurers held in two cases for agents' alleged neglect. Nat Underw 52:23 Ap 8 '48

Legislative record on rating bills; list by states. Spectator (Life ed) 156:40 JI '48; Same. Spectator (Property ed) 14:15 JI 8 '48

Marine rule on concealment goes for inland cover. Nat Underw 52:5 JI 15 '48

NALU committee report on state law and legislation. East Underw 49:17 Mr 19 '48

Salesmen's floater policy; which concealment rule, marine or ordinary? J. L. Roesch. Spectator (Property ed) 14:24-5+ JI 22 '48

Standard non-forfeiture legislation. J. S. Thompson. Spectator (Life ed) 155:28-9+ F '48

See also

Insurable interest	Insurance companies
Insurance, Automobile—Financial responsibility laws	—Regulation
Insurance agents—Law	Subrogation of insurer

also Association of life insurance counsel; International association of insurance counsel

Arkansas

Charges Arkansas rating law unfair to free trade; North Little Rock transportation co. against National bureau of casualty underwriters. Nat Underw 52:15+ Ag 26 '48; Nat Underw (Life ed) 52:4 Ag 27 '48; East Underw 49:25+ Ag 27 '48

California

California commissioner explains new provisions for rate regulation. East Underw 49: 19 Ja 2 '48

Canada

More modern and uniform insurance laws are being sought. East Underw 48:26 D 5 '47

Some aspects of Canadian insurance law. R. Bigelow. Nat Underw (Life ed) 52:27 O 15 '48

Great Britain

English system of less regulation is held not adaptable to New York; Bohlinger and Morrill survey. East Underw 49:17 Ap 2 '48; Nat Underw 52:7 Ap 1 '48; Weekly Underw 158:1003 Mr 27 '48

Kentucky

Kentucky follows latest all-industry pattern exactly; legislature okays multiple line bill. Nat Underw 52:23 Mr 25 '48

Louisiana

Main features of new code; abstracts. G. F. Farris, Jr. Nat Underw 52:16 Ag 19 '48; Nat Underw (Life ed) 52:2+ Ag 20 '48

New code is up for hearing. Nat Underw 52: 35 Ap 15 '48; Same. Nat Underw (Life ed) 52:2 Ap 16 '48

Massachusetts

Praises Massachusetts regulatory legislation. J. A. Diemand. East Underw 48:23 N 7 '47

Missouri

Missouri casualty and surety regulatory bill held to meet requirements. Weekly Underw 158:1683 Je 12 '48; Same cond. Nat Underw 52:17 Je 10 '48

New York (state)

Argues for amendments to proposed Article VIII; testifies at New York hearing. R. Murphy. East Underw 48:31+ N 21 '47

Companies' agencies want rates based on underwriting profits; N.Y. legislative hearing on rating regulation. East Underw 48: 1+ N 21 '47

Dineen gives anti-trust proposal at hearing before joint legislative committee on rates and regulation. East Underw 48:28-9 D 26 '47

Hearings of joint legislative committee on insurance rates and regulation; meeting, New York, Dec. 19. East Underw 48:19+ D 26 '47; Nat Underw 51:21-2+ D 25 '47; Weekly Underw 157:1619+ D 27 '47

Hearings of joint legislative committee on rates and regulation. Albany. East Underw 49:1+ F 20 '48; Nat Underw 52:1+ F 19 '48

Holding hearing on rating in New York; with extracts from Dineen bill. East Underw 48:22+ N 14 '47

New York legislature approves Mahoney committee measures. East Underw 49:1+ Mr 19 '48; Nat Underw 52:23 Mr 18 '48

Position of life insurance companies on fair trade practices act for N.Y. C. G. Taylor, Jr. East Underw 48:11 D 26 '47

Several bills pass in New York; fair trade practice and expense limit change among them. Nat Underw (Life ed) 52:3+ Mr 19 '48

Square off for fight on limiting profit in New York law; proposed revisions in section VIII. Nat Underw 51:3+ N 20 '47

Ohio

Cite insurers under Ohio anti-compact law. Nat Underw 52:1 Ja 8 '48

Ohio's answer to the challenge of P.L. 15. W. H. Brewster. East Underw 49:42 My 14 '48

Puerto Rico

New law to limit insurance capacity. Nat Underw 52:15 Je 3 '48; Same abr. Nat Underw (Life ed) 52:6 Je 4 '48

Rhode Island

Rhode Island agents analyze new state rate regulatory statutes. East Underw 49:26 Je 4 '48

South Carolina

Revised form of South Carolina valued policy law. J. Calhoun. Weekly Underw 157:1427-8 D 6 '47

Texas

Texas law doesn't require one rate for all insurers; U.S. Guarantee wins decision in lower court. Nat Underw 52:15 Ag 5 '48

INSURANCE law—Continued

West Virginia

Urges passage of regulatory bills, J. M. McFall, East Underw 49:25 Ag 13 '48

INSURANCE libraries

Insurance libraries, O. W. Pendleton, J Doc 3:232-49 Mr '48

INSURANCE library association of Boston

First sixty years, by D. N. Handy; review, East Underw 49:17 Ja 23 '48

Hinkley again heads Boston library group; other officers, Weekly Underw 157:1090 N 1 '47

INSURANCE literature

Material to motivate agents; a survey of life insurance advertising and sales promotion literature, K. H. Mathus, Spectator (Life ed) 155:32-4+ Ja; 8-15 F; 12-18+ Mr; 18-21+ Ap; 18-25+ My; 18-24+ Je '48

INSURANCE placement board of Dallas, See Dallas—Insurance placement board

INSURANCE research

Research in casualty insurance, J. D. Dorsett, East Underw 49:19-20 Ap 2 '48

INSURANCE schools

N.Y. insurance society aids Harlem school; lectures for war veterans in United Mutual's offices, East Underw 49:6 Ap 23 '48

INSURANCE society of New York

Basic changes in arrangement of courses, East Underw 49:25 Jl 9 '48

Endowment funds grow in number, C. Axman, East Underw 49:18 My 14 '48

Life insurance faculty members, East Underw 49:6 Ja 23 '48

New officers, East Underw 49:13 Jl 2 '48

INSURANCE surveys

Atlantic monthly gives results of insurance survey among its readers, Nat Underw 52:8 S 16 '48

INSURANCE surveys, Agents'. See Insurance, Life—Agents—Service; Insurance agents—Service

INSURANCE women

A.&H. women's club of New York is launched, East Underw 49:34 Je 4 '48

Edna Curtis president of Women's Federation; New York meeting is held, East Underw 48:21 O 31 '47

Lorraine Sinton on job again with P. W. Cook; fought hard for eyesight, East Underw 48:8 N 7 '47

Resident secretary of U.S. Life's Manila branch; Ethel L. Newman, East Underw 49:5 Ja 23 '48

Sara Frances Jones marks 50th anniversary with Equitable of New York, East Underw 49:12 O 1 '48

Virginia E. Colgan and Mary E. McClelland advanced by Life Insurance association, Weekly Underw 158:1264 Ap 24 '48; East Underw 49:9 Ap 23 '48

Why I like my job, L. Sinton, East Underw 49:15 O 22 '48

See also

Insurance, Life—Agents—Women agents

INSURED mortgages. See Federal housing administration—Insured mortgage plan

INTAKES

Cleveland's new water intake, F. J. Schwemler, Il Water & Sewage Works 95:265-6 Jl '48

Control of barnacle growth in condenser intake pits, R. B. Lee, plan diag Power Generation 52:86+ My '48

New intake installation at Kodak Park, A. C. Bailey, Il Am Water Works Assn J 40:791-5 Jl '48

Steel-drum crib for Cleveland intake, A. A. Burger, Il diags Eng N 141:76-9 Ag 5 '48

INTEGRAL equations

Application of the Laplace transform in the solution of linear integral equations, L. B. Robinson, bibliog J Ap Phys 19:237-41 Mr '48

Integral-equation approach to problems of vibrating beams, W. T. White, diags Franklin Inst J 245:25-36, 117-33 bibliog (p 131-3) Ja-F '48

Mechanical integrator for the numerical solution of integral equations, P. L. Tea, bibliog Il diags Franklin Inst J 245:403-19 My '48

INTEGRAPHS

Mechanical integrator for the numerical solution of integral equations, P. L. Tea, bibliog Il diags Franklin Inst J 245:403-19 My '48

INTEGRATORS

See also

Voltage integrator

INTELEX

Intelix; automatic reservations; passengers on airlines and railroads, J. D. Mountain and E. M. S. McWhirter, Il diags Elec Com 25:220-31 S '48

Reservations in seconds; new robot called Intelix, Il Product Eng 19:148 Ag '48

INTELLECTUAL cooperation

Europe looks to America for technological assistance, J. A. Willard, Mech Eng 70:813-14 O '48

See also

Science—International aspects

INTELLECTUAL property

Protection

K&E gives its help; slowdown on ad laws, S. Rovner, Ed & Pub 81:12 F 21 '48

INTELLECTUAL workers

Holland seeks export market for its intellect; Netherlands institute for intellectual employment abroad, For Comm W 30:34 Ja 3 '48

See also

Executives

Office workers

Professional workers

INTER-AMERICAN confederation of workers

International labor confederations; CIT and CTAL, J. Barbash, Mo Labor R 66:499-503 My '48

INTER-AMERICAN conference on social security

Meeting, 2d, Rio de Janeiro, Int Labour R 57:481-6 My '48

INTER-AMERICAN highway. See Pan American highway

INTER-AMERICAN press association

Appeals for hemisphere news, T. Wallace, Ed & Pub 81:26 O 23 '48

INTERCHANGE of freight cars. See Freight cars—Interchange

INTERCHANGEABLE mechanism

Parts that fit together; the relationship of precision tooling, quality control and interchangeability in aircraft maintenance operations, W. L. Nye, Il Aero Digest 56:50-1+ Ja '48

See also

Tolerance

INTERCHEMICAL corporation

Interchemical benefiting from diversification program, Barron's 28:35 F 9 '48

INTERCOMMUNICATING systems

Electronic system links shaft and surface stations, C. M. Marquardt, Il Eng & Min J 149:83-5 S '48

Intercom for modern home, F. A. Bramley, Il diags Radio N 39:63-5 Ja '48

Maintenance communications set, W. C. Milligan, Il diag Aero Digest 56:49+ My '48

Two intercommunication systems for home use, Consumers Res Bul 22:9 O '48

INTERCONTINENTAL hotels corporation

Hotels Pan America, Fortune 38:110 Jl '48

INTERDEPARTMENTAL committee for scientific research and development. See United States—Interdepartmental committee for scientific research and development

INTERESSEN gemeinschaft farbenindustrie aktiengesellschaft

Fabulous I.G. Farben disintegrates, J. J. Christie, Chem Eng 55:98-102 Ja '48

I.G. Farben combine to be sold in units, Oil Paint & Drug Rep 154:5 Ag 16 '48

I. G. Farben headache; dissolution slows, Il Bsns W p85-6+ Ja 31 '48

Trustee unit created to disperse assets of I. G. Farben, For Comm W 32:15-16 S 11 '48

What about future of I.G. J. J. Christie, map Chem Eng 55:132-3 F '48

INTEREST

Bankers trust company questions adequacy of bank lending rates, Comm & Fin Chr 166:1879 N 6 '47

INTEREST—Continued

- Break in governments to send other rates up. *Barron's* 27:32 D 29 '47
- British and American controls in the money markets. R. I. Robinson. *Il Dun's R* 56:23-4+ Je '48
- Cheap money epilogue. *Economist* 154:66-7 Ja 10 '48
- Common-stock price ratios and long-term interest rates. B. Brown. *J Bsns* 21:180-92 Jl '48
- Continuing higher trend in interest rates? J. S. Williams. *Mag of Wall St* 81:296-7+ D 20 '47
- Cost of credit and capital. *Fed Res Bul* 34: 269-78 Mr '48; *Excerpts. Comm & Fin Chr* 167:1329+ Mr 25 '48
- Easy money policy. L. A. Hahn. *Comm & Fin Chr* 166:2473+ D 18 '47
- Easy money policy will stay. *Bsns W* p98-9 N 22 '47
- Economic trends and interest rates. T. E. Lovejoy, jr. *Comm & Fin Chr* 167:2746+ Je 24 '48
- Effect of interest used for calculating policy values on net costs. *Spectator* (Life ed) 155:26 O '47
- Fair wage for the mortgage dollar. C. Fleetwood. *Comm & Fin Chr* 167:1754+ Ap 22 '48
- Future of easy money. W. Sulzbach. *Comm & Fin Chr* 167:1+ Ja 1 '48
- Future trend of interest rates. C. L. Benner. *Comm & Fin Chr* 167:1526+ Ap 8 '48
- Gross rate of interest earned on mean invested funds by one hundred life insurance companies from 1927 to 1946; tabulation. *Spectator* (Life ed) 155:32-3 O '47
- Interest rate pattern. J. H. G. Pell. *Comm & Fin Chr* 167:1108+ Mr 11 '48
- Interest rate problem; address before Washington board of trade, Washington. D.C. E. Ruml. *Comm & Fin Chr* 167:1212+ Mr 13 '48; Same cond. *Trusts & Estates* 86:327-31 Ap '48
- Interest-rate structure. E. Marcus. *bibliog R Econ & Stat* 30:223-6 Ag '48
- Loans cost more; rates for commercial borrowing increase. *Bsns W* p 104-5 D 13 '47
- Long-term bond yields and short-term money rates, 1928-1948; graph. *Survey of Cur Bsns* 28:3 S '48
- Monetary and imputed interest, 1944-47; tabulation. *Survey of Cur Bsns* 28:26 Jl '48
- Money and interest rates, 1941-1946. *Survey of Cur Bsns* 1947 Sup p75 [supplemented in monthly numbers]
- Money, government spending and interest rates. S. R. Wendin. *Comm & Fin Chr* 167: 1986+ My 6 '48
- Money rates a political problem. J. S. Lawrence. *Comm & Fin Chr* 168:1319 S 30 '48
- Money rates and bond market support. E. S. Adams. *Banking* 41:35+ Jl '48
- Mortgage interest rates for 1948. S. R. Wendin. *Comm & Fin Chr* 167:709+ F 12 '48
- Mortgage loan interest. R. S. Smith. *Land Econ* 24:185-6 My '48
- Net interest, by industry, 1929-46; tabulation. *Survey of Cur Bsns* 27:sup35 Jl '47
- Net interest, by industry, 1944-47; tabulation. *Survey of Cur Bsns* 28:21 Jl '48
- Outlook for interest rates. P. Dobbs. *Mag of Wall St* 82:330-1+ Jl 3 '48
- Outlook for interest rates. M. Shields. *Comm & Fin Chr* 167:2309+ My 27 '48; Same cond. *Barron's* 28:5-6 My 31 '48
- Outlook for money rates. M. Nadler. *Comm & Fin Chr* 168:1323 S 30 '48
- Rise in interest rates; with graph showing trends, 1928-1947. *Survey of Cur Bsns* 28: 4-5 Ja '48
- Rising interest rates brighten banks' outlook. W. K. Gutman. *Barron's* 28:29-30 O 4 '48
- Structure of interest rates on commercial bank loans to farmers in mid-1947. R. Youngdahl. *Fed Res Bul* 33:1483-92 D '47
- Tighter money; rising interest rates. *Fortune* 36:3 D '47
- What about interest rates? A. G. Lanston. *Comm & Fin Chr* 167:301+ Ja 22 '48
- What price easy money? S. C. Badger. *Comm & Fin Chr* 166:1941+ N 13 '47

Why money will cost more; Federal Reserve open market policy. *Bsns W* p52-3 Ja 3 '48

See also

Bank deposits—In- Discount—Rates
terest Usury

INTERESTERIFICATION

Directed interesterification in glycerides. E. W. Eceky. *bibliog Ind & Eng Chem* 40:1183-90 Jl '48

INTERFACES

- Diffusion across oil-water interfaces. E. Hutchinson. *bibliog J Phys & Colloid Chem* 52:387-903 My '48
- Grains, phases, and interfaces; an interpretation of microstructure. C. S. Smith. *bibliog Il diags Metals Tech* 15:TP2387 1-37 Je '48
- Influence of reaction interface extension in the combustion of gaseous fuel constituents. W. J. Wohlenberg. *bibliog A S M E Trans* 70:143-56; Discussion. 156-60 Ap '48
- Interfacial mixing characteristics of products in products pipe lines. S. S. Smith and R. K. Schulze. flow diag. *Il plans diags Am Pet Inst Proc* 27(5):48-72 '47; Same. *Pet Eng* 19:94+ S; 20:330+ O '48
- Kinetics of the transfer of sulphur across a slag-metal interface. L. Chang and K. M. Goldman. *bibliog diag Metals Tech* 15: TP2387 1-19 Je '48
- Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander. *bibliog diags Phys R* 74:479-88 Ag 15 '48
- Phenomena at interfaces; hanging bubbles and rolling drops; lecture demonstration. T. H. Hazlehurst. *diags J Chem Educ* 25: 252-3 My '48
- Polyorganosiloxanes; surface active properties; polymethylsiloxanes and the related polymers. H. W. Fox, P. W. Taylor and W. A. Zisman. *bibliog Il Ind & Eng Chem* 39:1401-9 N '47
- Predicting life of oils by i.f.t. tests; abstract. P. S. Barnum. *diags Elec World* 130: 114 Ag 14 '48
- Progress report no. 1 on tool-chip interface temperatures. K. J. Trigger. *bibliog diags A S M E Trans* 70:91-3 F '48
- Properties of freshly-formed surfaces. C. C. Addison and others. *diags Chem Soc J* p930-48 Jl '48
- Some advances in techniques for the study of adsorbed monolayers at the liquid-air interface. H. W. Fox and W. A. Zisman. *bibliog R Sci Instr* 29:274 Ap '48
- Some applications of surface chemistry to problems in colloid science. A. E. Alexander. *bibliog Chem Soc J* p 1422-5 O '47
- See also
- Surfaces
- INTERFACIAL tension**
- Interfacial tension at elevated pressures and temperatures; a new and improved apparatus for boundary-tension measurements by the pendent-drop method. E. A. Hauser and A. S. Michaels. *bibliog Il diags J Phys & Colloid Chem* 52:1157-65 O '48
- Interfacial tension by the ring method; the benzene-water interface. H. L. Cupples. *bibliog J Phys & Colloid Chem* 51:1341-5 N '47
- See also
- Contact angle
- Surface tension
- INTERFERENCE (light)**
- Dynamic pressure measurement by optical interference. W. E. Buck and W. H. Barkas. *Il diags R Sci Instr* 19:678-84 O '48
- Experimental tests of an interference method for the study of diffusion. L. G. Longsworth. *bibliog Il diags Am Chem Soc J* 69: 2510-16 O '47
- Irradiance distribution in a Lloyd mirror interference pattern. R. N. Wolfe and F. C. Eilen. *Il diags Opt Soc Am J* 38:706-11 Ag '48
- Modification of Arago's Newton's rings experiment. V. N. Thatte. *Il diags J Sci Instr* 25:36-7 Mr '48
- Theory of an interference method for the study of diffusion. G. Kegeles and L. J. Gosting. *bibliog diags Am Chem Soc J* 69: 2516-23 O '47

INTERFERENCE (radio). See Radio communication—Interference

INTERFEROMETERS

Behavior of an interferometer in a gravitational field; application to a planetary orbit. H. E. Ives. bibliog Opt Soc Am J 38: 413-16 Ap '48

Improved Jamin interferometer. J. B. Hawkes and R. W. Astheimer. il diags Opt Soc Am J 38:617-22 Jl '48

Interference microscope for the study of inhomogeneous media. E. J. Ambrose. bibliog diags J Sci Instr 25:134-5 Ap '48

New principle in interferometer design. E. R. Peck. il diag Opt Soc Am J 38:66 Ja '48

Reflection and transmission interference filters. L. N. Hadley and D. M. Dennison. diags Opt Soc Am J 37:451-65; 38:483-96 Je '47, Je '48; Correction. 38:546 Je '48

Temperature coefficient of the refractive index of water. J. B. Hawkes and R. W. Astheimer. bibliog Opt Soc Am J 38:804-6 S '48

INTERFEROMETERS, Sonic

Interferometric studies of faster than sound phenomena. R. Ladenburg and others. bibliog il diags Phys R 73:1369-77 Je 1 '48

Mach interferometer applied to studying an axially symmetric supersonic air jet. J. Winkler. bibliog il diags R Sci Instr 19: 307-22 My '48

Precision ultrasonic interferometer for liquids and some velocities in heavy water. D. R. McMillan, Jr. and R. T. Lagemann. bibliog diags Acoustical Soc Am J 19:956-60 N '47

Sound velocity method for determining the compressibility of finely divided substances. R. J. Urlick. diag J Ap Phys 18: 983-7 N '47

INTERGOVERNMENTAL maritime consultative organization (proposed)

IMCO; new UN shipping agency has broad potential usefulness. S. Koushnareff. For Comm W 31:5-6+ Ap 24 '48

INTERIOR decoration

Color and design conscious packaging corporation; Container corporation of America's new Chicago offices. il plans diags Arch Forum 88:65-73 F '48

Color of unstained wood. P. Moon and D. E. Spencer. Opt Soc Am J 38:405-8 Ap '48

Coordinated interior design; Saarinen-Swanson group. il Arch Rec 102:78-9 N '47

Correlation of brightness ratios and decoration. W. H. Kahler and J. A. Meacham. il diags Illum Eng 43:175-91; Discussion. C. M. Cutler. 192-3 F '48

Gold rush interiors. il Textile Col 70:32 S '48

See also

Color in office decoration Furniture
Ship decoration

INTERIOR dimensions. See Architecture—Dimensions, Interior

INTERLOCKING devices

Interlock guard for milling machines. il Engineer 184:461 N 14 '47

Interlocks, electrical and mechanical. R. B. Immel. il diags Machine Design 20:131-48 Ap '48

Material handling plant; sequence control of driving motors with positive interlocking. F. C. Croft. il Elec R (Lond) 143:79-84 Jl 16 '48

INTERLOCKING signals. See Railroads—Signals

INTERMETALLIC compounds

Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing. bibliog diags Rs Mod Phys 20:112-22 Ja '48

Some reactions of trisodium monobismuthide in liquid ammonia. G. W. Watt and T. E. Moore. bibliog diags Am Chem Soc J 70: 1197-200 Mr '48

Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Calingaert, H. Shapiro and I. T. Krohn. Am Chem Soc J 70:270-7 Ja '48

INTERMITTENT mechanisms. See Mechanical movements

INTERNAL combustion engines

Application of internal-combustion engine power to rotary drilling rigs. W. S. Crake. diags Pet Eng 19:70+ D '47

Free-piston compressor-engines. H. O. Farmer. diags Inst Mech Eng J & Proc 156:Proc 253-62, pl 1-2 D '47; Same cond. Engineer 182:540-2 D 13 '46; Discussion. Inst Mech Eng J & Proc 156:Proc 262-71 D '47; Engineer 182:548-9 D 13 '46; Engineering 162:617-19 D 27 '46

Heat pump; engine drives. K. W. Miller and N. C. Penfold. Elec Eng 67:344-7 Ap '48

Small lightweight engine employs aluminum alloy for principal parts. diags Automotive Ind 99:34+ S 1 '48

See also

Airplane engines	Locomotives, Diesel
Automobile engines	Motor bus engines
Diesel engines	Motors cars (railroad)
Gas turbines	Motor cycle engines
Indicators (for internal combustion engines)	Motor truck engines

Air supply

Investigation of the airbox method of measuring the air consumption of internal combustion engines. L. J. Kastner. diags Inst Mech Eng J & Proc 157 (War emergency issue no 34):387-96; Discussion. 396-404 '47

Combustion research

Calculation of knock-free engine power. P. J. Gaylor. Pet Eng 19:148+ N '47

Chemical engineering unit processes; combustion. B. Lewis and G. von Elbe. Ind & Eng Chem 40:1590-6 bibliog (144 ref, p 1594-6) S '48

Cooling

Air cooled power plants by Continental motors corp. W. G. Patton. Iron Age 162: 108 S 23 '48

Army's new aircooled engine may have commercial use. Automotive Ind 99:18-19 O 1 '48

Cooling water requirements for natural gas booster stations. A. V. Mueller. il Gas Age 100:32-3 D 25 '47; Same. Oil & Gas J 46: 66-7+ Ja 8 '48; Same. Am Gas J 163:35-7 Mr '48; Same. Pet Eng (Ref annual) 19: 202+ Jl 1 '48

Developments in engine cooling systems. F. M. Young. diags Diesel Power 26:64+ F '48

Engine jacket water cooling systems. F. L. Kallam. Pet Refiner 27:115-22 Jl '48

Heat exchanger for engine cooling. il diag Engineering 164:441 N 7 '47

Separate cooling on drilling rigs. il Pet Eng 19:122 My '48

Design

Design innovations in a small engine built by Reo motors, inc. for driving lawn mowers, and for other uses. il diags Automotive Ind 99:36-7 S 15 '48

Radial engines for aluminum works. il Power 92:419-20 Jl '48

Schmid engine. il diag Automobile Eng 38: 319-20 Ag '48

Detonation

Knock characteristics of 16 pure gaseous hydrocarbons. F. E. Frey and others. bibliog Oil & Gas J 47:61+ S 2 '48

Fuel

Calculation of knock-free engine power. P. J. Gaylor. Pet Eng 19:148+ N '47

Knock characteristics of 16 pure gaseous hydrocarbons. F. E. Frey and others. bibliog Oil & Gas J 47:61+ S 2 '48

Research on liquid fuels; electrical applications to the testing of piston engines. il diags Elec R (Lond) 142:305-9 F 27 '48

See also

Gasoline

Fuel feeding

Fuel injection equipment; production methods employed by C.A.V. ltd. il plan diags Automobile Eng 38:255-63, 377-84 Jl, O '48

Fuel spray stopped for studying its makeup; use of ultra high-speed photography. il Automotive Ind 97:35 N 1 '47

See also

Automobile engines
—Fuel feeding

INTERNAL combustion engines—Continued

Lubrication

- Lubricating oil testing in engines. R. Stansfield and J. C. Cree. *Inst Pet J* 34:271-87 Ap '48
 Role of dispersants in lubricating oils. H. H. Zuidema. *biblog il Oil & Gas J* 46:58-9+ Ja 8; 84+ Ja 15; 93-6+ patent list(p95-6+) Ja 22 '48

Mufflers

- Suppressing noisy exhausts. M. H. Pearce. *il World Oil* 128:190 Je '48

Rating

- Comparison and rating of two-cycle and four-cycle spark ignition. *World Oil* 127:154 Ap '48

Specifications

- American gasoline engines; tabulation. *Automotive Ind* 98:158-67 Mr 15 '48
 Automotive Diesel and other heavy oil engines; tabulation. *Automotive Ind* 98:168-71 Mr 15 '48
 British Diesel and other heavy oil engines; tabulation. *Automotive Ind* 98:176-7 Mr 15 '48
 Small gasoline power units; tabulation. *Automotive Ind* 98:157 Mr 15 '48

Starting

- Applications of power cartridges; starting engines, etc. *il diag Engineering* 165:296 Mr 26 '48
 Power cartridge and its applications. *il Engineer* 185:286-7 Mr 19 '48

INTERNAL combustion engines, Marine

- Motor boat show sets new records. *il Automotive Ind* 98:42+ F 1 '48

See also

- Diesel engines,
 Marine
 Motor ships

Specifications

- American gasoline engines; tabulation. *Automotive Ind* 98:158-67 Mr 15 '48

INTERNAL combustion engines, Outboard

Rating

- Outboard motors. *il Consumers Res Bul* 21:8-10 Je '48

Specifications

- American outboard motors; tabulation. *Automotive Ind* 98:174 Mr 15 '48

INTERNAL friction. See Friction, Internal

INTERNAL revenue bureau. See United States—Internal revenue bureau

INTERNATIONAL advertising union (proposed)

- International ad union visioned during '49. G. Langelaan. *Ed & Pub* 81:8 O 9 '48

INTERNATIONAL air transport association

- Annual meeting, 4th, Brussels. *Aviation W* 49:42 S 27 '48

- International air transport association. W. P. Hildred. *Air Affairs* 1:277-88; 2:364-79 Mr '47, J1 '48

INTERNATIONAL association for hydraulic structures research

- Meeting, Stockholm, June 7-9. *Science* 108:105 J1 30 '48

INTERNATIONAL association of electrical inspectors

- Annual meetings of chapters, Denver, Salt Lake City, Pocatello and Great Falls. *Elec West* 100:86-8 My '48

- Section meetings, Denver, Salt Lake City and Oakland. *Elec West* 101:85-9 O '48

INTERNATIONAL association of governmental labor officials

- 1947 meeting, president's address. F. H. Shuford. *Mo Labor R* 65:565-6 N '47

INTERNATIONAL association of ice cream manufacturers

- Annual convention of members and associates, 43d, Miami Beach. *Food Ind* 19:1631-3+ D '47

INTERNATIONAL association of insurance counsel

- Annual convention, San Francisco, Sept. 1-3. *Nat Underw* 52:30 S 9 '48; *Nat Underw (Life ed)* 52:7 S 10 '48; *Weekly Underw* 159:556+ S 11 '48

- President's address at annual meeting. L. White. *East Underw* 49:30 S 3 '48

INTERNATIONAL association of machinists

- Job news guards I.A.M. against raiding. *Bsns W p* 104+ Je 12 '48

INTERNATIONAL association of printing

- house craftsmen
 Annual convention, 29th, Cleveland, Aug. 8-11; program. *Inland Ptr* 121:64-5 J1 '48

- Annual convention, 29th, Cleveland. *Inland Ptr* 121:54-8 Ag '48

- Craftsmanship marches on! P. E. Oldt. *Inland Ptr* 121:66 J1 '48

- 1948 club presidents; portraits. *Inland Ptr* 121:57-61 J1 '48

- What does craftsmanship mean? P. R. Long. *Inland Ptr* 121:55-6 J1 '48

INTERNATIONAL—balance of payments. See

Balance of payments

INTERNATIONAL bank for reconstruction and development

- Annual report, 3d; abstract. *Comm & Fin Chr* 168:1321+ S 30 '48; Same. *For Comm W* 33:17-19+ N 8 '48

- Austria to be added to monetary fund and bank; with financial report of status of loans as of March 31, 1948. *Comm & Fin Chr* 167:1659 Ap 15 '48

- Bretton Woods twins. *Economist* 155:506-7 S 25 '48

- Britain's views on Bretton Woods institutions. P. Einzig. *Comm & Fin Chr* 168:1551 O 14 '48

- Four years after Bretton Woods; work of fund and bank; illustrations with text. *Banking* 41:50-3 S '48

- How far can world bank contribute to Marshall plan? E. H. Weinwurm. *Comm & Fin Chr* 167:102+ Ja 8 '48

- Liff succeeds Pineo as loan director. *Comm & Fin Chr* 166:2291 D 4 '47

- Interest on world bank bonds paid to foreign corporations trading in U.S. ruled tax-exempt. *Comm & Fin Chr* 168:513+ Ag 5 '48; Same. *East Underw* 49:1+ Ag 13 '48

- International bank; financial condition Dec. 1946. June, Sept. and Dec. 1947. *Fed Res Bul* 34:472 Ap '48 [cont monthly]

- International bank in world reconstruction. E. R. Black. *Comm & Fin Chr* 168:1206+ S 23 '48

- International Bank; two years of operating experience. C. A. McLain. *For Comm W* 30:3-5 Ja 31 '48

- International lending and world trade. W. A. B. Liff. *Comm & Fin Chr* 167:2326+ My 27 '48

- Investment legality of world bank bonds. C. A. McLain. *Comm & Fin Chr* 168:1768 O 28 '48

- Issue of Swiss-franc bonds to be sold by world bank. *For Comm W* 31:41 Je 5 '48

- Look at world bank bonds. J. H. Rumbaugh. *Comm & Fin Chr* 167:2100 My 13 '48

- McFarlane, director of fund and world bank. *Comm & Fin Chr* 167:719 F 12 '48

- Members of Advisory council. *Comm & Fin Chr* 168:19 J1 1 '48

- Proceeds of world bank's loan to Netherlands disbursed. *For Comm W* 32:19 J1 31 '48

- Real revival of world lending far in future; world bank's Dutch shipping loan hand-picked. R. M. Bleiberg. *Barron's* 28:10 S 6 '48

- Reviews world bank and fund at joint session. J. W. Snyder. *Comm & Fin Chr* 168:1321+ S 30 '48

- SEC position on world bank bonds. E. M. Hanrahan. *Comm & Fin Chr* 167:2538 Je 10 '48

- Senate group approves removing world bank bonds from SEC control; NASD protests exemption of world bank bonds. *Comm & Fin Chr* 167:2429 Je 3 '48

- Shortcomings of world bank. R. S. Byfield. *Comm & Fin Chr* 167:1100+ Mr 11 '48

- Special report of the National advisory council on the International monetary fund and the International bank for reconstruction and development. *Fed Res Bul* 34:794-809 J1 '48; Excerpts. *Comm & Fin Chr* 167:2200+ My 20 '48

- Status of loan applications now under consideration. *For Comm W* 31:44-5 Je 5 '48

INTERNATIONAL bank for reconstruction and development—*Continued*

- Test of Bretton Woods. V. L. Horoth, Mag of Wall St 81:583-4+ F 28 '48
- Uncle Sam looks abroad. C. G. Parker. Comm & Fin Chr 166:1851+ N 6 '47
- World bank and European recovery; address at Mount Holyoke college. J. J. McCloy. Comm & Fin Chr 163:208+ J 15 '48
- World bank and ERP. J. J. McCloy. Comm & Fin Chr 167:1223+ Mr 18 '48
- World bank and Latin America; address before International conference of American states, Bogota, Colombia, April 5. J. J. McCloy. Comm & Fin Chr 167:1659+ Ap 15 '48
- World bank and lending. Economist 155:548 O 2 '48
- World bank announces full disbursement of loans to Holland and France. Comm & Fin Chr 163:319 J 22 '48
- World bank bonds drop. Bsns W p75-6 N 1 '47
- World bank bonds held by non-residents non-taxable. Comm & Fin Chr 166:2174 N 27 '47
- World bank exercises watchful supervision over loans' end-uses. Il For Comm W 31:7+ My 22 '48
- World bank grants \$16 million loan to Chile. Comm & Fin Chr 167:1440 Ap 1 '48; Bsns W p 122-3 Ap 3 '48
- World bank in a goldfish bowl; address before Investment bankers association of America. E. R. Black. Comm & Fin Chr 166:2501+ D 18 '47
- World bank operations rely on engineering studies. Eng N 140:702-6 My 13 '48
- World bank plans for guaranteeing investment in foreign mineral development. C. W. Wright. Min & Met 29:175-6 Mr '48
- World bank problem. E. F. Dunstan. Comm & Fin Chr 167:916-17 F 26 '48
- World bank reports its finances for year ended June 30; summary. Comm & Fin Chr 168:515 Ag 5 '48
- World bank reports on loan applications. Comm & Fin Chr 167:2207 My 20 '48
- World bank seeking new lending opportunities. J. McCloy. Comm & Fin Chr 167:496 Ja 29 '48
- World bank seeks Congress' aid to exempt bonds from requirement of registration with SEC. H. M. Bratter. Comm & Fin Chr 167:2524+ Je 10 '48
- World bank sells Swiss francs bond issue. Comm & Fin Chr 167:2331 My 27 '48
- World bank wipes out deficit. Comm & Fin Chr 167:1757 Ap 22 '48
- World bank's new loan to Dutch shipping companies. For Comm W 32:38 Ag 28 '48; Excerpt. Comm & Fin Chr 168:616 Ag 12 '48
- World bank's statement for fiscal year 1948. For Comm W 32:13 Ag 14 '48
- World recovery and world bank; address before Foreign policy association. J. J. McCloy. Comm & Fin Chr 167:2537+ Je 10 '48; Same cond. For Comm W 31:42-3+ Je 12 '48
- INTERNATIONAL banks. See Bank for international settlements; International bank for reconstruction and development
- INTERNATIONAL biometric conference. International biometric society formed at Woods Hole conference. Science 106:413 O 31 '47
- INTERNATIONAL brotherhood of electrical workers. Bosses like him; Michael F. Darling and his Chicago local. Bsns W p72-4 N 29 '47
- Electrical workers hear jurisdictional decision. Eng N 141:44 S 30 '48
- INTERNATIONAL brotherhood of teamsters, chauffeurs, warehousemen and helpers of America. Crown prince of labor's biggest realm; Dave Beck. Bsns W p74 Ja 24 '48
- Teamsters organizing at Boeing. Aviation W 43:17 Je 7 '48
- INTERNATIONAL business machines corporation. Investment re-appraisal of its market potentials. H. S. Coffin. Il Mag of Wall St 81:541-3+ F 14 '48
- INTERNATIONAL cancer research commission. Activities discussed during conferences in Mexico City, March 24-31. Science 107:442 Ap 30 '48
- Organization. Science 106:583 D 12 '47

INTERNATIONAL cancer research congress. Meeting, 4th, St. Louis, Sept. 2-7. Science 106:479-83 N 21 '47

INTERNATIONAL cigar machinery company. Debitures placed privately. Comm & Fin Chr 168:647 Ag 16 '48

INTERNATIONAL circulation managers association. Annual convention, 49th, St Paul. Ed & Pub 81:7+ Je 19 '48

INTERNATIONAL civil aviation organization. Concludes Geneva meeting. Aviation W 49:14 J 15 '48

ICAO Paris meeting makes rule changes. Aviation W 48:47 Je 14 '48

International financing of air navigation facilities through ICAO. E. Warner. Air Affairs 2:351-63 J 1 '48

U.S. position generally followed at three regional meetings. CAA J 9:110 O 15 '48

INTERNATIONAL claim association. Annual meeting, 39th, Wernersville, Pa. East Underw 49:134+ S 24 '48; Nat Underw 52:29 S 23 '48; Nat Underw (Life ed) 52:7 S 24 '48; Weekly Underw 159:669, 696-7, 702+, 982-3 S 25, O 23 '48

Claim association put in active year. W. E. Trout. Weekly Underw 158:70+ Ja 3 '48

INTERNATIONAL commission on illumination. Conference, 11th, Paris, June 29-July 7. Elec R (Lond) 143:85-7 J 16 '48

INTERNATIONAL communication. See Communication, international

INTERNATIONAL conference of labor statisticians. Meeting, 6th, Montreal, Aug. 4-12, 1947. Int Labour R 57:603-11 Je '48

INTERNATIONAL conference on large high tension electric systems. Conference, Paris, June 24-July 3. Engineering 166:55-6, 91-2, 101-3 J 16-30 '48; Electrician 141:95-9, 175-8 J 9-16 '48; Elec R (Lond) 143:3-6, 59-61, 89-90 J 2-16 '48

INTERNATIONAL conferences. Danube navigation parley achieved no constructive results. W. A. Radius. For Comm W 32:3+ S 25 '48

Geneva conference. Survey of Cur Bsns 27:19 D '47

Lessons of the Hague. Economist 154:787-8 My 15 '48

London, 1947

Can the big four bargain? Economist 153:866-8 N 29 '47

Explains Four-power conference collapse. G. C. Marshall. Comm & Fin Chr 166:2490 D 18 '47

Why peace conference failed; report on London meeting of Council of foreign ministers; radio address. G. C. Marshall. Comm & Fin Chr 166:2619+ D 25 '47

INTERNATIONAL congress of genetics. Congress, 8th, Stockholm, July 7-14. Science 103:249-51 S 3 '48

INTERNATIONAL congress of mathematicians. Meeting, Cambridge, Mass. 1950. Science 108:35-6 J 19 '48

INTERNATIONAL congress of physiology and pathology of animal reproduction and of artificial insemination. Congress, 1st, Milan, June 23-30. Science 108:465-6 O 29 '48

First meeting, 1948, Milan; announcement. Science 107:37 Ja 9 '48

INTERNATIONAL congress of pure and applied chemistry. Le XI^e Congrès international de chimie pure et appliquée. J. J. Bousquet and Y. Prax. Il Chimie & Ind 58:284-9 S '47

INTERNATIONAL congress of the paint and associated industries. Meeting, 1st, Paris, Oct. 1-8. Chem & Ind p736 N 29 '47

INTERNATIONAL congress on rheology. Meeting, 1st, Scheveningen, Holland, Sept. 20-24. Chem & Ind p650 O 9 '48

INTERNATIONAL congresses on tropical medicine and malaria. Congress, 4th, Washington, May 10-18. Eng N 140:737 My 20 '48

Meeting, 4th, Washington. Bsns W p49-51 My 22 '48

INTERNATIONAL cooperation. Canning convention at Parma. Chem & Ind p675 N 1 '47

INTERNATIONAL cooperation—Continued

Defense, international co-operation, and peace; North Atlantic community would foster peace to end war. C. D. Howe. *Il Tech R* 50:497-8+ *Jl* '48
Expanded world income will solve present economic problems. O. Aranha, *Comm & Fin Chr* 166:2277+ *D* 4 '47
Inter-American professional relations; abstract. S. S. Steinberg. *Civil Eng* 18:529 *Ag* '48

International co-operation and the recovery of the European iron and steel industries. *Int Labour R* 58:346-53 *S* '48
Pacts, federations, unions. *Fortune* 37:3 *My* '48

See also

Intellectual cooperation
International telecommunication union
International trade organization (proposed)
Pan Americanism
Scholarships and fellowships, International

Science—International aspects
United nations educational, scientific and cultural organization
World health organization

INTERNATIONAL council of industrial editors

House organ readership study tops program of 7th annual convention, Milwaukee. *Ptr Ink* 223:104 *My* 14 '48

INTERNATIONAL council of scientific unions

Meeting of Committee on science and its social relations. *Science* 108:253-4 *S* 3 '48

INTERNATIONAL electrotechnical commission

Institution and international scientific collaboration. *Inst E E J* 95 pt 1:67 *F* '48

INTERNATIONAL exchange. See Foreign exchange**INTERNATIONAL federation**

Federal world government. J. E. Johnsen, comp. *Ref Shelf v* 20, no5:1-280 *bibliog*(p251-80) '48 (\$1.50)

One world versus an iron curtain world. J. S. Roucek. *Ann Am Acad* 258:59-65 *Jl* '48

Scientist's stake in world government. C. C. Price, *Chem & Eng N* 26:1144 *Ap* 19 '48

See also

United States of Europe (proposed)

Bibliography

How much world government? Booklist [ALA] 44:401-5 pt 2 *Ag* '48

INTERNATIONAL federation for documentation

Report on 17th conference, Berne, Aug. 24-30, 1947. *Assn of Sp Lib & Inf Bur Proc* 1947:120-7

INTERNATIONAL federation of air line pilots associations

Air line pilots go international; new 16-nation organization formed. *Aviation W* 48:41 *My* 3 '48

INTERNATIONAL federation of commercial travelers insurance organizations

Annual convention, 49th, San Francisco, Aug. 23-25. *Weekly Underw* 159:512-13 *S* 4 '48

INTERNATIONAL federation of newspaper publishers and editors

FIEJ; publishers, editors form international body. G. Langejaan, Ed & Pub 81:9+ *Jl* 10 '48

INTERNATIONAL geological congress

18th session will be held Aug. 25-Sept. 1, 1948 in Great Britain. *Science* 107:60 *Ja* 16 '48

INTERNATIONAL great northern railroad

Equipment trust offered. *Comm & Fin Chr* 168:647 *Ag* 16 '48

INTERNATIONAL harvester company

Annual report. *Comm & Fin Chr* 167:848 *F* 23 '48

Big Top demonstrations win farm friends for International. *Il Sales Management* 60:42-4 *My* 1 '48

Birthday party for 500,000. D. Dickow. *Il Ind Marketing* 32:51-3+ *D* '47

Constructive curiosity reduces costs and improves quality; International harvester company department for research in reducing manufacturing costs, improving product quality. E. J. Clement. *Il Mill & Factory* 42:95-9 *Ja* '48

Harvester's quarter gain may carry through

'48. *Barron's* 28:41 *Ap* 26 '48

How International Harvester talks with employees about profits. J. L. McCaffrey. *Il Sales Management* 60:37-9 *Ap* 1 '48

International Harvester opens 3½ million research building. *Il plan Automotive Ind* 97:30-1+ *N* 15 '47

International Harvester vs. Oliver corporation. P. Dobbs. *Mag of Wall St* 82:434-6+ *Jl* 31 '48

International Harvester's attack on radical labor leadership. *Il Factory Management* 105:66-73 *D* '47

New parts depots do cheaper, faster sales job. *Il Bsns W* p42-4+ *Ag* 7 '48

Unmanned words; International Harvester tells employees, some of their union officials, are irresponsible radicals. *Bsns W* p87-9 *N* 1 '47

INTERNATIONAL hydro-electric system

New plan gives more to debentures. *Barron's* 27:34 *D* 22 '47

Plan opposed by large debenture owners. *Barron's* 28:31 *Ja* 19 '48

INTERNATIONAL illumination commission.

See International commission on illumination

INTERNATIONAL joint commission (United States and Canada)

Commission to study western international waters. map *Eng N* 140:636-7 *Ap* 29 '48

INTERNATIONAL labor conference

Meeting, 31st, San Francisco, June 17-July 10; agenda. *Int Labour R* 57:619-23 *Je* '48

Thirtieth session. Geneva, June-July 1947. *Int Labour R* 56:251-89 *S* '47

Thirty-first session. Mo Labor R, 67:261-6 *S* '48

INTERNATIONAL labor organization

I.L.O. and the United nations. *Int Labour R* 56:304-12 *S* '47

103rd session of the governing body, Geneva, Dec. 12-15. *Int Labour R* 57:218-24 *Mr* '48

104th session of governing body, Geneva, March 15-20. *Int Labour R* 57:350-60 *Ap* '48

105th and 106th sessions of the governing body. *Int Labour R* 58:360-73 *S* '48

Preparatory Asian regional conference, New Delhi, Oct. 27-Nov. 8 1947. *Int Labour R* 57:425-37 *My* '48

Regional meeting for the Near and Middle East, Istanbul, Nov. 1947. *Int Labour R* 58:1-17 *Jl* '48

Chemical industries committee

Meeting, 1st, Paris, April 7-16. *Int Labour R* 57:612-17 *Je* '48

Industrial committees

Notes on the first meetings. *Int Labour R* 56:47-55 *Jl* '47

Iron and steel committee

Second session of iron and steel committee. *Int Labour R* 56:298-303 *S* '47

Joint maritime commission

Fourteenth session of the Joint maritime commission, Geneva, Dec. 2-5, 1947. *Int Labour R* 56:585-9 *N-D* '47

Metal trades committee

Second session, Stockholm, Sept. 3-12. *Int Labour R* 56:442-8 *O* '47

Permanent agricultural committee

Second session of the Permanent agricultural committee, Geneva, Aug. 4-9, 1947. *Int Labour R* 56:426-36 *O* '47

INTERNATIONAL ladies' garment workers' union

Why union education? aims, history and philosophy of the educational work of the ILGWU; abstract. M. Starr. *Science* 106:631 *D* 26 '47

INTERNATIONAL language. See Language, Universal**INTERNATIONAL law**

Classification for international law; based on Elsie Basset's Outline of topic headings for books on international law and relations in classified form and expanded. K. Schwerin. 50p Univ. of Virginia law lib, Charlottesville, Va. '47 (pa \$1)

INTERNATIONAL law—Continued

Legal basis of international relations. Y. Liang. *Ann Am Acad* 25:22-33 Ja '48.
 Present status of international law. E. Borchard. *Ann Am Acad* 25:184-90 My '48.
 What has become of international law? C. G. Fenwick. *Ann Am Acad* 25:191-3 My '48.

See also

Boundary waters Maritime law
 International relations Passports
 United nations

INTERNATIONAL law, Private

International private law. A. W. Knauth. *Air Affairs* 2, no 1:61-7 [S] '47

INTERNATIONAL libraries of information

Library, an international solvent. A. Fletcher. *Special Lib* 38:283-7 N '47

INTERNATIONAL longshoremen's and warehousemen's union

Harry's headache; Bridges has halted sugar workers revolt in Hawaii. *Bsns W* p90+ Ja 17 '48

T-H law fails in dock test; Harry Bridges' C.I.O. union quits. *Il Bsns W* p 108-9 S 11 '48

INTERNATIONAL mailers union

IMU empowers officers to cut apprentice time. *Ed & Pub* 81:10 S 4 '48

INTERNATIONAL marine insurance union

Annual meeting. Noordwijk, Netherlands, Sept. 9-13. *Nat Underw* 52:1- S 23 '48; *Weekly Underw* 159:913 O 16 '48

INTERNATIONAL minerals and chemical corporation

Chemical giant reaches out for new fields. *Il Bsns W* p24-6 Mr 27 '48

Peak sales still fall short of demand. *Barron's* 27:35 N 10 '47

Story of a company. J. A. Barr. *Il Midwest Eng* 1:16-17 O '48

INTERNATIONAL monetary and financial problems, National advisory council on. See National advisory council on international monetary and financial problems**INTERNATIONAL monetary fund**

Austria to be added to monetary fund and bank; with data on transactions for March 1948 and 13 months ended March 31, 1948. *Comm & Fin Chr* 167:1659 Ap 15 '48

Bretton Woods twins. *Economist* 155:506-7 S 25 '48

Britain's views on Bretton Woods institutions. P. Einzig. *Comm & Fin Chr* 168:1551 O 14 '48

End of Bretton Woods? French defiance of International monetary fund. P. Einzig. *Comm & Fin Chr* 167:709 F 12 '48

Ethiopia borrows \$300,000 from monetary fund; with summary of transactions, May 1 through August 31, 1948. *Comm & Fin Chr* 168:1118 S 16 '48

Exchange rates and the International monetary fund. C. Gutt. *R Econ & Stat* 30:81-90 My '48

Explains International monetary fund's position on currency devaluation in ERP countries; letter to Congressman J. D. Lodge. J. W. Snyder. *Comm & Fin Chr* 167:1010+ Mr 4 '48

Financial statement for quarter ended Nov. 28, 1947. *Comm & Fin Chr* 167:229 Ja 15 '48

Four years after Bretton Woods; work of fund and bank; illustrations with text. *Banking* 41:50-3 S '48

Franc crisis and International monetary fund. E. H. Weinwurm. *Comm & Fin Chr* 167:600+ F 5 '48

France and the monetary fund. R. Mosse. *Comm & Fin Chr* 168:705+ Ag 19 '48

Fund has new director of operations; M. H. Parsons. *Comm & Fin Chr* 166:2273 D 4 '47

Futility of establishing exchange rates by international agreement. W. Chamberlain. *Comm & Fin Chr* 168:1637+ O 21 '48

Gutt of International monetary fund answers some questions. H. M. Bratter. *Comm & Fin Chr* 168:1+ J1 1 '48

Gutt of the fund. *Fortune* 37:112-17+ Ap '48

International fund; financial condition, May, Aug. and Nov. 1947 and Feb. 1948; data on currency bought Nov. 1947-Feb. 1948. *Fed Res Bul* 34:472 Ap '48 [cont monthly]

IMP; a troubled infant. H. M. Bratter. *Comm & Fin Chr* 167:1220+ Mr 18 '48

International monetary fund forces revision of Canada's gold subsidy plan. *Comm & Fin Chr* 166:2546 D 18 '47

International monetary fund; has it done more harm than good? A. M. Sakolski. *Comm & Fin Chr* 167:798+ F 19 '48

McFarlane, director of fund and world bank. *Comm & Fin Chr* 167:719 F 12 '48

Monetary fund on exchange policy. *Economist* 155:547-8 O 2 '48

Monetary fund's dollar sales; data for March, 1947, to the end of Jan. 1948. *Economist* 154:280 F 14 '48

Policies and activities, 1947-48. M. C. Gutt. *Fed Res Bul* 34:1217-20 O '48; Same abr. *Comm & Fin Chr* 168:1444-5 O 7 '48

Policy statements on gold subsidies by International monetary fund and Secretary of the Treasury. *Fed Res Bul* 34:39 Ja '48

Reviews world bank and fund at joint session. J. W. Snyder. *Comm & Fin Chr* 168:1321+ S 30 '48

Special report of the National advisory council on the International monetary fund and the International bank for reconstruction and development. *Fed Res Bul* 34:794-809 J1 '48; Excerpts. *Comm & Fin Chr* 167:2200+ My 20 '48

Test of Bretton Woods. V. L. Horoth. *Mag of Wall St* 81:583-4+ F 28 '48

United States should withdraw from International monetary fund. F. C. Smith. *Comm & Fin Chr* 167:1760+ Ap 22 '48

Unsatisfactory pattern of exchange rates, task of International monetary fund. C. Gutt. *Comm & Fin Chr* 167:912+ F 26 '48

INTERNATIONAL news service

INS reports growth. *Ed & Pub* 81:112A Ap 24 '48

INTERNATIONAL nickel company

'Anti-trust suit terminated by agreement. *Comm & Fin Chr* 168:152 J1 12 '48

Nickel's war expansion needed in peacetime. M. H. Zink. *Barron's* 27:35 N 17 '47

INTERNATIONAL organization**Regional organization**

South Seas conference, Canberra, Australia, Jan. 28-Feb. 6, 1947; establishment of South Pacific commission. *Int Labour R* 56:590-2 N-D '47

INTERNATIONAL organization for standardization

Annual meeting, 2d, Geneva, May 31-June 2. *Ind Stand* 19:72-3 J1 '48

INTERNATIONAL organization of journalists

Second congress, Prague, June 3-6, 1947. *Int Labour R* 56:621 N-D '47

INTERNATIONAL paper company

Birthday party, International style, June 14-19; 50th anniversary. *Il Paper Tr J* 126:12-13 Je 10 '48

Improvements, \$46 million. *Paper Tr J* 126:12+ Je 17 '48

Marks 50th year with mill celebrations; modernization program outlined. *Il Paper Tr J* 126:15-16+ J1 '48

Strong in postwar paper field. *Barron's* 28:34 O 11 '48

Ten potential market leaders for 1948. *Mag of Wall St* 81:407 Ja 17 '48

INTERNATIONAL payments. See Balance of payments**INTERNATIONAL photography-in-science salon. See Photography—Scientific applications****INTERNATIONAL poliomyelitis conference**

First meeting, New York, July 12-17. *Science* 107:187-8 F 20 '48

Program of first conference. *Science* 107:472 My 7 '48

INTERNATIONAL power securities corporation

Italian Power bonds discount liquid assets held in U.S. *Barron's* 28:40 Ja 5 '48

Payment to bondholders. *Comm & Fin Chr* 166:2559 D 22 '47

INTERNATIONAL press federation (proposed)

Italian press federation call issued. G. Langelaan. *Ed & Pub* 81:34 My 15 '48

INTERNATIONAL printing pressmen and assistants' union of North America

Pressmen union signs a five-year agreement. *Inland Ptr* 121:73 Je '48

Quadrennial convention, 38th, Pressmen's Home, Tenn. *Ed & Pub* 81:9 S 4 '48

Union announces opening of new building for technical school at Pressmen's Home. *Inland Ptr* 121:75-6 My '48

INTERNATIONAL railways of Central America
Annual report. Comm & Fin Chr 167:2789 Je 28 '48

INTERNATIONAL relations

Bankruptcy of internationalist thinking. T. E. Baker. Mech Eng 70:336-7 Ap '48
Difficult international situation. T. K. Finletter. Comm & Fin Chr 167:1111+ Mr 11 '48
Economic penetration and power politics. C. C. Abbott. Harvard Bsns R 26:410-24 Jl '48
Foreign policies and relations of the United States. H. M. Ehrmann, ed, bibliog Ann Am Acad 255:1-185 Ja '48
Holds international relations no. 1 problem. C. O. Hardy. Comm & Fin Chr 167:1993 My 6 '48
International affairs and effects. A. W. Zelmek. Comm & Fin Chr 167:2425+ Je 3 '48
London fiasco shows cold war is economic. Barron's 27:1+ D 22 '47
Looking toward one world. E. M. Patterson, ed. Ann Am Acad 258:1-123 Jl '48
Peace settlements of World war II. T. V. Kalijarvi, ed. bibliog Ann Am Acad 257:1-202 My '48
Plea for international understanding. A. Einstein. Power Generation 52:94 Mr '48
Realistic appraisal of international affairs. V. L. Horoth. Il map Mag of Wall St 81:399-401, 438 Ja 17 '48
Statistics and foreign policy. W. L. Thorp. Am Stat Assn J 43:1-11 Mr '48

See also

Aeronautics, Commercial—International aspects	International federation
Commercial treaties and agreements	Pan Americanism
International co-operation	Reconstruction (World war, 1939-1945)
	United nations
<i>also</i> subdivision	Foreign relations under names of countries, e.g. Great Britain—Foreign relations; Russia—Foreign relations; United States—Foreign relations

Study and teaching

See also

School of advanced international studies

INTERNATIONAL relations libraries

Library of the Royal institute of international affairs. B. Kyle. Special Lib 38:287-91 N '47

See also

Woodrow Wilson foundation—Library

INTERNATIONAL road federation

Oil and motor vehicle men see world-wide modern roads program as good business. W. C. Platt. Il Nat Pet N 40:25-6+ Jl 28 '48

INTERNATIONAL scientific film association
Meeting, 2d, London, Oct. 4-11, 1948. Science 108:132 Ag 6 '48

INTERNATIONAL scientific radio union

URSI-I.R.E. joint meeting, Washington, Oct. 20-22; titles and authors of papers. Inst Radio Eng Proc 36:103-4 Ja '48

INTERNATIONAL social security association (formerly International social insurance conference)
General meeting, 8th, Geneva, Oct. 4-9. Int Labour R 57:205-17 Mr '48

INTERNATIONAL society of air affairs

International society of air affairs. W. D. Pardridge. Air Affairs 2, no 1:10-16 [S] '47

INTERNATIONAL studies, School of advanced.

See School of advanced international studies

INTERNATIONAL telecommunication union

International Telecommunication convention, Atlantic City, 1947. P. E. Erikson. Elec Com 25:232-6 S '48

INTERNATIONAL telephone and telegraph corporation

Can I.T.&T. make money? F. F. Fullerton. Mag of Wall St 81:298-300+ D 20 '47
I. T. & T. earnings may permit common dividend. Barron's 28:35 Mr 15 '48
I.T.&T. tiff; disgruntled stockholders. Bsns W p94+ N 22 '47

INTERNATIONAL television corporation

Stock offered. Comm & Fin Chr 168:449 Ag 2 '48

INTERNATIONAL trade, Office of. See United States—International trade, Office of

INTERNATIONAL trade organization (proposed)

Called giant of economic world, U.S. faces crucial decision; should ratify I.T.O. charter. W. L. Clayton. For Comm W 31:3+ Je 26 '48

Congress should reject ITO charter. E. H. Killheffer. Comm & Fin Chr 167:2203+ My 20 '48

Draft trade charter is discussed by head of Canadian delegation. L. D. Wilgress. Can Chem & Process Ind 31:930-3 O '47

Fighting curbs on capital; Havana ITO conference pushes code to limit national restrictions on outside investment. Bsns W p 101-2+ D 20 '47

Final touches for ITO charter. Bsns W p 109-10 N 15 '47

Geneva charter for world trade; its character and significance. J. W. Evans. For Comm W 29:3-5+ N 15 '47

Havana to Washington. Fortune 37:4 Mr '48
ITO, a United States viewpoint. E. H. Killheffer. Comm & Fin Chr 168:1426+ O 7 '48

International trade organization approved at Havana; with official summary of charter. Comm & Fin Chr 167:1435+ Ap 1 '48

ITO charter; blueprint for rebuilding world commerce. W. G. Brown. Il Dun's R 56:13-14+ Ag '48

New ITO charter highly encouraging; statement at Havana. W. A. Harriman. For Comm W 31:3 Ap 3 '48

New ITO charter; one reason for troubled world to take hope; Havana address. W. L. Clayton. For Comm W 31:3+ Ap 3 '48

New SOCOMA president berates ITO charter. Chem & Eng N 26:1769 Je 14 '48

Now we've bought it, what is it? charter not signed or ratified, and could not do anything if it were. P. Wohl. Barron's 28:30 Ap 19 '48

Objectives of I.T.O. in world trade. E. Wyndham-White. Credit & Fin Management 50:16-18 Je '48

Our economic foreign policy; organization of ITO. W. G. Brown. Comm & Fin Chr 168:602+ Ag 12 '48

Reduction of world-trade barriers; rhetoric or reality? Habana and Geneva agreements. W. G. Brown. For Comm W 31:10-11+ My 15 '48

Reductions in United States tariffs; proposed International trade organization charter analyzed. J. G. Lerch. Rayon 29:49-51 F '48

Report from Havana. Economist 154:308+ F 21 '48

Strategic problems in world trade and measures taken to meet them; objectives and methods of ITO. R. P. Terrill. For Comm W 33:4+ O 30 '48

Success at Havana? British losses and gains. Economist 154:497-8 Mr 27 '48

Trade policy for Europe; problems created by ITO charter. Economist 154:212-13 F 7 '48

INTERNATIONAL trusteeships

Significance of the trusteeship system. B. Gerig. Ann Am Acad 255:39-47 Ja '48

INTERNATIONAL typographical union

Battle between operators of publishing plants and International typographical union. L. D. Farrar. Inland Ptr 120:65-6 D '47

Big six votes for contract after ITU bares new policy. J. Walker. Ed & Pub 81:5+ Ag 14 '48

Competency test held illegal contract device. Ed & Pub 81:12 Je 5 '48

Convention, 90th, Milwaukee, Aug. 14-20. Ed & Pub 81:7 Jl 31 '48

Do business our way or chaos. W. Randolph. Ed & Pub 81:6+ F 28 '48

Hits ANPA. W. Randolph. Ed & Pub 81:8 S 11 '48

ITU executive council controls defense fund; Policy retains most of Cleveland formula. Ed & Pub 81:7-8+ Ag 28 '48

ITU-Gannett resolve disputed clauses. Ed & Pub 81:8 Jl 24 '48

INTERNATIONAL typographical union—Cont.

- ITU gives green light for NYC contract. Ed & Pub 81:5-6+ Ag 7 '48
- I.T.U. injunction; court issues first T-H order. Bsns W p 102-3 Ap 3 '48
- ITU members told to meet with employers but to avoid acceptance of any proposals. Inland Ptr 120:82 N '47
- ITU ordered to show cause in NLRB contempt action. Ed & Pub 81:5 Ag 28 '48
- ITU peace formula pact contains stumbling blocks; text. Ed & Pub 81:5-6 Mr 20 '48
- ITU policy is declared repugnant to law's intent. H. Myers. Ed & Pub 81:9+ Je 12 '48
- I.T.U. showdown in Chicago. il Bsns W p 114-16 D 6 '47
- I.T.U. won't recognize the T-H law. Bsns W p 72-3 Ag 28 '48
- Judge holds ITU in civil contempt; no evidence of illegality in N.Y. pact; texts of Judge Swygert's opinion, p56A and 56B. G. A. Brandenburg. Ed & Pub 81:7+ O 16 '48
- Key cases under the new labor law; closed shop evasions; case of the printing industry. J. M. Gambatese. Factory Management 106:96 Je '48
- NLRB counsel asks order to halt ITU violation of law. Ed & Pub 81:9+ J 13 '48
- NLRB examiner holds ITU policy is illegal. Ed & Pub 81:9-10 Ap 24 '48
- Printers stick by Randolph. Bsns W p 102-3 My 29 '48
- Publishers agreeable to union security pact. Ed & Pub 81:7+ Ja 3 '48
- Randolph foe polls big vote in test of policy. Ed & Pub 81:7 My 22 '48
- Stiles case. Ed & Pub 81:7+ Ja 3; 7+ Ja 10; 12 Ja 17; 8+ F 7; 7+ F 21 '48
- INTERNATIONAL union of biological sciences**
International depot of microscopic preparations of cytology. P. Vayssiére and P. Martens. Science 107:566 My 28 '48
- INTERNATIONAL union of chemistry**
Conference, 13th, London. Chem & Eng N 25:3364-6 N 17 '47
- Report of April meeting, London, April 22-24. Chem & Eng N 26:2304 Ag 2 '48
- INTERNATIONAL union of crystallography**
Congress, 1st, Cambridge, Mass. July 28-August 3. Anal Chem 20:881-3 S '48
- INTERPLANETARY flight**
Atomic rocket; novel approach to space-flight; atomic energy for the propulsion. K. W. Gatland. Aviation W 48:25 Je 7 '48
- Escape-rocket design research indicates practical solution near. R. McLaren. Aviation W 48:23 Mr 1 '48
- Establishment of a technical development committee on upper atmosphere and interplanetary navigation. Science 107:565 My 28 '48
- Flight beyond the earth's atmosphere. F. H. Clauser. diag S A E J 56:25-8+ Ag '48
- Interplanetary committee appointed by Institute of navigation. Marine Eng 53:77-8 J 1 '48
- INTERPOLATION**
Recent developments in graduation and interpolation. T. N. E. Greville. Am Stat Assn J 43:428-41 bibliog(p440-1) S '48
- INTER-SOCIETY committee for a national science foundation.** See National science foundation (proposed)
- INTERSTATE circulation managers association**
Convention, Erie, Pa. Ed & Pub 81:43 Ap 3 '48
- Fall convention, 31st, Williamsport, Pa. Sept. 19-21. Ed & Pub 81:9+ S 25 '48
- INTERSTATE commerce**
Walls between the states; abstract. Management R 37:64-5 F '48
- INTERSTATE commerce commission**
I.C.C. annual report. Ry Age 124:224-7 Ja 24 '48
- ICC challenged; farmers fear blow to pre-packaging. Bsns W p42+ My 22 '48
- I.C.C. rate-making policy; its evils and remedies. E. M. Friedman. Comm & Fin Chr 168:497+ Ag 5 '48
- ICC regulations amended. Chem Ind 61:1042+ D '47
- Need for speedier hearings; abstract. C. B. Aitchison. Ry Age 123:908 N 22 '47

Bureau of locomotive inspection

- Annual report, 36th. Ry Age 124:302-4 F 7 '48; Same, with additional tables. Ry Mech Eng 122:126-9 Mr '48

Bureau of safety

- Fiscal 1947 reviewed by Bureau of safety. Ry Age 124:228-9 Ja 24 '48
- INTERSTATE compacts**
Eight-state drive to clean up rivers in Ohio Basin. Bsns W p26 J 1 31 '48
- INTERSTATE oil compact commission**
Annual meeting, Oklahoma City, Dec. 4-6. Pub Util 41:179-80 Ja 29 '48; Oil & Gas J 46:60-1+ D 13 '47; Nat Pet N 39:19-20 D 10 '47
- How state conservation under Compact serves industry, Nation. E. O. Thompson. Nat Pet N 40:42+ S 15 '48
- Plans and purposes of the Interstate oil compact commission dealing with secondary-recovery operations. E. Foster. Am Pet Inst Proc 27(4):13-17 '47; Same cond. Oil & Gas J 46:286+ N 15 '47
- Quarterly meeting, Chicago, May 5-7. Nat Pet N 40:13-19 My 12 '48; Oil & Gas J 47:194-5 My 13 '48
- Quarterly meeting, New York, Aug. 31-Sept. 1. Nat Pet N 40:21-2 S 8 '48; Oil & Gas J 47:56 S 9 '48
- INTERSTATE power company**
Bonds offered. Comm & Fin Chr 168:1582, 1694 O 18, 25 '48
- Public utility securities. Comm & Fin Chr 167:804 F 19 '48
- Reorganization effective. Comm & Fin Chr 167:1588 Ap 12 '48
- SEC approves alternate plan. Comm & Fin Chr 167:47 Ja 5 '48
- Securities offered. Comm & Fin Chr 167:1470-1 Ap 5 '48
- INTERSTATE telephone company**
Preferred stock offered. Comm & Fin Chr 167:2579 Je 14 '48
- INTERSTATE underwriters board**
Commissioners find objections to advisory rating program of IUB. East Underw 49:16+ Je 18 '48; Nat Underw 52:2+ Je 17 '48
- Debate I.U.B. future before commissioners. H. C. Conick and others. Nat Underw 52:9+ Je 10 '48
- Presents case for advisory status; abstracts. H. C. Conick. East Underw 49:19+ Je 11 '48; Weekly Underw 158:1699+ Je 12 '48
- Supervisors attack advisory status of IUB for multiple location risks. East Underw 49:18-19 Je 11 '48
- INTERTYPE corporation**
Intertype's new printing short-cut; Foto-setter. Barron's 28:35 Je 21 '48
- INTERVIEWERS**
Methods of handling certain field research problems. G. Fisk. J Marketing 12:382-4 Ja '48
- San Francisco interviewers ask work conditions change. Ptr Ink 225:91 O 8 '48
- Selection, training, and supervision of field interviewers in marketing research. J Marketing 12:365-78 Ja '48
- Toward a solution of the cheater problem among part-time research investigators. A. S. Bennett. J Marketing 12:470-4 Ap '48
- 12 ways to improve field research; 393 interviewers give their opinions. A. S. Bennett. il Adv & Sell 40:48+ D '47
- INTERVIEWING**
Basic principles and techniques of interviewing and counselling. L. E. Himler. bibliog Ind Med 16:529-34 N '47
- Beep calls seen helpful for interviews. Ed & Pub 81:12 Ag 7 '48
- Interviewing job prospects and sales clients. H. W. Flitcraft. Life Ins Courant 53:13-14 F: 17-18 Mr; 9-10 Ap '48
- NORC research aims to control interviewing bias. Ptr Ink 224:102 S 10 '48
- Our customers gave us our new copy center; Drexel furniture co. interviews. B. R. Tuxford. il Ptr Ink 225:26-7+ O 22 '48
- Pre-testing techniques; intensive study for Lambert cream deodorant jars. il Mod Packaging 22:93-100 O '48

INTERVIEWING—Continued

Which, mail questionnaires or personal interviews? opposing views, R. Ferber, bibliog
Ptr Ink 222:44-7+ F 13 '48

See also

Employment systems

—Interviews

INTESTINES**Surgery**

Surgery of the large bowel. K. A. Meyer.
Ind Med 17:242-4 J1 '48

INTOXICATION. See Drunkenness

INTRASTORE television. See Television advertising

INTRAVENOUS injections. See Injections, Intravenous

INULIN

Effect of the protein content of the diet on the glomerular filtration rate of young and adult rats. S. E. Dicker, Science 108:12 J1 2 '48

INVENTION, Society for the social study of.
See Society for the social study of invention

INVENTIONS

Creative work in engineering, J. F. Calvert.
J Eng Educ 38:732-44 Je '48

Development of inventions, S. T. Madeley.
Metallurgia 38:131-2 J1 '48

Fore and aft; events transpiring in years ended with the number eight, Tech R 50:145-6 Ja '48

How collective genius contributes to industrial progress; reprinted with revisions from General electric review, May 1941.
K. K. Paluev, Advanced Management 13:76-83 Je '48

Invention in the chemical industry, S. I. Levy.
Chem & Ind p35-7, 71-2 Ja 17, 31 '48

Kirby, the man behind less work in the home, R. K. Lotz, Il diag Machine Design 20:106-13 J1 '48

Monopoly, patent and invention, A. E. Macrae, Can Chem & Process Ind 32:725-8 Ag '48

Patentable chemical inventions, C. W. Rivise and A. D. Caesar, bibliog(51 ref) J Chem Educ 25:434-8 Ag '48

Patents and the engineer, H. A. Toulmin, jr, Il diag Product Eng 19:113-23 Je; 113-28 J1 '48

See also

Patents

INVENTIONS, Employees

Inventions agreements; effect after termination of employment, F. E. Sugden, Elec R (Lond) 142:981-2 Je 18 '48

Patents and the engineer, H. A. Toulmin, jr, Product Eng 19:117-19 J1 '48

INVENTORIES

Consumer to decide if goods are too plentiful; problem of excessive inventories, B. Ravits, Barron's 23:9 O 25 '48

Consumers enjoy falling commodity prices; to industry they threaten to cut profits; danger of inventory losses, Barron's 23:25 F 23 '48

Effect on opinion of non-confirmation of receivables and non-attendance at inventorying, O. M. Cordle, J Account 85:108-12 F '48

Good inventory management, T. B. Noble, N A C A Bul 29:661-71 F 1 '48

Good inventory vs bad inventory; Westinghouse Electric, L. A. Hradesky, Il Mill & Factory 43:107-10 O '48

Inventory valuation adjustment, by industry; corporations and unincorporated enterprises, 1944-47; tabulations, Survey of Cur Bsns 28:21 J1 '48

Inventory valuation adjustment, by industry, 1929-46; tabulation, Survey of Cur Bsns 27:sup34 J1 '47

Is fear of inventory losses overdone? W. Gates, Il Mag of Wall St 81:634-5+ Mr 13 '48

Packard ties sales to inventory; greater parts sales volume and better service, D. G. Baird, Il Am Bsns 17:18-19+ D '47

Production control for maintenance of balanced stocks; National battery co, C. E. Carlson, N A C A Bul 29:383-90 D 1 '47

Progress of the postwar transition; domestic business investment in 1947; expenditures for new plant and equipment; inventories, Survey of Cur Bsns 28:18-20 F '48

Today's inventory trends from investors viewpoint, G. W. Mathis, Mag of Wall St 83:79-81+ O 23 '48

Walkie-talkie inventory cuts shut-down time; wire recorders with punched-card tabulating equipment, Il Mod Ind 15:83-4+ Mr '48

Wire recorders for inventory, W. Norris, Il Am Bsns 18:12-13+ O '48

See also

Production and sales,

Coordination of

Accounting

Accountants' ignore economic costs, A. R. Wells, Comm & Fin Chr 165:2977+; 166:1840+ Je 5, N 6 '47

Application of accounting research bulletin no. 29 to inventory pricing problems, A. Herrick, J Account 85:386-91 My '48

Bureau permits use of LIFO by retailers for tax purposes; some of the problems involved, J. P. Friedman, J Account 85:118-25 F '48

Changing accounting and economic concepts affect methods of inventory pricing, C. G. Blough, J Account 86:204-12 S '48

Comparison of inventory valuation methods, D. P. Jones, Am Pet Inst Proc 27(1):119-21 '47

Disclosure of replacement value of LIFO inventories, J Account 85:489-90 Je '48

Favors disclosure of replacement value of LIFO inventories, J. H. Stewart, J Account 86:158-9 Ag '48

Has LIFO fallen? reply to Mr Wilcox, M. E. Peloubet, J Account 85:298-303 Ap '48

How internal auditor corrects a troublesome problem in inventory control; Sylvia Electric, W. R. Seibert, J Account 85:104-7

How to deal with inflated profits; LIFO compared with other inventory valuation methods, K. Engelmann, J Account 85:218-23 Mr '48

Impact of rising prices upon accounting procedures, S. J. Broad, J Account 86:10-21 J1 '48

Inventory pricing and contingent reserves; comment on new accounting research bulletins, G. O. May, J Account 84:361-7 N '47

Inventory pricing under present conditions, M. H. Stans, Comm & Fin Chr 166:2377+ D 11 '47

Inventory reserves; accounting, Research bulletin number 31, J Account 84:397-9 N '47

Larger aspects of LIFO, D. M. Freudenthal, Comm & Fin Chr 167:2644+ Je 17 '48

LIFO basis of inventory valuation as applied to cotton mill inventories, E. G. Field, N A C A Bul 29:399-411 D 1 '47

LIFO fails only when it is improperly applied, C. O. Wellington, J Account 85:231 Mr '48

LIFO makes the grade; Bureau of internal revenue agrees to let retailers use the device, Bsns W p36-7+ Ja 3 '48

Low-cost inventories through close controls; Monarch machine tool co, C. R. Schubert, Il Factory Management 105:102-4 N '47

Merits of various inventory valuation methods outlined, D. P. Jones, Nat Pet N 39:30+ D 17 '47

More on how to test bulk inventories, J. H. Myers, J Account 84:420-1 N '47

Perpetual inventory method helps factory warehouse, C. V. Davis, Il Food Ind 19:1507-8+ N '47

Philosophy behind the last-in-first-out inventory method, H. I. Kleinhaus, J Retailing 24:99-102+ O '48

Property and inventory accounting as related to present-day price levels; summary and analysis of papers presented at conference in Chicago, Dec. 1947, J Account 85:406-12 My '48

Reality of inventory profits, C. A. Bliss, Harvard Bsns R 26:527-42 S '48; Excerpts, Comm & Fin Chr 168:914 S 2 '48

Reparative value of LIFO, C. A. Ellis, J Account 86:238-9 S '48

INVENTORIES—Accounting—Continued

- Reserves for involuntarily liquidated inventories under the LIFO method. C. G. Blough. J Account 85:204-6 Mr '48
- Retail inventory method adjusted to LIFO. J Account 85:308 Ap '48
- Retail inventory method applied to valuation of finished goods. J Account 86:73 Jl '48
- Rise and fall of LIFO. E. B. Wilcox. J Account 85:98-103 F '48
- SEC rejects faulty handling of inventory losses, note liability, working capital needs; Globe Aircraft case. J Account 84:409-11 N '47
- Should merchandise in transit be included in inventory? J Account 86:338-9 O '48
- Should the LIFO principle be considered in depreciation accounting when prices vary widely. G. O. May. J Account 84:453-6 D '47
- Simple way to handle perpetual inventory. B. L. Gough. Il Inland Ptr 121:48-9 Ap '48
- Use of LIFO by industry groups. J Account 86:68-9 Jl '48
- Use of LIFO in the U.S.A. J. R. Rued. Pulp & Pa of Can 49:71-2 Ag '48

Statistics

- Business sales and inventories, 1941-1946. Survey of Cur Bsns 1947 Sup p 16 [supplemented in monthly numbers]
- Finished goods inventories rise; graphs showing data, 1946-1948. Bsns W p22 Ag 7 '48
- Manufacturers' orders, shipments, and inventories, 1941-1946. Survey of Cur Bsns 1947 Sup p 18-19 [supplemented in monthly numbers]
- Measuring physical inventories. W. M. Brown. Am Stat Assn J 43:377-90 S '48
- Net change in business inventories, 1929-46; tabulation. Survey of Cur Bsns 27:sup45 Jl '47
- Net change in business inventories, 1944-47; tabulation. Survey of Cur Bsns 28:25 Jl '48
- Revised estimates of wholesale sales and stocks, selected years, 1929-1947 and monthly data 1947-June 1948. Survey of Cur Bsns 28:22-4 Ag '48
- Revised indexes of manufacturers' sales and inventories, 1939-47. Survey of Cur Bsns 28:8-9+ My '48
- Significance of inventories in the current economic situation. L. J. Paradiso. Am Stat Assn J 43:361-76 S '48
- Wholesale inventories, monthly, Dec. 1938, monthly average, 1939-1941 and monthly, 1942-July 1948. Survey of Cur Bsns 28:24 S '48

INVENTORIES, Retail. See Retail trade—Stock

INVENTORS

See also

Clark, Anson

INVERTASE

- Inactivation of invertase by tyrosinase. I. W. Sizer. bibliog Science 108:335-6 S 24 '48
- Mysterious work horse. Tech R 50:311-12 Ap '48

INVERTEBRATES

See also

Rotifera

INVERTEBRATES, Fossil**Bibliography**

- Bibliographic index of permian invertebrates. C. C. Branson. (Memoir 26) 1049p bibliog(p992-1049) Geological soc. of America, 419 W. 117th st, New York '48

INVERTERS, Electric. See Electric inverters

INVESTMENT advisers

- Adequate investment facilities; joint trust department and investment counsel service. G. F. Caterer. Trusts & Estates 37:177-9 S '48
- Professional attitude in investing. A. W. May. Comm & Fin Chr 166:1945+ N 13 '47
- Use of investment counsel by trust departments. H. L. Austin. Trusts & Estates 86:459-62 Je '48

Advertising

- Merchandising idea provides advertising forum; Standard & Poor's monthly bulletin. Advertising in action. Ptr Ink 223:66+ Je 11 '48

INVESTMENT bankers

- Justice dept. suit seeks to enjoin alleged agreement; complaint against bankers lists six life companies. Nat Underw (Life ed) 51:10+ N 7 '47

INVESTMENT bankers association of America

- Annual convention, 36th, Hollywood, Fla., Nov. 30-Dec. 5. Comm & Fin Chr 166:2473+, 2497-2522 D 18 '47
- Central states group, 12th annual conference, Chicago, March 23-24; portraits. Comm & Fin Chr 167:insert 1-4 Ap 1 '48
- New officers. Comm & Fin Chr 167:2754 Je 24 '48

INVESTMENT banking

- Anti-trust action against seventeen investment banking firms. Burroughs Clearing House 32:30+ D '47
- Antitrust case silver lining; investment bankers glad to get charges out in open. Bsns W p86+ N 8 '47
- Anti-trust suit against banking concerns filed; Monopoly suit unfounded, say accused firms. Comm & Fin Chr 166:1848+, 1849+ N 6 '47

Financing the chemical industry; the role of the investment banker and investment trust. H. C. Breck. Chem & Eng 26:837-40 Mr 22 '48

Improving professional status of investment dealers. J. B. Ridley. Comm & Fin Chr 167:2762+ Je 24 '48

IBA blames suit on compulsory bidding views. Comm & Fin Chr 166:1849+ N 6 '47

IBA president urges investment bankers to be more aggressive. J. H. Collins. Comm & Fin Chr 168:1640 O 21 '48

Market research in securities; function of investment bankers. W. K. Beckers. Comm & Fin Chr 167:1210+ Mr 18 '48

Un-restraint in the reform trade, confusion created by lack of monopoly by either Department of justice or the SEC in controlling the investment bankers. A. W. May. Comm & Fin Chr 166:1841+ N 6 '47

See also

First Boston corporation

Study and teaching

Canadian investment bankers stress personnel training. Comm & Fin Chr 167:2761 Je 24 '48

INVESTMENT casting. See Lost wax process

INVESTMENT companies

See also

Investment trusts

Employees

Junior investment bankers and brokers association issues results of questionnaire; data regarding age, education, earnings and prospects of personnel in securities business. Comm & Fin Chr 167:1442 Ap 1 '48

INVESTMENT counsel. See Investment advisers

INVESTMENT dealers association of Canada

Annual meeting, Murray Bay, Quebec, June 12-16. Comm & Fin Chr 167:2762+, insert 1-4 Je 24 '48

INVESTMENT traders association of Philadelphia

Annual mid-winter dinner, 24th; portraits. Comm & Fin Chr 167:insert 1-4 Mr 4 '48

INVESTMENT trusts

Aviation common-stock holdings. H. A. Long. Aero Digest 57:28-30 Ag '48

Financing the chemical industry; the role of the investment banker and investment trust. H. C. Breck. Chem & Eng N 26:837-40 Mr 22 '48

Fire insurance company stocks as investment trust holding. G. W. Jennings. Trusts & Estates 87:126 Ag '48

Investment trusts slow to shift in aviation securities holdings. S. Altschul. Aviation W 48:30 F 16 '48

Primer on mutual funds. H. Hunt. Comm & Fin Chr 167:502 Ja 29 '48

Second alliance trust company, limited, 65th annual general meeting, Dundee. Economist 155:516 S 25 '48

SEC quarterly survey of investment companies. Comm & Fin Chr 168:1114 S 16 '48

INVESTMENT trusts—Continued

Trust buying in first quarter; with tabulations. H. A. Long. *Comm & Fin Chr* 167:2414+ Je 3 '48
 Trusts active in aviation shares. S. Altschul. *Aviation W* 49:33 Ag 9 '48
 Trusts continue buying on balance during second quarter; with tabulations. H. A. Long. *Comm & Fin Chr* 168:598+ Ag 12 '48
 Widely available investing tool; the investment company. A. W. May. *Comm & Fin Chr* 166:2369+ D 11 '47

Accounting

Audit of a management investment company of the open-end type. *J Account* 85:422 My '48

Finance

Common stock funds build up cash holdings. *Barron's* 28:38 My 3 '48
 How Barron's, SEC gauge investment companies; with records of leading open-end investment companies, March 31, 1948. W. F. McHale. *Barron's* 28:30-1 Ap 12 '48
 Investment trust assets climb with bull market; with records of leading open end investment companies as of June 30, 1948. W. F. McHale. *Barron's* 28:30-1 Jl 12 '48
 Managed investments (unit securities), limited, 3d annual general meeting. *Economist* 154:905 My 29 '48
 Nassau investment corporation, limited, 10th ordinary general meeting. *Johannesburg. Economist* 155:123-5 Jl 17 '48
 Open-end assets shrink; dividends show net gain, with records of leading open-end investment companies at end of third quarter. *Barron's* 28:30-2 O 11 '48; Correction. 28:38 O 18 '48
 Open-end investment firms quicken expansion; with records of leading companies as of Dec. 31, 1947. W. J. Galligan. *Barron's* 28:34-5 Ja 19 '48
 Second managed investments (unit securities), limited, 3d annual general meeting. *Johannesburg. Economist* 154:993 Je 12 '48

Securities

Closed-end shares par discount in market rise. R. M. Metcalf, jr. *Barron's* 28:40 Ag 9 '48
 If I were a retail salesman. K. S. Gaston and others. *Comm & Fin Chr* 168:14, 108, 214, 312, 408, 514, 612, 708, 808, 910, 1010, 1108, 1208 Jl 1, 8, 15, 22, 29, Ag 5, 12, 19, 26, S 2, 9, 16, 23 '48
 Mutual trust funds; a new medium of investment. E. M. Heffernan. *Comm & Fin Chr* 168:512+ Ag 5 '48

INVESTMENTS

Adjustment for the secular trend of stock prices in formula timing plans. M. D. Ketchum. *J Bsns* 21:29-49 Ja '48
 Are formula plans what they seem to be? E. Solomon. *J Bsns* 21:92-7 Ap '48
 Brokers' responsibility in flow of investment capital. J. A. Murphy. *Comm & Fin Chr* 167:600+ F 5 '48
 Case for common stocks. T. W. Phelps. *Comm & Fin Chr* 167:706+ F 12 '48
 Contest winners keep widow's income high. W. F. McHale. *Barron's* 28:26-6 S 27 '48
 Controls affecting investment policies. S. R. Wendin. *Comm & Fin Chr* 167:495+ Ja 29 '48
 Current investment prospects. E. P. Rubin. *Comm & Fin Chr* 167:1318 Mr 25 '48
 Ebb and flow of investment values. W. Gates. *il Mag of Wall St* 81:123-5+ N 8 '47
 Facts and fallacies; study of some problems which face the average investor in search of profits. T. M. Luttrell. *Pulp & Pa of Can* 48:57-61 D '47
 Fear psychology from the inventor's viewpoint. N. S. Chadwick. *Comm & Fin Chr* 168:1414+ O 7 '48
 Formula plan that always works; Burlingame plan. G. A. Drew. *Comm & Fin Chr* 166:2476+ D 18 '47
 Gaining profits by taking losses; disposal of securities showing disappointing results. G. M. Loeb. *Barron's* 28:29 O 11 '48
 Guideposts for forecasting. F. D. Newbury. *Ind Marketing* 33:33+ Ag; 41-2+ S; 42+ O; 57+ N '48

How to buy stocks and bonds. D. L. Kemmerer and B. C. Hurd. *Comm & Fin Chr* 168:100+ Jl 8 '48
 Increasing corporate indebtedness; significance to investors. J. S. Williams. *Mag of Wall St* 83:22-4 O 9 '48
 Increasing importance of utility investor relations. T. P. Walker. *Pub Util* 41:531-9 Ap 22 '48
 Industry group price behavior; relative price action affords check on economic analysis. H. C. Ray. *Trusts & Estates* 86:299-304 Ap '48
 Institutional investments in real estate; abstract. M. Levy. *Banking* 40:112-13 F '48
 Investment fundamentals; the choice of securities. C. T. Hyder. *Comm & Fin Chr* 167:800+ 900+ F 19, 26 '48
 Investment market. H. E. Dickhuth. *Banking* 40:84+ Ja '48 [cont monthly]
 Investment outlook. F. F. Walker. *Comm & Fin Chr* 166:1897+ N 6 '47
 Investment outlook for 1948. L. Spangenberg. *Comm & Fin Chr* 167:999+ Mr 4 '48
 Investor is the forgotten man. J. D. Goodman. *Comm & Fin Chr* 168:1768 O 28 '48
 Investor must have tax relief. R. A. Gilbert. *Comm & Fin Chr* 168:1001+ S 9 '48; Discussion. F. S. Dunbar, jr. 168:1972-3 N 11 '48
 Market forecasting; lecture before Small investors forum, Columbia university, March 4. E. W. Tabell. *Comm & Fin Chr* 167:1097+ Mr 11 '48
 More investment needed to increase real incomes. F. D. Newbury. *Comm & Fin Chr* 167:2638+ Je 17 '48
 Program for regular monthly income. H. L. Blackburn. *Mag of Wall St* 81:477+ Ja 31 '48
 Reader tells why he can't buy stocks. W. Scott. *Barron's* 28:30 Jl 19 '48; Discussion. J. S. Hicks. *Barron's* 28:37 Jl 26 '48
 Real estate as an investment. T. H. Ross. *Comm & Fin Chr* 166:1845 N 6 '47
 Realistic investment yardsticks to meet today's conditions. F. K. Dodge. *Mag of Wall St* 83:11-13+ O 9 '48
 Research and new inventions; their effects on investments. R. P. Soule. *Trusts & Estates* 86:136-41 F '48
 Savings and investments. A. H. Hansen. *R Econ & Stat* 30:30-3 F '48
 Savings stream diverted from stock market; banks, insurance companies take bulk of individuals' free funds. C. S. Koch and J. C. Whitehead. *Barron's* 28:6 Ag 30 '48
 Scientific basis of internal stock market analysis. N. Molodovsky and J. Mindell. *Comm & Fin Chr* 166:2616+; Discussion (Answering the market internalizers). A. W. May. 2617+ D 25 '47
 Securities disturbing investors. R. Colston. *Mag of Wall St* 82:293-5, 442-3; 83:82-3+ Je 19, Jl 31, O 23 '48
 Suggestions for improving investment ratings. F. G. Smola. *Comm & Fin Chr* 168:807+ Ag 26 '48
 Testing investment timing formulas. J. W. Bridges. *Comm & Fin Chr* 168:304+ Jl 22 '48
 Widow's income higher, portfolio values lower; 1947 results of prize winning portfolios. W. J. Galligan. *Barron's* 27:8-9 S 29; 29-30 O 27; 30-1 N 10 '47

See also

Banks and banking
 —Investments
 Bonds
 Building and loan associations
 Colleges and universities—Investments
 Hedging
 Insurance, Life—Investments
 Insurance companies
 —Investments
 Interest

Investment banking
 Investment trusts
 Mortgages
 Municipal bonds
 Saving
 Savings banks—Investments
 Securities
 Speculation
 Stock exchange
 Stockholders
 Stocks
 Trusts and trustees
 —Investments

Advertising

See also
 Securities—Advertising

INVESTMENTS—Continued

Advisers

See Investment advisers

Bibliography

Dealer-broker investment recommendations and literature. Published in weekly Thursday numbers of Commercial and financial chronicle

INVESTMENTS, Foreign

Cold war, dollar-squeeze hit foreign bonds. Bsns W p97 Mr 13 '48

Engineers' part in foreign trade. F. Gannett. il Eng N 140:950-1 Je 10 '48

Fighting curbs on capital; Havana ITO conference pushes code to limit national restrictions on outside investment. Bsns W p 101-2+ D 20 '47

Groundwork for foreign investments. C. E. Calder. Comm & Fin Chr 168:1318+ S 30 '48

Invest in Europe, says ECA. Bsns W p 117-18 Je 19 '48

IBA committee sees limited market for foreign bonds. Comm & Fin Chr 166:2504 D 18 '47

World bank plan for guaranteeing investment in foreign mineral development. C. W. Wright. Min & Met 29:175-6 Mr '48

See also

Income tax—Blocked

money income

Loans, Foreign

Germany

German investments in Argentina. J. F. Rippy. J Bsns 21:50-4 Ja '48

German investments in Guatemala. J. F. Rippy. J Bsns 20:212-19 O '47

German investments in Latin America. J. F. Rippy. bibliog J Bsns 21:63-73 Ap '48

Great Britain

Britain retreats; status of investments in Latin America. Bsns W p 120-1 Ap 3 '48

British investments in South America. Economist 155:77 Jl 10 '48

Meat for railways; Payment at last for Argentine railway stockholders? Economist 154:276-7 F 14 '48

Remitting profits from Argentina. Economist 155:242 Ag 7 '48

Netherlands

Amsterdam paper reports suit against Dutch government for return of American securities. Comm & Fin Chr 168:616 Ag 12 '48

Dutch liquidation of U.S. holdings to be kept in bounds. Barron's 28:3 Mr 1 '48

Holland begins requisitioning of U.S. securities. Barron's 28:31 Mr 22 '48

Requisitioning of Netherlands-owned foreign securities; list. For Comm W 31:21 My 22 '48

Second list of requisitioned Dutch securities. Comm & Fin Chr 167:2319 My 27 '48

Peru

Regulations governing introduction of foreign capital. For Comm W 30:18 Ja 17 '48

United States

Britain welcomes American subsidiaries, with some reservations. R. A. Foulke. il Dun's R 56:11-13+ F '48

Estimated U.S. foreign investment at \$28.8 billions at end of '47. Comm & Fin Chr 168:915 S 2 '48

Foreign bond deals ignore U.S. holders. Barron's 28:35 S 20 '48

Foreign investments and fluctuating currencies; with summary of exchange control action in leading countries. A. G. Flume. Comm & Fin Chr 167:2098+ My 13 '48

Movement of private U.S. capital to foreign countries in 1947. M. Abelson. il For Comm W 32:3-4+ Ag 21 '48; Correction. 32:17 Ag 28 '48

Private Marshall plan for American investment abroad. M. J. Wasserman. Comm & Fin Chr 167:2190+ My 20 '48

Significance of growing American investments abroad. J. Dana. il Mag of Wall St 82:623-5+ S 25 '48

Will U.S. investors get paid? problem of nationalized industries in Soviet-satellite countries. map Bsns W p76-8 Jl 3 '48

See also

Branch factories, Foreign

INVESTMENTS, Foreign (in Argentina)

Argentina's exchange policy. Economist 154:1079 Je 26 '48

German investments in Argentina. J. F. Rippy. J Bsns 21:50-4 Ja '48

Remitting profits from Argentina. Economist 155:242 Ag 7 '48

INVESTMENTS, Foreign (in Brazil)

Registration of foreign capital. For Comm W 29:12 N 15 '47; 30:11 Mr 13 '48

INVESTMENTS, Foreign (in Burma)

Burma and the foreigner; background of Burmese politics. Economist 154:1022 Je 19 '48

INVESTMENTS, Foreign (in Canada)

Britain builds in Canada. il Bsns W p84-5 Ag 28 '48

Three insurers making direct loan to Canada. Nat Underw (Life ed) 52:1 Ag 13 '48

INVESTMENTS, Foreign (in Colombia)

Classification of new industries; regulations with regard to the importation of capital. For Comm W 33:18-19 O 23 '48

INVESTMENTS, Foreign (in Germany)

Blocked balances in Germany. Economist 154:319-20, 729 F 21, My 1 '48

INVESTMENTS, Foreign (in Great Britain)

Britain welcomes American subsidiaries, with some reservations. R. A. Foulke. il Dun's R 56:11-13+ F '48

Establishing U.S. firms in Britain; comments on the bilateral pact. P. Einzig. Comm & Fin Chr 168:902 S 2 '48

U.S. industries in Britain; British attitude towards proposals for establishment of American financed factories. P. Einzig. Comm & Fin Chr 167:394 Ja 22 '48

INVESTMENTS, Foreign (in Hungary)

Foreign capital in Hungary. Economist 154:1079-80 Je 26 '48

INVESTMENTS, Foreign (in India)

India gives investors chance in new industry. R. S. Eswaran. Barron's 28:4 Je 14 '48

INVESTMENTS, Foreign (in Italy)

Italy eases remittances on foreign-owned investments. Comm & Fin Chr 167:1884 Ap 29 '48

Italy; exchange controls on foreign investments liberalized. For Comm W 31:15 My 8 '48

United States holders of Italian bonds outbargained by British in claim settlement. R. E. Beddingfield. Barron's 28:32 F 2 '48

INVESTMENTS, Foreign (in Latin America)

Britain retreats; status of investments in Latin America. Bsns W p 120-1 Ap 3 '48

Dollar diplomacy at Bogota; U.S. delegates at Pan American conference will try to meet Latin America's demand for funds. Bsns W p 113-14+ Mr 13 '48

German investments in Latin America. J. F. Rippy. bibliog J Bsns 21:63-73 Ap '48

Why our money stays out of Latin America. Barron's 28:1+ Ap 19 '48; Discussion. 28:6 Je 28 '48

INVESTMENTS, Foreign (in Mexico)

Foreign investment; statement by president of Interdepartmental control commission. For Comm W 29:17 D 20 '47

Mexican's olive branch; will investors perch? Barron's 27:10 N 17 '47

INVESTMENTS, Foreign (in South Africa)

New U.S. stake in South Africa. il Bsns W p81-2 N 29 '47

INVESTMENTS, Foreign (in South America)

British investments in South America. Economist 155:77 Jl 10 '48

INVOICES

Standardization of invoices. M. Hill; C. E. Schulte. J Account 86:347-8 O '48

IODATES

Photo-chemistry of some ions in solution. L. Farkas and F. S. Klein. bibliog diag J Chem Phys 16:886-93 S '48

IODIC acid

Ternary systems; potassium iodate, iodic acid and water. S. E. Smith. Am Chem Soc J 69:2285-6 O '47

IODIDES

- Exchange reactions between iodine atoms and organic iodides. R. M. Noyes. *Am Chem Soc J* 70:2614 JI '48
- Preparation of *p*-phenylphenacyl iodide, and redetermination of the melting points of some phenacylhalides. H. Rheinboldt and M. Perrier. *bibliog Am Chem Soc J* 69:3148-9 D '47
- Thermochemical evaluation of the bond-strength in some carbon compounds; methyl carbon-iodine and methyl carbon-magnesium; abstract. H. Mackle and A. R. Ubbelohde. *Chem & Ind* p806 D 27 '47

IODINATION

- Determination of primary hydroxyl groups in cellulose acetate by tosylation and iodination. C. J. Malm, L. J. Tanghe and B. C. Laird. *bibliog Am Chem Soc J* 70:2740-7 Ag '48
- Iodination of certain phenylsulfonamido and amino-heterocycles. R. G. Shepherd and C. E. Fellows. *bibliog Am Chem Soc J* 70:157-60 Ja '48
- Iodination of α -cyanoacetophenone. W. M. Hearon and A. F. Helin. *Am Chem Soc J* 69:2907-8 N '47
- Kinetics of aromatic halogen substitution; iodination by iodine chloride. L. J. Lam-bourne and P. W. Robertson. *Chem Soc J* p 1167-8 S '47
- Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. MacLay. *Am Chem Soc J* 70:2220-3 Je '48

IODINE

- Acylation of benzene compounds with iodine as a catalyst. S. Chodroff and H. C. Klein. *bibliog Am Chem Soc J* 70:1647-8 Ap '48
- Electrolytic dissociation processes; the solvolytic ionisation of molecular iodine. F. Fairbrother. *Chem Soc J* p 1061-6 JI '48
- Exaggerated effect of iodine as carrier in the bromination of fluorene. J. R. Sampey and A. B. King. *Am Chem Soc J* 70:2606-7 JI '48
- Exchange reactions between iodine atoms and organic iodides. R. M. Noyes. *Am Chem Soc J* 70:2614 JI '48
- Fractionation of potato starch; absorption spectra and colour intensities of the starch-iodine complexes. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:97-101 Mr '48
- Kinetics of halogen addition to unsaturated compounds; iodine catalysis of chlorine and bromine addition to ethyl cinnamate. H. D. C. Waters, A. R. Caverhill and P. W. Robertson. *Chem Soc J* p 1168-72 S '47
- Kinetics of the photolysis of methyl iodide and the hydrogen halides; photolysis of hydrogen iodide in the presence of iodine, hydrogen bromide and hydrogen chloride. R. R. Williams, jr. and R. A. Ogg, jr. *bibliog diag J Chem Phys* 15:691-6 O '47
- Kinetics of the photolysis of methyl iodide and the hydrogen halides; photolysis of methyl iodide in the presence of iodine and the hydrogen halides. R. R. Williams, jr. and R. A. Ogg, jr. *J Chem Phys* 15:696-702 O '47
- Kinetics of the reaction between copper and iodine in various solutions; solutions of iodine in organic solvents. L. L. Bircumshaw and M. H. Everdell. *Chem Soc J* p 1119-28 S '47
- Kinetics of the reactions between iodine and certain substituted phenols. Choh Hao Li. *bibliog Am Chem Soc J* 70:1716-17 My '48
- Mechanism of the acetophenone-iodine-pyridine reaction. R. G. Pearson. *bibliog Am Chem Soc J* 69:3100-3 D '47
- Nature of iodine solutions. J. Kleinberg and A. W. Davidson. *bibliog Chem R* 42:601-9 Je '48
- Nature of the interaction between starch and iodine. R. S. Stein and R. E. Rundle. *bibliog diag J Chem Phys* 16:195-207 Mr '48
- Nuclear moments of I^{127} , Ga^{69} , Ga^{71} , and P^{31} . R. V. Pound. *bibliog Phys R* 73:1112-13 My '48
- Oxidation of some aldoses by alkaline solutions of iodine. O. G. Ingles and G. C. Israel. *Chem Soc J* p810-14 Je '48

- Reaction of certain β -aminomercaptans with iodine in ethanol. H. R. Snyder and E. L. Eliel. *Am Chem Soc J* 70:2825-6 Ag '48
- Reaction of ketones with iodine and pyridine. L. C. King, M. McWhirter and R. L. Rowland. *bibliog Am Chem Soc J* 70:239-42 Ja '48
- Reaction of ketones with iodine, pyridine and water. L. C. King. *Am Chem Soc J* 70:242-4 Ja '48
- Ultraviolet absorption bands of iodine in aromatic hydrocarbons. H. A. Benesi and J. H. Hildebrand. *Am Chem Soc J* 70:2832-3 Ag '48

Analysis

- Rapid evaluation of solvent extraction processes; new liquid-liquid extractor; carbon tetrachloride-aqueous iodine. H. A. Bewick, J. E. Currah and F. E. Beamish. *bibliog diag Anal Chem* 20:740-3 Ag '48
- Spectrophotometric determination of iodine. W. G. Gross, L. K. Wood and J. S. McHargue. *bibliog Anal Chem* 20:900-1 O '48

Isotopes

- 86-sec. iodine; abstract. C. W. Stanley and S. Katcoff. *Chem Eng* 55:266-1 JI '48
- Methods for labeling thyroxine with radioactive iodine. E. Frieden and others. *bibliog Science* 107:353-4 Ap 2 '48
- Separation of iodine-131 from tellurium. M. Levy, A. S. Keston and S. Udenfriend. *Am Chem Soc J* 70:2289-90 Je '48
- Variations in total counts of P^{32} and I^{131} for dishes of different atomic number. R. F. Cowing and E. DeAmicis. *Science* 108:187 Ag 20 '48

IODINE chloride

- Kinetics of aromatic halogen substitution; iodination by iodine chloride. L. J. Lam-bourne and P. W. Robertson. *Chem Soc J* p 1167-8 S '47
- Microwave spectrum of iodine monochloride at $4\frac{1}{2}$ centimeters wave-length. R. T. Weidner. *Phys R* 72:1268-9 D 15 '47
- Nuclear quadrupole interaction in the ICl rotational spectrum. R. T. Weidner. *Phys R* 73:254 F 1 '48
- Pure rotational spectrum of ICl. C. H. Townes and others. *bibliog Phys R* 73:1334-7 Je 1 '48
- Second-order corrections to quadrupole effects in molecules. J. Bardeen and C. H. Townes. *Phys R* 73:627-9 Mr 15 '48; Correction. 73:1204 My 15 '48
- Unsaturation in isoprene-isobutylene copolymers; reaction with iodine in the presence of mercuric acetate and trichloroacetic acid. S. G. Gallo, H. K. Wiese and J. F. Nelson. *bibliog Ind & Eng Chem* 40:1277-80 JI '48

IODINE compounds

- Extreme pressure (e.p.) lubricating properties of some bromine and iodine compounds, alone and in presence of sulphur, with observations on the mechanism of the development of e.p. properties. W. Davey. *Inst Pet J* 33:673-7 N '47
- Steric inhibition of resonance; reactivities of some halogenated primary and tertiary aromatic amines. R. B. Sandin and J. R. L. Williams. *bibliog Am Chem Soc J* 69:2747-9 N '47

IODINE number

- Determination of iodine numbers. D. J. Hiscox. *bibliog Anal Chem* 20:679-80 JI '48

IODIZED paper. See Paper, Iodized

IODOBENZONIC acid

- 3,4,5-Triiodobenzoyl chloride as a reagent for alcohols. D. C. O'Donnell and others. *Am Chem Soc J* 70:1657-8 Ap '48

IODODESOXYGALACTOSE

- Synthesis of some iodo-sugar derivatives. A. L. Raymond and E. F. Schroeder. *bibliog Am Chem Soc J* 70:2785-91 Ag '48

IODODESOXYMETHYLGLUCOPYRANOSIDE

- Synthesis of some iodo-sugar derivatives. A. L. Raymond and E. F. Schroeder. *bibliog Am Chem Soc J* 70:2785-91 Ag '48

IODODESOXYSORBITAN

- Synthesis of some iodo-sugar derivatives. A. L. Raymond and E. F. Schroeder. *bibliog Am Chem Soc J* 70:2785-91 Ag '48

IODOFORM

Compound formation between 2,6-lutidine and polyhalogenated methanes. C. A. VanderWerf, A. W. Davidson and C. I. Michaelis. *Am Chem Soc J* 70:908-10 Mr '48

Compound formation between pyridine and polyhalogenated methanes. A. W. Davidson, C. A. VanderWerf and L. G. Boatright. *bibliog Am Chem Soc J* 69:3045-7 D '47

Peroxide-catalyzed addition of iodoform to olefins. M. Weizmann and others. *Am Chem Soc J* 69:2569 O '47

IODOMETHANE. See Methyl iodide**IOMETRY**

Analysis of liquid phosgene. C. A. Rush and C. E. Danner. *bibliog diags Anal Chem* 20: 644-6 JI '48

Determination of chlorogenic acid in coffee; ultraviolet absorption and iodometric oxidation methods. R. G. Moores, D. L. McDermott and T. R. Wood. *bibliog Anal Chem* 20:620-4 JI '48

Determination of methylol groups and dibenzyl ether linkages in phenol alcohols and derived phenolic resins; methylol groups. H. S. Lilley and D. W. J. Osmond. *bibliog Soc Chem Ind J* 66:340-1 O '47

Determination of organic peroxides; evaluation of modified iodometric method. C. D. Wagner, R. H. Smith and E. D. Peters. *bibliog Anal Chem* 19:976-9 D '47

Determination of small quantities of hydrogen cyanide in insects and plant tissue. R. A. Fulton and M. J. Van Dyke. *diag Anal Chem* 19:922-3 N '47

Elimination of nitrite interference in iodometric sugar determinations. J. Corman. *Anal Chem* 20:984 O '48

Investigation on the iodimetric method of estimation of penicillin. A. M. Wild. *Soc Chem Ind J* 67:90-2 Mr '48

Iodometric analysis of *o*-nitrobenzeneseleninic acid. O. Foss. *Am Chem Soc J* 70:421 Ja '48

Iodometric determination of vinyl alkyl ethers. S. Siggia and R. L. Eadsberg. *Anal Chem* 20:762-3 Ag '48

Semimicrodetermination of arsenic in the presence of antimony, bismuth, tin, and lead. J. H. Freeman and W. M. McNabb. *Anal Chem* 20:979 O '48

IODONIUM compounds

Decomposition of iodonium compounds; reaction with pyridine. R. B. Sandin and R. K. Brown. *bibliog Am Chem Soc J* 69:2253-4 O '47

IODOPHENOL blue

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene. M. M. Davis and others. *bibliog J Res Nat Bur Stand* 41:27-40 JI '48

IODOPLATINATE

Quantitative methods for certain organic sulfides. J. W. Sease and others. *bibliog Anal Chem* 20:431-4 My '48

IODOTYROSINE

Formation of monoiodotyrosine from radioiodine in the thyroid of rat and man. K. Fink and R. M. Fink. *bibliog Science* 108: 358-9 O '48

ION exchangers

Acid-binding properties of long-chain aliphatic amines. E. L. Smith and J. E. Page. *Soc Chem Ind J* 67:48-51 F '48

Anion-exchange equilibria in an anion exchange resin. R. Kunin and J. J. Myers. *bibliog Am Chem Soc J* 69:2874-8 N '47

Characterization of ion exchange resins; acidity and number of constituent cation exchange groups. H. P. Gregor and J. I. Bregman. *bibliog Am Chem Soc J* 70:2370-3 JI '48

Chemical identification of radioisotopes of neodymium and of element 61. J. A. Marinsky, L. E. Glendenin and C. D. Coryell. *bibliog Am Chem Soc J* 69:2781-5 N '47

Defonization in one step practicable with new resin; IRA-400. *Oil Paint & Drug Rep* 153:4 Je 28 '48

Deminerzalization of sugar cane juice; pilot plant study. A. B. Mindler. *bibliog flow diags il Ind & Eng Chem* 40:1211-15 JI '48

Evaluation of demineralization methods. E. G. Kominek. *bibliog diag Chem Eng Prog* 44:697-702 S '48

Exchange adsorption of ions from aqueous solutions by organic zeolites. G. E. Boyd and others. *bibliog diags Am Chem Soc J* 69:2818-29, 2836-59 N '47

Exchange adsorption of ions from aqueous solutions by organic zeolites; separation of the yttrium group rare earths. B. H. Ketelle and G. E. Boyd. *bibliog diag Am Chem Soc J* 69:2800-12 N '47

Factors governing the performance of anion exchangers. J. Thompson and F. X. McGarvey. *il Chem Ind* 63:55-6 JI '48

General thermodynamic theory of ion exchange processes. H. P. Gregor. *Am Chem Soc J* 70:1293 Mr '48

House organ and press conference teach industry an involved new-product lesson. *Ptr Ink* 225:52 O 15 '48

Improved ion exchange method for separating rare earths in macro quantities. F. H. Spedding and others. *Am Chem Soc J* 70: 1671-2 Ap '48

Ion exchange. *Chem Eng* 55:163 JI '48

Ion exchange. R. Kunin. *bibliog (132 ref) Ind & Eng Chem* 40:41-5 Ja '48

Ion exchange as a separations method; equilibrium studies of the reactions of rare earth complexes with synthetic ion exchange resins. E. R. Tompkins and S. W. Mayer. *bibliog Am Chem Soc J* 69:2859-65 N '47

Ion-exchange as a separations method; separation of fission-produced radioisotopes, including individual rare earths, by complexing elution from amberlite resin. E. R. Tompkins, J. X. Khym and W. E. Cohn. *bibliog diag Am Chem Soc J* 69:2769-77 N '47

Ion-exchange as a separations method; separations of several rare earths of the cerium group (La, Ce, Pr and Nd). D. H. Harris and E. R. Tompkins. *bibliog diag Am Chem Soc J* 69:2792-800 N '47

Ion exchange as a separations method; theoretical analysis of the column separations process. S. W. Mayer and E. R. Tompkins. *bibliog Am Chem Soc J* 69:2866-74 N '47

Ion-exchange demineralizing of solutions. F. R. Riley and H. M. Day. *flow diag diags Chem Eng Prog* 44:353-8 My '48

Ion exchange develops as a unit process. J. C. Winters. *bibliog il Chem Ind* 62:754-8 My '48

Ion exchange finds new uses. R. W. Porter. *flow sheet il diags Food Ind* 20:691-702 My '48

Ion exchange in beet sugar refining. B. N. Dickinson. *flow sheet il Chem Eng* 55:114-17 JI '48

Ion exchange; operation of commercial scale plant for demineralization of cane sirups and molasses. E. Bloch and R. J. Ritchie. *bibliog flow sheet il Ind & Eng Chem* 39: 1531-4 D '47

Ion-exchange refining of dextrose solutions. M. Handelsman and R. H. Rogge. *il diags Chem Eng Prog* 44:583-7; Discussion. 583-90 Ag '48

Ion exchange resins. C. W. Davies. *bibliog Chem & Ind* p51-4 Ja 24 '48

Ion-exchange separation of the alkali metals. W. E. Cohn and H. W. Kohn. *Am Chem Soc J* 70:1986 My '48

Ion exchangers; abstract. H. B. Gustafson. *Chem Eng* 55:274+ Je '48

Many uses for ion exchange. *il Bsns W* p32-6 JI 31 '48

Multistage ion-exchange system for the fractionation of solutes; radium-barium fractionation. A. F. Reid. *flow diag diag Ind & Eng Chem* 40:76-8 Ja '48

New ion exchange resins; additions to Amberlite family. *Food Ind* 20:1143+ Ag '48

New ion-exchange resins, by Resinous products & chemical co. *il Chem Eng Prog* 44: sup 18 Ag '48

Operating characteristics of synthetic siliceous zeolite. L. Streicher and others. *bibliog Am Water Works Assn J* 39:1133-51 N '47

Phosphorylated cotton cellulose as a cation-exchange material. J. F. Jurgens and others. *Textile Res J* 18:42-4 Ja '48

ION exchangers—Continued

- Purification of formalin by ion-exchange treatment. G. A. Cristy and R. E. Lembecke. *diag Chem Eng Prog* 44:417-20 Je '48
- Purification of zirconium by ion exchange columns. J. A. Ayres. *Am Chem Soc J* 69: 2879-81 N '47
- Recovery of nicotine by ion exchange from cigaret tobacco drier gases. A. W. Kingsbury, A. B. Mindler and M. E. Gilwood. *flow diag II Chem Eng Prog* 44:497-500 Jl '48
- Regenerate ion exchangers carefully; caution in use of sulfuric acid for regeneration advocated; abstract. J. Thompson and F. X. McGarvey. *Elec World* 130:126+ S 25 '48
- Separation of rare earths by ion exchange; cerium and yttrium. F. H. Spedding and others. *bibliog Am Chem Soc J* 69:2777-81 N '47
- Separation of rare earths by ion exchange; neodymium and praseodymium. F. H. Spedding and others. *Am Chem Soc J* 69: 2786-92 N '47
- Separation of rare earths by ion exchange; pilot plant scale separations. F. H. Spedding and others. *bibliog Am Chem Soc J* 69: 2812-18 N '47
- Silica-free boiler feed water by ion exchange. W. C. Bauman, J. Eichhorn and L. F. Wirth. *bibliog II diag Ind & Eng Chem* 39:1453-7 N '47
- Silica removal by an improved ion-exchange process; comparison with the fluosilicic acid method. V. J. Calise and M. Lane. *bibliog diag Chem Eng Prog* 44:269-74 Ap '48
- Tips on backwashing ion exchangers. J. Thompson and F. X. McGarvey. *Chem Ind* 63:284+ Ag '48
- Use of ion exchange resins for separation of basic amino acids. B. A. Hems and others. *bibliog Soc Chem Ind J* 67:77-80 F '48
- Use of ion exchangers for the determination of physical-chemical properties of substances, particularly radiotracers, in solution. J. Schubert. *bibliog J Phys & Colloid Chem* 52:340-50 F '48
- Use of ion exchangers for the determination of physical-chemical properties of substances, particularly radiotracers, in solution; the dissociation constants of strontium citrate and strontium tartrate. J. Schubert and J. W. Richter. *bibliog J Phys & Colloid Chem* 52:350-7 F '48
- See also
Base exchanging compounds
- IONIZATION, Electrolytic**
- Analytical boundary method for the determination of transference numbers. A. P. Brady. *bibliog diag Am Chem Soc J* 70: 911-14 Mr '48
- Aqueous ionization constants of inorganic acids. J. E. Ricci. *Am Chem Soc J* 70:109-13 Ja '48
- Binding of organic ions by proteins; competition phenomena and denaturation effects. I. M. Klotz, H. Triwush and F. M. Walker. *bibliog Am Chem Soc J* 70:2935-41 S '48
- Determination of the product of the constants for the overlapping dissociation of weak acids by electromotive force methods. R. G. Bates. *bibliog Am Chem Soc J* 70: 1579-84 Ap '48
- Dissociation constants of benzimidazole and certain purine derivatives. H. F. W. Taylor. *Chem Soc J* p765-6 Je '48
- Dissociation constants of some substituted phenyltrimethylammonium perchlorates in ethylene chloride; effect of ion asymmetry. J. B. Ramsey and E. L. Collichsman. *bibliog Am Chem Soc J* 69:3041-5 D '47
- Electrolytic dissociation processes; the solvolytic ionization of molecular iodine. F. Fairbrother. *Chem Soc J* p 1051-6 Jl '48
- Equilibria in silver acetate solutions. F. H. MacDougall and S. Peterson. *bibliog J Phys & Colloid Chem* 51:1346-61 N '47
- Equilibrium studies on N-chloro compounds; the ionization constant of N-chloro-p-toluenesulfonamide. J. C. Morris, J. A. Salazar and M. A. Wineman. *Am Chem Soc J* 70:2036-41 Je '48
- Ionization constants of n-butyric acid in isopropyl alcohol-water mixtures from 0 to 40°. W. A. Felsing and M. May. *bibliog Am Chem Soc J* 70:2904-6 S '48
- Ionization constants of propionic acid in isopropyl alcohol-water mixtures from 0 to 40°. R. L. Moore and W. A. Felsing. *Am Chem Soc J* 69:2420-2 O '47
- Ionization constants of some substituted 8-hydroxyquinolines. J. P. Phillips and L. L. Merritt. *ibid.* *bibliog Am Chem Soc J* 70:410-11 Ja '48
- Molal volumes of aqueous solutions of perchloric acid. J. Bigeleisen. *bibliog J Phys & Colloid Chem* 51:1369-74 N '47
- Properties of electrolytic solutions; conductance of some electrolytes in nitrobenzene at 25°. C. R. Witschonke and C. A. Kraus. *bibliog Am Chem Soc J* 69:2472-81 O '47
- Properties of electrolytic solutions; conductance of some inorganic and organic electrolytes in pyridine at 25°. W. F. Luder and C. A. Kraus. *bibliog Am Chem Soc J* 69:2481-3 O '47
- Relationships between certain dissociation constants. J. C. McGowan. *bibliog Chem & Ind* p632-4 O 2 '48
- Second dissociation constant of oxalic acid from 0° to 50° C, and the pH of certain oxalate buffer solutions. G. D. Pinching and R. G. Bates. *bibliog J Res Nat Bur Stand* 40:405-16 My '48
- Self-diffusion coefficients and transference numbers of the small ions in colloidal electrolytes. A. P. Brady and D. J. Salley. *bibliog Am Chem Soc J* 70:914-19 Mr '48
- Some physical and chemical properties of weight-fractionated lignosulfonic acid, including the dissociation of lignosulfonates. F. M. Ernsterberger and W. G. France. *bibliog diag J Phys & Colloid Chem* 52:267-76 Ja '48
- Some problems of application of conductivity equipment; non-mathematical review. A. L. Chaplin. *diag Instruments* 21:273-9 Mr '48
- Studies of sulfonates; transference numbers and activity of 1-dodecanesulfonic acid in aqueous solution at 40°. L. L. Neff and others. *bibliog Am Chem Soc J* 70:1989-92 Je '48
- Thermochemistry of solutions; the heats of ionisation of some organic acids. T. L. Cottrell and others. *Chem Soc J* p 1016-19 Jl '48
- Transference numbers and hydration of some quaternary ammonium salts. C. H. Hale and T. De Vries. *bibliog diag Am Chem Soc J* 70:2473-5 Jl '48
- IONIZATION, Gaseous**
- Breakdown of a gas at microwave frequencies. M. A. Herlin and S. C. Brown. *diag Phys R* 74:291-6 Ag 1 '48
- Chemical reactions produced by ionization processes. J. O. Hirschfelder. *bibliog J Phys & Colloid Chem* 52:447-50 Mr '48
- Determination of ionospheric electron distribution. L. A. Manning. *Inst Radio Eng Proc* 35:1203-7 N '47
- Discharge spread in Geiger counters. J. D. Craggs and A. A. Jaffe. *bibliog diag Phys R* 72:784-92 N 1 '47
- Discharge spread in Geiger counters with methane and methane/argon fillings. C. Balakrishnan and others. *bibliog diag Phys R* 74:410-14 Ag 15 '48
- Effect of alkyl substitution on the spectra and ionization potentials of some fundamental chromophores. W. C. Price. *bibliog Chem R* 41:257-72 O '47
- Electrical breakdown of a gas between coaxial cylinders at microwave frequencies. M. A. Herlin and S. C. Brown. *Phys R* 74: 910-13 O 15 '48
- Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton. *ibid.* *J Phys & Colloid Chem* 52:490-517 *bibliog* (64 ref, p516-17) Mr '48
- Fluctuations of ionization and low energy beta-spectra. D. H. W. Kirkwood and others. *bibliog Phys R* 74:497-8 Ag 15 '48
- Gamma-radiation from granite. W. D. Urry. *bibliog Phys R* 73:596-601 Mr 15 '48

IONIZATION, Gaseous—Continued

- Ionization and dissociation of formic acid monomer by electron impact, T. Mariner and W. Bleakney, bibliog Phys R 72:792-806 N 1 '47
- Ionization and dissociation of paraffin hydrocarbons by electron bombardment, M. B. Koffel and R. A. Lad, bibliog J Chem Phys 16:420-2 Ap '48
- Ionization currents from extended alpha-sources, M. Blau and J. Carlin, bibliog il diag R Sci Instr 18:715-21 O '47
- Ionization currents in divergent fields in hydrogen and in air, G. W. Johnson, bibliog diags Phys R 73:284-97 F 15 '48
- Ionization loss of energy of fast charged particles in gases and condensed bodies, O. Halpern and H. Hall, bibliog Phys R 73:477-86 Mr 1 '48
- Ionization of high energy cosmic-ray electrons, E. Hayward, bibliog il diag Phys R 72:937-42 N 15 '47
- Ionization potentials of some hydrocarbon series, R. E. Honig, bibliog diag J Chem Phys 16:105-12 F '48
- Ionization processes in a long discharge tube with application to lightning mechanism, F. H. Mitchell and L. B. Snoddy, bibliog il diag Phys R 72:1202-3 D 15 '47
- Ionization processes on tungsten filaments, M. Metlay and G. E. Kimball, bibliog J Chem Phys 16:774-81 Ag '48
- Measurement and investigation of ionization level of rubber-insulated cables, R. C. Graham and others, Elec Eng 67:968 O '48
- Metastable transitions in mass spectra of fifty-six hydrocarbons, E. G. Bloom and others, J Res Nat Bur Stand 40:437-42 Je '48
- Microwave spark, D. Q. Posin, bibliog diags Phys R 73:496-509 Mr 1 '48
- Molecular orbital method and molecular ionization potentials, R. S. Mulliken, bibliog Phys R 74:730-3 O 1 '48
- New experiments concerning the surplus gamma-radiation from rocks, V. F. Hess and J. D. Roll, Phys R 73:592-5 Mr 15 '48
- New ionospheric-meteorological correlation, T. G. Mirhan, bibliog Inst Radio Eng Proc 36:1093-5 S '48
- Polarization effects in the ionization loss of 1-Mev electrons in carbon, F. L. Hereford, bibliog diags Phys R 73:1123-4 My 1 '48
- Radiation chemistry; an interpretation of the effect of state on the behavior of some organic compounds and solutions, M. Burton, bibliog J Phys & Colloid Chem 52:564-78 Mr '48
- Reflections of very-high frequency radio waves from meteoric ionization, E. W. Allen, Jr, diags Inst Radio Eng Proc 36:346-52 Mr '48; Discussion, 36:1255-7 O '48
- Significance of appearance potentials of ions in a mass spectrometer, T. Mariner and W. Bleakney, bibliog Phys R 72:807-14 N 1 '47
- Specific primary ionization and energy loss of fast electrons in matter, F. L. Hereford, bibliog diags Phys R 74:574-9 S 1 '48
- Theory of high frequency gas discharges; high frequency breakdown, L. M. Hartman, bibliog Phys R 73:316-25 F 15 '48
- Theory of high frequency gas discharges; methods for calculating electron distribution functions, H. Margenau, bibliog Phys R 73:297-308 F 15 '48
- Threshold for the positive pre-onset burst pulse corona and the production of ionizing photons in air at atmospheric pressure, L. B. Loeb, bibliog Phys R 73:798-800 Ap 1 '48
- IONIZATION, Heat of**
Thermochemistry of solutions; the heat of ionisation of succinic acid, T. L. Cottrell and J. H. Wolfenden, Chem Soc J p 1019-24 J1 '48
- IONIZATION chambers**
Absorption of X-rays in air, F. H. Day and L. S. Taylor, diags J Res Nat Bur Stand 40:393-9 My '48
- Cosmic-ray bursts in the upper atmosphere, H. E. Tatel and J. A. Van Allen, diag Phys R 73:87-8 Ja 1 '48
- Ionization currents from extended alpha-sources, M. Blau and J. Carlin, bibliog il diag R Sci Instr 18:715-21 O '47
- Measurement of transport and inelastic scattering cross sections for fast neutrons; method, experimental results, H. H. Barschall and others, bibliog diags Phys R 72:875-88 N 15 '47
- Routine use of ionization chamber method for C^{14} assay, C. D. Janney and B. J. Moyer, bibliog il diags R Sci Instr 19:667-74 O '48
- Scale-of-hundred counting unit, J. Rotblat and others, il diags J Sci Instr 25:33-7 F '48
- Study of cosmic-ray bursts, H. S. Bridge and others, bibliog il diags Phys R 74:1083-102 N 1 '48
- IONIZATION gage**
Surface phenomena useful in vacuum technique, L. Apker, bibliog Ind & Eng Chem 40:846-7 My '48
- IONONE**
Synthesis of products related to vitamin A; the application of the Darzens reaction to β -ionone, N. A. Mias and others, bibliog Am Chem Soc J 70:1584-91 Ap '48
- IONOSPHERE.** See Atmosphere, Upper
- IONS**
Compact electrostatic generator for the production of positive ions, W. E. Danforth and others, bibliog diags Phys R 73:1413-18 Je 15 '48
- Construction and performance of a low voltage arc as a source of positive ions, S. K. Allison, bibliog il diags R Sci Instr 19:291-8 My '48
- Dissociation of SF_6 , CF_4 , and SiF_4 by electron, bibliog J Res Nat Bur Stand 40:25-9 Ja '48
- Electronics simulates sense of smell; emission of ions from heated platinum increased in presence of halogen vapor compounds, W. C. White and J. J. Hickey, il diags Electronics 21:100-2 Mr '48
- Foreign ion rejection in the growth of sodium chloride single crystals from the melt, R. H. McFee, bibliog diags J Chem Phys 15:856-61 D '47
- Formation and stability of complex ions, D. T. Hurd, J Chem Educ 25:394-5 J1 '48
- Interaction of ions and dipolar ions; the solubility of cupric iodate in glycine and in alanine solutions, R. M. Keefer, bibliog Am Chem Soc J 70:476-9 F '48
- Ion velocitron, A. E. Cameron and D. F. Eggers, jr, diag R Sci Instr 19:605-7 S '48
- Ionic exchange equations derived from statistical thermodynamics, C. Krishnamoorthy and others, Science 108:439-40 O 22 '48
- Measurement of Na^+ ion diffusion by means of radiodisodium, A. W. Adamson, bibliog J Chem Phys 15:762-3 O '47
- Nature of negative ions in liquid hydrocarbons, A. Gemant, Electrochem Soc J 94:160-70 O '48
- Non-product wave function for a negative ion, E. Conwell, bibliog Phys R 74:268-76 Ag 1 '48
- Photo-chemistry of some ions in solution, L. Farkas and F. S. Klein, bibliog diag J Chem Phys 16:886-93 S '48
- Possible fluctuations in electron streams due to ions, J. R. Pierce, J Ap Phys 19:231-6 Mr '48
- Spontaneous dissociation of ions, J. A. Hipple, bibliog diag J Phys & Colloid Chem 52:456-62 Mr '48
- Study of adjustments of a Zinn-type ion source, T. Jorgensen, jr, diags R Sci Instr 19:28-30 Ja '48
- Transference numbers of sodium and potassium chlorides in 50-mole percent methanol-water mixtures, L. W. Shemilt and others, bibliog J Chem Phys 16:340-3 Ap '48
- Use of retarding potentials with the mass spectrometer, R. E. Fox and J. A. Hipple, bibliog diags R Sci Instr 19:462-6 J1 '48
- Vibrational spectra of molecules and complex ions in crystals; general theory, D. F. Hornig, bibliog J Chem Phys 16:1063-76 N '48
- Wave functions for H^- obtained by variation method, E. Conwell, Phys R 74:277-8 Ag 1 '48

See also

- | | |
|----------------------------|--------------------------|
| Electrons | Ionization, Electrolytic |
| Hydrogen ion concentration | Ionization, Gaseous |

IONS—Continued

Beams

- Electromagnetic deflector for the beam of the 184-inch cyclotron. W. M. Powell and others. *Il diags R Sci Instr* 19:506-12 Ag '48
- Secondary electron emission by fast neutral molecules and neutralization of positive ions. H. W. Berry. *Phys R* 74:848-9 O 1 '48
- Separation of isotopes in quantity by electromagnetic means. L. P. Smith and others. *bibliog diags Phys R* 72:989-1002 D 1 '47

IOWA

See also

Geology—Iowa

Water supply

- Effect of recent floods on Iowa's water supply. J. A. Sampson. *Am Water Works Assn J* 40:139-43 F '48

IOWA power and light company

- Bonds offered. *Comm & Fin Chr* 167:848-9 F 23 '48

IOWA state college of agriculture and mechanical arts

Guatemala tropical research center

- Organized at Antigua. *Science* 107:315 Mr 26 '48

IPAT'EV, Vladimir Nikolaevich, 1867-

- Honored on 80th birthday. *pers Chem & Eng N* 25:3720-1 D 15 '47

- Le 80^e anniversaire d'un pionnier de la catalyse. B. A. Bogoyavlensky. *bibliog por Chimie & Ind* 58:600-2 D '47

IRAN. See Persia

IRAQ

Commercial policy

- New exchange-control order issued. *For Comm W* 29:12 N 3 '47

Foreign relations

Great Britain

- What does Iraq want? repudiation of Anglo-Iraqi treaty of alliance. *Economist* 154:172-3 Ja 31 '48

IRELAND, Ellsworth F.

- Portrait. *Fortune* 38:117 O '48

IRELAND

See also

Hydroelectric plants
—Ireland

Commerce

- Eire; adverse balance of trade continues. *For Comm W* 31:15 My 8 '48

Commercial policy

- Eire trade pact with Britain. *Economist* 154:1075-6 Je 26 '48
- New trade agreement between the United Kingdom and Ireland (Eire). *For Comm W* 33:29 O 23 '48

Foreign relations

- New horizons for Eire. *Economist* 155:232-3 Ag 7 '48

Industries and resources

- Northern Ireland research council. *Chem Age (Lond)* 58:166 Ja 31 '48

Politics and government

- Eire without de Valera. *Economist* 154:347 F 28 '48
- General election in Eire. *Economist* 154:124-5 Ja 24 '48

IRIDIUM

- Coincidence measurements; internal conversion. M. L. Wiedenbeck and K. Y. Chu. *bibliog diags Phys R* 72:1171-5 D 15 '47
- Zero-zero transitions. M. L. Goldberger. *Phys R* 73:1119 My 1 '48

Isotopes

- Beta-beta-coincidence curves for Ir¹⁹² and Ta¹⁸². M. V. Scherb and C. E. Mandeville. *Phys R* 74:508-9 Ag 15 '48

- β -Radiations of antimony¹²⁴, tantalum¹⁸³, tungsten¹⁸⁶, and iridium¹⁹². S. Jnanananda. *bibliog Phys R* 72:1124-5 D 1 '47
- Internal conversion electrons from 70-day Ir¹⁹². R. D. Hill and W. E. Meyerhof. *Phys R* 73:812-13 Ap 1 '48
- Study of the radiations from iridium (194), iridium (192), lanthanum (140), antimony (124), and zirconium (95). C. E. Mandeville and M. V. Scherb. *bibliog Phys R* 73:1434-41 Je 15 '48

IRON

- Annual engineering review: Irons and steels. *Il Materials & Methods* 27:92-5 Ja '48
- Chemical engineering materials of construction: iron, mild steels, and low alloy steels. R. B. Mears and S. C. Snyder. *bibliog* (30 ref) *Il Ind & Eng Chem* 40:1798-800 O '48
- Disintegration of positive and negative mesotrons in different absorbers. N. Nereson. *bibliog diags Phys R* 73:565-9 Mr 15 '48
- Effect of iron on aging of GR-S. H. E. Albert, G. E. P. Smith, Jr. and G. W. Gottschalk. *bibliog Ind & Eng Chem* 40:482-7 Mr '48
- Electrolytic conductivity as a method for studying electronic transitions in elements; application to iron, nickel and cobalt. W. R. Ham and C. H. Samans. *bibliog Il diag Am Soc for Metals Trans* 39:73-99; Discussion, 99-108 '47
- Exchange reaction between ferric and ferrous ions in perchloric acid using a diffusion separation method. L. Van Alten and C. N. Rice. *Am Chem Soc J* 70:883-4 F '48
- Future sources of iron units in scrap. C. R. Holton. *Blast F & Steel P* 36:697-700 Je '48; Same. *Steel* 123:128-3 S 13 '48
- Inelastic scattering of fast neutrons by Fe, Pb, and Bi. L. Szilard and others. *bibliog diags Phys R* 73:1307-10 Je 1 '48
- Iron reduction of some aliphatic nitro compounds. M. Senkus. *bibliog Ind & Eng Chem* 40:506-8 Mr '48
- Lactic fermentation and trace iron affect cracker quality. J. Micka. *bibliog Il Food Ind* 20:34-9+ Ja '48
- Magnetization in perpendicularly superposed direct and alternating fields. F. J. Beck and J. M. Kelly. *bibliog diag J Ap Phys* 19:551-62 Je '48
- Neutron polarization. D. J. Hughes and others. *bibliog diag Phys R* 73:1277-90 Je 1 '48
- New concept about the mechanism of passivity of iron in nitric acid. R. Parshad and L. C. Verman. *J Chem Phys* 16:154-5 F '48
- Optical properties of Ni, Co, Fe, Mn and Cd. F. Bueche. *bibliog diags Opt Soc Am J* 38:806-10 S '48
- Penetration of gamma-radiation through thick layers; plane geometry, iron, and lead. J. O. Hirschfelder and E. N. Adams, 2d. *bibliog Phys R* 73:863-8 Ap 15 '48
- Polarization of neutrons by magnetized iron. J. M. Cassels. *Phys R* 74:111 J1 1 '48
- Self-diffusion in iron. C. E. Birchenall and R. F. Mehl. *J Ap Phys* 19:217-18 F '48
- Self-diffusion in iron. C. E. Birchenall and R. F. Mehl. *Min & Met* 28:555 N '47
- Slow neutron velocity spectrometer studies of Cu, Ni, Bi, Fe, Sn, and calcite. W. W. Havens, Jr. and others. *bibliog Phys R* 73:963-72 My 1 '48
- Solubility of iron in solid aluminum. J. K. Edgar. *bibliog Il Metals Tech* 15:TP2389 1-5 Je '48
- Solubility of iron in submerged soils. J. B. Hester and F. A. Shelton. *diag Science* 106:595 D 12 '47
- Spectral emissivity of iron and cobalt. H. B. Wahlen and H. W. Knop, Jr. *Phys R* 74:687-9 S 15 '48
- Spectrophotometric studies on complex formation with sulfosalicylic acid; with iron III-number. R. T. Foley and R. C. Anderson. *bibliog Am Chem Soc J* 70:1195-7 Mr '48
- Szilard-Chalmers reaction in the chain-reacting pile. R. R. Williams. *J Phys & Colloid Chem* 52:603-11 Mr '48

IRON—Continued

Total cross section of Fe, Ni, and Bi for fast neutrons. H. H. Barschall and others. *bibliog Phys R* 73:659-65 Ap 1 '48

See also

Blast furnaces	Iron, Sponge
Cast iron	Iron alloys
Chilled iron	Iron founding
Corrosion and anti-corrosives	Iron metallurgy
Foundry practice	Iron ores
Glass—Iron content	Pig iron
Iron, Powdered	Sheet iron
	Steel

Analysis

Automatic potentiometric titration of iron and titanium with chromous ion. J. J. Lingane. *bibliog diag Anal Chem* 20:797-801 S '48

Colorimetric determination of iron with 4-hydroxybiphenyl-3-carboxylic acid. J. H. Yoe and A. E. Harvey, jr. *bibliog Am Chem Soc J* 70:648-54 F '48

Colorimetric determination of iron with nitroso-R-salt. M. Griffing and M. G. Mellon. *Anal Chem* 19:1014-16 D '47

Colorimetric determination of iron with various dioximes. M. Griffing and M. G. Mellon. *bibliog Anal Chem* 19:1017-20 D '47

Determination of iron and manganese; recent findings of Russian chemists. *Chem Age (Lond)* 59:459 O 2 '48

Determination of iron in glass sand. J. J. Diamond. *Am Cer Soc J* 31:243-5 S 1 '48

Determination of silicon and manganese in iron and steel. *Metallurgia* 33:346-52 O '48

Determination of the gases in meteoritic and terrestrial irons and steels. L. K. Nash and G. P. Baxter. *bibliog diag Am Chem Soc J* 69:2534-44 O '47

Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *bibliog Anal Chem* 20:630-4 J1 '48

Equilibrium and kinetic studies on the formation and dissociation of ferroin and ferriin. I. M. Kolthoff, T. S. Lee and D. L. Leussing. *Anal Chem* 20:985 O '48

Estimation of molybdenum in iron and steel, using a simple photometer. E. J. Ronnie. *diag Metallurgia* 33:235-6 Ag '48

Improved spectrographic source. C. Braudo and H. R. Clayton. *bibliog il diag Soc Chem Ind J* 66:259-67 Ag '47

Polarographic determination of iron. L. Meites. *bibliog Anal Chem* 20:895-7 O '48

Reaction of ferrous and ferric iron with 1,10-phenanthroline; dissociation constants of ferrous and ferric phenanthroline. T. S. Lee, I. M. Kolthoff and D. L. Leussing. *bibliog Am Chem Soc J* 70:2348-52 J1 '48

Study of the hydrogen, oxygen, and nitrogen contents of foundry pig-iron. J. E. Hurst and R. V. Riley. *diag Iron & Steel Inst J* 159:130-6 Je '48

Titration of iron in high-temperature alloys; use of copper powder reduction method. L. Silverman. *il Steel* 122:66+ Ja 26 '48

Volumetric microdetermination of arsenic and iron. G. F. Smith and J. S. Fritz. *Anal Chem* 20:874-6 S '48

See also

Cast iron—Analysis

Bibliography

Abstracts of current literature and book notices (cont). *Iron & Steel Inst J* 157:289-320, 451-80, 629-56; 158:147-60, 265-88, 391-416, 527-44; 159:83-112, 209-40, 321-52, 431-64 O '47-Ag '48

Review of iron and steel literature for 1947. E. H. McClelland. *Blast F & Steel Pl* 36: 212-16+ F '48

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. *Iron & Steel Inst J* 153:1A-86A no 1 '46

Desulfurization

See Iron—Sulfur content

Isotopes

Rotation vibration levels of the Fe^{57} and Ni^{58} nuclei. H. A. Wilson. *Phys R* 74:351 Ag 1 '48

Metallography

Anelastic properties of iron. T. Kê. *bibliog il diag Metals Tech* 15:TP2370 1-27 Je '48

Carbides in iron-carbon-silicon alloys and cast irons. D. Marles. *bibliog 2pls Iron & Steel Inst J* 158:433-6 Ap '48; Discussion. 160:21-9 S '48

Decarburization during annealing of malleable iron. H. A. Schwartz and J. Hedberg. *bibliog il Am Soc for Metals Trans* 39:61-70; Discussion. 70-2 '47

Maurer diagram and its evolution and a new structure diagram for cast iron; abstract. H. Laplanche. *Foundry* 76:239 Ag '48

New cast iron; characteristics of the nodular graphite structure. J. G. Pearce. *bibliog il Chem Age (Lond)* 58:616-18 My 1 '48

New structural diagram for cast iron; with data sheet. H. Laplanche. *Metal Prog* 52: 991-2+ D '47

Sigma phase in alloys containing iron and chromium. *bibliog Engineer* 185:424-5 Ap 30 '48

Solved and unsolved problems in the metallurgy of blackheart malleable. H. A. Schwartz. *Foundry* 76:74-5+ bibliog (121 titles, p232+) J1 '48

Theory of strain interaction of solute atoms. C. Zener. *diag Phys R* 74:639-47 S 15 '48

See also

Cast iron—Graphitization

Phosphorus content

Ferrophosphorus applications in gray iron foundry practice. *Foundry* 76:212 My '48

Joint meeting of desulphurization and dephosphorization of cupola iron and pig iron; Institute of British foundrymen, Iron and steel institute and British iron and steel research assn. *Iron & Steel Inst J* 158:201-8 F '48; Same cond. *Engineer* 183: 259-61, 281-2 Mr 28-Ap 4 '47

Reduction of phosphorus content in iron ore and concentrate from Iron Mountain, Mo. H. Kenworthy. *U S Bur Mines Rep of Invest* 4193:1-20 '48

Some aspects of the refining of high-phosphorus iron. W. L. Kerlie. *bibliog Iron & Steel Inst J* 157:173-82 O '47; Discussion. 158:337-41 Mr '48

Prices

Average monthly quotations in 1947. *Steel* 122:328 Ja 5 '48

British iron and steel prices; Jan. and Nov. 1947; tabulation. *Steel* 122:326 Ja 5 '48

French iron and steel prices; Jan. and Nov. 1947; tabulation. *Steel* 122:326 Ja 5 '48

Iron and steel prices. *Engineer* 185:123; 186: 218 Ja 30, Ag 27 '48

Iron and steel prices, first quarter 1948. E. I. Eaton. *Mo Labor R* 66:524-6 My '48

Specifications

Iron and steel specifications in Russia. *Metallurgia* 37:319-20 Ap '48

Sulfur content

Desulphurization of iron at about 1100°. H. J. Tress. *il diag Chem & Ind* p57 Ja 24 '48

Desulphurizing with soda ash; Lynchburg foundry co. W. W. Levi. *il Foundry* 76:78-9+ Ap '48

Effect of acid oxides upon desulfurization in the iron-manganese system. M. B. Royer and A. J. Williams, jr. *bibliog 3pls U S Bur Mines Rep of Invest* 4300:1-25 '48

Elimination of sulphur in the blast-furnace. D. Joyce. *bibliog Iron & Steel Inst J* 159: 291-6 J1 '48; Same. *Blast F & Steel Pl* 36:1207-11+ O '48

Joint meeting on desulphurization and dephosphorization of cupola iron and pig iron; Institute of British foundrymen, Iron and steel institute and British iron and steel research assn. *Iron & Steel Inst J* 158:201-8 F '48; Same cond. *Engineer* 183:259-61, 281-2 Mr 28-Ap 4 '47

Kinetics of the transfer of sulphur across a slag-metal interface. L. Chang and K. M. Goldman. *bibliog diag Metals Tech* 15: TP2367 1-19 Je '48

New methods of ladle de-sulphurising pig iron. W. C. Newell and others. *Engineering* 166:210-11 Ag 27 '48

IRON, Molten

Chromium-oxygen equilibrium in liquid iron. H. Chen and J. Chipman. bibliog il diags Am Soc for Metals Trans 38:70-113; Discussion. 113-16 '47

IRON, Powdered

Discussion on a symposium on powder metallurgy; manufacture and properties of sintered components. Iron & Steel Inst J 157:567-78 D '47

Electrolytic iron powder production. W. J. Granberg. il Iron Age 160:70-2 D 25 '47

Formation and transformation studies of iron-carbon powder alloys. J. F. Kahles. bibliog il Am Soc for Metals Trans 38:618-51; Discussion. 651-8 '47

Magnetic properties of iron-powder compacts. R. Steinitz. il Metals Tech 15:TP2335 1-11 F '48; Discussion. 15:TP2449 23-6 Ag '48

Making iron powder in the tunnel kiln. V. H. Gottschalk. bibliog U S Bur Mines Information Circ 7473:1-16 '48

Powdered iron in electrode coatings. Iron Age 160:75 N 27 '47

Sponge iron and iron powder. J. F. Drapeau. il diags Iron Age 161:92-4 Ap 8 '48

Testing

Evaluation of the molding, coining, and sintering properties of iron powder. J. F. Kuzmick. il diags Metals Tech 15:TP2308 1-20 Ja '48

IRON, Sponge

Laramie sponge-iron pilot plant. T. L. Johnston and W. M. Mahan. 19pls U S Bur Mines Rep of Invest 4376:1-44 '48

Manufacture of sponge iron in ceramic tunnel kilns. V. H. Gottschalk and others. 3pls U S Bur Mines Rep of Invest 4271:1-25 '48

Production of sponge iron; gaseous reduction of iron oxide glomerules in a shaft furnace. E. P. Barrett and C. E. Wood. 6pls U S Bur Mines Rep of Invest 4305:1-19 '48

Sieve test of metal powders. R. E. Pollard. bibliog il J Res Nat Bur Stand 39:487-505 D '47; Abstract. Steel 122:89-90+ F 23 '48

Sponge iron and iron powder. J. F. Drapeau. il diags Iron Age 161:92-4 Ap 8 '48

Sponge iron in Japan. T. L. Johnston. 1pl U S Bur Mines Information Circ 7440:1-12 '48

Use of sponge iron for steel; production in Sweden. M. Tigherschild and S. Eketorp. bibliog Metalurgia 37:167-77 F '48; Abstract. Metal Prog 53:868+ Je '48

IRON alloys

Alloying white cast iron increases abrasion resistance. K. A. DeLonge. il Eng & Min J 149:86-9 O '48

Chemical engineering materials of construction; stainless steels and other ferrous alloys. M. H. Brown and W. B. DeLong. il Ind & Eng Chem 40:1812-20 bibliog(232 ref, p 1812-20) O '48

See also

Alnico	Steel
Meehanite	Worthite

Carbon alloys

Carbides in iron-carbon-silicon alloys and cast irons. D. Marles. bibliog 2pls Iron & Steel Inst J 158:433-6 Ap '48; Discussion. 160:21-9 S '48

Equilibrium of iron-carbon-silicon and of iron-carbon-manganese alloys with mixtures of methane and hydrogen at 1000°. R. P. Smith. bibliog Am Chem Soc J 70: 2724-9 Ag '48

Formation and transformation studies of iron-carbon powder alloys. J. F. Kahles. bibliog il Am Soc for Metals Trans 38:618-51; Discussion. 651-8 '47

Chromium alloys

Chromium-oxygen equilibrium in liquid iron. H. Chen and J. Chipman. bibliog il diags Am Soc for Metals Trans 38:70-113; Discussion. 113-16 '47

Sigma phase in alloys containing iron and chromium. bibliog Engineer 185:424-5 Ap 30 '48

Chromium nickel alloys

Sorption of gases on a plane surface of two stainless iron-chromium-nickel alloys at 20, -78 and -183°. M. H. Armbruster. Am Chem Soc J 70:1734-42 My '48

Cobalt alloys

Thermal expansion properties of iron-cobalt alloys. M. E. Fine and W. C. Ellis. bibliog diags Metals Tech 15:TP2320 1-13 F '48

Copper alloys

Copper-base alloy containing iron as a high-strength, high-conductivity wire material. W. Hodge and others. bibliog il diags Metals Tech 15:TP2422 1-10 Ag '48

Manganese alloys

Effect of acid oxides upon desulfurization in the iron-manganese system. M. B. Royer and A. J. Williams, jr. bibliog 3pls U S Bur Mines Rep of Invest 4300:1-25 '48

Molybdenum alloys

Molybdenum alpha irons; a new range of high-duty alloys; abstract. Metal Prog 54: 558 O '48

Nickel alloys

Cast iron; the influence of nickel on hardness and machinability. Automobile Eng 38:13 Ja '48

Navy sponsors magnetic alloy; Permanorm 5000-Z. il Enns W 946-9 JI 3 '48

New malleable austenitic cast iron and recent developments in Ni-Resist irons. M. G. Fontana. Ind & Eng Chem 40:sup89A-90A Ja '48

Nickel-copper and nickel-iron alloys. R. F. Thomson. Min & Met 29:384 JI '48

Polarization phenomena in nickel-iron alloys, and their effective elimination. O. I. Butler. bibliog diags Inst E E J 95 pt 2:627-35 O '48

Production of nodular graphite structures in cast iron; additions of cerium to the molten alloys. H. Morrogh and W. J. Williams. bibliog 6pls Iron & Steel Inst J 158:306-22 Mr '48; Discussion. 160:21-9 S '48

See also

Permalloy

Nickel chromium alloys

Cast heat resistant alloys of the 16 per cent chromium-35 per cent nickel type. H. S. Avery and N. A. Matthews. il diags Am Soc for Metals Trans 38:957-1015 bibliog (p 1013-15); Discussion. 1015-22 '47

Effect of weld metal composition on the strength and ductility of 15 per cent Cr-35 per cent Ni welds. D. Rozet and others. il Welding J 27:sup481-91 O '48

Resistance of iron-nickel-chromium alloys to corrosion in air at 1600 to 2200 F. A. D. Brasunas and others. il Am Soc T M Proc 46:870-93; Discussion. 894-901 '46

Nickel cobalt alloys

New techniques in glass-to-metal sealing; glass-to-Kovar seals. J. A. Pask. il Inst Radio Eng Proc 36:286-9 F '48

Silicon alloys

High-silicon cast iron for high temperature service. W. H. White and A. R. Elsee. il Iron Age 162:106-8 N 4 '48; Same cond. Foundry 76:68-9+ N '48

Magnetic study of phase-change processes in iron-silicon alloys. K. M. Guggenheimer and others. bibliog Iron & Steel Inst J 158: 192-9 F '48

Nitric acid versus construction materials; high-silicon iron. W. A. Luce. Chem Eng 55:225-6+ Mr '48

Sodium chloride versus construction materials; high-silicon irons. W. A. Luce. il Chem Eng 54:217-18 N '47

Stepped core sections for power transformers; using grain oriented silicon irons, hipersil and crystalloy. A. L. Morris. diags Engineer 184:581-3 D 19 '47

Sulphuric acid versus construction materials; high-silicon irons. W. A. Luce. il Chem Eng 55:227-8 JI '48

IRON alloys—Continued

Tungsten alloys

Electrodeposition of tungsten alloys containing iron, nickel, and cobalt. A. Brenner and others. *bibliog* *il* J Res Nat Bur Stand 39: 351-83 O '47; *Abstract*. Steel 121:63+ D 29 '47

IRON ammonium sulfate

Systems chromic ammonium sulfate-ferric ammonium sulfate-water and chromic ammonium sulfate-aluminum ammonium sulfate-water at 25°. N. O. Smith and C. S. Lennox. *bibliog* *Am Chem Soc J* 70:1793-6 My '48

IRON and steel engineers, Association of. See Association of iron and steel engineers

IRON and steel institute

Annual autumn meeting, London, Nov. 12-13. *Engineer* 184:487-8, 500-2, 522-3, 545-7 N 21-D 12 '47; *Engineering* 164:497-9, 520-1, 544-5 N 21-D 5 '47

Annual meeting, London, May 5-6. *Engineer* 185:476-8, 493-5, 524-5 My 14-28 '48; *Engineering* 165:450, 474-5, 496-8, 521 My 7-28 '48; *Metallurgia* 38:95-103; 39:31-6, 97-104 Je, N-D '48; *Steel* 123:108+ Ag 9 '48

Report of Council for 1947. *Iron & Steel Inst J* 158:417-32 Ap '48

Special summer meeting, Switzerland, July 10-11. *Iron & Steel Inst J* 157:322-30 N '47

IRON bacteria

Effect of chemical agents on iron bacteria. K. Duchon and L. B. Miller. *bibliog* *il* Paper Tr J 126:47-58 Ja 22 '48

Iron bacteria in industrial process water. L. B. Miller. *bibliog* *il* Rayon 29:77-80 My '48

IRON carbides

Thermodynamic calculations concerning the possible participation of the carbides of iron as intermediate in Fischer-Tropsch synthesis. J. T. Kummer and others. *J Chem Phys* 16:739-40 JI '48

IRON carbonyl

Carbonyl iron powders. *Franklin Inst J* 246: 185-6 Ag '48; Same *abr*. *Mech Eng* 70: 831 O '48

Microwave magnetic dispersion in carbonyl iron powder. J. B. Birks. *bibliog* *Phys R* 74:843-4 O 1 '48

IRON chlorides

Analysis

Rapid evaluation of solvent extraction processes; new liquid-liquid extractor; isopropyl ether-ferric chloride. H. A. Bewick, J. E. Currah and F. E. Beamish. *bibliog* *diag Anal Chem* 20:740-3 Ag '48

IRON citrates

Spectrophotometric study of the reaction of ferric iron and citric acid. O. E. Lanford and J. R. Quinan. *bibliog* *Am Chem Soc J* 70:2900-3 S '48

Structure and behavior of ferric tartrate and citrate complexes in dilute solutions. M. Bobtelsky and J. Jordan. *bibliog* *Am Chem Soc J* 69:2286-90 O '47

IRON compounds

Reaction of ferrous and ferric iron with 1,10-phenanthroline; dissociation constants of ferrous and ferric phenanthroline. T. S. Lee, I. M. Kolthoff and D. L. Leussing. *bibliog* *Am Chem Soc J* 70:2348-52 JI '48

Some exchange experiments involving hexacyanoferrate(II) and hexacyanoferrate(III) ions. R. C. Thompson. *bibliog* *Am Chem Soc J* 70:1045-6 Mr '48

IRON founding

Adjusting iron composition by addition of ferroalloy briquets. J. N. Ludwig, Jr. *Foundry* 76:115-16 O '48

Anthracite coal conserves coke; gray iron foundry of Westinghouse electric corp. F. J. Fredriksen and E. Bremer. *il* *Foundry* 76: 84-5+ S '48

Bases of cost distribution in a malleable and gray iron foundry. P. J. Esling. *N A C A Bul* 29:853-8 Mr 15 '48

Casting developments in review; gray iron. J. S. Vanick. *il* *diag Foundry* 76:82-9+ Ja '48

Casting developments in review; malleable iron. J. H. Lansing. *il* *Foundry* 76:74-7 Ja '48

Casting steel and iron rolls; Mackintosh-Hemphill co. *il* *Foundry* 76:96-9+ N '48

Centrifugal casting proves advantageous for iron piston rings. T. C. Jarrett and E. J. Hubbard. *il* *diag Materials & Methods* 27: 79-82 Ja '48

Costing for pricing and control in a gray iron foundry. H. L. Dyer. *N A C A Bul* 29: 847-52 Mr 15 '48

Cupola charge calculations. R. W. Heine. *Foundry* 76:88-9+ F '48

Cupola spout to box car in 75 minutes; Wheeland co. W. G. Gude. *il* *diag Foundry* 76:68-73+ JI '48; *Abstract*. *Steel* 123:81+ Ag 30 '48

Current melting problems in the gray iron foundry. D. J. Reese. *il* *Foundry* 76:78-9+ Mr '48

Designing castings in gray iron. C. O. Burgess. *diags Foundry* 76:100-1+ S '48

Desulphurizing with soda ash; Lynchburg foundry co. W. W. Levi. *il* *Foundry* 76:78-9+ Ap '48

Doubles foundry capacity with same floor area; Olney foundry division, Link-Belt co. W. G. Gude. *il* *plan Foundry* 76:72-7+ Ap '48

Ferrophosphorus applications in gray iron foundry practice. *Foundry* 76:212 My '48

Foundries in the middle. *il* *Bsns W* p56+ N 22 '47

Foundry handling set-up; Foundry division of Eaton mfg. co. D. Reebel. *il* *Steel* 123:93-6 JI 12 '48

Foundry sand, uncontrolled. H. E. Henderson. *Foundry* 76:95+ Ap '48

Gray iron castings industry. R. L. Collier. *Foundry* 76:94-5+ Mr; 90-1+ Ap '48

Gray iron foundry modernized; Crompton & Knowles loom works. V. E. Hillman. *il* *plan Iron Age* 161:84-9 Ap 22 '48

Gray iron sessions. A.F.A. annual meeting. *Foundry* 76:120+ JI '48

Magnesium use in an iron foundry; Utica radiator corporation. A. J. Marotta. *il* *Foundry* 76:208-10+ F '48

Malleable founders' society annual meeting. Hot Springs, Va. June 10-11. *Foundry* 76: 82-3+ Ag '48

Malleable founders' society meeting, Cleveland, Sept. 24. *Foundry* 76:130+ N '48

Malleable iron sessions cover alloys, testing; A.F.A. annual meeting. *Foundry* 76:148+ Je '48

Mechanization speeds malleable output; Auto specialties mfg. co. H. L. Day. *il* *plan Iron Age* 161:64-9 F 5 '48

Mechanized pouring in a Swedish foundry. I. Forsland. *il* *Foundry* 76:188-9 Ja '48

Modern engineering cast iron. D. J. Reese. *il* *diag Metal Prog* 53:539-44 Ap '48

Modernized foundry stresses good working conditions; Fairbanks, Morse & co. E. Bremer. *il* *plan Foundry* 76:120-5+ My '48

Molding sheaves in dry sand cores; Manitoba bridge and iron works ltd. W. Pink. *il* *diags Foundry* 76:88-9 Ap '48

Multiple molding can increase production; Wisconsin Appleton co. W. G. Gude. *il* *Foundry* 76:66-9+ Mr '48

Old foundry has face lifted; Alten's foundry & machine works. P. Dwyer. *il* *Foundry* 76:76-9+ F '48

Outlook for cupola raw materials. B. S. Stephenson and others. *il* *Foundry* 75:78-83+ D '47

Overhead handling system speeds foundry operations; Terre Haute malleable & mfg. corp. F. A. Westbrook. *il* *diags Foundry* 76:218-19 Mr '48

Permanent mold cast iron castings; abstract. C. D. Pollard and others. *Materials & Methods* 27:110-11 Mr '48

Permanent mold gray iron castings by the million; Foundry division of Eaton mfg. co. A. H. Allen. *il* *diags Foundry* 76:82-7+ O '48

Solved and unsolved problems in the metallurgy of blackheart malleable. H. A. Schwartz. *Foundry* 76:74-5+ *bibliog* (121 titles, p232+) JI '48

Stabilization of employment in gray iron foundries. B. A. Krawczyk. *Foundry* 76:99+ Ja '48

Substitute fuel for cupola use; use of anthracite. W. J. Reagan and C. C. Wright. *il* *diag Foundry* 76:74-5+ Ag '48

IRON founding—Continued

Tellurium-graphite use in foundry work. Ry Mech Eng 122:257-8 My '48
 Westinghouse is operating an automatic molding unit. J. A. Sharritts. Il plan Foundry 76:78-85+ Je '48; Same cond. Steel 123:126+ S 20 '48

See also

Cast iron Molds (for casting)
 Cupola furnaces Pig iron
 Foundry practice

IRON glass. See Glass—Iron content**IRON industry and trade**

Lone Star plan to diversify, cut costs told. Steel 122:73 My 3 '48

History

Black death of 1348-49 and its effect upon the iron industry. H. R. Schubert. Iron & Steel Inst J 157:525-6 D '47

Securities

New factors affecting the steel industry; with statistical data on leading steel and iron companies. W. Beecher. Mag of Wall St 82:535-7+ Ag 28 '48

Re-appraisal of the steel industry; with data on leading steel and iron companies. W. Beecher. Mag of Wall St 81:645-7+ Mr 13 '48

Statistics

Iron and steel, 1941-1946. Survey of Cur Bsns 1947 Sup p 145-7 [supplemented in monthly numbers]

Europe

International co-operation and the recovery of the European iron and steel industries. Int Labour R 58:346-58 S '48

Great Britain

British iron and steel industry. Metallurgia 38:137-43 Jl '48

Japan

Sponge iron in Japan. T. L. Johnston. 1pl U S Bur Mines Information Circ 7440:1-12 '48

New England

New England's iron crisis; breakdown of Mystic blast furnace. Il Bsns W p21 S 11 '48

Russia

Iron and steel industry in Russia. J. Alexandrovsky. maps Engineering 165:141-3 F 6 '48

Sweden

Fuel problems in the Swedish iron and steel industry. M. Tigerschiöld. diags Iron & Steel Inst J 153:151-63; Discussion. 199-213 no 1 '46

IRON lung. See Respiratory apparatus**IRON metallurgy**

American iron and steel institute 56th general meeting, New York, May 26; abstracts of technical papers. Steel 122:68+ My 31 '48

Cupola hot metal for the openhearth. E. S. Kopecki. Il diags Iron Age 162:76-81 O 21 '48

Effect of acid oxides upon desulfurization in the iron-manganese system. M. B. Royer and A. J. Williams, Jr. bibliog 3pls U S Bur Mines Rep of Invest 4300:1-25 '48

Effect of coke quality on blast furnace iron tonnage. E. J. Gardner. Blast F & Steel Pl 36:707-11 Je '48; Same. Steel 123:94+ O 4 '48

Eliminating phosphorus; Swedish iron ore process. Chem Age (Lond) 59:184 Ag 7 '48

Experience to date on iron production by methods other than coke blast furnace; direct reduction. E. C. Smith. Iron & Steel Eng 25:119-21 Ag '48

Ferrous production metallurgy; review of 1947. M. W. Lightner and S. Marshall. Min & Met 29:111-13 F '48

Introduction to the interaction of carbon and iron ore at temperatures up to 1450°C. H. L. Saunders and H. J. Tress. bibliog Il diags Iron & Steel Inst J 157:215-22 O '47

Iron and steel and refrigeration. D. Gordon. Inst Mech Eng J & Proc 158:Proc 9-12 Je '48; Same cond. Engineer 184:416-17 O 31 '47

Iron from low-grade ores assures steel for the future; Minnesota taconite. Il Bsns W p52-5 Jl 17 '48

Magnetic concentration experiments upon iron ores used in North Lincolnshire practice. L. Reeve. Il diags Iron & Steel Inst J 159:275-80 Jl '48

Manufacture of sponge iron in ceramic tunnel kilns. V. H. Gottschalk and others. 3pls U S Bur Mines Rep of Invest 4271:1-25 '48

New methods of ladle de-sulphurising pig iron. W. C. Newell and others. Engineering 166:210-11 Ag 27 '48

Oxygen enrichment of the cupola blast. A. K. Higgins. bibliog Il diags Iron Age 161:72-7 Ap 22 '48

Raw materials for iron and steel making. H. W. Graham. Il Min & Met 28:538-42 N '47

Reactions of iron pyrite; its thermal decomposition, reduction by hydrogen and air oxidation. G. M. Schwab and J. Philinis. bibliog diags Am Chem Soc J 69:2588-96 N '47

Reduction of phosphorus content in iron ore and concentrate from Iron Mountain, Mo. H. Kenworthy. U S Bur Mines Rep of Invest 4199:1-20 '48

Some aspects of the refining of high-phosphorus iron. W. L. Kerlie. bibliog Iron & Steel Inst J 157:173-82 O '47; Abstract. Engineering 164:545 D 5 '47; Discussion. Iron & Steel Inst J 158:337-41 Mr '48; Engineer 184:547 D 12 '47; Engineering 164:545 D 5 '47

Some observations on coking practice in Germany; hydrogenation or low-temperature carbonization of true coal; metallurgical working up of small-grained iron ores. F. H. Reed. U S Bur Mines Information Circ 7462:53-68 '48

Taconite project; harbor for Reserve Mining's iron-ore extracting operation in Minnesota. Bsns W p26 Ja 3 '48

Tonnage oxygen versatile aid for increasing iron and steel output. J. H. Strassburger. Il diags Steel 123:148+ O 13 '48

Trends in pig-iron manufacture. T. P. Colclough and I. S. Scott-Maxwell. bibliog Iron & Steel Inst J 159:186-92 Je '48

Utilization of oxygen in smelting low-grade ores. W. M. Pollitzer. diags Steel 122:98+ F 16 '48

See also

Blast furnaces	Iron founding
Cast iron	Pig iron
Foundry practice	Sintering
Iron, Sponge	Steel metallurgy
Iron alloys	

Electrometallurgy

Iron and power; electric furnace pig iron; with cost data. W. M. Bonham. Il diags Can Min J 69:55-9 Ja '48

IRON miners

Employability of silicotic subjects, summary of report of the Minnesota survey; abstract. L. U. Gardner. Nat Safety N 57:73-4 Ja '48

IRON mines and mining

Dust control in iron-ore mines. E. C. J. Urban. Il diags Safety Eng 95:18-19+ Mr '48

Trends in openpit iron mining. W. A. Sterling. Min & Met 29:28-9 Ja '48

California

Mining methods at the Vulcan iron mine, San Bernardino county, Calif. C. L. Severy. 6pls U S Bur Mines Information Circ 7437:1-11 '48

Georgia

Georgia iron deposits, Cherokee, Bartow, Floyd, and Polk counties. W. T. Lewiecki; A. F. Robertson. 21pls U S Bur Mines Rep of Invest 4178:1-28; 4179:1-42 '48

Labrador

Iron deposits, Labrador and New Quebec. W. M. Bonham. Il maps Can Min J 69:199-201+ O '48

IRON mines and mining—Labrador—Continued
 Labrador, North America's newest great iron ore field. J. A. Retty. *Min & Met* 29:480-3 S '48
 Quebec-Labrador-Canada's iron ore jackpot. T. Campbell. *il map Iron Age* 162:155-61 N 4 '48
 Steel industry's hope for a big new source of iron in Labrador-Quebec area. *il map Bsns W* 140-2+ S 11 '48

Lake Superior region

Support of ground, iron-ore mines, Lake Superior district. M. S. Petersen and F. E. Cash. 15pls U S Bur Mines Information Circ 7459:1-29 '48
 Transportation of iron ore, open-cut mines, Lake Superior district. J. A. Johnson and F. E. Cash. bibliog 8pls U S Bur Mines Information Circ 7458:1-24 '48
 Transportation of iron ore, underground mines, Lake Superior district. J. A. Johnson and F. E. Cash. 4pls U S Bur Mines Information Circ 7419:1-22 '47

Michigan

Underground shaker and conveyor belt operation; Inland steel co.'s Sherwood mine. P. D. Pearson and R. O. Marsten. *il plans Min Cong J* 34:18-22+ O '48

Minnesota

Jet-piercing up-to-date; drilling blast holes with oxygen flame and fluxing agent; abstracts. J. H. Zimmerman. *il Eng & Min J* 149:74-6 Mr '48; *Min & Met* 29:289-90 My '48
 Rouchleau miners honored; Oliver iron mining company's open-pit organization awarded Sentinels of Safety trophy. B. G. Best. *il Explosives Eng* 26:18-19+ Ja '48
 Self-propelled scrapers find use in stripping on Mesabi. *il Eng & Min J* 149:73-9 S '48
 South Agnew stripping scheme unique in Mesabi practice. E. S. Mollard and H. E. Reese. *il plan Eng & Min J* 149:70-4 Ag '48

New Jersey

Ahles iron mine, Warren county, N.J. J. R. Troxell. 3pls U S Bur Mines Rep of Invest 4240:1-8 '48
 Andover-Sulphur Hill iron mines, Sussex county, N.J. V. J. Lynch. 4pls U S Bur Mines Rep of Invest 4152:1-12 '47
 Eastern magnetite; review of 1947. J. R. Linney. *il Min & Met* 29:93-4 F '48
 Mine with a by-product business; Scrub Oaks in northern New Jersey sells by-product stone. C. H. Vivian. *il Comp Air Mag* 53:180-3 Ag '48

New York (state)

Adirondack iron ore for Jones & Laughlin; illustrations with text. *Eng & Min J* 149:88-9 S '48
 Adirondack iron ore mining. D. B. Gillies. *il Steel* 123:72-4+ Ag 30 '48
 Adirondacks mining; its past and its future. A. H. Trost. *il Can Min J* 69:75-80 My '48
 Adirondacks, Republic's ace in the hole. T. Campbell. *il Iron Age* 162:119-22 Ag 19 '48
 Eastern magnetite; review of 1947. J. R. Linney. *il Min & Met* 29:93-4 F '48
 Jones & Laughlin increasing ore output from Benson mines. *il Blast F & Steel Pl* 36:1099-100 S '48
 J&L pushes development of New York iron ore mines. *il Steel* 123:66-7 Ag 2 '48
 Steel industry has new interest in Adirondack iron. *il Bsns W* p25 Ag 21 '48

Ontario

Iron mines of Ontario. W. M. Bonham. *il maps Can Min J* 69:75-8 Mr '48
 Steep Rock iron mine. W. M. Goodwin. *il map diag Comp Air Mag* 53:244-6 O '48
 Steep Rock today. M. S. Fotheringham and N. Edmonstone. *il Eng & Min J* 149:84-5 Ag '48

Quebec (province)

Iron deposits, Labrador and New Quebec. W. M. Bonham. *il maps Can Min J* 69:199-201+ O '48
 Quebec-Labrador-Canada's iron ore jackpot. T. Campbell. *il map Iron Age* 162:155-61 N 4 '48

Sweden

Hydraulic air-storage chambers in Swedish mines. S. Dalhammer. *il map diag Comp Air Mag* 53:30-3 F '48

United States

Iron ore; review and forecast. M. D. Harbaugh. *il Min Cong J* 34:74-8 F '48

IRON ores

Introduction to the interaction of carbon and iron ore at temperatures up to 1450°C. H. L. Saunders and H. J. Tress. bibliog *il diags Iron & Steel Inst J* 157:215-22 O '47
 Iron ore beneficiation shows healthy growth; review of 1947. F. X. Tartaron. *il Eng & Min J* 149:110-13 F '48
 Iron ore mining no longer steel's Cinderella. W. K. Gutman. *Barron's* 28:38 Jl 12 '48
 Magnetic concentration experiments upon iron ores used in North Lincolnshire practice. L. Reeve. *il diags Iron & Steel Inst J* 159:275-80 Jl '48
 1947 iron ore review. M. D. Harbaugh. *il Blast F & Steel Pl* 36:49-53+ Ja '48
 Rapid method of ore testing, the S.K. porosity test. H. L. Saunders and H. J. Tress. *diag Iron & Steel Inst J* 152:291-300; Discussion. 300-2 no 2 '45; 153:365-6 no 1 '46
 Raw materials for iron and steel making. H. W. Graham. *il Min & Met* 28:538-42 N '47
 Raw materials still a no. 1 problem. W. A. Lloyd. *il Iron Age* 161:210-19 Ja 1 '48
 Sinter quality and effect of sinter on blast furnace practice. J. L. Mauthe. *Iron Age* 162:88-9 Jl 29 '48
 See also

Magnetite
 Pyrite

Analysis

Determination of alumina in iron ore. G. F. Smith and F. W. Cagle, jr. bibliog *Anal Chem* 20:574-6 Je '48

Statistics

Iron ore, 1941-1946. Survey of Cur Bsns 1947 Sup p 145-6 [supplemented in monthly numbers]

Transportation

Are ore piles high enough? *il Bsns W* p26+ D 20 '47

Alabama

Alabama red iron ores, Greasy Cove and Shinbone Ridge, St Clair and Etowah counties. J. R. Thoenen and J. D. Warne. 10pls U S Bur Mines Rep of Invest 4243:1-35 '48
 Concentratability of Birmingham, Ala., red iron ores by separation in heavy media. B. H. Clemmons and others. bibliog 2pls U S Bur Mines Rep of Invest 4249:1-45 '48
 North Alabama brown iron ores. A. Brown. 33pls U S Bur Mines Rep of Invest 4229:1-82 bibliog(p81-2) '48

Alaska

Mount Andrew iron deposit, Kasaan peninsula, Prince of Wales island, southeastern Alaska. W. S. Wright and A. W. Tolonen. 17pls U S Bur Mines Rep of Invest 4129:1-27 '47

Brazil

Brazilian ore resources and the Volta Redonda plant. R. Vaill. *Blast F & Steel Pl* 35:1365-7, 1488-9+ N-D '47

California

Iron Mountain deposits, San Bernardino county, Calif. F. J. Wiebelt and S. Ricker. 8pls U S Bur Mines Rep of Invest 4236:1-11 '48
 Shasta and California iron-ore deposits, Shasta county, Calif. J. R. Shattuck and S. Ricker. 3pls U S Bur Mines Rep of Invest 4272:1-11 '48

Europe

Sufficient iron ore? *Economist* 154:1074-5 Je 26 '48

Georgia

Georgia iron deposits, Cherokee, Bartow, Floyd, and Polk counties. W. T. Lewiecki; A. F. Robertson. 21pls U S Bur Mines Rep of Invest 4178:1-28; 4179:1-42 '48

IRON ores—Continued

Labrador

Hematite of Labrador and New Quebec. W. M. Bonham, il maps Can Min J 69:67-70 Je '48

Lake Superior region

Lake Superior iron ores, 1914-1947; tabulations. Iron Age 161:283 Ja 1 '48
Low-grade ores. Mech Eng 70:20-1 Ja '48
Sees 84 million ton lake ore movement on midpoint figure. B. Lloyd. Iron Age 162:121+ Ag 5 '48

Minnesota

Iron from low-grade ores assures steel for the future; Minnesota taconite, il Bsns W p52-5 Jl 17 '48
Taconite project; harbor for Reserve Mining's iron-ore extracting operation in Minnesota. Bsns W p26 Ja 3 '48

Missouri

Investigation of southeast Missouri secondary limonite deposits, Wayne, Butler, and Ripley counties, Mo. H. J. Ballinger and P. Pesonen, 15pls U S Bur Mines Rep of Invest 4314:1-46 '48
Reduction of phosphorus content in iron ore and concentrate from Iron Mountain, Mo. H. Kenworthy, U S Bur Mines Rep of Invest 4199:1-20 '48

New Jersey

Certain magnetite deposits in New Jersey. G. L. Neumann and M. Mosler, U S Bur Mines Rep of Invest 4225:1-34 '48

New Mexico

Geophysical investigation of manganiferous iron deposits, Boston Hill, Grant county, N.Mex. H. R. Joesting and others, 9pls fold map U S Bur Mines Rep of Invest 4175:1-12 '48

New York (state)

Diagenesis of the Clinton hematite ores of New York. H. L. Alling, maps diags Geol Soc Bul 58:991-1018, pl 1-3 bibliog(p 1015-17) N '47

Star Lake magnetite deposits, St Lawrence county, N.Y. (November 1945 to November 1946), D. F. Reed and C. J. Cohen, bibliog 17pls U S Bur Mines Rep of Invest 4131:1-34 '47

North Carolina

Diamond drilling at the Big Ore Bank magnetite deposits, Lincoln county, N.C. A. B. Clayton and W. B. Montgomery, jr, 7pls U S Bur Mines Rep of Invest 4347:1-6 '48

Pennsylvania

Investigation of the Dillsburg magnetite deposits, York county, Pa. G. L. Neumann, 3pls U S Bur Mines Rep of Invest 4145:1-13 '47

Quebec

Iron and titanium producing plant under development in Canada; unusual ore deposit at Lake Tio. S. Smoke, map Iron Age 162:125 S 2 '48

Rhodesia

Rhodesian ore; plan to industrialize colony. Bsns W p 110+ N 15 '47

Russia

Soviet Union builds large northwestern steel center, il map Eng & Min J 149:92-4 Je '48

Tennessee

Cranberry magnetite deposits, Avery county, N.C. and Carter county, Tenn. M. H. Kline and T. J. Ballard, bibliog 34pls U S Bur Mines Rep of Invest 4274:1-85 '48

United States

Are ore piles high enough? il Bsns W p26+ D 20 '47
Our future iron. Comp Air Mag 53:122 My '48

Washington (state)

Cle Elum iron-nickel deposits, Kittitas county, Wash. S. W. Zoldok, 4pls U S Bur Mines Rep of Invest 4189:1-8 '48

Wisconsin

Investigation of the iron-bearing formation in the Zinner Gogebic range. Iron county, Wis. P. Zinner and C. L. Holmberg, 11 pls U S Bur Mines Rep of Invest 4155:1-48 '47

IRON oxides

Cast-iron turnings aid sewage treatment in the Niers River district in Germany. Eng N 140:437 Mr 18 '48

Coagulation of hydrous ferric oxide sols by electrolytes. E. F. Tuller and E. I. Fulmer, bibliog J Phys & Colloid Chem 52:787-808 My '48

Effect of carbon black and black iron oxide on air content and durability of concrete. T. G. Taylor, Am Concrete Inst J 19:613-24 Ap '48

Equilibrium between volatiles and iron oxides in igneous rocks. G. C. Kennedy, Am J Sci 246:529-49 S '48

Forming oxide films on electrical steel. P. L. Schmidt, Elec Eng 67:533 Je '48

Melting points of iron oxides on silica; phase equilibria in the system Fe-Si-O as a function of gas composition and temperature. L. S. Darken, bibliog diags Am Chem Soc J 70:2046-53 Je '48

Nature of the iron compounds in red and yellow sandstone. L. J. E. Hofer and S. Weller, bibliog Science 106:470 N 14 '47

Permanent magnets of sintered oxides. R. J. Studders, il Product Eng 19:120-2 E '48

Preliminary study on portions of systems Na₂O-CaO-Al₂O₃-Fe₂O₃ and Na₂O-CaO-Fe₂O₃-SiO₂. W. R. Eubank and R. H. Bogue, bibliog Am Cer Soc J 31:284-91 O 1 '48; Same, J Res Nat Bur Stand 40:225-34 Mr '48

Production of sponge iron; gaseous reduction of iron oxide glomerules in a shaft furnace. E. P. Barrett and C. E. Wood, 6pls U S Bur Mines Rep of Invest 4305:1-19 '48

Silica removal with iron shavings. W. B. Leaf, il Am Water Works Assn J 40:980-8 S '48

Study of fluidization of an iron Fischer-Tropsch catalyst. M. Leva and others, il Chem Eng Prog 44:707-16 S '48

See also

Limonite

IRON phosphates

Iron compounds and phosphatic fertilisers; their effects in production and use. H. W. Lehrecke, bibliog Chem Age (Lond) 57:648-50, 672-4, 698-700 N 15-29 '47

IRON powder. See Iron, Powdered

IRON research

Anelastic properties of iron. T. Kê, bibliog il diags Metals Tech 15:TP2370 1-27 Je '48

British cast iron research association; report of work. J. G. Pearce, bibliog Metallurgia 38:273-5 S '48

British iron and steel research association; activities during the past year, il Metallurgia 38:270-2 S '48

Completes new laboratory for study of taconite concentration; Oliver iron mining co. flow sheet il Steel 122:108+ My 10 '48

Introduction to the interaction of carbon and iron ore at temperatures up to 1450°C. H. L. Saunders and H. J. Tress, bibliog il diags Iron & Steel Inst J 157:215-22 O '47

Joint meeting on desulphurization and dephosphorization of cupola iron and pig iron; Institute of British foundrymen, iron and steel institute and British iron and steel research assn. Iron & Steel Inst J 158:201-8 F '48; Same cond. Engineer 183:259-61, 281-2 Mr 28-Apr 4 '47

Jones & Laughlin opens ore research laboratory. Blast F & Steel Pl 35:1377-8 N '47

Kinetics of the transfer of sulphur across a slag-metal interface. L. Chang and K. M. Goldman, bibliog diags Metals Tech 15:TP2367 1-19 Je '48

Laboratory-developed concentration processes bolster iron ore reserves; Oliver iron mining co. il Civil Eng 18:648 O '48

Research on cast iron; abstract. H. Morrogh and W. J. Williams, Engineering 164:618 D 26 '47

Symposium on the peeling of whiteheart cast iron. J. C. W. Humfrey and others, bibliog il 12pls diags Iron & Steel Inst J 158:1-36 Ja '48; Abstracts, Engineering 165:343 Ap 9 '48; Metallurgia 37:312-16 Ap '48
Discussion. Iron & Steel Inst J 161:17-34 Ja '49

IRON research—Continued

- Taconite research laboratory. *il* Min Cong J 34:60 My '48
 U.S. Steel pushes ore research. *il* Iron & Steel Eng 25:92-3 My '48

History

- Institution of mechanical engineers; presidential address. D. Gordon. *Engineering* 164: 475-6 N 14 '47

IRON sulfates

- Absorption studies with waste pickle liquor. J. Seiberlich. *bibliog il* Steel 122:90+ Ja 12 '48

- Iron sulphate recovery; German practice reviewed. *Chem Age (Lond)* 57:601 N 1 '47

IRON sulfides

- Manufacture of hydrogen sulphide; the utilization of the by-product ferrous sulphide from the hydrogen-pyrites reaction. L. M. Clark and H. M. Spittle. *bibliog Soc Chem Ind J* 67:9-10 Ja '48

- Sulphide penetration in the carburization of steel. A. Preece and K. J. Irvine. *bibliog 2pls diag Iron & Steel Inst J* 157:336-43 N '47

See also

Pyrite**IRON sulfite**

- Oxidation of ferrous sulfite in air. J. R. Pound. *J Phys & Colloid Chem* 52:1103-5 Je '48

IRON tartrates

- Structure and behavior of ferric tartrate and citrate complexes in dilute solutions. M. Bobtelsky and J. Jordan. *bibliog Am Chem Soc J* 69:2286-90 O '47

IRON thiocyanate

- Evaluation of the ferrous thiocyanate colorimetric method. C. D. Wagner, H. L. Clever and E. D. Peters. *bibliog diags Anal Chem* 19:980-2 D '47

- Evaluation of the ferrous-titanous method; comparison with sodium iodide isopropyl alcohol method. C. D. Wagner, R. H. Smith and E. D. Peters. *bibliog Anal Chem* 19:982-4 D '47

IRON workers

- Second session of the I.L.O. iron and steel committee. *Int Labour R* 56:298-303 S '47

IRON works

- Saga of iron at Daingerfield furnace packs drama galore. D. I. Brown. *Iron Age* 161:121 Ap 1 '48

- WAA blast furnace at Cleveland is hub of bitter arguments. J. Anthony. *il* Iron Age 162:125-6 Ag 26 '48

Electric equipment

- Electronic and servo electronic controls and their application to the iron and steel industry. W. G. Thompson. *bibliog il diags Iron & Steel Inst J* 158:497-509 Ap '48; Discussion. 160:417-25 D '48

- Maintenance of electrical machinery in iron and steel works. G. S. Martin and M. Y. Harvey. *il diags Iron & Steel Inst J* 158: 510-20 Ap '48; Discussion. 160:425-8 D '48

Equipment

- Locomotives for iron and steel works. E. L. Diamond. *diags Iron & Steel Inst J* 159: 37-59 My '48

- Maintenance of blast-furnace and ancillary plant. A. Bridge. *il plan diags Iron & Steel Inst J* 159:193-204 Je '48

- Ore-preparation plant at the Workington branch of the United steel companies, Ltd. flow diag *il* plans Iron & Steel Inst J 159: 73-6 My '48

Power

- Gas turbine applications in iron and steel works. A. T. Bowden and others. *il* plans diags Iron & Steel Inst J 156:93-118 My '47; Excerpts. Blast F & Steel Pl 36:228-30+ F '48; Discussion. Iron & Steel Inst J 157:115-30 S '47

IRONING machines

- Design of exhaust system; ironers used in laundries and dry cleaning establishments. F. H. Stebbins. *plan diags Sheet Metal Worker* 39:37-9 J1; 38-9+ S '48

Manufacture

- Technical aid improves infrared performance; manufacture of ironing machines. F. J. Jolly. *il* Edison Elec Inst Bul 16:77-80 Mr '48

Merchandizing

- Demonstration for sales; laundry equipment. *il* Dom Eng 172:109+ Ag '48
 Ironer is here to pay. *Elec West* 101:123 S '48

IRONING machines, Electric**Rating**

- Electric ironing machines. *il* Consumers Res Bul 21:5-8 Ap '48

IRONTON, Ohio

- Operation and maintenance of Ironton's flood protection. K. R. Wentz. *il* Pub Works 78: 31-2 N '47

IROQUOIS Indians

- Third conference on Iroquois research. W. N. Fenton. *Science* 106:539-40 D 5 '47

IRRADIATION

- Biological and photo-chemical effects of high energy, electrostatically produced Roentgen rays and cathode rays. C. G. Dunn and others. *J Ap Phys* 19:605-16 *bibliog*(p615-16) J1 '48

- Irradiation of biological materials by high energy Roentgen rays and cathode rays. J. G. Trump and R. J. Van de Graaff. *bibliog il diag J Ap Phys* 19:599-604 J1 '48

IRRIGATION

- Electrically pumped rain increases crops. *Elec World* 129:52 Ja 31 '48

- Forecasting productivity of irrigable lands. W. C. Muldrow. *Am Soc C E Proc* 73: 97-101 F '47; Discussion. 73:729-32, 947-8, 1305-6, 1414-16, 1547-8; 74:725-6 My-Je, O-D '47, My '48

- Inventory of major projects; with information on costs, sizes and features. *il* maps Eng N 140:301-6 F 19 '48

- Low-cost irrigation flame cover. L. R. Burzell. *il* Eng N 140:707 My 13 '48

- New concept in land improvement; irrigated farm layout related to soil and topographic conditions. C. J. Francis. *il* map Eng N 141:53-5 S 30 '48

- Pick-Sloan flood control plan develops resources of Missouri River basin. D. B. Freeman. *il* map Civil Eng 17:652-7 N '47

- Proposed projects develop power and irrigation potentials of Colorado River system. H. F. McPhail. *il* map Civil Eng 17:459-63+ Ag '47; Discussion. R. A. Hill. 18:101 F '48

- Supplemental irrigation for Missouri and regions of similar rainfall. H. Rubey. *il diags map rev ed Mo U Eng Exp Sta Bul* 33:1-69 *bibliog*(p64-9) '48

See also

Irrigation canals**Cost**

- Colorado-Big Thompson job; progress report. E. J. Cleary. *il* maps Eng N 139:792-9 D 11 '47

Afghanistan

- Afghanistan begins \$17 million irrigation and highway program. maps Eng N 140:314-15 F 26 '48

Alberta

- \$15,000,000 irrigation project involves 4,000,-000-cu. yd. earth-fill dam; St Mary-Milk River irrigation project, Alberta. G. L. MacKenzie. *il* map diags Roads & Bridges 86:52-5+ Ja '48

California

- High explosives solve irrigation problem; blasting to correct bad habits of Colorado river. B. E. Wilson and C. O. Mayer. *il* map Explosives Eng 26:14-16+ Ja '48

See also

- Central Valley project, California

China

- Irrigation in the Far East. C. A. Middleton-Smith. *Engineer* 184:570-2 D 19 '47

- Lohui canal, China. *il* maps *Engineer* 186: 258-9 S 10 '48

IRRIGATION—Continued

Colorado

- Colorado-Big Thompson job; progress report. E. J. Cleary. *il maps Eng N 139:792-9 D 11 '47*
 Colorado-Big Thompson pumping plant. R. J. Willson. *il plan diags Eng N 141:80-5 S 16 '48*

Egypt

- Artesian wells proposed as aid to Egypt's irrigation. For Comm W 32:38 O 30 '48

Idaho

- Design and construction of the Anderson Ranch dam. E. L. Armstrong. *il maps plan diags Engineering 166:145-7, 156, 169-71, 180, 265-6, 289-91, 300, 313-15 Ag 13-20, S 17-O 1 '48*

India

- Development of India's water resources provides for power and irrigation needs. Civil Eng 18:499+ Ag '48
 Indian irrigation and power projects. Engineer 185:112-13 Ja 30 '48
 Power for India; Madras province maps irrigation and power project, map Bsns W p 117 F 21 '48
 Work under way on Lakkavalli irrigation project in India. For Comm W 32:32 Ag 14 '48

Mexico

- Utilization of Mexico's hydraulic resources. A. Orive Alba. map Elec Eng 67:758 Ag '48

New Mexico

- Irrigation water supply ample in New Mexico. Eng N 139:866 D 25 '47

New Zealand

- Electrical supervisory control for New Zealand irrigation scheme. Engineering 166: 167-8 Ag 13 '48

Texas

- Describes early irrigation structures in San Antonio area. E. L. Harrington. *il Civil Eng 18:380 Je '48*

Washington (state)

- Columbia basin slows down; irrigation project set back by appropriations cut. *il map Bsns W p36+ N 8 '47*
 Irrigation pumping with Grand Coulee power. S. M. Denton. Elec Eng 67:961 O '48
 Projected construction program develops Columbia River basin for irrigation. L. V. Downs. *il map Civil Eng 18:494-9 Ag '48*
 Pumping requirements for irrigation; Columbia basin and Central Valley projects. I. L. Wightman. maps Mech Eng 70:417-20 My '48

Western states

- Important engineering and economic features of the proposed Colorado River developments. W. S. Peterson. maps Elec Eng 66: 1184-93 D '47

IRRIGATION canals

- Canal lining methods on Gila project. *il Concrete 55:18-20+ D '47*
 Compressed air helps thwart weeds and gophers; gunting and oil spraying irrigation canals. B. Peplow and E. Peplow. *il Comp Air Mag 53:193-4 Ag '48*
 Experimental concrete canal linings on the Roza division of the Yakima project. *il Concrete 56:8-10 Ja '48*
 Jumbo rigs trim and line big canal; illustrations with text. Constr Methods 30:104-5 My '48
 Lohui canal, China. *il maps Engineer 186: 258-9 S 10 '48*
 Mechanical trimmer and slip-form expedite canal lining operations; Delta-Mendota canal. R. H. Heitman. *il Civil Eng 18:634-7 O '48*
 Remote control for an irrigation scheme. *il diag Engineer 186:10-11 Ji 2 '48*
 Soil-cement lining placed mechanically; irrigation canal on the W. C. Austin project. W. S. Byrne and W. G. Holtz. *il Eng N 139:860-3 D 25 '47*

- Test-linings placed in small canals. *il Eng N 141:74-7 Ji 22 '48*

IRRIGATION water

- Equipment and procedure for long line hydraulic studies. F. C. Scobey. bibliog *il Am Water Works Assn J 59:1191-203 D '47*
 Pumping requirements for irrigation; Columbia basin and Central Valley projects. I. L. Wightman. maps Mech Eng 70:417-20 My '48

- IRRIGATION technique in advertising. See Advertising—Psychology

ISATIN

- Alkoxyaryloxyketones and their condensation with isatins. R. L. Sublett and P. K. Calaway. bibliog Am Chem Soc J 70:674-6 F '48

- Condensation of isatin and of 1-methylisatin with barbituric acid. F. E. King, T. J. King and G. B. Thompson. Chem Soc J p552-6 My '48

ISLAND Creek coal company

- Bolsters prospect for stability. Barron's 28: 34 O 18 '48

ISLANDS

- Flying bars. R. L. Nichols. *il map diags Am J Sci 246:96-100 F '48*

See also

- Coral reefs and islands

ISLANDS of the Pacific

- United States and the Pacific islands. T. C. Hart. Ann Am Acad 255:115-23 Ja '48

See also

- Geology—Islands of the Pacific
 Niuafo island
 Iwo Jima
 Micronesia
 Phosphate rock—Islands of the Pacific
 Truk islands

ISALLOXAZINE

- Basically-substituted isalloxazines. H. Burkett. bibliog Am Chem Soc J 69:2555 O '47

ISOAMYL alcohol

- Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and N. F. Hall. bibliog J Phys & Colloid Chem 52:1006-20 Je '48

Analysis

- Rapid evaluation of solvent extraction processes; new liquid-liquid extractor; water-boric acid-isoamyl alcohol. H. A. Bewick, J. E. Currah and F. E. Beamish. bibliog diag Anal Chem 20:740-3 Ag '48

ISOBUTANE

- Butane isomerization. flow diag Oil & Gas J 46:131 Ap 1 '48

- Butylation of benzene during propylation in the presence of isobutane; ratio of reactivities of benzene and isobutane. F. E. Condon and M. P. Matuszak. Am Chem Soc J 70:2539-42 Ji '48

- Condensation of saturated hydrocarbons with haloolefins; the reaction of isobutane with *cis*- and *trans*-dichloroethylene. L. Schmerling. bibliog Am Chem Soc J 70:379-81 Ja '48

- Evidence of an induction period in the alkylation of isobutane by 2-butene. T. D. Stewart and W. H. Calkins. bibliog Am Chem Soc J 70:1006-9 Mr '48

- Photochemical gaseous phase chlorination of isobutane. R. W. Taft, Jr. and G. W. Stratton. bibliog diags Ind & Eng Chem 40:1485-91 Ag '48

- Production of 2,3-dimethylbutane by alkylation. R. B. Thompson and J. A. Chenicek. bibliog diag Ind & Eng Chem 40:1265-9 Ji '48

- Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes. R. S. Rasmussen. bibliog diags J Chem Phys 16:712-27 Ji '48

ISOBUTENE

- Electrolyte effects in the hydration of isobutene. F. G. Clapetta and M. Kilpatrick. bibliog *il Am Chem Soc J 70:639-46 F '48*

- Vapor pressure of isobutene over dioxane as basis of manometric kinetic studies; the dissociation of *t*-butyl benzoate. R. Altschul and J. Herbert. Am Chem Soc J 70:351-4 Ju '48

ISOBUTENE—Continued

Analysis

- Mass spectrometer; hydrochlorination analysis of butenes. F. W. Melpolder and R. A. Brown. *Anal Chem* 20:139-42 F '48
- Simple chemical analysis of isobutene in binary mixtures with other olefins. J. P. W. Houtman. *bibliog Inst Pet J* 34:255-70 Ap '48

ISOBUTYLENE

- Activated bauxite as a catalyst for polymerization of C_4 olefins. H. Heinemann, W. A. La Lande, Jr., and W. S. W. McCarter. *bibliog(41 ref) Ind & Eng Chem* 40:1224-6 JI '48
- Addition of dinitrogen tetroxide to olefins; the butylenes. N. Levy, C. W. Scaife and A. E. Wilder-Smith. *Chem Soc J* p52-60 Ja '48
- Alkylation of thiophene with olefins. W. G. Appleby and others. *bibliog Am Chem Soc J* 70:1562-5 Ap '48
- Effect of temperature and molecular-weight distribution on the morphology of natural and synthetic high polymers. E. A. Hauser and D. S. le Beau. *bibliog II J Phys & Colloid Chem* 52:27-39 Ja '48
- Mechanical properties of long chain molecule liquids at ultrasonic frequencies. W. P. Mason and others. *diags Phys R* 73:1074-91 My 1 '48; Correction. 74:1873-4 D 15 '48
- Polysobutylene in waxes. W. L. Abramowitz. *bibliog Mod Packaging* 21:159-62+ Je '48
- Role of neighboring groups in replacement reactions; general theory of neighboring groups and reactivity. S. Winstein and E. Grunwald. *Am Chem Soc J* 70:828-37 F '48
- Thermal decomposition of mono-olefins; isobutylene. F. O. Rice and W. S. Haynes. *bibliog diag Am Chem Soc J* 70:964-6 Mr '48
- Thermal depolymerization of viscous isobutylene polymer. J. A. Reid and G. C. Bailey. *bibliog Ind & Eng Chem* 40:439-51 F '48
- Unsaturation in isoprene-isobutylene copolymers; reaction with iodine in the presence of mercuric acetate and trichloroacetic acid. S. G. Gallo, H. K. Wiese and J. F. Nelson. *bibliog Ind & Eng Chem* 40:1277-80 JI '48
- Viscosity-molecular weight and viscosity-temperature relationships for polystyrene and polyisobutylene. T. G. Fox, Jr. and P. J. Flory. *bibliog diags Am Chem Soc J* 70:2384-95 JI '48

ISOBUTYLENE sulfide

- Synthesis of 2-iminothiophanes from ethyl cyanoacetate and alkene sulfides. H. R. Snyder and W. Alexander. *bibliog Am Chem Soc J* 70:217-18 Ja '48
- Synthesis of mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. *Am Chem Soc J* 69:2675-7 N '47

ISOBUTYRONITRILE

- Acetone cyanohydrin available in quantity. *Chem & Eng N* 25:3746 D 15 '47
- Chloro- and bromoisobutyronitriles. C. L. Stevens. *bibliog Am Chem Soc J* 70:165-7 Ja '48

ISOCYANATES

- Aryl carbamates of cellulose acetate. W. M. Hearon and J. L. Lohsitz. *bibliog Am Chem Soc J* 70:296-7 Ja '48
- Chemistry of the organic isocyanates. J. H. Saunders and R. J. Slocombe. *Chem R* 43:203-18 *bibliog(110 ref, p216-18)* O '48
- Imparting water-repency to textiles by chemical methods; a review of the literature; cyanates, thiocyanates, and related compounds. H. A. Schuyten and others. *bibliog Textile Res J* 18:497-500 Ag '48
- Isocyanates; abstract. J. Rinse. *Paint Oil & Chem R* 111:42 Ja 22 '48
- p*-Triphenylmethylphenyl and 2-fluorenyl isocyanates as reagents for alcohols. B. Witten and E. E. Reid. *bibliog Am Chem Soc J* 69:2470-2 O '47

ISODEXTROPIMARIC acid

- Resin acids; the isolation of dextropimaric acid and a new primaric-type acid, isodextropimaric acid. G. C. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:2079-81 Je '48

- Resin acids; the position of the ring double bond in dextropimaric acid and the structure of isodextropimaric acid. G. E. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:2081-5 Je '48

ISOGUANINE

- Synthesis of isoguanine labeled with isotopic nitrogen. A. Bendich, J. F. Tinker and G. B. Brown. *bibliog Am Chem Soc J* 70:3109-13 S '48

ISOLEUCINE

- Pyrazine derivatives; conversion of diketopiperazines into pyrazine derivatives; synthesis of 2-hydroxy-3 : 6-di-*sec*-butyl-pyrazine from isoleucine. R. A. Baxter and F. S. Spring. *Chem Soc J* p 1179-83 S '47

ISOMATE process. See Gasoline—Manufacture

ISOMERISM

- Chromatographic separation of beta-carotene stereoisomers as a function of developing solvent. E. M. Bickoff. *bibliog Anal Chem* 20:51-4 Ja '48
- Comparative study of the three stereoisomeric 1,4-diphenylbutadienes. J. H. Pinckard, B. Wille and L. Zechmeister. *bibliog diag Am Chem Soc J* 70:1933-44 My '48
- Isomerism in the Diels-Alder reaction. H. L. Holmes and others. *bibliog Am Chem Soc J* 70:141-2 Ja '48
- Multiple nuclear isomerism. E. Der Mateosian and others. *diags Phys R* 72:1271-2 D 15 '47
- Nuclear chemistry of tellurium; chemical effects of isomeric transition. R. R. Williams, Jr. *bibliog J Chem Phys* 16:513-19 My '48
- Scientific work of Ernst Cohen. A. L. T. Moesveld. *J Chem Educ* 25:308-14 Je '48
- Spectroscopic studies of rotational isomerism; liquid *n*-butane and the assignment of the normal modes of vibration. G. J. Szasz and others. *bibliog J Chem Phys* 16:704-11 JI '48
- Stereochemistry of complex inorganic compounds; the diastereoisomers of *deutro*-tartarato-*bis*-ethylenediamine cobaltic ion. H. B. Jonassen, J. C. Bailly, Jr. and E. H. Huffman. *bibliog Am Chem Soc J* 70:756-8 F '48
- Thallous sulfoxylate isomerism. J. Fentress and P. W. Selwood. *bibliog diags Am Chem Soc J* 70:711-16 F '48
- Zero-zero transitions. M. L. Goldberger. *Phys R* 73:1119 My 1 '48

ISOMERIZATION

- Butane isomerization. flow diag Oil & Gas J 46:131 Ap 1 '48
- Butane isomerization process; Shell development co. flow sheet Pet Refiner (Process Handbook ed) 27:150-1 sec 2 S '48
- Catalytic isomerization of butene-1 to butene-2. J. Turkevich and R. K. Smith. *bibliog II diags J Chem Phys* 16:466-80 My '48
- Chemical engineering unit processes. S. F. Perry. *bibliog(30 ref) II Ind & Eng Chem* 40:1624-7 S '48
- Cholesterol-*l*-cholesterol isomerization. H. McKennis, Jr. *Am Chem Soc J* 69:2565-6 O '47
- Corrosion in isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst. N. Fragen, C. W. Nysewander and W. R. Hertwig. flow diag II diag Ind & Eng Chem 40:1133-8 Je '48
- Cyclooctadienes from dienes. R. E. Foster and R. S. Schreiber. *Am Chem Soc J* 70:2303-5 JI '48
- Isomerization during allylic fluorination. A. M. Whaley and H. W. Davis. *bibliog Am Chem Soc J* 70:1026-7 Mr '48
- Isomerization of alkyl phosphites; some derivatives of 2-bromoethane phosphonic acid. G. M. Kosolapoff. *Am Chem Soc J* 70:1971-2 My '48
- Isomerization of *n*-butane-1- C^{13} . J. W. Otvos and others. *J Chem Phys* 16:745 JI '48
- Isomerization of certain olefins by silica gel at room temperature. W. S. Gallaway and M. J. Murray. *Am Chem Soc J* 70:2584-6 JI '48
- Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; equilibrium and side reactions. D. P. Stevenson and J. H. Morgan. *bibliog Am Chem Soc J* 70:2773-7 Ag '48

ISOMERIZATION—Continued

- Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; the nature of the catalyst. D. E. Stevenson and O. Beeck. *bibliog Am Chem Soc J* 70:2890-4 S '48
- Isomerization of 1- and 2-penten-5. A. G. Oblad, J. U. Messenger and H. T. Brown. *bibliog diag Ind & Eng Chem* 39:1462-6 N '47
- Isomerization of propane with C^{13} in one end position. O. Beeck and others. *J Chem Phys* 16:255-6 Mr '48
- Isomerization of saturated hydrocarbons; the effect of cyclohexene upon the isomerization of methylcyclopentane and cyclohexane. H. Pines, B. M. Abraham and V. N. Ipatieff. *diags Am Chem Soc J* 70:1742-6 My '48
- Isomerization; U.O.P. isomerization process. *flow diag Oil & Gas J* 46:132 Ap 1 '43
- Liquid-phase isomerization. *flow diag Oil & Gas J* 46:133 Ap 1 '48
- Mass spectrometric and infra-red study of rates of deuterium exchange, isomerization, and hydrogenation of the *n*-butenes. V. H. Dibeler and T. I. Taylor. *J Chem Phys* 16:1008-9 O '48
- Mechanism of indole formation from phenacylarylamines; the conditions and mechanism of the isomerization and indolisation of phenacylarylamines. R. P. Barnes and F. G. Mann. *Chem Soc J* p858-70 Je '48
- Pentane and butane isomerization processes; Standard oil company (Indiana). *flow diags Pet Refiner (Process Handbook ed)* 27:154-5 sec 2 S '48
- Rearrangement and substitution in anionotropic systems; test for bimolecular isomerization in α -phenylallyl esters. A. G. Catchpole and E. D. Hughes. *Chem Soc J* p 1-4 Ja '48
- Study of the direction of enolization of mesityl-*p*-nitrobenzoylmethane and mesityl-*p*-nitrobenzoylmethane. R. P. Barnes, G. E. Pinkney and W. A. DeCosta. *bibliog Am Chem Soc J* 69:3129-32 D '47
- Study of the direction of enolization of *p*-methoxybenzoylmesitylmethane. R. P. Barnes and G. W. Reed. *bibliog Am Chem Soc J* 69:3132-5 D '47
- Study of the direction of enolization of *p*-methoxy-*p*'-bromodibenzoylmethane and *p*-methoxy-*p*'-ethoxydibenzoylmethane. R. P. Barnes, T. C. Goodwin, Jr. and T. W. Cotton, Jr. *bibliog Am Chem Soc J* 69:3135-8 D '47
- ISOMERIZATION, Heat of**
Correlation of heats of isomerization, and differences in heats of vaporization of isomers, among the paraffin hydrocarbons. H. Wiener. *bibliog Am Chem Soc J* 69:2636-8 N '47
- ISOMERS**
Copolymerization; a comparison of some *cis* and *trans* isomers. F. M. Lewis and F. R. Mayo. *bibliog Am Chem Soc J* 70:1533-6 Ap '48
- Short-lived isomers of nuclei. S. DeBenedetti and F. K. McGowan. *diags Phys R* 74:728-35 O 1 '48
- Structure number; proposal for more exact characterization of structure isomers. P. V. Laakso. *Chem & Ind* p387-8 Je 19 '48
- ISOMETRIC projection.** See Projection, Isometric
- ISOMORPHISM**
Binary systems of some carboxylic acids; systems containing benzoic acid or a substituted benzoic acid as one of the components. K. Mislav. *bibliog J Phys & Colloid Chem* 52:729-40 Ap '48
- Binary systems of some carboxylic acids; systems containing heterocyclic acids as the components. K. Mislav. *bibliog J Phys & Colloid Chem* 52:740-9 Ap '48
- ISONICOTINIC acid**
Binary systems of some carboxylic acids; systems containing heterocyclic acids as the components. K. Mislav. *bibliog J Phys & Colloid Chem* 52:740-9 Ap '48
- ISOÖCTANE**
Densities and liquid-vapor equilibria of the system ethanol-isoöctane (2,2,4-trimethylpentane) between 0 and 50°. C. B. Kretschmer, J. Nowakowska and R. Wiebe. *bibliog diags Am Chem Soc J* 70:1785-90 My '48

- Hot-acid polymerization process; Shell development co. *flow diag Pet Refiner (Process Handbook ed)* 27:132-3 sec 2 S '48
- Infra-red spectra of hydrocarbons; analysis of octane mixtures by the use of infra-red spectra obtained at low temperatures. W. H. Avery and J. R. Morrison. *bibliog il diags J Ap Phys* 18:960-7 N '47
- Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components. O. Redlich and A. T. Kister. *bibliog Ind & Eng Chem* 40:345-8 F '48
- Use of isooctane and normal heptane as reference fuels. H. M. Trimble and others. *il diags Pet Processing* 3:765-8+ Ag '48

Analysis

- Determination of trace impurities in reference fuel grade iso-octane by infrared absorption spectroscopy. J. A. Anderson, Jr. *bibliog Anal Chem* 20:801-4 S '48

ISOPACHOUS maps

- Isopachous maps of sand reservoirs. J. B. Wharton, Jr. *diags Am Assn Pet Geologists Bul* 32:1331-9 Jl '48

ISOPARAFFINS

- Alkylation of isoparaffins with olefins in the presence of sulphuric acid; action of sulphuric acid on the trimethylpentanes. F. Morton and A. R. Richards. *bibliog diag Inst Pet J* 34:132-46 F '48
- Alkylation of isoparaffins with olefins in the presence of sulphuric acid; composition of an aviation alkylate. F. Morton and A. R. Richards. *bibliog Inst Pet J* 33:697-720 D '47

ISOPENTANE

- Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes. R. S. Rasmussen. *bibliog diags J Chem Phys* 16:712-27 Jl '48

ISOPRENE

- Action of hydrogen chloride on isoprene. A. J. Ultee. *Chem Soc J* p530 Ap '48
- Physical properties of diene polymers; effects of side vinyl groups and other structural features. J. D. D'Ianni. *bibliog Ind & Eng Chem* 40:253-6 F '48
- Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with mono-olefins, di-isoprenes, and rubber. R. F. Naylor. *Chem Soc J* p 1532-9 N '47
- Substituted vinylpyridines as monomers for synthetic elastomers. R. L. Frank and others. *bibliog Ind & Eng Chem* 40:879-82 My '48
- Syntheses in the lapachol series. M. Gates and D. L. Moesta. *bibliog Am Chem Soc J* 70:614-16 F '48
- Unsaturation in isoprene-isobutylene copolymers; reaction with iodine in the presence of mercuric acetate and trichloroacetic acid. S. G. Gallo, H. K. Wiese and J. F. Nelson. *bibliog Ind & Eng Chem* 40:1277-80 Jl '48

Analysis

- Chemical analysis of refinery C_8 hydrocarbon fractions. R. F. Robey and H. K. Wiese. *bibliog Anal Chem* 20:926-33 O '48
- Compounds involved in production of synthetic rubber; determination of purity by measurement of freezing points. A. R. Glasgow, Jr. and others. *bibliog diags Anal Chem* 20:410-22 My '48

ISOPROPANOL. See Isopropyl alcohol**ISOPROPENYLBIHENYL**

- Vinyl aromatic compounds; ortho-, meta- and para-isopropenylbiphenyls. D. T. Mowbray and others. *Am Chem Soc J* 70:1916-17 My '48

ISOPROPYL alcohol

- Fractional liquid extraction. E. G. Scheibel. *bibliog flow sheet Chem Eng Prog* 44:771-82 O '48
- Ionization constants of *n*-butyric acid in isopropyl alcohol-water mixtures from 0 to 40°. W. A. Felsing and M. May. *bibliog Am Chem Soc J* 70:2904-6 S '43

ISOPROPYL alcohol—Continued

- Ionization constants of propionic acid in isopropyl alcohol-water mixtures from 0 to 40°. R. L. Moore and W. A. Felsing. *Am Chem Soc J* 69:2420-2 O '47
- Liquid isopropyl alcohol; enthalpy, entropy, and specific heat from 0° to 200° C. D. C. Ginnings and R. J. Corruccini. *bibliog Ind & Eng Chem* 40:1990-1 O '48
- Reactions of isopropyl alcohol in the presence of catalysts containing magnesium oxide. L. L. Gershbein, H. Pines and V. N. Ipatieff. *bibliog Am Chem Soc J* 69:2888-93 N '47

ISOPROPYL benzene

- Near-ultraviolet absorption spectra of mono-alkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. *bibliog Chem R* 41:273-9 O '47

ISOPROPYL butadiene

- Preparation of 2-alkylbutadienes. C. S. Marvel, R. L. Myers and J. H. Saunders. *bibliog Am Chem Soc J* 70:1694-9 My '48

ISOPROPYL ether**Analysis**

- Rapid evaluation of solvent extraction processes; new liquid-liquid extractor; isopropyl ether-ferric chloride. H. A. Bewick, J. E. Currah and F. E. Beamish. *bibliog diag Anal Chem* 20:740-3 Ag '48

ISOPROPYL fluorophosphate*See also***Diisopropyl fluoro-phosphate****ISOPROPYL pyrrolizidine**

- Synthesis of pyrrolizidines; basicities of 8-alkylpyrrolizidines. N. J. Leonard and K. M. Beck. *bibliog il Am Chem Soc J* 70:2504-7 J1 '48

ISOPROPYLQUINOLINE

- Some quinoline derivatives of 2-amino-*p*-cymene. A. S. Wheeler and J. N. LeConte. *Am Chem Soc J* 70:386 Ja '48

ISOPROPYL trimethylhydroxycoumaran

- Vitamin E; conversion of 4,6,7-trimethylcoumaran-3-one into some homologs of 2-isopropyl-4,6,7-trimethyl-5-hydroxycoumaran. L. I. Smith and G. A. Boyack. *Am Chem Soc J* 70:2687-90 Ag '48

ISOPROPYLAMINE

- Preparation of nitrite salts of alkyl amines. J. K. Wolfe and K. L. Temple. *bibliog Am Chem Soc J* 70:1414-16 Ap '48

ISOPROPYLIDENE

- Structures of some isopropylidene-aldehyde-L-arabinose derivatives. J. English, jr. and P. H. Griswold, jr. *bibliog Am Chem Soc J* 70:1390-2 Ap '48

ISOQUINOLINE

- Curariform activity and chemical structure; synthesis in the benzyltetrahydroisoquinoline series. L. E. Craig and D. S. Tarbell. *bibliog Am Chem Soc J* 70:2783-5 Ag '48

- Preparation of *cis*- and *trans*-decahydroisoquinolines and *bz*-tetrahydroisoquinoline. B. Witkop. *bibliog Am Chem Soc J* 70:2617-19 Ag '48

- Some dihydroisoquinolines and their absorption spectra. J. L. Bills and C. R. Noller. *bibliog Am Chem Soc J* 70:957-62 Mr '48

- Synthetic and degradative studies in the isoquinoline series. V. Bruckner and others. *bibliog Am Chem Soc J* 70:2697-9 Ag '48

- Synthetic antimalarials; some derivatives of phthalazine, quinoxaline, and isoquinoline. R. D. Haworth and S. Robinson. *Chem Soc J* p777-82 Je '48

*See also***Methylisoquinoline****ISOSTASY**

- Some further implications of the doctrine of isostasy. A. C. Lawson. *bibliog Geol Soc Bul* 59:197-209 Mr '48

ISOSTERISM

- Pathogenicity and isosterism; reactions of physarum to carbon dioxide and to nitrous oxide. W. Seifritz. *bibliog Science* 107:15-16 Ja 2 '48

ISO-SYST (term)

- New word describes constant composition. *Chem & Eng N* 26:2571 Ag 30 '48

ISOTHIAZOLONE

- Formation of hydroxythionaphthens by the interaction of benzenesulphonylbenzothiazolone and substances containing a reactive methylene group. A. W. H. Barton and E. W. McClelland. *Chem Soc J* p 1574-8 D '47

ISOTHIOCYANIC acid

- Microwave spectrum and structure of isothiocyanic acid. C. I. Beard and B. P. Dailey. *bibliog J Chem Phys* 15:762 O '47

ISOTHIOURONIUM bromide

- Organic thio-antimonials in schistosomiasis. L. W. Clemence and M. T. Leffler. *Am Chem Soc J* 70:2439-40 J1 '48

ISOTOPEs

- Agricultural researchers confer on tracer techniques. *il Chem & Eng N* 26:36-8 Ja 5 '48

- Applications of radioactive isotopes to the field of analytical chemistry; abstract. P. R. O'Connor. *Anal Chem* 20:391-2 Ap '48
- Approach to equilibrium in fractionation. W. Bartky and A. J. Dempster. *bibliog Rs Mod Phys* 20:123-7 Ja '48

- AEC acts to expand industry's role in radioisotope research. *Oil Paint & Drug Rep* 154:3-4 J1 12 '48

- AEC announces availability of over 100 stable isotopes of 29 elements for distribution to U.S. laboratories. *Chem & Eng N* 25:3904 D 22 '47

- Atomic energy commission has announced first shipment of stable isotopes. *Science* 107:139 F 6 '48

- Availability of radioisotopes. *Chem & Eng N* 26:2260 Ag 2 '48

- Business in isotopes; Tracerlab, inc. *il diags Fortune* 36:120-5-+ D '47

- Calculations on counter-current electromigration. G. Breit and F. L. Friedman. *J Res Nat Bur Stand* 39:397-409 N '47

- Cascades used in isotope separation. H. C. Urey. *diags Elec Eng* 67:581-6 Je '48

- Chemical identification of radioisotopes of neodymium and of element 61. J. A. Marinsky, L. E. Glendenin and C. D. Corvill. *bibliog Am Chem Soc J* 69:2781-5 N '47

- Closed shells in nuclei. M. G. Mayer. *bibliog Phys R* 74:235-9 Ag 1 '48

- Concentration of copper 63 by the counter-current electromigration method. S. L. Madorsky and S. Straus. *diag J Res Nat Bur Stand* 41:41-4 J1 '48

- Counter-current gaseous exchange method for the separation of isotopes. R. B. Bernstein and T. I. Taylor. *bibliog diags J Chem Phys* 16:903-16 S '48

- Detection of isotopes by tracer micrography. *Franklin Inst J* 245:67-8 Ja '48

- Dissociation of SF₆, CF₄, and SiF₄ by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog J Res Nat Bur Stand* 40:25-9 Ja '48

- Effect of certain column variables on thermal diffusion. H. G. Drickamer and others. *bibliog J Chem Phys* 16:122-8 F '48

- Exchange adsorption of ions from aqueous solutions by organic zeolites; ion-exchange equilibria. G. E. Boyd, J. Schubert and A. W. Adamson. *bibliog Am Chem Soc J* 69:2818-29 N '47

- Exchange adsorption of ions from aqueous solutions by organic zeolites; separation of the yttrium group rare earths. B. H. Ketelle and G. E. Boyd. *bibliog diag Am Chem Soc J* 69:2800-12 N '47

- Extension of the isotope dilution method. K. Bloch and H. S. Anker. *Science* 107:228 F 27 '48

- Historic researches; positive rays and isotopes. *il diags Engineer* 186:166-8, 189-90, 215-17, 239-41, 265-7 Ag 13-S 10 '48

- In vivo Geiger-Müller gamma-ray counter for radioisotope distribution studies. N. Pace and others. *diags Science* 107:71-3 Ja 16 '48

- Ion-exchange as a separations method; separation of fission-produced radioisotopes, including individual rare earths, by complexing elution from amberlite resin. E. R. Tompkins, J. X. Khym and W. E. Cohn. *bibliog Am Chem Soc J* 69:2769-77 N '47

- Isotope effect in the thermal cracking of propane-1-C₃. D. P. Stevenson and others. *J Chem Phys* 16:993-4 O '48

ISOTOPES—Continued

- Isotope file on punched cards. G. M. Murphy. *J Chem Educ* 24:556-7 N '47
- Isotope separation; new type of counter-current reflux molecular still. *diags J Chem Educ* 25:171-2 M '48
- Isotope shipments total 216 in year. *Oil Paint & Drug Rep* 154:7-1 S 13 '48
- Isotopes available for research. *Metal Prog* 53:234 F '48
- Isotopes on assembly line. *Bsns W* p56-+ D 6 '47
- Isotopes Os^{185} and Os^{187} . L. I. Katzin and M. Pobereskin. *bibliog Phys R* 74:264-7 Ag 1 '48
- Isotopes over the counter; Tracerlab, inc. *il Bsns W* p52-3 My 22 '48
- Isotopic constitution of europium, gadolinium, and terbium. D. C. Hess, jr. *bibliog diag Phys R* 74:773-3 O 1 '48
- Isotopic constitution of praseodymium and neodymium. M. G. Inghram and others. *bibliog Phys R* 74:98-9 J 1 '48
- Isotopic effect of the potential function of molecular states. J. G. Valatin. *bibliog Phys R* 74:346-7 Ag 1 '48
- Least squares fit of the fundamental mass doublets. E. R. Cohen and W. F. Hornyak. *bibliog Phys R* 72:1127 D 1 '47
- Mass spectrograph for radioactive isotopes. L. G. Lewis and R. J. Hayden. *il diags R Sci Instr* 19:599-604 S '48; *Correction*. 19:922-3 D '48
- Mass spectrographic mass assignment of radioactive isotopes. R. J. Hayden. *bibliog Phys R* 74:650-5 S 15 '48
- Method for measuring short period activities. A. D. Schelberg and others. *diag R Sci Instr* 19:458-61 J 1 '48
- Natural abundance of isotopes of stable elements. J. R. White and A. E. Cameron. *bibliog Phys R* 74:991-1000 N 1 '48
- Neptunium ($4n+1$) radioactive family. G. T. Seaborg. *bibliog* (52 ref) *Chem & Eng N* 26:1902-6 Je 28 '48
- New weapon of science: radioactive isotopes. *il Per Refiner* 27:114 My '48
- Nuclear physics and the ceramic industry. J. R. Johnson. *bibliog Am Cer Soc Bul* 27:263-7 J 15 '48
- Paper chromatography applied to the isotopic derivative method of analysis. A. S. Keston, S. Udenfriend and M. Levy. *Am Chem Soc J* 69:3151-2 D '47
- Production and properties of a long-lived radio-isotope of element 43. E. E. Motta and others. *Phys R* 72:1270 D 15 '47
- Radioactive isotopes as indicators in biology. J. Sacks. *Chem R* 42:411-66 *bibliog* (291 ref, p443-56) Ap '48
- Radioactive materials now more available. *Oil Paint & Drug Rep* 154:47 Ag 23 '48
- Radioactive materials: radium series and radioisotope reference sources with decay characteristics; range of beta particles in aluminum, and lead absorption of gamma radiation. *Electronics* 21:M36-7 Mid-Je '48
- Radioisotopes shipments abroad reported by AEC. *Oil Paint & Drug Rep* 153:59 Mr 8 '48
- Red hots here. *il Chem Ind* 62:906-7 Je '48
- Seaborg tells of isotope synthesis at Nichols medal award. *Chem & Eng N* 26:740-1 Mr 15 '48
- Search for positron-electron branching in certain beta emitting isotopes. W. C. Barber. *bibliog diags Phys R* 72:1156-9 D 15 '47
- Separation of isotopes. G. W. Dunlap and R. M. Lichtenstein. *diags Elec Eng* 67:469-74 My '48
- Separation of isotopes in quantity by electromagnetic means. L. P. Smith and others. *bibliog diags Phys R* 72:989-1002 D 1 '47
- Separation of rare earths by ion exchange: cerium and yttrium. F. H. Spedding and others. *bibliog Am Chem Soc J* 69:2777-81 N '47
- Shipping of radio-isotopes. K. Z. Morgan. *il J Ap Phys* 19:593-8 J 1 '48
- Short-lived isomers of nuclei. S. DeBenedetti and F. K. McGowan. *diags Phys R* 74:723-35 O 1 '48
- Some measurements of gamma-ray energies. F. N. D. Kurie and M. Ter-Pogossian. *Phys R* 74:677-82 S 15 '48
- Some uses of radioactive isotopes in medicine. H. L. Alt and J. A. D. Cooper. *Ind Med* 16:583-5 D '47
- Something about radioactive isotopes. M. Semchyschen. *Min & Met* 29:329 Je '48
- Story of atomic energy. F. Soddy. *Engineer-Ing* 135:25-3 Ja 9 '48
- Szilard-Chalmers reaction in the chain-reacting pile. R. R. Williams. *J Phys & Colloid Chem* 52:603-11 Mr '48
- Theory of the study of transfers within a multi-compartment system using isotopic tracers. C. W. Sheppard. *J Ap Phys* 19:70-6 Ja '48
- Thermal neutron activation cross sections. L. Seren, H. N. Friedlander and S. H. Turkel. *bibliog Phys R* 72:888-901 N 15 '47
- See also*
Radioactivity
also subdivision Isotopes under names of elements, e.g.
Cesium—Isotopes Molybdenum—Isotopes
Hydrogen—Isotopes topes
Lanthanum—Isotopes
- Industrial application**
- AEC will sell industry radioactive compounds. *Bsns W* p36 J 17 '48
- Atoms go commercial; AEC will sell new compounds at a profit. *Elec World* 130:55 J 17 '48
- Atoms go to work for industry. *il diags Automotive Ind* 99:24-8-+ O 1; 40-3-+ O 15 '48
- Can the atom serve you? A. N. Weckler. *bibliog il Mill & Factory* 43:95-9 S '48
- Chemical process control with radioactivity. A. P. Schreiber. *diags Chem Eng* 55:103-5 Ja '48
- Commercial isotopes raise problems. *il Bsns W* p74-7 Ap 24 '48
- How to buy and use isotopes. *il Mod Ind* 15:40-4 Mr '48
- Industrial applications of radioisotopes. *Iron Age* 162:67 O 28 '48
- Isotopes for industry. C. Carmichael. *il Steel* 123:74-5-+ O 4 '48
- Putting atoms to work in your plant. *il Mod Ind* 15:50-4 F '48
- Tracer isotopes in metallurgy. *bibliog Engineer* 186:110-11 J 30 '48
- Wider use of radioisotopes. *il Chem Age (Lond)* 59:152-3 J 31 '48
- Terminology**
- System of nomenclature for isotopic compounds. J. W. Otvos and C. D. Wagner. *Science* 106:409-11 O 31 '47
- ISOVALERIC acid**
See also
Phenylisovaleric acid
- ISOVANILLIN**
- Azlacones and phenylacetic acids derived from the 2-nitro-derivatives of vanillin, isovanillin, and veratraldehyde. S. F. MacDonald. *Chem Soc J* p376-8 Mr '48
- ISTITUTO nazionale di elettroacustica** O. M. Corbino, Rome, Italy
- Report on the National electroacoustics institute; with annotated bibliography. R. H. Bolt and A. Giacomini. *Acoustical Soc Am J* 20:323-43 My '48
- ITACOLUMITE**
- Formation of itacolumite. A. C. Copisarow. *Science* 108:11-12 J 2 '48
- ITALY**
- U.S. engineers recommend 17-point program for Italy. *Eng N* 140:986 Je 17 '48
- See also*
- | | |
|-----------------------|----------------------|
| Airlines—Italy | Petroleum industry |
| Bridges—Italy | and trade—Italy |
| Immigration and | Railroads—Electrifi- |
| emigration—Italy | cation—Italy |
| Labor laws and legis- | Steel industry and |
| lation—Italy | trade—Italy |
| | Wool trade—Italy |
- Allied military government**
- Interim governments and occupation regimes. R. H. Wells. *Ann Am Acad* 257:57-9 My '48
- Colonies**
- Italians and their ex-colonies. *map Economist* 154:130-1 Ja 24 '48
- Italy's colonies. *maps Economist* 155:323-5 Ag 28 '48

ITALY—Continued

Commerce

Argentine-Italian trade stages two-way comeback. For Comm W 31:12 Ap 10 '48
Italian traders turn east. Bsns W p 110+ Ag 21 '48

Commercial policy

Imports without payment in government-controlled foreign exchange; export regulations on gift shipments and samples. For Comm W 29:12 N 8 '47

Italy signs treaty of friendship, commerce, and navigation with United States. For Comm W 30:16-17 Mr 20 '48

Major modification in foreign exchange system. For Comm W 29:17-18 D 27 '47

Mineral oils and sugar, import surtaxes increased; raw cotton and wool and sugar, franco valuta importation authorized. For Comm W 30:17 Ja 17 '48

Provisional trade agreement with Rumania; trade and payments agreement with Bulgaria. For Comm W 30:16-17 F 14 '48

Trade and economic agreement with Yugoslavia effective. For Comm W 30:16-17 F 7 '48

Constitution

Constitution of the Italian republic. Int Labour R 57:225-8 Mr '48

Economic conditions

Deflation in Italy. Economist 153:964-5 D 13 '47

Italians face the future. Economist 154:931-2 Je 5 '48

Italy as key to coming European events. V. L. Horoth. Il map Mag of Wall St 82:19-21+ Ap 10 '48

Italy's next crisis. Il Bsns W p 125-6 Ap 24 '48

Review of the economic conditions in Italy. Published bimonthly by Banco di Roma, via del Corso, 307, Rome

Economic policy

Inflation control; Italy's cost of living drops. Il Bsns W p 102+ Ja 17 '48

Italy tackles inflation. Economist 153:717-18 N 1 '47

Economic relations

France

Economic union for France and Italy. Economist 154:460 Mr 20 '48

Foreign relations

Italy between East and West. Economist 154:268-9 F 14 '48

United States

Italy signs treaty of friendship, commerce, and navigation with United States. For Comm W 30:16-17 Mr 20 '48

Industries and resources

Italian credit; third and fourth drafts made on \$100-million loaned by U.S. to keep industry going. Bsns W p 101 N 1 '47
Shaping Italy's future. Bsns W p 109-10 N 8 '47

Parliament

Many journalists serve in Italy's new Parliament. E. D. Klerf. Ed & Pub 81:60 Ag 7 '48

Politics and government

Aftermath to violence; attempted assassination of Togliatti. Economist 155:150 Jl 24 '48

Italians at the polls. Economist 154:637 Ap 17 '48

Italians turn to violence. Economist 153:844-5 N 22 '47

Triumph in Italy. Economist 154:658-9 Ap 24 '48

Warning from Italy. Economist 154:492-3 Mr 27 '48

Who will win Italy's electoral battle? Il Bsns W p 113-14+ Ap 10 '48

IVES medal

Dr W. F. Meggers; Ives medalist for 1947. Il(front) Opt Soc Am J 38:1-6 bibliog(134 titles, p3-6) Ja '48

IWO JIMA

Geology and ground-water resources. F. A. Swenson. bibliog maps Geol Soc Bul 59:995-1008, pl 1-2 O '48
Petrography of Iwo Jima. G. A. Macdonald. bibliog maps Geol Soc Bul 59:1009-18 O '48

J

JACK and Heintz precision industries, inc.

New bosses taking over Jack & Heintz. Bsns W p89-90+ S 25 '48

New regime at Jack & Heintz boosts output. Il Steel 122:70 F 16 '48

JACKS

Two speed mechanical jack. diags Product Eng 19:94 N '48

JACKSON, Hartley Everett

H. E. Jackson at San Jose state college. F. McCaffrey. por Inland Ptr 120:85-6 D '47

JACKSON, Lee R. 1891-

Changes in command at Firestone tire & rubber co. por Bsns W p26 Ja 24 '48

JACKSON, Mississippi

Industries

Jackson attracts industry. Il Bsns W p34-6+ S 4 '48

JACKSONVILLE, Florida

Streets

Jacksonville builds oyster-shell pavement base. Il Eng N 140:434-5 Mr 18 '48

JACOBSEN, Alfred

Portrait. Fortune 38:71 Ag '48

JACOBSEN rearrangement. See Molecular rearrangements

JAM. See Jelly, jam, etc.

JAMAICA

Commercial policy

Import controls tightened. For Comm W 30:16 Ja 31 '48

JAMES, Jesse

Lawton city editor relates Jesse James discovery. F. O. Hall. Ed & Pub 81:11 My 29 '48

JAMESTOWN, New York

See also

Motor bus lines—
Jamestown, New York

JAPAN

Leadership in Asia under a new Japan. E. D. Thomas. Ann Am Acad 255:156-65 Ja '48

Peace with Japan. K. S. Latourette. Ann Am Acad 257:142-50 My '48

See also

Airlines—Japan
Aluminum industry and trade—Japan
Banks and banking—Japan
Cement industry and trade—Japan
Chemical industries—Japan
Cotton trade—Japan
Libraries—Japan
Petroleum industry and trade—Japan

Rayon industry—Japan
Scientific societies—Japan
Textile industry—Japan
Textile machinery industry—Japan
Wool trade—Japan
World war, 1939-1945—Japan

American occupation

Beech defends action in Casey controversy; questions on army construction and occupational costs. Ed & Pub 81:68 Jl 24; 12 Jl 31 '48

Beech says Tokyo press corps morale better. G. A. Brandenburg. Ed & Pub 81:34 O 16 '48

For and against MacArthur. Economist 153:721-2 N 1 '47

Interim governments and occupation regimes. R. H. Wells. Ann Am Acad 257:66-9 My '48

Occupation policies in Japan and Korea. H. Borton. bibliog Ann Am Acad 255:146-55 Ja '48

JAPAN—American occupation—Continued

- Procedures announced for those who wish to seek restitution of property. For Comm W 31:22 My 1 '48
 Trust busting in Japan. E. M. Hadley. Harvard Bsns R 26:425-40 J 1 '48
 Unizonia in Japan. Economist 154:746-7 My 8 '48

Commerce

- Agreement to facilitate trade with Australia. For Comm W 31:21 My 1 '48
 Exchange tangle hurts Japan; lack of official yen-dollar rate hampers trade relations. Bsns W p 121-2 Ap 17 '48
 Export-import bank sets up credit for occupied Japan export-import revolving fund. Comm & Fin Chr 167:1894 Ap 29 '48
 Foreign-trade statistics for 1947. For Comm W 31:20 Je 5 '48
 Japan's exports fail to hit par. il Bsns W p 121 D 6 '47
 Procedures for the conduct of private trade. For Comm W 30:16-17 Ja 24 '48; Correction. 30:17 F 7 '48
 Rebuilding of Japanese trade under U.S. occupation. V. L. Horoth. il Mag of Wall St 82:431-3+ J 31 '48

Economic conditions

- Johnston committee reports on economic prospects of Japan and Korea; summary. Comm & Fin Chr 167:2331 My 27 '48
 Prospects of Japanese recovery. Economist 155:381-2 S 4 '48
 Report on Japan and Korea. Mech Eng 70:760-1 S '48

Industries and resources

- Manufacture and exports of miscellaneous items. For Comm W 30:24-5 Mr 27 '48
 Natural resources problems in Japan. H. G. Schenck. Science 108:367-72 O 8 '48

National Diet library

- National Diet library. V. W. Clapp. Science 107:497-501 My 14 '48

Politics and government

- Democracy in Japan. Economist 153:668-9 O 25 '47

Religion

- Menace of Shintoism. J. R. Young. il U S Naval Inst Proc 74:463-5 Ap '48

Reparations

- Engineers submit Jap reparation report. Eng N 140:404 Mr 18 '48

JAPANESE propaganda. See Propaganda, Japanese

JARS, Gabriel. 1732-1769

- G. Jars's visit to Britain in 1764. M. J. Chevalier. Engineer 185:529-31 My 23 '48

JARS, Glass. See Glass jars

JAUNDICE

- Inactivation of the virus of infectious hepatitis in drinking water; abstract. J. R. Neefe and others. Water & Sewage 85:49-50+ D '47

JEEPS. See Motor vehicles

JEFFERSON, Thomas. 1743-1826

- John Adams and T. Jefferson on the nature of landholding in America. R. Freund. bibliog Land Econ 24:107-19 My '48

JEFFERSON memorial. St Louis

- Jefferson national expansion memorial competition; prize winning designs. il plans Arch Forum 83:14-16B Mr '48; Arch Rec 103:92-103 Ap '48

JELLY, jam. etc.

- Better jelly jar. il Mod Packaging 22:130-1 O '48

- Comparison of the gel setting properties of polyose from tamarind seed (tamarindus indica Linn) with fruit pectins. G. R. Sarvar and A. Sreenivasan. bibliog Soc Chem Ind J 67:190-3 My '48

- Control of the pH of jams. C. L. Hinton. il Soc Chem Ind J 66:381-6 N '47

- New fresh-fruit spreads preserved by freezing. G. Johnson and M. M. Boggis. il Food Ind 19:1491-4+ N '47

Testing

- Contribution to the study of the rheological properties of pectin jellies. H. Cheftel and J. Mocoquard. bibliog il diag Soc Chem Ind J 66:297-9 S '47

JENKIN, John Watson. 1899-

- Sketch, por Iron & Steel Inst J 159:76a-76b My '48

JENNER, William Ezra. 1908-

- Head of Joint printing committee is watchdog of CPO for Congress. L. D. Farrar. por Inland Pri 121:70-1 Je '48

JERUSALEM

- For the peace of Jerusalem; proposed international regime. map Economist 154:251-2 F 14 '48

JET propulsion of aircraft

- Afterburners for turbojet engines. F. A. Cleveland. diag J Aeronautical Sci 15:305-11 My '48

- Air force confirms YB-49 record. Aviation W 49:14 N 8 '48

- Analysis for optimum transport airplane configuration. P. A. Colman. Aeronautical Eng R 6:20-7 D '47

- Atomic power for aircraft. A. Kalitinsky. diags Aero Digest 57:58-9+ Ag '48

- British and Canadian jets. il Aero Digest 57:30+ N '48

- Cal-Aero designs midget jet; may show the way to a personal jet plane. il Aviation W 49:35 O 25 '48

- CAA certificate given first jet engine for commercial transport. CAA J 9:72 Je 15 '48

- Concentration on jet research expected to yield greater gains. R. M. Hazen. Aviation W 47:29-30+ N 17 '47

- Control of structural temperatures in jet-propelled aircraft. G. F. Anisman and M. W. Blackstone. bibliog il diags A S M E Trans 70:677-84 Ag '48

- Controlling temperature in jet aircraft; cabin cooling and heating; abstracts. D. O. Moeller and O. A. Sanne. Aviation W 48:26+ Ap 19 '48; S A E J 56:46-7 Ag '48

- Details on Canada's jet fighter. il Aviation W 49:16 N 8 '48

- Development of the Lockheed P-80A jet fighter airplane. C. L. Johnson. il diags J Aeronautical Sci 14:659-79 D '47

- Development of the navy-Douglas model D-558 research project. E. H. Heinemann. il diags Aeronautical Eng R 6:14-19 D '47

- Door opened to export of jet fighters. R. B. Hotz. Aviation W 49:12-13 N 1 '48

- Douglas unveils its new research plane; Skyrocket combines turbojet and rocket power; sweptback wing. R. McLaren. il Aviation W 47:12-13 N 17 '47

- Droop snoot configuration aids jet fighter landings. R. McLaren. Aviation W 48:26 Mr 15 '48

- Effect of jet-driven airplanes on airport runways. Pub Works 79:38 Ag '48

- Effect of jet heat on airport pavements. W. R. Macatee. Roads & Sts 91:101 Ag '48

- Electrical and allied developments during 1947; aviation. G. Bartlett. il Gen Elec R 51:51-3 Ja '48

- Enemy jet history. D. R. Maguire. bibliog il diags Roy Aeronautical Soc J 52:75-84 Ja '48

- Engine installation problems in the XP-84 airplane. R. R. Higginbotham. il diags S A E J 56:53-7 Ja '48

- F-80 flies on ramjet power alone. il Aviation W 49:14 N 8 '48

- F-80's across; first west-east crossing of the Atlantic by jet aircraft. J. Powell. il map Aero Digest 57:34-5+ S '48

- FJ-1 makes first carrier test. S. Bangs. il Aviation W 48:13 Mr 22 '48

- First jet trainers. il diags Aero Digest 56:38-40 Je '48

- First jet transport; Avro XC-102. il Aviation W 49:18+ N 1 '48

- Flight report on jet trainer; Lockheed TF-80C. il Aviation W 49:13 Ag 2 '48

- Flight thrust analysis. A. W. Gabriel, jr. Aero Digest 56:60+ Ap; 70-2+ My '48

- French jet program gathers momentum. Aviation W 48:22 Ap 5 '48

- Fury for the navy. E. Schmued. il diags Aero Digest 57:28-30 O '48

JET propulsion of aircraft—Continued

Grumman Panther. N. F. Silsbee. *il diags Aero Digest* 57:28-30 J1 '48
 Jet blades tested in outdoor pit. *il Aviation W* 48:18 My 3 '48
 Jet fighter base; Dow air force base, Bangor, Maine. N. F. Silsbee. *il Aero Digest* 56:54-5 Jw '48
 Jet industry in the United States. *Aero Digest* 56:87+ Mr '48
 Jet progress. *il Westinghouse Eng* 8:24-5 Ja '48
 Jet-propelled airliners. N. F. Silsbee. *il Aero Digest* 57:46-8+ Ag '48
 Jet propulsion can be efficient at low speeds. H. C. Hill. *Automotive Ind* 99:46-8+ S 15 '48
 Jet propulsion instruction and the undergraduate curriculum in aeronautical engineering. M. J. Zucrow. *J Eng Educ* 38:432-4 Mr '48
 Jet trainer flight; personal experience. K. Hoyt. *il Aero Digest* 57:42+ S '48
 Jets in England. M. Eddy. *il Aero Digest* 56:26-9+ Ap '48
 McDonnell flies ramjet helicopter. R. McLauren. *il Aviation W* 47:14 N 24 '47
 Man-carrying rocket-jet aircraft; sonic research aircraft. D-558-2 Skyrocket. *il diag Product Eng* 19:150-1 Ja '48
 Marquardt ramjet. *il Aero Digest* 56:53 Ap '48
 Measuring the ramjet helicopter. W. B. Brozowski. *il diags Aero Digest* 56:68-9+ F '48
 Navy boosts ram jet power. *il Aviation W* 48:12 F 9 '48
 Navy reveals Grumman jet fighter; XF9F-2 (Panther). R. McLauren. *il Aviation W* 47:12-13 D 15 '47
 Navy reveals new night fighter; Douglas twin-jet Sky Knight. *il Aviation W* 49:12-13 O 11 '48
 New-model jet fighters. *il Aero Digest* 57:42-3+ J1 '48
 Newer English jet-type fighters delayed until 1950; with drawing of Sea Vampire Mark XX. R. Cross. *Aviation W* 48:22-3 F 16 '48
 Northrop jet-powered flying wing. YB-49. *il Aero Digest* 55:42 N '47
 P-80 still right after five years. R. McLauren. *il Aviation W* 49:22+ J1 19 '48
 Panther 650 mph fighter solves jet carrier problem. R. McLauren. *il Automotive Ind* 98:42+ Ja 1 '48
 Parasite jet fighter due for test; McDonnell XP-85; air launch from belly of Boeing B-29 Superfortress. *il Aviation W* 47:14 D 1 '47
 Phantoms join the Atlantic fleet. R. McLauren. *il Aviation W* 48:13 My 17 '48
 Pirate with a hot tail; Chance Vought F6U-1. *il diag Aero Digest* 56:57 Je '48
 Problems incident to the operation of jet aircraft. R. L. Johnson. *Aeronautical Eng R* 7:20-1 My '48
 Project squid probes pulsejet; five eastern universities hold navy research contracts. R. McLauren. *Aviation W* 47:26+ D 1 '47
 Pulsejet, ramjet and rocket engines for aircraft. W. F. Munger. *Aero Digest* 56:72-3 Mr '48
 Ram-jet as a supersonic propulsion plant. W. H. Goss and E. Cook. *Automotive Ind* 98:44 Ap 15 '48
 Ramjet as a supersonic propulsion plant. W. H. Goss and E. Cook. *il diag S A E J* 56:53-5 J1 '48
 Ramjet helicopter. *il Mech Eng* 70:27-8 Ja '48; *Product Eng* 19:153 F '48
 Ram-jet helicopter. A. Klemin. *il Aero Digest* 56:45+ Ja '48
 Range performance of turbojet airplanes. I. L. Ashkenas. *J Aeronautical Sci* 15:97-101 F '48; *Discussion, E. G. Reid, 15:341-2 Je '48*
 Reaction-powered planes. *il diag Aero Digest* 55:38-9+ S; 48-9+ O; 44-6 N; 38-40+ D '47; 56:16-18+ Ja; 56-8 F '48
 Review of the 3d National flight propulsion meeting, Cleveland. S. D. Black and others. *diags Aeronautical Eng R* 7:16-19+ My; 24-9+ Je '48
 Runways unharmed by jet exhausts. *Aviation W* 49:43 O 25 '48

Russian jet fighters operational; details on YAK and MIG. F. R. Brewster. *il diags Aviation W* 48:15 Ap 19 '48
 Russia's fastest service plane; Yak jet fighter. *il Aviation W* 49:15 O 4 '48
 Secrets of Russian jets revealed. *il Aviation W* 48:14-15 Je 14 '48
 Sweden develops jet aircraft. *il Aviation W* 49:33 J1 12 '48
 Testing the Stratojet XB-47. *il Aero Digest* 57:26-7 Ag '48
 Thick root proved in Phantom. R. McLauren. *il Aviation W* 48:21-2+ Je 21 '48
 Thompson Products analyzes The second age of flight; booklet summarizes the facts as to design, power and flight. W. G. Patton. *Iron Age* 161:94+ Ja 15 '48
 Thunderjet; air force ace for '48. N. F. Silsbee. *il diags Aero Digest* 56:44-8 F '48
 Trends in aircraft power plants. M. U. Clauser. *bibliog Aeronautical Eng R* 6:12-17 N '47
 USAF, navy step up jet engine buying. R. McLauren. *Aviation W* 49:11-12 J1 12 '48
 U. S. air force planes; North American B-45A; C; Northrop B-49; Boeing B-50; Lockheed F-80C; Republic F-34A; North American F-86A; C; Curtiss-Wright F-87. *il diags Aero Digest* 57:76-8+ S '48
 Vampire jet fighters. R. C. Franklin. *il diag Aero Digest* 57:23-4 Ag '48
 Wasp Major-VDT; piston-jet propulsion combination. *Aero Digest* 57:62 N '48
 West coast predicts gain in military ram jet knowledge. S. Bangs. *Aviation W* 48:17 F 9 '48
 XF-86 flies faster than sound. R. McLauren. *il Aviation W* 48:11-12 Je 14 '48
See also
 Rocket propulsion

JETS

Explosives with lined cavities. G. Birkhoff and others. *bibliog il diags J Ap Phys* 19:563-82 Je '48
 Jet calibration. D. A. N. Sandifer. *diags Engineering* 166:121-3 Ag 6 '48
 Simple jet devices prevent freezing of sealing water in gas holders. C. G. Blatchley. *il diags Am Gas J* 168:28 Mr '48

JETTIES

Contract let to build articulated precast concrete unit jetties at Boys club beach, Riverhead, N.Y. Concrete 56:33 Je '48

JEWEL bearings. *See Bearings, Jewel*

JEWELL, Bert Mark, 1881-

Paul Hoffman's union men. *por Fortune* 38:141-2+ O '48

JEWELRY

Showroom for Nat Halpern wholesale jeweler. *il plan Arch Forum* 88:102-3 Mr '48

See also

Enamel and enameling (arts and crafts)

JEWELRY, Plastic

Plastics cores for better simulated pearls. *il Plastics* 8:17+ Mr '48

JEWELRY boxes, Plastic

Chinese chest; candy container used as jewel case. J. C. Kazimier. *il Mod Plastics* 25:93-5 N '47

JEWELRY factories

Employees

Skin hazards in the jewelry industry. M. H. Samitz and P. Mori. *Ind Med* 17:341-3 S '48

JEWELRY insurance. *See Insurance, Jewelry*

JEWELRY stores

Lindel's jewelry store, Toledo. M. Ketchum, Jr. *il plan Arch Rec* 103:139 Ap '48
 Portfolio of modern designs. *Arch Forum* 88:128-31 My '48

JEWELRY trade

How to make a New idea department pay off; Special corp. P. Levinger. *il Sales Management* 59:102-3 N 20 '47
 Jewelry drive; Jewelry Industry council to spend \$400,000 to boost costume jewelry sales. *il Bens W* p85-6 Ap 10 '48
 Jewelry exports, U.S., 1946 and first nine months of 1947. *For Comm W* 29:22-3 N 22 '47

Jewelry makers optimistic on sales outlook. *Comm & Fin Chr* 168:616 Ag 12 '48

JEWELRY trade—Continued

Jewelry sales expected to equal 1947 high; watch manufacturers increasing ad budgets. N. Kelne. *Ptr Ink* 224:89+ Ag 20 '48

Operating results of Illinois retail jewelry stores in 1947. D. J. Luck. (*Bur. of economic and business research, Business studies no. 7*) 31p Univ. of Illinois, Urbana '48

Packaging oomph speeds jewelry sales; Speldel corp. R. H. Ganly. *il Ptr Ink* 221: 63+ N 14 '47

Advertising

Ad bureau, jewelers start survey project. Ed & Pub 81:12 S 4 '48

What happens after your ads bring customers to the retailer? Engel & company helps to dealers and their salesmen in diamond selling. L. J. Engel. *il Ptr Ink* 224: 44 S 24 '48

Finance

Jewelers worry; fear return on controls over credit. *Bsns W* p48+ Ag 7 '48

Operating results of Illinois retail jewelry stores in 1947. D. J. Luck. (*Bur. of economic and business research, Business studies no. 7*) 31p Univ. of Illinois, Urbana '48

JEWELS, Instrument. See Bearings, Jewel**JEWETT, Frank Baldwin, 1879-**

Joins ASA Board of directors. *Ind Stand* 19: 118 S '48

JEWS

From Cyprus to Israel. *Economist* 154:974 Je 12 '48

Jews in Cyprus; internment camps. *Economist* 154:271 F 14 '48

Judaism. B. Harrison. *bibliog Ann Am Acad* 256:25-35 Mr '48

JEWS in Palestine

Debate rages re: Communists on DP ships. Ed & Pub 81:10 F 14 '48

JIGS

Adjustable jig locates double centers. H. Moore. *diags Am Mach* 91:129 D 18 '47

Air-brake clamping jigs speed machining of bus parts. W. Rudolph. *il Steel* 122:109-10 Ap 26 '48

Bridson drill jig. *il Engineer* 185:456 My 7 '48

Drill jigs speed output of stove burners; Odin stove co. W. Rudolph. *il Am Mach* 92:124-5 F 12 '48

Jig for the preparation of balls for the construction of crystal structure models. R. C. Evans. *diags R Sci Instr* 19:402-4 Je '48

Jigs and fixtures at low cost; use of vises. E. J. Weierstall. *il diags Am Mach* 92:126 S 23 '48

Jigs and fixtures facilitate economic mass welding. O. L. Duble. *il Steel* 122:90-3 My 3 '48

New air aid for the machine shop; Air-Grip jig Base. *il Comp Air Mag* 52:284 N '47

Pin hole drilling simplified with all-purpose jig. R. Mawson. *diags Steel* 122:91+ Ap 5 '48

Pneumatic drill jig. *il Engineer* 185:146 F 6 '48

Positive locating drilling jig; hydraulic jack body. R. Mawson. *diags Iron Age* 161:83-5 Ap 1 '48

Precision welding jigs simplify stove assembly. W. Rudolph. *il Am Mach* 92:82-4 J1 1 '48

Proper jig design permits it use for drilling of two different parts. R. Mawson. *diags Steel* 123:119+ J1 12 '48

Quick-acting fixture closes jig with pressure on collar handles. H. Moore. *diags Am Mach* 92:120 F 26 '48

Rotary drill jig features simple design. R. Mawson. *diags Tool Eng* 21:42 O '48

Welding jig for salvaging drilled parts. D. A. Baker. *diag Mach* 54:179 F '48

JIGS (mining)

Heavy medium in the Baum jig; new washing process. B. M. Bird. *diags Coal Age* 53:107-12 F '48

JOB analysis

ABC's of personnel administration; job description. C. E. Peterson. *Mill & Factory* 42:103-6 Ja '48

Attitude of the American federation of labor on job evaluation. E. N. Hay. *Personnel J* 26:163-9 N '47

Can the salary values of line and staff positions be coordinated by job evaluation? *Personnel J* 27:153-4 S '48

Chart your workers' duties to save time and snarls. L. W. Ellis. *Ptr Ink* 224:32-4 Ag 27 '48

Charts aid computing spooler's task; charts based on job analysis and time study. R. Leppa. *il Textile World* 97:110-11+ D '47

Effect of union attitudes on job evaluation plans; abstract. H. Baker and J. M. True. *Management R* 37:139-41 Mr '48

Fallacies in job evaluation; criticism of paper by Ralph H. Landes. *Personnel J* 26:278-9 F '48; Discussion. 27:67-9 Je '48

Grade labeling of employees can backfire. K. Jack. *Elec West* 100:55-6 Ja '48

How to do a community wage survey. B. McClauncy. *Mill & Factory* 43:134-7 J1 '48

How to evaluate supervisory jobs. O. R. Winjum. *diags Am Mach* 92:81-92 Ag 26 '48

How to write a good job description. J. Grady. *il Mill & Factory* 42:118-21 F '48

How visual aids were used to explain job evaluation; Metro-Goldwyn-Mayer studios. T. Hayworth and M. R. Sargent. *il Factory Management* 106:72-4 Ap '48

How we set fatigue allowances that are fair to all; Motorola, inc. H. C. Rymer. *Factory Management* 106:118-19 Ja '48

Job classification and evaluation; why and how. J. A. Whelpley. *Am Gas Assn Proc* 1947:301-4; Excerpt. *Am Gas J* 166:16-17 My '47

Job content measurement in wage surveys. W. R. Hanawalt. *Personnel* 24:350-9 Mr '48

Job evaluation. L. H. Brown. *Iron & Steel Eng* 25:60-3; Discussion. 64 Je '48

Job evaluation. R. L. Moberly and E. S. Bufa. (*Wisconsin commerce reports v 1, no4*) 39p bibliog(p31) pa \$1 Univ. of Wisconsin, Bur. of business research and service, 404 Sterling Hall, Madison '47

Job evaluation by divisional committees. D. Timm. *Personnel J* 27:176-9 O '48

Job evaluation discussion. J. J. Zeisler and others. *Personnel J* 26:382-4; 27:29-33, 149-52 Ap-May, S '48

Job evaluation maintenance. K. C. McDermott. *Personnel J* 26:222-6 D '47

Management and job evaluation. L. Cohen. *Personnel J* 27:55-61 Je '48

Mathematical basis of the per cent method of job evaluation. W. D. Turner. *Personnel* 25:154-60 S '48

Per cent method of job evaluation. W. D. Turner. *Personnel* 24:476-92 My '48

Placement of a dislocated workers. *Int Labour R* 56:533-42 N-D '47

Rating jobs and men in maintenance. C. H. DeWolf. *Factory Management* 106:107-9 Ja '48

Salary schedule is needed for each job; use of job evaluation. R. J. Miller. *il Bankers Mo* 65:18+ Mr '48

Short cut in job evaluation; use of mechanical tabulating machines. G. S. Flitz-Patrick. *il Mill & Factory* 42:115-17 Ap '48

Supervisor's role in the job evaluation program. J. E. Ellington. *Personnel* 24:360-6 Mr '48

Trying job analysis in a medium-size bank; American state bank, Lansing, Michigan. A. A. Elssesser. *il Burroughs Clearing House* 32:26-8+ D '47

Union and management cooperate to establish incentive system. *il Mill & Factory* 42: 95-9 Mr '48

Unions and job evaluation. L. Cohen. *Personnel J* 27:7-12 My '48

Whys and results of job evaluation. F. R. Rauch. *Gas Age* 100:29-30+ D 25 '47; Same. *Am Gas J* 168:27-9 Ja '48

JOB transfers

Labor menaces mechanization. *il Bsns W* p96-8 Je 12 '48

JOB work

Fundamentals of job shop scheduling. J. Kim. *Tool Eng* 21:31-3 O '48

Industrial taps new markets via mailings; Kramer & Kramer custom fabrication service. *il Sales Management* 60:46 F 1 '48

Job-shop production control. H. W. Newhouse. *il diags Am Mach* 91:122-8 D 18 '47

JOBBER elimination. See Marketing—Direct selling

JOBBER helps

Jobbers given access to practical aids used by major company in cutting costs; Esso standard oil co. F. C. Sturtevant. *Il Nat Pet N 40:35-8 Ap 21 '48*

Three-man territory setup keeps sales wheels greased for Standard Motors; territory man and field man work with wholesalers; dealer cooperation man serves dealers. J. F. Kenny. *Il Sales Management 60:94+ Ap 15 '48*

JOBBER relations

Essentials of successful marketing; a case history in manufacturer-distributor collaboration; Johns-Manville corp. L. C. Hart. *J Marketing 13:195-201 O '48*

Field schools for distributors build sales for Buda co. *Ind Marketing 33:68+ Je '48*

28 ways to strengthen sales through distributors. L. H. Brendel. *Il Ptr Ink 224:27-30+ Ag 6 '48*

What the distributor expects from the manufacturer. M. M. Rosenfeld. *Soap & San Chem 24:133+ Ja '48*

Wholesalers are the key link in your distribution chain if you sell a relatively low-priced item in fairly small quantities to many outlets over a wide area. A. Patton. *Il Ptr Ink 221:34-5+ N 7 '47*

JOBBERS

California firm demonstrates a new kind of frozen foods wholesaling; Frozen City, in Redwood city, sells full lines of refrigeration equipment, to retailers and consumers. E. Gidlow. *Sales Management 60:54+ Mr 1 '48*

Fight for distributors now! G. N. Robinson. *Ind Marketing 33:54 Mr '48*

Mr Herberger talks about retailing; wholesalers are failing to serve small retailer properly. E. Whitmore. *Il Am Bsns 17:8-9+ N '47*

Problems you face in switching from direct to wholesale selling. W. R. Schafer. *Il Sales Management 60:78+ Je 15 '48*

Reducing distribution costs in the grocery field; a case study; Roundup grocery company, cost plus wholesaling operation. R. D. Tousey. *J Marketing 12:455-61 Ap '48*

Wholesaler wins Philco award with tested ideas; top honors for Jos. M. Zamoiski co. in Philco corp.'s annual competition. C. Guest. *Sales Management 61:136-8 Ag 15 '48*

Wholesalers are the key link in your distribution chain if you sell a relatively low-priced item in fairly small quantities to many outlets over a wide area. A. Patton. *Il Ptr Ink 221:34-5+ N 7 '47*

Why we buy from industrial distributors. *Il map Mill & Factory 42:151-62 Ap '48*

Advertising

How Philco uses direct mail to sign new dealers. *Il Ptr Ink 221:46 N 14 '47*

Repetition of acceptance theme stretches wholesaler's small budget; Chicago musical instrument co. *Ptr Ink 222:58 Mr 5 '48*

Costs

We plugged the leaks in profits through tighter sales control; Michigan wholesalers, inc. G. E. Voorhees. *Sales Management 60:56+ Ap 15 '48*

Employees

Wages in wholesale drugs and allied products, Jan. 1947. K. B. Mohn. *Mo Labor R 65:552-4 N '47*

Wholesale groceries; earnings in large cities, July 1947. *Mo Labor R 66:288 Mr '48*

Service

Contractors look at jobber services; contractor opinions on jobber services revealed by survey. *Dom Eng 171:120-3 Ja '48*

JOHN HANCOCK insurance company

Receives top awards for publications. *East Underw 49:12 Je 4 '48*

JOHN HANCOCK mutual life insurance company

Annual policyholders meeting. *East Underw 49:1, 3-4 F 13 '48*

Insurance billions. *Il Fortune 37:110-11+ Ap '48*

JOHNS-MANVILLE corporation

Annual report. *Comm & Fin Chr 167:651 F 9 '48*

Essentials of successful marketing; a case history in manufacturer-distributor collaboration. L. C. Hart. *J Marketing 13:195-201 O '48*

Manville builds new home for industrial research. *Il Bsns W p44 N 8 '47*

JOHNSON, Albert Mussey, 1872-1947

Sketch. *Nat Underw 52:13 Ja 15 '48*; *Nat Underw (Life ed) 52:2+ Ja 16 '48*

JOHNSON, Bernard L. 1883-1947

Sketch. *por Am Bld 70:198 F '48*

JOHNSON, J. Percy H.

50 years at Ayer. *por Ptr Ink 223:136 My 21 '48*

JOHNSON, Samuel, 1709-1784

Samuel Johnson's interest in scientific affairs. D. J. Swaine. *bibliog J Chem Educ 25:458-9 Ag '48*

JOHNSON, Samuel William, 1830-1909

Portrait. *Chem & Eng N 26:487 F 16 '48*

JOHNSON, William C. 1902-

New president of National electrical manufacturers association. *por Bsns W p89 N 8 '47*

JOHNSON CITY, Tennessee**Water supply**

New filters supplement spring supply. R. F. Taylor. *Il Pub Works 79:37-8 Mr '48*

JOHNSTOWN, New York**See also**

Floods—Johnstown, New York

JOINT maritime commission. See International labor organization—Joint maritime commission

JOINT production committees. See Employees' representation in management

JOINTS

Analysis of frames with elastic joints. R. W. Stewart. *diags Am Soc C E Proc 73:1499-506 D '47*; *Discussion. 74:993-1002, 1223-7, 1637-8 Je-S, D '48*

Application of pure science to industry; pressure equipment. C. A. Brown. *diags Ind & Eng Chem 39:sup77A-8A D '47*

Bolted connections in structures. A. M. Hamilton. *Il diags Engineering 165:433-5 My 7 '48*

Effects of overlapping joints in laminated magnetic cores on the m.m.f. and power required for their a.c. magnetization. O. I. Butler and C. Y. Mang. *bibliog diags Inst E E J 95 pt 2:15-24 F '48*

Properties of copper brazed joints. G. B. Wilkes, jr. *Il diags Iron Age 162:44-51 S 30 '48*

Shrinkage stresses in spot-welded joints. V. Hauck. *bibliog diags Welding J 27:sup453-6 S '48*

Submersion method simplifies miter joint layout. M. C. Ziemke. *diag Chem Eng 54:145 N '47*

See also

Brazing
Electric cables—
Joints
Gaskets
Glass—Joining to metal
Glue
Packing
Pipe joints

Plastic materials—
Joining
Rail joints
Riveted joints
Solder and soldering
Welding
Wood—Joining to metal

Testing

Adams lecture for 1947; structural strength of the welded joint. G. S. Mikhailapov. *bibliog Il diags Welding J 27:193-206 Mr '48*; *Abstract, Metal Prog 54:216+ Ag '48*

Results of accelerated tests and long-term exposures on glue joints in laminated beams. T. R. Truax and M. L. Selbo. *Il A S M E Trans 70:393-400 My '48*

Spot-welded aluminum lap joints designed for repeated loads. R. C. McMaster and H. J. Grover. *Il Product Eng 18:112-16 N '47*

JOINTS (physiology)**See also**

Ankles

JOINTS, Riveted. See Riveted joints

JOINTS, Universal

Constant velocity joints. H. H. Mabie. *il*
diags Machine Design 20:101-5 My '48

JOISTS

Telescopic joists simplify soffite construction. *il* Concrete 56:12-13+ O '48

JOISTS, Concrete

Bundle reinforcing saves materials. diags
Eng N 140:509-10 Ap 1 '48
Joist manufacturer's new plant; North Shore
concrete joist co. D. Mocine. *il* Rock Prod
51:203 Ap '48

Making long concrete joists and roof slabs;
Formigli corp. W. B. Lenhart. *il* Rock
Prod 51:149+ F '48

Strength of precast concrete floor joists. J.
Feld. *il* diag Am Concrete Inst J 20:141-5 O
'48

JOISTS, Steel

Open-web steel joists, site-welded into wall
panels, yield important time savings. *il* diag
Arch Forum 87:158 N '47

JOLLIFFE, Charles Byron, 1894-

Portrait. Fortune 38:83 F '48

JOMINY test. See Hardness—Testing**JONES, W. E.**

Portrait. Bsns W p23 My 22 '48

JONES and Laughlin steel corporation

Diversified stake in high leverage stocks.
G. W. Mathis. Mag of Wall St 82:392 JI
17 '48

J & L brings actions to protect its name and
fight inflation. Iron Age 161:123 My 20 '48

JOSEPHS, Devereux Colt, 1893-

New York Life's new president. C. Axman.
por East Underw 49:3-4 My 21 '48
Portrait. Bsns W p90 My 22 '48

JOSHI-effect

Joshi-effect. K. R. Dixit. J Chem Phys 16:
742-3 JI '48

JOULE-THOMSON effect

Summary of experimental determinations of
Joule-Thomson effects in gases. H. L.
Johnston and D. White. A S M E Trans 70:
651-4 bibliog(56 titles, p652-4) Ag '48

JOURNALISM

Advice to student; journalism is a way of
life. J. H. Sorrells. Ed & Pub 81:9+ Ap 10
'48

Article writing and marketing. G. L. Bird.
483p \$5.50 Rinehart & co, 232 Madison av,
New York 16 '48

Three bases for profession defined. F. L.
Mott. Ed & Pub 81:44 My 29 '48

See also

Brown, Heywood,	Periodicals
memorial award	Reporting
House organs	Time, inc.
Journalism students	Women as jour-
Newspapers	nalists

Bibliography

Contributions to bibliography in journalism;
graduate theses in journalism, 1945-1947.
16p Univ. of Nebraska, School of jour-
nalism, Lincoln 8 '48

Exhibitions

How free press developed, portrayed in Ger-
man show; joint German-United States ex-
hibit on journalism in Munich. E. Cox. Ed
& Pub 81:11+ Mr 13 '48

Study and teaching

Big-time promotion begins on the campus;
Daily Kansan. T. S. Irvin. Ed & Pub 81:60
My 22 '48

Country editor helps train teen-agers; Wil-
liam Thornton Beck. Ed & Pub 81:38 My
1 '48

Editors say students have a lot to unlearn.
R. J. Jandoli. Ed & Pub 81:26 Ag 7 '48

Get people mad, Dana advocates at Wash-
ington (state) seminar. Ed & Pub 81:60
My 15 '48

Government seminar. Ed & Pub 81:10 My 1
'48

Journalism students at University of Iowa
get practical experience in newspaper pro-
duction laboratory. F. S. Holowach. *il* In-
land Ptr 121:42 Je '48

School shapes course with editors' counsel.
R. G. Martin, jr. Ed & Pub 81:40 JI 17 '48

Schooling strengthens hand of any newsman.
D. M. Deringer, jr. Ed & Pub 81:45 Mr
27 '48

Specialty and speed in Clayton classroom.
L. M. Violet. Ed & Pub 81:80 Ap 17 '48

Students test ability to match stories in print.
Ed & Pub 81:28 O 23 '48

Texas offers course reporting oil news. D.
Bentel. Ed & Pub 81:32 F 14 '48

12 Nieman fellows selected by Harvard. Ed &
Pub 81:26 Je 26 '48

See also American association of teachers
of journalism; Journalism schools

Cooperative plan

College uses on-the-job technique. F. A.
Woodress. Ed & Pub 81:36 My 8 '48

Internship plan shaped for all departments.
T. S. Irvin. Ed & Pub 81:40 Ag 7 '48

Publishers welcome journalism interns. V. B.
Bowen. Ed & Pub 81:28 Ag 7 '48

Germany

15 Germans to attend seminar at Columbia;
publishers and editors to study functions
and techniques of democratic press. Ed &
Pub 81:6+ Ag 28 '48

**JOURNALISM, Religious. See Religious jour-
nalism**

JOURNALISM awards

44 awards to 38 editors dramatize progress
of Nation's business press. *il* Ind Marketing
32:40+ N '47

Plaque awarded to Domestic engineering in
the national editorial contest for the cam-
paign. Today's best buy is plumbing and
heating. *il* Dom Eng 170:114-17 N '47

SDX awards given for outstanding work.
Ed & Pub 81:16 My 22 '48

Seven receive Missouri journalism awards.
Ed & Pub 81:11+ My 8 '48

See also

Newspaper awards**JOURNALISM libraries**

Williams file at Columbia is modernized. *il*
Ed & Pub 81:25 My 29 '48

See also

Newspaper libraries**JOURNALISM research**

\$20,000 given by navy for reader study to
Minnesota school of journalism's research
division. Ed & Pub 81:41 F 28 '48

**JOURNALISM school administrators, American
society of. See American society of jour-
nalism school administrators**

JOURNALISM schools

ACEJ approves internships for teachers. Ed
& Pub 81:60 O 16 '48

Arabic tamed in Cairo for eastern press.
Ed & Pub 81:26 My 29 '48

Editors hear critique on accrediting plan. Ed
& Pub 81:21+ Ap 24 '48

40 accredited schools to be named, June 1.
Ed & Pub 81:38 Ap 24 '48

Graduates in demand, Illinois survey shows.
D. Bentel. Ed & Pub 81:64 My 22 '48

Journalism schools will graduate 5,000. D.
Bentel. Ed & Pub 81:44 Ap 17 '48

Schools urged to train writers for cold war.
D. Bentel. Ed & Pub 81:52 Je 26 '48

31st annual Editors' short course at Uni-
versity of Minnesota. School of journalism,
April 30-May 1. Ed & Pub 81:38 My 8 '48

35 journalism schools on first ACEJ list. Ed
& Pub 81:12 Je 12 '48

We'll take graduates. D. Bentel. Ed & Pub
81:46 F 28 '48

See also

American association of schools and de- partments of jour- nalism	Columbia university Graduate school of journalism
--	---

Cooperative plan

See Journalism—Study and teaching—Co-
operative plan

JOURNALISM students

Students' poll details their objectives. Ed &
Pub 81:30 Je 5 '48

**JOURNALISTIC photography. See News pho-
tography; Photography, Journalistic**

JOURNALISTS

Newsman participate in MRA conference. Ed
& Pub 81:64 O 16 '48

See also

Newspapers—Foreign
correspondents
Ochs, Milton Barlow

JOURNALISTS, International organization of.
See International organization of journalists

JOY manufacturing company

Small companies with big earnings. Mag of Wall St 81:294 D 20 '47
Stock offered. Comm & Fin Chr 167:253 Ja 19 '48

JUDAISM. See Jews

JUDICIAL bonds. See Insurance, Surety and fidelity—Judicial bonds

JUGOSLAVIA. See Yugoslavia

JUGS. See Containers, Ceramic

JUKE boxes. See Phonograph, Automatic

JUNIOR achievement movement

Awards for teen-agers' corporate reports. il Comm & Fin Chr 168:809 Ag 26 '48

JUNIOR colleges

Chemical education in American institutions. R. D. Rowe. J Chem Educ 25:373-5 Jl '48

JUNIPER

Constituents of Sierra juniper wood (Juniperus occidentalis, Hooker). E. F. Kurth and H. B. Lackey. Am Chem Soc J 70:2206-9 Je '48

JUNK. See Scrap material

JURISDICTION

New York retains jurisdiction in suit for insurance on Federal motorship corporation vessel. East Underw 49:23 Je 18 '48

JURISDICTIONAL disputes. See Trade unions—Jurisdictional disputes

JURY

Insurance connection of jurors; Wheeler v. Rudek. J. L. Roesch. Spectator (Property ed) 13:10-11+ O 23 '47

JUTE

Combination between lignin and polyuronic acid in jute fibre. P. B. Sarkar and others. bibliog Textile Inst J 39:T1-7 Ja '48

Fungal decomposition of jute fibre and cellulose. S. N. Basu. bibliog Textile Inst J 39:T232-48 Jl '48

Hemicelluloses of jute fibre. P. B. Sarkar and others. bibliog Textile Inst J 39:T44-58 F '48

Indian jute problems. Economist 153:856 N 22 '47

Jute fabrics; pretreatment with solvents to prepare for printing; patent. Am Dyestuff Rep 37:697 O 13 '48

Jute prices strong. Barron's 27:44-5 D 8 '47
Jute working party report. Economist 154:984-5 Je 12 '48

Some tensile properties of jute. R. R. Mukherjee and others. Textile Inst J 39:P241-4 Jl '48

Studies on the absorption of methylene blue by jute fibre. P. B. Sarkar and H. Chatterjee. bibliog Soc Dyers & Col J 64:218-21 Je '48

Threatened jute shortage. Economist 155:642+ O 16 '48

See also

Bleaching—Jute

Analysis

Acid nature of jute fibre. P. B. Sarkar, H. Chatterjee and A. K. Mazumdar. bibliog(33 ref) Textile Inst J 38:T318-32 S '47; Correction. 39:T22 Ja '48

Testing

Detection and estimation of damage in jute fibre; new microscopical test and the implications of certain chemical tests. W. G. Macmillan and S. N. Basu. bibliog pls Textile Inst J 38:T350-70 O '47

Uses

Chart of uses. Textile Inst J 39:P460a Ag '48

JUTE industries, limited

Statement by the chairman at annual general meeting. J. E. Cox. Economist 154:325 F 21 '48

K

KAGANOVICH, Lazar Moiseyevich

Economic brain trust of Soviet Russia. por Bsns W p22-4 My 15 '48

KAIBAB plateau, Arizona

Geomorphology and structure of the west Kaibab fault zone and Kaibab plateau. A. N. Strahler. maps diag Geol Soc Bul 59:513-40, pl 1-5 bibliog(p539-40) Je '48

KAISER, Henry John, 1882-

Kaiser-Eaton feud. por Fortune 38:88-9+ O '48

Kaiser's gamble at Fontana defies dire predictions of failure. T. Campbell. Iron Age 162:133-4 O 7 '48

KAISER company, inc.

Kaiser turns to realism to solve loan problem. Barron's 28:8 Ag 16 '48

KAISER-FRAZER corporation

Drive it away, in style; Kaiser-Frazer coddles customers; illustrations with text. Bsns W p85-6+ Ap 17 '48

Ford & K.-F. shed nonautomotive holdings. Bsns W p86 Je 12 '48

Furnace fireworks; K.-F. to take over Republic Steel's blast furnace no. 5. Bsns W p28 Ag 23 '48

Henry Kaiser shows up on inside once more; furnace deal stirs indignation, but auto maker gets source of precious iron. R. M. Bleiberg. Barron's 28:5 Ag 30 '48

K.-F. cashes in. il Fortune 36:94-7+ D '47

Kaiser-Republic agreement considered more true than treaty. B. Lloyd. Iron Age 162:125-6 S 9 '48

Offering of stock. Comm & Fin Chr 167:651-2 F 9 '48

Reply to SEC charges; Otis & co. and Cyrus Eaton statements denying SEC charges in Kaiser-Frazer common stock offering. Comm & Fin Chr 168:714 Ag 19 '48

Reports 1947 profit. Comm & Fin Chr 167:1471 Ap 5 '48

Sale of stock called off. Comm & Fin Chr 167:746-7 F 16 '48

Sue to break blast furnace lease. Steel 123:42 S 27 '48

Tempest over blast furnace; Chattanooga foundry challenges legality of lease to Kaiser-Frazer. Steel 123:68 S 20 '48

To offer stock for subscription by stockholders; new underwriting deal. Comm & Fin Chr 167:849 F 23 '48

Too much, too early? decides to shelve new financing. Bsns W p90+ F 14 '48

When friends fall out; Kaiser-Frazer sues after Otis walks out on new stock issue. Bsns W p85-6+ F 21 '48

KALA-AZAR

Synthetic drugs in the fight against tropical diseases. Chem & Ind p 197 Mr 27 '48

KALAKAUA, David (king of Hawaii) 1836-1891
When the navy was host to Hawaii's king. H. C. Votaw. por U S Naval Inst Proc 74:70-7 Ja '48

KALE

Effect of chipped ice packing on fresh kale preservation. M. Potgieter and C. Cowell. bibliog Refrig Eng 56:399-401+ N '48

KALEIDOSCOPE (periodical)

15 magazines in one. H. Woodward, jr. Sales Management 60:42 F 1 '48

KALINSKE, A. A.

Sketch. por(p33) Civil Eng 18:36 Ja '48

KALISTRON

Furniture and interior decoration award; Kalistron. il Mod Plastics 26:130-1 S '48

KAMMOGENIN

Steroidal sapogenins; position of the double bond in yuccagenin and kammogenin. R. E. Marker and J. Lopez. Am Chem Soc J 69:2401-2 O '47

KAMUNING (Perak) rubber and tin company, limited

Statement of the chairman. J. Hay. Economist 153:780 N 8 '47

KANDAR. See Textile finishing

KANE county, Utah

Geology and geography of central Kane county, Utah. H. E. Gregory. bibliog map diag Geol Soc Bul 59:211-47, pl 1-9 Mr '48

KANE-MARR Ltd.

Thriving western business grew fast from small beginnings. il Roads & Bridges 86:92+ F '48

KANSAS academy of science

Annual meeting, 80th. Pittsburgh, April 29-May 1. Science 107:619 Je 11 '48

KANSAS CITY, Missouri**Industries**

Cattle city branches out. *il Bsns W* p36+ *N* 1 '47

KANSAS CITY power and light company

Preferred stock offered. *Comm & Fin Chr* 167: 2687 *Je* 21 '48

KANSAS CITY southern railway

Bonds offered. *Comm & Fin Chr* 167:2579-80 *Je* 14 '48

Heavy cash demands on Kansas City Southern; they probably bar early common dividend payments. *C. F. Horlacher. Barron's* 28:38 *Mr* 1 '48

Railroad securities. *Comm & Fin Chr* 168: 1769 *O* 28 '48

KANSAS gas and electric company

Bonds offered. *Comm & Fin Chr* 167:1365 *Mr* 29 '48

Common stock offered. *Comm & Fin Chr* 167: 2134 *My* 17 '48

KANSAS university

Chemical education in American institutions.

R. Taft. *il J Chem Educ* 25:474-81 *S* '48

Petroleum engineering schools. *il Oil & Gas J* 47:78+ *S* 9 '48

KAOLIN

Absorption of sound in suspensions of irregular particles. *R. J. Urlick. bibliog il Acoustical Soc Am J* 20:283-9 *My* '48

Influence exercised by the atmosphere of the furnace on the thermal decomposition of kaolin and on the reactivity of Al_2O_3 ; abstract. *Chem Eng* 55:280+ *Ja* '48

Report on China clay; Working party report. *Economist* 154:396 *Mr* 6 '48

Sound velocity method for determining the compressibility of finely divided substances. *R. J. Urlick. diag J Ap Phys* 18:983-7 *N* '47

KAOLINITE

Clays for rubber. *L. F. Gongwer. il India Rubber World* 118:793-5 *S* '48

Mullitization of kaolinite. *J. E. Comeforo and others. bibliog il diags Am Cer Soc J* 31:264-9 *S* 1 '48

KAPPOGENIN

Steroidal sapogenins; kappogenin and furcogenin. *R. E. Marker and J. Lopez. Am Chem Soc J* 69:2380-3 *O* '47

KARACHI, India

Exodus of Hindu businessmen, Karachi problem. *il Bsns W* p82 *N* 29 '47

KARANJIC acid

Furano-compounds; a synthesis of karanjic acid. *R. T. Foster and A. Robertson. Chem Soc J p* 115-16 *F* '48

KARANJIN

Experiments on the synthesis of karanjin. *A. Seetharamiah. Chem Soc J p* 894-5 *Je* '48

KARAYA gum

Gum-karaya production and exports, India. *For Comm W* 29:28 *D* 6 '47

KASTNER, Ralph H.

Feted on 25th anniversary with A.L.C. por *Nat Underw (Life ed)* 51:7 *N* 21 '47

KATCHER, David A.

Editor of new journal. *por R Sci Instr* 18:810 *O* '47

KATKOV, Norman

Katkov prowls at night as O. Henry's ghost. *C. Hodge. por Ed & Pub* 81:24 *My* 15 '48

KAURI

Petroleum solvents; correlation of kauri butanol solvency with gravity and aniline point. *W. T. Harvey and I. W. Mills. bibliog Anal Chem* 20:207-9 *Mr* '48

KEANEY, George A.

AAAS-George Westinghouse science writing award for 1947. *Science* 106:513-14 *N* 28 '47

KEARNEY and Trecker corporation

Kearney & Trecker celebrates golden anniversary. *il Mach* 54:186-7 *Je* '48

KEITH, Percival Cleveland

Portrait. *Fortune* 37:115 *My* '48

KEL-F. See Trifluorochloroethylene**KELLER, Kaufman Thuma**

1885-Chrysler operation. *por Fortune* 38:102-5+ *O* '48

KELLETT aircraft corporation

Kellett control; Hughes, Fairchild fight for rights to helicopters USAF may order. *Aviation W* 49:17 *Jl* 26 '48

KELLOGG, Morris Woodruff

1873-Portrait. *Fortune* 38:109 *N* '48

KELLOGG, M. W., company

Engineers of energy. *il Fortune* 38:106-13+ *N* '48

Pullman affiliate develops new weaving equipment. *Barron's* 28:30 *Mr* 29 '48

KELP

Seasonal variation in chemical constitution of some of the sublittoral seaweeds common to Scotland; laminaria cloustoni. *W. A. P. Black. bibliog Soc Chem Ind J* 67:165-8 *Ap* '48

KELSEY-HAYES wheel company

Annual report. *Comm & Fin Chr* 166:2105 *N* 24 '47

KELVIN'S law

Determining least cost by Kelvin's law; making minimum cost calculations for meeting expanding loads. *W. R. Bullard and C. Hutchinson. il Elec World* 130:79-81 *Ag* 28 '48

KEMART process. See Photoengraving**KEMP, G. L.**

Meat clubs slip. *por Bsns W* p49-50 *F* 28 '48

KENDALL, Warren C.

1877-Sketch. *por Ry Age* 124:1088-9 *My* 29 '48

KENDE, Andrew S.

Study of solvents for Grignard reaction wins prize in seventh annual Westinghouse science talent search. *por Chem & Eng N* 26: 865 *Mr* 22 '48

KENNAN, George Frost

1904-Portrait. *Fortune* 36:82 *D* '47

KENNECOTT copper corporation

Companies paying progressively higher dividends. *H. F. Travis. Mag of Wall St* 82:27 *Ap* 10 '48

Kennecott Copper goes into new fields. *H. S. Coffin. il Mag of Wall St* 83:126-8+ *N* 6 '48

Seeks wider earnings base. *M. H. Zink. Barron's* 28:40 *O* 11 '48

KENNEDY, Fred

F. Kennedy retires to full-time tasks. *C. F. Watson. Ed & Pub* 81:52 *Je* 5 '48

KENNICOTT, Hiram Langdon

1890-Portrait. *Bsns W p* 103 *O* 23 '48

KENTUCKY**See also**

Mines and mineral resources—Kentucky

Water, Underground —Kentucky

KENTUCKY oil and distributing corporation

Stock offered. *Comm & Fin Chr* 168:647 *Ag* 16 '48

KENTUCKY water service company

Preferred stock offered. *Comm & Fin Chr* 167:253 *Ja* 19 '48

KERATIN

Determination of the elastic properties of horn keratin. *F. L. Warburton. bibliog diags Textile Inst J* 39:P297-307; Discussion. *P307-8 Jl* '48

Keratin, reduced and dissolved in alkalis; coating and producing fibers; patent. *Am Dyestuff Rep* 37:538 *Ag* 9 '48

Stability of synthetic keratin fibers in alcohol-water mixtures; theoretical basis for a new method for solubilizing feather keratin. *H. P. Lundgren and others. bibliog diags J Phys & Colloid Chem* 52:180-206 *Ja* '48

KERN, Harold G.

Hearst publisher. *B. E. Hill. por Adv & Sell* 41:34+ *My* '48

KEROSENE

Viscosity of vapors. *W. L. Nelson. Oil & Gas J* 46:109 *F* 12 '48

Analysis

Polarographic determination of naphthalenes in kerosine and light gas oils. *D. P. Thornton, jr. il Pet Processing* 3:673-5 *Jl* '48

Procedure for determination of the bromine number of olefinic hydrocarbons. *H. L. Johnson and R. A. Clark. bibliog Anal Chem* 19:869-72 *N* '47

Statistics

Kerosene, 1941-1946. Survey of Cur *Bsns* 147 *Sup* p 166 [supplemented in monthly numbers]

KERR, Arthur N.

Portrait. *Fortune* 37:123 *Mr* '48

KERR effect

Hall and Kerr effect at microwave frequencies. *S. P. Cooke. diags Phys R* 74:701-2 *S* 15 '48

KERR effect—Continued

Light modulation by P-type crystals. G. D. Gotschall. *il diags Soc Motion Picture Eng J* 51:13-20 J1 '48
 Use of a cavity oscillator for a Kerr electro-optical light shutter. A. C. Lapsley and others. *J Ap Phys* 19:111-12 Ja '48

KERR-MCGEE oil industries, inc.

Common stock offered. *Comm & Fin Chr* 167: 2687 Je 21 '48

KETALS. See Acetals

KETENE

Dissociation schemes of some carbonyl compounds. L. Gerö and J. G. Valatin. *bibliog J Chem Phys* 16:1014-17 N '48

Infra-red absorption spectrum and vibrational frequency assignment of ketene. W. R. Harp, Jr. and R. S. Rasmussen. *bibliog J Chem Phys* 15:778-85 N '47

Ketene acetals; pentaethoxyethane and tetraethoxyethylene (diethoxyketene diethylacetal). S. M. McElvain and R. L. Clarke. *bibliog Am Chem Soc J* 69:2661-3 N '47

Many-membered carbon rings; cyclization of some bifunctional ketenes. A. T. Blomquist and R. D. Spencer. *bibliog Am Chem Soc J* 70:30-3 Ja '48

Reaction of ketene with 2-nitro-4-chlorophenylsulfenyl chloride and other organic halogen compounds. A. Roe and J. W. McGeehee. *bibliog Am Chem Soc J* 70:1662 Ap '48

Reaction of ketene with organic halogen compounds. A. T. Blomquist, R. W. Holley and O. J. Sweeting. *bibliog Am Chem Soc J* 69:2356-8 O '47

Studies relating to the structure of ketene dimer. A. T. Blomquist and F. H. Baldwin. *bibliog Am Chem Soc J* 70:29-30 Ja '48

See also

Diketene

KETIMINES. See Imines

KETO acids

α -Keto acids. K. L. Waters. *Chem R* 41: 585-98 *bibliog*(p595-8) D '47

KETOLS

Naphthoquinone acids and ketols. L. F. Fieser and R. B. Turner. *bibliog Am Chem Soc J* 69:2338-41 O '47

KETONES

Action of hydrogen peroxide on symmetrical triketones. C. H. Hassall. *Chem Soc J* p50-2 Ja '48

Addition of halogens to an acetylenic ketone. C. L. Bickel. *Am Chem Soc J* 70:763-4 F '48

Adsorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. F. Othmer. *bibliog il diag Ind & Chem* 40:739-43 Ap '48

Aliphatic ketones and amines containing the trifluoromethyl group. R. G. Jones. *Am Chem Soc J* 70:143-4 Ja '48

Aliphatic nitro-compounds; interaction of ketones and nitro-paraffins. A. Lambert and A. Lowe. *Chem Soc J* p 1517-19 N '47

Alkoxyaryloxyketones and their condensation with isatins. R. L. Sublett and P. K. Calaway. *bibliog Am Chem Soc J* 70:674-5 F '48

Aminative reduction of ketones. L. Haskelberg. *Am Chem Soc J* 70:2811-12 Ag '48

Antimalarials; 2,6-diphenyl-3-furyl amino ketones and alcohols. R. E. Lutz and R. J. Rowlett, Jr. *bibliog Am Chem Soc J* 70:1359-63 Ap '48

Bromination of 3-ketosteroids in acetic acid and the effect of trace substances in the solvent. C. Djerassi and C. R. Scholz. *bibliog Am Chem Soc J* 69:2404-10 O '47

Chemistry of acrylonitrile; cyanoethylation of ketones and sulfones. H. A. Bruson and T. W. Riener. *bibliog Am Chem Soc J* 70: 214-17 Ja '48

α -Chloro- β -amino ketones. N. H. Cromwell and R. A. Wankel. *bibliog Am Chem Soc J* 70:1320-2 Ap '48

Claisen benzoylation of certain methylene ketones with phenyl benzoate by the sodium amide method. C. R. Hauser and others. *bibliog Am Chem Soc J* 69:2649-51 N '47

Condensation of benzamide with α -diketones. J. W. Cornforth and H. T. Huang. *Chem Soc J* p731-5 Je '48

Condensation of formaldehyde with lower aliphatic ketones; allylation as a means of structure proof. J. R. Roach, H. Witteoff and S. E. Miller. *bibliog Am Chem Soc J* 69:2651-5 N '47

Condensations of unsymmetrical ketones; competition between methylene groups. R. P. Mariella and V. Kvinge. *Am Chem Soc J* 70:126-8 S '48

Condensations of unsymmetrical ketones; condensations with ethyl formate. R. P. Mariella. *bibliog Am Chem Soc J* 69:2670-2 N '47

Conversion of α -amino acids to acylamido ketones and oxazoles. R. H. Wiley and O. H. Borum. *Am Chem Soc J* 70:2005-6 Je '48

Degradation of α -amino-acids to aldehydes and ketones by interaction with carbonyl compounds. A. Schönborg, R. Moubasher and A. Mostafa. *bibliog diag Chem Soc J* p 176-82 F '48

Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds. W. H. Lemon. *bibliog Am Chem Soc J* 69: 2998-3000 D '47

Halogenated ketones; the application of the Friedel-Crafts reaction to the preparation of halogenated aliphatic ketones. J. R. Catch and others. *Chem Soc J* p278-81 Mr '48

Halogenated ketones; the bromination of acetone and methyl ethyl ketone. J. R. Catch and others. *Chem Soc J* p272-5 Mr '48

Halogenated ketones; the bromination of methyl propyl and methyl isopropyl ketone. J. R. Catch and others. *Chem Soc J* p276-7 Mr '48

Halogenated ketones; the preparation of bromomethyl ketones by the diazomethane reaction. J. R. Catch and others. *Chem Soc J* p278 Mr '48

Intensities of electronic transitions in aliphatic ketones in the vacuum ultraviolet. R. S. Holdsworth and A. B. F. Duncan. *bibliog Chem R* 41:311-16 O '47

Ketonization of higher fatty acids with some observations on the mechanism of the reaction; studies of waxes. R. G. Curtis and others. *bibliog diag Soc Chem Ind J* 66:402-7 N '47

Ketoxime-O-sulfonic acids. P. A. S. Smith. *bibliog Am Chem Soc J* 70:323-6 Ja '48

Kinetics of halogen addition to unsaturated compounds; $\alpha\beta$ -unsaturated ketones and quinones. H. P. Rothbaum, I. Ting and P. W. Robertson. *Chem Soc J* p980-4 J1 '48

Low pressure reductive alkylation method for the conversion of ketones to primary amines. E. R. Alexander and A. L. Misegades. *Am Chem Soc J* 70:1315-16 Ap '48

Mechanism of the acetophenone-iodine-pyridine reaction. R. G. Pearson. *bibliog Am Chem Soc J* 69:3100-3 D '47

Perbenzoic acid oxidation of 20-ketopregnanes. L. H. Saret, *bibliog Am Chem Soc J* 69:2899-901 N '47

Physical properties and chemical constitution; ketones. A. I. Vogel. *Chem Soc J* p610-15 My '48

Preparation and properties of ethyl vinyl ketone and of methyl isopropenyl ketone. E. M. McMahon and others. *bibliog diag Am Chem Soc J* 70:2971-7 S '48

Reaction of ketones with iodine and pyridine. L. C. King, M. McWhirter and R. L. Rowland. *bibliog Am Chem Soc J* 70:239-42 Ja '48

Reaction of ketones with iodine, pyridine and water. L. C. King. *Am Chem Soc J* 70: 242-4 Ja '48

Reactions of atoms and free radicals in solution; the reactions of diacetyl peroxide with aliphatic ketones; a new synthesis of 1,4-diketones. M. S. Kharasch, H. C. McBay and W. H. Urry. *bibliog Am Chem Soc J* 70:1269-74 Mr '48

Reactions of nitroparaffins; synthesis and reduction of some γ -nitroketones. M. C. Klotzel. *bibliog Am Chem Soc J* 69:2271-5 O '47

Reactions of $\alpha\beta$ -unsaturated cyclic aldehydes and ketones; (+)-*cis*- and (-)-*trans*-cryptol from (-)-cryptone. D. T. C. Gillespie, A. K. Macbeth and J. A. Mills. *Chem Soc J* p996-9 J1 '48

KETONES—Continued

- Secondary and tertiary amino ketones and alcohols derived from desoxybenzoin and 1,2-diphenylethanol; ring-chain tautomerism of the α -(β -hydroxyethylamino) ketones, R. E. Lutz, J. A. Freek and R. S. Murphey, bibliog Am Chem Soc J 70:2015-23 Je '48
- Sex hormones; synthesis of 1-keto-7-methoxy-1,2,3,4-tetrahydrophenanthrene and of 1-keto-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene, G. Stork, bibliog Am Chem Soc J 69:2936-9 D '47
- Some aspects of the photochemistry of ketones, W. A. Noyes, jr. bibliog J Phys & Colloid Chem 52:546-50 Mr '48
- Studies in the anthracene series; a novel rearrangement in the reaction of halomethyl ketones with secondary amines, E. L. May and E. Mosettig, Am Chem Soc J 70:1077-9 Mr '48
- Studies in the anthracene series; alkyl ketones derived from 1,2,3,4-tetrahydro-9,10-anthraquinone, E. L. May and E. Mosettig, Am Chem Soc J 69:3036-7 D '47
- Studies in the anthracene series; amino ketones derived from 9-acetylthranthrene, E. L. May and S. Mosettig, bibliog Am Chem Soc J 70:686-8 P '48
- Study of the direction of enolization of mesitoyl-*o*-nitrobenzoylmethane and mesitoyl-*p*-nitrobenzoylmethane, R. P. Barnes, G. E. Pinkney and W. A. DaCosta, bibliog Am Chem Soc J 69:3129-32 D '47
- Study of the direction of enolization of *p*-methoxybenzoylmethanes, R. P. Barnes and G. W. Reed, bibliog Am Chem Soc J 69:3132-5 D '47
- Study of the direction of enolization of *p*-methoxy-*p*'-bromodibenzoylmethane and *p*-methoxy-*p*'-ethoxydibenzoylmethane, R. P. Barnes, T. C. Goodwin, jr. and T. W. Cotton, jr. bibliog Am Chem Soc J 69:3135-8 D '47
- Synthesis of diethynyl glycols and their condensation with ketones, N. A. Milas, R. J. Brown and O. Phillips, bibliog Am Chem Soc J 70:2862-3 S '48
- Synthesis of 2,3-disubstituted cinchoninic acids from propoxymethyl alkyl (or phenyl) ketones by means of the Pfitzinger reaction, H. R. Henze, J. W. Melton and E. O. Forman, bibliog Am Chem Soc J 70:2622-4 Ag '48
- Synthesis of ketones from aliphatic nitriles and phenylmagnesium bromide, C. R. Hauser, W. J. Humphlett and M. J. Weiss, bibliog Am Chem Soc J 70:426 Ja '48
- Synthesis of some β -keto esters, S. B. Soloway and F. B. LaForge, bibliog Am Chem Soc J 69:2677-8 N '47
- Synthetic studies in the steroid series; use of methyl γ -bromocrotonate in the synthesis of fused-ring hydroaromatic ketones, J. W. Cook and R. Philip, Chem Soc J p 162-4 F '48
- See also
Ethynyl ketones
Reformatsky reaction
- KETOSTEROIDS.** See Steroids
- KETOXIMES.** See Oximes
- KETOYOBYRINE**
Structure of ketoyobyryne, R. B. Woodward and E. Witkop, bibliog Am Chem Soc J 70:2409-12 JI '48
- KETTLES**
Heat losses from tanks, vats and kettles, S. J. Friedman, bibliog diags Heat & Ven 45:94-108 Ap '48
- KEYNES, John Maynard, 1883-1946**
Economics and the cultural lag; attacks widespread acceptance of Keynesian economics, E. P. Schmidt, Comm & Fin Chr 167:903 F 26 '48
- Keynesian miracle, L. von Mises, Comm & Fin Chr 167:2095+ My 13 '48
- Modernists' attacks on savings; a rejoinder; Keynes' theories, W. E. Spahr, Comm & Fin Chr 166:1941+ N 13 '47
- Two interpretations of Keynesian economics, A. H. Hansen; A. F. Burns, R Econ Stat 29:247-68 N '47

KEYS and keyways (machinery)

- Broach requirements for spline shafts and fittings, H. H. Gotberg, diags Mech Eng 70:680-2 Ag '48; Excerpt, Machine Design 20:102-3 Ag '48
- Centering device locates keyways on tapered shafts, W. M. Halliday, diags Am Mach 92:122 Ja 15 '48
- Determining the face width of spline cutters, H. A. Neff, diag Mach 54:188 Ja '48
- Hobs for spline shafts; abstract, A. F. Zamis, Machine Design 20:103-4 Ag '48
- Involute spline experience; abstract, C. H. Stanard, Machine Design 20:102 Ag '48
- Photoelastic investigation of stress-relieving fillet curves, E. Chapman, il Product Eng 19:138-41 My '48
- Shadowgraph a sample to find tool errors; manufacture of interchangeable parts by Lockheed aircraft corp, C. H. Bodner, il diag Am Mach 91:87-90 D 18 '47
- Straight-sided splines, J. B. Armitage, diags Mech Eng 70:738-42 S '48; Excerpt, Machine Design 20:101-2 Ag '48

KEYSTONE steel and wire company

Stock offered, Comm & Fin Chr 166:2211 D 1 '47

KIDNEYS

- Effect of the protein content of the diet on the glomerular filtration rate of young and adult rats, S. E. Dicker, Science 108:12 JI 2 '48; Discussion, R. W. Lippman, 108:483-4 O 29 '48
- Proteinuria and kidney injury among workmen exposed to cadmium and nickel dust, L. Friberg, bibliog J Ind Hygiene 30:32-6 Ja '48
- Use of thin kidney slices and isolated renal tubules for direct study of cellular transport kinetics, R. P. Forster, bibliog Science 108:65-7 JI 16 '48

Diseases

- Lipemic nephrosis in rats, W. Heymann and H. Z. Lund, bibliog Science 108:448-9 O 22 '48

KIDNEYS, Artificial

- Studies on an artificial kidney; preliminary results with a new type of continuous dialyzer, L. T. Skeggs, jr. and J. R. Leonards, bibliog diag Science 108:212-13 Ag 27 '48

KIESELGUHR. See Diatomaceous earth**KILNS**

- Bringing the tunnel kiln up to heat, G. Palmer, jr. Brick & Clay Rec 112:44 F '48
- Car-bottom kiln saves pottery two hours a day, il Cer Ind 49:106 O '47
- Cavity wall kiln designed for lift truck operation and built for \$3,500, J. Sparks and B. Foster, il Brick & Clay Rec 112:48-9 Je '48
- Continuous tunnel kiln improves quality of abrasive wheels, il Steel 123:149 S 20 '48
- Cut fuel consumption, increase production 94 per cent, obtain uniform heat distribution; rebuilt tunnel kilns on tile plant, il diags Cer Ind 50:63-4 F '48
- Easily operated, insulated door saves \$20 per burn on new cavity wall kiln, il Brick & Clay Rec 113:57 O '48
- Economic factors in use of kiln furniture; abstract, J. W. Miller, Cer Ind 50:76+ My '48
- Fluidization used in making activated carbon, A. Godel, diag Chem Eng 55:110-11 JI '48
- High-temperature laboratory kiln; abstract, P. Keith and O. J. Whitmore, jr. Brick & Clay Rec 112:60+ My '48
- Making iron powder in the tunnel kiln, V. H. Gottschalk, bibliog U S Bur Mines Information Circ 7473:1-16 '48
- Manufacture of sponge iron in ceramic tunnel kilns, V. H. Gottschalk and others, 3pds U S Bur Mines Rep of Invest 4271:1-25 '48
- Method followed in solving a problem of scumming in a dryer-tunnel kiln, G. Palmer, jr. Brick & Clay Rec 112:64 Je '48
- Pottery pioneers new light-construction kiln, il diag Cer Ind 50:133+ Ap '48
- Rotary kilns start rolling at new Haydite plant, B. Nordberg, il Rock Prod 51:122-4 JI '48
- Use of excess air in tunnel kiln operation increases brick output, G. Palmer, jr. Brick & Clay Rec 113:48-9 S '48

KILNS—Continued

Waste heat drying system. T. W. Garve, plan diags Am Cer Soc Bul 27:296-8 Ag 15 '48
Welding spiral flights with automatic tractor inside 4-ft. diam. kiln. J. W. Hill. il Welding J 27:723-4 S '48

See also
Lime kilns

Electric heating

Adjustable electric kiln for pottery firing. A. R. Dyer, il diags Am Cer Soc Bul 27:25-7 Ja 15 '48

Firing

Chicago Retort beats fuel shortage bugaboo by burning Bunker-C oil. il plan diag Brick & Clay Rec 112:72+ F '48

Firing is the most important step in the manufacture of refractories. J. O. Everhart, Brick & Clay Rec 113:64+ S '48

Paul De Vries uses chrome steel tubes for char retorts. diag Chem Eng 54:223-4+ N '47

Stoker-firing round down-draft kilns reduces burning time, saves 14 per cent fuel. il Brick & Clay Rec 111:56-7 D '47

Use of liquefied petroleum gas in ceramic industries. G. R. Benz and E. A. Jamison. Am Cer Soc Bul 26:297-9 O 15 '47

KILOVOLT METERS. See Voltmeters

KINDELBARGER, James Howard, 1895-
Portrait. Bsns W p64 J1 3 '48; Fortune 38:7 N '48

KINEMATICS

Kinematics of turbulence. F. N. Frenkiel, biblog diags J Aeronautical Sci 15:57-64 Ja '48

See also
Acceleration

KINEMATICS of machinery. See Machinery, Kinematics of

KINESCOPE. See Television apparatus

KINESIMETERS

Kinesimeter for studying the spontaneous activity of small animals. F. A. Waterman, biblog il diag Science 106:499-501 N 21 '47
KINETIC theory of gases. See Gases, Kinetic theory of

KING, John J. 1867-1948

Honored on eightieth birthday. W. L. Clapp, por East Underw 48:1+ N 21 '47
Sketch, por East Underw 49:3+ My 7 '48;
Nat Underw 52:21 My 6 '48; Nat Underw (Life ed) 52:12 My 7 '48

KING features syndicate

KFS global salesmen confer in New York. C. Hodge, Ed & Pub 81:6 Je 19 '48

KINGS and rulers

Political handbook of the world; parliaments, parties and press as of January 1, 1948. W. H. Mallory, ed. 214p \$3.50 Council on foreign relations, 58 E. 68th st, New York 21 '48

KINGS county lighting company

Reorganization under Holding company act not dependent on state approval. Pub Util 41:587-8 Ap 22 '48

KINGS river, California

Reclamation will oppose utility's plan for Kings river. Elec World News ed 129:13 F 21 '48

KINGSTON, Jamaica

See also

Motor bus lines—
Kingston, Jamaica

KIRBY, James B.

Kirby, the man behind less work in the home. R. K. Lotz, pors Machine Design 20:106-13 J1 '48

KIRKPATRICK, Sidney D.

Portrait, Food Ind 20:562 Ap '48

KIRKSITE. See Zinc alloys**KITCHEN cabinets**

Educational campaign cracks market for infant enterprise; creating consumer desire for steel kitchen cabinets. C. E. Bullock, il Sales Management 61:122+ Ag 15 '48

Kitchen cabinet hardware and metal mouldings. il diags Am Bld 70:92-3 J1 '48

Planning kitchens for today's houses; kitchen cabinets; steel and wood. il Am Bld 70:88-91 J1 '48

KITCHEN cars

Burlington converts government kitchen cars. il Ry Mech Eng 121:695 D '47

KITCHEN sinks. See Sinks

KITCHEN utensils

Gift appeal for kitchen tools; Ekco packages. il Mod Packaging 21:110-12 My '48
Gift packaging ups unit of sale for Ekco. il Sales Management 61:120-1 Ag 15 '48

See also

Cooking ware
Enameled ware
Pressure cookers

KITCHENS

Philadelphia offers kitchen planning. il Gas Age 100:17 D 25 '47

Philadelphia resumes kitchen service. il Am Gas Assn Mo 29:550 D '47

Plan kitchens for efficiency and convenience. il Am Bld 70:132-3 F '48

Planning kitchens for today's homes. il plans diags Am Bld 70:72-101 J1 '48

Selling bathrooms and kitchens room by room; Hanna kitchens, inc. has seven showrooms in one. il Dom Eng 170:118-21+ N '47

Electric equipment

Electric kitchen takes to the road; project of Central Louisiana electric co. il Elec World 129:102-3 Mr 13 '48

Equipment

Brooklyn Union uses six tools for New Freedom gas kitchen sales. M. Gibbons, il Gas Age 101:20-1+ F 5 '48; Same. Am Gas Assn Mo 30:14-16 Mr '48

Fort Worth promotes all gas kitchens. il Gas Age 102:21+ J1 22 '48

How to sell and install water heating for commercial kitchens. il diags Dom Eng 172:116-23+ O; 118-20+ N '48 (to be cont)

Kitchen makers plan for future; Mullins mfg. takes steps to prevent tie-in sales. il Bsns W p78 Ap 3 '48

Manufacturers producing materials and equipment for use in new and existing kitchens; list. Am Bld 70:110+ J1 '48

Models boost kitchen equipment sales. il Mod Plastics 25:82-4 Ag '48

Plastic skin on aluminum body is used in new British kitchen-bathroom units for light-weight, tough finish. il Arch Forum 89:108 Ag '48

School kitchen replacement plan. A. G. Bur. Am Gas J 168:38-9 F '48

See also

Domestic appliances
Kitchen cabinets
Kitchen utensils

Lighting

Appraisal of kitchen lighting elements. J. Reynolds and A. W. Kalkity. il diags Illum Eng 43:1015-43 N '48

Kitchen lighting tests; with time-saver standards. E. W. Commerly. il diags Arch Rec 104:143-4+ S '48

Ventilation

Cool, odorless kitchens catch the buyer's eye. il Am Bld 70:100-1 J1 '48

New development in gas range venting with mechanical draft hood. F. A. Herr. il diag Am Gas J 168:50-2+ My '48

Report of performance of a domestic kitchen ventilation hood. H. L. Warren. il diag Gas Age 101:28-31+ Ap 1 '48; Same. Am Gas Assn Mo 30:21-4 Ap '48

KJELDAHL method. See Nitrogen—Analysis**KLEIN-NISHINA scattering**

Penetration of gamma-radiation through thick layers; plane geometry, Klein-Nishina scattering. J. O. Hirschfelder and others. diag Phys R 73:852-62 Ap 15 '48

KLING, Andre, 1872-1947

Sketch, por Chimie & Ind 58:221-2 S '47

KLYSTRON

Analysis of klystron reflector performance. H. Motz, diags Inst E E J 95 pt 3:295-301 J1 '48

Design and application data on single resonator, reflex-type, klystrons. Communications 28:20 O '48

Electronic tuning of reflection klystrons. B. Bleaney. Wireless Eng 25:6-11 Ja '48

KLYSTRON—Continued

- Frequency stabilization of microwave oscillators by spectrum lines. W. V. Smith and others. *il* diags *J Ap Phys* 18:1112-15 D '47
- Frequency stabilization with microwave spectral lines. W. D. Hersberger and L. E. Norton, bibliog *il* diag *RCA R* 9:38-49 Mr '48
- Klystrons. *il* *R Sci Instr* 19:611 S '48
- Microwave secondary frequency standard. R. R. Unterberger and W. V. Smith, bibliog diags *R Sci Instr* 19:580-5 S '48
- Multifrequency bunching in reflex klystrons. W. H. Huggins, diags *Inst Radio Eng Proc* 36:624-30 My '48; Correction. 36:1145 S '48
- Reflex oscillators for radar systems. J. O. McNally and W. G. Shepherd. *il* diag *Inst Radio Eng Proc* 35:1424-35 D '47
- Three-cm continuous range oscillator. I. M. Gottlieb. *il* diag *Electronics* 20:146+ D '47

KNEE

- Phlebotomological treatment of arthritis of the knee. O. Meyer. bibliog *il* diags *Ind Med* 17:405-8 O '48

KNIT GOODS

- Combined skills produce quality knit-goods finishing. E. S. Dunlap. *il* *Textile World* 98:108-9 Ap '48
- Knit goods bleached continuously; Spring City bleach and dye works. W. A. Newell. *il* *Textile World* 97:108-9 D '47
- Knit goods bleached in continuous range. C. M. Bowden. *il* *Textile World* 98:104-6 Ap '48
- Knit-goods shrinker ready in nine months. *diag* *Textile World* 98:150 JI '48
- Knitter looks at vinyon. W. A. B. Davidson. *Rayon* 29:82-3 Ap '48
- Nylon in knit upholstery offers strong advantages. W. A. B. Davidson. *Rayon* 29:67 JI '48
- Precision finishing needed for striped knit goods. I. Teplitz. diags *Textile World* 98:139+ S '48
- Progress and prosperity keynote knit-goods finishing. W. A. Newell. *il* *Textile World* 98:103-4 Ap '48
- Redman shrinker passes experimental test runs. E. E. West. *Textile World* 98:110 Ap '48
- Stability in price of chemical yarns, great factor in knitting trade. W. A. B. Davidson. *Rayon* 29:67-8 Mr '48
- Warp knitting with nylon yarns. *Rayon* 29:65-7 JI; 67-9 Ag '48

See also

- Hosiery
Rayon—Knit goods

KNITTING

- Cone-winding task easily computed from data. R. Leppla. *il* *Textile World* 98:118-19+ My '48
- Economy of knitted headers should be tested by mill. *Textile World* 98:178+ Ja '48
- Lay-in cloth is produced by teaming alternate feeds. *Textile World* 98:170+ Mr '48
- Loop transfer methods show knitting ingenuity. C. R. Carter. diags *Textile World* 98:120-1 My '48
- Outerwear knit goods designed on machine. diags *Textile World* 98:172+ Ap '48
- Proper feeding of rubber betters elastic knit goods. H. Wignall. diags *Textile World* 98:139+ O '48
- Seamless-hose streaks can be eliminated. C. W. Arrowood. *il* *Textile World* 98:106-7 Ag '48
- 10- and 15-den. nylon intensifies knitting problems. H. B. LeFeaux. *il* diag *Textile World* 98:123+ Ja '48
- Use of knitting data aids style identification. E. D. White. *Textile World* 98:123 JI '48
- Use of nylon and other new fibers in knitting. W. A. B. Davidson. *Rayon* 29:75-6 F '48
- Vision standards must be related to mill's own loopers. N. C. Kephart. bibliog *Textile World* 98:141+ My '48
- See also*
- Hosiery—Manufac-
ture
Knit goods

Patents

- British patent covers pile carpet knitting. H. Wignall. diags *Textile World* 97:149 N '47

KNITTING machines

- Circular knitter has 96 feeds. *il* *Textile World* 98:141 Ja '48
- Circular-rib machines versatile for women's underwear. C. R. Carter. *il* *Textile World* 98:118-19+ Ag '48
- Coulier-motion setting is skillful operation. H. B. LeFeaux. diags *Textile World* 98:132-3 O '48
- Developments in British knitting machinery. *Rayon* 29:81 F '48
- Knitted fabric has great facility for fancy patterns. C. R. Carter. diags *Textile World* 97:132-3 D '47
- Knitting loom developed at North Carolina state textile school. *il* *Textile World* 98:142+ Ag '48
- Knitting-needle dispenser raises one needle at a time. H. J. Haas. diags *Textile World* 98:160 O '48
- Knitting-yarn tension registered in grams. H. J. Haas. *diag* *Textile World* 98:163+ Je '48
- New devices aid seamless knitting. *il* *Textile World* 98:139+ Mr '48
- Pattern chain drive; Fidelity 400 circular knitting machine. *il* diag *Machine Design* 20:126-7 Ap '48
- Simplex tricot announced by Reiner. *il* *Textile World* 97:158 D '47
- Sinker-top machine has great versatility. *il* *Textile World* 98:151 O '48
- Variable striper with pattern wheels produces knit plaids. *il* *Textile World* 98:148+ Ap '48
- Warper teams with F.N.F. knitter. diags *Textile World* 98:154 Ap '48

See also

- Hosiery machines

Needles

- Latch knitting needle patented in France in 1803. *Textile World* 98:153+ Ap '48

KNITTING mills

- Experience chart reduces costly trials. A. M. Young, Jr. *il* *Textile World* 98:309-10 S '48
- Ruralization method no.1; convert an old building; Munsingwear, inc. *il* *Factory Management* 106:68-70 Ag '48
- Tricot mill versatile in equipment and methods; A-Q mills, inc. C. M. Bowden. *il* *Textile World* 98:112-13 Ja '48

See also

- Hosiery mills

KNITTING needles

See also

- Knitting machines—
Needles

KNIVES, Chipper

- Application of synchronous and induction motors to chippers. R. R. Baker and M. R. Lory. *il* *Elec Eng* 66:1099-103 N '47
- Drive for the Carthage chipper. J. E. Rhodes. *il* *diag* *Paper Tr J* 125:94-6 N 6 '47
- Horizontal disk chipper. W. W. Brown. diags *Pulp & Pa of Can* 49:95-7 O '48
- Making chipper knives at the mill. A. L. Cobb. diags *Pulp & Pa of Can* 49:78-80 Ag '48
- Wood chipper. H. W. Rogers. *il* diags *Paper Ind* 30:883-8, 1042-7 S-O '48

KNOOP indenter. See Hardness—Testing**KNUDSEN, William Signius, 1879-1948**

- Auto industry pays tribute to one of its most able pioneers. W. G. Patton. *Iron Age* 161:100+ My 13 '48

- Sketch. A. H. Allen. *por* *Steel* 122:75 My 3 '48

KOBER, George Martin, 1850-1931

- G. M. Kober, M.D.; his life and deeds. R. T. Legge. *por* *Ind Med* 17:301-2 Ag '46

KOCH, Fred Conrad, 1876-1948

- Sketch. *por* *Chem & Eng N* 26:402-3 F 9 '48
- Sketch. M. E. Hanke. *Science* 107:671-2 Je 25 '48

KOERNER, Henry

- Paintings of Europe; with critical text. *Fortune* 36:78-9 D '47

KOFOID, Charles Atwood, 1865-1947

- Sketch. H. Kirby. *Science* 106:462-3 N 14 '47

KOJIC acid

- Concerning the acylation of kojic acid at elevated temperatures. L. L. Woods. *Am Chem Soc J* 70:2608-9 JI '48

KOLENE process. See Metal cleaning

KOPPERS company

Actual plan for defense; case study. Mill & Factory 42:128-9 Je '48

Annual report. Comm & Fin Chr 167:2789 Je 28 '48

KOPPERS-HINCKLEY-PODBIELNIAK apparatus

Experimental study of the Koppers-Hinckley-Podbielniak apparatus and method for the determination of conjugated dienes. M. Shepherd and others. J Res Nat Bur Stand 39:435-51 N '47

KOREA

Occupation policies in Japan and Korea. H. Borton. bibliog Ann Am Acad 255:146-55 Ja '48

Oil burners are now used in Korea. W. Viessman. diag Heat & Ven 45:100 Ag '48

See also
Education—Korea
Silk trade—Korea

Commercial policy

South Korea; approved lists of imports and exports. For Comm W 29:17 N 8 '47

Politics and government

Two camps in Korea. map Economist 155:500+ S 25 '48

KOREAN naval expedition, 1871. See United States naval expedition to Korea, 1871**KORESIN**

Pyrolysis of Koresin. J. W. LeMaistre and R. B. Seymour. bibliog Am Chem Soc J 70:1776-8 My '48

KOSYGIN, Alexei Nikolayevich

Economic brain trust of Soviet Russia. por Bns W p22-4 My 15 '48

New Soviet finance chief. por Bns W p93 F 28 '48

KOVAR. See Iron alloys—Nickel cobalt alloys**KRESGE, S. S., company**

Common stock offered. Comm & Fin Chr 168:346 Jl 26 '48

KRESS, S. H., and company

Diversified stake in merchandise shares. G. W. Mathis. Mag of Wall St 82:237 Je 5 '48

KRIMENDAHL, Herbert

Portrait. Fortune 38:7 O '48

KROGER company

Making contests do double-duty; Kroger ties up a big package of national contests. il Bsns W p58+ O 16 '48

KRUPP works, Essen

End of the Krupps. il Bsns W p23 My 8 '48

KRYPTOGENIN

Steroidal sapogenins; nologenin and its degradation products. R. E. Marker and J. Lopez. Am Chem Soc J 69:2386-8 O '47

KRYPTON

Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. bibliog J Chem Phys 16:190-4 Mr '48

Use of krypton improves 85-w fluorescent lamps. Elec World News ed 130:21-2 S 4 '48

See also
Electric lamps,
Krypton

Isotopes

Radioactive Kr isotopes. L. L. Woodward and others. Phys R 74:761-4 O 1 '48

Recoil of the nucleus in beta-decay of Kr⁸⁸. J. C. Jacobsen and O. Kofoed-Hansen. bibliog diags Phys R 73:675-9 Ap 1 '48

KRYPTON lamps. See Electric lamps, Krypton**KUBELKA and Munk equation**

New contributions to the optics of intensely light-scattering materials. P. Kubelka. bibliog Opt Soc Am J 38:448-57 My '48

KUWAIT

See also
Petroleum industry
and trade—Kuwait

KYMOGRAPH

Simple pen for kymograph tracings. L. W. Lewis. diag Science 106:451 N 7 '47

L

L.C.L. freight. See Freight car service—Car load

LABELING

Bottles get built-in labels; illustrations with text. Bsns W p59 F 7 '48

Ceramic color labeling. il Mod Packaging 21:120-6+ My '48

Color-labeling the modern way; ceramic label. il Cer Ind 51:78-9 N '48

Heat-seal papers. H. W. Taylor. il Mod Packaging 21:149-51+ My '48

How to make the slow line move; Frey & sons labels and advertises sausage. D. Dover. il Ptr Ink 222:48-9 F 20 '48

In-plant training; experience in labeling courses. J. C. Clay. il Mod Packaging 21:108-11 Je '48

LABELING machines

Ceramic color labeling. il Mod Packaging 21:120-6+ My '48

Heat-seal papers. H. W. Taylor. il Mod Packaging 21:149-51+ My '48

Hershey's box seal; mechanical application of thermoplastic spot labels. il Mod Packaging 22:136-9 S '48

Labeling plastic products. il Mod Plastics 25:87 Mr '48

Roll-type labeler. il Mod Packaging 21:158 Ap '48

LABELS

Carp with class; Lakefish canning co. acetate-laminated label and double-money-back guarantee. il Mod Packaging 21:112-13 Je '48

Contemporary labels; Burnham & Morrill specimens, 19th century and today. W. Longyear. il Mod Packaging 21:118-23 D '47

It's a trend; the use of informative labels on plastics. E. M. Kelley. il Sales Management 61:92-4+ N 1 '48

Label plan builds material sales for Styron. Mod Ind 16:103-4+ O '48

Low-cost label coding; new fully automatic machines cut Lederle's costs. il Mod Packaging 22:110-12 O '48

Nashua's Thermo-Kote uses twin forces. Paper Tr J 125:26 N 20 '47

New packages aid shift to national advertising; Rexall re-labeled 5,000 drug items. C. J. Swan. il Ptr Ink 223:32-3+ Je 25 '48

Package copy planning; General Foods Consumer service editorial division. il Mod Packaging 21:109-14+ Ap '48

Waterproof can label for fruit juices. il Mod Packaging 21:132-3 Je '48

See also

Tags
Union label

Law

California law on labeling mixtures. Safety Eng 96:24-5 S '48

What's a label? conflicting decisions by U.S. courts. Bsns W p66 N 22 '47

Printing

Adaptable labels; standard label boosts sales of Sillers' 1,000 paints. il Mod Packaging 21:134-6 Je '48

LABELS, Union. See Union label**LABOR, Compulsory**

Mr Isaacs spreads his net; Registration for employment order. Economist 154:8 Ja 3 '48

LABOR and capital

Old boss writ large, demand for workers' control of industry. Economist 154:1001-2 Je 19 '48

LABOR and laboring classes

Labor. il Fortune 38:139-42+ O '48 [cont monthly]

Plight of labor under totalitarianism. W. B. Smith. Pub Util 41:158-63 Ja 29 '48

Significant labor developments. B. Werne. Factory Management 106:192+ Ja '48 [cont monthly]

Summary of information on foreign labor conditions recently received by B.L.S. (Labor abroad no. 8) 62p U.S. Bur. of labor statistics, Washington 25 '48

LABOR and laboring classes—Continued

Summary of information on foreign labor conditions recently received by B.L.S. (Labor abroad no. 9) 50p U.S. Bur. of labor statistics, Washington 25 '48

See also

Absenteeism (labor)
Accidents, Industrial
Apprentices
Arbitration, Industrial
Bonus system
Building trades—
Labor conditions
Chemical workers
Child labor
Coal miners
Cooperative associations—Employees
Cotton mills—Employees
Disables—Rehabilitation
Diseases, Industrial
Employees
Employees' representation in management
Employment management
Employment systems
Farm labor
Foundries—Employees
Gas companies—Employees
Government employees
Hours of labor
Housing
Hygiene, Industrial
Industrial education
Industrial management
Industrial relations
Insurance, Industrial
Insurance, Unemployment
Insurance, Workmen's compensation

International labor organization
Labor disputes
Labor laws and legislation
Labor supply
Laundry workers
Lumber workers
Machinery in industry
Metal workers
Miners
Motor bus drivers
Municipal employees
Occupations
Office workers
Old age pensions
Open and closed shop
Pensions, Industrial
Petroleum workers
Printers
Professional workers
Profit sharing
Radio workers
Railroads—Employees
Research workers
Retail workers
Safety devices and measures
Salesmen
Seamen
Standard of living
Steel workers
Strikes
Textile workers
Time study
Trade agreements
Trade unions
Unemployment
Wages
Woman—Employment
Workmen's compensation

Bibliography

Book notes. Published in monthly numbers of International labour review
Books received. Published in monthly numbers of International labour review
Labor problems; a bibliography. B. W. Levy. Personnel J 26:294-304 '48
Publications of labor interest. Mo Labor R 66:73-8 Ja '48 [cont monthly]

International aspects

Labour attachés, H. Hauck. Int Labour R 58:143-50 Ag '48

See also

Employment—International aspects
Immigration and emigration

Trade unions—International aspects

Statistics

Causes of mortality among employed persons (1927-1945). C. F. Schrier. Ind Med 17:47-51 F '48

Current labor statistics. Published in Monthly labor review

Labor force, employment, and unemployment, 1929-39; estimating methods. S. Lebergott. Mo Labor R 67:50-3 J1 '48

Sixth International conference of labour statisticians, Montreal, Aug. 4-12, 1947. Int Labour R 57:603-11 Je '48

See also

Cost of living—Statistics
Employment—Statistics

Hours of labor—Statistics
Wages—Statistics

Terminology

Dictionary of labor economics. B. Horton. 32p pa \$1 Public affairs press, 2153 Florida av, Washington 8, D.C. '47

Asia

Preparatory Asian regional conference of the International labour organisation. New Delhi, Oct. 27-Nov. 8, 1947. Int Labour R 57:425-37 My '48

Atlanta

Salaries and working conditions, Atlanta office workers, 1947. H. Hall. Mo Labor R 66:512-14 My '48

Australia

Social policy in Australia. Int Labour R 56:595-6 N-D '47

See also

Labor laws and legislation—Australia

Austria

See also
Trade unions—Austria

Belgium

See also
Wages—Belgium

Canada

National employment service of Canada. Int Labour R 58:76-8 J1 '48

China

Displaced persons in China. Int Labour R 57:378-81 Ap '48

Hours of work and rest days in China. Int Labour R 57:85-7 Ja-F '48

See also

Trade unions—China

Denmark

See also
Wages—Denmark

Fiji islands

Fijian labour. Int Labour R 56:337-8 S '47

France

Output per man-hour in French industry. 1938-47. Mo Labor R 67:44-5 J1 '48

What the Communists have done to French industry. M. Marsh. II Factory Management 106:108-12 F '48

See also

Labor laws and legislation—France

Germany

Labor relations in the U.S. zone of Germany. O. Weigert. Mo Labor R 66:378-85 Ap '48

Social conditions of transport workers in Germany. Int Labour R 56:576-84 N-D '47

Great Britain

British labor-management co-operation; joint consultation program. R. L. Roberts. II Dun's R 56:19-20+ S '48

British labor under the labor government. J. A. Flexner. Mo Labor R 67:117-22, 366-72 Ag, O '48

Engineering outlook; manpower situation. Engineering 165:65-8 Ja 16 '48

Industrial democracy. Economist 154:171-2 Ja 31 '48

Labour and the Nation. Economist 155:362-4, 402-4, 444-6 S 4-18 '48

Labour in 1947. G. Williams. Engineer 185:4-6, 32-4 Ja 2-9 '48

Neurosis among British factory workers. Mo Labor R 66:403-4 Ap '48

Old boss writ large, demand for workers' control of industry. Economist 154:1001-2 Je 19 '48

Worker output under socialism in England. W. F. Bradley. Automotive Ind 99:25 N 1 '48

See also

Labor laws and legislation—Great Britain
Labor party (Great Britain)
Steel workers—Great Britain

Hawaiian Islands

Economic and labor conditions in Hawaii. J. H. Shoemaker. Mo Labor R 66:488-92, 609-12 My-Je '48

Hungary

Basic collective agreement in Hungary. Int Labour R 57:510-13 My '48

Collective agreements in Hungary. Int Labour R 57:637-40 Je '48

State and workers in Hungary. Economist 155:583-4 O 9 '48

LABOR and laboring classes—Continued**India**

Indian industrial committee on cotton textiles meeting, New Delhi, Jan. 12-14, Int Labour R 57:478-80 My '48
 Medical care for Indian tea plantation labour, Int Labour R 58:248-50 Ag '48

Italy

Who will lead Italy's workers? Economist 154:717-18 My 1 '48

See also

Unemployment—Italy

Latin America

Workers' movement in Latin America; salaried employees, Int Labour R 57:250-4 Mr '48

Near East

Regional meeting for the Near and Middle East, Istanbul, Nov. 1947, Int Labour R 58:1-17 Jl '48

Norway

Situation in Norway, Int Labour R 57:235-8 Mr '48

Palestine

Voluntary old-age insurance in Palestine, Int Labour R 57:83-91 Ja-F '48

Poland

Spare time facilities for Polish workers, Int Labour R 56:201-2 Ag '47
 Vocational guidance in Poland, S. Hartman, Int Labour R 57:591-602 Je '48

Portland, Oregon

Successful formula for industrial peace; labor-management committee of Portland, Mill & Factory 43:148-9 S '48

Russia

Problem in Soviet statistics, A. Bergson, R Econ Stat 29:234-42 N '47
 Russian foreman, V. I. Bumagin, Il Iron Age 162:12-5 O 21 '48
 Soviet Union; industrial training, E. Nash, Mo Labor R 65:569-71 N '47
 Truth about the Russian worker, L. C. Morrow, Il Factory Management 106:90-2 Mr '48

Sweden

Swedish employment market trends, Int Labour R 57:497-8 My '48

Switzerland*See also*

Wages—Switzerland
 Woman—Employment—Switzerland

Trinidad

Labour in Trinidad, Economist 153:914 D 6 '47

United States

Auto workers' blues; U.A.W. survey shows that sick care is chief concern today, Fortune 38:210+ N '48
 Chronology of labor events, July-Sept. 1947, Mo Labor R 65:570-80 N '47
 Chronology of recent labor events, Published in Monthly labor review
 Employment organization in the United States, Int Labour R 57:645-50 Je '48
 Free labor and free enterprise; Labor day address, H. S. Truman, Comm & Fin Chr 168:397+ S 9 '48
 Labor and inflation, W. Green, Comm & Fin Chr 168:1009+ S 9 '48
 Labor-management must avoid depression, M. J. Tobin, Comm & Fin Chr 168:905+ S 2 '48
 Labor relations trends, Chem Eng 55:173-4+ Ag '48
 Labor's goals, P. Murray, Comm & Fin Chr 168:1008 S 9 '48
 Much of labor fears government as an employer, A. M. Cooper, Barron's 23:7-8 Jl 12 '48
 Pro-public labor program; Labor day radio speech, M. J. Tobin, Comm & Fin Chr 168:1007+ S 9 '48

Quick appraisal of the labor market's balance sheet, Bsns W p 104-5 My 22 '48; Discussion, p46+ Jl 17 '48

Recent trends in the labor force, H. Wool, Mo Labor R 65:638-44 D '47

Role of labor in our expanding economy, L. H. Keyserling, Comm & Fin Chr 168:1852+ N 4 '48

What labor is going after in 1948, Factory Management 106:110-12 Ja '48

What the factory worker really thinks about his job; unemployment; and industry's profits, Factory Management 105:86-92 D '47

What the factory worker really thinks about the Taft-Hartley law and labor in politics, Factory Management 105:90-6 N '47

What's on the workers mind? P. Meadows, Il Tech R 50:322-4+ Ap '48

Workers too well satisfied with U.S. system to vote left next month, Mod Ind 16:36-7 O '48

See also

Labor laws and legislation—United States
 Labor supply—United States

Negroes—Employment
 Trade unions—United States
 Wages—United States

Political aspects

Labor elects a president, A. M. Cooper, Mill & Factory 43:95-8 Jl '48

What the factory worker really thinks about the Taft-Hartley law and labor in politics, Factory Management 106:66-71 O '48

See also

Trade unions—Political activities

LABOR attachés. See Labor and laboring classes—International aspects

LABOR camps

What's new in oil field housing? A. Reese, Il plans diag World Oil 128:53-4 S; 78-82 N '48

LABOR contracts

Deferred compensation, G. B. Gordon, Weekly Underw 157:1536-3 D 13 '47

Watch those compensation clauses when you write a salesman's contract, A. W. Gray, Sales Management 60:81+ Mr 15 '48

See also

Trade agreements

LABOR cost

Corporate earnings trends under today's labor cost ratios, P. T. Sheldrick, Mag of Wall St 82:115-17+ My 3 '48

Costly fringe: vacation, premium pay, other benefits, Bsns W p 100-1 O 2 '48

Cutting indirect labor costs; abstract, Management R 37:245-7 My '48

Hidden payroll costs; automotive parts manufacturers, Automotive Ind 98:33+ Je 1 '48

Hidden payroll; payment for time not worked, employee benefit programs, etc. add to labor costs, E. P. Schmidt, Comm & Fin Chr 168:1657+ O 21 '48

Next depression's goblins get a powerful recruit; rigid wage structure will close one avenue of cost reduction, H. S. Taylor, Barron's 28:5-6 Mr 29 '48

Accounting

Achieving control of direct and indirect labor costs, W. E. Anderson, N A C A Bul 29:435-43 D 15 '47

Daily reports to control assembly labor time and costs, J. G. Goettee, N A C A Bul 29:1421-8 Jl 15 '48

Indirect labor costs reduced with control sheet, C. E. Fleck, Factory Management 106:33 Jl '48

Measurement and control of indirect labor, E. V. Hopton, N A C A Bul 29:561-70 Ja 15 '48

Payroll analysis for labor cost control, G. A. Harlow, N A C A Bul 29:961-7 Ap 1 '48

Putting cost control on a sound basis, Il Mod Ind 15:135-6+ My '48

Standard direct labor costs for automatic electroplating processes, C. W. Reinert, N A C A Bul 30:29-31 S 1 '48

LABOR courts. See Courts, Industrial

LABOR displacement

Labor menaces mechanization. *il Bsns W* p96-8 *Je* 12 '48

LABOR disputes

Benefit plans can backfire; Oak Ridge and AEC-contractors squabble. *Chem Eng* 55: 175-6+ *Je* '48

Handling disputes at the mine. *V. B. Stith. il Coal Age* 53:58-61 *Mr* '48

Labor conditions; labor-management disputes, work stoppages, 1941-1946. *Survey of Cur Bsns* 1947 *Sup* p63 [supplemented in monthly numbers]

Labor learns the hard way. *H. M. Gallagher, jr. il Am Bsns* 18:28+ *S* '48

Labor-management disputes in December 1947. *Mo. Labor R* 66:61 *Ja* '48 [cont monthly]

Labor-management disputes in August 1948. *Mo Labor R* 67:287-9 *S* '48

Let's settle it here, say local labor-management groups; Toledo, Louisville and other plans. *A. N. Weckler. Mill & Factory* 42:93-8 *F* '48

Settling labor disputes at home. *Mod Ind* 15: 54-6+ *Ja* '48

Softer labor front? *il Bsns W* p 100+ *Mr* 27 '48

Work stoppages during 1947. *D. Q. Crowther and A. J. Herlihy. Mo Labor R* 66:479-87 *My* '48; Same, with additional data. *U S Bur Labor Statistics Bul* 935:1-22; *pa* 20c *Supt. of doc.* '48

See also

Arbitration, Industrial
Strikes

Trade unions—Jurisdictional disputes

LABOR laws and legislation

Fair employment practices legislation. *R. Parkinson. Harvard Bsns* 26:115-28 *Ja* '48

I.L.O. standards recommended at National conference on labor legislation. *Int Labour R* 57:486-90 *My* '48

Recent decisions of interest to labor. *Published in Monthly labor review*

State labor legislation, 1937 to 1947. *H. A. Millis and H. A. Katz. Mo Labor R* 66:637-8 *Je* '48

See also

Arbitration, Industrial

Child labor laws

Employers' liability

Hours of labor—Law

Injunctions

Insurance, Unemployment

Insurance, Workmen's compensation

also National conference on labor legislation

Labor, Compulsory

Minimum wage

Picketing

Strikes—Law

Trade unions—Law

Wages—Law

Workmen's compensation

Afghanistan

Labour legislation in Afghanistan. *Int Labour R* 57:83-5 *Ja-F* '48

Australia

Conciliation and arbitration in Australia. *Int Labour R* 56:316-19 *S* '47

Belgium

Holidays with pay in Belgium. *Int Labour R* 56:78-81 *Jl* '47

British Columbia

British Columbia labor act changes clarified. *Paper Tr J* 127:14 *Ag* 19 '48

California

California Hot cargo act, unconstitutional. *Mo Labor R* 65:688-9 *D* '47

Canada

Canada now has own version of T-H law. *Bsns W* p 117 *S* 18 '48

Colombia

Decree-law provides for profit-sharing by workers. *For Comm W* 32:15 *Ag* 14 '48

Congo, Belgian

Labor legislation in Belgian Congo. *Int Labour R* 56:290-5 *S* '47

Cuba

U.S. protests new Cuban labor decree shackling American firms; relates to agents of foreign firms. *Oil Paint & Drug Rep* 153:5 *Ja* 12 '48; *Excerpt. For Comm W* 30:15-16 *Ja* 17 '48

Czechoslovakia

Manpower mobilisation in Czechoslovakia. *Int Labour R* 56:321-4 *S* '47

Fiji islands

Labour legislation in Fiji and the British Solomon islands. *Int Labour R* 58:239-42 *Ag* '48

France

Industrial relations in France. *Int Labour R* 56:454-6 *O* '47

Great Britain

British Control of engagement order, 1947. *Mo Labor R* 65:568-9 *N* '47

Employment market organisation in the United Kingdom. *Int Labour R* 56:456-63 *O* '47

Taft-Hartley law compared with British and Swedish practice; data sheets. *Factory Management* 105:130+ *D* '47

Women and young persons in the United Kingdom; hours of work in factories using electricity. *Int Labour R* 57:519-20 *My* '48

India

New industrial disputes act in India. *Int Labour R* 56:176-8 *Ag* '47

Plantation labour in India. *Int Labour R* 58: 215-17 *Ag* '48

Settlement of trade disputes in India. *Int Labour R* 57:67-72 *Ja-F* '48

Ireland

Agreement between Irish employers and workers. *Int Labour R* 58:381-3 *S* '48

Italy

Establishment of works committees in Italy. *Int Labour R* 57:72-5 *Ja-F* '48

Mahé

New labour legislation in the Seychelles. *Int Labour R* 58:242-4 *Ag* '48

Michigan

Company loses; strike vote asked by Murray corp. boomers; Michigans' new Bonline-Tripp act. *Bsns W* p 100+ *F* 21 '48

Missouri

How Missouri's new utility antistrike law works. *V. Julian. Pub Util* 42:204-10 *Ag* 12 '48

Missouri state labor and industrial inspection laws. *V. T. Williams. Ind Med* 17:158 *Ap* '48

Norway

Three weeks' holidays with pay in Norway. *Int Labour R* 57:381-3 *Ap* '48

Pakistan

Employment measures in Pakistan. *Int Labour R* 57:499 *My* '48

Panama

National commission of minimum wage created; other major features of the labor code. *For Comm W* 32:22-3 *Ag* 7 '48

Solomon islands

Labour legislation in Fiji and the British Solomon islands. *Int Labour R* 58:239-42 *Ag* '48

Sweden

Taft-Hartley law compared with British and Swedish practice; data sheets. *Factory Management* 105:130+ *D* '47

Switzerland

Swiss constitutional problems and the International labour organisation. *J. Secretan. bibliog Int Labour R* 56:1-20 *Jl* '47

United States

Amendments aimed to correct flaws found in Fair labor standards act. *S. H. Scheibla. Nat Pet N* 40:38+ *My* 19 '48

LABOR laws and legislation—United States—*Continued*

Employee interest in public utility merger and abandonment cases. H. H. Goldin. Land Econ 24:161-74 My '48
 End of union-shop polls? proposed bills. Bsns W p 109-10 My 15 '48
 Fortune survey; labor legislation. Fortune 37: 12 Je '48
 Labor-management relations. B. Werne. Factory Management 106:196+ Ja '48 [cont monthly]
 Pensions or power? il Coal Age 53:74-7 Ap '48
 Ten years operations under Fair labor standards act. D. Tuney. Mo Labor R 67: 271-4 S '48
 U.S. Supreme court docket; shift from business regulation to labor regulation. P. B. Kurland. Fortune 38:179-80 N '48
 Violators feel Hobbs act teeth. il Bsns W p 96 D 20 '47

Taft-Hartley law

Approval for T-H; interim congressional report. Bsns W p 106-8 Mr 20 '48
 Balancing the books on T-H. il Mod Ind 16: 54-6+ O '48
 By-passing the Taft-Hartley law. Personnel J 26:316-18 Mr '48
 Collective bargaining under the Taft-Hartley act. B. H. Levy. Harvard Bsns R 26:468-79 Jl '48
 Commends Taft-Hartley act, but warns of abuse. S. H. Slichter. Comm & Fin Chr 167:610 F 5 '48
 Compulsory arbitration due? is the Taft-Hartley act a half-way house. il Bsns W p 98+ Mr 13 '48
 Congress reports on labor relations; synopsis of joint committee on labor-management relations' report on the operation of the Taft-Hartley law and labor's reaction. A. N. Weckler. Mill & Factory 42:95-100 My '48
 Congressional committee reports on Taft-Hartley act. Mo Labor R 66:528-30 My '48
 Contract problems under the Taft-Hartley act. G. Moskowitz. Paper Ind 29:157-60 Mr '48; Same cond. Steel 122:48-50 E 23 '48; Excerpts. Management R 37:134-7 Mr '48
 Coverage of check-off under Taft-Hartley act. Mo Labor R 67:42 Jl '48
 Does the Taft-Hartley act apply to retailing? M. J. Simon. J Retailing 23:111-18 D '47
 Eligibility of strikers to vote under the Taft-Hartley act. B. H. Levy. Personnel 25:60-71 Jl '48
 Executives' reactions to Taft-Hartley act. Iron Age 162:223 O 14 '48
 Experience under Taft-Hartley act. N. C. Rockwood. Rock Prod 50:93+ D '47
 Fall clearance at the big stores; union caught between T-H and non-complying locals. il Fortune 38:147-8 O '48
 Foreman and the Taft-Hartley law. A. M. Cooper. Mill & Factory 42:106-8 My '48
 Giving labor-law facts to workers; American central division of the Avco manufacturing corp. W. S. Wheeler. il Factory Management 106:80-1 Mr '48
 High court avoids principles in two Taft-Hartley act tests. Elec World 129:6 Je 26 '48
 Hits ANPA. W. Randolph. Ed & Pub 81:8 S 11 '48
 How effective is the Taft-Hartley law? latest data on strikes and worker idleness compiled by the Bureau of labor statistics. K. Rannels. Automotive Ind 99:24-6 Ag 15 '48
 Impact of anti-labor legislation on collective bargaining in the transit industry. O. D. Zimring. Mass Transportation 43:515-20 N '47
 Injunction rule; Supreme court issues first clarifying decision on T-H law. Bsns W p 110+ Mr 27 '48
 I.T.U. won't recognize the T-H law. Bsns W p 72-3 Ag 28 '48
 Labor justice by court injunction? Mod Ind 15:121-2 Mr '48
 Labor law explained in letter to workers; Caterpillar tractor co. L. B. Neumiller. Factory Management 105:230+ D '47
 Labor-management revolution of 1947; abstract. M. Dodge. Management R 36:577-9 N '47
 Labor, 1948; peace or pickets. W. V. Packard. Iron Age 161:178-83 Ja 1 '48
 Labor's 1948 objective is repeal of Taft-Hartley act. W. Green. Comm & Fin Chr 167:110 Ja 8 '48
 Law to be applied to construction. N. C. Rockwood. Rock Prod 51:93+ Ap '48
 Local construction does not affect interstate commerce(?) application of Taft-Hartley law to building trades. N. C. Rockwood. Rock Prod 51:125+ Je '48
 Misleading publicity about the Taft-Hartley law; labor's attitude. Personnel J 26: 240-2 Ja '48; Reply. C. E. Robinson. 26: 377-80 Ap '48
 Mr Public weighs Taft-Hartley act. Mod Ind 15:149-50+ F '48
 NLRB ruling on non-Communist affidavit. Mo Labor R 65:565 N '47
 NLRB writes first major decision relating to professional employees; time-study men held to be professionals under Taft-Hartley act. Eng N 140:81 Ja 15 '48
 NLRB's scope; does the Taft-Hartley law cover small business? Bsns W p 71-3 Jl 31 '48
 New labor law backed by public opinion. J. M. Gambatese. Factory Management 105: 240-2+ N '47
 Public holds mixed view on Taft-Hartley labor act; Gallup poll. Iron Age 162:127 S 16 '48
 Reviewing T-H. Bsns W p 111-12 My 8 '48
 Seven key cases under the new labor law. J. M. Gambatese. il Factory Management 106:92-6 Je '48
 State rights win; T-H law forbids union-shop elections in states with freedom to work laws. Bsns W p 103-4 My 29 '48
 Strong test of Taft-Hartley looms as OWIU threatens Sinclair strike. S. H. Scheibla. Nat Pet N 40:27 Mr 24 '48
 Successful ways of explaining the Taft-Hartley law to employees. il Mill & Factory 42:115-18 Mr '48
 Taft-Hartley act and the mining industry. C. R. Kuzell and F. J. Ryley. il Min Cong J 33:38-42 D '47; 34:25-7 Ja '48
 Taft-Hartley act emancipates labor. I. M. Ives. Comm & Fin Chr 166:2058+ N 20 '47
 Taft-Hartley act has brought many benefits, report to Congress shows. Elec World News ed 129:12 Mr 20 '48
 Taft-Hartley act; not partisan, nor punitive! R. N. Denham. Comm & Fin Chr 166:1959+ N 13 '47
 T-H and the Commies. J. M. Gambatese. Chem Eng 55:177-8+ O; 207-8+ N '48
 Taft-Hartley and the miner. Eng & Min J 148:53-7 D '47
 T-H flaws cheer Communists. Bsns W p 102-4+ Mr 13 '48
 Taft-Hartley law compared with British and Swedish practice; data sheets. Factory Management 105:130+ D '47
 T-H law invoked in coal tie-up; gets trial run in meat strike. il Bsns W p 108-9 Mr 27 '48
 Taft-Hartley law says use reason instead of force. W. Williams. Factory Management 106:120-1 Ja '48
 Taft-Hartley law will stand the test; with poll of Southern executives. Manuf Rec 117:34-7+ Mr '48
 T-H test lies in administration; first 13 months under new labor relations act. S. H. Scheibla. Steel 123:76-7 S 20 '48
 Ten months of the Taft-Hartley act. E. H. van Delden. Mech Eng 70:752-4+ S '48
 Text of discussion on Taft-Hartley law at Chicago hearing. Ed & Pub 81:75-6 Ja 10 '48
 Trial balance on Taft-Hartley law. E. M. Herrick. Management R 37:123-5 Mr '48
 United States labor-management relations act of 1947. J. E. Lawyer. bibliog Int Labour R 56:125-66 Ag '47
 Utility supervisor under the Taft-Hartley law. A. M. Cooper. Pub Util 41:479-86 Ap 8 '48
 Welfare funds under the Taft-Hartley law. Factory Management 106:220+ F '48
 What 528 management men think of Taft-Hartley law. Bsns W p 19-20 Ag 21 '48

LABOR laws and legislation—United States—Taft-Hartley law—*Continued*

- What supervisors and foremen should know about the Taft-Hartley act. C. S. Hamilton, Jr. Personnel 24:293-7 Ja '48
- What the factory worker really thinks about the Taft-Hartley law and labor in politics. Factory Management 105:90-6 N '47
- What the factory worker really thinks about the Taft-Hartley law and labor in politics. Factory Management 106:66-71 O '48
- What the Labor-management relations act of 1947 means to executives. J. R. Bangs and J. W. Townsend. Mech Eng 70:226-9 Mr '48
- What's the score on T-H law? preliminary congressional report. Bsns W p96+ F 7 '48
- Year of the new labor law. J. H. Ball. Factory Management 106:90-3 Je '48

Taft-Hartley law—Bibliography

- Selected list of articles on legal aspects of Taft-Hartley act. Mo Labor R 66:409-10 Ap '48

Venezuela

- Labor and Venezuelan petroleum. G. O. Ives. Il World Oil 127:191-3 Ja '48

LABOR laws and legislation, International

- Progress of international labour legislation; ratification of conventions; extension of applications. Int Labour R 56:56-8 Jl '47
- Swiss constitutional problems and the International labour organisation. J. Secretan. bibliog Int Labour R 56:1-20 Jl '47

- LABOR legislation, National conference on.** See National conference on labor legislation

- LABOR-management committees.** See Employees' representation in management

- LABOR-management panel, National.** See National labor-management panel

- LABOR-management relations act.** See Labor laws and legislation—United States—Taft-Hartley act

LABOR party (Great Britain)

- Back bench drivers. Economist 154:748-9 My 8 '48
- Labour's choice. Economist 154:825-6 My 22 '48

LABOR productivity

- Bonus plan raises take-home pay 70 per cent; Acme sash balance co. D. Steele. Il Factory Management 106:83-4 Ap '48
- Building output; a case history. Economist 154:73-4 Ja 10 '48

- BLS reports increase in labor productivity from 1939-1945. T. Lloyd. Iron Age 161:126-7 Je 3 '48

- Construction productivity rising. Eng N 140: 788-9 My 27 '48

- Employee relations plan helps double small-plant productivity; Porter-Cable machine company, Syracuse. R. C. Tyo. Il Factory Management 105:78-80 D '47

- Fertilizer manufacture; man-hours per ton, 1939-46. Mo Labor R 67:258-60 S '48

- Footwear manufacture; man-hours per pair, 1939-45. Mo Labor R 67:256-8 S '48

- How to increase labor productivity. J. D. Corrigan. Paper Ind 29:1310-11 D '47

- International comparisons of productivity. L. Eostas. Int Labour R 58:283-305 S '48

- Leather manufacturing; man-hour requirements, 1939-46. Mo Labor R 67:383-5 O '48

- Management for more output. P. Mooney. Advanced Management 13:3-9 Mr '48
- Measuring productivity in wrapping and packing. F. I. Swenson. Management R 37: 247-9 My '48

- Men's dress shirts; man-hours per dozen, 1939-47. Mo Labor R 67:254-6 S '48

- More production; the price of freedom. C. Luckman. Comm & Fin Chr 167:2648+ Je 17 '48

- Only more production can offset inflation. L. C. Morrow. Factory Management 106: 65-70 Ja '48

- Outlook for labor productivity. J. C. Davis. Comm & Fin Chr 167:1323+ Jr 25 '48

- Output per man-hour in French industry, 1938-47. Mo Labor R 67:44-5 Jl '48

- Output per man-hour in selected manufacturing industries in 1946. Management R 37:31 Ja '48

- Production must increase with wages; management should sell workers on need for more output and offer sound plan for production. C. White. Ptr Ink 223:33+ My 21 '48

- Productivity is rising, but more slowly than expected. Bsns W p 114-16 S 18 '48

- Productivity picks up. Bsns W p 19-20 Je 19 '48

- Productivity studies; planning guides for industry. E. Clague. Dun's R 56:20-2+ O '48
- Slowdown, why? speed up, how? E. J. Warmbier. J Retailing 24:89-96+ O '48

- Survey shows better placement can boost productivity. Factory Management 106:117 Ja '48

- Test proves better seeing means more production. Il Factory Management 105:111-13 D '47

- Tighter discipline for more output. Il Mod Ind 15:46-9 F '48

- Variations in productivity between cotton spinning mills. P. D. Vincent. Textile Inst J 39:P407-14 Ag '48

- What is present status of labor productivity? Mill & Factory survey. Mill & Factory 43: 85-6 Ag '48

- What's happening to productivity. Factory Management 106:66-70 S '48
- Why our labor force does not meet today's production needs. P. T. Sheldrick. Mag of Wall St 81:231-2+ D 6 '47

- Will another wage increase bring further increase in prices? increased labor productivity? Mill & Factory 42:87-90 Ja '48

- Will to work; greatest resource of American industry. P. Bradley. Advanced Management 13:65-72 Je '48

See also

- Production stand-ards

LABOR recruiting

- Importing labor; Hickey-Freeman gets 100 tailors. Bsns W p23 Mr 6 '48

- LABOR relations board, National.** See National labor relations board

LABOR requirements for production

- Labor requirements for new construction, 1947-48. Mo Labor R 66:413-14 Ap '48

- Labor requirements for new construction, second quarter, 1948. Mo Labor R 67:47-8 Jl '48

- Labor requirements for new construction, third quarter, 1948. Mo Labor R 67:393-4 O '48

- Labor requirements; sand and gravel and ready-mixed concrete. A. L. Stucke. Mo Labor R 66:630-5 Je '48

- Labor requirements to produce home insulation. Il U S Bur Labor Statistics Bul 919:1-19; pa 10c Supt. of doc. '47

LABOR saving devices

- Cases in work simplification; Apex electrical manufacturing co. Il Factory Management 106:78-80 Je '48

- Cases in work simplification; Central mine equipment co. Il Factory Management 106: 88-9 Ap '48

- Cases in work simplification; Dutchess underwear corp. R. T. Selver. Il Factory Management 106:100-1 Mr '48

- Cases in work simplification; Hallicrafters company, Chicago. C. M. McConkey. Il Factory Management 106:112-13 My '48

- Cases in work simplification; ladies' foundation garment industry. Il Factory Management 106:84-5 Ja '48

- Cases in work simplification; Micro switch div., First industrial corp. Il Factory Management 106:108-9 Ag '48

- Making work simple. Il diags Mill & Factory 43:130-3 Ag '48

LABOR standards

- I.L.O. standards recommended at National conference on labor legislation. Int Labour R 57:486-90 My '48

See also

- Production standards

LABOR supply

- Committee of European economic cooperation manpower report. Mo Labor R 65: 567-8 N '47

- Manpower report of the committee of European economic co-operation. Int Labour R 56:566-75 N-D '47

Belgium

- Belgian manpower situation. Int Labour R 56:463-5 O '47

LABOR supply—Continued**Bulgaria**

Manpower problems in Bulgaria. *Int Labour* R 58:230-2 Ag '48

Canada

Canada's need for manpower. W. M. Neal. *Comm & Fin Chr* 166:2484+ D 13 '47
Employment situation in Canada. *Int Labour* R 56:465-6; 57:78-81 O '47, Ja-F '48

Europe

Committee of European economic cooperation manpower report. *Mo Labor* R 65:567-8 N '47
European labor force and the ERP. J. A. Flexner and J. Mintzes. *Mo Labor* R 65:678-84 D '47
European manpower conference, Rome, Jan. 1948. V. R. Lorwin and others. *Mo Labor* R 66:404-5 Ap '48
Europe's manpower. *Economist* 154:769 My 8 '48
Manpower report of the committee of European economic co-operation. *Int Labour* R 56:566-75 N-D '47

France

German free workers in France. *Int Labour* R 58:227-30 Ag '48

Germany

Manpower in Germany; employment registration statistics. *Int Labour* R 57:239-41 Mr '48

Great Britain

Conditions in Great Britain. *Int Labour* R 57:372-5 Ap '48
Employment market organisation in the United Kingdom. *Int Labour* R 56:456-63 O '47
Manpower budget. *Economist* 154:552-3+ Ap 3 '48
Mr Isaacs spreads his net; Registration for employment order. *Economist* 154:8 Ja 3 '48
United Kingdom employment policy. bibliog. *Int Labour* R 56:64-71 Ji '47
Uses of manpower. *Economist* 155:545-7 O 2 '48

Hungary

Manpower situation in Hungary. *Int Labour* R 58:78-80 Ji '48

India

Employment situation in India. *Int Labour* R 56:72-3 Ji '47

New Zealand

Government assists British workers in entering country. *For Comm W* 31:15 Je 12 '48

Sweden

Employment market organisation in Sweden. *Int Labour* R 57:367-72 Ap '48

United States

High employment is too low. *Bsns W* p23 S' 18 '48
Job peak squeezes manpower. *Bsns W* p23-4 N 8 '47
Jobs go a-begging in '48. *Bsns W* p 19-20 F 7 '48
Manpower needs of the expanded defense program. H. Wool and H. L. Lewis. *Mo Labor* R 67:373-6 O '48
No production labor shortage. *Aviation W* 48:18 My 10 '48
Progress of the postwar transition; utilization of manpower in 1947; with figures for other years. *Survey of Cur Bsns* 28:24-6 F '48
Recent trends in the labor force. H. Wool. *Mo Labor* R 65:638-44 D '47
Why our labor force does not meet today's production needs. P. T. Sheldrick. *Mag of Wall St* 81:231-2+ D 6 '47

See also

Military service—
Labor problems

LABOR turnover

Incentive plan for learners reduces turnover; pay for output over standard. K. A. Metzger. *Il Factory Management* 106:86-7 F '48

Labor turnover in manufacturing and in selected groups and industries. Published in *Monthly labor review*

Labor turn-over in manufacturing establishments, 1941-1946. *Survey of Cur Bsns* 1947 Sup p64 [supplemented in monthly numbers]

Labor turnover nears zero; data for 1945-47; graph. *Bsns W* p2 F 28 '48

Movie used to combat turnover; Hamilton watch co. L. S. Metcalfe. *Il Mill & Factory* 42:134 Ap '48

Personnel turnover reduced 45 per cent by Texas bank. C. E. McCutchen. *Il Bankers* Mo 65:12 My '48

LABOR unions. See Trade unions

LABORATORIES

Apparatus research laboratory; Air reduction company. *Il Mech Eng* 70:31-2 Ja '48; Same cond. *Blast F & Steel Pl* 36:127-8 Ja '48; Abstracts. *Chem & Eng N* 25:3648 D 8 '47; *Marine Eng* 52:132 D '47; *Mill & Factory* 42:109 F '48

Canadian Westinghouse research laboratories. *Il Engineer* 186:294-5 S 17 '48

Constructive curiosity reduces costs and improves quality; International harvester company department for research in reducing manufacturing costs, improving product quality. E. J. Clement. *Il Mill & Factory* 42:95-9 Ja '48

Informal research laboratory; a proposal. C. Hyman. *Science* 107:543 My 21 '48

International Harvester opens \$3½ million research building. *Il plan Automotive Ind* 97:30-1+ N 15 '47

Johns-Manville corporation lays cornerstone at Research center. *Il Blast F & Steel Pl* 36:132 Ja '48

Laboratory's role in criminology; New York police laboratory. R. L. Demmerie. *Il Chem & Eng N* 26:456-8 F 16 '48

Modern electroplating laboratory for development and pilot-plant studies; Westinghouse electric corp. G. Jernstedt. *Il Metal Finishing* 46:52-6 My '48

Nelson research laboratories. *Il diag Engineer* 184:458-60, 480-1 N 14-21 '47; *Engineering* 165:56-8 Ja 16 '48

New research and consulting laboratory. Richmond, Va. *Il Chem & Eng N* 26:2554-5 Ag 30 '48

Ontario research foundation's new laboratory. *Il Can Chem & Process Ind* 32:644-8 Ji '48

PABCO research laboratories completed. *Il Paper Ind* 29:1077-8 N '47

Prairie regional laboratory completed. *Can Chem & Process Ind* 32:654 Ji '48

Remarques sur l'organisation des laboratoires industriels. I. Psychès. *Il plan diags Chimie & Ind* 58:603-7 D '47

Research laboratory; Portland cement association. *Il Rock Prod* 51:103-4+ My '48

Sales training lab opened by Simonds. *Il Steel* 121:78 D 15 '47

Spectacular aluminum building and tower; Federal telecommunication laboratories, Inc. *Il Sheet Metal Worker* 39:76 Mr '48

Standardized welded connections cut costs for research building; Air reduction co. Apparatus research laboratory. L. Grover. *Il diags Eng N* 140:1031-3 Je 24 '48

See also

Aeronautic laboratories	Paper laboratories
Automobile laboratories	Petroleum laboratories
Bakers and bakeries—Laboratories	Physical laboratories
Cement laboratories	Radio laboratories
Chemical engineering laboratories	Retail trade—Laboratories
Chemical laboratories	Rubber laboratories
Cryogenic laboratories	Sewage disposal plants—Laboratories
Department stores—Laboratories	Television laboratories
Engineering laboratories	Testing laboratories
Mathematical laboratories	Textile laboratories
Medical laboratories	Underwriters' laboratories
Metallurgical laboratories	United nations—Laboratories
Naval research laboratory	United States—Navy—Laboratories
	X ray laboratories

LABORATORIES—Continued**Air conditioning**

- How to design heating, ventilating and air conditioning for modern research laboratories. il diags Dom Eng 172:104-11+ O '48
- Plumbing, heating and air conditioning for laboratory installation; Shell oil company research laboratory, Houston. il Dom Eng 172:100-3 O '48
- Trapping sound in ventilating ducts; sound-proof test room of the Bell telephone laboratories. N. N. Wolpert. il diags Heat & Ven 45:65-7 Ja '48

Designs and plans

- Le bâtiment des laboratoires des Fédéral Télécommunications & Nutley (New Jersey, E.-U.). G. Kimpflin. il plans Génie Civil 124:425-7 N 15 '47
- Buildings for science and pharmacy; Drake university. il plans diags Arch Rec 102:74-81 D '47
- Design of physics laboratories, London, 1947. il plans diag J Sci Instr 25:157-66 My '48
- New institute; Sloan-Kettering institute for cancer research; views, plans, and construction outline. Arch Forum 89:65-9 Ag '48
- S. C. Johnson and co. laboratory tower in earthquake cantilever construction; design by F. L. Wright. il plans diags Arch Forum 88:111-15 Ja '48

Directories

- Directory of commercial and college laboratories. A. E. Rapuzzi, comp. U S Nat Bur Stand Misc Pub M187:1-65; pa 30c Supt. of doc. '47

Employees

- See Laboratory workers; Research workers

Equipment

- Development of new laboratory equipment; United Kingdom supply situation improved. For Comm W 33:34 O 16 '48
- Extending the usefulness of laboratory instruments. M. A. Princi and H. S. Day. il diags Gen Elec R 51:15-17 O '48
- Joints for plumbing and laboratory piping. J. E. York. diags Heat & Ven 45:89-93 Je; 88-93 Jl '48
- Laboratory supplies in 1948, gradual return to normal production. Chem Age (Lond) 58:566-7 Ap 24 '48
- Method for determining the volume of small solid objects. J. M. Stewart. diag Science 106:425 O 31 '47
- Proportioning temperature controller. D. Lazarus and A. W. Lawson. diag R Sci Instr 18:730-3 O '47
- Small laboratory tools; Physical society exhibition. Chem Age (Lond) 58:580 Ap 24 '48

See also

- Electric heaters,
Laboratory

Heating and ventilation

- How to design heating, ventilating and air conditioning for modern research laboratories. il diags Dom Eng 172:104-11+ O '48

Layout

- Better lab layout, higher research output. E. G. Rochow. bibliog diags Chem Ind 61:986-7 D '47

Lighting

- Fluorescent illumination for teaching laboratories using microscopes. D. H. Hamly. il diags Illum Eng 43:515-27 My '48

Management

- Business management of a college research laboratory. R. A. Hussey. J Eng Educ 38:425-31 Mr '48
- Organization of a research laboratory. E. A. Walker. bibliog J Eng Educ 38:432-9 Mr '48
- Principles of industrial engineering for chemical laboratory layouts and techniques. W. von Pechmann. Ind & Eng Chem 40:sup 107A-8A Je '48

- Short cuts in safeguarding quality; laboratory workers have ideas for sales and production. il Mod Ind 15:49-53 My '48
- Some controversial points in the management of research. N. A. Shepard. Chem & Eng N 26:1508-10 My 24 '48

Records

- Research records in the small laboratory; Bausch & Lomb optical co. F. L. Jones. J Chem Educ 25:101 F '48

LABORATORIES, Foundry. See Foundry laboratories

LABORATORIES, Physical. See Physical laboratories

LABORATORIES, Traveling

- A.E. Chance co. develops mobile lab to test circuit-interrupting devices. il diag Elec World News ed 130:21-2 O 30 '48

- Control of materials by a motorized laboratory; abstracts. H. A. Tuttle and G. A. Nahstoll. il diag S A E J 56:59-62 Ap '48; Automotive Ind 98:31-2 F 1 '48

- Mobile laboratory moves in on boiler feed-water treatment. E. Short. il Oil & Gas J 46:60-2 Ja 1 '48

LABORATORY accounting

- Costing for the laboratory. L. J. A. Haywood. Metallurgia 38:316-19 O '48

LABORATORY of nuclear studies. See Cornell university—Laboratory of nuclear studies

LABORATORY work

- Functional laboratory courses. N. P. Bailey and J. J. Devine. J Eng Educ 38:141-3 O '47

- Laboratory instruction in an engineering curriculum. N. C. Ebaugh. J Eng Educ 38:659-62 My '48

LABORATORY workers

Training

- Education and training of laboratory technicians. Chem & Ind p655 O 25 '47

LABRADOR

See also

- Iron mines and mining—Labrador

LABRADORITE

- Hydrothermal alteration of feldspars at 250° C. to 400° C. T. F. O'Neill. bibliog Econ Geol 43:167-80 My '48

LAC

- Lac, a by-product of bituminous coal. Comp Air Mag 53:45 F '48

LACE

- Lace furnishing industry. L. Whitehouse. 4pls diags Textile Inst J 38:P607-14 D '47
- Lace making; abstract. W. I. Taylor. Textile Inst J 39:P117 Mr '48

LACE machinery

- Lace furnishing industry. L. Whitehouse. 4pls diags Textile Inst J 38:P607-14 D '47

LACKAWANNA and western railroad. See Delaware, Lackawanna and western railroad

LACLEDE gas light company

- Debentures offered. Comm & Fin Chr 167:1152-3 Mr 15 '48
- Public utility securities. Comm & Fin Chr 167:1000 Mr 4 '48

LACQUER and lacquering

- Dispersion of pigment for lacquers. P. H. Dewey. il Paint Oil & Chem R 110:94 D 11 '47; Excerpts. Oil Paint & Drug Rep 152:81+ N 17 '47
- Enamel clarification by centrifuging. W. R. Prosch. il Paint Oil & Chem R 111:18-19 Mr 4 '48

- Facilities for producing lacquers. E. E. Hoffman. Paint Oil & Chem R 110:116-20 N 13 '47

- Paint, varnish, and lacquer industry in 1947. C. P. Neidig and H. Burrell. Chem & Eng N 26:25-7 Ja 5 '48

- Solvent release vs. hardness of lacquer films, by Los Angeles paint and varnish production club. Paint Oil & Chem R 110:22+ N 27 '47

See also

- Varnish and varnish-ing

History

- History of lacquers. J. S. Long. bibliog Paint Oil & Chem R 110:12-14+ N 27 '47

LACQUER and lacquering—Continued**Statistics**

Sales of lacquer by quarters, 1944-1947. Paint Oil & Chem R 111:38 Mr 4 '48

Testing

Study of the dielectric strength of paint, varnish and lacquer films by New York paint and varnish production club. bibliog il diags Paint Oil & Chem R 110:52-9 D 11 '47

LACRIMATORS

Determination of phenylbromocetonitrile. A. M. Kinnear. bibliog Soc Chem Ind J 67:35-8 Ja '48

Halogenated ketones; the preparation of bromomethyl ketones by the diazomethane reaction. J. R. Catch and others. Chem Soc J p278 Mr '48

LACTAMS

Novel synthesis of α β -lactam. J. C. Sheehan and P. T. Izzo. Am Chem Soc J 70:1985 My '48

LACTIC acid

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon. P. C. Mehta and E. Pacsu. bibliog diags Textile Res J 18:387-95 Jl '48

Lactic acid polymers as constituents of synthetic resins and coatings. P. D. Watson. bibliog Ind & Eng Chem 40:1393-7 Ag '48

Lactic acid resins. Chem Ind 61:1000 D '47

New resins for coatings from dairy products; abstracts. P. D. Watson. Paint Oil & Chem R 110:43 O 30 '47; Chem Eng 55:262+ F '48

Manufacture

Lactic acid from fermentation of sulfite waste liquor. R. H. Leonard, W. H. Peterson and M. J. Johnson. bibliog il Ind & Eng Chem 40:57-67 Ja '48

LACTIC acid bacteria

Activity of vitamin B₁₂ for the growth of lactobacillus lactis. M. S. Shorb. Science 107:397-8 Ap 16 '48

Inhibition of lactic acid bacteria by analogs of pantothenic acid. W. Dreil and M. S. Dunn. bibliog Am Chem Soc J 70:2057-63 Je '48

Microbiological problems in the manufacture of sugar from beet; corrosion in the diffusion battery and in the recirculation system. L. A. Allen and others. bibliog diags Soc Chem Ind J 67:70-7 F '48

Studies on the air transmission of microorganisms derived from the respiratory tract. H. du Buy and others. bibliog diags Pub Health Rep 62:1391-413 S 26 '47

Vitamin requirements of microbacterium lacticum Orla-Jensen. R. N. Doetsch and M. J. Pelczar, Jr. Science 106:524-5 N 28 '47

LACTOBACILLUS casei

Degradation of the fermentation lactobacillus casei factor. E. L. R. Stokstad, B. L. Hutchings and others. bibliog Am Chem Soc J 70:15-13 Ja '48

Isolation of the fermentation lactobacillus casei factor. B. L. Hutchings and others. bibliog Am Chem Soc J 70:1-3 Ja '48

Isolation of the lactobacillus casei factor from liver. E. L. R. Stokstad, B. L. Hutchings and Y. SubbaRow. il Am Chem Soc J 70:3-5 Ja '48

Pteric acid derivatives; pteroyl- α -glutamyl-glutamic acid and pteroyl- α , γ -glutamyl-diglutamic acid. J. H. Mowat and others. bibliog Am Chem Soc J 70:1096-8 Mr '48

Pteric acid derivatives; pteroyl- γ -glutamyl-glutamic acid and pteroyl- γ -glutamyl- γ -glutamylglutamic acid. J. H. Boothe and others. bibliog Am Chem Soc J 70:1099-102 Mr '48

Structure of the liver L. casei factor. J. H. Mowat and others. bibliog Am Chem Soc J 70:14-18 Ja '48

Synthesis of pteroylglutamic acid (liver L. casei factor) and pteric acid. C. W. Waller and others. bibliog Am Chem Soc J 70:19-28 Ja '48

LACTOGLOBULIN. See Globulins**LACTONES**

Acrylic contender; betapropiolactone. il Chem Ind 61:977 D '47

Amino acid intermediates; α -amino- γ -lactones. J. Fillman and N. Albertson. bibliog Am Chem Soc J 70:171-4 Ja '48

Aziactones and phenylacetic acids derived from the 2-nitro-derivatives of vanillin, isovanillin, and veratraldehyde. S. F. MacDonald. Chem Soc J p376-8 Mr '48

Beta-propiolactone. Mech Eng 69:1031 D '47; Chem Ind 61:834 N '47; Sci Am 178:80 F '48

β -Propiolactone. T. L. Gresham, J. E. Janzen, F. W. Shaver and others. Am Chem Soc J 70:998-1006 Mr '48

Betapropiolactone work of Goodrich. Oil Paint & Drug Rep 152:74- N 10 '47

Preparation of cyclopentenones from lactones. R. L. Frank and others. bibliog Am Chem Soc J 70:1379-81 Ap '48

Substitution products of 5-cyclopentyl-5-oxopentanoic acid and 6-cyclohexyl-6-oxohexanoic acid. J. English, Jr., G. W. Barber and L. J. Lapides. bibliog Am Chem Soc J 70:2859-62 S '48

Unsaturated lactones; some esters of acetic and coumalic acids. N. R. Campbell and J. H. Hunt. Chem Soc J p 1176-9 S '47

See also

Butyrolactone

Methylene butyrolactone

LACTOSE

Borden award address; research on transformations of α -hydrate of lactose; abstract. B. L. Herrington. Chem & Eng N 26:2874 S 27 '48

Density and refractive indices of lactose solutions. E. J. McDonald and A. L. Turcotte. J Res Nat Bur Stand 41:63-8 Jl '48

LADDERS

Special ladder for fluorescent lights. J. C. Smith. il Factory Management 106:126 F '48

Safety measures

Aluminum and other metal ladders. Nat Safety N 57:56 Je '48

Ladders; selection, use and care. diags Nat Safety N 57:87+ Mr '48

Up-to-date safety requirements for wood ladders. H. D. Bender. il Ind Stand 19: 64-5 Jl '48; Abstract. Nat Safety N 58: 28+ S '48

LADING, Bills of. See Bills of lading**LADLE cars**

J & L's Aliquippa works increases capacity by use of thirteen hot metal cars. il Iron & Steel Eng 25:77-8 Jl '48; Same. Blast F & Steel Pl 36:982-3 Ag '48

LADLES, Foundry. See Foundry ladles**LAFOLLETTE-MONRONEY act. See Lobbying****LAGOONS, Sewage. See Sewage lagoons****LAGOS, Nigeria****Water supply**

Water supply; illustrations with text. Water & Sewage Works 94:452-3 D '47

LAIRD, Wilson Morrow, 1915-

Recipient of President's award. C. E. Erdmann. bibliog por Am Assn Pet Geologists Bul 32:835-8 My '48

LAIT, Jacquelin L. 1883-

Mirror reflects a supercharged editor. C. Hodge. por Ed & Pub 81:7+ Ag 7 '48

LAKE CHARLES, Louisiana

Keeps warbuilt plants humming. il Bsns W p70-3 Je 12 '48

LAKE FOREST, Illinois**See also**

Housing-Lake Forest, Illinois

LAKE SUPERIOR district power company

Stock subscriptions. Comm & Fin Chr 167: 2134 My 17 '48

LAKEFRONT dock and railroad terminal company

Bonds offered; offering of a new issue of \$9,250,000 first mortgage. Comm & Fin Chr 168:251-2 Jl 19 '48

LAKES

Limnology and the eocene lakes of the Rocky Mountain region. W. H. Bradley. bibliog diags Geol Soc Bul 59:635-48, pl 1-2 Jl '48

See also

Ice on rivers, lakes, etc.

LAKES—Continued

Temperature

Occurrence of temperatures unusual to American lakes. C. L. Newcombe and J. V. Slater. *Science* 108:385-6 O 8 '48

LAMINARIA. See Algae

LAMINARIN

Methods for the routine estimation of mannitol, alginic acid, and combined fucose in seaweeds. M. C. Cameron and others. *bibliog diag Soc Chem Ind J* 67:161-4 Ap '48

LAMINATED construction

Flexural strength and stiffness of wood-aluminum sandwich panels. R. A. Miller and H. L. Langhaar. *diags Product Eng* 19:104-8 Ag '48

Sandwich panels tested for the small house; resin-treated paper cores make a stiff, strong panel for structural use. *il diags Arch Rec* 103:150-1 Ap '48; *Abstract. Arch Forum* 89:117 J1 '48

LAMINATED paper. See Paper, Laminated

LAMINATED plastics. See Plastic materials, Laminated

LAMINATED products

See also

Metalite
Plywood

Testing

Furfural in phenol resin laminates. H. Kline. *Mod Plastics* 25:101-2 D '47

LAMINATED wood. See Plywood; Wood, Laminated

LAMME, Benjamin G., medals

Alexander Morton MacCutcheon; Lamme medalist for 1947; presentation by T. G. LeClair and F. E. Harrell; address by A. M. MacCutcheon. *il Elec Eng* 67:749-53 Ag '48

Lamme award; Alexander Graham Christie. *J Eng Educ* 39:3-5 S '48

Lamme medal for achievement in engineering education. *J Eng Educ* 38:14 F '48

Nominations for the award requested. *J Eng Educ* 38:400 Ja '48

LAMONT, Thomas William, 1870-1948

Sketch. *por Comm & Fin Chr* 167:617 F 5 '48

LAMPS, Christmas tree. See Christmas tree decorations

LAMPS, Mine. See Safety lamps

LAND

See also

Agriculture
Drainage
Eminent domain
Farms
Irrigation
Land tenure
Mineral lands
Mountain lands

National parks and reserves
Oil lands
Ranges
Real estate business
Real property
Reclamation of land
Rent

Subdivision

Controlled development assures value; Colonial Farms subdivision, Detroit. *il plan Am Bld* 70:99-101 S '48

FHA land planning service. F. D. Richards. *Banking* 40:109-10 F '48

Housing project near Pittsfield, Mass.; cloverleaf ground subdivision; design by F. L. Wright. *il plans Arch Forum* 88:80-1 Ja '48

How to plan, build and sell proper land use; Bow-Mar project, Denver; Madison Park project, Shreveport; Wedgewood Park project, Seattle. *il plans Am Bld* 70:118-25 Ap '48

Planning and building city of quality homes; Midwest City built by W. F. Atkinson of Oklahoma City. *il plan Am Bld* 69:115-17 D '47

Two cloverleaf subdivisions near Kalamazoo; designs by F. L. Wright. *plans Arch Forum* 88:84 Ja '48

LAND, Military. See Military land

LAND grant colleges

Agricultural engineering; its place in the land-grant schools. A. W. Turner. *J Eng Educ* 38:331-7 Ja '48

LAND settlement

More U.S. farms for Europe's food; immigrants could make New England acres productive. J. E. Kelly. *Barron's* 27:9 N 24 '47

LAND tenure

Homestead tax exemption; a tenure improvement measure? R. Barlowe. *bibliog J Land & Pub Util Econ* 23:360-70 N '47
John Adams and Thomas Jefferson on the nature of landholding in America. R. Freund. *bibliog Land Econ* 24:107-19 My '48
Research in the succession of farms; a comment on methodology. K. H. Parsons. *bibliog Land Econ* 24:293-302 Ag '48

China

Land reform is China's crying need. *il Bsns W p* 106-7 Ag 14 '48

Poland

Lesson for Poles; collectivizing the farms. *Bsns W p* 120-1 O 9 '48

Puerto Rico

Agricultural profit-sharing in Puerto Rico. G. Coates. *bibliog Land Econ* 24:309-11 Ag '48

LAND titles

Massachusetts surveying and title recording practice; abstracts of A.S.C.E. fall meeting papers. *Civil Eng* 18:679-80 N '48

See also Chicago title and trust company

LAND utilization

Conservation aspects of land programs. V. W. Johnson. *Land Econ* 24:303-9 Ag '48

Development of Salter's conception of research. K. H. Parsons. *Land Econ* 24:175-8 My '48

Needed; a method of western mountain land valuation. A. Roth, jr. *Land Econ* 24:181-5 My '48

United nations and changing land use in a metropolis. R. Tough and R. G. Weintraub. *Land Econ* 24:186-90 My '48

LAND values

Farm land prices continue uptrend; A.B.A. semi-annual study; with graphs and maps showing data by states. *Banking* 40:59-62 My '48

Farm land values show hints of coming decline. E. Hughes. *Barron's* 28:10 Je 14 '48
Land values. R. W. Babson. *Comm & Fin Chr* 167:2533 Je 10 '48

Needed; a method of western mountain land valuation. A. Roth, jr. *Land Econ* 24:181-5 My '48

LANDER, Wyoming

Sewerage

Sanitary sewer system designed to lower ground water level. G. H. Brodrick. *il diags Pub Works* 79:26-7 Ja '48

LANDING craft

Amphibious mother ship. H. Bast. *il U S Naval Inst Proc* 74:332-7 Mf '48

LANDING operations, Military

Development of naval gunfire support of amphibious operations. I. E. McMillian. *il U S Naval Inst Proc* 74:1-15 Ja '48

LANDIS, James McCauley, 1899-

President's rejection of Landis brings widespread criticism. C. L. Adams. *por Aviation W* 48:10-11 Ja 12 '48

LANDSCAPE gardening

Four gardens by Roberto Burle-Marx. *il Arch Forum* 87:90-1 N '47

Landscape planning for airports. F. B. Robinson. *il U Inst of Aeronautics Bul* 2:1-32 bibliog(p32) '48

Landscape; some guide-lines for future home builders. *Bibliog il Consumers Res Bul* 21:20-3 Ap '48

See also

Roadside planting

LANDSLIDES

Panama canal; excavation slopes. W. V. Binger and T. F. Thompson. *il maps plan diags Am Soc C E Proc* 74:570-90 Ap '48

Putting brakes on landslides. *il diag Comp Air Mag* 53:191-2 Ag '48

Stabilizing earth slopes by boring horizontal drains. T. E. Stanton. *il diags Pub Works* 79:20-2 F '48

LANGEINITE

Argon 40 in potassium minerals. L. T. Aldrich and A. O. Nier. *bibliog Phys R* 74:876-7 O 15 '48

LANGEVIN, Paul, 1872-

Diamagnetism; clarification of relations between fundamental molecular theories. S. J. Barnett. *Rs Mod Phys* 20:78-81 Ja '48

- LANGHAMMER, Anthony J.** 1891-
Metals medalist. por Bsns W p57 F 28 '48
- LANGMUIR, Irving.** 1881-
Weather under control. por Fortune 37:106-11+ F '48
- LANGUAGE, Universal**
Languages for science. P. Moon and D. E. Spencer. bibliog Franklin Inst J 246:1-12 J1 '48
- LANGUAGES, Modern**
Study and teaching
Problem of the study of foreign languages, as related to scientists. L. A. Ware. Science 106:490 N 21 '47
- LANHAM act.** See Trade marks—Law
- LANOSTADIENE**
Lanosterol; hydrocarbons formed by the action of dehydrating agents. C. Doré, J. F. McGhie and F. Kurzer. Chem Soc J p 1467-71 N '47
- LANOSTEROL**
Lanosterol; hydrocarbons formed by the action of dehydrating agents. C. Doré, J. F. McGhie and F. Kurzer. Chem Soc J p 1467-71 N '47
Lanosterol; hydrogenation of the inert double bond in lanosterol derivatives. C. Doré, J. F. McGhie and F. Kurzer. Chem Soc J p 988-90 J1 '48
- LANSING, Michigan**
Streets
Lansing, Mich. removes all the snow. il Eng N 141:93-5 O 14 '48
Rock salt melts down Lansing snow removal budget. P. H. Slack. il Roads & Sts 91:65-6 S '48
- LANTERN slides**
AAAS meetings and lantern slides. H. J. Fuller. Science 107:140-1 F 6 '48
Automatic masking of lantern slides. D. E. Copeland. il Science 107:401 Ap 16 '48
Method for making lantern slides. H. Neuberger. Science 107:23 Ja 2 '48
- LANTHANUM**
Superconductivity of lanthanum and cerium. W. T. Ziegler. J Chem Phys 16:838 Ag '48
Analysis
Chemical isolation of samarium from lanthanide mixtures. A. F. Clifford and H. C. Beachell. bibliog Am Chem Soc J 70:2780-1 Ag '48
Isotopes
Isotopic constitution of lanthanum and cerium. M. G. Inghram and others. bibliog Phys R 72:967-70 N 15 '47
Neutron deficient isotopes of cerium and lanthanum. J. B. Chubbuck and I. Perlman. bibliog Phys R 74:932-3 O 15 '48
Radioactive lanthanum and cerium isotopes of mass 137. M. G. Inghram and D. C. Hess, jr. Phys R 74:627 S 1 '48
Study of the radiations from iridium (194), iridium (192), lanthanum (140), antimony (124), and zirconium (95). C. E. Mandeville and M. V. Scherb. bibliog Phys R 73:1434-41 Je 15 '48
- LANTHANUM chloride**
Apparent molal expansibilities of potassium, barium and lanthanum chlorides as a function of concentration and temperature. G. Jones, E. F. Taylor and R. C. Vogel. bibliog diags Am Chem Soc J 70:966-77 Mr '48
- LANTHANUM fluorides**
Double fluorides of potassium or sodium with uranium, thorium or lanthanum. W. H. Zachariasen. Am Chem Soc J 70:2147-51 Je '48
- LANTHANUM oxide**
Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. bibliog Am Cer Soc J 31:132-44 My 1 '48; Same. J Res Nat Bur Stand 40:361-74 My '48
- LAPACHOL**
Syntheses in the lapachol series. M. Gates and D. L. Moesta. bibliog Am Chem Soc J 70:614-16 F '48
Synthesis of lomatol. M. Gates. bibliog Am Chem Soc J 70:617-18 F '48
- LAPLACE transformation**
Analysis of retarded control systems. L. A. Pipes. bibliog diags J Ap Phys 19:617-23 J1 '48
Application of Laplace pairs to the analysis of relaxation curves. H. H. Macey. bibliog J Sci Instr 25:251-3 J1 '48
Application of the Laplace transform in the solution of linear integral equations. L. B. Robinson. bibliog J Ap Phys 19:237-41 Mr '48
- LAPLACE'S equation**
Resistor network for the approximate solution of the Laplace equation. D. C. dePackh. diags R Sci Instr 18:798-9 O '47
- LAPPING machines**
Edgwick lapping machine. il Automobile Eng 37:405 N '47
Production processes; their influence on design; honing and lapping. R. W. Bolz. il diags Machine Design 20:133-9 Je '48
35th annual review. il Am Mach 92:198 Ja 29 '48
- LAQUE, Frank Laurence.** 1904-
Heads corrosion group. por Bsns W p71 Ap 17 '48
- LARCH**
e-Galactan of larch wood (*larix decidua*). W. G. Campbell, E. L. Hirst and J. K. N. Jones. Chem Soc J p774-7 Je '48
- LARD**
Lard takes on new properties; improvements in taste, odor, appearance and stability. F. C. Vibrans. il Food Ind 20:855-8 Je '48
- LARROWE, James E.**
Painful growth of monosodium glutamate; J. E. Larrowe's twelve-year struggle to wring monosodium glutamate out of beet sugar waste. Chem Eng 55:223-4+ Ap '48
- LARSEN, Roy Edward.** 1899-
President of Time, inc. por Bsns W p92+ Mr 6 '48
- LASKER, Albert and Mary.** foundation
Albert and Mary Lasker foundation 1948 awards. Science 108:432 O 22 '48
- LASSER, Jacob Kay.** 1896-
Tax expert. L. Bell. por Adv & Sell 41:94+ F '48
- LATCHES**
Automatic assembly jumps output 47 times; latch assemblies produced in progressive die equipped with a motor-driven hopper-feed mechanism. P. Bonness. il diags Am Mach 92:96-7 My 6 '48
- LATENT heat of vaporization.** See Vaporization, Heat of
- LATHES**
Adapting a lathe for turning special dowelpins. D. A. Baker. diags Mach 54:189-90 Ja '48
Air-tracer scans contours in machining operation. il diags Comp Air Mag 53:171-2 J1 '48
Alloy steel in the turret lathe. D. M. Gurney. il Metal Prog 54:474-6 O '48
American hydraulic cam-duplicating lathe. il Mach 54:201-2 Mr '48
Automatic lathe mechanism faces work with rough and finish cuts. R. R. Waech. diags Am Mach 92:126 Ag 12 '48
Cutting tools for engine lathes. A. E. Rylander. diags Tool Eng 21:39-40 S '48
Development of a high-speed lathe for machining aluminum. R. L. Templin. il diags A S M E Trans 70:837-44 O '48; Excerpt, Machine Design 20:140-2 Ja '48; Abstract. Iron Age 161:61 Ja 22 '48; Discussion. A S M E Trans 70:844-6 O '48
Grinding attachment for vertical turret lathe. H. E. Murphey. diags Mach 54:182 My '48
Hardinge precision lathe with variable-speed drive. il Mach 54:191 F '48
Headstock bearings in old lathe replaced in shell-rearing setup. F. C. Lurz. diags Am Mach 92:111 J1 29 '48
How to do milling work with a lathe. M. G. Moore. diags Power 92:307 My '48
Indicator attachment sets rough and finish diameters. T. H. Hanley. diags Am Mach 92:120 Ja 15 '48
Job planning on the turret lathe. E. L. Murray. il diags Tool Eng 20:17-25 F; 33-40 Mr '48
Lathe adapted to produce calibrated fuel-injection nozzles. diags Mach 54:193 Ja '48

LATHES—Continued

- Lathe attachment for chamfering both ends of cylindrical parts. M. W. Purser. *il* *diags* Mach 54:183-5 F '48
- Lathe facing fixture jumps percentage of production time. R. Mawson. *diags* Steel 123:122 S 6 '48
- Lathe fixture for pointing spindles. H. E. Murphey. *diags* Mach 54:190-1 D '47
- LeBlond 16-in. toolroom lathe. *il* Am Mach 91:145 O 23 '47; *Automotive Ind* 97:49 N 1 '47
- Milling-drilling attachment saves handling; auxiliary equipment on turret lathes. F. J. McArthur. *il* *diag* Tool Eng 21:30 S '48
- Monarch's Magna-Matic lathe. *il* Am Mach 91:152 N 20 '47
- Pipe and angle-iron bandsaw driven from engine-lathe head. A. Steiner. *il* Am Mach 92:110 Ag 25 '48
- Pneumatic plunger in turret lathe replaces bar-feed mechanism. D. E. Eaton. *diag* Am Mach 92:128 O 21 '48
- Radius-cutting lathe tool mounted in tool-post. A. B. Nixon. *diags* Am Mach 92:120 N 4 '48
- Screw feed for tailstock. J. Maltby. *diag* Tool Eng 21:35 JI '48
- Self-oiling dead-centre. *Engineering* 166:150 Ag 13 '48
- Semi-automatic device speeds production of short dowel pins. C. T. Bower. *diags* Am Mach 92:124 JI 15 '48
- Serrated, tapered shaft produced by tool held in lathe turret. G. R. Milner. *diags* Am Mach 92:118 Je 3 '48
- Shaft duplicating in single-tool lathe operations. *il* *diags* Mach 54:151-5 Je '48
- Sidney universal relieving attachment. *il* Mach 55:209-10 S '48
- Spare compound cross-slide convert lathe for milling work. *il* Am Mach 92:126 JI 15 '48
- Special lathes turn tapers; cream-separator valves; illustrations with text. K. R. McKay. Am Mach 92:102-3 Ag 26 '48
- 35th annual review. *il* Am Mach 92:128-44 Ja 29 '48
- Thread cutting in the lathe. C. Thomas. *il* *diags* Power Generation 52:72-6 Mr; 76-8 Ap; 78-9 My '48
- Timbreil and Wright high production capstan lathes. *il* *Engineer* 185:353 Ap 9 '48
- Turning irregular contours on a lathe. R. Maxant. *il* Mach 55:145-51 O '48
- Warner & Swasey turret lathe for non-ferrous metals. *il* Ry Mech Eng 122:517-18 S '48
- Worm gears gashed and hobbled on large gap-type engine lathe. N. MacLeod. *il* *diag* Am Mach 92:132-3 F 12 '48
- See also
- Screw machines

Control

- Automatic wheel machining; Boston & Maine 54-inch Bullard Man-Au-Trol. *il* *diags* Ry Mech Eng 122:351-5 JI '48
- Electronic lathe controls; abstract. K. T. Kuck. *Machine Design* 20:192+ Ag '48
- High-speed cycling; automatic electric controls utilized in turret lathe. R. H. Clark. *il* *diag* Machine Design 20:101-4 Ap '48
- Mechanical escapement; Gisholt no. 12 automatic lathe. *il* Machine Design 20:127-8 Ap '48
- Recent development in automatic lathe control; abstract. E. P. Bullard. *Instruments* 21:548+ Je '48

Standards

- Newly published standard gives data on spindle noses and chucks. J. E. Lovely. *il* Ind Stand 19:56-8 JI '48
- Spindle noses for lathes; new standard; reference book sheets. *diags* Am Mach 92:137, 139 JI 15 '48
- LATHROP, Austin Eugene, 1865-**
Enterprise; at eighty-three, Alaska's Lathrop still building. *por* *Fortune* 38:16 N '48
- LATIN AMERICA**
Appeals for hemisphere news. T. Wallace. *Ed & Pub* 81:26 O 23 '48

Policies and tendencies in Latin America. R. A. Humphreys. *Ann Am Acad* 255:58-66 Ja '48

See also

Credit—Latin America
Trade unions—Latin America
Retail trade—Latin America

Commerce

- Decline of Latin-American gold and exchange holdings during 1947. C. F. Carson. *For Comm W* 30:7+ Mr 20 '48
- Latin America demands more U.S. goods than can be supplied. J. L. McCaffrey. *Comm & Fin Chr* 168:1327 S 30 '48
- Latin American exchange situation. E. M. Bernstein. *Comm & Fin Chr* 168:1317+ S 30 '48
- Latin American market today. W. A. Rafferty. *Comm & Fin Chr* 167:1752+ Ap 22 '48; *Same*, *For Comm W* 31:6-S+ Ap 10 '48
- Latin America's dollar payments difficulties. *Nat City Bank* p 105-7 S '48
- Our future export market in Latin America. G. M. Galster. *Automotive Ind* 98:34-5+ My 15 '48
- U.S. trade with the other American republics in 1947; with tabulations and graphs showing comparisons with other years. D. Roxon. *For Comm W* 31:3-6+ Ap 17 '48
- Would your product sell in Latin America? J. C. Burt. *Ind Marketing* 33:106+ S '48

Cultural relations**United States**

- Letter-writing campaign to rally good neighbors. *Ed & Pub* 81:20 Ap 3 '48

Economic conditions

- World bank and Latin America; address before International conference of American states, Bogota, Colombia, April 5. J. J. McCloy. *Comm & Fin Chr* 167:1659+ Ap 15 '48

Economic relations**Germany**

- German investments in Latin America. J. F. Rippy. *bibliog* J Bsns 21:63-73 Ap '48

United States

- Better investment climate? Economic pact of Bogota. *Bsns W* p 125-6 My 15 '48
- Deeries Marshall plan for Latin America. J. S. Kemper. *Comm & Fin Chr* 168:1331 S 30 '48
- Does Latin America need a Marshall plan? V. L. Horoth. *Mag of Wall St* 82:176-6+ My 22 '48
- Economic agreement of Bogota; an inter-American milestone. H. Chalmers. *For Comm W* 31:3-6+ Je 12 '48
- Latin-American scene; no Marshall plan for Latin America. *Economist* 154:958-9 Je 12 '48

Industries and resources

- Progress in industrialization of Latin America. G. Wythe. *Ann Am Acad* 255:48-57 Ja '48

Politics and government

- Latin American North. maps *Economist* 153: 845, 885, 926-7 N 22-D 6 '47

LATIN square

- Mathematics for engineers; method of Graeco-Latin squares. H. Poritsky. *Elec Eng* 67: 1061-3 N '48

LATITUDE

See also

Cosmic rays—Latitude effect

LAUE photographs

- Laue photography of neutron diffraction. E. O. Wollan and others. *il* *diag* *Phys R* 73: 527-8 Mr 1 '48

LAUNDERETTES. See *Laundries*, *Self service*

LAUNDRIES

- Laundry and dry cleaning establishments now conducting a business volume of around \$1.8 billion annually. H. Stenerson. *Chem & Eng N* 26:488 F 16 '48

Designs and plans

- Drive-in laundry and dry cleaning establishment in Milwaukee, Wis.; design by F. L. Wright. *il* plans *diags* *Arch Forum* 88:107-9 Ja '48

LAUNDRIES—Continued

Power

Careful planning pays big dividends in lay-out of laundry boiler plant. R. F. Combs. *Il plan diags Power* 92:452-5 Ag '48

LAUNDRIES (rooms)

Laundries can now be pleasant living areas. *Il Am Bld* 70:118-19 Ag '48

LAUNDRIES, Self service

Gas-Mizer slashes water heating costs; description of reclaimer which has effected big savings in laundry field. *Il Am Gas Assn Mo* 30:12+ Mr '48

Gas sales potentials in launderettes. H. B. Wilson. *diag Gas Age* 100:31+ D 25 '47

Laundries into stores; Telecon sells mail order dresses on commission. *Bsns W* p23 Mr 6 '48

LAUNDRY

Detergency in the laundry. F. C. Harwood and J. Powney. *Il Chem & Ind* p579-81 S 11 '48

Effect of laundering on gas fading performance of rayon fabrics. F. K. Ray and S. Davison. *bibliog Am Dyestuff Rep* 37:322-5 My 17 '48

Fastness to washing; A.A.T.C.C. national research committee. *Am Dyestuff Rep* 37:405-6 Je 14 '48

History, art and science of laundering. F. C. Harwood. *Textile Inst J* 39:P513-25 S '48

Laundry bluiings. M. A. Lesser. *bibliog Soap & San Chem* 24:43-6+ O '48

Laundry sour. M. A. Lesser. *bibliog Il Soap & San Chem* 24:37-40+ Ag '48

New laundry technique. *Soap & San Chem* 24:31 Ja '48

Shrinkage of certain cotton woven fabrics caused by various laundering and pressing procedures. H. M. Fletcher and M. V. Jones. *Am Dyestuff Rep* 36:727-9 D 15 '47

LAUNDRY equipment

ABC of laundry equipment heating. C. J. Ray. *diags Power Generation* 52:84-6 Ja '48

Careful planning pays big dividends in lay-out of laundry boiler plant. R. F. Combs. *Il plan diags Power* 92:452-5 Ag '48

Infrared saves laundry investment. *Il Elec World* 129:144 Ap 10 '48

Removing lint from laundry unit. *diag Sheet Metal Worker* 38:62 D '47

Wash day workout shows salesmen how to sell sunny Mondays; Frigidaire trains laundry equipment men in demonstration. E. Gilbert. *Il Sales Management* 60:42-3 Ja 15 '48

LAUNDRY workers

Earnings of power laundry workers in large cities, July 1947. *Mo Labor R* 65:554-5 N '47

LAURATES

Laurate-ion activity in solutions of potassium laurate in the absence and presence of neutral salts. I. M. Kolthoff and W. F. Johnson. *bibliog J Phys & Colloid Chem* 52:22-7 Ja '48

LAURYL sulfonic acid

Oil-paper dielectrics; effect of asphalt as a contaminant in oil and in impregnated paper. J. D. Piper, P. Treend and K. S. Bevis. *bibliog Ind & Eng Chem* 40:323-3 F '48

LAVA

Mechanism of eruption at Parícutin volcano, Mexico. K. B. Krauskopf. *bibliog maps diag Geol Soc Bul* 59:711-31, pl 1-2 Ag '48

Theory of surface cracks in mud and lava and resulting geometrical relations. L. I. Hewes. *diags Am J Sci* 246:138-49, pl 1 Mr '48; Discussion. H. Simpson. 246:591-2 S '48

LAVATORIES

Change house, Martinez plant of Shell union oil corp. *Il plan Arch Rec* 104:115 O '48

Improving washrooms improves employee relations. T. Knight. *Inland Ptr* 121:91 J1 '48

Stopped washroom loitering. H. D. Fogel. *Il Factory Management* 105:97 D '47

Washrooms and lockers. *Il Nat Safety N* 57:173-4+ Mr '48

LAW, John, 1671-1729

Masters of money. *por Fortune* 37:94 Ap '48

LAW, Nigel

Portrait. *Fortune* 37:125 Ap '48

LAW

Legal decisions in 1947 of interest to chemical makers and sellers. L. T. Parker. *Chem Ind* 62:402-4 Mr '48

See also

Advertising—Laws

and regulations

Agency (law)

Air rights

Banking law

Building laws and

regulations

Community property

Corporation law

Damages

Debtor and creditor

Drugs—Laws and leg-

islation

Estates (law)

Evidence (law)

Fixtures (law)

Food laws and leg-

islation

Government regula-

tion of industry

Income tax

Insecticides—Law

Insurance law

Labor laws and leg-

islation

Lawyers

Legal service

Legislation

Liability

Libel and slander

Limitation of actions

Maritime law

Master and servant

Mechanics liens

Mortgages

Motor bus lines—

Laws and regula-

tions

Negligence

Newspapers—Law

Partnership

Patent laws and leg-

islation

Payment

Petroleum laws and

regulations

Press law

Probate law

Public health laws

Railroad law

Sales

Securities—Law

State laws

Taxation

Textile laws and reg-

ulations

Trusts, Industrial—

Law

Trusts and trustees

Wages—Law

Wills

Workmen's com-

pensation

Terms and phrases

Legal terms must always be spelled as they are spelled in the statutes; indorsement not endorsement. C. E. Dahlin. *Bankers Mo* 65:20 Je '48

Babylonia

See also

Hammurabi, Code of

LAW, Practice of. See Legal service

LAW, Sumerian

If a slave girl fled; law code of Lipit-Ishtar, antedates code of Hammurabi. F. R. Steele. *Il Sci Am* 178:44-7 Je '48

LAW libraries

Legislative histories. E. Finley. *Special Lib* 38:311-14 D '47

Uses of legislative histories. M. Wiener. *Special Lib* 38:314-18 D '47

LAWLER, Frank K.

Portrait. *Food Ind* 20:562 Ap '48

LAWN mowers

Butyrate parts in a lawn mower. *Il Mod Plastics* 25:99-101 J1 '48

Design innovations in a small engine built by Reo motors, inc. for driving lawn mowers, and for other uses. *Il diags Automotive Ind* 99:36-7 S '48

For the lawn; Clemson model E-17 lawn mower; use of plastics. *Il Product Eng* 19:135 S '48

Sheet metal stampings simplify lawnmower construction. *Il diags Product Eng* 18:102-3 N '47

Some possibilities in home-built lawn mowers. *Il diags Consumers Res Bul* 21:13-18 Ap '48

Rating

Lawn mowers. *Il Consumers Res Bul* 22:5-7 J1 '48

LAWRENCE, Ernest Orlando, 1901-

Portrait. *Fortune* 38:168 O '48

LAWRENCE, Jacob, 1917-

In the heart of the Black belt; reproductions of paintings by J. Lawrence; with critical note by Walker Evans. *Fortune* 38:88-9 Ag '48

LAWRENCE, Richard Wesley, 1878-1948

Chairman of the board of directors and principal owner of Printer's ink. *por Ptr Ink* 225:29-31 O 15 '48

Rites for Lawrence of Printer's ink. *Ed & Pub* 81:57 O 16 '48

Sketch. *por East Underw* 49:23 O 15 '48

LAWRENCE college

Institute of paper chemistry

- Annual executives conference, 12th, Appleton, Wis. May 20-21. Paper Tr J 126:46-7 My 27 '48
 Training for the pulp and paper industry; the graduate level, H. F. Lewis, Paper Tr J 127:61-4 Jl 22 '48

LAWYERS

- Engravers' chief raps lawyers' obstruction. E. J. Volz, Ed & Pub 81:28 Ag 14 '48
 Lawyer and business, F. Hamilton, Fortune 38:179-80+ O '48

See also

- American bar association Trust companies—
 Lawyers' cooperation
 Legal ethics Lawyers' coopera-
 Legal service tion

LAYOUT. See Bakers and bakeries—Layout; Bank buildings—Layout; Enamel and enameling—Plant layout; Factories—Layout; Laboratories—Layout; Machine shops—Layout

LAZARUS, Fred, 1884-

- Mr Fred of the Lazari, pors Fortune 37:108-15+ Mr '48

LEACHING

- Mining and leaching secondary copper ores; Carroll county, Va. C. H. Thompson, II Min Cong J 34:32-3+ Jl '48
 Semigraphical methods of solving leaching and extraction problems, B. E. Ruth, bibliog Chem Eng Prog 44:71-80 Ja '48
 Standard method for determining leachability of lead from lead frits, A. E. Currier, II Am Cer Soc J 30:335-8 N 1 '47

LEAD

- Absorption of Na^{24} gamma-radiation in lead, copper, and aluminum, D. E. Alburger, bibliog diag Phys R 73:344-3 F 15 '48
 Absorption of 17-Mev gamma-rays in lead and aluminum, B. D. McDaniel and others, diag Phys R 72:985-6 N 15 '47
 Action of natural waters on lead, G. Miles, bibliog Soc Chem Ind J 67:10-13 Ja '48
 $\text{CaSiO}_3(\text{Pb}+\text{Mn})$ phosphor, J. B. Merrill and J. H. Schulman, bibliog II Opt Soc Am J 38:471-9 My '48
 Corrosion in sulphuric acid towers; further study of acid-lead behaviour; abstract, F. Perktold and E. M. Müller, Chem Age (Lond) 57:787 E 20 '47
 Corrosion of lead by blended mineral combining oil, W. L. Thomas and E. W. Clark, Textile Inst J 38:P593 D '47
 Corrosion of steel, cast iron, and lead by sulfuric acid and choice of materials for pipe lines, M. G. Fontana, Ind & Eng Chem 40:sup 103A-4A Ap '48
 Creep rate of various industrial leads; abstract, J. N. Greenwood and J. H. Cole, Product Eng 19:146-7 Mr '48
 Fission of elements from Pt to Bi by high energy neutrons, E. L. Kelly and C. Wiegand, diag Phys R 73:135-9 My 15 '48
 Inelastic scattering of fast neutrons by Fe, Pb, and Bi, L. Szilard and others, bibliog diags Phys R 73:1307-10 Je 1 '48
 Infra-red stimulability of $\text{CaSiO}_3(\text{Pb})$ and $\text{CaSiO}_3(\text{Pb}+\text{Mn})$, J. H. Schulman and others, Opt Soc Am J 38:817-18 S '48
 Lead-silica pigment, F. J. Williams and A. R. Pitrot, Sci Am 178:76-7 F '48
 Manganese activated calcium silicate phosphors, H. C. Froelich, bibliog Electrochem Soc J 93:101-13 Ap '48
 Penetrating showers in lead, W. B. Fretter, bibliog II Phys R 73:41-6 Ja 1 '48
 Penetration of gamma-radiation through thick layers: plane geometry, iron, and lead, J. O. Hirschfelder and E. N. Adams, 2d, bibliog Phys R 73:863-8 Ap 15 '48
 Sodium chloride versus construction materials, H. M. Church, jr, Chem Eng 54:230+ D '47
 Spherical metal formations; wide application of French patent, Chem Age (Lond) 58:21 Ja 3 '48
 Standard method for determining leachability of lead from lead frits, A. E. Currier, II Am Cer Soc J 30:335-8 N 1 '47
 Sulphuric acid versus construction materials, K. H. Roll, II Chem Eng 55:219-20+ Ag '48

Analysis

- Determination of lead in air; rapid micro-method for field use, L. J. Snyder, W. R. Barnes and J. V. Tokos, bibliog II diags Anal Chem 20:772-6 Ag '48
 Determination of lead in freshly voided urine; a rapid screening test, J. Cholak and others, J Ind Hygiene 30:59-62 Ja '48
 Hydrolytic titrations of lead with potassium cyanide, L. Meites, Am Chem Soc J 70:1659-60 Ap '48
 Microdetermination of lead in biological material with dithizone extraction at high pH, J. Cholak, D. M. Hubbard and R. E. Burkey, bibliog diag Anal Chem 20:871-2 Jl '48
 Potentiometric determination of lead, L. Farkas and N. Uri, Anal Chem 20:236-7 Mr '48
 Precision determination of lead in high grade copper; dithizone color and electrodeposition gravimetric methods, L. Silverman, bibliog Anal Chem 20:906-9 O '48
 Spectrographic determination of lead in blood, W. A. Patterson, bibliog Can Chem & Process Ind 32:239-42 Mr '48

Isotopes

- Artificial radioactive isotopes of bismuth and lead, D. H. Templeton and others, bibliog Phys R 72:766-71 N 1 '47
 Artificial radioactive isotopes of polonium, D. H. Templeton and others, bibliog Phys R 72:758-65 N 1 '47

Prices

- 15-cent lead price not excessive; abstract, A. Fletcher, Min Cong J 34:55 Ja '48
 Lead at New York; monthly, 1929-1947; tabulation, Iron Age 161:306 Ja 1 '48
 Price, wholesale, pig, desilverized, (N.Y.) 1941-1946, Survey of Cur Bsns 1947 Sup p 151 [supplemented in monthly numbers]

Testing

- Creep tests on some extruded lead and lead-alloy sleeves and tapes, G. R. Gohn and others, bibliog II diags Am Soc T M Proc 46:990-1020; Discussion, 1021-4 '46
 Influence of various factors on the creep of lead, J. N. Greenwood and J. H. Cole, bibliog II Metallurgia 37:285-9 Ap '48

LEAD alloys

- Frictional properties of lead-base and tin-base bearing alloys; role of the matrix and hard particles, D. Tabor, II Engineer 186:117-19 Jl 30 '48
 Low temperature properties of tin and tin-lead alloys, H. S. Kalish and F. J. Dunkerley, bibliog II Metals Tech 15:TP2442 1-20 S '48
 Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections, G. Calingaert, H. Shapiro and I. T. Krohn, Am Chem Soc J 70:270-7 Ja '48
 Young's modulus and strain coefficient of resistivity of some bismuth rich alloys, G. C. Kuczyński and J. T. Norton, bibliog J Ap Phys 19:683-6 Jl '48

Testing

- Creep tests on some extruded lead and lead-alloy sleeves and tapes, G. R. Gohn and others, bibliog II diags Am Soc T M Proc 46:990-1020; Discussion, 1021-4 '46

LEAD antimony sulfides

- Synthesis of lead sulphantimonites, S. C. Robinson, bibliog diags Econ Geol 43:293-312 Je '48

LEAD burning

- Storage battery work, L. S. Bowser, II Welding J 27:36-7 Ja '48

LEAD chloride

- Catalytic action of salt pairs, G. Schwab and A. Karatzas, bibliog diag J Phys & Colloid Chem 52:1053-60 Je '48

LEAD chromate

- Studies on the aging of precipitates and coprecipitation; the solubility of lead chromate as a function of the particle size, D. R. May and I. M. Kolthoff, bibliog J Phys & Colloid Chem 52:836-54 My '48

LEAD compounds

Effect of temperature on reactions in gels; an honors course problem. H. H. Fillingier. *Il J Chem Educ* 25:102-3 F '48
 leaded vinyls. *Il Chem Ind* 62:218-19 F '48
 Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Calingaert, H. Shapiro and I. T. Krohn. *Am Chem Soc J* 70:270-7 Ja '48

LEAD fluoride

Effect of topically applied fluorides on dental caries experience; report of findings with two, four and six applications of sodium fluoride and of lead fluoride. D. J. Galagan and J. W. Knutson. *biblog Pub Health Rep* 62:1477-83 O 10 '47

LEAD industry and trade

Lead; its outlook present and future. R. L. Ziegfeld. *Paint Oil & Chem R* 111:14-15 Je 10 '48

Lead outlook break for coming months. *Baron's R* 28:45 S 13 '48

Lead pigments pricing system partly approved. *Oil Paint & Drug Rep* 153:4+ Ap 5 '48

Statistics

Lead, 1941-1946. Survey of Cur Bsns 1947 Sup p 151 [supplemented in monthly numbers]

Lead, 1947. R. L. Ziegfeld. *Eng & Min J* 149:79-80 F '48

Japan

Japanese aluminium and lead; rapid development based on ample power supplies. *Chem Age (Lond)* 59:190 Ag 7 '48

United States

Lead; annual review and forecast. S. D. Strauss. *Il Min Cong J* 34:36-8 F '48

LEAD metallurgy

Bunker Hill's new mill. F. McKinley. *Il Eng & Min J* 149:89-91 Je '48

Concentrating lead-zinc ore at the Bayard mill; United States smelting refining and mining co. P. V. Brough and K. B. Gillaspie. *flow sheet Il Min & Met* 29:562-6 O '48

Concentration at the Midvale mill; ores of lead, zinc, and iron treated by flotation; United States smelting refining and mining co. R. A. Pallanch. *flow sheets Il Min & Met* 29:544-7 O '48

Dezincing lead under vacuum; abstract. W. T. Isbell. *diag Comp Air Mag* 53:45 F '48

How oxidized lead ore is floated at St Anthony. E. V. Given. *flow sheet Il Eng & Min J* 148:88-90 Ap '48

Metallurgy of lead; review of 1947. R. D. Bradford. *Min & Met* 29:96-7 F '48

Midvale lead smelter for company and custom ores. C. A. Nelson and W. M. Whitecotton. *flow sheet Il Min & Met* 29:548-52 O '48

Technical developments leading up to the present Midvale plant of the United States smelting refining and mining co. R. Wallace and H. L. Johnson. *Min & Met* 29:542-3 O '48

Electrometallurgy

Lead refined electrolytically at the East Chicago plant; United States smelting refining and mining co. E. W. Merrick and others. *Il Min & Met* 29:566-8 O '48

Lead refining with sulfamate bath. R. Piontelli. *biblog Il Electrochem Soc J* 94:106-8 S '48

LEAD mines and mining**Alaska**

Investigation of the Mount Eielson zinc-lead deposits. Mount McKinley national park, Alaska. N. M. Muir and others. *5pls U S Bur Mines Rep of Invest* 4121:1-13 '47

Arizona

How oxidized lead ore is floated at St Anthony. E. V. Given. *flow sheet Il Eng & Min J* 149:88-90 Ap '48

Chile

Chilean mineral area offers new field for exploration. R. Fritis C. and C. Milon. *Il maps diag Eng & Min J* 149:92-4 Ap '48

Colorado

Camp Bird lead-zinc deposits, Ouray county. Colo. E. V. Deshayes and W. E. Young. *7pls U S Bur Mines Rep of Invest* 4230:1-19 '48

Idaho

Investigation of the Hornsilver lead-zinc property, Butte county, Idaho. R. N. Roby. *14pls U S Bur Mines Rep of Invest* 4277:1-15 '48

Mining and milling methods and costs at the Little Pittsburgh lead-zinc mine, Shoshone county, Idaho. R. J. Hundhausen. *6pls U S Bur Mines Information Circ* 7428:1-21 '48

Mining method expands lead-zinc reserves in the Coeur d'Alene district. C. E. Schwab. *Il Min Cong J* 34:72-3 Ap '48

Pine Creek production booms. H. W. Ingalls. *Il map Min Cong J* 34:42-5 O '48

Sidney mine, Pine Creek area, Shoshone county, Idaho. R. M. Gammell and R. J. Hundhausen. *7pls U S Bur Mines Rep of Invest* 4188:1-11 '48

Illinois

Investigation of the Blewett zinc-lead deposit. Jo Daviess county, Ill. S. P. Holt. *7pls U S Bur Mines Rep of Invest* 4350:1-36 '48

New finds revive old Galena-Platteville area. *Il Eng & Min J* 149:63-4 Ja '48

Ore dressing investigation of oxidized lead ores from Missouri and Illinois. M. M. Fine. *U S Bur Mines Rep of Invest* 4301:1-10 '48

Iowa

Dubque lead-zinc district, Iowa. F. C. Lincoln. *2pls U S Bur Mines Rep of Invest* 4212:1-7 '48

Kansas

Investigation of Melrose zinc-lead district, Ottawa county, Okla., and Cherokee county, Kans. C. C. Knox. *biblog 23pls U S Bur Mines Rep of Invest* 4337:1-92 '48

Maine

Investigation of the Cape Rosier zinc-copper-lead mine, Hancock county, Maine. S. B. Levin and R. S. Sanford. *14pls U S Bur Mines Rep of Invest* 4344:1-8 '48

Missouri

Churn drilling at Mary Arnold zinc-lead mines, Christian county, Mo. H. J. Ballinger. *3pls U S Bur Mines Rep of Invest* 4313:1-8 '48

Churn drilling at the McGregor zinc-lead mine, Washington county, Mo. W. D. McMillan. *3pls U S Bur Mines Rep of Invest* 4308:1-6 '48

Investigation of the Dempsey zinc-lead mine, Washington county, Mo. W. D. McMillan and others. *5pls U S Bur Mines Rep of Invest* 4332:1-16 '48

Mon-Ark zinc-lead mines, Christian county, Mo. J. H. Ballinger. *7pls U S Bur Mines Rep of Invest* 4297:1-16 '48

Ore dressing investigation of oxidized lead ores from Missouri and Illinois. M. M. Fine. *U S Bur Mines Rep of Invest* 4301:1-10 '48

New Hampshire

Investigation of the Ore Hill zinc-lead mine, Grafton county, N.H. H. P. Hermance and M. Mosier. *3pls U S Bur Mines Rep of Invest* 4328:1-13 '48

New Mexico

West Pinos Altos zinc-lead deposits, Grant county, N. Mex. J. H. Soule. *5pls U S Bur Mines Rep of Invest* 4237:1-8 '48

Oklahoma

Investigation of Melrose zinc-lead district, Ottawa county, Okla., and Cherokee county, Kans. C. C. Knox. *biblog 23pls U S Bur Mines Rep of Invest* 4337:1-92 '48

South Dakota

Belle-Eldridge lead-zinc deposits, Lawrence county, S. Dak. V. C. Davis. *2pls U S Bur Mines Rep of Invest* 4215:1-8 '48

LEAD mines and mining—*Continued*

Utah

Lead and zinc deposits of the Treasure Hill mines, Ophir mining district, Tooele county, Utah, W. C. Dunham and F. H. Gunnell, 9pls U S Bur Mines Rep of Invest 4181:1-25 '48

Wisconsin

Investigation at the Fairplay zinc and lead area, Grant county, Wis. J. V. Kelly, pl U S Bur Mines Rep of Invest 4327:1-5 '48
Investigation of the Crescent lead and zinc mine, Iowa county, Wis. M. H. Berliner, pl U S Bur Mines Rep of Invest 4317:1-6 '48
Trego lead-zinc mine, Grant county, Wis. A. M. Cummings, 2pls U S Bur Mines Rep of Invest 4211:1-8 '48
Wisconsin lead and zinc mining; illustrations with text, Min & Met 29:10-11 Ja '48

LEAD oleate

Penetration of lead through the skin, E. P. Laug and F. M. Kunze, bibliog J Ind Hygiene 30:256-9 Jl '48

LEAD ores

How oxidized lead ore is floated at St Anthony, E. V. Given, flow sheet il Eng & Min J 149:88-90 Ap '48
Ore dressing investigation of oxidized lead ores from Missouri and Illinois, M. M. Fine, U S Bur Mines Rep of Invest 4301:1-10 '48
Synthesis of lead sulphantimonites, S. C. Robinson, bibliog diags Econ Geol 43:293-312 Je '48

LEAD oxides

Effect of surface-active agents upon dispersions of lead monoxide in xylene, V. R. Damerell and M. J. Vogt, J Phys & Colloid Chem 52:363-7 F '48
Electrical conductivity of lead dioxide, U. B. Thomas, bibliog diags Electrochem Soc J 94:42-9 Ag '48
Some energy relations in the systems PbO-B₂O₃ and PbO-SiO₂, L. Shartsis and E. S. Newman, bibliog diags J Res Nat Bur Stand 40:471-8 Je '48; Same, Am Cer Soc J 31:213-19 Ag 1 '48
Structure of calcium silicate phosphors, G. R. Fonda and H. C. Froelich, bibliog Electrochem Soc J 93:114-22 Ap '48
Studies on the effects of red lead paints on the quality of metal-arc welds in structural steel, R. W. Bennett and others, il diags Welding J 26:sup653-63 N '47
Surface tension of compositions in the systems PbO-B₂O₃ and PbO-SiO₂, L. Shartsis and others, bibliog Am Cer Soc J 31:23-7 Ja 1 '48; Same, J Res Nat Bur Stand 40:61-6 Ja '48

Analysis

Analysis and composition of lead dioxide, R. G. Myers, bibliog Anal Chem 20:654-7 Jl '48

LEAD plating

Electrodeposition of lead from the ethylbenzenesulfonate bath, F. C. Mathers and J. F. Suttle, Electrochem Soc J 93:47-8 F '48
Indium plated lead bearings withstand high stresses, J. Albin, il Materials & Methods 27:88-9 Je '48

LEAD poisoning

Arsenic and lead are still getting into the food supply, Consumers Res Bul 21:11-12 My '48

Control of a lead hazard in the brass foundry industry, L. E. Hamlin and H. J. Weber, bibliog J Ind Hygiene 29:367-77 N '47; Abstract, Nat Safety N 57:46 Ja '48

Lead poisoning hazards and remedial measures, W. E. Obetz, Safety Eng 94:54-5 D '47

Occurrence of metallic contaminants in foods, G. E. Forstner, Chem & Ind p499-500 Ag 7 '48

Once of prevention minimizes lead hazards, J. E. Hatfield, il Chem Ind 62:401 Mr '48

Penetration of lead through the skin, E. P. Laug and F. M. Kunze, bibliog J Ind Hygiene 30:256-9 Jl '48

Porphyrinuria in lead-poisoned dogs, K. Salomon and G. R. Cowgill, bibliog J Ind Hygiene 30:114-18 Mr '48

Red blood cell stippling in Negro workers; a study of cases of lead absorption among Jamaican Negroes, National lead company plant, W. C. Wilentz and C. Molesan, bibliog Ind Med 17:191-2 My '48
Urinary and blood leads, V. J. Castrop, Ind Med 17:59-60 F '48

LEAD selenide

Lead selenide photo-conductive cells, J. Starkiewicz, Opt Soc Am J 38:481 My '48

LEAD silicate

New pigment concept, F. J. Williams and A. R. Pitrot, bibliog il diag Ind & Eng Chem 40:1948-50 O '48

LEAD sulfate

Apparatus for the detection and estimation of small amounts of chloride, B. A. Scott, diags Soc Chem Ind J 67:1-2 Ja '48

New pigment concept, F. J. Williams and A. R. Pitrot, bibliog il diag Ind & Eng Chem 40:1948-50 O '48

LEAD sulfide

Excess-defect germanium contacts, S. Benzer, diags Phys R 72:1267-8 D 15 '47

Preparation of photoconductive cells by chemical deposition of lead sulphide, F. Kicinski, il Chem & Ind p54-7 Ja 24 '48

LEAD welding, See Lead burning

LEAD work

Casting lead parts in permanent molds, H. Chase, il Iron Age 161:90-1 My 20 '48

LEADERS (merchandizing)

Baby product that became a line leader; Elliott's Addressette, H. F. Elliott, Sales Management 60:111-12 My 20 '48

LEADERSHIP

ATF school develops leadership talents, Sales Management 61:94-5 Ag 15 '48

Discovering and developing leadership abilities in management personnel, K. H. Shaffner, Advanced Management 13:84-7 Je '48

Leadership and human relations at the places where people work, T. G. Spates, Advanced Management 13:98-102 S '48

Leadership in the navy and industry, E. M. Eller, il U S Naval Inst Proc 74:671-81 Je '48

Leadership; what makes it? J. F. Bender, Sales Management 61:37-40+ Ag 15 '48

Test of leadership ability, J. F. Bender, Sales Management 61:44-6+ O 15 '48

LEADS (printing), See Printing, Practical—Leading

LEADVILLE, Colorado

Famous western mines; Cloud City reflections, J. McCaleb, Can Min J 69:84-5 Mr '48

LEAFHOPPERS

Transmission by leaf hoppers of the virus causing phloem necrosis of American elm, W. L. Baker, bibliog Science 108:307-8 S 17 '48

LEAGUE of nations

Publications

Rockefeller Foundation grant to Woodrow Wilson library, Special Lib 38:302 N '47

LEAK detectors

Mass spectrometer leak detector, il diag Instruments 21:419-20 My '48

Sensitive leak detector locates halogen compounds, R. H. Munch, il diag Ind & Eng Chem 40:sup69A-70A Jl '48

LEARNED institutions and societies

Directories

World of learning, 1948, 2d ed rev 824p 60s Europa publications, 39 Bedford square, London, W. C. 1 '48

LEARNING, Psychology of

Human factors in engineering design, L. C. Mead, S A E J 55:45-6 D '47

Psychology, men, and machines; design and effectiveness of control mechanisms improved; research at navy's special devices center, Sands Point, W. M. Angas, il Tech R 50:267-9+ Mr '48

Training for safety, is it different? E. S. Hannaford, Nat Safety N 58:26-9+ Ag '48

Motor learning

Interpreting teaching of arc welding from an analysis of motor learning studies, W. J. Brooking, bibliog Welding J 26:1002-10 N '47

LEASES

Danger signals to accountants in net-lease financing. A. M. Cannon. J. Account 85: 312-19 Ap '48

It can happen again; Vesty Gates muses on losses in leases. H. M. Sommers. Credit & Fin Management 50:22-7 S '48

Leased department continues to play an important role in selling. E. B. Weiss. Il Ptr Ink 223:46-7+ My 21 '48

Long-term leases. J. Account 86:247-9 S '48

New financing trend; sell-and-lease industrial deals. Bsns W p96-8+ Ap 17 '48

Sell-lease; new source of capital; firms sell real estate to insurance companies, universities, then lease it back. W. N. Augsburg. Il Am Bsns 17:8-9+ D '47

Shops and warehouses; tenants' position when leases expire. F. E. Sugden. Elec R (Lond) 141:979 D 26 '47

Store realty sold by Abraham & Straus to Union college; will stay on long-term lease. Bsns W p60-1 D 27 '47

See also

Mine leases

LEAST squares

Least squares adjustment of triangulation net between geodetic stations. E. F. Codrington and O. C. J. Marshall. diags Am Soc C E Proc 73:1047-64 S '47; Discussion. 74:430-42 Mr '48

Least squares fit of the fundamental mass doublets. E. R. Cohen and W. F. Hornyak. bibliog Phys R 72:1127 D 1 '47

Least-squares' fitting of data by means of polynomials, by R. T. Birge; Mathematical appendix, by J. W. Weinberg. bibliog Rs Mod Phys 19:298-360 O '47

Mathematical calculation of phenol value of an activated carbon; solving the Freundlich equation by the method of least squares. R. A. Hoot. Il Water & Sewage Works 94:402-4 N '47

Method of least squares applied to bottom hole pressure gage calibration. M. F. Hawkins, Jr. Pet Eng 19:393-4 Ap '48

LEAST work, Principle of

So-called principle of least work method. M. Z. Krzywoblocki. Franklin Inst J 243: 187-204 bibliog(p 199-200); 244:465-9 Mr, D '47

Theory of surface cracks in mud and lava and resulting geometrical relations. L. I. Hewes. diags Am J Sci 246:138-49, pl 1 Mr '48; Discussion. H. Simpson. 246:591-2 S '48

LEATHER

Can you make us monkey-proof gloves? leather's role in industrial safety. F. B. Scheinfeld. Il Safety Eng 95:12-13+ Mr '48

Leather finishes; abstract. B. S. Gidvani. Paint Oil & Chem R 111:38 Je 24 '48

Proteins of the muscle fibril; abstract. K. Bailey. Soc Dyers & Col J 64:261 Jl '48

See also

Harnesses

Hides and skins

Suede

Tanning materials

Cleaning

Saddle and leather soaps. M. A. Lesser. bibliog Soap & San Chem 24:43-5+ Mr '48

Manufacture

Leather manufacturing; man-hour requirements, 1939-46. Mo Labor R 67:383-5 O '48

Protection

Mildew proofing agent; dressing for treatment of leather goods. Chem Eng 55:174+ My '48

LEATHER, Substitutes for

Synthetics' role in shoe supplies seems permanent. P. A. Johnston. Barron's 28:11 S 13 '48

LEATHER industry and trade

Lack of demand adds to leather inventories. Barron's 28:37 O 18 '48

See also

Hides and skins

Tanners' council of America

Statistics

Leather and products, 1941-1946. Survey of Cur Bsns 1947 Sup p 138-40 [supplemented in monthly numbers]

Belgium

Production during first six months of 1947. For Comm W 29:24-5 N 8 '47

Canada

Canada's foreign trade in leather and products, 1946 and 1947; tabulation. For Comm W 30:25 Mr 27 '48

China

Market for imported leather, Shanghai. For Comm W 30:24 F 14 '48

France

Supplies of hides, tanning extracts, and footwear, France; with data on production of leather and footwear in third quarter of 1947. For Comm W 30:24-5 Ja 24 '48

Great Britain

Exports and imports of leather, United Kingdom, 1946 and 1947. For Comm W 30:23 Mr 6 '48

Netherlands

Production and foreign trade in 1947. For Comm W 31:27 My 15 '48

Sweden

Leather and products; Sweden's industry and trade. For Comm W 32:32-3 Ag 7 '48

LEATHER research

Leather and the laboratory. A. H. Winheim. Il Chem & Eng N 26:2610-14 S 6 '48

LEATHER trades' chemists, Society of. See 'Society of leather trades' chemists

LEAVES

Leaf loader for Birmingham. Il Roads & Sts 91:109 Ja '48

Protoplasts from plant materials; properties of protoplasts released by anaerobic fermentation, with clostridium roseum. J. W. White, Jr. and others. bibliog Ind & Eng Chem 40:293-7 F '48

LEBANON

Commercial policy

Summary of import license regulations. For Comm W 32:23 S 4 '48

Economic conditions

Conditions at end of second quarter of 1948. For Comm W 32:17-18 S 11 '48

Industries and resources

Cement manufacture; match production; rubber footwear production. For Comm W 31:20, 24 Ap 3 '48

Furniture, handicrafts and small industries in Lebanon. For Comm W 31:26-7 Ap 10 '48

LECITHIN

Practical application of lecithin in bakery products; abstract. F. E. Walrod. Food Ind 20:124 Ja '48

Analysis

Determination of moisture in lecithin and crude soybean oils. K. M. Brobst. Anal Chem 20:939-41 O '48

LECLANCHÉ dry cell. See Electric batteries

LECTURE rooms. See Auditoriums

LEE, James Augustine, 1894-

Electrochemical society elects president. por Chem Eng 55:183-4 My '48

LEFEBURE, Victor, 1891-1947

Sketch. J. D. Pratt. Chem Soc J p394-5 Mr '48

LEFFINGWELL, Russell Corneli, 1878-

Sketch. por(cover) Bsns W p6 F 21 '48

LEFT and right handedness

Right hand, left hand. L. J. Milne and M. J. Milne. Il Sci Am 179:46-9 O '48

LEG

Study of fractures of the lower extremity, from the records of the Workmen's compensation board of British Columbia. C. A. Ryan. Ind Med 17:97-9 Mr '48

Protection

Leg protection. Il Nat Safety N 57:62 Mr '48

Ulcers

Effective treatment of leg ulcers in Puerto Rico. S. Arana-Soto. Ind Med 17:121-2 Ap '48

LEGAL advertising

State-placed ad before election causes furor; Georgia constitutional amendments. H. David. Ed & Pub 81:22 S 18 '48

LEGAL ethics

New national statement of principles of cooperation between life underwriters and lawyers; with text. Trusts & Estates 86: 291-6 Ap '48

LEGAL responsibility

See also
Proximate cause
(law)

LEGAL service

Accountants' tax practice held illegal in Kentucky; text of letter containing opinion of Attorney general. E. S. Dummit. J Account 85:173 F '48

Bar association's statement on practice before tax court. J Account 84:425-31 N '47
Bar's effort to limit accountant's tax practice; the accountant's position. J Account 85:218-17 Mr '48

Defining unauthorized law practice in estate planning. H. T. Powers. Trusts & Estates 85:524-5 D '47

Institute statement on Tax court before Senate committee. J Account 85:511-13 Je '48

Lawyer's views on accountants' administrative practice. C. H. Woods. J Account 84: 469-70 D '47

N.Y. appellate court reverses Bercu decision. J Account 85:428-30 My '48

Permission to practice before tax court difficult to obtain. C. W. Olofson. J Account 84:396 N '47

Report and summary of testimony before Senate committee on HR 3214; right of non-lawyers to practice before Tax court. M. Austin. J Account 85:475-80 Je '48

State statutes prohibiting unauthorized practice of law. J Account 84:431 N '47

Two court decisions on unauthorized practice of law. J Account 85:131 F '48

LEGAL terms. See Law—Terms and phrases**LEGENDRE polynomials.** See Legendre's functions**LEGENDRE'S functions**

Approximations to a uniform magnetic field; roots of Legendre polynomials of even order. L. W. McKeehan. R Sci Instr 19: 475 Jl '48

Solutions of the transformed Weber equation as an aid in teaching Legendre polynomials and Bessel functions. F. M. Mallett. bibliog J Eng Educ 38:672-9 My '48

LEGISLATION**History**

Legislative histories. E. Finley. Special Lib 38:311-14 D '47

Legislative histories for private business. M. C. Vance. Special Lib 38:318-20 D '47

Uses of legislative histories. M. Wiener. Special Lib 38:314-18 D '47

LEGISLATIVE reference service

Legislative histories. E. Finley. Special Lib 38:311-14 D '47

Legislative histories for private business. M. C. Vance. Special Lib 38:318-20 D '47

United States Tariff commission library. C. Notz. Special Lib 38:320-3 D '47

Uses of legislative histories. M. Wiener. Special Lib 38:314-18 D '47

LEGUMES

See also
Beans
Guar
Peas

LEHIGH and New England railroad

W. H. Edwards elected L.&N.E. president; R. V. White, chairman. Ry Age 124:301 F 7 '48

LEHIGH university

Bibliography and abstracts of the publications of Lehigh university faculty members, 1943-1946. (Annual abstract no. 6) 54p Lehigh univ, Bethlehem, Pa. '47

New undergraduate major in conservation Science 107:10 Ja 2 '48

LEHIGH Valley railroad

Files capital adjustment. Comm & Fin Chr 168:252 Jl 19 '48

ICC examiner proposes debt plan. Comm & Fin Chr 168:1801 N 1 '48

Offers debt structure adjustment to ICC.

Comm & Fin Chr 168:744 Ag 23 '48
Railroad securities. Comm & Fin Chr 168: 1663 O 21 '48

LEHNINGER, Albert Lester, 1917-

Lehninger announced winner of Paul-Lewis award. por(cover) Chem & Eng N 26:1279 My 3 '48

LEIGH, Douglas, 1907-

King of the spectacles. C. L. Walker. por Adv & Sell 41:84+ Jl '48

LEIGH, N. Joseph

Gallery; N. J. Leigh. G. Simmons. por Adv & Sell 41:92+ Ja '48

LEISHMANIASIS

See also

Kala-azar

LEMON grass-

Citronella and lemongrass oils; sales and exports controlled in Guatemala. For Comm W 33:15-16 O 9 '48

LEMONS

Bitter principles of citrus fruit; isolation of nomilin, a new bitter principle from the seeds of oranges and lemons. O. H. Emerson. bibliog Am Chem Soc J 70:545-9 F '48

Refrigeration of lemons and grapefruit. H. M. Hendrickson and J. R. MacRill. plans diags Refrig Eng 56:1-10 sec 2 Jl '48

LENGTH, Standards of. See Standards of length

LENGTH measurement

Mercury-198 line as length standard. il diags Instruments 21:458 My '48

What is the length of any roll? chart gives answer in feet. W. F. Schaphorst. Water & Sewage Works 95:79 F '48

LENGTH of service. See Employees—Length of service

LENSES

Multipupil in phase microscopy. H. Osterberg. diag Opt Soc Am J 38:685-8 Ag '48

Optical lens coatings. H. W. Coles and others. il Mod Plastics 25:123-6+ Jl '48

Optical problems in large-screen television. I. G. Maloff. il diag Soc Motion Picture Eng J 51:30-6; Discussion. 47-51 Jl '48

Optically corrected cells; use of new filters and lenses laminated to surface of cell. G. B. Buck, 2d. il diag Gen Elec R 51:38-42 O '48

Paraxial differential transfer coefficients of a lens system. M. G. Dreyfus. bibliog diag Opt Soc Am J 38:703-5 Ag '48

Preparation of aspherical refracting optical surfaces by an evaporation technique. L. G. Schulz. bibliog il diags Opt Soc Am J 38:432-41 My '48

Rapid non-destructive method of determining the refractive index of lens components, using a spectrometer. S. Jacobsohn and others. il diag Opt Soc Am J 37:941-3 D '47

Reduction of spherio-chromatic aberration in catadioptric systems. R. E. Stephens. diag J Res Nat Bur Stand 40:467-9 Je '48; Same. Opt Soc Am J 38:733-50 Ag '48

See also

Aberration (optics)

Optical instruments

Telescope

Manufacture

Custom-made machines pare Balco's costs. il Mod Ind 16:18+ S '48

Electrically heated pitch pots speed lens production. D. W. White. il Elec World 129: 96-7 F 28 '48

Lens forming machine; patent. diag Glass Ind 29:86 F '48

Pouring out more bifocals; Bausch & Lomb's new plant in Rochester, N.Y.; illustrations with text. Bsns W p40+ S 4 '48

Testing

Easily constructed optical bench. G. W. Marks and others. 2pls U S Bur Mines Information Circ 7424:1-2 '48

LENSES, Electron. See Electron optics**LENSES, Magnetic.** See Magnetic lenses**LENSES, Photographic**

Effect of high index glasses on the field characteristics of photographic objectives. G. H. Aklin. diags Opt Soc Am J 38:841-4 O '48

Errors in calibration of the f number. F. E. Washer. bibliog Soc Motion Picture Eng J 51:242-60 S '48

LENSES, Photographic—Continued

- Illumination in the focal plane of a camera lens. E. P. Clancy. Opt Soc Am J 37:906-8 N '47
- Investigations show advantages of extremely wide-angle lenses in aerial mapping. Il Civil Eng 18:561+ S '48
- Lens attachment. Il Mod Plastics 25:162 My '48
- Lens design and tolerance analysis methods and results. F. C. Foote and R. A. Woodson. bibliog diags Opt Soc Am J 38:590-9 Jl '48
- Lenses of extremely wide angle for airplane mapping. I. C. Gardner and F. E. Washer. Il diags J Res Nat Bur Stand 40:93-103 F '48; Same. bibliog Opt Soc Am J 38:421-31 My '48
- New aerial eye has ten-mile sight. Il Aviation W 49:30 O 11 '48
- New calibration system for photographic lenses. diags Instruments 21:460-1 My '48
- Optical glass for use in photographic lenses; patent. Glass Ind 29:23 Ja '48
- Performance of an optical system as the sum of the contributions of its construction elements. M. Herzberger. bibliog diag Opt Soc Am J 38:324-8 Ap '48
- Tv lens considerations for image orthicon cameras. L. Mautner. Communications 28: 14-16+ Ja '48
- Test a lens before you buy it. Consumers Res Bul 20:33-4 N '47
- Validity of the cosine-fourth-power law of illumination. I. C. Gardner. J Res Nat Bur Stand 39:213-19 S '47
- Zoomar lens for 35-mm film. F. G. Back. Il Soc Motion Picture Eng J 51:294-7 S '48

Standards

- Standards on photographic lenses to aid in purchase and use. I. C. Gardner. Il Ind Stand 19:43-4 My '48

LENSES, Plastic

- Acrylic lens magnifies television. Il Plastics 8:24 F '48
- Athermalization of optical systems. D. S. Grey. Il Opt Soc Am J 38:542-6 Je '48
- Plastics on guard! Il Safety Eng 96:24-7+ Jl '48
- Right before your eyes; plastic frames for spectacles and sunglasses; contact lenses; molded eyeglass lenses. Il Mod Plastics 25: 75-81 Jl '48
- Video images enlarged; two-piece acrylic lens filled with clear mineral oil. Il Mod Plastics 25:114-16 Ap '48

LEONARD, Richard T.

- Opposing Reuther, U.A.W.'s former vice-president launches new faction. por Bsns W p94-5 Ag 14 '48

LEONARD, William Augustus, 2d

- Two parts Bill Leonard, one part news, make radio show. J. Walker. por Ed & Pub 81:42 Ja 31 '48

LEONTIEF, Wassily W. 1905-

- Economist behind electronic economics. por Bsns W p23 O 9 '48

LEPIDOLITE

- Radioactive decay constants of K^{40} as determined from the accumulation of Ca^{40} in ancient minerals. L. H. Ahrens and R. D. Evans. Phys R 74:279-86 Ag 1 '48

LEPIDYLCARBINOLS

- Studies in the quinoline series; the mononitrophenyllepidylcarbinols and related compounds. R. S. Tipson and A. F. Walton. bibliog Am Chem Soc J 70:892-5 Mr '48

LEPROSY

- Leprosy in California; danger of infection. G. W. McCoy. Pub Health Rep 63:705-12 My 28 '48

Hospitals

- Hospital construction for leper colony presents many engineering problems; colony near Sapucay, Paraguay. J. W. Greenleaf, jr. Il Civil Eng 18:685-8+ N '48

LEPTOSPERMONE

- Synthesis of leptospermone. L. H. Briggs, C. H. Hassall and W. I. Taylor. Chem Soc J p383-4 Mr '48

- LERNER** marine laboratory. See Marine biological laboratories

LEROY, New York

- Job finder; got clothing maker to set up a plant there. Bsns W p30+ Je 26 '48

LETTERHEADS

- Basic elements of a good letterhead. E. N. Mayer, Jr. Ptr Ink 221:54+ N 7 '47

LETTERING

- How to make your poster copy legible. J. E. Brennan and H. L. Gage. Il Adv & Sell 41:221-2+ Mr '48

- LETTERS, Business.** See Commercial correspondence; Sales letters; Salesmen—Letters to customers

LETTERS of credit

- How commercial letters of credit help finance foreign trade. A. W. Roberts. Bankers Mo 64:525-6 N '47

- Letter of credit returned unaccepted to bank held insufficient to take contract out of statute of frauds. Banking Law J 64:803-5 O '47

LETTUCE

- Produce packaging; how and where? F. Gindick. Il diag Mod Packaging 21:106-11+ D '47

Transportation

- Icing lettuce for the Nation's salad. L. A. Luther. Il Comp Air Mag 53:212-15 S '48

- LEUCAENINE.** See Leucenol

LEUCEMIA

- Change in the leucocytic formula by the leucocytosis-promoting factor of exudates in experimental leukemia. V. Menkin. bibliog Science 107:546-7 My 21 '48

- Pulmonary edema in leucemic mice following treatment with urethane. W. M. Winchester and G. M. Higgins. bibliog Science 107:568-9 My 28 '48

- Similarity to heparin of the clotting inhibitor in acute leukemia and the significance of hyperheparinemia in estrapenic cholinergic states. R. D. Barnard. bibliog Il Science 107:671-2 My 28 '48

LEUCENOL

- Structure of leucaenine (leucaenol) from leucaena glauca Benth. A. F. Bickel. bibliog Am Chem Soc J 70:326-9 Ja '48

LEUCINE

- Prolyl and phthalyl derivatives of enantiomorphs of valine and leucine. M. Fling, F. N. Minard and S. W. Fox. bibliog Am Chem Soc J 69:2466-7 O '47

LEUCKART reaction

- Leuckart reaction; a study of the mechanism. V. J. Webers and W. F. Bruce. bibliog Am Chem Soc J 70:1422-4 Ap '48

- Studies on the mechanism of the Leuckart reaction. E. R. Alexander and R. B. Wildman. bibliog Am Chem Soc J 70:1187-9 Mr '48

LEUCOISONAPHTHAZARIN

- Syntheses in the lapachol series. M. Gates and D. L. Moesta. bibliog Am Chem Soc J 70:614-16 F '48

LEUCONOSTOC

- Microbiological assay for riboflavin. H. A. Kornberg, R. S. Langdon and V. H. Cheldelin. bibliog Anal Chem 20:81-3 Ja '48

LEUCYLLEUCINE

- Bacterial activity of racemized casein, caseose, and the four diastereoisomeric leucylleucines. S. W. Fox and others. bibliog Am Chem Soc J 70:2404-6 Jl '48

- LEUNA process.** See Gas manufacture—Complete gasification processes

LEVEES

- Job success depends on wise use of equipment; Louisville's \$18,000,000 levee. Il diag Civil Eng 18:284-5 Ap '48

- Missouri River levee, Kansas City, Mo.; unit prices. Eng N 141:116 O 28 '48

- Relief wells for dams and levees. T. A. Middlebrooks and W. H. Jervis. diags Am Soc C E Proc 72:781-98 Je '46; Discussion. 72:1165-72, 1407-10; 73:59-78, 231-5, 735-55, 907-14; 74:211-14 O, D '46-F, My-Je '47, F '48

- LEVER brothers and Unilever, limited**

- Lever expansion plans. Soap & San Chem 24: 41 Jl '48

- Statement by the chairman at annual general meeting. G. Heyworth. Economist 155:356-8 Ag 28 '48

- Unilever in perspective. Economist 155:235-6 Ag 7 '48

- Unilever; the conversion. G. Burck. Il map Fortune 37:74-81+ F '48

LEVER brothers and Unilever, limited—*Cont.*
Unilever's Africa. G. Burck. il map Fortune
37:57-65+ Je '48
World of Unilever. G. Burck. il Fortune 36:
86-93+ D '47

LEVER brothers company

What's behind the 51 per cent jump in sales
at Lever brothers? C. Luckman. il Sales
Management 61:37-41 O 1 '48

LEVERAGE. See Stocks—Leverage

LEVERHULME, William Hesketh Lever, 1st
viscount
World of Unilever. G. Burck. por Fortune 36:
86-93+ D '47

LEVERHULME, William Hulme, 2d viscount
Portrait. Fortune 37:79 F '48

LEVISON, Jacob, 1862-1947
Sketch. por East Underw 48:19 N 28 '47;
Weekly Underw 157:1356 N 29 '47

LEVORSEN, Arville Irving, 1894-
Sidney Powers memorial medalist. A. E.
Brainerd. bibliog por Am Assn Pet Geolo-
gists Bul 32:823-6 My '48

LEVULINIC acid

Conversion of sucrose into thiazole deriva-
tives; 2:4-dimethylthiazole derivatives
and 2:4:5-trimethylthiazole. H. Gregory
and L. F. Wiggins. Chem Soc J p 1400-3
O '47

Preparation of levulinic acid on a semi-
technical scale. C. H. G. Hands and F.
E. Whitt. diag Soc Chem Ind J 66:415-16
N '47

Pseudo esters of levulinic acid. D. P. Langlois
and H. Wolff. bibliog Am Chem Soc J 70:
2624-6 Ag '48

Some derivatives of levulinic acid. E. H.
Huntress and R. T. Olsen. Am Chem Soc J
70:2830-1 Ag '48

LEWENTHAL, Reeves, 1909-
Art goes big business; Associated American
artists. por Bsns W p25 D 20 '47

LEWIS, George William, 1882-1948
Sketch. por Aviation W 49:14 J1 19 '48

LEWIS, Gilbert Newton, 1875-1946
Gilbert Newton Lewis. G. R. Robertson.
por(cover) Chem & Eng N 25:3290-1 N 10
'47

Symposium on color and the electronic struc-
ture of complex molecules; dedicated to the
memory of G. N. Lewis. por Chem R 41:
198-9 O '47

LEWIS, John Llewellyn, 1880-
'49 coal demands. por Bsns W p 110-11 O 16
'48

How long can this go on? mines in constant
upgar for year. por Bsns W p 100-4+
Je 26 '48

Is John L. Lewis a cartel? Fortune 37:4 Je
'48

Lewis' third labor movement. por Bsns W
p86 D 20 '47

Lewis to court. Bsns W p25 Ap 10 '48
Maybe J. L. Lewis is the real boss. Barron's
28:1+ Ap 26 '48

LEWIS, Leroy
Sketch. por Sales Management 60:118 Je 15
'48

LEWIS, Martin W. 1893-
Honor Lewis on his 25 years in fidelity-surety
rating. por East Underw 49:27+ J1 9 '48

LIABILITY
Court holds owner liable for damage in col-
lapse of old crib dam. Eng N 139:807 D 11
'47

Liability for damage due to breaks or leaks.
H. M. Ohland and others. Am Water Works
Assn J 40:577-84 Je '48

See also

Railment	Government liability
Bank liability	Insurance, Liability
Banks and banking	Master and servant
—Stockholders'	Negligence
liability	Personal injuries
Damages	Workmen's com-
Employers' liability	pensation

LIABILITY, Contingent
Contingent liabilities. J Account 86:163 Ag
'48

Contingent liability. J Account 84:500-1 D '47

LIABILITY insurance. See Insurance, Liability

LIBEL and slander

Asbury Park Sun editor cleared in libel suit.
Ed & Pub 81:26 J1 10 '48
New Jersey station is held liable for airing li-
bel. Ed & Pub 81:44 S 18 '48

LIBERAL education

Business education in a university. J. R.
Rose. bibliog J Bsn: 20:183-90 O '47
Chemistry and liberal education. B. D. Van
Evers. Chem & Eng N 26:446-9 F 16 '48

LIBERIA

Industries and resources

Liberia co. set up by U.S. capital. il map
Bsns W p 113-14+ D 13 '47
Liberia development work includes major
construction. Eng N 140:615+ Ap 29 '48

LIBERTY, New York

Sewerage

Observations on two-stage biofilter operation.
Pub Works 78:24-5+ D '47

LIBERTY

Navy and civil liberty. W. B. Prendergast.
bibliog U S Naval Inst Proc 74:1262-7 O '48
Unfinished struggle for human freedom. F. C.
James. Ann Am Acad 258:101-11 J1 '48

LIBRARIANS

See also

Library schools and
training

Salaries

Classification and pay plans for libraries in
institutions of higher education. 2d ed 3pts
66p, 125p, 171p pa \$6 American library assn.
50 E. Huron st, Chicago '48

LIBRARIANS, School

Training

School and college libraries and the teacher
in training. M. U. Robinson. J Doc 3:147-
50 D '47

LIBRARIANS, Special

Directories

Directory of members of Special libraries as-
sociation, as of January 1, 1948. 138p Special
lib. assn, 31 E. 10th st, New York 3 '48
(pa \$3)

Salaries

Salaries in special libraries. W. Hausdorfer.
Special Lib 39:103-10 Ap '48

Training

Norwegian student studies industrial library
work. Paint Oil & Chem R 110:38 O 16 '47
Training of medical, hospital and nursing
librarians. B. V. Simon. Special Lib 39:
71-8 Mr '48

LIBRARIES

Conference on international cultural, educa-
tional, and scientific exchanges, Princeton
university, Nov. 25-26, 1946. 210p American
library assn, 50 E. Huron st, Chicago '47
(\$2)

See also

College libraries	School libraries
Librarians	Scientific libraries
Library buildings	Technical libraries
and other headings	Trade associations—
beginning Library	Libraries
also names of libraries, e.g. Engineering	societies library; Library of Congress

Directories

American library directory, 1948. K. Brown,
comp. 731p \$17.50 R. R. Bowker co, 62 W.
45th st, New York 19 '48
Directory of personnel in Ohio libraries, 1947.
rev ed 89p pa \$1 M. A. McCray, Warder
pub. lib, Springfield 3, Ohio '47
Libraries, museums, and art galleries year
book, 1948. 288p \$12.50 R. R. Bowker co, 62
W. 45th st, New York 19 '48

History

History of libraries in Great Britain and
North America. A. Predece. 177p American
library assn, 50 E. Huron st, Chicago
11 '47 (\$3.25)

Instruction in use

Librarian and the teacher in general educa-
tion: a report of library-instructional ac-
tivities at Stephens college. B. L. Johnson
and E. Lindstrom, eds. 69p \$2 Am. lib.
assn, 50 E. Huron st, Chicago 11 '48
Library ABC's. M. I. Mustard. 83p (bibliog
p75) \$1.50 Longmans, Green and co, 55
5th av, New York 3 '48

LIBRARIES—Instruction in use—Continued

Use of books and libraries. H. G. Russell and others. 5th ed 101p Univ. of Minnesota lib, Minneapolis '48

Microfilm collections

See Microfilms

Microfilm service

Applying microfilm in a war agency. F. W. Bobb. Special Lib 39:50-2 F '48

Periodical collections

War issues of serial publications. Special Lib 39:200-1 JI-Ag '48

Picture collections

Photographs in scientific and technical libraries. P. M. Strain. Special Lib 39:77-82 Mr '48

Picture research in the advertising agency. R. Allen. Adv & Sell 41:78+ Ag '48

Printing

Montclair library, of Montclair, N.J. J. L. Frazier. Inland Ptr 121:66-7 Je '48

Canada

Libraries in Canada, 1944-46 (being part III of the biennial survey of education in Canada, 1944-46), 69p pa 35c Canada. Dominion bur. of statistics, Ottawa '48

Directories

Canadian library directory, 1947-1948. (Reference pub. no. 3) 25p pa 50c Canadian lib. assn, 46 Elgin st, Ottawa '48

Denmark

Scandinavian librarians' congress, 5th, Copenhagen, Aug. 13-16. Special Lib 38:324-7 D '47

Great Britain

British sources of reference and information; a guide to societies, works of reference and libraries. T. Besterman, ed. 56p 6s Aslib, 52 Bloomsbury st, London, W.C. 1 '47

Japan

Life in an information library for Japanese. G. M. Korb. Special Lib 39:86-7+ Mr '48
National Diet library of Japan. V. W. Clapp. Science 107:497-501 My 14 '48

South Africa

Bibliography in South Africa. H. Holdsworth. J Doc 3:151-9 D '47

LIBRARIES, Employees'. See Employees' libraries

LIBRARIES, Journalism. See Journalism libraries

LIBRARIES, National
National Diet library of Japan. V. W. Clapp. Science 107:497-501 My 14 '48

See also

Library of Congress

LIBRARIES, Special
Botany's library helps employees get ahead; books for job improvement as well as for entertainment. II Sales Management 59:70 N 10 '47

Company library; Eli Lilly and company library. M. E. Schaaf. Personnel J 27:110-12 JI-Ag '48

Company library provides answers; Burroughs adding machine co. II Mill & Factory 43: 129-30 O '48

Library at the School of advanced international studies, Washington, D.C. M. E. Vance. Special Lib 39:110-14 Ap '48

Special library budgets. W. Hausdorfer. Special Lib 39:179-84 JI-Ag '48

See also

Business libraries	Journalism libraries
Historical libraries	Law libraries
Insurance libraries	Medical libraries
International libraries	Patent libraries and collections
Libraries of information	Technical libraries

Directories

Special libraries directory of Indiana. 31p Special lib. assn, Indianapolis '47

Periodical collections

Circulation of current journals in special libraries. G. Bloomer. Special Lib 39:46-50 F '48

Service

Special libraries and research in labor and industrial relations. P. Bradley. Special Lib 39:82-6 Mr '48

Scandinavia

Scandinavian librarians' congress, 5th, Copenhagen, Aug. 13-16. Special Lib 38:324-7 D '47

LIBRARY accounting

Budgets and finance. E. L. Wyatt and others. Special Lib 39:175-9 JI-Ag '48

Special library budgets. W. Hausdorfer. Special Lib 39:179-84 JI-Ag '48

LIBRARY administration

Use of punched cards in American libraries. J. W. Perry and others. Assn of Sp Lib & Inf Bur Proc 1947:40-50; Discussion. 50-4

See also

Library accounting

LIBRARY advertising

See also

Library publicity

LIBRARY architecture

Flexible plan attained for library through modular design; Princeton university's new Harvey S. Firestone memorial library. II plans Eng N 139:808-11 D 11 '47

Library buildings for library service; papers presented before the Library Institute at the University of Chicago, August 5-10, 1946. H. H. Fussler, ed. 216p bibliog(p202-5) \$3.50 American library assn, 50 E. Huron st, Chicago 11 '47

Library, reading room and stack space for Florida southern college; design by F. L. Wright. II plans Arch Forum 88:131, 134-5 Ja '48

Modular library under construction; State college of Washington, Pullman. II plans diags Arch Rec 104:102-9 JI '48

LIBRARY budget. See Library accounting**LIBRARY buildings**

See also

Library architecture

LIBRARY finance

Budgets and finance. E. L. Wyatt and others. Special Lib 39:175-9 JI-Ag '48

LIBRARY literature**Exhibitions**

Exhibition of books and periodicals; catalogue. Assn of Sp Lib & Inf Bur Proc 1947:33-101

LIBRARY of Congress

Installs a service for searching unfilled printed card orders in the National union catalog. Special Lib 39:203-4 JI-Ag '48

Library of Congress. Science 108:128-9 Ag 6 '48

Special exhibits at Library of Congress. Science 108:262 S 3 '48

Union catalog division

National union catalog. L. C. Coffin. Special Lib 39:10-13 Ja '48

LIBRARY publicity

Library broadcasts. F. G. Nunmaker. 166p bibliog(p157-9) \$2.25 H. W. Wilson co, New York '48

LIBRARY schools and training

Library school of Carnegie institute of technology assumes graduate status. Special Lib 39:122-3 Ap '48

University of Illinois library school scholarships and assistantships, 1948-49. Special Lib 39:28 Ja '48

See also

Librarians, Special

—Training

LIBRARY science**Bibliography**

Quarterly documentation survey. Published in quarterly numbers of Journal of documentation

History

Mirror for librarians; selected readings in the history of librarianship. J. L. Thornton. bibliog 207p Grafton & co, Coptic house, 51 Great Russell st, London, WC 1 '48 (15s)

LIBRARY service

Both sides of the librarian's desk. E. N. Simons and M. Exley. Assn of Sp Lib & Inf Bur Proc 1947:77-92

Distribution and use of scientific and technical information; questionnaire addressed to Science museum library readers. D. J. Urquhart. J Doc 3:222-31 Mr '48

Library service to business and government; proceedings of the section on Public library administration, 12th annual Institute of government, 1947. (Report no. 80) 57p Univ. of Washington, Bur. of governmental research and services, Seattle 5 '47

National plan for public library service; prepared for the Committee on postwar planning of the American library association. C. B. Joeckel and A. Winslow. 168p \$3 American library assn, 50 E. Huron st, Chicago 11 '48

Public library establishes research group; industrial research service foundation, associated with Detroit public library. Pet Processing 2:900 D '47

LICENSES

Small business and government licenses. A. Green. U S Dept of Com, Economic (Small Business) Ser 66:1-22; pa 15c Supt. of doc. '48

LICENSING (marketing method)

How a problem of heavy selling cost was licked; Fritos. J. A. Murphy. Il Ptr Ink 223:29-31 My 14 '48

LICENSING of chemists. See Chemists—Licenses**LICORICE**

U.S. chief purchaser of licorice from Greece. For Comm W 30:23 Ja 3 '48

LIEBLING, Abbott Joseph, 1904-

Wayward pressman becomes a critic. C. Hodge. por Ed & Pub 81:10 Ag 14 '48

LIENS

See also
Mechanics liens
Tax liens

LIESEGANG, Raphael Eduard, 1869-1947

Sketch. J Chem Educ 25:156 Mr '48

LIFE

Life by design. J. Pearlstein. Chem & Eng N 26:1480 My 17 '48; Discussion. 26:2226 Jl 26 '48

LIFE (biology)

Life comes to a planet. A. E. Wilson. Il maps diag Can Min J 69:57-65 Jl; 80-4 Ag; 60-9 S '48

LIFE advertisers association. See Life insurance advertisers association.**LIFE insurance. See Insurance, Life****LIFE insurance advertisers association**

Annual meeting, Quebec, Oct. 23-25. East Underw 48:3 O 31 '47; Nat Underw (Life ed) 51:1+ O 31 '47; Spectator (Life ed) 155:10-28+ N '47; Weekly Underw 157:138-40 N 1 '47

Annual meeting, Washington, D.C. East Underw 49:3, 14-15 N 5 '48; Nat Underw (Life ed) 52:1+ N 5 '48; Weekly Underw 159:1044-54+ O 30 '48; Spectator (Life ed) 156:12-14+ N '48

Eastern round table meeting, New York, March 29. Nat Underw (Life ed) 52:1+ Ap 2 '48; Spectator (Life ed) 155:16-17+ Ap '48
North central round table annual meeting, Chicago, June 17-18. Nat Underw (Life ed) 52:3 Je 25 '48; Weekly Underw 158:1854 Je 26 '48

Personnel of major committees. Weekly Underw 158:1470 My 15 '48; Same, Spectator (Life ed) 155:41 Je '48

Southern round table annual meeting, Biloxi, Miss., May 3-4. Nat Underw (Life ed) 52:1+ My 7 '48

LIFE insurance agency management association

Annual meeting, Chicago, Nov. 12-14. East Underw 48:3-5 N 14; 3-4 N 21 '47; Nat Underw (Life ed) 51:1+ N 14; 1+ N 21 '47; Weekly Underw 157:1270, 1274-5 N 15 '47; Spectator (Life ed) 155:26-9+ D '47

Combination companies spring conference, Absecon, N.J., May 25-27. Nat Underw (Life ed) 52:1+ My 28 '48

Committee chairmen appointed. Nat Underw (Life ed) 52:4 Ja 9 '48

Spring conference, Chicago, March 23-24. Nat Underw (Life ed) 52:1+ Mr 26 '48; Weekly Underw 158:941+ Mr 27 '48

LIFE insurance association of America

Annual meeting, New York, Dec. 19. Nat Underw (Life ed) 51:1 D 26 '47; Spectator (Life ed) 155:25-7 Ja '48

Committee personnel. East Underw 49:16 F 13 '48

Joint committees of LIAA and ALC. East Underw 49:11 Ja 30 '48; Nat Underw (Life ed) 52:2 Ja 30 '48

LIFE insurance medical research fund. See Insurance, Life—Medical research**LIFE insurers conference (formerly Industrial insurers conference)**

Annual meeting, 39th, Savannah, May 19-22. East Underw 49:6 My 28 '48; Nat Underw (Life ed) 52:16 My 28 '48; Weekly Underw 158:1593 My 29 '48

Conference committees. Weekly Underw 159:293 Ag 7 '48

LIFE managers' association of greater New York

Spring meeting, New York, May 5. East Underw 49:14 My 14 '48

LIFE office management association

Annual meeting, 25th, Chicago, Sept. 22-24. East Underw 49:3+ O 1 '48; Nat Underw (Life ed) 52:2+ S 24 '48

L.O.M.A. exams. F. L. Rowland. Life Ins Courant 53:51 My '48

LOMA institute's record enrollment. East Underw 49:5 Ap 16 '46

LIFE saving

Workers form life-saving crew; U.S. rubber company employees organize to prevent drownings. Il Nat Safety N 56:46 N '47

LIFE underwriter training council

Annual meeting, 1st, New York, Feb. 24. East Underw 49:9 Mr 5 '48; Nat Underw (Life ed) 52:3 Mr 5 '48; Weekly Underw 158:751 Mr 6 '48

Bottens to join Council. Nat Underw (Life ed) 51:8 D 26 '47

Lauds work of Council. O. Bethea. Spectator (Life ed) 155:52-4 N '47

Many contributors to text material for LUTC course. E. L. G. Zalinski. East Underw 49:10 Ag 27 '48

LIFE underwriters association of the city of New York

Annual meeting, New York. East Underw 49:3 Je 4 '48

Annual sales congress, 28th, New York. East Underw 49:14+ Mr 19 '48; Nat Underw (Life ed) 52:4 Mr 19 '48

LIFEBOATS

Air-borne lifeboat speeds rescue. Il Aviation W 49:13 Ag 23 '48

Lightplane floats to rescue boats; Edo corp. fashioning lifeboats for the U.S. air force. W. Kroger. Il Aviation W 49:17 Ag 16 '48

LIFT bridges. See Bridges, Lift**LIFTING magnets**

Trends in design and application of lifting magnets. J. D. Leitch. Il diag Iron & Steel Eng 25:78-86; Discussion. 87-91 My '48

LIGHT, Sol Felty, 1886-1947

Sketch. T. H. Bullock. Science 106:483-4 N 21 '47

LIGHT

Observing the phases of light waves; abstract. F. Zernike. Science 107:463 My 7 '48

Rotors driven by light pressure. J. W. Beams. Phys R 72:987-8 N 15 '47

See also

Brightness	Photoelectric cells
Color	Photoelectric effect
Cotton, Effect of light on	Photography
Daylight	Photometry
Diffraction	Photosynthesis
Dyes, Fastness of	Polarization (light)
Eye	Radiation
Fluorescence	Radioactivity
Glare	Reflection (optics)
Interference (light)	Refractive index
Light signals	Spectrum
Lighting	Ultraviolet rays
Luminescence	Wool, Effect of light on
Optics	X rays
Photochemistry	
Photoelasticity	

Flashing

Light-flash generator. R. G. Roush and F. Hamburger, jr. Il diag Electronics 21:100-2 N '48

LIGHT—Continued

Velocity

Measurement of the velocity of light by signals sent in one direction. R. E. Ives, *bibliog Opt Soc Am J* 38:879-84 O '48

LIGHT, Colored

Dynamic luminous color for film presentation. R. G. Williams, *il Soc Motion Picture Eng J* 50:374-83; Discussion. 383-8 Ap '48

Effect of spectral quality of light on visual performance and fatigue. E. Simonson and J. Brozek, *bibliog Opt Soc Am J* 38:830-40 O '48

LIGHT, Scattering of

Dependence of the scattering of light on angle and concentration in linear polymer solutions. B. H. Zimm, *bibliog J Phys & Colloid Chem* 52:260-7 Ja '48

Light scattering in supersonic streams. J. H. McQueen and others, *Phys R* 73:260 F 1 '48

Molecular weight determination by light scattering; abstract. P. Debye, *Anal Chem* 20:389 Ap '48

New contributions to the optics of intensely light-scattering materials. F. Kubelka, *bibliog Opt Soc Am J* 38:448-57 My '48

Purification and properties of antibody against *p*-azophenylarsonic acid and molecular weight studies from light scattering data. D. H. Campbell, R. H. Blaker and A. B. Pardee, *bibliog Am Chem Soc J* 70:2496-9 Jl '48

Scattered and rescattered sunlight. A. Hammad, *Opt Soc Am J* 38:611-16 Jl '48

Scattering of light and its applications to chemistry. G. Oster, *diags Chem R* 43:319-65 *bibliog* (227 ref, p360-5) O '48

Stray light caused by the presence of a luminous body within the field of an optical system. H. S. Coleman, *diag Opt Soc Am J* 37:899-906 N '47

See also

Tyndall effect
LIGHT airplanes. See Airplanes, Light

LIGHT filters

Blue glass for approximate colour-temperature and intensity measurements. H. G. W. Harding, *J Sci Instr* 25:333-5 S '48

Comparison of the use of polaroid and colored filters in the multiplex aeroprojector. R. G. Livingston, *bibliog il diag Mo U Sch Mines & Met Bul tech ser v* 17 no 4:1-29 '47

Optically corrected cells; use of new filters and lenses laminated to surface of cell. G. B. Buck, 2d, *il diag Gen Elec R* 51:38-42 O '48

Raman tube filters. G. Glockler and J. F. Haskin, *bibliog J Chem Phys* 15:769 O '47
Red and infra-red filters for the study of the Herschel effect. H. Bäckström and J. Basberg, *bibliog il Opt Soc Am J* 37:891-8 N '47

Reflection and transmission interference filters. L. N. Hadley and D. M. Dennison, *diags Opt Soc Am J* 37:451-65; 38:483-96 Je '47, Je '48; Correction. 38:546 Je '48

LIGHT projection

Application data for downlighting equipment. L. C. Brown and P. Presbrey, *diags Illum Eng* 43:13-25 Ja '48; Excerpt(table). *Elec World* 129:180 Ja 17 '48; Discussion. *Illum Eng* 43:25-6 Ja '48

Colossal lighting; refoodlighting of Los Angeles coliseum. A. H. Clarke, *il Elec West* 101:67 Jl '48

Flood lamps illuminate large shot blasting room; Erie works of the General electric co. N. B. Burroughs, *il Foundry* 76:156 Mr '48

Maintenance of outdoor lighting equipment. F. T. Tillemans, *il Illum Eng* 43:377-91; Discussion. 391-4 Ap '48

Projection lamps for car platforms, *diag Ry Mech Eng* 122:380 Jl '48

Trafalgar square reopened; floodlighting and illuminated fountains, *il Elec R (Lond)* 143:629 O 22 '48

LIGHT signals

Urea molds main parts of signal lights; hospital signal units for nurses, *il Mod Plastics* 25:91-2 N '47

See also

Searchlights
Traffic signals

LIGHT telegraph

Survey of near infra-red communication systems. W. S. Huxford and J. R. Platt, *il diags Opt Soc Am J* 38:253-68 *bibliog* (61 titles, p266-8) Mr '48

LIGHT telephone

Principles of optical communication systems; general properties of non-image forming projectors and receivers. H. S. Snyder and J. R. Platt, *bibliog Opt Soc Am J* 38:269-78 Mr '48

Survey of near infra-red communication systems. W. S. Huxford and J. R. Platt, *il diags Opt Soc Am J* 38:253-68 *bibliog* (61 titles, p266-8) Mr '48

LIGHTERAGE

Increases allowances for New York pier services. *Ry Age* 125:825-6 O 30 '48

LIGHTHOUSES

Century-old wrought-iron structures are still in good condition; lighthouses on the Florida reefs, *il Civil Eng* 18:722 N '48

Radio-controlled lighthouse in Sweden. *Engineer* 186:61 Jl 16 '48

LIGHTING

Analysis of reflected glare. W. G. Darley, *il diags Illum Eng* 43:85-95; Discussion. 95-103 Ja '48

Beyond engineering. J. M. Waldram, *Electrician* 141:1174 O 15 '48

Brightness engineers; abstract. R. O. Ackersley, *Elec R (Lond)* 143:632 O 22 '48

Color characteristics of human complexions; data applicable to lighting, color photography, lithography, television, etc. G. B. Buck, 2d and H. C. Froelich, *bibliog Illum Eng* 43:27-47; Discussion. 47-9 Ja '48

Correlation of brightness ratios and decoration. W. H. Kahler and J. A. Meacham, *il diags Illum Eng* 43:175-91; Discussion. C. M. Cutler. 192-3 F '48

Illuminating engineering society, London, summer meeting. *Elec R (Lond)* 142:999-1002 Je 25 '48

Lighting recommendations for sports and recreational areas; tabulation; engineering reference sheet. D. W. Rowton. *Elec World* 129:106 My 8 '48

1947 progress report of the Illuminating engineering society, committee on progress, *bibliog il diags Illum Eng* 42:955-98 D '47

Report of joint committee of the Illuminating engineering society and the American public health association, *Illum Eng* 43:761-2 Jl '48

Study of table tennis lighting, *il plans Illum Eng* 43:251-71 Mr '48

Understanding color. F. Birren, *il Illum Eng* 43:711-16 Jl '48

See also

Car lighting	Lighting fixtures
Christmas lighting	Mine lighting
Daylight	Office lighting
Electric lighting	Searchlights
Glare	Stage lighting
House lighting	Street lighting
Light projection	Windows
also subdivision subjects, e.g.	Lighting under special
Airports	Moving picture studios
Art galleries and museums	Printing offices
Auditoriums	Railroads
Department stores	Restaurants
Factories	Roads
Factories—Yards	School buildings
Kitchens	Store buildings
also International	commission on illumination

Bibliography

Current articles on lighting. Published in monthly numbers of illuminating engineering

Control

Theater dimmer. D. M. Rollins, *il Soc Motion Picture Eng J* 50:607-12 Je '48

Heating aspects

Zoning for heat gains from lighting in a multi-story building. H. E. Ziel, *diag Heat & Ven* 45:94 Je '48

Standards

American standard practice for school lighting, *il map diags Illum Eng* 43:793-865 *bibliog* (67 titles, p862-5) S '48

LIGHTING—Standards—Continued

- Effects of illumination level on visual performance and fatigue, E. Simonson and J. Brozek, bibliog Opt Soc Am J 38:384-97 Ap '48; Abstract, Safety Eng 96:56-7 Ag '48; Discussion, P. Moon and D. E. Spencer, bibliog Opt Soc Am J 38:650 JI '48
- Footcandle levels; threshold, ideal, optimum and recommended, M. Luckiesh, Illum Eng 43:395-411; Discussion, 411-15 Ap '48
- For safe street and highway lighting, P. S. Miller, Il Ind Stand 19:36-8 My '48
- Questionnaire on illumination, K. S. Gibson, Opt Soc Am J 38:67-8 Ja '48
- Recommended footcandle levels for prolonged critical seeing, M. Luckiesh, bibliog Opt Soc Am J 38:712-13 Ag '48
- Trends in illumination standards, M. A. Tinker, bibliog Illum Eng 43:866-81; Discussion, 882-905 S '48

Tables, calculations, etc.

- Application data for downlighting equipment, L. C. Brown and P. Presbrey, diags Illum Eng 43:13-25; Discussion, 25-6 Ja '48
- Application of the interference theory to commercial practice, R. A. Coradeschi and L. E. Innes, bibliog plan diags Illum Eng 43:949-88 N '48
- Light distribution from fluorescent lamps, H. D. Einhorn and J. D. Sauermann, diags Inst E E J 94 pt 2:535-42 O '47
- Luminaire utilization as affected by candlepower distribution, C. E. Weitz and C. L. Amick, diags Illum Eng 43:65-82; Discussion, 82-4 Ja '48
- Photometric investigation of dust, D. E. Spencer and S. Malkiel, diags Franklin Inst J 245:389-402 My '48

LIGHTING, Architectural

- Architect sees lighting, L. B. Perkins, Illum Eng 42:1049-53; Discussion, 1053-4 D '47
- Styled light in centennial home, Il Elec West 99:79 N '47

LIGHTING, Decorative

- Lighting award to Lightolier, Il Mod Plastics 26:140-1 S '48

See also**Fountains—Lighting****LIGHTING, Indirect**

- Use of cold cathode fluorescent lighting in cove and cornice, A. E. Reynolds, Il diags Illum Eng 43:497-514 My '48

LIGHTING, Industrial

- Air-powered light for night and underground work, Il Comp Air Mag 53:73 Mr '48
- Design of industrial lighting equipment, F. Widnall, Light & Lighting 40:196 N '47
- Lighting in industry; illustrations with text, Elec West 101:98-9 S '48
- Louvers and bowls solve lighting problem; Williams gold refining co, Buffalo, N.Y., H. M. Sharp, Il Elec World 129:108 Ap 10 '48
- Muscular tension as an index of visual efficiency; a progress report, M. E. Bitterman and others, diag Illum Eng 43:1074-81; Discussion, 1081-6 N '48

See also**Factories—Lighting****Printing offices—****Lighting****Portable equipment**

- Portable enginehouse lights, Il Ry Mech Eng 122:320-1 Je '48
- Rolling lights for enginehouse and shop, Il Ry Age 124:170 Ja 17 '48
- Shadowless light, Il Ry Mech Eng 122:251 My '48
- Should 115-v extension lights be used inside boiler drums? H. I. Podell, diags Power Generation 52:98-9 O '48
- Versatile floor lamp, H. Menegus, diags Bus Transportation 27:80 Mr '48
- Westinghouse offers high intensity light, Il Paper Tr J 126:42 F 5 '48

LIGHTING, Natural, See Daylight**LIGHTING engineers**

- Illuminating engineering as a profession, R. L. Bieseke, Jr., Illum Eng 43:117-22; Discussion, 122-4 F '48
- Training of the illuminating engineer; abstract, J. W. T. Walsh, Light & Lighting 40:173 O '47

LIGHTING fixtures

- Design of industrial lighting equipment, F. Widnall, Light & Lighting 40:196 N '47
- Evaluation of methods and fixtures used for bathroom mirror lighting, M. Fahsponder and E. Priest, Il diags Illum Eng 42:999-1024; Discussion, 1024-7 D '47
- Louvers and bowls solve lighting problem; Williams gold refining co., Buffalo, N.Y., H. M. Sharp, Il Elec World 129:108 Ap 10 '48
- Luminaire utilization as effected by candlepower distribution, C. E. Weitz and C. L. Amick, diags Illum Eng 43:65-82; Discussion, 82-4 Ja '48
- Making art pay; maker of lighting equipment sponsors exhibit of abstract art, Il Esas W 84:5 Mr 20 '48
- Ten years of fluorescent fixture development, R. G. Maurette, bibliog Il diags Illum Eng 43:272-85; Discussion, 285-9 Mr '48

Testing

- Appraisal of kitchen lighting elements, J. Reynolds and A. W. Kalkily, Il diags Illum Eng 43:1015-43 N '48
- Large photometric sphere, Franklin Inst J 246:61-3 JI '48

LIGHTING fixtures, Plastic

- Acrylic plastics in lighting; abstract, W. E. Harper and H. P. Walker, Electrician 140: 1971 Je 25 '48
- Lighting award to Lightolier, Il Mod Plastics 26:140-1 S '48
- Lighting fixtures from acrylic sheet; abstract, F. W. Tetzlaff, Product Eng 19:122-3 O '48

LIGHTING research

- Effect of spectral quality of light on visual performance and fatigue, E. Simonson and J. Brozek, bibliog Opt Soc Am J 38:830-40 O '48
- Experimental lighting for rayon weaving; study of output, quality, cost, J. W. Howell, Textile Inst J 39:P487-500 Ag '48
- Lighting and visual efficiency: the present status of research, M. E. Bitterman, bibliog Illum Eng 43:906-22; Discussion, 923-31 S '48
- 1947 progress report of the Illuminating engineering society; committee on progress, bibliog Il diags Illum Eng 42:955-98 D '47
- Photometric investigation of dust, D. E. Spencer and S. Malkiel, diags Franklin Inst J 245:389-402 My '48

LIGHTNING

- High-voltage characteristics of earth resistances, G. M. Petropoulos, bibliog Il diags Inst E E J 95 pt 2:59-70 F '48
- Ionization processes in a long discharge tube with application to lightning mechanism, F. H. Mitchell and L. B. Snoddy, bibliog Il diag Phys R 72:1202-8 D 15 '47
- Lightning, and how to dodge it, Il Nat Safety N 57:25 Ap '48
- Lightning strength of power transformers, E. T. Norris, bibliog diags Inst E E J 95 pt 2: 389-401 Ag '48; Same cond, Engineer 186: 168-70 F 13 '48; Abstract, Electrician 140:349 Ja 30 '48; Discussion, Il Inst E E J 95 pt 2: 401-6 Ag '48; Electrician 140:349-50 Ja 30 '48
- Mechanism of lightning discharge, L. B. Loeb, Il diags Franklin Inst J 246:123-48 bibliog(42 ref, p 147-8) Ag '48
- Super lightning bolt recorded at Pittsburgh, Nat Safety N 57:61 Ja '48; Same, Safety Eng 95:20 Ja '48
- Toward lightning control; research atop New York's Empire state building, Gen Elec R 51:46 S '48

LIGHTNING arresters

- Curved taps insure against mechanical failure, Il Elec World 129:133 My 22 '48

LIGHTNING protection

- Lightning protection for industrial plants, E. Beck, Il diags Mill & Factory 42:120-2 My '48
- Lightning-resistant transmission line performance, R. M. Schaffer and W. H. Knutz, Elec Eng 67:563 Je '48
- Lightning surges on transmission lines in Ireland, R. C. Cuffe, bibliog map diags Inst E E J 94 pt 2:270-7 Ag '47; Discussion, 94 pt 2:278-82; 95 pt 2:81-4 Ag '47, F '48

LIGHTNING protection—Continued

- Protection against lightning at surface and underground mining plants. D. Harrington and others. bibliog U S Bur Mines Information Circ 7447:1-23 '48
- 17-year lightning study gets results; Consolidated gas electric light & power co. of Baltimore, G. W. Maihl. Elec World 129: 105-7 Ap 10 '48
- Triple-circuit line cuts lightning area. C. B. Downer. il Elec World 130:87-9 S 25 '48
- Wathour meter accuracy can be preserved despite surge currents; aluminum protector cap. E. L. Keller. il Elec World 129: 67-9 F 28 '48

LIGNIN

- Combination between lignin and polyuronic acid in jute fibre. P. B. Sarkar and others. bibliog Textile Inst J 39:71-7 Ja '48
- Constitution of gymnosperm lignin. D. M. Ritter and others. bibliog Science 107:20-2 Ja 2 '48
- Destructive distillation of Douglas fir lignin. T. L. Fletcher and E. E. Harris. Am Chem Soc J 69:3144-5 D '47
- Extractives of Douglas fir and Douglas fir lignin residue. I. L. Clark, J. R. Hicks and E. E. Harris. Am Chem Soc J 69: 3142-3 D '47
- Infrared spectrum of spruce native lignin. E. J. Jones. Am Chem Soc J 70:1984-5 My '48
- Interpretation of lignin; the synthesis of further analogs of spruce lignin. A. Russell. Am Chem Soc J 70:2864-5 S '48
- Interpretation of lignin; the synthesis of gymnosperm lignin. A. Russell. bibliog Am Chem Soc J 70:1060-4 Mr '48
- Laurentien, Montreal hotel uses pulp and paper product in construction; arborite, lignin enriched laminated paper. il Pulp & Pa of Can 48:57-9 F '48
- Lignin-alcohol condensation; the reaction of lignin with amino- and nitro-butanol. A. Bailey. bibliog Paper Ind 29:1606-7+ F '48
- Lignin as a stabilizer for GR-S. G. S. Murray and W. H. Watson. il India Rubber World 118:667-9 Ag '48
- Lignin; purification of lignin sulfonic acids by continuous dialysis. Q. P. Peniston and J. L. McCarthy. bibliog diag Am Chem Soc J 70:1324-8 Ap '48
- One third of wood. E. Glesinger. il diags Sci Am 178:9-11, 57-9 Ja-F '48
- Periodate lignins; their preparation and properties. P. F. Ritchie and C. B. Purves. bibliog(56 ref) diag Pulp & Pa of Can 48: 74-82 N '47
- Plastics and wood, topics at Wisconsin meetings. Chem & Eng N 26:2608 S 6 '48
- Studies on lignin and related compounds; high pressure hydrogenation of maple wood. J. M. Pepper and H. Hibbert. bibliog Am Chem Soc J 70:67-71 Ja '48
- Studies on lignin and related compounds; high pressure hydrogenation of maple wood; hydrol lignin. C. P. Brewer, L. M. Cooke and H. Hibbert. bibliog Am Chem Soc J 70:57-9 Ja '48
- Studies on lignin and related compounds; hydrogenation of dimers related to lignin. S. B. Baker and H. Hibbert. Am Chem Soc J 70:63-7 Ja '48
- Studies on lignin and related compounds; synthesis and properties of dimers related to lignin. S. B. Baker, T. H. Evans and H. Hibbert. bibliog Am Chem Soc J 70:60-3 Ju '48
- Yield and quality of pulp and waste liquor in sulphite pulping of softwoods. M. Baum and others. bibliog Paper Tr J 126:130+ F 26 '48

Analysis

- Chemical analysis of western woods. E. F. Kurth. diag Paper Tr J 126:56-7 F 5 '48
- Determination of lignin in plant material of high protein content. E. R. Armitage, R. D. Ashworth and W. S. Ferguson. bibliog Soc Chem Ind J 67:241-3 Je '48
- Lignin; liberation of phenolic hydroxyl groups by alkaline cleavage of lignin sulfonic acids. Q. P. Peniston and J. L. McCarthy. bibliog Am Chem Soc J 70:1323-32 Ap '48

LIGNITE

- Le bassin à lignite landais. V. Charrin. diag Chimie & Ind 58:396-7 O '47

- Burns bug-dust lignite at efficiencies to 79 per cent; Canada Packers' St Boniface plant. G. E. Gibson. il diags Power 92:550-3 S '48
- Gas from lignite shown possible by Dakota pilot plant operation. Heat & Ven 45:120+ Ja '48
- Gasification of subbituminous coal and lignite in externally heated retorts. V. F. Parry and others. bibliog diags Ind & Eng Chem 40:627-41 Ap '48
- Opencast mining in the Rhine brown coal-field. W. L. G. Muir. il map diags Engineer 185:344-6, 368-71 Ap 9-16 '48
- Production of water gas from pulverized coal; a continuous process. J. F. Foster. il diag Ind & Eng Chem 40:586-92 Ap '48
- Reactivity of solid fuels to air and oxygen. A. A. Orning, S. Mallov and M. Neff. bibliog il diags Ind & Eng Chem 40:423-32 Mr '48
- Ten years' experience burning lignite and discarded slack coal. A. R. Eastcott. il diag Power 92:276-9 My '48
- Thickness of bituminous-coal and lignite seams mined in the United States in 1945. W. H. Young and R. L. Anderson. 4pls U S Bur Mines Information Circ 7442:1-17 '47
- Use of raw brown coal on industrial stokers; abstract. I. M. Stewart and others. diags Power 92:52-3 Ja '48
- Wax from old wood. I. Cox. Can Chem & Process Ind 32:147 F '48

Moisture content

- Effects of moisture on float-and-sink testing of lignite. H. M. Cooper and others. bibliog 4pls U S Bur Mines Rep of Invest 4184:1-3 '47

LIGNOCELLULOSE

- Volatile loss in molding lignocellulose-filled phenolics. R. V. Williamson. bibliog Mod Plastics 25:126-7+ My '48

LIGNOSULFONATES

- Separation of lignin sulphonic acids from sulphite waste liquor by batch dialysis. N. K. Hiester and others. bibliog Paper Tr J 126:58-61 Ap 15 '48
- Some physical and chemical properties of weight-fractionated lignosulfonic acid, including the dissociation of lignosulfonates. F. M. Ernberger and W. G. France. bibliog diags J Phys & Colloid Chem 52:267-76 Ja '48

Analysis

- Analysis of sulfite waste liquor and lignosulfonates; determination of neutralized solids and wet oxidation for determination of total sulfur and cations. J. R. Salvesen and D. Hogan. bibliog Anal Chem 20:909-11 O '48

LIGNOSULFONIC acids

- Lignin; liberation of phenolic hydroxyl groups by alkaline cleavage of lignin sulfonic acids. Q. P. Peniston and J. L. McCarthy. bibliog Am Chem Soc J 70:1329-32 Ap '48
- Lignin; purification of lignin sulfonic acids by continuous dialysis. Q. P. Peniston and J. L. McCarthy. bibliog diag Am Chem Soc J 70:1324-8 Ap '48
- Separation of lignin sulphonic acids from sulphite waste liquor by batch dialysis. N. K. Hiester and others. bibliog Paper Tr J 126:58-61 Ap 15 '48
- Some physical and chemical properties of weight-fractionated lignosulfonic acid, including the dissociation of lignosulfonates. F. M. Ernberger and W. G. France. bibliog diags J Phys & Colloid Chem 52:267-76 Ja '48

LIGNUM vitae

- How to handle lignum-vitae. H. E. Linsley. il Am Mach 92:122-3 Je 17 '48
- Some general information about lignum-vitae bearings. H. V. Townsley. Mech Eng 70:600-1 Jl '48
- LILLIE, Frank Rattray, 1870-1947
Sketch. C. R. Moore. Science 107:33-5 Ja 9 '48
- LILLY, Eli, award
Wayne Woolley named winner. Chem & Eng N 26:1148-9 Ap 19 '48
- Woolley receives Eli Lilly award. Oil Paint & Drug Rep 154:64 Ag 16 '48

LILY-tulip cup corporation

New plant will lift earnings. *Barron's* 28:34 Je 21 '48
 Preferred issue placed privately. *Comm & Fin Chr* 168:647 Ag 16 '48

LIMA, Ohio**Water supply**

Lime recalcining plant designed for alternate processes. T. B. Henry and B. H. Swab. *diags Eng N* 140:663-4 Ap 29 '48

LIMA beans

Effect of variety, maturity and canning procedures on quality and nutritive value of lima beans; abstract. A. Kramer and H. R. Smith. *Food Ind* 20:942 Je '48
 Esters of lima bean pod and corn cob hemicelluloses. J. F. Carson and W. D. MacLay. *bibliog Am Chem Soc J* 70:293-5 Ja '48
 Inadequacy of proteolytic enzyme inhibition as explanation for growth depression by lima bean protein fractions. A. A. Klose and others. *bibliog Science* 108:88-9 Jl 23 '48

LIMB duplication

Polydactyly and limb duplication occurring naturally in the tiger salamander, *ambystoma tigrinum*. D. W. Bishop and R. Hamilton. *bibliog il Science* 106:641-2 D 26 '47

LIME

Alumina from clay by the lime-sinter method. F. R. Archibald and C. M. Nicholson. *bibliog flow sheet il diags Metals Tech* 15: TP2390 1-25 Je '48

Analytical treatment of multicomponent systems. L. A. Dahl. *bibliog J Phys & Colloid Chem* 52:698-729 Ap '48

Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. *bibliog Am Cer Soc J* 31:132-44 My 1 '48

Cutting water-softening costs; lime-recovery plant at Miami. C. F. Wertz. *flow diag il plan Eng N* 141:113-16 Jl 8 '48

Future for hydraulic cements. N. C. Rockwood. *Rock Prod* 51:122-5 Ja; 135-6+ Ap '48

Lime and lime slaking. H. E. Lordley. *Water & Sewage Works* 95:R137-8 Ap '48

Lime recalcining plant designed for alternate processes. T. B. Henry and B. H. Swab. *diags Eng N* 140:663-4 Ap 29 '48

Lime recovery in the sulphate pulp industry. W. H. Tock. *flow diag il diags Paper Ind* 29:976-83, 1130-6 O-N '47

Lime-soil stabilization; abstract. C. McDowell. *Rock Prod* 51:102 My '48

Lime treatment of tomato canning waste. R. Y. Le Vine. *flow diag Pub Works* 79:28-30 O '48

Lime used in airfield base. *Roads & Sts* 91:96+ Ja '48

Pontiac recalcining plant. B. H. Swab. *flow diag Am Water Works Assn J* 40: 461-4; Discussion. 465-7 Ap '48

Preliminary study on portions of the systems $\text{Na}_2\text{O}-\text{CaO}-\text{Al}_2\text{O}_3-\text{Fe}_2\text{O}_3$ and $\text{Na}_2\text{O}-\text{CaO}-\text{Fe}_2\text{O}_3-\text{SiO}_2$. W. R. Eubank and R. H. Bogue. *bibliog J Res Nat Bur Stand* 40:225-34 Mr '48

System calcium oxide-phosphorus pentoxide-sulfur trioxide-water at 75.3° C. A. N. Campbell and J. W. Coutts. *bibliog* (35 ref) *Ind & Eng Chem* 40:1295-9 Jl '48

Viscosity studies of system $\text{CaO}-\text{MgO}-\text{Al}_2\text{O}_3-\text{SiO}_2$; $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. J. S. Machin and T. B. Yee. *Am Cer Soc J* 31:200-4 Jl 1 '48
See also

Water purification—
 Lime treatment

Manufacture

Fluidization in non-catalytic operations; limestone calcination. R. P. Kite and E. J. Roberts. *flow diag diags Chem Eng* 54:112-15 D '47

Lime manufacturing process. V. J. Azbe. *flow diags diags Pulp & Pa of Can* (Convention no) 49:199-206 [F] '48; Same cond. *Paper Ind* 29:1655-6+ F '48

New and revolutionary method of lime manufacture; New England lime co. makes lime with new FluSolids process. W. B. Lenhart and N. C. Rockwood. *flow diag il diags Rock Prod* 51:113-16 Ja '48

Slaking

Lime and lime slaking. H. E. Lordley. *Water & Sewage Works* 95:R137-8 Ap '48
 Operation of the Dorroco slaker. *Pulp & Pa of Can* 49:89-90 Ag '48

LIME as fertilizer

Agricultural limestone division, National crushed stone association convention, Cincinnati, Jan. 29-30. *Rock Prod* 51:120+ Mr '48

Horses plus quarrying; Armenia lime mines and farms, Inc. combines horse raising with production of agricultural limestone. E. L. Heidenreich, jr. *il Rock Prod* 51: 118-19 Ap '48

Outline 1948 agstone program at Ohio meeting. *Rock Prod* 51:113+ F '48

Portable plants—in three quarries produce agstone and roadstone. D. Mocine. *il Rock Prod* 51:120-3 Ap '48

Produce agstone from a calcareous gravel; Northern sand and gravel co. D. Mocine. *il Rock Prod* 51:126-7 Je '48

Straight-line production agstone plant; Cheney limestone co. *il Rock Prod* 51:136 Je '48

What is the status of industry? replies to questionnaire sent to producers of agstone. *il Rock Prod* 51:111-17+ Ap '48

See also National agricultural limestone association

LIME kilns

Continuous discharge automatic lime kilns; Pacific carbide and alloy co. W. B. Lenhart. *il diags Rock Prod* 50:86-7+ N '47

Lime manufacturing process. V. J. Azbe. *flow diags diags Pulp & Pa of Can* (Convention no) 49:199-206 [F] '48; Same cond. *Paper Ind* 29:1655-6+ F '48

Lime recovery in the sulphate pulp industry. W. H. Tock. *flow diag il diags Paper Ind* 29:976-83, 1130-6 O-N '47

Phot plant study of a multicone unit operating on stack gases from a lime kiln. T. T. Collins, jr. *il Paper Tr J* 126:63-4 Mr 18 '48

Firing

Fuel economies in firing lime kilns. V. J. Azbe. *diags Rock Prod* 51:106-9 F; 94-7 My '48

LIME plants

Variations in plant design. V. J. Azbe. *diags Rock Prod* 51:76-7+ Jl '48

Costs

Cost of lime. G. R. Lacy. *Rock Prod* 51:88-9 S '48

Equipment

Automatic controls applied to lime manufacture; National gypsum co. B. Nordberg. *il diag Rock Prod* 50:135-41+ '47

Dust collector and scrubber clean kiln exhaust gases; Dow chemical co. Ludington plant. *il Rock Prod* 51:130-1 Ap '48

Instrument control of operation; Kimballton, Va. plant of National gypsum co.; abstract. C. B. Cox. *Rock Prod* 51:100-1 My '48

Modernize vertical kiln stone preparation; lime plant of North American cement corp. W. R. Cliffe. *flow diag il Rock Prod* 51: 104-6+ O '48

LIMESTONE

Causes for the selective localization of ore in certain limestone beds. J. S. Brown. *bibliog Econ Geol* 42:535-6 S '47

Cornelly limestone quarry of the Steel company of Wales, Ltd. flow sheets il *Iron & Steel Inst J* 157:617-22 D '47

Crushing limestone half mile underground; Pittsburgh plate glass co., Columbia chemical division. B. Nordberg. *il diag Rock Prod* 50:72-9+ N '47

Diamond drilling blast holes, Bellefonte mine. National gypsum co., Centre county, Pa. M. Mosier. *U S Bur Mines Information Circ* 7438:1-6 '48

Florida limestone as a paint extender. A. L. Kimmel and M. Tyner. *bibliog il Rock Prod* 51:118-20 Ja '48

Interpretation of electric logs in limestone. H. Guyod. *diags World Oil* 127:90+ Mr '48

Limestone as a building material. O. Bowles and N. C. Jensen. *U S Bur Mines Information Circ* 7416:1-16 '47

LIMESTONE—Continued

Limestone from a half-mile down; Barberton, Ohio, mine operated by Columbia chemical division of Pittsburgh plate glass co. E. E. Petty. *il Min Cong J* 34:52-5 Ap '48

Mining limestone 2300 feet under the earth; project near Barberton, Ohio, D. F. North. *il diag Explosives Eng* 26:7-9+ Ja '48

Nature and origin of limestone porosity. R. B. Hohlt. *il diags Colorado School of Mines [Golden] Quarterly* 43 no 4:1-51 bibliog(p49-51) '48 (pa \$1)

One jaw crusher, two portable plants; McMillan contracting co. limestone crushing plant. W. B. Lenhart. *il Rock Prod* 50:127 D '47

Physical and chemical properties of Ellenburger rocks, Llano county, Texas. S. S. Goldich and E. B. Parmelee, bibliog maps diags Am Assn Pet Geologists *Bul* 31:1982-2020, pl 1 N '47

Portable plants in three quarries produce argstone and roadstone. D. Mocine. *il Rock Prod* 51:120-3 Ap '48

Skull breaker in a limestone quarry. M. Mosier. *pl U S Bur Mines Information Circ* 7472:1-4 '48

Some solutional features of the limestone near Lexington, Kentucky. D. K. Hamilton. *maps diags Econ Geol* 43:39-52 Ja '48

Tunnel blasting California limestone. H. D. Hellmers. *il plan Explosives Eng* 25:143+ S '47

Zones of Platin-Joachim of eastern Missouri. J. G. Grohskopf. *il map Am Assn Pet Geologists Bul* 32:351-65 Mr '48

LIMITATION of actions

Acknowledgment of debt on promissory notes bars statute of limitations. *Banking Law J* 64:313-20 O '47

Limitations to actions to enforce statutory double liability of stockholder of insolvent national bank. *Banking Law J* 64:775-9 O '47

LIMNOLOGICAL society of America (now American society of limnology and oceanography)

Annual meeting, 10th, Chicago, Dec. 29-31, 1947. *Science* 107:188 F 20 '48

LIMNOLOGY. See Lakes

LIMNOLOGY and oceanography, American society of. See American society of limnology and oceanography

LIMONITE

Investigation of southeast Missouri secondary limonite deposits, Wayne, Butler, and Ripley counties, Mo. H. J. Ballinger and P. Pesonen. *15pls U S Bur Mines Rep of Invest* 4314:1-46 '48

LINCOLN, Walter O. 1883-

Sketch. *por(p 16) Spectator (Property ed)* 13: 17 F 12 '48

LINEMEN

Lineman is saved by pole top method. H. F. Lovering. *il Power Pl Eng* 51:92-3 N '47

LINEMEN'S equipment

See also
Gloves, Rubber

LINEN

Belgian manufacturers strive to increase demand for linen goods. *For Comm W* 32:31 Ag 14 '48

Linen fabric made of fiber produced by the Minnesota method from seed flax straw. E. L. Phelps and others. *bibliog Rayon* 29:60-1 Ag; 90-1 S '48

Research on linen; abstracts and discussion. A. J. Turner. *Chem Age (Lond)* 59:527-8 O 16 '48; *Chem & Ind* p668 O 16 '48

Textiles battle for the consumer dollar; part played by linen. *Textile Col* 69:20-1 D '47

See also
Flax

LINEN spinning

Some developments in flax yarn production. S. A. G. Caldwell. *Textile Inst J* 38:P461-8 O '47

LINEN yarn

Some developments in flax yarn production. S. A. G. Caldwell. *Textile Inst J* 38:P461-8 O '47

LINK, Theodore C.

St Louis P-D staffer indicted as kidnaper. *Ed & Pub* 81:16 O 30 '48

LINKS and link motion

Kinematics of undercarriage retraction. H. G. Conway. *diags Roy Aeronautical Soc J* 52:125-37 F '48

Mechanism proportions solved exactly by application of simple geometry; quadric-crank or four-bar linkage. A. S. Hall. *diags Machine Design* 20:111-15 F '48

LINOLEIC acid

Polyamide resins from dilinoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. *bibliog Am Chem Soc J* 70:760-3 F '48

LINOLEUM block printing

Transferring to linoleum. *Inland Ptr* 120:55-6 N '47

LINOTYPE

Electronic controls on linotype machines; abstract. A. O. Albin. *Ed & Pub* 81:55-6 Mr 13 '48

LINSEED meal

New edible colloidal gum from linseed oil meal cake can be used in soft drinks, candy, jelly, mayonnaise, ice cream mix, processed cheese. C. T. Mason and L. A. Hall. *il Food Ind* 20:382-3 Mr '48

LINSEED oil

Furans in vegetable oil refining. S. W. Gloyer. *bibliog flow sheet il diag Ind & Eng Chem* 40:228-36 F '48

Linseed demand still firm. *Barron's* 28:37 My 17 '48

Linseed impasse. *Bsns W* p36+ S 11 '48

Linseed oil, 1941-1946. *Survey of Cur Bsns* 1947 Sup p 118 [supplemented in monthly numbers]

New Zealand's supplies of linseed oil. *For Comm W* 32:35 Ag 7 '48

Oil crushers caught in price support trap. *Barron's* 28:28-9 Ag 30 '48

Polymer fractionation of heat-polymerized non-conjugated vegetable oils. I. M. Bernstein. *bibliog J Phys & Colloid Chem* 52: 613-61 Ap '48

Price collapse building up to linseed oil shortage. *Barron's* 28:36 O 11 '48

Standoilisation; contribution in theory and practice; abstract. A. Vian and L. Yzu. *Chem Age (Lond)* 58:180 Ja 31 '48

Ultraviolet light absorption of standoils. M. Pestemer and J. Tschinkel. *Paint Oil & Chem R* 111:14+ S 2 '48

World's largest vegetable oil plant goes into operation; Archer-Daniels-Midland co., Minneapolis. *Paint Oil & Chem R* 111:11 Ja 8 '48

LINT

Removing lint from laundry unit. *diag Sheet Metal Worker* 38:62 D '47

LION oil company

Companies paying higher dividends on split shares. *Mag of Wall St* 82:132 My 8 '48

LIONEL corporation

Model profits; train sales climb to new highs. *il Bsns W* p50+ D 27 '47

LIPASE
Lipase for blue cheese; abstract. I. E. Peters and F. E. Nelson. *Food Ind* 20:1230 Ag '48

LIPIDES

Lipides of the cottonseed; saponification number. V. L. Frampson and C. N. Martin. *bibliog Anal Chem* 20:661-3 Jl '48

Lipodieresis in liver tissue of depancreatized dogs. C. Lombroso and S. Bocchiotti. *bibliog Science* 107:90-1 Ja 23 '48

Lipoid-soluble alloxazine derivatives. W. C. J. Ross. *Chem Soc J* p219-24 F '48

Physical state of lipids and foreign substances producing atherosclerosis. J. R. Moreton. *bibliog Science* 107:371-3 Ap 9 '48

Qualitative chemical change in carcinogenesis. C. Carruthers and V. Szentefy. *bibliog Science* 108:450-4 O 22 '48

Simple micromethod for rapid extraction of lipids. S. C. Hsiao. *diag Science* 107:24-5 Ja 2 '48

LIPIT-ISHTAR

If a slave girl fled; law code of Lipit-Ishtar, antedates code of Hammurabi. F. R. Steele. *il Sci Am* 178:44-7 Je '48

LIPMANN, Fritz Albert, 1899-

F. Lipmann receives Carl Neuberg medal; discusses pantothenic acid. *pers Chem & Eng N* 26:860, cover Mr 22 '48

LIPSTICKS

Ball-point lipstick, 11 Mod Packaging 21:142 N '47

Rating

Lipsticks; CR's report on ten brands. Consumers Res Bul 21:18-19; Je '48

LIQUEFACTION of coal. See Coal liquefaction**LIQUEFIED petroleum gas**

Absorption and stripping processes, diags Pet Refiner (Process Handbook ed) 27:308-9 sec 2 S '48

Appliance manufacturers are finding business brisk; over 26 per cent use LP-gas; abstract. H. Massey, Nat Pet N 39:38+ N 26 '47

Benton unit cycling plant, H. W. Manley, 11 map diag Oil & Gas J 47:82-6+ Ag 19 '48

Bottled gas, 11 diag Fortune 37:120-6+ Mr '48

Catalytic cracking process as a means of peak load shaving, S. W. Horsefield, flow diag 11 Am Gas J 169:11-14+ J1 '48; Same cond. Am Gas Assn Mo 30:9-11+ J1-Ag '48

Competition of chemical industry for LP-gas supplies seen lessening, H. E. Thomas, Nat Pet N 40:50-1 Ag 7 '48

Factors in the future of the LP-gas industry, W. R. Lowe, bibliog 11 Pet Refiner 26:125-9 N '47

Gas conservation; extraction plants replace gas flares, 11 Pet Processing 2:857-60 N '47

Get acquainted with liquefied petroleum gas, 11 Sheet Metal Worker 39:49-50 O '48

How to tame the LP-giant; need for natural gas companies to enter liquefied petroleum gas field, C. L. May, 11 Am Gas Assn Mo 30:6-8+ My '48; Abstract. Oil & Gas J 46:98 Ap 1 '48

Industry continues rapid growth, Chem & Eng N 26:44 Ja 5 '48

Katy gas-cycling plant, W. T. Robertson and H. M. Stamper, flow diag 11 diags Oil & Gas J 47:64-7 S 9 '48

Know your product before setting transfer method, D. Thoos, Nat Pet N 40:33+ Mr 17 '48

LP-gas appliance dealers meeting, Atlantic City, Oct. 8, Gas Age 102:43-4+ O 28 '48

Liquefied petroleum gas assn. annual meeting, Sacramento, Nat Pet N 40:17-18 Je 9 '48

L-P gas company in Midwest nears goal of balanced summer-winter demand load, 11 Nat Pet N 40:26-8+ Je 9 '48

LP gas from the ground up, W. H. Kramer, flow sheets diags Am Gas J 169:19-23 O '48

Maximum recovery of liquefied petroleum gases, J. A. Craig, Pet Refiner 27:108-10; Discussion, B. O. Bentley, 110-11 Ja '48

Modern process methods to improve L.P.G. recovery, G. W. McCullough and others, bibliog flow diags Oil & Gas J 46:116-18+ Mr 25 '48; Same, Pet Processing 3:307-10 Ap '48; Same, Pet Refiner 27:87-91 Ap '48

Natural-gas processing plants continue efforts to meet demand, R. B. Tuttle, Oil & Gas J 47:210+ J1 23 '48

Natural-gasoline and cycling plants will break own record in 1948, J. C. Casper, Oil & Gas J 46:181-2 Ja 29 '48

NPC group forecasts enough LP-gas in '48-49 except for seasonal peaks, Nat Pet N 40:36+ Ag 11 '48

Ohio oil co.'s midget L.P.G. plant produces 350 bbl. per day, R. B. Tuttle, flow diag 11 Oil & Gas J 47:74+ J1 1 '48

Plant design for LP gas hinges on adequate supply for future deliveries, F. E. Drake, 11 Am Gas J 168:19 Ap '48

Plant for LPG and natural gasoline, F. H. Love, 11 Pet Eng 19:41-4 J1 '48

Record-keeping forms help gauge profit, loss factors, E. E. Hadlick, 11 Nat Pet N 40:45-6+ Mr 10 '48

Sales of LP-gas rise 30 per cent but demand not satisfied, R. W. Thomas and K. W. Rugh, 11 Nat Pet N 39:21+ D 31 '47; Same, Am Gas Assn Mo 30:11-13 Ja '48; Same, Gas Age 101:43-4+ Ja 8 '48; Same, Oil & Gas J 46:36+ Ja 1 '48; Same, Pet Eng 19:94+ Ja '48

Significance of liquids from natural gas, C. R. Williams, map Oil & Gas J 46:108-11+ Mr 25 '48

Some high points in cycling plant design, V. E. Middlebrook, Oil & Gas J 46:100+ F 19 '48

Stand-by gas keeps production humming, 11 Mod Ind 15:137-8 Ap '48

Sun expands marketing activities in LP-gas; increases production, Nat Pet N 40:35 My 5 '48

Use of liquefied petroleum gas in ceramic industries, G. R. Benz and E. A. Jamison, Am Cer Soc Bul 26:297-9 O 15 '47

Use of unfired pressure vessels in the liquefied petroleum gas industry; a summary, E. O. Mattocks, Oil & Gas J 46:112-13 Mr 11 '48; Same cond. Chem & Eng N 26:314 F 2 '48

Advertising

Advertising used to straighten out eight-month seasonal slump; cartoon technique sells rural gas users on providing their own storage facilities, D. Markstein, 11 Ptr Ink 224:42-3 J1 16 '48

Louisiana LP-gas marketers use ads to boost consumer storage, Nat Pet N 40:37 S 8 '48

Emergency use

Stand-by equipment pinch hits when services fail; gas, lighting and power, G. A. Van Brunt, 11 Factory Management 105:124-5 N '47

Insurance aspects

Texas butane dealers to organize carrier; American Lloyds, Weekly Underw 158:1156-7 Ap 17 '48

Laws and regulations

LP-gas industry must unite to combat peril of public utility control, A. C. Kreutzer, 11 Nat Pet N 40:55+ Ag 18 '48

Promote L-P ordinance; recommendations for installation of appliances and piping, Dom Eng 171:153+ My '48

Safety measures

LPGA speaker urges instruction for customers on appliance use, R. E. Bjorkback, Nat Pet N 40:65-6 O 13 '48

L.P. gas piping and appliance regulations; proposed ordinance in preparation by Pacific coast and national gas organizations, F. A. Herr, Am Gas J 163:11-14 Mr '48

LPG safety booklets seen useful in training of industry employees, E. Lamm, Nat Pet N 40:34+ F 4 '48

Meeting of butane-propane men told how to improve safety practices, L. Castle, Nat Pet N 40:37+ S 29 '48

Safety requirements for liquefied petroleum gas installation, E. O. Mattocks, diags Gas Age 102:45-9+ O 28 '48

Statistics

LP-gas sales gain 30 per cent in 1947, A. T. Coumbe, Gas Age 102:79-80+ S 30 '48; Excerpts, Nat Pet N 40:41 S 29 '48

Liquefied gas sales soar to meet demand, World Oil 127:Yrbk 176 F '48

Natural-gasoline, cycling-plant production may reach 17 million gallons daily, J. C. Casper, Oil & Gas J 46:129+ Mr 25 '48

Storage

Broad LP-gas storage expansion program urged, Nat Pet N 40:44 Ag 4 '48

Gaging methods and devices for pressure storage, E. O. Mattocks, 11 diags Am Pet Inst Proc 27(5):78-84; Same cond. Oil & Gas J 46:62-3 N 29 '47

Over-all supply situation dictates need for increasing LP-gas consumer storage, S. B. Crooks, Nat Pet N 40:27-8+ Je 30 '48

Transportation

Margin of profit or loss can depend on efficient delivery truck routing, F. N. Havens, Nat Pet N 40:37+ O 6 '48

Norsworthy, first dock-side LPG terminal, J. E. Kastrop, 11 World Oil 128:179-82+ J1 '48

Survey shows 23 for-hire carriers operate LP-gas equipment; 91 butane, 78 propane units, Nat Pet N 40:36 My 5 '48

LIQUID air

Proposed turbo-expander design for air liquefaction, S. C. Collins, bibliog diags Refrig Eng 55:351-4+ Ap '48

LIQUID air—Continued

Tonnage oxygen for chemical industry. J. T. Hugill. bibliog flow sheet diag. Can Chem & Process Ind 31:1115-20 D '47

LIQUID chlorine. See Chlorine, Liquid

LIQUID crystals

Fixing of molecular orientation. J. F. Dreyer. J Phys & Colloid Chem 52:808-10 My '48
Oriented X-ray diffraction patterns produced by hydrous liquid crystals. S. S. Marsden, jr., and J. W. McBain. bibliog il J Chem Phys 16:633 Je '48

LIQUID fuel

Appraisal of gas synthesis operations. R. C. Alden and A. Clark. bibliog Pet Processing 3:425-30 My '48; Abstract. Nat Pet N 40:23 Ap 7 '48

Bench scale equipment and techniques; high pressure reactions. E. L. Clark and others. bibliog flow diag diag Ind & Eng Chem 39:1555-64 D '47

Bureau of mines reports its progress in synthetic liquid fuels research. Pet Processing 3:207-8 Mr '48

Challenge to crude oil; U.S. producers must effect economies if impending competition of oils from natural gas and coal is met. L. J. Logan. Pet Refiner 26:145+ D '47

China's motor fuels from tung oil. C. Chang and S. Wan. bibliog flow sheets diag Ind & Eng Chem 39:1543-8 D '47

Cities Service and Kellogg disclose joint plans for synthetic fuel research. Pet Refiner 27:158 Mr '48

Cities Service, Kellogg announce merger of synthetics programs. A. L. Foster. il Oil & Gas J 46:42 Mr 4 '48

Coal gasification rather than hydrogenation urged. P. C. Keith. Oil & Gas J 46:39+ F 5 '48

Coal-to-oil plants loom closer; Gulf-Koppers agreement for joint research on coal gasification. il Pet Processing 3:739-41 Ag '48

Comparison of major processes for synthetic liquid fuels; oil-shale, coal hydrogenation, or Fischer-Tropsch from natural gas or coal? W. C. Schroeder. il Chem Ind 62:574-7+ Ap '48

Conversion of coal to oil and gas. F. A. Howard. Min & Met 29:388-95 Jl '48; Abstract. Oil & Gas J 46:70 F 19 '48; Discussion. Min & Met 29:395 Jl '48

Dual synthetic fuel program in development. Power 92:374+ Je '48

Enter; synthetic fuel; commercial production of gasoline and oil from natural gas or coal. il Bsns W p21-3 Ja 24 '48

Factors influencing establishment of a synthetic liquid fuel industry in western Canada. T. E. Warren. bibliog Can Chem & Process Ind 32:318-21 Ap '48

Frontiers of fuel technology. A. C. Fieldner. Chem & Eng N 26:1700-1 Je 7 '48

Fuels and lubricants from sources other than petroleum. G. T. Perry. Can Chem & Process Ind 32:624-9 Jl '48

Future fuels, liquid and gaseous. B. K. Brown and R. C. Gunness. Mech Eng 70:421-4 My '48; Abstract. Automotive Ind 93:41+ Ap 1 '48

Future liquid fuels. R. C. Gunness. il Chem & Eng N 26:2123-7+ Jl 19 '48

Gaseous and liquid fuels in iron and steel works. J. B. R. Brooke and J. S. Bryan. il diag Iron & Steel Inst J 158:111-24 Ja '48; Discussion. 160:85-94 S '48

German oil production during the war. Engineering 165:230 Mr 5 '48

Government subsidy needed to speed commercial synthetic fuels industry; hearing on H.R. 5475; bill to aid in promoting production of synthetic liquid fuels. Pet Processing 3:301-2 Ap '48

Gulf oil corp. and Koppers co., inc. sign pact to engage in cooperative research and development of processes for synthetic liquid fuels. Chem & Eng N 26:1778 Je 14 '48

High strength hydrogen peroxide; persulfate production for power uses. V. W. Slater and W. S. Wood. Chem Age (Lond) 59:279-82 Ag 28 '48

Industry, military officials at odds over Krug's synthetics program; with cost data. B. F. Linz. Oil & Gas J 46:38-9 Mr 4 '48

Interior's program for synthetics is handicap on supply; abstracts. B. K. Brown. Nat Pet N 40:20a-20b F 4 '48; Oil & Gas J 46:38 F 5 '48

Krug plan seen as challenge to industry synthetics program. A. L. Sollday. Oil & Gas J 46:110-11 Ap 1 '48

Liquid fuels and chemical products from petroleum and coal. F. H. Garner. Inst Pet J 33:678-86 N '47

Liquid fuels from natural gas; abstract. R. C. Alden and A. Clark. Oil & Gas J 47:111+ O 14 '48

Liquid fuels from natural gas; abstract. J. H. Rushton. Am Gas J 168:38 Mr '48

Low-temperature carbonization of coal produced most of Japs' synthetic oil. C. S. Goddin and D. P. Thornton, jr. il Pet Processing 3:121-2+ F '48

Natural gas, coal, oil shale as sources of liquid fuels. E. V. Murphree. diag. Oil & Gas J 46:66+ Ap 8 '48

Need for synthetic fuel industry. L. J. Logan. World Oil 127:37-8 Mr '48

Need for synthetic fuels; bill introduced in Congress. Pet Refiner 27:141+ Mr '48

Oil for the future. Comp Air Mag 53:71 Mr '48

Petroleum industry and jet propulsion. W. E. Kuhn. il diag Aero Digest 56:70-2+ F '48

Pilot plant for gasifying powdered coal entrained in oxygen and steam, Morgantown, West Virginia. L. D. Schmidt, J. P. McGee and M. C. Slone. flow sheet diag. Chem Eng Prog 44:737-43; Discussion. 743-4 O '48

Review of development of processes for synthesis of liquid fuels by hydrogenation of carbon monoxide. H. H. Storch. bibliog flow diag Chem Eng Prog 44:469-80 Je '48
Secretary of Interior Kufing in report to Congress recommends that synthetic liquid fuels industry be built in this country. A. Leggin. Chem & Eng N 26:369 F 9 '48

Should the government build a synthetic-oil industry? yes, J. Boyd; no, A. L. Sollday. il Mod Ind 16:100-2+ Jl '48

Some considerations of the effect of radiation on the performance of liquid fuel rockets. S. S. Penner and S. Weinbaum. diag Opt Soc Am J 38:599-603 Jl '48

Symposium on production of synthesis gas. A. R. Powell; L. L. Newman and others. bibliog flow diag il diag Ind & Eng Chem 40:558-641 Ap '48

Synthetic fuel for tomorrow. il Manuf Rec 117:42-3+ Je '48

Synthetic fuel laboratories dedicated; Bruce-ton laboratories of Bureau of mines. Chem & Eng N 26:1699 Je 7 '48

Synthetic fuels; Chem. & Met. report. il diag. Chem Eng 55:131-3 Je '48

Synthetic fuels; government puts up \$30-million more for research. Bsns W p73-4 Mr 27 '48

Synthetic liquid fuels in the United States. W. C. Schroeder. il Mech Eng 69:989-95 D '47; Discussion. 70:555-6 Je '48

Synthetic liquid fuels program draws industry leaders' comments. Pet Refiner 27:179-80 Ap '48

Synthetic liquid fuels studied from several viewpoints by Bureau of mines. il Chem & Eng N 26:610-11, 614-15 F 1 '48; Abstracts. Chem Ind 62:223-4 F '48; Heat & Ven 45:116+ F '48

Synthetic oil from coal; abstract. C. E. Hemminger. Min Cong J 34:69 Je '48

Synthetic oil, no threat to petroleum industry. E. Kaskeline. Barron's 28:32 Ap 5 '48

Synthetics; the great oil reserve. il Fortune 37:110-15+ My '48

Three of four oil witnesses favor federal sponsorship of synthetics plants. W. F. Bland. Nat Pet N 40:57-8 Mr 10 '48

Two decades of research put industry on top of synthetic fuels problem. W. F. Bland. il Pet Processing 3:203-6 Mr '48; Same cond. Nat Pet N 40:22-3 F 18 '48

What's ahead for petrochemicals? H. W. Zabel. il Chem Ind 62:390-3 Mr '48

LIQUID fuel—Continued

Will coal help to meet the future needs for gaseous and liquid fuels? J. Pursglove, jr. *Am Gas Assn Proc* 1947:48-52; Same cond. *Pet Refiner* 26:198-1 N '47; Same cond. *Am Gas Assn Mo* 30:39-40 Ja '48; Same cond. *il Min Cong J* 34:22-4 Ja '48

See also

Acetylene	Diesel engines—Fuel
Airplane engines—	Fischer-Tropsch
Fuel	process
Alcohol as fuel	Gasoline
Automobile engines—	Internal combustion
Fuel	engines—Fuel
Automotive fuel	Kerosene
Benzol (commercial	Liquefied petroleum
benzene)	gas
Coal liquefaction	Oil fuel

Bibliography

Synthetic liquid fuels abstracts. J. L. Wiley and H. C. Anderson, comps. (New series v 1, no 1) 73p U.S. Bur. Mines, Washington, D.C. '48 [cont bimonthly]

Testing

Research on liquid fuels; electrical applications to the testing of piston engines. *il diags Elec R (Lond)* 142:305-9 F '48

LIQUID level control

Automatic constant level controller for low boiling-point liquids. G. O. Jones. *diags J Sci Instr* 25:239-42 JI '48

Basis for the design of instrumentation for automatic control of liquid level. H. E. McClatchey. *diags Pet Processing* 3:451-1 My '48

Constant-level apparatus. M. S. Schechter and H. L. Haller. *diag Anal Chem* 20:596 Je '48

Displacement type liquid level controllers serve many purposes, and give increased operating ranges. R. H. Munch. *il diag Ind & Eng Chem* 40:sup95A-6A Ap '48

Electrical devices for liquid level control. R. H. Munch. *il diag Ind & Eng Chem* 40:sup89A-90A My '48

How to drain compressor scrubber by liquid level control. *il diag Pet Refiner* 27:144 F '48

Level control solves pumping problem at Badger Mills. S. H. Jones. *il diag Paper Ind* 30:732-3 Ag '48

Photoelectric control adapted to colorless liquids. A. Farkas. *diags Chem Eng* 55:128 Je '48

LIQUID level indicators

Gaging methods and devices for pressure storage. E. O. Mattocks. *il diags Am Pet Inst Proc* 27(6):73-84 '47; Same cond. *Oil & Gas J* 46:62-3 N 29 '48

Liquid level measurement in chemical processing. S. D. Ross. *bibliog il diags Chem Ind* 62:924-8 Je '48

Measuring liquid level in vessels under pressure. C. F. Cusick and S. D. Ross. *diags Paper Tr J* 126:53-7 My 6 '48; Same. *Pet Eng* 19:141-2-4 Ag '48

One-point or full level indicator for use with low boiling-point liquids. G. O. Jones and C. A. Swenson. *diag J Sci Instr* 25:72-3 Mr '48

Pneumatic pressure transmitters are valuable for use in the more difficult liquid level applications. R. H. Munch. *diags Ind & Eng Chem* 40:sup71A-2A Mr '48

Recording liquid level in acid accumulators. *diag Pulp & Pa of Can* 49:90-2 Ja '48

LIQUID nitrogen. See Nitrogen, Liquid

LIQUID soap. See Soap, Liquid

LIQUID springs. See Springs (mechanism)

LIQUID sugar. See Sugar, Liquid

LIQUID sulfur dioxide. See Sulfur dioxide, Liquid

LIQUIDITY (economics)

Monetary policy and the elasticity of liquidity functions. W. Fellner. *R Econ & Stat* 30:42-4 F '48

LIQUIDS

Correlating densities of liquids; a new nomograph. D. F. Othmer, S. Josefowitz and A. E. Schmutzler. *bibliog Ind & Eng Chem* 40:883-5 My '48

Correlating surface tensions of liquids; a new nomograph. D. F. Othmer, S. Josefowitz and A. F. Schmutzler. *bibliog Ind & Eng Chem* 40:886-9 My '48

Criterion for normal liquids. R. L. Scott. *J Chem Phys* 16:256 Mr '48

Critical densities and related properties of liquids. S. W. Benson. *bibliog J Phys & Colloid Chem* 52:1060-74 Je '48

Determination of molecular weights from the activation energy for viscous flow of liquids. M. S. Telang. *J Chem Phys* 15:844-5 N '47

Dielectric measurement of liquids at microwave frequencies. C. E. Crouch, jr. *bibliog diags J Chem Phys* 16:364-71 Ap '48

Forces between tetrahalide molecules. J. H. Hildebrand. *bibliog J Chem Phys* 15:727-36 O '47

Formula to detect association in liquids. R. Farshad. *J Chem Phys* 15:761-2 O '47

Free-volume models for liquids. T. L. Hill. *bibliog J Phys & Colloid Chem* 51:1219-32 N '47

Frequency factor in the viscosity-temperature relationship of liquids. M. S. Telang. *J Chem Phys* 15:885 D '47

General theory of the formation of liquid films. L. B. Robinson. *bibliog J Chem Phys* 16:734-6 JI '48

Heat capacities of liquids and vapors. S. W. Benson. *J Chem Phys* 15:866-7 D '47

Heat transfer by free convection from heated vertical surfaces to liquids. Y. S. Touloukian and others. *bibliog diags A S M E Trans* 70:13-18 Ja '48

Histologic researches; conduction of electricity through liquids. *diags Engineer* 184:404-5, 428-9, 452-3 O 31-N 14 '47

Infra-red emission spectra of hot liquids. S. F. Kapff. *diags J Chem Phys* 16:446-53 My '48

Latent heat of vaporization, temperature and density of liquids. S. T. Bowden and W. J. Jones. *Soc Chem Ind J* 66:342-3 O '47

Mechanical properties of long chain molecule liquids at ultrasonic frequencies. W. P. Mason and others. *diags Phys R* 73:1074-91 My 1 '48; Correction. *74:1873-4 D 15 '48*

Precision ultrasonic interferometer for liquids and some velocities in heavy water. D. R. McMillan, jr. and R. T. Lagemann. *bibliog diags Acoustical Soc Am J* 19:956-60 N '47

Sampling methods for liquids. W. L. Nelson. *diag Oil & Gas J* 46:121 Ap 22 '48

Specific heats of volatile liquids. G. C. Williams. *diag Ind & Eng Chem* 40:340-1 F '48

Study of the Berthelot method for determining the tensile strength of a liquid. A. F. Scott and others. *bibliog diags J Chem Phys* 16:495-502 My '48

Study of ultrasonic velocity and absorption in liquid mixtures. C. J. Burton. *bibliog diag Acoustical Soc Am J* 20:186-99 Mr '48

Thermal conductivity of liquids. G. Palmer. *bibliog Ind & Eng Chem* 40:89-92 Ja '48

See also

Atomizers	Interfacial tension
Boiling points	Liquid fuel
Dew points	Metals, Molten
Drops	Neon, Liquid
Emulsions	Solution (chemistry)
Evaporation	Solvents
Films	Supercooling
Fluids	Surface tension
Helium, Liquid	Vapor pressure
Hydraulics	Viscosity
Hydrodynamics	Water
Inflammable liquids	Wetting

LIQUIDS, inflammable. See Inflammable liquids

LIQUOR law liability insurance. See Insurance, Liquor law liability

LIQUOR laws

Michigan

Control of state-wide liquor inventories. C. R. Angell. *N A C A Bul* 29:751-9 F 15 '48

LIQUOR problem

Liquor again; liquor and business. C. B. Larabee. *Ptr Ink* 222:5 Mr 26 '48

Insurance aspects

Recovery under Illinois dram shop act denied insurer settling claims against intoxicated assured. *Weekly Underw* 169:362 Ag 14 '48

LIQUOR stores

Liquor mart, North station, Boston, Mass. M. Ketchum, jr. *il plan Arch Rec* 103:144 Ap '48

LIQUOR traffic

Salesmen's union; a tiger in the New York liquor trade. E. W. Davidson. Sales Management 60:45-6+ My 1 '48
 Unionization of liquor salesmen forces trade practice cleanup. E. Gidlow. Sales Management 60:46+ F 15 '48

See also

Beer Whisky
 Distilling industries Wine
 Liquor laws

Advertising

Senate group weighs liquor ad controls. Ed & Pub 81:12 My 1 '48

Massachusetts

Commercial surveys as an aid in the determination of public policy; a case study; Massachusetts bill for state-owned liquor stores and prohibition of private sale of packaged liquor. S. P. Hayes, Jr. J Marketing 12:475-82 Ap '48

Ohio

More liquor licenses for Ohio retailers? Bsns W p53-4 My 8 '48

LIQUORS

Alcoholic beverages, 1941-1946. Survey of Current Bsns 1947 Sup p 124-5 [supplemented in monthly numbers]

See also

Bitters

Analysis

Spirit beverages; determination of alcohol content by volume at 60°F. J. F. Williams and E. F. Kenney. bibliog Anal Chem 20: 527-33 Je '48

LISTER, R. A., and company, limited

Statement by the chairman. P. Lister. Economist 154:204 Ja 31 '48

LITERATURE**Dictionaries**

Reader's encyclopedia; an encyclopedia of world literature and the arts. W. R. Benét, ed. 1224p \$6 Thomas Y. Crowell co, 432 Fourth av, New York 16 '48

LITHCOTE process. See Metal protection

LITHIUM

Angular distribution for $\text{Li}^7(p,\alpha)$. N. P. Heydenburg and others. bibliog Phys R 73:241-5 F 1 '48

Excitation function for proton-neutron reaction in lithium ($\text{Li}^7(p,n)$). J. E. Hill and W. E. Shoupp. bibliog diag Phys R 73:931-3 My 1 '48

Gamma-ray spectrometer measurements of fluorine and lithium under proton bombardment. R. L. Walker and B. D. McDaniel. bibliog diags Phys R 74:315-27 Ag 1 '48

Improving enamels through lithium. P. A. Huppert. Cer Ind 51:72 N '48

Lithium in clear glazes. Cer Ind 50:68 F '48

Low temperature transformations in lithium and lithium-magnesium alloys. C. S. Barrett and O. R. Trautz. bibliog Metals Tech 15:TP2346 1-23 Ap '48; Discussion. 15: TP2449 72-7 Ag '48

New lithium atmosphere furnace provides close control. II Materials & Methods 27: 124 F '48

Nothing but lithium; Lithium corporation of America. Chem Ind 62:570-2 Ap '48

Photo-effects in middle-weight nuclei. L. I. Schiff. bibliog Phys R 73:1311-13 Je 1 '48

Pit type furnace with lithium atmosphere. II Materials & Methods 28:110+ Ji '48

Reaction constants for $\text{Li}^7(p,n)\text{Be}^7$. R. Taschek and A. Hemmendinger. bibliog Phys R 74:373-85 Ag 15 '48

Recovery of lithium from its various ores and salts. J. E. Cunningham and C. H. Gorski. bibliog Spils U S Bur Mines Rep of Invest 4321:1-35 '48

Resistivity in the systems sodium-ammonia and lithium-ammonia. H. Jaffe. J Chem Phys 16:743 Ji '48

Resonances in $\text{Li}^7(p,n)\text{Be}^7$. G. Breit and I. Bloch. Phys R 74:397-404 Ag 15 '48

Resonances in the disintegration of fluorine and lithium by protons. T. W. Bonner and J. E. Evans. bibliog Phys R 73:666-74 Ap 1 '48

Structure of the ^2D terms of the arc spectrum of lithium. K. W. Meissner and others. bibliog Phys R 74:932-8 O 15 '48
 Theory of the lithium two-alpha-reactions; angular distribution of $\text{Li}^7(p,\alpha)$. D. R. Inglis. bibliog Phys R 74:21-33 Ji 1 '48
 Use of an electron multiplier tube as a new technique in disintegration experiments. L. del Rosario. bibliog diag Phys R 74:804-14 Ag 1 '48

Isotopes

Angular distribution of alphas from $\text{Li}^6(d,\alpha)\alpha$ and $\text{Li}^7(p,\alpha)\alpha$. N. P. Heydenburg and others. bibliog diag Phys R 74:405-10 Ag 15 '48

Production of Li^8 in boron-loaded photographic emulsions. E. Pickup. diag Phys R 74:495 Ag 15 '48

Study of the breakup of Li^8 . T. W. Bonner and others. bibliog II diag Phys R 73:885-90 Ap 15 '48

LITHIUM alloys

Low temperature transformations in lithium and lithium-magnesium alloys. C. S. Barrett and O. R. Trautz. bibliog Metals Tech 15:TP2346 1-23 Ap '48; Discussion. 15: TP2449 72-7 Ag '48

LITHIUM aluminum hydride

Handy hydride. Chem Ind 61:978 D '47
 Preparation and some properties of hydrides of elements of the fourth group of the periodic system and of their organic derivatives. A. E. Pinholt and others. bibliog Am Chem Soc J 69:2692-6 N '47

Reaction of lithium aluminum hydride with compounds containing active hydrogen. J. A. Krynskiy, J. E. Johnson and H. W. Carhart. bibliog diag Am Chem Soc J 70: 486-9 F '48

Reduction of carbon dioxide to methanol by lithium aluminum hydride. R. F. Nystrom, W. H. Yanko and W. G. Brown. Am Chem Soc J 70:441 Ja '48

Reduction of *p*-hydroxyformanilide by lithium aluminum hydride to *N*-methyl-*p*-aminophenol. J. Ehrlich. Am Chem Soc J 70: 2286-7 Je '48

Reduction of organic compounds by lithium aluminum hydride; carboxylic acids. R. F. Nystrom and W. G. Brown. Am Chem Soc J 69:2548-9 O '47

Analysis

Determination of lithium aluminum hydride in solution. J. A. Krynskiy, J. E. Johnson and H. W. Carhart. diag Anal Chem 20: 311-12 Ap '48

LITHIUM aluminum silicate. See Spodumene

LITHIUM chloride

Conditioning of hot humid air. R. E. Peck and C. J. Ryan, Jr. bibliog diags Refrig Eng 56:417-21 N '48

LITHIUM compounds

Addition of organolithium compounds to the azomethine linkage of γ -picoline and 6-methoxyquinoline. H. Gilman and H. S. Broadbent. Am Chem Soc J 70:2809-10 Ag '48

Application of the halogen-metal interconversion reaction to syntheses with isotopic carbon. A. Murray, 3d, W. W. Foreman and W. Langham. bibliog diag Am Chem Soc J 70:1037-9 Mr '48

2-Benzofuryllithium and 3-benzofuryllithium. H. Gilman and D. S. Meistrum. bibliog Am Chem Soc J 70:1655-7 Ap '48

Lithium salts of long-chain fatty acids in face powders. II Chem Ind 63:591-2 O '48

Preparation of 2,3-diphenyl-1,4-naphthoquinone and its reaction with phenylmagnesium bromide and phenyllithium. H. M. Crawford. bibliog Am Chem Soc J 70:1081-4 Mr '48

Preparation of organolithium reagents. T. D. Perrine and H. Rapoport. bibliog diags Anal Chem 20:635-6 Ji '48

Reaction of benzophenone β -naphthyl with phenylmagnesium bromide and with phenyllithium. H. Gilman and J. Morton. bibliog Am Chem Soc J 70:2514-15 Ji '48

Use of lithium compounds in enamels; abstract. W. M. Fentin. Cer Ind 50:79 My '48

- LITHIUM dichromate**
Some properties of lithium dichromate. W. H. Hartford and K. A. Lane. *Am Chem Soc J* 70:647-8 F '48
- LITHIUM fluoride**
Infrared analysis of organic mixtures using C-H band structure resolved by a lithium fluoride prism. E. L. Saier and N. D. Coggeshall. *bibliog il Anal Chem* 20:812-17 S '48
- LITHIUM halides**
Breakdown directions in lithium halide crystals. J. W. Davison. *il diags Phys R* 73: 1194-201 My 15 '48
- LITHIUM ores**
See also
Spodumene
- LITHIUM oxide**
Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. *bibliog Am Cer Soc J* 31:132-44 My 1 '48; Same. *J Res Nat Bur Stand* 40:361-74 My '48
- LITHO clubs, National association of.** *See* National association of litho clubs
- LITHOGRAPHERS**
Aren't we a part of advertising? R. F. Owsley. *Ptr Ink* 224:104 Ag 27 '48
- LITHOGRAPHERS national association**
Annual convention, 43d, White Sulphur Springs, W. Va. July 21-24, *Inland Ptr* 121: 71 Ag '48
- LITHOGRAPHERS of America, Amalgamated.** *See* Amalgamated lithographers of America
- LITHOGRAPHIC ink.** *See* Ink, Lithographic
- LITHOGRAPHIC paper.** *See* Paper, Lithographic
- LITHOGRAPHY**
Solvents used in lithography. C. F. King. *Inland Ptr* 120:67-70 F '48
See also
Printing, Offset
- LITTLE Colorado river, Arizona**
Geomorphology of the valley of the Little Colorado river. O. E. Childs. *bibliog map diags Geol Soc Bul* 59:353-88, pl 1-4 Ap '48
- LITTLE ROCK, Arkansas**
Sewerage
Sewer cleaning. T. W. Clapham. *diag Sewage Works J* 20:559-62 My '48
- LITTLE, Royal, 1896-**
Portrait. *Bsns W* p44 O 23 '48
- LIVE stock**
Critters eat well. *Bsns W* p26 S 25 '48
Farmers shy at boosting livestock; prefer U.S. loan. *Barron's* 28:28-9 N 1 '48
Insecticides applied on livestock. F. C. Bishop and E. F. Knippling. *bibliog Ind & Eng Chem* 40:713-16 Ap '48
See also
Feeding and feeding Meat industry and stuffs trade Ranges
- Advertising**
Cartoons build acceptance for stock farm's prize bull. *il Ptr Ink* 223:30 Je 4 '48
- Prices**
Contrasting movements of crop and livestock prices, 1939-1948; graphs. *Survey of Cur Bsns* 28:1 S '48
Livestock prices may go higher temporarily. *Barron's* 28:28-9 N 1 '48
- Statistics**
Livestock, 1941-1946. *Survey of Cur Bsns* 1947 Sup p 132 [supplemented in monthly numbers]
- LIVER**
Biological assay of vitamin A; liver storage test of Guggenheim and Koch. J. R. Foy and K. Morgareidge. *bibliog Anal Chem* 20:304-7 Ap '48
Degradation of the fermentation lactobacillus casei factor. E. L. R. Stokstad, B. L. Hutchings and others. *bibliog Am Chem Soc J* 70:5-13 Ja '48
Deposition of protein in the liver following intravenous injection of an amino acid mixture (hydrolyzed protein) and glucose. C. A. Ross and R. Elman. *il Science* 108:441-3 O 22 '48
- Experimental syndrome of fatty liver, uric acid kidney stones, and acute pancreatic necrosis produced in dogs by exclusive feeding of bacon. J. Groen. *Science* 107: 425-6 Ap 23 '48
- Isolation of the lactobacillus casei factor from liver. E. L. R. Stokstad, B. L. Hutchings and Y. SubbaRow. *il Am Chem Soc J* 70:3-5 Ja '48
- Lipodieresis in liver tissue of depancreatized dogs. C. Lombroso and S. Bocchiotti. *bibliog Science* 107:90-1 Ja 23 '48
- Structure of the liver L. casei factor. J. H. Mowat and others. *bibliog Am Chem Soc J* 70:14-18 Ja '48
- Synthesis of pteroylglutamic acid (liver L. casei factor) and pteric acid. C. W. Waller and others. *bibliog Am Chem Soc J* 70:19-28 Ja '48
- Diseases**
Inactivation of the virus of infectious hepatitis in drinking water; abstract. J. R. Neefe and others. *Water & Sewage* 85:49-50+ D '47
Rate of disappearance from plasma of intravenously administered methionine in patients with liver damage. L. W. Kinsell and others. *Science* 106:583-90 D 12 '47
- LIVER extracts**
Activity of vitamin B₁₂ for the growth of lactobacillus lactis. M. S. Shorb. *Science* 107:397-8 Ap 15 '48
Crystalline vitamin B₁₂. E. L. Rickes and others. *bibliog Science* 107:396-7 Ap 16 '48
Pteroylglutamic acid (folic acid), liver extract, and amino acids in the treatment of granulocytopenia in rats. F. S. Daft. *bibliog Pub Health Rep* 62:1785-92 D 26 '47
- LIVER oils**
See also
Cod liver oil
Fish oil
- LIVERPOOL**
Harbor
Mersey Harbour radar installation. *il plan Engineer* 186:130-2 Ag 6 '48
Radar navigational aid for Liverpool. *il Engineering* 165:534 Je 4 '48
- Railroads**
Marsh Lane station. *il Engineer* 185:600 Je 18 '48
- LIVING rooms**
Television will change our approach to designing living rooms. *Arch Forum* 89:118-20 S '48
- LIVING trusts.** *See* Trusts and trustees—Living trusts
- LIVINGSTON, Burton Edward, 1875-1943**
Sketch. C. A. Shull. *Science* 107:558-60 My 28 '48
- LLOYD mirror**
Irradiance distribution in a Lloyd mirror interference pattern. R. N. Wolfe and F. C. Eilen. *il diags Opt Soc Am J* 38:706-11 Ag '48
- LLOYD'S, London**
Land office trade for London Lloyds. *Nat Underw* 52:4 J 29 '48
Legislators told end of Lloyd's truce is near. *Weekly Underw* 157:1564+ D 20 '47
Lloyd's of London. *il Fortune* 37:126-7 Ap '48
Lloyds still in market with unusual covers. W. H. Leonhart. *Nat Underw* 51:11 D 4 '47
Lloyd's truce ending creates stir among surety underwriters. *Nat Underw* 52:1 My 13 '48
Lloyd's 20-year irrevocable trust a guarantee to American assureds. *Spectator (Property ed)* 13:22-3 N 27 '47
London Lloyd's trust fund in this country made more permanent. *East Underw* 48:1+ N 14 '47; Same. *Nat Underw* 51:6 N 13 '47; Same. *Weekly Underw* 157:1243 N 15 '47
Pact has been terminated; agreement of American surety companies with Lloyd's underwriters. *East Underw* 49:31 Je 25 '48
Rapid growth of Lloyd's of London. D. King-Page. *Weekly Underw* 158:1444 My 15 '43
Reinsurance man gives slant on Lloyds activities. W. H. Leonhart. *Nat Underw* 52:23 O 14 '48
U.S. companies and Lloyd's to end 12-year truce. *East Underw* 49:34 F 13 '48

LLOYDS bank, limited

Statement by the chairman, Lord Balfour of Burleigh. Economist 154:156-8 Ja 24 '48

LOAD (electric plants). See Electric plants (central stations)—Load**LOAD (mechanics)**

Acceleration of inertia loads with a varying torque. J. D. Burby. Product Eng 18:102-5 D '47

Analysis of stepped-column mill bents. D. S. Ling. diags Am Soc C E Proc 73:1271-92 O '47; Discussion. il diags 74:779-87, 901-15 My-Je '48

Behavior of wood under continued loading. L. W. Wood. Eng N 139:804-7 D 11 '47

Critical collapsing load for columns of variable cross section. R. Laurenson and R. V. Bremer. Civil Eng 18:240-1 Ap '48

Driving hints for fluctuating loads. E. L. Cady. il Mill & Factory 43:123-6 Ag '48

Impact loading of structures. D. L. Thornton. diags Engineering 165:409-12 Ap 30 '48

Intermittent loads can be deceptive. E. L. Cady. il Mill & Factory 43:123-6 Jl '48

Load capacity and friction of pivoted-shoe bearings; engineering data sheet. H. A. S. Howarth. diags Machine Design 20:151-4 Jl; 149-51 Ag '48

Load-carrying capacity of the oil film between gear teeth. E. M'Wen. diag Engineer 186:234-5 S 3 '48

Notch sensitivity in static and impact loading of some magnesium-base and aluminum-base alloys. J. P. Doan and J. C. McDonald. bibliog diags Am Soc T M Proc 46:1097-118 '46

Panama canal; strength of soils under dynamic loads; studies of stability of slopes under effects of bombing. A. Casagrande and W. L. Shannon. il diags Am Soc C E Proc 74:591-608 Ap '48

Relationship between pile formulas and load tests. R. D. Chellis. bibliog il Am Soc C E Proc 74:635-54 My '48; Discussion. 74:1261-2 S '48

Ring deflection due to loads normal to plane of curvature calculated readily with the aid of curves. H. D. Tabakman. Machine Design 20:131-4+ Mr '48

Safe structural loads concentrated at mid-spans of laterally unsupported members; maintenance data sheets. Factory Management 106:132, 134 O '48

Starting loads can waste time and money. E. L. Cady. il Mill & Factory 43:120-3 S '48

Stopping loads should be evaluated. E. L. Cady. il Mill & Factory 43:136-9 O '48

Strain gages used in recording and controlling machine load. il diag Machine Design 20:156-7 F '48

Strength of beams as determined by lateral buckling. K. de Vries. diags Am Soc C E Proc 72:985-1011 S '46; Discussion. 72:1425-32; 73:559-68, 953-9; 74:193-210 D '46, Ap, Je '47, F '48

Underground conduits; an appraisal of modern research. M. G. Spangler. bibliog diags Am Soc C E Proc 73:855-84 Je '47; Discussion. 73:1543-6; 74:261-76, 381-5. 727-33 D '47, F-Mr, My '48

See also**Bridges—Load****LOADING and unloading**

Color coding keeps loading safe at Utopia's truck and car racks. F. J. Sluze. il Pet Processing 3:431 My '48

Lowering costs by handling building materials with power equipment; Reserve supply co., St Paul, Minn. il Am Bid 70:88-9 My '48

See also**Coal loading machines.****Airplanes**

Cargo power-handled for flight unloading. Aviation W 49:25 O 4 '48

Barges

Coal transferred from rail to river; modern coal-handling equipment installed by Truax-Traer. il Min Cong J 34:58-9 Ap '48

Cars

Application of damage-free loader modernizes standard box car. il Ry Age 124:379 F 21 '48

Builds car-a-minute dumper at Lorain; electrically-operated facility of Baltimore & Ohio. il map Ry Age 124:246-9 Ja 31 '48

Bulkheads reduce l.c.l. damage bill on the Illinois Central. il Ry Age 124:818-19 Ap 24 '48

Electric hand trucks increase freight carloads. il Iron Age 160:79 D 25 '47

Machines cut delivery, operating costs 40 percent; unloading car of drummed oil. il Nat Pet N 40:31 Ag 11 '48

Phosphate, from train to ship; new Seaboard air line dock at Tampa, Fla. il diags Ry Age 125:328-31 Ag 14 '48

Motor trucks

Turntable speeds up return of quarry trucks. L. A. Castell. diag Rock Prod 51:121 Ja '48

Unusual method of loading agitator trucks; Red ball concrete co. il Rock Prod 51:155 O '48

Upside-down loading benefits dealer and builder; materials needed first will be on top. il Am Bid 70:136-7 F '48

Ships

Air moves cement from barges to batching bins; Metropolitan sand and gravel co. W. B. Lenhart. il diag Rock Prod 51:154-6 F '48

Builds car-a-minute dumper at Lorain; electrically-operated facility of Baltimore & Ohio. il map Ry Age 124:246-9 Ja 31 '48

Conversion of Great Lakes bulk freighter Adam E. Cornelius to a self-unloader. G. F. Rankin and A. J. Zuehlke. il Marine Eng 53:46-51 S '48

Copra gives us essential oil; pneumatic unloading. J. W. Frates. il Comp Air Mag 53:94 Ap '48

Operation of the self-unloader. R. H. Lucas. Marine Eng 53:38-9+ Ag '48

Ore discharging. G. T. Shoosmith. il diags Iron & Steel Inst J 160:75-84 S '48

Phosphate, from train to ship; new Seaboard air line dock at Tampa, Fla. il diags Ry Age 125:328-31 Ag 14 '48

Roadway in the sky; transporting from ships to shore, pipe and other materials for Trans-Arabian pipe line. il Pet Eng 19:144+ S '48

Self-unloading. R. W. Elchenberger. Marine Eng 53:36-7; Discussion. G. B. Palmer. 37-8 Ag '48

Speed at sea and dispatch in port. W. MacGillivray. Engineering 165:414-15 Ap 30 '48

This draft is secure; overcoming one of the hazards in stevedoring. il Nat Safety N 55:58-9 N '47

Tring gage for fore and aft draft. il Marine Eng 53:69-70 Jl '48

Turn-round of shipping. Engineer 185:588 Je 18 '48

See also

Cargo handling Petroleum shipping
Coal docks terminals

Tank cars

How to solve one problem of tank car loading. diags Pet Refiner 27:161 Ap '48

Liquid chlorine from single unit tank cars; Louisville water purification plant. B. E. Payne and W. H. Lovejoy. il diags Water & Sewage Works 95:93-5 Mr '48

Process group develops piping system useful for speeding up butane unloading. diag Pet Processing 3:346 S '48

Tank ships

Hazards in tanker pump rooms. R. G. Wooler. Marine Eng 53:92+- Mr '48

Tank trucks

Closed connection gasoline deliveries cut costs, save time, tests indicate. S. E. Drummond. diags Nat Pet N 40:31-2 Jl 21 '48

Independent cuts truck loading time by 50 per cent by improving terminal facilities. B. R. Quayle. il Nat Pet N 40:34+- O 20 '48

LOAN receipts. See Insurance—Adjustment of claims—Loan receipts

LOANS

Small-business man and sources of loans. J. C. Dockeray. *U S Dept of Com Economic (Small Business) Ser 69:1-27; pa 15c* Suppt. of doc. '48

See also

Credit
Insurance, Life—
Policy loans
Interest

Loans, Bank
Mortgages
Veterans—Loans

LOANS, Bank

ABA announces anti-inflation program. *Comm & Fin Chr 167:115 Ja 8 '48*
A.B.A. anti-inflation program; abstract. W. A. Kielmann. *Banking 40:140 My '48*
A.B.A.'s voluntary credit control program. *Burroughs Clearing House 32:24-7 F '48*
Bank and inflation. J. D. Hospelhorn. *Comm & Fin Chr 167:999+ Mr 4 '48*
Bank credit developments. *Fed Res Bul 34: 1205-16 O '48; Excerpts. Comm & Fin Chr 168:1762 O 28 '48*
Bank loans best clue to business in near future. M. Slidell. *Barron's 28:5-6 F 23 '48*
Banks given lever on installment loans; guaranty by manufacturer, paper work by retailer, permit extra low rates. H. Murphy. *Barron's 28:33-4 S 13 '48*
Banks, inflation and credit control; address at Pilot meeting for ABA anti-inflation program. *New York, Feb. 27. J. M. Dodge. Comm & Fin Chr 167:998+ Mr 4 '48; Abstract. Trusts & Estates 86:107-8 F '48*
Banks share in time-buying; Westinghouse Electric plan. *Bsns W p82+ S 11 '48*
Business borrowing not yet excessive. G. S. Rentscher. *Comm & Fin Chr 167:112 Ja 8 '48*
Changing pattern of earning assets; loan policy of First national bank of Appleton, Wis. K. K. DuVall. *il Burroughs Clearing House 32:24-6+ My '48*
Controlling bank credit. *Nat City Bank p 136-41 D '47*
Credit controls won't bother banks following A.B.A. guide. *Banking 41:72+ O '48*
Credit policy; constructive or catastrophic. K. R. Cravens. *Comm & Fin Chr 168:2+ J1 '48*
Current bank credit policies. D. A. Forward. *Comm & Fin Chr 167:504+ Ja 29 '48*
Developing a sound G.I. lending program; interview with W. T. Robinson. *Burroughs Clearing House 32:26-8+ N '47*
Discount for prompt payments improves collections on loans. F. L. O'Hair. *Bankers Mo 65:5-6 Ag '48*
Effects of the anti-inflation brake; report on A.B.A. credit control program. L. E. Shippee. *Banking 41:50-1+ Ag '48*
Expansion in loans and other investments. *Fed Res Bul 33:1346-8 N '47*
Financing California textiles; Bank of America aids the apparel industry. A. J. Gock. *il Burroughs Clearing House 32:24-5+ S '48*
Good bargain. *Fortune 37:136+ Ap '48*
G.I. business loans have been plentiful, profitable, and safe. W. H. McDaniel. *Bankers Mo 65:30, 32 My '48*
Half-year monetary and credit outlook. J. B. Willis. *Comm & Fin Chr 168:605+ Ag 12 '48*
House for less than \$4,000; home loan program of Valley national bank of Phoenix, Arizona. *il Banking 40:66 Je '48*
Implications of changing credit conditions. K. R. Cravens. *Comm & Fin Chr 167:898+ F 26 '48*
Inflation and bank credit. W. Thomas. *Comm & Fin Chr 167:897+ F 26 '48*
Inflation and bank credit policy. J. M. Dodge. *Banking 40:33-4 Ja '48*
Inflation and credit controls. J. M. Dodge. *Comm & Fin Chr 166:1941+ N 13 '47; Same abr. Banking 40:43+ D '47*
Keeping credit productive; interviews with bankers in various sections of the United States. *Banking 40:33-7+ Mr '48*
Keeping customers sound; applied anti-inflation; program of United States national bank of Portland. E. C. Sammons. *il Burroughs Clearing House 32:21-3+ Je '48*
Loans cost more; rates for commercial borrowing increases. *Bsns W p 104-5 D 13 '47*
Loans spur special session; sharp upturn in business borrowing increases danger of inflation. *Bsns W p 19-20 N 1 '47*

Making class three loans under FHA program. *Burroughs Clearing House 32:16-17 Je '48*

Money and credit; bank lending curtailed. *Nat City Bank p52-3 My '48*

Money; what you need and how to get it; bank credit plays important role in business success. R. W. Pitman. *Radio N 39: 42+ Ap '48*

Motor carriers provide opportunities for good bank loans. W. J. Chapman. *il Bankers Mo 65:22-3+ Je '48*

New look in banking; inflation fight may modify bank credit policies. R. L. Hock. *Credit & Fin Management 50:18-21 My '48*

New plan for financing by banks; Westinghouse equity plan. C. F. Gilbert. *il Banking 41:63-4 S '48*

No likelihood of credit stringency in 1948. W. H. Hillyer. *Comm & Fin Chr 167:1098+ Mr 11 '48*

None of us wants to make a speculative loan. W. G. F. Price. *Bankers Mo 65:34 Mr '48*

One country bank's experience with real estate loans. G. F. Baltz. *Banking 41:106 J1 '48*

Outlook in used cars. T. J. Gallivan. *Banking 40:50+ D '47*

Pledge efforts against undue credit expansion; correspondence between J. W. Snyder and J. M. Dodge. *Comm & Fin Chr 168: 319 J1 22 '48*

Postwar changes in commercial bank portfolios; loan situation. W. W. Aldrich. *Comm & Fin Chr 167:2633+ Je 17 '48*

Problem of credit control. *Nat City Bank p4-9 Ja '48; Excerpts. Comm & Fin Chr 167:117 Ja 8 '48*

Production profits may be increased by replacing obsolete machines; opportunity for bank loans. A. G. Bryant. *il Bankers Mo 65:8+ O '48*

Reappraisal of bank credit policies; report on credit conference, Chicago, Oct. 28. *Burroughs Clearing House 32:22-3+ D '47*

Save and produce; commercial credit; A.B.A.'s productive lending program. *Banking 40:34-5+ F '48*

Self-restraint by banks can prevent unsound loan expansion. S. S. Colt. *Comm & Fin Chr 167:221 Ja 15 '48*

Solving a small-bank earnings problem; Romeo savings bank, Romeo, Michigan. M. F. Lanphar. *il Burroughs Clearing House 32:28-30+ Ag '48*

Some case histories of GI loans. *Banking 40: 94+ F; 76-7 Je; 41:119-20 J1 '48*

Sound bank loan policy. W. G. F. Price. *Comm & Fin Chr 166:1842+ N 6 '47*

Specific facts about business help both customer and loan officer. E. A. Mattison. *Bankers Mo 65:24+ Ag '48*

Structure of interest rates on commercial bank loans to farmers in mid-1947. R. Youngdahl. *Fed Res Bul 33:1483-92 D '47*

Tested plan used by directors to convert cash into earning assets. M. Corns. *Bankers Mo 65:18+ Ag '48*

Warn banks against expanding credits; joint statement issued by the Governors of the Federal reserve system, the Comptroller of the currency and the FDIC. *Comm & Fin Chr 166:2173 N 27 '47; Same. Fed Res Bul 33:1465 D '47*

See also

Agricultural credit
Credit, Bank

Collateral

We widen our field of lending with field warehouse receipts. E. L. King. *il Bankers Mo 65:8+ My '48*

Small loans

Business loans to high school students by Southern Arizona bank and trust company. Tucson. A. Taub. *il Banking 41:22+ J1 '48*

Commercial banks and competitive trends in consumer installment financing. W. P. Mors. *bibliog J Bsns 21:133-67 J1 '48*

Consumer credit digest. Published in monthly numbers of *Banking*

Low cost loans to students; First national bank in Dallas. *Banking 40:79 N '47*

Pay as you learn to fly; loans made by Babylon national bank & trust co.; illustrations with text. *Banking 40:25 Ja '48*

LOANS, Bank—Small loans—Continued

Revised consumer credit series; with monthly figures, January 1929-June 1948. Fed Res Bul 34:933-7 Ag '48
 Save and produce; consumer credit; A.B.A.'s productive loans campaign. Banking 40:86-7 F '48

Statistics

Farm mortgage loans at commercial banks outstanding in mid-1947. F. T. Allen. map Fed Res Bul 33:1477-82 D '47
 Farm production loans at commercial banks outstanding in mid-1947. H. Koenig and T. Smith. Fed Res Bul 33:1469-76 D '47

LOANS, Foreign

Can Europe furnish collateral for loans? W. Ward. Comm & Fin Chr 166:1837+ N 6 '47
 Foreign credits of the United States government. R. C. Parmelee. Survey of Cur Bsns 27:20-4 D '47
 Foreign grants and credits of the U.S. government. B. W. Ruffner. Survey of Cur Bsns 28:11-16+ Je '48
 Gold loan from South Africa to United Kingdom. For Comm W 29:20+ N 8 '47
 How to waste a lot of money; \$3.75 billion loan to Britain. Barron's 28:1+ Mr 8 '48
 International banking, new style. Fortune 38:3 S '48
 Italian credit; third and fourth drafts made on \$100-million loan by U.S. Bsns W p 101 N 1 '47

Snyder reports on foreign financial aid. Comm & Fin Chr 168:615 Ag 12 '48
 Terms of U.S.-Canada loan by Export-Import bank. For Comm W 30:10 Ja 24 '48

LOANS, Small

Revised consumer credit series; with monthly figures, January 1929-June 1948. Fed Res Bul 34:933-7 Ag '48

See also

Loans, Bank—Small loans

LOBBIES (architecture)

Lobby and touring center in new Esso building create gateway to Rockefeller Center. It plans diags Arch Forum 89:84-9 Ag '48

LOBBYING

How is the lobby law working? L. D. Farrar. Pub Util 41:88-97 Ja 15 '48
 What is a lobbyist? is NAM's challenge. H. Davenport. Barron's 28:9 F 2 '48

LOCAL government

Local government reform. map Economist 154:622-3 Ap 17 '48

Finance

Local financial reform; Local government bill. Economist 153:708-10 N 1 '47
 State and local finances; report issued by Bureau of the census. Pub Works 79:85-6 O '48

LOCATING (machine work)

Bullard Man-Au-Trol precision locator. It Mach 54:176 N '47
 Centering device locates keyways on tapered shafts. W. M. Halliday. diags Am Mach 92:122 Ja 15 '48
 Fixture locates rotor assemblies. W. C. Henderson. It Am Mach 92:119 Jl 15 '48
 Positive locating drilling jig; hydraulic jack body. R. Mawson. diags Iron Age 161:83-5 Ap 1 '48
 Retractable locating pin. J. J. Boe. diags Tool Eng 21:42 S '48

LOCATION in industry

Transportation factors in the location of the cast iron pipe industry. J. C. Nelson and R. C. Smith. fold map 20 tables U S Dept of Commerce, Economic Ser 63:1-54; pa 25c Supt. of doc. '47

See also

Factories—Location Office buildings, Industrial—Location
 Industry—Decentralization

LOCK nut corporation of America

Preferred stock offered. Comm & Fin Chr 167:653 F 9 '48

LOCK washers. See Washers (machinery)**LOCKER plants. See Cold storage locker plants****LOCKHEED aircraft corporation**

Lockheed reflecting its increased military orders. Barron's 28:40 S 13 '48

Lockheed report for 1947. Aviation W 48:17 Ap 12 '48

Lockheed shareholders protest stock bonus. Aviation W 48:15-16 My 3 '48

Military orders boon to Lockheed. Aviation W 49:21 S 20 '48

LOCKHEED aircraft service

Airlift contract goes to Lockheed aircraft service. S. L. Colbert. It Aviation W 49:17 S 27 '48

LOCKING devices

Designing a ball-type detent. H. R. Bowman. diag Mach 54:161 Ap '48
 Vise operated by a rack and pinion with locking motion. L. Kasper. diags Mach 54:187-8 Ja '48

LOCKS (hydraulic engineering)

Century of progress marks many improvements in construction of locks and dams. C. B. Jansen. It map diag Civil Eng 18:628-33+ O '48
 Construction progress on Chain of Rocks locks. It map Concrete 56:16-18 S '48
 McNary dam includes highest lift lock. It maps Eng N 141:56-60 S 30 '48
 Navigation lock and spillway. McNary dam. Washington; unit prices. Eng N 141:115-16 O 28 '48
 New York Barge Canal lock walls refaced with wrought iron. It Eng N 141:61 S 30 '48
 Abstract. Marine Eng 53:92 S '48
 Wintertime guniting at the Soo; Davis lock at Sault Ste Marie. It diags Eng N 140:966-7 Je 10 '48

LOCOMOTIVE boilers

Flue and tube application and maintenance; committee report presented at annual meeting of Master boiler makers' association. It Ry Mech Eng 121:705-6 D '47
 Flue and tube removal and application. S. F. Wentz. Ry Mech Eng 122:23-4 Ja '48
 High-pressure locomotive boiler. diags Ry Age 124:620-1 Mr 27 '48; Same. Ry Mech Eng 122:143-4 Ap '48; Same, without diags. Mech Eng 70:246 Mr '48
 Locomotive boiler performance. F. D. Mosher. Ry Mech Eng 122:66-9 F '48
 Locomotive boiler questions and answers. G. M. Davies. Published in monthly numbers of Railway mechanical engineer
 Steam generator questions and answers. Ry Mech Eng 122:77-8 F '48
 Time saved in drilling boilers. It Ry Mech Eng 122:271 My '48

Cleaning

Locomotive flue tubes cleaned automatically; B & O railroad shops; illustrations with text. L. W. Sagle. Am Mach 92:102-4 My 20 '48
 Western Maryland solves its boiler cleaning problems; installation of shot-blast cleaning room. V. F. Stine. It Ry Mech Eng 122:305-6 Je '48

Design

New developments in design of locomotive boilers. A. J. Townsend. It diags Ry Mech Eng 122:13-15 Ja '48
 New developments in design of locomotive boilers. A. Williams. It diags Ry Mech Eng 122:59-61+ F '48

Failure

Cracking of boilers. It Ry Mech Eng 121:642-5 N '47
 Railroad boiler-seam cracking controlled by nitrate treatment. A. A. Berk. bibliog diag Ind & Eng Chem 40:1371-5 Ag '48

Firing

Combustion air for fireboxes; use of undergrate air distributor. F. D. Mosher. It Ry Mech Eng 121:638-9+ N '47
 Locomotive fire-off. It Ry Mech Eng 121:724 D '47

See also

Locomotive boilers— Locomotives—
 Oil firing Smoke problem

Oil firing

Fuelling depot for oil-fired locomotives. It Engineering 164:489 N 21 '47
 Present day locomotive working in Great Britain; the G. W. R. oil-fired 4-6-0's. O. S. Nock. It diags Engineer 185:128-30, 152-4 F 6-13 '48

LOCOMOTIVE cab signals. See Railroads—Signals

LOCOMOTIVE fireboxes

Combustion air for fireboxes; use of undergrate aid distributor. F. D. Mosher. *Il Ry Mech Eng* 121:638-9+ N '47
Design and construction of staybolted fireboxes. F. P. Huston. *Il diags Ry Mech Eng* 122:129-33+ Ap '48
Locomotive boiler performance. F. D. Mosher. *Ry Mech Eng* 122:66-9 F '48

LOCOMOTIVE headlights

Locomotive electrical equipment; report of A.A.R. Mechanical division, Electrical section. *Il diags Ry Mech Eng* 121:627-31 N '47
Sealed-beam headlights. *Il diags Ry Mech Eng* 122:381-2 JI '48; *Ry Age* 124:1070 My 29 '48

LOCOMOTIVE industry

Statistics

Locomotives, 1941-1946. Survey of Cur Bsns 1947 Sup p 181 [supplemented in monthly numbers]

LOCOMOTIVE shops

Apprentice-training school; Derby locomotive works. *Il Engineering* 165:102-3 Ja 30 '48
Central of Georgia's Diesel shop. *Il plan diags Ry Mech Eng* 122:149-51 Ap '48
Diesel shop shows advances in design; Boston & Maine facility. *Il plans diags Ry Age* 125:764-9 O 23 '48
Dieselizing a locomotive repair shop. *Il plans diags Ry Age* 124:1172-5 Je 12 '48
Seaboard's Diesel shop. *Il plan Ry Mech Eng* 122:242-5 My '48
Use one million face and common brick in Chicago's first big modular job; Chicago and north western Diesel shops. *Il Brick & Clay Rec* 113:30 JI '48

See also

Locomotive terminals

Equipment

Automatic wheel machining; Boston & Maine 54-inch Bullard Man-Au-Trol. *Il diags Ry Mech Eng* 122:351-5 JI '48
Chicago, Burlington & Quincy Diesel crankshaft repairs; combination crankshaft- and axle-grinding machine. *Il Ry Mech Eng* 122:121-5 Mr '48
Fixtures are important in machining operations on locomotive parts. *Il Ry Mech Eng* 122:26-7 Ja '48
New Haven Diesel repair shop. *Il plan diags Ry Mech Eng* 122:477-81 S '48
Shop equipment needs are changing. H. C. Wilcox. *Ry Age* 124:34-5 Ja 3 '48
Western Maryland solves its boiler cleaning problems; installation of shot-blast cleaning room. V. F. Stine. *Il Ry Mech Eng* 122:305-6 Je '48

LOCOMOTIVE terminals

B.&M. Boston Diesel terminal. *Il plans diags Ry Mech Eng* 122:297-300 Je '48
British rebuild engine-shed roofs with precast concrete units. R. L. McIlmoyle. *Il diags Ry Age* 124:296-300 F 7 '48
Locomotive running department; symposium. *Engineering* 165:390 Ap 23 '48
Polmadie motive power depot. *Il Engineer* 186:191 Ag 20 '48; *Engineering* 166:191 Ag 20 '48
Precast concrete engine shed roofs. *Il Engineer* 184:435-6 N 7 '47
Reinforced-concrete locomotive sheds. *Il diags Engineering* 165:199-201, 204 F 27 '48

LOCOMOTIVE trucks

Welded locomotive trucks. F. H. Brehob and W. H. Cochran. *Il Ry Mech Eng* 122:359-60 J '48

LOCOMOTIVE works

Alco's Diesel locomotive plant at Schenectady; illustrations with text. *Ry Age* 124:806-7 Ap 24 '48
Shop shots at Electro-Motive; illustrations with text. *Am Mach* 92:74-5 Ap 22 '48

Equipment

Alco standardizes production. *Il Diesel Power* 26:38-41 JI '48

LOCOMOTIVES

Class A 1 Pacific locomotive. *Il diags Engineer* 186:192 Ag 20 '48

Express mixed-traffic locomotive; L.N.E.R.

Il diags Engineering 165:151 F 13 '48

French twelve-coupled main line locomotive.

Il diags Engineer 186:235 S 3 '48

Future of steam locomotives. C. R. H. Simpson. *Engineer* 185:113 Ja 30 '48

Improving availability of steam motive power; abstracts of five papers. *Il Mech Eng* 70:360-3 Ap '48

Locomotives keep up with the world. H. E. Dralle. *Il Westinghouse Eng* 8:186-90 N '48

Looking ahead with the railroads; Diesel-electric steam turbine and gas turbine locomotives developed by Westinghouse electric corp. G. A. Price. *Ry Age* 124:551-3 Mr 20 '48

Motive power trends on European railways.

L. Armand. *Il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 30):239-45 '47

Oil-burning locomotive for Peru. *Il Engineering* 164:561 D 12 '47; *Engineer* 184:513 N 28 '47

Present-day locomotive working in Great Britain. O. S. Nock. *Il diags Engineer* 182:314-16, 532-4, 558; 185:128-30, 152-4 O 11, D 13-20 '46, F 6-13 '48

Progress in railway mechanical engineering, 1945-1947. *Il diags Mech Eng* 70:321-81 Ap '48

Questions and answers on locomotive practice (cont). G. M. Davies. *Ry Mech Eng* 121:662, 706-7; 122:25, 75-6, 140-1, 154, 259, 308-9, 372, 502, 588-9 N '47-JI, S-O '48

Railway locomotives. *Engineering* 164:473-4 N 14 '47

Railway power plant from the United States point of view. P. W. Klefer. *Inst Mech Eng J & Proc* 157 (War emergency issue no 30):245-51 '47

Railway power plant in Great Britain. O. V. S. Bulleid and others. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 30):235-9, pl 1-4 '47

Remarkable freight locomotives; Pennsylvania railroad. E. C. Poultney. *Il diags Engineer* 185:512-14, 536-7, 562-5 My 28-Je 11 '48

Report on locomotive construction; A.A.R. Mechanical division. *diags Ry Mech Eng* 122:410-14 Ag '48; Same cond. *Ry Age* 125:57-9 JI 10 '48

Some locomotives of 1947. *Il diags Engineer* 185:50-1, suppl, 64-6 Ja 9-16 '48

Transatlantic train service comparison. E. H. Liversay. *Il diags Engineer* 185:584-6, 608-10 Je 18-25 '48

Trend to Diesel power continues. E. L. Woodward. *Il Ry Age* 124:20-1 Ja 3 '48

2-8-0 locomotive for Peru. *Il Engineer* 186:185 Ag 20 '48; *Engineering* 166:153-4 Ag 13 '48

2-8-2 locomotives for Tanganyika. *Il diags Engineering* 165:369-70, 372 Ap 16 '48

2-6-0 freight locomotive; London Midland region. *Il diags Engineering* 165:344-5 Ap 9 '48

See also

Electric locomotives

Locomotive boilers

Axles

Eliminating axle breakage; Erie now using Sperry reflectoscopes. E. D. Hall. *Il Ry Mech Eng* 121:710-13 D '47

Stress concentration and fatigue failures. S. Timoshenko. *Il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 28):163-9, pl 1-4 '47; Same cond. *Engineer* 183:398-9, 421-2 My 9-16 '47; Discussion. O. Föppl. 185:114-15 Ja 30 '48

Bearings

Antifriction bearings. L. E. Browne. *Il Steel* 121:50-3 D 29 '47

Locomotive valve gears and bearings; British railways (London Midland region). *Il diags Engineering* 165:272-3, 276 Mr 19 '48

Tinning manganese bronze. I. R. Valentine. *Il Steel* 122:68-70 Ja 12 '48

Cleaning

Canadian Pacific's grit-blast cleaning plant. *Il Ry Mech Eng* 122:138-40 Mr '48

See also

Locomotive boilers—Cleaning

LOCOMOTIVES—Continued

Counterbalances

Counterbalance tests on American high-speed locomotives, bibliog diags Engineering 166: 148-50, 172-4, 361-2 Ag 13-20, O 15 '48 (to be cont)

Crankpins

Crank-pin research; A.A.R. committee reports, diags Ry Age 125:59-61 JI 10 '48
Portable machine for locomotive crankpin maintenance, il Comp Air Mag 52:285 N '47

Design

Design improvement; abstract, F. G. Tatnall, Machine Design 20:198+ S '48
First British Atlantic locomotive, E. C. Poultney, il diag Engineer 186:65-6 JI 16 '48

Streamlining effect on air resistance and smoke lifting on steam locomotives, J. F. Griffin, il diags A S M E Trans 70:515-24 JI '48

Tendencies in the design of railway rolling stock, O. V. S. Bulleid, Engineer 186:328-30 O 1 '48

Efficiency

Use of locomotives for earning revenue, H. Rudgard, Engineering 166:343, 333 O 8-15 '48

See also

Locomotives—Performance

Electric equipment

Locomotive electrical equipment; report of A.A.R. Mechanical division, Electrical section, il diags Ry Mech Eng 121:627-31 N '47

Equipment

Fundamentals of no. 6-BL brake equipment for switching and branch line locomotives, H. W. Sudduth, diag Ry Mech Eng 122: 142+ Ap '48

Failures

Bureau of locomotive inspection 36th annual report, Ry Age 124:302-4 F 7 '48; Same, with additional tables, Ry Mech Eng 122: 126-9 Mr '48

See also

Locomotive boilers—Failure
Locomotives—Axes

Front ends

Tendencies in front-end design, A. Giesl-Gieslingen, il diags Ry Age 124:530-5 Mr 13 '48

Fuel

Coal on the locomotive front; immediate action necessary to curb Diesel growth, E. C. Payne, il Coal Age 52:74-8 D '47
Gas driven locomotives; abstract, diag Mech Eng 70:146 F '48

Outlook for coal as railroad fuel, E. C. Payne, Ry Age 124:1025-7 My 22 '48; Same cond, Ry Mech Eng 122:295-6+ Je '48

Regional standards for locomotive fuel, E. C. Payne, il Ry Age 124:214-17 Ja 24 '48

Some economics of Diesel motive power; comparative cost of fuel, N. D. Ballantine, il Ry Age 125:295-9 Ag 7 '48

Will there be fuel for Diesels? W. J. Sweeney, il Ry Age 124:856-60; Discussion, 860-1 My 1 '48; Same abr, Ry Mech Eng 122:292-5 Je '48

See also

Locomotives, Diesel—Fuel

History

Early Kitson locomotive, P. C. Dewhurst, il diag Engineering 165:244-5 Mr 12 '48

Locomotives on exhibit, Chicago railroad fair; illustrations, Ry Age 125:190-1 JI 24 '48

See Locomotive headlights

Lighting

Lubrication

Car and locomotive lubrication; A.A.R. committee report, Ry Age 125:70-2 JI 10 '48; Same, Ry Mech Eng 122:419-20 Ag '48

Manufacture

Flame hardening methods and techniques, J. R. Burg, il Welding J 27:805-9 O '48

Performance

Development of locomotive power at speed, E. L. Diamond, bibliog Inst Mech Eng J & Proc 156:Proc 404-16 Mr '48; Same abr, Engineer 183:202-3, 216-18 Mr 7-14 '47; Discussion, diags Inst Mech Eng J & Proc 156:Proc 417-43 Mr '48; Engineer 183:200-1, 211-12 Mr 7-14 '47
Motive power use is undergoing refinement, il Ry Age 124:978-81 My 15 '48

Prices

Locomotive prices; tabulation, Ry Age 124:66 Ja 3 '48

Repair

Arc welding broken locomotive frames, A. L. Havens, il Ry Mech Eng 122:74-5 F '48
General welding practices in locomotive and car shops, J. Michne, il Welding J 27:781-4 O '48

Locating eccentric cranks, il Ry Mech Eng 122:255-6 My '48

Portable machine for locomotive crankpin maintenance, il Comp Air Mag 52:285 N '47

See also

Locomotive shops
Locomotives, Diesel—electric—Repair

Sand supply

Direct filling of locomotive sand-boxes, il Engineer 185:145 F 6 '48
Sand-drying unit, il Ry Age 125:8 JI 3 '48
Sand trap developed by the Morris B. Brewster company, il Ry Age 124:447 F 28 '48

Smoke problem

Smoke abatement on the Northwestern, W. W. Matzke, il Ry Age 124:1071-4 My 29 '48
Streamlining effect on air resistance and smoke lifting on steam locomotives, J. F. Griffin, il diags A S M E Trans 70:515-24 JI '48

Statistics

Locomotives ordered in 1947; tabulations, F. C. Miles, Ry Age 124:67-72 Ja 3 '48

Testing

Counterbalance tests on American high-speed locomotives, bibliog diags Engineering 166: 148-50, 172-4, 361-2 Ag 13-20, O 15 '48 (to be cont)

Locomotive balancing table, il Ry Mech Eng 121:708 D '47

Locomotive testing station; British railways equipment at Rugby, il Electrician 141:1225-6 O 22 '48

L.M.S. mobile testing plant, il Engineer 184: 144-6 Ag 15 '47; Same, Ry Age 124:752-4 Ap 17 '48; Same abr, Electrician 139:473-4 Ag 15 '47; Same cond, Elec R (Lond) 141: 290-2 Ag 22 '47

Mobile locomotive testing plant of the London, Midland and Scottish railway, H. I. Andrews, il plans diags Engineer 185:409-11, 434-5, 457-8 Ap 23-May 7 '48; Same abr, Engineering 165:696-9, 620-2 Je 18-25 '48; Discussion, Engineer 185:394-5 Ap 23 '48

Tests of 4-4-4-4 passenger locomotive, Pennsylvania railroad, E. C. Poultney, il Engineering 165:193-6 F 27 '48

See also

Dynamometer cars

Valves and valve gear

Locomotive valve gears and bearings; British railways (London Midland region), il diags Engineering 165:272-3, 276 Mr 19 '48

Review of valve motion developments, Ry Mech Eng 122:5-6+ Ja '48

Wheels

See also

Locomotives, Diesel—Wheels

LOCOMOTIVES, Diesel

Davenport industrial locomotives, il Diesel Power 25:61-4+ N '47

LOCOMOTIVES, Diesel—Continued

Diesel engines underground; use of Diesel locomotives in construction of the Delaware aqueduct; effect of exhaust gases upon quality of tunnel air. L. B. Berger and others. *bibliog* 2 pls U S Bur Mines Rep of Invest 4032:1-26 '47; Same cond. Engineering 165:54-5, 95-6, 114 Ja 16-30 '48

Diesel locomotive parts; purchasing and storekeeping; A.A.R. committee report. Ry Age 125:93-4 JI 10 '48

Diesel locomotive questions and answers, J. R. Benedict. Ry Mech Eng 122:503, 590 S-O '48

Diesel locomotives for British coal mines. *il* Diesel Power 26:69-72+ O '48

Eliminating Diesel fire losses. R. J. Snowdon. *il* Ry Mech Eng 121:633-5 D '47

G.M. Diesel. *il* Fortune 38:76-81+ JI '48

Gross of Diesel locomotives for France; Whitcomb locomotive company supplies 144 industrial locomotives for reconstruction of public works. *il* Diesel Power 26:92-3 Je '48

Iron horse yielding rapidly to Diesels. A. Jansen. *Barron's* 28:29-30 O 18 '48

North British Miner 100 b.h.p. Diesel locomotive. *il* *diags* Engineer 186:158-61 Ag 13 '48

Oil-engined locomotive for underground haulage. *il* *diags* Engineering 166:367-9 O 15 '48

100 b.h.p. Diesel mine locomotives. *il* Engineer 185:236-8 Mr 5 '48

180 b.h.p. Diesel mine locomotive. *il* Engineer 185:445-6 My 7 '48

Performance of a Diesel mine locomotive. L. B. Berger and R. T. Artz. 9pls U S Bur Mines Rep of Invest 4287:1-15 '48

Railroad Diesel. *il* *diag* Diesel Power 26:143-53 Mr '48

Road Diesel is found economical in short-run service on the Pittsburgh and West Virginia. *il* map Ry Age 124:204-6 Ja 24 '48

Ruston and Hornsby oil-engined mining locomotive. *il* *diags* Engineering 165:248-50 Mr 12 '48

Treatment and control of Diesel radiator water. C. W. Brown, Jr. and D. G. Drawbaugh, Jr. *il* Ry Mech Eng 122:487-8 S '48

204-h.p. Diesel locomotive. Engineering 165:393 Ad 23 '48

Warming the rails; better heating system for Diesel trains. *Bsns* W p39-40 S 25 '48

Water for Diesel locomotives. Ry Age 125:239 JI 31 '48

Water problems in Diesel locomotive operation. M. A. Hanson. *il* Am Water Works Assn J 40:971-9 S '48

Water purification for Diesel locomotives. flow *diag* Ry Age 124:172-3 Ja 17 '48

Fuel

Diesel locomotive questions and answers. J. R. Benedict. Ry Mech Eng 122:374 JI '48

Fuel oil for Diesel locomotives; report on requirements in relation to petroleum supply. Ry Age 125:596-8 S 25 '48; Same. *Pet Eng* 20:105-6+ O '48

Gas-driven locomotives; natural-gas as locomotive fuel in Russia; abstract. *diag* Mech Eng 70:146 F '48

How much oil for Diesels? *Bsns* W p23 O 2 '48

Will there be fuel for Diesels? W. J. Sweeney. *il* Ry Age 124:356-60; Discussion. 860-1 My 1 '48; Same *abr.* Ry Mech Eng 122:292-5 Je '48

Fueling

Expands Diesel fuel storage capacity; Southern railway. *il* map Ry Age 124:340-2 F 14 '48

Roadside filling station for Diesels. *il* plans *diag* Ry Age 125:381-3 Ag 21 '48

Wheels

Automatic wheel machining; Boston & Maine 54-inch Bullard Man-Au-Trol. *il* *diags* Ry Mech Eng 122:351-5 JI '48

Report of A.A.R. committee on wheels. Ry Age 125:73-5 JI 10 '48; Same. Ry Mech Eng 122:424-5 Ag '48

LOCOMOTIVES, Diesel-electric

Alco-G.E. 1500 hp. road Diesel. *il* *diags* Ry Mech Eng 122:356-8 JI '48

Alco-G.E. road freight Diesel locomotive. J. P. De Laney and H. M. Harrington. *il* Ry Age 124:1156-8 Je 12 '48

Alco's educational program matches rapid Dieselization of railroads. E. F. Carney. *il* Diesel Power 25:66-9+ D '47

Batteries in Diesel service. A. O. Ridgely. Ry Mech Eng 122:160-2 Ap '48

Brazil adds Diesels to its electrics. E. M. Bill. *il* Ry Age 123:909-11+ N 22 '47

Britain's first main line Diesel-electric locomotive. *il* Diesel Power 26:41 Ag '48

Brush Diesel-electric shunting locomotive. *il* Elec R (Lond) 141:928 D 19 '47

Brush 400-h.p. Diesel-electric locomotive. *il* Engineering 165:176-8 F 20 '48

Determining temperatures of traction motors. J. W. Teker and F. H. Catlin. *il* *diag* Gen Elec R 51:27-9 O '48; Same. Ry Age 125:623-31 O 2 '48

Diesel-electric locomotive completed at the L.M.S. works at Derby. *il* Elec R (Lond) 141:957-8 D 26 '47; Electrician 139:1859-60 D 26 '47

Diesel-electric main line locomotive trials. Engineer 185:137 F 6 '48

Diesel-electric shunting locomotive. *il* Engineer 184:607 D 26 '47

Diesel-electric shunting locomotives for Malaya. *il* Engineer 186:17 JI 2 '48

Diesel-electric shunting locomotives for the Irish railways. *il* Engineer 185:479-80 My 14 '48; Engineering 165:416-17, 420 Ap 30 '48

Diesel locomotive oil filters. F. L. Townsend. Diesel Power 25:72-3 D '47

Diesel pays off for lumber plant. *il* Ry Age 123:989 D 6 '47

Diesel water stations in packaged units. A. C. Hauser. *diag* Ry Age 125:718 O 16 '48

Diesels chief tool in road's improvement; Kansas City Southern lengthens trains without cutting speed on tough hill districts. *il* map Ry Age 124:667-70 Ap 3 '48

Electrification vs. Diesel-electrification. P. H. Hatch. Ry Age 125:9-10 JI 3 '48

Fairbanks-Morse oil-burn Consolidation line of Diesel road locomotives. *il* Ry Age 125:669-70 O 9 '48

From plants that date back 100 years come Diesels to retire the iron horse; illustrations with text. *il* *Bsns* W p58+ S 11 '48

High-pressure supercharging of Diesel engines for locomotives. S. N. Hedman. *il* Ry Age 125:240-3 JI 31 '48

Improved 65- and 80-ton General Electric switchers. *il* Ry Age 125:814 O 30 '48

Improvements announced in switch engines. *il* Blast F & Steel PI 36:1227 O '48

Leligh Valley Dieselizes. *il* Diesel Power 26:63 S '48

Locomotive traction generator comes of age. R. Lamborn. *il* *diag* Ry Mech Eng 122:446-50+ Ag '48; Abstract. Elec Eng 67:550 Je '48

L.M.S. installs main-line Diesels. E. C. Poultney. *il* Ry Age 124:442-5 F 28 '48

L.M.S. main line Diesel-electric locomotive. *il* Engineer 184:596-8 D 26 '47

Lone Diesel powers midget mountain railroad; Quincy railroad 5.29 miles long, connects town of Quincy with main line of Western Pacific. M. Huden. *il* Diesel Power 26:70-2+ F '48

New Diesel-electric shunting locomotive. *il* Electrician 139:1789 D 19 '47

New Haven changes Maybrook freight line to Diesel. *il* Ry Age 124:1210-14+ Je 19 '48

New Haven's Dieselization program; with cost data. *il* Diesel Power 26:54-6 Ag '48

Operating traits of Diesel locomotives. P. H. Hatch. Ry Age 123:953-4 N 29 '47; Same. Ry Mech Eng 121:693-4 D '47

Pennsylvania 6,000-hp. freight Diesels. *il* Ry Age 124:390-5 My 8 '48; Same. Ry Mech Eng 122:331-6 My '48

Popularity of Diesel-electrics grows. *il* Ry Age 123:829-31 N 15 '47

Portrait of an all-Diesel railroad; New York, Ontario and western railway. *il* Diesel Power 26:54-6+ O '48

Radio expedites switcher service in Dallas. *il* map Ry Age 124:862-4 My 1 '48

Railroads' switch to Diesels means saving of oil. General Motors says. *Nat* Pet N 40:49-50 O 6 '48

Railway locomotives. Engineering 164:473-4 N 14 '47

Saving weight in a Diesel's welded underframe; redesign and fabrication. L. Pompa. *il* Ry Mech Eng 122:115-17 Mr '48

LOCOMOTIVES, Diesel-electric—Continued

- Super-power for super-railroads; abstract. J. W. Barriger. S A E J 56:69-70 O '48
 Symposium on Diesel performance; New York railroad club meeting. Ry Mech Eng 122:62-3 F '48
 Trend to Diesel power continues. E. L. Woodward. il Ry Age 124:20-1 Ja 3 '48
 Versatile Diesels; Fairbanks, Morse Consolidation. Bsns W p70+ O 9 '48
 Water softener for use on Diesel locomotives. il Ry Age 124:710 Ap 10 '48; Same. Ry Mech Eng 122:270 My '48

Control

- Diesel-electric speed-responsive controls. A. V. Johansson. il diag Ry Mech Eng 122:87-9 F '48; Same cond. Elec Eng 67:221-2 Mr '48

Cost of operation

- Some economics of Diesel motive power; comparative cost of fuel. N. D. Ballantine. il Ry Age 125:295-9 Ag 7 '48

Design

- Diesel-electric locomotives; design for reduced maintenance. il Diesel Power 26:74-9 F '48

Equipment

- Development of Diesel operation recorder on the Atlantic coast line. J. D. Loftis. il Ry Age 124:1168-71 Je 12 '48
 Diesel-electric locomotive operation recorder. il Ry Age 124:1269-70 Je 26 '48

Manufacture

- Also standardizes production. il Diesel Power 26:38-41 JI '48
 Alco's Diesel locomotive plant at Schenectady; illustrations with text. Ry Age 124:806-7 Ap 24 '48

Repair

- Automatic furnace for soldering Diesel-electric commutators. il Iron Age 162:101 O 7 '48
 B.&M. Boston Diesel terminal. il plans diag Ry Mech Eng 122:297-300 Je '48
 Central of Georgia's Diesel shop. il plan diag Ry Mech Eng 122:149-51 Ap '48
 Chicago, Burlington & Quincy. Diesel crankshaft repairs; combination crankshaft- and axle-grinding machine. il Ry Mech Eng 122:121-5 Mr '48
 Diesel shop shows advances in design; Boston & Maine facility. il plans diag Ry Age 125:764-9 O 23 '48
 Dieselizing a locomotive repair shop. il plans diag Ry Age 124:1172-5 Je 12 '48
 Florida East Coast builds Diesel instruction car. il Ry Age 124:552-3 Mr 20 '48; Same. Ry Mech Eng 122:134-5 Ap '48
 Monon dedicates new Diesel repair shop. il Ry Mech Eng 122:257 My '48
 New Haven Diesel repair shop. il plan diags Ry Mech Eng 122:477-81 S '48
 Seaboard's Diesel shop. il plan Ry Mech Eng 122:242-5 My '48
 Shop equipment needs are changing. H. C. Wilcox. Ry Age 124:34-5 Ja 3 '48

Testing

- Load tests insure road performance. il Ry Mech Eng 122:34-5 F '48
 Loading resistor for testing Diesel power plants. E. F. Weiser. il diag Ry Mech Eng 122:504-6 S '48
 Test report of locomotive no. 10,000. Engineer 186:18 JI 2 '48

LOCOMOTIVES, Electric. See Electric locomotives

LOCOMOTIVES, Gas and oil

See also

- Locomotives, Diesel
 Locomotives, Diesel-electric

LOCOMOTIVES, Gas turbine

- Coal-burning gas-turbine locomotive. J. I. Yellott and others. Ry Age 124:254-6+ Ja 31 '48; Same. Ry Mech Eng 122:118-20 Mr '48
 Coal-burning gas-turbine locomotives; abstract. J. T. Rettaliata. Mech Eng 70:882 N '48

- 4800-hp gas turbine on trial runs; illustration with text. Power 92:295-6 My '48
 Gas turbine power. W. Giger. diags Ry Mech Eng 122:574-8 O '48
 Gas turbines for railroads. il diags Diesel Power 26:70-3 My '48
 High-temperature corrosion of stainless steels; parts of a gas turbine locomotive. W. E. Fontaine. il diag Metal Prog 54:332-6 S '48

Locomotive gas-turbine demonstrated. il Ry Age 124:554-5 Mr 20 '48; Ry Mech Eng 122:165-6 Ap '48

Locomotive gas turbine disclosed in development stage. il Product Eng 19:147-8 My '48

LOCOMOTIVES, Gas turbine-electric

- Construction of gas turbine for locomotive power plant. W. B. Tucker. diags Mech Eng 70:377-82 N '48; Same cond. Ry Age 125:17-21 JI 3 '48

Design features of a 4800-hp locomotive gas-turbine power plant. A. Howard. il diags Mech Eng 70:301-6 Ap '48; Discussion. J. T. Rettaliata. 70:771-2 S '48

- Gas-turbine operating experience; performance of Westinghouse 2,000-hp. unit. T. J. Putz. il Ry Age 124:713-15+ Ap 10 '48
 Locomotives keep up with the world. H. E. Dralle. il Westinghouse Eng 8:189-90 N '48
 Piston-free gas engine being developed for railroad locomotives; abstract. G. A. Price. Iron Age 161:165 Ap 15 '48

LOCOMOTIVES, Industrial

- Davenport industrial locomotives. il Diesel Power 25:61-4+ N '47
 Diesel pays off for lumber plant. il Ry Age 123:989 D 6 '47

Gross of Diesel locomotives for France; Whitcomb locomotive company supplies 144 industrial locomotives for reconstruction of public works. il Diesel Power 26:92-3 Je '48

Locomotives for iron and steel works. E. L. Diamond. diags Iron & Steel Inst J 159:37-59 My '48

LOCOMOTIVES, Mine

- Air-brake assembly for mining locomotives. il Engineering 164:534 D 5 '47
 Diesel locomotives for British coal mines. il Diesel Power 25:69-72+ O '48
 Hydraulic transmission on mines locomotives. Engineer 185:43 JI 9 '48
 More from wheels and axles; locomotives and loading machines. F. W. Richart. il diags Coal Age 53:105-7 F '48
 North British Miner 100 b.h.p. Diesel locomotive. il diags Engineer 185:158-61 Ag 13 '48

Oil-engined locomotive for underground haulage. il diags Engineering 166:367-9 O 15 '48
 100 b.h.p. Diesel mine locomotives. il Engineer 185:236-8 Mr 5 '48
 100 b.h.p. Diesel mines locomotive. il Engineer 185:445-6 My 7 '48

Performance of a Diesel mine locomotive. L. E. Berger and R. T. Artz. 9pls U S Bur Mines Rep of Invest 4287:1-15 '48

Ruston and Hornsby oil-engined mining locomotive. il diags Engineering 165:248-50 Mr 12 '48

LOCOMOTIVES, Steam turbine

- Coal-burning steam-turbine locomotives. J. S. Newton. Ry Age 124:334-6 F 14 '48; Same. Ry Mech Eng 122:239-41 My '48
 Torque characteristics of steam turbines. J. S. Newton. diags Westinghouse Eng 8:119-21 JI '48

LOCOMOTIVES, Steam turbine-electric

Model analysis aids designer; use of Lumarith model of turbine-electric unit for a locomotive. M. E. Harvey. il Machine Design 20:120-1 Ja '48

Turbine-electric locomotive for the Chesapeake & Ohio railway. il Machine Design 20:118-20 My '48

Turbine-electric steam locomotive; abstract. C. Kerr, jr. Mech Eng 69:941-2 N '47

LOCUST bean gum. See Carob bean gum

LODGE, Henry Cabot, 1902-
 Portrait. Bsns W p23 Je 19 '48

LOEW'S, Inc.
 Securities disturbing investors. R. Colston. Mag of Wall St 82:294-5 Je 19 '48

LOGARITHMS
 Logarithmic scales of odd lengths. il Metal Prog 52:310-11 N '47

LOGGING. See Lumbering

LOGGING roads. See Forest roads

LOGISTIC curves. See Growth curves

LOGS

Figuring volumes of sawmill logs; data sheet. H. C. Fuller. Power 91:875 D '47

LOGWOOD

Dyeing of nylon with logwood. H. R. Tisdale. il Rayon 29:79-81 JI '48

LOMATIOL

Synthesis of lomatol. M. Gates. bibliog Am Chem Soc J 70:617-18 F '48

LONDON

The City; world's center of financial probity. il map Fortune 37:118-29 Ap '48

District heating in London. S. B. Donkin. Elec R (Lond) 141:624 O 24 '47

Lighting

Fluorescent street lighting in Kingsway. il Electrician 140:33-4 Ja 2 '48; Elec R (Lond) 142:19 Ja 2 '48

Railroads

Metropolitan Line improvements. il map plans Engineering 165:522-4 My 28 '48

Renewal of the track at St Pancras station. il diag Engineer 184:467-8 N 14 '47

Rapid transit

London passenger transport board; 14th annual report. Engineer 185:334-6 Ap 2 '48

London transport and the Olympic games. Engineer 186:268-9 S 10 '48

London transport trolleybuses. il Engineer 185:252-3 Mr 12 '48

Post-war transportation in European cities. C. E. DeLeuw. Western Soc E J 53:39-44 Mr '48

Science museum library

Distribution and use of scientific and technical information; questionnaire addressed to Science museum library readers. D. J. Urquhart. J Doc 3:222-31 Mr '48

Subways

Automatic lifts on London underground railways. il Engineering 165:213-14 F 27 '48

Extension of the L.P.T.B. Central line. il map Engineer 184:575 D 19 '47

Travelers' aid; neon pathfinder; pushbutton map gives shortest subway route in London. il Bsns W p61 Mr 6 '48

White City station; London transport central line. il plan Engineering 165:8-9 Ja 2 '48

Water supply

Greater London water supplies; report of the Departmental committee. Engineering 166:140 Ag 6 '48

M.W.B. Staines new reservoir. map diags Engineer 184:456-7 N 14 '47

Metropolitan water board; works in progress and constructed during 1947. il Engineer 185:101 Ja 23 '48

Water supply of greater London; history. H. W. Dickinson. il maps diags Engineer 186:26-7, 50-3, 76-8, 100-2, 126-7, 150-1, 176-7, 206-8, 232-4, 255-7, 276-9, 300-2, 326-8, 352-4, 378-81, 404-7, 430-3, 456-8, 482-4, 508-11, 534-6, 560-1, 586-7 JI 9-D 10 '48

Water supply of London. Engineer 185:456 My 7 '48

LONDON brick company, limited

Statement by the chairman at 48th annual general meeting. P. M. Stewart. Economist 154:782 My 8 '48

LONDON conference of foreign ministers. See

International conferences—London, 1947

LONDON stock exchange

Change in London stock exchange organization. A. M. Sakolski. Comm & Fin Chr 167:812-4 F 5 '48

Still a bear market? Economist 154:806-7 My 15 '48

Stock exchange commissions. Economist 155:157 JI 24 '48

The City; world's center of financial probity. il Fortune 37:118-21 Ap '48

LONDON-van der Waals forces. See Van der Waals forces

LONE star steel company

Texas pig iron. Bsns W p46-7 N 8 '47

LONG BEACH, California

Stanford research institute to study Long Beach subsidence. Eng N 141:7 O 7 '48

Subsidence of the Terminal Island-Long Beach area, California; effect of water and oil pumping. F. R. Harris and E. H. Harlow. il plans diags Am Soc C E Proc 73:1197-218 bibliog(p 1217-18) O '47; Discussion. 74:397-9, 788-92 Mr, My '48

Commerce

Port of Los Angeles-Long Beach serves vast, expanding trade-area. P. E. Pauly. il For Comm W 32:4-7+ S 25 '48

Sanitary affairs

Special wings on bulldozers help in sanitary fill operation. il Pub Works 79:40+ Mr '48

Sewerage

Sewer maintenance experience. D. R. Kennedy. Sewage Works J 20:104-11; Discussion. 111-15 Ja '48

Water supply

Two-story sedimentation basin features filter plant layout. L. C. Larson. plan diag Eng N 140:656-7 Ap 29 '48

LONG ISLAND, New York

Comprehensive parkway system provides essential traffic arteries for Long Island. S. M. Shapiro. il map Civil Eng 18:24-6 Ja '48

LONG ISLAND college of medicine

Broad health program planned. Weekly Underw 157:1587 D 20 '47

LONG ISLAND lighting company

Annual report. Comm & Fin Chr 167:1810 Ap 26 '48

Public utility securities. Comm & Fin Chr 168:317 JI 22 '48

Rate rise may aid Long Island Lighting recap. W. T. Hyde, jr. Barron's 28:29 Mr 1 '48

Suit filed; common stockholders committee issues statement. Comm & Fin Chr 168:944-5 S 6 '48

LONGEVITY

Ecological applications of Lansing's physiological work on longevity in rotatoria. W. T. Edmondson. bibliog Science 108:123-6 Ag 6 '48

Electricians are a healthy lot; figures reveal that they live longer than the 66 year average. W. Schweisheimer. Power Generation 52:72-3 Ap '48

Human longevity. F. Allen. Spectator (Life ed) 156:12-15+ O '48

Medical science and the longer life. E. R. Long. Science 107:305-7 Mr 26 '48

LONGSHOREMEN

Dockers and discipline. Economist 154:1055 Je 26 '48

Hiring halls; job-control issue. il Bsns W p 104+ Ap 10 '48

Overtime appeal; longshoremen's premium-pay problem. Bsns W p 102+ N 15 '47

Skin hazards of longshoremen and harbor workers. M. H. Samitz and T. E. Gibson. Ind Med 16:576-7 D '47

Wage-hour jolt; Supreme court's decision on stevedores' pay. Bsns W p99-101 Je 12 '48

LONGSHOREMEN'S and harbor workers' compensation insurance. See Insurance, Longshoremen's and harbor workers' compensation

LONGSHOREMEN'S and warehousemen's union, International. See International longshoremen's and warehousemen's union

LONSDALE company

Stock oversubscribed. Comm & Fin Chr 167:2638 Je 21 '48

LOOK (periodical)

Look's kit; magazine's hobby kits of modular furniture. il Mod Packaging 22:137 O '48

LOOMIS, Mahlon, 1826-1886

Man before Marconi; a biography. J. R. Lebo. por Q S T 32:42-4 Ag '48

LOOMS

Applying reeds with a minimum of error. H. E. Wenrich. il diag Rayon 29:62-4 Mr '48

Careful loom adjustment aids rayon weaving. diags Textile World 97:114-15+ D '47

Circular loom will invade U. S. market. il Bsns W p56 JI 17 '48

Cotton looms; industrial data sheet. il diags Nat Safety N 58:40+ Ag '48

Georgia mill reports on a 48-in. loom beam. il diag Textile World 97:135+ D '47

LOOMS—Continued

- Hydropneumatic buffer for looms, diag Comp Air Mag 53:228 S '48
- Kellogg high speed cam operated loom, il diags Product Eng 19:92-4 JI '48
- Kellogg loom has unique design features, W. A. Newell, il diag Textile World 98:118-21 Je '48
- Loom checking is aid to good weaving, il Textile World 98:116-17+ Ag '48
- Loom study by means of the cathode ray oscillograph; variations in individual warp-thread tension during the weaving cycle, N. H. Chamberlain and D. S. Snowden, bibliog il diags Textile Inst J 39:T23-43 F '48; Discussion, 39:T153, 253-4 Ap, JI '48
- Machine timing at full speed done by oscillograph, M. Scheraga, il diags Textile World 98:113-19+ Ja '48
- Manual guides Draper loom fixing, Textile World 98:120-1 F '48
- New aluminum loom-beam barrel, H. H. Nuernberger, il Rayon 29:54 Mr '48
- New cam loom by Kellogg used on rayon, il Rayon 29:67-8 Ap '48; Abstract, Textile World 98:147-8 Ap '48
- New French circular loom used on rayon, H. R. Mauersberger, il Rayon 29:81-2 S '48
- New loom on assembly line in Kellogg's Jersey City plant, il Bsns W p60+ Mr 20 '48
- New shuttleless loom, il Rayon 29:43 JI '48
- New wool loom has wide speed range; Baker loom, E. P. Schremp, il Textile World 98:139-40+ Ag '48
- Preparing weave harness for twisting, H. E. Wenrich, diags Rayon 28:594-5 N '47
- Proper loom adjustments eliminate bird's-eyes, A. Frantz, il Textile World 98:110-11 JI '48
- Research methods in weaving machinery; Draper corp., Hopedale, Mass, F. M. Fitzgerald, Rayon 29:55-6 My; 64-5 Je '48
- Slaisher and loom drives featured at AIEE meeting, New Haven, Conn, Textile World 98:129+ Je '48
- Warner & Swasey introduces Sulzer weaving machine, W. A. Newell, il diag Textile World 98:110-13+ Je '48
- Warner & Swasey weaving machine, il Mech Eng 70:689-90 Ag '48
- Warp mounting in looms varies, H. E. Wenrich, diag Rayon 29:57-9 JI '48
- Weaving developments previewed by American association of textile technologists, il Textile World 98:117+ Mr '48
- See also
Shuttles

Cleaning

- Drop-wire maintenance aids weaving efficiency, H. E. Wenrich, il diags Textile World 98:141+ O '48

Control

- Filling holder influences loom stoppage, E. P. Schremp, diags Textile World 98:129 Ag '48

LORAC

- Lorac, a new surveying method for over-water exploration, C. J. Deegan, il maps diags Oil & Gas J 47:58-61+ Je 17 '48

LORD Campbell act. See Damages**LORENTZ equation**

- Classical equations of motion of point charges, P. Havas, bibliog Phys R 74:456-63 Ag 15 '48

LORENTZ transformation

- Discrete space-time and integral Lorentz transformations, A. Schild, Phys R 73:414-15 F 15 '48
- Orbits of charged particles in constant fields, A. H. Taub, Phys R 73:786-98 Ap 1 '48

LORENZ curve. See Frequency distribution**LOS ALAMOS, New Mexico**

- Los Alamos, the town the atom is building, W. N. Carey, il Civil Eng 18:436-9+ JI '48

LOS ANGELES**Commerce**

- Movement for foreign-trade zone at Los Angeles harbor, For Comm W 32:45 S 25 '48
- Port of Los Angeles-Long Beach serves vast, expanding trade-area, P. E. Pauly, il For Comm W 32:4-7+ S 25 '48

Industries

- Favored industries in Los Angeles, P. Neff and others, Iron Age 161:108+ My 20 '48

Rapid transit

- Horse cars yesterday, subways tomorrow; growth of local transit in Los Angeles, B. M. Larrick, il Bus Transportation 27:61-4 My '48
- Sell your transit service by the single line; Los Angeles promoting new line, J. H. Collins, Pub Util 42:413-18 S 23 '48

Sanitary affairs

- Smog fighters; Los Angeles county, J. R. Callahan, Chem Eng 55:114-15 O '48

Sewerage

- Chlorination curbs beach pollution, il Eng N 139:801-3 D 11 '47
- 14 million cu. yd. sand pumped from bank to beach, il Constr Methods 30:68-71 Ag '48
- Industrial waste disposal in Los Angeles city, W. A. Schneider, Water & Sewage Works 95:37-9 Ja '48
- Los Angeles' \$41,000,000 Hyperion project ends beach contamination; equipment and construction work, L. Aldrich and H. G. Smith, il map plans Civil Eng 18:418-23+ JI '48
- Metering and control of processes for the Hyperion activated sludge plant; chlorination, N. B. Hume; W. A. Schneider, flow diag il plan Water & Sewage Works 95:74-8 F '48
- Outfall has precast units 100 ft. long, il diags Eng N 141:64-7 Ag 5 '48

Streets

- Four-level super crossroads embodies novel structural features; expressway program, il plans diags Roads & Sts 91:58-64 S '48

Water supply

- Erosion control in Los Angeles watersheds, B. S. Grant, Am Water Works Assn J 39:1224-8 D 47
- Los Angeles program speeds reconditioning of cast iron pipe, R. E. Hemborg, il Eng N 140:46 Ja 8 '48

LOS ANGELES independent publishing company

- Los Angeles merchants share in newspaper project, Ed & Pub 81:63 Je 5 '48

LOS ANGELES stock exchange

- SEC adds Los Angeles stock exchange to list permitted to conduct special offerings, Comm & Fin Chr 167:2652 Je 17 '48

LOST articles

- Police official offers plan for cooperation on lost and stolen property, F. Leuci, East Underw 49:22 Je 25 '48; Same cond. Nat Underw 52:16 Je 24 '48

LOST mines, See Mines and mineral resources—Lost mines**LOST wax process**

- Applications of precision castings, R. H. Osbrink, il Automotive Ind 97:40+ D 15 '47
- Casting artistic bronzes; cire perdu method, P. Dwyer, il Foundry 75:97-8 D '47
- Casting metals in ceramic molds, W. P. Gillingham, il Comp Air Mag 63:135-8 Je '48
- Castings move into new fields; Allis-Chalmers lost-wax casting technique, il Bsns W p54+ Je 5 '48
- Centrifugal and precision steel castings for aircraft, J. F. B. Jackson, Engineering 165:484 My 21 '48
- Centrifugal process improves investment castings, V. S. Lazzara, il Am Mach 92:93-6 Ag 26 '48
- Critical survey of investment casting, R. L. Wood and D. Von Ludwig, il Iron Age 161:72-8 My 6; 90-4+ bibliog(p 142) My 13 '48
- Flow of materials in producing precision castings, il plan Mill & Factory 43:100-1 S '48
- Foundry methods improve investment casting; illustrations with text, K. R. Geist, Am Mach 92:83-6 Je 3 '48
- How International Nickel makes precision investment castings; illustrations with text, Steel 123:72-5 JI 5 '48
- How to prepare metals for precision casting, A. K. Higgins, il Steel 123:88-90 Ag 2 '48
- Investment casting, E. L. Cady, il Sci Am 178:119-21 Mr '48

LOST wax process—Continued

- Investment castings; requirements of design for proper casting. G. A. Stolze. *Machine Design* 20:139-42 Ag '48
- Investment castings; their advantages and limitations; tips on designing better parts. W. O. Sweeney and H. L. Mattes. *Machine Design* 20:91-7 My '48
- Mass-producing complex castings; illustrations. Bsns W p48-50+ Je 5 '48
- New wax room techniques. *Iron Age* 162: 82-3 Jl 22 '48
- Polystyrene in centrifugal casting; plastic material producing metal castings by the lost-wax process. *Mod Plastics* 26:112-15 N '48
- Precision casting at Allis-Chalmers. *Iron Age* 161:82-5 Je 3 '48
- Precision casting; essentially electrical production. *Elec R (Lond)* 147:77-82 Ja 16 '48
- Precision casting for mass production. *Mod Ind* 16:123 Jl '48
- Precision casting in production quantity; Allis-Chalmers aircraft turbo-supercharger buckets. *Iron Age* 161:104-5 Jl '48
- Precision castings. E. Kirkendall. *Mfn & Met* 29:450-1 Ag '48
- Precision castings in high-melting point alloys for general engineering purposes. F. Hudson. *Metallurgia* 37:243-7 Mr '48
- Precision investment casting at Allis-Chalmers. *Foundry* 76:78-81+ Ag '48
- Precision investment casting at Inco Bayonne plant. *Mach* 54:174 Ag '48
- Precision investment casting at International nickel co. R. H. Herrmann. *Foundry* 76: 94-9+ S '48
- Precision investment casting; design procedure for high and low machinability alloys. E. L. Cady. *Product Eng* 19: 81-5 Ap '48
- Precision investment castings reduce assembly operations; illustrations with text. E. L. Cady. *Materials & Methods* 28:78-80 O '48
- Realistic appraisal of the precision investment casting process. W. O. Sweeney. *Iron Age* 160:86-9 N 6 '47
- Simplified methods and improved equipment advances precision investment casting; Allis-Chalmers mfg. co. K. J. Yonker. *Steel* 122:96-9 Je 7 '48
- What can precision investment casting offer the Diesel industry? *Diesel Power* 26: 50-3+ Jl '48

LOTTERIES

- P.O. official outlines lottery regulations. D. J. Kelly. *Ed & Pub* 81:14+ Ja 17 '48

LOUD speaking apparatus

- Calculation of the directivity index for various types of radiators. C. T. Molloy. *diags Acoustical Soc Am J* 20:387-405 Jl '48
- Coaxial and separate two-way speaker system design. H. Souther. *diags Communications* 28:22-4+ Jl '48
- Design of loudspeaker dividing networks. E. R. Schuler. *diag Electronics* 21:124-5 F '48
- Emergency loud-speaker equipment for Good neighbor fleet. G. M. Marr and G. A. Slatic. *diag Marine Eng* 53:75-8 F '48
- Loudspeaker for your 'phone; Jordaphone. *Barron's* 27:34 D 8 '47
- Low-distortion crossover network. P. W. Klipsch. *diags Electronics* 21:98-9 N '48
- Movie-sound-8 projector. L. Thompson. *diags Soc Motion Picture Eng J* 49:463-7 N '47
- Negative feedback compression. J. T. Goode. *diags Radio N* 39:118+ Ja '48
- New theater loudspeaker system. H. F. Hopkins and C. R. Keith. *diags Soc Motion Picture Eng J* 51:385-98 O '48
- News and voice of management on public address system. *Factory Management* 106: 97 Ag '48
- Portable and semiportable loudspeaker systems for reproducing 16-mm sound on film. J. K. Hilliard. *diags Soc Motion Picture Eng J* 49:431-8 N '47
- Proposed loudness-efficiency rating for loudspeakers and the determination of system power requirements for enclosures. H. F. Hopkins and N. R. Stryker. *bibliog diags Inst Radio Eng Proc* 36:315-35 Mr '48

- Public address systems used to publicize Connecticut company's motorization of lines and to announce new routes, etc. F. Kane. *diags Bus Transportation* 27:87-8 F '48

- Recording and reproduction of sound; factors influencing behavior of reproducers. O. Read. *diags Radio & Tv N* 40:49-51+ Ag '48
- Underwater sound transducers. H. F. Olson and others. *diags RCA R* 8:698-718 D '47

- See also
Radio loud speakers

Rating

- High-fidelity loud-speaker. Western Electric, model 755A. *Consumers Res Bul* 21:13 Ja '48

LOUDNESS. See Hearing**LOUISIANA**

- See also
Gas, Natural—Louisiana Water supply—Louisiana

Bibliography

- Bibliography of Louisiana books and pamphlets in the T.P. Thompson collection of the University of Alabama library. D. E. Thompson, comp. 210p pa \$1.75 Univ. of Alabama press, Drawer 2877, University, Ala. '47

Politics and government

- Louisiana's lost battle against tax boosts. *Bsns W* p22 Je 5 '48

LOUISIANA and Arkansas railway

- Equipment trust certificates offered. *Comm & Fin Chr* 168:47 Jl 5 '48

LOUISIANA power and light company

- Bonds offered. *Comm & Fin Chr* 167:1258 Mr 22 '48

LOUISIANA state university

- Petroleum engineering schools. *Oil & Gas J* 46:74+ N 8 '47

LOUISVILLE, Kentucky**Streets**

- Louisville adopts standard flexible design for suburban streets; with cost data. *diags Roads & Sts* 91:62 F '48

LOUISVILLE and Nashville railroad

- Bonds offered. *Comm & Fin Chr* 168:47 Jl 5 '48

- Railroad securities. *Comm & Fin Chr* 167: 2754 Je 24 '48

LOUISVILLE gas and electric company (Delaware)

- Liquidation plan effective. *Comm & Fin Chr* 168:1044 S 13 '48

LOUISVILLE gas and electric company (Kentucky)

- Bonds offered. *Comm & Fin Chr* 167:1472 Ap 5 '48

LOVAAS, Anne

- Norwegian student studies industrial library work. *por Patent Oil & Chem R* 110:38 O 16 '47

LOVETT, Robert Abercrombie, 1895-

- New strategy in foreign policy. *R. T. Elson. por Fortune* 36:80-5+ D '47

LOW, David, 1891-

- Low here to cover political conventions. *C. Hodge. por Ed & Pub* 81:13 Je 5 '48

LOW melting alloys. See Alloys, Low melting**LOW temperature. See Temperature, Low****LOWELL textile institute**

- Lowell Textile inaugurates first synthetic textile dept. *diags Rayon* 28:586-7 N '47

- Lowell textile institute notes. *Rayon* 28:577 N '47

LOWENSTEIN, M. & sons, inc.

- Current sales hold at record '47 rate. *Barron's* 28:35 Ap 12 '48

LOYAL order of moose

- Second international symposium on feelings and emotions. Oct. 28-30, 1948. *Science* 107:678 Je 25 '48

LOYALTY tests. See War correspondents—Loyalty tests**LOYALTY tests of government employees. See Government employees—Loyalty tests****LUBRICATING greases**

- Barium lubricating grease. C. J. Boner and G. W. Miller. *diags Iron & Steel Eng* 25:120-2; Discussion. 123-4 S '48

LUBRICATING greases—Continued

- High-temperature greases. H. A. McConville. *il Product Eng* 19:93-5 Ja '48
 Lubricants for electric motors. H. A. McConville. *Sci Am* 178:73-4 F '48
 Mechanism of grease lubrication re-examined. C. J. Boner; F. M. Spooner. *Chem & Eng N* 26:3198 O 25 '48
 National lubricating grease institute annual meeting, Chicago. *Nat Pet N* 40:22-4+ O 20 '48
 Soap in greases; abstract. C. H. Smith. *Soap & San Chem* 24:79 Ja '48
 Tests to determine delivery characteristics of grease dispensing equipment are started. *Nat Pet N* 40:18 Ag 11 '48
See also National lubricating grease institute

Analysis

- Grease analysis; A.S.T.M. method; suggestions for improvement. R. S. Barnett and others. *Am Soc T M Proc* 46:1560-76 '46
 Microdetermination of oil content in petroleum greases. A. E. Baker, jr. *il Gen Elec R* 51:44-6 O '48

Manufacture

- Continuous grease manufacture. flow diag *Oil & Gas J* 46:159 Ap 1 '48
 Grease manufacture, an art or a science? G. L. Johnson and J. A. Altschuler. flow sheets *Oil & Gas J* 46:65-6+ N 3 '47; Same cond. *Pet Processing* 3:57-8+ Ja '48
 Large scale production of lime soap greases to start at Esso standard oil co. refinery. *Chem & Eng N* 26:2560 Ag 30 '48

Testing

- Measuring the flow properties of lubricating greases. O. P. Puryear. bibliog *il diag Aero Digest* 56:54-6+ Ja '48
 New tester for ball-bearing greases. M. Anderson and D. F. Wilcock. *il diag Gen Elec R* 51:41-2 Je '48

LUBRICATING oil industry

- Independent oil compounders call for fair trade practices at meeting. L. Castle. *Nat Pet N* 40:42+ O 13 '48
 Outlook for lube oils. E. R. Smoley. bibliog *il Pet Processing* 3:735-8 Ag '48
 Rabbits' feet, kites, plastic ponies; Alemite makes trick promotions pay. L. E. Colby. *il Sales Management* 60:146+ F 15 '48
 Symbols for oil; Cities Service station green stripes tied to same design on 400 packages. *il Mod Packaging* 21:107 Je '48
See also
 Socony-Vacuum oil company

Advertising

- Continuity in advertising builds Socony position. *il Ind Marketing* 33:45+ Ag '48
 Dealers didn't like new product; campaign changed their minds; Triton motor oil. *il Ptr Ink* 221:61+ N 21 '47
 Education on the selling line; Shell indoctrinates buyers in general petroleum know-how. P. R. Willmarth. *il Ind Marketing* 33:36-8+ F '48
 New line of motor oil advertising; Royal Triton crankcase life. *Consumers Res Bul* 21:11-12 F '48

Statistics

- Lubricating oils, 1941-1946. Survey of Cur Bsns 1947 Sup p 166 [supplemented in monthly numbers]

LUBRICATING oils

- Developments in fuels, lubricants, and lubrication. R. J. S. Pigott. *il S A E J* 56:21-4 Ag '48
 Diesel lubrication. bibliog *il diag Power Generation* 52:70-2 F '48
 Effect of lubrication in reducing mechanical wear. W. M. Sopher. bibliog *diag World Oil* 127:191-2+ Mr '48
 Effect of temperature and pressure on specific gravity. P. M. Reynolds. *Oil & Gas J* 46:96+ Mr 11 '48
 Experience with Diesel lubricating oils; abstract. W. F. Joachim and others. *S A E J* 56:35 Mr '48
 Foaming of mixtures of hydrocarbons. J. V. Robinson and W. W. Woods. bibliog *J Phys & Colloid Chem* 52:763-6 My '48

Food freezers require proper lubrication. A. F. Brewer. *il diag Food Ind* 20:554-6+ Ap '48

- Guide for plant operator in preparing new turbine oil system. *il diag Power* 92:691-3 N '48
 How to select lubricating oil. W. F. Schap-horst. *Can Min J* 69:69 Ja '48
 Importance of lubrication in forging operations. A. F. Brewer and J. C. Van Gundy. *il Steel* 121:92-5+ D 1 '47
 Inhibitor action in crankcase lubricants. A. F. Prutton. *Oil & Gas J* 47:70-3+ Je 10 '48
 Lubrication problems encountered in light plane engines; abstract. C. T. Doman. *S A E J* 56:18; Discussion. 19 Mr '48
 Magnetic filtration of lubricating oils. *Chem Age (Lond)* 59:182 Ag 7 '48
 Modern Diesel oil maintenance. T. A. La-Brecque. *il diag Diesel Power* 26:51-3 Je '48
 Most passenger car driving induces crankcase sludge; abstract. R. J. Greenshields and N. Kendall. *Nat Pet N* 40:27 Mr 17 '48
 Motor oils, 1948. J. C. Geniesse and J. F. McGrogan. bibliog *il Oil & Gas J* 47:67-8+ J13 '48
 Nomograph for the determination of the viscosity-gravity constant for lubricating oils. G. E. Mapstone. *Chem Ind* 62:812+ My '48
 Oil flow and temperature relations in lightly loaded journal bearings. J. Boyd and B. P. Robertson. bibliog *diag S M E Trans* 70:257-62 Ap '48
 Performance standards should govern oil purchases. V. E. Hillman. *il Textile World* 98:125+ Je '48
 Planned lubrication cuts maintenance costs. C. H. Parks. *il Am Mach* 92:104-6 O 21 '48
 Polymers and viscosity index. H. C. Evans and D. W. Young. bibliog *Ind & Eng Chem* 39:1676-81 D '47
 Preparation and properties of high viscosity index motor oils. W. L. Van Horne. *Pet Refiner* 27:90-5 Mr '48; Abstract. *S A E J* 56:49-52; Discussion. 52 S '48
 Quality control of mineral lubricating oils in marine installations. Y. A. Kuipers. *Marine Eng* 53:84+ Ag '48
 Reclassification of crankcase oils to reduce refining costs, and simplify distribution and supply. A. L. Foster. *Oil & Gas J* 47:70+ Ag 5 '48
 Role of dispersants in lubricating oils. H. H. Zuidema. bibliog *il Oil & Gas J* 46:58-9+ Ja 8; 84+ Ja 15; 93-6+ patent list(p95-6+) Ja 22 '48
 Silicone oils designed for high temperature use. *Elec World* 129:174-5 Ja 17 '48
 S.A.E. National fuels and lubricants meeting, Tulsa, Nov. 6-7. *S A E J* 55:29-33 D '47
 Some problems encountered in the lubrication of steam turbines. R. Lowe. *Engineer* 185:482-3, 506-7 My 14-21 '48
 Sub-zero automotive crankcase oils. E. W. Upham and H. C. Mougey. *il S A E J* 56:43-6 F '48
 What to look for in hydraulic oils; lubricating value. A. J. Zino, jr. *il Am Mach* 92:97-100 Ja 15 '48
See also
 Neat's foot oil

Analysis

- Anticipating engine troubles by oil analysis. *il Diesel Power* 26:68-70 S '48
 Diesel engine maintenance problems and assistance from crankcase oil analysis; abstract. C. R. Stewart. *S A E J* 56:53 Mr '48
 Examination of used engine lubricating oils. K. Hilfreich and others. bibliog *4pls diag Inst Pet J* 34:148-208; Discussion. 208-25 Mr '48
 Faber engine analysis for internal combustion engines. R. L. Faber. *S A E J* 56:68-9 Ag '48
 Identification of Pennsylvania lubricating oils. R. E. Hersh and others. bibliog *Anal Chem* 20:434-44 My '48

Manufacture

- Application of viscosity measurement in petroleum refining operations. D. J. Pompeio. *Pet Refiner* 26:101-3 N '47

LUBRICATING oils—Manufacture—Continued

- Chemical treatment of fractions from Gulf Coast naphthenic-base crude for production of lubricating oils. E. I. Jacob and L. E. McMakin. flow chart Oil & Gas J 46:169+ Ap 1 '48
- Contact finishing of lube oil stocks. il Pet Processing 2:853+ N '47
- Continuous acid treating heavy lubricating oil. J. D. Morrison. flow chart Oil & Gas J 47:87 O 14 '48
- Duo-Sol process. flow diag Oil & Gas J 46:150 Ap 1 '48
- Duo-Sol solvent extraction process; Max B. Miller & co. flow diag Pet Refiner (Process Handbook ed) 27:178-9 sec 2 S '48
- Effect of solvent composition and primary solvent dilution on dewaxing filter rates and wax oil contents. E. J. Reeves and I. E. Pattillo. bibliog Pet Refiner 27:80-2 Mr '48
- Fuels and lubricants from sources other than petroleum. G. T. Perry. Can Chem & Process Ind 32:624-9 J 1 '48
- Furfural as a selective solvent in petroleum refining. L. C. Kemp, jr., G. B. Hamilton and H. H. Gross. bibliog flow diag il Ind & Eng Chem 40:220-7 F '48
- Furfural treating; refining lubricating oils and Diesel fuel oils. flow diag Oil & Gas J 46:153 Ap 1 '48
- Lube-oil pilot plant; Socony-Vacuum oil co. A. L. Foster. il Oil & Gas J 46:113+ F 26 '48
- Methyl ethyl ketone to obtain dewaxed oil. flow diag Oil & Gas J 46:151 Ap 1 '48
- Outlook for lube oils. E. R. Smoley. bibliog il Pet Processing 3:735-8 Ag '48
- Phenol treating for lubricating oils. flow diag Oil & Gas J 46:152 Ap 1 '48
- Polymerization to lubricating oils of *n*-heptene-1 and *n*-pentadecene-1. G. H. Dazeley and C. C. Hall. bibliog Soc Chem Ind J 67:22-3 Ja '48
- Processing of lubricating oils. V. A. Kalichevsky. il Pet Refiner 27:75-82 F '48
- Production of olefin-polymer lubricating oils of satisfactory oxidation stability. G. H. Dazeley and others. bibliog Inst Pet J 34:647-53 S '48
- Propane deasphalting. flow diag Oil & Gas J 46:154 Ap 1 '48
- U.S. lube oil capacity. A. L. Foster. il Oil & Gas J 46:78-81 F 5 '48
- World's largest solvent lube units installed in Cit-Cor refinery. il Pet Processing 3:939-40 O '48

Rating

- Motor oils. Consumers Res Bul 22:17-18 O '48
- Report on SAE 10, SAE 20, and SAE 30 motor oils. Consumers Res Bul 20:13-14 N '47

Testing

- Comprehensive laboratory testing of instrument lubricants. G. E. Barker and others. bibliog il diags Am Soc T M Proc 46:1540-59 '46
- Engine lubricating oils; equipment and methods employed at Thornton research centre. il Automobile Eng 38:97-105 Mr '48
- Evaluation of light aircraft engine lubricants. W. J. Backoff and others. il S A E J 56:31+ F '48
- Journal bearing lubrication and design. A. S. T. Thomson. bibliog il diags Inst Mech Eng J & Proc 158:Proc 250-4 S '48
- Laboratory and road tests to discover cause of extreme rates of oil contamination; abstract. C. W. Georgi. diag Nat Pet N 40:26-7 Mr 17 '48
- Laboratory evaluation of oil deterioration. R. G. Larsen. bibliog il Anal Chem 20:547-55 Je '48
- Lubricating oil testing in engines. R. Stansfield and J. C. Cree. Inst Pet J 34:271-87 Ap '48
- Lubrication in journal bearings; investigation by National bureau of standards. Blast F & Steel Pl 36:1107-9 S '48; Same. Product Eng 19:148-9 S '48
- Lubrication of metals by compounds containing chlorine. J. N. Gregory. Inst Pet J 34:670-6 S '48
- Lubrication of metals by compounds containing sulphur. E. B. Greenhill. bibliog 2pls Inst Pet J 34:659-69 S '48

- Measurements of combined frictional and thermal behavior in journal-bearing lubrication. S. A. McKee and others. il A S M E Trans 70:409-18 My '48
- Monsanto opens new laboratory for testing fuels, lubricants. il Pet Processing 3:752-3 Ag '48
- Practical engine room tests of lubricating oil contaminants. F. L. Gerin. il diags Diesel Power 26:60-2+ J 1 '48
- Predicting life of oils by i.f.t. tests; abstract. P. S. Barnum. diags Elec World 130:114 Ag 14 '48

LUBRICATION and lubricants

- Antifriction bearings; lubricants and lubricating systems. L. E. Browne. il diags Steel 122:50-3+ Ja 26 '48
- Antifriction bearings; plant operation library no. 110. H. O. Smith. il diags Factory Management 106:111-14 Mr '48
- Army convoy's 20,000-mile run tests lubes in all weathers. G. H. Vogel. il Pet Processing 3:761-2 Ag '48
- Colloidal graphite in assembly lubrication. E. A. Smith. il diags Engineering 165:505-7 My 28 '48
- Departmental lubrication aided by general-purpose oil. F. M. Edwards. il Textile World 98:145+ J 1 '48
- Desperate Japs tried to make avgas even from pine tree roots, needles. D. P. Thornton, jr. il Pet Processing 2:315-20 N '47
- Efficient machinery lubrication. T. Trall. il diags Mill & Factory 43:99-103 O '48
- Gear lubrication in modern industrial applications. A. F. Brewer. il Steel 123:88-92+ J 12 '48
- Heat-resisting lubricants; molybdenum sulphide and boron nitride. G. L. Sumner. Mech Eng 70:30-1 Ja '48
- How colloidal graphite aids metal forming; reference book sheet. G. C. Giles. Am Mach 92:143 Je 17 '48
- How to avoid costly shutdowns through correct lubrication. A. C. Skooglund. il Power 32:105-7 F '48
- How to maintain and recondition lubricants in metalworking plants. E. L. H. Bastian. il Steel 122:90-2+ My 24 '48
- Importance of chemical attack in the lubrication of metals. F. P. Bowden. pl Inst Pet J 34:654-8 S '48
- Industrial uses of some polyether synthetic lubricants. W. H. Millett. bibliog il Iron & Steel Eng 25:51-8; Discussion. 58-60 Ag '48
- Journal bearings with diminishing oil supply. H. A. S. Howarth. diags Product Eng 19:104-9 N '48
- Lower costs and increased production through correct lubrication. il Rayon 29:87-9 Ja '48
- Lubricants for cold rolling steel. R. J. Nekeris and R. M. Evans. bibliog il diags Iron & Steel Eng 25:72-80; Discussion. 80-1 O '48
- Lubricating committee of the American petroleum institute's Marketing division spring meeting, Tulsa, April 28. Oil & Gas J 47:54-5 My 6 '48
- Lubrication factors in bearing design. diags Mach 54:146-53 Ja '48
- Lubrication phenomena; use of transparent models for purposes of demonstration and study. J. Boyd. il diags Mech Eng 70:589-92 J 1 '48; Excerpts. Machine Design 20:104-5 Ag '48
- Lubrication; safety aspects. Nat Safety N 57:132+ Mr '48
- Methods of lubricating high-speed ball bearings. A. F. Brewer. il diags Mach 55:172-8 O '48
- Oils for the steel industry. W. L. Nelson. bibliog Oil & Gas J 47:136 O 21 '48
- Plain sleeve bearings, materials and design; hydrodynamic bearings. il diags Product Eng 19:152-9 O '48
- Polymethylsiloxanes; thermal and oxidation stabilities. D. C. Atkins, C. M. Murphy and C. E. Saunders. bibliog Ind & Eng Chem 39:1395-401 N '47
- Polyorganosiloxanes; surface active properties; polymethylsiloxanes and the related polymers. H. W. Fox, P. W. Taylor and W. A. Zisman. bibliog il Ind & Eng Chem 39:1401-9 N '47

LUBRICATION and lubricants—Continued

Reduction of wear in rubber stern bearings by the flow controlled continuous film method. R. D. Smealie. *Il Rubber Age* 62:543-4 F '48; Same. *Mech Eng* 70:607-8 J1 '48

Selenium dioxide as a lubricant additive. R. E. Heiks and F. C. Croxton. *bibliog il Ind & Eng Chem* 39:1466-74 N '47

Silicone lubricants; abstract. J. E. Brophy and others. *Machine Design* 20:200+ F '48

Studies in boundary lubrication; the wear of carbon brushes in dry atmospheres. W. E. Campbell and R. Kozak. *bibliog il A S M E Trans* 70:491-7; Discussion. 497-8 J1 '48

Study of lubricating wax coatings by electron diffraction. C. R. Berry. *Phys R* 73: 1117 My 1 '48

Supply and demand; U.S. lubricants. A. J. McIntosh. *Pet Refiner* 27:143+ Je '48

Technical progress in metalworking; lubrication. *Steel* 122:243-4+ Ja 5 '48

Why and how gears fall. A. F. Brewer. *il Mill & Factory* 43:113-17 S '48

See also

Friction	Lubricating oils
Graphite	Oil reclamation
Lubricating greases	
also subdivision	Lubrication under special subjects, e.g.
Automobile engines	Steam turbines, Marine
Cars	Textile machinery
Locomotives	

Specifications

Specifications vs. performance for gasoline, fuel oils, and lubricants. R. J. S. Pigott. *il Oil & Gas J* 46:56-9+ Ja 1 '48

Testing

Bearing and lubricants center analyzes electrical machinery problems; Thomson laboratory, General electric co. D. F. Wilcock. *il diags Steel* 123:94-6 S 20 '48

Buy on performance and depend on brands. R. J. S. Pigott. *il Am Pet Inst Proc* 27(2):11-18 '47

Expanded lubrication research laboratory for A.A.R. Mechanical division. *il Ry Age* 124:1256-7 Je 26 '48

Extreme pressure (e.p.) lubricating properties of some bromine and iodine compounds, alone and in presence of sulphur, with observations on the mechanism of the development of e.p. properties. W. Davey. *Inst Pet J* 33:673-7 N '47

Frictional and thermal bearing behavior in journal bearing lubrication. *il Marine Eng* 53:88+ O '48; Same abr. *Refrig Eng* 56: 335-6 O '48

Heavy duty roller bearing lubrication. A. E. Hickle. *il diags Pet Refiner* 27:103-5 Mr '48

Small, simple machine, tests gears and lubricants. *il Automotive Ind* 98:46+ My 1 '48

Studies in boundary lubrication. W. E. Campbell and E. A. Thurber. *bibliog A S M E Trans* 70:401-6; Discussion. 406-8 My '48

See also

Lubricating oils—
Testing

LUBRICATION and lubricants (cutting and grinding)

Cutting fluid developments; sulpho-chlorinated oils. J. M. Stewart. *Automobile Eng* 38:183-4 My '48

Cutting fluids; tabulation. *Power Generation* 52:82 Ap '48

Fine-grit lubricated abrasive belt finishing. A. D. Stout, Jr. *il Iron Age* 160:68-71 D 18 '47

Fundamentals of cutting-fluid action. M. E. Merchant. *Mach* 54:177-8 Je '48

Houghton Antiseep all purpose base suits cutting, forming, automatics. *il Am Mach* 92: 139 Mr 25 '48

Lubrication extends band-saw life; oil-mist lubrication. H. J. Chamberland. *il diag Tool Eng* 21:36-7 O '48

Precipitating oil coolant mist electrostatically. *il diags Steel* 122:86-7+ F 23 '48

Treatment and disposal of waste soluble oils. E. F. Eldridge and R. W. Purdy. *diags Sewage Works J* 20:849-56 S '48

LUBRICATION and lubricants (metal drawing)

Lubrication in drawing operations. E. A. Evans and others. *Engineering* 164:454-5, 477-9 N 7-14 '47

Rust inhibitor speeds wire drawing; Banox. *Iron Age* 162:124 N 4 '48

Selecting drawing lubricants. W. J. Haring. *Steel* 122:86+ Ap 19 '48

LUBRICATION research

Frictional and thermal bearing behavior in journal bearing lubrication. *il Marine Eng* 53:88+ O '48; Same abr. *Refrig Eng* 56: 335-6 O '48; Same abr. *Blast F & Steel J* 36:1107-9 S '48; Same abr. *Franklin Inst J* 246:343-4 O '48; Same abr. *Product Eng* 19: 148-9 N '48; Same abr. *Pulp & Pa of Can* 48:118-19 N '48

LUBRICATORS

High pressure lubricating pump. *il diag Engineer* 186:347 O 1 '48

How to maintain and recondition lubricants in metalworking plants. E. L. H. Bastian. *il Steel* 122:90-2+ My 24 '48

Lubrication equipment maintenance. R. A. Kraus. *il Iron & Steel Eng* 25:100-6; Discussion. 106-8 S '48

Operation of a Victory ship's lubricating-oil system. *diags Marine Eng* 53:60-3 Je; 66-9 J1 '48

Tests to determine delivery characteristics of grease dispensing equipment are started. *Nat Pet N* 40:18 Ag 11 '48

Typical methods of providing lubrication for gear systems; drawing. *Product Eng* 19: 106-7 J1 '48

LUCE, Henry Robinson, 1898-

Sketch. *por(cover) Bsns W* p6 Mr 6 '48

Time, inc.; in 25 years, a publishing empire. *por(cover) Bsns W* p92+ Mr 6 '48

LUCERNE (plant). See Alfalfa**LUCITE**

Wash basins formed of acrylic. *il Mod Plastics* 25:112-14 Je '48

Manufacture

How Washington works; Du Pont produces nylon monofilaments, acrylic molding powder and nylon molding powder. R. Williams, Jr. *il diags Chem Eng* 55:118-21 S '48

New plant features straight-line production process; Du Pont Washington works produces acrylic, polyethylene, nylon, and monofilaments of nylon. *il Mod Plastics* 26: 120-1 O '48

LUCKMAN, Charles, 1909-

Portrait. *Sales Management* 61:37, cover O 1 '48

LUDLOW, Louis Leon, 1873-

Rep. L. Ludlow recalls; he was in the press gallery. J. J. Butler. *Ed & Pub* 81:26 J1 10 '48

LUDLUM, Clarence Allen, 1865-1948

Sketch. *por East Underw* 49:20 Mr 5 '48

LUDOX

New colloidal silica; Ludox, a silical sol. *il Chem & Eng N* 25:3168 O 27 '47; *Chem Ind* 61:830 N '47; *Chem Eng* 55:173-4 Ja '48

LUGGAGE

Exhaust system in luggage plant; Amelia Earhart luggage co. *il diags Sheet Metal Worker* 35:64-6+ D '47

LUGGAGE, Plastic

Luggage of resin impregnated sisal. *il Mod Plastics* 25:90 N '47

LUGT, Gerard Johan, 1885-1948

Sketch. *por Engineer* 186:87-8 J1 23 '48

LUKENS steel company

Annual report. *Comm & Fin Chr* 167:1046 Mr 8 '48

Lukens observes 138th anniversary. *Iron & Steel Eng* 25:168 Ag '48

LUMARITH

Model analysis aids designer; use of Lumarith model of turbine-electric unit for a locomotive. M. E. Harvey. *il Machine Design* 20:120-1 Ja '48

Plastics cores for better simulated pearls. *il Plastics* 8:17+ Mr '48

LUMBER

Find shells in lumber. *il Electronics* 21:150+ Ja '48

Forest products situation; lumber and cross-tie supplies; A.A.R. committee report. *diag Ry Age* 125:91-2 J1 10 '48

Integrated forest utilization in the Pacific Northwest. O. H. Schrader, Jr. *bibliog flow chart il Mech Eng* 69:999-1004 D '47

Mine detector finds metal in timber. M. M. Lehrbas. *il Nat Safety N* 57:33+ My '48

LUMBER—Continued

New patent lumber cuts house cost; Berger-Patent lumber, *il* diags Am Bld 69:94 D '47
White-speck lumber, Mech Eng 70:903 N '48

Bibliography

Lumber literature, 56p National lumber manufacturers assn, 1319 18th st, NW, Washington 6 '47

Transportation

Bituminous surface on main log hauling roads, W. Holder, Pulp & Pa of Can 49:146+; Discussion, N. W. McLeod, 153+ S '48
Revised lumber loading rules require steel binding, diag Ry Age 124:127 Ja 10 '48
Upside-down loading benefits dealer and builder; materials needed first will be on top, *il* Am Bld 70:136-7 F '48

LUMBER, Used

Don't throw away old lumber, L. W. Wood, *il* Mill & Factory 43:113-19 O '48

LUMBER camps

Logging camps, C. R. Silversides, Pulp & Pa of Can 49:124+ My '48
Mando modernization key to future, *il* Pulp & Pa of Can 48:96+ D '47
Minnesota and Ontario extends its program into the woods, Paper Tr J 125:64+ D 4 '47
Use of wood for heating logging camps, J. H. Jenkins, Pulp & Pa of Can 49:114+ Ag '48

See also

Lumber workers
Lumbering

LUMBER handling

Machines replace men in modern lumber yard, *il* plan Am Bld 70:138-9 O '48
Mechanical logging at Marathon, *il* Pulp & Pa of Can 49:99-100+ Ap '48
Portable chutes in pulpwood logging, C. R. Silversides, bibliog *il* diags Pulp & Pa of Can 49:108-14+ JI '48

LUMBER trade

I&CR Iowa lumber dealer survey shows manufacturer-dealer cooperation pays off, Brick & Clay Rec 113:60 Ag '48
Financial fun after fifty; Otto Boehm now has 12 small firms in his Industrial mills, *inc.* *il* Mod Ind 15:67-8+ Ap '48
Giving builders service; builds big business for small yard in first eighteen months; Myrtle Avenue lumber co., Monrovia, Calif., *il* plan diags Am Bld 70:116-19 Mr '48
Lumber dealers key to home appliances sales; 94 per cent builders buy from yards, C. Pritchard, *il* Cer Ind 49:72-3 N '47
Lumber leveling off, Bsns W p30+ S 11 '48
Lumber price firm, Bsns W p23 D 13 '47
Supply lines are filling up, R. E. Saberson, *il* Am Bld 70:120-1 Mr '48

Will lumber dealers become a factor in appliance sales? *il* Sales Management 59:96+ D 15 '47

See also

Lumber, Used

Statistics

Lumber and manufactures, 1941-1946, Survey of Cur Bsns 1947 Sup p 141-4 [supplemented in monthly numbers]

Brazil

Lumber from south Brazil seen helping to supply Europe under ERP, For Comm W 31:19 Je 12 '48

British Columbia

B. C. production values mirror increased volumes and unit prices, E. Druce, Paper Tr J 126:22 Je 3 '48

Canada

Canadian exports, 1946-1947, For Comm W 31:25 My 8 '48

Costa Rica

Log exports from Costa Rica, 1947; table, For Comm W 32:25 S 11 '48

Cuba

Cuban lumber market in 1947, For Comm W 31:26 Je 12 '48

Trends in Cuba's lumber market, For Comm W 33:30 O 9 '48

Ecuador

Exports of hardwoods and balsa, 1946 and 1947, For Comm W 33:29 O 9 '48

Germany

Timber cutting in U.S. zone, 1945-46 and 1946-47, and planned cut for 1947-48, For Comm W 30:27 Ja 31 '48

Great Britain

Timber for houses, Economist 154:848-50 My 22 '48
Timber supplies, Economist 154:392+ Mr 6 '48
United Kingdom imports of selected timber items, 1938, 1946-47, For Comm W 31:21 Ap 3 '48

Scandinavia

Scanning Scandinavian lands, R. G. MacFarlane, Pulp & Pa of Can 48:91-2 N '47

Southern states

South's lumber sales to top \$3 billion in '48, C. R. Walker, *il* Manuf Rec 117:39-40 O '48

Sweden

Sweden's business-cycle equalization fund agreement, For Comm W 29:20 D 13 '47
Timber and lumber situation, 1947, For Comm W 31:33-4 My 29 '48

Uruguay

Wood imports during second quarter of 1947, For Comm W 29:25 N 15 '47

LUMBER workers

Hazardous occupations order extended to pulpwood logging, Mo Labor R 66:410 Ap '48
Labour statistics, W. A. E. Pepler, Pulp & Pa of Can 49:120+ My '48
Value of sawing contests in labour relations, M. R. Wilson, *il* Pulp & Pa of Can 49:102+ My '48

LUMBER yards

Giving builders service; builds big business for small yard in first eighteen months; Myrtle Avenue lumber co., Monrovia, Calif., *il* plan diags Am Bld 70:116-19 Mr '48
New yard marks half century of service; Patent-Blinn yards in Santa Monica, Calif., *il* plan Am Bld 70:114-15 Ag '48
Service for builders and consumer customers; B. A. Chaplow's one stop lumber shop for all building materials, Detroit, *il* plan Am Bld 70:112-13 Je '48

LUMBERING

Blondin débiteur pour exploitations forestières, système Schönholzer, diag Génie Civil 124:478-9 D 15 '47
Breakup can be foretold; method of forecasting opening dates of streams, rivers and lakes in relation to effective driving, M. J. Stankiewicz, Pulp & Pa of Can 48:113+ D '47
Diesels play prominent part in logging show, A. M. Johnson, *il* Diesel Power 26:62-3 F '48
Effect of uncontrolled logging on stream turbidity, J. A. Lieberman and M. D. Hoover, Water & Sewage Works 95:255-8 JI '48
Mando modernization key to future, *il* Pulp & Pa of Can 48:96+ D '47
Mechanical logging at Marathon, *il* Pulp & Pa of Can 49:99-100+ Ap '48
Mechanized logging at Forestville, J. Girouard, *il* Pulp & Pa of Can 49:111-14 Je '48
Planning for better logging, A. Koroleff, Pulp & Pa of Can 49:94+ Ja '48
Portable chutes in pulpwood logging, C. R. Silversides, bibliog *il* diags Pulp & Pa of Can 49:108-14+ JI '48
Scanning Scandinavian lands, R. G. MacFarlane, Pulp & Pa of Can 48:91-2 N '47
Woodlands mechanization, B. J. McColl, Pulp & Pa of Can 49:125-6 S '48

See also

Lumber camps
Motor trucks in lumbering

Accidents

Ample room for improvement in accident prevention; annual meeting of the Quebec pulp & paper safety association inc, Grand Mere, Que, Sept. 22, Pulp & Pa of Can 49:165-7 O '48

LUMBERING—Accidents—Continued

Importance of first aid for accidents. Pulp & Pa of Can 49:77 F '48

Costs

Limits of closer utilization of black spruce pulpwood. Z. A. Zasada and F. T. Fredrickson. Pulp & Pa of Can 49:128+ O '48

Equipment

Cooperstown logging equipment demonstration. E. P. McGinn. Il Paper Tr J 127:57-60 O '48

Mechanized logging at Forestville. J. Girouard. Il Pulp & Pa of Can 49:111-14 Je '48

Methods of instruction on the use and maintenance of mechanized logging equipment. A. D. Willisroft. Pulp & Pa of Can 49:138+ S '48

Safety starts with maintenance. E. Freeman. Il Safety Eng 95:13+ F '48

Safety measures

Fire prevention on pulpwood logging in southern states. A. W. Nelson, Jr. Il Paper Ind 30:734-7+ Ag '48

First-aid attendants. B. H. R. Brehaut. Pulp & Pa of Can 48:93-5 D '47

Safety starts with maintenance. E. Freeman. Il Safety Eng 95:13+ F '48

Study and teaching

Job instruction training in woodcutting operations. M. Gérin. Pulp & Pa of Can 49:116+ My '48

LUMINESCENCE

Alkali halide scintillation counters. R. Hofstadter. bibliog Il Phys R 74:100-1 Jl 1 '48

Blue luminescence of zinc sulfide. F. A. Kroeger and J. E. Hellingman. bibliog Electrochem Soc J 93:156-71 My '48

CaSiO₃ (Pb+Mn) phosphor. J. B. Merrill and J. H. Schulman. bibliog Il Opt Soc Am J 38:471-9 My '48

Cathodoluminescence emission spectra of zinc-oxide phosphors. R. E. Shrader and H. W. Leverenz. Opt Soc Am J 37:939-40 N '47

Correlation of the spectroscopic and thermal energy differences between the fluorescence and phosphorescence levels of dye molecules. M. Kasha and R. E. Powell. bibliog Am Chem Soc J 69:2909-10 N '47

Effect of activator concentration on the infrared-sensitive phosphor, strontium sulfide-samarium, europium. K. F. Stripp and R. Ward. diags Am Chem Soc J 70:401-6 Ja '48

Emission spectra of silicate phosphors with manganese activation. K. H. Butler. bibliog Electrochem Soc J 93:143-56 My '48

Emission spectra of some zinc sulfide and zinc-cadmium sulfide phosphors. W. H. Byler. Opt Soc Am J 37:920-2 N '47

Emission spectra of zinc cadmium sulfides. F. J. Studer and D. A. Larson. Opt Soc Am J 38:480-1 My '48

Excitation of infra-red phosphors by alpha- and beta-particles. R. H. Thompson and R. T. Ellickson. Phys R 73:185-6 Ja 15 '48

Excitation time of silver-activated zinc sulfide on electron bombardment. J. F. Mulaney and others. Phys R 74:491-2 Ag 15 '48

Influence of atmosphere firing on the cathodoluminescence of zinc sulfide; silver type phosphors. A. L. Smith. bibliog diag Electrochem Soc J 93:324-33 Je '48

Infrared-sensitive phosphors of the alkaline earth sulfides and selenides. R. Ward. bibliog Electrochem Soc J 93:171-6 My '48

Infra-red stimulability of CaSiO₃:Pb and CaSiO₃:(Pb+Mn). J. H. Schulman and others. Opt Soc Am J 38:817-18 S '48

Luminescent materials; their properties and uses; abstract and discussion. C. G. A. Hill. Chem & Ind p236-7 Ap 10 '48

Luminescent pigments; high purity zinc sulphide as base. Chem Age (Lond) 57:595 N 1 '47

Manganese activated calcium silicate phosphors. H. C. Froelich. bibliog Electrochem Soc J 93:101-13 Ap '48

Method for automatically plotting spectral energy distribution of luminescent materials. F. J. Studer. Il Opt Soc Am J 38:467-70 My '48

New method of preparing strongly luminescent thallium activated alkali halides and some properties of these phosphors. E. H. Hutten and P. Pringsheim. bibliog Il J Chem Phys 16:241-6 Mr '48

Phosphorescence and the rôle of the triplet state in the electronic excitation of complex molecules. M. Kasha. bibliog Chem R 41:401-19 O '47

Plastics that glow in the dark. Il Mod Plastics 26:88-91 O '48

Properties of gelatin-dye phosphors and the continuum theory of Szent-Gyorgyi. M. Kasha. Science 107:566-7 My 28 '48

Relation between efficiency and exciting intensity for zinc-sulphide phosphors. H. A. Klasens and others. bibliog diag Opt Soc Am J 38:60-5 Ja '48

Soviets pushing studies on luminescence. Chem Eng 55:226+ S '48

Spectral power distribution of cathode-ray phosphors. R. M. Bowie and A. E. Martin. bibliog Il Inst Radio Eng Proc 36:1023-9 Ag '48

Spectroradiometer, used to measure optical properties of luminescent materials; abstract. Mech Eng 70:341-2 Ap '48

Structure of calcium silicate phosphors. G. R. Fonda and H. C. Froelich. bibliog Electrochem Soc J 93:114-22 Ap '48

Temperature dependence of the emission bands of zinc oxide phosphors. F. H. Nicoll. Opt Soc Am J 38:817 S '48

Testing long-persistence screens; cathode-ray tube screens for radar. J. C. Tellier and J. F. Fisher. Il diags Electronics 21:126-30 F '48

Ultraviolet absorption of zinc oxide phosphors. F. H. Nicoll. Opt Soc Am J 38:417 Ap '48

X-ray diffraction studies of systems involved in the preparation of alkaline earth sulfide and selenide phosphors. W. Primak, H. Kaufman and R. Ward. bibliog Am Chem Soc J 70:2043-6 Je '48

See also

Paint, Luminous

LUMINESCENCE, Biological

Luminescence of living things. E. N. Harvey. Il Sci Am 178:46-9 My '48

Reaction rates in biological processes; abstract. F. H. Johnson. Science 107:462-3 My 7 '48

See also

Fireflies

LUMINOUS paint. See Paint, Luminous

LUNAR society of Birmingham

Lunar Society members. M. Schofield. Chem & Ind p389-90 Je 19 '48

LUNCHES, Employees'

On-the-job feeding brings hot meals to knitters. C. M. Bowden. Il Textile World 98:114-15 Ag '48

200,000 meals a day. Fortune 38:124+ S '48

LUNCHROOMS and cafeterias

Diner goes all-out for comfort; Deluxe diner of Union, N.J. H. M. Patrick. Il Heat & Ven 44:97 D '47

Snack between landing and take-off; Flight bar, La Guardia airport, New York. Il plan diag Arch Rec 104:140-2 Jl '48

LUNCHROOMS and cafeterias, Employees'

In-plant feeding holds gains. Il Bsns W p 110-11 Je 19 '48

Labor, management, and food. J. M. Vicary. Harvard Bsns R 26:305-12 My '48

Lunchrooms and cafeterias. Il Nat Safety N 57:189 Mr '48

Heating and ventilation

Ventilating an employees' cafeteria. S. Lewis. Heating-Piping 20:98-9 Fr '48

LUNDELL, Gustav Ernst Fredrick, 1881-

Lundell steps down as head of chemistry division at Bureau of standards, por(cover) Chem & Eng N 26:2258 Ag 2 '48

LUNGS

Retention of air-borne particulates in the human lung. H. D. Landahl and R. G. Herrmann. bibliog diag J Ind Hygiene 30:181-8 My '48

LUNGS—Continued

Diseases

Depression of tuberculin and histoplasmin sensitivity associated with critical illness. M. L. Furcolow and others. *bibliog* Pub Health Rep 63:1290-8 Q 1 '48

Environmental studies in plants and laboratories using beryllium; the acute disease. M. Eisenbud and others. *bibliog* J Ind Hygiene 30:281-5 S '48

Geographic distribution of histoplasmin and tuberculin reactors among Ohio state university freshmen and student nurses training in Columbus, Ohio hospitals. J. A. Prior and M. F. Allen. *bibliog* maps Pub Health Rep 62:1608-17 N 7 '47

Lung cancer of miners. W. Schweisheimer. *Can Min J* 69:86-7 JI '48

Retention of aerosol particles in the human respiratory tract as a function of particle radius. I. B. Wilson and V. K. LaMer. *bibliog* (32 titles) *diag J Ind Hygiene* 30:265-80 S '48

Roentgenographic appearance of persistent pulmonary infiltrates associated with sensitivity to histoplasmin. M. L. Furcolow and others. *bibliog* Pub Health Rep 62:1711-18, pl 1-16 D 5 '47

Saranac symposium, 6th, Saranac Lake, N.Y. Sept. 29-Oct 3, 1947; beryllium problem. *Ind Med* 17:72-3 F '48

Studies of fungus antigens; preliminary report on the isolation of an immunologically active polysaccharide from histoplasmin. F. W. Cross and A. Howell, jr. *bibliog* Pub Health Rep 63:179-83 F 6 '48

Variations in histoplasmin sensitivity in certain cities in eastern Kansas. I. L. Bunnett and M. L. Furcolow. *bibliog* Pub Health Rep 63:1298-305 O 1 '48

See also

Pneumonia

Dust diseases

Aerobacter cloacae endotoxin as a possible factor in the etiology of bagassosis. R. Schneider and others. *bibliog* il J Ind Hygiene 30:238-45 JI '48

Benign pneumoconiosis due to tin oxide. E. P. Pendergrass and A. W. Pryde. *bibliog* il J Ind Hygiene 30:119-23 Mr '48

Fume exposure in the manufacture of alumina abrasives from bauxite. C. M. Jephcott and others. *il diag J Ind Hygiene* 30:145-59 My '48

Investigation of pneumoconiosis due to diatomaceous earth (kieselguhr); abstract. M. Duvour and others. *J Ind Hygiene* 29:sup 113-14 N '47

Pneumoconiosis in coal workers in Wales; abstract. J. Gough. *Nat Safety* N 57:46-4 Ja '48

Pulmonary dust disease. A. R. Riddell. *bibliog* Ind Med 17:168-70 My '48

Review of the literature relating to affections of the respiratory tract in individuals exposed to cotton dust. B. H. Caminita and others. (*Pub. health bul.* 297) 86p *bibliog* (267 titles, p73-86) U.S. Public health service, Washington; pa 25c Supt. of doc. '47

See also

Asbestos workers

Silicosis

LUPINES

Papilionaceous alkaloids; identity of rhombinine and monolupine with anagyrene. L. Marion and J. Ouellet. *bibliog* Am Chem Soc J 70:3076-8 S '48

Pectic substances; constitution of the galactan from lupinus albus. E. L. Hirst, J. K. N. Jones and Mrs W. O. Walder. *Chem Soc J* p 1225-9 S '47

LUREX. See Textile fibers. Metallic

LURGI process. See Gas manufacture—Lurgi process

LUSTER

See also

Paper—Gloss measurement

LUSTRON corporation

First in new ceramic era; Lustron's \$13 million plant. *il plan diag Cer Ind* 51:56-8+ Ag; 68-70 S '48

Winner; first industrialized house looks like a sure bet as Lustron clinches loan. *Arch Forum* 89:14 Ag '48

LUTHER, Martin, 1483-1546

When M. Luther's printers worked overtime. A. Warren. *Inland Ptr* 120:73 F '48

LUTIDINE

Addition compounds of sulfur dioxide with three isomeric lutidines. H. A. Hoffman and C. A. VanderWerf. *bibliog* Am Chem Soc J 70:262-4 Ja '48

Composition of vapors from boiling binary solutions; systems of phenol with beta- and gamma-piccolines and 2,6-lutidine. D. F. Othmer and S. A. Savitt. *bibliog* Ind & Eng Chem 40:168-74 Ja '48; Correction. 40:435 Mr '48

Compound formation between 2,6-lutidine and polyhalogenated methanes. C. A. VanderWerf, A. W. Davidson and C. I. Michaelis. *Am Chem Soc J* 70:908-10 Mr '48

LUXEMBURG

Commercial policy

See also
Benelux union

Economic conditions

Situation in first half of 1948. *For Comm W* 32:22 S 18 '48

LUXURIES

Austerity; the international crusade against luxuries. W. Ropke. *Comm & Fin Chr* 168:497-4 Ag 5 '48

LUXURY tax

Luxury sales sag. *Bsns W* p26-4 Ap 3 '48

LYE peeling. See Peeling

LYON, France

Tunnels

Big tunnel aids French expressway plan in Lyon. *il map diag Eng N* 139:886-8 D 25 '47

LYON metals products, inc.

Preferred stock offered. *Comm & Fin Chr* 166:1994-5 N 17 '47

LYONS, J. and company

Statement by the chairman at annual general meeting. H. Salmon. *Economist* 155:37 JI 3 '48

LYOPHILE apparatus

Use of the Campbell-Pressman lyophilizing apparatus for urinary extractives. H. S. Strickler and C. B. Shaffer. *diag Science* 107:71 Ja 16 '48

LYSINE

Poly-condensation of α -amino acid derivatives; poly-lysine. E. Katchalski, I. Grossfeld and M. Frankel. *bibliog* Am Chem Soc J 70:2094-2101 Je '48

Poly-lysine. E. Katchalski, I. Grossfeld and M. Frankel. *Am Chem Soc J* 69:2564-5 O '47

Use of ion exchange resins for separation of basic amino acids. B. A. Hems and others. *bibliog* Soc Chem Ind J 67:77-80 F '48

LYSOZYME

Molecular weight of lysozyme determined by the X-ray diffraction method. K. J. Palmer, M. Ballantyne and J. A. Galvin. *Am Chem Soc J* 70:906-8 Mr '48

M

M and M wood working company

Capital stock offered. *Comm & Fin Chr* 167:1923-4 My 3 '48

MCALPINE, William H. 1874-

Sketch. *por Civil Eng* 18:37-8 Ja '48

MACARONI

Problems in packaging macaroni. J. V. Ziemba. *flow diag il diag Food Ind* 20:849-52+ Je '48

Manufacture

Continuous presses step up production of macaroni. J. J. Winston and B. R. Jacobs. *il diag Food Ind* 20:344-8+ Mr '48

MACARTHUR, Douglas, 1880-

Portrait. *Bsns W* p22 D 20 '47

MCBEE company

Preferred stock offered. *Comm & Fin Chr* 168:647-8 Ag 16 '48

- MCCABE, Thomas Bayard, 1893-**
Eccles replaced as Federal Reserve chairman by T. B. McCabe, por Comm & Fin Chr 167:508 Ja 29 '48
Portrait, Bsns W p24 O 2 '48
Reserve Board chairman, por(cover) Bsns W p6 Ja 31 '48
- MCCALL corporation**
Note placed privately, Comm & Fin Chr 168:347 J1 26 '48
- MCCANCE, Sir Andrew, 1889-**
Portrait, Iron & Steel Inst J 159:front My '48
- MCCARROLL, Russell Hudson, 1890-1948**
R. H. McCarroll, Ford director of chemical engineering and metallurgical research dies after 33 years service, W. G. Patton, por Iron Age 161:100+ Ap 15 '48
- MCCINTOCK, J. O.**
Portrait, Bsns W p92 Ap 3 '48
- MCCLOY, John Jay, 1895-**
Sketch, por(cover) Bsns W p6 F 14 '48
- MCCLUNG, Mary J.**
New York Post's general manager is only woman in such a job on a large daily, por Ptr Ink 223:90 Je 25 '48
- MCCOLL, Robert Boyd, 1882-**
Sketch, por(cover) Bsns W p6 S 11 '48
- MCCOLLUM, Elmer Verner, 1879-**
Sketch, pors Chem & Eng N 26:1833+, cover Je 21 '48
- MCCOMB, William Randolph, 1894-**
Portal-pay study by wage-hour administrator, por Bsns W p70-1 N 29 '47
- MCCONNAUGHEY, Robert Kendall, 1904-**
Portrait, Bsns W p68 Ja 24 '48
- MCCONNELL, Fowler Barry, 1894-**
Portrait, Fortune 38:86 Ag '48
- MCCORD, Carey Pratt, 1886-**
Who's who in industrial medicine, por Ind Med 17:351-6 S '48
- MCCORD corporation**
McCord could lift share net by liquidating subsidiary, Barron's 28:34 F 9 '48
- MCCORMICK, Charles Perry, 1896-**
Portrait, Sales Management 59:40 D 1 '47
- MCCREADY, Benjamin William, 1813-1892**
B. W. McCready and his essay, On the influence of trades, professions, and occupations in the United States in the production of disease, C. P. McCord, Ind Med 16:535-8 N '47
- MACCURDY, George Grant, 1863-1947**
Sketch, H. Hencken, Science 107:639-40 Je 18 '48
- MACCUTCHEON, Alexander Morton, 1881-**
Lamme medalist for 1947; presentation by T. G. LeClair and F. E. Harrell; address by A. M. MacCutcheon, por Elec Eng 67:749-53 Ag '48
Named Lamme medalist, por(cover) Elec World News ed 129:6 My 29 '48
- MCDANIEL, Joseph M.**
Harriman's men, Bsns W p 106 S 4 '48
- MCDONALD, Harry A. 1894-**
Portrait, Bsns W p69 Ja 24 '48
- MCDONNELL, James Smith, 1899-**
Jet-plane propellant; McDonnell aircraft corp, por Fortune 38:108+ J1 '48
- MCDONNELL, Robert Emmett, 1872-**
Success story of a man who has been an active engineer for 50 years, por Eng N 140:680 My 6 '48
- MCDONNELL aircraft corporation**
Output and profits likely to rise, Barron's 27:34 N 10 '47
- MACDOUGAL, Daniel Trembly, 1865-**
Portrait, Science 103:220 S 3 '48
- MACELWANE, James Bernard, 1883-**
William Bowie medal, awarded by American geophysical union, Science 107:470 My 7 '48
- MCEINTIRE, Richard B.**
Portrait, Bsns W p68 Ja 24 '48
- MCEWEN, Gordon C.**
Portrait, Paint Oil & Chem R 111:9 F 5 '48
- MC FARLANE, Stuart Gordon, 1885-**
Director of fund and world bank, Comm & Fin Chr 167:719 F 12 '48
- MCGHEE, George**
Portrait, Fortune 36:85 D '47
- MCGILL university**
McGill engineering graduates in the paper industry, H. O. Keay, Pulp & Pa of Can 49:63-6 Mr '48
- MCGRAW, James Herbert, 1860-1948**
Portrait, Adv & Sell 41:12b Mr '48
Sketch, por(cover) Elec World 129:60-1 F 23 '48; Bsns W p21 F 23 '48; Ptr Ink 222:100 F 27 '48; Am Mach 92:193 Mr 11 '48; Eng & Min J 149:90 Mr '48; Eng N 140:343 Mr 4 '48; Factory Management 106:118 Mr '48; Power 92:231 Ap '48
Tribute, por(cover) Elec World 129:51 F 23 '48
- MCGRAW electric company**
Sharper sales gain, Barron's 28:35 S 6 '48
MACH number, See Aerodynamics
- MACHINE hour rates, See Factories—Accounting**
- MACHINE parts**
Components makers see 1948 as good year, J. S. Morgan, il Steel 121:30-1+ D 29 '47
Finishes for machine parts, J. Mazia, il Machine Design 20:125-8 O '48 (to be cont)
Flame-hardening machine tool parts, W. D. Whalen, il diags Welding J 27:11-13 Ja '48
Hard facing improves tool life; Glenn L. Martin co, L. Barrett, il Am Mach 92:94-5 Ap 8 '48
How to design pressure moldings, J. L. Erickson, il diags Machine Design 20:118-22+ S '48
- Industrial application of the powder metallurgy process, A. J. Langhammer, Metal Prog 53:387-9 Mr '48; Abstract, Steel 122:86 Ap 5 '48**
- Investment castings; requirements of design for proper casting, G. A. Stolze, il Machine Design 20:139-42 Ag '48**
- Investment castings; their advantages and limitations; tips on designing better parts, W. O. Sweeney and H. L. Mattes, il diags Machine Design 20:91-7 My '48**
- Large cemented carbide sections gain wide industrial use, H. Crump, il Steel 123:103-5 S 27 '48**
- New parts depots do cheaper, faster sales job for International Harvester, il Bsns W p42-4+ Ag 7 '48**
- Nonferrous powdered metal parts, D. C. Bradley, il diags Product Eng 19:107-9 O '48**
- Powder metallurgy; low cost equipment for volume production, R. Talmage, il diags Iron Age 161:86-91 Ap 8 '48**
- Precision castings in high-melting point alloys for general engineering purposes, F. Hudson, il diags Metallurgia 37:243-7 Mr '48**
- Production processes; their influence on design; production grinding, design factors, R. W. Bolz, il diags Machine Design 20:111-17 My '48**
- Role of meehanite metal castings in engineering production, C. R. Austin, il diags A S M E Trans 70:99-109 F '48**
- Steels and their treatment, N. N. Brown, il Machine Design 20:87-92+ O; 110-16+ N '48**
- Textile mill problems solved; plastic machine parts; Plastone A, il Mod Plastics 25:106-8 F '48**
- Trapped stresses; how they can be created to improve the performance of machine parts, H. O. Fuchs, il diags Machine Design 20:114-18+ J1 '48**
- Vulcanized fiber for machine parts, G. A. Albert, il diag Machine Design 19:109-12 N '47**
- When your customers order spare parts, do you give out well-organized, readable spare parts catalogs? R. H. Jacobs, il Ind Marketing 33:36-7+ Je '48**
- Which wrought stainless steel? S. P. Watkins and R. J. Berkol, il Machine Design 20:107-12 Mr; 174-9 Ap '48**
See also
- Bearings**
Bolts and nuts
Gearing
- Testing**
Strain testing improves iron alloy machine parts, H. M. Hardy and T. O. Kuivinen, il diags Product Eng 19:116-20 Ag '48
- MACHINE pins, See Pins, Machinery**
- MACHINE shop management**
Capacity-load charts forestall production bottlenecks; General electric co., Lynn, Mass., L. M. Nielsen, Factory Management 106:101-3 Ja '48

MACHINE shop management—Continued

Die maintenance system reduces production costs; Worcester pressed steel co. J. W. Gulliksen. *il Mach* 55:168-71 O '48

Fundamentals of job shop scheduling. J. Kim. *Tool Eng* 21:31-3 O '48

How to live with bar stock shortage. B. Melnitsky. *il Mill & Factory* 42:148-52 Ja '48

Job planning on the turret lathe. E. L. Murray. *il diags Tool Eng* 20:17-25 F; 33-40 Mr '48

Job-shop production control. H. W. Newhouse. *il diags Am Mach* 91:122-8 D '47

Lot sampling of screw machine parts. G. M. Bowen. *il Iron Age* 161:74-6 Ja 29 '48

Low-cost inventories through close controls; Monarch machine tool co. C. R. Schubert. *il Factory Management* 105:102-4 N '47

Machine-load charts permit scheduling 18 months ahead; Black-Clawson co. M. A. Young. *Factory Management* 106:35-7 Ap '48

Monorail raises production of screw machines. M. M. Roberts. *il Factory Management* 106:75 Ap '48

Principles of job scheduling in a machine shop. L. E. Fuller, Jr. flow chart *Iron & Steel Eng* 25:43-52; Discussion. 52-4 S '48

Process engineer's place in industry; abstract. J. Jones. *Am Mach* 92:160+ Ja 1 '48

Some aspects of engineering inspection. R. B. Fairthorne. *Engineering* 166:163-4 Ag 13 '48

Step-by-step control system provides spot checks on tool design and manufacture; Reliance electric & engineering co. F. S. Dobric. *Steel* 123:78-80+ N 1 '48

Visit from the general manager. G. Burnley. *Am Mach* 91:92-3 D 18 '47

See also

Assembling methods	Routing systems
Foremen	Tool engineering
Machine shop practice	Tool rooms

MACHINE shop practice

Advanced machining and welding methods in a car-building shop; Pullman-Standard car mfg. co. *il Mach* 55:163-5 S '48

Advanced machining methods speed Diesel production and repair. *il diag Diesel Power* 26:38-40+ Ag '48

Buick's Dynaflow drive built to aircraft tolerances. C. H. Wick. *il Mach* 54:135-42 Ap '48

Button holder's solve impossible layout problems. F. Strasser. *diags Am Mach* 92:103 Ja 1 '48

Designing a ball-type detent. H. R. Bowman. *diag Mach* 54:161 Ap '48

Efficient tool engineering cuts motor costs; Reliance electric and engineering co. W. N. Nordquist. *il diag Tool Eng* 20:33-4 My '48

Fuel injection equipment; production methods employed by C.A.V. ltd. *il plan diags Automobile Eng* 38:255-63, 377-84 Jl, O '48

Fundamentals of tool engineering. A. E. Rylander. *diags Tool Eng* 21:59-60 Ag; 39-40 S; 39-40 O; 36-7 N '48 (to be cont)

Gage-zone system harmonizes delivery and acceptance inspection. J. Gaillard. *Am Mach* 92:100-5 F 12 '48

Grouped parts multiple-machined; compound-angle plate, with tilting plate and swivel base. F. H. Scriber. *diags Am Mach* 92:90-1 Ap 8 '48

How Buick builds the Dynaflow. C. Ricker. *il diags Am Mach* 92:91-5 O 21 '48

How of machining large work. E. K. Morgan. *il Tool Eng* 21:31-3 S '48

How to reduce costs of thin metal stampings. W. C. Mills. *il diags Am Mach* 92:99-106 Je 3 '48

How tooling problems were decided for Cadillac's new V-eight cylinder block. H. G. Warner. *diags Automotive Ind* 99:38-9+ N 1 '48

Ingenious equipment modifications increase production; Sillex steam iron; illustrations with text. R. Le Grand. *Am Mach* 92:90-3 Je 3 '48

Job-lot chimney bands produced with economical tooling methods. J. J. Reich. *diags Am Mach* 92:125 S 9 '48

Machining Ford carburetor die-castings. H. Chase. *il Mach* 54:144-3 N '47

Manufacture of turbine blades for the Whittle engine. T. A. Kestell. *diags Inst Mech Eng J & Proc* 158:Proc 66-82, pl 1-6; Discussion. 83-94 Je '48

Mechanic knacks. *diags Air Transport* 6:46 Mr '48

Mechanical muscles release manual labor. *il Bsns W* p70-1 O 23 '48

Memories, memories; long ago in the old South machining methods were ingenious. *diags Am Mach* 92:93 My 20 '48

Navy devises ingenious planer and boring-mill setups; Naval gun factory at Washington. R. LeGrand. *il diags Am Mach* 92:96-100 O 7 '48

One-ounce binocular shell machined to close tolerances; illustrations with text. A. Ashburn. *Am Mach* 92:89-91 Jl 15 '48

Precise processing produces flatirons faster; Yale & Towne electric appliance plant. L. J. Pantas. *il Am Mach* 92:98-100 N 4 '48

Producing the Seeburg non-stop record player. T. E. Lloyd. *il diag Iron Age* 162:86-92 Ag 26 '48

Rapid processing of automobile door hinges. J. A. Broden. *il Iron Age* 161:86-90 Ap 29 '48

Shop shots; illustrations with text (cont). *Am Mach* 92:98-9 F 12; 96-7 Mr 25; 74-5 Ap 22; 116-17 Je 3; 96-7 Je 17; 108-9 Jl 1; 120-1 Jl 15; 78-9 Jl 29; 118-19 Ag 12; 98-9 Ag 26 '48

Short cuts for the small shop (cont). A. H. Waychoff. *diags Am Mach* 91:105 N 20; 93 D 4 '47; 92:76 Ja 1; 89 Ja 15; 128 F 12; 107 F 26; 182 Mr 11; 87 Mr 25; 115 Ap 8; 73 Ap 22; 95 My 6; 115 Je 3; 122 Je 17; 105 Jl 1; 115 Jl 15; 96 S 3; 110 S 23; 94 O 7; 97 N 4 '48

Simple tools perform complex jobs. E. J. Clement. *il Mill & Factory* 43:114-17 O '48

Sound tool engineering pays dividends; Yale & Towne mfg. co. door closers. R. S. Potter. *il diags Mach* 54:147-54 My '48

Stilts stretch radials to fit. B. C. Brosheer. *il diag Am Mach* 92:93-4 Ag 12 '48

Straight-line production techniques; manufacture of exciter-end brackets for direct-current welding sets; Lincoln electric co. *il plan Steel* 123:94-8 Jl 19 '48

Talented tooling; illustrations with text. *Am Mach* 92:100-1 Ag 26 '48

Tooling techniques at Presteel; illustrations with text. E. J. Tangerman. *Am Mach* 92:91-4 Je 17 '48

Tooling the Wright cyclone forged cylinder head. F. E. Whitacre. *il diags Tool Eng* 21:17-20 Jl '48

Tricky tooling cuts relay costs. P. Bonness. *il diags Am Mach* 92:93-5 Ja 1 '48

See also

Airplane engines—	Honing
Manufacture	Indexing (machine work)
Broaching	Inspection
Centering (machine work)	Locating (machine work)
Cylinders (engines, etc.)—Manufacture	Machine shop management
Dies	Machine tools
Diesel engines—	Machinery
Manufacture	Metal cutting
Drafting room practice	Metal finishing
Drilling and boring (metal working, etc.)	Milling
Forging	Railroads—Shops
Gages	Rolling (metal work)
Gear cutting	Rolling mills
Grinding	Sheet metal work
Hard facing	Tolerance
	Tooling docks
	Welding

MACHINE shops

Machine-shop capacity increased at Pacolet no. 4. P. M. Thomas. *il Textile World* 98:116-17+ Je '48

Modern machine shop speeds repairs; pipe line compressor station equipment; Arkansas Louisiana gas co. W. E. Nestor. *il Pet Eng* 13:216+ Mr '48

See also

Airlines—Shops	Machine shop practice
Airplane factories	Machine tools
Automobile factories	Motor bus lines—
Locomotive shops	Shops
Machine shop management	Railroads—Shops

MACHINE shops—Continued

Accidents

Machine-tool accidents. A. Turnbull, jr. il
Safety Eng 95:18-20+ My '48

Accounting

Cost estimating for long-term contracts in a
machine shop; job order shops. F. W.
Murray. N A C A Bul 29:1493-9 Ag 1 '48

Employees

Machine tool accessory plants; earnings in
December 1947. J. F. Lacikey, Mo Labor
R 66:515-16 My '48

Equipment

Application of instruments to the machine-
tool industry; abstract. R. J. Teetsell, diag
Instruments 21:550+ Je '48

Auto-Lite's flexible setup; making ignition
coils, distributors, and condensers. J.
Geschelin, il Automotive Ind 99:26-8+ S 15
'48

Extractor for broken taps. il Engineering
166:118 Jl 30 '48

Fuel injection equipment; production meth-
ods employed by C.A.V. Ltd. il plan diags
Automobile Eng 38:255-63, 377-84 Jl, O '48

New production ideas. il Iron Age 161:143-4+
Mr 11 '48

35th annual review number. il Am Mach 92:
128-294 Ja 29 '48

Tool engineers industrial exposition; show in
print. il Am Mach 92:205-6+ Mr 11 '48

Layout

Efficiency up 24 per cent with new layout;
Superior engine division, National supply
company, Springfield, Ohio. W. F. Tiemann.
il plan Factory Management 105:108-10 D
'47

Flow inspection cuts rejects 90 per cent;
re-layout of Diesel fuel pump machine shop
of C.A.V., limited, Acton, England. il plans
Factory Management 106:72-4 Jl '48

Machine layout changes made without down-
time; Mack Truck engine plant at Plain-
field. A. H. Ranger, plan Factory Man-
agement 106:92-3 Ag '48

Lighting

Plant that was dark has seen the light;
Haskell-Dawes machine co., Philadelphia. il
Factory Management 106:114-15 My '48

Test your own fluorescents. L. R. Keiffer
and C. L. Amick. il diags Am Mach 92:
80-3 Jl 29 '48

Records

Step-by-step control system provides spot
checks on tool design and manufacture;
Reliance electric & engineering co. F. S.
Dobric. Steel 123:78-80+ N 1 '48

Safety measures

How safety adds to profits. E. E. Juckett.
Am Mach 92:108-9 My 20 '48

No one lifts more than 10 lb; jib cranes
cut down sources of fatigue and injury.
D. A. Johnson, diags Am Mach 92:101 Jl
29 '48

MACHINE shops, Portable

Mobile machine shops. il Roads & Sts 90:101+
N '47

MACHINE tool industry

Address at National machine tool builders'
assn. spring meeting, Chicago. A. G. Bry-
ant. Mill & Factory 42:260+ My '48

Billions business spends for new plants
haven't meant much for machine tool build-
ers. B. W. Corrado, Barron's 28:33 F 16 '48

Industry, college provide course in sales en-
gineering designed expressly for the ma-
chine tool industry, will be conducted by
Cornell university. Iron Age 161:117 F 12
'48

Machine tool industry holds sales course.
Am Mach 92:135-46 Ag 12 '48

Machine tool industry prepares for competi-
tion; refresher course in sales engineering
at Sibley college of engineering, Cornell
university. D. R. Weedon. Steel 122:108 Mr
1 '48

Machine tool industry studies selling tech-
niques. Mach 55:193-5 S '48

Machine tool pool orders are planned. Avia-
tion W 49:63 S 6 '48

Machine tool salesmen to go to college at
Cornell. Bsns W p28 F 14 '48

Refresher course for machine tool salesmen
may become model. T. Lloyd, Iron Age
162:126 Ag 12 '48

Sales engineer and his problems. B. Lester.
Mach 54:195-6 Ja; 187-8 F; 199-200 Mr; 191-
2 Ap; 184-5 My '48

Sales job planned. Bsns W p26+ Ap 24 '48

Security board places standby order for 100,
000 machine tools. E. J. Hardy. Automo-
tive Ind 99:54+ O 15 '48

Selling in the postwar market; H. E. Dicker-
man mfg. co. R. V. Wheeler, map Steel
122:84-5+ F 23 '48

Spotty picture. Bsns W p21 Jl 31 '48

Thorough training produces industrial sales-
men who know the product; classes for
distributors of Delta machine tools. W. E.
Schutz. il Ptr Ink 224:34-5 S 3 '48

Tool builders look ahead. Bsns W p21-2 N 22
'47

Tooling up the job; knowledge of tooling an
advantage in salesmanship. R. W. Haynes.
Tool Eng 21:37-8 S '48

Toolmaker plight; ban on exports to Russia.
Bsns W p22 Je 5 '48

We must be sure of our machine tools for
national security. il Factory Management
106:66-72 Je '48

Accounting

Budgetary control of production and costs in
the machine tool industry. N. T. Harrison.
N A C A Bul 29:939-43 Ap 1 '48

Advertising

DoAll conducts potent promotional program;
attracts crowds to its machine tool ex-
hibits. A. Bernstein, il Ind Marketing 32:
66+ N '47

How Do-All's school program lays ground
work for industrial sales. L. R. Rothen-
berger, il Sales Management 60:89+ My 1
'48

How to get and use industrial performance
data; Giddings & Lewis capitalized on field
operation facts. S. L. Little, il Ind Market-
ing 33:46-7 S '48

Prove results, and improve sales. Warner &
Swasey case history copy approach. J. E.
Craig, il Ind Marketing 32:48-9+ N '47

Role of advertising today. A. L. Billingsley,
il Marketing 33:35+ S '48

Simple mailers develop hot leads for lathe-
maker. B. N. Brockman, Sales Man-
agement 61:96-7 Jl 15 '48

We went to four-color inserts on a cut bud-
get; Bryant chucking grinder company re-
prints calendar pictures in business papers.
C. Stubbs, il Ind Marketing 33:34-5+ Je
'48

Securities

Prospects for machinery and machine tools;
with position of leading stocks. H. F.
Travis, il Mag of Wall St 82:638-40+ S 25
'48

Today's trends in machinery companies; with
position of leading stocks. H. F. Travis.
Mag of Wall St 81:648-50+ Mr 13 '48

Surplus tools

Surplus machine-tool status. W. E. Bul-
lock. Mech Eng 70:437-8 My '48

Great Britain

Engineering outlook. Engineering 165:88-91
Ja 23 '48

Machine tool stocktaking. Economist 155:351
Ag 28 '48

India

Machine-tool licenses for importation re-
validated. For Comm W 30:16 Ja 24 '48

United States

Machine-tool industry; abstract. A. G. Bry-
ant. Mech Eng 70:826-7 O '48

Metalworking machinery; prospects for 1948.
G. Hubbard, il Steel 122:144-5 Ja 5 '48

MACHINE tools

Application of instruments to the machine-
tool industry; abstract. R. J. Teetsell, diag
Instruments 21:550+ Je '48

MACHINE tools—Continued

- Flexible transfer machines for Packard cylinder heads and blocks. *il* Automotive Ind 99:34-6+ J1 15 '48
- Ford retools cylinder block line with transfer machines. *il* Automotive Ind 98:38-9+ F 1 '48
- Four double-end transfer machines cut off, position, machine work. *il* Am Mach 92:144 J1 15 '48
- High-speed machining of rear-axle housings on a Transfer-matic. *il* diags Mach 64:161-4 P '48
- Hydraulic transfer, locating and clamping expedite manifold production in multi-station machine. G. Hubbard. *il* Steel 123:74-6 Ag 23 '48
- Latest transfer machines at Ford plant. *il* Automotive Ind 99:41+ Ag 1 '48
- Machine replacement and depreciation policy. T. Berna. *J Eng Educ* 38:542-7 Ap '48
- Machine-tool auxiliary is extremely versatile. *il* Textile World 98:152 Ap '48
- Machine-tool instrumentation; Westinghouse machine tool forum, Buffalo, April 22-23. Instruments 21:544+ Je '48
- Machine tools. A. H. Lloyd. diags Inst Mech Eng J & Proc 157 (War emergency issue no 32):295-8, pl 1-2 '47
- Machining by erosion; new Russian machine tools. B. R. Lazarenko and N. I. Lazarenko. diags Am Mach 91:120-1 D 18 '47
- Making micrometer dials for machine tools. G. Black. *il* Mach 55:189-90 S '48
- New equipment. *il* Iron Age 161:69-71 Ja 8 '48
- New transfer process lines mean less handling, higher output; Buick Motor. D. G. Baird. *il* Mill & Factory 49:112-14 Mr '48
- Producing intricate parts on a multiple-purpose machine tool; package-making machines. I. P. Mable. *il* Mach 54:182-4 Je '48
- Railroad car axles machined automatically by completely automatic transfer-type machine. W. G. Patton. *il* diag Iron Age 161:63-5 Ja 8 '48
- Selection of V-belt drives for machine tools; data sheets. Mach 54:249 J1; 231 Ag; 55:255 S '48
- Simple tools perform complex jobs. E. J. Clement. *il* Mill & Factory 43:114-17 O '48
- Some of the new developments to be seen at the show. *il* Mach 54:132-94 Mr '48
- Talented tooling; illustrations with text. Am Mach 92:118 N 4 '48
- Technical progress in metalworking; machining. Steel 122:287-317 Ja 5 '48
- 35th annual review. *il* Am Mach 92:128-206 Ja 29 '48
- Transfer machine for automotive axle housings. *il* diags Product Eng 19:96-7 Ap '48
- Transfer-type machine tools. *il* Steel 121:76 D 15 '47
- Work loaders applied to machine tools; R. Le Grand. *il* diags Am Mach 92:149-72 Mr 11 '48

See also

- | | |
|-------------------------------|--------------------------|
| Broaching machines | Metal cutting |
| Cutting tools | Milling cutters |
| Drilling and boring machinery | Milling machines |
| Feed mechanism | Polishing machines |
| Gear cutting machines | Punches |
| Grinding machines | Reamers |
| Honing machines | Saws, metal working |
| Lapping machines | Screw machines |
| Lathes | Spindles (machine tools) |
| Machine shop practice | Swaging machines |
| Machine tool industry | Threading machines |
| | Tool engineering |
| | Tool steel |

Design

- Ball bearing slides. C. Jobst. diags Machine Design 20:138-40 Ja '48
- Machine tool design; trends observed at Olympia. *il* Elec R (Lond) 143:361-4 S 3 '48
- Modern cutting tools and machine tool design. C. Eatough. *il* Engineering 165:189-92 F 20 '48; Same cond. Engineer 185:53, 75-7 Ja 9-16 '48; Discussion, 185:52 Ja 9 '48

Electric driving

- Choosing a d-c power source. L. W. Herchenroeder. *il* Machine Design 20:140-2 Je '48; Same cond. Product Eng 19:154-6 S '48; Excerpt. Instruments 21:544+ Je '48

- Development of a high-speed lathe. R. L. Templin. diags Machine Design 20:140-2 Ja '48
- Electronic control of planing machine. *il* Engineering 166:320-1 O 1 '48
- Electronic motor drives increase machine tool versatility. R. B. Crawford. *il* Mach 54:156-9 D '47
- Multi-motored machine tool. *il* Electrician 140:430 F 6 '48
- New drive for a new machine for a new technician; Landis centerless grinder; abstract. W. E. Happel. diags Product Eng 18:128-9 D '47
- Planer drives, their history and application. J. W. Harper. diag Elec World 129:136+ My 22 '48; Same. Product Eng 19:129-30 My '48
- Rectifiers supply power for adjustable speed motors. Am Mach 91:128 D 18 '47
- Turning points in the metal working industry; abstract. M. S. Curtis. Product Eng 19:128-9 Ag '48
- When you design in shell type motors. R. E. Arnold. *il* diags Machine Design 20:157-62+ Ap '48

Exhibitions

- British exhibition of machine tools valued at about \$80 million. Iron Age 162:166-7 S 16 '48
- Design aspects of the machine tool show. R. W. Bolz. *il* Machine Design 19:113-16 N '47
- DoAll conducts potent promotional program; attracts crowds to its machine tool exhibits. A. Bernstein. *il* Ind Marketing 32:66+ N '47
- Exhibitors at exposition of A.S.T.E.; with floor plan. Steel 122:98-108 Mr 8 '48
- Machine tool and engineering exhibition at Olympia. Aug. 26-Sept. 11. *il* diags Engineer 186:200-5, supp 1-16, 226-32, supp 1-8, 250-5, 279-82, 304-7 Ag 27-S 24 '48; Engineering 166:193-204, pl 1, 217-26, 228, 241-9, 252, 269-71, 276, 293-4 Ag 27-S 24 '48
- Machine tool and engineering exhibition, Olympia. Aug. 26-Sept. 11. *il* Am Mach 92:135-40 S 23 '48
- Machine tool and engineering exhibition, Olympia. Aug. 26-Sept. 11; exhibits of electrical interest. *il* Electrician 141:629-36 Ag 27 '48; Elec R (Lond) 143:361-4 S 3 '48
- Machine tools at Olympia. Aug. 26-Sept. 11. *il* Automobile Eng 38:291-304, 343-55 Ag-S '48; Metallurgia 38:215-26 Ag '48
- Tool display; Tool engineers fair in Cleveland. *il* Bsns W 26+ Mr 27 '48
- Tool Engineer's industrial exposition in review. G. Skog. *il* diag Tool Eng 20:17-26 Mr '48
- Tool Engineer's industrial exposition in review. A. E. Rylander. *il* Tool Eng 20:35-43 My '48

Fixtures

- Air fixtures ease machining and assembly; illustrations with text. R. E. Whinrey. Am Mach 92:92-5 J1 15 '48
- Fixture for drilling and reaming holes in gears. R. Mawson. diags Tool Eng 21:35 J1 '48
- Fixture using modeling clay to actuate holding clamps. F. J. Peragine. diags Mach 54:190 Ap '48
- Fixtures aid work handling; methods devised at Keystone brass works. W. Rudolph. *il* Am Mach 92:96-7 My 20 '48
- Fixtures are important in machining operations on locomotive parts. *il* Ry Mech Eng 122:26-7 Ja '48
- Fixtures that increase production in parallel-surface grinding. R. D. Gardner. *il* Mach 54:176-9 Ja '48
- Handbook of vertical surface-broaching fixtures. B. C. Brosheer. *il* diags Am Mach 92:77-92 Ja 1; 101-16 Ja 15 '48
- Jigs and fixtures at low cost; use of vices. E. J. Weierstall. *il* diags Am Mach 92:126 S 23 '48
- Lathe facing fixture jumps percentage of production time. R. Mawson. diags Steel 123:122 S 6 '48
- Lathe fixture for pointing spindles. H. E. Murphy. diags Mach 54:190-1 D '47
- Magnetic holding fixture speeds assembly operation. H. Weitz. diags Mach 54:183 F '48
- Performing varied operations by the use of a single attachment; Versa-Mil. *il* Mach 54:172-3 Ag '48

MACHINE tools—Fixtures—Continued

- Planned tooling whittles costs of engine mounts. H. S. Wharen. *diags Am Mach* 92:140-3 Mr 11 '48
- Pneumatic fixture simplifies broaching. *il Comp Air Mag* 52:281 N '47
- Rapid stud driving fixture; making radio grilles for automobiles. H. Chase. *il Iron Age* 160:74-5 N 27 '47
- 35th annual review; tools and accessories. *il Am Mach* 92:207-25 Ja 29 '48
- Tool fixture produces spherical holes using locomotive principle. C. T. Bower. *diags Am Mach* 92:130-1 F 12 '48
- Versa-Mil machine-tool attachment for milling, drilling, grinding. *il Am Mach* 92:142 My 6 '48

Lubrication

- Planned lubrication cuts maintenance costs. C. H. Parks. *il Am Mach* 92:104-6 O 21 '48

Manufacture

- Flame-hardening machine tool parts. W. D. Whalen. *il diags Welding J* 27:11-18 Ja '48
- Grinding dovetail slideways of machine tools. *il diags Engineering* 165:392 Ap 23 '48
- Manually operated hidden-arc welding equipment applied in fabricating machine tool members. E. F. Arntzen and W. Lilly. *il Mach* 54:188-9 Je '48

Standards

- New field for standards; General Motors sponsors cooperative study to standardize machine tools and other production equipment. *il Bsns W* p61-2+ My 29 '48
- Tool standardization program at GM; committee system. W. G. Patton. *il Iron Age* 161:131-5 Mr 11 '48

Storage

- Huge warehouse for U.S. war tools; illustrations with text. *Bsns W* p82-3 D 6 '47

MACHINE work

- Assembly-line machining used to produce rock bits for petroleum industry; Hughes tool co. G. E. Stedman. *il Steel* 123:91-2+ J1 5 '48
- Electrical methods for measurement of forces required in chipless machining operations; abstract. F. Faulhaber. *diags Product Eng* 19:136-8 Je '48
- Grouped parts multiple-machined; compound-angle plate with tilting plate and swivel base. F. H. Scriber. *diags Am Mach* 92:90-1 Ap 8 '48
- How to machine and finish aluminum alloy castings. F. A. Lewis. *il diags Steel* 123:90-4+ S 6 '48
- Let the machine talk; samples forecast quality and anticipate inaccuracies. C. W. Kennedy. *Tool Eng* 20:17-20 Ap '48
- Rapid machining operations on die castings; Brown-Lipe-Chapin div. of General Motors corp. *il Iron Age* 162:162 Ag 19 '48
- Special tooling used in machining heavy processing equipment; Goslin-Birmingham mfg. co. G. E. Stedman. *il Steel* 121:86-8+ N 24 '47

See also

- | | |
|---|-------------------------|
| Broaching | Honing |
| Centering (machine work) | Indexing (machine work) |
| Dividing (machine work) | Locating (machine work) |
| Drilling and boring (metal working, etc.) | Machine shop practice |
| Ejecting devices (machine work) | Metal cutting |
| Grinding | Milling |
| | Tolerance |
| | Turning |

Bibliography

- Machinery's data sheet index; Feb. 1945 to Dec. 1947, inclusive. *Mach* 54:245 Ja '48

Tables, calculations, etc.

- Analytical determination of radical cam profiles. G. M. Sommer. *diags Tool Eng* 20:17-22 My '48

MACHINE works

- Diesel-engine firm in Owen Sound rapidly growing in scope and activity; Russell brothers Ltd. *il Roads & Bridges* 86:94+ Ap '48

- Flow-production processing of huge press components; Federal machine & welder co. D. Reebel. *il plan Steel* 123:84-7 S 27 '48
- New Whitin office and plant at Charlotte. *il Rayon* 29:73 Ja '48
- Small plants gain big-plant economies; co-operative manufacturing facility; the General iron works. H. S. Wharen. *il Am Mach* 92:94-5 My 20 '48
- Works modernisation scheme; Glenfield and Kennedy. *il plan Engineer* 185:574 Je 11 '48

Employees

- Machinery industries; earnings in Nov. 1947. D. Helm. *Mo Labor R* 66:398-9 Ap '48
- Shurtle employee training program. W. A. White, Jr. *Paper Tr J* 126:99-102 My 27 '48

Equipment

- Advantages of integrated manufacturing; plant of Omaha steel works where steel foundry, machine shop, fabricating and manufacturing departments co-operate closely. G. E. Stedman. *il Steel* 122:85-7+ F 16 '48
- Continental rearranges production facilities for smoother operation. J. Geschelin. *il Automotive Ind* 97:34-5+ N 15 '47
- GMC's new engine plant now in full operation. J. Geschelin. *il Automotive Ind* 99:36-7+ S 1 '48
- Hydraulic units power machine elements; International harvester co.; illustrations with text. L. W. Court. *diags Am Mach* 92:93-6 Ag 12 '48
- Injector manufacture at the works of Leyland motors, Ltd. *il diags Automobile Eng* 37:417-26 N '47
- Large engineering works at Workington; Distington engineering company. *il Engineer* 185:448-9 My 7 '48
- Mass producing 15-ton bulldozers; Le Tourneau corp. W. J. Brooking. *il Iron Age* 162:82-6+ S 2 '48
- Massey-Harris' new setup for tractor production. J. Geschelin. *il Automotive Ind* 98:24-6+ My 1 '48
- Materials handling a prime factor in Ford tractor production. J. Geschelin. *il plan Automotive Ind* 98:36-9+ Ja 1 '48
- New and well-equipped tractor plant; International Harvester's Louisville works. J. Geschelin. *il Automotive Ind* 99:30-2+ O 15 '48
- Production of vehicle engines; F. Perkins, Ltd. *il Engineer* 184:479 N 21 '47
- Simplified methods and improved equipment advances precision investment casting; Allis-Chalmers mfg. co. K. J. Yonker. *il Steel* 122:96-9 Je 7 '48
- Special tooling used in machining heavy processing equipment; Goslin-Birmingham mfg. co. G. E. Stedman. *il Steel* 121:86-8+ N 24 '47
- Tailored-to-the-job machines; Reliance electric & engineering co. E. Karpick. *il Steel* 123:74-7 Ag 9 '48
- Works of the David Brown organisation. *il col pl Engineer* 186:4-6, 33-5, 67-9, 78-81 J1 2-23 '48

Management

- Engineering and manufacturing standards; Caterpillar tractor co. W. L. Matthew. *il diags Product Eng* 18:81-5 N '47
- Production control as applied in a farm tractor plant. D. Peddie. *il Iron Age* 161:56-61 Ja 29 '48

Records

- Production control as applied in a farm tractor plant. D. Peddie. *il Iron Age* 161:56-61 Ja 29 '48

MACHINERY

- Models aid builders of machinery. *il Comp Air Mag* 53:10-11 Ja '48
- New machines for processing plastics; illustrations with text. *Machine Design* 20:154-7 S '48
- Production clinic; purchasing versus building machines. E. G. Thomssen. *Soap & San Chem* 24:75+ S '48

See also

- | | |
|------------------------|------------------------|
| Agricultural machinery | Balancing of machinery |
| Assembly methods | Bearings |

MACHINERY—Design—Continued

Pre-design research; its relationship to design, engineering, production, and sales. R. L. Nowland. *il* *diags* Machine Design 20:96-102 O '48

Production processes; their influence on design (cont). R. W. Bolz. *il* *plan* *diags* Machine Design 19:11-6 D '47; 20:129-34 F; 135-41 Mr; 111-17 Mr; 133-9 Je; 119-24 Ji; 107-14+ Ag; 129-34 S '48

Ring deflection due to loads normal to plane of curvature calculated readily with the aid of curves. H. D. Tabakman. Machine Design 20:131-4+ Mr '48

Simplified analysis; graphical methods provide practical solution to certain design problems. F. W. Cousins. *il* Machine Design 19:121-5 D '47

Trapped stresses; how they can be created to improve the performance of machine parts. H. O. Fuchs. *il* *diags* Machine Design 20:114-18+ Ji '48

Unusual drives and control elements of interesting machines. *il* *diags* Machine Design 20:126-30 Ap '48

Welding in machine design. J. Mikulak. *il* *diags* Welding J 27:290-8 Ap '48; Same cond. Machine Design 20:147-52 S '48

What recent research offers the designer. N. C. Penfold. *il* Machine Design 20:107-12 Je '48

See also

Dashpots

Exhibitions

British industries fair. *il* *diags* Engineer 185: 416-17, supp 1-12, 440-3, 466-8, 490-2 Ap 30-Mr 21 '48; Engineering 165:437-9, 444, 461-4, 468, 485-8, 492, 509-12 My 7-28 '48

British industries fair. *il* Metallurgia 38: 15-26+ My '48

Exhibitors at exposition of A.S.T.E.; with floor plan. Steel 122:98-108 Mr '48

Inspection equipment; interesting devices at the Machine tool and engineering exhibition. *il* Automobile Eng 38:389-91 O '48

Machine tool and engineering exhibition at Olympia, Aug. 26-Sept. 11. *il* *diags* Engineer 186:200-5, supp 1-16, 226-32, supp 1-8, 250-5, 279-82, 304-7 Ag 27-S 24 '48; Engineering 166:193-204, pl 1, 217-26, 228, 241-9, 252, 269-71, 276, 293-4 Ag 27-S 24 '48

Machine tool and engineering exhibition, Olympia, Aug. 26-Sept. 11; exhibits of electrical interest. *il* Electrician 141:629-36 Ag 27 '48; Elec R (Lond) 143:361-4 S 3 '48

Machine tools at Olympia, Aug. 26-Sept. 11. *il* Automobile Eng 38:291-304, 343-55 Ag-S '48; Metallurgia 38:215-26 Ag '48

Mechanical handling exhibition, London, July 12-21. *diags* Engineer 186:56-60, 81-3+; 105-8 Ji 16-30 '48; Engineering 166:53-4, 77-9 Ji 16-23 '48

Tool Engineer's industrial exposition in preview. G. Skog. *il* *diag* Tool Eng 20:17-26 Mr '48

Tool Engineer's industrial exposition in review. A. E. Rylander. *il* Tool Eng 20:35-43 My '48

Foundations

Cities Service Gas compacts soil to form base for heavy engine foundations in Hugoton field. R. W. Hofsess. *il* Oil & Gas J 47:226+ S 23 '48

Grouting stops compressor sway. *il* *diags* Eng & Min J 149:93-4 Ji '48

New foundation for 350-ton crane at the Brooklyn navy yard. W. M. Angas. *il* *diags* Eng N 141:63-7 Ji 22 '48

Prescription for an earthquake-proof power plant at Idaho Falls. *il* *diags* Diesel Power 26:72-3 Ji '48

Leasing

Legal aspects of tying-in contracts. A. W. Gray. *Ind Marketing* 32:56+ D '47

Maintenance and repair

Automatic welding of steel mill equipment. W. W. Scherer and H. J. Ralston. *il* Iron Age 162:80-8 Ji 15 '48

Cracks in presses repaired quickly; Metalock process. J. W. Hillhouse. *il* *diags* Am Mach 32:73-6 Ag 26 '48

Cylinder repaired by welding. Iron Age 162: 94 Ag 5 '48

Mechanical insert repair in the steel industry; Metalock process; abstract. R. L. Rectenwald. *Iron & Steel Eng* 25:84 S '48

Metallizing; a versatile method for production and maintenance work. J. E. Wakefield. *il* Materials & Methods 28:86-90 S '48

Manufacture

Precision casting at Allis-Chalmers. *il* Iron Age 161:82-5 Je 3 '48

Producing intricate parts on a multiple-purpose machine tool; package-making machines. I. F. Mabie. *il* Mach 54:182-4 Je '48

Role of mechanite metal castings in engineering production. C. R. Austin. *il* *diags* A S M E Trans 70:99-109 F '48

Welded fabrication. J. R. Stitt. *il* *diags* Welding J 27:48-51 Ja '48

Mounting

Anti-vibration mountings; recent Metalastik development. *il* *diags* Automobile Eng 37: 505-6 D '47; Engineering 164:455 N 7 '47

Simplified method for the design of vibration-isolating suspensions. R. C. Lewis and K. Unholtz. *il* *diags* A S M E Trans 69:813-20 N '47; Same abr. Refrig Eng 53: 291-5 Ap '47

Noise

Analyzing machine noise. H. C. Hardy. *il* Product Eng 19:137-40 Ap '48

Offset pivot reduces sector gear noise. H. F. Barfill. *diags* Machine Design 20:131-2+ Je '48

Sources of machine noise. H. C. Hardy. *il* *diags* Product Eng 19:87-91 Mr '48

Painting

Colour in industry with some reference to painting machinery. D. M. Buckland. Textile Inst J 39:F200-4 Je '48

When everything looks dark, try color. J. Lear. *il* Nat Safety N 58:22-3+ S '48

Safety devices

Guarding the machine. *il* Nat Safety N 57: 131-2 Mr '48

Industrial safety and the tool designer. H. L. Smith. *diags* Tool Eng 20:25-8 Ap '48

Interlock guard for milling machines. *il* Engineer 184:461 N 14 '47

Machines or monsters; importance of reducing mechanical hazards. J. J. Duggan. *il* Safety Eng 96:16-17+ Mr '48

Plastic guards made integral with punch press dies. M. F. Biancardi. *il* Factory Management 106:103 O '48

Safety device that insures protection against ungarded belt. H. Moore. *diags* Mach 55: 195-6 O '48

Step towards making machinery foolproof; metal instruction plates that resist corrosion. Safety Eng 96:38-9 S '48

See also

Cranes, derricks, etc.—Safety devices

Standards

Straight-sided splines. J. B. Armitage. *diags* Mech Eng 70:738-42 S '48

Starting

Starting loads can waste time and money. E. L. Cady. *il* Mill & Factory 43:120-3 S '48

Transportation

Dyson 50-ton low-loading trailer. *il* *diags* Engineering 165:224-5, 228 Mr 5 '48

Strippers moved 12 miles. W. E. Parks. *il* Coal Age 52:79-81 D '47

Vibration

Anti-vibration mountings; recent Metalastik development. *il* *diags* Automobile Eng 37: 505-6 D '47

Damped quill stops self-excited chatter. E. J. Tangerman. *il* *diag* Am Mach 92:93-5 My 6 '48

Damping of textile-mill movement by Frahm system. C. E. Crede. *il* *diags* A S M E Trans 69:937-46 N '47

Eliminating vibration in high-speed machines. A. S. Gutman. *diags* Machine Design 20:118-24 O '48

MACHINERY—Vibration—Continued

Simplified method for the design of vibration-isolating suspensions. R. C. Lewis and K. Unholtz. bibliog diags A S M E Trans 69:813-20 N '47; Same abr. Refrig Eng 53: 291-5 Ap '47

Torsional vibration frequency determined by use of charts and formulas; engineering data sheet. F. P. Porter. diags Machine Design 20:153-6 Ja '48

Tuned and damped gyrostatic vibration absorber. R. N. Arnold. bibliog il diags Inst Mech Eng J & Proc 157 (War emergency issue no 25):1-15; Discussion. 16-19 '47

MACHINERY, Automatic

Acme-Gridley single-spindle automatic designed for the manufacture of parts from tubing. il Mach 55:205-6 O '48

Automatic machining; Wickman bar and chucking automatics. il Automobile Eng 38:396-7 O '48

Automatic processing—reduces 34 manual handlings to 11. W. Cross and L. R. Smith. flow chart. il diag Factory Management 106:80-2 Jl '48

First automatic radio factory; British machine builds three radio circuits a minute. il Fortune 38:90-3 Ag '48

Ford handles by automation. R. LeGrand. il plan diags Am Mach 92:107-22 O 21 '48

How to save materials by training operators; Psychological corp. study in nylon-hosiery mill. il Mod Ind 15:128+ F '48

Mechanical muscles release manual labor. il Bsns W p70-1 O 23 '48

National Acme single-spindle automatic machine for production of parts from tubing. il Am Mach 92:147 O 21 '48

MACHINERY, Kinematics of

Acceleration of inertia loads with a varying torque. J. D. Burby. Product Eng 18:102-5 D '47

Analyzing circular-arc cams. P. K. Slaymaker. diags Machine Design 20:129-31 Jl '48

Analyzing graphical records of the motion of machine part as function of time. C. E. Balleisen. diags Machine Design 20:145-9 Je '48

Motor driven machines; torque required to accelerate machines. diag Product Eng 19: 124-5 Mr '48

Percentage charts for motion analysis; reference book sheet. H. R. Ross. Product Eng 19:171, 173 O '48

See also
Acceleration
Mechanical movements

MACHINERY, Replacement of

Equipment selection and replacement. P. T. Norton, Jr. Manuf Rec 117:48+ Ag; 45+ S; 48+ O; 62-3 N '48

Inflation and depreciation. Automotive Ind 98:27+ My 1 '48

Machine replacement and depreciation policy. T. Berna. J Eng Educ 38:542-7 Ap '48

Measurement of influence of replacement of old machinery with new models on cost of production. N. M. Mitchell. Rayon 29:44-5 Jl '48; Same. Textile World 98:121+ Jl '48

Production profits may be increased by replacing obsolete machines. A. G. Bryant. il Bankers Mo 65:8+ O '48

Replacement of equipment from the viewpoint of a teacher of engineering economy. F. C. Dana. J Eng Educ 38:446-52 Mr '48

MACHINERY and allied products Institute

Annual meeting, Washington. Iron Age 161: 126-7+ Je 24 '48

MACHINERY in industry

Challenge of the machine age. J. E. Goble. Iron & Steel Eng 25:100-2 O '48

Labor menaces mechanization. il Bsns W p96-8 Je 12 '48

Man power vs. machine power. R. V. Wright. Ry Mech Eng 121:640-1 N '47

Mechanization; where it came from; review of Mechanization takes command, by S. Giedion. il Bsns W p76-8 Jl 17 '48

Men and tools. P. G. Hoffman. il Iron Age 161:128-30 Mr 11 '48

When to invest in modernization. R. L. Heilbroner. il Am Bsns 17:12-13+ N '47

Bibliography

Technological change under collective agreements. 4p pa 10c Industrial relations section, Princeton univ, Princeton, N.J. '48

MACHINERY industry

Cold canvass turns up new uses for special item; Askania regulator co. T. M. Lowe. Ind Marketing 33:43+ Ap '48

Doing business with Russia; tool and equipment exports to USSR. S. E. Cohen and D. Dickow. Ind Marketing 33:66+ Ja '48

How to stage an industrial sales demonstration in a jiffy; Doall co. demonstration trailers. L. R. Rothenberger. il Sales Management 60:90+ Ap 1 '48

Industrial selling by demonstration; know the product and show the product. K. Kirchhofer. il Ind Marketing 32:41+ D '47

Machinery sales humming. il Bsns W p 19-20 S 11 '48

Product names need clarity. J. M. Adle. Ind Marketing 33:40+ Ap '48

Special machinery output accelerating. H. C. Tuttle. il Steel 122:32-3+ Ja 26 '48

Agricultural machinery industry Textile machinery industry
also Clearing machine corporation; Food machinery corporation

Accounting

Analytical and accounting control of sales and gross profit by punched cards; R. G. LeTourneau, inc. L. P. Riddle. il N A C A Bul 29:323-34 N 15 '47

Advertising

Extra dividends from your industrial advertising dollars; Hyster trucks, tractors, cranes. D. Johnson. il Sales Management 60:74+ Ja 15 '48

For better sales results follow up your follow-up; New Britain machine co. J. T. Vinbury. il Ptr Ink 225:23-5 O 22 '48

Industrial taps new markets via mailings; Kramer & Kramer custom fabrication service. il Sales Management 60:46 F 1 '48

See also
Excavating machinery—Advertising

Directories

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 26:56-7+ Ja; 66-86+ Je '48

35th annual review number. il Am Mach 92: 128-294 Ja 29 '48

Records

Post-sale record for manufactured equipment. R. I. Johnson. il N A C A Bul 29:955-60 Ap 1 '48

Securities

Prospects for machinery and machine tools; with position of leading stocks. H. F. Travis. il Mag of Wall St 82:638-40+ S 26 '48

Today's trends in machinery companies; with position of leading stocks. H. F. Travis. Mag of Wall St 81:648-50+ Mr 13 '48

Service

Plus-service keys Y & T sales plan; materials handling center in each major industrial market. il Sales Management 60:41 F 15 '48

Statistics

Appraisal of metalworking, with a statistical summary. Am Mach 92:105-26 Ja 29 '48

Machinery and apparatus, 1941-1946. Survey of Cur Bsns 1947 Sup p 154-5 [supplemented in monthly numbers]

Canada

Canada places import controls on numerous iron and steel items. Iron Age 161:111-12+ Ja 22 '48

Great Britain

Engineering outlook. Engineering 165:5-7, 29-31, 65-8, 88-91, 99-102, 123-6, 148-51, 172-5, 196-9, 232-5, 257-60, 268-71, 293-5, 316-19 Ja 2-Ap 2 '48

Plant machinery & capital goods made in Britain. 1 guinea Clerke and Cockeran, 66 Carter Lane, London, E.C.4 '47

MACHINERY industry—Continued

United States

Components makers see 1948 as good year.
J. S. Morgan. *il Steel* 121:30-1+ D 29 '47
Industrial machinery and equipment; prospects for 1948. V. Bell. *il Steel* 122:146-9 Ja 5 '48

Wales

Light engineering industry in south Wales.
Engineer 185:185 F 20 '48

MACHINISTS

Study if or do it? discussion. *Am Mach* 92: 164+ Ja 15 '48

MACHINISTS, International association of. See

International association of machinists

MACHMETERS. See Aeronautic instruments

MACINNES, Duncan Arthur, 1885-

Man of the month. *por Chem Eng* 55:255 S '48
Tenth recipient of the Acheson medal.
por(cover) Chem & Eng N 26:3193 O 25 '48

MCINTYRE porcupine mines, ltd.

More miners increase McIntyre's operations.
Barron's 28:34 O 4 '48

MACK trucks, inc.

Stock offering. *Comm & Fin Chr* 166:2312 D 8 '47

MACKEY, Joseph T. 1879-

Dream he framed has finally come alive.
J. L. Collings. *por Ed & Pub* 81:36 Mr 6 '48

MCKITTRICK, Thomas Harrington, 1889-

Harriman's men. *por(p 105) Bsns W* p 106 S 4 '48

MCCLAUGHLIN, Donald Hamilton, 1891-

Sketch. *por Explosives Eng* 26:36-7 Mr '48

MCNALLY, Andrew, 3d

Successful policies adopted sixty years ago carried on by A. McNally, 3d. *por Inland* Ptr 121:56 Ap '48

MACROTOMES

Simple devices for macroscopic sectioning of the brain. R. F. Bouldin and W. Holzheimer. *il Science* 106:527 N 28 '47

MACY, R. H., and company

Debentures offered. *Comm & Fin Chr* 166: 1995 N 17 '47

Macy's fancy pantry. *il Mod Packaging* 21: 32-4 Ja '48

You can't sell that! R. H. Macy's Bureau of standards often keeps other units from making sales. R. W. Rlis. *il Adv & Sell* 40: 35-6+ N '47

MADAGASCAR

Commercial policy

Foreign-currency transactions. *For Comm W* 30:19 Mr 27 '47

Import licenses; allocation procedure modified. *For Comm W* 32:20 Ag 14 '48

Economic conditions

News by countries. *For Comm W* 31:20 My 22 '48

Industries and resources

Planned expenditure for equipment. *For Comm W* 29:25 N 15 '47

MADISON, Wisconsin

Sewerage

Sewage treatment. C. H. Becker and M. D. R. Riddell. *il map plan Water & Sewage Works* 95:26-32 Ja '48

MADISON avenue. See New York (city)—

Streets

MAGELLANIC clouds

Cepheids of the small Magellanic clouds; abstract. H. Shapley and V. M. Nail. *Science* 106:631 D 26 '47

MAGIDOFF, Robert

Moscow correspondent tells why he was ousted. R. Magidoff. *por Bsns W* p26 Ap 24 '48

MAGNAFLUX testing. See Magnetic testing

MAGNAVOX company

New Magnavox sales plan; more exclusive dealers. broadening its line. *il Bsns W* p74+ Ag 21 '48

MAGNE-GAGE. See Magnetic measurements

MAGNESIA

Active magnesia; application of dual-surface theory. A. C. Zettlemoyer and W. C. Walker. *bibliog J Phys & Colloid Chem* 52: 53-64 Ja '48

Application and maintenance techniques for mill insulation; with specific reference to 85 per cent magnesia and diatomaceous silica. U. W. Smith. *Paper Tr J* 126:123-5 My 27 '48; Same abr. *Paper Ind* 30:476+ Je '48

Coefficients of reflection of magnesium oxide and magnesium carbonate. F. Benford and others. *il Opt Soc Am J* 38:445-7 My '48

Compounding pure gum GR-S stocks; effect of inorganic oxides and oxidizing agents. H. L. Fisher and A. R. Davis. *bibliog Ind & Eng Chem* 40:143-50 Ja '48

Contribution à l'étude de la cristallisation de la magnésie sous l'effet de températures croissantes; mécanisme du frittage. Y. Letort and L. Halm. *bibliog il Chimie & Ind* 58:537-44 D '47

Dark-field electron microscopy; studies of crystalline substances in dark-field. C. E. Hall. *bibliog il diags J Ap Phys* 19:198-212 F '48

Fixation of atmospheric nitrogen in a gas heated furnace. N. Gilbert and F. Daniels. *bibliog il diags Ind & Eng Chem* 40:1719-23 S '48

Ketonization of higher fatty acids with some observations on the mechanism of the reaction; studies of waxes. R. G. Curtis and others. *bibliog diag Soc Chem Ind J* 66: 402-7 N '47

Mineral-insulated metal-sheathed conductors. T. W. Tomlinson and H. M. Wright. *il Inst E E J* 93 pt 2:325-35 Ag '46; Discussion. 93 pt 2:336-40; 94 pt 2:84-91; 95 pt 2:97-8 Ag '46, F '47, F '48

Reactions of isopropyl alcohol in the presence of catalysts containing magnesium oxide. L. L. Gershbein, H. Pines and V. N. Ipatieff. *bibliog Am Chem Soc J* 69:2888-93 N '47

Recovery of chemicals and energy in the sulphite process through the use of magnesium as a base. R. S. Hatch. *Pulp & Pa of Can* 48:85-7 D '47

Shape of X-ray diffraction lines from colloidal magnesium oxide. C. R. Berry. *bibliog Phys R* 72:942-7 N 15 '47

Some equilibrium relations in the system magnesium oxide-sulfur dioxide-water (acid region) at pressures below atmospheric. F. H. Conrad and D. B. Erice. *bibliog Am Chem Soc J* 70:2179-82 Je '48

Viscosity studies of system $\text{CaO-MgO-Al}_2\text{O}_3\text{-SiO}_2$: $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2$. J. S. Machin and T. B. Yee. *Am Cer Soc J* 31:200-4 Jl 1 '48

Weyerhaeuser has modernized its Longview Pulp division; magnesium oxide base. *Paper Ind* 30:373-4 S '48

Analysis

Quick determination of magnesium oxide in raw materials. C. A. Clem. *Rock Prod* 50:94 N '47

MAGNESIA cement. See Cement—Magnesia cement

MAGNESITE

Hydration of calcined Satkinsk magnesite; abstract. A. N. Yasinovskil and V. V. Goncharov. *Am Cer Soc J* 31 (Cer A):102 My 1 '48

Mineralogy and petrology of the Currant Creek magnesite deposits and associated rocks of Nevada. G. T. Faust and E. Callaghan. *il map diag Geol Soc Bul* 59:11-74, pl 1-4 *bibliog(p70-2)* Ja '48

Northwest magnesite company, unusual in mine and plant. J. B. Huttli. *flow sheet il Eng & Min J* 149:56-9 Ja '48

Process for manufacturing of dead-burned magnesite and precipitated calcium carbonate from dolomite; abstract. R. D. Pike. *flow sheet Brick & Clay Rec* 112:82 Ja '48

Properties and performance of open hearth bottoms. H. M. Kraner. *Iron & Steel Eng* 25:128-30 Ag '48

MAGNESIUM

Aluminum and magnesium; review of 1947. J. D. Sullivan. *Min & Met* 29:100 F '48

Aluminum, bauxite, and magnesium; annual review and forecast. H. L. Cullen. *Min Cong J* 34:106-7 F '48

MAGNESIUM—Continued

- Broaching of aluminum and magnesium. H. Gotberg. *Il diags Light Metal Age* 6:12-16+ Ag '48
- Cathodic protection of steel in sea water with magnesium anodes; abstract. H. A. Humble. *Metal Prog* 54:224+ Ag '48
- Cathodic protection with magnesium anodes prevented underwater corrosion of hot water tanks. M. G. Fontana. *Ind & Eng Chem* 40:sup 105A-6A S '48
- Chemical surface treatments for magnesium; engineering data sheet. *Metal Finishing* 46:91 Ja '48
- Contributions to the nuclear processes induced in magnesium by polonium alpha-particles. A. Szalay and E. Csongor. *bibliog diags Phys R* 74:1063-70 N 1 '48
- Cyclotron targets; preparation and radiochemical separation; Na²². J. W. Irvine, Jr. and E. T. Clarke. *bibliog J Chem Phys* 16:686-90 J1 '48
- Dow develops process for electroplating magnesium. *Automotive Ind* 99:78+ Ag 1 '48
- Dow finds way to electroplate magnesium. *Esn's W* p64+ Ap 10 '48
- Effect of composition on grain growth in aluminum-magnesium solid solutions. L. J. Demer and P. A. Beck. *bibliog il Metals Tech* 15:TP2374 1-16 Je '48
- Electroplate on magnesium; abstract. W. Loose. *Metal Prog* 54:228+ Ag '48
- Electroplating magnesium and its alloys. H. K. DeLong. *il Metal Finishing* 46:46-9+ J1 '48; *Excerpts. Materials & Methods* 27:63-5 My '48
- Energy losses of sound waves in metals due to scattering and diffusion. W. P. Mason and H. J. McSkimin. *J. Ap Phys* 19:940-6 O '48
- Engineering economics of magnesium. H. A. Knight. *il Materials & Methods* 26:61-5 D '47
- Gamma-rays from alpha-particle reactions. D. E. Alburger. *bibliog diag Phys R* 73:1014-19 My 1 '48
- Gamma-rays from the alpha-particle bombardment of Na, Mg, Al, Si, P, S. E. Pollard and D. E. Alburger. *bibliog diag Phys R* 72:1196-201 D 15 '47
- Light metals, 1947. R. J. Lund and C. M. Craighead. *Eng & Min J* 149:85 F '48
- Magnesium anodes for pipe line protection. D. J. Walraven. *il World Oil* 128:182+ S '48
- Magnesium brazing process. *Chem Ind* 63:624 O '48
- Magnesium for cathodic protection of a municipal piping system. K. D. Wahlquist and O. Osborn. *diags Am Water Works Assn J* 40:495-503 My '48
- Magnesium in Germany, 1939-1945; abstract. F. A. Fox. *Materials & Methods* 27:114-15 F '48
- Magnesium use in an iron foundry; Utica radiator corporation. A. J. Marotta. *il Foundry* 76:208-10+ F '48
- Manufacture and use of magnesium and its alloys; with special reference to the magnesium-zirconium-zinc range. C. J. P. Ball. *il diag Chem & Ind* p531-6 Ag 21 '48
- New electrolytic cell for magnesium and chlorine production. B. G. Hunt. *il Electrochem Soc J* 94:151-60 O '48
- Role of the cathode surface in sparking phenomena. H. Jacobs and A. P. LaRoque. *diags Phys R* 74:163-5 J1 15 '48
- Scattering of ultrasonic radiation in polycrystalline metals. W. Roth. *bibliog il diag J Ap Phys* 19:901-10 O '48
- Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz. L. J. Rainwater and others. *Phys R* 73:733-41 Ap 1 '48
- Stretch forming of magnesium parts aided by spun-glass blanket. *il Steel* 123:94 Ag 9 '48; *Light Metal Age* 6:17 Ag '48; *Mach* 54:199 J1 '48
- What size is hot work? both warm weather and operating heat must be considered when making close fits with aluminum and magnesium. L. W. Macomber and C. N. Weiler. *il Am Mach* 91:101-4 N 20 '47
- World's largest basic magnesium plant sold by WAA. *il Chem & Eng N* 26:1156 Ap 19 '48
- Zinc film permits plating on magnesium. H. K. DeLong. *il Am Mach* 92:98-100 My 6 '48

Analysis

- Determination of small concentrations of calcium and magnesium by titration with standard soap solution; comparison with gravimetric results. J. W. McCoy. *Anal Chem* 19:1002-3 D '47
- Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *bibliog Anal Chem* 20:630-4 J1 '48
- Electrochemical properties of mineral membranes; clay membrane for the determination of magnesium. C. E. Marshall and L. O. Eime. *Am Chem Soc J* 70:1302-5 Ap '48
- Improved spectrographic source. C. Braudo and H. R. Clayton. *bibliog il diags Soc Chem Ind J* 66:259-67 Ag '47
- Precipitation of oxalates from homogeneous solution; application to separation and volumetric determination of magnesium. L. Gordon and E. R. Caley. *Anal Chem* 20:560-3 Je '48
- Quantitative microdetermination of magnesium in plant tissue and soil extracts; rapid colorimetric method. M. Drosdoff and D. C. Neapass. *bibliog Anal Chem* 20:673-4 J1 '48

Iron content

- Solubility of iron in liquid magnesium. D. W. Mitchell. *bibliog il diag Metals Tech* 15:TP2309 1-9 Ja '48

Metallography

- Control of grain size in magnesium casting alloys. V. C. F. Holm and A. I. Krynitsky. *bibliog Foundry* 75:81+ O '47; *Same, J Res Nat Bur Stand* 39:265-70 S '47
- Effects of germination in C-alloy magnesium castings. J. McCabe and W. H. Sharp. *il Metal Prog* 52:806-9 N '47
- Precipitation in a magnesium sheet. C. T. Haller and C. S. Barrett. *il Am Soc for Metals Trans* 39:670-6; *Discussion*. 676-9 '47
- Solubility of iron in liquid magnesium. D. W. Mitchell. *bibliog il diag Metals Tech* 15:TP2309 1-9 Ja '48
- Some special metallographic techniques for magnesium alloys. F. F. George. *bibliog il Am Soc for Metals Trans* 38:686-708 '47

Protection

- Brush anodic films onto local areas; electrolytic brush used to anodize aluminum and magnesium. E. Simon and F. W. Thomas. *il Am Mach* 92:103-5 J1 1 '48
- New surface treatment for magnesium; anodizing in a hot saturated sodium carbonate solution. A. L. Kohl and H. Waterman. *bibliog il Iron Age* 161:50-5 Ja 22 '48
- Process sheet for chrome-pickle treatment; reference book sheet. G. Black. *Am Mach* 92:141 O 21 '48
- Process sheet for dichromate treatment of magnesium; reference book sheet. G. Black. *Am Mach* 92:135 My 6 '48

Testing

- Plastic deformational analyses on pure magnesium. L. A. Carapella and W. E. Shaw. *bibliog il diag Am Soc for Metals Trans* 38:729-50; *Discussion*. 750-6 '47
- Something more is done about the weather; Dow Chemical's magnesium corrosion tests. *il Aero Digest* 56:24 Ja '48

MAGNESIUM acetate

- Acetate metabolism in yeast, studied with isotopic carbon. S. Weinhouse and R. H. Millington. *bibliog Am Chem Soc J* 69:3089-93 D '47

MAGNESIUM alloys

- A.S.T.M. code for naming aluminum and magnesium alloys. W. L. Nelson. *Oil & Gas J* 47:269 O 7 '48
- Application tables to guide in the selection of materials; sand cast magnesium alloys; reference book sheet. Z. Fox. *Product Eng* 18:167 D '47
- Application tables to guide in the selection of materials; wrought magnesium alloys; reference book sheet. Z. Fox. *Product Eng* 18:165 D '47
- Calculation of press forging pressures and application to magnesium forgings. R. L. Dietrich and G. Ansel. *il diags Am Soc for Metals Trans* 38:709-28 '47

MAGNESIUM alloys—Continued

- Cathodic corrosion protection studied at Dow Chemical's metals protection laboratory; use of magnesium as a galvanic anode. *Il Steel* 121:106-7+ N 10 '47
- Commercial tolerances for magnesium-alloy sheet and extrusions; tables; data sheet. *Mach* 55:251 O '48
- Composition and properties of magnesium alloys for die casting; table. *Steel* 122:88 F 9 '48
- Control of grain size in magnesium casting alloys. V. C. F. Holm and A. I. Krynskiy. *bibliog Foundry* 75:81+ O '47; Same. *J Res Nat Bur Stand* 52:265-70 S '47
- Corrosion characteristics of some magnesium-zinc-cadmium alloys. G. C. Kuczynski and F. Schonfeld. *bibliog Electrochem Soc J* 93:41-6 F '48
- Corrosion-resistant aluminum-magnesium alloys. P. Brenner and W. Roth. *Il Engineering* 166:44-7 J 19 '48
- Densities of magnesium-cadmium solid solutions. J. M. Singer and W. E. Wallace. *bibliog J Phys & Colloid Chem* 52:999-1006 Je '48
- Economical joining of magnesium possible through new brazing method. P. Klain. *bibliog Il Materials & Methods* 27:53-7 Je '48
- Effects of germination in C-alloy magnesium castings. J. McCabe and W. H. Sharp. *Il Metal Prog* 52:806-9 N '47
- Electroplating magnesium and its alloys. H. K. DeLong. *Il Metal Finishing* 46:46-9+ J 1 '48
- Engineering economics of magnesium. H. A. Knight. *Il Materials & Methods* 26:61-5 D '47
- Light metals in automotive construction; progress made by Kaiser-Frazer. C. P. Bedford. *Il Steel* 122:102+ Mr 15 '48
- Low temperature transformations in lithium and lithium-magnesium alloys. C. S. Barrett and O. R. Trautz. *bibliog Metals Tech* 15:TP2346 1-23 Ap '48; Discussion. 15:TP2449 72-7 Ag '48
- Magnesium and its alloys. *Welding J* 27:272 Mr '48
- Magnesium and its alloys; review of technical progress during 1947. R. G. Wilkinson. *bibliog (73 titles) Il Metallurgia* 37:133-6 Ja '48
- Magnesium as weight saver for various parts of B-36. *Il Aviation W* 49:21-2+ J 12 '48
- Magnesium castings; their production and use. A. W. Winston and M. E. Brooks. *Il diags Mech Eng* 70:425-31 My '48
- Magnesium-cerium-zirconium alloys; properties at elevated temperatures; abstracts. A. J. Murphy and R. J. M. Payne. *Il Engineering* 163:485-7 Je 6 '47; *Metal Prog* 53:268+ F '48; *Product Eng* 19:153-6 Ap '48
- Magnesium in the B-36. *diag Light Metal Age* 6:20 O '48
- Magnesium parts may be hot-formed from sheet to produce deep draws. *Il Machine Design* 20:143-6 S '48
- Magnesium playing increasingly important role in graphic arts. J. Walraven. *Il Inland Ptr* 121:34-5 Ag '48
- Manufacture and use of magnesium and its alloys; with special reference to the magnesium-zirconium-zinc range. C. J. P. Ball. *Il diag Chem & Ind* p531-6 Ag 21 '48
- New magnesium alloys offer superior properties. K. Rose. *Il Materials & Methods* 28:66-9 J 1 '48
- New surface treatment for magnesium; anodizing in a hot saturated sodium carbonate solution. A. L. Kohl and H. Waterman. *bibliog Il Iron Age* 161:50-5 Ja 22 '48
- Outstanding properties of the magnesium-zirconium alloys; abstract. C. J. P. Ball. *Metal Prog* 53:116+ Ja '48
- Precipitation in a magnesium sheet. C. T. Haller and C. S. Barrett. *Il Am Soc for Metals Trans* 39:670-6; Discussion. 676-9 '47
- Precision magnesium plates, made by new technique, eliminate electrolytes in test. G. C. Compton. *Il Inland Ptr* 121:37-9 My '48
- Prediction and reduction to minimum properties of plate compressive curves. E. H. Schuette and J. C. McDonald. *bibliog J Aeronautical Sci* 15:23-7+ Ja '48
- Pressed metal opportunities for light metals. *Il Light Metal Age* 6:12-15 F '48
- Rare metals improve magnesium alloys. *Iron Age* 162:83 J 12 '48
- Recent developments in corrosion-resistant aluminum-magnesium alloys; abstract and discussion. P. Brenner. *Engineering* 165:365 Ap 16 '48
- Room and elevated temperature properties of some sand cast magnesium-base alloys containing zinc. T. E. Leontis. *bibliog Metals Tech* 15:TP2371 1-35 Je '48
- Some special metallographic techniques for magnesium alloys. P. F. George. *bibliog Il Am Soc for Metals Trans* 38:686-708 '47
- Spinning magnesium. L. F. Hawes. *Il Iron Age* 161:72-3 F 19 '48
- Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Calingaert, H. Shapiro and I. T. Krohn. *Am Chem Soc J* 70:270-7 Ja '48
- Use magnesium plates for printing textbooks. *Inland Ptr* 121:56-7 My '48
- X ray studies of twinning and untwining in magnesium alloys. J. B. Hess and R. L. Dietrich. *Il Metals Tech* 15:TP2328 1-5 F '48

Analysis

- Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *bibliog Anal Chem* 20:630-4 J 1 '48
- Rapid determination of small amounts of silicon in magnesium alloys. D. F. Phillips and S. E. Hermon. *Metallurgia* 38:179-80 J 1 '48

Testing

- Buckling of curved sheet in compression and its relation to the secant modulus. E. H. Schuette. *diags J Aeronautical Sci* 15:18-22 Ja '48
- Factors affecting the tensile notch sensitivity of magnesium alloy extrusions. I. Cornet. *bibliog Il diags Metals Tech* 15:TP2419 1-23 Ag '48
- Fatigue strength of some magnesium sheet alloys. L. R. Jackson and H. J. Grover. *Il Am Soc T M Proc* 46:783-95; Discussion. 796-8 '46
- Hyperbolic column formulas for magnesium-alloy extrusions. E. H. Schuette. *bibliog J Aeronautical Sci* 15:523-9 S '48
- Impact strength and hardness of aircraft alloys down to -423° F. M. G. Fontana and J. L. Zambrow. *Il diags Metal Prog* 53:97-101 Ja '48
- Notch sensitivity in fatigue loading of some magnesium-base and aluminum-base alloys. G. H. Found. *Il diags Am Soc T M Proc* 46:715-37; Discussion. 738-40 '46
- Notch sensitivity in static and impact loading of some magnesium-base and aluminum-base alloys. J. P. Doan and J. C. McDonald. *bibliog diags Am Soc T M Proc* 46:1097-118 '46
- Tensile and creep strengths of some magnesium-base alloys at elevated temperature. A. A. Moore and J. C. McDonald. *Il Am Soc T M Proc* 46:970-89 '46

Welding

- Eliminating cracking in magnesium arc welds. P. F. George. *bibliog Il Welding J* 27:sup273-6 Je '48; Same. *cond. Materials & Methods* 27:68-71 Ap '48
- Welding aluminum-magnesium alloys; abstract. E. A. G. Liddiard. *Materials & Methods* 26:120-1 D '47
- MAGNESIUM aluminum ethoxide**
Essential steps in the catalytic condensation of aldehydes; nitroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J* 69:2608 N '47
- MAGNESIUM ammonium phosphate**
Accumulation of traces of arsenate by coprecipitation with magnesium ammonium phosphate. I. M. Kolthoff and C. W. Carr. *bibliog Anal Chem* 20:728-30 Ag '48
- MAGNESIUM association**
Annual meeting. 4th, New York, March 18-19. *Am Mach* 92:130 Ap 8 '48
- MAGNESIUM carbonate**
Coefficients of reflection of magnesium oxide and magnesium carbonate. F. Benford and others. *Il Opt Soc Am J* 38:445-7 My '48

MAGNESIUM carbonate—Continued

Process for the separation of magnesium carbonate from calcium carbonate; abstract. R. A. Schoenlaub. *Am Cer Soc J* 31 (Cer A):76-7 Ad 1 '48

MAGNESIUM compounds

Magnesium compounds production, sales; 1947 and 1946. *Oil Paint & Drug Rep* 154:39 Ag 23 '48

Magnesium products; progressive Spanish policy; abstract. P. L. Gomez. *Chem Age (Lond)* 58:844 Je 19 '48

Reaction of halogenomagnesium dialkylamides with nitriles; the preparation of N,N-disubstituted amidines. E. Lorz and R. Baltzly. *Am Chem Soc J* 70:1904-7 My '48

Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Calingaert, H. Shapiro and I. T. Krohn. *Am Chem Soc J* 70:270-7 Ja '48

MAGNESIUM founding

Aluminum and magnesium discussed at three sessions; A.F.A. annual meeting. *Foundry* 76:142+ Je '48

Control of grain size in magnesium casting alloys. V. C. F. Holm and A. I. Krynsky. *bibliog Foundry* 75:81+ O '47; Same. *J Res Nat Bur Stand* 39:265-70 S '47

Diecasting magnesium; plant of Litemetal diecast, inc. H. Chase. *Il Iron Age* 161:68-72 F 26 '48

Die-casting progress; pressure die-casting of magnesium alloys. A. C. Street. *Il Metallurgia* 38:3-5 My '48

Effects of germination in C-alloy magnesium castings. J. McCabe and W. H. Sharp. *Il Metal Prog* 52:806-9 N '47

Magnesium castings; their production and use. A. W. Winston and M. E. Brooks. *il diags Mech Eng* 70:425-81 My '48

Magnesium die casting; techniques used by the Mahle co., Bad Cannstatt, Germany. *Mech Eng* 70:22-3 Ja '48

Solubility of iron in liquid magnesium. D. W. Mitchell. *bibliog il diags Metals Tech* 15: TP2309 1-9 Ja '48

Stress concentrations in magnesium castings; abstract. G. H. Found. *Machine Design* 20:196 My '48

MAGNESIUM hydroxide

Contribution à l'étude de la cristallisation de la magnésie sous l'effet de températures croissantes; mécanisme du frittage. Y. Lortort and L. Halm. *bibliog il Chimie & Ind* 58:537-44 D '47

MAGNESIUM industry and trade

Rearmament program exerting little demand for magnesium. J. Anthony. *Iron Age* 162: 165-6 N 4 '48

MAGNESIUM metallurgy**Electrometallurgy**

D-c power for magnesium plants. F. S. Glaza. *il Elec Eng* 66:1063-8 N '47

MAGNESIUM oxide. See Magnesia**MAGNESIUM ribonucleate**

Chemical significance of the Gram test for bacteria. A. S. W. Haslett. *J Chem Educ* 25:322 Je '48

MAGNESIUM silicates

Hydrofluoric acid solution calorimeter and the determination of the heats of formation of Mg₂SiO₄, MgSiO₃, and CaSiO₃. D. R. Torgeson and T. G. Sahama. *bibliog diag Am Chem Soc J* 70:2156-60 Je '48

See also

Steatite

MAGNESIUM titanate

Properties of barium-magnesium titanate dielectrics. G. R. Shelton and others. *bibliog Am Cer Soc J* 31:205-12 Jl 1 '48; Same. *J Res Nat Bur Stand* 41:17-26 Jl '48

MAGNETIC analysis. See Magnetic testing**MAGNETIC circuits**

Design of magnetic amplifiers. A. S. Fitzgerald. *bibliog diags Franklin Inst J* 244: 323-62 N '47

MAGNETIC clutches. See Clutches, Magnetic**MAGNETIC control**

Magnetic drives for paper mills. G. L. Oscarson. *il diags Paper Ind* 30:574-6+ Jl '48

Magnetic latching of relays. F. Didszuns. *diags Product Eng* 19:110-12 Ap '48

MAGNETIC field

André behavior of aluminum in a magnetic field. G. Antonoff and A. Rowley. *il diags J Phys & Colloid Chem* 52:1105-8 Je '48

Application of Onsager's reciprocal relations to thermoelectric, thermomagnetic, and galvanomagnetic effects. H. B. Callen. *bibliog Phys R* 73:1349-58 Je 1 '48

Approximations to a uniform magnetic field; roots of Legendre polynomials of even order. L. W. McKeenhan. *R Sci Instr* 19:475 Jl '48

Azimuthal variation of betatron fields at injection time. G. D. Adams and others. *R Sci Instr* 18:799-801 O '47

Capacitance effect of conductor in magnetic field; combination of gaseous tube rectifier and a d-c motor. W. Richter. *Elec Eng* 66: 784-6 Ag '47; Discussion. 67:833, 1128-9 Ag, N '48

Currents excited on a conducting plane by a parallel dipole. B. C. Dunn, Jr. and R. King. *bibliog diags Inst Radio Eng Proc* 36:221-9 F '48

Design of an air core synchrotron. J. P. Blewett. *diags J Ap Phys* 18:976-82 N '47

Effect of large quadrupole interactions on nuclear radiofrequency spectra at twice Larmor frequency. N. F. Ramsey. *bibliog Phys R* 74:236-91 Ag 1 '48

Electromagnetic deflector for the beam of the 184-inch cyclotron. W. M. Powell and others. *il diags R Sci Instr* 19:506-12 Ag '48

Electron optical observation of magnetic fields. L. Marton. *il diag J Ap Phys* 19: 863-4 S '48

Electron optical Schlieren effect. Franklin Inst J 246:165-7 Ag '48

Field measurements on magnetic recording heads. D. L. Clark and L. L. Merrill. *diags Inst Radio Eng Proc* 35:1575-9 D '47

Focusing field for a 180° type spectrograph. F. M. Beiduk and E. J. Konopinski. *diag R Sci Instr* 19:594-3 S '48

Focusing in crossed fields of charged particles at relativistic energies. W. E. Millett. *diag Phys R* 74:1058-63 N 1 '48

Magnetic field configurations due to air core coils. J. P. Blewett. *bibliog diag J Ap Phys* 18:968-76 N '47

Magnetic field of a rotating molecule. G. C. Wick. *bibliog Phys R* 73:51-7 Ja 1 '48

Magnetic field patterns shown by electron microscope. *il diags Electronics* 21:128+ O '48

Magnetic field strength meter employing the Hall effect in germanium. G. L. Pearson. *il diags R Sci Instr* 19:263-5 Ap '48

Magnetism of celestial bodies. J. Mariani. *Phys R* 73:78-9 Ja 1 '48

Method of photographing a cloud chamber between the poles of an iron magnet. H. R. Crane and G. M. Grover. *diags R Sci Instr* 18:796 O '47

Motion of electrons subject to forces transverse to a uniform magnetic field. P. K. Weimer and A. Rose. *diags Inst Radio Eng Proc* 35:1273-9 N '47

Proton-controlled magnetic field regulator. M. E. Packard. *diags R Sci Instr* 19:435-9 Jl '48

Temperature dependence of penetration depth of a magnetic field in superconductors. J. G. Daunt and others. *bibliog Phys R* 74: 342 O 1 '48

Use of nuclear plates in a magnetic field. I. G. Barbour. *Phys R* 74:507 Ag 15 '48

Velocity and two-directional focusing of charged particles in crossed electric and magnetic fields. N. Svartholm. *Phys R* 74: 108-9 Jl 1 '48

See also

Faraday effect

Hall effect

MAGNETIC flux

Current transformers; influence of leakage flux under various conditions. H. E. Forrest. *diags Elec R (Lond)* 143:51-4 Jl 9 '48

Magnetic flux has bearing on power plant operation; why bearing of Corliss engine-generator set keeps burning out. G. Holman. *Power Generation* 52:74-6 My '48

Magnetic properties of generator rotors as affected by composition. G. S. Downing and others. *il diag Metal Prog* 53:87-91 Ju '48

MAGNETIC flux—Continued

Tooth-ripple losses in unwound pole-shoes. W. J. Gibbs, bibliog Inst E E J 94 pt 2:2-12 F '47; Discussion. 95 pt 2:545-9 O '48

MAGNETIC instruments

Applications of the magnetic oscillograph. R. H. Cole, il Iron Age 161:74-7 F 26 '48
Paramagnetic oxygen analyzer. C. A. Dyer, bibliog il diags R Sci Instr 18:696-702 O '47
Stuck point of frozen pipe accurately determined by new electronic tool; Magna-Tector, H. David, il diag Oil & Gas J 47:107-8 Je 10 '48

See also

Fluxmeters

MAGNETIC lenses

Magnetic lens beta- and gamma-ray spectrometer. E. A. Quade and D. Halliday, bibliog diags R Sci Instr 19:234-9 Ap '48

MAGNETIC materials

Alternating-current measurements of magnetic properties. H. W. Lamson, diags Inst Radio Eng Proc 36:266-77 F '48
Curie temperature alloys. J. Shaw, bibliog il diags Product Eng 19:158-63 Je '48
Discussion on a symposium on powder metallurgy; magnetic powders and products. Iron & Steel Inst J 157:544-50 D '47; Same cond. Engineer 184:73, 106-8 JI 25-Ag 1 '47
Effects of overlapping joints in laminated magnetic cores on the m.m.f. and power required for their a.c. magnetization. O. I. Butler and C. Y. Mang, bibliog diags Inst E E J 95 pt 2:15-24 F '48
Electrical and allied developments during 1947; chemical and metallurgical. G. Bartlett, Gen Elec R 51:47 Ja '48
Improved material for magnetic amplifiers; symposium on magnetic materials, Washington, D.C., June 15, il diags Electronics 21:128-4 Ag '48
Influence of various factors of manufacture on the magnetic properties of transformer sheet; abstract. G. Delbart and others, Metal Prog 54:242-4 Ag '48
Investigation of the eddy-current anomaly in electrical sheet steels. F. Brailsford, bibliog diags Inst E E J 95 pt 2:38-48 F '48
Japanese magnetic materials not made in U.S. Product Eng 19:121 Ja '48
Magnetic amplifier for industrial controls; new 50/50 nickel-iron alloy Permenorm 5000-Z. Elec World 130:103-5 S 25 '48; Mach 55:178 S '48
Magnetic amplifiers improved by new alloy. il Instruments 21:544 Je '48
Magnetic materials; composition, properties, Electronics 21:M20-3 Mid-Je '48
Magnetic materials handling; abstract. J. E. Ryan, Steel 122:109 Mr 22 '48
Magnetic powders of colloidal size, Iron Age 162:161 Ag 19 '48
Magnetic properties of generator rotors as affected by composition. G. S. Downing and others, il diag Metal Prog 53:87-91 Ja '48
Magnetic properties of generator rotors as affected by treatment. G. S. Downing and others, il Metal Prog 53:235-40 F '48
Magnetic sheet steel. D. Edmundson, il diags Engineer 186:269-71 S 10 '48
Mechanism of precipitation in a permanent magnet alloy; Cu-Ni-Co alloy (Cusco). A. H. Geisler and J. B. Newkirk, bibliog il diags Metals Tech 15:TP2444 1-20 Ag '48
Navy sponsors magnetic alloy; Permenorm 5000-Z. il Bsns W 46-9 JI 3 '48
Nickel-iron alloy dust cores. S. E. Buckley, bibliog il Elec Com 25:126-31 Je '48
Permanent magnet alloys. E. M. Underhill, Electronics 21:122-3 Ja '48
Permanent-magnet material. J. H. Goss, il Mech Eng 70:671-4 Ag '48
Permanent magnets of sintered oxides. R. J. Studders, il Product Eng 19:120-2 F '48
Polarization phenomena in nickel-iron alloys, and their effective elimination. O. I. Butler, bibliog diags Inst E E J 95 pt 2:627-35 O '48
Powder metallurgy as applied to permanent magnets. A. E. Franks, il Iron Age 161:82-5 Ap 8 '48
Predetermination of the magnetic properties of ferromagnetic laminae at power and audio frequencies. O. I. Butler and C. Y. Mang, bibliog diags Inst E E J 95 pt 2:25-37 F '48

Properties of some new insulating and magnetic materials; from symposium presented at 1948 winter meeting of AIEE. Product Eng 19:147-8 Mr '48

Resin bonding of silicon steels in electrical laminated cores. S. E. Ashkinazy and J. J. Preisler, il Product Eng 19:85-9 N '48

Special magnetic alloys and applications. G. W. Elmen and E. A. Gaugler, diags Elec Eng 67:343-5 S '48; Same, Power Generation 52:64-7 S '48

Test characteristics of recording wire. G. S. Carter and R. Koontz, il Tele-Tech 7:38-40+ My '48

They pull profits up; pull expenses down, il diags Mod Ind 15:46-9 Ap '48

Vector permeability; magnetic properties of transformer core materials. K. A. Macfadyn, diags Inst E E J 94 pt 3:407-14 N '47

See also

Magnets

Testing

Anisotropic strains produced by surface abrasion, and their effect on the magnetic properties of silicon sheet steel. R. G. Martindale, bibliog diags Inst E E J 95 pt 2:620-6 O '48

Some aspects of the theory of iron-testing by wattmeter and bridge methods. N. F. Astbury, bibliog diags Inst E E J 95 pt 2:607-16 O '48

MAGNETIC measurements

Applications of magnetochemistry to polymers and polymerization. P. W. Selwood, bibliog diags J Res Nat Bur Stand 41:151-62 Ag '48

Cathode-ray magnetization curve tracer. M. V. Scherb, bibliog il diags R Sci Instr 19:411-19 JI '48; Correction. 19:674 O '48

Electron optical Schlieren effect. L. Marton, il diag J Ap Phys 19:687-8 JI '48

Experiments on the design of synchrotron magnets. W. C. Parkinson and others, diags R Sci Instr 18:734-8 O '47

Field measurements on magnetic recording heads. D. L. Clark and L. L. Merrill, diags Inst Radio Eng Proc 35:1575-9 D '47

Is your well still drilling granite wash or have you reached solid granite? use of magnetic property measurements. C. J. Deegan, map diags Oil & Gas J 47:84+ S 2 '48

Magnetic leakage evaluated with an electrolytic tank. F. Levi, il diags Electronics 21:178-4 Ag '48

Magnetic measurement of the thickness of composite copper and nickel coatings on steel. A. Brenner and E. Kellogg, il J Res Nat Bur Stand 40:295-9 Ap '48

Magnetic measurements on 2,2'-benzothiazyl disulfide and bis-(4-ethoxy-10-phenanthryl) peroxide. H. G. Cutforth and P. W. Selwood, bibliog diag Am Chem Soc J 70:278-81 Ja '48

Magnetic studies on the dissociation and disproportionation of some hexaarylethanes. W. Byerly, H. G. Cutforth and P. W. Selwood, Am Chem Soc J 70:1142-3 Mr '48

Magnetic study of phase-change processes in iron-silicon alloys. K. M. Guggenheimer and others, bibliog Iron & Steel Inst J 158:192-9 F '48

Magnetization in perpendicularly superposed direct and alternating fields. F. J. Beck and J. M. Kelly, bibliog diag J Ap Phys 19:551-62 Je '48

Microwave resonance absorption in ferromagnetic semiconductors. W. H. Hewitt, Jr. Phys R 73:1118-19 My 1 '48

Predetermination of the magnetic properties of ferromagnetic laminae at power and audio frequencies. O. I. Butler and C. Y. Mang, bibliog diags Inst E E J 95 pt 2:25-37 F '48

See also

Fluxmeters

Magnetic testing

Magnetometers

MAGNETIC mines. See Mines, Submarine

MAGNETIC moment

Binding energy of the triton. M. Goepfert-Mayer and R. G. Sachs, Phys R 73:185 Ja 15 '48

MAGNETIC moment—Continued

- Convergent expression for the magnetic moment of the neutron. D. Rivier and E. C. G. Stueckelberg. *Phys R* 74:218 J1 15 '48; Correction. 74:986 O 15 '48
- Divergence difficulty and mixed meson theory. G. Araki. *bibliog Phys R* 74:985-6 O 15 '48
- Does the electron have an intrinsic magnetic moment? G. Breit. *bibliog Phys R* 72:984 N 15 '47; Correction. 73:1410-11 Je 1 '48
- Hyperfine structure of atomic hydrogen and deuterium. D. E. Nagle and others. *bibliog Phys R* 72:971 N 15 '47
- Intrinsic moment of the electron. H. M. Foley and P. Kusch. *bibliog Phys R* 73:412 F 15 '48
- Magnetic exchange moment for He^2 and H^2 . H. L. Anderson. *bibliog Phys R* 73:919-20 Ap 15 '48
- Magnetic moment of H^2 and He^3 in the Møller-Rosenfeld theory of nuclear forces. A. Thellung and F. Villars. *Phys R* 73:924-5 Ap 15 '48
- Magnetic moment of He^3 . H. L. Anderson and A. Novick. *Phys R* 73:919 Ap 15 '48
- Magnetic moment of nucleons according to the pseudovector meson theory. G. Araki. *Phys R* 74:986 O 15 '48
- Magnetic moment of the deuteron. A. Roberts. *bibliog Phys R* 72:979 N 15 '47
- Magnetic moment of the electron. P. Kusch and H. M. Foley. *bibliog Phys R* 74:250-63 Ag 1 '48
- Magnetic moment of the electron. J. M. Luttinger. *bibliog Phys R* 74:893-8 O 15 '48
- Magnetic moments of Cu^{63} and Cu^{65} . R. V. Pound. *bibliog Phys R* 73:523-4 Mr 1 '48
- Measurement of the deuteron proton magnetic-moment ratio. F. Bitter and others. *Phys R* 72:1271 D 15 '47
- Nuclear magnetic moments of bromine. R. V. Pound. *bibliog Phys R* 72:1273 D 15 '47
- Nuclear moments of I^{127} , Ga^{69} , Ga^{71} and P^{31} . R. V. Pound. *bibliog Phys R* 73:1112-13 My 1 '48
- Nuclear resonance absorption in hydrated crystals; fine structure of the proton line. G. E. Pake. *bibliog il diags J Chem Phys* 16:327-36 Ap '48
- Nuclear spin and magnetic moment of Na^{22} . L. Davis, jr. *bibliog Phys R* 74:1193 N 1 '48
- Phenomenological theory of exchange currents in nuclei. R. G. Sachs. *bibliog Phys R* 74:433-41 Ag 15 '48
- Quantitative determination of the magnetic moment of the neutron in units of the proton moment. F. Bloch and others. *bibliog diags Phys R* 74:1025-45 N 1 '48
- Quantum-electrodynamics and the magnetic moment of the electron. J. Schwinger. *bibliog Phys R* 73:416-17 F 15 '48
- Ratio of g values of the $^2P_{1/2}$ and the $^2S_{1/2}$ states in ionized calcium. J. R. McNally, jr. *bibliog Phys R* 73:1130 My 1 '48
- Relative nuclear moments of H^1 and H^2 . F. Bloch and others. *bibliog Phys R* 72:1125-6 D 1 '47
- Shapes of nuclear induction signals. B. A. Jacobsohn and R. K. Wangness. *bibliog Phys R* 73:942-6 My 1 '48
- Some effects of the intrinsic magnetic moment of the electron. G. Breit. *bibliog Phys R* 74:666-63 S 15 '48
- Two new methods for detecting nuclear radiofrequency resonance absorption. A. Roberts. *bibliog diags R Sci Instr* 18:845-8 N '47

MAGNETIC paper. See Paper, Magnetic**MAGNETIC permeability**

- Natural and induced ferromagnetic resonance. J. E. Birks. *bibliog Phys R* 74:988 O 15 '48
- Superconductivity of lanthanum and cerium. W. T. Ziegler. *J Chem Phys* 16:838 Ag '48
- Vector permeability; magnetic properties of transformer core materials. K. A. Macfadyen. *diags Inst E E J* 94 pt 3:407-14 N '47

MAGNETIC poles, Theory of

- Motion of an electron in the field of a magnetic pole. Harish-Chandra. *Phys R* 74:883-7 O 15 '48
- Theory of magnetic poles. P. A. M. Dirac. *Phys R* 74:817-30 O 1 '48

MAGNETIC properties

- Alternating-current measurements of magnetic properties. H. W. Lamson. *diags Inst Radio Eng Proc* 36:266-77 F '48
- Anisotropic strains produced by surface abrasion, and their effect on the magnetic properties of silicon sheet steel. R. G. Martindale. *bibliog diags Inst E E J* 95 pt 2:620-6 O '48
- Continuous determination of oxygen concentration based on the magnetic properties of gases. R. D. Richardson. *bibliog il diags A S M E Trans* 70:211-15; Discussion. 215-16 Ap '48
- Dipolar broadening of magnetic resonance lines in crystals. J. H. Van Vleck. *diags Phys R* 74:1168-83 N 1 '48
- Domain theory and the dependence of the coercive force of fine ferromagnetic powders on particle size. C. Kittel. *diag Phys R* 73:810-11 Ap 1 '48
- Ferromagnetic domain observation. L. Marton. *il diag Phys R* 73:1475 Je 15 '48
- Influence of saturation on the differential leakage in squirrel cage motors. B. Heller. *Electrician* 141:477-81 Ag 13 '48
- Line shapes in nuclear paramagnetism. G. E. Pake and E. M. Purcell. *bibliog Phys R* 74:1184-8 N 1 '48
- Magnetic properties of generator rotors as affected by composition. G. S. Downing and others. *il diag Metal Prog* 53:87-91 Ja '48
- Magnetic properties of generator rotors as affected by treatment. G. S. Downing and others. *il Metal Prog* 53:235-40 F '48
- Magnetic properties of iron-powder compacts. R. Steinitz. *il Metals Tech* 15:TP2335 1-11 F '48; Discussion. 15:TP2449 23-6 Ag '48
- Magnetic properties of ordered nickel-manganese alloys. R. I. Jaffee. *bibliog J Ap Phys* 19:867-70 O '48
- Magnetic resonance absorption in diluted chrome alums. C. A. Whitmer and others. *bibliog Phys R* 73:1468-70 Je 15 '48
- Magnetic resonance absorption of chromic ammonium alum. P. R. Weiss and others. *Phys R* 72:975 N 15 '47
- Magnetic study of stainless-steel wires. P. T. Hobst and others. *bibliog Iron & Steel Inst J* 159:145-57 Je '48
- Microwave resonance absorption in ferromagnetic semiconductors. W. H. Hewitt, jr. *Phys R* 73:1118-19 My 1 '48
- Microwave spectroscopy of paramagnetic salts; the spectrum of chromic alum. F. R. Wiles. *bibliog Phys R* 73:470-6 Mr 1 '48
- Nuclear magnetism in relation to problems of the liquid and solid states. E. M. Purcell. *bibliog diags Science* 107:433-40 Ap 30 '48
- Nuclear relaxation in ice at -180°C . G. E. Pake and H. S. Gutowsky. *bibliog Phys R* 74:979-80 O 15 '48
- Paramagnetic resonance absorption in salts of the iron group. R. L. Cummow and others. *bibliog diag Phys R* 72:1233-40 D 15 '47
- Permanent magnet stability. R. J. Studders. *Product Eng* 19:129-33 N '48 (to be cont)
- Phenomenology of ferromagnetic resonance. D. Polder. *Phys R* 73:1120-1 My 1 '48
- Predetermination of the magnetic properties of ferromagnetic laminae at power and audio frequencies. O. I. Butler and C. Y. Mang. *bibliog diags Inst E E J* 95 pt 2:35-37 F '48
- Quantum theory of ferromagnetic resonance. D. Polder. *Phys R* 73:1116 My 1 '48
- Relaxation effects in nuclear magnetic resonance absorption. N. Bloembergen and others. *bibliog il diags Phys R* 73:679-712 Ap 1 '48
- Role of exchange interaction in paramagnetic absorption. C. J. Gorter and J. H. Van Vleck. *bibliog Phys R* 72:1128-9 D 1 '47
- Temperature dependence of penetration depth of a magnetic field in superconductors. J. G. Daunt and others. *bibliog Phys R* 74:842 O 1 '48
- Theory of ferromagnetic resonance absorption. C. Kittel. *Phys R* 73:155-61 Ja 15 '48

See also

Hall effect

MAGNETIC recording. See Sound—Recording and reproducing—Magnetic recording

MAGNETIC separation

Electrical separations. diag Chem Eng 56: 120-1 My '48
Magnetic purification of glass, sand. A. Ottoson. Cer Ind 50:109-10 Je '48

MAGNETIC separation of isotopes. See Isotopes**MAGNETIC separation of ores**

Magnetic concentration experiments upon iron ores used in North Lincolnshire practice. L. Reeve. il diags Iron & Steel Inst J 159: 275-80 Jl '48

MAGNETIC separators

Let magnetic separators remove tramp iron. R. F. Merwin. il diags Power 92:168-70 Mr '48
Magnetic separator for dry materials. il diag Product Eng 19:100 Ag '48
Magnetic separators for power plant coal handling. W. G. Hudson. il diags Power Generation 52:80-1 F '48
Permanent magnets for coal. F. E. Parke. diag Coal Age 53:102-4 Ag '48
Two ideas for mill control. diags Eng & Min J 149:89 My '48

MAGNETIC storms

Cosmic-ray effects from solar flares and magnetic storms. H. V. Neher and W. C. Roesch. bibliog Rs Mod Phys 20:350-2 Ja '48

MAGNETIC surveying

Aeromagnetometer profile flown from Venezuela to Texas. J. Affleck. il maps World Oil 128:223-4+ Jl '48

MAGNETIC susceptibility

Applications of magnetochemistry to polymers and polymerization. P. W. Selwood. bibliog diags J Res Nat Bur Stand 41:151-62 Ag '48

Diamagnetic susceptibilities of shared electrons. T. Yang. J Chem Phys 16:865-71 S '48

Effect of cold working on the magnetic properties of pure metals. J. Reekie and T. S. Hutchison. bibliog Phys R 74:610-20 S 1 '48

Magnetic studies on polymerisation; magnetic optical rotatory powers and diamagnetic susceptibilities of certain polymethyl methacrylates. M. E. Bedwell. Chem Soc J p 1350-3 O '47

Magnetic susceptibilities of some uranium (IV) compounds. C. A. Hutchison, jr. and N. Elliott. bibliog J Chem Phys 16:920-6 S '48

Magnetic susceptibility of uranium tetrafluoride. UfA. N. Elliott. Phys R 74:498-9 Ag 15 '48

Strain sensitivity of magnetic susceptibility. T. S. Hutchison and J. Reekie. bibliog Phys R 73:517-18 Mr 1 '48

Structure studies on chromium-aluminum oxide and related catalyst systems. R. P. Elschens and P. W. Selwood. Am Chem Soc J 69:2698-702 N '47

Susceptibility isotherms for supported copper oxide. P. W. Selwood and N. S. Dallas. Am Chem Soc J 70:2145-7 Je '48

MAGNETIC testing

Application of electrical technique to the service of some other industries; magnetic sorting bridge. H. C. Turner and G. M. Tomlin. il diags Inst E E J 94 pt 2:502-5 O '47

Cutting piston inspection costs in half; Detroit Diesel engine division of General motors corp. il Automotive Ind 99:40 N 1 '48

Develops new method of inspection by magnetism. Iron Age 162:124 S 16 '48

Hydraulic-electric system; machine for magnaflex inspection of crankshafts and camshafts. W. E. Bock. il diags Machine Design 19:107-11 D '47

Magnaflex inspection of car parts. R. H. Herman. Ry Mech Eng 122:310-12 Je '48

Magnetic particle inspection in engineering. D. E. Roda. il plan Iron Age 162:79-83 Ag 5; 82-3 Ag 12 '48

Magnetic particle inspection of silver-plated or phenolic resin coated steel. V. H. McBride. il Metal Prog 53:691-2 My '48

Nondestructive spot weld test for stainless steels; abstracts. A. M. Armour. Iron Age 160:100 N 6 '47; Materials & Methods 27: 107 Ja '48

Progress report on drill string research-non-destructive testing of drill pipe. R. C. McMaster and H. M. Banta. diag Pet Eng 19:69+ N '47

Salvage operations simplified by magnetic analysis. A. D. Stout, jr. il Iron Age 162: 86-7 Jl 1 '48

Testing of brass and other constructional materials for ferromagnetic impurities. J. R. Barker. il diags J Sci Instr 25:363-4 O '48

Tubular-goods testing device; Sclerograph operates on magnetic and ultrasonic principles. L. S. McCaslin, jr. il Oil & Gas J 47:83-4 My 6 '48

Vector fields to locate deep-seated defects in steel; use of magnetic powders and superimposed electrical fields. R. M. Killen. il Materials & Methods 28:66-7 D '47

Standards

Standards for magnetic particle inspection. D. E. Roda. il Iron Age 162:82-9 Ag 12 '48

MAGNETISM

Comments on the theories interpreting the magnetism of celestial bodies. M. Forró. bibliog Phys R 74:218-19 Jl 15 '48

Crystalline stark splitting and microwave resonance absorption in paramagnetic salts. C. Kittel and J. M. Luttinger. bibliog diags Phys R 73:162-72 Ja 15 '48

Line shapes in nuclear paramagnetism. G. E. Pake and E. M. Purcell. bibliog Phys R 74:1184-8 N 1 '48

Microwave magnetic dispersion in carbonyl iron powder. J. B. Birks. bibliog Phys R 74:843-4 O 1 '48

Nuclear paramagnetism at low temperatures. B. V. Rollin and J. Hatton. Phys R 74:346 Ag 1 '48

See also

Curie point	Magnetic measure-
Diamagnetism	ments
Electricity	Magnetomotive force
Electromagnetism	Thermomagnetism

MAGNETISM, Terrestrial

Cosmic rays; effect of magnetic field of earth. C. W. Hewlett. diags Gen Elec R 51:26-8 My '48

Induction effects in terrestrial magnetism; electric modes. W. M. Elsasser. bibliog Phys R 72:821-33 N 1 '47

Possible influence of the moon on recurrent geomagnetic activity. O. R. Wulf and S. B. Nicholson. Phys R 73:1204-5 My 15 '48

Preliminary study of a physical basis of bird navigation. H. L. Yeagley and F. C. Whitmore. bibliog maps diag J Ap Phys 18:1035-63 D '47; Discussion. J. Slepian; E. H. Varian; L. Davis, jr. 19:306-8 Mr '48

MAGNETITE

Certain magnetite deposits in New Jersey. G. L. Neumann and M. Mosier. U S Bur Mines Rep of Invest 4225:1-34 '48

Cranberry magnetite deposits. Avery county, N.C. and Carter county, Tenn. M. H. Kline and T. J. Ballard. bibliog 34pls U S Bur Mines Rep of Invest 4274:1-85 '48

Diamond drilling at the Big Ore Bank magnetite deposits, Lincoln county, N. C. A. B. Clayton and W. B. Montgomery, jr. 7pls U S Bur Mines Rep of Invest 4347:1-6 '48

Diamond-drilling blast holes, Eastern magnetite mine. C. M. Mosier. 3pls U S Bur Mines Information Circ 7433:1-7 '48

Eastern magnetite; review of 1947. J. R. Linney. il Min & Met 29:92-4 F '48

Genesis of intrusive magnetite and related ores. S. J. Shand. Econ Geol 42:634-6 N '47; Discussion. 43:232-3 My '48

Investigation of the Dillsburg magnetite deposits, York county, Pa. G. L. Neumann. 3pls U S Bur Mines Rep of Invest 4145: 1-13 '47

Jones & Laughlin increasing ore output from Benson mines. il Blast F & Steel Pl 36: 1099-100 S '48

Star Lake magnetite deposits, St Lawrence county, N.Y. (November 1945 to November 1946). D. F. Reed and C. J. Cohen. bibliog 17pls U S Bur Mines Rep of Invest 4131: 1-34 '47

Use of western magnetite as ship ballast. C. L. Severy. U S Bur Mines Information Circ 7427:1-3 '48

MAGNETIZATION

- Cathode-ray magnetization curve tracer. M. V. Scherb. bibliog il diags R Sci Instr 19:411-19 JI '48; Correction. 19:674 O '48
- Effects of overlapping joints in laminated magnetic cores on the m.m.f. and power required for their a.c. magnetization. O. I. Butler and C. Y. Mang. bibliog diags Inst E E J 95 pt 2:15-24 F '48
- Magnetization in perpendicularly superposed direct and alternating fields. F. J. Beck and J. M. Kelly. bibliog diag J Ap Phys 19:551-62 Je '48

MAGNETOCHEMISTRY

- Applications of magnetochemistry to polymers and polymerization. P. W. Selwood. bibliog diags J Res Nat Bur Stand 41:151-62 Ag '48

MAGNETOMETERS

- Aeromagnetometer profile flown from Venezuela to Texas. J. Affleck. il maps World Oil 128:223-44 JI '48
- Airborne magnetometer. il diags Electronics 21:124+ O '48
- Airborne magnetometer. H. Jensen. il Oil & Gas J 46:89-90+ Mr 11 '48
- Economics of aerial magnetics. C. J. Deegan. il Oil & Gas J 47:67+ JI 22 '48
- Flying magnetometer speeds oil search. I. Stone. il Aviation W 49:25-6 Ag 23 '48
- Flying magnetometer speeds oil search; illustrations with text. Pet Eng 19:55-6 S '48
- Gulf tells public how its magnetometer works. E. R. Quayle. Nat Pet N 40:20 Ag 11 '48
- Gulf's airborne magnetometer in Florida. J. E. Kastrop. il World Oil 128:138-40+ Ag '48
- Magnetic field strength and direction measurement; Smith magnetometer and Gradientometer. il Aero Digest 57:95 S '48
- Magnetometer survey of Bahamas. Can Min J 69:87-8 Mr '48; Same. Pet Eng 19:86 Mr '48
- Magnetometers. Fortune 37:136+ Mr '48
- Modern exploratory tools being used in five-company Bahama oil search; airborne magnetometer used in conjunction with shoran radar. W. W. Eury. il map diag Oil & Gas J 46:38-40+ N 8 '47
- Nonmagnetic magnetometer; using germanium probe as the sensing element. diag Electronics 21:166+ Ag '48
- Prospecting from the air. H. Jensen and E. F. Peterson. il Sci Am 178:24-6 Ja '48
- Testing of brass and other constructional materials for ferromagnetic impurities. J. R. Barker. il diags J Sci Instr 25:363-4 O '48
- To detect and measure stray magnetism; Smith's magnetometers. il Bsns W p62 JI 24 '48

MAGNETOMOTIVE force

- Effects of overlapping joints in laminated magnetic cores on the m.m.f. and power required for their a.c. magnetization. O. I. Butler and C. Y. Mang. bibliog diags Inst E E J 95 pt 2:15-24 F '48

MAGNETO-OPTICS

- See also
Faraday effect

MAGNETOS**Manufacture**

- Plastic, rubber moldings and metal parts combined to advantage; Scintilla magneto div. of Bendix aviation corp. H. Chase. il Materials & Methods 27:67-71 Mr '48
- Straight-line magneto production; Jack & Heintz precision industries inc. D. Reebel. il Steel 122:96-100 Mr 15 '48

MAGNETOSTRICTION

- Lamination designs for magnetostrictive underwater electroacoustic transducers. L. Camp. diags Acoustical Soc Am J 20:616-19 S '48
- Magnetostriction generators. J. A. Osborn. bibliog diags Elec Eng 67:571-8 Je '48
- Magnetostrictive radial vibrator used in underwater sound signaling. L. Camp. il diag Acoustical Soc Am J 20:289-93 My '48
- 100 kc underwater magnetostrictive transducer. L. Camp and others. il diag Acoustical Soc Am J 20:611-15 S '48
- Soldering aluminum alloys; magnetostriction oscillator vibrates soldering iron at ultrasonic frequency. F. W. Thomas and E. Simon. il diag Electronics 21:90-2 Je '48

MAGNETRON

- Certain matters concerning scaling in the magnetron with special reference to the relative efficiency of magnetrons of different sizes. W. F. G. Swann. diags Franklin Inst J 246:149-57 Ag '48
- Experimental results on standing wave type linear accelerators for electrons. E. J. Lawton and W. C. Hahn. bibliog il diag J Ap Phys 19:642-8 JI '48
- Magnetron-resonator system. E. C. Okress. bibliog diags J Ap Phys 18:1095-109 D '47
- Methods of tuning multiple-cavity magnetrons. R. B. Nelson. il diags Inst Radio Eng Proc 36:53-6 Ja '48
- Resonant cavity linear accelerator. A. B. Cullen, Jr. and J. H. Greig. diags J Ap Phys 19:47-50 Ja '48
- Resonant modes of the rising sun and other untrapped magnetron anode blocks. N. M. Kroil and W. E. Lamb, Jr. diags J Ap Phys 19:166-86 F '48
- Rising sun magnetron. S. Millman and A. T. Nordseick. bibliog diags J Ap Phys 19:166-65 F '48
- Rising sun magnetrons with large numbers of cavities. A. V. Hollenberg and others. bibliog diags J Ap Phys 19:624-35 JI '48
- Tracing of electron trajectories using the differential analyzer; electron paths in magnetrons. W. C. Hahn and J. P. Blewett. diags Inst Radio Eng Proc 36:74-6 Ja '48
- Transmitter-blocker cells. R. H. Kay and M. Surdin. diags Wireless Eng 25:55-61, 75-87 F-Mr '48
- Wavelength laws of split-anode magnetrons. G. H. Metson. diags Wireless Eng 24:352-6 D '47
- Waves and electrons traveling together; a comparison between traveling wave tubes and linear accelerators. L. Brillouin. Phys R 74:90-2 JI 1 '48
- Wide-range tuning system for magnetrons. E. N. Kather. diag Communications 28:32-3 Je '48

MAGNETS

- Chemical analysis of a permanent magnet alloy. C. H. R. Gentry. Metallurgia 38:108-13 Je '48
- Cobalt ferrite powder for magnets. Iron Age 162:94 S 9 '48
- Lifetime bearing in new meter; magnetic-suspension bearing. diags Machine Design 20:143-4 Je '48
- Magnetic suspension in meters. il diag Electrician 141:1083 O 8 '48
- Mass spectrometer magnet. H. S. Anker. bibliog diags R Sci Instr 19:440-1 JI '48
- Method of photographing a cloud chamber between the poles of an iron magnet. H. R. Crane and G. M. Grover. diags R Sci Instr 18:796 O '47
- Permanent magnet alloys. E. M. Underhill. Electronics 21:122-3 Ja '48
- Permanent-magnet material. J. H. Goss. il Mech Eng 70:671-4 Ag '48
- Permanent magnet stability. R. J. Studders. Product Eng 19:129-33 N '48 (to be cont)
- Permanent magnets for coal. F. E. Parke. diag Coal Age 53:102-4 Ag '48
- Permanent magnets in design. R. J. Studders. il diags Machine Design 20:111-14 O '48
- Permanent magnets in the ceramic industry. M. L. Jontz. Am Cer Soc Bul 27:179-80 Ap 15 '48
- Permanent magnets of sintered oxides. R. J. Studders. il Product Eng 19:120-2 F '48
- Powder metallurgy as applied to permanent magnets. A. E. Franks. il Iron Age 161:82-5 Ap 8 '48
- Revolutionary advances in watt-hour meter design; magnetic suspension of the moving element. I. F. Kinnard. il diags Gen Elec R 51:11-15 Je '48; Same. Elec Eng 67:627-9 JI '48; Same cond. Elec World 129:104-6 Je 5 '48
- They pull profits up; pull expenses down. il diags Mod Ind 15:46-9 Ap '48
- Tin plate doubling in can fabricating eliminated by simple magnet. il Steel 122:106 Mr 22 '48

MAGNETS—Continued

Tramp iron in grain elevators; use of magnetics. G. R. Wellmon. *il* diags Nat Safety N 57:23-30+ Ap '48

See also

Electrets

Electromagnets

Testing

Magnetic leakage evaluated with an electrolytic tank. F. Levi. *il* diags Electronics 21:173+ Ap '48

MAGNETS, Lifting. See Lifting magnets

MAGNIFICATION

Interferometric method for the calibration of electron microscope magnification. J. L. Farrant and A. J. Hodge. *bibliog il* J Ap Phys 19:340-4 S '48

MAGNUS, Robert B.

Portrait. Chem & Eng N 26:3022 O 11 '48

MAGOENIN

Steroidal sapogenins; magogenin and cagogenin and their biogenesis to chlorogenin and tigogenin. R. E. Marker. *Am Chem Soc J* 69:2399-401 O '47

MAHAFFIE act. See Railroad law

MAHAN, Alfred Thayer, 1840-1914
Sidelines on Mahan. J. M. Ellicott. *U S Naval Inst Proc* 74:1246-9 O '48

MAHE

See also

Labor laws and legislation—Mahé

MAHOGANY

To get more mahogany from Philippines. *Bsns W p* 129 S 18 '48

MAIL

What do you know that your secretary should, but doesn't? F. L. McKibbin, Jr. *Ptr Ink* 221:126 D 19 '47

Why a team of executives handles the mail at Riverside Metal; every order poses a special problem. J. C. Blake. *Sales Management* 59:56+ N 20 '47

MAIL cars. See Postal cars

MAIL handling

Mail goes faster, at lower cost by pneumatic tube. *il* Factory Management 105:39 N '47

MAIL order business

Gummed stickers offer mailing list control for Bussey products company, Chicago. D. S. Bussey. *il* Am *Bsns* 18:24-5+ Ag '48

Harry and David, personal farmers to the U.S.A. F. J. Taylor. *il* Adv & Sell 41:33+ O '48

Indexes of sales of chain stores and mail-order houses, monthly, Jan. 1942-Dec. 1946. *Survey of Cur Bsns* 28:11 Ja '48

Laundries into stores; Telecoin sells mail order dresses on commission. *Bsns W p* 23 Mr 6 '48

Packaged tree; Seattle firm's mail order Christmas trees. *il* Mod Packaging 21:105 D '47

Price barometers; spring catalogs of Sears, Roebuck and Montgomery Ward. *Bsns W p* 44+ Ja 24 '48

Sell repair service by direct mail? Schick razor. *Sales Management* 60:84 Ap 15 '48

See also

Insurance—Mail or—Sears, Roebuck and der selling company

Accounting

Mail-order mathematics; determining the break-even point. B. Gould. *Ptr Ink* 222:46-7 F 20 '48

Advertising

Come, deck the halls with boughs of holly! Kirk's gift package of Christmas greens. P. B. Kirk. *il* Sales Management 59:48+ N 20 '47

How to milk a successful ad; typical mail-order problem. J. Shrager. *il* *Ptr Ink* 224:40-1 S 17 '48

Neckties by mail; story of Webb Young. J. D. Woolf. *il* Adv & Sell 41:35-6+ Je '48

Telecoin corp. Buy-of-the-Month promotion. *Sales Management* 60:86 Ap 15 '48

What 92 split-run ads tell us. V. O. Schwab. *Adv & Sell* 41:33-4+ Ap '48

Selling to dealers

Leather goods manufacturer pioneers catalog retailing. *Ptr Ink* 224:94 S 24 '48

Plain's the name; sells to small town merchants. *Fortune* 38:110 Ag '48

Statistics

Retail trade; chain stores and mail-order houses; 1941-1946. *Survey of Cur Bsns* 1947 Sup p42-3 [supplemented in monthly numbers]

MAIL order stores. See Chain stores—Mail order stores

MAIL orders

Air shipment opens new vistas for mail-order sales; national distribution for Loft candy. *il* *Ptr Ink* 223:38-9 Ap 30 '48

Direct mail, Orphan Annie of department store promotion. E. B. Weiss. *il* *Ptr Ink* 222:45-6+ Mr 19 '48

How to sell to and through the new department store. E. B. Weiss. *il* *Ptr Ink* 221:36-7+ D 19 '47

Wise buyers buy by mail; Sauereisen's direct mail campaign. C. F. Sauereisen. *il* Ind Marketing 33:35+ F '48

MAIL questionnaires. See Questionnaires

MAIL service. See Air mail service; Railway mail service

MAIL surveys. See Questionnaires

MAILERS union, International. See International mailers union

MAILING departments

Mailroom studies help sales department; abstract. J. F. Pierce. *Management R* 37:454-6 S '48

MAILING lists

Building and maintaining direct mail lists; abstract. *Management R* 37:37-9 Ja '48

Gummed stickers offer mailing list control for Bussey products company, Chicago. D. S. Bussey. *il* Am *Bsns* 18:24-5+ Ag '48

Prospects for sale. *Bsns W p* 64-6+ F 14 '48

Put new vitality into your mailing list by giving it regular common sense care. *il* Inland *Ptr* 121:60 S '48

MAILLARD reaction. See Browning

MAINE university

Department of industrial cooperation. L. C. Jenness. *il* Paper Tr J 126:135-8 My 27 '48

MAINTENANCE departments

General maintenance man. C. O. Brown. *Ind & Eng Chem* 39:sup75A-6A N '47

See also

Factories—Main-

tenance and repair

Portrait. *Bsns W p* 32 D 13 '47

MAIZE. See Corn**MAKEMSON, Tom**

Honored by British foundrymen. V. Delport. *ors Foundry* 76:162+ Mr '48

MAKEREADY. See Printing, Practical—Press-work

MAKSUTOV catadioptric system. See Optical instruments

MALACHITE green

Adsorption phenomena in soils with special reference to their surface area. W. H. Cohen and B. H. Knight. *bibliog diags Soc Chem Ind J* 66:357-64 O '47

Inhibition of virus increase by malachite green. W. N. Takahashi. *bibliog Science* 107:226 F 27 '48

MALARIA

Alkaloids of dichroa febrifuga Lour. F. A. Kuehl, Jr., C. F. Spencer and K. Folkers. *Am Chem Soc J* 70:2091-3 Je '48

Aminoalkanol derivatives of benzo(f)chroman. G. B. Bachman and H. A. Levine. *bibliog Am Chem Soc J* 69:2341-6 O '47

Aminocyclophenols as antimalarials; (heterocyclic-amino)- α -amino- α -cresols; the synthesis of camoquin. J. H. Burckhalter and others. *Am Chem Soc J* 70:1363-73 Ap '48

Antimalarial constituents of Chinese drug, Ch'ang Shan, dichroa febrifuga Lour. T. Q. Chou, F. Y. Fu and Y. S. Kao. *Am Chem Soc J* 70:1765-7 My '48

Antimalarial drug synthesized at Columbia. *Chem & Eng N* 25:3746 D 15 '47

Antimalarials; 2,5-diphenyl-3-furyl amino ketones and alcohols. R. E. Lutz and R. J. Rowlett, Jr. *bibliog Am Chem Soc J* 70:1359-63 Ap '48

MALARIA—Continued

- Attempts to find new antimalarials; derivatives of various benzacridines and pyrido-acridines. J. Dobson, W. C. Hutchinson and W. O. Kermack, *Chem Soc J* p 123-6 F '48
- Attempts to find new antimalarials; further derivatives of *p*-phenanthroline. B. Douglas, R. G. Jacob and W. O. Kermack, *Chem Soc J* p 1659-61 D '48
- Basically-substituted isoxaloxazines. H. Burkett, *bibliog Am Chem Soc J* 69:2555 O '47
- Chemistry of 4-hydroxyquinolines. R. H. Reitsema, *Chem R* 43:43-68 bibliog(190 ref, p64-8) Ag '48
- Contributions to the chemistry of synthetic antimalarials; attempted synthesis of 6-methoxy-8-quinolyl- α -dialkylaminomethylcarbinols. A. McCoubrey and W. Webster, *Chem Soc J* p97-9 Ja '48
- Contributions to the chemistry of synthetic antimalarials; hydrazine hydrolysis and radical exchange reactions of *N*-substituted phthalimides in relation to the constitution of the antimalarial R.63. H. J. Barber and W. R. Wragg, *Chem Soc J* p 1331-7 O '47
- Contributions to the chemistry of synthetic antimalarials; some derivatives of 1:3:6-triazine. W. W. Cuthbertson and J. S. Moffatt, *Chem Soc J* p561-4 My '48
- Cooperative approach urged in study of major diseases; presentation of Hillebrand award to Nathan L. Drake, R. C. Elderfield, *Chem & Eng N* 26:364 Mr 22 '48
- Derivatives of 6-methoxyquinazoline with basic substituents in the 4-position. J. Walker, *Chem Soc J* p 1552-3 N '47
- Derivatives of taurine and β -alanine. M. M. Rapport and others, *bibliog Am Chem Soc J* 69:2561-3 O '47
- α -(Di-*n*-amylaminomethyl)-2-methoxy-1-naphthalenemethanol hydrochloride. T. L. Jacobs and R. I. Akawie, *Am Chem Soc J* 69:3148 D '47
- Drake named Hillebrand prize winner for antimalarials work, *Chem & Eng N* 26:454 F 16 '48
- Electric charge of red blood cells in malaria. W. B. Redmond, *bibliog Science* 107:199-200 F 20 '48
- Heterocyclic basic compounds; derivatives of 8-(3-aminopropylamino)-6-methoxyquinoline. G. W. Moersch and others, *bibliog Am Chem Soc J* 69:2619-21 N '47
- Hydroxyethyl analog of quinaquine. W. W. Carlson and L. H. Cretcher, *bibliog Am Chem Soc J* 70:597-9 F '48
- Identification of small amounts of organic compounds by distribution studies; purity of synthetic antimalarials. L. C. Craig and others, *bibliog Anal Chem* 20:134-9 F '48
- Iodination of certain phenylsulfonamido- and amino-heterocycles. R. G. Shepherd and C. E. Fellows, *bibliog Am Chem Soc J* 70:157-60 Ja '48
- Malaria melee, *il Chem Ind* 61:795-6 N '47
- Medical meetings, Washington, *Bsns W* p49-51 My 22 '48
- Method for screening antimalarial compounds in the mosquito host, L. A. Terzian, *Science* 106:449-50 N 7 '47
- Nuclear substituted 9-(4'-diethylamino-1'-methylbutylamino)-acridines. E. R. Shepard and H. A. Shonle, *bibliog Am Chem Soc J* 70:1979-80 My '48
- Operation of the United States Public health service malaria control program, F. Tetzlaff, *Pub Health Rep* 63:557-63 Ap 30 '48
- Preparation of *cis*- and *trans*-decahydroisoquinolines and of bz-tetrahydroisoquinoline. B. Witkop, *bibliog Am Chem Soc J* 70:2617-19 Ag '48
- Preparation of 1:8-naphthyridines from 2:6-diaminopyridine. V. Petrow, E. L. Rewald and B. Sturgeon, *Chem Soc J* p 1407-10 O '47
- Quinolines; some polysubstituted 4-(4'-diethylamino-1'-methylbutylamino)-quinolines. E. A. Steck and others, *bibliog Am Chem Soc J* 70:1012-15 Mr '48
- Radiation-induced fluorescence and fluorescence spectra of certain quinoline derivatives. C. C. Price, W. G. Jackson and A. Pohland, *Am Chem Soc J* 70:2983-8 S '48
- Role of the spleen in the quinine treatment of malaria; abstract, W. H. Taliaferro and others, *Science* 107:460 My 7 '48
- Some basically substituted quinoxalines. H. Gilman and H. S. Broadbent, *bibliog Am Chem Soc J* 70:2619-21 Ag '48
- Some dialkylaminoalkyl sulfides and ethers derived from quinoline and acridine heterocycles. R. O. Clinton and C. M. Suter, *bibliog Am Chem Soc J* 70:491-4 F '48
- Studies in the anthracene series; alkyl ketones derived from 1,2,3,4-tetrahydro-9,10-anthraquinone. E. L. May and E. Mosettig, *Am Chem Soc J* 69:3036-7 D '47
- Studies in the anthracene series; amino ketones derived from 9-acetylanthracene. E. L. May and E. Mosettig, *bibliog Am Chem Soc J* 70:686-8 F '48
- Studies in the series of 4-substituted quinolines. J. W. Cornforth and R. H. Cornforth, *Chem Soc J* p93-7 Ja '48
- Synthesis of antimalarials; 1-(7-chloro-2-phenylquinolyl)-4- β -diethylamino-hexanedione-1,3 and certain other compounds. J. C. Shivers and C. R. Hauser, *bibliog Am Chem Soc J* 70:437-8 Ja '48
- Synthesis of β -6-methoxyquinolyl(4)-ethylamine, β -6-methoxyquinolyl(4)propionamide, and β -6-methoxyquinolyl(4)ethylguanidine. J. Walker, *Chem Soc J* p 1684-7 D '47
- Synthesis of nuclear isomers of quinaquine. W. G. Dauben, *bibliog Am Chem Soc J* 70:2420-3 Ji '48
- Synthesis of 2- and 3-substituted naphth[1,2]imidazoles. E. W. Malmberg and C. S. Hampton, *bibliog Am Chem Soc J* 70:2415-17 Ji '48
- Synthetic antimalarials; 4-aryl-amino-6-aminoalkylaminopyrimidines; further variations. F. R. Basford and others, *Chem Soc J* p 1354-64 O '47
- Synthetic antimalarials; 2-arylguanidino-4-aminoalkylaminopyrimidines; further variations. W. H. Cliffe and others, *Chem Soc J* p574-81 My '48
- Synthetic antimalarials; pyridyl- and pyrimidyl-aminopyrimidines. F. H. S. Curd, W. Graham and F. L. Rose, *Chem Soc J* p594-7 My '48
- Synthetic antimalarials; some 4-arylguanidino-2- and -6-dialkylaminoalkylaminopyrimidines. A. F. Crowther, F. H. S. Curd and F. L. Rose, *Chem Soc J* p586-93 My '48
- Synthetic antimalarials; some derivatives of phthalazine, quinoxaline, and isoquinoline. R. D. Haworth and S. Robinson, *Chem Soc J* p777-82 Je '48
- Synthetic antimalarials; some 2-phenylureido- and 2-phenylthioureido-4-dialkylaminoalkylamino-6-methylpyrimidines. R. D. Ashworth and others, *Chem Soc J* p581-6 My '48
- Synthetic antimalarials; some quinolylamino-substituted pyrimidine derivatives. F. H. S. Curd and others, *Chem Soc J* p 1613-19 D '47
- Synthetic drugs in the fight against tropical diseases. J. Walker, *Chem & Ind* p 196-7 Mr 27 '48

Diagnosis

- Transfer of malarial parasites between blood films during mass staining procedures. M. M. Brooke and A. W. Donaldson, *bibliog diagrs Pub Health Rep* 63:991-1004 Ji 30 '48
- MALAYAN Union
- Report from Singapore; if the U.S. lets the rubber market go to pieces, kiss Malaya goodbye. G. Burck, *il map Fortune* 37:92-5+ Je '48
- Rumblings in Malaya, *Economist* 153:926 D 6 '47
- Surer shield in Malaya; new governor-general takes over, *Economist* 154:836 My 29 '48
- What is wrong with Malaya? *Economist* 155:104 Ji 17 '48

See also

- | | |
|--------------------|---------------------|
| Electric apparatus | Radio broadcasting— |
| Industry—Malayan | Malayan Union |
| Union | Tin mines and min- |
| Mines and mineral | ing—Malayan |
| resources—Malayan | Union |
| Union | |

MALAYAN Union—Continued

Social conditions

Crime in Malaya, *Economist* 154:1070 Je 26 '48

MALEIC acid

Reaction of anthracene with maleic and fumaric acid and their derivatives and with citraconic anhydride and mesaconic acid. W. E. Bachmann and L. E. Scott. *bibliog Am Chem Soc J* 70:1458-61 Ap '48
Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, Jr. and A. D. McLaren. *bibliog Ind & Eng Chem* 40:329-31 F '48

MALEIC anhydride

Condensation of phenylcycloalkenes with maleic anhydride; synthesis of 7-methoxy-3,4-benzphenanthrene. J. Smuszko and E. J. Modest. *bibliog Am Chem Soc J* 70:2542-3 JI '48

Copolymerization; the effect of *m*- and *p*-substitution on the reactivity of α -methylstyrene toward the maleic anhydride type radical. C. Walling, D. Seymour and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1544-7 Ap '48

Experimental study of the Koppers-Hinckley-Podbielniak apparatus and method for the determination of conjugated dienes. M. Shepherd and others. *J Res Nat Bur Stand* 53:435-51 N '47

High target for maleic. *il Chem Ind* 61:973-4 D '47

Influence of substituents on the course of addition of maleic anhydride to diarylethylenes. F. Bergmann and J. Smuszko. *bibliog Am Chem Soc J* 70:2748-52 Ag '48
Ozonization of the maleic anhydride adduct of dehydroergosteryl acetate. R. H. Levin, M. M. Wesner and E. M. Meinzer. *Am Chem Soc J* 70:2834-5 Ag '48

Reaction of furan with maleic anhydride. R. B. Woodward and H. Baer. *Am Chem Soc J* 70:1161-6 Mr '48

Versatile organic reactants; abstract. F. Armitage. *Paint Oil & Chem R* 111:41 JI 8 '48

Analysis

Polarographic determination of free monomer in heteropolymerization reaction mixtures. G. C. Whitnack. *bibliog il Anal Chem* 20:659-61 JI '48

MALENKOV, Georgi Maximilianovich, 1901—Economic brain trust of Soviet Russia, *por Bsns W* p22-4 My 15 '48

MALLALIEU, Wilbur E. 1874—To receive brokers' gold medal. *por East Underw* 49:24 O 15 '48

MALLEABLE founders' society

Meeting, Cleveland, Sept. 24. *Foundry* 76:130+ N '48

MALONALDEHYDE

Preparation, alcoholysis and reduction of cyanoacetaldehyde diethylacetal; malonaldehyde tetraethylacetal. S. M. McElvain and R. L. Clarke. *bibliog Am Chem Soc J* 69:2657-60 N '47

MALONATES

1,4-Addition reactions; the addition of acylamidomalones to acrolein. O. A. Moe and D. T. Warner. *Am Chem Soc J* 70:2763-5 Ag '48

MALONIC acid

Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylaminomethylpyrrole; proposed synthesis of β -2-pyrrolealanine. W. Herz, K. Dittmer and S. J. Cristol. *bibliog Am Chem Soc J* 70:504-7 F '48

Alkylation with non-ketonic Mannich bases; aminothiazoles and pyrrole. N. F. Albertson. *bibliog Am Chem Soc J* 70:669-70 F '48

Isopiestic measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25° J. M. Stokes. *bibliog Am Chem Soc J* 70:1944-6 My '48

Synthesis of alkylmalonic esters by oxalate condensations. D. E. Floyd and S. E. Miller. *bibliog Am Chem Soc J* 69:2354-5 O '47

Synthesis of α,β -unsaturated amides. A. Galat. *Am Chem Soc J* 70:2596 JI '48

MALPRACTICE liability insurance. See Insurance, Malpractice liability

MALRAUX, André, 1895—Men around de Gaulle. *por Bsns W* p26 O 16 '48

MALT

Conversion of corn amylopectin by barley malt enzymes. T. M. Back, W. H. Stark and C. C. Vernon. *bibliog Ind & Eng Chem* 40:30-4 Ja '48

Two problems in brewing science. I. A. Preece. *bibliog Chem & Ind* p611-14; Discussion. 614-15 S 25 '48

See also

Wort

MALT sirup

Determination of malt sirup density; application of the Brabender recording viscometer. R. H. Fosnot and R. W. Haman. *bibliog diags Anal Chem* 20:955-7 O '48

MALTA fever. See Brucellosis

MALTOL

Synthesis of maltol. M. A. Spielman and M. Freifelder. *bibliog Am Chem Soc J* 69:2908-9 N '47

MALTOSE

Production of maltose sirups from granular wheat flour. A. Efron and R. H. Blom. *bibliog Ind & Eng Chem* 40:412-15 Mr '48

MAMMALS, Fossil

Blancan faunas, their age and correlation. P. O. McGrew. *diag Geol Soc Bul* 59:549-52 Je '48

Menatotherium, eocene mammal from France. G. G. Simpson. *diag Am J Sci* 246:165-70 Mr '48

Pleistocene mammals and terraces in the Great Plains. C. B. Schultz and T. M. Stout. *diags Geol Soc Bul* 59:553-83, pl 1 *bibliog* (p574-87) Je '48

Pushing back the history of land mammals in western North America. C. Stock. *diag Geol Soc Bul* 59:327-32 Ap '48

MAN

Science and the whole man. E. W. Sinnott. *Mech Eng* 70:113-17+ F '48

Influence of environment

Some problems of human ecology in polar regions. M. C. Shelesnyak. *Science* 106:405-9 O 31 '47

Origin and antiquity

Antiquity of modern man. L. C. Eiseley. *il Sci Am* 179:16-19 JI '48

MAN, Prehistoric

Man-apes of South Africa. W. M. Krogman. *il Sci Am* 178:16-19 My '48

Tepepan man; a study of an ancient human skeleton from the valley of Mexico; abstract. J. Romero and T. D. Stewart. *Science* 106:512 N 28 '47

MANAGEMENT

Role of management in independent enterprise. W. H. Worrlow. *Foundry* 76:133+ My '48

Role of scientific and mathematical methods in the management of large scale enterprise. R. S. Burlington. *J Eng Educ* 38:366-73 Ja '48

Study on the management prerogative issue. J. G. Turnbull. *Personnel* 25:106-24 S '48

Toward new horizons; management reconstructs its thinking. E. H. Scheil. *il Dun's R* 56:11-13+ My '48; Abstract. *Management R* 37:388-90 Ag '48

See also

Business management	Foundry management
Employment management	Industrial management
Factory management	Machine shop management
	Retail trade—Store management
	Sales management
	also Subdivision Management under special subjects, e.g. Airplane factories—Management; Electric utilities—Management; Railroads—Management

Bibliography

Management abstracts. Published monthly by British institute of management, 17 Hill st, London, W.1

MANAGEMENT research

Administration of management research. E. Buckley. *Advanced Management* 13:51-7 Je '48

MANCHESTER, New Hampshire

Water supply

Diesel engine standby for water works pumping. *il Pub Works* 79:25 Ag '48
Opposed piston Diesel engine in pumping station. L. A. Harlow. *il Diesel Power* 26:42-4 My '48

MANDelic acid

Mechanism of the conversion of phenylglyoxal to mandelic acid. W. v. E. Doering, T. I. Taylor and E. F. Schoenewaldt. *bibliog Am Chem Soc J* 70:455-7 F '48

MANGANESE

Abnormal creep in carbon steels; effect of manganese, silicon and molybdenum. J. Glen. *il Iron & Steel Inst J* 155:501-12 Ap '47; Discussion. 157:579-86 D '47

CaSiO₃-(Pb+Mn) phosphor. J. B. Merrill and J. H. Schulman. *bibliog il Opt Soc Am J* 38:471-9 My '48

Determination of the free energy of formation of the manganous ion from thermal data. A. Walkley. *bibliog Electrochem Soc J* 93:316-23 Je '48

Effect of manganese and molybdenum on the microstructure and mechanical properties of low-alloy ferritic weld metal. W. G. Benz, jr. *diags Welding J* 26:sup742-8 D '47

Effect of manganese on the properties of cast carbon and carbon-molybdenum steels. N. A. Ziegler and others. *il diags Am Soc for Metals Trans* 38:398-434 *bibliog*(106 titles, p429-34); Discussion. 434-6 '47

Effect of manganese on the short iodide method for copper. E. T. Pinkney, R. Dick and R. S. Young. *Soc Chem Ind J* 66:342 O '47; Discussion. *Chem & Ind* p61-2 Ja 24 '48

Effect of the manganese/carbon ratio on the brittle fracture of mild steel. W. Barr and A. J. K. Honeyman. *4pls Iron & Steel Inst J* 157:239-42 O '47; Discussion. 158:327-36 Mr '48

Emission spectra of silicate phosphors with manganese activation. K. H. Butler. *bibliog Electrochem Soc J* 93:143-56 My '48

Infra-red stimulability of CaSiO₃:Pb and CaSiO₃:(Pb+Mn). J. H. Schulman and others. *Opt Soc Am J* 38:817-18 S '48

Manganese activated calcium silicate phosphors. H. C. Froelich. *bibliog Electrochem Soc J* 93:101-13 Ap '48

Manganese content of some feeding stuffs. K. A. Hyde. *Chem & Ind* p393 Je 19 '48

Manganese. 1947. N. B. Melcher. *Eng & Min J* 149:92 F '48

Optical properties of Ni, Co, Fe, Mn, and Cd. F. Bueche. *bibliog diags Opt Soc Am J* 38:806-10 S '48

Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing. *bibliog diags Rs Mod Phys* 20:112-22 Ja '48

Theory and kinetics of specific oxidation; trivalent manganese-oxalate reaction. F. R. Duke. *bibliog Am Chem Soc J* 69:2885-8 N '47

See also

Manganese alloys

Analysis

Determination of iron and manganese; recent findings of Russian chemists. *Chem Age (Lond)* 59:459 O 2 '48

Determination of silicon and manganese in iron and steel. *Metallurgia* 38:346-52 O '48

Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *bibliog Anal Chem* 20:630-4 JI '48

Improved spectrographic source. C. Braudo and H. R. Clayton. *bibliog il diags Soc Chem Ind J* 66:269-67 Ag '47

Potentiometric investigation of tripropylophosphatomanganic(III) acid. J. I. Watters and I. M. Kolthoff. *bibliog Am Chem Soc J* 70:2455-60 JI '48

Removal of manganese in determinations of the zinc, calcium, and magnesium of manganese ores and products. R. L. Evans. *Anal Chem* 20:37 Ja '48

Isotopes

Yields of neutrons from photo-neutron sources. B. Russell and others. *bibliog diags Phys R* 73:545-9 Mr 15 '48

Physiological effect

Trace metals in human nutrition; cobalt, copper, manganese and zinc as dietary essentials. W. F. J. Cuthbertson. *bibliog Chem & Ind* p391-3 Je 19 '48

MANGANESE alloys

Age hardening copper-cobalt-manganese alloys. J. W. Fredrickson. *bibliog il Am Soc for Metals Trans* 38:593-617 '47

Copper-manganese alloys; properties of cold-worked and annealed alloys containing 2 to 20 per cent manganese. R. S. Dean and others. *bibliog Am Soc for Metals Trans* 38:577-91; Discussion. 591-2 '47

Effect of a dispersed phase on grain growth in Al-Mn alloys. P. A. Beck and others. *bibliog*(44 titles) in *Metals Tech* 15:TP 2475 1-30 S '48

Equilibrium of iron-carbon-silicon and of iron-carbon-manganese alloys with mixtures of methane and hydrogen at 1000°. R. P. Smith. *bibliog Am Chem Soc J* 70:2724-9 Ag '48

Liquidus-solidus points of the manganese-nickel system. J. M. Paul and G. V. Beard. *J Phys & Colloid Chem* 52:750-3 Ap '48

Magnetic properties of ordered nickel-manganese alloys. R. I. Jaffee. *bibliog J Ap Phys* 19:867-70 O '48

Twinning in tetragonal alloys of copper and manganese. F. T. Worrell. *bibliog il diag J Ap Phys* 19:929-33 O '48

See also

Iron alloys—Manganese alloys

MANGANESE bronze

Stress corrosion of manganese bronze castings. T. L. Sheehan and H. E. Dickerman. *il Foundry* 76:82-7+ JI '48

Tinning manganese bronze. I. R. Valentine. *il Steel* 122:68-70 Ja 12 '48

MANGANESE bronze and brass company, limited

Statement by the chairman. J. C. Colquhoun. *Economist* 154:741 My 1 '48

MANGANESE chloride

Catalytic action of salt pairs. G. Schwab and A. Karatzas. *bibliog diag J Phys & Colloid Chem* 52:1053-60 Je '48

Determination of the free energy of formation of the manganous ion from thermal data. A. Walkley. *bibliog Electrochem Soc J* 93:316-23 Je '48

Faraday effect at microwave frequencies. M. C. Wilson and G. F. Hull, jr. *Phys R* 74:711 S 15 '48

Potassium permanganate and manganese chloride. *Chem Age (Lond)* 57:761 D 13 '47

MANGANESE compounds

Interaction of manganic ion and oxalate; rates, equilibria and mechanism. H. Taube. *bibliog Am Chem Soc J* 70:1216-20 Mr '48

Paramagnetic resonance absorption in salts of the iron group. R. L. Cummerow and others. *bibliog diag Phys R* 72:1233-40 D 15 '47

Spectroscopic evidence for activation of fluorescence by high valency manganese ions. G. Szigeti and others. *J Chem Phys* 15:881-2 D '47

MANGANESE metallurgy

Beneficiation of oxide and carbonate manganese ores from the Phillipsburg district, Granite county, Mont. R. R. Wells and others. *U S Bur Mines Rep of Invest* 4138:1-14 '47

Concentration of carbonate and oxide manganese ores from the vicinity of Tracy, central California. B. K. Shibler and others. *U S Bur Mines Rep of Invest* 4137:1-16 '47

Concentration of Lake Valley mines oxide manganese ore from Deming, N.Mex. K. C. Dean and others. *U S Bur Mines Rep of Invest* 4136:1-8 '48

Concentration of manganese ore from southeastern Juab county, Utah. B. K. Shibler and R. Havens. *U S Bur Mines Rep of Invest* 4141:1-11 '47

MANGANESE metallurgy—Continued

Concentration of manganese ores from Boulder Dam recreational area, Clark county, Nev. J. V. Batty and W. W. Agey. U S Bur Mines Rep of Invest 4302:1-12 '48

Concentration of manganese ores from Grand and Emery counties, Utah. G. M. Potter and others. U S Bur Mines Rep of Invest 4142:1-40 '47

Concentration of miscellaneous oxide manganese ores from Yavapai, Yuma, Maricopa, and Mohave counties, Ariz. W. J. Long and others. U S Bur Mines Rep of Invest 4291:1-24 '48

Concentration of oxide manganese ore from Sheep Mountain property, Durkee district, Oregon. R. R. Wells and W. W. Agey. U S Bur Mines Rep of Invest 4149:1-7 '47

Concentration of oxide manganese ore from the Ophir Hill mine, Ophir, Tooele county, Utah. S. J. Hussey and others. U S Bur Mines Rep of Invest 4130:1-6 '47

Concentration of oxide manganese ores from the Agulla district, Ariz. W. G. Sandell and D. T. Holmes. U S Bur Mines Rep of Invest 4330:1-10 '48

Concentration of oxide manganese ores from the Artillery Peak deposit, Mohave county, Ariz. R. Havens and others. U S Bur Mines Rep of Invest 4148:1-16 '47

Concentration of oxide manganese ores from the Havasu Lake district, California and Arizona. R. Havens and others. U S Bur Mines Rep of Invest 4147:1-18 '47

Concentration of oxide manganese ores from the vicinity of Long Valley, Coconino county, Ariz. C. H. Schack and others. U S Bur Mines Rep of Invest 4140:1-13 '47

Concentration of Richmond Hill oxide manganese ore from Lead, Lawrence county, S. Dak. G. M. Potter and K. C. Dean. U S Bur Mines Rep of Invest 4331:1-8 '48

Gibellini manganese-zinc-nickel deposits, Eureka county, Nev. E. O. Binyon. 5pls U S Bur Mines Rep of Invest 4162:1-9 '48

Electrometallurgy

Electrodeposition of gamma manganese. D. Schlain and J. D. Prater, bibliog il diag Electrochem Soc J 94:58-73 Ag '48

Electrolytic Mn for steelmaking; abstract. Metal Prog 53:426+ Mr '48

Electrolytic manganese in acid and basic electric steel foundry practice and basic steel ingot production. F. Sillers, jr. and others, bibliog U S Bur Mines Rep of Invest 4157:1-24 '47

Electrolytic manganese in open-hearth and Bessemer steel tests at Jones & Laughlin steel corp., Pittsburgh, Pa. F. Sillers, jr. bibliog U S Bur Mines Rep of Invest 4303:1-33 '48

Electrowinning of manganese from chloride electrolytes. J. H. Jacobs and P. E. Churchward, bibliog Electrochem Soc J 94:108-21 S '48

Electrowinning of manganese from domestic ores. J. H. Jacobs, bibliog U S Bur Mines Rep of Invest 4163:1-19 '47

Producing an alloying element of high purity. W. L. Hammerquist. J Chem Educ 25:392-3 Jl '48

MANGANESE mines and mining**Arizona**

Artillery Peak manganese deposits, Mohave county, Ariz. R. S. Sanford and L. A. Stewart. 11pls U S Bur Mines Rep of Invest 4275:1-45 '48

Concentration of miscellaneous oxide manganese ores from Yavapai, Yuma, Maricopa, and Mohave counties, Ariz. W. J. Long and others. U S Bur Mines Rep of Invest 4291:1-24 '48

Concentration of oxide manganese ores from the Agulla district, Ariz. W. G. Sandell and D. T. Holmes. U S Bur Mines Rep of Invest 4330:1-10 '48

Concentration of oxide manganese ores from the Artillery Peak deposit, Mohave county, Ariz. R. Havens and others. U S Bur Mines Rep of Invest 4148:1-16 '47

Concentration of oxide manganese ores from the Havasu Lake district, California and Arizona. R. Havens and others. U S Bur Mines Rep of Invest 4147:1-18 '47

Concentration of oxide manganese ores from the vicinity of Long Valley, Coconino county, Ariz. C. H. Schack and others. U S Bur Mines Rep of Invest 4140:1-13 '47

California

Concentration of carbonate and oxide manganese ores from the vicinity of Tracy, central California. B. K. Shabler and others. U S Bur Mines Rep of Invest 4137:1-16 '47

Concentration of oxide manganese ores from the Havasu Lake district, California and Arizona. P. Havens and others. U S Bur Mines Rep of Invest 4147:1-18 '47

Missouri

Ellington manganese deposit, Reynolds county, Mo. A. C. Johnson. 2pls U S Bur Mines Rep of Invest 4284:1-5 '48

Montana

Beneficiation of oxide and carbonate manganese ores from the Phillipsburg district, Granite county, Mont. R. R. Wells and others. U S Bur Mines Rep of Invest 4138:1-14 '47

Nevada

Concentration of manganese ores from Boulder Dam recreational area, Clark county, Nev. J. V. Batty and W. W. Agey. U S Bur Mines Rep of Invest 4302:1-12 '48

Gibellini manganese-zinc-nickel deposits, Eureka county, Nev. E. O. Binyon. 5pls U S Bur Mines Rep of Invest 4162:1-9 '48

Oregon

Concentration of oxide manganese ore from Sheep Mountain property, Durkee district, Oregon. R. R. Wells and W. W. Agey. U S Bur Mines Rep of Invest 4149:1-7 '47

Pennsylvania

Investigation of Simon & Coles manganese deposit, Bedford county, Pa. W. H. Kerns and R. S. Sanford. 2pls U S Bur Mines Rep of Invest 4312:1-6 '48

Investigation of the Crichtfield manganese deposit, Huntingdon county, Pa. W. H. Kerns and R. S. Sanford. 2pls U S Bur Mines Rep of Invest 4326:1-7 '48

South Dakota

Concentration of Richmond Hill oxide manganese ore from Lead, Lawrence county, S. Dak. G. M. Potter and K. C. Dean. U S Bur Mines Rep of Invest 4331:1-8 '48

Utah

Concentration of manganese ore from southeastern Juab county, Utah. B. K. Shabler and R. Havens. U S Bur Mines Rep of Invest 4141:1-11 '47

Concentration of manganese ores from Grand and Emery counties, Utah. G. M. Potter and others. U S Bur Mines Rep of Invest 4142:1-40 '47

Concentration of oxide manganese ore from the Ophir Hill mine, Ophir, Tooele county, Utah. S. J. Hussey and others. U S Bur Mines Rep of Invest 4130:1-6 '47

Virginia

Investigation of Round Mountain manganese properties, Bland county, Va. M. H. Kline and A. F. Robertson. 8pls U S Bur Mines Rep of Invest 4342:1-9 '48

Watson manganese deposit, Page county, Va. M. H. Kline and W. G. Agnew. 7pls U S Bur Mines Rep of Invest 4232:1-10 '48

Yancey-Crawford manganese deposit, Rockingham county, Va. M. H. Kline and W. G. Agnew. 5pls U S Bur Mines Rep of Invest 4231:1-5 '48

MANGANESE ores

Gibellini manganese-zinc-nickel deposits, Eureka county, Nev. E. O. Binyon. 5pls U S Bur Mines Rep of Invest 4162:1-9 '48

Producing battery-grade manganese-dioxide. A. V. Taylor, jr. flow sheet il Min Cong J 34:46-7+ Je '48

MANGANESE oxides

Anodic deposition of manganese dioxide; tr. by O. C. Ralston. P. Marx. U S Bur Mines Information Circ 7464:1-9 '48

MANGANESE oxides—Continued

- Catalytic oxidation of ammonia to nitrous oxide; manganese oxide-bismuth oxide catalyst. K. A. Kobe and P. D. Hosman. *bibliog Ind & Eng Chem* 40:397-9 Mr '48
- Heat of adsorption of gases on manganous-chromic oxide at room temperature. T. Ward. *Chem Soc J p* 1244-6 S '47
- Heterogeneity of catalyst surfaces; zinc oxide-chromic oxide, manganous oxide-chromic oxide, chromic oxide gel. H. S. Taylor and S. Liang. *bibliog Am Chem Soc J* 69:2989-91 D '47
- Manganous ion-manganese dioxide electrode. A. W. Hutchison. *bibliog Am Chem Soc J* 69:3051-4 D '47
- Producing battery-grade manganese-dioxide. A. V. Taylor, Jr. flow sheet *il Min Cong J* 34:46-7+ Je '48
- Reduction of oxides by hydrogen and carbon monoxide. W. E. Garner. *Chem Soc J p* 1239-44 S '47
- Structure of calcium silicate phosphors. G. R. Fonda and H. C. Froelich. *bibliog Electrochem Soc J* 93:114-22 Ap '48
- Valence inductivity. P. W. Selwood. *Am Chem Soc J* 70:383 F '48

MANGANESE steel

- High manganese steel and its deposition by arc welding. R. W. Edwards. *il Metallurgia* 33:12-14+ My '48

MANHATTAN chemicals, Inc.

- Custom chemicals. *Chem Ind* 63:215-16 Ag '48

MANHOLE covers

- Cover design to help free manholes of gases. *il Elec World* 130:112 O 9 '48

MANHOLES

- Gas fire in sewer manhole traced to sanitary-fill operation; abstract. L. C. Bailey. *Eng N* 139:863 D 25 '47
- Racking cable in manholes. *diag Elec World* 129:68 Ja 31 '48

MANHOLES, Concrete

- Precast concrete manholes speed installation time. F. J. Johnson. *il diag Elec World* 129:148+ My 27 '48

MANIFOLDS

- Aboveground welded manifolds on Gulf's west Texas system. H. A. Johns. *il diag Oil & Gas J* 47:225 S 23 '48
- Manifold for disposal of fumes given off during macro-Kjeldahl digestive process. E. H. Tyner. *diag Anal Chem* 20:273 Mr '48
- Pipeline manifold rebuilt while in full operation. G. B. Nicholson. *il World Oil* 127:165-9 Ja '48

MANILA**Water supply**

- Water works troubles. *Pub Works* 79:52 Ag '48

MANILA hemp

- Abaca production and exports, Costa Rica. *For Comm W* 31:30 Ap 10 '48

MANILA rope. See Rope**MANIOC. See Cassava****MANIPULATORS**

- G.E. mechanical manipulator. *il Mech Eng* 70:690-1 Ag '48; Same. *Power Generation* 52:69-70 Je '48; Abstract. *Chem Age (Lond)* 58:645 My 8 '48

MANIPULATORS, Welding

- Jigs and fixtures facilitate economic mass welding. O. L. Dubie. *il Steel* 122:90-3 My 3 '48
- Stand holds three welding fixtures; assembly of Coca-Cola bottle-dispensing machines. C. W. Holmstrom. *il diag Am Mach* 92:128 S 23 '48

MANITOBA**See also**

- Mines and mineral resources—Manitoba

MANNICH reaction

- Alkylation with non-ketonic Mannich bases; aminothiazoles and pyrrole. N. F. Albertson. *bibliog Am Chem Soc J* 70:669-70 F '48

- Alkylation with the methidide of 1-methyl-3-dimethylaminomethylindole (1-methylgramine). H. R. Snyder and E. L. Ellet. *bibliog Am Chem Soc J* 70:1703-5 My '48
- Mannich reaction with 1,2-dibenzoyl ethane. P. S. Bailey and R. E. Lutz. *Am Chem Soc J* 70:2412-14 J1 '48

- Researches on acetylenic compounds; the Mannich reaction with monosubstituted acetylenic compounds. E. R. H. Jones. I. Marszak and H. Bader. *Chem Soc J p* 1578-9 D '47

MANNITOL

- Anhydrides of polyhydric alcohols; some alkenyl ethers of 1:4-3:6-dianhydromannitol and 1:4-3:6-dianhydrosorbitol. H. Gregory and L. F. Wiggins. *diag Chem Soc J p* 1405-7 O '47

Analysis

- Methods for the routine estimation of mannitol, alginic acid, and combined fucose in seaweeds. M. C. Cameron and others. *bibliog diag Soc Chem Ind J* 67:161-4 Ap '48

MANNOPYRANOSIDOXANTHINE

- Application of the Hofmann reaction to the synthesis of heterocyclic compounds; the synthesis of 3-p-mannopyranosidoxanthine and of 9-p-ribosepyranosidoxanthine. R. A. Baxter, A. C. McLean and F. S. Spring. *Chem Soc J p* 523-5 Ap '48

MANNOSE

- Electrolytic reduction of hexoses. E. A. Parker and S. Swann, Jr. *bibliog il diags Electrochem Soc Trans* 92 (preprint 23):261-86 '47

Analysis

- Determination of mannose; mannans in hardwoods. L. E. Wise, E. K. Ratliff and B. L. Browning. *bibliog Anal Chem* 20:825-8 S '48

MANNOSIDOSTREPTOMYCIN

- Crystalline trihydrochlorides of streptomycin and mannosidostreptomycin. L. J. Heuser, M. A. Dolliver and E. T. Stiller. *bibliog Am Chem Soc J* 70:2833-4 Ag '48

MANNURONIC acid

- Amino derivatives of mannuronic acid. H. L. Frush and H. S. Isbell. *bibliog il J Res Nat Bur Stand* 41:11-16 J1 '48

MANOMETERS

- Apparatus for measurement of vapor pressure. R. R. Legault, B. Makower and W. F. Taiburt. *bibliog diags Anal Chem* 20:428-30 My '48
- Dynamic vacuum manometer. L. B. Lipson and G. W. Crawford. *il R Sci Instr* 19:372-3 My '48
- Highly sensitive differential manometer. H. Matheson and M. Eden. *diags R Sci Instr* 19:502-6 Ag '48
- Ionization manometer of high sensitivity. R. E. B. Makinson and P. B. Treacy. *bibliog diags J Sci Instr* 25:298-9 S '48
- Manometric measurement of the biochemical oxygen demand of sewage. D. H. Caldwell and W. F. Langelier. *bibliog il diags Sewage Works J* 20:202-18 Mr '48
- New type manometer. *Franklin Inst J* 246:184 Ag '48
- Pressure divider. L. Cohen. *diag J Sci Instr* 25:208 Je '48
- Quartz fibre manometer. *il Engineer* 186:16-17 J1 2 '48; *Electrician* 140:1928 Je 18 '48
- Sensitive mercury manometer. I. E. Puddington. *diag R Sci Instr* 19:577-9 S '48
- Simple adaptation of the mercury calibration of Warburg manometer sets to insure interchangeability. S. C. Allen. *Science* 107:604-5 Je 4 '48
- Simplified absolute and differential manometer. R. Gilmont. *bibliog diags Anal Chem* 20:474-7 My '48
- Strain-sensitive resistance wire manometer. A. G. Keenan and R. L. McIntosh. *bibliog diags R Sci Instr* 19:336-9 My '48
- Vapor pressure of benzotrifluoride measured by the Rodebush manometer. G. W. Sears and E. R. Hopke. *bibliog J Phys & Colloid Chem* 52:1137-42 O '48

MANOSTAT. See Pressure regulators**MANPOWER. See Labor supply****MANTLE process. See Drying****MANUFACTURERS**

- Ties world business to local employees; Kenosha manufacturers depict role of industry in community affairs. *Sales Management* 61:50 O 1 '48

Directories

- Canadian trade index, 1122p \$6 Canadian manufacturers' assn, 67 Yonge st, Toronto 1 '48

MANUFACTURERS—Directories—Continued

Directory of Texas manufacturers; classified by products and by cities as of October 1947. 173p, 169p pa \$3.50. Bur. of business research, College of business administration, Univ. of Texas, Austin 12 '47
Trade index of U.S. manufacturers, 1947. 385p
Dun & Bradstreet, 290 Broadway, New York 8 '47

MANUFACTURERS' agents

How to find and appraise qualified sales agents
W. B. Knight, Sales Management 61:65-6+ S 15 '48

Lower distribution costs with functional middlemen; manufacturer's agents, brokers, commission merchants and others.
R. B. Smith, Adv & Sell 40:52+ N '47

MANUFACTURES

Creative effort; key to balanced economy with graph showing patents and technical publications ratio for southern states. R. E. Seymour, Manuf Rec 117:37+ F '48

Distribution problems of the small manufacturer.
P. T. Norton, jr, Manuf Rec 117:38+ JI '48

Injury rates in manufacturing, third quarter of 1947. Mo Labor R 66:302-4 Mr '48

Long-term manufacturing opportunities in the upper Mississippi valley. W. H. Voskuil. (Special bul. no. 6) 32p Univ. of Illinois, Bur. of economic and business research, Urbana '48

Manufacturing industries; wage rate structure, 1945-46. L. M. David. Mo Labor R 66:281-2 Mr '48

100 largest manufacturing corporations. Nat City Bank p69-70 Je '48; Same, Comm & Fin Chr 167:2540-1 Je 10 '48

Production; to make or to purchase? P. T. Norton, jr, Manuf Rec 117:130+ My; 50+ Je '48

Sales from the start; distribution problems of small shop manufacturers; use of manufacturers' selling organization. K. F. Kirchofer, Ind Marketing 33:50+ F '48

Who owns big business? analysis of stockholdings in largest corporations; manufacturing, Trusts & Estates 87:5-8 JI '48

See also

Brickmaking	Machine shops
Catalogs	Machinery
Chemistry, Technical	Metal work
Coke manufacture	Metals
Cotton manufacture	Paper making
Factories	Patents
Factory management	Production
Gas manufacture	Products, New
Glass manufacture	Rayon manufacture
Industry	Standardization
Inspection	Subcontracting
Labor and laboring	Textile fabrics
classes	Trade marks
also subdivision	Manufacture under
names of products, e.g. Airplanes—Manu-	facture; Resinous products—Manufacture

Statistics

Declining new order volume in 1947; with graphs for selected commodities. Survey of Cur Bsns 28:4-5 Mr '48

Financial trends of large manufacturing corporations, 1938-46. K. C. Stokes, Survey of Cur Bsns 27:16-24 N '47

Fourteen important ratios for 36 manufacturing industries, 1946. R. A. Foulke, comp. Dun's R 55:14-15 D '47

Industrial corporation 1947 reports; with data on manufacturing earnings for 1946 and 1947. Nat City Bank p81-4 Mr '48

McGraw-Hill completes census of industry. H. Burnett, Ind Marketing 32:54-5+ D '47

Manufacturers' orders, shipments, and inventories, 1941-1946. Survey of Cur Bsns 1947 Sup p 17-19 [supplemented in monthly numbers]

Progress of the postwar transition; manufacturing output in 1947; with figures for other years. Survey of Cur Bsns 28:13-16 F '48

Reduction in manufacturing net income during second quarter of 1947. Comm & Fin Chr 167:137 Ja 8 '48

Revised indexes of manufacturers' sales and inventories, 1939-47. Survey of Cur Bsns 28:8-9+ My '48

Small manufacturers' profits show sharp drop; with graphs. Bsns W p24 S 11 '48

Trend of manufactures during the first half of 1948; with comparative data for 1946-1947. Survey of Cur Bsns 28:7-9 Ag '48

MANUFACTURING chemists' association

Meeting, Skytop, Pa. June 3. Chem & Eng N 26:1834-5 Je 21 '48; Oil Paint & Drug Rep 153:5+ Je 7 '48

MANUFACTURING plants. See Factories**MANURES**

Effect of organic manures on the auxin content of soils and the auxin balance in soils. J. H. Hamence. Soc Chem Ind J 67:277-81 JI '48

MAP markers, Plastic

Better than a rubber stamp. il diags Plastics 8:44+ Ja '48

MAPLE

Hemicelluloses from maple holocellulose; yield and composition. R. L. Mitchell, S. C. Rogers and G. J. Ritter. bibliog Ind & Eng Chem 40:1528-9 Ag '48

How to handle northern hard maple flooring. Eng N 141:71 S 30 '48

Method for isolation of hemicelluloses directly from maple wood. S. C. Rogers, R. L. Mitchell and G. J. Ritter. bibliog Anal Chem 19:1029-32 D '47

Studies on lignin and related compounds; high pressure hydrogenation of maple wood. J. M. Pepper and H. Hibbert. bibliog Am Chem Soc J 70:67-71 Ja '48

Studies on lignin and related compounds; high pressure hydrogenation of maple wood; hydrol lignin. C. P. Brewer, L. M. Cooke and H. Hibbert. bibliog Am Chem Soc J 70:57-9 Ja '48

MAPPING

Field determination of latitude and longitude in advanced surveying. M. O. Schmidt. bibliog diag J Eng Educ 38:502-6 Mr '48

Radar's magic eye surveys a continent; Australian mapping project. Civil Eng 18:117 F '48

See also

Photographic surveying

MAPPING, Aerial

Aerial mapping cuts surveying costs. Eng N 140:1015 Je 24 '48

Air survey of forest lands. S. T. B. Losee. Pulp & Pa of Can 49:98+ My '48

Automatic focus rectifier for mosaic map making. il Mech Eng 70:234 Mr '48

Comparison of the use of polaroid and colored filters in the multiplex aeroprojector. R. G. Livingston. bibliog il diag Mo U Sch Mines & Met Bul tech ser v 17 no 4:1-29 '47

Distribution of coastal black-sands in North Carolina, South Carolina, and Georgia, as mapped from an airplane. V. E. McKelvey and J. R. Balsley, jr. maps Econ Geol 43:518-24 S '48

Investigations show advantages of extremely wide-angle lenses in aerial mapping. il Civil Eng 18:561+ S '48

Lenses of extremely wide angle for airplane mapping. I. C. Gardner and F. E. Washer. il diags J Res Nat Bur Stand 40:93-103 F '48; Same. bibliog Opt Soc Am J 38:421-31 My '48

Prospecting from the air. H. Jensen and E. F. Peterson. il Sci Am 178:24-6 Ja '48
Shoran for surveying. W. F. Kroemmelbein. il diags Electronics 21:112-17 Mr '48

MAPS

Clean permanent subway maps. il Mod Plastics 25:178 D '47

Manual for the classification and cataloguing of maps in the American geographical society's collection. 43p pa \$1 American geographical soc, B'way at 156th st, New York 47

See also

Geological maps
Relief maps
Street maps

MARBAKER, Edward E. 1888-

Named editor of the Journal of the American ceramic society. bibliog por Am Cer Soc Bul 27:285-7 JI '48

MARBLE

Marble's contribution to industrial standardization, new specification for the proper method of using and installing, R. Shauhan, *Il Ind Stand* 19:141-2 O '48

Structure of Greek marbles, G. P. Marinos, *bibliog Am J Sci* 246:386-9, pl 1-2 Je '48

MARBLES

Marbles roll into new industrial uses, *Il Bsns W* 24:5 Je 19 '48

MARCONI's wireless telegraph company, *ltd.* Chairman's report, G. H. Nelson, *Electrician* 140:664-6 F 27 '48

MARCUS, David

Portrait, *Ptr Ink* 226:38 O 29 '48

MARGARINE. See Oleomargarine**MARGARINE unie**

World of Unilever, G. Burck, *Fortune* 36:207+ D '47

MARGET, Arthur William, 1899-Harriman's men, *Bsns W* p 106 S 4 '48

MARIETTA college

Edwy R. Brown school of petroleum
Petroleum engineering schools, *Il Oil & Gas J* 46:95 D 13 '47

MARIHUANA

Tetrahydrocannabinol homologs, R. Adams, B. F. Aycock, Jr. and S. Loewe, *bibliog Am Chem Soc J* 70:662-4 F '48

Tetrahydrocannabinol homologs with doubly branched alkyl groups in the 3-position, R. Adams, S. Mackenzie, Jr. and S. Loewe, *bibliog Am Chem Soc J* 70:664-8 F '48

MARINE biological laboratories

Lerner marine laboratory on the island of Bimini, *Science* 107:39 Ja 23 '48

MARINE borers

Borers undeterred by domestic sewage; study of borer infested waters in Long Island sound, W. F. Clapp, *Eng N* 140:561 Ap 15 '48

Finding and fighting marine borers, R. D. Chellis, *Il Eng N* 140:344-7, 422-4, 493-6, 555-8 Mr 4, 18, Ap 1, 15 '48

MARINE engineering

Design trends in modern marine power plants, F. V. Smith, *Il diag Iron & Steel Eng* 25:92-7 Ap '48

Engineering outlook, *Engineering* 165:257-60 Mr 12 '48

Recent advances in mechanical engineering on shipboard, T. A. Crowe, *Il plan Engineering* 166:20-3 JI 2 '48; Same *abr. Engineer* 185:591-3 Je 18 '48

Shipbuilding and marine engineering in 1947, *Il Engineer* 185:10-13, *supp3*, 46-7, *supp2*, 66-7, 96-7 Ja 2-23 '48

See also

Boilers, Marine	Ship propulsion
Diesel engines, Marine	Ship propulsion, Electric
Gas turbines, Marine	Shipbuilding
Motor ships	Steam turbines, Marine
Naval architecture	Steamboats
Propellers	Warships
Salvage	

Study and teaching

Are refresher courses for marine engineers necessary? F. V. Smith, *Marine Eng* 53:47-8 O '48

MARINE engines

Marine engine research; abstract, A. G. Mumma, *Machine Design* 20:202+ S '48

Marine power plants of the future, F. V. Smith, *diag Marine Eng* 53:64-8 My '48

Oil engines and steam engines for marine propulsion, P. L. Jones, *Inst Mech Eng J & Proc* 167 (War emergency issue no 29):171-4 '47

See also

Diesel engines, Marine	Internal combustion engines, Outboard
Gas turbines, Marine	Ship propulsion
Internal combustion engines, Marine	Steam turbines, Marine

Lubrication

Quality control of mineral lubricating oils in marine installations, Y. A. Kuipers, *Marine Eng* 53:84+ Ag '48

MARINE exposition, National. See National marine exposition

MARINE fauna

Catastrophism in the sea and its paleontological significance, with special reference to the Gulf of Mexico, G. Gunter, *bibliog Am J Sci* 245:669-76 N '47

See also

Barnacles
Fishes
Shrimps

MARINE gas turbines. See Gas turbines, Marine

MARINE insurance. See Insurance, Marine

MARINE insurance union, International. See International marine insurance union

MARINE structures

Lateral earth pressures on flexible retaining walls; symposium, *Il plans diags Am Soc C E Proc* 74:4-100 Ja '48; Discussion, 74:1003-14, 1415-18 Je, O '48

Precast concrete units simplify construction of West Coast marine structures, B. C. Gerwick, *Il diag Civil Eng* 18:512-16+ Ag '48

Steel H-piles and pipe bents support deep-water drilling platform, C. G. Cappel, *Il map Civil Eng* 18:446-8 JI '48

See also

Breakwaters	Paint, Anti-fouling
Concrete construction, Subaqueous	Piers
Jetties	Piles and pile driving
Marine borers	

MARINE workers

Fourteenth session of the Joint maritime commission, Geneva, Dec. 2-5, 1947, *Int Labour R* 56:585-9 N-D '47

Shipping injunction brings truce, but not peace; tug-of-war between right and the left, *Il Bsns W* p 102-4 Je 19 '48

See also

Insurance, Long-shoremen's and harbor workers' compensation	Longshoremen Seamen
---	------------------------

MARION, Indiana**Sewerage**

Disposal of liquid digested sludge, D. Backmeyer, *Il Water & Sewage Works* 95:353-6 O '48

MARIONETTES

Cellulose acetate shoes for marionettes, *Il Mod Plastics* 26:260 S '48

MARITIME consultative organization (proposed), Intergovernmental. See Intergovernmental maritime consultative organization (proposed)

MARITIME law

San Francisco ocean marine men generally satisfied with U.S. laws, J. Piver, *East Underw* 49:24 JI 23 '48

See also

Admiralty
Rule of the road at sea

MARITIME PROVINCES, Canada

Maritime Provinces in their relation to the national economy of Canada, 227p pa 50c Canada, Dominion bur. of statistics, Ottawa '48

MARITIME terms. See Naval art and science—Dictionaries

MARJOLIN, Robert

Tackling aid problem; what does Europe need? *por Bsns W* p 109-10 My 29 '48

MARK, Herman Francis, 1895—Sketch, por(cover) Chem & Eng N 26:3263 N 1 '48

MARKEL, Lester

L. Markel thinks press neglects interpretive role, *por Ed & Pub* 81:61 Ap 3 '48

MARKET areas

Distribution of industrial markets by industries and states, measured by 1947 manufacturing employment figures; tabulation, *Ptr Ink* 222:56-9 Mr 26 '48

How Sterling picked the cities for 18 new district offices, J. H. Collins, *Sales Management* 60:94+ Mr 1 '48

How we check national advertising, market by market against sales; Wildroot co. alots advertising dollars in national and local media, J. W. Maurer, *Il Ptr Ink* 221:29-31 D 5 '47

MARKET areas—Continued

Mechanics of constructing a market area map. F. Strohkarck and K. Phelps. J Marketing 12:493-6 Ap '48

Trade activity in twenty-nine regions; with regional trade barometers. Dun's R 56:26+ Ja '48 [cont monthly]

MARKET research

Ad agency becomes a retailer to get facts at retail level. S. Krupnick. Il Ptr Ink 223:43+ Ap 9 '48

Ad bureau, jewelers start survey project. Ed & Pub 81:12 S 4 '48

Agency man wants faces, not figures. W. H. Wulfeck. Ed & Pub 81:16 Je 5 '48

All about Ford's new sales tool; marketing research. H. D. Everett, jr. Il Sales Management 60:44-6 Mr 1 '48

Application of marketing research techniques to problems of new products in the oil industry. C. S. Roberts. Am Pet Inst Proc 27(2):55-9 '47

Bureau guides admen to market potential. A. Stanford. Ed & Pub 81:28+ Je 26 '48

Cartoons jump returns on business questionnaire; Corning glass works secured data on market for glass piping through the mail. Il Ptr Ink 222:44-5 Ja 16 '48

Case for research by mail; how it can be used and improved. G. A. Cooper. Il Ptr Ink 224:38-9+ S 17 '48

Cold canvass turns up new uses for special item; Askania regulator co. T. M. Lowe. Ind Marketing 33:43+ Ap '48

Company practices in marketing research; abstract. W. W. Heuser and others. Management R 36:636-8 D '47

Comparison of consumer responses to weekly and monthly purchase panels. H. F. Lewis. J Marketing 12:449-54 Ap '48; Discussion. R. Ferber. J Marketing 13:223-4 O '48

Consumer-preference survey of service-station facilities and products. W. Hughes. Am Pet Inst Proc 27(2):38-40 '47

Consumer survey shows automobiles lead durable goods wanted by Detroiters. Ptr Ink 222:85-6 Ja 23 '48

Do girls and boys have brand preferences? survey in 40 centers. E. F. Howard. Adv & Sell 41:46+ F '48

Do people buy the things they say they are going to buy? Ptr Ink 225:68 O 8 '48

Farm research helps business. Bsns W p90-1 O 16 '48

Finding sales in your own backyard. Il map Mod Ind 15:55-6+ F '48

Finding sales on the new-market trail; Minneapolis-Honeywell regulator co. Il Mod Ind 15:93-4+ My '48

For future sales; Ford studies consumer preferences, solidifies its dealer organization; abstract. W. A. Williams. Bsns W p50+ D 13 '47

Ford asks some questions; market analysis and sales promotion are combined in novel quiz. Il Bsns W p74-7 My 29 '48

How Gallup poll samples public opinion; market research is main job; Audience research, Inc. Il Bsns W p42+ Je 19 '48

How LeTourneau sweetens sales trainee investment; embryo salesmen dig for potential sales. R. C. Judd. Sales Management 60:118-20 Je 1 '48

How to capitalize on bridal business. A. Potts. J Retailing 24:69-73 Ap '48

How to get research used at the executive level. R. H. Ganly. Ptr Ink 221:57-8+ D 12 '47

How to organize market surveys. G. T. Collins. Ind Marketing 32:51-2+ N '47

How to secure meaningful audits of your trade show audiences. R. B. Hanna. Sales Management 61:66+ S 1 '48

How to size up the sales potential for industrial products; Sterling sanders, J. A. Proven. Sales Management 61:78+ Ag 1 '48

How to utilize market research data in new product pricing. R. Williams, jr. Chem Ind 61:996-8 D '47

Indirect approach to market reactions. L. Cheskin and L. B. Ward. Harvard Bsns R 26:572-80 S '48

Industry experts join MIT staff in marketing conference. Chem & Eng N 26:1146-7 Ap 19 '48

Iron Age basic marketing data. Sales Management 61:132+ N 1 '48

Is the buying influence of men underestimated? C. R. Gisler. Ptr Ink 224:36+ S 24 '48

Management challenge of marketing costs. J. W. Culliton. Harvard Bsns R 26:74-83 Ja '48

Management viewpoint. G. F. Smith. Anal Chem 19:943-6 D '47

Market research and industrial development. R. Wood. J Marketing 12:503-4 Ap '48

Market research and testing. G. M. Arisman. N A C A Bul 29:745-50 F 15 '48

Market research combats high distribution costs. R. D. Crisp. Ind Marketing 33:33-4+ F '48

Market research in chemical industry; abstract. H. J. Vogler. Chem Eng 55:266+ Mr '48

Market research in top policy planning. R. F. Elder. Can Chem & Process Ind 32:753-5 Ag '48

Market research will help small companies. M. G. Jenkins. Am Mach 92:104-6 Ag 26 '48

Marketing a new sanitary chemical; abstract. E. C. Bursk. Soap & San Chem 24:128-9 Jl '48

Marketing research as a tool of management in industrial goods problems. P. W. Atwood. J Marketing 12:295-304 Ja '48

Measurement and elimination of confusion elements in recognition surveys. M. Frank. J Marketing 12:362-4 Ja '48

Measuring opinions, attitudes, and consumers' wants. F. F. Stephan. Mech Eng 70:432-3 My '48

Methods of handling certain field research problems. G. Fisk. J Marketing 12:382-4 Ja '48

Metropolitan Life analyzes market before entering new territory. Nat Underw (Life ed) 52:6 O 22 '48

Motivation analysis in market research. F. T. Schreier and A. J. Wood. J Marketing 13:172-82 O '48

Movement of people; a field for market research. A. B. Blankenship. J Marketing 13:44-51 Jl '48

Opportunities in marketing research. C. J. Dirksen and L. W. Forman. J Marketing 13:37-43 Jl '48

Outdoorsman study on dog food. Sales Management 61:120 Jl 15 '48

Plan market research like production. R. H. Ganly. Ptr Ink 223:112 My 14 '48

Pre-design research as applied to product development. R. L. Nowland and others. Mech Eng 70:208-10+ Mr '48; Excerpts. Machine Design 20:195-6 Ja '48

Recent trends in marketing. D. R. Longman. Can Chem & Process Ind 32:349-54 Ap '48

Research ABC's for exploring the smoke-stack market. W. J. Stokes. Sales Management 61:106+ Jl 15 '48

Researching the new product. W. J. Stokes. Ind Marketing 33:33+ Je; 47+ Ag '48

Selling in the postwar market; H. E. Dickerman mfg. co. E. V. Wheeler. map Steel 122:34-5+ F 23 '48

Six fads and fashions and how they began; gin rummy, bare legs, backgammon, other fads. J. D. Woolf. Il Adv & Sell 40:43+ D '47

Standard Brands' mobile lab learns consumers' food preferences. H. Brenner. Il Ptr Ink 221:37 D 12 '47

Story of upper level cooking. G. E. Stedman. Il Gas Age 101:19-20+ Ja 22 '48

Survey shows soap favorites. Soap & San Chem 24:47+ O '48

Symposium on chemical marketing; territory between synthesis research on the one hand and production on the other. Chem & Eng N 26:1690-3, 1770-4 Je 7-14 '48

Technique and acceptance of research improving; abstract. P. F. Lazarsfeld. Ptr Ink 222:106 Ja 16 '48

Teen-agers organize research firm. Ptr Ink 221:76+ D 19 '47

Tests prove branded product outsells unbranded by 15 to 1; the Simmons company and Lit brothers, Philadelphia, experiment. J. W. Hubbell. Il Ptr Ink 221:33-5 N 14 '47

There's gold in them thar kids; youth market. Il Mod Ind 15:46-9 Ja '48

MARKET research—Continued

- Thousands of consumers boss Soil-Off's selling policies; Vera Nyman still rings doorbells. J. H. Collins. *il Sales Management* 60:48+ Ja 15 '48
- Three-volume Iron Age survey analyzes metal-working field. E. J. Dever, Jr. *Ptr Ink* 225:64 O 22 '48
- Tie-in with salesmen made this industrial advertising campaign a success; sells rope to consumers and industry; Plymouth cordage co. W. A. Scherff. *il Ptr Ink* 224:34-6 Ag 6 '48
- 12 ways to improve field research; 393 interviewers give their opinions. A. S. Bennett. *il Adv & Sell* 40:48+ D '47
- Urge to splurge; Du Pont survey of impulse buying in service (clerk-operated) grocery stores. *Bsns W* p72 My 22 '48
- User research discloses unsuspected attitudes; abstract. E. E. Wachsmuth. *Machine Design* 20:196+ Ja '48
- We found millions of buyers when we measured our market; National die casting co. fruit juicer. G. W. Hanney. *il Sales Management* 59:37-9 D 15 '47
- What folks want for Christmas; cues for holiday sales drives. *il Sales Management* 61:90+ O 15 '48
- What makes research pay off at the cash register? answer: the follow-through. E. H. Toussaint. *Sales Management* 61:60-1+ S 15 '48
- What market research must do to meet the challenge of the future. F. R. Cawl. *il Ptr Ink* 225:76-7+ O 29 '48
- What sales management expects from research. R. F. Elder. *J Marketing* 13:52-5 Jl '48
- Which, mail questionnaires or personal interviews? opposing views. R. Ferber. *bibliog Ptr Ink* 222:44-7+ F 13 '48
- Why realistic dealer quotas allow for seasonal variations: Bendix, Home Appliances. A. E. Cascino. *Sales Management* 61:108+ Ag 15 '48

See also

- Advertising copy—
Market research findings
also American newspaper publishers association—Bureau of advertising; Chemical market research association
- Consumer panels
Interviewers
Questionnaires

Bibliography

- Marketing studies and consumer analysis. (Business literature v. 20, no. 5) p76-6 Business library, Newark public lib, Newark, N.J. Ja '48
- Research in marketing. R. F. Breyer, ed. *J Marketing* 12:385-408 Ja '48 [cont quarterly]

Foreign markets

- Some of the difficulties involved in research surveys abroad. L. Handel. *Ptr Ink* 222:42-3+ F 13 '48

Reports

- Preparation and presentation of the research report. *J Marketing* 13:62-72 Jl '48

MARKET research, Newspaper

- Brand loyalty shown when motorists talk. T. S. Irvin. *Ed & Pub* 81:46 My 29 '48
- Buffalo buying power depicted at four levels. T. S. Irvin. *Ed & Pub* 81:50 My 8 '48
- Consumer panel shows apparel-home furnishings buying in New York department stores; New York Sun study. R. H. Ganly. *Ptr Ink* 223:34-6 Je 18 '48
- 5,000 families in survey by Philadelphia bulletin. *Ed & Pub* 81:16 Ag 14 '48
- Honey of a report on Valley of the Bees. T. S. Irvin. *Ed & Pub* 81:56 Ag 14 '48
- Journal issues 25th analysis for Milwaukee. *Ed & Pub* 81:86 My 8 '48
- Leader or tail-end? a study in brand ranking; Milwaukee journal plots shifts in consumer preferences. *Sales Management* 60:86+ My 20 '48
- Let's quit picking on media research! R. D. Crisp. *Ptr Ink* 222:31-3 Mr 19 '48
- Los Angeles Times market study ready. E. J. Dever, Jr. *Ptr Ink* 223:80+ Je 11 '48
- Los Angeles Times point-of-sale study. *Ed & Pub* 81:7 My 15 '48

- Milwaukee Journal consumer analysis, charts 25 years of brand use; value from consistent advertising. *Ptr Ink* 223:38-9 My 7 '48
- Newspapers. *Adv & Sell* 41:88 Je '48
- 1948 Illinois markets analysis ready in fall. *Ed & Pub* 81:22 My 22 '48
- Research chiefs favor pooled market studies. J. Walker. *Ed & Pub* 81:7 My 15 '48
- Ten-market comparison shows use, position of 1,500 advertised brands; Milwaukee Journal analysis, 1947. H. E. Green. *il Ptr Ink* 221:43-5 N 21 '47
- Top attention given to consumer studies. T. S. Irvin. *Ed & Pub* 81:44 Mr 20 '48
- 25-year marketing picture is compiled; Milwaukee (Wis.) Journal consumer analysis. T. S. Irvin. *Ed & Pub* 81:58 Je 5 '48
- Two-year-old project to improve newspapers' consumer market research still short of goal. E. Tolk. *Ptr Ink* 223:102 Ap 2 '48
- What brands consumers prefer in ten markets; cooperation of ten newspapers. *Sales Management* 59:120-1 D 1 '47

MARKET statistics

- Board of advisory editors, SM's survey of buying power. *Sales Management* 60:40-1 Ap 1 '48
- Census study indicates important population shifts. W. P. Burn. *maps Ptr Ink* 222:44+ F 27 '48
- Cleveland market data handbook, 1947 edition. H. W. Green. 61 charts 77p \$2.50 Real property inventory of metropolitan Cleveland, 1001 Huron road, Cleveland 15 '47
- Consumer purchasing power and market potentials for 1949. A. H. Johnson. *Comm & Fin Chr* 168:1754+ O 28 '48
- Dayton study compares purchases of upper half vs. lower half on 31 items. W. F. Gilbert and E. F. Reading. *Sales Management* 61:114+ O 1 '48
- Discretionary spending power at multiple levels. J. H. White. *J Marketing* 13:1-11 Jl '48
- Distribution of industrial markets by industries and states, measured by 1947 manufacturing employment figures; tabulation. *Ptr Ink* 222:56-9 Mr 26 '48
- Higher family earnings and increased market potentials; address before Boston conference on distribution. A. H. Johnson. *Comm & Fin Chr* 168:1870 N 4 '48
- How industrial marketers can spot undernourished sales areas; employment volume yardstick. A. H. Dix. *Ptr Ink* 222:54+ Mr 26 '48
- How media and markets have changed since prewar years. H. H. Dobbertein. *Adv & Sell* 41:33-4+ My '48
- How to figure the background for your business. J. L. Schatz. *Spectator (Property ed)* 14:18-9 O 21 '48
- Improvements in "high spot cities" statistics published in Sales management. *Sales Management* 60:60 Je 1 '48
- Keeping tabs on markets; regional shifts in income; wartime migration. *map Bsns W* p40+ O 9 '48
- Market data book number, 1948. *Ind Marketing* 32:1-532 O 25 '47
- Market potentials, 1948. A. H. Johnson. *Harvard Bsns R* 26:11-31 Ja '48
- Milwaukee Journal consumer analysis, charts 25 years of brand use; value from consistent advertising. *Ptr Ink* 223:38-9 My 7 '48
- New American market; the Nation. *il maps Bsns W* p61-72 D 20 '47 [reprints 20c]
- 1948 survey of buying power; estimates of population, total retail sales, sales by three major store groups, effective buying income (gross and net), net farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties, cities plus special sections for Hawaii and the Dominion of Canada. *il maps Sales Management* 60:19-556 My 10 '48; Correction. 61:111 Jl 1; 67 Ag 1; 96 S 15 '48
- 1948 survey of consumer finances. *Mo Labor R* 67:286-7 S '48
- State, regional, and local market indicators, 1939-46. P. H. Anderson. U S Office of Dom Com, Economic Ser 67:1-93; pa 30c Supt of doc. '48

MARKET statistics—Continued

Today's farm market: it's big, it's rich, and it's undersold. E. H. Klaus. Sales Management 60:96-100+ Ap 1 '48
 What! the top 100 farm counties include 27 urban areas? J. White. Sales Management 60:150+ Ap 15 '48

See also

Consumption (economics)—Statistics
 Income—Statistics

Bibliography

Current list of selected information sources. P. B. B. Andrews, comp. Sales Management 60:140+ Ap 15; 101-2+ My 1 '48

MARKET stores

Improving super market operating efficiency; a case study. R. F. Spears. J Marketing 13:218-20 O '48
 Local supermarkets' business is growing; regional food chains expand, too. Il Bsns W p64-6+ Jl 17 '48
 Meat prepackaging; a new try; A.&P. installs self-service meat department in Cambridge (Mass.) supermarket. Il Bsns W p56+ Ap 17 '48
 Penn Fruit's meat packaging; two years of big-volume operation in Philadelphia supermarkets. flow diag. Il Mod Packaging 22:102-7 S '48
 Self-service food stores go for air conditioning; H. C. Bohack, inc. il plans Sheet Metal Worker 38:86-8 D '47
 Supermarket, San Leandro, Calif. il plans Arch Forum 88:134-5 My '48
 Supermarket 100 per cent self-service; Grand union co. opens new store in New York. Il Bsns W p74+ Jl 24 '48
 Super market's roach problem. D. DeLong. Il Soap & San Chem 24:143+ Ag '48

Advertising

Ad practices reported for super markets. Ed & Pub 81:30 S 11 '48
 Soft music and sales talk; a report on store-casting. E. M. Kelley. Sales Management 61:108+ O 15 '48

Lighting

Ten years ahead; lighting Lucky food market at San Leandro. Il Elec West 99:75 N '47

MARKET surveys

Chicago's \$1,200,000,000 food market; review. Am Bsns 18:40 Mr '48
 Heating survey in your town. Il Dom Eng 171:116-21+ F '48
 Listen to the learned lingo. A. S. Bennett. Ptr Ink 224:116 Ag 6 '48
 Retail market in one economic world; survey of Cumberland and Allegany county, Maryland. J. H. Cover. map J Retailing 23:146-51 D '47
 St Louis study analyzes 42 city shopping centers; location and size of retail stores in 12 lines. Sales Management 60:57+ Ja 1 '48
 Survey by Coleman co. indicates 6,390,447 gas-heated homes. Gas Age 102:32-3 Jl 8 '48

See also

Questionnaires

MARKETING

Caution! shifting markets ahead. il map Mod Ind 16:50-4 Ag '48
 Distribution overhaul is held key to future economies in business; Shell company's development of marketing, distribution practices; abstract. O. F. Minor. Nat Pet N 39:53 D 10 '47
 Distribution problems of the small manufacturer. P. T. Norton, jr. Manuf Rec 117:38+ Jl '48
 Educational campaign cracks market for infant enterprise; creating consumer desire for steel kitchen cabinets. C. E. Bullock. Il Sales Management 61:122+ Ag 15 '48
 Fight for distributors now! G. N. Robinson. Ind Marketing 33:54 Mr '48
 Folk economy of rural Mexico with special reference to marketing. G. M. Foster. J Marketing 13:153-62 O '48
 Have sales executives become too cowardly to fight for business? employing a specialist organization for distribution. Ptr Ink 223:31+ Je 11 '48

How a new company with limited capital won national distribution; Kryptar corporation markets films thru magazine distributors. D. A. Gaudin. il Ptr Ink 222:34-5+ Ja 16 '48

How a problem of heavy selling cost was licked; Fritos. J. A. Murphy. il Ptr Ink 223:29-31 My 14 '48

How dealer-distributor organization was built from scratch since war's end; Television receiver division, Allen E. DuMont laboratories. E. Marx. Ptr Ink 222:35 Mr 5 '48

Is it smart distribution to play hard to get? E. E. Tacks. Sales Management 60:120+ F 1 '48

Man-hours as a measurement of marketing efficiency. F. B. Turck. J Marketing 12:499-500 Ap '48

Marketers hear some plans to meet tomorrow's problems; New York conference of American management association. Sales Management 60:114+ Ap 15 '48

Marketing awards set up by AMA in four classes. Sales Management 61:127 O 1 '48
 Marketing pattern; Converse formula. Bsns W p74 Jl 17 '48

New product introduced through unusual channels; Bozo, rag doll, sold thru record dealers. L. F. Thomann. il Ptr Ink 224:41 Ag 20 '48

Nobody would buy this war baby product; Filtril corp. now combating moisture in home and factory. Il Sales Management 60:109-10 Mr 1 '48

101 ways to tighten your distribution. Il Mod Ind 15:45-9 Je '48

Our changing channels of distribution. V. Lebow. bibliog J Marketing 13:12-22 Jl '48
 Problems you face in switching from direct to wholesale selling. W. R. Schafer. il Sales Management 60:78+ Je 15 '48

Put your distribution policies in writing. G. D. Cran, jr. Ind Marketing 33:47+ Je '48

Recent trends in marketing; D. E. Longman. Can Chem & Process Ind 32:349-54 Ap '48

Sales from the start; distribution problems of small shop manufacturers; use of manufacturers' selling organization. K. F. Kirchofer. Ind Marketing 33:50+ F '48

Sales research grows; Du Pont, Shell Oil, and A.&P. see marketing as an opportunity. Bsns W p72+ D 13 '47

Secondary markets are gold mines. F. G. Hubbard. Adv & Sell 40:56 D '47

Selling America. Textile Col 70:26+ O '48

Significant merchandising trends of the independent tire dealer. A. F. Schalk, jr. J Marketing 12:462-9 Ap '48

Signs of mighty shift in the economy; task of distribution. P. Mazur. Comm & Fin Chr 168:1856+ N 4 '48

Specialty selling solves problem of product that needs demonstration. A. E. Puls. Ptr Ink 224:40 Jl 23 '48

Story of a product to which thousands of buyers said no! transparent plastic sunshades that protect merchandise from sun-fading. Sales Management 60:122+ Mr 1 '48

Ten reasons why Glass wax blitzed 131 major markets. H. E. Green. il Ptr Ink 224:33-5+ S 17 '48

Three-man territory setup keeps sales wheels greased for Standard Motors; territory man and field man work with wholesalers; dealer cooperation man serves dealers. J. F. Kenny. il Sales Management 60:94+ Ap 15 '48

Toward a profession of marketing. L. O. Brown. J Marketing 13:27-31 Jl '48

Towards a theory of marketing. W. Alderson and R. Cox. J Marketing 13:137-52 bibliog(50 titles, p 151-2) O '48

Trends in distribution and their effect on advertising. V. Lebow. il Ptr Ink 225:62-3+ O 29 '48

Vendor delivery coming? demands from big retailers that manufacturers handle warehousing and delivery to user. Bsns W p64+ O 16 '48

Wanted; an annual distribution audit. C. W. Smith. Sales Management 60:37-9 Ja 15 '48

What nation-wide brand name identity has done for Botany. C. F. H. Johnson, jr. il Sales Management 61:88+ O 1 '48

MARKETING—Continued

What type of distribution setup for the new product? J. A. Murphy. *il Sales Management* 60:44-6+ Ap 1 '48
 Wholesalers are the key link in your distribution chain if you sell a relatively low-priced item in fairly small quantities to many outlets over a wide area. A. Patton. *il Ptr Ink* 221:34-5+ N 7 '47

See also

Advertising	Manufacturers' agents
Brokers	Market stores
Chain stores	Merchandizing
Clubs, Merchandizing	Negro market
Containers	Price policies
Dealer helps	Products, New
Dealer relations	Retail trade
Display of merchandise	Sales management
Distribution (economics)	Sales policies
Exhibits	Salesmanship
Export trade—Marketing	Salesmen
Factors	Salesmen, Retail
Farm market	Securities—Marketing
Industrial market	Shopping centers
Jobbers	Vending machines
Mail order business	Warehouses
	Warehousing

Accounting

Basic steps in developing a distribution cost system. F. L. Heath. *N A C A Bul* 29: 949-54 Ap 1 '48

Bibliography

Book reviews. C. H. Sandage, ed. Published in quarterly numbers of *Journal of marketing*

Chain store outlets

Chain store merchandises plastics products. W. T. Grant co. *il Plastics* 8:19-22+ Mr '48
 Chains want allowances based on performance; seek some price status as jobber. *il Ptr Ink* 221:36-8 N 21 '47
 11 points to consider when selling to chain store organizations; Walgreen drug co. measures its suppliers. H. E. Green. *il Ptr Ink* 221:32-4 D 19 '47
 5 & 10's see better promotion offsetting the shrinking unit sale. T. H. McCure. *il Sales Management* 60:57-8+ My 1 '48

Cost

Cut the high cost of selling. R. D. Crisp. *Ind Marketing* 33:36-7+ My '48
 Distribution costs as a budget tool; abstract. C. W. Schelb. *Management R* 37:319-21 Je '48
 How manufacturers reduce their distribution costs. C. H. Sevin. *U S Dept of Com Economic Ser* 72:1-151; pa 35c Supt. of doc '48
 Lower distribution costs with functional middlemen; manufacturer's agents, brokers, commission merchants and others. R. B. Smith. *Adv & Sell* 40:52+ N '47
 Management challenge of marketing costs. J. W. Culliton. *Harvard Bsns R* 26:74-88 Ja '48

Department store outlets

Big-store merchandise manager; how does he influence buying? J. C. Cumming. *Sales Management* 59:88+ N 20 '47
 How a big store controller evaluates your wares. J. C. Cumming. *Sales Management* 59:122+ D 15 '47
 How effective are media-sponsored department store promotions? J. C. Cumming. *Sales Management* 60:106+ My 20 '48
 How to get your wares into that big window on Main street. J. C. Cumming. *il Sales Management* 60:84+ F 15 '48
 How to sell to and through the new department store. E. B. Weiss. *il Ptr Ink* 221: 31-4+ N 23; 39-40+ D 5; 42-3+ D 12; 36-7+ D 19; 38-9+ D 26 '47; 222:36-7+ Ja 2; 44+ Ja 9; 46+ Ja 16; 38-9+ Ja 23; 44+ Ja 30; 44+ F 6; 50+ F 13; 50+ F 20; 42-3+ F 27; 42+ Mr 5; 43-4+ Mr 12; 45-6+ Mr 19; 42+ Mr 26; 223:35+ Ap 2; 86+ Ap 9; 40+ Ap 16; 40-1+ Ap 23; 42+ Ap 30; 42-4+ My 7; 56+ My 14; 46-7+ My 21; 46+ My 28; 38-9+ Je 4; 42-3+ Je 11; 48+ Je 18 '48

How to talk business with a department store president; when such a course may be practical and profitable. J. C. Cumming. *Sales Management* 60:58+ Ja 15 '48
 One-shot big store promotion; how to plot and organize it; Dell Town promotion of Margaret O'Brien dresses. J. C. Cumming. *Sales Management* 60:112+ Mr 1 '48
 Six ways to set up a basic stock and automatic re-order system. J. C. Cumming. *Sales Management* 60:107-8+ Ap 1 '48

Direct selling

Direct-to-dealer sales strategy brings cheers from wholesalers; Resin Industries garden hose. *il Sales Management* 59:62+ D 1 '47
 Middlemen out; Bendix Radio drops its distributors. *Bsns W* p34 Jl 24 '48

Examinations

Some observations concerning marketing examinations. E. D. McGarry. *J Marketing* 13:80-1 Jl '48

Sectional distribution

Wax contender; A. S. Harrison co. markets Preen section by section. *Chem Ind* 62:45-6 Ja '48

Study and teaching

Marketing courses and marketing research. L. Clark. *J Marketing* 12:488-92 Ap '48
 Marketing executives should help raise the education level in marketing. D. K. Beckley. *Ptr Ink* 222:60 Ja 2 '48
 Teaching marketing fundamentals. D. R. G. Cowan. *J Marketing* 12:501-3 Ap '48
 Train technical men in marketing. G. B. Chandless. *Ind Marketing* 33:38 S '48

Terminology

Report of the definitions committee, American marketing association. *J Marketing* 13: 202-17 O '48

MARKETING, Cooperative

Cooperative marketing; Gerber and Armour package and sell meats for babies. *il Mod Packaging* 21:107 Mr '48

MARKETING, Foreign. See Export trade—Marketing**MARKETS, New**

Change in advertising pace opens new market, boosts sales; Angostura-Wuppermann promotes home use of bitters. V. J. Dallaire. *il Ptr Ink* 224:32-3 Jl 2 '48
 Cold canvass turns up new uses for special item; Askania regulator co. T. M. Lowe. *Ind Marketing* 33:43+ Ap '48
 Fertile imagination breeds new markets for Reynolds foil. E. M. Kelley. *il Sales Management* 61:44-5 S 1 '48
 Finding sales on the new-market trail; Minneapolis-Honeywell regulator co. *il Mod Ind* 15:93-4+ My '48
 Functions of a use-development organization in the textile industry. H. A. Thomas. *Textile Inst J* 39:P444-60 Ag '48

How do you uncover a brand new industrial market? exploring by Celanese in fabric construction. *il Sales Management* 60:95+ F 15 '48

How to uncover a new industrial market; research, advertising, publicity, and exhibits create million-pound market for Reynolds aluminum. J. C. Bjorkholm. *il Ind Marketing* 32:39-40+ D '47

Intensive dealer cultivation wins market for Masland new line; hunting and fishing clothes. E. M. Kelley. *il Sales Management* 60:59-61 Je 15 '48

Peacetime market built by introducing new use for war product; Reeves brothers promote a work garment new look. R. H. Ganly. *il Ptr Ink* 224:30-1+ S 3 '48

Philosophy of new product development. K. H. Klipstein. *Chem & Eng N* 26:1691-3 Je 7 '48

Quaker Oats nurses a stepchild product to volume and profits; fufural. L. B. Hitchcock. *il Sales Management* 60:37-9 Ja 1 '48

MARKING

Cado up front; specialty writing and marking pens re-dressed in effective package. *il Mod Packaging* 21:140-1+ D '47

MARKING—*Continued*

Printing replaces hand filling of embossed surfaces; Acro-Printer. H. O. Bates. Am Mach 92:109 My 20 '48
See also

Plastic materials—
Marking

MARKING devices

Stamps housed in plastic; personalized marking set. il Mod Plastics 26:95 My '48

MARKING machines

Ball bat marker has concave traversing die. il diags Product Eng 19:100-1 Je '48

High speed marker; Acromark machine. il diags Product Eng 19:98 O '48

Low-cost label coding; new fully automatic machines cut Lederle's costs. il Mod Packaging 22:110-12 O '48

Stamping machine has simple table movements; Acromarker model no. 1 designed to stamp nameplates, scales, dials and gauges. il diags Product Eng 19:98 Mr '48

MARKING of airways. See Airways—Marking

MARKLE foundation

Scholarships in medical science. Science 107: 237 Mr 19 '48

MARKS of origin

Foreign marks-of-origin regulations. R. P. Wakefield and N. M. Petruzzelli, rev ed of Trade promotion ser no. 199 U S Dept of Commerce, Economic ser 62:1-166; pa 35c Supt. of doc. '48

MARL

Description, correlation, and paleoecology of tertiary Cipero marl formation, Trinidad. B.W.I. R. M. Stainforth, map diag Am Assn Pet Geologists Bul 32:1292-330 Bibliog(61 titles, p 1329-30) JI '48

MARQUETTE cement manufacturing company

Marquette yesterday; celebrating 50th anniversary. il Rock Prod 51:132-4 Ap '48
Profit in cement. Bsns W p88-4 Mr 13 '48

MARQUES

Brick-sheathed marquee uses ingenious method for attaching brick to concrete. il diag Arch Forum 87:105 D '47

MARRIAGE law

Lords on marriage. Economist 154:11 Ja 3 '48
See also
Community property

MARROW, Alfred Jay, 1905-

Industrial psychology pays in this plant; how Dr A. Marrow operates Harwood textile mill. pors Mod Ind 16:67-8+ JI '48

MARROW

Cytochemical demonstration of acid phosphatase in bone marrow smears. M. Rabinovitch and others. il Science 107:322-3 Mr 26 '48

MARSEILLES**Harbor**

France rebuilds her ports. W. G. Bowman. il plans diag Eng N 141:104-7 Ag 19 '48

MARSHALL, George Catlett, 1880-

New strategy in foreign policy. R. T. Elson. por Fortune 36:80-5+ D '47
Sketch. por(cover) Bsns W p6 N 22 '47

MARSHALL, Percival, 1870-1948

Sketch. por Engineer 185:403 Ap 23 '48

MARSHALL formation. See Geology—Michigan

MARSHALL plan. See Economic cooperation administration; Reconstruction (World war, 1939-1945)—Marshall plan

MARSHES

Bailey bridge adapted to Louisiana wildcat drilling; used as floating-end loading ramp to accommodate trucks in landwater drilling operations. E. Short. il Oil & Gas J 46:68-4 Mr 4 '48

Building a 27-mile timber-limit service road through swamp and soupy clay; gravel-surfaced road for Abitibi power & paper co. in northern Ontario. G. C. McDougall. il Roads & Bridges 86:69-74+ Ap '48

Explosives convert swamps into valuable pastures. W. F. Miller. il Explosives Eng 26:20-1 Ja '48

Heavy tractors compact swamp fill for airport enlargement. C. C. Munoz, plan Eng N 140:948-9 Je '48

Oxygen balance studies of a typical swamp stream; Blackwater river, Virginia. S. C. Crawford. bibliog Sewage Works J 20:876-80 S '48

Sand drains stabilize muck in Puerto Rico. J. C. Carpenter. il diags Eng N 141:52-4 JI 22 '48

Sand drains to consolidate marsh in building New Jersey freeway. Concrete 55:28+ N '47

Sand piles hasten completion of California expressway; construction of vertical sand drains. H. A. Simard. il Roads & Sts 90: 51-3+ D '47

Vertical sand drains for supporting embankments over marshes. T. E. Stanton. il diag Pub Works 79:19+ My '48

MARSHES, Tide

Date of the last rise of sea level in southern New England, with remarks on the Grassy Island site. E. S. Deevey, jr. bibliog maps Am J Sci 246:329-52 Je '48

MARSHMALLOWS

Better marshmallow faster; new mixer may be used also for cake batters. eds. J. V. Ziemba. il Food Ind 20:988-90 JI '48

MARTEMPERING. See Steel, Heat treatment of

MARTENSEITE

Breadths of X-ray diffraction lines from martensite. J. A. Wheeler and M. A. Jaswon. bibliog Iron & Steel Inst J 157:161-6 O '47; Abstract. Metal Prog 53:422+ Mr '48

MARTIN, Harry Leland, 1908-

Paul Hoffman's union men. por Fortune 38: 141-2+ O '48

MARTIN, Irving, 1865-

Martin says public wants honest opinion; Stockton (Calif.) record. C. Watson. Ed & Pub 81:30 Ja 10 '48

MARTIN, Joseph William, 1884-

Portrait. Bsns W p22 D 20 '47

MARTIN, Royce George, 1884-

Cashing in on competitors' markets; emphasis on top personnel and buying right. pors Mod Ind 15:67-8+ Je '48

Chairman of Electric auto-lite co. por(cover) Bsns W p6 O 16 '48

MARTIN-PARRY company

Small companies with big earnings. Mag of Wall St 81:295 D 20 '47

MARTINS bank, limited

Statement by the chairman. A. H. Bibby. Economist 154:159-60 Ja 24 '48

MARVEL, Carl Shipp, 1894-

Sketch. por(cover) Chem & Eng N 26:1697+ Je 7 '48

MARVINOL VR-10

Glenn L. Martin co. makes shipments to fabricators and processors of plastics. il Chem & Eng N 26:778 Mr 15 '48

MARX, Karl, 1818-1883

Great delusion; where Marx went wrong. C. E. Wilson. Mech Eng 69:658-60 Ag '47; Discussion. 69:1047-8 D '47

MARXISM. See Communism**MARYLAND****Sanitary affairs**

Refuse disposal. Pub Works 79:63 S '48

MARYLAND casualty company

Fiftieth anniversary. Nat Underw 52:15 F 12 '48; East Underw 49:35+ F 13 '48; Weekly Underw 158:493+ F 14 '48

MARYLAND university

New engineering school; Glenn L. Martin college of engineering and aeronautical sciences. il plans Arch Rec 102:100-5 D '47
University of Maryland. Science 108:276-7 S 10 '48

MASARYK, Thomás Garrigue, 1850-1937

Heritage of Masaryk. H. Kohn. Ann Am Acad 258:70-3 JI '48

MASHES, Fermentation of. See Fermentation**MASON, George Walter, 1891-**

President of the Automobile manufacturers assn. por(cover) Bsns W p6 Ag 21 '48

MASON, Lowell Blake, 1893-

Portrait. Fortune 38:79 S '48

MASONITE corporation

Annual report. Comm & Fin Chr 166:2212 D 1 '47

MASONRY

Architect says dry joint masonry can replace trowel and mortar bricklaying. diag Brick & Clay Rec 112:35 Je '48

Caulking open masonry cuts down wind and water leakage thru walls. diags Brick & Clay Rec 113:34-5 S '48

MASONRY—Continued

- Don't toss away your building dollars on careless masonry estimating. J. A. Mulligan. *il Brick & Clay Rec* 112:39-40 Ja '48
- Have you ever thought about what a mason contractor has to sell? J. A. Mulligan. *il Brick & Clay Rec* 112:33-4 My '48
- Industry-engineered house in concrete masonry. *il plans diags Am Bld* 69:104-5 D '47
- Masonry paints tested and classified by Bureau of standards. *il Arch Forum* 88:126+ Mr '48
- Masonry walls of Metropolitan's apartments are insulated and waterproofed. *il diags Brick & Clay Rec* 112:34-6 Ap '48
- Paints for masonry walls. *il Arch Rec* 102:115-16 D '47
- Table for figuring quantities of brick. *Brick & Clay Rec* 111:41 N '47

See also

- Brick construction
Concrete blocks

Tables, calculations, etc.

- Handy chart for estimating clay products. *Brick & Clay Rec* 112:36 Mr '48
- Masonry know how; heat transmission coefficient; U; masonry walls. *diags Brick & Clay Rec* 113:36 JI '48
- Modular masonry cavity wall construction. *diags Brick & Clay Rec* 112:39 Je '48
- MASS (chemistry)**
- Mass-energy relation. W. F. G. Swann. *Phys R* 74:200-5 JI 15 '48
- Mass spectrographic mass assignment of radioactive isotopes. R. J. Hayden. *bibliog Phys R* 74:650-5 S 15 '48
- Relation between energy and mass. F. Seitz, jr. *diag Elec Eng* 67:1-5 Ja '48
- Tentative explanation of the observed mass of mesons and other particles. E. G. Cullwick. *Phys R* 74:707-8 S 15 '48
- MASS absorption coefficients.** See Absorption coefficients
- MASS of isotopes.** See Isotopes
- MASS spectra**
- Comparison of the ionization cross sections of H_2 and D_2 . R. E. Honig. *bibliog J Chem Phys* 16:837-8 Ag '48
- Determination of position of tracer atom in a molecule; mass spectra of some deuterated hydrocarbons. J. Turkevich and others. *bibliog Am Chem Soc J* 70:2633-43 Ag '48
- Dissociation of SF_6 , CF_4 , and SiF_4 by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog J Res Nat Bur Stand* 40:25-9 Ja '48
- Half-life of carbon 14. L. D. Norris and M. G. Inghram. *bibliog diags Phys R* 73:350-60 F 15 '48
- Mass spectra of octanes. E. G. Bloom and others. *J Res Nat Bur Stand* 41:129-33 Ag '48
- Mass spectra of some organic compounds. R. H. Roberts and S. E. J. Johnsen. *bibliog Anal Chem* 20:690-9 Ag '48; Same revised. 20:1225-31 D '48
- Mass spectrometric study of fission element 43. M. G. Inghram and others. *Phys R* 72:1269-70 D 15 '47
- Metastable transitions in mass spectra of fifty-six hydrocarbons. E. G. Bloom and others. *J Res Nat Bur Stand* 40:437-42 Je '48
- MASS spectrographs**
- Historic researches; positive rays and isotopes. *il diag Engineer* 186:239-41 S 3 '48
- Mass spectrograph for radioactive isotopes. L. G. Lewis and R. J. Hayden. *il diags R Sci Instr* 19:599-604 S '48; Correction. 19:922-3 D '48
- Separation of isotopes in quantity by electromagnetic means. L. P. Smith and others. *bibliog diags Phys R* 72:989-1002 D 1 '47
- MASS spectrometers**
- 40-centimeter trochoidal type mass spectrometer; trochotron. G. W. Monk and others. *R Sci Instr* 18:796 O '47
- Gamma-ray spectrometer measurements of fluorine and lithium under proton bombardment. R. L. Walker and B. D. McDaniel. *bibliog diags Phys R* 74:315-27 Ag 1 '48

- High vacuum pyrolytic fractionation of polystyrene; mass spectrometer analysis of some of the fractions. S. L. Madorsky and S. Straus. *diags Ind & Eng Chem* 40:848-52 My '48
- Ion velocitron. A. E. Cameron and D. F. Eggers, jr. *diag R Sci Instr* 19:605-7 S '48
- Ionization and dissociation of formic acid monomer by electron impact. T. Mariner and W. Bleakney. *bibliog Phys R* 72:792-806 N 1 '47
- Isotopic constitution of europium, gadolinium, and terbium. D. C. Hess, jr. *bibliog diag Phys R* 74:773-8 O 1 '48
- Isotopic constitution of lanthanum and cerium. M. G. Inghram and others. *bibliog Phys R* 72:967-70 N 15 '47
- Mass spectrometer; Consolidated-Nier isotope-ratio spectrometer. *il Chem Eng* 54:155-6 N '47
- Mass spectrometer; hydrochlorination analysis of butenes. F. W. Melpolder and R. A. Brown. *Anal Chem* 20:139-42 F '48
- Mass spectrometer in organic chemical analysis. R. C. Taylor and others. *Anal Chem* 20:396-401 My '48
- Mass spectrometer magnet. H. S. Anker. *bibliog diags R Sci Instr* 19:440-1 JI '48
- Mass spectrometer with optimum resolution in the biochemical range up to mass 100, for analysis of isotopic and complex gas mixtures. R. H. Müller. *il Anal Chem* 20:sup21A-2A Ja '48
- Model M60 mass spectrometer for the analysis of isotopic and complex gas mixtures. *il R Sci Instr* 19:124 F '48
- New mass spectrometer; aid to study of negative atomic ions. *il diags Chem Age (Lond)* 59:420-2 S 25 '48
- New process control instruments for chemical industry. E. S. Lee. *il Chem Eng Prog* 44:263-4 Ap '48
- Optimum conditions for a beta-ray solenoid spectrometer. E. Persico. *Phys R* 73:1475-6 Je 15 '48
- Radio-frequency mass spectrometer. *il Chem & Eng N* 26:2832 S 20 '48
- Radio-frequency mass spectrometer; new type electronic tube. *il Electronics* 21:124+ N '48
- Recording mass spectrometer. *il R Sci Instr* 19:283-4 Ap '48
- Recording mass spectrometer for process analysis. A. O. Nier and others. *bibliog diags Anal Chem* 20:188-92 Mr '48
- Scale expander for mass-spectrometer recorder. D. J. Grove and J. A. Hipple. *il diag R Sci Instr* 18:837-41 N '47
- Secondary processes of ion production in the mass spectrometer. J. J. Mitchell and others. *J Chem Phys* 16:835-6 Ag '48
- Significance of appearance potentials of ions in a mass spectrometer. T. Mariner and W. Bleakney. *bibliog Phys R* 72:807-14 N 1 '47
- Simple recording system for a mass spectrometer. V. H. Dibeler and others. *bibliog diag R Sci Instr* 19:719-20 O '48
- Spectrometer detects transformer leaks. *il Elec World* 129:190+ Ja 17 '48
- Spontaneous dissociation of ions. J. A. Hipple. *bibliog diag J Phys & Colloid Chem* 52:456-62 Mr '48
- Time-of-flight mass spectrometer. S. A. Goudsmit. *Phys R* 74:622-3 S 1 '48
- Use of oil-diffusion pumps in mass spectrometers. T. D. Morgan. *R Sci Instr* 18:926-7 D '47
- Use of retarding potentials with the mass spectrometer. R. E. Fox and J. A. Hipple. *bibliog diags R Sci Instr* 19:462-6 JI '48
- Use of thoria-coated filaments in the mass spectrometer leak detector. T. E. Hanley. *R Sci Instr* 19:369 My '48
- Velocity and two-directional focusing of charged particles in crossed electric and magnetic fields. N. Svartholm. *Phys R* 74:108-9 JI 1 '48
- MASS spectrometric analysis**
- Depolymerization of butylene polymers; analysis of isomeric octenes by the mass spectrometer. F. G. Ciapetta, S. J. Macuga and L. N. Leum. *bibliog Anal Chem* 20:699-704 Ag '48

MASS spectrometric analysis—Continued

- Determination of deuterium in water; mass spectrometric method. R. E. Fischer, R. A. Potter and R. J. Voskuyi. *bibliog Anal Chem* 20:571-2 Je '48
- High vacuum pyrolytic fractionation of polystyrene; mass spectrometer analysis of some of the fractions. S. L. Madorsky and S. Straus. *diags Ind & Eng Chem* 40:848-52 My '48; Same. *J Res Nat Bur Stand* 40:417-25 My '48
- Mass spectra of some organic compounds. E. H. Roberts and S. E. J. Johnsen. *bibliog Anal Chem* 20:690-9 Ag '48; Same revised. 20:1225-31 D '48
- Mass spectrographic mass assignment of radioactive isotopes. R. J. Hayden. *bibliog Phys R* 74:650-5 S 15 '48
- Mass spectrometer analysis of mercury made by neutron attachment to gold. P. Bradt and F. L. Mohler. *Phys R* 73:925-6 Ap 15 '48
- Mass spectrometer analysis of some liquid hydrocarbon mixtures. R. A. Brown and others. *Anal Chem* 20:5-9 Ja '48
- Mass spectrometer; hydrochlorination analysis of butenes. F. W. Melpolder and R. A. Brown. *Anal Chem* 20:139-42 F '48
- Mass spectrometer in gas analysis. *Franklin Inst J* 244:401-2 N '47
- Mass spectrometer in organic chemical analysis. R. C. Taylor and others. *Anal Chem* 20:396-401 My '48
- Mass spectrometric and infra-red study of rates of deuterium exchange, isomerization, and hydrogenation of the *n*-butenes. V. H. Dibeler and T. I. Taylor. *J Chem Phys* 16: 1008-9 O '48
- Mass-spectrometric detection of free radicals. G. C. Eltenton. *diags J Phys & Colloid Chem* 52:463-9 Mr '48
- MASSACHUSETTS institute of technology**
Chemical education in American institutions. A. C. Cope. *il J Chem Educ* 25:187-94+ Ap '48
- For quality in education; analyzing trends in higher education; M.I.T. annual report. K. T. Compton. *il Tech R* 50:39-43 N '47
- M.I.T. hobby shop. I. Stempnitzky. *il Tech R* 50:441-3+ Je '48
- M.I.T. rededipos for peace. J. R. Killian, jr. *il Tech R* 50:371-4+ My '48
- Nuclear science laboratory; grant made by the Texas co. *Mech Eng* 70:441 My '48
- Research for education; advancement of M.I.T.'s educational objective is primary factor governing acceptance and priority of sponsored research. J. R. Killian, jr. *il Tech R* 50:29-31+ N '47; Same cond. *J Eng Educ* 38:181-6 N '47
- Scientific aids to learning; center being established at M.I.T. *Tech R* 50:164+ Ja '48; Excerpts. *Science* 107:36 Ja 9 '48
- Study of patent policies in educational institutions, giving specific attention to the Massachusetts institute of technology. V. L. McKusick. *Franklin Inst J* 245:193-225, 271-300 *bibliog* (p291-3) Mr-Apr '48
- Where unexpected events are expected; fresh approach to planning. *il plans diag Arch Rec* 102:94-6 D '47
- MASSECUITES.** See Sugar—Manufacture and refining
- MASTER and servant**
Liability of a bailor for hire; accident to rented truck. J. L. Roesch. *Spectator* (Property ed) 13:10-11 N 13 '47
- MASTER brewers association of America**
Annual convention, 60th, Cleveland. *Food Ind* 19:1654-5+ D '47
- MATCH book advertising.** See Advertising mediums—Match books
- MATCH books**
They remember the slogans printed on matchbooks; Portland, Oregon, plant of the Hyster co. *il Nat Safety N* 56:59 N '47
- See also
Advertising mediums
—Match books
- MATCH plates.** See Pattern making
- MATE**
Brazil's matte exports rise slightly; drink is overlooked by U.S. *For Comm W* 32:35 JI 31 '48

MATERIA medica

See also

Drugs
Pharmaceutical research

MATERIAL control

Production control based on improved inventory records. F. O. Orthey. *flow chart il Factory Management* 105:98-9 D '47

MATERIAL handling

- Automatic processing reduces 34 manual handlings to 11. W. Cross and I. R. Smith. *flow chart il diag Factory Management* 106: 80-2 JI '48
- Better handling nets important savings; collapsible containers for bracket castings, rack trucks for stators, pallets for motors; Westinghouse small motors division, Lima, Ohio. G. R. Kepner and W. T. Press. *il Factory Management* 106:94-6 F '48
- Can you spotlight handling wastes? *il diag Mod Ind* 15:40-5 F '48
- Co-ordinating materials handling with the manufacturing cycle. S. C. Hoey. *il plans Mech Eng* 69:1007-11 D '47; Same cond. *Steel* 122:74-5+ F 9 '48
- Handling reduced 50 per cent in revamped furniture plant. W. Rudolph. *il Mill & Factory* 43:127-9 JI '48
- How to analyze and solve materials handling problems; technique no. 1, comparative analysis developed by Westinghouse Electric. *il pls Factory Management* 106:88-96 Ja '48
- How to analyze and solve materials handling problems; technique no. 2, group handling analysis, developed by Preben Jessen co., New York. *pls Factory Management* 106:97-8 Ja '48
- Improved handling methods, answer to industry's rising production costs. F. W. McChesney. *il Edison Elec Inst Bul* 16:127-9 Ap '48
- Improved handling repays 89 per cent in nine months; Glidden co. E. F. Riter. *il Factory Management* 106:102-4 Ag '48
- Line flow requires only five days' supply of parts; F. L. Jacobs co. H. F. Claar. *il Factory Management* 106:115-17 S '48
- Materials handling. R. E. Wright. *bibliog il diag Ind & Eng Chem* 40:45-8 Ja '48
- Materials handling, almost a new business science. J. F. Johannsen. *il Manuf Rec* 116:43+ N; 40+ D '47
- Materials handling and storage of light alloys. J. Erickson. *il Light Metal Age* 6: 10-14 Je '48
- Materials handling at Fisher body Flint plant no. 2. *il plan Mill & Factory* 42:110-15 Ja '48
- Materials handling offers opportunities to save; Avondale mills' Sycamore, Ala., plant. F. M. Thomas. *il plans diags Textile World* 67:120-1+ N '47
- Materials handling problems. W. G. Hudson. *il diag Chem Eng* 55:118-19 Je '48
- Materials handling section, *il plan diags Mill & Factory* 42:108-36 Ja '48
- Materials handling techniques for cost reduction; abstract. P. M. Hunt. *Mod Packaging* 22:154 S '48
- Materials handling; the new word in industry. *il Fortune* 37:96-102 Je '48
- Movement of materials. *diag Chem Eng* 55: 98-100 My '48
- No apologies for materials handling; reply to J. F. Johannsen. S. Reibel. *il Manuf Rec* 117:38-9+ F '48
- Palletizing block handling; Linton Concrete Products. W. B. Lenhart. *il Rock Prod* 51:207+ Ag '48
- Proper handling of insulation siding. *il Sheet Metal Worker* 39:57-8 Ap '48
- Radio speeds material flow; Timken roller bearing co. equips straddle trucks with two-way radio. *il Bsns W* p58+ O 23 '48
- Rolling racks store and move with least handling; Walker-Turner co. E. J. Warwick. *il Factory Management* 106:116-17 Mr '48
- Small chip-handling department serves twenty-two automatics. R. E. Whinrey. *il Am Mach* 92:106-7 JI 29 '48
- Storage and material handling; A.A.R. committee report. *il Ry Age* 125:97-9 JI 10 '48

MATERIAL handling—Continued

Tubes keep ball bearing clean; Electrolux vacuum-cleaner motors. A. F. Murray. *Il Am Mach* 92:102 J1 1 '48
 Utilities' materials handling problems, R. A. Clark. *Il map Power Generation* 52:54-7+ S; 78-82 O '48

See also

Coal handling
 Conveying machinery
 Electric trucks, Industrial
 Factory transportation
 Freight handling
 Loading and unloading

Mechanical handling
 Motor trucks, Industrial
 Ore handling
 Pallets
 Steel handling
 Storage
 Sugar handling

Exhibitions

Materials handling exposition, 2d, Cleveland, Jan. 12-16, 1948. *Il Chem Ind* 61:866+ N '47

MATERIALISM

Limitations of technique. W. S. Edgerly. *Tech R* 50:211+ F '48

MATERIALS

Annual engineering review. *Il Materials & Methods* 27:87-106 Ja '48
 Application tables to guide in the selection of materials; reference book sheet. Z. Fox. *Product Eng* 18:165+ N; 165+ D '47
 Condensed review of some recently developed materials, arranged alphabetically by trade names. *Mach* 55:179-81 O '48
 Construction materials for jet pumps. M. Richelson. *Chem Eng* 55:114-17+ S '48
 Directory of materials. *Machine Design* 20:223-310 O '48 [reprints \$1]
 Hardness ranges for various materials; tabulation; engineering file facts. S. D. Smoke, comp. *Materials & Methods* 27:105, 107 My '48

Man-made materials resisted price trend; light metals, plastics, among those which improved competitive position. J. V. Sherman. *Barron's* 28:31-2 F 16 '48
 Many new materials set production peaks in 1947. J. V. Sherman. *Barron's* 28:13 Ap 26 '48

Materials and power. G. Williams. *Mech Eng* 69:1012-15 D '47

Properties of chemical engineering materials of construction; tabulation. *Ind & Eng Chem* 40:1821-936 bibliog(p 1933-6) O '48; *Correction*. 40:2442 D '48

Role of ceramic products in our engineering economy. J. D. Sullivan. *Am Cer Soc Bul* 27:149-52 Ap 15 '48

Weights of various materials; tabulation. *Brick & Clay Rec* 111:33 D '47

See also

Airplanes—Materials
 Automobiles—Materials
 Building materials
 Cast iron
 Ceramic materials
 Electric industries—Materials
 Insulating materials
 Mechanical handling
 Packaging materials
 Paint materials

Paper making materials
 Plastics
 Raw materials
 Refractory materials
 Road materials
 Silicones
 Soap materials
 Stores systems
 Strength of materials
 Tanning materials
 Textile fibers

MATERIALS and methods (periodical)

Cledo Brunetti receives 1947 Materials & Methods achievement award; other winners. *Materials & Methods* 26:63-7 N '47

New, simpler, more important achievement award plan. *Materials & Methods* 27:66-7 My '48

MATERIAL mortality. See Mortality—Statistics**MATERNITY benefits**

Right to maternity benefit in Argentina. *Int Labour R* 58:97-8 J1 '48

MATERNITY hospitals. See Hospitals, Maternity**MATHEMATICAL association of America**

Elections. *Science* 107:61 Ja 16 '48

MATHEMATICAL economics. See Economics, Mathematical**MATHEMATICAL instruments**

Electronic simultaneous equation solver. E. A. Goldberg and G. W. Brown. *Il diags J Ap Phys* 19:339-45 Ap '48

Three-figure cosine factors for Fourier analysis and synthesis; a mechanical sorting device. J. M. Robertson. *Il diags J Sci Instr* 25:216-18 Je '48

See also

Calculating machines
 Integrographs

MATHEMATICAL laboratories

Federal program in applied mathematics. J. H. Curtiss. *Science* 107:257-62 Mr 12 '48
 National applied mathematics laboratories; National bureau of standards center. *Science* 106:519 N 28 '47

MATHEMATICAL physics

Calculation of a perturbing central field of force from the elastic scattering phase shift. E. A. Hylleraas. *Phys R* 74:48-51 J1 1 '48

Calculation of self-energies in quantum theory by analytic continuation. S. B. Nilsson. *bibliog Phys R* 73:903-9 Ap 15 '48

Least-squares' fitting of data by means of polynomials, by R. T. Birge; *Mathematical appendix*, by J. W. Weinberg. *bibliog Rs Mod Phys* 13:298-300 O '47

Refinement of the W.K.B. method. I. Imai. *Phys R* 74:113 J1 1 '48

Statistical properties of a sine wave plus random noise. S. O. Rice. *Bell System Tech J* 27:109-57 Ja '48

Surface currents on a conducting sphere excited by a dipole. C. H. Papas and R. King. *diags J Ap Phys* 19:808-16 S '48

See also

Aerodynamics
 Differential equations
 Dirac's equation
 Elasticity
 Electricity
 Equation of motion
 Gases
 Hydrodynamics
 Light, Scattering of
 Magnetism
 Optics
 Rotation
 Social physics (term)
 Sound
 Thermodynamics
 Vibration—Measurement

MATHEMATICAL statistics

Mathematical description of certain breakage mechanisms leading to the logarithmic-normal distribution. E. Epstein. *bibliog Franklin Inst J* 244:471-7 D '47

Statistical analysis of some mechanical properties of Manila rope. S. B. Newman and J. H. Curtiss. *bibliog J Res Nat Bur Stand* 39:551-9 D '47

Table aids evaluation of factorials. H. R. Frisbie. *Chem Eng* 55:132 O '48

See also

Statistical methods

MATHEMATICAL symbols

Mathematical signs and commonly used abbreviations. *Power Generation* 52:86 Ag '48

MATHEMATICIANS

Mathematical creation. J. R. Newman, ed. *Sci Am* 179:54-7 Ag '48

Mathematician, the scientist, the engineer. J. Slepian. *Elec Eng* 67:261-4 Mr '48

Srinivasa Ramanujan, Hindu mathematician. J. R. Newman. *Sci Am* 178:54-7 Je '48

MATHEMATICIANS, International congress of. See International congress of mathematicians**MATHEMATICS**

Characteristic values of spheroidal wave functions. W. F. Eberlein. *Phys R* 74:190-1 J1 15 '48

Math tips (cont). P. Swain. *diags Power* 91:869 D '47

Mathematics for engineers. E. G. Olds and others. *diags Elec Eng* 67:988-93, 1061-3 O-N '48 (to be cont)

Meeting, Brighton, Sept. 14; discussion on applicable mathematics. *Engineer* 186:384-5 O 15 '48

Report of the New England association of chemistry teachers; anglo-mathematics. T. H. Hazlehurst. *J Chem Educ* 25:353-7 Je '48

Role of scientific and mathematical methods in the management of large scale enterprise. R. S. Burlington. *J Eng Educ* 38:366-73 Ja '48

Survey of elementary mathematics for water and sewage works operators. W. K. Egloff. *diags Water & Sewage Works* 95:R55-66 Ap '48

MATHEMATICS—Continued

What promise does applied mathematics future hold for engineers? M. Salvadori. *Civil Eng* 18:303 My '48

See also

Coordinates
Differential equations
Economics, Mathematical
Equations
Fourier's series
Geometry
Integral equations
Interest
Interpolation

La Place's transformation
Lorentz transformation
Mathematical laboratories
Matrices
Mechanics
Statistical methods
Tensor analysis
Trigonometry
Trisection of angle
congress of mathematicians

also International mathematicians

Study and teaching

Correlation of mathematics and electrical engineering. H. K. Justice; W. E. Restemeyer. *J Eng Educ* 38:300-7 D '47
Correlation of mathematics and electrical engineering courses. C. G. Brennecke, *J Eng Educ* 38:358-65 Ja '48
Engineering mathematics. V. G. Smith. *J Eng Educ* 38:308-12 D '47
Mathematical engineer or the industrial mathematician. K. L. Nielsen. *J Eng Educ* 38:175-80 N '47
Mathematics in civil engineering. J. M. Hayes. *J Eng Educ* 38:220-2 N '47
Role of mathematics in the teaching of an engineer. G. C. Vedova. *J Eng Educ* 38:727-31 Je '48

Tables, calculations, etc.

Rinehart mathematical tables. H. D. Larsen, comp. 264p \$1.50 Rinehart & co. 232 Madison av, New York 16 '48

MATHIESON cell. See Electrolytic cells**MATHIESON chemical corporation (formerly Mathieson alkali works)**

Buys WAA Lake Charles plant. *Oil Paint & Drug Rep* 154:5 Ag 16 '48
Mathieson Alkali announces new president; name changed to Mathieson chemical corp. *Chem & Eng N* 26:1157 Ap 19 '48
Mathieson Alkali offsets working capital depletion. *Barron's* 28:35 F 16 '48
New capacity lifts Mathieson's profit. *Barron's* 28:27 Ag 2 '48
Six well-entrenched dividend payers. *Mag of Wall St* 33:129 N 6 '48

MATRICES

Application of matrices to vacuum-tube circuits. J. S. Brown and F. D. Bennett. *bibliog diags Inst Radio Eng Proc* 36:844-52 Ji '48

Matrix analysis of continuous beams. S. U. Benscoter. *diags Am Soc C E Proc* 72: 1091-122 O '46; Discussion. 73:241-50, 543-56, 960-2; 74:179-86 F, Ap, Je '47, F '48

Matrix analysis of pin-connected structures. P. Chen. *diags Am Soc C E Proc* 73:1475-82 D '47; Discussion. 74:1039-40, 1293-4 Je, O '48

Matrix development of Multhopp's equations for spanwise air-load distribution. S. U. Benscoter. *diags J Aeronautical Sci* 15:113-20 F '48

Matrix methods in the solution of ladder networks. R. E. Vowels. *bibliog diags Inst E E J* 95 pt 3:40-50 Ja '48

New calculus for the treatment of optical systems; properties of the N-matrices. R. C. Jones. *Opt Soc Am J* 38:671-85 Ag '48
Symmetry matrices in normal coordinate analysis. J. E. Kilpatrick. *bibliog J Chem Phys* 16:749-57 Ag '48

MATTE. See Maté

MATTER

Radio waves and matter. H. M. Davis. *il diags Sci Am* 179:16-23 S '48
Thermodynamics in terms of matter, radiation, and space. E. M. Fernald. *diag J Eng Educ* 38:692-3 My '48

See also

Adsorption
Atoms
Chemistry
Colloids
Compressibility
Diffusion

Dynamics
Elasticity
Electrons
Gases
Glassy state
Ions

Molecules
Physics
Quantum theory
Radioactivity
Solids

Solution (chemistry)
Specific gravity
Viscosity
Wave mechanics

MATTRESSES

Demand for brand name mattresses stimulates growth of manufacturing cooperatives, more ads. W. H. Davis. *Ptr Ink* 221:109 N 14 '47

Tests prove branded product outsells unbranded by 15 to 1; the Simmons company and Lit brothers, Philadelphia, experiment. J. W. Hubbell. *il Ptr Ink* 221:33-5 N 14 '47

Rating

Second group of mattresses. *Consumers Res Bul* 22:11-12 Ji '48

MATTRESSES (hydraulic engineering)

Flexible concrete mattresses for river-bank protection. *il Engineering* 165:337-9, 343 Ap 9 '48

Willow mats economical for bank protection. D. D. Dupre, jr. *il diags Roads & Sts* 91: 92-4 F '48

MAUCHERITE

Pseudo-eutectic and pseudo-ex-solution intergrowths of nickel arsenides due to heat effects. J. E. Hawley and D. F. Hewitt. *bibliog il Econ Geol* 43:273-9 Je '48

MAX PLANCK society for the advancement of science

Max Planck society. *Sci Am* 179:31 Ji '48

MAXFIELD, Joseph Pease, 1887-

J. P. Maxfield retires. *por Acoustical Soc Am J* 20:68-9 Ja '48

MAXWELL, Alexander, 1878-1948

Sketch. W. Wagner. *por Edison Elec Inst Bul* 16:96 Mr '48

MAY, George Oliver, 1875-

\$1 is \$1, or is it? *Fortune* 36:136 D '47

MAY department stores company

Diversified stake in merchandise shares. G. W. Mathis. *Mag of Wall St* 82:237 Je 5 '48
Good quality stocks yielding seven per cent and over. *Mag of Wall St* 81:141 N 8 '47

MAYBECK, Bernard Ralph, 1862-

B. R. Maybeck, architect, comes into his own. J. M. Bangs. *por Arch Rec* 103:72-9 Ja '48

MAZEY, Emil, 1913-

Reuther's partner today may be his problem. *por Bsns W p* 102 N 22 '47

MEADOWS

See also

Grasses

MEANY, George, 1894-

Portrait. *Fortune* 38:203 N '48

MEASUREMENT

Measuring convex arc radii by the chord method. S. Framurz. *diags Am Mach* 91: 117 D 4 '47

What size is hot work? both warm weather and operating heat must be considered when making close fits with aluminum and magnesium. L. W. Macomber and C. N. Weller. *il Am Mach* 91:101-4 N 20 '47

See also

Calorimeters and calorimetry
Color measurement
Electric measurement
Flow meters
Frequency measurement
Gages
Gas flow
Gearing—Measurement
Length measurement
Magnetic measurement
Measuring instruments
Metric system
Micrometers
Optical measurement
Pressure measurement
Pyrometers and pyrometry
Radio measurements

Sound—Measurement
Standards of length
Statistical methods
Stream measurement
Surveying
Tanks—Measurement
Temperature—Measurement
Thermometers and thermometry
Thickness measurement
Units
Vacuum tubes—Measurement uses
Vibration—Measurement
Viscosity—Measurement
Water flow
Weighing
Weights and measures
Wood measurement

MEASURING instruments

- Bore measuring instrument, *il* Engineer 186: 293 S 17 '48
- Depth gage and ground block measure curved-surface radii, R. Cafero, *diags* Am Mach 92:134 S 23 '48
- Gauge and tool exhibition, *il* diag Engineer 185:110-11, 132-4 Ja 30-F 6 '48; Engineering 165:136-9 F 6 '48
- Gauging and metrology, J. E. Sears, *Inst Mech Eng J & Proc* 157 (War emergency issue no 32):298-301 '47
- Great caliper family, J. E. Hyler, *il* Mill & Factory 42:125-9 F '48
- Inspection equipment; interesting devices at the Machine tool and engineering exhibition, *il* Automobile Eng 38:389-91 O '48
- Instrument facilitates setting of weir zero values, P. B. Johnson and H. C. Storey, *il* diag Civil Eng 18:699-700 N '48
- Jet calibration, D. A. N. Sandifer, *diags* Engineering 166:121-3 Ag 6 '48
- Precision measuring instruments made from wood, N. N. Sawin, *diags* Tool Eng 20: 27-9 Je '48
- 35th annual review; layout and inspection, *il* Am Mach 92:258-66 Ja 29 '48

See also

- | | |
|-----------------------|----------------|
| Comparators | Micrometers |
| Dilatometers | Pressure gages |
| Gages | Protractors |
| Gear testing machines | Verniers |
| Goniometers | |

Testing

- Estimating precision of measuring instruments and product variability; measuring burning time of powder train fuzes, F. E. Grubbs, *Am Stat Assn J* 43:243-64 Je '48; Correction, 43:564 D '48

MEASURING instruments, Electric

- Electronic micrometer using variable mutual inductance, M. L. Greenough, *il* diags Product Eng 19:134-6 Ja '48
- Primary detectors for measurements, E. E. Lynch and A. J. Corson, *diags* Elec Eng 67:849-59 S '48
- Recent progress in the making of precision instruments; abstract, A. J. Philpot, *Electician* 140:418 F 6 '48

MEASURING instruments, Optical

- Combination grinder-comparator manufactured by Cincinnati milling and grinding machines, inc, *il* diags Machine Design 20: 149-50 Ja '48
- Comparator-chart inspection of tapered pipe-thread gages, K. A. Clark, *il* diag Mach 54:165-7 Ag '48
- Contour projector uses new optical system, *il* diag Machine Design 20:160-1 Je '48
- Cylinder wear and distortion as measured with the cylinder contour gage; abstracts, M. E. Estey, *il*(p39) diag Automotive Ind 98:38+ My 1 '48; Diesel Power 26:54-8 Je '48; S A E J 56:30-4 S '48
- Eastman Kodak contour projector, *il* Mach 54:194-5 Ap '48
- Method of checking the balance of high-speed rotors, *diag* Engineering 166:137 Ag 6 '48
- New machine speeds turbine blade contour measurement, W. A. Lloyd, *il* diags Iron Age 162:76-8 Ag 5 '48
- Optical grinding; the latest development in toolmaking, C. H. Wick, *il* diags Mach 54: 154-60 Ap '48
- Optical measuring system built into jig borer, *il* diag Machine Design 20:146-7 Ag '48
- Pant-O-Jector staging fixture checks by optical projection, *il* Am Mach 92:140 Mr 25 '48
- Shadowgraph a sample to find tool errors; manufacture of interchangeable parts by Lockheed aircraft corp, C. H. Bodner, *il* diag Am Mach 91:87-90 D 18 '47
- Testing circular division with precision polygons, C. O. Taylorson, *il* diags Engineering 166:73-5 Jl 23 '48

See also

- Compensators,
Optical

MEAT

- Flavor of meat; abstract, E. C. Crocker, *Food Ind* 20:1538+ O '48
- 1947 meat consumption as a percent of pre-war; chart showing data for leading countries, *Bsns W* p 19 Mr 6 '48

- Observations on the pH and related properties of meat, E. C. Bate-Smith, *bibliog* Soc Chem Ind J 67:83-90 Mr '48
- Studies in enterococcal food poisoning; study of barbecued beef and ham bologna, L. Buchbinder and others, *bibliog* Pub Health Rep 63:114-18 Ja 23 '48
- Thermal properties of meat, E. Griffiths and D. H. Cole, *Soc Chem Ind J* 67:33 Ja '48
- World's food prospects; wheat and meat, prime food sources, H. A. Bullis, *il* Dun's R 56:11-12+ Jl '48

See also

- | | |
|--------------|----------------|
| Beef | Packing houses |
| Fish as food | Pork |
| Ham | Poultry |

Analysis

- Preparation of animal tissue fats for determination of peroxides and free fatty acids, E. N. Rockwood, J. M. Ramsbottom and V. C. Mehlenschacher, *bibliog* Anal Chem 19: 853-4 N '47

Prepackaging

- Discoloration of packaged red meat, C. G. Lavers, *bibliog* Mod Packaging 21:125-7 Ja '48
- Hunter's meats brightly printed cellophane overwraps, *il* Mod Packaging 21:112-15 D '47
- Meat packagers report; boosting profits with self-service meats, *il* Mod Packaging 21: 126-7+ Jl '48
- Meat prepackaging; a new try; A&P, installs self-service meat department in Cambridge (Mass.) supermarket, *il* Bsns W p56+ Ap 17 '48
- Packers' frozen meats, *il* Mod Packaging 22: 108-12+ S '48
- Packer's packages; Oscar Mayer's sliced luncheon meats, *il* Mod Packaging 21:124-5+ N '47
- Penn Fruit's meat packaging; two years of big-volume operation in Philadelphia supermarkets, *flow diags* *il* Mod Packaging 22: 102-7 S '48
- Prepackaging of fresh meats, by retailer or meat packer? J. V. Zienna, *il* Food Ind 19:1638-40+ D '47
- Wrap-cartoned steaks, *il* Mod Packaging 22: 113-15 S '48

Preservation

- Pitch-dipped meats; Swift Sealtitle package preserves hams and bacon slabs, *il* Mod Packaging 21:128-30 My '48

See also

- Meat, Dried
Meat, Frozen

Prices

- Grain surplus can't halt meat price rise soon, *Barron's* 28:28-9 Jl 29 '48
- Higher meat prices forecast by Bureau of agricultural economics, *Barron's* 28:44-5 S 13 '48
- * Meat clubs slip; cost-plus-fee retailers, *Bsns W* p49-50 F 8 '48

MEAT, Dried

- Packaging dehydrated meat; abstract, R. A. Whitmore and others, *Food Ind* 20:942 Je '48

MEAT, Frozen

- How wrappers influence quality of frozen meats, D. C. McCoy, *il* diags Food Ind 19: 1497-8+ N '47
- Locker plants reach out; offer many services, including processing; Columbia and Susquehanna locker plants, B. H. Kline, *il* plans diags Food Ind 20:708-13 My '48
- Packers' frozen meats, *il* Mod Packaging 22: 108-12+ S '48
- Wrap-cartoned steaks, *il* Mod Packaging 22: 113-15 S '48

See also

- Beef, Frozen

Storage

- Frozen storage of poultry, R. Wills and others, *Refrig Eng* 56:49-51, 237-8 Jl, S '48

MEAT, Smoked

- Smoke washing unit improves meat quality, *il* diags Food Ind 20:205-7 F '48

MEAT industry and trade

- Lift for Luer, *il* Mod Packaging 21:142-4 Ag '48

MEAT industry and trade—Continued

Meat supply will decline even further in 1948 than government had feared. *Barron's* 29: 30 D 29 '47

What meat shortage? *il Fortune* 38:83-5 O '48

See also

Live stock
Meat—Prices

Packing houses
Packing industry

Statistics

Meats, 1941-1946. Survey of Cur Bsns 1947 Sup p 133 [supplemented in monthly numbers]

Argentina

Increased activity in Argentine meat-packing industry. *For Comm W* 32:30-1 J1 3 '48

Paraguay

Livestock and meat industries. *For Comm W* 31:18-19 Ap 3 '48

Sweden

Meat production in 1947. *For Comm W* 31:31 My 22 '48

MEAT meal**Analysis**

Nutritional value of British Columbia fish and meat meals. B. E. March and J. Biely. *bibliog Can Chem & Process Ind* 32:447-8+ My '48

MEAT packing waste. See Packing houses—Waste

MECHANICAL draft

Fan selection for forced and induced draft.

Dom Eng 171:115-16+ My '48

Why does one cooling tower take more air? *diags Power* 92:112-13+ F '48

MECHANICAL drawing

See also

Drafting room practice
Engineering drawing

MECHANICAL engineering

ASME technical digest; substance in brief of papers presented at meetings. *il diags Mech Eng* 70:35-7, 157-61, 248-57, 354-65, 452-62, 549-54, 628-36, 694-8, 768-70, 832-41, 912-21 Ja-N '48

Mechanical engineering and the oil industry. A. C. Hartley. *Inst Mech Eng J & Proc* 157 (War emergency issue no 33):326-8, pl 1-2 '47

Mechanical engineering in the chemical industry. F. E. Smith. *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 33):319-25 '47

Mechanical engineering in the oils and fats industry. H. J. Gough. *flow charts diag Inst Mech Eng J & Proc* 157 (War emergency issue no 33):328-33, pl 1-2 '47

Mechanical engineering research in Britain. T. C. Crawhall. *Mech Eng* 69:898+ N '47

Progress in railway mechanical engineering, 1946-1947. *il diag Mech Eng* 70:321-35 Ap '48

Recent advances in mechanical engineering on shipboard. T. A. Crowe. *il plan Engineering* 166:20-3 J1 2 '48; Same *abr. Engineer* 185:591-3 Je 18 '48

Research on rubber for mechanical engineers. J. F. D. Smith. *bibliog* (51 titles) *diags Mech Eng* 70:118-22 b '48

Solid body mechanics in relation to mechanical engineering. C. Inglis. *Inst Mech Eng J & Proc* 157 (War emergency issue no 31): 271-4 '47

Use of vibration as a means of industrial drive. C. A. M. Thornton. *bibliog il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 25):20-31 '47; Same *cond. Machine Design* 19:147-50 D '47

See also

Aeronautic engineering
Automobile engineering
Balancing of machinery
Boilers
Chemical engineering
Electric engineering
Hydraulic machinery
Locomotives
Lubrication and lubricants
Machine shop practice

Machine tools
Machinery—Design
Marine engineering
Mechanical models
Mechanical movements
Mechanics
Motor trucks
Power transmission
Pumping
Springs (mechanism)
Standardization
Steam engines
Steam plants
Tolerance

Bibliography

Additions to the library. *Inst Mech Eng J* p 18-20 Ja '48 [cont monthly in Journal section]

ASME 1947 annual meeting preprints. *Mech Eng* 70:38-40 Ja '48

A.S.M.E. papers and publications. *A S M E Trans* 70:65-7 sec 2 Ja '48

Brief subject and author index of papers in the Proceedings, 1947-1946 and in the Journal, March 1939-March 1947, 205p Institution of mechanical engineers, Storey's Gate, St James's Park, London, S.W.1 '47

Reviews of books and notes on books received in the Engineering societies' library. Published in monthly numbers of Mechanical engineering

Exhibitions

See also National exposition of power and mechanical engineering

Study and teaching

Education and practical training of mechanical engineers in Great Britain. H. W. Swift and others. *Inst Mech Eng J & Proc* 157 (War emergency issue no 31):283-7 '47

Education and practical training of mechanical engineers in the United States. R. E. Doherty. *bibliog J Eng Educ* 38:271-80 D '47; Same. *Inst Mech Eng J & Proc* 157 (War emergency issue no 31):289-93 '47; Excerpts. *Mech Eng* 70:436-7 My '48

Functional laboratory courses. N. P. Bailey and J. J. Devine. *J Eng Educ* 38:141-3 O '47

Machine tool designer's thoughts on engineering education. B. P. Graves. *J Eng Educ* 38:211-17; Discussion. 218-19 N '47

Mechanical engineering education conference, New York, March 22. *Mech Eng* 70:434-5 My '48

Panel discussion on laboratory for mechanical engineers, advanced mechanical engineering laboratories. J. J. Ryan. *J Eng Educ* 38:235-8 N '47

Tables, calculations, etc.

Analyzing graphical records of the motion of machine part as function of time. C. E. Balleisen. *diags Machine Design* 20: 145-9 J '48

Damping characteristics of dashpots. J. B. Peterson. *diags Product Eng* 18:133-40 N '47

Disk stresses; calculating stresses due to rotation and to interference fits. V. G. Guins and G. H. Heiser. *il diags Machine Design* 20:144-8+ F '48

Flange design calculations. H. E. Lonngren. *diags Pet Refiner* 26:130-4 N '47; 27:69-73 Ja; 116-19 F '48

Internal-shoe clutches and brakes. O. Von Mehren. *diags A S M E Trans* 69:913-21; Discussion. 921-4 N '47

Pythagorean numbers; designing spur gears, connecting shafts at different levels of a machine. O. Lichtwitz. *diag Engineering* 165:112-13 Ja 30 '48

Rubber springs, shear loading. J. F. Downie Smith. *diags A S M E Trans* 70:227-32 Ap '48

Semiuniversal toothed couplings. E. Wildhaber. *il diags A S M E Trans* 69:925-30 N '47

Solution of equations simplified. A. S. Goodrich, Jr. *Machine Design* 19:141-2+ N '47

Tuned and damped gyrostatic vibration absorber. R. N. Arnold. *bibliog il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 25):1-15; Discussion. 16-19 '47

MECHANICAL equipment of buildings

Compressed air in a large hotel; Lord Baltimore hotel. T. Trail. *il Comp Air Mag* 52:304-5 D '47

Heating without heating fuel; system employing Diesel as source of power, air conditioning for space and heat for domestic water supply; heat pump as an auxiliary, also reversed for cooling. *il diags Sheet Metal Worker* 39:131-2+ Ja '48

MECHANICAL equipment of buildings—Cont.
 Special drawings a great help to air conditioning operating engineer. D. A. Kepler. Heating-Piping 20:102-3 Mr '48

See also

Air conditioning	Hot water supply
Electric wiring, Interior	Lighting
Elevators	Plumbing
Heating	Power plants
	Ventilation

MECHANICAL handling

Assures accurate positioning; mold handling equipment used in vulcanizing air foam rubber cushions; Goodyear tire & rubber co. A. T. Bachelor. *il diag Machine Design* 20:144+ My '48

Automatic handling for induction hardening; grass shear blades. G. P. Cardwell and M. Server. *il Am Mach* 91:91 D 18 '47

Automatic muscles for industry; materials handling exposition, Cleveland. *il Bsns W* p50+ Ja 24 '48

Better handling, double output, half the floor space; Emerson electric manufacturing co. H. C. Miller. *il Factory Management* 106: 98-9 S '48

Better handling nets important savings; collapsible containers for bracket castings, rack trucks for stators, pallets for motors; Westinghouse small motors division, Lima, Ohio. G. R. Kepner and W. T. Press. *il Factory Management* 106:94-6 F '48

Brass smelting speeded by new materials handling methods; North Chicago refiners & smelters, inc. *il Steel* 122:100 Mr 1 '48

Bulk handling conserves mud materials. E. Sterrett. *il World Oil* 128:74-5 S '48

Check-list for efficient batch charger operation. *il Cer Ind* 49:76-7 N '47

Conveyors, chutes and hoists mechanize chip handling; Link-Belt co. R. C. Becherer. *il Am Mach* 92:120-2 S 9 '48

Doubles foundry capacity with same floor area; Olney foundry division, Link-Belt co. W. G. Gude. *il plan Foundry* 76:72-7+ Ap '48

Efficient handling in a small foundry. W. Rudolph. *il Foundry* 76:196-7+ N '48

Efficient handling of work and scrap in automatic press operations; Danville, Ill. plant of the General electric co. V. H. Laughner. *il Mach* 54:162-5 Je '48

Fixtures aid work handling; methods devised at Keystone brass works. W. Rudolph. *il Am Mach* 92:96-7 My 20 '48

Flame-hardening feed arrangement. *il Ry Mech Eng* 122:499-500 S '48

Floor layout and material handling in the light engineering industry. L. W. Bailey. *il plan diags Mech Handling* 34:620-7 D '47

Foundry goes modern; Fairbanks-Morse Freeport, Ill. works; illustrations with text. Bsns W p39-40+ Ja 31 '48

Foundry handling set-up; Foundry division of Eaton mfg. co. D. Reebel. *il Steel* 123: 93-6 Jl 12 '48

Full mechanized handling speeds trailer assembly; Fruehauf trailer co. F. M. Burt. *il Mill & Factory* 42:112-14 F '48

Gimbels mechanizes to cut costs. *il Bsns W* p92-3 O 23 '48

Handling materials in the foundry. C. H. Moeller. *il Foundry* 76:222-4+ F '48

Handling materials in the foundry yard. R. H. Herrmann. *il Foundry* 76:70-7 Mr '48

Handling spells economy at power saws. B. Melnitsky. *il Am Mach* 92:74-5 Ja 1 '48

Highlights of materials-handling exposition; illustrations with text. *Am Mach* 92:139-41 F 12 '48

How mechanized chip handling turns waste into profit. *il Mod Ind* 16:127 O '48

How Pepsi-Cola simplified case handling operations; combined use of conveyors, trailers and fork-truck pallets. W. Geisler and others. *food diag il Food Ind* 20:845-7 Je '48

How to analyze and solve materials handling problems; technique no. 1, comparative analysis developed by Westinghouse Electric. *il pls Factory Management* 106:88-96 Ja '48

How to analyze and solve materials handling problems; technique no. 2, group handling analysis, developed by Preben Jensen co., New York pls Factory Management 106: 97-8 Ja '48

Improved handling and layout pay off in one year; Tappan stove co. G. L. Dobson. *il plan Factory Management* 106:72-3 O '48

Improved materials handling cuts crew dead time; Sacramento (Cal.) municipal utility district. C. L. Richey. *il Elec World* 129: 80-1 Je 19 '48

Improved materials handling means more washing machines; F. L. Jacobs co. E. V. Eastman. *il Am Mach* 92:104-6 Je 17 '48

Industrial packaging and materials handling exposition. Paper Tr J 127:13 O 28 '48

Making work simple. *il diags Mill & Factory* 43:130-3 Ag '48

Material handling efficiency increases output, cuts costs; Fisher Body's Ternstedt div. H. Chase. *il Iron Age* 161:84-9 My 13 '48

Material handling plant; sequence control of driving motors with positive interlocking. P. C. Croft. *il Elec R (Lond)* 143:79-84 Ji 16 '48

Materials handling. R. E. Wright. bibliog *il diag Ind & Eng Chem* 40:45-8 Ja '48

Materials handling, a prime factor in Ford tractor production. J. Geschelin. *il plan Automotive Ind* 98:36-9+ Ja 1 '48

Materials handling; abstract. H. E. Stocker. *Mech Eng* 70:540-1 Je '48

Materials handling in multi-story cold storage warehouses. P. B. Christensen and D. O. Haynes. *il diags Refrig Eng* 54:539-43+ D '47; Discussion. 55:54+ Ja '48

Materials handling; new equipment announced 1947-48. *Chem Ind* 63:414-16 S '48

Materials handling problems. W. G. Hudson. *il diag Chem Eng* 55:118-19 Je '48

Materials handling promoted by GE program. *il Textile World* 98:127 Ag '48

Materials handling section. *il plan diags Mill & Factory* 42:108-36 Ja '48

Materials-handling show a huge success; railroad men interested in equipment and technical sessions. *Ry Age* 124:213+ Ja 24 '48

Materials-handling show draws many textile men. W. A. Newell. *il Textile World* 98:114-16+ Mr '48

Materials handling survey. E. A. Ryder. flow chart *il Tool Eng* 21:21-2 Ag '48

Materials handling; the new word in industry. *il Fortune* 37:96-102 Je '48

Materials must move. J. F. Moriarty. Paper Tr J 125:94+ D 4 '47

Mechanical handling. S. Cripps. *Engineer* 186: 66-7 Jl 16 '48

Mechanical handling devices; apparatus of interest to chemical industry. *Chem Age (Lond)* 59:120 Jl 24 '48

Mechanical handling; equipment and methods employed by Vauxhall motors ltd. S. Gilbert. *il diags Automobile Eng* 38:311-14 Ag '48

Mechanical handling exhibition, London; electrical features. *il Elec R (Lond)* 143:90-2 Jl 16 '48; *Electrician* 141:167-3 Jl 16 '48

Mechanical handling exhibition, London, July 12-21. *diags Engineer* 186:56-60, 81-3+, 105-8 Jl 16-30 '48; *Engineering* 166:53-4, 77-9 Jl 16-23 '48

Mechanical handling of freight widespread. *il Ry Age* 124:950-3 My 15 '48

Mechanical handling system produces savings. W. B. McGuire. *il diag Textile World* 98:108-9 Ag '48

Mechanization cuts cost and time. *il diag Cer Ind* 50:110+ Mr '48

Mechanization speeds malleable output; Auto specialties mfg. co. H. L. Day. *il plan Iron Age* 161:64-9 F 5 '48

Mechanized handling eases wheel manufacture; Norris stamping and manufacturing co. H. S. Wharen. *il diags Am Mach* 92: 84-8 F 26 '48

Modernization helps output in a bottleneck industry; Electro-alloys division of American brake shoe co. *il Factory Management* 106:64-6 Ap '48

Modernization program ends fabricating shop bottlenecks; Austin co. W. G. Paton. *il Iron Age* 161:86-9 Ap 1 '48

MECHANICAL handling—Continued

- Movement of materials. *diag* Chem Eng 55: 98-100 My '48
- Moving materials with ease and economy; manufacture of a-c welders, Westinghouse Electric, *il* plan Mill & Factory 42:104-7 Ap '48
- New Reliance plant features modern handling methods. *il* Iron Age 161:31 Je 3 '48
- 1948 review of new power and mechanical equipment; mechanical transmission, materials handling. *il* Power 92:sup 161-5 Mid-Je '48
- Pallet loader. *il* Chem Eng 54:157 D '47
- Palletizing doubles warehouse capacity of pole line hardware manufacturer; Oliver iron & steel corp. W. W. Hiller. *il* Steel 122:103, 119 F 2 '48
- Payloader saves 42 man hours per car. *il* Cer Ind 50:128 Ap '48
- Planned handling; Morse chain co. R. O. Erickson. *il* Steel 121:95+ D 15 '47
- Planned warehouse handling curtails cost and saves space; Goldblatt bros., Chicago. W. S. Wheeler. *il* Factory Management 106:86-8 J1 '48
- Plus-service keys Y & T sales plan; materials handling center in each major industrial market. *il* Sales Management 60:41 F 15 '48
- Problems of materials handling. J. R. Kilander. *il* Gen Elec R 51:33-5 Ag '48
- Profits through efficient materials handling. *il* Rayon 29:91-3 Ag '48
- Railroad materials handling problem. C. R. Opsahl. *Ry Age* 124:345-7 F 14 '48
- Raw materials handling in the steelworks storage yard. F. C. Wier. *il* Steel 122:101+ Mr 29 '48
- Refuse, in and out of the incinerator; mechanical handling of refuse. H. W. Taylor. *il* diags Eng N 140:54-7 Ja 8 '48
- Review of power and mechanical equipment; mechanical transmission, materials handling. *il* Power 91:899-902 Mid-D '47
- Rotor removal from large machines. *il* diag Elec Eng 66:1214-15 D '47
- Second National materials handling exposition; with list of exhibitors. Steel 122:75-6+ Ja 12; 40-2+ Ja 19 '48
- Specially developed equipment simplifies heavy rotor handling. D. J. Copps. *il* Elec World 128:84-5 D 6 '47
- Technical progress in metalworking; materials handling. Steel 122:249-50+ Ja 5 '48
- 35th annual review; plant service equipment. *il* Am Mach 92:270-6 Ja 29 '48
- Tide Water Associated's mechanization program pays dividends. R. Beattie. *il* Oil & Gas J 47:70-1+ J1 15 '48
- Truck bodies get a lift right to production line; Vernor ginger ale plant. *il* Food Ind 20:1470-1+ O '48
- Unit load cuts stores handling costs. C. E. Swanson. *il* Ry Age 125:683 O 9 '48
- Work-handling devices simplify motor manufacture; illustrations with text. Am Mach 92:88-9 Je 3 '48
- Work loaders applied to machine tools. R. Le Grand. *il* diags Am Mach 92:149-72 Mr 11 '48
- See also*
- | | |
|-----------------------------|--------------------------|
| Ash handling | Hoisting machinery |
| Assembling methods | Lifting magnets |
| Brick handling | Loading and unloading |
| Cableways | Lumber handling |
| Car dumpers | Mine haulage |
| Cargo handling | Monorail conveyors |
| Coal handling | Motor trucks, Industrial |
| Coal loading machines | Ore handling |
| Conveying machinery | Packaging machinery |
| Cranes, derricks, etc. | Pneumatic conveying |
| Dumping appliances | Steel handling |
| Electric trucks, Industrial | Sugar handling |
| Elevators | Trucks |
| Fish handling | Wood handling |
| Freight handling | |

Cost

- Mechanization for the small foundry. A. W. Gregg. *il* diags Foundry 76:68-73+ Ag '48

Safety measures

- Can you palletize? C. H. Barker, jr. and others. *il* diags Safety Eng 96:18-22+ S '48
- Coal must be stored, too; safe handling of Consolidated Edison system's electric station reserve coal. F. J. Lake. *il* Safety Eng 95:11+ Ja '48
- MECHANICAL laboratories.** *See* Engineering laboratories
- MECHANICAL models**
- Demonstration models of transparent plastics used in buyer education. *il* Ind Marketing 33:78 Mr '48
- Lubrication phenomena; use of transparent models for purposes of demonstration and study. J. Boyd. *il* diags Mech Eng 70: 589-92 J1 '48
- Mockup demonstrator improves salesman's closing ratio. H. W. Bluethe. *il* Ind Marketing 33:104 O '48
- Model analysis aids designer; use of Lumarith model of turbine-electric unit for a locomotive. M. E. Harvey. *il* Machine Design 20:120-1 Ja '48
- Models aid builders of machinery. *il* Comp Air Mag 53:10-11 Ja '48
- MECHANICAL movements**
- Intermittent mechanisms; engineering data sheet. G. J. Talboudet. diags Machine Design 20:159-62 S; 135-8 O '48
- Mechanism designed to crimp ends of heavy paper cylinder. F. Hartley. diags Mach 54:194-5 Je '48
- Multiple cam and lever mechanism. F. Hartley. diags Mach 54:165 N '47
- Obtaining an intermittent motion from a uniformly reciprocating slide. L. Kasper. diags Mach 55:194 O '48
- Rack and gear assembly for intermittent rotary motion. L. Kasper. diags Mach 55: 199-200 S '48
- Sliding-block mechanisms for converting rotary into reciprocating motion. F. H. Mayoh. diags Mach 55:217-18 N '48
- Various strokes and speeds from common shaft. L. H. Browne. diags Machine Design 20:117-18+ Ap '48
- See also*
- | | |
|----------------------|--------------------------|
| Dashpots | Links and link motion |
| Escapement mechanism | Machinery, Kinematics of |
| Feed mechanism | |
| Geneva stop | |
- MECHANICAL stokers.** *See* Stokers, Mechanical
- MECHANICS**
- Mechanics of Aristotle and Archimedes. H. F. Girvin. *J Eng Educ* 38:680-5 My '48
- Mechanics of locked-coil wire ropes. J. A. L. Matheson. *il* diag Engineering 165:578-81, 601-4 Je 18-25 '48
- Self-excited mechanical oscillations. N. Minorsky. diags J Ap Phys 19:332-3 Ap '48
- Solid body mechanics in relation to mechanical engineering. C. Inglis. *Inst Mech Eng J & Proc* 157 (War emergency issue no 31): 271-4 '47
- See also*
- | | |
|-------------------------|------------------------|
| Acceleration | Mechanical engineering |
| Aerodynamics | Mechanical movements |
| Aeronautics | Moments of inertia |
| Balancing of machinery | Physics |
| Deformation (mechanics) | Power (mechanics) |
| Dynamics | Power transmission |
| Elasticity | Rotation |
| Fluids | Springs (mechanism) |
| Force and energy | Steam engines |
| Friction | Strains and stresses |
| Gases | Strength of materials |
| Hydraulics | Thermodynamics |
| Hysteresis (mechanics) | Torque |
| Kinematics | Torsion |
| Load (mechanics) | Vibration |
| Machinery | Viscosity |
| Mathematical physics | Wave mechanics |
- Electric analogies**
- Designing industrial controllers by analogy; use of electronic computer. G. A. Philbrick. *il* diags Electronics 21:108-11 Je '48

MECHANICS (persons)*See also*Airplane mechanics
Automobile me-
chanics**MECHANICS, Analytic**Philosophy of stress analysis. L. T. Wyly. J Eng Educ 37:610-15 Ap '47; Discussion (Comments on mechanics analysis). R. M. Cook. Il diags 38:320-2 D '47
Simplified analysis; graphical methods provide practical solution to certain design problems. F. W. Cousins. Il Machine Design 19:121-5 D '47**MECHANICS' liens**

Cement; producer's rights, problems, and procedures under mechanics' lien laws and surety payment bonds. C. G. Roth. Weekly Underw 159:234-5, 276-7, 347-8 Jl 31-Ag 14 '48

Fuel and lubricants; rights under New York lien law and on payment bonds thereunder. C. G. Roth. Weekly Underw 157:1323-5, 1380-2 N 22-29 '47

MEDALS

Award of the James Watt international medal to Professor Stepan Timoshenko. Inst Mech Eng J & Proc 157 (War emergency issue no 28):160a-160b, 161-2 '47

Charles A. Coffin medal competition for 1947 announced. Il Edison Elec Inst Bul 15:440 D '47

Curtis receives Holmes medal. Concrete 55: 28+ D '47

Gray Iron Founders award first gold medal to Arthur E. Habeboeck. Il Foundry 76: 120+ N '48

Highest civilian medal awarded to Mason Britton. Am Mach 92:130 Ja 15 '48

Medal for merit given to 65 scientists and engineers of OSRD. Science 108:33 Jl 9 '48

Neuberg medal established. Chem & Eng N 25:3358 N 17 '47

Presentation of the Kelvin medal to Sir Frank Whittle. Electrician 141:1148 O 15 '48

Rosco Chapman, Duquesne light company employee, wins Carnegie hero fund silver medal. Edison Elec Inst Bul 16:46 F '48

TAPPI medal awarded to Emil Heuser. Paper Ind 29:1788 Mr '48

Twenty E.E.I. resuscitation medal awards earned by alert power company employees. M. E. Woods. Edison Elec Inst Bul 16:51-9 F '48

*See also*Fritz, John, medal Guggenheim, Daniel, medal
Gibbs, Willard, Messel medal**MEDIATION board, National.** *See* National mediation board**MEDICAL advertising***See also*Medical societies— Medicines, Proprietary—Advertising
Advertising**MEDICAL care.** *See* Medical service**MEDICAL climatology.** *See* Climatology, Medical**MEDICAL colleges**

University serves industry in controlling health hazards; Division of industrial medicine at the University of Colorado medical center. Il Nat Safety N 57:26-7 Je '48

MEDICAL education

Industrial health education in Indiana; course in industrial medicine for junior medical students. L. W. Spolyar. Ind Med 17:57-8 F '48

U.S. Atomic energy commission fellowship program for training in medical and biological aspects of atomic energy. Science 107:136 F 6 '48

*See also*Anatomical models
Medical service, Industrial—Study and teaching**MEDICAL ethics**

History and ethics of the use of human subjects in medical experiments. A. C. Ivy. bibliog Science 108:1-5 Jl 2 '48

Senator Murray flays vicious cartoon prizes. Ed & Pub 81:11 My 1 '48

MEDICAL expense insurance. *See* Insurance, Medical expense**MEDICAL instruments and apparatus**Medical stimulus circuits; electronic circuits for medical diagnosis and research. W. E. Gilson. Il diags Electronics 21:99-101 Jl '48
Vinyl tube aids physicians; used in intestinal treatment. Il Mod Plastics 25:119 Je '48*See also*Cardiotachometer Orthopedic apparatus,
Electrotherapeutics— tus, Plastic
Apparatus and instruments**Sterilization**

Disinfecting instruments; abstract. M. A. Lesser. Soap & San Chem 24:161+ Mr '48

MEDICAL laboratories

Eye laboratory has been established at St Vincent's hospital, Los Angeles. Science 106:414 O 31 '47

Laboratory for snake-bite serum; Vital Brazil institute. Il plans Arch Forum 87:106-7 N '47

New institute; Sloan-Kettering institute for cancer research; views, plans, and construction outline. Arch Forum 89:65-9 Ag '48

See also

Hygienic laboratories

MEDICAL libraries

Training of medical, hospital and nursing librarians. B. V. Simon. Special Lib 39:71-6 Mr '48

MEDICAL literature

Symposium on medical subject headings, Washington, Dec. 12-13. Science 107:87-8 Ja 23 '48

UNESCO initiates cooperation in the abstracting of biological and medical sciences. E. R. Cunningham. Science 106:609-11 D 19 '47

UNESCO sponsors two conferences on scientific abstracting. Science 108:8-9 Jl 2 '48

MEDICAL research

Distribution of American research funds. C. A. Mills. Science 107:127-30 F 6 '48; Reply. T. B. Turner. 107:391 Ap 16 '48

Engineering and the medical sciences. L. de Florez. Mech Eng 70:661-2+ Ag '48

Experimental research into psychosomatic phenomena in medicine. S. Wolf. bibliog Science 107:637-9 Je 18 '48

Fellowships in the medical sciences. Science 106:533-4 D 12 '47

Jane Coffin Childs memorial fund for medical research; grants. Science 107:287; 108:101-2 Mr 19, Jl 30 '48

Life insurance medical research fund; grants in aid of research in cardiovascular disease. Science 107:468-70 My 7 '48

Medical stimulus circuits; electronic circuits for medical diagnosis and research. W. G. Gilson. Il diags Electronics 21:99-101 Jl '48

Peacetime benefits from military research. H. Schor. Il Product Eng 19:85-6 Ja '48

Present distribution of medical research funds by governmental agencies. C. A. Mills. Science 108:438 O 22 '48

Research and the geographic factor. F. A. Mettler. Science 108:108-9 Jl 30 '48

Research grants awarded by Public health service. C. J. Van Slyke. (Pub. health rep. sup. 205) 41p U.S. Public health service, Washington '48

Simon Flexner and medical discovery. P. Rous. Science 107:611-13 Je 11 '48

U.S. Public health service grants to University of California medical school. Science 107:9-10 Ja 2 '48

*See also*Animal experimental— Insurance, Life—
tion Medical research**Experiments on man**

History and ethics of the use of human subjects in medical experiments. A. C. Ivy. bibliog Science 108:1-5 Jl 2 '48

MEDICAL service

Appointed day; national health service. Economist 154:789-90 My 15 '48; Correction. 154:836 My 22 '48

MEDICAL service—Continued

Medical expense in insurance; problem of distributing medical care. J. S. Thompson. *Weekly Underw* 158:1582-4; 1743-5 My '29, Je '12 '48; Excerpts. *East Underw* 49:3 Ap '23 '48; *Nat Underw* 52:22 Ap '22 '48

Medical service plans in this nation; address before Institute of actuaries. J. S. Thompson. *East Underw* 49:18 Je '25 '48

Mr Bevan and the doctors; opposition to National health service act. *Economist* 154: 84-5, 252-3 Ja '17, F '14 '48

National health programmes. *Economist* 155: 462-3 S '18 '48

Opportunities for public health in disability insurance programs. M. I. Roemer. *bibliog* *Pub Health Rep* 62:1657-67 N '21 '47

Progress of health security legislation in the United States. *Int Labour R* 57:26-42 Ja-F '48

Group and prepayment plans

Broad health program planned by Long Island college of medicine. *Weekly Underw* 157:1587 D '20 '47

Statistical problems in developing voluntary medical expense insurance plans. M. D. Miller. *bibliog* *Am Stat Assn J* 43:290-8 Je '48

Trends in voluntary medical care programs; symposium of American association of university teachers of insurance, Dec. 29, Chicago; abstracts. F. Lang and others. *East Underw* 49:27+ Ja '24 '48; *Nat Underw* 52:13 Ja '1 '48; *Nat Underw* (Life ed) 52:6 Ja '2 '48

Socialization

General practitioners in liberty; dangers of socialized medicine. L. E. Read. *Comm & Fin Chr* 168:1541+ O '14 '48

MEDICAL service, College*See also*

Insurance, Student

MEDICAL service, Industrial

Better place to work; hygiene, safety and medical service, American brake shoe co. W. B. Given, jr. *Ind Med* 16:592-5; 17:137-40 D '47, Ap '48; *Safety Eng* 95:52-3+ Ja '48; *Foundry* 76:71+ F '48; *Advanced Management* 13:33-7 Mr '48

Challenge of industrial medicine. H. S. Brown. *Ind Med* 17:85-6 Mr '48

Company medical programs. *Management R* 36:628-30 D '47

Company sent me; form for referring employee to an outside physician. C. Leggo. *Ind Med* 16:539 N '47

Comparative relationship of medical, nursing and safety personnel in industry. R. T. Collins. *Ind Med* 17:295-6 Ag '48

Cooperative health clinic. D. Markstein. *Il Mill & Factory* 42:108 Ap '48

Does your staff have bounce? W. G. Hazard. *Il Safety Eng* 95:58-62 F '48

Employee benefit program of Consolidated Edison. A. Weiss and others. *Mo Labor R* 66:493-8 My '48; Abstract. *Nat Safety N* 58:48 S '48

Employee foot clinic reduces absenteeism. E. D. White. *Il Textile World* 98:135+ Je '48

First industrial cancer clinic; Avondale mills, Sylacauga, Alabama. *Ind Med* 17:156-7 Ap '48

Foot clinic keeps workers on their feet. T. B. Stone. *Il Factory Management* 106:79 Mr '48

Future for industrial medicine, by L. J. Goldwater; review. *Ind Med* 16:540+ N '47

Health for all; medical division of Humble oil & refining co. *Il Safety Eng* 95:58-62+ Ap '48

Health safeguards in industry; 9th International congress on industrial medicine, Sept. 13-17, Chem Age (Lond) 59:418-19+ S '25 '48

Industrial health program for the medium-sized plant. H. H. Rubin. *Ind Med* 17:89-90 Mr '48

Industrial health program in action. M. H. Kronenberg. *Ind Med* 17:143-5 Ap '48

Industrial hygiene and medicine; tomorrow measured by today. C. R. Walmer. *Ind Med* 17:333-6 S '48

Industrial medical problems; abstracts of proceedings of the section on preventive and industrial medicine and public health during the centennial celebration and the 96th annual session of the American medical association. *Ind Med* 16:580-3 D '47

Industrial medical program influences production. J. J. Wittmer. *Safety Eng* 94:56-7+ D '47

Industrial medicine and hygiene; abstracts of proceedings of industrial health meetings at Boston, March 27-April 4. *Ind Med* 17:225-32 Je '48

Keep workers healthier through medical teamwork; small plants pooling efforts. A. J. Lanza. *Il Mod Ind* 15:50-3 Mr '48; Same cond. without *Il Nat Safety N* 58:35 Ag '48

Medical care for Indian tea plantation labour. *Int Labour R* 58:248-50 Ag '48

Medical department, bibliog *Il Nat Safety N* 57:185-7 Mr '48

Medical profession's interest in industrial health and safety services. T. P. Murdock. *Ind Med* 17:293-4 Ag '48

Medical-safety team. R. R. Bresler. *Nat Safety N* 57:18-19+ My '48

New medical facilities, Toledo, Ohio, plant of the National supply company. *Safety Eng* 95:68-9 Mr '48

Program of the Boston convention, March 28-April 4, 1948. *Ind Med* 17:100-3 Mr '48

Role of the industrial physician. E. F. Lutz. *Ind Med* 17:116-20 Ap '48

Tuberculosis and industrial employment. O. A. Sander. *Ind Med* 16:577-80 D '47

Value of industrial medicine in tropical America. E. H. Payne. *Ind Med* 16:574-5 D '47

What kind of specialty is industrial medicine? W. P. Shepard. *bibliog* *Ind Med* 17: 209-12 Je '48

Who's who in industrial medicine. *Ind Med* 17:409-15 O '48

See also

Dental service, Industrial

Diseases, Industrial

Eye—Examination

First aid in illness

and injury

Hospitals, Industrial

Hygiene, Industrial

Nurses and nursing,

Industrial

Physical examinations

Psychiatry, Industrial

Trade unions—

Health service

Study and teaching

Graduate training for industrial physicians. R. F. Buchan. *Ind Med* 17:290-2 Ag '48

MEDICAL service, Rural

Bingham plan; little-known foundation in New England. L. Engel. *Il map diag Sci Am* 179:7-13 O '48

MEDICAL social work. See Social work, Medical**MEDICAL societies****Advertising**

Texas medical society prescribes ad doses. J. Stag. *Ed & Pub* 81:22 Je '5 '48

MEDICAL statistics

Importance of medical statistics in social insurance. N. Marx. *Int Labour R* 56:21-38 Jl '47

See also

Public health departments—Statistical work

MEDICAL supplies

Scheduled imports of medical supplies, Greece. *For Comm W* 31:21 Ap '3 '48

MEDICAL supplies industry**Advertising**

Selling the diversified product line; technical literature, house organs, direct mail, space ads help salesmen for Ohio chemical & mfg. co. H. Burnett. *Il Ind Marketing* 33: 36-7+ O '48

Simple method for preparing a catalog for dealers; Physicians' and hospitals supply co., Minneapolis. K. Berglund. *Il Ptr Ink* 225:44+ O '15 '48

MEDICI family

Masters of money; gallery of men who have wielded historic fortunes. *pors Fortune* 37: 89-91 Ap '48

MEDICINE

Engineering and the medical sciences. L. de Florez. *Mech Eng* 70:661-2+ Ag '48
 Medical science and the longer life. E. R. Long. *Science* 107:305-7 Mr 26 '48
 Some uses of radioactive isotopes in medicine. H. L. Alt and J. A. D. Cooper. *Ind Med* 16:583-5 D '47

See also

Anesthetics
 Antiseptics
 Bacteriology
 Chemotherapy
 Diagnosis
 Diseases
 Drugs
 Electrotherapeutics
 First aid in illness and injury

Hospitals
 Hygiene, Industrial
 Infectious diseases
 Medical service
 Medical service, Industrial
 Physicians
 Poisons
 Public health
 Radiotherapy

Bibliography

Quarterly cumulative index medicus. v. 40, July-December 1946, 1072p \$12 Am. medical assn, 535 N. Dearborn st, Chicago '47

Terminology

Nomenclature of the anti-Rh typing serums; report of the Advisory review board. W. B. Castle and others. *bibliog Science* 107: 27-31 Ja 9 '48

MEDICINE, Experimental. See Medical research

MEDICINE, Military

See also

Medicine, Naval

MEDICINE, Naval

Pro bono medico. C. C. Shaw. *il U S Naval Inst Proc* 74:1098-105 S '48

MEDICINE, Primitive

Primitive medicine. E. A. Ferguson. *il Sci Am* 179:24-7 S '48

MEDICINE, Psychosomatic

Emotional aspects of skin diseases. Safety Eng 94:64 N '47

Experimental research into psychosomatic phenomena in medicine. S. Wolf. *bibliog Science* 107:637-9 Je 18 '48

MEDICINE men

Primitive medicine. E. A. Ferguson. *il Sci Am* 179:24-7 S '48

MEDICINES, Proprietary

Britain acts to ban branded drug items. *Oil Paint & Drug Rep* 154:4 Jl 12 '48

See also

Proprietary association of America

Advertising

Medicine advertisers ask better position. *Ed & Pub* 81:55 Je 19 '48

MEDITERRANEAN region

Mediterranean hot spots in the cold war. map *Bsns W* p42+ F 14 '48

MEEHANITE

Production of cast crankshafts. R. B. Templeton. *Product Eng* 13:126-8 Ag '48

Role of meehanite metal castings in engineering production. C. R. Austin. *il diags A S M E Trans* 70:99-109 F '48; Excerpts. *Mach* 53:203-7 N '46

Shot peening castings. C. R. Austin. *il diags Steel* 122:79-82+ Ap 5 '48

Strain testing improves iron alloy machine parts. H. M. Hardy and T. O. Kuivinen *il diags Product Eng* 19:116-20 Ag '48

Tool angles for machining meehanite castings; reference book sheet. *diags Am Mach* 92:139 N 4 '48

MEEs, Charles Edward Kenneth, 1882-

Charles Edward Kenneth Mees; an American contemporary. A. D. McFadyen. *por(cover) Chem & Eng N* 25:3494+ N 24 '47

MEETINGS

See also

Chairmen
 Conventions

MEGGERS, William Frederick, 1888-

Ives medalist for 1947. *por(front)*. *Opt Soc Am J* 38:1-6 *bibliog*(134 titles, p3-6) Ja '48

MEHL, Robert Franklin, 1898-

Sketch. *por Iron & Steel Inst J* 158:front Ap '48

MEIK, Vivien

Man with price on head. R. E. Smith. *por Ed & Pub* 81:22 S 25 '48

MEISSNER, Harmon S.

Sketch. *por(p33) Civil Eng* 18:34-5 Ja '48

MELAMINE

Cyanamides and melamine; new patented processes from France. *Chem Age (Lond)* 58:311 Je 12 '48

N,N,N'-Triacylmelamines. W. S. Emerson and T. M. Patrick, jr. *Am Chem Soc J* 70:343 Ja '48

MELAMINE resins

Calco's Willow Island plant in full operation. *Paint Oil & Chem R* 111:33 Ag 5 '48

Chemistry of urea and melamine resins. R. W. Auten. *bibliog Paper Tr J* 127:45-51 Jl 29 '48

Effect of salts on the melamine resin wet strength paper process. C. S. Maxwell and W. F. Reynolds. *bibliog Paper Tr J* 126: 45-9 Ap 1 '48; Same cond. *Paper Ind* 30: 122+ Ap '48

Fillers for ureas and melamines. P. Fuller. *Mod Plastics* 25:132+ D '47

Improving the properties of fibres and dyes by treatment with hydrophobic melamine-formaldehyde compounds. A. Landolt. *bibliog 6pls Soc Dyers & Col J* 64: 93-7; Discussion. 97-9 Mr '48

Plastic protected wood veneers; laminate incorporating a sheet of melamine-impregnated veneer. *il Mod Plastics* 25:110-11 D '47

Public health and plastics; Odenton clinic. P. Fuller. *il Mod Plastics* 25:92-4 Ja '48

Resin bonding and strength development in offset papers. C. G. Weber and others. *bibliog Paper Ind* 30:83-5 Ap '48; Same. *J Res Nat Bur Stand* 40:427-35 Je '48

Resin condensates, improving the fastness of dyes. Am Dyestuff Rep 37:290 My 3 '48

Resin laminates on the rails; Chicago, Milwaukee, St Paul and Pacific. P. Fuller. *il Mod Plastics* 25:86-8 N '47

Resins for textiles. K. H. Barnard. *il diags Mod Plastics* 25:104-7 D '47

Water repellent fabrics; methylol melamines modified; patent. *Am Dyestuff Rep* 37:244 Ap 5 '48

MELANINE

Constitution of melanin. H. Burton. *bibliog Chem & Ind* p313 My 15 '48

MELANOIDINS

Dreywood anthrone reaction as affected by carbohydrate structure. L. Sattler and F. W. Zerban. *bibliog Science* 108:207 Ag 27 '48

MELLON, Andrew William, 1855-1937

Portrait. *Bsns W* p61 Ag 28 '48

MELLON, Richard Beatty

Portrait. *Bsns W* p61 Ag 28 '48

MELLON, Richard King, 1899-

Portrait. *Bsns W* p61 Ag 28 '48

MELLON institute of industrial research. See Pittsburgh university. Mellon institute of industrial research

MELLON national bank and trust company

Mellon family bank; how big will it get? *il Bsns W* p61-3 Ag 28 '48

MELODIC scales. See Musical intervals and scales

MELODIES

Index to melodies. J. B. White. *Special Lib* 39:116-18 Ap '48

MELTING

Melting and evaporation as rate processes. S. S. Penner. *bibliog J Phys & Colloid Chem* 52:949-54, 1262-3 Je, O '48

MELTING, Heat of. See Fusion, Heat of

MELTING points

Free volumes of the metallic elements at their melting points. S. S. Penner. *bibliog J Chem Phys* 16:745-6 Jl '48

Melting-point bath liquids; Aroclor 1248 and silicone oil 9981-LTNV-40. J. L. Hartwell. *Anal Chem* 20:374-6 Ap '48

Melting point curves of optical isomers. C. L. Bickel and A. T. Peaslee, jr. *bibliog Am Chem Soc J* 70:1790-1 My '48

Melting point of mustard gas. W. A. Felsing, C. A. Hunting and S. D. Fell. *Am Chem Soc J* 70:1966 My '48

Melting point of petrolatum; TAPPI tentative standard T634 m-47. *Paper Tr J* 126:50 N 13 '47

MELTING points—Continued

Melting points of iron oxides on silica; phase equilibria in the system Fe-Si-O as a function of gas composition and temperature. L. S. Darken, bibliog diags Am Chem Soc J 70:2046-53 Je '48

Optical system for melting-point apparatus. N. Whitman, diags Anal Chem 20:394 Ap '48

Reflected light melting point apparatus. Il Chem & Ind p586 S 11 '48

Shape of heat-capacity and equilibrium cooling curves in the region of melting of solid solutions. K. J. Mysels, diag J Phys & Colloid Chem 51:1361-9 N '47

MELVILLE, George Wallace, 1841-1912

Rear Admiral G. W. Melville as a man and engineer-in-chief of the navy. G. W. Grupp, por U S Naval Inst Proc 74:612-17 My '48

MEMBRANES

Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeier and A. D. Ayers, bibliog Am Chem Soc J 69:2759-61 N '47

Effects produced by diffusion in aqueous systems containing membranes. R. B. Dean, Chem R 41:503-23 bibliog (109 ref, p521-3) D '47

Electrochemical properties of mineral membranes; clay membranes for the determination of calcium. C. E. Marshall and A. D. Ayers, bibliog Am Chem Soc J 70:1297-302 Ap '48

Electrochemical properties of mineral membranes; clay membranes for the determination of magnesium. C. E. Marshall and L. O. Elme, Am Chem Soc J 70:1302-5 Ap '48

Strength and failure characteristics of thin circular membranes. W. F. Brown, Jr. and G. Sachs, bibliog Il A S M E Trans 70:241-9; Discussion, 249-51 Ap '48

Torsional stress analysis of twist-drill sections by membrane analogy. E. T. P. Neubauer and O. W. Boston, Il diags A S M E Trans 69:897-902 N '47

MEMORIALS

See also

War memorials

MEMPHIS, Tennessee**Bridges**

Deep caisson piers support new Memphis highway bridge. Il Civil Eng 18:13+ Ja '48

MEN as purchasers

Is the buying influence of men underestimated? C. R. Gislser, Ptr Ink 224:38+ S 24 '48

MENATOTHERIUM

Menatherium, Eocene mammal from France. G. G. Simpson, diag Am J Sci 246: 165-70 Mr '48

MENDELEEV, Dmitrii Ivanovich, 1834-1907

Mendeleev and the Russian academy of sciences. H. M. Leicester, bibliog J Chem Educ 25:439-41, 444 Ag '48

MENINGOCOCCI

Effect of antiserum and prolonged cultivation on the agglutinative characteristics of a type I meningococcus. D. N. Naiman, bibliog Science 108:334-5 S 24 '48

MEN'S furnishing goods

Color will be the selling factor of future male fashions. Textile Col 70:28 Mr '48

Slack-suit book; cartons with interlocking hinge sell pants and shirt as set. Il Mod Packaging 21:127 My '48

See also

Shirts

Advertising

Van Heusen approach caps a record for dealer tie-in ads; Phillips-Jones corporation's program for co-ordinating national advertising and point-of-sale promotion. Il Sales Management 61:48+ O 1 '48

MEN'S shoes. See Shoes**MEN'S stores**

Portfolio of modern designs. Arch Forum 88:118-21 My '48

See also

Tailor shops

MEN'S suits

Business suit; costuming of American enterprise. W. Hobson. Il Fortune 38:102-5+ J1 '48

Outlook for men's wear worsteds. J. I. Udell. Textile Col 70:23 Ag '48

Rayon manufacturers set campaign pace to increase share of summer suit market. N. Kelne, Ptr Ink 223:100 My 7 '48

Styles in men's clothes. B. Russell. Il Textile Col 70:28-9 Ja '48

MENSTRUATION

Dysmenorrhea. E. T. Montgomery, bibliog Ind Med 17:94 Mr '48

MENSURATION

See also

Metric system

MENTAL diseases

See also

Medicine, Psychoso-

matic

Neuroses, Traumatic

MENTAL hygiene

National mental health program; a progress report. R. H. Felix, map Pub Health Rep 63:837-47 Je 25 '48

U.S. Public health service mental hygiene research fellowships for graduate work. Science 107:644 Je 18 '48

See also

Neuroses, Traumatic

MENTAL hygiene, Industrial

Basic principles and techniques of interviewing and counselling. L. E. Himler, bibliog Ind Med 16:529-34 N '47

Incidence of neurosis among factory workers; abstract. R. Fraser, J Ind Hygiene 29: sup 125-6 N '47

Mental hygiene and industrial health. R. G. Novick, bibliog Nat Safety N 56:28-9+ D '47

Neurosis among British factory workers. Mo Labor R 66:403-4 Ap '48

Work adjustment in relation to family background; abstract. J. G. Friend, Management R 37:459-61 S '48

MENTHANE

Studies in the terpene series; effect of catalyst, solvent and temperature on the dehydrogenation of pinane and *p*-menthane. H. Pines, R. C. Olberg and V. N. Ipatieff, bibliog Am Chem Soc J 70:533-7 F '48

MENTHOFURAN

Occurrence of menthofuran in oil of peppermint (*mentha piperita vulgaris* S.). P. Z. Bedoukian, bibliog Am Chem Soc J 70: 621-2 F '48

MENTHOL

Brazilian production and sales of menthol crystals. For Comm W 31:25 My 8; 32:12 S 18 '48

Brazil's menthol industry seeking new world markets. Oil Paint & Drug Rep 154:61 Ag 16 '48

Peppermint-oil and menthol situation in China. For Comm W 31:25-6 Ap 3 '48

MEPACRINE. See Atebrin**MERCAPROL process. See Gasoline—Manufacture****MERCAPTANS**

Evaluation of MTM modifier in GR-S-10. G. R. Mitchell and others, Rubber Age 62:56-8 O '47

Mercaptan modification of rosin rubber. C. F. Fryling, bibliog Ind & Eng Chem 40: 928-32 My '48

Organic thio-antimonials in schistosomiasis. L. W. Clemence and M. T. Leffler, Am Chem Soc J 70:2439-40 J1 '48

Polyalkylene sulfides from diolefins and dimercaptans. C. S. Marvel and R. R. Chambers, bibliog Il Am Chem Soc J 70:993-8 Mr '48

Reaction of certain β -aminomercaptans with iodine in ethanol. H. R. Snyder and E. L. Elie, Am Chem Soc J 70:2825-6 Ag '48

Reactions of mercaptans with acrylic and methacrylic derivatives. C. D. Hurd and L. L. Gershbein, bibliog Am Chem Soc J 69:2328-35 O '47

Regeneration steps cut cost of removing mercaptans, flow diag Pet Processing 3:435-8 My '48

MERCAPTANS—Continued

- Solution viscosity of GR-S; variation with conversion. W. A. Schulze and W. W. Crouch. *bibliog Ind & Eng Chem* 40:151-4 Ja '48
- Study of the reaction of buna rubbers with aliphatic mercaptans. G. E. Serniuk, F. W. Banas and M. W. Swaney. *bibliog Am Chem Soc J* 70:1804-8 My '48
- Synthesis of amino mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. *Am Chem Soc J* 69:2872-4 N '47
- Synthesis of mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. *Am Chem Soc J* 69:2675-7 N '47
- Tannins and allied chemicals in mercaptan removal processes. J. Hoppel and S. P. Cauley. *bibliog flow diag Ind & Eng Chem* 39:1656-9 D '47
- Thiodiglycol monoacetate by the photochemical addition of mercaptoethanol to vinyl acetate. W. H. C. Rueggeberg and others. *Am Chem Soc J* 70:2252-3 Je '48
- Use of S^{35} in the measurement of transfer constants. C. Walling. *bibliog Am Chem Soc J* 70:2561-4 Jl '48

MERCAPTOACETIC acid

- N-Arylamides of mercaptoacetic acid. U. Weiss. *bibliog Am Chem Soc J* 69:2682-7 N '47
- Biosynthesis of penicillins; oxy- and mercaptoacetic acids. Q. F. Soper and others. *bibliog Am Chem Soc J* 70:2849-55 S '48
- Preparation of 4-thiazolidones by the reaction of thioglycolic acid with Schiff bases. A. R. Surrey. *Am Chem Soc J* 69:2911-12 N '47
- Reaction of α -methylstyrenes with thioglycolic acid. C. Walling, D. Seymour and K. E. Wolfstirn. *Am Chem Soc J* 70:2559-61 Jl '48

MERCAPTOBENZOTHAZOLE

- Variability of crude rubber; effect of latex nonrubber substances on vulcanization and aging characteristics of crude rubber. E. M. McCollm and J. W. Haebele. *bibliog Ind & Eng Chem* 40:311-16 F '48

MERCAPTO compounds

- Addition of sulphydryl derivatives to 2-methyl-1,4-naphthoquinone. L. F. Fieser and R. E. Turner. *bibliog Am Chem Soc J* 69:2335-8 O '47
- N-Arylamides of mercaptoacetic acid. U. Weiss. *bibliog Am Chem Soc J* 69:2682-7 N '47
- α -Aryloxy and α -aryl thiol cinnamic acids. D. Papa and E. Schwenk. *bibliog Am Chem Soc J* 69:3022-3 D '47
- New process for the preparation of thioglycolylamides. J. A. VanAllan. *Am Chem Soc J* 69:2914 N '47
- Synthesis of some new pteridines. G. B. Elton and G. H. Hitchings. *bibliog Am Chem Soc J* 69:2553-5 O '47

MERCAPTOLS

- Dimercaptols of dehydroisoandrosterone. R. H. Levin and J. L. Thompson. *Am Chem Soc J* 70:3140-1 S '48
- Interchange reactions of orthothioformates and mercaptols. W. E. Mochel, C. L. Agre and W. E. Hanford. *bibliog Am Chem Soc J* 70:2268-9 Je '48
- Mercaptols of 17-keto steroids. L. Norymberska, J. Norymberski and A. Olalde. *Am Chem Soc J* 70:1256-7 Mr '48

MERCAPTOPHENYLARSONIC acid

- p*-(2-Chloroethylthio)phenyldichloroarsine. H. T. Openshaw and A. R. Todd. *Chem Soc J* p374-6 Mr '48

MERCAPTOTHIAZOLONE

- Studies in the azole series; the preparation of some thiazolones. A. H. Cook and others. *Chem Soc J* p 1056-60 Jl '48

MERCHANDISE mart. See Chicago—Merchandise mart

MERCHANDIZING

- Case history in marketing strategy; Philip Carey mfg. company revamped its merchandising, advertising and sales promotion program. H. D. Bates. *Ind Marketing* 32:44-5+ N '47
- Corporate omnibus; Stein, Hall & co., importer, exporter, manufacturer, seller and distributor. *Fortune* 37:122 My '48

- Four practical approaches to packaged food merchandising. F. L. McKibbin, jr. *il Sales Management* 60:37-40 F 1; 112+ F 15 '48
- From a \$60 ad in 1946 to \$150,000 in sales in 1948; Jonmar giftwares for table. J. E. Roberson. *il Ptr Ink* 223:27-9 Ap 2 '48
- Great merchant adventurer; Harrisons & Crosfield makes money in anything, all over the world. G. Burck. *il Fortune* 38: 82-9+ Jl '48

How to get retailers to tie in with national advertising; merchandising time chart. J. C. Cumming. *Sales Management* 60:131-2+ Mr 15 '48

Industrial package licks re-order problem; Lamson & Sessions' aircraft treasure chest; automatic buying, stock control, pricing and selling. J. E. Sorrell. *Sales Management* 60:99-100 Mr 1 '48

New company delivers customers to stores; National introductions, Inc. *Bsns W* p77 Ap 3 '48

Printers' Ink refresher course in advertising, selling and merchandising. 249p \$4 Funk & Wagnalls co, 153 E. 24th st, New York 10 '47

Quiz for marketing executives. R. M. Cunningham. *J Marketing* 13:77-8 Jl '48

Ten commandments for launching a new product; Lyons tooth paste, from product development through advertising and allocation of orders. D. H. Williams. *il Adv & Sell* 40:33-4+ N '47

See also

- | | |
|---|---|
| Advertising | Mail order business |
| Catalogs | Marketing |
| Chain stores | Package goods |
| Christmas business | Premiums (merchandizing) |
| Clubs, Merchandizing | Price policies |
| Dealer relations | Purchasing |
| Department stores—Management | Rental plan (merchandizing) |
| Display of merchandise | Retail trade |
| Electric apparatus and appliances—Merchandizing | Sales management |
| Fashion | Sales promotion |
| Gas industry—Merchandizing | Salesmen, Retail—Bonuses (manufacturers') |
| Jobsbers | Self service stores |
| Labels | Shopping centers |
| Leaders (merchandizing) | Showrooms |
| | Special sales |
| | Warehousing |

MERCHANT marine

- Merchant fleets of the world; figures from Lloyd's register. *Economist* 154:560 Ap 3 '48
- Propeller club spring meeting, Old Point Comfort, Va. April 2-3; merchant marine problems and proposed remedies discussed. *Marine Eng* 53:45-51 My '48
- Who's building ships, who has the ships; chart showing comparison by country, 1939 and 1947. *Bsns W* p 121 Ap 17 '48

Chile

Chile's merchant fleet. *For Comm W* 31:24 Ap 3 '48

Great Britain

British shipping in the new world. *Economist* 154:234-6 F 7 '48

India

Indian merchant shipping plans. *Economist* 155:511 S 25 '48

Italy

Italian shipping position shows decided improvement. *For Comm W* 32:42 S 4 '48

Rebuilding Italy's merchant marine. *For Comm W* 31:31 Je 12 '48

Netherlands

Inland fleet of the Netherlands; with data as of May 9, 1940 and Jan. 1, 1948. *For Comm W* 32:39 S 4 '48

Paraguay

Paraguay establishes state merchant marine. *il Marine Eng* 53:78 Ag '48

United States

American merchant marine; it had a past; has it a future? E. B. Perry. *il U S Naval Inst Proc* 74:144-51 F '48

- MERCHANT marine**—United States—*Continued*
 America's right to maritime might. L. D. Parmelee. *Marine Eng* 53:41- F '48
 Governing bodies and effect of their regulations on shipping. W. F. Jupp and others. *Marine Eng* 52:90-1; Discussion. 91-3 D '47
 Marshall plan traffic no shipping boom. P. A. Johnston. *Barron's* 27:27 D 29 '47
 Merchant marine in doldrums. *Bsns W* p82+ Ag 7 '48
 Merchant marine in the naval reserve. *Marine Eng* 53:78-9 Ja '48
 Merchant marine inspection; a major function of the coast guard. H. F. Crouch. *U S Naval Inst Proc* 74:822-31 Jl '48
 Merchant ship sales act of 1946. D. Marx, Jr. *J Bsns* 21:12-28 Ja '48
 Navy secretary reports ship needs to House marine committee. *U S Naval Inst Proc* 74:466-71 Ap '48
 Our marine industries at the crossroads. H. H. Holly. *U S Naval Inst Proc* 74:466-71 Ap '48
 President's merchant marine committee recommends \$600,000,000 program. *Marine Eng* 52:54-61 D '47
 Privately owned American ships increase to 1003. *Marine Eng* 53:40 F '48
 Radio in the merchant marine. J. J. Canavan. *U S Naval Inst Proc* 74:822-31 Jl '48
 Shipping sinks. *Bsns W* p55-7 Mr 20 '48
 Ships and security; Congress rejects transfer of 500 war-built ships. *Fortune* 37:3-4 My '48
 Smooth sailing for shipping? *U S Naval Inst Proc* 74:466-71 Ap '48

See also American bureau of shipping

MERCHANT marine act of 1936

- Legislation and the merchant marine. H. A. Meade. *Marine Eng* 53:49-50 My '48

MERCHANTS

Insurance requirements

- Burglary and theft coverages provide necessary protection for large and small stores. *Spectator* (Property ed) 14:26-7 S 9; 22-3 S 23 '48
 Coverages and forms; storekeeper's liability policy. *Spectator* (Property ed) 13:8 Mr 25 '48
 Good news for your grocer; storekeeper's liability policy. H. W. Mueller. *Rough Notes* 91:19-20 My '48
 Mercantile open stock burglary. J. J. Iago and others. *Rough Notes* 91:19-24+ Ja '48
 More merchants need reporting covers; single location risks. *Rough Notes* 90:30 O '47
 Storekeeper's liability policy. A. H. Criddle. *Weekly Underw* 158:1184-6 Ap 17 '48; *Excerpts*. *Nat Underw* 52:17 Ap 8 '48
 Two specialty policies introduced for farmers and storekeepers. *Weekly Underw* 158:304 Ja 24 '48; *Same*. *Nat Underw* 52:13 Ja 22 '48

MERCK, George Wilhelm, 1894-

- Personal side of the medallist; abstract. Marquand. *Chem & Ind* p785-6 D 20 '47
 Portrait. *Chem Eng* 54:187 N '47

MERCK and company

- Case study in biochemical engineering; Merck's brilliant streptomycin achievement typifies the potentialities of a new technology. S. D. Kirkpatrick. *U S Naval Inst Proc* 74:822-31 Jl '48
 Chemical engineers honor Merck & co. *Chem Eng* 54:110-11+ D '47

- For distinguished service to humanity; 1947 award for chemical engineering achievement. S. D. Kirkpatrick. *U S Naval Inst Proc* 74:822-31 Jl '48

- 91-3 N '47

MERCK fellowships. See Scholarships and fellowships

MERCURATION

- Mercuration of 5-nitroguaiacol. N. L. Drake, H. C. Harris and C. B. Jaeger, Jr. *Biblog J Am Chem Soc* 70:163-71 Ja '48

MERCURY

- Calculation of the surface energy of liquid argon and mercury. G. Jura. *Biblog J Am Chem Soc* 70:163-71 Ja '48

- Further investigation of the mercury photosensitized polymerization of propylene. H. E. Gunning and E. W. R. Steacie. *Biblog J Chem Phys* 16:926-9 S '48

- Measurement by mercury. W. F. Meggers. *U S Naval Inst Proc* 74:822-31 Jl '48
 Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler. *Biblog J Chem Phys* 15:712-26 O '47
 Mercury (P₂) photo-sensitized hydrogenation of ethylene. D. J. LeRoy and N. A. Kahn. *Biblog J Chem Phys* 15:816-19 N '47
 Mercury photosensitized hydrogenation of propylene. W. J. Moore. *Biblog J Chem Phys* 16:916-19 S '48
 Mercury photosensitized reaction of dimethyl ether. R. A. Marcus and others. *Biblog J Chem Phys* 16:987-93 O '48
 Mercury photosensitized reactions of ethane. B. D. Darwent and E. W. R. Steacie. *Biblog J Chem Phys* 16:381-6 Ap '48
 Mercury photo-sensitized reactions of ethylene. G. A. Allen and H. E. Gunning. *J Chem Phys* 16:534-5 Je '48
 Mercury photosensitized reactions of ethylene oxide. M. K. Philbs and others. *Biblog J Chem Phys* 16:339-44 Ja '48
 New and easily constructed precision coulometer. E. L. Abers and R. F. Newton. *Biblog J Chem Phys* 16:339-44 Ja '48
 Potentials of falling drops. A. Frumkin and J. Bagotskaja. *Biblog J Phys & Colloid Chem* 52:1-11 Ja '48
 Production of high velocity mercury vapor jets by spark discharge. J. R. Haynes. *Biblog J Chem Phys* 16:339-44 Ja '48
 Purification of neopentane by mercury photosensitization. B. D. Darwent and E. W. R. Steacie. *Am Chem Soc J* 70:2285-6 Je '48
 Quantum efficiency of the mercury sensitized photochemical decomposition of hydrogen. L. B. Thomas and W. D. Gwynn. *Biblog J Am Chem Soc* 70:2643-8 Ag '48
 Quicksilver 1947 statistics and comparison with 1946. *Oil Paint & Drug Rep* 153:57 Mr 8 '48
 Sensitive mercury manometer. I. E. Puddington. *U S Naval Inst Proc* 74:822-31 Jl '48
 Some spectral characteristics of mercury arcs for use in study of the Raman effect. D. H. Rank and J. S. McCartney. *U S Naval Inst Proc* 74:822-31 Jl '48
 Theoretical analysis of the mercury delay line. H. J. McSkimin. *U S Naval Inst Proc* 74:822-31 Jl '48
 Ultrasonic propagation through mercury in tubes. H. B. Huntington. *U S Naval Inst Proc* 74:822-31 Jl '48
 Use of alkali metal alloys for trapping mercury vapor. K. W. Hunter and others. *U S Naval Inst Proc* 74:822-31 Jl '48
 Vapor pressure, specific volume, p-v-T data for H₂, N₂, O₂, CO, CO₂, air, He, A. Hg. S. Gratch. *U S Naval Inst Proc* 74:822-31 Jl '48

Analysis

- Mass spectrometer analysis of mercury made by neutron attachment to gold. P. Bradt and F. L. Mohler. *Phys Rev* 73:925-6 Ap 15 '48

Isotopes

- Beta-spectrum of Hg⁽²⁰³⁾. D. Saxon. *Biblog J Chem Phys* 16:916-19 S '48

- Light wave of artificial mercury as the ultimate standard of length. W. F. Meggers. *Biblog Opt Soc Am J* 38:7-14 Ja '48

- Light wave of mercury 198 as the ultimate standard of length. *Franklin Inst J* 245:166-70 F '48

- Mercury 198 line as standard of length. *U S Naval Inst Proc* 74:822-31 Jl '48
 67:12 Ja '48; *Mech Eng* 70:150 F '48; *Product Eng* 19:155-6 F '48

- Nuclear research yields ultimate standard of length. *Power Generation* 52:89 O '48

- Ultimate length standard; basis is wave length of light from mercury isotope. *Sci Am* 178:79-80 F '48

MERCURY acetate

- Determination of unsaturation in dehydrogenated diethylbenzene; by use of mercuric acetate. R. P. Marquardt and E. N. Luce. *Biblog Anal Chem* 20:751-3 Ag '48

MERCURY acetate—Continued

Production of unshrinkability by cross-linkage formation in wool; the rate of reaction of mercuric acetate with animal fibres. J. Menkart and J. B. Speakman. *Zpls Soc Dyers & Col J* 63:322-4 O '47

Unsaturation in isoprene-isobutylene copolymers; reaction with iodine in the presence of mercuric acetate and trichloroacetic acid. S. G. Gallo, H. K. Wiese and J. F. Nelson. *bibliog Ind & Eng Chem* 40:1277-80 J1 '48

MERCURY chlorides

Determination of the gases in meteoritic and terrestrial irons and steels. L. K. Nash and G. P. Baxter. *bibliog diags Am Chem Soc J* 69:2534-44 O '47

MERCURY compounds

Coordination compounds of mercury. T. D. O'Brien. *Am Chem Soc J* 70:2771-2 Ag '48

See also

Deniges reagent

MERCURY electrolytic cell. See Electrolytic cells**MERCURY industry and trade**

Outlook for quicksilver. G. I. Gould. *Il Min Cong J* 34:94-5 F '48

Statistics

Mercury, 1947. H. M. Meyer. *Eng & Min J* 149:88-9 F '48

MERCURY mines and mining

Moriturus salutamus! recommendations for revitalizing domestic mercury mining. C. N. Schuette. *Il Min Cong J* 34:31-3 My '48

California

Bucket-drilling the Coso mercury deposit, Inyo county, Calif. L. W. Dupuy. 11 pls U S Bur Mines Rep of Invest 4201:1-45 '48

Spain

Almaden, world's greatest mercury mine. E. Bennett. *Min & Met* 29:6-9 Ja '48

MERCURY nitrate

Electrophilic attack on halogen in a homogeneous medium; reaction of mercuric nitrate with some primary and secondary alkyl bromides. O. T. Benfey. *bibliog Am Chem Soc J* 70:2163-70 Je '48

MERCURY oxides

Determination of carbon monoxide in air by use of red mercuric oxide. J. D. McCullough, R. A. Crane and A. O. Beckman. *bibliog diags Anal Chem* 19:999-1002 D '47

Reactions of vanillin and its derived compounds; the reaction of vanillin with mercuric oxide. I. A. Pearl. *bibliog Am Chem Soc J* 70:2008-10 Je '48

MERCURY poisoning

Mercury exposures in dry battery manufacture. C. R. Williams and others. *J Ind Hygiene* 29:378-81 N '47

Symptoms of mercury poisoning; abstract. A. R. Smith. *Safety Eng* 95:66 Mr '48

MERCURY vapor electric lamps. See Electric lamps, Mercury vapor**MEREDITH publishing company**

Annual report. *Comm & Fin Chr* 168:1684 O 18 '48

MERINO, Luis, 1886-

Superintendent of insurance for Chile. *por East Underw* 49:32 Mr 12 '48

MERRILL, Charles Edward, 1885-

Portrait. *Bsns W* p80 N 8 '47

MERRILL Lynch, Pierce, Fenner and Beane

Annual report; excerpts from foreword. *Comm & Fin Chr* 167:911 F 26 '48

Brokerage supermarket. *Il Bsns W* p79:82-1 N 8 '47

MERRILL foundation for advancement of financial knowledge

Merrill Foundation financing three-yr. study. *Comm & Fin Chr* 168:1015 S 9 '48

To promote study of effect of taxation on business. *Comm & Fin Chr* 166:1864-5 N 6 '47; *Barron's* 27:12 N 10 '47

MESACONIC acid

Reaction of anthracene with maleic and fumaric acid and their derivatives and with citraconic anhydride and mesaconic acid. W. E. Bachmann and L. B. Scott. *bibliog Am Chem Soc J* 70:1458-61 Ap '48

Reaction of 1-vinylnaphthalene and 6-methoxy-1-vinylnaphthalene with citraconic anhydride, fumaric acid and mesaconic acid. W. E. Bachmann and L. B. Scott. *bibliog Am Chem Soc J* 70:1462-8 Ap '48

MESITOYL methane

Study of the direction of enolization of *p*-methoxybenzoylmesityl methane. R. P. Barnes and G. W. Reed. *bibliog Am Chem Soc J* 69:3132-5 D '47

MESITOYL nitrobenzoylmethane

Study of the direction of enolization of mesityl-o-nitrobenzoylmethane and mesityl-*p*-nitrobenzoylmethane. R. P. Barnes, G. E. Pinkney and W. A. DaCosta. *bibliog Am Chem Soc J* 69:3129-32 D '47

MESITYL oxide

Sulfonation of mesityl oxide. R. H. Eastman and D. Gallup. *Am Chem Soc J* 70:364-5 F '48

MESITYLPHENYLACETALDEHYDE

Vinyl alcohols; mesitylphenylacetaldehyde. R. C. Fuson and T. Tan. *bibliog Am Chem Soc J* 70:602-5 F '48

MESITYLENE

Further alkylbenzene spectra to 1750A. J. R. Platt and H. B. Klevens. *J Chem Phys* 16:332-4 Ag '48

MESOTRONS

Absorption of charged particles from the 2.2- μ sec. meson decay. E. P. Hinks and B. Pontecorvo. *bibliog diag Phys R* 74:697-8 S 15 '48

Artificial production of mesons hailed as milestone of nuclear science. *Il Chem & Eng N* 26:358-9 Mr 22 '48

Attempt to detect neutral particles produced by exchange of charge with cosmic-ray mesons. R. D. Rusk and A. Rosenbaum. *Phys R* 74:110-11 J1 '48

Capture of negative mesons. O. Piccioni. *bibliog Phys R* 73:411 F 15 '48

Cloud-chamber study of electrons from meson decay. J. L. Zar and others. *diag Phys R* 74:111-12 J1 '48

Cloud-chamber study of meson disintegration. R. W. Thompson. *Il diag Phys R* 74:490-1 Ag 15 '48

Cosmic-ray investigations on Mt McKinley. T. D. Carr and others. *bibliog diags Phys R* 73:1419-23 Je 15 '48

Creation of mesons by high-energy particles. D. ter Haar. *Science* 108:57-8 J1 16 '48

β -Decay of mesons. J. J. Horowitz and others. *bibliog Phys R* 74:713-17 O 1 '48

Decay of negative mesons in light elements. A. March. *Phys R* 73:1205 My 15 '48

Differential energy spectrum of mesons. M. H. Shamos and M. G. Levy. *bibliog diags Phys R* 73:1396-7 Je 1 '48

Disintegration of mesotrons in B^{10} . N. G. Nereson. *Phys R* 74:509 Ag 15 '48

Disintegration of positive and negative mesotrons in different absorbers. N. Nereson. *bibliog diags Phys R* 73:665-9 Mr 15 '48

Divergence difficulty and mixed meson theory. G. Araki. *bibliog Phys R* 74:385-6 O 15 '48

Electronic component of cosmic rays in the low atmosphere. G. Bernardini and others. *bibliog diag Phys R* 73:328-39 F 15 '48

Elimination of divergences in the meson theory. M. Schönberg. *Phys R* 74:748-60 O 1 '48 (to be cont)

Evidence for neutrons associated with the stopping of sea level mesons in lead. R. D. Sard and others. *diag Phys R* 74:97-8 J1 1 '48

Example of the beta-decay of the light meson. E. C. Fowler and others. *Il Phys R* 74:101-2 J1 1 '48

Experiments on the separation of low energy mesotrons from electrons. P. C. Bhattacharyya. *bibliog diags Phys R* 74:38-43 J1 1 '48

Heavy mesons and the cosmic rays far underground. K. I. Greisen. *bibliog Phys R* 73:521 Mr 1 '48

Interaction between neutrons and electrons. E. Fermi and L. Marshall. *diags Phys R* 72:1139-46 D 15 '47

Interactions of nucleons with meson fields. F. J. Dyson. *bibliog Phys R* 73:929-30 Ap 15 '48

Lifetime of negative mesons. W. L. Kraushaar. *bibliog Phys R* 73:1408 Je 1 '48

MESOTRONS—Continued

- Magnetic moment of nucleons according to the pseudovector meson theory. G. Araki. Phys R 74:986 O 15 '48
- Mean life of negative mesons. G. E. Valley and B. Rossi. bibliog Phys R 73:177-8 Ja 15 '48
- Mean life of negative mesons in carbon. C. W. Kissinger and D. Cooper. bibliog diag Phys R 74:349-50 Ag 1 '48
- Mean life of negative mesotrons in sodium fluoride. H. K. Ticho and M. Schein. bibliog diag Phys R 73:81-2 Ja 1 '48
- Mean life of negative mesotrons in sulfur. H. K. Ticho. Phys R 74:492 Ag 15 '48
- Meson field and equations of motion of point particles. R. C. Majumdar and A. S. Apte. Phys R 74:538-47 S 1 '48
- Mesons produced by University of California cyclotron. A. W. Kramer. diags Power Generation 52:72-3+ My '48
- Mesonotron decay. J. G. Retallack. diags Phys R 73:921-2 Ap 15 '48
- Momentum distribution of the decay electrons from negative mesons. H. Primakoff. bibliog Phys R 74:878-82 O 15 '48
- Multiple production of mesons. H. W. Lewis and others. bibliog Phys R 73:127-40 Ja 15 '48
- Multiple production of mesons. G. Wataghin. bibliog Phys R 74:976-6 O 15 '48
- Neutral mesons in cosmic rays. K. I. Greisen. bibliog Phys R 73:521-2 Mr 1 '48
- Nuclear evaporation recorded in an emulsion near sea level. H. Yagoda. bibliog il Phys R 73:263-4 F 1 '48
- Positive excess of slow mesotrons at an altitude of 3.5 km. M. Correll. bibliog il diags Phys R 72:1064-69 D 1 '47
- Positive excess of the penetrating component at 17,000 feet. I. F. Quercia and others. bibliog diag Phys R 73:516 Mr 1 '48
- Primary and secondary meson event in photographic emulsions. A. Morrison and E. Pickup. il Phys R 74:706-7 S 15 '48
- Production of cosmic-ray mesons. G. F. Chew. bibliog Phys R 73:1128-9 My 1 '48
- Production of mesons by the 184-inch Berkeley cyclotron. E. Gardner and C. M. G. Lattes. il diags Science 107:270-1 Mr 12 '48
- Production of mesotrons in cosmic-ray stars in the stratosphere. M. Schein and J. J. Lord. il Phys R 73:189-90 Ja 15 '48
- Production of neutrons by the capture of cosmic-ray mesons at sea level. G. Groetzinger and G. W. McClure. Phys R 74:341-2 Ag 1 '48
- Radioactive decay of slow positive and negative mesons. G. E. Valley. bibliog il diags Phys R 72:772-83 N 1 '47
- Range of the electrons in meson decay. J. Steinberger. diags Phys R 74:500-1 Ag 15 '48
- Search for gamma-radiation in the 2.2-microsecond meson decay process. E. P. Hincks and B. Pontecorvo. bibliog diag Phys R 73:267-8 F 1 '48
- Stability of the neutral meson. E. P. Hincks and B. Pontecorvo. bibliog Phys R 73:1122-3 My 1 '48
- Stimulated decay of negative mesons. S. T. Epstein and others. Phys R 73:1140-1 My 15 '48
- Symmetrical vector meson pair theory of nuclear interaction. O. Brulin and S. Hjalmar. bibliog Phys R 72:1126 D 1 '47
- Symposium on the interaction of matter and radiation. Science 108:129-30 Ag 6 '48
- Tentative explanation of the observed mass of mesons and other particles. E. G. Cullwick. Phys R 74:707-8 S 15 '48
- Tracks of low ionizing particles in photographic emulsions. J. Spence and others. bibliog il Phys R 74:704-5 S 15 '48
- Trajectories of charged meson test particles in the similarity geometry. B. Hoffmann. bibliog Phys R 73:1042-6 My 1 '48
- Ultimate particles. G. W. Gray. il diag Sci Am 178:34-9 Je '48

MESQUITE gum

- Constitution of mesquite gum: 4-methoxy-D-glucuronic acid. E. V. White. bibliog Am Chem Soc J 70:367-9 Ja '48
- Constitution of mesquite gum: hexamethyl-3-glucuronosido-methyl-galactoside methyl ester. E. V. White. bibliog Am Chem Soc J 69:2264-6 O '47

MESSEL medal

- Messel medal presented to Sir John Anderson. Chem & Ind p492-3 J 31 '48
- Sir John Anderson receives the Messel medal. il Chem & Eng N 26:2349-51+ Ag 9 '48

MESSENGERS

- Time standards, even for messenger service; Krisson Printing, London. F. W. Reilly. maps Factory Management 106:100-1 Ag '48
- MESSENGERS, Bank**
- This plan avoids messenger holdups. plans Bankers Mo 65:8+ Ap '48

METABOLISM

- Acetate metabolism in yeast, studied with isotopic carbon. S. Weinhouse and R. H. Millington. bibliog Am Chem Soc J 69:3089-93 D '47
- Biochemical approach to individuality; abstract. R. J. Williams. Science 107:459 My 7 '48
- Metabolism of chlorinated hydrocarbon insecticides. G. Woodard, B. Davidow and A. J. Lehman. bibliog Ind & Eng Chem 40:711-12 Ap '48
- Metabolism of small mammals, with remarks on the lower limit of mammalian size. O. P. Pearson. bibliog Science 108:44 J 9 '48
- Radiocarbon and filter-paper partition chromatography. R. M. Fink and K. Fink. bibliog Science 107:253-4 Mr 5 '48
- Stieglitz lecture; abstract. V. du Vigneaud. Chem & Eng N 26:991 Ap 5 '48
- Studies in steroid metabolism; the characterization of carbonyl and other functional groups in steroids by infrared spectrometry. R. N. Jones and others. bibliog Am Chem Soc J 70:2024-34 Jc '48
- Studies in steroid metabolism; the problem of Walden inversion in the reactions of steroid hydrogen sulfates and steroid sulfates. S. Lieberman, L. B. Hariton and D. K. Fukushima. bibliog Am Chem Soc J 70:1427-32 Ap '48
- Vitamins and carbohydrate metabolism. H. A. Lardy. bibliog J Chem Educ 25:262-7 My '48

METAL cleaning

- Acidic emulsion cleaner for zinc base die-castings; Dykasol. Iron Age 161:79 Je 17 '48
- Blast cleaning prepares surfaces for finishing. L. J. Wieschhaus. il Am Mach 92:81-4 S 9 '48
- Bright annealing cleans thoroughly in less space; abstracts. A. R. Mallonn. Cer Ind 49:65-1 O '47; Iron Age 160:31 N 6 '47
- Canadian Pacific's grit-blast cleaning plant. il By Mech Eng 122:133-40 Mr '48
- Cleaning metals for electroplating; abstract. G. B. Hogaboom. Iron Age 162:64 O 28 '48
- Cleaning of metals. R. Groves. diags Metallurgia 37:40-2, 100-2, 147-9, 217-19, 267-8 N '47-Mr '48; Discussion. R. 27:219+ F '48
- Cleaning strip metal; Rockwell brush box. il Blast F & Steel Pl 36:370 J '48
- Cleaning surfaces by non-erosive blasting; seed or soft grit blasting. J. Albin. il Metal Finishing 46:54-6+ Mr '48
- Continuous work flow to abrasive cleaning machines maintained by clever arrangements. il Steel 122:74-7 Je 28 '48
- Diphasic metal cleaners; preferential wetting by the two phases. I. Reich and F. D. Snell. Ind & Eng Chem 40:1233-7 J '48
- Economical rinse tank design in electroplating operations and other processes. J. B. Mohler. diags Iron Age 161:76-7+ Ap 15 '48
- Fundamental aspects of metal cleaning. J. C. Harris. diags Am Cer Soc Bul 26:389-92 D 15 '47
- How to finish copper and copper alloys, by subcommittee of American society for metals. il Am Mach 92:95-106 F 26 '48
- How to paint the product; preparing the surface. H. E. Linsley. il Am Mach 92:98-101 J 15 '48
- Integrated cleaning and rust proofing; metal outdoor furniture; Noblitt-Sparks Industries, Inc. il Steel 122:90-2 Ap 12 '48
- Kolene process aids silver brazing of cast iron. E. R. Atkinson. diag Iron Age 160:85 N 6 '47

METAL cleaning—Continued

- Metal cleaning processes. L. Sanderson. *Chem Age (Lond)* 58:205-6+, 331-3, 459-61, 613-15, 779-80+ F 7, Mr 6, Ap 3, My 1, Je 5 '48
- Metal cleaning; various methods in use prior to electroplating; tabulation; engineering data sheet. *Metal Finishing* 46:113 Je '48
- Modern porcelain enameling; preparation of metal. A. J. Hannan and L. R. Fuller. *il Cer Ind* 51:70-1 N '48
- Molten salt descaling by the Efco-Virgo process. J. A. Monks and J. McMullen. *il diags Metallurgia* 38:311-14 O '48
- Organic finishes for metal products. bibliog *il Steel* 122:56-8 My 31; 96-8+ Je 14 '48
- Preparation of bonding surfaces; abrasive blasting. L. J. Wieschhaus. *il Mill & Factory* 43:147-3 Jl '48
- Production costs halved by power-brush cleaning. *il Steel* 122:78 Ja 19 '48; *Automotive Ind* 98:45 F 15 '48
- Reclaiming solvent cleaners; American Airlines engine build-up shop. J. Albin. flow chart *il Iron Age* 161:74-5 F 12 '48
- Sand blasting useful in cleaning variety of metal surfaces. F. Gober. *il Oil & Gas J* 47:80+ S 2 '48
- Seam welder cleaning attachment improves weld quality and finish. C. Kidwell. *diag Am Mach* 91:115 D 4 '47
- Spray cleaning and pickling; abstract. G. Tuttle. *Cer Ind* 49:57+ O '47
- Testing of alkaline metal cleaners. A. Manukowich. *Metal Finishing* 45:77-8+ D '47
- Theory and practice of metal degreasing in aqueous media. P. D. Liddiard. *Chem & Ind* p435-7 Jl 10 '48; *Abstract. Metallurgia* 38: 37 My '48

*See also***Degreasing****METAL cleaning, Electrolytic**

- Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling. C. A. Zapffe and O. G. Specht, jr. bibliog *Am Soc for Metals Trans* 39:193-211; Discussion. 212 '47
- Electrolytic cleaning of rectifier tanks; abstract. C. K. Ittner. *Elec Eng* 67:186 F '48
- Electrolytic descaling. C. A. Zapffe. *il Metal Prog* 53:333-6 Je '48
- Electrolytic metal polishing. *il Chem Age (Lond)* 59:324-6 S 4 '48
- Electrolytic pickling. K. Weller. bibliog *Metal Finishing* 46:95-102 Je '48

*See also***Polishing, Electrolytic****METAL coating**

- Application of high vacua in the paint and plastics industries. J. C. Swallow and J. S. Gourlay. *il diags Chem & Ind* sup-93 O 9 '48
- Copper-titanium alloy coatings on mild steel. E. J. Chapin and C. R. Hayward. bibliog *il diag Am Soc for Metals Trans* 38:909-56 '47
- How metallizing solves mine maintenance problems. R. Mansell. *il Eng & Min J* 149: 82-4 Jl '48
- Metal-coated plastics combine advantages of both materials. H. R. Clauser. *il Materials & Methods* 27:79-82 Je '48
- Metal coatings by high vacuum evaporation. P. Godley. *il diag Iron Age* 161:90-4 Ap 1 '48
- Metal spraying; its application to Diesel maintenance. R. Mansell. *il Diesel Power* 26:66-8+ Jl '48
- Metallizing; a versatile method for production and maintenance work. J. E. Wakefield. *il Materials & Methods* 23:86-90 S '48
- Metallizing failures to avoid. J. E. Wakefield. *il diag Am Mach* 92:100-3 S 23 '48
- Metallizing useful in textile machine shop. R. Campbell. *il Textile World* 97:106-7+ D '47
- Preparing surfaces for metallizing. R. Mansell. *il Steel* 122:93-5+ Mr 1 '48
- Protective metallic coatings from molten salts. H. R. Hoge. *il Metal Prog* 52:819-23 N '47

- Saving dollars with metallizing. *il Roads & Str* 90:101+ D '47
- Some characteristics of sprayed metal. G. Tolley. *il Metallurgia* 38:263-6 S '48
- Various applications of metallizing technique in refinery operations. H. Batsford. *il diags Pet Refiner* 27:127-30 F '48

*See also***Calorizing
Electroplating****Testing**

- Magnetic measurement of the thickness of composite copper and nickel coatings on steel. A. Brenner and E. Kellogg. *il J Res Nat Bur Stand* 40:295-9 Ap '48
- Report of subcommittee VIII on field tests of metallic coatings. *Am Soc T M Proc* 46:154-67 '46

METAL coloring*See also***Steel—Blackening****METAL cutting**

- Application of heat to swaged tungsten permits parts to be machined. D. White and J. J. Aust, jr. *il Materials & Methods* 27: 81 Ap '48
- Development of a high-speed lathe for machining aluminum. R. L. Templin. *il diags A S M E Trans* 70:837-44 O '48; *Abstract. Iron Age* 161:61 Ja 22 '48; Discussion. A S M E Trans 70:844-6 O '48
- Gear cutting equipment found applicable for uses outside its original field. *il Steel* 122: 86+ Ja 12 '48
- How to work aluminum and its alloys; machining methods. A. Ashburn. *il diags Am Mach* 92:88-92 Jl 1 '48
- Machining copper and its alloys. J. J. McGuinness. *il diags Am Mach* 92:101-12 My 6 '48
- Metal-cutting, a new unit process; abstract. M. C. Shaw. *Chem Eng* 55:264+ F '48
- Technical progress in metalworking; machining. *Steel* 122:287-317 Ja 5 '48
- Theory of formation of metal chips. V. Pispänen. *diags J Ap Phys* 19:876-81 O '48
- Tool angles for machining meehanite castings; reference book sheet. *diags Am Mach* 92:139 N 4 '48

See also

- | | |
|---|----------------------|
| Broaching | Machine work |
| Cutting tools | Milling |
| Drilling and boring | Milling cutters |
| (metal working, etc.) | Oxyacetylene cutting |
| Electric cutting | Pipe cutting |
| Gear cutting | Saws, Metal working |
| Lubrication and lubricants (cutting and grinding) | Screw machines |
| Machine tools | Steel cutting |
| | Thread cutting |
| | Tool steel |
| | Trepanning |

Tables, calculations, etc.

- Cutting and fragmentation formulae. E. Kuhn. *diag Tool Eng* 20:23-6 Je; 21:25-8 bibliog(p28) Jl '48
- Cutting and horsepower formula and chart. *Tool Eng* 21:34-5 S '48

METAL drawing

- Deep-drawing one-piece aluminum boat hulls. *il diag Mach* 54:174-6 My '48
- Dies for drawing complex shapes. C. R. Cory. *diags Mach* 54:155-62 My '48
- Drawing auto engine rocker arm covers; Buick motor div. of General Motors corp. T. E. Lloyd. *il diags Iron Age* 161:84-6 Ja 15 '48
- Drawing thin-walled shells of intricate shape; radio-tube parts and shells for other assemblies. D. A. Baker. *diags Mach* 54:171-5 Ja '48
- Effect of grain size on tensile strength, elongation, and endurance limit of deep drawing brass. H. L. Walker and W. J. Craig. bibliog *il diags Metals Tech* 15:TP2478 1-10 S '48
- Effect of some processing variables on the stress required to draw tubular parts. G. Espey and G. Sachs. bibliog *diags A S M E Trans* 70:233-9 Ap '48; Same abr. *Steel* 122:82-4+ F 16 '48

METAL drawing—Continued

- Flow control by blankholder pressure. J. W. Lengbridge. *il diags Tool Eng* 21:23-6 S '48
- Folding in the cupping operation. W. M. Baldwin, Jr. and T. S. Howald. *bibliog diags Am Soc for Metals Trans* 38:757-88 '47
- High-speed deep drawing; aluminum beer barrels; Benson manufacturing co. *il Steel* 122:87+ My 17 '48
- Hydrodynamic method of drawing and embossing. *il diag Mach* 54:159-61 N '47
- Magnesium parts may be hot-formed from sheet to produce deep draws. *il Machine Design* 20:143-6 S '48
- Modern cold drawn equipment. G. W. Garwig and A. L. Thurman. *il plan diags Iron & Steel Eng* 25:90-100 O '48
- Plastic bending under tension. H. W. Swift. *diags Engineering* 166:333-5, 357-9 O 1-8 '48
- Procedures for drawing flanged shells. J. Walker. *il diags Tool Eng* 20:37-42 F '48; Correction. 20:35 Je '48
- Production processes; their influence on design; cold drawing. R. W. Bolz. *il diags Machine Design* 20:129-34 S '48
- Skilled die making permits intricate drawing of integrator housing; Bailey meter co. D. Reebel. *il Steel* 122:96-8 Mr 1 '48
- Theory and practice of pressing aluminum; flow of metal in drawing operations. J. W. Lengbridge. *il diags Tool Eng* 21:21-4 JI '48
- Theory and practice of pressing aluminum; flow of metal in rectangular draws. J. W. Lengbridge. *il diags Tool Eng* 21:23-6 Ag '48
- Theory and practice of pressing aluminum; reduction factors in drawing operations. J. W. Lengbridge. *il diags Tool Eng* 21:23-6 O '48
- See also*
Lubrication and lubricants (metal drawing)

METAL exposition, National. *See* National metal exposition

METAL fibers. *See* Textile fibers, Metallic

METAL finishing

- Abrasive tumbling reduces finishing cost. V. H. Laughner. *il Mach* 54:139-46 D '47
- Annual engineering review; finishes and coatings. *Materials & Methods* 27:105-6 Ja '48
- Barrel finishing for mass production; Endicott plant of the International business machines corp. H. Chase. *il Metal Finishing* 46:56-60 Ap '48
- Barrel finishing of aircraft parts. J. Wingate. *il Metal Finishing* 46:67-74 O '48
- Blast cleaning prepares surfaces for finishing. L. J. Wieschhaus. *il Am Mach* 92:81-4 S 9 '48
- Chemical surface treatments for magnesium; engineering data sheet. *Metal Finishing* 46:31 Ja '48
- Control of surface finish improves quality, cuts cost. H. R. Clauser. *il diag Materials & Methods* 28:74-7 O '48
- Fine-grit lubricated abrasive belt finishing. A. D. Stout, Jr. *il Iron Age* 160:68-71 D 18 '47
- Finish application table; guide in selection of proper finishes for ferrous and nonferrous metals, as applied in machine design; reference book sheet. Z. Fox. *Product Eng* 19:161 Ja '48
- Finishes for machine parts. J. Mazia. *il Machine Design* 20:125-8 O '48; 21:110-14 Ja '49
- Finishing metal surfaces by new process called liquid honing; mixture of abrasive and emulsion applied by compressed air. *il Comp Air Mag* 52:284 N '47
- Finishing metals by liquid honing; abrasive suspended in water-chemical solution and discharged from nozzle by compressed air. C. H. Wick. *il Mach* 54:158-61 Mr '48
- How smooth is smooth? B. C. Brosheer. *il diags Am Mach* 92:97-112 bibliog (115 titles, p 111-12) S 9; 111-22 S 23 '48
- How to finish copper and copper alloys, by subcommittee of American society for metals. *il Am Mach* 92:95-106 F 26 '48
- How to gun-drill for fine finish. J. Harris. *il diags Am Mach* 92:136-9 Mr 11 '48
- How to paint the product. H. E. Linsley. *il diags Am Mach* 92:97-112 JI 15; 89-100 JI 29 '48

- How would you recondition a 10x20 ft. surface plate? R. Le Grand. *il diag Am Mach* 92:92-3 N 4 '48
- Improving the adhesion of organic finishes over zinc plate. R. E. Kohl. *il Materials & Methods* 27:83 My '48
- Metal finishing; emphasis swings to utilitarian finishes. A. Bregman. *il Iron Age* 161:184-9 Ja 1 '48
- Metal finishing process information sheets; reference book sheet. G. Black. *Product Eng* 19:157, 159 N '48
- Modern mechanical surface finishing. M. Manler. *bibliog il Metal Finishing* 45:62-6 N; 82-8 D '47
- New finishes and coatings. *il Materials & Methods* 28:114+ Ag '48
- New synthetic finish for ferrous and nonferrous metals; Acraclad. C. L. Shapiro. *il Materials & Methods* 27:62-4 Ja '48
- 1947 progress in metal finishing. W. A. Raymond. *bibliog (74 ref) il Metal Finishing* 46:56-60 Ja '48
- Organic finishes for metal products. *bibliog il diags Steel* 122:77-82 My 17; 56-9+ My 31; 96-8+ Je 14; 81-4+ Je 28; 123:97-8+ JI 12; 71-3 JI 26; 83-4+ Ag 9; 77-82+ Ag 23 '48
- Organic finishes for metals. H. R. Clauser. *il Materials & Methods* 28:95-106 D '47
- Plastic replicas for surface-finish measurement. J. Pearson and M. R. Hopkins. *il 2pls Iron & Steel Inst J* 159:67-70 My '48
- Precision tumbling metal parts. R. M. Lord. *il Steel* 121:93-4+ D 15 '47
- Precision tumbling processes improve finishing efficiency. C. H. Castle. *il Steel* 123:68-70+ O 25 '48
- Pre-treatment for barrel plating. M. Mazzone and F. McKnight. *il Metal Finishing* 45:75-7+ N 47
- Production processes; their influence on design; superfinishing. R. W. Bolz. *il diags Machine Design* 20:119-24 JI '48
- Profforder; instrument for recording waviness and other surface profiles. E. J. Abbott and E. Rupke. *il diags A S M E Trans* 70:263-70 My '48
- Roto-finish spurs finishing economies. A. P. Schulze. *il Tool Eng* 20:35-7 Ap '48
- Technical progress in metalworking; surface treatment. *Steel* 122:235-6+ Ja 5 '48
- 35th annual review; cleaning and finishing. *il Am Mach* 92:267-9 Ja 29 '48
- Wrinkle finishes; 25 control points. E. A. Zahn. *il Iron Age* 161:78-83 Ja 15 '48

See also

- | | |
|----------------------|-------------------|
| Aluminum—Finish- | Pickling (metals) |
| Bonderizing | Polishing |
| Grinding | Polishing, Elec- |
| Honing | trolytic |
| Lacquer and lacquer- | Shot peening |
| ing | Steel—Finishing |

Patents

Patents. Published in monthly numbers of Metal finishing

Standards

- AISE standards for machined surface finishes. *Iron & Steel Eng* 25:65 F '48
- American standard on surface roughness; symposium of three articles. R. F. Gagg; E. R. Boynton; J. W. Owens. *il diags Ind Stand* 19:6-13 Ja '48
- High precision surface finish standard to be offered metal processing industry. C. R. Lewis and A. F. Underwood. *il diags Steel* 123:90-2+ JI 19 '48
- How to specify surface quality. J. F. Fischer. *il diag Mach* 55:174-7 S '48

Testing

Organic finishes for metal products; testing organic finishes. *bibliog il diag Steel* 123:83-4+ Ag 9 '48

Yearbooks

Guidebook and directory for the metal finishing industries. v 17 468p \$1.50 Finishing publications inc., 11 W. 42d st, New York 18 '48

METAL foils

Adsorption of gases on surfaces of powders and metal foils. R. T. Davis, Jr. and others. *bibliog J Phys & Colloid Chem* 51:1232-43 N '47

See also

Aluminum foil
Beryllium foil
Indium foil

METAL powder association

Spring meeting, 4th, Chicago, April 15-16. Steel 122:128+ Ap 26 '48
Spring meeting, 4th, Chicago, April 15-16; with abstracts of papers. *Iron Age* 161:79-81 My 6 '48

METAL powders

Advance of powder metallurgy; current practice and theory reviewed at Graz. *Chem Age (Lond)* 59:185-6, 323 Ag 7, S 4 '48
Alloying of metal powders by diffusion. S. Weinbaum, *bibliog diag J Ap Phys* 19:897-900 O '48
Annual engineering review; fabricated materials and precision parts. *Materials & Methods* 27:103-4 Ja '48
Cobalt ferrite powder for magnets. *Iron Age* 162:94 S 9 '48

Development of powder alloys; widening use for fabricating hard metals. *Chem Age (Lond)* 58:462 Ap 3 '48
Discussion on a symposium on powder metallurgy. *il pl diags Iron & Steel Inst J* 157:537-79 D '47; Same cond. *Engineer* 184:52-3, 72-3, 106-8, 119-21, 152-4, 165-8 Jl 18-22 '47
Experiments on the corrosion resistance of porous bronze compacts produced by powder metallurgy. M. M. Hallett, *Soc Chem Ind J* 67:57-61 F '48
First international powder metallurgy conference, Graz, Austria, July 12-17. *Metallurgia* 38:227-30 Ag '48
Friction in powder metallurgy. H. W. Greenwood. *Metallurgia* 37:283-4 Ap '48
German powder metallurgy; abstract. G. Comstock. *Chem Age (Lond)* 58:463 Ap 3 '48

High temperature materials by powder metallurgy. C. G. Goetzl. *il Iron Age* 161:78-81 Ap 29 '48
Hot pressing metal powders; abstract. G. Wassermann. *Iron Age* 161:60 Ja 22 '48
Industrial application of the powder metallurgy process. A. J. Langhammer. *Metal Prog* 53:387-9 Mr '48; Abstract. *Steel* 122:86 Ap 5 '48

Magnetic powders of colloidal size. *Iron Age* 162:161 Ag 19 '48
Mechanism of sintering. A. J. Shaler and J. Wulff. *bibliog Ind & Eng Chem* 40:838-42 My '48

Metal-ceramics, a new field in powder metallurgy; abstract. H. H. Hausner. *Iron Age* 161:81 My 6 '48

Metal density assured by powder press equipment. *il Steel* 122:96 F 9 '48

Nickel-iron alloy dust cores. S. E. Buckley. *bibliog il Elec Com* 25:126-31 Je '48

Nickel-steels by powder metallurgy. L. Delisle and W. V. Knopp. *il Metals Tech* 15:TP2340 1-20 F '48; Abstract. *Iron Age* 161:130 F 26 '48

Nonferrous metal powders; brass, copper, zinc and bronze powders made by the atomization process. D. C. Bradley. *il Product Eng* 19:102-4 S '48

Nonferrous powdered metal parts. D. C. Bradley. *il diags Product Eng* 19:107-9 O '48

Particle-size distribution in powder metallurgy. *Franklin Inst J* 245:517-20 Je '48

Permanent magnets of sintered oxides. R. J. Studders. *il Product Eng* 19:120-2 F '48

Platinum-tungsten alloys. R. I. Jaffee and H. P. Nielsen. *bibliog il diag Metals Tech* 15:TP2420 1-13 Ag '48

Powder metallurgy. A. M. Burghardt. *bibliog il J Chem Educ* 25:517-20 S '48

Powder metallurgy as applied to permanent magnets. A. E. Franks. *il Iron Age* 161:82-5 Ap 8 '48

Powder metallurgy; its current problems, its prospects. R. L. Ziegfeld. *il Iron Age* 161:72-4 Ap 8 '48

Powder metallurgy; low cost equipment for volume production. R. Talmage. *il diags Iron Age* 161:86-91 Ap 8 '48

Powder metallurgy notes. H. Heuberger. *Metallurgia* 38:169-71 Jl '48

Powder metallurgy of porous metals and alloys having a controlled porosity. P. Duwez and H. E. Martens. *bibliog il diags Metals Tech* 15:TP2343 1-27 Ap '48

Powdered-metal friction material. F. J. Lowey. *diags Mech Eng* 70:869-75 N '48

Rapid method of producing powdered-metal aircraft parts. *il Mach* 54:146 D '47

Rate of sintering of metal powders. A. J. Shaler and J. Wulff. *bibliog Phys R* 73:926 Ap 15 '48

Sieve test of metal powders. R. E. Pollard. *bibliog il Res Nat Bur Stand* 39:487-505 D '47; Abstracts. *Steel* 122:88-90+ F 23 '48; *Chem Age (Lond)* 58:334-6 Mr 6 '48

Sintering atmospheres used in powder metallurgy; abstract. N. K. Koebel. *Iron Age* 161:79-80 My 6 '48

Surface-area measurements on metal spheres and on carbon blacks. P. H. Emmett and M. Cines. *bibliog il J Phys & Colloid Chem* 51:1329-41 N '47

Where does powder metallurgy stand today? H. R. Clauser. *il Sci Am* 178:12-15 Ja '48

METAL protection

Advantages of chromium plating. *Steel* 123:56-7 Ag 30 '48

Ceramics for aircraft power plants. J. M. Neff. *il Iron Age* 162:60-3 O 21 '48

Chromed protein films for the protection of metals. A. Brenner and others. *il Electrochem Soc J* 93:55-62 Mr '48

Chromated proteins halt corrosion. *Eng N* 140:661 Ap 29 '48; Same. *Metal Finishing* 46:110 Je '48; Same. *Franklin Inst J* 246:83-4 Jl '48

Coatings for insulation, surface hardening, lubrication, paint bases, and protection for electronic equipment. *Electronics* 21:M10-13 Mid-Je '48

Control of metal corrosion. W. T. McClenahan. *Am Water Works Assn J* 40:608-14 Je '48

Corrosion inhibiting primers for ferrous metals. W. G. Huckle and H. S. Davidson. *il Paint Oil & Chem R* 111:18+ Jl 22 '48

Corrosion of iron and steel; atmospheric protection and marine fouling; abstracts of papers. *Metallurgia* 38:201-6 Ag '48

Electrolytic resistance in evaluating protective merit of coatings on metals. R. C. Bacon, J. J. Smith and F. M. Rugg. *bibliog il diag Ind & Eng Chem* 40:161-7 Ja '48

Integrated cleaning and rust proofing; metal outdoor furniture; Nobilit-Sparks Industries, inc. *il Steel* 122:90-9 Ap 12 '48

Measurement of adherence of organic coatings to metal surfaces. H. Green and T. P. Lamattina. *bibliog il diags Anal Chem* 20:523-7 Je '48

Metals and ceramics; wide industrial possibilities of coatings; symposium on ceramics for airplane engines. *Chem Age (Lond)* 59:219-20 Ag 14 '48

New finishes and coatings. *il Materials & Methods* 28:114+ Ag '48

Phosphatization of metallic surfaces. M. A. Streicher. *bibliog(67 ref) il diag Metal Finishing* 46:61-9 Ag '48

Plastic protective coatings. *il Chem Age (Lond)* 57:722-3 D 6 '47

Porous-chromium hardening of Diesel-engine cylinders. C. D. B. Williams. *Engineering* 165:139 F 6 '48

Progress being made in fight against corrosion losses of metals. W. Mann. *il Materials & Methods* 28:51-5 Ag '48

Protective finishing of electrical equipment. F. Widvall and R. Newbound. *il Inst E E J* 94 pt 2:512-22 O '47; Discussion. 94 pt 2:522-8; 95 pt 2:695-702 O '47, D '48

Recent developments in protective coatings. R. M. Burns. *Metal Prog* 53:276+ F '48

Selection of protective coatings. K. G. Compton. *il Can Chem & Process Ind* 31:1027-30+ N '47; Abstract. *Steel* 121:90-1+ N 3 '47

Study of primers for ferrous metals in an atmospheric exposure by New England paint and varnish production club. *il Paint Oil & Chem R* 110:42-4+ D 11 '47

METAL protection—Continued

Technical progress in metalworking; surface treatment. Steel 122:235-6+ Ja 5 '48
 Temperature resistant ceramic base coats for metals. Cer Ind 49:61 D '47
 Use of Lithcote in the pulp and paper industry. W. S. Lang. il diags Pulp & Pa of Can (Convention no) 49:223-30 [F] '48

See also

Alloys, Hard facing
 Aluminum—Protection
 Bonding
 Colorizing
 Chromium plating
 Corrosion and anti-corrosives
 Electroplating
 Enamel and enameling
 Magnesium—Protection
 Metal coating
 Paint, Protective
 Pipe coating
 Pipe lines—Protection
 Steel—Protection
 Water pipes—Protection
 Zinc—Protection
METAL scales. See Metals—Scaling

METAL spinning

Automatic spinning of stainless steel; cone for cathode ray television tube. A. Hildebrandt. il diags Tool Eng 21:20-2 S '48
 Large stainless steel tank heads fabricated by spinning; illustrations with text. Materials & Methods 28:56-8 Ag '48
 Practical aspects of metal spinning. R. J. Schneider. il Iron Age 161:76-80+ F 12 '48
 Skimmer disks produced faster by spinning; McCormick-Deering cream separators. G. H. Cottrell. il diags Am Mach 92:78-80 Ag 28 '48
 Spin six-in. thick steel plate; Lukens steel co. il Am Mach 92:33-4 Ap 8 '48
 Spinning magnesium. L. F. Hawes. il Iron Age 161:72-3 F 19 '48

METAL spraying. See Metal coating**METAL trade**

Civilian's metal supplies feel increasing squeeze. Barron's 23:28-9 Ag 23 '48
 How the products are sold; United States smelting refining and mining co. G. H. LeFevre. Min & Met 29:581-2 O '48
 Metals; review and forecast. Eng & Min J 149:71-95 F '48

See also

Aluminum industry and trade
 Copper industry and trade
 Iron industry and trade
 Lead industry and trade
 Metal workers
 Metal working industries
 Mineral industries
 Scrap metal industry
 Steel industry and trade
 Tin industry and trade
 Tin plate
 Zinc industry and trade

Advertising

Battle of the metals. il Ind Marketing 33: 73-4+ Ag '48

Securities

Divergent earning trends for metal companies; with data on non-ferrous metal and metal fabricator stocks. W. Beecher. il Mag of Wall St 82:635-7+ S 25 '48
 Metals and metal fabricators in 1948; with financial data on non-ferrous metal and metal fabricator stocks. W. Beecher. il Mag of Wall St 81:705-7+ Mr 27 '48

Statistics

Acute metal shortage pends. Steel 122:56-7+ Ap 12 '48
 Bureau reports 1947 as all-time peak production. Eng & Min J 149:120 F '48
 Nonferrous metals; prospects for 1948. F. R. Briggs. il Steel 122:130-3 Ja 5 '48

Germany

German metallurgical practice reviewed. P. M. Tyler. Min & Met 29:326-9 Je '48
 Non-ferrous metal in western Germany; production and imports still inadequate. Chem Age (Lond) 59:322 S 4 '48

Spain

Mining and metallurgical industries. For Comm W 33:18-19 O 9 '48

United States

Tariff lowered on 60 per cent of trade. Steel 121:54-5+ N 24 '47

METAL trades committee. See International labour organization—Metal trades committee

METAL waste

Analytical procedures for the determination of metals affecting sewage treatment. M. L. Riehl. bibliog Sewage Works J 20:629-37; Discussion. 637-9 J 1 '48
 Conveyors, chutes and hoists mechanize chip handling; Link-Belt co. R. C. Becherer. il Am Mach 92:120-2 S 9 '48
 How mechanized chip handling turns waste into profit. il Mod Ind 16:127 O '48
 Industrial waste problem; brass and copper, electroplating, and textile wastes. W. S. Wise. Sewage Works J 20:36-8 Ja '48
 Making chip salvage pay an extra profit; illustrations. Factory Management 106:74-5 Ag '48
 Pneumatic chip conveying. H. M. Nichols. il diags Steel 122:81-2+ Ap 19 '48
 Small chip-handling department serves twenty-two automatics. R. E. Whinrey. il Am Mach 92:106-7 J 1 29 '48
 Theory of formation of metal chips. V. Pispansen. diags J Ap Phys 19:876-81 O '48

See also

Scrap metal

METAL work

Adhesives for metalworking. H. E. Linsley. il diags Am Mach 92:107-18 F 12 '48
 Annual engineering review; fabricated materials and precision parts. Materials & Methods 27:101-5 Ja '48
 Bath contour forming, a new metalworking process; parts for truck, bus, and trailer bodies and also for aircraft. il diags Automotive Ind 98:32-3+ Je 15 '48
 Designing for low scrap to reduce cost. E. F. McCaleb. il diags Product Eng 19:150-2 Ap '48
 Fabrication of high nickel alloys and austenitic stainless steel. A. S. Tuttle, Jr. Pulp & Pa of Can 49:74-30 Ap '48
 Greater forming efficiency provided by new process utilizing a combination of electrical current and pressure; Westin process. il Steel 123:92 N 1 '48
 Rotary contour formed parts. C. J. Bath. il diags Product Eng 19:117-20 O '48
 Technical papers presented at National metal congress sessions of American institute of mining and metallurgical engineers; abstracts. Steel 121:116+ N 10 '47
 Technical progress in metalworking. Steel 122:190-3+ Ja 5 '48
 Wartime materials developments in Germany; from reports of the Office of technical services. Materials & Methods 27:111-15 Mr '48

See also

Aluminum work
 Brass founding
 Brass work
 Bushings
 Dies
 Electroplating
 Extrusion process
 Forging
 Foundry practice
 Heat treatment
 Machine shop practice
 Machine tools
 Metal cutting
 Metal drawing
 Pickling (metals)
 Plating
 Polishing
 Pressed metal
 Rolling (metal work)
 Sheet metal work
 Shells (metal work)
 Shot peening
 Solder and soldering
 Stamping
 Steel work
 Swaging
 Tin plate
 Turning
 Welding

Bibliography

Materials and Methods digest; new developments and ideas in materials and their processing. Published in monthly numbers of Materials and methods

METAL work, Architectural

Maintenance of metallic trim at Rockefeller Center. M. Weiss. Metal Prog 52:833-4 N '47

See also

Sheet metal work, Architectural

METAL workers

Metalworking wages 40 per cent of factory total in 1946. Steel 122:65 Mr 1 '48
 Second session of the I.L.O. metal trades committee, Stockholm, Sept. 3-12. Int Labour R 56:442-8 O '47
 Wages have increased more than prices since 1941. Am Mach 92:118-19 Ja 29 '48

METAL working industries

Distribution; more efficient system for channeling steel and finished products as well as other materials, one of 1948's major problems. B. K. Price, *il Steel* 122:134-7 Ja 5 '48

Is metalworking moving? map *Am Mach* 92: 111-14 Ag 12 '48

Prospects for 1948. W. J. Campbell, *Steel* 122: 118-23 Ja 5 '48

Tariff benefits and concessions summarized by State dept. *Iron Age* 160:119+ N 27 '47

Tariff lowered on 60 per cent of trade. *Steel* 121:54-5+ N 24 '47

Technical progress in metalworking. *Steel* 122: 190-8+ Ja 5 '48

Turning points in the metal-working industry: abstract. M. S. Curtis, *Instruments* 21:546+ Je '48

Directories

Where-to-buy; products directory of current advertisers in *Steel*. *Steel* 122:1-48 sec 2 Mr 29 '48

Who sells it! *Iron Age* metalworking buyers' guide. A. D. Stout, Jr. and T. S. Blair, *Iron Age* 161:208-9, 310+ Ja 1; 106+ Ja 8; 87-8+ Ja 15; 70-2+ Ja 22; 77-8+ Ja 29; 128+ F 5; 122-4+ F 12; 125-6+ F 19; 134-6+ F 26; 216-28 Mr 11; 135-54 Mr 18 '48

Finance

Metalworking earnings improve; earnings and sales of 50 companies, 1946, 1947 and first quarter of 1948; tabulation. *Steel* 122: 58 My 3 '48

Metalworking earnings shrink; 50 manufacturing companies, third quarter net earnings. *Steel* 121:69 N 17 '47

Securities

Divergent earnings trends for metal companies; with data on non-ferrous metal and metal fabricator stocks. W. Beecher, *il Mag of Wall St* 82:635-7+ S 25 '48

Metals and metal fabricators in 1948; with financial data on non-ferrous metal and metal fabricator stocks. W. Beecher, *il Mag of Wall St* 81:705-7+ Mr 27 '48

Statistics

American Machinist index of metalworking production. Published in American machinist

American Machinist index of metalworking production, 1935-1947. *Am Mach* 92:121-6 Ja 29 '48

Appraisal of metalworking, with a statistical summary. *Am Mach* 92:105-26 Ja 29 '48

Iron Age study shows metalworking industry breakdown by areas. O. Johnson, *Iron Age* 162:113 O 21 '48

See also

Metal trade—Statistics

California

Southern California foundries studying and testing methods to overcome smog air pollution. O. Murdock, *Iron Age* 162:168+ O 14 '48

Canada

Canadian import control drastic. *Steel* 122: 47-9 Ja 12 '48

Czechoslovakia

Czechs seek metalworking leadership. *il Am Mach* 92:194-5 Mr 11 '48

Finland

How carbide tools are handled in Finland. H. Branders, *il plan diags Am Mach* 92: 96-8 Ag 12 '48

Germany

Wartime materials developments in Germany; from reports of the Office of technical services. *Materials & Methods* 27:111-15 Mr '48

India

India building up metalworking industries. *il Am Mach* 92:130-1 J1 15 '48

METAL working machinery

Sell human values of metal-working equipment. B. Lester, *Mach* 55:207-8 S '48

See also

Foundry machinery	Presses
Heading machines	Stretching machines
Molding machines	

METAL working plants

Quality control and process control can be synonymous. N. Gildersleeve, *il diag Mill & Factory* 43:115-18 Ag '48

Simonds saw and steel co. opens little red schoolhouse doors; windowless, controlled conditions plant, and new visual method of schooling its sales representatives shown to group of visitors. *il Paper Tr J* 125:18+ D 11 '47

See also

Foundries	Rolling mills
Machine works	Steel works

Electric equipment

Continued expansion seen in use of power-driven portable tools. *Steel* 122:102+ My 24 '48

Electrical developments in metallurgy. L. Sanderson, *Elec R (Lond)* 141:953-5 D 26 '47

Light metal tube production. *il Elec R (Lond)* 143:269-73 Ag 20 '48

Equipment

Barrel finishing for mass production; Endicott plant of the International business machines corp. H. Chase, *il Metal Finishing* 45:56-60 Ap '48

Conveyerization increases steadily in metalworking plants. *Steel* 122:104+ My 10 '48

Crucible modernizes wire mill. J. Anthony, *il Iron Age* 161:70-3 Ja 29 '48

Economical rinse tank design in electroplating operations and other processes. J. B. Mohler, *diags Iron Age* 161:76-7+ Ap 15 '48

Handling spells economy at power saws. B. Melnitsky, *il Am Mach* 92:74-5 Ja 1 '48

How to maintain and recondition lubricants in metal working plants. E. L. H. Bastian, *il Steel* 122:90-2+ My 24 '48

Manufacturers' literature. Published in monthly numbers of *Materials and Methods* Modernization program ends fabricating shop bottlenecks. Austin co. W. G. Paton, *il Iron Age* 161:86-9 Ap 1 '48

New GM supplier plant; decentralized unit in Ohio manufacturing hub caps, bumper guards and grilles. J. Geschelin, *il Automotive Ind* 98:28-9+ F 1 '48

Palletizing doubles warehouse capacity of pole line hardware manufacturer; Oliver iron & steel corp. W. W. Hiller, *il Steel* 122:103, 119 F 2 '48

Pneumatic chip conveying. H. M. Nichols, *il diags Steel* 122:81-2+ Ap 19 '48

Rings, pistons and liners; production methods employed by Hepworth and Grandage Ltd. *il Automobile Eng* 38:27-39 Ja; 51-61 F '48

Semiproduction runs of experimental stampings; Tinnerman products, inc. *il Iron Age* 160:78-9 N 27 '47

Smaller valves using drop forged components accommodate higher temperatures and pressures; Ohio injector co. D. Reebel, *il Steel* 122:104-7 Ap 26 '48

Straight-line heating provides fast method of processing long straight metal stock. S. M. Stoler, *plan diag Steel* 123:105-6 S 13 '48

Technical progress in metalworking; equipment. *Steel* 122:217-18+ Ja 5 '48

Technical progress in metalworking; new products and equipment. *il Steel* 122:319-20 Ja 5 '48

35th annual review number. *il Am Mach* 92: 128-294 Ja 29 '48

Variety of plant trucks used to relay work through processing lines; Chase brass & copper co. *il Steel* 123:107+ J1 19 '48

Versatile skid expedites material handling in stamping plant. L. M. Beckwith, *il Iron Age* 161:58-9 Je 3 '48

Who sells it! *Iron Age* metalworking buyers' guide. A. D. Stout, Jr. and T. S. Blair, *Iron Age* 161:208-9, 310+ Ja 1; 106+ Ja 8; 87-8+ Ja 15; 70-2+ Ja 22; 77-8+ Ja 29; 128+ F 5; 122-4+ F 12; 125-6+ F 19; 134-6+ F 26; 216-28 Mr 11; 135-54 Mr 18 '48

METAL working plants—Continued

Layout

Mechanized handling eases wheel manufacture; Norris stamping and manufacturing co., H. S. Wharen, diag Am Mach 92: 84-5 F 26 '48

Modernization program ends fabricating shop bottlenecks; Austin co., W. G. Paton, il Iron Age 161:86-9 Ap 1 '48

Management

Are you in Sleepy Hollow? advice to metal-working executives, E. J. Tangerman, Am Mach 92:85-6 Ja 15 '48

Ten per cent more money for ten per cent more production; Precision spinning co., E. Marple, il Mill & Factory 42:135-6 Ap '48

Waste

Plant neutralizes own waste; New Departure's ballbearing plant handles variety of liquid waste, il Bsns W 948-50+ Ag 21 '48

Treating metal-working wastes; New Departure ball-bearing plant, H. D. Unwin, flow diag il diags Eng N 141:91-5 Ag 19 '48

METALATION

Metalation studies in the thiophene series; condensation and thienyl- and substituted thienyl-sodium compounds with ethylene oxide, J. W. Schick and H. D. Hartough, bibliog Am Chem Soc J 70:1646-7 Ap '48

Metalation studies in the thiophene series; preparation of 2-thienylsodium and the 5-halo-2-thienylsodiums, J. W. Schick and H. D. Hartough, bibliog Am Chem Soc J 70:286-8 Ja '48

Metalation studies in the thiophene series; transmetalation of the alkylthiophenes, J. W. Schick and H. D. Hartough, Am Chem Soc J 70:1645 Ap '48

Metalations of diphenylmethane and related compounds by potassium amide; condensations with carbonyl compounds, R. S. Yost and C. R. Hauser, Am Chem Soc J 69: 2325-8 O '47

Polymerization; the action of metalating reagents on rubber, A. A. Morton and H. E. Ramsden, bibliog Am Chem Soc J 70:3132-5 S '48

METALITE

Phenolic bonded metal-wood sandwich, il Mod Plastics 26:82-3 O '48

METALLIC films. See Films, Metallic

METALLIC soap. See Soap, Metallic

METALLIZING. See Metal coating

METALLOGRAPHIC specimens

Anomalies in the appearance of glide ellipses, R. Maddin, il diags Metals Tech 15: TP2332 1-6 F '48; Discussion, 15:TP2449 12-15 Ag '48

Application of electrolytic polishing to ferrous metallography, H. J. Merchant, bibliog 3pls diags Iron & Steel Inst J 155: 179-94 F '47; Discussion, il diags 156:524-6; 158:208-9 Ag '47, F '48

Automatic polishing of metallographic samples, E. D. Holt, il Metal Prog 54:350-2 S '48

Rapid electropolish and etch, A. De Sy and H. Haemers, il Metal Prog 53:368-71 Mr '48

Temporary holder for polishing metal specimens, H. Leidheiser, jr, Metal Prog 52:811 N '47

Thermal etching of metals, R. Shuttleworth, bibliog il Metallurgia 38:125-31 Ji '48

METALLOGRAPHY

Applied X-ray metallography, N. P. Goss, Steel 123:98+ Ji 15; 114+ S 6 '48

Cleavage patterns disclose toughness of metals, C. A. Zapffe and others, il Science 108:440-1 O 22 '48

Color metallography; with black and white reproductions and color photomicrographs covering nine alloys, W. D. Forgeng, bibliog pl Iron Age 162:130-3 O 14 '48

Constitution of the system indium-tin, F. N. Rhines and others, bibliog il Am Soc for Metals Trans 39:694-711; Discussion, 711-12 '47

Correlation of optical and electron microscopy, J. S. Bryner, il diag Metals Tech 15:TP2364 1-7 Je '48

Deoxidation control by fractography, G. C. Woodside, il Iron Age 160:78-9 D 4 '47

Determination of phase diagrams, W. L. Fink, il Metal Prog 53:530-5, 672-5 Ap-May '48

Effect of crystal arrangement on secondary recrystallisation in metals; abstracts and discussion, J. S. Bowles and W. Boas, Metallurgia 38:335-8 O '48; Engineering 166: 355 O 8 '48

Effect of grain size on tensile strength, elongation, and endurance limit of deep drawing brass, H. L. Walker and W. J. Craig, bibliog il diags Metals Tech 15:TP24781-10 S '48

Effect of recrystallized grain size on grain growth, P. A. Beck, J Ap Phys 19:507-9 My '48

Fractographic structures in antimony, C. A. Zapffe and F. K. Landgraf, jr, il Metal Prog 53:377-81 Mr '48

Fractography; the study of fractures at high magnification, C. A. Zapffe and others, bibliog il Iron Age 161:76-82 Ap 1 '48

Grain growth in alpha-brass, J. E. Burke, J Ap Phys 18:1028; Comments, P. A. Beck, 1028-9 N '47

Grain growth in 70-30 brass, P. A. Beck and others, bibliog Metals Tech 15:TP2326 1-7 F '48; Discussion, 15:TP2449 60-9 Ag '48

Grains, phases, and interfaces; an interpretation of microstructure, C. S. Smith, bibliog il diags Metals Tech 15:TP2337 1-37 Je '48

History of crystal growth revealed by fractography, C. A. Zapffe and others, bibliog il Science 107:320-1 Mr 26 '48

Influence of internal stress on the structure of electro-deposits, M. R. J. Wyllie, bibliog il diags J Chem Phys 16:52-64 Ja '48

Internal stresses arising from transformations in metals and alloys, F. C. Thompson, Engineering 164:499 N 21 '47

Mechanism of precipitation in a permanent magnet alloy; Cu-Ni-Co alloy (Cunico), A. H. Geisler and J. B. Newkirk, bibliog il diags Metals Tech 15:TP2444 1-20 Ag '48

Mechanism of precipitation in alloys of beryllium in copper, A. G. Guy and others, bibliog il diags Metals Tech 15:TP2341 1-23 F '48

Micro-indentor for use with a metallurgical microscope, T. A. Crawshaw, il diags J Sci Instr 25:13-14 Ja '48

Microradiography, F. W. von Batchelder and J. H. Schaum, il Iron Age 160:94-7 D 11 '47

Nature of strain markings in alpha brass, J. E. Burke and C. S. Barrett, bibliog il diag Metals Tech 15:TP2327 1-12 F '48; Discussion, 15:TP2449 2-11 Ag '48

Nonferrous physical metallurgy; review of 1947, W. R. Hibbard, jr, il diags Min & Met 29:118-26+ F '48

Nucleation, J. C. Fisher and others, bibliog J Ap Phys 19:775-81 Ag '48

Oxide replica technique for the electron microscope examination of stainless steel and high nickel alloys, E. M. Mahla and N. A. Nielsen, bibliog il J Ap Phys 19:378-82 Ap '48

Property changes during aging, A. H. Geisler, bibliog il diags Metals Tech 15:TP2436 1-25 Ag '48

Pseudostructures in electron microscope specimens, J. H. L. Watson, il J Ap Phys 19:713-20 Ag '48

Refined metallographic technique for examination of surface contours and surface structure of metals; taper sectioning, A. J. W. Moore, il diags Metallurgia 38:71-4 Je '48

Some effects of applied stresses on precipitation phenomena, W. L. Finlay and W. R. Hibbard, jr, bibliog diag Metals Tech 15: TP24701-18 S '48

Some thoughts on precipitation; abstract, M. L. V. Gayler, Metal Prog 53:582+ Ap '48

Stereogoniometer, A. Taylor, bibliog il diags J Sci Instr 25:301-4 S '48

Structure of grain boundaries in metals, T. Kê, bibliog Phys R 73:267-8 F 1 '48

Theory of strain interaction of solute atoms, C. Zener, diags Phys R 74:639-47 S 15 '48

Transient nucleation, D. Turnbull, bibliog Metals Tech 15:TP2365 1-10 Je '48

METALLOGRAPHY—Continued

Twinning in tetragonal alloys of copper and manganese. F. T. Worrell. *bibliog* *il* *diag* *J* *Ap* *Phys* 19:329-33 O '48

Viscous slip along grain boundaries and diffusion of zinc in alpha-brass. T. Kê. *bibliog* *J* *Ap* *Phys* 19:285-90 Mr '48

See also

Aluminum—Metallography	Magnesium—Metallography
Etching (metals)	Steel—Metallography
Iron—Metallography	

METALLURGICAL analysis

Analysis of simple and complex tungsten carbides. J. J. Furey and T. R. Cunningham. *Anal* *Chem* 20:563-70 Je '48

Chemical analysis of a permanent magnet alloy. C. H. R. Gentry. *Metallurgia* 38:108-13 Je '48

Determination of calcium sulphate in sulphide ores. R. S. Young and A. J. Hall. *Soc* *Chem* *Ind* *J* 66:375 O '47

Experience with photometric procedures for the determination of metals; using the Spekker absorptiometer. H. Cox. *bibliog* *il* *Metallurgia* 37:270-4 Mr '48

45-second spectrochemical analysis; use of *Quantometer*. *il* *Steel* 122:109-+ *Ap* 12 '48

Quantometer, a tool for the metallurgist. W. Bonsack. *il* *Metal* *Prog* 52:975-8 D '47

Quantometer for rapid spectrographic examination of metals and alloys. R. H. Müller. *il* *Ind* & *Eng* *Chem* *Anal* ed 18:sup23-4 Ag '46; Same. *Pet* *Eng* (Ref annual) 19:156-+ *Jl* 1 '48

Removal of manganese in determinations of the zinc, calcium, and magnesium of manganese ores and products. R. L. Evans. *Anal* *Chem* 20:87 Ja '48

See also

Electrographic analysis
also subdivision Analysis under names of metals, e.g. Aluminum—Analysis; Ruthenium—Analysis; Steel—Analysis

METALLURGICAL apparatus

See also

Ball mills	Magnetic separators
Classifiers	Metallurgical plants—
Furnaces, Metallurgical	Equipment
	Stamp mills

METALLURGICAL laboratories

Completes new laboratory for study of taconite concentration; Oliver iron mining co. flow sheet *il* *Steel* 122:108+ *My* 10 '48

Jones & Laughlin opens ore research laboratory. Blast F & Steel *Pl* 35:1377-8 N '47

Metallurgical research now centered at Midvale; United States smelting refining and mining co. L. A. Creglow. *Min* & *Met* 29:556-7 O '48

Mexico's ore-testing laboratory. T. L. Johnston. *il* *Eng* & *Min* *J* 149:95 *Ap* '48

New Swedish metal research institute opened; Metallografiska institutet. E. O. Lissell. *il* *Foundry* 76:142+ O '48

Research laboratory of Oliver mining co. opened to public. *Iron* *Age* 161:150-1, 157 *My* 13 '48

South Wales laboratories at Sketty Hall; British iron and steel research association. *il* *plans* *Metallurgia* 37:269-63 Mr '48

Standardized welded beam connections and special rigid frame details of new Alarco laboratory. L. Grover. *il* *diag* *Welding* *J* 27:130-5 F '48

Steel research laboratories in south Wales. *il* *Engineer* 185:179-81 F 20 '48; *Engineering* 165:187-8 F 20 '48

See also

Aluminum laboratories
Foundry laboratories

METALLURGICAL laboratories, Portable

Mobile laboratory for the British iron and steel research association. *Engineer* 184:341 O 10 '47; Same *abr.* *il* *Iron* *Age* 160:69 N 20 '47

METALLURGICAL literature

Modified punch card filing system for metallurgical literature. J. H. Westbrook and L. H. DeWald. *Metal* *Prog* 54:324-7 S '48

Punch card filing system for metallurgical literature. A. G. Guy and A. H. Geisler. *il* *Metal* *Prog* 52:993-1000 D '47

METALLURGICAL plants

War plant leased; magnesium plant in Spokane to make metallic zinc, steel alloying materials. *il* *Esns* *W* p22 *Mr* 20 '48

See also

Aluminum works	Steel works
Blast furnaces	Thickeners
Ore treatment	

Electric equipment

Electronic rotating indicator and belt protector for mills. C. M. Marquardt. *diag* *Eng* & *Min* *J* 149:80-1 *Jl* '48

Two ideas for mill control. *diag* *Eng* & *Min* *J* 149:89 *My* '48

Equipment

Automatic control in milling. I. M. LeBaron. *il* *diag* *Min* *Cong* *J* 34:26-9 O '48

Bunker Hill's new mill. F. McKinley. *il* *Eng* & *Min* *J* 149:89-91 *Je* '48

Concentrating lead-zinc ore at the Bayard mill; United States smelting refining and mining co. P. V. Brough and K. B. Gillaspie. flow sheet *il* *Min* & *Met* 29:562-6 O '48

Dezincing lead under vacuum; abstract. W. T. Isbell. *diag* *Comp* *Air* *Mag* 53:45 F '48

Economics resulting from arc welding; repairing metallurgical equipment. W. G. Ough. *diag* *Can* *Min* *J* 69:60-3 *Ja* '48

Madsen Red Lake gold mines. D. C. McLaren. *il* *Can* *Min* *J* 68:804-8 N '47

Modern equipment and methods; pictorial review. *Eng* & *Min* *J* 148:136-62 N '47

New dry concentrating equipment. W. J. Long. 8pls *U* *S* *Bur* *Mines* *Rep* of *Invest* 4288:1-10 '48

Research and development open new phase in milling; review of 1947. R. H. Ramsey. *il* *diag* *Eng* & *Min* *J* 149:104-9 F '48

Power

D-c power for magnesium plants. F. S. Glaza. *il* *Elec* *Eng* 66:1063-8 N '47

Iron and power; electric furnace pig iron; with cost data. W. M. Bonham. *il* *diag* *Can* *Min* *J* 69:55-9 *Ja* '48

Paralleling rectifiers and converters; electrolytic zinc plant of the Anaconda copper mining co. R. J. Kennard. *il* *diag* *Elec* *Eng* 66:1074-6 N '47

Steam-electric power plant for mining and milling operations of the Kennecott copper corp. G. A. Parker. flow diag *il* *Mech* *Eng* 69:934-6 N '47

METALLURGICAL research

Apparatus research laboratory; Air reduction company. *il* *Mech* *Eng* 70:31-2 *Ja* '48; Same *cond.* Blast F & Steel *Pl* 36:127-8 *Ja* '48; Abstracts. *Chem* & *Eng* *N* 25:3648 D 8 '47; Marine *Eng* 52:132 D '47

Metallurgical research at the National physical laboratory. N. P. Allen. *il* *Metallurgia* 38:267-70 S '48

Metallurgist and atomic energy. R. F. Bacher. *Metal* *Prog* 52:800-2 N '47

Metallurgy; research drives to meet new economic needs. E. S. Kopeckil. *il* *Iron* *Age* 161:198-207 *Ja* 1 '48

New applications of X-ray and electron beams to metal research; report of fifth annual Pittsburgh conference on X-ray and electron diffraction. B. H. Alexander. *Metal* *Prog* 52:989-90+ D '47

Nonferrous physical metallurgy; review of 1947. W. R. Hibbard, Jr. *il* *diag* *Min* & *Met* 29:118-26+ F '48

Special services to industry; Bureau of mines, Ottawa. A. J. Baxter. *il* *Can* *Min* *J* 69:70-3 *Ja* '48

Sponsored research in Britain; establishment of the Fulmer research institute. T. Bishop. *Metal* *Prog* 52:831-2 N '47

Tracer isotopes in metallurgy. *bibliog* *Engineer* 185:110-11 *Jl* 30 '48

War department's research and development program; important unsolved metallurgical problems. E. A. Routheau. *Metal* *Prog* 53:249-50 F '48

See also

Metallurgical laboratories
Steel research

METALLURGISTS

Metallurgical monuments. *Metal* *Prog* 53:223-4 F '48

METALLURGY

- Factors which control liquation in metallurgy. E. A. Peretti, bibliog il diag Eng & Min J 148:76-8 D '47
- German metallurgical practice reviewed. P. M. Tyler. Min & Met 29:326-9 Je '48
- Interrelation of engineering and metallurgy. A. P. M. Fleming. Engineering 165:116 Ja 30 '48
- Metallurgy and atomic energy. C. H. Plant. diags Metallurgia 37:15-19, 137-40, 173-80, 248-52 N '47, Ja-Mr '48
- Metallurgy in America, 1917-1947; chronological record. Metal Prog 53:75-8, 827-32 Ja, Je '48
- National metal congress meeting, Chicago, Oct. 18-24. Chem & Eng N 25:2392 N 10 '47
- Non-ferrous metallurgists report new processes; review of 1947. C. R. Hayward, il Eng & Min J 149:114-17 F '48
- Technical progress in metalworking; metal production. Steel 122:258-+ Ja 5 '48
- Technical progress in metalworking; metallurgy. Steel 122:190-3 Ja 5 '48
- Unit processes of chemical metallurgy. R. Schuhmann, jr. Metals Tech 15:TP2363 1-6 Je '48
- Vacuum metallurgy. R. A. Stauffer. bibliog (54 ref) il Chem & Ind sup 19-26 O '48
- Vacuum metallurgy produces purer, denser, tougher and more ductile metals. H. A. Knight, il diag Sci Am 178:173-5 Ap '48

See also

- | | |
|-----------------------------|----------------------------|
| Aluminum metallurgy | Manganese metallurgy |
| Blast furnaces | Metallography |
| Calcination | Metallurgical analysis |
| Cobalt metallurgy | Metallurgical laboratories |
| Copper metallurgy | Metallurgical plants |
| Electrodeposition of metals | Metals |
| Electrometallurgy | Nickel metallurgy |
| Flotation process | Open hearth process |
| Flue dust | Ore treatment |
| Flux | Pickling (metals) |
| Furnaces, Metallurgical | Sintering |
| Gold metallurgy | Slag |
| Iron metallurgy | Smelting |
| Lead metallurgy | Steel metallurgy |
| Magnesium metallurgy | Tin metallurgy |
| | Zinc metallurgy |

Bibliography

- Book reviews. Published in monthly numbers of Materials and methods
- Books for mining and metallurgical engineers, 1947. Min & Met 29:87, 108 F '48
- Materials and Methods digest; new developments and ideas in materials and their processing. Published in monthly numbers of Materials and methods
- Reviews of current literature. Published in monthly numbers of Metallurgia

Classification

- Subject index for metallurgical filing system. A. G. Guy and A. H. Geisler. Metal Prog 52:998-9 D '47

History

- Metals and mankind; from Anglesey to Hiroshima; history of British metallurgy. H. O'Neill, il map Metallurgia 37:231-7 Mr '48

Study and teaching

- Curriculum for metallurgical engineering. J. P. Spielman, J Eng Educ 38:148-55 O '47
- Metallurgy and its place in engineering education. J. Chipman. Metal Prog 54:190-4 Ag '48
- Qualifications for entrance to university schools of metallurgy. Iron & Steel Inst J 159:157-8 Je '48

METALLOCK process. See Machinery—Maintenance and repair

METALS

- Absolute reaction rate theory for diffusion in metals. J. C. Fisher and others, bibliog Metals Tech 15:TP2344 1-10 F '48; Discussion, il 15:TP2448 37-40 Ag '48
- Annual engineering review, il Materials & Methods 27:87-106 Ja '48

- Application tables to guide in the selection of materials; reference book sheet. Z. Fox. Product Eng 18:165+ N; 165+ D '47
- Behavior of metal surfaces discussed at annual meeting of Société française de métallurgie. Steel 122:89 Ja 12 '48
- Chart for linear expansion of materials; expansion chart for steel. Tool Eng 21:34-5 O '48
- Damping capacity of metals. E. V. Potter. Iplis U S Bur Mines Rep of Invest 4194: 1-48 bibliog (49 titles, p45-8) '48
- Developments in metals and alloys for chemical plant equipment. W. Z. Friend, bibliog il Chem Eng Prog 44:501-10; Discussion. 510 Jl '48
- Ductility of metals under general conditions of stress and strain. J. E. Dorn and E. G. Thomsen, bibliog diags Am Soc for Metals Trans 39:741-72 '47
- Energy losses of sound waves in metals due to scattering and diffusion. W. P. Mason and H. J. McSkimin. J Ap Phys 19:940-6 O '48
- Engineering materials. R. W. Bailey. Inst Mech Eng J & Proc 157 (War emergency issue no 31):274-7, pl 1-2 '47
- Free volumes of the metallic elements at their melting points. S. S. Penner, bibliog J Chem Phys 16:745-6 Jl '48
- Hardness ranges for various materials; tabulation; engineering file facts. S. D. Smoke, comp. Materials & Methods 27:105, 107 My '48
- How long will our metals last? world's supply of metals can be prolonged by international co-operation, aided by conservation and research. C. R. Hayward, il Tech R 50:96-101+ D '47
- Industrial metals of high purity. A. Portevin. Metal Prog 54:69-70 Jl '48
- Materials and power. C. Williams. Mech Eng 69:1012-15 D '47
- Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander, bibliog diags Phys R 74:479-88 Ag 15 '48
- Mechanical behavior of high damping metals. C. Zener. bibliog J Ap Phys 18:1022-5 N '47
- Metals for use with highly corrosive media; engineering file facts. Materials & Methods 28:87, 89 Jl '48
- Metals in service. P. M. Hess, il Iron & Steel Eng 25:65-75; Discussion. 75-6 Je '48
- Periodic chart for metallurgists. C. A. Zapffe, bibliog il Am Soc for Metals Trans 38:239-65; Discussion. 265-70 '47
- Progress in metals development work. Materials & Methods 27:109-10 Mr '48
- Progress in metals development work; condensed from papers of the American society for metals. Materials & Methods 26: 114+ D '47
- Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing, bibliog diags Rs Mod Phys 20:112-22 Ja '48
- Reduction by dissolving metals. A. J. Birch, Chem Soc J p439-6 S '44; 809-13 N '45; 593-7 Jl '46; 102-5, 1642-8 Ja, D '47
- Scattering of ultrasonic radiation in polycrystalline metals. W. Roth, bibliog il diag J Ap Phys 19:901-10 O '48
- Selection of engineering materials for coke plants. C. F. Pogacar, il Blast F & Steel Pl 36:439-42, 555-9 Ap-May '48; Same abr. Steel 122:111+ Je 7 '48
- Statistical rate theory of metals; mechanism of flow and application to tensile properties. J. W. Frederickson and H. Eyring, bibliog diags Metals Tech 15:TP2423 1-33 Ag '48
- Strain energy in greatly deformed elastic or inelastic anisotropic engineering metals. K. H. Swainger, bibliog diags Franklin Inst J 245:501-16 Je '48
- Technical papers presented at National metal congress sessions of American institute of mining and metallurgical engineers; abstracts. Steel 121:116+ N 10 '47
- Technical progress in metalworking; metallurgy. Steel 122:190-3 Ja 5 '48
- Theory of strain interaction of solute atoms. C. Zener, diags Phys R 74:639-47 S 15 '48

METALS—Continued

These new metals challenge old stand-bys; titanium, zirconium, molybdenum are 100 per cent American. *il Mod Ind* 15:50-3 *Je* '48

See also

Alkali metals

Alloys

Bearing metals

Bronze

Cast iron

Castings

Corrosion and anti-

corrosives

Creep of metals

Deformation (me-

chanics)

Electrodeposition of

metals

Electrometallurgy

Fatigue in metals

Films, Metallic

Forgings

Foundry practice

Geology

Glass—Joining to

metal

Heat treatment

Metal trade

Metallography

Metallurgy

Mineral and mineral

resources

Ore deposits

Pickling (metals)

Rare earth metals

Scrap metal

Sheet metal

Slag

Solder and soldering

Solutions, Solid

Strength of ma-

terials

Welding

White metals

also names of metals and alloys, e.g. Brass; Bronze; Copper; Silver; Steel

Aging

Age hardening copper-cobalt-manganese alloys. J. W. Fredrickson, bibliog *il Am Soc for Metals Trans* 38:593-617 '47

Age-hardening nickel alloys. F. C. Ochsner, *il Product Eng* 19:126-8 O '48

Atmospheric and indoor aging studies on some aluminum and zinc-base die-casting alloys. G. R. Gohn and L. E. Menges, bibliog *il Am Soc T M Proc* 46:1064-94; Discussion. 1095-6 '46

Influence of strain aging on the fracture stress of low-carbon steel. D. J. McAdam, jr. and others, bibliog *Metals Tech* 15:TP2318 1-11 Ja '48

Mechanism of precipitation in alloys of beryllium in copper. A. G. Guy and others, bibliog *il diags Metals Tech* 15:TP2341 1-23 F '48

Precipitation heat treatment of work-hardened 61S-W aluminum alloy sheet. J. J. Warga, *il diag Am Soc for Metals Trans* 39:680-9; Discussion. 689-93 '47

Precipitation in a magnesium sheet. C. T. Haller and C. S. Barrett, *il Am Soc for Metals Trans* 39:670-6; Discussion. 676-9 '47

Property changes during aging. A. H. Geisler, bibliog *il diags Metals Tech* 15:TP2436 1-25 Ag '48

Some effects of applied stresses on precipitation phenomena. W. L. Finlay and W. R. Hibbard, jr. bibliog *diag Metals Tech* 15:TP 2470 1-18 S '48

Some thoughts on precipitation; abstract. M. L. V. Gayler, *Metal Prog* 53:582+ Ap '48

Strain aging criteria. G. Sachs, bibliog (72 titles) *diag Iron Age* 161:78-83 My 13 '48

Strain aging in welding low-carbon structural steel. W. H. Bruckner and W. E. Ellis, *il diags Welding J* 27:sup441-7 S '48

Use of the Jominy test in studying commercial age-hardening aluminum alloys. B. M. Loring and others, *diag Metals Tech* 15:TP2337 1-9 F '48

Analysis

A.S.T.M. symposium on organic reagents for metal analysis. *Anal Chem* 20:392-3 Ap '48; Abstract. *Chem & Eng N* 26:799 Mr 15 '48

Analytical procedures for the determination of metals affecting sewage treatment. M. L. Riehl, bibliog *Sewage Works J* 20:629-37; Discussion. 637-9 Jl '48

Metal analysis unit; non-destructive analysis made by X-ray diffraction. *il Sci Am* 178:85 F '48

Qualitative semimicro-analysis with reference to Noyes and Bray's system; partial analysis of the combined nickel, zirconium, and rare-earth groups. C. C. Miller, *Chem Soc J* p 1347-50 O '47

Trace metal determination in fats; with special reference to copper in milk fat. R. D. Coleman, J. B. Thompson and I. Branum, *il Anal Chem* 20:365-8 Ap '48

X-ray fluorescence analysis. J. L. Abbott, bibliog *il diag Iron Age* 162:58-62 O 28; 121-4 N 4 '48

See also

Metallurgical analysis

Bibliography

Manufacturers' literature. Published in monthly numbers of Materials and methods

Materials and Methods digest; new developments and ideas in materials and their processing. Published in monthly numbers of Materials and methods

Cleaning*See* Metal cleaning**Corrosion***See* Corrosion and anti-corrosives**Detection**

Detecting metals. *il diag Mod Plastics* 25:107-9 Ja '48

Development and use of magnetic apparatus for bomb and mine location; abstract. A. Butterworth, *Electrician* 140:801; Discussion. 801-2 Mr 12 '48

Development of locators of small metallic bodies buried in the ground; abstract and discussion. B. Roston, *Electrician* 140:801-2 Mr 12 '48

Find shells in lumber. *il Electronics* 21:150+ Ja '48

Metal detector for cows. *il Electronics* 21:128 My '48

Mine detector finds metal in timber. M. M. Lehrbas, *il Nat Safety N* 57:33+ My '48

Expansion and contraction

Dimensional instability affects design of precision equipment. F. C. Victory, *il diags Am Mach* 92:108-11 F 26; 144-7 Mr 11; 112-15 Mr 25; 112-15 Ap 8 '48

Failure

Influence of size and the stress system on the flow stress and fracture stress of metals. D. J. McAdam, jr. and others, bibliog *Metals Tech* 15:TP2373 1-19 *Je* '48

Mechanism of fracture of glass and similar brittle solids. N. W. Taylor, bibliog *diags J Ap Phys* 18:943-55 N '47

See also

Gearing—Failure

Steel—Failure

Fluidity

Effect of various stress histories on the flow and fracture characteristics of the aluminum alloy 24ST. J. J. Lynch and others, bibliog *diags Metals Tech* 15:TP 2307 1-24 Ja '48; Discussion. 15:TP2449 100-9 Ag '48

Flow, fracture and ductility of metals. D. J. McAdam, jr. and others, bibliog *Metals Tech* 15:TP2296 1-30 Ja '48

Flow of metals under various stress conditions. A. L. Nadai, *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 28): 121-60, pl 1-8 bibliog (p159-60) '47

Fluidity of steel; experimental investigations on fluidity/temperature relationships. R. Jackson and others, bibliog *diags Iron & Steel Inst J* 157:1-21 S '47; Discussion. 158:443-51 Ap '48

Influence of size and the stress system on the flow stress and fracture stress of metals. D. J. McAdam, jr. and others, bibliog *Metals Tech* 15:TP2373 1-19 *Je* '48

Plastic flow in anisotropic sheet steel. L. R. Jackson and others, bibliog *il diags Metals Tech* 15:TP2440 1-15 Ag '48

Theory and practice of pressing aluminum; flow of metal in drawing operations. J. W. Lengbridge, *il diags Tool Eng* 21:21-4 Jl '48

Theory and practice of pressing aluminum; flow of metal in rectangular draws. J. W. Lengbridge, *il diags Tool Eng* 21:23-6 Ag '48

Gas content

Bronze founding; a review of some recent developments. F. Hudson, bibliog *il diags Foundry* 76:86-9+ Mr '48

METALS—Gas content—*Continued*

- Control of gas content during the melting of phosphor bronzes, gun metals and leaded bronzes. W. T. Pell-Walpole, *Il Metallurgia* 37:119-23 Ja '48; Abstract, *Metal Prog* 54:220+ Ag '48; Discussion, W. A. Baker, *Metallurgia* 37:295-6; Reply, 296-7 Ap '48
- Controlled vacuum heat treating; results of American gas association experiments. *Il Steel* 121:80-3+ N 24 '47
- Effect of annealing and gas content on the superconducting properties of tantalum. R. T. Webber, *bibliog Phys R* 72:1241-5 D 15 '47
- Effect of gases on tin bronze. C. L. Frear, *diags Foundry* 76:70-1+ N '48 (to be cont)
- Gas porosity in nickel-silver castings. T. F. Pearson and others, *Il Engineering* 166:237-9 S 3 '48
- Gases given off by core binders. H. Brown, *Il diag Foundry* 76:84-7+ N '48
- Gases in cast metals. M. B. Bever, *bibliog Il Iron Age* 161:90-4 Ap 22 '48
- Study of residual gases in cast iron; abstract. J. E. Hurst and R. V. Riley, *Foundry* 76:286+ Ag '48
- Study of the hydrogen, oxygen, and nitrogen contents of foundry pig-iron. J. E. Hurst and R. V. Riley, *diags Iron & Steel Inst J* 159:130-6 Je '48
- Vacuum melting techniques. J. D. Nisbet, *diags Iron Age* 161:79-82+ Mr 18 '48

Hydrogen content*See also***Chromium—Hydrogen content****Joining to rubber**

- Preparation of bonding surfaces; abrasive blasting. L. J. Wieschhaus, *Il Mill & Factory* 43:147-8 Jl '48

Polishing*See* Polishing**Prices**

- Base metal prices again raised. *Economist* 155:239+ Ag '48
- E & M J metal prices, 1897-1947; chart and table. Eng & Min J 149:insert 83 F '48
- E & M J weekly average metal prices, 1947; table. Eng & Min J 149:83 F '48
- Price-volume ratios of metals; quantity purchasable for one dollar (Jan. 1948); chart; engineering file facts. *Materials & Methods* 27:105 Mr '48

Scaling

- Electropotentials in growing halide and oxide layers on metals. A. Dravnieks and H. J. McDonald, *bibliog diags Electrochem Soc J* 93:177-30 My '48
- Zone of metal phase consumption in gas-metal reactions. A. Dravnieks and H. J. McDonald, *bibliog diags Electrochem Soc J* 94:139-51 O '48

*See also***Steel—Scaling****Temperature effect**

- Bearing properties of 24S-T sheet and shear strength of 24S-T rivets at elevated temperatures. A. E. Flanagan and others, *Il diags Am Soc for Metals Trans* 38:789-804; Discussion, 804-6 '47
- Blistering of silver plating at high temperature. C. F. Floe and M. B. Bever, *Metal Prog* 53:247-8 F '48
- Compressive properties of aluminum alloy sheet at elevated temperatures. A. E. Flanagan and others, *bibliog Il diags Am Soc T M Proc* 46:951-69 '46
- Curie temperature alloys. J. Shaw, *bibliog Il diags Product Eng* 18:158-63 Je '48
- Effect of thermal-mechanical history on the strain hardening of metals. J. E. Dorn and others, *bibliog Il diags Metals Tech* 15:TP245-1-20 S '48
- Embrittlement of chromel and alumel thermocouple wires. W. I. Pumphrey, *2pls Iron & Steel Inst J* 157:513-14 D '47
- Hardness testing of metals and alloys at elevated temperatures. F. P. Bens, *bibliog Il diag Am Soc for Metals Trans* 38:505-13; Discussion, 513-16 '47

Impact strength and hardness of aircraft alloys down to -423° F. M. G. Fontana and J. L. Zambrow, *Il diags Metal Prog* 53:97-101 Ja '48

Influence of the mechanical properties of monel metal and copper. D. J. McAdam, jr. and others, *Il Am Soc T M Proc* 46:902-50 bibliog(p917-18) '46

Low temperature properties of tin and tin-lead alloys. H. S. Kalish and F. J. Dunkerley, *bibliog Il Metals Tech* 15:TP2442-1-20 S '48

Magnesium-cerium-zirconium alloys; properties at elevated temperatures; abstracts. A. J. Murphy and R. J. M. Payne, *Il Engineering* 163:485-7 Je '47; *Product Eng* 19:153-6 Ap '48

Metal oxide films at elevated temperatures. J. W. Hickman, *bibliog Il diags Iron Age* 162:90-4 Ag 12; 90-4 Ag 19 '48

Properties of aluminum bronzes at subzero and high temperatures. R. L. Jaffee and R. H. Ramsey, *Il diags Metal Prog* 54:57-63 Ji '48

Reheating of 24S and 75S aluminum sheet. J. A. Nock, *jr. Iron Age* 160:73-9 D 25 '47

Residual stress and dimensional changes caused by welding and other local heating processes. L. C. Bibber, *Steel* 122:107 My 24 '48

Resistance of iron-nickel-chromium alloys to corrosion in air at 1600 to 2200 F. A. D. Brasunas and others, *Il Am Soc T M Proc* 46:870-93; Discussion, 894-901 '46

Room and elevated temperature properties of some sand cast magnesium-base alloys containing zinc. T. E. Leontis, *bibliog Metals Tech* 15:TP2371-1-35 Je '48

Rotating-load, elevated temperature fatigue-testing machines. J. McKeown and L. H. Back, *Il diags Metallurgia* 38:247-54 S '48

Rupture testing in a 48-bar furnace. J. D. Nisbet, *Il diag Iron Age* 161:81-2 F 12 '48

Strange behavior of metals at very low temperatures; super-conductivity. D. H. Andrews, *bibliog Il diag Refrig Eng* 54:431-5+ N '47

Tensile and creep strengths of some magnesium-base alloys at elevated temperature. A. A. Moore and J. C. McDonald, *Il Am Soc T M Proc* 46:970-89 '46

Testing

Analysis of the state of stress in the neck of a tension test specimen. N. N. Davidenkova and N. I. Spiridonova, *bibliog Il diags Am Soc T M Proc* 46:1147-58; Discussion, 1175-8 '46

Design and application of supersonic flaw detectors. D. C. Erdman, *Il diags Elec Eng* 67:181-5 F '48

Design of an ultrasonic analyzer. *Il diags Electronics* 20:102-5 D '47

Flow, fracture and ductility of metals. D. J. McAdam, jr. and others, *bibliog Metals Tech* 15:TP2296-1-30 Ja '48

Location of internal defects of plant equipment. B. Carlin, *Il diags Am Gas Assn Proc* 1947:690-8; Same abr. *Am Gas Assn Mo* 29:391-3 S '47

Measurement of the damping capacity of metals in torsional vibration; abstracts and discussion. G. A. Cottell and others, *Engineer* 186:340-2 O 1 '48; *Engineering* 166:330 O 1 '48; *Metallurgia* 38:333-5 O '48

Micro- and macro-deformations of metals and alloys under longitudinal impact loads. G. Welter, *Il diags Metallurgia* 38:287-92, 328-30 S-O '48 (to be cont)

Micro-hardness testing of metals. E. W. Taylor, *Il Engineering* 166:261-4 S 10 '48; Abstract, *Engineer* 186:307 S 24 '48; Discussion, *Engineering* 166:305-6 S 24 '48; *Engineer* 186:307-8 S 24 '48

Non-destructive test methods. B. Carlin, *Il diags Product Eng* 19:129-32 Ji '48

Permeameter for metals used in cathode-ray and television tubes. H. J. Evans, *bibliog Il diag Am Soc T M Proc* 46:1119-25 '46

Practical research program; Jeffrey mfg. co. L. E. Newell and C. S. Thomas, *Il Steel* 123:104+ Ag '48

Principles and uses of simulated service testing. L. L. Wyman, *Il Materials & Methods* 27:63-7 Je '48

METALS—Testing—Continued

- Some crack detection methods. H. Manley. bibliog Metallurgia 38:165-8 J1 '48
 Study of the geometry of the tension-impact specimen. N. A. Kahn and E. A. Imbombo. bibliog il diags Am Soc T M Proc 46:1179-90; Discussion. 1191-7 '46
 Supersonic pulses probe metals to hunt flaws, check thickness; Reflectoscope and Reflectogage. H. C. Drake and E. W. Moore. il Aviation W 48:21-3 Mr 22 '48
 Technical progress in metalworking; inspection and testing. Steel 122:211-12+ Ja 5 '48
 Variable-frequency metals comparator; rapid checking of both magnetic and nonmagnetic materials for hardness, composition, or heat treatment. D. E. Bovey. il diag Gen Elec R 50:45-9 N '47

See also

- Brinell hardness test Magnetic testing
 Electric testing of Notched bar testing—
 metals
 Hardness—Testing Testing machines

Wear

- High-speed movies trace cause of wear; machine embodying ratchet feed. il Mach 54: 164 N '47
 Wear measurement; McKee gage. R. D. Haworth. Metal Prog 53:112+ Ja '48
 Wear resistance measured in laboratory and shop. N. N. Sawin. diags Am Mach 92:98-101 My 20 '48
 Wear tests on grinding balls. T. E. Norman and C. M. Loeb, jr. bibliog flow sheet Metals Tech 15:TP2319 1-31 Ap '48; Discussion. 15:TP2448 30-6 Ag '48

X ray inspection

- Acceptance standards in radiographic examination of castings and welds; discussion. Engineer 184:551 D 12 '47
 Breadths of X-ray diffraction lines from martensite. J. A. Wheeler and M. A. Jaswon. bibliog Iron & Steel Inst J 157:161-6 O '47; Abstract. Metal Prog 53:422+ Mr '48
 Divergent beam X-ray photography of metallic single crystals. A. H. Geisler and others. il Phys R 72:983-4 N 15 '47
 Fluoroscope as a flaw detector; effective substitute for radiography. L. Sanderson. Chem Age (Lond) 57:599-600 N 1 '47
 Industrial X-ray highlights. J. G. Schneeman. il Mill & Factory 42:107-11 Mr '48
 Measurement of stress by means of X-rays. D. E. Thomas. il diags J Ap Phys 19:190-3 F '48
 Naval radiographical laboratory to assist welding and casting technique. A. Wilson. Metallurgia 37:305-6 Ap '48
 New applications of X-ray and electron beams to metal research; report of fifth annual Pittsburgh conference on X-ray and electron diffraction. B. H. Alexander. Metal Prog 52:989-90+ D '47
 Progress report on drill string research-non-destructive testing of drill pipe. R. C. McMaster and H. M. Banta. diags Pet Eng 19: 72+ N '47
 Tentative industrial radiographic standards for steel castings; data sheet. il Foundry 76:199-200 My '48
 X ray determination of retained austenite by integrated intensities. B. L. Averbach and M. Cohen. bibliog il Metals Tech 15: TP2342 1-14 F '48
 X-ray diffraction cameras for metallurgical specimens. D. W. Davison. il diags J Sci Instr 25:7-10 Ja '48
 X-ray gaging of sheet and strip thickness. il diag Iron Age 161:69+ Ja 29 '48; Blast F & Steel Pl 36:254 F '48
 X-ray identification of sigma phase in 25-20 Cr-Ni stainless. W. J. Barnett and A. R. Troiano. il Metal Prog 53:366-7 Mr '48
 X-ray inspection of aluminum jet engine castings. W. A. Mader. il Iron Age 160:90-3 D 11 '47
 X-ray thickness control expected to step up sheet output. W. N. Lundahl. il diag Steel 122:101-2+ F 2 '48; Excerpts. Elec World 129:116+ Mr 13 '48

METALS, Clad*See also*

Steel, Clad

METALS, Cold treatment of

- Cold treatment of metals; abstract. Oil & Gas J 46:279 Ap 1 '48
 Economical short run stamping dies, made of low melting alloys chilled to -320° F in liquid nitrogen; Ford motor co. W. G. Patton. il Iron Age 161:84-6 F 19 '48
 Expansion fitting; liquid nitrogen used to shrink metal parts. il Sci Am 178:178-9 Ap '48; Same. Mech Eng 70:349 Ap '48
 Frozen dies form experimental parts; tripling the strength of Wood's metal dies by freezing in liquid nitrogen. C. S. Ricker. il diag Am Mach 91:110-11 D 4 '47
 Low temperature transformations in lithium and lithium-magnesium alloys. C. S. Barrett and O. R. Trautz. bibliog Metals Tech 15:TP2346 1-23 Ap '48; Discussion. 15: TP2449 72-7 Ag '48
 Removal of alternator shaft by cooling with brine and dry ice. il diags Engineering 166:32 J1 9 '48

See also

Steel, Cold treatment of

METALS, Cold working of

- Cold heading cuts manufacturing costs. C. S. Ricker. il diags Am Mach 92:89-91 F 26 '48
 Copper-manganese alloys; properties of cold-worked and annealed alloys containing 2 to 20 per cent manganese. R. S. Dean and others. bibliog Am Soc for Metals Trans 38:577-91; Discussion. 591-2 '47
 Dependence of the stress-strain curves of cold-worked metals upon the testing direction. L. J. Kilgler and G. Sachs. bibliog J Aeronautical Sci 15:151-4 Mr '48
 Effect of cold working on the magnetic properties of pure metals. J. Reekie and T. S. Hutchison. bibliog Phys R 74:610-20 S 1 '48
 Forming metal shapes by cold-rolling. E. J. Vanderploeg. il diag Mach 54:153-8 F '48
 Fundamentals of cold heading. H. E. Linsley. diags Am Mach 92:99-110 Ap 8 '48
 Light metals cold rolling. il Elec R (Lond) 142:153-6 Ja 30 '48
 Modern cold drawn equipment. G. W. Garwig and A. L. Thurman. il plan diags Iron & Steel Eng 25:90-100 O '48
 Precipitation in a magnesium sheet. C. T. Haller and C. S. Barrett. il Am Soc for Metals Trans 39:670-6; Discussion. 676-9 '47
 Products manufactured by cold roll-forming. E. J. Vanderploeg. il diags Mach 54:179-82 J1 '48
 Tooling for cold roll-forming and auxiliary operations. E. J. Vanderploeg. il diags Mach 54:172-6 Je '48

See also

Steel, Cold working of

METALS, Creep of. See Creep of metals**METALS, Effect of temperature on. See Metals—Temperature effects****METALS, Molten**

- Electromagnetic pumping of molten metals. M. Tama. il diags Iron Age 160:68-70 D 4 '47
 Heat transfer to molten metals. R. C. Martinehl. bibliog diags A S M E Trans 69:947-56; Discussion. 956-9 N '47
 Stampings from molten nonferrous metals; abstract. N. A. Sokolov. Materials & Methods 28:94 J1 '48
 Surface tension of liquid metals. A. S. Skapski. bibliog J Chem Phys 16:389-93 Ap '48
 Temperature coefficient of the surface tension of liquid metals. A. S. Skapski. bibliog J Chem Phys 16:386-9 Ap '48

METALS, Non-ferrous

- Alloys for non-ferrous forgings; tabulations; reference book sheet. Am Mach 92:143 Ja 15 '48
 Annual engineering review; nonferrous metals. il Materials & Methods 27:95-9 Ja '48
 Atmospheres and controlled atmosphere furnaces for nonferrous metals. W. Lehrer. il Metal Prog 53:393-402 Mr '48
 Composition and properties of nonferrous alloys for stampings, including deep-drawn parts; tables; engineering file facts. H. Chase. Materials & Methods 28:103, 105 O '48

METALS, Non-ferrous—Continued

Continuous annealing nonferrous strip. E. S. Kopecki. *Il diag Iron Age* 161:46-50 Ja 8 '48

Continuous casting of nonferrous metals in Germany; abstract. H. Kastner. *Materials & Methods* 26:121-3 N '47

Divergent earnings trends for metal companies; with data on non-ferrous metal and metal fabricator stocks. W. Beecher. *Il Mag of Wall St* 82:635-7+ S 25 '48

Metals and metal fabricators in 1948; with financial data on non-ferrous metal and metal fabricator stocks. W. Beecher. *Il Mag of Wall St* 81:705-7+ Mr 27 '48

Non-ferrous base metals in Quebec. W. M. Bonham. *bibliog flow sheet Il Can Min J* 69:174-81 O '48

Non-ferrous metal markets first to show mounting Marshall plan pressure. *Baron's* 28:36-7 My 10 '48

Non-ferrous metallurgists report new processes; review of 1947. C. R. Hayward. *Il Eng & Min J* 149:114-17 F '48

Non-ferrous metals firm. *Barron's* 27:45 D 8 '47; 28:36-7 Ja 5 '48

Nonferrous metals; prospects for 1948. F. R. Briggs. *Il Steel* 122:130-3 Ja 5 '48

Nonferrous metals supplies tight in face of persistent demand. J. Anthony. *Iron Age* 162:119-20+ S 16 '48

Nonferrous physical metallurgy; review of 1947. W. R. Hibbard, jr. *Il diags Min & Met* 29:118-26+ F '48

Nonferrous powdered metal parts. D. C. Bradley. *Il diags Product Eng* 19:107-9 O '48

Nonferrous; tight supplies and higher costs forecast for '48. J. Anthony. *Il Iron Age* 161:228-35 Ja 1 '48

Selective annealing of nonferrous metals. L. H. Seabright. *Metal Prog* 52:811-12 N '47

Shotpeening of nonferrous metals. H. A. Knight. *Il Materials & Methods* 26:83-6 N '47

See also

Brass

Bronze

also names of non-ferrous metals, e.g. Aluminum; Copper; Lead; Magnesium

Prices

Average monthly quotations in 1947. *Steel* 122:328 Ja 5 '48

Average prices of nonferrous metals in 1947. *Min & Met* 29:70 F '48

Metals will cost still more. *Bsns W* p36+ O 30 '48

METALS in food. See Food contamination

METALS in the body

Trace metals in human nutrition; cobalt, copper, manganese and zinc as dietary essentials. W. F. J. Cuthbertson. *bibliog Chem & Ind* p391-3 Je 19 '48

METAMORPHISM

Stratigraphy and metamorphism in a part of the northern Black Hills and the Homestake mine, Lead, South Dakota. J. A. Noble and J. O. Harder. *Geol Soc Bul* 59:941-75, pl 1-3 *bibliog* (p971-2) S '48

METAPHOSPHATES

Acid pyro- and metaphosphates produced by thermal decomposition of monocalcium phosphate. W. L. Hill and others. *bibliog Ind & Eng Chem* 39:1667-72 D '47

Metachromatic reaction of hexametaphosphate. J. M. Wame. *bibliog Am Chem Soc J* 69:3146-7 D '47

Use of metaphosphates in refractory mortar. P. G. Herold and J. F. Burst, jr. *diags Mo U Sch Mines & Met Bul tech ser v* 13 no 2: 1-34 '47

METASEQUOIA

Chromosomes and relationships of metasequoia and sequoia. G. L. Stebbins, jr. *bibliog Il Science* 108:95-8 Jl 30 '48

Living metasequoia in China. E. D. Merrill. *Science* 107:140 F 6 '48

Precedence of modern plant names over names based on fossils. J. M. Schopf. *Science* 108:483 O 29 '48

San Francisco chronicle scores unique beat in China. *Ed & Pub* 81:10 Ap 10 '48

Should there be a living metasequoia? interrelationship of living and fossil plants. J. M. Schopf. *Science* 107:344-5 Ap 2 '48

METASOMATISM

Replacement of calcite by atacamite in copper chloride solutions. R. M. Garrels and L. O. Stine. *Il Econ Geol* 43:21-30 Ja '48

METASTABILITY

Phosphorescence and the rôle of the triplet state in the electronic excitation of complex molecules. M. Kasha. *bibliog Chem R* 41: 401-19 O '47

Short-lived isomers of nuclei. S. DeBenedetti and F. K. McGowan. *diags Phys R* 74:728-35 O 1 '48

METASTABLE ions. See Ionization, Gaseous

METCALFE, James J.

Metcalfe caps adventure with his soulful portraits. *Por Ed & Pub* 81:44 Ap 3 '48

METEOR crater, Arizona

Meteor crater, a source of quality silica. *Il Min Cong J* 34:43-4 My '48

METEORITES

Absorption of cosmic radiation in meteorites. C. A. Bauer. *Phys R* 74:225-6 Jl 15 '48

Brown wins AAAS prize for chemical studies of meteorites. *Chem & Eng N* 26:310 F 2 '48

Geological significance of meteorites. H. H. Nininger. *bibliog Am J Sci* 246:101-8 F '48

Isotopic composition of meteoritic and terrestrial gallium. M. G. Inghram and others. *Phys R* 74:343-4 Ag 1 '48

Norton county, Kansas, meteorite. L. LaPaz. *Science* 107:543 My 21 '48

Probability that a meteorite will hit or penetrate a body situated in the vicinity of the earth. G. Grimminger. *bibliog J Ap Phys* 19:947-56 O '48

Propagation of a pulse in the atmosphere; explosion of the Great Siberian meteor. C. L. Pekeris. *bibliog Phys R* 73:145-54 Ja 15 '48

Rate of production of helium in meteorites by cosmic radiation. C. A. Bauer. *Phys R* 74:501-2 Ag 15 '48

See also

Meteor crater, Arizona

Analysis

Determination of the gases in meteoritic and terrestrial irons and steels. L. K. Nash and G. P. Baxter. *bibliog diags Am Chem Soc J* 69:2534-44 O '47

METEOROLOGICAL balloons. See Balloons, Meteorological

METEOROLOGICAL instruments

Heat requirements for instruments and airfoils during icing storms on Mt Washington. V. J. Schaefer. *Il A S M E Trans* 69: 843-6 N '47

Meteorological instruments shown at the Physical society's exhibition. F. J. Scrase. *diag J Sci Instr* 25:185-6 Je '48

See also

Anemometers

Hygrometers

Radio meteorographs

Thermometers and thermometry

METEOROLOGICAL optics

Meteorological conditions accompanying mirages in the Salt Lake desert. R. L. Ives. *bibliog Il maps Franklin Inst J* 245:457-73 Je '48

METEOROLOGICAL stations

Mount Washington observatory; America's original mountain weather station. D. H. Chapman. *bibliog Heating-Piping* 20:113-18 Jl '48

Weather towers near completion at Brookhaven laboratory. *Franklin Inst J* 246:269-70 S '48

Worst weather in the world; Mount Washington's natural testing laboratory. M. Sheridan. *Il Sci Am* 178:154-6 Ap '48

METEOROLOGY

New ionospheric-meteorological correlation. T. G. Mifran. *bibliog Inst Radio Eng Proc* 36:1093-5 S '48

Weather under control; Langmuir and Schaefer discover how to make it rain or snow. *Il diags Fortune* 37:106-11+ F '48

See also

Atmospheric pressure

Climate

Lightning

Radar—Meteorological use

Rain and rainfall

Snow

Solar radiation

United States—

Weather bureau

Weather forecasting

METEOROLOGY—Continued

Study and teaching

Three-dimensional modeling of cyclones in elementary meteorology. M. Schalk. Science 108:19 JI 2 '48

METEOROLOGY, Aeronautic

Aircraft reconnaissance in tropical storms. C. R. Coates. *il* U S Naval Inst Proc 74: 1126-33 S '48

Electric field intensity inside of natural clouds. R. Gunn. *bibliog* J Ap Phys 19:481-4 My '48

Institute of the aeronautical sciences 16th annual meeting, New York; abstracts of papers. *Aeronautical Eng R* 7:22-4 Ap '48

Measurement of ozone over the Organ mountains, New Mexico. R. Stair. *bibliog* *il* diag J Res Nat Bur Stand 40:9-19 Ja '48

New ceiling and visibility recorders take the guesswork out of forecasting airport weather conditions. *il* diags Aviation W 47: 33-4 N 17 '47

METEORS

Reflections of very-high frequency radio waves from meteoric ionization. E. W. Allen, jr. *diags* Inst Radio Eng Proc 36: 346-52 Mr '48; Discussion. 36:1255-7 O '48

Theory of the radio detection of meteors. L. A. Manning. *diags* J Ap Phys 19:689-99 Ag '48

METER readers

Plan for meter readers. A. G. Burnett. *il* Am Gas Assn Mo 30:31-2 Ja '48

Uniforming meter readers. W. R. Seidel. *Am Gas Assn Proc* 1947:148-55

METER reading

Day in the life of a meter man. *Pub Util* 40:854-6 D 18 '47

Key operated resetting device for cumulative demand registers aids meter reading. C. V. Morey and A. W. Fyfe. *il* Edison Elec Inst Bul 16:23+ Ja '48

Bibliography

Bibliography of meter reading. *Am Gas Assn Proc* 1947:326-46

METERS

Oscillating-piston meters for fuel consumption in aircraft. C. S. Hazard. *diags* Mech Eng 70:458 My '48

See also

Dynamometers	Orifice meters
Electric meters	Steam meters
Flow meters	Venturi meters
Frequency meters	Viscosimeters
Gages	Voltmeters
Gas meters	Water meters
Meter reading	

METHACRYLATES

Condensation of piperylene with acrylonitrile and methyl acrylate. J. S. Meek and J. W. Ragsdale. *bibliog* *Am Chem Soc J* 70: 2502-4 JI '48

Copolymerization; effects of temperature and solvents on monomer reactivity ratios. F. M. Lewis and others. *bibliog* *Am Chem Soc J* 70:1519-23 Ap '48

Copolymerization; the validity of the tri-polymer equation for the systems; styrene-vinyl chloride-methyl acrylate and styrene-vinyl chloride-acrylonitrile. E. C. Chapin, G. E. Ham and R. G. Fordyce. *bibliog* *Am Chem Soc J* 70:538-42 F '48

Embedded in acrylic; displays with a jewel-like appearance. *il* Mod Plastics 25:91-3 F '48

Extruded acrylics have varied applications. *il* Plastics 8:41 Je '48

Introduction to polymer laboratory experiments; granular polymerization of methyl methacrylate. R. H. Wiley. *bibliog* *J Chem Educ* 25:204-7 Ap '48

Magnetic studies on polymerisation; magnetic optical rotatory powers and diamagnetic susceptibilities of certain polymethyl methacrylates. M. E. Bedwell. *Chem Soc J* p 1350-3 O '47

Preparation of α -carbalkoxyalkyl methacrylates by pyrolysis of the corresponding α -acetoxysobutyrate. E. M. Filachione and others. *bibliog* *Am Chem Soc J* 70:526-9 F '48

Properties of monomeric and polymeric alkyl acrylates and methacrylates. C. E. Rehberg and C. H. Fisher. *bibliog* *Ind & Eng Chem* 40:1429-33 Ag '48

Reactions of mercaptans with acrylic and methacrylic derivatives. C. D. Hurd and L. L. Gershbein. *bibliog* *Am Chem Soc J* 69:2328-35 O '47

Synthesis of α -alkoxyisobutyric acids and alkyl methacrylates from acetonechloroform. C. Weizmann, M. Sulzbacher and E. Bergmann. *bibliog* *Am Chem Soc J* 70:1153-8 Mr '48

METHACRYLIC acid

Methacrylic acid. *Chem Eng* 55:164 JI '48

METHACRYLONITRILE

Anionic chain polymerization. R. G. Beaman. *bibliog* *Am Chem Soc J* 70:3115-18 S '48

Copolymerization of butadiene with vinyl monomers; use of 2-vinylfuran, 2-vinylthiophene, methacrylonitrile, and vinylidene chloride. R. L. Frank and others. *bibliog* *Ind & Eng Chem* 40:420-2 Mr '48

Copolymerization; relative monomer addition rates in vinyl copolymerization. R. G. Fordyce, E. C. Chapin and G. E. Ham. *Am Chem Soc J* 70:2489-92 JI '48

Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton. *il* J Phys & Colloid Chem 52:490-517 *bibliog* (64 ref, p516-17) Mr '48

METHALLYLGLYCINE

Inhibition of microbiological growth by allylglycine, methallylglycine and crotylglycine. K. Dittmer and others. *bibliog* *Am Chem Soc J* 70:2499-501 JI '48

METHANE

Abundance and temperature of methane in the earth's atmosphere. R. R. McMath and others. *Phys R* 74:623-4 S '48

Acetylene produced by cracking methane in regenerative-type reaction furnace; German process. *flow* *diag* *diag* *Pet Processing* 3:215-16+ Mr '48

Adsorption of methane with charcoal; abstract. I. P. Kirillov and E. S. Rakhlin. *Chem Eng* 55:280 Ja '48

Carbon-hydrogen bond strengths in methane. H. H. Voge. *bibliog* *J Chem Phys* 16:984-6 O '48

Catalytic decomposition of ethane and ethane-hydrogen mixtures. C. Kemball and H. S. Taylor. *diag* *Am Chem Soc J* 70:345-51 Ja '48

Chemical products of coal carbonisation; possible yields of acetylene and ethylene. J. R. Campbell. *Chem Age (Lond)* 58:12-14 Ja 3 '48

Decomposition of carbon monoxide by nickel catalysts; the reaction mechanism between 250° and 450°. J. A. Tebbott. *bibliog* *diag* *Soc Chem Ind J* 67:62-6 F '48

Dependence of quenching efficiency on temperature. W. M. Smith and F. W. Southam. *J Chem Phys* 15:845-6 N '47

Discharge spread in Geiger counters with methane and methane/argon fillings. C. Balakrishnan and others. *bibliog* *diag* *Phys R* 74:410-14 Ag 15 '48

Equilibrium of iron-carbon-silicon and of iron-carbon-manganese alloys with mixtures of methane and hydrogen at 1000°. R. P. Smith. *bibliog* *Am Chem Soc J* 70:2724-9 Ag '48

Exchange reaction between methane and deuteromethanes on silica-alumina cracking catalysts. G. Parravano, E. F. Hammel and H. S. Taylor. *Am Chem Soc J* 70:2269-70 Je '48

Experimental determination of the intensities of infra-red absorption bands; carbon dioxide, methane, and ethane. A. M. Thorndike. *bibliog* *J Chem Phys* 15:868-74 D '47

Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others. *diag* *J Chem Phys* 15:798-802 N '47

Kinetics of methane synthesis. W. W. Akers and R. R. White. *bibliog* (47 ref) *diag* *Chem Eng Prog* 44:553-66 JI '48

Lines of methane at 7.7 μ in the solar spectrum. M. V. Migeotte. *Phys R* 74:112-13 JI 1 '48

METHANE—Continued

- Mechanism of the methane fermentation. A. M. Buswell and F. W. Solor, jr. bibliog Am Chem Soc J 70:1778-80 My '48
- Methane-*n*-butane-water system in two- and three-phase regions. J. J. McKetta, jr. and D. L. Katz, bibliog (50 ref) diags Ind & Eng Chem 40:853-63 My '48
- Methane fermentation of a fiberboard waste. A. M. Buswell and F. W. Solor, jr. plan Sewage Works J 20:687-94 Jl '48
- Methane formation in the photolysis of acetone at 130°. W. Davis, jr. bibliog Am Chem Soc J 70:1867-8 My '48
- Methane gas survey; Italian studies of fuel and chemical relationships. Chem Age (Lond) 59:43 Jl 10 '48
- Natural radiocarbon from cosmic radiation. E. C. Anderson and others, bibliog Phys R 72:931-6 N 15 '47
- Precision alpha-proportional counter. J. A. Simpson, jr. il diags R Sci Instr 18:884-93 D '47
- Pyrolysis of methane flowing through a porcelain tube in the region 1000°. A. S. Gordon, bibliog Am Chem Soc J 70:395-401 Ja '48
- Sludge digestion and methane production. J. D. Walker, bibliog Sewage Works J 20:544-50 My '48
- Spectroscopic evidence of methane in the earth's atmosphere. M. V. Migeotte, Phys R 73:519-20 Mr 1 '48
- Study of the deterioration of methane-filled Geiger-Müller counters. E. C. Farmer and S. C. Brown, Phys R 74:902-5 O 15 '48
- Telluric bands of methane in the Fraunhofer spectrum. R. R. McMath and others, bibliog Phys R 73:1203-4 My 15 '48
- Thermodynamics and stoichiometry of synthesis gas production by the partial oxidation of methane. C. W. Montgomery, E. B. Weinberger and D. S. Hoffman, Ind & Eng Chem 40:601-7 Ap '48
- Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties. B. H. Sage, R. H. Olds and W. N. Lacey, bibliog Ind & Eng Chem 40:1453-9 Ag '48
- Vapor pressure, specific volumes, and *p-v-T* data for H₂O, NH₃, CH₄, C₂H₆ with comments on mixtures. F. G. Keyes, bibliog A S M E Trans 70:641-4 Ag '48

See also

Diazomethane

METHANOL

- Action of methanol on naphthalene in the presence of catalysts of the alumina-silica type; formation of 2-methylnaphthalene. N. M. Cullinan and S. J. Chard, Chem Soc J p804-5 Je '48
- Addition of methyl alcohol to fluoroethylenes. W. T. Miller, jr., E. W. Fager and P. H. Griswold, Am Chem Soc J 70:431-2 Ja '48
- Conductance of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. H. I. Schiff and A. R. Gordon, bibliog J Chem Phys 16:336-9 Ap '48
- Hydrogenolysis of aromatic esters to alcohols. R. Mozingo and K. Folkers, bibliog Am Chem Soc J 70:229-31 Ja '48
- Kinetic evidence for a termolecular mechanism in displacement reactions of triphenylmethyl halides in benzene solution. C. G. Swain, bibliog Am Chem Soc J 70:1119-28 Mr '48
- Methyl silicate from silicon and methanol. E. G. Rochow, Am Chem Soc J 70:2170-1 Je '48
- Microwave absorption line frequencies of methyl alcohol and their Stark effect. D. K. Coles, Phys R 74:1194-5 N 1 '48
- Molecular interaction and infra-red absorption spectra; methyl alcohol. M. Davies, bibliog J Chem Phys 16:267-74 Ap '48
- Physical properties of benzene-methanol mixtures. G. C. Williams, S. Rosenberg and H. A. Rothenberg, bibliog Ind & Eng Chem 40:1273-6 Jl '48
- Production of synthesis gas by catalytic decomposition of methanol. H. S. Seelig and R. F. Marschner, flow diag diag Ind & Eng Chem 40:583-6 Ap '48
- Properties of electrolytic solutions; conductance of some long chain electrolytes in methanol-water mixtures at 25°. E. C. Evers and C. A. Kraus, bibliog Am Chem Soc J 70:3049-54 S '48

- Reduction of carbon dioxide to methanol by lithium aluminum hydride. R. F. Nystrom, W. H. Yanko and W. G. Brown, Am Chem Soc J 70:441 Ja '48
- Structure of molecular compounds; the clathrate compound of quinol and methanol. D. E. Palin and H. M. Powell, diag Chem Soc J p571-4 My '48
- Thermodynamic properties of methyl alcohol. J. M. Smith, bibliog Chem Eng Prog 44:521-8 Jl '48
- Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components. O. Redlich and A. T. Kister, bibliog Ind & Eng Chem 40:345-8 F '48
- Thermodynamics of sodium chloride in 5% mole per cent; aqueous methanol from e.m.f. measurements on cells with transference. J. P. Butler and A. R. Gordon, bibliog Am Chem Soc J 70:2276-8 Je '48
- Three chemicals compete for anti-freeze market. Chem Ind 62:764+ My '48
- Transference numbers of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. L. W. Shemilt and others, bibliog J Chem Phys 16:340-3 Ap '48

Analysis

- Quantitative colorimetric microdetermination of methanol with chromotropic acid reagent. R. N. Boos, bibliog Anal Chem 20:964-5 O '48

Manufacture

- Le méthanol de synthèse à partir du bois par le procédé de Lacotte; l'usine-pilote de Decazeville (Aveyron). R. Delaunay, diags Chimie & Ind 58:335-40 O '47
- Methanol industry makes plans for the future. A. A. Williams, il Chem Eng 55:110-13 Ja '48
- Synthetic methanol production started by Solvay process, and Du Pont begins operation of new Sabine River project. H. Stenerson, Chem & Eng N 26:350 F 2 '48

Statistics

- Methanol; a statistical review. J. R. Skeen, Chem & Eng N 26:3024-5 O 11 '48

METHANOLYSIS

- Methanolysis of 3,4-epoxy-1-butene. P. D. Bartlett and S. D. Ross, bibliog Am Chem Soc J 70:926-9 Mr '48
- Role of neighboring groups in replacement reactions; rates and medium effects in the alcoholysis and hydrolysis of α -bromopropionate ion; the carboxylate ion group. E. Grunwald and S. Winstein, Am Chem Soc J 70:841-6 F '48

METHIODIDES

- Alkylation with the methiodide of 1-methyl-3-dimethylaminomethylindole (1-methylgramine). H. R. Snyder and E. L. Eliel, bibliog Am Chem Soc J 70:1703-5 My '48

METHIONINE

- Production of DL-methionine on a semi-technical and pilot scale. C. H. G. Hands, A. F. Millidge and B. Y. Walker, bibliog il diags Soc Chem Ind J 66:365-73 O '47
- Rate of disappearance from plasma of intravenously administered methionine in patients with liver damage. L. W. Kinsell and others, Science 106:539-90 D 12 '47
- Stieglitz lecture; abstract. V. du Vigneaud, Chem & Eng N 26:991 Ap 5 '48
- Syntheses of some amino acids, including methionine. J. R. Catch and others, Chem Soc J p 1609-13 D '47
- Synthesis of DL-methionine. E. Pierson, M. Giella and M. Tishler, Am Chem Soc J 70:1450-1 Ap '48

Analysis

- Use of papergrams in the study of the urinary excretion of radioactive sulfur compounds. R. M. Tomarelli and K. Florey, diags Science 107:630-1 Je 11 '48

METHOXYACETOPHENONE

- Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds. K. Sisido and H. Nozaki, bibliog Am Chem Soc J 70:776-8 F '48

METHOXYACRIDINE

Reaction of 5-alkoxyacridines with bases and their salts. H. J. Barber and others. *bibliog Soc Chem Ind J* 66:411-15 N '47

METHOXYBENZANTHRONE

Synthesis. F. G. Baddar. *Chem Soc J* p 1088-9 JI '48

METHOXYBENZENE diazonium chloride

Decomposition of *o*-methoxybenzene diazonium chloride. H. B. Woodward and A. A. Ebert, jr. *Am Chem Soc J* 70:1666-7 Ap '48

METHOXYBENZOPHENANTHRENE

Condensation of phenylcycloalkenes with maleic anhydride; synthesis of 7-methoxy-3,4-benzophenanthrene. J. Szmuszkovicz and E. J. Modest. *bibliog Am Chem Soc J* 70:2542-3 JI '48

METHOXY compounds

Friedel-Crafts reaction on highly methoxylated compounds. H. R. Frank and D. S. Tarbell. *Am Chem Soc J* 70:1276-8 Mr '48

METHOXYGLUCURONIC acid

Constitution of mesquite gum; 4-methoxy-D-glucuronic acid. E. V. White. *bibliog Am Chem Soc J* 70:367-9 Ja '48

METHOXY group

Importance of the methoxy group in anti-fibrillatory compounds. J. R. DiPalma and J. J. Lambert. *bibliog Science* 107:66-8 Ja 16 '48

METHOXYNAPHTHOQUINONE

6-Methoxy-1,2-naphthoquinone. H. E. French and K. Sears. *bibliog Am Chem Soc J* 70:1279-80 Mr '48

METHOXYNITROTOLUENE

Investigation of the oxidative condensation of 2-methoxy-4-nitrotoluene; the use of oxidative catalysts. G. R. Treves. *Am Chem Soc J* 70:875-6 F '48

METHOXYPROIOPHENONE

Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds. K. Sisido and H. Nozaki. *bibliog Am Chem Soc J* 70:776-8 F '48

METHOXYQUINOLINE

Addition of organolithium compounds to the azomethine linkage of γ -picoline and 6-methoxyquinoline. H. Gilman and H. S. Broadbent. *Am Chem Soc J* 70:2809-10 Ag '48

METHOXYTETRAHYDROPHENANTHRENE

γ -6-Methoxy-1 : 2 : 3 : 4-tetrahydro-1-naphthylidenecrotonic acid. W. C. J. Ross. *Chem Soc J* p 1364-5 O '47

Sex hormones; synthesis of 1-keto-7-methoxy-1,2,3,4-tetrahydrophenanthrene and of 1-keto-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene. G. Stork. *bibliog Am Chem Soc J* 69:2936-9 D '47

METHOXYTETRALONE

6-Methoxy-1-tetralone. D. G. Thomas and A. H. Nathan. *bibliog Am Chem Soc J* 70:331-4 Ja '48

METHYL acetoxypionate

Acetylation of alkyl lactates and similar hydroxy esters with acetic acid. M. L. Fein and C. H. Fisher. *bibliog Ind & Eng Chem* 40:534-8 Mr '48

METHYL acetylene. See Propyne**METHYL acrylate**. See Methacrylates**METHYL allyl halides**

Rearrangement and substitution in anionotropic systems; test for bimolecular rearrangement, and confirmation of the ionic mechanism of rearrangement, from product compositions in substitution of α - and γ -methylallyl halides. A. G. Catchpole and E. D. Hughes. *Chem Soc J* p4-8 Ja '48

METHYL altroside

Methyl 2,6-anhydro- α -D-altroside and other new derivatives of methyl α -D-altroside. D. A. Rosenfeld, N. K. Richtmyer and C. S. Hudson. *bibliog Am Chem Soc J* 70:2201-6 Je '48

METHYL aminoguanidine

Some diacid salts of aminoguanidine and methyl aminoguanidine. J. J. Pitha, H. Hughes, jr. and G. B. L. Smith. *Am Chem Soc J* 70:2823 Ag '48

METHYL aminophenol

Reduction of *p*-hydroxyformanilide by lithium aluminum hydride to *N*-methyl-*p*-aminophenol. J. Ehrlich. *Am Chem Soc J* 70:2286-7 Je '48

METHYL aminophenol sulfate. See Metol**METHYL amyl ketone**

Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and N. F. Hall. *bibliog J Phys & Colloid Chem* 52:1006-20 Je '48

METHYL aniline

Use of a line source in ultraviolet absorption spectrophotometric analyses; application to analysis of mixtures of aniline, *N*-methyl-aniline, and *N*, *N*-dimethylaniline. D. D. Tunnickliff. *il Anal Chem* 20:828-30 S '48

METHYL benzanthrane

Derivatives of 10-methyl-1, 2-benzanthracene related to the nitrogen and sulfur *beta*-chloroethyl vesicants. O. M. Friedman and A. M. Seligman. *bibliog Am Chem Soc J* 70:3082-6 S '48

METHYL benzene. See Toluene**METHYL benzophenanthrene**

Optical activity of the 4-5-phenanthrene type; 4-(1-methylbenzo[c]phenanthryl)-acetic acid and 1-methylbenzo[c]phenanthrene. M. S. Newman and W. B. Wheatley. *bibliog Am Chem Soc J* 70:1913-16 My '48

METHYL bromide

Concerted displacement reactions; termolecular displacement reactions of methyl halides in benzene solution. C. G. Swain and R. W. Eddy. *bibliog Am Chem Soc J* 70:2989-94 S '48

Determination of boiling range of methyl bromide. D. Williams and C. C. Meeker. *diag Anal Chem* 20:733-5 Ag '48

Fire extinguishers containing methyl bromide. Consumers Res Bul 22:18-19 Ag '48

Force constants for some halomethanes. J. C. Decius. *bibliog diags J Chem Phys* 16:214-23 Mr '48

Methyl bromide as fire extinguisher. S. Bangs. *Aviation W* 47:28 D 1 '47

METHYL bromocrotonate

Synthetic studies in the steroid series; use of methyl γ -bromocrotonate in the synthesis of fused-ring hydroaromatic ketones. J. W. Cook and R. Philip. *Chem Soc J* p 162-4 F '48

METHYL butene

Polymerization of pentenes. V. N. Ipatieff and R. E. Schaad. *bibliog Ind & Eng Chem* 40:78-80 Ja '48

METHYL butyrate

Claissen condensation of methyl esters. E. E. Royals. *bibliog Am Chem Soc J* 70:489-91 F '48

METHYL cellobioside

Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose. F. S. H. Head. *bibliog Textile Inst J* 38: T389-407 D '47

METHYL cellulose

Methyl cellulose; abstract. R. J. Leddon. *Soap & San Chem* 24:89 S '48

See also

Carboxymethyl cellulose

METHYL chloride

Force constants for some halomethanes. J. C. Decius. *bibliog diags J Chem Phys* 16:214-23 Mr '48

Graphical determination of heat transfer film coefficient for methyl chloride vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:92-4 Ag '48

Hazardous refrigerant. Consumers Res Bul 22:17 S '48

Method for measuring the complex dielectric constant of gases at microwave frequencies by using a resonant cavity. C. K. Jen. *bibliog diags J Ap Phys* 19:649-53 JI '48

Methylation of olefins with methyl chloride. V. A. Miller and W. G. Lovell. *bibliog Ind & Eng Chem* 40:1138-50 Je '48

METHYL chlorosilane

Density data for two methylchlorosilanes. E. W. Balis and others. *Am Chem Soc J* 70:1654 Ap '48

METHYL cholanthrene

Formation of malignant tumors in mice by deuterium-bombarded methylcholanthrene. B. F. Barnes and others. *Science* 108:82 JI 23 '48

METHYL compounds

Reaction of α -ethynyl ketones with active methyl and methylene compounds. A. W. Johnson. *Chem Soc J* p 1628-31 D '47

METHYL cyanide. See Acetonitrile

METHYL cyclobutene

Infra-red spectrum and depolarization factors of the Raman lines of spiropentane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. *bibliog J Chem Phys* 15:742-58 O '47

METHYL cyclohexane

Distribution in hydrocarbon-solvent systems. T. F. Brown. *bibliog Ind & Eng Chem* 40: 103-6 Ja '48

Thermodynamic properties and molecular structure of cyclohexane, methylcyclohexane, ethylcyclohexane and the seven dimethylcyclohexanes. C. W. Beckett, K. S. Pitzer and R. Spitzer. *bibliog II Am Chem Soc J* 69:2488-95 O '47

METHYL cyclopentadiene

Determination of cyclopentadiene and methylcyclopentadiene in admixtures with other hydrocarbons. J. S. Powell, K. C. Edson and E. L. Fisher. *bibliog diag Anal Chem* 20:213-15 Mr '48

Preparation and properties of methylcyclopentadiene. K. C. Edson, J. S. Powell and E. L. Fisher. *bibliog Ind & Eng Chem* 40:1526-8 Ag '48

Spectroscopic determination of cyclopentadiene and methylcyclopentadiene. J. S. Powell and K. C. Edson. *Anal Chem* 20:510-11 Je '48

METHYL cyclopentane

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; equilibrium and side reactions. D. P. Stevenson and J. H. Morgan. *bibliog Am Chem Soc J* 70:2773-7 Ag '48

Isomerization of cyclohexane and methylcyclopentane in the presence of aluminum halides; the nature of the catalyst. D. P. Stevenson and O. Beeck. *bibliog Am Chem Soc J* 70:2890-4 S '48

Isomerization of saturated hydrocarbons; the effect of cyclohexene upon the isomerization of methylcyclopentane and cyclohexane. H. Pines, B. M. Abraham and V. N. Ipatieff. *diags Am Chem Soc J* 70:1742-6 My '48

Reaction of methylcyclopentane with propene in the presence of aluminum bromide-hydrogen bromide. H. Pines and V. N. Ipatieff. *bibliog Am Chem Soc J* 70:531-2 F '48

METHYL cytosine

Papilionaceous alkaloids; baptisia australis (L.). R. Br. L. Marion and J. Ouellet. *bibliog Am Chem Soc J* 70:691-2 F '48

METHYL decalone

Synthetic studies in the steroid series; use of methyl γ -bromocrotonate in the synthesis of fused-ring hydroaromatic ketones. J. W. Cook and R. Philip. *Chem Soc J* p 162-4 F '48

METHYL dibenzylamine

Importance of the methoxy group in anti-fibrillatory compounds. J. R. DiPalma and J. J. Lambert. *bibliog Science* 107:66-8 Ja 16 '48

METHYL dimethylglucopyranoside

Methyl 2,6-dimethyl- α -D-glucopyranoside. R. E. Reeves. *bibliog Am Chem Soc J* 70:259-60 Ja '48

METHYL dimethylene gluconate

Methyl 2,4:5,6-dimethylene-D-gluconate. C. L. Mehlretter, R. L. Mellies and C. E. Rist. *bibliog Am Chem Soc J* 70:1064-7 Mr '48

METHYL dioctylamine

Acid-binding properties of long-chain aliphatic amines. E. L. Smith and J. E. Page. *Soc Chem Ind J* 67:48-51 F '48

METHYL elaidate

Hydroxylated stearic acids; action of Prévost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids. H. Wittcoff and S. E. Miller. *bibliog Am Chem Soc J* 69:3138-9 D '47

METHYL ether

Mercury photosensitized reaction of dimethyl ether. R. A. Marcus and others. *bibliog J Chem Phys* 16:987-93 O '48

Reaction of hydrogen atoms with some oxygen-containing organic compounds. W. R. Trost and others. *bibliog J Chem Phys* 16: 353-7 Ap '48

METHYL ethyl cellulose

Bacterial degradation of sodium carboxymethylcellulose and methyl ethyl cellulose. G. G. Freeman and others. *bibliog Chem & Ind* p279-32 My 1 '48

METHYL ethyl ketone. See Butanone

METHYL furan

2-Methyl furan or Sylvan. *Chem Ind* 62:78+ Ja '48

Production of 2-methylfuran by vapor-phase hydrogenation of furfural. L. W. Burnette and others. *bibliog diags Ind & Eng Chem* 40:502-5 Mr '48

Reactions of furan compounds; catalytic reduction of methylfuran to 2-pentanone. C. L. Wilson. *Am Chem Soc J* 70:1313-15 Ap '48

METHYL glucosamine

Streptomycins antibiotics; N-methyl-L-glucosamine. F. A. Kuehl, Jr. and others. *bibliog Am Chem Soc J* 69:3032-5 D '47

Streptomycin; some derivatives and reactions of dihydrostreptobiosamine. H. E. Staveland and others. *bibliog Am Chem Soc J* 69:2742-7 N '47

METHYL glucoside

Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose. F. S. H. Head. *bibliog Textile Inst J* 38: T389-407 D '47

Methyl glucoside carbanilates; α -methyl-D-glucoside-2,3,6-tricarbanilate. W. M. Hearon. *Am Chem Soc J* 70:297-8 Ja '48

Quantitative separation of methylated sugars. F. Brown and J. K. N. Jones. *Chem Soc J* p 1344-7 O '47

METHYL glyoxal. See Pyruvaldehyde

METHYL gramine

Alkylation with the methiodide of 1-methyl-3-dimethylaminomethylindole (1-methylgramine). H. R. Snyder and E. L. Eliel. *bibliog Am Chem Soc J* 70:1703-5 My '48

Allylic rearrangement in an alkylation by a quaternary ammonium salt. H. R. Snyder and E. L. Eliel. *Am Chem Soc J* 70:1857-60 My '48

METHYL group

Preparation of methyl esters. R. O. Clinton and S. C. Laskowski. *Am Chem Soc J* 70: 3135-6 S '48

Reactive methyl groups of heterocyclic tertiary bases. J. C. Roberts. *bibliog Chem & Ind* p658-60 O 25 '47

Stieglitz lecture; abstract. V. du Vigneaud. *Chem & Eng N* 25:391 Ap 5 '48

Synthesis and optical resolution of 4,5,8-trimethyl-1-phenanthrylacetic acid. M. S. Newman and A. S. Hussey. *Am Chem Soc J* 69:3023-7 D '47

METHYL halides

Geometry of CH_3X molecules. H. A. Skinner. *bibliog J Chem Phys* 16:553-4 My '48

Microwave determination of the molecular structures and nuclear couplings of the methyl halides. W. Gordy and others. *bibliog Phys R* 74:243-9 Ag 1 '48

METHYL heptane

Action of sulfuric acid on an optically active hydrocarbon. R. L. Burwell, Jr. and G. S. Gordon, 3d. *bibliog Am Chem Soc J* 70: 3128-32 S '48

Synthesis of 2-cyclohexyl-6-methylheptane. D. H. Hey and D. S. Morris. *Chem Soc J* p48-9 Ja '48

METHYL hexyl ketone

Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and N. F. Hall. *bibliog J Phys & Colloid Chem* 52: 1006-20 Je '48

METHYL indole

Alkylation with the methiodide of 1-methyl-3-dimethylaminomethylindole (1-methylgramine). H. R. Snyder and E. L. Eliel. *bibliog Am Chem Soc J* 70:1703-5 My '48

Synthesis of the nuclear-O-methylated tryptophans; a note on the aldehyde reactions for tryptophan. H. N. Rydon. *Chem Soc J* p705-10 My '48

METHYL iodide

Anomalies in the hyperfine structure of CHI_3 and ICN . O. R. Gilliam and others. *Phys R* 73:635-6 Mr '48

Kinetics of the photolysis of methyl iodide and the hydrogen halides. R. R. Williams, jr. and R. A. Ogg, jr. *bibliog diag J Chem Phys* 15:691-702 O '47

Sulfur linkage in vulcanized rubber; acetone extraction of vulcanizates. M. L. Selker and A. R. Kemp. *bibliog Ind & Eng Chem* 40:1470-3 Ag '48

Sulfur linkage in vulcanized rubber; reaction of methyl iodide with sulfur compounds. M. L. Selker. *bibliog Ind & Eng Chem* 40:1467-70 Ag '48

METHYL isatin

Alkoxyaryloxyketones and their condensation with isatins. R. L. Sublett and P. K. Calaway. *bibliog Am Chem Soc J* 70:674-5 F '48

Condensation of isatin and of 1-methylisatin with barbituric acid. F. E. King, T. J. King and G. B. Thompson. *Chem Soc J* p552-6 My '48

METHYL isobutyl ketone

Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and N. F. Hall. *bibliog J Phys & Colloid Chem* 52:1006-20 Je '48

METHYL isocyanide

Microwave spectra; methyl cyanide and methyl isocyanide. H. Ring and others. *bibliog J Phys R* 72:1262-3 D 15 '47

METHYL isopropenyl ketone

Preparation and properties of ethyl vinyl ketone and of methyl isopropenyl ketone. E. M. McMahon and others. *bibliog diag Am Chem Soc J* 70:2971-7 S '48

METHYL isopropyl ketone

Halogenated ketones; the bromination of methyl propyl and methyl isopropyl ketone. J. R. Catch and others. *Chem Soc J* p276-7 Mr '48

METHYL isoquinoline

Synthesis of 6:7-diethoxy-3-methylisoquinolines. V. Bruckner and others. *Chem Soc J* p885-90 Je '48

METHYL ketobenzodioxane

2-Methyl-4-keto-1,3-benzodioxanes from salicylic acids and vinyl acetate. D. T. Mowry, W. H. Yanko and E. L. Ringwald. *bibliog Am Chem Soc J* 69:2358-61 O '47

METHYL lactate

Acetylation of alkyl lactates and similar hydroxy esters with acetic acid. M. L. Fein and C. H. Fisher. *bibliog Ind & Eng Chem* 40:534-8 Mr '48

METHYL linoleate

Chromatographic study of autoxidized methyl linoleate; abstract. L. R. Dugan, jr. and others. *Food Ind* 20:1232 Ag '48

METHYL methacrylate. See **Methacrylates****METHYL naphthalene**

Action of methanol on naphthalene in the presence of catalysts of the alumina-silica type; formation of 2-methylnaphthalene. N. M. Cullinane and S. J. Chard. *Chem Soc J* p804-5 Je '48

Alkyl naphthalenes; the methyl, ethyl, and *n*-propyl naphthalenes. S. H. Morrell and others. *bibliog Inst Pet J* 34:677-82 S '48

Preparation of water-soluble derivatives of 2-methylnaphthalene. D. O. Holland and F. A. Robinson. *Chem Soc J* p182-6 F '48

METHYL nicotinamide

Effect of indole on the determination of N^{m} -methylnicotinamide. B. S. Schweigert. *bibliog Science* 106:522-3 N 28 '47

Location of the reactive carbon in N^{m} -methylnicotinamide. W. E. Knox and W. I. Grossman. *bibliog Am Chem Soc J* 70:2172 Je '48

METHYLOCTADECANOIC acid

Branched-chain fatty acids; the synthesis of optically active 10-methyloctadecanoic acids. F. S. Prout, J. Cason and A. W. Ingersoll. *bibliog Am Chem Soc J* 70:298-305 Ja '48

METHYL oleate

Hydroxylated stearic acids; action of Prevost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids. H. Wittcoff and S. E. Miller. *bibliog Am Chem Soc J* 69:3138-9 D '47

Mechanism of oxidation of monoethenoid fatty acids and esters; the course of thermal catalytic oxidation of methyl oleate. J. H. Skellon. *Chem Soc J* p343-7 Mr '48

METHYL orange

Binding of organic ions by proteins; competition phenomena and denaturation effects. I. M. Klotz, H. Triwush and F. M. Walker. *bibliog Am Chem Soc J* 70:2935-41 S '48

METHYL pantothenic acid

Inhibition of lactic acid bacteria by analogs of pantothenic acid. W. Drell and M. S. Dunn. *bibliog Am Chem Soc J* 70:2067-63 Je '48

METHYL phenylsiloxanes

Methylphenylpolysiloxanes. R. N. Lewis. *bibliog Am Chem Soc J* 70:1115-17 Mr '48

METHYL piperidine

Piperidine derivatives; the condensation of aromatic aldehydes with 1-methyl-4-piperidone. S. M. McElvain and K. Rorig. *bibliog Am Chem Soc J* 70:1820-5 My '48

METHYL propionate

Claisen condensation of methyl esters. E. E. Royals. *bibliog Am Chem Soc J* 70:489-91 F '48

METHYL propyl ketone

Halogenated ketones; the bromination of methyl propyl and methyl isopropyl ketone. J. R. Catch and others. *Chem Soc J* p276-7 Mr '48

METHYL pyridine. See **Picoline****METHYL pyrimidine**

Synthetic antimalarials; 4-arylamino-6-aminoalkylaminopyrimidines; further variations. E. R. Basford and others. *Chem Soc J* p1354-64 O '47

METHYL pyruvate

Synthesis of β -oxoesters from acyl pyruvates. A. M. Dessert and I. F. Halverstadt. *bibliog Am Chem Soc J* 70:2595 JI '48

METHYL quinoxaline

Quinoxalines; syntheses of certain 2-methyl-4-substituted quinoxalines. A. J. Tomisek and B. E. Christensen. *bibliog Am Chem Soc J* 70:2423-5 JI '48

METHYL quinoline. See **Quinaldine****METHYL red**

Chlorophyll-sensitized photooxidation of phenylhydrazine by methyl red; reactivity of the several forms of methyl red. R. Livingston and R. Pariser. *Am Chem Soc J* 70:1510-15 Ap '48

METHYL silicate

Methyl silicate from silicon and methanol. E. G. Rochow. *Am Chem Soc J* 70:2170-1 Je '48

METHYL silicon isocyanate

Methyl silicon isocyanates and *n*-butyl silicon triisocyanate. G. S. Forbes and H. H. Anderson. *bibliog Am Chem Soc J* 70:1222-3 Mr '48

METHYL silicon isothiocyanate

Methyl silicon isothiocyanates; molar refractions. H. H. Anderson. *bibliog Am Chem Soc J* 69:3049-51 D '47

METHYL siloxanes. See **Siloxanes****METHYL styrene**

Copolymerization; copolymerizations involving α -vinylpyridine, α -vinylthiophene, α -chlorostyrene and α -methylstyrene. C. Walling, E. R. Briggs and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1543-4 Ap '48

Copolymerization; the effect of *m*- and *p*-substitution on the reactivity of α -methylstyrene toward the maleic anhydride type radical. C. Walling, D. Seymour and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1544-7 Ap '48

α -Methylene reactivity in olefinic systems; the Prins reaction with ethylene and α -methylstyrene. J. W. Baker. *Chem Soc J* p89-93 Ja '48

Monomers and polymers; a new synthesis for α -methylstyrenes. G. B. Bachman and H. M. Hellman. *Am Chem Soc J* 70:1772-4 My '48

Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents. G. B. Bachman and R. W. Finholt. *bibliog Am Chem Soc J* 70:622-4 F '48

Reaction of α -methylstyrenes with thiolglycolic acid. C. Walling, D. Seymour and K. B. Wolfstirn. *Am Chem Soc J* 70:2559-61 JI '48

METHYL styrene—Continued

Substituted styrenes; the preparation of some *m*- and *p*-substituted α -methylstyrenes. D. Seymour and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1177-9 Mr '48

METHYL sulfoamylimidazolidone

Synthesis and biological activity of 4-methyl-5-(α -sulfoamyl)-2-imidazolidone, a sulfonic acid analog of desethiobiotin. R. Duschinsky and S. H. Rubin. *bibliog Am Chem Soc J* 70:2546-7 Jl '48

METHYL sulfoxide

Vapor pressure of methyl sulfoxide from 20 to 50°; calculation of the heat of vaporization. T. B. Douglas. *diag Am Chem Soc J* 70:2001-2 Je '48

METHYL thiobenzenesulfonyl chloride

p-Methylthiobenzenesulfonyl chloride and related compounds. H. Burton and P. F. Hu. *Chem Soc J* p604-5 My '48

METHYL tryptophan

Synthesis of the nuclear-*C*-methylated tryptophans; a note on the aldehyde reactions for tryptophan. H. N. Rydon. *Chem Soc J* p705-10 My '48

METHYLAMINE

Effect of operating variables on methylamine production. R. S. Egly and E. F. Smith. *bibliog flow sheet Il Chem Eng Prog* 44: 387-96; Discussion. 396-7 My '48

Kinetics of neutralization of nitroethane with ammonia and methylamines. R. G. Pearson. *bibliog Am Chem Soc J* 70:204-8 Ja '48

Strains in methyl amines and hydrocarbons. R. Spitzer and K. S. Pitzer. *bibliog Am Chem Soc J* 70:1261-4 Mr '48

METHYLATION

Application of thallium compounds in organic chemistry. R. C. Menzies. *Chem Soc J* p 1378-84 O '47

Chemical interactions of amino compounds and sugars; methylation experiments. M. L. Wolfrom, L. F. Cavaleri and D. K. Cavaleri. *bibliog Am Chem Soc J* 69:2411-13 O '47

Constitution of mesquite gum; hexamethyl-3-glucuronosido-methyl-galactoside methyl ester. E. V. White. *bibliog Am Chem Soc J* 69:2264-6 O '47

Effect of esterification of the carboxyl groups of wool on supercontraction in sodium bisulphite and set in aqueous media. S. Blackburn and H. Lindley. *bibliog Soc Dyers & Col J* 64:310-12; Discussion. 312-14 S '48

Methyl derivatives of 1:4:5:8-tetra-aminoanthraquinone. R. H. Hall and D. H. Hey. *Chem Soc J* p736-40 Je '48

Methylation of *meso*-inositol. J. C. McGowan. *bibliog Soc Chem Ind J* 66:446 D '47

Methylation of olefins with methyl chloride. V. A. Miller and W. G. Lovell. *bibliog Ind & Eng Chem* 40:1138-50 Je '48

Naphthoquinone acids and ketols. L. F. Fieser and R. B. Turner. *bibliog Am Chem Soc J* 69:2338-41 O '47

Reaction of coal with oxygen in the presence of aqueous sodium hydroxide; effect of methylation with dimethyl sulfate. G. R. Yohe and E. O. Blodgett. *bibliog diag Am Chem Soc J* 69:2644-8 N '47

Structure of egg-plum gum; the hydrolysis products obtained from the methylated degraded gum. E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 120-3 F '48

Studies in biological methylation; precursor of the dimethyl sulphide evolved by polysiphonia *fastigiata*; dimethyl-2-carboxyethylsulphonium hydroxide and its salts; abstract. F. Challenger and M. I. Simpson. *Chem & Ind* p756 D 6 '47

METHYLENE blue

Acidic properties of cotton cellulose and derived oxycelluloses; a comparison of various methods proposed for the determination of carboxyl content. G. F. Davidson and T. P. Nevell. *bibliog Textile Inst J* 39:T102-17 Mr '48

Acidic properties of cotton cellulose and derived oxycelluloses; absorption of methylene blue. G. F. Davidson. *bibliog Textile Inst J* 39:T65-86 Mr '48

Bacteriostatic effect of methylene blue on the b.o.d. test. W. E. Abbott. *Water & Sewage Works* 95:424-5 N '48

Determination of surface active agents in solution. T. Barr and others. *bibliog Soc Chem Ind J* 67:45-8 F '48

Intravenous methylene blue for studying fiber degeneration in the central nervous system. W. H. Feindel and A. C. Allison. *Il Science* 107:429 Ap 23 '48

Observations on the proposed grading of ice cream by a methylene blue test. D. H. F. Claydon and D. G. Pirie. *bibliog Soc Chem Ind J* 67:147-50 Ap '48

Photochemical oxidation of nicotine in the presence of methylene blue. L. Well. *bibliog Science* 107:426-7 Ap 23 '48

Studies on the absorption of methylene blue by jute fibre. P. B. Sarkar and H. Chatterjee. *bibliog Soc Dyers & Col J* 64:218-21 Je '48

Analysis

Determination of methylene blue. G. F. Davidson. *bibliog Textile Inst J* 38:T408-18 D '47

METHYLENE butyrolactone

Antibacterial principle of arctium minus; unsaturated lactone structure. C. J. Cavallito and F. K. Kirchner. *bibliog Am Chem Soc J* 69:3030-2 D '47

METHYLENE compounds

Cinchoninaldehyde and reactive methylene compounds. S. A. P. Phillips. *Am Chem Soc J* 70:482-4 F '48

Reaction of α -ethynyl ketones with active methyl and methylene compounds. A. W. Johnson. *Chem Soc J* p 1826-31 D '47

METHYLENE cyclobutane

Cyclobutane derivatives; Ziegler bromination of methylenecyclobutane. E. R. Buchman and D. R. Howton. *bibliog Am Chem Soc J* 70:2517-20 Jl '48

Infrared spectrum and depolarization factors of the Raman lines of spiropentane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. *bibliog J Chem Phys* 15:742-58 O '47; Correction. 16:168 F '48

METHYLENE cyclohexane

Preparation and reactions of methylenecyclohexane. R. T. Arnold and J. F. Dowdall. *bibliog Am Chem Soc J* 70:2590-1 Jl '48

METHYLENE dioxystyryl ketones

Methylenedioxyphenyl cyclohexenones. O. F. Hedenburg and H. Wachs. *Am Chem Soc J* 70:2216-17 Je '48

METHYLENE group

Claisen benzylation of certain methylene ketones with phenyl benzoate by the sodium amide method. C. R. Hauser and others. *bibliog Am Chem Soc J* 69:2649-51 N '47

Condensations of unsymmetrical ketones; competition between methylene groups. R. P. Mariella and V. Kvinge. *Am Chem Soc J* 70:3126-8 S '48

Formation of hydroxythionaphthens by the interaction of benzenesulphonylbenzothiazolone and substances containing a reactive methylene group. A. W. H. Barton and E. W. McClelland. *Chem Soc J* p 1574-8 D '47

Polysilmethylenic compounds and their siloxy derivatives. B. A. Bluestein. *bibliog Am Chem Soc J* 70:3068-71 S '48

Reactions of α -cyanoprene (1-cyanobutadiene); addition of reactive methylene compounds. J. L. Charlsh, W. H. Davies and J. D. Rose. *Chem Soc J* p232-4 F '48

Steric effect of methylene groups. R. T. Arnold and P. N. Craig. *Am Chem Soc J* 70:2791-3 Ag '48

METHYLENIMINE

Preparation of benzylamines from benzyl halides and hexamethylenetetramine. J. Graymore. *Chem Soc J* p 1116-18 S '47

METHYLOL group

Determination of methylol groups and dibenzyl ether linkages in phenol alcohols and derived phenolic resins. H. S. Lilley and D. W. J. Osmond. *bibliog Soc Chem Ind J* 66:340-1, 425-7 O, D '47

METOL

p-Methyl aminophenol sulfate (metol, elon). *Il diag Anal Chem* 20:593-4 Je '48

METRIC system

British, American and metric. C. L. Bates. *Product Eng* 19:153-4 S '48

METRIC system—Continued

- Education and the metric system. P. Johnson. Engineering 166:318-19 O 1 '48
 Equivalent metric values in scientific papers. Engineering 165:115 Ja 30 '48
 Metric system. F. Good. Engineering 166:319 O 1 '48
 Metric system. L. Hartshorn. Engineering 166:307-8 S 24 '48
 Metric system; British Association views for and against its adoption. Electrician 141: 863-4 S 17 '48
 Modern Tower of Babel. J. A. Thomén. J Eng Educ 38:156-8 O '47
 So-called metric system. H. S. Rowell. Engineering 166:359-60 O 8 '48

METRO associated services

- Modernity is keynote of new Metro advertising mat service plant. Il Ed & Pub 81:94 Ap 24 '48

METROPOLITAN districts

- Census study indicates important population shifts. W. P. Burn. maps Ptr Ink 222:44+ F 27 '48
 Metropolitan area regulation for border-line cities; is an interstate form of control for public utilities needed? problem of Washington, D.C. A. Haines. map Pub Util 41: 552-7 Ap 22 '48
 Summary of data by metropolitan counties. Sales Management 60:124 My 10 '48

Bibliography

- Government of metropolitan areas. pa 15c Municipal reference library, 300 City Hall, Los Angeles 12 '47
METROPOLITAN Edison company
 Securities offered. Comm & Fin Chr 168:1364 O 4 '48
METROPOLITAN life insurance company
 Assets \$8.5 billion at close of year. East Underw 49:1+ F 20 '48
 Statistics help Metropolitan Life plan its public welfare drives. L. I. Dublin. Nat Underw (Life ed) 52:25 O 15 '48

MEXICO

- Industrial Mexico; prospects for British exporters. F. J. Erroll. Elec R (Lond) 142:9-11 Ja 2 '48

See also

- | | |
|-------------------------------------|-----------------------------|
| Electricity supply—Mexico | Petroleum supply—Mexico |
| Hospitals—Mexico | Radio advertising—Mexico |
| Irrigation—Mexico | Steel works—Mexico |
| Mines and mineral resources—Mexico | Technical education—Mexico |
| Paper industry and trade—Mexico | Tin mines and mining—Mexico |
| Petroleum industry and trade—Mexico | |

Antiquities

- Addenda to the history of rubber; objects dredged from the cenote of Chichen Itza. Rubber Age 63:747 S '48

Commercial policy

- Economic pressures spur Mexico to important new steps; peso devaluation, trade-agreement readjustment. G. Kalmanoff. Il For Comm W 32:3-5+ S 11 '48
 Economic profile of the Americas; Mexico's efforts to equalize balance of payments. R. Beteta. Comm & Fin Chr 166:1946+ N 13 '47

See also

- Tariff—Mexico

Cultural relations*United States*

- United States-Mexican scientific and cultural relations. D. D. Brand. Ann Am Acad 255: 67-76 Ja '48

Description and travel

- Mexican holiday; first-hand account of what to expect. A. P. Kitchen. Il Elec Eng 67: 215-17 Mr '48

Economic conditions

- Economic pressures spur Mexico to important new steps. G. Kalmanoff. Il For Comm W 32:3-5+ S 11 '48
 Folk economy of rural Mexico with special reference to marketing. G. M. Foster. J Marketing 13:153-62 O '48

Economic relations*United States*

- International aspects of Mexican economy. J. M. O. Monasterio. Comm & Fin Chr 168: 12+ J1 1 '48

Industries and resources

- Chemists and technical men have opportunity in Mexico. C. O. Brown. Ind & Eng Chem 40:sup85A-6A My '48
 Export-import bank's new credit to Nacional financiera of Mexico; proposed ammonium sulfate plant. For Comm W 30:13 Mr 13 '48
 Three credits for Mexico by Export-import bank. For Comm W 30:35 Ja 3 '48

MEXICO, Gulf of

- Catastrophism in the sea and its paleontological significance, with special reference to the Gulf of Mexico. G. Gunter. bibliog Am J Sci 245:669-76 N '47
 Recent changes in sedimentation in the Gulf of Mexico. P. D. Trask and others. Science 106:460-1 N 14 '47

See also

- Petroleum—Gulf Coast region

MEYER, E. A.

- Farm research helps business. por Bsns W 90-1 O 16 '48

MEYER, Victor, 1848-1897

- Commemorating Victor Meyer. M. Schofield. Chem & Ind p6-7 Ja 3 '48

MEYERS, Bennett Edward, 1897-

- Air force strips medals, pay from Meyers, plans court martial. Aviation W 47:15-16 D 1 '47

- AAF subcontracting firm owned by Gen. Meyers, testimony shows. por Aviation W 47:11-12 N 24 '47

- Hughes, B. Meyers testify on \$200,000 loan proposal. Aviation W 47:14-15 N 17 '47

MIALL, Stephen, 1872-1947

- Appreciation. J. V. Eyre. por Chem & Ind p633-4 N 8 '47

MIAMI, Florida**Water supply**

- Cutting water-softening costs; lime-recovery plant. C. F. Wertz. flow diag Il plan Eng N 141:113-15 J1 8 '48

- Trapping sand in water; water-filtration plant. L. Perry. Il diags Eng N 140:127-9 Ja 22 '48

MIAMI university

- University of Miami moves back to boom-bought campus in suburban Coral Gables. Il plans diags Arch Forum 89:75-82 J1 '48

MIAMI valley, Ohio

- Single purpose flood control pays off. J. P. Callahan. Pub Util 42:69-76, 159-66 J1 15-29 '48

MICA

- Georgia mica spots; Cherokee, Upson, Lamar, and Monroe counties. W. A. Beck. 10pls U S Bur Mines Rep of Invest 4239:1-29 '48

- Mechanical mica splitter developed at Bureau of standards. Il Product Eng 19:163 Mr '48

- Mechanical splitter for producing thin films of mica. Il Machine Design 19:113-14 D '47

- Mica industry problems. J. W. Sharp. flow sheet Il Min Cong J 34:48-51 Ag '48

- Mica; its preparation and some applications. A. E. Williams. Il Engineer 185:227-9 Mr 5 '48

- Milling improves northern New Mexico scrap mica outlook. R. H. Jahns. bibliog flow sheet Il maps diag Eng & Min J 149:96-100 My '48

- Modernizing the production of wet-ground mica. Il Eng & Min J 149:86-8 Je '48

- Mycalex 410; glass-bonded mica in molded form. F. L. Yerzley. Il India Rubber World 118:374-6 Je '48

- North Carolina mica spots; Mitchell, Macon, Gaston, and Yancey counties. L. A. Dahners and F. K. McIntosh. 10pls U S Bur Mines Rep of Invest 4241:1-16 '48

- Studies on methods for recovering scrap mica from pegmatite of the Black Hills, South Dakota. G. A. Munson and F. F. Clarke. bibliog 11 pls U S Bur Mines Rep of Invest 4190:1-26 '48

MICA—*Continued*

Thin window counter with special mica-to-glass seal. C. S. Wu and others. bibliog *il R Sci Instr* 18:693-5 O '47

Testing

Electrical quality classification of raw mica by a rapid, direct-reading test method. K. G. Coullée. *il diags Am Soc T M Proc* 46:1486-95; Discussion. 1496-7 '46

MICA, Substitutes for

Synthetic mica developed with natural mica characteristics. *Elec Eng* 67:922-3 S '48; *Bsns W p52 Ag* 14 '48; *Science* 108:182 Ag 20 '48

Three steps to a vinyl monomer. E. A. Kern and C. W. Wilson. *il diag Chem Eng* 55:114-17 Je '48

MICE

New method of reporting data on reproduction and lactation in the mouse. L. Mirone and others. bibliog *Science* 108:139-40 Ag 6 '48

MICELLES

Critical micelle concentrations as determined by refraction. H. B. Klevens. bibliog *J Phys & Colloid Chem* 52:130-48 Ja '48

Cylindrical model for the small soap micelle. W. D. Harkins. *diags J Chem Phys* 16:156-7 F '48

Effect of alkaline electrolytes on micelle formation in soap solutions. R. C. Merrill and R. Getty. bibliog *J Phys & Colloid Chem* 52:774-87 My '48

Interpretation of X-ray scattering from solutions of long-chain electrolytes on the basis of a spherical micelle. M. L. Corrin. bibliog *J Chem Phys* 16:844-5 Ag '48

New type of micelle; soap with alcohol, amine, or other polar-nonpolar molecules. W. D. Harkins and others. *J Chem Phys* 15:763-4 O '47

New type of micelle; solubility by film penetration. W. D. Harkins and H. Oppenheimer. *J Chem Phys* 16:1000-2 O '48

Structure of micelles of colloidal electrolytes; a new long-spacing X-ray diffraction band, and the relations of other bands. R. W. Mattoon and others. bibliog *J Chem Phys* 16:644-58 Jl '48

Turbidimetric determination of the molecular weight of micelles of dihexyl sodium sulfosuccinate in water. R. F. Stamm and others. bibliog *J Chem Phys* 16:423-4 Ap '48

MICHAEL reaction

Reaction of 5,5-dimethylcyclohexanedione-1,3 (dimedone) and its ethyl enol ether with phenylmagnesium bromide. G. F. Woods. bibliog *Am Chem Soc J* 69:2549-52 O '47

MICHIGAN

See also

Geology—Michigan
Roads—Michigan

MICHIGAN Bell telephone company

Debitures offered. *Comm & Fin Chr* 168:1695 O 25 '48

MICHIGAN CITY, Indiana**Water supply**

Chlorine dioxide results. H. J. Draves. *diag Pub Works* 79:36+ My '48

MICHIGAN consolidated gas company

Bonds offered. *Comm & Fin Chr* 167:1589 Ap 12 '48

MICROAMMETER. See Ammeters**MICROANALYSIS**

All-purpose drying oven for use in microchemical analysis. G. Ingram. *diags Metallurgia* 38:239-40 Ag '48

Apparatus for micro gas analysis. C. Kenty and F. W. Reuter, jr. bibliog *diag R Sci Instr* 18:918-24 D '47

Argentometric microdetermination of organic chlorine. K. Sisido and H. Yagi. bibliog *Anal Chem* 20:677-8 Jl '48

Bomb methods in microchemistry. J. H. Beaumont. *Metallurgia* 38:297-9 S '48

Boron microdetermination in fresh plant tissue. H. W. Winsor. *diags Anal Chem* 20:176-81 F '48

Colorimetric determination of micro amounts of silver and silver halides. S. Siggia. *Anal Chem* 19:923-4 N '47

Colorimetric microdetermination of formic acid based on reduction to formaldehyde. W. M. Grant. bibliog *Anal Chem* 20:267-9 Mr '48

Colorimetric microdetermination of zirconium. D. E. Green. bibliog *Anal Chem* 20:370-2 Ap '48

Determination of lead in air; rapid micro-method for field use. L. J. Snyder, W. R. Earnes and J. V. Tokos. bibliog *il diags Anal Chem* 20:772-6 Ag '48

Determination of small quantities of hydrogen cyanide in insects and plant tissue. R. A. Fyfan and M. J. Van Dyke. *diag Anal Chem* 19:922-3 N '47

Determination of traces of acetylene in air. T. A. Geissman, S. Kaufman and D. Y. Dollman. *diags Anal Chem* 19:919-21 N '47

Estimation of ultramicroquantities of urea and Kjeldahl and amino acid nitrogen; improvements in microaeration technique. A. E. Sobel, A. Hirschman and L. Besman. *diags Anal Chem* 19:927-9 N '47

Group separations in inorganic qualitative analysis. F. R. M. McDonnell and C. L. Wilson. *Metallurgia* 38:115-17, 177-9 Je-Jl '48

How to separate alloys by spot testing. H. Kirtchik. *Steel* 122:91+ F 23 '48

Inorganic spot test for copper. F. Goldschmidt and B. R. Dishon. bibliog *Anal Chem* 20:373-4 Ap '48

Micro methods for the determination of halogens. J. H. Beaumont. bibliog *Metallurgia* 38:353-5 O '48

Microchemical aspects of the dead-stop endpoint titration method. J. T. Stock. bibliog(43 ref) *diags Metallurgia* 37:220-3 F '48

Microchemistry group of the Society of public analysts and other analytical chemists; abstracts of papers. *Metallurgia* 37:277-8 Mr '48

Microdetermination of O-acetyl groups. J. F. Alicino. bibliog *Anal Chem* 20:590 Je '48

Microdetermination of alkaline earths as normal molybdates. R. Moser and R. J. Robinson. bibliog *Anal Chem* 19:929-30 N '47

Microdetermination of alkoxyl groups. A. Steyermark. bibliog *il diag Anal Chem* 20:368-70 Ap '48

Microdetermination of carbon monoxide in air; a portable instrument. A. O. Beckman, J. D. McCullough and R. A. Crane. bibliog *il diag Anal Chem* 20:674-7 Jl '48

Microdetermination of lead in biological material with dithione extraction at high pH. J. Cholak, D. M. Hubbard and R. E. Burkey. bibliog *diag Anal Chem* 20:671-2 Jl '48

Microdetermination of oil content in petroleum greases. A. E. Baker, jr. *il Gen Elec R* 51:44-6 O '48

Microdetermination of sulfur in organic compounds. A. Steyermark. E. Bass and E. Littman. bibliog *Anal Chem* 20:587 Je '48

Microdetermination of tellurium. V. R. H. DeMeio. *Anal Chem* 20:483-9 My '48

Microdetermination of zinc in aluminum alloys. D. F. Phillips and L. J. Holton. *Metallurgia* 38:237-9 Ag '48

Micro-spectrochemistry of aluminum alloys. D. P. Jensen. bibliog *il Iron Age* 161:66-8 Ja 8 '48

Microvolumetric method for determination of sulfur in organic compounds. J. F. Alicino. bibliog *Anal Chem* 20:35-6 Ja '48

Pressure regulator for use in microdetermination of carbon and hydrogen. M. F. Furrer and A. Steyermark. bibliog *il diag Anal Chem* 20:257-8 Mr '48

Qualitative semimicro-analysis with reference to Noyes and Bray's system; partial analysis of the combined nickel, zirconium, and rare-earth groups. C. C. Miller. *Chem Soc J* p 1347-50 O '47

Quantitative microdetermination of magnesium in plant tissue and soil extracts; rapid colorimetric method. M. Drosdoff and D. C. Neapass. bibliog *Anal Chem* 20:673-4 Jl '48

Review of micro methods for the determination of oxygen in organic compounds. C. E. Spooner. bibliog *Metallurgia* 37:157-60 Ja '48

MICROANALYSIS—Continued

- Russian methods for spot testing steel; tabulation. *Iron Age* 160:76 D 18 '47
- Some apparatus for micro-titration. P. F. Holt and D. G. Stringer. *diags Metallurgia* 38:65-7 My '48
- Spectrochemical determination of beryllium; increased sensitivity of detection in the cathode layer. J. Cholak and D. M. Hubbard. *Anal Chem* 20:970-2 O '48
- Spot test distinguishes between stellite and vitallium. *Iron Age* 160:64 D 13 '47
- Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others. *bibliog Anal Chem* 19:1035-9 D '47
- Volumetric determination of microgram quantities of acid-soluble sulfur. L. P. Pepkowitz. *diag Anal Chem* 20:968-70 O '48
- Volumetric microdetermination of arsenic and iron. G. F. Smith and J. S. Fritz. *Anal Chem* 20:874-6 S '48

See also

Trace analysis

MICROBALANCES. See Balances**MICROBIOLOGICAL assay (term)**

- Microbiological assay or bacterimetry? G. Toennies. *Science* 107:598 Je 4 '48

MICROBURETS. See Burets**MICROCHEMISTRY**

- Doll house laboratory speeds oil research; Gulf's micro laboratory. *il Pet Eng* 19:110+ My '48
- Metropolitan microchemical society of New York 3d annual symposium, Feb. 27-28. *Anal Chem* 20:230-1 Mr '48; *Chem & Eng N* 26:743 Mr 15 '48
- Theodore George Wormley, first American microchemist, 1826-1897. W. M. MacNevin. *il J Chem Educ* 25:182-6 Ap '48

See also

Microanalysis

MICROEFFUSIOMETERS. See Effusimeters**MICROFILM reading machines**

- New device eases microfilm reading. *il Ed & Pub* 81:62 My 8 '48

MICROFILM records

- Microfilm solves problem of interline ticket billing. F. Kane. *il Bus Transportation* 27:70-1 Ap '48
- Present legal status of microphotographed business records. D. F. Noll. *J Account* 36:28-33 Jl '48
- Preservation and filming of records. N. T. Shepherd. *il Burroughs Clearing House* 32:26-8+ S '48
- Seven-year test shows that deposit slips need not be stored; Dallas bank uses photographic copies. R. C. Ayres. *il Bankers Mo* 65:14+ My '48
- Symposium on microfilming regulatory records. H. R. Morris and others. *Pub Util* 41:678-82 My 20 '48

MICROFILMS

- ACS photocopying service. A. H. Emery. *il Chem & Eng N* 26:1436-7 My 17 '48
- Improved design cuts microfilming costs; Bell & Howell microfilm recorder. *il Bsns W* p39 Ag 7 '48
- Microfilm can aid librarian on clip files. *Ed & Pub* 81:65 Je 5 '48
- Micro-film files for library use; Chattanooga times since 1878 presented to Chattanooga public library. *Ed & Pub* 81:14 Mr 20 '48
- New project, Library of Congress experimenting with various forms of documentary reproduction. *Special Lib* 39:29 Ja '48
- 311 microfilmed pages cached for 2048 folk, in Minneapolis Star and Tribune century vault. *il Ed & Pub* 81:39 O 30 '48
- Use of microfilm for completing sets. L. Jolley. *J Doc* 4:41-4 Je '48

Catalogs

- Microfilm abstracts; a collection of abstracts of doctoral dissertations and monographs available in complete form on microfilm. (v.7, no.2) 143p University microfilms, 313 North First st, Ann Arbor, Mich. '47
- Microfilm abstracts; a collection of abstracts of doctoral dissertations and monographs available in complete form on microfilm. (v. 8, no. 1) 160p University microfilms, 313 N. First st, Ann Arbor, Mich. '48

Indexing

- Applying microfilm in a war agency. F. W. Bobb. *Special Lib* 39:50-2 F '48

MICROMANIPULATORS

- Constant-temperature micromanipulation chamber. K. M. Richter. *diags Science* 108:119-21 Jl 30 '48
- Urethral catheter for microinjection tubing. J. B. Buck and S. Specht. *Science* 106:551 D 5 '47

MICROMETERS

- Electro dynamic micrometer. *il R Sci Instr* 19:728-9 O '48
- How to read micrometers and verniers. J. Foster. *il diag Power Generation* 52:81-3 Mr '48
- Making micrometer dials for machine tools. G. Black. *il Mach* 55:189-90 S '48
- Recording micrometer. *il diags Instruments* 21:420 My '48
- Remote reading dial micrometer. M. B. Coyle and F. G. Haynes. *il diag J Sci Instr* 25:275-6 Ag '48

MICRONESIA

- Emerged phosphate islands in Micronesia. L. E. Nugent, jr. *bibliog maps Geol Soc Bul* 59:377-94, pl 1 O '48
- New light on the peoples of Micronesia. G. P. Murdock. *Science* 108:423-5 O 22 '48

MICROORGANISMS

- Biological and photo-chemical effects of high energy, electrostatically produced Roentgen rays and cathode rays. C. G. Dunn and others. *J Ap Phys* 19:605-16 *bibliog*(p615-16) Jl '48
- Effect of microorganisms on rubber degradation. G. A. Greathouse. *bibliog Rubber Age* 63:337-8 Je '48
- Microbiological protein and human nutrition. B. S. Platt and R. A. Webb. *bibliog Chem & Ind* p38-90 F 7 '48
- Microbiological proteins; food value for animals. R. Braude. *bibliog Chem & Ind* p259-62 Ap 24 '48
- Microbiological proteins; their synthesis, production and feeding value; microbiological and nutrition panels papers. E. F. Gale and others. *Chem & Ind* p738-9 N 29 '47
- Micro-organisms and adhesives; comparison of synthetic and natural glues; abstract. *Chem Age (Lond)* 58:434 Mr 27 '48
- Recent advances in fermentation. *il Chem Eng* 54:141-8 D '47
- Structural changes in wool degraded by the ringworm fungus *microsporium* gypsum and other microorganisms. G. R. Mandels and others. *bibliog il Textile Res J* 18:224-31 Ap '48
- Synthesis of protein by micro-organisms. E. F. Gale. *bibliog Chem & Ind* p 131-4 F 28 '48

See also

Bacteria

Fermentation

Microscope and microscopy
Viruses

MICROPHONE

- Electromechanical feedback. J. de Boer and G. Schenkel. *diags Acoustical Soc Am J* 20:641-7 S '48
- Microphone tilting device. B. H. Denney and R. J. Carr. *il Soc Motion Picture Eng J* 49:530-6 D '47
- Phase characteristics of condenser microphones. F. M. Wiener. *Acoustical Soc Am J* 20:707 S '48
- Underwater sound transducers. H. F. Olson and others. *il diags RCA R* 8:698-718 D '47

Testing

- Graphical analysis of speakers and microphones; manual-electronic curve tracer. A. J. Sanial. *il diags Tele-Tech* 7:42-3 F '48
- Microphone calibrator. D. H. Bastin. *il diags Electronics* 21:106-9 N '48

MICROPHOTOGRAPHY

See also

Microfilm records

MICROPHOTOMETERS. See Photometers**MICRORADIOGRAPHY. See Radiography****MICRORADIOGRAPHY of metals. See Metallography****MICROSAURIA**

- Structure of cephalerpeton and affinities of the microsauria. J. T. Gregory. *diags Am J Sci* 246:550-68 *bibliog*(p567-8) S '48

MICROSAURIA—Continued

Systematic position of the microsauria. F. R. von Huene. *Am J Sci* 246:44-5 Ja '48

MICROSCOPE and microscopy

Accurate particle-size determination of fluid catalyst by coordination of roller analysis and microscopic examination. J. T. Wiley and others. *il diags Am Pet Inst Proc* 27 (3):23-8 '47; Same. *Mech Refiner* 26:90-3 D '47

Achromatic ultraviolet microscope objective. L. V. Foster and E. M. Thiel. *il diags Opt Soc Am J* 35:689-92 Ag '48

Binocular microscope affords three-dimensional vision for minute industrial tasks. *il Sci Am* 177:277 D '47

Color microscopy; abstract. G. C. Crossmon. *Mech Eng* 70:245 Mr '48

Color microscopy process. *Chem & Eng N* 26:404 F 9 '48

Correlation of optical and electron microscopy. J. S. Bryner. *il diags Metals Tech* 15:TP2364 1-7 Je '48

Detection and estimation of damage in jute fibre; new microscopical test and the implications of certain chemical tests. W. G. Macmillan and S. N. Basu. *bibliog pls Textile Inst J* 38:T350-70 O '47

Formation of optical images by X-rays. P. Kirkpatrick and A. V. Baez. *il diags Opt Soc Am J* 38:766-74 S '48

Interfacial microreactions in glass melts. H. Jebben-Marwedel. *il diags Glass Ind* 29:553-7 O '48 (to be cont)

Interference microscope for the study of inhomogeneous media. E. J. Ambrose. *bibliog diags J Sci Instr* 25:134-5 Ap '48

Micro-hardness testing of metals. E. W. Taylor. *il Engineering* 166:261-4 S 10 '48; Discussion. 166:305-6 S 24 '48

Micro-indenter for use with a metallurgical microscope. T. A. Crawshaw. *il diags J Sci Instr* 25:13-14 Ja '48

Microscopical distinction of corundum among its natural and artificial associates; employing the Christiansen effect by transmitted, dark-field illumination. G. C. Crossmon. *Anal Chem* 20:976-7 O '48

Microscopy of high-temperature phenomena. H. N. Baumann, jr. *bibliog il diags Am Cer Soc Bul* 27:267-71 Jl '48

Microscopy of textile fibres; aids to their identification. A. B. Wildman. *il Textile Inst J* 38:P468-73 O '47

Multipupil in phase microscopy. H. Osterberg. *diag Opt Soc Am J* 38:685-8 Ag '48

New tool for infrared studies. R. Bailly. *il Science* 108:143 Ag 6 '48

Petrographic microscope presents a new freezing concept. J. M. Lebeaux. *bibliog il Refrig Eng* 54:531-3 D '47; Discussion. 55:52-3 Ja '48

Precision micro-pipette trimmer. K. M. Richter. *diags Science* 106:598-9 D 12 '47

Resinography in the paper industry. T. G. Rowch and others. *il Paper Tr J* 126:80+ F 26 '48

Simple, accurate microhardness testing device. E. B. Bergsman. *il Metal Prog* 54:183-8 Ag '48

Symposium integrates light and electron microscopy results. *Chem & Eng N* 26:1907 Je 28 '48

Symposium on electron and light microscopy; abstracts of papers. *Anal Chem* 20:685-7 Jl '48

Tentative textile specification no. 13, 1948; identification of textile materials. 14pls 4 fold tables *Textile Inst J* 39:SI-10 Mr '48

Two microscopes for measuring the dimensions of 35-mm cine film. O. E. Conklin. *il diags Soc Motion Picture Eng J* 49:537-43 D '47

Ultramicroscopy in color; abstract. E. A. Hauser. *Chem Eng* 54:244+ N '47

Ultraviolet phase microscopy. A. H. Bennett and others. *il Opt Soc Am J* 38:739-40 Ag '48

Use of the polarizing microscope. *il Can Chem & Process Ind* 32:455 My '48

See also

Electron microscope
Metallography
Photomicrography

Lighting

Fluorescent illumination for teaching laboratories using microscopes. D. H. Hamly. *il diags Illum Eng* 43:515-27 My '48

Phase microscopy with vertical illumination. H. Jupnik and others. *il diags Opt Soc Am J* 38:335-42 Ap '48

Portable light for a dissecting microscope. G. Wishart and T. H. Stovell. *diags Science* 108:46 Jl 9 '48

Technique

Application of replica techniques to the study of ceramic surfaces with the optical microscope. A. W. Allen and A. L. Friedberg. *bibliog il Am Cer Soc J* 31:83-8 Mr 1 '48

Arm rest for use in microscopy. G. A. Spendlove and others. *il Pub Health Rep* 63:1046 Ag 6 '48

Importance of controlling cooling temperatures during embedding in paraffin. R. A. Popham. *Science* 106:475-6 N 14 '47

Preparation of acellular homogenates from muscle samples. W. E. Poel. *diags Science* 108:390-1 O 8 '48

Simplified diffusion-dehydration technique in the microtomy of tissues. A. P. Lorz. *diags Science* 107:278-9 Mr 12 '48

Technique for crystal identification. *Chem Ind* 61:1052 D '47

Use of the freezing-drying technique for study of vasomotor activity. C. A. Richins. *Science* 107:25 Ja 2 '48

See also

Replica technique

MICROSCOPIC slides

Improved moist chamber slide for use in micromanipulation. K. M. Richter. *diags Science* 108:192 Ag 20 '48

MICROVISCOMETER. See Viscosimeters**MIDDLE classes**

Inflation as it affects middle classes. H. W. Prentiss, jr. *Comm & Fin Chr* 168:1315+ S 30 '48

MIDDLE WEST**Industries and resources**

Magic circle. *map Fortune* 38:82-3 O '48

MIDLAND, Michigan**Water supply**

80-mi. pipeline taps Lake Huron; with cost data. *il map Eng N* 140:646-9 Ap 29 '48

MIDLAND bank, limited

Statement by the chairman. Lord Linlithgow. *Economist* 154:154-6 Ja 24 '48

MIDLAND industries, inc.

Securities offered. *Comm & Fin Chr* 167:48 Ja 5 '48

MIDWEST power conference

Annual conference, 11th, Chicago; excerpts from papers. *Heating-Piping* 20:80-8 My '48

Conference, Chicago, April 7-9. *Power Generation* 52:70-1 My '48

Conference, 11th, Chicago. *Elec World News* ed 129:5 Ap 17 '48

MIDWEST research institute

Research progress. *il Chem & Eng N* 25:3498-502 N 24 '47

MIGRANT workers. See Migration of workers**MIGRATION of birds. See Birds—Migration****MIGRATION of industry. See Industry—Migration****MIGRATION of workers**

Changing U.S. industrial map; effects of population movements. J. C. Cresswill. *map Mag of Wall St* 83:118-19+ N 6 '48

Migrant workers in the United States. *Int Labour R* 56:613-16 N-D '47

70 million persons moved in seven years. W. P. Burn. *map Ptr Ink* 225:33-6 O 1 '48

Some aspects of the international migration problem. A. Sauvy. *Int Labour R* 58:18-37 Jl '48

MIKOYAN, Anastas Ivanovich, 1895-

Economic brain trust of Soviet Russia. *por Bsns W* p22-4 My 15 '48

MILAN, Tennessee**Water supply**

Water metering solves Milan's financial problems. R. T. Hosmon. *Pub Works* 79:20-1 S '48

MILDEW

Mildew of painted surfaces. M. Goll and G. Coffey. bibliog *il* Paint Oil & Chem R 111:14+ Ag 5 '48

Mildew preventives. M. A. Lesser. bibliog (40 ref) *il* map Soap & San Chem 23:119-21+ N '47

Mildewproofing compounds. Soap & San Chem 24:171 Ap '48

Mildewproofing compounds; new chemicals, new knowledge can curb fungus ravages. S. S. Block. *il* map Chem Ind 62:226-31 F '48

Resistance of resin-impregnated cotton fabrics to microorganisms. W. L. White and R. G. H. Siu. *il* Ind & Eng Chem 39:1628-30 D '47

Spore-rain technique for mildew resistance testing. F. R. Romano. bibliog diags Am Dyestuff Rep 36:651-3+ N 17 '47

MILITARY air transport service. See United States—Military air transport service

MILITARY airplanes. See Airplanes, Military

MILITARY and naval service insurance. See Insurance, Military and naval service

MILITARY art and science

Air element in the air-ground team; work of the Tactical air command. E. R. Quesada. *il* Aero Digest 57:36-7+ S '48

See also

Aeronautics, Military Mines, Submarine Atomic bombs War Chemical warfare

Amphibious warfare

Amphibious warfare; naval weapon of the future. R. E. Cushman, Jr. *il* U S Naval Inst Proc 74:300-7 Mr '48

Early amphibious training experiences. J. E. Hamilton. *il* U S Naval Inst Proc 74:736-41 Je '48

Marine corps in 1948. A. A. Vandegrift. *il* U S Naval Inst Proc 74:134-43 F '48

MILITARY bridges

Using war surplus bridges. H. D. Stover. *il* diag Pub Works 79:19-20 Ja '48

MILITARY camps. See Camps, Military

MILITARY communication, Radio. See Radio communication, Military

MILITARY engineering

AGC sponsors 100 reserve army units. Concrete 55:13-14 N '47

Emergency repairs to continental ports. *il* map Engineering 164:337-8, 348, 385-7, 433-4, 444, 481-2, 492 O 10, 24, N 7, 21 '47

Problems encountered by the Royal electrical and mechanical engineers in the field. E. B. Rowcroft. diags Inst Mech Eng J & Proc 153:Proc 178-86, pl 1-8 S '48. Same cond. Engineering 165:108, 117-20 Ja 30 '48; Same cond. Engineer 184:604-6 D 26 '47

Progress in air power related to construction power. W. Roper. *il* Tech R 50:24-8+ N '47

Underground military structures, sound defense measure. L. M. Hersum. Civil Eng 18:305 My '48

MILITARY fabrics

See also

Army fabrics

MILITARY fireworks

Early Chinese military pyrotechnics. T. L. Davis and J. R. Ware. bibliog *il* diags J Chem Educ 24:522-37 N '47

MILITARY geology. See Geology, Military

MILITARY hospitals. See Hospitals, Military

MILITARY hygiene

Sewage treatment at military installations; summary and conclusions by the NRC subcommittee on sewage treatment. Sewage Works J 20:52-95 Ja '48

MILITARY land

Use of military land for agriculture during World war II; War Department land. A. T. M. Lee. J Land & Pub Util Econ 23:349-59 N '47

MILITARY leave. See Military service—Labor problems

MILITARY motor vehicles. See Motor vehicles, Military

MILITARY occupation

Interim governments and occupation regimes. R. H. Wells. Ann Am Acad 257:57-71 My '48

See also

Austria—Allied military government Germany—Allied military government

MILITARY petroleum advisory committee

Groups on synthetic fuels survey named by B. K. Brown. Nat Pet N 40:20 Mr 10 '48

MILITARY photography. See Photography, Military

MILITARY posts

Sewage treatment at military installations; summary and conclusions by the NRC subcommittee on sewage treatment. Sewage Works J 20:52-95 Ja '48

MILITARY psychology. See Psychology, Military

MILITARY research

Air force research and development. L. C. Craigie. *il* Aero Digest 57:62-3+ S '48

Army and navy research programs set for two years. *il* Product Eng 19:154-5 F '48

Military research development to be pressed vigorously. E. J. Hardy. Iron Age 161:244+ Ja 1 '48

More science in security planning. W. Evans. Power Generation 52:51 Jl '48

Peacetime benefits from military research. H. Schor. *il* Product Eng 19:81-92 Ja '48

MILITARY sanitation. See Military hygiene

MILITARY service

EJC asks highest technical use of engineers under any new draft law; abstracts. L. W. Bass. Civil Eng 18:310 My '48; Mech Eng 70:565 Je '48

Survey reveals war use of engineering profession. Mech Eng 70:380 Ap '48

Insurance aspects

California-Western States Life seeks test suit on VA duns for Civil relief act advances. Nat Underw (Life ed) 51:1 N 7 '47

Son member of father's household within coverage of personal property floater though absent in military service. Weekly Underw 158:1414 My 8 '48

See also

Insurance, Military and naval service

Labor problems

Coal and defense. *il* Coal Age 53:74-6 O '48

Military leave policies in 1000 companies. Factory Management 106:210+ S '48

Oil would get high essential rating in draft for industry if war came. S. H. Scheibla. Nat Pet N 40:18 Ag 4 '48

Set for draft; Syracuse, N.Y. meets drain on industry manpower by filling quotas with volunteers. Bsns W p25 Jl 3 '48

Survey shows oil leads other U.S. industries on military leave policies. Nat Pet N 40:16 Ag 4 '48

What 81 companies do about draftees. Am Bsns 18:55 O '48

MILITARY service, Compulsory

Congress studying selective service legislation. Dr Thomas presents scientists' views. A. Leggin. Chem & Eng N 26:1203 Ap 26 '48

Draft will hit employers lightly. Bsns W p 104 Jl 17 '48

Guardians of individual liberty; members of Congress who opposed conscription bill. J. Howard. Comm & Fin Chr 168:399+ Jl 29 '48

How draft law applies to paper industry. Paper Tr J 127:10 Jl 8 '48

New draft law; handicaps on students. Comm & Fin Chr 168:1+ Jl 1 '48

New selective service law; a peacetime draft. L. B. Hershey. Comm & Fin Chr 168:709+ Ag 19 '48

Peacetime draft is threat to individual liberty and our free enterprise system. J. Howard. Comm & Fin Chr 167:2633+ Je 17 '48; Discussion. D. F. McRae. 168:13 Jl 1 '48; Reply. 168:206+ Jl 15 '48

President Truman issues regulations for selective service deferment procedures. A. Leggin. Chem & Eng N 26:2599 S 6 '48

MILITARY service, Compulsory—Continued
 Selective service modifications urged by Engineers joint council. L. W. Bass. Chem Eng Prog 44:sup21-2 My '48; Same. Min & Met 29:349-51 Je '48
 Voters approve draft law; Gallup poll. Iron Age 162:101 S 30 '48
 Voters support both military training and draft; Gallup poll. Iron Age 161:125 Ap 22 '48
 Will technicians be deferred? Bsns W p25 My 8 '48

MILITARY signals. See Signals and signaling
MILITARY supplies

What the armed forces want in plastics. II Mod Plastics 25:75-9+ Ag '48

MILITARY training

ACS president testifies before Senate committee. C. A. Thomas. Chem & Eng N 26: 1066-7 Ap 12 '48

Compulsory training, wasteful act of war. R. M. Hutchins. Comm & Fin Chr 167:1+ Ja 1 '48

First sure step to dictatorship. P. H. Jordan. Comm & Fin Chr 166:2613+ D 25 '47
 Fortune survey; our military strength. Fortune 37:10 Je '48

Have full mobilization now! B. M. Baruch. Comm & Fin Chr 167:1418+ Ap 1 '48

Industry and science not manpower determine victory. J. Howard. Comm & Fin Chr 167:2309+ My 27 '48

Logical thinking in military situations. G. H. Miller. II U S Naval Inst Proc 74:326-31 Mr '48

Navy and universal military training. J. E. Hamilton. II U S Naval Inst Proc 74:562-71 My '48

Our national security. A. M. Landon. Comm & Fin Chr 166:2365+ D 11 '47

Science and universal military training. A. Van Dyck. Inst Radio Eng Proc 36:571 My '48

Shall we construct or conscript? J. M. Swomley, Jr. Comm & Fin Chr 166:2261+ D 4 '47

Some problems of military and naval training programs. E. D. Howe. J Eng Educ 38:390-2 Ja '48

Truman's request for peacetime military training bill gains endorsement by general public; Gallup poll. Iron Age 161:115 Ja 29 '48

Universal military training. E. M. Friedman. Comm & Fin Chr 167:201+ Ja 15 '48; Discussion. S. P. Fink. 167:490 Ja 29 '48

U.M.T.; show of force or lack of sense? M. Palvi. Comm & Fin Chr 167:1417+ Ap 1 '48

Voters support both military training and draft; Gallup poll. Iron Age 161:125 Ap 22 '48

Why I am opposed to military training. A. Capper. Comm & Fin Chr 167:701+ F 12 '48

Why I am opposed to UMT. A. F. Myers. Comm & Fin Chr 167:1745+ Ap 22 '48

Why I favor UMT. R. P. Patterson. Comm & Fin Chr 167:1760 Ap 22 '48

MILK

Dairy products, 1941-1946. Survey of Cur Bsns 1947 Sup p 126 [supplemented in monthly numbers]

Milk and rest periods boost productivity, cut accidents; Thermold co., Trenton, N.J. Iron Age 161:90 F 26 '48

Q fever studies in southern California. R. J. Heubner and others. Pub Health Rep 63: 214-22 F 13 '48

Recent studies in the composition of milk; abstract and discussion. S. J. Rowland. Chem & Ind p 106 F 14 '48

Role of surface active constituents involved in the foaming of milk and certain milk products; abstract. G. A. Richardson and M. S. El-Rafey. Food Ind 20:1392+ S '48

See also

Creameries

Bacteriology

Heat activatable spores in evaporated milk. H. R. Curran and others. II Food Ind 20: 370-1 Mr '48

Pasteurization

Compulsory pasteurization of milk upheld. Pub Health Rep 63:118-19 Ja 23 '48

Pasteurizing with ultraviolet gives low bacteria count milk. E. Nicholson. II diags Food Ind 19:1495-6+ N '47
 Time factor in high-temperature short-time pasteurizing; abstract. H. B. Robinson and C. M. Moss. Food Ind 20:802+ My '48

Preservation

La conservation du lait. G. Bertrand. Chimie & Ind 58:329-34 O '47

Prices

Heat on milk; antitrusters weigh probe of pricing methods. Bsns W p34+ Ja 31 '48

Sterilization

Treatment of milk; electrical conductivity and sterilization. F. A. Benson. bibliog diags Elec R (Lond) 143:133-5 J1 23 '48

Testing

Penicillin blood and milk concentrations in the normal cow following parenteral administration. M. Welsh and others. bibliog Science 108:185-7 Ag 20 '48

MILK, Condensed

Condensed and evaporated milk, 1941-1946. Survey of Cur Bsns 1947 Sup p 126 [supplemented in monthly numbers]

MILK, Dried

Chemistry of deterioration in milk powder; abstract. C. H. Lea. Chem & Ind p299 My 8 '48

Predict dry milk shortage; American dry milk institute 23d annual meeting, Chicago. Food Ind 20:883+ Je '48

Study of the Browning reaction in whole milk powder and ice cream mix powder; abstract. N. P. Tarassuk and E. L. Jack. Food Ind 20:1223 Ag '48

MILK, Evaporated

Heat activatable spores in evaporated milk. H. R. Curran and others. II Food Ind 20: 370-1 Mr '48

Ion exchange process for evaporated milk; abstract. D. V. Josephson and C. B. Reeves. Food Ind 20:130+ Ja '48

Studies in enterococcal food poisoning. L. Buchinder and others. bibliog Pub Health Rep 63:109-18 Ja 23 '48

MILK, Frozen

Observations on the instability of the protein phase of frozen concentrated milk; abstract. F. J. Doan and F. G. Warren. Food Ind 20:804+ My '48

MILK, Homogenized

Cheese from homogenized milk. Food Ind 20: 371 Mr '48

MILK, Human

Powdered human milk developed by Dutch. Food Ind 20:590+ Ap '48

MILK bottles

Aluminum foil; milk-bottle closures. J. D. Edwards and D. B. Strohm. Mod Packaging 21:188-9 Ap '48

MILK cans

Cleaning

Study of the corrosion of tin plate by can washing compounds; abstract. R. D. Finley and M. J. Foter. Food Ind 20:648+ Ad '48

MILK cooling

Refrigeration in the dairy industry. R. J. Ramsey. II Refrig Eng 55:358-61 Ap '48; Same abrv. Food Ind 20:686-7+ My '48

MILK delivery

These milk men are learning creative selling skills; R. A. Shuey creamery, Oakland, Calif. Sales Management 59:44+ N 10 '47

MILK fat. See Butter fat

MILK plants

Reducing refrigeration costs in the dairy plant. R. J. Ramsey. diags Food Ind 20: 686-7+ My '48

Electric equipment

New processing dairy. II Elec R (Lond) 143: 539-44 O 8 '48

Equipment

Control center whips moisture; protecting electric equipment; South Berkeley creamery. S. Beamer. II Elec West 99:76-7 N '47

MILK plants—Continued

Waste

- Alternating two-stage filtration of sewage and milk waste. E. F. Wittmer. flow sheet Sewage Works J 20:846-8 S '48
- Milk waste disposal. D. E. Bloodgood. Sewage Works J 20:695-706 bibliog(194 titles, p700-6); Discussion. A. J. Steffen. 707-8 JI '48
- Milk waste; panel discussion. Water & Sewage Works 95:232 Ag '48
- Milk waste treatment. Detroit creamery company condensery, Ovid, Mich. L. F. Oeming. flow diag il Sewage Works J 20:512-15 My '48
- Treatment of milk washings by addition of coagulants, sedimentation, and biological filtration; abstract. B. A. Southgate. Sewage Works J 20:951-3 S '48

MILK research

- Chemical research and the milk industry. G. C. Supplee. il Chem & Eng N 26:90-3 Ja 12 '48

MILK supply

Laws and regulations

- Compulsory pasteurization of milk upheld. Pub Health Rep 63:118-19 Ja 23 '48

MILK trade

- Dairy industry; a remarkable production and distribution system. Index 28 no 3:49-60 [S] '48
- Dealerships in small cities boost milk sales; program of National dairy products corp. il Bsns W p41-2 N 29 '47
- Heat on milk; antitrusters weigh probe of pricing methods. Bsns W p34+ Ja 31 '48
- Meadow Gold strikes new pay dirt through group selling. E. Roberts. il Sales Management 60:62+ F 1 '48
- Nothing temporary about milk shortage. Barron's 28:37 JI 12 '48

Colombia

- Milk productions and processing. For Comm W 29:21 N 22 '47

France

- Processed-milk requirements. For Comm W 31:24 My 15 '48

MILK waste. See Milk plants—Waste

MILKING machines

- Hydraulic forming of stainless steel; pail of milker unit. W. C. Brice. il diag Materials & Methods 26:68-70 N '47

MILKY way

- Cosmic static. G. Reber. bibliog il Inst Radio Eng Proc 36:1215-18 O '48

MILLAR, Richard William, 1899-

- Portrait. Bsns W p25 N 1 '47

MILLER, Charles R. 1860-

- Sketch. por Nat Underw 51:17 D 18 '47

MILLERS, Association of operative. See Association of operative millers

MILLERS national federation

- Annual meeting, 45th, Chicago. Food Ind 20:1029-30 JI '48

MILLIAMMETERS

- Experiments with thermocouple milliammeters at very high radio frequencies. G. F. Gainsborough. bibliog diags Inst E E J 91 pt 3:156-61 S '44; Discussion. 94 pt 3:427-8 N '47

MILLIKAN, Charles Van Ormer, 1896-

- Sketch. por Min & Met 29:147 F '48

MILLIKAN, Robert Andrews, 1868.

- Genesis of the National research council and Millikan's World war I work. F. B. Jewett. Rs Mod Phys 20:1-6 Ja '48
- Millikan's influence on undergraduate teaching. D. Roller. Rs Mod Phys 20:26-30 Ja '48
- Portrait. Fortune 38:163 O '48
- R. A. Millikan and the California institute of technology. L. A. DuBridge. por(front) Rs Mod Phys 20:7-9 Ja '48
- R. A. Millikan as physicist and teacher. P. S. Epstein. Rs Mod Phys 20:10-25 bibliog(73 ref, p24-5) Ja '48

MILLINERY

- Industrial anarchy; how it breeds unionized sales forces; United millinery salesmen's union. A. E. Ecke. Sales Management 61:73+ JI 15 '48

MILLING

- Cost-cutting milling setups. A. F. Clark. Am Mach 92:94-6 N 4 '48
- Economy factors in carbide milling. A. O. Schmidt. il diag Iron Age 161:72-7 My 27 '48
- Fly cutter and angled setup cut elliptical holes on mill. A. T. DeMello. diags Am Mach 92:124-5 JI 15 '48
- High-speed milling of threads in armor plate. il diags Mach 54:190-2 JI '48
- How to do milling work with a lathe. M. G. Moore. diags Power 92:307 My '48
- Milling cams without a master or lay-out; disk cams for use on Brown & Sharpe automatic screw machines. il Mach 54:178-9 F '48
- Milling complex contours on multiple-spindle machines. il Mach 54:152-4 JI '48
- Milling setup slips under spring to help cutter around die corner. D. Moore. diag Am Mach 92:109 JI 29 '48
- Milling spherical surfaces without a form tool. il Mach 55:160 O '48
- Profile milling applied to accurate roll pod machining. D. M. Laffin. il diag Steel 122:72-7+ Mr 29 '48
- Spare compound cross-slide convert lathe for milling work. il Am Mach 92:126 JI 15 '48
- MILLING cutters**
- Determining the face width of spline cutters. H. A. Neff. diag Mach 54:188 Ja '48
- Methods for mounting cutters; reference book sheet. diags Am Mach 92:147 F 12 '48
- Tool angles govern cutting efficiency; use of transparent model and chart. M. Kronenberg. il diags Am Mach 92:90-2 Ja 15 '48

Sharpening

- Automatic cutter grinder has noteworthy design features. il diags Machine Design 20:160-2 Mr '48
- Reconditioning cutting tools for maximum efficiency. H. A. Frommelt. il Steel 121:102-5+ N 10 '47
- Set-ups for grinding milling cutters. F. C. Duston. il diags Mach 54:150-7 Mr; 168-73 Ap '48

MILLING machines

- Brown & Sharpe adds 5-hp. plain, universal millers. il Am Mach 92:145 S 9 '48
- Brown & Sharpe milling machines with extended spindle face. il Mach 55:211 S '48
- Cincinnati dial-type milling machine built in medium, high-speed ranges. il Am Mach 92:146 JI 15 '48
- Cincinnati die milling and multiple-unit production milling machines. il Mach 54:195-6 D '47; Excerpt. Automotive Ind 97:50 N 1 '47
- Double-crank adjustable miller table permits circular cuts. C. Schisler. diags Am Mach 91:129-30 D 18 '47
- Gorton super-speed milling machine. il Am Mach 92:151 F 12 '48
- Improved spindle drive in plain miller. il diag Machine Design 20:146-8 JI '48
- Interlock guard for milling machines. il Engineer 184:461 N 14 '47
- Kellerling speeds part duplication. W. G. Patton. il Iron Age 162:102-5 N 4 '48
- Milling machine handles turning with swing too large for lathe. F. C. Lurz. diags Am Mach 92:95 Ap 22 '48
- Nichols double-spindle precision milling machine. il Mach 54:201-2 Je '48
- Onsrud contour-milling machine features two tables, works aluminum. il Am Mach 92:151 S 23 '48
- Prait & Whitney-Keller tracer-controlled three-dimensional milling machine. il Mach 54:173-4 N '47
- Reciprocating head for auxiliary operations on milling machines. D. E. McDonald and F. Shrier. il diag Mach 55:221-2 N '48
- 35th annual review. il Am Mach 92:172-80 Ja 29 '48
- Work loaders applied to machine tools. R. Le Grand. il diags Am Mach 92:161-3 Mr 11 '48

Fixtures

- Air motors operate scroll chucks on milling fixture. L. C. Heinlein. il diags Am Mach 92:77 Ag 26 '48
- Air-operated milling fixture for machining parallel surfaces. H. E. Murphey. diags Mach 55:196-7 O '48

MILLING machines—Fixtures—Continued

- Geared disk-cam holder matches feed and rotation for milling. C. T. Bower. diags Am Mach 92:110 J1 29 '48
 Handy fixture for controlling depth of milling. R. Mawson. diag Mach 55:195 O '48
 Milling fixture design promotes accuracy, cuts lost motions. R. Mawson. diags Steel 123:122+ S 13 '48
 Milling machine cuts slotted cams using removable fixtures on table. F. C. Lurz. diags Am Mach 92:121 Ap 8 '48
 Special bolt-head milling fixture. D. A. Baker. diags Mach 54:189-90 Ap '48

MILLIONAIRES

- Land of the big rich; free-wheeling free enterprise in that capitalistic oasis, the Southwest, U.S.A. il map Fortune 37:98-103+ Ap '48

See also

- Carnegie, Andrew

MILLIWATTMETERS. *See* Wattmeters**MILLS-PACKARD chambers.** *See* Sulfuric acid—Manufacture**MILLSOP, Thomas E., 1916-**

- Sketch. por(cover) Bsns W p6 N 29 '47

MILNE problem

- Milne problem for a sphere. T. H. Berlin. diag Phys R 73:437-40 Mr 1 '48

MILQ**Diseases and pests**

- Periconia circinata, the cause of milo disease. R. W. Leukel and A. G. Johnson. Science 107:93-4 Ja 23 '48

MILWAUKEE

- To unbalance the budget; Milwaukee \$13-million bond issue. Bsns W p36 Ap 24 '48

Sanitary affairs

- Incinerator practice, 1910 and today. S. A. Greeley and S. M. Clarke. il Eng N 141:87-91 O 14 '48

Streets

- Face-lifting Wisconsin ave. il diags Roads & Sts 91:65-6 My '48
 Street widening problems. J. E. Hubel. il Pub Works 79:65 My '48
 We won't be caught again; plans for snow removal. J. E. Hubel. il Pub Works 78:33 D '47

Water supply

- Milwaukee uncovers old wood pipes. J. E. Hubel. il Water & Sewage Works 95:99 Mr '48

MINCE meat

- Mince meat at high speed; Borden co. equipment automatically wraps and cartons. A. F. Stevenson. il Mod Packaging 21:106-8 My '48

MINCKLER, Robert Lee

- Heads General Petroleum. por Bsns W p50 Ja 3 '48

MIND and body*See also*

- Medicine, Psychosomatic

MINE accidents

- Accident prevention pays its way. W. S. McWhorter. Eng & Min J 149:86-7 Ap '48
 Burra Burra mine wins safety award. S. E. Sharp. il Explosives Eng 25:173+ N '47
 Hazards of entering old mine workings. A. D. Look and others. bibliog il U S Bur Mines Information Circ 7479:1-18 '48
 Mine casualty stretcher. il Engineer 185:455 My '48
 Mine safety. J. K. Richardson. il Min Cong J 34:52-4 F '48
 Mines and quarries have best safety year; bronze Sentinels of safety trophies awarded. Nat Safety N 58:37 S '48
 National safety competition of 1947; awards of certificates; list of contest winners, 1925-1947. F. T. Moyer. il Explosives Eng 26:71-5+ My '48
 Protection against lightning at surface and underground mining plants. D. Harrington and others. bibliog U S Bur Mines Information Circ 7447:1-23 '48
 Reducing mine haulage accidents. il Min Cong J 34:50-3 J1 '48

- Rouchleau miners honored; Oliver iron mining company's open-pit organization awarded Sentinels of Safety trophy. B. G. Best. il Explosives Eng 26:18-19+ Ja '48

See also

- | | |
|--|------------------------------------|
| Coal mines and mining—Accidents and explosions | Mine fires |
| Coal mines and mining—Safety measures | Mine hoisting—Safety measures |
| | Mining engineering—Safety measures |

Statistics

- Rehabilitation of the disabled in mining industries; data from Czechoslovakia, Great Britain, the Union of South Africa and United States. Int Labour R 57:43-61 Ja-F '48

MINE air

- Laboratory equipment for the analysis of mine atmospheres. L. B. Berger and H. H. Schrenk. bibliog 8pls U S Bur Mines Information Circ 7441:1-18 '48
 Mine air conditioning at Noranda. il Eng & Min Cong J 34:43-7 Ag; 46-7 O '48
 Mine air-conditioning chart. G. E. McElroy. bibliog 7pls U S Bur Mines Rep of Invest 4165:1-23 '47

See also

- Mine dust
 Mine ventilation

MINE buildings

- East Malartic mines; construction of concrete head frame and surface buildings. A. J. Grant, jr. il map plan diags Can Min J 69:67-74 My '48
 Quonset portal construction; Consolidation coal co. (Ky) mines. G. Keat and J. H. Edwards. il map plans diag Coal Age 53:96-101 My '48
 Wash and change houses at American mines. D. Harrington and J. H. East, jr. 18pls U S Bur Mines Information Circ 7423:1-44 '47

MINE cages

- Alloy cage dumps sideways; Christopher no. 6 mine. J. H. Edwards. il diags Coal Age 52:94-7 D '47
 Aluminum in the mining industry. E. P. White. Eng & Min J 149:87-8 J1 '48
 Cage landing speed recorder. il Engineer 186:133-4 Ag 6 '48
 Safety catches on mine cages and methods of testing them. D. Harrington and J. H. East, jr. 18pls U S Bur Mines Information Circ 7436:1-43 '48

MINE cars

- Gathering haulage with mine cars. il diag Min Cong J 34:42-7 Ag '48
 Mine man-trip and ambulance cars. M. J. Mechling and H. J. Sloman. 11 pls U S Bur Mines Information Circ 7435:1-6 '48
 New roll-over car dump. il diag Eng & Min J 149:90-1 S '48
 Old mine cars rebuilt for new uses. il Coal Age 53:118 F '48
 Truck mines haul on rubber. il Coal Age 53:91-3 S '48

See also

- Mine haulage

MINE construction

- Coal mines of tomorrow; opening and development. diags Coal Age 53:74-81 Je '48
 Construction details of the Stobesbury air shaft. J. D. Kalasky. diags Min Cong J 34:70+ S '48
 Driving the Grootvlei 45 haulageway. il diags Eng & Min J 149:80-5 O '48
 East Malartic mines; construction of concrete head frame and surface buildings. A. J. Grant, jr. il map plan diags Can Min J 69:67-74 My '48
 Geological studies can avoid costly mistakes. G. B. Clark. plan diags Eng & Min J 149:94-6 Ag '48
 Mining at a snail's pace; use of rock drills at Phillipsburg, N.J. W. P. Gillingham. il plan Comp Air Mag 52:274-5 N '47
 New coal field in West Virginia. C. J. Burton. il diag Explosives Eng 26:117-19+ J1 '48
 New coal field opened in eastern Kentucky-Virginia. il map Min Cong J 34:67-8 Ap '48
 Top management planning; potentialities in Canadian gold mining. J. S. Carman. flow sheet il plan diags Can Min J 68:892-902 D '47

MINE construction—Continued

Tunnels reopen old sections; Philadelphia & Reading coal & iron co. R. R. Richart. *il* diags Coal Age 53:98-104 Ap '48

See also

Concrete construction in mines

Mine shafts

MINE drainage

Boreholes replace shaft lines; use of transite pipe, B. Gleason, diags Coal Age 53:76-8 Mr '48

Coal mines of tomorrow; ventilation and drainage, diag Coal Age 53:99-101 Je '48

Unwatering the Hercules shaft, H. L. Day, *il* Min Cong J 34:38-9+ Je '48

See also

Mine pumping

Mine water

MINE dust

Dust control in iron-ore mines, E. C. J. Urban, *il* diags Safety Eng 95:18-19+ Mr '48

Micro and semi-micro methods for the investigation of air-borne mine dusts; abstract, N. M. Potter, *J Ind Hygiene* 30: sup21-2 Ja '48

See also

Silicosis

MINE equipment

Aluminum in the mining industry, E. P. White, *il* Eng & Min J 149:85-9 Jl '48

Limestone from a half-mile down; Barberton, Ohio, mine operated by Columbia chemical division of Pittsburgh plate glass co. R. E. Petty, *il* Min Cong J 34:52-5 Ap '48

Mining practice marked by numerous changes; review of 1947, A. H. Hubbell, *il* Eng & Min J 149:96-103 F '48

Modern equipment and methods; pictorial review, Eng & Min J 148:91-102 N '47

Reopening three shipping-grade mines; the U.S. Grant, Alameda-Bamboo Chief and Easton-Pacific mines, W. H. Myers, *il* plan Min Cong J 34:78-81 Ap '48

Underground air receiver, R. W. Neyman, *il* diags Min Cong J 34:50-1 Mr '48

See also

Coal mines and mining—Equipment

Electricity in mining

Fans, Mine

Jigs (mining)

Mine cars

Mine hoisting

Mining machinery

Rock drills

MINE explosions

See also

Mine fires

Rock bursts

MINE fans. See Fans, Mine**MINE fires**

Analyses of complex mixtures of gases; application to control and extinguish fires and to prevent explosions in mines, tunnels, and hazardous industrial processes, S. H. Ash and E. W. Felegy, 9 fold pls [in pocket] *U S Bur Mines Bul* 471:1-202 biblog(p201-2); pa 75c Supt. of doc. '48

Coal-mine explosions and coal- and metal-mine fires in the United States during the fiscal year ended June 30, 1947, D. Harrington and others, *pl U S Bur Mines Information Circ* 7456:1-21 '48

How Andes Copper plans for fire prevention, *il* plan Eng & Min J 148:68-9 D '47

Underground metal-mine fires from cutting and welding, A. D. Look, *U S Bur Mines Information Circ* 7453:1-9 '48

See also

Coal mines and mining—Fires and fire

protection

Safety lamps

MINE foremen

Better coal-mine management; procedure and results, Coal Age 53:114+ F '48

Building leaders via foremen's clubs, Coal Age 53:74-8 Jl '48

How workers reflect attitudes shown by their foremen, Coal Age 53:124+ Je '48

How you can help your men move up to bigger jobs, Coal Age 53:114+ S '48

Mine foremen who give and demand value received, J. J. Rutledge, *Explosives Eng* 26: 55-6 Mr '48

Needler and the mine foreman, J. J. Rutledge, *Explosives Eng* 26:88-9 My '48

Small mine foreman, J. J. Rutledge, *Explosives Eng* 26:120-1 Jl '48

Thirteen mistakes in handling men, Coal Age 53:102+ Jl '48

MINE gases

See also

Mine air

Safety lamps

MINE haulage

Coal mines of tomorrow; transportation, diags Coal Age 53:93-5 Je '48

Effects of rope speed and moisture on the use of scrapers in mining, J. D. Forrester and R. L. Carmichael, *il* Mo U Sch Mines & Met Bul tech ser y 18 no 1:1-31 biblog(p30-1) '47

Gathering haulage with mine cars, *il* diag Min Cong J 34:43-7 Ag; 46-7 O '48

Haulage helps at New Jellico, *il* Coal Age 53:92-3 Ag '48

Haulage system for operating track-mounted equipment; abstract, J. Bose and J. W. Anstead, *Min Cong J* 34:62 Je '48

Modern equipment and methods; mine haulage in evolution; pictorial review, Eng & Min J 148:106-10 N '47

Underground shaker and conveyor belt operation; inland steel co.'s Sherwood mine, P. D. Pearson and R. O. Marsten, *il* plans Min Cong J 34:18-22+ O '48

See also

Electric locomotives, Mine tracks

Mine Motor trucks in min-

Locomotives, Mine ing

Mine cars

Safety measures

Cutting haulage accidents, J. J. Plasky, Coal Age 53:112 Ag '48

Reducing mine haulage accidents, *il* Min Cong J 34:50-3 Jl '48

Some observations on coal-mine haulage hazards, H. E. Sanford, *U S Bur Mines Information Circ* 7467:1-13 '48

MINE hoisting

Automatic bottom-dump skip, diags Eng & Min J 149:104-5 S '48

Effects of rope speed and moisture on the use of scrapers in mining, J. D. Forrester and R. L. Carmichael, biblog *il* Mo U Sch Mines & Met Bul tech ser v 18 no 1:1-31 '47

Headshave maintenance saves wear on ropes, diags Eng & Min J 149:64-5 Ja '48

Modern equipment and methods; hoisting; pictorial review, Eng & Min J 148:111-15 N '47

Nondestructive inspection of mine hoist cable, P. E. Cavanagh and R. S. Segsworth, biblog *il* diags Am Soc for Metals Trans 38: 517-45; Discussion, 545-50 '47

Pneumatic decking and control plant for colliery tubs, *il* diag Engineering 164:608-10 D 26 '47

Safety measures

Cage landing speed recorder, *il* Engineer 186: 133-4 Ag 6 '48

Safety catches on mine cages and methods of testing them, D. Harrington and J. H. East, *jr*, 18pls *U S Bur Mines Information Circ* 7436:1-43 '48

MINE hoisting, Electric

A-c mine-hoist control, J. W. Cooke and G. W. Heumann, *il* diags Gen Elec R 50:26-32 D '47

Electric cranes and hoists, H. H. Broughton, *Inst Mech Eng J & Proc* 157 (War emergency issue no 32):307-8 '47

Elevator for man-trips; Consolidation coal co. C. L. Brown, *il* Min Cong J 34:42-3 Ja '48

Remote controls operate new Johns Manville hoists, *il* diag Eng & Min J 149:80-1 Ap '48

Shaft rollers used in the Bunker Hill mine, W. H. Denlinger, *Min Cong J* 34:38 O '48

Solving the mechanical problems of a shaft installation at the Bunker Hill mine, W. H. Denlinger, *il* diags Min Cong J 34:22-6+ My '48

Tunnels reopen old sections; Philadelphia & Reading coal & iron co. R. R. Richart, diags Coal Age 53:103-4 Ap '48

MINE inspection

Inspection of mines, province of Quebec, R. H. Taschereau, *Can Min J* 69:136-7 O '48

MINE inspectors' institute of America
Annual meeting, 38th, Columbus, June 6-9.
Coal Age 53:136-1 J1 '48
Annual meeting, 38th, Columbus, Ohio, June
6-9. Min & Met 29:503-4 S '48

MINE leases

Mine leasing; review of its present status.
E. M. Searls. Min & Met 29:382-4 J1 '48

MINE lighting

Coal-face lighting; abstract. H. Cotton. il
diag Elec R (Lond) 141:966 D 26 '47
Coal face lighting panel. il Engineer 185:384
Ap 16 '48; Abstract. Engineering 165:452
My 7 '48
Flameproof converter panel for mine light-
ing. il Engineer 184:445 N 7 '47
Fluorescent lighting in Chislet colliery. En-
gineer 184:515 N 28 '47
Fluorescent lighting in mines. Light & Light-
ing 40:183 O '47
Fluorescent lighting in mines; Chislet col-
liery. il Electrician 140:115 Ja 9 '48; Elec
R (Lond) 142:54 Ja 9 '48
Lighting in coal mines; experimental fluores-
cent installations. il Elec R (Lond) 142:167
Ja 30 '48; Electrician 140:337 Ja 30 '48
Mine lighting in the Ruhr. J. I. Graham.
Light & Lighting 40:197-8 N '47

See also

Safety lamps
Safety lamps, Elec-
tric

MINE management

Engineer and the small mine. J. S. Carman.
Can Min J 69:64-7 Ja '48
Executives think mining needs rejuvenation;
results of questionnaire. E. Just. il Eng &
Min J 149:70-3 Ap '48
Industrial relations department, a service
organization; United States smelting re-
fining and mining co. O. A. Glaeser. Min &
Met 29:557-9 O '48
Production planning; suggestions for Cana-
dian gold mining. J. S. Carman. diags Can
Min J 69:84-91 My; 87-91 Je '48
Time studies in mechanized mining. P. R.
Paulick. il Min Cong J 34:48-9 Mr '48
Top management planning; potentialities in
Canadian gold mining. J. S. Carman. il
map Can Min J 68:809-18, 892-902 N-D '47

See also

Mine foremen
Mine leases

MINE, mill and smelter workers union

MMSW left-wing in last ditch fight because
of refusal to sign anti-Communist affidavits.
Eng & Min J 149:100 S '48
Why deal with a union influenced by Com-
munists? J. M. Gambatese. Eng & Min J
149:74-9 My '48

MINE models

Chilex mine model revised. W. J. Waylett.
il maps Min & Met 29:19-21 Ja '48

MINE pumping

Anthracite water problem. H. H. Otto and
others. bibliog il Coal Age 53:93-8 O '48;
Same abr. Min Cong J 34:30-4 O '48

MINE pumping, Electric

Deepwells put underground; Lake Superior
nos. 3 and 4 mines. il Coal Age 52:98 D '47
Design and operation of electrical control
mechanisms in underground pumping
plants. A. C. Durham. bibliog 7pls U S
Bur Mines Information Circ 7476:1-21 '48
Electronic device indicates pump operation.
diags Eng & Min J 149:126 F '48

MINE pumps

Old pumping engine preserved for posterity;
Chapin mine Cornish pumping plant. P. C.
Ziemke. il diag Comp Air Mag 52:276-7 N
'47

MINE research. See Mining research; Prospect-
ing

MINE roofs

Control of roof and prevention of accidents
from falls of rock and coal. J. J. Forbes
and H. J. Sloman. U S Bur Mines Informa-
tion Circ 7461:1-8 '48
Making the roof safe. D. Couch. Coal Age
53:104 J1 '48
Mine roof-fall fatalities. P. H. Price and
J. P. Nolting. il Min Cong J 34:40-1 O '48
Mining under very weak roof. A. E. Spotti.
in diags Min Cong J 34:47-8 My '48

Roof support with suspension rods. C. C.
Conway. il diags Min Cong J 34:32-7 Je
'48

Suspension roof support. E. Thomas. il diags
Coal Age 53:86-8 J1 '48

See also

Mine timbering

MINE salting

How to salt a gold mine. Fortune 37:126 F
'48

MINE sanitation

See also

Mine ventilation

MINE sealing

Sealing off flood water in the San Antonio
mine. C. M. Syner. diags Eng & Min J
149:77-80 Mr '48

MINE shafts

Construction details of the Statesbury air
shaft. J. D. Kalasky. diags Min Cong J 34:
70+ S '48

Deepening of no. 1 shaft; Johnson's co. Thet-
ford mines. E. Futterer, jr. il plans diags
Can Min J 69:72-5 J1 '48

Development shaft at Miles (Red Lake). P.
G. Cross. diags Can Min J 69:59-70 Ag; 70-7
S '48

Dropped caisson shaft sinking; Reynolds
bauxite property. W. S. Cole, jr. il diags
Eng & Min J 149:82-3 Ap '48

Electronic system links shaft and surface
stations. C. M. Marquardt. il Eng & Min J
149:83-5 S '48

Fad shaft, a modern sinking job. J. B. Huttli.
il diags Eng & Min J 148:62-4 D '47

Octopus speeds shaft job; device used to pour
concrete. il diags Eng & Min J 149:82-3
My '48

Unusual air shaft construction. il diags
Min Cong J 34:30-1 J1 '48

Unwatering the Hercules shaft. H. L. Day.
il Min Cong J 34:38-9+ Je '48

See also

Mine hoisting

MINE shops

Coal mines of tomorrow; maintenance and
supplies. Coal Age 53:102-6 Je '48
Shop modernization at Vesta. J. H. Edwards.
il plans diags Coal Age 53:92-7 J1 '48

MINE signals

Automatic signal indicates fan breakdown.
il Coal Age 52:108 D '47

Some studies on emergency mine com-
munications. E. J. Coggeshall and others.
bibliog 13pls U S Bur Mines Rep of Invest
4135:1-44 '48

MINE surveying

Coordinatograph aids mine surveying. il diag
Eng & Min J 149:98 J1 '48

Details of company mining practice in min-
ing engineering and surveying; United
States smelting refining and mining co.
F. B. Harris. diags Min & Met 29:553-5 O
'48

MINE sweepers. See Warships—Mine sweepers

MINE taxation

Mexico's tax jumble. H. Bratter. Eng & Min
J 149:92-4 O '48

National mineral tax policy. D. H. McLaugh-
lin. Eng & Min J 149:69 Je '48

MINE telephone

Electronic system links shaft and surface
stations. C. M. Marquardt. il Eng & Min J
149:83-5 S '48

Some studies on emergency mine communi-
cations. E. J. Coggeshall and others. bib-
liog 13pls U S Bur Mines Rep of Invest
4135:1-44 '48

Trolleyphones at Lake Superior coal co. il
Coal Age 52:100-2 N '47

See also

Radio telephone in
mines

MINE temperature

Evidence for a steepening of geothermal
gradients in some deep mines and drill
holes. J. A. Noble. bibliog Am J Sci 246:
426-40 J1 '48

MINE timber

Safe timber recovery in coal mining. G. H.
Sambrook. il Min Cong J 34:23-5 O '48

Timber preservation, unsung ally in coal min-
ing. J. M. Bray. il Min Cong J 33:33-5 N
'47

Wood preservation for mines. S. S. Watkins.
il Min Cong J 34:75-7 Ap '48

MINE timbering

Control of roof and prevention of accidents from falls of rock and coal. E. Thomas and others. 17pls U S Bur Mines Information Circ 7471:1-9 '48
 Support of ground, iron-ore mines, Lake Superior district. M. S. Petersen and F. E. Cash. 16pls U S Bur Mines Information Circ 7459:1-29 '48
 Tennessee coal, iron and railroad co. timber-setting truck. Il Eng N 140:135 Ja 22 '48
 Timber setting and recovery in trackless mining; abstract. G. W. McCaa. Min Cong J 34:58 Je '48

MINE tracks

Automatic derail and trip position indicators; Heidelberg coal co. J. V. Mather. Il diags Min Cong J 33:44-5 D '47

MINE transportation

Transportation of iron ore, open-cut mines, Lake Superior district. J. A. Johnson and F. E. Cash. bibliog. 8pls U S Bur Mines Information Circ 7458:1-24 '48

See also

Mine haulage
 Motor trucks in mining

MINE ventilation

Coal mines of tomorrow; ventilation and drainage. diag Coal Age 53:99-101 Je '48
 Construction details of the Stotesbury air shaft. J. D. Kalasky. diags Min Cong J 34:70+ S '48

Dust control in iron-ore mines. E. C. J. Urban. Il diags Safety Eng 95:18-19+ Mr '48

Improper vs. systematic ventilation. W. R. Kirkwood. Coal Age 53:122+ My '48

Modern equipment and methods; ventilation and air conditioning; pictorial review. Eng & Min J 143:116-18 N '47

Unusual air shaft construction. Il diags Min Cong J 34:30-1 Jl '48

See also

Fans, Mine

MINE waste

Unique mine dump sampling operation. H. W. Squires. Il Can Min J 69:80-1 Mr '48

MINE water

Acid mine water in the anthracite region of Pennsylvania. E. W. Felegy and others. bibliog. Il map U S Bur Mines Tech Pa 710:1-49; pa 15c Supt. of doc. '48

Bacteria in mine drainage accelerates rust formation; abstract. M. E. Hinkle and W. A. Koehler. Eng N 139:873 D 25 '47

Flood-prevention projects at Pennsylvania anthracite mines, progress report for fiscal year ended June 30, 1947. S. H. Ash and others. 27pls U S Bur Mines Rep of Invest 4288:1-51 bibliog(40 titles, p48-51) '48

Penn mine slag dump and mine water. Calaveras county. Calif. F. J. Wiebelt and S. Ricker. 2pls U S Bur Mines Rep of Invest 4224:1-6 '48

Rubber pipe handles acid water. Il Coal Age 53:122 F '48

See also

Mine drainage

Mine pumping

MINERAL economics (term)

Mineral economics; new curriculum in mineral education. W. M. Myers. Min & Met 29:284-5 My '48

MINERAL industries

Analysis of mineral industries education in the western hemisphere. E. Steidle. Min & Met 29:430-1 Ag '48

Industrial nonmetallic minerals; review of 1947. G. W. Josephson. Min & Met 29:102-6 F '48

Mineral economics; review of 1947. E. W. Pehrson. Min & Met 29:66-70 F '48

Mineral industry support needed for European recovery program. R. P. Koenig. Min & Met 29:238-40 Ap '48

Nonmetallic mineral industries; annual review and forecast. G. W. Josephson and B. L. Johnson. Il diags Min Cong J 34:100-3 F '48

Non-metals keynote Pacific coast A.I.M.E. meeting, San Francisco, Oct. 23, Rock Prod 50:146+ D '47

Non-metals, 1947. G. R. Gwinn and W. H. Waggaman. Eng & Min J 149:93-5 F '48

Southern meeting of A.I.M.E. Industrial minerals division meeting, Atlanta, Ga. Oct. 8-10, Rock Prod 50:142+ D '47

See also

Aggregates
 Coal trade
 Feldspar
 Limestone
 Metal trade
 Metallurgy
 Mines and mineral resources
 Mining industry and finance

Petroleum industry and trade
 Phosphates
 Quarries and quarrying
 Rock products industry
 Salt
 Stone, Crushed
 Sulfur industry and trade

Statistics

Minerals are indispensable to the chemical industry. E. W. Pehrson. Ind & Eng Chem 40:360-7 Je '48

Minerals production in 1947 reported by Bureau of mines. Oil Paint & Drug Rep 153:40 F 16 '48

Minerals production in U.S. up in 1947. Oil Paint & Drug Rep 153:3+ Ja 12 '48

France

French mineral position. C. W. Wright. Il Min & Met 29:497-9 S '48

Latin America

Review of the mineral industries of Latin America. S. M. Anderson. Econ Geol 43:226-31 My '48

MINERAL lands

Mineral land leasing regulations broadened.

Oil Paint & Drug Rep 152:5 D 29 '47

Mineral leasing act amendments approved.

Oil Paint & Drug Rep 153:3 My 31 '48

See also

Mine leases

MINERAL waters

Ore deposits and geologic age. S. Miholic. bibliog Econ Geol 42:713-20 D '47

MINERAL wool

Four case studies in the insulation of tanks. J. C. Moore. Il Chem Eng 55:110-11 Je '48

From a volcano, the idea for an industry. Il Bsns W p68-71 O 2 '48

How to insulate tanks with new mineral wool board form. Il Sheet Metal Worker 39:56 Ap '48

Mineral wool cement helps lick tank roof corrosion in tropical clime. Il Pet Refiner 27:138 Jl '48

Mineral wool insulation for processing equipment. Il Pet Eng 19:64+ Ag '48

Mineral wool trailer insulation permits refrigeration of perishables by ice. Food Ind 20:357 Mr '48

Plant operating costs cut by mineral wool insulation of ducts. Il Chem Ind 61:999-1000 D '47

Tank insulation with mineral wool board. K. Ritchie. Il Power Generation 52:102 Mr '48

Techniques of using mineral wool insulation. Il diags Am Bld 70:131 O '48

Manufacture

Labor requirements to produce home insulation. Il U S Bur Labor Statistics Bul 919:1-19; pg 10c Supt. of doc. '47

Pacific Northwest's newest insulation plant; Carney-Pacific rockwool co. Il Rock Prod 51:86-7 My '48

Recover waste heat from cupolas; Tex-Ark rock wool corp. B. Nordberg. Il plan diags Rock Prod 51:88-94 Jl '48

Saving fuel in mineral wool manufacture; plant of Armstrong cork co., Beaver Falls. B. Nordberg. Il plans Rock Prod 50:91-2 N '47

Testing

Laboratory methods for evaluating materials for mineral-wool production. S. M. Molloy and W. A. Calhoun. 8pls U S Bur Mines Rep of Invest 4296:1-11 '48

MINERALOGICAL analysis

Modified differential thermal analysis apparatus. P. G. Herold and T. J. Planje. bibliog Il diag Am Cer Soc J 31:20-2 Ja 1 '48

MINERALOGICAL laboratories

Quebec Department of mines laboratories. M. Archambault. Il Can Min J 69:138-45 O '48

MINERALOGY

Mineralogical and structural evolution of the metamorphic rocks. F. J. Turner. (Memoir 30) 342p bibliog (p319-32) Geological soc. of America, 419 W. 117th st, New York '48 (\$3)
 Mineralogy and petrology of the Currant Creek magnesite deposits and associated rocks of Nevada. G. T. Faust and E. Callaghan. 11 map diag Geol Soc Bul 59:11-74, pl 1-4 bibliog (p70-2) Ja '48

See also

Crystallography	Mines and mineral resources
Geology	Ore deposits
Metals	Rocks
Mica	
Minerals	

MINERALS

Detailed studies of zoning in ore districts. R. Blanchard. Econ Geol 42:543-5 S '47
 Industrial nonmetallic minerals; review of 1947. G. W. Josephson. Min & Met 29: 102-6 F '48
 Los Angeles industrial minerals conference; section meeting, industrial minerals division, American institute of mining and metallurgical engineers. Rock Prod 51:117+ Ja '48
 Non-metallic mineral deposits of the province of Quebec. P. E. Bourret. 11 maps Can Min J 69:162-70 O '48
 Non-metallics in agriculture; abstract. R. E. Miller. Eng & Min J 149:89 JI '48
 Non-metallics keynote Pacific coast A.I.M.E. meeting, San Francisco, Oct. 23. Rock Prod 50:146+ D '47
 Non-metallics, 1947. G. R. Gwinn and W. H. Waggaman. Eng & Min J 149:93-5 F '48
 Report of committee on basic research in the field of industrial minerals and rocks. J. L. Gillson and R. H. Jahns. Econ Geol 42:737-46 D '47
 Sorptive and molecular-sieve properties of a new zeolitic mineral. R. M. Barrer and D. W. Riley. Chem Soc J 133:43 F '48
 Synthesis of a zeolitic mineral with chabazite-like sorptive properties. R. M. Barrer. pl Chem Soc J p 127-32 F '48
 Synthesis of lead sulphantimonites. S. C. Robinson. bibliog diags Econ Geol 43:293-312 Je '48
 Weathering sequence of clay-size minerals in soils and sediments. M. L. Jackson and others. bibliog J Phys & Colloid Chem 52: 1237-60 O '48

See also

Aggregates	Phosphates
Clay	Potash
Coal	Quartz
Dolomite	Rocks
Feldspar	Salt
Magnetite	Sand
Metals	Silicates
Mica	Sulfur
Ore deposits	Talc
Pegmatites	Vermiculite
Petroleum	Zircon

Stockpiling

Build the stockpile now for national security. Factory Management 106:50-5 Ap '48
 Copper producers refuse set-asides for stockpile. Barron's 28:37 O 18 '48
 ECA's strategic materials division. T. Falco. 11 maps Eng & Min J 149:70-4 S '48
 Lists strategic materials. E. Bunting. Comm & Fin Chr 168:814 Ag 26 '48
 Military strategy and minerals. G. A. Lincoln. 11 map Eng & Min J 149:84-8 My '48
 Stockpiling hopes from ERP illusory. E. Kaskell. Barron's 28:7 Ja 26 '48
 Stock-piling through the Marshall plan. J. Steele. Min & Met 28:614-15 D '47
 U.S. acts to speed stockpiling program. Oil Paint & Drug Rep 154:5+ Ag 30 '48
 U.S. stockpiling increases as shortages ease; list of principal U.S. sources for critical materials. Steel 122:57 F 9 '48

MINERS

Butte boasts exceptional employes club. 11 Min Cong J 34:58-9 Mr '48
 How Anaconda trains employees to work safely and efficiently. L. F. Bishop. 11 Eng & Min J 149:31-4 Ag '48
 How to improve mine labor supply. R. S. Hooper. 11 Min Cong J 34:22-4+ JI '48

Taft-Hartley act and the mining industry. C. R. Kuzell and F. J. Ryley. 11 Min Cong J 33:38-42 D '47; 34:26-7 Ja '48
 Taft-Hartley and the miner. Eng & Min J 148:53-7 D '47

See also

Coal miners
 United mine workers of America

Diseases and hygiene

Diseases of metal miners. W. Schweisheimer. Can Min J 68:903-4 D '47
 Dust control in iron-ore mines. E. C. J. Urban. 11 diags Safety Eng 95:18-19+ Mr '48
 Lung cancer of miners. W. Schweisheimer. Can Min J 69:86-7 JI '48
 Metal miners live longer today; still some flaws in health statistics. W. Schweisheimer. Can Min J 69:86-7 Mr '48
 Mining industry and Paracelsus; 16th century study of miners' diseases. W. Schweisheimer. Can Min J 69:79-80 Ja '48
 Rehabilitation of the disabled in mining industries. Int Labour R 57:43-61 Ja-F '48

See also

Coal miners—Diseases and hygiene

Bibliography

Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries, 1910-46. S. J. Davenport. U S Bur Mines Tech Pa 705:1-154; pa 30c Supt. of doc. '48

Czechoslovakia

Miners' pension scheme in Czechoslovakia. Int Labour R 57:384-7 Ap '48

Idaho

Houses for miners; two companies build them; Bunker Hill and Sunshine companies, Idaho. 11 plans Eng & Min J 149:86-90 Ag '48

MINERS' lamps. See Safety lamps

MINES, Acoustic. See Mines, Submarine

MINES, Bureau of. See United States—Mines.

Bureau of

MINES, Military

Development and use of magnetic apparatus for bomb and mine location; abstract. A. Butterworth. Electrician 140:801; Discussion. 801-2 Mr 12 '48

Mine detectors and mine disposal in France. A. Violet. 11 diags Elec Com 25:10-20 Mr '48

See also

Mines, Submarine

MINES, Submarine

Derelict mines of Japs cause problem on Coast. Nat Underw 51:14 D 4 '47

Developments on magnetic and acoustic mines at the Admiralty mining establishment. A. J. Baggott and C. H. Fawcett. 11 diags Inst E E J 94 pt 1:509-26 N '47; Discussion. 95 pt 1:550-1 D '48

Effect of non-contact explosions on warship machinery design. A. D. Bonny. 11 diags Engineering 165:477-9, 501-3, 525-6 My 14-28 '48; Discussion. 165:352-3 Ap 9 '48; Engineer 185:356-7 Ap 9 '48

Magnetic mines still being found. Marine Eng 53:62-3 O '48

Mechanical engineering aspects of naval mining; discussion of paper by E. C. Wadlow. Engineer 185:165-6 F 13 '48

MINES and mineral resources

Military strategy and minerals. G. A. Lincoln. 11 map Eng & Min J 149:84-8 My '48
 Mineral economics; review of 1947. E. W. Pehrson. Min & Met 29:66-70 F '48

Mining developments throughout the world; review of 1947. P. J. Shenon. Min & Met 29:71-5 F '48

See also

Bauxite	Lead mines and mining
Coal mines and mining	Lignite
Copper mines and mining	Magnetite
Geology	Manganese mines and mining
Gold mines and mining	Mercury mines and mining
Iron mines and mining	Mine ventilation
	Minerals

MINES and mineral resources—See also—

Continued

Miners	Phosphates
Mining engineering	Prospecting
Mining industry and finance	Quarries and quarrying
Mining machinery	Salt domes
Oil shales	Shale
Ore deposits	Sulfur
Petroleum	Zinc mines and mining
Petroleum supply	

Abandoned mines

Hazards of entering old mine workings. A. D. Look and others. bibliog il U S Bur Mines Information Circ 7479:1-18 '48

Lost mines

Famous western mines; legend of the lost silver treasure. J. McCaleb. Can Min J 69: 63 Ja '48

Famous western mines; lost direction by Pegleg. J. McCaleb. Can Min J 69:91-2 Ap '48

Alabama

Bauxite in Cherokee and Calhoun counties. Ala. D. M. Coulter. 15pls U S Bur Mines Rep of Invest 4233:1-28 '48
Marguerum bauxite district, Colbert county, Ala. D. M. Coulter. U S Bur Mines Rep of Invest 4207:1-10 '48

Alaska

See also
Nickel mines and mining—Alaska

Argentina

See also
Tungsten mines and mining—Argentina

Arkansas

Barite deposits in the Ouachita mountains, Montgomery, Pike, and Pike counties, Ark. T. A. Jones. 8pls U S Bur Mines Rep of Invest 4348:1-15 '48
Investigation of Arkansas bauxites. M. C. Malampy and others. bibliog 123pls U S Bur Mines Rep of Invest 4251:1-63; 4252:1-16; 4253:1-84; 4254:1-135; 4255:1-142; 4256:1-118; 4257:1-131; 4258:1-105; 4259:1-95; 4260:1-32; 4261:1-139; 4262:1-149; 4263:1-99; 4264:1-143; 4265:1-92; 4266:1-120; 4267:1-53; 4268:1-121 '48
Preliminary report of occurrence and properties of nepheline syenite in Arkansas. W. E. Crockett and H. E. Foxhall. il map Am Cer Soc Bul 27:64-7 F 15 '48

Australia

Australia to increase production of tantalite. C. Lynch. Can Min J 68:884 D '47
Australia's coast is rich in mineral sands. D. Mercer. Can Min J 69:94-5 My '48
Bauxite in Australia. C. Lynch. Light Metal Age 6:20 Je '48

Austria

Mineral position of ECA nations. J. C. Christie. map Eng & Min J 149:73-6 O '48

Bolivia

Concentration of urania tin-tungsten ore from Bolivia, South America. G. M. Potter and W. G. Sandell. pl U S Bur Mines Rep of Invest 4185:1-10 '48
Ore deposits of the eastern Andes of Bolivia; the Cordillera Real. F. S. Turneaure and K. K. Welker. bibliog maps Econ Geol 42:595-625 N '47

Brazil

Metallic minerals, data on the mining industry and Brazilian exportation during the period of 1938-46; abstract. Chem Eng 55: 280 Je '48

British Columbia

Past year in British Columbia. F. H. Stephens. il Can Min J 69:74-80 F '48

California

Akoz mine, Mariposa county, Calif. F. J. Wiebelt. 3pls U S Bur Mines Rep of Invest 4144:1-6 '47

Canada

Factors influencing establishment of a synthetic liquid fuel industry in western Canada. T. E. Warren. bibliog Can Chem & Process Ind 32:318-21 Ap '48
Iron and titanium producing plant under development in Canada; unusual ore deposit at Lake Tio. S. Smoke. map Iron Age 162: 125 S 2 '48
Mineral production of Canada reaches record value in 1947. H. McLeod. Can Min J 69: 64-73 F '48

Caribbean region

Caribbean aluminum ores. O. C. Schmedeman. bibliog il map diags Eng & Min J 149: 78-82 Je '48

Chile

See also
Mining industry and finance—Chile

Colombia

Muzo emerald zone, Colombia, S.A. V. Oppenheim. bibliog il map Econ Geol 43:31-8 Ja '48

Colorado

Concentration of Colorado fluorite ores. J. V. Batty and others. U S Bur Mines Rep of Invest 4139:1-28 '47
Famous western mines; Cloud City reflections. J. McCaleb. Can Min J 69:84-5 Mr '48
Guide to the geology of central Colorado; with index map showing major geologic structure and significant oil and gas information. il Colorado School of Mines [Golden] Quarterly 43 no 2:1-176, pl 1-14 Ap '48 (pa \$3)
Laboratory concentration of complex sulfide-oxide ore from Shenandoah-Dives mine, Silverton, Colo. H. Kenworthy. U S Bur Mines Rep of Invest 4283:1-16 '48

Congo, Belgian

Le développement de l'Union minière du Haut Katanga (Congo Belge). V. Charrin. il map Génie Civil 124:385-9 O 15 '47

Cuba

Geology and chromite deposits of the Camagüey district, Camagüey province, Cuba. D. E. Flint and others. map diags U S Geol S Bul 954-B:39-63, pl 18-19[in pocket] '48

Egypt

Origin and alteration of chromites from Egypt. M. S. Amin. bibliog il maps diags Econ Geol 43:133-53 Mr '48

Florida

Titanium minerals in Trail Ridge, Fla. R. V. Spencer. 19pls U S Bur Mines Rep of Invest 4208:1-21 '48

France (colonies)

French colonial mineral wealth. P. Legoux. Metallurgia 37:335 Ap '48

Georgia

Georgia mica spots; Cherokee, Upson, Lamar, and Monroe counties. W. A. Beck. 16pls U S Bur Mines Rep of Invest 4239: 1-29 '48
Georgia story; minerals. il Manuf Rec 117: 104-7 My '48
Investigation of Louise chromite deposits, Troup county, Ga. T. J. Ballard. 5pls U S Bur Mines Rep of Invest 4311:1-24 '48
Investigation of Track Rock corundum mine, Union county, Ga. T. J. Ballard. pl U S Bur Mines Rep of Invest 4309:1-5 '48

Germany

Mineral position of ECA nations. J. C. Christie. il map Eng & Min J 149:70-3 O '48

Idaho

Be Van quartz crystal prospect Lemhi county, Idaho. J. A. Herdlick. 2pls U S Bur Mines Rep of Invest 4209:1-6 '48
Idaho mines consolidate; twelve companies combine in Coeur d'Alene. H. Ingalls. il Min Cong J 33:59-60 N '47

MINES and mineral resources—Continued

Illinois

Core drilling at the Victory fluorospar mine, Hardin county, Ill. O. M. Bishop and A. S. Swanson, 2pls U S Bur Mines Rep of Invest 4324:1-8 '48

Investigation of the Dubois fluorite property, Hardin county, Ill. A. S. Swanson, 2pls U S Bur Mines Rep of Invest 4315:1-7 '48

Bibliography

List of publications on the geology, mineral resources, and mineral industries of Illinois and list of published maps. 74p Ill. state geological survey, Urbana '48

India

Important Indian mineral finds, Chem Age (Lond) 58:67 Ja 10 '48

Italy

Mineral position of ECA nations. D. Straniero, il map Eng & Min J 149:76-9 O '48

Kentucky

Stallion-Curnel fluorospar prospect, Crittenden county, Ky. R. C. Hickman, 2pls U S Bur Mines Rep of Invest 4205:1-4 '48

Malayan Union

Mining position in Malaya, Can Min J 68:907 D '47

Manitoba

Review of mining in Manitoba, 1947, J. P. de Wet, il Can Min J 69:96-101 F '48

Mexico

Sealing off flood water in the San Antonio mine, C. M. Syner, diags Eng & Min J 149:77-80 Mr '48

See also

Silver mines and mining—Mexico

Mississippi

Bauxite deposits in Tippah and Benton counties, Miss. D. F. Reed, 9pls U S Bur Mines Rep of Invest 4281:1-15 '48

Bauxite deposits in Union and Pontotoc counties, Miss. D. M. Coulter, 8pls U S Bur Mines Rep of Invest 4235:1-8 '48

Missouri

Barite production upheld by improved equipment, E. Just, flow sheets il Eng & Min J 149:71-3 Ja '48

Montana

Can sapphire mining revive? il Min Cong J 34:38-9 My '48

High lights of Anaconda's Butte operations, R. S. Newlin, il Min & Met 29:424-7 Ag '48

Mississippi Valley experiment station laboratory and pilot-plant concentration of corundum from Gallatin Gateway, Mont. for World war II, W. A. Calhoun and R. G. O'Meara, U S Bur Mines Rep of Invest 4161:1-27 '47

Nevada

Blue Metal corundum-andalusite deposit, Douglas county, Nev.; supplemental investigation, E. O. Binyon, 2pls U S Bur Mines Rep of Invest 4293:1 '48

Mineralogy and petrology of the Currant Creek magnesite deposits and associated rocks of Nevada, G. T. Faust and E. Callaghan, il map diag Geol Soc Bul 59:11-74, pl 1-4 bibliog (p70-2) Ja '48

Power for Nevada's mines, J. A. Carpenter, Min Cong J 34:67+ S '48

New Brunswick

Mining in New Brunswick, 1947, R. J. Gill, Can Min J 69:117-18 F '48

New Hampshire

Beryl mountain, Sullivan county, N.H. S. B. Levin, 2pls U S Bur Mines Rep of Invest 4216:1-3 '48

New Mexico

Geology and mining practice at the Bayard, N. Mex. property; United States smelting refining and mining co. L. H. Duriez and J. V. Neuman, jr. il map Min & Met 29:559-61 O '48

Geology and ore deposits of the Little Hat- chet mountains, Hidalgo and Grant counties, New Mexico, S. G. Lasky, bibliog maps diags U S Geol S Professional Pa 208:1-101, pl 1-27 '47

Milling improves northern New Mexico scrap mica outlook, R. H. Jahns, bibliog flow sheet il maps diag Eng & Min J 149:96-100 My '48

Silver Spot manganese-iron-zinc deposits, Grant county, N.Mex. J. H. Soule, 4pls U S Bur Mines Rep of Invest 4217:1-5 '48

New Zealand

New Zealand has minor minerals, Can Min J 69:82 S '48

North America

Geology and the new mines; details of 37 ore deposits developed in North America in the past decade, I. B. Joralemon, il Min & Met 29:226-32 Ap '48

North Carolina

Boy Scout-Jones and Moss-Richardson molybdenum deposits, Halifax county, N.C. A. F. Robertson and others, 15pls U S Bur Mines Rep of Invest 4156:1-9 '47

Cline copper and tungsten mine, Cabarrus county, N.C. R. C. Hickman, 2pls U S Bur Mines Rep of Invest 4203:1-5 '48

North Carolina mica spots; Mitchell, Macon, Gaston, and Yancey counties, L. A. Dahners and F. K. McIntosh, 10pls U S Bur Mines Rep of Invest 4241:1-16 '48

North Dakota

Southwestern North Dakota clay deposits, Stark, Slope, and Billings counties, N. Dak. F. F. Clarke, 3pls U S Bur Mines Rep of Invest 4219:1-32 '48

Nova Scotia

Mineral industry of Nova Scotia, 1947, M. A. Patterson, Can Min J 69:116-17 F '48

Ohio

Limestone from a half-mile down; Barberton, Ohio, mine operated by Columbia chemical division of Pittsburgh plate glass co. R. E. Petty, il Min Cong J 34:52-5 Ap '48

Mining limestone 2300 feet under the earth; project near Barberton, Ohio, D. F. North, il diag Explosives Eng 26:7-9+ Ja '48

Ontario

Capsisit Lake area, Abitibi East county, J. E. Gilbert, maps Can Min J 68:885-8 D '47

Ontario mining review, 1947, J. C. Browning, il Can Min J 69:102-8 F '48

Oregon

Lady Frances mine, a new source of perlite, il diag Eng & Min J 149:66-7 Ja '48

Oregon mining interests wage fight to open railroad lands to mineral development, R. T. Reinhardt, Iron Age 161:100+ F 26 '48

Pennsylvania

Diamond drilling blast holes, Bellefonte mine, National gypsum co., Centre county, Pa. M. Mosler, U S Bur Mines Information Circ 7438:1-6 '48

Peru

Discovery of Cercapuquio, J. G. Baragwanath, il Min & Met 28:543+ N '47

Philippine Islands

Rehabilitation of mines in the Philippines progresses, W. F. Boericke, il Eng & Min J 149:60-3 Mr '48

Quebec (province)

La Corne mine producing molybdenite concentrate and metallic bismuth, W. M. Bonham, flow sheet il diag Can Min J 68:881-4 D '47

Mining in Quebec, A. O. Dufresne, il Can Min J 69:110-15 O '48

MINES and mineral resources—Quebec (province)—*Continued*
Mining industry in the province of Quebec. bibliog flow sheet il map plan diags Can Min J 69:102-204 O '48
Quebec mining review. J. C. Browning. il Can Min J 69:109-15 F '48

Rhodesia

Mining in Southern Rhodesia. Can Min J 69: 81-2 S '48

Russia

See also
Oil shales—Russia

Saskatchewan

Preliminary report on radio-active discovery at Lac La Ronge. W. J. Bichan. il maps Can Min J 69:97-9 JI '48
Saskatchewan mineral development, 1947. C. A. L. Hogg. il Can Min J 69:92-5 F '48

South Carolina

Investigation of Rickard corundum mine, York county, S.C. T. J. Ballard. 2pls U S Bur Mines Rep of Invest 4310:1-6 '48

South Dakota

Edison spodumene mine, Pennington county, S. Dak. F. F. Clarke and others. 9pls U S Bur Mines Rep of Invest 4234:1-23 '48
High-potash dikes in the Homestake mine, Lead, South Dakota. J. A. Noble. bibliog diags Geol Soc Bul 59:927-39, pl 1 S '48
Investigation of the Mateen spodumene deposit, Pennington county, S. Dak. 7pls U S Bur Mines Rep of Invest 4339:1-20 '48
Studies on methods for recovering scrap mica from pegmatite of the Black Hills, South Dakota. G. A. Munson and F. F. Clarke. bibliog 11 pls U S Bur Mines Rep of Invest 4190:1-26 '48

Sweden

World's longest aerial ropeway; transporting ores from Boliden mine. il Mech Handling 34:549+, 579-86, 646-8 O-D '47

United States

Appraisal of our natural resources. W. G. Fritz. il Dun's R 56:14-16+ F '48
Government aids to the mining industry. P. M. Tyler. il Min & Met 28:544-8 N '47
Have-not cries are gross exaggerations. J. E. Kelly. Barron's 28:7-8 F 16 '48
Intensive study of natural resources launched; annual report of Secretary J. A. Krug. Chem & Eng N 26:455 F 16 '48
Metal subsidies advance; Russell bill. Barron's 28:28-9 My 31 '48
Mineral program of the U.S. Bureau of mines. J. Boyd. il Min Cong J 33:19-22 N '47
Mineral resources of the United States; by the staffs of the Bureau of Mines and Geological survey. 212p \$5 Public affairs press, 2153 Florida av, Washington 8 '48
Mineral resources probed and developed in active year by Bureau of mines. Heat & Ven 45:130+ Mr '48
Minerals, watchdog of American economy. J. A. Krug. il Min Cong J 33:16-18 N '47
Our natural resources; are we as rich as we think? K. F. Mather. Comm & Fin Chr 167:1558-9 Ap 3 '48
U.S. mineral production in 1947. Am Gas J 168:31-2 F '48

Utah

Concentration of gravity tailings from the Grasselli deposit, Park City, Utah. T. F. Mitchell and others. 2pls U S Bur Mines Rep of Invest 4159:1-18 '47
Early days of mining around Salt lake. Min & Met 29:584-5 O '48
Lead and zinc deposits of the Treasure Hill mines, Ophir mining district, Tooele county, Utah. W. C. Dunham and F. H. Gunnell. 9pls U S Bur Mines Rep of Invest 4181:1-25 '48
Lead, zinc, silver, copper, bismuth deposits, South Hecla mine, Alta, Salt Lake county; Utah. J. I. Kasteler and J. H. Hild. 5pls U S Bur Mines Rep of Invest 4170:1-8 '48

Outline of the geology of the Bingham district; properties of United States smelting refining and mining co. H. Peacock. map Min & Met 29:533-4 O '48
Practice at the Utah metal mines of the United States smelting refining and mining co. B. E. Grant and others. il diags Min & Met 29:535-41 O '48

Washington (state)

Cle Elum iron-nickel deposits, Kittitas county, Wash. S. W. Zoldok. bibliog 4pls U S Bur Mines Rep of Invest 4189:1-8 '48
Mining methods of the Holden mine, Howe sound co., Chehalis division, Holden, Wash. R. L. Soderberg. 24pls U S Bur Mines Information Circ 7448:1-27 '48
Northwest magnesite company, unusual in mine and plant. J. B. Hutt. flow sheet il Eng & Min J 149:56-9 Ja '48

Western states

History of famous western mines. J. McCaleb. Can Min J 68:320, 407, 503, 580-1, 642-3, 726-7, 813-19, 888 My-D '47; 69:63 Ja; 115 F; 84-5 Mr; 91-2 Ap; 95-6 My; 79 Je; 80 JI; 84-5 Ag; 57-8 S '48
In the mid-western states; mining activities. G. M. Webster. Can Min J 69:71-4 Je '48

Wyoming

Famous western mines; ghost shadows of Wyoming. J. McCaleb. Can Min J 69:80 JI '48

MINETTE, Emil, 1903-

Babe has grown up in mixed company. J. L. Collings. por Ed & Pub 81:48 O 23 '48

MINIMUM wage

Inflationary trend and how to correct it; repercussions of minimum wage laws. P. H. Nystrom. Comm & Fin Chr 167:1879-8 Ap 29 '48; Excerpt. J Retailing 24:1-5 F '48
Making it formal; higher Walsh-Healey wage minimums. Bsns W p 112-13 O 23 '48
Minimum wage hike seen as sure thing in the telephone field. Pub Util 40:712-13 N 20 '47
Minimum wage rates established in India. Int Labour R 57:513-15 My '48
National minimum wage boost to squeeze independent telephone companies. Pub Util 40:779-80 D 4 '47
State minimum-wage legislation; progress in 1947. A. Angus and L. Sullivan. Mo Labor R 67:275-8 S '48
Voters support action to raise minimum wage to 75¢ an hour; Gallup poll. Iron Age 161: 125 F 26 '48

MINING and metallurgy (periodical)

AIME publications, 1949. Min & Met 29:421-2 Ag '48

MINING camps

Houses for miners; two companies build them; Bunker Hill and Sunshine companies, Idaho. il plans Eng & Min J 149:86-90 Ag '48
Pit for posterity; South Africa's Douglas colliery. W. R. Gordon. il plans Can Min J 69:75-9 Ag '48

MINING congress journal (periodical)

Wimpen named editor. Min Cong J 33:87 D '47

MINING costs

Methods and costs of sinking a 2½-compartment shaft at the Hope mine, Clark Fork, Idaho. R. J. Hundhausen. 4pls U S Bur Mines Information Circ 7426:1-13 '48
Methods and costs of sinking the Silver Summit shaft, Wallace, Idaho, using a mechanical mucking machine. G. M. Grismer and R. J. Hundhausen. 4pls U S Bur Mines Information Circ 7425:1-12 '48
Mining and milling methods and costs at the Little Pittsburg lead-zinc mine, Shoshone county, Idaho. R. J. Hundhausen. 6pls U S Bur Mines Information Circ 7428:1-21 '48

MINING engineering

Crushing limestone half mile underground; Pittsburgh plate glass co., Columbia chemical division. B. Nordberg. il diag Rock Prod 50:72-94 N '47
Details of company mining practice in mining engineering and surveying; United States smelting refining and mining co. F. B. Harris. diags Min & Met 29:553-5 O '48

MINING engineering—Continued

Engineering and development problems at Morenci. W. C. Lawson, il plan Min Cong J 33:28-33 D '47

Estimation of ore. Can Min J 69:88-9 Ag '48

Geological studies can avoid costly mistakes. G. B. Clark, plan diags Eng & Min J 149:94-6 Ag '48

Hydraulic air-storage chambers in Swedish mines. S. Dalhammer, il map diag Comp Air Mag 53:30-3 F '48

Improved mining methods through production engineering. R. W. Jenkins, diags Min Cong J 34:39-41 Ja '48

Mine workings are sealed off to serve as air receiver. C. Pengilly, diags Eng & Min J 149:94-5 My '48

Mining practice marked by numerous changes; review of 1947. A. H. Hubbell, il Eng & Min J 149:96-103 F '48

Mining practice; review of 1947. E. D. Gardner, il Min & Met 29:76-9 F '48

Modern methods reopen an old property; the Glenbrook mine of Stonega coke and coal co. H. W. Meador, il plan diag Min Cong J 33:23-8 N '47

Time studies in mechanized mining. P. R. Paulick, il Min Cong J 34:48-9 Mr '48

See also

Blasting
Coal mines and min-
ing
Drilling and boring
(earth and rocks)
Electricity in min-
ing
Mine haulage and
other headings
beginning Mine
Mining machinery
Mining methods
Quarries and quarry-
ing
Rock drills

Power

Power for Nevada's mines. J. A. Carpenter, Min Cong J 34:67+ S '48

Steam-electric power plant for mining and milling operations of the Kennicott copper corp. G. A. Parker, flow diags il Mech Eng 69:934-6 N '47

Safety measures

Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries, 1910-46. S. J. Davenport. U S Bur Mines Tech Pa 705:1-154; pa 30c Supt. of doc. '48

Health and safety; review of 1947. C. B. Foraker, Min & Met 29:79 F '48

How Anaconda trains employees to work safely and efficiently. L. F. Bishop, il Eng & Min J 148:91-4 Ag '48

How to operate a stoper. A. W. Knoerr, il diags Eng & Min J 149:78-83 Ag '48

Lake Superior mining men crowd the sessions of 24th annual safety meeting. Duluth, June 17-18. Eng & Min J 149:104-5 Jl '48

Mine safety. J. K. Richardson, il Min Cong J 34:52-4 F '48

Mine safety legislation through the centuries; the new American safety code. W. Schweisheimer. Can Min J 69:92-3 Je '48

Progress in metal mine safety. J. K. Richardson, il Min & Met 29:281-3 My '48; Same cond. Safety Eng 94:18-19+ D '47

Psychological aspects of accident prevention. H. J. Sloman, U S Bur Mines Information Circ 7460:1-10 '48

Salt mining in the modern vein. il Safety Eng 95:22-3+ Ap '48

Support of ground, iron-ore mines, Lake Superior district. M. S. Petersen and F. E. Cash, 15pls U S Bur Mines Information Circ 7459:1-23 '48

See also

Coal mines and min-
ing—Safety meas-
ures

Tables, calculations, etc.

Stress analysis applied to underground mining problems. W. I. Duvall, bibliog 16pls U S Bur Mines Rep of Invest 4192:1-18 '48

MINING engineers

Engineer and the small mine. J. S. Carman, Can Min J 69:64-7 Ja '48

Executives think mining needs rejuvenation; results of questionnaire. E. Just, il Eng & Min J 149:70-3 Ap '48

Directories

Official publication of Missouri school of mines and metallurgy, a division of the University of Missouri; alumni directory, 1874-1947. Mo U Sch Mines & Met general ser v 39 no 4:1-249 '47

MINING industry and finance

Kennecott Copper goes into new fields. H. S. Coffin, il Mag of Wall St 83:126-8+ N 6 '48

New incentives needed. W. Bradley, Eng & Min J 149:69 S '48

New mine investment is vital. J. G. Baragwanath, Eng & Min J 149:69 Jl '48

Problems of the small mine operators. C. F. Willis, il Min Cong J 34:61-4 F '48

World bank plan for guaranteeing investment in foreign mineral development. C. W. Wright, Min & Met 29:175-6 Mr '48

See also

Mine leases
Mine taxation
Mineral industries
Mineral lands
Minerals and mineral
resources

Securities

Sale of primary mining securities. C. J. Trauerman, Comm & Fin Chr 168:405+ Jl 29 '48

Canada

Mineral production of Canada reaches record value in 1947. H. McLeod, Can Min J 69:64-73 F '48

Some company reports. Can Min J 69:112-14+ My '48

Chile

Chile's mining bank aids small operators. F. Benitez, il Eng & Min J 148:65-7 D '47

Europe

Rejuvenating European mining; how the Marshall plan may help Europe's mines and mitigate U.S. shortages. C. W. Wright, Min & Met 29:12-15 Ja '48

Mexico

Mexico's tax jumble. H. Bratter, Eng & Min J 149:92-4 O '48

United States

General prospect points to good mining year. E. Just, Eng & Min J 149:67-70 F '48

Russell bill's failure means more metals. Barron's 28:37 Je 14 '48

Subsidies for mine production. E. Just, Min & Met 29:233-5 Ap '48

MINING law

Mine leasing; review of its present status. R. M. Searls, Min & Met 29:382-4 Jl '48

Mine safety legislation through the centuries; the new American safety code. W. Schweisheimer. Can Min J 69:92-3 Je '48

See also

Mine taxation

Canada

Canadian law on uranium spurs private exploration. W. M. Fawcett, Barron's 28:8 Je 28 '48

MINING machinery

Continuous ore transport; belt conveyor design and application. R. W. Rausch, il Min & Met 28:590-5 D '47

How metallizing solves mine maintenance problems. R. Mansell, il Eng & Min J 149:82-4 Jl '48

How to operate a stoper. A. W. Knoerr, il diags Eng & Min J 149:78-83 Ag '48

Mining equipment trends. T. S. Veazey, Jr, il Min Cong J 34:45-7 F '48

Modern equipment and methods; pictorial review. Eng & Min J 148:91-135 N '47

Mucking-machine draw points aid sublevel stoping; Copper Canyon mine. L. E. Snow, il plan diags Eng & Min J 148:58-62 D '47

Portable mine plant designed for prospecting; abstract. J. P. Messervey, il Eng & Min J 149:84-5 Ap '48

Power shovel principle is used in shaft mucker. J. B. Huttel, il diags Eng & Min J 149:83-5 Je '48

Shaker conveyors applied to the caving mining method. C. E. McWhorter, diags Min & Met 29:444-6 Ag '48

- MINNESOTA university**
 Petroleum engineering schools. *il* Oil & Gas J 46:125-1 F 26 '48
- MINTZ, Edward J.**
 Top man for New York Life. *por* Weekly Underw 159:354 Ag 14 '48
- MIRAGE**
 Meteorological conditions accompanying mirages in the Salt Lake desert. R. L. Ives. bibliog *il* maps Franklin Inst J 245:457-73 Je '48
- MIRRORS**
 Evaluation of methods and fixtures used for bathroom mirror lighting. M. Fahs Bender and B. Priest. *il* diags Illum Eng 42:999-1024; Discussion. 1024-7 D '47
 It's all done with mirrors; Boeing aircraft co. uses principle of reflected light for design, production, and testing jobs. *il* Bsns W 68-70 Mr 27 '48
 Mirrors simplify precision work; Boeing develops ingenious uses in production jobs and in research work. *il* Aviation W 48: 22+ Ap 19 '48
- MISER, Hugh Dinsmore, 1884-**
 Sketch. R. H. Dott. *por* Am Assn Pet Geol-ogists Bul 32:826-32 My '48
- MISSING persons**
 Lost stockholders; Skip tracers co. adds search for missing securities holders. Bsns W p95-6 Je 26 '48
- MISSIONS**
 Present status of foreign missions. K. S. Latourette. Ann Am Acad 256:63-71 Mr '48
- MISSISSIPPI**
See also
 Water supply—Mississippi
- Industries and resources**
- See also*
 Jackson, Mississippi—
 Industries
- MISSISSIPPI river**
 Flood control projects
 Mississippi River cutoffs. G. H. Matthes. *il* maps Am Soc C E Proc 73:3-17 Ja '47; Discussion. 73:404-10, 949-52, 1089-92; 74: 248-59 Mr, Je, S '47, F '48
- MISSISSIPPI valley**
See also
 Water, Underground
 —Mississippi valley
- Industries and resources**
- Long-term manufacturing opportunities in the upper Mississippi valley. W. H. Voskuil. (Special bul. no. 6) 32p Univ. of Illinois, Bur. of economic and business research, Urbana '48
- MISSISSIPPIAN epoch.** *See* Geology, Stratigraphic—Mississippian
- MISSOURI**
See also
 Mines and mineral
 resources—Missouri
- MISSOURI and Arkansas railway**
 Abandonment. Comm & Fin Chr 168:745 Ag 23 '48
- MISSOURI-Kansas-Texas railroad**
 Katy's oil royalty income growing. Barron's 28:27 J 19 '48
 What grass roots selling has done for the Katy. H. G. Till. map Sales Management 59:45-6+ D 1 '47
- MISSOURI Pacific railroad**
 Collateral behind MOP 5¼s develops greater value. Barron's 27:29 D 29 '47
 Equipment trusts offered. Comm & Fin Chr 168:450 Ag 2 '48
 Interest payments. Comm & Fin Chr 166: 1995 N 17 '47
 New revamp plan proposed. Ry Age 125:864-6 N 6 '48
- MISSOURI river**
 Big Missouri, by A. F. Whitney and others; review. Pub Util 42:444-6 S 23 '48
 Missouri Basin program and municipal water supplies. S. J. Ware. Am Water Works Assn J 40:787-90 J 1 '48
 Pick-Sloan flood control plan develops resources of Missouri River basin. D. B. Freeman. *il* map Civil Eng 17:652-7 N '47
 Status of the Missouri Basin project. W. E. Warne. Pub Util 41:706-7 My 20 '48
- MISSOURI state life insurance company**
 Old Missouri State stockholders to test law on policyholder reserves. East Underw 49:4 S 3 '48; Same. Nat Underw (Life ed) 52:3 S 3 '48
- MISSOURI university**
 School of mines and metallurgy
 Official publication of Missouri school of mines and metallurgy, a division of the University of Missouri; alumni directory, 1874-1947. Mo U Sch Mines & Met general ser v 39 no 4:1-249 '47
 Petroleum engineering schools. *il* Oil & Gas J 46:115-16 F 19 '48
- MISTS, Acid**
 Mist control with addition agents in chrome plating. L. Silverman and R. M. Thomson. bibliog diag J Ind-Hygiene 30:303-6 S '48
- MISTS, Chemical**
See also
 Mists, Acid
- MISTS, Oil**
 Eliminating oil fog and smoke by electronic collectors and precipitators; Bridgeport brass co. *il* Iron Age 162:75 O 21 '48
 Precipitating oil coolant mist electrostatically. *il* diags Steel 122:86-7+ F 23 '48
- MITCHELL, Charles Ainsworth, 1867-1948**
 Appreciation. *por* Chem & Ind p 149 Mr 6 '48
- MITCHELLS and Butlers, limited**
 Statement by the chairman at annual general meeting. R. H. Butler. Economist 153:939 D 6 '47
- MITES**
 Isolation from wild bird mites (liponyssus sylvitarum) of a virus or mixture of viruses from which St Louis and western equine encephalitis viruses have been obtained. W. M. Hammon and others. Science 107: 92-3 Ja 23 '48
- MITOSIS.** *See* Cell division
- MITTASCH, Alwin, 1869-**
 A. Mittasch. R. E. Oesper. *por*(front) J Chem Educ 25:531-2 O '48
- MIX solvents.** *See* Solvents
- MIXED crystals.** *See* Solutions, Solid
- MIXERS**
 Application and design of mixing equipment. H. E. Serner. Chem Eng 55:118-21 Ag '48
 Colloidal equipment applied to the homogenization of clay and paper coatings. D. E. Gould. *il* Paper Tr J 126:66-7 My 6 '48
 Design and utilization of internal fittings for mixing vessels. E. S. Bissell and others. bibliog diags Chem Eng Prog 43:649-58 D '47
 Economics of agitator selection. E. S. Bissell. *il* Chem Ind 62:586-8 Ap '48
 Effect of baffles on agitator power consumption. D. E. Mack and A. E. Kroll. bibliog diags Chem Eng Prog 44:189-93; Discussion. 193-4 Mr '48
 Heat transfer to vertical tubes in a mixing vessel. J. H. Rushton, R. S. Lichtmann and L. H. Mahony. bibliog *il* diags Ind & Eng Chem 40:1082-7 Je '48
 New equipment announced 1947-48. Chem Ind 63:403-4 S '48
 Practical mixer technology. E. J. Lyons. diags Chem Eng Prog 44:341-6 My '48
 Temperature control of lab mixer aided by circulating water. R. Lurie. diags Chem Eng 55:126 J 1 '48
 Using statistical analysis, engineers can determine blender efficiency. J. P. Beaudry. Chem Eng 55:112-13 J 1 '48
 Variable ratio and speed for dough mixer; used for mixing abrasives and chemicals as well as bakery products. *il* diags Product Eng 19:102-3 O '48
- See also*
 Concrete mixers
 Dough mixers
- MIXERS, Electric.** *See* Electric mixers
- MIXING**
 Agitation in experimental rocking-type autoclaves. A. N. Hoffmann, J. B. Montgomery and J. K. Moore. diag Ind & Eng Chem 40:1708-10 S '48
 Application and design of mixing equipment. H. E. Serner. Chem Eng 55:118-21 Ag '48
 Mixing. J. H. Rushton. bibliog Ind & Eng Chem 40:49-50 Ja '48

MIXING—Continued

- Mixing and agitation. diag Chem Eng 55: 105-6 My '48
 Sampling lag and purging time in mixing vessels in series. H. J. Kandiner. Chem Eng Prog 44:383-6 My '48
 Simplified approach to mixing problems; calculation of required power and mixing time. H. E. Serner. Chem Eng 55:127-9+ Ja '48
 Solves solution mixing problem with push-button control layout; Eastman Kodak co. il diag Heating-Piping 20:98-9 My '48

Tables, calculations, etc.

- Nomograph to determine the time required for blending. A. D. Snyder and D. S. Davis. Chem Ind 63:98+ Jl '48
 Using statistical analysis, engineers can determine blender efficiency. J. F. Beaudry. Chem Eng 55:112-13 Jl '48

MIXING, Heat of

- Heats of mixing of some fluorinated ethers with chloroform. J. R. Lacher, J. J. McKinley and J. D. Park. bibliog Am Chem Soc J 70:2598-600 Jl '48

MIXTURES

- Defense of Beer's law. A. C. Hardy and F. M. Young. Opt Soc Am J 38:854-8 O '48
 Refractive indices of alcohol, water and their mixtures at high pressures. J. S. Rosen. bibliog diag Opt Soc Am J 37:932-8 N '47
 Statistical mechanics of mixtures of Bose-Einstein and Fermi-Dirac systems. W. Band. J Chem Phys 16:343-52 Ap '48
 Study of ultrasonic velocity and absorption in liquid mixtures. C. J. Burton. bibliog diag Acoustical Soc Am J 20:186-99 Mr '48
 Temperature variation of the thermal diffusion factors for binary mixtures of hydrogen, deuterium, and helium. B. F. Murphy. bibliog diag Phys R 72:334-7 N '47
 Theory of the study of transfers within a multi-compartment system using isotopic tracers. C. W. Sheppard. J Ap Phys 19:70-6 Ja '48
 Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties. B. H. Sage, R. H. Olds and W. N. Lacey. bibliog Ind & Eng Chem 40:1453-9 Ag '48
 Viscosity blending relationships of heavy petroleum oils. M. H. Rahmes and W. L. Nelson. bibliog Anal Chem 20:912-15 O '48

MIXTURES, Inflammable. See Inflammable mixtures**MOBILE, Alabama****Commerce**

- Mobile wins new world-trade rank and sets still higher goals. A. S. Howard. il map For Comm W 31:4-7+ Je 26 '48

MOBILIZATION, Industrial. See Industrial mobilization**MODEL home exhibits. See Gas industry—Model home exhibits****MODEL houses. See Houses, Model****MODEL towns****See also**

- Norris, Tennessee

MODELS

- Model structures for engineering training. R. J. Wilkins. il diags Engineering 165:385-7 Ap 23 '48
 New method of producing three-dimensional plaster models; applicable in automobile, aircraft, and shipbuilding; involves use of Contour Developer. J. S. Haldeman. il diags Mach 54:144-9 Mr '48
 Proposed ASME standards for plant layout models. il Factory Management 106:99-100 Ja '48
 Scale model cost \$400, will save thousands; Motorola's new television plant. E. V. Phillips. il Factory Management 106:76-7 F '48
 Scale model layout prevents bugs in assembly; White motor co. il Factory Management 106: 82-3 Mr '48
 Scale models help visualize the production job; Dodge truck plant. W. S. Wheeler. il Factory Management 105:74-7 D '47
 Sectional scale model, with complete color code; Upjohn company, Kalamazoo. W. S. Wheeler. il Factory Management 106:104-5 O '48

- Tool angles govern cutting efficiency; use of transparent model and chart. M. Kronenberg. il diags Am Mach 32:90-2 Ja 15 '48
 Using a combustion of methods to get effective layout; Mechanics universal joint division, Borg-Warner corp. G. C. Gridley. il Factory Management 106:120-1 Je '48

See also

- | | |
|---|---|
| <p>Airplane engines—
 Models
 Atoms—Models
 Cranes, derricks, etc.—Models
 Crystallography—
 Models
 Diesel engines—
 Models
 Gas holders—Models
 Hydraulic models
 Mechanical models</p> | <p>Mine models
 Petroleum refineries—
 Models
 Railroads—Models
 Ship models
 Stores (retail trade)—
 Models
 Structural engineering—
 Model testing
 Vacuum tubes—
 Models</p> |
|---|---|

MODELS (in merchandizing)

- Models boost kitchen equipment sales. il Mod Plastics 25:82-4 Ag '48
 Models take hem and how out of selling store designs; Tyler fixture corp. R. L. Tyler. il Sales Management 60:46-8 My 20 '48
 See through industrial model demonstrates motors; Fairbanks-Morse Air-Gap motors. il Sales Management 60:65 Je 15 '48

MODELS, Anatomical. See Anatomical models**MODELS, Mechanical. See Mechanical models****MODELS, Miniature**

- Models help motor makers select new car colors; Ditzler theater showing. D. G. Baird. il Sales Management 60:86+ Je 1 '48
 Promoting the '49 Ford. il Mod Plastics 25:85 Ag '48
 Simonds uses miniature models in salesmen's training course. A. Bernstein. il Ind Marketing 33:76+ Ja '48

MODELS, Plastic

- Demonstration models of transparent plastics used in buyer education. il Ind Marketing 33:78 Mr '48
 Lubrication phenomena; use of transparent models for purposes of demonstration and study. J. Boyd. il diags Mech Eng 70:589-92 Jl '48
 Models boost kitchen equipment sales. il Mod Plastics 25:82-4 Ag '48
 Models demonstrate Hudson car features. il Mod Plastics 26:94-7 N '48
 Peek-a-hoo demonstrators let prospects see product innards; Plexiglas models of electric appliances. T. Armstrong. il Sales Management 61:44-5 Ag 15 '48
 Promoting the '49 Ford. il Mod Plastics 25: 85 Ag '48
 Salesmen demonstrate car innards with models; Hudson motor car co. Sales Management 61:117 N 1 '48
 Tell the inside-the-product story; acetate books and plastic working models. R. H. Ganly. il Ptr Ink 225:32-4 O 8 '48
 Visualization; new tool used in designing bakery layout; engineer's model. il Food Ind 20:562-3 Ap '48

MODELS, Rubber

- Sponge rubber relief models. il Rubber Age 62:662-3 Mr '48

MODERN plastics (periodical)

- Meet the editorial staff; portraits. Mod Plastics 26:84-5 N '48

MODULAR design. See Building—Standards**MOGGIDGE, Richard Cayley Giffard, 1915-1946**

- Sketch. R. P. Bell. Chem Soc J p 1708-9 D '47

MOHAIR

- Mohair in wool. B. Tanner. il Textile Col 70:21+ Ag '48

MOISTURE

- Determination of moisture in lecithin and crude soybean oils. K. M. Brobst. Anal Chem 20:939-41 O '48
 Electrolytic film makes moisture determinations. diag Food Ind 20:870 Je '48
 Electronic percent moisture meter. il R Sci Instr 18:929-30 D '47
 Equilibrium moisture and X-ray diffraction investigations of pectinic and pectic acids. K. J. Palmer, R. C. Merrill and M. Baltyne. bibliog il Am Chem Soc J 70:570-7 F '48

MOISTURE—Continued

- Moisture content measurement. *il* Chem Age (Lond) 58:577 Ap '48
- Moisture detector; conductance of electrolytic film measures water vapor content. *il* diags Sci Am 178:177-8 Ap '48
- Moisture determination in textiles by electrical meters. R. K. Toner and others. *il* Textile Res J 18:526-35 S '48
- Moisture meter calibrated for mill use. E. A. McMaster. *il* diags Textile World 98: 141+ Ap '48
- Moisture migration in refrigerators. S. V. Cook and F. F. Starr. *Refrig Eng* 56:149-51; Discussion. 151+ Ag '48
- Mold dryness measured by new device; Electric Hygro-Cel. R. E. Hadady. *il* Foundry 76:322+ My '48
- See also*
- | | |
|-------------------------------|------------------------|
| Compressed air— | Hygrometers |
| Moisture content | Paper—Moisture content |
| Dampness in buildings | Soil moisture |
| Evaporation | Textile fabrics— |
| Food, Frozen—Moisture content | Moisture content |
| Humidity | Vegetables, Dried— |
| | Moisture content |

MOLASSE (term)

- Flysch and molasse. A. J. Eardley and M. G. White. *bibliog diags Geol Soc Bul* 58:979-89, pl 1 N '47

MOLASSES

- Alcohol from molasses. C. L. Gabriel. *Chem Eng Prog* 44:sup 13 Ja '48
- Fermentable sugars from unfermented reducing substances in cane molasses. C. Erb and F. W. Zerban. *bibliog diags Ind & Eng Chem* 39:1597-602 D '47
- Ion exchange; operation of commercial scale plant for demineralization of cane sirups and molasses. E. Bloch and R. J. Ritchie. *bibliog flow sheet il Ind & Eng Chem* 39:1581-4 D '47
- Scale for sale; calcium aconitate. *il* Chem Ind 62:736-7 My '48
- Wood-sugar molasses from wood waste; abstract. E. E. Harris. *diags Chem Eng* 55: 105 Je '48
- Wooden beefsteak; wood-sugar molasses; abstract. E. E. Harris. *Chem Eng* 55:272+ Ag '48

Analysis

- Chromatography of Cuban blackstrap molasses on clay; some constituents of an odor and pigment fraction. W. W. Einkley and M. L. Wolfmont. *bibliog Am Chem Soc J* 70:290-2 Ja '48

MOLD bran

- Evaluating fungal amyolytic materials for saccharifying fermentation mash. H. D. Reese, E. L. Fulmer and L. A. Underkoffer. *bibliog diags Anal Chem* 20:348-53 Ap '48

MOLDED products

- Assembly constructed of plastic parts; aircraft antenna pattern plotter. *il* Product Eng 19:163 Ap '48
- British molders' future. J. S. Trevor. *Mod Plastics* 25:154 Ag '48
- Contour-formed chairs. *il* Mod Plastics 26: 154-5 N '48
- Egg compartment conserves refrigerator space. R. A. Cooper. *il* Plastics 8:19-21 O '48
- Engineering perfects a plastics camera. *il* Mod Plastics 25:107-11 Jl '48
- General properties and uses for molded plastics materials; data sheets. *Mach* 54: 221 N '47
- It had to be tough! ethyl cellulose as a molding material. *il* Mod Plastics 25:91-7 D '47
- Looking toward 1948; processing. *Mod Plastics* 25:75-9 Ja '48
- Measuring moldability of rubber compounds; abstract. P. H. Mensier. *India Rubber World* 117:536+ Ja '48
- Modern design with basic parts; primary housings, electrical components, and bezels, molded of phenolic. *il* Mod Plastics 25: 82-4 My '48
- Multiple-shot molded parts. *il* Mod Plastics 25:129-31+ Ap '48
- Mycalex 410; glass-bonded mica in molded form. F. L. Verzley. *il* India Rubber World 118:374-6 Je '48

- New tank cleaner features phenolics. *il* Mod Plastics 25:108-9 D '47
- Plastics in refrigerators; injection molded large parts; Crosley refrigerator design. J. R. Finn and H. C. Haaxma. *il* Mod Plastics 26:105-9 N '48
- Plastics replace die castings for 300 parts of products. W. Schack. *il* Plastics 8:13-16+ Mr '48
- Plastics that glow in the dark. *il* Mod Plastics 26:88-91 O '48
- Record player steps out in plastic; portable player, molded in phenolic, matches polystyrene record carrier. *il* Mod Plastics 25: 84-6 Mr '48
- Refrigerator parts; use of polystyrene and large-section molding. *il* Product Eng 19: 142-3 S '48
- Sleeping comfort; heat control unit of electric blanket manufactured by Proctor electric co. *il* Product Eng 19:134 S '48
- Stamps housed in plastic; personalized marking set. *il* Mod Plastics 25:95 My '48
- Timing relays molded of phenolic compound. Durez. *il* diags Product Eng 19:136 S '48
- Towards an ideal flatiron. M. Brownshield. *diags Plastics* 8:48-9 Ja '48
- Urea molds main parts of signal lights; hospital signal units for nurses. *il* Mod Plastics 25:91-2 N '47
- Windows glide on plastic track. *il* Mod Plastics 25:97 Ag '48

See also

- Celastic
- Molds (for plastics)
- Resinous products

Decoration

- Decorations applied when molding. *il* Mod Plastics 25:80-1 Ag '48

Drying

- Volatile loss in molding lignocellulose-filled phenolics. R. V. Williamson. *bibliog Mod Plastics* 25:126-7+ My '48

Manufacture

- Casting techniques for polyesters. W. Weeks. *il* Mod Plastics 25:103-7+ Ag '48
- Chinese chest; candy container used as jewel case. J. C. Kazimier. *il* Mod Plastics 25:93-5 N '47
- Controlled cooling holds plastics in shape; illustrations with text. *Am Mach* 92:123 S 23 '48
- Making the Christmas tree express; pressed and die-cast metal and plastic replicas of real trains by the Lionel corporation. C. H. Wick. *il* diags Mach 54:147-54 D '47
- New machines for processing plastics; illustrations with text. *Machine Design* 20:154-7 S '48

- Plastic, rubber moldings and metal parts combined to advantage; Scintilla magneto div. of Bendix aviation corp. H. Chase. *il* Materials & Methods 27:67-71 Mr '48

- Production increase and cost reduction; larger capacity preform presses. *il* Plastics 8:10+ S '48

See also

- Molding
- Molding machines (for plastics)

Purchasing

- Measuring a price quotation. J. H. Du Bois. *Plastics* 8:32+ F '48

Testing

- Effect of temperature and humidity on mechanical properties of molded cellulose acetate plastics. W. E. Welch and others. *bibliog Am Soc T M Proc* 46:1452-64 '46
- Phenolic molding material tests. W. N. Findley. *diags Mech Eng* 70:323-4 O '48
- Quantitative tests on finished mouldings. W. D. Owen. *bibliog il diags Inst E E J* 94 pt 2:635-44; Discussion. 645-9 D '47

MOLDED products, Mechanical

- Butyrate parts in a lawn mower. *il* Mod Plastics 25:99-101 Jl '48
- Design and application of glass-reinforced plastic parts. R. White. *il* diags Machine Design 20:103-7+ O '48

MOLDED products, Mechanical—Continued

- Designing from the outside in; plastics housing. W. Petzold and P. A. Belk. *Plastics* 8: 12-13 S '48
- Electrical appliances award to Roto-Beam. *il Mod Plastics* 26:128-9 S '48
- For the lawn; Clemson model E-17 lawn mower; use of plastics. *il Product Eng* 19: 135 S '48
- Heavy duty electrical equipment; GE redesign of circuit breaker saves space and weight, through use of plastics. *il diags Product Eng* 19:130-1 S '48
- How to design molded and extruded rubber parts. J. H. Gerstenmaier. *il diag Machine Design* 20:115-17 Ag '48
- Molded plastic parts simplify vacuum cleaner. *il diag Product Eng* 19:94-5 O '48
- Redesigned motor switch produced more economically in plastic. *il Mod Plastics* 25: 118-19 D '47
- Soap injector for automatic washer. *il Mod Plastics* 26:84 O '48
- Some applications of laminated plastics. *il Engineer* 185:479 My 14 '48
- Some properties and mechanical applications of compax. J. Hitov. *il A S M E Trans* 70:117-21 F '48
- Teamwork develops better, smaller relay; phenolic, urea-formaldehyde, and vinyl parts. C. D. Lake and W. M. Hoyt, jr. *il diags Mod Plastics* 25:115-19 N '47
- Textile mill problems solved; plastic machine parts; Plastone A. *il Mod Plastics* 25:106-8 F '48

See also

Bearings, Plastic

MOLDING

- Alkyd hot molding compound. M. H. Bigelow. *il Mod Plastics* 26:85-7 O '48
- Better quality; faster molding; Shaw insulator co. *il Mod Plastics* 25:136-7 D '47
- Close die temperature control in quality injection molding. D. L. Davenport. *Plastics* 8:29-30 Jl '48
- Closed-mold method of molding thermosetting materials. C. A. Norris. *il diag India Rubber World* 118:526-9 Jl '48; Abstract, *Mod Plastics* 25:180+ My '48
- Compression molded thermoplastic laminates and sheets. *il Mod Plastics* 25:118-20 Ap '48
- Direct molding of plastics from casein and carbanido casein. N. J. Hipp and others. *bibliog il Mod Plastics* 26:205-8+ S '48
- Fillers for phenolics. L. Debing. *bibliog Mod Plastics* 25:127-32 D '47
- Fillers for ureas and melamines. P. Fuller. *Mod Plastics* 25:132+ D '47
- Forty-ounce injection machine. *il Mod Plastics* 25:113 Jy '48
- General techniques of molding and finishing low-pressure molded products; abstract. A. E. Wiles. *Product Eng* 18:126-7 D '47
- High-frequency molding applied to compound curvatures in wood. P. H. Bilhuber. *il Mech Eng* 70:213-16 Mr '48
- Induction heated molds. H. Chase. *il Mod Plastics* 25:114 Jl '48
- It had to be tough! ethyl cellulose as a molding material. *il Mod Plastics* 25:91-7 D '47
- Machine made refractories are equal to or better than hand molded shapes. J. O. Everhart. *il Brick & Clay Rec* 112:76+ Ap '48
- Mechanical tests of macerated fabric phenolic molding material. W. N. Findley. *bibliog diags Mod Plastics* 25:145-50+ D '47
- Moldable alkyd. *il Chem Ind* 63:589 O '48
- Molding a universal handle. W. Schack. *il diag Plastics* 8:22-4+ Ja '48
- Molding and finishing instrument dials. H. Chase. *il Mod Plastics* 25:105-8 Mr '48
- Molding plastic pen components. W. Rudolph. *il Mod Plastics* 26:196+ S '48
- New developments in steam preheating. S. K. Moxness and J. Formo. *il Mod Plastics* 25:107-9+ My '48
- New molding technique for high production of phonograph records. T. A. Dickinson. *il Mill & Factory* 42:129-30 My '48
- Preheating thermoplastic materials. R. R. Leiske. *India Rubber World* 117:227 N '47
- Preheating with steam. *diags Mod Plastics* 25:102-3 Ja '48
- Pulp molding tools. J. J. Jaeger. *il diags Mod Plastics* 25:129-31 Je '48

- Recent advances in the art of injection molding large pieces. G. W. Whitehead. *Plastics* 8:32-3 Je '48
- Sawdust-binder compositions. A. E. Gabriel. *Mod Plastics* 25:145-7+ Ap '48
- Steam at the molding press; electric steam generator. *il Mod Plastics* 25:119 F '48
- Volatile loss in molding lignocellulose-filled phenolics. R. V. Williamson. *bibliog Mod Plastics* 25:126-7+ My '48

*See also*Extrusion process
Foundry practice
Nylon—Molding**MOLDING machines**

- Extrusion molding process; its potentialities as a means of processing gas turbine parts. H. B. Cook. *il diag Iron Age* 161:62-9 Ja 29; 79-86+ F 5 '48
- From sand to multiple molds in one machine. *il Mill & Factory* 43:151 S '48
- Westinghouse is operating an automatic molding unit. J. A. Sharritts. *il plan Foundry* 76:78-85+ Je '48; Same cond. *Steel* 123: 126+ S 20 '48

MOLDING machines (for plastics)

- Automatic molding. *il Mod Plastics* 25:109-10 Ja '48
- Compression presses. A. A. Hutchings. *il Plastics* 8:20-2+ S '48
- Design and construction of arc welded steam platens. H. O. Lehman. *il diags Rubber Age* 62:545-6 F '48
- Dual-function piston in plastics press. *il diags Machine Design* 19:144-5 N '47
- Duplex press cuts costs. *il Mod Plastics* 25: 137 Ap '48
- Economical use of cooling water for heat insulation of presses and subsequently for space heating. J. Butler. *Engineering* 165: 185-6 F 20 '48
- Electric equipment for plastic injection molding machines; abstract. M. Morgan. *Elec Eng* 67:697 Jl '48
- Flash-removal conveyor. *il Mod Plastics* 25: 112-13 Ag '48
- Fifty-ounce injection machine. *il Mod Plastics* 25:113 My '48
- Heating cylinder has tapered bore design; Fellows-Leominster injection molding machine. *il diags Product Eng* 19:96-7 Mr '48
- Improved internally heated spreader. *il Mod Plastics* 25:133 D '47
- Injection cylinder design. D. J. Sloane. *il diag India Rubber World* 117:753-4 Mr '48
- Injection moulding machine. *il Engineer* 185: 406-7 Ap 23 '48
- One hydraulic cylinder controls all molding operations; injection molding machine built by Giddings and Lewis. *il diags Product Eng* 19:93-7 D '47
- 35th annual review; forming, forging, casting. *il Am Mach* 92:242-4 Ja 29 '48
- Unique molding process proved in use; Tri-dyne process. K. W. Hall. *il diags Mod Plastics* 25:114+ My '48

MOLDING machines (for rubber)

- Injection molding of rubber goods. D. F. Fraser. *il India Rubber World* 118:357-9; Discussion. 360-2 Je '48

MOLDINGS, Metal

- Proper installation of metal mouldings and trim in modern kitchens. *diags Am Bld* 70: 120 Jl '48

MOLDS (botany)

- Contact culture method for detecting molds on surfaces. F. A. Hodges and J. D. Wildman. *il Science* 106:425-6 O 31 '47
- Submerged culture of fungal amylase. S. L. Adams and others. *bibliog Ind & Eng Chem* 39:1615-17 D '47

*See also*Aspergillus Neurospora
Fungi Penicillium
Mildew**Culture**

- Mold enzymes produced by continuous tray method. G. A. Jeffreys. *il diags Food Ind* 20:688-90+ My '48

MOLDS (for casting)

- How to reinforce a fragile pattern. J. R. Nichols. *diags Foundry* 76:113 O '48
- Industrial vacuum melting; molds for casting under vacuum. K. Fox and others. *diags Iron Age* 161:83-4 F 26 '48

MOLDS (for casting)—Continued

- Mold and core making; method developed by Croning & co., Hamburg, Germany. *Mech Eng* 70:23 Ja '48
- Mold dryness measured by new device; Electric Hygro-Cel. R. E. Hadady. *Il Foundry* 76:322+ My '48
- Mold strength. H. W. Dietert and others. *Il Foundry* 76:94-5 D '47
- Multiple molding can increase production; Wisconsin Appleton co. W. G. Gude. *Il Foundry* 76:66-9+ Mr '48
- New method for making precision casting molds developed in Germany; called the C process; abstract. W. M. McCulloch. *Materials & Methods* 27:109 Ja '48
- Precision molding process employs resin binder. W. W. McCulloch. *Foundry* 76:130+ O '48

Flexible molds

- Flexible molds for low-melt alloys. T. A. Dickinson. *Il Foundry* 76:218-20+ O '48

Permanent molds

- Aluminum alloy castings; permanent mold casting. F. A. Lewis. *Il Foundry* 76:92-5+ JI '48
- Casting aluminum pistons in permanent molds; Thompson products inc. R. H. Herrmann. *Il plan Foundry* 76:78-83+ S '48
- Casting lead parts in permanent molds. H. Chase. *Il Iron Age* 161:90-1 My '48
- Permanent mold cast iron castings; abstract. C. D. Pollard and others. *Materials & Methods* 27:110-11 Mr '48
- Permanent mold casting of copper base alloys; review of British practice. J. L. Erickson. *Il Iron Age* 162:84-9 JI '48
- Permanent mold castings. H. Chase. *Il Materials & Methods* 28:75-86 JI '48
- Permanent mold gray iron castings by the million; Foundry division of Eaton mfg. co. A. H. Allen. *Il diags Foundry* 76:82-7+ O '48
- Tentative specifications for aluminum-base alloy permanent mold castings; data sheet. *Foundry* 76:135-6 Ap '48

Plaster molds

- Plaster molds for casting intricate aluminum torque converter parts; Buick's new Dynaflo drive. H. Chase. *Il diags Iron Age* 161:60-8 F '48
- Precision casting; aluminum castings made in plaster molds by the Antioch process. C. S. Ricker. *Il diag Tool Eng* 21:27-9 S '48
- Pressure casting aluminum matchplates in plaster molds. S. N. Touchman. *diags Foundry* 76:76-9+ JI '48
- Using an old technique to make parts too difficult to produce by other means; production of aluminum torque converter castings; Allison-Bedford foundry; use of Antioch plaster mold technique. J. Geschelein. *Il Automotive Ind* 99:28-30+ Ag '48

See also

- Molds (for ceramic products)

MOLDS (for ceramic products)

- How to make a mold. *Il Cer Ind* 51:95 S; 95-6 O; 94+ N '48

MOLDS (for glass)

- Glass in the laboratory; bench moulding as an aid to glass blowing. I. C. P. Smith. *diags Chem Age (Lond)* 57:702-3 N '47
- Private glass or stock? practices and plans of four glass-using industries. *Il Mod Packaging* 21:95-100 D '47

MOLDS (for plastics)

- Better steel devised for hubbing. A. L. Frances. *Il Am Mach* 92:84-7 JI '48
- Carbide inserts rejuvenate plastic transfer molds. A. L. Frances. *Il Am Mach* 92:95 Je '48
- Casting techniques for polyesters. W. Weeks. *Il Mod Plastics* 25:103-7+ Ag '48
- Chromium plating of molds; abstract. J. C. Rogers. *India Rubber World* 118:533-4 JI '48
- Considerations in favor of large multiple-cavity molds. M. J. Petretti. *Il diags India Rubber World* 119:76-8 O '48
- Development of lower cost injection molds; abstract. H. C. Spaulding. *Product Eng* 19:136-7 N '48

- Metal molds for plastics. T. A. Dickinson. *Il diags Tool Eng* 20:27-32 Mr '48
- Mold techniques for polyester casting. W. Weeks. *bibliog Il Mod Plastics* 25:115-19 JI '48
- Plastics stock molds. Published in monthly numbers of *Modern Plastics*
- Plated molds for laminates may reduce tooling costs. *Il Plastics* 8:18-19+ JI '48
- Practical application of the theoretical aspects of the closed mold method of molding thermosetting materials. C. A. Norris. *Il diags Plastics* 8:16-18+ Ag; 26-7+ S '48
- Split molding cast phenolics. J. A. Morse. *Il Mod Plastics* 26:116-17 O '48

MOLDS (for rubber)

- Broaching molds for rubber gears. *Il Mach* 55:151 O '48
- Cast phenolics for rubber molds and dipping forms. *Rubber Age* 64:59 O '48
- Chicago group program on mold cleaning methods. *India Rubber World* 117:225 N '47
- Firestone plants utilize power brushing for cleaning molds. *Il Rubber Age* 62:302 D '47

MOLECULAR association

- Associating effect of the hydrogen atom; the N-H-O bond; esters of carbamic acid. M. Barker. L. Hunter and N. G. Reynolds. *Chem Soc J* p874-81 Je '48
- Dielectric polarization and molecular association of hydrogen fluoride vapor. R. A. Oriani and C. P. Smyth. *Am Chem Soc J* 70:125-30 Ja '48
- Dipole moments and molecular association of some picrates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Maryott. *bibliog J Res Nat Bur Stand* 41:1-6 JI '48
- Formula to detect association in liquids. R. Parshad. *J Chem Phys* 15:761-2 O '47
- Molecular interaction and infra-red absorption spectra; methyl alcohol and phenol. M. Davies. *bibliog J Chem Phys* 16:267-79 Ap '48
- Structure of molecular compounds; clathrate compounds. H. M. Powell. *diags Chem Soc J* p61-73 Ja '48

MOLECULAR beams

- Nuclear quadrupole interaction in CsF. J. W. Trischka. *bibliog diags Phys R* 74:718-27 O '48
- Radiofrequency spectra of the sodium halides. W. A. Nierenberg and N. F. Ramsey. *bibliog diag Phys R* 72:1075-89 D '47

MOLECULAR compounds

- Structure of molecular compounds; clathrate compounds. H. M. Powell. *diags Chem Soc J* p61-73 Ja '48
- Structure of molecular compounds; the β -type clathrate compounds of quinol. D. E. Palin and H. M. Powell. *diags Chem Soc J* p815-21 Je '48
- Structure of molecular compounds; the clathrate compound of quinol and methanol. D. E. Palin and H. M. Powell. *diag Chem Soc J* p571-4 My '48

MOLECULAR dynamics

- Force constants for CF₄ and C₂F₆. E. L. Pace. *bibliog J Chem Phys* 16:74-7 Ja '48

MOLECULAR orbitals

- Certain integrals useful in molecular orbital calculations. R. G. Parr and B. L. Crawford, jr. *J Chem Phys* 16:1049-56 N '48
- Energy of H₂ and H₂ by the method of molecular orbitals. R. G. Pearson. *J Chem Phys* 16:502-4 My '48
- Molecular orbital calculations of vibrational force constants; ethylene. R. G. Parr and B. L. Crawford, jr. *bibliog J Chem Phys* 16:526-32 My '48
- Molecular orbital method and molecular ionization potentials. R. S. Mulliken. *bibliog Phys R* 74:736-8 O '48

MOLECULAR rearrangements

- Allylic rearrangement in an alkylation by a quaternary ammonium salt. H. R. Snyder and E. L. Eliel. *Am Chem Soc J* 70:1857-60 My '48
- Allylic rearrangement in the pyrolysis of 3-acetoxy-3-cyano-1-butene. C. S. Marvel and N. O. Brace. *bibliog Am Chem Soc J* 70:1775-6 My '48
- Allylic rearrangements; reaction of the sodium derivative of allylbenzene with carbonyl compounds. T. W. Campbell and W. G. Young. *bibliog Am Chem Soc J* 69:3066-8 D '47

MOLECULAR rearrangements—*Continued*

- Allylidene halides; spectrophotometric study of solvolysis reactions of cinnamal chloride. L. J. Andrews. *bibliog Am Chem Soc J* 69: 3962-5 D '47
- Aromatic cyclodehydrogenation; rearrangements in the phenylnaphthalene series. M. Orchin and L. Reggel. *bibliog Am Chem Soc J* 70:1245-7 Mr '48
- Bromination of 3-ketosteroids in acetic acid and the effect of trace substances in the solvent. C. Djerassi and C. R. Scholz. *bibliog Am Chem Soc J* 69:2404-10 O '47
- Claisen rearrangement of allyl 3,4-dimethylphenyl ether. C. S. Marvel and N. A. Higgins. *Am Chem Soc J* 70:2218-19 Je '48
- Dienone-phenol rearrangement. R. T. Arnold, J. S. Buckley, Jr. and J. Richter. *bibliog Am Chem Soc J* 69:2322-5 O '47
- Jacobsen reaction; 6,7-dialkyltetralins. L. I. Smith and C. Lo. *Am Chem Soc J* 70:2209-15 Je '48
- Kinetics of anionotropic rearrangement; the simultaneous rearrangement and hydrolysis of propenylethynylcarbinyl acetate; general discussion of the mechanism of anionotropy and a comparison of the mobility of the hydroxyl and the acetoxy group. E. A. Braude. *diag Chem Soc J* p794-804 Je '48
- Mechanism of the Schmidt reactions and observations on the Curtius rearrangement. M. S. Newman and H. L. Gildenhorn. *bibliog Am Chem Soc J* 70:317-19 Ja '48
- Partial *para*-migration in the allylic rearrangement of *o*-acetamidophenyl allyl ether and of *o*-aminophenyl allyl ether. B. D. Tiffany. *Am Chem Soc J* 70:592-4 F '48
- Preparation and dienone-phenol rearrangement of 2-bromo-1,4-androstadien-17-ol-3-one 17-hexahydrobenzoate. C. Djerassi and C. R. Scholz. *bibliog Am Chem Soc J* 70: 1911-13 My '48
- Preparation and rearrangements of 1,2-dimethylaminochloropropanes. E. M. Schultz and J. M. Sprague. *bibliog Am Chem Soc J* 70:48-52 Ja '48
- Preparation of new derivatives of diethylstilbestrol and hexestrol; extension of the Claisen rearrangement. E. Kaiser, A. L. Andersen, Jr. and J. J. Svarz. *Am Chem Soc J* 70:1248-9 Mr '48
- Reactions of furan compounds; catalyzed rearrangement of 2,3-dihydropyran into cyclopentanone. C. L. Wilson. *bibliog Am Chem Soc J* 70:1311-13 Ap '48
- Reactions of furan compounds; thermal interconversion of 2,3-dihydrofuran and cyclopropane aldehyde. C. L. Wilson. *bibliog Am Chem Soc J* 69:3002-4 D '47
- Rearrangement and substitution in anionotropic systems. A. G. Catchpole, E. D. Hughes and C. K. Ingold. *Chem Soc J* p 1-17 Ja '48
- Rearrangement in the preparation of ester acid chlorides. S. Ståhlberg-Stenhagen. *Am Chem Soc J* 69:2568 O '47
- Rearrangement of 1,2-aminochloroalkanes. J. F. Kerwin and others. *bibliog Am Chem Soc J* 69:2961-5 D '47
- Ring enlargement by rearrangement of the 1,2-aminochloroalkyl group; rearrangement of 1-ethyl-2-chloromethylpyrrolidine to 1-ethyl-3-chloropiperidine. R. C. Fuson and C. L. Zirkle. *bibliog Am Chem Soc J* 70: 2760-2 Ag '48
- Role of neighboring nitrogen atom in the displacement reaction; rearrangement in the hydrolysis of 1-diethylamino-2-chloropropane. S. D. Ross. *bibliog Am Chem Soc J* 69:2932-3 D '47
- Studies in the anthracene series; a novel rearrangement in the reaction of halomethyl ketones with secondary amines. E. L. May and E. Mosettig. *Am Chem Soc J* 70:1077-9 Mr '48
- Studies on the mechanism of the sulfonation of aromatic amines; rearrangement of barium phenylsulfamate. E. R. Alexander. *Am Chem Soc J* 70:1274 Mr '48
- Third Westman memorial lecture, allylic rearrangements. *Can Chem & Process Ind* 32: 529-30 Je '48
- MOLECULAR stills.** See Distillation apparatus
- MOLECULAR volume**
- Apparent molar volume of sodium in liquid ammonia. A. J. Stosick and E. B. Hunt. *diag Am Chem Soc J* 70:2826-7 Ag '48
- Partial molal volume of acetic acid in sodium acetate and in sodium chloride solutions. H. E. Wirth. *bibliog Am Chem Soc J* 70:462-5 F '48
- See also
- Parachors**
- MOLECULAR weights**
- Acid hydrolysis of egg albumin; molecular weight distribution of peptides. H. B. Bull and J. W. Hahn. *Am Chem Soc J* 70:2132-5 Je '48
- Application of flow birefringence measurements to high-polymer solutions. M. Wales. *bibliog J Phys & Colloid Chem* 52:976-83 Je '48
- Determination of molecular weights from the activation energy for viscous flow of liquids. M. S. Telang. *J Chem Phys* 15:844-5 N '47
- Effect of molecular weight distribution on physical properties of natural and synthetic polymers. B. L. Johnson. *bibliog Ind & Eng Chem* 40:351-6 F '48
- Effect of temperature and molecular-weight distribution on the morphology of natural and synthetic high polymers. E. A. Hauser and D. S. le Beau. *bibliog J Phys & Colloid Chem* 52:27-39 Ja '48
- Fluorocarbon vapor balance. J. H. Simons, W. H. Pearlson and W. A. Wilson. *diag Anal Chem* 20:933 O '48
- Fractionation of potato starch; the reducing powers, mean molecular weights and solubilities of the fractions. L. H. Lamptitt and others. *bibliog(53 ref) Soc Chem Ind J* 67:38-40 Ja '48
- Insecticidal efficiency of saturated petroleum fractions; influence of molecular weight and structural constitution; eggs of oriental fruit moth, *grapholitha molesta* Busck used as test material. G. W. Pearce, P. J. Chapman and D. E. H. Frear. *bibliog Ind & Eng Chem* 40:284-93 F '48
- Mean molecular weights of asphalts and their constituents. G. W. Eckert and B. Weetman. *bibliog Ind & Eng Chem* 39:1512-16 N '47
- Mechanical properties of substances of high molecular weight; rigidities of gelatin gels; dependence on concentration, temperature and molecular weight. J. D. Ferry. *bibliog Am Chem Soc J* 70:2244-9 Je '48
- Microeffusimetry. L. K. Nash. *bibliog diags Anal Chem* 20:258-62 Mr '48
- Modification of the Victor Meyer molecular weight apparatus. W. V. Evans and F. P. Cassaretto. *diag J Chem Educ* 25:348 Je '48
- Molecular weight determination; abstracts. P. Debye. *Chem & Eng N* 26:993 Ap 5 '48; *Anal Chem* 20:389 Ap '48
- Molecular-weight determinations of non-volatile substances based on the evaporation velocities of their solutions. A. Schönberg and M. Z. Barakat. *diags J Phys & Colloid Chem* 52:1074-81 Je '48
- Molecular weight of C₆ClF₅ polymers; abstract. J. L. Gabbard and others. *Chem Eng* 55:276+ My '48
- Molecular weight of lysozyme determined by the X-ray diffraction method. K. J. Palmer, M. Ballantyne and J. A. Galvin. *Am Chem Soc J* 70:906-8 Mr '48
- Polyamide resins from dilinoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. *bibliog Am Chem Soc J* 70: 760-3 F '48
- Purification and properties of antibody against *p*-azophenylarsonic acid and molecular weight studies from light scattering data. D. H. Campbell, R. H. Blaker and A. B. Pardee. *bibliog Am Chem Soc J* 70: 2496-9 Jl '48
- Sedimentation equilibria of polydisperse non-ideal solutes. M. Wales and others. *bibliog J Phys & Colloid Chem* 52:235-48, 983-98 Ja, Je '48
- Some physical and chemical properties of weight-fractionated lignosulfonic acid, including the dissociation of lignosulfonates. F. M. Ernsterberger and W. G. France. *bibliog diags J Phys & Colloid Chem* 52: 267-76 Ja '48
- Structure of neoprene; the molecular weight distribution of neoprene type GN. W. E. Mochel, J. B. Nichols and C. J. Mighton. *bibliog Am Chem Soc J* 70:2185-90 Je '48

MOLECULAR weights—*Continued*

Turbidimetric determination of the molecular weight of micelles of dihexyl sodium sulfosuccinate in water. R. F. Stamm and others. *bibliog J Chem Phys* 16:423-4 Ap '48

Viscosity-molecular weight and viscosity-temperature relationships for polystyrene and polyisobutylene. T. G. Fox, Jr. and P. J. Flory. *bibliog diags Am Chem Soc J* 70: 2384-95 J1 '48

See also

Polymerization

MOLECULES

Additional rotational energy levels of H_2O and D_2O molecules. N. Ginsburg. *bibliog Phys R* 74:1052-7 N 1 '48

Aids to analysis of patterns obtained in the diffraction of electrons by gases. H. J. Yearian and W. M. Barss. *bibliog il diag J Ap Phys* 19:700-4 Ag '48

Angle on resins; bond angles in phenol-formaldehyde resins; abstract. N. J. L. Megson. *diags Chem Ind* 62:389 Mr '48

Approximate configurational partition functions for certain aggregates of spherical molecules. M. F. Morales and J. B. Botts. *diags J Chem Phys* 16:587-91 Je '48

Calculation of nuclear quadrupole effects in molecules. J. Bardeen and C. H. Townes. *bibliog Phys R* 73:97-105 Ja 15 '48

Carbon-carbon and carbon-hydrogen bond energies. G. Glockler. *bibliog J Chem Phys* 16:842-4 Ag '48

Contributions to the theoretical treatment of ammonium. J. I. Horváth. *bibliog diags J Chem Phys* 16:851-64 S '48

Correlation of vibrational absorption spectra with molecular structure. H. W. Thompson. *bibliog Chem Soc J* p328-31 Mr '48

Crystal and molecular structure of certain dicarboxylic acids; diacetylenedicarboxylic acid dihydrate. J. D. Dunitz and J. M. Robertson. *diags Chem Soc J* p1145-56 S '47

Effect of large quadrupole interactions on nuclear radiofrequency spectra at twice Larmor frequency. N. F. Ramsey. *bibliog Phys R* 74:286-91 Ag 1 '48

Effect of size, shape, and flexibility of the solute molecules on the properties of colloidal solutions. M. L. Huggins. *bibliog diags J Phys & Colloid Chem* 52:248-59 Ja '48

Effects of cross-linking and branching on the molecular constitution of diene polymers. P. J. Flory. *bibliog Am Chem Soc J* 69: 2893-9 N '47

Energy of H_2^+ and H_2 by the method of molecular orbitals. R. G. Pearson. *J Chem Phys* 16:502-4 My '48

Equation of state for linear macromolecules in monolayers. S. J. Singer. *bibliog J Chem Phys* 16:872-6 S '48

Evidence for the planar structure of the urea molecule. W. E. Keller. *bibliog J Chem Phys* 16:1003-4 O '48

Explanation of longitudinal shrinkage of wood based on interconnected chain-molecule concept of cell-wall structure. R. A. Cockrell. *bibliog diags A S M E Trans* 69:931-5 N '47

Extension of the polarizability theory of Raman effect. F. Matossi and R. Mayer. *bibliog Phys R* 74:449-55 Ag 15 '48

Forces between tetrahalide molecules. J. H. Hildebrand. *bibliog J Chem Phys* 15:727-36 O '47

Geometry of CH_3X molecules. H. A. Skinner. *bibliog J Chem Phys* 16:553-4 My '48

Immobilization of solvent in randomly coiled chain molecules. W. Kuhn and H. Kuhn. *bibliog J Chem Phys* 16:838-9 Ag '48

Infra-red spectra and molecular structure; abstract and discussion. H. W. Thompson and others. *Chem & Ind* p60-1 Ja 24 '48

Interatomic distances and nuclear quadrupole couplings in $ClCN$, $BrCN$, and ICN . A. G. Smith and others. *bibliog Phys R* 74:370-2 Ag 15 '48

Isotopic effect of the potential function of molecular states. J. G. Valatin. *bibliog Phys R* 74:346-7 Ag 1 '48

Long-range forces may account for specific chemical reactions between molecules not in contact. T. Stern, pseud. *il diags Sci Am* 179:14-17 O '48

Mechanical properties of long chain molecule liquids at ultrasonic frequencies. W. P. Mason and others. *diags Phys R* 73:1074-91 My 1 '48; Correction. 74:1873-4 D 15 '48

Microwave determination of the molecular structures and nuclear couplings of the methyl halides. W. Gordy and others. *bibliog Phys R* 74:243-9 Ag 1 '48

Microwave spectra of some linear XYZ molecules. C. H. Townes and others. *bibliog diags Phys R* 74:1113-33 N 1 '48

Molecular diagram method. P. Daudel and R. Daudel. *bibliog J Chem Phys* 16:639-43 J1 '48

Molecular orbital method and molecular ionization potentials. R. S. Mulliken. *bibliog Phys R* 74:736-8 O 1 '48

Molecular structure and adsorption sequences of carotenoid pigments. H. H. Strain. *bibliog Am Chem Soc J* 70:588-91 F '48

Molecular structure and its influence on the properties of phenolic resins; Novolaks. N. J. L. Megson. *bibliog diags Soc Chem Ind J* 67:155-60 Ap '48; Abstract and discussion. *Chem & Ind* p691-2 N 8 '47

Molecular structure of dimethyltrisulfide. $(CH_3)_2S_3$. J. Donohue and V. Schomaker. *bibliog J Chem Phys* 16:92-6 F '48

Molecular structure of nitrogen dioxide; re-investigation by electron diffraction. S. Claessens and others. *bibliog diag J Chem Phys* 16:207-10 Mr '48

Molecular structure of the two dimethylhydrazines by electron diffraction. W. H. Beamer. *bibliog Am Chem Soc J* 70:2979-82 S '48

Native proteins as polycondensations of amino acids. D. Wrinch. *Science* 107:445-6 Ap 30 '48

Nature of the interaction between starch and iodine. R. S. Stein and R. E. Rundle. *bibliog diags J Chem Phys* 16:195-207 Mr '48

New method of determining the relaxation time and the dipole moment of polar substances; its application to fatty acids. G. Potapenko and D. Wheeler, Jr. *diags Rs Mod Phys* 20:143-50 Ja '48

Organic reagents in inorganic analysis. *Chem Age (Lond)* 59:283-6 Ag 28 '48

Phase shift approximation in the theory of pressure broadening of spectral lines. A. Jabłoński. *bibliog Phys R* 73:258-9; Reply. H. M. Foley. 259 F 1 '48

Philosophy of the purity and identity of organic compounds. H. Eyring. *Anal Chem* 20:98-100 F '48

Relation between the order of a phase transition and discontinuities in the distribution functions of molecules. J. E. Mayer. *J Chem Phys* 16:665-8 J1 '48

Relation of the physical properties of the isomeric alkanes to molecular structure; surface tension, specific dispersion, and critical solution temperature in aniline. H. Wiener. *bibliog J Phys & Colloid Chem* 52:1082-9 Je '48

Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of fluorocarbonyl (CHF_3) from 2.4 μ to 0.7 μ . H. J. Bernstein and G. Herzberg. *il diags J Chem Phys* 16: 30-9 Ja '48

Second-order corrections to quadrupole effects in molecules. J. Bardeen and C. H. Townes. *Phys R* 73:627-9 Mr 15 '48; Correction. 73:1204 My 15 '48

Size, shape, and charge distribution of protein molecules; abstract. J. L. Oncley. *Science* 106:509-10 N 28 '47

Stability of systems containing a light positive particle. A. Ore. *bibliog Phys R* 73: 1313-17 Je 1 '48

Stark effect in diatomic molecules. W. A. Nierenberg and others. *bibliog Phys R* 73: 1430-3 Je 15 '48

Steric effects; general equations; application to *cis*- and *trans*-2 butene. T. L. Hill. *bibliog J Chem Phys* 16:938-49 O '48

Steric effects; van der Waals potential energy curves. T. L. Hill. *bibliog J Chem Phys* 16:399-404 Ap '48

Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel. *bibliog il diags J Chem Phys* 16:372-80 Ap '48

MOLECULES—Continued

- Structure of certain polysulphides and sulphonyl sulphides; a preliminary X-ray survey. I. M. Dawson, A. M. Mathieson and J. M. Robertson. *Chem Soc J* p822-3 Mr '48
- Studies in steroid metabolism; the characterization of carbonyl and other functional groups in steroids by infrared spectrometry. R. N. Jones and others. *bibliog Am Chem Soc J* 70:2024-34 Je '48
- Symposium on color and the electronic structure of complex molecules; dedicated to the memory of Gilbert Newton Lewis. *bibliog diags Chem R* 41:199-419 O '47
- Thermodynamics and molecular structure of cyclopentane. J. E. Kilpatrick, K. S. Pitzer and R. Spitzer. *bibliog Am Chem Soc J* 69:2483-8 O '47
- Trajectories of heavy molecules in air. R. B. Jacobs and S. F. Kapff. *diags Ind & Eng Chem* 40:842-6 My '48
- Transport properties for non-polar gases. J. O. Hirschfelder and others. *J Chem Phys* 16:968-81 O '48
- Ultrasonic investigation of molecular properties of liquids; the alcohols. A. Weissler. *bibliog diags Am Chem Soc J* 70:1634-40 Ap '48
- Volume effect in coiling molecules. R. Simha. *bibliog J Res Nat Bur Stand* 40:21-3 Ja '48
- See also*
- | | |
|-----------------|---------------------------|
| Atoms | Molecular rearrange-ments |
| Chemical bonds | Molecular weights |
| Crystallography | Polymers |
| Isomerism | Stereochemistry |
- Models**
- Metallic model for the spectra of conjugated polyenes. N. S. Bayliss. *bibliog diags J Chem Phys* 16:287-92 Ap '48
- Structural molecular models. J. A. Campbell. *il J Chem Educ* 25:200-3 Ap '48
- Rotation**
- Application of the method of molecular rotation differences to steroids; optical anomalies. D. H. R. Barton and J. D. Cox. *bibliog Chem Soc J* p783-93 Je '48
- Coupling of electron spins in rotating polyatomic molecules. R. S. Henderson and J. H. Van Vleck. *Phys R* 74:106-7 Jl 1 '48
- Dipole moments and internal rotation in some substituted hydrocarbons. E. A. Oriani and C. P. Smyth. *bibliog J Chem Phys* 16:930 S '48
- Electric quadrupole coupling of the nuclear spin with the rotation of a polar diatomic molecule in an external electric field. U. Fano. *bibliog J Res Nat Bur Stand* 40:215-23 Mr '48
- Gas heat capacity and internal rotation in 1,2-dichloroethane and 1,2-dibromoethane. W. D. Gwinn and K. S. Pitzer. *bibliog J Chem Phys* 16:303-9 Ap '48
- Interaction of nuclear electric quadrupole moments with molecular rotation in asymmetric-top molecules. J. K. Bragg. *Phys R* 74:533-8 S 1 '48
- Internal molecular motions of large amplitude illustrated by the symmetrical vibration of ammonia. R. R. Newton and L. H. Thomas. *bibliog J Chem Phys* 16:310-23 Ap '48
- Magnetic field of a rotating molecule. G. C. Wick. *bibliog Phys R* 73:51-7 Ja 1 '48
- Microwave molecular spectroscopy. D. K. Coles. *bibliog diags Elec Eng* 67:735-40 Ag '48
- Origin of the potential barrier hindering rotation in ethane and related substances. E. N. Lassetre and L. B. Dean, jr. *bibliog J Chem Phys* 16:151-2 F '48; *Correction*. 16:553 My '48
- Restricted bond rotation and shape of unbranched saturated hydrocarbon chain molecules. H. Kuhn. *bibliog J Chem Phys* 15:843-4 N '47
- Statistical mechanics of multimolecular adsorption; the statistical analog of the BET constant $a/b/b_0$; hindered rotation of a symmetrical diatomic molecule near a surface. T. L. Hill. *bibliog J Chem Phys* 16:181-9 Mr '48
- Thermodynamic properties of the internal rotator; double minimum with attractive forces. J. O. Halford. *J Chem Phys* 16:560-4 Je '48
- Thermodynamic properties of the internal rotator; double minimum with repulsive forces. J. O. Halford. *J Chem Phys* 16:410-19 Ap '48
- Thermodynamics of hexafluoroethane from calorimetric and spectroscopic data. E. L. Pace and J. G. Aston. *bibliog Am Chem Soc J* 70:566-70 F '48
- Tri- α -naphthylboron as a highly hindered reference acid; a case of polymorphism ascribed to hindered rotation. H. C. Brown and S. Sujishi. *il diags Am Chem Soc J* 70:2793-802 Ag '48
- Twisting frequency and the barrier height for free rotation in ethylene. R. S. Mulliken and C. C. J. Roothaan. *bibliog Chem R* 41:219-31 O '47
- Size**
- Average length and radius of normal paraffin hydrocarbon molecules. W. J. Taylor. *bibliog diags J Chem Phys* 16:257-67 Ap '48
- Radiation chemistry; effect of molecular size. M. Burton. *bibliog J Phys & Colloid Chem* 52:810-19 My '48
- Restricted bond rotation and shape of unbranched saturated hydrocarbon chain molecules. H. Kuhn. *bibliog J Chem Phys* 15:843-4 N '47
- Vibration**
- Analysis of the vibrations of benzene derivatives; the class A₁ carbon vibrations of toluene. A. R. Choppin and C. H. Smith. *bibliog Am Chem Soc J* 70:2520-3 Jl '48
- Calculation of perturbation energies in vibrating rotating polyatomic molecules. R. C. Herman and W. H. Shaffer. *bibliog diags J Chem Phys* 16:453-65 My '48
- Excited states of benzene. F. M. Garforth and others. *diags Chem Soc J* p406-517 Ap '48
- Force constants for some halomethanes. J. C. Decius. *bibliog diags J Chem Phys* 16:214-23 Mr '48
- A form of the secular equation for molecular vibrations. E. B. Wilson, jr. *bibliog J Chem Phys* 15:736-8 O '47
- Infra-red absorption spectrum and vibrational frequency assignment of ketene. W. R. Harp, jr. and R. S. Rasmussen. *bibliog J Chem Phys* 15:778-85 N '47
- Internal molecular motions of large amplitude illustrated by the symmetrical vibration of ammonia. R. R. Newton and L. H. Thomas. *bibliog J Chem Phys* 16:310-23 Ap '48
- Molecular interaction and infra-red absorption spectra; methyl alcohol and phenol. M. Davies. *bibliog J Chem Phys* 16:267-79 Ap '48
- Molecular orbital calculations of vibrational force constants; ethylene. R. G. Parr and B. L. Crawford, jr. *bibliog J Chem Phys* 16:526-32 My '48
- Symmetry matrices in normal coordinate analysis. J. E. Kilpatrick. *bibliog J Chem Phys* 16:749-57 Ag '48
- Tabulation of general formulas for inverse kinetic energy matrix elements in acyclic molecules. J. C. Decius. *bibliog J Chem Phys* 16:1025-34 N '48
- Vibrational spectra of molecules and complex ions in crystals; general theory. D. R. Hornig. *bibliog J Chem Phys* 16:1063-76 N '48
- Vibrational spectrum and thermodynamic functions of acrylonitrile. F. Halverson and others. *bibliog il diags J Chem Phys* 16:808-16 Ag '48
- MOLLIER diagrams**
- Practical applications of the Mollier diagram. W. Heidecker. *flow diags diags Power Pl Eng* 51:88-90 Jl; 94 Ag; 88-9, 100 S; 90-1 O; 94-5 N; 92-3 D '47
- Table and Mollier chart of the thermodynamic properties of 1,3-butadiene. C. H. Meyers and others. *bibliog fold chart J Res Nat Bur Stand* 53:507-21 D '47
- MOLLUSKS, Fossil**
- Invertebrates of the Blancan. A. B. Leonard. *Geol Soc Bul* 59:589-91 Je '48

MOLOTOV, Vĭacheslav Mikhailovich, 1890-
Economic brain trust of Soviet Russia. por
Bsns W p22-4 My 15 '48

MOLTEN iron. See Iron, Molten

MOLTEN steel. See Steel, Molten

MOLYBDATES

Analysis

Microdetermination of alkaline earths as normal molybdates. R. Moser and R. J. Robinson. bibliog Anal Chem 19:929-30 N '47

MOLYBDENITE

Boy Scout-Jones and Moss-Richardson molybdenum deposits, Halifax county, N.C. A. F. Robertson and others. 15pls U S Bur Mines Rep of Invest 4156:1-9 '47

La Corne mine producing molybdenite concentrate and metallic bismuth. W. M. Bonham. flow sheet il diag Can Min J 68:881-4 D '47

MOLYBDENUM

Abnormal creep in carbon steels; effect of manganese, silicon and molybdenum. J. Glen. il Iron & Steel Inst J 155:501-12 Ap '47; Discussion. 157:579-86 D '47

Concreting practice at Climax. R. Henderson. il diags Min Cong J 34:37-40 S '48

Deoxidation control by fractography. G. C. Woodside. il Iron Age 160:78-9 D 4 '47

Effect of manganese and molybdenum on the microstructure and mechanical properties of low-alloy ferritic weld metal. W. G. Benz, jr. diags Welding J 26:sup742-8 D '47

Les métaux rares; molybdène et vanadium; existence possible de leurs minerais en France. V. Charrin. Chimie & Ind 58:608-10 D '47

Molybdenum. R. Sci Instr 18:934-5 D '47

Molybdenum deficiency in serpentine barren soils. R. B. Walker. bibliog Science 108: 473-5 O 29 '48

Molybdenum in relation to pasture improvement in South Australia; abstract. A. J. Anderson. Food Ind 19:1599 N '47

Molybdenum, 1947. H. W. Davis. Eng & Min J 149:92 F '48

Rare metals utilized in increasing quantities. Barron's 28:29 Ag 30 '48

Studies of the molybdenum nutrition of plants with radioactive molybdenum. P. R. Stout and W. R. Meagher. bibliog il Science 108:471-3 O 29 '48

These new metals challenge old stand-bys; titanium, zirconium, molybdenum are 100 per cent American. il Mod Ind 15:50-3 Je '48

Analysis

Estimation of molybdenum in iron and steel, using a simple photometer. E. J. Ronnie. diags Metallurgia 33:235-6 Ag '48

Isotopes

Characterization of Tc activities produced by deuteron bombardment of separated Mo isotopes. E. E. Motta and G. E. Boyd. bibliog Phys R 74:220-2 Jl 15 '48

Production of new Tc activities from separated Mo isotopes. E. E. Motta and G. E. Boyd. Phys R 73:1470-2 Je 15 '48

Radiations from molybdenum (99) and technetium (99). C. E. Mandeville and M. V. Scherb. bibliog Phys R 73:848-52 Ap 15 '48

Metallography

Fractographic study of cast molybdenum. C. A. Zapffe and others. bibliog il Metals Tech 15:TP2421 1-21 Ag '48

Transgranular cleavage facets in cast molybdenum. C. A. Zapffe and others. il Metal Prog 54:328-31 S '48

Protection

High-temperature ceramic coatings for molybdenum. W. N. Harrison. S A E J 56: 47-8 Je '48

Preliminary study of ceramic coatings for the high-temperature protection of molybdenum; abstract. D. G. Moore and others. Cer Ind 50:83 My '48

MOLYBDENUM alloys

Cast nickel-molybdenum and nickel-molybdenum-chromium alloys for severe corrosion services. W. A. Luce. il Chem Eng Prog 44:453-7; Discussion. 457-8 Je '48

Mechanism for rapid oxidation of high temperature-high strength alloys that contain molybdenum. M. G. Fontana. il Ind & Eng Chem 40:sup 103A-4A Je '48

Oxidation of high-temperature alloys containing molybdenum; abstract. W. C. Leslie and M. G. Fontana. Metal Prog 54: 518+ O '48

MOLYBDENUM blue

Determination of phosphorus, germanium, silicon, and arsenic by the heteropoly blue method. D. F. Boltz and M. G. Mellon. bibliog Anal Chem 19:873-7 N '47

Glucose; direct colorimetric method for determining carbohydrates. G. H. Benham and J. E. Despaul. bibliog Anal Chem 20: 933-5 O '48

Molybdenum blue reaction. D. F. Clausen and J. H. Shroyer. bibliog Anal Chem 20: 925-6 O '48

MOLYBDENUM compounds

Crystal structures of ammonium and potassium molybdatellurates. H. T. Evans, jr. Am Chem Soc J 70:1291-2 Mr '48

Salts of an aquamolybdomolybdic acid. G. W. Watt and D. D. Davies. Am Chem Soc J 70:2041-3 Je '48

MOLYBDENUM oxides

Chemical and physical properties of alumina-molybdenum oxide catalysts for hydroforming. G. M. Webb and others. bibliog Pet Processing 2:834-40+ N '47

Heat stability of molybdena-alumina dehydrocyclization catalysts. A. S. Russell and J. J. Stokes, jr. Ind & Eng Chem 40:520-4 Mr '48

Preparation of phosphomolybdic acid from phosphoric acid and molybdic trioxide. T. J. Hastings, jr. and H. A. Frediani. bibliog Anal Chem 20:382-3 Ap '48

MOLYBDENUM plating

Plating molybdenum, tungsten and chromium by thermal decomposition of their carbonyls. J. J. Lander and L. H. Germer. diag Engineer 184:601 D 26 '47

MOLYBDENUM steel

Creep properties of molybdenum, chromium-molybdenum, and molybdenum-vanadium steels. J. Glen. bibliog Iron & Steel Inst J 153:37-80 Ja '48

Graphitization of low-carbon low-alloy steel; an appraisal of the literature. G. V. Smith. bibliog Welding J 27:sup277-84 Je '48

Spheroidization of molybdenum steel in high temperature service. R. F. Miller and others. il Metal Prog 53:83-6 Mr '48

Testing

Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel. S. H. Weaver. Am Soc T M Proc 46:856-66; Discussion. 867-9 '46

Effect of manganese on the properties of cast carbon and carbon-molybdenum steels. N. A. Ziegler and others. il diags Am Soc for Metals Trans 38:398-434 bibliog(106 titles, p429-34); Discussion. 434-6 '47

MOLYBDENUM sulfide

Heat-resisting lubricants; molybdenum sulphide and boron nitride. G. L. Sumner. Mech Eng 70:30-1 Ja '48

MOLYBDENUM vanadium steel

Creep properties of molybdenum, chromium-molybdenum, and molybdenum-vanadium steels. J. Glen. bibliog Iron & Steel Inst J 153:37-80 Ja '48

MOLYBDIPHOSPHORIC acid. See Phosphomolybdic acid

MOMENTS of inertia

Determining moment of inertia. C. E. Crede. diag Machine Design 20:138 Ag '48

Moment of inertia of CF₃CH₃. W. F. Edgell and A. Roberts. bibliog J Chem Phys 16:1002 O '48

Rectangles; area and moments of inertia; chart. S. Alexeeff. Aero Digest 56:80 Je '48

Solutions of beams with abrupt (step) variations in moment of inertia. S. F. Borg. Western Soc E J 53:84-5 Je '48

MONAZITE

Pilot plant production of rare earth hydroxides and thorium oxalate from monazite. R. W. Urie. flow diags Soc Chem Ind J 66:437-9 D '47

MONAZITE—Continued

Production of rare earth and thorium compounds from monazite. E. S. Pilkington and A. W. Wylie, bibliog *il Soc Chem Ind J* 66:387-94 N '47

Analysis

Thorium in monazite sand; separation and determination by precipitation from homogeneous solution. H. H. Willard and L. Gordon, bibliog *Anal Chem* 20:165-9 F '48

MONEL metal

Grinding, polishing and buffing of monel; tabulation; engineering file facts. E. Rosen, *Materials & Methods* 27:107 Je '48

Hue variations caused by monel metal; pyrazol orange GH 225. *Soc Dyers & Col J* 64:252+ J1 '48

Nickel alloys in pulp and paper making. R. T. Barnes, Jr. and K. H. J. Clarke, *Pulp & Pa of Can* 49:69-73 Ap '48

Pickling monel metal; tabulation; engineering file facts. E. Rosen and G. Black, *Materials & Methods* 27:105 Je '48

Use of monel in iron and steel pickling equipment. *Iron Age* 162:82 O 21 '48

Testing

Influence of strain rate and temperature on the mechanical properties of monel metal and copper. D. J. McAdam, Jr. and others. *il Am Soc T M Proc* 46:902-50 bibliog(p917-18) '46

MONEY

Fire that rings the world. *il Fortune* 37:78-81+ Ap '48

Monetary policy and the elasticity of liquidity functions. W. Fellner, *R Econ & Stat* 30:42-4 F '48

See also

Banks and banking	Income tax—Blocked
Capital	money income
Credit	Inflation (finance)
Finance	Investments
Foreign exchange	Paper money
Gold as money	Prices
Hoarding	Silver as money

Commodity reserve standard

International commodity reserve standard reconsidered. A. Rosenson, bibliog *R Econ & Stat* 30:135-40 My '48

Devaluation

Devaluation magic no world cure-all. *Barron's* 28:1+ My 31 '48

Devaluation of the French franc. *Nat City Bank* p 18-21 F '48

Explains International monetary fund's position on currency devaluation in ERP countries; letter to Congressman J. D. Lodge. J. W. Snyder, *Comm & Fin Chr* 167:1010+ Mr 4 '48

Franc devalued. *Economist* 154:191-2 Ja 31 '48; Same *abr. Iron Age* 161:106-7 F 12 '48

France and the monetary fund. R. Mosse, *Comm & Fin Chr* 168:705+ Ag 19 '48

French franc devalued; texts of French communiqué, joint Anglo-French statement and statement of International monetary fund. R. Mayer, *Comm & Fin Chr* 167:502-3 Ja 29 '48

Is devaluation out of fashion? P. Einzig, *Banking* 40:42-3+ My '48

Mexico devalues the peso. V. L. Horoth, *Mag of Wall St* 82:531-3+ Ag 28 '48

Pound's devaluation some distance away; falling exports will be signal when time is at hand. R. M. Bieberg, *Barron's* 28:38 Ap 12 '48

South Africa's currency may be devalued in 1948. P. Wohl, *Barron's* 28:9 Je 28 '48

Sterling devaluation. P. Einzig, *Comm & Fin Chr* 166:1957; 167:21, 508, 2421 N 13 '47, Ja 1, 29, Je 3 '48

International aspects

International commodity reserve standard reconsidered. A. Rosenson, bibliog *R Econ & Stat* 30:135-40 My '48

Political distortions in international monetary relations; abstract. J. P. Nichols, *Science* 107:585-6 Je 4 '48

Sterling area. *Economist* 154:699-700, 751-2 My 1-8 '48

Sterling area's characteristics change under world-stresses. C. L. Wood, *For Comm W* 32:3-7+ Ag 7 '48

What is the sterling area? *Fortune* 38:2 J1 '48

See also

Bank for international settlements

Photographic reproduction

Banks may Recordak currency for protection. B. Dunn, *Bankers Mo* 64:580 D '47

Redemption

One-half of a two-dollar bill may be worth \$1 or \$2; regulations regarding redemption of mutilated currency. *Bankers Mo* 65:26+ Ap '48

Statistics

Banking assets and the money supply since 1929. M. A. Copeland and D. H. Brill, *Fed Res Bul* 34:24-32 Ja '48

Austria

Austrian currency reform and wage-price stabilization. *Mo Labor R* 67:45-7 J1 '48

Currency reform and capital levy. *For Comm W* 30:9 Ja 24 '48

China

China tries again. *Economist* 155:350 Ag 28 '48

China's hope; new money. *il Bsns W* p 126+ S 11 '48

China's new currency. *Economist* 155:631 O 16 '48

New financial and economic reforms introduced; issuance of a new currency. *For Comm W* 32:12 S 11 '48

Rally in China; currency reform. *Economist* 155:404 S 11 '48; Same, *Iron Age* 162:122 S 23 '48

Silver currency for China. *Economist* 154:986 Je 12 '48

See also

Gold as money—China

Colombia

Coinage in Colombia; silver coins. *For Comm W* 30:26 Ja 31 '48

Europe

European currency reform essential to Marshall plan success. V. C. Smith, *Comm & Fin Chr* 167:6+ Ja 1 '48

Explains International monetary fund's position on currency devaluation in ERP countries; letter to Congressman J. D. Lodge. J. W. Snyder, *Comm & Fin Chr* 167:1010+ Mr 4 '48

Redeemable currency; only means of European recovery. W. Chamberlain, *Comm & Fin Chr* 168:97+ J1 8 '48

France

Devaluation of the franc. R. Leon, *Comm & Fin Chr* 167:701+ F 12 '48

Devaluation of the French franc. *Nat City Bank* p 18-21 F '48

Franc crisis and International monetary fund. E. H. Weinwurm, *Comm & Fin Chr* 167:600+ F 5 '48

Franc devaluation; monetary fund and the export franc. *Economist* 154:146-7 Ja 24 '48

Franc devalued. *Economist* 154:191-2 Ja 31 '48; Same *abr. Iron Age* 161:106-7 F 12 '48

France adjusts franc to reality; shocks those who still want to pretend. *Barron's* 28:10 F 2 '48

France and the monetary fund. R. Mosse, *Comm & Fin Chr* 168:705+ Ag 19 '48

France; the free gold market and the blocking of franc notes. R. Felsette, *Comm & Fin Chr* 167:1522+ Ap 8 '48

French chamber of commerce of U.S. explains franc devaluation. *Comm & Fin Chr* 167:1116-17 Mr 11 '48

French franc devalued; texts of French communiqué, joint Anglo-French statement and statement of International monetary fund. R. Mayer, *Comm & Fin Chr* 167:502-3 Ja 29 '48

New revaluation of French franc. *For Comm W* 33:17 O 30 '48

Realignement of the franc. P. Einzig, *Comm & Fin Chr* 168:1855 N 4 '48

Sliding franc. *Economist* 155:673-4 O 23 '48

MONEY—France—Continued

What franc devaluation means to U.S. business. *Bsns W* p23 Ja 31 '48

Germany

Authorization of Bank of the German states to issue notes and coins; text. *Fed Res Bul* 34:1101-2 S '48

Business in Bizonia; western Germany trying to develop one of Europe's few free economies. *G. Burck. Il Fortune* 33:114-19+ S '48

Currency reform. *For Comm W* 32:20-1 Ag 7 '48

Currency reform in Germany; can planners plan? *M. J. Bonn. Comm & Fin Chr* 168:1097+ S 16 '48

Currency reform to bolster German economy. *Il Bsns W* p78-4 Jl 3 '48

Deutschmark; currency reform. *Economist* 154:1072-3 Je 26 '48

German currency in the darkroom. *Fortune* 33:3-4 Ag '48

German monetary disintegration and reform possibilities. *F. H. Klopstock. Comm & Fin Chr* 167:993+ Mr 4 '48

New German marks pay off. *Il Bsns W* p 120-2 O 16 '48

Stymying Germany by monetary and fiscal methods; recent currency reform. *M. Palyi. Comm & Fin Chr* 168:1637+ O 21 '48

Great Britain

Banks' coin holdings. *Economist* 154:395-6 Mr 6 '48

Christmas currency demands; with comparisons, 1930-1947. *Economist* 154:33 Ja 3 '48

The City is a citadel of free trade, of sound money, of confidence. *Fortune* 37:124-5 Ap '48

Coinage in 1947. *Economist* 154:945 Je 5 '48

Patterns in money. *Economist* 154:104-6 Ja 17 '48

Pound's devaluation some distance away; falling exports will be signal when time is at hand. *R. M. Bleiberg. Barron's* 28:38 Ap 12 '48

Should pound be devalued? *P. Cortney. Comm & Fin Chr* 167:1309+ Mr 25 '48

Sterling devaluation. *P. Einzig. Comm & Fin Chr* 166:1957; 167:21, 508, 2421 N 13 '47, Ja 1, 29, Je 3 '48

India

Pakistan monetary system and reserve-bank order. *For Comm W* 29:18 N 15 '47

Italy

Hard money in Italy. *Economist* 153:738-9 N 1 '47

Strengthening lira. *Economist* 153:1018-19 D 20 '47

Japan

Exchange tangle hurts Japan; lack of official yen-dollar rate hampers trade relations. *Bsns W* p 121-2 Ap 17 '48

Mexico

Mexico devalues. *Economist* 155:198-9 Jl 31 '48

Mexico devalues the peso. *V. L. Horoth. Mag of Wall St* 82:531-3+ Ag 28 '48

New Zealand

New Zealand pound; effects of new exchange rate. *Economist* 155:584-6 O 9 '48

Revaluation of New Zealand pound. *P. Einzig. Comm & Fin Chr* 168:1111 S 16 '48

Pakistan

Issue of new coins and currency. *For Comm W* 31:27 Je 19 '48

Palestine

Israel's new currency. *For Comm W* 33:26-7 O 2 '48

Russia

Currency reform in the USSR. *P. A. Baran. Harvard Bsns R* 26:194-206 Mr '48

South Africa

South Africa's currency may be devalued in 1948. *P. Wohl. Barron's* 28:9 Je 28 '48

Spain

Revised exchange-control regulations affecting persons entering or leaving Spain. *For Comm W* 30:22 Ja 31; 31:19 Ap 10 '48

United States

Banking developments and monetary expansion. *Fed Res Bul* 33:1341-52 N '47

Departure from sound money threatens economic disaster. *J. H. Frost. Comm & Fin Chr* 167:2315+ My 27 '48

Dollar standard. *Fortune* 37:2-4 Ap '48

Federal reserve bank of New York sees reduced currency hoarding. *Comm & Fin Chr* 168:219 Jl 15 '48

How sound is the dollar? *Fortune* 37:84-8+ Ap '48

Is soundness of the dollar affected? address before Mortgage bankers association of America. *W. E. Spahr. Comm & Fin Chr* 167:485+ Ja 29 '48

Monetary statistics, 1941-1946. Survey of Cur Bsns 1947 Sup p84-6 [supplemented in monthly numbers]

Money is no mystery. *T. I. Parkinson. Comm & Fin Chr* 165:601+ Ag 12 '48

New money for old; hot or cold? coming currency change; a recoloring or a recall? *J. J. Quinn. Comm & Fin Chr* 166:2160+ N 27 '47

Our monetary and credit problems; address at annual stockholders meeting, Federal home loan bank of New York. *M. S. Szymczak. Comm & Fin Chr* 167:494+ Ja 29 '48

Proposes a new U.S. currency to reveal hoarding. *F. L. Sundstrom. Comm & Fin Chr* 167:614 F 5 '48

Sound money is good politics. *T. I. Parkinson. Comm & Fin Chr* 167:1649+ Ap 15 '48

Today's no. 1 problem; the depreciation of our currency. *W. E. Spahr. Comm & Fin Chr* 167:738+ F 19 '48

Treasury surplus, bank reserves, and the money supply in the first quarter of 1948. *Fed Res Bul* 34:487-96 My '48; Same. *Comm & Fin Chr* 167:2310+ My 27 '48

What is sound money? *P. M. McKenna. Comm & Fin Chr* 168:1002+ S 9 '48

See also

Federal reserve bank notes

United States—Mint

MONEY, Counterfeit. See Counterfeits and counterfeiting

MONEY, Mutilated. See Money—Redemption

MONEY and securities insurance. See Insurance, Money and securities

MONEY market

Current money market. *D. S. Thompson. Comm & Fin Chr* 167:1873+ Ap 29 '48

Whose money market? problem of government control. *R. Rodgers. Comm & Fin Chr* 167:1314+ Mr 25 '48

MONEY orders. See Postal service—Money orders

MONEY raising campaigns

Alma mater asks for \$2 billion. *Il Fortune* 37:102-5+ F '48

MONEY rates. See Interest

MONGOLIA

See also

Railroads—Mongolia

MONNET plan. See France—Industries and resources

MONOCHLOROMONOBROMOMETHANE. See Bromochloromethane

MONOLAYERS. See Films

MONOMOLECULAR films. See Films

MONON. See Chicago, Indianapolis and Louisville railway

MONONGAHELA power company

Community builders; case history of an electric company. *A. C. Spurr. Edison Elec Inst Bul* 16:3-6+ Ja '48

MONOPOLIES

Anti-trust violations charged to R.E.A. *Ry Age* 125:605-6 S 25 '48

Cellophane, shoe machinery monopolies charged. *Bsns W* p21 D 20 '47

FTC orders brick makers to end monopoly practices. *Eng N* 140:983+ Je 17 '48

Housing investigators hear charges of monopoly in N.Y.C. construction. *Eng N* 139:707 N 20 '47

Light on the lamp ring; Electrical lamp manufacturers' association. *Economist* 154:730+ My 1 '48

Monopoly bill; abstract. *H. Wilson. Chem Age (Lond)* 58:625 My 1 '48

MONOPOLIES—Continued

- Monopoly bill; criticism of the Electric lamp manufacturers' association. *Elec R* (Lond) 142:659 Ap 30 '48
- Monopoly, patent and invention. A. E. Macrae. *Can Chem & Process Ind* 32:725-8 Ag '48
- Offensive against monopoly; Monopoly (inquiry and control) bill. *Economist* 154:574-5 Ap 10 '48
- Probe for monopolies. *Economist* 154:444-5 Mr 20 '48
- Problem of monopoly in moving picture industry. R. A. Brady. *Ann Am Acad* 254:125-36 N '47
- Senate group enlarges scope of economic probe; developing into study of monopoly control and trust law enforcement. *Steel* 122:59-61 Je 14 '48
- See also*
- Trusts, Industrial

MONORAIL conveyors

- Barrel switch solves conveyor problem; transferring racks of ten cranks shafts at Kaiser-Frazer. F. W. Scoones. *il diags Am Mach* 92:108-9 Je 3 '48
- Monorail raises production of screw machines. M. M. Roberts. *il Factory Management* 106:75 Ap '48
- Monorail shows 80 percent time saving; shop of A. Munder & son. *il Sheet Metal Worker* 38:72 D '47
- Monorail system moves 32 tons of material per hour. *diags Mill & Factory* 42:112 My '48
- Overhead carrier system streamlines material flow at J & L's wire plant. *il diags Steel* 122:92+ Ap 19 '48
- Overhead handling system speeds foundry operations; Terre Haute malleable & mfg. corp. F. A. Westbrook. *il plan Foundry* 76:218-19 Mr '48
- Overhead system knocks 31 hours off a 36 hour foundry job. *il Mill & Factory* 42:127 Ap '48
- Typical trolley conveyor system components; drawings. S. Reibel. *Product Eng* 18:116-17 D '47

MONOSODIUM glutamate. See Sodium glutamate**MONSANTO chemical company**

- Monsanto seeks new money. *il Bsns W* p94+ D 13 '47
- Offering of preference stock. *Comm & Fin Chr* 167:748 F 16 '48
- Ten potential market leaders for 1948. *Mag of Wall St* 81:404 Ja 17 '48
- Texas City and its industries rebuild. *il Bsns W* p42+ Ap 17 '48

MONSANTO chemicals, limited

- Statement by the chairman. L. F. Nickell. *Economist* 154:742 My 1 '48

MONSON, Claude Niels, 1905-

- Portrait. *Bsns W* p25 N 1 '47

MONTANA

See also

Hydroelectric plants
—Montana

Industries and resources

- Montana's production; a statistical summary of the state's industries, 1930-1947. R. J. W. Ely. (Bul. no. 11) 60p pa 50c Montana state univ. Bur. of business research, Missoula, Mont.

MONTANA-DAKOTA utilities company

- Common stock offered. *Comm & Fin Chr* 167:2639 Je 21 '48

MONTANA university

- Petroleum engineering schools; Montana school of mines. *il Oil & Gas J* 46:67 Mr 4 '48

MONTGOMERY Ward and company

- Avery holds the fort. *Bsns W* p24 Je 26 '48
- Avery still boss. *Bsns W* p98 Je 19 '48
- Avery wins; stock falls on fear that Ward lost. *Barron's* 28:4 Je 21 '48
- Avery yields. *Bsns W* p92 My 29 '48
- Diversified stake in merchandise shares. G. W. Mathis. *Mag of Wall St* 82:236 Je 5 '48
- Sears' working capital less on sales than Ward's. *Barron's* 28:33 My 3 '48
- Stocks cheaper than during prewar depression. F. H. Rosenstiel. *Comm & Fin Chr* 167:931 F 26 '48

MONTREAL

See also

Motor bus lines—
Montreal

Streets

- Measures for traffic relief on Montreal Island. G. A. McNamee. *Roads & Bridges* 86:75+ D '47

Water supply

- Reinforced concrete pressure pipe manufactured on two levels; prestressed pipe for Montreal water system. M. W. Loving. *il Rock Prod* 51:158-62+ F '48

MONTROSE, Colorado**Streets**

- Expediting paving and drainage by force account. R. E. Edmondson. *il Pub Works* 79:29+ Ap '48

MONUMENTS

- Jefferson national expansion memorial competition; prize winning designs. *il plans Arch Forum* 88:14-16B Mr '48

MOON

- Considerations of moon-relay communication. D. D. Grieg and others. *bibliog il diags Inst Radio Eng Proc* 36:652-63 My '48
- Possible influence of the moon on recurrent geomagnetic activity. O. R. Wulf and S. B. Nicholson. *Phys R* 73:1204-5 My 15 '48
- Projection of artificial meteor trails on the moon. J. C. Bartlett, Jr. *Science* 107:141-2 F 6 '48

MOONEY, William Leonard, 1874-1948

- Sketch. *por East Underw* 49:26 O 29 '48; *Nat Underw* 52:21 O 28 '48

MOORE, James

- Retail personalities. *Textile Col* 70:40 My '48

MORAL rearmament movement

- Newsman participate in MRA conference. *Ed & Pub* 61:64 O 16 '48

MORAN, James

- Man who sold an ice box to an Eskimo; Jim Moran. F. C. Othman. *Adv & Sell* 41:37+ Je '48

MORGAN, J. P., and company

- Annual statement to stockholders. G. Whitney. *Comm & Fin Chr* 167:485+ Ja 29 '48

MORGAN, John Pierpont, 1837-1913

- Masters of money; Morgans. *por Fortune* 37:96-7 Ap '48

MOROCCO

See also

Petroleum—Morocco
Petroleum industry
and trade—Morocco

Antiquities

- Prehistoric archaeology of the Tangier zone, Morocco; abstract. H. Hencken. *Science* 107:585 Je 4 '48

Commerce

- Spanish Morocco; general review of trade position. *For Comm W* 31:17 Je 12 '48

MORPHINE

- Hydroxyethylmorphine. W. W. Carlson and L. H. Cretcher. *Am Chem Soc J* 70:2284 Je '48

- Morphine studies; 2-(2',3'-dimethoxyphenyl)-2-(6-ethoxyethyl)-cyclohexanone. E. C. Horning, M. G. Horning and E. J. Platt. *Am Chem Soc J* 70:2072-5 Je '48

- Morphine studies; 2-keto-7-methoxy-2,3-dihydrobenzofuran derivatives. E. C. Horning and R. U. Schock, Jr. *Am Chem Soc J* 70:2941-4 S '48

- Morphine studies; tetralin analogs. E. C. Horning and R. U. Schock, Jr. *bibliog Am Chem Soc J* 70:2945-9 S '48

- Morphine studies; the phenanthrene unit. E. C. Horning, M. G. Horning and E. J. Platt. *bibliog Am Chem Soc J* 69:2929-32 D '47

- Synthesis of ring systems related to morphine; 9,10-dioxo-13-cyanomethyl-5,8,9,10,13,14-hexahydrophenanthrene. M. Gates and W. F. Newhall. *Am Chem Soc J* 70:2261-3 Je '48

Physiological effect

- Effect of morphine addiction on blood, plasma, and extra-cellular fluid volumes in man. H. Isbell. *bibliog Pub Health Rep* 62:1499-513 O 17 '47

MORPHOLINIUM compounds

Symmetrical morpholinium alkyl sulfates. J. B. Niederl, H. W. Salzberg and J. J. Shatynski. *Am Chem Soc J* 70:618 F '48

MORRIS, Philip, and company

Annual report. *Comm & Fin Chr* 168:50 JI 5 '48

Extra work shifts. *Barron's* 28:27 JI 5 '48

Philip Morris net recovers from slump. *Barron's* 28:27 Ag 16 '48

MORRISON, Sir William Murray, 1873-1948

Aluminium pioneer. *por Chem Age (Lond)* 58:791 Je 5 '48; *Chem & Ind* p381 Je 12 '48

MORSE, David A. 1907-

Becomes director of I.L.O. *por Bsns W p* 112 Je 19 '48

MORTALITY

See also

Infant mortality

Longevity

Statistics

Births, infant mortality and maternal mortality in the United States, 1944. N. J. Brombacher. *maps W p* Health Rep 62:1555-74 O 31 '47

Cancer; no. 2 killer. W. G. Bowerman. *il maps Spectator (Life ed)* 156:28-33 O '48

Causes of mortality among employed persons (1927-1945). C. F. Schrier. *Ind Med* 17:47-51 F '48

Changes in age selection of fatal poliomyelitis. A. G. Gilliam. *bibliog Pub Health Rep* 63:877-84 My 21 '48

Death rate among policyholders at new low in 1947. *Weekly Underw* 158:1590 My 29 '48; *Nat Underw (Life ed)* 52:3 My 28 '48

Human mortality; with charts showing death rates by states. W. G. Bowerman. *Spectator (Life ed)* 155:20-5 D '47

Is diabetes mortality increasing? I. M. Moriyama. *Pub Health Rep* 63:1334-9 O 8 '48

It's highway murder; automobile fatalities in 1947. T. J. V. Cullen. *Spectator (Property ed)* 14:14-17+ O 21 '48

Mortality statistics for life insurance underwriting. E. A. Lew. *bibliog Am Stat Assn J* 43:274-89 Je '48

Negro mortality; course of mortality from specific causes, 1920-1944. M. Gover. *Pub Health Rep* 63:201-13 F 13 '48

Relationship between per capita income and mortality, in the cities of 100,000 or more population. M. E. Altenderfer. *bibliog Pub Health Rep* 62:1681-91 N 28 '47

Sampling errors in mortality and other statistics in life insurance. D. D. Cody. *bibliog Am Stat Assn J* 43:442-50 S '48

Statistical studies of heart diseases; heart diseases and allied causes of death in relation to age changes in the population. I. M. Moriyama and M. Gover. *bibliog Pub Health Rep* 63:537-45 Ap 23 '48

Statistical studies of heart diseases; important factors in heart disease mortality trend. T. W. Woolsey and I. M. Moriyama. *bibliog Pub Health Rep* 63:1247-73 S 24 '48

They call it qx; how life agents can use mortality tables; with CSO table showing deaths per 1,000. *Life Ins Courant* 53:24-7 F '48

Tuberculosis deaths in the United States by county, 1946. *Pub Health Rep* 63:1149-77 S 3 '48

Tuberculosis mortality in major cities; United States, 1945. S. A. Lewis and R. V. Kasius. *Pub Health Rep* 63:33-30 Ja 2 '48

Tuberculosis mortality in the United States, 1946. E. H. Halpin. *maps Pub Health Rep* 63:1029-45 Ag 6 '48

See also

Infant mortality—

Statistics

MORTAR

Applying cement mortar as dense as granite; Bondact process. *il Comp Air Mag* 53:115 My '48

Truly colored mortar joints; you can get them by using synthetic mixes. C. W. Moore. *Brick & Clay Rec* 113:39 Ag '48

Use of metaphosphates in refractory mortar. F. G. Herold and J. F. Burst, jr. *diags Mo U Sch Mines & Met Bul tech ser v* 18 no 2: 1-34 '47

Testing

Cement investigations for Boulder dam; results of tests on mortars up to age of ten years. R. E. Davis and others. *Am Concrete Inst J* 18:21-48 S '46; Correction. 19: 48:1-48 pt 2 D '47

Permeability of brick-mortar assemblages. J. W. McBurney and others. *bibliog diags Am Soc T M Proc* 46:1333-48; Discussion. 1349-54 '46

Relative strengths of portland cement mortar in bending under various loading conditions. J. P. Frankel. *diags Am Concrete Inst J* 20:21-32 S '48

Study of alkali-aggregate reactivity by means of mortar bar expansions. T. M. Kelly and others. *bibliog Am Concrete Inst J* 20:57-80 S '48

MORTGAGE bankers association of America

Annual convention, 34th, Cleveland, Oct. 2. *Banking* 40:64+ N '47

MORTGAGE companies

Lesson of guaranteed mortgage certificates. L. S. Posner. *Harvard Bsns R* 26:560-71 S '48

MORTGAGE conference of New York

Dissolve mortgage conference. *Nat Underw (Life ed)* 52:2 Je 25 '48; *East Underw* 49:7 Je 25 '48

MORTGAGE participation certificates

Lesson of guaranteed mortgage certificates. L. S. Posner. *Harvard Bsns R* 26:560-71 S '48

MORTGAGE redemption policies. See Insurance, Life—Mortgage redemption policies

MORTGAGES

Economic uncertainties and real estate loans. E. E. Agger. *Comm & Fin Chr* 167:2419+ Je 3 '48

Fair wage for the mortgage dollar. C. Fleetwood. *Comm & Fin Chr* 167:1754+ Ap 22 '48

Future of real estate lending. F. C. Rathje. *Comm & Fin Chr* 166:1949+ N 13 '47

How to protect mortgaged buildings from fire losses. J. E. Lane. *il Bankers Mo* 64:588+ D '47

Inflationary aspects of housing finance; statement before Joint committee on the economic report. M. S. Eccles. *Fed Res Bul* 33:1463-5 D '47

Mortgage bankers association sees federal government receding from mortgage business. *Comm & Fin Chr* 168:1015 S 9 '48

Mortgage credit for home-building tighter. R. M. Bleiberg. *Barron's* 28:7 Mr 1 '48

Mortgage debt rose sharply in 1947. J. C. Thompson. *Comm & Fin Chr* 168:915 S 2 '48

Mortgage interest rates for 1948. S. R. Wendin. *Comm & Fin Chr* 167:709+ F 12 '48

Mortgage lending outlook; summary of A.B.A. mortgage conference, Augusta, Ga. *Banking* 40:65-6 Ja '48

Mortgage lending today. N. A. Thomas. *Trusts & Estates* 56:508-9 Je '48

Mortgage loan interest. R. S. Smith. *Land Econ* 24:185-6 My '48

Need of higher interest rates for ample mortgage funds. L. D. Meredith. *East Underw* 49:14 Ap 16 '48; Same. *Weekly Underw* 158:1200 Ap 17 '48

One country bank's experience with real estate loans. G. F. Baltz. *Banking* 41:106 JI '48

Packaged mortgages gain favor in realty field. W. H. Hillyer. *Barron's* 27:39-40 D 8 '47

Ratio of mortgage loans to savings; with chart and tabulation, 1934-1947. *Banking* 40:68-9+ Je '48

Real estate; F.H.A. loan data and mortgage loans of all savings and loan associations; new non-farm mortgages recorded, 1941-1946. *Survey of Cur Bsns* 1947 Sup p34 [supplemented in monthly numbers]

Recent changes in the mortgage market. F. Kramer. *Comm & Fin Chr* 167:1001 Mr 4 '48

Renewal note as conditional payment only. *Banking Law J* 64:890-7 N '47

Save and produce; mortgage credit; A.B.A.'s anti-inflation program. *Banking* 40:38+ F '48

MORTGAGES—Continued

Status of mortgage lending; address in support of A.B.A. anti-inflation program. F. C. Rathje. *Comm & Fin Chr* 167:903-4 F 26 '48
 What banks face in mortgage lending; address before Eastern regional savings and mortgage conference of A.B.A. New York. J. M. Dodge. *Comm & Fin Chr* 167:1221-4 Mr 18 '48

See also
 Banks and banking—
 Mortgage departments
also Federal housing administration—Insured mortgage plan; Federal national mortgage association; Mortgage bankers association of America; Mortgage conference of New York

Foreclosures

Non-farm foreclosures, adjusted index, 1941-1946. Survey of Cur Bsns 1947 Sup p34 [supplemented in monthly numbers]

Law

Lesson of guaranteed mortgage certificates. L. S. Posner. *Harvard Bsns R* 26:560-71 S '48

MORTGAGES, Farm

Farm mortgage debt; total amount outstanding by states, Jan. 1, 1940 and 1947; tabulation. *Banking* 40:58 F '48
 Farm mortgage loans at commercial banks outstanding in mid-1947. P. T. Allen. *map Fed Res Bul* 33:147-82 D '47
 Farm real estate debt; with figures for 1940-1947. *map Fed Res Bul* 33:1363-5 N '47
 Lively program for country bankers; A.B.A. to study farm mortgage lending. *Banking* 40:58 N '47

MORTICIANS' liability insurance. See Insurance, Morticians' liability**MORTUARY chapels**

Mortuary for Nicholas P. Daphne of San Francisco; design by F. L. Wright. *il plan Arch Forum* 88:116-17 Ja '48

MOSQUITOES

Method of securing living mosquitoes to mounts in studies of problems concerning flight. M. Laird. *il Science* 107:656 Je 18 '48

Mosquito repellent cream; abstract. C. G. Johnson. *Soap & San Chem* 23:149 N '47

Extermination

Importance of coverage in DDT residual house spraying for control of anopheles quadrimaculatus mosquitoes. R. H. McCauley and others. *Pub Health Rep* 63:401-7 Mr 26 '48

Mosquito-control practice with DDT. J. M. Henderson. *il Eng N* 140:1034-7 Je 24 '48
 Preflooding treatments with DDT for mosquito control. C. C. Deonier and others. *bibliog Science* 107:63-4 Ja 16 '48

Production of copper arsenite. P. Miller. *flow diag il Ind & Eng Chem* 39:1521-30 N '47

Toxicity of DDT residues. R. W. Fay and others. *Soap & San Chem* 24:130-3+ Je '48

MOTELS. See Tourist camps, hostels, etc.**MOTHPROOFING preparations**

Chemical and physiological aspects of moth protection. H. Luttringhaus. *il diags Am Dyestuff Rep* 37:57-62 Ja 26 '48

Mill application of mothproofing. J. B. Billard. *Rayon* 29:127-8 S '48

Mothproofing; abstract. R. Burgess. *Chem & Ind* p284-5 My 1 '48

Mothproofing common in Swedish wool industry; abstract. J. B. Wathey. *Textile World* 98:256+ Ap '48

Mothproofing compound; Boconize. *Chem & Eng N* 26:404 F 9 '48

Mothproofing process; a sales aid. *Textile Col* 70:40+ Mr '48

New compounds raise mothproofing standards. J. B. Billard. *Rayon* 29:82-3 Jl '48

See also
 Dichlorobenzene

MOTHS

Chemical and physiological aspects of moth protection. H. Luttringhaus. *il diags Am Dyestuff Rep* 37:57-62 Ja 26 '48

MOTION

Classical equations of motion of point charges. P. Havas. *bibliog Phys R* 74:466-63 Ag 15 '48

See also
 Acceleration
 Kinematics
 Machinery, Kinematics of
 Mechanical movements
 Rotation
 Vibration
 Vortex motion

MOTION displays. *See* Show windows—Motion displays

MOTION picture engineers, Society of. *See* Society of motion picture engineers

MOTION picture research council. Organization, functions, and activities. W. F. Kelley. *Soc Motion Picture Eng J* 51:418-23 O '48

MOTION pictures. *See* Moving pictures

MOTION study

Applying time and motion study principles in design. M. E. Mundel and R. C. Howell. *diags Machine Design* 20:121-6 Ag '48

Job improvement in twelve steps; Oldsmobile. J. J. Edwards. *il Factory Management* 106:76-9 S '48

Methods-time measurement. H. B. Maynard and others. *diags Factory Management* 106:97-104 F '48

Motion study fundamentals; management data sheet. B. A. Moski, jr. *Factory Management* 106:132+ F '48

Motion study in the textile industry. A. G. Shaw. *Textile Inst J* 38:P601-6 D '47

Motion study slashes office man-hours; collating sheets for a booklet. H. Smith. *il Factory Management* 105:93 D '47

Relative efficiency of a symmetrical versus a non-symmetrical hand motion path in the performance of short run industrial operations. J. C. Edwards. (*Eng. exp. sta. ser.* 67) 36p pa. 40c Virginia polytechnic institute, Blacksburg, Va. '47

Training operatives by activity analysis. L. G. Lindahl. *il Personnel* 24:297-305 Ja '48

Work factor analysis takes stopwatches out of time study; Chicago radio plant of Motorola. T. C. Stewart. *Factory Management* 106:126-8 My '48

MOTOR boat insurance. *See* Insurance, Motor boat

MOTOR boats

Copper-sulfate distributor. S. S. Anthony. *il diags N E Water Works Assn J* 61:253-9 S '47; Same. *Water & Sewage Works* 94:343-4 S '47

See also
 Internal combustion engines, Outboard
 Motor ships

Exhibitions

Motor boat show sets new records. *il Automotive Ind* 93:42+ F 1 '48

MOTOR bus associations

Index of bus associations; U.S. and Canada. *Bus Transportation* 27:75-7 Ja '48
See also National railways bus system

MOTOR bus drivers

Boosting driver morale; Interstate passenger service, inc. F. Kane. *map Bus Transportation* 27:58-9 Jl '48

Reduced accident rates; Oklahoma railway company has developed a safety program. R. H. Snyder. *Bus Transportation* 26:61-3 D '47

Who's to blame? R. H. Snyder. *Bus Transportation* 27:66 Ag '48

Testing

Safer driver behind the wheel; physical, psychological and driving tests by Central Greyhound lines. *il Bus Transportation* 27:72-5 Je '48

Tests select safe bus drivers. *Bsns W* p63-5 My 1 '48

Training

Courtesy course puts polish on bus drivers' manners. B. Isely. *il Sales Management* 60:44-5 Je 15 '48

Education for safety. *il Bus Transportation* 27:67 Ag '48

MOTOR bus engines

- Britain's first under the floor Diesel engine. W. F. Bradley. *il* Automotive Ind 99:46 J1 1 '48
- Commercial vehicle horizontal Diesel engine. *il* Engineer 185:447 My 7 '48; Engineering 185:561-2 Je 11 '48
- Crosley export bus chassis. *il* diag Automobile Eng 38:43-6 F '48
- Design, development, and production of high-speed compression-ignition engines. S. Markland and N. Tattersall, diags *Inst Mech Eng J & Proc (Auto div pt 1)*:9-20, pl 1-4; Discussion. 20-9 '47-48
- Exhaust turbo-charging; Saurer system for transport Diesel engines. *il* diags Automobile Eng 38:3-13 Ja '48
- Foden bus chassis. *il* Automobile Eng 38:83-4 Mr '48
- International commercial motor transport exhibition. *il* diags Engineer 186:359-61, 388-9 O 8-15 '48; Engineering 166:365-7, 372 O 15 '48
- New Diesel engines highlight England's first show since 1937. W. F. Bradley. *il* diag Automotive Ind 99:30-3-1 N 1 '48
- Passenger transport chassis; review of current design. *il* plans diags Automobile Eng Extra no 37:429-72 N 20 '47
- Twin-engined power plant and rubber-air suspension system improve inter-city bus operation. M. M. Dean, diags Automotive Ind 99:32-4 Ag 1 '48
- Heaters**
- Booster heater tests. *il* Bus Transportation 27:66-7 Je '48
- Coolant heaters offer important advantages. *il* diags Diesel Power 26:46-9-1 S '48
- Lubrication**
- Examination of used engine lubricating oils. K. Hilfreich and others. bibliog 4pls diags *Inst Pet J* 34:148-208; Discussion. 208-25 Mr '48
- Manufacture**
- GMC's new engine plant now in full operation. J. Gescheim. *il* Automotive Ind 99:36-7-1 S 1 '48
- Mounting**
- Engine accessibility plus; mounting developed in Holland. *il* Bus Transportation 27:61 J1 '48
- Radiators**
- Removable radiator top. R. Bettian. *il* Bus Transportation 27:117 S '48
- Specifications**
- American gasoline engines; tabulation. Automotive Ind 98:158-67 Mr 15 '48
- Engine tune up specifications. 1948; tabulated. Bus Transportation 27:60A-60B Je '48
- 1948 motor bus engine specifications; tabulation. Bus Transportation 27:80-1 F '48
- Testing**
- Better tool; the dynamometer. E. B. Richardson. *il* Bus Transportation 26:67 D '47
- MOTOR bus industry and trade**
- Bus boom. *Bsns W* p42-4 Mr 6 '48
- Let's keep the bus industry strong. *il* Bus Transportation 27:59-65 S '48
- Manufacturers speak; situation of the bus industry as various manufacturers see it. H. E. Listman and others. Bus Transportation 27:70-6 S '48
- 1948 as bus producers see it. Bus Transportation 27:46-7 F '48
- Statistics**
- Bus producers set four new records in 1947. E. F. Theisinger. Bus Transportation 27:56-60 F '48
- Integral bus production from plants located in the United States, by months, 1940-1947; tabulation. Automotive Ind 98:997 Mr 15 '48
- Motor vehicle production in Canada, 1921-1947; 1946 Canadian motor vehicle registrations, by provinces; tabulations. Automotive Ind 98:997 Mr 15 '48

1947 U.S. exports of new trucks, buses and chassis, by tonnage rating and continental divisions; tabulation. Automotive Ind 98:123 Mr 15 '48

97 million motor vehicles produced in 48 years; tabulation. Automotive Ind 98:94 Mr 15 '48

MOTOR bus insurance. See Insurance, Motor bus

MOTOR bus lines

Let's keep the bus industry strong. *il* Bus Transportation 27:59-65 S '48

Motor bus is the surface vehicle of the future. S. H. Bingham, plans diags Bus Transportation 27:88-91 S '48

Outlook for 1948 for intercity carriers. A. M. Hill. Bus Transportation 27:49 F '48

See also

Greyhound corporation Railroads—Motor vehicle competition
Insurance, Motor Trolley buses
bus

Accidents

Providing safe transportation in buses. K. L. Raymond. S A E J 56:50-2 Je '48

Who's to blame? R. H. Snyder. Bus Transportation 27:66 Ag '48

Advertising

Ghosts don't pay fares; problem of empty bus seats. W. C. Ewell. Bus Transportation 27:60-2 Ag '48

Pamphlet publicity. Bus Transportation 27:67-8 Ja '48

Automobile competition

40 autos or one bus. *il* Bus Transportation 27:84-5 S '48

Let's look ahead! E. A. Roberts. Bus Transportation 27:84-5 F '48

Baggage

Baggage labels standardized by National bus traffic association. *il* Bus Transportation 26:69-70 D '47

Baggage symposium. Bus Transportation 27:72 Ag '48

Consolidation

Giant bus system; Transcontinental System. *il* Bus Transportation 27:60-3 J1 '48

Transcontinental Bus System merger bid wins ICC approval, six companies involved. Bus Transportation 27:78 Ja '48

Costs

Bus operating costs hit all-time high. C. W. Stocks and P. Masiakou. Bus Transportation 27:43-7 Ap '48

Bus Transportation maintenance awards, 1947; with cost data. *il* Bus Transportation 26:55-78 N '47

You arbitrate this case! transit labor demands in New York. Bus Transportation 27:46-9 My '48

Employees

Future maintenance head; management makes some suggestions. H. Gilbert. Bus Transportation 27:76-7 Je '48

Greyhound lines open courtesy award campaign. F. Kane. Bus Transportation 27:75 Mr '48

Is it arbitration, or socialization? Fifth avenue coach company's predicament. Pub Util 40:853-4 D 18 '47

Labor developments in the bus industry. P. B. Willauer. Bus Transportation 27:79 Ja; 99 F; 77 Ag '48

Labor-management picture in the bus industry. F. Kane. Bus Transportation 27:50-1 F '48

Labor problems in the intercity bus industry. H. R. Hosea. Bus Transportation 27:68-70 J1 '48

1947 labor statistics; analysis of employment and compensation. C. W. Stocks and P. Masiakou. Bus Transportation 27:87-9 My '48

Tackling the labor problem. H. S. Simpson. Bus Transportation 27:44-5 Ag '48

You arbitrate this case! transit labor demands in New York. *il* Bus Transportation 27:45-54 My '48

MOTOR bus lines—Continued

Equipment and supplies

Buyers' guide; bus parts, materials, accessories, shop equipment and tools. Bus Transportation 27:239-51+ Je '48

Fare collection

Fare, please; Bee line solves a threefold fare collection problem. Bus Transportation 27:59 Ja '48

How Reading collects fares. il Bus Transportation 27:63 Ag '48

See also

Fare registers

Fares

Building revenues with zone fares. Bus Transportation 27:77-9 S '48

Bus fares; New York City companies want increase. Barron's 28:33 Jl 26 '48

Commuter revenue plan. Bus Transportation 27:73 O '48

Current developments in rate making; Capital Transit case. F. G. Awalt. Pub Util 42:629-34 O 21 '48

How the fare situation stacks up. G. J. MacMurray. Bus Transportation 27:52-5 F '48

Public Service puts its case; New Jersey fare case. D. W. Cray. Bus Transportation 27:51-3 Ap '48

Transit industry; its current position. G. C. Hecker. Bus Transportation 27:68-9 S '48

Wheels within wheels; NBTA compiles statistics to support industry's case in ICC fare investigation. il Bus Transportation 27:60-1 Ja '48

Finance

Billion dollar bus industry spent in 1947. Bus Transportation 27:75 F '48

Making figures talk; humanizing annual and interim reports. H. Gilbert. Bus Transportation 27:48-50 Ap '48

Passenger traffic still declining; six months operations. C. W. Stocks and P. Masiakou. Bus Transportation 27:62-5 O '48

Revenues up, costs up, profits down; first quarter of 1948. C. W. Stocks and P. Masiakou. Bus Transportation 27:54-7 Jl '48

Third quarter and nine months operating results. C. W. Stocks and P. Masiakou. Bus Transportation 27:54-7 Ja '48

Transit industry; its current position. G. C. Hecker. Bus Transportation 27:68-9 S '48

Garages

Converts a big war plant to a garage; Sandwich, Windsor & Amherstburg railway. M. W. Bowman. il Bus Transportation 27:84-7 Je '48

DSR new bus garages. F. C. Taylor. il Bus Transportation 27:66-70 O '48

Garage, East New York bus depot, Brooklyn, N.Y.; unit prices. Eng N 141:83+ S 30 '48

Inside bus service center. il Bsns W p42-4 O 2 '48

New Greyhound maintenance center. il Bus Transportation 27:46-8 Ag '48

Standardized plan for divisional garages. il plan Bus Transportation 27:68-71 Je '48

Super-service garage for buses. C. E. Day. il plan Eng N 141:100-1 O 14 '48

Laws and regulations

Legal pitfalls; what bus officials should do to avoid them. L. T. Parker. Bus Transportation 27:51-3 Ja '48

Recent higher court decisions where bus companies are held not liable for passenger injuries. L. T. Parker. Bus Transportation 27:49-51 Ag '48

Review of 1947 bus law suits. L. T. Parker. Bus Transportation 27:68-70 My '48

When is a permit valid? L. T. Parker. Bus Transportation 27:63-5 Ap '48

Mail service

Mail contracts; plan proposed by the National bus traffic association. Bus Transportation 27:65 Ja '48

Maintenance and repair

Brand new again; St Louis Public Service reconditions 1941 buses. A. Ebinger. il Bus Transportation 27:52-5 Je '48

Bus Transportation maintenance awards for 1948; contest rules. il Bus Transportation 27:48-50 Ja '48

Bus Transportation maintenance awards, 1947; with cost data. il Bus Transportation 28:55-78 N '47

Future maintenance head; management makes suggestions. H. Gilbert. Bus Transportation 27:76-7 Je '48

Growing pains; maintenance problems of an operator of a small line. S. M. Swope. Mass Transportation 43:535-7 N '47

Howjadoits from St Louis. E. F. Theisinger. il Bus Transportation 27:65-7 Jl '48

Ingenious devices and methods which help Youngstown municipal railway keep its buses fit. J. Krill. il diags Bus Transportation 27:70-3 Ja '48

Key to better maintenance; Key system transit lines. M. Ralston. il Bus Transportation 27:56-9 Je '48

Less mess differential tool. E. J. Duling. il Bus Transportation 27:73 Ap '48

Orlando steps up operating efficiency. il Bus Transportation 27:68-70 Ag '48

Planned maintenance school. Twin coach co. H. C. Arnot. il Bus Transportation 27:75-7 O '48

Preventive maintenance stops road failures; Virginia railroads develops monthly posters. il Bus Transportation 27:74-5 Ag '48

Slip an organized thinker into your maintenance department. S. D. Forsythe. Mass Transportation 43:542+ N '47

Management

Emery did it; Emery's motor coach lines winds up successful first year. F. Kane. il plan Bus Transportation 26:80-1 N '47

Fighting snow and gravel; Victory bus co. ltd., Montreal. il Bus Transportation 27:72-3 Mr '48

Ghosts don't pay fares; problem of empty bus seats. W. C. Ewell. Bus Transportation 27:60-2 Ag '48

Intercity industry. A. M. Hill. Bus Transportation 27:66-7 S '48

It's all over town, this bus system; Cheyenne motor bus co. il Bus Transportation 27:46-9 Jl '48

Let's stop looking backward! H. Gilbert. Bus Transportation 27:52-3 Ag '48

Rolling through Alaska; O'Hara bus lines. E. A. Herron. il map Bus Transportation 26:54-5 D '47

Small town success; Yellow cab and bus co. Red Wing, Minn. il Bus Transportation 27:57 Ap '48

Public relations

Self examination; bettering public relations. F. Lane. Bus Transportation 27:71 Ag '48

Radio telephone

Always in touch by radiophone; Great Lakes Greyhound's two-way radio. R. G. Silbar. il Bus Transportation 27:58-9 Ap '48

Railroad affiliation

New motor bus system approved by the I.C.C.; Santa Fe to get 39 per cent interest in company taking over its bus business. Ry Age 123:1077+ D 20 '47

Routing

It's all in the cards; Cincinnati, Newport and Covington completes origin-destination survey with the aid of punch cards. il Bus Transportation 27:66-8 Ag '48

Safety measures

Reduced accident rates; Oklahoma railway company has developed a safety program. R. H. Snyder. Bus Transportation 26:61-3 D '47

Safety is no accident; Third ave. transit corp. decreases accident rate 20 percent in eight months. il Bus Transportation 27:76-8 My '48

Schedules

Beltline of buses; scheduling problems behind Surface Transportation's 42nd st. crosstown line. il Bus Transportation 27:60 Jl '48

MOTOR bus lines—Schedules—Continued

Checking schedules to improve service; Jacksonville coach co. E. D. White. *il map Bus Transportation 26:82-4 N '47*

Service

Deluxe city service; Gray coach lines limited. *il plan Bus Transportation 26:46-7 D '47*
Public address systems used to publicize Connecticut company's motorization of lines and to announce new routes, etc. F. Kane. *il Bus Transportation 27:37-8 F '48*
Who is responsible? instances of slipshod service. F. Kane. *il Bus Transportation 27:62-4 JI '48*

Shelters

New shelters and terminal built by Toronto's municipally owned transport system. *il plan Arch Forum 88:98-9 F '48*

Shops

From the shops of 1947 ME award winners; illustrations with text. E. F. Theisinger. *Bus Transportation 27:90-3 F '48*
Giving maintenance a lift; hoists and lifting devices in Brooklyn shops of New York City transit system. L. G. Kurtz. *il plans diag Bus Transportation 27:62-5 Je '48*
New shops from old; shop modernization plan by the United electric railways co. E. F. Theisinger. *il plan Bus Transportation 27:45-51 Je '48*

Statistics

Bus industry and other transportation; basic facts, 1945-1947. C. W. Stocks. *il Bus Transportation 27:68-73 F '48*
Census of common carrier bus service; tabulated by states. *Bus Transportation 27:74 F '48*
1947 labor statistics; analysis of employment and compensation. C. W. Stocks and P. Masiakou. *Bus Transportation 27:87-9 My '48*
Third quarter and nine months operating results. C. W. Stocks and P. Masiakou. *Bus Transportation 27:54-7 Ja '48*

Stops

Brooklyn's new loading zones. *il Bus Transportation 27:86 F '48*

Stores systems

Stockroom; how Southern coach lines efficiently handles one of the most important departments. *il Bus Transportation 27:78-81 Je '48*

Terminals

Bus depot at Sioux Falls, S.D. *il plans diag Arch Forum 89:86-8 JI '48*
Elements of planning a union bus terminal. A. Bahn, jr. *il Civil Eng 18:692-3-4- N '48*
New shelters and terminal built by Toronto's municipally owned transport system. *il plan Arch Forum 88:98-9 F '48*
Terminal constructed by Fred Temple's Short way lines of Toledo; illustrations with text. F. Kane. *plan Bus Transportation 26:86-7 N '47*
Terminal management fails to protect bus riding public. F. Kane. *Bus Transportation 27:71-2 Ap '48*
World's largest; Greyhound opens \$1,000,000 terminal in Cleveland. *il Bus Transportation 27:88-9 Je '48*

Tickets

Microfilm solves problem of interline ticket billing. F. Kane. *il Bus Transportation 27:70-1 Ap '48*
Sales campaigns; Toronto transportation commission has arranged for sale of tickets in stores, factories and offices. *Bus Transportation 27:66 Ja '48*

Traffic

Let's look ahead! E. A. Roberts. *Bus Transportation 27:84-5 F '48*

Alaska

Rolling through Alaska; O'Harra bus lines. E. A. Herron. *il map Bus Transportation 26:54-5 D '47*

Iceland

Bus in Iceland. *il map Bus Transportation 27:54-5 Mr '48*

Jamestown, New York

Tenth birthday; Jamestown celebrates anniversary as an all-bus city. C. W. Stocks. *il Bus Transportation 27:70-1 Mr '48*

Kingston, Jamaica

Jamaica gets modern buses. *il Bus Transportation 27:56 Mr '48*

Montreal

Fighting snow and gravel; Victory bus co., ltd., Montreal. *il Bus Transportation 27:72-3 Mr '48*

Near East

Fastest bus line in the world; Beirut to Baghdad route across Syrian desert; Nairn transport co. C. W. Stocks. *il map diag Bus Transportation 27:65-7 My '48*

New Jersey

Biggest in the business; Public service corporation of New Jersey. *il map Diesel Power 25:74-7 D '47*
Public Service puts its case; New Jersey fare case. D. W. Cray. *Bus Transportation 27:51-3 Ap '48*

New Orleans

Teche Greyhound; Bus Transportation maintenance award. *il Bus Transportation 26:58-9 N '47*

New York (city)

Beltline of buses; scheduling problems behind Surface Transportation's 42nd st. cross-town line. *il Bus Transportation 27:60 JI '48*
You arbitrate this case! transit labor demands in New York. *il Bus Transportation 27:45-54 My '48*

Norfolk, Virginia

Norfolk goes all-bus. *il Bus Transportation 27:52-3 Mr '48*

St Louis

St Louis Public Service; Bus Transportation maintenance award. *il Bus Transportation 26:69-71 N '47*

San Francisco

New bus plan for "Frisco. *plan Bus Transportation 27:82-3 My '48*

Toronto

Deluxe city service; Gray coach lines limited. *il plan Bus Transportation 26:46-7 D '47*

United States

Accomplishments of 1947. C. W. Stocks. *Bus Transportation 27:43-5 F '48*
How America travels; illustrations and chart. *Bus Transportation 27:82-3 S '48*
Year end review. F. Kane. *il Bus Transportation 27:44-7 Ja '48*

Washington, D.C.

Capital Transit; Bus Transportation maintenance award. *il Bus Transportation 26:61-3 N '47*
Current developments in rate making; Capital Transit case. F. G. Awalt. *Pub Util 42:629-34 O 21 '48*

MOTOR bus lines, School

School bus growth continues; school bus census as of Dec. 31, 1947. *il Bus Transportation 27:64-6 F '48*

MOTOR bus lines, Tourist

Greyhound boom; makes money carrying foreign travelers from U.S. ports. *Bsns W p39-40 Mr 27 '48*
Promoting bus travel; Greyhound corporation's sales offices abroad; expansion of tour service. *il Bus Transportation 27:74-5 My '48*

MOTOR buses

Fastest bus line in the world; Beirut to Baghdad route across Syrian desert; Nairn transport co. C. W. Stocks. *il map diag Bus Transportation 27:65-7 My '48*

MOTOR buses—Continued

Fleet costs cut by fact-finding methods outlined at Transportation and maintenance sessions and Truck and bus sessions, S A E annual meeting, S A E J 56:67-70 F '48

GM announces 55-50 passenger coach, 27 passenger transit coach, *il* Bus Transportation 27:71-2 O '48

GM announces the PDA-4101, *il* Bus Transportation 26:58-60 D '47

Motor bus is the surface vehicle of the future, S. H. Bingham, plans *diags* Bus Transportation 27:88-91 S '48

New Ford motor coach, *il* Bus Transportation 27:84-6 My '48

New Greyhound; Highway Traveler, experimental model, *il* Bus Transportation 27:46-8 Mr '48

1948 bus show; illustrations with text, Bus Transportation 27:92-109 S '48

Now in production, transit buses model 81, *il* Bus Transportation 27:94-6 F '48

Paris automobile show; commercial vehicle exhibits, *il* Automobile Eng 38:21-6 Ja '48

Sky's the limit; Aerocoach Astraview has Solex glass top for sightseeing, *il* Bus Transportation 27:69 Mr '48

SAE national transportation meeting, Philadelphia, March 30-April 1, S A E J 56:63-7 My '48

Super-luxury buses hit the road, F. Kane, *il* Bus Transportation 27:90-1 My '48

See also

Motor bus industry Street railroads—
and trade Motor bus substi-
Motor bus lines tution
 Trolley buses

Air conditioning

Air conditioning long distance buses, E. J. Kurek, *il* plan *diags* Heat & Ven 45:65-9 Ag '48

Axles

1948 axle specifications; tabulation, Bus Transportation 27:82 F '48

Chassis

Crossley export bus chassis, *il* *diags* Automobile Eng 38:43-50 F '48

Foden bus chassis, *il* *diags* Automobile Eng 38:83-91 Mr '48

Passenger transport chassis; review of current design, *il* plans *diags* Automobile Eng Extra no 37:429-72 N 20 '47

Tilling-Stevens chassis, *il* *diags* Automobile Eng 38:283-9 Ag '48

Clutches

Fraser hydraulic clutch uses radial cylinders, W. F. Bradley, *il* *diags* Automotive Ind 98:26-7+ F 15 '48

Design

Export vehicle design, H. W. Fulton, Automobile Eng 38:273-6 J1 '48; Same *abr.* Engineering 165:595, 607 Je 18-25 '48

Greyhound highway traveler, *il* plan *diags* Product Eng 19:92-5 Ag '48

Greyhound inter-city experimental bus; abstracts, M. M. Dean, *diags*(p34) Automobile Ind 99:35-6 J1 1 '48; S A E J 56:69 O '48

Passenger transport chassis; review of current design, *il* plans *diags* Automobile Eng Extra no 37:429-72 N 20 '47

Present position and tendencies in respect of public service vehicles, D. M. Sinclair, *diags* Inst Mech Eng J & Proc 157 (War emergency issue no 30):259-62 '47

Providing safe transportation in buses, K. L. Raymond, S A E J 56:50-2 Je '48

Twin-engineled power plant and rubber-air suspension system improve inter-city bus operation, M. M. Dean, *diags* Automobile Ind 99:32-5 Ag 1 '48

Doors

Extruded aluminum doors, *il* *diags* Product Eng 19:95 Je '48

Electric equipment

Fast charging of 12-volt batteries, C. H. Endress, *il* Bus Transportation 26:56-7 D '47

International motor exhibition, 33d Earls Court, Oct, 27-Nov. 1, *il* Electrician 141:1220-4 O 22 '48

Equipment

Bendix's new hydraulic system for commercial vehicles; equipment for operation of brakes, steering, windshield wiper, doors and throttle undergoing road tests on bus, G. W. Pontius, *il* *diags* Automotive Ind 97:30-3+ N 1 '47; Excerpt, Bus Transportation 27:60-2 Ap '48; Abstract, S A E J 55:51-3 N '47

Magnetic drain valve for air tank, G. T. Brown, *diags* Bus Transportation 27:78 Mr '48

New hydraulic pump shock absorber to give easier rides, Iron Age 160:148-9 N 13 '47

1948 bus show; illustrations with text, Bus Transportation 27:114-15 S '48

Exhibitions

International commercial motor transport exhibition, *il* *diags* Engineer 186:334-6, 359-61, 411-13, 388-9 O 1-22 '48; Engineering 166:344-6, 348, 365-7, 372 O 8-15 '48

Heating and ventilation

Space heaters are important also, *il* *diags* Diesel Power 26:53-5 S '48

What about next winter? Survey of the latest bus heating equipment, E. F. Theisinger, *il* *diags* Bus Transportation 27:62-8 Mr '48

Lighting

Establish signal light needs for trucks and school buses, S A E J 56:76-7 Ag '48

Fluorescent lighting in a 'bus, *il* Electrician 139:1310 O 31 '47

On the beam; exterior and interior bus illumination, J. L. Tubman, *il* *diags* Bus Transportation 26:51-3 D '47

Lubrication

Improved chassis lubrication; it's high time for it, F. R. Speed, Bus Transportation 27:54-6 Ap '48

Maintenance and repair

How the New York Board of transportation maintains its Diesel buses, flow chart *il* Diesel Power 26:46-8+ O '48

See also

Motor bus lines—
Maintenance and
repair

Manufacture

Air-brake clamping jigs speed machining of bus parts, W. Rudolph, *il* Steel 122:109-10 Ap 26 '48

Latest innovations at GMC bus plants, J. Geschelin, *il* Automotive Ind 99:26-9+ J1 1 '48

Midland puts mammoth automobile press into service at Cleveland, Iron Age 160:93 D 25 '47

Positioning jigs aid bus frame construction, *il* *diags* Automotive Ind 97:35 D 1 '47

Postwar Macks; production of transit buses in Allentown plant, *il* plan Bus Transportation 27:57-61 Mr '48

See also

Motor bus industry
and trade

Materials

Plastics in post-war buses, *il* Mod Plastics 25:116-17 D '47

Painting

Twin Coach develops special methods for painting aluminum buses, W. Rudolph, *il* Automotive Ind 98:40-1+ F 1 '48

Radio equipment

Car-card radio; radio programs in buses, trolleys, and trains constitute new advertising medium, A. A. McKenzie, *il* Electronics 21:72-3 Je '48

New streetcar serenade; Transit radio, inc. supplies fm programs for buses and trolleys, H. Taft, Jr. Pub Util 42:406-12 S 28 '48

Radio; car card of air; Transit radio, inc. provides broadcasting service to bus riders, F. Kane, *il* Bus Transportation 27:49-51 Mr '48

MOTOR buses—Continued**Seats**

1948 bus show; illustrations with text. Bus Transportation 27:112-13 S '48

Specifications

American bus chassis; tabulation. Automotive Ind 98:146-7 Mr 15 '48

Front end specifications, motor and trolley bus; tabulation. Bus Transportation 27:60 Je '48

1948 axle specifications; tabulation. Bus Transportation 27:82 F '48

1948 motor bus component parts; tabulation. Bus Transportation 27:76-7 F '48

1948 motor bus general characteristics; tabulation. Bus Transportation 27:78-9 F '48

Springs and suspension

Duo-Flex spring, diags Automobile Eng 38:109-10 Mr '48

Improvements in steel torsion rod springing. H. E. Simi. il Automotive Ind 98:30-2+ My 15 '48

New stabilizer for double-deckers. Automotive Ind 98:31+ Je 15 '48

Twin-engined power plant and rubber-air suspension system improve inter-city bus operation. M. M. Dean, diags Automotive Ind 99:34-5 Ag 1 '48

Testing

Determination of dynamic loads in coach structures; abstracts. W. E. Rice and R. O. Ellerby. il diags S A E J 56:72+ Ag '48; Automotive Ind 98:49 Ap 15 '48

MOTOR cars (railroad)**Diesel-electric**

Milwaukee builds two Diesel rail cars. il Ry Age 125:468-9 S 4 '48

MOTOR courts. See Tourist camps, hostels, etc.**MOTOR cycle engines**

Hydraulic valve lifters in motorcycle engine. il diag Machine Design 20:144-6 Ag '48

Motorcycle engine design. W. J. Harley. il S A E J 56:69-72 S '48

Stellar motor cycle. diag Automobile Eng 38:360 S '48

MOTOR cycle industry and trade

Building for the selling and repairing of motorcycles. il plan Arch Forum 88:141 My '48

Motorcycle renaissance. il Bsns W p90-2+ S 18 '48

New prebelling system ups office output for service parts and accessory division of Harley-Davidson motor company, Milwaukee. W. Norris. il Am Bsns 18:14-15+ My '48

MOTOR cycles

Building servi-cycles better and faster with pneumatic tools. C. H. Vivian. il diag Comp Air Mag 53:109-14 My '48

Motorcycle has stamped frame. il diags Product Eng 19:103 Jl '48

Rubber springing; survey of the technical aspects in vehicle suspension. A. E. Moulton and O. H. Varga. il diags Automobile Eng 38:146-8 Ap '48

Sunbeam S7 motor cycle. il diags Automobile Eng 38:163-70 My '48

Two lightweight Indians. il Automotive Ind 99:44 Ag 1 '48

MOTOR learning. See Learning, Psychology of —Motor learning**MOTOR ships**

Auto carrier, Commercial Clipper. il Marine Eng 52:93+ N '47

Diesel river towboat Fort Dearborn. il Marine Eng 53:59-60 F '48

Diesel river towboat, Lehigh. il Marine Eng 52:100 N '47

Diesel towboat, Havana Zephyr. il Marine Eng 52:116+ N '47

Diesel towboat, Victory. il Marine Eng 53:84+ Jl '48

Diesel trawler, Bonnie. il Marine Eng 52:87+ N '47

Dual-draft freighter, Angéle Higgins. il Marine Eng 52:77+ N '47

Elder Dempster motor liner Accra. il plan Engineering 164:559-61, 564 D 12 '47

European motorship building in 1947. il Marine Eng 53:72-4 Ja '48

Excursion boat, Delaware Belle. il Marine Eng 52:92+ N '47

596-foot grain carrier steered by propellers. il Marine Eng 53:79 Ja '48

Johnson line motorship Seattle. il Marine Eng 53:52-4 F '48

Motorship built for Argentine Ministry of public works. il Marine Eng 53:70 Jl '48

Motorship Hoegh Silvermoon. il plan Marine Eng 53:66-7 F '48

M.V. Royal sovereign. G. W. Tripp. il Engineer 186:193 Ag 20 '48

Power for a versatile fishing boat; Reefer King. H. J. Barbour. il Marine Eng 53:69-70 O '48

Propelling machinery of M.V. Fulham VIII. il diags Engineering 165:32-4 Ja 9 '48

Reconstructed M.S. Venus. il Engineer 185:540-1 Je 4 '48

Reina del Pacifico explosion. Engineer 185:598 Je 18 '48

Rhine River barges. il Marine Eng 53:52-7 Je '48

River towboats Wm. Pitt and Freedom. il Marine Eng 52:106+ D '47

Shipbuilding and marine engineering in 1947. il Engineer 185:10-13, supp3, 46-7, supp2, 66-7, 96-7 Ja 2-23 '48

Ships for French council, Algeria. il diag Marine Eng 52:110-11 N '47

Survey ship John Biscoe. Engineer 186:398 O 15 '48

Swedish passenger ship Stockholm. il Marine Eng 53:68-71 Ap '48

Tampa yard builds ships for France; Algeria, first of six vessels. il plans diags Marine Eng 52:64-72 D '47

Tuna clipper, Scarlet Queen. il Marine Eng 53:68-70 S '48

Typical CI-N-AVI, motorship, Antrim. il Marine Eng 52:114-15+ N '47

V4-M-A1 class tug. il Marine Eng 52:101+ N '47

See also

Diesel engines, Ma- Ship propulsion, rine Electric

MOTOR truck contents insurance. See Insurance, Motor truck contents

MOTOR truck drivers

Driver training, incentive plan, preventive maintenance combine to promote truck safety; Refrainers transport & terminal corp. Nat Pet N 40:41 F 25 '48

Local city truck driving; union scales, July 1, 1947. A. Simi, Mo Labor R 66:392-4 Ap '48

Struck trucks roll; end delivery tie-up at Kaufmann's, Pittsburgh. Bsns W p 108 Ap 3 '48

Trust cuts trucking costs; Holleb & co. grocery drivers share profits through retirement fund. Food Ind 20:349 Mr '48

Union reformer; independent truckers' chief tosses out gang influence in Chicago area. Bsns W p 104+ F 14 '48

Union wages and hours of motortruck drivers and helpers, July 1, 1946. J. P. Corkery. U S Bur Labor Statistics Bul 911:1-42; pa 15c Supt. of doc. '47

Union wages and hours; motortruck drivers and helpers, July 1, 1947. U S Bur Labor Statistics Bul 928:1-32; pa 15c Supt. of doc. '48

See also

Motor trucks, Industrial—Drivers

Tank truck drivers

Testing

Does testing reveal the accident-prone? abstract. R. R. Howard. Management R 37:331-3 Je '48

Training

Approach to driver education. W. F. Brown. Am Gas Assn Proc 1947:767-70

Improperly trained drivers can nullify benefits to be gained from two-speed axles. H. Ridder. Nat Pet N 40:25-6 My 26 '48

Training program for utility car and truck drivers. F. A. Herr. Am Gas J 169:36-7 Jl '48

MOTOR truck engines

- Commercial motor vehicle with underfloor engine. *il* Engineering 165:320-1 Ap 2 '48
- Design, development, and production of high-speed compression-ignition engines. S. Markland and N. Tattersall, *diags* Inst Mech Eng J & Proc (Auto div pt 1):9-20, pl 1-4; Discussion. 20-9 '47-48
- Exhaust turbo-charging; Saurer system for transport Diesel engines. *il* *diags* Automobile Eng 38:3-13 Ja '48
- Ford 100 hp truck engine modified to give 175 hp. *il* *diag* Automotive Ind 98:46+ Ja 1 '48
- Fordson 10-cwt van. *il* *diags* Automobile Eng 37:397-9 N '47
- Hercules adds six Diesels and two gasoline engines to its line. *il* Automotive Ind 97:28-9+ N 1 '47
- Improved Franklin engine for trucks and tractors. *il* Automotive Ind 97:43 N 1 '47
- International commercial motor transport exhibition. *il* *diags* Engineer 186:359-61, 388-9 O 8-15 '48; Engineering 166:365-7, 372 O 15 '48
- New Diesel engines highlight England's first show since 1937. W. F. Bradley. *il* *diag* Automotive Ind 99:30-3+ N 1 '48
- New engine is light, compact; Continental Motors develops high-output, air cooled gasoline engines for army. *il* Bsns W p46-8+ S 18 '48
- 75-b.h.p. Diesel-engined goods vehicles. *il* Engineering 165:103-5 Ja 30 '48
- Six-seven ton Leyland Comet. *il* *diags* Automobile Eng 38:203-5 Je '48
- Truck's own engine operates refrigeration. *il* Food Ind 20:1156-7 Ag '48

Cooling

- Developments in engine cooling systems. F. M. Young. *diags* Diesel Power 26:64+ F '48

Fuel

- Alcohol-water fluid enriches gasoline. C. H. Van Hartesveldt. *il* S A E J 56:20-2 O '48
- Fuels for truck haulage. A. C. Butterworth. *il* Min & Met 29:278-80 My '48

Fuel feeding

- Fuel injection for spark ignited automotive engines. G. M. Lange and C. W. Van Overbeke. *flow diag* S A E J 56:83-9 Ag '48
- Injector manufacture at the works of Leyland motors, Ltd. *il* *diags* Automobile Eng 37:417-26 N '47
- Truck fleet operators test injection of anti-knock solution into engines. *il* Nat Pet N 40:22-3 Mr 10 '48

Heaters

- Coolant heaters offer important advantages. *il* *diags* Diesel Power 26:46-9+ S '48
- Superfex engine heater. *il* Diesel Power 26:45 Ja '48

Heaters, Electric

- Chicago city street department equips 350 trucks with motor warmers. *il* *diag* Roads & Sts 91:112+ F '48

Lubrication

- Examination of used engine lubricating oils. K. Hilfreich and others. *bibliog* 4pls *diags* Inst Pet J 34:148-208; Discussion. 208-25 Mr '48

Manufacture

- Continental rearranges production facilities for smoother operation. J. Geschel. *il* Automotive Ind 97:34-5+ N 15 '47
- Find fits, finishes for engines differ; abstract. A. Sunnen, jr. S A E J 56:89-90 Ag '48
- Ford retools cylinder block line with transfer machines. *il* Automotive Ind 98:38-9+ F 1 '48
- GMC's new engine plant now in full operation. J. Geschel. *il* Automotive Ind 99:36-7+ S 1 '48

Specifications

- American gasoline engines; tabulation. Automotive Ind 98:153-67 Mr 15 '48

Valves

- Valve-stem guides finish ground automatically; Motor truck division. International Harvester Co. R. R. Coulette. *il* Am Mach 92:125 Je 17 '48

MOTOR truck industry

- After the turn of the year. H. C. Fruehauf. Comm & Fin Chr 167:342+ Ja 22 '48
- Back to school; White teaches salesmen how to sell trucks. Bsns W p76+ My 22 '48
- Behind the scenes at Studebaker's '49 truck preview for dealers. *il* Sales Management 60:42-3 Je 15 '48
- Chevrolet puts a truck show on the road. *il* Bsns W p25 O 23 '48
- Heavy truck market eases. *il* Bsns W p28+ N 29 '47
- How helping Europe will affect our economy. K. Rannels. Automotive Ind 98:33+ My 15 '48
- Light truck demand intense. *il* Bsns W p46+ D 13 '47
- Medium truck future bright. *il* Bsns W p41-2+ D 6 '47
- Sales manual Dodge truck salesmen don't forget to use. *il* Sales Management 61:102 S 1 '48
- Sales tools that inspire prospects' confidence in Superior Truck bodies. E. Swanson. *il* Sales Management 61:116+ Ag 15 '48

Advertising

- Millions of mailings back Chevrolet truck salesmen. *il* Sales Management 60:98+ F 1 '48

Exhibitions

- Truck, equipment promotion tempo rises as Ford, Chevrolet stage big exhibits. J. P. Allison. *il* Ind Marketing 33:72 My '48

Securities

- Varying trends for motor companies; with statistical position of automobile and truck manufacturers. G. W. Mathis. Mag of Wall St 82:541-2+ Ag 28 '48

Statistics

- Civilian trailer production, 1939-1941 and 1944; truck trailer production, 1942-1945, civilian and military; truck production by capacities, 1936-1945; 1946 motor truck factory sales by gross vehicle weights; tabulations. Automotive Ind 98:99 Mr 15 '48
- Gradual switch to heavy duty trucks seen as production shows 48 per cent gain. Nat Pet N 39:36 N 26 '47
- Motor vehicle production in Canada, 1921-1947; 1946 Canadian motor vehicle registrations, by provinces; tabulations. Automotive Ind 98:97 Mr 15 '48
- New truck registrations by makers, by years, 1936-1947; tabulation. Automotive Ind 98:118 Mr 15 '48
- New truck registrations by makes, by gross vehicle weight, 1946-1947; tabulation. Automotive Ind 98:117 Mr 15 '48
- 1948 truck fleet census by states. Automotive Ind 98:116 Mr 15 '48
- 1947 motor-vehicle factory sales to domestic and foreign markets; tabulations. Automotive Ind 98:95-6 Mr 15 '48
- 1947 U.S. exports of new trucks, buses and chassis, by tonnage rating and continental divisions; tabulation. Automotive Ind 98:123 Mr 15 '48
- 97 million motor vehicles produced in 48 years; tabulation. Automotive Ind 98:94 Mr 15 '48
- Truck sales up. *il* Bsns W p39-40 Je 12 '48
- Truck trailer production by types, 1946-1947; shipments, by months, 1946-1947; tabulations. Automotive Ind 98:98 Mr 15 '48

Great Britain

- Commercial vehicle outlook. Economist 155:551-2 O 2 '48

Peru

- Trucks; distribution again placed under control. For Comm W 29:15 N 8 '47

Russia

- Automobile industry that's behind the iron curtain. D. B. Shimkin. Automotive Ind 98:25-7+ F 1; 34-7+ F 15; 30-3+ bibliog (104 titles) Ap 1 '48

MOTOR truck industry—Continued**Spain**

Increase in truck imports; developments in industry. *For Comm W* 31:27 *Je* 26 '48

MOTOR truck robberies

Thefts can be reduced; measures to prevent hijacking. *J. E. Hoover. Weekly Underw* 158:46-7 *Ja* 3 '48

Truck cargo theft trends during 1947. *J. Seide. Weekly Underw* 158:54+ *Ja* 3 '48

MOTOR trucks

Cities fight truck-traffic congestion. *Bsns W* p34-6 *Mr* 27 '48

Comets; three Diesel truck models produced by Leyland motors ltd. *il diag Automotive Ind* 99:44-5+ *Jl* 1 '48

Commer five to seven-ton lorry with under-floor engine. *il Engineering* 165:320-1 *Ap* 2 '48; *Abstract. Engineer* 185:120 *Ja* 30 '48

Diamond T introduces new trucks in two series. *il Automotive Ind* 99:30-1+ *Jl* 15 '48

Dodge presents its new six-wheel trucks. *il Automotive Ind* 99:30-1 *O* 1 '48

Federal's new Diesel and six-wheel trucks. *il Automotive Ind* 99:38-40+ *Ag* 15 '48

Federal's new 35M truck. *il Automotive Ind* 97:33+ *N* 15 '47

Fleet costs cut by fact-finding methods outlined at Transportation and maintenance sessions and Truck and bus sessions. *S A E* annual meeting. *S A E J* 56:67-70 *F* '48

Ford expands truck line with two extra-heavy-duty models. *il diag Automotive Ind* 98:34-7+ *Ja* 15 '48

Ford's postwar trucks. *W. G. Patton. Iron Age* 161:84+ *Ja* 23 '48

GMC now producing new F C-O-E models. *il Automotive Ind* 98:33+ *F* 15 '48

Haulage of air-entrained concrete. *J. W. Shaver. il diag Concrete* 55:3-11+ *Je*; 10-13 *Jl* '47; 56:32-3+ *Ja* '48

Many changes in Dodge trucks. *il diag Automotive Ind* 98:34-5+ *Ja* 1 '48

Motor trucks replace gondolas on San Francisco's sanitary fill. *il Eng N* 141:110-11 *O* 14 '48

New half-ton delivery truck weighs 1200 lb; Delcar. *il diag Automotive Ind* 97:39 *N* 1 '47

New Lancia truck. *il Automotive Ind* 99:4. *Ag* 15 '48

Numerous improvements in Chevrolet's 1948 trucks. *il diag Automotive Ind* 98:38-9+ *F* 15 '48

Present day motor vehicle situation and outlook for the future. *E. W. Jahn. Am Gas Assn Proc* 1947:476-8

Reo adds two heavy models in revising its line of trucks. *il Automotive Ind* 97:46-7+ *N* 15 '47

Research leads Dodge engineers to new truck design. *W. G. Patton. il(p 134) Iron Age* 162:132 *N* 4 '48

75-b.h.p. Diesel-engined goods vehicles. *il Engineering* 165:103-5 *Ja* 30 '48

Six-seven ton Leyland Comet. *il diag Automotive Eng* 38:203-9 *Je* '48

SAE national transportation meeting, Philadelphia, March 30-April 1. *S A E J* 56: 63-7 *My* '48

Studebaker expands truck line for '49. *J. Geschelin. il Automotive Ind* 98:28-9+ *Je* 1 '48

Three big jobs for three big trucks. *il Bsns W* p54 *D* 6 '47

Transportation in the gas industry. *H. O. Mathews. Am Gas Assn Proc* 1947:514-16

Truck application. *J. N. Bauman. S A E J* 55: 42-4 *N* '47

Unusual truck development; Spangler 20-ton vehicle. *il Automotive Ind* 97:37+ *N* 15 '47

Your traveling billboard. *Aesop Glim. il Ptr Ink* 222:92 *Ja* 16; 224:30 *Jl* 16; 86 *S* 10 '48

See also

Loading and unloading—Motor trucks

Motor truck engines

Radio telephone on motor trucks

Refrigeration on cars, trucks, etc. Tank trucks

Tractor trucks

Trailers

Accidents

ICC accident analysis stresses role of maintenance as truck safety factor. *Nat Pet N* 40:30+ *F* 25 '48

Maintenance can reduce truck accidents due to mechanical defects. *Nat Pet N* 40:26+ *O* 6 '48

Newspapers' trucks lower accident rate. *Ed & Pub* 81:28 *My* 1 '48

Axles

Automatic machines speed truck-axle production; use of Cross Transfer-matic. *C. S. Ricker. il diag Am Mach* 92:94-6 *Ja* 15 '48

Improperly trained drivers can nullify benefits to be gained from two-speed axles. *H. Ridder. Nat Pet N* 40:25-6 *My* 26 '48

Tandem axle unit for truck trailers. *il diag Product Eng* 19:96 *Ag* '48

Traction unit for truck axles. *il diag Product Eng* 19:102 *My* '48

Bodies

Aircraft know-how applied to truck aluminum bodies. *R. W. Graham. il Automotive Ind* 98:44-5+ *Ja* 1 '48

Build your truck from standard aluminum parts. *il Food Ind* 19:1513-14 *N* '47

Homemade presses build Vanette truck bodies. *C. Ricker. il diag Am Mach* 91:89-92 *D* 4 '47

Report of subcommittee on standardization of truck body design. *Am Gas Assn Proc* 1947: 480-1

Truck bodies get a lift right to production line; Vernor ginger ale plant. *il Food Ind* 20:1470-1+ *O* '48

Cabs

Cab heating, cooling and de-icing; abstract. *H. G. Junger. Automotive Ind* 97:38 *D* 1 '47

Chassis

Chevrolet introduces two forward-control truck chassis. *il Automotive Ind* 99:37+ *Jl* 15 '48

Fordson 10-cwt van. *il diag Automotive Eng* 37:395-403 *N* '47

Cost of operation

How to determine when a motor vehicle should be replaced; abstract. *J. Dean. S A E J* 56:63-4 *Je* '48

Running a fleet of trucks without cost records is like using a clock without hands. *L. L. Pernot. S A E J* 56:69 *Ag* '48

Design

Design and operating experience with weight-reducing materials. *J. L. S. Sneed. Jr. il S A E J* 56:27-9 *S* '48

Export vehicle design. *H. W. Fulton. Automotive Eng* 38:273-6 *Jl* '48; Same abr. *Engineering* 165:595 *607 Je* 18-25 '48

Goods vehicles. *V. W. Pilkington. il diag Inst Mech Eng J & Proc* 157 (War emergency issue no 30):263-8 '47

Transportation problems in the 11 western states. *T. V. Rodgers. il S A E J* 56:52-6; Discussion. 56 *My* '48

Electric equipment

International commercial motor transport exhibition, 14th, London, Oct 1-9. *il Electrician* 141:994-8 *O* 1 '48

Speed-time analyzer aids engine equipment designer. *il diag Product Eng* 19:104 *Ap* '48

Exhibitions

International commercial motor transport exhibition, 14th, London, Oct. 1-9. *il diag Engineer* 186:334-6, 359-61, 411-13, 388-9 *O* 1-22 '48; *Engineering* 166:344-6, 348, 365-7, 372 *O* 8-15 '48

Paris automobile show; commercial vehicle exhibits. *il Automotive Eng* 38:21-6 *Ja* '48

Floors

Special truck floors. *il Automotive Ind* 97:35 *N* 1 '47

Fuel tanks

Applying resistance welding in tank production; White motor co. *il Mach* 54:156-8 *N* '47

History

Automobile engineering; an experience of forty-three years; heavy road vehicles of 1904-14. *G. T. Smith-Clarke. Inst Mech Eng J & Proc (Auto div pt 1):1-3* '47-48

MOTOR trucks—Continued**Laws and regulations**

Private trucks win out; vehicles carrying owners' goods across state lines are not common carriers. Bsns W p26 Je 26 '48
 State laws stymie efficient use of trucks for hauling steel. E. J. Hardy. Iron Age 162: 104+ J1 1 '48
 Who's private? ICC test to distinguish between for-hire and private truckers. Bsns W p28 J1 17 '48

Length of service

Depreciation as it affects economics of vehicle replacement. S. G. Page. Am Gas Assn Proc 1947:482-6

Lighting

Establish signal light needs for trucks and school buses. S A E J 56:76-7 Ag '48
 Headlamp adjustment and inspection rank high as truck safety factor. H. Ridder. diags Nat Pet N 40:50+ Mr 10 '48

Lubrication

Truck lubricants. W. L. Nelson. Oil & Gas J 46:104 Mr 11 '48

Maintenance and repair

Dispatch system lowers truck maintenance costs; Federated Metals. E. A. Blythe. Factory Management 106:123 S '48
 Driver-mechanic co-operation aids in efficient operation of trucks. A. E. Neyhart. Nat Pet N 40:35 My 12 '48
 Efficient truck preventive maintenance helps cut transportation costs; Atlantic Refining's program. A. W. Bass, jr. il Nat Pet N 40:22-3+ Ap 28 '48
 Factors that determine the proper intervals between preventive maintenance procedures. W. J. Cumming. S A E J 56:28-33 Je '48
 First of IHC nation-wide chain of truck unit rebuilding plants. il Automotive Ind 99:44-5 N 1 '48
 Organisation of large-scale vehicle overhaul and repair. C. E. Ottaway. Engineer 185: 241-2 Mr 5 '48
 Preventive maintenance to fit the needs of oil marketers. H. Ridder. Nat Pet N 40:21-2+ F 4; 42-3+ F 11; 24-6 F 18; 30+ F 25; 36 Mr 3; 50+ Mr 10; 30+ Mr 17 '48
 Scientific maintenance; abstract. A. T. Colwell. S A E J 56:57 Mr '48
 Shop-made derrick on twin A-frames speeds truck repair. H. Kerwin. il Eng N 140:970 Je 10 '48

Management

Bottler tackles truck delivery problems; Minnehaha water co. distributes drinking water and soft beverages. il Food Ind 20: 187 F '48
 Power trucks expedited through central control; dispatcher controls 36 trucks with plant intercommunication system. R. H. Hackett. il Factory Management 106:76-7 My '48
 Tractor-trailers ease bakery distribution. il map Food Ind 20:1020-1 J1 '48
 Truck charges geared to load's value; Holleb & co., grocery jobbers. il Food Ind 20:32-3 Ja '48

Manufacture

How conversion to other materials solved malleable castings shortage; International harvester co. H. Chase. il diags Materials & Methods 27:89-92 My '48
 Latest metalworking equipment employed at new Chevrolet Indianapolis truck plant. il Steel 121:62-3+ D 22 '47
 Making heavy duty trucks by mass production methods. il Automotive Ind 98:36-7+ My 15 '48
 Midland puts mammoth automobile press into service at Cleveland. Iron Age 160:93 D 25 '47
 Studebaker's '49 trucks built in ultra-modern plant. J. Geschelin. il Automotive Ind 99: 24-6+ S 1 '48

Materials

Design and operating experience with weight-reducing materials. J. L. S. Snead, jr. il S A E J 56:27-9 S '48

Painting

Heating and plumbing truck color combinations. il Dom Eng 172:150-1 O '48

Performance

Evaluation of factors used to compute truck performance. C. C. Saal. S A E J 56: 30-3 Ap '48

Prices

What the industry thinks about f.o.b. mill steel; higher car and truck prices seen as result. L. Westrate. Automotive Ind 99: 25+ Ag 1 '48

Records

Truck operation recorders; how they aid safety, reduce maintenance costs. W. M. Pritchard. Nat Pet N 40:37+ Je 2 '48

Safety measures

Motor trucks for mines, quarries, and construction; industrial data sheet. il Nat Safety N 58:39-40+ S '48

Specifications

Specifications of basic Soviet motor vehicles; tabulation. Automotive Ind 98:37 F 15 '48
 Truck specifications table of current production models. Automotive Ind 98:140-5 Mr 15 '48

Springs and suspension

Motor-vehicle suspension; abstracts. J. W. Wunsch. diags Mech Eng 69:1040-1 D '47; Automobile Eng 38:108 Mr '48

Steering gear

Power steering; Vickers-Detroit hydraulic booster. il diags Automobile Eng 37:409-11 N '47

Taxation

Rôle of commercial highway transportation in America's progress. J. V. Lawrence. Am Pet inst Proc 27(1):80-3 '47
 Upholds state taxes on interstate trucks; U.S. Supreme court refuses to void Montana levies. Ry Age 123:1042 D 13 '47

Transmission

Integrated chain of quality controls assures better truck transmissions; Chevrolet-Toledo plant. J. Geschelin. il Automotive Ind 99:32-4+ S 15 '48

Wheels

Truck-wheel balancer. S. R. Winters. il diag Electronics 21:134+ Ap '48

Winter operation

Truck garages unnecessary, uneconomic study by major oil company discloses; weather data indicates type of protection needed. P. W. Engels. map diags Nat Pet N 40:22+ Mr 24 '48

MOTOR trucks, Amphibious

Problems encountered by the Royal electrical and mechanical engineers in the field. E. B. Rowcroft. diags Inst Mech Eng J & Proc 158:Proc 178-86, pl 1-8 S '48; Same cond. Engineering 165:108, 117-20 Ja 30 '48; Same cond. Engineer 184:604-6 D 28 '47
 Waking barge. J. T. Tucker. il Automotive Ind 98:26-7+ Je 1 '48

MOTOR trucks, Industrial

Built-in overload protection for control valve; Clark carloader. F. Sherriff. il Machine Design 20:180-1 Ap '48
 Car shop automotive equipment. il Ry Mech Eng 121:655-6 N '47
 Handling time cut for export freight; Lackawanna mechanizes Hoboken terminal piers. il diags Ry Age 125:645-7 O 2 '48
 Industrial trucks move heavy loads easily. il Mill & Factory 43:149 O '48
 Interchangeable parts feature Buda equipment. il Ry Age 124:446-7 F 28 '48
 Many new designs at materials handling show. Automotive Ind 98:46+ F 1 '48
 Material handling simplified on community school project. H. E. Getman. il Am Concrete Inst J 19:332-4 D '47
 Materials handling demonstration at London airport. il Mech Handling 34:667 D '47

MOTOR trucks, Industrial—Continued

- Materials handling equipment; experience of large roofing and sheet metal wholesaler; Bayonne steel products co. *il* Sheet Metal Worker 39:62-5 F '48
- Materials handling; the new word in industry. *il* Fortune 37:96-102 Je '48
- Materials handling trucks serve as mobile scaffolds. *il* Iron Age 162:94 S 16 '48
- Paper mills use power lift trucks to advantage. *il* F. A. Westbrook. *il* Paper Ind 29:1304-5 D '47
- Power trucks raise effective storage by 50 per cent; Fruehauf trailer co. L. H. Niles. *il* Factory Management 105:94-6 D '47
- Railroads set to handle unit loads. *il* Ry Age 124:954-7 My 15 '48
- Unit loads and fork trucks save time; Illinois Central stores department. *il* Ky Age 124:1278-81 Je 26 '48
- Waste-chasing transportation; portland cement industry finding increasing use for power trucks. I. F. Legore. *il* Rock Prod 51:158-94+ Ag '48
- See also*
- Electric trucks, Industrial

Advertising

- Selling mass handling to industry; closed sales for Towmotor. H. Burnett. *il* Ind Marketing 33:39-40+ S '48

Dispatching

- Dispatch board controls moves by truck; Kodak Park. E. L. Cook. *il* Factory Management 106:94-6 Mr '48

Drivers

- Mill builds course to train fork lift truck operators; Arlington mills div. of William Whitman co. T. R. Hadfield and J. L. English. *il* plan Textile World 97:112-13 N '47

Safety measures

- Fool-proof trucking. C. F. Kells. *il* Safety Eng 96:14-17+ Ag '48
- Guidance for in-plant trucks and elevators. J. D. Lynch. *il* Safety Eng 95:26-9 F '48
- Hoists and trucks. *il* Nat Safety N 58:118+ Mr '48
- Useful power truck. C. S. Ziolkowski. *il* Nat Safety N 57:22-3+ Ja '48

Tiering trucks

- Clark carloader has many concrete uses. *il* Concrete 56:41 F '48

MOTOR trucks and bridges

- Live loads for highway bridges based on the chance grouping of heavy trucks in traffic; abstract. H. K. Stephenson. *il* Civil Eng 18:71-2 F '48

MOTOR trucks and roads

- Extra lanes for trucks cut down hazards on U.S. 5 in Connecticut. *il* Roads & Sts 90:62 D '47
- Future commercial highway transportation. J. S. Worley. S A E J 56:53-4+ S '48
- Pilot study of heavy motor vehicle operation in mountainous section of southwestern Pennsylvania. Roads & Sts 91:111 Ja '48
- Research under way on truck economics. Roads & Sts 91:84-5 S '48
- Shall we build vehicles to suit the highways or highways to suit the vehicles? C. M. Upham. *il* Roads & Bridges 85:84+ N '47
- Would highways be the same if there were no trucks? E. J. Buhner. Roads & Bridges 86:84+ My '48

MOTOR trucks in construction work

- Improved materials handling cuts crew dead time; Sacramento (Cal.) municipal utility district. C. L. Richey. *il* Elec World 129:80-1 Je 19 '48
- Motor trucks for mines, quarries, and construction; industrial data sheet. *il* Nat Safety N 58:39-40+ S '48
- New boom truck saves man-hours in line construction and equipment installation; Oilfield electric co. *il* Elec West 100:77 My '48
- New boom truck saves time on construction. *il* Elec World 129:120 Ap 10 '48
- MOTOR trucks in freight service**
- Canada releases annual motor-transport census. For Comm W 32:41-2 Ag 7 '48

- Case for the common carrier in trucking. W. A. Spurr. bibliog Land Econ 24:253-63 Ag '48
- Large motor truck terminals planned for metropolitan area. *il* Civil Eng 18:536 Ag '48
- Sanctions forwarder pacts with truckers; I.C.C. approves agreements. Ry Age 125:690-1 O 9 '48
- Schenley trucking operations considered private carriage. Ry Age 125:301-2 Ag 7 '48
- Trucks versus railroads. Bsns W p31-2+ S 25 '48
- Trucks win Southwest; Griffin grocery co. operating its own canning and coffee roasting plants. *il* map Food Ind 19:1641-2 D '47
- Warehouses are by-passed in this trucking operation; Herman processed meat in Florida. *il* Food Ind 20:1292-3 S '48
- Who's private? ICC test to distinguish between for-hire and private truckers. Bsns W p28 Jl 17 '48
- See also*
- Tank trucks

International transport

- International truck transport important to European commerce. A. D. Weininger. For Comm W 31:41 My 22 '48

MOTOR trucks in lumbering

- Diesels play prominent part in logging show. A. M. Johnson. *il* Diesel Power 26:62-3 F '48
- Pole truck tracks. W. D. Bennett. *il* diags Pulp & Pa of Can 49:92+ Mr '48
- Safety starts with maintenance. E. Freeman. *il* Safety Eng 95:13+ F '48

MOTOR trucks in mining

- Diesel power underground; ore-hauling trucks in lead and zinc mining operations by the Eagle-Picher mining and smelting co. W. C. Huddleston. *il* Diesel Power 26:58-9 F '48
- Motor trucks for mines, quarries, and construction; industrial data sheet. *il* Nat Safety N 58:39-40+ S '48
- Strip mine truck haulage. L. E. Briscoe. *il* Min Cong J 34:32-6 Ap '48

MOTOR trucks in repair service

- Milk-wagon truck for cable splicers. J. R. Kelley. *il* Elec World 130:87 Ag 28 '48
- Periodic testing of meters done from mobile shop. E. N. Mitchell. *il* plan Elec World 130:90-1+ O 23 '48
- Semi-trailer line truck developed locally. H. E. Reeve. *il* Elec World 130:109-10 Ag 14 '48
- Truck telephones build business. *il* Dom Eng 172:106-7 Ag '48

MOTOR trucks in selling

- Chocolate man cracks urban market with trucks; door-to-door delivery of candies in New York City's suburbs. *il* Sales Management 60:113 Je 1 '48

MOTOR vehicles

- Building the peacetime jeep. W. E. Paris. *il* Mach 55:194-201 N '48
- General-purpose light car; Land Rover. *il* Engineering 165:512-13 My 28 '48
- How the jeep donned civvies; smart engineering and production planning converted it into a line of utility cars. D. G. Roos. *il* Am Mach 92:69-73 Ja 1 '48
- Vital role of heat treating research in development and production of Mack trucks, buses, fire apparatus and marine engines. C. C. Roberts. *il* Automotive Ind 99:42-3+ Jl 1 '48
- See also*
- | | |
|----------------------------|-------------------------------------|
| Automobiles | Motor cars (railroad) |
| Diesel engines, Automotive | Motor trucks |
| Electric vehicles | Railroads—Motor vehicle auxiliaries |
| Gas turbines, Automotive | Taxicabs |
| Highway transportation | Tractors |
| Motor buses | Trailers |
| | Trolley buses |

Statistics

- Analysis of motor-vehicle registration records. G. P. St Clair and S. B. Clark. Pub Roads 25:95-101 S '48
- Cars in use by makes, states and by year of manufacture; tabulation. Automotive Ind 98:104-11 Mr 15 '48

MOTOR vehicles—Statistics—Continued

- City automobile registration, population and persons per car, 93 cities; tabulation. Automotive Ind 98:166-7 Mr 15 '48
- New car and truck registration by months, 1936-1947; tabulation. Automotive Ind 98:123 Mr 15 '48
- New motor vehicle registrations by states, 1941, 1946-1947; tabulation. Automotive Ind 98:119 Mr 15 '48
- 1947 registration increase greatest in 22 years. M. Ainsworth. Automotive Ind 97:44+ N 15 '47
- Total U.S. motor-vehicle registrations, by states, 1947 compared with 1946; tabulation. Automotive Ind 98:102-3 Mr 15 '48
- Total U.S. motor vehicle registrations by years, 1898-1947; tabulation and chart. Automotive Ind 98:101 Mr 15 '48
- United States registration counts July 1, 1947, compared with 1946; tabulation. Nat Pet N 40:24 Mr 17 '48
- World registrations by continental divisions and countries; tabulations. Automotive Ind 98:112 Mr 15 '48

Taxation

- Trends in the distribution of state road-user taxes, 1940-1947. E. W. Meadows and W. R. McCallum. Pub Roads 25:50-2 Mr '48
- Your customers look at the future. R. E. Singer. Am Pet Inst Proc 27(1):75-9 '47

MOTOR vehicles, Military

- America's newest military vehicles; abstract. J. M. Colby. Automotive Ind 99:34-5 Jl 1 '48
- Army convoy's 20,000-mile run tests lubes in all weathers. G. H. Vogel. Il Pet Processing 3:761-2 Ag '48
- How trailblazer units were designed for arc welding; with cost data. G. J. Storzat. Il diags Machine Design 20:143-8+ Ja '48
- Postwar military vehicles; illustrations with text. J. M. Colby. S A E J 56:46-8 S '48
- Problems encountered by the Royal electrical and mechanical engineers in the field. E. B. Rowcroft. diags Inst Mech Eng J & Proc 158:Proc 178-86, pl 1-8 S '48; Same cond. Engineering 165:103, 117-20 Ja 30 '48; Same cond. Engineer 184:604-6 D 26 '47
- Uncle Sam's newest; illustrations with text. Automotive Ind 99:36-40 Ag 1 '48

Springs and suspension

- Torsion bar suspension. J. M. Colby. Il S A E J 55:32-3 N '47

MOTOR vehicles, Steam

- Operating a petrol vehicle on steam. Automobile Eng 38:400 O '48
- Some lesser-known traction engines. R. H. Clark. Il diags Engineering 165:529-33, 540, 553-6 Je 4-11 '48

MOTORS, Electric. See Electric motors**MOTORSHIPS. See Motor ships****MOTOTROL. See Electric motors, Direct current—Control****MT DESERT Island biological laboratory**

- Annual meeting, Salisbury Cove, Me. Aug. 12. Science 108:325 S 24 '48

MOUNT HOLYOKE college

- Chemical education in American institutions. E. P. Carr. Il J Chem Educ 25:11-15 Ja '48

MOUNT HOLYOKE college institute on the United nations

- Institute on the United nations at South Hadley, Mass. from June 20 to July 17, 1948. Special Lib 39:161 My '48

MOUNTAIN, Sir Edward Mortimer, 1872-1948

- Sketch. por East Underw 49:21 Jl 2 '48

MOUNTAIN lands

- Needed; a method of western mountain land valuation. A. Roth, Jr. Land Econ 24:181-5 My '48

MOUNTAIN railroads

- Lone Diesel powers midget mountain railroad; Quincy railroad 5.29 miles long, connects town of Quincy with main line of Western Pacific. M. Huden. Il Diesel Power 26:70-2+ F '48

MOUNTAIN roads

- Arizona relocation involved 100,000-yd. granite cut. Il Roads & Sts 91:75-7 F '48
- Moving mountains to make a highway. Il Eng N 141:73-5 Ag 5 '48

- North Santiam highway follows difficult route near Cascade summit. J. P. Cameron. Il map diag Civil Eng 18:506-11+ Ag '48
- Plowing a Colorado pass; illustrations with text. Roads & Sts 90:96-8 N '47
- Putting brakes on landslides. Il diag Comp Air Mag 53:191-2 Ag '48

MOUNTAIN states telephone and telegraph company

- Debentures offered. Comm & Fin Chr 167:1589-90 Ap 12 '48

MOUNTAINS

- Abstracts of papers at meeting, Stanford University, April 11-12, 1947; Cordilleran section of the Geological society of America. Geol Soc Bul 58:1245-59 pt 2 D '47
- Appalachian and Alpine structures; a comparative study. A. E. Lombard. maps diags Am Assn Pet Geologists Bul 32:709-44 bibliog(p742-4) My '48
- Flysch and molasse. A. J. Eardley and M. G. White. bibliog diags Geol Soc Bul 58:979-89, pl 1 N '47
- Geosynclinal theory. A. Knopf. maps diags Geol Soc Bul 59:649-69 bibliog(p667-9) Jl '48
- Theory of Andean orogenesis. V. Oppenheim. bibliog maps Am J Sci 246:578-90 S '48

See also

- Isostasy
Washington, Mount

MOUNTING of machinery. See Machinery—Mounting**MOUTH****Diseases**

- Role of the dentist in oral cancer detection. R. S. Lloyd. bibliog Pub Health Rep 63:805-12 Je 18 '48

MOUTH organ. See Harmonica**MOVING**

- Nothing left to chance in Esso's plans in moving into new quarters. Nat Pet N 40:48-9 Ap 7 '48

See also

- Newspaper offices—
Moving

MOVING of factories. See Factories—Moving**MOVING of structures**

- Bridge trusses moved 75 miles. Il Roads & Sts 91:90 My '48
- Much travelled refinery moves from Corpus Christi, Texas, to Whitehorse and from Whitehorse to Edmonton. J. L. Irwin. Il Can Min J 69:75-9 Je '48
- New design of portable rig speeds rigup and moving jobs. G. M. Wilson. Il World Oil 128:71-8+ Jl '48
- 95-ton transformers righted without crane. Il Elec World 129:95 My 8 '48
- Northland refinery moves south. G. A. Lawrence. Il Pet Eng 19:162A-162B+ Ap '48
- Occupants taken for ride on one-a-day house moving job. Il Constr Methods 30:94-6 My '48
- Track-wheel units quickly move complete drilling rig; actual time on $\frac{3}{4}$ -mile location shift is two hours. L. S. McCaslin, Jr. Il Oil & Gas J 47:72-4 Jl 15 '48

MOVING picture cameras

- DeJure launching camera. Il Sales Management 61:101 O 1 '48
- Elegant Bell & Howell. Il Fortune 38:92-5+ Ji '48
- Errors in calibration of the f number. F. E. Washer. bibliog Soc Motion Picture Eng J 51:242-60 S '48
- Fastest motion picture camera. Il diags Sci Am 178:78-9 F '48
- High-speed camera will take more than five million pictures per second; abstracts. B. O'Brien and G. G. Milne. Mech Eng 69:1045-6 D '47; Elec Eng 67:157 F '48; Product Eng 19:161-2 Mr '48

- Indicted; your sales ability; Bell & Howell mock trial. Il Sales Management 61:42-3 S 1 '48

- Institute of optics, University of Rochester, motion-picture camera. Science 106:412 O 31 '47

- Method and equipment for checking motion picture apparatus speeds. C. T. Owlett. Il diags Soc Motion Picture Eng J 49:471-8 N '47

MOVING picture cameras—Continued

- Microtime instrumentation featured at navy's new Michelson laboratory. *il Instruments* 21: 542-3 *Je* '48
- New sunshade and filter holder for 16- and 8-mm motion picture cameras. *J. T. Strohm. il Soc Motion Picture Eng J* 49: 468-70 *N* '47
- New three-color camera. *J. H. Coote. il diag Soc Motion Picture Eng J* 50:543-53 *Je* '48
- Precision microtiming. Zarem camera. *Elec Eng* 67:905 *S* '48; *il diag Product Eng* 19: 147-8 *Ag* '48; *il diag Electronics* 21:164+ *Jl* '48
- Survey, 8-mm problems. *R. E. Lewis. il Soc Motion Picture Eng J* 49:439-52 *N* '47
- Television-recording camera. *Mech Eng* 70: 18 *Ja* '48; *Barron's* 28:38 *F* 16 '48
- Television recording camera. *J. L. Boon and others. il diag Soc Motion Picture Eng J* 51:117-26 *Ag* '48
- Zoomar lens for 35-mm film. *F. G. Back. il Soc Motion Picture Eng J* 51:294-7 *S* '48

Rating

- Miscellaneous motion picture equipment. *il Consumers Res Bul* 21:18, 21 *F* '48

MOVING picture films

- Callier *Q* of various motion picture emulsions. *J. G. Streiffert. diag Soc Motion Picture Eng J* 49:506-22 *D* '47
- New one-strip color-separation film in motion picture production. *H. C. Harsh and J. S. Friedman. il diag Soc Motion Picture Eng J* 50:8-13 *Ja* '48
- Optical sound-track printing. *J. A. Maurer. biblog il diag Soc Motion Picture Eng J* 50:458-73 *My* '48
- Survey, 8-mm problems. *R. E. Lewis. il Soc Motion Picture Eng J* 49:439-52 *N* '47
- Two microscopes for measuring the dimensions of 35-mm cine film. *O. B. Conklin. il diag Soc Motion Picture Eng J* 49:537-43 *D* '47
- Use of G-3 film-processing tank. *R. E. Lewis and H. C. Froula. il diag Soc Motion Picture Eng J* 50:474-88 *My* '48

Fires and fire protection

- Elimination of the fire hazard of projectors using nitrate film; automatic safety sprocket. *L. Mannon. il Soc Motion Picture Eng J* 50:173-6 *F* '48
- Improved safety motion picture film support. *C. R. Fordyce. biblog Soc Motion Picture Eng J* 51:331-49; *Discussion. 349-50 O* '48

Standards

- Recent American standards for 16- and 8-mm emulsion position. *diag Soc Motion Picture Eng J* 49:547-57 *D* '47

MOVING picture industry

- After the turn of the year. *S. P. Skouras. Comm & Fin Chr* 167:380 *Ja* 22 '48
- Bells toll; effect of television on moving picture theater attendance. *Barron's* 28:12 *S* 20 '48
- Motion picture industry. *G. S. Watkins. ed. Ann Am Acad* 254:1-172 *N* '47
- New York motion picture production. *E. C. Maguire. Soc Motion Picture Eng J* 50: 4-7 *Ja* '48
- Paramount theatre sales least of movie troubles. *Barron's* 28:33 *Je* 21 '48
- U.S. exports of motion-picture films and equipment, January-March 1948. *For Comm W* 31:33 *Je* 5 '48
- What 1600 Broadway means to film business; assembly of artists, technicians for film production. *F. W. Bright. Adv & Sell* 40:50 *D* '47
- What's playing at the Grove? independent movie operator in Galesburg, Ill. *il Fortune* 38:94-9+ *Ag* '48

See also Motion picture research council; Society of motion picture engineers

Advertising

- Film adman questions practices of others. *Ed & Pub* 81:10 *My* 22 '48
- Hollywood's '48 ads to shoot at two-thirds of Americans over 30 who don't go to movies. *L. F. Thomann. Ptr Ink* 221:96 *N* 28 '47

Theatre adman asks retail rate, no tieups.

- Ed & Pub* 81:18 *Mr* 20 '48
- \$300,000 teaser ads for Joan of Arc. *L. F. Thomann. il Ptr Ink* 224:101 *S* 3 '48

Directories

- 1948 membership directory, Society of motion picture engineers. *Soc Motion Picture Eng J* 51:1-66 *pt 2 S* '48

Employees

- How visual aids were used to explain job evaluation; Metro-Goldwyn-Mayer studios. *T. Hayworth and M. R. Sargent. il Factory Management* 106:72-4 *Ap* '48
- Labor relations in Hollywood. *M. Ross. Ann Am Acad* 254:58-64 *N* '47

Finance

- Domestic decline is movies' real trouble; small returns from costly films outweigh British problem. *S. B. Self. Barron's* 28:7 *Mr* 22 '48
- Financial organization of the motion picture industry. *F. B. Odium. Ann Am Acad* 254: 18-25 *N* '47
- Foreign exchange; U.S. movie industry's main problem in Europe. *N. D. Golden. il For Comm W* 30:6+ *Ja* 3 '48
- Hollywood earnings continue to slide. *Bsns W* p86 *Ag* 7 '48
- Lower cost films may assist Republic Pictures' prospects. *Barron's* 28:40 *Ap* 26 '48
- Problems face movie makers. *Bsns W* p94+ *D* 6 '47

International aspects

- American motion pictures in world trade. *G. M. Mayer. Ann Am Acad* 254:31-6 *N* '47
- Bacon and Bogart, too; Eric Johnston's deal with the British government. *Fortune* 37: 122 *Je* '48
- Effects of the film agreement. *Economist* 154:468+ *Mr* 20 '48
- Film agreement between British Board of trade and American film industry. *Economist* 154:936-7 *Je* 5 '48
- Film agreement between British Board of trade and United States motion-picture producers. *For Comm W* 31:22 *Ap* 3 '48
- Film agreement between United States and Britain. *Economist* 154:428 *Mr* 13 '48
- Foreign exchange; U.S. movie industry's main problem in Europe. *N. D. Golden. il For Comm W* 30:6+ *Ja* 3 '48
- New British film pact cheers Hollywood. *Bsns W* p 100 *Mr* 20 '48
- Repercussions of the film quota. *Economist* 155:118 *Jl* 17 '48

Public relations

- Movies' face washed in new public relations effort. *S. Rovner. Ed & Pub* 81:28 *O* 16 '48
- Pressure groups and the motion picture industry. *C. R. Metzger. Ann Am Acad* 254: 110-15 *N* '47

Regulation

- Motion picture production code for self regulation. *G. Shurlock. Ann Am Acad* 254: 140-6 *N* '47
- Movie makers fear, the worst. *Bsns W* p26+ *My* 15 '48
- Need for voluntary self-regulation. *R. A. Inglis. Ann Am Acad* 254:153-9 *N* '47
- Problem of monopoly; anti-trust action. *R. A. Brady. Ann Am Acad* 254:125-36 *N* '47
- Supreme court's big week; decision on film monopoly. *Bsns W* p21-2 *My* 8 '48

See also
Moving picture—Censorship

Research

- Audience research in the movie field. *P. F. Lazarsfeld. Ann Am Acad* 254:160-8 *N* '47

Securities

- Another look at the movies; with statistical summary of leading motion picture companies. *C. F. Morgan. il Mag of Wall St* 82:644-5+ *S* 25 '48
- Spotlighting the movie industry. *C. F. Morgan. il Mag of Wall St* 81:301-3+ *D* 20 '47

MOVING picture industry—Continued

Statistics

Need for statistical research. R. W. Chambers. Ann Am Acad 254:169-72 N '47

Taxation

Film tax developments. Economist 153:772 N 8 '47

Mexican film industry to be exempt from Federal District taxes. For Comm W 32:28 Ag 14 '48

Motion-picture tax in Norway protested by theater owners. For Comm W 31:28 My 8 '48

Yearbooks

1947-48 international motion picture almanac. T. Ramsaye, ed. 1007p \$5 Quigley publications, New York '47

Argentina

Argentine motion-picture notes. For Comm W 32:26-7 S 11 '48

Bolivia

Distribution and exhibition of 16-millimeter films. For Comm W 32:36 Ag 28 '48

Canada

Censorship in Quebec and New Brunswick. For Comm W 32:34 J 3 '48

Report on theaters in Canada and Newfoundland. For Comm W 32:28 J 10 '48

Theaters of modern design spring up in Canada; illustrations with text. Bsns W p23 J 1 24 '48

Chile

Motion-picture industry in Chile. For Comm W 29:28 D 6 '47

China

Censorship in China. For Comm W 31:29 My 1 '48

Costa Rica

Situation in Costa Rica. For Comm W 33:33 O 9 '48

Ecuador

Motion-picture distribution and exhibition in 1947. For Comm W 32:38 J 1 24 '48

Egypt

Protest against dubbed films, Egypt. For Comm W 30:27 Mr 27 '48

Finland

Production and distribution in Finland. For Comm W 31:25 Ap 24; 28 Je 12 '48

Great Britain

Cinematograph films bill. Economist 153:996 D 20 '47

Film finance. Economist 155:191-2 J 1 31 '48

Film tax developments. Economist 153:772 N 8 '47

Films and the future; Cinematograph films bill. Economist 153:1050-2 D 27 '47

Odeon affair. Economist 153:1012-14 D 20 '47

Odeon consolidation under fire. Economist 153:891-2, 933 N 29-D 6 '47

Odeon indebtedness; Mr Rank and the quota. Economist 155:597-8 O 9 '48

See also Gaumont-British picture corporation; Moving picture industry—International aspects

Greenland

Motion pictures in Greenland. For Comm W 31:35-6 My 29 '48

India

Censorship in India. For Comm W 30:24-5 Mr 6; 32:27-8 Ag 14; 33 S 18 '48

Motion-picture industry in India, 1947. For Comm W 31:27-8 My 8 '48

Indo-China, French

Motion picture developments. For Comm W 31:35 My 29; 33:32 O 9 '48

Italy

Italian motion-picture industry increases activity. For Comm W 32:28 S 11 '48

Regulations for the operation of foreign film business in Italy in 1948. For Comm W 30: 16 Mr 6 '48

Japan

Motion pictures in Japan. For Comm W 32: 35 S 25 '48

Lebanon

Motion-picture developments. For Comm W 31:34-5 Je 26; 32:35-6 S 25 '48

Mexico

Mexican film industry to be exempt from Federal District taxes. For Comm W 32: 28 Ag 14 '48

Mexican motion-picture industry. For Comm W 30:25 Mr 6 '48

Theater receipts during 1947. For Comm W 32:30 J 1 17 '48

Visual education in Mexico; sale and distribution of educational films. For Comm W 33:32 O 16 '48

Netherlands

Censorship statistics for 1946 and 1947. For Comm W 33:37 O 23 '48

Motion-picture developments. For Comm W 33:32 O 16 '48

Netherlands Indies

Motion picture notes, Netherlands Indies. For Comm W 30:27 Mr 27; 32:34-5 J 1 3 '48

U.S. films preferred in Netherlands Indies. For Comm W 32:28 J 1 10 '48

Newfoundland

Report on theaters in Canada and Newfoundland. For Comm W 32:28 J 1 10 '48

Nicaragua

Developments in Nicaraguan industry. For Comm W 30:24 Ja 3; 24 F 7; 31:25-6 Ap 24 '48

Norway

Motion-picture industry in Norway. For Comm W 32:34-5 Ag 7 '48

Motion-picture tax in Norway protested by theater owners. For Comm W 31:28 My 8 '48

Ontario

Censorship in Ontario, Canada. For Comm W 31:29 My 1 '48

Panama

Developments in Panama. For Comm W 33: 33 O 30 '48

Persia

Developments in Iran. For Comm W 30:22-3 Ja 17; 31:29 Je 12; 33:33 O 9 '48

First full-length talking picture produced in Iran. For Comm W 31:22-3 Ap 17 '48

Philippine Islands

Developments in the Republic of the Philippines. For Comm W 31:28 My 8 '48

Poland

Motion-picture industry in Poland. For Comm W 31:22 Ap 17 '48

Portugal

Motion pictures in Portugal. For Comm W 33:32-3 O 16 '48

Salvador

Developments in El Salvador. For Comm W 31:22 Ap 17; 32:28 S 11; 33 S 18 '48

Spain

Exhibition record for first-run theater, Madrid. For Comm W 33:33-4 O 30 '48

Motion-picture developments in Spain. For Comm W 30:26 Mr 20; 31:29 Je 12; 32:35 Ag 7; 27 S 11 '48

Situation in Spain, 1947. For Comm W 31:23 Ap 17 '48

Sweden

Swedish motion-picture activities. For Comm W 32:31 J 1 31 '48

Switzerland

Motion-picture developments. For Comm W 32:38-9 J 1 24 '48

MOTION picture industry—Continued**Turkey**

- Developments in Turkey. For Comm W 32:28 Ag 14 '48
 Import and exchange regulations in Turkey. For Comm W 32:33 Ag 21 '48

Uruguay

- Motion-picture developments. For Comm W 31:36 My 29; 32:36-7 Ag 28 '48
 Motion pictures in Uruguay during last quarter of 1947. For Comm W 31:22-3 Ap 3 '48
 National film industry proposed. For Comm W 31:29 Je 12 '48

MOVING picture machines

- Design factors in 35-mm intermittent mechanisms; Geneva-type. A. Hayek. diags Soc Motion Picture Eng J 49:405-14 N '47
 Design progress in an 8-mm projector. T. J. Morgan. il diags Soc Motion Picture Eng J 49:453-62 N '47
 Gaumont-Kalee model 21 projector. L. Audigier and R. Robertson. il Soc Motion Picture Eng J 51:269-93 S '48
 Lightweight projector has sub-assembled mechanical units. il diags Product Eng 19:98-100 Ap '48
 Low-cost sound film projector for the home; Visa Tone. Bsns W p20 N 29 '47
 Movie-sound-8 projector. L. Thompson. il Soc Motion Picture Eng J 49:463-7 N '47
 Portable 16-mm sound projector. H. H. Wilson. il Soc Motion Picture Eng J 51:21-9 Jl '48
 Sound motion pictures for passenger trains. J. G. Bitel. il Soc Motion Picture Eng J 50:64-7 Ja '48
 Survey, 8-mm problems. R. E. Lewis. il Soc Motion Picture Eng J 49:439-52 N '47
 35-mm process projector. H. Miller and E. C. Manderfeld. il diag Soc Motion Picture Eng J 51:373-84 O '48

Light sources

- High-intensity projection arc lamp. C. A. Hahn. il diags Soc Motion Picture Eng J 50:489-501 My '48

Noise

- Acoustical factors in the design of motion picture equipment. H. C. Hardy. il diags Soc Motion Picture Eng J 50:139-48 F '48

Rating

- 8 mm. projectors; 16 mm. silent and sound projectors. Consumers Res Bul 21:18-20 F '48

Safety measures

- Elimination of the fire hazard of projectors using nitrate film; automatic safety sprocket. L. Mannon. il Soc Motion Picture Eng J 50:173-6 F '48

Standards

- Proposals for 16-mm and 8-mm sprocket standards. J. S. Chandler and others. bibliog diags Soc Motion Picture Eng J 48:483-520 Je '47; Discussion. 51:437-40 O '48

MOVING picture photography

- Motion picture photography of television images. R. M. Fraser. bibliog il diags RCA R 9:202-17 Je '48
 Report of SMPE progress committee. bibliog il Soc Motion Picture Eng J 50:523-8 Je '48
 Survey of the application of photography in naval research, testing, and development. J. H. Bell and W. R. Cronenwett. Soc Motion Picture Eng J 49:494-505 D '47
 Television transcription by motion picture film. T. T. Goldsmith, Jr. and H. Milholland. il diag Soc Motion Picture Eng J 51:107-13 Ag '48; Abstract. Electronics 21:68-71 O '48; Discussion. Soc Motion Picture Eng J 51:113-16 Ag '48

See also

- Moving picture cameras

Apparatus and supplies

- Multi-Efex Titler device. J. T. Strohm. il Soc Motion Picture Eng J 49:544-6 D '47

Industrial applications

- Accurate checks without calculations; Lockheed aircraft combines camera and grid to record takeoff and landing. il Aviation W 49:24-6 Jl 5 '48
 High-speed cameras catch operating faults in design; National cash register co. H. G. Sisson. il Mill & Factory 42:149-50, Ap '48
 High-speed movie solves tricky problem in perfecting high-pressure hydraulic transmission. S. G. Guins. il diags Machine Design 19:126-8 D '47
 High speed movies, taken through microscope, let you see bubble-particle contacts in flotation. il Eng & Min J 149:95-7 Jl '48
 High-speed movies trace cause of wear; machine embodying ratchet feed. il Mach 54:164 N '47
 High-speed photography of welding arcs. F. Brailsford and K. F. Shrubbs. il diags J Sci Instr 25:211-13 Je '48
 Measurement of the temperature of sliding surfaces, with particular reference to railway brake blocks. R. C. Parker and P. R. Marshall. Inst Mech Eng J & Proc 158:Proc 214-19, pl 1-4 S '48; Same cond. Engineering 165:36, 45-8 Ja 9 '48
 Redesigning to withstand shock; high-speed movies hold key to analysis of mechanisms. D. L. Pierce. il Machine Design 20:127-32 Ag '48

See also

- Moving pictures in industry

Lighting

- Cadmium-mercury lamp, new movie star. il Westinghouse Eng 8:19 Ja '48
 Electronic flashtube illumination for specialized motion picture photography. H. M. Lester. bibliog il diags Soc Motion Picture Eng J 50:208-32 Mr '48
 High-speed motion pictures with synchronized multiflash lighting. R. A. Anderson and W. T. Whelan. il diags Soc Motion Picture Eng J 50:199-207 Mr '48

Scientific applications

- Cinematography in scientific research; abstract. S. Fordham. Chem Age (Lond) 59:513 O 16 '48
 Development of a new super-speed X ray motion picture; abstract. C. M. Slack. Iron Age 161:164 Je 3 '48
 Electronic flashtube illumination for specialized motion picture photography. H. M. Lester. bibliog il diags Soc Motion Picture Eng J 50:208-32 Mr '48
 Fastest motion pictures ever made; bullet passing through pane of glass. il Product Eng 19:164 Ap '48
 High-speed camera will take more than five million pictures per second; abstracts. B. O'Brien and G. G. Milne. Mech Eng 69:1045-6 D '47; Elec Eng 67:157 F '48; Product Eng 19:161-2 Mr '48
 High-speed motion pictures with synchronized multiflash lighting. R. A. Anderson and W. T. Whelan. il diags Soc Motion Picture Eng J 50:199-207 Mr '48
 High-speed Schlieren camera; its use for the observation of flame travel; abstract. Automobile Eng 38:116 Mr '48
 Influence of atmospheric pressure on the phenomena accompanying the entry of spheres into water. D. Gilbarg and R. A. Anderson. il diags J Ap Phys 19:127-39 F '48
 Laboratory investigations of the mechanism of cavitation. R. T. Knapp and A. Hollander. il A S M E Trans 70:419-31; Discussion. 431-5 Jl '48
 Now it's high-speed X-ray movies. Westinghouse Eng 8:28-9 Ja '48
 Precision microtiming; Zarem camera. Elec Eng 67:905 S '48; il diag Product Eng 19:147-8 Ag '48
- MOVING picture plays**
 Analysis of themes and plots. M. Wolfenstein and N. Leites. Ann Am Acad 254:41-8 N '47
 Sources of movies. W. J. Fadiman. Ann Am Acad 254:37-40 N '47

MOVING picture producers

Independent producer, D. M. Nelson. Ann Am Acad 254:49-57 N '47

MOVING picture projection

Projection equipment for screening rooms. H. J. Benham, bibliog il diags Soc Motion Picture Eng J 51:261-8 S '48

See also

Moving picture studios—Projection rooms

MOVING picture projectors. See Moving picture machines**MOVING picture screens**

Brightness and illumination requirements. H. L. Logan, bibliog il plans diag Soc Motion Picture Eng J 51:1-12 JI '48

Daylight movies; reflecting movie screen for schools. il Elec West 99:78 N '47

Increasing the effectiveness of motion picture presentation. B. Schlanger, bibliog il diag Soc Motion Picture Eng J 50:367-73 Ap '48

Review of SMPTE work on screen brightness; committee report, bibliog diags Soc Motion Picture Eng J 50:254-70; Discussion, 270-3 Mr '48

We shipped 3,380 screens without orders; dealers bought 89 per cent; Da-Lite screen co. O. N. Wilton, il Sales Management 61:138+-S 15 '48

MOVING picture sound recording

Four-channel re-recording system. H. Randall and F. C. Spielberger, il Soc Motion Picture Eng J 50:502-4 My '48

Improved intermodulation measuring system. G. W. Read and E. R. Scoville, bibliog il 2 fold pls diags Soc Motion Picture Eng J 50:162-73 F '48

Light modulation by P-type crystals. G. D. Gotschall, il diags Soc Motion Picture Eng J 51:13-20 JI '48

Lightweight recorders for 35- and 16-mm film. M. E. Collins, il Soc Motion Picture Eng J 49:415-24 N '47

Magnetic sound-on-film. M. Camras, il diags Elec Eng 67:136-41 F '48

Microphone tilting device. B. H. Denney and R. J. Carr, il Soc Motion Picture Eng J 49:530-6 D '47

Modern film re-recording equipment. W. C. Miller and G. R. Crane, il plan diag Soc Motion Picture Eng J 51:399-417 O '48

New variable-area recorder optical system. J. L. Pettus and L. T. Sachtleben, bibliog il diags Soc Motion Picture Eng J 50:14-36 Ja '48

Optical sound-track printing. J. A. Maurer, bibliog il diags Soc Motion Picture Eng J 50:458-73 My '48

Parabolic sound concentrators. R. C. Colle, bibliog diags Soc Motion Picture Eng J 51:298-311 S '48

Report of SMPTE progress committee, bibliog il Soc Motion Picture Eng J 50:528-36 Je '48

Synthetic sound on film. R. E. Lewis and N. McLaren, diags Soc Motion Picture Eng J 50:233-47 Mr '48

Noise reduction

Cathode-ray-oscillograph images of noise-reduction envelopes. B. H. Denney, diags Soc Motion Picture Eng J 50:37-49 Ja '48

Continuously variable band-elimination filter. K. Singer, il diag Soc Motion Picture Eng J 51:203-10 Ag '48

Versatile noise-reduction amplifier. K. Singer, il diag Soc Motion Picture Eng J 50:562-70 Je '48

MOVING picture studios**Equipment**

Improved film splicer. M. Leshing, il Soc Motion Picture Eng J 50:68-73 Ja '48

Motion picture film-developing machine. R. P. Ireland, il diag Soc Motion Picture Eng J 50:50-3 Ja '48

Projection equipment for screening rooms. H. J. Benham, bibliog il diags Soc Motion Picture Eng J 51:261-8 S '48

35-mm process projector. H. Miller and E. C. Manderfeld, il diag Soc Motion Picture Eng J 51:373-84 O '48

Use of G-3 film-processing tank. R. E. Lewis and H. C. Froula, il diags Soc Motion Picture Eng J 50:474-88 My '48

Lighting

New developments in mercury lamps for studio lighting. F. E. Carlson, bibliog il diag Soc Motion Picture Eng J 50:122-38 F '48

Report of studio-lighting committee, bibliog il Soc Motion Picture Eng J 51:431-6 O '48

Projection rooms

Industrial control applied to the projection room. M. A. Boyce and C. W. Hyten, il Soc Motion Picture Eng J 50:248-53 Mr '48

MOVING picture theaters

Advancement of motion picture theater design. B. Schlanger, bibliog diags Soc Motion Picture Eng J 50:303-13 Ap '48

Auditorium-acoustics. J. F. Maxfield, bibliog il plans diags Soc Motion Picture Eng J 51:169-76; Discussion, 176-83 Ag '48

Community theaters are best showplaces for brick; illustrations. Brick & Clay Rec 112:30-1 Ja '48

Foreign theater operation. C. Crystal, Soc Motion Picture Eng J 50:344-9 Ap '48

General theater construction. J. J. McNamara, Soc Motion Picture Eng J 50:322-8; Discussion, 350, 356-8 Ap '48

Increasing the effectiveness of motion picture presentation. B. Schlanger, bibliog il diag Soc Motion Picture Eng J 50:367-73 Ap '48

Influence of West Coast designers on the modern theater. S. C. Lee, il Soc Motion Picture Eng J 50:329-36; Discussion, 351-4, 358-9 Ap '48

Psychology of the theater. W. A. Cutter, Soc Motion Picture Eng J 50:314-20; Discussion, 320-1 Ap '48

Quieting and noise isolation. E. J. Content, Soc Motion Picture Eng J 51:184-8; Discussion, 188-91 Ag '48

Small theater provides high technical standards for rural moviegoers; Clara City, Minn. il plan diag Arch Forum 89:95 O '48

Theaters of modern design spring up in Canada; illustrations with text. Bsns W p23 JI 24 '48

Accounting

Yardsticks for motion picture theater revenues and costs. R. A. Howard, jr. N A C A Bul 30:131-9 O 1 '48

Air conditioning

Air conditioning of theaters discussed by Society of motion picture engineers. Heat & Ven 44:120+-N '47

Motion picture theater air conditioning. D. D. Kimball, plans diags Soc Motion Picture Eng J 51:52-69; Discussion, 94-100 JI '48

Service and maintenance of air-conditioning systems. W. B. Cott, Soc Motion Picture Eng J 51:92-3 JI '48

Billboards

Display frames in the motion picture theater. L. King, Soc Motion Picture Eng J 51:101-3 JI '48

Cleaning

Vacuum cleaning of theaters. R. Webber, Soc Motion Picture Eng J 50:439-41 My '48

Drive-in theaters

See Moving picture theaters, Open air

Equipment

Behavior of acoustic materials. R. K. Cook, il diags Soc Motion Picture Eng J 51:192-200; Discussion, 200-2 Ag '48

Fires and fire protection

Elimination of the fire hazard of projectors using nitrate film; automatic safety sprocket. L. Mannon, il Soc Motion Picture Eng J 50:173-6 F '48

Floor coverings

Theater engineering conference; floor coverings. Soc Motion Picture Eng J 50:421-46; Discussion, 447-57 My '48

Heating and ventilation

Air purification by glycol vapor. J. W. Spiselman, bibliog il Soc Motion Picture Eng J 51:70-8 JI '48

MOVING picture theaters—Heating and ventilation—Continued

Ultraviolet air disinfection in the theater.
L. J. Buttolph, bibliog diag Soc Motion
Picture Eng J 51:79-91 J1 '48

Insurance requirements

U.&O. loss cannot be assigned to purchaser
of burned theatre. East Underw 49:22 J1
16 '48

Lighting

Brightness and illumination requirements. H.
L. Logan, bibliog il plans diag Soc Motion
Picture Eng J 51:1-12 J1 '48
Dynamic luminous color for film presenta-
tion. R. G. Williams, il Soc Motion Picture
Eng J 50:374-83; Discussion. 383-8 Ap '48
Theater engineering conference; lighting. C.
M. Cutler and others, il diag Soc Motion
Picture Eng J 50:571-612 Je '48

Management

Exhibitor. C. P. Skouras, Ann Am Acad 254:
26-30 N '47

Seating

New slide-back chair. W. A. Gedris, Soc Mo-
tion Picture Eng J 50:389-92 Ap '48
Seating arrangements, sight lines, and seat-
ing design. F. W. Alexa, Soc Motion Pic-
ture Eng J 50:360-4; Discussion. 364-6 Ap
'48

Sound equipment

Coaxial and separate two-way speaker sys-
tem design. H. Souther, il diag Communi-
cations 28:22-44 J1 '48
Modern sound-reinforcement system for thea-
ters. C. E. Talley and E. W. Kautzky, il
diag Soc Motion Picture Eng J 50:149-61
F '48
New theater loudspeaker system. H. F. Hop-
kins and C. R. Keith, il diag Soc Motion
Picture Eng J 51:385-98 O '48
Portable and semiportable loudspeaker sys-
tems for reproducing 16-mm sound on film.
J. K. Hilliard, il Soc Motion Picture Eng J
49:431-8 N '47
Versatile measuring instrument for theater
sound service. C. S. Perkins and E. S.
Seeley, il Soc Motion Picture Eng J 50:554-
62 Je '48

Television

Big picture practices; theater projection. il
Tele-Tech 7:35+ Mr '48
Development of theater television in Eng-
land. A. G. D. West, il plans diag Soc
Motion Picture Eng J 51:127-67; Discus-
sion. 167-8 Ag '48
Developments in large-screen television. R.
V. Little, jr, il diag Soc Motion Picture
Eng J 51:37-46; Discussion. 47-51 J1 '48
Motion picture television projected from film.
il Electronics 21:128 Je '48
Optical problems in large-screen television.
I. G. Maloff, il diag Soc Motion Picture Eng
J 51:130-6; Discussion. 47-51 J1 '48
Showmanship side of television. R. B. Aus-
trian, Soc Motion Picture Eng J 49:395-401;
Discussion. 402-4 N '47
Theater television; a general analysis. A. N.
Goldsmith, Soc Motion Picture Eng J 50:
95-117; Discussion. 118-21 F '48

MOVING picture theaters, Open air

Drive-in theater. S. H. Taylor, il Soc Mo-
tion Picture Eng J 50:337-43; Discussion.
350, 352-6 Ap '48

MOVING pictures

Anthropologist looks at the movies. H. Pow-
dermaker, Ann Am Acad 254:80-7 N '47

Censorship

Censorship at home and abroad. L. Luraschi.
Ann Am Acad 254:147-52 N '47
Censorship in China. For Comm W 31:29 My
1 '48
Censorship in India. For Comm W 30:24-5
Mr 8; 32:27-8 Ag 14; 33 S 18 '48
Censorship in Ontario, Canada. For Comm W
31:29 My 1 '48
Censorship in Quebec and New Brunswick.
For Comm W 32:34 J1 3 '48
Censorship statistics for 1946 and 1947. For
Comm W 33:37 O 23 '48

Cultural aspects

Motion picture as a stimulus to culture. E.
Johnston, Ann Am Acad 254:98-102 N '47

History

My first fifty years in motion pictures; ex-
periences as partner of travelog exponent,
Burton Holmes. O. B. Depue, Soc Motion
Picture Eng J 49:481-93 D '47
Rise and place of the motion picture. T.
Ramsaye, Ann Am Acad 254:1-11 N '47

Military use

Survey of the application of photography in
naval research, testing, and development.
J. H. Bell and W. R. Cronenwett, Soc
Motion Picture Eng J 49:494-505 D '47
See also
Moving pictures in
naval education

Propaganda films

Movies and propaganda. L. C. Rosten, Ann
Am Acad 254:116-24 N '47

Psychological aspects

Influence of the movies on attitudes and be-
havior. F. Fearing, Ann Am Acad 254:70-9
N '47
Use of 16-mm motion pictures for educational
reconditioning at the Walter Reed general
hospital. E. W. Schultz, il Soc Motion Pic-
ture Eng J 51:424-30 O '48

Rating

Ratings of motion pictures. Consumers Res
Bul 21:27-8 Ja '48 [cont monthly]

Social aspects

American mind and the motion picture. N.
Woelfel, Ann Am Acad 254:88-94 N '47
Clergyman looks at the movies. A. A. Hunter,
Ann Am Acad 254:95-7 N '47
Importance of the entertainment film. M.
Quigley, Ann Am Acad 254:65-9 N '47
Influence of the movies on attitudes and be-
havior. F. Fearing, Ann Am Acad 254:70-9
N '47
Pressure groups and the motion picture in-
dustry. C. R. Metzger, Ann Am Acad 254:
110-15 N '47

Standards

American standards on motion pictures; re-
view of all current standards in Z22 series
and others of interest to the motion picture
industry. Soc Motion Picture Eng J 50:279-
81 Mr '48
Five recent American standards on motion
pictures. diag Soc Motion Picture Eng J
50:282-9 Mr '48
Report of ASA committee on standards for
motion pictures, Z22. Soc Motion Picture
Eng J 50:274-8 Mr '48
Report of SMPTE standards committee. Soc
Motion Picture Eng J 51:230-41 S '48
MOVING pictures, Colored
Color-television film scanner. B. Erde, il diag
Soc Motion Picture Eng J 51:351-72 O '48
New one-strip color-separation film in motion
picture production. H. C. Harsh and J. S.
Friedman, il diag Soc Motion Picture Eng
J 50:8-13 Ja '48
New three-color camera. J. H. Coote, il
diag Soc Motion Picture Eng J 50:543-53 Je
'48
Photoelectric method for determining color
balance of 16-mm Kodachrome duplicating
printers. P. S. Aex, il diag Soc Motion
Picture Eng J 49:425-30 N '47
Polaroid unveils new movie color method.
Bsns W p43 D 27 '47

MOVING pictures, Industrial. See Moving pic-
tures in industry
MOVING pictures, Talking
See also
Moving picture
sound recording

MOVING pictures in advertising
Advantages to advertisers of cooperative
films; four or five different companies may
sponsor one commercial film, cutting in-
dividual cost. T. R. Cox, jr, il Adv & Sell
41:36 O '48
Agency man's kit of advertising film facts.
H. B. West, il Adv & Sell 40:39+ D '47

MOVING pictures in advertising—Continued

- Animation gives technical subject chorus-girl kick; Standard Oil film, Gasoline's amazing molecules. *il* diag Mod Ind 16:97-8+ O '48
- ANA Rochester study finds all schools use ad films. *Ptr Ink* 224:95 Ag 13 '48
- First commercial cooking film started. *J. J. Bourke. Am Gas Assn Mo* 30:31 Mr '48
- First commercial gas film completed. *il* Am Gas Assn Mo 30:12-13+ S '48
- Go Hollywood, for two hundred dollars! company-made film for industrial sales promotion. *E. Robbins. il* Ind Marketing 32:36-8+ D '47
- How Suffolk promotes pre-packaged spinach. *Sales Management* 60:134-5 Je 15 '48
- Meadow Gold strikes new pay dirt through group selling. *H. Roberts. il* Sales Management 60:62+ F 1 '48
- Movie demonstrates heavy industrial equipment. *L. F. Thomann. il* *Ptr Ink* 221:43 N 14 '47
- Sponsored film industry finds itself divided; how uncommercial can movie be and still sell. *D. Bruner. Ptr Ink* 221:108 N 14 '47
- Teachers want your industrial films. *F. M. McKinney. il* Ind Marketing 33:44+ Ja '48

MOVING pictures in education

- Daylight movies; reflecting movie screen for schools. *il* Elec West 99:78 N '47
- Foundation arranges newspaperby films. *C. Watson. Ed & Pub* 81:46 Je 5 '48
- Motion pictures as an aid to education. *F. E. Brooker. Ann Am Acad* 254:103-9 N '47
- Save for a goal; color sound film of Dollar savings bank of New York. *il* Banking 40:16+ D '47
- Visual education in Mexico; sale and distribution of educational films. *For Comm W* 33:32 O 16 '48

Catalogs

- Health films catalog; an annotated list. 89p pa \$1 Educational library assn, suite 1000, 1600 Broadway, New York 19 '47
- MOVING pictures in employee training. See** Moving pictures in industry
- MOVING pictures in industry**
- Les applications industrielles du cinéma. *il* Génie Civil 124:393-6 O 15 '47
- Armour shows dealers the how of full-line selling; film demonstrating tested way to create more impulse sales. *W. S. Shafer. il* Sales Management 59:60+ D 15 '47
- Burlington Mills' film stresses worker importance. *W. A. Newell. il* Textile World 98:103-6 O '48
- Cannibalizing cuts cost of promotional films; California gas co. pipeline. *Sales Management* 61:40 J 15 '48
- C & K produces first of training-film series. *W. A. Newell. il* Textile World 98:112-13 Ag '48
- Do you need a business film? *C. Dueser. il* diag Ind Marketing 33:41-2+ F; 46-7+ Mr; 44-5+ Ap '48
- Films that tell better stories than salesmen. *il* Mod Ind 16:81-2+ J 1 '48
- Getting the most out of business film showings. *F. I. Jewell. il* *Ptr Ink* 223:42+ Je 25 '48
- Goodyear trains 25,000 dealers with films in ten months. *il* Sales Management 60:111+ Mr 15 '48
- Industry looks to the screen. *O. H. Coelln. il* Sci Am 177:261-4 D '47
- It's a big job; color film produced for Los Angeles Transit; part of company's training program for street car, motor bus and trolley bus drivers. *il* Bus Transportation 27:74 Mr '48
- Movie angles in a big construction job; Texas-Los Angeles pipe line filmed. *J. H. Collins. Pub Util* 42:486-92 O 7 '48
- Movie used to combat turnover; Hamilton watch co. *L. S. Metcalfe. il* Mill & Factory 42:134 Ap '48
- New films. *il* Mod Ind 15:93-4+ Ja '48 [cont monthly]
- Recommended visual aids in industrial arts; best films in ten industries. *H. R. Nissley. J Eng Educ* 38:205-8 N '47
- Report by movie; Union oil co. report on celluloid and televised to stockholders. *il* Bsns W p 104-5 Ap 24 '48

- Step forward in company public relations films. *il* Mod Ind 16:81+ S '48
- Textile films available in the United Kingdom; list of titles and distributors. *Soc Dyers & Col J* 63:345-50 N '47; Same cond.
- Textile Inst J 38:P619-25 N '47
- To market by movie; Dravo corporation promotes public relations with towboat tour and movies of river dredging operations. *E. P. Pearsall. il* Ind Marketing 33:34-5 Ag '48
- What 1600 Broadway means to film business; assembly of artists, technicians for film production. *F. W. Bright. il* Adv & Sell 40:50 D '47
- When industrial prospects say, let's see it work! demonstration with movies. *G. E. Collins. il* Sales Management 60:37-9 Mr 1 '48

Catalogs

- Report to the American ceramic society of the ceramic film committee of the Missouri school of mines. *Am Cer Soc Bul* 27:163-5 Ap 15 '48

Cooperative films

- Advantages to advertisers of cooperative films. *T. R. Cox, jr. il* Adv & Sell 41:36 O '48
- Co-op movies ring bell for many firms. *il* Mod Ind 15:83 My '48

MOVING pictures in naval education

- Wartime naval photography of the electronic image; training radar operators. *F. X. Clasyby and R. A. Koch. il* Soc Motion Picture Eng J 50:189-97; Discussion. 197-8 Mr '48

MOVING pictures in religious education

- Master guide to religious films, 1948-9. pa \$2.50 Selected films release service, 124 N. Bright av, Whittier, California '48

MOVING pictures in safety education

- Plastic stars in new film; moving picture stresses role of Plexiglas in industrial safety. *L. S. Metcalfe. il* Safety Eng 95:17+ Ja '48
- Portable unit brings safety films to the shop. *A. Pittman. il* Factory Management 105:130-1 N '47

MOVING pictures on trains

- Sound motion pictures for passenger trains. *J. G. Bitel. il* Soc Motion Picture Eng J 50:64-7 Ja '48

MOVING stairways. See Escalators**MOWERS, Lawn. See** Lawn mowers**MOWING machines**

- Mow 'em down! roadside power mowing and weed control. *il* Roads & Sts 90:75-7 N '47

MUCIC acid

- Esters of mucic acid. *J. F. Carson. Am Chem Soc J* 70:2609 J 1 '48

MUCOUS membrane

- Nasal cavity of the rat in pharmacological and other experimentation. *G. Kelemen. Science* 107:273-4 Mr 12 '48

MUD

- Concrete jacketing H-piles in soft mud; foundation for a turbine building at the Schenectady, N.Y. works of the General electric co. *il* Eng N 140:179 F 5 '48
- Theory of surface cracks in mud and lava and resulting geometrical relations. *L. I. Hewes. diags Am J Sci* 246:138-49, pl 1 Mr '48; Discussion. *H. Simpson. 246:591-2 S '48*

See also

- Petroleum—Mud fluids

MUD jacking

- Controlling the pumping action of concrete pavement slabs; use of bituminous materials. Information on mixtures of soils and other materials for mudjacking. *il* diags Roads & Bridges 86:61-5+ Ja '48
- Emulsified asphalt; mud jacking mix successfully used in Arkansas. *C. C. White. il* Roads & Sts 91:105 Mr '48

- MUFFLERS. See** Diesel engines—Mufflers; Internal combustion engines—Mufflers

MUIR, Rowland H.

- Portrait. *Fortune* 37:79 F '48

MULCHING

- Straw mulch placed rapidly by machine methods. *C. R. Hanes. il* Roads & Sts 91:96-7 Ap '48

- MULLER, Herman Joseph, 1890-**
Resignation from Academy of sciences of the USSR. Science 108:436 O 22 '48
- MULLINS manufacturing company**
Small companies with big earnings. Mag of Wall St 81:295 D 20 '47
- MULLITE**
Mullitization of kaolinite. J. E. Comeforo and others. bibliog il diags Am Cer Soc J 31:254-9 S 1 '48
Properties and uses of mullite and pure alumina refractories; abstract. G. B. Remmey. Metal Prog 53:279- F '48
- MULTIPLEX system.** See Radio telephone—Multiplex system; Telephone—Multiplex system
- MULTIVIBRATORS**
Calibrating multivibrator for use in radio-isotope studies. A. Mauro and M. C. Barry. diags R Sci Instr 18:856 N '47
Degenerative positive-bias multivibrator. S. Bertram. diag inst Radio Eng Proc 36:277-80 F '48
High-ratio multivibrator frequency divider. M. Silver and A. Shadowitz. diags Elec Com 25:160-2 Je '48
Multivibrator design by graphic methods. A. E. Abbot. diags Electronics 21:118-20 Je '48
Portable electronic chronometer. G. T. Baker. bibliog il diags J Sci Instr 25:194-8 Je '48
Two portable substandards of frequency. R. Terlecki and J. W. Whitehead. il diags J Sci Instr 25:237-9 JI '48
See also
Phantastron (delay circuit)
- MUNICH**
Deutsches museum
Deutsches museum being restored. il Chem & Eng N 26:1152 Ap 19 '48
- MUNICIPAL accounting**
Suggestions for organization to aid municipal audits. L. B. McIntire. J Account 85:245 Mr '48
- MUNICIPAL bonds**
Advantages of tax exempt bonds overlooked by smaller investors. B. M. Goldsmith. Comm & Fin Chr 167:1761 Ap 22 '48
Changing value of tax exemption versus municipal bond prices. W. Browne. Comm & Fin Chr 168:797- Ag 26 '48
IBA committee expects continued huge output of municipals. Comm & Fin Chr 166:2509+ D 18 '47
Municipal bonds as bank investments. H. L. Severson. Comm & Fin Chr 167:817+ F 19 '48
Municipal bonds in the bank portfolio. I. A. Long. Comm & Fin Chr 168:1102+ S 16 '48
Outlook for municipal bonds. L. S. Lebenthal. Comm & Fin Chr 167:103 Ja 8 '48
Record flood of municipal bonds due in 1948; tax-free yield tops corporate and loan rate. Barron's 28:33 Ja 5 '48
SEC and municipal securities; editorial. Comm & Fin Chr 168:1415+ O 7 '48
Some ideas on how to buy municipal bonds. J. A. White. Comm & Fin Chr 168:1745+ O 28 '48
State and city department bond proposals and negotiations. Published in weekly Monday numbers of Commercial and financial chronicle
Tax-exempts lose ground; municipal borrowing will cost 60 per cent more. Bsns W p56-7 F 7 '48
\$31,526,000 New York City Housing authority bonds marketed by underwriting group. Comm & Fin Chr 168:1655 O 21 '48
- MUNICIPAL buildings**
See also
Asphalt plants, Municipal
Municipal centers
- MUNICIPAL centers**
Detroit builds first unit of civic center. il Eng N 141:68-9 S 30 '48
- MUNICIPAL employees**
San Francisco worried by health service system; employees covered under compulsory system may be left without care as physicians resign. Weekly Underw 157:1265 N 15 '47
- Salaries
Salary trends of sewer maintenance and sewage treatment plant personnel. R. F. Brown. bibliog Sewage Works J 20:724-33 JI '48
- MUNICIPAL engineering**
American public works association annual meeting, Jacksonville, Oct. 5-8. Roads & Sts 90:71-3+ N '47
See also
City planning
Pavements
Public works
Refuse collection
Refuse disposal
Sewage disposal
Sewerage
Snow removal
Streets
Water purification
Water supply engineering
- MUNICIPAL engineers**
New AAE report suggests wage rate for city engineers. Eng N 139:765+ D 4 '47
What a city engineer does; city engineer of Bismarck, N.D. Pub Works 79:38+ Ag '48
- MUNICIPAL finance**
Hearne's municipal utilities show a profit. N. L. McCarver. il Pub Works 78:29-30 N '47
State and municipal finance in 1947; programs for 1948. Nat City Bank p34-5 Mr '48
To unbalance the budget; Milwaukee \$13-million bond issue. Bsns W p36 Ap 24 '48
See also
Municipal bonds
Municipal taxation
- MUNICIPAL franchises**
See also
Electric utilities—
—Franchises
- MUNICIPAL government**
Yearbooks
Municipal year book, 1948. C. E. Ridley and O. F. Nolting, eds. 558p International city managers' assn, 1313 E. 60th st, Chicago '48 (\$8.50)
- MUNICIPAL housing projects.** See Housing projects, Municipal
- MUNICIPAL improvement**
Approaches to decentralization control. R. H. Riley. Am Soc C E Proc 73:1335-9 N '47
Daily-university team conducts civic project; Bloomington pantagraph and University of Illinois. Ed & Pub 81:38 Ja 10 '48
Improvements to St Charles River area of Quebec city, il Roads & Bridges 86:56+ Ja '48
See also
Cities and towns—
Cleanliness
City planning
Water fronts
- MUNICIPAL officials**
Directories
Municipal road officials in incorporated cities and towns, Canada. Roads & Bridges 86:169-70+ Je '48
- MUNICIPAL ownership**
Hearne's municipal utilities show a profit. N. L. McCarver. il Pub Works 78:29-30 N '47
See also
Airports, Municipal
Electric utilities—
Municipal ownership
Rapid transit—Municipal ownership
Waterworks—Municipal ownership
- MUNICIPAL reports**
City report in tabloid form gets wide circulation. Ptr Ink 222:74 Mr 19 '48
Unique tabloids create interest in city affairs; Wichita municipal progress report. Ed & Pub 81:30 Mr 6 '48
- MUNICIPAL taxation**
Cities in cash hunt turn to income tax. Bsns W p73 Je 12 '48
City wage tax in Columbus, Ohio. Bsns W p34 N 22 '47
Columbus income tax o.k'd by referendum. Bsns W p36 Je 19 '48
Local levies rise. Bsns W p34 D 6; 26 D 27 '47; 63-5 Ja 24 '48
Occupational tax upheld by Kentucky high court; Louisville levy is constitutional. Weekly Underw 159:315 Ag 14 '48
Problems in federal, state and city tax coordination. A. G. Buchler. Comm & Fin Chr 168:201+ JI 15 '48

MUNICIPAL taxation—Continued

Some local tax trends affecting public utilities. B. Jones. Pub Util 40:701-7 N 20 '47
Trend to income taxes by cities causes real concern. Nat Underw 52:13 JI 8 '48; Same. Nat Underw (Life ed) 52:4 JI 16 '48

MUNISING wood products company, inc.

Offering of stocks. Comm & Fin Chr 166: 2421 D 15 '47

MUNITION factories

For this new plant, underground quarters; Smith & Wesson. II Factory Management 106:82-3 S '48

Smith & Wesson prepares to go underground. II Bsns W p39-40+ JI 24 '48

See also

Krupp works, Essen

Employees

Handling poor risk cases; Westinghouse suspension of two jet-propulsion workers. II Bsns W p90 JI 24 '48

MUNITIONS

Alloy steel in war, then and now. C. Williams. II Metal Prog 54:485-8+ O '48

See also

Bombs, incendiary

MUNITIONS board. See United States—Munitions board

MUNITIONS industry**Statistics**

Munitions production, 1941-1946. Survey of Cur Bsns 1947 Sup p 15

Great Britain

War effort of Vickers-Armstrongs limited. R. Mickle. Engineering 166:364-5 O 15 '48

MUNROE effect

Explosives with lined cavities. G. Birkhoff and others. bibliog II diag J Ap Phys 19: 563-82 Je '48

MUNSINGWEAR, inc.

Ruralization method no. 1; convert an old building. II Factory Management 106:68-70 Ag '48

MURAL painting and decoration

Decorating with full color porcelain enameled murals; work of Edward Winter, for the decoration of restaurant front. II Iron Age 161:94 Ap 15 '48

New techniques in black light for theater murals. R. J. Elliott. Soc Motion Picture Eng J 50:601-6 Je '48

MURDOCK, William, 1754-1839

Lunar Society members. M. Schofield. Chem & Ind p389-90 Je 19 '48

MURPHREE, Elger Vaughan

Portrait. Fortune 37:115 My '48

MURRAY, J. Edward

Editorial chiefs named for new L.A. mirror. por Ed & Pub 81:24 S 11 '48

MURRAY, Philip, 1886-

Murray at the crossroads. por Bsns W p 100+ My 8 '48

Unfinished business dispels rumors of Murray's retirement. T. Campbell. por Iron Age 162:127-8 S 23 '48

MUSCARINE

Nature and spatial relationship of the prosthetic chemical groups required for maximal muscarinic action. G. C. Pfeiffer. bibliog Science 107:94-6 Ja 23 '48

MUSCLE

Action of ryanodine on the contractile process in striated muscle. G. A. Edwards and others. Science 108:330-2 S 24 '48

Nature of the interaction between actomyosin and ATP. W. K. Jordan and G. Oster. bibliog II Science 108:188-90 Ag 20 '48

Observations on the pH and related properties of meat. E. C. Bate-Smith. bibliog Soc Chem Ind J 67:83-90 Mr '48

Preparation of acellular homogenates from muscle samples. W. E. Poel. diags Science 108:390-1 O 8 '48

Proteins of the muscle fibril; abstract. K. Bailey. Soc Dyers & Col J 64:261 JI '48

See also

Myoglobin

MUSCLES

Muscular tension as an index of visual efficiency: a progress report. M. E. Bitterman and others. diag Illum Eng 43:1074-81; Discussion. 1081-6 N '48

Physico-chemical mechanism of muscular contraction and relaxation. J. Riseman and J. G. Kirkwood. bibliog Am Chem Soc J 70:2820-2 Ag '48

MUSCONE

Many-membered carbon rings; a new synthesis of civetone and *dl*-muscone. A. T. Blomquist, R. W. Holley and R. D. Spencer. bibliog Am Chem Soc J 70:34-6 Ja '48

MUSEUM of science and industry, Chicago

Miracle of growth; transparent acrylic models. II Mod Plastics 25:112-15 D '47

Streamlined wooden Indians. Fortune 37:126 My '48

MUSEUMS

See also

Art galleries and museums

Munich—Deutsches museum

Directories

Libraries, museums, and art galleries year book, 1948. 288p \$12.50 R. R. Bowker co. 62 W. 45th St. New York 19 '48

Great Britain

Directory of museums and art galleries in the British Isles. S. F. Markham. 392p £1 2s Museums assn. Meteorological bldgs, Exhibition road, London, S.W.7 '48

MUSHROOMS

Production of mushroom mycelium (*agaricus campestris*) in submerged culture. H. Humfeld. Science 107:373 Ap 9 '48

MUSIC

See also

Tones

Acoustics and physics

Elastic impact of pianoforte hammer. R. N. Ghosh. Acoustical Soc Am J 20:324-8 My '48

Musical acoustics conference at Liège. E. G. Richardson. Acoustical Soc Am J 20:344-5 My '48

Physics and music. F. A. Saunders. II diags Sci Am 179:32-41 JI '48

Bibliography

Music reporter, 1947-1948. 436p Music reporter inc. 501 Madison av. New York 22 '48

MUSIC in industry

Customers and employees benefit from music in the bank. E. G. Cleverdon. Bankers Mo 64:538 N '47

MUSIC stores

Store for the browsing music lover, Los Angeles. II plan Arch Rec 104:105-7 Ag '48

Two stores in Oakland, Calif. and San Francisco. II plans diags Arch Forum 88:138-9 My '48

MUSICAL instruments

Physics and music. F. A. Saunders. II diags Sci Am 179:32-41 JI '48

Wanted, the formant, dead or alive. R. H. Bolt. Acoustical Soc Am J 20:66 Ja '48

What's new in acoustics? V. O. Knudsen. II Heating-Piping 19:88-90 N '47

See also

Clarinet

Piano

Wind instruments

Manufacture

More music; mass production of musical instruments helped by plastics. II Mod Plastics 25:108-10 Je '48

MUSICAL instruments, Electric

Bells without bells; Stromberg-Carlson buys Liberty carillons, inc. II Bsns p82+ Je 26 '48

Electronic musical instruments. B. F. Miesner. Acoustical Soc Am J 19:996 N '47

MUSICAL instruments trade

Music drive on; survey spurs sales campaign. Bsns W p73-4 Ap 3 '48

Advertising

Repetition of acceptance theme stretches wholesaler's small budget; Chicago musical instrument co. Ptr Ink 222:58 Mr 5 '48

MUSICAL intervals and scales

Melodic scales. R. Vermeulen. bibliog II Acoustical Soc Am J 20:545-9 JI '48

MUSICAL pitch

Chroma fixation at the ends of the musical frequency scale. A. Bachem. *Acoustical Soc Am J* 20:704-5 S '48

MUSICIANS

Musicians' strike; issue between the BBC and the Musicians' union. *Economist* 155:132-4 J1 24 '48

MUSICIANS, American federation of. See American federation of musicians

MUSICRAFT records, inc.

Stockholders given right to subscribe to bonds underwritten. *Comm & Fin Chr* 167:2791 Je 28 '48

MUSSEL poison

Paralytic shellfish poison; occurrence and concentration by ion exchange. H. Sommer and others. *bibliog Am Chem Soc J* 70:1015-18 Mr '48

Paralytic shellfish poison; purification by chromatography. H. Sommer and others. *Am Chem Soc J* 70:1019-21 Mr '48

MUSTARD

Laboratory preparation and decontamination of mustard. A. M. Reeves and S. Love. *Science* 107:204 F 20 '48

Mustard, its preparation and use. R. Macy. *Science* 107:191 F 20 '48

MUSTARD gas

Composition of mustard gas made by the Levisstein process. A. M. Kinnear and J. Harley-Mason. *bibliog Soc Chem Ind J* 67:107-10 Mr '48

Interior coating of tubular containers; phenol-formaldehyde resins prevent decomposition of poison gases. L. P. Hubbuch and W. C. Johnson. *diags Ind & Eng Chem* 40:297-301 F '48

Melting point of mustard gas. W. A. Felsing, C. A. Hunting and S. D. Fell. *Am Chem Soc J* 70:1966 My '48

Vapor pressure of mustard gas (β,β' -dichloroethylsulfide), diphenyl ether and their mixtures. H. E. Bent and R. J. France. *bibliog diags Am Chem Soc J* 70:634-7 F '48

Analysis

Quantitative methods for certain organic sulfides. J. W. Sease and others. *bibliog Anal Chem* 20:431-4 My '48

MUTATION (biology)

Chromosome breakage in plants induced by radioactive phosphorus (P^{32}). T. J. Arnason and others. *Science* 107:193-9 F 20 '48

Factors influencing the mutation rate in neurospora. H. Miller and W. D. McElroy. *Science* 107:193-4 F 20 '48

Formaldehyde as a mutagen in drosophila. W. D. Kaplan. *Science* 108:43 J1 9 '48

Induction of cytogenetic variations by ultrasonic waves. L. H. Wallace and others. *Science* 107:577-8 My 28 '48

MUTUAL fire insurance company of Montgomery county, Maryland

100 years of service. *Weekly Underw* 158:1828 J= 26 '48

MUTUAL general agents association

Organization meeting. *Nat Underw* 51:3 O 30 '47

MUTUAL insurance. See Insurance, Mutual

MUTUAL insurance companies, National association of. See National association of mutual insurance companies

MUTUAL insurance statistical association

Mutuals form statistical unit. *Nat Underw* 51:22 N 6 '47

MUTUAL rating. See Employees—Rating

MUTUAL savings banks. See Savings banks

MUTUAL telephone company, Honolulu

Bonds placed privately. *Comm & Fin Chr* 168:1147 S 20 '48

MUZO emerald mines. See Emeralds

MYCALEX

Mycalex 410; glass-bonded mica in molded form. F. L. Yerzley. *il India Rubber World* 118:374-6 Je '48

MYOGLOBIN

Crystalline human myoglobin; some physico-chemical properties and chemical composition. A. Rossi-Fanelli. *bibliog il Science* 108:15-16 J1 2, '48

MYOGRAPH

Adaptation of selsyn transmitters for obtaining isometric myographs on the cathode-ray oscilloscope. R. L. Bowman. *il diags Science* 108:310-11 S 17 '48

MYOSIN

Disappearance of salt from glass ice during low-temperature dehydration, and its implication in electron microscopy. D. C. Pease. *il Science* 106:543 D 5 '47

MYRCENE

Emulsion polymerization of myrcene. A. J. Johanson, F. L. McKennon and L. A. Goldblatt. *Ind & Eng Chem* 40:500-2 Mr '48

MYRICK, Julian S.

Sketch. *por Nat Underw (Life ed)* 52:11 Mr 26 '48; *Weekly Underw* 158:942- Mr 27 '48; *East Underw* 49:5 Ap 2 '48

MYRISTIC acid

Nature of negative ions in liquid hydrocarbons. A. Gemant. *Electrochem Soc J* 94:160-70 O '48

MYRISTICIN aldehyde

Synthesis of N-(3-methoxybenzyl)-N-methyl-3-methoxy-4,5-methylenedioxyphephenylamine. A. R. Surrey. *bibliog Am Chem Soc J* 70:2887-90 S '48

N**NACCONOL NR**

Application research methods for synthetic detergents. L. H. Flett. *il Chem & Eng* N 26:1363-70 My 10 '48

Scouring wool raw stock with a synthetic organic detergent. O. M. Morgan. *Am Dye-stuff Rep* 37:96-8; *Discussion*. 98-9 F 9 '48

Wool piece goods scouring with a synthetic organic detergent. O. M. Morgan. *Am Dye-stuff Rep* 37:93-5 F 9 '48

NAGASAKI, Japan**Water supply**

Effects of atomic bombing on sewerage and refuse collection in Hiroshima and Nagasaki. *Pub Works* 78:36- O '47

NAIL polishes**Rating**

1948 nail lacquers. *Consumers Res Bul* 21:9-10 My '48

NAILS

Co-operative gray market cure sought; nail-makers meet with Senate committee. *il Steel* 121:18-19 + D 29 '47

Neoprene-washed nails for fastening aluminum roofing and siding. *il diags Sheet Metal Worker* 39:66-8 F '48

NAME plates

Vitreous enameling nameplates. A. Hall. *il Cer Ind* 51:74-5 O '48

NAMES

World words; recommended pronunciations. W. C. Greet. 2d ed rev & enl 608p \$6.75 Columbia univ. press, Morningside Heights, New York '48

NAMES, Business. See Business names

NAMES, Geographical

American names; a guide to the origin of place names in the United States. H. Ganett. 334p \$3.75 Public affairs press, 2153 Florida av, Washington 8, D.C. '47

Directions for the treatment of geographical names in Surinam. (Special pub. no. 85) 13p U.S. Dept. of the interior, Board on geographic names, Washington, D.C. '47

United States place names honoring the navy. E. H. Clark, jr. *il U S Naval Inst Proc* 74:452-5 Ap '48

NAMES, Trade. See Trade names

NAPHTHA

Catalytic desulfurization and reforming of naphthas over bauxite. C. J. Helmers and G. M. Brooner. *bibliog diag Pet Processing* 3:133-4 + F '48

Commercial uses of petroleum naphthas. H. N. Frost and C. A. Murray. *bibliog il Pet Processing* 3:17-20 Ja '48

Depolarized petroleum naphthas. C. Allen. *bibliog (43 ref) Ind & Eng Chem* 40:124-30 Ja '48

NAPHTHA—Continued

- Octane number of reformed naphthas. W. L. Nelson, *bibliog Oil & Gas J* 46:118 D 13 '47
 Self-contained naphtha polyforming correlation. W. A. Goldtrap and E. L. Jones, *il diag Pet Eng* 20:269-72 O '48
 Viscosity of vapors. W. L. Nelson, *Oil & Gas J* 46:109 F 12 '48

NAPHTHALENE

- Action of methanol on naphthalene in the presence of catalysts of the alumina-silica type; formation of 2-methylnaphthalene. N. M. Cullinan and S. J. Chard, *Chem Soc J* p804-5 Je '48
 Acylation of benzene compounds with iodine as a catalyst. S. Chodroff and H. C. Klein, *bibliog Am Chem Soc J* 70:1647-8 Ap '48
 Alkynaphthalenes; the methyl, ethyl, and n-propyl naphthalenes. S. H. Morrell and others, *bibliog (59 ref)* *Inst Pet J* 34:677-91 S '48
 Attempts to find new chemotherapeutic amidines; derivatives of 1,1-diphenylethane and naphthalene. J. N. Ashley, J. F. Grove and T. Henshall, *Chem Soc J* p261-4 Mr '48
 Chloromethylation of naphthalene and of tetralin. G. M. Badger, J. W. Cook and G. W. Crosbie, *Chem Soc J* p 1432-4 N '47
 Dienone-phenol rearrangement. R. T. Arnold, J. S. Buckley, Jr. and J. Richter, *bibliog Am Chem Soc J* 69:2322-5 O '47
 Economic trends in coal tar hydrocarbons. J. M. Weiss, *Chem & Eng N* 26:238-40 Ja 26 '48
 Kinetics of aromatic halogen substitution; the 1-halogenonaphthalenes and related compounds. P. E. D. de la Mare and E. W. Robertson, *Chem Soc J* p 100-8 F '48
 Mass and heat transfer in tube banks. C. C. Winding and A. J. Cheney, *jr, bibliog diags Ind & Eng Chem* 40:1087-93 Je '48
 Molecular diagram method. P. Daudel and R. Daudel, *bibliog J Chem Phys* 16:639-43 Jl '48
 Paradichlorobenzene; scarcity cases. J. R. Skeen, *Soap & San Chem* 24:157+ F '48
 Some naphthalene analogs of desoxycorticosterone. C. C. Price, H. I. Enos, Jr. and W. Kaplan, *bibliog Am Chem Soc J* 69:2261-4 O '47
 Steric hindrance and short wave length bands in the ultraviolet spectra of some naphthalene and diphenyl derivatives. R. A. Friedel, M. Orchin and L. Reggel, *bibliog Am Chem Soc J* 70:199-204 Ja '48
 Supplies of benzene and naphthalene. J. M. Weiss, *Chem Eng Prog* 44:sup 16+ Jl '48

Analysis

- Polarographic determination of naphthalenes in kerosine and light gas oils. D. P. Thornton, Jr. *il Pet Processing* 3:673-5 Jl '48
 Polarographic determination of naphthalenes in petroleum fractions. A. A. Burdett and B. E. Gordon, *bibliog il Anal Chem* 19:843-6 N '47

Statistics

- Crude naphthalene; a statistical review. J. R. Skeen, *Chem & Eng N* 26:2555-6 Ag 30 '48
 Refined naphthalene. J. R. Skeen, *Chem & Eng N* 26:2894 S 27 '48

NAPHTHALENE BORONIC ACIDS

- Synthesis and reactions of some substituted naphthaleneboronic acids. H. R. Snyder and F. W. Wyman, *bibliog Am Chem Soc J* 70:234-7 Ja '48

NAPHTHENES**Analysis**

- Proposed method of test for aromatic hydrocarbons in mixtures with naphthenes and paraffins by silica gel adsorption, diags *Am Soc T M Proc* 46:356-64 '46

NAPHTHIDINE

- Naphthidine transformation involving β -positions only. H. H. Hodgson, J. Habeshaw and P. B. R. Murti, *Chem Soc J* p 1330-2 O '47

NAPHTHIMIDAZOLE

- Synthesis of 2- and 3-substituted naphth[1,2]imidazoles. E. W. Malmberg and C. S. Hamilton, *bibliog Am Chem Soc J* 70:2415-17 Jl '48

NAPHTHOL

- Comparison of nickel catalysts in the hydrogenation of β -naphthol. H. Adkins and G. Krsek, *Am Chem Soc J* 70:412 Ja '48
 Preparation and some reactions of α -(ω -cyanoethyl)- β -naphthol. A. F. Hardman, *Am Chem Soc J* 70:2119-20 Je '48

NAPHTHOL AS

- Review of the use of Rapidogen dyestuffs and related products in textile printing. F. F. Jacobs, *Rayon* 29:83-6 Mr '48

NAPHTHOL blue

- Esters of 1-hydroxy-2-naphthoic acid, and naphthol-blue dyes therefrom. M. Pianka and H. C. Barany, *Chem Soc J* p309-10 Mr '48

NAPHTHOLS

- 1-Alkyl-1,2,3,4-tetrahydro-2-naphthols. B. C. McKusick, *bibliog Am Chem Soc J* 70:2196-8 Je '48
 Observation on cracking fastness of naphthols. B. Celantano, *Rayon* 29:83 Jl '48

NAPHTHOLSULFONIC ACID

- Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; derivatives of 2'-chloro-5'-nitrobenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, A. T. Peters and Y. I. Rangwala, *Chem Soc J* p206-9 F '48

- Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; phthalazine derivatives from 4'-nitro-2':5'-dimethoxybenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, R. L. Desai and A. T. Peters, *Chem Soc J* p281-4 Mr '48

- Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of 2'-chlorobenzene-2-naphthol-1-diazosulphonate. C. I. Brodrick, A. T. Peters and F. M. Rowe, *Chem Soc J* p 1026-9 Jl '48

- Reaction of diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of halogenobenzene-2-naphthol-1-diazosulphonates. A. T. Peters, G. T. Pringle and F. M. Rowe, *Chem Soc J* p597-601 My '48

NAPHTHOQUINONE

- Addition of sulphydryl derivatives to 2-methyl-1,4-naphthoquinone. L. F. Fieser and R. E. Turner, *bibliog Am Chem Soc J* 69:2335-8 O '47

- Color reactions of sulfonamides with β -naphthoquinone-4-sulfonate. F. J. Bandelin, *Science* 106:426 O 31 '47

- Naphthoquinone acids and ketols. L. F. Fieser and R. B. Turner, *bibliog Am Chem Soc J* 69:2338-41 O '47

- Preparation of 2,3-diphenyl-1,4-naphthoquinone and its reaction with phenylmagnesium bromide and phenyllithium. H. M. Crawford, *bibliog Am Chem Soc J* 70:1081-4 Mr '48

- Synthesis of 2-hydroxy-3-[3'-*cis*-(4-hydroxycyclohexyl)-propyl]-1,4-naphthoquinone. W. G. Dauben and R. E. Adams, *bibliog Am Chem Soc J* 70:1759-62 My '48

NAPHTHYLAMINE

- Aromatization studies; aminobiphenyls and naphthylamines. E. C. Horning, M. G. Horning and E. J. Platt, *Am Chem Soc J* 70:288-9 Ja '48

NAPHTHYL isocyanate

- Polysaccharide aryl carbamates. I. A. Wolff and C. E. Rist, *bibliog Am Chem Soc J* 70:2779-82 Ag '48

NAPHTHYL thiourea

- ANTU, the lethal dose. A. R. Latven, A. B. Sloane and J. C. Munch, *Soap & San Chem* 24:127+ Ja '48

- ANTU variation in toxicity to rats; abstract. J. C. Munch and others, *Chem & Eng N* 25:3361 N 17 '47

NAPHTHYLIDENECROTONIC ACID

- γ -6-Methoxy-1:2:3:4-tetrahydro-1-naphthylidenecrotonic acid. W. C. J. Ross, *Chem Soc J* p 1364-5 O '47

NAPHTHYRIDINE

- Preparation of 1:8-naphthyridines from 2:6-diaminopyridine. V. Petrow, E. L. Rewald and B. Sturgeon, *Chem Soc J* p 1407-10 O '47

NAPPING of textiles

Minimum runs desired in napping flannel.
E. D. White. *Il Textile World* 97:181+
D '47

NARCOTICS

Constriction of the mid-thorax as a means of
reflex maintenance of respiration during
barbiturate narcosis. A. C. P. Bakos and
W. L. Howell. *bibliog Science* 108:45-6 JI 9
'48

Narcotic drug seizures total 46,755 oz. in
year. *Oil Paint & Drug Rep* 154:71 Ag 16
'48

Partition coefficients of fifty compounds be-
tween olive oil and water at 20°C. R.
Macy. *bibliog J Ind Hygiene* 30:140-3 Mr
'48

Some hemiacetals of chloral with cyclic al-
cohols. W. T. Sumnerford and F. M. Cronin.
bibliog Am Chem Soc J 70:448 F '48

See also

Cocaine

NARRAGANSETT electric company
Bonds offered. *Comm & Fin Chr* 167:2470
Je 7 '48

NASH-KELVINATOR corporation
Annual report. *Comm & Fin Chr* 167:1047 Mr
8 '48

NASHUA, New Hampshire
Whose mistakes at Nashua? *Il Fortune* 38:
98-100 N '48

NASHUA manufacturing company
What's behind the Nashua mill shutdown?
Bsns W p44+ O 23 '48

NATIONAL academy of sciences

Abstracts of papers presented at 1947 autumn
meeting. *Science* 106:505-13 N 28 '47

Abstracts of papers presented at 1948 meet-
ing. *Science* 107:457-66 My 7 '48

Autumn meeting, Washington, D.C. Nov. 17.
Chem & Eng N 25:3568-9 D 1 '47

Chemists elected. *Chem & Eng N* 26:1378+
My 10 '48

National academy of sciences and the Na-
tional research council. R. L. Zwemer. *Il*
Science 108:234-8 S 3 '48

Officers and new members. *Science* 107:541-2
My 21 '48

NATIONAL advertisers, Association of. See
Association of national advertisers

NATIONAL advertising. See Advertising, Na-
tional

NATIONAL advertising agency network
Convention, San Francisco. *Ed & Pub* 81:14
My 22 '48

**NATIONAL advisory committee for aeronau-
tics.** See United States—National advisory
committee for aeronautics

**NATIONAL advisory council on international
monetary and financial problems**
Report submitted to the President, Jan. 19,
1948. *Fed Res Bul* 34:152-66 F '48

Report submitted to the President on July
30, 1948. *Fed Res Bul* 34:1083-100 S '48

NATIONAL aeronautic association
NAA convention ok's revival try. *Aviation W*
49:16 JI 19 '48

NATIONAL agricultural limestone association
Annual meeting, 3d, Washington, Jan. 14-16.
Rock Prod 51:114-16+ F '48

NATIONAL airlines, inc.
Board forcing NAL showdown. *Aviation W*
49:13-14 O 4 '48

Mediation board chairman opens record on
NAL pilot strike. *Aviation W* 48:44-5 Mr
22 '48

NAL-ALPA heading toward showdown. A.
McSurely. *Il Aviation W* 48:11-12 Mr 15 '48

NAL strike. *Aviation W* 49:44 S 27 '48

National case has repercussions; CAB dis-
memberment proposal. S. Altschul. *Avia-
tion W* 49:33 O 25 '48

NATIONAL applied mathematics laboratories.
See United States—Standards, National
bureau of—National applied mathematics
laboratories

**NATIONAL association of accident and health
underwriters**
Actions taken by executive board and na-
tional council at Minneapolis. *Weekly*
Underw 159:237 JI 31 '48

Annual convention, Minneapolis, June 28-30.
East Underw 49:24-32 JI 2; 34 JI 9 '48; *Nat*
Underw 52:16+ JI 1 '48; *Nat Underw* (Life
ed) 52:1+ JI 2 '48

DeYoung on board; committee heads also
named. *East Underw* 49:34 Ag 20 '48

Midyear meeting of executive board, In-
dianapolis, Jan. 26. *East Underw* 49:34 F 6
'48; *Weekly Underw* 158:457 F 7 '48

President's address at annual convention.
G. H. Knight. *East Underw* 48:24+ JI 2
'48; Same cond. *Weekly Underw* 159:5+ JI
3 '48

**NATIONAL association of bank auditors and
comptrollers**
Annual convention, Baltimore, Oct. 22-25.
Burroughs Clearing House 32:3 D '47

NATIONAL association of broadcasters
Annual meeting, 26th, Los Angeles, May 17-
21; program. *Communications* 28:9+ Ap '48

N.A.B. backtracks on purified radio code.
Bsns W p84 N 22 '47

**NATIONAL association of casualty and surety
agents**
Issue brochure on Association's aims. *East*
Underw 49:42 Je 11 '48

NATIONAL association of corrosion engineers
Annual conference, St Louis, April 5-8. *Chem*
& *Eng N* 26:1145 Ap 19 '48; *Oil & Gas J*
46:53, 143 Ap 15 '48

Great interest in corrosion engineering. *Ma-
rine Eng* 53:62 O '48

NATIONAL association of credit men
Annual credit congress, 52d, Cleveland, May
16-20. *Credit & Fin Management* 50:33-41
Je '48

Balanced objective; address at annual con-
vention. H. H. Heimann. *Credit & Fin*
Management 50:4-6+ Je '48

NACM national committees. *Credit & Fin*
Management 50:34-6 JI '48

National board at work. T. B. Hendrick.
Credit & Fin Management 50:28-31 Ja '48

Statement of policy. *Credit & Fin Manage-
ment* 50:38 Je '48

NATIONAL association of home builders
Annual meeting, Chicago. *Eng N* 140:337 Mr
4 '48

NATIONAL association of housing officials
Annual meeting, 14th. *Arch Forum* 87:16 D
'47

**NATIONAL association of independent insur-
ance adjusters**
Adjusters carried extra heavy burden in
1947. P. B. Reed. *Weekly Underw* 158:20+
Ja 3 '48

Annual meeting, New York, June 10-12. *Nat*
Underw 52:17+ Je 17 '48

**NATIONAL association of independent Insur-
ers**
Meeting, Chicago. *Nat Underw* 51:17+ N 27
'47; *East Underw* 48:34 D 5 '47; *Weekly*
Underw 157:1405+, 1642 D 6, 27 '47

**NATIONAL association of insecticide and dis-
infectant manufacturers**
Annual meeting, 34th, Baltimore, Dec. 1-3.
Oil Paint & Drug Rep 152:5+ D 8 '47;

Soap & San Chem 23:134-9+ D '47

Economic poison laws; an outline of their
development from 1910 to 1950. H. W. Ham-
ilton. *Soap & San Chem* 23:114-15 N '47

Midyear meeting, Spring Lake, N.J. June 14-
16. *Chem & Eng N* 26:1908 Je 28 '48; *Oil*
Paint & Drug Rep 153:5+ Je 21 '48; *Soap*
& *San Chem* 24:135-7+ Je '48

Mid-year meeting, 34th, Spring Lake, N.J.
June 14-16; with abstracts of papers. *Soap*
& *San Chem* 24:127-31+ JI '48

NATIONAL association of insurance agents
Annual convention, Chicago, Oct. 4-7. *East*
Underw 49:1+ O 8; 25-8+ O 15 '48; *Nat*
Underw 52:39-40+ O 7; 1+ O 14 '48; *Specta-*
tor (Property ed) 14:12-16 O 7; 52-3 O 21
'48; *Weekly Underw* 159:808-24 O 9 '48

Committee reports. *Nat Underw* 52:6 O 7
'48

Members appointed to executive committee.
East Underw 49:19 O 22 '48

Midyear meeting, New York, April 5-8. *East*
Underw 49:16, 25 Ap 9; 24, 34 Ap 16 '48;

Nat Underw 52:1+, 4+ Ap 8; 1+, 2+
Ap 15 '48; *Weekly Underw* 158:1103-8 Ap
10 '48; *Spectator* (Property ed) 13:16-19 Ap
8 '48

Miller and Sheldon new members of NALA
executive committee. *East Underw* 48:19 O
31 '47

New committee chairmen. *East Underw* 48:
22 D 12 '47

NATIONAL association of insurance agents—*Continued*

1947 was strategic year for local agents. W. P. Welsh. Weekly Underw 158:28+ Ja 3 '48

President's address at annual meeting. Weekly Underw 159:797+ O 9 '48

NATIONAL association of insurance brokers

Brokers quickly get reaction of public; 1947 activities. W. S. French. Weekly Underw 158:35+ Ja 3 '48

NATIONAL association of insurance commissioners

Annual convention, 79th, Philadelphia, June 6-10. East Underw 49:1+; 19-20+ Je 11; 1+ Je 18 '48; Nat Underw 52:1+ Je 10; 1+ Je 17 '48; Nat Underw (Life ed) 52:1+ Je 11; 1+ Je 18 '48; Spectator (Life ed) 155:34+ Je '48; Spectator (Property ed) 13:18-19+ Je 24 '48; Weekly Underw 158:1697-704, 1759+ Je 12-19 '48

Commissioners had active 1947. S. B. Thompson. Weekly Underw 158:286 Ja 24 '48

Committees appointed. East Underw 49:4+ S 10 '48; Nat Underw 52:25 S 9 '48; Nat Underw (Life ed) 52:9 S 10 '48

Mid-year meeting, Miami Beach, Dec. 7-10. East Underw 48:1+ D 12 '47; Nat Underw 51:1+ D 11; 1+ D 18 '47; Nat Underw (Life ed) 51:1 D 12; 1+ D 19 '47; Spectator (Life ed) 155:8-9+ D '47; Spectator (Property ed) 13:14-17+ D 25 '47; Weekly Underw 157:1498+; 1562+ D 13-20 '47

NATIONAL association of life underwriters

Annual convention, 59th, St. Louis, Sept. 13-17. East Underw 49:1+ S 17 '48; Life Ins. Courant 53:22-3 O '48; Nat Underw (Life ed) 52:1+ S 17; 1+ S 24 '48; Nat Underw (Life ed) Daily ed 52:5-50 S 16; 5-50 S 17 '48; Spectator (Life ed) 156:8-26 S '48; Weekly Underw 159:632-49 S 18 '48

Expounds N.A.L.U. position on group, SS, and NSLI; Miami address. J. E. Rutherford. Nat Underw (Life ed) 51:2+ D 19 '47

Mid-year meeting, Louisville, March 16-20. East Underw 49:1+; 4+; 6 Mr 28; 8 Ap 2 '48; Nat Underw (Life ed) 52:1-2+ Mr 26 '48; Spectator (Life ed) 155:28-9+ Ap '48

New committee lineup. Nat Underw (Life ed) 51:1+ O 7 '47; Same, Life Ins Courant 52: 470+ N '47

President's address to annual convention. J. B. Baumann. East Underw 49:7+ S 17 '48; Excerpts. Weekly Underw 159:593+ S 18 '48

NATIONAL association of litho clubs

Annual convention, 3d, Chicago, Jan. 24. Inland Ptr 120:82 F '48

NATIONAL association of magazine publishers

Magazines challenged to meet world problems as NAMP stages its 2d annual forum, New York. Ptr Ink 223:98-9 My 7 '48

NATIONAL association of manufacturers

Industry's answer to the police state; NAMP's 12-point program. E. Bunting. Comm & Fin Chr 166:2273+ D 4 '47

N.A.M. faces challenge at annual convention. Pors Bns W 223 D 6 '47

N.A.M. spokesman for industry? A. S. Cleveland. Harvard Bns R 26:353-71 My '48

Renovation in N.A.M. Fortune 38:72-5+ JI '48

Stake of industry. M. Sayre. Ann Am Acad 259:113-21 S '48

NATIONAL association of master plumbers

Annual meeting, 66th, Philadelphia, May 24-27. Dom Eng 171:114-17 Je; 172:125-6+ JI '48

NATIONAL association of motor bus operators

Annual meeting, 19th, Chicago, Sept. 15-17. Bus Transportation 27:42-3+ O '48

NATIONAL association of mutual insurance agents

Annual convention, Washington, D.C. Nat Underw 52:2 O 21 '48

Annual meeting, 16th, Cleveland, Oct. 23-25. Nat Underw 51:4+; 10 O 30 '47; Weekly Underw 157:1106+ N 1 '47

NATIONAL association of mutual insurance companies

Annual meeting, St. Paul. Nat Underw 52:4 O 14; 1+ O 21 '48

NATIONAL association of photo-lithographers

Annual convention, 15th, Detroit, Oct. 22-25. Inland Ptr 120:68-71 D '47

NATIONAL association of popcorn manufacturers

Annual convention, 3d, Chicago. Food Ind 20:69-70 Ja '48

NATIONAL association of purchasing agents

Annual meeting, 33d, New York, May 31-June 2. Steel 122:66-7+ Je 7 '48

Meeting, New York, May 31-June 2. Oil Paint & Drug Rep 153:7+ Je 7 '48

NAPA educational units. Oil Paint & Drug Rep 152:78 D 1 '47

NATIONAL association of securities dealers

Committee appointments. Comm & Fin Chr 167:717 F 12 '48

Elects L. Raymond Billett chairman; other officers. Comm & Fin Chr 167:218 Ja 15 '48

Trial and error; NASD trial of R. H. Johnson & co. appraised; editorial. Comm & Fin Chr 167:1863+ Ap 29 '48

NATIONAL association of sheet metal distributors

Spring meeting, Columbus, May 24-25. Sheet Metal Worker 39:61-4 Je '48

NATIONAL association of shippers advisory boards

Annual meeting, 11th, St. Louis, Oct. 28. Ry Age 123:773-4 N 8 '47

Annual meeting, 12th, St. Louis, Oct. 5. Ry Age 125:724-6 O 16 '48

NATIONAL association of state aviation officials

Annual meeting, Fort Worth. Aviation W 47:42+ N 10 '47

Annual meeting, Boston. Aviation W 49:14 O 18 '48

NATIONAL association of visual education dealers**Directories**

Directory of accredited retail dealers in audio-visual equipment, materials, supplies and films. 1948-1949 ed 20p pa 50c National assn. of visual education dealers, 345 Chicago av, Evanston, Ill. '48

NATIONAL association of waste material dealers

Annual meeting, Boston. Paper Tr J 126:7+ Ap 1 '48

NATIONAL automobile underwriters' association

Annual meeting, 18th, New York, May 26. East Underw 49:29 Je 4 '48

NATIONAL aviation corporation

Annual report. Comm & Fin Chr 168:48 JI 5 '48

NATIONAL aviation trades association

Annual meeting, Springfield, Ill. Aviation W 47:37 D 1 '47

New air taxi service organized; fixed base operators set up feederline network. A. McSurely. Aviation W 49:35-6 Ag 9 '48

NATIONAL banks. See Banks and banking, National**NATIONAL biscuit company**

Expansion to include new products. Barron's 27:32 N 24 '47

Nabisco; the dough is rising. Il Fortune 37: 86-91, 204-6+ Je '48

NATIONAL board of fire underwriters

Annual meeting, 82d, New York, May 27. East Underw 49:1+; 19, 22-3 My 28; 16+ Je 4 '48; Nat Underw 52:3+ Je 3 '48

Weekly Underw 158:1553+; 1564-5 My 29 '48

New standing committees. East Underw 49: 19+ Je 18 '48

Public relations advisory group formed. East Underw 49:18 F 27 '48; Same. Nat Underw 52:2 Mr 4 '48

Public service is aim of Board. J. M. Haines. Weekly Underw 158:12+ Ja 3 '48

Some investigators of arson; biographical sketches of arson department special agents. Pors East Underw 48:62 D 19 '47

Summary of committee reports at annual meeting. Spectator (Property ed) 13:36-40 Je 10 '48

NATIONAL bond and share corporation

Stock offered. Comm & Fin Chr 168:1147 S 20 '48

NATIONAL brands. See Advertising, National**NATIONAL bureau of casualty underwriters**

Annual meeting, May 12. East Underw 49:28 My 14 '48

Bureau subscribers listed by states. Nat Underw 52:19+ My 27 '48

New officers. East Underw 49:27 O 22 '48; Nat Underw 52:17 O 21 '48; Weekly Underw 159:978 O 23 '48

- NATIONAL bureau of standards.** See United States—Standards. National bureau of
- NATIONAL bus traffic association**
Wheels within wheels; NETA compiles statistics to support industry's case in ICC fare investigation. *il Bus Transportation* 27:60-1 Ja '48
- NATIONAL cannery association**
Convention, 41st, Atlantic City. *Food Ind* 20: 236-7, 358-63+ F-Mr '48
- NATIONAL cash register company**
Dividend compromise. *Barron's* 28:27 S 27 '48
- NATIONAL castings council**
Formally organized. *pors Foundry* 76:114 Mr '48
- NATIONAL cemeteries**
See also
Arlington national cemetery
- NATIONAL coal association**
Annual meeting, 30th, Chicago, Oct. 16-18. *Coal Age* 52:136-8+ N '47
- NATIONAL concrete masonry association**
Annual meeting, 28th, New York, March 1-3. *Concrete* 56:67+ Ap '48; *Rock Prod* 51: 177-83+ Ap '48
- NATIONAL confectioners' association**
Annual convention, 65th, New York. *Food Ind* 20:1164-5 Ag '48
- NATIONAL conference of editorial writers**
NCEW program for Louisville sessions. *Ed & Pub* 81:20 O 9 '48
- NATIONAL conference on labor legislation**
Conference, 14th, Washington, Dec. 9-10. *Mo Labor R* 66:28-31 Ja '48
- NATIONAL conservation bureau.** See Association of casualty and surety companies
- NATIONAL cooperatives, inc.**
Consumer co-ops hit by drastic economies. *H. E. Green. Ptr Ink* 224:85+ JI 16 '48
- NATIONAL cottonseed products association**
Annual meeting, New Orleans, May 10-11. *Oil Paint & Drug Rep* 153:5+ My 17 '48
- NATIONAL council of independent petroleum associations**
Meeting, Chicago, Nov. 12-13. *Nat Pet N* 39: 19-20 N 19 '47
- NATIONAL council of state boards of engineering examiners**
Annual meeting, New York. *Eng N* 139:619+ N 6 '47
- NATIONAL crushed stone association**
Annual meeting, 31st, Cincinnati, Jan. 26-28. *Rock Prod* 51:104-18 Mr '48
Directors meeting, Hot Springs, Va. July 8. *Rock Prod* 51:108-10 S '48
Latch string is out at the new offices and laboratory. *il Rock Prod* 51:124-5 Ap '48
- NATIONAL dairy products corporation**
Debentures offered. *Comm & Fin Chr* 167: 2362-3 My 31 '48
Narrower profit margins cut net. *Barron's* 27: 35 N 10 '47
- NATIONAL district heating association**
Annual meeting, 39th, St. Louis, May 18-21. *Heating-Piping* 20:86-7 JI; 97-100 Ag '48
Annual meeting, 39th, St. Louis, May 18-21; with abstracts of papers. *Heat & Ven* 45: 114+ Je '48
- NATIONAL drug trade conference**
Annual meeting, Washington, D.C. Dec. 10. *Oil Paint & Drug Rep* 152:5+ D 15 '47
- NATIONAL editorial association**
Annual convention, 63d, May 6-9. *Ed & Pub* 81:64 My 15 '48
- NATIONAL education association**
National education association. *Science* 108: 260-1 S 3 '48
- NATIONAL electrical code**
Commercial building rewiring under new code provisions. *H. Gerber. il Elec West* 101:90-1 O '48
Effect of restrictive electrical codes and ordinances on building costs. *A. F. Metz. Edison Elec Inst Bul* 15:431-4 D '47
- NATIONAL electrical manufacturers association**
Annual meeting, 21st, Atlantic City. *Elec World* 123:82 N 8 '47
NEMA celebrates 40 years of standardization. *Ind Stand* 19:66-8 JI '48
- NATIONAL electrical safety code**
National electrical safety code; grounding rules and parts I, II, III, IV, and V. *U S Nat Bur Stand Handbook H30:1-408 '48 (\$1.25)*
- NATIONAL exposition of power and mechanical engineering**
Exposition, 18th; New York, Nov. 29-Dec. 4; floor plans, exhibitors. *Mech Eng* 70: sup93-6 N '48
National power show, 18th, New York, Nov. 29-Dec. 4; to feature new economies. *Paper Tr J* 127:10-11+ O 14 '48
- NATIONAL farm chemurgic council**
Annual meeting, 13th, Omaha, March 3-6. *Chem & Eng N* 26:861 Mr 22 '48
- NATIONAL federation of financial analysts societies**
Financial analysts' newly formed federation. *Comm & Fin Chr* 167:1002, 1106 Mr 4, 11 '48
- NATIONAL federation of press women**
Federation expands press women's sphere. *Ed & Pub* 81:22 F 28 '48
- NATIONAL federation of sales executives**
Board of directors meeting, Chicago, Dec. 2-3. *Sales Management* 60:sup3 Ja 1 '48
Board of directors meeting, Chicago, Aug. 16-17. *pors Sales Management* 61:sup3-7 O 1 '48
Camera report on the N.F.S.E. Sales Management 61:52-5+ JI 1 '48
Corporate finance; Federation committee works to strengthen voice of selling. *il Sales Management* 60:sup3 F 1 '48
Does selling need a voice? *C. S. Fletcher. Sales Management* 59:sup4-6 D 1 '47
Report on action at N.F.S.E. convention in New York, June 16-18. *Sales Management* 61:50+ JI 1 '48
- NATIONAL fertilizer association**
Annual convention, 23d, White Sulphur Springs, June 21-23. *Oil Paint & Drug Rep* 153:5+ Je 28 '48
Annual southern convention, 21st, Atlanta, Nov. 10-12. *Oil Paint & Drug Rep* 152:5+ N 17 '47
- NATIONAL fire protection association**
Annual meeting, 52d, Washington, D.C. May 10-13. *East Underw* 49:13+ My 14 '48; *Nat Underw* 52:1+ My 13 '48; *Weekly Underw* 158:1425+ My 15 '48
Electrical section organized. *East Underw* 49:23 My 21 '48
Fire, every twenty seconds! Oct. 3-9 set aside as Fire prevention week. *P. Bugbee. il Ind Stand* 19:152-3 O '48
NFPA drive to arouse public about fire waste; accomplishments in 1947. *P. Bugbee. Weekly Underw* 158:29-31 Ja 3 '48
- NATIONAL fisheries institute**
Annual convention, 3d, San Francisco. *Food Ind* 20:882-3 Je '48
- NATIONAL flying farmers association**
Annual meeting, Columbus. *Aviation W* 49: 59-60 S 20 '48
- NATIONAL forests.** See Forest reserves
- NATIONAL founders association**
Annual meeting, 50th, New York, Nov. 6-7; with abstracts of papers. *Steel* 121:67-8 N 17 '47; *Foundry* 75:88-9+ D '47
- NATIONAL fraternal congress of America**
Annual convention, Pittsburgh, Sept. 27-30. *Nat Underw (Life ed)* 52:26-36 O 1; 26 O 15 '48
- NATIONAL fuel gas company**
Debentures offered. *Comm & Fin Chr* 168: 348 JI 26 '48
- NATIONAL gypsum company**
After the turn of the year. *M. H. Baker. Comm & Fin Chr* 167:320 Ja 22 '48
Common stock offered. *Comm & Fin Chr* 167:2135 My 17 '48
Gypsum squabble; Baltimore's plan to finance new plant. *il Bsns W* p35-6 Ap 10 '48
Ten potential market leaders for 1948. *Mag of Wall St* 81:407 Ja 17 '48
- NATIONAL health and welfare retirement association**
Annual meeting, 3d, New York. *East Underw* 49:12+ Je 11 '48
- NATIONAL heart institute**
Establishment. *Science* 108:182 Ag 20 '48
- NATIONAL heating wholesalers association**
Annual meeting, 1st, Cleveland, Dec. 3. *Sheet Metal Worker* 38:78+ D '47; *Dom Eng* 171: 151+ Ja '48
Mid-year meeting, Chicago, June 28. *Sheet Metal Worker* 39:78+ Ag '48

NATIONAL homes corporation

Preferred stock offered. Comm & Fin Chr 167:2689 Je 21 '48

NATIONAL industrial advertisers association

Annual conference, 26th, Baltimore. Ptr Ink 223:93+ Je 18 '48
Annual conference, 26th, Baltimore, June 13-16; program. Ind Marketing 33:126-8 Je '48
NIAA plans for 1948. W/ A. Marsteller. Ind Marketing 33:47+ Ja '48

NATIONAL industrial sand association

Annual meeting, Hot Springs, Va. May 12-14. Rock Prod 51:96+ Ji '48
Fall meeting, Asheville. Rock Prod 50:96+ N '47

NATIONAL industrial traffic league

Annual meeting, 4th, Chicago, Nov. 20-21. Ry Age 123:948-9 N 29 '47

NATIONAL institute of health

Research activities. Science 107:615 Je 11 '48

NATIONAL introductions, inc.

New company delivers customers to stores. Bsns W p77 Ap 3 '48

NATIONAL labor-management panel

Advisory panel ready for work. pors Bsns W p68 D 27 '47

NATIONAL labor relations board

End of union-shop polls? proposed bills. Bsns W p 109-10 My 15 '48
14,000 polls; applying the T-H act to the building trades unions. Bsns W p 104+ F 21 '48

G.M. cited; NLRB's first complaint against an employer under T-H law. Bsns W p95 F 7 '48

Guide to NLRB election procedure. C. Tower. Personnel 25:55-60 Ji '48

I.T.U. injunction; court issues first T-H order. Bsns W p 102-3 Ap 3 '48

Key cases under the new labor law; boycotting the NLRB; case of Nashville (Tenn.) corp. J. M. Gambatese, il Factory Management 106:93-4 Je '48

Leftist unions' new tactics; United electrical workers shows how to achieve employer recognition despite boycott of NLRB. Bsns W p82+ N 1 '47

Mass picketing; NLRB says it's illegal. Bsns W p97-8 O 30 '48

NLRB issues first T-H injunction. il Bsns W p80+ Ja 10 '48

NLRB on move; issue of jurisdiction over retail and other trades. Bsns W p 103-10 Ap 17 '48

NLRB plugs a hole in T-H election rule. Bsns W p98-9 Je 12 '48

NLRB takes construction jurisdiction. Eng N 140:1004 Je 24 '48

NLRB's case load under Taft-Hartley act. Bsns W p 112 Je 26 '48

NLRB's scope; does the Taft-Hartley law cover small business? Bsns W p71-3 Ji 31 '48

Plant guards; NLRB problem; what kind of plant police union is legal. Bsns W p86+ F 28 '48

Rising tide of NLRB elections. Bsns W p64 D 27 '47

Trial examiners. Bsns W p75-8 Ja 24 '48

Employees

NLRB has its own union problem. Bsns W p82 N 1 '47

NATIONAL libraries. See Libraries, National**NATIONAL lime association**

Annual meeting, 30th, Hot Springs, Va. April 5-7; with abstracts of papers. Rock Prod 51:93-102+ My '48

NATIONAL lubricating grease institute

Annual meeting, 16th, Chicago, Oct. 11-12. Nat Pet N 40:22-4+ O 20 '48; Oil & Gas J 47:54-5 O 14 '48

NATIONAL machine tool builders' association

Annual meeting, 46th, Hot Springs, Va. Nov. 17-18. Am Mach 91:121-2 D 4 '47; Iron Age 160:118+ N 27 '47; Mach 54:192-3 D '47; Steel 121:58-9 N 24 '47

Annual meeting, 47th, Atlantic City, Oct. 18-20. Am Mach 92:126-8 N 4 '48; Iron Age 162:171-2+ N 4 '48; Mach 55:215-16+ N '48; Steel 123:44-5 O 25 '48

Spring meeting, 46th, Chicago, April 8-9. Am Mach 92:101-2 Ap 22 '48; Steel 122:49 Ap 19 '48

Tool builders look ahead; annual convention seeks ways to use industry's excess capacity. Bsns W p21-2 N 22 '47

NATIONAL malaria society

Officers elected for 1948. Science 107:110 Ja 30 '48

NATIONAL marine exposition

Exposition, 3d, New York, May 17-22; exhibitors. Marine Eng 53:74-7 My '48

NATIONAL match book advertising, inc.

Matchbook game. Fortune 38:122 S '48

NATIONAL mediation board

Mediation board reports on fiscal 1947. Ry Age 124:435+ F 28 '48

NATIONAL metal congress

Congress, 30th, Philadelphia, Oct. 25-29. Iron Age 162:109-17 N 4 '48; Steel 123:53-6+ N 1 '48

Congress, 30th, Philadelphia, Oct. 25-29; abstracts of technical papers. Steel 123:144+ O 18 '48

Congress, 30th, Philadelphia, Oct. 25-29; technical program. Iron Age 162:134-7+ O 14 '48; Steel 123:134-8+ O 13 '48; Materials & Methods 23:66-7 O '48

Meeting, Chicago, Oct. 18-24. Chem & Eng N 25:3292 N 10 '47

NATIONAL metal exposition

Exhibitors and their booth numbers. Materials & Methods 23:67-8 O '48

Exposition, 30th, Philadelphia. Steel 123:53-5+ N 1 '48

Large array of new equipment metals and processes at Chicago exposition. R. C. Mack, il Automotive Ind 97:38-40+ N 15 '47
Metal methods; exhibits at National metals show. il Bsns W p59-60 N 1 '47

NATIONAL metal trades association

Annual meeting, 48th, Chicago, Nov. 5-7. Steel 121:66-7 N 17 '47; Foundry 76:212+ Ja '48

NATIONAL newspaper promotion association

Annual convention, 18th, Cleveland. Ed & Pub 81:7 Ap 10 '48

Promotion for profit stressed by regions. Ed & Pub 81:14 Je 19 '48

Regional conference, 1st, Boston, Oct. 21-23. Ed & Pub 81:17+ O 30 '48

NATIONAL office management association

International conference, 29th, St Louis, May 26. Am Bsns 18:28 Je '48

NATIONAL paint salesmen's association

Annual convention, 11th, Atlantic City, Oct. 14-16. Paint Oil & Chem R 111:7 O 28 '48

Let's make it nation wide. B. W. Kunst. Paint Oil & Chem R 110:136-7 N 13 '47

National paint salesmen re-elect retiring officers at Atlantic City. Paint Oil & Chem R 110:17 O 30 '47

Salesmen's place in industry. H. B. Obermeyer. Paint Oil & Chem R 110:24-5 N 13 '47

NATIONAL paint, varnish and lacquer association

Annual meeting, 59th, Atlantic City, Nov. 11-14. Oil Paint & Drug Rep 152:77-81+ N 17 '47; Paint Oil & Chem R 110:7-10, 15-26+ N 13 '47

Specialized production finishes division

Specialized production finishes. P. S. Kennedy. Paint Oil & Chem R 110:26+ N 13 '47

NATIONAL paper trade association

Fall convention, Chicago, Oct. 27-29. Inland Ptr 120:72-3 N '47

Federal trade commission complaint 5592, fine and wrapping paper, challenged by National paper trade association. Paper Tr J 127:9+ O 28 '48

NATIONAL parks and reserves**United States**

New policy paves way for airports at national parks; abstract. C. G. Davidson. CAA J 9:1+ Ja 15 '48

NATIONAL pest control association

Annual convention, 15th, Philadelphia, Oct. 27-29. Chem & Eng N 25:3361 N 17 '47; Soap & San Chem 23:167 N '47

NATIONAL petroleum association

Annual meeting, 46th, Atlantic City, Sept. 15-17. Nat Pet N 40:20-1 S 22 '48

Semi-annual meeting, 45th, Cleveland. Oil & Gas J 46:58-9 Ap 29 '48

NATIONAL petroleum council

Denies Interior's request for study of trends in oil equipment. Nat Pet N 40:12 Ap 21 '48

N.P.C. delays policy report, studies storage, praised for meeting demands. Oil & Gas J 47:54-5 O 28 '48

NPC faces stormy future with new problems and another Senate probe. Nat Pet N 40:16 Ap 7 '48

NPC-Krug rift threatens as result of control talk. H. A. Yocom. Nat Pet N 40:11-12 Ja 28 '48

Oil industry gets military ultimatum as NPC studies supply-demand outlook. B. F. Linz. Oil & Gas J 47:36-7 Ag 5 '48

Partial text of NPC report giving industry's views on supply programs. Nat Pet N 40:16-17 Ap 21 '48

20-point program to increase and allocate oil approved. Oil & Gas J 46:142 Ja 29 '48

NATIONAL physical laboratory, Teddington. See Great Britain—National physical laboratory, Teddington

NATIONAL pickle packers association
Midyear meeting, Chicago, June 17. Food Ind 20:1174 Ag '48

NATIONAL planning association
National planning, an American approach by private citizens. H. C. Sonne. Mech Eng 69:222-5 N '47

NATIONAL power and light company
Progress in dissolution. Comm & Fin Chr 168:745-6 Ag 23 '48

NATIONAL press club
40th anniversary. R. U. Brown. Ed & Pub 81:68 Ap 3 '48

Life memberships issued to founders. Ed & Pub 81:66 Ap 10 '48

NATIONAL press photographers association
Annual convention, 3d, Atlantic City. Ed & Pub 81:10+ Je 26 '48

NATIONAL professional association of engineers, architects and scientists
Engineers' bargaining group sets national convention; West Coast organizations ratify constitution of proposed nation-wide bargaining body for professionals. Eng N 140:333 Mr 4 '48

New bargaining group urges members to register as professional engineers. Eng N 140:457 Mr 25 '48

NATIONAL provincial bank, limited
Statement of the chairman, E. C. E. Smith. Economist 154:160-1 Ja 24 '48

NATIONAL railroad adjustment board
Law and railway labor. D. P. Loomis. Ry Age 124:162-4+ Ja 17 '48

NATIONAL railway appliances association
Parallel progress and achievement; review of inception and growth of American railway engineering association and National railway appliances association. Ry Age 124:508-9+ Mr 13 '48

NATIONAL ready mixed concrete association
Annual meeting, Cincinnati. Concrete 56:25-6+ F '48; Rock Prod 51:150-6 Mr '48

Annual meeting, 18th, Cincinnati. Eng N 140:167 F 5 '48

NATIONAL reclamation association
Annual meeting, 16th, Phoenix, Arizona. Eng N 139:624 N 6 '47

NATIONAL research corporation
Rights to stockholders. Comm & Fin Chr 166:2421 D 15 '47

NATIONAL research council
Genesis of the National research council and Millikan's World war I work. F. B. Jewett. Rs Mod Phys 20:1-6 Ja '48

National academy of sciences and the National research council. R. L. Zwemer. Il Science 108:234-8 S 3 '48

Chemical-biological coordination center
Work of Chemical-biological coordination center; abstract. R. B. Friend. Soap & San Chem 24:130 Jl '48

Committee on aviation psychology
Committee on selection and training of aircraft pilots changes name. Science 106:517-18 N 28 '47

Committee on interrelations of pleistocene research
Study of the pleistocene epoch. R. F. Flint. Science 107:442-3 Ap 30 '48

Committee on patent policy

George B. Pegram named chairman of NRC committee on patent policy. Science 107:343 Ap 2 '48

Committee on quartermaster problems

Willis A. Gibbons accepts chairmanship. Science 107:316-17 Mr 26 '48

Committee on sanitary engineering and environment

Clearing-house for sanitary engineering. E. J. Cleary. Eng N 141:92-4 O 28 '48

Division of chemistry and chemical technology

Transactions of chemistry group. Chem & Eng N 26:1852-3 Je 21 '48

NATIONAL research council of Canada
Publications; second edition, 1918-1946. 132p
National research council, Ottawa '47

NATIONAL retail dry goods association
Annual convention, 37th, New York. Bsns W 236+ Ja 24 '48

NATIONAL rural electric cooperative association
Annual meeting, 6th, Chicago. Elec World News ed 129:11-12 Mr 20 '48

NRECA establishes retirement and security program for co-ops. Elec World News ed 129:13 Ap 17 '48

NATIONAL safety council
Annual meeting, Chicago, Oct. 6-8; Paper and pulp section. Paper Ind 29:1145-6+ N '47

Auditor's report. Nat Safety N 57:36-7 Ap '48
Congress, 35th, Chicago, Oct. 6-8. Nat Safety N 56:23-5+ N '47

Congress, 35th, Chicago, Oct. 6-8; with abstracts of papers. Safety Eng 94:12-13+ N '47

Headquarters; floor plan. Nat Safety N 58:88-9 O '48

New sections established. Nat Safety N 58:25+ Ag '48

Officers, 1947-48. Nat Safety N 56:32-3 N '47
Without the Council the figures would be worse. Nat Safety N 58:95 O '48

NATIONAL sand and gravel association
Annual meeting, 32d, Cincinnati. Rock Prod 51:90-103 Mr '48

NATIONAL sand lime brick association. See Autoclave building products association

NATIONAL sanitary supply association
Annual convention and merchandise exhibit, 25th, Chicago, April 18-21. Soap & San Chem 24:120-3+ My '48

Annual meeting, 25th, Chicago, April 18-21; program. Soap & San Chem 24:138-9+ Ap '48

Southern regional meeting, Atlanta, Oct. 9-10. Soap & San Chem 23:161+ N '47

NATIONAL science foundation (proposed)
Complications that necessarily arise. R. W. King. Science 106:415 O 31 '47

Inter-society committee for a national science foundation; report for 1947. D. Wolfe. Science 106:529-33 D 5 '47

Inter-society committee for a national science foundation; report of the meeting of Dec. 28, 1947. Science 107:235-6 Mr 5 '48

National science foundation. A. W. Jones. Sci Am 178:7-11 Je '48

National science foundation, a peril to American universities. J. L. Rich. Science 107:606-6 My 14 '48; Reply. L. A. DuBridge. 107:646-7 Je 18 '48

Points of agreement and conflict. B. M. Webster. Science 106:444-5 N 7 '47

Representative Priest reintroduces Science foundation bill. Chem & Eng N 26:147 Ja 19 '48

Scientific leaders divided on federal research foundation. Chem & Eng N 25:3799 D 22 '47

Senator Smith and Representative Wolverton cooperate with White House in drafting acceptable National science foundation bill. Chem & Eng 25:3841 D 29 '47

NATIONAL science teachers association
Meeting, Cleveland, July 3-5. Science 108:132-3 Ag 6 '48

NATIONAL security. See United States—Defenses

NATIONAL security resources board. See United States—National security resources board

- NATIONAL security traders association**
NSTA tri-city parties in Chicago, Kansas City and St Louis; photographs, Comm & Fin Chr 167:insert 1-11 F 19 '48
- NATIONAL service life insurance.** See Insurance, Military and naval service
- NATIONAL society of professional engineers**
Annual meeting, Buffalo. Eng N 189:783 D 11 '47
Annual meeting, New York, Eng N 140:681 My 6 '48
- NATIONAL steel corporation**
Annual report. Comm & Fin Chr 167:1367 Mr 29 '48
- NATIONAL supply company**
National Supply vs. Dresser industries; a comparative audit. J. C. Clifford. Il Mag of Wall St 81:194-6+ N 22 '47
Unlikely to repeat record '47 net. Barron's 28:34 Ap 12 '48
- NATIONAL tool and die manufacturers' association**
Annual meeting, 2d, Philadelphia, Nov. 2-5. Steel 121:78-9+ N 10 '47
- NATIONAL railroads bus system**
Fall meeting, Dallas, Sept. 15-17. Bus Transportation 26:38-9 N '47
1948 tour prospects discussed at 12th annual meeting, Chicago, Feb. 5-7. Bus Transportation 27:81-2 Mr '48
- NATIONAL union catalog.** See Catalogs, Union
- NATIONAL warm air heating and air conditioning association**
Annual meeting, 34th, Cleveland, Dec. 4-5. Sheet Metal Worker 38:89-91 D '47; Dom Eng 171:150+ Ja '48
Mid-year meeting, Chicago, June 29-30, Sheet Metal Worker 39:84+ Ag '48; Dom Eng 172:143+ Ag; 158+ S '48
- NATIONAL wholesale druggists' association**
Annual meeting, 74th, Chicago, Oct. 18-20. Oil Paint & Drug Rep 154:65-71 O 25 '48
Spring meeting, Palm Beach, April 3-7. Oil Paint & Drug Rep 153:6+ Ap 12 '48
- NATIONALISM**
Bipartisanship in American foreign policy. B. H. Williams. Ann Am Acad 259:136-43 S '48
- NATIONALIZATION of banks.** See Banks and banking—Government ownership
- NATIONWIDE home equipment corporation**
Stock offered. Comm & Fin Chr 166:2561 D 22 '47
- NATURAL dyes.** See Dyes and dyeing—Natural dyes
- NATURAL gas.** See Gas, Natural
- NATURAL gasoline.** See Gasoline, Natural
- NATURAL gasoline association of America**
Annual meeting, 27th, Fort Worth, March 24-26. Nat Pet N 40:18-20 Mr 31 '48; Oil & Gas J 46:112-13 Ap 1 '48; Pet Refiner 27:166+ Ap '48
Natural gasoline group boasts record of accomplishment. Pet Refiner 27:163+ Ap '48
- NATURAL lighting.** See Daylight
- NATURAL resources**
Appraisal of our natural resources. W. G. Fritz. Il Dun's R 56:14-16+ F '48
Intensive study of natural resources launched; annual report of Secretary J. A. Krug. Chem & Eng N 26:455 F 16 '48
Symposium on natural resources. Science 107: 616 Je 11 '48
See also
Coal
Conservation of resources
Forests and forestry
Fuel
Gas, Natural
Mines and mineral resources
Oil shales
Ore deposits
Peat
Petroleum
Soil conservation
Water supply
- NATURAL resources research institute.** See Wyoming university—Natural resources research institute
- NAUGATUCK, Connecticut**
Water supply
Results of universal metering. W. H. Moody. Il diag Water & Sewage Works 95:317-19 S '48
- NAUTICAL astronomy**
Method of using the stars listed under additional stars in the Nautical almanac. J. B. Feaster. U S Naval Inst Proc 74:68-9 Ja '48
- NAUTICAL instruments**
See also
Sounding
- NAUTICAL terms.** See Naval art and science—Dictionaries
- NAUTILOIDEA, Fossil**
Tertiary nautiloids of the Americas. A. K. Miller. (Memoir 23) 234p, pl 1-100 biblog(p 115-28) Geological soc. of America, 419 W. 117th st, New York '47 (\$4.50)
- NAVAJO formation**
Some features of the Navajo formation in Zion national park, Utah. R. F. Grater. diag Am J Sci 246:311-18, pl 1-2 My '48
- NAVAL academy, Annapolis.** See United States naval academy, Annapolis
- NAVAL air stations**
Yokosuka naval air base and Japanese naval aviation. C. R. Stokes and T. Darling. Il U S Naval Inst Proc 74:338-43 Mr '48
- NAVAL air transport service.** See United States—Air service, Navy—Transport service
- NAVAL architecture**
Influence of Arctic operations on future ship design. J. W. Millard. U S Naval Inst Proc 74:261-5 F '48
Modern Atlantic liner. J. M. McNeill. Engineering 164:437-8 N 7 '47
Multiple-skeg stern for ships; abstract. H. E. Saunders. Marine Eng 52:93; Discussion, 93-6 D '47
Naval architects report progress in research work. Marine Eng 53:60 Ap '48
New factors to be considered in the design and welding of ships. M. Forman. biblog diags Welding J 27:671-8 S '48
Some experiments with models of high-speed ships; abstract and discussion. A. F. Lindblad. Engineering 166:353-4 O 8 '48
Strain gages steer boat hull design. L. Lord. Il Marine Eng 53:71-2 Jl '48
Underwater photographs of flow patterns for surface vessels. W. H. Sutherland. Il diags Marine Eng 53:64-7 O '48
See also
Airplane carriers
Bulkheads (naval architecture)
Freight ships
Marine engineering
Motor ships
Propellers
Shipbuilding
Ships
Steamboats
Tank ships
Towboats
Warships
- Designs and plans**
Cargo ships built for Lloyd Brasileiro. Il plans diags Marine Eng 53:38-51+ Jl '48
Hull construction. President Cleveland. Il plans diags Marine Eng 53:40-7 Mr '48
Robin line converts flat-top to C-3 passenger-cargo ship. Il plans Marine Eng 53:52-63 My '48
Seagoing hopper dredge, Comber. Il plans diags Marine Eng 53:50-9 Ja '48
Some considerations in the design of modern ships. G. G. Sharp. plans Marine Eng 52: 81-5+ D '47; Discussion 53:72-4 F '48
Tampa yard builds ships for France; Algeria, first of six vessels. Il plans diags Marine Eng 52:64-72 F '47
Tests of various designs of welded hatch corners for ships. E. P. DeGarmo. Il diags Welding J 27:sup50-68; Discussion, sup69-70 F '48
- NAVAL art and science**
Navy's stake in the future. G. Richards. Il U S Naval Inst Proc 74:182-95 F '48
Royal navy and nuclear power. R. J. Daniel. Engineer 185:337-9, 362-3 Ap 2-9 '48; Same cond. Engineering 165:428-31 Ap 30 '48; Discussion. Engineer 185:333-4 Ap 2 '48; Engineering 165:330-1 Ap 2 '48
Seventy-five years of progressive naval thinking; review of some outstanding articles published in the Proceedings. W. H. Russell. Il U S Naval Inst Proc 74:1250-61 O '48
Suggested guide for amateur military critics and prophets. W. F. Riggs, Jr. Il U S Naval Inst Proc 74:935-49 Jr '48
See also
Landing operations, Military

NAVAL art and science—Continued**Dictionaries**

International maritime dictionary; an encyclopedic dictionary of useful maritime terms and phrases, together with equivalents in French and German. R. de Kerchove, 946p \$10 D. Van Nostrand co, 250 4th av, New York 3 '48

NAVAL bases

Seron ten; repairing, fueling, supplying and servicing the fleet in the Pacific. W. R. Carter. *U S Naval Inst Proc* 74:152-67 F '48

See also

Naval air stations

NAVAL education

For the fleet; a more valuable junior officer. H. B. Seim, *U S Naval Inst Proc* 74: 596-601 My '48

His Majesty's navy's Holloway plan, *U S Naval Inst Proc* 74:110-14 Ja '48

See also

Moving pictures in United States naval
naval education academy, An-
Television in naval napolis
education

NAVAL guns

Gunfire support lessons learned in World war II. I. E. McMillan, *U S Naval Inst Proc* 74:978-89 Ag '48

Manufacture

Modern gas furnaces in gun factory. *U S Naval Inst Proc* 74:167-32 D '47

Navy devises ingenious planer and boring-mill steups; Naval gun factory at Washington. R. LeGrand, *U S Naval Inst Proc* 74:96-100 O '48

NAVAL hygiene

Influence of weather, combat status and overcrowding on the incidence of disease and accidents aboard naval vessels. M. Morales and E. Tarver, *U S Naval Inst Proc* 74:210-17 F '48

Recent advances in atmospheric hygiene in the navy. E. B. Metcalfe, *U S Naval Inst Proc* 74:376-81 JI '48

NAVAL institute, United States. See United States naval institute**NAVAL laboratories**

See also

Ship model tanks
United States—Navy
—Laboratories

NAVAL medicine. See Medicine, Naval**NAVAL observatory, United States. See United States naval observatory****NAVAL ordnance laboratory, White Oak, Maryland**

Navy research helps industrial progress. *U S Naval Inst Proc* 74:148-150 O '48

NAVAL radio stations. See Radio stations, Naval**NAVAL research**

Navy's technical progress explained to industrialists. *Product Eng* 19:153-4 Ja '48

Opportunities in research; two-day conference of Navy industrial association. *Steel* 121:71-2 D '47

Survey of the application of photography in naval research, testing, and development. J. H. Bell and W. R. Cronenwett, *Soc Motion Picture Eng J* 49:494-505 D '47

NAVAL research, Office of. See United States —Naval research, Office of**NAVAL research laboratory**

U. S. naval research laboratory, *Science* 108: 177-8 Ag '48

NAVAL reserve officers training corps

NROTC program in the engineering colleges. J. H. Belknap, *J Eng Educ* 38:294-9 D '47

NAVAL stations. See Naval air stations; Naval training stations; Navy yards and Naval stations**NAVAL stores**

Chemists and stumps gain on trees in naval stores. *Barron's* 28:46 S '48

Current situation in gum naval stores. C. F. Guignon, *Paint Oil & Chem R* 110:128-9 N '47

Developments in wood naval stores. E. Holdman, *Paint Oil & Chem R* 110:128 N '47

Government revises support prices on naval stores. *Chem Eng* 55:184 JI '48

Keen naval stores competition. Paper Tr J

127:16 JI '48

Naval stores, E. L. Patton, Ind & Eng Chem

40:995-7 Je '48

Naval stores, J. M. Schantz, Chem Ind

63: 384-5 S '48

Naval stores, chemicals in the disinfectant field, J. N. Borglin, bibliog Soap & San

Chem 23:147-4 D '47

Naval stores, 1941-1946. Survey of Cur Bns

1947 Sup p 113-14 [supplemented in monthly numbers]

Properties of oleoresins, rosins and turpentine from chemically stimulated slash and longleaf pines, L. W. Mims and M. C. Schopmeyer, bibliog U S Naval Inst Proc

1504-6 N '47

Manufacture

Continuous distillation of gum turpentine; staff-industry collaborative report. W. H. Shearon, jr., E. L. Patton and G. P. Shingler, *bibliog flow chart U S Naval Inst Proc* 74:1695-702 S '48

From pine stumps to rosin and terpene oils; Crosby Chemicals, De Ridder, La. J. V. Hightower, *flow sheet* (p 150-3) *U S Naval Inst Proc* 74:119-21 D '47

Naval stores new plant does old job better. J. V. Hightower, *U S Naval Inst Proc* 74:108-9 Ag '48

NAVAL training stations

Sod, its production and placement at the Sampson (N.Y.) naval training station. J. Feld, *map diag Roads & Sts* 91:84-6-7 Ap '48

NAVAL warfare

Ship target and other trials. *Engineer* 185: 443-4 My '48

NAVIES

Brassey's naval annual, 1947. H. G. Thursfield, ed. v58 327p, 92p \$6 Macmillan co, 60 Fifth av, New York '47

See also

Airplane carriers Submarine boats
Naval architecture Warships
and other headings

beginning Naval
also subdivision Navy under names of countries, e.g. Germany—Navy; United States—Navy

NAVIGATION

Centennial of pressure-pattern navigation. J. Lyman, *U S Naval Inst Proc* 74: 308-15 Mr '48

See also

Air navigation Radio aids to
Direction finding ap- navigation
paratus Rule of the road at

Harbors see
Nautical astronomy Shipping
Radar aids to navigation Sounding
Steamboats
Waterways

NAVY yards and naval stations

Navy building features glass exterior; shop building under construction at San Francisco naval shipyard. *U S Naval Inst Proc* 74: 351-3 Mr '48

Work of naval dockyards. *Engineer* 186:195 Ag '48

Equipment

Giant crane to lift 500 tons at San Francisco naval shipyard. *U S Naval Inst Proc* 74: 62-3 D '47

Navy builds world's largest crane; San Francisco naval shipyard. *U S Naval Inst Proc* 74: 878-81 D '47

New foundation for 350-ton crane at the Brooklyn navy yard. W. M. Angus, *U S Naval Inst Proc* 74: 63-7 JI '48

Power

Power services meet the fleet halfway; San Diego naval operating base. M. A. Nishkian and G. Lewis, *U S Naval Inst Proc* 74: 488-90 Ag '48

Safety measures

Navy enlists color to promote safety, efficiency and good housekeeping in all shore installations. *U S Naval Inst Proc* 74: 14-15-16 N '47

NEAR EAST

Basic issues of the Near East. C. Malik, *Ann Am Acad* 258:1-7 JI '48

NEAR EAST—Continued

Our Near Eastern policy in the making. W. L. Wright, jr. *Ann Am Acad* 255:93-104 Ja '48

Stakes in the Near and Middle East. W. W. White. *Ann Am Acad* 257:37-46 My '48

See also
Labor and laboring Petroleum pipe lines
classes—Near East Turkey

NEAT'S foot oil

Component acids and glycerides of neat's foot oil. T. P. Hilditch and R. K. Shrivastava. *bibliog Soc Chem Ind J* 67:139-42 Ap '48

NECKTIES

Neckties for Europe, editor tells results. H. W. Morley. *Il Ed & Pub* 81:48 Ag 7 '48

Advertising

Neckties by mail; story of Webb Young. J. D. Woolf. *Il Adv & Sell* 41:35-6+ Je '48

NEEDLE bearings. *See* Bearings, Needle**NEGLECTANCE**

Garage owner liable for damage by auto on a public highway. *East Underw* 48:33 N 14 '47

Liability for fire and explosion following accident. R. P. Hobson. *Weekly Underw* 158:1035-6, 1139-41 Ap 3-10 '48

Pennsylvania contractor is held liable for fire loss; Seaboard container corp. vs. Rothschild. *Nat Underw* 52:7 Ag 5 '48

Reforming the law of negligence. *Chem Age (Lond)* 57:721 D 6 '47

See also
Damages Proximate cause
Personal injuries (law)

NEGOTIABLE instruments

See also
Certificates of deposit Postal service—
Checks Money orders
Indorsement Promissory notes
Letters of credit Warehouse receipts

NEGRO artists

See also
Lawrence, Jacob

NEGRO insurance companies. *See* Insurance companies—Negro companies**NEGRO market**

How big is your Negro market? *Il Mod Ind* 15:95-6+ Ap '48; *Abstract. Management R* 37:416-18 Ag '48

NEGRO newspaper publishers association

Eastern regional meeting, Pittsburgh. *Ed & Pub* 81:22 Mr 6 '48

NEGRO newspapers

Vienna Commies fail to trap Negro editors. *Il Ed & Pub* 81:26 My 15 '48

NEGROES

Negro year book, a review of events affecting Negro life, 1941-1946. J. P. Guzman, ed. 10th ed 708p \$4.50 Department of records and research, Tuskegee institute, Alabama '47

Sprigle poses as Negro to get story of South. *E. F. Brennan. Ed & Pub* 81:9 Ag 7 '48

Employment

Postwar trends in Negro employment. S. L. Wolfbein. *Mo Labor R* 65:663-5 D '47

Health and hygiene

Red blood cell stippling in Negro workers; a study of cases of lead absorption among Jamaican Negroes, National lead company plant. W. C. Wilentz and C. Molcsan. *bibliog Ind Med* 17:191-2 My '48

Housing

Low-cost houses; Virginia builder creates 181-house development from surplus barracks. *Il Plan Arch Forum* 87:11-12 N '47
Only Caucasian; a study of race covenants; Queens county, Nassau county, and southern Westchester county. J. P. Dean. *J Land & Pub Util Econ* 23:428-32 N '47

Mortality

Negro mortality; course of mortality from specific causes, 1920-1944. M. Gover. *Pub Health Rep* 63:201-13 F 13 '48
Tuberculosis and the Negro. F. J. Weber. *Pub Health Rep* 63:425-6 Ap 2 '48

Segregation

Barrier falls; race covenant ban. *Arch Forum* 88:15-16 Je '48

See also
Railroads—Negro passengers

NEIGHBORHOOD planning

Escape into decentralization? S. Riemer. *bibliog Land Econ* 24:40-8 F '48

See also
Shopping centers

Bibliography

Neighborhood unit plan, its spread and acceptance; a selected bibliography with interpretative comments. J. Dahir, comp. 91p pa \$1 Russell Sage foundation, 130 E. 22d st, New York 10 '47

NEIMAN, Howard Seger, d 1947

Publisher and editor of the Textile colorist. *por Textile Col* 69:22 N '47

NELSON, Horatio Nelson, 1st viscount, 1758-1805

Impressions of Nelson. J. A. Fisher. *U S Naval Inst Proc* 74:842-5 Jl '48

NEOABIETIC acid

Resin acids; an improved method of isolation of resin acids; the isolation of a new abietic-type acid, neoabietic acid. G. C. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:334-9 Ja '48

Resin acids; the structure of neoabietic acid. G. C. Harris and T. F. Sanderson. *Il Am Chem Soc J* 70:339-43 Ja '48

NEOCYANINE

Preparation of symmetrical and unsymmetrical neocyanines; structure of the neocyanines. J. D. Kendall and J. R. Maier. *Chem Soc J* p590-5 My '48

Some trinuclear cyanine dyes; synthesis of neocyanines. F. M. Hamer, R. J. Rathbone and B. S. Winton. *Chem Soc J* p 1434-43 N '47

NEODYMIUM

Reduction of neodymium at the dropping mercury electrode. C. R. Estee and G. Glockler. *Am Chem Soc J* 70:1344-7 Ap '48

Separation of rare earths by ion exchange; neodymium and praseodymium. F. H. Spedding and others. *Am Chem Soc J* 69:2786-92 N '47

Analysis

Quantitative spectrographic analysis of the rare earth elements; determination of samarium in neodymium; determination of europium in samarium. V. A. Fassel and H. A. Wilhelm. *bibliog diag Opt Soc Am J* 38:518-26 Je '48

Isotopes

Chemical identification of radioisotopes of neodymium and of element 61. J. A. Marinsky, L. E. Glendenin and C. D. Coryell. *bibliog Am Chem Soc J* 69:2781-5 N '47

Isotopic constitution of praseodymium and neodymium. M. G. Inghram and others. *bibliog Phys R* 74:98-9 Jl 1 '48

NEOHETRAMINE

New development in antihistaminic therapy. E. F. Roberts. *bibliog Ind Med* 17:263-5 Jl '48

NEON

Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. *bibliog J Chem Phys* 16:190-4 Mr '48

Theory of high frequency gas discharges; high frequency breakdown. L. M. Hartman. *bibliog Phys R* 73:316-25 F 15 '48

NEON, Liquid

Quantum corrections to the thermodynamic properties of liquids, with application to neon. O. K. Rice. *bibliog J Chem Phys* 16:141-7 F '48

NEOPENTANE. *See* Dimethyl propane**NEOPRENE**

Accelerated aging of neoprene compounds; effect of copper. L. R. Mayo, R. S. Griffin and W. N. Keen. *bibliog Ind & Eng Chem* 40:1977-80 O '48

Drying and curing of carpet backing compounds; Duraloom carpet mills, Inc. *Il Rubber Age* 64:61-2 O '48

NEOPRENE—Continued

Effect of carbon blacks on swelling of neoprene GRM-10 vulcanizates. N. L. Catton and D. C. Thompson. *bibliog Ind & Eng Chem* 40:1523-6 Ag '48

Hair loss in neoprene manufacture. W. L. Ritter and A. S. Carter. *J Ind Hygiene* 30: 132-5 My '48

Neoprene type NC, a new general purpose chloroprene polymer. *Rubber Age* 62:60 O '47

Neoprene-washed nails for fastening aluminum roofing and siding. *il diags Sheet Metal Worker* 39:66-8 F '48

Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Callingaert and H. Shapiro. *bibliog il Ind & Eng Chem* 40:332-5 F '48

Structure of neoprene; the molecular weight distribution of neoprene type GN. W. E. Mochel, J. B. Nichols and C. J. Mighton. *bibliog Am Chem Soc J* 70:2185-90 Je '48

NEOSAPOGENINS

Steroidal sapogenins; conversion of pseudo-sapogenins to sapogenins and neosapogenins. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2373-5 O '47

Steroidal sapogenins; neosapogenins. R. E. Marker and J. Lopez. *Am Chem Soc J* 69: 2393-5 O '47

NEOSTRYCHNINE

Strychnine and brucine; experiments with pseudostrychnine, dihydropseudostrychnine, and neostrychnine. K. H. Pausacker and R. Robinson. *Chem Soc J* p951-6 Jl '48

NEOTETRAZOLIUM

Effects of a new tetrazolium derivative on tissue, bacteria, and onion root tips. W. Antopol and others. *bibliog Pub Health Rep* 63:1231-8 S 17 '48

NEPAL

Expedition to little known Nepal. *Science* 108:254 S 3 '48

NEPHELITE syenite

Nepheline syenite cuts firing heat. *Cer Ind* 51:73-4 Ag '48

Preliminary report of occurrence and properties of nepheline syenite in Arkansas. W. E. Crockett and H. B. Foxhall. *il map Am Cer Soc Bul* 27:64-7 F 15 '48

NEPHROSIS. See Kidneys—Diseases

NEPTUNE meter company

Water saving steps aid Neptune Meter. *Baron's* 28:31 Ag 9 '48

NEPTUNIUM

Chemical properties of elements 94 and 93. G. T. Seaborg and A. C. Wahl. *bibliog Am Chem Soc J* 70:1128-34 Mr '48

Neptunium (4n + 1) radioactive family. G. T. Seaborg. *bibliog (52 ref)* *Chem & Eng N* 26:1902-6 Je 28 '48

Search for elements 94 and 93 in nature; presence of 94²³⁰ in pitchblende. G. T. Seaborg and M. D. Perlman. *bibliog Am Chem Soc J* 70:1571-3 Ap '48

Isotopes

Hyperfine structure in the spectrum of Np²³⁷. F. S. Tomkins. *Phys R* 73:1214-15 My 15 '48

Nuclear properties of 93²³⁷. A. C. Wahl and G. T. Seaborg. *Phys R* 73:940-1 My 1 '48

NERVES

Acid phosphatase reactions in peripheral nerves. G. W. Bartelmez and S. H. Bensley. *bibliog il Science* 106:639-41 D 26 '47

Protection of synaptic transmission against block by nicotine. C. A. G. Wiersma and W. Schallek. *Science* 106:421 O 31 '47

NERVOUS system

Dynamics of inhibition. R. W. Gerard. *il diags Sci Am* 179:44-9 S '48

Nervous system as an electrical instrument. B. H. C. Matthews. *bibliog il diags Inst E E J* 95 pt 1:397-402 S '48; Abstract. *Elec R (Lond)* 142:723-4 My 7 '48

Neurological and behavioristic psychological basis of the ordering of society by means of ideas. F. S. C. Northrop. *bibliog Science* 107:411-17 Ap 23 '48

Diseases**See also**

Neuralgia
Neuroses

Injuries

Indications for sympathetic block and sympathectomy in traumatic and associated conditions. T. R. Adams. *bibliog Ind Med* 17:17-20 Ja '48

NESSLER'S reagent

Action of Nessler's reagent on amines. H. A. Liebhafsky and L. B. Bronk. *Anal Chem* 20:588-9 Je '48

Some factors in the Nessler method of nitrogen determination. J. L. Leitch. *Franklin Inst J* 245:355-9 Ap '48

NET fabrics

Sheerset treated nets gain wide acceptance. *il Rayon* 28:639 D '47

NETHERLANDS**See also**

Paper industry and trade—Netherlands

Radio communication—Netherlands
Railroads—Netherlands

Commerce

Holland's dollars. *Economist* 154:844-5 My 22 '48

Commercial policy

Argentina signs trade and financial agreement with Netherlands. *For Comm W* 31: 16-18 My 15 '48; *Oil Paint & Drug Rep* 153:54 My 31 '48

Changes in documentation requirements for imports under the European recovery program. *For Comm W* 32:23-4 Ag 23 '48

Holland's economic plight; battle for exports. *Economist* 154:421-2 Mr 13 '48

Netherlands signs trade agreement with Uruguay. *For Comm W* 32:19 S 11 '48

Supplementary trade agreement with Sweden. *For Comm W* 33:19-20 O 16 '48

See also

Benelux union

Navy

Dutch navy. U. S. Naval Inst Proc 74:115-17 Ja '48

NETHERLANDS INDIES

Report from Indonesia; business stands still while natives and Dutch wage their shooting truce. G. Burck. *il Fortune* 38:90-1-4 Jl '48

United States and the Netherlands East Indies. S. K. Hornbeck. *Ann Am Acad* 255:124-35 Ja '48

See also

Petroleum industry and trade—Netherlands Indies

Commerce

Foreign trade, first quarter 1947. *For Comm W* 29:19-20 N 15 '47

Foreign trade, January-June 1948. *For Comm W* 33:20 O 16 '48

Indonesia; peace brings trade rebirth. map *Esns W p* 117-18-4 My 8 '48

Two agencies charged with control of import trade. *For Comm W* 30:21 F 28 '48

Commercial policy

Exchange control regulations modified; measures aimed to facilitate export of plantation products. *For Comm W* 29:20 N 15 '47

Import, export, and foreign-exchange regulations. *For Comm W* 32:24-5 Ag 28 '48

Netherlands Indies; measures to protect foreign-exchange position. *For Comm W* 31:24 My 1 '48

Status of United States private trade with the Far East; trade and exchange controls. *For Comm W* 32:44-5 Jl 17 '48

Industries and resources

Batavian consul sees Indies production gains; abstract. W. A. Foote. *Oil Paint & Drug Rep* 153:61 F 23 '48

NETHERLANDS WEST INDIES. See West Indies, Netherlands

NETWORK analyzers. See Electric distribution—Network analyzers

NEUBERG, Carl Alexander, 1879-
Neuberg medal established. *por(cover) Chem & Eng N* 25:3358 N 17 '47

NEUBERG medal

Fritz Lipmann receives Carl Neuberger medal; discusses pantothentic acid. *il Chem & Eng* N 26:860 Mr 22 '48

NEURALGIA

Relationship of neuralgia and referred pain to hernia compensability; cause of diagnostic error. F. W. Slobe. *il Ind Med* 17: 259-62 J1 '48

NEUROSES

Neurosis among British factory workers. *Mo Labor R* 66:403-4 Ap '48

NEUROSES, Traumatic

Mind can be injured, too. W. N. Kemp. *Nat Safety* N 57:34-5+ Je '48; Same cond. *Pulp & Pa* of Can 49:72-3 Ag '48

NEUROSPORA

Factors influencing the mutation rate in neurospora. H. Miller and W. D. McElroy. *Science* 107:193-4 F 20 '48
Genes of men and molds. G. W. Beadle. *il Sci Am* 179:30-9 S '48

NEUTRALIZATION

Inhibitors for neutralizing the germicidal action of quaternary ammonium compounds. G. R. Weber and L. A. Black. *bibliog Soap & San Chem* 24:137+ S; 134-7+ O '48
Kinetics of neutralization of nitroethane with ammonia and methylamines. R. G. Pearson. *bibliog Am Chem Soc J* 70:204-8 Ja '48

NEUTRALIZATION, Heat of

Relative strengths of some fatty acids. D. H. Everett and B. R. W. Pinsent. *Chem Soc J* p 1029-32 J1 '48

NEUTRINOS

Angular distribution in nuclear reactions and coincidence measurements. C. N. Yang. *bibliog Phys R* 74:764-72 O 1 '48

Beta-spectrum of S^{35} and the mass of the neutrino. C. S. Cook and others. *Phys R* 73:1395 Je 1 '48

Conservation of momentum in the beta-decay of Y^{90} . C. W. Sherwin. *bibliog Phys R* 73:1173-7 My 15 '48

Energy and momentum relations in the beta-decay, and the search for the neutrino. H. R. Crane. *bibliog diags Rs Mod Phys* 20:278-95 Ja '48

Momentum conservation in the beta-decay of P^{32} and the angular correlation of neutrinos with electrons. C. W. Sherwin. *bibliog diags Phys R* 73:216-25 F 1 '48

Search for gamma-radiation in the 2.2-microsecond meson decay process. E. P. Hincks and B. Pontecorvo. *bibliog diag Phys R* 73: 257-8 F 1 '48

Temperature effect of cosmic radiation at 1000-m water equivalent depth. M. Forró. *Phys R* 72:868-9 N 1 '47

Thermal consequences of the capture of neutrinos by the earth. A. E. Benfield. *Phys R* 74:621 S 1 '48

NEUTRONS

Alpha-2 neutrons nuclear reactions. K. Lark-Horowitz and others. *Phys R* 72:1117 D 1 '47

Beta- and gamma-spectra of gallium irradiated by slow neutrons. S. K. Haynes. *bibliog Phys R* 74:423-32 Ag 15 '48

Calibration of a Ra-4-Be neutron source by the $B(n, \alpha)Li$ reaction. F. G. P. Seidl and S. P. Harris. *bibliog R Sci Instr* 18:897-9 D '47

Cloud-chamber energy measurement of photo-neutron sources. D. J. Hughes and C. Egger. *bibliog diag Phys R* 72:902-7 N 15 '47

Contemporary neutron physics. A. H. Snell. *bibliog il Science* 108:167-76 Ag 20 '48

Convergent expression for the magnetic moment of the neutron. D. Rivier and E. C. G. Stueckelberg. *Phys R* 74:218 J1 15 '48; Correction. 74:986 O 15 '48

Cross section for the reaction $C^{12}(n, 2n)C^{11}$ at 90 Mev. E. M. McMillan and H. F. York. *bibliog Phys R* 73:262-3 F 1 '48

Delayed neutrons from fission of U^{235} . D. J. Hughes and others. *bibliog il diags Phys R* 73:111-24 Ja 15 '48

Delayed neutrons from U^{238} after short irradiation. F. de Hoffmann and others. *Phys R* 73:636 Mr 15 '48

Determination of the $S^{32}(n, p)P^{32}$ cross section for neutrons having energies of 1.6 to 5.8 Mev. E. D. Klema and A. O. Hanson. *bibliog diag Phys R* 73:106-10 Ja 15 '48

Energy distribution of neutrons in the atmosphere. S. A. Korff and others. *Phys R* 73:1133-7 My 15 '48

Evidence for neutrons associated with the stopping of sea level mesons in lead. R. D. Sard and others. *diag Phys R* 74:97-8 J1 1 '48

Excitation function for proton-neutron reaction in lithium ($Li^7(p, n)$). J. E. Hill and W. E. Shoup. *bibliog diag Phys R* 73:931-3 My 1 '48

Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand. *diag Phys R* 73:1135-9 My 15 '48

Fluctuations of the number of neutrons in a pile. E. D. Courant and P. R. Wallace. *Phys R* 72:1038-48 D 1 '47

(H^3, p) reaction in Rh and Co and probable evidence of the di-neutron. D. N. Kundu and M. L. Pool. *bibliog Phys R* 73:22-6 Ja 1 '48

Interaction between neutrons and electrons. E. Fermi and L. Marshall. *diags Phys R* 72: 1139-46 D 15 '47

Interaction of neutrons with electrons. J. M. Jauch and K. Watson. *Phys R* 72:1254 D 15 '47; Correction. 73:268 F 1 '48

Interactions of nucleons with meson fields. F. J. Dyson. *bibliog Phys R* 73:929-30 Ap 15 '48

Latitude dependence of neutron densities in the atmosphere as a function of altitude. J. A. Simpson, jr. *Phys R* 73:1389-91 Je 1 '48

Meson field and equations of motion of point particles. R. C. Majumdar and A. S. Apte. *Phys R* 74:538-47 S 1 '48

(n, p) and (n, α) disintegrations of nitrogen by fast neutrons. P. Huber and A. Stebler. *bibliog Phys R* 73:89-90 Ja 1 '48

Natural radiocarbon from cosmic radiation. E. C. Anderson and others. *bibliog Phys R* 72:931-6 N 15 '47

Neutron and gamma-ray yields from deuterons on carbon. C. L. Bailey and others. *bibliog diags Phys R* 73:274-8 F 15 '48

Neutron deficient isotopes of cerium and lanthanum. J. B. Chubbuck and I. Perlman. *bibliog Phys R* 74:982-3 O 15 '48

Neutron deficient isotopes of rhodium and palladium. M. Lindner and I. Perlman. *Phys R* 73:1202-3 My 15 '48

Neutron deficient isotopes of tellurium and antimony. M. Lindner and I. Perlman. *Phys R* 73:1124-5 My 1 '48

Neutron density in the free atmosphere up to 67,000 feet. L. C. L. Yuan. *Phys R* 74: 504-5 Ag 15 '48

Neutron induced radioactivity in certain rare-earth elements. J. M. Cork and others. *bibliog il Phys R* 74:240-3 Ag 1 '48

Neutron polarization. D. J. Hughes and others. *bibliog diag Phys R* 73:1277-90 Je 1 '48

Nucleus, its structure and reactions. W. E. Shoup and H. Odishaw. *diags Elec Eng* 67:125-34 F '48

Origin of the neutrons associated with the extensive cosmic-ray showers. V. T. Cocconi. *diags Phys R* 74:226-7 J1 15 '48

Photographic study of the neutron spectra from $Al(\alpha, n)$ and $Si(\alpha, n)$. R. A. Peck, jr. *bibliog Phys R* 73:947-55 My 1 '48

Polarizability of the neutron in an electrostatic field. K. M. Watson. *Phys R* 73:125-6 Ja 15 '48

Polarization of neutrons by magnetized iron. J. M. Cassels. *Phys R* 74:111 J1 1 '48

Presence of neutrons in the extensive cosmic-ray showers. V. Tongiorgi. *diags Phys R* 73:923-4 Ap 15 '48

Production of high energy neutrons by stripping. R. Serber. *diag Phys R* 72:1008-16 D 1 '47

Production of neutrons by the capture of cosmic-ray mesons at sea level. G. Grotzinger and G. W. McClure. *Phys R* 74:341-2 Ag 1 '48

Production of nucleons by the cosmic radiation. S. A. Korff and others. *bibliog Phys R* 71:842-5; 73:1010-14 Je 15 '47, My 1 '48

Quantitative determination of the magnetic moment of the neutron in units of the proton moment. F. Bloch and others. *bibliog diags Phys R* 74:1025-45 N 1 '48

NEUTRONS—Continued

- Range of Ra- α -Be neutrons in water determined by means of indium foil activations. J. H. Rush, *diag Phys R* 73:271-3 F 15 '48
- Reaction constants for $\text{Li}^6(p,n)\text{Be}^7$. R. Taschek and A. Hemendinger, *bibliog Phys R* 74:373-85 Ag 15 '48
- Reactions of carbon tetrachloride with bromine activated by isomeric nuclear transition and by the neutron-gamma reaction. J. E. Willard, *bibliog diag J Phys & Colloid Chem* 52:585-94 Mr '48
- Relative cross sections of reactions induced by high energy neutrons in C, N, O, and F. W. J. Knox, *Phys R* 72:1264-5 D 15 '47
- Resonances in $\text{Li}^6(p,n)\text{Be}^7$. G. Breit and I. Bloch, *Phys R* 74:397-404 Ag 15 '48
- Short-lived isomeric states of Se^{84} and Ge^{76} . J. R. Arnold and N. Sugarman, *bibliog J Chem Phys* 15:703-12 O '47
- Slow neutron velocity spectrometer studies of Cu, Ni, Bi, Fe, Sn, and calcite. W. W. Havens, jr. and others, *bibliog Phys R* 73:963-72 My 1 '48
- Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz. L. J. Rainwater and others, *Phys R* 73:733-41 Ap 1 '48
- Technique for observing nuclear disintegrations and scattering in small gas volumes. R. F. Taschek, *bibliog diag R Sci Instr* 19:591-4 S '48
- Theory of oscillating absorber in a chain reactor. A. M. Weinberg and H. C. Schweinler, *bibliog Phys R* 74:861-63 O 15 '48
- Threshold for the proton-neutron reaction in copper. W. E. Shoup and others, *bibliog diag Phys R* 73:421-3 Mr 1 '48
- Yields of neutrons from photo-neutron sources. B. Russell and others, *bibliog diag Phys R* 73:545-9 Mr 15 '48

Absorption

- Measurement of neutron absorption cross sections with a pile oscillator. J. I. Hoover and others, *diag Phys R* 74:864-70 O 15 '48
- Neutron absorption in samarium. A. J. Dempster, *il Phys R* 74:505 Ag 15 '48
- Preliminary data on absorption of high energy neutrons from the 184-inch cyclotron. R. Hildebrand and B. J. Moyer, *diag Phys R* 72:1258-60 D 15 '47
- Search for a resonance absorption of neutrons in graphite. S. Bernstein, *il diag Phys R* 73:956-62 My 1 '48

Scattering

- Angular distribution of neutrons from targets bombarded by 190-Mev deuterons. A. C. Helmholz and others, *diag Phys R* 72:1003-7 D 1 '47
- Angular distribution of n - p scattering with 90-Mev neutrons. J. Hadley and others, *diag Phys R* 73:1114-15 My 1 '48
- Crystal orientation in Al by slow neutron diffraction. G. Arnold and A. H. Weber, *bibliog Phys R* 73:1385-9 Je 1 '48
- Diffraction of neutrons by crystalline powders. E. O. Wollan and C. G. Shull, *bibliog diag Phys R* 73:830-41 Ap 15 '48
- Effect of non-central forces on the collisions of high energy neutrons with protons. H. S. W. Massey and others, *Phys R* 73:1403-4 Je 1 '48
- Elastic and inelastic scattering of 100- to 200-Mev protons or neutrons by deuterons. T. Wu and J. Ashkin, *bibliog Phys R* 73:986-1001 My 1 '48
- Elastic scattering of high energy nucleons by deuterons. G. F. Chew, *Phys R* 74:809-16 O 1 '48
- Energy distribution of the fragments resulting from the fission of U^{235} and Th^{232} by slow and by fast neutrons. J. L. Fowler and L. Rosen, *bibliog diag Phys R* 72:926-30 N 15 '47
- High energy neutron-proton scattering. G. F. Chew and M. L. Goldberger, *Phys R* 73:1409 Je 1 '48
- Inelastic scattering of fast neutrons by Fe, Pb, and Bi. L. Szilard and others, *bibliog diag Phys R* 73:1307-10 Je 1 '48
- Inelastic scattering of neutrons. J. M. Casels and R. Latham, *bibliog Phys R* 74:103-4 J1 1 '48

- Laue photography of neutron diffraction. E. O. Wollan and others, *il diag Phys R* 73:527-8 Mr 1 '48
- Measurement of transport and inelastic scattering cross sections for fast neutrons; method, experimental results. H. H. Barschall and others, *bibliog diag Phys R* 72:875-88 N 15 '47
- Milne problem for a sphere. T. H. Berlin, *diag Phys R* 73:437-40 Mr 1 '48
- Neutron cross sections of the elements. H. H. Goldsmith and others, *bibliog (74 ref) Rs Mod Phys* 19:259-97 O '47
- Neutron diffraction studies of NaH and NaD. C. G. Shull and others, *Phys R* 73:842-7 Ap 15 '48
- Neutron-proton and proton-proton scattering at high energies. J. Ashkin and T. Wu, *bibliog Phys R* 73:973-85 My 1 '48
- Neutron-proton force. J. M. Blatt, *bibliog Phys R* 74:92-6 J1 1 '48
- Neutron-proton scattering and range of nuclear forces. T. Wu, *bibliog Phys R* 73:1132 My 1 '48
- Neutron-proton scattering at 100 Mev. J. Eisenstein and F. Rohrlrich, *Phys R* 73:641-2 Mr 15 '48; Correction, 73:1411 Je 1 '48
- Neutron-proton scattering formula. L. Eisenbud, *Phys R* 73:1407-8 Je 1 '48
- Neutron-proton scattering formula. S. Flügge and E. Hückel, *Phys R* 73:520 Mr 1 '48; Discussion, T. Wu and H. M. Foley, 73:1117 My 1 '48
- Neutron-scattering cross section at the cadmium resonance. W. W. Beeman, *bibliog Phys R* 72:986-7 N 15 '47
- Phase of scattering of thermal neutrons by titanium. S. S. Sidhu and others, *Phys R* 74:222 J1 15 '48
- Polarization of fast neutrons. J. Schwinger, *Phys R* 73:407-9 F 15 '48
- Range of nuclear forces in the neutron-proton triplet interaction. C. G. Shull and others, *Phys R* 73:262 F 1 '48
- Resonance reactions involving Dirac-type incident particles. G. Goertzel, *Phys R* 73:1463-6 Je 15 '48
- Resonance scattering of neutrons by cobalt. S. P. Harris and others, *bibliog Phys R* 72:866-7 N 1 '47
- Resonance scattering of slow neutrons in crystals. R. Sternheimer, *bibliog Phys R* 74:335-40 Ag 1 '48
- Rotation vibration levels of the Fe^{57} and Ni^{59} nuclei. H. A. Wilson, *Phys R* 74:351 Ag 1 '48
- Scattering of high energy neutrons by protons. M. Camac and H. A. Bethe, *bibliog Phys R* 73:191-6 F 1 '48
- Scattering of neutrons in polycrystals. R. J. Finkelstein, *bibliog Phys R* 72:907-13 N 15 '47
- Scattering of neutrons of energy between 12.0 Mev and 13.0 Mev by protons. J. S. Laughlin and P. G. Kruger, *bibliog il diag Phys R* 73:197-207 F 1 '48
- Scattering of slow neutrons by ortho- and parahydrogen. R. B. Sutton and others, *bibliog diag Phys R* 72:1147-56 D 15 '47
- Second Born approximation and proton-neutron and proton-proton scattering. T. Wu, *Phys R* 73:934-9 My 1 '48
- Slow neutron cross section of H. W. B. Jones, jr, *bibliog diag Phys R* 74:364-9 Ag 15 '48
- Slow neutron spectrometer studies of oxygen, nitrogen, and argon. E. Melkonian and others, *Phys R* 73:1399-400 Je 1 '48
- Thermal neutron activation cross sections. L. Seren, H. N. Friedlander and S. H. Turkel, *bibliog Phys R* 72:888-901 N 15 '47
- Total cross section of Fe, Ni, and Bi for fast neutrons. H. H. Barschall and others, *bibliog Phys R* 73:659-65 Ap 1 '48
- Total cross sections of nuclei for 90-Mev neutrons. L. J. Cook and others, *Phys R* 72:1264-5 D 15 '47
- Transmission of monoenergetic slow neutrons through solid solutions and mechanical mixtures of TiC and WC. S. S. Sidhu, *bibliog il J Ap Phys* 19:639-41 J1 '48
- X-ray, electron, and neutron diffraction. C. G. Shull and E. O. Wollan, *bibliog il Science* 108:69-75 J1 23 '48

NEVADA

See also

Chemical industries
—Nevada
Copper mines and
mining—Nevada
Gold mines and min-
ing—Nevada
Hydroelectric plants
—Nevada

Manganese mines
and mining—
Nevada
Mines and mineral
resources—Nevada
Newspapers—Nevada
Silver mines and
mining—Nevada

NEW BRITAIN, Connecticut

Industries

Town's industry tells how it spends its in-
come. *il* Factory Management 106:126-8 J1
'48

NEW BRUNSWICK

See also

Forests and forestry
—New Brunswick
Mines and mineral
resources—New
Brunswick

Paper mills—New
Brunswick

NEW deal. *See* United States—Politics and government

NEW ENGLAND

Date of the last rise of sea level in southern
New England, with remarks on the Grassy
Island site. E. S. Deevey, Jr. bibliog maps
Am J Sci 246:329-52 Je '48
Dollar crisis in New England; economic fable
for our times; satire. J. K. Galbraith.
Fortune 37:82-3 Ap '48

See also

Gas, Natural—New Iron industry and
England, Supply to trade—New Eng-
land

Economic conditions

New England's economic prospects. C. D.
Hyson and A. C. Neal. *Harvard Bsns R* 26:
156-80 Mr '48

NEW ENGLAND association of chemistry teachers

Report of annual meeting, May 8. *J Chem
Educ* 25:466-8 Ag '48

NEW ENGLAND electric system

Annual report. *Comm & Fin Chr* 167:2136
My '48

NEW ENGLAND gas and electric association

Consolidated income account and statement
of income, 1947-1948; consolidated earnings
for 12 months ended April 30, 1948. *Comm
& Fin Chr* 167:2690 Je 21 '48

NEW ENGLAND gas association

Annual meeting, Boston, March 18-19. *Am
Gas J* 168:33-5 Ap '48

NEW ENGLAND power company

Bonds offered. *Comm & Fin Chr* 168:348-9
J1 26 '48

NEW ENGLAND sales management conference

Meeting, 9th, Boston, Jan. 9-10. *Sales Man-
agement* 60:114-15 F 1 '48

NEW ENGLAND school science council

Establishment of new organization. *Science*
107:13 Ja 2 '48

NEW ENGLAND telephone and telegraph company

New debt rise due. *Barron's* 28:34 J1 26
'48

NEW ENGLAND textile foundation

Initial gifts of \$54,250 to NETF. *Am Dyestuff
Rep* 36:667 N 17 '47

NEW ENGLAND water works association

Annual meeting, 66th, Boston, Sept. 16-19.
Water & Sewage Works 94:397-401 N '47
Annual meeting, 67th, New York, Sept. 14-17.
Water & Sewage Works 95:401-8 N '48

NEW HAMPSHIRE

See also

Mines and mineral
resources—New
Hampshire

Roads—New Hamp-
shire

NEW JERSEY

See also

Iron mines and min-
ing—New Jersey
Motor bus lines—New
Jersey

Railroads—New
Jersey

NEW JERSEY Bell telephone company

Debentures offered. *Comm & Fin Chr* 168:
263 J1 19 '48

NEW JERSEY power and light company

Bonds offered. *Comm & Fin Chr* 168:253 J1
19 '48

NEW MEXICO school of mines

Petroleum engineering schools. *il* Oil & Gas
J 46:101-2 Mr 11 '48

NEW ORLEANS

Great New Orleans steal; success of city's
sales promotion. *il* *Fortune* 38:102-3 N '48
New Orleans' international trade mart offers
a showcase for world traders. *il* *Bsns W*
p 114 J1 17 '48
New Orleans makes a play for imports. *Bsns*
W p54+ Mr 13 '48
Selling New Orleans. *Bsns W* p 101 Ja 10
'48

See also

Electricity supply—
New Orleans

Motor bus lines—
New Orleans

Commerce

Port of New Orleans; crossroad of world
trade. *il* *Manuf Rec* 117:36-8 Je '48

Harbor

South's port trade booms; eight northern
ports band together. *il* *Bsns W* p24 Ag 21
'48

Industries

Host! New Orleans. K. M. Decossas and H.
J. Janssen. *il* *Chem Eng Prog* 44:sup
18-22+ F '48

Railroads

New Orleans and railroads to finance termi-
nal project jointly. *il* *map Ry Age* 123:950-2
N 29 '47

NEW ORLEANS academy of sciences

Annual meeting, 95th, April 30-May 1. *Sci-
ence* 107:594 Je 4 '48

NEW products. *See* Products, New

NEW YORK (city)

Woes of a wonder citizen. *Fortune* 36:4 D '47

See also

Airports—New York United nations—
(city) Headquarters

Bibliography

Greater New York's golden anniversary; a
selected list of books. C. Rodgers and R.
B. Rankin. 14p pa 15c New York pub. lib.
5th av. & 42d st, New York 18 '48

Bridges

Paving the roadway of the George Washing-
ton bridge. *il* *Roads & Bridges* 85:85-6
N '47

Harbor

New York's port needs rebuilding. *il* *Bsns W*
p40+ My 29 '48

Will new piers solve New York's shipping
woes? World trade corp., Port Authority
think so. W. F. McHale. *Barron's* 28:10 Je
28 '48

History

New York in 1898; illustrations with text.
Dun's R 56:17-19 Ap '48

Hotels, restaurants, etc.

Nantucket at Radio City; Gloucester House,
West 61st street. *il* *plan Arch Rec* 104:134-5
J1 '48

Pierre grill; New York hotel livens up a
luncheon room. *il* *plan Arch Forum* 88:90-2
Mr '48

Madison Square Garden

Three times bigger; new Garden. *il* *plan
diag Arch Forum* 88:13 Ap '48

Police department laboratory

Laboratory's role in criminology. R. L.
Demmerle. *il* *Chem & Eng N* 26:456-8 F 16
'48

Public works

Huge volume of public-works projects pro-
posed. *Eng N* 141:6 S 23 '48

Railroads

Additional New York railroad link under
study in New York. *map Ry Age* 124:
755-6 Ap 17 '48

Park avenue, Manhattan's gold-plated rail-
road yard; two railroads using Grand
Central take back air rights over their
tracks. *il* *plan Bsns W* p98-102+ S 18 '48

NEW YORK (city)—Continued

Rapid transit

Can New York's transit ills be helped? C. P. Gross. Pub Util 40:745-9 D 4 '47
 New York's new transit fares and how they are collected. il map Bus Transportation 27:41-3 J1; 58-9 Ag '48

See also

Motor bus lines—
 New York (city)

Rockefeller Center

Lobby and touring center in new Esso building create gateway to Rockefeller Center. il plans diagrs Arch Forum 89:84-9 Ag '48
 Maintenance of metallic trim at Rockefeller Center. M. Weiss. Metal Prog 52:833-4 N '47

Streets

How New York city dug out; peak force of machines and men attacked the big Dec. 26 snowfall. H. J. McKeever. il Roads & Sts 91:102-6 AD '48
 Madison avenue, NYC; portfolio. il Fortune 36:98-107 D '47
 Park avenue; Manhattan's gold-plated railroad yard; two railroads using Grand Central take back air rights over their tracks. il plan Bsns W p98-102+ S 18 '48
 We won't cure billion dollar city traffic jams until we make room for the pedestrian. il plans Arch Forum 88:12-14 My '48

Subways

Clean-cut bracing tames tough New York subway. il Constr Methods 30:86-90 Je '48
 Extending Gotham's old subway platforms. il plan Comp Air Mag 53:12-14 Ja '48
 Ticket chopper comes back; turnstiles changed; New York subway fare increase. il Comp Air Mag 53:195 Ag '48

Tunnels

Line of light makes tunnel driving safe and easy; new Brooklyn-Battery tunnel. L. Geenens. il diagrs Elec World 128:82-3 D 6 '47
 Progress of work on Brooklyn-Battery tunnel indicates early completion date. il map diag Civil Eng 13:558-60+ S '48

NEW YORK (state)

See also

Roads—New York
 (state)

Industries and resources

All's busy on Niagara frontier; survey of industrial plants. il Bsns W p74+ F 7 '48

NEW YORK academy of science

56 chemists and chemical engineers nominated as fellows. Chem & Eng N 26:260 Ja 26 '48

NEW YORK board of trade

New York board of trade forms commodity units in International trade section. Oil Paint & Drug Rep 153:60 Mr 29 '48

Drug, chemical and allied trades section

Annual meeting, 59th, Shawnee-on-Delaware, Pa. Sept. 23-25. Oil Paint & Drug Rep 154: 15+ S 27 '48; Chem & Eng N 26:3022 O 11 '48

Insurance section

New officers. East Underw 49:29 Ja 2 '48

NEW YORK central railroad

Annual report. Comm & Fin Chr 167:1541. 1590 Ap 8-12 '48

Argue Young's N.Y.C. directorship case; I.C.C. hears opposing views on proposed C.&O.-Central relationship. Ry Age 124: 480-2 Mr 6 '48

Denies Young N.Y.C. directorship; I.C.C. rejects Bowman application and petition of C. & O. and Alleghany corporation for release of Central holdings from trusteeship. Ry Age 124:1020-1+ My 22 '48

Director Boles would deny Young a seat on New York Central board. Ry Age 123:1038-40 D 13 '47

Equipment trusts offered. Comm & Fin Chr 166:2561; 168:1148 D 22 '47, S 20 '48

ICC says no to Young's trial marriage between Chesapeake & Ohio and New York Central. Bsns W p96 My 22 '48

Railroad securities. Comm & Fin Chr 167: 608 F 5 '48

Review of the year, 1947. G. Metzman. Ry Age 124:833 Ap 24 '48

Setback for Young. Bsns W p81-2 D 20 '47. West Shore 4s discount value in Central's system. W. H. Davis. Barron's 28:32 F 9 '48

Young has new idea. Bsns W p90+ My 29 '48

NEW YORK, Chicago and St Louis railroad

Nickel Plate deal; Lackawanna railroad acquires substantial interest. Bsns W p78+ Ja 17 '48

Nickel Plate shift. Bsns W p84+ N 15 '47. Railroad securities. Comm & Fin Chr 168:717 Ag 19 '48

NEW YORK cotton exchange

N.Y. cotton exchange lowers margins. Comm & Fin Chr 168:834 Ag 26 '48

NEW YORK curb exchange

Celebrates 27th anniversary. Comm & Fin Chr 168:21 J1 '48

Curb launches securities clearing corporation. Comm & Fin Chr 166:1847 N 6 '47

New officers. Comm & Fin Chr 167:715+ F 12 '48

N.Y. curb exchange restores trading in Italian bonds. Comm & Fin Chr 166:2631 D 25 '47

NEW YORK fire insurance exchange

Approves changes in constitution. East Underw 49:15 J1 2 '48

Exchange votes to remove limitations on agencies and territorial restrictions. East Underw 49:18 Ja 23 '48

NEW YORK, New Haven & Hartford railroad

Equipment trusts offered. Comm & Fin Chr 167:550; 168:349 F 2 J1 26 '48

Facts best weapon for capture of potential traffic. il Ry Age 125:247-51 J1 31 '48

Howard S. Palmer retires as president of the New Haven. Ry Age 125:373-4 Ag 21 '48

New bosses; portraits. Bsns W p64 Ag 28 '48

New Englanders again control New Haven railroad. Bsns W p80+ J1 24 '48

New Haven story; survival by adaptation. il map Ry Age 124:1161-7 Je 12 '48

New Haven's problems under attack; heavy passenger business chief difficulty, but prospects improve. A. Jansen. Barron's 28:35-6 Ap 26 '48

Preference stockholders acquire control. Comm & Fin Chr 168:649 Ag 16 '48

NEW YORK, Ontario and western railway

Old Woman road's losses grow larger. Barron's 28:34 J1 12 '48

O. & W. trustees try rescue operation. Barron's 28:41-2 S 13 '48

NEW YORK post home news

Thackrey versus Thackrey; how Mr and Mrs run paper. C. Hodge. Ed & Pub 81:9+ S 18 '48

NEW YORK public library bulletin

Index to volumes 41-50, 1937-1946. D. C. Haskell. comp. 64p pa \$1 New York pub. lib. New York '48

NEW YORK security dealers association

Annual dinner, 22d, New York, March 5; portraits. Comm & Fin Chr 167:insert 1-4 Mr 11 '48

New officers. Comm & Fin Chr 167:220 Ja 15 '48

NEW YORK society of security analysts

Annual meeting, 11th. Comm & Fin Chr 167: 2200 My 20 '48

NEW YORK state bar association

Banking law section

Meeting, New York, Jan. 22. Trusts & Estates 86:155-6 F '48

NEW YORK state barge canal

New York Barge Canal lock walls refaced with wrought iron. il Eng N 141:61 S 30 '48

NEW YORK state electric and gas corporation

Bonds offered. Comm & Fin Chr 167:2033-4 My 10 '48

NEW YORK state sewage works association

Annual meeting, New York. Eng N 140:157 Ja 29 '48

Annual meeting, 20th, Jan. 23; with abstracts of papers. Water & Sewage Works 95:107-12 Mr '48

NEW YORK stock exchange

Is the market right? review of the Street's newest perplexities. *il Fortune* 37:77-83+ Mr '48

Listings for 1947. *Comm & Fin Chr* 167:1632-4 Ap 12 '48

Monthly range of prices on the New York stock exchange. *Comm & Fin Chr* 167:399-413 Ja 22 '48

NYSE members reject permissive incorporation. *Comm & Fin Chr* 166:2203 N 27 '47

N.Y.S.E. reports quarterly loss. *Comm & Fin Chr* 168:318 Jl 22 '48

NYSE submits question of permissive incorporation to membership. *Comm & Fin Chr* 166:1960 N 13 '47

Opposes reducing membership. R. P. Boylan. *Comm & Fin Chr* 167:2203+ My 20 '48

Shares listed; market value and number of shares, 1941-1946. Survey of Cur Bsns 1947 Sup p95 [supplemented in monthly numbers]

Stock market makes the break-through. Bsns W p 19-20 My 22 '48

Employees

New York stock exchange strike ended. *Comm & Fin Chr* 167:1989 My 6 '48

Reviews strike. B. Schram. *Comm & Fin Chr* 167:1558 Ap 8 '48

NEW YORK telephone company

Bonds offered. *Comm & Fin Chr* 167:550; 168:48-9 F 2, Jl 5 '48

NEW YORK times

New plant. A. H. Sulzberger. *il Ed & Pub* 81:10-11 O 16 '48

N.Y. times slots jobs; payroll up \$1,000,000. *Ed & Pub* 81:80 Jl 17 '48

N.Y. times starts fax but adds to presses. J. Walker. *il Ed & Pub* 81:56 F 21 '48

NEW YORK university

Eleven years of Diesel power. L. Arnow. *il Diesel Power* 26:59-61 Je '48

Ordnance gage laboratory

University maintains contact with industry. *il Product Eng* 19:142-3 Jl '48

NEW ZEALAND**See also**

Education—New Zealand	Immigration and emigration—New Zealand
Electricity supply—New Zealand	

Commercial policy

Geneva tariff negotiations; southern dominion concessions. *For Comm W* 29:13-16 D 6 '47

Foreign relations

New Zealand and world affairs. *Economist* 155:303-4 Ag 21 '48

NEWARK, New Jersey**Harbor**

Marine facilities at Port Newark. *il Marine Eng* 53:69-70 My '48

Water supply

Forestry on reservoir lands. J. M. Heilman. *Am Water Works Assn J* 40:832-6 Ag '48

NEWBERG, W. C. 1910-

Chrysler promotes. *por Bsns W* p40 N 22 '47

NEWBERRY, George, 1893-1947

Sketch. R. W. E. Stickings. *Chem Soc J* p255-6 F '48

NEWCASTLE disease

Isolation of avian pneumoencephalitis (Newcastle disease) virus from the yolk sac of four-day-old chicks, embryos, and infertile eggs. P. D. DeLay. *Science* 106:545-6 D 5 '47

Recovery of pneumoencephalitis (Newcastle) virus from the air of poultry houses containing infected birds. P. D. DeLay and others. *Science* 107:474-5 My 7 '48

NEWCOMB, James Farmer, 1880-1948

Sketch. *por Inland Ptr* 121:99 Jl '48

NEWCOMEN society for the study of engineering history and technology

Summer meeting. King's Lynn, June 2. *Engineer* 185:578 Je 11 '48

NEWFOUNDLAND**See also**

Food supply—Newfoundland	Paper mills—Newfoundland
Forests and forestry—Newfoundland	Public health—Newfoundland

Commerce

Newfoundland's union with Canada may depress exports to island. *il For Comm W* 33:3-6+ O 9 '48

Economic conditions

Economic conditions in the first half of 1947. *For Comm W* 29:13-14 N 8 '47

Industries and resources

Newfoundland's resources an asset to Canada. *il Bsns W* p 109-10 Ag 21 '48

Politics and government

Future of Newfoundland. *Economist* 154:768-9 My 8 '48

NEWLANDS, John Alexander Reina, 1837-1898

Pioneer whom the chemists ridiculed. J. A. Cameron. *por Chem Age (Lond)* 59:354-6 S 11 '48

NEWNES, George, limited

Statement by the chairman. F. Newnes. *Economist* 155:435 S 11 '48

NEWPORT, Rhode Island**Water supply**

Increase in water facilities to meet wartime demands. H. E. Watson. *fold map N E Water Works Assn J* 61:211-19 S '47

NEWPORT NEWS, Virginia**Industries**

Newport News pushes campaign for diversified industries. *il Manuf Rec* 116:38-40+ N '47

NEWPORT NEWS shipbuilding and dry dock company

Annual report. *Marine Eng* 53:74 Ap '48

NEWS agencies

Chicago CNB studies service to radio clients. *Ed & Pub* 81:14 F 28 '48

Need for AP, U.P. *Ed & Pub* 81:118 Ap 24 '48

See also

Associated press	International news service
Canadian press	United press

NEWS bulletins

Flashcast replacing bulletin board news for squint-and-run readers. *il Ed & Pub* 81:60 Je 12 '48

NEWS photographers

Assignment in India where bulb costs \$1.30. M. Desfor. *Ed & Pub* 81:54 S 18 '48

Babe has grown up in mixed company. J. L. Collings. *Ed & Pub* 81:48 O 23 '48

But where do you put your spare blonde? J. L. Collings. *il Ed & Pub* 81:46 My 15 '48

Constable arraigned for slugging lensman. *Ed & Pub* 81:36 F 14 '48

Hearst fotogs move into a dream lab. J. L. Collings. *Ed & Pub* 81:54 Ag 14 '48

It's fun, says Mary Joe. J. L. Collings. *il Ed & Pub* 81:42 Je 19 '48

Kent State schedules 19 speakers in course. *Ed & Pub* 81:34 F 28 '48

Lensman barely escapes death, gets good shot. *Ed & Pub* 81:38 Je 26 '48

Michigan paces Nation with court pix study. L. Tendler. *Ed & Pub* 81:48 F 7 '48

New York fotogs describe most exciting jobs. J. L. Collings. *Ed & Pub* 81:70 Mr 13 '48

Photography wears dresses too. J. L. Collings. *il Ed & Pub* 81:50 My 29 '48

Sideline gripes aired to college publicists; press photographers restrictions at football games. W. Reed. *Ed & Pub* 81:42 Ja 17 '48

Smith carries torch with his camera. J. L. Collings. *Ed & Pub* 81:46 O 2 '48

Switch from stills to movies not easy. J. L. Collings. *Ed & Pub* 81:36 Ag 28 '48

300 cameramen at Kent talk about photography. J. L. Collings. *Ed & Pub* 81:13+ Ap 3 '48

Topics for the day; R. Sarno, F. Cushing. J. L. Collings. *Ed & Pub* 81:52 My 22 '48

NEWS photographers—Continued

What's a good name for the photographer?
J. L. Collings. Ed & Pub 81:78 Ap 24 '48
See also
Aidala, Arthur

NEWS photographs
Acme telephoto network serves seven countries. Ed & Pub 81:46 Mr 6 '48
Air force learning news value of pix. J. L. Collings. Ed & Pub 81:50 O 30 '48
Amateurs receive professional pay. J. L. Collings. Ed & Pub 81:53 Jl 17 '48
AP pix takes ball fans right onto the field. J. L. Collings. Il Ed & Pub 81:44 O 16 '48
Bar studies court pix; bar them. M. W. Binyay. Ed & Pub 81:18 O 9 '48
British make advances in phototelegraphy. Ed & Pub 81:38 Jl 31 '48
Canadian press will start picture service in Sept. Ed & Pub 81:47 Ag 7 '48
Credit; don't overdo television picture snatching. J. Walker. Ed & Pub 81:34 Mr 13 '48
Denver Post's mobile photo unit described. plans Ed & Pub 81:50 Jl 10 '48
Government hedges on shots of federal prisoners. J. L. Collings. Il Ed & Pub 81:66 Je 12 '48
Interesting people and facts in print. Ed & Pub 81:44 Ag 7 '48
Jeep transmits pix from ship to shore; New York daily mirror. J. L. Collings. Ed & Pub 81:58 S 11 '48
Judge defends court picture in privacy suit. Ed & Pub 81:24 O 2 '48
Mother's tragedy photo wins top E&P contest prize. Il Ed & Pub 81:12-16 Mr 6 '48
Newspphoto service proves costly bride. O. J. Rochelle. Ed & Pub 81:46 O 30 '48
Pictures that shock curb traffic fatalities. A. J. Smith. Ed & Pub 81:20 Je 12 '48
Television vs. stills? it's a foto-finish. J. L. Collings. Ed & Pub 81:38 Jl 3 '48
Use gruesome photos? sure, answers city editor; automobile accident pictures. J. L. Collings. Ed & Pub 81:42 Mr 20 '48

NEWS photography. See Photography, Journalistic

NEWS vendors. See Newspaper vendors

NEWSPAPER advertising. See Advertising mediums—Newspapers; Newspapers—Advertising

NEWSPAPER advertising executives association
Annual conference, Chicago. Ptr Ink 222:92-3 Ja 23 '48
Annual conference, Chicago, 1948; with abstracts of papers. Ed & Pub 81:7+ Ja 17 '48
Meeting, Quebec. Ed & Pub 81:5+ Je 26; 12 Jl 3 '48

NEWSPAPER associations
See also Association of newspaper and classified advertising managers; International circulation managers association

NEWSPAPER awards
Conservation Oscar to Grand Rapids press. Il Ed & Pub 81:20 Ag 14 '48
Cornell's radio-press experiment extolled. J. Walker. Ed & Pub 81:44 S 18 '48
Indiana daily wins safety editorial award. Ed & Pub 81:53 Jl 24 '48
Inland winners named in local news contest. Ed & Pub 81:68 O 16 '48
NEA contest winners. Ed & Pub 81:11+ My 3 '48
St. Louis college awards plaque to Star-times. Ed & Pub 81:33 My 22 '48
St. Louis post-dispatch wins 3d Pulitzer prize. Ed & Pub 81:12 My 8 '48
See also
Journalism awards

NEWSPAPER carriers
Atwater Kent gives carrier scholarships. Ed & Pub 81:66 O 16 '48
Bob Hope film ready as tribute to boys. Ed & Pub 81:26 S 11 '48
California Foundation idea being expanded. C. Watson. Ed & Pub 81:60 O 23 '48
Carrier sports costs need not be excessive. Ed & Pub 81:48 Ap 3 '48
Central states circulation managers association meeting, Chicago. Ed & Pub 81:8 Mr 13 '48
Code proposed to guard carriers. Ed & Pub 81:58+ Ap 24 '48

Eisenhower praises capitalist carriers. Ed & Pub 81:66 O 16 '48
Foundation arranges newspaperboy films. C. Watson. Ed & Pub 81:46 Je 5 '48
LaCrosse Tribune has sound carrier plan. G. A. Brandenburg. Ed & Pub 81:46 Jl 31 '48
115 Calif. papers have insurance plans for boys. Ed & Pub 81:65 Jl 24 '48
Oregon journal has sound carrier plan. G. A. Brandenburg. Ed & Pub 81:33 F 28 '48
Radio, movies support newspaperboy day. Ed & Pub 81:26 S 4 '48
R & T takes Iowa poll on carrier attitude. G. A. Brandenburg. Ed & Pub 81:42 Je 26 '48
Scholarship system entails strict checkup. Ed & Pub 81:34 Ja 3 '48
Sideline job as carrier boy makes life easy; Oscar M. Olson carrying the Salt Lake tribune for 30 years. T. Mathews. Ed & Pub 81:26 S 18 '48
Station vs. corner service surveyed. G. A. Brandenburg. Ed & Pub 81:52 O 16 '48
Stodghill is father of Newspaperboy day. C. W. Duke. Ed & Pub 81:10 O 3 '48
Three dailies give boys accident insurance. G. A. Brandenburg. Ed & Pub 81:52 Mr 20 '48
Tributes highlight newspaperboy day. G. A. Brandenburg. Ed & Pub 81:42 S 18 '48
Two groups endorse arm emblem awards. Ed & Pub 81:42 Ag 28 '48
Vendor status not settled, circulators are cautioned; carriers' treatment discussed at Interstate circulation managers' meeting. C. W. Duke. Ed & Pub 81:9+ S 25 '48

NEWSPAPER classified advertising managers, Association of. See Association of newspaper classified advertising managers

NEWSPAPER controllers and finance officers, Institute of. See Institute of newspaper controllers and finance officers

NEWSPAPER editors, American society of. See American society of newspaper editors

NEWSPAPER enterprise association
NEA's timed features move on to page one. C. Hodge. Ed & Pub 81:44 Je 12 '48

NEWSPAPER ethics
Editors deny U.S. press fosters war hysteria. Ed & Pub 81:10 My 15 '48
Jailed newsmen plead for confidence law. D. V. Clarke and C. L. Leonard. Ed & Pub 81:7-8 Mr 6 '48
Lashes press on war hysteria; abstract. C. D. MacDougall. Ed & Pub 81:68 My 8 '48
Martin says public wants honest opinion; Stockton (Calif.) record. C. Watson. Ed & Pub 81:30 Ja 10 '48
Monopoly disease; address to Texas press association. R. Nicholson. Ed & Pub 81:7 Je 26 '48

NEWSPAPER guild, American. See American newspaper guild

NEWSPAPER guild of New York
New heads face fight for control. Ed & Pub 81:65 Ja 10 '48

NEWSPAPER libraries
Microfilm can aid librarian on clip files. Ed & Pub 81:65 Je 5 '48
Toronto Star library is mecca for research. J. Montagnes. Il Ed & Pub 81:54 Je 5 '48

NEWSPAPER offices
Atlanta constitution now in new plant. Il Ed & Pub 81:12 Ja 10 '48
Canadian press to open new building. J. Montagnes. Ed & Pub 81:24 Jl 24 '48
Dailies' new plants rise all across U.S. Il Ed & Pub 81:3+ Ag 14 '48
Group inspects Louisville plant in preview. Il Ed & Pub 81:12 Jl 17 '48
Louisville papers' new plant a necessity; not a luxury. J. R. Deck. Il Ed & Pub 81:11+ S 13 '48
New plant of The New York times. A. H. Sulzberger. Il Ed & Pub 81:10-11 O 16 '48
Operation horizontal in new Omaha plant. Il Ed & Pub 81:30 J 3 '48
Palo Alto times starts work on new plant. Il Ed & Pub 81:49 Ag 21 '48
Progress report on new plants. Il Ed & Pub 81:43-4+ O 9 '48
Republic and Gazette now occupy million dollar plant in Phoenix. Ed & Pub 81:53 Je 12 '48

NEWSPAPER offices—Continued

Seismic factors control design of ten-story, steel-frame building for Los Angeles times. D. L. Narver. *Il diag Eng N 141:31-2 S 2* '48

Air conditioning

Heat pump, radiant panel, warm air; Oregonian building, Portland. *Il diag Dom Eng 172:126-6+ Ag* '48
Zoning air conditioning for future partition changes; Los Angeles Mirror building. D. T. DuBain. *Il diag Heating-Piping 20:81-4 O* '48

Electric equipment

Powering the press in Portland; the Oregonian and the Oregon journal. *Il Elec West 101:84-9 Ag* '48

Equipment

Flashcast replacing bulletin board news for squirt-and-run readers. *Il Ed & Pub 81:60 Je 12* '48
Mechanical equipment of 1884; U.S. and Canadian dailies; tabulation. *Ed & Pub 81:1-51 sec 2 O 30* '48
St Louis P-D issued from its new annex. *Il Ed & Pub 81:26 Ja 17* '48
Why a state mechanical conference? V. Williams. *Ed & Pub 81:66 Mr 13* '48

Layout

New layout eases confabs, copy flow. *Il Ed & Pub 81:10 F 28* '48
New layout increases composing room output; Sherman (Tex.) daily democrat. *Ed & Pub 81:55 My 8* '48

Mail rooms

Mechanized mailroom design is explained; abstract. J. B. Eberle. *Ed & Pub 81:56+ Mr 13* '48

Moving

Oregonian moves without missing edition deadline. *Il Ed & Pub 81:11 Je 12* '48
200 complete transfer to Louisville plant. *Ed & Pub 81:16 S 25* '48

Photographic laboratories

Binghamton press has new photo laboratory. J. L. Collings. *Il Ed & Pub 81:48 Jl 24* '48
Toledo blade designs new photography lab. *Il Ed & Pub 81:46 Mr 6* '48

Records

Metro stereo plant is huge; daily's mat-filing system. *Ed & Pub 81:53 S 11* '48

NEWSPAPER promotion association, National. See National newspaper promotion association

NEWSPAPER publishers and editors, International federation of. See International federation of newspaper publishers and editors

NEWSPAPER radio stations. See Radio broadcasting stations, Newspaper

NEWSPAPER reporters. See Reporters

NEWSPAPER television stations. See Television stations, Newspaper

NEWSPAPER vendors

L.A. judge denies vendor owns corner. *Ed & Pub 81:42 Ja 24* '48

Official acts clarify distributors' status; contract carriers. *Ed & Pub 81:54 Mr 6* '48

Vendor bill vetoed. *Ed & Pub 81:13 Ap 10* '48

Vendor resolution advances in Senate. *Ed & Pub 81:56 Mr 20* '48

Vendor status not settled, circulators are cautioned; carriers' treatment discussed at Interstate circulation managers' meeting. C. W. Duke. *Ed & Pub 81:34+ S 25* '48

NEWSPAPER week

Newspaper week is widely observed. O. J. Rochelle. *Ed & Pub 81:8 O 9* '48

Right to know; theme stressed for Oct. 1-8. *Ed & Pub 81:8 S 25* '48

NEWSPAPERS

Advice to student; journalism is a way of life. J. H. Sorrells. *Ed & Pub 81:9+ Ap 10* '48

How to read a paper set as theme for week. *Ed & Pub 81:14 Jl 3* '48

Newspaper likened to noted personalities. G. W. Johnson. *Ed & Pub 81:45 Je 12* '48
One-paper town held not itself an evil; abstract. R. B. Nixon. *Ed & Pub 81:24 Ja 31* '48

Open house of Hoopeston chronicle-herald. *Ed & Pub 81:52 F 21* '48

Pennsylvania press conference. *Ed & Pub 81:20+ My 22* '48

Political handbook of the world; parliaments, parties and press as of January 1, 1948. W. H. Mallory. *ed. 214p \$3.50 Council on foreign relations, 53 E. 68th st, New York 21* '48

Small daily formula; youth, ideas, and push; Bloomington daily herald. J. S. Davenport. *Ed & Pub 81:11 Je 5* '48

Straight news is inadequate; abstract. R. Drummond. *Ed & Pub 81:90 Ap 24* '48

See also

Advertising medi-	Radio broadcasting
ums—Newspapers	stations, News-
Freedom of the press	paper
Journalism	Reporters
Newspaper paper	Reporting
Periodicals	Trade journals
Press law	Women as journalists
also names of newspapers, e.g. Emporia	
gazette; New York times	

Accounting

Circulation expense falls under two heads. G. A. Brandenburg. *Ed & Pub 81:62 Jl 17* '48

Controllers hear plea for uniform accounts. *Ed & Pub 81:76 My 22* '48

Advertising

Ad may be distinctive, how about signature? R. Simmons. *Ed & Pub 81:46 F 21* '48

Booklets promote Post-Gazette features. *Ed & Pub 81:26 Ag 28* '48

Boston Sunday post starts huge promotion. *Ed & Pub 81:12 Ja 31* '48

CAMs suggest ways to get voluntary ads. C. Watson. *Ed & Pub 81:30 Jl 17* '48

Circulator sharing spot on global show; Christian Science monitor news broadcast. *Ed & Pub 81:40 Ja 24* '48

Dailies' ads might try direct selling theme. T. S. Irvin. *Ed & Pub 81:48 O 16* '48

Davenport's frontier study is inspirational. T. S. Irvin. *Ed & Pub 81:44 F 28* '48

E&P promotion contest awards are announced. *Ed & Pub 81:11+ Ap 3* '48

House ad, big or small should be a must. T. S. Irvin. *Ed & Pub 81:40 S 25* '48

Letters from editor help to curtail stops. *Ed & Pub 81:36 Ag 7* '48

Look at the record can be a real service. T. S. Irvin. *Ed & Pub 81:52 Jl 3* '48

Movie contests used to bring in teen-agers. *Ed & Pub 81:18 Mr 27* '48

Professional finish improves trade ads. T. S. Irvin. *Ed & Pub 81:46 Ja 17* '48

Quizdown show proves popular promotion; a syndicated program by grammar school children under newspaper sponsorship. G. A. Brandenburg. *Ed & Pub 81:67 Ap 10* '48

Solid stuff needed if sales go flabby. T. S. Irvin. *Ed & Pub 81:48 Ag 21* '48

Space buyers receive real interest in Texas; Rio Grande Valley group. T. S. Irvin. *Ed & Pub 81:50 Mr 6* '48

Time to re-examine promotion via radio. T. S. Irvin. *Ed & Pub 81:52 O 9* '48

To inform or excite? facts can do both. T. S. Irvin. *Ed & Pub 81:44 Ja 24* '48

Weeklies discover all business is local. T. S. Irvin. *Ed & Pub 81:40 O 2* '48

See also

College newspapers—
Advertising

Advertising deadlines

Early deadline for advertising gets results. *Ed & Pub 81:24 Ja 10* '48

Advertising departments

Admen get profitable tip from news side. H. F. Hale. *Ed & Pub 81:64 Ap 17* '48

Hot shots secondary in Stanford's plans. *Ed & Pub 81:13 S 18* '48

New filing system cuts time 80 per cent for Chicago Tribune's advertising department. *Il Am Bns 18:24+ Ap* '48

NEWSPAPERS—Advertising departments—*Continued*

New phone equipment devised for classified;
New York times. *il* Ed & Pub 81:12 My
29 '48

Newspapers fail to win students of advertising, P. W. Burton, Ed & Pub 81:40+ Ap
17 '48

Advertising rates

See Advertising—Rates

Advertising service

Admen are alerted for retailing changes, Ed
& Pub 81:54 Je 19 '48

Big advertisers use grocery inventory data,
Ed & Pub 81:9 My 1 '48

Bureau, GMA plan clinic on inventories, Ed
& Pub 81:73 Ap 10 '48

Bureau of advertising wins standardization of
monthly grocery audits in 13 cities, W. H.
Davis, *Ptr Ink* 223:97 My 7 '48

Copy testing plan expanded in Cincinnati,
Ed & Pub 81:24 My 29 '48

Gary paper surveys sale of cosmetics, Ed
& Pub 81:30 My 15 '48

Grocery audits will include 25 basic items,
Ed & Pub 81:14 My 8 '48

Help advertisers to be distinctive, dailies
told, Ed & Pub 81:54 Ja 24 '48

High cost of low readership revealed; 979
newspaper grocery advertisements analyzed,
H. S. Barnes, *il Adv & Sell* 41:33-
4+ Ja '48

How you can handle a mass newspaper merchandising campaign, J. H. Mintzer, *Ptr Ink* 224:34 Ag 13 '48

Let's quit picking on media research! R. D.
Crisp, *Ptr Ink* 222:31-3 Mr 19 '48

Market newsletters benefit merchants, T.
S. Irvin, Ed & Pub 81:94 Ap 17 '48

Merchandising code adopted for Oregon, Ed
& Pub 81:28 O 23 '48

Retailers now planners with newspapers' help, S. Rovner, Ed & Pub 81:14 S 18 '48

Spokane dailies offer ad evaluation service,
Ed & Pub 81:30 Je 19 '48

Ten-market comparison shows use, position
of 1,500 advertised brands; Milwaukee
Journal analysis, 1947, H. E. Green, *il Ptr Ink* 221:43-5 N 21 '47

What brands consumers prefer in ten markets; cooperation of ten newspapers, Sales
Management 59:120-1 D 1 '47

See also

American newspaper Market research,
publishers association Newspaper
advertising—Bureau of
advertising

Aviation news

Helen Gregory recalls pre-jet aviation beat,
Ed & Pub 81:30 Ag 7 '48

Chain papers

Time-Life group invests in Los Angeles project,
Ed & Pub 81:62 My 15 '48

Charities

Doorly hospital plan gets debt-free start,
Ed & Pub 81:26 Ja 10 '48

Circulation

AMs outstep PM dailies in '47 circulation gains, R. U. Brown, Ed & Pub 81:5+ Ja 3 '48

Bullish as newspapers enter '48, M. Sullivan,
Ed & Pub 81:48 F 21 '48

Extensive coverage pays off in Kansas;
Hutchinson News-Herald news coverage
over 36 western Kansas counties, G. A.
Brandenburg, Ed & Pub 81:58 My 22 '48

Circulation managers

Central states circulation managers association meeting, Chicago, Ed & Pub 81:8 Mr
13 '48

Circulators make top executives on dailies,
G. A. Brandenburg, Ed & Pub 81:44 Ji 24 '48

See also Interstate circulation managers' association

Circulation systems

Community store takes subscriptions and sells papers, Ed & Pub 81:52 F 7 '48

Keep brake on expense, circulator warns, G.
A. Brandenburg, Ed & Pub 81:44 O 23 '48

Mail circulation can be expanded, G. A.
Brandenburg, Ed & Pub 81:48 O 30 '48

N.Y. W-T cultivates dealer good will, G. A.
Brandenburg, Ed & Pub 81:46 Mr 27 '48

News and circulation co-ordinate at R&T;
Des Moines register and tribune, K. Mac-
Donald, Ed & Pub 81:54 O 9 '48

Rauk warns against costly promotion, G.
A. Brandenburg, Ed & Pub 81:52 Ap 10 '48

Rockford papers use monthly prepaid plan,
G. A. Brandenburg, Ed & Pub 81:42 Ji 10 '48

Station vs. corner service surveyed, G. A.
Brandenburg, Ed & Pub 81:52 O 16 '48

Texas group provides circulation textbook,
J. Stag, Ed & Pub 81:52 Je 19 '48

See also

Newspaper carriers Newspapers—De-
Newspaper vendors livery

also International circulation managers association; Interstate circulation managers association

Clipping files

Reporter sings loud praise for clipping file,
B. East, Ed & Pub 81:50 Mr 27 '48

Color printing

See Color printing; Newspapers—Printing

Columnists

Caen of San Francisco, R. E. Smith, Ed &
Pub 81:18 Ag 21 '48

Earl Wilson; anybody here from Pocatello?
C. Hodge, Ed & Pub 81:46 Ji 24 '48

Editor finds talent in own Teen pan alley;
Pat White, C. W. Duke, Ed & Pub 81:30
Ag 14 '48

Gags make a column, keep town amused, Ed
& Pub 81:54 Mr 20 '48

Kup's column attains cosmopolitan status, G.
A. Brandenburg, Ed & Pub 81:40+ Ji 31 '48

Local columnists get edge in reader poll, Ed
& Pub 81:13 Ja 31 '48

Nancy's column grew from school paper, C.
Hodge, Ed & Pub 81:44 Je 19 '48

Peggy hoots and jabs but Kansas loves her,
R. Lewis, Ed & Pub 81:34 Je 5 '48

Spring and girl river columnist go together,
Ed & Pub 81:68 Ap 17 '48

Teen-age column grows into syndicate, C.
Hodge, Ed & Pub 81:40 O 9 '48

Teen agers go for column in Bloomington
pantagraph, Ed & Pub 81:30 My 29 '48

You meet real people in the smoking room;
R. G. Miller's column, R. E. Smith, Ed &
Pub 81:58 Ji 24 '48

See also

Worden, Helen

Comic strip

Coloring comics is job for experts, H. M.
Staunton, Ed & Pub 81:44 Ja 17 '48

Lazy but full of beans, that's Gordo, señor,
H. Keen, *il* Ed & Pub 81:46 S 18 '48

Pre-date comic strip releases draw fire, T.
R. Waring, Ed & Pub 81:60 Ap 17 '48

The Saint, ace sleuth, makes comics debut,
C. Hodge, Ed & Pub 81:38 O 2 '48

Shop talk at thirty, R. U. Brown, Ed & Pub
81:56 Ja 3 '48

Survey measures interest v. readership, H.
M. Staunton, Ed & Pub 81:50 F 14 '48

Consolidations

Open house shows off Muncie merger benefits, C. W. White, Ed & Pub 81:32 My 22 '48

Copy handling

Carbon copies are big help, J. Turnbaugh,
Ed & Pub 81:50 Mr 27 '48

Costs

Circulation costs present a problem, G. A.
Brandenburg, Ed & Pub 81:46 Je 12 '48

Controllers warn dailies of critical period in costs, G. A. Brandenburg, Ed & Pub 81:5+
O 2 '48

Cost keeps Hearst net on downward spiral,
C. Watson, Ed & Pub 81:9 My 29 '48

Cost per reader cut despite high expenses,
Ed & Pub 81:16 Ap 10 '48

'47 paper, mechanical costs reach 48 per cent of total expenses, R. U. Brown, Ed &
Pub 81:5+ F 28 '48

NEWSPAPERS—Costs—Continued

12 N.Y.C. dailies figure \$521,000 bogus in nine months. Ed & Pub 81:3 My 29 '48

Country correspondents

Rural writers form society in Missouri. W. R. Suda. Ed & Pub 81:28, S 18 '48

Crime reporting

Comment on press gag deleted in Baltimore. Ed & Pub 81:11 JI 24 '48
Crime seminar for newsmen at Harvard. Ed & Pub 81:53 JI 3 '48
Maryland press battles code of news restrictions. Ed & Pub 81:7 JI 3 '48
Newsmen in for kill on Colorado jailbreak. Ed & Pub 81:60 Ja 10 '48
Papers face penalty as crime scene shifts. Ed & Pub 81:12+ Ag 7 '48
St Louis P-D staffer indicted as kidnaper. Ed & Pub 81:16 O 30 '48
Stories full of holes; that's no shot-gun. B. Wolf. Ed & Pub 81:38 Mr 27 '48
Texas prison chief calls press on all stories. Ed & Pub 81:28 My 8 '48

Delivery

Circulation system revamped in Phoenix. Ed & Pub 81:54 F 7 '48

See also

Newspaper carriers
Newspapers—Transportation

Directories

1948 international year book number. Ed & Pub 81:1-380 Ja 30 '48

Drama

Front Page comes alive with genuine newsmen; Minneapolis star and Sunday Tribune staff in newspaper play. D. B. Dreiman. II Ed & Pub 81:52 Ag 21 '48

Dress pattern features

Dailies' pattern sales a booming business. C. Hodge. Ed & Pub 81:44 Ag 28 '48
PNPA papers report demand for patterns. Ed & Pub 81:32 JI 10 '48

Editorials

Editors want to serve their readers; report on editorial pages of 100 daily newspapers in eight states. F. A. Clarvoe. Ed & Pub 81:21+ Ap 24 '48
Excess Afghanistanism in editorials. J. L. Jones. Ed & Pub 81:109-11 Ap 24 '48
Kieckhefer wins farm editorial award of \$500; 2d annual Wallace's Farmer and Iowa Homestead competition. Ed & Pub 81:64 Ap 10 '48
Local editorial themes handled in cartoon strip. Ed & Pub 81:30 S 18 '48
New look on the editorial page. B. Bingham. Ed & Pub 81:58 My 29 '48
Technical performance good in South. V. Dabney. Ed & Pub 81:114 Ap 24 '48
Too many columnists deaden page. L. M. Felmy. Ed & Pub 81:112+ Ap 24 '48
When I was an editor; abstract. W. Lippmann. Ed & Pub 81:90 Ap 24 '48

Editors

Editors plead duality before N.Y. publishers. J. Walker. Ed & Pub 81:7+ Ja 24 '48
Gitt ignores radical label, backs Wallace; York gazette. C. Hodge. Ed & Pub 81:7+ O 9 '48
Pigeon fancier to editor easy for Missourian; Frank Hollmann, owner of Warrenton banner. W. R. Suda. Ed & Pub 81:52 JI 17 '48

See also

Brown, Harris
Lait, Jacquin L.
Martin, Irving
Thackrey, Theodore
O
Wallace, Tom

Employees

Admen top all on pay scale in Iowa survey. Ed & Pub 81:18 Mr 13 '48
Better industrial relations urged by ANPA conference. Ed & Pub 81:5-6 JI 24 '48
Call for boy brings scholar and a captain. D. Dooley. Ed & Pub 81:24 Je 5 '48
Chicago union and employers at deadlock. Inland Ptr 120:73 N '47

Dailies urged to act on employe relations; Printing industry of America convention, Chicago. Ed & Pub 81:22 O 30 '48
Detroit Free press tests editorial apprentice plan. Ed & Pub 81:10+ Mr 20 '48
Employe relations study recommended. T. S. Irvin. Ed & Pub 81:44 My 1 '48
Employees get share in St Petersburg daily. Ed & Pub 81:49 Ja 3 '48
Engravers get \$12 increase in Chicago. Ed & Pub 81:3 Ag 7 '48
Good will dividends in profit-sharing check sent to homes of employees. T. S. Irvin. Ed & Pub 81:50 Mr 13 '48
Guild will propose \$175-a-month pensions. D. Willens. Ed & Pub 81:10 O 30 '48
Internship plan shaped for all departments. T. S. Irvin. Ed & Pub 81:40 Ag 7 '48
New York times slots jobs; payroll up \$1,000,000. Ed & Pub 81:80 JI 17 '48
Newspapers fail to win students of advertising. F. W. Burton. Ed & Pub 81:40+ Ap 17 '48
Orlando dailies publish despite printer strike. Ed & Pub 81:10 S 25 '48
Partners in ownership; Milwaukee Journal employes are stockholders under trust plan. Trusts & Estates 87:127-8 Ag '48
Pension plans of 19 dailies are surveyed. Ed & Pub 81:30 JI 10 '48
Plant engineer's formula helps to end labor dispute; sets work standards. Ed & Pub 81:9 Ja 10 '48
Publishers and guild differ on profession; wage-hour hearing. Ed & Pub 81:15+ Ja 17 '48
Publishers welcome journalism interns. V. B. Bowen. Ed & Pub 81:23 Ag 7 '48
Staff conducts lecture course on own time; editorial department of Seattle times. Ed & Pub 81:26 Ag 14 '48

See also

Newspapers—Circulation managers

Farm news

Farm machine makers beckon to newspapers. G. W. Parker. Ed & Pub 81:16 Mr 13 '48
Rural coverage placed under circulation dept. Ed & Pub 81:47 Je 12 '48
Spirited South Carolina soil contest nearing end. Ed & Pub 81:18 Ag 7 '48
Tribune farms provide new crops and copy. G. A. Brandenburg. Ed & Pub 81:28 O 30 '48

Fashion news

Newspaper is store window in Spadea fashion feature. Ed & Pub 81:71 Ap 10 '48

Finance

Average daily's expenses increased 28 per cent in 1947. R. U. Brown. Ed & Pub 81:18 Ap 17 '48
Budget plan offered for sound operation. R. P. Hunter. Ed & Pub 81:26+ JI 31 '48
Chicago Daily News profit drops \$649,000. Ed & Pub 81:6 F 21 '48
Economics in Fleet Street. Economist 154: 313-15, 350-2 F 21-28 '48
PNPA doctors prescribe cost-reducing treatment. C. W. Duke. Ed & Pub 81:12+ O 16 '48
62 per cent of income comes from ads in Iowa papers. Ed & Pub 81:20 Ag 7 '48
Small dailies getting along on modest margin of safety. J. E. Gerald. Ed & Pub 81: 9+ JI 17 '48
SNPA clinic stresses need of ad revenue. L. Phillips. Ed & Pub 81:79 JI 17 '48
Weeklies found more dependent on advertising. Ed & Pub 81:28 Je 19 '48

Food sections

Food news deserves more play, editors told. S. Rovner. Ed & Pub 81:7 O 2 '48
Hey, gals, Austin's got a secret recipe. J. L. Collings. Ed & Pub 81:15 O 9 '48
Need for two food sections is emphasized. Ed & Pub 81:22 JI 24 '48
Roanoke papers try two food sections a week. Ed & Pub 81:66 JI 17 '48
Second food page called constructive. Ed & Pub 81:52 Ag 7 '48

NEWSPAPERS—Continued

Foreign correspondents

- Acme's Europe staff has a problem; food. C. Hodge. Ed & Pub 81:38 Ag 7 '48
- Arab censors make life miserable for press. R. C. Miller. Ed & Pub 81:26 Ag 21 '48
- Army rules press correspondents may criticize. Ed & Pub 81:15 Ap 3 '48
- Barriers are still up, AP survey discloses. Ed & Pub 81:36 F 7 '48
- Beech says Tokyo press corps morale better. G. A. Brandenburg. Ed & Pub 81:34 O 16 '48
- BIGAT meets Markos after perilous journey. Il Ed & Pub 81:8 JI 31 '48
- Bogota corps scores before curtain falls. O. J. Rochelle. Ed & Pub 81:27 Ap 17 '48
- Correspondents run gauntlet in Palestine. Ed & Pub 81:32 Mr 20 '48
- Covering 'quake in Japan. P. Kalischer. Ed & Pub 81:16+ JI 17 '48
- Gen. MacArthur explains denial of credentials. Ed & Pub 81:12 F 7 '48
- INS editor prefers small-town news abroad. O. J. Rochelle. Ed & Pub 81:18 Ag 28 '48
- Knight papers seek full news in Japan. Ed & Pub 81:78 JI 17 '48
- Kuh asks reciprocity in British press policy. G. A. Brandenburg. Ed & Pub 81:32 Je 12 '48
- News stories sent quickly by Chinese. Ed & Pub 81:34 JI 17 '48
- Press corps battered in Berlin city hall siege. O. J. Rochelle. Ed & Pub 81:10 S 11 '48
- Reporter in Tokyo reminisces on V-J day. R. Brines. Ed & Pub 81:13 Ag 14 '48
- Two Daily Worker staffers get freedom to travel. O. J. Rochelle. Ed & Pub 81:10 Ap 10 '48
- Underground digging gets Berlin news. Ed & Pub 81:10 Ag 21 '48
- UN expert out-in-out as Prague journalist. R. S. Clark. Ed & Pub 81:17 Mr 6 '48
- See also*
- War correspondents

Foreign news

- 15 editors to attend foreign policy seminar. Ed & Pub 81:8 F 28 '48
- Mobility marks Chicago News foreign service. G. A. Brandenburg. Ed & Pub 81:60 JI 24 '48

Format

- Tab's switch to full size well received. Ed & Pub 81:20 Ag 28 '48

Forums

- Galaxy of stars at Philadelphia Bulletin's second forum. Ed & Pub 81:34 Mr 20 '48

Government news

- Price, Sokolsky debate obligation to officials. Ed & Pub 81:28 My 22 '48
- Security advice plan broached to media. J. J. Butler. Ed & Pub 81:9 Ja 24 '48
- Seek plan to guard security information. Ed & Pub 81:9+ Mr 6 '48

Health and medical news

- Daily's appeal gets hospital for crippled; Stories of filth with pictures help polio fight. Ed & Pub 81:41 Ag 7 '48
- Hospitals, doctors ratify news code. Ed & Pub 81:112B Ap 24 '48

Illustrations

- Director saves artist time with rough sketches. Ed & Pub 81:66 Ap 10 '48
- Is the airbrush an asset in newspaper art? C. Jensen. Il Ed & Pub 81:57 Ap 10 '48
- Modernity is keynote of new Metro advertising mat service plant. Il Ed & Pub 81:94 Ap 24 '48

See also

- News photographs
- Photography, Journalistic

Industrial news

- Measuring public relations; James Twohey's press ratings. Bsns W p39-40 Ap 17 '48

Information service

- Whats and whys cost money, or make it; Haskin service answers readers inquiries. H. M. Staunton. Ed & Pub 81:24 Ja 3 '48

Insurance news

- How to make friends with newspapers. H. Barsantee. Weekly Underw 159:1049 O 30 '48; Same. East Underw 49:3+ N 5 '48

Insurance requirements

- Newspapers buy libel and slander excess cover. East Underw 48:87+ D 19 '47
- 115 Calif. papers have insurance plans for boys. Ed & Pub 81:65 JI 24 '48

Language, style, etc.

- Empirical test proves clarity adds readers; Birmingham news. B. Feld, jr. Ed & Pub 81:38 Ap 17 '48
- Report on readability progress at AP. R. Fleisch. Ed & Pub 81:56 Je 26 '48
- Simpler readability formula is claimed. Ed & Pub 81:28 Je 12 '48
- Survey rates 20 Iowa papers hard to read. Ed & Pub 81:61 Ja 10 '48

Law

- Credit; don't overdo television picture snatching. J. Walker. Ed & Pub 81:34 Mr 13 '48
- Dewey hints he might sign immunity bill. Ed & Pub 81:8 Mr 6 '48
- Evjue is freed. Ed & Pub 81:22 O 16 '48
- Evjue loses on appeal. Ed & Pub 81:16 JI 10 '48
- New edicts jostle publishers' elbows. Ed & Pub 81:44+ Ap 24 '48

See also

- Press law

Magazine sections

- Family life feature clicks in supplement; Providence Sunday Journal's tabloid magazine. J. T. Plante. Ed & Pub 81:34 Ap 17 '48
- L.A. publishers back project for magazine. Ed & Pub 81:76 JI 17 '48
- New magazine for non-metropolitan newspaper is projected. Ed & Pub 81:107 Ap 24 '48
- Survey shows local magazine well read; study of Atlanta (Ga.) Journal magazine. G. A. Brandenburg. Ed & Pub 81:64 Mr 6 '48

Makeup

See Newspapers—Printing

Management

- Alicia's Newsday has the Patterson touch. J. Walker. Ed & Pub 81:8 Ag 14 '48
- Chelsea record pepped-up in style, content. Ed & Pub 81:52 S 18 '48
- Doctoring service aims to bolster dailies; Smith Davis corp. J. Walker. Ed & Pub 81:52 O 30 '48
- Economist advocates service before profit; abstract. C. V. Kinter. Ed & Pub 81:38 My 8 '48
- Scripps-Howard rule of duality handed down by EWS, F. Ford. Ed & Pub 81:18+ F 21 '48

Market research

See Market research, Newspaper

Political influence

- Hoosier GOP editors buck party leaders. G. A. Brandenburg. Ed & Pub 81:52 My 29 '48
- Newspaper candidates defeat Crump machine in Tennessee. Ed & Pub 81:7+ Ag 14 '48
- 65 per cent of dailies back Dewey with 78 per cent of circulation; with roll call in E. & P. poll. R. U. Brown. Ed & Pub 81:11-15+ O 30 '48
- You can gain prestige by backing a loser. C. Watson. Ed & Pub 81:22 Ag 28 '48

Political news

- Newsman give Warren preferential treatment. J. J. Butler. Ed & Pub 81:13 S 18 '48

See also

- Political conventions
- Reporting

Prices

- Boston Sunday post hikes rate and sales. Ed & Pub 81:44 Je 5 '48
- California circulators see quality with price. C. Watson. Ed & Pub 81:9+ O 23 '48
- Circulation system revamped in Phoenix. Ed & Pub 81:54 F 7 '48

NEWSPAPERS—Prices—Continued

Circulator prepares for H-D rate raise. G. A. Brandenburg. Ed & Pub 81:48 My 15 '48
 Cut waste before increasing rates. G. A. Brandenburg. Ed & Pub 81:82 Ap 24 '48
 Gorman sees higher price to meet costs. G. A. Brandenburg. Ed & Pub 81:66 Ap 17 '48
 Higher home delivery rates may be necessary. G. A. Brandenburg. Ed & Pub 81:46 My 8 '48
 Readers may pay larger part of costs; abstract. J. B. Casady. Ed & Pub 81:59 My 1 '48
 Survey shows mail rates are higher. G. A. Brandenburg. Ed & Pub 81:32 S 11 '48

Printing

Benefits of research predicted in one year. Ed & Pub 81:26 Ap 24 '48
 Color on 31 pages in Milwaukee Journal; Sunday edition for the Centennial exposition. Ed & Pub 81:18 Ag 14 '48
 Composing room cost; Pennsylvania newspaper publishers assn. 10th annual mechanical conference, Philadelphia, April 9-10. Ed & Pub 81:108 Ap 17 '48
 Denies abandonment of cold type. J. H. Perry. Ed & Pub 81:16 S 4 '48
 Flint sees research results before '49. Ed & Pub 81:62+ JI 24 '48
 Herald American divorces editorial, advertising engraving and makeup. Ed & Pub 81:55+ F 14 '48
 Journalism students at University of Iowa get practical experience in newspaper production laboratory. F. S. Holowach. Il Inland Ptr 121:42 Je '48
 Los Angeles Times suggestion box improves operations in many ways. Il Ed & Pub 81:49 JI 10 '48
 Methods for sawing and routing plastic plates are discussed. Ed & Pub 81:56 JI 10 '48
 New England stereo clinic asks parleys on ad printing. Ed & Pub 81:18 O 30 '48
 New press for Orlando (Fla.) papers starts rolling; mile from newsroom. Il Ed & Pub 81:60 F 14 '48
 What's news in news ink? W. G. Forster and G. H. Morrill. Paper Ind 29:1366-8 D '47
 Youths' oldstyle paper battles cold type one. Ed & Pub 81:58 O 9 '48

Photomechanical processes

Engraved papers here to stay. Walters, Higgins tell Inland daily press assn. Ed & Pub 81:9+ F 14 '48
 Higgins offers packaged plant; first being installed for small daily. J. Walker. Ed & Pub 81:67 Ja 10 '48
 Los Angeles publisher has converted to type-writers from line-composing machines; plant of the *Commercial news*. Il Inland Ptr 120:53 F '48
 Many executives view Chicago Tribune technique; vari-type machines and photoengraving processes. Ed & Pub 81:28 Ja 10 '48
 Metropolitan daily meets an emergency. Il Inland Ptr 120:50 Ja '48
 Newspaper of tomorrow from film? Inter-type engineer discusses potentialities of the fotoseiter; abstract. H. R. Freund. Ed & Pub 81:55 Mr 13 '48
 Operation zinc works well in Hammond trial. R. L. Hidy. Ed & Pub 81:30 Mr 20 '48
 Papers now making cuts without zinc, chemicals; Fairchild direct photo-electric engraving machine. Il Ed & Pub 81:7-8 F 7 '48
 Printerless method expanded in Chicago. Ed & Pub 81:16 Ja 17 '48
 Printing faces a new era. Il Bsns W p22-4 Mr 13 '48
 Publishers vote \$280,000 to spur printing research. O. J. Rochelle. Ed & Pub 81:11 Ap 24 '48
 Still some kinks in Perry process. W. W. Brown. Ed & Pub 81:60 Mr 13 '48
 Teletypesetters keep Texas paper running. P. Clark, jr. Ed & Pub 81:28 Ja 31 '48
 Typeless-printers augur new era. Ed & Pub 81:18+ Ap 24 '48
 Yale daily uses new process; first cost put at \$100,000; vari-type photo offset process. Ed & Pub 81:12 S 18 '48

Proofreading

Revise until correct, rule on New York papers. H. M. Staunton. Ed & Pub 81:28 Mr 6 '48

Public relations

Capitalize on romance; public wants story about newspapers. W. Block. Ed & Pub 81:17+ O 30 '48
 Civic award kept free of commercialism; Dallas times herald. Ed & Pub 81:54 Mr 27 '48
 Does your promotion link reader to paper? St Louis Star-Times science fair. T. S. Irvin. Ed & Pub 81:56 F 7 '48
 Editors get criticism direct; no debate. J. Walker. Ed & Pub 81:11+ O 2 '48
 Memphis Commercial Appeal football yearbook pays it way and more. T. S. Irvin. Ed & Pub 81:52 Ja 10 '48
 Neckties for Europe, editor tells results. H. W. Morley. Il Ed & Pub 81:48 Ag 7 '48
 Penny arcade at fair boosts daily, aids fund; Pittsburgh post-gazette. Ed & Pub 81:32 S 18 '48
 Vancouver Sun swim classes help 75,000. J. A. Hutchings. Ed & Pub 81:50 S 18 '48
 See also
 Newspapers—Sales promotion
 Newspapers—Service

Radio competition

Newscast fans tell papers to condense. D. M. White. Ed & Pub 81:60 Ag 7 '48
 Separate press conference for newspapers, radio and television impractical. W. F. Brooks. Ed & Pub 81:42 Ag 7 '48

Radio cooperation

Cornell's radio-press experiment extolled. J. Walker. Ed & Pub 81:44 S 18 '48
 Daily, station merge newscast operation. Ed & Pub 81:56 S 11 '48

Radio program listing

Keen interest shown in paid radio listings. Ed & Pub 81:16A Ap 24 '48
 New Hampshire daily puts radio listings on ad basis. Ed & Pub 81:16 F 14 '48
 Radio chain logs out, complaints are few. C. L. Seifrit. Ed & Pub 81:60 Mr 20 '48
 Refutes arguments against paid radio logs. L. Hills. Ed & Pub 81:5-6 F 21 '48
 74 dailies planning radio listing charge. Ed & Pub 81:10 My 29 '48
 Why daily radio log should be paid for. L. Hills. Ed & Pub 81:9+ Ja 24 '48
 Why daily radio log should be run free. S. H. Eiges. Ed & Pub 81:10+ F 7 '48

Radio reporting

FCC shows coolness to channel for press. J. J. Butler. Ed & Pub 81:65 O 16 '48
 55 dailies join plea for mobilephone service. Ed & Pub 81:6 O 9 '48
 Newspapers plan battle for mobile radio channels. Ed & Pub 81:10 S 18 '48

Radio transmission

Facsimile transmitter at the Miami herald, Florida to broadcast stock market news, fashion reports and other business information. R. G. Peters. diags Communications 28:12-15+ F '48
 N.Y. times starts fax but adds to presses. J. Walker. Il Ed & Pub 81:56 F 21 '48
 Radio facsimile may print newspapers of tomorrow. F. K. Lauden. Il Radio & Tv N 40:39+ Ag '48

Rates

See Newspapers—Prices

Reader interest

ARF reports first survey of standard tab. Ed & Pub 81:18 S 4 '48
 Elements of confusion in newspaper readership study. C. L. Bigelow. J Marketing 12:337-47 Ja '48
 Empirical test proves clarity adds readers; Birmingham news. B. Feld, jr. Ed & Pub 81:38 Ap 17 '48
 Grant ratings. Ed & Pub 81:10 F 21 '48
 Local news first in South Bend reader survey. Ed & Pub 81:84 Ap 24 '48

NEWSPAPERS—Reader interest—Continued

Newsweek fans tell papers to condense. D. M. White. Ed & Pub 81:60 Ag 7 '48
 Quality X formula rates reader interest. E. F. Reading. Ed & Pub 81:20 S 25 '48
 Survey measures interest v. readership. H. M. Staunton. Ed & Pub 81:50 F 14 '48
 Survey shows local magazine well read; study of Atlanta (Ga.) Journal magazine. G. A. Brandenburg. Ed & Pub 81:64 Mr 6 '48
 Wire items rate high with men in study 118. Ed & Pub 81:28 Je 5 '48
See also
 Newspapers—Language, style, etc.

Real estate news

Detroit news shifts Sunday Home section. Ed & Pub 81:12 S 11 '48
 Real estate editors have expanded field. J. K. Chandler. Ed & Pub 81:43 F 23 '48

Religious news

Church page editor systematizes coverage. R. E. Riley. Ed & Pub 81:22 Ja 3 '48

Research departments

Toronto Star's research staff solves problems. Il Ed & Pub 81:12 O 9 '48

Sales promotion

Cape Cod daily gives new look a new wrinkle; fashion show at Grand Central and on train. Ed & Pub 81:18 Je 19 '48
 Dapper Dans spark newspaper promotion; golf tournament at Alcoma country club. T. S. Irvin. Ed & Pub 81:50 Je 18 '48
 Dayton glorifies dogs in novel promotion. T. S. Irvin. Ed & Pub 81:60 Ji 17 '48
 Editor's plan builds sellout at grid game. Ed & Pub 81:33 O 23 '48
 How about pressure for better products? T. S. Irvin. Ed & Pub 81:38 O 30 '48
 Machine-made-humor from Rio Grande group. T. S. Irvin. Ed & Pub 81:34 S 4 '48
 Newspapers brighten Antimony's leaden sky; children's tour to Salt Lake City. Ed & Pub 81:10 Je 5 '48
 Readers' suggestions carried out to letter; Dayton (Ohio) daily news. T. S. Irvin. Ed & Pub 81:52 My 15 '48
 Regional story told in Carolinas booklet. T. S. Irvin. Ed & Pub 81:48 Je 12 '48
 Sound promotion held essential sales tool. G. A. Brandenburg. Ed & Pub 81:42 Ji 3 '48
 Three Michigan newspapers plan talent shows. Ed & Pub 81:72 Ap 10 '48
 Today's homes are featured in Washington Post show. Ed & Pub 81:22 S 11 '48
 Youth talent exhibit know-how in booklet. T. S. Irvin. Ed & Pub 81:46 O 23 '48

Sales promotion departments

Promotion pace must trim sail to conform with wind. T. S. Irvin. Ed & Pub 81:58 Ap 3 '48

Scientific news

Need for secrecy seen in atomic information. G. Seymour. Ed & Pub 81:22+ Ap 24 '48
 San Francisco chronicle scores unique beat in China. Ed & Pub 81:10 Ap 10 '48

Serials

Adele Garrison at 75 keeps serial running. Ed & Pub 81:40 Mr 27 '48

Service

Alert press is vital during world unrest. Ed & Pub 81:36 Mr 13 '48
 Cards tell motorists to beware of thieves. T. S. Irvin. Ed & Pub 81:42 Ji 31 '48
 Cash in safety contest draws 40,000 drivers. Ed & Pub 81:26 Ji 24 '48
 Dailies support 12 scholarships in Pennsylvania summer school for teachers. Ed & Pub 81:38 S 4 '48
 Daily's appeal gets hospital for crippled. Ed & Pub 81:41 Ag 7 '48
 Jury thanks editors for help in gaming probe. Ed & Pub 81:59 O 9 '48
 More readable papers: called voters' need; Pennsylvania press conference; abstract. F. Taylor. Ed & Pub 81:20+ My 22 '48

120-acre farm to be remade with daily's aid. Ed & Pub 81:22 O 2 '48
 Pest control is city editor's pet project. F. Campbell. Ed & Pub 81:18 O 23 '48
 17-year beach crusade begins to get results. Ed & Pub 81:32 Ji 17 '48
 Thousands of women window shop at Philadelphia home center; permanent merchandise fair sponsored by Philadelphia bulletin. Il Sales Management 59:110+ D 15 '47
 Wheelchair cage tilt proves worthy deed; wheelchair basketball for disabled veterans. C. Watson. Ed & Pub 81:38 Mr 13 '48
 Wichita eagle hires dad to aid Australian boy. Ed & Pub 81:28 O 2 '48
 X-ray photos help paper raise fund for accident victims. Ed & Pub 81:40 Ja 31 '48

Small-town papers

Daily tries new ideas in Idaho town of 5,300; Blackfoot daily bulletin. C. E. Hayden. Ed & Pub 81:28 S 11 '48
 Editor without a competitor; J. B. White, Cameron, Tex. C. C. Springfield. Ed & Pub 81:30 S 25 '48
 Lady fits daily's tone to community ideals; Edna F. Blair, Daily Journal, Phillipsburg, Pa. D. Rickard. Ed & Pub 81:18 My 1 '48

Special editions

160-page issue voices praise of public utility; Batesville news-review. Ed & Pub 81:14 S 25 '48

Sports departments

Conservation Oscar to Grand Rapids press. Ed & Pub 81:20 Ag 14 '48

Sports news

Babe Ruth and press built sports golden era. D. Daniel. Ed & Pub 81:8 Ag 21 '48
 So you want to write sports? B. W. Anderson. Ed & Pub 81:18 Ji 31 '48
 Utah sports editor develops wide beat. Ed & Pub 81:36 My 22 '48
See also
 Olympic games—Reporting

Statistics

Daily newspapers, a comparison of number of papers and combined circulation; 1888-1948. Ptr Ink 225:108+ O 29 '48
 Graphic summary of the growth of newspapers in New York and other states, 1704-1820. H. B. Weiss. N Y Pub Lib Bul 52:182-96 Ap '48

Subsidies

ECA press subsidy called lie. Ed & Pub 81:8 Je 5 '48

Sunday editions

Color on 31 pages in Milwaukee journal; Sunday edition for the Centennial exposition. Ed & Pub 81:18 Ag 14 '48
 Entire Sunday paper assembled as one unit. G. A. Brandenburg. Ed & Pub 81:42 Ag 14 '48
 Times to start Sunday paper in Indianapolis. Ed & Pub 81:10 O 9 '48
See also
 Newspapers—Magazine sections

Subscription rates

See Newspapers—Prices

Syndicate service

APN's pictorial maps a showcase for news. C. Hodge. Ed & Pub 81:50 Ap 10 '48
 KPS global salesmen confer in New York. C. Hodge. Ed & Pub 81:6 Je 19 '48
 NEA's timed features move on to page one. C. Hodge. Ed & Pub 81:44 Je 12 '48
 NYHTS to obtain Eisenhower memoirs. H. M. Staunton. Ed & Pub 81:56 Ja 10 '48
 1,000-picture history signed by RTS. H. M. Staunton. Ed & Pub 81:46 Ja 24 '48
 Syndicates. C. Hodge. Published in weekly numbers of Editor and publisher
 Teen-age column grows into syndicate. C. Hodge. Ed & Pub 81:40 O 9 '48

See also

Audience research, inc.

NEWSPAPERS—Syndicate service—Continued

Directories

23rd annual syndicate directory. Ed & Pub 81:3-56 sec 2 Ag 28 '48

Taxation

License fee raises free press issue. Ed & Pub 81:24 My 8 '48
 Mercantile tax moves affect Penna. dailies. Ed & Pub 81:22 O 9 '48
 Miami papers line up to fight punitive tax. L. Hills. Ed & Pub 81:6 Ag 14 '48
 Unions join in fight against per-copy tax. Ed & Pub 81:13 My 15 '48

Telegraph service

Carriers granted rate boosts on dispatches. Ed & Pub 81:40+ Ap 24 '48

Telephone service

Every girl is a PRX in classified setup; Dallas Times Herald telephone service. J. Stag. II Ed & Pub 81:12 Mr 13 '48
 New phone equipment devised for classified; New York times. II Ed & Pub 81:12 My 29 '48
 Phone rate may force papers to ration calls. Ed & Pub 81:28 Mr 20 '48

Television sections

Television sections are current vogue. J. Walker. Ed & Pub 81:55 Mr 27 '48

Transportation

Air delivery popular on Pacific coast. G. A. Brandenburg. Ed & Pub 81:36 O 2 '48
 Denver Post carrier covers 450-mi. route. Ed & Pub 81:40 Ag 21 '48
 Flint, Mich. fleet wins safety honors. G. A. Brandenburg. Ed & Pub 81:46 S 25 '48
 Newspapers' trucks lower accident rate. Ed & Pub 81:28 My 1 '48
 Ohio crew carts mail, chicks when P. O. fails; circulation of Athens messenger. R. W. McCreanor. Ed & Pub 81:22 Jl 31 '48
 One edition to all helps in delivery. G. A. Brandenburg. Ed & Pub 81:46 Je 19 '48
 Runion study favors paper-owned trucks. Ed & Pub 81:112 Ap 17 '48
 Sunday Oklahoman expands air delivery. G. A. Brandenburg. Ed & Pub 81:52 F 14 '48

Typography

Farrar re-styles Dallas News type. Ed & Pub 81:58 Mr 13 '48
 New York herald tribune wins Ayer trophy again. II Ed & Pub 81:28 Ap 3 '48
 Papers' appearance improving experts say. C. W. Duke. Ed & Pub 81:48 Jl 17 '48

Use in teaching

Comics' characters invade the classroom. H. M. Staunton. Ed & Pub 81:56 Mr 6 '48
 High school seniors use daily in class. G. A. Brandenburg. Ed & Pub 81:46 Ja 31 '48

Weekly newspapers

Ad column is best feature of local weekly newspaper. II Ftr Ink 222:57-8 Mr 19 '48
 Hungry Horse news, sleek two-year old. A. L. Clark. II Ed & Pub 81:28 Jl 31 '48
 Randau and Tisdale settle down on weekly. G. J. Flynn. Ed & Pub 81:8 Ag 7 '48
 Weeklies discover all business is local. T. S. Irvin. Ed & Pub 81:40 O 2 '48
 Weeklies found more dependent on advertising. Ed & Pub 81:28 Je 19 '48

See also

Advertising mediums
 —Newspapers—
 Weeklies

Argentina

Advertising in Argentina; abstract. J. B. Powers. Ed & Pub 81:18 F 14 '48
 Expulsion of journalists portends new Peron squeeze. V. De Pascal. Ed & Pub 81:7+ My 8 '48
 La Prensa cut to 16 pages by Peron edict. V. De Pascal. II Ed & Pub 81:16B+ O 16 '48

Baltimore

Comment on press gag deleted in Baltimore. Ed & Pub 81:11 Jl 24 '48
 Papers face penalty as crime scene shifts. Ed & Pub 81:12+ Ag 7 '48

Boston, Massachusetts

Newspaper row still flourishes in the Hub. J. M. Potter. Ed & Pub 81:28 S 18 '48

California

Eight dailies vie for lead in San Fernando area. D. Swinton. Ed & Pub 81:30 My 1 '48
 Two California papers added by Wis. group. Ed & Pub 81:51 Jl 31 '48

Canada

Canadian newspapers ask freedom guaranty. Ed & Pub 81:57 Je 26 '48
 Roy Thomson building Canadian daily chain. J. Montagnes. Ed & Pub 81:20 Jl 3 '48

Chicago

Chicago newspaper strike will be pattern for negotiations in other printing centers. Inland Ptr 120:62-4 D '47

Czechoslovakia

Reds grab Czechoslovakia after gagging press, radio. R. S. Clark. Ed & Pub 81:7 F 28; 17 Mr 6 '48

Dominican Republic

El Caribe cites Lighthouse in special issue. Ed & Pub 81:24 Mr 27 '48

Finland

Finn publisher finds old Brooklyn school; Eljas Erkkö. O. J. Rochelle. Ed & Pub 81:70 My 22 '48

Florida

Florida staffs remain stable despite season. H. Dunn. Ed & Pub 81:48 Je 5 '48

France

Acquitted press appeals to Geneva. Ed & Pub 81:102 Ap 17 '48
 French press appeals for government aid. G. Langelaan. Ed & Pub 81:28 Mr 13 '48
 Newspapers of Paris bemoan restrictions. G. Langelaan. Ed & Pub 81:24 F 14 '48
 Political papers seen dominant in France. Ed & Pub 81:74 My 22 '48

Germany

Additional newsprint asked for Germany. Ed & Pub 81:20 F 14 '48

Great Britain

British inquiry labors, brings forth a mouse. H. L. Matthews. Ed & Pub 81:23+ Ap 17 '48
 British make advances in phototelegraphy. Ed & Pub 81:38 Jl 31 '48
 British press lords deny freedom confined by chains. O. J. Rochelle. Ed & Pub 81:11+ Jl 17; 9+ Jl 24; 11+ Jl 31 '48
 Crisis of the British press, Pulp & Pa of Can 49:67+ S '48
 Daily news limited; statement by the chairman at annual general meeting. L. J. Cadbury. Economist 154:949 Je 5 '48
 Economics in Fleet Street. Economist 154:313-15, 350-2 F 21-23 '48
 Kemsley newspapers limited, ordinary general meeting, London. Economist 154:652 Ap 17 '48
 Newsprint and newspaper prices. Economist 154:8 Ja 3 '48

India

Girl opens India's eyes to publishing field. O. J. Rochelle. Ed & Pub 81:24 S 4 '48
 India publisher bans criticism to gain peace. Ed & Pub 81:8 O 23 '48
 Indian politico expects newsmen at dawn. G. A. Brandenburg. Ed & Pub 81:13 F 7 '48

Italy

Anti-Communist press has bulk of Italian readers. J. E. Murray. Ed & Pub 81:15 Ap 3 '48

Korea

Neutral press in Korea leads in circulation. Ed & Pub 81:52 Je 5 '48

Latin America

Latin America dailies launch supplement. Ed & Pub 81:54 O 2 '48

NEWSPAPERS—Continued

Los Angeles

Chandler announces new tabloid for L.A. C. Watson, Ed & Pub 81:6 Ag 7 '48
 Color-splashed mirror on Los Angeles scene. H Ed & Pub 81:8+ O 18 '48
 Los Angeles merchants share in newspaper project. Ed & Pub 81:63 Je 5 '48
 Los Angeles mirror appears as five-cent, 64-page tabloid. Ptr Ink 225:93 O 15 '48
 Mirror's bow on Oct. 11 opens battle of L.A. C. Watson and D. Taylor, Ed & Pub 81:13 O 9 '48
 Parton fumes at talk of revolutionary daily. C. Watson, Ed & Pub 81:16 Je 12 '48

Minneapolis

Minneapolis times dies; so does Fourth Street. D. B. Dreiman, Ed & Pub 81:63 My 22 '48

Nevada

Nevada Hall of fame hails individualists. C. Watson, Ed & Pub 81:23 Mr 27 '48

New York (city)

Don Hollenbeck views much-honored show. J. Walker, Ed & Pub 81:44 My 15 '48

Palestine

Bombing fails to stop editor in Palestine. O. J. Rochelle, Ed & Pub 81:24 Mr 20 '48
 Palestine newsmen dodge bullets and censors' pencils. Ed & Pub 81:13 My 22 '48

Paris

Evening rivals in Paris agree on merger plan. G. Langelaan, Ed & Pub 81:50 Jl 17 '48

Pennsylvania

Progressive spirit of papers is hailed. W. N. Hardy, Ed & Pub 81:9 O 9 '48

Richmond, Virginia

Richmond papers defy official inquisition. Ed & Pub 81:7 Mr 20 '48

Russia

How Soviet press is run; by a former Soviet journalist. Ed & Pub 81:5-6 Ja 31; 9 F 7; 12 F 14 '48

Shanghai

Mosquito press in Shanghai laughs at libel. W. Rundle, Ed & Pub 81:42 Je 5 '48

Southern states

Technical performance good in South. V. Dabney, Ed & Pub 81:114 Ap 24 '48

Washington (state)

Light in the West; newspapering in pioneer era of Washington territory. F. V. Williams, Ed & Pub 81:26+ S 25 '48

NEWSPAPERS and war

Cold war treated calmly, survey shows. G. E. Simmons, Ed & Pub 81:8 S 4 '48
 Editors deny U.S. press fosters war hysteria. Ed & Pub 81:10 My 15 '48
 Lashes press on war hysteria; abstract. C. D. MacDougall, Ed & Pub 81:68 My 8 '48

NEWSPRINT paper

Alaska newsprint hopes are dimmed. J. J. Butler, Ed & Pub 81:20 Ja 31 '48
 ANPA forecast of newsprint demand. H. J. Barnes, Ed & Pub 81:6+ S 25 '48
 Britain's newsprint problems. O. J. Rochelle, Ed & Pub 81:6 Je 26 '48
 Canadian estimate of newsprint supply. R. M. Fowler, Ed & Pub 81:7 S 25 '48
 Canadians see 195,000 more tons for U.S. in 1949. R. U. Brown, Ed & Pub 81:5+ S 25 '48
 Chicago tribune tries straw in newsprint. Ed & Pub 81:16 My 29 '48
 Design of headboxes for newsprint. R. Fraser, diags Pulp & Pa. of Can 49:71-6 Mr '48
 14 southern publishers back mill venture. Ed & Pub 81:14 Ja 10 '48
 How much newsprint is healthy? with chart showing newsprint consumption per head for leading nations pre-1939 and 1948. Economist 153:876 N 29 '47
 India to manufacture newsprint. Paper Tr J 127:13 Jl 29 '48

New plant to make first newsprint in India. D. A. S. Chari, Paper Ind 29:1082 N '47
 Newsprint Canada's biggest industry. Paper Tr J 127:15 O 14 '48
 Newsprint manufacture and exports, Newfoundland. For Comm W 81:35 Je 19 '48
 Newsprint mill of Anglo-Canadian pulp and paper mills. S. Rovner, Ed & Pub 81:18 Jl 10 '48
 Not by bread alone; additional newsprint under ERP? Economist 154:657-8 Ap 24 '48
 Paper for re-use; Gary mill to de-ink used newsprint by new cold-water process. Bsns W p71-2 F 14 '48
 Planning a newsprint mill for minimum electrical maintenance. J. Eyton, Pulp & Pa of Can 48:91-4 O '47; Same, Elec Eng 66:1095-8 N '47
 Publishers pushed to the wall by newsprint scarcity in '62. J. H. Guilfoyle, Ed & Pub 81:42 Je 5 '48
 Southland paper mills increase production of newsprint. il Paper Tr J 127:135-6 S 9 '48
 State monopoly sought in Argentine newsprint. Ed & Pub 81:13 My 1 '48
 Stock of paper like sword of Damocles. Ed & Pub 81:32 Ap 24 '48
 Three newsprint concerns show big 1947 gains. Ed & Pub 81:48 Mr 27 '48
 Three newsprint mill projects in the news. Ed & Pub 81:12 Ja 24 '48
 UNESCO body urges use of idle paper mills. Ed & Pub 81:12 Ag 21 '48
 U.S. consumes 62 per cent of world's newsprint. Ed & Pub 81:51 Ag 7 '48
 Where synthetics produce brighter ground-wood pulp; plant of West Tacoma newsprint co. il Paper Tr J 126:49-50 Mr 18 '48

Prices

Mason of FTC holds zone price on paper is out. Ed & Pub 81:10 My 29 '48
 Newsprint price goes to \$100-a-ton Aug. 1. Ed & Pub 81:10 Jl 31 '48
 Paper zone prices illegal by FTC rules. W. Simon, Ed & Pub 81:52-6 S 25 '48

Statistics

Lord Camrose frowns on ANPA pulp plan; U.S. newsprint usage exceeds current supply. O. J. Rochelle; J. Walker, Ed & Pub 81:9 Je 5 '48
 Mechanical equipment of 1884; U.S. and Canadian dailies; tabulation. Ed & Pub 81:1-51 sec 2 O 30 '48
 Newsprint, Canada and United States, 1941-1946. Survey of Cur Bsns 1947 Sup p 159-60 [supplemented in monthly numbers]
 Newsprint paper in 1947. J. J. Zima. Paper Tr J 126:50+ F 26 '48; Same, Pulp & Pa of Can 49:57-62 Mr '48; Same abr. Paper Ind 29:1824-5 Mr '48
 World production of newsprint paper, 1947. J. J. Zima. Paper Tr J 127:11+ Ag 12 '48; Same, Paper Ind 30:924+ S '48; Same, Pulp & Pa of Can 49:71-4 O '48

Testing

Standardization of the Bendtsen tester for measurement of newsprint paper roughness. C. A. Sankey and P. H. White, diags Pulp & Pa of Can (Convention no) 49:99-106 [F] '48

NEWSTANDS

This news stand is news; stainless steel news stand in Times square, New York. il diag Sheet Metal Worker 39:49-50 My '48

NEWTON, Roy Chester, 1896-

AIC awards honor scroll. pors Chem & Eng N 26:3094, cover O 18 '48

NEWTON'S method of approximation. See Approximation, Newton's method of

NEWTON'S rings. See Interference (light)

NIACIN. See Nicotinic acid

NIAGARA FALLS, New York

Bridges

Privately owned bridge enterprise boasts a century of profit; Whirlpool Rapids bridge. il Bsns W p66 Ag 28 '48

NIAGARA Hudson power corporation

Directors approve plan. Comm & Fin Chr 167:2792 Je 28 '48

NIAGARA Hudson power corporation—Cont.
 Merger of Niagara Hudson units approved.
 Barron's 28:31 My 17 '48
 New capital set-up. Barron's 28:35 JI 12 '48
 Niagara dividends await senior capital re-
 tirement. Barron's 28:34 Je 7 '48
 Public utility securities. Comm & Fin Chr
 168:21 JI 1 '48

NICARAGUA**Commercial policy**

Law to regulate commerce modified. For
 Comm W 31:22 My 22; 15-16 Je 12 '48
 Resolution concerning law to regulate com-
 merce. For Comm W 32:20-1 JI 10 '48

NICCOLITE

Partial study of the NiAs-NiSb system. D.
 F. Hewitt. bibliog il Econ Geol 43:408-17
 Ag '48
 Pseudo-eutectic and pseudo-ex-solution inter-
 growths of nickel arsenides due to heat
 effects. J. E. Hawley and D. F. Hewitt.
 bibliog il Econ Geol 43:273-9 Je '48

NICHOLS, Henry W.

1891-
 Sketch. por East Underw 49:33 S 10 '48

NICHOLS, Jesse Clyde,

1880-
 Kansas City real estate developer and
 builder. por(cover) Bsns W p6 N 1 '47

NICHOLS medal

Seaborg tells of isotope synthesis at Nichols
 medal award. Chem & Eng N 26:740-1 Mr
 15 '48

NICHOLSON file company

Management set ad policy in 1872, it's still
 good. G. R. Ashbey. il Ptr Ink 221:29-31
 D 19 '47

NICKEL

Chemical engineering materials of construc-
 tion; nickel and high nickel alloys. W. Z.
 Friend. bibliog(83 ref) Ind & Eng Chem
 40:1801-4 O '48

Electrolytic conductivity as a method for
 studying electronic transitions in elements;
 application to iron, nickel and cobalt. W.
 R. Ham and C. H. Samans. bibliog il diag
 Am Soc for Metals Trans 39:73-99; Discus-
 sion. 99-108 '47

Freezing points of cobalt and nickel. M. S.
 VanDusen and A. I. Dahl. bibliog diags J
 Res Nat Bur Stand 39:291-5 S '47; Same
 cond. Science 106:428-9 O 31 '47

Industrial alcohol versus construction mate-
 rials. W. Z. Friend. Chem Eng 55:246+ O
 '48

Nature of bond orbitals in quadrivalent
 complexes of transition elements. H. Kuhn.
 bibliog J Chem Phys 16:727-33 JI '48

New methods of electro-forming and depos-
 iting nickel. il Steel 123:106+ JI 12 '48

Nickel, 1947. H. W. Davis. Eng & Min J
 149:90 F '48

Optical properties of Ni, Co, Fe, Mn, and
 Cd. F. Eueche. bibliog diags Opt Soc Am
 J 38:806-10 S '48

Oxide replica technique for the electron
 microscope examination of stainless steel
 and high nickel alloys. E. M. Mahia and
 N. A. Nielsen. bibliog il J Ap Phys 19:378-
 82 Ap '48

Reduction of antimony solutions with metal-
 lic nickel. H. Holness. bibliog Soc Chem
 Ind J 67:238-41 Je '48

Rotation vibration levels of the Fe⁵⁷ and
 Ni⁶⁰ nuclei. H. A. Wilson. Phys R 74:351
 Ag 1 '48

Slow neutron velocity spectrometer studies
 of Cu, Ni, Bi, Fe, Sn, and calcite. W. W.
 Havens, Jr. and others. bibliog Phys R
 73:963-72 My 1 '48

Sodium chloride versus construction mate-
 rials. W. Z. Friend. Chem Eng 54:225-6
 D '47

Spot-welding schedules for nickel and nickel
 alloys. F. G. Harkins. il Welding J 27:
 695-702 S '48

Sulphuric acid versus construction materials;
 nickel, nickel alloys. W. Z. Friend. Chem
 Eng 55:232+ Ag '48

Total cross section of Fe, Ni, and Bi for
 fast neutrons. H. H. Barschall and others.
 bibliog Phys R 73:659-65 Ap 1 '48

Analysis

Analysis of copper and nickel slags and
 mattes. J. Kinnunen. Metallurgia 37:153-6
 Ja '48

1,2-Cyclohexanedione dioxime; a reagent for
 nickel. R. C. Voter, C. V. Banks and H.
 Diehl. bibliog Anal Chem 20:458-60 My '48
 Determination of trace impurities in high-
 purity magnesium and calcium. S. Abbey.
 bibliog Anal Chem 20:630-4 JI '48

Qualitative semimicro-analysis with reference
 to Noyes and Bray's system; partial anal-
 ysis of the combined nickel, zirconium, and
 rare-earth groups. C. C. Miller. Chem Soc
 J p 1347-50 O '47

Spectrochemical determination of nickel in
 electrolytic cobalt using a current-regulated
 direct-current arc. C. A. Bridger and G.
 W. Marks. bibliog 2pls U S Bur Mines Rep
 of Invest 4198:1-7 '48

Isotopes

Study of the exchange of nickel in certain
 complex compounds using radioactive nickel.
 J. E. Johnson and N. F. Hall. bibliog Am
 Chem Soc J 70:2344-8 JI '48

Prices

Dearer nickel. Economist 155:198 JI 31 '48

Raney nickel

Hydrogenation of esters to alcohols over Ra-
 ney nickel. H. Adkins and A. A. Pavlic.
 bibliog Am Chem Soc J 69:3039-41 D '47

Preparation of Raney nickel catalysts and
 their use under conditions comparable with
 those for platinum and palladium catalysts.
 H. Adkins and H. R. Billica. bibliog diags
 Am Chem Soc J 70:695-8 F '48

Study of the synthesis of plasmochin by the
 reductive amination method with Raney
 nickel. R. C. Elderfield and others. Am
 Chem Soc J 70:40-4 Ja '48

Sulfur as a promoter for a nickel catalyst in
 dehydrogenation. H. Adkins and others.
 Am Chem Soc J 70:381-2 Ja '48

NICKEL alloys

After the turn of the year. R. C. Stanley.
 Comm & Fin Chr 167:530 Ja 29 '48; Same
 cond. Engineering 165:31 Ja 9 '48; Excerpt.
 Blast F & Steel P1 36:101-3 Ja '48

Age-hardening nickel alloys. F. C. Ochsner.
 il Product Eng 19:126-8 O '48

Cast nickel-molybdenum and nickel-molyb-
 denum-chromium alloys for severe cor-
 rosion services. W. A. Luce. il Chem Eng
 Prog 44:458-7; Discussion. 457-8 Je '48

Chemical engineering materials of construc-
 tion; nickel and high nickel alloys. W. Z.
 Friend. bibliog(83 ref) Ind & Eng Chem
 40:1801-4 O '48

Copper-chromium and copper-nickel-chro-
 mium alloys. bibliog Engineer 155:616 Je
 25 '48

Corrosion tests of heater-tube materials for
 acid concentration service. H. F. Brown.
 il Oil & Gas J 46:134-7+ Ap 29 '48

Decarburization of chrome nickel alloys by
 their surface oxides in high vacua and
 at elevated temperatures. E. A. Gulbran-
 sen and others. bibliog Metals Tech 15:
 TP2433 1-14 S '48

Deposition of nickel and cobalt by chemical
 reduction. A. Brenner and G. Riddell. il J
 Res Nat Bur Stand 39:385-95 N '47

Developments in metals and alloys for chem-
 ical plant equipment. W. Z. Friend. il Chem
 Eng Prog 44:503-7 JI '48

Electrodeposition of tungsten alloys contain-
 ing iron, nickel, and cobalt. A. Brenner
 and others. bibliog il J Res Nat Bur Stand
 39:351-83 O '47; Abstract. Steel 121:63+
 D 29 '47

Electron diffraction study of oxide films
 formed on copper-nickel alloys at elevated
 temperatures. J. W. Hickman and E. A.
 Gulbransen. bibliog Metals Tech 15:TP2391
 1-13 JI '48

Electron diffraction study of oxide films
 formed on Hastelloy alloys A, B, C, and D.
 J. W. Hickman and E. A. Gulbransen. bib-
 liog J Phys & Colloid Chem 52:1186-97 O
 '48

Electron diffraction study of oxide films
 formed on nickel-chromium alloys. J. W.
 Hickman and E. A. Gulbransen. bibliog
 Metals Tech 15:TP2372 1-15 Je '48

Fabrication of high nickel alloys and auste-
 nitic stainless steel. A. S. Tuttle, Jr. Pulp
 & Pa of Can 49:74-80 Ap '48

NICKEL alloys—Continued

Industrial alcohol versus construction materials. W. Z. Friend. Chem Eng 55:246+ O '48

Liquidus-solidus points of the manganese-nickel system. J. M. Paul and G. V. Beard. J Phys & Colloid Chem 52:750-3 Ap '48

Magnetic properties of ordered nickel-manganese alloys. R. I. Jaffee. bibliog J Ap Phys 19:867-70 O '48

New alloy has improved electrical resistance properties; Evanohm. Materials & Methods 28:62-3 Ag '48

New development of wrought corrosion-resistant alloy should find extensive use in the chemical industry; Carpenter stainless 20. M. G. Fontana. Ind & Eng Chem 40: sup87A-8A F '48

Nickel alloys in pulp and paper making. R. T. Barnes, Jr. and K. H. J. Clarke. Pulp & Pa of Can 49:69-73 Ap '48

Nickel-copper and nickel-iron alloys. R. F. Thomson. Min & Met 29:384 J '48

Nitric acid versus construction materials. W. Z. Friend. Chem Eng 55:219 Ap '48

Nitric acid versus construction materials; Durimet, Chlorimet, W. A. Luce. il Chem Eng 55:233-4+ F '48

Oldie replica technique for the electron microscope examination of stainless steel and high nickel alloys. E. M. Mahia and N. A. Nielsen. bibliog il J Ap Phys 19:378-82 Ap '48

Powder metallurgy of porous metals and alloys having a controlled porosity. P. Duwez and H. E. Martens. bibliog il diags Metals Tech 15:TP2343 1-27 Ap '48

Present trends in nickel alloys. Pet Eng 19: 106+ Ja '48

Sodium chloride versus construction materials. W. Z. Friend. Chem Eng 54:225-6 D '47

Sodium chloride versus construction materials; Durimet and Chlorimet. W. A. Luce. Chem Eng 55:223-4 Ja '48

Sodium chloride versus construction materials; Hastelloy, C. G. Chisholm. Chem Eng 55:228+ Ja '48

Spot-welding schedules for nickel and nickel alloys. F. G. Harkins. il Welding J 27: 695-702 S '48

Sulphuric acid versus construction materials; chlorimets. W. A. Luce. Chem Eng 55:224+ Ag '48

Sulphuric acid versus construction materials; Durimet, W. A. Luce. il Chem Eng 55: 223-4+ Je '48

Sulphuric acid versus construction materials; Hastelloy, C. G. Chisholm. Chem Eng 55: 238+ My '48

Sulphuric acid versus construction materials; nickel, nickel alloys. W. Z. Friend. Chem Eng 55:232+ Ag '48

Tables to guide in the selection of materials; wrought copper and nickel alloys; reference book sheet. Z. Fox. Product Eng 18:169 N '47

Widespread use of nickel alloys in the automotive industries. Automotive Ind 98:282+ Mr 15 '48

See also

Alnico	Iron alloys—Nickel
Alumel	alloys
Chromel	Iron alloys—Nickel
Chromium nickel	chromium alloys
steel	Nickel silver
	Nickel steel

Analysis

Spectrographic analysis of nickel alloys. C. J. Neuhaus. il Iron Age 161:62-5 Ja 22 '48

NICKEL antimonide

Partial study of the NiAs-NiSb system. D. F. Hewitt. bibliog il Econ Geol 43:408-17 Ag '48

NICKEL arsenides

Partial study of the NiAs-NiSb system. D. F. Hewitt. bibliog il Econ Geol 43:408-17 Ag '48

Pseudo-eutectic and pseudo-ex-solution intergrowths of nickel arsenides due to heat effects. J. E. Hawley and D. F. Hewitt. bibliog il Econ Geol 43:273-9 Je '48

NICKEL carbonyl

Raman spectrum and structure of nickel carbonyl. B. L. Crawford, Jr. and W. Horwitz. bibliog J Chem Phys 16:147-50 F '48

Spontaneous ignition of nickel carbonyl vapor; the ignition of *n*-butane. E. J. Badin, P. C. Hunter and R. N. Pease. bibliog Am Chem Soc J 70:2055-6 Je '48

NICKEL chloride

Coating steel with nickel by immersion in nickel chloride solutions. W. A. Wesley and E. R. Copson. bibliog il Electrochem Soc J 94:20-31 J '48

NICKEL chromium steel

Fatigue tests on crankshaft steels; tests on nickel-chromium-molybdenum and chromium-molybdenum-vanadium steels. P. H. Frith. bibliog il diags Iron & Steel Inst J 159:400-9 Ag '48

Mechanical properties of a nickel-chromium-molybdenum steel obtained by stepped quenching. G. Delbart and R. Potaszkin. 2pls Iron & Steel Inst J 157:527-35 D '47

Overheating and burning of nickel-chromium-molybdenum steel. W. E. Goodrich. Iron & Steel Inst J 153:255-8, pl 16-17; Discussion. 279-315, pl 20A-20D no 1 '46

See also**Elinvar****NICKEL compounds**

Study of the exchange of nickel in certain complex compounds using radioactive nickel. J. E. Johnson and N. F. Hall. bibliog Am Chem Soc J 70:2344-3 J '48

NICKEL dimethylglyoxime

Detection of certain chlorinated tertiary aliphatic amines. A. J. Cruikshank and others. Anal Chem 19:849-50 N '47

NICKEL dust

Proteinuria and kidney injury among workmen exposed to cadmium and nickel dust. L. Friberg. bibliog J Ind Hygiene 30:32-6 Ja '48

NICKEL industry and trade

After the turn of the year. R. C. Stanley. Comm & Fin Chr 167:530 Ja 29 '48; Same cond. Engineering 165:31 Ja 9 '48; Excerpt. Blast F & Steel Pl 36:101-3 Ja '48

Nickel and the tariff agreement. Economist 153:897 N 29 '47

See also

International nickel company

Advertising

Advertising and promotions designed to help customers; International Nickel products. R. H. Ganly. il Ptr Ink 224:34-6 JI 16 '48

NICKEL metallurgy

Ammonia method of hydrometallurgical treatment of eluvial nickel ores; abstract. D. P. Bogatsky and A. S. Semenova. Chem Eng 54:268 D '47

NICKEL mines and mining**Alaska**

Mirror Harbor nickel deposits, Chichagof Island, Alaska. W. M. Traver, Jr. 9pls U S Bur Mines Rep of Invest 4163:1-13 '48

Yakobi Island nickel deposit, Sitka mining district, Alaska. J. H. East, Jr. and others. bibliog 22pls U S Bur Mines Rep of Invest 4182:1-28 '48

NICKEL ores

Mirror Harbor nickel deposits, Chichagof Island, Alaska. W. M. Traver, Jr. 9pls U S Bur Mines Rep of Invest 4168:1-13 '48

Yakobi Island nickel deposit, Sitka mining district, Alaska. J. H. East, Jr. and others. bibliog 22pls U S Bur Mines Rep of Invest 4182:1-28 '48

NICKEL oxides

X-ray diffraction studies in the system NiO-Cr₂O₃-ZrO₂. W. O. Milligan and L. M. Watt. bibliog il J Phys & Colloid Chem 52:230-5 Ja '48

NICKEL phosphate

Electrodeposition of nickel from orthophosphate baths. C. B. F. Young and E. S. Roszkowski. Electrochem Soc J 94:176-93 O '48

NICKEL Plate road. See New York, Chicago and St Louis railroad

NICKEL plating

Anodes. E. R. Thews. il Metal Finishing 46: 74-9 My '48

Bright barrel plating of nickel and zinc; abstract. L. A. Chesworth. Iron Age 162: 85-6 S 16 '48

NICKEL plating—Continued

- Coating steel with nickel by immersion in nickel chloride solutions. W. A. Wesley and H. R. Copson. *bibliog* *il* *Electrochem Soc J* 94:20-31 *Jl* '48
- Deposition of nickel and cobalt by chemical reduction. A. Brenner and G. Riddell. *il* *J Res Nat Bur Stand* 59:385-95 *N* '47
- Determination of p-toluenesulfonamide in nickel plating baths. J. Sirota. *bibliog* *diag* *Metal Finishing* 48:68-9 *S* '48
- Electrodeposition of nickel from orthophosphate baths. C. B. F. Young and E. S. Roszkowski. *Electrochem Soc J* 94:176-93 *O* '48
- Finishing small electric appliances. G. E. Stedman. *il* *Metal Finishing* 46:78-80 *Ja* '48
- Influence of internal stress on the structure of electro-deposits. M. R. J. Wyllie. *il* *J Chem Phys* 16:60-1 *Ja* '48
- Magnetic measurement of the thickness of composite copper and nickel coatings on steel. A. Brenner and E. Kellogg. *il* *J Res Nat Bur Stand* 40:295-9 *Ap* '48
- New methods of electro-forming and depositing nickel. *il* *Steel* 123:106+ *Jl* 12 '48
- Nickel plating; tabulated data; engineering data sheet. *Metal Finishing* 46:83 *F* '48
- Process sheet for decorative nickel plating; reference book sheet. *Am Mach* 92:137 *Mr* 25 '48
- Removal of zinc from bright nickel baths by electrolytic treatment. H. D. Carter. *bibliog* *Metal Finishing* 46:85-8+ *O* '48
- Thickness standards for nickel electroplate; tabulations; reference book sheet. G. Black. *Product Eng* 19:163 *Ja* '48

Testing

- Measurement of stress in nickel deposits; spiral contractometer; abstract. A. Brenner and S. Senderoff. *Steel* 123:108+ *Ag* 2 '48

NICKEL silver

- Gas porosity in nickel-silver castings. T. F. Pearson and others. *il* *Engineering* 166:237-9 *S* 3 '48

NICKEL steel

- Nickel-steels by powder metallurgy. L. Delisle and W. V. Knopp. *il* *Metals Tech* 15:TP2340 1-20 *F* '48; *Abstract, Iron Age* 161:130 *F* 26 '48

- Properties of low carbon 8½ percent nickel steel; abstracts. T. N. Armstrong and G. R. Brophy. *Chem Eng* 54:246+ *N* '47; *Pet Processing* 2:883 *N* '47; *Oil & Gas J* 46:111 *Ap* 22 '48

See also

- Chromium nickel steel

NICOTINAMIDE

- Location of the reactive carbon in N-methylnicotinamide. W. E. Knox and W. I. Grossman. *bibliog* *Am Chem Soc J* 70:2172 *Je* '48

See also

- Methyl nicotinamide

NICOTINE

- Insecticides derived from plants; tobacco alkaloids. E. J. Seiferle and D. E. H. Frear. *Ind & Eng Chem* 40:683-4 *Ap* '48

- Photochemical oxidation of nicotine in the presence of methylene blue. L. Weil. *bibliog* *Science* 107:426-7 *Ap* 23 '48

- Protection of synaptic transmission against block by nicotine. C. A. G. Wiersma and W. Schallek. *Science* 106:421 *O* 31 '47

- Recovery of nicotine by ion exchange from cigaret tobacco drier gases. A. W. Kingsbury, A. B. Mindler and M. E. Gilwood. *flow diag* *il* *Chem Eng Prog* 44:497-500 *Jl* '48

- Transformation products of nicotine in fermented tobacco. W. G. Frankenburg. *Science* 107:427-8 *Ap* 23 '48

Analysis

- Improved steam-distillation apparatus; application to determination of nicotine in green and dry tobacco. R. B. Griffith and R. N. Jeffery. *bibliog* *il* *diags* *Anal Chem* 20:307-11 *Ap* '48

NICOTINIC acid

- Application of the halogen-metal interconversion reaction to syntheses with isotopic carbon. A. Murray, 3d, W. W. Foreman and W. Langham. *bibliog* *diag* *Am Chem Soc J* 70:1037-9 *Mr* '48

- Nicotinic acid; miscellaneous esters. C. O. Badgett and C. E. Woodward. *bibliog* *Am Chem Soc J* 69:2907 *N* '47

- Retention of vitamins in low acid canned foods; new processing techniques. J. F. Feaster and others. *bibliog* *il* *Food Ind* 20:14-17+ *Ja* '48

- Synthesis of a biologically active nicotinic acid precursor; 2-amino-3-hydroxybenzoic acid. J. F. Nye and H. K. Mitchell. *bibliog* *Am Chem Soc J* 70:1847-8 *My* '48

- Utilization of nicotinic acid and its amide by the human erythrocyte in vitro. E. Leifer and others. *Am Chem Soc J* 70:2908-10 *S* '48

Analysis

- Effect of indole on the determination of N-methylnicotinamide. B. S. Schweigert. *bibliog* *Science* 106:522-3 *N* 28 '47

NIELSON, Max, 1886-

- Sketch. *por* *East Underw* 49:17+ *My* 14 '48

NIGERIA**Industries and resources**

- Nigeria picks up. *il* *Bsns W p* 114+ *F* 14 '48

NIGHT flying. See Aviation—Night flying**NIGHT lamps. See Electric lamps—Night lamps****NIGHT work**

- Making night work pay. *il* *Mod Ind* 15:40-5 *Ja* '48
- More efficiency after dark. *Nat Safety* *N* 57:93-4 *Je* '48

NILE river

- Exploiting the Nile; Egypt's and the Sudan's claim for water. *map* *Economist* 155:187-8 *Jl* 31 '48

- Nile control by hydro-electric means. A. A. B. Ahmed. *map* *diag* *Engineering* 165:577-8 *Je* 18 '48

NINETEEN hundred and forty-seven

- Headline news events of 1947. *Eng N* 140:242-3 *F* 19 '48

NINHYDRIN

- Sensitivity of the ninhydrin reaction in paper partition chromatography. J. J. Pratt, Jr. and J. L. Auclair. *Science* 108:213-14 *Ag* 27 '48

NIOBIUM. See Columbium**NIOXIME. See Cyclohexanedione dioxime****NITRAMINES**

- Aliphatic nitro-compounds; preparation of 2-nitroalkylamines. R. L. Heath and J. D. Rose. *Chem Soc J* p 1486-9 *N* '47

NITRAMINO compounds

- Preparation and properties of 2-nitramino-Δ²-1,3-diazacycloalkenes. A. F. McKay and G. F. Wright. *Am Chem Soc J* 70:430-1 *Ja* '48

NITRATES

- Cracking of steel in nitrate solutions. M. Smalowski. *diags* *Engineer* 186:110 *Jl* 30 '48

- Growth of coliform bacteria in media containing nitrate and nitrite. P. R. Lewis and C. N. Hinshelwood. *Chem Soc J* p824-47 *Je* '48

- Thermal decomposition of pentaerythritol tetranitrate, nitroglycerin, ethylenediamine dinitrate and chromium nitrate. A. J. B. Robertson. *bibliog* *Soc Chem Ind J* 67:221-4 *Je* '48

NITRATION

- Alpha and beta Schardinger dextrin nitrates. N. S. Gruenhut, M. L. Cushing and G. V. Caesar. *bibliog* *il* *Am Chem Soc J* 70:424-5 *Ja* '48

- Chemical engineering unit processes. W. D. Crater. *Ind & Eng Chem* 40:1627-35 *bibliog* (100 ref, p 1634-5) *S* '48

- Colorimetric determination of nitric and nitroso-sulfuric acids in nitration spent acids. F. L. English. *Anal Chem* 19:850-2 *N* '47

- Continuous nitration; the Biazzi process. J. C. Smith. *bibliog* *il* *diag* *Chem Ind* 62:929-31 *Je* '48

NITRATION—Continued

- Factors influencing the rate of nitration of 2:4 dinitrotoluene in a 2-phase system. G. M. Bennett and others. *bibliog Soc Chem Ind J* 66:288-93 Ag '47
- Mechanism of the nitration of anisole. R. M. Schramm and F. H. Westheimer. *bibliog Am Chem Soc J* 70:1782-4 My '48
- Nitration in sulphuric acid; nitration of 2:4-dinitrotoluene in a two-phase system. G. M. Bennett and others. *Chem Soc J* p 1185-90 S '47
- Nitration of benz-1-thia-2:3-diazole and the synthesis of 7-nitro-, 5-methyl-, and 7-nitro-5-methyl-benz-1-thia-2:3-diazole, with improved preparations of 1-chloro-2:6-dinitrobenzene and 2-chloro-3-nitro-aniline. H. H. Hodgson and D. P. Dodgson. *Chem Soc J* p 1006-9 JI '48
- Nitration of (*p*-bromophenyl)-cyclopentane. R. D. Kleene. *Am Chem Soc J* 70:866-7 F '48
- Nitration of 6-chloro-1-naphthoic acid. C. C. Price, T. J. Bardos and H. I. Enos. *bibliog Am Chem Soc J* 70:1978-9 My '48
- Nitration of wood pulp. M. O. Schur and D. H. McMurtrie. *il diags Paper Tr J* 127: 51-8 S 23; 39-45 *bibliog*(p45) S 30 '48
- Nitrogen-substituted chloroalkylamines. R. F. Phillips, C. H. Shunk and K. Folkers. *Am Chem Soc J* 70:1661-2 Ap '48
- Orientation problems; the nitration of the trichloroacetoluides. A. McGookin. *bibliog Soc Chem Ind J* 67:23-4 Ja '48
- Ortho and para substituted derivatives of benzotrifluoride. R. G. Jones. *bibliog Am Chem Soc J* 69:2346-50 O '47
- Oxy-nitration of benzene to picric acid; Wolfenstein-Böters reaction. E. E. Aristoff and others. *bibliog il diags Ind & Eng Chem* 40:1281-90 JI '48
- Pectin studies; the nitric acid ester (preliminary). L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:101-4 Mr '48
- Re-examination of the reported *m*-nitration of phenols and phenolic ethers. C. A. Bunton, G. J. Minkoff and R. I. Reed. *Chem Soc J* p 1416-18 O '47
- Studies in the cantonin series; the introduction of nitrogen into the desmotroposantonin molecule. Huang-Minlon and S. Cheng. *bibliog Am Chem Soc J* 70:449-52 F '48
- Synthesis of derivatives of β -carboline; the nitration of harman. H. R. Snyder, S. M. Parmeter and L. Katz. *bibliog Am Chem Soc J* 70:222-5 Ja '48
- Synthesis of some aryl 2-thienyl sulphones and the nitration of thiophen-2-sulphonyl chloride. H. Burton and W. A. Davy. *Chem Soc J* p525-7 Ap '48
- NITRIC acid**
- Corrosion of metals in red fuming nitric acid and in mixed acid. N. Kaplan and R. J. Andrus. *bibliog Ind & Eng Chem* 40:1946-7 O '48
- Exchange reaction between thallium (I) and thallium (III) ions in perchloric and nitric acid solutions. R. J. Prestwood and A. C. Wahl. *Am Chem Soc J* 70:880-1 F '48
- Heat transfer through boiling liquid films. F. Rumford. *bibliog diag Soc Chem Ind J* 66:309-12 S '47
- New concept about the mechanism of passivity of iron in nitric acid. R. Parshad and L. C. Verman. *J Chem Phys* 16:154-5 F '48
- Nitric acid versus construction materials; symposium. *il Chem Eng* 55:233-4+ F; 225-6+ Mr; 219-20 Ap '48
- Resistance of sensitized stainless steels to boiling nitric acid. R. S. Stewart. *Metal Prog* 52:971-3 D '47
- Rocket researchers sift fuels to reduce high consumption; nitric acid seen offering advantages. R. McLaren. *Aviation W* 48:18 Ja 28 '48
- Transportation and storage of strong nitric acid. G. A. Sands. *il Ind & Eng Chem* 40: 1937-45 O '48
- Analysis**
- Colorimetric determination of nitric and nitroso-sulfuric acids in nitration spent acids. F. L. English. *Anal Chem* 19:850-2 N '47
- Electrometric titration of nitric acid in oleum. C. D. McKinney, jr. W. H. Rogers and W. M. McNabb. *Anal Chem* 19:1041 D '47
- Manufacture**
- Gas turbine; diagrammatic layout of pressure oxidation plant. *Chem Age (Lond)* 58: 657 My 8 '48
- Nouveaux perfectionnements dans la fabrication combinée des acides sulfurique et nitrique. F. Salsas-Serra. *diags Chimie & Ind* 58:433-8 N '47
- NITRIDES**
- Carbides, nitrides and porosity in aluminum. D. Von Ludwig. *bibliog il Iron Age* 160: 73-8+ N 20 '47
- See also*
- Uranium nitrides
- NITRIFICATION**
- Correction of b.o.d. velocity constants for nitrification. C. C. Ruchoff and others. *bibliog Sewage Works J* 20:832-40 S '48
- See also*
- Bacteria, Nitrifying
- NITRIFYING bacteria.** *See* Bacteria, Nitrifying
- NITRILES**
- Condensation of cyclohexanone with nitriles. H. A. Bruson, E. Riener and T. Riener. *Am Chem Soc J* 70:483-4 F '48
- Mechanism of addition of Grignard reagents to nitriles. C. G. Swain. *bibliog Am Chem Soc J* 69:2306-9 O '47
- Preparation of nitriles. D. T. Mowry. *Chem B* 42:189-283 *bibliog*(647 ref, p270-83) Ap '48
- Reaction of 1-dimethylamino-2-chloropropane with diphenylacetonitrile; the structure of amidone. E. M. Schultz, C. M. Robb and J. M. Sprague. *bibliog Am Chem Soc J* 69:2454-9 O '47
- Reaction of formaldehyde with nitriles. M. A. Gradsten and M. W. Pollock. *bibliog Am Chem Soc J* 70:3079-81 S '48
- Reaction of halogenomagnesium dialkylamides with nitriles; the preparation of *N,N*-disubstituted amidines. E. Lorz and R. Baltzly. *Am Chem Soc J* 70:1904-7 My '48
- Some new compounds related to amidone. J. H. Gardner, N. R. Easton and J. R. Stevens. *Am Chem Soc J* 70:2906-8 S '48
- Synthesis of ketones from aliphatic nitriles and phenylmagnesium bromide. C. R. Hauser, W. J. Humphlett and M. J. Weiss. *bibliog Am Chem Soc J* 70:426 Ja '48
- NITRITES**
- Elimination of nitrite interference in iodometric sugar determinations. J. Corman. *Anal Chem* 20:984 O '48
- Growth of coliform bacteria in media containing nitrate and nitrite. P. R. Lewis and C. N. Hinscheilwood. *Chem Soc J* p824-47 Ja '48
- NITRO compounds**
- Aliphatic nitro-compounds. G. D. Buckley, C. W. Scaife and others. *Chem Soc J* p 1471-519 N '47
- Alkylation of aliphatic nitro compounds with gramine; a new synthesis of derivatives of tryptamine. H. R. Snyder and L. Katz. *bibliog Am Chem Soc J* 69:3140-2 D '47
- Anomalous reaction of 2-nitro-4-arsenophenyl ethers. L. A. Sweet, D. G. Calkins and C. K. Banks. *bibliog Am Chem Soc J* 69: 2260-1 O '47
- Azlacones and phenylacetic acids derived from the 2-nitro-derivatives of vanillin, isovanillin, and veratraldehyde. S. F. MacDonald. *Chem Soc J* p376-8 Mr '48
- Basis for the reported optical activity of the salts of aliphatic nitro compounds; 2-nitrobutane. N. Kornblum, J. T. Patton and J. B. Nordmann. *bibliog Am Chem Soc J* 70:746-9 F '48
- Chemical engineering unit processes; nitration. W. D. Crater. *bibliog Ind & Eng Chem* 40:1629-32 S '48
- Correlation of resonance structure with ultraviolet absorption in nitro-substituted organic molecules. W. H. Rodebush. *bibliog Chem R* 41:317-23 O '47
- Decomposition reactions of sodium aryldiazates; replacement of the diazo- by the nitro-group in alkaline solution with sodium nitrite. H. H. Hodgson and E. R. Ward. *Chem Soc J* p556-9 My '48

NITRO compounds—Continued

- Iron reduction of some aliphatic nitro compounds. M. Senkus. *bibliog Ind & Eng Chem* 40:506-8 Mr '48
- Preparation of 2-nitro-1-alkenes from nitro amines. A. T. Blomquist and T. H. Shelley, jr. *bibliog Am Chem Soc J* 70:157-9 Ja '48
- Radical reactions with certain nitrogen compounds; the conversion of benzene (toluene, etc.) in other compounds at low temperature. O. Baudisch. *bibliog Science* 108:443-4 O 22 '48
- Reaction of hydrazine hydrate on nitro-compounds and a new route to synthetic oestrogens. Huang-Minlon. *bibliog Am Chem Soc J* 70:2802-5 Ag '48
- Replacement of the diazonium by the nitro-group; decompositions by cupro-cupri sulphite. H. H. Hodgson, A. P. Mahadevan and E. R. Ward. *Chem Soc J* p 1392-4 O '47
- Some chloromethyl ethers of nitro alcohols and the preparation of mixed acetals from them. E. B. Hodge. *Am Chem Soc J* 70:2006-8 Je '48
- Studies in the quinoline series; the mononitrophenyllepidylcarbinols and related compounds. R. S. Tipson and A. F. Walton. *bibliog Am Chem Soc J* 70:892-5 Mr '48
- NITROACETOPHENONE**
Preparation of *o*-nitroacetophenone. K. Schofield and T. Swain. *Chem Soc J* p384 Mr '48
- NITROAMINODIPHENYLSULFONE**
Succinic acid derivatives of 4-nitro-4'-amino-diphenylsulfone and of 4,4'-diaminodiphenylsulfone. H. Bauer. *bibliog Am Chem Soc J* 70:2254-6 Je '48
- NITROANILINE**
Some N-basically substituted derivatives of *o*-nitroaniline. A. Burger and J. M. Fredrickson. *Am Chem Soc J* 70:416 Ja '48
- NITROBENZENE**
Kinetics of aromatic sulphonation reactions; sulphonation by sulphuric acid in nitrobenzene solution. F. J. Stubbs, C. D. Williams and C. N. Hinshelwood. *Chem Soc J* p 1065-78 Jl '48
- Properties of electrolytic solutions; conductance of some electrolytes in nitrobenzene at 25°. C. R. Witschonke and C. A. Kraus. *bibliog Am Chem Soc J* 69:2472-81 O '47
- Properties of electrolytic solutions; conductance of some long chain salts in ethylene chloride and nitrobenzene at 25°. H. E. Weaver and C. A. Kraus. *bibliog Am Chem Soc J* 70:1707-9 My '48
- Thermal decomposition of explosives in the solid phase; the thermal decomposition in a vacuum of certain mono- and dinitrobenzenediazo-oxides, with a note on the kinetics of thermal breakdown of 2-nitrobenzene-4-diazo-1-oxide. J. Vaughan and L. Phillips. *Chem Soc J* p 1560-5 D '47
- NITROBENZENEDIAZONIUM chloride**
Reaction of 2,5-dimethylfuran with *p*-nitrobenzenediazoniium chloride. R. H. Eastman and F. L. Detert. *bibliog Am Chem Soc J* 70:962-4 Mr '48
- NITROBENZENESELENINIC acid**
Iodometric analysis of *o*-nitrobenzeneseleninic acid. O. Foss. *Am Chem Soc J* 70:421 Ja '48
- NITROBUTANE**
Basis for the reported optical activity of the salts of aliphatic nitro compounds; 2-nitrobutane. N. Kornblum, J. T. Patton and J. B. Nordmann. *bibliog Am Chem Soc J* 70:746-9 F '48
- NITROBUTANOL**
Lignin-alcohol condensation; the reaction of lignin with amino- and nitro-butanol. A. Bailey. *bibliog Paper Ind* 29:1606-7+ F '48
- NITROCELLULOSE**
Cellulosic plastics; properties, applications, etc. M. Bentivoglio and M. Demarest. *il diags reference book sheet* (p 153, 155) *Product Eng* 19:85-91 My '48
- Mechanical properties of high polymers as functions of the shape of the distribution curve. P. C. Scherer and B. P. Rouse. *bibliog Rayon* 29:55-7 Ag; 85-7 S '48
- Pencils with yardage meter or perpetual calendar. *il Mod Plastics* 25:172 F '48
- Preparation and optical properties of gold blacks. L. Harris and others. *bibliog diag Opt Soc Am J* 38:582-9 Jl '48
- Safety plus built into pyroxylin coating plant to handle nitrocellulose and flammable solvents. H. Rosenberg. *il plan Chem Eng* 55:138-8 My '48
- Visco-elastic behavior of a highly plasticized nitrocellulose in compression under constant load. G. J. Doyle and R. M. Badger. *J Ap Phys* 19:373-7 Ap '48
- See also
Celastic
Cordite
- NITROCYMENE**
Chlorination of 2-nitro-*p*-cymene; monosubstitution. A. S. Wheeler, J. M. Early and J. N. LeConte. *Am Chem Soc J* 69:2563 O '47
- NITRODESOXYALDOHEXOSE**
Cyclization of 6-nitrodesoxyaldehydes to nitrodesoxyinositols. J. M. Grosheintz and H. O. L. Fischer. *bibliog Am Chem Soc J* 70:1479-84 Ap '48
- NITRODESOXYGLUCOSE**
Synthesis of 6-nitro-6-desoxy-*D*-glucose and 6-nitro-6-desoxy-*L*-idose. J. M. Grosheintz and H. O. L. Fischer. *bibliog Am Chem Soc J* 70:1476-9 Ap '48
- NITRODESOXYIDOSE**
Synthesis of 6-nitro-6-desoxy-*D*-glucose and 6-nitro-6-desoxy-*L*-idose. J. M. Grosheintz and H. O. L. Fischer. *bibliog Am Chem Soc J* 70:1476-9 Ap '48
- NITRODESOXYINOSITOL**
Cyclization of 6-nitrodesoxyaldehydes to nitrodesoxyinositols. J. M. Grosheintz and H. O. L. Fischer. *bibliog Am Chem Soc J* 70:1479-84 Ap '48
- NITRODIENES**
Aliphatic nitro-compounds; conjugated nitro-dienes. G. D. Buckley and Mrs J. L. Charlish. *Chem Soc J* p 1472-4 N '47
- NITROETHANE**
Kinetics of neutralization of nitroethane with ammonia and methylamines. R. G. Pearson. *bibliog Am Chem Soc J* 70:204-8 Ja '48
- NITROETHYLENE**
Aliphatic nitro-compounds; preparation of nitro-olefins by dehydration of 2-nitro-alcohols. G. D. Buckley and C. W. Scaife. *Chem Soc J* p 1471-2 N '47
- NITROFLUORENONE**
3-Nitrofluorenone. F. E. Ray and J. G. Barrick. *bibliog Am Chem Soc J* 70:1492-4 Ap '48
- NITROFORM**
Method of synthesis of trinitromethane derivatives. W. S. Reich, G. G. Rose and W. Wilson. *Chem Soc J* p 1234-7 S '47
- NITROGEN**
Active magnesia; application of dual-surface theory. A. C. Zettlemoyer and W. C. Walker. *bibliog J Phys & Colloid Chem* 52:58-64 Ja '48
- Active nitrogen. J. Kaplan. *il Phys R* 73:494-6 Mr 1 '48
- Adsorption of argon, nitrogen, and butane on porous glass. P. H. Emmett and M. Cines. *bibliog J Phys & Colloid Chem* 51:1248-62 N '47
- Alteration of the size and distribution of pores in charcoals. J. Holmes and P. H. Emmett. *bibliog J Phys & Colloid Chem* 51:1276-307 N '47
- Anomalous physical properties of processed atmospheric nitrogen. C. C. Minter. *J Ap Phys* 19:217 F '48
- Chemical and physical adsorption of gases on carbon dust. R. H. Savage and C. Brown. *il Am Chem Soc J* 70:2362-6 Jl '48
- Differential heats of adsorption and desorption of nitrogen on porous glass. L. G. Joyner and P. H. Emmett. *bibliog Am Chem Soc J* 70:2359-61 Jl '48
- Differential heats of adsorption of nitrogen on carbon blacks. L. G. Joyner and P. H. Emmett. *bibliog Am Chem Soc J* 70:2353-9 Jl '48
- Disintegration energy of $N^{14}(n,p)C^{14}$. P. Huber and A. Stebler. *bibliog Phys R* 73:85 Ja 1 '48
- Dissociation energies of nitrogen and nitric oxide. H. D. Haggstrum. *bibliog J Chem Phys* 16:848-9 Ag '48

NITROGEN—Continued

- Effect of added nitrogen on compressibility of natural gas. C. K. Ellerts and others. *il* *diags* World Oil 128:129-32+ Je; 144-6+ bibliog (p160) J 1 '48
- Free-volume models for liquids. T. L. Hill. *bibliog* J Phys & Colloid Chem 51:1219-32 N '47
- Graphical residual; its application to phase relations of oxygen and nitrogen. H. A. Koch, Jr. and V. C. Williams. *bibliog* Chem Eng Prog 43:629-32 N '47
- Heat capacity of nitrogen adsorbed on titanium dioxide between 20°K and 80°K. J. A. Morrison and G. J. Szasz. *bibliog* *diags* J Chem Phys 16:280-6 Ap '48
- Heats of dissociation of the N_2 molecule and the NH radical. G. Glockler. *bibliog* J Chem Phys 16:602-4 Je '48
- High energy states of N_2^+ and N_2 . R. B. Setlow. *bibliog* *il* Phys R 74:153-62 JI 15 '48
- Internal friction and precipitation from the solid solution of N in tantalum. T. Kê. *bibliog* Phys R 74:914-16 O 15 '48
- Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett. *bibliog* *diag* J Phys & Colloid Chem 51:1262-76 N '47
- Low temperature nitrogen adsorption studies of silica gel. I. Kirshenbaum and R. K. Grover. *Am Chem Soc J* 70:1282-3 Mr '48
- Measurement of carbon black particles by the electron microscope and low temperature nitrogen adsorption isotherms. R. B. Anderson and P. H. Emmett. *bibliog* J Ap Phys 19:367-73 Ap '48
- (n, p) and (n, α) disintegrations of nitrogen by fast neutrons. P. Huber and A. Stebler. *bibliog* Phys R 73:89-90 Ja 1 '48
- Nitrogen removal from natural gas. W. W. Deschner and W. W. Bodle. *bibliog* *flow* *diags* *diags* Oil & Gas J 46:76-9+ Ap 15; 92+ Ap 22 '48
- Nuclear quadrupole coupling of nitrogen in ICN and N_2O . A. G. Smith and others. *bibliog* *il* Phys R 73:633 Mr 15 '48
- Range of protons from $N^{14}(n, p)^{14}C$. I. C. Cornog and others. *bibliog* Phys R 74:1-4 JI 1 '48
- Removal of excess nitrogen from natural gas. *Am Gas Assn* Mo 30:20 O '48; Same. *Am Gas J* 169:45 O '48; Same. *Gas Age* 102:37+ O 14 '48
- Role of neighboring nitrogen atom in the displacement reaction; rearrangement in the hydrolysis of 1-diethylamino-2-chloropropane. S. D. Ross. *bibliog* *Am Chem Soc J* 69:2932-3 D '47
- Search for spectral absorption in active nitrogen. R. E. Worley. *bibliog* *diag* J Chem Phys 16:533-6 My '48
- Self-diffusion coefficient of nitrogen. E. B. Winn. *bibliog* Phys R 74:698-9 S 15 '48
- Slow neutron spectrometer studies of oxygen, nitrogen, and argon. E. Melkonian and others. *Phys R* 73:1399-400 Je 1 '48
- Sorption of nitrogen and water vapor on textile fibers. J. W. Rowen and R. L. Blaine. *bibliog* *Ind & Eng Chem* 39:1659-63 D '47; Same. *J Res Nat Bur Stand* 39:479-86 D '47
- Study of the hydrogen, oxygen, and nitrogen contents of foundry pig-iron. J. E. Hurst and R. V. Riley. *diags* Iron & Steel Inst J 159:130-6 Je '48
- Surface-area measurements on metal spheres and on carbon blacks. P. H. Emmett and M. Cines. *bibliog* *il* J Phys & Colloid Chem 51:1329-41 N '47
- Thermal diffusion constant of nitrogen. A. K. Mann. *bibliog* Phys R 73:412-13 F 15 '48
- Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties. B. H. Sage, R. H. Olds and W. N. Lacey. *bibliog* *Ind & Eng Chem* 40:1453-9 Ag '48
- Vapor pressure, specific volume, p - v - T data for H_2 , N_2 , O_2 , CO , CO_2 , air, He, A. Hg. S. Gratch. *A S M E Trans* 70:631-40 bibliog (154 titles, p637-40) Ag '48
- Zeeman effect and g -values for neutral nitrogen and oxygen. C. K. Kless and G. Shortley. *il* Science 107:649-50 Je 18 '48

See also

Coal—Nitrogen content

Analysis

- Apparatus for micro- and semimicrodetermination of nitrogen according to Dumas. W. Kirsten. *bibliog* *il* *diags* Anal Chem 19:925-7 N '47
- Determination of amino nitrogen in corn sirup; modified Van Slyke method. B. L. Scallet. *bibliog* *il* Anal Chem 20:353-4 Ap '48
- Determination of nitrogen in biological materials; improved Kjeldahl-Nessler method. G. L. Miller and E. E. Miller. *bibliog* *diags* Anal Chem 20:481-3 My '48
- Estimation of ultramicroquantities of urea and Kjeldahl and amino acid nitrogen; improvements in microaeration technique. A. E. Sobel, A. Hirschman and L. Besman. *diags* Anal Chem 19:927-9 N '47
- Kjeldahl determination of nitrogen without distillation; application to samples containing phosphorus. K. Marcali and W. Rieckman. *3d*. Anal Chem 20:381-2 Ap '48
- Loss of nitrate nitrogen caused by chlorides; method for determining total nitrogen. P. Shuey. *bibliog* Anal Chem 19:832-3 N '47
- Manifold for disposal of fumes given off during macro-Kjeldahl digestive process. E. H. Tyner. *diag* Anal Chem 20:273 Mr '48
- Selenium as catalyst in Kjeldahl digestions. S. M. Patel and A. Sreenivasan. *bibliog* Anal Chem 20:63-5 Ja '48
- Semimicro determination of nitrogen in sewage sludges. L. Klein. *Soc Chem Ind J* 66:375 O '47
- Some factors in the Nessler method of nitrogen determination. J. L. Leitch. *Franklin Inst J* 245:355-9 Ap '48
- Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others. *bibliog* Anal Chem 19:1035-9 D '47

Industrial applications

- Accelerating carbon elimination of the open hearth bath. J. H. Hornak. *Iron & Steel Eng* 25:39-45 Ja '48
- Nitrogen as a carrier gas in gas carburizing. W. H. Holcroft and R. P. Harris. *il* *diag* Metal Prog 53:241-6 F '48

Isotopes

- Concentration of N^{15} in a gaseous exchange column. T. I. Taylor and W. Spindel. *bibliog* J Chem Phys 16:635 Je '48
- Mechanism of the oxidation of uric acid studied with isotopic nitrogen as a tracer. L. F. Cavalieri and G. B. Brown. *bibliog* Am Chem Soc J 70:1242-3 Mr '48
- Microwave absorption spectra of N_2O . D. K. Coles and others. *Phys R* 72:973 N 15 '47
- Relative cross sections of reactions induced by high energy neutrons in C, N, O, and F. W. J. Knox. *Phys R* 72:1254-5 D 15 '47
- Shape of the positron spectrum of N^{15} . C. S. Cook and others. *Phys R* 74:502-3 Ag 15 '48
- Synthesis of isoguanine labeled with isotopic nitrogen. A. Bendich, J. F. Tinker and G. B. Brown. *bibliog* Am Chem Soc J 70:3109-13 S '48
- Synthesis of uric acid containing isotopic nitrogen. L. F. Cavalieri, V. E. Blair and G. B. Brown. *bibliog* Am Chem Soc J 70:1240-2 Mr '48
- Thermal decomposition of ammonium nitrate. J. T. Kummer. *Am Chem Soc J* 69:2559 O '47

Statistics

- Fertilizer chemicals forecasts; world nitrogen distribution of world production and consumption, 1947-48, 1950-51. *Chem Eng* 55:109 F '48

NITROGEN, Liquid

- Economical short run stamping dies, made of low melting alloys chilled to -320° F in liquid nitrogen; Ford motor co. W. G. Patton. *il* Iron Age 161:84-6 F 19 '48
- Expansion fitting; liquid nitrogen used to shrink metal parts. *il* Sci Am 178:178-9 Ap '48; Same. *Mech Eng* 70:349 Ap '48
- Frozen dies form experimental parts; tripling the strength of Wood's metal dies by freezing in liquid nitrogen. C. S. Ricker. *il* *diag* Am Mach 91:110-11 D 4 '47

NITROGEN, Liquid—Continued

Soft alloys used to make short-run sheet metal dies; use of Cerrobend hardened in liquid nitrogen. K. Rose, *il Materials & Methods* 27:83-5 Mr '48

Sound absorption and velocity in liquefied argon, oxygen, nitrogen, and hydrogen. J. K. Galt, *bibliog diag J Chem Phys* 16:506-7 My '48

NITROGEN chloride

Flour bleaches appraised; effect of Agene-treated flour on test animals. D. B. Pratt, Jr, *il diags Food Ind* 20:848-4+ Je '48

Flour treatment; chemical agent for aging flour on trial; Agene. *Bsns W* p26+- Mr 20 '48

Poisonous chemical used in processing of flour. *Consumers Res Bul* 21:19-21 Mr '48

NITROGEN compounds

Distribution of nitrogen in the oxidation products of coals and selected nitrogen compounds. C. R. Kinney and others. *Am Chem Soc J* 70:392-4 Ja '48

Heats of combustion of some organic nitrogen compounds. D. J. Salley and J. B. Gray, *bibliog Am Chem Soc J* 70:2650-3 Ag '48

IEFC sets 1948-49 nitrogen allocation. *Oil Paint & Drug Rep* 154:3+ J1 12 '48

Imparting water-repellency to textiles by chemical methods; a review of the literature; quaternary nitrogen compounds. H. A. Schuyten and others. *Textile Res J* 18:403-15 *bibliog* (154 ref, p414-15) J1 '48

Nitrogen as stockfeed. *Chem Age (Lond)* 57:754 D 13 '47

See also

Urea**NITROGEN fixation**

Fixation of atmospheric nitrogen in a gas heated furnace. N. Gilbert and F. Daniels, *bibliog il diags Ind & Eng Chem* 40:1719-23 S '48

See also

Azotobacter**NITROGEN mustard. See Chloroethylamine****NITROGEN oxides**

Addition of dinitrogen tetroxide to olefins; the butylenes. N. Levy, C. W. Scaife and A. E. Wilder-Smith, *Chem Soc J* p52-60 Ja '48

Catalytic oxidation of ammonia to nitrous oxide; manganese oxide-bismuth oxide catalyst. K. A. Kobe and P. D. Hosman, *bibliog Ind & Eng Chem* 40:397-9 Mr '48

Cellulose solutions; oxidation with nitrogen dioxide; patent. *Am Dyestuff Rep* 36:666 N 17 '47

Contribution to the problem of atmospheric fading. E. Mell, *Rayon* 29:81-3 My '48

Determination of olefinic unsaturation; co-operative evaluation of nitrogen tetroxide methods. E. T. Scaife and others, *bibliog diags Anal Chem* 19:971-5 D '47

Development of controlled equipment for testing fastness to atmospheric gases. F. K. Ray, *bibliog il diags Am Dyestuff Rep* 37:355-62 My 31 '48

Dissociation energies of nitrogen and nitric oxide. H. D. Hagstrum, *bibliog J Chem Phys* 16:848-9 Ag '48

Fixation of atmospheric nitrogen in a gas heated furnace. N. Gilbert and F. Daniels, *bibliog il diags Ind & Eng Chem* 40:1719-23 S '48

Heat of dissociation of nitric oxide. G. Glockler, *bibliog J Chem Phys* 16:604-8 Je '48

Homogeneous reaction of nitric oxide and carbon monoxide. C. P. Fenimore, *bibliog Am Chem Soc J* 69:3143-4 D '47

Investigation of the properties of cellulose oxidized by nitrogen dioxide; the effect of alkali on the cellulosic acids. P. A. McGee and others, *bibliog Am Chem Soc J* 70:2700-5 Ag '48

Microwave absorption spectra of N₂O. D. K. Coles and others, *Phys R* 72:973 N 15 '47

Molecular structure of nitrogen dioxide; reinvestigation by electron diffraction. S. Claesson and others, *bibliog diag J Chem Phys* 16:207-10 Mr '48

Nitrous oxide in the earth's atmosphere. J. H. Shaw and others, *Phys R* 74:978-9 O 15 '48

Nuclear quadrupole coupling of nitrogen in ICN and N₂O. A. G. Smith and others, *bibliog il Phys R* 73:633 Mr 15 '48

Pathogenicity and isosterism; reactions of phossum to carbon dioxide and to nitrous oxide. W. Seifriz, *bibliog Science* 107:15-16 Ja 2 '48

Analysis

Determination of nitrogen oxides in air; permanent color standards for use with method of Patty and Petty. P. R. Averell and others, *Anal Chem* 19:1040-1 D '47

NITROGEN trichloride. See Nitrogen chloride

NITROGLYCERIN

Diffusion coefficient of nitroglycerin in rocket powder and in cellulose acetate. S. S. Penner and S. Sherman, *Am Chem Soc J* 70:369-70 F '48

Thermal decomposition of pentaerythritol tetrannitrate, nitroglycerin, ethylenediamine dinitrate and ammonium nitrate. A. J. B. Robertson, *bibliog Soc Chem Ind J* 67:221-4 Je '48

Analysis

Rapid determination of nitroglycerin and ethyl centralite in rocket propellant powder. I. S. Hirschhorn, *bibliog Anal Chem* 19:880-2 N '47

Manufacture

Continuous nitration; the Biazzi process. J. C. Smith, *bibliog il diag Chem Ind* 62:929-31 Je '48

NITROGUAIACOL

Mercuration of 5-nitroguaiacol. N. L. Drake, H. C. Harris and C. B. Jaeger, Jr, *bibliog Am Chem Soc J* 70:168-71 Ja '48

NITROGUANIDINE

Preparation and properties of N-methyl-N-nitroso-N'-nitroguanidine. A. F. McKay and G. F. Wright, *bibliog Am Chem Soc J* 69:3028-30 D '47

Preparation and properties of 2-nitramino-Δ²-1,3-diazacycloalkenes. A. F. McKay and G. F. Wright, *Am Chem Soc J* 70:430-1 Ja '48

Analysis

Determination of nitro nitrogen in nitroguanidine and cyclotrimethylenetrinitramine. D. L. Kouba, R. C. Kicklighter and W. W. Becker, *bibliog Anal Chem* 20:948-9 O '48

NITROHYDROXYQUINAZOLINE

Chemistry of simple heterocyclic systems; reactions of 6- and 7-nitro-4-hydroxyquinazoline and their derivatives. J. S. Morley and J. C. E. Simpson, *Chem Soc J* p360-6 Mr '48

NITROMETHANE

Chemical propellants; mononitromethane used in combination with oxygen and an igniter. F. Bellinger and others, *diag Ind & Eng Chem* 40:1324-31 J1 '48

Chemical propellants; stability of mononitromethane for launching buzz bombs. F. Bellinger and others, *il Ind & Eng Chem* 40:1320-3 J1 '48

NITROOLEFINS

Aliphatic nitro-compounds. G. D. Buckley, C. W. Scaife and others, *Chem Soc J* p 1471-92, 1497-505 N '47

NITROPARAFFINS

Aliphatic nitro-compounds; addition of primary and secondary nitro-paraffins to α-nitro-olefins to give 1:3-dinitro-paraffins. A. Lambert and H. A. Piggott, *Chem Soc J* p 1489-92 N '47

Aliphatic nitro-compounds; condensation of hydroxymethylalkylamines with nitro-paraffins. A. Lambert and J. D. Rose, *Chem Soc J* p 1511-13 N '47

Aliphatic nitro-compounds; interaction of ketones and nitro-paraffins. A. Lambert and A. Lowe, *Chem Soc J* p 1517-19 N '47

Aliphatic nitro-compounds; preparation of 3-nitroalkyl cyanides by reaction of nitro-paraffins with unsaturated cyanides. G. D. Buckley and others, *Chem Soc J* p 1505-8 N '47

Aliphatic nitro-compounds; preparation of nitro-paraffins by 1:4-addition of organometallic halides to α-nitro-olefins. G. D. Buckley and E. Ellery, *Chem Soc J* p 1497-500 N '47

NITROPARAFFINS—Continued

Aliphatic nitro-compounds; reaction of nitro-paraffins with ethylmagnesium bromide. G. D. Buckley. *Chem Soc J p 1492-4 N '47*

Aliphatic nitro-compounds; reaction of nitro-paraffins with unsaturated sulphones. G. D. Buckley, Mrs J. L. Charlish and J. D. Rose. *Chem Soc J p 1514-17 N '47*

Essential steps in the catalytic condensation of aldehydes; nitroparaffin condensations. F. J. Villani and F. F. Nord. *Am Chem Soc J 69:2608 N '47*

Les nitroparaffines, matière première de nombreux composés organiques de valeur. P. M. E. Schmitz. *bibliog Génie Civil 124:427-30 N 15 '47*

Reactions of α -cyanoprene (1-cyanobutadiene); addition of nitro-paraffins. J. L. Charlish, W. H. Davies and J. D. Rose. *Chem Soc J p 227-32 F '48*

Reactions of nitroparaffins; synthesis and reduction of some γ -nitroketones. M. C. Kloetzel. *bibliog Am Chem Soc J 69:2271-5 O '47*

See also

Nitropropane

NITROPHENOL

Acidic properties of cotton cellulose and derived oxycelluloses; absorption of silver from silver nitrophenate solutions. G. F. Davidson and T. P. Nevell. *bibliog Textile Inst J 39:193-101 Mr '48*

Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. *Ind & Eng Chem 40:262-7 F '48*

Steric inhibition of resonance; acid strengths of some nitro- and cyanophenols. G. W. Wheland, R. M. Brownell and E. C. Mayo. *bibliog Am Chem Soc J 70:2492-5 J1 '48*

NITROPHENYL butadiene

Preparation of 1-(*p*-nitrophenyl)-1,3-butadiene. E. C. Coyner and G. A. Ropp. *Am Chem Soc J 70:2283-4 Je '48*

NITROPROPANE

Reaction of 2-nitropropane with acid anhydrides. E. P. Steff and M. F. Dull. *bibliog Am Chem Soc J 69:3037-9 D '47*

NITROPROPENE

Aliphatic nitro-compounds; preparation of nitro-olefins by dehydration of 2-nitroalcohols. G. D. Buckley and C. W. Scaife. *Chem Soc J p 1471-2 N '47*

NITROSTILBENE

α -Nitrostilbene analogs. C. T. Bahner, H. E. Dickson and L. Moore. *Am Chem Soc J 70:1982 My '48*

NITROSTYRENE

Reduction products of *m*-nitrostyrene. R. H. Wiley and N. R. Smith. *Am Chem Soc J 70:2295-6 Je '48*

NITROTHIONAPHTHENE

Studies in the thianaphthene series; aminothianaphthene-1-dioxides. F. G. Bordwell and C. J. Albisetti, jr. *bibliog Am Chem Soc J 70:1955-8 My '48*

NITROTOLUENE

Investigation of the oxidative condensation of 2-methoxy-4-nitrotoluene; the use of oxidative catalysts. G. R. Treves. *Am Chem Soc J 70:875-6 F '48*

NITROXYLENE

Production of xylidines by high pressure hydrogenation. A. Voorhies, jr., W. M. Smith and R. B. Mason. *Ind plan Ind & Eng Chem 40:1543-8 Ag '48*

Production of xylidines by high pressure hydrogenation; process development. C. L. Brown, W. M. Smith and W. G. Scharmann. *bibliog diags Ind & Eng Chem 40:1535-42 Ag '48*

NITROSOACETANILIDE

Mechanism of the Gomberg reaction; an alternative to the free radical interpretation. H. H. Hodgson. *bibliog Soc Dyers & Col J 64:99-104 Mr '48*

NITROSOAMINES

Determination of the nitrosoamine content of propellant explosives stabilized with *sym*-diethyldiphenylurea. T. C. J. Ovenston and C. A. Parker. *Soc Chem Ind J 66:394-5 N '47*

NITROSO compounds

Preparation and properties of *N*-methyl-*N*-nitroso-*N'*-nitroguanidine. A. E. McKay and G. F. Wright. *bibliog Am Chem Soc J 69:3028-30 D '47*

NITROSOMETHANE

Nitrosomethane and its significance in free radical reactions; abstract. T. F. Doumani and C. S. Coe. *India Rubber World 118:536-7 J1 '48*

NITROSONITROBENZENE

Polarization of the nitroso absorption band in *m*-nitroso-nitrobenzene monomer. C. P. Fenimore. *Il Am Chem Soc J 70:3114-15 S '48*

NITROSPHENOL

Radical reactions with certain nitrogen compounds; the conversion of benzene (toluene, etc.) in other compounds at low temperature. O. Baudisch. *bibliog Science 108:443-4 O 22 '48*

NITROSOPHENYLHYDROXYLAMINE

Polarographic behavior of nitrosophenylhydroxylamine. I. M. Kolthoff and A. Liberti. *bibliog Am Chem Soc J 70:1885-9 My '48*

NITROSO-R-salt

Colorimetric determination of iron with nitroso-R-salt. M. Griffing and M. G. Mellon. *Anal Chem 19:1014-16 D '47*
Salinogenic or chelate forming dyes as analytical reagents. A. Steigmann. *Soc Chem Ind J 66:353-5 O '47*

NITROSULFURIC acid

Colorimetric determination of nitric and nitroso-sulfuric acids in nitration spent acids. F. L. English. *Anal Chem 19:850-2 N '47*

NITROSYL chloride

Aqua regia vapor; nitrosyl chloride, new inorganic heavy chemical. *Chem Ind 62:384-5 Mr '48*

Liquid nitrosyl chloride as an ionizing solvent. A. B. Burg and G. W. Campbell, jr. *bibliog Am Chem Soc J 70:1964-5 My '48*

NIUAFOU island

Niuafo'u. G. A. Macdonald. *bibliog maps diag Am J Sci 246:65-77, pl 1 F '48*

NOBEL prizes

Industry's tribute to scientists; Nobel prize-winners honoured by the FBI. *Chem Age (Lond) 58:419-20 Mr 27 '48*
International awards for English scientists; two Nobel prizes. *Chem Age (Lond) 57:677 N 22 '47*; *Chem & Eng N 25:3510 N 24 '47*
Nobel prizemen; most of them are in physics. *Fortune 38:163+ O '48*

NOISE

Acoustical characteristics of noise produced by snapping shrimp. F. A. Everest and others. *Il Acoustical Soc Am J 20:137-42 Mr '48*

Damage from industrial noise and its prevention; abstract. U. Russi. *J Ind Hygiene 30:sup 19 Ja '48*

Effect of noise in one ear upon the loudness of speech in the other ear. J. P. Egan. *diags Acoustical Soc Am J 20:58-62 Ja '48*

Effects of differentiation, integration, and infinite peak clipping upon the intelligibility of speech. J. C. R. Licklider and I. Pollack. *bibliog diags Acoustical Soc Am J 20:42-51 J= '48*

Effects of high pass and low pass filtering on the intelligibility of speech in noise. I. Pollack. *bibliog Acoustical Soc Am J 20:259-66 My '48*

Fundamentals of noise. H. C. Hardy. *Il Product Eng 19:131-4 F '48*

Hearing loss from noise; abstract. L. R. Boies. *Safety Eng 95:53 Ap '48*

Influence of interaural phase relations upon the masking of speech by white noise. J. C. R. Licklider. *bibliog il diags Acoustical Soc Am J 20:150-9 Mr '48*

Masking of tones by repeated bursts of noise. G. A. Miller and W. R. Garner. *diag Acoustical Soc Am J 20:691-6 S '48*

Monaural and binaural threshold sensitivity for tones and for white noise. I. Pollack. *bibliog diag Acoustical Soc Am J 20:52-7 Ja '48*

Noise measurements. R. L. Morgan. *Communications 28:28-9+ F; 21+ J1 '48*

Perception of repeated bursts of noise. G. A. Miller and W. G. Taylor. *bibliog diag Acoustical Soc Am J 20:171-82 Mr '48*

Perception of short bursts of noise. G. A. Miller. *bibliog Acoustical Soc Am J 20:160-70 Mr '48*

NOISE—Continued

- Quieting and noise isolation in moving picture theaters. E. J. Content, Soc Motion Picture Eng J 51:184-8; Discussion, 188-91 Ag '48
- Reduction of noise; Perkin-Elmer infrared spectrophotometer recording system. C. Creitz, bibliog diags Anal Chem 20:707-13 Ag '48
- Sheet of air bubbles as an acoustic screen for underwater noise. D. P. Loye and W. F. Arndt, diag Acoustical Soc Am J 20: 143-5 Mr '48
- Speech communication under conditions of deafness or loud noise. W. G. Radley, bibliog Il Inst E E J 95 pt 1:204-12 My '48; Discussion. 95 pt 1:212-16, 544-50 My, D '48

See also

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|----------------------|--------------------|
| Airplanes—Noise | Printing presses— |
| Diesel engines— | Noise |
| Noise | Radar receiving |
| Electric motors— | apparatus—Noise |
| Noise | Radio communica- |
| Gearing—Noise | tion—Interference |
| Machinery—Noise | elimination |
| Moving picture ma- | Radio noise, Solar |
| chines—Noise | Radio receiving |
| Moving picture | apparatus—Noise |
| sound recording— | Silencers |
| Noise reduction | Sound absorbent |
| Phonograph—Noise | materials |
| reduction | Soundproofing |
| Photoelectric cells— | Vacuum tubes— |
| Noise | Noise |

NOLOGENIN

- Steroidal sapogenins; nologenin and its degradation products. R. E. Marker and J. Lopez, Am Chem Soc J 69:2386-8 O '47
- Steroidal sapogenins; pregnene derivatives from nologenin. R. E. Marker, Am Chem Soc J 69:2395-7 O '47

NOMILIN

- Bitter principles of citrus fruit; isolation of nomilin, a new bitter principle from the seeds of oranges and lemons. O. H. Emerson, bibliog Am Chem Soc J 70:546-9 F '48

NOMOGRAPH

- Alignment chart giving the polarization correction of equi-inclination Weissenberg photographic intensities. W. L. Bond, J Ap Phys 19:82-3 Ja '48
- Aluminum sulfate nomograph. D. S. Davis, Chem Ind 61:1048 D '47
- Construction of alignment nomogram from empirical data. Lo-Ho, diags Franklin Inst J 245:227-44 Mr '48
- Correlating densities of liquids; a new nomograph. D. F. Othmer, S. Josefowitz and A. E. Schmutzler, bibliog Ind & Eng Chem 40:883-5 My '48
- Correlating surface tensions of liquids; a new nomograph. D. F. Othmer, S. Josefowitz and A. E. Schmutzler, bibliog Ind & Eng Chem 40:886-9 My '48
- Error of a nomogram for the calculation of Clark softness. G. Beall and others, Paper Ind 30:130-4 Ap '48
- Graphical aid for frequency selectivity calculations. R. M. Maiden, diags Tele-Tech 7:54-5 Ja '48
- New method of photographic evaluation in spectrographic analysis. A. Argyle and W. J. Price, Soc Chem Ind J 67:187-90 My '48
- Nomogram for designing steel torsion springs; reference book sheet. C. P. Nachod, diag Product Eng 19:167, 169 S '48
- Nomogram; power factor improvement. G. Stangland, Paper Ind 30:923 S '48
- Nomograph for determination of the diameter of a heat exchanger tube sheet. D. S. Davis, Chem Ind 62:294 F '48
- Nomograph for determination of the Edmister effective absorption factors. G. E. Mapstone, bibliog Chem Ind 62:638-47 Ap '48
- Nomograph for determination of the softness factor of rubber. H. M. Leeper and D. S. Davis, Chem Ind 63:498-4 S '48
- Nomograph for determination of the thermal conductivity of liquids. D. S. Davis, Chem Ind 63:286-4 Ag '48
- Nomograph for equilibrium flash calculations. E. G. Scheibel, Pet Refiner 27:136-7 Jl '48

- Nomograph for paint film calculations; wet film thickness, spreading rate, and dry film thickness of paint and varnish coatings. H. A. Berman, bibliog Anal Chem 19: 915-18 N '47

- Nomograph for particle size determination with the Sharples supercentrifuge. E. Saunders, bibliog Anal Chem 20:379-81 Ap '48

- Nomograph for the determination of the viscosity-gravity constant for lubricating oils. G. E. Mapstone, Chem Ind 62:812-4 My '48

- Nomograph for the square root of the sum of squares; reference book sheet. C. P. Nachod, Product Eng 19:155 N '48

- Nomograph gives number of theoretical contacts. W. H. Stanton, bibliog Chem Eng 55:124-5 Ap '48

- Nomograph solves equations for laboratory soil permeability coefficient. B. C. Wilkas, Civil Eng 13:375-6 Je '48

- Nomographs for chemical kinetics. M. Nord, Chem Ind 63:664-4 O '48

- Nomographs for computing exponential relationships; infrared spectroscopy; electrical application. A. H. Canada, Gen Elec R 51: 44-7 Mr '48

- Nomographs for determining air content of cement mortars. K. J. Schatzlein, jr, Rock Prod 51:130-1 Je '48

- Nomographs for vapor-liquid equilibrium calculations. F. H. Poettmann and R. B. Rice, Pet Refiner 26:128-31 D '47

- Pf calculations made easy; nomograph. G. Oldroyd, Power 92:167 Mr '48

- Pressure drop in packed tubes; nomogram. M. Weintraub and M. Leva, Chem Eng Prog 44:801-2 O '48

- Pulse rise time response chart for single stage video amplifiers. A. J. Baracket, diags Tele-Tech 7:38-9 F '48

- Send-out gas nomograph; calculation of amounts of propane and flue gas or air required to give mixture having specified heating value and specific gravity. H. E. Zeiger and W. W. Roberts, jr, Gas Age 102:11-4 S '48

- Simple procedure for the making of alignment charts. W. L. Bond, diags J Ap Phys 19:83-6 Ja '48

- Soil properties computed by nomograph. H. Leibovich, Eng N 141:108-9 S 16 '48

See also**Zygraph****NONACHLOROPENTENE**

- Reactions of some highly chlorinated unsaturated Cs hydrocarbons with chlorine and copper. R. W. Bost and J. A. Krynsky, bibliog Am Chem Soc J 70:1027-9 Mr '48

NONAETHYLENE glycol

- Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr, bibliog J Phys & Colloid Chem 52:12-22 Ja '48

- NONCANCELLABLE policies. See Insurance, Accident—Noncancellable policies

NONENAL

- Preparation of 2-heptenal and 2-nonenal. C. J. Martin, A. I. Schepartz and B. F. Daubert, Am Chem Soc J 70:2601-2 Jl '48

NON-FERROUS foundry's society

- Annual meeting, Chicago, Oct. 17. Foundry 75:101-4 D '47

- NON-FERROUS metals. See Metals, Non-ferrous

- NON-FERROUS metals federation, British. See British non-ferrous metals federation

- NON-METALLIC bearings. See Bearings, Non-metallic

- NON-METALLIC gearing. See Gearing, Non-metallic

- NOR-ADRENALINE. See Arteriol

NORFOLK and western railway

- Annual report, 52nd, for 1947. Comm & Fin Chr 167:1539 Ap 8 '48; Same, Ry Age 124: 740-1 Ap 10 '48

- Builds large tidewater pier at Norfolk, Il Ry Age 125:108-11 Jl 10 '48

- Condensed income account for calendar years, 1944-1947. Comm & Fin Chr 167: 1590-1 Ap 12 '48

NORISODRINE

- Inhalation of norisodrine sulfate dust. L. R. Krasno and others, bibliog Il Science 108: 476-8 O 29 '48

NORLUPINANE. See Quinolizidine

NORPETHIDINE

Search for new analgesics; further homologues of pethidine and the pharmacology of these and other compounds. R. H. Thorp and E. Walton. Chem Soc J p559-61 My '48

NORRIS, Tennessee

For sale; TVA will auction off two southern villages. il Bsns W p56-7 Mr 13 '48
Norris, Tennessee; an abandoned experiment. L. D. Farrar. Pub Util 40:686-92 N 20 '47
Syndicate gets Norris. Bsns W p28 Je 26 '48
Utopia limited; Norris buyer promises fair prices. il Arch Forum 89:12-13 Jl '48

NORTH AMERICAN aviation, inc.

Annual report. Comm & Fin Chr 167:436 Ja 26 '48
Stock offered. Comm & Fin Chr 167:2471 Je 7 '48
Up from a nosedive. il Bsns W p54-7 Jl 3 '48

NORTH AMERICAN company

Analysis of North American company; abstract. H. H. Young. Comm & Fin Chr 167:492 Ja 29 '48
Decides to stay out of non-utility businesses. Comm & Fin Chr 167:2034 My 10 '48
Distribution authorized. Comm & Fin Chr 166:2213 D 1 '47
Drops plan to end holding company status. Comm & Fin Chr 167:2259 My 24 '48

NORTH ATLANTIC community (proposed)

Defense, international co-operation, and peace; North Atlantic community would foster peace to end war. C. D. Howe. il Tech R 50:497-8+ Jl '48

NORTH CAROLINA

See also
Mines and mineral resources—North Carolina

NORTH CAROLINA university

Institute of fisheries research
Organization. Science 107:388 Ap 16 '48

School of commerce

With college and business in step. I. G. Greer. il Banking 40:24+ My '48

NORTH DAKOTA

See also
Geology—North Dakota

NORTHAMPTON, Pennsylvania

Water supply

Safe and palatable water; use of chlorine dioxide. J. C. De Groot. Pub Works 79:36 My '48

NORTHEAST airlines

Atlas-NEA divorce no hardship; order gives holding company 18 months to dispose of stock. S. Altschul. Aviation W 48:31 Je 7 '48

NORTHEASTERN water company

Bonds offered. Comm & Fin Chr 167:436 Ja 26 '48

NORTHERN Indiana public service company

Stock publicly offered. Comm & Fin Chr 167:471-2 Ja 26 '48

NORTHERN natural gas company

Awaits sale of stock. Barron's 27:27 D 15 '47
Stock offered. Comm & Fin Chr 166:2562 D 22 '47

NORTHERN states power company

Alters dissolution plan. Comm & Fin Chr 167:156 Ja 12 '48

Bonds offered. Comm & Fin Chr 168:253-4 Jl 19 '48

Dissolution plan. Comm & Fin Chr 168:1047 S 13 '48

Liquidation plan approved by SEC. Comm & Fin Chr 167:655 F 9 '48

New common stock listed on curb; plan ratified. Comm & Fin Chr 168:1485 O 11 '48

Northern States Power to give common stocks more. Barron's 28:33 F 9 '48

Preferred stock offered. Comm & Fin Chr 168:649 Ag 16 '48

Public utility securities. Comm & Fin Chr 168:1116 S 16 '48

NORTHROP, John Knudsen, 1895-

Northrop president for 1948, Institute of the aeronautical sciences; other officers elected. Por Aeronautical Eng R 7:5 Ja '48

Portrait. Bsns W p25 N 1 '47

NORTHROP aircraft, inc.

Flying wing holds key to Northrop's future. il Bsns W p24-5 N 1 '47

NORTHWEST

Economic conditions

Appraisal of the Pacific Northwest. M. W. Lee. Harvard Bsns R 26:282-304 My '48

NORTHWEST airlines, inc.

CAB extends Northwest's service from Detroit to Washington, D.C. CAA J 8:124 N 15 '47

Hawaiian service goes to NWA. Aviation W 49:39 Ag 9 '48

NORTHWEST electric light and power association

Annual meeting, 41st, Boise, July 15. Elec West 101:108+ Ag '48

Business development section meeting, Victoria, B. C. May 10-12. Elec West 100:112-15 Je '48

Groups outline programs. Elec West 99:78-80 D '47

Meeting, Spokane, April 14-16. Elec West 100:89-90 My '48

NORTHWEST TERRITORIES, Canada

Settlement of Canada's Northland. H. C. Plummer. il Sci Am 178:169-72 Ap '48

NORTH WEST utilities company

Plan of liquidation. Comm & Fin Chr 167:1812 Ap 26 '48

NORTHWESTERN public service company

Stock subscriptions. Comm & Fin Chr 166:2313-14 D 8 '47

NORTH WESTERN railway. See Chicago and north western railway

NORWAY

See also

Budget—Norway
Electricity supply
—Norway

Forests and forestry
—Norway
Radio broadcasting—Norway

Commerce

Increased Norwegian exports; figures for January-June 1948. For Comm W 32:21 Ag 21 '48

Norway exports' up, key imports lag. For Comm W 31:21 Je 19 '48

Defenses

Norway plans economic defense body. For Comm W 31:27 Je 19 '48

Economic relations

Foreign Minister Lange urges northern European economic cooperation. For Comm W 32:43 Ag 14 '48

Industries and resources

Nationalization in Norway. J. Brunaes. Comm & Fin Chr 168:1007+ S 9 '48

NORWICH pharmaceutical company

Net at record rate. Barron's 28:27 Ag 2 '48

NOSE

Nasal cavity of the rat in pharmacological and other experimentation. G. Kelemen. Science 107:273-4 Mr 12 '48

NOTCHED bar testing

Brittle fracture in mild-steel plates. C. F. Tipper. il diags Engineering 165:568-71, 592-5, 605-7 Je 11-25 '48

Brittle fracture in mild-steel plates. W. Barr and C. F. Tipper. il diags 2pls Iron & Steel Inst J 157:223-38 O '47

Effect of combined stresses on the transition temperature for brittle fracture. C. W. MacGregor and N. Grossman. bibliog il diags Welding J 27:sup7-16 Ja '48

Effect of variation in notch severity on the transition temperature of ship plate steel in the notched bar impact test. R. S. Zeno and J. R. Low, jr. il Welding J 27:sup 145-7 Mr '48

Effects of section size on the static notch bar tensile properties of mild steel plate. W. F. Brown, jr. and others. bibliog il diags Welding J 26:sup554-9 O '47; Discussion. F. Jonassen. 27:sup27 Ja '48

NOTCHED bar testing—Continued

- Factors affecting the tensile notch sensitivity of magnesium alloy extrusions. I. Cornet. bibliog il diags Metals Tech 15:TP2419 1-23 Ag '48
- Influence of the strain rate and the stress system on the mechanical properties of copper. D. J. McAdam, jr. and others. bibliog diags Am Soc for Metals Trans 38:551-76 '47
- Notch sensitivity in fatigue loading of some magnesium-base and aluminum-base alloys. G. H. Found. il diags Am Soc T M Proc 46:715-37; Discussion. 738-40 '46
- Notch-tensile characteristics of a partially austempered, low alloy steel. G. Sachs and others. bibliog il Metals Tech 15:TP2321 1-12 F '48
- Some factors affecting the notched-bar impact properties of mild steel. W. Barr and A. J. K. Honeyman. Epls Iron & Steel Inst J 157:243-6 O '47; Discussion. 158:327-36 Mr '48
- Strength limitations in the use of SAE 4340 steel forgings. E. J. Rippling and L. J. Ebert. bibliog diags Iron Age 162:88-93 Ag '48
- Stress notch sensitivity with eccentric holes. L. Schapiro and R. H. Esling. diags A S M E Trans 70:135-8 F '48
- NOTIONS (merchandise)**
- Dritz kits for home sewers are hot news in notions; tools and materials for making buttons, or attaching snappers and nail-heads. il Sales Management 60:84+ Ja 1 '48

NOVA SCOTIA

See also

- Mines and mineral resources—Nova Scotia

NOVOLAK. See Phenol condensation products**NOZZLES**

- Adiabatic flow of hydrogen gas through a rocket nozzle with and without composition change. S. S. Penner and D. Altman. bibliog diag Franklin Inst J 245:421-32 My '48
- Application of cyclone theories to centrifugal spray nozzles. S. M. Doble and E. M. Halton. diags Inst Mech Eng J & Proc 157 (War emergency issue no 27):111-16; Discussion. 116-19 '47
- Design of centrifugal spray nozzles for outputs up to 1,500 gallons per hour. S. M. Doble. diags Inst Mech Eng J & Proc 157 (War emergency issue no 27):103-11; Discussion. 116-19 '47
- Flow of boiling water through nozzles, orifices and pipes. J. G. Burnell. il Engineering 164:572-6 D 12 '47
- Fog-foam nozzle. il Chem Eng 55:143-4 Jl '48
- Hartford cooling nozzle; adapted to tempering bottles or other containers; patent. diag Glass Ind 29:448 Ag '48
- Lathe adapted to produce calibrated fuel-injection nozzles. diags Mach 54:193 Ja '48
- Maintenance of Diesel nozzles. il diags Roads & Sts 90:105+ D '47
- Mechanism of nozzle erosion in open hearth ladles. R. B. Snow and J. A. Shea. il Steel 123:88+ Jl 26 '48
- Nozzle flow characteristics in pneumatic force-balance circuits. D. B. Kirk. diags A S M E Trans 70:111-16 F '48
- Relation of nozzle fluid velocity to rate of penetration with drag type rotary bits. J. P. Nolley and others. bibliog il Pet Eng 19:86+ Je '48; Same. World Oil 128:78-82 S; 87+ O '48; Same cond. Oil & Gas J 47:87-8+ My 6 '48

See also

Atomizers

Testing

- Research on flow nozzles by the A.S.M.E. special research committee on fluid meters. S. R. Beitler and H. S. Bean. (Eng. Exp. Sta. Bul. 131) pa \$1 Ohio state univ, Columbus '48

NUCLEAR engineering (term)

- Nuclear engineering; basic design background and scope of a new branch of engineering. J. R. Huffman. Mech Eng 70:217-20 Mr '48; Excerpts. Chem Eng 55:117 Ja '48

NUCLEAR induction

- Relative nuclear moments of H^1 and H^2 . F. Bloch and others. bibliog Phys R 72:1125-6 D 1 '47
- Shapes of nuclear induction signals. B. A. Jacobsohn and R. K. Wangness. bibliog Phys R 73:942-6 My 1 '48
- NUCLEAR moments.** See Electric moment; — Magnetic moment

NUCLEAR research. See Atomic research**NUCLEAR spin**

- Electric quadrupole coupling of the nuclear spin with the rotation of a polar diatomic molecule in an external electric field. U. Fano. bibliog J Res Nat Bur Stand 40:215-23 Mr '48
- Nuclear spin and magnetic moment of Na^{23} . L. Davis, jr. bibliog Phys R 74:1193 N 1 '48
- Nuclear spins and quadrupole moments of B^{10} and B^{11} . W. Gordy and others. Phys R 74:1191 N 1 '48
- Nuclear spins of the carbon isotopes. F. A. Jenkins. bibliog il diag Phys R 74:355-63 Ag 15 '48
- Possible new type of spin-spin interaction. E. C. G. Stueckelberg. Phys R 73:803 Ap 1 '48
- Relaxation effects in nuclear magnetic resonance absorption. N. Bloembergen and others. bibliog il diags Phys R 73:679-712 Ap 1 '48
- Rotational spectrum of $OC^{18}S$, and the nuclear spin of C^{14} . A. Roberts. bibliog Phys R 73:1405 Je 1 '48
- Spin of C^{14} . F. A. Jenkins. Phys R 73:639 Mr 15 '48
- Spins of nuclei of mass number ten. M. Goldhaber. bibliog Phys R 74:1194 N 1 '48

NUCLEASES

- Enzymatic hydrolysis of desoxyribonucleic acid prepared with the use of strong sodium hydroxide. C. A. Zittle. bibliog Franklin Inst J 245:78-80 Ja '48

NUCLEIC acids

- Deoxypentose nucleic acids; electrometric titration of the acidic and the basic groups of the deoxypentose nucleic acid of calf thymus. J. M. Gulland, D. O. Jordan and H. F. W. Taylor. Chem Soc J p 1131-41 S '47
- Deoxypentose nucleic acids; preparation of the tetrasodium salt of the deoxypentose nucleic acid of calf thymus. J. M. Gulland, D. O. Jordan and C. J. Threlfall. Chem Soc J p 1129-30 S '47
- Deoxypentose nucleic acids; viscosity and streaming birefringence of solutions of the sodium salt of the deoxypentose nucleic acid of calf thymus. J. M. Creeth, J. M. Gulland and D. O. Jordan. Chem Soc J p 1141-5 S '47
- See also
- Desoxyribose nucleic acid

Analysis

- Infrared spectra of nucleic acids and certain of their components. E. R. Blout and M. Fields. bibliog Science 107:252 Mr 5 '48

NUCLEOMETER. See Counters (electrons, ions, etc.)**NUCLEOPROTEINS**

- Electrophoretic and ultracentrifugal investigation of rabbit liver nucleoprotein. Q. Van Winkle and W. G. France. bibliog J Phys & Colloid Chem 52:207-16 Ja '48

NUCLEOSIDES

- Experiments on the synthesis of purine nucleosides; a synthesis of adenosine. J. Davoli, B. Lythgoe and A. R. Todd. Chem Soc J p 967-9 Jl '48
- Experiments on the synthesis of purine nucleosides; a synthesis of 9- β -glucopyranosidoadenosine. A. Holland, B. Lythgoe and A. R. Todd. Chem Soc J p 965-7 Jl '48
- Experiments on the synthesis of purine nucleosides; the preparation of 4-glycofuranosidaminopyrimidines, and a synthesis of 9-L-arabofuranosido-2-methylthiadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. Chem Soc J p 957-64 Jl '48
- Synthesis of thymine nucleosides. D. W. Visser, I. Goodman and K. Dittmer. bibliog Am Chem Soc J 70:1926-8 My '48

NUCLEOTIDASES

Effect of α -tocopheryl phosphate on diphosphopyridine nucleotidase. W. M. Govier and N. S. Jetter. *bibliog Science* 107:146-7 F 6 '48

NUDISTS

Newsreel cameraman visits nudists' camp. J. L. Collings. *Ed & Pub* 81:42 Ag 21 '48

NUMBERING systems

Uses of & parts classification code. M. H. Simpsen. *N A C A Bul* 29:571-5 Ja 15 '48

NUMEROSCOPE

Numeroscope for cathode-ray printing; Arabic numerals traced on screen of cathode-ray tube used in high speed electronic calculator. H. W. Fuller. *il diags Electronics* 21:98-102 F '48

NUMISMATICS. See Coins**NURSES and nursing**

Economic status of registered professional nurses, 1946-47. U S Bur Labor Statistics *Bul* 931:1-69; pa 30c Supt. of doc. '48

Nurses' needs; move for higher pay through American nurses assn. *Bsns W p* 122+ Ap 24 '48

Working conditions of private duty and staff nurses. L. M. David. *Mo Labor R* 65:544-8 N '47

Study and teaching*See also*

Nursing schools

NURSES and nursing, Industrial

Health counseling; abstract. P. A. Murdoch. *Safety Eng* 95:28 Je '48

Nightingale in industry. R. B. Freeman. *il Safety Eng* 95:14-15+ Mr '48

Part-time nurse for smaller plants. E. C. Bailey. *Safety Eng* 96:95-8 O '48

NURSING bottles, Plastic. See Bottles, Plastic**NURSING schools**

Nursing school; combined classroom and dormitory facilities. *il plans Arch Rec* 103: 112-13 Ja '48

NUTRITION

Deposition of protein in the liver following intravenous injection of an amino acid mixture (hydrolyzed protein) and glucose. C. A. Ross and R. Elman. *il Science* 108: 441-3 O 22 '48

Grocery stores best source of vitamins; food processors urged to retain or replace more of the essential nutrients. B. L. Oser. *il Food Ind* 20:1440-2+ O '48

Importance of the time element in feeding of growing rats; experiments with delayed supplementation of protein. E. Geiger. *bibliog Science* 108:42-3 JI 9 '48

Microbiological protein and human nutrition. E. S. Platt and R. A. Webb. *bibliog Chem & Ind* p88-90 F 7 '48

Newfoundland, a problem in practical nutrition. D. P. Cuthbertson. *bibliog Chem & Ind* p699-702 N 15 '47

Nutrition in post-war Germany and Austria. M. Pyke. *bibliog Chem & Ind* p747-50 D 6 '47

Nutrition studies; methods of collecting dietary data. M. G. Eads and A. P. Meredith. *Pub Health Rep* 63:777-82 Je 11 '48

Nutritional improvement challenges processors. H. Gee. *il Food Ind* 20:1294-7+ S '48

Progress in foods and nutrition in 1947. C. G. King. *il Chem & Eng N* 26:27-9 Ja 5 '48

Remsen memorial lecture. E. V. McCollum. *Chem & Eng N* 26:1333 Je 21 '48

Trace metals in human nutrition; cobalt, copper, manganese and zinc as dietary essentials. W. F. J. Cuthbertson. *bibliog* (48 ref) *Chem & Ind* p391-3 Je 19 '48

See also

Bread

Diet

Food

Metabolism

Proteins

Vitamins

NUTRITION, Parenteral. See Injections, Intravenous**NUTRITION research**

Inadequacy of proteolytic enzyme inhibition as explanation for growth depression by lima bean protein fractions. A. A. Klose and others. *bibliog Science* 108:88-9 JI 23 '48

New method of reporting data on reproduction and lactation in the mouse. L. Mirone and others. *bibliog Science* 108:139-40 Ag 6 '48

Nutrition foundation grants-in-aid. *Science* 107:538-9 My 21 '48

Nutritional requirements of the rat for reproduction and lactation. A. J. Sica and L. R. Cerecedo. *Science* 107:222-3 F 27 '48

Recent meeting of the board of trustees of the Nutrition foundation, inc. *Science* 107:9 Ja 2 '48

Role of inhibitors in soybean. H. S. R. Desikachar and S. S. De. *bibliog Science* 106:421-2 O 31 '47

What hunger can do to the personality; abstract. O. R. Chambers. *Chem & Eng N* 26:2872 S 27 '48

NUTS

Quality nut pastes by modern means; illustrations and flow diagram. *Food Ind* 20:1278-80 S '48

Survival of food-poisoning staphylococci on nut-meats; abstract. W. W. Smith and S. Iba. *Food Ind* 20:470+ Mr '48

NUTS (machinery). See Bolts and nuts**NUX vomica**

Data on nux vomica. India. *For Comm W* 29:25-6 N 8 '47

Nux-vomica production and sales, India. *For Comm W* 31:28-9 My 15 '48

NYLON

Extrusion of plastics. C. P. Fortner. *il India Rubber World* 118:672-3 Ag '48

Few experiments on the crystallinity of polyamides. M. E. Bergmann and others. *bibliog il Textile Res J* 18:1-8 Ja '48

La filtration sur tissu en fils continus celluloseux et synthétiques. J. Alibert. *diags Chimie & Ind* 58:341-5 O '47

National hosiery association report on nylon hosiery; abstract. E. Constantine. *Rayon* 23:79-80 Ap '48

Near infra-red absorption of nylon films; dichroism and rupture of N-H...O bonds on melting. L. Glatt and J. W. Ellis. *J Chem Phys* 16:551 My '48

New devices aid seamless knitting. *il Textile World* 98:139+ Mr '48

Nylon-seaming techniques refined for 10 and 15 denier. H. B. LaFeaux. *il diag Textile World* 98:133+ My '48

Nylon; some of its properties and applications. G. Hazlewood. *Am Dyestuff Rep* 37: 295-9 My 3 '48

Nylon staple in hosiery. W. B. Vincent. *Am Dyestuff Rep* 37:271-4 Ap 19 '48

Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Calingaert and H. Shapiro. *bibliog il Ind & Eng Chem* 40: 332-5 F '48

Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. *bibliog diags J Chem Phys* 16:877-86 S '48

Properties of nylon and its processing preparatory to weaving. F. Millard. *Textile Inst J* 39:P27-34 Ja '48

Socks from nylon staple. *Rayon* 29:80-1 Ap '48

Surgical use of nylon, rayon and silk. W. Schweisheimer. *Rayon* 29:79-80 F '48

Use of nylon and other new fibers in knitting. W. A. B. Davidson. *Rayon* 29:75-6 F '48

Use of oils on nylon. *Rayon* 29:71 Ja '48

Voluntary standards set for full-fashioned hosiery. W. C. Idol, jr. *il diag Textile World* 98:124-5+ Mr '48

See also

Rayon yarn—Nylon

mixtures

Analysis

Determination of nylon fiber content in fiber mixtures. *Rayon* 29:106-7 S '48

History

Let's spin a yarn. A. G. Edison. *J Eng Educ* 38:532-7 Ap '48

Industrial applications

Nylon industrial uses accelerated by military. *il Textile World* 98:110-11 S '48

Widening field for nylon; tough monofilaments required for industrial brushes. M. Duncan. *il Chem Age (Lond)* 58:394-5 Mr 20 '48

See also

Nylon—Molding

NYLON—Continued

Manufacture

How Washington works; Du Pont produces nylon monofilaments, acrylic molding powder and nylon molding powder. R. Williams, jr. *il* *diags* Chem Eng 55:118-21 S '48
New plant features straight-line production process; Du Pont Washington works produces acrylic, polyethylene, nylon, and monofilaments of nylon. *il* Mod Plastics 26: 120-1 O '48

Moisture content

Moisture regain of nylon. Rayon 28:600 N '47
Permeation through and sorption of water vapor by high polymers. P. M. Hauser and A. D. McLaren, *bibliog diag Ind & Eng Chem* 40:112-17 Ja '48

Molding

Bearings and gears of molded nylon. *il* Product Eng 19:140-1 S '48
Molding of nylon. W. E. Rahm, *diag Plastics* 8:21-2 Ag '48; Abstract. Mod Plastics 25:86+ My '48
Nylon faucet washers. Sci Am 177:267 D '47
Nylon locks nuts. *il* Mod Plastics 25:148 N '47
Nylon no-sew buttons. *il* Mod Plastics 25:154 Jl '48

Patents

German patents connected with the manufacture of nylon-type condensates. F. Wengraf, *diags Rayon* 29:71-4 Mr; 77-8 Ap; 65-6 My '48

Testing

Simple tester for evaluating the snag resistance of nylon hosiery. J. E. Smith and T. D. Johnson, jr. *il* *diags* Am Dyestuff Rep 37:195-200 Mr 22 '48; Abstracts. Textile World 97:139+ D '47; Rayon 29:70-1 Ja '48; Discussion. Am Dyestuff Rep 37:200-1+ Mr 22 '48

NYLON coating

New nylon-coated wire rope. *il* Rayon 29:75 O '48

NYLON cords

Various uses of nylon cords. P. G. Alexander. *il* Rayon 29:75 Mr '48

NYLON fabrics

New nylon upholstery fabrics. Rayon 29:76 O '48

Nylon in knit upholstery offers strong advantages. W. A. B. Davidson, Rayon 29:67 Jl '48

Nylon industrial uses accelerated by military. *il* Textile World 98:110-11 S '48

Sheerser treated nets gain wide acceptance. *il* Rayon 28:639 D '47

Warp knitting with nylon yarns. Rayon 29: 65-7 Jl; 67-9 Ag '48

NYLON fibers

Nylon staple in hosiery. W. B. Vincent. Rayon 28:651-4 D '47; Abstract. Textile World 97:141 D '47

NYLON finishing

Developments in nylon hosiery dyeing and finishing; abstract. E. J. Siegrist. Rayon 28:654-5 D '47; Same abr. Textile World 98:218+ Ja '48

Nylon finishing problems. A. W. Staudt. *il* Textile Col 70:18+ O '48

NYLON industry

British nylon cordage goes on wheels; demonstration motor truck of British ropes limited. *il* Rayon 29:77-8 F '48

Canada's rayon and nylon industry. E. F. Mann. Rayon 28:624 D '47

Textiles battle for the consumer dollar. Textile Col 70:16-17 Ap '48

NYLON printing

Printing nylon with acid and direct dyestuffs, caprolactam; patent. Am Dyestuff Rep 37: 632 S 20 '48

NYLON research

Replica studies of dyed nylon. F. A. Hamm and J. J. Comer. *bibliog il Anal Chem* 20: 861-70 S '48

NYLON sizing

Data offered on raw-nylon warp size. *il* Textile World 98:129+ Ap '48; Same cond. Rayon 29:75-7 Je '48

Laboratory evaluation of sizing materials for nylon hosiery yarns; abstract. H. B. Goldstein. Am Dyestuff Rep 37:681 O 18 '48

NYLON spinning

American system used for fine worsteds and nylon. C. M. Bowden. *il* Textile World 98: 130-1+ O '48

Spinning nylon yarn on new Delaine worsted machinery. Rayon 29:76 O '48

NYLON thread

Plaxiglas protects nylon thread, boosts hosiery production. *il* Rayon 28:599-600 N '47

NYLON throwing

Throwing plant has many-sided program; Martin fabrics corp. C. W. Bendigo. *il* Textile World 97:127+ N '47

NYLON tumblers. See Tumblers, Nylon

NYLON waste

Control of waste requires an adequate system. H. B. LeFeaux. *il* Textile World 98: 122-3+ F '48

NYLON weaving

Data offered on raw-nylon warp size. *il* Textile World 98:129+ Ap '48; Same cond. Rayon 29:75-7 Je '48

Properties of nylon and its processing preparatory to weaving. F. Millard. Textile Inst J 39:P27-34 Ja '48

NYLON yarn

Identification of nylon yarn. Rayon 28:655 D '47

Nylon holds ascendant position in present hosiery demand. W. A. B. Davidson. Rayon 29:74-5 Mr '48

Shrinkage, swelling and measurements of nylon. *il* Rayon 29:67-9 Ja '48

Stability in price of chemical yarns, great factor in knitting trade. W. A. B. Davidson. Rayon 29:67-8 My '48

Static electricity encountered with nylon. Rayon 28:601 N '47

10- and 15-den. nylon intensifies knitting problems. H. B. LeFeaux. *il* *diag Textile World* 98:123+ Ja '48

Throwsters busy on nylon and rayon. W. A. B. Davidson. Rayon 29:69-70 Ag '48

Various uses for nylon cords. P. G. Alexander. *il* Rayon 29:75 Mr '48

See also

Rayon yarn—Nylon

mixtures

Testing

Mechanics of elastic performance of textile materials. W. J. Hamburger. *bibliog Textile Res J* 18:102-13 F '48

Wool mixtures

See Woolen and worsted yarn—Nylon mixtures



OAK

Cross-laminated oak. E. G. Stern. A S M E Trans 70:123-33 F '48

OAK RIDGE laboratory. See Clinton national laboratory

OAK RIDGE times

Costs, etc., blow up atomic town's daily. R. B. Gehman. Ed & Pub 81:16 Jl 3 '48

OAKLAND, California

See also
Wages—Oakland, California

Industries

Facts, facts, facts; they're California's new gold; sales tools of New industries committee of Oakland chamber of commerce. D. M. Follett. *il* Sales Management 60: 126+ Je 15 '48

Water supply

Erosion control in East Bay watersheds. F. B. Blanchard. Am Water Works Assn J 39:1229-36 D '47

OAT hulls

Industrial development of furfural. H. J. Brownlee and C. S. Miner. *bibliog il Ind & Eng Chem* 40:201-4 F '48

OATS

Oats, 1941-1946. Survey of Cur Bsns 1947 Sup p 129 [supplemented in monthly numbers]

- OBERLIN college**
Chemical education in American institutions.
L. E. Steiner. *il J Chem Educ* 25:526-31
O '48
- O'BRIEN, Frank L.**
Sketch. *por Manuf Rec* 117:60 S '48
- OBSERVATORIES, Meteorological.** See Meteorological stations
- OBSCOLESCENCE**
Example of how obsolescence works. *J Account* 86:331 O '48
See also
Machinery, Replacement of
- OCCUPATIONS**
Changing occupational structure. H. Goldstein. *Mo Labor R* 65:654-9 D '47
See also
Ability tests
Handicapped
Job analysis
Office workers
Professional workers
Professions
Radio workers
Research workers
- Bibliography**
Occupational pamphlets: an annotated bibliography. G. Forrester. 354p \$2.50 H. W. Wilson co, 950 University av, New York 52 '48
- OCCUPATIONS, Dangerous**
Hazardous occupations order extended to pulpwood logging. *Mo Labor R* 66:410 Ap '48
Silica bearing dust. L. E. Hamlin. *bibliog Ind Med* 17:216-20 Je '48
- OCEAN**
Acoustical characteristics of noise produced by snapping shrimp. F. A. Everest and others. *il Acoustical Soc Am J* 20:137-42 Mr '48
Instrument for recording ultra low frequency ocean waves. W. H. Munk and others. *diags R Sci Instr* 19:654-8 O '48
Oceanography in the offshore drilling campaign. C. C. Bates and A. H. Glenn. *bibliog il plans World Oil* 127:114-4 Ap '48
Reflection of underwater sound from the sea surface. L. N. Liebermann. *il Acoustical Soc Am J* 20:493-503 Jl '48
Symposium on problems of the ocean to be held during centennial celebration of AAS. *Science* 107:673 Je 25 '48
See also
Continental shelf
Diving, Submarine
Marine fauna
Ocean temperature
Sea level changes
Sea water
Sound—Transmission thru sea water
Television, Submarine
Tidal power
- Bibliography**
Annotated bibliography of marine geophysical and geological surveys. R. A. Geyer. *Geol Soc Bul* 59:671-95 Jl '48
- OCEAN bottom**
Reflection of sound from coastal sea bottoms. L. N. Liebermann. *il diag Acoustical Soc Am J* 20:305-9 My '48
Submarine geology of Ranger Bank, Mexico. K. O. Emery. *bibliog 2pls maps Am Assn Pet Geologists Bul* 32:790-805 My '48
Submarine sedimentary features on Bahama Banks and their bearing on distribution patterns of lenticular oil sands. J. L. Rich. *il maps Am Assn Pet Geologists Bul* 32:767-79 My '48
See also
Sounding
- Bibliography**
Annotated bibliography of marine geophysical and geological surveys. R. A. Geyer. *Geol Soc Bul* 59:671-95 Jl '48
- OCEAN currents**
Panama canal; tidal currents. J. S. Meyers and E. A. Schultz. *il plans diags Am Soc C E Proc* 74:501-20 Ap '48
- OCEAN liners.** See Steamboats
- OCEAN temperature**
Instrument for recording continuously the salinity, temperature, and depth of sea water; abstract. A. W. Jacobson. *Elec Eng* 67:455 My '48
- OCEAN travel**
Millionaire's yacht becomes cruise ship; Corsair. *il Marine Eng* 52:74-80 D '47
- OCHS, Milton Barlow, 1864-**
Col. M. B. Ochs given Chattanooga award. J. D. Stanard. *por Ed & Pub* 81:24 Ja 17 '48
- O'CONNELL, Joseph James, 1905-**
Named to head CAB. *por Bsns W* p86 Mr 27 '48
- OCOTEA cymarum**
Determination of safrole in the oil of ocotea cymarum; a cryoscopic method. A. J. Shukis and H. Wachs. *bibliog Am Chem* 20:248-9 Mr '48
- OCTACHLOROPENTADIENE**
Reactions of some highly chlorinated unsaturated C₅ hydrocarbons with chlorine and copper. R. W. Bost and J. A. Krynski. *bibliog Am Chem Soc J* 70:1027-9 Mr '48
- OCTAHYDROPYRROCOLINE**
Chemistry of the pyrrocolines and the octahydropyrrocolines. E. T. Borrows and D. O. Holland. *J Chem R* 42:611-43 *bibliog* (83 ref, p641-3) Je '48
Convenient synthesis of octahydropyrrocoline and 2-(γ -hydroxypropyl)-piperidine. V. Boekelheide and S. Rothchild. *Am Chem Soc J* 70:864 F '48
- OCTANE**
Infra-red spectra of hydrocarbons; analysis of octane mixtures by the use of infra-red spectra obtained at low temperatures. W. H. Avery and J. R. Morrison. *bibliog il diags J Ap Phys* 18:960-7 N '47
Mass spectra of octanes. E. G. Bloom and others. *J Res Nat Bur Stand* 41:129-33 Ag '48
- OCTANE number**
Computation of octane number. W. L. Nelson. *Oil & Gas J* 46:95 D 20 '47
Effect of sulfur compounds on octane number of leaded fuels. H. K. Livingston. *bibliog Oil & Gas J* 46:80-3+ Mr 11 '48
Octane number of reformed naphthas. W. L. Nelson. *bibliog Oil & Gas J* 46:118 D 13 '47
- OCTENE**
Depolymerization of butylene polymers; analysis of isomeric octenes by the mass spectrometer. F. G. Ciapetta, S. J. Macuga and L. N. Leum. *bibliog Anal Chem* 20:699-704 Ag '48
- OCTYL alcohol**
Condensation of some tertiary octyl alcohols with benzene. R. C. Huston and others. *bibliog Am Chem Soc J* 70:1090-3 Mr '48
Condensation of some tertiary octyl alcohols with phenol. R. C. Huston, W. K. Langdon and L. J. Snyder. *bibliog Am Chem Soc J* 70:1474-5 Ap '48
- ODORS**
Chromatography of Cuban blackstrap molasses on clay; some constituents of an odor and pigment fraction. W. W. Binkley and M. L. Wolfrom. *bibliog Am Chem Soc J* 70:290-2 Ja '48
Odor control problem in processing penicillin culture medium for recovery of vitamin-rich by-product. *il diag Heat & Ven* 45:101 Jl '48
Olfaction and infrared radiation theories. C. W. Young and others. *Science* 108:411-12 O 15 '48
Transmission of odor through packaging materials. L. W. Elder. *bibliog Paper Tr J* 125:128+ N 6 '47
Trap for smells; elimination of odor exchange between foods stored together. *il Chem Ind* 63:376 S '48
See also
Deodorizers
Sewage disposal—
Odor removal
- Measurement**
Odor removal studies in refrigerated storage. M. Uota and R. M. Smock. *il Refrig Eng* 55:256-9+ Mr '48
- ODORS in advertising**
Chocolate odor whets appetite for Memphis ad. *Ed & Pub* 81:20 My 8 '48
Copy that clicked; perfumed newspaper advertisement produces \$5,100 sales at a cost of \$651.42. R. Manville. *il Ptr Ink* 224:47-8 Ag 27 '48
Scented perfume ads build dollar volume. S. Royner. *il Ed & Pub* 81:14 O 9 '48

OENSLAGER, George, 1873-
G. Oenslager receives Goodyear medal. *por*
Chem Eng Prog 44:sup50 My '48
Oenslager to receive Goodyear medal.
por(cover) Chem & Eng N 26:930 Mr 29 '48
OF the month clubs. See Clubs, Merchandizing

OFFICE appliances

Customers are curious about banks; Mercantile national bank displays mechanized equipment at party for customers. *Banking* 40:84 F '48

Machines in a life insurance office. R. W. Cobb. *East Underw* 49:32 pt 2 O 8 '48
Mechanizing paper work. R. E. McNeill. *Harvard Bsns R* 26:492-512 J1 '48
Office machines that perk up profits. *il Mod Ind* 16:50-3 O '48
What machine shall I buy? *J Account* 85:264-5 Mr '48

See also

Accounting—Mechanical aids	Calculating machines
Addressing machines	Punches (for paper)
	Dictating machines

Manufacture

Barrel finishing for mass production; Endicott plant of the International business machines corp. H. Chase. *il Metal Finishing* 46:58-60 Ap '48
High production broaching; Endicott, N.Y., plant of International business machines corp. *il diags Iron Age* 161:72-5 Ap 15 '48

OFFICE buildings

Brazil; three office buildings. *il plans Arch Forum* 87:110-12 N '47
Equitable builds a leader in Portland, Ore. *il plans diags Arch Forum* 89:97-106 S '48
Lightweight aggregates cut costs in Prudential Insurance and General Petroleum buildings in Los Angeles. *il Arch Rec* 104:147-8 O '48

See also

Insurance company buildings	Newspaper offices
Lobbies (architecture)	Physician's offices

Air conditioning

Air conditioning multi-story buildings by central station systems. A. B. Wason. *il plans Heat & Ven* 45:91-3 Mr '48
Conduit Weathermaster system for air conditioning multi-story buildings. W. L. McGrath. *il diags Heat & Ven* 45:81-3 My '48
540-ton heat-pump air conditions 12 story building. *il Elec World* 130:122+ O 23 '48
Heat pumps cool and heat Equitable's Portland building. *il diags Arch Forum* 89:102-3 S '48

Individual control, flexibility in office building air conditioning. R. E. Phillips and L. H. Wagenbrenner. *il plans diags Heating-Piping* 20:71-5 S '48

Rapid installation; Dallas office building entirely air-conditioned in 30 days. *il Dom Eng* 171:166+ Je '48; Same. *Heating-Piping* 20:83 Je '48

Self-contained units for air conditioning multi-story buildings. C. F. Wood. *il plan diag Heat & Ven* 45:82-5 Ap '48

Electric equipment

Reverse cycle for Portland office building. *il Elec West* 100:76-8 Ap '48

Wiring modernization in large building. O. O. Rands. *il Elec West* 100:62-3 Ja '48

Heating and ventilation

Heat pump in an office building. J. D. Kroeker and R. C. Chewing. *flow diags il plans diags Heating-Piping* 20:121-8 Mr '48

Heat pumps cool and heat Equitable's Portland building. *il diags Arch Forum* 89:102-3 S '48

Heating commercial buildings. J. L. Shank. *il Am Bld* 69:89-93 N '47

Reverse cycle for Portland office building. *il Elec West* 100:76-8 Ap '48

Zoning for heat gains from lighting in a multi-story building. H. E. Ziel. *diag Heat & Ven* 45:94 Je '48

OFFICE buildings, Government

Federal office building for the Federal district of Rio de Janeiro. *il plans Arch Forum* 87:89 N '47

Sanitary chemicals in government building maintenance. C. C. Staadt. *Soap & San Chem* 24:147+ F '48

See also

Veterans administration—Buildings

OFFICE buildings, Industrial

Deft remodeling; new office for Owens-Corning fiberglass corp. *il diags Arch Forum* 88:87-91 Je '48

Fiberglass building in New York for Owens-Corning fiberglass corp. *il Arch Rec* 103:140-1 F '48; *Am Bld* 70:98-9 Mr '48

Fiberglass unveils its New York home. *il Sales Management* 60:98 Ja 15 '48

Headquarters and front for food processing; Richmond Chase office building, San Jose, Calif. *il plans diags Arch Rec* 103:86-91 F '48

On-the-ground welded fabrication of studing speeds construction of all-steel three-story office building for the WKM valve co. R. H. Newton. *il diags Welding J* 26:984 N '47

Progress in St Louis; American stove company's administrative headquarters and sales display building. *il plans diags Arch Forum* 89:69-79 O '48

S. C. Johnson administration building, Racine, Wis. *il Arch Forum* 88:139-41 Ja '48
Two office buildings for Shell Oil in California. *il plans Arch Rec* 104:108-14 O '48

West Virginia coal company serves community through new store; combines store with office building. F. Beury. *il Manuf Rec* 117:50-1 O '48

Air conditioning

Convection heating, air conditioning combined in new building; administration building of the Modine mfg. co. *il Heating-Piping* 20:112-15 Ja '48

Flexibility is the name for it; heating and ventilating warehouse and office buildings. *il Dom Eng* 172:143, 152-3+ O '48

Individual heating-cooling ducts supply each room of new building; National aluminate corp. G. C. Dittman. *il diag Heating-Piping* 19:82-5 D '47

Location

Executive offices are moved from big city; Independent pneumatic tool company moves to Aurora. *il Am Bsns* 18:16-17 Ag '48

OFFICE costs

Determining costs of clerical functions in a small office. J. J. Ruster. *N A C A Bul* 29:1069-76 My 1 '48

OFFICE employees

Personnel practices in unionized offices. *Personnel* 24:310-11 Mr '48

OFFICE equipment

Depreciation rates for office furniture and equipment. *il Am Bsns* 18:30+ Mr '48

See also

Office appliances
Office furniture

OFFICE equipment industry

After the turn of the year; business machine industry. J. S. Coleman. *Comm & Fin Chr* 167:328 Ja 22 '48

Advertising

How Remington Rand reaches more customers at no extra cost in spite of increased space rates; survey of prospects' magazine reading. R. Manville. *Ptr Ink* 224:27-30 Ag 20 '48

Securities

International Business Machines; investment re-appraisal of its market potentials. H. S. Coffin. *il Mag of Wall St* 81:541-3+ F 14 '48

Office equipments as they return to normalcy with position of leading shares. H. S. Coffin. *Mag of Wall St* 82:592-3+ S 11 '48

Outlook for office equipments; with position of leading shares. R. Colston. *Mag of Wall St* 81:592-3+ F 28 '48

Service

School for customers; Ivan Allen-Marshall company teaches filing methods to employees of customers. *Am Bsns* 17:22 N '47

OFFICE equipment industry—Continued**Germany**

Conditions in German office-machines industry. For Comm W 31:32 Je 5 '48

Netherlands Indies

Office-equipment imports. For Comm W 31:24 My 8; 32 Je 26 '48

OFFICE equipment manufacturers institute

Annual meeting, Washington, D.C. Am Bsns 17:33 D '47

OFFICE furniture

Bergson's office furniture for Container corporation's new Chicago home consists of ten basic units. Il plan diags Arch Forum 88:70-3 F '48

Flexible furniture. Il diags Fortune 37:116-19 Mr '48

Many combinations easy with Bergson unit furniture. Il Am Bsns 17:14-17+ D '47

Modern office furniture for top production. Il Am Bsns 18:16-17 My '48

Package selling clicks in office furniture; new display rooms of Spak and Natovich in Chicago. Il Am Bsns 18:18-19+ Mr '48

Scale-model furniture for office planning. Il Am Bsns 18:54 Ap '48

OFFICE lighting

Better light in drafting room and main office. Il Factory Management 106:98-9 Ap '48

Better light lifts output; effect of improved lighting and room color-scheme on group of federal office workers. Il Bsns W p47-8+ N 29 '47

Better work with modern lighting; Southern California building and loan association's office. Il Am Bsns 18:26 F '48

Daylighting, a scientific solution in American Stove's new St Louis building. Il diags Arch Forum 89:76-7 O '48

Increasing office efficiency with better light, sight correction and color engineering; federal experiment in Washington, D.C. Il Arch Forum 88:122-3 Mr '48

Light on myrtlewood; executive quarters of the United States national bank at Portland. Il Elec West 101:68-9 Jl '48

Lighting in offices; illustrations with text. Elec West 101:98-9 S '48

Modern lighting meets functional needs; four basic patterns for planned relighting of executive offices. N. H. Boynton. Il Elec World 128:65-7 D 20 '47

Seven times the light after seven years; fluorescent lighting, Mutual benefit life insurance co. building. Il Elec World 129:70 Ja 3 '48

Test proves better seeing means more production. Il Factory Management 106:111-13 D '47

See also

Printing offices—

Lighting

OFFICE management

Are today's office costs too low? E. Whitmore. Am Bsns 18:8-9+ Je '48

Assembly line methods in the office; experience of Moorman manufacturing company. W. Norris. Il Am Bsns 18:10-11+ Ap '48

Determining costs of clerical functions in a small office. J. J. Ruster. N A C A Bul 29:1069-76 My 1 '48

How to conduct an accounting procedures and methods survey. G. O. Eckley. flow charts J Account 85:126-31 F '48

How to start a form control plan. W. E. Sexton. Am Bsns 18:16-17+ Ja; 18-19+ F '48

How Uncle Sam applies work simplification; work distribution chart; process chart; work count; abstract. H. H. Fite. Management R 37:345-7 Jl '48

Level production peaks by planning ahead. Am Bsns 18:26+ Mr '48

Mechanizing paper work. R. B. McNeill. Harvard Bsns R 26:492-512 Jl '48

Motion study slashes office man-hours; collating sheets for a booklet. H. Smith. Il Factory Management 105:93 D '47

Sales and production outran office methods. P. R. Pennington. Il Am Bsns 17:10-11+ N '47

Time study and office work; abstract. A. R. Schuman. J Account 84:423-4 N '47

See also

Accounting

Billing

Business management

Commercial correspondence

Credit departments

Executives

Files and filing

(documents, etc.)

Forms and blanks,

Business

Mail

Mailing departments

Office workers

Orders

Transcription departments

OFFICE management association, Life. See Life office management association

OFFICE management association, National. See National office management association

OFFICE of rehabilitation through training

ORT bulletin. Published by American ORT federation, 212 Fifth av, New York 10

OFFICE supplies**See also**

Forms and blanks,

Business

OFFICE workers

Employee performance rating for accounting department and other office employees. E. R. Eberle and J. E. King. Edison Elec Inst Bul 16:277-86 Ag '48

How do your office salaries compare? tabulation showing range of weekly pay in six industries. Bsns W p98 Jl 17 '48

Incentive compensation in the office. G. Z. Wollam. Management R 37:232-4 My '48

Incentives to step up office output; abstract. R. S. Smith. Management R 37:129-30 Mr '48

New developments in clerical testing. W. L. Barnette, Jr. Management R 37:70-2 F '48

Office personnel policies; abstract. Management R 37:14-15 Ja '48

Office unionization; is management facing the problem squarely? D. Mack. Management R 37:181-4 Ap '48

Salaries and working conditions, Atlanta office workers, 1947. H. Hall. Mo Labor R 66:512-14 My '48

Salaries of office workers in large cities. K. B. Mohn. Mo Labor R 67:240-3 S '48

Salaries of office workers, New York city, 1948. Mo Labor R 67:26-9 Jl '48

Salaries of office workers, San Francisco and Oakland, 1948. Mo Labor R 67:138-41 Ag '48

Training office supervisors. W. G. Torpey. Personnel J 26:227-30 D '47

Training program for office workers. J. P. Flemming. Am Gas Assn Proc 1947:132-7

Union target; the white-collar worker. Il Bsns W p83+ F 7 '48

U.S. Rubber trains office workers; students spend half a day at high school, half a day at the office. Il Am Bsns 18:20-1 F '48

Wages in home offices of life insurance companies. K. B. Mohn. Mo Labor R 66:10-13 Ja '48; Same cond. Nat Underw (Life ed) 52:11 O 1 '48

White-collar morale; a problem in human relations. O. C. Cool. Paper Ind 29:1129+ N '47

White collar salaries; with tabulation showing average weekly salaries for selected office occupations in New York, N.Y., for selected industries, Jan. 1948. Banking 41:24-5 Ag '48

Working hours, vacations, holidays and excused absences; abstract. Management R 37:450-1 S '48

See also

Bank employees

Secretaries, Private

OFFICES

Color and design conscious packaging corporation; Container corporation of America's new Chicago offices. Il plans diags Arch Forum 88:65-73 F '48

Color in the office; abstract. C. E. Seghers. Management R 37:452-3 S '48

Displays novel ideas; functional, decorative uses of glass featured in offices of Libby-Owens-Ford glass company in Toledo. Il diags Arch Rec 104:135-7 S '48

Ford's new offices. D. G. Baird. Il Am Bsns 18:14-17+ S '48

Must business offices be dull and drab? Il Am Bsns 18:20-1 Je '48

OFFICES—Continued

- New center offers unusual home building services; offices of Chicago metropolitan home builders association. *Il Am Bld* 70: 104-5 My '48
- New office designs; Allen B. Wrisley company, Chicago; illustrations with text. *Am Bsns* 18:20-3 Ja '48
- Parker pen company offices, showroom and service room in New York. *Il plan Arch Forum* 88:84-5 F '48
- Shipshape offices styled for smooth sailing; Electric boat company's new offices. *Il Am Bsns* 18:20-2 S '48
- Showroom and offices serve as building education center for building material dealer. *Il Am Bld* 70:120-3 S '48
- Styled to fit the personality; Encyclopaedia Britannica's remodeled Chicago offices. *Il Am Bsns* 18:18-21+ JI '48
- See also*
- | | |
|----------------------|-----------------------|
| Advertising agencies | Optometrists' offices |
| —Offices | Physicians' offices |
| Architects' office | Printing offices |
| Designers' offices | Publishers' offices |

Air conditioning

- Air conditioned engineering office planned for comfort and efficiency; quarters of Robert E. Hattis, consulting engineers. *Il Heating-Piping* 19:79-81 D '47

Safety measures

- Office jobs can be hazardous; abstract. E. N. Landry. *Management* R 37:286-8 Je '48
- Office safety campaign; abstract. V. Kent. *Management* R 36:625-6 D '47

OFFSET (printing defect). *See* Printing, Practical—Presswork

OFFSET ink. *See* Ink, Lithographic

OFFSET paper. *See* Paper, Offset

OFFSET printing. *See* Printing, Offset

OGALLALA formation
Ogallala and post-Ogallala sediments. M. K. Elias. *bibliog Geol Soc Bul* 59:609-12 Je '48

OHIO*See also*

Electrochemical industries—Ohio

Industries and resources

- New chemical area grows in northern Ohio. *Il map Bsns W* p36+ Ap 3 '48

OHIO Edison company
Bonds offered. *Comm & Fin Chr* 168:1257 S 27 '48

OHIO farmers insurance company
Centennial celebration. *Nat Underw* 52:5-6 F 12 '48; *East Underw* 49:19+ F 6 '48; *Weekly Underw* 158:500-1 F 14 '48

OHIO oil company
Diversified stake in stability. G. W. Mathis. *Mag of Wall St* 82:344 JI 3 '48

Ohio Oil inaugurates refinery expansion program on anniversary. R. E. Luton. *Il Oil & Gas J* 46:60-1 N 22 '47

OHIO power company
Bonds offered. *Comm & Fin Chr* 167:1474 Ap 5 '48

OHIO public service company
Bonds offered. *Comm & Fin Chr* 167:944-5 Mr 1 '48

OHIO river
Eight-state drive to clean up rivers. *Il map Bsns W* p26 JI 31 '48

Ohio River compact now in motion. *Water & Sewage Works* 95:sup78A Ag '48

OHIO state university
Petroleum engineering schools. *Il Oil & Gas J* 46:74+ F 5 '48

OIL, Insulating. *See* Insulating oil

OIL, Transformer. *See* Insulating oil

OIL analysis

Chromatographic analysis of the unsaponifiable matter of marine animal oils. L. A. Swain. *Can Chem & Process Ind* 32:553-4 Je '48

Component acids and glycerides of neat's foot oil. T. P. Hilditch and R. K. Shrivastava. *bibliog Soc Chem Ind J* 67:139-42 Ap '48

Component acids of rape seed oil. M. N. Baliga and T. P. Hilditch. *bibliog Soc Chem Ind J* 67:258-62 Je '48

Composition of commercial palm oils; component acids and glycerides of a Belgian Congo palm oil (studied with the aid of low-temperature crystallization). T. P. Hilditch and others. *bibliog Soc Chem Ind J* 66:284-8 Ag '47

Delta-tocopherol; assay of individual tocopherols in mixtures containing delta-tocopherol. L. Weisler, C. D. Robeson and J. G. Baxter. *bibliog Anal Chem* 19:906-9 N '47

Determination of oil in petroleum waxes; rapid semimicro method. J. S. Wiberley and J. B. Rather, jr. *Il diags Anal Chem* 20: 972-6 O '48

Determination of safrole in the oil of *ocotea cymbarum*; a cryoscopic method. A. J. Shukis and H. Wachs. *bibliog Anal Chem* 20:248-9 Mr '48

Identification of crystalline progesterone with 2,4-dinitrophenylhydrazine; quantitative determination of progesterone in oil. D. Klein, N. Weiner and S. M. Gordon. *bibliog Anal Chem* 20:174-6 F '48

Lipides of the cottonseed; saponification number. V. L. Frampton and G. N. Martin. *bibliog Anal Chem* 20:661-3 JI '48

Microdetermination of oil content in petroleum greases. A. E. Baker, jr. *Il Gen Elec R* 51:44-6 C '48

South African fish products; the composition of the liver oil of the seven-gilled shark. *hepurchias pectorosus* (Garman). M. L. Karnovsky and others. *bibliog Soc Chem Ind J* 67:144-7 Ap '48

Sulphur in fuel oil determined rapidly by combustion method. K. R. Klumb. *diags Steel* 122:107+ F 2 '48

Use of low-temperature crystallization in the determination of component acids of liquid fats; marine animal oils; the component acids and glycerides of a grey (Atlantic) seal. T. P. Hilditch and S. P. Pathak. *bibliog Soc Chem Ind J* 66:421-5 D '47

Viscosity blending relationships of heavy petroleum oils. M. H. Rahmes and W. L. Nelson. *bibliog Anal Chem* 20:912-15 O '48

See also

Acetyl number	Lubricating oils—
Bromine number	Analysis
Iodine number	Petroleum—Analysis

OIL and gas journal (periodical)

Journal editorial-staff changes will expand services to readers. *Oil & Gas J* 46:38 N 22 '47

OIL bulk stations

Bulk plants and terminals inspection helps plug profit leaks; with NPN's maintenance inspection form. F. C. Sturtevant. *Nat Pet* N 40:26+ Je 23 '48

Few gasoline jobbers by-pass bulk plants; results of survey, tabulated. *Nat Pet* N 40: 34 Ag 11 '48

New bulk plant boasts improved office facilities; Kenan oil co. *Il plan Nat Pet* N 40: 27 My 5 '48

OIL burner industry

Beating oil pinch; Eureka Williams corp. uses save-fuel theme to sell new oil burners. *Il Bsns W* p48+ F 7 '48

Conservation and need for selling voiced at New England oil heat exposition. B. R. Quayle. *Nat Pet* N 40:41-2 Je 16 '48

Distributors' salesmen sit in on trial of Alibi Ike; traveling show is substituted for long-winded sales conference. C. J. Swan. *Il Ptr Ink* 225:32-3+ N 5 '48

Eureka Williams. *Il Fortune* 36:108-13+ D '47

Fighting seasonal slumps; Oil-O-Matic division of Eureka Williams. *Il Bsns W* p54+ N 15 '47

Fuel saving plan bucks oil shortage for Oil-O-Matic. W. A. Matheson. *Il Sales Management* 60:108+ Je 15 '48

How to save money on oil heating. *Il diags Sheet Metal Worker* 39:55-6+ JI; 69+ Ag '48

More oil burners? Oil-Heat Institute's Chicago meeting. *Bsns W* p54 Ap 17 '48

New England oil heat men OK proposed fair trade code. D. L. Harbour. *Nat Pet* N 40:57-8 O 6 '48; *Text* 40:58+ O 13 '48

Oil burner business recovering from slump. H. Murphy. *Barron's* 28:4 O 4 '48

Oil burners low. *Bsns W* p44+ Je 5 '48

Oil cannot heat all America. R. E. Wilson. *Comm & Fin Chr* 167:1641+ Ap 15 '48

OIL burner industry—Continued

Oil heat outlook much improved; New England oil heat exposition, Boston, June 7-10. Dom Eng 172:150-4+ JI '48
 Some things to tell your prospects about oil heating. il Dom Eng 172:102-3+ Ag '48
 Suggestions to the oil industry. W. A. Matheson. Sheet Metal Worker 39:100+ My '48
 Switches sales strategy to meet oil shortage; Williams Oil-O-Matic, concentrating on replacement market. Sales Management 60: 53-4 Mr 15 '48

Advertising

Television shows oil burner history. il Dom Eng 171:120-3 My '48
 Timken nips oil burner sales decline with fuel saving plan. D. G. Baird. il Sales Management 60:46+ Mr 15 '48

Service

Principles of automatic oil heating; basic oil burner service methods. C. H. Burkhardt. Sheet Metal Worker 39:72-4+ JI; 56+ Ag; 55-6+ S '48
 Principles of automatic oil heating; installation, tanks and piping. C. H. Burkhardt. diags Sheet Metal Worker 39:60+ O '48
 Service makes sales; Washington, D.C. heating contractor program. il Dom Eng 172: 98-103 JI '48

Statistics

Illinois leads in sale of oil burning space heaters during 1947; U.S. statistics by districts. Nat Pet N 40:40-1 My 12 '48
 Oil burner shipments in 1947 double '46 total. Nat Pet N 40:18 Mr 3 '48
 Oil burners, 1941-1946. Survey of Cur Bsns 1947 Sup p 153 [supplemented in monthly numbers].

OIL burners

87 per cent of burners are wasting oil, survey in midwest city discloses. F. C. Sturtevant. il Nat Pet N 40:17 Ja 21 '48
 Gas-oil burner offers peak stand-by protection for homes. C. C. Young. il Gas Age 102:27-9+ Ag 5 '48
 Johnson oil burner with proportioning valve. il Ry Mech Eng 121:719 D '47
 Mechanisms of combustion and their relation to oil-burner design. H. R. Heiple and W. A. Sullivan. bibliog diags A S M E Trans 70:343-8; Discussion. 349-50 My '48
 Oil-O-Matic survey finds leak in oil heating installations. il Sheet Metal Worker 39:92-4 T '48
 Oil standby equipment proves value in gas shortage; Champion spark plug co. J. A. Soden. il Iron Age 162:93-4 S 16 '48
 Oscillating burner cuts sintering costs. diags Comp Air Mag 53:47 F '48
 Principles of automatic oil heating. C. H. Burkhardt. il diags Sheet Metal Worker 39:76+ F; 86-7+ Mr; 76+ Ap; 78+ My; 70+ Je; 72-4+ JI; 56+ Ag; 55-6+ S '48
 Short cycling causes heating difficulties; oil fired warm air heating plant and an oil fired hot water heating plant. S. Lewis. Heating-Piping 20:100-1 Mr '48
 Use of multiple burners and compressed air to improve the operating rates on open hearth furnaces. V. F. Corsini. Iron & Steel Eng 25:99 S '48

Maintenance and repair

Service makes sales; Washington, D.C. heating contractor program. il Dom Eng 172: 98-103 JI '48

OIL cake

Oilcake distribution for 1948 recommended. Oil Paint & Drug Rep 152:3 D 29 '47

OIL camps. See Labor camps**OIL chemists' society, American. See American oil chemists' society****OIL compact commission, Interstate. See Interstate oil compact commission****OIL companies**

API marketing committee takes steps to help independent oil jobbers. H. Ridder and D. L. Harbour. Nat Pet N 40:23-4 My 12 '48

Blow to one-supplier retailing; court rules out oil company's contracts with filling stations to sell only its line of products. Bsns W p24 Je 12 '48

Four independents express their views on monopoly, margins for marketers. Nat Pet N 40:27-8 Ja 28 '48

Most oil companies believe uniformity in containers would cut handling costs. C. Boyd, Jr. Nat Pet N 40:30+ Ag 4 '48

Mutual problems of oil transporter, marketer. F. Baird-Smith. Nat Pet N 40:28+ My 5 '48

Oil companies answer professor's proposal for breaking up majors. Nat Pet N 40:15-17 Je 23 '48

Two decades of research put industry on top of synthetic fuels problem. W. F. Bland. il Pet Processing 3:203-6 Mr '48; Same cond. Nat Pet N 40:22-3 F 18 '48

Two. Floeser witnesses ask retail-wholesale divorce. Nat Pet N 40:13-14 S 29 '48

Why Congress' interest in oil industry? S. A. Swensrud. Nat Pet N 40:23-4+ S 29 '48

Wolverton group reports on oil prices and profits. Nat Pet N 40:11-15+ Je 16; 17-19 Je 23 '48

See also

Socony-Vacuum oil company

Accounting

Detailed cost record helps jobber persuade supplier to boost margin. F. Sturtevant. Nat Pet N 40:36+ Mr 31 '48

Merits of various inventory valuation methods outlined. D. F. Jones. Nat Pet N 39:30+ D 17 '47

Procedure for handling the retail receivables of an oil company. A. P. Yung. N A C A Bul 29:1273-88 Je 15 '48

Advertising

Direct mail pays for dealers; abstract. H. O. Krass. Nat Pet N 39:30 D 3 '47

Esso standard oil co. to expand its institutional advertising. il Nat Pet N 40:39-40 F 4 '48

Credit problems

Effect of applicant's indebtedness and size of family on credit risk; abstract. C. T. Sheldon. Nat Pet N 40:32 Mr 24 '48

Too much long term credit on oil ties up excessive working capital. Nat Pet N 40:38-9 S 1 '48

Directories

Principal oil companies, operating outside United States; tabulation. World Oil 128: 49+ sec 2 JI '48

Employees

How to talk to workers, one of many topics covered at oil training center established by Esso standard oil co. F. C. Sturtevant. Nat Pet N 40:28+ Je 2 '48

Sinclair five-day training program designed to include entire sales personnel, newcomers. Nat Pet N 40:38 Ja 14 '48

Training program provides tailor-made classes to fit needs of various groups; Socony-Vacuum training center. il Nat Pet N 40: 30+ My 19 '48

Equipment

Equipment section. il diags Nat Pet N 40: 37-43 Je 30 '48

Independent cuts truck loading time by 50 per cent by improving terminal facilities. B. R. Quayle. il Nat Pet N 40:34+ O 20 '48

Oil marketing steel need estimated 1.8 million tons. Nat Pet N 40:11-12 F 25 '48

Truck garages unnecessary, uneconomic study by major oil company discloses; weather data indicates type of protection needed. P. W. Engels. map diags Nat Pet N 40:22+ Mr 24 '48

Finance

Annual reports. Nat Pet N 40:42-3 Mr 31 '48

Capital expenditures surpass net earnings despite record sales by oil companies. Nat Pet N 40:38+ Ap 21 '48

Financial analysis of thirty oil companies for 1947. J. E. Fogue and F. G. Coqueron. Oil & Gas J 47:64 S 16 '48

'47 oil earnings relatively low compared with 1937. J. E. Fogue. Nat Pet N 40:21 S 15 '48

Four companies report first-half earnings up. Nat Pet N 40:14 Ag 11 '48

OIL companies—Finance—Continued

- Higher products prices help in solving shortages; abstract. S. A. Swensrud. *Oil & Gas J* 47:62 S 16 '48
- 1947 spending for expansion sets record, oil company reports show; reports of 24 companies. *Nat Pet N* 40:40-1 Je 2 '48
- Oil companies earn more, spend more during first half of '48 over '47. *Nat Pet N* 40:16 J1 23 '48
- Oil companies need high earnings to attract new cash for expansion. G. H. Palmer. *Nat Pet N* 39:24 N 5 '47
- Oil companies spending more than they earn; tabulated annual reports of 17 companies. *Nat Pet N* 40:20 Ap 7 '48
- Oil company capital expenditures top '47 earnings by 66.7 per cent so far. *Nat Pet N* 40:32+ Ap 28 '48

Management

- Daily reports keep jobber posted on profit and loss; Cumberland oil co. F. C. Sturtevant. *il Nat Pet N* 40:27-9 S 22 '48
- Discontinue small wayside stations; two types of distributing methods compared; abstract. N. A. McGee. *Nat Pet N* 40:19-20 F 4 '48
- Distribution overhaul is held key to future economies in business; Shell company's development of marketing, distribution practices; abstract. O. F. Minor. *Nat Pet N* 39:53 D 10 '47
- Efficient truck preventive maintenance helps cut transportation costs; Atlantic Refining's program. A. W. Bass, Jr. *il Nat Pet N* 40:22-3+ Ap 28 '48
- Jobber, located near refinery, plans larger storage, speedier unloading; Torrence oil co. F. C. Sturtevant. *plan Nat Pet N* 39:23 D 3 '47
- Jobbers given a look at how major copes with its marketing problems. O. F. Minor. *Nat Pet N* 40:34+ Je 16 '48
- Jobbers given access to practical aids used by major company in cutting costs; Esso standard oil co. F. C. Sturtevant. *il Nat Pet N* 40:36-8 Ap 21 '48
- Major company's successful marketing practices made available to jobbers; Esso standard oil co. *Nat Pet N* 40:26+ Ap 14 '48
- Old independent with new ideas started direct deliveries quarter century ago; Jenny manufacturing co. F. C. Sturtevant. *il Nat Pet N* 40:30+ S 29 '48
- Preventive maintenance to fit the needs of oil marketers. H. Ridder. *Nat Pet N* 40:21-2+ F 4; 42-3+ F 11; 24-6 F 18; 30+ F 25; 36 Mr 3; 50+ Mr 10; 30+ Mr 17 '48
- Social modernizes warehouse operation; speeds work, uses space efficiently. B. C. Manuel. *il Nat Pet N* 40:25+ Ja 7 '48
- Socony's night delivery system decreases costs. C. C. Benedict. *il Nat Pet N* 39:30-1+ N 26 '47
- Time, dollars and headaches can be saved by co-ordinating planning and purchasing in adding new tank trucks to a fleet. H. Ridder. *diag Nat Pet N* 40:29+ S 15 '48
- Two suppliers tell how they offer aid to their jobbers on operating problems. F. C. Sturtevant. *Nat Pet N* 40:34+ O 13 '48

Public relations

- Lion oil company's public relations program. *il World Oil* 128:37-40 S '48
- Public relations program can work at jobber level. H. Ridder. *Nat Pet N* 40:28+ Mr 3 '48

Records

- Business report system of independent emphasizes dollars not gallons; Gaseteria, inc. F. C. Sturtevant. *Nat Pet N* 40:30+ Mr 10 '48

Side line selling

- Force oil to give up TBA. Congress committee asked. *Nat Pet N* 40:15-16 S 15 '48
- Independent puts sales emphasis on TBA and home appliances to boost profits; Central oil service, inc. F. C. Sturtevant. *il Nat Pet N* 40:35-7 S 1 '48
- Oil's TBA sales efforts to gain impetus during next five years. *Nat Pet N* 39:49 D 10 '47

Travel bureaus

- Lobby and touring center in new Esso building create gateway to Rockefeller Center. *il plans diag Arch Forum* 89:84-9 Ag '48

OIL coolers**Cleaning**

- Sixty-minute oil cooler cleaning. *il Air Transport* 5:45 D '47

Testing

- Special wind tunnels for testing aluminum oil coolers. *il Automotive Ind* 99:27 S 1 '48

OIL delivery

- Jobber uses degree day, call-in systems on fuel oil deliveries. F. C. Sturtevant. *map Nat Pet N* 40:25 My 6 '48
- Margin of profit or loss can depend on efficient delivery-truck routing. F. N. Havens. *Nat Pet N* 40:37+ O 6 '48
- Mass production methods deliver fuel in winter. F. C. Sturtevant. *il Nat Pet N* 40:24+ F 25 '48
- Norway solves a fuel problem; uses largest tractor-trailer in Scandinavia. *il Diesel Power* 26:49 J1 '48
- Truck delivery of fuel appeals to industrial users. *il Nat Pet N* 40:37-8 Ap 14 '48
- Zone system locates fuel oil customers and routes trucks more efficiently. *Nat Pet N* 40:27-8+ Ja 14 '48

See also**Tank trucks**

- OIL diffusion pumps.** See Vacuum pumps

OIL distillation

- China's motor fuels from tung oil. C. Chang and S. Wan. *biblog flow sheets diag Ind & Eng Chem* 39:1543-8 D '47

- OIL engines.** See Diesel engines; Internal combustion engines

OIL films

- Journal bearings with diminishing oil supply. H. A. S. Howarth. *diag Product Eng* 19:104-9 N '48
- Load-carrying capacity of the oil film between gear teeth. E. M'Ewen. *diag Engineer* 186:234-5 S 3 '48

OIL filters

- Diesel locomotive oil filters. F. L. Townsend. *Diesel Power* 25:72-3 D '47
- Effect of solvent composition and primary solvent dilution on dewaxing filter rates and wax oil contents. E. J. Reeves and I. E. Pattillo. *biblog Pet Refiner* 27:80-2 Mr '48
- Filter of graded density in depth. A. B. Newell. *il Diesel Power* 26:57-8 Ag '48
- Lubrication of the Diesel engine from the filter manufacturer's viewpoint. W. G. Nostrand. *il diag Diesel Power* 26:62-5 O '48
- Magnetic filtration of lubricating oils. *Chem Age (Lond)* 59:182 Ag 7 '48
- Modern Diesel oil maintenance. T. A. La-Brecque. *il diag Diesel Power* 26:51-3 Je '48

- Recover oil from waste sludge using rotary filter method; patent. *Pet Processing* 3:71-2 Ja '48

Manufacture

- Manufacture of oil filters. *il Diesel Power* 26:36-8 Ap '48
- Why Winslow makes filters. *Diesel Power* 26:64+ Je '48

OIL filters, Automobile

- Air and oil filtration; investigation of effects on wear of engine components. *il Automobile Eng* 35:15-20 Ja '48

OIL fires

- Control of oil fires; summary of informal discussion. *diag Inst Mech Eng J & Proc* 156:Proc 351-3 Mr '48
- Dry chemical fire extinguishers for protection of Diesel engines. A. B. Guise. *il Diesel Power* 26:66-9+ My '48
- Eliminating Diesel fire losses. R. J. Snowdon. *il Ry Mech Eng* 121:683-5 D '47
- Fire-fighting foams. N. O. Clark. *biblog Chem & Ind* p22-3; Discussion. 24-5 Ja 10 '48
- Minimizing oil fire damage in quenching areas. F. C. Rodgers. *il Steel* 122:101-2+ Ap 19 '48

OIL fires—Continued

Providing fire protection for transformers; emulsion-forming spray system. J. J. Burri. *diag Elec World* 129:89-90 Je 19 '48

See also

Gasoline handling— Tank trucks—Fires
Safety measures and fire protection
Oil tanks—Fire protection

OIL flow

Consistency and temperature of oils and printing inks at high shearing stresses. R. N. Weltman. *bibliog diags Ind & Eng Chem* 40:272-30 F '48

Oil flow and temperature relations in lightly loaded journal bearings. J. Boyd and B. P. Robertson. *bibliog diags A S M E Trans* 70:257-62 Ap '48

See also

Oil measurement

OIL fuel

Chicago Retort beats fuel shortage bugaboo by burning Bunker-C oil. *il plan diag Brick & Clay Rec* 112:72+ F '48

87 per cent of burners are wasting oil, survey in midwest city discloses. F. C. Sturtevant. *il Nat Pet N* 40:17 Ja 21 '48

Fuel oil vs. LP-gas cost test for heating made by jobber. L. Castle. *Nat Pet N* 40:7+ S 29 '48

Handling oil spills with chemical spray. S. M. Summ. *Marine Eng* 53:50-1 My '48

Jet fuels for aircraft. H. A. Murray. *Oil & Gas J* 46:53-54 Ja 8 '48

Liquid for pretreating fuel oil. *Consumers Res Bul* 21:24 Ap '48

Mechanisms of combustion and their relation to oil-burner design. H. R. Heiple and W. A. Sullivan. *bibliog diags A S M E Trans* 70:343-8; Discussion. 349-50 My '48

Oil refiners have difficulty in supplying huge market for fuel oil and high-octane gasoline. W. Miller. *il Min & Met* 29:137-40 F '48

Principles of automatic oil heating. C. H. Burkhardt. *diags Sheet Metal Worker* 39:76+ F '48

Solving the sludge problem in fuel oil. C. Gamlen. *Diesel Power* 26:45-6 F '48

Technological problems in the use of alternate fuels in the glass industry. R. S. Arrandale. *bibliog diag Glass Ind* 29:440-3+ Ag '48

Welded steel barge stores standby oil; Pittsburgh plate glass co. *il Heating-Piping* 20:93 Je '48

See also

Airplane engines—	Internal combustion engines—Fuel
Fuel	Liquid fuel
Automobile engines—	Locomotive boilers—
Fuel	Oil firing
Automotive fuel	Motor truck engines
Boilers—Oil firing	—Fuel
Coal liquefaction	Oil burner industry
Diesel engines—Fuel	Oil burners
Gasoline	Oil fuel industry

Manufacture

Application of viscosity measurement in petroleum refining operations. D. J. Pompeo. *Pet Refiner* 26:101-3 N '47

Diesel fuels from catalytic cracking operations. T. L. Apjohn and F. L. Nelson. *il Pet Refiner* 27:90-8 Jl '48

Fire underwriting; heating oil refining. W. O. Lincoln. *Spectator (Property ed)* 13:12 N 13 '47

Furfural treating; refining lubricating oils and Diesel fuel oils. *flow diag Oil & Gas J* 46:153 Ap 1 '48

Production and performance of Diesel fuels. J. R. MacGregor and others. *Pet Refiner* 27:109-14 Jl '48; Same. *Diesel Power* 26:66+ Ag '48; Excerpts. *S A E J* 56:39-40 S '48

Prices

No general margin cut but jobber spread less in many cases. NPN survey discloses. A. R. Patla. *Nat Pet N* 40:28+ Je 16 '48

Three more major suppliers boost prices on oil products; boost prompts protests to DJ. *Nat Pet N* 39:15 D 17 '47

Wolverton group reports on oil prices and profits. *Nat Pet N* 40:11-15+ Je 16; 17-19 Je 23 '48

Rating

Aid to reliable fuel rating emerges from CRC test work. D. B. Brooks and R. B. Cleaton. *S A E J* 56:53-4 Je '48

Specifications

Effects of revision of ASTM fuel oil specifications on distillates viewed. S. P. Cauley. *Nat Pet N* 40:25-6+ Ap 21 '48

Fuel oil requirements under tentative revised ASTM specifications. *Nat Pet N* 40:35 Je 9 '48

Specifications vs. performance for gasoline, fuel oils, and lubricants. R. J. S. Pigott. *il Oil & Gas J* 46:56-9+ Ja 1 '48

Sulfur content

Sulphur in fuel oil determined rapidly by combustion method. K. R. Klumb. *diags Steel* 122:107+ F 2 '48

Testing

Buy on performance and depend on brands. R. J. S. Pigott. *il Am Pet Inst Proc* 27(2):11-18 '47

Combustion characteristics of Diesel fuels. E. W. Landen. *il S A E J* 56:43-6; Discussion. 46-7 My '48

Modified procedure reduces sample size for routine octane number determinations. J. O. Chase and A. D. Puckett. *diag Pet Processing* 3:120 F '48

Review of laboratory fuel-oil stability tests. A. R. Rescorla and D. V. Trew. *bibliog Oil & Gas J* 47:238+ Jl 29 '48

OIL fuel industry

Almost half of jobbers pushing storage expansion to minimize winter hardships. A. R. Patla. *il Nat Pet N* 40:37+ Ag 4 '48

Answers on the future of oil heating. *diags Dom Eng* 171:131 Mr '48

Better oil transportation, fuel saving, mild winter, should ease tight supply. *Dom Eng* 170:137+ D '47

Bonus plan helps fuel oil distributor reduce costs. F. C. Sturtevant. *Nat Pet N* 39:30+ N 5 '47

Close balance on supply-demand for winter seen in two reports to Compact commission; text of report of Compact's economics committee. *Nat Pet N* 40:45-7 S 8 '48

Colder than normal weather adds to oil's supply task this winter. *Nat Pet N* 40:45 F 25 '48

Conservation and need for selling voiced at New England oil heat exposition. B. R. Quayle. *Nat Pet N* 40:41-2 Je 16 '48

Continue battle to boost supply, economists urge. *Nat Pet N* 40:11-12 S 1 '48

Current statistical data point to critical fuel-oil situation. J. C. Casper and H. D. Ralph. *Oil & Gas J* 46:20-1 Ja 1 '48

Economist charts plan to study effects of weather on oil demand as important key to supply-demand balance. *Nat Pet N* 40:51+ O 13 '48

Empire state petroleum association convention. Buffalo, Sept. 10. *Nat Pet N* 40:17 S 15 '48

Forecasts eight-nine per cent more distillate fuel for new burner owners in next heating season. J. L. Minner. *Nat Pet N* 40:39-40 My 12 '48

'48-'49 emergency fuel plan urged by 21 coordinators. *Nat Pet N* 40:15-16 Je 30 '48

Fuel oil stocks build up as refinery yields shift. *Nat Pet N* 40:13-14 Ag 11 '48

Fuel oil stocks steady despite cold weather. *Nat Pet N* 40:16-18 F 11 '48

Fuel shortage blamed on lack of coal; oil doing amazing job. H. C. Wiess. *Nat Pet N* 39:36 D 17 '47

Heating oil stocks high; supply outlook seen good. *Nat Pet N* 40:11-12 Ag 25 '48

Higher margin, opposition to federal control top jobber group resolutions. *Nat Pet N* 40:30+ My 26 '48

Independent jobber outlines plan for better oil industry relations. J. H. White. *Nat Pet N* 39:45-6 D 10 '47

Industry largely meeting demand despite shifts from coal to oil. H. C. Wiess. *World Oil* 127:29-30 Ja '48

Industry-recommended voluntary fuel oil supply plan gains support as seven states act. *Nat Pet N* 39:9-12 D 24 '47

OIL fuel industry—Continued

Jobber campaigns to increase consumer fuel oil storage showing good results. A. R. Patla, il Nat Pet N 40:35+ J1 14 '48

Jobber uses degree day, call-in systems on fuel oil deliveries. F. C. Sturtevant, map Nat Pet N 40:25 My 5 '48

Local oil burner counts may help fuel oil marketers estimate demand. H. Ridder. Nat Pet N 40:54 O 6 '48

Mass production methods deliver fuel in winter. F. C. Sturtevant, il Nat Pet N 40:24+ F 25 '48

NPC program already virtually met. Oil & Gas J 46:42 F 5 '48

Natural gas system expansions compete with fuel oil; tabulation. Nat Pet N 40:56 O 13 '48

No products shortage seen if winter is normal, economists tell Compact. Oil & Gas J 47:37-8 S 2 '48

Oil cannot heat all America. R. E. Wilson. Comm & Fin Chr 167:1641+ Ap 15 '48

Oil crisis; how long? il Bsns W p21-2 F 14 '48

Oil forecast; fair, warmer. Bsns W p21 S 4 '48

Oil reserve is ample from long range view. M. J. Rathbone. Dom Eng 170:138-9+ D '47

Oil shortage becomes a remote possibility. P. A. Johnston. Barron's 28:7 S 6 '48

One-third of distress calls for heating oil phony, survey shows. Nat Pet N 40:17-18 F 4 '48

Outlook for fuel oil and petroleum products. A. J. McIntosh. Comm & Fin Chr 167: 2647- Je 17 '48

Product supplies to be adequate, economics committee reports. Oil & Gas J 47:46 S 9 '48

Regional industry advisory committees being appointed. Nat Pet N 40:13-14 F 4 '48

Reports of five majors reflect extent of effort to ease fuel oil shortage. Nat Pet N 40:18 Mr 10 '48

Serious oil shortage not likely for domestic users in 1948. O. L. Chapman. Dom Eng 170:136-8 D '47

Ship operators on the spot as oil bunkers ebb. P. A. Johnston. Barron's 28:22 F 2 '48

Should the government build a synthetic-oil industry? yes, J. Boyd; no, A. L. Soliday. il Mod Ind 16:100-2+ J1 '48

Some things to tell your prospects about oil heating. il Dom Eng 172:102-3+ Ag '48

Status of fuel oil availability. J. W. Boatwright. Comm & Fin Chr 168:104+ J1 8 '48

Stocks at all-time high early in season pose storage problem. J. C. Casper. Oil & Gas J 47:50-1 S 30 '48

Storms harass oil supply; refinery runs set record. Nat Pet N 40:14-15 Ja 7 '48

Stretching the tight oil supply. il Bsns W p26+ Je 5 '48

Suggestions to the oil industry. W. A. Matheson. Sheet Metal Worker 39:100+ My '48

Survey of dairy industry indicates trend of conversion from coal to oil continues. Nat Pet N 40:19 Mr 3 '48

Survey shows public knows of fuel oil shortage and has conserved. Nat Pet N 40:16-17 Mr 31 '48

Teamwork needed in oil shortage. D. L. Barrett. Am Gas Assn Mo 30:12+ J1-Ag '48

Ten states set up machinery to act on fuel shortages. Nat Pet N 39:11-12 D 31 '47

Texas oil allowable cut, latest token of plenty. Barron's 28:32 O 25 '48

Today's fuel-oil problems. J. W. Boatwright. Am Pet Inst Proc 27(2):25-7 '47; Excerpt. Nat Pet N 39:12 N 12; 39 N 19 '47; Discussion. Am Pet Inst Proc 27(2):29-31 '47

Today's fuel-oil problems. W. L. Holmgren. Am Pet Inst Proc 27(2):28-9 '47; Same cond. Nat Pet N 39:40 N 19 '47; Discussion. Am Pet Inst Proc 27(2):29-31 '47

Truck delivery of fuel oil appeals to industrial users. il Nat Pet N 40:37-8 Ap 14 '48

26-state survey shows public concern about shortage of home heating oil. Nat Pet N 40:26-8 Ap 7 '48

22 states work with industry on fuel oil. P. Wollstadt. Nat Pet N 40:11-12 Ja 14 '48

Warning against price dislocations in fuels competition. E. Holman. Oil & Gas J 47: 148+ S 23 '48

Warning from oil executive draws OHI demand for more distillate. F. C. Sturtevant. Nat Pet N 40:19-20 Ap 14 '48

Wherry allocation formula gains general acceptance. Nat Pet N 40:11-13 Ap 21 '48

Zone system locates fuel oil customers and routes trucks more efficiently. Nat Pet N 40:27-8+ Ja 14 '48

Advertising

Conservation of fuel oil by public is promoted in oil industry ads. il Nat Pet N 40:15 Ja 14 '48

Oil industry takes its supply story, conservation pleas to the consumers. Nat Pet N 40:18-19 Ja 7 '48

Government investigations

Complaints to Washington on gas supplies dwindle; report from Senate small business oil group. Nat Pet N 40:13-15 Mr 17 '48

Congress probes oil exports and prices; industry asked to act; hearing before Senate small business oil subcommittee. Oil & Gas J 46:39-40 Ja 8 '48

Normalcy in fuel-oil situation more than three years in future, Ball declares; hearing before House interstate commerce committee. B. F. Linz. Oil & Gas J 46:36-7 D 20 '47

Partial text of Senate small business oil subcommittee report on supplies. Nat Pet N 39: 22-3+ D 24 '47

Price controls, exports embargo draw industry fire in hearings. Oil & Gas J 46:43 F 5 '48

Senate report on oil shortage flays both government and industry men. Oil & Gas J 46:39-40 Ja 22 '48

Spot buyers will receive supplies, Sen. Wherry told; hearing before Senate small business oil subcommittee. Nat Pet N 39: 13-14 D 3 '47

Laws and regulations

Clark ducks for 60 days; temporary permission to oil industry to get together to lick shortage. Bsns W p26 F 7 '48

Complaint which spawned control bill unjustified. Nat Pet N 40:11-12 Mr 3 '48

Freezing prices of oil, possibly rationing favored; abstract. J. A. Krug. Nat Pet N 40:13 Ja 21 '48

Fuel and lubricants; rights under New York lien law and on payment bonds thereunder. C. G. Roth. Weekly Underw 157:1323-5, 1380-2 N 22-29 '47

Give Truman power for oil control, Krug urges. H. A. Yocom. Nat Pet N 40:13-14 Ja 14 '48

Statistics

Fuel oil, 1941-1946. Survey of Cur Bsns 1947 Sup p 166 [supplemented in monthly numbers]

330 million gallons more fuel used in below normal temperature. Nat Pet N 40:28 Ap 21 '48

Eastern states

East Coast supply unimpaired by oil strike. P. A. Johnston. Barron's 28:31 O 4 '48

Industry group tells how to cut demand, boost supply, ease fuel oil distribution; text of Tobey committee report. Nat Pet N 39:17-18+ D 24 '47

Shell cuts fuel oil delivery to household users by ten per cent. Nat Pet N 39:11-12 D 17 '47

Georgia

Georgia fares better than Florida, other neighbors in getting fuel oil. F. C. Sturtevant. Nat Pet N 40:38-9 F 11 '48

Massachusetts

Massachusetts marketers jittery over cutting fuel oil use by 15 per cent. R. McKee. Nat Pet N 40:36+ Ja 21 '48

New England

New England independents pledge 15 per cent cut in consumer deliveries. R. McKee. Nat Pet N 40:19-20 Ja 14 '48

OIL fuel industry—New England—Continued

New England OHL making study to show jobber operation costs. Nat Pet N 40:14-15 O 27 '48

New England oil heat men OK proposed fair trade code. D. L. Harbour. Nat Pet N 40:57-8 O 6 '48

New England oil heating industry to map fair trade code at parley. Nat Pet N 40:51 S 15 '48

Text of oil heat industry's proposed fair trade code. Nat Pet N 40:58+ O 13 '48

New York (city)

Delivery backlog faces companies after record storm hits New York. R. McKee. Nat Pet N 39:15-16 D 31 '47

New York city opens big fuel oil price inquiry; deliveries improve. Nat Pet N 40:16-17 Ja 7 '48

North Carolina

Carolina jobbers air their problems. H. Rider. Nat Pet N 40:21-2 Ja 28 '48

St Louis

Heat conservation, St Louis style; oil shortage crisis; heating and plumbing dealers in city-wide campaign to stretch supplies. Il Dom Eng 171:114-15+ Ja '48

South Carolina

Carolina jobbers air their problems. H. Rider. Nat Pet N 40:21-2 Ja 28 '48

OIL gas. See Gas, Oil**OIL handling**

11 states require separate pumps, meters for split heating oil, gasoline delivery. A. R. Patla. Nat Pet N 40:34 S 29 '48

Handling oil spills with chemical spray. S. M. Summ. Marine Eng 53:50-1 My '48
Machines cut delivery, operating costs 40 per cent; unloading car of drummed oil. Il Nat Pet N 40:31 Ag 11 '48

OIL heat industry. See Oil burner industry; Oil fuel industry**OIL heat institute of America**

Annual meeting, Chicago, April 5-8. Dom Eng 171:143+ My '48; Sheet Metal Worker 39:92+ My '48

OIL industries

Fats and oils situation; abstract. G. L. Prichard. Soap & San Chem 24:44-6 F '48

Oils and fats, 1947. Chem Eng 55:124-5 F '48

See also

Essential oils	Oil companies
Fish oil	Oil fuel industry
Kerosene	Oils and fats
Lined oil	Petroleum industry
Lubricating oil industry	and trade
	Tung oil

Advertising

Telling public about oil. Sales Management 60:54+ Je 15 '48

Statistics

Oilseeds, oils, fats, and byproducts, 1941-1946. Survey of Cur Bsns 1947 Sup p 115-19 [supplemented in monthly numbers]

United States position in the fats-and-oils trade. C. E. Lund. map For Comm W 32:3-5+ Jl 17 '48

Africa

Vegetable oils of Africa. H. Varon. Chem Age (Lond) 59:432 S 25 '48

Argentina

Argentine vegetable-oil production and trade in 1947. For Comm W 32:35 Jl 3 '48

Australia

Australia's supplies; with data for selected years 1936-1947. For Comm W 32:35-6 Jl 3 '48

Bolivia

Bolivia's edible-oil industry. For Comm W 29:28 D 27 '47

Brazil

Oils, fats, and oilseeds; production and exports, 1946-1947. For Comm W 30:25 F 14 '48

Oilseeds 1948 production, exports of Brazil. Oil Paint & Drug Rep 154:83 O 18 '48

Production and exports in 1947. For Comm W 31:29-30 My 15 '48

São Paulo oilseed crops bigger; Brazilians see possible ERP sales. For Comm W 32:33 Ag 21 '48

Vegetable-oil situation in 1948. For Comm W 33:34 O 30 '48

Canada

Oilseed production, trade, and prices. For Comm W 29:21-2 D 13 '47

Costa Rica

Vegetable oilseeds and oils in 1947. For Comm W 31:32-3 Je 5 '48

Cuba

Vegetable-oil situation. For Comm W 31:35 My 22 '48

Denmark

Reduced output. For Comm W 32:36-7 S 25 '48

Ecuador

Production and exports of oilseeds and oils. In 1946 and 1947. For Comm W 31:35 Je 26 '48

France

French oilseeds industry. Il Chem Age (Lond) 58:266-8, 327-9, 397-9 F 21, Mr 6, 20 '48

Greece

Production of oilseeds and oil in 1947. For Comm W 31:36-7 My 29 '48

India

India's production of oilseeds, 1946-47 season. For Comm W 30:25 Mr 6 '48

Italy

Italian oilseed situation. For Comm W 32:39 Jl 24 '48

Mexico

Imports and exports during 1947. For Comm W 31:35 My 22 '48

Mexico's supplies and exports of oil-bearing crops. For Comm W 30:26 Ja 24 '48

Morocco

Production of oilseeds in French Morocco. For Comm W 30:26 F 21 '48

Paraguay

Production of vegetable oils; forecasts for 1947-48 season. For Comm W 30:30 F 28 '48

Sweden

Oilseed production, 1947 and 1948. For Comm W 32:28-9 Jl 10 '48

Turkey

Oilseed production, 1947-1948. For Comm W 33:34 N 8 '48

United States

United States position in the fats-and-oils trade. C. E. Lund. map For Comm W 32:3-5+ Jl 17 '48

Uruguay

Situation in Uruguay's oilseed industries. For Comm W 31:28-9 My 8 '48

OIL lands

Prospective acreage as a measure of discovery expectancy. J. S. Herold. Oil & Gas J 46:80-3+ Ap 22 '48

U.S. sues for oil under Illinois Central's right-of-way. Bsns W p89 Ag 7 '48

See also

Petroleum—Concessions

OIL measurement

Product pipe-line metering practices. M. J. Dabney. flow diag map diags Am Pet Inst Proc 27(5):31-47 '47; Same. without map and diags. Oil & Gas J 46:216-18+ N 15 '47

Tank calibration. Il diags Inst Pet J 34:288-308 Ap '48

OIL mists. See Mists, Oil**OIL pipes**

Pressure on fuel oil line controlled through air-operated fluid drive unit; Power department equipment at Socony-Vacuum's Paulsboro refinery. A. Krieg. diag Pet Processing 2:831 N '47

OIL pipes—Continued

Principles of automatic oil heating; installation, tanks and piping. C. H. Burkhardt. *Diags Sheet Metal Worker* 39:60+ O '48

See also

Petroleum pipe lines

OIL pumps

Hazards in tanker pump rooms. R. G. Wooler. *Marine Eng* 53:92+ Mr '48

Oil process pumps; mechanical seal. *diag Chem & Ind* p216 Ap 3 '48; *Chem Age (Lond)* 58:689 My 15 '48; *Engineer* 185:265 Mr 12 '48

Short cuts develop markets quickly for Kobe's free pump. J. H. Collins. *Sales Management* 60:91-2+ My 20 '48

See also

Gasoline pumps
Petroleum pumping
Pumps, Fuel

OIL purification

It de-oils citrus juices, dehumidifies vegetable oils; unit, developed for purification of insulating oils; Hydro-Volifier. *il Food Ind* 20:194-5 F '48

OIL reclamation

Air force extending its program of reclaiming engine lube oil. D. P. Thornton, jr. *Nat Pet N* 40:23 N 3 '48

Conveyors, chutes and hoists mechanize chip handling; Link-Belt co. R. C. Becherer. *il Am Mach* 92:120-2 S 9 '48

Diesel lubrication. bibliog *il diags Power Generation* 52:70-2 F '48

How to maintain and recondition lubricants in metalworking plants. E. L. H. Bastian. *il Steel* 122:90-2+ My 24 '48

Insulating oil purification offers operating economies. H. V. Miles. *il diag Elec World* 130:92-4 O 23 '48

Making chip salvage pay an extra profit; illustrations. *Factory Management* 106:74-5 Ag '48

Modern Diesel oil maintenance. T. A. La-Brecque. *il diags Diesel Power* 26:51-3 Je '48

Oil reclaiming; Hoffman oil conditioner. *il Diesel Power* 25:60 N '47

Régénération des huiles de débénzologie usées, sans distillation; procédé des Houillères Nationales. J. Carabasse. *diags Chimie & Ind* 58:228-33 S '47

Treatment and disposal of waste soluble oils. E. F. Eldridge and R. W. Purdy. *diags Sewage Works J* 20:849-56 S '48

OIL refining

Application of high vacuum distillation to the processing of triglyceride oils. E. W. M. Fawcett. *bibliog Chem & Ind* sup27-32 O 9 '48

Deacidification of glyceridic oils; economic and technical merits of steam distillation. A. E. Williams. *diag Chem Age (Lond)* 59:245-8 Ag 21 '48

French oilseeds industry; progressive policy in soap and detergents. *bibliog diag Chem Age (Lond)* 58:397-9 Mr 20 '48

Furans in vegetable oil refining. S. W. Gloyer. *bibliog flow sheet il diag Ind & Eng Chem* 40:228-36 F '48

Higher yields of better oils by continuous alkali refining. L. D. Tyler. *il diag Food Ind* 20:1456-9+, 1618-21 O-N '48

Offers refining process. I. Taussky. *Soap & San Chem* 24:81+ Ja '48

Report on progress in fats and oils field. G. W. McBride. *il Food Ind* 20:1015-18 JI '48

OIL reserves (United States navy)

California Standard unyielding in navy's move to extend Elk Hills. *Oil & Gas J* 46:91 F 26 '48

Economics of Alaskan exploration. K. M. Fagin. *il map Pet Eng* 19:57-8+ D '47

Five-year extension of Arctic Alaska oil search now appears certain. *il map diag Oil & Gas J* 47:44-5+ Je 17 '48

Forrestal supports continued exploration in Alaska's naval petroleum reserve. *map Oil & Gas J* 46:144-5 Ja 29 '48

Navy asks Congress to decide on future of Alaskan oil search. *Oil & Gas J* 46:77 F 19 '48

Navy's intention to develop Elk Hills reverses policy. H. Yocom. *Nat Pet N* 40:7 My 26 '48

Tractor train freighting in the Arctic; with cost data. T. C. Mathews and E. D. Spalding. *il map World Oil* 128:214-18+ JI '48

OIL sand

Character of pores in oil sand. H. M. Ryder. *bibliog il World Oil* 127:129-32+ Ap '48

Dielectric properties of oil sands. R. T. Wheeler. *bibliog il diags Pet Eng* 19:141+ Je '48

Isopachous maps of sand reservoirs. J. B. Wharton, jr. *diags Am Assn Pet Geologists Bul* 32:1331-9 JI '48

New plant to process Athabaska oil sands. W. E. Adkins. *flow diag il Pet Eng* 19:121-2+ Ap '48

Submarine sedimentary features on Bahama Banks and their bearing on distribution patterns of lenticular oil sands. J. L. Rich. *il maps Am Assn Pet Geologists Bul* 32:767-79 My '48

OIL seals

Oil seal in low pressure holders. L. J. Willien. *il plan diag Gas Age* 102:29-34+ S 16 '48

OIL separators

New 80,000 gpm oil-water separator deviates from conventional design. L. Ross. *il plan diag Pet Processing* 3:114-16 F '48

OIL shales

Development of a successful hard-surfaced bit for drilling oil shale. T. Ertl and others. *2pls U S Bur Mines Rep of Invest* 4177:1-3 '48

Great oil reserves in shale fields. *il diag Dom Eng* 172:162+ O '48

Oil shale deposits of the world and recent developments in their exploitation and utilization, reviewed to May 1947. W. H. Cadman. *bibliog 2pls Inst Pet J* 34:109-32 F '48

Synthetics; the great oil reserve. *il Fortune* 37:110-15+ My '48

Analysis

Shale-oil naphthas; analysis of small samples by the silica gel adsorption method. G. U. Dinneen and others. *bibliog diag Anal Chem* 19:992-8 D '47

Distillation

Chemical engineering unit processes; pyrolysis of coal and shale. C. H. Prien. *bibliog Ind & Eng Chem* 40:1655-7 S '48

Comparison of major processes for synthetic liquid fuels; oil-shale, coal hydrogenation, or Fischer-Tropsch from natural gas or coal? W. C. Schroeder. *il Chem Ind* 62:574-7+ Ap '48

Continuous shale retorting process; Union oil company of California. *il diag Pet Refiner (Process Handbook ed)* 27:76-7 sec 2 S '48

Fluid solids technique; applications in the petroleum industry. E. V. Murphree and others. *diag Inst Pet J* 33:614-17 O '47; Same. *Pet Processing* 3:355+ Ap '48

Natural gas, coal, oil shale as sources of liquid fuels. E. V. Murphree. *diags Oil & Gas J* 46:66+ Ap 8 '48

Oil shale as a source of synthetic liquid fuels; abstract. J. G. Tripp. *Pet Processing* 3:404 My '48

Pilot plant developments at Baton Rouge. E. V. Murphree. *diags Pet Eng* 19:90+ S '48

Shale oil from oil shale. *Min & Met* 28:536 N '47

Specific heat of Colorado oil shales. R. J. Shaw. *bibliog 2pls U S Bur Mines Rep of Invest* 4151:1-9 '47

Synthetic liquid fuels in the United States. W. C. Schroeder. *il Mech Eng* 69:994-5 D '47

Colorado

Guide to the geology of central Colorado; with index map showing major geologic structure and significant oil and gas information. *il Quarterly Colorado School of Mines [Golden]* 43 no 2:1-176, pl 1-14 Ap '48 (pa 33)

Mining program, Bureau of mines; oil-shale project, Rifle, Colo. E. D. Gardner. *10pls U S Bur Mines Rep of Invest* 4269:1-19 '48

Specific heat of Colorado oil shales. R. J. Shaw. *Bibliog 2pls U S Bur Mines Rep of Invest* 4151:1-9 '47

Germany

Continental shale oil. *Chem Age (Lond)* 59:379 S 18 '48

OIL shales—Continued

Ohio

Some studies of Ohio coals, shales, and oils. T. H. Kerr. *il maps Ohio State U Eng Exp Sta Bul* 133:1-63 '48 (pa \$1)

Russia

Russia's oil shale industry. S. Klosky. bibliog map diag Chem & Eng N 26:362-4 Mr 22 '48; Corrected bibliog. 26:2409 Ag 9 '48

OIL storage

Almost half of jobbers pushing storage expansion to minimize winter hardships. A. R. Patla. *il Nat Pet N* 40:37+ Ag 4 '48
Expands Diesel fuel storage capacity; Southern railway. *il map Ry Age* 124:340-2 F 14 '48

Jobber campaigns to increase consumer fuel oil storage showing good results. A. R. Patla. *il Nat Pet N* 40:35+ JI 14 '48
Method for controlling in-transit and storage losses of oil products. E. L. Hoffman. *diag Nat Pet N* 39:26-9 D 31 '47

Social modernizes warehouse operation; speeds work, uses space efficiently. B. C. Manuel. *il Nat Pet N* 40:25+ Ja 7 '48
Welded steel barge stores standby oil; Pittsburgh plate glass co. *il Heating-Piping* 20: 93 Je '48

Fire protection

Automatic fire warden safeguards Diesel fuel supply of Third avenue transit corporation; electric detector activates carbon dioxide system. S. G. Freck. *il Bus Transportation* 27:69 Ap '48

Firewalls of steel gain tank capacity in limited space; Sun oil co. Newark, N.J. terminal. *il diag Pet Processing* 3:209, cover Mr '48

OIL tankers. See Tank ships

OIL tanks

Aluminum tanks for inside storage of oil. Heat & Ven 45:122+ Ja '48
Aluminum tanks for oil storage. *Safety Eng* 96:34 S '48

Effect of fluid pressure on capacity of vertical storage tanks. W. E. Splain. *diag Pet Processing* 3:937-8 O '48

Principles of automatic oil heating; installation, tanks and piping. C. H. Burkhardt. *diags Sheet Metal Worker* 39:60+ O '48

Scalloped type wall saves metal in construction of storage tanks; patent. *diag Pet Processing* 3:260 Mr '48

Storage tank construction on Guam. T. Richards. *il Pet Eng* 19:136+ Ag '48

Tank construction and maintenance. C. K. Johnson. *il Oil & Gas J* 46:196-7+ Ap 1 '48

Tank tapping; valve changing without purging. M. H. Pearce. *il diags World Oil* 127: 181-3 Ap '48

Volume determination of tanks. T. F. Philians. *diags Pet Eng* 19:174+ Mr '48

Fire protection

Steel dikes saved six acres; enclosure for oil storage tanks. F. L. Plummer. *il diag Pet Processing* 3:671-2 JI '48; Same. *Pet Eng* 19:115-16+ Ag '48

Heating

Heating reduces tank bottom reconditioning. M. H. Pearce. *il World Oil* 128:152-3 Je '48

Improved system for heating storage tanks. *diags Chem Ind* 63:597 O '48

Tank calibration. *il diags Inst Pet J* 34:288-308 Ap '48

Protection

Aluminum used in combatting tank corrosion. G. W. Alexander. *il Pet Refiner* 26:99 D '47

Installation and performance of scale traps in sour-crude service. G. L. Crain. *il plan diags Oil & Gas J* 47:92-4 Je 10 '48; Same. *map World Oil* 128:204+ Ag '48

Insulation saves adjacent tanks in oil mixer accident-explosion. *il Safety Eng* 94:26 D '47

Protective coating saved tanks in war; better method needed which will not cause corrosion. *il Nat Pet N* 40:25 Ag 11 '48

Roofs

Claim vapor loss is eliminated in double-roof storage tank; patent. *diag Pet Processing* 3:695 JI '48

Mineral wool cement helps lick tank roof corrosion in tropical climate. *il Pet Refiner* 27: 138 JI '48; Same. *Oil & Gas J* 47:84 JI 8 '48

Standards

Report of committee on the standardization of tanks for oil storage. *diags Am Pet Inst Proc* 27(4):333-50 '47

Venting

Nonex vents for oil-tanks. *il diags Engineering* 164:440 N 7 '47

Vapor output to heat input ratio for petroleum storage tanks exposed to fire; venting requirements. M. L. Arnold and G. H. Horne. *bibliog Pet Eng* 19:220+ Mr '48
Venting requirements of standard cone-roof-type oil-storage tanks. T. M. Babin. *il Oil & Gas J* 46:216+ Ap 1 '48

OIL well drills. See Drills, Oil well

OIL wells. See Petroleum—Well drilling

OIL workers international union

OWIU expected to follow CIO wage formula in drafting new pay demand. S. H. Scheibla. *Nat Pet N* 39:33 D 31 '47

Strong test of Taft-Hartley looms as OWIU threatens Sinclair strike. S. H. Scheibla. *Nat Pet N* 40:27 Mr 24 '48

OILCLOTH

Company provides retail shop plans to regain ground lost in war; oilcloth shop. D. W. Klau. *il Ptr Ink* 222:37 F 27 '48

OILS, Drying. See Drying oils

OILS, Lubricating. See Lubricating oils

OILS, Quenching. See Steel, Quenching of

OILS and fats

American oil chemists' society fall meeting, 21st, Chicago, Oct. 20-22; with abstracts of papers. *Oil Paint & Drug Rep* 152:7+ O 27 '47; Soap & San Chem 23:36-9+ N '47; Chem & Eng N 25:3234-5 N 10 '47
American oil chemists' society 39th annual meeting, New Orleans, May 4. Chem & Eng N 26:1512-13 My 24 '48

L'évolution des importations d'oléagineux des territoires d'outre-mer en France. M. T. François. *Génie Civil* 124:430-3 N 15 '47

Fats and oils. E. L. Burtis. *Ind & Eng Chem* 40:998-9 Je '48

Fats and oils '48 export, import schedules, world quotas revised. *Oil Paint & Drug Rep* 154:3+ JI 26 '48

Fats and oils scanner. Barron's 27:45 D 8 '47
Fats and oils timetable licensing procedure set. *Oil Paint & Drug Rep* 153:4+ My 31 '48; Same abr. *For Comm W* 31:25 Je 12 '48

Fats and oils world supply prospects for 1948. *Oil Paint & Drug Rep* 152:3+ D 1 '47

Fats, oils end-use consumption reporting system revised by U.S. *Oil Paint & Drug Rep* 154:5 JI 19 '48

Fats, oils temporary 1948 allocations set. *Oil Paint & Drug Rep* 153:3 F 2 '48

Four revolutionary oils for coatings industry; Archer-Daniels-Midland co.; Admerols. *Paint Oil & Chem R* 111:10B My 13 '48

French oilseeds industry. *il Chem Age (Lond)* 58:266-8, 327-9, 397-9 F 21, Mr 6, 20 '48

From nuts to soap; Chinese tallow tree; sapium sebiferum. *Ind & Eng Chem* 39: sup16A+ N '47

Investigations of some new Sudan seed oils. D. N. Grindley. *bibliog Soc Chem Ind J* 67: 230-1 Je '48

Mechanical engineering in the oils and fats industry. H. J. Gough. *flow charts diag Inst Mech Eng J & Proc* 157 (War emergency issue no 33):328-33, pl 1-2 '48

New "divvy" on fats and oils; to keep more at home. Barron's 27:37 D 22 '47

New hydrogenation equipment; rapid hardening of edible oils. *il Chem Age (Lond)* 58: 515 Je 12 '48

Oilseeds research work intensified by Department of agriculture. *Oil Paint & Drug Rep* 153:6+ Ap 12 '48

Oleo fats, a new category. Barron's 28:37 My 24 '48

Outlook for fats and oils unsettled, shortages acute. C. E. Lund. *il For Comm W* 30:3-4 Mr 13 '48

OILS and fats—Continued

Report on progress in fats and oils field. G. W. McBride. *il Food Ind* 20:1015-18 J1 '48
Solvent extraction of vegetable oils. C. W. Bilbe. *Chem Eng* 55:99 Ag '48
Whale oil. J. R. Skeen. *Soap & San Chem* 24: 49-4 Je '48

See also

Acids, Fatty
Castor oil
Citrus oils
Cottonseed oil
Drying oils
Emulsions
Essential oils
Fish oil
Gasoline
Insulating oil
Lard
Linsed oil
Lubricating greases
Lubricating oils
Lubrication and lubricants
Neat's foot oil
Oil fuel
Oil industries
Oiticica oil
Oleomargarine
Olive oil
Peach kernel oil
Peanut oil
Peppermint oil
Petroleum
Rancidity
Shortening
Soap
Soybean oil
Stand oils
Sweet potato oil
Tall oil
Tallow
Tung oil
Viscosity
Whale oil

Bibliography

Literature search on the solvent extraction of oleaginous materials; with additional reference to by-products from the solvent extraction of peanuts. B. H. Weil and others. Georgia School of Technology State Eng Exp Sta [Atlanta] Special Rep no 26: 1-185 '48 (\$4)

Prices

Chemicals, oils and drugs price changes; Jan. 6, 1947 and Jan. 5, 1948 compared; tabulation by commodity. *Oil Paint & Drug Rep* 153:8+ sec 2 F 16 '48
Chemicals, oils and drugs price record, 1939, 1942, 1945-1947; tabulation. *Oil Paint & Drug Rep* 153:4 sec 2 F 16 '48
Fats in price mixup. *Barron's* 28:37 Je 14 '48
Oils, fats and waxes; 1947 market trends. *Oil Paint & Drug Rep* 153:41-2 sec 2 F 16 '48

Statistics

Fats and oils report of USDA. *Oil Paint & Drug Rep* 154:3 O 11 '48
Fats, oils buying by PMA 554,026,752 lbs. in year. *Oil Paint & Drug Rep* 154:87 Ag 16 '48
Fats, oils 1947 imports 50 per cent higher than 1946. *Oil Paint & Drug Rep* 153:4 Mr '48
More fats, oils in sight for '49 at lower prices. *Barron's* 28:36 O 18 '48
Oil, fats consumption; Oct.-Dec. 1947. *Oil Paint & Drug Rep* 153:7 Mr 8 '48
Oils and fats imports, exports; January-June, 1948 and 1947. *Oil Paint & Drug Rep* 154:77 Ag 23 '48
Oils and fats production and consumption, 1947. *Oil Paint & Drug Rep* 153:80 Ap 5 '48
Oils, fats and waxes. Published in weekly numbers of *Oil, paint and drug reporter*. Oils, fats consumption; January-March 1948. *Oil Paint & Drug Rep* 153:7 Je 14 '48
Oils, fats imports, exports in 1946-47. *Oil Paint & Drug Rep* 153:86 Ap 12 '48
United States position in the fats-and-oils trade. C. E. Lund. map *For Comm W* 32: 3-5+ J1 17 '48

OILSEEDS. See Oil industries; Oils and fats

OINTMENTS

Developments in barrier creams; abstract. S. J. Hopkins. *Soap & San Chem* 24:86 Ja '48
Flash burn-cream; formula. C. S. Glickman. *Soap & San Chem* 24:81 My '48
New sunburn ointments developed. *Chem Ind* 62:59 Ja '48

OITICICA oil

Brazil oiticica, S. A.; power plant. *il Diesel* Power 25:84 D '47

OKLAHOMA*See also*

Petroleum industry and trade—Oklahoma

Industries and resources

Southwest's goal; light industry. *il Bsns W* p30+ Ap 3 '48

OKLAHOMA CITY*See also*

Housing—Oklahoma City

Sewerage

Use of Cloroben for odor control. F. S. Taylor. *il Sewage Works J* 20:917-20 S '48

OKLAHOMA gas and electric company

Common stock offered. *Comm & Fin Chr* 168: 1696 O 25 '48

Preferred stock offered. *Comm & Fin Chr* 167:1696-7 Ap 19 '48

Public utility securities. *Comm & Fin Chr* 168:1332 S 30 '48

OLD age

Biology of old age. F. Moog. *il Sci Am* 178:40-3 Je '48

See also

Age and employment
Retirement

OLD age homes

Homes for the aged; new British bill spotlights planning requirements for old people. *Arch Forum* 88:12-13 Ja '48

OLD age pensions

Funny money; Townsend plan, technocracy, etc. *Fortune* 37:136 Ap '48

Swiss compulsory old-age and survivors' insurance scheme. *Int Labour R* 56:190-2 Ag '47

Swiss old-age and survivors' insurance scheme. A. Saxer. bibliog *Int Labour R* 56:543-65 N-D '47

Voluntary old-age insurance in Palestine. *Int Labour R* 57:88-91 Ja-F '48

See also

Civil service pensions
Pensions, Industrial
Railroads—Pensions

OLDER workers. See Age and employment**OLDS, Irving Sands, 1887-**

Portrait. *Bsns W* p21 N 1 '47

Portrait. *Fortune* 38:67 J1 '48

OLDSMOBILE division. See General motors corporation—Oldsmobile division

OLEFINS

Activated bauxite as a catalyst for polymerization of C₄ olefins. H. Heinemann, W. A. La Lande, Jr. and W. S. W. McCarter. bibliog (41 ref) *Ind & Eng Chem* 40:1224-6 J1 '48

Addition of dinitrogen tetroxide to olefins; the butylenes. N. Levy, C. W. Scaife and A. E. Wilder-Smith. *Chem Soc J* p52-60 Ja '48

Addition of Grignard reagents to the olefin, bidiphenyleneethylene. R. C. Fuson and H. D. Porter. bibliog *Am Chem Soc J* 70:895-7 Mr '48

Alkylation of hydrochlorosilanes. C. A. Burkhard and R. H. Kriebel. bibliog *Am Chem Soc J* 69:2687-9 N '47

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; action of sulphuric acid on the trimethylpentanes. F. Morton and A. R. Richards. bibliog *diag Inst Pet J* 34:133-46 F '48

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; composition of an aviation alkylate. F. Morton and A. R. Richards. bibliog *Inst Pet J* 33:697-720 D '47

Alkylation of thiophene with olefins. W. G. Appleby and others. bibliog *Am Chem Soc J* 70:1552-5 Ap '48

Application of infra-red analysis to the study of the reaction of certain olefins with hydrogen sulphide. N. Sheppard and G. B. E. M. Sutherland. *Chem Soc J* p 1540-6 N '47

Brominations with N-bromosuccinimide and related compounds; the Wohl-Ziegler reaction. C. Djerassi. *Chem R* 43:271-317 bibliog (125 ref, p296, 312-14, 316-17) O '48

Catalytic dehydrogenation. flow diag *Oil & Gas J* 46:128 Ap 1 '48

Critical review of chemistry of oxo synthesis for production of alcohols from olefins, carbon monoxide, and hydrogen. I. Wender and M. Orchin. pl *U S Bur Mines Rep of Invest* 4270:1-26 '48

Cyclic polyolefins; synthesis of cyclooctatetraene from pseudopelletierine. A. C. Cope and C. G. Overberger. bibliog *Am Chem Soc J* 70:1433-7 Ap '48

OLEFINS—Continued

Effects of cross-linking and branching on the molecular constitution of diene polymers. P. J. Flory, *bibliog Am Chem Soc J* 69: 2893-9 N '47

Hydrofluorination in the presence of boron fluoride, A. L. Henne and R. C. Arnold, *bibliog Am Chem Soc J* 70:758-60 F '48

Hydrogen transfer; reaction of *p*-cymene with olefinic hydrocarbons in the presence of sulfuric acid and hydrogen fluoride catalysts, V. N. Ipatieff, H. Fines and R. C. Oberg, *bibliog Am Chem Soc J* 70:2123-8 Je '48

Isomerization of certain olefins by silica gel at room temperature, W. S. Gallaway and M. J. Murray, *Am Chem Soc J* 70:2584-6 J '48

Mechanism for the reaction of dioxane sulfotrioxide with olefins; sulfonation of styrene, F. G. Bordwell and C. S. Rondestvedt, jr, *bibliog Am Chem Soc J* 70:2429-33 J '48

Methylation of olefins with methyl chloride, V. A. Miller and W. G. Lovell, *bibliog Ind & Eng Chem* 40:1138-50 Je '48

α -Methylene reactivity in olefinic systems; the Frins reaction with ethylene and α -methylstyrene, J. W. Baker, *Chem Soc J* p89-92 Ja '48

New synthesis or organosilicon compounds, E. W. Pietrusza, L. H. Sommer and F. C. Whitmore, *bibliog Am Chem Soc J* 70: 484-6 F '48

Oxo-ated olefins; production of alcohols and aldehydes by the action of CO and hydrogen on olefins is now a commercial reality, *il Chem Ind* 63:211-12 Ag '48

Perfluorinated olefins, A. L. Henne and T. H. Newby, *bibliog Am Chem Soc J* 70:130-2 Ja '48

Photo-oxidation of olefins, L. Bateman, *bibliog Rubber Age* 63:334-6 Je '48

Polyalkylene sulfides from diolefins and dimercaptans, C. S. Marvel and R. R. Chambers, *bibliog il Am Chem Soc J* 70:993-8 Mr '48

Polymerization to lubricating oils of *n*-heptene-1 and *n*-pentadecene-1, G. H. Dazeley and C. C. Hall, *bibliog Soc Chem Ind J* 67:22-3 Ja '48

Preparation of aldehydes from alkenes by the addition of carbon monoxide and hydrogen with cobalt carbonyls as intermediates, H. Adkins and G. Krsek, *bibliog Am Chem Soc J* 70:383-6 Ja '48

Preparation of 2-nitro-1-alkenes from nitro amines, A. T. Blomquist and T. H. Shelley, jr, *bibliog Am Chem Soc J* 70:147-9 Ja '48

Production of olefin-polymer lubricating oils of satisfactory oxidation stability, G. H. Dazeley and others, *bibliog Inst Pet J* 34: 647-53 S '48

Reaction of olefins and chlorohydrosilanes, A. J. Barry and others, *Am Chem Soc J* 69:2916 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with mono-olefins, di-isoprenes, and rubber, R. F. Naylor, *Chem Soc J* p 1532-9 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with mono-olefins and with $\Delta^{1,2}$ -diolefins, E. H. Farmer and F. W. Shipley, *Chem Soc J* p 1519-32 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with squalene, G. F. Bloomfield, *Chem Soc J* p 1546-7 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; rubber vulcanization, G. F. Bloomfield, *Soc Chem Ind J* 67:14-17 Ja '48

Reaction of sulphur and sulphur compounds with olefinic substances; thermal decomposition of organic polysulphides, and its contribution to the sulphur-olefin reaction, G. F. Bloomfield, *Chem Soc J* p 1547-51 N '47

Reactions of atoms and free radicals in solution; the addition of bromo esters to olefins, M. S. Kharasch, P. S. Skell and P. Fisher, *bibliog Am Chem Soc J* 70:1055-9 Mr '48

Synthesis of amino mercaptans from olefin sulfides, H. R. Snyder, J. M. Stewart and J. B. Ziegler, *Am Chem Soc J* 69:2672-4 N '47

Synthesis of mercaptans from olefin sulfides, H. R. Snyder, J. M. Stewart and J. B. Ziegler, *Am Chem Soc J* 69:2675-7 N '47

Thermal decomposition of mono-olefins; isobutylene, F. O. Rice and W. S. Haynes, *bibliog diag Am Chem Soc J* 70:964-6 Mr '48

Ultrasonic velocity in a series of 1-olefins, R. T. Lagemann and others, *bibliog J Chem Phys* 16:247-9 Mr '48

Analysis

Determination of olefines in cracked gases, G. E. Mapstone and P. Beckmann, *bibliog Pet Refiner* 27:112-16 Ag '48

Determination of olefinic unsaturation; co-operative evaluation of nitrogen tetroxide methods, E. T. Scafe and others, *bibliog diags Anal Chem* 19:971-5 D '47

Determination of olefins in gasoline; application of infrared spectroscopy, R. W. E. Johnston, W. G. Appleby and M. O. Baker, *bibliog Anal Chem* 20:305-12 S '48

Determination of organic peroxides; evaluation of modified iodometric method, C. D. Wagner, R. H. Smith and E. D. Peters, *bibliog Anal Chem* 19:976-9 D '47

Procedure for determination of the bromine number of olefinic hydrocarbons, H. L. Johnson and R. A. Clark, *bibliog Anal Chem* 19:869-72 N '47

Simple chemical analysis of isobutene in binary mixtures with other olefins, J. P. W. Houtman, *bibliog Inst Pet J* 34:255-70 Ap '48

OLEIC acid

Absorption of bacteriostatic quantities of fatty acid from media by large inocula of tubercle bacilli, B. D. Davis, *bibliog Pub Health Rep* 63:455-9 Ap 2 '48

Diphase metal cleaners; preferential wetting by the two phases, I. Reich and F. D. Snell, *Ind & Eng Chem* 40:1233-7 J '48

Kinetics of an esterification with cation-exchange resin catalyst, C. L. Levesque and A. M. Craig, *bibliog Ind & Eng Chem* 40: 96-9 Ja '48

Preparation of some polymerizable esters of oleic acid with unsaturated alcohols, D. Swern, G. N. Billen and H. B. Knight, *bibliog Am Chem Soc J* 69:2439-42 O '47

OLEOMARGARINE

Fight on oleo tax will be resumed, *Barron's* 28:36 Je 28 '48

Fun with margarine; color capsule, *Fortune* 37:124 F '48

Margarine gets a break, *Bsns W* p25 F 14 '48

Margarine industry to expand production, Sweden, *For Comm W* 30:19 Ja 3 '48

Margarine squeeze, *il Mod Packaging* 21: 120-3+ Ap '48

Margarine tax repeal moves nearer, *il Bsns W* p20 My 1 '48

Margarine wins round, but fight's not over, *Bsns W* p20 Ap '48

Oleo aftermath; dairy industry seeks new price formulas, *Bsns W* p34+ My 15 '48

Oleo makers expect post-tax gain in sales, *Barron's* 28:37 My 17 '48

Packaging award to the Cudahy packing co, *il Mod Plastics* 26:154-5 S '48

Study of vitamin A retention in margarine; abstract, A. I. Coombes, *Food Ind* 20:795 My '48

See also

Margarine unite

Storage

Margarines are unaffected by low temperature storage, A. A. Kiess and others, *il Food Ind* 20:716-18+ My '48

OLIVE oil

France's production and marketing of olive oil, *For Comm W* 31:26 Ap 24 '48

Olive and olive-oil production, Algeria, *For Comm W* 29:26 N 15 '47

Olive oil, J. R. Skeen, *Soap & San Chem* 24:47+ Ap '48

Olive-oil production and foreign trade, Syria, *For Comm W* 32:28-9 S 11 '48

Olive oil production, Italy, *For Comm W* 29: 27 D 20 '47

OLIVE oil—Continued

- Olive-oil production, requirements, and stocks, Turkey. For Comm W 31:26 Ap 24 '48
 Outlook for olive oil foots. Soap & San Chem 24:37-8 My '48
 Partition coefficients of fifty compounds between olive oil and water at 20°C. R. Macy, bibliog J Ind Hygiene 30:140-3 Mr '48
 Tunisian olive-oil situation; with data for 1939-1948. For Comm W 33:33 O 16 '48

OLIVER corporation

- International Harvester vs. Oliver corporation. F. Dobbs. Mag of Wall St 82:434-6+ JI 31 '48

OLIVES

- Automatic for olives; machine that fills by weight eliminates overpack, il Mod Packaging 21:134-6 Mr '48
 Output, stocks, and exports of pickled green olives, Spain. For Comm W 31:30-1 My 22 '48
 Spain's pickled-olive industry. For Comm W 30:20 Ja 3 '48

- OLNEY, Louis Atwell, 1874-**
 Portrait. Textile Col 70:36 O '48

OLNEY medal

- Award of Olney medal to Prof. Edward R. Schwarz. Am Dyestuff Rep 37:1-6 Ja 12 '48
 Harold Mason Chase, 1948 Olney medalist. A. R. Thompson. Am Dyestuff Rep 37:684-5 O 18 '48

OLSON, Oscar M.

- Sideline job as carrier boy, makes life easy; O. M. Olson carrying the Salt Lake tribune for 30 years. T. Mathews. Ed & Pub 81:26 S 18 '48

OLYMPIC games

- Broadcasting facilities at the Olympic games. Engineering 166:150-1 Ag 13 '48
 London transport and the Olympic games. Engineer 186:268-9 S 10 '48
 Olympic torch. Engineer 186:121 JI 30 '48

Reporting

- How the press will cover the Olympics. B. W. Munn. Ed & Pub 81:22 JI 10 '48

- O'MALLEY, Charles J., 1867-**
 Dean of Boston agency men relies on press. J. M. Potter. por Ed & Pub 81:24 Je 26 '48

O'MEARA, Walter

- Outdoorsman O'Meara. J. L. Collings. Ed & Pub 81:24 My 22 '48

- OMNIDIRECTIONAL beacons.** See Radio beacons (for aircraft)

ONEIDA, New York**Streets**

- No more winter emergencies. A. T. Ernenwein. il Pub Works 78:33 N '47

ONIONS

- Chemical components of onion vapors responsible for wound-healing qualities. E. F. Kohman. bibliog Science 106:625-7 D 26 '47

- ONSAGER'S reciprocal relations.** See Thermodynamics

ONTARIO**See also**

- | | |
|-------------------------------|-------------------------------------|
| Gold mines and mining—Ontario | Mines and mineral resources—Ontario |
| Iron mines and mining—Ontario | |

Hydroelectric power commission

- Annual report, 39th. Engineering 164:422 O 31 '47; Elec R (Lond) 141:623 O 24 '47

Research commission

- Ontario research commission proposes plan to develop and integrate research. Can Chem & Process Ind 32:322-5+ Ap '48

Sanitary affairs

- Plumbing code for Ontario. A. E. Berry. Water & Sewage 85:22+ D '47

ONTARIO good roads association

- Annual meeting, Toronto, Feb. 24-25. Roads & Bridges 86:103-15+ Mr '48

ONTARIO road builders' association

- Annual meeting, Toronto. Roads & Bridges 86:116-18+ Mr '48

OPACIFIERS

- Comparison of various antimonates as opacifiers in dry process enamels for cast iron; abstract. W. W. Coffeen. Cer Ind 50:91 My '48

- Zircon needs alumina to opacify. Cer Ind 51:60 Ag '48

OPAL glass. See Glass, Opal**OPALS**

- Opal mining and marketing, Australia. For Comm W 32:31 S 25 '48

OPEN and closed shop

- Decisions of interest to labor; North Carolina; validity of anti-closed-shop law. Mo Labor R 66:311 Mr '48

- End of union-shop polls? proposed bills. Bsns W p 109-10 My 15 '48

- Hiring curbs hit. Bsns W p 104 Ag 21 '48

- Key cases under the new labor law; closed shop evasions; case of the printing industry. J. M. Gambatese. Factory Management 106:96 Je '48

- State rights win; T-H law forbids union-shop elections in states with freedom to work laws. Bsns W p 103-4 My 29 '48

- T-H change due? collapse of union-shop poll in building trades. Bsns W p 110-11 O 23 '48

OPEN hearth furnaces

- Basic ends and all-basic open hearth furnaces. R. P. Heuer and M. A. Fay. il diags Iron & Steel Eng 25:47-58; Discussion. 58-60 Mr '48

- Construction and repair of open-hearth furnaces. D. C. Muir. il diags Iron & Steel Inst J 157:481-91 D '47; Abstracts. Engineering 165:474 My 14 '48; Metallurgia 38:96-7 Je '48; Discussion. Iron & Steel Inst J 159:376-84 Ag '48

- Development of the open-hearth furnace. A. McCance. il diags Iron & Steel Inst J 159:1-10 My '48; Same abr. Engineer 185:476-8 My '48; Same cond. Engineering 165:499, 526-7 My 21-28 '48; Abstract. Metallurgia 38:95-6 Je '48

- Evaluation of openhearth checkers. W. B. Bryant. diags Iron Age 160:76-81 N 13 '47

- First report of the open-hearth instruments sub-committee. F. L. Robertson. Iron & Steel Inst J 160:72-4 S '48

- Installation and use of instruments on open-hearth melting furnaces. R. C. Baker. il diags Iron & Steel Inst J 157:81-8 S '47; Discussion. 159:376-84 Ag '48

- Modern open hearth. T. J. Ess. bibliog il plan diags Iron & Steel Eng 25:O19-70 JI '48

- Openhearth fume control; Venturi scrubbing unit. E. S. Kopecki. il diags Iron Age 162:78-80 S 9 '48

- Open-hearth-furnace instrumentation. E. Rogers. bibliog plan diag Iron & Steel Inst J 160:57-72 S '48

- Photo-electric roof pyrometer for open-hearth furnaces. T. Land. bibliog pl diags Iron & Steel Inst J 155:568-76 Ap '47; Discussion. 158:341-6 Mr '48; Engineering 164:521 N 28 '47; Engineer 184:522-3 D 5 '47

- Separation of dust from hot gases in the open hearth furnace. J. Zimmerman. Blast F & Steel Pl 36:459 Ap '48

- Temperatures in the open-hearth furnace. R. E. Sosman. bibliog il diags Metals Tech 15:TP2435 1-37 Ag '48

See also**Open hearth process****Charging**

- All door front will permit use of large charging boxes. L. S. Longenecker. il diags Blast F & Steel Pl 36:447-50 Ap '48

- Open hearth charging delays and their effect on steel production. J. A. Warchol, jr. Blast F & Steel Pl 35:1479-81 D '47

- Speeding up charging of open hearths; abstract. J. H. Kincaid. Steel 121:126+ N 10 '47

Control

- Progress in open-hearth valve design. diags Steel 122:90+ F 9 '48

Design

- Design of open-hearth gas ports. M. P. Newby. bibliog diags Iron & Steel Inst J 157:601-8 D '47; Discussion. 159:376-84 Ag '48

OPEN hearth furnaces—Design—Continued

Experimental furnace for the investigation of open-hearth-furnace combustion problems. A. H. Leckie and others, bibligo il diags Iron & Steel Inst J 155:392-422; 160:37-56 Mr '47, S '48; Discussion, 156:501-4; 157:201-6 Ag, O '47

Fundamentals of open-hearth checkerwork design, H. W. Potter, il Steel 121:112-+ D 8 '47

Firing

Experimental furnace for the investigation of open-hearth-furnace combustion problems. A. H. Leckie and others, bibligo il diags Iron & Steel Inst J 155:392-422; 160:37-56 Mr '47, S '48

Multiple fuel burners for open hearth furnaces. J. M. Brashear, bibligo il diags Iron & Steel Eng 25:60-6; Discussion, 66-8 My '48

Open hearth furnace burner adjustable, Blast F & Steel Pl 36:718-20 Je '48

Practical experience with the use of oxygen in steelmaking, G. V. Slottman, diags Iron & Steel Inst J 157:331-6 N '47

Use of multiple burners and compressed air to improve the operating rates on open hearth furnaces, V. F. Corsini, Iron & Steel Eng 25:99 S '48; Abstract, Steel 122:120 Ap 26 '48

Lining

Basic brick in the open hearth furnace, V. W. Jones, diags Blast F & Steel Pl 36:813-16 JI '48; Same cond. Iron & Steel Eng 25:126-8 Ag '48

Basic end and main roof construction for openhearth furnaces; abstract, A. K. Moore, il Iron Age 161:83-4 Ap 29 '48

Bottom refractory discloses freedom from hydration, il Blast F & Steel Pl 36:562 My '48

Effect of oxygen on refractories in the basic openhearth; abstract, R. S. Moore, Iron Age 162:102-3 O 7 '48

Factors in service behavior of silica brick, L. A. Smith, bibligo Blast F & Steel Pl 36:701-6 Je '48; Excerpts, Iron & Steel Eng 25:125-6 Ag '48

Improvement of analytical control for silica brick, J. T. Rozsa, Am Cer Soc J 31:280-3 O 1 '48

Observations on the shelling of checker-brick, E. C. Petrie and D. P. Brown, il Am Cer Soc J 31:14-20 Ja 1 '48

Openhearth furnace; making the most of silica roofs, J. H. Chesters, il diags Iron Age 161:72-7 Ap 29; 86-93 My 6 '48

Operating with a basic main roof, with cost data, A. K. Moore, il Blast F & Steel Pl 36:86-8 Ja '48

Oxygen firing furnaces of industry is placing new demands on refractories, il Brick & Clay Rec 112:56 Ja '48

Properties and performance of open hearth bottoms, H. M. Kraner, Iron & Steel Eng 25:128-30 Ag '48; Abstract, Steel 122:73-+ My 31 '48

Refractories use with oxygen firing still offers problems to steelmakers, il Brick & Clay Rec 112:66-+ Je '48

OPEN hearth process

Accelerating carbon elimination of the open hearth bath, J. N. Hornak, Iron & Steel Eng 25:39-45 Ja '48; Excerpt (table), Iron Age 160:69 D 25 '47

Basic open hearth slag control, C. R. Funk, il diags Blast F & Steel Pl 35:939-43, 1098-104-+, 1230-4, 1372-4, 1490-7-+; 36:332-6, 539-49 Ag-D '47, Mr, My '48

Bunched open hearth heats and suggestions for their prevention, R. K. Harris, Blast F & Steel Pl 36:205-11 F '48

Cupola hot metal for the openhearth, E. S. Kopeck, il diags Iron Age 162:76-81 O 21 '48

Direct oxidation in the basic open hearth process, E. B. Hughes and F. G. Norris, bibligo Metals Tech 15:TP3380 1-17 Je '48; Abstract, Iron Age 161:128 F 26 '48; Discussion, Metals Tech 15:TP2448 10-18 Ag '48

Electrolytic manganese in open-hearth and Bessemer steel tests at Jones & Laughlin steel corp., Pittsburgh, Pa. F. Sillers, jr, bibligo U S Bur Mines Rep of Invest 4303: 1-33 '48

Health of workers exposed to sodium fluoride at open hearth furnaces, (Pub. health bul. 299) 64p U.S. Public health service, Washington; pa 25c Supt. of doc. '48

Influence of carbon on the equilibria between steel and slag in the acid open-hearth furnace, F. Hierasymenko, bibligo Iron & Steel Inst J 157:515-25 D '47

Mechanism of carbon removal in the open-hearth furnace, A. H. Jay, Iron & Steel Inst J 157:167-72 O '47; Discussion, 158:451-6 Ap '48; Engineer 184:546 D 12 '47; Engineering 164:545 D 5 '47

Mechanism of nozzle erosion in open hearth ladles, R. B. Snow and J. A. Shea, il Steel 123:88-+ JI 26 '48

Mineralogical observations on some basic open-hearth slags, S. O. Agrell, bibligo Iron & Steel Inst J 152:19-55, pl 2-6 no 2 '45; Discussion, 153:355-8 no 1 '46

Modern open hearth, C. J. Ess, bibligo il plan diags Iron & Steel Eng 25:Q19-70 JI '48

More time for bath alterations provided by use of spectrograph in steel plants, B. W. Bowen, il Steel 121:69-70-+ D 29 '47

National open hearth steel committee and the blast furnace, coke oven and raw materials committee, AIME 31st conference, Pittsburgh, April 12-14, Iron Age 161:82-4 Ap 29 '48; Steel 122:120-+ Ap 26 '48; Metal Prog 53:694-6 My '48

National open hearth steel committee and the blast furnace, coke oven and raw materials committee of the American institute of mining and metallurgical engineers; conference program, Blast F & Steel Pl 36:sup23-4-+ Ap '48

Open hearth charging delays and their effect on steel production, J. A. Warchol, jr, Blast F & Steel Pl 35:1479-81 D '47

Open hearth developments for 1947, W. C. Kitto, il Blast F & Steel Pl 36:57-60 Ja '48

Open-hearth furnace operators discuss use of oxygen at 31st conference, Pittsburgh, Foundry 76:148, 150 S '48

Open-hearth problems, C. R. FonDersmith, il Steel 122:35-6-+ Ja 19 '48

Open hearth sections hold meetings in Peoria, Philadelphia, Fontana and Columbus, Blast F & Steel Pl 35:1379-81 N '47

Openhearth steel with oxygen; abstract, J. H. Zimmerman, Iron Age 160:86 N 27 '47

Operation of oxygen-enriched open-hearth furnaces, J. S. Marsh, diags Metals Tech 15:TP2416 1-12 Ag '48; Same cond. Steel 122:112-+ My 3 '48; Abstract, Iron Age 161:87-9 Mr 25 '48; Discussion, Metals Tech 15:TP2448 18-20 Ag '48

Oxide systems pertaining to steel-making furnace slags, A. H. Jay and K. W. Andrews, bibligo Iron & Steel Inst J 152:15-18 no 2 '45; Discussion, 153:353-5 no 1 '46

Oxygen in the steel industry; past, present and future, G. V. Slottman, bibligo il diags Blast F & Steel Pl 36:64-9 Ja '48

Oxygen uses in steel production, J. H. Zimmerman, il diags Iron & Steel Eng 25:35-43; Discussion, 43-4 F '48

Practical experience with the use of oxygen in steelmaking, G. V. Slottman, diags Iron & Steel Inst J 157:331-6 N '47

Practices affecting yields and surface quality of rimmed and semi-rimmed steel, L. R. Silliman, il Blast F & Steel Pl 36:550-4, 691-4 My-Je '48

Preparation of iron ore for blast furnace and open hearth use, R. R. Williams, jr, plan Iron & Steel Eng 25:122-4 Ag '48

Progress of oxygen in open hearth, chief subject at annual fall meeting of National open-hearth committee, Pittsburgh section, American institute of mining and metallurgical engineers, Steel 121:90 N 24 '47

Slag control in the economics of steel production; abstract, K. L. Feters, Steel 122:115 F 23 '48

Some practical aspects of direct oxidation in the basic open hearth process, F. G. Norris and E. B. Hughes, Iron & Steel Eng 25:115-17 Ag '48; Abstract, Steel 122:70-+ My 31 '48

Spark technique in spectrographic analysis of slags; lime-silica ratio, R. H. Steinberg and H. J. Belic, Anal Chem 20:72-3 Ja '48

OPEN hearth process—Continued

Sulphur control is big problem in open hearths; abstract, H. E. Warren. *Steel* 123: 108 JI 5 '48

Tonnage oxygen for increased iron and steel production; abstract, W. H. Mayo. *Blast F & Steel* PI 36:874-5 JI '48

Use of blown metal in open hearth steelmaking, H. B. Emerick. *Blast F & Steel* PI 36: 695-6 Je '48

Use of gaseous oxygen in metallurgical processes, G. V. Slottman and P. M. Hulme. *il Metal Prog* 52:963-7 D '47

Use of oxygen in open hearth furnaces, E. C. McDonald, plans diags *Iron & Steel Eng* 25: 37-43 Mr '48; Excerpts, *il Steel* 121:96+ O 13 '47; Discussion, *Iron & Steel Eng* 25:43 Mr '48

Utilizing cupola metal in open hearth charge, A. W. Gregg, *il plans Steel* 123:116+ JI 10 '48

See also

Open hearth furnaces

OPEN pit mining. See Mining methods—Stripping operations

OPERATIVE millers. Association of. See Association of operative millers

OPINION meter

Automatic opinion meter, R. R. Person and T. A. Rich, *il diags Electronics* 20:142+ D '47

OPPENAUER reaction

Catalytic oxidation of alcohols at low temperatures, R. H. Baker and D. Stanonis. *Am Chem Soc J* 70:2594-5 JI '48

OPPENHEIMER, J. Robert, 1904-
Portrait, *Fortune* 38:106 O '48

OPTICAL benches

Optical bench for electron optical studies, J. H. Reisner and R. G. Picard, *il diags R Sci Instr* 19:556-60 S '48

OPTICAL compensators. See Compensators, Optical

OPTICAL density (term)

Density is important factor, C. F. King. *Inland Ptr* 121:39-42 Ag '48

OPTICAL instruments

Brightness intensifier, G. A. Morton and others, diags *RCA R* 9:419-32 S '48

Centering of optical systems, A. L. Ingalls and K. Pestrecov, diags *Opt Soc Am J* 38: 343-9 Ap '48

Electronic eyepiece for spectroscopy of near infra-red, Z. V. Harvalik, *il diags R Sci Instr* 19:254-7 Ap '48

Fluoroscopic X-ray image amplifier, diag *Elec Eng* 67:944 O '48

Formation of optical images by X-rays, P. Kirkpatrick and A. V. Baez, *il diags Opt Soc Am J* 38:766-74 S '48

Interfacial tension at elevated pressures and temperatures; a new and improved apparatus for boundary-tension measurements by the pendent-drop method, E. A. Hauser and A. S. Michaels, bibliog *il diags J Phys & Colloid Chem* 52:1157-65 O '48

New type of reflecting sight, J. Vogl and S. Tacklind, *il diags Opt Soc Am J* 37:975-8 D '47

Optical method of setting two opposed and opaque mirrors parallel, D. S. Perfect, diag *J Sci Instr* 25:15 Ja '48

Optical system in photoelastic observations, H. T. Jessop, diags *J Sci Instr* 25:124-6 Ap '48

Optical theodolite speeds dam survey, C. O. Greenwood, Jr, *il Eng N* 140:956-7 Je 10 '48

Optical thickness micrometer, *il R Sci Instr* 18:803-4 O '47

Performance of an optical system as the sum of the contributions of its construction elements, M. Herzberger, bibliog diag *Opt Soc Am J* 38:324-8 Ap '48

Reduction of spheriochromatic aberration in catadioptric systems, R. E. Stephens, diag *J Res Nat Bur Stand* 40:467-9 Je '48; Same, *Opt Soc Am J* 38:733-5 Ag '48

Surveying with pulsed-light radar, W. W. Hansen, *il diags Electronics* 21:76-9 JI '48

Symposium on wind tunnel optics sponsored by Bureau of standards, *Glass Ind* 29:280 My '48

See also

Aberration (optics)

Collimators

Compensators, Optical

Densitometers**Interferometers****Measuring instruments, Optical****Microscope and****microscopy****Photometers****Polariscope****Prisms****Reflection (optics)****Spectrograph****Spectrometers****Spectrophotometers****Spectroradiometer****Stereoscope****Telescope****Testing**

Comparison of computed and experimental detection ranges of objects viewed with telescopic systems from aboard ship, H. S. Coleman and W. S. Verplanck, bibliog *Opt Soc Am J* 38:250-3 Mr '48

Range-finder testing laboratory, I. C. Gardner, *il diags J Ap Phys* 19:721-8 Ag '48

Testing of range finders, I. C. Gardner, bibliog *il diags J Ap Phys* 19:729-38 Ag '48

OPTICAL measurements

Determination of the optical properties of opaque isotropic substances, W. A. Wooster, bibliog *il diag J Sci Instr* 25:170-4 My '48

Irradiance distribution in a Lloyd mirror interference pattern, R. N. Wolfe and F. C. Eisen, *il diags Opt Soc Am J* 38:706-11 Ag '48

Loss in resolving power caused by primary astigmatism, coma, and spherical aberration in telescopic systems, H. S. Coleman and S. W. Harding, *Opt Soc Am J* 38:217-21 Mr '48

New calculus for the treatment of optical systems; properties of the N-matrices, R. C. Jones, *Opt Soc Am J* 38:671-85 Ag '48

Optical compensators for measurement of elliptical polarization, H. G. Jerrard, bibliog diags *Opt Soc Am J* 38:35-59 Ja '48

Optical method of setting two opposed and opaque mirrors parallel, D. S. Perfect, diag *J Sci Instr* 25:15 Ja '48

Rapid non-destructive method of determining the refractive index of lens components, using a spectrometer, S. Jacobsohn and others, *il diag Opt Soc Am J* 37:941-3 D '47

Reflection and transmission interference filters; experimental, comparison with theory, results, L. N. Hadley and D. M. Dennison, *Opt Soc Am J* 38:483-96 Je '48

Stray light caused by the presence of a luminous body within the field of an optical system, H. S. Coleman, diag *Opt Soc Am J* 37:899-906 N '47

Studies of surface films by reflection of polarized light; more rigorous algebraic method for computing results, F. A. Lucy, bibliog diags *J Chem Phys* 16:167-74 Mr '48

Tables for the determination of the refractive index and of the thickness of the thin film by the polarimetric method, A. Vašiček, *Opt Soc Am J* 37:979-80 D '47

Transmission of powder films in the infra-red, R. L. Henry, bibliog diag *Opt Soc Am J* 38:775-89 S '48

Visibility of distant objects, S. Q. Duntley, bibliog *Opt Soc Am J* 38:237-49 Mr '48

See also**Interferometers****Light—Velocity**

OPTICAL measuring instruments. See Measuring instruments, Optical

OPTICAL methods

Extinction-coefficient; particle size relationship for fine mineral powders, H. E. Rose and C. C. J. French, bibliog diag *Soc Chem Ind J* 67:283-9 JI '48

Study of turbulence by light diffraction, J. C. Hubbard and others, *il Phys R* 74:708-9 S 15 '48

Wind-tunnel optics; new field concerned with wind-tunnel instrumentation, *Mech Eng* 70:446 My '48

OPTICAL properties

Application of punch cards; filing of optical properties of crystals, A. F. Kirkpatrick, bibliog *il Anal Chem* 20:347-9 S '48

Defense of Beer's law, A. C. Hardy and F. M. Young, *Opt Soc Am J* 38:854-8 O '48

Determination of the optical properties of opaque isotropic substances, W. A. Wooster, bibliog *il diag J Sci Instr* 25:170-4 My '48

Electron microscope study of gold smoke deposits, L. Harris and others, *il J Ap Phys* 19:791-4 Ag '48

Optical properties on Ni, Co, Fe, Mn, and Cd, F. Bueche, bibliog diags *Opt Soc Am J* 38: 806-10 S '48

OPTICAL properties—*Continued*

Preparation and optical properties of gold blacks. L. Harris and others, bibliog diag Opt Soc Am J 38:552-9 J1 '48

OPTICAL rotation

Basis for the reported optical activity of the salts of aliphatic nitro compounds; 2-nitrobutane. N. Kornblum, J. T. Patton and J. B. Nordmann, bibliog Am Chem Soc J 70:746-9 F '48

Behavior of certain sugars and sugar alcohols in the presence of tetraborates; correlation of optical rotation and compound formation. H. S. Isbell and others, bibliog J Res Nat Bur Stand 40:129-49 F '48

Identification of Pennsylvania lubricating oils. R. E. Hersh and others, bibliog Anal Chem 20:434-44 My '48

Magnetic studies on polymerisation; magnetic optical rotatory powers and diamagnetic susceptibilities of certain polymethyl methacrylates. M. E. Bedwell, Chem Soc J p 1350-3 O '47

Melting-point curves of optical isomers. C. L. Bickel and A. T. Peaslee, jr, bibliog Am Chem Soc J 70:1790-1 My '48

Open-chain sugars; absorption in ultraviolet of D-glucose and L-arabinose in acid solution. E. Pacsu and L. A. Hiller, jr, bibliog Am Chem Soc J 70:523-6 F '48

Optical activity of the 4,5-phenanthrene type; 4-(1-methylbenzo[c]phenanthryl)-acetic acid and 1-methylbenzo[c]phenanthrene. M. S. Newman and W. B. Wheatley, bibliog Am Chem Soc J 70:1913-16 My '48

Optical rotatory power of *epi*-ergostanol. K. J. Sax, L. Dorfman and S. Bernstein, bibliog Am Chem Soc J 70:2607 J1 '48

Preparation of optically active hydrocarbons by the Wurtz reaction. E. L. Leisinger, bibliog Am Chem Soc J 70:406-9 Ja '48

Resolution of *dl*-arterenol. B. F. Tullar, Am Chem Soc J 70:2067-8 Je '48

Resolution of 9,2-substituted fluorenes. F. E. Ray and E. Kreiser, bibliog Am Chem Soc J 69:3068-70 D '47

Restricted rotation in aryl amines; preparation and resolution of N-succinyl-1-methylamino-2,4-dimethyl-6-substituted benzenes. R. Adams and N. K. Sundholm, Am Chem Soc J 70:2667-73 Ag '48

Stereochemistry of complex inorganic compounds; the diastereoisomers of *deutro*-tartrato-bis-ethylenediamine cobaltic ion. H. B. Jonassen, J. C. Bailar, jr, and E. H. Hufman, bibliog Am Chem Soc J 70:756-8 F '48

Stereochemistry of organic derivatives of phosphorus; the synthesis of 2:2-disubstituted 1:2:3:4-tetrahydroisophosphinolinium salts and the optical resolution of 2-phenyl-2-p-hydroxyphenyl-1:2:3:4-tetrahydroisophosphinolinium bromide. F. G. Holliman and F. G. Mann, Chem Soc J p 1634-42 D '47

Synthesis and optical resolution of 4,5,8-trimethyl-1-phenanthrylacetic acid. M. S. Newman and A. S. Hussey, Am Chem Soc J 69:3023-7 D '47

Models

Models illustrating the principles of optical activity. C. R. Noller, II, diags J Chem Educ 24:600-4 D '47

OPTICAL society of America

Annual meeting, 32d, Cincinnati, Oct. 23-25. R. Sci Instr 18:936-7 D '47; Glass Ind 28:635-47

Directory of members. Opt Soc Am J 38:76-122 Ja '48

Local sections. Science 108:105 J1 30 '48

Proceedings of the 32d annual meeting, Cincinnati, Oct. 23-25; with abstracts of papers. Opt Soc Am J 37:981-95 D '47

Proceedings of the winter meeting, New York, March 4-6; with abstracts of papers. Opt Soc Am J 38:657-70 J1 '48; Excerpts. Anal Chem 20:387-8 Ap '48

OPTICAL telephone. See Light telephone

OPTICS

Algebraic theory of the primary aberrations of the symmetrical optical system. H. A. Buchdahl, Opt Soc Am J 38:14-19 Ja '48

New calculus for the treatment of optical systems; properties of the N-matrices. R. C. Jones, Opt Soc Am J 38:671-85 Ag '48

New contributions to the optics of intensely light-scattering materials. P. Kubelka, bibliog Opt Soc Am J 38:448-57 My '48

Proceedings of the 32d annual meeting of Optical society of America, Cincinnati, Oct. 23-25; with abstracts of papers. Opt Soc Am J 37:981-95 D '47

Proceedings of the winter meeting of the Optical society of America, New York, March 4-6; with abstracts of papers. Opt Soc Am J 38:657-70 J1 '48

See also

Aberration (optics)	Photoelasticity
Absorption of rays	Photographic optics
Beer's law	Photometry
Color	Photomicrography
Diffraction	Polarization (light)
Fluorescence	Prisms
Interference (light)	Radiation
Lenses	Reflection (optics)
Light	Refractive index
Luminescence	Spectrum
Measuring instruments, Optical	Television
Photochemistry	Visibility

OPTICS, Geometrical

Certain class of binocularly equivalent configurations. A. Stein, diags Opt Soc Am J 37:944-62 D '47

General divergence formula for ratio of energy per steradian reflected from a smooth curved surface to that incident on the surface. H. J. Riblet and C. B. Barker, bibliog diags J Ap Phys 19:63-70 Ja '48

Image error theory for finite aperture and field; the image of a point; geometry of the wave surface. M. Herzberger, Opt Soc Am J 38:736-8 Ag '48

Theory of an interference method for the study of diffusion. G. Kogele and L. J. Gosting, bibliog diags Am Chem Soc J 69:2516-23 O '47

Theory of diffraction by an aperture in an infinite plane screen. H. Levine and J. Schwinger, bibliog diag Phys R 74:958-74 O 15 '48

OPTICS, Photographic. See Photographic optics

OPTICS, Physiological

Distortion of stereoscopic spatial localization. K. N. Ogle and P. Boeder, bibliog diags Opt Soc Am J 38:723-33 Ag '48

Effects of illumination level on visual performance and fatigue. E. Simonson and J. Brozek, bibliog Opt Soc Am J 38:384-97 Ap '48

Photographic granularity and graininess; visual acuity thresholds; dynamic versus static assumptions. L. A. Jones and G. C. Higgins, bibliog diags Opt Soc Am J 38:398-405 Ap '48

Quanta explanation of vision and the brightness impression for various times of observation and visual angles. M. A. Bouman and H. A. van der Velden, diag Opt Soc Am J 38:231-6 Mr '48

Size, shape, and contrast in detection of targets by daylight vision. E. S. Lamar and others, bibliog diags Opt Soc Am J 37:531-45; 38:741-55 J1 '47, S '48

Two-quanta explanation of the dependence of the threshold values and visual acuity on the visual angle and the time of observation. M. A. Bouman and H. A. van der Velden, bibliog Opt Soc Am J 37:908-19 N '47

Two-quanta hypothesis as a general explanation for the behavior of threshold values and visual acuity for the several receptors of the human eye. M. A. Bouman and H. A. van der Velden, bibliog diag Opt Soc Am J 38:570-81 J1 '48

Visibility on cathode-ray tube screens; the effects of light adaptation. R. M. Hanes and S. B. Williams, bibliog diag Opt Soc Am J 38:363-77 Ap '48

Work on problems of photoreception and vision; Selig Hecht, B. O'Brien and others. Science 107:105-6 Ja 30 '48

See also

Color sense	Sight
Eye	Visibility

OPTOMETRISTS' offices

Optometrist's shop with open vision, II plan Arch Rec 104:126-7 S '48

ORANGE juice

- Experiment on partial concentration as a means of standardizing low-solids orange juice; abstract. E. L. Moore and others. Food Ind 20:468+ Mr '48
Off-flavor in orange juice; abstract. Food Ind 19:1593+ N '47
Revolutionary evaporator raises quality and lowers costs; successful for citrus and suitable for other juices, milk, eggs, pectin and sucrose solutions. J. A. Cross and A. V. Gemmill. diag Food Ind 20:1421-3 O '48

ORANGE juice, Dried

- Dehydration of orange juice. A. L. Schroeder and R. H. Cotton. bibliog Ind & Eng Chem 40:803-7 My '48

- Production of orange juice concentrate and powder; pilot plant. H. W. Schwarz and F. E. Penn. bibliog flow diags il diag Ind & Eng Chem 40:938-44 My '48

ORANGE juice, Frozen

- Condition of oranges as affecting bacterial content of frozen juice with emphasis on coliform organisms; abstract. E. R. Wolford and J. A. Berry. Food Ind 20:1388+ S '48

- Doorstep orange juice; liquid-tight fibre can for frozen fresh juice, delivered daily by milkman. il Mod Packaging 21:117 F '48

ORANGE OT

- Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr. bibliog J Phys & Colloid Chem 52:12-22 Ja '48

ORANGES

- Bitter principles of citrus fruit; isolation of nomilin, a new bitter principle from the seeds of oranges and lemons. O. H. Emerson. bibliog Am Chem Soc J 70:545-9 F '48

Advertising

- Million dollars for oranges. Sales Management 59:56 D 15 '47

ORBITS

- Behavior of an interferometer in a gravitational field; application to a planetary orbit. H. E. Ives. bibliog Opt Soc Am J 38:413-16 Ap '48

ORDER-disorder transition

- Order-disorder transition in solids. Y. Mutō J Chem Phys 16:519-25 My '48; Correction. 16:1176 D '48

ORDERS

- Incentive applied to order filling; Stanley greeting cards. R. W. Putterbaugh. il Mill & Factory 42:105-7 Je '48

- New prebidding system ups office output for service parts and accessory division of Harley-Davidson motor company, Milwaukee. W. Norris. il Am Bsns 18:14-15+ My '48

- Order-billing plan aids management at Pennsylvania salt manufacturing co. R. Neumaier. il Am Bsns 18:12-13+ F '48

- Why a team of executives handles the mail at Riverside Metal; every order poses a special problem. J. C. Blake. Sales Management 59:56+ N 20 '47

ORDERS, Unfilled

- Companies whose order backlogs assure capacity operations. G. L. Merton. il Mag of Wall St 81:412-14 Ja 17 '48

ORDNANCE

- Electronic instrumentation for underwater ordnance development and evaluation. R. D. Bennett. il plans diags Inst Radio Eng Proc 36:906-11 Jl '48

- Metal stampings for ordnance held to be answer to many needs of armed forces. H. C. Wolf. Steel 123:120+ S 6 '48

- Modern propellants employed in British ordnance; abstract. J. N. Fring. Chem Age (Lond) 58:711 My 22 '48

- ORDNANCE gage laboratory.** See New York university—Ordnance gage laboratory

ORE deposits

- Chilean mineral area offers new field for exploration. R. Friis C. and C. Milon. il maps diag Eng & Min J 149:92-4 Ap '48

- Diagenesis of the Clinton hematite ores of New York. H. L. Alling. maps diags Geol Soc Bul 58:991-1013, pl 1-3 bibliog(p 1015-17) N '47

- Estimation of ore. Can Min J 69:38-9. Ag '48

- Genesis of intrusive magnetite and related ores. S. J. Shand. Econ Geol 42:634-6 N '47; Discussion. 43:232-3 My '48

- Geological sketch and metallic mineral deposits of the province of Quebec. B. T. Denis. il maps diags Can Min J 69:127-35 O '48

- Geology and ore deposits of the Little Hatchet mountains, Hidalgo and Grant counties, New Mexico. S. G. Lasky. bibliog maps diags U S Geol S Professional Pa 208:1-101, pl 1-27 '47

- Geology and the new mines; details of 37 ore deposits developed in North America in the past decade. I. B. Joralemon. il Min & Met 29:226-32 Ap '48

- Heavy metals in altered rock over blind ore bodies, East Tintic district, Utah. T. S. Lovering and others. bibliog maps diag Econ Geol 43:384-99 Ag '48

- Hydrothermal alteration of feldspars at 250° C. to 400° C. T. F. O'Neill. bibliog Econ Geol 43:167-80 My '48

- Hydrothermal differentiation. H. Neumann. Econ Geol 43:77-83 Mr '48

- Mineral deposits of magmatic origin. D. Guimarães. bibliog Econ Geol 42:721-36 D '47

- Mineral relationships in the ores of Pachuca and Real del Monte, Hidalgo, Mexico. E. S. Bastin. bibliog il Econ Geol 43:53-65 Ja '48; Reply. E. Wissner. map diag 43:280-92 Je '48

- Mineralogy and petrology of the Currant Creek magnesite deposits and associated rocks of Nevada. G. T. Faust and E. Callaghan. il map diag Geol Soc Bul 59:11-74, pl 4 bibliog(p 70-2) Ja '48

- Northern Abitibi, Quebec; fracture zones and mineral possibilities. J. Claveau. bibliog(48 titles) il maps Can Min J 69:71-82 Ap '48

- Ore and granitization. C. J. Sullivan. Econ Geol 43:471-98 bibliog(71 titles, p496-8) S '48

- Ore deposits and geologic age. S. Miholic. bibliog Econ Geol 42:713-20 D '47

- Ore deposits of the eastern Andes of Bolivia; the Cordillera Real. F. S. Turneure and K. K. Welker. bibliog maps Econ Geol 42:595-625 N '47

- Projective geology and the search for new ore deposits. J. J. Beeson. il map diag Min Cong J 34:44-9+ Jl '48

- Regional structural features of the Yellowknife area. N. Campbell. map Econ Geol 42:687-98 D '47

- Report of the committee on research on ore deposits of the Society of economic geologists. bibliog Econ Geol 42:524-62 S '47

- Solubility and transfer of silica and other non-volatiles in steam. T. E. Gillingham. bibliog diags Econ Geol 43:241-72 Je '48

- Synthesis of some sulpharsenites of silver in alkali sulphide solutions. R. Ebeland. bibliog il Econ Geol 43:119-32 Mr '48

- Tin-silver veins of Oruro, Bolivia. F. M. Chace. bibliog maps plans diags Econ Geol 43:333-83, pl 1-8, 435-70, pl 1-12 Ag-S '48

- Tin-tungsten deposit in Egypt. M. S. Amin. bibliog il maps Econ Geol 42:637-71 N '47

See also

- | | |
|-----------|-----------------------------|
| Fluorspar | Iron ores |
| Geology | Mines and mineral resources |
| Gold ores | |

ORE docks

- Modern lake port transfer facility open for business at Toledo, Ohio. il plan Ry Age 124:846-51 My 1 '48; Excerpts. Marine Eng 53:74-5 Je '48

- New rail-water terminal at Toledo improves coal-ore transfer. il diags Eng N 141:48-51 S 30 '48

ORE handling

- Continuous ore transport; belt conveyor design and application. R. W. Rausch. il Min & Met 28:590-5 D '47

- Ore discharging. G. T. Shoosmith. il diags Iron & Steel Inst J 160:75-84 S '48

- Transportation of iron ore, underground mines, Lake Superior district. J. A. Johnson and F. E. Cash. 4pls U S Bur Mines Information Circ 7419:1-22 '47

- Welding of ore bridge effects dead weight reduction. il Steel 121:98 D 1 '47

- Welding permits use of lighter sections in ore bridge. il Civil Eng 18:283 My '48

ORE handling—Continued

World's longest aerial ropeway; transporting ores from Boliden mine. *Il Mech Handling* 34:549-1, 579-86, 646-8 O-D '47

See also

Ore docks

ORE sampling

Bucket-drilling the Coso mercury deposit, Inyo county, Calif. L. W. Dupuy. *Il pls U S Bur Mines Rep of Invest* 4201:1-45 '48

Flame photometer. R. B. Barnes and others. *Il diag Eng & Min J* 149:92-4 S '48

Quebec government sampling and treatment plant. M. Archambault. *Il Can Min J* 69:171-3 O '48

Sampling methods and results at the Sullivan Creek tin placer deposits, Manley hot springs, Toftoy, Alaska. R. L. Thorne and W. S. Wright. *bibliog 6pls U S Bur Mines Rep of Invest* 4346:1-8 '48

Titanium minerals in Trail Ridge, Fla. R. V. Spencer. *19pls U S Bur Mines Rep of Invest* 4208:1-21 '48

Unique mine dump sampling operation. H. W. Squires. *Il Can Min J* 69:80-1 Mr '48

ORE ships

Great Lakes ore carrier, Sewell Avery. *Il diag Marine Eng* 52:83-9-1 N '47

Ore carrier, S. S. Venore. *Il diag Marine Eng* 52:80-1 N '47

Ore steamship fleet to enter Venezuelan run. *Marine Eng* 53:72 J1 '48

Prevention of accidents peculiar to the operation of ore carriers. W. R. Macdonald. *Marine Eng* 53:61-3 F '48

ORE testing

Investigation of the iron-bearing formation of the western Gogebic range, Iron county, Wis. P. Zinner and C. L. Holmberg. *Il pls U S Bur Mines Rep of Invest* 4155:1-43 '47

Laboratory concentration of complex sulfide-oxide ore from Shenandoah-Dives mine, Silverton, Colo. H. Kenworthy. *U S Bur Mines Rep of Invest* 4283:1-16 '48

Mexico's ore-testing laboratory. T. L. Johnston. *Il Eng & Min J* 149:95 Ap '48

Rapid method of ore testing, the S.K. porosity test. H. L. Saunders and H. J. Tress. *diag Iron & Steel Inst J* 152:291-300 no 2 '45; Discussion. 152:300-2 no 2 '45; 153:365-6 no 1 '46

ORE transportation

Electrification of an ore haulage system; abstract. R. J. Corfield. *Il Elec Eng* 67:994 O '48

See also

Mine haulage

Ore ships

ORE treatment

Concentrating lead-zinc ore at the Bayard mill; United States smelting refining and mining co. P. V. Brough and K. B. Gillaspie. *flow sheet Il Min & Met* 29:562-6 O '48

Concentration of Colorado fluorite ores. J. V. Batty and others. *U S Bur Mines Rep of Invest* 4139:1-28 '47

Concentration of fluorite ores from Arizona, California, Idaho, Montana, Nevada, and Wyoming. J. V. Batty and others. *U S Bur Mines Rep of Invest* 4133:1-29 '47

Concentration of gravity tailings from the Grasselli deposit, Park City, Utah. T. F. Mitchell and others. *2pls U S Bur Mines Rep of Invest* 4159:1-18 '47

Concentration of Lake Valley mines oxide manganese ore from Deming, N. Mex. K. C. Dean and others. *U S Bur Mines Rep of Invest* 4186:1-8 '48

Concentration of manganese ores from Grand and Emery counties, Utah. G. M. Potter and others. *U S Bur Mines Rep of Invest* 4142:1-40 '47

Concentration of oxide manganese ore from the Ophir Hill mine, Ophir, Tooele county, Utah. S. J. Hussey and others. *U S Bur Mines Rep of Invest* 4130:1-6 '47

Concentration of oxide manganese ores from the Havasu Lake district, California and Arizona. R. Havens and others. *U S Bur Mines Rep of Invest* 4147:1-13 '47

Concentration of Utah fluorite ores. H. D. Snedden and others. *U S Bur Mines Rep of Invest* 4143:1-27 '47

Drying of materials. L. Sanderson. *Can Min J* 69:82-4 Mr; 92-4 My '48

Heavy-density separation; a review of its literature. J. W. Hyer, jr. *flow sheets Il diag Colorado School of Mines [Golden] Quarterly v 43 no 1:1-94 bibliog(p91-4) '48 (pa \$1)*

Heavy-media separation processes; present status and potentialities. G. B. Walker. *flow sheets Il diag Min Cong J* 34:38-41-1 Mr '48

Investigation of ore-dressing methods for barite ores from New Mexico, Missouri, and Arkansas. M. M. Fine and J. S. Kennedy. *U S Bur Mines Rep of Invest* 4280:1-31 '48

Iron ore beneficiation shows healthy growth; review of 1947. F. X. Tartaron. *Il Eng & Min J* 149:110-13 F '48

Laboratory beneficiation of disseminated fluorspar ores. M. M. Fine and R. G. O'Meara. *pl U S Bur Mines Rep of Invest* 4158:1-19 '47

Laboratory concentration of complex sulfide-oxide ore from Shenandoah-Dives mine, Silverton, Colo. H. Kenworthy. *U S Bur Mines Rep of Invest* 4283:1-16 '48

Low-grade ores. *Mech Eng* 70:20-1 Ja '48

Mineral dressing; review of 1947. J. F. Myers. *Il Min & Met* 29:80-6 F '48

Mining and leaching secondary copper ores; Carroll county, Va. C. H. Thompson. *Il Min Cong J* 34:32-3-1 J1 '48

Modern equipment and methods; pictorial review. *Eng & Min J* 148:136-62 N '47

Ore dressing investigation of oxidized lead ores from Missouri and Illinois. M. M. Fine. *U S Bur Mines Rep of Invest* 4301:1-10 '48

Past progress and future aims in mineral dressing. G. H. Roseveare. *Il Min Cong J* 34:54-7 F '48

Producing battery-grade manganesedioxide. A. V. Taylor, jr. *flow sheet Il Min Cong J* 34:46-7-1 Je '48

Quebec government sampling and treatment plant. M. Archambault. *Il Can Min J* 69:171-3 O '48

Recent developments in heavy-density separation. J. V. Beall. *flow sheet Il diag Min & Met* 29:488-92 S '48

Research and development open new phase in milling; review of 1947. R. H. Ramsey. *Il diag Eng & Min J* 149:104-9 F '48

See also

Ball mills

Electrometallurgy

Flotation process

Gold metallurgy

Iron metallurgy

Magnetic separation

of ores

Metallurgy

Sintering

OREGON

See also

Coal mines and

mining—Oregon

Manganese mines and

mining—Oregon

Mines and mineral

resources—Oregon

Industries and resources

Appraisal of the Pacific Northwest. M. W. Lee. *Harvard Bsns R* 26:282-304 My '48

ORES

Causes for downward limits of hypogene deposits. L. C. Graton. *Econ Geol* 42:547-56 S '47

See also

Geology

Gold ores

Iron ores

Metallurgy

Metals

Mines and mineral

resources

Ore deposits

Ore treatment

Zinc ores

ORGAN, Electric

Electronic organ. T. H. Long. *Il diag Electronics* 21:117-19 My '48

Electronic organ; patent. *diag Acoustical Soc Am J* 19:1013 N '47

Electronic organs; abstract. L. E. A. Bourne. *Electrician* 140:433 F 6 '48

ORGAN mountains

Measurement of ozone over the Organ mountains, New Mexico. R. Stair. *bibliog Il diag J Res Nat Bur Stand* 40:9-19 Ja '48

ORGANIC chemistry. See Chemistry, Organic**ORGANIZATION**

Principles of organization. J. D. Mooney. *rev ed 223p \$3 Harper & brothers, 49 E. 33d st, New York '47*

ORGANIZATION for European economic cooperation. *See Reconstruction (World war, 1939-1945)—Marshall plan*

ORGANIZATION in industry

- Advertising voice should be heard in management counsel; Packard motor car company setup. G. T. Christopher. *Ptr Ink* 225:72-3 O 29 '48
- Business organization. J. Account 85:356-7, 423-4, 495-9; 86:77-8 Ap-Jl '48
- Effective organization for industrial power sales. F. McQuillin. *Edison Elec Inst Bul* 15:287-9+ Ag '48
- Engineering department; its function and organization. G. T. Trundle, jr. *Machine Design* 20:125-8+ Jl '48
- Engineering + sales = technical service. M. S. Moulton. *Ind Marketing* 33:49-60+ Mr '48
- Evolution in organization during the past decade. H. A. Hopf. *Advanced Management* 12:103-10, 153 S-D '47
- Functions of a use-development organization in the textile industry. H. A. Thomas. *Textile Inst J* 39:P444-60 Ag '48
- Industrial engineering in refinery maintenance organization. W. H. Reynolds. *Pet Refiner* 27:112-15 Je '48
- Management by committee; its Trane's approach to sales; ten department heads guide sales policies. T. Hancock. *Sales Management* 61:37-9 O 15 '48
- Organization fundamentals; management data sheet. B. A. Moski, jr. *Factory Management* 106:132+ Ja '48
- Organization planning. J. M. Trickett. *Advanced Management* 13:16-21 Mr '48
- Organization planning as a personnel responsibility. B. H. Prentice, jr. *Personnel J* 27:114-15 J-Jg '48
- Organizing and training an instrument department. J. W. Graeb. *Pulp & Pa of Can* (Convention no) 49:147-50+ [F] '48; Same cond. *Paper Ind* 30:148-9+ Ap '48
- Plan for engineering accomplishment; development committee plan outlined. C. R. Sucherland. *Machine Design* 20:112-17 S '48
- Plant management; basic knowledge of principles of plant organization in the chemical industry essential. W. von Pechmann. *Ind & Eng Chem* 40:sup77A-8A Jl '48
- Processes of organization and management. C. Seckler-Hudson, ed. 296p (bibliog p282-91) \$3.75 Public affairs press, 2153 Florida av, Washington 8 '48
- Remarques sur l'organisation des laboratoires industriels. I. Peychès. *Il plan diags Chimie & Ind* 58:603-7 D '47
- Selling a new production control plan to supervisors; Rockbestos products corp. A. G. Newton. *Factory Management* 105:118-19 D '47
- Standards department, its organization and function. Stewart-Warner corp. P. R. Godfrey. *Iron Age* 161:78-83+ My '48
- Tool engineering department; its organization and function. F. S. Dobric. *Iron Age* 162:72-9 Jl 15 '48
- Tool standardization program at GM; committee system. W. G. Patton. *Iron Age* 161:131-5 Mr 11 '48
- Work and organization of a statistical department in heavy industry, with particular reference to the steel industry. A. W. Swan. *bibliog diags Iron & Steel Inst J* 160:1-20 S '48
- See also
- Advertising departments
- Committees (in management)
- Credit departments
- Employment departments
- Sales departments
- ORGANIZATION service bureau**
- Trade bureau aid. *Bsns W* p35-6 Jl 17 '48
- ORIENTAL fruit moth**
- Insecticidal efficiency of saturated petroleum fractions; influence of molecular weight and structural constitution; eggs of oriental fruit moth, *grapholitha molesta* Busck used as test material. G. W. Pearce, P. J. Chapman and D. E. H. Frear. *bibliog Ind & Eng Chem* 40:284-93 F '48
- ORIENTATION**
- Experiment on bird navigation. D. R. Griffin and R. J. Hock. *bibliog map Science* 107:347-9 Ap 2 '48
- See also
- Birds—Migration
- ORIENTATION (architecture)**
- Arizona's sunlight and shadow predetermined. *Il plan Arch Rec* 102:102-3 N '47

ORIENTATION (chemistry)

- Fixing of molecular orientation. J. F. Dreyer. *J Phys & Colloid Chem* 52:808-10 My '48
- Orienting effect of negatively substituted vinyl groups in aromatic substitution. F. G. Bordwell and K. Rohde. *bibliog Am Chem Soc J* 70:1191-3 Mr '48
- ORIFICE meters**
- Annular air-flow orifice. A. R. Howell. *diags Power Generation* 52:79-80 Ag '48
- High pressure gas measurement. E. E. Stovall. *Il diags Gas Age* 102:27-32+ Ag 19 '48
- Maintenance of orifice meters. E. D. Nuneviller and D. M. Considine. *diags Oil & Gas J* 46:107-8+ Ap 15 '48
- ORIFICES**
- Coefficients of discharge of sharp-edged concentric orifices in commercial 2-in., 3-in., and 4-in. pipes for low Reynolds numbers using flange taps. E. E. Ambrosius and L. K. Spink. *diags A S M E Trans* 69:805-8; Discussion, 808-12 N '47
- Design of orifices for hydraulic shock absorbers. J. Brown. *Il diags Product Eng* 19:146-9 Ap '48
- Flow of boiling water through nozzles, orifices and pipes. J. G. Burnell. *Il Engineering* 164:572-6 D 12 '47
- Hydraulic shock absorber orifice designs and equations. J. Brown. *Il diags Product Eng* 19:92-5 F '48
- Orifice test to evaluate yarns for swelling-type water-resistant fabrics. H. O. Smith and others. *bibliog Il Textile Res J* 18:124-9 F '48
- Steam flow through orifices; chart. W. L. Nelson. *Oil & Gas J* 46:103 Ja 22 '48
- ORIGIN, Marks of. See Marks of origin
- ORILLIA, Ontario**
- Sewerage
- New sewage-treatment plant. L. G. McNeice. *Il plans diag Water & Sewage* 86:19-21+ S '48
- ORLEANS, France**
- See also
- Housing—Orléans, France
- ORLON. See Textile fibers, Synthetic**
- ORNITHINE**
- Amino acids; new syntheses of DL-tryptophan, DL-ornithine and DL-glutamic acid. D. T. Warner and O. A. Moe. *Am Chem Soc J* 70:2765-7 Ag '48
- ORNITHOSIS. See Psittacosis**
- ORR, Clifford H.**
- NALU's president. *por(p8) Spectator (Life ed)* 156:11 S '48
- ORSAT apparatus**
- Simple modification increases accuracy and ease of use of Orsat type gas analyzers. A. H. McKinney. *diag Chem Eng* 55:124 Mr '48
- ORT. See Office of rehabilitation through training**
- ORTHICON. See Television cameras**
- ORTHOCLEASE. See Feldspar**
- ORTHOHYDROGEN. See Hydrogen**
- ORTHOHYDROXYBENZOIC acid. See Salicylic acid**
- ORTHOPEDIC apparatus, Plastic**
- Acrylic orthopedic braces. *Il Mod Plastics* 25:96-7 My '48
- ORTHOTHIOFORMATES**
- Interchange reactions of orthothioformates and mercaptols. W. E. Mochel, C. L. Agre and W. E. Hanford. *bibliog Am Chem Soc J* 70:2268-9 Je '48
- OSAZONES**
- Action of periodic acid on a cyclohexose osazone. B. Magasanik and E. Chargaaf. *bibliog Am Chem Soc J* 70:1928-9 My '48
- OSBORNE, Thomas Burr, medal**
- Betty Sullivan awarded Osborne medal by American assn. of cereal chemists. *Chem & Eng N* 26:1767 Je 14 '48
- OSCILLATIONS**
- Propagation of a pulse in the atmosphere. C. L. Pekeris. *bibliog Phys R* 73:145-54 Ja 15 '48
- OSCILLATIONS, Electric**
- Forced oscillations in nearly sinusoidal systems. M. L. Cartwright. *bibliog diags Inst E E J* 95 pt 3:88-96 Mr '48

OSCILLATORS

- Code oscillator, P. M. Cornell. *il* diags *Radio & Tv* N 40:82+ Ag '48
- Compact electron coupled oscillator control transmitter, H. R. Hyder. *il* diags *Radio* N 38:62-4+ D '47
- Dielectric constant of several gases at a wave-length of 3.2 centimeters, C. M. Crain. diags *Phys* R 74:691-3 S 15 '48
- Dyatron microwave oscillator, *Communications* 28:24-5 My '48
- Easily-adjusted vfo. H. G. Burnett. *bibliog il* *diag* *QST* 32:32-7 Ja '48
- Electronic organ, T. H. Long. *il* diags *Electronics* 21:117-19 My '48
- Extending linear range of reactance modulators, F. Brunner. diags *Electronics* 21:134+ My '48
- Grid-dip oscillator. *il* *diag* *Electronics* 21:143-4+ JI '48
- Ideal grid dip oscillator. J. N. Whitaker. *il* diags *Radio* N 39:56-7+ My '48
- Improved break-in keying, B. Goodman. diags *Q S T* 32:4-7+ Mr '48
- Investigation of bridge impacts with a mechanical oscillator, C. T. West. *il* diags *Ohio State Univ Eng Exp Sta Bul* 132:1-54 '48 (pa 75c)
- Low-frequency oscillator, J. F. Keithley. *il* *diag* *Electronics* 21:108-9 S '48
- Measurement of neutron absorption cross sections with a pile oscillator, J. I. Hoover and others. diags *Phys* R 74:864-70 O 15 '48
- Mode separation in oscillators with two coaxial-line resonators, H. J. Reich. *Inst Radio Eng Proc* 36:1252-5 O '48
- Novel oscillator, J. C. Mouzon. diags *R Sci Instr* 19:76-8 F '48
- Optimum conditions for an r-c oscillator, H. A. Whale. diags *Electronics* 21:178+ F '48
- Oscillator for the 1215-mc band, F. G. Sulzer and C. R. Ammerman. *il* diags *Q S T* 32:16-18 Ap '48
- Palletron, a new electron resonator and its proposed application to the generation of potentials in the million-volt range, A. M. Skellett. *il* *diag* *J Ap Phys* 19:187-90 F '48
- Phase-shift oscillator with wide-range tuning, G. Willoner and F. Thelka. *bibliog* diags *Inst Radio Eng Proc* 36:1096-100 S '48
- Precision double-pulse generator, D. J. Medley and H. D. Rathgeber. *bibliog* diags *J Sci Instr* 25:234-6 JI '48
- Pseudosynchronization in amplitude-stabilized oscillators, P. R. Aigrain and E. M. Williams. diags *Inst Radio Eng Proc* 36:800-1 Je '48
- R-f system for frequency modulated cyclotron, K. R. MacKenzie and V. B. Waithman. *bibliog il* diags *R Sci Instr* 18:900-7 D '47
- Reflex oscillators for radar systems, J. O. McNally and W. G. Shepherd. *il* *diag* *Inst Radio Eng Proc* 35:1424-35 D '47
- Relativistic invariance of the quantum theory of radiation, S. T. Ma. *Phys* R 72:1090-6 D 1 '47
- Resistance-capacitance oscillator, P. G. M. Dawe. diags *Engineering* 164:429-32 O 31 '47
- Resistance-tuned oscillator. *Sci Am* 178:180 Ap '48
- Rieke diagrams for oscillator design, L. S. Schwartz. diags *Tele-Tech* 7:33-6+ Je '48
- Rising sun magnetrons with large numbers of cavities, A. V. Hollenberg and others. *bibliog* diags *J Ap Phys* 19:624-35 JI '48
- Saturation effect in microwave absorption of ammonia, R. L. Carter and W. V. Smith. *bibliog il* *diag* *Phys* R 73:1053-8 My 1 '48
- Simple 8-cm wavelength microwave triode oscillator, C. L. Andrews. *il* diags *Gen Elec* R 50:40-3 N '47
- Simplified oscillators for 2300 mc. A. R. Köch. *il* diags *Q S T* 32:11-14 F '48
- Soldering aluminum alloys; magnetostriiction oscillator vibrates soldering iron at ultrasonic frequency, F. W. Thomas and E. Simon. *il* *diag* *Electronics* 21:90-2 Je '48
- Synchronization of oscillators, R. D. Huntoon and A. Weiss. diags *Inst Radio Eng Proc* 35:1415-23 D '47
- Tapered phase-shift oscillator, P. G. Sulzer. diags *Inst Radio Eng Proc* 36:1302-5 O '48
- Theory of amplitude-stabilized oscillators, P. R. Aigrain and E. M. Williams. diags *Inst Radio Eng Proc* 36:16-19 Ja '48
- Theory of oscillating absorber in a chain reactor, A. M. Weinberg and H. C. Schweinler. *bibliog* *Phys* R 74:851-63 O 15 '48
- Three-cm continuous range oscillator, I. M. Gottlieb. *il* *diag* *Electronics* 20:148+ D '47
- Tracing of electron trajectories using the differential analyzer, J. P. Blewett and others. diags *Inst Radio Eng Proc* 36:69-83 Ja '48
- Tunable vacuum-contained triode oscillator for pulse service, C. E. Fay and J. E. Wolfe. *il* diags *Inst Radio Eng Proc* 36:234-9 F '48
- Two new methods for detecting nuclear radio-frequency resonance absorption, A. Roberts. *bibliog* diags *R Sci Instr* 18:845-8 N '47
- Use of a cavity oscillator for a Kerr electro-optical light shutter, A. C. Lapsley and others. *J Ap Phys* 19:111-12 Ja '48
- Valve oscillator circuits, E. Williams. diags *Wireless Eng* 25:297-300 S '48
- Valve oscillator; operation and properties, J. R. Tillman. *bibliog* diags *Wireless Eng* 24:357-71 D '47
- Variable a.f. portable oscillator, A. R. A. Rendall and F. A. Peachey. *il* diags *Wireless Eng* 25:37-43 F '48
- Velocity-modulation reflection oscillator for wavelengths of about 3.2 cm, A. F. Pearce. *bibliog il* diags *Inst E E J* 95 pt 3:415-22 S '48
- Very-high-frequency triode oscillator and amplifier circuits, G. Lehmann. *bibliog* diags *Elec Com* 25:50-61 Mr '48
- V.h.f. valves and circuits, M. R. Gavin. *il* diags *Wireless Eng* 25:315-18 O '48
- Wide deviation reactance modulator, H. D. Helfrich, jr. diags *Electronics* 21:120-1 Ap '48

See also

Klystron
Multivibrators

Frequency stabilization

- Beat frequency tone generator with r-c tuning, J. W. Whitehead. *diag* *Electronics* 21:130+ My '48
- Frequency modulation of an oscillator, M. R. Gavin. diags *Wireless Eng* 25:290-3 S '48
- Frequency stabilization of microwave oscillators, R. V. Pound. diags *Inst Radio Eng Proc* 35:1405-15 D '47
- Frequency stabilization of microwave oscillators by spectrum lines, W. V. Smith and others. *bibliog il* diags *J Ap Phys* 18:1112-15; 19:831-6 D '47, S '48
- Frequency stabilization with microwave spectral lines, W. D. Herschberger and L. E. Norton. *bibliog il* *diag* *RCA R* 9:38-49 Mr '48
- Inductance-capacitance oscillator of unusual frequency-stability, J. K. Clapp. diags *Inst Radio Eng Proc* 36:356-8 Mr '48; Discussion, W. A. Roberts. 36:1261-2 O '48
- Recent developments in frequency stabilization of microwave oscillators, W. G. Tuller and others. *il* diags *Inst Radio Eng Proc* 36:794-800 Je '48
- Stability and high frequency, A. Wintner. *J Ap Phys* 18:941-2 N '47
- Stabilizing frequency of reflex oscillators, G. G. Bruck. *diag* *Electronics* 21:170+ F '48
- Wide-deviation frequency-modulated oscillators, E. M. Williams and L. Vallesse. *bibliog* *Inst Radio Eng Proc* 36:1282-4 O '48

OSCILLATORS, Crystal

- Build the W3KPX multi-unit NEFM, crystal oscillator and signal spotter, H. D. Hooton. *il* *diag* *Radio & Tv* N 40:42-3+ Ag '48
- Evolution of the quartz crystal clock, W. A. Marrison. *il* diags *Bell System Tech J* 27:510-88 *bibliog* (140 titles, p583-8) JI '48
- Few crystals control many channels; multi-channel superheterodyne receiver for aircraft communication and navigation, W. R. Hedeman, jr. *il* diags *Electronics* 21:118-21 Mr '48

OSCILLATORS, Crystal—Continued

- Home-built crystal signal generator, N. Chal-
 fort, *il* diags Radio & TV N 40:47+ O '48
 Portable crystal-controlled frequency stand-
 ard used in submarine gravity survey, R.
 L. B. Cooper, *il* Elec Com 25:30-4 Mr
 '48
 Series mode crystal circuits, H. Goldberg and
 E. L. Crosby, jr, *il* diags Tele-Tech 7:24-
 7+ My '48
 Simple crystal control on 144 mc, E. W. John-
 son and M. Bernstein, *il* diag Q S T 32:
 22-3+ O '48
 Simplified automatic stabilization of a fre-
 quency-modulated oscillator, J. L. Hollis,
il diags Inst Radio Eng Proc 36:1164-71 S
 '48
 Two-tube transmitter-exciter, E. P. Tilton,
il diag Q S T 32:44-5+ N '48
 VFO/crystal exciter, G. L. Countryman, *il*
 diags Q S T 32:36-9 N '48

OSCILLOGRAPHS

- Applications of the magnetic oscillograph, R.
 H. Cole, *il* Iron Age 161:74-7 F 26 '48
 Neon timer releases oscillograph element, C.
 J. Tirk, diags Elec World 129:108 F 14 '48
 Simple and inexpensive method for accurate-
 ly measuring steady-state and transient
 high voltages, H. L. Levinton, *il* diags
 Elec Eng 67:154-7 F '48
 Visual examination of crystal modes, Elec-
 tronics 21:148+ S '48
 Visual measurements of short pulses of direct
 current, P. F. Ordnung, *il* diags Franklin
 Inst J 245:37-51 Ja '48
 Voltage limiter for magnetic oscillographs,
 C. J. Tirk, diag Elec World 129:136+ Ap
 10 '48

Films

- Oscillograms in color are now practical, C. J.
 Tirk, diag Elec World 128:76 D 20 '47

OSCILLOGRAPHS, Cathode ray

- Adaptation of selsyn transmitters for obtain-
 ing isometric myographs on the cathode-
 ray oscilloscope, R. L. Bowman, *il* diags
 Science 108:310-11 S 17 '48
 Airborne engine analyzer, V. C. Cetrone, *il*
 diags Electronics 21:90-5 Mr '48
 Cathode-ray magnetization curve tracer, M.
 V. Scherb, bibliog *il* diags R Sci Instr 19:
 411-19 JI '48; Correction, 19:674 O '48
 Cathode-ray-oscillograph images of noise-
 reduction envelopes, E. H. Denney, diags
 Soc Motion Picture Eng J 50:37-49 Ja '48
 Cathode-ray oscilloscope camera, D. D. Bare,
il R Sci Instr 19:471-2 JI '48
 Continuous oscillograph camera for iono-
 sphere measurements, J. E. Hacke, jr, *il*
 Instruments 21:914-15 O '48
 Continuously calibrated cathode-ray oscillo-
 scope, E. C. Easton, diag R Sci Instr 18:
 851-2 N '47
 Demonstration oscilloscope, *il* J Sci Instr 25:
 245-6 JI '48
 Direct-coupled oscilloscope, J. H. Reyner,
il diags Electronics 21:102-6 JI '48
 Double beam cathode ray oscillographs, *il*
 Engineer 184:468-9 N 14 '47
 Dynamic relay analyzer, E. L. Deeter, *il*
 diags Electronics 21:87-9 JI '48
 Electronic control unit for cathode-ray oscil-
 lograph recording of transients arriving at
 indeterminate times, S. L. Windes, bibliog
 6pls U S Bur Mines Rep of Invest 4154:1-8
 '47
 Illumination of cathode-ray oscillograph
 screen for photography, E. C. Crittenden,
 jr, and others, *il* R Sci Instr 19:271-2 Ap
 '48
 Instrument for the rapid production of a
 decimal series of potentials and its ap-
 plication to ballistic measurements, H. S.
 Roberts and H. L. Curtis, *il* diags J Res
 Nat Bur Stand 41:45-51 JI '48
 Laboratory oscilloscope, V. L. Fitch and E.
 W. Titterton, bibliog *il* diags R Sci Instr
 18:821-30 N '47
 Loom study by means of the cathode ray
 oscillograph; variations in individual warp-
 thread tension during the weaving cycle,
 N. H. Chamberlain and D. S. Snowden,
 bibliog *il* diags Textile Inst J 39:T23-43
 F '48
 Machine timing at full speed done by oscil-
 lograph, M. Scheraga, *il* diags Textile
 World 98:118-19+ Ja '48

- Measurement of the temperature of sliding
 surfaces, with particular reference to rail-
 way brake blocks, R. C. Parker and E. R.
 Marshall, bibliog diags Inst Mech Eng J
 & Proc 158:Proc 209-20, pl 1-4 S '48; Same
 cond. Engineering 165:21-2, 36, 45-8 Ja 2-9
 '48; Discussion, Inst Mech Eng J & Proc
 158:Proc 220-9 pl 5-8 S '48
 Measuring modulation percentage of a-m
 signals, R. P. Turner, *il* diags Radio N 39:
 52+ Je '48
 Monitoring 'scope for television production
 lines, R. De Cola, *il* diag Tele-Tech 7:40-1
 F '48
 Multi-channel recording of oscillograph
 traces, *il* Engineer 184:560 D 12 '47
 Naval ordnance laboratory six-trace cathode-
 ray oscillograph; abstract, P. L. Edwards,
 plan Elec Eng 67:1064 N '48
 New developments in recording oscillograph
 traces; abstract, Product Eng 19:125 O '48
 Oscillograph-trace recorder, Engineering 165:
 115 Ja 30 '48
 Oscillographic method of presenting imped-
 ances on the reflection-coefficient plane, A.
 L. Samuel, *il* diags Inst Radio Eng Proc
 35:1279-83 N '47
 Oscillographic scatterplots illustrating vari-
 ous degrees of correlation, J. C. R. Lick-
 linder and E. Dzenodellet, *il* diags Science
 107:121-4 Ja 30 '48
 Oscilloscope camera, H. E. Hale and H. P.
 Mansberg, *il* diag Electronics 21:102-7 Je
 '48
 Oscilloscope camera takes still or continu-
 ously moving film record, *il* Sci Am 177:
 270-1 D '47; Chem Ind 61:1054 D '47; R Sci
 Instr 19:56 Ja '48
 Phase meter, E. O. Vandeven, diags Elec-
 tronics 21:142+ Je '48
 Photography of cathode-ray oscillograms, M.
 V. Scherb, *il* R Sci Instr 18:925 D '47
 Recorder time-marking; simple device of
 drum cameras, J. C. Needham and L. H.
 Orton, *il* diags Elec R (Lond) 142:419-20
 Mr 19 '48
 Recording of electrical and optical transients;
 abstract, H. A. Prime and R. F. Saxe,
 Engineering 165:330 Ap 16 '48
 Reproducing handwriting; novel application
 of the cathode-ray oscilloscope, H. Line-
 back, *il* Electronics 21:180+ Je '48
 Scope for the ham shack, R. H. Weitbrecht,
il diag Q S T 32:51-7+ F '48
 Seven-inch cathode-ray oscilloscope, *il* R Sci
 Instr 18:806-7 O '47
 Stereoscopic viewing of cathode-ray tube
 presentations, H. A. Iams and others, *il*
 diags RCA R 9:149-58 Mr '48
 Technique for distortion analysis, S. Saba-
 roff, diag Electronics 21:114-17 Je '48
 Television oscilloscope, L. H. VanArsdale,
 jr, *il* diags Radio N 39:64-6+ Ap; 52-5+
 My '48
 Testing photographic shutters, S. H. Duffield
 and L. R. Lankes, bibliog diags Electron-
 ics 21:82-7 Ag '48
 Testing repeaters with circulated pulses, A.
 C. Beck and D. H. Ring, *il* diags Inst Radio
 Eng Proc 35:1226-30 N '47
See also
 Numeroscope
- OSLER, Robert W.**
 Life editor of Rough notes co, por Nat
 Underw (Life ed) 52:9 Ag 13 '48
- OSMIUM**
- Isotopes**
- Internally converted radiation from euro-
 pium, hafnium, and osmium, J. M. Cork
 and others, *il* Phys R 72:1209-11 D 15 '47
 Isotopes Os¹⁸⁵ and Os¹⁸⁷, L. I. Katzin and
 M. Pobereskin, bibliog Phys R 74:264-7
 Ag 1 '48
 Stability of Os¹⁸⁷ against K capture, H. H.
 Seliger and H. L. Bradt, Phys R 73:1408-9
 Je 1 '48
 Study of the radiations from columbium
 (95), rhenium (185), osmium (191), and
 osmium (193), C. E. Mandeville and others,
 bibliog Phys R 74:888-93 O 15 '48
- OSMIUM oxides**
- Oxidation of carcinogenic hydrocarbons by
 osmium tetroxide, J. W. Cook and R.
 Schoenthal, Chem Soc J p 170-3 F '48

OSMOSIS

Osmotic behavior of some colloidal electrolytes as determined by means of the Hill-Baldes vapor-tension apparatus. M. N. Fineman and J. W. McBain. *bibliog diag J Phys & Colloid Chem* 52:881-96 My '48

See also

Dialysis

OSMOTIC pressure

Recent work on osmotic pressures; Professor Procter's findings applied in current experiments. G. E. Adair. *Chem Age (Lond)* 59:487 O 9 '48

OSTEND, Belgium

Harbor

Railway dry docks restored. *il Marine Eng* 53:57 Je '48

OSTWALD, Wilhelm, 1853-1932

W. Ostwald, study in mental metamorphosis. F. E. Wall. *bibliog pors J Chem Educ* 25: front, 2-10 Ja '48

OSTWALD-FREUNDLICH equation

Studies on the aging of precipitates and coprecipitation; the solubility of lead chromate as a function of the particle size. D. R. May and I. M. Kolthoff. *bibliog J Phys & Colloid Chem* 52:836-54 My '48

OTIS and company

Reply to SEC charges; Otis & co. and Cyrus Eaton statements denying SEC charges in Kaiser-Frazer common stock offering. *Comm & Fin Chr* 168:714 Ag 19 '48

OTT, Emil, 1902-

Sketch. *Chem & Ind* p377 Je 12 '48

OTTER Tail power company

Common stock offered. *Comm & Fin Chr* 168:1696-7 O 25 '48

OTTOMAN bank

Statement by the chairman at 81st annual general meeting. T. B. Money-Coutts. *Economist* 154:1087 Je 26 '48

OUTBOARD engines. See Internal combustion engines, Outboard**OUTDOOR furniture.** See Furniture, Outdoor**OUTDOOR living areas**

House for informal living. *il plan Arch Rec* 103:130-3 My '48

Planned for terrace living; house in Pacific Palisades, Calif. *il plan Arch Rec* 104: 92-9 Ag '48

Spacious privacy on a small lot. *il plan Arch Rec* 103:100-2 Je '48

OUTDOOR steam plants. See Steam plants, Outdoor**OVENS**

Controlled heat cures heat-cure ills; automatic-control ovens in rubber and allied industries; vulcanization of rubber-bonded abrasive cutting wheels. H. Gehrich. *il Chem Ind* 63:54-5 Jl '48

How to paint the product; baking ovens. H. E. Linsley. *il diag Am Mach* 92:96-8 Jl 29 '48

Infrared drying details on approved practices and booth design. *il Sheet Metal Worker* 39:48-50 Jl '48

See also

Coke ovens

Core ovens

Gas ovens

OVER-the-counter marketing. See Securities—Over-the-counter marketing**OVERHEAD expense**

Determination and accounting for construction overheads. W. G. Pilgrim. *Am Gas Assn Proc* 1947:137-45

OVERPOPULATION. See Population**OVERSEAS consultants, Inc.**

U.S. firm will build up Iran. *il Bsns W* p 113-14 O 30 '48

OVERTIME

Court ruling on overtime pay spurs congressional action to clarify law. S. H. Scheibla. *Nat Pet* N 40:21 O 27 '48

New premium-pay rules; Wage-hour division issues interpretation. *il Bsns W* p94+ Jl 24 '48

Overtime appeal; longshoremen's premium-pay problem. *Bsns W* p 102+ N 15 '47

Overtime issue. F. T. Malm. *bibliog Personnel* 25:5-10 Jl '48

Overtime-on-overtime interpreted by McComb to guide employers. *Elec World* 130:53 Jl 17 '48

Overtime on overtime, new threat to industrial equilibrium of Nation. *Elec World* 129:71 My 8 '48

Overtime on overtime; no change yet. *Bsns W* p 108 O 16 '48

Overtime-on-overtime ruling jolts both management and government. *Elec World* News ed 129:4 Je 12 '48

Overtime pay during war still unsettled. *Bsns W* p 100+ Je 5 '48

Overtime pay on government contracts. *Mo Labor R* 67:54 Jl '48

Profit-sharing imperiled by court rulings. N. C. Rockwood. *Indlat Ptr* 121:27-8 Ag '48

Rules governing premium pay days. N. C. Rockwood. *Rock Prod* 51:77+ O '48

Supreme court rules 40 hrs. is base for overtime pay. *Eng N* 141:5 O 21 '48

Wage-hour jolt; Supreme court's decision on stevedores' pay. *Bsns W* p99-101 Je 12 '48

OVERVOLTAGE (electric lines)

Power system overvoltages produced by faults and switching operations. *Elec Eng* 67:894 S '48

Transformer operation at over-voltage. C. O. von Dannenberg. *Power Generation* 52:72-3 F '48; Discussion. 52:77-8 Jl '48

OWENS CORNING fiberglass corporation

Fiberglass unveils its New York home. *il Sales Management* 60:98 Ja 15 '48

OWNERS', landlords' and tenants' public liability insurance. See Insurance, Owners', landlords' and tenants' public liability**OXALATES**

Hydrated oxalates of some rare-earth elements. A. W. Wylie. *diag Chem Soc J* p 1687-92 D '47

Precipitation of oxalates from homogeneous solution; application to separation and volumetric determination of magnesium. L. Gordon and E. R. Caley. *Anal Chem* 20: 560-3 Je '48

Synthesis of alkyldmalonic esters by oxalate condensations. D. E. Floyd and S. E. Miller. *bibliog Am Chem Soc J* 69:2354-5 O '47

Theory and kinetics of specific oxidation; trivalent manganese-oxalate reaction. F. R. Duke. *bibliog Am Chem Soc J* 69:2885-8 N '47

OXALIC acid

Anodic reactions of aluminum and its alloys in sulfuric and oxalic acid electrolytes. R. B. Mason and C. J. Slunder. *bibliog Ind & Eng Chem* 39:1602-7 D '47; Same. *Metal Finishing* 46:65-70 F '48

Interaction of manganic ion and oxalate; rates, equilibria and mechanism. H. Taube. *bibliog Am Chem Soc J* 70:1216-20 Mr '48

Second dissociation constant of oxalic acid from 0° to 50° C. and the pH of certain oxalate buffer solutions. G. D. Pinching and R. G. Bates. *bibliog J Res Nat Bur Stand* 40:405-16 My '48

OXAZINE

Some 1:3-oxazine derivatives of thionaphthen. E. W. McClelland and D. W. Stammers. *Chem Soc J* p78-81 Ja '48

OXAZOLES

Conversion of α -amino acids to acylamido ketones and oxazoles. R. H. Wiley and O. H. Borum. *Am Chem Soc J* 70:2005-6 Je '48

OXAZOLIDINEDIONE

Some N-alkyl-2,4-oxazolidinediones and their anticonvulsant properties. M. A. Spielman and G. M. Everett. *bibliog Am Chem Soc J* 70:1021-2 Mr '48

OXIDASES

Cytochrome oxidase. W. W. Wainio and others. *bibliog Science* 106:471 N 14 '47

Inhibition of D-amino acid oxidase by benzoic acid and various monosubstituted benzoic acid derivatives. G. R. Bartlett. *Am Chem Soc J* 70:1010-11 Mr '48

OXIDATION

Aerial oxidation of trivalent chromium in aqueous solution. R. S. Nyholm. *Soc Chem Ind J* 66:449-51 D '47

Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside; β -methyl cellobioside, and cellulose. F. S. H. Head. *bibliog Textile Inst J* 38: T389-407 D '47

Analysis of sulfite waste liquor and lignosulfonates; determination of neutralized solids and wet oxidation for determination of total sulfur and cations. J. R. Salvesen and D. Hogan. *bibliog Anal Chem* 20: 909-11 O '48

OXIDATION—Continued

- Anomalous oxidation of some secondary alcohols containing an α -neo carbon. W. A. Mosher and F. C. Whitmore. *bibliog* Am Chem Soc J 70:2544-5 J1 '48
- Applications of periodate oxidation to some problems of carbohydrate chemistry. D. J. Bell. *Chem Soc J* p992-6 J1 '48
- Bacterial oxidation of sulfur in pipe sealing mixtures. L. R. Frederick and R. L. Starkey. *bibliog* Am Water Works Assn J 40:729-36 J1 '48
- La catalyse d'oxydation et l'influence de l'état des surfaces catalysantes. J. Ternisien. *bibliog* *il* Chimie & Ind 58:234-7 S '47
- Catalytic oxidation of alcohols at low temperatures. R. H. Baker and D. Stanonis. *Am Chem Soc J* 70:2594-5 J1 '48
- Catalytic oxidation of ammonia to nitrous oxide; manganese oxide-bismuth oxide catalyst. K. A. Kobe and P. D. Hosman. *bibliog* Ind & Eng Chem 40:397-9 Mr '48
- Catalytic oxidation of aniline in the vapor phase. O. W. Brown and W. C. Frishe. *diags* J Phys & Colloid Chem 51:1394-400 N '47
- Cellulose intercrystalline structure; study by hydrolytic methods. R. F. Nickerson and J. A. Habrie. *bibliog* Ind & Eng Chem 39:1507-12 N '47
- Chemical engineering unit processes. L. F. Marek. *Ind & Eng Chem* 40:1635-42 *bibliog* (251 ref, p1640-2) S '48
- Chlorophyll-sensitized photooxidation of phenylhydrazine by methyl red; reactivity of the several forms of methyl red. R. Livingston and R. Pariser. *Am Chem Soc J* 70:1510-15 Ap '48
- Demonstrations using a divided projection cell. W. B. Meldrum. *diag* J Chem Educ 25:490-2 S '48
- Effect of oxidation upon the carbonizing properties of Pocahontas no. 3- and no. 4-bed coals from Eastgulf, Raleigh county, W. Va. J. D. Davis and others. *bibliog* *il* U S Bur Mines Tech Pa 702:1-18; pa 10c Supt. of doc. '47
- Energy change; oxidation without oxygen; lecture demonstration. W. G. Kessel. *J Chem Educ* 25:261 My '48
- Flavonones and related compounds; the oxidation of 2'-hydroxychalcones with alkaline hydrogen peroxide. T. A. Geissman and D. K. Fukushima. *bibliog* Am Chem Soc J 70:1686-9 My '48
- Hydroxylated stearic acids; the periodate oxidation of the 9,10-dihydroxystearic acids and the 1,9,10-trihydroxyoctadecanecanes. H. Wittcoff, O. A. Moe and M. H. Iwen. *bibliog* Am Chem Soc J 70:742-4 F '48
- Ignition of n -butane by the spontaneous oxidation of zinc dimethyl. E. J. Badin, D. E. Walters and R. N. Pease. *Am Chem Soc J* 69:2586-8 N '47
- Interaction of manganic ion and oxalate; rates, equilibria and mechanism. H. Taube. *bibliog* Am Chem Soc J 70:1216-20 Mr '48
- Investigation of the oxidative condensation of 2-methoxy-4-nitrotoluene; the use of oxidative catalysts. G. R. Treves. *Am Chem Soc J* 70:875-6 F '48
- Investigation of the reserve carbohydrates of leguminous seeds; periodate oxidation. O. A. Moe, S. E. Miller and M. H. Iwen. *bibliog* Am Chem Soc J 69:2621-5 N '47
- Kinetic study of the oxidation of uranium tetrachloride. J. Van Wazer and G. John. *diag* Am Chem Soc J 70:1207 Mr '48
- Kinetics of the oxidation of acetone by selenious acid. F. R. Duke. *bibliog* Am Chem Soc J 70:419-21 Ja '48
- Location of the reactive carbon in N -methylpyridine, W. E. Knox and W. I. Grossman. *bibliog* Am Chem Soc J 70:2172 Je '48
- Mechanism for rapid oxidation of high temperature-high strength alloys that contain molybdenum. M. G. Fontana. *il* Ind & Eng Chem 40:sup 103A-4A Je '48
- Mechanism of oxidation of monoethenoid fatty acids and esters; the course of thermal catalytic oxidation of methyl oleate. J. H. Skellon. *Chem Soc J* p343-7 Mr '48
- Mechanism of the oxidation of uric acid studied with isotopic nitrogen as a tracer. L. F. Cavaliere and G. E. Brown. *bibliog* Am Chem Soc J 70:1242-3 Mr '48
- Multiple unit bath for oxidation stability tests for gasoline. E. L. Ruh and others. *il* Pet Processing 3:45-6 Ja '48
- Oxidation of acetic acid with selenium dioxide. R. E. Thompson and J. A. Chenecek. *Am Chem Soc J* 69:2563-4 O '47
- Oxidation of acetoin. J. R. Pound. *J Phys & Colloid Chem* 51:1449-50 N '47
- Oxidation of carbohydrates by the periodate ion. T. G. Halsall, E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1427-32 N '47
- Oxidation of carcinogenic hydrocarbons by osmium tetroxide. J. W. Cook and R. Schoental. *Chem Soc J* p 170-3 F '48
- Oxidation of catechol-type substrates by tyrosinase. M. L. Cushing. *bibliog* Am Chem Soc J 70:1184-7 Mr '48
- Oxidation of chalcocite in air compared with its oxidation in pure oxygen. J. R. Lewis and others. *bibliog* *diags* Metals Tech 15:TP2383 1-9 Je '48
- Oxidation of ferrous sulfite in air. J. R. Pound. *J Phys & Colloid Chem* 52:1103-5 Je '48
- Oxidation of 2-hydroxyquinoxaline and its derivatives with hydrogen peroxide. G. T. Newbold and F. S. Spring. *Chem Soc J* p519-23 Ap '48
- Oxidation of some aldoses by alkaline solutions of iodine. O. G. Ingles and G. C. Israel. *Chem Soc J* p810-14 Je '48
- Oxidations of certain polyacetyl- β -D-thioglycosides to the corresponding sulfones. W. A. Bonner and R. W. Drisko. *bibliog* Am Chem Soc J 70:2435-8 J1 '48
- Oxidative degradation of polymeric materials. A. V. Tobolsky. *India Rubber World* 118:363-4+ Je '48
- Paper capacitors containing chlorinated impregnants; benefits of controlled oxidation of the paper. D. A. McLean. *il* Ind & Eng Chem 39:1457-61 N '47
- Perbenzoic acid oxidation of 20-ketopregnanes. L. H. Saret. *bibliog* Am Chem Soc J 69:2899-901 N '47
- Periodate oxidation of some dihydroxy-aminoalkanes. J. F. Mead and E. A. Barron. *bibliog* Am Chem Soc J 70:1286-7 Mr '48
- Photochemistry of selenium; the photochemical oxidation of hydrogen selenide. D. J. G. Ives and R. W. Pittman. *diag* Chem Soc J p765-9 Je '48
- Polymethylsiloxanes; thermal and oxidation stabilities. D. C. Atkins, C. M. Murphy and C. E. Saunders. *bibliog* Ind & Eng Chem 39:1395-401 N '47
- Possibility of a triplet state intermediate in the photo-oxidation of a chlorin. M. Calvin and G. D. Dorough. *bibliog* *il* *diags* Am Chem Soc J 70:699-706 F '48
- Preparation of 1-C¹⁴-propene-1 and the mechanism of permanganate oxidation of propene. E. A. Fries and M. Calvin. *Am Chem Soc J* 70:2235-40 Je '48
- Reaction of coal with oxygen in the presence of aqueous sodium hydroxide; effect of methylation with dimethyl sulfate. G. R. Yohe and E. O. Blodgett. *bibliog* *diag* Am Chem Soc J 69:2644-8 N '47
- Reactions of iron pyrite; its thermal decomposition, reduction by hydrogen and air oxidation. G. M. Schwab and J. Philinis. *bibliog* *diag* Am Chem Soc J 69:2588-96 N '47
- Some aspects of the industrial oxidation of lower aliphatic hydrocarbons. J. E. Bludworth. *bibliog* *il* Pet Refiner 27:110-14 Ap '48; Same *abr.* Oil & Gas J 46:99+ Ap 22 '48
- Some structural aspects of carbon oxidation. H. L. Riley. *bibliog* Chem & Ind p569-71 S '48
- Studies on resin acids; oxidation of diphenyl-*t*-dehydroabietinol; a postulated mechanism. H. H. Zeiss. *Am Chem Soc J* 70:858-60 F '48
- Synthesis of D-fructomethylolose by biochemical oxidation. L. Anderson and H. A. Lardy. *bibliog* Am Chem Soc J 70:594-7 F '48
- Theory and kinetics of specific oxidation; periodate-glycol reaction. F. R. Duke. *Am Chem Soc J* 69:3054-5 D '47

OXIDATION—Continued

Theory and kinetics of specific oxidation; trivalent manganese-oxalate reaction, F. R. Duke, *bibliog Am Chem Soc J* 69:2885-8 N '47

Thermodynamics and stoichiometry of synthesis gas production by the partial oxidation of methane, C. W. Montgomery, E. B. Weinberger and D. S. Hoffman, *Ind & Eng Chem* 40:601-7 Ap '48

Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; *m*-chlorostyrene, W. S. Emerson and V. E. Lucas, *bibliog Am Chem Soc J* 70:1180-1 Mr '48

Wall effects in the oxidation of boron triethyl vapor; ignition of *n*-butane, R. S. Brokaw, E. J. Badin and R. N. Pease, *bibliog Am Chem Soc J* 70:1921-2 My '48

See also

Combustion
Corrosion and anti-corrosives
Rubber—Oxidation

Autoxidation

Oxidation processes; some biological implications in autoxidation mechanisms, J. E. LuValle, *bibliog Am Chem Soc J* 70:2234-5 Je '48

Oxidation processes; the autoxidation of the *p*-phenylenediamines, J. E. LuValle, D. B. Glass and A. Weissberger, *bibliog Am Chem Soc J* 70:2223-33 Je '48

OXIDATION, Electrolytic

Anodic oxidation of coal, R. Belcher, *bibliog Soc Chem Ind J* 67:213-16, 217-21, 265-70 My-Jl '48

Anodic reactions of aluminum and its alloys in sulfuric and oxalic acid electrolytes, R. B. Mason and C. J. Slunder, *bibliog Ind & Eng Chem* 39:1602-7 D '47; Same, *Metal Finishing* 46:65-70 F '48

Electrolytic oxidation of ethyl alcohol to acetic acid, G. Zeller, *Electrochem Soc Trans* 92 (preprint 40):535-42 '47

Electrolytic oxidation of α -pinene, terpinolene and dipentene, S. Glasstone and H. E. Stanley, *diag Electrochem Soc Trans* 92 (preprint 41):543-50 '47

OXIDATION, Physiological

Acetate metabolism in yeast, studied with isotopic carbon, S. Weinhouse and R. H. Millington, *bibliog Am Chem Soc J* 69:3089-93 D '47

Oxidation processes; some biological implications in autoxidation mechanisms, J. E. LuValle, *bibliog Am Chem Soc J* 70:2234-5 Je '48

OXIDATION-reduction (term)

Consistent treatment of oxidation-reduction, C. A. Vanderwerf, *J Chem Educ* 25:547-51 O '48

OXIDATION reduction potential. See Potential, Electric

OXIDES

Compounding pure gum GR-S stocks; effect of inorganic oxides and oxidizing agents, H. L. Fisher and A. R. Davis, *bibliog Ind & Eng Chem* 40:143-50 Ja '48

Decarburization of chrome nickel alloys by their surface oxides in high vacua and at elevated temperatures, E. A. Gulbransen and others, *bibliog Metals Tech* 15:TP2433 1-14 S '48

Effect of coloring oxide additions on the spectral transmission of a soda-lime-silica glass, G. S. Bachman, *bibliog Glass Ind* 28: 630-4+ D '47

Electron diffraction study of oxide films formed on copper-nickel alloys at elevated temperatures, J. W. Hickman and E. A. Gulbransen, *bibliog Metals Tech* 15:TP2391 1-13 Je '48

Electron diffraction study of oxide films formed on Hastelloy alloys A, B, C, and D, J. W. Hickman and E. A. Gulbransen, *bibliog J Phys & Colloid Chem* 52:1186-97 O '48

Electron diffraction study of oxide films formed on nickel-chromium alloys, J. W. Hickman and E. A. Gulbransen, *bibliog Metals Tech* 15:TP2372 1-15 Je '48

Electropotentials in growing halide and oxide layers on metals, A. Dravnieks and H. J. McDonald, *bibliog diags Electrochem Soc J* 93:177-90 My '48

Formation of the natural oxide film on aluminum, F. Keller and J. D. Edwards, *il Metal Prog* 54:35-41, 195-200 Jl-Ag '48

Measurement of thickness of oxide coatings on aluminum alloys, R. B. Mason and W. C. Cochran, *bibliog Metal Finishing* 46: 69-73 My '48

Metal oxide films at elevated temperatures, J. W. Hickman, *bibliog il diags Iron Age* 162:90-4 Ag 12; 90-4 Ag 19 '48

Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; an electron diffraction study, J. W. Hickman and E. A. Gulbransen, *bibliog Anal Chem* 20:158-65 F '48

Oxide replica technique for the electron microscope examination of stainless steel and high nickel alloys, E. M. Mahla and N. A. Nielsen, *bibliog il J Ap Phys* 19:378-82 Ap '48

Oxide systems pertaining to steel-making furnace slags, A. H. Jay and K. W. Andrews, *bibliog Iron & Steel Inst J* 152: 15-18 no 2 '45; Discussion, 153:353-5 no 1 '46

Permanent magnets of sintered oxides, R. J. Studders, *il Product Eng* 19:120-2 F '48

Reactions of carbon and metal oxides in a vacuum, W. J. Kroll and A. W. Schlechton, *bibliog diags Electrochem Soc J* 93:247-58 Je '48

Reduction of oxides by hydrogen and carbon monoxide, W. E. Garner, *Chem Soc J* p 1239-44 S '47

Secondary electron emission from targets of barium-strontium oxide, J. B. Johnson, *bibliog diags Phys R* 73:1058-73 My 1 '48

Studies on some metal electrodes, A. R. Tourky, S. E. S. El Wakkad and A. A. Mousa, *diags Chem Soc J* p740-53 Je '48

Zone of metal phase consumption in gas-metal reactions, A. Dravnieks and H. J. McDonald, *bibliog diags Electrochem Soc J* 94:139-51 O '48

Zones of mutual protection against crystallization in dual-oxide systems, H. B. Weiser, W. O. Milligan and G. A. Mills, *bibliog J Phys & Colloid Chem* 52:942-9 Je '48

See also

Rare earths

OXIDIZING agents

Compounding pure gum GR-S stocks; effect of inorganic oxides and oxidizing agents, H. L. Fisher and A. R. Davis, *bibliog Ind & Eng Chem* 40:143-50 Ja '48

Highly concentrated hydrogen peroxide; physical and chemical properties, E. S. Shanley and F. P. Greenspan, *bibliog il Ind & Eng Chem* 39:1536-43 D '47

OXIMES

Colorimetric determination of iron with various dioximes, M. Griffing and M. G. Mellon, *bibliog Anal Chem* 19:1017-20 D '47

1,2-Cyclohexanedione dioxime; a reagent for nickel, R. C. Voter, C. V. Banks and H. Diehl, *bibliog Anal Chem* 20:458-60 My '48

Ketoxime-O-sulfonic acids, P. A. S. Smith, *bibliog Am Chem Soc J* 70:323-6 Ja '48

See also

Glyoxime

OXYACETIC acid

Biosynthesis of penicillins; oxy- and mercaptoacetic acids, Q. F. Soper and others, *bibliog Am Chem Soc J* 70:2849-55 S '48

OXYACETYLENE apparatus

End hardening of rail ends and open hearth frogs, R. W. Torbert, *il Welding J* 27:107-10 F '48

Maintenance of oxyacetylene equipment, G. E. Phelps, *Welding J* 27:452 Je '48

Precision pressure regulation of various gases, J. K. Hamilton, *diags Welding J* 26:977-83 N '47

Reclaiming cutting blow pipes, *il Ry Mech Eng* 122:498 S '48

Safety measures

Fire underwriting; welding and cutting, W. O. Lincoln, *Spectator (Property ed)* 13:12+ Ja 8 '48

Gas, flames and sparks; safety considerations in oxy-acetylene applications, J. I. Banash, *il diags Safety Eng* 96:7-9+ Ag '48; Same cond. *Nat Safety N* 58:24-5+ Jl '48

OXYACETYLENE apparatus—Safety measures

—Continued

How to avoid cutting and welding fires. *il*
Safety Eng 94:16+ N '47
Safety with gas. P. Glanzer. *Am Mach* 92:
115 My 20 '48

OXYACETYLENE cutting

Application of hand scarfing to modern
surface conditioning of steel. P. S. Paluch.
Iron & Steel Eng 25:87-91 Je '48

Faults to avoid in torch-cutting; reference
book sheet. *il Am Mach* 92:145 Je 17 '48

Flame-cut disk flywheels; Lukens steel co
il diags Product Eng 18:141-3 N '47
Flame cutting notches laminated poles. H.
E. Murphy. *il diag Elec World* 130:116 J1
31 '48

Flame cutting of ferrous metals; engineering
file facts. R. S. Burpo, jr., comp. *Materials
& Methods* 28:87, 89 Ag '48

Flame-cutting stainless steel; Hydrapulper
machine. *il Mech Eng* 69:930-1 N '47; Same.
Steel 121:89-90 N 24 '47

Full automatic bloom scarfer at J. & L. *il*
Iron Age 162:59 S 30 '48

Fundamentals of oxyacetylene welding and
cutting. J. I. Banash. *il Steel* 121:110-12+
N 10 '47

Industry's debt to industrial gases. *il Sheet
Metal Worker* 38:53-4 D 47

Mechanized scarfing conditions. 4-1/32 x 5-
3/16-inch billets at average rate of 125 feet
per minute. *il Steel* 121:74+ D 29 '47

Oxyacetylene powder cutting and scarfing.
D. H. Fleming, jr. *il Steel* 121:96-7+ D 1
'47

Oxyacetylene production cutting in steel mills.
A. H. Yoch and W. Begerow. *il Welding J*
27:158-92 Mr '48

Oxygen activities during 1947. J. H. Zimmer-
man. *Blast F & Steel Pl* 36:85 Ja '48

Powder cutting as a production tool. D. H.
Fleming. *il Welding J* 27:131-7 Mr '48

Powder process in stainless steel production;
oxyacetylene cutting with fluxing agent.
C. J. Burch and E. M. Holub. *il Iron &
Steel Eng* 25:43-51 J1 '48; Same cond. *Blast
F & Steel Pl* 36:443-6 Ap '48; Discussion.
Iron & Steel Eng 25:51-2 J1 '48

Underground metal-mine fires from cutting
and welding. A. D. Look. *U S Bur Mines
Information Circ* 7453:1-9 '48

Uses of flux-injection cutting for stainless
steels. G. E. Bellow. *il diag Welding J*
27:118-24 F '48

Welding and flame cutting; rapid repairs help
to maintain production. C. W. Brett. *il*
Chem Age (Lond) 57:732-4 D 6 '47

What a maintenance department can do
with cutting and welding in a paper mill.
J. Moore. *Welding J* 27:793-5 O '48

OXYACETYLENE flame

Automatic flame-hardening. M. R. Nelson.
il Mach 54:150-3 N '47

Fixtures facilitate induction and flame
hardening. V. E. Hillman. *il Iron Age* 161:
90-4 Je 24 '48

Flame-hardening machine tool parts. W. D.
Whalen. *il diags Welding J* 27:11-18 Ja '48
Flame hardening methods and techniques.
J. R. Burg. *il Welding J* 27:805-9 O '48

Flame hardening of armor plate. E. L. Bar-
tholomew, Jr. and others. *il diags Metal
Prog* 52:379-83 D 47

Flame hardening; principles, applications,
and equipment. M. S. Rosengren. *il Weld-
ing J* 27:453-5 Je '48

Gas torches kick warped beams into shape
without dismantling. *il diag Constr Meth-*
ods 30:58 O '48

It's easy to weld pulleys and gears; how to
use blowpipe for preheat. F. F. Mooney.
il diags Welding J 27:728 S '48

Let contraction do the heavy work; using
oxyacetylene flame for straightening weld-
ed parts. E. F. Kurzinski. *il diags Welding
J* 27:37-8 Ja '48

New developments in railroad maintenance-
of-way work. C. A. Daley. *Welding J* 26:
1015-17 N '47

OXYACETYLENE welding

Bronze welding or fusion welding for repair-
ing cast iron? H. B. Gilson. *il Materials &
Methods* 28:74-6 S '48

Flux-coated gas rod for all types of gray
or alloy cast iron. *Chem & Eng N* 25:3872
D 29 '47

French specifications for gas welding rods.
Welding J 27:223-4 Mr '48

Fundamentals of oxyacetylene welding and
cutting. J. I. Banash. *il Steel* 121:110-12+
N 10 '47

Getting ready to weld. H. B. Gilson. *il diags
Welding J* 27:539-41 J1 '48

High-speed oxyacetylene tube welding. H. O.
Jones. *Welding J* 27:25-6 Ja '48

Hydrogen embrittlement in oxyacetylene
pressure welding? K. B. Young and H.
J. Nichols. *il Welding J* 27:sup30-2 Ja '48;
Discussion. 27:sup272 My '48

Multiple flame pressure welding process. N.
H. Cuke. *il diags Welding J* 27:
39-47 Ja '48

New developments in railroad maintenance-
of-way work. C. A. Daley. *Welding J* 26:
1015-17 N '47

New pressure-welding processes. P. Reed. *il*
diags Oil & Gas J 46:64 D 20 '47

Open-butt pressure welding of steel. H. R.
Clausner. *il diags Materials & Methods* 27:
83-6 Ja '48

Pressure welding propeller barrels. G. W.
Motherwell and others. *il diags
Welding J* 26:994-1001 N '47

Storage battery work. L. S. Bowser. *il Weld-
ing J* 27:36-7 Ja '48

Survey of automatic arc and gas welding
processes as used in the automotive indus-
try; committee report. *diag Welding J* 27:
34-5 Ja '48

Underground metal-mine fires from cutting
and welding. A. D. Look. *U S Bur Mines
Information Circ* 7453:1-9 '48

Welding and flame cutting; rapid repairs
help to maintain production. C. W. Brett.
il Chem Age (Lond) 57:732-4 D 6 '47

Welding and low-temperature brazing of air
conditioning and refrigeration parts. W.
Swarthout. *il Welding J* 27:511-16 J1 '48;
Same cond. *Steel* 123:116+ S 13 '48

Welding jig guarantees accurate cabinet
making. *il Sheet Metal Worker* 39:44 S '48

What a maintenance department can do
with cutting and welding in a paper mill.
J. Moore. *Welding J* 27:793-5 O '48

White metal welding. A. E. Speck. *il Welding
J* 26:1091-3 D '47

Worn and broken zinc die castings can be
repaired by welding. A. E. Speck. *il diag
Materials & Methods* 27:72-4 Mr '48

You can make rusted fenders good as new.
F. C. Geibig. *il Welding J* 27:725-6 S '48

OXYARC cutting. See Electric cutting—Oxyarc
process

OXYCELLULOSE

Alkali-sensitivity of the aldehydes obtained
by periodate oxidation of β -methyl gluco-
side, β -methyl cellobioside, and cellulose. F.
S. H. Head. *il bibliog Textile Inst J* 38:
T389-407 D '47

Oxycellulose defects can be avoided or cured.
J. McCartney. *il Textile World* 98:116+ J1
'48

Analysis

Acidic properties of cotton cellulose and
derived oxycelluloses. G. F. Davidson and
T. P. Nevell. *il bibliog Textile Inst J* 39:
T69-130 Mr '48

OXYGEN

Absorption of oxygen by sodium in liquid
ammonia; evidence for the existence of
sodium superoxide. W. H. Schechter, H.
H. Sisler and J. Kleinberg. *il bibliog diag
Am Chem Soc J* 70:267-9 Ja '48

Abundance of oxygen in the sun. I. S. Bowen.
Rs Mod Phys 20:109-12 Ja '48

Atmospheric absorption of microwaves. H.
R. L. Lamont. *Phys R* 74:353 Ag 1 '48

Carbon oxygen steam reactions studied. J.
D. Parent and S. Katz. *il diags Am Gas
Assn Mo* 30:21-4 Ja '48

Catalytic reaction of hydrogen and oxygen
on plane faces of a single crystal of cop-
per. H. Leidheiser, Jr. and A. T. Gwath-
mey. *il diags Am Chem Soc J* 70:1200-6
Mr '48

Chromium-oxygen equilibrium in liquid iron.
H. Chen and J. Chipman. *il bibliog il diags
Am Soc for Metals Trans* 38:70-113; Dis-
cussion. 113-16 '47

Degradation of rayon tire yarn at elevated
temperatures. R. C. Waller, K. C. Bass
and W. E. Roseveare. *il bibliog Ind & Eng
Chem* 40:138-43 Ja '48

OXYGEN—Continued

- Effect of oxygen on retention of activity by commercial dried baker's yeast. J. Oyaas and others. *bibliog Ind & Eng Chem* 40: 280-3 F '48
- German devices supplied oxygen to submerged subs; possibilities of Diesel engine. C. G. A. Rosen. *diags S A E J* 56:22-4 S '48
- Graphical residual; its application to phase relations of oxygen and nitrogen. H. A. Koch, jr. and V. C. Williams. *bibliog Chem Eng Prog* 43:623-32 N '47
- Heat of adsorption of gases on manganous-chromic oxide at room temperature. T. Ward. *Chem Soc J p* 1244-6 S '47
- Ignition of explosive gas mixtures by electric sparks; minimum ignition energies and quenching distances of mixtures of methane, oxygen, and inert gases. M. V. Blanc and others. *diag J Chem Phys* 15: 798-802 N '47
- Internal friction in the interstitial solid solutions of C and O in tantalum. T. Kê. *bibliog diag Phys R* 74:9-15 JI 1 '48
- Ionization processes on tungsten filaments; the electron affinity of the oxygen atom. M. Metlay and G. E. Kimball. *bibliog J Chem Phys* 16:774-8 Ag '48
- Mechanism of the reduction of oxygen at the air electrode. R. S. Weisz and S. S. Jaffe. *bibliog Electrochem Soc J* 93:128-41 Ap '48
- New bands in the second negative or ultraviolet band system of O_2 molecule (${}^2\pi_g \rightarrow {}^2\pi_g$). L. Lal. *Phys R* 73:255 F 1 '48
- Oxygen absorption by cast plastic films. J. W. Westwater. *bibliog il diags Ind & Eng Chem* 40:1494-500 Ag '48
- Oxygen absorption by dehydrated whole egg powders. B. Makower and T. M. Shaw. *bibliog Ind & Eng Chem* 40:1433-7 Ag '48
- Oxygen in the production of hydrogen or synthesis gas; Winkler, Koppers, Lurgi, Thyssen-Galocsy and Leuna processes. L. L. Newman. *bibliog flow diag il diags Ind & Eng Chem* 40:559-82 Ap '48
- Pressure-volume-temperature data for oxygen. C. H. Meyers. *bibliog J Res Nat Bur Stand* 40:457-66 Je '48
- Production of hydrogen and synthesis gas by the oxygen gasification of solid fuel. C. C. Wright, K. M. Barclay and R. F. Mitchell. *bibliog il diags Ind & Eng Chem* 40:592-600 Ap '48
- Range-energy relations for protons in substances containing C, H, O, A, and Xe. J. O. Hirschfelder and J. L. Magee. *bibliog Phys R* 73:207-15 F 1 '48
- Removal of oxygen from gas streams. L. Meites and T. Meites. *Anal Chem* 20:984-5 O '48
- Slow neutron spectrometer studies of oxygen, nitrogen, and argon. E. Melkonian and others. *Phys R* 73:1399-400 Je 1 '48
- Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel. *bibliog il diags J Chem Phys* 16:372-80 Ap '48
- Study of the hydrogen, oxygen, and nitrogen contents of foundry pig-iron. J. E. Hurst and R. V. Riley. *diags Iron & Steel Inst J* 159:130-6 Je '48
- Thermodynamic functions for molecular oxygen in the ideal gas state. H. W. Woolley. *bibliog J Res Nat Bur Stand* 40:163-8 F '48
- Vapor pressure, specific volume, p - v - T data for H₂, N₂, O₂, CO, CO₂, air, He, A, Hg. S. Gratch. *A S M E Trans* 70:631-40 *bibliog* (154 titles, p637-40) Ag '48
- Zeeman effect and g -values for neutral nitrogen and oxygen. C. K. Kless and G. Shortley. *il Science* 107:649-50 Je 18 '48

Analysis

- Continuous determination of oxygen concentration based on the magnetic properties of gases. R. D. Richardson. *bibliog il diags A S M E Trans* 70:211-15; Discussion. 215-16 Ap '48
- Continuous estimation of oxygen in gases using a polarographic method. W. S. Wise. *bibliog diag Chem & Ind* p37-8 Ja 17 '48
- Determination of small amounts of oxygen in organic compounds. W. W. Walton, F. W. McCulloch and W. H. Smith. *bibliog il diags J Res Nat Bur Stand* 40:443-7 Je '48; Abstract. *Chem Age (Lond)* 58:139-40 Ja 24 '48; Same. *Rubber Age* 62:540 F '48; Same. *Pet Processing* 3:221 Mr '48; Same cond. *Mech Eng* 70:244-5 Mr '48
- Instrument for continuous measurement and recording of low concentrations of oxygen in gases. G. Cohn. *bibliog il diags Anal Chem* 19:832-5 N '47
- Magnetic oxygen analysers. *Electronics* 21: 136-7 Ja '48
- Paramagnetic oxygen analyzer. C. A. Dyer. *bibliog il diags R Sci Instr* 18:696-702 O '47
- Potentiometric determination of oxygen using the dropping mercury electrode. H. A. Laitinen, T. Higuchi and M. Czuhá. *bibliog diag Am Chem Soc J* 70:561-5 F '48
- Quantitative evaluation of oxygen in zirconium. W. C. Lillendahl and others. *il diag Electrochem Soc J* 93:235-47 Je '48
- Review of micro methods for the determination of oxygen in organic compounds. C. E. Spooner. *bibliog Metallurgia* 37:157-60 Ja '48
- Use of the dropping-mercury electrode for the continuous measurement of dissolved oxygen in flowing water. W. A. Spoor. *diag Science* 108:421-2 O 15 '48

Industrial applications

- Accelerating carbon elimination of the open hearth bath. J. H. Hornak. *Iron & Steel Eng* 25:39-45 Ja '48; Excerpt (table). *Iron Age* 160:59 D 25 '47
- Application of oxygen enrichment to side-blown-converter practice. J. L. Harrison and others. *bibliog diags Iron & Steel Inst J* 159:281-90 JI '48; Same abr. *Metallurgia* 38:193-200 Ag '48; Abstract. *Metal Prog* 64:562+ O '48
- Application of oxygen in the operation of the blast furnace. D. D. Howat. *bibliog Blast F & Steel Pl* 36:533-8+ My '48
- Cheap oxygen an aid to industry. *Cer Ind* 49:54 D '47
- Cheaper sewage treatment is promise of tests using oxygen for aeration. *Eng N* 140:595 Ap 22 '48
- Combustion control; use of oxygen. H. Ziebolz. *diags Iron & Steel Eng* 25:67-71 O '48
- Direct oxidation in the basic open hearth process. E. B. Hughes and F. G. Norris. *bibliog Metals Tech* 15:TP2380 1-17 Je '48; Abstract. *Iron Age* 161:128 F 26 '48; Discussion. *Metals Tech* 15:TP2448 10-18 Ag '48
- Effect of oxygen on refractories in the basic openhearth; abstract. R. S. Moore. *Iron Age* 162:102-3 O 7 '48
- Electric furnace oxygen utilization affords greater stainless scrap charge, reduced heat time and improved chromium recovery. J. H. Eisaman. *il Steel* 123:112+ Ag 16 '48; Same. *Blast F & Steel Pl* 36:1081-4 S '48; Same cond. *Iron & Steel Eng* 25:117-19 Ag '48
- Eliminating carbon with oxygen in commercial grades of electric furnace steel. W. B. Arness. *il diag Steel* 122:120+ F 2 '48
- Germans used oxygen to make ferrous alloys. W. M. Pollitzer. *Product Eng* 19:151-2 Ja '48
- Industry's debt to industrial gases. *il Sheet Metal Worker* 38:53-4+ D '47
- Jet-piercing up-to-date; drilling blast holes with oxygen flame and fluxing agent; abstracts. J. H. Zimmerman. *il Eng & Min J* 149:74-6 Mr '48; Min & Met 29:289-90 My '48
- Large volume oxygen meets industry demands. *il Product Eng* 19:146-3 Je '48
- McCarthy unveils; will spend \$15 million at Winnie, Texas, to produce formaldehyde, acetaldehyde, ethylene and benzene, map. *Chem Ind* 62:220-1 F '48
- Open-hearth furnace operators discuss use of oxygen at 31st conference, Pittsburgh. *Foundry* 76:148, 150 S '48
- O. H. + O₂ = ? using oxygen in steel making. D. E. Carb. *Blast F & Steel Pl* 36:801-5 JI '48
- Operation of oxygen-enriched open-hearth furnaces. J. S. Marsh. *diags Metals Tech* 15:TP2416 1-12 Ag '48; Same cond. *Steel* 122: 112+ My 3 '48; Abstract. *Iron Age* 161:87-9 Mr 25 '48; Discussion. *Metals Tech* 15:TP2448 18-20 Ag '48

OXYGEN—Industrial applications—Continued

- Oxidation of chalcocite in air compared with its oxidation in pure oxygen. J. R. Lewis and others. *bibliog diag Metals Tech* 15: TP2388 1-9 Je '48
- Oxygen activities during 1947. J. H. Zimmerman. *il Blast F & Steel Pl* 36:83-5 Ja '48
- Oxygen and cupola operation. A. W. Gregg. *il Foundry* 76:86-90 Je '48
- Oxygen enriched air for steel production. *bibliog Engineer* 186:103-5 Jl 30 '48
- Oxygen enriched cupola blasts; abstract. W. C. Wick. *Iron Age* 161:82-3 My 20 '48
- Oxygen enrichment of the cupola blast. A. K. Higgins. *bibliog il diags Iron Age* 161:72-7 Ap 22 '48
- Oxygen firing furnaces of industry is placing new demands on refractories. *il Brick & Clay Rec* 112:56 Ja '48
- Oxygen for decarburization; abstract. R. Carpenter. *Steel* 121:126 N 10 '47
- Oxygen for industry; new processes making possible large production, high purity, low cost. E. P. Stevenson. *bibliog il Tech R* 50:32-5+ N '47
- Oxygen in side blown converters. M. E. Davies. *bibliog diags Iron Age* 162:87-91 S 2 '48
- Oxygen in steelmaking. W. Mann. *il Sci Am* 178:52-6 F '48
- Oxygen in the Bessemer converter. *Iron Age* 161:70 F 19 '48
- Oxygen in the electric furnace. J. H. Berryman and J. M. Crockett. *bibliog il Iron Age* 162:72-5+ Ag 5 '48
- Oxygen in the steel industry. H. W. McQuaid and F. E. Pavlis. *il Iron & Steel Eng* 25:41-6; Discussion. 46-8 Ap '48
- Oxygen in the steel industry; past, present and future. G. V. Slottman. *bibliog il diags Blast F & Steel Pl* 36:64-9 Ja '48
- Oxygen use in Bessemer reported. *Chem Eng Prog* 44:sup20 Jl '48
- Oxygen uses in steel production. J. H. Zimmerman. *il diags Iron & Steel Eng* 25:35-43; Discussion. 43-4 F '48
- Practical experience with the use of oxygen in steelmaking. G. V. Slottman. *diags Iron & Steel Inst J* 157:331-6 N '47
- Present applications of oxygen in electric furnace steelmaking; abstract. J. H. Berryman. *Iron Age* 160:105-6 D 11 '47
- Progress of oxygen in open hearth, chief subject at annual fall meeting of National open-hearth committee, Pittsburgh section, American institute of mining and metallurgical engineers. *Steel* 121:90 N 24 '47
- Pure oxygen in bio-precipitation process may reduce sewage treatment costs. D. A. Okun. *il diags Civil Eng* 13:288-9+ My '48
- Refractories use with oxygen firing still offers problems to steelmakers. *il Brick & Clay Rec* 112:66+ Je '48
- Russian experiments with oxygen in steelmaking. V. V. Kondakov. *Metallurgia* 38: 302 S '48
- Some practical aspects of direct oxidation in the basic open hearth process. F. G. Norris and E. B. Hughes. *Iron & Steel Eng* 25: 115-17 Ag '48; Abstract. *Steel* 122:70+ My 31 '48
- Tonnage oxygen for increased iron and steel production; abstract. W. H. Mayo. *Blast F & Steel Pl* 36:874-5 Jl '48
- Tonnage oxygen versatile aid for increasing iron and steel output. J. H. Strassburger. *il diag Steel* 123:148+ O 13 '48; Abstracts. *Iron & Steel Eng* 25:112-15 Ag '48; *Iron Age* 161:92-3 Je 10 '48
- Use of gaseous oxygen in metallurgical processes. G. V. Slottman and P. M. Hulme. *il Metal Prog* 52:963-7 D '47
- Use of oxygen in gasoline treating; Hoover process. C. O. Hoover. *il diags Pet Refiner* 27:99-103 Jl '48
- Use of oxygen in open hearth furnaces. E. C. McDonald. *plans diags Iron & Steel Eng* 25:37-43 Mr '48; Excerpts. *il Steel* 121:96+ O 13 '47; Discussion. *Iron & Steel Eng* 25:43 Mr '48
- Uses of oxygen in steel production; abstracts. J. H. Zimmerman. *Steel* 121:98 O 13 '47; *Iron Age* 160:86 N 27 '47
- Utilization of oxygen in smelting low-grade ores. W. M. Pollitzer. *diags Steel* 122:98+ F 16 '48

See also

Oxyacetylene flame

Isotopes

- Angular distribution of the (d,p) reactions making two low states of O^{17} . N. P. Heydenburg and D. R. Inglis. *bibliog diag Phys R* 73:230-40 F 1 '48
- Relative cross sections of reactions induced by high energy neutrons in C, N, O, and F. W. J. Knox. *Phys R* 72:1264-5 D 15 '47

Manufacture

- Big oxygen gets bigger. *il Chem Ind* 62:565-6 Ap '48
- Elliott co. announces new oxygen process. *Elec World News ed* 130:21 Jl 24 '48
- Elliott company describes oxygen cycle, flow diag. *il Chem Eng Prog* 44:sup20+ O '48
- Ford's oxygen. *Bns W p34 My 22 '48*
- Impact of tonnage oxygen on American chemical industry. C. R. Downs. *il Chem Eng* 55:113-17+ Ag '48; Excerpts. *Mech Eng* 70:902 N '48
- New commercial tonnage oxygen system. B. H. Van Dyke. *flow diag il Steel* 123:103-4+ S 20 '48; Same. *Pet Refiner* 27:122-6 O '48; Same cond. *Blast F & Steel Pl* 36:1212-15 O '48; Same cond. *bibliog Chem Ind* 63:604-8 O '48; Same cond. *Oil & Gas J* 47:112-13 D 9 '48; Same cond. *Power Generation* 52:104-5+ D '48
- New oxygen process announced. *il Chem Eng Prog* 44:sup 17-18 My '48
- Oxygen for industry; new processes making possible large production, high purity, low cost. E. P. Stevenson. *bibliog il Tech R* 50:32-5+ N '47
- Oxygen pilot plant foreshadows large scale commercial operations. *il Steel* 122:119 Ap 26 '48
- Oxygen plant; Elliott co., Jeannette, Pa. *il Chem Eng* 55:153 My '48
- Production and use of oxygen. J. H. Rush-ton and C. R. Downs. *bibliog flow sheet diags Am Gas Assn Proc* 1947:717-22
- Simplified oxygen plant; abstract. *Mech Eng* 69:933 N '47
- Tonnage oxygen; Elliott process. *Mech Eng* 70:535-6 Je '48
- Tonnage oxygen for chemical industry. J. T. Huggill. *bibliog flow sheet diags Can Chem & Process Ind* 31:1115-20 D '47

Therapeutic use**Bibliography**

- Bibliography on oxygen therapy. rev ed 99p Linde air products co, 30 E. 42d st, New York 17 '47

OXYGEN, Liquid

- Sound absorption and velocity in liquefied argon, oxygen, nitrogen, and hydrogen. J. K. Galt. *bibliog diag J Chem Phys* 16: 505-7 My '48

OXYGEN apparatus

- Oxygen and suction piping for hospitals. S. Lewis. *Heating-Piping* 20:94-5 F '48

OXYGEN compounds

- Aromatic cyclohydrogenation; synthesis of ring oxygen compounds. M. Orchin. *Am Chem Soc J* 70:495-7 F '48

OXYGEN cutting

- Blowpipe cutting employed to reclaim ladle skulls and buttons. *il Steel* 122:94+ My 17 '48

See also

Oxyacetylene cutting

OXYGEN recorders

- Continuous determination of oxygen concentration based on the magnetic properties of gases. R. D. Richardson. *bibliog il diags A S M E Trans* 70:211-15; Discussion. 215-16 Ap '48

- Oxygen recorder. *il diags Instruments* 21:170 F '48

OXYHYDROGEN flame

- Flame polishing with the oxy-hydrogen torch. *il Mod Plastics* 25:119 My '48

OXYHYDROGEN welding

- Oxyhydrogen welding of aluminum reported. *Steel* 122:118 F 2 '48

OXYNITRATION. See Nitration**OYSTER shells**

- Jacksonville builds oyster-shell pavement base. *il Eng N* 140:434-5 Mr 18 '48

OYSTERS

Automatic proportioning apparatus for experimental study of the effects of chemical solutions on aquatic animals. A. Collier and S. M. Ray. *diags Science* 107:576-7 My 28 '48

Effect of suspended silt and other substances on rate of feeding of oysters. V. L. Loosanoff and F. D. Tommers. *bibliog il Science* 107:69-70 Ja 16 '48

Fisheries statistics and the past oyster production of the Gulf coast of the United States. G. Gunter. *Science* 108:484-5 O 29 '48

Physiological effects on sulphate pulp mill wastes on shellfish. W. A. Chipman, jr. *bibliog Paper Tr J* 127:47-9 S 16 '48

Staining of oyster larvae as a method for studies of their movements and distribution. V. L. Loosanoff and H. C. Davis. *Science* 106:597-8 D 12 '47

OYSTERS, Frozen

Oyster free liquor content depends upon cleaning method. W. B. Lanham and others. *il Food Ind* 20:220-2+ F '48

OZONE

Absorption spectrum of ozone in the visible. G. L. Humphrey and R. M. Badger. *bibliog J Chem Phys* 15:794-8 N '47

Electrolytic ozone. G. L. Putnam and others. *bibliog diags Electrochem Soc J* 93:211-21 My '48

Evaluating ozone by electronic means. W. H. Meade. *il diag Elec World* 130:114 JI 31 '48

Kinetics, mechanism, and activation energy of the cobaltous ion catalyzed decomposition of ozone. G. R. Hill. *bibliog Am Chem Soc J* 70:1306-7 Ap '48

Measurement of ozone over the Organ mountains, New Mexico. R. Stair. *bibliog il diag J Res Nat Bur Stand* 40:9-19 Ja '48

Measurement of total stratosphere ozone. Franklin Inst J 245:253-4 Mr '48; Same *abr. Mech Eng* 70:440-1 My '48; Same *cond. Heat & Ven* 45:124 Ap '48

Odor removal studies in refrigerated storage. M. Uota and R. M. Smock. *il Refrig Eng* 55:256-9+ Mr '48

Reinvestigation of the vibration spectrum of ozone. M. K. Wilson and R. M. Badger. *bibliog J Chem Phys* 16:741-2 JI '48

Structure of ozone. D. M. Simpson. *bibliog J Chem Phys* 15:846-7 N '47

See also

Water purification—
Ozone treatment

OZONIZATION

Ozonization of the maleic anhydride adduct of dehydroergosterol acetate. R. H. Levin, M. M. Wesner and E. M. Meinzer. *Am Chem Soc J* 70:2834-5 Ag '48

P

PM (newspaper)

Crum and Barnes take active control of PM. C. Hodge. *Ed & Pub* 81:7-8 My 1 '48

New executives named as ax falls at PM. *Ed & Pub* 81:9 My 22 '48

P-V test. See Steel, Hardening of

PACEY, Lorne

For immediate delivery. *Fortune* 36:143 D '47

PACIFIC American fisheries, inc.

Food combine; Northwest salmon packer to merge with two frozen food firms. *Bsns W* p80+ D 13 '47

PACIFIC car and foundry company

Diversified northwestern invades the East. *il Bsns W* p52+ Ag 28 '48

PACIFIC coast

Industries and resources

Industry booms on Coast. *il Mod Ind* 15:38-9 Ap '48

Pacific Industry forges ahead. W. N. Nordquist. *il Tool Eng* 21:46-51 Ag '48

PACIFIC coast electrical association

Annual meeting, 31st, San Francisco, June 16-18. *Elec West* 101:84-97+ JI '48

Fall meeting, Fresno, Dec. 4-5. *Elec West* 100:72-82 Ja '48

PACIFIC coast gas association

Annual meeting, 54th, San Diego, Sept. 23-25. *Gas Age* 100:47-8 O 30 '47

Annual meeting, 55th, Santa Cruz, Sept. 14-16. *Am Gas J* 169:32 O '48

Annual meeting, 55th, Santa Cruz, Sept. 14-16; abstracts of papers. *Gas Age* 102:22-3+ O 14 '48

Gas councils discuss standards and programs. *Am Gas J* 168:16-18 Ap '48

PACIFIC gas and electric company

Bonds offered. *Comm & Fin Chr* 168:1485-6 O 11 '48

Consolidated income statement for calendar years, 1944-1947. *Comm & Fin Chr* 167:1697 Ap 19 '48

P.G.&E. plans expansion through 1950. G. E. Stedman. *Gas Age* 102:16-17+ S 2 '48

Preferred stock offered. *Comm & Fin Chr* 168:49 JI 5 '48

Public utility securities. *Comm & Fin Chr* 167:2763 Je 24 '48

PACIFIC intermountain express company

Sale of preferred stock. *Comm & Fin Chr* 166:2663 D 29 '47

PACIFIC islands. See Islands of the Pacific

PACIFIC lighting corporation

Common stock offered. *Comm & Fin Chr* 167:1812 Ap 26 '48

PACIFIC ocean

Major structural features of the western North Pacific, an interpretation of H.O. 5485, bathymetric chart, Korea to New Guinea. H. H. Hess. *maps diags Geol Soc Bul* 59:417-45, pl 1-2 *bibliog*(p443-5) My '48

See also

Islands of the Pacific

PACIFIC science congress

Plans for holding 7th Pacific science congress in 1949. *Science* 107:419-20 Ap 23 '48

PACIFIC telephone and telegraph company

Debentures offered. *Comm & Fin Chr* 167:1259-60; 168:1253 Mr 22, S 27 '48

More new money needed; sale of debentures may set pattern for interest costs. *Bsns W* p68+ N 1 '47

PACKAGE design

Ad box; ad illustration reproduced in six colors on a folding box for Universal electric blanket. *il Mod Packaging* 21:118-19 Ap '48

Color strategy for sheets; Dan River Mills floral boxes. *il Mod Packaging* 21:124-5 D '47

Container Corporation's design for business. H. Burnett. *il Ind Marketing* 33:34-9, 122 Ap '48

Cosmetic season of reason. *il Mod Packaging* 22:118-23+ S '48

Design dynamics: Gobelin co. candy packages. E. Arens. *il Mod Packaging* 21:142-4 Mr '48

Design for impact; merchandising possibilities of printed transparent bags and wraps. J. M. Cowan. *il Mod Packaging* 21:140-2+ Ap '48

Don't be afraid to simplify your trade-mark or package design. J. Nash. *il Ptr Ink* 221:41-3 D 5 '47

Dulany goes pictorial. *il Mod Packaging* 22:118-20 O '48

Eight vital factors in effective point-of-sale promotion. F. L. McKibbin. *il Sales Management* 61:52-4 N 1 '48

Fertile imagination breeds new markets for Reynolds foil. E. M. Kelley. *il Sales Management* 61:44-5 S 1 '48

Five-way problem: ethical package for prescription salt substitute, Westsal, made in liquid form. *il Mod Packaging* 21:136-7 Ag '48

'48 Spice awards. *il Mod Packaging* 22:132-3 O '48

Girdle hit; new package and display unit sell 7,000 girdles at Macy's during two days of biggest snowstorm in New York's history. *il Mod Packaging* 21:123 F '48

How to get the most out of a package designer. T. D'Addario. *il Ptr Ink* 222:48-9 Ja 2 '48

Is your package properly designed? J. Nash. *il Food Ind* 20:1282-3 S '48

Magnetic cartons; Colgate Fab package. *il Mod Packaging* 21:121 Je '48

Modern packages will increase your sales; abstract. W. F. Devenau. *Management R* 37:206-7 Ap '48

PACKAGE design—Continued

New dress wins national markets for Cinderella raisins; new package with aluminum foil. *il Sales Management* 60:110-11 Je 1 '48

Package design paces fresh flowers into national markets. *il Sales Management* 60:107-10 F 1 '48

Package personality; the Cheneys' flavoring packaged in ceramic jugs. *il Mod Packaging* 21:120-1 N '47

Packaging oomph speeds jewelry sales; Spiel-deid corp. R. H. Ganly. *il Ptr Ink* 221:63+-N 14 '47

Pre-testing techniques; intensive study for Lambert cream deodorant jars. *il Mod Packaging* 22:33-100 O '48

Product and package designed at same time; Polaroid filter for television screens. *il Ptr Ink* 224:70+-Jl 16 '48

Scottish packages; Enterprise exhibition in Edinburgh. *il Mod Packaging* 21:138-9 N '47

Seven competitors; packaging and display of luminous paints. *il Mod Packaging* 21:114-17 Ag '48

Sohio redesigns both motorists' and household items. *il Mod Packaging* 21:136-8+-D '47

Southern cooking; package appeal of new Dix Etes mixes. *il Mod Packaging* 21:118-20 Je '48

Spice field's best; top award winners in annual competition. *il Mod Packaging* 21:140-1 N '47

Vendor package; \$1 pack of nylons. *il Mod Packaging* 21:86-7+-Ja '48

What about television? *il Mod Packaging* 22:91-8 S '48

What is good package design? abstract. L. A. Wheeler. *Mod Packaging* 22:146 S '48

Woodbury up-to-date; Andrew Jergens' second packaging redesign program in ten years. *il Mod Packaging* 21:85-92 Jl '48

See also
Candy boxes
Package goods—Gift packages

Family of products

All Rexall; repackaging of 5,000 products. *il Mod Packaging* 21:91-8+-N '47

A & P cereals meet demand for more forceful surface display on self-service shelves. *il Mod Packaging* 21:106-7 F '48

Change-over; a survey of industry practices in replacing old stocks with newly designed packages. *il Mod Packaging* 21:95-8+-F '48

Commercial solvents corporation's two families; proper package design. *il Mod Packaging* 21:94-8 Jl '48

Cosmetic foresight; HQZ new merchandising-packaging program. *il Mod Packaging* 21:108-9+-F '48

Cudahy's Curly; cartoon character moves onto package. *il Mod Packaging* 21:114-15 Je '48

Photo chemicals; FR corp.'s bright new package colors break tradition in the camera shop. *il Mod Packaging* 21:108-9 Ja '48

Symbols for oil; Cities Service station green stripes tied to same design on 400 packages. *il Mod Packaging* 21:107 Je '48

Unmistakable drugs; Schering achieves stand-out appearance and positive identity. *il Mod Packaging* 21:132-4 N '47

PACKAGE goods

Can a package be a salesman? abstract. A. C. Farlow. *Mod Packaging* 22:147-8 S '48

Functional values of unit packages; abstract. T. A. Schwarz. *Mod Packaging* 22:149-50 S '48

Housewife reaction to packages may be key to repeat business; Western packaging exposition. L. F. Thomann. *Ptr Ink* 224:91+-Ag 20 '48

See also
Candy
Canned food
Cigarettes
Coffee
Containers
Food packages
Labels
Package design
Packaging
Packaging machinery

Advertising

Best place for your ad theme is on the package; changing package with change of theme. J. Shaw. *il Ptr Ink* 224:36-7 Jl 2 '48

It pays to advertise your new package; Behr-Manning corp. Service packaging of abrasives. C. J. Swan. *il Ptr Ink* 222:36-7 F 6 '48

Package promotion introduces yard goods to sales clerks; Wild Rice, new fabric. *il Ptr Ink* 222:32-3 Ja 2 '48

What about television? *il Mod Packaging* 22:91-8 S '48

See also
Package inserts

Color

Appetizing flour; Fisher shifts to colorful carton wraps. *il Mod Packaging* 22:143+-S '48

Color strategy for sheets; Dan River Mills floral boxes. *il Mod Packaging* 21:124-5 D '47

Eye appeal for ice cream; Dean's color-coded cartons for self-service selling in food stores. *il Mod Packaging* 21:100-1 F '48

Photo chemicals; FR corp.'s bright new package colors break tradition in the camera shop. *il Mod Packaging* 21:108-9 Ja '48

Combination packages

It's a deal. *il Mod Packaging* 21:95-8+-Ag '48

Slack-suit book; cartons with interlocking hinge sell pants and shirt as set. *il Mod Packaging* 21:127 My '48

Gift packages

Come, deck the halls with boughs of holly! Kirk's gift package of Christmas greens. P. R. Kirk. *il Sales Management* 59:48+-N 20 '47

Gift appeal for kitchen tools; Ekco packages. *il Mod Packaging* 21:110-12 My '48

Gift hostery; Schiaparelli's packaging. *il Mod Packaging* 22:116-17 O '48

Gift packaging; H. C. Minnich. *Mod Packaging* 21:155-6 D '47

Gift packaging ups unit of sale for Ekco. *il Sales Management* 61:120-1 Ag 15 '48

Mortarboards for keeps; three firms adopt same gift package; graduation-hat boxes. *il Mod Packaging* 21:142-3 My '48

1948 gift lines. *il Mod Packaging* 21:95-104+-My '48

Packaged tree; Seattle firm's mall order Christmas trees. *il Mod Packaging* 21:105 D '47

Packages, with a Christmas date line. *il Sales Management* 61:80 O 15 '48

Inserts

See Package inserts

New packages

Best place for your ad theme is on the package; changing package with change of theme. J. Shaw. *il Ptr Ink* 224:36-7 Jl 2 '48

Change-over; a survey of industry practices in replacing old stocks with newly designed packages. *il Mod Packaging* 21:95-8+-F '48

Cosmetic foresight; HQZ new merchandising-packaging program. *il Mod Packaging* 21:108-9+-F '48

It pays to advertise your new package; Behr-Manning corp. Service packaging of abrasives. C. J. Swan. *il Ptr Ink* 222:36-7 F 6 '48

Lift for Luer. *il Mod Packaging* 21:142-4 Ag '48

New packages aid shift to national advertising; Rexall re-labeled 5,000 drug items. C. J. Swan. *il Ptr Ink* 223:32-3+-Je 25 '48

Sohio redesigns both motorists' and household items. *il Mod Packaging* 21:136-8+-D '47

Protection

Gas attack on rust; VPI offers packagers unique anti-corrosion weapon. *il Chem Ind* 63:591 O '48

Kinetics of package life. C. R. Oswin. *Soc Chem Ind* J 64:67-70, 224-5; 65:419-21 biblog(p420-1); 67:274-7 biblog(p277) Mr. Ag '45, D '46, Jl '48

Moisture locked in; Richmond-Chase protects product with all-paper package. *il Mod Packaging* 21:126-9 Mr '48

New gas packaging method retains quality of peanuts; Flex-Vac. J. V. Ziemba. *il Food Ind* 20:677-9+-My '48

PACKAGE goods—Protection—Continued

Polyisobutylene in waxes. W. L. Abramowitz, bibliog *Mod Packaging* 21:159-62+ Je '48

Sampler packages

Sampling techniques; study of trial-size package. *il Mod Packaging* 21:97-102+ Je '48

Testing

How to tell if your package will sell. C. J. Swan. *il Ptr Ink* 222:36-8+ Mr 12 '48

Scotland

Scottish packages; Enterprise exhibition in Edinburgh. *il Mod Packaging* 21:138-9 N '47

PACKAGE inserts

Package inserts; neglected medium? Sales Management 60:121 Mr 1 '48

PACKAGING

Bayer aspirin; Trenton plant packages over 10,000,000 tablets a day in tins and bottles. *il plan Mod Packaging* 21:100-5 Ag '48
Cado up front; specialty writing and marking pens re-dressed in effective package. *il Mod Packaging* 21:140-1+ D '47
Case study in package selection; for chemical products and specialties; Pennsylvania Salt. H. C. E. Johnson. *il Chem Ind* 62:394-6 Mr '48

Color contrast aids packaging production; abstract. Management R 37:317-19 Je '48
Consumer packaging clinic; panel discussion. *Mod Packaging* 21:155-6 Je '48

Cuban revolution; packaged ground coffee. *il Mod Packaging* 21:122-3 Je '48

Five-cent bandages; Gotham aseptic laboratory makes adhesive bandages, wraps and packages them in one high-speed operation. *il Mod Packaging* 21:112-13 Jl '48

Flame-sealed visibility; Edelman's brass fittings packaged in polyethylene bags; displayed by jobber in polystyrene stock drawer. *il Mod Packaging* 21:112-14 Mr '48

Improved unit packages for drug and toilet-powders and tablets. *il Mod Packaging* 21:164-5 Ap '48

Look's kit; magazine's hobby kits of modular furniture. *il Mod Packaging* 22:137 O '48
Metal-clad cigarettes. *il Mod Packaging* 21:95-100 Mr '48

Moisture locked in; Richmond-Chase protects product with all-paper package. *il Mod Packaging* 21:128-9 Mr '48

Navy and navy industrial association materials handling and packing conference, Sept. 28. Paper Tr J 127:9+ O 14 '48

New Cry-O-Vac; oriented synthetic film applied semi-automatically to frozen poultry, meats and other foods. *il Mod Packaging* 21:115-19+ Mr '48

Outlook for '48. *il Mod Packaging* 21:71-80+ Ja '48

Pack up your damage troubles. Management R 37:99-100 F '48

Packaging engineers consolidate in renamed association; annual Packaging and materials handling exposition, 8d, Chicago, Oct. 5-8. Chem & Eng N 26:3106 O 18 '48

Pin-up cartons; window box with a hanger for attachment to display board; Lynn products co. *il Mod Packaging* 21:100-1 Jl '48

Pitch-dipped meats; Swift Sealrite package preserves hams and bacon slabs. *il Mod Packaging* 21:128-30 My '48

Problems in packaging macaroni. J. V. Ziemba. flow diag *il diag Food Ind* 20:849-52+ Je '48

Produce from four western states; most of it only bulk packaged. *il Mod Packaging* 21:145-7 Jl '48

Production clinic. E. G. Thomssen. Soap & San Chem 24:83+ Ap '48

Research shows airtight packaging is a must for eviscerated poultry. Refrig Eng 55:277 Mr '48

Simplified procedure; Victor Gasket cuts out its box-making department; reduces number of package sizes; streamlines packaging operation. W. F. Victor. *il Mod Packaging* 21:137-9+ Mr '48

Southern cooking; package appeal of new Dix'E'lea mixes. *il Mod Packaging* 21:118-20 Je '48

Steel balls in unit lots; SKF packaging. *il Mod Packaging* 21:160-2 Ap '48

Weight control in packaging gelatin desserts. K. A. Fitch. Food Ind 20:550-1 Ap '48

See also

Bottling
Closures (containers)
Food packages
Fruit—Prepackaging
Meat—Prepackaging
Packaging machinery

Packaging materials
Packing for shipment
Prepackaging
Sealing
Vegetables—Prepackaging

Exhibitions

'48 Spice awards. *il Mod Packaging* 22:132-3 O '48

Industrial packaging and materials handling exposition. Paper Tr J 127:13 O 28 '48

Smart packaging ideas and designs highlight exhibits of goods made in Scotland. *il Inland Ptr* 120:75 F '48

Spice field's best; top award winners in annual competition. *il Mod Packaging* 21:140-1 N '47

West Coast report; 1st Western packaging exposition and conference, San Francisco, Aug. 10-13; with abstracts of papers. *Mod Packaging* 22:145-54 S '48

West's own show; program. *il plan Mod Packaging* 21:128-30 Jl '48

Patents

U.S. patents digest. H. A. Levey, ed. *Mod Packaging* 21:154+ Ja '48

Specifications

Packaging specifications; abstract. T. J. Nelson. *Mod Packaging* 22:153-4 S '48

Value and preparation of adequate packaging specifications; abstract. H. F. Coleman. *Mod Packaging* 21:144-5 Je '48

Standards

Most oil companies believe uniformity in containers would cut handling costs. C. Boyd. Jr. Nat Pet N 40:30+ Ag 4 '48

PACKAGING conference and exposition. See American management association—Packaging conference

PACKAGING departments

New packaging layout provides flexible flow of small parts; Wagner electric corp. W. A. Okenfuss. *il plan Factory Management* 106:118-19 Ag '48

PACKAGING institute

Annual forum, 9th, New York, Nov. 18-19; with abstracts of papers. *Mod Packaging* 21:151-3 D '47; Food Ind 20:40-2+ Ja '48

Annual forum, 10th, New York, Oct. 14-15; program. *Mod Packaging* 22:142 S '48

PACKAGING machinery

Aid to its members stressed at packaging institute forum. Food Ind 20:40-2+ Ja '48

Candy packaging improved with new machines. J. V. Ziemba. *il Food Ind* 20:1462-5+ O '48

Formed-aluminum candy pack; new machine and a new kind of package give Charms a boost. *il Mod Packaging* 21:118-22 Ag '48

Getting the most out of packaging machines; abstract. J. A. Warren. *Mod Packaging* 22:151 S '48

Grape packaging simplified with mechanized packing unit. J. V. Ziemba. *il diag Food Ind* 20:1154-5 Ag '48

Low cost, flexible cartoner. *il Mod Packaging* 21:153 Ap '48

Machinery performance. A. F. Stevenson. *Mod Packaging* 21:154 D '47

Mince meat at high speed; Borden co. equipment automatically wraps and cartons. A. F. Stevenson. *il Mod Packaging* 21:106-8 My '48

Unit packager. *il Mod Packaging* 21:157 Ap '48

Versatile unit packager. *il Mod Packaging* 21:152 Ap '48

Western machinery. *il Mod Packaging* 21:172-4 Jl '48

What the machinery user needs. F. Chilson. *Mod Packaging* 21:153-4 D '47

See also

Bag filling machines
Bag service machines
Box making machines
Filling machines

Labeling machines
Sealing machines
Wrapping machines

PACKAGING materials

Aid to its members stressed at Packaging institute forum, Food Ind 20:40-2+ Ja '48
 Aluminum foil, J. D. Edwards and D. B. Sweeney, *ibid* diags Mod Packaging 21:143-7+ F; 150-3+ Mr; 156-91+ Ap '48
 Bacteriology of food package materials, L. C. Barak, *ibid* Mod Packaging 21:145-9+ N '47
 Cry O Vac, a new packaging material, R. W. Lahey, Chem & Eng N 26:2921+ S 27 '48

Insecticidal barriers; British data on use of DDT and other insecticides as impregnants for packaging materials, B. Verdout, *ibid* Mod Packaging 21:150-3 N '47

Kinetics of package life, C. R. Oswin, Soc Chem Ind J 64:67-70, 224-5; 65:419-21 biblog(p420-1); 67:274-7 biblog(p277) Mr, Ag '48, D '46, JI '48

New Cry-O-Vac; oriented synthetic film applied semi-automatically to frozen poultry, meats and other foods, *ibid* Mod Packaging 21:155-160 Mr '48

New packaging film from plastic latex; Reynolon, *ibid* Chem & Eng N 25:3168 O 27 '47; Same, Mech Eng 69:1033 D '47; Same, Rubber Age 62:69 O '47

Outlook for '48, *ibid* Mod Packaging 21:71-80+ Ja '48

Outlook in packaging costs; abstract, H. R. Morrison, Mod Packaging 22:153 S '48
 Packaging problems ease, *ibid* Bsns W p45-6+ My '48

Polypentylene, new packaging prospect, R. W. Lahey, *ibid* Chem & Eng N 26:2015 JI 5 '48
 Polypentylene packaging for chemicals, *ibid* Chem Ind 63:39 JI '48

Polysobutylene in waxes, W. L. Abramowitz, biblog Mod Packaging 21:159-62+ Je '48
 Progress in plastics, *ibid* Mod Packaging 22: 113+ O '48

Seen through rigid plastics sheets, R. C. Evans, *ibid* Mod Plastics 25:87-91 JI '48

Significant new packaging materials; abstract, R. D. Couch, Mod Packaging 22: 248-9 S '48

Sold in molded plastics packages, *ibid* Mod Plastics 25:97-102 Je '48

Wrapped in plastics films, W. F. Cullom, *ibid* Mod Plastics 25:87-91 My '48

See also
 Adhesive tape Packing for ship-
 Aluminum foil ment
 Cellophane Paper board
 Containers Wrapping materials
 Glassine Wrapping paper

Permeability

Permeability of laminations of polyvinyl alcohol films to other polymers, P. W. Morgan, *ibid* Mod Packaging 22:159-60 S '48

Printing

Objective scrutiny of package printing processes; abstract, E. H. Balkema, Mod Packaging 21:145-6 Je '48

Testing

Electrolytic film makes moisture determinations, *ibid* Food Ind 20:870 Je '48

Flow method for determining water vapor permeability at 0°F, F. H. Cherowep, biblog *ibid* diags Paper Tr J 125:110+ N 6 '47

Grease resistance; report on a modification of the TAPPI test method, with ratings for various packaging materials, C. G. Lavers, *ibid* Mod Packaging 21:147-9 Mr '48

Penetration test; optical means for timing transudation of liquids through membranes of packages, H. Manley, *ibid* Mod Packaging 21:152-3 Ag '48

TAPPI test methods, Mod Packaging 21:152+ Ap '48

Transmission of odor through packaging materials, L. W. Elder, biblog Paper Tr J 125:123+ N 6 '47

PACKAGING research

Gearing the package to the sales forecast; abstract, M. C. Pollock, Mod Packaging 21:146-7 Je '48

Kinetics of package life, C. R. Oswin, Soc Chem Ind J 64:67-70, 224-5; 65:419-21 biblog(p420-1); 67:274-7 biblog(p277) Mr, Ag '48, D '46, JI '48

PACKARD motor car company

Packard stock plan, Bsns W p64-5 Ag 28 '48

PACKING

Aircraft hydraulic packing, L. E. Cheyney and T. J. McCustion, diags Mech Eng 70: 675-9 Ag '48

Cooling of gases through packed tubes, M. Leva and others, *ibid* diags Ind & Eng Chem 40: 747-52 Ap '48

Engineering studies in packings, H. G. Koch, *ibid* diags Paper Tr J 126:27-31 Ja 1 '48; Same cond, Paper Ind 29:149+ Ja '48

Fiberglass packing in gas-absorbing systems, G. C. Williams, R. B. Akell and C. P. Talbott, *ibid* diags Chem Eng Prog 43:585-96 N '47

Fränl regenerators packings; heat transfer and pressure drop characteristics, G. Lund and B. F. Dodge, biblog diags Ind & Eng Chem 40:1019-32 Je '48

Gas drying by calcium chloride solutions; the mechanism of transfer, E. F. Thurston, biblog diags Soc Chem Ind J 67:290-96 JI '48

Heat transfer to gases through packed tubes; effect of particle characteristics, M. Leva and M. Grummer, *ibid* diags Ind & Eng Chem 40:415-19 Mr '48

Helical packing for small laboratory distilling columns, F. W. Mitchell, Jr. and J. M. O'Gorman, biblog *ibid* Anal Chem 20:315-16 Ap '48

Influence of packing density in purifiers on resistance to gas flow, J. A. Speers, Gas J (Lond) 252:636-7 D 17 '47

Liquid distribution characteristics of tower packing materials, W. A. Cairns, biblog diags Can Chem & Process Ind 32:314-17 Ap '48

Molding of O-ring packings, F. E. Clark and others, *ibid* Rubber Age 62:652-4 Mr '48

Numerical evaluation of equations describing transient heat and mass transfer in packed solids, A. Klinkenberg, biblog Ind & Eng Chem 40:1992-4 O '48

Obtain long life in plunger pump packing by using force-feed lubrication system, J. C. Albright, *ibid* Pet Processing 3:415 My '48

Pressure drop in packed tubes; nomogram, M. Weintraub and M. Leva, Chem Eng Prog 44:801-2 O '48

Pressure drop through packed tubes, M. Leva and M. Grummer, Chem Eng Prog 43:549-54, 633-8, 713-18 O-D '47

Research on aircraft hydraulic packings; abstract, T. J. McCustion and others, *ibid* Automotive Ind 97:44-5 N 1 '47

Special tool simplifies reseating pumps using conventional-type packing, G. Cunningham, *ibid* Pet Processing 3:524-5 Ja '48

Survey of resilience and the development of resilient compounds; packing materials for hydraulic mechanisms, R. F. Shaw, biblog(65 titles) *ibid* India Rubber World 118: 796-801+ S '48

PACKING for shipment

Adequate protection prime essential of export packaging and shipping, M. Caffee, *ibid* World Oil 128:292-4 My '48

Determination and use of cushioning materials; abstract, S. L. Swenson, Mod Packaging 21:152-3 Je '48

Export packing for Ceylon and other eastern countries, For Comm W 29:35 N 22 '47

Faulty packing in export shipments demands remedial action, S. G. Koushnareff, *ibid* For Comm W 32:4-6+ JI 10 '48

Food packing saves millions, Mod Packaging 21:152+ Ag '48

How 11 companies cut packing costs, *ibid* diags Mod Ind 16:50-4 JI '48

Improper packing is costing American industry hundreds of millions annually, W. H. Husted, Weekly Underw 158:1374- My 8 '48; Abstract, Mod Packaging 21:148-50 Je '48

Iodized fruit wraps, H. Manley, biblog Mod Packaging 21:152-3+ My '48

Jet engine packaging, *ibid* Aero Digest 57:61 N '48

Navy and Navy industrial association materials handling and packing conference, Sept. 28, Paper Tr J 127:9- O 14 '48

Package handling in glass plants, P. J. Barcus, Glass Ind 29:253-4 My '48

Packaging and shipping small products, W. G. Lehrman, *ibid* Mill & Factory 43:108-10 Ag '48

Packaging textiles for export, W. H. Husted, Textile Col 70:44 My '48

PACKING for shipment—Continued

- Packing and shipping on incentives. C. Mors and F. Prochaska. *il Mill & Factory* 43:140-3 O '48
- Packing faults result in goods damaged in transit. W. R. White. *il Textile World* 98:226 Ja '48
- Pallet loading and shipping. W. L. Pearce and C. L. Daly. *il S A E J* 56:27-30 F '48
- Paper standardization as an aid to the printer; packaging and United States Government printing office. M. S. Kantrowitz and E. W. Spencer. *Paper Ind* 29:1772-4 Mr '48
- Pocketed plastics; compartmented envelope with protective lining guards molded acrylic ornaments in route to the assembly line at Ford's. *il Mod Packaging* 21:122 Ja '48
- Proper export packing to avoid damaged merchandise. A. W. Williams. *il Mill & Factory* 42:117-19 Je '48
- Shipping container study; progress report on fibre box and board industry's technical research. W. B. Lincoln, jr. *il Mod Packaging* 21:168-71+ Ap '48
- Shock mounts protect meters during transit. E. B. Kipp. *il Elec World* 129:86 F 28 '48
- Stoker in a carton, Iron Fireman uses corrugated package. *il Mod Packaging* 21:143+ Ap '48
- See also*
- Containers (for shipping)
- Steel straps

PACKINGHOUSE workers of America, United.
See United packinghouse workers of America**PACKING houses**

- Overcoming condensation in meat packing room; circulating heated air. R. Walter. *il Food Ind* 20:356-7 Mr '48

Employees

- Getting around the Taft law; community group in Chicago may take over meat strike. *Bsns W* p23 Mr 20 '48
- Meat products industries; wage structure, Jan. 1947. T. P. Kanninen. *Mo Labor R* 66:283-6 Mr '48
- Meat strike on the wane. *il Bsns W* p 106-7 Ap 17 '48

Fires and fire protection

- Mass barbecue saves no meat! packinghouse fires can be prevented. J. F. Wilger. *il Safety Eng* 95:18-19+ Ja '48

Lighting

- Fluorescent lighting pays in meat sales cooler; Coronet packing co., Los Angeles. *il Food Ind* 20:1019 J1 '48

Power

- Burns bug-dust lignite at efficiencies to 79 per cent; Canada Packers' St. Boniface plant. G. E. Gibson. *il diag Power* 92:550-3 S '48

Waste

- Chemical precipitation of meat packing wastes. M. D. Sanders. *flow sheet Ind & Eng Chem* 40:1151-2 Je '48
- Meat packing plant waste disposal problem; abstract. E. F. Eldridge. *Sewage Works J* 20:181-3 Ja '48

PACKING industry

- Bringing home the bacon; meat packing profits hit new highs in 1947. *Bsns W* p87 F 7 '48
- Little packers feast 'way up on the hog. J. A. McWethy. *Barron's* 28:25 My 31 '48
- Meat packers prepare for price bumps. J. A. McWethy. *Barron's* 27:29 N 10 '47
- Truman plants an antitrust time bomb. *Bsns W* p 19-20 S 25 '48
- See also*
- Cold storage locker plants

Securities

- Armour vs. Wilson; a comparative study. H. F. Travis. *il Mag of Wall St* 81:478-80+ Ja 31 '48

PAEPCKE, Walter Paul, 1896-

- Chairman of the board, Container corp. of America. *por(cover) Bsns W* p6 Ap 24 '48

PAGE, Charles Grafton, 1812-1866

- Origin of the electric motor. J. C. Michalowitz. *Elec Eng* 67:1038-9 N '48

PAINT

- Application of high vacua in the paint and plastics industries. J. C. Swallow and J. S. Gourlay. *il diag Chem & Ind* sup9-13 O 9 '48
- Attempt to improve the washability of water reducible paints with treated pigments by Northwestern paint and varnish production club. *il Paint Oil & Chem R* 110:32-4+ D 11 '47
- Glidden emphasizes research; new resin-base, water-mix paint; Spred-Satin. *Bsns W* p40 D 20 '47
- How to paint the product; selecting the paint. H. E. Linsley. *il Am Mach* 92:102-5 J1 15 '48
- Mildew of painted surfaces. M. Goll and G. Coffey. *bibliog il Paint Oil & Chem R* 111:14+ Ag 5 '48
- Painting for less; new Glidden paints. *Bsns W* p72 O 23 '48
- Railway paint needs are urgent. G. M. Hermann. *Ry Mech Eng* 121:656-7 N '47
- Self-cleaning paint. Engineer 186:398 O 15 '48; *Engineering* 166:367 O 15 '48
- Shrinkage and deterioration of paint coatings. W. Koenig. *diag Paint Oil & Chem R* 111:15+ S 16; 19-20+ S 30 '48
- Southern paint and varnish production club meeting, Atlanta, March 10-12. *Oil Paint & Drug Rep* 153:4+ Mr 15 '48
- Spred luster. *Consumers Res Bul* 20:19 N '47
- Surface chemistry; abstract. H. R. Touchin. *Paint Oil & Chem R* 111:48-9 My 27 '48
- Symposium on paint and paint materials (1947). (Tech. pub. no. 75) 115p \$2.65; pa \$2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48
- Titanium pigments in exterior paints. J. MacGuffee. *Paint Oil & Chem R* 110:11-14 O 30 '47
- See also*
- | | |
|---------------------------|------------------------|
| Factories—Painting | Pigments |
| Lacquering and lacquering | Varnish and varnishing |

Analysis

- Determination of cobalt; abstract. H. W. Chatfield and H. H. Topper. *Paint Oil & Chem R* 111:30 Ag 19 '48

Color

- Study of color change tolerance by Louisville paint and varnish production club. *Paint Oil & Chem R* 110:110-13 N 13 '47

Drying

- Air-drying synthetics; abstract. W. S. Penn. *Paint Oil & Chem R* 110:41-2 D 25 '47
- Comparison of infrared and convection oven baking by New York paint and varnish production club. *il Paint Oil & Chem R* 110:64-6+ N 13 '47
- Drying room at St Cloud shops. *il Ry Mech Eng* 122:314-15 Je '48
- Flexible gas unit for infra red drying and baking. J. C. Hosken. *il Am Gas J* 168:25-6 Ap '48
- How to paint the product; baking ovens. H. E. Linsley. *il diag Am Mach* 92:96-8 J1 29 '48
- Infra-red drying details on approved practices and booth design. *il Sheet Metal Worker* 39:48-50 J1 '48
- Infrared oven unit triples production at Yale & Towne mfg. co.'s plant; enameling of locks and builders' hardware. *il Elec World* 129:198+ Ja 17 '48
- Radiant heat; RapiRadia car stoving system. *il Automobile Eng* 38:14 Ja '48
- Technical aid improves infrared performance; manufacture of ironing machines. F. J. Jolly. *il Edison Elec Inst Bul* 16:77-80 Mr '48
- Vertical conveying system saves floor space in paint baking operations. *il Steel* 122:111 Mr 15 '48

Manufacture

- Laboratory experiments dealing with the manufacture of paints. F. S. Boig. *J Chem Educ* 24:594-5+ D '47
- Paint manufacture; Pittsburgh plate glass co., Pittsburgh; flow chart. *Factory Management* 106:96a-96c Ag '48

PAINT—Manufacture—Continued

Proper dispersion of pigments, a must for high quality paints. M. Sentman. *Il Paint Oil & Chem R* 111:30-1 Mr 4 '48

See also

Paint factories

Testing

Adhesion of enamel finishes to electro-plated cadmium coatings. E. E. Halls. *Metallurgia* 38:75-8 Je '48

Brushability; abstract. B. Saunders. *Paint Oil & Chem R* 111:30 Ag 19 '48

Flexibilometer; abstract. *Paint Oil & Chem R* 111:43 Ja 8 '48

Floor paint vehicles by Golden Gate paint and varnish production club. *Paint Oil & Chem R* 110:72-4, 76 N 13 '47

Masonry paints tested and classified by Bureau of standards. *Il Arch Forum* 88:126+ Mr '48

Methods of laboratory test. *Paint Oil & Chem R* 110:36-8+ N 13 '47

Nomograph for paint film calculations; wet film thickness, spreading rate, and dry film thickness of paint and varnish coatings. H. A. Berman. *bibliog Anal Chem* 19:915-18 N '47

Non-adaptability of the ICI system to some near-whites which show absorption in the far blue region of the spectrum. A. E. Jacobsen. *Opt Soc Am J* 35:442-4 My '48

Oil leases option reports due March 30. *Oil Paint & Drug Rep* 153:5 Mr 8 '48

Paint test speed-up. *Chem Ind* 63:586-7 O '48

Paint testing; abstracts. *Paint Oil & Chem R* 110:37-8 3 '47

Paints for masonry walls. *Il Arch Rec* 102:115-16 D '47

Performance testing of paints; abstract. H. Hollis. *Paint Oil & Chem R* 111:35 Mr 4 '48

Performance tests of coatings; scientific estimation of durability and colour. *Chem Age (Lond)* 59:310 S 4 '48

Settling of paints; abstract. A. Hancock and T. F. Brown. *Paint Oil & Chem R* 111:48 F 5 '48

Study of primers for ferrous metals in an atmospheric exposure by New England paint and varnish production club. *Il Paint Oil & Chem R* 110:42-4+ D 11 '47

Weathering machine correlation in the Cleveland club and other areas, by Cleveland paint and varnish production club. *Il Paint Oil & Chem R* 110:32-4+ N 27 '47

Wood preservatives; effect on seam compounds and value as paint primers. W. Spackman, Jr. and O. Tippo. *bibliog, Il diags Ind & Eng Chem* 40:1301-8 J '48

See also

Paint, Anti-fouling— Testing

Paint, Protective— Testing

Waste

How to curtail paint waste. E. A. Zahn. *Il Mill & Factory* 43:122-5 O '48

PAINT, Anti-fouling

American anti-corrosive and anti-fouling paints. *Il Engineer* 184:474-6 N 21 '47

Antifouling paints; preparation of thin, light weight paints for application to high speed surfaces. A. L. Alexander, P. King and J. E. Cowling. *bibliog Ind & Eng Chem* 40:461-4 Mr '48

Corrosion of iron and steel; atmospheric protection and marine fouling; abstracts of papers. *Metallurgia* 38:203-4 Ag '48

Some factors in the use of plastic ship-bottom paints; abstract. D. P. Graham. *Marine Eng* 53:68; Discussion. 68-9 Ja '48

Testing

Action of antifouling paints; use of glycine solutions as accelerated test of availability of toxic. E. H. Ketchum. *bibliog Ind & Eng Chem* 40:249-53 F '48

Marine exposures of cementiferous painting schemes. K. A. Pyefinch. *Iron & Steel Inst J* 158:229-35 F '48

Service tests of experimental anti-fouling compositions. H. Barnes and others. *Iron & Steel Inst J* 157:429-46 N '47

Studies on anti-fouling compositions. H. Barnes. *bibliog Iron & Steel Inst J* 157:587-600; 159:175-85 D '47, Je '48

PAINT, Fire resisting

Fire-fighting paint; Albi-R, resin-base phosphate. *Il Chem Ind* 62:383-4 Mr '48

Fire retardant paints; abstract. *Paint Oil & Chem R* 111:38 Je 24 '48

Fire-retardant paints. G. Black and H. Sanders. *Il Product Eng* 19:140-4 Ag '48

Fire-retardant paints; role of pigment volume, antimony oxide, and chlorinated paraffin. L. S. Birnbaum and M. Markowitz. *bibliog Il diags Ind & Eng Chem* 40:400-5 Mr '48

Reducing fire risks in ships; abstract. L. A. Jordan. *Paint Oil & Chem R* 110:41 D 25 '47

PAINT, Fluorescent. See **Paint, Luminous**

PAINT, Heat resisting

Analysis of heat resistant paints. G. Black and H. Sanders. *Il Product Eng* 18:85-7 D '47

Heat resistant finishes; report no. III by Houston paint and varnish production club. *diags Paint Oil & Chem R* 110:52+ N 13 '47

PAINT, Insecticidal

Insecticidal surface coatings. S. S. Block. *Il Soap & San Chem* 24:138-41+ F; 151+ bibliog(p 153) Mr '48

Residual toxicity; chlorinated camphene compared to DDT for toxic residual effects on various surfaces and in paints against the house fly. J. H. Beacher and W. L. Parker. *Soap & San Chem* 24:139+ Je '48

Residual toxicity tests on insecticidal protective coatings. S. S. Block. *bibliog Il Soap & San Chem* 24:155+ Ap '48

PAINT, Luminous

Lighting with paint; with list of companies selling luminescent paints and black light units. *Il diags Arch Forum* 88:125-7, 166 Je '48

Seven competitors; packaging and display of luminous paints. *Il Mod Packaging* 21:114-17 Ag '48

PAINT, Protective

American anti-corrosive and anti-fouling paints. *Il Engineer* 184:474-6 N 21 '47

Anticorrosive compositions; abstracts. F. Fan-eutt and J. C. Hudson. *Paint Oil & Chem R* 110:56+ O 26 '47; Engineering 162:569; Discussion. 569-70 D 13 '47

Chemical specialties attain greater stature; protective coatings. M. Kronstein. *Chem Ind* 63:395 S '48

Corrosion inhibiting primers for ferrous metals. W. G. Huckle and H. S. Davidson. *Il Paint Oil & Chem R* 111:18+ J1 22 '48

Corrosion of iron and steel; atmospheric protection and marine fouling; abstracts of papers. *Metallurgia* 38:201-6 Ag '48

Development of synthetic resins for protective coatings. H. Burrell. *Paint Oil & Chem R* 111:77+ Ap 26 '48

Improved flame and corrosion resistant paint predicted; abstract. L. E. Ludwig. *Paint Oil & Chem R* 111:9 Ja 8 '48

Mechanism of action of metal protective paints. A. C. Elm. *Paint Oil & Chem R* 111:16+ Ag 19 '48

Organic finishes for metals. H. R. Clauser. *Il Materials & Methods* 26:95-106 D '47

Paints and protective coatings. W. A. Sperry. *Sewage Works J* 20:319-23 Mr '48

Preparation of aluminum for painting. R. Mansell. *Il Aero Digest* 57:46-7+ O '48

Protection and maintenance of petroleum property. C. R. E. Merkle. *Il Pet Refiner* 27:134-7 My '48

Protection of steel by various non-metallic coatings. J. C. Hudson and T. A. Banfield. *2pls Iron & Steel Inst J* 158:102-4 Ja '48

Protective coatings industry is based on chemicals; abstract. M. W. Reece and H. L. Wampner. *Chem Eng* 54:252+ D '47

Protective organic coatings as engineering materials. J. J. Mattiello. *Il diags Am Soc T M Proc* 46:493-592 bibliog(54 titles, p590-2) '46

Recent developments in paints for the petroleum industry. G. W. Oxley. *Oil & Gas J* 47:93-6 J1 '48

Recent developments in synthetic resins for protective coatings. L. R. Whiting. *diags Paint Oil & Chem R* 111:27-3+ J1 '48

Reconditioning of waterworks standpipe at Ingersoll, Ont. R. D. McCollum. *Il Water & Sewage* 86:21-2+ Mr '48

PAINT, Protective—Continued

- Role of paint in combating corrosion in the petroleum industry. P. L. Lotz, *Am Pet Inst Proc* 28(3):19-21 '48
- Rust preventives; how they work, what they contain. H. Sellel, *bibliog*(42 ref) *il Chem Ind* 62:62-4 Ja '48
- Silicone resins; use in protective and decorative finishes. J. R. Patterson, *il Ind & Eng Chem* 39:1376-9 N '47
- Studies on the effects of red lead paints on the quality of metal-arc welds in structural steel. R. W. Bennett and others, *il diags Welding J* 26:sup653-63 N '47
- Study of the dielectric strength of paint, varnish and lacquer films by New York paint and varnish production club, *bibliog il diags Paint Oil & Chem R* 110:52-9 D 11 '47
- Tentative recommended practice for inspecting, repairing and repainting elevated steel water storage tanks, standpipes and reservoirs. *Am Water Works Assn J* 40:1099-117 O '48

See also

- Paint, Anti-fouling
Paint, Fire resisting
Paint, Insecticidal

Testing

- Cementiferous paints. J. E. O. Mayne and R. S. Thornhill, *bibliog diag Iron & Steel Inst J* 153:219-23 F '48
- Service trials of painting schemes applied to a steelworks gantry. J. C. Hudson, *2pls Iron & Steel Inst J* 159:60-6 My '48
- PAINT and associated industries, International congress of the.** See International congress of the paint and associated industries
- PAINT and varnish production clubs**
Future of paint and varnish production clubs. O. Eisenschiml, *Paint Oil & Chem R* 111:21-2 Ap 29 '48
- PAINT and varnish production clubs, Federation of.** See Federation of paint and varnish production clubs

PAINT brushes

- How to paint the product; brush painting. H. E. Linsley, *diags Am Mach* 92:90-2 J1 29 '48
- Phenolics break into paint brush field. *il diags Plastics* 8:16-17+ F '48

Advertising

- We brought life back to a defunct company and product; Whiting-Adams paint brush campaign. R. S. Edsall, *il Ptr Ink* 225:44+ O 22 '48

Cleaning

- Paint brush cleaners. M. A. Lesser, *bibliog Soap & San Chem* 24:33-6+ J1 '48

PAINT cans

- Adaptable labels; standard label boosts sales of Sillers' 1,000 paints. *il Mod Packaging* 21:134-6 Je '48

PAINT factories

- Arco co. resumes lacquer production; new plant built in record time. *il Paint Oil & Chem R* 111:13 Ag 5 '48
- Facilities for producing lacquers. E. E. Hoffman, *Paint Oil & Chem R* 110:116-20 N 13 '47
- National Lead's new Los Angeles plant. *il Paint Oil & Chem R* 111:20-1 Ag 5 '48
- Paint plant of tomorrow boasts latest innovations; Pittsburgh plate glass co.'s Paint division. *il Paint Oil & Chem R* 110:34B-34C O 16 '47
- West coast gets another new paint plant. *Chem Eng* 55:202+ S '48

Employees

- Occupational diseases of the skin among paint factory workers, painters, polishers and varnishers in Finland; a clinical and experimental study; abstracts. V. Pirilä, *J Ind Hygiene* 30:sup6-6 Ja '48; *Nat Safety N* 57:45 Ap '48
- Paint and varnish manufacture; earnings in Aug. 1947. *Mo Labor R* 66:401-2 Ap '48

Equipment

- Comparative study of hand and machine filling by New England paint and varnish production club. *Paint Oil & Chem R* 110:57-8+ N 13 '47

PAINT industry and trade

- Color conscious; paint industry woos consumer with mix-your-own, non-darkening, and one-coat products. *il Chem Ind* 63:375-6 S '48
- Fifty year club welcomes new members. *Paint Oil & Chem R* 110:50A-50C O 16 '47
- Fifty year club welcomes new members. *Paint Oil & Chem R* 111:60-1+ O 14 '48
- Paint industry today. G. M. Breinig, *Paint Oil & Chem R* 111:25-6+ Mr 18 '48
- Paint, varnish, and lacquer industry in 1947. C. P. Neidig and H. Burrell, *Chem & Eng N* 26:25-7 Ja 5 '48
- Relationship between buyer and seller. A. H. Phelps, *Paint Oil & Chem R* 110:25-30 N 27 '47
- Sells color, and consumers buy paint. L. F. Thomann, *il Ptr Ink* 225:38-9 O 15 '48
- Sherman act violations charged to paint makers. *Paint Oil & Chem R* 111:43 Ag 5 '48
- WAA surplus paints sales 75 per cent completed. *Oil Paint & Drug Rep* 152:76 N 10 '47
- Water-mix paints go to town. *il Bsns W* p58+ F 14 '48
- See also National paint salesmen's association; National paint, varnish and lacquer association

Advertising

- Closer sales-advertising tieup augurs 25 per cent gain for Sherwin-Williams; calendar of events. C. M. Lemperly, *il Sales Management* 61:42-3 Ag 1 '48
- Nu-Enamel builds spring campaign around proof of quality. A. F. Bredshall, *il Sales Management* 60:130+ Ap 15 '48
- Paint and varnish supply up and sales rising; Association plans \$500,000 industry campaign. N. Kelne, *Ptr Ink* 224:74 J1 30 '48

Exhibitions

- What to see at the paint industries show, Atlantic City, Nov. 7-11, plan *Paint Oil & Chem R* 110:16+ O 16; *36 O* 30 '47

Securities

- Investment audit of Glidden company. J. C. Clifford, *il Mag of Wall St* 81:138-9+ N 8 '47

Statistics

- Census bureau's paint survey reports curtailment ordered. *Oil Paint & Drug Rep* 154:5 J1 26 '48
- Paint sales, 1941-1946. Survey of Cur Bsns 1947 Sup p 119-20 [supplemented in monthly numbers]
- Paint, varnish and lacquer sales by 680 establishments and classified sales by 580 establishments, by months, 1946 and 1947. *Paint Oil & Chem R* 111:38 Mr 4 '48
- Paint, varnish, lacquer sales; 1947. *Oil Paint & Drug Rep* 153:70, 72 F 23 '48

Canada

- Canadian 1947 paint imports; table. *Oil Paint & Drug Rep* 153:76 Je 14 '48

Great Britain

- Co-operative paint marketing; export plan for standardised products. *Chem Age (Lond)* 58:740 My 29 '48

Mexico

- Mexican tariff act hit by two industries; raising of import duties on essential oils and paints protested. *Oil Paint & Drug Rep* 153:5+ Mr 1 '48

Switzerland

- Production and exports, Switzerland. For *Comm W* 32:28-9 Ag 14 '48

PAINT materials

- Alkyd resins today. A. A. Drummond, *il Chem & Ind* p763-8 D 13 '47
- Analysis of heat resistant paints. G. Black and H. Sanders, *il Product Eng* 18:85-7 D '47
- Casein binders for paints; abstract. A. A. Kraeff, *Paint Oil & Chem R* 111:35-6 Mr 4 '48
- Development of chlorowax as a paint ingredient. K. S. Wade, *Paint Oil & Chem R* 111:20-1+ My 27 '48

PAINT materials—Continued

- Drying oils and resins from petroleum sources. R. J. Lee and others. *Paint Oil & Chem R* 111:16-18+ Ja 8 '48
- Floor paint vehicles by Golden Gate paint and varnish production club. *Paint Oil & Chem R* 110:72-4, 76 N 13 '47
- Florida limestone as a paint extender. A. L. Kimmel and M. Tyner. *bibliog il Rock Prod* 51:118-20 Ja '48
- Further investigation of aqueous dispersions of vinyl polymers by Chicago paint and varnish production club. *Paint Oil & Chem R* 110:41-2+ N 13 '47
- Future raw material requirements. J. W. Reynolds. *Paint Oil & Chem R* 110:138 N 13 '47
- Paint, varnish and lacquer; consumption of chemicals; abstract. M. W. Reece and H. L. Wampner. *Chem Ind* 61:803 N '47
- Petroleum, basic raw material for surface coatings. R. F. Ruthruff. *il Pet Processing* 3:21-4 J '48
- Rubber in paints; abstract. S. C. Stokes. *Paint Oil & Chem R* 111:44 Ja 8 '48
- Silicone resins; use in protective and decorative finishes. J. R. Patterson. *il Ind & Eng Chem* 39:1376-9 N '47
- Styrene co-polymers for paint manufacture. *Engineering* 166:106 JI 30 '48
- Symposium on paint and paint materials (1947). (Tech. pub. no. 75) 115p \$2.65; pa \$2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48
- Tailored oils; Admerols. *il Chem Ind* 62:910-11 Je '48
- See also*
- | | |
|---------------------|------------------|
| Carbon black | Pigments |
| Castor oil | Tall oil |
| Drying oils | Titanium oxides |
| Finishing materials | Tung oil |
| Fish oil | Varnish and var- |
| Linseed oil | nishing |

Prices

- Protective coatings materials; 1947 market trends. *Oil Paint & Drug Rep* 153:37-8 sec 2 F 16 '48
- Synthetic resins and branded paint materials (manufacturers' list prices). *Oil Paint & Drug Rep* 153:35-7+ Ja 5 '48 [cont monthly]

Standards

- A.S.T.M. standards on paint, varnish, lacquer, and related products; prepared by committee D-1 on paint, varnish, lacquer, and related products; specifications, methods of testing, definitions of terms, 565p pa \$4.35 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '47

Statistics

- Protective coatings materials. Published in weekly numbers of *Oil, paint and drug reporter*

PAINT research

- Attempt to improve the washability of water reducible paints with treated pigments by Northwestern paint and varnish production club. *il Paint Oil & Chem R* 110:32-4+ D 11 '47
- Find out why; abstract. C. F. Rassweiler. *Chem Eng* 55:294+ S '48
- Fresh factors in paint chemistry. *Chem Age* (Lond) 58:405 Mr 20 '48
- Further investigation of aqueous dispersions of vinyl polymers by Chicago paint and varnish production club. *Paint Oil & Chem R* 110:41-2+ N 13 '47
- New pigment concept. F. J. Williams and A. R. Pitrot. *bibliog il diag Ind & Eng Chem* 40:1948-50 O '48
- Protective organic coatings as engineering materials. J. J. Mattiello. *il diags Am Soc T M Proc* 46:493-592 bibliog (54 titles, p590-2) '46
- Study of primers for ferrous metals in an atmospheric exposure by New England paint and varnish production club. *il Paint Oil & Chem R* 110:42-4+ D 11 '47
- Study of the dielectric strength of paint, varnish and lacquer films by New York paint and varnish production club. *bibliog il diags Paint Oil & Chem R* 110:52-9 D 11 '47
- Tools of paint research; abstract. *Chem & Ind* p284 My 1 '48

PAINT salesmen's association, National. *See* National paint salesmen's association

PAINT spraying

- Ducted heaters; makeup air distributing system in factory with heavy spray booth exhaust. *il Heat & Ven* 45:116 Ag '48
- How to paint the product; spray painting. H. E. Linsley. *il diags Am Mach* 92:107-12 JI 15 '48
- Painting passenger cars. *il Ry Mech Eng* 122:155-6 Ap '48
- Synthetic painting; works of Austin motor co., Ltd. *il Automobile Eng* 38:356 S '48

Booths

- Automatic spray booth with two separate paint circulating systems. *diag Mach* 54:192-3 Ja '48
- Design of exhaust systems. F. H. Stebbins. *il diags Sheet Metal Worker* 39:72 Mr '48
- How to paint the product; paint booths. H. E. Linsley. *il Am Mach* 92:93-5 JI 29 '48
- Modern methods in paint spray booth practice. *il Sheet Metal Worker* 39:99-100+ Ja '48
- Spray booth answer; California electrical safety orders. *il Elec West* 100:80 Ap '48
- Spray booth removes and cleans paint laden air. *il Materials & Methods* 28:103 Ag '48

PAINT spraying, Electrostatic

- Electrostatic painting; Ransburg electrostatic spray process. G. P. Kennedy. *il Mech Eng* 70:545-6 Je '48; Same. *Factory Management* 106:98-9 JI '48
- Hangers for electrostatic painting; reference book sheet. E. P. Miller. *diags Am Mach* 92:151, 153 Ag 12; 147, 149 S 23 '48
- How to paint the product; electrostatic spray. H. E. Linsley. *il Am Mach* 92:112 JI 15 '48

PAINTING, Industrial

- Causes of paint failures on wood surfaces and how to avoid them. *Paint Oil & Chem R* 111:12 F 19 '48
- Centrifugal-force finishing; method of painting gas-filled bellows. G. Cavanaugh. *il Steel* 122:35 Ja 19 '48
- Conveyors break painting bottlenecks; wringer assemblies for washing machines. W. Rudolph. *il Mill & Factory* 43:118-19 S '48
- How to curtail paint waste. E. A. Zahn. *il Mill & Factory* 43:122-5 O '48
- How to paint the product. H. E. Linsley. *il diags Am Mach* 92:97-112 JI 15; 89-100 JI 29 '48
- Latest methods for cleaning aluminum prior to painting. S. H. Phillips. *il Automotive Ind* 98:42-3+ J '15 '48
- Painting aluminum structures. R. I. Wray and J. D. Edwards. *bibliog il Paint Oil & Chem R* 111:16+ Ap 15 '48
- Painting zinc; abstract. H. A. Holden. *Paint Oil & Chem R* 111:41-2 Ja 22 '48
- Saves 43 per cent and more in finishing costs; Kirsch drapery hardware and venetian blinds. *il diags Mill & Factory* 42:153-4 Mr '48
- Why do paint jobs go wrong? *Chem Ind* 62:450+ Mr '48
- See also*
- | | |
|--------------------|--------------------|
| Automobiles—Paint- | Machinery—Painting |
| ing and finishing | Motor buses—Paint- |
| Car painting and | ing |
| finishing | Paint, Protective |
| Concrete—Painting | Paint spraying |
| Factories—Painting | Ships—Painting |
| Lacquer and lac- | Varnish and var- |
| quering | nishing |

PAINTINGS**Indexes**

- Index to reproductions of American paintings; a guide to pictures occurring in more than eight hundred books. I. S. Monro and K. M. Monro. 731p \$8.50 H. W. Wilson co, New York '48

PAKISTAN

- British or united? *Economist* 154:532-3 Ap 3 '48
- Kashmir and Hyderabad; dispute between India and Pakistan. *Economist* 155:211-12 Ag 7 '48
- Pakistan without Jinnah. *Economist* 155:498+ S 25 '48
- Pakistan's prospects. *Economist* 154:843-4 My 22 '48

PAKISTAN—Continued

Rehabilitation of displaced persons in India.
Int Labour R 58:187-98 Ag '48

See also

Budget—Pakistan
Hydroelectric plants—
Pakistan
Money—Pakistan

Commercial policy

New licensing policy. For Comm W 30:21 F
28; 32:21 J 17; 33:28 O 2 '48

Pakistan; certain commodities prohibited ex-
portation from Sind province. For Comm
W 30:17-18 F 7 '48

Defenses

Defence policy of Pakistan. Economist 155:
270 'Ag 14 '48

Economic conditions

Pakistan's prospects. Economist 155:63+ J 10
'48

Economic policy

Industrial policy in Pakistan. Int Labour R
58:211-15 Ag '48

Industrial policy of Pakistan; important of-
ficial statement. For Comm W 31:21 My 29;
33:20 O 30 '48

Industries and resources

Pakistan bids for industry. Il Bsns W p 122+
Ap 17 '48

PALEOBOTANY*See also*

Pollen, Fossil

Carboniferous

Beginnings of coal. R. E. Janssen. Il Sci Am
179:46-51 J 1 '48

Pre-Cambrian

New evidence of the origin of pre-Cambrian
carbon. K. Rankama. map diags Geol Soc
Bul 59:389-416, pl 1-6 bibliog(p414-16) My
'48

PALEOCLIMATOLOGY

Late Cenozoic climate conditions in the
High Plains of western Kansas. C. W.
Hibbard. bibliog diags Geol Soc Bul 59:
592-7 Je '48

Pleistocene climate and topography of the
Arequipa region, Peru. C. N. Fenner. bib-
liog Geol Soc Bul 59:895-917, pl 1-5 S '48

PALEOECOLOGY

Description, correlation, and paleoecology of
tertiary Cipero marl formation, Trinidad.
B.W.I. R. M. Stainforth. map diag Am
Assn Pet Geologists Bul 32:1292-330 bibliog
(61 titles, p 1329-30) J 1 '48

Geological correlation and paleoecology. R. S.
Allan. bibliog Geol Soc Bul 59:1-10 Ja '48

PALEOGEOGRAPHY

Intertonguing marine and nonmarine upper
cretaceous deposits of New Mexico,
Arizona, and southwestern Colorado. W. S.
Pike, jr. (Memoir 24) 108p, 12pls bib-
liog(p97-100) Geological soc. of America,
419 W. 117th st, New York '47 (\$2.25)

Paleogeography of South America. L. G.
Weeks. map Geol Soc Bul 59:249-81, pl
1-16 bibliog(p267-81) Mr '48

PALEOGRAPHY*See also*

Tablets (paleog-
raphy)

PALEONTOLOGY

Catastrophism in the sea and its paleonto-
logical significance, with special reference
to the Gulf of Mexico. G. Gunter. bibliog
Am J Sci 245:669-76 N '47

Life comes to a planet. A. E. Wilson. il
maps diag Can Min J 69:57-65 J 1; 80-4 Ag;
60-9 S '48

Radiographic methods in paleontology; a
progress report. R. A. M. Schmidt. bib-
liog Am J Sci 246:615-27, pl 1-6 O '48

Stratigraphical paleontology. R. C. Moore.
bibliog diags Geol Soc Bul 59:301-25 Ap '48

See also

Climactichnites
Footprints, Fossil
Microsauria
Paleobotany

Paleoecology
Reptiles, Fossil
Vertebrates, Fossil

Eocene

Eocene of the San Juan basin, New Mexico.
G. G. Simpson. maps diags Am J Sci 246:
257-82, 363-85 bibliog(p383-5) My-Je '48
Menatotherium, Eocene mammal from
France. G. G. Simpson. diag Am J Sci 246:
165-70 Mr '48

Mississippian

Some Mississippian footprints from Indiana.
E. H. Colbert and B. Schaeffer. bibliog
diags Am J Sci 245:614-23, pl 1 O '47

Paleozoic

Geology of the Confusion range, west-central
Utah. C. S. Bacon, jr. bibliog maps diags
Geol Soc Bul 59:1027-52 O '48

Pennsylvanian

New limbless vertebrate from the Pennsylv-
anian of Mazon Creek, Illinois. J. T.
Gregory. bibliog diags Am J Sci 246:636-63,
pl 1 O '48

Permian**Bibliography**

Bibliographic index of Permian invertebrates.
C. C. Branson. (Memoir 26) 1049p bibliog
(p992-1049) Geological soc. of America, 419
W. 117th st, New York '48 (\$9.50)

Pleistocene

Blancan faunas, their age and correlation.
P. O. McGrew. diag Geol Soc Bul 59:549-52
Je '48

Invertebrates of the Blancan. A. B. Leonard.
Geol Soc Bul 59:589-91 Je '48

Pleistocene mammals and terraces in the
Great Plains. C. B. Schultz and T. M.
Stout. map diags Geol Soc Bul 59:553-88,
pl 1 bibliog(p574-87) Je '48

Pliocene

Blancan faunas, their age and correlation.
P. O. McGrew. diag Geol Soc Bul 59:549-52
Je '48

Invertebrates of the Blancan. A. B. Leonard.
Geol Soc Bul 59:589-91 Je '48

Tertiary

Description, correlation, and paleoecology of
tertiary Cipero marl formation, Trinidad.
B.W.I. R. M. Stainforth. map diag Am
Assn Pet Geologists Bul 32:1292-330 bibliog
(61 titles, p 1329-30) J 1 '48

Pushing back the history of land mammals in
western North America. C. Stock. diag
Geol Soc Bul 59:327-32 Ap '48

Tertiary nautiloids of the Americas. A. K.
Miller. (Memoir 23) 234p, pl 1-100 bib-
liog(pl15-28) Geological soc. of America, 419
W. 117th st, New York '47 (\$4.50)

Triassic

Geology of the Confusion range, west-central
Utah. C. S. Bacon, jr. bibliog maps diags
Geol Soc Bul 59:1027-52 O '48

Pistosaurus, a middle triassic plesiosaur. F.
R. von Huene. bibliog diags Am J Sci 246:
46-52 Ja '48

Alberta

Middle paleocene mammal tooth from the
foothills of Alberta. L. S. Russell. bibliog
Am J Sci 246:152-6, pl 1 Mr '48

China

Budorcas, a new element in the proto-his-
toric Anyang fauna of China. C. Young.
bibliog il map Am J Sci 246:157-64 Mr '48

Egypt

Recent discoveries in the Egyptian Faiyum
and Sinai; University of California African
expedition. W. Phillips. Science 107:666-7
Je 25 '48

France

Menatotherium, Eocene mammal from
France. G. G. Simpson. diag Am J Sci 246:
165-70 Mr '48

Germany

Pistosaurus, a middle triassic plesiosaur. F.
R. von Huene. bibliog diags Am J Sci 246:
46-52 Ja '48

Placodus, recently mounted at Tübingen. F.
R. Von Huene. pl Am J Sci 245:784 D '47

PALEONTOLOGY—Continued

Great Plains region

Pleistocene mammals and terraces in the Great Plains. C. B. Schultz and T. M. Stout. map diags Geol Soc Bul 59:553-88, pl 1 bibliog (p574-87) Je '48

Illinois

New limbless vertebrate from the Pennsylvanian of Mazon Creek, Illinois. J. T. Gregory. bibliog diags Am J Sci 246:636-63, pl 1 O '48

Indiana

Some Mississippian footprints from Indiana. E. H. Colbert and B. Schaeffer. bibliog diags Am J Sci 245:614-23, pl 1 O '47

Kansas

Invertebrates of the Blanton. A. B. Leonard. Geol Soc Bul 59:589-91 Je '48

New Mexico

Eocene of the San Juan basin, New Mexico. G. G. Simpson. maps diags Am J Sci 246:267-82, 363-85 bibliog (p383-5) My-Je '48

Fossil-collecting campaign in New Mexico. G. G. Simpson. il Science 107:207-12 F 27 '48

Newfoundland

Crepicephalid trilobites from Murphy creek, Quebec, and Cow Head, Newfoundland. C. H. Kindle. bibliog maps diags Am J Sci 246:441-51, pl 1-2 Jl '48

Pacific coast

Abstracts of papers at meeting, Stanford University, April 11-12, 1947; Pacific Coast branch of Paleontological society. Geol Soc Bul 58:1260-3 pt 2 D '47

Pushing back the history of land mammals in western North America. C. Stock. diag Geol Soc Bul 59:327-32 Ap '48

Quebec

Crepicephalid trilobites from Murphy creek, Quebec, and Cow Head, Newfoundland. C. H. Kindle. bibliog maps diags Am J Sci 246:441-51, pl 1-2 Jl '48

Texas

Chadron vertebrate fossils from below the rim rock of Presidio county, Texas. J. W. Stovall. bibliog maps diags Am J Sci 246:78-95 F '48

Trinidad

Description, correlation, and paleoecology of tertiary Cipero marl formation, Trinidad. B.W.I. R. M. Stainforth. map diag Am Assn Pet Geologists Bul 32:1292-330 bibliog (61 titles, p 1329-30) Jl '48

Utah

Geology of the Confusion range, west-central Utah. C. S. Bacon, jr. bibliog maps diags Geol Soc Bul 59:1027-52 O '48

PALESTINE

Arab refugees. Economist 155:540-2, 694 O 2, 30 '48

Correspondents run gauntlet in Palestine. Ed & Pub 81:32 Mr 20 '48

For the peace of Jerusalem; proposed international regime. map Economist 154:251-2 F 14 '48

Industrial court in Palestine. Int Labour R 56:601-2 N-D '47

Last chance in Palestine. Economist 153:910-11 D 6 '47

Palestine; the map and the moment. Economist 155:43-4 Jl 10 '48

Partition on the spot. Economist 153:963-4 D 13 '47

Realities in Palestine. Economist 154:489-90 Mr 27 '48

Testament of Bernadotte. maps Economist 155:484-5 S 25 '48

Troubled truce. Economist 155:289-91 Ag 21 '48

War by proxy? Britain's Arab contracts and the U.S. arms embargo. Economist 154:865-6 My 29 '48

Whose war in Palestine? map Economist 154:827-9 My 22 '48

See also

Labor and laboring United nations—
classes—Palestine Palestine

Biography

Near and Middle East who's who; Palestine Trans-Jordan, 1945-1946. A. Aurel and P. Cornfeld, eds. v 1 480p £5 Near and Middle East who's who publishing co, P.O.B. 1091, Jerusalem '45

Commerce

Palestine's total foreign trade showed marked upswing in 1946. il For Comm W 29:6-7- N 15 '47

Commercial policy

Changes in Palestine's import-license system. For Comm W 31:23 My 22 '48

Industries and resources

Can Israel pay its way? il Bsns W p81-2 Ag 28 '48

Yearbooks

Palestine year book. S. A. Udin, ed. v3 560p \$3.75 Zionist organization of America, 41 E. 42d st, New York 17 '48

PALESTINE rayon corporation

Stock offered. Comm & Fin Chr 167:49 Ja 5 '48

PALEWSKI, Gaston

Men around de Gaulle. por Bsns W p26 O 16 '48

PALLADIUM

Nature of bond orbitals in quadricovalent complexes of transition elements. H. Kuhn. bibliog J Chem Phys 16:727-33 Jl '48

Analysis

1,2-Cyclohexanedione dioxime, a reagent for palladium. R. C. Voter, C. V. Banks and H. Diehl. bibliog Anal Chem 20:652-4 Jl '48

Isotopes

Neutron deficient isotopes of rhodium and palladium. M. Lindner and I. Perlman. Phys R 73:1202-3 My 15 '48

PALLETTRON (term)

Pallettron, a new electron resonator and its proposed application to the generation of potentials in the million-volt range. A. M. Skellett. il diag J Ap Phys 19:187-90 F '48

PALLETS

Air cargo angles; pallets and mechanization. G. Johns. il Mod Packaging 21:138-41- My '48

Can you palletize? C. H. Barker, jr. and others. il diags Safety Eng 96:18-22+ S '48

Do pallets cut shipping costs? Bristol-Myers traffic manager reports 80 per cent saving in man hours. D. M. Daly. il Mod Packaging 21:110-12 Ja '48

How Pepsi-Cola simplified case handling operations; combined use of conveyors, trailers and fork-truck pallets. W. Geisler and others. flow diag il Food Ind 20:845-7 Je '48

Materials handling in multi-story cold storage warehouses. P. B. Christensen and D. O. Haynes. il diags Refrig Eng 64:539-43+ D '47; Abstract. Food Ind 20:182-3 F '48

Monroe collapsible metal box pallet. il Ry Age 124:478 Mr 6 '48

Oil companies study use of pallets to speed up handling of merchandise. Nat Pet N 40:36 Ag 4 '48

Pallet loading and shipping. W. L. Pearce and C. L. Daly. il S A E J 56:27-30 F '48

Palletizing block handling; Linton Concrete Products. W. B. Lenhart. il Rock Prod 51:207+ Ag '48

Palletizing doubles warehouse capacity of pole line hardware manufacturer; Oliver iron & steel corp. W. W. Hiller. il Steel 122:103, 119 F 2 '48

Paring costs with pallets; Packard's purchased parts. D. G. Baird. il Mill & Factory 43:127-9 S '48

Two new pallets on production lines. il Bsns W p84-5 D 6 '47

Unit loads and fork trucks save time; Illinois Central stores department. il Ry Age 124:1278-81 Je 26 '48

PALM oil

Composition of commercial palm oils; component acids and glycerides of a Belgian Congo palm oil (studied with the aid of low-temperature crystallization). T. P. Hilditch and others. *bibliog Soc Chem Ind J* 66:284-8 Ag '47

Configuration of naturally occurring mixed glycerides; the configuration of the major component glycerides of palm oil. M. L. Meara. *Chem Soc J* p722-6 Je '48

Directed interesterification in glycerides. E. W. Eckey. *bibliog Ind & Eng Chem* 40: 1183-90 Jl '48

Lubricants for cold rolling steel. R. J. Nekervis and R. M. Evans. *Il Iron & Steel Eng* 25:78-80 O '48

Outlook for palm oil. J. R. Skeen. *Soap & San Chem* 24:49+ Mr '48

Palm-oil production, Netherlands Indies. For *Comm W* 32:36 Ag 21 '48

PALMER, Howard Shirley, 1885-

H. S. Palmer retires as president of the New Haven, *por Ry Age* 125:373-4 Ag 21 '48

PALMITIC acid

Polymorphism of the mixed triglycerides of palmitic and stearic acids. E. S. Lutton, F. L. Jackson and O. T. Quimby. *bibliog Am Chem Soc J* 70:2441-5 Jl '48

Synthesis of palmitic acid and tripalmitin labeled with carbon fourteen. W. G. Dauben. *bibliog Am Chem Soc J* 70:1376-8 Ap '48

PALMITIN

Polymorphism of 1-monostearin and 1-monopalmitin. E. S. Lutton and F. L. Jackson. *bibliog Am Chem Soc J* 70:2445-9 Jl '48

Synthesis of palmitic acid and tripalmitin labeled with carbon fourteen. W. G. Dauben. *bibliog Am Chem Soc J* 70:1376-8 Ap '48

PALO ALTO, California

Food prices. J. M. Luck. *Science* 108:425-6 O 22 '48

PALUDRINE

Some developments in organic chemical manufacture; pharmaceutical products. W. Smith and W. G. Reid. *Chem & Ind* p663 O 16 '48

PAMPHLETS**Bibliography**

Occupational pamphlets; an annotated bibliography. G. Forrester. 354p \$2.50 H. W. Wilson co, 950 University av, New York 52 '48

PANAMA

See also

Commercial law—Panama

PANAMA canal

Answers on Panama canal given A.S.C.E. meeting. *Il Eng N* 140:143+ Ja 29 '48

Future and the Panama canal. J. H. Stratton. *Il maps diags Am Soc C E Proc* 74: 444-68 Ap '48; Excerpts. *Civil Eng* 18:69-70 F '48

Panama-canal conversion to sea-level route; abstract. *Mech Eng* 70:351 Ap '48

Panama canal report details costs of alternate modernization plans. *Eng N* 139:787 D 11 '47

Panama canal, the sea-level project; symposium, *bibliog il maps plans diags Am Soc C E Proc* 74:443-632 Ap '48; Discussion. 74:1015-21, 1228-56, 1384-92 Je-O '48

Panama sea level canal seen unsound. H. O. Cole. *Eng N* 140:692 My 13 '48

Sea level plan for Panama canal. J. G. Claybourn. *maps diags Am Soc C E Proc* 73:175-96 F '47; Discussion. 74:236-8, 921-5 F, Je '48

Waterway traffic, Panama canal, 1941-1946. Survey of Cur Bsns 1947 Sup p 108 [supplemented in monthly numbers]

Traffic

Panama canal; traffic and capacity. R. P. Johnson and S. O. Stenborn. *Am Soc C E Proc* 74:469-80 Ap '48

PANAMA national tourist commission

Visualizing the tropics; New York city office. *il plans Arch Rec* 103:104 Mr '48

PAN AMERICAN airways. See Pan American world airways**PAN AMERICAN conferences**

Better investment climate? Economic pact of Bogota. Bsns W p 125-6 My 15 '48

Dollar diplomacy at Bogota. Bsns W p 113-14+ Mr 13 '48

Economic agreement of Bogota; an inter-American milestone. H. Chalmers. For *Comm W* 31:3-6+ Je 12 '48

Latin-American scene; Bogota conference. *Economist* 154:958-9 Je 12 '48

See also

Inter-American

conference on social security

PAN AMERICAN highway

Guatemala's progress on Inter-American highway. For *Comm W* 31:39 My 15 '48

Inter-American highway; Laredo, Tex. to Guatemala via Mexico. For *Comm W* 32: 42+ Jl 24 '48

PAN-AMERICAN railway congress association

Pan-American railway congress at Habana spurs forward moves. S. T. R. Abt. *il For Comm W* 31:5-6+ My 22 '48

PAN AMERICAN world airways

CAB rules on aviation restriction; Caribbean decision. *Aviation W* 49:43 S 27 '48

PAA pleads for domestic routes. *Aviation W* 49:49 Jl 19 '48

PAA's domestic route bid opposed by CAB examiner. *Aviation W* 48:43-4 Mr 8 '48

Pan Am; nine-day wonder. C. Caldwell. *il Aero Digest* 55:26-7+ D '47

Pan American reports its position. S. Altschul. *Aviation W* 48:40 My 17 '48

PAN AMERICANISM

Inter-American relations show noteworthy recent advancement. H. T. Hoffman. *il For Comm W* 31:3-5+ Ap 10 '48

PANCREAS

Isolation of a crystalline trypsin inhibitor-anticoagulant protein from pancreas. L. A. Kazal, D. S. Spicer and R. A. Brahinsky. *bibliog il Am Chem Soc J* 70:3034-40 S '48

Isolation of crystalline desoxyribonuclease from beef pancreas. M. Kunitz. *il Science* 108:19-20 Jl 2 '48

PANCREATIC amylase. See Amylases

PANEL discussion. See Discussion

PANEL system of heating. See Electric heating—Panel system; Heating—Panel system; Hot water heating—Panel system

PANELING

Attaching porcelain enameled panels. C. F. Block. *il diags Sheet Metal Worker* 39: 106-9 Ja '48

Insulated precast concrete wall panels prove economical substitut for brick; du Pont nylon plant at Chattanooga. C. H. Topping. *il diag Civil Eng* 18:578-81 S '48

PANELS, Prefabricated. See Buildings, Prefabricated

PANELS, Sandwich. See Laminated construction

PANHANDLE eastern pipe line company

Annual report. *Comm & Fin Chr* 167:1848 Ap 26 '48

Gas feud flares; court action in Panhandle Eastern-Michigan Consolidated case. Bsns W p24 O 16 '48

Industrial gas cuts upheld in Illinois. Bsns W p24 O 23 '48

Middle West gas tangle. *Pub Util* 42:227-8 Ag 12 '48

PANTEPEC oil company of Venezuela

Exchange of American shares. *Comm & Fin Chr* 168:747 Ag 23 '48

PANTOGRAPH engraving machines. See Engraving machines**PANTOIC acid, Analogs of**

Pantothenic acid studies; growth effect of pantoic acid analogs. V. H. Cheldelin and C. A. Schink. *bibliog Am Chem Soc J* 69: 2625-8 N '47

PANTOTHENIC acid

Amino analog of pantothenic acid. F. W. Holly and others. *bibliog Am Chem Soc J* 70:3088-90 S '48

Biosyntheses involving pantothenic acid. W. Shive and others. *bibliog Am Chem Soc J* 69:2567-8 O '47

Fritz Lipmann receives Carl Neuberg medal; discusses pantothenic acid. *Chem & Eng N* 26:860 Mr 22 '48

PANTOTHENIC acid—Continued

Pantothenic acid studies; growth effect of pantoic acid analogs. V. H. Cheldelin and C. A. Schink, *bibliog Am Chem Soc J* 69: 2625-8 N '47

PANTOTHENIC acid, Analogs of

Inhibition of lactic acid bacteria by analogs of pantothenic acid. W. Drell and M. S. Dunn, *bibliog Am Chem Soc J* 70:2057-63 Je '48

PAPER

Changes in properties of mechanically regenerated paper; abstract. W. Brecht, *Paper Ind* 30:488 Je '48

Control of fading lamps; use of light-sensitive paper. *Am Dyestuff Rep* 36:668 N 17 '47

Elasticity and flow in paper; abstract. B. Steenberg, *Paper Ind* 29:1378 D '47

New papers and their uses in World war II. M. S. Kantrowitz, *Paper Tr J* 126:70-2 Je 24 '48; Same abr, *Paper Ind* 30:632-5 JI '48

Paper problems in printing and conversion. R. F. Reed, *Pulp & Pa of Can* 49:69-72 F '48

Some properties of paper. *Pulp & Pa of Can* 49:81 Je '48

Spectrophotometric evaluation of the color of ink marks on paper; handwriting on white paper. C. F. Bailey and R. S. Casey, *bibliog Anal Chem* 19:1020-2 D '47

See also

Cigaret paper	Paper board
Dyes and dyeing—	Parchment paper
Paper	Tissue paper
Filter paper	Waste paper
Glassine	Wood pulp
Newsprint paper	Wrapping paper

Color

Papermakers interest in color. A. H. Croup, *Paper Tr J* 125:48-9 N 13 '47

Relation of gloss to color. R. S. Hunter, *diags Paper Tr J* 126:47-50 Ja 8 '48

Fungus resistance

Coatings on kraft. L. Teittel and S. Berk, *il Mod Packaging* 21:165-7+ D '47

Gloss measurement

Electronic gloss indicator as an aid in the control of paper finish. K. Bowers, *Paper Tr J* 126:59-60 Ap 8 '48; Same cond, *Paper Ind* 30:133-4 Ap '48

Gloss recorder with automatic standardization. R. S. Hunter, *il diags Paper Tr J* 127:51-3 S 16 '48

Relation of gloss to color. R. S. Hunter, *diags Paper Tr J* 126:47-50 Ja 8 '48

Moisture content

New methods for moisture determination. *Paper Ind* 29:1220 N '47

Permeability

A.S.T.M. on water vapor; tentative test method (D 988-48 T) for sheet materials. *diags Mod Packaging* 22:149-51+ O '48

Flow method for determining water vapor permeability at 0°F. F. H. Cherepow, *bibliog il diag Paper Tr J* 125:110+ N 6 '47

Gravimetric (weighed-cell) method of determining water vapor permeability. F. T. Carson, *bibliog Paper Tr J* 125:118+ N 6 '47

Prices*See also*

Newsprint paper—
Prices

Printing properties

Characteristics desirable in offset papers. R. F. Reed, *Paper Ind* 29:1210-12 N '47

Conditioning paper for press. C. F. King, *diags Inland Ptr* 120:51-3 Ja '48

Paper problems in printing and conversion. R. F. Reed, *Pulp & Pa of Can* 49:69-72 F '48

Photomicrographs for appraising paper surfaces. J. F. Halladay, *il Paper Ind* 29:1125-8+ N '47

Picking resistance of paper; abstract. H. V. P. H. Jansen, *Paper Ind* 29:1854 Mr '48

Printability of coated papers; abstract. J. Bekk, *Paper Ind* 29:1220 N '47

Printing smoothness of paper; TAPPI suggested method 7 479 sm-48, *bibliog Paper Tr J* 126:62-4 Ap 15 '48

Reflectance method for determining the ink absorbency of paper. R. F. Bowles and A. Silcox, *bibliog Soc Chem Ind J* 67:249-53 Je '48

Review of the literature on printability and allied subjects, 1946-1947. S. M. Chapman, *bibliog* (43 ref) *Pulp & Pa of Can* (Convention no) 49:107-14 [F] '48

Testing printability of paper with ink. O. P. Berberich and others, *il diags Paper Tr J* 127:53-7 Ag 12; 53-4 Ag 26 '48

Universal paper troubles. C. F. King, *il Inland Ptr* 120:99-101 D '47

See also

Paper, Offset

Smoothness measurement

Photomicrographs for appraising paper surfaces. J. F. Halladay, *il Paper Ind* 29:1125-8+ N '47

Printing smoothness of paper; TAPPI suggested method 7 479 sm-48, *bibliog Paper Tr J* 126:62-4 Ap 15 '48

Standardization of the Bendtsen tester for measurement of newsprint paper roughness. C. A. Sankey and P. H. White, *diags Pulp & Pa of Can* (Convention no) 49:39-106 [F] '48

Standards

Paper standardization as an aid to the printer. M. S. Kantrowitz and E. W. Spencer, *il Paper Ind* 29:1306-8, 1612-15, 1772-4 D '47, *il Mr* '48

Report of standards committee for 1947. R. C. Griffin, *Paper Tr J* 126:59-60 Je 3 '48

Strength

Chemistry of urea and melamine resins. R. W. Auten, *bibliog Paper Tr J* 127:45-51 JI 29 '48

Effect of dyestuffs on paper strength; abstract. G. Wünschmann, *Paper Ind* 29:1854 Mr '48

Effect of salts on the melamine resin wet strength paper process. C. S. Maxwell and W. B. Reynolds, *bibliog Paper Tr J* 126: 45-9 Ap 1 '48; Same cond, *Paper Ind* 30: 122+ Ap '48

New paper resins. W. Loudon and L. E. Kelley, *Paper Ind* 30:1039-41 O '48

Resin bonding and strength development in offset papers. C. G. Weber and others, *bibliog Paper Ind* 30:53-8 Ap '48; Same, *J Res Nat Bur Stand* 40:427-35 Je '48

Rheology of paper; new approach to study of paper strength. S. G. Mason, *bibliog diags Pulp & Pa of Can* (Convention no) 49:207-14+ [F] '48

Tensile strength and water sorption of moist paper; abstract. A. Noll, *Paper Ind* 30:796 Ag '48

Unfavorable influence of acidity on paper quality; abstract. M. Chêne, *Paper Ind* 30:796 Ag '48

Universal instrument for studying paper tensile strength; abstract. B. Invarsson and B. Steenberg, *Paper Ind* 30:648 JI '48

Urea resins for wet strength papers; studies on chemicals imparting wet strength; abstract. L. Henriksen and B. Steenberg, *Soc Dyers & Col J* 64:260-1 JI '48

Wet strength; abstract. G. F. Underhay and others, *Paper Ind* 29:1676 P '48

Wet strength development with neutral, water soluble polymers. R. J. Myers and L. E. Kelly, *Paper Tr J* 127:59-63 O 14 '48

Testing

A.S.T.M. on water vapor; tentative test method (D 988-48 T) for sheet materials. *diags Mod Packaging* 22:149-51+ O '48

Application of statistical methods to paper testing procedures; folding endurance. L. K. Reitz and F. J. Sillay, *bibliog Paper Tr J* 126:54-8 Ap 22 '48

Approach to the rational evaluation of pulp. J. d'A. Clark, *il Pulp & Pa of Can* 49:101-9 S '48

Error of a nomogram for the calculation of Clark softness. G. Beall and others, *Paper Ind* 30:130+ Ap '48

Method for the determination of the resistance of paper and paperboard to penetration by fungi. B. F. Shema, *il Paper Ind* 29:1831-2 Mr '48

Strength of paper; abstract. J. Villars, *Paper Ind* 30:956 S '48

PAPER—Testing—Continued

Tensile strength and water sorption of moist paper; abstract. A. Noll. Paper Ind 30:796 Ag '48

Testing printability of paper with ink. O. P. Berberich and others. *il* diags Paper Tr J 127:53-7 Ag 12; 53-4 Ag 26 '48

Testing wettability of papers; the Netzometer; abstract. A. Noll. Paper Ind 30:648 J1 '48

See also

Paper—Gloss measurement

Paper—Printing properties

Transportation

Paper standardization as an aid to the printer; packaging and United States Government printing office. M. S. Kantrowitz and E. W. Spencer. Paper Ind 29:1772-4 Mr '48

Water resistance

Coatings on kraft. L. Teitell and S. Berk. *il* Mod Packaging 21:165-7+ D '47

Mechanism of water resistance. W. S. Wilson. Paper Tr J 126:45-50 My 20 '48

Proofing of paper. M. L. Downs. Mod Packaging 21:128-30 Ja '48

PAPER, Asphalt coated

Bleeding resistance of asphalted paper at elevated temperature; revision of TAPPI tentative standard T 475 m-46. Paper Tr J 125:172 N 6 '47

Electric heat offers many advantages in the manufacture of asphalt roofing. J. C. Reid. *il* Pulp & Pa of Can 49:76-8 Ag '48

PAPER, Building

Building papers as vapour barriers for dwellings. J. D. Babbitt. bibliog diags Pulp & Pa of Can 49:83-9 Ja '48

Experimental paper house; made of sulfur impregnated chipboard. J. A. Van den Akker and W. A. Wink. *il* diags Paper Ind 30:231-8 My '48

See also

Paper, Roofing

PAPER, Cigaret. See Cigaret paper**PAPER, Coated**

Coated paper drying. H. G. Rappolt. Paper Ind 30:134+ Ap '48

Modern winders for coated papers. A. A. Neese. Paper Ind 30:136+ Ap '48

PAPER, Government

Congress committee awards third quarter contracts. Paper Tr J 126:22 Mr 25 '48

Congress opens bids on paper for GPO first quarter needs. Paper Tr J 125:7+ D 18 '47

Congress opens industry's bids on second quarter paper needs. Paper Tr J 126:7+ Mr 18 '48

Congress opens industry's bids on third quarter paper need. Paper Tr J 126:7+ Je 10 '48

Congress opens industry's bids on fourth quarter paper need. Paper Tr J 127:14+ S 16 '48

New papers and their uses in World war II. M. S. Kantrowitz. Paper Tr J 126:70-2 Je 24 '48; Same abr. Paper Ind 30:632-5 J1 '48

Paper standardization as an aid to the printer; government standards for bond and ledger papers. M. S. Kantrowitz and E. W. Spencer. *il* Paper Ind 29:1612-14, 1772-4 F-Mr '48

PAPER, Greaseproof**Testing**

Grease resistance; report on a modification of the TAPPI test method, with ratings for various packaging materials. C. G. Lavers. *il* Mod Packaging 21:147-9 Mr '48

Oil float chamber method for evaluating grease resistance. A. Noll. Paper Tr J 126:34 Ja 15 '48

PAPER, Heat sealing

Heat-seal papers. H. W. Taylor. *il* Mod Packaging 21:149-51+ My '48

PAPER, Insulating

New kraft capacitor paper. H. F. Miller and R. J. Hopkins. *il* Gen Elec R 50:20-4 D '47

Oil-paper dielectrics; effect of asphalt as a contaminant in oil and in impregnated paper. J. D. Piper, P. Treend and K. S. Bevis. bibliog Ind & Eng Chem 40:323-8 F '48

Paper capacitors containing chlorinated impregnants; benefits of controlled oxidation of the papers. D. A. McLean. *il* Ind & Eng Chem 39:1457-61 N '47

Stabilization of chlorinated diphenyl in paper capacitors. L. J. Berberich and R. Friedman. bibliog *il* diag Ind & Eng Chem 40:117-23 Ja '48

Theory of extreme values and its implications in the study of the dielectric strength of paper capacitors. B. Epstein and H. Brooks. bibliog J Ap Phys 19:544-50 Je '48

Thermal characteristics and current rating of paper insulated power cables. C. C. Barnes. bibliog diag Electrician 140:1915-17; 141:695-700, 1291-3, 1443-6 Je 18, S 3, O 29, N 12 '48

True dielectric breakdown strength of electric cable insulating papers; abstract. P. Cloke and B. Bates. diags Elec Eng 67:1072 N '48

Vacuum drying of paper. N. M. Foote. bibliog diag Ind & Eng Chem 39:1642-6 D '47

Testing

Proposed specification for absorbent insulating paper. Paper Tr J 126:73-5 Je 24 '48

PAPER, Iodized

Iodized fruit wraps. H. Manley. bibliog Mod Packaging 21:152-3+ My '48

PAPER, Laminated

British laminated plastic is designed for load bearing partitions; Holoplast. *il* diags Arch Forum 88:124 Mr '48

Furfural in phenol resin laminates; abstracts. H. Kline. Mod Plastics 25:101-2 D '47; Paper Ind 30:775-6+ Ag '48

Laurentine. Montreal hotel uses pulp and paper product in construction; arborite, lignin enriched laminated paper. *il* Pulp & Pa of Can 49:57-9 F '48

Testing

Causes of dimensional instability of paper base phenolic resin laminates on total immersion in water. C. J. Straka. Paper Tr J 126:50-4 Ap 1 '48

PAPER, Lithographic

Paper problems in printing and conversion. R. F. Reed. Pulp & Pa of Can 49:69-72 F '48

See also

Paper, Offset

PAPER, Magnetic

Magnetism permits daily ad changes; magnetic paper and make-up boards. *il* Ed & Pub 81:11 My 22 '48

PAPER, Newsprint. See Newsprint paper

PAPER, Offset

Characteristics desirable in offset papers. R. F. Reed. Paper Ind 29:1210-12 N '47

Resin bonding and strength development in offset papers. C. G. Weber and others. bibliog Paper Ind 30:83-8 Ap '48; Same. J Res Nat Bur Stand 40:427-35 Je '48

PAPER, Roofing

Electric heat offers many advantages in the manufacture of asphalt roofing. J. C. Reid. *il* Pulp & Pa of Can 49:76-8 Ag '48

Roofing paper industry in Canada, 1946. Pulp & Pa of Can 49:83-4 J1 '48

Sidney roofing & paper co. limited, *il* Pulp & Pa of Can 49:76+ J1 '48

PAPER, Safety

This check would have been easier to handle if better paper stock had been used. *il* Bankers Mo 65:40 Ap '48

PAPER, Sound recording

Paper sound recording tape. Pulp & Pa of Can 49:56-7 Ap '48

PAPER associations

L'ATIP; the technical association of the French paper industry. L. E. Wise. Paper Ind 30:731-2 Ag '48

Divisional groups, meetings and elections. Paper Ind 29:1798+ Mr '48

See also

Technical association of the pulp and paper industry

PAPER bags

Bulk packaging of chemicals; Chem. and Met. report; multiwall bags. *il* Chem Eng 55:128-30 Ap '48

Cotton mesh windows for paper bags. *il* Mod Packaging 21:210 D '47

PAPER bags—Continued

- For fresh produce. *Il Food Ind* 20:231 F '48
 Paper bag production important in the Dutch paper industry. *Pulp & Pa of Can* 49:146+ Ja '48
 St Regis develops Citrobag, system for packaging, handles 400 commodities. *Il Paper Ind* 30:540 JI '48
 State laws pave way for single use flour bags. J. A. J. Jones. *Il Food Ind* 20:364-5 Mr '48
 Store paper bags properly; maintain moisture. T. P. Callahan. *Il Chem Ind* 62:442+ Mr '48
 Textile industry organizes to boost bag sales; paper bags have made big gains. *Bsns W* p38-9+ JI 3 '48; Discussion. p60+ JI 24 '48
 Union Bag discloses windowed fruit bag. *Paper Tr J* 125:112 D 4 '47

Manufacture

- Kraft center; St Regis paper co. E. P. McGinn. *Il Paper Tr J* 127:105-6+ S 9 '48
 St Regis integrates its plan for multi-wall bag output. *Il Paper Tr J* 126:45-8 Mr 11 '48

Printing

- Bag printing presses for Cabot's plants. *Il Paint Oil & Chem R* 111:41 F 5 '48

PAPER board

- Coating of paper and boxboard. J. F. Halladay. *Paper Ind* 30:142-4 Ap '48
 Collection and quality of straw for the strawboard industry. S. I. Aronovsky. *Paper Tr J* 126:51-2 Ja 8 '48
 Paperboard for containers in Canada. *Pulp & Pa of Can* 49:64-5 My '48
 Stake of the strawboard industry in rule 41. J. R. Little. *Paper Tr J* 125:45-6 D 25 '47
See also
 Wall board

Manufacture

- Effect of some manufacturing variables on the properties of fiberboard prepared from milled Douglas-fir. H. D. Turner and others. *diags Paper Tr J* 127:43-50 Ag 26 '48
 Manufacture of straw pulp. S. I. Aronovsky. *bibliog il maps Paper Ind* 30:71-9, 244-51 Ap-May '48
 Pulping of straw with digestion liquors containing sodium sulphite. G. S. Hannaway. *Paper Tr J* 126:124+ F 26 '48; Same cond. *Paper Ind* 29:714+ Ag '47
 Pulping with sodium sulphite to produce strawboard. S. I. Aronovsky and others. *bibliog Paper Tr J* 125:90+ N 6 '47; Same cond. *Paper Ind* 29:280-1+ My '47
See also
 Paper board, Corrugated—Manufacture
 Paper board mills

Testing

- Method for the determination of the resistance of paper and paperboard to penetration by fungi. B. F. Shema. *Il Paper Ind* 29:1831-2 Mr '48

Water resistance

- Accelerated method for measuring the penetration of water in insulation board. W. A. Wink and J. A. Van den Akker. *diags Paper Tr J* 127:35-40 S 2 '48

PAPER board, Corrugated

- Evaluation of nine-point strawboard for corrugating. N. F. Wilson. *Paper Tr J* 125:86-8+ N 6 '47
 Ingenious shipper; mirrored vanity boxes in carton from single piece of corrugated. *Il Mod Packaging* 21:140-2 Je '48
 Load concentration in corrugated paper; abstract. J. H. Toulouse and P. J. Barcus. *Glass Ind* 29:507 S '48
 One-way paper shipping pallets. E. H. Ashley. *Il Iron Age* 161:90 Je 3 '48
 Stake of the strawboard industry in rule 41. J. R. Little. *Paper Tr J* 125:45-6 D 25 '47
 Tailored adhesives for corrugated board. J. H. Wills. *bibliog il Paper Tr J* 127:47-50 JI 8 '48; Same abr. *Paper Ind* 30:616+ JI '48

Manufacture

- Hankins' corrugating plant, Union, N.J. E. P. McGinn. *Il Paper Tr J* 127:43-50 Ag 12 '48
 Mengel company; new plant at Fulton, N.Y. *Il Factory Management* 106:B69-71 pt 2 Ap '48
 Neutral sodium sulphite for digestion of corrugating strawboard. B. F. Stahl. *Paper Tr J* 126:131-4 My 27 '48

PAPER board industry

- Collection and quality of straw for the strawboard industry. S. I. Aronovsky. *Paper Tr J* 126:51-2 Ja 8 '48

Statistics

- Paperboard, 1941-1946. Survey of Cur Bsns 1947 Sup p 161 [supplemented in monthly numbers]

PAPER board mills

- Clarification of paper boardmill white water. W. Rudolfs and E. J. Axe. *bibliog Paper Tr J* 126:37-42 Ap 1; 51-7 Ap 8 '48
 Economy and utility in Macon fiberboard mill of Armstrong cork co. *Il Eng N* 139:720 N 27 '47
 Hankins' corrugating plant, Union, N.J. E. P. McGinn. *Il Paper Tr J* 127:43-50 Ag 12 '48
 Mengel builds a box plant for maximum efficiency. *Il Paper Tr J* 126:45-6 Ap 22 '48
 National Container builds new plant at Fernandina. *Il Paper Tr J* 125:62-3 D 4 '47
 Sidney Roofing and Paper spends \$1,500,000 to improve its plant. *Paper Tr J* 125:67 D 4 '47

Equipment

- Application of felts to board machines. L. M. Woodside. *Paper Tr J* 126:108+ My 27 '48; Same cond. *Paper Ind* 30:463+ Je '48
 Downingtown machine at Mutual box board co. enlarged to eight yats. *Paper Tr J* 127:140-1 S 9 '48

Power

- New power plant for B. F. Nelson mfg. company at Minneapolis. J. H. Peebles and H. P. Harris. *il plans diags Power Generation* 52:70-5 O '48

PAPER box factories

- Container plant; finely composed masonry encloses an efficient factory; Greensboro, N.C., plant of Container corp. of America. *Il plans diags Arch Forum* 89:30-5 Ag '48
 Flexible factory for paper boxes; Mengel co., Fulton, N.Y. *Il Arch Rec* 104:136-9 Ag '48
 Hankins' corrugating plant, Union, N.J. E. P. McGinn. *Il Paper Tr J* 127:43-50 Ag 12 '48
 Mengel builds a box plant for maximum efficiency. *Il Paper Tr J* 126:45-6 Ap 22 '48

Equipment

- Angelus paperbox co. expansion. *Il Paper Tr J* 127:137 S 9 '48

PAPER boxes

- Best folding boxes; 1948 awards for merchandising appeal, construction and originality. *Il Mod Packaging* 21:172-3+ Ap '48
 Box setter-up; forming of candy-bar boxes from folding carton blanks. *Il Mod Packaging* 21:120-2 F '48
 Dealer's choice; hardware retailers told Scovill mfg. co. what they wanted. *Il Mod Packaging* 21:111 JI '48
 Dose dispenser; Mucotin 50-tablet dose-dispenser package. *Il Mod Packaging* 21:140 F '48
 Factory-sealed gloves; new packaging for Wagon Brand gloves reduces pilferage, saves 15 per cent of board, permits six boxes to do the work of 12. *Il Mod Packaging* 21:124-5 F '48
 Hinged carton; single piece of board makes folding box with die-cut platform inside to display filter for coffee maker. *Il Mod Packaging* 21:119+ N '47
 Nuts and bolts. *Il Mod Packaging* 21:126-7+ Ag '48
 Testing and designing of fibreboard containers. J. D. Malcolmson. *Paper Ind* 30:942-4 S '48; Same. *Paper Tr J* 127:34-5 S 30 '48
- PAPER chemicals**
 Chemicals for the pulp and paper industry. C. G. Landes. *Il Chem & Eng N* 26:1584-9 My 31 '48

PAPER chemicals—Continued

- Chemistry of urea and melamine resins. R. W. Auten, bibliog Paper Tr J 127:45-51 J1 23 '48
- Effect of petroleum base additives on sulphite pulping and papermaking. W. A. Beman and H. E. Corbin, Paper Tr J 126:65-70 Je 17 '48
- Effect of salts on the melamine resin wet strength paper process. C. S. Maxwell and W. R. Reynolds, bibliog Paper Tr J 126: 45-9 Ap 1 '48; Same cond. Paper Ind 30: 122+ Ap '48
- Nonfibrous raw materials report, 1947. E. N. Poor, Paper Tr J 126:51-5 F 5 '48; Abstract. Chem Eng 55:278+ Mr '48
- Pulp and paper role in consumption of industrial chemicals; abstract. R. G. Misphey, Chem Ind 61:993 D '47
- Second largest consumer of chemical raw materials; abstract. R. G. Misphey, Chem Eng 64:258+ D '47
- Use of liquid sulphur dioxide for calcium bisulphite acid production. E. H. Loughheed, bibliog flow sheet il diags Pulp & Pa of Can (Convention no) 49:215-21 [F] '48

PAPER clips and fasteners

- Barrel polishing of small brass parts; brass paper fasteners. T. S. Blair, il Iron Age 160:77 D 4 '47

PAPER coating

- Chemistry of urea and melamine resins. R. W. Auten, bibliog Paper Tr J 127:45-51 J1 23 '48
- Coating of paper and boxboard. J. F. Halladay, Paper Ind 30:142-4 Ap '48
- Coating paper on the paper machine by the rotogravure-offset method. G. Haywood, bibliog diags Paper Tr J 127:59-61 J1 15 '48
- Coatings on kraft. L. Teittel and S. Berk, il Mod Packaging 21:165-7+ D '47
- Colloidal equipment applied to the homogenization of clay and paper coatings. D. E. Gould, il Paper Tr J 126:63-7 My 6 '48
- Modification of soy protein for paper coating applications. R. S. Burnett and W. R. Eichenberger, Paper Tr J 126:51-2 F 12 '48
- Pan level and temperature control on paper coating machines. H. A. Sholl and E. A. Murphy, diags Paper Tr J 127:51-2 O 14 '48
- Paper finishes; coating. Pulp & Pa of Can 49:86-7 S '48
- Plastics as paper coatings. W. H. Aiken, il Mod Packaging 21:193-7 J1 '48
- Soya protein; Kelkote. Chem Eng 55:167-8 Je '48
- Starch in paper making. G. P. Graham, Pulp & Pa of Can 49:82-3 S '48

PAPER containers

- Cost only problem in container production; abstract. W. F. Gillespie, Chem & Eng N 25:3680 D 8 '47
- Paperboard for containers in Canada, Pulp & Pa of Can 49:64-5 My '48
- See also
- Paper bags
- Paper boxes

Manufacture

- Container plant; finely composed masonry encloses an efficient factory; Greensboro, N.C., plant of Container corp. of America, il plans diags Arch Forum 89:90-5 Ag '48

PAPER cups

- Dispenser stars in paper cup promotion, il Sales Management 61:50 N 1 '48

PAPER cutting machines

- Complete hydraulic operation simplifies paper cutter, il diags Product Eng 19:98-9 S '48

PAPER drapery

- Clopay, new exchange listing, extends paper specialty line, Barron's 28:34 Ja 12 '48

PAPER drying

- Air-drying of surface-sized sheet at Ham-millmill. W. G. Hendrich and J. L. Van Nort, il diag Paper Ind 29:1297-300 D '47
- Coated paper drying. H. G. Rappolt, Paper Ind 30:134+ Ap '48
- Considerations of radiant energy and moisture removal. I. J. Barber, Pulp & Pa of Can 49:79-83 Mr '48
- Paper drying factors; abstract. G. H. Young, Paper Ind 29:1164+ N '47
- Steam supply and control arrangements for driers. G. H. Young, diags Paper Tr J 125: 38-42 D 25 '47; Same cond. Paper Ind 30: 280+ My '48

- Vacuum drying of paper. N. M. Foote, bibliog diag Ind & Eng Chem 39:1642-6 D '47
- Velocity steam research; faster drying and more production from paper driers. F. Harrison, diags Paper Ind 29:1512-16 Ja '48

PAPER finishing

- Electric equipment in the finishing room. F. Winterburn, Elec Eng '66:1091-4 N '47
- Electronic gloss indicator as an aid in the control of paper finish. K. Bowers, Paper Tr J 126:59-60 Ap 8 '48; Same cond. Paper Ind 30:133-4 Ap '48
- Hazards related to paper finishing operations. W. C. Berthold, Paper Ind 29:1200-1 N '47
- Paper finishes; embossing. Pulp & Pa of Can 49:89 S '48

PAPER handling

- Truck handling of paper, il Paper Ind 30: 118+ Ap '48

PAPER houses

- Experimental paper house; made of sulfur impregnated chipboard. J. A. Van den Akker and W. A. Wink, il diags Paper Ind 30:231-8 My '48

PAPER industry and trade

- American paper manufacturing industry sees some signs of return of competitive market. Inland Ptr 121:68 My '48
- Cellulose; its history, growth, and influence. M. Heath, il Chem Ind 62:405-12 Mr '48
- Commerce dept. seeks world market gauge. Paper Tr J 126:16 F 19 '48
- Conditions affecting the welfare of the pulp and paper industry. E. W. Tinker, Paper Tr J 127:18+ O 7 '48
- Federal trade commission complaint 5592, fine and wrapping paper, challenged by National paper trade association. Paper Tr J 127: 9+ O 28 '48
- Forest products division economic review. Paper Tr J 127:14-15 O 7 '48
- Future expanding soundly. E. W. Tinker, Paper Tr J 126:7+ F 5 '48
- How freight tariffs affect paper industry. E. C. Hastings, Paper Tr J 127:11+ O 21 '48
- How users appraise the paper markets. Paper Tr J 127:12-14 O 21 '48
- Industry's progress. E. W. Tinker, Paper Tr J 126:39+ F 26 '48; Same. Paper Ind 29: 1828+ Mr '48
- Most paper supplies expected to reach balance in supply and demand this spring. Inland Ptr 120:80-1 Ja '48
- National paper trade association meets to discuss prospects for paper industry. Inland Ptr 120:72-3 N '47
- Paper supplies catch up. Bsns W p28+ D 13 '47
- Postwar conditions; World wars I and II. L. T. Stevenson, Paper Ind 30:67-70 Ap '48
- Pulp and paper in 1947. Chem Eng 55:123 F '48
- Pulp and paper industry and the forest economy of the Pacific NW. E. W. Tinker, Paper Ind 29:1486+ Ja '48; Same. Pulp & Pa of Can 49:104 Ja '48
- Pulp and paper trade of eight nations. Paper Tr J 127:20+ Ag 26 '48
- Shortage improvement seen in paper supplies but printers still suffer from shortage. Inland Ptr 120:80-1 N '47
- View of the paper industry's future. C. G. Parker, Paper Tr J 126:7+ Ap 15 '48
- What about the paper market? abstract. J. R. Atwater, Paper Tr J 127:10 S 23 '48
- World situation in pulp and paper. Pulp & Pa of Can 49:60+ F '48
- See also
- Newsprint paper
- Paper board industry
- Paper mills
- also International paper company; Scott paper company; Technical association of the pulp and paper industry

Finance

- Have paper's profits hit peak? Bsns W p86+ Mr 27 '48
- Itemizes costs, earnings for mills; abstract. R. M. Fowler, Ed & Pub 81:10 F 14 '48
- Leveling the road for paper makers; more stable earnings likely. Barron's 28:25 N 1 '48
- Paper industry financing; 1945-June 1948. Paper Tr J 127:36-7 Ag 5 '48

PAPER industry and trade—Continued**History**

Progress of paper, with particular emphasis on the remarkable industrial development in the past 75 years and the part that Paper trade journal has been privileged to share in that development. Paper Tr J 124 no 27: 1-392 '47

Law

New higher court decisions affecting paper and paperboard. L. T. Parker. Paper Ind 29:1597-9+ F '48

Review of new law suits involving the paper and paperboard industry. L. T. Parker. Paper Ind 30:1049-51 O '48

Salesmen

Salesmen's association of the paper industry annual meeting, New York, Feb. 24. Paper Ind 29:1796-7 Mr '48

Securities

Facts and fallacies; study of some problems which face the average investor in search of profits. T. M. Luttrell. Pulp & Pa of Can 48:57-61 D '47

Has paper industry struck balance? with statistical summary of leading companies. G. W. Mathis. Mag of Wall St 82:486-7+ Ag 14 '48

Is paper boom topping out? with statistical summary of leading companies. H. E. Travis. il Mag of Wall St 81:351-3+ Ja 3 '48

Paper securities in July. Pulp & Pa of Can 49:148+ Ag '48

Statistics

Canada's pulp and paper industry sets new records in 1946. Pulp & Pa of Can 48:62-7 D '47

1947-1948 paper production compared; tabulation. Paper Tr J 127:22 O 7 '48

Paper and paper products, 1941-1946. Survey of Cur Bsns 1947 Sup p 159-61 [supplemented in monthly numbers]

Paper production achieves another new high. M. C. Dobrow. Paper Tr J 126:44+ F 26 '48

Pulp and paper in the Midwest. R. W. Porter. map Chem Eng 55:148-50 S '48

United States imports and exports; pulp-wood, wood pulp, paper, paperboard and paper products; May, June and first six months of 1948. Paper Tr J 127:16+ Ag 26 '48

Alaska

Alaskan pioneer; Ketchikan pulp & paper co. Bsns W p20 Ag 21 '48

Pulp mill for Alaska. Paper Tr J 127:38 Ag 5 '48

Steps taken to develop paper mills in Alaska. Ed & Pub 81:49 Jl 3 '48

Australia

Australian notes; paper manufacturing for the financial year 1946-47. Paper Tr J 127: 60+ S 9 '48

Paper manufacturing industry in Australia. J. Seiffert. il Paper Tr J 126:51-3 Je 3 '48

Brazil

Many factors retard expansion of Brazilian paper industry. Pulp & Pa of Can 49:144-6 Ja '48

British Columbia

Bloedel, Stewart & Welch, limited, and other paper companies in British Columbia. il map Pulp & Pa of Can 49:68-79 Jl '48

British Columbia section; phases of the pulp and paper industry. il map Pulp & Pa of Can 49:61-82 Jl '48

Historical notes on British Columbia's pulp and paper industry. il Pulp & Pa of Can 49:67 Jl '48

Pulp and paper comes of age in British Columbia. J. A. Young. Pulp & Pa of Can 49: 85-6 O '48

Canada

L'ATIP the technical association of the French paper industry. L. E. Wise. Paper Ind 30:731-2 Ag '48

Basic objectives between employers, labor and governments. R. M. Fowler. Paper Ind 29:1626-8 F '48

Bowater expansion creates largest mill. H. L. Marx, jr. il Ed & Pub 81:11 Ag 21 '48

Canada's mills see 1948 full of promise. Paper Tr J 126:16+ Ja 8 '48

Canada's pulp and paper industry sets new records in 1946. Pulp & Pa of Can 48:62-7 D '47; Same cond. Can Chem & Process Ind 31:1040-2+ N '47

Canadian newsprint companies' earnings. J. Montagnes. Ed & Pub 81:12 Jl 24 '48

Canadian pulp and paper industry today. R. M. Fowler. Pulp & Pa of Can (Convention no) 49:86-90 [F] '48; Abstract. Ed & Pub 81:10 F 14 '48

Implementation of the industry's forest policy. B. F. Avery. Pulp & Pa of Can 48:112 N '47

Importance of the pulp and paper industry to Canadians. F. L. Mitchell. Pulp & Pa of Can 49:52-6 F '48

Newsprint Canada's biggest industry. Paper Tr J 127:15 O 14 '48

Paper industry in world affairs. R. M. Fowler. Pulp & Pa of Can 48:61-4 N '47

Production and foreign trade, 1947-48. For Comm W 33:35-6 O 9 '48

Pulp and paper; a Canadian chemical process industry. A. C. Hill. bibliog Can Chem & Process Ind 31:914-17+ O '47

Pulp, paper and packages. G. M. Hobart. Pulp & Pa of Can 49:59-73 S '48

Reviewing Canada's pulp and paper industry for the year 1947. R. M. Fowler. Pulp & Pa of Can 49:55-7 Ja '48

Roofing paper industry in Canada, 1946. Pulp & Pa of Can 49:83-4 Jl '48

China

Manufacture of paper from reeds in north China. Chan Szu Shiang. Paper Tr J 127: 43-4 O 21 '48

Finland

Finnish production and markets in 1947. Pulp & Pa of Can 49:79-80 My '48

Production and exports in the first quarter of 1948. For Comm W 31:36 Je 26 '48

Germany

German paper industry production and capacity. O. Goy. Paper Tr J 127:55-6 O 14 '48

Possible importance of annual and perennial shrubs for the German pulp and paper industry. O. Goy. Paper Tr J 126:86-7 My 27 '48

Great Britain

United Kingdom imports of paper and paperboard. Pulp & Pa of Can 49:182 My '48

U.K. paper and board industry in 1947. Pulp & Pa of Can 49:177-8 My '48

Wiggins, Teape and company (1919), limited; statement by the chairman at 29th annual general meeting. L. W. Farrow. Economist 154:1092 Je 26 '48

India

India to manufacture newsprint. Paper Tr J 127:13 Jl 29 '48

India's first newsprint mill to use bamboo. Ed & Pub 81:9 Ag 28 '48

Korea

South Korea's paper production. For Comm W 29:28 N 29 '47

Mexico

Mexican paper production climbing. Paper Tr J 127:14 O 14 '48

Paper industry in Mexico. J. de la Macorra, jr. Elec Eng 67:773 Ag '48

Middle western states

Pulp and paper in the Midwest. R. W. Porter. map Chem Eng 55:148-50 S '48

Netherlands

Paper bag production important in the Dutch paper industry. Pulp & Pa of Can 49:146+ Ja '48

New Zealand

Chemical pulp and paper items imported, 1947-48. For Comm W 32:35-6 Ag 7 '48

Newfoundland

Newsprint manufacture and exports, Newfoundland. For Comm W 31:35 Je 19 '48

Newsprint production during first half of 1947. For Comm W 29:14, 26 N 8 '47

PAPER industry and trade—Newfoundland—
Continued

Pulp and paper industry, the backbone of Newfoundland's manufacturing. Pulp & Pa of Can 49:174-5 Ag '48

Norway

Situation in Norway's industry and trade. For Comm W 29:27 N 8 '47

Poland

Paper industry in former German territories ceded to Poland after war. O. Goy. Paper Tr J 127:48 Ag 5 '48

Poland's paper production, 1945 and 1946. For Comm W 29:27 N 15 '47

Southeastern states

Reforestation aids the wood pulp industry; program of Seaboard railroad. W. J. Krebs. Il Manuf Rec 117:74-5+ My '48

Sweden

Paper and pulp industry and trade. For Comm W 32:29 S 11 '48

Switzerland

Swiss pulp and paper industry. A. M. Hurter. Pulp & Pa of Can 49:53-5 Mr '48

United States

Harriman report declares U.S. needs all of its pulp. Paper Tr J 125:9+ N 20 '47

Import and export trade of the United States paper industry. E. G. Lagerloef. Paper Ind 30:125-8 Ag '48

Murray, Brown, praise and defend industry. Paper Tr J 127:14 Ag 12 '48

See also

Tariff—United States

—Paper

Uruguay

Imports of paper and paper products into Uruguay, 1946-1947. For Comm W 29:27 N 15 '47; 31:30 My 15 '48

PAPER laboratories

Plastics testing in the paper mill laboratory. J. C. Parsell. bibliog Paper Tr J 126:56-7 Ap 15 '48

PAPER making

Abridgments from papers presented at annual meeting of Technical association of the pulp and paper industry, New York, Feb. 24-27, 1947 (cont). Paper Ind 29:1350-68 D '47

Abridgments from papers presented at annual meeting of Technical association of the pulp and paper industry, New York, Feb. 23-26, 1948. Paper Ind 29:1830-4; 30:122+, 280+, 616+, 775-6+, 930-40 Mr-My, Jl-S '48

Academic aspects of paper stock preparation. W. B. Campbell. Paper Tr J 125:82+ N 6 '47

Agricultural residue pulps; comparison of pulping processes. S. I. Aronovsky and others. Paper Tr J 126:78-83 Je 24 '48

Cellulose; its history, growth, and influence. M. Heath. Il Chem Ind 62:405-12 Mr '48

Continuous stock production. O. Goy. diag Paper Tr J 126:68-9 Je 24 '48

Effect of salts on the melamine resin wet strength paper process. C. S. Maxwell and W. F. Reynolds. bibliog Paper Tr J 126:45-9 Ap 1 '48; Same cond. Paper Ind 30:122+ Ap '48

Effects of stuff preparation on formation in rag papers. F. S. Klein. Paper Tr J 127:50-1 S 16 '48

High density pumping and pulping. T. Agronin. Paper Ind 29:1845-6 Mr '48

Industrial statistics; their place in the manufacture of pulp and paper. C. A. Bicking. bibliog Pulp & Pa of Can (Convention no) 49:181-8+ [F] '48

Joint meeting of the Technical association of the pulp and paper industry and two divisions of the American pulp and paper mill superintendents association, Asheville, N.C., Oct. 9-11; with abstracts of papers. Paper Ind 29:1163-4+ N '47

Latex compounds for the paper industry. E. G. Partridge. Paper Tr J 127:45-8 Ag 6 '48; Same cond. India Rubber World 118:221-3 My '48

Making more and better paper. Il Bsns W 365-7 My 8 '48

Paper mill goes modern; now de-inks with peroxide. J. A. Lee. flow sheet (p146-9) Il Chem Eng 55:106-9 Ja '48

Rag mill refining. H. P. Espenmiller. Il plan Paper Tr J 127:49-53 Ag 19 '48; Same cond. Paper Ind 30:936-40 S '48

Resin bonding, a new development in paper-making. Il Plastics 8:12-14+ O '48; Same cond. Chem Ind 63:377 S '48; Same. Franklin Inst J 246:252-5 S '48; Same. Pulp & Pa of Can 49:91-2 S '48; Excerpts. Mech Eng 70:760 S '48

Resin bonding and strength development in offset papers. C. G. Weber and others. bibliog Paper Ind 30:83-8 Ap '48; Same. J Res Nat Bur Stand 40:427-35 Je '48

Starch in paper making. G. P. Graham. Pulp & Pa of Can 49:82-3 S '48

Statistical study of the variables of alpha-cellulose methods. A. S. O'Brien and others. bibliog Paper Tr J 127:51-4 Ag 5 '48

Summary of TAPPI convention papers, Feb. 23-26, 1948. Paper Tr J 126:43-58 F 19 '48

Wet strength development with neutral, water soluble polymers. R. J. Myers and L. E. Kelly. Paper Tr J 127:59-63 O 14 '48

See also

Glassine—Manu-

facture

Paper board—Manu-

facture

Paper chemicals

Paper coating

Paper drying

Paper finishing

Paper making ma-

chinery

Paper making ma-

terials

Paper mills

Wood pulp

Beating

Fundamentals of controlled flow beating. L. E. Randecker. Paper Tr J 126:53-5 Ap 29 '48

Modernizing the beater room. E. M. Root. Paper Tr J 127:41-2 O 28 '48

Bibliography

Index, Technical section, Paper trade journal, volume 125, July to Dec. 1947. C. J. West, comp. Paper Tr J 126:35-7 Ja 29 '48

Index, Technical section, Paper trade journal, volume 126, January to June, 1948. C. J. West, comp. Paper Tr J 127:54-6 Ag 19 '48

Bleaching

Absorption of chlorine in water. J. E. Vivian and R. P. Whitney. bibliog diag Chem Eng Prog 43:691-702 D '47

Extraction treatments in bleaching aspen neutral sulphite semichemical pulp. S. A. Trivedi and others. bibliog Paper Ind 29:1443-53 Ja '48

How water requirements for sulphate pulp bleaching are met by Nekoosa-Edwards. T. A. Pascoe. Il plan diags Paper Ind 29:1754-8 Mr '48

Observations on bleaching groundwood pulps. R. M. Kingsbury and others. bibliog Paper Tr J 126:49-53 Je 10 '48

Recent advances in the zinc hydrosulphite bleaching of groundwood. R. R. Ferguson. flow sheet Pulp & Pa of Can 49:85-8 Jl '48; Same. Paper Tr J 127:52-5 O 14 '48

Unique engineering aid used by Hoberg to plan bleachery. Il Paper Ind 30:524+ Jl '48

By-products

By-products from the kraft pulping of pine woods. O. Kress. Pulp & Pa of Can (Convention no) 49:166-8+ [F] '48; Same cond. Paper Ind 30:302-4 My '48

Chemical production from pulp mill by-products in Scandinavia. E. C. Jahn. Pulp & Pa of Can (Convention no) 49:234-6 [F] '48

Chemical uses of sulphate turpentine. F. O. Powers. bibliog Paper Tr J 126:39-42 Ja 29 '48

Pioneering in the chemical processing of wood. G. H. Tomlinson. bibliog Chem & Ind 37:1-5 Je 12 '48; Same. Pulp & Pa of Can 49:63-8 Je '48

Products from pulp and pulpwood on Pacific coast. H. K. Benson. flow sheets Il Paper Tr J 126:59-62 Mr 18 '48

Review of byproducts of sulphite pulping. H. F. Lewis. bibliog Paper Tr J 127:51-5 Jl 8 '48

See also
Sulfite liquor

Patents

Early United States patents on papermaking. R. G. McKenzie. bibliog diags Paper Ind 30:238-43, 401-4 My-Je '48

PAPER making—Patents—Continued

- Recent Canadian patents. Pulp & Pa of Can 49:87-3 Ag '48
 United States patents on papermaking; fourth quarter, 1947. C. J. West, comp. Paper Tr J 126:60-2 F 5 '48
 United States patents on papermaking; first quarter, 1948. C. J. West, comp. Paper Tr J 126:59-60 Ap 22 '48
 United States patents on papermaking, second quarter, 1948. C. J. West, comp. Paper Tr J 127:55-7 Ag 5 '48

Pitch problem

- Petroleum base pitch control additive for sulphite pulping. W. A. Beman and H. E. Corbin. Paper Ind 30:625-8 Jl '48; Same. Pulp & Pa of Can 49:34-6 Ag '48

Screening

- Askania thin stock consistency regulation. W. F. Pray. Il diags Paper Tr J 127:40-3 Jl 8 '48
 Correcting some flat screen problems; one mill's method. D. L. Calkins. Paper Ind 30:636-8 Jl '48; Same. Paper Tr J 127:49-51 Jl 22 '48

Slime problem

- Considerations involved in control of paper mill slime. F. S. McCall and R. T. Hudson. Il Paper Ind 29:1502-5 Ja '48
 New approach to slime control. F. A. Soderberg. Paper Tr J 126:127-9 My 27 '48; Same cond. Paper Ind 30:458+ Je '48
 Slime control at the Anglo-Canadian pulp and paper mills limited, 1947. E. L. Neal and S. F. Jennings. diags Pulp & Pa of Can (Convention no) 49:137-42 [F] '48; Same abr. Paper Ind 30:292-6 My '48

Soda process

- Alkaline pulping; spruce. J. S. Hart and R. K. Strapp. Pulp & Pa of Can (Convention no) 49:151-65 [F] '48; Excerpts. Paper Ind 30:304-6 My '48

Study and teaching

- Abitibi engineer training course. A. R. Mobbs. Pulp & Pa of Can (Convention no) 49:196-8 [F] '48
 Correspondence courses and their place in vocational education. J. N. Stephenson. Paper Tr J 126:50-1 My 20 '48; Same. Pulp & Pa of Can 49:53-5 My '48
 Education for the paper industry. S. V. Balou and B. E. Lauer. bibliog Paper Tr J 126:116+ F 26 '48
 Pulp and paper technology, a new curriculum at Western Michigan college. A. H. Nadelman. Paper Tr J 127:45-6 O 21 '48
 Technical education for the paper industry in Great Britain. J. Grant. Pulp & Pa of Can (Convention no) 49:334-6 [F] '48
 Training for the pulp and paper industry; the graduate level. H. F. Lewis. Paper Tr J 127:61-4 Jl 22 '48
 Training in the vocational schools. G. A. McGarvey. Paper Ind 30:623-5 Jl '48
 University training on the undergraduate level. E. C. Jahn. Paper Tr J 127:49-50 O 28 '48

Sulfate process

- Application of instrumentation to sulphate digesters. E. A. Murphy and H. A. Scholl. Il diags Paper Tr J 127:35-40 O 28 '48
 Bleached kraft pulp; Kalamazoo vegetable parchment co. redesigned and rebuilt abandoned Espanola newsprint mill. R. W. Porter. pictured flowsheet (p 140-3) Il Chem Eng 55:123-5 Je '48
 Brown company makes ready 200 ton sulphate mill. Il Paper Tr J 125:69-71 D 4 '47
 By-products from the kraft pulping of pine woods. O. Kress. Pulp & Pa of Can (Convention no) 49:166-8+ [F] '48; Same cond. Paper Ind 30:302-4 My '48
 Chemical uses of sulphate turpentine. P. O. Powers. bibliog Paper Tr J 126:39-42 Ja 29 '48
 Consistency control. L. D. McGlothlin. diags Paper Tr J 126:43-4 Mr 4 '48
 Developments in kraft-process recovery-unit design and performance. R. K. Allen. flow sheet Il diags A S M E Trans 70:709-14

Ag '48; Same. Paper Tr J 126:43-8 Mr 25 '48; Discussion. A S M E Trans 70:714-17 Ag '48

- How water requirements for sulphate pulp bleaching are met by Nekocsa-Edwards. T. A. Pascoe. Il plan diags Paper Ind 29:1754-6 Mr '48
 Instrumentation of a modern kraft mill. F. H. Ludwig. flow charts Pulp & Pa of Can 49:89-94 O '48
 Insulating techniques at new kraft mill of Brown company. A. L. Sargent. Il Paper Ind 30:563-6 Jl '48
 Kraft; review and outlook. D. Every. Paper Tr J 126:43 F 26 '48; Same. Paper Ind 29:1826 Mr '48
 Length and width of unbleached sulphate pulp fibers from certain western woods. M. Heinig and F. A. Simmonds. bibliog Paper Ind 30:738-41 Ag '48
 Lime recovery in the sulphate pulp industry. W. H. Tock. flow diag Il diags Paper Ind 29:976-83, 1130-6 O-N '47
 Modern recausticizing plant practice. R. F. Clemens. flow sheet Paper Tr J 125:27-33 N 27 '47; Same cond. Paper Ind 29:100+ Ap '47
 New sulphate pulp mill gives Brown company integrated process. Il Paper Ind 30:567-73 Jl '48
 Operating experiences with Cottrell precipitators on sulphate recovery furnace gases. L. M. Roberts and others. Il plan diags Paper Tr J 127:45-9 O 28 '48; Excerpts. Paper Ind 29:1168+ N '47
 Pacific mills speeds output with continuous recausticizing. Paper Tr J 125:74 D 4 '47
 Physiological effects of sulphate pulp mill wastes on shellfish. W. A. Chipman, jr. bibliog Paper Tr J 127:47-9 S 16 '48
 Port Alberni's new kraft pulp mill. D. W. Emmerson. Il map Pulp & Pa of Can 49:39-51 F '48
 Possible uses of annual plants in kraft pulping in Germany. G. Jayme and others. Paper Ind 30:356+ S '48
 Recovery of heat and chemicals in sulphate recovery furnace stack gases. T. T. Collins, jr. and R. H. Collins. Paper Ind 29:1608-11, 1766-71 bibliog(p 1770-1) F-Mr '48
 Sampling and analyzing of sulphate recovery furnace stack gases; review of the literature. T. T. Collins. W. A. bibliog(32 titles) Paper Ind 29:1437-9 Ja '48
 Sulphite and sulphate pulp; improving technique in Canada and Scandinavia. bibliog Il Chem Age (Lond) 57:725-9 D 6 '47
 Use of the Venturi-scrubber on sulphate recovery furnace stack gases. T. T. Collins, jr. and others. Il Paper Tr J 126:45-9 Ja 15 '48
 Weyerhaeuser has modernized its Longview Pulp division; new kraft mill. Paper Ind 30:876-8 S '48

Sulfite process

- Agricultural residue pulps; high-yield straw pulps for fine papers. S. I. Aronovsky and others. bibliog Paper Tr J 127:154-62 S 9 '48
 Effect of petroleum base additives on sulphite pulping and papermaking. W. A. Beman and H. E. Corbin. Paper Tr J 126:65-70 Je 17 '48
 Extraction treatments in bleaching aspen neutral sulphite semichemical pulp. S. A. Trivedi and others. bibliog Paper Ind 29:1443-53 Ja '48
 Instrument applications in the sulphite mill. E. J. Sheare. Il diags Pulp & Pa of Can 49:113-19 O '48
 Modern practice in sulphite mill acid and recovery plants. F. J. Hoar. Paper Tr J 126:51-3 Ap 22 '48
 New developments in the sulphite pulp industry. bibliog Il Pulp & Pa of Can 49:78-82 Ja '48
 Petroleum base pitch control additive for sulphite pulping. W. A. Beman and H. E. Corbin. Paper Ind 30:625-8 Jl '48; Same. Pulp & Pa of Can 49:34-6 Ag '48
 Recent developments in sulphite pulping. J. F. Inderdohren. Paper Tr J 126:59-60 Mr 11 '48; Same. Paper Ind 30:132-3 Ap '48
 Recent developments in the use of sulphite pulp. A. C. Hill. Pulp & Pa of Can 49:77-9 My '48

PAPER making—Sulfite process—Continued

Recovery of chemicals and energy in the sulphite process through the use of magnesium as a base, R. S. Hatch, *Pulp & Pa of Can* 48:85-7 D '47

Recovery of crude paracymene at the Fernandina, Florida plant of Rayonier Inc., J. G. Lewis, *Paper Tr J* 126:49-50 Ja 15 '48

Review of byproducts of sulphite pulping, H. F. Lewis, bibliog *Paper Tr J* 127:51-5 Jl 8 '48

Review of the literature on the sulphite process, Sept. 1946-Aug. 1947, G. J. C. Potter, bibliog *Pulp & Pa of Can* (Convention no) 49:316+ [F] '48

Solubility of sulphur dioxide in ammonia-base sulphite cooking acid, D. E. Marriner and R. P. Whitney, bibliog *Paper Tr J* 126:52-4 My 20 '48

Solubility of sulphur dioxide in calcium bisulphite solutions, C. K. White, jr. and others, bibliog *Paper Tr J* 126:46-8 My 13 '48

Some experiments in sodium sulphite pulping, J. N. McGovern and E. L. Keller, bibliog *Pulp & Pa of Can* 49:93-100 Ag '48

Standard terms used in the sulphite pulping process, *Paper Tr J* 127:60 Ag 26 '48

Sulphite and sulphate pulp; improving technique in Canada and Scandinavia, bibliog *il Chem Age* (Lond) 57:725-9 D 6 '47

Sulphite semi-chemicals pulping of chip screenings, L. C. Jenness and G. L. Nystrom, bibliog *diag Paper Tr J* 126:53-5 Je 10 '48

Use of liquid sulphur dioxide for calcium bisulphite acid production, E. H. Lougheed, bibliog *flow sheet il diags Pulp & Pa of Can* (Convention no) 49:215-21 [F] '48

Utilization of sulfite waste liquor, I. A. Pearl, bibliog *Chem & Eng N* 26:2950-3 O 4 '48

Weyerhaeuser has modernized its Longview Pulp division; magnesium oxide base, *Paper Ind* 30:373-4 S '48

Yield and quality of pulp and waste liquor in sulphite pulping of softwoods, M. Baum and others, bibliog *Paper Tr J* 126:130+ F 26 '48

See also

Sulfite liquor

Terminology

Standard terms used in the sulphite pulping process, *Paper Tr J* 127:60 Ag 26 '48

PAPER making machinery

Automatic wire guide for paper machines, R. Black, *il diag Pulp & Pa of Can* 49:75-6 My '48

Bryan, Donkin & co. continuous paper making machine, *diags Pulp & Pa of Can* 49:58-60 My '48

Coating paper on the paper machine by the rotogravure-offset method, G. Haywood, bibliog *diags Paper Tr J* 127:59-61 Jl 15 '48

Condensate return system increases machine production, F. T. Cleveland, *il diags Paper Ind* 30:251-2 My '48

Design of headboxes for newsprint, R. Fraser, *diags Pulp & Pa of Can* 49:71-6 Mr '48

Fernstrom's new machine will soon be in operation, *il Paper Tr J* 125:72-3 D 4 '47

Fraser rebuilds no. 1 machine to withstand corrosion, *il Paper Tr J* 126:45-50 Ap 29 '48

Fundamentals of controlled flow beating, L. E. Randecker, *Paper Tr J* 126:53-5 Ap 29 '48

Jones composite, C. H. Vickery, *il Paper Ind* 30:140+ Ap '48

Modern paper machine drive, G. E. Plaisted, *il diags Paper Ind* 30:770-5 Ag '48

Modernizing paper machines, E. A. Gahl, *il Paper Tr J* 125:104+ D 4 '47

Nekoosa rebuilds no. 4 machine, *il Paper Tr J* 127:140 S 9 '48

New sulphate pulp mill gives Brown company integrated process, *il Paper Ind* 30:567-73 Jl '48

Powell River makes ready for its next machine no. 8, *il Paper Tr J* 126:18 Mr 25 '48

Problems in materials separation on a Fourdrinier paper machine, C. A. Sankey and B. Cowan, *il diags Chem Eng Prog* 44:745-52 O '48

Recent Loddington doctor installations, *Paper Tr J* 127:139 S 9 '48

Report on the commercial production of high yield sulphite and sulphate pulps; Sutherland refiner, D. G. Sutherland, *Paper Ind* 29:1214-15 N '47

Some modern concepts of stock preparation, T. Agronin, *il diags Paper Tr J* 126:56-9 Je 17 '48

Some new thoughts regarding the cylinder machine, J. V. Edge, *il Paper Tr J* 126:53-5+ Je 17 '48; Same, *Paper Ind* 30:628-32 Jl '48

Steam supply and control arrangements for driers, G. H. Young, *diags Paper Tr J* 125:38-42 D 25 '47; Same cond. *Paper Ind* 30:280+ My '48

Sulzer blowers; their use in the paper industry, R. Thomann, *il diags Pulp & Pa of Can* (Convention no) 49:189-95 [F] '48; Same cond. *Paper Ind* 29:1652+ F '48

Totally enclosed pressure slice for high speed paper machine, R. Lang, *il diag Pulp & Pa of Can* 49:81-3 Ag '48

Use of high pressure oscillating shower pipes and stainless steel plates with rotary screens, F. F. Frothingham, *Paper Ind* 30:144+ Ap '48

Velocity stream research; faster drying and more production from paper driers, P. Harrison, *diags Paper Ind* 29:1512-16 Ja '48

Wood-fiber production with revolving disk mills, C. K. Textor, *flow sheet il Paper Tr J* 126:47-53 Ap 15 '48

Wood pulping by the Asplund defibrator, U. Lowgren, *flow diag Paper Tr J* 127:41-3 S 16 '48

See also

Electric driving—

Paper mills

Rolls (paper ma-

chinery)

Wood grinders

Bearings

Hydraulic mounting technique for roller bearings, A. S. Murray, *Paper Ind* 29:1669+ F '48

Control

Electrical control of tension in the paper industry, G. E. Shaad, *diags Paper Ind* 29:1138-42 N '47

Modern air operated devices for paper machines; abstracts, F. R. Erbach, *Paper Ind* 29:1213-14 N '47; *Comp Air Mag* 52:306-8 D '47

Multiple-generator power with electronic amplitude control for sectional paper machine drive, L. K. Hart and G. E. Plaisted, *il diags Pulp & Pa of Can* (Convention no) 49:237-43 [F] '48

Pan level and temperature control on paper coating machines, H. A. Sholl and E. A. Murphy, *diags Paper Tr J* 127:51-2 O 14 '48

Lubrication

Lubrication pointers for paper machine bearings; abstract, H. C. Roane, *Paper Ind* 29:1164 N '47

Paper mill lubrication; drier bearing circulation systems, A. I. Sippola, *Paper Tr J* 125:48-52 D 11 '47; Same cond. *Paper Ind* 29:1368-70 D '47

Manufacture

Flame-cutting stainless steel; Hydrapulper machine, *il Mech Eng* 69:930-1 N '47; Same, *Steel* 121:89-90 N 24 '47

Shartle employ training program, W. A. White, jr. *Paper Tr J* 126:99-102 My 27 '48

PAPER making materials

Cigarette paper from fruit trimmings, *Paper Tr J* 127:9 S 30 '48

Manufacture of paper from reeds in north China, Chan Szu Shiang, *Paper Tr J* 127:43-4 O 21 '48

Paper from linseed straw; prospects of chemical conversion of waste material, *Chem Age* (Lond) 69:45-6 Jl 10 '48

Paper from tobacco, *Bsns W* p70-1 S 11 '48

Possible importance of annual and perennial shrubs for the German pulp and paper industry, O. Goy, *Paper Tr J* 126:86-7 My 27 '48

Possible uses of annual plants in kraft pulping in Germany, G. Jayme and others, *Paper Ind* 30:956+ S '48

Possible utilization of linseed straw, *Paper Ind* 30:1110 O '48

PAPER making materials—Continued

TAPPI fibrous agricultural residues committee meeting. Paper Ind 29:1177-8+ N '47

See also

Cellulose	Paper sizing
Paper chemicals	Straw
Paper pulp	Wood pulp

Testing

Brightness determination of paper clays. N. Millman. Paper Tr J 127:43-5 S 23 '48

Plastics testing in the paper mill laboratory. J. C. Parsell. bibliog Paper Tr J 126:55-7 Ap 15 '48

PAPER mills

Bleached kraft pulp; Kalamazoo vegetable parchment co. redesigned and rebuilt abandoned Espanola newsprint mill. R. W. Porter. pictured flowsheet (p 140-3) il Chem Eng 55:123-5 Je '48

Efficiency and flexibility from a maintenance and engineering department. W. P. Jordan. Paper Tr J 126:113-15 My 27 '48

Hamilton's \$1 million expansion ups paper output by 40 per cent. il Paper Tr J 125:68 D 4 '47

Improvements, \$46 million; International Paper. Paper Tr J 126:12+ Je 17 '48

International paper co. marks 50th year with mill celebrations; modernization program outlined. il Paper Ind 30:515-16+ J1 '48

Paper mill proves that noise abatement pays; acoustical treatment of press room; Fernstrom paper mills. F. A. Westbrook. il Paper Ind 30:407-8 Je '48

Papermaking company celebrates centennial on original site with same family owners; Beckett paper co. Inland Ptr 121:47-9 Je '48

Pre-cast roof and wall panels in the construction of buildings. T. C. Creaghan. il Pulp & Pa of Can 49:76-7 Ja '48

Pulp and paper mill design. il Paper Ind 30:199-200 My '48

Swollen flood crest closes twenty Holyoke paper mills. Paper Tr J 126:7 Ap 1 '48

See also

Paper board mills
Paper making

Accidents

Accident causes classified. Pulp & Pa of Can 49:93, 110 F '48

Ample room for improvement in accident prevention; annual meeting of the Quebec pulp & paper safety association inc. Grand Mere, Que. Sept. 22. Pulp & Pa of Can 49:165-7 O '48

Hazards related to paper finishing operations. W. C. Berthold. Paper Ind 29:1200-1 N '47

See also

Paper mills—Safety measures

Accounting

Cost responsibility; principles and practices. P. Kellogg. Pulp & Pa of Can (Convention no) 49:143-6 [F] '48

Electric equipment

Electric equipment in the finishing room. F. Winterburn. Elec Eng 66:1091-4 N '47

Electrical developments in the pulp and paper industry. R. R. Baker. Paper Ind 30:944-8 S '48; Excerpts. Elec Eng 67:883 S '48

Electrical equipment maintenance. W. L. Eliason. Pulp & Pa of Can 49:73-4 F '48

How storage battery powered trucks cut materials handling time; Tileston & Hollingsworth co. il Paper Tr J 127:60-1 O 7 '48

Magnetic drives for paper mills. G. L. Oscarson. il diags Paper Ind 30:574-6+ J1 '48

New developments in electrical and electronic applications. G. W. Knapp. Paper Ind 30:1098-100+ O '48

Planning a newsprint mill for minimum electrical maintenance. J. Eytton. Pulp & Pa of Can 48:91-4 O '47; Same. Elec Eng 66:1095-8 N '47

Protection of electrical power circuits and associated apparatus in paper mills. W. M. Emmons. il diags Paper Tr J 126:116-22 My 27 '48; Same. Paper Ind 30:446+ Je '48

Streamlined distribution for industrial plant. H. E. Stafford. diags Elec World 130:100 O 23; 100 N 6 '48

See also

Electric driving—
Paper mills

Employees

Abitibi engineer training course. A. R. Mobbs. Pulp & Pa of Can (Convention no) 49:196-8 [F] '48

Approach to industrial education; Crown Zellerbach corp. F. A. Olmsted. Paper Tr J 126:69-72 My 6 '48

Crown Williamette paper school. A. G. Natwick. Paper Tr J 126:102+ My 27 '48; Same cond. Paper Ind 30:472+ Je '48

Education for the paper industry. S. V. Ballou and B. E. Lauer. bibliog Paper Tr J 126:116+ F 26 '48

Highlighting labor peace; National planning assn. report on Pacific Coast paper industry. Bsns W p 110-12 S 18 '48

How Pacific mills limited keeps employees contented. W. J. Granberg. il Paper Ind 29:1604-5 F '48

Industrial-relations idyll; Crown Zellerbach. Fortune 38:148+ O '48

Industrial training at Union bag and paper corporation, Savannah, Ga. J. H. Groves. Paper Tr J 126:55-8 Mr 18 '48; Same cond. Paper Ind 29:1841-2+ Mr '48

Labor and management either float or sink together. R. G. Johnstone. Pulp & Pa of Can 48:70-1 N '47

McGill engineering graduates in the paper industry. H. O. Keay. Pulp & Pa of Can 49:63-6 Mr '48

New wage plan guarantees share of production; Continental paper co. A. J. Woodfield. Factory Management 105:74-5 N '47

Our job. A. E. H. Fair. Pulp & Pa of Can 49:65-8 F '48

Periodic appraisal of employees. J. E. Vallilee. Pulp & Pa of Can 48:64-70 N '47

Problems in the field of employer-employee relations in the paper industry. E. G. Amos. Paper Tr J 126:7+ Mr 4 '48

Reducing hidden costs through labor relations. O. C. Cool. Metal Finishing 46:73-5 Ap '48; Same. Paper Ind 30:399-401 Je '48

Technical education for the paper industry in Great Britain. J. Grant. Pulp & Pa of Can (Convention no) 49:334-6 [F] '48

Trends of industrial relations in the fine paper industry. D. J. McLennan. Pulp & Pa of Can (Convention no) 49:231-3 [F] '48

Where are we going in industrial relations? J. C. Cameron. bibliog Pulp & Pa of Can 49:69-73 Ja '48

Equipment

Abstracts of papers read before TAPPI's 2d engineering conference. Paper Tr J 125:74+ N 6 '47

Application and maintenance techniques for mill insulation; with specific reference to 85 per cent magnesite and diatomaceous silica. U. W. Smith. Paper Tr J 126:123-5 My 27 '48; Same abr. Paper Ind 30:476+ Je '48

Application of remote control devices to diaphragm valves. R. T. Kidde. Paper Tr J 126:37-9+ Je 10 '48

Askania devises regulator to control .1 per cent to 1.5 per cent consistency. diags Paper Tr J 126:32+ Mr 4 '48

Askania thin stock consistency regulation. W. F. Pray. il diags Paper Tr J 127:40-3 J1 8 '48

Basalt for papermaking equipment. C. Perry. il Paper Ind 29:1309 D '47

British Columbia Pulp & Paper inaugurates double improvement program. il Paper Tr J 125:88+ D 4 '47

Brown company makes ready 200 ton sulphate mill. il Paper Tr J 125:69-71 D 4 '47

Brown story; paper mills of Brown co. E. P. McGinn and A. W. Warren, Jr. il Paper Tr J 127:39-42+ J1 1 '48

Chain and its application in pulp and paper mills. W. M. Hufnagel. Paper Tr J 126:143-6 D 4 '47

Chillicothe expands. il Paper Tr J 127:138-9 S 9 '48

Compressed air for instrument use. plan Pulp & Pa of Can 48:91-2 D '47

PAPER mills—Equipment—Continued

- Consistency control, L. D. McGlothlin, diags Paper Tr J 126:43-4 Mr 4 '48
- Continuously recording the specific gravity of solutions, R. M. Brown, diags Pulp & Pa of Can 49:83-6 Mr '48
- Developments in kraft-process recovery-unit design and performance, R. K. Allen, flow sheet il diags A S M E Trans 70:709-14 Ag '48; Same, Paper Tr J 126:43-8 Mr 25 '48; Discussion, A S M E Trans 70:714-17 Ag '48
- Electric drives with fluid couplings for materials handling equipment and power driven machinery, F. W. Atz, Jr, il diag Paper Ind 30:462+ Je '48; Same abr, Elec Eng 67:466-8 My '48; Same cond, Paper Tr J 126:41-2 F 12 '48
- Engineering gadget competition; winning devices and other useful suggestions submitted in 1946 and 1947, il diags Pulp & Pa of Can 49:68-76 My '48
- Engineering studies in packings, H. G. Koch, il diag Paper Tr J 126:27-31 Ja 1 '48; Same cond, Paper Ind 29:1494+ Ja '48
- Flow measurement and control, W. S. Yunker, il diags Paper Tr J 127:65-73 O 7 '48
- Flow meters in the paper industry, C. H. Barnard, diags Paper Tr J 126:53-8 Ja 8 '48; Same cond, Paper Ind 30:282+ My '48
- Golden fleece co., inc, il Paper Tr J 127:125-8+ S 9 '48
- Horizontal disk chipper, W. W. Brown, diags Pulp & Pa of Can 49:95-7 O '48
- How closed condensate drainage system increases efficiency and saves fuel, diags Paper Tr J 127:44 O 21 '48
- Hudson's new mill at Palatka, designed for 200-ton output, il Paper Tr J 125:76-7+ D 4 '47
- Instrument application in groundwood pulp mills, C. D. De Mers, il diags Pulp & Pa of Can 49:96-100 S '48
- Instrument applications in the sulphite mill, E. J. Sheare, il diags Pulp & Pa of Can 49:113-19 O '48
- Instrumentation of a modern kraft mill, F. H. Ludwig, flow charts Pulp & Pa of Can 49:89-94 O '48
- Insulating techniques at new kraft mill of Brown company, A. L. Sargent, il Paper Ind 30:563-6 Jl '48
- Kraft center; St Regis paper co, E. P. McGinn, il Paper Tr J 127:105-6+ S 9 '48
- Level control solves pumping problem at Badger Mills, S. H. Jones, il diag Paper Ind 30:732-3 Ag '48
- Mando keeps on growing, il Paper Tr J 127:131-4 S 9 '48
- Modernization at Woodfibre and Port Alice, F. H. Fullerton, Pulp & Pa of Can 49:74-6 Ja '48
- New developments in pulp and paper mill instrumentation, G. D. Zimmerman and J. Garibay y R, il diags Paper Ind 30:89-92 Ap '48
- New method of proportioning slush pulp, R. M. Bishop, il diags Pulp & Pa of Can (Convention no) 49:178-80 [F] '48; Same cond, Paper Ind 29:1659-60 F '48
- New title for Toronto, the Paper mill city, D. W. Emmerson, il Pulp & Pa of Can 49:69-75 Je '48
- Nickel alloys in pulp and paper making, R. T. Barnes, Jr, and K. H. J. Clarke, Pulp & Pa of Can 49:69-73 Ag '48
- North Carolina pulp mill boosts output 300 tons, il plan Paper Tr J 125:56-8 D 4 '47
- Pacific mills speeds output with continuous recausticizing, Paper Tr J 125:74 D 4 '47
- Paper mill applications for flexible couplings, E. Hagenlocher, il diags Paper Tr J 127:43-5 Jl 8 '48
- Paper mill goes modern; now de-inks with peroxide, J. A. Lee, flow sheet (p146-9) il Chem Eng 55:106-9 Ja '48
- Paper mills use power lift trucks to advantage, F. A. Westbrook, il Paper Ind 29:1304-5 D '47
- Pennsylvania waste white treatment plant, R. F. Coltart, plan diags Paper Tr J 126:51-2 Mr 25 '48; Same abr, Paper Ind 29:1830-1 Mr '48
- Picture story of diffuser operation; illustrations, Paper Ind 29:1454 Ja '48
- Pilot plant study of a multicloning unit operating on stack gases from a lime kiln, T. T. Collins, Jr, il Paper Tr J 126:63-4 Mr 18 '48
- Place of automatic control in industry, J. Hillen, Pulp & Pa of Can 48:83-4 D '47
- Pointers on selection of conveyors for wet pulp, Pulp & Pa of Can 49:101-2 Ag '48
- Port Alberni's new kraft pulp mill, D. W. Emmerson, il map Pulp & Pa of Can 49:39-51 F '48
- Potentialities of aluminum and its alloys for the paper-making industry, F. W. Rogers, Metallurgia 38:340-1 O '48
- Powell River aims at growth of its production rate, il Paper Tr J 125:85-6 D 4 '47
- Powell River co, ltd, expansion, F. H. Fullerton, il Paper Tr J 127:46-8 S 23 '48
- Recording liquid level in acid accumulators, diag Pulp & Pa of Can 49:90-2 Ja '48
- St Regis integrates its plan for multi-wall bag output, il Paper Tr J 126:45-8 Mr 11 '48
- Sludge contact reactors in white and waste water treatment, V. J. Calise, flow diags diags Paper Tr J 127:57-61 Ag 12 '48
- Southern paperboard corp, Port Wentworth, Fla., mill, E. P. McGinn, il Paper Tr J 127:91-100 S 9 '48
- Southland paper mills increase production of newsprint, il Paper Tr J 127:135-6 S 9 '48
- Stony Brook mill is modernized, il Paper Tr J 125:91-2+ D 4 '47
- Union Bag and Paper adds fifth 234-inch machine, il Paper Tr J 125:60-1 D 4 '47
- Unique engineering aid used by Hoberg to plan bleachery, il Paper Ind 30:524+ Jl '48
- Use of Lithcote in the pulp and paper industry, W. S. Lang, il diags Pulp & Pa of Can (Convention no) 49:223-30 [F] '48
- Use of the Bauer-McNett fibre classifier, W. T. Butler, diags Pulp & Pa of Can (Convention no) 49:133-6 [F] '48
- Ways and means of reducing pump cost in pulp mills, H. Carruthers, Pulp & Pa of Can 49:83 Jl '48
- Weyerhaeuser has modernized its Longview Pulp division, il Paper Ind 30:373-8 S '48
- Where synthetics produce brighter groundwood pulp; plant of West Tacoma newsprint co, il Paper Tr J 126:49-50 Mr 18 '48
- Wood chipper, H. W. Rogers, il diags Paper Ind 30:883-8, 1042-7 S-O '48

See also
Knives, Chipper
Paper making machinery
Wood grinders

Fires and fire protection

- Fire causes and protection of paper mills, J. P. Hamilton, Paper Tr J 126:125-7 My 27 '48; Same cond, Paper Ind 30:479-80+ Je '48

Layout

- Centralized planning and control of plant layouts, C. E. Cass, Paper Tr J 125:35-7 D 25 '47; Same cond, Paper Ind 29:1490+ Ja '48
- North Carolina pulp mill boosts output 300 tons, il plan Paper Tr J 126:56-8 D 4 '47

Maintenance and repair

- Maintenance of your drives, S. T. Weber, Paper Ind 30:767-8 Ag '48
- Organizing and training an instrument department, J. W. Graeb, Pulp & Pa of Can (Convention no) 49:147-50+ [F] '48; Same cond, Paper Ind 30:148-9+ Ap '48
- Systematic operation of construction and maintenance departments, C. L. Dryden, il Paper Tr J 126:51-7 Mr 11 '48; Same cond, Paper Ind 29:1665-6+ F '48; Discussion, R. A. Packard, Paper Tr J 126:57-8 Mr 11 '48
- What a maintenance department can do with cutting and welding in a paper mill, J. Moore, Welding J 27:793-5 O '48

Management

- Centralized planning and control of plant layouts, C. E. Cass, Paper Tr J 125:35-7 D 25 '47; Same cond, Paper Ind 29:1490+ Ja '48
- Collection and use of daily production statistical information, C. R. Tait and J. C. Wilson, Pulp & Pa of Can 49:77-8 Mr '48

PAPER mills—Management—Continued

- Cost reduction in stock preparation, C. Muzzy. Paper Ind 30:1094+ O '48
- Efficiency and flexibility from a maintenance and engineering department, W. P. Jordan. Paper Tr J 126:113-15 My 27 '48
- How to increase labor productivity, J. D. Corrigan. Paper Ind 29:1310-11 D '47
- Industrial statistics; their place in the manufacture of pulp and paper, C. A. Bickling. Bibliog Pulp & Pa of Can (Convention no) 49:181-8+ [F] '48
- Materials must move, J. F. Moriarty. Paper Tr J 125:94+ D 4 '47
- Modernizing the beater room, E. M. Root. Paper Tr J 127:41-2 O 28 '48
- Role of industrial engineering in the paper industry, A. W. Holloway. Paper Tr J 127:36-7 S 30 '48
- Ten-step upkeep in a non-stop plant; Scott paper co. H. S. Godshall, Jr. Factory Management 105:120-3 N '47
- Visual controls in paper trade, F. Ross, II. Paper Ind 29:1137 N '47

Painting

- Painting contrast in a paper mill, E. A. Dench. Pulp & Pa of Can 49:76-8 O '48

Power

- Factors involved in selection of stationary steam generating units, W. S. Patterson. diags Paper Tr J 126:43-50 F 12 '48
- Fuel engineering study of some recent boiler installations in the pulp and paper industry, J. E. Tobey, bibliog map diags Paper Tr J 125:43-52 D 18 '47; Excerpts, Paper Ind 29:1370-1 D '47
- Holyoke power battle rages; paper manufacturers apply for license to construct and operate hydro-electric plant. Paper Tr J 127:20 Ag 12 '48
- How about fixing up the old power plant, S. R. Jensen, Paper Ind 30:70 Ap '48
- How silica reduction in boiler feedwater improved paper mill power plant operation; use of Silinite; Southern advance bag & paper co. D. G. Cooper and J. B. Davis. II diag Paper Ind 29:1440-2+ Ja '48; Same. Power Generation 52:52-4+ Je '48
- Is B.t.u. accounting worth-while in the power plant, J. E. A. Warner. Paper Tr J 125:147-8 D 4 '47; Same cond. Paper Ind 28:1360-1 D '46
- Modern bark burning, M. H. Snodgrass, II diag Paper Tr J 125:43-5 D 25 '47; Same cond. Paper Ind 29:1488+ Ja '48
- New steam plant at Ocean Falls, H. R. Wright, II Pulp & Pa of Can 49:80-1 S '48
- Power piping in paper mills, A. McCutchan. diag Paper Ind 29:1293-6 D '47
- Rebuilt steam turbines modernize this twenty-year-old paper plant; Sorg paper co. G. H. Suhs and R. D. McArthur, II diags Power 92:75-7 F '48
- Short circuit analysis of a 40,000 kva, 2300 volt power system on an a.c. network calculator, E. L. Cowan and W. V. Knight, II diags Paper Tr J 126:45-50 Mr 4 '48; Same cond. Paper Ind 30:288+ My '48
- Steam plant modernized with eye toward future expansion; Fraser companies ltd. W. P. London, II diags Power 92:388-92 Jl '48
- Wood chipper, H. W. Rogers, II diags Paper Ind 30:883-8, 1042-7 S-O '48
- Woodfibre modernizes its power plant; British Columbia pulp & paper co. B. Dekking. Paper Tr J 125:66-7 D 4 '47; Same. Pulp & Pa of Can 48:81-2 D '47

Safety measures

- Accident prevention at Cornwall, R. Chapman. Pulp & Pa of Can 49:141-2+ Je '48
- Impressions at the National safety congress, H. W. Smith. Pulp & Pa of Can 48:156-8+ D '47
- Long range accident prevention program which is bringing results; British Columbia pulp & paper co. ltd. E. Tucker. Pulp & Pa of Can 49:131-2+ Ap '48
- National safety council annual meeting, Chicago; Paper and pulp section. Paper Ind 29:1145-6+ N '47
- Questions discussed at conference of paper and pulp section of National safety council. Paper Ind 29:1201-3 N '47

- Safety as we see it; Anglo-Canadian pulp and paper mills, E. N. Baronet. Pulp & Pa of Can 49:125-7 Ja '48
- Safety collar for winder shaft, E. Anderson. diags Paper Ind 29:1649 F '48
- Safety program at Corner Brook; Bowater's Newfoundland pulp and paper mills, J. W. Walsh. Pulp & Pa of Can 49:135 My '48
- Safety program founded on accident prevention not first aid; Blandin paper co. H. Kroll, II Paper Ind 30:881-2+ S '48
- Safety programme at Fort Frances, F. T. Morrish. Pulp & Pa of Can 49:141-2 Ag '48

Waste

- Biological treatment of deinking waste, P. F. Morgan, II Paper Tr J 126:41-5 My 13 '48
- Concentration of white water sludges, W. Rudolfs and A. J. Palladino, bibliog Paper Tr J 126:31-8 My 13; 27-32 My 20 '48
- Developments in kraft-process recovery-unit design and performance, E. K. Allen, flow sheet II diags A S M E Trans 70:709-14 Ag '48; Same. Paper Tr J 126:43-8 Mr 25 '48; Discussion. A S M E Trans 70:714-17 Ag '48
- Disposal of wood refuse at Thunder Bay paper co. limited, Port Arthur, Ontario, T. C. Anderson, II diag Pulp & Pa of Can (Convention no) 49:129-32 [F] '48; Same cond. Paper Ind 29:1658-9 F '48
- Furnaces for by-product fuels, O. de Lorenz, II diags A S M E Trans 70:355-8 My '48
- Inflico cyclator treats paper mill white water, II diag Paper Tr J 127:44 Jl 15 '48; Paper Ind 30:744 Ag '48
- Mando wins acclaim of conservationists for waste disposal improvements, II Paper Ind 30:1007-8+ O '48
- Modern bark burning, M. H. Snodgrass, II diag Paper Tr J 125:43-5 D 25 '47; Same cond. Paper Ind 29:1488+ Ja '48
- National council for stream improvement; interim report, number 10, Aug. 20, 1948. Paper Tr J 127:10-11 S 2 '48
- Paper industry attacks problems of river pollution, II Paper Tr J 126:51 Mr 18 '48
- Paper industry extends waste research, Eng N 140:338 Mr 4 '48
- Pennsylvania waste white treatment plant, R. F. Coltart, plan diags Paper Tr J 126:51-2 Mr 25 '48; Same abr. Paper Ind 29:1830-1 Mr '48
- Percent solids scale; to determine the percentage of solids in the mud from the white liquor clarifier and mud washer, H. J. Ostrowski and others, II Pulp & Pa of Can 49:70 Mr '48
- Physiological effects of sulphate pulp mill wastes on shellfish, W. A. Chipman, Jr. bibliog Paper Tr J 127:47-9 S 15 '48
- Pilot plant for pulp and waste water treatment, C. L. Siebert, diags Pub Works 79:25+ Ap '48
- Pulp and paper mill reduces pollution of Clarion river in Pennsylvania, C. L. Siebert, Water & Sewage Works 94:449-51 D '47
- Recovery system for chemical and ground-wood screenings, H. J. Ostrowski, plan Pulp & Pa of Can 48:88-90 D '47
- Research in stream pollution; abstract, R. L. Winget. Pub Works 78:28 N '47
- Sludge contact reactors in white and waste water treatment, V. J. Calise, flow diags diags Paper Tr J 127:57-61 Ag 12 '48
- Trickling filters for treating pulp and paper mill wastes, H. W. Gehm, II Water & Sewage Works 95:231-5, 271-4 bibliog(p274) Je-Jl '48
- Unique pollution decree issued by Maine court; polluters permitted to discharge certain amount of wastes based on maintaining predetermined quality of water in the stream, Eng N 139:342 D 18 '47
- White water treatment and recovery, W. Rudolfs and others, Water & Sewage Works 95:219-22, 268-70, 329-32, 419-23 Je-Jl, S, N '48
- White water treatment; industrial waste problem, R. T. Sheen, bibliog II diags Paper Tr J 126:106+ F 26 '48
- See also
Sulfite liquor

PAPER mills—Continued

British Columbia

- Bloedel, Stewart & Welch, limited, and other paper companies in British Columbia. II map Pulp & Pa of Can 49:68-79 J1 '48
 Modernization at Woodfibre and Port Alice. F. H. Fullerton. Pulp & Pa of Can 49:74-5 Ja '48
 Port Alberni's new kraft pulp mill. D. W. Emmerson. II map Pulp & Pa of Can 49:39-51 F '48
 Visit in British Columbia. D. W. Emmerson. II Pulp & Pa of Can 49:68-68 Ja '48

Canada

- Safest mill in Canada contest, 1947; final score tabulated. Pulp & Pa of Can 49:93 F '48

Florida

- Pensacola's new kraft center starts its wheels turning. II Paper Tr J 126:43-4 Ap 22 '48

Holyoke, Massachusetts

- Paper men lose round in power war. Paper Tr J 127:16 O 7 '48

India

- New plant to make first newsprint in India. D. A. S. Chari. Paper Ind 29:1082 N '47

New Brunswick

- Big new paper mill being built in Canada. Bsns W p 123 Je 19 '48
 Pulp and paper manufacturing in the Maritimes. D. W. Emmerson. II Pulp & Pa of Can 48:129-31+ D '47

Newfoundland

- Bowater expansion creates largest mill. H. L. Marx, Jr. II Ed & Pub 81:11 Ag 21 '48
 Hub of a major industry. A. B. Sullivan. II Pulp & Pa of Can 48:68-72 D '47

Northwestern states

- Northwest flood damage report. Paper Tr J 126:7+ Je 10 '48

Nova Scotia

- Pulp and paper manufacturing in the Maritimes. D. W. Emmerson. II Pulp & Pa of Can 48:145+ D '47

Quebec

- Newsprint mill of the Anglo-Canadian pulp and paper mills. S. Rovner. Ed & Pub 81:18 J1 10 '48

Scandinavia

- Chemical production from pulp mill by-products in Scandinavia. E. C. Jahn. Pulp & Pa of Can (Convention no) 49:234-6 [F] '48

Wisconsin

- Fox River mills seek pollution solution. Paper Tr J 126:14 Ap 8 '48
 Future pulpwood for Wisconsin mills. M. N. Taylor. Paper Tr J 127:20+ O 14 '48

PAPER money

- Dictionary of paper money. J. A. Muscalus. 16p John A. Muscalus, Box 185, Bridgeport, Pa. '47 (pa \$1.50)

- Irredeemable paper money and public morals. F. M. McKenna. Comm & Fin Chr 168:805 Ag 26 '48

PAPER products

- Paper problems in printing and conversion. R. F. Reed. Pulp & Pa of Can 49:69-72 F '48

- Uses of wood wastes in pulp and paper products. C. E. Hrubesky. Pulp & Pa of Can 49:61-3 F '48

See also

- | | |
|-------------|---------------|
| Paper bags | Paper drapery |
| Paper boxes | Paper towels |
| Paper cups | |

PAPER products plants

See also

- Paper box factories

Equipment

- Mechanism designed to crimp ends of heavy paper cylinder. F. Hartley. diags Mach 64:194-5 Je '48

- Studies on the unroll; paper converting machine. F. W. Egan. diags Paper Tr J 125:99-100+ D 4 '47

PAPER pulp

- Agricultural residue pulps; comparison of pulping processes. S. I. Aronovsky and others. Paper Tr J 126:78-83 Je 24 '48
 Copper number of pulps; abstract. G. Ulrici. Paper Ind 30:648 J1 '48
 Manufacture of straw pulp. S. I. Aronovsky. bibliog II maps Paper Ind 30:71-9, 244-51 Ap-May '48

PAPER punches. See Punches (for paper)

PAPER research

- Alkaline pulping; spruce. J. S. Hart and R. K. Strapp. Pulp & Pa of Can (Convention no) 49:151-65 [F] '48
 Association builds \$100,000 laboratories; British printing, packaging and allied trades research association. Pulp & Pa of Can 49:100+ S '48
 Chemicals for the pulp and paper industry. C. G. Landes. II Chem & Eng N 26:1684-9 My 31 '48
 Effect of some manufacturing variables on the properties of fiberboard prepared from milled Douglas-fir. H. D. Turner and others. diags Paper Tr J 127:43-50 Ag 26 '48
 Paper research and technology at the National bureau of standards. B. W. Scribner. II Paper Ind 30:393-9, 577-81 bibliog (193 titles, p397-9, 580-1) Je-J1 '48
 Rheology of paper; new approach to study of paper strength. S. G. Mason. bibliog diags Pulp & Pa of Can (Convention no) 49:207-14+ [F] '48
 Some basic concepts of statistics and their application to simple industrial experimentation. M. S. Renner. bibliog Paper Tr J 127:64-7 Ag 26 '48
 Statistical study of the variables of alpha-cellulose methods. A. S. O'Brien and others. bibliog Paper Tr J 127:51-4 Ag 5 '48
 TAPPI meeting on fundamental research. Paper Ind 30:392+ S '48
 Yield and quality of pulp and waste liquor in sulphite pulping of softwoods. M. Baum and others. bibliog Paper Tr J 126:130+ F 26 '48

Bibliography

- Bibliography of NBS publications. Paper Ind 30:397-9 Je '48

PAPER rolls

- Ironbound markets new roll-handling truck. II Paper Tr J 126:34 F 19 '48
 Modern winders for coated papers. A. A. Neese. Paper Ind 30:136+ Ap '48

PAPER sizing

- Air-drying of surface-sized sheet at Hamermill. W. G. Hendrich and J. L. Van Nort. II diag Paper Ind 29:1297-300 D '47
 Sizing of paper. Pulp & Pa of Can 49:91 Ag '48
 Starch in paper making. G. P. Graham. Pulp & Pa of Can 49:82-3 S '48
 Studies of rosin sizing; effect of alumina. D. Price. bibliog Paper Tr J 125:54-9 N 20 '47

Analysis

- Composition of rosin size precipitates; analyses of standard size precipitates. D. Price. bibliog Anal Chem 20:444-9 My '48
 Studies of rosin sizing; composition of various size precipitates. D. Price. bibliog Paper Tr J 126:61-6 Ap 8 '48

Bibliography

- Review of the literature on sizing. E. Sutermeister. Paper Ind 29:1455-8, 1600-3, 1761-5 Ja-Mr '48

Testing

- Mechanism of water resistance. W. S. Wilson. Paper Tr J 126:45-50 My 20 '48
 Studies of rosin sizing; effect of heat on sizing. D. Price. bibliog Paper Tr J 127:43-5 Ag 19 '48

PAPER towels

- New sulphate pulp mill gives Brown company integrated process. II Paper Ind 30:567-73 J1 '48

- PAPER trade association, National. See National paper trade association

PAPER trade journal (periodical)

Progress of paper, with particular emphasis on the remarkable industrial development in the past 75 years and the part that Paper trade journal has been privileged to share in that development. *Paper Tr J* 124 no 27: 1-392 '47

PAPER waste. See Waste paper**PAPRIKA**

Portugal's paprika industry. *For Comm W* 32:35 S 18 '48

PARACELSUS (Theophrastus Bombast von Hohenheim) 1493-1541

Mining industry and Paracelsus; 16th century study of miners' diseases. W. Schweisheimer. *Can Min J* 69:79-80 Ja '48

PARACHORS

Physical properties and chemical constitution. A. I. Vogel. *Chem Soc J* p607-58 My '48

Physical properties and chemical constitution; acetylenic compounds and cyanides. G. H. Jeffery and A. I. Vogel. *Chem Soc J* p674-83 My '48

Physical properties and chemical constitution; ethylenic compounds. G. H. Jeffery and A. I. Vogel. *Chem Soc J* p658-73 My '48

Study of organic parachors; the additive nature of structural units in the parachors of ditertiary glycols and chlorides. T. P. Johnston and O. R. Quayle. *bibliog Am Chem Soc J* 70:479-82 F '48

PARACHUTE fabrics

Abnormal weft bursting pressures in silk fabric for parachutes. A. R. Docking and J. A. Wilding. *Textile Inst J* 39:1142-7 Ap '48; Discussion. 39:T282-4 Ag '48

PARACHUTES

Fiberglass plus resin lightens chute pack. *Aviation W* 49:32 S 13 '48

Life hangs on many threads; parachute development and research; Pioneer parachute co. D. Glassman. *il Aero Digest* 56:42-3+ Ja '48

PARACYMENE. See Cymene**PARADICHLOROBENZENE.** See Dichlorobenzene**PARAFFIN**

Importance of controlling cooling temperatures during embedding in paraffin. R. A. Popham. *Science* 106:476-6 N 14 '47

Obtain nearly pure hydrocarbon with separator for paraffin wax; patent. *diag Pet Processing* 2:872 N '47

Range-energy relations for protons in substances containing C, H, O, A, and Xe. J. O. Hirschfelder and J. L. Magee. *bibliog Phys R* 73:207-15 F 1 '48

Wax modifier; Tervan 2800. *Chem Eng* 55:170 Jl '48

Analysis

Determination of oil in petroleum waxes; rapid semimicromethod. J. S. Wiberley and J. B. Rather, jr. *il diags Anal Chem* 20: 972-6 O '48

PARAFFINS

Average length and radius of normal paraffin hydrocarbon molecules. W. J. Taylor. *bibliog diags J Chem Phys* 16:257-67 Ap '48

Correlation of heats of isomerization, and differences in heats of vaporization of isomers, among the paraffin hydrocarbons. H. Wiener. *bibliog Am Chem Soc J* 69: 2636-8 N '47

Fire-retardant paints; role of pigment volume, antimony oxide, and chlorinated paraffin. L. S. Birnbaum and M. Markowitz. *bibliog il diags Ind & Eng Chem* 40:400-5 Mr '48

Influence of interatomic forces on paraffin properties. H. Wiener. *J Chem Phys* 15:766 O '47

Ionization and dissociation of paraffin hydrocarbons by electron bombardment. M. B. Koffel and R. A. Laid. *bibliog J Chem Phys* 16:420-2 Ap '48

Reaction of hydrogen atoms with the paraffin hydrocarbons. W. R. Trost and E. W. R. Steacie. *bibliog J Chem Phys* 16:361-4 Ap '48

Rearrangement of 1,2-aminochloroalkanes. J. F. Kerwin and others. *bibliog Am Chem Soc J* 69:2961-5 D '47

Relation of the physical properties of the isomeric alkanes to molecular structure; surface tension, specific dispersion, and critical solution temperature in aniline. H. Wiener. *bibliog J Phys & Colloid Chem* 52: 1082-9 Je '48

Vapor pressure-temperature relationships among the branched paraffin hydrocarbons. H. Wiener. *bibliog J Phys & Colloid Chem* 52:425-30 F '48

Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes. R. S. Rasmussen. *bibliog diags J Chem Phys* 16:712-27 Jl '48

See also**Isoparaffins****Analysis**

Proposed method of test for aromatic hydrocarbons in mixtures with naphthenes and paraffins by silica gel adsorption. *diags Am Soc T M Proc* 46:356-64 '46

PARAGUAY**See also****Merchant marine—****Paraguay****Petroleum industry****and trade—Paraguay****Commercial policy**

Changes in exchange controls. *For Comm W* 32:21 Jl 10 '48

Import control commission created. *For Comm W* 33:29 O 2 '48

Limitations imposed on duty-free entry of goods and exemptions from internal taxes. *For Comm W* 32:23-4 Jl 3 '48

PARA-HYDROGEN. See Hydrogen**PARALYSIS**

Electric stimulus for muscles. *il Gen Elec R* 51:48 S '48

PARALYSIS, Facial

Surgical repair of facial paralysis. P. W. Greeley. *bibliog Ind Med* 17:79-80 Mr '48

PARAMAGNETISM. See Magnetism**PARAMECIUM**

Genes, cytoplasm, and environment in the control of cellular heredity; abstract. T. M. Sonneborn. *Science* 107:459 My 7 '48

PARAMOUNT pictures, inc.

Paramount theatre sales least of movie troubles. *Barron's* 28:33 Je 21 '48

PARASITES**Poultry**

Sex of the host as a factor in plasmodium gallinaceum infections in young chicks. E. B. Bennison and G. R. Coatney. *bibliog Science* 107:147-8 F 6 '48

PARATHION

Parathion offered by American Cyanamid. *Chem & Eng N* 26:118 Ja 12 '48

Analysis

Estimation of small amounts of O,O-diethyl O,p-nitrophenyl thiophosphate. P. R. Averell and M. V. Norris. *Anal Chem* 20:753-6 Ag '48

PARCEL post

Air parcel post for scheduled lines. *Aviation W* 48:47 My 17 '48

Post office withdraws backing for domestic air parcel post. *Aviation W* 48:13 Mr 15 '48

Too much parcel post. *il Bsns W* p21 O 16 '48

PARCEL post insurance. See Insurance, Parcel post**PARCHMENT paper**

Bleached kraft pulp; Kalamazoo vegetable parchment co. redesigned and rebuilt abandoned Espanola newsprint mill. R. W. Porter. *pictured flowsheet* (p 140-3) *Chem Eng* 55:123-5 Je '48

PARICUTIN

Fifth anniversary of Parícutin. F. H. Pough. *Science* 107:635-7 Je 18 '48

Mechanism of eruption at Parícutin volcano, Mexico. K. B. Krauskopf. *bibliog maps diag Geol Soc Bul* 59:711-31, pl 1-2 Ag '48

Observations of relative gravity at Parícutin volcano. V. E. Barnes and F. Romberg. *Geol Soc Bul* 59:1019-25, pl 1 O '48

PARIS

Rapid transit

Post-war transportation in European cities.
C. E. DeLeuw. Western Soc E J 53:47-8
Mr '48

PARIS herald (newspaper)

Paris herald relates fabulous anecdotes. R.
Ellard. Ed & Pub 81:62+ Mr 6 '48

PARK FOREST, Illinois

American community builders: construction
of satellite town, south of Chicago. il maps
plans Arch Forum 89:70-4 Ag '48

PARKCHESTER. See Housing—New York
(city)

PARKER, Cola Godden, 1890-
Paper group head. por Bsns W p42 Mr 13
'48

PARKINSON, Thomas I. 1881-

Portrait. Bsns W p24 O 2 '48

PARKWAYS

Comprehensive parkway system provides es-
sential traffic arteries for Long Island. S.
M. Shapiro. il map Civil Eng 18:24-6 Ja '48
High-speed dual parkway relieves Washing-
ton-Baltimore traffic congestion. H. J.
Spelman. il map plan Civil Eng 18:424-8
J '48

Parkway need explained by pictorial booklet,
addressed to New Jersey officials and pub-
lic. Roads & Sts 91:103 F '48

PARLIAMENTARY and scientific committee.
See Great Britain—Parliamentary and
scientific committee

PARLIAMENTARY practice

See also

Chairmen

PARMELEE, Cullen Warner, 1874-1947

Sketch. por Glass Ind 29:24+ Ja '48

PARMLY foundation for auditory research,
Chicago

Construction and design of Parmly sound
laboratory and anechoic chamber. P. J.
Mills. il diags Acoustical Soc Am J 19:988-92
N '47

Performance of the anechoic room of the
Parmly sound laboratory. H. C. Hardy and
others. Acoustical Soc Am J 19:992-5 N '47

PARRAN, Thomas, 1892-

Public health service under leadership of Dr
Parran. Pub Health Rep 63:470-1 Ap 9 '48

PARSHALL, Ralph L.

R. L. Parshall, whose invention is more
widely known than its inventor. por Eng N
141:58 Ag 5 '48

PARSHALL flume

Measurement of flow in open channels. J.
Tarrant. diags Water & Sewage Works
95:R173-5 Ap '48

Modified Parshall flume combines measuring
and mixing; Greeley, Colo. water-treatment
plant. A. J. Ryan and C. L. Morgan. il
diags Eng N 140:644-5 Ap 29 '48

Ralph L. Parshall, whose invention is more
widely known than its inventor. il Eng N
141:58 Ag 5 '48

PARSONS, Charles Lathrop, 1867-

Honored by chemists of three organizations.
por Chem & Eng N 26:3262-3 N 1 '48

PARTHENIOL

Chemical investigation in guayule; the struc-
ture of partheniol, a sesquiterpene alcohol
from guayule. A. J. Haagen-Smit and C.
T. O. Fong. diags Am Chem Soc J 70:
2075-9 Je '48

PARTICLES

Absorption of sound in suspensions of ir-
regular particles. R. J. Urick. bibliog il
Acoustical Soc Am J 20:283-9 My '48

Accurate particle-size determination of fluid
catalyst by coordination of roller analysis
and microscopic examination. J. T. Wiley
and others. il diags Am Pet Inst Proc 27(3):
23-8 '47; Same. Pet Refiner 26:90-3 D '47

Adsorption phenomena in soils with special
reference to their surface area. W. H.
Cohen and E. H. Knight. bibliog diags Soc
Chem Ind J 65:357-64 O '47

Beaker-type centrifugal sedimentation of
subsieve solid-liquid dispersions; theory.
H. E. Robison and S. W. Martin. bibliog
diag J Phys & Colloid Chem 52:854-81
My '48

Chemical and physical properties of Phil-
black carbons. L. R. Sperberg and H. M.
Barton. bibliog il diag Rubber Age 63:45-
51 Ap '48

Determination of the surface area of powders
by means of low-temperature adsorption
isotherms. F. E. Bugge and R. H. Ker-
logue. bibliog diags Soc Chem Ind J 66:
377-81 N '47

Direct electron-microscopic thickness deter-
minations of ultramicroscopically thin crys-
tals. J. H. L. Watson and others. il J
Chem Phys 16:999-1000 O '48

Domain theory and the dependence of the
coercive force of fine ferromagnetic pow-
ders on particle size. C. Kittel. diag Phys R
73:810-11 Ap 1 '48

Effect of particle shape on free-settling rates
of isometric particles. E. S. Pettyjohn and
E. B. Christiansen. bibliog il diags Chem
Eng Prog 44:157-72 F '48

Effect of surface-active agents upon disper-
sions of lead monoxide in xylene. V. R.
Damerell and M. J. Vogt. J Phys & Colloid
Chem 52:583-7 F '48

Extinction-coefficient; particle size relation-
ship for fine mineral powders. H. E. Rose
and C. C. J. French. bibliog diag Soc Chem
Ind J 67:283-9 J1 '48

Flow of fluids through porous media. L. E.
Brownell and D. L. Katz. bibliog flow diags
il diag Chem Eng Prog 43:537-44, 601-12,
703-12 O-D '47; Discussion. 43:544-8 O '47

Fluidization of solid non-vesicular particles.
M. Leva and others. Chem Eng Prog 44:
619-26 Ag '48

Fluidization of solid particles; sand, glass,
silicate catalyst, and lead shot in air and
water. R. H. Wilhelm and M. Kwauk.
bibliog diags Chem Eng Prog 44:201-17;
Discussion. 217-18 Mr '48

Heat transfer to gases through packed tubes;
effect of particle characteristics. M. Leva
and M. Grummer. diag Ind & Eng Chem
40:415-19 Mr '48

Influence of particle size in dust exposure.
T. Hatch and W. C. L. Hemeon. bibliog
diags J Ind Hygiene 30:172-80 My '48

Investigation of specimen contamination in
the electron microscope. J. Hillier. il diags
J Ap Phys 19:226-30 Mr '48

Isothermal and non-isothermal transforma-
tions of tactoid-forming particles of tung-
stic acid. W. Heller and others. il J Chem
Phys 16:998-9 O '48

Mathematical description of certain breakage
mechanisms leading to the logarithmic-
normal distribution. B. Epstein. bibliog
Franklin Inst J 244:471-7 D '47

Measurement of carbon black particles by
the electron microscope and low tempera-
ture nitrogen adsorption isotherms. R. B.
Anderson and P. H. Emmett. bibliog J Ap
Phys 19:367-73 Ap '48

Method for particle size distribution for the
entire subsieve range. A. E. Jacobsen and
W. F. Sullivan. bibliog diag Anal Chem
19:855-60 N '47

Method of determining the particle size of
colloids from sedimentation data obtained
with the Sharples supercentrifuge. S. A.
Loukomsky and S. J. O'Brien. bibliog il
diags Am Soc T M Proc 46:1437-51 '46

Method of particle size determination of
soils, cement, etc., by means of a chain-
omatic specific gravity balance. E. V.
Barrett. il diags Am Soc T M Proc 46:
1355-72; Discussion. 1373-6 '46

Micromeritics, the technology of fine par-
ticles. J. M. Dallavalle. 2d ed 555p bib-
liog(p496-538) \$8.50 Pitman pub. corp. 2 W.
45th st, New York '48

Modification in the roller analysis for the
determination of particle-size distribution.
G. L. Matheson. diags Am Pet Inst Proc
27(3):18-22 '47; Same. Oil & Gas J 46:
307-8+ N 15 '47

Monodisperse colloids and higher-order Tyn-
dall spectra. V. K. La Mer. bibliog J Phys
& Colloid Chem 52:65-76 Ja '48

Morphological changes of tactoid-forming
particles. J. H. L. Watson and others.
il J Chem Phys 16:997-8 O '48

Nomograph for particle size determination
with the Sharples supercentrifuge. E.
Saunders. bibliog Anal Chem 20:379-81 Ap
'48

Particle size determinations with electron
microscopes. J. H. L. Watson. bibliog il
Anal Chem 20:576-84 Je '48

PARTICLES—Continued

Particle-size distribution in powder metal-lurgy. Franklin Inst J 245:517-20 Je '48
 Particle size in latex as related to synthetic rubber properties and high solids latex fluidity. A. M. Borders, and R. M. Pierson. bibliog il Ind & Eng Chem 40:1473-7 Ag '48

Plant control tests for particle-size distribution of fluid cracking catalysts. W. B. Innes and K. D. Ashley. bibliog il diag Am Pet Inst Proc 27(3):9-17 '47

Pore size distribution in porous materials; interpretation of small-angle X-ray scattering patterns. H. L. Ritter and L. C. Erich. bibliog diags Anal Chem 20:665-70 Jl '48

Pressure drop through packed tubes; effect of surface roughness. M. Leva and M. Grummer. Chem Eng Prog 43:633-8, 713-18 N-D '47

Retention of air-borne particulates in the human lung. H. D. Landahl and R. G. Hermann. bibliog diag J Ind Hygiene 30:181-8 My '48

Role of aggregating conditions and particle fusion in the growth of polymer particles during emulsion polymerization. C. E. Rhines and J. McGavack. il Rubber Age 63:593-606 Ag '48

Sieve test of metal powders. R. E. Pollard. bibliog il J Res Nat Bur Stand 39:487-505 D '47; Abstract, Steel 122:89-90+ F 23 '48

Specimen contamination in electron microscopes. J. H. L. Watson. il J Ap Phys 19:110-11 Ja '48

Statistical factors affecting the intensity of X-rays diffracted by crystalline powders. L. Alexander and others. diags J Ap Phys 19:742-53 Ag '48

Studies on aging of precipitates and coprecipitation; the bulkiness and porosity of silica powder. I. Shapiro and I. M. Kolthoff. bibliog il J Phys & Colloid Chem 52:1020-33 Je '48

Studies on the aging of precipitates and coprecipitation; the solubility of lead chromate as a function of the particle size. D. R. May and I. M. Kolthoff. bibliog J Phys & Colloid Chem 52:836-54 My '48

See also

Colloids	Pigments
Dispersion	Powders
Dust	Sand
Electrophoresis	Sediments
Flue dust	Specific surface

PARTICLES, Elementary

Hamiltonian for a particle in an electromagnetic field. P. I. Richards. Phys R 73:254 F 1 '48

Ultimate particles. G. W. Gray. il diags Sci Am 178:26-33 Je '48

See also

Alpha rays	Neutrons
Beta rays	Photons
Deuterons	Protons
Electrons	Radioactivity

PARTITION (chemistry)

Approximate configurational partition functions for certain aggregates of spherical molecules. M. F. Morales and J. Botts. diags J Chem Phys 16:587-91 Je '48

Partition coefficients of fatty compounds between olive oil and water at 20°C. R. Macy. bibliog J Ind Hygiene 30:140-3 Mr '48

Partition coefficients of formaldehyde solution. H. G. Johnson and E. L. Piret. Ind & Eng Chem 40:743-6 Ap '48

PARTITIONS

British laminated plastic is designed for load bearing partitions; Holoplast. il diags Arch Forum 88:124 Mr '48

Interior partitions; how to build them using structural clay tile. diags Brick & Clay Rec 113:34 Jl '48

RBM partitions in apts. saves 4 in. of floor space along interior walls. il plan diag Brick & Clay Rec 111:28 D '47

PARTITIONS, Steel

Salesmen carry samples weighing 50-100 pounds? suitcase samples for Hauserman portable steel walls. R. Cook. Sales Management 61:97 S 1 '48

PARTNERSHIP

Family partnership. H. Wardlaw. J Account 84:498 D '47

Lehman case: partner's holding period. J Account 85:340 Ap '48

Sale of partnership interest to outsider. J Account 85:161 F '48

Why agency partnerships are so short-lived. H. Byer. Adv & Sell 41:50 O '48

See also

Insurance, Business
 —Partnership interest

Taxation

Maybe your agency should be a partnership. J. K. Lasser. Adv & Sell 41:69-70 S '48

More on Jud Plumbing. J Account 84:496-7 D '47

Partnership years. J Account 84:412 N '47

Partnership years. J Account 85:416 My '48

Payment to estates by surviving partners. J Account 85:155-6 F '48

Professional partnerships. J Account 85:343 Ap '48

Proposes amendment of present statute dealing with family partnerships. M. H. Johnson. East Underw 48:14 N 14 '47; Same cond. Nat Underw (Life ed) 51:3 N 14 '47

Shape of taxes to come; status of family partnerships. L. J. Freeman. Barron's 28:9-10 Jl 26 '48

Summary of family partnership decisions since Aug. 1946. G. Simons. J Account 85:233-5 Mr '48

Tax court clarifies dissolved fiscal year partnership. B. L. Shepard. J Account 85:252 Mr '48

Tax liability in partnership financial statements. J Account 85:160 F '48

PASCHEN'S law

Microwave spark. D. Q. Posin. bibliog diags Phys R 73:496-509 Mr 1 '48

Spark breakdown at atmospheric pressure and above in relation to Paschen's law. C. G. Miller and L. B. Loeb. bibliog Phys R 73:84-5 Ja 1 '48

PASSAMAQUODDY tidal power project

Maine asks \$100-million to revive Quoddy. Bsns W 250-1 Ap 17 '48

Tidal power in Maine. L. Smith. bibliog Land Econ 24:239-52 Ag '48

PASSENGER cars. See Cars

PASSENGER traffic officers, American association of. See American association of passenger traffic officers

PASSIVITY

Electrochemical society debates mechanics of passivation at 93d National meeting, Columbus, April 14-17. Chem & Eng N 26:1283 My 3 '48

Increasing corrosion resistance; recent tests with stainless steels. H. Seymour. Chem Age (Lond) 59:191-2 Ag 7 '48

New concept about the mechanism of passivity of iron in nitric acid. R. Farshad and L. C. Verman. J Chem Phys 16:164-5 F '48

Passivity of chromium. N. Hackerman and D. I. Marshall. bibliog il Electrochem Soc J 93:49-54 Mr '48

Study of films isolated from passive stainless steels. E. M. Mahla and N. A. Nielsen. il diags Electrochem Soc J 93:1-16 Ja '48

PASSPORTS

Great ungarded frontier; Canadian's passport troubles. Fortune 38:4 S '48

PASTURE

See also

Grasses

PATCHOQUE-PLYMOUTH mills corporation Net seen slightly below 1947 record. Barron's 28:35 Je 7 '48

PATENT laws and legislation

Nature is free; U.S. Supreme court denies patent protection to discovery of mixture of nitrogen-fixing bacteria for inoculation of leguminous plants. Chem Ind 62:737 My '48

Patent monopoly in chemical industry. R. S. Jane. Can Chem & Process Ind 32:37-9 Ja '48

Patentable chemical inventions. C. W. Rivise and A. D. Caesar. bibliog(51 ref) J Chem Educ 25:434-8 Ag '48

France

Ratification par la France de l'arrangement de Neuchâtel pour la sauvegarde des droits des inventeurs. Génie Civil 124:416 N 1 '47

PATENT laws and legislation—Continued

Great Britain

Inventions agreements; effect after termination of employment. F. E. Sugden. *Elec R* (Lond) 142:981-2 Je 18 '48

United States

How trade-marks, patents and copyrights protect your property. C. J. Hauk, jr. *Ptr Ink* 221:41-6 D 19 '47

Inventorship test in chemical priority conflicts. I. J. Fellner. *Chem & Eng N* 25:3354-6 N 17 '47

Patent rules overhaul planned. *Paper Tr J* 127:14 Jl 8 '48

Patents and the engineer. H. A. Toulmin, jr. *Il diags Product Eng* 19:113-23 Je; 113-23 Jl '48

Ten commandments of patent law for industrial executives. H. A. Toulmin, jr. *Paint Oil & Chem R* 110:31-2 N 13 '47

PATENT libraries and collections

Techniques employed in making literature searches for a patent department. T. Hoffman, bibliog *J Chem Educ* 24:546-9+ N '47

PATENT medicines. See Medicines, Proprietary

PATENT office. See United States—Patent office

PATENT pools. See Patents—Licensing

PATENT terms. See Patents—Terminology

PATENTS

Does patent consciousness interfere with co-operation between industrial and university research laboratories? L. A. Hawkins. *Science* 105:326-7 Mr 28 '47; Same. *Elec Eng* 67:135-6 F '48

Government to seek foreign patents on list of inventions. *Iron Age* 160:136A N 6 '47

How trade-marks, patents and copyrights protect your property. C. J. Hauk, jr. *Ptr Ink* 221:41-6 D 19 '47

Industrialist's patent policies. H. A. Toulmin, jr. *Am Dyestuff Rep* 36:763-5 D 29 '47

Monopoly, patent and invention. A. E. Macrae. *Can Chem & Process Ind* 32:725-8 Ag '48

Patents and the engineer. H. A. Toulmin, jr. *Il diags Product Eng* 19:113-23 Je; 113-23 Jl '48

Preliminary report on the survey of university patent policies. *Science* 107:677-8 Je 25 '48

Recent progress in patent classification. S. W. Cochran. *Ind & Eng Chem* 40:731-3 Ap '48

Study of patent policies in educational institutions, giving specific attention to the Massachusetts Institute of Technology. V. L. McKusick. *Franklin Inst J* 245:193-225, 271-300 bibliog(p291-3) Mr-'Ap '48

See also

Acoustic patents

Automobiles—

Patents

Chemical patents

Glass manufacture—

Patents

Inventions

Knitting—Patents

Nylon—Patents

Packaging materials

—Patents

Paper making—

Patents

Patent laws and

legislation

Petroleum refining

—Patents

Pistons—Patents

Plastic materials—

Patents

Radio apparatus—

Patents

Rolling (metal work)

—Patents

Rubber—Patents

Textile patents

Trade marks

United States—

Patent office

Water purification—

Patents

Welding—Patents

Enemy ownership

See Enemy property

History

Early history of patents for invention. M. Frumkin. *Engineering* 164:486, 511, 535 N 21-D 5 '47

International aspects

Patents and the engineer; foreign patent protection. *Product Eng* 19:126-7 Jl '48

Licensing

Patent agreements decisions reversed in U.S. Gypsum and Line Material cases. *Oil Paint & Drug Rep* 153:5+ Mr 15 '48

Patent pool; auto maker's cross-licensing untouched by Supreme court's rulings. *Bns W* p30+ Mr 20 '48

Patent verdict in U.S. Gypsum and Line Material cases; agreements violate anti-trust laws. *Bns W* p20 Mr 13 '48

Supreme court decision strikes blow at price fixing under patent licenses. *Elec World* 129:89-90 Mr 13 '48

Terminology

Patent terms in some languages other than English. N. M. Payne. *J Chem Educ* 25:389-90 Jl '48

Germany

50,000 trade-mark, patent filings in year seen. *For Comm W* 22:39 Ag 14 '48

Registering patents in Germany. *Chem Age* (Lond) 59:413 S 25 '48

PATERSON, Sir Clifford Copland, 1879-1948
1948 I.R.S. metallist. *por Illum Eng* 43:484-5 My '48

Sketch. *por Engineer* 186:137-8 Ag 6 '48; *Engineering* 166:112 Jl 30 '48

This year's metallist, dies. *por Illum Eng* 43:774-7 S '48

PATHOGENIC bacteria. See Bacteria, Pathogenic

PATHOGENIC fungi. See Fungi, Pathogenic

PATINO, Señora Albina (Rodríguez)

Tin empress. *por Bns W* p28 F 28 '48

PATTERN floater insurance. See Insurance, Inland marine—Policies

PATTERN makers league of North America

Key cases under the new labor law; separate craft union; case of Harnischfeger corp. J. M. Gambatese. *Factory Management* 106:94-5 Je '48

PATTERN making

Determining the length of sides of polygons; table; data sheet. *Foundry* 76:118 Ja '48

How to reinforce a fragile pattern. J. R. Nichols. *diags Foundry* 76:118 O '48

Matchplates made from plastic. *Il Foundry* 76:122+ Ag '48

Metal cope and drag patterns. R. A. Loder. *Il Foundry* 76:146+ S '48

New wax room techniques. *Il Iron Age* 162:82-3 Jl 22 '48

Outside diameters for the scribing of polygons; table; data sheet. *Foundry* 76:117 Ja '48

Patterns and molding methods for steel castings. J. H. Hall. *Il Foundry* 76:80-3+ N '48 (to be cont)

Patterns from casting resins. R. W. Schaeffer. *Il diags Tool Eng* 20:31-2 Je '48

Plastic matchplates made by new process. D. W. Talbott and J. L. Lessman. *Il Foundry* 76:194+ F '48

Polystyrene in centrifugal castings; plastic material producing metal castings by the lost-wax process. *Il Mod Plastics* 26:112-15 N '48

Precision casting with plastic patterns; the A.R.D. process. H. Chase. *Il diags Iron Age* 162:88-94 O 7 '48

Pressure casting aluminum matchplates in plaster molds. S. N. Touchman. *diags Foundry* 76:76-9+ Jl '48

What about your apprentice? pattern making and molding contests. F. C. Cech. *Il diags Foundry* 76:66-70+ F '48

PATTERNS, Dress. See Newspapers—Dress pattern features

PATTERSON, Alexander Evans, 1887-1948

Sketch. *por East Underw* 49:9+ S 17 '48; *Nat Underw* (Life ed) 52:1+ S 17 '48; *Weekly Underw* 159:630 S 18 '48

PATTERSON, Alicia

Alicia's Newsday has the Patterson touch. J. Walker. *por Ed & Pub* 81:8 Ag 14 '48

PATTERSON, Eleanor Medill, 1884-1948

Employee get Times-Herald under Mrs Patterson's will. J. J. Butler. *por Ed & Pub* 81:5+ Jl 31 '48

Patterson will contest weighed by attorneys. *Ed & Pub* 81:11 Ag 7 '48

Tragedy stalks Cissy Patterson's fortune. *Ed & Pub* 81:8 S 18 '48

PATTERSON, Joseph Medill, 1879-1946

N.Y. News employees revere Captain Patterson. *Ed & Pub* 81:22 Jl 3 '48

PAUL, Samuel B.

Paul of Paul vs. Virginia has relative in insurance agency. Nat Underw 52:4 Ag 5 '48

PAUL-LEWIS award

Lehninger announced winner. Chem & Eng N 26:1279 My 3 '48

PAVEMENT breakers. See Pavements—Cutting**PAVEMENTS**

How Glendale, Arizona, settled the dust. D. E. Smith. il Pub Works 79:30-1 Ag '48

See also

Bridges—Floors
Roads
Streets

Cutting

Water and sewer trenching; paving breakers. il Pub Works 79:31+ F '48

See also

Street railroads—
Track removal

Design

Cooperative study of structural design of nonrigid pavements. A. C. Benkelman and F. R. Olmstead. il diags Pub Roads 25: 21-9 D '47; Same cond. Roads & Bridges 85:67-71+ D '47

Design of rigid pavements for heavy wheel loads. R. R. Philippe. il Civil Eng 18:84-8 F '48; Discussion. W. C. Carey. 18:304 My '48

How thick should airport runways be? il Roads & Bridges 86:60-3+ Ag '48

Louisville adopts standard flexible design for suburban streets; with cost data. diags Roads & Sts 91:62 F '48

New approach for pavement design. F. N. Hveem. diags Eng N 141:134-9 Jl 8 '48

Static load, not impact, determines CAA design standard for airports. Civil Eng 18:584 S '48

Foundations

Bituminous subseamed concrete pavements withstand accelerated traffic tests. il plan diag Civil Eng 18:364-7 Je '48

Jacksonville builds oyster-shell pavement base. il Eng N 140:434-5 Mr 18 '48

Lime used in airfield base. Roads & Sts 91: 96+ Ja '48

See also

Roads—Foundations

Heating

Reports success of heated driveways; abstract. Heating-Piping 20:79 Mr '48

Snow melting system in heated Belmont road opens way to hilltop dwellers. Heat & Ven 45:124+ Mr '48

See also

Pavements, Concrete
—Heating

Marking

See Traffic lines

Slipperiness

Non-skid asphaltic surfaces. J. L. Wickwire. il Roads & Bridges 86:128+ S '48

Subgrades

200-ton super compactor being tried out at Baltimore airport. H. J. McKeever. il plan Roads & Sts 91:82-4+ Ja '48

PAVEMENTS, Aluminum

Aluminum panels replace bridge's wooden deck. il Constr Methods 30:109+ Ap '48

PAVEMENTS, Asphalt

Contractor cooperation aids asphalt surfacing program. E. A. Roberts. diags Pub Works 78:30 D '47

Face-lifting Milwaukee's Wisconsin ave. il diags Roads & Sts 91:65-6 My '48

Paving asphalt from California crude oil; staff-industry collaborative report. M. L. Kastens. bibliog flow sheets il Ind & Eng Chem 40:548-57 Ap '48

Sealing and dust laying, chief street activities in Birmingham, Ala. during past year. il Roads & Sts 90:70+ D '47

Cost

Asphalt pavement, Boston, Mass.; unit prices. Eng N 141:35 S 30 '48

PAVEMENTS, Asphaltic concrete. See Pavements, Bituminous concrete

PAVEMENTS, Bituminous

City paves with its own equipment; Fort Morgan, Colorado. G. S. White. il Pub Works 79:31+ Mr '48

Designing cold-mix bituminous pavements. il Pub Works 79:22-3 S '48

Effect of characteristics of asphalts on physical properties of bituminous mixtures. R. H. Lewis and J. Y. Welborn. bibliog Pub Roads 25:85-94 S '48

Expediting paving and drainage by force account. R. E. Edmondson. il Pub Works 79:29+ Ap '48

Jacksonville builds oyster-shell pavement base. il Eng N 140:434-5 Mr 18 '48

Long causeway resurfaced in fast time. il Constr Methods 30:91 Jl '48

Mechanical stability of bitumen-aggregate mixtures. L. W. Nijboer. bibliog Soc Chem Ind J 67:244-9 Je '48

Suggestions for reducing hot-mix paving costs. W. M. Jagoe. Roads & Sts 91:72-3+ S '48

See also

Roads, Bituminous

PAVEMENTS, Bituminous concrete

Better ridgng streets at lower cost. R. W. Thompson. il Pub Works 79:19-20 Mr '48

Twin Falls airport. il Roads & Sts 91:53-5+ Ja '48

PAVEMENTS, Concrete

Bituminous subseamed concrete pavements withstand accelerated traffic tests. il plan diag Civil Eng 18:364-7 Je '48

Composite construction for I-beam bridges. C. P. Siess. diags Am Soc C E Proc 74: 331-53 Mr '48

Control and measurement of air entrainment in concrete. E. M. Brickett. il diags Roads & Bridges 85:78-80+ N '47

Controlling the pumping action of concrete pavement slabs: use of bituminous materials, information on mixtures of soils and other materials for mudjacking. il diags Roads & Bridges 86:61-5+ Ja '48

Design of I-beam bridges. N. M. Newmark. il diags Am Soc C E Proc 74:305-30 Mr '48

Design of rigid pavements for heavy wheel loads. R. R. Philippe. il Civil Eng 18:84-8 F '48

Evaluation of aggregate performance in pavement concrete. H. S. Sweet and K. B. Woods. bibliog Am Concrete Inst J 19: 1033-40 Je '48

Expanding Mitchell field. H. M. Maxwell. il map plan diags Roads & Sts 91:55-7+ F '48

Flexible concrete mattresses for river-bank protection. il Engineering 165:337-9, 348 Ap 9 '48

French view of runway construction; abstract. J. de Larrard. Pub Works 79:40 Ja '48

Half-hour concrete haul without agitation; use of dump trucks in paving street in Milwaukee. il Roads & Sts 90:83-4 N '47

Laboratory research on concrete bridge floors. F. E. Richart. il Am Soc C E Proc 74:288-304 Mr '48

Laying 21-in. concrete runway slab at Patterson field. il Concrete 56:3-7+ Ja '48

New formulas for stresses in concrete pavements of airfields. H. M. Westergaard. bibliog Am Soc C E Proc 73:687-701 My '47; Discussion. 73:1562-4; 74:218-20, 723-4 D '47, F, My '48

Old timber bridges decked with concrete. il Eng N 141:68-9 Jl 22 '48

Paving the roadway of the George Washington bridge. il Roads & Bridges 85:85-6 N '47

Prestressed concrete for runways at Orly field, near Paris. il diags Eng N 141:104-5 S 16 '48

Racing builds pavement to fit the traffic. W. J. Chadwick. Pub Works 78:35-6 N '47

Runways for seventy-five-ton wheel loads; Patterson field. il plan diags Eng N 140: 362-7 Mr 4 '48

See also

Floors, Concrete
Pavements, Bituminous concrete
Roads, Concrete

PAVEMENTS, Concrete—Continued

Cost

Paving and sewer costs throughout the Midwest, Pub Works 79:34-5 Ja '48

Heating

Hot springs harnessed for ice control in Klamath Falls, Oregon, R. H. Baldock, Roads & Sts 91:67 Mr '48
Radiant-heated outside concrete ramp; Bigelow-Sanford carpet co. il Concrete 56:20 Je '48; Same, Heating-Piping 20:104 Je '48
Snow-melting systems, their design, installation and operation, il Eng N 141:62-4 S 30 '48

Joints

Experience in Illinois with joints in concrete pavements, J. S. Crandell and others, il diags 62 tables Ill U Eng Exp Sta Bul 365:1-258 '47 (pa \$1)
U.S. Rubber develops improved melting equipment for highway joints, il Rubber Age 62:434 Ja '48

Reinforcement

Continuously reinforced concrete pavement without joints; abstracts, W. R. Woolley, il diags Concrete 56:24+ Ja '48; Roads & Sts 91:96 F '48
Continuously reinforced concrete pavements, Pub Works 79:32 Je '48
Experiments in Illinois; reinforced concrete pavements, H. W. Russell, Concrete 56:28+ Ja '48
New Jersey tests of reinforced concrete pavements; abstract, W. Van Breeman, Concrete 56:26+ Ja '48

PAVEMENTS, Soil-cement

Soil cement paving for small canals; illustrations with text, Constr Methods 30:108-9 My '48
Soil cement side show; airport area on Chicago lake front processed as demonstration project, il Roads & Sts 91:92-3 Ag '48

PAVEMENTS, Steel

Open-grid floors for bridges, R. J. Barry, il diag Pub Works 79:22-3 Jl '48
Replacing a plank bridge deck with grating, il Pub Works 79:36 Ja '48
Welded highway deck cuts dead load on Eads bridge, J. D'Esposito, jr. il diags Eng N 140:42-5 Ja '48

PAVILIONS

Sulphur Springs pavilion, Araxa, Minas Gerais, Brazil, il Arch Forum 87:68-70 N '47

PAVING machines

Asphalt paver lines small canals, il Constr Methods 30:86-8 Ja '48
Bituminous paver mixes and spreads emulsion base, il Roads & Sts 91:53-4 S '48

PAY days

When is payday? Management R 37:453-4 S '48

PAYMENT

Mere acceptance of debtor's check by payee does not discharge debt until check is paid, Banking Law J 64:885-9 N '47
Renewal note as conditional payment only, Banking Law J 64:890-7 N '47
Terms of sale, C. B. Everberg, Credit & Fin Management 50:9-11 Ag '48
Where may creditor apply debtor's payment? C. B. Everberg, Credit & Fin Management 50:26-8 O '48

See also

Accounts payable	Instalment plan
Checks	Payrolls
Collecting or accounts	Wage payment plans

PAYROLL checks. See Checks

PAYROLLS

Costly fringe; vacation, premium pay, other benefits, Bsns W p 100-1 O 2 '48
Payment of employees by payroll draft instead of in cash, M. B. Thomas, N A C A Bul 29:1267-72 Je 15 '48

See also

Pay days

Accounting

Computing checks for the payroll, il Food Ind 20:1269+ S '48
Employee incentive plan pares payroll expense for J. P. Seeburg corporation, Chicago, W. Norris, il Am Bsns 18:14-15+ Je '48

Incentive applied to order filling; Stanley greeting cards, R. W. Putterbaugh, il Mill & Factory 42:106-7 Je '48
Pay book shows how wages are figured; Esterbrook pen co. C. E. Dinsmoor, il Factory Management 106:120-1 My '48
Punched card payroll accounting, J. K. Brown, Am Gas Assn Proc 1947:273-5
Three-way plan cuts Wrisley costs; new cost accounting, incentive and payroll system, J. Turner, il Am Bsns 17:14-15+ N '47
Two steps in one speed new payroll plan; Kimberly-Clark's mechanized plan, il Am Bsns 18:18-19 Ja '48

See also

Piece work

Statistics

Chart book of employment and payrolls in Canadian industries; employment: 1939-March 1, 1948, payrolls: 1941-March 1, 1948, 40p pa 50c Canada, Dominion bur. of statistics, Ottawa '48
County employment, taxable payrolls, and average monthly pay; employment as of first quarter 1946, eligible for old age and survivors' insurance program, Sales Management 60:112+ My 10 '48
Indexes of production-worker pay rolls (weekly) in manufacturing and in selected nonmanufacturing industries, 1943 annual average, monthly indexes, Nov. 1946-Nov. 1947, Mo Labor R 66:91-4 Ja '48 [cont monthly]
Pay rolls in manufacturing and non-manufacturing industries, 1941-1946, Survey of Cur Bsns 1947 Sup p56-9 [supplemented in monthly numbers]
Production-worker employment and pay rolls in the baking, canning and preserving, and slaughtering and meat packing industries; revised data; monthly figures and monthly averages, 1939-1946, Survey of Cur Bsns 28:23 Ap '48
Production-worker employment and pay rolls in the chemicals industry; revised data; monthly figures and monthly averages, 1939-1946, Survey of Cur Bsns 28:22 Ap '48

PEABODY, Alex M.

Ferryboat operator gives in, por Bsns W p41-2 S 18 '48

PEABODY, Massachusetts

Sewerage

Grit and grease chamber at Salem and Peabody, F. L. Flood, plans diags Boston Soc C E J 34:332-5 O '47

PEABODY coal company

Bonds offered, Comm & Fin Chr 166:2107 N 24 '47

PEACE

Adventures in futility, J. M. Sheehan, il U S Naval Inst Proc 74:1086-97 S '48
Communism and world peace, J. F. Dulles, Comm & Fin Chr 168:805+ Ag 26 '48
Defense, international co-operation, and peace; North Atlantic community would foster peace to end war, C. D. Howe, il Tech R 50:497-8+ Jl '48
Economic means to peace; increased productivity of European industries without restrictive trade barriers, R. M. Bissell, jr. il Tech R 50:499-500+ Jl '48
Education for peace; what we can do to make ourselves indispensable to welfare of our fellow men, A. H. Compton, Tech R 50:501-3+ Jl '48
Fortune survey; war or peace? Fortune 37:14 F '48
Have U.S.-Soviet accord and avoid world crisis, J. P. Warburg, Comm & Fin Chr 167:1009+ Mr 4 '48
Majority in U.S. favor international meeting for peace; Gallup poll, Iron Age 161:125 My 13 '48
Moral basis of world peace, H. Chang, Ann Am Acad 258:73-89 Jl '48
Peace ideals and reality, W. Gurian, Ann Am Acad 257:72-5 My '48
Peace in our time, Economist 153:825-6 N 22 '47
Peace targets for 1943 and 1950, H. E. Stassen, Comm & Fin Chr 167:100+ Ja 8 '48
Road ahead, J. R. Hanley, Comm & Fin Chr 166:2060 N 20 '47

PEACE—Continued.

We must sell a new, dynamic concept of peace. W. A. Peterson. *Ptr Ink* 223:148 My '48
 World energy and world peace. R. T. Haslam. *il Tech R* 50:493-6+ J1 '48
See also

International federa- World war, 1939-
 tion 1945—Peace

PEACE conference, 1946, Paris

Bulgarian, Rumanian and Hungarian peace treaties. J. S. Roucek. *bibliog Ann Am Acad* 257:97-105 My '48

PEACE treaties, 1946

Peace settlements of World war II. T. V. Kalijarvi, ed. *bibliog Ann Am Acad* 257:1-202 My '48

PEACH kernel oil

Expressed peach kernel oil. W. A. Bush and B. J. Cagan. *Ind & Eng Chem* 39:1452 N '47

PEACHES

Peeling with lye; suitable for all peaches, pears and root vegetables. J. G. Woodroof and others. *bibliog il diag Food Ind* 20:862-9 Je '48

Tree-ripened peaches; Cell-type box. J. F. Hauck. *il Mod Packaging* 21:122-4+ Mr '48

Transportation

South Carolina peaches go to market. *il Ry Age* 125:384-6 Ag 21 '48

PEACHEY process. *See* Vulcanization

PEANUT flour

Edible oilcake flours in Europe. W. G. Cass. *Chem & Eng N* 26:1028 Ap 5 '48

PEANUT oil

Diffusion phenomena in solvent extraction of peanut oil; effect of cellular structure. H. P. Fan, J. C. Morris and H. Wakeham. *bibliog il Ind & Eng Chem* 40:195-9 F '48

Literature search on the solvent extraction of oleaginous materials; with additional reference to by-products from the solvent extraction of peanuts. B. H. Weil and others. Georgia School of Technology State Eng Exp Sta [Atlanta] Special Rep no 26: 1-185 '48 (\$4)

Analysis

Delta-tocopherol; assay of individual tocopherols in mixtures containing delta-tocopherol. L. Weisler, C. D. Robeson and J. G. Baxter. *bibliog Anal Chem* 19:906-9 N '47

PEANUTS

Civil engineering problems of the East African groundnuts scheme. D. Harrison. *maps diag Engineer* 186:120-1 J1 30 '48

New gas packaging method retains quality of peanuts; Flex-Vac. J. V. Ziemba. *il Food Ind* 20:677-9+ My '48

New textile material; I.C.I. plant to process groundnuts; Ardl; abstract. R. H. Thomson. *Chem Age (Lond)* 53:687 My 16 '48

Pectic substances; structure of the araban from arachis hypogaea. E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1221-5 S '47

Time viscosity studies of the system groundnut protein-caustic soda-water. R. H. K. Thomson and A. Johnston. *Soc Chem Ind J* 66:373-4 O '47

West African groundnuts. *Economist* 154:988 Je 12 '48

Advertising

Peanut council finds it pays to repeat a good ad. *il Sales Management* 60:140+ F 15 '48

Prices

\$6 million shell game; Commodity credit corporation buying peanuts under farm price support program. J. Bingham. *Comm & Fin Chr* 168:6 J1 1 '48

PEARCE, Sir Leonard, 1873-1947

Sketch. *por Engineering* 164:424 O 31 '47

PEARL-REED curve. *See* Growth curves**PEARLITE.** *See* Steel—Metallography**PEARLS, Artificial**

La Tausca promotion. M. O'Dea. *Ptr Ink* 222:110 Mr 19 '48

Plastics cores for better simulated pearls. *il Plastics* 8:17+ Mr '48

PEARSON, Drew, 1897-

Pearson wins friends with Friendship train. H. M. Staunton. *por Ed & Pub* 81:10 Ja 31 '48

PEARSON curves. *See* Frequency distribution (statistics)

PEAS

Advanced design, gravity flow save labor and machines; Umatilla canning co. F. A. Miller. *il plans diag Food Ind* 20:1426-31+ O '48

Canned peas and canned corn. *il Consumers Res Bul* 22:7-11 J1 '48

Experiments with peas and sweet corn treated with DDT insecticides. H. A. Lardy. *Ind & Eng Chem* 40:710-11 Ap '48

Peptization and precipitation of nitrogenous constituents of dry peas. R. J. Evans, J. L. Henry and J. L. St John. *bibliog Ind & Eng Chem* 40:453-61 Mr '48

Use of sodium hexametaphosphate in the blanching of peas; abstract. J. W. Holmquist, C. F. Schmidt and A. E. Guest. *Food Ind* 20:237 F '48

Grading

Improved quality separator; tender peas float out overflow port of top-shaped separation tank; mature ones removed from bottom by brine jet. C. R. Havighorst. *flow diag il diag Food Ind* 19:1499-500 N '47

Transportation

Air shipments of peas extend freezer's operations. *il Food Ind* 20:1310-11 S '48

PEAS, Frozen

Air shipments of peas extend freezer's operations. *il Food Ind* 20:1310-11 S '48

Effect of fluctuating storage temperatures on quality of frozen foods. W. A. Gortner and others. *bibliog Ind & Eng Chem* 40:1423-6 Ag '48

PEAT

Les gisements de tourbe blonde de la Loire-Inferieure. Génie Civil 124:478 D 15 '47

Scottish sphagnum peat. A. G. Clement and R. H. S. Robertson. *il Chem Age (Lond)* 58:361-2+ Mr 13 '48

Utilisation of peat. *Engineering* 166:14 J1 2 '48

PEAT moss

Quebec's peat moss industry. H. Girard. *il Can Min J* 69:197-8 O '48

PECTIC acids

Pectic substances; molecular structure of strawberry and apple pectic acids. G. H. Beavan and J. K. N. Jones. *Chem Soc J* p 1218-21 S '47

Analysis

Equilibrium moisture and X-ray diffraction investigations of pectinic and pectic acids. K. J. Palmer, R. C. Merrill and M. Balantyne. *bibliog il Am Chem Soc J* 70:570-7 F '48

PECTINIC acids**Analysis**

Equilibrium moisture and X-ray diffraction investigations of pectinic and pectic acids. K. J. Palmer, R. C. Merrill and M. Balantyne. *bibliog il Am Chem Soc J* 70:570-7 F '48

PECTINS

Comparison of the gel setting properties of polyose from tamarind seed (tamarindus indica Linn) with fruit pectins. G. R. Savar and A. Sreenivasan. *bibliog Soc Chem Ind J* 67:190-3 My '48

Contribution to the study of the rheological properties of pectin jellies. H. Cheftel and J. Mocquard. *bibliog il diag Soc Chem Ind J* 66:297-9 S '47

Occurrence of pectic materials in wood. W. F. Fiesman, E. Anderson and R. L. Leaf, Jr. *bibliog Am Chem Soc J* 70:422-3 Ja '48

Pectic substances; constitution of the galactan from lupinus albus. E. L. Hirst, J. K. N. Jones and Mrs W. O. Walder. *Chem Soc J* p 1225-9 S '47

Pectic substances; molecular structure of strawberry and apple pectic acids. G. H. Beavan and J. K. N. Jones. *Chem Soc J* p 1218-21 S '47

Pectic substances; structure of the araban from arachis hypogaea. E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1221-5 S '47

PECTINS—Continued

- Pectin studies; the nitric acid ester (preliminary). L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:101-4 Mr '48
- Pectinate films; fruit-by-product provides edible package. W. D. Maclay and H. S. Owens. *il Mod Packaging* 22:157-8 S '48
- Wyoming Natural resources research institute in fifth year of operation; sugar beet by-products. H. G. Fisk. *il Chem & Eng N* 26:677-8 Mr 8 '48

PEELING

- Peeling with lye; suitable for all peaches, pears and root vegetables. J. G. Woodroof and others. *bibliog il diags Food Ind* 20: 862-9 Je '48
- Potato and vegetable peeler. *il diag Machine Design* 20:133 O '48

PEENING

- Extent of peening weld deposits for stress relief. J. L. Morris. *bibliog il diags Welding J* 27:sup 148-58 Mr '48
- See also

Shot peening**PEGMATITES**

- Age determination of quartz veins and pegmatites in Brazil. D. Guimarães. *bibliog il diag Econ Geol* 43:100-18 Mr '48
- Shallow, high-temperature pegmatites, Grant county, New Mexico. V. C. Kelley and O. T. Branson. *bibliog maps diags Econ Geol* 42:699-712 D '47
- Studies on methods for recovering scrap mica from pegmatite of the Black Hills, South Dakota. G. A. Munson and F. F. Clarke. *bibliog 11 pls U S Bur Mines Rep of Invest* 4190:1-26 '48

PELTATIN

- α -Peltatin, a new compound isolated from podophyllum peltatum. J. L. Hartwell. *Am Chem Soc J* 69:2818 N '47
- β -Peltatin, a new component of podophyllin. J. L. Hartwell and W. E. Dettly. *Am Chem Soc J* 70:2833 Ag '48

PELTIER effect

- Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander. *bibliog diags Phys R* 74:479-88 Ag 15 '48

PENCIL sharpeners, Plastic

- Pencil points for every use. *il Mod Plastics* 25:90 Ja '48

PENCILS

- Exports of writing instruments from U.S., 1946 and first three quarters of 1947. *For Comm W* 29:23 N 22 '47
- Pencils with yardage meter or perpetual calendar. *il Mod Plastics* 25:172 F '48

PENICILLAMINE

- L-Penicillamine as a metabolic antagonist. J. E. Wilson and V. du Vigneaud. *Science* 107:653 Je 18 '48

PENICILLIN

- Anhydride of benzylpenicillin. F. H. Carpenter. *bibliog Am Chem Soc J* 70:2964-6 S '48
- Biosynthesis of penicillins; by editorial board of "Chemistry of penicillin." *bibliog Science* 106:508-5 N 28 '47
- Biosynthesis of penicillins; N-2-hydroxyethylamides of some polycyclic and heterocyclic acetic acids as precursors. R. G. Jones and others. *bibliog Am Chem Soc J* 70:2843-8 S '48
- Biosynthesis of penicillins; oxy- and mercaptoacetic acids. Q. F. Soper and others. *bibliog Am Chem Soc J* 70:2849-55 S '48
- Biosynthesis of penicillins; substituted phenylacetic acid derivatives as penicillin precursors. J. W. Corse and others. *bibliog Am Chem Soc J* 70:2837-43 S '48
- Cobalt increases penicillin action. *Chem & Eng N* 26:1652 My 31 '48
- Crystalline form of benzylpenicillinic acid. N. R. Trenner and R. P. Buhs. *Am Chem Soc J* 70:2897-900 S '48
- Crystalline procaine penicillins. C. J. Salivar, F. H. Hedger and E. V. Brown. *Am Chem Soc J* 70:1287-8 Mr '48
- Desthiobenzylpenicillin. H. Adkins, F. J. Brutschy and M. McWhirter. *Am Chem Soc J* 70:2610 Jl '48
- Enhancement of penicillin blood levels following oral administration of caronamide. L. Loewe and others. *bibliog Science* 106: 494-6 N 21 '47

- Evidence for the involvement of glutathione in the mechanism of penicillin action. R. Pratt and J. Duffrenoy. *bibliog Am Chem Soc J* 70:1671 Ap '48

Industrial development of antibiotics. W. H. Engels. il Chem & Eng N 26:1284-7 My 3 '48

- Inhibition of glycolysis in vitro by impure penicillin. E. Kun. *Science* 108:117-18 Jl 30 '48

- Introduction of radioactive sulfur (S^{35}) into the penicillin molecule by biosynthesis. S. F. Howell and others. *Science* 107:299-300 Mr 19 '48

- Mechanism of antibiotic properties of penicillin salts; abstract. E. A. Hauser, J. W. Phillips and I. Vavruch. *Chem & Eng N* 26: 2049 Jl 12 '48

- New form of penicillin may lift Pfizer's 1948 net. *Barron's* 28:35 Mr 15 '48

- New penicillin for prolonged blood levels. N. P. Sullivan and others. *bibliog Science* 107:169-70 F 13 '48

- New type of penicillin; Wycillin. *Bsns W* p51 My 22 '48

- Odor control problem in processing penicillin culture medium for recovery of vitamin-rich by-product. *il diag Heat & Ven* 45: 101 Jl '48

- Paradoxical zone phenomenon in the bactericidal action of penicillin in vitro. H. Eagle. *Science* 107:44-5 Ja 9 '48

- Penicillin aid; caronamide. *Chem Eng* 55:182 Ja '48

- Penicillin assay method. J. D. Johnson. *Chem & Ind p* 109-10 F 14 '48

- Penicillin blood and milk concentrations in the normal cow following parenteral administration. M. Welsh and others. *bibliog Science* 108:185-7 Ag 20 '48

- Penicillin imports, Sweden, first nine months of 1947. *For Comm W* 29:23 D 5 '47

- Penicillin production and imports, Netherlands. *For Comm W* 31:26 My 8 '48

- Penicillin production and sales, Japan. *For Comm W* 32:27 Jl 10 '48

- α -Phenyl-leuculinic acid, a product of the alkaline degradation of penicillin G. M. W. Goldberg, W. R. Sullivan and W. E. Scott. *Am Chem Soc J* 70:2810-11 Ag '48

- Prevention of gonorrhea with penicillin tablets. H. Eagle and others. *Pub Health Rep* 63:1411-15 O 29 '48

- Progress in drugs and fine chemicals, 1947. G. C. Green. *Chem Age (Lond)* 58:56-60, 106-7 Ja 10-17 '48

- Protection against bacterial endotoxins by penicillin and its impurities. C. P. Miller and others. *bibliog Science* 107:118-19 Ja 30 '48

- Rationalization of thiol reactions with penicillins as an unsaturated thiolactone; abstract. C. J. Cavallito and D. Fruehauf. *Chem & Eng N* 26:2686 S 13 '48

- Recent advances in antibiotic research. P. P. Regna. *bibliog Chem & Ind* p275-8, 295-7 My 1-8 '48

- Role of the constituents of synthetic media for penicillin production. F. G. Jarvis and M. J. Johnson. *bibliog Am Chem Soc J* 69: 3010-17 D '47

- Seven papers on methods of penicillin assay; their purpose, scope and validity. *Chem & Ind p* 109 F 14 '48

- Surface tension and conductivity of penicillin salts. W. D. Kumie and E. L. Alpen. *Science* 107:587 My 28 '48

- Surface tension measurements of solutions of sodium penicillin. E. A. Hauser and others. *Science* 106:616 D 19 '47

Analysis

- Chemical assay for crystalline benzylpenicillin. W. J. Mader and R. R. Buck. *bibliog Anal Chem* 20:284-5 Ap '48

- Direct estimation of penicillin G in small broth samples. J. A. Thorn and M. J. Johnson. *bibliog Anal Chem* 20:614-17 Jl '48

- Hydroxylamine method of determining penicillins. J. H. Ford. *bibliog Anal Chem* 19: 1004-6 D '47

- Investigation on the iodometric method of estimation of penicillin. A. M. Wild. *Soc Chem Ind J* 67:90-2 Mr '48

- Organic quantitative analysis using the Geiger counter X-ray spectrometer. C. L. Christ, R. B. Barnes and E. F. Williams. *bibliog il diags Anal Chem* 20:789-95 S '48

PENICILLIN—Continued**Manufacture**

- Millions from molds. *il Chem Ind* 63:25-6 J1 '48
- Penicillin plant under construction in Rome; abstract. *Chem Eng* 55:282 Ja '48
- Sweden prepares to produce 300,000 m. units of penicillin. *Chem Age (Lond)* 59:188 Ag 7 '48
- Synthesis of benzylpenicilic acid. R. W. Holley and others. *Science* 108:136-7 Ag 6 '48

PENICILLIUM

- Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. *il Ind & Eng Chem* 40:262-7 F '48
- Fungistatic properties of *p*-aminobenzoic acid and related compounds; growth curves obtained with *aspergillus niger*, *penicillium roqueforti* and *byssoschlamys fulva*. G. W. K. Cavill and J. M. Vincent, bibliog diags *Soc Chem Ind J* 67:25-33 Ja '48

PENINSULAR telephone company

- Common stock offered. *Comm & Fin Chr* 167:1848 Ap 26 '48
- Growth continues. *Barron's* 28:42 S 13 '48

PENNROAD corporation

- Rail deal in offing; Pennroad reports bid by Pennsy for D.T.&I. carrier. *Bsns W* p 102-4 O 23 '48

PENNSYLVANIA*See also*

- Roads—Pennsylvania
- Zinc mines and mining—Pennsylvania

PENNSYLVANIA-CENTRAL airlines corporation (now Capital airlines, inc.)

- Annual report. *Comm & Fin Chr* 167:1848 Ap 26 '48
- PCA bolstered by new routes in Boston-New Orleans decision. C. Adams. *Aviation W* 48:42 F 9 '48

PENNSYLVANIA grade crude oil association

- Annual meeting, 25th, Pittsburgh, June 17. *Nat Pet N* 40:20-2 Je 23 '48; *Oil & Gas J* 47:135+ Je 24 '48
- Joins quarter-century ranks; research work at Pennsylvania state college. A. L. Foster. *il Oil & Gas J* 47:48-50 Je 17 '48

PENNSYLVANIA newspaper publishers association

- PNPA weighs microfilming state's papers. *Ed & Pub* 81:30 Ag 21 '48

PENNSYLVANIA power and light company

- Preferred shares offered. *Comm & Fin Chr* 168:1802-3 N 1 '48
- Registers 316,863 shares of additional common stock. *Comm & Fin Chr* 168:747 Ag 23 '48
- Stock offered. *Comm & Fin Chr* 168:1047 S 13 '48

PENNSYLVANIA railroad

- Annual report. *Comm & Fin Chr* 167:749 F 16 '48
- Another look. S. Devlin. *Mag of Wall St* 81:373 Ja 3 '48
- Equipment trusts offered. *Comm & Fin Chr* 167:1474, 1848, 2581 Ap 5, 26, Je 14 '48
- Pennsylvania railroad regaining control over costs. A. Jansen. *Barron's* 27:29-30 D 22 '47
- Pennsy's predicament. *il map Fortune* 37:84-93+ Mr '48
- Rail deal in offing; Pennroad reports bid by Pennsy for D.T.&I. carrier. *Bsns W* p 102-4 O 23 '48
- Ten potential market leaders for 1948. *Mag of Wall St* 81:405 Ja 17 '48

PENNSYLVANIA state college

- Chemical education in American institutions. G. C. Chandlee. *il J Chem Educ* 25:122-6 Mr '48
- Petroleum engineering schools. *il Oil & Gas J* 46:312+ N 15 '47

School of mineral industries

- Mineral economics; new curriculum in mineral education. W. M. Myers. *Min & Met* 29:284-5 My '48

PENNSYLVANIA telephone corporation

- Preferred stock offered. *Comm & Fin Chr* 167:1260 Mr 22 '48

PENS*See also*

- Fountain pens

PENSION trusts

- Big market; small corporations offer agent pension plan field. L. Huppeler. *Nat Underw (Life ed)* 52:3+ J1 2 '48
- Companies, agents criticize proposed pension regulations; joint memorandum filed with Internal revenue bureau by L.I.A. and N.A.L.U. *Nat Underw (Life ed)* 52:4+ Ja 2 '48

- Obtaining maximum advantages under incentive plans; money purchase fully-trusted pension plan preferred. A. W. Brubaker. *Trusts & Estates* 85:507-10; 86:37-40 D '47-Ja '48

- Payroll flexibility through employee trusts. G. Simons. *Harvard Bsns R* 26:441-53 J1 '48

- Pioneer cooperative bank pension plan; Penco plan—W. L. Case, Jr. *Trusts & Estates* 87:193-6 S '48

- State-wide pension plan; group insurance plan and trusted pension plan for West Virginia bank employees. *Trusts & Estates* 87:131 Ag '48; *Banking* 41:114 S '48

- Trust cuts trucking costs; Holleb & co. grocery drivers share profits through retirement fund. *Food Ind* 20:349 Mr '48

PENSIONS, Civil service. See Civil service pensions**PENSIONS, Industrial**

- Approach to old age and retirement. J. P. Flemming. *Edison Elec Inst Bul* 16:81-3 Mr '48

- Compulsory retirement as a social problem. W. R. Spinney. *Comm & Fin Chr* 167:1527 Ap 8 '48

- Court rules pensions are bargaining subject. *Iron Age* 162:98 S 30 '48; *Nat Underw (Life ed)* 52:2 O 1 '48

- Employee-benefit program of Consolidated Edison. A. Weiss and others. *Mo Labor R* 66:497-8 My '48

- General Electric issues statement on its general profit sharing plan; new pension plan. *East Underw* 48:10 N 14 '47

- Growing union interest in pensions. H. C. Kwasha. *Nat Underw (Life ed)* 52:2 F 20 '48

- Guild lists pension plan as bargaining goal.

- C. Watson. *Ed & Pub* 81:6+ J1 3 '48
- Guild will propose \$175-a-month pensions. D. Willens. *Ed & Pub* 81:10 O 30 '48

- Increased pension planning activity. P. A. King. *East Underw* 49:8+ O 15 '48

- Increased pressures make pensions boom a certainty. *Nat Underw (Life ed)* 52:3 Ag 27 '48

- Inland Steel decision clouds pension picture. *Nat Underw (Life ed)* 52:8 Ap 23 '48; *Weekly Underw* 158:1153+ Ap 17 '48

- Install pensions now, advice to Chicago employers; evaluates recent ruling by NLRB. R. F. Spindell. *Nat Underw (Life ed)* 52:3+ Je 18 '48

- Labor relations institute reports use of pension plans increasing. *Trusts & Estates* 87:212 S '48

- Lewis on pensions. *Bsns W* p67 D 27 '47
- Mine pensions; costly peace? *Bsns W* p 19-21 Ap 17 '48

- Miners' \$100 pensions begin. *Bsns W* p 120 S 18 '48

- Must bargain on pensions. *Steel* 122:44 Ap 19 '48

- Opportunity, not a headache; Inland Steel ruling on mandatory collective bargaining on pension plans. W. Hay. *Weekly Underw* 158:1275 Ap 24 '48

- Pension plan comparison; survey of 31 chemical companies. *Chem Eng* 55:175-6+ J1 '48

- Pension plan trends. D. N. Warters. *East Underw* 49:3 F 27 '48

- Pension plans of 19 dailies are surveyed. *Ed & Pub* 81:30 J1 10 '48

- Pension pool; Michigan bankers' assn. and Detroit trust co. retirement fund plan for small banks' employees. *Bsns W* p92 F 21 '48

- Pensions are becoming important. *Elec World* 130:81 O 9 '48

- Pensions for small business plans. D. Montgomery. *East Underw* 49:58 pt 2 O 8 '48

- Pensions in public utilities. M. Hammett. *Pub Util* 41:31-5 Ja 1 '48

- Pensions, labor's newest target; estimated cost. *Factory Management* 106:80-3 O '48
- Pensions or power? *il Coal Age* 53:74-7 Ap '48

PENSIONS, Industrial—Continued

- Private pensions take hold. T. Durrance. Management R 37:213-14 Ap '48
- Retirement plan must be sound business proposition; address before American management assn. E. B. Gardner. East Underw 49:20 Mr 26 '48; Abstract. Nat Underw (Life ed) 51:11 N 28 '47
- Retirement program of Anglo California national bank of San Francisco. Burroughs Clearing House 32:17 My '48
- Significant trends in pension plans; statement by Towers, Perrin, Forster & Crosby. East Underw 49:14 Mr 12 '48
- Storm signal on labor front; Lewis wants big pensions for miners over 60. Bsns W 96 F 14 '48
- Undignified scramble for pension funds. J. W. Whittlesey. Nat Underw 52:24 Ag 5 '48; Same. Nat Underw (Life ed) 52:1 Ag 6 '48
- Unions, management disagree on the role of insurance in bargaining. Nat Underw (Life ed) 51:1 N 28 '47; Same. Nat Underw 51:32 D 4 '47
- Views on pension plans; address before American management assn. M. F. Lip-ton. East Underw 48:7 D 5 '47; Excerpts. Nat Underw (Life ed) 51:1 N 21 '47
- Voluntary old-age insurance in Palestine. Int Labour R 57:88-91 Ja-F '48
- Why death benefits in retirement plan? Management R 37:438 Ag '48
- Why Ford workers voted down the pension plan. II Factory Management 105:66-70 N 47
- Wrigley retirement income plan. Am Bsns 18:32 Ap '48
- You must bargain on pensions, federal court decides. Bsns W 94+ O 2 '48
- See also
- | | |
|------------------|-----------------------|
| Insurance, Life— | Insurance companies |
| Agents—Pensions | —Employees' pen-sions |
| | Railroads—Pensions |
- Accounting**
- Employee income tax status under a qual-ified pension plan; abstract. D. E. Maduro. Management R 37:322-4 Je '48; Same. East Underw 49:9 My 14; II Je 4 '48
- Finance**
- Champions of both pension funding methods cross lances at Chicago. H. C. Kwasha; D. N. Warters. Nat Underw (Life ed) 52:3 F 20 '48
- Payroll flexibility through employee trusts. G. Simons. Harvard Bsns R 26:441-53 Ji '48
- Warns death toll cut might ruin uninsured pensions. A. J. Ostheimer, 3d. Nat Underw (Life ed) 52:3+ S 24 '48
- See also
- Pension trusts
- PENSIONS, Old age.** See Old age pensions
- PENSTOCKS**
- High head penstock shop welded and field riveted; Mokelumne project. II Eng N 141: 88-9 O 28 '48
- Penstock diameter for hydraulic turbines; chart; engineering reference sheet. Elec World 130:102 Ji 3 '48
- PENTACHLORODIPHENYL**
- Paper capacitors containing chlorinated im-pregnants; benefits of controlled oxidation of the paper. D. A. McLean. II Ind & Eng Chem 39:1457-61 N '47
- PENTACHLOROPHENOL**
- Preservation of fiber insulating board with chlorinated phenols. E. A. Behr. II Paper Ind 30:930-5 S '48
- PENTACHLOROPHENYLBROMOETHANE**
- Pentachlorophenyl derivatives; bromination of ethylpentachlorobenzene. S. D. Ross, M. Markarian and M. Nazzewski. bibliog Am Chem Soc J 69:2468-70 O '47
- PENTADECENE**
- Polymerization to lubricating oils of *n*-hep-ten-1 and *n*-pentadecene-1. G. H. Dazeley and C. C. Hall. bibliog Soc Chem Ind J 67:22-3 Ja '48
- PENTADECYLCATECHOL**
- Allergenic principles of poison ivy; absorp-tion spectra of 3-*n*-pentadecylcatechol and related compounds. H. S. Mason. Am Chem Soc J 70:138-40 Ja '48

PENTADIENAL

Reactions of 2,4-pentadienal. G. F. Woods and H. Sanders. bibliog Am Chem Soc J 69:2926-8 D '47

PENTADIENE

Studies of retarders and inhibitors in the emulsion polymerization of styrene; retard-ers. I. M. Kolthoff and F. A. Bovey. bib-liog Am Chem Soc J 70:791-9 F '48

PENTAERYTHRITOL

Alkyd resins today; the pentaerythritol-di-basic acid reaction. G. R. Cornish. bibliog II diag Chem & Ind p39-42 Ja 17 '48

Alkyd resins today; trends in oil-modified alkyds. E. O. Phillips. bibliog Chem & Ind p3-5 Ja 3 '48; Abstract. Paint Oil & Chem E 111:40-1 Ji 8 '48

Chemical reactions of pentaerythritol and its derivatives. S. F. Marrian. Chem R 43: 149-202 bibliog (159 ref, p 198-202) Ag '48

Formation of ethers in the preparation of pentaerythritol. S. Wawzonek and D. A. Rees. bibliog Am Chem Soc J 70:2433-5 Ji '48

Pentaerythritol and its uses in organic pro-tection coatings; abstract. H. Bunell. Oil Paint & Drug Rep 153:75 Mr 8 '48

Thermal decomposition of pentaerythritol tetra-nitrate, nitroglycerin, ethylenediamine dinitrate and ammonium nitrate. A. J. B. Robertson. bibliog Soc Chem Ind J 67:221-4 Je '48

PENTAETHOXYETHANE

Ketone acetals: pentaethoxyethane and tetra-ethoxyethylene (diethoxyketene diethyl-acetal). S. M. McElvain and R. L. Clarke. bibliog Am Chem Soc J 69:2661-3 N '47

PENTAGONAL apartment building. See Apartment houses—Designs and plans**PENTANE**

High range vapor pressures and Antoine equation constants of some C₂ to C₈ hydro-carbons. J. Griswold and W. B. Brooks. bibliog Pet Refiner 26:122-7 D '47

Pentane and butane isomerization processes; Standard oil company (Indiana). flow diagr Pet Refiner (Process Handbook ed) 27: 154-5 sec 2 S '48

Poor absorption of pentane-plus. W. L. Nel-son. Oil & Gas J 47:99 O 28 '48

Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes. R. S. Ras-mussen. bibliog diagr J Chem Phys 16:712-27 Ji '48

PENTANEDIONE. See Acetylacetone**PENTANONE**

Photochemical decomposition of diethyl ketone at 3130 Å. W. Davis, Jr. bibliog Am Chem Soc J 70:1868-9 My '48

Reactions of furan compounds; catalytic re-duction of methylfuran to 2-pentanone. C. L. Wilson. Am Chem Soc J 70:1313-15 Ap '48

PENTENE

Isomerization of 1- and 2-pentenes. A. G. Oblad, J. U. Messenger and H. T. Brown. bibliog diag Ind & Eng Chem 39:1462-6 N '47

Polymerization of pentenes. V. N. Ipatieff and R. E. Schaad. bibliog Ind & Eng Chem 40:78-80 Ja '48

Vapor pressures and some related quantities of pentene-1 from 0 to 200°. H. O. Day, D. E. Nicholson and W. A. Felsing. bibliog Am Chem Soc J 70:1784-5 My '48

PENTENYNOL

Researches on acetylenic compounds; a study of the reactions of the readily available ethynyl-ethylenic alcohol, pent-2-en-4-yn-1-ol. I. Heilbron, E. R. H. Jones and F. Sondheimer. Chem Soc J p 1586-90 D '47

Researches on acetylenic compounds; the reaction between epichlorohydrin and sodium acetylide; a novel route to the ethynyl-ethylenic alcohol, pent-2-en-4-yn-1-ol. L. J. Haynes and others. Chem Soc J p 1583-5 D '47

PEORIA**Bridges**

Steel set with Sea Mule and pontoons; struc-tural steel transported and placed for Har-vard Street crossing at Peoria. H. M. Max-well. II diagr Roads & Sts 91:70-3 Ap '48

PEORIA recreation center. See Recreation cen-ters

PEPPER

India's pepper production and sales, 1947-48. For Comm W 31:25-6 My 15; 32:25 JI 10 '48
Pepper exports, Netherlands Indies. For Comm W 31:18-19 Ap 17; 32:34 S 4 '48
Pepper supply. Bns W p36 D 27 '47

PEPPERMINT

Peppermint and spearmint crop conditions reported. Oil Paint & Drug Rep 153:7+ Je 14 '48

PEPPERMINT oil

Mint oils production increased in 1947. Oil Paint & Drug Rep 153:63 Ja 5 '48
Occurrence of menthofuran in oil of peppermint (*mentha piperita* vulgaris S.), P. Z. Bedoukian, bibliog Am Chem Soc J 70:621-2 F '48

Peppermint-oil and menthol situation in China. For Comm W 31:25-6 Ap 3 '48

PEPPERS

Brown, mature-fruit color in pepper (*capsicum frutescens*). P. G. Smith. Science 107: 345-6 Ap 2 '48

PEPSI-COLA

How Pepsi-Cola simplified case handling operations; combined use of conveyors, trailers and fork-truck pallets. W. Geisler and others. flow diag il Food Ind 20:845-7 Js '48

PEPSI-COLA company

Places loan privately. Comm & Fin Chr 168: 155 JI 12 '48

Revived competition brings price problem. Barron's 27:26-7 D 1 '47; Discussion, 27:27 D 15 '47

Securities disturbing investors. R. Colston. Mag of Wall St 82:295 Je 19 '48

PEPSIN

Chemical studies on vesicant-treated proteins. F. H. Carpenter and others. Am Chem Soc J 70:2551-3 JI '48

Studies of the effect of mustard-type vesicants on the phenol color reaction of proteins. C. M. Stevens, H. McKennis, Jr. and V. du Vigneaud, bibliog Am Chem Soc J 70:2556-9 JI '48

PEPTIDES

Acid hydrolysis of egg albumin; molecular weight distribution of peptides. H. B. Bull and J. W. Hahn. Am Chem Soc J 70:2132-5 Je '48

Progress in drugs and fine chemicals; investigations in the polypeptide group. G. C. Green. Chem Age (Lond) 58:202-3 F 7 '48

Synthesis of polypeptides; abstract. R. B. Woodward. Science 106:510 N 28 '47

Water absorption of proteins; contribution of the peptide group. E. F. Mellon, A. H. Korn and S. R. Hoover, bibliog Am Chem Soc J 70:3040-4 S '48

PEPYS, Samuel, 1633-1703

S. Pepys, naval administrator extraordinary. J. M. Sheehan, por U S Naval Inst Proc 74:864-75 JI '48

PER acids

Bleaching, pre-treatment with per-acids; patent. Am Dyestuff Rep 36:786-7 D 29 '47
Reactions of unsaturated compounds; the action of organic peracids on β -disubutylene (2:4:4-trimethylpent-2-ene). A. Byers and W. J. Hickinbottom. Chem Soc J p284-8 Mr '48

PER diem rules. See Freight cars—Interchange

PERACETIC acid

Manufactured by Buffalo electro-chemical co. Chem Eng 55:174+ Ja '48

Reactions of unsaturated compounds; the action of organic peracids on β -disubutylene (2:4:4-trimethylpent-2-ene). A. Byers and W. J. Hickinbottom. Chem Soc J p284-8 Mr '48

PERBENZOIC acid

Measurement of internal double bonds in polymers by perbenzoic acid addition. A. Saffer and B. L. Johnson, bibliog Ind & Eng Chem 40:538-41 Mr '48

Perbenzoic acid oxidation of 20-ketopregnanes. L. H. Saret, bibliog Am Chem Soc J 69:2899-901 N '47

PERBUNAN. See Rubber, Artificial

PERCHLORATES

Commercial production of perchlorates. J. C. Schumacher, il diags Electrochem Soc Trans 92 (preprint 24):287-94 '47

PERCHLORIC acid

Analysis of sulfate waste liquor and lignosulfonates; determination of neutralized solids and wet oxidation for determination of total sulfur and cations. J. R. Salvesen and D. Hogan, bibliog Anal Chem 20:909-11 O '48

Critical examination of a perchloric acid colorimetric method of analysis for chromium in carbon and low alloy steel. Metallurgia 37:211-16 F '48

Determination of traces of organic bases in benzol and the like. H. N. Wilson, Soc Chem Ind J 67:237-8 Je '48

Electrolyte effects in the hydration of isobutene. F. G. Clapetta and M. Kilpatrick, bibliog il Am Chem Soc J 70:639-46 F '48

Electrolytic ozone. G. L. Putnam and others, bibliog diags Electrochem Soc J 93:211-21 My '48

Exchange reaction between ferric and ferrous ions in perchloric acid using a diffusion separation method. L. Van Alten and C. N. Rice, Am Chem Soc J 70:883-4 F '48

Exchange reaction between thallium (I) and thallium (III) ions in perchloric and nitric acid solutions. R. J. Prestwood and A. C. Wahl, Am Chem Soc J 70:380-1 F '48

Exchange reaction between the two oxidation states of thallium in perchloric acid solutions. G. Harbottle and R. W. Dodson, Am Chem Soc J 70:880 F '48

Investigations of explosion hazards of perchloric acid and mixtures of perchloric acid and organic materials. M. A. Elliott and F. W. Brown, bibliog pl U S Bur Mines Rep of Invest 4169:1-17 '48

Molal volumes of aqueous solutions of perchloric acid. J. Bigeleisen, bibliog J Phys & Colloid Chem 51:1363-74 N '47

Perchloric acid; hazards and precautions; data sheet, bibliog Nat Safety N 56:40+ D '47

Quantum yields of the photochemical reduction of ceric ions by water and evidence for the dimerization of ceric ions. L. J. Heidt and M. E. Smith, bibliog Am Chem Soc J 70:2476-81 JI '48

PERCO process. See Gasoline—Manufacture

PERFORATED sheet metal. See Sheet metal, Perforated

PERFORATED steel plates. See Steel plates

PERFORATING machines

Perforating machine components redesigned. il diags Product Eng 19:100-1 Mr '48

See also

Check cancelling machines

PERFUME atomizers

Transparent hemispheres; DeVilbiss perfume atomizer. il Mod Packaging 21:113 Ja '48

PERFUMERY

Ayer adopts the transparent folding carton. il Mod Packaging 21:165 Ap '48

Flavor, perfume materials data for 1947; production and sales. Oil Paint & Drug Rep 154:73 O 4 '48

\$1.88 sample introduces class perfume to mass market. il Ptr Ink 223:66 My 7 '48

Perfumery shipments from Nice to U.S. For Comm W 31:26 Ap 3 '48

Soap perfumes. S. Klein, il Soap & San Chem 24:50-2+ F '48

Advertising

Chinese promotion wins spotlight in 20 big stores for Lenthicr. J. Jessee, il Sales Management 59:42-4 D 1 '47

Copy that clicked; perfumed newspaper advertisement produces \$5,100 sales at a cost of \$651.42. R. Manville, il Ptr Ink 224:47-8 Ag 27 '48

Scented perfume adds build dollar volume. S. Rovner, il Ed & Pub 81:14 O 9 '48

PERIODATES

Alkal-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose. F. S. H. Head, bibliog Textile Inst J 38: T389-407 D '47

Hydroxylated stearic acids; the periodate oxidation of the 9,10-dihydroxystearic acids and the 1,9,10-trihydroxystearic acids. H. Wittcoff, O. A. Moe and M. H. Iwen, bibliog Am Chem Soc J 70:742-4 F '48

PERIODATES—Continued

- Investigation of the reserve carbohydrates of leguminous seeds; periodate oxidation. O. A. Moe, S. E. Miller and M. H. Iwen. *bibliog Am Chem Soc J* 69:2621-5 N '47
- Oxidation of carbohydrates by the periodate ion. T. G. Halsall, E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1427-32 N '47
- Periodate lignins; their preparation and properties. P. F. Ritchie and C. B. Purves. *bibliog(56 ref) diag Pulp & Pa* of Can 48: 74-82 N '47
- Periodate oxidation of some dihydroxy-aminoalkanes. J. F. Mead and E. A. Barron. *bibliog Am Chem Soc J* 70:1286-7 Mr '48
- Theory and kinetics of specific oxidation; periodate-glycol reaction. F. R. Duke. *Am Chem Soc J* 69:3054-5 D '47

PERIODIC acid

- Action of periodic acid on a cyclohexose osazone. B. Magasanik and E. Chargaff. *bibliog Am Chem Soc J* 70:1928-9 My '48
- Fluorination of periodic acid. G. H. Rohrbach and G. H. Cady. *Am Chem Soc J* 70:2603-5 Jl '48

PERIODIC system

- Grouping of the elements. C. C. Addison. *bibliog Chem & Ind* p227-9 Ap 10 '48
- Modification of the periodic table. L. M. Simmons. *bibliog J Chem Educ* 24:588-91 D '47; Correction. 25:697 D '48
- Periodic chart for metallurgists. C. A. Zapffe. *bibliog Il Am Soc for Metals Trans* 38:239-65; Discussion. 265-70 '47
- Periodic system of the chemical elements in three dimensions; the five-five system. A. G. Oppgaard. *Chem Soc J* p318-21 Mr '48
- Periodic table and electron configuration. D. T. Gibson. *Chem & Ind* p 11-12 Ja 3 '48
- Story of atomic energy. F. Soddy. *Engineering* 165:25-3 Ja 9 '48

See also

Transition elements

PERIODICAL publishers association

- For quarter century PPA's secretary has kept eye on agencies' credit. *Ptr Ink* 221: 110 N 7 '47

PERIODICALS

- U.S. magazines and the Canadian embargo. *Sales Management* 59:138 D 15 '47

See also

- | | |
|----------------------|-----------------------|
| Advertising mediums | Insurance—Periodicals |
| —Periodicals | Newspapers |
| Banks and banking | Postal service— |
| —Periodicals | Periodicals |
| Employees' magazines | Science—Periodicals |
| House organs | Technical periodicals |
| | Trade journals |

Advertising

See also

- Advertising mediums
- Periodicals

Advertising service

- How effective are media-sponsored department store promotions? J. C. Cumming. *Sales Management* 60:106+ My 20 '48
- IGA's spring campaign exploits national brands in 5,000 groceries; ties in with *Life* in two-week test. J. F. Grimes. *Il Sales Management* 60:94+ My 1 '48
- Outdoorsman* study on dogs and cost of their maintenance. *Sales Management* 61:120 Jl 15 '48

Bibliography

- Bibliography of American literature at Philadelphia. A. H. Quinn. *J Doc* 3:177-87 D '47
- Births and deaths; a record of new titles, changed titles, and deaths in the periodical world. Published in *Bulletin of bibliography*. F. W. Faxon Company, Boston
- Checklist of current serials in social welfare. M. M. Otto, comp. (*Bibliography* no. 1) 18p pa 20c Russell Sage foundation, 130 E. 22d st, New York 10 '48
- New periodicals. Published in monthly numbers of New York public library bulletin
- Tentative list of Jewish periodicals in axis-occupied countries. (Supplement to Jewish social studies v. 9, no. 3) 44p Conference on Jewish relations, 1841 Broadway, New York '47

Circulation

- Comparison of number of magazines and combined circulation; 1888-1948. *Ptr Ink* 225: 116+ O 29 '48

Directories

- Guide to the press of the world, 48th ed 84p W. Dawson & sons, Cannon house, Macklin st, London, W.C.2 '48
- Writers' and artists' year book, 1947; a directory for writers, artists, playwrights, film writers, photographers and composers. v 40 337p \$2.50 Macmillan co, 60 Fifth av, New York '47
- Writers' and artists' year book, 1948; a directory for writers, artists, playwrights, film writers, photographers and composers. v41 341p 6s A. & C. Black, 4-6 Soho square, London, W.1; \$2.50 Macmillan co, 60 Fifth av, New York '48

Finance

- '48 media profits continue '47 downward trend. D. Bruner. *Ptr Ink* 224:73+ Ag 27 '48
- Time, inc.; in 25 years, a publishing empire. *Il Bsns W* p92+ Mr 6 '48

Format

- Format and efficiency; the style and make-up of British periodicals. V. E. Parke. *Assn of Sp Lib & Inf Bur Proc* 1947:58-67; Discussion. L. J. F. Brimble and others. 71-6

Indexes

- Abridged Readers' guide to periodical literature, author and subject index to a selected list of periodicals, July 1946-June 1948, 1002p H. W. Wilson co, New York '48
- Annual magazine subject-index, 1946; including as part II, the Dramatic index, 1946. A. C. Sutherland and B. C. Rathbun, eds. 340p, 293p, 71p \$15 F. W. Faxon co, 83 Francis st, Back Bay, Boston 15 '47
- Brief subject and author index of papers in the Proceedings, 1847-1946 and in the Journal, March 1939-March 1947. 205p Institution of mechanical engineers, Storey's Gate, St James's Park, London, S.W.1 '47
- Bulletin of the New York public library, index to volumes 41-50, 1937-1946. D. C. Haskell, comp. 64p pa \$1 New York pub. lib, New York '48
- Canadian index; a guide to Canadian periodicals. Published monthly by Canadian lib. assn, room 46, 46 Elgin st, Ottawa
- Index to New Zealand periodicals, n.s. v. 1, no. 1, January-June 1947. A. G. Bagnall, ed. 66p mimeographed 20s New Zealand lib. assn, c/o National library service, Private bag, Wellington '47
- Quarterly cumulative index medicus. v. 40, July-December 1946. 1072p \$12 Am. medical assn, 535 N. Dearborn st, Chicago '47
- Discontinued with volume 41

Law

See also

- Employees' magazines—Law

Printing

- Survey of publications discloses that many moved from Chicago plants during strike. *Inland Ptr* 121:50 S '48

Reader interest

- Cautions ANA on total audiences. R. S. Butler. *Ed & Pub* 81:8 O 30 '48
- Magazine readership by families. *Adv & Sell* 41:87 Jl '48

Routing

- Circulation of current journals in special libraries. G. Bloomer. *Special Lib* 39:46-50 F '48

Standards

- Format and efficiency; the style and make-up of British periodicals. V. E. Parke. *Assn of Sp Lib & Inf Bur Proc* 1947:58-67; Discussion. L. J. F. Brimble and others. 71-6
- Librarian's comments on British periodicals. L. G. Patrick. *Assn of Sp Lib & Inf Bur Proc* 1947:68-70

PERIODICALS—Continued

Statistics

Comparison of number of magazines and combined circulation; 1888-1948. *Ptr Ink* 225: 116+ O 29 '48

Canada

Canadian index; a guide to Canadian periodicals. Published monthly by Canadian lib. assn, room 46, 46 Elgin st, Ottawa

Great Britain

Format and efficiency; the style and make-up of British periodicals. V. E. Parke. *Assn of Sp Lib & Inf Bur Proc* 1947:58-67; Discussion. L. J. F. Brimble and others. 71-6

Librarian's comments on British periodicals. L. G. Patrick. *Assn of Sp Lib & Inf Bur Proc* 1947:68-70

PERKIN medal

Balko receives Perkin medal for tantalum development. *Chem & Eng N* 26:156-7 Ja 19 '48

PERKIN reaction

α -Aryloxy and α -aryl thiol cinnamic acids. D. Papa and E. Schwenk. *bibliog Am Chem Soc J* 69:3022-3 D '47

PERLITE

Expanded aggregates. *il Chem Ind* 62:418 Mr '48

Lady Frances mine, a new source of perlite. *il diag Eng & Min J* 149:66-7 Ja '48

Pumice and perlite as industrial materials in California; abstract. C. R. King. *Rock Prod* 50:146+ D '47

PERMAFROST. See Soils—Freezing

PERMALLOY

Nickel-iron alloy dust cores. S. E. Buckley. *bibliog il Elec Com* 25:126-31 Je '48

PERMAN, Edgar Philip, 1866-1947

Sketch. W. J. Jones. *Chem Soc J* p256-7 F '48

PERMANENT agricultural committee. See International labor organization—Permanent agricultural committee

PERMANENT science fund. See Scientific research—Finance

PERMANENT wave kits

Gillette begins to diversify; buys Toni co., producer of home permanent wave sets. *Bsns W* p44-6 Ja 10 '48

Insurers watch fight for permanent wave business. *Nat Underw* 52:20 Jl 15 '48

Lever's wave kit. *Bsns W* p44+ My 15 '48

Advertising

Consumer education was the key to the success of home permanents; Toni co. *il Ptr Ink* 222:40-1 Ja 16 '48

PERMANENT waves

Chemi-curls; lawsuits in the permanent wave business. *Chem Ind* 63:32-3 Jl '48

PERMANENTE cement company

Stock offered. *Comm & Fin Chr* 167:156-7 Ja 12 '48

PERMANENTE metals company

Capital stock offered. *Comm & Fin Chr* 168:49 Jl 5 '48

PERMANORM. See Iron alloys—Nickel alloys

PERMEABILITY

Diffusivity of gases through synthetic elastomer diaphragms. L. E. Stout, R. Geisman and J. M. Mozley, Jr. *bibliog il diags Chem Eng Prog* 44:219-28 Mr '48

Electrolytic film makes moisture determinations. *diag Food Ind* 20:870 Je '48

Nomograph solves equations for laboratory soil permeability coefficient. B. C. Wilkas. *Civil Eng* 18:375-6 Je '48

Penetration test; optical means for timing transudation of liquids through membranes of packages. H. Manley. *il Mod Packaging* 21:152-3 Ag '48

Permeability; absolute, effective, measured. H. M. Ryder. *bibliog World Oil* 128:173-7 My '48

Permeability data on American refractories. D. O. McCreight. *bibliog il Am Cer Soc Bul* 27:257-62 Jl 15 '48

Permeability method for determining fiber fineness. J. P. Elting and J. C. Barnes. *bibliog il diags Textile Res J* 18:358-66 Je '48

Permeability of brick-mortar assemblages. J. W. McBurney and others. *bibliog diags Am Soc T M Proc* 46:1333-48; Discussion. 1349-54 '46

Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Calingaert and H. Shapiro. *bibliog il Ind & Eng Chem* 40:332-5 F '48

Permeation through and sorption of water vapor by high polymers. P. M. Hauser and A. D. McLaren. *bibliog diag Ind & Eng Chem* 40:112-17 Ja '48

Polyethylene permeability. J. H. Parلمان. *bibliog il Mod Packaging* 21:198-201+ Jl '48; Excerpt. *Chem Eng* 55:262+ Jl '48

Studies in relative permeability. J. H. Henderson and S. T. Yuster. *bibliog diags World Oil* 127:139-44+ Mr '48

See also

Magnetic permeability

Paper—Permeability

PERMEMETERS

Permemeter for metals used in cathode-ray and television tubes. H. J. Evans. *bibliog il diag Am Soc T M Proc* 46:1119-25 '46

PEROXIDES

Bond energies in peroxides, and the energy evolved in the reaction $H + O_2 = HO_2$. A. D. Walsh. *Chem Soc J* p331-9 Mr '48

Cumene hydroperoxide in redox emulsion polymerization. E. J. Vandenberg and G. E. Hulse. *bibliog Ind & Eng Chem* 40:932-7 My '48

Decompositions of di-t-alkyl peroxides; kinetics. J. H. Raley, F. F. Rust and W. E. Vaughan. *diags Am Chem Soc J* 70:88-94 Ja '48

Decompositions of di-t-alkyl peroxides; kinetics in liquid phase. J. H. Raley, F. F. Rust and W. E. Vaughan. *Am Chem Soc J* 70:1336-8 Ap '48

Decompositions of di-t-alkyl peroxides; reactions of the resultant free radicals. F. F. Rust, F. H. Seubold and W. E. Vaughan. *Am Chem Soc J* 70:95-9 Ja '48

Magnetic measurements on 2,2'-benzothiazyl disulfide and bis-(9-ethoxy-10-phenanthryl) peroxide. H. G. Cutforth and P. W. Selwood. *bibliog diag Am Chem Soc J* 70:278-81 Ja '48

Organic peroxides; properties and uses. R. P. Perry and K. P. Seltzer. *bibliog Mod Plastics* 25:134-6+ N '47

Peroxide catalysts; abstract. R. P. Perry and K. P. Seltzer. *Chem Eng* 55:270+ Ag '48

Synthesis of embelin, rapanone and related quinones by peroxide alkylation. L. F. Fieser and E. M. Chamberlin. *bibliog Am Chem Soc J* 70:71-5 Ja '48

See also

Acetyl peroxide

Benzoyl peroxide

Hydrogen peroxide

Sodium peroxide

Analysis

Determination of organic peroxides; evaluation of modified iodometric method. C. D. Wagner, R. H. Smith and E. D. Peters. *bibliog Anal Chem* 19:976-9 D '47

Evaluation of the ferrous thiocyanate colorimetric method. C. D. Wagner, H. L. Clever and E. D. Peters. *bibliog diags Anal Chem* 19:980-2 D '47

Evaluation of the ferrous-titanous method; comparison with sodium iodide isopropyl alcohol method. C. D. Wagner, R. H. Smith and E. D. Peters. *bibliog Anal Chem* 19:982-4 D '47

Preparation of animal tissue fats for determination of peroxides and free fatty acids. B. N. Rockwood, J. M. Ramsbottom and V. C. Mehlenbacher. *bibliog Anal Chem* 19:853-4 N '47

PERPETUAL inventory. See Inventories—Accounting

PERRHENIC acid

Salts of perrenic acid; the alkali metals and ammonium. W. T. Smith, Jr. and S. H. Long. *bibliog Am Chem Soc J* 70:354-6 Ja '48

PERRIN, Leslie N. 1836-

General Mills shift. *por Bsns W* p74-5 D 6 '47

PERRY, Bertrand J. 1874-

Sketch. *por East Underw* 49:6 Jl 2 '48; *Nat Underw (Life ed)* 52:4 Jl 2 '48

PERRY, Stuart Hoffman, 1874-
Minnesota award for distinguished service in Journalism. por Ed & Pub 81:9 F 14 '48

PERSIA

U.S. firm will build up Iran. il Bsns W p 113-14 O 30 '48

See also

Engineering—Persia Petroleum industry
Petroleum—Persia and trade—Persia

Commercial policy

Iran; foreign-exchange regulations revised. For Comm W 32:21-2 S 18 '48

Iran; import quota established for 1948-49. For Comm W 32:23 Ag 21 '48

Industries and resources

How not to develop a backward country; case history of Iran argues that vast capital plans will create less wealth than will small native business, and freedom. H. Ala'i. Fortune 38:76-74 Ag '48

Politics and government

Persia's new government. Economist 153:1007-8 D 20 '47

PERSONAL injuries

Recent higher court decisions where bus companies are held not liable for passenger injuries. L. T. Parker. Bus Transportation 27:49-51 Ag '48

Verdict; licensee and invitee; Willins v. Ludwig, J. L. Roesch. Spectator (Property ed) 13:10-11+ N 27 '47

PERSONAL property

See also

Fixtures (law)

PERSONAL property floater. See Insurance, Inland marine—Policies—Personal property floater

PERSONALITY

What hunger can do to the personality; abstract. O. R. Chambers. Chem & Eng N 26:2872 S 27 '48

PERSONALITY tests

Profile of an accounting executive. E. C. Karmgard. N A C A Bul 29:1299-303 Je 15 '48

Rorschach in industry. R. R. Brown. Personnel 24:434-6 My '48

Value of aptitude tests in selecting salesmen. R. A. Fear and J. P. Foley, Jr. Adv & Sell 41:41+ S '48

What makes a good executive? Gardner tests based on pictures. Bsns W p24 Jl 17 '48

PERSONNEL administration (term)

Why call it industrial relations? Personnel J 27:16-21 My '48

PERSONNEL directors. See Employment managers

PERSONNEL executives. See Employment managers

PERSONNEL management. See Employment management

PERSONNEL research. See Employment management—Research

PERSONNEL testing. See Ability tests; Personality tests

PERSONNEL testing institute, Industrial. See Industrial personnel testing institute

PERSONNEL workers. See Employment departments

PERSPIRATION

Stopette crashes cold market; sells 1,000,000 bottles in first year. W. A. Wright. il Sales Management 61:37-9 Ag 1 '48

PERSULFATES

Photolysis of persulfate; the quantum yield in water and the effect of sodium chloride in dilute alkaline solution. L. J. Heidt, J. B. Mann and H. R. Schneider. bibliog Am Chem Soc J 70:3011-15 S '48

PERTURBATION theory. See Wave mechanics

PERTUSSIS. See Whooping cough

PERU

So you're going to Peru. G. O. Ives. il World Oil 127:226-8 Mr '48

See also

Airlines—Peru Mines and mineral
Fish trade—Peru resources—Peru
Gas, Natural—Peru Petroleum industry
Geology—Peru and trade—Peru

Commercial policy

Changes in trade control administration. For Comm W 31:25 My 22 '48

Exchange controls modified. For Comm W 33:30 O 2 '48

Regulations implementing the exchange-control decree published. For Comm W 33:23-4 O 30 '48

Economic conditions

News by countries. For Comm W 30:18-19 Mr 20 '48

Economic policy

New Economic advisory commission established. For Comm W 32:20 Ag 14 '48

PEST control association, National. See National pest control association

PETER, Manon

Introducing M. Peter. por Textile Col 70:30-1 O '48

PETERKIN, Daniel, 1906-

Portrait. Fortune 38:67 Jl '48

PETERSEN earth coil

Double earth faults; automatic isolation in ring mains protected by Petersen coils. A. Salzmann. diags Electrician 140:29-32 Ja 2 '48

Method for detection of sustained earth-faults in rural overhead lines protected by Petersen coils. B. D. Zelikin. diags Inst E E J 95 pt 2:617-19 O '48

Petersen coil tuning determines performance. H. W. Hartzell and others. il diags Elec World 130:62-5 Jl 17 '48

PETERSON, Frank P.

Portrait. Fortune 37:123 Mr '48

PETHIDINE

Search for new analgesics; further homologues of pethidine and the pharmacology of these and other compounds. R. H. Thorp and E. Walton. Chem Soc J p559-61 My '48

PETRILLO, James Caesar, 1892-

Petrillo ban, a scheme to beat law; czar's order seeks to protect Welfare fund with recorders' help. E. Abrams. Barron's 27:29-30 N 24 '47

Petrillo settles with television broadcasters. Bsns W p58+ Mr 27 '48

PETROCHEMICALS. See Petroleum chemicals

PETROLATUM

Determination of the ductility of petrolatum. A. Kinsel and H. Schindler. il diags Pet Refiner 27:124-7 Je '48

Melting point of petrolatum; TAPPI tentative standard T634 m-47. Paper Tr J 125:50 N 13 '47

Testing

Bleeding tendency of petrolatum. A. Kinsel and J. Phillips. il Pet Refiner 27:98-101 Ag '48

PETROLEUM

API research project 43a; the rôle of micro-organisms in the transformation of organic matter into petroleum. Am Pet Inst Proc 27(4):133-6 '47

Petroleum, today and tomorrow. K. F. Mather. Science 106:603-9 D 19 '47; Same cond. Min & Met 29:318-23 Je '48

See also

Gas, Natural	Oil lands
Gasoline	Oil reserves (United States navy)
Hydrocarbons	Oil sand
Inflammable liquids	Oil shales
Kerosene	Petroleum distillation and other headings
Liquefied petroleum gas	beginning Petroleum
Liquid fuel	
Oil fuel	

Acidation of wells

Chemical removal of clays. P. H. Cardwell. bibliog diags Oil & Gas J 46:130-3+ F 26 '48

Mud acid and plastics aid solutions to completion and production problems. A. C. Polk, Jr. il Oil & Gas J 47:205+ Je 24 '48

Mud acid increases production in Tuscaloosa sands. L. C. Power, Jr. il map World Oil 128:168+ Ag '48

New acidizing equipment designed for portability. il Pet Eng 19:134 D '47

Selective acidizing at Hugoton. E. S. Villines. il diags World Oil 128:76-7 S '48

Selective acidizing with the electric pilot. J. M. Moore and R. E. Kollar. bibliog diags Pet Eng 19:150+ S '48

PETROLEUM—Acidation of wells—*Continued*
Short interval acid treating technique, J. H. Moore and J. W. Adams, *diags World Oil* 128:126-8+ S '48
Trends and suggested improvements in acidizing procedure, C. E. Clason, *World Oil* 127:148+ F '48

Analysis

Alkylbenzenes in the C_8 fraction from seven representative crude petroleum, A. F. Forziati and F. D. Rossini, *bibliog J Res Nat Bur Stand* 39:425-33 N '47
Analyses of crude oils from 283 important oil fields in the United States, C. M. McKinney and O. C. Blade, *U S Bur Mines Rep of Invest* 4289:1-154 '48

Aromatics in petroleum fractions; separation and determination from high boiling petroleum fractions by adsorption, M. R. Lipkin and others, *bibliog diag Anal Chem* 20:130-4 F '48

Bureau of mines analyses of subsurface oil samples from North Lindsay field, McClain county, Okla., A. B. Cook and others, *map Pet Eng* 19:158+ S '48

Determination of asphaltenes, oils, and resins in asphalt, R. L. Hubbard and K. E. Stanfield, *bibliog diags Anal Chem* 20:460-5 My '48

Emission spectroscopy in an oil laboratory, R. G. Russell, *bibliog Anal Chem* 20:296-8 Ap '48

Pure compounds from petroleum; purification and purity of hydrocarbons, F. D. Rossini, *bibliog Anal Chem* 20:110-21 F '48

Violence experienced in Ball's reaction, R. Y. Mixer, *bibliog Chem & Eng N* 26:2434 Ag 16 '48

Bibliography

Bibliography of reports containing analyses of crude oils by the Bureau of mines routine method, E. Hughes and O. C. Blade, *U S Bur Mines Information Circ* 7470:1-68 '48

Bibliography

Abstracts. Published in monthly numbers of *Journal of the Institute of petroleum*
Classified list of important papers given during preceding year, *Pet Eng (Ref annual)* 19:208-10+ J11 '48

Chemistry

Abstracts of papers presented at meetings of divisions of petroleum chemistry and gas and fuel chemistry, American chemical society, *Oil & Gas J* 47:83+ S 9 '48; *Pet Processing* 3:961+ O '48

Alkylation and related processes of modern petroleum practice, F. C. Whitmore, *Chem & Eng N* 26:668-74 Mr 8 '48

Alkyl naphthalenes; the methyl, ethyl, and *n*-propyl naphthalenes, S. H. Morrell and others, *bibliog(59 ref) Inst Pet J* 34:677-91 S '48

American chemical society, Petroleum division meeting, Chicago, April 19-23; abstracts of papers, *Pet Refiner* 27:160+ My '48

Applications of thermodynamics to hydrocarbon processing, W. C. Edmister, *bibliog Pet Refiner* 26:77-82 J1; 83-8 Ag; 105-11 S; 99-105 O; 110-17 N; 112-18 D '47; 27:74-82 Ja; 100-7 F; 83-9 Mr; 134-42 Ap; 93-100 My; 104-11 Je '48 (to be cont)

Depolarized petroleum naphthas, C. Allen, *bibliog(43 ref) Ind & Eng Chem* 40:124-30 Ja '48

Hydrocarbons occurring in petroleum and certain petroleum products; abstract, F. D. Rossini, *Chem & Eng N* 25:3358 D 29 '47

1948 process handbook, flow diags 11 diags *Pet Refiner (Process Handbook ed)* 27:29-360 sec 2 S '48

Petroleum, basic raw material for surface coatings, R. F. Ruthruff, *il Pet Processing* 3:21-4 Ja '48

Petroleum world, H. M. Smith, *map Chem & Eng N* 26:1150-1 Ap 19 '48; Same cond. *Oil & Gas J* 47:60-1 N 4 '48

Prediction of vapour-liquid equilibria for ternary mixtures from the data of binary systems, Y. Li and J. Coull, *bibliog Inst Pet J* 34:692-704 S '48

Pure compounds from petroleum; purification and purity of hydrocarbons, F. D. Rossini, *bibliog Anal Chem* 20:110-21 F '48
Regional ACS meeting, Houston, Dec. 12-13; abstracts of papers, *Pet Refiner* 27:140+ Ja '48
Sulfonation products of mineral oil, R. Sperling, *bibliog Ind & Eng Chem* 40:890-7 My '48

Transformation of organic substances by alpha particles and deuterons, I. A. Breger, *bibliog il diag J Phys & Colloid Chem* 52:551-63 Mr '48

See also

Petroleum chemicals

Bibliography

Classified list of important papers given during preceding year; physical and chemical properties of petroleum, *Pet Eng (Ref annual)* 19:210+ J11 '48

Concessions

Brewster and Aramco debate U.S. benefits from Saudi concession, H. A. Yocum, *Nat Pet N* 39:15 N 5 '47

Development of foreign oil resources, J. E. Brantley, *il World Oil* 127:229-30+ Ap '48
Future of Colombia's De Mares concession, G. O. Ives, *il World Oil* 128:222+ O '48

Mexico opens the door, but U.S. operators wary of entering, H. Ozanne, *World Oil* 128:220-1 S '48

Only one company accepts stiff Philippine concession terms, *Oil & Gas J* 47:55 Je 10 '48

Reentry of American oil capital into Mexico virtually assured, W. W. Burns, *il Oil & Gas J* 46:46+ N 29 '47

Sheik of Kuwait gets handsome terms for oil concession in neutral zone, W. W. Burns, *map Oil & Gas J* 47:54-5 J1 15 '48

Sinclair meets transport problems in exploring its Ethiopian concession, H. Taylor, *il map Oil & Gas J* 47:43-5 Ag 5 '48

Conservation

Conservation of oil and gas, H. M. Dow, *Am Pet Inst Proc* 27(1):49-53 '47

How state conservation under Compact serves industry, Nation, E. O. Thompson, *Nat Pet N* 40:42+ S 15 '48

Railroads' switch to Diesels means saving of oil, General Motors says, *Nat Pet N* 40:49-50 O 6 '48

Drilling

See Petroleum—Well drilling

Electrolytic well models

Use of electric models in study of secondary recovery projects, A. Wolf, *bibliog il Oil & Gas J* 46:94+ Ap 15 '48

Emulsions

Efficient operation and fuel saving feature four-step oil dehydrator; patent, *diag Pet Processing* 3:599 Je '48

Evaporation losses

Claim vapor loss is eliminated in double-roof storage tank; patent, *diag Pet Processing* 3:695 J1 '48

Method of control for in-transit and storage losses, E. L. Hoffman, *Am Pet Inst Proc* 27(1):124-7 '47

Radiation by sun to tanks causing evaporation loss, W. L. Nelson, *Oil & Gas J* 46:143-4 F 26 '48

Bibliography

References on evaporation losses in storage, W. L. Nelson, *Oil & Gas J* 46:95 D 20 '47

Gas mixtures

Change in oil volume with gas solution, J. C. Calhoun, *il Oil & Gas J* 46:347 N 15 '47

Chart for calculating instantaneous gas-oil ratios, J. C. Calhoun, *il Oil & Gas J* 47:139 S 16 '48

Compressibility of reservoir fluid above the bubble point, J. C. Calhoun, *il Oil & Gas J* 46:123 D 13 '47

Estimation of formation volume factor, J. C. Calhoun, *il Oil & Gas J* 46:121 D 6 '47

Estimation of solution gas, J. C. Calhoun, *il Oil & Gas J* 46:91 N 29 '47

PETROLEUM—Gas mixtures—Continued

- Gas-oil ratio as a criterion of reservoir performance, J. C. Calhoun, jr. *Oil & Gas J* 47:109 N 4 '48
- Predicting solution gas-drive behavior, J. C. Calhoun, jr. *Oil & Gas J* 47:139 O 21 '48
- Pressure and saturation distribution in a radial system, J. C. Calhoun, jr. *Oil & Gas J* 47:321 S 23 '48
- Reservoir volumes; space occupied by stock-tank oil and its original gas, J. C. Calhoun, jr. *diags Oil & Gas J* 46:97 N 22 '47
- Solubility of gas in crude oil, J. C. Calhoun, jr. *Oil & Gas J* 46:87 N 8 '47

Geology

- American association of petroleum geologists annual meeting, Denver, April 26-29; abstracts of papers. *Oil & Gas J* 46:110+ Ap 25 '48
- Anadarko basin; geology and oil possibilities; future of basin exploration. R. R. Wheeler. maps *World Oil* 127:100+ Ja '48
- Appalachian basin Ordovician symposium. J. T. Galey, M. Kay and others. bibliog maps *diags Am Assn Pet Geologists Bul* 32:1395-657 Ag '48
- Appalachian regional meeting, American association of petroleum geologists, Pittsburgh, Oct. 4-9; abstracts of papers. *Oil & Gas J* 47:90 O 14 '48
- Basic geology of the Gulf Coastal area and the continental shelf. J. B. Carsey. maps *diag Oil & Gas J* 47:246+ Je 24 '48
- Brazil has extensive sedimentary areas favorable to accumulation of petroleum. A. I. de Oliveira. *il map Oil & Gas J* 46:48-50+ Ja 15 '48
- Differential thermal analysis of clays in sediments. A. J. Kaufman, jr. bibliog *World Oil* 128:118+ Jl '48
- Discovery of oil structures by aerial photography. B. M. Bench. *il Oil & Gas J* 47:98-100+ Ag 26 '48
- El Mene de Acosta field, Falcon, Venezuela. H. H. Suter. map *diag Am Assn Pet Geologists Bul* 31:2193-206 D '47
- Elk Basin anticline, Park county, Wyoming, and Carbon county, Montana. W. S. McCabe. bibliog *il maps diags Am Assn Pet Geologists Bul* 32:52-67 Ja '48
- Exploration in the Dakota basin. J. P. Gries. bibliog map *diag World Oil* 128:121-2+ Je '48
- Genesis and evolution of Los Angeles basin, California. H. L. Driver. maps *diags Am Assn Pet Geologists Bul* 32:109-25 bibliog(102 titles, p 122-5) Ja '48
- Geological study of Gulf Coast continental shelf. *il map diag Oil & Gas J* 46:82-4+ D 13 '47
- Geology of Benton field, Franklin county, Illinois. J. V. Howell. maps *diags Am Assn Pet Geologists Bul* 32:745-66 My '48
- Geology of Ethiopia being developed by Sinclair in exploring concession. H. Taylor. *il diag Oil & Gas J* 47:48-9+ Ag 12 '48
- Geology of West Tepetate oil field, Jefferson Davis parish, Louisiana. F. W. Bates and J. B. Wharton, jr. maps *Am Assn Pet Geologists Bul* 32:1712-27 S '48
- Lithofacies maps and regional sedimentary-stratigraphic analysis. W. C. Krumbeln. bibliog maps *diags Am Assn Pet Geologists Bul* 32:1909-23 O '48
- Log of formations and pay zones, area by area; chart. *Oil & Gas J* 47:supp O 7 '48
- Marine sedimentation and oil accumulation; regressive marine offlap and overlap-offlap. D. S. Malkin and D. J. Echols. map *diags Am Assn Pet Geologists Bul* 32:252-61 F '48
- More on radioactivity theory of petroleum formation; abstract. V. Burton. *Chem Eng* 55:266+ Ja '48
- Mountain provides operating clues for huge limestone field in Iran. H. S. Gibson. *il map Oil & Gas J* 46:48-9 Ap 6; 60-2 Ap 15 '48
- Nature and origin of limestone porosity. R. B. Hoblt. *il diags Colorado School of Mines [Golden] Quarterly* 43 no 4:1-51 bibliog(p49-51) '48 (pa \$1)
- New approach in study of origin of oil. R. P. Walters. *Am Assn Pet Geologists Bul* 32:1821-2 S '48
- New Mexico-Colorado 12,000 square-mile San Juan basin eyed by several majors and independents. R. C. Barnes. bibliog map *Oil & Gas J* 47:73-7 My 27 '48
- Oil and gas possibilities of southwestern Tennessee. C. A. Moritz. bibliog maps *World Oil* 128:160+ My '48
- Oil fields of Greater Oficina area, central Anzoategui, Venezuela. H. D. Hedberg and others. *il maps fold maps diag Am Assn Pet Geologists Bul* 31:2089-169 D '47
- Oil fields of Royal Dutch-Shell group in western Venezuela. bibliog maps *diags 2 fold charts Am Assn Pet Geologists Bul* 32:517-628 Ap '48
- Oil fields of west Buchivacoa, Venezuela. G. W. Halse. maps *diags Am Assn Pet Geologists Bul* 31:2170-92 D '47
- Oil prospects in Utah. G. M. Ruby. maps *Oil & Gas J* 46:87-90, 95-6+ F 12 '48
- Oil prospects of China as related to the carbon ratio. W. Weng. maps *Oil & Gas J* 46:45-6+ Ja 22 '48
- Origin and migration of oil into Sespe redbeds, California. T. L. Bailey. map *diags Am Assn Pet Geologists Bul* 31:1913-35 N '47
- Our petroleum resources. A. I. Levorsen. maps *diags Geol Soc Bul* 59:283-99 Ap '48
- Pennsylvanian stratigraphy and structure, Velma pool, Stephens county, Oklahoma. W. W. Mallory. bibliog maps *diags Am Assn Pet Geologists Bul* 32:1948-79 O '48
- Petersburg oil pool, Hale county, Texas. R. W. Mallory. maps *diags Am Assn Pet Geologists Bul* 32:780-9 My '48
- Petroleum possibilities along eastern front of the southern Andes. G. M. Ruby. *il map World Oil* 127:215-20 Mr '48
- Petroleum problem of Siberia. D. A. Shanazarov. bibliog maps *Am Assn Pet Geologists Bul* 32:153-97 F '48
- Petroliferous provinces of Union of Soviet Socialist Republics. F. J. Fohs. map *Am Assn Pet Geologists Bul* 32:317-50 bibliog(82 titles, p347-50) Mr '48
- Rose Hill, first production in Virginia. R. L. Miller. maps *diag Oil & Gas J* 46:78-81 N 8 '47
- Santa Ana, San Joaquín, Guarío, and Santa Rosa oil fields (Anaco fields), Central Anzoategui, Venezuela. H. J. Funkhouser and others. *il maps diags Am Assn Pet Geologists Bul* 32:1851-908 O '48
- Society of economic paleontologists and mineralogists annual meeting, Denver, April 26-29; abstracts of papers. *Oil & Gas J* 46:120-1 Ap 29 '48
- South Texas geological society meeting, Mexico City, Oct. 19-20; abstracts of papers. *Oil & Gas J* 47:129 O 21 '48
- Stratigraphic convergence problems in oil-finding. R. M. Swensnik and R. R. Wheeler. bibliog *diags Am Assn Pet Geologists Bul* 31:2021-9 N '47
- Structural trends and fault systems in Eastern interior basin. S. K. Clark and J. S. Royds. *il maps diags Am Assn Pet Geologists Bul* 32:1728-49 S '48
- Two recent wells in coastal plain of North Carolina. F. M. Swain. bibliog map *diag Am Assn Pet Geologists Bul* 31:2054-60 N '47
- Why there is so much interest in sedimentology. *Oil & Gas J* 46:113 Mr 4 '48
- Wilcox (eocene) stratigraphy, a key to production. D. J. Echols and D. S. Malkin. bibliog *diags maps Am Assn Pet Geologists Bul* 32:11-33 Ja '48; Correction. 32:310 F '48

See also**Salt domes****Bibliography**

- Review of petroleum geology in 1947. F. M. Van Tuyl and others. *Colorado School of Mines (Golden) Quarterly* 43 no3:1-334 bibliog(p207-334) Jl '48 (pa \$3)

Measurement

- Gaging methods in atmospheric and low-pressure storage. C. C. Keane. *Am Pet Inst Proc* 27(5):85-6 '47; Same. *Oil & Gas J* 46:285+ N 15 '47
- Positive-displacement metering and gravimetric meter proving on crude-oil pipe lines. J. B. Smith. *il plan diags Oil & Gas J* 46:80+ Ap 15 '48

PETROLEUM—Continued

Mining process

- Mining for oil in Japan. G. B. Shea. plans diag World Oil 127:198-202+ Ja '48
Oil mining in Europe. A. E. Gunther. diags Pet Eng 19:74+ My '48

Mud fluids

- Application of oil-base mud in the mid-continent area. T. Randolph. bibliog il Oil & Gas J 47:78+ My 27 '48
Bulk handling conserves mud materials. E. Sterrett. il World Oil 128:74-5 S '48
Chemistry of drilling fluids. H. T. Kennedy. bibliog diag World Oil 127:90+ Ap '48
Drilling mud problems of Rocky Mountain region. D. D. Varnell and W. B. Kimbrell. Pet Eng (Ref annual) 19:92+ Jl 1 '48
Same cond. Oil & Gas J 46:186 O 11 '47
Drilling muds pose chemical problems. W. T. Cardwell, jr. il Chem Ind 61:988-9 D '47
In-line mounting simplifies mud pump setup and piping. M. H. Pearce. il World Oil 127:76-7 F '48
Laboratory tester simulates mud conditions. N. E. Martello. il diags World Oil 128:98+ Ag '48
Lost circulation or lost returns. E. W. Lou-den. il World Oil 128:85+ S '48
Measurement of mud viscosities at high temperatures. V. N. Bednarski. il diags Pet Eng 20:192+ O '48
Modern rotary drilling; mud data on Gulf Coast well. J. Zaba. Oil & Gas J 46:95 N 22 '47
Modern rotary drilling; pump selection. J. Zaba. Oil & Gas J 46:119 D 6 '47
Mud acid increases production in Tuscaloosa sands. L. C. Power, jr. il map World Oil 128:168+ Ag '48
Mud system design cuts skidding time; tide-lands structures off-shore at Huntington Beach, Calif. J. C. Albright. il Pet Eng 19:89+ Mr '48
New developments in drilling fluids. J. P. Welchert. il Oil & Gas J 47:101+ Ag 26 '48
New method for evaluating effect of chemical treatment on drilling mud. N. E. Martello. bibliog il diags Oil & Gas J 46:70-3 S 8 '48; Same. Pet Eng 19:66+ F '48
New tools and methods for Gulf Coast work-over jobs. J. W. Quinn. Oil & Gas J 47:76+ S 2 '48
Pneumatic control in drilling mud systems. J. E. Kastrop. il diag World Oil 128:71-3 S '48
Preparation of drilling muds for laboratory investigations. W. E. Bergman and others. Oil & Gas J 47:96+ Ag 19 '48
Relation of nozzle fluid velocity to rate of penetration with drag type rotary bits. J. P. Nolley and others. bibliog il Pet Eng 19:86+ Je '48; Same. World Oil 128:78-82 S; 87+ O '48; Same cond. Oil & Gas J 47:87-8+ My 6 '48
Relation of water to drilling mud. E. C. Page. il Pet Eng 19:219-21 F '48
Turbine drill utilizes drilling fluid to rotate conventional rock bit. G. Weber. il diag Oil & Gas J 47:58-61 Je 3 '48
What is explanation of red mud behavior? C. R. Houssiere, jr. il Oil & Gas J 47:180+ Je 24 '48

Paraffin problem

- Heating reduces tank bottom reconditioning. M. H. Pearce. il World Oil 128:152-3 Je '48
Methods of paraffin removal. B. F. Grant. bibliog World Oil 127:142-4+ Ap '48
Steaming flow lines to remove paraffin. il World Oil 128:165-6 Ag '48

Pressure maintenance

See Petroleum—Production methods

Prices

- Additional advances likely for petroleum prices. World Oil 127:Yrbk 91-2+ F '48
Are oil prices too high? R. G. Dunlop. Comm & Fin Chr 168:900 S 2 '48
Companies supplying Europe oil deny phantom freight charges. Oil & Gas J 47:56 Jl 15 '48
Crude price boost line wavers as Southern Minerals cuts postings. Oil & Gas J 47:56 O 28 '48

- ERP will break world oil market unless watched. official warns. Oil & Gas J 47:53 Ag 12 '48
FTC basing point policy may force oil pricing shift. Nat Pet N 40:11-12 O 20 '48
Gulf crude prices inch upward as gravity scales are applied. D. M. Duff. Oil & Gas J 47:42-3 Jl 8 '48
Higher crude prices should stimulate supply. L. J. Logan. World Oil 127:33-4 Ja '48
Oil price rise will lift producers' net, not supply. S. G. Erbert. Barron's 27:41 D 8 '47
Other majors balk as Phillips ups crude 35c. J. P. Mosher, jr. Nat Pet N 40:11-12 S 29 '48
Phillips takes lead in raising crude prices, citing high costs. Oil & Gas J 47:47 S 30 '48
Premium payments cause Sun, Union to initiate major crude-price advance. H. D. Ralph. Oil & Gas J 46:52-3 D 6 '47
Price boost flops. Bsns W p24 O 30 '48
Price kickoff? Sun Oil boosts offers for crude. Bsns W p 104-5 D 6 '47
Slow-spreading crude advance becomes general. Oil & Gas J 46:56 D 13 '47
Sun boosts crude 50c bbl. but will hold on product prices unless others go up. J. P. Mosher, jr. Nat Pet N 39:11-12 D 3 '47
U.S. well drilling compared with prices; table. Nat Pet N 40:39 Ja 14 '48

Production costs

- Cost study of a waterflood development in Bradford, Penn. J. K. Barton and R. G. Prentice. diag World Oil 128:134+ O '48
Water-flood spacing; with cost data. S. T. Yuster. Oil & Gas J 46:70-3+ D 20 '47; Same. World Oil 127:124-8+ Ja '48

Production estimates

- Chart for use in productivity-index calculations. J. C. Calhoun, jr. Oil & Gas J 47:103 Ag 19 '48
Decline of productivity index on an internal gas-drive reservoir. J. C. Calhoun, jr. Oil & Gas J 47:135 S 16 '48
Dependence of production on gas withdrawals. J. C. Calhoun, jr. Oil & Gas J 47:101 Jl 8 '48
Internal-gas-drive reservoir. J. C. Calhoun, jr. Oil & Gas J 47:115 O 28 '48
Productivity index. J. C. Calhoun, jr. Oil & Gas J 47:157 Ag 26 '48
Steps in engineer's program of evaluating an oil property. E. A. Nichols. bibliog diag Oil & Gas J 47:68-70+ Ag 12 '48
Theoretical productivity index. J. C. Calhoun, jr. Oil & Gas J 47:107 S 9 '48

Production methods

- Application of shaped-charged process to petroleum production. R. H. McLemore. diags Oil & Gas J 46:261+ N 15 '47; Same. il Pet Eng 19:129+ Ag '48
Automatic lease operation. G. Weber. il diags Oil & Gas J 47:74+ Ag 5 '48
Automatic operation of flowing oil wells and tank batteries. J. N. Poore. il plan diags Pet Eng 19:70+ Ag '48
Calculation of the effect of pressure maintenance on oil recovery. R. L. Hoss. World Oil 127:129-30+ Mr '48
Chocolate Bayou exemplifies good operating practice in high-pressure Gulf Coast fields. L. S. McCaslin, jr. il map diag Oil & Gas J 47:169-70+ Je 24 '48
Cities Service water-flood plant. L. S. McCaslin. il Oil & Gas J 46:94-5 Mr 4 '48
Cleanout and remedial work in the Panhandle area. E. V. Garrett. il diags World Oil 128:129-32 Jl '48
Considerations in effective oil production. H. M. Ryder. bibliog diags World Oil 128:152+ Ag '48
Cycling at high pressure vs. depletion and cycling at low pressure. E. O. Bennett. Pet Eng 19:120+ Ja '48; Same. World Oil 127:160+ Mr '48
Design and construction of compressor plants for the compression of air and gas to be injected into partially depleted reservoirs. P. D. Torrey. bibliog flow diags Pet Eng 19:108+ D '47
Dry hole survey lessens water flooding hazards. F. R. Cozzens. Pet Eng 20:184+ O '48

PETROLEUM—Production methods—Cont.

- Eastern Kansas water flood increases production. L. S. McCaslin, jr. *il plan diag Oil & Gas J* 46:108-11 F 26 '48
- Economics of secondary oil recovery. W. B. Berwald. *Am Pet Inst Proc* 27(4):46-65 '47; Same. *World Oil* 127:142-+ Ja '48; Same cond. *Oil & Gas J* 46:317-18+ N 15 '47
- Effect of shot-hole dimensions on oil production costs. F. R. Cozzens. *il World Oil* 127:156-+ Mr '48
- Effect of water injection in gas drive. D. E. Menzie, *biblog Oil & Gas J* 46:78-80+ Ja 22 '48
- Effect on production of fluid distribution and relative permeability in sand. H. M. Ryder. *biblog il World Oil* 128:142-4+ Je '48
- Extensive testing feature of three-part gas-injection program at West Edmond. L. S. McCaslin, jr. *il plan Oil & Gas J* 46:133-+ Ap 29 '48
- Field test of corrosion inhibitor for low-pH flood water. J. N. Breston and K. Barton. *il Oil & Gas J* 46:91-2+ D 6 '48
- Flowing dually completed wells. T. P. Hoffer. *il diag Pet Eng* 19:11-12 Ja '48
- Formation and operation of cooperative projects in secondary recovery. D. V. Carter. *biblog Am Pet Inst Proc* 27(4):13-35 '47; Same. *Pet Eng (Ref annual)* 19:126+ J1 1 '48
- How to do it! production hints. *il Published in monthly numbers of World oil*
- Hydrafrac process for increasing productivity of wells. J. B. Clark. *il diag Oil & Gas J* 47:76-9+ O 14 '48
- Illinois oil development and repressuring at Loudon. C. G. Herrington and M. C. Sons. *flow diag il World Oil* 127:115-13 Ja '48
- Mud acid and plastics aid solutions to completion and production problems. A. C. Polk, jr. *il Oil & Gas J* 47:205+ Je 24 '48
- New Gulf Oil plant in west Texas combines gas lift and repressuring. G. Weber. *il map Oil & Gas J* 46:96-7+ D 13 '47
- New unit operation in Lake St John (La.) field; combination cycling, pressure-maintenance plant installation; combination crude-oil and gas-condensate reservoir produced and operated as unit. N. Williams. *flow diag il map Oil & Gas J* 46:99-102+ D 6 '47
- North Cowden, west Texas' first high-pressure gas injection project on cooperative and pool-wide basis. K. B. Barnes. *il map diag Oil & Gas J* 47:52-5+ J1 1 '48
- Novel use of gas pressure displaces pumps for gathering Jusepin crude. D. H. Stomont. *il Oil & Gas J* 47:44-5 N 4 '48
- Oil production from Phillips-operated water-flood project. L. S. McCaslin, jr. *il plan Oil & Gas J* 47:216-18+ J1 29 '48
- Oil production in southwestern Iran. H. S. Gibson. *il diag World Oil* 128:271-6+ My: 217-20+ Je '48; Same. *Inst Pet J* 34:374-98 Je '48
- Oil-well reconditioning in southwestern Pennsylvania, West Virginia, and southeastern Ohio. B. F. Grant. *biblog 26pls U S Bur Mines Rep of Invest* 4193:1-82 '48
- Pan American to use pressure maintenance, wide spacing in Gulf Coast field. *Oil & Gas J* 46:105 D 13 '47
- Plans and purposes of the Interstate oil compact commission dealing with secondary-recovery operations. E. Foster. *Am Pet Inst Proc* 27(4):13-17 '47; Same cond. *Oil & Gas J* 46:286+ N 15 '47
- Pressure maintenance and cycling plants increase recovery. E. K. Parks. *plan World Oil* 127:138+ F '48
- Pressure maintenance and high pressure absorption. F. H. Love. *il Pet Eng* 19:155+ Ap '48
- Pressure-maintenance project operates on cooperative basis. E. Short. *flow diag il Oil & Gas J* 46:76-7 F 12 '48
- Problems facing water flooding in Kentucky. H. S. Barger. *Oil & Gas J* 47:78+ Ag 5 '48
- Production and disposition of natural gas by California producers. E. K. Parks. *diag Pet Eng* 19:58+ Ap '48
- Production by expansion of reservoir fluid above bubble point. J. C. Calhoun, jr. *diag Oil & Gas J* 46:91 D 20 '47
- Production of crude oil by solution in high-pressure water. *diag World Oil* 128:136+ S '48
- Rapid water bypass test. A. Gibbon. *il World Oil* 127:130-1 F '48
- Recovering petroleum from bottom of abandoned wells; abstract. E. A. Hauser and A. S. Michaels. *Chem & Eng N* 26:2049-50 J1 12 '48
- Results of water injection in Woodbine reservoir of the east Texas field. W. S. Morris. *il diag Am Pet Inst Proc* 27(4):36-45 '47; Same abr. *Oil & Gas J* 46:245-6+ N 15 '47
- Secondary recovery adds to Arkansas reserves. L. L. Jordan. *World Oil* 128:121-4 S '48
- Secondary recovery of oil by water-flooding in fields of north Texas; supplement to R. L. 3906. History of water-flooding of oil sands in north Texas. R. K. Guthrie and others. 51pls U S Bur Mines Rep of Invest 4250:1-158 '48
- Secondary recovery; 12th annual technical meeting, State College, Penn. Oct. 14-16; abstracts of papers. *Oil & Gas J* 47:105-6 O 28 '48
- Selective production by alternate layer method. G. Weber. *il diag Oil & Gas J* 46:107-8+ F 19 '48
- Slug feeding of sodium hypochlorite on water-flood leases. J. K. Barton and others. *World Oil* 128:194+ My '48
- Small field gets pressure maintenance. F. H. Love. *il Pet Eng* 19:152+ Ag '48
- Sohio establishes separate division to handle water-flood operations. L. S. McCaslin, jr. *Oil & Gas J* 47:78+ Je 3 '48
- Summary of oil production from fractured rock reservoirs in California. W. S. Eggleston. *Am Assn Pet Geologists Bul* 32:1352-5 J1 48
- Summary of reservoir energies. J. C. Calhoun, jr. *Oil & Gas J* 46:117 Mr 11 '48
- Survey of dual completions. E. B. Miller, jr. *Oil & Gas J* 46:276-8 N 15 '47
- Tapping the vast reserve of hard-to-get oil. *il Bsns W* p38-40 Ag 28 '48
- Unusual water-injection project proposed to Texas commission. *Oil & Gas J* 47:58 S 30 '48
- Use of electrical models in study of secondary recovery projects. A. Wolf. *biblog il Oil & Gas J* 46:94+ Ap 15 '48
- Use of secondary-recovery methods boosts output of crude oil in Russia. *Oil & Gas J* 46:62 Mr 11 '48
- Water-flood spacing; with cost data. S. T. Yuster. *Oil & Gas J* 46:70-3+ D 20 '47; Same. *World Oil* 127:124-8+ Ja '48
- Water-flooding opportunities explored by gas injection. F. Squires. *maps diag World Oil* 127:136-40 Ap '48
- Whither are we headed in petroleum production. R. S. Knappen. *Oil & Gas J* 47:79-80+ Je 17 '48
- See also
- | | |
|------------------------------|-----------------------------------|
| Petroleum—Acidation of wells | Petroleum—Unit operation of pools |
| Petroleum—Mining process | Petroleum—Well drilling |

Bibliography

- Classified list of important papers given during preceding year; production. *Pet Eng (Ref annual)* 19:214+ J1 1 '48
- 1947 supplement to the API bibliography on secondary recovery of oil. *Am Pet Inst Proc* 27(4):59-71 '47

Production rate

- MER (maximum efficient rate), a history. E. Kraus. *biblog Oil & Gas J* 46:269+ N 15 '47

Prospecting

- Aerial photography and exploration for oil. N. J. M. Taverne. *diag Inst Pet J* 34:516-35, pl 1-8; Discussion. 535-40 Ag '48
- Aluminum exploration equipment has advantages in Gulf Coast marshes. L. S. McCaslin, jr. *il Oil & Gas J* 47:88-9 O 14 '48
- Canada in midst of greatest exploration play in the Dominion's history. C. Deegan. *maps diag Oil & Gas J* 46:150-3 Ap 29 '48
- Development and exploratory trends in the Rocky Mountain region. C. M. Boos and L. Brundall. *il map World Oil* 127:107-8+ F '48

PETROLEUM—Prospecting—Continued

- Discovery of oil structures by aerial photography. B. M. Bench. *Oil & Gas J* 47:98-100+ Ag 26 '48
- Economics of Alaskan exploration. K. M. Fagin. *il map Pet Eng* 19:57-8+ D '47
- Exploration campaign stepped up to highest level in history. L. S. McCaslin, jr. *Oil & Gas J* 46:162-3 Ja 29 '48
- Exploration, drilling exceeding schedules; daily completions 11 ahead of 1947. C. J. Deegan. *Oil & Gas J* 47:147+ My 20 '48
- Exploration in the Dakota basin. J. P. Gries. *bibliog map diag World Oil* 128:121-2+ Je '48
- Exploration spurred by showings in southern France. E. N. Tiratsoo. *il map World Oil* 127:215-17 Ap '48
- Exploratory drilling in 1947. F. H. Lahee. *maps Am Assn Pet Geologists Bul* 32:851-68 Je '48; *Abstract. Oil & Gas J* 46:79-80+ Ap 8 '48
- Five-year extension of Arctic Alaska oil search now appears certain. *il map diag Oil & Gas J* 47:44-5+ Je 17 '48
- Forrestal supports continued exploration in Alaska's naval petroleum reserve. *map Oil & Gas J* 46:144-5 Ja 29 '48
- Geological study of Gulf Coast continental shelf. *il map diag Oil & Gas J* 46:82-4+ D 13 '47
- Geology of Ethiopia being developed by Sinclair in exploring concession. H. Taylor. *il diag Oil & Gas J* 47:48-9+ Ag 12 '48
- Germany's stepped-up exploration yields little new oil. *map World Oil* 127:237-8 Ap '48
- Highlights on 1947 developments in foreign petroleum fields. L. C. Weeks. *maps Am Assn Pet Geologists Bul* 32:1093-100 Je '48
- Increased capitalization of geological-geophysical expenses would reduce exploration. *World Oil* 128:43 Jl '48
- Integration in exploration. C. H. Green. *Oil & Gas J* 46:106+ Ap 29 '48
- Intensive oil search goes on in Australia. *map Pet Eng* 19:66 Ja '48
- Japan's new exploration program. *il map World Oil* 128:229-33 Ag '48
- Oil scout; Fred Goodman of Midland, Texas. *Fortune* 38:120+ S '48
- Prospecting for oil in the Northwest Territories. J. M. Parker. *bibliog il maps diag World Oil* 128:210-12+ S '48
- Prospective acreage as a measure of discovery expectancy. J. S. Herold. *Oil & Gas J* 46:80-3+ Ap 22 '48
- Ratio of wildcatting to all drilling and proportion of wildcats discovering new fields, by districts, 1937-1947; tabulation. *World Oil* 127:Yrbk 142 F '48
- Results of exploratory drilling in Dec. and year, 1947-1948, by districts; tabulation. *World Oil* 127:62 F '48
- Surface geology beneath the sea. J. L. Chase. *il diag Pet Eng* 19:102+ Ag '48
- Wildcat drilling highest despite handicaps. C. Smith. *World Oil* 127:Yrbk 134 F '48
- Wildcatting at highest peak. *World Oil* 128:52 Ag '48

Geophysical methods

- Airborne magnetometer. *il diag Electronics* 21:124+ O '48
- Airborne magnetometer. H. Jensen. *il Oil & Gas J* 46:389-90+ Mr 17 '48
- Can shot holes be eliminated in seismograph work? *Oil & Gas J* 47:127 S 30 '48
- Dull tools are costly; geophysical instruments need redesigning to find more oil and ore. F. Rieber. *Min & Met* 29:24-7 Ja '48
- Economics of aerial magnetics. C. J. Deegan. *il Oil & Gas J* 47:67+ Jl 22 '48
- Exploring for oil by helicopter. *Aero Digest* 57:55+ N '48
- Explosives and petroleum. G. K. Bell, jr. *il Explosives Eng* 26:39-43, 76-8+ Mr-My '48
- FCC member urges radio location permits for offshore oil work. *Oil & Gas J* 47:67 S 16 '48
- Flying magnetometer speeds oil search. I. Stone. *il Aviation W* 49:26-6 Ag 23 '48
- Flying magnetometer speeds oil search; illustrations with text. *Pet Eng* 19:55-6 S '48
- Geophysical activity increased as year begins. *World Oil* 127:Yrbk 158 F '48
- Geophysics and the surveying problem. *Oil & Gas J* 47:129 Je 10 '48
- Gulf tells public how its magnetometer works. B. R. Quayle. *Nat Pet N* 40:20 Ag 11 '48

- Gulf's airborne magnetometer in Florida. J. E. Kastrop. *il World Oil* 128:138-40+ Ag '48
- Integration in exploration. C. H. Green. *Am Assn Pet Geologists Bul* 32:1216-20 Jl '48
- Looking for oil; seismographic methods. *il Bsns W* p90-1 My 15 '48
- Lorac, a new surveying method for over-water exploration. C. J. Deegan. *il maps diag Oil & Gas J* 47:58-61+ Je 17 '48
- Magnetometer survey of Bahamas. *Can Min J* 69:87-8 Mr '48; *Same. Pet Eng* 19:86 Mr '48
- Modern exploratory tools being used in five-company Bahama oil search; airborne magnetometer used in conjunction with shore radar. W. W. Burns. *il map diag Oil & Gas J* 46:38-40+ N 8 '47
- 1947 geophysical activity in the United States. E. A. Eckhardt. *Oil & Gas J* 47:70+ S 30 '48
- Offshore California gets geophysical survey. R. Sneddon. *il Pet Eng* 20:242+ O '48
- Puerto Rican geophysical survey shows favorable possibilities. *il Oil & Gas J* 47:37 Jl 1 '48
- Radio seeks black gold. T. A. Patterson, jr. *il diag Radio N* 40:56-7+ Jl '48
- Seismic work damage suits seen as deterrent to Gulf development. D. M. Duff. *Oil & Gas J* 46:52 Ap 15 '48
- Seismograph surveying in central Alberta. E. J. Handley. *il World Oil* 128:213-14+ Je '48
- Shooting for oil; seventeen companies pool resources to explore structures in Pacific ocean. M. Wharton. *il diag Explosives Eng* 26:142-6+ S '48
- Shooting regulations for Gulf waters promulgated by Texas land office. *Oil & Gas J* 46:42 Ja 22 '48
- Shoran radar, war's contribution to oil exploration. E. B. Stern, jr. *il diag Oil & Gas J* 46:70-2 Ja 15 '48
- Society of exploration geophysicists annual meeting, Denver, April 26-29; abstracts of papers. *Oil & Gas J* 46:113-17+ Ap 29 '48
- Technique for velocity error corrections in seismograph technique. J. L. Kezeler. *diag World Oil* 128:112+ S '48
- Techniques and problems in marine seismic exploration. R. L. Palmer. *diag Oil & Gas J* 47:160+ Je 24 '48
- Tracing wildcat trends with radon emanations. R. A. Stothart. *maps World Oil* 127:78-9 F '48
- U.S. oil findings can meet needs in next few years! G. H. Westby. *World Oil* 128:61-2+ Ag '48

Pumping

- Application of pumping equipment. K. N. Mills. *diag World Oil* 127:119-26+ F '48
- Calculation of pumping unit engine drives. E. Caraway. *il Pet Eng* 20:156 O '48
- Closed gas-lift system operating at League City. *il map Oil & Gas J* 47:62-4 Jl 8 '48
- Desirable characteristics of pumping units and engines. J. C. Slonneger. *Pet Eng (Ref annual)* 19:120+ Jl 1 '48
- Distribution of pumping costs. R. Sneddon. *Pet Eng* 19:51-4 S '48
- Factors to be considered in the selection and use of subsurface sucker-rod pumps. R. L. Chenault. *il diag Pet Eng* 19:132+ Ja '48
- 15,688 wells scheduled to go on pump during current year. *Oil & Gas J* 46:217 Ja 29 '48
- Gas lift as a production tool; a comparison of gas lift and rod pumping in the same field. E. L. Petree. *diag Oil & Gas J* 47:124+ Ag 26 '48
- Gas lifting low-fluid-level wells by use of a volume or accumulation chamber. A. C. Golden. *diag Oil & Gas J* 47:217 Je 24 '48
- Graphic method of determining torque on pumping reducer from polished-rod and counterweight data. J. C. Slonneger. *diag Am Pet Inst Proc* 27(4):326-32 '47
- How to calculate well loads and select pumps. A. E. Caraway. *diag Pet Eng* 19:108+ Je '48
- Hydraulic installation and servicing of oil-well pumps. E. Short. *il diag Oil & Gas J* 46:62-3 Ja 8 '48
- Hydraulic pumps for shallow oil wells. A. A. Hardy and W. C. Norris. *il diag Pet Eng* 19:113-14 F '48; *Same cond. Oil & Gas J* 46:102+ O 25 '47
- Hydraulic system seats and lifts oil well pump; Kobe free type pumping system. *il diag Product Eng* 19:106-7 F '48

PETROLEUM—Pumping—Continued

Industry to equip 18,525 wells with pumping equipment. World Oil 127:Yrbk 161-2 F '48
New long-stroke hydraulic pump unit gets first Mid-continent installation. L. S. McCaslin, Jr. flow diag il diags Oil & Gas J 46:87-90 Ja 15 '48

Petroleum pumpier activities; application of motion and time study techniques; abstract. H. G. Thuesen. plans Mech Eng 70:240-2 Mr '48

Practical dynamometer card interpretation. W. H. Ritterbusch, Jr. diags World Oil 127:152-4 Mr '48

Report of committee on the standardization of oil-field belting. Am Pet Inst Proc 27(4):171-6 '47

Report of committee on the standardization of pumping equipment and engines. diags Am Pet Inst Proc 27(4):302-25 '47

Ring dynamometer for pumping wells; abstract. D. O. Johnson. Oil & Gas J 47:106 O 14 '48

Rod pumping. K. T. McCamman. Oil & Gas J 47:80+ Je 10 '48

Subsidence of the Terminal Island-Long Beach area, California; effect of water and oil pumping. F. R. Harris and E. H. Harlow. il plans diags Am Soc E Proc 73:1197-218 bibliog(p 1217-18) O '47; Discussion. 74:397-9, 788-92 Mr, My '48

Temperature gradients in gas lift wells. R. E. Powers and E. C. Craft. bibliog Pet Eng 19:118+ Mr '48

Pumping, Electric

Application of recording type meters at electric pumping wells. R. E. Hammond. il Oil & Gas J 47:62-5+ Je 3 '48

Oil production by electric power. W. G. Taylor. il diags Gen Elec R 51:21-30 S '48; Excerpts. Elec Eng 67:694 J1 '48

Selection of transformer-bank ratings for oil-field power distribution; engineering reference sheet. Elec World 130:86 J1 17 '48

Transformer connections for oil well pumping distribution systems. J. N. Poore. il diags World Oil 128:155-6 Je '48

Repressuring

See Petroleum—Production methods

Salt content

Processing sour crudes at Globe, Lemont refinery. R. B. Pierce and others. Oil & Gas J 47:96-7 S 30 '48; Abstract. Pet Processing 3:941+ O '48

Sampling

Sampling of crude oil. A. C. Dyer. diag Pet Eng 19:136+ Je '48

See also

Petroleum—Well drilling—Sampling

Statistics

Exploratory drilling in 1947. F. H. Lahee and others. bibliog maps Am Assn Pet Geologists Bul 32:851-1160 Je '48

First half production barely misses reaching even billion barrels. P. De Armond. Oil & Gas J 47:176-8 J1 29 '48

Foreign production shows midyear increase of 374,000 bbl. daily. W. W. Burns. Oil & Gas J 47:179-80 J1 29 '48

Highlights on 1947 developments in foreign petroleum fields. L. G. Weeks. maps Am Assn Pet Geologists Bul 32:1093-160 Je '48

Major fields vs. total United States reserves and production; tabulation. Oil & Gas J 47:184-5 J1 29 '48

1948 to bring another sharp gain in world crude production; with tabulated statistics by countries, through 1947, by years, 1857-1947. World Oil 127:Yrbk 245-8+ F; 128:25+ sec 2 J1 '48

Oil output hits new high in 1947; U.S. producers at maximum efficient capacity. E. G. Dahlgren. Min & Met 29:140-2 F '48

110 fields produced nearly 50 per cent of oil in 1947. H. David. Oil & Gas J 46:167-9 Ja 29 '48

United States, crude oil production, by states, by years, 1859-1947; tabulations. World Oil 128:99+ sec 2 J1 '48

World crude production, 1947. World Oil 128:15+ sec 2 J1 '48

World producing wells, 1947. World Oil 128:43+ sec 2 J1 '48

See also

Petroleum industry and trade—Statistics

Petroleum supply

Storage

See Petroleum storage

Stripper wells

Sand face cleaning with lye, aluminum, and oil. F. R. Cozzens. World Oil 128:174+ Ag '48

Sulfur content

Carbon steel gives good service in processing sour crude oils. il Pet Processing 3:111-13 F '48

High-sulfur crude oils of the United States; trends in supply. H. M. Smith and O. C. Blade. map Am Pet Inst Proc 27(3):119-40 '47; Same cond. Pet Refiner 27:101-10 My '48; Same cond. Oil & Gas J 46:73-8 N 29 '47; Abstract. Pet Processing 2:903-4 D '47

New API project started. il Chem & Eng N 26:3274-5 N 1 '48

Processing sour crude; Globe oil & refining co. R. B. Pierce and others. Oil & Gas J 47:96-7 S 30 '48; Abstract. Pet Processing 3:941+ O '48

Sour crudes; equipment protection. E. Q. Camp. bibliog flow diags il diags Am Pet Inst Proc 27(3):153-66 '47; Same. Oil & Gas J 46:68+ N 22; 83-7 N 29 '47; Same. Pet Refiner 26:100-11 D '47; Same abstr. Pet Processing 2:967-72 D '47

Sulfur in petroleum; A.P.I., U.S. Bureau of mines, and Northwestern University research project. K. B. Barnes. il Oil & Gas J 47:58-60 N 4 '48

See also

Petroleum refining—

Sulfur removal

Tideland development

Big Gulf gamble. il map Fortune 38:68-71+ J1 '48

Clark upholds stipulations on tidelands in report to President. Oil & Gas J 46:33 N 8 '47

Continental Shelf activity intensified. L. J. Logan and C. Smith. il map World Oil 128:37-40 J1 '48

Engineering characteristics of the Gulf Coast continental shelf. M. B. Willey. maps Pet Eng (Ref annual) 19:97-8+ J1 1 '48

Explosives and petroleum; offshore operations. G. K. Bell, Jr. il Explosives Eng 26:76-8+ My '48

Federal cloud not halting work in Gulf of Mexico drilling. D. M. Duff. Oil & Gas J 47:30-1 J1 1 '48

FCC member urges radio location permits for offshore oil work. Oil & Gas J 47:67 S 16 '48

Geological study of Gulf Coast continental shelf. il map diag Oil & Gas J 46:82-4+ D 13 '47

Government seeks to claim tidelands without awaiting new legislation. B. F. Linz. Oil & Gas J 47:31 J1 1 '48

Industry representatives differ on offshore bonus allowables. D. M. Duff. Oil & Gas J 47:40 S 2 '48

Krug opposes Tidelands-return bill before Senate-House group. Oil & Gas J 46:55 Mr 11 '48

Lorac, a new surveying method for over-water exploration. C. J. Degan. il maps diags Oil & Gas J 47:58-61+ Je 17 '48

Offshore California gets geophysical survey. R. Snedden. il Pet Eng 20:242+ O '48

Offshore drilling methods and production problems. G. B. Parks. Pet Eng 19:90+ Ag '48

Oil race goes undersea. G. L. Merton. Mag of Wall St 82:238-9+ Je 5 '48

Oil under water; derricks sprouting in Gulf. il Bsns W p39-40+ Je 5 '48

Quest for oil in the Gulf. il Manuf Rec 117:33 J1 '48

Seismic work damage suits seen as deterrent to Gulf development. D. M. Duff. Oil & Gas J 46:52 Ap 15 '48

Seven discoveries in Gulf of Mexico. L. S. McCaslin, Jr. il Oil & Gas J 47:64-7 S 30 '48

PETROLEUM—Tideland development—Cont.

- Shooting for oil; seventeen companies pool resources to explore structures in Pacific ocean. M. Wharton. *il diag Explosives Eng* 26:142-6+ S '48
- Shooting regulations for Gulf waters promulgated by Texas land office. *Oil & Gas J* 46:42 Ja 22 '48
- Shoran radar, war's contribution to oil exploration. E. B. Stern, jr. *il diag Oil & Gas J* 46:70-2 Ja 15 '48
- State governors attack Supreme court and Cabinet on tidelands. B. F. Linz. *Oil & Gas J* 46:87-8 F 26 '48
- Surface geology beneath the sea. J. L. Chase. *il diags Pet Eng* 19:102+ Ag '48
- Techniques and problems in marine seismic exploration. R. L. Palmer. *diags Oil & Gas J* 47:160+ Je 24 '48
- Texans take Clark's news quietly, will double efforts for quitclaim. D. M. Duff. *Oil & Gas J* 46:54 Mr 11 '48
- Tidelands controversy heightened as senator, three cabinet members, Indians revive arguments. *Nat Pet N* 40:17 Ap 21 '48
- War record shows fallacy of relying on undeveloped reserves. D. M. Duff. *Oil & Gas J* 46:71 Mr 18 '48

Transportation

- Company plans point to lower costs for crude imports from Middle East. W. W. Burns. *il Oil & Gas J* 46:46+ F 5 '48
- Future problems of transportation of petroleum by highway. J. W. Sinclair. *Am Pet Inst Proc* 27(5):24-7 '47; Same abr. *Nat Pet N* 39:43+ N 12 '47; Same cond. *Oil & Gas J* 46:275+ N 15 '47
- Radar for river oil tows. *il World Oil* 127:175 Ja '48
- St Lawrence seaway may become vital oil artery. *map World Oil* 127:344+ F '48
- Tanker fleet shortage to be eased. *il World Oil* 127:Yrbk 232+ F '48
- Tanker transportation and remarks on inland-waterway operations. M. G. Gamble. *Am Pet Inst Proc* 27(5):16-18 '47; Same cond. *Nat Pet N* 39:56-7 N 12 '47; Excerpts. *Oil & Gas J* 46:311 N 15 '47
- See also
- | | |
|------------------------------|-------------|
| Petroleum pipe lines | Tank cars |
| Petroleum shipping terminals | Tank ships |
| | Tank trucks |

Unit operation of pools

- Formation and operation of cooperative projects in secondary recovery. D. V. Carter. *bibliog Am Pet Inst Proc* 27(4):18-35 '47; Same. *Pet Eng (Ref annual)* 19:126+ J 1 '48
- Legal aspects of the unitization of oil and gas fields. R. M. Myers. *bibliog Oil & Gas J* 47:222-6+ My 20 '48
- Nation's largest unit operation accomplishes much in first three months; Oklahoma's West Edmond field. L. S. McCaslin, jr. *il map Oil & Gas J* 46:44-7+ Ja 1 '48
- Nation's largest voluntary unit formed on Texas Gulf coast. L. S. McCaslin, jr. *il map diag Oil & Gas J* 47:84-6+ S 16 '48
- Need for unitized operation of oil pools. H. H. Kaveler. *World Oil* 127:46+ F '48
- New unit operation in Lake St John (La.) field; combination cycling, pressure-maintenance plant installation; combination crude-oil and gas-condensate reservoir produced and operated as unit. N. Williams. *flow diag il map Oil & Gas J* 46:99-102+ D 6 '47
- Preplanned program with royalty owners followed in newest unit project. L. S. McCaslin, jr. *plan Oil & Gas J* 46:64-5+ Ap 8 '48
- Wesson unit; a model gas-conservation project. G. Weber. *il map Oil & Gas J* 47:73-5 J 12 '48

Water flooding

See Petroleum—Production methods

Water problem

- Allowable transfer from high water wells levels east Texas water withdrawal rate. G. Weber. *il map Oil & Gas J* 47:64-6+ My 27 '48
- Circular salt-water treating unit proves successful. G. Weber. *il plan diags Oil & Gas J* 47:102-3 Ag 12 '48

- Diagenesis of oil-field brines. L. U. De Sitter. *bibliog map diags Am Assn Pet Geologists Bul* 51:2030-40 N '47
- Effect of connate water on relative permeability ratio. J. C. Calhoun, jr. *Oil & Gas J* 46:135 F 19 '48
- Effect of net water encroachment on reservoir pressure decline. J. C. Calhoun, jr. *Oil & Gas J* 47:109 J 15 '48

Well blasting

- Application of shaped-charged process to petroleum production. R. H. McLemore. *diags Oil & Gas J* 46:261+ N 15 '47; Same. *il Pet Eng* 19:129+ Ag '48
- Explosives and petroleum. G. K. Bell, jr. *il Explosives Eng* 26:39-43 Mr '48

Well casing

- Application of shaped-charged process to petroleum production. R. H. McLemore. *diags Oil & Gas J* 46:261+ N 15 '47; Same. *il Pet Eng* 19:129+ Ag '48
- Care of salvaged casing. *il World Oil* 128:108 Ag '48
- Casing cementing and perforating practices. A. J. Teplitz. *il Oil & Gas J* 47:69-70+ S 9 '48
- Celebrate 100,000th gun perforating job. R. Sneddon. *il Pet Eng* 19:84+ J 1 '48
- Chemical removal of aluminum pipe sections. C. E. Clason. *World Oil* 128:132-3+ O '48
- Cleanout and remedial work in the Panhandle area. E. V. Garrett. *il diags World Oil* 128:129-32 J '48
- Completion methods in the eastern interior coal basin. E. C. Wells, jr. *diags World Oil* 128:86-8+ Je '48
- Concrete pipe used for surface casing in two mid-continent tests. N. Williams. *il Oil & Gas J* 47:66-7+ Ag 12 '48
- Detection and repair of casing leaks. W. F. Martin. *diags Pet Eng* 19:103 Ja '48
- Direct method for calculating length of section simplifies design of combination casing strings. B. E. Curran. *bibliog diag Oil & Gas J* 47:80-4+ O 14 '48
- Dry-ice bailer is new tool for well clean-out operations. L. S. McCaslin, jr. *diag Oil & Gas J* 47:258+ J 19 '48
- Field results of jet perforator charges. R. Marcus. *il Pet Eng (Ref annual)* 19:107+ J 1 '48
- Hazards in salvaged pipe. F. R. Cozzens. *World Oil* 128:158+ Je '48
- Jet casing cutter saves hours in California demonstration. H. David. *il Oil & Gas J* 47:85 Ag 12 '48
- Mene Grande develops new completion technique. D. H. Stormont. *il diag Oil & Gas J* 47:99+ S 16 '48
- Old oil wells yield their last treasure in novel operations; reclaimed steel casing found suitable as feeder linepipe. D. I. Brown. *Iron Age* 162:121 S 9 '48
- Report of committee on the standardization of oil-country tubular goods. *Am Pet Inst Proc* 27(4):210-34 '47
- Safety factors in casing design. E. N. Kemler. *bibliog World Oil* 127:71-2+ Ja '48
- Some observations on casing strain after cementing. H. G. Texer. *diag Oil & Gas J* 46:72+ Ap 8 '48
- Study of gun perforating. V. L. Forsyth. *il World Oil* 128:145-8+ Ag; 142+ S; 142+ O '48
- Tonnage report on casing, drill pipe, and tubing for year 1947; tabulation. *Am Pet Inst Proc* 27(4):235-8 '47

Well cementing and plugging

- Casing cementing and perforating practices. A. J. Teplitz. *il Oil & Gas J* 47:69-70+ S 9 '48
- Cementing method designed to prevent cement contamination in casing. G. Weber. *diags Oil & Gas J* 46:134+ F 26 '48
- Completion methods in the eastern interior coal basin. E. C. Wells, jr. *diags World Oil* 128:86-8+ Je '48
- Development in technique of cementing casing. G. E. McClatchey. *il diags Oil & Gas J* 46:56-7+ Ja 8 '48
- Drillable bridging plugs. S. H. King. *il diag World Oil* 128:199-200+ My '48
- Experimental tests with hydraulic pressure applied to cement plugs in oil well casing. W. Moore. *il Pet Eng* 19:198+ F '48

PETROLEUM—Well cementing and plugging

—Continued

Mene Grande develops new completion technique. D. H. Stormont. *il* diag Oil & Gas J 47:99+ S 16 '48

New liner-setting method used in world's deepest producer in Natrona county, Wyo. L. S. McCaslin, jr. *il* Oil & Gas J 47:103+ N 4 '48

New technique designed for cementing casing. K. M. Fagin. *diags* Pet Eng 19:156+ Ja '48

Plugging off cavities in university field. F. E. Bryson. *diag* World Oil 128:100+ Je '48

Selective plugging with smoke. R. F. Nielsen. *diags* World Oil 127:132+ F '48

Some observations on casing strain after cementing. H. G. Texter. *diag* Oil & Gas J 46:72+ Ap 8 '48

Squeeze cementing. W. E. Best. *World Oil* 128:132+ S '48

Venezuelan cementing problems. G. J. Bengel. *il* World Oil 127:202-3 F '48

Well cleaning

Oil-well reconditioning in southwestern Pennsylvania, West Virginia, and southeastern Ohio. B. F. Grant. *bibliog* 26pls U S Bur Mines Rep of Invest 4193:1-82 '48; Excerpt. *World Oil* 127:142-4+ Ap '48

Pressure build-up cuts clean-out costs. F. R. Cozzens. *Pet Eng* 19:98+ Ap '48

Sand face cleaning with lye, aluminum, and oil. F. R. Cozzens. *World Oil* 128:174+ Ag '48

Well control

Directional hole tames Canadian wild well. G. B. Nicholson. *il* diag World Oil 128:213-16 O '48

How high pressure gas blowouts in a Texas field were brought under control. K. M. Fagin. *il* diags Pet Eng 19:94+ F '48

Rebel well of Leduc. J. L. Irwin. *il* Can Min J 69:76-9 J1 '48

Wild well in Leduc field finally killed through directional relief. G. B. Nicholson. *il* Oil & Gas J 47:93+ S 30 '48

Wild well is major for Leduc field. *il* World Oil 128:209 Je '48

Well drilling

Application of internal-combustion engine power to rotary drilling rigs. W. S. Crake. *diags* Pet Eng 19:70+ D '47

Automatic drilling control. M. E. True and R. R. Crockston. *il* diags Pet Eng 19:136+ D '47

Backoff method successful in recovering stuck drill pipe without damage. H. David. *diags* Oil & Gas J 47:105-6 My 6 '48

Benedum Ellenburger field developments. K. M. Fagin. *il* Pet Eng 19:51-6 Mr '48

Benedum field; 1947's most important domestic strike? G. Weber. *il* map Oil & Gas J 46:60-3+ F 5 '48

Cable-tool drilling. J. F. Kendrick. *bibliog* diags Oil & Gas J 47:247-8 O 7 '48

Colombian wildcat operation. H. H. Heisler. *maps* plan Oil & Gas J 46:166-8+ D 27 '47

Compounded power pumps drill to 10,000 feet. *il* diag World Oil 128:96-7 O '48

Compounded power pumps drill 10,000-ft. wells. H. L. Willke and A. L. Harrington. *diags* Oil & Gas J 47:68-71+ My 6 '48

Deep drilling is finding oil; with tabulated descriptions of wells drilled below 12,000 ft. in 1947. E. Adams. *map* Pet Eng 19:43-50 F '48

Deep well breaks four drilling records; Maxwell no. 1 near Ventura, Calif. N. A. D'Arcy, jr. *il* diag Pet Eng 19:117-18+ S '48

Deepest well in Europe. E. Bernadac and E. D. Lynton. *il* Pet Eng 19:115-16 Mr '48

Diesel engines hold secure and promising field in oil drilling. T. W. Mayborn. *il* Diesel Power 28:56-9+ My '48

Directional drilling. V. Shepherd. *il* diags Oil & Gas J 46:68-9+ F 5 '48

Drill collars; their use and manufacture. R. J. Stoup. *il* Oil & Gas J 46:62-5+ Ja 22 '48

Drill pipe failures, inspection, and protection in the Permian basin. W. H. Crenshaw and others. *il* Pet Eng 19:277-8+ My '48; Same, without *il*. Oil & Gas J 47:97-8+ Je 10 '48

Drilling depth marks may fall again in 1948. *World Oil* 127:Yrbk 120+ F '48

Drilling depth records in U.S., by states and districts; tabulation. *World Oil* 128:105 sec 2 J1 '48

Drilling equipment situation today. J. D. Spalding. *Pet Eng* 19:181-2+ N '47

Drilling for steeply dipping oil-producing sands. L. J. Vittrup. *diag* Am Assn Pet Geologists Bul 31:2041-4 N '47

Drilling forecast. R. L. Dudley and E. Sterrett. *World Oil* 127:Yrbk 109-10+ F '48

Drilling problems in new Crossroads field. K. M. Fagin. *il* maps Pet Eng 19:56-6 J1 '48

Drilling rigs for 20,000-ft. wells. J. R. Mahan. *bibliog* *il* diags Oil & Gas J 47:195-6+ O 7 '48

Drilling stresses present in cable-tool operations. J. F. Kendrick. Oil & Gas J 46:80+ D 13 '47; 47:56-9+ J1 1 '48

Drilling technology progress. J. E. Kastrop. *World Oil* 127:Yrbk 124+ F '48

Drilling the deep areas. D. Hager. *map* Oil & Gas J 46:64-5 Ja 8 '48

Drilling up 50 per cent since 1940. J. C. Casper. *map* Oil & Gas J 47:183-4+ O 7 '48

Efficient rathole drilling device. G. M. Wilson. *il* World Oil 127:98 Mr '48

Exploration, drilling exceeding schedules; daily completions 11 ahead of 1947. C. J. Deegan. Oil & Gas J 47:147+ My 20 '48

Exploratory drilling in 1947. F. H. Lahee. *maps* Am Assn Pet Geologists Bul 32:851-68 Je '48

Flexible hose in rotary drilling operations. L. Cranston and R. Leonard. *diag* Oil & Gas J 47:77+ Je 3 '48

Footage much greater in 1948. *World Oil* 128:55 Ag '48

Guide to active fields. *map* plan Oil & Gas J 46:138 Ap 29; 47:419 My 13; 95 My 27; 113 Je 10; 77 J1 8; 81 J1 22; 115 Ag 19; 77 S 9; 107 N 4 '48

Gulf coast maintains lead in scope of deep drilling and development. N. Williams. *il* Oil & Gas J 47:184-5+ Je 24 '48

How to do it! drilling hints, *il* Published in monthly numbers of *World Oil*

Humble's no. 30; world's most automatic drilling rig. L. S. McCaslin, jr. *il* Oil & Gas J 47:58-62+ Ag 5 '48

Industry meets shortage threat with bigger drilling program; new records set. C. J. Deegan and others. Oil & Gas J 46:152-61 Ja 29 '48

Is your well still drilling granite wash or have you reached solid granite? use of magnetic property measurements. C. J. Deegan. *map* diags Oil & Gas J 47:84+ S 2 '48

Mechanical problems in deep drilling. J. I. Morris. *World Oil* 127:69-72+ F '48

Michigan's deepest test well. W. E. Schoeneck and T. A. Steele. *plan* Oil & Gas J 47:219-20+ J1 29 '48

Modern rotary drilling (cont). J. Zaba. Oil & Gas J 46:343 N 15; 95 N 22; 119 D 6; 121 D 13 '47; 67 Ja 1; 81 Ja 8; 95 Ja 15; 105 Ja 22; 303 Ja 29; 87 F 5; 105 F 12; 131 F 19 '48

More than 40,000 wells seen as industry's goal in 1948. C. J. Deegan. Oil & Gas J 47:166-8 J1 29 '48

More than 675 drilling rigs, third of Nation's total, running in Gulf Coast area. N. Williams. *il* Oil & Gas J 47:183-4+ Je 24 '48

Mountain-top drilling in California. H. David. *il* map Oil & Gas J 47:212+ O 7 '48

New method for evaluating effect of chemical treatment on drilling mud. N. E. Martello. *bibliog* *il* diags Oil & Gas J 46:70-3 Ja 8 '48; Same. *Pet Eng* 19:66+ F '48

New power slips increase drilling efficiency. E. Short. *il* Oil & Gas J 46:72+ Ja 22 '48

New turbine-drill method soon to be field tested in Arkansas. E. F. Linz. Oil & Gas J 46:70 Mr 13 '48

Prevention of drill string failures in the Permian basin. R. C. McMaster. *il* diag World Oil 127:75-80+ Ap; 128:134+ My '48

Progress of the drilling industry. C. W. Alcorn. *il* World Oil 127:98-100+ D '47; 77-8+ Ja '48

Progress report on drill string research-non-destructive testing of drill pipe. R. C. McMaster and H. M. Banta. *il* diags Pet Eng 19:64+ N '47

PETROLEUM—Well drilling—Continued

- Reducing drilling expenses. G. D. Hughes. *diags World Oil* 127:84+ Ap '48
- Relation of nozzle fluid velocity to rate of penetration with drag type rotary bits. J. P. Nolley and others. *biblog il Pet Eng* 19: 86+ Je '48; Same. *World Oil* 128:78-82 S; 87+ O '48; Same cond. *Oil & Gas J* 47:87-8+ My 6 '48
- Remote-control power tongs, pipe racker take the sweat out of round trips. L. S. McCaslin, jr. *il diag Oil & Gas J* 47:108-10+ O 28 '48
- Special midget rig prepares locations at Rangely. N. Williams. *il Oil & Gas J* 46: 69+ N 29 '47
- Stanolind research rig. G. H. Weber. *il Oil & Gas J* 47:85-6+ O 21 '48
- Stuck point of frozen pipe accurately determined by new electronic tool; Magna-Tector. H. David. *il diag Oil & Gas J* 47: 107-8 Je 10 '48
- This business of cutting and fishing. F. Briggs. *il Oil & Gas J* 47:225-6+ O 7 '48
- Today's drilling rigs, flow diags *il plans diags Oil & Gas J* 47:149-80 O 7 '48
- Total of 17,837 wells completed in first half is all-time high. J. C. Casper. *Oil & Gas J* 47:169-71 JI 29 '48
- United States; 1947 completions, footage drilled, and average depths; tabulation. *World Oil* 128:107 sec 2 JI '48
- Wells of distinction. E. Adams. *il Pet Eng* 19:47-54 N '47
- World completions and footage; drilling activities by countries, 1947. *World Oil* 128: 37+ sec 2 JI '48

See also
Petroleum—Mud
fluids

Contracts

- Advancement in contract drilling. A. J. Helser. *Pet Eng* 20:222+ O '48; Same cond. *Oil & Gas J* 47:95 Je 3 '48
- Economic trends in contract drilling. J. E. Warren. *Oil & Gas J* 46:301-2+ N 15 '47; Same. *Pet Eng* (Ref annual) 19:51-4 JI 1 '48

Cost

- Contractors feel some rate revisions necessary to insure a profit today. *Oil & Gas J* 47:142-3 O 7 '48
- Drilling prices fail to keep pace with rising costs. W. L. Baker. *World Oil* 128:52-3 O '48
- Will 12,000 foot fields pay out? *il World Oil* 128:67-70+ My '48

Sampling

- Diamond coring an Oklahoma well. R. M. Swesnik. *il World Oil* 128:92-4+ JI '48
- Diamond coring of chert, limestone, and dolomite of west Texas Permian basin. A. W. McCray. *Pet Eng* 19:64-6+ Mr '48
- Oil-well cores tell story; illustrations with text. *Min & Met* 29:478-9 S '48
- Recent diamond coring in California. W. C. Harrington and M. C. Eastman. *il diag Pet Eng* (Ref annual) 19:84+ JI 1 '48
- Studies in relative permeability. J. H. Henderson and S. T. Yuster. *biblog diags World Oil* 127:139-44+ Mr '48
- University of Texas well-sample library offers increased facilities at new site. D. E. Feray. *il Oil & Gas J* 47:95-6+ O 28 '48

Well drilling, Subaqueous

- Amphibian drilling goes deep-sea; Humble oil & refining company's test offshore from Grand Isle. E. Sterrett. *il World Oil* 128: 77-80+ Je '48
- Bailey bridge adapted to Louisiana wildcat drilling; used as floating-end loading ramp to accommodate trucks in land-water drilling operations. E. Short. *il Oil & Gas J* 46: 68+ Mr 4 '48
- Construction nears completion on Humble's giant marine drilling platform. D. M. Duff. *il Oil & Gas J* 46:123-4 Mr 18 '48
- Corrosion problems of offshore structures. E. Sterrett. *World Oil* 128:84 S '48
- Discovering oil 12 miles offshore in the Gulf. A. T. F. Seale. *il World Oil* 128:113-16 My '48
- Distant offshore well nears test depth of 12,000 feet in the Gulf of Mexico. E. Short. *il Oil & Gas J* 46:60-1 N 29 '47

- Drilling contractors go to sea; off-shore Gulf of Mexico drilling. L. S. McCaslin, jr. *il Oil & Gas J* 47:204+ O 7 '48
- Drilling under way along continental shelf in Gulf of Mexico. N. Williams. *il maps Oil & Gas J* 47:152-5+ Je 24 '48
- First open water offshore oil well, Gulf of Mexico. *Oil & Gas J* 46:107 N 29 '47
- Giant rig for deepest marine drilling; Shell oil company, inc.'s new barge. E. Sterrett. *il World Oil* 127:75-8+ Mr '48
- Humble's offshore drilling program. K. M. Fagin. *il Pet Eng* 19:56+ Je '48
- Kerr-McGee, Phillips, and Stanolind develop spectacular Gulf of Mexico discovery. K. B. Earnes and L. S. McCaslin, jr. *il map Oil & Gas J* 46:96-9+ Mr 18 '48
- Largest mechanical barge drilling rig placed in Gulf Coast operation. E. Short. *il plans diag Oil & Gas J* 46:62-5 Ja 15 '48
- Marine field in Louisiana coastal waters. L. S. McCaslin, jr. *il diag Oil & Gas J* 47:101-2+ O 21 '48
- Mobile drilling platforms next possible step in offshore exploration. E. Short. *diags Oil & Gas J* 46:55+ N 22 '47
- Mobility, present trend in offshore development methods. *il Oil & Gas J* 47:269-70+ Je 24 '48
- Mud system design cuts skidding time; tide-lands structures off-shore at Huntington Beach, Calif. J. C. Albright. *il Pet Eng* 19: 89+ Mr '48
- Navigation interests conflict with offshore drilling plans. D. M. Duff. *Oil & Gas J* 47: 66 O 21 '48
- Oceanography in the offshore drilling campaign. C. C. Bates and A. H. Glenn. *biblog il plans World Oil* 127:114+ Ap '48
- Offshore drilling development. D. A. McGee and others. *il map plans diag Pet Eng* (Ref annual) 19:65-6+ JI 1 '48
- Operating problems in the Gulf tidelands. K. M. Fagin. *il Pet Eng* 19:181-2+ Ap '48
- Planning a multiple well directional drilling program for offshore locations. J. G. Jackson and J. B. Murdoch, jr. *il diags plans Pet Eng* (Ref annual) 19:55-61+ JI 1 '48; Excerpt. *Oil & Gas J* 46:133+ O 18 '47
- Power and control are salient feature of Shell's new super drilling barge. E. Short. *il Oil & Gas J* 46:76-8 Mr 11 '48
- Shipping interests protest plans for offshore drilling platforms. *Oil & Gas J* 47:56 S 30 '48
- Stanolind building marine base for extensive offshore operations in the Gulf of Mexico. *Oil & Gas J* 47:152 JI 29 '48
- Stanolind offshore rig makes a dry run. L. S. McCaslin, jr. *il diag Oil & Gas J* 47:79+ S 30 '48
- Steel H-piles and pipe bents support deep-water drilling platform. C. G. Cappel. *il map Civil Eng* 18:446-8 JI '48
- Weeks Island salt-dome operations. N. Williams. *il Oil & Gas J* 47:58-60+ S 2 '48

See also
Petroleum—Tideland
development

Well liners

- Gravel-packing technique at Huntington Beach has unique features. H. David. *il diags Oil & Gas J* 46:81+ D 13 '47
- New liner-setting method used in world's deepest producer in Natrona county, Wyo. L. S. McCaslin, jr. *il Oil & Gas J* 47:103+ N 4 '48

Well logging

- Acoustic impedance logging; abstract. C. H. Kean and F. N. Tullios. *diag Oil & Gas J* 47:95 O 14 '48
- Assemblage log, an aid to management. K. A. Mygdal. *diags Pet Eng* 19:242+ My '48
- Electric logging. S. J. Pirson. *biblog diags Oil & Gas J* 46:72+ O 4; 94-5+ O 25; 76-7+ N 1; 63+ N 22; 84+ D 6 '47
- Electrical logging developments in the U.S.S.R. H. Guyod. *biblog diags World Oil* 127:231-5 D '47; 67-70 Ja; 84+ F; 128: 124-6+ My; 92-4+ Je; 110+ Ag '48
- Interpretation of electric logs in limestone. H. Guyod. *diags World Oil* 127:90+ Mr '48
- New tools and methods for Gulf Coast work-over jobs. J. W. Quinn. *Oil & Gas J* 47:79 S 2 '48
- New well-logging device being tried by Humble engineers. C. J. Deegan. *Oil & Gas J* 47:62 JI 15 '48

PETROLEUM—Well logging—Continued

Portable well logging unit. W. Tapper. *il*
World Oil 127:80+ F '48

Well pressure

Averaging reservoir pressures. J. C. Calhoun,
jr. Oil & Gas J 47:105 S 30 '48
Method of least squares applied to bottom
hole pressure gage calibration. M. F.
Hawkins, jr. Pet Eng 19:93-4 Ap '48
Pressure and saturation distribution in a
radial system. J. C. Calhoun, jr. Oil & Gas
J 47:321 S 23 '48

Well spacing

Michigan oil fields; influence of spacing on
ultimate recovery. S. F. Shaw. Pet Eng 19:
100+ Mr '48
Water-flood spacing; with cost data. S. T.
Yuster. Oil & Gas J 46:70-3+ D 20 '47;
Same. World Oil 127:124-3+ Ja '48

Well surveying

Core orientation by graphical and mathe-
matical methods. H. McClellan. *bibliog il*
diags Am Assn Pet Geologists Bul 32:262-82
F '48
Deep-well camera permits visual examination
of bore holes. O. E. Barstow and C. M.
Bryant. *bibliog il* diags Oil & Gas J 45:74-
5+ Mr 15 '47; Same cond. Mech Eng 70:
238-9 Mr '48
Dry hole survey lessens water flooding haz-
ards. F. R. Cozzens. Pet Eng 20:184+ O
'48
Knowledge of direction and angle of forma-
tion dip, key to solution of many Gulf
Coast structural problems. *il* diags Oil &
Gas J 47:257+ Je 24 '48

Well temperature

Temperature gradients in gas lift wells.
R. E. Powers and B. C. Craft. *bibliog*
Pet Eng 19:118+ Mr '48

Well testing

Acoustic well sounder. *il* Electronics 21:150+
S '48
Engineering factors in measuring well depths.
C. R. Searcy. *diags* Pet Eng 19:76+ S '48
Well testing units cut cost. K. M. Fagin. *il*
Pet Eng 19:174+ S '48

Well tubing

Report of committee on the standardization
of oil-country tubular goods. Am Pet Inst
Proc 27(4):210-34 '47
Tonnage report on casing, drill pipe, and
tubing for year 1947; tabulation. Am Pet
Inst Proc 27(4):235-8 '47
Tubing boards on mobile servicing units
speed workover jobs. *il* diag Oil & Gas J
47:76-6 Jl 1 '48

Africa

Oil possibilities in lesser known African ter-
ritories. map World Oil 128:244-6 Ag '48

Alaska

Economics of Alaskan exploration. K. M.
Fagin. *il* map Pet Eng 19:57-8+ D '47
Five-year extension of Arctic Alaska oil
search now appears certain. *il* map diag
Oil & Gas J 47:44-6+ Je 17 '48
Forrestal supports continued exploration in
Alaska's naval petroleum reserve. map Oil
& Gas J 46:144-5 Ja 29 '48
Navy asks Congress to decide on future
of Alaskan oil search. Oil & Gas J 46:77
F 19 '48
Navy asks more funds to explore another
Maracaibo in Alaska. Oil & Gas J 46:59 Ap
15 '48

Alberta

Canada's Leduc field grows in importance.
World Oil 127:227 F '48
Canadian completion attempt draws wide
attention. Oil & Gas J 46:295 Ap 1 '48
Elimination of water from wet crude oil by
the hot water washing process; continuous
settling at atmospheric pressure. K. A.
Clark and D. S. Pasternack. *diags* Can
Chem & Process Ind 31:1007-11; 32:32-6 N
'47, Ja '48
New plant to process Athabaska oil sands.
W. E. Adkins. flow diag *il* Pet Eng 19:
121-2+ Ap '48

Oil find aids Canada; new Leduc field. Comp
Air Mag 53:41 F '48

Appalachian area

Appalachian basin Ordovician symposium.
J. T. Galey, M. Kay and others. *bibliog*
maps diags Am Assn Pet Geologists Bul 32:
1395-657 Ag '48

Arabia

Saudi Arabia flareup will be press blackout.
T. Smith. Ed & Pub 81:47 F 28 '48

Argentina

Petroleum possibilities along eastern front
of the southern Andes. G. M. Ruby. *il* map
World Oil 127:215-20 Mr '48

Arizona

Developments in Arizona, western New Mex-
ico, and northern New Mexico in 1947. P.
H. Umbach. map Am Assn Pet Geologists
Bul 32:984-7 Je '48

Arkansas

Developments in Arkansas and north Loui-
siana in 1947. J. R. Williams. map Am
Assn Pet Geologists Bul 32:1040-64 Je '48

Atlantic coast

Developments in Atlantic coastal states be-
tween New Jersey and North Carolina in
1947. H. G. Richards. Am Assn Pet Geolo-
gists Bul 32:1077-8 Je '48

Brazil

Brazil has extensive sedimentary areas fav-
orable to accumulation of petroleum. A. I.
de Oliveira. *il* map Oil & Gas J 46:48-50+
Ja 15 '48

California

Developments in California in 1947. G. B.
Moody. maps Am Assn Pet Geologists Bul
32:869-85 Je '48
Genesis and evolution of Los Angeles basin,
California. H. L. Driver. maps diags Am
Assn Pet Geologists Bul 32:109-25 *bibi-*
liog(102 titles, p 122-5) Ja '48
Offshore California gets geophysical survey.
R. Sneddon. *il* Pet Eng 20:242+ O '48
Oil discovery Cuyama valley, California. R.
Sneddon. *il* Pet Eng 19:37-40 Jl '48
Origin and migration of oil into Sespe red-
beds, Calif. T. L. Bailey. map diags Am
Assn Pet Geologists Bul 31:1913-35 N '47
Paving asphalt from California crude oil;
staff-industry collaborative report. M. L.
Kastens. *bibliog* flow sheets *il* Ind & Eng
Chem 40:548-57 Ap '48
Preliminary report on Ramona field, Los
Angeles and Ventura counties, California.
L. B. Nelson. *diags* Am Assn Pet Geologists
Bul 32:1658-63 Ag '48
Santiago pool, Kern county, Calif. G. W.
Ledingham. map diag Am Assn Pet Geolo-
gists Bul 31:2063-7 N '47
Summary of oil production from fractured
rock reservoirs in California. W. S. Eggle-
ston. Am Assn Pet Geologists Bul 32:1352-5
Jl '48

Canada

Canada in midst of greatest exploration pay
in the Dominion's history. C. Deegan. maps
diag Oil & Gas J 46:150-3 Ap 29 '48
Canadian oil find; Lloydminster-Lone Rock
field. Bsns W p77 D 27 '47
Developments in Canada in 1947. J. G. Gray
and F. L. Fournier. *bibliog* map Am Assn
Pet Geologists Bul 32:1079-92 Je '48

Chile

Petroleum possibilities along eastern front
of the southern Andes. G. M. Ruby. *il* map
World Oil 127:215-20 Mr '48

Colorado

Guide to the geology of central Colorado;
with index map showing major geologic
structure and significant oil and gas infor-
mation. *il* Colorado School of Mines [Gold-
en] Quarterly 43 no 21-176, pl 1-14 Ap '48
(pa 33)

New Mexico-Colorado 12,000 square-mile San
Juan basin eyed by several majors and
independents. F. C. Barnes. *bibliog* map
Oil & Gas J 47:73-7 My 27 '48

PETROLEUM—Colorado—Continued

Pennsylvanian stratigraphy of Colorado Springs quadrangle, Colo. K. P. McLaughlin, bibliog il maps diags Am Assn Pet Geologists Bul 31:1936-31 N '47

San Juan basin; production, exploration, literature, R. L. Bates, bibliog map World Oil 127:116+ Mr '48

Bibliography

San Juan basin; production, exploration, literature, R. L. Bates, World Oil 127:116+ Mr '48

Ethiopia

Geology of Ethiopia being developed by Sinclair in exploring concession, H. Taylor, il diag Oil & Gas J 47:48-9+ Ag 12 '48

France

Exploration spurred by showings in southern France, E. N. Tiratsoo, il map World Oil 127:215-17 Ap '48

Germany

Germany's stepped-up exploration yields little new oil, map World Oil 127:237-8 Ap '48

Occupation officials are planning exploration program in Germany, Oil & Gas J 46:44 Ja 22 '48

Portions of German frontier contain valuable oil reserves, World Oil 128:258 Ag '48

Gulf Coast region

Annual survey of Gulf Coast oil and gas fields, tabulated, maps Oil & Gas J 47:275+ Je 24 '48

Basic geology of the Gulf Coastal area and the continental shelf, J. B. Carsey, maps diag Oil & Gas J 47:246-7+ Je 24 '48

Big Gulf gamble, il map Fortune 38:68-71+ Jl '48

Chemical treatment of fractions from Gulf Coast naphthenic-base crude for production of lubricating oils, R. I. Jacobi and L. E. McMakin, flow chart Oil & Gas J 46:169+ Ap 1 '48

Engineering characteristics of the Gulf Coast continental shelf, M. E. Willey, maps Pet Eng (Ref annual) 19:97-8+ Jl 1 '48

Geological study of Gulf Coast continental shelf, il map diag Oil & Gas J 46:82-4+ D 13 '47

Gulf coast maintains lead in scope of deep drilling and development, N. Williams, il Oil & Gas J 47:184-5+ Je 24 '48

Marine sedimentation and oil accumulation; regressive marine offlap and overlap-offlap, D. S. Malkin and D. J. Echols, map diags Am Assn Pet Geologists Bul 32:252-61 F '48

Quest for oil in the Gulf, il Manuf Rec 117:33 Jl '48

Illinois

Developments in Illinois and Indiana in 1947, A. H. Bell and R. E. Esarey, map Am Assn Pet Geologists Bul 32:920-30 Je '48

Geology of Benton field, Franklin county, Illinois, J. V. Howell, maps diags Am Assn Pet Geologists Bul 32:745-66 My '48

Structural trends and fault systems in Eastern interior basin, S. K. Clark and J. S. Royds, il maps diags Am Assn Pet Geologists Bul 32:1728-49 S '48

Indiana

Developments in Illinois and Indiana in 1947, A. H. Bell and R. E. Esarey, map Am Assn Pet Geologists Bul 32:920-30 Je '48

Structural trends and fault systems in Eastern interior basin, S. K. Clark and J. S. Royds, il maps diags Am Assn Pet Geologists Bul 32:1728-49 S '48

Kansas

New Viola pool for Barber county, Kansas, Oil & Gas J 47:121 Je 3 '48

So-called Maquoketa of Barber county, Kansas, W. A. Ver Wiebe, Am Assn Pet Geologists Bul 32:126-8 Ja '48

Kentucky

Developments in Kentucky in 1947, E. B. Wood, map Am Assn Pet Geologists Bul 32:913-17 Je '48

Powell's Lake oil field, Union county, Kentucky, W. I. Ingham, maps diags Am Assn Pet Geologists Bul 32:34-51 Ja '48

Trenton and pre-Trenton of Kentucky, A. C. McFarlan and W. H. White, map diags Am Assn Pet Geologists Bul 32:1627-46 bibliog(p 1645-6) Ag '48

Louisiana

Developments in Arkansas and north Louisiana in 1947, J. R. Williams, map Am Assn Pet Geologists Bul 32:1040-64 Je '48

Developments in Louisiana Gulf coast in 1947, W. B. Neill, map Am Assn Pet Geologists Bul 32:1032-9 Je '48

Geology of West Tetepate oil field, Jefferson Davis parish, Louisiana, F. W. Bates and J. B. Wharton, jr, maps Am Assn Pet Geologists Bul 32:1712-27 S '48

Michigan

Cambrian and Ordovician rocks in Michigan basin and adjoining areas, G. V. Cohee, bibliog maps diags Am Assn Pet Geologists Bul 32:1417-48 Ag '48

Developments in Michigan in 1947, L. W. Price, map Am Assn Pet Geologists Bul 32:931-9 Je '48

Mississippian Marshall formation of Michigan, V. B. Monnett, il maps diags Am Assn Pet Geologists Bul 32:629-88 bibliog(p686-8) Ap '48

Mid-continent region

Developments in north mid-continent in 1947, J. R. Berg, map Am Assn Pet Geologists Bul 32:940-7 Je '48

Montana

Elk Basin anticline, Park county, Wyoming, and Carbon county, Montana, W. S. McCabe, bibliog il maps diags Am Assn Pet Geologists Bul 32:52-67 Ja '48

New light on Powder River basin, Oil & Gas J 46:107 N 8 '47

Morocco

French Morocco discovery most important in Africa outside Egypt, N. A. Kendall, il map World Oil 127:230+ Mr '48

Near East

Company plans point to lower costs for crude imports from Middle East, W. W. Burns, il Oil & Gas J 46:46+ F 5 '48

Importance of Near-Eastern petroleum; abstract, S. A. Swensrud, Chem Eng 55:288+ My '48

Middle East oil, F. J. Fohs, il maps diag Sci Am 179:9-15 S '48

New Mexico

Developments in Arizona, western New Mexico, and northern New Mexico in 1947, P. H. Umbach, map Am Assn Pet Geologists Bul 32:984-7 Je '48

Developments in west Texas and south-eastern New Mexico in 1947, C. D. Cantrell, jr, and others, bibliog maps Am Assn Pet Geologists Bul 32:963-83 Je '48

New Mexico-Colorado 12,000 square-mile San Juan basin eyed by several majors and independents, F. C. Barnes, bibliog map Oil & Gas J 47:73-7 My 27 '48

Salt-dolomite intergrowths, I. T. Schwade, il Am Assn Pet Geologists Bul 31:2208-14 D '47

San Juan basin; production, exploration, literature, R. L. Bates, bibliog map World Oil 127:116+ Mr '48

Southeast New Mexico gets first Pennsylvanian production, Oil & Gas J 47:181 Ag 26 '48

Bibliography

San Juan basin; production, exploration, literature, R. L. Bates, World Oil 127:116+ Mr '48

New York (state)

Developments in New York in 1947, E. R. McAuslan, map Am Assn Pet Geologists Bul 32:893-6 Je '48

New York subsurface geology, E. T. Heck, maps diag Am Assn Pet Geologists Bul 32:1449-56 Ag '48

North Carolina

Two recent wells in coastal plain of North Carolina, F. M. Swain, bibliog map diag Am Assn Pet Geologists Bul 31:2054-60 N '47

PETROLEUM—Continued

North Dakota

Exploration in the Dakota basin, J. P. Gries. bibliog map diag World Oil 128:121-2+ Je '48

Northwest Territories, Canada

Prospecting for oil in the Northwest Territories, J. M. Parker, bibliog il maps diag World Oil 128:210-12+ S '48

Ohio

Developments in Ohio in 1947, J. R. Lockett. Am Assn Pet Geologists Bul 32:907-8 Je '48

Some studies of Ohio coals, shales, and oils. T. H. Kerr. il maps Ohio State U Eng Exp Sta Bul 133:1-63 '48 (pa \$1)

Oklahoma

Anadarko basin; geology and oil possibilities; future of basin exploration, R. R. Wheeler. maps World Oil 127:100+ Ja '48

Anadarko basin gets deep production, Oil & Gas J 46:359 N 15 '47

Bureau of mines analyses of subsurface oil samples from North Lindsay field, McClain county, Okla., A. B. Cook and others, map Pet Eng 19:153+ S '48

Cotton county, poor boy's paradise, J. D. Pate. il map diags World Oil 128:122-4+ O '48

Developments in Oklahoma in 1947, D. C. Wellman, bibliog map Am Assn Pet Geologists Bul 32:948-59 Je '48

Huntton strike in Oklahoma, Oil & Gas J 46:137 D 13 '47

Pennsylvanian stratigraphy and structure, Velma pool, Stephens county, Oklahoma, W. W. Mallory, bibliog maps diags Am Assn Pet Geologists Bul 32:1948-79 O '48

Pennsylvania

Developments in Pennsylvania in 1947, C. R. Fettke, map Am Assn Pet Geologists Bul 32:897-906 Je '48

Identification of Pennsylvania lubricating oils, R. E. Hersh and others, bibliog Anal Chem 20:434-44 My '48

Processing Pennsylvania crude, D. Read, diags Pet Eng 19:122+ Je '48; Same cond. Oil & Gas J 46:72-4+ Mr 4 '48; Same cond. Pet Processing 3:329-30+ Ap '48

Persia

Mountain provides operating clues for huge limestone field in Iran, H. S. Gibson, il map Oil & Gas J 46:48-9 Ap 8; 60-2 Ap 15 '48

Oil production in southwestern Iran, H. S. Gibson, il diags World Oil 128:271-6+ My; 217-20+ Je '48; Same, Inst Pet J 34:374-98 Je '48

Puerto Rico

Puerto Rican geophysical survey shows favorable possibilities, il Oil & Gas J 47:37 J 1 '48

Puerto Rico looks for new petroleum resources, Chem Eng 55:215 My '48

Rocky Mountain region

Developments in Rocky Mountain region in 1947, H. C. Rea, Am Assn Pet Geologists Bul 32:886-92 Je '48

Russia

Petroliferous provinces of Union of Soviet Socialist Republics, F. J. Fohs, map Am Assn Pet Geologists Bul 32:317-50 bibliog(82 titles, p347-50) Mr '48

Siberia

Petroleum problem of Siberia, D. A. Shanazarov, bibliog maps Am Assn Pet Geologists Bul 32:153-97 F '48

South America

Refining South American crudes, D. Read and G. Egloff, flow diag pl Inst Pet J 33:621-47 O '47

South Dakota

Exploration in the Dakota basin, J. P. Gries, bibliog map diag World Oil 128:121-2+ Je '48

Southeastern states

Developments in southeastern states in 1946 and 1947, R. M. Harris and W. M. Payne, map Am Assn Pet Geologists Bul 32:1065-76 Je '48

Tennessee

Developments in Tennessee in 1947, H. B. Burwell, Am Assn Pet Geologists Bul 32:918-19 Je '48

Oil and gas possibilities of southwestern Tennessee, C. A. Moritz, bibliog maps World Oil 128:160+ My '48

Texas

Chocolate Bayou exemplifies good operating practice in high-pressure Gulf Coast fields, L. S. McCaslin, jr, il map diag Oil & Gas J 47:169-70+ Je 24 '48

Developments in east Texas in 1947, H. H. Lester, map diags Am Assn Pet Geologists Bul 32:1009-23 Je '48

Developments in north and west-central Texas in 1947, J. H. Stovall and others, map Am Assn Pet Geologists Bul 32:988-96 Je '48

Developments in south Texas in 1947, B. Scafford, map Am Assn Pet Geologists Bul 32:997-1008 Je '48

Developments in Texas Panhandle in 1947, L. B. Fugitt and R. C. Morris, map Am Assn Pet Geologists Bul 32:960-2 Je '48

Developments in upper Gulf coast of Texas in 1947, P. H. Clark, map Am Assn Pet Geologists Bul 32:1024-31 Je '48

Developments in west Texas and southeastern New Mexico in 1947, C. D. Cantrell, jr, and others, bibliog maps Am Assn Pet Geologists Bul 32:963-83 Je '48

Drilling for steeply dipping oil-producing sands, L. J. Vittrup, diag Am Assn Pet Geologists Bul 31:2041-4 N '47

Midland Basin oil possibilities, H. H. King, map World Oil 128:45-8+ O '48

New developments at Benedictum in west Texas, Oil & Gas J 47:155 S 16 '48

New Pennsylvania pool for west Texas, Oil & Gas J 46:129 Ap 15 '48

Petersburg oil pool, Hale county, Texas, R. W. Mallory, maps diags Am Assn Pet Geologists Bul 32:780-9 My '48

Processing west Texas crude, W. K. Jackson, il Oil & Gas J 46:170-1+ Ap 1 '48

Results of water injection in Woodbine reservoir of east Texas field, W. S. Morris, bibliog diag Oil & Gas J 46:245-6+ N 15 '47

Slick-Urschel finds deepest Ellenberger production, Pet Eng 19:160 Ja '48

Slick-Wilcox field, DeWitt and Goliad counties, Texas, L. Sebring, jr, maps diags Am Assn Pet Geologists Bul 32:228-51 F '48

South Texas giant in limehilt, Oil & Gas J 46:297 D 27 '47

West Texas transitional zone gets new discovery, Oil & Gas J 46:171 F 26 '48

Wheeler pool, deep but profitable, C. J. Deegan, plan diag Oil & Gas J 46:61-2 N 8 '47

Timor

Superior gets Timor concession, World Oil 127:234 Mr '48

United States

Analyses of crude oils from 283 important oil fields in the United States, C. M. McKinney and O. C. Blade, U S Bur Mines Rep of Invest 4289:1-154 '48

Drilling the deep areas, D. Hager, map Oil & Gas J 46:64-5 Ja 8 '48

Log of formations and pay zones, area by area; chart, Oil & Gas J 47:supp F '48

United States, crude oil production, by states, by years, 1859-1947; tabulations, World Oil 128:99+ sec 2 J '48

Utah

Oil prospects in Utah, G. M. Ruby, maps Oil & Gas J 46:87-90, 95-6+ F 12 '48

Venezuela

Creole abandons exploratory work in large Guarico concession; retains part of area, il Oil & Gas J 46:36 N 8 '47

Crude stabilizers in Venezuela fields, J. G. Coultrup, flow sheets Pet Eng 19:156+ N '47

PETROLEUM—Venezuela—Continued.

- El Mene de Acosta field, Falcon, Venezuela. H. H. Suter, map diag. Am Assn Pet Geologists Bul 31:2193-206 D '47
- Oil fields of Greater Oficina area, central Anzoátegui, Venezuela. H. D. Hedberg and others, il maps fold maps diag Am Assn Pet Geologists Bul 31:2089-169 D '47
- Oil fields of Royal Dutch-Shell group in western Venezuela, bibliog maps diag 2 fold charts Am Assn Pet Geologists Bul 32:517-628 Ap '48
- Oil fields of west Buchivacoa, Venezuela. G. W. Halse, maps diag Am Assn Pet Geologists Bul 31:2170-92 D '47
- Outline of sedimentation in Maracaibo basin, Venezuela. H. P. Schaub, bibliog map Am Assn Pet Geologists Bul 32:215-27 F '48
- Santa Ana, San Joaquín, Guarío, and Santa Rosa oil fields (Anaco fields), Central Anzoátegui, Venezuela. H. J. Funkhouser and others, il maps diag Am Assn Pet Geologists Bul 32:1851-908 O '48

Virginia

- Developments in Virginia in 1947. P. Jenkins. Am Assn Pet Geologists Bul 32:912 Je '48
- Rose Hill, first production in Virginia. E. L. Miller, maps diag Oil & Gas J 46:78-81 N 8 '47

West Virginia

- Developments in West Virginia in 1947. R. C. Tucker. Am Assn Pet Geologists Bul 32:909-11 Je '48

Wyoming

- Elk Basin anticline, Park county, Wyoming, and Carbon county, Montana. W. S. McCabe, bibliog il maps diag Am Assn Pet Geologists Bul 32:52-67 Ja '48
- New light on Powder River basin. Oil & Gas J 46:107 N 8 '47
- Processing sour crudes at Globe, Lemont refinery. R. B. Pierce and others. Pet Processing 3:941-0 '48
- Wyoming's Powder River basin in the lime-light. Oil & Gas J 46:111 F 5 '48

PETROLEUM administration for war

- History of the Petroleum administration for war, 1941-1945. J. W. Frey and H. C. Ide, eds. 463p \$3 Supt. of doc. '46

PETROLEUM asphalt. See Asphalt

PETROLEUM chemicals

- Aromatic chemicals from petroleum; abstract. G. L. Parkhurst. Chem Eng 55:266+ F '48
- Celanese Corp.'s New Bishop, Tex. petrochemical operation. A. L. Foster, flow chart il Oil & Gas J 47:64-6+ JI 22 '48
- Chemcel petrochemicals. J. V. Hightower, flow sheet(p 136-9) il Chem Eng 55:105-7 JI '48
- Chemical analysis of refinery C₈ hydrocarbon fractions. R. F. Robey and H. K. Wiese, bibliog Anal Chem 20:926-33 O '48
- Chemical engineering unit processes; pyrolysis of hydrocarbons. V. Haensel and M. J. Sterba, il Ind & Eng Chem 40:1660-70 bibliog(184 ref. p 1669-70) S '48
- Chemicals from petroleum. Economist 155: 192-4 JI 31 '48
- Chemicals from petroleum. J. E. Bludworth, flow sheet il Pet Eng (Ref annual) 19:146+ JI 1 '48
- Chemicals from petroleum. E. R. Smoley and others, bibliog il diag Pet Refiner 26:136-40 N '47
- Chemicals from petroleum and natural gas. G. Egloff, Oil & Gas J 46:83-9+ Ag 30 '47; Same, il Chem & Eng N 25:3634-7 D 8 '47
- Chemicals from petroleum; list of products and companies making them. W. L. Nelson. Oil & Gas J 46:77 Ja 22 '48
- Contributions of Shell companies to protective coatings industry. T. F. Bradley, bibliog il Paint Oil & Chem R 111:17-18+ My 13 '48
- Detergents from petroleum. B. H. Weil, bibliog il Pet Refiner 27:126-33 My '48
- Developments in petroleum chemistry. F. W. Miller, Pet Eng 19:111-12 Mr '48
- Domestic refinery capacity to total 6.4 million barrels per day by early 1949; refining and petrochemical plant projects, U.S. and foreign countries; tabulation. R. B. Tuttle. Oil & Gas J 47:75-6+ N 4 '48

- Glycerine from petroleum; Shell chemical corp. D. P. Thornton, jr. flow diag il Pet Processing 3:931-4 O '48
- L.C.I. petroleum chemicals; Wilton and Billingham plants to collaborate. J. W. Armit. Chem Age (Lond) 58:607-8 My 1 '48
- Jefferson chemical company plant layout. G. W. Alexander, il maps Pet Refiner 27:87-92 My '48
- Jefferson Chemical plant now under full operation at Port Neches. A. L. Foster, il Oil & Gas J 47:100+ My 6 '48
- Petrochemical processes. flow diag il Pet Refiner (Process Handbook ed) 27:387-61 sec 2 S '48
- Petrochemical production showed increase in 1946. Pet Processing 3:104 F '48
- Petrochemicals. Chem Eng 55:112-13 F '48
- Petrochemicals. G. Egloff, bibliog il Oil & Gas J 46:179+ Ap 1 '48
- Petrochemicals at Corpus Christi. il diag Chem Ind 62:738-40 My '48
- Petroleum-based chemicals; Shell progress at Stanlow, in Holland and the U.S.A. Chem Age (Lond) 59:5 JI 3 '48
- Petroleum chemical detergents. M. Sittenfeld, flow sheet il Chem Eng 55:120-2 Je '48; Abstract. Soap & San Chem 24:76+ Ag '48
- Petroleum chemicals in relation to the textile industry. E. S. Paice, bibliog Soc Dyers & Col J 64:237-45 JI '48
- Petroleum solvents; correlation of kauri butanol solvency with gravity and aniline point. W. T. Harvey and I. W. Mills, bibliog Anal Chem 20:207-9 Mr '48
- Phenomenal expansion continuing in the petrochemical industry in the Gulf Coast region. il Oil & Gas J 47:237-8+ Je 24 '48
- Photosensitizing properties of some petroleum solvents. J. E. Dunn and F. S. Brackett. Ind Med 17:303-8 Ag '48
- Product development in the petroleum chemical field. R. W. KixMiller, il Pet Processing 3:241-3+ Mr '48
- Products from petroleum halogenation. G. Egloff, Oil & Gas J 47:112-14 O 14 '48
- Synthetic glycerin plant goes on stream. A. L. Foster, il diag Pet Eng 20:274-7 O '48
- Synthetic glycerine, a milestone in petrochemical progress. il diag Chem Eng 55:100-4 O '48
- What's ahead for petrochemicals? H. W. Zabel, il Chem Ind 62:390-3 Mr '48
- World's first synthetic glycerine plant opens at Houston. L. S. McCaslin, jr. flow chart il Pet Refiner 27:112-14 O '48; Same cond. Oil & Gas J 47:88-90+ S 16 '48

PETROLEUM coke

- Coke removal by steam. G. W. Alexander, diag Pet Refiner 27:91-3 Je '48
- Decoking process. flow diag Oil & Gas J 46: 162 Ap 1 '48

- Industrial carbon; problem of shortage, and what can be done about it; CI report. R. B. Ladoo and C. A. Stokes, bibliog il Chem Ind 63:609-16 O '48

- Porous tube stops coke deposits in high temperature processing; patent. diag Pet Processing 3:71 Ja '48

PETROLEUM cooperative associations

- Consumers co-op profits up 123 per cent in year; new five-year plan calls for further growth. Nat Pet N 40:36 F 18 '48

- Co-ops enter international field; Petrol refining, inc. World Oil 128:229+ O '48

- House committee told how co-ops hurt small oil men. Nat Pet N 39:24 N 12 '47

- Oil marketers seek end of handicap co-op tax exemptions put on business. map Nat Pet N 39:26-30+ N 12 '47

PETROLEUM distillation

- Accurate particle-size determination of fluid catalyst by coordination of roller analysis and microscopic examination. J. T. Wiley and others, il diag Am Pet Inst Proc 27(3): 23-8 '47; Same, Pet Refiner 26:90-3 D '47

- Alkylbenzenes in the C₈ fraction from five different catalytic petroleum refining processes. A. J. Streif and F. D. Rossini, bibliog J Res Nat Bur Stand 39:303-8 O '47

- Applications of the fluid catalyst technique to catalytic cracking and hydrocarbon synthesis. R. W. Krebs, bibliog il diag Pet Refiner 27:115-20 My '48

PETROLEUM distillation—Continued

- Aromatic absorption index as a rapid method for approximating catalyst activity. W. W. Scheumann and A. R. Rescorla. bibliog Am Pet Inst Proc 27(3):34-7 '47; Same, Oil & Gas J 46:231-2+ N 15 '47; Same, Pet Refiner 26:119-21 D '47
- Aromatic absorption index for the estimation of surface area and catalytic activity. T. W. Pratt. diag Am Pet Inst Proc 27(3):33-47 '47
- Bench-scale method for determining activity of cracking catalysts in powdered form. H. McReynolds. flow diag Am Pet Inst Proc 27(3):78-83 '47; Same, Pet Refiner 26:94-8 D '47
- Bench-scale test method for evaluating cracking catalysts. E. R. Birkhimer and others. diags Am Pet Inst Proc 27(3):90-9 '47
- Casper plant called model of small refinery planning. flow sheet il Pet Refiner 27:121-5 My '48
- Catalytic cracking of heavy distillate. C. H. Viland and J. Seth. il Oil & Gas J 47:186-7+ My 20 '48
- Chemical engineering unit processes; pyrolysis of hydrocarbons. V. Haensel and M. J. Sterba. il Ind & Eng Chem. 40:1660-70 bibliog(184 ref, p 1669-70) S '48
- Chemical treatment of fractions from Gulf Coast naphthenic-base crude for production of lubricating oils. R. I. Jacobi and L. E. McMakin. flow chart Oil & Gas J 46:169+ Ap 1 '48
- cis- and trans-piperylenes. R. L. Frank, R. D. Emmick and R. S. Johnson. bibliog Am Chem Soc J 69:2313-17 O '47
- Correlation of A.S.T.M. true boiling point and flash vaporization curves. W. L. Nelson and R. J. Harvey. bibliog Oil & Gas J 47:71-2+ Je 17 '48
- Cracking catalyst symposium; abstracts of papers. bibliog Pet Processing 2:945-7+ D '47
- Crude oil distillation process; Dual-Flo; Born engineering co. flow diag Pet Refiner (Process Handbook ed) 27:38-7 sec 2 S '48
- Crude oil distillation process; single stage. diag Pet Refiner (Process Handbook ed) 27:32-3 sec 2 S '48
- Crude oil distillation process; three stage; E. B. Badger & sons co. flow diag Pet Refiner (Process Handbook ed) 27:44-5 sec 2 S '48
- Crude oil distillation process; two-stage; Lummus co. flow sheet il Pet Refiner (Process Handbook ed) 27:40-1 sec 2 S '48
- Design and operation of a bench-scale automatic catalyst-aging unit. T. Rice and F. E. Ivey, jr. diags Am Pet Inst Proc 27(3):84-9 '47; Excerpts. Oil & Gas J 46:227-8+ N 15 '48
- Determination of activity and selectivity of cracking catalyst. E. V. Shankland and G. E. Schmitkons. bibliog il diags Am Pet Inst Proc 27(3):57-77 '47
- Diesel fuels from catalytic cracking operations. T. L. Apjohn and F. L. Nelson. il Pet Refiner 27:90-8 JI '48
- Economic distillation design; comparative importance of distillation variables. W. D. Harbert. il Pet Refiner 27:106-9 Ap '48
- Eight-shell still battery handles 24,000 bbl. of crude daily; Sinclair refining co. Marcus Hook refinery. A. L. Foster. flow diag il diag Oil & Gas J 47:116-17+ Ag 19 '48
- Evaluation of catalysts for catalytic cracking. Ing. A. R. Rescorla, J. H. Ottenweller and R. S. Freeman. bibliog diags Anal Chem 20:196-202 Mr '48
- Factor of gasoline tail-end volatility. J. B. Hill and W. C. Huffman. flow sheet Am Pet Inst Proc 28(3):115-19 '48; Same, Pet Refiner 27:94-7 Je '48; Same abr. Pet Processing 3:567+ Je '48; Discussion. Am Pet Inst Proc 28(3):119-20 '48
- Fluid catalytic cracking. flow diag Oil & Gas J 46:118-19 Ap 1 '48
- Fluid solids technique; applications in the petroleum industry. E. V. Murphree and others. diags Inst Pet J 33:608-14 O '47
- Fractional distillation. R. R. White and W. T. Boyd. diags Pet Processing 1:151-6+, 230+, 319-22; 2:73-8, 147+, 228-32+, 371-3+, 862-7; 3:143+ O '46-Mr, My, N '47, F '48
- Fractionation instrumentation and control. D. M. Boyd, jr. diags Pet Refiner 27:115-18 O; 114-17 N '48
- Front-end volatility as it affects processing of high-octane-number fuels. L. L. Davis. Am Pet Inst Proc 28(3):111-14 '48; Same, Pet Processing 3:565-7 Je '48; Same, Pet Refiner 27:98-100 Je '48
- New plant fractionates crude in one operation. Oil & Gas J 46:289 D 27 '47; Same, il Pet Refiner 27:129 Ja '48
- 1948 process handbook. flow diags il diags Pet Refiner (Process Handbook ed) 27:29-360 sec 2 S '48
- Pilot-plant evaluation of fluid cracking catalysts. H. W. Grote and C. R. Olsen. flow diag Am Pet Inst Proc 27(3):108-13 '47; Same, Pet Refiner 26:104-6 N '47; Same cond. Oil & Gas J 46:332+ N 15 '47; Discussion. Am Pet Inst Proc 27(3):113-16 '47
- Practical considerations in process design of fractionators. L. Bray. bibliog diags Pet Refiner 27:115-22 Ap '48
- Prediction of the activity of cracking catalysts from heat of wetting. L. W. Mills. diags Am Pet Inst Proc 27(3):29-33 '47; Same, Oil & Gas J 46:237+ N 15 '47
- Pressure drop in pipestills; effect of distillation range of chargestock. W. L. Nelson. Oil & Gas J 47:323 Je 24 '48
- Processing sour crude; Globe oil & refining co. R. B. Pierce and others. Oil & Gas J 47:96-7 S 30 '48
- Quick field test for propane contamination of butane streams in fractionator control. G. T. Hamblen. Pet Processing 3:315 Ap '48
- Rate of heat absorption in stills. W. L. Nelson. Oil & Gas J 47:282-3 JI 29 '48
- Reduction of topped crude by vacuum flashing. C. J. Helmers and others. diag Oil & Gas J 47:385-7+ Je 17 '48
- Refinery tools for producing high-octane gasoline. T. B. Kimball and J. A. Scott. Am Pet Inst Proc 28(3):121-32 '48; Same, Pet Refiner 27:116-23 Je '48; Same, Pet Processing 3:659-64+ JI '48; Discussion. Am Pet Inst Proc 28(3):133-6 '48; Pet Processing 3:666+ JI '48
- Refining South American crudes. D. Read and G. Egloff. flow diag pl Inst Pet J 33:621-47 O '47
- Simplified method for determination of carbonaceous deposits on cracking catalysts. F. E. Ray and others. diags Am Pet Inst Proc 27(3):48-50 '47; Same, Oil & Gas J 46:255+ N 15 '47
- Small fluid cat cracker handles high-sulfur charge efficiently; Texas co. Casper, Wyo., refinery. A. L. Foster. flow diag il Oil & Gas J 46:74-6+ D 6 '47
- Small-scale laboratory testing of cracking catalysts. G. F. Hornaday and D. E. Arden. flow diag diag Am Pet Inst Proc 27(3):100-7 '47
- Standard laboratory method for the determination of cracking catalyst activity. J. Alexander, jr. flow diag diags Am Pet Inst Proc 27(3):51-6 '47
- TCC processing of Pennsylvania oil fractions. H. D. Noll and D. M. Luntz. Pet Eng 19:162+ Ja '48; Same, Oil & Gas J 46:81+ Ja 15 '48
- Thermal cracking process; Lummus co. flow diags Pet Refiner (Process Handbook ed) 27:52-3 sec 2 S '48
- Thermal cracking process; Universal oil products co. flow diag Pet Refiner (Process Handbook ed) 27:48-9 sec 2 S '48
- Thermal pyrolytic cracking; moving pebbles transfer heat to hydrocarbon feed in process that yields ethylene and certain aromatics. S. C. Eastwood and A. E. Potas. diag Chem Eng 55:113 S '48
- 35,000 b/d spherical vacuum flasher supplies feed for twin crackers. D. P. Thornton, jr. flow diag il diags Pet Processing 3:303-6 Ap '48
- Ugite cracking process; patent. P. J. Gaylor. diag Pet Processing 3:69-70 Ja '48
- Utilization of low gravity crude oils. W. L. Nelson. Oil & Gas J 46:86 F 5 '48
- Vacuum distillation equipment; its selection and design. R. N. Blaize. diags Pet Refiner (Process Handbook ed) 27:108-10 S '48
- Vapor-liquid equilibria in hydrocarbon systems. S. T. Hadden. bibliog(61 ref) charts Chem Eng Prog 44:37-54, 135-51 Ja-F '48; Discussion. 44:152-6 F '48

PETROLEUM distillation—Continued

Vaporization in furnace tubes. G. Baars. 2pls diags Inst Pet J 34:417-36; Discussion. 435-42 Je '48
 Vis-breaking. flow diag Oil & Gas J 46:137 Ap 1 '48

Where does the sulfur go? M. J. Fowle and R. D. Bent. diags Am Pet Inst Proc 27(3):141-52 '47; Same. Oil & Gas J 46:209-15 N 15 '47; Same. Pet Refiner 26:87-95 N '47; Same. Pet Processing 2:935-6+ D '47

See also

Oil shales—Distillation

Petroleum refining

Control

Control of narrow-boiling-range fractionation columns. G. G. Gallagher. diags Pet Refiner 27:116-17 Mr '48; Same cond. Oil & Gas J 46:85+ F 5 '48; Same. Pet Eng 19:82+ Mr '48; Abstract. Chem & Eng N 26:1024 Ap 5 '48

Residuum

A.P.I. and specific gravity at high temperatures; asphaltic residual oils table. W. L. Nelson. Oil & Gas J 47:279-80 O 7 '48
 Distillation curves of cracked residuum. W. L. Nelson. Oil & Gas J 46:155 Ap 29 '48
 Vacuum distillation of petroleum residues. W. W. Kraft. bibliog flow diag, il diags Ind & Eng Chem 40:807-19 My '48

Tables, calculations, etc.

Distribution curves. W. D. Harbert. bibliog diag Pet Refiner 27:94-100 O '48 (to be cont)

Friction loss; condenser tubes. W. L. Nelson. Oil & Gas J 46:207 Mr 25 '48

Hydrocarbon absorption and fractionation process design methods; binary distillation calculations. W. C. Edmister. Pet Eng 19:57-61 Mr '48

Multi-component distillation calculations. E. G. Scheibel. bibliog Pet Refiner 27:92-105 Ap '48

Nomograph for equilibrium flash calculations. E. G. Scheibel. Pet Refiner 27:136-7 Jl '48

Pressure drop; coil-in-box condensers. W. L. Nelson. Oil & Gas J 46:115 Mr 11 '48

Pressure drop in fractionating towers. A. C. Eld. Pet Refiner 27:119-21 O '48

Pressure drop in small tube stills; charts and tables. W. L. Nelson. Oil & Gas J 46:92+ Ap 8 '48

Pressure drop in vapor lines. W. L. Nelson. Oil & Gas J 46:97 Mr 4 '48

Pressure-temperature ratings; schedule 80 (extra-heavy) pipe. W. L. Nelson. Oil & Gas J 46:157 Ap 29 '48

Pressure-temperature ratings; schedule 40 (standard) pipe. W. L. Nelson. Oil & Gas J 46:101 Ap 8 '48

Simplified multi-component fractionation calculations. R. V. Bailey and J. Coates. bibliog Pet Refiner 27:98-102 Ja; 113-15 F; 96-102 Mr; 129-35 O '48

Thermal properties of petroleum oils. M. Van Winkle. Pet Refiner 27:81-5 Je; 123-8 Jl; 105-7 Ag '48

Tower pressure drops. W. L. Nelson. Oil & Gas J 47:131 Ag 19 '48

Vaporization of petroleum fractions; method of calculation for vapor-liquid equilibria of complex mixtures. W. D. Harbert. bibliog Pet Refiner 26:132-9 D '47

Volume of laboratory fractions. W. L. Nelson. Oil & Gas J 46:133 F 19 '48

PETROLEUM engineering

A.I.M.E. meeting, Dallas, Oct. 4-6; abstracts of papers. Oil & Gas J 47:93+ O 14 '48

A.S.M.E. 2d annual petroleum mechanical engineering conference, Houston, Oct. 6-8; abstracts of papers. Pet Processing 2:880-3 N '47

A.S.M.E. 3d petroleum mechanical engineering conference, Amarillo, Tex. Oct. 3-6; abstracts of papers. Oil & Gas J 47:106-7+ O 14; 110+ O 21 '48

Application of engineering to oil production practices. H. S. Kelly. il Oil & Gas J 47:65+ Ag 5 '48

Benedum Ellenburger field developments. K. M. Fagin. il Pet Eng 19:51-6 Mr '48

Capillary forces. J. C. Calhoun, jr. diags

Oil & Gas J 46:137 Mr 18; 205 Mr 25 '48

Capillary pressure. J. C. Calhoun, jr. diags

Oil & Gas J 46:99 Ap 8; 119 Ap 22; 47:113

My 6; 427 My 13 '48

Correlation of connate water with permeability. J. C. Calhoun, jr. Oil & Gas J 47:241

My 20 '48

Engineering characteristics of the Gulf Coast

continental shelf. M. B. Willey. maps Pet

Eng (Ref annual) 19:97-8+ Jl 1 '48

Engineering data needed in accounting prob-

lems. R. U. Maddox. Pet Eng 19:74+ Je

'48

Engineering factors in measuring well depths.

C. R. Searcy. diags Pet Eng 19:76+ S '48

Engineering research greatly accelerated in

the petroleum industry. J. E. Sherborne.

Min & Met 29:144-5 F '48

Material balance principles. J. C. Calhoun, jr.

Oil & Gas J 47:101 Mr 27 '48

Mechanical engineering and the oil industry.

A. C. Hartley. Inst Mech Eng J & Proc

157 (War emergency issue no 33):325-8,

pl 1-2 '47

New tools and methods for Gulf Coast work-

over jobs. J. W. Quinn. Oil & Gas J 47:

76+ S 2 '48

Postwar progress in the Iranian oil fields.

flow diag il map diag Pet Eng 19:47-52 D

'47

Production technology directed toward in-

creased ultimate yields of oil and gas. N.

van Wingen. Min & Met 29:142-3 F '48

Relative permeability in various types of

media. J. C. Calhoun, jr. Oil & Gas J 46:

149 F 26 '48

Resume of reservoir forces and controlling

factors. J. C. Calhoun, jr. Oil & Gas J

46:97 Mr 4 '48

Skimming pit cleans runoff water. E. Ster-

rett. il World Oil 127:184-5 Mr '48

Steps in engineer's program of evaluating

oil property. E. A. Nichols. bibliog diag

Oil & Gas J 47:68-70+ Ag 12 '48

Subsurface flow-rate indicator and its appli-

cation. F. M. Carlisle. diags Oil & Gas J

47:75-6+ Je 10 '48

Visual information aids management; Creole

petroleum corporation, system at Caracas,

Venezuela. map diags World Oil 127:204-6

F '48

Whither are we headed in petroleum produc-

tion. R. S. Knappen. Oil & Gas J 47:79-80+

Je 17 '48

Who were these pioneers? H. Botsford. Pet

Eng 20:188+ O '48

See also

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

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Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

Petroleum—Production

PETROLEUM engineering—Power—Continued

Separate cooling on drilling rigs. *il* Pet Eng 19:122 My '48

Standardized connections speed boiler rigging-up. J. C. Albright. *il* World Oil 128:121-2 My '48

Today's drilling rigs. flow diags *il* plans diags Oil & Gas J 47:149-80 O 7 '48

See also

Electricity in the petroleum industry

Safety measures

Imperial's safety record is no accident. *il* World Oil 127:210+ Ja '48

Study and teaching

Petroleum engineering schools. *il* Oil & Gas J 46:81+ S 6; 95+ S 13; 91 S 27; 66-7 O 4; 127-8 O 18; 74+ N 8; 312+ N 15; 80-1 N 22; 71-2 N 29; 95 D 13; 80-1 D 20 '47; 74+ F 5; 115-16 F 19; 125+ F 26; 67 Mr 4; 101-2 Mr 11; 116+ Mr 18; 86+ Ap 8; 108-9+ Ap 22; 47:78+ S 9 '48

Teach fundamentals in petroleum engineering education is advice from industry. D. L. Katz. Min & Met 29:146 F '48

Training for the oil industry in France; Institut du petrole in Paris. *il* World Oil 127:216+ Ja '48

Tables, calculations, etc.

Average gas-oil ratios. J. C. Calhoun, jr. Oil & Gas J 47:105 Ag 5 '48

Combination of permeabilities. J. C. Calhoun, jr. diag Oil & Gas J 46:307 Ja 29; 91 F 5 '48

Darcy's law; radial flow system. J. C. Calhoun, jr. diag Oil & Gas J 46:83 Ja 8 '48

Darcy's law; résumé of equations. J. C. Calhoun, jr. Oil & Gas J 46:93 Ja 15 '48

Discussion of material balance equation. J. C. Calhoun, jr. Oil & Gas J 47:285 Jl 29 '48

Effect of connate water on relative permeability ratio. J. C. Calhoun, jr. Oil & Gas J 46:135 F 19 '48

Effective and relative permeability. J. C. Calhoun, jr. Oil & Gas J 46:107 Ja 22 '48

Estimation of reservoir saturation. J. C. Calhoun, jr. Oil & Gas J 47:109 Jl 22 '48

How to calculate well loads and select pumps. A. E. Caraway. diags Pet Eng 19:108+ Je '48

Permeability; absolute, effective, measured. H. M. Ryder. bibliog World Oil 128:173-7 My '48

Permeability; Darcy's law. J. C. Calhoun, jr. diag Oil & Gas J 46:71 Ja 1 '48

Petroleum engineering time savers. J. C. Calhoun, jr. Oil & Gas J 47:103 Ag 19; 142 Ag 26; 75 S 9; 139 S 16; 277 O 7 '48

Producing gas-oil-ratio equation. J. C. Calhoun, jr. diag Oil & Gas J 47:113 Ag 12 '48

Relative permeability ratio. J. C. Calhoun, jr. Oil & Gas J 46:107 F 12 '48

Reservoir material-balance equation. J. C. Calhoun, jr. diags Oil & Gas J 47:97 Je 3; 79 Jl 1 '48

Steady state flow in radial system. J. C. Calhoun, jr. diag Oil & Gas J 47:93 S 2 '48

Use of production data to construct relative permeability curves. J. C. Calhoun, jr. Oil & Gas J 47:123 Ag 19 '48

PETROLEUM engineers

Engineering as a profession. I. A. Anson. Pet Refiner 27:101-3 Je '48

Petroleum engineers abroad; suggestions to those preparing for foreign work. H. H. Power. bibliog Min & Met 29:493-4 S '48

What are the colleges doing to provide 23,000 engineers per year for the industry? K. B. Barnes. Oil & Gas J 46:108-9+ Ap 22 '48

PETROLEUM equipment industries

National Supply vs. Dresser industries; a comparative audit. J. C. Clifford. *il* Mag of Wall St 81:194-6+ N 22 '47

Present export boom on oil equipment should continue for several years. H. D. Ralph. Oil & Gas J 46:263-5+ D 27 '47

Directories

Directory of exhibitors and exhibits; International petroleum exposition. *il* diags Oil & Gas J 47:216-24+ My 13 '48; Pet Eng 19:125-6+ My '48; World Oil 128:301-4+ My '48

Exhibitions

Highly technical oil industry made simple in International petroleum exposition's Hall of science. C. J. Deegan. *il* Oil & Gas J 47:135-6 My 20 '48

I.P.E.; 1923-1948. *il* Oil & Gas J 47:141-2 My 20 '48

International petroleum exposition; with list of foreign delegates. Pet Eng 19:57-8 My '48

Silver anniversary, International petroleum exposition; program, speakers, exhibitors, etc. Oil & Gas J 47:208-24+ My 13; 116-19 My 20 '48; Pet Processing 3:457-61+ My '48

Suggestions for improving the next oil exposition. World Oil 128:44+ Jl '48

World's oilmen see new heavies at Tulsa show. H. McCall. *il* Ind Marketing 33: 74+ Je '48

Finance

Engineers of energy; M. W. Kellogg, a mighty engineer of oil refineries, moves toward volume chemicals and atomic power for industry. *il* Fortune 38:106-13+ N '48

PETROLEUM ether

Composition of rosin size precipitates; analyses of standard size precipitates. D. Price. bibliog Anal Chem 20:444-9 My '48

PETROLEUM geologists. See Geologists, Petroleum

PETROLEUM heat and power company

Stake in crude oil. Barron's 28:28 S 27 '48

PETROLEUM industry and trade

Address; review of common problems. E. Holman. Am Pet Inst Proc 27(2):68-71 '47

Dutch-Shell development plan. V. N. Swaminathan. Chem & Eng N 26:275 Ja 26 '48

Is the petroleum industry facing a challenge in peacetime? W. S. Hallanan. Am Pet Inst Proc 27(2):63-7 '47

Oil demand still rising. Bsns W p22-3 D 13 '47

Outlook for fuel oil and petroleum products. A. J. McIntosh. Comm & Fin Chr 167:2647+ Je 17 '48

Petroleum industry in 1947. G. G. Oberfell. *il* Chem & Eng N 26:23-5 Ja 5 '48

Roundup of world oil activities. E. Adams. Pet Eng 20:45-6+ O '48

Supplying the Midwest with petroleum products. R. E. Wilson. S A E J 56:13-20 Jl '48

Total imports seen as exceeding exports due to expanding demands. P. DeArmond. Oil & Gas J 46:193 Ja 29 '48

Varying oil policies in the Americas defended by I.P.E. congress speakers. Oil & Gas J 47:42-3 My 27 '48

World development outlook bright for 1948. G. O. Ives. *il* World Oil 127:Yrbk 254+ F '48

World warned to open doors to private development of oil. Oil & Gas J 47:58 O 14 '48

See also

Electricity in the petroleum industry

Oil fuel industry

Petroleum supply

Royal Dutch Shell group

Standard oil company (New Jersey)

Accidents

Accident and fatality rates show first post-war decline. Oil & Gas J 47:46 N 4 '48

Accounting

Comparison of inventory valuation methods. D. P. Jones. Am Pet Inst Proc 27(1):119-21 '47

Cost accounting; valuable business tool. W. F. Jones. World Oil 128:42-4+ S '48

Engineering data needed in accounting problems. R. U. Maddox. Pet Eng 19:74+ Je '48

Method of control for in-transit and storage losses. E. L. Hoffman. Am Pet Inst Proc 27(1):124-7 '47

Oil production accounting. R. M. Pitcher. World Oil 127:31-3+ F '48

PETROLEUM industry and trade—Accounting

—Continued

Standardizing the provisions of joint-interest agreements, H. H. Boyer. *Am Pet Inst Proc* 27(1):105-6 '47

Advertising

Ads can and must sell System; stresses ad research, W. I. Nunn. *il Ed & Pub* 81:7 *Jl* 24 '48

Telling public about oil. *Sales Management* 60:54+ *Je* 15 '48

Costs

Distribution of pumping costs, R. Sneddon. *Pet Eng* 19:51-4 *S* '48

Directories

Oil belt directory, 140p pa \$5 Oil belt publications, P. O. box 492, Shreveport, La. '48

Employees

See Petroleum workers

Equipment and supplies

Acoustic well sounder; Sonolog for determination of fluid level in annular space between casing and tubing of oil well. *il R Sci Instr* 19:126 *F* '48

Alloy steel in oil-field equipment, R. L. Adams. *il Metal Prog* 54:468-70 *O* '48

Aluminum exploration equipment has advantages in Gulf Coast marshes, L. S. McCaslin, Jr. *il Oil & Gas J* 47:88-9 *O* 14 '48

Aluminum invades the oil field. *il Bsns W* p92+ *My* 15 '48

Bailey bridge adapted to Louisiana wildcat drilling; used as floating-end loading ramp to accommodate trucks in land-water drilling operations, E. Short. *il Oil & Gas J* 46:68+ *Mr* 4 '48

Care and use of cable tool joints, F. J. Spang. *il Pet Eng* 19:56+ *F* '48

Circular salt-water treating unit proves successful, G. Weber. *il plan diags Oil & Gas J* 47:102-3 *Ag* 12 '48

Combating scale formation in oil field emulsion treaters and boilers, R. B. Walter. *il World Oil* 127:119-20+ *Ja* '48

Congress finds no solution for oil industry's steel problems, B. F. Linz. *Oil & Gas J* 47:49-50 *Je* 3 '48

Construction of cable tool bit forges, F. J. Spang. *diags Pet Eng* 19:56-6+ *Ag* '48

Corrosion costs in the petroleum industry, F. A. Rohman. *il Pet Eng* 19:115-16+ *Je* '48

Corrosion fatigue of oil well equipment, B. B. Morton. *il World Oil* 127:156+ *Ap* '48

Corrosion of oil well equipment, L. C. Case. *Pet Eng* 19:150+ *D* '47

Directory of exhibitors and exhibits; International petroleum exposition, *il diags Oil & Gas J* 47:216-24+ *My* 13 '48; *Pet Eng* 19:125-6+ *My* '48; *World Oil* 128:301-4+ *My* '48

Drill collars; their use and manufacture, R. J. Stoup. *il Oil & Gas J* 46:62-5+ *Ja* 22 '48

Drilling equipment situation today, J. D. Spading. *Pet Eng* 19:181-2+ *N* '47

18-month oil steel needs set at 15 million tons, *Nat Pet N* 40:11-12 *Mr* 17 '48

14 million bbl. consumer storage boost seen if steel can be had; steel requirements of petroleum industry, last three quarters of 1948 and first three quarters of 1949, *Nat Pet N* 40:14-15 *Mr* 24 '48

45 per cent more steel needed to maintain reserves, I.P.A.A. says, H. D. Ralph. *Oil & Gas J* 46:38-9 *Ja* 8 '48

House committee resumes hearings on steel supplies for petroleum, *Nat Pet N* 40:18 *My* 26 '48

Industry's steel needs, *il World Oil* 127:57-8+ *Ap* '48

Jet casing cutter saves hours in California demonstration, H. David. *il Oil & Gas J* 47:85 *Ag* 12 '48

Market for chemicals afforded by Western petroleum industry; abstract, E. H. Weaver. *Chem Ind* 61:801-2 *N* '47

Metallurgical methods for combating corrosion and abrasion in the petroleum industry, B. B. Morton. *bibliog 8pls diags Inst Pet J* 34:1-59; *Discussion*, 59-68 *Ja* '48

Mobility, present trend in offshore development methods, *il Oil & Gas J* 47:269-70+ *Je* 24 '48

National association of corrosion engineers regional group reports methods of combating corrosion, *Oil & Gas J* 47:152+ *S* 23 '48

New acidizing equipment designed for portability, *il Pet Eng* 19:134 *D* '47

New ways to get more oil; International petroleum exposition, *il Bsns W* p30+ *My* 29 '48

Oil country tubular goods, W. F. McConnor. *Pet Eng* 19:104+ *Mr* '48

Oil field steel needs pressing, *Steel* 122:65+ *Ap* 12 '48

Portable equipment for shallow drilling; application of arc welding, A. L. Wait, Jr. and J. W. Hornbrook. *il Pet Eng* 19:101-2 *My* '48

Present and prospective outlook for steel tubular goods, W. F. McConnor. *Am Gas Assn Proc* 1947:122-4

Prevention of corrosion in sour wells with organic inhibitors, W. F. Gross and H. W. Andrews. *il Oil & Gas J* 47:76-9+ *O* 28 '48

Recent developments in paints for the petroleum industry, G. W. Oxley. *Oil & Gas J* 47:93-6 *Jl* 8 '48

Remote-control power tongs, pipe racker take the sweat out of round trips, L. S. McCaslin, Jr. *il diags Oil & Gas J* 47:108-10+ *O* 23 '48

Report of central committee on the standardization of oil-field equipment, *il diags Am Pet Inst Proc* 27(4):145-350 '47

Special steels for the petroleum industry, R. Jackson and R. J. Sarjant, *bibliog pls diags Inst Pet J* 34:445-85 *Jl* '48

Steel industry's supply problem compared to that of petroleum in meeting rising demand, H. J. Wallace. *Nat Pet N* 40:36 *My* 5 '48

Stuck point of frozen pipe accurately determined by new electronic tool; Magna-Tector, H. David. *il diags Oil & Gas J* 47:107-8 *Je* 10 '48

Subsurface flow-rate indicator and its application, F. M. Carlisle. *diags Oil & Gas J* 47:75-6+ *Je* 10 '48

This business of cutting and fishing, F. Briggs. *il Oil & Gas J* 47:225-6+ *O* 7 '48

Tractor train freighting in the Arctic; with cost data, T. C. Mathews and E. D. Spalding. *il map World Oil* 128:214-18+ *Jl* '48

Utilized cable tool dump boxes, G. M. Wilson. *il World Oil* 127:65-6 *Ja* '48

Welding of locomotive type high pressure boilers, G. M. Trefts, 3d. *il diags Welding J* 26:1011-14 *N* '47

Airplanes in the petroleum equipment industries

Drills, Oil well

Finance

Adequate oil prices and tax relief needed to achieve expansion, H. Ozanne. *World Oil* 127:40+ *Mr* '48

Big oil firms dubious about price rise melon. *Barron's* 28:32 *O* 4 '48

Favorable earnings will help industry in financing expansion, *World Oil* 127:52+ *Mr* '48

Financial analysis of thirty oil companies for 1947; Chase national bank study, J. E. Pogue, F. Coqueron. *Comm & Fin Chr* 168:1109+ *S* 16 '48; *Excerpt*, *Oil Paint & Drug Rep* 154:5+ *S* 13 '48

Influence of current replacement costs on corporate earnings, W. H. Garbade. *Am Pet Inst Proc* 27(1):107-11 '47; *Same cond.* *Nat Pet N* 39:30-2 *D* 31 '47; *Same*, *World Oil* 127:44+ *Mr* '48

New capital formation in the petroleum industry, J. E. Pogue and F. G. Coqueron. *Comm & Fin Chr* 167:1533+ *Ap* 8 '48

Petroleum corporations incomes up in 1945, *Oil Paint & Drug Rep* 153:70 *Ap* 5 '48

Public must be told more oil depends on industry earnings, E. B. Jennings. *Oil & Gas J* 46:59+ *Mr* 11 '48

Record capital expenditures feature 1947 operations; financial analysis of 32 oil companies, F. J. Sansone. *Oil & Gas J* 47:412-13+ *My* 13 '48

Refiners' net may drop as oil prices level off. *Barron's* 28:34 *S* 6 '48

Role of the profet, R. E. Wilson. *Am Pet Inst Proc* 28(3):73-5 '48

PETROLEUM industry and trade—Finance—

Continued

Shell Oil turns to Caribbean; U.S. and Canadian groups finance Royal Dutch-Shell expansion in Latin America. *Bsns W* p21 O 30 '48

Fires and fire protection

Corpus Christi companies organize for co-operative fire fighting. *G. Weber, il Oil & Gas J* 47:250+ *Jl* 29 '48

Fire hazard checked by underfloor system on drilling rig. *G. M. Wilson, il World Oil* 128:84 *Je* '48

Fire protection for pump houses; Aer-o-foam, il plan *Oil & Gas J* 46:91 *Ja* 15 '48

See also

Petroleum refineries
—Fires and fire protection

International aspects

ERP will break world oil market unless watched, official warns. *Oil & Gas J* 47:53 *Ag* 12 '48

Geneva trade agreement should be beneficial to petroleum and petroleum-equipment industries. *N. Burns, World Oil* 128:89+ *My* '48

International petroleum situation. *B. R. Jennings, Am Pet Inst Proc* 27(1):23-30 '47; Same cond. *Nat Pet N* 39:23-4 *N* 19 '47

Jersey and Socony seek decision on red line bar to Aramco deal. *Oil & Gas J* 47:60 O 28 '48

Middle East oil and world markets. *C. J. Bauer, map Min & Met* 29:436-42 *Ag* '48; Abstract. *Oil & Gas J* 46:73-5 *F* 19 '48

Oil requirements of Marshall plan revised; new report due soon. *Oil & Gas J* 46:47 *Ja* 8 '48

Rapid growth of refining across Atlantic to effect oil industry throughout world. *W. C. Platt, Nat Pet N* 40:22+ *Ag* 4 '48; Same. *Pet Processing* 3:857+ *S* '48

Socony-Vacuum sees early end to Red line agreement dispute. *Oil & Gas J* 46:105 *Ap* 1 '48

Strategic value of Middle East oil to U.S. overemphasized. *B. Brodie, World Oil* 127:226+ *Ap* '48

World developments point further toward one-world conception. *W. W. Burns, il Oil & Gas J* 46:63+ *D* 13 '47

Public relations

API reorganizes public relations committee. *Nat Pet N* 40:18 *F* 4 '48

British oil's success in Mid-East shows effectiveness of its public relations. *W. C. Platt, Nat Pet N* 40:27+ *S* 3 '48

First anniversary finds public relations program under way on many fronts. *il Oil & Gas J* 46:206-8 *N* 15 '47

Grass roots public relations plan gets results in Rocky Mountain area. *Nat Pet N* 40:42-4 *Ap* 14 '48

Grass roots' reports ask public relations changes; district heads cite progress. *Nat Pet N* 39:14-16 *N* 19 '47

Petroleum-industry public relations. *J. M. Lovejoy, Am Pet Inst Proc* 27(1):21-3 '47

Petroleum-industry public-relations program. *W. J. Arnold, Am Pet Inst Proc* 27(1):128-9 '47

Progress day celebrations tell oil's story to public. *il Nat Pet N* 40:13-15 O 20 '48

Public relations ads to stress oil's supply efforts; public opinion survey approved. *Nat Pet N* 40:19 *F* 11 '48

Public relations program nears first anniversary with some changes proposed. *Nat Pet N* 39:25-6+ *N* 5 '47

Public relations program revamp proposal would seek conservation. *Nat Pet N* 39:16 *D* 17 '47

Purchasing

Paper work reduced in oil industry purchasing. *H. Ozanne, World Oil* 128:54+ *Jl* '48

Radio communication

Blueprint for radio. *D. F. Ball, diag Pet Eng* 19:133-4 *Je* '48

F-m communications in oil well drilling operations. *T. W. Mayborn, il diags Communications* 28:18-21 *S* '48

Gulf tidelands wildcat and radio. *V. L. Jane-way, il Pet Eng* 19:210+ *My* '48

Mobile radio for pipe line communication. *W. T. Bulla, il Pet Eng* 19:147+ *Mr* '48

Mobile radio-telephone service. *R. S. Johnson, maps World Oil* 128:226-6+ *My* '48

Petroleum industry and the Federal communications commission. *J. E. Keller, Am Pet Inst Proc* 27(5):89-96 '47

Radio communication essential to pipe-line-construction work. *B. G. Pierce, il Oil & Gas J* 47:246 *S* 23 '48

Radio communication speeds action for drilling wells, pipe lining, field plants. *G. Weber, il Oil & Gas J* 46:62-5+ *Mr* 4 '48

Telecommunications in the petroleum industry. *Z. Friedberg, fold pl plan Inst Pet J* 34:309-30 *My* '48

Use of radio in the petroleum industry. *F. W. Littell, Am Pet Inst Proc* 27(5):97-8 '47

Regulation

Clark ducks for 60 days; temporary permission to oil industry to get together to lick shortage. *Bsns W* p26 *F* 7 '48

Committee named to frame oil industry voluntary agreement. *Oil & Gas J* 46:102 *Mr* 25 '48

Complete text of voluntary Taft Act supply plan for petroleum industry. *Nat Pet N* 40:41-2 *Ag* 18 '48

Decisions vital to the oil industry loom in Congress. *H. A. Yocom, Nat Pet N* 39:9-10 *D* 31 '47

Federal control threatens oil industry. *F. Carlson, World Oil* 127:Yrbk 100+ *F* '48

How state conservation under Compact serves industry. *Nation, E. O. Thompson, Nat Pet N* 40:42+ *S* 15 '48

Majewski withdraws his four-point supply proposal. *Nat Pet N* 39:11-12 *N* 5 '47

NPC committee named to draft petroleum allocation program. *Oil & Gas J* 46:42 *Ja* 15 '48

NPC-Krug rift threatens as result of control talk. *H. A. Yocom, Nat Pet N* 40:11-12 *Ja* 28 '48

Nebraska jobbers oppose federal controls on allocation, use of oil. *E. Lamm, Nat Pet N* 39:22-3 *D* 10 '47

Oil allocation plan asked as new law goes into effect. *B. F. Linz, Oil & Gas J* 46:219 *Ja* 1 '48

Oil allocation plan opposition; hearing before House small business committee. *Nat Pet N* 40:16-17 *Je* 30 '48

Partial text of rules for supply program as prescribed by Department of interior; text of DJ letter clearing Advisory committee. *Nat Pet N* 40:37 *Mr* 24 '48

Reed sees oil-use control if supply falls any further behind demand; text of Senate oil probers' recommendations. *Nat Pet N* 40:16-17 *Jl* 7 '48

Text of DJ anti-trust clearance on supply plan. *T. C. Clark, Nat Pet N* 40:42-3 *Ag* 18 '48

20-point program to increase and allocate oil approved by Council. *Oil & Gas J* 46:142 *Ja* 29 '48

See also

Interstate oil compact commission

Safety measures

Drilling contractors discuss new safety devices in annual clinic. *C. F. Hoot, Oil & Gas J* 47:63 *Jl* 15 '48

Drilling safety clinic. *Safety Eng* 96:46 *Ag* '48

Safety in a tropical setting; Trinidad leaseholds limited's safety programme. *A. R. Taylor, il Nat Safety N* 56:34-6 *D* '47

Stanolind collects safety dividends. *A. Gibbon, il World Oil* 128:62 O '48

Visual education for safety; Stanolind oil & gas company, Tulsa. *A. Gibbon, il World Oil* 127:58+ *Mr* '48

Securities

Changing picture in the oils; with data on leading companies. *G. L. Merton, il Mag of Wall St* 83:26-7+ O 9 '48

Major oil companies lead value parade. *L. S. Mott and J. R. Lasser, Barron's* 28:29-30 *Jl* 26 '48

New factors affecting the oil industry; with statistical data for leading companies. *G. L. Merton, Mag of Wall St* 81:642-4+ *Mr* 13 '48

PETROLEUM industry and trade—Securities—

Continued

Oil race goes undersea; with data of companies engaged in undersea oil development. G. L. Merton. *Mag of Wall St* 82: 238-9+ Je 5 '48

Oil shares again under-priced. S. Boulton. *Comm & Fin Chr* 168:997+ S 9 '48

Turmoil in oil; with estimated reserves and earnings data of leading oil companies. G. L. Merton. *il Mag of Wall St* 81:286-7+ D 20 '47

Wall Street's oil boom ends. *Bsns W* p 101 S 25 '48

Service

See also
Oil companies—
Travel bureaus

Statistics

Annual review and forecast. *Oil & Gas J* 46:151-85+ Ja 29 '48

Changing panorama, 1947-1948. W. L. Baker. *World Oil* 127:Yrbk 61-2+ F '48

Compact group sets 1948 demand at 6,200,000 bbl. daily. *Oil & Gas J* 46:61 D 13 '47

Crude processing at near-record levels. C. Smith. *World Oil* 127:54-5 Ja '48

Crude processing hits new high as year ends. C. Smith. *World Oil* 127:58-9 F '48

Drilling up 50 per cent since 1940. J. C. Casper. *map Oil & Gas J* 47:183-4+ O 7 '48

Exploratory and development drilling, where it occurred and the results; tabulated by states. *Oil & Gas J* 46:252+ Ja 29 '48

Exploratory drilling in 1947. P. H. Lahee and others. *bibliog maps Am Assn Pet Geologists Bul* 32:851-1160 Je '48

Five states yield 84 percent of U.S. production. *World Oil* 128:45 Ag '48

\$4 billion marked for 1948 expansion. E. Adams. *Pet Eng* 19:63-71 My '48

Industry expands supply more than expected; with forecast of United States supply and demand, 1948, by quarters, and actual for 1947. L. J. Logan. *World Oil* 128:74-5+ My '48

Last half demand 2.5 per cent greater than that of first half. E. T. Knight. *Oil & Gas J* 47:172-5 JI 29 '48

More than 40,000 wells seen as industry's goal in 1948. C. J. Deegan. *Oil & Gas J* 47:166-8 JI 29 '48

1947 oil discoveries largest since 1937. H. J. Struth. *Pet Eng* 19:51-8 Ja '48

Oil reserves and production of the United States, 1918-1947; tabulation. *Pet Refiner* 27:171 Ap '48

Our petroleum supply. B. Saurino. *il Automotive Ind* 98:82-5 Mr 15 '48

Petroleum and products, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 164-8 [supplemented in monthly numbers]

Production up sharply in response to world demand. W. W. Burns. *map Oil & Gas J* 46:154-7 D 27 '47

7.2 per cent increased demand met during first half of 1948. L. J. Logan. *Pet Refiner* 27:143-4 Ag '48; Same. *World Oil* 128:46-8 Ag '48

Soaring demand prompts a record expansion in industry's producing division. K. B. Barnes. *il Oil & Gas J* 47:157-8+ My 20 '48

Summing up the global oil situation. H. J. Struth. *Pet Eng* 19:45-50 Ap '48

Total of 17,837 wells completed in first half is all-time high. J. C. Casper. *Oil & Gas J* 47:169-71 JI 29 '48

U.S. companies expand foreign operations. H. J. Struth. *map Pet Eng* 20:39-44 O '48

United States reserves unsatisfactory in relation to production. L. J. Logan. *World Oil* 127:44-6+ Ap '48

Well completions in the United States during Dec. 1947, and cumulative for year; tabulation. *World Oil* 127:60 F '48

Wildcat drilling in 1947. F. H. Lahee. *maps Oil & Gas J* 46:79-80+ Ap 8 '48

World oil industry must prepare for demand of nearly 10,000,000 bbl. by 1951. J. A. Cogan. *Oil & Gas J* 46:158-61+ D 27 '47

World supply, demand, prospects, 1951-57. H. Ozanne. *World Oil* 127:37-8+ Ap '48

Yearbook forecast issue. *il diags World Oil* 127:1-308 F '48

See also

Petroleum refineries
—Statistics

Taxation

Increased capitalization of geological-geophysical expenses would reduce exploration. *World Oil* 128:43 JI '48

War problems

Army's reservist program for oil makes industry participation easy. *Nat Pet N* 40: 33-4 F 18 '48

Composite petroleum reserve group setup; abstract. M. E. Chittick. *Nat Pet N* 39:38 N 19 '47

Exchange of military, oil know-how forms basis for POL training plan. S. Young. *Nat Pet N* 39:33-4+ N 19 '47

How oil industry men can join new military petroleum reserves. *Pet Processing* 3:29 Ja '48

Long-range military oil plans; abstract. J. Forrestal. *Oil & Gas J* 46:38 Ja 22 '48

Military expects industry to provide nucleus of trained oil reserve unit; API forum. *Nat Pet N* 39:14 N 12 '47

Mobilization plans affecting oil would correct errors in last war. S. H. Scheibla. *Nat Pet N* 40:40-1 Ap 14 '48

Oil industry faces big lube task if war comes. G. H. Vogel. *Nat Pet N* 40:19 My 5 '48

Organized reserves; symposium. *Am Pet Inst Proc* 27(1):87-101 '47

U.K. petroleum industry in war. A. Agnew. *4pls Inst Pet J* 34:403-16 Je '48

War oil reserve can be had by curtailing output. W. Pratt. *Oil & Gas J* 47:48 S 30 '48

Alaska

Alaska; 1947 activities. *maps World Oil* 128: 57 sec 2 JI '48

Tractor train freighting in the Arctic; with cost data. T. C. Mathews and E. D. Spalding. *il map World Oil* 128:214-18+ JI '48

Alberta

Alberta boom gains headway. C. O. Nickle. *il World Oil* 128:267-9 My '48

Alberta fields dominate Canadian oil expansion. S. G. Ebert. *map Barron's* 28:10 JI 12 '48

Alberta oil in 1947. J. L. Irwin. *il Can Min J* 69:83-91 F '48

Alberta oil production. J. L. Irwin. *il Can Min J* 68:889-91 D '47

Alberta operations in 1947. A. C. Ballantine. *il Can Min J* 69:83-6 Ap '48

Alberta's oil assumes major economic importance. J. E. Kelly. *map Barron's* 28:9 O 18 '48

Canada may have important strike. *Oil & Gas J* 47:339 S 23 '48

Directional hole tames Canadian wild well. G. B. Nicholson. *il diag World Oil* 128: 213-16 O '48

Exploration play in western Canada calls attention to area's potentialities. N. Williams. *il map Oil & Gas J* 46:192-3+ N 15 '47

Export of Alberta oil in near future now a possibility. J. L. Irwin. *Can Min J* 69:226+ O '48

Half-yearly Alberta oil review, 1948. J. L. Irwin. *il Can Min J* 69:77-80 S '48

Lease play in northern Alberta, highlights Canadian oil activity. C. J. Deegan. *map Oil & Gas J* 47:154-6 S 23 '48

Leduc celebrates first birthday. C. O. Nickle. *World Oil* 127:223-4 Mr '48

Leduc crude flows to new refinery. *World Oil* 128:228 S '48

Leduc rapidly becoming Canada's greatest oil reserve. N. Williams. *il map diag Oil & Gas J* 46:99-100+ Ap 15 '48

Rebel well of Leduc. J. L. Irwin. *il Can Min J* 69:76-9 JI '48

Seismograph surveying in central Alberta. E. J. Handley. *il World Oil* 128:213-14+ Je '48

Wild well in Leduc field finally killed through directional relief. G. B. Nicholson. *il Oil & Gas J* 47:93+ S 30 '48

Wild well is major setback for Leduc field. *il World Oil* 128:209 Je '48

PETROLEUM industry and trade—Alberta—*Continued*

Wild well proves high potential of Leduc field. C. O. Nickle. *il* World Oil 128:235-6 Ag '48

Algeria

Petroleum products; change in Algerian import duties and consumption taxes; table. For Comm W 31:12 Ap 24 '48

Arabia

Aramco facts answer Brewster's charges on Arabian oil sales. Nat Pet N 40:20-2 My 5 '48

Aramco takes to the air. C. B. Colby. *il* World Oil 127:227-8 Ap '48

Pipe line bottleneck curbs Saudi Arabia output. *il* map World Oil 127:222-4 Ap '48

Production up in Persian Gulf area. map World Oil 128:234 O '48

Socony-Vacuum sees early end to Red line agreement dispute. Oil & Gas J 46:105 Ap 1 '48

Yesterday, a sun-baked desert; today, a \$140,000,000 industry; story of Arabian American oil co.'s venture. W. F. Moore. *il* Oil & Gas J 46:162-5+ D 27 '47

Argentina

Argentina; 1947 activities. maps World Oil 128:129+ sec 2 Jl '48

Argentine crude output increasing under Y.P.F. drilling program. W. W. Burns. *il* maps Oil & Gas J 47:42-5 Je 3 '48

Arizona

Oil drilling boom on in Arizona, too. J. L. Parker. Barron's 28:39 Je 23 '48

Arkansas

Secondary recovery adds to Arkansas reserves. L. L. Jordan. World Oil 128:121-4 S '48

Australia

Australasia. W. J. F. Riordon. map Pet Eng 20:264 O '48

Australia; 1947 activities. map(p341) World Oil 128:339 sec 2 Jl '48

Intensive oil search goes on in Australia. map Pet Eng 19:66 Ja '48

Austria

Austria; 1947 activities. maps World Oil 128:203+ sec 2 Jl '48

Bahama Islands

Bahama Islands; 1947 activities. map(p 117) World Oil 128:115 sec 2 Jl '48

Bolivia

Bolivia; 1947 activities. map(p 143) World Oil 128:145 sec 2 Jl '48

Bolivian program aimed at supplying country's oil needs at lower cost. G. Mariaca. *il* map Oil & Gas J 47:54-5 S 9 '48

Brazil

Brazil; 1947 activities. map World Oil 128:145+ sec 2 Jl '48

Brazil seeks foreign capital. G. O. Ives. World Oil 128:295-6 My '48

Brazil to use its frozen credits to buy European oil facilities. Oil & Gas J 47:63 O 14 '48

Burma

Burma; 1947 activities. map(p309) World Oil 128:311 sec 2 Jl '48

California

California oil outlook. R. L. Minckler. *il* Min & Met 28:598-601 D '47

California sees oil prospects in new areas. Oil & Gas J 47:133 S 9 '48

Cuyama Valley discovery may improve California reserves. G. M. Wilson. *il* maps World Oil 128:87-90 Ag '48

Deep well breaks four drilling records; Maxwell no.1 near Ventura, Calif. N. A. D'Arcy, Jr. *il* diag Pet Eng 19:117-18+ S '48

Demand may force California imports by 1950. G. M. Wilson. World Oil 127:38+ Ja '48

Kern Bluff, Kern county, California; pays, contract terms, drilling conditions. map Oil & Gas J 47:113 Je 10 '48

Mountain-top drilling. H. David. *il* map Oil & Gas J 47:212+ O 7 '48

Recent diamond coring in California. W. C. Harrington and M. C. Eastman. *il* diag Pet Eng (Ref annual) 19:84+ Jl 1 '48

Richfield opens Cuyama valley for new California area. H. David. *il* map Oil & Gas J 47:51+ Ag 5 '48

Canada

Canada expanding refinery facilities. Z. P. Trotter. *il* Pet Refiner 27:86-90 Je '48

Canada, 1948. F. K. Beach. *il* maps Pet Eng 20:125-9+ O '48

Canada; 1947 activities. maps World Oil 128:59+ sec 2 Jl '48

Higher Canadian refinery operations require more imported crude. map Oil & Gas J 46:106-7 Ap 1 '48

Central America

Central America; 1947 activities. map(p 113) World Oil 128:115 sec 2 Jl '48

Chile

Chile; 1947 activities. map(p 151) World Oil 128:149 sec 2 Jl '48

San Sebastian discovery brightens oil outlook in Chile. map World Oil 128:222+ S '48

China

China; 1947 activities. map World Oil 128:311+ sec 2 Jl '48

China's 1947 petroleum imports double the 1946 figures. For Comm W 30:36 Ja 10 '48

China's postwar oil operations reflect little improvement. Oil & Gas J 47:42 Je 17 '48

Postwar progress in China's northwestern oil field. K. C. Lu. *il* World Oil 128:205-8 Jl '48

See also

Petroleum supply—

China

Colombia

Colombia; 1947 activities. maps World Oil 128:153, 155+ sec 2 Jl '48

Colombian wildcat operation. H. H. Heisler. maps plan Oil & Gas J 46:166-8+ D 27 '47

Costs discourage Colombia investments. G. O. Ives. *il* World Oil 127:219-21 Ap '48

Development of Casabe and Tibu fields boosts total 1947 output in Colombia. *il* Oil & Gas J 47:126-7 My 20 '48

Future of Colombia's De Mares concession. G. O. Ives. *il* World Oil 128:222+ O '48

Cuba

Cuba; 1947 activities. map(p 123) World Oil 128:121 sec 2 Jl '48

Ecuador

Ecuador; 1947 activities. map World Oil 128:167+ sec 2 Jl '48

Egypt

Egypt; 1947 activities. map World Oil 128:279+ sec 2 Jl '48

Egypt's production in 1948 may exceed 1947 output. World Oil 128:242 O '48

Egypt's Sudr field arouses new hope. map World Oil 127:199 F '48

Ethiopia

Ethiopian inactivity blamed on British. World Oil 128:241 Je '48

Sinclair meets transport problems in exploring its Ethiopian concession. H. Taylor. *il* map Oil & Gas J 47:43-5 Ag 5 '48

Europe

European petroleum requirement estimates are revised upward. Marshall plan outline shows. Nat Pet N 39:35 D 24 '47

Immediate increase in European refining capacity needed to make E.R.P. work. W. W. Burns. *il* Oil & Gas J 46:62-3 F 12 '48

Netherlands takes oil spotlight in review of European, Far East activities. W. W. Burns. map Oil & Gas J 46:46-8 Mr 4 '48

Oil shipments financed by ECA; benefits likely. W. J. Levy. For Comm W 33:15 N 8 '48

Rapid growth of refining across Atlantic to effect oil industry throughout world. W. C. Platt. Nat Pet N 40:22+ Ag 4 '48; Same.

Pet Processing 3:857+ S '48

PETROLEUM industry and trade—Europe—*Continued*

Report shows how Europe uses Marshall-plan funds for oil. Oil & Gas J 47:42-3 N 4 '48

See also

Petroleum supply—
Europe

Far East

Far East oil industry recovering slowly from war and uprisings. il Oil & Gas J 47:57 J 15 '48

Netherlands takes oil spotlight in review of European, Far East activities. W. W. Burns. Oil & Gas J 46:48+ Mr 4 '48

Florida

Search for oil renewed, Barron's 28:38 J 1 26 '48

Widespread interest being shown in oil possibilities in Florida. L. S. McCaslin, jr. il map diag Oil & Gas J 47:64-7+ J 1 '48

France

Deepest well in Europe, E. Bernadac and E. D. Lynton. il Pet Eng 19:115-16 Mr '48

France; 1947 activities. maps World Oil 128:209, 211+ sec 2 J 1 '48

France progressing on comprehensive plan to build petroleum industry. J. G. Fevrier. il Oil & Gas J 47:63-4 O 21 '48

French build up refining capacity. Nat Pet N 40:40 Je 9 '48

French oil industry has extensive wildcatting program under way. W. W. Burns. il map Oil & Gas J 47:56-7 Je 10 '48

French refining industry back to prewar output, moving ahead. W. W. Burns. il Oil & Gas J 46:62+ Ap 22; 47:58-9 My 8 '48

Notes from France. R. Sneddon. il Pet Eng 19:198+ N '47

Port Jerome refinery, destroyed by war, exceeding prewar output. M. J. Jamieson. il Oil & Gas J 46:78-9 Mr 18 '48

Rebuilding of French refineries proceeding ahead of schedule. W. C. Platt. il map Nat Pet N 40:20-1+ S 1 '48

Training for the oil industry in France; Institut du petrole in Paris. il World Oil 127:216+ Ja '48

Two years in France. E. D. Lynton. il diag Pet Eng 20:170+ O '48

Germany

Drop in over-all German output overshadows new Emsland record. Oil & Gas J 46:60 F 12 '48

Exploration likely to follow recent Bavarian agreement. World Oil 128:256 Ag '48

German crude output up slightly; hydrogenation plants to resume. Oil & Gas J 47:131 O 7 '48

German oil production during the war. Engineering 165:230 Mr 5 '48

German petroleum industry. V. S. Swaminathan. Chem & Eng N 26:1028 Ap 5 '48

German refining capacity will be expanded; exploration stepped up. W. W. Burns. Oil & Gas J 46:142-3 D 27 '47

Germany attacks oil problems. A. H. Stahmer. il World Oil 128:210-12 Je '48

Germany looks to Emsland for oil. il map World Oil 127:209-10+ F '48

Germany; 1947 activities. maps World Oil 128:217, 219+ sec 2 J 1 '48

Oil conference, Hannover, Germany. Sept. 9-11. Am Assn Pet Geologists Bul 31:2060-3 N '47

Great Britain

Big British petroleum schemes; Britain to have two new oil refineries. Chem Age (Lond) 57:693 N 29 '47

Britain's plant construction program keeps pace. E. N. Tiratsoo. Pet Refiner 27:142 F '48

British oil industry clings to earnings to help finance big development program. W. C. Platt. Nat Pet N 40:24+ Ag 11 '48

Great Britain; 1947 activities. map(p229) World Oil 128:225+ sec 2 J 1 '48

New oil refineries. Economist 155:69-70 J 10 '48

Petroleum board's great record helps British oil industry escape socialism. W. C. Platt. il Nat Pet N 40:22-4+ J 14 '48; Same. Pet Processing 3:742-3+ Ag '48

Petroleum refining in the United Kingdom. H. Moore. Can Chem & Process Ind 32:659-66 J 1 '48

U.K. petroleum industry in war. A. Agnew. 4pls Inst Pet J 34:403-16 Je '48

Gulf Coast region

Continental Shelf activity intensified. L. J. Logan and C. Smith. il map World Oil 128:37-40 J 1 '48

Discovering oil 12 miles offshore in the Gulf. A. T. F. Seale. il World Oil 128:113-16 My '48

Federal cloud not halting work in Gulf of Mexico drilling. D. M. Duff. Oil & Gas J 47:30-1 J 1 '48

Gulf Coast section. il maps diags Oil & Gas J 47:151-60+ Je 24 '48

Largest mechanical barge drilling rig placed in Gulf Coast operation. E. Short. il plans diag Oil & Gas J 46:52-5 Ja 15 '48

Oil under water; derricks sprouting in Gulf. il Bns W p39-40+ Je 5 '48

Seven discoveries in Gulf of Mexico. L. S. McCaslin, jr. il Oil & Gas J 47:64-7 S 30 '48

Hungary

Hungary; 1947 activities. map(p233) World Oil 128:231 sec 2 J 1 '48

U.S. State department to protest seizure of Hungarian oil farm. B. F. Linz. Oil & Gas J 47:128-9 O 7 '48

Illinois

Illinois oil development and repressuring at London. C. G. Herrington and M. C. Sons. flow diag il World Oil 127:115-18 Ja '48

London pool completes its first ten years. L. S. McCaslin, jr. il map Oil & Gas J 46:54-8 N 8 '47

Italy

Italy; 1947 activities. map(p237) World Oil 128:235 sec 2 J 1 '48

61,000 bbl. daily is 1948 target of Italian refining industry. Oil & Gas J 47:42 S 2 '48

Japan

Japan; 1947 activities. map World Oil 128:319+ sec 2 J 1 '48

Japan's new exploration program. il map World Oil 128:229-33 Ag '48

Mining for oil in Japan. G. B. Shea. plans diag World Oil 127:198-202+ Ja '48

Kansas

Eastern Kansas water flood increases production. L. S. McCaslin, jr. il plan diag Oil & Gas J 46:108-11 F 26 '48

Kansas oil and gas industry at a glance. Oil & Gas J 46:103 Ap 1 '48

Oil production from Phillips-operated water-flood project. L. S. McCaslin, jr. il plan Oil & Gas J 47:216-18+ J 19 '48

Kentucky

Problems facing water flooding in Kentucky. H. S. Barger. Oil & Gas J 47:78+ Ag 5 '48

Kuwait

Sheik of Kuwait gets handsome terms for oil concession in neutral zone. W. W. Burns. map Oil & Gas J 47:54-5 J 15 '48

Latin America

Caribbean output greater than that of Middle East seen in 1951. W. W. Burns. il map Oil & Gas J 46:93-5 F 26 '48

Latin America has 329 of 478 known rigs operating abroad. Oil & Gas J 47:54 Je 10 '48

Oil in the Americas. H. Ozanne. World Oil 128:288+ My '48

Oil prospects in Latin America. Economist 154:799-800 My 15 '48

Shell Oil turns to Caribbean; U.S. and Canadian groups finance Royal Dutch-Shell expansion. Bsns W p21 O 30 '48

Louisiana

Construction nears completion on Humble's giant marine drilling platform. D. M. Duff. il Oil & Gas J 46:123-4 Mr 18 '48

Kerr-McGee, Phillips and Stanolind develop spectacular Gulf of Mexico discovery. K. B. Barnes and L. S. McCaslin, jr. il map Oil & Gas J 46:96-9+ Mr 18 '48

PETROLEUM industry and trade—Louisiana

—Continued

Louisiana report shows progress in oil and gas conservation. D. M. Duff. Oil & Gas J 47:44 J1 22 '48

New unit operation in Lake St John (La.) field; combination cycling, pressure-maintenance plant installation; combination crude-oil and gas-condensate reservoir produced and operated as unit. N. Williams. flow diag il map Oil & Gas J 46:99-102+ D 6 '47

Weeks Island salt-dome operations. N. Williams. il Oil & Gas J 47:58-60+ S 2 '48

Mexico

Bermudez outlines Pemex plans for expanding refining industry. Oil & Gas J 46:104 Ap 1 '48

Cities Service deal clarified as Mexico woos U.S. operators. Oil & Gas J 46:61 Ap 22 '48

Cities Service signs contract to finance Pemex drilling operations. Oil & Gas J 46:58 Ap 15 '48

Congressmen's visit seen as bolstering Pemex's hopes for United States loan. H. M. Bratter. il Oil & Gas J 47:60-2 O 14 '48

Discovery spurs Mexico exploration. map World Oil 128:230+ O '48

Mexican oil increase due to Poza Rica field. J. J. Slattery. maps Pet Eng 20:158+ O '48

Mexican oil pact with Cities Service. Bsns W p 125 Ap 17 '48

Mexican petroleum data, 1946 and 1947; production, exports, imports and consumption. For Comm W 30:31 F 28 '48

Mexico achieves greater oil output in 1947. W. W. Burns. il Oil & Gas J 47:200-1 My 13 '48

Mexico has first big oil discovery in ten years. World Oil 128:254+ Ag '48

Mexico making new proposals for return of foreign capital. W. W. Burns. Oil & Gas J 46:97 Mr 25 '48

Mexico needs only equipment to develop resources; abstract. A. J. Bermudez. Oil & Gas J 46:60 Ap 29 '48

Mexico; 1947 activities. maps World Oil 128:81+ sec 2 J1 '48

Mexico offers glorified drilling contracts. World Oil 127:40 Ap '48

Mexico opens the door, but U.S. operators wary of entering. H. Ozanne. World Oil 128:220-1 S '48

Mexico's equipment needs. A. J. Bermudez. World Oil 127:214+ Ja '48

Reentry of American oil capital into Mexico virtually assured. W. W. Burns. il Oil & Gas J 46:46+ N 29 '47

Refinery runs continue upward trend in Mexico. L. J. Logan. Pet Refiner 27:162+ J1 '48

Substantial aid to Mexico is favored by Wollerton committee. B. F. Linz. Oil & Gas J 47:44 S 9 '48

33 Mexican rigs running as new year began; table listing wells completed during 1947. World Oil 127:238 Mr '48

Michigan

Michigan oil fields; influence of spacing on ultimate recovery. S. F. Shaw. Pet Eng 19:100+ Mr '48

Michigan's deepest test well. W. E. Schoeneck and T. A. Steele. plan Oil & Gas J 47:219-20+ J1 29 '48

Mid-continent region

Application of oil-base mud in the mid-continent area. T. Randolph. biblog il Oil & Gas J 47:78+ My 27 '48

Middle western states

Petroleum demands met by private enterprise. R. E. Wilson. Comm & Fin Chr 167:1327 Mr 25 '48

Montana

Montana independents charge majors with price fixing, controlling crude and products market. Nat Pet N 40:14 Ap 14 '48

Morocco

Morocco; 1947 activities. map World Oil 128:283+ sec 2 J1 '48

Near East

American independent oil company enters Middle East. map World Oil 128:240+ Ag '48

British oil's success in Mid-East shows effectiveness of its public relations. W. C. Platt. Nat Pet N 40:27+ S 3 '48

Facilities proposed for Middle East oil will benefit local economies. W. W. Burns. il Oil & Gas J 47:55-6 S 30 '48

Haifa deadlock stalls development of oil facilities in Middle East. Nat Pet N 40:20 S 29 '48

Highlights of Middle East developments; abstract. N. E. Baker. Oil & Gas J 46:75-6 F 19 '48

Middle East; 1947 activities. maps World Oil 128:289, 291-307 sec 2 J1 '48

Middle East oil and world markets. C. J. Bauer. map Min & Met 29:436-42 Ag '48; Abstract. Oil & Gas J 46:73-5 F 19 '48

Middle East production expected to exceed that of Venezuela in 1948. il map Oil & Gas J 47:44-5 S 2 '48

Navy purchase of Persian Gulf oil seen as realistic policy. W. W. Burns. Oil & Gas J 47:32 J1 '48

New Middle East oil policy. il map Bsns W p 117-18 Je 26 '48

Shifting of world petroleum export center to Middle East seen; abstracts. W. Fraser. Nat Pet N 40:20 J1 14 '48; World Oil 128:249 Ag '48

Strategic value of Middle East oil to U.S. overemphasized. B. Brodie. World Oil 127:226+ Ap '48

\$2-billion investment planned for Middle East oil. map Bsns W p 117-18 S 25 '48

Netherlands

Equipment availability permits rapid development of Schoonebeek field. il maps Oil & Gas J 47:70-1 S 16 '48

Netherlands Indies

Aruba refinery processes 330,000 barrels daily. F. S. Campbell. il Oil & Gas J 46:247-9 D 27 '47

East Indies; 1947 activities. maps World Oil 128:325, 327+ sec 2 J1 '48

Limited operations resumed in N.E.I. but situation not entirely satisfactory. W. W. Burns. il Oil & Gas J 46:60-1+ D 6 '47

Production and foreign trade, 1947 and comparisons for 1940 and 1946. For Comm W 31:30-1 My 15 '48

Rehabilitation of Dutch Indies oil fields. Pet Eng 19:114 Ja '48

New Guinea

Activity points to New Guinea as important Far East producing area. map Oil & Gas J 46:60 Mr 11 '48

New Mexico

Crossroads, New Mexico, wildcat one of largest discoveries this year. K. B. Barnes. il plan diag Oil & Gas J 47:214-16+ My 20 '48

Drilling problems in new Crossroads field. K. M. Fagin. il maps Pet Eng 19:55-6+ J1 '48

New Mexico pre-Permian strike draws wide interest. Oil & Gas J 47:443 My 13 '48

New strikes add vast area to Permian basin. H. H. King. map World Oil 128:56+ Ag '48

Permian Basin oil to get full outlet. H. H. King. il World Oil 128:76+ My '48

Oklahoma

Extensive testing feature of three-part gas-injection program at West Edmond. L. S. McCaslin, jr. il plan Oil & Gas J 46:133+ Ap 29 '48

Nation's largest unit operation accomplishes much in first three months; Oklahoma's West Edmond field. L. S. McCaslin, jr. il map Oil & Gas J 46:44-7+ Ja 1 '48

Preplanned program with royalty owners followed in newest unit project. L. S. McCaslin, jr. plan Oil & Gas J 46:64-5+ Ap 8 '48

Pacific coast

Pacific Coast supply and demand now balance, with outlook good. Oil & Gas J 47:48 Ag 5 '48

PETROLEUM Industry and trade—Pacific coast—Continued

West Coast refiners run at 67 per cent despite strike, *il Nat Pet N 40:11-14 S 22 '48*

Palestine

Refinery at Haifa reopens but faces supply and labor problems. Oil & Gas J 47:154 JI 29 '48

Paraguay

Paraguay, 1947 activities. map(p 173) World Oil 128:171 sec 2 JI '48

Third well drilling in the Paraguayan Chaco. R. Sneddon. map Pet Eng 20:182 O '48

Persia

Postwar progress in the Iranian oil fields. flow diag *il map diag Pet Eng 19:47-52 D '47*

Peru

Oil companies losing interest in Peru as oil law stays mired in politics. *il Oil & Gas J 46:62+ Ap 29 '48*

Peru establishes EPF in weak move to entice foreign capital. Oil & Gas J 47:198 My 13 '48

Peru, 1947 activities. maps World Oil 128:175+ sec 2 JI '48

Peru's oil program hampered by politics. G. O. Ives. *il World Oil 127:194-7 Ja '48*

Philippine Islands

Only one company accepts stiff Philippine concession terms. Oil & Gas J 47:55 Je 10 '48

Poland

Poland, 1947 activities. map World Oil 128:239+ sec 2 JI '48

Polish oil industry. H. Burstin. Oil & Gas J 46:26-7+ Ja 1 '48

Rocky Mountain region

Development and exploratory trends in the Rocky Mountain region. C. M. Boos and L. Brundall. *il map World Oil 127:107-8+ F '48*

Drilling mud problems of Rocky Mountain region. D. D. Varnell and W. B. Kimbrell. Pet Eng (Ref annual) 19:32+ JI 1 '48; Same cond. Oil & Gas J 46:186 O 11 '47

Rumania

Oil war in Rumania. Economist 154:421 Mr 13 '48

Roumania, 1947 activities. map World Oil 128:243+ sec 2 JI '48

Russia

Electrical logging developments in the U.S.S.R. H. Guyod. bibliog diags World Oil 127:231-5 D '47; 67-70 Ja; 84+ F; 128:124-6+ My; 92-4+ Je; 110+ Ag '48

Russia may renew drive for Iran's oil. World Oil 128:232 Je '48

Russian crude output increasing rapidly. Soviet writer claims. E. Galperson. Oil & Gas J 47:36 JI 1 '48

Russia's five-year oil plan goes on four-year basis. World Oil 128:258 Ag '48

U.S.S.R. 1947 activities. maps World Oil 128:249, 251+ sec 2 JI '48

Use of secondary-recovery methods boosts output of crude oil in Russia. Oil & Gas J 46:62 Mr 11 '48

See also
Russia

Spain

Caltex will share in Cartagena refinery; to be first in Spain. Oil & Gas J 47:52-3 S 30 '48

Texas

Arch field, Matagorda county, Tex. plan Oil & Gas J 47:107 N 4 '48

Benedum Ellenburger field developments. K. M. Fagin. *il Pet Eng 19:51-6 Mr '48*

Benedum field, 1947's most important domestic strike? G. Weber. *il map Oil & Gas J 46:60-3+ F 5 '48*

Benedum's boom. Bsns W p23 Ja 17 '48

Bloomington field, Victoria county, Texas. plan Oil & Gas J 46:138 Ap 29 '48

Diamond coring of chert, limestone, and dolomite of west Texas Permian basin. A. W. McCray. Pet Eng 19:64-6+ Mr '48

Few dry holes at Dollar Hide. C. J. Deegan. map Oil & Gas J 46:338-9 N 15 '47

Humble Northwest flank, Harris county, Texas. map Oil & Gas J 47:77 JI 8 '48

Jameson field, Coke county, Texas. map Oil & Gas J 47:77 S 9 '48

Jordan Ellenburger, Ector county, Texas. map diags Oil & Gas J 47:81 JI 22 '48

More Texas oil: Pure Oil's new field. Bsns W p22 Mr 27 '48

Nation's largest voluntary unit formed on Texas Gulf coast. L. S. McCaslin, Jr. *il map diag Oil & Gas J 47:84-6+ S 16 '48*

New Gulf Oil plant in west Texas combines gas lift and repressuring. G. Weber. *il map Oil & Gas J 46:96-7+ D 13 '47*

New strikes add vast area to Permian basin. H. H. King. map World Oil 128:56+ Ag '48

North Cowden, west Texas' first high-pressure gas injection project on cooperative and pool-wide basis. K. B. Barnes. *il map diag Oil & Gas J 47:52-5+ JI 1 '48*

Pan American to use pressure maintenance, wide spacing in Gulf Coast field. Oil & Gas J 46:105 D 13 '47

Permian Basin oil to get full outlet. H. H. King. *il World Oil 128:76+ My '48*

Results of water injection in Woodbine reservoir of the east Texas field. W. S. Morris. *il diag Am Pet Inst Proc 27(4):36-45 '47; Same abr. Oil & Gas J 46:245-6+ N 15 '47*

Secondary recovery of oil by water-flooding in fields of north Texas; supplement to R.I. 3906. History of water-flooding of oil sands in north Texas. R. K. Guthrie and others. 51pls U S Bur Mines Rep of Invest 4250:1-158 '48

Shafter Lake Devonian, Andrews county, Texas. map diag Oil & Gas J 47:95 My 27 '48

Sugar Valley field, Matagorda county, Texas. map Oil & Gas J 47:115 Ag 19 '48

Texas' distillate yield down; gas products up, 1947 survey shows. Oil & Gas J 46:43 Ja 22 '48

Texas wells operate at maximum efficient rate; abstract. E. O. Thompson. Nat Pet N 40:13-14 Ap 14 '48

They struck oil; Pittsburgh Plate Glass and American Cyanamid; subsidiary. Bsns W p38 My 8 '48

Unusual water-injection project proposed to Texas commission. Oil & Gas J 47:58 S 30 '48

Trinidad

Reestablishing Trinidad reserve. *il World Oil 127:200-1 F '48*

Trinidad, 1947 activities. map(p 127) World Oil 128:125 sec 2 JI '48

Trinidad petroleum development company, limited; statement by the chairman at annual ordinary general meeting of the Trinidad petroleum development co. K. Moore. Economist 153:741 N 1 '47

Turkey

Turkey plans vast drilling program. *il World Oil 128:228 Je '48*

United States

Boiling oil; the world shortage is in refining capacity. Fortune 37:107-9 My '48

Challenge to crude oil; U.S. producers must effect economies if impending competition of oils from natural gas and coal is met. L. J. Logan. Pet Refiner 26:145+ D '47

Changing panorama, 1947-1948. W. L. Baker. World Oil 127:Yrbk 61-2+ F '48

Competition keen in U. S.; producing and refining. L. J. Logan. *il World Oil 128:42-3+ Je '48*

Field name, county, location, and initial production of discovery wells; listed by states. Oil & Gas J 46:228+ Ja 29 '48

Management by acclaim, oil, Fortune 37:3-4 Mr '48

New look in oil. E. Holman. Comm & Fin Chr 168:1309+ S 30 '48

Oil and national policy. J. E. Pogue. Comm & Fin Chr 168:7+ JI 1 '48

Oil industry back on right track and running hard; demand two years ahead of itself, supply fights to catch up. F. B. Dezendorf. Barron's 28:29 My 17 '48

PETROLEUM industry and trade—United States—Continued

Oil industry gets military ultimatum as NPC studies supply-demand outlook. B. F. Linz. *Oil & Gas J* 47:36-7 Ag 5 '48

Oil industry; yesterday, today and tomorrow. G. Egloff. *Comm & Fin Chr* 167:2528+ Je 10 '48

Oil play. *il Fortune* 38:68-75+ Ag '48

Oil price rise will lift producers' net, not supply. S. G. Erbert. *Barron's* 27:41 D 8 '47

Petroleum industry not as concentrated among a few companies as in other business fields. *Nat Pet N* 40:34 Mr 31 '48

Petroleum industry; review of 1947. H. C. Fyfe and others. *il Min & Met* 29:136-46 F '48

Petroleum reserves vs. petroleum consumption; abstract. W. C. Schroeder. *Chem Eng* 55:274+ F '48

President's address before American petroleum institute. W. R. Boyd, Jr. *Am Pet Inst Proc* 27(1):13-17 '47

Profits of the oil industry. R. E. Wilson. *Comm & Fin Chr* 167:2188+ My 20 '48

Solving petroleum-industry problems. W. S. Hallanan. *Am Pet Inst Proc* 27(1):45-8 '47

Troubled oil. *Bsns W* p84+ My 15 '48

Turmoil in oil. G. L. Merton. *il Mag of Wall St* 81:286-7+ D 20 '47

U.S. becomes net oil importer. *World Oil* 127:36+ F '48

United States; 1947 activities. *World Oil* 128:95+ sec 2 JI '48

We must work together. O. L. Chapman. *Am Pet Inst Proc* 27(1):18-20 '47

Why Congress' interest in oil industry? S. A. Swensrud. *Nat Pet N* 40:23-4+ S 29 '48

See also
Gulf oil corporation Petroleum supply—
Petroleum laws and United States
regulations—United
States

Foreign properties

Cities Service re-enters Mexico. *World Oil* 128:282 My '48

Foreign petroleum operations 20 per cent owned by U.S. concerns. *Oil & Gas J* 46:42 D 20 '47

Oil industry better represented than most in foreign service. *Oil & Gas J* 46:53 Mr 4 '48

Saudi Arabia flareup will be press blackout. T. Smith. *Ed & Pub* 81:47 F 28 '48

U.S. companies expand foreign operations. H. J. Struth. *map Pet Eng* 20:39-44 O '48

U.S. foreign oil policy has clarified since the war and now encourages American activity abroad. H. D. Ralph. *il map Oil & Gas J* 46:220+ D 27 '47

U.S. must develop foreign crude sources. J. T. Duce. *Nat Pet N* 40:30+ F 18 '48

See also
Petroleum—Concessions

Venezuela

Creole pays government 19 cents per barrel, keeps all royalty oil. *Oil & Gas J* 46:45 Mr 4 '48

Creole predicts ten per cent gain in crude production in 1948. *Oil & Gas J* 46:60 Ap 22 '48

Creole progressing with building 60,000-bbl. Amuay refinery. A. L. Foster. *il Oil & Gas J* 46:28 Ja 1 '48

Crude from Guario area of Venezuela now reaching world markets. D. H. Stormont. *il map Oil & Gas J* 47:82-4 Ag 26 '48

Interesting new discoveries in Venezuela. *maps Pet Eng* 20:190 O '48

Labor and Venezuelan petroleum. G. O. Ives. *il World Oil* 127:191-3 Ja '48

Major developments, 1948 plans discussed by Creole engineers. K. B. Barnes. *il Oil & Gas J* 46:98-9 Mr 25 '48

Novel use of gas pressure displaces pumps for gathering Josepin crude. D. H. Stormont. *il Oil & Gas J* 47:44-5 N 4 '48

Oil fields of Royal Dutch-Shell group in western Venezuela. *bibliog maps diag* 2 fold charts *Am Assn Pet Geologists Bul* 32:517-628 Ap '48

Outlook bright for Greater Oficina. G. O. Ives. *il map World Oil* 128:209-12 JI '48

Pantepec producing 34,300 bbl. daily from Venezuelan fields. *Oil & Gas J* 47:85 Ag 26 '48

Petroleum and products; production and exports. Venezuela. Oct. 1947 and Jan.-Oct. 1947. *For Comm W* 30:28-9 Ja 31 '48

Quiriquire strengthens position as important reserve. G. O. Ives. *il World Oil* 128:234+ Je '48

Venezuela; 1947 activities. *maps World Oil* 128:185, 187+ sec 2 JI '48

Venezuelan cementing problems. G. J. Benge. *il World Oil* 127:202-3 F '48

Venezuelan crude output again reaches new all-time high. *Oil & Gas J* 47:157 S 23 '48

Venezuelan oil industry heading for new high records in all divisions. D. H. Stormont. *il Oil & Gas J* 47:155-7 JI 29 '48

Venezuela's limestone play fields step up activity. G. O. Ives. *il World Oil* 127:195-8 F '48

Work continuing on Shell's plant in west Venezuela. *il Pet Refiner* 27:133 Ap '48

See also
Petroleum pipe lines
—Venezuela

Virginia

Current drilling evokes interest in Virginia's only producing oil field. P. Jenkins. *maps diag Oil & Gas J* 47:72-4 Ag 19 '48

Wyoming

Mush Creek field; Weston county, Wyoming. *map Oil & Gas J* 47:419 My 13 '48

Wyoming's Powder River basin in red-hot play. *Oil & Gas J* 47:119 JI 8 '48

PETROLEUM laboratories

Analysts at Shell oil co. get new control lab. *Chem & Eng N* 26:261-13 '48

Atlantic refining co. production laboratories, Dallas, Tex. *il Chem & Eng N* 26:1000 Ap 5 '48

Brick curtain walls of research lab supported by welded steel lintels. *il diag* Brick & Clay Rec 113:36-7 Ag '48

California research corp. expands laboratories in Richmond. H. David. *il Oil & Gas J* 46:62-3+ Ap 8 '48

Chemistry-physics laboratory opened by Socony-Vacuum oil co. at Paulsboro, N.J. *il Oil & Gas J* 47:87+ Je 10 '48

Design for research; Socony-Vacuum oil company's new chemistry and physics building. *il plan Chem Ind* 63:52-3 JI '48

Doll house laboratory speeds oil research; Gulf's micro laboratory. *il Pet Eng* 19:110+ My '48

Expanded project covers more technical research; California research corporation, Richmond laboratories. R. Sneddon. *il Pet Eng* 19:144+ Ap '48

Indiana Standard's new research lab houses highly organized activity. R. B. Tuttle. *il Oil & Gas J* 47:196+ My 20 '48

Kellogg's pilot plant laboratory researches widely in petroleum and chemical fields. A. L. Foster. *il Oil & Gas J* 47:224+ JI 29 '48

Lab staffs trained in safety as well as science at Utopia. F. J. Sluze. *Pet Processing* 3:56 Ja '48

Modern is the word for it: exploration and production research laboratory of Shell oil company. *il Nat Safety N* 57:24-5+ F '48; Same cond. *Am Bsns* 18:40 Ja '48

Modern research uses wide variety of test equipment; laboratory of California research corp. *il Pet Processing* 3:408 My '48

New Esso research center to serve all companies in Jersey group. G. Weber. *il Oil & Gas J* 47:80-1 O 21 '48

New Shell laboratory embodies modern design features. *il Chem & Eng N* 25:3722-3 D 15 '47

Research on fluid catalytic cracking and synthetic rubber will be carried on at new Esso laboratory. *il Chem & Eng N* 26:252 Ja 26 '48; *Chem Eng* 55:183-4 F '48

Shell oil company production research laboratory at Houston. *il World Oil* 127:50+ Ja '48

Shell's new laboratory for exploration and production research. D. M. Duff. *il Oil & Gas J* 46:74-6 Ja 8 '48

Sinclair refining co. research laboratories at Harvey, Ill. *Chem & Eng N* 26:2502, 3276 Ag 23, N 1 '48; *Nat Pet N* 40:37 O 27 '48

PETROLEUM laboratories—Continued

Sinclair research laboratories, K. B. Barnes, il Oil & Gas J 47:82-4+ O 21 '48
 Texas co, building laboratory to develop jet engine fuels, Aviation W 47:21-2 D 15 '47
 Volume of laboratory fractions, W. L. Nelson, Oil & Gas J 46:133 F 19 '48
 Whiting petroleum research laboratory of Standard oil co. (Ind.) dedicated, il Chem & Eng N 26:1292 My 3 '48

Equipment

Apparatus for analyzing reservoir fluids, P. G. Exline and H. J. En Dean, il diags A S M E Trans 70:279-85; Discussion. 285-6 My '48
 Laboratory still features two safety devices for handling atmospheric or vacuum operations, diags Pet Processing 3:418 My '48
 Multiple unit bath for oxidation stability tests for gasoline, E. L. Ruh and others, il Pet Processing 3:45-6 Ja '48
 Plumbing, heating and air conditioning for laboratory installation; Shell oil company research laboratory, Houston, il Dom Eng 172:100-3 O '48
 Relay racks make rigid, compact stands for laboratory and pilot plant apparatus, il diags Pet Processing 3:546-7 Je '48

PETROLEUM laws and regulations

Development of foreign oil resources, J. E. Brantley, il World Oil 127:229-30+ Ap '48
 Legal aspects of the utilization of oil and gas fields, R. M. Myers, bibliog Oil & Gas J 47:222-6+ My 20 '48
 Legislative outlook for oil industry during 1948, R. B. Brown, World Oil 127:Yrbk 96+ F '48

Brazil

Brazil plans new petroleum regulations for refiners, Chem Eng 55:206+ Ap '48

Colombia

Colombia's labor and legal problems, G. O. Ives, il World Oil 128:237-9 Ag '48

Guatemala

Guatemala oil law likely to retard exploration, World Oil 127:218 Ap '48

Peru

New decree may increase activity in Peru, World Oil 128:283-4 My '48

Texas

Allowable transfer from high water wells levels east Texas water withdrawal rate, G. Weber, il map Oil & Gas J 47:64-6+ My 27 '48
 Record demand emphasizes need for unitization legislation in Texas, D. M. Duff, il Oil & Gas J 46:54-6 F 12 '48
 Seismic work damage suits seen as deterrent to Gulf development, D. M. Duff, Oil & Gas J 46:52 Ap 15 '48

United States

Clark upholds stipulations on tidelands in report to President, Oil & Gas J 46:33 N 8 '47
 House gets bill to regulate oil from well to customer, H. A. Yocom, Nat Pet N 40:11-13 F 18 '48
 Need for controls on oil rejected in Krug report, Nat Pet N 40:15 Je 2 '48
 Partial text of NPC report giving industry's views on supply programs, Nat Pet N 40:16-17 Ap 21 '48
 State governors attack Supreme court and Cabinet on tidelands, B. F. Linz, Oil & Gas J 46:87-8 F 26 '48
 Tidelands controversy heightened as senator, three cabinet members, Indians revive arguments, Nat Pet N 40:17 Ap 21 '48
 U. S. royalty oil sales rules revisions viewed as West Coast independents rap Interior dept, Nat Pet N 40:13-14 Ap 21 '48
 War record shows fallacy of relying on undeveloped reserves, D. M. Duff, Oil & Gas J 46:71 Mr 18 '48
 Wherry gets blank in move for Hot oil act suspension, Nat Pet N 40:17-18 Ap 7 '48

See also

Petroleum industry and trade—Regulation

Venezuela

New Venezuelan oil policy to take 50 per cent of company profits, Oil & Gas J 46:96 Mr 25 '48
 Venezuelan officials confirm plans to create government oil company, D. H. Stormont, Oil & Gas J 47:44-5 J1 8 '48

PETROLEUM libraries

Our library and yours! World oil's expanded library, R. L. Dudley, il World Oil 128:52-3 J1 '48

PETROLEUM liquefied gas. See Liquefied petroleum gas

PETROLEUM pipe lines

Aluminum pipe lines for oil and gas, H. S. Bell and C. R. Holmes, World Oil 127:169-72 F '48
 Expansion of Great Lakes pipe line, il map Pet Eng 19:51-5 Ap '48
 Fundamentals of pipe-line design, B. Miller, diags Oil & Gas J 47:81 J 8; 223+ J1 29; 127 S 16; 235-6+ S 23 '48
 Great Lakes pipe line completes \$30,000,000 expansion program, map Nat Pet N 40:45 Ja 28 '48
 How to do it! pipe line hints, il diags Published in monthly numbers of World oil Interstate pipe line co, to test aluminum pipe, Oil & Gas J 46:287-8 Ap 1 '48
 Major pipe-line construction projects; tabulations, R. B. Tuttle, Oil & Gas J 47:250+ S 23 '48
 More pipe in prospect, but demand stays high, F. A. Marsh, il World Oil 128:51-2 Je '48
 Old oil wells yield their last treasure in novel operations; reclaimed steel casing found suitable as feeder linepipe, D. I. Brown, Iron Age 162:121 S 9 '48
 Permian Basin oil to get full outlet, H. H. King, il World Oil 128:76+ My '48
 Pipe-line activity at all-time peak, P. Reed, il Oil & Gas J 47:169+ My 20 '48
 Pipe line politics, L. A. Marsden, il U S Naval Inst Proc 74:428-33 Ap '48
 Pipe-line program embraces total of 38,500 miles, U.S. and foreign, P. Reed, il Oil & Gas J 47:188+ J1 29 '48
 Positive-displacement metering and gravimetric meter proving on crude-oil pipe lines, J. B. Smith, il plan diags Oil & Gas J 46:80+ Ap 15 '48
 Pressure surges in pipe lines; abstract, E. T. Skinner, Oil & Gas J 47:111 O 14 '48
 Report of committee on the standardization of oil-country tubular goods, Am Pet Inst Proc 27(4):210-34 '47
 23,707 miles of new line, foreign and domestic, seen for 1948-51 period, F. Reed, Oil & Gas J 46:190-1 Ja 29 '48
 Welded aluminum alloy pipe lines, B. J. Fletcher, il Oil & Gas J 47:207-8+ S 23 '48
 World pipe line plans; lines under construction or planned; by countries, il World Oil 127:Yrbk 264+ F '48

Construction

Argentine 1100-mile pipe line, F. H. Love, il map Pet Eng 20:321-4 O '48
 Automatic welding speeds pipe line work, G. L. Revell and C. G. Herbruck, il Pet Eng 19:78+ Je '48
 Borg-Donner products pipe line, F. H. Love, il map Pet Eng 19:182+ Mr '48
 Canada's longest owner-constructed pipe line, R. G. Allison, il Am Gas J 168:19-20 My '48
 Creole constructs a Big-Inch line, il map Oil & Gas J 47:176-9+ S 23 '48
 First section of Trans-Arabian pipe, now in use, has unusual features, il Oil & Gas J 47:65-6+ Ag 19 '48
 Inert-gas-welded aluminum pipe line to carry sour oil, il Pet Eng 19:45-6 J1 '48
 Installation of new Venezuelan pipe line, il map Pet Eng 19:152+ Ja '48
 Installing test sections of aluminum pipe; Interstate oil pipe line company's gathering system, F. E. Miller, il World Oil 128:186-8+ J1 '48
 Interstate lays first experimental section of welded aluminum pipe line, P. Reed, il Oil & Gas J 46:141-3 Cy 29 '48
 Invasion pipe solves Cuyama line problem, G. M. Wilson, il World Oil 128:190+ O '48
 Longest oil line since war completed, F. H. Love, il Pet Eng 19:43-6 Je '48

PETROLEUM pipe lines—Construction—Cont.

New rock-drill application speeds pipe-line construction on Kentucky contract. *il Oil & Gas J* 47:76+ J1 15 '48

Pipe line construction activity; tabulation. Published in monthly numbers of World oil

Pipe-line construction outside U.S. planned for next few years totals 5,722 miles of trunk lines. P. Reed. *il Oil & Gas J* 46:239-40 D 27 '47

Pipe line right-of-way maps. E. W. Clark. *il Pet Eng* 19:194+ Mr '48

Radio communication essential to pipe-line-construction work. E. G. Pierce. *il Oil & Gas J* 47:248 S 23 '48

Ras el Misha' ab; Arabian desert base camp. *il World Oil* 128:217-20 O '48

Specialized new equipment lowers cost of laying Magnolia's products line. P. Reed. *il diags Oil & Gas J* 46:111+ D 13 '47

Tapline, super problem in logistics. R. Finnle. *il map Oil & Gas J* 47:194-5+ S 23 '48

Tapline work in second phase. G. O. Ives. *il World Oil* 128:205-8 S '48

10,000 miles of pipe line construction probable in 1948; pipe line activity, 1947, by states. M. E. Poole. *World Oil* 127:Yrbk 211-12 F '48

Ulé-Amuay pipe line pushes toward completion. map *Pet Eng* 19:96+ Ag '48

Williams brothers' far-flung pipe line projects. R. L. Buck. *il World Oil* 127:206-8 Ja '48

Corrosion

Why, how and what of pipe line corrosion. M. E. Parker, Jr. *il World Oil* 127:184+ Ap '48

See also

Petroleum pipe lines
—Protection

Gathering lines

Installing test sections of aluminum pipe; Interstate oil pipe line company's gathering system. F. E. Miller. *il World Oil* 128:186-8+ J1 '48

Kimball lake, Michigan, given a pipe line outlet. G. F. Watson. *Pet Eng* 19:99 My '48

Surveys for field gathering lines. P. Bryan. maps *Pet Eng* 19:120+ Ag '48

Location

Continuous film records right-of-way. A. Gibbon. *il World Oil* 128:178+ S '48

Maintenance and repair

Methods for cutting into product pipe lines. J. E. Ford. *il Am Pet Inst Proc* 27(5):73-7 '47; Same. *Oil & Gas J* 46:280+ N 15 '47

Walking on air; airplanes for pipe line walking. R. Sneddon. *il Pet Eng* 19:208+ Mr '48

Maps

Crude oil and products pipe lines, refineries; map. *Oil & Gas J* 47:supp S 23 '48

Pipe line right-of-way maps. E. W. Clark. *il Pet Eng* 19:194+ Mr '48

Pipe lines of the U.S. *World Oil* 127:186, 188 Mr; 194, 196 Ap; 128:233 My; 194 Je; 195 O '48

Multiple fluid lines

See Petroleum products pipe lines

Protection

Corrosion prevention begins with construction. W. E. Huddleston. *diags Pet Eng* 19:154+ Mr '48

Flood-proof scraper traps. M. P. Connolly. *il World Oil* 128:192-3 J '48

Installation and performance of scale traps in sour-crude service. G. L. Crahn. *il plan diags Oil & Gas J* 47:92-4 Je 10 '48; Same. map *World Oil* 128:204+ Ag '48

Magnesium anodes for pipe line protection. D. J. Walraven. *il World Oil* 128:182+ S '48

Plastic pipe line coating and yard processing. B. M. Lauhere, Jr. *il Pet Eng* 19:104+ Je '48

Rust prevention in products pipe lines; Sinclair RD-119. E. W. Unruh and F. M. Watkins. *il Oil & Gas J* 47:63-4+ Je 17 '48

Zinc anode protection installed during pipe-line construction. O. C. Roddey. *diags Oil & Gas J* 46:87-8+ Ap 22 '48

Pumping stations

Aboveground welded manifolds on Gulf's west Texas system. H. A. Johns. *il diag Oil & Gas J* 47:225 S 23 '48

Automatic control on Portland-Montreal line. C. D. Batchelder and R. A. Rockwell. *il maps diags Pet Eng* 19:94+ D '47

Features of a modern Diesel-pump station. F. H. Warren. *il diags Oil & Gas J* 47:218+ S 23 '48

Fundamentals of pipe-line design. B. Miller. *Oil & Gas J* 47:223+ J1 23 '48

Great Lakes advances products pipe-line techniques. *il map Oil & Gas J* 46:121-2+ F 26 '48

High speed pump operation. F. V. Cook. *il World Oil* 128:187-8 O '48

Measures adopted by Ajax Pipe Line to operate pump stations at high efficiency. C. P. Morgan. *il diags Oil & Gas J* 47:106-7+ Ag 19 '48

Miniature topping plant develops pipe-line-station fuel. L. S. McCaslin, Jr. flow diag *il Oil & Gas J* 47:69-70 S 2 '48

Modern pipe line stations. *il Pet Eng* 20:355-6 O '48

Surplus airplane engines power products line stations. C. C. Keane. *il World Oil* 127:181-3 Mr '48

Pumping stations, Electric

Electrical features of Humble's refined products pipe line. F. O. Stivers and others. *il Oil & Gas J* 47:174-5+ S 23 '48

Electrification of petroleum pipe lines. M. A. Hyde. *Elec Eng* 67:306 S '48

Fully automatic electric powered crude-oil gathering stations; abstract. F. H. Warren. *diag Oil & Gas J* 47:107+ O 14 '48

Pump-station design and control features of Magnolia's 20-inch line. E. J. Wacker. *il diag Oil & Gas J* 47:172-3+ S 23 '48

Semiautomatic pump-station controls on Borge, Tex.; Denver products line. G. P. Jennings and D. A. Roach. *il map diag Oil & Gas J* 47:204+ S 23 '48

Stuffingboxless pumps at Sinclair station designed for operation without attendance. P. Reed. *il diag Oil & Gas J* 46:64+ F 5 '48

Rates

Pipe line rates O.K. Ry Age 125:648-9 O 2 '48

River crossing

Difficult crossing of Magdalena river made to provide Cantagallo outlet. W. W. Burns. *il Oil & Gas J* 47:46+ My 27 '48

Terminals

Pipeline manifold rebuilt while in full operation. G. B. Nicholson. *il World Oil* 127:165-9 Ja '48

Testing

Line weld checking with portable X ray unit. E. Sterrett. *il World Oil* 128:195-6+ Ag '48

Trans-Arabian line

Desert sands; problems for pipelines; Tapline project. *il Bsns W p24-5 F 7 '48*

First section of Trans-Arabian line, now in use, has unusual features. *il Oil & Gas J* 47:65-6+ Ag 19 '48

Personnel shift to speed work on Saudi Arabian end of Tapline. *Oil & Gas J* 46:72 F 19 '48

Pipe export denial changes route of Trans-Arabian; delays other lines. P. Reed. map *Oil & Gas J* 47:38-9 J1 1 '48

Pipelining in the Middle East. B. E. Hull. *Am Pet Inst Proc* 27(5):19-23 '47; Same. *Nat Pet N* 39:46+ N 12 '47; Same *abr. Oil & Gas J* 46:322+ N 15 '47

Political unrest hampers work on Trans-Arabian line. *Oil & Gas J* 46:144 D 27 '47

Prospects for the pipe lines. *Economist* 154:310 F 21 '48

Radio communication on Middle East oil pipeline. *Engineering* 165:163 F 13 '48; *diag Elec R (Lond)* 142:235-6 F 13 '48

Ras el Misha' ab; Arabian desert base camp. *il World Oil* 128:217-20 O '48

Roadway in the sky; transporting from ships to shore, pipe and other materials for Trans-Arabian pipe line. *il Pet Eng* 19:144+ S '48

PETROLEUM pipe lines—Trans-Arabian line

—Continued—

- Speeding Arabian oil output, *Bsns W* p 121-2 Mr 20 '48
 Tapline, speed problem in logistics, *R. Finnie*, il map Oil & Gas J 47:194-5+ S 23 '48
 Tapline work in second phase, *G. O. Ives*, il World Oil 128:205-8 S '48
 Trans-Arabian line will be outlet for 300,000 bbl. of crude, *B. E. Hull*, il Oil & Gas J 47:167+ S 23 '48

Argentina

- Argentine 1100-mile pipe line, *F. H. Love*, il map Pet Eng 20:321-4 O '48

Chile

- Pipe line problems affect Chile's oil development, *G. M. Ruby*, map plan Pet Eng 20:164+ O '48

Iraq

- Iraq's Kirkuk outlet, il World Oil 128:229-30 Je '48

Near East

- Middle East pipe lines, *F. H. Love*, map Pet Eng 20:325+ O '48
 Pipelining in the Middle East, *B. E. Hull*, *Am Pet Inst Proc* 27(5):19-23 '47; Same, *Nat Pet N* 39:46+ N 12 '47; Same abr. Oil & Gas J 46:322+ N 15 '47
 U.S. oil problem in Palestine; Arabs harass work on pipeline projects, map *Bsns W* p 23 Ja 10 '48

Persia

- Iran line to be completed this year, map World Oil 128:222 J1 '48
 Postwar progress in the Iranian oil fields, flow diag il Pet Eng 19:51-2 D '47

Tanganyika

- British engineers begin work on 150-mile Tanganyika pipe line, map Oil & Gas J 47: 68 S 16 '48

Venezuela

- Creole constructs a Big-Inch line, il map Oil & Gas J 47:176-9+ S 23 '48
 Installation of new Venezuelan pipe line, il map Pet Eng 19:152+ J '48
 Las Mercedes pipe line is outlet for Guarico region, Venezuela, *P. Reed*, il map Oil & Gas J 46:45-6 Ja 8 '48
 U6-Amuay pipe line pushes toward completion, map Pet Eng 19:96+ Ag '48

PETROLEUM products

- Allocations of petroleum products to foreign countries for first quarter is set by OIT; tabulation, *Nat Pet N* 40:18 Ja 21 '48
 Aluminium stearate gels in light hydrocarbon oils; development of incendiary mixtures for use in munitions, *C. M. Cawley* and others, *bibliog 4 pls diag Inst Pet J* 33:649-72 N '47
 Application of marketing research techniques to problems of new products in the oil industry, *C. S. Roberts*, *Am Pet Inst Proc* 27(2):55-9 '47
 Asphalt, the black sheep of the petroleum industry, *C. M. Hewett*, *Pet Eng* 19:140+ Ap '48
 Developing petroleum chemicals; scope of Shell's Thornton establishment, il *Chem Age (Lond)* 58:744-6 My 29 '48
 Drying oils and resins from petroleum sources, *R. J. Lee* and others, *Paint Oil & Chem R* 111:16-18+ Ja 8 '48
 Effect of petroleum base additives on sulphite pulping and papermaking, *W. A. Beman* and *H. E. Corbin*, *Paper Tr J* 126: 65-70 Je 17 '48
 Future fuels, liquid and gaseous, *B. K. Brown* and *R. C. Guinness*, *Mech Eng* 70: 421-4 My '48; Abstract, *Automotive Ind* 98:41+ Ap 1 '48
 Future liquid fuels, *R. C. Guinness*, il *Chem & Eng N* 26:2123-7+ J1 19 '48
 Incendiary fuels for various purposes, *C. M. Cawley* and others, *bibliog diags Inst Pet J* 34:90-108 F '48
 Insecticidal efficiency of saturated petroleum fractions; influence of molecular weight and structural constitution; eggs of oriental fruit moth, *grapholitha molesta* Busck used as test material, *G. W. Pearce*, *P. J. Chapman* and *D. E. H. Frear*, *bibliog Ind & Eng Chem* 40:284-93 F '48

Liquid fuels and chemical products from petroleum and coal, *F. H. Garner*, *Inst Pet J* 33:678-86 N '47

Most oil companies believe uniformity in containers would cut handling costs, *C. Boyd, Jr.*, *Nat Pet N* 40:30+ Ag 4 '48

New wood preservatives made from petroleum, *Pet Processing* 3:10 Ja '48

1948 process handbook, flow diags il *diags Pet Refiner (Process Handbook ed)* 27:29-360 sec 2 S '48

Oil refining from the modern viewpoint, *G. Egloff*, il *Min & Met* 28:550-5 N '47

Petroleum base pitch control additive for sulphite pulping, *W. A. Beman* and *H. E. Corbin*, *Paper Ind* 30:625-8 J1 '48; Same, *Pulp & Pa of Can* 49:84-8 Ag '48

Petroleum, basic raw material for surface coatings, *R. F. Ruthruff*, il *Pet Processing* 3:21-4 Ja '48; Abstract, *Chem Eng* 55: 276+ Ja '48

Petroleum-coal products rank fourth in southern industry, *C. R. Walker*, il *Manuf Rec* 117:36+ S '48

Petroleum products for rubber, *F. S. Rostler* and *M. B. Pardew*, *bibliog(33 ref) flow chart il diag Rubber Age* 63:317-26 Je '48

Petroleum rust preventives, *A. E. Hickel*, il *Pet Refiner* 27:94-6 Ag '48

Production of aromatic hydrocarbons from petroleum, *C. Weizmann* and others, *bibliog Soc Chem Ind J* 67:114-18 Mr '48

Shell preparing to supply European specialty demands, *A. L. Foster*, il *Oil & Gas J* 46: 44-5 N 29 '47

Some solid state properties of petroleum waxes in terms of their composition, *S. T. Minchin*, *bibliog diag Inst Pet J* 34:542-87; Discussion, 587-601 Ag '48

Supplying the Midwest with petroleum products, *R. E. Wilson*, *S A E J* 56:18-20 J1 '48

Synthetic alcohol from petroleum, *R. S. Aries*, il *diag Oil & Gas J* 46:108-10+ Mr 18 '48

Varnish from petroleum needs no drying oil, *Oil Paint & Drug Rep* 153:3 Je 21 '48

See also

- | | |
|-------------------------|------------------------|
| Butadiene | Naphtha |
| Gasoline | Oil fuel |
| Hydrocarbons | Paraffin |
| Kerosene | Petroleum chemicals |
| Liquefied petroleum gas | Petroleum coke |
| Lubricating greases | Petroleum distillation |
| Lubricating oils | Toluene |

Prices

FTC eyes group three pricing, following cement decision, *R. E. Bjorkback*, *Nat Pet N* 40:11+ My 5 '48

Higher prices for refined products spread as four major marketers boost postings; buyers bid for supplies, *J. P. Mosher, Jr.*, *Nat Pet N* 39:37-40 D 24 '47

Petroleum derivatives; 1947 market trends, *Oil Paint & Drug Rep* 153:42+ sec 2 F 16 '48

Statistics

Compact's demand report forecasts 7.4 per cent increase in oil products use in next year, *Nat Pet N* 40:19-20 My 12 '48

Demands for petroleum and products will average 6,152,000 bbl. daily, *E. T. Knight*, *Oil & Gas J* 46:174-80 Ja 29 '48

First quarter oil demand in '48 to be 53 percent over '41, *P. Wollstadt*, *Nat Pet N* 39:27 D 24 '47

New oil-using units enlarge petroleum demand, *World Oil* 128:58+ O '48

Petroleum derivatives. Published in weekly numbers of Oil, paint and drug reporter

Petroleum 1946 summary reported by Mines bureau, *Oil Paint & Drug Rep* 153:70 Mr 22 '48

Petroleum products, 1941-1946, Survey of Cur *Bsns* 1947 Sup p 165-8 [supplemented in monthly numbers]

Testing

Flash test, *A. W. Trusty*, il *Pet Refiner (Process Handbook ed)* 27:99-102 S '48

Transportation

Barge and towboat construction spurt means more oil will move on rivers, *E. Lamm*, il *Nat Pet N* 40:29-30+ Ap 7 '48

PETROLEUM products—Transportation—Cont.

Method for controlling in-transit and storage losses of oil products. E. L. Hoffman, diag Nat Pet N 39:26-9 D 31 '47

Midwest operator declares barge deliveries can be stepped up ten per cent. Nat Pet N 40:30+ F 4 '48

Oil tank truckers expect to set new records in '48. C. A. Sutherland. Nat Pet N 40:19-20 J 28 '48

See also

Petroleum products
pipe lines

PETROLEUM products pipe lines

Borger-Denver products pipe line. F. H. Love, il map Pet Eng 19:182+ Mr '48

Expanded system of Great Lakes pipe line company. il World Oil 128:181-2+ Je '48

Factors influencing commingling in a products pipe line. D. A. Roach. plan World Oil 127:172+ Ja '48; Abstract, Chem Eng 54:248+ N '47

Great Lakes advances products pipe-line techniques. il map Oil & Gas J 46:121-2+ F 26 '48

Independent's 67-mile pipeline speeds products from river terminal to jobbers. C. Boyd, jr. il plans map Nat Pet N 39:26-7+ D 10 '47

Interfacial mixing characteristics of products in products pipe lines. S. S. Smith and R. K. Schulze. flow diag il plans diags Am Pet Inst Proc 27(5):48-72 '47; Same. Pet Eng 19:94+ S; 20:330+ O '48; Abstract. Pet Processing 2:882 N '47

Methods for cutting into product pipe lines. J. E. Ford. il Am Pet Inst Proc 27(5): 73-7 '47; Same. Oil & Gas J 46:280+ N 15 '47

New products pipe line from Gulf coast. F. H. Love, il Pet Eng 19:183+ My '48

Operation of products pipe line shown in trip along the Great Lakes system. L. Castle. il map Nat Pet N 40:42-4 N 3 '48

Product pipe-line metering practices. M. J. Dabney. flow diag map diags Am Pet Inst Proc 27(5):31-47 '47; Same, without map and diags. Oil & Gas J 46:216-18+ N 15 '47

Sinclair pipe line; last section of unusual system being completed. W. W. Baker, il map diag Oil & Gas J 47:168-71+ S 23 '48

Socony-Vacuum laying lines in Maine and Pennsylvania. G. F. Briggance. il maps Oil & Gas J 47:266-7 S 23 '48

Socony's new 124-mile Maine pipe line promises more marketing flexibility. E. R. Quayle, il Nat Pet N 40:27-8 Ag 13 '48

Stuffingboxless pumps at Sinclair station designed for operation without attendance. P. Reed, il diag Oil & Gas J 46:64+ F 5 '48

PETROLEUM refineries

Aruba refinery processes 330,000 barrels daily. F. S. Campbell, il Oil & Gas J 46:247-9 D 27 '47

Baytown refinery boasts \$19 million expansion plans for 1948. Chem & Eng N 26:616 Mr 1 '48

Big British petroleum schemes; Britain to have two new oil refineries. Chem Age (Lond) 57:693 N 29 '47

Britain's plant construction program keeps pace. E. N. Tiratsoo. Pet Refiner 27:142 F '48

Canada expanding refinery facilities. Z. P. Trotter, il Pet Refiner 27:86-90 Je '48

Creole progressing with building 60,000-bbl. Amuay refinery. A. L. Foster, il Oil & Gas J 46:28 Ja 1 '48

Crude oil and products pipe lines, refineries; map. Oil & Gas J 47:supp S 23 '48

Design of tall refinery frames. S. W. Le-warens. diags Oil & Gas J 46:195-6+ F 19 '48

Early 1949 should find industry with six-million-bbl. charging rate. R. B. Tuttle, Oil & Gas J 47:201-2+ J 29 '48

Expansion outside United States. Oil & Gas J 47:209 J 29 '48

French build up refining capacity. Nat Pet N 40:40 Je 9 '48

Gulf Coast refining. D. M. Duff. il Oil & Gas J 47:174+ Je 24 '48

Haifa petroleum project. Chem Age (Lond) 57:756 D 13 '47

Higher Canadian refinery operations require more imported crude. map Oil & Gas J 46: 106-7 Ap 1 '48

I.C.I. petroleum chemicals; Wilton and Billingham plants to collaborate. J. W. Armit. Chem Age (Lond) 58:607-8 My 1 '48
Less than ten days needed for Aurora's new fluid catalytic cracker turnaround. A. L. Foster. flow chart il Oil & Gas J 46:101+ Mr 13 '48

Much travelled refinery moves from Corpus Christi, Texas, to Whitehorse and from Whitehorse to Edmonton. J. L. Irwin. il Can Min J 69:75-9 Je '48

New oil refineries. Economist 155:69-70 J 1 10 '48

Northland refinery moves south. G. A. Lawrence, il Pet Eng 19:162A-162B+ Ap '48

Ohio Oil inaugurates refinery expansion program on anniversary. R. E. Luton, il Oil & Gas J 46:60-1 N 22 '47

Oklahoma refinery remodeled. il Pet Eng 19: 92 J '48

Port Jerome refinery, destroyed by war, exceeding prewar output. M. J. Jamieson. il Oil & Gas J 46:78-9 Mr 18 '48

Refiners report huge expansion; building, on order, and planned. R. B. Tuttle. Oil & Gas J 47:161-2+ My 20 '48

Refinery and other plant construction; tabulated information. Pet Refiner 26:146 S; 138 O; 162-3 N; 156-7 D '47; 27:122-3 Ja; 137-9 F; 135-7 Mr; 148+ Ap; 154+ My; 136-7+ Je; 154-5+ J 1; 134-5+ Ag; 138-40+ S; 152-3+ O '48

Refinery-construction projects; tabulated data. R. B. Tuttle. Oil & Gas J 47:165-7 My 20 '48

Refinery trend away from small units, government survey shows. Oil & Gas J 46:148 Ja 29 '48

Refining expansion outside U.S. to reach 4,000,000 barrels by 1951. D. M. Duff, il Oil & Gas J 46:214+ D 27 '47

U.S. lube oil capacity. A. L. Foster, il Oil & Gas J 46:78-81 F 5 '48

United States petroleum refining; war and postwar. W. Patton and J. H. Stehman. Nat Pet N 40:43 Ja 14; 39-41 Ja 21 '48

United States; refinery runs and capacities; tabulation. World Oil 128:105 sec 2 J 1 '48

Work continuing on Shell's plant in west Venezuela. il Pet Refiner 27:133 Ap '48

World refining; statistical data. World Oil 128:38 sec 2 J 1 '48

See also

Gasoline—Manufacture

Lubricating oils—Manufacture

Petroleum distilla-
tion

Petroleum refining

Air conditioning

Keeping locker rooms well ventilated. H. E. Boyay, jr. diag Mill & Factory 42:144-5 F '48

Corrosion

Aluminum used in combatting tank corrosion. G. W. Alexander, il Pet Refiner 26:99 D '47

Analytical chemist and corrosion studies. C. A. Murray. flow sheet Pet Refiner 27: 90+ Ag; 111-14 S '48

Carbon steel gives good service in processing sour crude oils. il Pet Processing 3:111-13 F '48

Caustic cracking of welded steel plate; reboiler in refinery at Port Arthur, Texas. H. M. Wilten. il Metal Prog 52:803-5 N '47

Clad steels reduce corrosion. W. G. Theisinger, il Oil & Gas J 46:275+ Ap 1 '48

Corrosion costs in the petroleum industry. F. A. Rohrman, il Pet Eng 19:115-16+ Je '48

Corrosion tests of heater-tube materials for acid concentration service. H. F. Brown, il Oil & Gas J 46:134-7+ Ap 29 '48

Maintenance of stainless steel equipment in refineries. W. G. Renshaw, il Pet Processing 3:25-8, 155-6+ Ja-F '48

Metallurgical methods for combating corrosion and abrasion in the petroleum industry. B. B. Morton, diags Inst Pet J 34:18-59; Discussion, 59-68 Ja '48

Oil-filled valve trap mitigates corrosion on furfural solvent lube refining unit. E. K. Dewey, jr. il diag Pet Processing 2:913 D '47

PETROLEUM refineries—Corrosion—Cont.

- Prevention of corrosion in refinery heat-exchanger equipment. M. A. Furth, *il* diags Am Pet Inst Proc 28(3):26-32 '48; Same. Pet Refiner 27:129-34 J1 '48; Same abr. Pet Processing 3:549+ Je '48; Discussion, Am Pet Inst Proc 28(3):32-4 '48
- Processing sour crudes at Globe, Lemont refinery. R. B. Pierce and others. Pet Processing 3:941+ O '48
- Processing west Texas crude. W. K. Jackson. *il* Oil & Gas J 46:170-1+ Ap 1 '48
- Protective measures employed in starting complete avgas plant for 18 months. D. P. Thornton, Jr. *il* Pet Processing 3:853-6 S '48
- Resistance of cast irons to some petroleum services; tabulation. F. L. LaQue. Oil & Gas J 47:237 My 20 '48
- Résumé of Sohio's experience in overhead condensing equipment; various types of corrosion and attempts to control them. E. N. Salathe. Am Pet Inst Proc 28(3):22-5 '48
- Rôle of paint in combating corrosion in the petroleum industry. P. L. Lotz. Am Pet Inst Proc 28(3):19-21 '48
- Sour crudes; equipment protection. E. Q. Camp. Bibliog flow diags *il* diags Am Pet Inst Proc 27(3):153-66 '47; Same. Oil & Gas J 46:68+ J 22; 83-7 N 29 '47; Same. Pet Refiner 26:100-11 D '47; Same abr. Pet Processing 2:967-72 D '47
- Use of chemicals for retarding corrosion. H. L. Bedell and V. W. Hatchett, flow sheet *il* diags Am Pet Inst Proc 28(3):9-17; Discussion. 17-18 '48

Costs

- Cost-imating. W. L. Nelson. Oil & Gas J 47:141 O 21 '48 [cont weekly]
- Economic distillation design; comparative importance of distillation variables. W. D. Harbert. *il* Pet Refiner 27:106-9 Ap '48
- Economics of heat recovery exchangers. A. M. Whistler. Pet Refiner 27:83-6 Ja '48
- How far away are super octane motor gasolines? abstracts. W. M. Holaday. Automotive Ind 98:26-6+ Ja 15 '48; Pet Processing 3:107-9 F '48

Directories

- North American operating refineries, their capacities and locations; U.S. by states, Canada by provinces, Mexican refineries. Oil & Gas J 46:227-8+ Ap 1 '48
- Survey of world oil refineries. Oil & Gas J 46:200+ D 27 '47

Electric equipment

- A.c. motor trouble; symptom and cause; what to do; tabulation. W. L. Nelson. Oil & Gas J 47:91 S 2 '48
- Catalysis heat losses kept low by means of electronic device; patent. diags Pet Processing 3:165 F '48
- Control equipment for hazardous locations. B. M. Mimken. *il* Pet Refiner 26:122-4 N '47
- Electrical equipment for petroleum refining. B. M. Mills. *il* Pet Eng 19:248+ My '48
- Maintenance of indicating and recording instruments of oil refineries. E. D. Nuneviller and D. M. Considine. *il* diag Oil & Gas J 46:90-1+ Ap 22 '48

Employees

- Determining refinery training needs. A. H. Houseknecht. Am Pet Inst Proc 28 (3):55-61 '48; Excerpts. Pet Processing 3:563 Je '48
- Effects of oil strike minimized by industry, government efforts. Oil & Gas J 47:66 S 16 '48
- Experiences in establishing organized training programs. W. J. McClintock. Am Pet Inst Proc 28(3):49-53; Discussion. 53-4 '48
- Flying squadron, Atlantic Refining's solution to peak loads. H. T. Yeager. *il* Oil & Gas J 47:83-4 J1 8 '48
- Initial report on training practices in the refineries of the United States. J. R. D. Eddy. Am Pet Inst Proc 28(3):62-4 '48
- Instrument craftsmanship course; training schedule, textbooks used, and instruments demonstrated in classroom as developed in Lockport, Ill. refinery of the Texas co. G. A. Larsen. *il* Pet Processing 3:83-5 Ja '48; Same. Instruments 21:436-8 My '48

- National suggestion system makes money for employees, saves company money; Socony-Vacuum oil co., inc. *il* Oil & Gas J 47:131-2+ O 21 '48
- Strong test of Taft-Hartley looms as OWIU threatens Sinclair strike. S. H. Scheibla. Nat Pet N 40:27 Mr 24 '48
- Training of process operators. H. A. Lutz and C. P. Baker. Am Pet Inst Proc 28(3): 65-9 '48; Same. Pet Refiner 27:146-8 J1 '48; Same abr. Pet Processing 3:566+ Je '48

Equipment

- Accurate particle-size determination of fluid catalysts by coordination of roller analysis and microscopic examination. J. T. Wiley and others. *il* diags Pet Refiner 26:90-3 D '47
- Alloy steel in oil refineries. F. C. Braun. *il* Metal Prog 54:471-3 O '48
- A.S.M.E. 2d annual petroleum mechanical engineering conference, Houston, Oct. 6-8; abstracts of papers. Pet Processing 2:880-3 N '47
- Atlantic's ultramodern wax plant, flow chart *il* diags Oil & Gas J 47:312-13+ S 23 '48
- Automatic control of refinery operations. W. S. Ault, diags Inst Pet J 33:598-607 O '47
- Basic design and field performance of the control and measurement instrumentation of an alkylation unit. H. F. Moore and G. W. Gross, flow plans *il* Instruments 21: 368-74 Ap '48; Same. Pet Processing 3:441-4+ My '48
- Basic principles in process control. J. B. Arant. *il* Pet Refiner 27:96-9 F '48
- Bell refinery makes unusual installation to profit from vapor recovery. A. Anson and R. Russell, flow diag *il* Oil & Gas J 46:175-6+ Ap 1 '48
- Casper plant called model of small refinery planning. flow sheet *il* Pet Refiner 27:121-5 My '48
- Casper unit model of small refinery design; fluid cat-cracker. *il* Pet Eng 19:182+ F '48
- Catalytic polymerization unit is feature of McMurrey improvement plan. D. C. DeLoach. *il* Oil & Gas J 47:74-5 S 30 '48; Same. Pet Eng 20:286-8 O '48; Same. Pet Refiner 27:136-8 O '48
- Combustion and efficiency. H. D. Wiant. Pet Processing 3:951-2 O '48
- Comparison of systems for controlling gas-fired furnace process temperature. H. E. McClatchey, diags Pet Processing 3:878-80 S '48
- Construction economies are found in improved fluid cracking unit; patent. diag Pet Processing 2:960 D '47
- Construction making Baton Rouge world's most complete refinery. D. M. Duff. *il* Oil & Gas J 47:48-9 J1 8 '48
- Control of narrow-boiling-range fractionating columns. G. G. Gallagher, diags Pet Refiner 27:116-17 Mr '48; Same cond. Oil & Gas J 46:85+ F 5 '48; Same. Pet Eng 19:32+ Mr '48
- Control space velocity in reactor using telescoping catalyst pipes; patent. diag Pet Processing 3:998 O '48
- Controlling an oil refinery. W. P. Gillingham, flow chart *il* diags Comp Air Mag 53:154-60 J1 '48
- Cost of leaks. W. L. Nelson. Oil & Gas J 46: 69 Ja 1 '48
- Derivative controller; compound proportioning bellows construction. V. V. Tivy, diags Pet Processing 3:879-82+ J1 '48
- Design and construction of pressure relieving systems. N. E. Sylvander and D. L. Katz, flow sheet *il* diags Pet Processing 3:642-7, 774-8+, 873-4+ J1-S '48
- Design and operation of a bench-scale automatic catalyst-aging unit. T. Rice and F. E. Ivey, Jr. diags Am Pet Inst Proc 27(3):84-9 '47; Excerpts. Oil & Gas J 46: 227-8+ N 15 '48
- Design and operation of Leonard TCC unit. G. Kelso and others. diag Pet Eng 20:293-4+ O '48; Same abr. Pet Refiner 26:98-103 Ag '47
- Design details, operating results of first commercial Hypersorber. W. F. Bland, flow diag *il* diag Pet Processing 3:635-8 J1 '48
- Directory of refining equipment at the International petroleum exposition. *il* diag Pet Processing 3:463-4+ My '48

PETROLEUM refineries—Equipment—Cont.

- Economic thickness of insulation; tables and charts. W. L. Nelson. Oil & Gas J 47: 117 O 14 '48
- Economics of heat recovery exchangers. A. M. Whistler. Pet Refiner 27:83-6 Ja '48
- Eight-shell still battery handles 24,000 bbl. of crude daily; Sinclair refinery co., Marcus Hook refinery. A. L. Foster. flow diag il diag Oil & Gas J 47:116-17+ Ag 19 '48
- Engineers of energy; M. W. Kellogg, a mighty engineer of oil refineries, moves toward volume chemicals and atomic power for industry. il Fortune 38:106-13+ N '48
- Equivalent length in feet caused by various pipe fittings and restrictions; table. W. L. Nelson. Oil & Gas J 46:285 D 27 '47
- Experimental application of combustion controls to a process heater. W. E. Boyle and P. R. Hoyt. il diags Pet Refiner 27:139-44 O '48; Excerpts. Pet Processing 3:945-6 O '48
- Flexible operation achieved through instruments at Roosevelt oil co. refinery. S. D. Ross. flow diags il diag Oil & Gas J 47: 76+ Ag 12 '48
- Floats indicate specific gravity continuously on process streams; patent. diag Pet Processing 3:790 Ag '48
- Friction in pipe coils or bends. W. L. Nelson. Oil & Gas J 46:281 Ap 1 '48
- Give the control valve a chance! C. B. Nolte. Oil & Gas J 46:65-6+ N 29 '47; 52-3+ Ja 1 '48
- Heavy flexible beam and girder connections; fluid catalytic cracking plants built by the Atlantic refining co. H. Greaves. il diags Welding J 27:845-9 O '48
- Hypersorption provides precise concentration-separation of gases. A. L. Foster. flow diag il diag Oil & Gas J 47:90+ Ag 12 '48
- Improve effects of quenching with streamlined injector; patent. diag Pet Processing 3:792 Ag '48
- Improved design features used in Lion's 4500 b/d TCC unit (Thermofor process). il Pet Processing 2:920 D '47
- Installing a stainless steel Multiclone separator. il Pet Processing 3:28, cover Ja '48
- Instrument installation and maintenance practices in a modern refinery. G. A. Larsen. diags Instruments 21:440-2 My '48
- Instrumentation as applied to speed control. J. G. Wilson and others. diags Pet Refiner 27:120-9 Mr '48
- Insulating refinery equipment. J. C. Albright. il Pet Eng 19:125+ D '47
- Intermediate alloy steels at elevated temperatures. R. F. Miller. bibliog Pet Eng 19:178+ Ja '48
- Internally insulated piping and pressure vessels for high-temperature service. P. E. Darling. diags Pet Refiner 26:129-34 O '47; Same cond. Pet Processing 3:339-40+ Ap '48
- Lion oil company starts operation of TCC unit. F. L. Emert. flow sheet il Pet Refiner 26:85-9 D '47
- Lion Oil completes its new streamlined T.C.C. unit. R. B. Tuttle. flow diag il Oil & Gas J 46:65+ D 20 '47
- Manual use of hidden arc welding reduces welding time on U68 code work by 42 percent; M. W. Kellogg co. E. A. Smith. il Welding J 27:536-8 JI '48
- Mineral wool insulation for processing equipment. il Pet Eng 19:64+ Ag '48
- Modification in the roller analysis for the determination of particle-size distribution. G. L. Matheson. diags Am. Pet Inst Proc 27(3):18-22 '47; Same. Oil & Gas J 46:307-8+ N 15 '47
- Modified stripper. diags Pet Eng 19:84 Je '48
- New, improved equipment in technology of petroleum; International petroleum exposition. W. C. Uhl. Pet Processing 3:458-9 My '48
- New petro-chemical processing equipment displayed at New York exposition. W. C. Uhl. il Pet Processing 3:15-16 Ja '48
- Ohio Oil launches refinery expansion program. R. E. Luton. il Pet Eng 19:161-2+ D '47; Abstract. Nat Pet N 39:43 N 5 '47
- Pipe and tubing sizes. W. L. Nelson. Oil & Gas J 46:87 N 3; 83 N 8; 345 N 15; 93 N 29; 117 D 6; 125 D 13; 93 D 20 '47; 79 Ja 8; 97 Ja 15; 305 Ja 29; 89 F 5 '48
- Pipe insulation at Tide Water Associated's Bayonne refinery. U. W. Smith. il diags Oil & Gas J 47:88+ JI 22 '48
- Plant control tests for particle-size distribution of fluid cracking catalysts. W. B. Innes and K. D. Ashley. bibliog il diag Am Pet Inst Proc 27(3):9-17 '47
- Porous tube stops coke deposits in high temperature processing; patent. diag Pet Processing 3:71 Ja '48
- Pressure on fuel oil line controlled through air-operated fluid drive unit; Power department equipment at Socony-Vacuum's Paulsboro refinery. A. Krieg. diag Pet Processing 2:831 N '47
- Principles in design of a valve repair shop. R. M. Kolb and D. G. Debo. il Oil & Gas J 46:185+, 254-6+ Ap 1 '48
- Reduction of topped crude by vacuum flashing. C. J. Helmers and others. diag Oil & Gas J 47:85-7+ Je 17 '48
- References to piping-system design. W. L. Nelson. Oil & Gas J 46:89 N 29 '47
- Refinery piping colors; tabulated. W. L. Nelson. Oil & Gas J 47:99 Je 3 '48
- Refinery tube failures; excessive temperatures found chief cause, il Pet Processing 3:829-31 S '48
- Removal of bottleneck increases refinery output. J. J. Coates. diag Oil & Gas J 46:202+ Ap 1 '48
- Resume of Sohio's experience in overhead condensing equipment. E. N. Salathe. il Pet Processing 3:555 Je '48
- Retiring thickness of pipe. W. L. Nelson. Oil & Gas J 47:115 My 6; 425 My 13; 99 My 27; 115 Je 10; 99 Je 17; 81 JI 1; 103 JI 8; 111 JI 15 '48
- Service life of austenitic alloy furnace tubes. C. S. Pugsley, jr. Pet Refiner 26:119-20 O '47; Abstract. Chem Eng 55:290+ Mr '48
- Shell and tube heat exchangers. F. L. Rubin. bibliog diags Pet Refiner 27:139-45 JI '48
- Sizing of water and steam lines. W. L. Nelson. Oil & Gas J 46:93 N 22 '47
- Small fluid cat cracker handles high-sulfur charge efficiently; Texas co. Casper, Wyo., refinery. A. L. Foster. flow diag il Oil & Gas J 46:74-6+ D 6 '47
- Socony-Vacuum uses time towers in gasoline treating. R. B. Tuttle. il diag Oil & Gas J 47:87 Je 3 '48
- Socony-Vacuum's East St Louis refinery undergoing extensive remodeling. R. B. Tuttle. il diag Oil & Gas J 47:74-5 S 2 '48
- SO₂ extraction unit completed at General Petroleum's Torrance refinery. S. W. Dickey. flow diag il Oil & Gas J 47:67-8+ My 27 '48; Same. Pet Processing 3:538-42 Je '48; Same. Pet Refiner 27:75-80 Je '48; Same. Pet Eng 19:76+ Ag '48
- Special propane decarbonizing towers. il Pet Eng 19:64 S '48
- Special vessels built for corrosive crude. il Oil & Gas J 47:105-6 JI 8 '48
- Spent catalyst stripper separate from reactor in new fluid cracker. il Pet Processing 2: 921 D '47
- Steel embrittlement in caustic treating service. E. L. Hildebrand. flow diag il Oil & Gas J 47:271+ O 7 '48
- Straddle support among improvements in huge refinery blowdown vapor stack. J. C. Albright. il Pet Processing 2:914+ D '47
- Sunray converts facilities at Duncan with minimum of new equipment. R. B. Tuttle. il Oil & Gas J 47:137-8 Ag 26 '48
- 35,000 b/d spherical vacuum flasher supplies feed for twin crackers. D. F. Thornton, jr. flow diag il diags Pet Processing 3:303-6 Ap '48
- Tide Water Associated's mechanization program pays dividends. R. Beattie. il Oil & Gas J 47:70-1+ JI 15 '48
- Twenty-four layer welds used in fabricating propane decarbonizing towers. il Steel 123: 96 Ag 23 '48
- Two-stage water softener with unique backwashing arrangement. H. J. Meier. il diag Pet Refiner 27:118-19 Mr '48
- Two-way flow metering of steam lines; Gulf oil corporation's refinery at Port Arthur. G. P. Trotter and C. D. Holt. diags Pet Refiner 27:129-30 Je '48
- Vacuum distillation equipment; its selection and design. R. N. Blalze. diags Pet Refiner (Process Handbook ed) 27:108-10 S '48

PETROLEUM refineries—Equipment—Cont.

- Vapor recovery unit at El Dorado. H. E. Chambers and J. Y. Haslam. flow sheet il Pet Eng 19:103-4+ Ap '48
- Vaporization in furnace tubes. G. Baars, 2pls diags Inst Pet J 34:417-36; Discussion. 436-42 Je '48
- Visual control system; Produc-trol system used by Phillips petroleum co. to schedule refinery projects. L. S. McCaslin, jr. il Oil & Gas J 47:109-12 Ag 19 '48
- Water scale removal from cooling units. R. L. Wilson. il Pet Refiner 27:97 Ag '48
- World's largest solvent lube units installed in Cit-Con refinery. il Pet Processing 3: 939-40 O '48

Experimental plants

- Hydrocarbon conversion at high temperatures and pressures. E. A. Kelso and J. A. Snyder. flow diag il Ind & Eng Chem 40: 1332-6 Jl '48
- Lube-oil pilot plant; Socony-Vacuum oil co. A. L. Foster. il Oil & Gas J 46:113+ F 26 '48
- New plant fractionates crude in one operation. Oil & Gas J 46:289 D 27 '47; Same. il Pet Refiner 27:129 Ja '48
- Pilot plant developments at Baton Rouge. E. V. Murphree. diags Pet Eng 19:86+ S '48
- Pilot-plant evaluation of fluid cracking catalysts. H. W. Grote and C. R. Olsen. flow diag Am Pet Inst Proc 27(3):108-13 '47; Same. Pet Refiner 26:104-6 N '47; Same cond. Oil & Gas J 46:332+ N 15 '47; Discussion. Am Pet Inst Proc 27(3):113-16 '47
- Pilot plants; jet-type reactor alkylation unit. E. W. Bowerman and B. M. Filbert. diags Ind & Eng Chem 40:542-4 Mr '48

Fires and fire protection

- Construct foam tower for less than \$1000 from odds and ends in Illinois plant. il Pet Processing 3:51-2 Ja '48
- Emergency handling of hot flammable liquids. J. H. Johnsen. diag Chem Ind 62: 393-9 Mr '48
- Even Utopia takes no chances when it comes to plant fires. F. J. Sluze. Pet Processing 2:662, 832 S. N '47
- Fire protection for pump houses; Aer-o-foam. il plan Oil & Gas J 46:91 Ja 15 '48
- Lion Oil fire prevention establishes record; equipment maintenance plays large part. C. A. Hardcastle. il Oil & Gas J 46:209+ Ap 1 '48
- Texas plant protects pumphouse with independent foam system. il plan Pet Processing 2:885 N '47

Laboratories

See Petroleum laboratories

Maintenance and repair

- Chemical cleaning in the refinery. C. H. Groom. il diags Pet Eng 19:110+ Ap '48
- Coke removal by steam. G. W. Alexander. diags Pet Refiner 27:91-3 Je '48
- Engineered maintenance at Pan American's Texas City refinery. S. B. Schapiro. il Oil & Gas J 47:112-13+ Ag 26 '48
- First turnaround of Leonard TCC unit. J. S. Pfarr. il Pet Eng 19:51-4 F '48; Same cond. Oil & Gas J 46:112-14+ F 19 '48; Same cond. Pet Refiner 27:106-9 Mr '48
- Flying squadron. Atlantic Refining's solution to peak loads. H. T. Yeager. il Oil & Gas J 47:83-4 Jl 8 '48
- Industrial engineering in refinery maintenance organization. W. H. Reynolds. Pet Refiner 27:112-15 Je '48
- Industrial engineering in refinery maintenance planning. W. H. Reynolds. Pet Refiner 27: 86-9 Ag '48
- Inspection; retiring 1½-in. pipe. W. L. Nelson. Oil & Gas J 46:117-18 Ap 15 '48; Correction. 47:425 My 13 '48
- Maintenance and repair of heat exchangers. A. B. Swain, jr. il Oil & Gas J 47:89-90+ Jl 15 '48
- Maintenance men lick lumber shortage, build movable scaffold from scrap pipe; Shell oil co.'s Wood River refinery. il Pet Processing 2:829 N '47
- Maintenance of plug valves. R. E. Bush. il Pet Processing 3:251+ Mr '48

- Maintenance of pressure gauges. R. F. Angell and J. Hays. diags Pet Refiner 26:141-5 N '47
- Maintenance of stainless steel equipment in refineries. W. G. Renshaw. il Pet Processing 3:25-8, 155-6+ Ja-F '48
- Modern refinery instruments; installation and maintenance. G. A. Larsen. il diags Pet Refiner 27:103-7 Ja '48; Same cond. Pet Processing 2:821-6 N '47
- Planning and coordinating the turnaround at Esso's Baton Rouge plant. A. J. Ferguson. il Oil & Gas J 46:180+ Ap 1 '48
- Preplanning and prefabrication; rapid reconstruction of cracking-coil furnaces. R. S. Armstrong. Oil & Gas J 46:85-6+ Ap 22 '48
- Preplanning turnarounds, use of alloys, shorten downtime, extend onstream periods for operating distillation equipment. A. L. Foster. il Oil & Gas J 47:72-3+ Jl 1 '48
- Protection and maintenance of petroleum property. C. R. E. Merkle. il Pet Refiner 27:134-7 My '48
- Refinery-burner maintenance. R. Reed. il diag Oil & Gas J 46:129-30 Ap 29 '48
- Removing spent catalyst from reactor tubes. D. Schott. il Pet Refiner 27:104 Ag '48
- Sand blasting useful in cleaning variety of metal surfaces. F. Gober. il Oil & Gas J 47:80+ S 2 '48
- Study of refinery maintenance results in handy portable tools. il Pet Refiner 26:118-21 N '47
- Symposium on maintenance. il Oil & Gas J 46:184-5+, 254-6+ Ap 1 '48
- Use of arc welding in maintenance and repair of fluid catalytic cracking units while in operation. E. H. Darling. diags Pet Processing 3:349-50 Ap '48
- Various applications of metallizing technique in refinery operations. H. Batsford. il diags Pet Refiner 27:127-30 F '48
- Weld repairs on tubing stress-relieved with water-cooled copper induction coils. E. K. Dewey, jr. diags Pet Processing 3:845-6 S '48

Management

- Economic studies are useful tools for profits in small refineries. M. H. Gertz. Pet Processing 3:41-3 Ja '48

Models

- Models for refinery design. G. I. McBride. il Pet Eng 19:94+ Mr '48

Power

- Cost of one brake-horsepower; tabulations. I. A. Anson. Oil & Gas J 47:109 S 9 '48
- Eagle Point Works power plant. diags Power 92:616-17 O '48
- High pressure power station at Whiting. D. A. Monro and A. T. Milbrook. flow diag Pet Eng 19:166+ Ap '48; Same cond. plans diags Power Generation 52:66-9+ Ap; 66-7 My; 88+ Ag '48
- Power for pump drives; chart. W. L. Nelson. Oil & Gas J 47:103 S 30 '48
- Power plant design for an expanding refinery; Houston refinery of Shell oil co. E. L. Andry, jr. flow diag il Pet Refiner 26: 96-100 N '47
- Topping stretches refinery steam; Whiting refinery of Standard oil co. of Indiana. D. A. Monro and A. T. Milbrook. plan diags Power 92:154-6, 234-7 Mr-Ap '48

Safety measures

- Color coding keeps loading safe at Utopia's truck and car racks. F. J. Sluze. il Pet Processing 3:431 My '48
- Foreman, key man in plant safety; accident prevention work at New Jersey Standard refineries. W. C. Uhl. il Pet Processing 3:211-14 Mr '48
- Lab staffs trained in safety as well as science at Utopia. F. J. Sluze. Pet Processing 3:56 Ja '48
- Management and employees see safety program pay off; Republic oil refining co. H. Howell. Pet Refiner 27:75-9 Mr '48
- Psychology of safety. F. J. Sluze. Pet Refiner 27:85-9 Jl '48
- Safety and the chemical engineer. C. F. Montross. il Pet Eng 19:207-8 Ja '48
- Safety at Wood River sold to workers. H. D. Dale. il Oil & Gas J 46:206+ Ap 1 '48

PETROLEUM refineries—Safety measures—*Continued*

- Safety in use and handling of ammonia, W. L. Nelson, Oil & Gas J 47:137-8 S 16 '48
- Safety is no accident at Ashland oil & refining company's plant, F. J. Sluze, il Pet Refiner 27:95-7 Ja '48
- Three E's for safety, F. J. Sluze, Pet Refiner 27:127-8 O '48
- Three-level organization is key to successful safety at Utopia, F. J. Sluze, il Pet Processing 3:249 Mr '48

Statistics

- Constantly mounting demands point to average runs in 1948 of 5,425,000 bbl. J. C. Casper, Oil & Gas J 46:165-6 Ap 1 '48
- Despite refinery shifts, oil competition keen, L. J. Logan, Pet Refiner 27:147-8 Je '48
- Domestic refinery capacity to total 6.4 million barrels per day by early 1949; refining and petrochemical plant projects, U.S. and foreign countries; tabulation, R. B. Tuttle, Oil & Gas J 47:75-6+ N 4 '48
- Expansion under way will boost crude charging capacity to 6,000,000 bbl. daily, R. B. Tuttle, Oil & Gas J 46:221+ Ap 1 '48
- Largest peacetime plant-construction period in history now under way, R. B. Tuttle, Oil & Gas J 46:184-5+ Ja 29 '48
- NPC reports 55 projects in nations outside United States, Oil & Gas J 46:232 Ap 1 '48
- Petroleum refineries, including cracking plants in the United States, Jan. 1, 1947, F. S. Lott, U S Bur Mines Information Circ 7455:1-16 '48
- Petroleum refineries, including cracking plants in the United States, Jan. 1, 1948, F. S. Lott, pl U S Bur Mines Information Circ 7483:1-21 '48
- Refinery output must be stepped up, World Oil 127:Yrbk 190+ F '48; Same cond. Pet Refiner 27:138+ Mr '48

Valves

- Selection of valve material for petroleum applications, H. O. Teeple, Am Pet Inst Proc 23(3):35-41; Discussion, 41-3 '48

Waste

- Burn acid sludge under boilers, D. P. Thornton, jr. flow diag il Pet Processing 3:981-2+ O '48
- Effects of acid and alkaline wastes and general methods for their disposal, W. B. Hart, bibliog diags Pet Processing 3:409-14 My '48
- Furnaces for by-product fuels, O. de Lorenzi, diag A S M E Trans 70:351-2 My '48; Same, Pet Processing 3:140-1 F '48
- Handling sulfuric acid sludges, E. L. Hildebrand, Oil & Gas J 47:68-9+ S 30 '48
- New 80,000 gpm oil-water separator deviates from conventional design, L. Ross, il plan diag Pet Processing 3:14-16 F '48
- New federal water pollution control act; its significance to petroleum refiners, W. B. Hart, Pet Processing 3:827-8 S '48
- Rapid determination of sulfides, thiosulfates, and sulfites in refinery spent caustic solutions, J. H. Karchmer and J. W. Dunahoe, bibliog diag Anal Chem 20:915-19 O '48
- Recover oil from waste sludge using rotary filter method; patent, Pet Processing 3:71-2 Ja '48
- Recovering refinery acids; outline of Monsanto coke deposition process, il Chem Age (Lond) 59:522-3 O 16 '48

PETROLEUM refining

- Alkylbenzenes in the C₈ fraction from five different catalytic petroleum refining processes, A. J. Streiff and F. D. Rossini, bibliog J Res Nat Bur Stand 39:303-8 O '47
- American petroleum institute, Refining division midyear meeting, Philadelphia, May 11-13, Pet Processing 3:531-4 Je '48
- A.P.I. refining symposium, Nov. 11; abstracts of papers, Oil & Gas J 46:293+ N 15 '47
- Application of viscosity measurement in petroleum refining operations, D. J. Pompeo, Pet Refiner 26:101-3 N '47; Abstract, Chem Eng 54:113 N '47
- Applications of thermodynamics to hydrocarbon processing, W. C. Edmister, bibliog Pet Refiner 26:77-82 J1; 83-8 Ag; 105-11 S; 99-105 O; 110-17 N; 112-18 D '47; 27:74-82 Ja; 100-7 F; 83-9 Mr; 134-42 Ap; 93-100 My; 104-11 Je '48 (to be cont)

- Catalysts in petroleum refining, F. Heilmann, bibliog il Pet Refiner 27:133-44 My '48

- Chemical engineering unit processes; pyrolysis of hydrocarbons, V. Haensel and M. J. Sterba, il Ind & Eng Chem 40:1660-70 bibliog(184 ref, p 1669-70) S '48
- Crude stabilizers in Venezuela fields, J. G. Coultrup, flow sheets Pet Eng 19:156+ N '47
- Cycling plants stabilize crude oil, G. M. Liljeström, flow sheets il Pet Refiner 27:37-93 O '48
- De Laval S-N acid treating process; De Laval separator co. flow diag il Pet Refiner (Process Handbook ed) 27:238-9 sec 2 S '48
- Determination of olefines in cracked gases, G. E. Mapstone and P. Beckmann, bibliog Pet Refiner 27:112-16 Ag '48
- Elimination of water from wet crude oil by the hot water washing process; continuous settling at atmospheric pressure, K. A. Clark and D. S. Pasternack, diags Can Chem & Process Ind 31:1007-11; 32:32-6 N '47, Ja '48
- Fractional liquid extraction process; Otto H. York company, inc. flow sheet, Pet Refiner (Process Handbook ed) 27:206-7 sec 2 S '48
- Furfural as a selective solvent in petroleum refining, L. C. Kemp, jr., G. B. Hamilton and H. H. Gross, bibliog flow diag il Ind & Eng Chem 40:220-7 F '48
- Hydrocarbon absorption and fractionation process design methods, W. C. Edmister, bibliog flow diag diags Pet Eng 18:156+ My; 57+ Je; 39-44+ J1; 49-54+ Ag; 130+ S; 19:200+ O; 55-8+ N; 83+ D '47; 68+ Ja; 76+ F; 57-61 Mr; 128+ Ap; 47-54 Je; 66+ J1; 47-53 Ag; 128+ S '48
- Modern refining processes, 1948; forty-four leading processes with flow charts and discussions of operating principles, Oil & Gas J 46:117-64 Ap 1 '48
- New plant to process Athabaska oil sands, W. E. Adkins, flow diag il Pet Eng 19:121-2+ Ap '48
- 1948 process handbook, flow diags il diags Pet Refiner (Process Handbook ed) 27:29-360 sec 2 S '48
- Oil refining from the modern viewpoint, G. Egloff, il Min & Met 28:550-5 N '47
- Petroleum refining in the United Kingdom, H. Moore, Can Chem & Process Ind 32:659-66 J1 '48
- Petroleum refining, 1947, Chem Eng 55:119 F '48
- Refining South American crudes, D. Read and G. Egloff, flow diag pl Inst Pet J 33:621-47 O '47
- Refrigeration is indispensable in the oil industry, V. Voorhes, flow diag il diags Refrig. Eng 56:233-6+ S '48
- Removal of bottleneck increases refinery output, J. J. Coates, diag Oil & Gas J 46:202+ Ap 1 '48
- Skelly fortifies against future refining problems, J. W. Valder and others, il Oil & Gas J 46:126-3 Ap 29 '48
- Toxic properties of refining chemicals listed by API medical committee, Pet Processing 3:969-72 O '48
- U.S. refining operations set new records, World Oil 128:51 Ag '48
- See also*
- | | |
|------------------------------|------------------------|
| Gasoline—Manufacture | Petroleum distillation |
| Lubricating oils—Manufacture | Petroleum refineries |
- Bibliography**
- Classified list of important papers given during preceding year; refining, Pet Eng (Ref annual) 19:216+ J1 1 '48
- Science and technology abstracts, E. H. Leslie and H. B. Coats, comps, Pet Refiner 27:163-4+ Ja '48 [cont monthly]
- By-products**
- Jefferson Chemical enters petrochemicals field, J. V. Hightower, il Chem Eng 55:112-13 Ap '48
- Reactor design for manufacture of toluene by catalytic reforming, A. A. Burton and others, diag Chem Eng Prog 44:195-200; Discussion, 200 Mr '48
- See also*
- Petroleum chemicals

PETROLEUM refining—Continued

Edeleanu process

SO₂ extraction unit completed at General Petroleum's Torrance refinery. S. W. Dick-ey, flow diag *il Oil & Gas J* 47:67-8+ My 27 '48; Same, *Pet Processing* 3:538-42 Je '48; Same, *Pet Refiner* 27:75-80 Je '48; Same, *Pet Eng* 19:76+ Ag '48
Solvent extraction by SO₂; Edeleanu process, flow diag *Oil & Gas J* 46:155 Ap 1 '48

Patents

Digest of recent United States patents pertaining to petroleum refining. H. Heine-mann, comp. *Pet Refiner* 27:169-70+ Ja '48 [cont monthly]
Patent trends in petroleum refining (cont). P. J. Gaylor, flow diag *Pet Processing* 2: 869-70, 958; 3:69-70, 161-2, 257-8, 363-4, 449-50, 595-6, 691-2, 787-8, 883-4, 995-6 N '47-O '48

Salt removal

Commercial desalting unit employing fiber-glas as a contacting agent; abstract. J. G. Hayes and others. *Pet Processing* 3:537 Je '48
Crude oil desalting process; Visco products company, inc. flow diag *Pet Refiner* (Process Handbook ed) 27:220-1 sec 2 S '48
Desalting crude oil. W. A. Bonawitz and others. *il diag Pet Eng* 19:98+ N '47
Desalting oils; patent, flow diag *Pet Processing* 3:691 JI '48
Electric desalting, flow diag *Oil & Gas J* 46:164 Ap 1 '48
Electrical desalting process; Petroleum recti-fying co. diag *Pet Refiner* (Process Hand-book ed) 27:222-3 sec 2 S '48

Sulfur removal

Catalytic desulfurization and reforming of naphthas over bauxite. O. J. Helmers and G. M. Brooner, bibliog *diag Pet Processing* 3:133-4+ F '48
Lion Oil catalytically processes sour gas oil. W. Carney and others. *il Oil & Gas J* 47:69-70+ N 4 '48
N.C.R.A. catalytic desulfurization reforming unit operates on variety of charging stocks. R. B. Tuttle. *il Oil & Gas J* 47:86+ JI 15 '48
New solutizer unit has unique features for disulfide removal and regeneration, flow sheet *il diag Pet Processing* 2:965-6 D '47
Phosphate desulphurization process; Shell de-velopment co. flow diag *Pet Refiner* (Process Handbook ed) 27:278-9 sec 2 S '48
Sulphur's rôle in oil refining; Persian plants approaching self-sufficiency. *il Chem Age (Lond)* 57:627-8 N 8 '47
Where does the sulfur go? M. J. Fowle and R. D. Bent, diag *Am Pet Inst Proc* 27(3): 141-52 '47; Same, *Oil & Gas J* 46:209-15 N 16 '47; Same, *Pet Refiner* 26:87-95 N '47; Same, *Pet Processing* 2:935-6+ D '47

Tables, calculations, etc.

Characterization factor. W. L. Nelson. *Oil & Gas J* 47:325 Je 24 '48
Friction factors in pipes. W. L. Nelson. *Oil & Gas J* 47:111-12 JI 22 '48
Method for correlating thermal reforming yield data with operating conditions. H. F. Tighe. *Pet Processing* 3:986-8+ O '48
Pressure drops. W. L. Nelson. *Oil & Gas J* 47:287 JI 29; 103 Ag 5; 116 Ag 12; 131 Ag 19 '48
Velocity head in refinery lines. W. L. Nelson. *Oil & Gas J* 47:159 Ag 26 '48

Vapor recovery

Bell refinery makes unusual installation to profit from vapor recovery. I. A. Anson and R. Russell, flow diag *il Oil & Gas J* 46: 175-6+ Ap 1 '48
Catalytic polymerization and its commercial application. P. C. Weinert and G. Egloff, flow diag *Pet Processing* 3:585-6+ Je '48
Investigation of a Girbotol unit charging cracked refinery gases containing organic acids. W. E. Norris and F. R. Clegg, flow diag *Pet Refiner* 26:107-9 N '47
Vapor recovery unit at El Dorado. H. E. Chambers and J. Y. Haslam, flow sheet *il Pet Eng* 19:103-4+ Ap '48

Wax removal

Effect of solvent composition and primary solvent dilution on dewaxing filter rates and wax oil contents. E. J. Reeves and I. E. Pattillo, bibliog *Pet Refiner* 27:80-2 Mr '48
Propane dewaxing; lubricating-oil process for separating wax from crude oil, flow diag *Oil & Gas J* 46:156 Ap 1 '48
Use variations in consistency to control wax filtering rate; patent, diag *Pet Processing* 3:887 S '48

PETROLEUM research

Alumina cracking catalysts. V. M. Stowe and others, bibliog *il diag Pet Processing* 3:317-19+ Ap '48
Careful research led to control of Iranian field's odd behavior. H. S. Gibson. *il diag Oil & Gas J* 45:60-2 Ap 15 '48
Carter's research program geared to seeking answers to these \$64 questions. L. S. McCaslin, jr. *il Oil & Gas J* 47:205+ My 20 '48
Contributions of Shell companies to protective coatings industry. T. F. Bradley, bibliog *il Paint Oil & Chem R* 111:17-18+ My 13 '48
Design for research; Socony-Vacuum oil company's new chemistry and physics building. *il plan Chem Ind* 63:52-3 JI '48
Dielectric properties of oil sands. R. T. Wheeler, bibliog *il diag Pet Eng* 19:141+ J '48
Doll-size lab speeds petroleum research at Gulf oil corp. *il Bsns W* p24-5 Mr 20 '48
Electron eye assists oil research. C. A. Moore, bibliog *il diag World Oil* 128:135-6+ JI '48
Electron microscopy; application and use in petroleum industry. S. G. Ellis, bibliog *il diag Pet Refiner* 27:80-5 Ag; 115-19 S '48
Engineering research greatly accelerated in the petroleum industry. J. E. Sherborne. *Min & Met* 29:144-5 F '48
Kellogg's pilot plant laboratory; researches widely in petroleum and chemical fields. A. L. Foster. *il Oil & Gas J* 47:224+ JI 29 '48
New API project started. *il Chem & Eng N* 26:3274-5 N 1 '48
Odd jobs for petroleum researchers. *il Bsns W* p30 Ja 3 '48
Pennsylvania grade crude oil association joins quarter-century ranks; research work at Pennsylvania state college. A. L. Foster. *il Oil & Gas J* 47:48-50 Je 17 '48
Purification, purity, and freezing points of n-decane, 4 alkylcyclopentanes, 9 alkylcyclohexanes, 2 monocleins, 1, 2-butadiene, and 2-butyne of the API-standard and API-NBS series. A. J. Streiff and others, bibliog *J Res Nat Bur Stand* 53:321-49 graphs (p326-49) O '47
Report of advisory committee on fundamen-tal research on occurrence and recovery of petroleum. *Am Pet Inst Proc* 27(4):127-44 '47
Report of the committee on research on petro-leum, Society of economic geologists. K. C. Heald. *Econ Geol* 42:676-8 N '47
Research activity on Gulf coast. J. V. Pennington. *Oil & Gas J* 47:253-5 Je 24 '48
Skelly fortifies against future refining prob-lems. J. W. Vaidian and others. *il Oil & Gas J* 46:126-8 Ag 29 '48
Southwest research institute, newest member of Slick foundation. G. Weber. *il Oil & Gas J* 46:108+ D 13 '47
Special applications of absorption spectroscopy. F. W. Crawford and C. K. Buell. *Pet Processing* 2:923-5+ D '47
Study of ancient sedimentology will occupy attention of A.A.F.G. research committee for some years to come. C. J. Deegan. *Oil & Gas J* 46:93-9 Ap 29 '48
Sulfur in petroleum; A.P.I., U.S. Bureau of mines, and Northwestern University re-search project. K. B. Barnes. *il Oil & Gas J* 47:58-60 N 4 '48
Technique for reproducing rock pore space; plastic models for study of petroleum reservoir permeability. W. F. Nuss and R. L. Whiting, bibliog *il diag Am Assn Pet Geologists Bul* 31:2044-9 N '47
Texas officials take steps toward state-sup-ported research program. D. M. Duff. *Oil & Gas J* 46:68 F 19 '48

PETROLEUM shipping terminals

Bulk plants and terminals inspection helps plug profit leaks; with NPN's maintenance inspection form. F. C. Sturtevant. Nat Pet N 40:26+ Je 23 '48

Deep water terminal; Sun pipe line co. il map Pet Eng 19:166+ Je '48

Independent's 67-mile pipeline speeds products from river terminal to jobbers. C. Boyd, jr. il plans map Nat Pet N 39:26-7+ D 10 '47

New river terminal; independent designs new storage plant. L. Castle. il plan Nat Pet N 40:27+ S 1 '48

New river terminal's instrumentation, automatic controls save fuel, manpower. C. M. Johnson. il plan Nat Pet N 40:26-7+ Mr 31 '48

Sun oil co. opens eight million gallon river terminal at River Rouge, Mich. plan Nat Pet N 40:35 Je 9 '48

PETROLEUM storage

Gaging methods in atmospheric and low-pressure storage. C. C. Keane. Am Pet Inst Proc 27(6):85-6 '47; Same. Oil & Gas J 46:285+ N 15 '47

Oil storage still a problem in proposed stockpiling program. Oil & Gas J 47:46 S 2 '48

Steel dikes saved six acres; enclosure for oil storage tanks. F. L. Plummer. il diag Pet Processing 3:671-2 Jl '48; Same. Pet Eng 19:115-16+ Ag '48

Stratification in storage. W. L. Nelson. Oil & Gas J 47:94 Ag 5 '48

Vapor output to heat input ratio for petroleum storage tanks exposed to fire; venting requirements. M. L. Arnold and G. H. Horne. bibliog Pet Eng 19:220+ Mr '48

PETROLEUM supply

Boiling oil; the world shortage is in refining capacity. Fortune 37:107-9 My '48

Geography of oil. C. O. Willson. map Oil & Gas J 46:44-6 N 22 '47

Harriman report doubts if U.S. can furnish all of Europe's oil needs. Nat Pet N 39:18-19 N 12 '47

Highlights on 1947 developments in foreign petroleum fields. L. G. Weeks. maps Am Assn Pet Geologists Bul 32:1093-160 Je '48

Imbalance factor in world supply-demand prospects, 1948-1956. H. Ozanne. World Oil 128:54+ Je '48

Middle East oil. F. J. Fohs. il maps diag Sci Am 179:9-15 S '48

No oil shortage imminent. H. W. Page. Comm & Fin Chr 168:202+ Jl 15 '48

Oil outlook better, but long-term need continues. il Mod Ind 16:38 O '48

Oil reserves of the world. G. M. Lees. Engineering 166:119 Jl 30 '48

Petroleum in European recovery program. M. W. Ball. Am Assn Pet Geologists Bul 32:1221-6 Jl '48

Petroleum, today and tomorrow. K. F. Mather. Science 106:603-9 D 19 '47; Same cond. Min & Met 29:318-23 Je '48

Shell reports production gain in 1947. World Oil 128:250+ Ag '48

Survey of world oil fields; statistics by countries and regions. maps Oil & Gas J 46:171+ D 27 '47

Three billion barrels net added to world crude reserves. World Oil 127:Yrbk 271+ F '48

Time and competition will make oil plentiful. M. W. Ball. World Oil 128:51-2 S '48

Tomorrow's oil. J. T. Duce. Am Pet Inst Proc 28(3):76-9 '48

United States and world petroleum outlook; address before American association of petroleum geologists, San Antonio, Texas. L. E. McCollum. Comm & Fin Chr 166:1957+ N 13 '47

U.S. must develop foreign crude sources. J. T. Duce. Nat Pet N 40:30+ F 18 '48

Vigorous efforts needed to meet world demand. R. M. Bartlett. World Oil 128:47-8+ Jl '48

World crude reserves. World Oil 128:31 sec 2 Jl '48

World oil prospects improve; Socony-Vacuum study. Bsns W p24-5 Jl 3 '48

World petroleum demand and supply. World Oil 128:11+ sec 2 Jl '48

World petroleum supply. Chem Age (Lond) 58:116 Ja 17 '48

World production; world reserves; review and forecast. W. W. Burns. Oil & Gas J 46:196-7 Ja 29 '48

World proven crude-oil reserves nearly 70,000,000,000 barrels. Oil & Gas J 46:268 D 27 '47

World supply, demand, prospects, 1951-57. H. Ozanne. World Oil 127:37-8+ Ap '48

China

Oil prospects of China as related to the carbon ratio. W. Weng. maps Oil & Gas J 46:45-6+ Ja 22 '48

Europe

Europe's future oil needs outlined in State department report. B. F. Linz. Oil & Gas J 46:34 N 8 '47

Latin America

Oil prospects in Latin America. Economist 154:799-800 My 15 '48

Mexico

Mexico's need for new reserves. World Oil 127:217-18 F '48

North America

Our petroleum resources. A. I. Levorsen. maps diags Geol Soc Bul 59:283-99 Ap '48

Russia

Russia 30 years behind in production of oil; has vast probable resources. F. J. Fohs. il Oil & Gas J 46:44+ D 20 '47

United States

API reports crude reserves up 614 million bbls.; tabulation. Nat Pet N 40:21 Mr 10 '48

Analysis of crude in storage made by Compact commission. Oil & Gas J 47:57 Jl 22 '48

Annual and cumulative production, remaining reserves by fields; tabulations. Oil & Gas J 46:219-20+ Ja 29 '48

Are we running out of oil? G. W. Malone. Comm & Fin Chr 168:901+ S 2 '48

Big increase in oil stocks unlikely for 1948. World Oil 127:Yrbk 84+ F '48

Billion barrels added to Nation's petroleum reserves. World Oil 127:Yrbk 177-9+ F '48

Brightening oil outlook. il Bsns W p23-4 N 15 '47

Changing patterns of fuel consumption. Survey of Cur Bsns 28:9-11 Jl '48

Checking expanding demand termed a must in solving supply problem. J. W. Boatwright. Nat Pet N 40:26+ F 11 '48

Consuming equipment makers' plans outrun product supply; panel discussion at National petroleum association convention. Nat Pet N 40:15-16 Ap 28 '48

Crude output up. Bsns W p36 Je 5 '48

Does the United States face a petroleum shortage? J. E. Pogue. Comm & Fin Chr 166:2054+ N 20 '47

50 billion barrels of new oil in next 20 years. E. T. Knight. Oil & Gas J 46:43 Mr 4 '48

45 per cent more steel needed to maintain reserves. I.P.A.A. says. H. D. Ralph. Oil & Gas J 46:38-9 Ja 8 '48

Future fuels, liquid and gaseous. B. K. Brown and R. C. Guinness. Mech Eng 70:421-4 My '48; Abstract. Automotive Ind 98:41+ Ap 1 '48

Handful of 100,000,000-bbl. fields produce bulk of oil. C. J. Deegan. Oil & Gas J 47:183-5 Jl 29 '48

High-sulfur crude oils of the United States; trends in supply. H. M. Smith and O. C. Blade. map Am Pet Inst Proc 27(3):119-40 '47; Same cond. Pet Refiner 27:101-10 My '48; Same cond. Oil & Gas J 46:73-8 N 29 '47

House group asserts supply problem not being given attention it merits. Nat Pet N 40:14 Ja 28 '48

Huge oil deposits in shale and tar sands. Barron's 28:32 Ap 26 '48

Interior's program for synthetics is handicap on supply. B. K. Brown. Nat Pet N 40:20a-20b F 4 '48; Oil & Gas J 46:38 F 5 '48

Midyear stocks adequate. World Oil 128:50 Ag '48

NPC proposes halt in octane race in its supply conservation report. Nat Pet N 39:16-17 D 3 '47

PETROLEUM supply—United States—Cont.

- NSRB sees U.S. importing ten per cent of oil needs by 1952. Nat Pet N 40:15 O 6 '48
- New reserves; discoveries, new pays, and extensions in 1947; size and location. maps Oil & Gas J 46:200-2+ Ja 29 '48
- 1948 demand to be up six percent, Compact report predicts. P. Wollstadt. Nat Pet N 39:17-19 D 10 '47
- Oil industry back on right track and running hard; demand two years ahead of itself, supply fights to catch up. F. B. Dezenendorf. Barron's 28:29 May 17 '48
- Oil supply better than outcries indicate. P. A. Johnston. Barron's 28:9-10 Mr 1 '48
- Page committee sees eight per cent increase in oil supply. Nat Pet N 40:15 Ap 21 '48
- Partial text of Senate small business oil subcommittee report on supplies. Nat Pet N 39:22-3+ D 24 '47
- Petroleum and its relation to national security. B. K. Brown. Am Pet Inst Proc 27(1):37-42 '47; Same cond. Nat Pet N 39:26+ N 19 '47; Same cond. Oil & Gas J 46:190+ N 15 '47
- Petroleum industry's record and prescience assure dependable oil supply. H. J. Struth. Min & Met 29:143-4 F '48
- Producing depth records broken twice during 1947. World Oil 127:Yrbk 180+ F '48
- Proved natural gas reserves rise; joint report by American gas association and American petroleum institute. Am Gas Assn Mo 30:25-8+ Ap '48
- Proven reserves show gain in 1947. C. J. Deegan. Oil & Gas J 46:64 Mr 11 '48
- Question of oil reserves. R. J. S. Pigott. Comm & Fin Chr 168:1324+ S 30 '48
- Report urges quick action on critical U.S. oil outlook. Nat Pet N 40:13-15 My 12 '48
- Role of the prophet. R. E. Wilson. Am Pet Inst Proc 28(3):73-5 '48
- Senate report on oil shortage flays both government and industry men. Oil & Gas J 46:39-40 Ja 22 '48
- Shortages hold attention of API at 27th annual meeting, Chicago. Chem & Eng N 25:3492-3 N 24 '47
- Steps needed to improve U.S. oil position. J. V. Forrestal. Nat Pet N 40:11-12 Ja 21 '48
- Supply 50 per cent above prewar; first quarter of 1948. World Oil 128:39-40 Je '48; Same, without table. Pet Refiner 27:152 Je '48
- Total liquid proven reserves hit nearly 26 billion barrels. C. J. Deegan. Oil & Gas J 46:170-3 Ja 29 '48
- U. S. crude production neared 2-billion-barrel mark in 1947. H. D. Ralph. Oil & Gas J 46:164-6 Ja 29 '48
- U.S. oil and gas reserves. Pet Refiner 27:171-2 Ap '48
- U.S. oil findings can meet needs in next few years! G. H. Westby. World Oil 128:61-2+ Ag '48
- United States reserves unsatisfactory in relation to production. L. J. Logan. World Oil 127:44-6+ Ap '48
- War record shows fallacy of relying on undeveloped reserves. D. M. Duff. Oil & Gas J 46:71 Mr 18 '48

Western states

- Fuel and energy outlook in the West. M. E. Dice. Pet Eng 19:123+ F '48

PETROLEUM waste

- Skimming pit cleans runoff water. E. Sterrett. il World Oil 127:184-5 Mr '48

See also

- Petroleum refineries

—Waste**PETROLEUM waxes****See also**

- Paraffin
- Petroleum refining
- Wax removal

PETROLEUM workers

- Better health takes the highways; traveling medical units for oil workers. il World Oil 128:94-6 My '48
- Health for all; medical division of Humble oil & refining co. il Safety Eng 95:58-62+ Ap '48
- Labor and Venezuelan petroleum. G. O. Ives. il World Oil 127:191-3 Ja '48

- NPC group leaders warn of peril of prolonged strike. il Nat Pet N 40:11-14 S 15 '48

- OWIU convention votes approval of program to extend union organization into Canada. Nat Pet N 40:17 Ag 18 '48

- OWIU expected to follow CIO wage formula in drafting new pay demand. S. H. Scheibla. Nat Pet N 39:33 D 31 '47

- Oil would get high essential rating in draft for industry if war came. S. H. Scheibla. Nat Pet N 40:18 Ag 4 '48

- Petroleum pumper activities; application of motion and time study techniques; abstract. H. G. Thuesen. plans Mech Eng 70:240-2 Mr '48

- Raise for oil workers. Bsns W p90 D 20 '47
- Reexamining the wage and salary program; abstract. C. H. Swenson. Oil & Gas J 47:62-3 S 16 '48

- Strike cuts West Coast product output by 65 per cent. F. Breese. Nat Pet N 40:15-16 S 8 '48

- Survey shows oil leads other U.S. industries on military leave policies. Nat Pet N 40:16 Ag 4 '48

- West Coast refiners run at 67 per cent despite strike. il Nat Pet N 40:11-14 S 22 '48

See also

- Petroleum refineries
- Employees

PETTICOATS

- Petticoats; their advertising come-back. Ptr Ink 222:76+ Mr 26 '48

PETUNIAS

- Double petunia seed in Japan. For Comm W 32:39 Ag 14 '48

PEURIFOY, John E.

- Portrait. Fortune 96:85 D '47

PFITZINGER reaction

- Alkoxyaryloxyketones and their condensation with isatins. R. L. Sublett and P. K. Calaway. bibliog Am Chem Soc J 70:674-5 F '48

- Application of Pfitzinger reactions to the synthesis of quinoline derivatives; a novel route of 4-hydroxyquinolines. Buu-Hoi and R. Royer. Chem Soc J p 106-10 F '48

- Synthesis of 2,3-disubstituted cinchoninic acids from propoxymethyl alkyl (or phenyl) ketones by means of the Pfitzinger reaction. H. R. Henze, J. W. Melton and E. O. Forman. bibliog Am Chem Soc J 70:2622-4 Ag '48

- Synthesis of quinolines from aryloxyketones by the method of Pfitzinger. A. M. Dowell, Jr., H. S. McCullough and P. K. Calaway. Am Chem Soc J 70:226-7 Ja '48

PFIZER, Charles, and company

- New form of penicillin may lift Pfizer's 1948 net. Barron's 28:35 Mr 15 '48

- Six well-trenched dividend payers. Mag of Wall St 83:130 N 6 '48

pH. See Hydrogen ion concentration**PHALANGIOTARBUS subovalis (Woodward)**

- Case of phalangiobarbus subovalis (Woodward). A. Petrunkevitch. bibliog diags Am J Sci 246:353-62, pl 1 Je '48

PHANTASTRON (delay circuit)

- Design of phantastron time delay circuits. R. N. Close and M. T. Lebenbaum. diags Electronics 21:100-7 Ap '48

- Phantastron single tube control circuit. J. R. McDade. diags Elec Eng 67:974-7 O '48

- Precision double-pulse generator. D. J. Medley and H. D. Rathgeber. bibliog diags J Sci Instr 25:234-6 JI '48

PHARIS tire and rubber company

- Farewell Pharis; company shuts down plant in Newark, Ohio. Bsns W p22 Ag 28 '48

- Pharis Tire stockholders asked to vote liquidation. Rubber Age 68:749 S '48

PHARMACEUTICAL association, American.

- See American pharmaceutical association

PHARMACEUTICAL laboratories

- Disposal of pharmaceutical wastes; abstract. C. H. P. Arbogast. Pub Works 79:53-4 O '48

PHARMACEUTICAL libraries

- Circulation of current journals in special libraries. G. Bloomer. Special Lib 39:46-50 F '48

PHARMACEUTICAL manufacturers' association, American. See American pharmaceutical manufacturers' association

PHARMACEUTICAL research

Cooperation of science and industry in the development of the antibiotics. R. T. Major. *Il Chem & Eng N* 26:3186-90+ O 25 '48

Industrial development of antibiotics. W. H. Engels. *Il Chem & Eng N* 26:1284-7 My 3 '48

Pharmaceutical research outlay exceeds \$23 million. *Chem & Eng N* 26:99 Ja 12 '48

PHARMACISTS

Army and navy plans for pharmacists told at conference of American pharmaceutical association. *Oil Paint & Drug Rep* 153:4+ My 10 '48

Memorial in bronze and granite, depicting services performed by pharmacists. *Science* 107:564-5 My 28 '48

Pharmacist's place in cancer control. R. F. Kaiser. *Pub Health Rep* 63:1111-14 Ag 27 '48

PHARMACOLOGY

Search for new analgesics; further homologues of pethidine and the pharmacology of these and other compounds. R. H. Thorp and E. Walton. *Chem Soc J* p559-61 My '48

PHARMACOLOGY and experimental therapeutics, American society for. See American society for pharmacology and experimental therapeutics

PHARMACY

A.A.A.S. section on medical sciences, subsection on pharmacy. *Science* 107:56-7 Ja 16 '48

Current need for pharmacy specialists cited. *Chem & Eng N* 26:2552-3 Ag 30 '48

PHASE adjusters

Adjustable wave-guide phase changer. A. G. Fox. *diags Inst Radio Eng Proc* 35:1489-98 D '47

Thyratron phase-control circuits. J. C. May and others. *diags Electronics* 21:107-9 Jl '48

PHASE indicators

Phase meter. E. O. Vandeven. *diags Electronics* 21:142+ Je '48

Phase sequence tests; lamp-indication methods. G. W. Stubbings. *diags Elec R (Lond)* 143:318-20 Ag 27 '48

Rectifier meter for the indication and measurement of phase angles. G. H. Rawcliffe and C. M. Brownsey. *diags Inst E E J* 95 pt 2:227-33 Ap '48

What methods are best to check for phase reversal? *diags Power* 92:559-60 S '48

PHASE rule and equilibrium

Bench scale equipment and techniques; liquid-liquid and vapor-liquid extraction. W. T. Knox, jr. and others. *diags Ind & Eng Chem* 33:1573-8 D '47

Carbon concentration control; phase rule applied to all gas compositions which might be used in gas carburizing. E. G. de Coriolis and others. *Am Soc for Metals Trans* 38: 659-81; Discussion. 681-5 '47

Chemical engineering unit processes; applied kinetics and equilibria; chemical and physical equilibria. O. A. Hougen. *Ind & Eng Chem* 40:1561-5 bibliog (292 ref, p 1562-5) S '48

Chromium-oxygen equilibrium in liquid iron. H. Chen and J. Chipman. *bibliog Jl diags Am Soc for Metals Trans* 38:70-113; Discussion. 113-16 '47

Composition of vapors from boiling binary solutions; systems of phenol with beta- and gamma-picoline and 2,6-lutidine. D. F. Othmer and S. A. Savitt. *bibliog Ind & Eng Chem* 40:168-74 Ja '48; Correction. 40:435 Mr '48

Composition of vapors from boiling solutions; improved equilibrium still. D. F. Othmer. *bibliog diags Anal Chem* 20:763-6 Ag '48

Densities and liquid-vapor equilibria of the system ethanol-isooctane (2,2,4-trimethyl-pentane) between 0 and 50°. C. B. Kretschmer, J. Nowakowska and R. Wiebe. *bibliog diags Am Chem Soc J* 70:1785-90 My '48

Distillation of phenolic brines. M. J. E. Bgart and A. S. Brunjes. *bibliog flow diag Jl diags Chem Eng Prog* 44:95-103; Discussion. 103-4 F '48

Distillation principles of formaldehyde solutions; liquid-vapor equilibrium and effect of partial condensation. E. L. Piret and M. W. Hall. *bibliog diags Ind & Eng Chem* 40:661-72 Ap '48

Influence of carbon on the equilibria between steel and slag in the acid open-hearth furnace. P. Herasymenko. *bibliog Iron & Steel Inst J* 157:515-25 D '47

Liquid-vapor equilibrium relations in binary systems; ethylene-n-heptane system. W. E. Kay. *bibliog Ind & Eng Chem* 40:1459-64 Ag '48

Melting points of iron oxides on silica; phase equilibria in the system Fe-Si-O as a function of gas composition and temperature. L. S. Darken. *bibliog diags Am Chem Soc J* 70:2046-53 Je '48

Methane-n-butane-water system in two- and three-phase regions. J. J. McKetta, jr. and D. L. Katz. *bibliog (50 ref) diags Ind & Eng Chem* 40:853-63 My '48

New hydrothermal quenching apparatus. O. F. Tuttle. *diags Am J Sci* 246:628-35 O '48

Nonographs for vapor-liquid equilibrium calculations. F. H. Poettmann and R. B. Rice. *Pet Refiner* 26:123-31 D '47

Non-equilibrium theory of absolute rates of reaction. B. J. Zwolinski and H. Eyring. *bibliog Am Chem Soc J* 69:2702-7 N '47

Phase diagrams for ceramists. F. P. Hall and H. Insley. *bibliog Am Cer Soc J* 30:1-152 pt 2 N 1 '47

Phase equilibrium description. V. C. Williams. *J Phys & Colloid Chem* 52:1263-4 O '48

Phase equilibrium studies on pyridine-amide systems. S. Stephanou, C. A. VanderWerf and H. H. Sisler. *bibliog Am Chem Soc J* 70:264-7 Ja '48

Phase relations of a gas-condensate fluid at low temperatures, including the critical state. C. K. Ellerts and others. *bibliog Jl diags Pet Eng* 19:154+ F '48

Phase rule and the action of gravity. W. Swietoslawski. *diags J Chem Educ* 24:606-8 D '47

Philosophy of the purity and identity of organic compounds. H. Eyring. *Anal Chem* 20:98-100 F '48

Prediction of vapour-liquid equilibria for ternary mixtures from the data of binary systems. Y. Li and J. Coull. *bibliog Inst Pet J* 34:692-704 S '48

Shape of heat-capacity and equilibrium cooling curves in the region of melting of solid solutions. K. J. Mysels. *diag J Phys & Colloid Chem* 61:1361-9 N '47

Sir David Rivett and the phase rule. *Chem & Ind* p433-4 Jl 10 '48

Some equilibrium relations in the system magnesium oxide-sulfur dioxide-water (acid region) at pressures below atmospheric. F. H. Conrad and D. B. Brice. *bibliog Am Chem Soc J* 70:2179-82 Je '48

System ammonia-sulphur dioxide-water at 25°. L. M. Hill. *Chem Soc J* p76-8 Ja '48

System of 1-butene-n-butane; compositions of coexisting phases. B. H. Sage and W. N. Lacey. *bibliog Ind & Eng Chem* 40:1299-301 Jl '48

Vapor-liquid equilibria in binary system acetaldehyde dibutyl acetal-n-butanol. A. Z. Conner, P. J. Elving and S. Steingiser. *bibliog Ind & Eng Chem* 40:497-9 Mr '48

Vapor-liquid equilibria in hydrocarbon systems. S. T. Hadden. *bibliog (61 ref) charts Chem Eng Prog* 44:37-54, 135-51 Ja-F '48; Discussion. 44:152-6 F '48

Vapor-liquid equilibrium constants for carbon monoxide. L. C. Widdoes and D. L. Katz. *bibliog Ind & Eng Chem* 40:1742-6 S '48

Vaporization of petroleum fractions; method of calculation for vapor-liquid equilibria of complex mixtures. W. D. Harbert. *bibliog Pet Refiner* 26:132-9 D '47

X-ray study of the stepwise melting of anhydrous sodium palmitate. H. Nordsieck and others. *bibliog Jl Chem Phys* 16:176-80 Mr '48

PHASE space

Use of phase space in classical and quantum theory. H. C. Corben. *bibliog Phys R* 74: 738-94 O 1 '48

PHENACYLAMINE. See Aminoacetophenone

PHENACYL bromide. See Bromoacetophenone

PHENANTHRENE

Higher hydrocarbons; alkyl anthracenes and alkyl phenanthrenes. R. W. Schiessler, A. W. Rytina and F. C. Whitmore. *bibliog Am Chem Soc J* 70:529-30 F '48

PHENANTHRENE—Continued

- Morphine studies; the phenanthrene unit. E. C. Horning, M. G. Horning and E. J. Platt. *bibliog Am Chem Soc J* 69:2929-32 D '47
- Optical activity of the 4,5-phenanthrene type; 4-(1-methylbenzo[*c*]phenanthryl)-acetic acid and 1-methylbenzo[*c*]phenanthrene. M. S. Newman and W. B. Wheatley. *bibliog Am Chem Soc J* 70:1913-16 My '48
- Sex hormones; synthesis of 1-keto-7-methoxy-1,2,3,4-tetrahydrophenanthrene and of 1-keto-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene. G. Stork. *bibliog Am Chem Soc J* 69:2936-9 D '47
- Synthesis and optical resolution of 4,5,8-trimethyl-1-phenanthrylacetic acid. M. S. Newman and A. S. Hussey. *Am Chem Soc J* 69:3023-7 D '47
- Synthesis of 3-alkyl-1,2-cyclopentenophenanthrenes. B. Riegel, S. Siegel and D. Kritchevsky. *bibliog Am Chem Soc J* 70:2950-2 S '48
- Synthesis of phenanthrene-9-C¹⁴. C. J. Collins. *bibliog diags Am Chem Soc J* 70:2418-20 JI '48

PHENANTHRENEQUINONE

- Some properties of phenanthrene semiquinone. L. Michaelis and S. Granick. *bibliog Am Chem Soc J* 70:624-7 F '48

PHENANTHRIDINE

- Contributions to the chemistry of phenanthridine; conversion of (3'-pyridyl)phenanthridines into their quaternary salts and the preparation of some derivatives of potential biological interest. V. Petrow and W. R. Wragg. *Chem Soc J* p 1410-15 O '47

PHENANTHRIDINIUM compounds

- Potential trypanocides of the *N*-heterocyclic series; phenanthridinium salts. A. G. Caldwell and L. P. Walls. *Chem Soc J* p 188-97 F '48

PHENANTHROLINE

- Attempts to find new antimalarials; further derivatives of *p*-phenanthroline. B. Douglas, R. G. Jacob and W. O. Kermack. *Chem Soc J* p 1659-61 D '47
- Determination of iron in glass sand. J. J. Diamond. *Am Cer Soc J* 31:243-5 S 1 '48
- Equilibrium and kinetic studies on the formation and dissociation of ferroin and ferrin. I. M. Kolthoff, T. S. Lee and D. L. Leussing. *Anal Chem* 20:985 O '48
- Reaction of ferrous and ferric iron with 1,10-phenanthroline; dissociation constants of ferrous and ferric phenanthroline. T. S. Lee, I. M. Kolthoff and D. L. Leussing. *bibliog Am Chem Soc J* 70:2348-52 JI '48

PHENAZINE

- Catalytic oxidation of aniline in the vapor phase. O. W. Brown and W. C. Frishe. *diags J Phys & Colloid Chem* 51:1394-400 N '47

PHENETHYLAMINE

- Synthesis of *N*-(3-methoxybenzyl)-*N*-methyl-3-methoxy-4,5-methylenedioxyphenethylamine. A. R. Surrey. *bibliog Am Chem Soc J* 70:2887-90 S '48

PHENOL

- Composition of vapors from boiling binary solutions; systems of phenol with beta- and gamma-piccolines and 2,6-lutidine. D. F. Othmer and S. A. Savitt. *bibliog Ind & Eng Chem* 40:168-74 Ja '48; Correction. 40:435 Mr '48
- Condensation of some tertiary octyl alcohols with phenol. R. C. Huston, W. K. Langdon and L. J. Snyder. *bibliog Am Chem Soc J* 70:1474-5 Ap '48
- Distillation of phenolic brines. M. J. P. Bogart and A. S. Brunjes. *bibliog flow diag il diags Chem Eng Prog* 44:95-103; Discussion. 103-4 F '48
- Method of following the course of the phenol-formaldehyde reaction. S. R. Finn and L. R. Rogers. *bibliog Soc Chem Ind J* 67:51-7 F '48
- Molecular interaction and infra-red absorption spectra. M. Davies. *bibliog J Chem Phys* 16:274-9 Ap '48
- Phenol; a market study. *Chem Eng* 55:313-14 Ja '48
- Phenol; CI report. R. F. Messing and W. V. Keary. *bibliog il diags Chem Ind* 63:43-7, 234-40 JI-Ag '48 [reprints 50c]
- Phenol treating for lubricating oils. *flow diag Oil & Gas J* 46:152 Ap 1 '48

- Pilot plant for treatment of phenol still (coke) wastes. N. L. Nussbaumer. *flow diag Sewage Works J* 20:872-5 S '48
- Re-examination of the reported *m*-nitration of phenols and phenolic ethers. C. A. Bunton, G. J. Minkoff and R. I. Reed. *Chem Soc J* p 1416-18 O '47
- Study of the reaction of phenol with thionyl chloride. W. E. Bissinger and E. E. Kung. *bibliog Am Chem Soc J* 70:2664-6 Ag '48

Analysis

- Determination of phenol and *m*-cresol in complex biochemical mixtures; application of countercurrent distribution method. B. Warshowsky, E. J. Schantz and M. W. Rice. *Anal Chem* 20:951-4 O '48
- Microextraction procedure for phenol determination. R. H. DeMeio. *bibliog diags Science* 108:391-3 O 8 '48

Manufacture

- Phenol; cost of production. R. F. Messing and W. V. Keary. *bibliog il diags Chem Ind* 63:234-40 Ag '48

PHENOL condensation products

- Method of following the course of the phenol-formaldehyde reaction. S. R. Finn and L. R. Rogers. *bibliog Soc Chem Ind J* 67:51-7 F '48
- Molecular structure and its influence on the properties of phenolic resins; Novolaks. N. J. L. Megson. *bibliog diags Soc Chem Ind J* 67:155-60 Ap '48
- Recent advances in the chemistry of the phenol-aldehyde condensation; abstract and discussion. E. G. K. Pritchett. *Chem & Ind* p91-2 F 7 '48
- Thiophene-formaldehyde condensation. P. D. Caesar and A. N. Sachanen. *bibliog flow sheet il Ind & Eng Chem* 40:922-8 My '48
- Vibrational spectra of phenolic derivatives and phenolic resins. R. E. Richards and H. W. Thompson. *Chem Soc J* p 1260-9 S '47

PHENOLPHTHALEIN

- Polarographic behavior of phenolphthalein. I. M. Kolthoff and D. J. Lehmicke. *bibliog Am Chem Soc J* 70:1879-85 My '48

PHENOLS

- Catalytic hydrogenation of polyhydric phenols; the synthesis of *meso*-inositol, scyllitol and a new isomeric cyclitol. R. C. Anderson and E. S. Wallis. *bibliog Am Chem Soc J* 70:2931-5 S '48
- Controlled hydrogenation of polyalkylphenols. A. C. Whitaker. *bibliog Am Chem Soc J* 69:2414-15 O '47
- Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds. W. H. Lemon. *bibliog Am Chem Soc J* 69:2998-3000 D '47
- Hydrogen exchange of phenols and phenol ethers with deuterio-alcohol. P. F. Tryon, W. G. Brown and M. S. Kharasch. *bibliog Am Chem Soc J* 70:2003-5 Je '48
- Hydroxymethyl derivatives of phenols. I. W. Ruderman. *bibliog Am Chem Soc J* 70:1662-3 Ap '48
- Influence of ethylene glycol and glycerol on the germicidal power of aliphatic and aromatic compounds. E. A. Cooper. *Soc Chem Ind J* 67:69-70 F '48
- Kinetics of the reactions between iodine and certain substituted phenols. Choh Hao Li. *bibliog Am Chem Soc J* 70:1716-17 My '48
- Oxidation products of phenols; the structure of purpurogallin. J. A. Barltrop and J. S. Nicholson. *Chem Soc J* p 116-20 F '48
- Quaternaries vs. phenolics; germicidal effectiveness reported; together with time-survival numbers of *E. typhosa* and *S. aureus*. L. H. James and G. Eckfeldt. *Soap & San Chem* 23:125-4 N; 157-4 D '47
- Reclaiming agents for synthetic rubber. W. S. Cook and others. *bibliog Ind & Eng Chem* 40:1194-202 JI '48
- Removing low concentrations of phenolic compounds from water. N. H. Brown, Jr. and L. B. Miller. *bibliog Pub Works* 79:38-40 Je '48
- Some urethans of phenolic quaternary ammonium salts. J. H. Gardner and J. R. Stevens. *bibliog Am Chem Soc J* 69:3086-8 D '47

PHENOLS—Continued

Synthesis of chromans from phenols and from ortho-hydroxy aromatic aldehydes. G. B. Bachman and H. A. Levine. bibliog Am Chem Soc J 70:599-601 F '48

Use of monoreactive phenol alcohols as models for the general polymerization of phenol resin systems. H. S. Lilley. bibliog Soc Chem Ind J 67:196-9 My '48

Vapor pressure data for phenols. K. B. Goldblum, R. W. Martin and R. B. Young. bibliog diag Ind & Eng Chem 39:1474-6 N '47

Analysis

Determination of methylol groups and dibenzyl ether linkages in phenol alcohols and derived phenolic resins; methylol groups. H. S. Lilley and D. W. J. Osmond. bibliog Soc Chem Ind J 66:340-1 O '47

Determination of small quantities of phenols in water; abstract. F. C. Basavilbaso. Am Water Works Assn J 39:1164 N '47

Potentiometric titration of weak acids in anhydrous ethylenediamine. M. L. Moss, J. H. Elliott and R. T. Hall. bibliog diags Anal Chem 20:784-8 S '48

PHENOLSULFONEPHTHALEIN

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene. M. M. Davis and others. bibliog J Res Nat Bur Stand 41:27-40 JI '48

Effect of substituents upon the rate of fading of some sulfonephthalein indicators in alkaline solutions. E. E. Sager, A. A. Maryott and M. R. Schooley. bibliog Am Chem Soc J 70:732-6 F '48

PHENOSULFAZOLE

Antiviral synthetic halts mouse polio. Chem & Eng N 26:2710 S 13 '48

PHENOTHIAZINE

Histamine antagonists: N-pyrrolidylalkylphenothiazines. W. B. Reid, Jr. and others. Am Chem Soc J 70:3100-2 S '48

Residual action of organic insecticides. E. E. Fleck. bibliog Ind & Eng Chem 40:706-8 Ap '48

Analysis

Determination of phenothiazine in dust and mixtures. V. Kniaseff. bibliog Anal Chem 20:329-31 Ap '48

PHENOXYACETIC acid

Cyclization of phenoxyacetic acid and some chlorophenoxyacetic acids. M. L. Kalinowski and L. W. Kalinowski. bibliog Am Chem Soc J 70:1970-1 My '48

PHENYLACETIC acid. See Toluic acid**PHENYLALLYL esters**

Rearrangement and substitution in anionotropic systems; test for bimolecular isomerization in α -phenylallyl esters. A. G. Catchpole and E. D. Hughes. Chem Soc J p 1-4 Ja '48

PHENYLBENZALOXAZOLONE

Reaction of azlactones with secondary amines. D. K. Barnes, E. Campaigne and R. L. Shriner. bibliog Am Chem Soc J 70:1769-72 My '48

PHENYL benzoate

Claisen benzylation of certain methylene ketones with phenyl benzoate by the sodium amide method. C. R. Hauser and others. bibliog Am Chem Soc J 69:2649-51 N '47

PHENYLBENZOXAZOLE

Preparation of 2-phenylbenzoxazole. L. C. Galatis. Am Chem Soc J 70:1967 My '48

PHENYLBROMOACETONITRILE. See Bromobenzyl cyanide**PHENYLBUTADIENE**

Reactions with tetraphenylcyclopentadienone; condensation with 1-phenyl-1,3-butadiene. O. Grummitt and E. I. Becker. bibliog Am Chem Soc J 70:149-54 Ja '48

PHENYLCHLOROSILANE

Contribution to the direct synthesis of phenylchlorosilanes. L. Riccoboni and M. Zotta. bibliog diag Soc Chem Ind J 67:235-7 Je '48

PHENYLCHOLENDIOLS

Steroid acids and their transformation products; epimeric 24-phenyl-5-cholesterol-3 β , 24-diols and related compounds. R. H. Levin and others. bibliog Am Chem Soc J 70:2958-60 S '48

α -PHENYLCINNAMIC acid. See Diphenylacrylic acid

PHENYLCYCLOHEXANOL

Field tests with tick repellents. J. M. Brennan. Pub Health Rep 63:339-46 Mr 12 '48

PHENYLCYCLOPENTANECARBOXYLIC acids

Attempts to prepare new aromatic systems; cyclopentindene; phenylcyclopentanecarboxylic acids, and derived ketones. W. Baker and W. G. Leeds. Chem Soc J p974-80 JI '48

PHENYLCYCLOPROPYLAMINE

Arylcycloalkylamines; 2-phenylcyclopropylamine. A. Burger and W. L. Yost. bibliog Am Chem Soc J 70:2198-201 Je '48

PHENYLCYSTEINE

Studies in the azole series; a synthesis of β -phenylcysteine. A. H. Cook, G. Harris and J. Heilbron. Chem Soc J p 1060-5 JI '48

PHENYLDIOXANE

4-Phenyl-m-dioxane. R. W. Shortridge. Am Chem Soc J 70:873-4 F '48

PHENYL ether

Vapor pressure of mustard gas (β,β -dichloroethylsulfide), diphenyl ether and their mixtures. H. E. Bent and R. J. Francel. bibliog diags Am Chem Soc J 70:634-7 F '48

PHENYLGLYOXAL

Mechanism of the conversion of phenylglyoxal to mandelic acid. W. v. E. Doering, T. I. Taylor and E. F. Schoenewaldt. bibliog Am Chem Soc J 70:455-7 F '48

PHENYLGLYOXYLIC acid

Novel synthesis of substituted phenylglyoxylic acids. I. M. Hunsberger and E. D. Amstutz. Am Chem Soc J 70:671-4 F '48

PHENYL group

α -Aryloxy and α -aryl thiol cinnamic acids. D. Papa and E. Schwenk. bibliog Am Chem Soc J 69:3022-3 D '47

Physical properties and chemical constitution; the phenyl group. A. I. Vogel. Chem Soc J p654-8 My '48

PHENYLHYDANTOINS. See Hydantoins

PHENYL hydracrylic acid. See Tropic acid

PHENYLHYDRAZIDES

Enzymatic synthesis of N-carbobenzoxy-D and L-o-fluorophenylalanylphenylhydrazides. E. L. Bennett and C. Niemann. Am Chem Soc J 70:2610-11 JI '48

PHENYLHYDRAZINE

Chlorophyll-sensitized photooxidation of phenylhydrazine by methyl red; reactivity of the several forms of methyl red. R. Livingston and R. Pariser. Am Chem Soc J 70:1510-15 Ap '48

PHENYLHYDRAZONES. See Hydrazones

PHENYLISOCYANATE

Polysaccharide aryl carbamates. I. A. Wolff and C. E. Rist. bibliog Am Chem Soc J 70:2779-82 Ag '48

PHENYLISVALERIC acid

Preparation of some substituted β -phenylisovaleric acids. J. Corse and E. Rohrmann. bibliog Am Chem Soc J 70:370-1 Ja '48

PHENYLLEVULINIC acid

α -Phenyl-levulinic acid, a product of the alkaline degradation of penicillin G. M. W. Goldberg, W. R. Sullivan and W. E. Scott. Am Chem Soc J 70:2810-11 Ag '48

PHENYLLITHIUM. See Lithium compounds

PHENYLMAGNESIUM bromide

Preparation of 2,3-diphenyl-1,4-naphthoquinone and its reaction with phenylmagnesium bromide and phenyllithium. H. M. Crawford. bibliog Am Chem Soc J 70:1081-4 Mr '48

Reaction of benzophenone β -naphthyl with phenylmagnesium bromide and with phenyllithium. H. Gilman and J. Morton. bibliog Am Chem Soc J 70:2514-15 JI '48

Reaction of β -cyclohexanediene (dihydroresorcinol) and its ethyl enol ether with phenylmagnesium bromide. G. F. Woods and I. W. Tueker. bibliog Am Chem Soc J 70:2174-7 Je '48

Reaction of 5,5-dimethylcyclohexanediene-1,3 (dime-dione) and its ethyl enol ether with phenylmagnesium bromide. G. F. Woods. bibliog Am Chem Soc J 69:2549-52 O '47

Reactions of 2,4-pentadienal. G. F. Woods and H. Sanders. bibliog Am Chem Soc J 69:2926-8 D '47

PHENYLMAGNESIUM bromide—Continued

Synthesis of ketones from aliphatic nitriles and phenylmagnesium bromide. C. R. Hauser, W. J. Humphlett and M. J. Weiss. bibliog Am Chem Soc J 70:426 Ja '48

Use of phenylmagnesium bromide for the preparation of phenyl aryl sulphides, sulphoxides, and sulphones. H. Burton and W. A. Davy. Chem Soc J p528-9 Ap '48

PHENYL mercury oleate

Wood preservatives; effect on seam compounds and value as paint primers. W. Spackman, Jr. and O. Tippo. bibliog il diags Ind & Eng Chem 40:1301-8 Jl '48

PHENYL methylbutane

Preparation of optically active hydrocarbons by the Wurtz reaction. R. L. Letsinger. bibliog Am Chem Soc J 70:406-9 Ja '48

PHENYL methylcarbinol

o-Methoxy-, *p*-benzyl-, *o*-fluoro-, and *o*-cyano-styrenes; further examples of the disproportionation of phenylmethylcarbinols to ethylbenzenes. C. S. Marvel and D. W. Hein. bibliog Am Chem Soc J 70:1895-8 My '48

PHENYLNAPHTHALENE

Aromatic cyclodehydrogenation; rearrangements in the phenylnaphthalene series. M. Orchin and L. Reggel. bibliog Am Chem Soc J 70:1245-7 Mr '48

Aromatic cyclodehydrogenation; synthesis of ring oxygen compounds. M. Orchin. Am Chem Soc J 70:495-7 F '48

PHENYLNAPHTHYLAMINE

Effect of certain antioxidants in GR-S; natural and accelerated aging. H. E. Albert. bibliog Ind & Eng Chem 40:1746-50 S '48

Heat of combustion of phenyl-beta-naphthylamine (N-phenyl-2-naphthylamine). D. E. Roberts and R. S. Jessup. bibliog J Res Nat Bur Stand 40:281-3 Ap '48

PHENYLOSAZONE

Phenylosazone reactions adapted to the microslide. H. F. Schaeffer. J Chem Educ 25:20-1 Ja '48

PHENYLOSOTRIAZOLE

Action of copper sulfate on the phenylosazones of the sugars; gentiobiose phenylosotriazole. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 70:2288-9 Je '48

PHENYL salicylate. See Salol**PHENYL selenocyanates**

Electric moments of some *p*-substituted phenyl selenocyanates and thiocyanates. T. W. Campbell and M. T. Rogers. bibliog Am Chem Soc J 70:1029-31 Mr '48

PHENYL silicon isocyanates

Phenyl and ethoxy silicon isocyanates. G. S. Forbes and H. H. Anderson. Am Chem Soc J 70:1043-4 Mr '48

PHENYL silicon isothiocyanate

Phenyl silicon isothiocyanates. H. H. Anderson. bibliog Am Chem Soc J 70:1220-2 Mr '48

PHENYLTHIOACETIC acid

Formation of thionaphthens from derivatives of phenylthioacetic acid. E. W. McClelland, M. J. Rose and D. W. Stammers. Chem Soc J p81-5 Ja '48

PHENYL thiocyanates

Electric moments of some *p*-substituted phenyl selenocyanates and thiocyanates. T. W. Campbell and M. T. Rogers. bibliog Am Chem Soc J 70:1029-31 Mr '48

PHENYLENEDIAMINE

Oxidation processes; the autooxidation of the *p*-phenylenediamines. J. E. LuValle, D. B. Glass and A. Weissberger. bibliog Am Chem Soc J 70:2223-33 Je '48

Reaction of *o*-phenylenediamine and of 8-amino-1,2,3,4-tetrahydroquinoline derivatives with carbonyl compounds. R. C. Elderfield and F. J. Kreysa. bibliog Am Chem Soc J 70:44-8 Ja '48

Technique for measuring reactivity of gasoline antioxidants with air; reactivity of *n*-butyl-*p*-aminophenol and *N,N'*-di-*sec*-butyl-*p*-phenylenediamine. E. R. Strickland. diags Anal Chem 20:55-6 Ja '48

PHILADELPHIA

Bibliography of American literature at Philadelphia. A. H. Quinn. J Doc 3:177-87 D '47

Getting ready to cash in on conventions. il Bsns W p22-4 Je 12 '48

Philadelphia plans again; exhibition designed to capture citizen support. il plans diags Arch Forum 87:65-83 D '47

Publicity fans political blaze. Ed & Pub 81:20 Je 19 '48

Sewerage

Driving concrete piles on sewer job. J. J. Gass. il Concrete 56:3-5 Jl '48

Water supply

Air conditioning and water requirements. E. L. Bean. bibliog Am Water Works Assn J 40:313-29; Discussion. R. Arnold. 330-2 Mr '48

PHILADELPHIA bulletin

Galaxy of stars at second forum. Ed & Pub 81:34 Mr 20 '48

PHILADELPHIA company

Plan cuts senior return. Barron's 28:27 N 1 '48

Public utility securities. Comm & Fin Chr 167:2657 Je 17 '48

SEC orders company's dissolution. Comm & Fin Chr 167:2472 Je 7 '48

Simplification plan filed with SEC. Comm & Fin Chr 168:1803 N 1 '48

Submits plan. Comm & Fin Chr 168:1858 N 4 '48

PHILADELPHIA electric company

Bonds offered. Comm & Fin Chr 167:852 F 23 '48

Preferred stock offered. Comm & Fin Chr 167:655 F 9 '48

PHILADELPHIA textile institute

P.T.I. expands program, starts new building. H. P. Galloway. il Textile World 98:137+ O '48

PHILATELY. See Postage stamps**PHILCO corporation**

Benefits of Philco's growth saved for stockholders. G. M. Loeb. Barron's 28:35 Ag 9 '48

PHILIPPINE ISLANDS**See also**

Gold mines and mining—Philippine Islands
Poultry industry and trade—Philippine Islands
Roads—Philippine Islands

Commerce

Philippines; how promising as a market for U.S. goods? E. Gidlow. Sales Management 61:108-9 S '48

Commercial policy

Status of United States private trade with the Far East; trade and exchange controls. For Comm W 32:45-6 Jl 17 '48

Economic relations

America's role in the Orient. P. V. McNutt. Ann Am Acad 258:53-8 Jl '48

Industries and resources

Orient; undeveloped economic frontier. P. V. McNutt. il Dun's R 55:15-17+ N '47

PHILIPS air engine. See Air engines**PHILIPS of Eindhoven companies**

Philips company's (Netherlands) activities and accomplishments during 1947. For Comm W 32:33 S 25 '48

PHILLIPS chemical company

Phillips broadens its chemical output. Chem Eng 55:212+ S '48

PHILLIPS petroleum company

Offers 1,007,517 common shares to present holders. Comm & Fin Chr 166:2107-8 N 24 '47

Ten potential market leaders for 1948. Mag of Wall St 81:403 Ja 17 '48

PHILLIPS university, Enid, Oklahoma

Expansion of the science departments. Science 108:349 O 1 '48

PHILOSOPHICAL society, American. See American philosophical society**PHILOSOPHY****See also**

Free will and determinism
Science—Philosophy
PHILOSOPHY of science association
Reorganized. Science 107:443 Ap 30 '48

PHLOROGLUCINOL

Triple phenol; Edwal is out to compete for dyestuffs intermediate markets. Chem Ind 63:210-11 Ag '48

PHOENIX, Arizona**Sewerage**

Enlarging an activated-sludge plant. il Eng N 141:97-9 O 14 '48

PHONETICS

See also

Speech

Vowels

PHONEVISION

Phonevision potential told for publishers. E. F. McDonald, Jr. Ed & Pub 81:44 Je 26 '48

PHONOGRAPH

New circuit design for wow tester. M. G. Nicholson, il diags Tele-Tech 7:26-9+ Je '48

Two-tube phono amplifier. H. Keroes, il diag Radio N 39:45+ My '48

Wide range phonograph system. G. Southworth, il diags Radio N 39:62-3+ Je '48

Noise reduction

Audio noise reduction circuits. H. F. Olson, il diags Electronics 20:118-22 D '47

Dynamic noise suppression circuits. J. D. Goodell, il diags Radio N 39:46-8+ Ja '48

Dynamic noise suppressor; provides essentially noise-free reproduction from phonograph records and transcriptions. H. H. Scott, il diags Electronics 20:96-101 D '47

Filter characteristics for the dynamic noise suppressor. L. G. McCracken, diags Electronics 21:114-15 Ap '48

Recording and reproduction of sound; theory, design, and construction of a dynamic noise suppressor. O. Read, il diags Radio N 39:60-1+ My '48

Pickup

Equalizing the G.E. pickup. J. F. Gruber, il diags Radio N 40:48+ J1 '48

GE preamplifier for the GE variable reluctance pickup cartridge. diag Consumers Res Bul 22:22-3 Ag '48

High-grade pickup and preamplifier available. Consumers Res Bul 20:26-7 N '47

Recording and reproduction of sound; tracking error, groove skating, and record wear. O. Read, il diags Radio N 39:72-3+ Ap '48

Single shear plate crystal phonograph pickup. A. M. Wiggins and F. S. Lewis, il diags Acoustical Soc Am J 20:449-50 J1 '48

Vacuum-tube-type transducer for use in the reproduction of lateral phonograph recordings. J. F. Gordon, il diags Inst Radio Eng Proc 35:1571-5 D '47

Rating

Five phonograph pickups. Consumers Res Bul 21:21-2 Mr '48

Phonograph pickup; Admiral miracle tone arm; Clarkstan wide-range pickup. Consumers Res Bul 21:19-20 My; 22:21 O '48

Rating

Table-model phonograph; Magnavox Concert. Consumers Res Bul 23:24 N '48

Rating

Table-model phonograph; Magnavox Concert. Consumers Res Bul 23:24 N '48

Record changers

Adapting Webster record changers for microgroove recordings. R. W. Timmerman, il Radio & Tv N 40:39+ N '48

Producing the Seeburg non-stop record player. T. E. Lloyd, il diag Iron Age 162:86-92 Ag 26 '48

Turntables

Resorts to battery power in mass-welding phonograph turntables. Steel 121:76 D 29 '47

Wow meter for turntable testing. G. L. Sansbury and E. W. Pappenfus, il diags Electronics 21:108-11 Mr '48

Rating

Three low-priced phonograph turntable units. Consumers Res Bul 21:23-4 F '48

PHONOGRAPH, Automatic

Acrylics dress-up juke boxes. il Plastics 8:42-3+ Ja '48

Heliarc welding of aluminum frames for coin-operated phonographs. il Mach 54:170-1 J1 '48

PHONOGRAPH, Portable

Record player steps out in plastic; portable player, molded in phenolic, matches polystyrene record carrier. il Mod Plastics 25:84-6 Mr '48

PHONOGRAPH in education

Decca takes whirl in school market. Bsns W p63 N 15 '47

PHONOGRAPH records

Adapting Webster record changers for microgroove recordings. R. W. Timmerman, il Radio & Tv N 40:39+ N '48

Annual report gets wide hearing; ATF, inc. il Bsns W p92 J1 17 '48

Big four recording companies bolster promotion as industry sales lag 20 per cent to 50 per cent behind '47. Ptr Ink 223:83+ Je 25 '48

Box-album; safer containers for phonograph records. il Mod Packaging 21:105 N '47

Columbia-Philco engineer new record system. il Tele-Tech 7:104-5 J1 '48

Columbia's new long playing record. Consumers Res Bul 22:24-5 S '48

Decca bundles up. Bsns W p57-9 D 27 '47

Decca takes whirl in school market. Bsns W p63 N 15 '47

Design of audio compensation networks; equalization for phonograph recordings. W. A. Savory, il diags Tele-Tech 7:24-7 Ja; 27-9+ F; 34-5+ Ap '48

Elaborate dealer relations program pays; Capitol records, inc. L. F. Thomann. Ptr Ink 224:40-1 J1 16 '48

Gramophone shop encyclopedia of recorded music, 3d ed rev & enl 639p \$5 Crown publishers, 419 4th av, New York 16 '48

Pettrillo ban a scheme to beat law; czar's order seeks to protect Welfare fund with recorders' help. E. Abrams. Barron's 27:29-30 N 24 '47

Record book; international edition. D. Hall. 1394p \$7.50 Oliver Durrell, 527 Lexington av, New York 17 '48

Record sales high. Bsns W p69 F 14 '48

Record story; Cincinnati's King record distributing co. Bsns W p81-2 Ap 10 '48

Reproduction of microgroove recordings. N. C. Pickering and J. D. Goodell, il diags Radio & Tv N 40:40-1+ O '48

Slump in sales of records endangers fringe makers. Barron's 28:35 Je 14 '48

Manufacture

New molding technique for high production. T. A. Dickinson, il Mill & Factory 42:129-30 My '48

Rating

Phonograph records. W. F. Grueninger. Consumers Res Bul 21:31 Ja '48 [cont monthly]

PHONOGRAPH records, Plastic

Vinyl records. il Mod Plastics 25:125-8 Je '48

PHONOGRAPH styluses. See Styluses, Phonograph

PHOSGENE

Carbonyl chloride, entropy, heat capacity, vapor pressure, heats of fusion and vaporization; comments on solid sulfur dioxide structure. W. F. Glaue and W. M. Jones, bibliog Am Chem Soc J 70:120-4 Ja '48

Diffusion coefficients and molecular radii of hydrogen cyanide, cyanogen chloride, phosgene and chloropicrin. I. M. Klotz and D. K. Miller, bibliog Am Chem Soc J 69:2557-8 O '47

Phosgenation products range from resins to grass killers; Columbia chemical division of Pittsburgh plate glass co. il Chem Ind 61:805-6 N '47

Production of radioactive carbon monoxide and phosgene from barium carbonate, J. L. Huston and T. H. Norris, diag Am Chem Soc J 70:1968-9 My '48

Analysis

Analysis of liquid phosgene. C. A. Rush and C. E. Danner, bibliog diags Anal Chem 20:644-6 J1 '48

PHOSPHATES

Acid phosphatase reactions in peripheral nerves. G. W. Bartelmez and S. H. Bensley, bibliog il Science 106:639-41 D 26 '47

PHOSPHATASES—Continued

- Cytochemical demonstration of acid phosphatase in bone marrow smears, M. Rabinovitch and others, *il Science* 107:322-3 Mr 26 '48
- Effect of acetone and alcohol fixation and paraffin embedding on activity of acid and alkaline phosphatases in rat tissues, R. O. Stafford and W. B. Atkinson, *bibliog Science* 107:279-81 Mr 12 '48
- Manometric determination of phosphomonoesterase (alkaline phosphatase), C. A. Zittle, *bibliog Franklin Inst J* 245:265-7 Mr '48

PHOSPHATE coating

- Electro-zinc phosphate coatings for iron and steel, E. E. Halls, *Metallurgia* 38:34-6 My '48
- Low temperature phosphate coating for steel easily applied; Granodizing process, N. P. Gentieu, *il Materials & Methods* 27:74-5 F '48
- Organic finishes for metal products, *il Steel* 122:58-9+ My 31 '48
- Phosphate coating of aluminum and polymorphism of chromium phosphate, G. L. Clark and A. P. Tai, *Science* 107:505 My 14 '48
- Phosphate coating of steel; abstract, N. F. Murphy and M. A. Streicher, *Steel* 123:116+ Ag 2 '48
- Phosphate treatments for zinc surfaces, E. E. Halls, *Metallurgia* 37:299-305 Ap '48
- Phosphating of metals; some processes recently patented, *Chem Age (Lond)* 59:452 O 2 '48
- Phosphatization of metallic surfaces, M. A. Streicher, *bibliog (67 ref) il diag Metal Finishing* 46:61-9 Ag '48

PHOSPHATE rock

- Industry applications of phosphorus show rapid growth, *il Bsns W* p50-2+ S 4 '48
- Lightweight concrete aggregate from phosphate waste, A. F. Greaves-Walker and P. P. Turner, *Rock Prod* 51:185 Je '48
- Phosphate, from train to ship; new Seaboard air line dock at Tampa, Fla, *il diags Ry Age* 125:328-31 Ag 14 '48
- Phosphate rock production, sales, stocks; 1947 and 1948, *Oil Paint & Drug Rep* 154:40 Ag 23 '48
- U.S. acts to ease phosphate shortage, *Oil Paint & Drug Rep* 154:3+ S 6 '48

Islands of the Pacific

- Phosphate deposits of the former Japanese islands in the Pacific; a reconnaissance report, J. Rodgers, *maps Econ Geol* 43:400-7 Ag '48

PHOSPHATES

- Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions, R. G. Bates, *bibliog J Res Nat Bur Stand* 39:411-17 N '47
- Effect of anoxia and cytochrome C on readily hydrolyzable phosphate of rat tissues, W. N. Miller and others, *Science* 107:421 Ap 23 '48
- Emergent phosphate islands in Micronesia, L. E. Nugent, jr., *bibliog maps Geol Soc Bul* 59:977-94, pl 1 O '48
- Flammability of the higher boiling liquids and their mixts, M. V. Sullivan, J. K. Wolfe and W. E. Zisman, *bibliog il diag Ind & Eng Chem* 39:1607-14 D '47
- Investigation on conditions of preparation of fused phosphates; abstract, K. I. Zagvodkin and N. A. Barilko, *Chem Eng* 55:280 Jl '48
- Iron compounds and phosphatic fertilisers; their effects in production and use, H. W. Lehrecke, *bibliog Chem Age (Lond)* 57:648-50, 672-4, 698-700 N 15-29 '47
- Phosphate nomenclature; abstract, E. P. Partridge, *Chem & Eng N* 26:2054-5 Jl 12 '48
- Phosphates; Chem & Met commodity survey, *Chem Eng* 55:300 Ag '48
- Phosphorus; bearer of light and life, W. Mann, *il Sci Am* 178:157-60 Ap '48
- Phosphorylation reactions, G. M. Kosolapoff, *Science* 108:485-6 O 29 '48
- Prevention of frothing; patent procedure for mixed fertilisers, *Chem Age (Lond)* 57:666 N 22 '47

- Recent developments in the chemistry of phosphorus, L. F. Audrieth and O. F. Hill, *bibliog J Chem Educ* 25:80-6 F '48
- Symposium on mining and processing of phosphates and use in agriculture, *Chem & Eng N* 26:2682-4 S 13 '48

See also

- Hexaethyl tetraphosphate Rare earth phosphates
Tributyl phosphate

Analysis

- Determination of silica in the presence of fluorine and phosphorus, J. A. Brabson and others, *bibliog Anal Chem* 20:504-10 Je '48
- Determination of tetraethyl pyrophosphate in mixtures of ethyl phosphate esters, M. N. Dvornikoff and H. L. Morrill, *Anal Chem* 20:955-6 O '48

Manufacture

- Development of blast-furnace process for production of phosphoric acid, T. P. Hignett, *il diags Chem Eng Prog* 44:753-64, 821-32 O-N '48
- Furnace phosphorus, J. R. Skeen, *Chem & Eng N* 26:2436-7 Ag 16 '48
- Million-ton flotation plant; Virginia-Carolina chemical corporation, W. B. Lenhart, flow sheet *il Rock Prod* 51:104-10+ Ap '48
- New fertiliser technology; TVA's effective use of indigenous resources, E. P. Hudson, *Chem Age (Lond)* 59:521 O 16 '48
- Noralyn phosphate plant, world's biggest, *il Eng & Min J* 149:70-7 Je '48
- Phosphate plant for Idaho, *il Elec West* 101:78 O '48
- Superphosphate manufacture; good examples of group drives, *il Elec R (Lond)* 143:231-5 Ag 13 '48
- World's largest phosphate plant at Noralyn, Fla, W. B. Lenhart, *il Rock Prod* 51:116-21 Je '48

PHOSPHINE

- Preparation and properties of allyl phosphines, arsines, and stannanes, W. J. Jones and others, *Chem Soc J p* 1446-50 N '47

PHOSPHINOLINIUM compounds

- Stereochemistry of organic derivatives of phosphorus; the synthesis of 2:2-disubstituted 1:2:3:4-tetrahydroisospholinolium salts and the optical resolution of 2-phenyl-2-*p*-hydroxyphenyl-1:2:3:4-tetrahydroisospholinolium bromide, F. G. Holliman and F. G. Mann, *Chem Soc J p* 1634-42 D '47

PHOSPHITES

- Isomerization of alkyl phosphites; some derivatives of 2-bromoethane phosphonic acid, G. M. Kosolapoff, *Am Chem Soc J* 70:1971-2 My '48
- Reaction between trialkyl phosphites and alkyl halides, A. H. Ford-Moore and J. H. Williams, *Chem Soc J p* 1465-7 N '47

PHOSPHOMOLYBDIC acid

- Preparation of phosphomolybdic acid from phosphoric acid and molybdic trioxide, T. J. Hastings, jr. and H. A. Frediani, *bibliog Anal Chem* 20:382-3 Ap '48
- Spectrophotometric determination of phosphorus as molybdiphosphoric acid, D. F. Boltz and M. G. Mellon, *bibliog Anal Chem* 20:749-51 Ag '48

PHOSPHONIC acids

- Allyl esters of phosphonic acids; preparation and polymerization of allyl and methallyl esters of some arylphosphonic acids, A. D. F. Toy, *bibliog Am Chem Soc J* 70:186-8 Ja '48
- Esters containing phosphorus; esters of substituted phosphonic and phosphonous acids, B. C. Saunders and others, *Chem Soc J p* 699-703 My '48
- Isomerization of alkyl phosphites; some derivatives of 2-bromoethane phosphonic acid, G. M. Kosolapoff, *Am Chem Soc J* 70:1971-2 My '48
- Synthesis of amino-substituted phosphonic acids; α -aminobenzylphosphonic acid, G. M. Kosolapoff, *Am Chem Soc J* 70:1283 Mr '48
- PHOSPHONIUM compounds**
- Tetraphenylphosphonium and tetraphenylstibonium chloride, E. H. Willard, L. R. Perkins and F. F. Blicke, *bibliog Am Chem Soc J* 70:737-8 F '48

PHOSPHONOUS acid

Esters containing phosphorus; esters of substituted phosphonic and phosphonous acids. B. C. Saunders and others. *Chem Soc J* p699-703 My '48

PHOSPHORIC acid

Acetylation of cellulose in phosphoric acid solution. E. Heuser and others. *bibliog Ind & Eng Chem* 40:1500-6 Ag '48

Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3093-6 D '47

Color test for identification of glucose. S. Hestrin and J. Mager. *bibliog Anal Chem* 19:1032-5 D '47

Composition of strong phosphoric acids. R. N. Bell. *bibliog Ind & Eng Chem* 40:1464-7 Ag '48

Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. B. Harris and B. G. Lang. *bibliog J Phys & Colloid Chem* 51:1430-41 N '47

Ninhydrin for determination of P_2O_5 content of crude phosphoric acid. V. L. Marquart. *Chem Ind* 62:986-7 Je '48

Phosphoric acid attack method for determination of silicon in aluminum alloys. G. Norwitz. *Anal Chem* 20:182 F '48

Phosphorylation of proteins with phosphoric acid containing excess phosphorus pentoxide. R. E. Ferrell, H. S. Olcott and H. Fraenkel-Conrat. *bibliog Am Chem Soc J* 70:2101-7 Je '48

Preparation of phosphomolybdic acid from phosphoric acid and molybdenic trioxide. T. J. Hastings, Jr. and H. A. Frediani. *bibliog Anal Chem* 20:382-3 Ap '48

Starch treatment, phosphoric acid; patent. *Am Dyestuff Rep* 36:721 D 1 '47

Manufacture

Development of blast-furnace process for production of phosphoric acid. T. P. Hignett. *il diags Chem Eng Prog* 44:753-64, 821-32 O-N '48 (to be cont)

TVA phosphoric acid plant sports a new phosphorus combustion system; graphite combustion chamber. L. H. Almond and H. K. Steinbliss. *il diags Chem Eng* 55:105-9 O '48

PHOSPHORS. See Luminescence

PHOSPHORUS

Effect of sulphur and phosphorus on aviation fuel performance. T. K. Hanson and K. F. Coles. *Inst Pet J* 33:589-97 O '47

Effects of vitamins on phosphorus metabolism in the chick embryo; vitamin D and the utilization of inorganic phosphorus. H. Branson and others. *bibliog Science* 106: 637-8 D 26 '47

Fractionation of potato starch; phosphorus of potato starch. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:121-5 Ap '48

Fractionation of potato starch; the retrogradation of potato starch fractions. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:179-84 My '48

Furnace phosphorus. J. R. Skeen. *Chem & Eng N* 26:2436-7 Ag 16 '48

Gamma-rays from alpha-particle reactions. D. E. Alburger. *bibliog diag Phys R* 73: 1014-19 My 1 '48

Industry applications of phosphorus show rapid growth. *il Bsns W* p50-2-4 S 4 '48

Nuclear moments of ^{31}P , Ga^{73} , Ga^{75} , and P^{31} . R. V. Pound. *bibliog Phys R* 73:1112-13 My 1 '48

Origin of virus phosphorus. F. W. Putnam and L. M. Kozloff. *bibliog Science* 108: 386-7 O 8 '48

Phosphorus; bearer of light and life. W. Mann. *il Sci Am* 178:100-4, 157-60 Mr-Ap '48

Polymorphism of red phosphorus. W. L. Roth, T. W. DeWitt and A. J. Smith. *bibliog il Am Chem Soc J* 69:2881-5 N '47

Radiation from a flask containing various amounts of radioactive phosphorus. R. F. Cowing and E. DeAmicis. *bibliog Science* 107:684 Je 25 '48

Recent developments in the chemistry of phosphorus. L. F. Audrieth and O. F. Hill. *bibliog J Chem Educ* 25:80-6 F '48

Stable red phosphorus. M. S. Silverstein and others. *Ind & Eng Chem* 40:301-3 F '48

TVA calls on chemists. *il Chem & Eng N* 26:40 Ja 5 '48

Analysis

Determination of phosphorus, germanium, silicon, and arsenic by the heteropoly blue method. D. F. Boltz and M. G. Mellon. *bibliog Anal Chem* 19:873-7 N '47

Determination of phosphorus in hexaethyl tetraphosphate and tetraethyl pyrophosphate. M. Jacobson and S. A. Hall. *bibliog diag Anal Chem* 20:736-7 Ag '48

Industrial application of Geiger-Müller counters to the analysis of phosphorus in steels. F. R. Bryan and G. A. Nahstoll. *bibliog Opt Soc Am J* 38:510-17 Je '48

Investigation of the use of Geiger-Müller photoelectron counters in the spectrographic analysis of phosphorus in steel. R. Hanau and R. A. Wolfe. *bibliog il Opt Soc Am J* 38:377-83 Ap '48

Kjeldahl determination of nitrogen without distillation; application to samples containing phosphorus. K. Marcali and W. Rieman. *3d. Anal Chem* 20:381-2 Ap '48

Molybdenum blue reaction. D. F. Clausen and J. H. Shroyer. *bibliog Anal Chem* 20:925-6 O '48

Procedure for measurement of P^{31} and P^{32} in plant material. A. J. MacKenzie and L. A. Dean. *bibliog diag Anal Chem* 20:559-60 Je '48

Spectrophotometric determination of phosphorus as molybdiophosphoric acid. D. F. Boltz and M. G. Mellon. *bibliog Anal Chem* 20:749-51 Ag '48

History

Some early publications on phosphorus. W. Prandtl. *il J Chem Educ* 25:414-19 Ag '48

Isotopes

Chromosome breakage in plants induced by radioactive phosphorus (P^{32}). T. J. Arnsperg and others. *Science* 107:198-9 F 20 '48

Comparison of the determination of the disintegration rate of radiophosphorus by absolute beta counting and calorimetric measurement. L. R. Zumwalt and others. *Science* 107:47 Ja 9 '48

Determination of the fate of phosphorus in the laying hen by means of radiophosphorus. J. B. O'Neill and others. *bibliog Science* 107:295-6 Mr 19 '48

Determination of the $S^{32}(n,p)^{32}P$ cross section for neutrons having energies of 1.6 to 5.8 Mev. E. D. Klema and A. O. Hanson. *bibliog diag Phys R* 73:106-10 Ja 15 '48

Momentum conservation in the beta-decay of P^{32} and the angular correlation of neutrinos with electrons. C. W. Sherwin. *bibliog diag Phys R* 73:216-25 F 1 '48

Positive particles occurring from P^{32} in the cloud chamber. J. S. Barlow and F. T. Rogers, Jr. *bibliog Phys R* 74:700 S 15 '48

Procedure for measurement of P^{31} and P^{32} in plant material. A. J. MacKenzie and L. A. Dean. *bibliog diag Anal Chem* 20:559-60 Je '48

Variations in total counts of P^{32} and I^{131} for dishes of different atomic number. R. F. Cowing and E. DeAmicis. *Science* 108:187 Ag 20 '48

Manufacture

Production of red phosphorus by a continuous process. P. Miller, R. A. Wilson and J. R. Tusson. *bibliog flow diag il diag Ind & Eng Chem* 40:357-66 F '48

Western phosphorus; Westvaco plans electric furnace plant in Idaho. *Chem Ind* 62:49 Ja '48

Westvaco to produce elemental phosphorus. *Chem & Eng N* 25:3866 D 29 '47

PHOSPHORUS anilide

Reaction of aniline with phosphorus pentoxide; phosphoric anilides. A. C. Buck and H. P. Lankelma. *bibliog Am Chem Soc J* 70:2398-400 Jl '48

PHOSPHORUS compounds

Addition of halogen compounds of phosphorus to organic compounds; abstract. M. I. Kabachnik. *Chem Eng* 55:308-10 O '48

Esters containing phosphorus; diisopropyl fluorophosphonate. B. C. Saunders and G. J. Stacey. *Chem Soc J* p695-9 My '48

Esters containing phosphorus; esters of substituted phosphonic and phosphonous acids. B. C. Saunders and others. *Chem Soc J* p699-703 My '48

PHOSPHORUS compounds—Continued

Esters containing phosphorus; preparation of esters of fluorophosphoric acid by means of phosphorus oxydichlorofluoride. N. B. Chapman and B. C. Saunders, *diag Chem Soc J* p 1010-14 J1 '48

Stereochemistry of organic derivatives of phosphorus; the synthesis of 2:2-disubstituted 1:2:3:4-tetrahydroisophosphinolium salts and the optical resolution of 2-phenyl-2-*p*-hydroxyphenyl-1:2:3:4-tetrahydroisophosphinolium bromide. F. G. Holliman and F. G. Mann, *Chem Soc J* p 1634-42 D '47

Thiophosphoric amides; aminolysis. A. C. Buck and H. P. Lankelma, *Am Chem Soc J* 70:2396-7 J1 '48

See also

Phosphates**PHOSPHORUS difluoroisothiocyanate**

Phosphorus fluoroisocyanates and difluoroisothiocyanate. H. H. Anderson, *bibliog Am Chem Soc J* 69:2495-7 O '47

PHOSPHORUS fluoroisocyanate

Phosphorus fluoroisocyanates and difluoroisothiocyanate. H. H. Anderson, *bibliog Am Chem Soc J* 69:2495-7 O '47

PHOSPHORUS halides

Removal of aluminum chloride from Friedel-Crafts mixtures containing water-labile phosphorus halides. W. T. Dye, Jr., *Am Chem Soc J* 70:2595-6 J1 '48

PHOSPHORUS in the body

Demonstration of P₃₂ in bone by radioautography. R. S. Siffert, *Science* 108:445-8 O 22 '48

PHOSPHORUS oxides

Acylation studies in the thiophene and furan series; direct acylation with carboxylic acids and phosphorus pentoxide. H. D. Hartough and A. I. Kosak, *bibliog Am Chem Soc J* 69:3098-9 D '47

Determination of total aromatic plus olefin by sulfonation in the presence of phosphorus pentoxide. I. W. Mills and others, *bibliog J diag Anal Chem* 20:333-3 Ap '48

Phosphorylation of proteins with phosphoric acid containing excess phosphorus pentoxide. R. E. Ferrel, H. S. Olcott and H. Fraenkel-Conrat, *bibliog Am Chem Soc J* 70:2101-7 Je '48

Rapid determination of moisture in liquid sulfur dioxide; comparison of phosphorus pentoxide and Karl Fischer method. B. R. DiCaprio, *diag Anal Chem* 19:1010-11 D '47

Reaction of aniline with phosphorus pentoxide; phosphoric anilides. A. C. Buck and H. P. Lankelma, *bibliog Am Chem Soc J* 70:2395-400 J1 '48

System calcium oxide-phosphorus pentoxide-sulfur trioxide-water at 75.3° C. A. N. Campbell and J. W. Coutts, *bibliog (35 ref)* *Ind & Eng Chem* 40:1295-9 J1 '48

PHOSPHORUS pentoxide. See **Phosphorus oxides**

PHOSPHORUS sulfides

Reaction of amines with phosphorus pentasulfide; thiophosphoric amides. A. C. Buck, J. D. Bartleson and H. P. Lankelma, *bibliog Am Chem Soc J* 70:744-6 F '48

PHOSPHORYLASES

Phosphorylase in guard cells. H. C. Yin and Y. T. Tung, *bibliog J Science* 108:87-8 J1 23 '48

Structure of an enzymatically synthesized reducing disaccharide *p*-glucosido-*l*-arabinose. W. Z. Hassid and others, *bibliog J Am Chem Soc J* 70:306-10 Ja '48

PHOSPHORYLATION

L-α-Glycerolphosphorylcholine. B. Baer and M. Kates, *bibliog Am Chem Soc J* 70:1394-9 Ap '48

Phosphorylated cotton cellulose as a cation-exchange material. J. F. Jurgens and others, *Textile Res J* 18:42-4 Ja '48

Phosphorylation of proteins with phosphoric acid containing excess phosphorus pentoxide. R. E. Ferrel, H. S. Olcott and H. Fraenkel-Conrat, *bibliog Am Chem Soc J* 70:2101-7 Je '48

Phosphorylation reactions. G. M. Kosolapoff, *Science* 108:485-6 O 29 '48

PHOTOCHEMISTRY

Chlorophyll-sensitized photooxidation of phenylhydrazine by methyl red; reactivity of the several forms of methyl red. R. Livingston and R. Pariser, *Am Chem Soc J* 70:1610-15 Ap '48

Determination of carotene in alfalfa and cereal grasses. H. L. Mitchell and H. H. King, *bibliog Anal Chem* 20:637-8 J1 '48

Effect of temperature and impurities on certain photochemical reactions in solids; darkening of antimony oxide and bleaching of dye deposited upon titanium dioxide. C. F. Goodeve and M. R. Taylor, *bibliog J diags J Phys & Colloid Chem* 52:823-36 My '48

Effect of variations in surface on the photolysis of acetone. E. W. R. Steacie and B. D. Darwent, *bibliog J Chem Phys* 16:230-2 Mr '48

Further investigation of the mercury photosensitized-polymerization of propylene. H. E. Gunning and E. W. R. Steacie, *bibliog J Chem Phys* 16:926-9 S '48

Kinetics of the photolysis of methyl iodide and the hydrogen halides. R. R. Williams, Jr. and R. A. Ogg, Jr., *bibliog diag J Chem Phys* 15:691-702 J1 '47

Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler, *bibliog J Chem Phys* 15:712-26 O '47

Mercury (²Pi) photo-sensitized hydrogenation of ethylene. D. J. LeRoy and A. Kahn, *bibliog J Chem Phys* 15:816-19 N '47

Mercury photosensitized hydrogenation of propylene. W. J. Moore, *bibliog J Chem Phys* 16:916-19 S '48

Mercury photosensitized reaction of dimethyl ether. R. A. Marcus and others, *bibliog J Chem Phys* 16:987-93 O '48

Mercury photosensitized reactions of ethane. B. D. Darwent and E. W. R. Steacie, *bibliog J Chem Phys* 16:381-6 Ap '48

Mercury photosensitized reactions of ethylene oxide. M. K. Pibbs and others, *bibliog J Chem Phys* 16:39-44 Ja '48

Methane formation in the photolysis of acetone at 130°. W. Davis, Jr., *bibliog Am Chem Soc J* 70:1867-8 My '48

Photo-chemical decomposition of acetone at 3130 Å. L. M. Dorfman and W. A. Noyes, Jr., *bibliog J Chem Phys* 16:557-60 Je '48

Photochemical decomposition of *t*-butyl nitrite. C. S. Coe and T. F. Doumani, *diag Am Chem Soc J* 70:1516-19 Ap '48

Photochemical decomposition of diethyl ketone at 3130 Å. W. Davis, Jr., *bibliog Am Chem Soc J* 70:1868-9 My '48

Photochemical gaseous phase chlorination of isobutane. R. W. Taft, Jr. and G. W. Stratton, *bibliog diags Ind & Eng Chem* 40:1485-91 Ag '48

Photochemical oxidation of nicotine in the presence of methylene blue. L. Well, *bibliog Science* 107:424-7 Ap 23 '48

Photochemical polymerization of vinyl acetate vapour. H. W. Melville and R. F. Tuckett, *diag Chem Soc J* p 1201-10 S '47

Photochemical studies; a further study of the fluorescence of acetone. R. E. Hunt and W. A. Noyes, Jr., *bibliog diags Am Chem Soc J* 70:467-76 F '48

Photo-chemical studies; the mechanism of the photo-chemical decomposition of acetone. W. A. Noyes, Jr. and L. M. Dorfman, *bibliog J Chem Phys* 16:788-97 Ag '48

Photochemistry in industry. E. W. Beggs, *diag Sci Am* 178:109-14 Mr '48

Photochemistry of selenium; the photochemical oxidation of hydrogen selenide. D. J. G. Ives and R. W. Pittman, *diag Chem Soc J* p 766-9 Je '48

Photo-chemistry of some ions in solution. L. Farkas and F. S. Klein, *bibliog diag J Chem Phys* 16:886-93 S '48

Photochemistry of tryptophan, *p*-dimethylaminobenzaldehyde and reaction products in sulfuric acid solution. J. R. Spies and D. C. Chambers, *bibliog diag Am Chem Soc J* 70:1682-5 My '48

Photolysis of persulfate; the quantum yield in water and the effect of sodium chloride in dilute alkaline solution. L. J. Haidt, J. B. Mann and H. R. Schneider, *bibliog Am Chem Soc J* 70:3011-15 S '48

Possibility of a triplet state intermediate in the photo-oxidation of a chlorin. M. Calvin and G. D. Dorough, *bibliog J diags Am Chem Soc J* 70:699-706 F '48

Quantum efficiency of the mercury sensitized photochemical decomposition of hydrogen. L. B. Thomas and W. D. Gwinn, *bibliog diag Am Chem Soc J* 70:2643-8 Ag '48

PHOTOCHEMISTRY—Continued

Quantum yields of the photochemical reduction of ceric ions by water and evidence for the dimerization of ceric ions. L. J. Heidt and M. E. Smith. bibliog Am Chem Soc J 70:2476-81 J1 '48

Radical-sensitized polymerisation of vinyl acetate vapour. H. W. Melville and R. F. Tuckett. Chem Soc J p 1211-17 S '47

Reversible photolysis of Ag sorbed on colloidal metal oxides. A. Goetz and E. C. Y. Inn. il diag Rs Mod Phys 20:131-42 Ja '48

Symposium on radiation chemistry and photochemistry. bibliog il diags J Phys & Colloid Chem 52:437-611 Mr '48

Thiol diglycol monoacetate by the photochemical addition of mercaptoethanol to vinyl acetate. W. H. C. Rueggeberg and others. Am Chem Soc J 70:2292-3 Je '48

See also

Adsorption	Photographic chemistry
Beer's law	Photosynthesis
Bleaching	Polymerization
Chlorophyll	Textile fibers, Effect of light on
Cotton, Effect of light on	Ultraviolet rays
Ionization, Gaseous	
Luminescence	

PHOTOELASTICITY

Applying the polariscope. R. W. Clough. il diags Product Eng 19:124-8 N '48

Basic physical properties relied upon in the frozen stress technique. W. A. P. Fisher. bibliog diags Inst Mech Eng J & Proc 158: Proc 230-5, pl 1-2 S '48; Abstract, Engineer 184:587 D 19 '47; Discussion, Inst Mech Eng J & Proc 158: Proc 240-50, pl 7-10 S '48

How to organize for experimental stress analysis. il diag Product Eng 19:122-5 Ap '48

Mechanical properties of NaCl, KBr, KCl. J. K. Galt. bibliog Phys R 73:1460-2 Je 15 '48

Modern applications of photo-elasticity. R. B. Heywood. diags Inst Mech Eng J & Proc 158: Proc 235-40, pl 3-6 '48; Abstract, Engineer 184:586-7 D 19 '47; Discussion, Inst Mech Eng J & Proc 158: Proc 240-50, pl 7-10 S '48

New photoelastic resin aids stress study. il Materials & Methods 27:122 F '48

Optical system in photoelastic observations. H. T. Jessop. diags J Sci Instr 25:124-6 Ap '48

Optical system of polariscopes as used in photoelasticity. C. Mylonas. il diags J Sci Instr 25:77-81 Mr '48

Photoelastic analysis of stresses in crane ladle hooks. F. K. Chang and others. bibliog il diags Iron & Steel Eng 25:87-94 Ja '48

Photoelastic investigation of stress-relieving fillet curves. E. Chapman. il Product Eng 19:138-41 My '48

Photoelastic properties of cubic crystals. E. Burstein and P. L. Smith. bibliog Phys R 74:229-30 J1 15 '48

Photo-elastic properties of rubber. L. R. G. Treloar. bibliog il diags Rubber Age 63: 195-8 My '48

Photo-elasticity; recent developments. J. Ward. il diags Automobile Eng 38:193-6, 223-7 My-Je '48

PHOTOELECTRIC cells

Electronics for the power engineer; photoelectric tubes. F. A. Annett. diags Power 92:493-4, 554-6+ Ag-S '48

Facsimile modulator tube. J. R. Shonnard. diags Electronics 21:82-3 Je '48

Lead selenide photo-conductive cells. J. Starkiewicz. Opt Soc Am J 38:481 My '48

Photoelectric balance indicator. C. L. Rulfs. bibliog diags Anal Chem 20:262-4 Mr '48

Photo-voltaic effect. K. Lehovec. bibliog diags Phys R 74:463-71 Ag 15 '48

Preparation of photoconductive cells by chemical deposition of lead sulphide. F. Kicinski. il Chem & Ind p54-7 Ja 24 '48

Sensitivity of various phototubes as a function of the color temperature of the light source. A. Cramwinckel. Soc Motion Picture Eng J 49:523-9 D '47

Survey of near infra-red communication systems. W. S. Huxford and J. R. Platt. il diags Opt Soc Am J 38:263-68 bibliog (61 titles, p266-8) Mr '48

Control uses

Automatic guider for astronomical telescopes. H. W. Babcock. R Sci Instr 18:854-5 N '47

Electronic intensity regulator for a hydrogen discharge tube. W. L. Pondrom and W. W. Robertson. diags R Sci Instr 19:561-4 S '48

Electronic tension control in golf ball winding. K. E. Wilhelm and others. il diags Rubber Age 63:331-3 Je '48

Flame failure protection; devices for use in protecting furnaces against explosions. diags Power Generation 52:58-9 F '48

Magnetic stabilizer for direct current arcs in spectroscopy. G. C. B. Cave. bibliog il diags Anal Chem 20:817-21 S '48

Photoelectric control adapted to colorless liquids. A. Farkas. diags Chem Eng 55:128 Je '48

Photo-sensitive devices and the radionian. J. F. Gschwind. il diags Radio N 39:130+ Je '48

Phototube-operated trigger circuit. J. Degelman. diag Electronics 21:134+ Ja '48

Industrial applications

Cloudy water; device uses differential light absorption to gauge suspended solids. il Chem Ind 62:913 Je '48

Electronics at work under adverse operating conditions. H. E. Reinhold. il diag Elec World 130:105-8 Ag 14 '48

Photoelectric method for preparing printing plates. A. C. Hardy and F. L. Wurzburg, jr. diags Opt Soc Am J 38:295-300 Ap '48

Manufacture

Cesium chromate photo-tube pellets. H. A. Liebhafsky and A. F. Winslow. diag J Ap Phys 18:1128-32 D '47

Measurement uses

Accurate measurement of materials obtainable with electronic micrometer. diag Machine Design 20:95 O '48

Automatic dewpoint meter for the determination of condensable vapors. T. T. Puck. bibliog diags R Sci Instr 19:16-23 Ja '48

Camera shutter timer. H. Sear. diag Electronics 21:148+ N '48

Electronic analytical balance. J. W. Clark. il diags R Sci Instr 18:915-18 D '47

Electronic gloss indicator as an aid in the control of paper finish. K. Bowers. Paper Tr J 126:59-60 Ap 8 '48; Same cond. Paper Ind 30:133-4 Ap '48

Energy distribution of photoelectrons from polycrystalline tungsten. L. Apker and others. bibliog diag Phys R 73:46-50 Ja 1 '48

Evaluating ozone by electronic means. W. H. Meade. il diag Elec World 130:114 J1 31 '48

Gloss recorder with automatic standardization. R. S. Hunter. il diags Paper Tr J 127: 51-3 S 16 '48

Illumination in the focal plane of a camera lens. E. P. Clancy. Opt Soc Am J 37:906-8 N '47

Measurement of ozone over the Organ mountains, New Mexico. R. Stair. bibliog il diag J Res Nat Bur Stand 40:9-19 Ja '48

Measuring liquid flow by weight; scales modified to check fuel consumption of airplane and automobile engines. D. B. Kendall. il diags Electronics 21:114-16 My '48

Method and equipment for checking motion picture apparatus speeds. C. T. Owlett. il diags Soc Motion Picture Eng J 49:471-8 N '47

New photoelectric absorptiometer. J. H. Humphrey and E. J. Harris. diags J Sci Instr 25:314-16 S '48

New radiation meter. H. P. Kalmus and G. O. Striker. bibliog diags R Sci Instr 19: 79-82 F '48

Photoelectric drop counter. J. A. Riley. diags Science 108:390 O 8 '48

Photoelectric exposure meter for photomicrography. K. F. Alder. il diag J Sci Instr 25:300-1 S '48

Photoelectric method for determining color balance of 16-mm Kodachrome duplicating printers. P. S. Aex. il diag Soc Motion Picture Eng J 49:425-30 N '47

Photoelectric pyrometer of rapid response. M. H. Roberts. il diags J Sci Instr 25: 337-9 O '48

PHOTOELECTRIC cells—Measurement uses—*Continued*

Photo-electric roof pyrometer for open-hearth furnaces, T. Land, bibliog pl diags Iron & Steel Inst J 155:568-76, Ap '47; Discussion. 158:341-6 Mr '48

Photoelectric counter for colloidal particles, F. T. Gucker, jr. and others, bibliog diags Am Chem Soc J 69:2422-31 O '47

Phototube amplifier for measuring uv radiation, C. M. Rively, il diag Electronics 21: 130+ JI '48

Provides accurate cut-off control; length measurement with photoelectric web edge guide control, O. G. Rutenmiller, il diag Machine Design 20:122 Je '48

Rocket-engine tester; photoelectric unit utilizing Polaroid discs, A. E. Gersch, diag Electronics 21:93 Je '48

Simple shutter speed meter, V. B. Westburg, il diag Radio N 40:58-9+ JI '48

Telemeter transmitter without moving contacts, C. Oman, il diags Westinghouse Eng 8:92-3 My '48

Testing long-persistence screens; cathode-ray tube screens for radar, J. C. Teller and J. F. Fisher, il diags Electronics 21:126-30 F '48

Testing photographic shutters, S. H. Duffield and L. R. Lankes, bibliog diags Electronics 21:82-7 Ag '48

Weather prediction may be aided by new technique for measurement of total stratosphere ozone, Heat & Ven 46:124 Ap '48

X-ray thickness gauge for cold rolled strip steel, W. N. Lundahl, il diags Elec Eng 67:349-53 Ap '48; Abstract, Westinghouse Eng 8:42-3 Mr '48

X-ray thickness gauge for hot-strip rolling mills, C. W. Clapp and R. V. Pohl, diags Elec Eng 67:441-4 My '48

Photometers, Photoelectric
Spectroradiometer

Multiplier tubes

Chemical analysis based on X-ray absorption measurements with a multiplier phototube, H. A. Liebhafsky and others, bibliog il diag Anal Chem 19:861-7 N '47

Inorganic crystals for the detection of high energy particles and quanta, R. J. Moon, Phys R 73:1210 My 15 '48

Method for automatically plotting spectral energy distribution of luminescent materials, F. J. Studer, il Opt Soc Am J 38: 467-70 My '48

Photoelectric alpha-particle detector, S. C. Curran and W. R. Baker, R Sci Instr 19:116 F '48

Recording photometer and its use in studies of cathode-ray screen displays, F. Hamburger, jr. and E. J. King, bibliog diags Opt Soc Am J 38:875-9 O '48

Scintillation counter for the detection of α -particles, R. Sherr, diags R Sci Instr 18: 767-70 O '47

Surveying with pulsed-light radar, W. W. Hansen, il diags Electronics 21:76-9 JI '48

Use of the electron multiplier in emission spectroscopy; abstract, G. P. Mitchell and P. Popper, bibliog J Sci Instr 25:100-1; Discussion, 101-2 Mr '48

Noise

Noise in vacuum phototubes at high current levels, R. F. Morrison, Electronics 21:126+ N '48

Scientific applications

Electronics in astronomy, G. E. Kron, bibliog il diags Electronics 21:98-103 Ag '48

Medical stimulus circuits; electronic circuits for medical diagnosis and research, W. E. Gilson, il diags Electronics 21:99-101 JI '48

PHOTOELECTRIC effect

Polycrystalline tungsten, L. Apker and others, bibliog diag Phys R 73:46-50 Ja 1 '48

Excess-defect germanium contacts, S. Benzer, diags Phys R 72:1267-8 D 15 '47

Penetration of gamma-radiation through lead layers; plane geometry, iron, and lead, J. O. Hirschfelder and E. N. Adams, 2d, bibliog Phys R 73:863-8 Ap 15 '48

Photoelectric effect in self-quenching Geiger-Mueller counters, M. V. Scherb, bibliog Phys R 73:86-7 Ja 1 '48

Photo-voltaic effect, K. Lehovec, bibliog diags Phys R 74:463-71 Ag 15 '48

Robert Andrews Millikan as physicist and teacher, P. S. Epstein, bibliog Rs Mod Phys 20:17-19 Ja '48

See also

Kerr effect

PHOTOELECTRIC photometers, See Photometers, Photoelectric

PHOTOELECTRICITY

Use of photo-conductive semiconductors as amplifiers, E. S. Rittner, Phys R 73:1212-13 My 15 '48

PHOTOELECTRONS, See Photons

PHOTO-ENGRAVERS association, American. See American photo-engravers association

PHOTOENGRAVING

Developments of significance to photo-engravers, J. H. Winkler, Ed & Pub 81:51-2 sec 2 O 30 '48

Kemart highlight white; new process uses fluorescent surfaces with ultra-violet light to produce halftone negatives with full tonal range, il Inland Ptr 120:76-8 Ja '48

Magnesium playing increasingly important role in graphic arts, J. Walraven, il Inland Ptr 121:34-5 Ag '48

Newspaper gets first electronic photo-engraver, il Ptr Ink 221:77 D 26 '47

Papers now making cuts without zinc, chemicals; Fairchild direct photo-electric engraving machine, il Ed & Pub 81:7-8 F 7 '48

Photoelectric method for preparing printing plates, A. C. Hardy and F. L. Wurzburg, jr, diags Opt Soc Am J 38:295-300 Ap '48

Photoengravers' convention hears about need for fast production of better plates, Inland Ptr 120:61-4 N '47

Precision magnesium plates, made by new technique, eliminate electrotypes in test, G. C. Compton, il Inland Ptr 121:37-9 My '48

Shortcuts to savings on photoengravings, il Inland Ptr 120:51 F; 36 Mr; 121:48 My '48

See also

Newspapers—Printing—Photomechanical processes

PHOTOFLASH lamps, See Electric lamps, Photoflash

PHOTOGRAMMETRY, See Photographic surveying

PHOTOGRAMMETRY, American society of. See American society of photogrammetry

PHOTOGRAPHIC chemicals

Photo chemicals; FK corp.'s bright new package colors break tradition in the camera shop, il Mod Packaging 21:108-9 Ja '48

PHOTOGRAPHIC chemistry

Chemist in the photographic industry; abstract, H. Baines, Chem & Ind p252-3 Ap 17 '48

Solves solution mixing problem with push-button control layout; Eastman Kodak co. il diag Heating-Piping 20:98-9 My '48

See also

Dyes and dyeing, Photographic

PHOTOGRAPHIC departments

Shutter work in the factory; LeTourneau photographic departments, E. M. Kelley, il Mill & Factory 42:146-7 F '48

PHOTOGRAPHIC emulsions

Alpha-particle and deuteron tracks in Eastman NTA photographic plates, R. L. Brock and E. Gardner, il R Sci Instr 19:299-303 My '48

Application of captive balloons to carry photographic emulsions, N. Arley, Phys R 72: 1253 D 15 '47

Background eradication of nuclear emulsions by accelerated fading of the latent image, H. Yagoda and N. Kaplan, Phys R 73:634 Mr 15 '48

Calibration for Eastman proton plates, R. A. Peck, jr, Phys R 72:1121 D 1 '47

Callier G. of various motion picture emulsions, J. G. Streiffert, diags Soc Motion Picture Eng J 49:506-22 D '47

Development of thick emulsions by a two-bath method, M. Blau and J. A. De Felice, Phys R 74:1198 N 1 '48

PHOTOGRAPHIC emulsions—Continued

- Effect of light-absorption on the shape of the photographic H. and D. curve, J. H. Webb, *diags Opt Soc Am J* 38:27-35 Ja '48
- Fast astronomical plates will be used in the Palomar telescope; abstract, C. J. Staud., *Mech Eng* 70:147 F '48
- Nuclear research emulsions, *R Sci Instr* 19:539 Ag '48
- Photographic plates for use in nuclear physics, J. H. Webb, *bibliog il diags Phys R* 74:511-32 S 1 '48
- Photographic reciprocity-law failure for radiations of different wave-length, M. Biltz and J. H. Webb, *bibliog Opt Soc Am J* 38:561-9 Jl '48
- Primary and secondary meson event in photographic emulsions, A. Morrison and E. Pickup, *il Phys R* 74:706-7 S 15 '48
- Production of Li⁹ in boron-loaded photographic emulsions, E. Pickup, *diag Phys R* 74:495 Ag 15 '48
- Protective facings on Eastman emulsions, P. B. Maurer and H. L. Reynolds, *Phys R* 73:1131 My 1 '48
- Tracks in emulsions at 100,000 feet, E. O. Salant and others, *bibliog Phys R* 74:694 S 15 '48
- Tracks of low ionizing particles in photographic emulsions, J. Spence and others, *bibliog il Phys R* 74:704-5 S 15 '48

PHOTOGRAPHIC films. See Moving picture films; Photography—Films**PHOTOGRAPHIC laboratories***See also*

- Newspaper offices—
Photographic laboratories

PHOTOGRAPHIC lenses. See Lenses, Photographic**PHOTOGRAPHIC measurements**

- Photographic apparatus for angular-distribution measurements, S. Rubin, *bibliog diag Phys R* 72:1176-86 D 15 '47
- Photographic granularity and graininess; visual acuity thresholds; dynamic versus static assumptions, L. A. Jones and G. C. Higgins, *bibliog diags Opt Soc Am J* 38:398-405 Ap '48

*See also***Photography—Sensitometry****PHOTOGRAPHIC optics**

- Effect of light-absorption on the shape of the photographic H. and D. curve, J. H. Webb, *diags Opt Soc Am J* 38:27-35 Ja '48
- Illumination in the focal plane of a camera lens, E. P. Clancy, *Opt Soc Am J* 37:906-8 N '47
- Image error theory for finite aperture and field; the image of a point; geometry of the wave surface, M. Herzberger, *Opt Soc Am J* 38:736-8 Ag '48
- Performance of an optical system as the sum of the contributions of its construction elements, M. Herzberger, *bibliog diag Opt Soc Am J* 38:324-8 Ap '48
- Photographic granularity and graininess; visual acuity thresholds; dynamic versus static assumptions, L. A. Jones and G. C. Higgins, *bibliog diags Opt Soc Am J* 38:398-405 Ap '48
- Sunlight and skylight as determinants of photographic exposure; luminous density as determined by solar altitude and atmospheric conditions, L. A. Jones and H. R. Condit, *il diags Opt Soc Am J* 38:123-78 bibliog(53 titles, p 177-8) F '48
- Validity of the cosine-fourth-power law of illumination, I. C. Gardner, *diags J Res Nat Bur Stand* 39:213-19 S '47

See also

- Herschel effect Optical density
Lenses, Photographic (term)

PHOTOGRAPHIC plates. See Photography—Plates**PHOTOGRAPHIC records**

- Photographic memory device, part of an electronic computer being developed by the Massachusetts institute of technology, *Mech Eng* 70:25 Ja '48; *Product Eng* 19:164 Mr '48
- Recorder time-marking; simple device of drum cameras, J. C. Needham and L. H. Orton, *il diags Elec R (Lond)* 142:419-20 Mr 19 '48

See also

- Microfilm records Photographic reproduction
Money

PHOTOGRAPHIC research

- Charles Edward Kenneth Mees, A. D. McFadyen, *Chem & Eng N* 25:3494+ N 24 '47

PHOTOGRAPHIC surveying

- Automatic rectifier for photo mapping, *il R Sci Instr* 19:57 Ja '48
- Continuous film records right-of-way, A. Gibbon, *il World Oil* 128:178+ S '48
- New geopotometric mapping technique, W. O. Bashaw, *il World Oil* 127:63-4 Ja '48
- New land surveying tool; use of camera and photogrammetric techniques, C. J. Deegan, *il Oil & Gas J* 46:75+ N 22 '47
- Topographic mapping of municipalities by photogrammetric surveying, *Eng N* 140:992 Je 17 '48
- See also*
Mapping, Aerial

PHOTOGRAPHS

- Photographs in scientific and technical libraries, P. M. Strain, *Special Lib* 39:77-82 Mr '48

PHOTOGRAPHY

- New one-step photographic process, E. H. Land, *il diag Opt Soc Am J* 37:61-77 F '47; *Discussion*, L. E. Varden, 38:69-70; *Reply*, 70 Ja '48
- Red and infra-red filters for the study of the Herschel effect, H. Bäckström and J. Basberg, *bibliog il Opt Soc Am J* 37:891-8 N '47

See also

- | | |
|----------------------------|------------------------|
| Cameras | Photographic surveying |
| Color photography | veying |
| Microfilms | Photomicrography |
| Moving picture photography | Radiography |
| Photographic chemistry | Slide films |
| | Spectrography |

Apparatus and supplies

- Electronic photo timer, E. B. Pray, *il diag Radio & Tv N* 40:58-9+ Ag '48
- Photographic equipment; heavy use of plastics, *il Product Eng* 19:144-5 S '48
- Simple shutter speed meter, V. B. Westburg, *il diag Radio N* 40:58-9+ Jl '48
- Standard pre-packed units cut Ansco's shipping cost, *il Mod Packaging* 21:138-9 Ag '48

Desensitization

- Desensitization by sensitizing dyes, J. Spence and B. H. Carroll, *bibliog J Phys & Colloid Chem* 52:1090-103 Je '48

Developing and developers*See also*

- Photography—Sensitometry

Exposure

- Exposure meter made of plastic materials, *il diag Product Eng* 19:98 My '48
- For better photography, American standard for general purpose photographic exposure meters (photoelectric type), Z38.2.6-1948, A. Stimson, *il Ind Stand* 19:134-7 O '48
- Norwood Director exposure meter, *il R Sci Instr* 18:806 O '47
- Photoelectric exposure meter for photomicrography, K. F. Alder, *il diag J Sci Instr* 25:300-1 S '48
- Photographic reciprocity-law failure for radiations of different wave-length, M. Biltz and J. H. Webb, *bibliog Opt Soc Am J* 38:561-9 Jl '48
- Sunlight and skylight as determinants of photographic exposure; luminous density as determined by solar altitude and atmospheric conditions, L. A. Jones and H. R. Condit, *il diags Opt Soc Am J* 38:123-78 bibliog(53 titles, p 177-8) F '48

See also

- Photography—Sensitometry

Films

- Film supply better, *Bsns W* p84+ Ap 24 '48
- Films at gas stations, *Bsns W* p32 My 29 '48
- Home-built film drier does job in three minutes, *il Ed & Pub* 81:90 Ap 17 '48

PHOTOGRAPHY—Films—Continued

How a new company with limited capital won national distribution; Kryptar corporation markets films thru magazine distributors, D. A. Gaudion, *Il Ptr Ink* 222:34-5+ Ja 16 '48

See also

Moving picture films

Industrial applications

Deep-well camera permits visual examination of bore holes, O. E. Barstow and C. M. Bryant, *bibliog il diags Oil & Gas J* 45:74-5+ Mr 15 '47; Same cond, *Mech Eng* 70:238-9 Mr '48

Fuel spray stopped for studying its makeup; use of ultra high-speed photography, *Il Automotive Ind* 97:35 N 1 '47; Same, *Sci Am* 177:268 D '47

High speed photographs of water jet in the end-quench test, R. A. Buchanan, *Il Metal Prog* 54:180-1 Ag '48

How the camera solves tough plant problems, *Il Mod Ind* 16:50-3 S '48

New machine speeds templating; automatic sensitizer, conveyor system; Boeing aircraft co, *Il Aviation W* 47:20+ D 1 '47

New machine speeds turbine blade contour measurement, W. A. Lloyd, *Il diags Iron Age* 162:76-8 Ag 5 '48

Shutter work in the factory; LeTourneau photographic departments, E. M. Kelley, *Il Mill & Factory* 42:146-7 F '48

Underwater photographs of flow patterns for surface vessels, W. H. Sutherland, *Il diags Marine Eng* 53:64-7 O '48

See also

Moving picture photography—Industrial applications

Latent image

Absolute sensitivity measurements on single-grain-layer photographic plates for different wave-lengths, J. H. Webb, *bibliog Opt Soc Am J* 38:312-23 Ap '48

Background eradication of nuclear emulsions by accelerated fading of the latent image, H. Yagoda and N. Kaplan, *Phys R* 73:634 Mr 15 '48

Fading of the latent image in nuclear emulsions, W. A. Lamb and F. W. Brown, 3d, *Phys R* 74:104 Jl 1 '48

Photographic latent image; abstract, H. Baines, *Chem & Ind p* 138 F 28 '48

Lighting

Illumination of cathode-ray oscillograph screen for photography, E. C. Crittenden, Jr. and others, *Il R Sci Instr* 19:271-2 Ap '48

Microflash unit for ballistic photography, W. W. McCormick and others, *Il diags J Ap Phys* 19:221-5 Mr '48

See also

Electric lamps, Photography—Exposure, Photoflash

Plates

Alpha-particle and deuteron tracks in Eastman NTA photographic plates, R. L. Brock and E. Gardner, *Il R Sci Instr* 19:299-303 My '48

Reciprocity law

See Photography—Exposure

Scientific applications

Annual international photography-in-science salon, *Science* 108:362-3 S 3 '48

Camera catches shock waves in flight; illustrations with text, *Aviation W* 49:33 S 13 '48

Detection of beta-radiation by photographic film, J. Cobb and A. K. Solomon, *bibliog diags R Sci Instr* 19:441-7 Jl '48

First international salon, Photography in science, *Science* 106:464 N 14 '47

Method of photographing a cloud chamber between the poles of an iron magnet, H. R. Crane and G. M. Grover, *diags R Sci Instr* 18:796 O '47

Nuclear photography, A. W. Haslett, *Il Sci Am* 178:70-2 F '48

Oscillograph-trace recorder, *Engineering* 165: 115 Ja 30 '48

Photograms of small bones and skulls, E. C. Driver, *diag Science* 107:451 Ap 30 '48

Photographic plates for use in nuclear physics, J. H. Webb, *bibliog il diags Phys R* 74:511-32 S 1 '48

Photographic study of the neutron spectra from Al(αn) and Si(αn), R. A. Peck, Jr., *bibliog Phys R* 73:347-55 My 1 '48

Photography of cathode-ray oscillograms, M. V. Scherb, *Il R Sci Instr* 18:925 D '47

Positive print method of measuring X-ray reflexions from a single crystal, R. G. Wood and G. Williams, *Il diag J Sci Instr* 25:202-4 Je '48

Revolutionary photographic technique announced at Sloan-Kettering dedication, *Il Chem & Eng N* 26:1280-1+ My 3 '48

Track of electron recorded, *Il Chem & Eng N* 26:1544 My 24 '48

Use of photography as a research tool; abstract, A. E. J. Vickers, *Chem & Ind p* 739-40 N 29 '47

See also

Moving picture photography—Scientific applications, Photomicrography

Sensitometry

Absolute sensitivity measurements on single-grain-layer photographic plates for different wave-lengths, J. H. Webb, *bibliog Opt Soc Am J* 38:312-23 Ap '48

Desensitization by sensitizing dyes, J. Spence and B. H. Carroll, *bibliog J Phys & Colloid Chem* 52:1090-103 Je '48

Standards

For better photography; American standard for general purpose photographic exposure meters (photoelectric type), Z38.2.6-1948, A. Stimson, *Il Ind Stand* 19:134-7 O '48

See also

Lenses, Photographic—Standards

PHOTOGRAPHY, Aerial

Aerial photographic equipment and applications to reconnaissance, A. H. Katz, *Opt Soc Am J* 38:604-10 Jl '48

Aerial photography and exploration for oil, N. J. M. Taverne, *diags Inst Pet J* 34:516-35, pl 1-8; Discussion, 535-40 Ag '48

Air photography and its application to forest inventory, J. M. Robinson, *Pulp & Pa of Can* 49:102+ Ja '48

Continuous film records right-of-way, A. Gibbon, *Il World Oil* 128:178+ S '48

Contours superimposed on aerial photographs are a step toward faster and cheaper field surveys, H. O. Sharp and R. K. Palmer, *Il diags Eng N* 141:75-8 S 30 '48

Discovery of oil structures by aerial photography, B. M. Bench, *Il Oil & Gas J* 47: 98-100+ Ag 26 '48

Electro- and magneto-optical shutters for aerial cameras, R. C. Gunter, Jr., *Opt Soc Am J* 38:419-20 Ap '48

F-12 based on fighter experience; Republic photo-reconnaissance aircraft, R. McLaren, *Il Aviation W* 47:28-30 N 10 '47

Forest survey tests the helicopter; with cost data, J. W. Cruikshank, *Pulp & Pa of Can* 49:106+ Ja '48

New aerial eye has ten-mile sight, *Il Aviation W* 49:30 O 11 '48

Test on the process of photographing the trajectory of a rapidly moving distant light source, R. E. Nussbaum and J. S. Beggs, *Opt Soc Am J* 38:740 Ag '48

See also

Mapping, Aerial, PHOTOGRAPHY, Astronomical. See Astronomical photography

PHOTOGRAPHY, Ballistic. See Photography of projectiles

PHOTOGRAPHY, Flashlight

See also

Electric lamps, Photoflash

PHOTOGRAPHY, Infrared

Some trinuclear cyanine dyes; synthesis of neocyanines, F. M. Hamer, R. J. Rathbone and B. S. Winton, *Chem Soc J p* 1434-43 N '47

PHOTOGRAPHY, Instantaneous

Navy instruments photograph instantaneous phenomena, *Il Iron Age* 162:89 Jl 15 '48

PHOTOGRAPHY, Instantaneous—Continued

Photo-finish equipment. Elec R (Lond) 141:

946 D 19 '47; Electrician 139:1708 D 12 '47

PHOTOGRAPHY, Journalistic

AP pix takes ball fans right onto the field.

J. L. Collings. Il Ed & Pub 81:44 O 16

'48

Press photography course recommended to

schools. W. C. Eckenberg. Ed & Pub 81:

8+ Ja 3 '48

See also

News photographs

PHOTOGRAPHY, Military

Aerial photographic equipment and applica-

tions to reconnaissance. A. H. Katz. Opt

Soc Am J 38:604-10 J1 '48

See also

Photography of pro-

jectiles

PHOTOGRAPHY, Submarine

Underwater photographs of flow patterns

for surface vessels. W. H. Sutherland. Il

diags Marine Eng 53:64-7 O '48

PHOTOGRAPHY, Underground

Deep-well camera permits visual examina-

tion of bore holes. O. E. Barstow and C.

M. Bryant. bibliog il diags Oil & Gas J

45:74-5+ Mr 15 '47; Same cond. Mech Eng

70:238-9 Mr '48

PHOTOGRAPHY-in-science salon, Interna-

tional. See Photography—Scientific applica-

tions

PHOTOGRAPHY of pottery

Ceramic camera club. D. P. Falconer. Il Am

Cer Soc Bul 27:290, 348 J1 15, S 15 '48

PHOTOGRAPHY of projectiles

Fastest motion pictures ever made; bullet

passing through pane of glass. Il Product

Eng 19:164 Ap '48

Full-scale free-flight ballistic measurements

of guided missiles. L. A. Delsasso and

others. bibliog il diags J Aeronautical Sci

15:605-15 O '48

Influence of atmospheric pressure on the

phenomena accompanying the entry of

spheres into water. D. Gilbarg and R. A.

Anderson. Il diags J Ap Phys 19:127-39 F

'48

Microflash unit for ballistic photography. W.

W. McCormick and others. Il diags J Ap

Phys 19:221-5 Mr '48

Photographic tracking of guided missiles. L.

M. Biberman and others. diags Electronics

21:92-5 J1 '48

PHOTOGRAPHY on glass

Photographic finishes; abstract. Mech Eng

70:340 Ap '48

PHOTOGRAPHY on textiles

Photographic finishes; abstract. Mech Eng

70:339 Ap '48

Photographic printing successful on velvets,

crepes and satins. R. E. Ellsworth. Il Rayon

29:41-2 Ja '48

PHOTO-LITHOGRAPHERS, National associa-

tion of. See National association of photo-

lithographers

PHOTOLYSIS. See Photochemistry**PHOTOMECHANICAL processes**

Hints on effective use of reproductions. M.

Grushky. Il Eng N 141:88-90 Ag 19 '48

Strong electric corporation's new Grafarc

high intensity lamps for photo-mechanical

reproduction processes. Il Inland Ptr 120:106

D '47

See also

Newsletters—Print-

ing—Photomechan-

ical processes

Photoengraving

Xerography

PHOTOMETERS

Errors in the use of a model 18 Perkin-Elmer

flame photometer for the determination of

alkali metals; interference of common

metals, acids, and solvents. T. D. Parks,

H. O. Johnson and L. Lykken. Anal Chem

20:822-5 S '48

Flame photometer. R. B. Barnes and others.

Il diag Eng & Min J 149:92-4 S '48

Fürth microphotometer and its application in

physics. R. Fürth and W. D. Oliphant.

bibliog il diag J Sci Instr 25:289-94 S '48

Improved microphotometer trace of radially

symmetric patterns. I. L. Karle and others.

Il J Chem Phys 15:765 O '47

Improving the performance of the flame

photometer. G. T. Scott. diag Science 106:

551 D 5 '47

Positive print method of measuring X-ray

reflexions from a single crystal. R. G.

Wood and G. Williams. Il diag J Sci Instr

25:202-4 Je '48

Viewing attachment to the Hilger non-re-

cording microphotometer. Il J Sci Instr 25:

249 J1 '48

Visual photometer for after-glow tests on

cathode-ray tube screens. W. G. White.

diag J Sci Instr 25:1-4 Ja '48

X-ray photometer speeds chemical compari-

sons. Elec Eng 66:1160-1 N '47

See also

Spectrophotometers

PHOTOMETERS, Photoelectric

Bridge-balanced amplifiers. Y. P. Yu. diags

Electronics 21:111-13 My '48

Calibration of a photo-multiplier photometer.

J. R. DeVore. Il Opt Soc Am J 38:692-6 Ag

'48

Estimation of molybdenum in iron and steel.

using a simple photometer. E. J. Ronnie.

diags Metallurgia 38:235-6 Ag '48

Ferranti pocket light tester. Il Engineer 185:

265 Mr 12 '48

Light meter for electric flash lamps. H. E.

Edgerton. Il diag Electronics 21:78-81 Je

'48

Modern photometry of street lighting lu-

minaires. G. A. Horton. Il diags Illum Eng

43:989-1014 bibliog(46 titles, p 1012-14) N

'48

Optically corrected cells; use of new filters

and lenses laminated to surface of cell. G.

B. Buck, 2d. Il diag Gen Elec R 51:38-42

O '48

Recording photometer and its use in stud-

ies of cathode-ray screen displays. F. Ham-

burger, Jr. and E. J. King. bibliog diags

Opt Soc Am J 38:875-9 O '48

PHOTOMETERS, X ray

New process control instruments for chem-

ical industry. E. S. Lee. Il(p268) Chem Eng

Prog 44:265 Ap '48

X-ray speeds chemical comparisons. Franklin

Inst J 245:268-9 Mr '48

PHOTOMETRY

Analytic representation of experimental

spectroradiometric curves. P. Moon and D.

E. Spencer. bibliog Franklin Inst J 244:

441-64 D '47

Brightness and illumination requirements;

motion picture theater auditoriums. H. L.

Logan. bibliog il plans diag Soc Motion

Picture Eng J 51:1-12 J1 '48

Experience with photometric procedures for

the determination of metals; using the

Spekker absorptiometer. H. Cox. bibliog

Il Metallurgia 37:270-4 Mr '48

Fluorescent-lamp photometry. H. D. Einhorn

and J. D. Sauermann. diag Inst EE E J

95 pt 2:319-24 Je '48

Large photometric sphere. Franklin Inst J

246:61-3 J1 '48

Measurement of illumination and brightness

in a classroom. W. E. Folsom and R. L.

Bieseley, Jr. bibliog il plans diags Illum

Eng 43:355-70; Discussion. 371-6 Ap '48

Normal probability curve as an approxima-

tion to the distribution curve of the high

intensity searchlight. F. Benford and J. E.

Bock. Opt Soc Am J 38:527-31 Je '48

Photometric investigation of dust. D. E.

Spencer and S. Malkiel. diags Franklin

Inst J 245:389-402 My '48

Photometry in television engineering. D. W.

Epstein. diag Electronics 21:110-13 J1 '48

Technique of using the Luckiesh-Moss vis-

ibility meter. M. Luckiesh and others. Illum

Eng 43:223-30 Mr '48

Voltage stabilizer for photometer lamps. R.

J. Hercock. Il diag J Sci Instr 25:320-1 S

'48

Whose absorption law? F. H. Perrin. Opt Soc

Am J 38:72-4 Ja '48

See also

Color measurement

Optics

Colorimeters and

Photometers

colorimetry

Spectrophotometry

PHOTOMETRY, Astronomical

Electronics in astronomy. G. E. Kron. bibliog

Il diag Electronics 21:101-3 Ag '48

PHOTOMICROGRAPHY

Alpha-particle and deuteron tracks in East-

man NTA photographic plates. R. L. Brock

and E. Gardner. Il R Sci Instr 19:299-303

My '48

PHOTOMICROGRAPHY—Continued

- Color metallography; with black and white reproductions and color photomicrographs covering nine alloys. W. D. Forgeng. bibliog pl Iron Age 162:130-3 O 14 '48
- Color photomicrography for the undergraduate chemistry student. W. S. Jones and J. F. Corwin. bibliog J Chem Educ 25:391-2 J1 '48
- Determination of exposure time in color photomicrography. R. M. Weiss and C. R. Noback. Science 108:362-3 O 1 '48
- Method of ultraviolet photomicrography. J. O. Ely and M. H. Ross. il diag Franklin Inst J 246:87-91 J1 '48
- Microscopy of high-temperature phenomena. H. N. Baumann, Jr. bibliog il diag Am Cer Soc Bul 27:267-71 J1 '48
- Photoelectric exposure meter for photomicrography. K. F. Alder. il diag J Sci Instr 25:300-1 S '48
- Photo-micrographic lamp; Zirconarc. il R Sci Instr 18:805-6 O '47
- Photomicrographs for appraising paper surfaces. J. F. Halladay. il Paper Ind 29:1125-84 N '47
- Photomicrography at your convenience. R. B. Stevens and J. H. Taylor. il Science 108:420-1 O 15 '48
- Simple attachment to increase depth of focus of microscope objectives for photomicrography. R. J. Pence. il Science 107:631-2 Je 11 '48; Reply. W. Marquette. 108:183 Ag 20 '48

PHOTONS

- Angular correlation of scattered annihilation radiation. E. Bleuler and D. ter Haar. Science 108:10-11 J1 2 '48
- Angular correlation of scattered annihilation radiation. H. S. Snyder and others. diag Phys R 73:440-8 Mr 1 '48
- Compton scattering and the emission of low frequency photons. R. Jost. bibliog Phys R 72:315-20 N 1 '47
- Discharge spread in Geiger counters. J. D. Crages and A. A. Jaffe. bibliog diags Phys R 72:784-92 N 1 '47
- Multiple Geiger counters for the observation of particle tracks. W. H. Chambers. diags R Sci Instr 19:467-70 J1 '48
- New aspects of the photon self-energy problem. G. Wentzel. Phys R 74:1070-5 N 1 '48
- Theory of elliptically polarized photons. G. Araki. bibliog diags Phys R 74:472-9 Ag 15 '48
- Threshold for the positive pre-onset burst pulse corona and the production of ionizing photons in air at atmospheric pressure. L. B. Loeb. bibliog Phys R 73:798-800 Ap 1 '48
- Transformation theory applied to a radiation field. J. A. Balseiro. Phys R 73:1346-8 Je 1 '48

PHOTOPRINTS

- ACS photocopying service. A. H. Emery. il Chem & Eng N 26:1436-7 My 17 '48

PHOTOSYNTHESIS

- A.A.A.S. symposium on photosynthesis. Science 107:84-5 Ja 23 '48
- Oxygen production in water by photosynthesis. W. E. Abbott. Sewage Works J 20:538-41 My '48
- Path of carbon in photosynthesis. M. Calvin and A. A. Benson. bibliog Science 107:476-80 My 7 '48
- Path of carbon in photosynthesis: amino acids. W. Stepka and others. Science 108:304 S 17 '48
- Photosynthesis; life's essential process. E. I. Rabinowitch. il diags Sci Am 179:24-35 Ag '48
- Photosynthetic studies with mutant strains of chlorella. E. A. Davis. bibliog Science 108:110-11 J1 30 '48

PHOTOTELEGRAPHY

- Acme telephoto network serves seven countries. Ed & Pub 81:46 Mr 6 '48
- British make advances in phototelegraphy. Ed & Pub 81:38 J1 31 '48
- Denver Post's mobile photo unit described. plans Ed & Pub 81:50 J1 10 '48
- Frequency-shift radio transmission. L. E. Hatfield. bibliog il diags Inst Radio Eng Proc 36:116-20 Ja '48
- Jeep transmits pix from ship to shore; New York daily mirror. J. L. Collings. Ed & Pub 81:58 S 11 '48

- Radiophoto standards. S. H. Simpson, Jr. and R. E. Hammond. il diags RCA R 8:682-97 D '47

Technical session features discussion of facsimile and picture transmission; A.I.E.E. winter meeting. Elec Eng 67:389-90 Ap '48

See also

Radio facsimile

PHOTOTYPESETTING machine

- Freund gives description of new intertype fotsetter. G. C. Compton. il Inland Ptr 120:33-6 Mr '48
- Intertype's new printing short-cut; Foto-setter. Barron's 23:35 Je 21 '48
- Newspaper of tomorrow from film? intertype engineer discusses potentialities of the fotsetter; abstract. H. R. Freund. Ed & Pub 81:55 Mr 13 '48

PTHALALDEHYDE

- Preparation of phthalaldehyde. S. Wawzonek and R. E. Karil. Am Chem Soc J 70:1666 Ap '48

PTHALAZINE

- Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; phthalazine derivatives from 4'-nitro-2':5'-dimethoxybenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, R. L. Desai and A. T. Peters. Chem Soc J p281-4 Mr '48
- Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of 2'-chlorobenzene-2-naphthol-1-diazosulphonate. C. I. Brodrick, A. T. Peters and F. M. Rowe. Chem Soc J p 1026-9 J1 '48
- Reaction of diazosulphonates derived from β -naphthol-1-sulphonic acid; the phthalazine reaction with bases not containing a nitro-group; derivatives of halogenobenzene-2-naphthol-1-diazosulphonates. A. T. Peters, G. T. Pringle and F. M. Rowe. Chem Soc J p597-601 My '48
- Synthetic antimalarials; some derivatives of phthalazine, quinoxaline, and isoquinoline. R. D. Haworth and S. Robinson. Chem Soc J p777-82 Je '48

PTHALEINS

- Acid-base reactions in benzene and other organic solvents; behavior of bromphthalein magenta with different classes of organic bases. M. M. Davis and P. J. Schuhmann. il J Res Nat Bur Stand 39:221-63 bibliog(94 ref, p262-3) S '47

Acid-base reactions in organic solvents; behavior of some halogenated derivatives of phenolsulfonephthalein with different classes of organic bases in benzene. M. M. Davis and others. bibliog J Res Nat Bur Stand 41:27-40 J1 '48

PTHALIC acid

- Cellulose ester plastics; plasticizing action of homologous series of esters of sebacic and phthalic acids on cellulose acetate butyrate. L. W. A. Meyer and W. M. Gearhart. bibliog Ind & Eng Chem 40:1478-85 Ag '48

Determination of the product of the constants for the overlapping dissociation of weak acids by electromotive force methods. R. G. Bates. bibliog Am Chem Soc J 70:1579-84 Ap '48

PTHALIC anhydride

- Alpha- and beta-hydroxyls of glycerol in preparation of alkyl resins. H. A. Goldsmith. bibliog Ind & Eng Chem 40:1205-11 J1 '48

Determination of the alcoholic hydroxyl group in organic compounds; phthalic anhydride method. P. J. Elving and B. Warshowsky. bibliog Anal Chem 19:1006-10 D '47

Dibutyl phthalate; reaction rate of catalytic esterification. S. Berman, A. A. Melnychuk and D. R. Otmer. bibliog Ind & Eng Chem 40:1312-13 J1 '48

German phthalic anhydride. Chem Age (Lond) 58:402 Mr 20 '48

Making a hard-to-get chemical. il Bsns W p76 S 25 '48

Phthalic anhydride. Chem Eng 55:343 S '48

Phthalic anhydride, a statistical review. J. R. Skeen. Chem & Eng N 26:2958-9 O 4 '48

Reactions and uses of tetrachlorophthalic anhydride. F. E. Lawlor. Ind & Eng Chem 39:1419-23 bibliog(126 ref, p 1422-3) N '47

Tetrachlorophthalic anhydride, acid, and salts; properties and solubilities. F. E. Lawlor. bibliog Ind & Eng Chem 39:1424-6 N '47

PTHALIMIDE

Contributions to the chemistry of synthetic antimalarials; hydrazine hydrolysis and radical exchange reactions of *N*-substituted phthalimides in relation to the constitution of the antimalarial R.63. H. J. Barber and W. R. Wragg. *Chem Soc J* p 1331-7 O '47

PTHALYL compounds

Amino acids; phthalyl derivatives. J. H. Billman and W. F. Harting. *Am Chem Soc J* 70:1473-4 Ap '48

Prolyl and phthalyl derivatives of enantiomorphs of valine and leucine. M. Fling, F. N. Minard and S. W. Fox. *bibliog Am Chem Soc J* 69:2466-7 O '47

PTHALYL sulfanilamide

Preparation of *N*⁴-carboxyacetylsulphonamides; the synthesis of *N*⁴-phthalylsulphanilamide derivatives. C. W. Picard and others. *Chem Soc J* p821-3 Je '48

PTHIOIC acid

Concerning the structure of pthioic acid. J. Cason and F. S. Prout. *bibliog Am Chem Soc J* 70:879-80 F '48

PHYLLITE

New evidence of the origin of pre-Cambrian carbon. K. Rankama. *map diags Geol Soc Bul* 59:389-416, pl 1-6 *bibliog* (p414-16) My '48

PHYSICAL constants

Change of physical constants. E. Teller. *Phys R* 73:801-2 Ap 1 '48

Fine structure of sulfanilamide. A. Weizmann. *bibliog Am Chem Soc J* 70:2342-3 J '48

Forces between tetrahalide molecules. J. H. Hildebrand. *bibliog J Chem Phys* 15:727-36 O '47

Gaps in physical constants data for hydrocarbons. N. Corbin, M. Alexander and G. Eglolf. *bibliog J Phys & Colloid Chem* 52:387-94 F '48

General relation among the various additive-constitutive physical properties. F. W. Lima. *Am Chem Soc J* 70:3141 S '48

Molecular constants from spectroscopic data. G. Herzberg. *bibliog A S M E Trans* 70:623-4 Ag '48

Our knowledge of the atomic constants *F*, *N*, *m*, and *h* in 1947, and of other constants derivable therefrom. J. W. M. Du Mond and E. R. Cohen. *bibliog diags Rs Mod Phys* 20:82-108 Ja '48

Physical constants of hydrocarbons; research unlimited. *bibliog Ind & Eng Chem* 40:sup69A Ja '48

Physical properties and chemical constitution. A. I. Vogel. *Chem Soc J* p607-58 My '48

Physical properties and chemical constitution; acetylenic compounds and cyanides. G. H. Jeffery and A. I. Vogel. *Chem Soc J* p674-83 My '48

Physical properties and chemical constitution; ethylenic compounds. G. H. Jeffery and A. I. Vogel. *Chem Soc J* p658-73 My '48

Purification, purity, and freezing points of *n*-decane, 4 alkylcyclopentanes, 9 alkylcyclohexanes, 2 monoolefins, 1, 2-butadiene, and 2-butyne of the API-standard and API-NBS series. A. J. Streiff and others. *bibliog J Res Nat Bur Stand* 39:321-49 *graphs* (p326-49) O '47

Synthesis and purification of ethers. W. T. Olson and others. *bibliog Am Chem Soc J* 69:2451-4 O '47

Table of commonly used constants. *Power Generation* 52:100 O '48

Transport properties for non-polar gases. J. O. Hirschfelder and others. *J Chem Phys* 16:968-81 O '48

See also

Boiling points	Specific gravity
Dielectric constants	Specific heat
Freezing points	Specific volume
Melting points	Vapor pressure
Refractive index	Viscosity

PHYSICAL examinations

Before he starts work; pre-employment examinations. M. H. Kronenberg. *il Nat Safety N* 58:20-1+ J1 '48

Better health takes the highways; traveling medical units for oil workers. *il World Oil* 128:94-6 My '48

Health examinations of industrial executives; a statistical analysis. E. F. Lutz. *Ind Med* 17:65-9; Discussion. 70-1 F '48

Oh, my aching back! need for analysis of employee's medical records for careful placement in accordance with his limitations; prevention of back injuries. L. M. McKay. *il Safety Eng* 95:57+ Ap '48

Serological tests for industrial workers. W. Clarke. *Ind Med* 16:538-9 N '47

See also

Eye—Examination

PHYSICAL geography

See also

Paleogeography

Arizona

Geomorphology and structure of the west Kaibab fault zone and Kaibab plateau, Arizona. A. N. Strahler. *maps diags Geol Soc Bul* 59:513-40, pl 1-5 *bibliog* (p539-40) Je '48

Geomorphology of the valley of the Little Colorado river, Arizona. O. E. Childs. *bibliog map diags Geol Soc Bul* 59:353-88, pl 1-4 Ap '48

Scotland

Subsequent topography along the highland boundary fault, Roseneath, Scotland. F. B. van Houten. *bibliog maps Am J Sci* 246:23-8, pl 1 Ja '48

PHYSICAL instruments

Instruments, physics, and physicists. G. F. Gardner. *Gen Elec R* 51:11-13 O '48

See also

Balances	Meteorological instruments
Chemical apparatus	Optical instruments
Electric apparatus and appliances	Pressure gages
Electric instruments	Radio instruments
Extensometers	Scientific apparatus and instruments
Geophysical instruments	Sound—Apparatus
Goniometers	Spectrometers

Exhibitions

Mechanical, thermal and optical instruments shown at the Physical society's exhibition. A. G. Peacock. *il J Sci Instr* 25:178-81 Je '48

Physical society's exhibition, South Kensington. *il diags Engineer* 185:349-52, 373-5, 404-6 Ap 9-23 '48; *Engineering* 165:354-6, 366-7 Ap 9-16 '48; *Elec R (Lond)* 142:585-93 Ap 16 '48; *Chem & Ind* p245-6 Ap 17 '48; *Wireless Eng* 25:157-62 My '48

PHYSICAL laboratories

Design of physics laboratories, London, 1947. *il plans diag J Sci Instr* 25:157-66 My '48

Physics laboratory of the British iron and steel research association. *il Engineer* 184:410-11 O 31 '47

See also

Great Britain—National physical laboratory, Teddington

PHYSICAL measurements

See also

Dimensional analysis	Radio measurements
Electric measurements	Temperature—Measurement
Magnetic measurements	Vibration—Measurement
Physical constants	Viscosity—Measurement
Pressure gages	
Pressure measurement	

PHYSICAL research

Physics in central and southern Europe. R. L. Platzman. *Science* 108:291-4 S 17 '48

Robert Andrews Millikan as physicist and teacher. P. S. Epstein. *Rs Mod Phys* 20:10-25 *bibliog* (79 ref, p24-5) Ja '48

See also

Great Britain—National physical laboratory, Teddington

Radar research

History

Historic researches (cont). *il diags Engineer* 184:404-5, 428-9, 452-3; 185:248-50, 272-4, 296-8, 320-2, 560-2; 186:166-8, 189-90, 215-17, 239-41, 265-7 O 31-N 14 '47, Mr 12-Ap 2, Je 11, Ag 13-S 10 '48

PHYSICIANS

Is business at the turning point? doctors find more billings, slower pay. *il* Sales Management 61:44-6 O 1 '48
 Physician and his public speaking. J. S. Felton. *Ind Med* 16:569-74 D '47
 Physicians' 1947 income triple depression low. Barron's 28:9 S 13 '48

See also

Medical service
 Railroads—Physicians

also names of physicians, e.g.
 Kober, George Martin Watson, Cassius Sawyer, William Al-Hinds, 1873-fred

Biography

International who's who in world medicine, 1947, 745p \$18.50 American universities medical research publications, 240 Broadway, New York 7 '47

Great Britain

Mr Bevan and the doctors; opposition to National health service act. *Economist* 154: 84-5, 252-3 Ja 17, F 14 '48

PHYSICIANS, Industrial. *See* Medical service, Industrial

PHYSICIANS, Railroad. *See* Railroads—Physicians

PHYSICIANS' offices

Doctors' clinics; office shortages and high cost of equipment lead cooperative practice. *il* plans *Arch Forum* 89:89-96 JI '48
 Residences converted to commercial treble earnings; modern medical center emerges from transformed court. *il* plans *Am Bld* 69:82-3 N '47

PHYSICISTS

How nice to be a physicist; songs, with music. A. Roberts. *Sci Am* 179:50-1 S '48

See also

Planck, Max

PHYSICS

Development of high vacuum technique; contribution to purely scientific investigations. S. Dushman. *bibliog Ind & Eng Chem* 40: 778-80 My '48

Physics in 1947. P. Morrison. *bibliog il* *diags J Ap Phys* 19:311-31 Ap '48

Physics in the contemporary world; advancement of science, with knowledge imparted for man's benefit, responsibility of scientists. J. R. Oppenheimer. *il* *Tech R* 50: 201-44 F '48

Proceedings of the American physical society meeting at Houston, Nov. 23-29, 1947; with abstracts of papers. *Phys R* 73:644-57 Mr 15 '48

Proceedings of the American physical society meeting at Washington, April 29-May 1, 1948; with abstracts of papers. *Phys R* 74:1201-53 N 1 '48

Proceedings of the American physical society meeting, Chicago, Dec. 29-31, 1947; abstracts of papers. *Phys R* 73:1217-36 My 15 '48

Proceedings of the American physical society 1947 annual meeting, New York, Jan. 29-31; with abstracts of papers. *Phys R* 73: 1237-76 My 15 '48

Proceedings of the American physical society; minutes of meeting at Los Angeles, Jan. 2-3, 1948; with abstracts of papers. *Phys R* 73:530-42 Mr 1 '48

Proceedings of the American physical society; Ohio section and Southeastern section; with abstracts of papers. *Phys R* 74:114-29 JI '48

Reaction rates in physics; abstract. H. Eyring. *Science* 107:461-2 My 7 '48

See also

Aberration (optics)
 Astrophysics
 Atoms
 Biological physics
 Chemistry, Physical
 and theoretical
 Compressibility
 Cosmic rays
 Cyclotron
 Diffusion
 Dimensional analysis
 Doppler effect
 Dynamics

Elasticity
 Electricity
 Electrodynamics
 Electrons
 Evaporation
 Expansion (heat)
 Fluids
 Fluorescence
 Friction
 Gases
 Geophysics
 Heat
 Heat transmission

Hydraulics
 Hydrodynamics
 Ionization, Electrolytic
 Ionization, Gaseous
 Ions
 Light
 Liquids
 Mathematical physics
 Mechanics
 Meteorology
 Molecules
 Music—Acoustics and physics
 Optics
 Particles
 Particles, Elementary
 Physical research
 Plasticity

Pressure
 Quantum theory
 Radiation
 Radioactivity
 Reflection (optics)
 Relativity (physics)
 Social physics (term)
 Sound
 Statistical mechanics
 Steam
 Strains and stresses
 Temperature
 Thermodynamics
 Thermometers and thermometry
 Vibration
 Viscosity
 Vortex motion
 Wave mechanics
 Weights and measures

Bibliography

Book reviews; spring book number. *R Sci Instr* 19:340-67 My '48
 Recent books. *J Ap Phys* 19:959-71 O '48

History

Progress of physics from 1848 to 1948. R. A. Millikan. *Science* 108:230-3 S 3 '48

Study and teaching

Impressions of a conference on the teaching of physics in technical colleges. H. Lipson. *J Sci Instr* 25:354-6 O '48
 Millikan's influence on undergraduate teaching. D. Roller. *Rs Mod Phys* 20:26-30 Ja '48
 National certificates in applied physics. *J Sci Instr* 25:285-7 Ag '48

Great Britain

Physics in Great Britain since the war. N. F. Mott. *R Sci Instr* 18:869-71 D '47

Italy

Physics in central and southern Europe. R. L. Platzman. *Science* 108:293-4 S 17 '48

Poland

Physics in central and southern Europe. R. L. Platzman. *Science* 108:291-2 S 17 '48

PHYSICS, Biological. *See* Biological physics

PHYSIOLOGICAL apparatus

Apparatus and method for the continuous measurement of evaporative water loss from human subjects. E. D. Palmes. *bibliog diags R Sci Instr* 19:711-17 O '48
 Convenient apparatus for recording the blood pressure of small animals. D. F. Marsh. *bibliog Science* 108:393 O 8 '48
 Device for measuring physiologic pressure phenomena using the bonded electrical wire resistance strain gauge. H. R. Bierman. *bibliog il diags R Sci Instr* 19:707-10 O '48
 Echymosis test for capillary hemorrhagic diathesis. A. L. Copley. *diag Science* 107: 201-2 F 20 '48
 Radio inductograph; a device for recording physiological activity in unrestrained animals. J. L. Fuller and T. M. Gordon, jr. *diags Science* 108:287-8 S 10 '48
 Simple electronic electrolytic drop recorder. D. F. Marsh and C. B. Seibert. *bibliog diags Science* 108:363-4 O 1 '48

See also

Biological apparatus
 Cannulas
 Dialyzers
 Electrocardiograph
 Electrophysiology—Apparatus

Kinesimeters
 Kymograph
 Myograph
 Respiratory apparatus

PHYSIOLOGICAL chemistry

Hopkins memorial lecture. E. Mellanby. *Chem Soc J* p713-22 My '48

See also

Anesthetics
 Biological chemistry
 Blood—Analysis
 Cholesterol
 Enzymes
 Fat
 Hemolysis
 Hormones
 Immunity

Marrow
 Metabolism
 Nutrition
 Poisons
 Proteins
 Toxins and anti-toxins
 Urine
 Vitamins

PHYSIOLOGICAL laboratories

Equipment

Method for making small rubber articles for laboratory use. A. E. Afford. Science 107: 552 My 21 '48

PHYSIOLOGY

See also

Anatomy
Blood
Cells
Diet
Electrophysiology
Fatigue
Longevity
Metabolism
Muscle
Muscles
Nervous system
PHYSIOLOGY and pathology of animal reproduction and of artificial insemination, international congress of. See International congress of physiology and pathology of animal reproduction and of artificial insemination

PHYSOSTIGMINE, Substitutes for
Some urethans of phenolic quaternary ammonium salts. J. H. Gardner and J. R. Stevens. bibliog Am Chem Soc J 69:3086-8 D '47

PHYTOL

Green light for chlorophyll; extraction of leaves and fractionation of extract is big business. Chem Ind 63:590-1 O '48

PIANO

Elastic impact of pianoforte hammer. R. N. Ghosh. Acoustical Soc Am J 20:324-8 My '48

Musical instruments award to Pratt, Read & company, inc.; use of plastics in piano actions and piano keys. il Mod Plastics 26: 150-3 S '48

PIANO, Toy

Rating

Pianotune; a toy piano. Consumers Res Bul 21:17 Je '48

PIANO industry and trade

Indexes compared; with chart showing comparison of piano industry output and general business; 1935-1941 and 1946-1947. G. H. Stapely. Bsns W p42 Ap 10 '48
Small pianos revive sales. il Bsns W p87-8 S 11 '48

PICKETING

Court injunction hits agricultural workers' long strike at Di Giorgio ranch, Arvin, Calif. il Bsns W p74-6 J1 31 '48

Mass picketing; NLRB says it's illegal. Bsns W p87-8 O 30 '48

NLRB approves firings for mass picketing. Bsns W p98 S 4 '48

NLRB issues first T-H injunction; law's effectiveness against mass picketing left unanswered. il Bsns W p80+ Ja 10 '48

Phony picketing; union parades outside telephone offices. il Bsns W p98+ J1 24 '48

Weed killing in the grassroot area; anti-Communist measures. il Mill & Factory 43: 117-20 J1 '48

PICKLE packers association, National. See National pickle packers association

PICKLES

Pickle processing standardized by use of germicidal detergent. H. I. Bernstein and S. Epstein. bibliog diags Food Ind 20:350-1+ Mr '48

PICKLING (metals)

Absorption studies with waste pickle liquor. J. Seiberlich. bibliog il Steel 122:90+ Ja 12 '48

Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire. C. A. Zapfe and M. E. Haslem. Am Soc for Metals Trans 39: 213-37; Discussion. 237-40 '47

Carbon brick tank linings used for pickling stainless steels. il Steel 123:101+ Ag 2 '48

Continuous flow internal pipe pickling. il Iron & Steel Eng 25:102-3 Ag '48

Continuous strip pickling. E. D. Martin. bibliog il diags Blast F & Steel Pl 36:825-32, 942-9+, 1089-94 J1-S '48; Excerpts. Iron & Steel Eng 25:132-6 Ag '48; Excerpts (pt 3). Iron Age 162:60-3+ S 30 '48; Abstract. Steel 122:78 My 31 '48

Corrosion resistant materials in brass and copper pickling. Iron Age 162:100-1 O 7 '48

Detergent additions improve pickling bath efficiency. Iron Age 161:77 Ap 29 '48

Evaluating hydrogen embrittlement in acid pickling. M. Rosenfeld. bibliog il Iron Age 161:82-7 Je 17 '48

Fabricating and finishing stainless steel. A. P. Schulze. bibliog il Metal Finishing 46: 59-64 F '48

New developments in babbitting methods; cleaning and pickling methods. J. T. Clenny. il Iron Age 160:63-4 D 25 '47

New pickling solution for aluminum; abstract. J. Frasch. Materials & Methods 28:92-3 J1 '48

Pickling costs at American Stove; abstract. Cer Ind 49:57 O '47

Pickling monel metal; tabulation; engineering file facts. E. Rosen and G. Black. Materials & Methods 27:105 Je '48

Spray cleaning and pickling; abstract. G. Tuttle. Cer Ind 49:57+ O '47

Steam jets used in Weirton strip picklers. Iron & Steel Eng 25:140+ My '48

Unit purifies cleaner tank solutions. il Cer Ind 49:61 D '47

Use of monel in iron and steel pickling equipment. Iron Age 162:82 O 21 '48

PICKUP. See Phonograph—Pickup

PICOLINE

Action of sulfur on certain pyridine and quinoline derivatives; action of sulfur on 4-picoline. H. I. Thayer and B. B. Corson. Am Chem Soc J 70:2330-3 J1 '48

Addition of organolithium compounds to the azacine linkage of γ -picoline and 6-methoxyquinoline. H. Gilman and H. S. Broadbent. Am Chem Soc J 70:2809-10 Ag '48

Composition of vapors from boiling binary solutions; systems of phenol with beta- and gamma-picoline and 2,6-lutidine. D. F. Othmer and S. A. Savitt. bibliog Ind & Eng Chem 40:168-74 Ja '48; Correction. 40:435 Mr '48

Energy of the C—H bond in the three picolines (methyl pyridines). J. S. Roberts and M. Szwarc. J Chem Phys 16:981-3 O '48

Preparation of methylpyridines by catalytic methods. N. M. Cullinane and others. bibliog Soc Chem Ind J 67:142-3 Ap '48

Some physical properties of 2-picoline. H. Freiser and W. L. Glowacki. bibliog Am Chem Soc J 70:2575-8 J1 '48

PICOLINIC acid

Binary systems of some carboxylic acids; systems containing heterocyclic acids as the components. K. Mislav. bibliog J Phys & Colloid Chem 52:740-9 Ap '48

PICRATES

Dipole moments and molecular association of some picrates of primary, secondary, and tertiary amines in benzene and dioxane. A. A. Maryott. bibliog J Res Nat Bur Stand 41:1-6 J1 '48

See also

Tribenzylammonium

picrate

PICRIC acid

Oxyntation of benzene to picric acid; Wolfenstein-Böters reaction. E. E. Aristoff and others. bibliog il diags Ind & Eng Chem 40:1281-90 J1 '48

PICTURE collections. See Libraries—Picture collections

PICTURE indexing

Visual indexing. D. Tunstell. Special Lib 39: 39-42 F '48

PICTURE postcards. See Postal cards

PICTURE transmission. See Phototelegraphy; Radio facsimile

PIE diagrams. See Graphic methods

PIECE work

Payment by results. Economist 153:820 N 15 '47

Piece count control under wage incentive plans. L. M. Henderson. N A C A Bul 30: 77-80 S 15 '48

PIEL, Gerard, 1915-

Portrait. Sales Management 59:43 N 20 '47

PIERCE, Robert Edwin, 1897-

New consulting electrical engineer for Ebasco, por(cover) Elec World News ed 129: 27-8 My 15 '48

PIERS

- Experiences with soil types in naval construction; stability of sand as foundation material for a cellular pier. L. A. Palmer. *diag Am Soc C E Broc* 74:79-83 Ja '48
 Long piers for the navy's surplus ships. *il Eng N* 140:356-60 Mr 4 '48
 Norfolk & Western builds large tidewater pier at Norfolk. *il Ry Age* 125:108-11 Jl 10 '48
 Pier on 200-ft. piles in N.Y. harbor used for shore-to-ship transfer of loaded freight cars. F. A. Ciampa. *il diags Eng N* 140:104-8 Ja 22 '48
 Screw piles support Turkish pier. *diags Eng N* 140:53 Ja 8 '48

Fires and fire protection

- Brooklyn pier fire again makes bad hazard evident; New York Board of fire underwriters report. *Weekly Underw* 158:732+ Mr 6 '48
 New York mayor offers extensive plan to reduce waterfront fire hazards. *East Underw* 49:19+ Jl 16 '48
 New York pier fire hazards termed disgrace to city by New York board of fire underwriters. *East Underw* 48:21 N 28 '47
 Pier 57 fire again emphasizes need to insure waterfront for greater protection. E. J. Kehoe. *Weekly Underw* 157:1566+ D 20 '47
 Pier fire program in New York discussed in report of Board of fire underwriters. *Weekly Underw* 159:130-1+ Jl 17 '48
 Recommendations made to fight pier fires; abstract. C. C. Dominge. *Spectator* (Property ed) 13:25 O 23 '47

PIERS (foundations)

See also
 Bridges—Foundations and piers

PIES

- Air conditioning improves quality of baked pies. R. A. Latimer. *il Food Ind* 20:684-5 My '48

PIEZOELECTRIC crystals. See Crystals, Piezo-electric

PIEZOELECTRIC effect

- Piezolectric or electrostrictive effect in barium titanate ceramics. W. P. Mason. *Phys R* 73:1393-9 Je 1 '48

PIEZOELECTRICITY

- Applications of tensor analysis to elasticity and piezoelectricity. J. H. Jurmain. *bibliog Franklin Inst J* 245:475-500 Je '48

PIG iron

- Increasing pig iron production. *il Metallurgia* 38:143-6+ Jl '48
 Iron and power; electric furnace pig iron; with cost data. W. M. Bonham. *il diags Can Min J* 69:55-9 Ja '48
 Metallic shortages pinch foundries; hearing before subcommittee of the Senate small business committee. *il Steel* 121:34-5+ D 22 '47
 New methods of ladle de-sulphurising pig iron. W. C. Newell and others. *Engineering* 166:210-11 Ag 27 '48
 Outlook for cupola raw materials; foundry pig iron. B. S. Stephenson. *il Foundry* 76:78-9+ D '47
 Pig iron shortage. *Steel* 121:61-6 D 15 '47
 Study of the hydrogen, oxygen, and nitrogen contents of foundry pig-iron. J. E. Hurst and R. V. Riley. *diags Iron & Steel Inst J* 159:130-6 Je '48
 Swedeland iron may ease foundry crisis of pig iron supply. *Iron Age* 160:159-60 N 13 '47
 Trends in pig-iron manufacture. T. P. Colclough and I. S. Scott-Maxwell. *bibliog Iron & Steel Inst J* 159:186-92 Je '48

Prices

- Composite pig iron price; monthly, 1928-1947; tabulation. *Iron Age* 161:290 Ja 1 '48
 Malleable, basic, foundry and charcoal pig iron price; monthly, 1929-1947; tabulations. *Iron Age* 161:292+ Ja 1 '48

Standards

- Standard grades of pig iron; data sheet. *Foundry* 76:125-6 O; 125-6 N '48

Statistics

- Pig iron and ferroalloy production, monthly, 1929, 1939-1947; tabulation. *Steel* 122:327 Ja 5 '48
 Pig iron, 1941-1946. Survey of Cur Bsns 1947 Sup p 146-7 [supplemented in monthly numbers]
 United States pig iron production, monthly, 1901, 1910-1947; tabulation. *Iron Age* 161:274 Ja 1 '48
 World pig iron, steel ingot, castings, and ferroalloy production; by countries, 1940-1947; tabulation. *Steel* 122:326 Ja 5 '48

PIGEONS

- Bird navigation in homing and in migration. D. B. O. Saville. *Science* 107:596-7 Je 4 '48
 Preliminary study of a physical basis of bird navigation. H. L. Yeagley and R. C. Whitmore. *bibliog maps diag J Ap Phys* 18:1035-63 D '47; Discussion. J. Slepian; R. H. Varian; L. Davis, Jr. 19:306-8 Mr '48
 Recovery of ornithosis virus from pigeons in Baltimore, Maryland. D. J. Davis and C. L. Ewing. *map Pub Health Rep* 62:1484-8 O 10 '47

PIGMENTS

- Attempt to improve the washability of water reducible paints with treated pigments by Northwestern paint and varnish production club. *il Paint Oil & Chem R* 110:32-4+ D 11 '47
 Cadmium lithopone colors; their history, characteristics and suitability for use in various fields. R. B. Quelos. *Paint Oil & Chem R* 111:11-12 Ap 15 '48
 Corrosion inhibiting primers for ferrous metals. W. G. Huckle and H. S. Davidson. *il Paint Oil & Chem R* 111:18+ Jl 22 '48
 Determination of specific gravity of pigments. W. W. Ewing and R. N. Rhoda. *diag Anal Chem* 20:743-5 Ag '48
 Dispersion of pigment for lacquers. P. H. Dewey. *il Paint Oil & Chem R* 110:9+ D 11 '47; Excerpts. *Oil Paint & Drug Rep* 152:81+ N 17 '47
 Effect of pigments on the hardness of natural and synthetic rubbers. L. H. Cohan and R. E. Smith. *Rubber Age* 63:465-8 Jl '48
 Florida limestone as a paint extender. A. L. Kimmel and M. Tyner. *bibliog il Rock Prod* 51:113-20 Ja '48
 Lead pigments pricing system partly approved. *Oil Paint & Drug Rep* 153:4+ Ap 5 '48
 Lead-silica pigment. F. J. Williams and A. R. Pitrot. *Sci Am* 178:76-7 F '48
 Luminescent pigments are easily applied. R. Campbell. *il Textile World* 98:137+ Jl '48
 Luminescent pigments; high purity zinc sulphide as base. *Chem Age* (Lond) 57:595 N 1 '47
 Mechanism of reinforcement of elastomers by pigments. L. H. Cohan. *bibliog il India Rubber World* 117:343-8+ D '47
 New paint pigment saves lead. *Chem Ind* 61:828+ N '47
 New pigment concept. F. J. Williams and A. R. Pitrot. *bibliog il diag Ind & Eng Chem* 40:1948-50 O '48
 New textile colors for screen printers. G. W. Leffingwell and O. S. Linkletter. *il Rayon* 28:659-60 D '47; 29:79-80 Ja; 89-92 F '48
 New trends in modern color pigments. L. A. Melscheimer. *Paint Oil & Chem R* 111:14 Ap 15 '48
 Organic pigments, Pulp & Pa of Can 49:106 Jl '48
 Pigment properties; abstract. D. M. Stead. *Paint Oil & Chem R* 111:43-4 Ja 3 '48
 Pigmented resin emulsions for printing and pad dyeing. M. Silverman. *bibliog Am Dye-stuff Rep* 37:44-6; Discussion. 46+ Ja 26 '48
 Pigments during and after the war. V. H. Remington. *Am Cer Soc Bul* 27:67-9 F 15 '48
 Precipitation of basic dyes with modified hydrous zirconia. W. B. Blumenthal. *Am Dyestuff Rep* 37:285-6 My 3 '48
 Proteins, pigments, from alfalfa. *Chem Ind* 61:1016+ D '47
 Reversible photobleaching of dyes and pigments. R. Livingston. *bibliog J Phys & Colloid Chem* 52:527-34 Mr '48

PIGMENTS—Continued

- Titanium pigments, Chem Eng 55:332 Mr '48
 Titanium pigments in exterior paints, J. MacGuffie, Paint Oil & Chem R 110:11-14 O 30 '47
 Travancore tussle; holdup on titanium ore, map Chem Ind 62:47 Ja '48
See also
 Carbon black Paint
 Cyanines Prussian blue
 Dyes and dyeing Titanium oxides
 Lead oxides

Statistics

- Lakes and toners 1947 production, sales, Oil Paint & Drug Rep 154:82 O 11 '48
 Mineral earth pigments demand in 1947, Oil Paint & Drug Rep 154:4 N 1 '48

PIGMENTS, Biological

- Molecular structure and adsorption sequences of carotenoid pigments, H. H. Strain, bibliog Am Chem Soc J 70:588-91 F '48
 Pigments of yellow-eyed races of black-eyed Susan (rudbeckia hirta); abstract, A. F. Blakeslee and S. G. Stephens, Science 107: 458 My 7 '48
 Synthesis of embelin, rapanone and related quinones by peroxide alkylation, L. F. Fieser and E. M. Chamberlin, bibliog Am Chem Soc J 70:71-5 Ja '48
See also
 Anthocyanins
 Carotene

PIGOTT, Paul

- Sketch, por(cover) Bsns W p6 Ag 28 '48
PIGOTT, Reginald James Seymour, 1886-
 S A E president for 1948, por S A E J 56:35 Ja '48; Pet Processing 3:110 F '48; Bsns W p6 Ja 24 '48

PIGS. See Swine**PILE drivers**

- Collapsible pile-driving rig facilitates moves from job to job, il Eng N 139:822 D 11 '47
 From any angle, special barge mounted rig drives two-way battered piles, O. A. Zimmerman, il Constr Methods 30:102-5 Mr '48
 Navy tests light Diesel pile hammer, il Constr Methods 30:95 Ag '48
 Piledrivers built to order, il Constr Methods 30:66-7 O '48
 Walking driver for small pile job, il Constr Methods 30:101 Ap '48

PILE fabrics

- Raising, local effects on mixed wool, vegetable fiber fabrics; patent, Am Dyestuff Rep 37:539 Ag '48

PILES and pile driving

- Bridge piles driven by precision methods, il Eng N 141:80-2 Ag 5 '48
 Driving 165-ft. steel H-piles at the San Francisco naval shipyard, B. G. Gerwick, Jr. plan diags Eng N 141:117-18 J 8 '48
 Experiences with predetermining pile lengths, W. W. Moore, il diags Am Soc C E Proc 73:1341-58 N '47; Discussion, 74:427-8, 957-67 Mr, Je '48
 Finding and fighting marine borers; metal armor and concrete jacketing, R. D. Chellis, il diags Eng N 140:493-6 Ap 1 '48
 High capacity piles on Chicago hardpan; General Motors building, H. Caudill, diags Eng N 139:315-17 S 4 '47; Discussion, L. C. Jordan, 139:684 N 13 '47
 Long piers for the navy's surplus ships, il Eng N 140:356-60 Mr 4 '48
 Pier on 200-ft. piles in N.Y. harbor used for shore-to-ship transfer of loaded freight cars, F. A. Ciampa, il diags Eng N 140:104-8 Ja 22 '48
 Pile foundation for the new John Hancock building in Boston, A. Casagrande, diags Boston Soc C E J 34:297-315 O '47
 Pipe piles cleaned out by jetting through hood, il Constr Methods 30:104-5 Je '48
 Relationship between pile formulas and load tests, R. D. Chellis, bibliog il Am Soc C E Proc 74:635-54 My '48; Discussion, 74:1261-2 S '48
 Separate rig handles high-pressure jet hose, il Constr Methods 30:101 Je '48
 Steel-H-piles and pipe bents support deep-water drilling platform, C. G. Cappel, il map Civil Eng 18:446-8 J 1 '48
 Steel tube piles for 100-ton loads; new telephone building at Oakland, Calif., il diags Eng N 140:511-13 Ap 1 '48

- Vibration testing of friction piles, C. F. Dodge and W. F. Swiger, il diags Eng N 140:716-20 My 13 '48

See also

- Concrete piling
 Pile drivers
 Sheet piling

Concrete encased piles

- Concrete jacketing H-piles in soft mud; foundation for a turbine building at the Schenectady, N.Y. works of General electric co. il Eng N 140:179 F 5 '48
 Finding and fighting marine borers; metal armor and concrete jacketing, R. D. Chellis, il diags Eng N 140:494-6 Ap 1 '48
 New deep piers save old bridge; piles encased with concrete; bridge of Canadian national railway, N. S. Bateman, il diags Eng N 140:113-17 Ja 22 '48
 Something new in bridge-pier design; combination of steel piles and Prepack concrete; reconstruction of Canadian national railway bridge, C. P. Disney, il diags Ry Age 124:158-61 Ja 17 '48; Same cond, Roads & Bridges 86:66+ Ja '48

Testing

- Pile tests for design and construction economy, H. B. Thornley, il Civil Eng 18:568-71 S '48

PILLING, Neville, 1901-

- Sketch, W. L. Clapp, por East Underw 48: 84-5 D 19 '47

PILOT lights. See Gas appliances—Pilot lights**PILOT plants. See Chemical plants—Experimental plants; Petroleum refineries—Experimental plants****PIMARIC acid**

- Resin acids; an improved method of isolation of resin acids; the isolation of a new abietic-type acid, neoabietic acid, G. C. Harris and T. F. Sanderson, bibliog Am Chem Soc J 70:334-9 Ja '48
 Resin acids; the isolation of dextropimaric acid and a new pimaric-type acid, isodextropimaric acid, G. C. Harris and T. F. Sanderson, bibliog Am Chem Soc J 70:2079-81 Je '48
 Resin acids; the position of the ring double bond in dextropimaric acid and the structure of isodextropimaric acid, G. E. Harris and T. F. Sanderson, bibliog Am Chem Soc J 70:2081-5 Je '48

PINACOL

- Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds, K. Sisido and H. Nozaki, bibliog Am Chem Soc J 70: 776-8 F '48

PINACOLONE

- Preparation of synthetic estrogens; the synthesis of diethylstilbestrol through the pinacol-pinacolone compounds, K. Sisido and H. Nozaki, bibliog Am Chem Soc J 70:776-8 F '48

PINACYANOL chloride

- Effect of sodium silicates on the absorption spectra of some dyes, R. G. Merrill, R. W. Spencer and R. Getty, bibliog Am Chem Soc J 70:2460-4 J 1 '48

PINANE

- Studies in the terpene series; effect of catalyst, solvent and temperature on the dehydrogenation of pinane and β -menthane, H. Pines, R. C. Olberg and V. N. Ipatieff, bibliog Am Chem Soc J 70:533-7 F '48

PINCHIN, Johnson and company, limited

- Statement by the chairman at annual general meeting, C. G. Heywood, Economist 155:79-80 J 10 '48

PINE

- By-products from the kraft pulping of pine woods, O. Kress, Pulp & Pa of Can (Convention no) 49:166-8+ [F] '48; Same cond. Paper Ind 30:302-4 My '48
 Chemistry of western pines; Ponderosa pine stumps as potential source of rosin and other by-products, A. B. Anderson, bibliog diags Ind & Eng Chem 39:1664-7 D '47
 Composition of Scots pine; abstract, G. Larinkari, Paper Ind 30:156 Ap '48
 From pine stumps to rosin and terpene oils; Crosby Chemicals, De Ridder, La. J. V. Hightower, flow sheet(p 150-3) il Chem Eng 54:119-21 D '47

PINE—Continued

- Guide for pine pole material; engineering reference sheet. *Elec World* 130:116 Ag 14 '48
- Properties of oleoresins, rosins, and turpen-
tines from chemically stimulated slash and
longleaf pines. L. W. Mims and M. C.
Schopmeyer, *Bibliog il Ind & Eng Chem*
39:1504-6 N '47
- Pulpwood from tops. E. V. Brender, *Pulp &
Pa of Can* 49:112 Ja '48
- Southern pine and western pine, 1941-1946.
Survey of Cur Bsns 1947 Sup p 142-3 [sup-
plemented in monthly numbers]
- White pine; influence in American history.
D. C. Peattie, *il map Sci Am* 178:48-53 Je
'48

Diseases and pests

- Unlocking tree world mysteries; abstract.
R. P. Marshall, *Paper Tr J* 127:16 Jl 22 '48

PINE oil

- Naval stores chemicals in the disinfectant
field. J. N. Borglin, *bibliog Soap & San
Chem* 23:147+ D '47
- Pine oil scrub soaps. A. S. DuBois and G. E.
Morenz, *bibliog il Soap & San Chem* 24:
135+ Ag '48

See also

Tall oil**PINEAPPLES**

- Bigger Dole; Hawaiian Pineapple bought
mainland cannery. *Bsns W p* 103 Ap 24 '48
- Cuban pineapple situation. *For Comm W* 30:
22 Mr 20 '48
- Keeping a market; Hawaiian pineapple grow-
ers invest in Cuba and other areas. *Bsns W*
p34 Jl 17 '48
- Pineapple production and exports, Brazil. *For
Comm W* 30:23 Mr 27 '48

PINENE

- Chemical uses of sulphate turpentine. P. O.
Powers, *bibliog Paper Tr J* 126:39-42 Ja 29
'48
- Electrolytic oxidation of α -pinene, terpinol-
ene and dipentene. S. Glasstone and H. E.
Stanley, *diag Electrochem Soc Trans* 92
(preprint 41):543-50 '47

PING pong

- Study of table tennis lighting. *il plans Illum
Eng* 43:251-71 Mr '48

PINS, Machinery

- Pin hole drilling simplified with all-purpose
jig. R. Mawson, *diags Steel* 122:91+ Ap 5
'48

PIPE bending

- Cold bending of pipe coils for radiant heating
installations facilitated by new benders. *il
diags Arch Forum* 87:108 D '47
- Pipe bending chart. W. F. Schaphorst. *Water
& Sewage Works* 95:377 O '48

PIPE bends

- Fatigue tests of welding elbows and com-
parable double-mitre bends. A. R. C.
Markl, *bibliog il diags A S M E Trans* 69:
869-76 N '47; Same. *Welding J* 27:sup310-
17 Je '48; Discussion. *A S M E Trans* 69:
877-9 N '47; *Welding J* 27:sup317-20 Je '48
- Friction in pipe coils or bends. W. L. Nel-
son. *Oil & Gas J* 48:281 Ap 1 '48
- Giant pipe bends. *il Chem Age (Lond)* 59:189
Ag 7 '48
- Strengthening welded pipe systems; abstract.
N. Gross, *Chem Age (Lond)* 59:20 Jl 3 '48

See also

Pipe elbows**PIPE coating**

- Mortar-coated thin steel shells for distribu-
tion main service. *Eng N* 140:662 Ap 29 '48
- Pipe corrosion mitigation practices. A. H.
Cramer, *il diags Am Gas J* 168:23-7+ Je
'48
- Plastic pipe line coating and yard processing.
B. M. Lauhere, jr. *il Pet Eng* 19:104+ Je
'48

PIPE coverings

- Glass wool pipe covering; patent. *diags Glass
Ind* 28:578+ N '47
- How to figure weight of pipe insulation. S. S.
Ulrich and T. H. Dickson, jr. *il Heating-
Piping* 20:84-5 F '48; Same. *Power Generation*
52:86, 88 Mr '48
- Insulation for ducts. *il Heat & Ven* 45:73 Jl
'48
- Pipe insulation at Tide Water Associated's
Bayonne refinery. U. W. Smith, *il diags
Oil & Gas J* 47:88+ Jl 22 '48

PIPE cutting

- Chain type cutting tool useful for wide
range of pipe sizes; patent. *diag Pet Pro-
cessing* 3:260 Mr '48
- Experience with the oxygen arc method of
cutting cast iron pipe. S. L. Rogers, *il
Water & Sewage Works* 95:308-9 S '48
- Skilled operators are not required with device
for rapid pipe-cutting; patent. *diags Pet
Processing* 3:366 Ap '48

PIPE elbows

- Fatigue tests of welding elbows and com-
parable double-mitre bends. A. R. C.
Markl, *bibliog il diags A S M E Trans* 69:
869-76 N '47; Same. *Welding J* 27:sup310-
17 Je '48; Discussion. *A S M E Trans* 69:
877-9 N '47; *Welding J* 27:sup317-20 Je '48
- Shortcut to making pipe elbow developments.
H. Schmidbauer, *diags Power* 92:496 Ag '48
- Weights of round galvanized steel elbows in
ducts; factors for converting weights from
one gage to another; tables; reference data.
Heat & Ven 44:94a-94b N '47

PIPE fitting

- Cost of leaks. W. L. Nelson. *Oil & Gas J*
46:69 Ja 1 '48
- Pipefitters' maintenance cart; Fisher Body
Ternestd plant. *il diag Mill & Factory* 43:
106 O '48

See also

Pipe joints**Plumbing****PIPE fittings**

- Flag introduces threadless malleable fit-
tings. *il Marine Eng* 53:126 F '48
- Pipe and fittings; new equipment announced
1947-48. *Chem Ind* 63:416-19 S '48
- Pipe fittings without threads assembled by
brazing. *il Mach* 54:170 Ja '48
- Threadless fitting for pipe. *il Heat & Ven* 45:
101-2 Ja '48
- Threadless fittings are no pipe dream. *il
Mod Ind* 15:155+ Ja '48
- Threadless pipe fittings. *il Mech Eng* 70:148-
50 F '48

See also

Pipe flanges**Pipe joints****Standards**

- Design standards for steel water pipe. R. E.
Barnard, *bibliog il diags Am Water Works
Assn J* 40:24-87 Ja '48
- Report of committee on the standardization
of oil-country tubular goods. *Am Pet Inst
Proc* 27(4):210-34 '47
- Report of committee on the standardization
of valves and fittings. *Am Pet Inst Proc*
27(4):242-50 '47
- Uniformity for refrigerant fittings. L. W.
Benoit, *il Ind Stand* 19:116-17 S '48
- Valve and fittings industry uses standards
for savings. L. Benoit, *Ind Stand* 19:28-9
My '48

PIPE flanges

- Australians separate pipe flanges quickly
by using slip flanges and jacking bolts. A.
M. Johnson, *il diag Pet Processing* 3:955
O '48
- Stop heat loss in flanges. *diags Dom Eng*
171:154 Ja '48

PIPE joints

- Analysis of low pressure steam piping system
construction costs; school building heating
systems. H. A. Erickson, *diags Heat & Ven*
45:78-84 Ag '48
- Bacterial oxidation of sulfur in pipe sealing
mixtures. L. R. Frederick and R. L. H.
Starkey, *bibliog Am Water Works Assn J*
40:729-36 Jl '48
- Coupling allows welding pipe in service,
saves up to 24 hours in repair time; Safety-
weld coupling. J. B. Smith, *il diags Pet
Processing* 3:406-7 My '48
- Design standards for steel water pipe. R. E.
Bernard, *bibliog il diags Am Water Works
Assn J* 40:24-87 Ja '48
- How to make good sewer pipe joints. *Pub
Works* 78:38 N '47
- How two plants met problem of forming air-
tight seals for flexible duct connectors,
convactor radiators, filter banks, and fume
exhaust stacks. *il Heating-Piping* 20:92-3
F '48

PIPE joints—*Continued*

- Joining compounds; sulfur compounds for cast-iron pipe; A.W.W.A. session. Water & Sewage Works 95:201-4 Je '48
- Joints for plumbing and laboratory piping. J. E. York, diags Heat & Ven 45:89-93 Je; 88-93 Jl '48
- Joints for transite pipe. J. E. York, diags Heat & Ven 45:91-6 O '48
- Joints for thin wall tubes. J. E. York, diags Heat & Ven 45:84-8 My '48
- Joints for vitreous tile and concrete pipe. J. E. York, diags Heat & Ven 45:95-9 Ag '48
- Method of electrically bonding high resistance pipe couplings without excavation. H. S. Riddle and H. S. Harris, il Gas Age 102: 17-18+ Jl 8 '48
- Methods of joining cast iron pipe. J. E. York, diags Heat & Ven 45:94-3 F; 94-7 Mr; 86-90 Ap '48
- Methods of joining pipe. J. E. York, diags Heat & Ven 44:76-32 S; 77-32 O; 99-101 N '47
- New joint for stainless steel pipe; illustrations with text. Heat & Ven 45:69 Jl '48
- New pressure-welding processes. P. Reed, il diags Oil & Gas J 46:64 D 20 '47
- Pre-jointing clay pipe with use of vertical rack speeds-up laying time, diags Brick & Clay Rec 113:33 S '48
- Proper handling of joint compound speeds pipe line construction. R. A. Toler, il Pub Works 79:29-30 Ja '48
- Self-supporting pressure joint. il Rubber Age 63:341 Je '48
- Stainless steel piping fabrication by welding. J. D. Mattimore, il diags Heating-Piping 19: 73-8 D '47
- Stainless steel piping; selection of pipe joints. J. D. Mattimore, il diags Heating-Piping 19:84-7 N '47
- Studies of properties of sulfur jointing compounds containing various bactericides. W. W. Duecker and others, bibliog il Am Water Works Assn J 40:715-28 Jl '48
- Sulfur jointing compounds; a panel discussion. W. R. LaDue and others, bibliog Am Water Works Assn J 40:737-50 Jl '48
- Threaded joints; faults. W. L. Nelson, Oil & Gas J 46:135 Mr 18 '48
- Why sulphur joint compounds are providing a mystery for waterworks engineers. Eng N 140:742 My 20 '48
- See also*
Pipe fittings
Pipe flanges
Pipe threads
- Testing**
- Fatigue tests of welding elbows and comparable double-mitre bends. A. R. C. Markl, bibliog il diags A S M E Trans 69:869-76 N '47; Same, Welding J 27:sup310-17 Je '48; Discussion, A S M E Trans 69:877-9 N '47; Welding J 27:sup317-20 Je '48
- Metallurgical properties of high yield strength seamless line pipe. A. B. Wilder and J. D. Tyson, il diags Welding J 26:872-80 O '47; Same, Pet Eng 19:138+ F '48
- Radiology of joints in welded piping for power plants. E. Thomas, diags Inst Mech Eng J & Proc 158:Proc 1-5, pl 1-2; Discussion, 5-8 Je '48
- PIPE laying**
- Back hoes and bulldozers build big water line. il Constr Methods 30:104-8+ Ap '48
- Boring for water connections with air power. il Comp Air Mag 52:272-3 N '47
- City steam line tunneled beneath heavily traveled six-lane street, Cleveland, Ohio. G. W. Hamlin, il Eng N 140:772-3 My 27 '48
- Design and development of a new pipe line. H. T. Heuple, il map Gas Age 101:37-9+ Ap 29 '48
- Extension of number three conduit at Syracuse. E. P. Stewart, il Am Water Works Assn J 40:657-62 Je '48
- Fast work on Saginaw-Midland water supply pipeline. il Roads & Sts 91:88-9 Je '48
- Gas main shoved under busy street, il Constr Methods 30:93 F '48
- Installation of gas service piping, with practices; tabulated by sections. E. L. Henderson, map Am Gas Assn Proc 1947:805-23; Same abr. Am Gas J 166:19-21+ My '47; Same cond. Am Gas Assn Mo 29:455-7 O '47
- Job-built rig jacks 123-ft length of 36-in. pipe under railroad right-of-way. R. E. Snetzer, il diags Civil Eng 18:572-3 S '48
- Laying a 36-in. main through traffic. S. J. Benedict, il Am Water Works Assn J 39: 1115-20 N '47
- Laying a water pipe under a four-track railroad. J. W. Lawrence, il Pub Works 79:44 Ag '48
- Laying 60 mi. of pre-stressed pipe; Saginaw-Midland water line project. il Eng N 140:708-11 My 13 '48
- New machines and methods set fast tempo for pipe-laying operations. il Civil Eng 18: 20-1 Ja '48
- New water service pulled under pavement. H. E. Archibald, Eng N 140:666 Ap 29 '48
- Pipe line crews battle blizzards, floods. H. Fry, il map Pet Eng 19:94+ Jl '48
- Proper handling of joint compound speeds pipe line construction. R. A. Toler, il Pub Works 79:29-30 Ja '48
- Self-propelled motorized equipment features construction of products line. F. H. Love, il Pet Eng 19:53-6 D '47
- Some aspects of gas distribution work. J. A. Gould, diags Gas J (Lond) 252:677-81; Discussion, 681-2+ D 24 '47
- Tacoma lays four miles of 58-inch pipe. A. R. McPherson, il Pub Works 79:29+ Ag '48
- Today's natural gas construction methods. P. Reed, il map Oil & Gas J 47:180-4+ S 23 '48
- Use of well points for trench dewatering; construction of large trunk sewer. A. M. Eawn, il Water & Sewage Works 95:167-71 My '48
- Watermain crossings at railways, bridges, rivers and roads; discussion. Water & Sewage 86:67-8+ Ap '48
- See also*
Petroleum pipe lines Trenching machinery
—Construction Water distribution
Sewerage
- PIPE laying, Subaqueous**
- City saves \$27,250 on sewer siphon for river crossing. M. A. Milling, diags Pub Works 79:27-8 S '48
- Experience guides ocean outfall design for the Los Angeles county sanitation districts. il diags Eng N 140:368-71 Mr 4 '48
- Lavaca offshore gas pipe line laid on Texas coast. P. Reed, il Oil & Gas J 47:96-8 N 4 '48
- Twin lines supply steam plant water; Redondo steam station of the Southern California Edison co. il diags Eng N 140:696-9 My 13 '48
- See also*
Pipe lines—River crossing
- PIPE lines**
- Check valves, traffic cops of the pipe lines. H. J. Bartlett, il Paint Oil & Chem R 111: 19-20+ Ja 22; 15-16+ F 5 '48; Same, Paper 19:20+ 39-82, 253-6 Ap-May '48; Same abr. Gas Age 101:26-8+ F 19 '48
- Metallurgical properties of high yield strength seamless line pipe. A. B. Wilder and J. D. Tyson, il diags Welding J 26:872-80 O '47; Same, Pet Eng 19:138+ F '48
- Tunnel for service lines returns first cost; De Laval steam turbine co. C. V. Schaefer, il diag Factory Management 106:82-3 Ja '48
- See also*
Aqueeducts Petroleum pipe lines
Electric conduits Pipe laying
Gas, Natural—Pipe lines Piping (power plants)
Sewerage
Gas distribution Steam pipe lines
Gasoline pipe lines Water pipes
- Communication systems**
- Mobile radio for pipe line communication. W. T. Bulla, il Pet Eng 19:147+ Mr '48
- Radio communication on Middle East oil pipeline. Engineering 165:163 F 13 '48; diags Elec R (Lond) 142:235-6 F 13 '48

PIPE lines—Continued

Corrosion

NDHA corrosion tester; why and how it's used. L. F. Collins. *diags Heating-Piping* 20:77-80 O; 83-7 N '48

See also
Pipe lines—Pro-
tection

Design

Fundamentals of pipe-line design. B. Miller. *diag Oil & Gas J* 47:81 J1 8; 223+ J1 29; 127 S 16; 235-6+ S 23 '48

Detection

Electronic pipe locators and leak detectors. H. David. *il diags Oil & Gas J* 46:75-8 J4 15 '48

Locating pipe lines and leaks by electronics. J. L. Cassingham. *il diag Pet Eng* 19:78+ Ap '48

Location

Pipe line surveys. P. Bryan. *il Pet Eng* 19: 168+ N '47

Maintenance and repair

Coupling allows welding pipe in service, saves up to 24 hours in repair time; Safety-weld coupling. J. B. Smith. *il diags Pet Processing* 3:406-7 My '48

Directing pipe line inspection and maintenance. J. A. Martin and L. Tolbert. *Gas Age* 101:23-6+ My 27; 21-4+ Je 24 '48

Locating and repairing leaks in Biggest Inch natural-gas pipe line. H. David. *il diag Oil & Gas J* 47:103+ O 28 '48

Natural gas lines; electric arc welding against pressure. D. K. Stephens. *diags Pet Eng* 19:141-2+ Mr '48

Protection

Behavior of experimental zinc-steel couples underground. I. A. Denison and M. Romanoff. *bibliog il diags J Res Nat Bur Stand* 40:301-13 Ap '48

Cathodic protection of under-ground structures. *il Gas Age* 102:25+ J1 8 '48

Mechanism of cathodic protection. R. B. Mears. *bibliog diags Oil & Gas J* 46:77+ D 6 '47

Recent developments in cathodic protection of pipe lines. N. P. Peifer and F. E. Costanzo. *il diag Gas Age* 102:21-3 Ag 5 '48

See also
Water pipes—Pro-
tection

River crossing

Crossing of Mississippi at New Orleans. O. C. Irvine. *il map Pet Eng* 19:113-14+ N '47; Same. *Gas Age* 100:25-8 N 13 '47

Drifting submerged towboat believed cause of break in pipe-line river crossing. N. A. Saigh. *map Oil & Gas J* 47:268+ S 23 '48

Gas lines pulled across Ohio river. *il Constr Methods* 30:108-9 Je '48

Testing

Electronic pipe locators and leak detectors. H. David. *il diags Oil & Gas J* 46:75-8 J4 15 '48

PIPE lining

Lining gives a 50-year-old sewer a new lease on life. W. Chadwick. *il Pub Works* 79:32-3 Ja '48

See also
Cement lined pipes
Water pipes—
Lining

PIPE threads

Threaded joints; faults. W. L. Nelson. *Oil & Gas J* 46:135 Mr 18 '48

Testing

Comparator-chart inspection of tapered pipe-thread gages. K. A. Clark. *il diag Mach* 54:165-7 Ag '48

PIPERAZINE

Derivatives of piperazine; piperazinium salts for utilization in identification of organic acids. M. Prigot and C. B. Pollard. *Am Chem Soc J* 70:2758-9 Ag '48

Polyamide antifoams; relation between chemical constitution and effectiveness. A. L. Jacoby. *bibliog J Phys & Colloid Chem* 52: 689-94 Ap '48

Preparation of piperazine. W. B. Martin and A. E. Martell. *Am Chem Soc J* 70:1817-18 My '48

Pyrazine derivatives; conversion of diketopiperazines into pyrazine derivatives; synthesis of 2-hydroxy-3 : 6-di-*sec*-butylpyrazine from isoleucine. R. A. Baxter and F. S. Spring. *Chem Soc J* p 1179-83 S '47

PIPERAZINEDIONE

Synthesis of 2,3-diketopiperazine. C. E. Goulding, Jr. and C. B. Pollard. *Am Chem Soc J* 70:1967-8 My '48

PIPERIDINE

Experiments in the piperidine series. R. M. Anker and A. H. Cook. *Chem Soc J* p806-10 Je '48

Nucleophilic substitution in the benzene ring; rates of reactions of *p*-substituted bromobenzenes with piperidine. J. F. Bunnett and A. Levitt. *bibliog Am Chem Soc J* 70:2773-9 Ag '48

Piperidine derivatives; esters of substituted 4-piperidinols. S. M. McElvain and K. Rorig. *bibliog Am Chem Soc J* 70:1826-8 My '48

Piperidine derivatives; the condensation of aromatic aldehydes with 1-methyl-4-piperidone. S. M. McElvain and K. Rorig. *bibliog Am Chem Soc J* 70:1820-5 My '48

Preparation of substituted 4-aminomethylpiperidines and their straight chain analogs. C. E. Kwartler and P. Lucas. *bibliog diags Am Chem Soc J* 69:2582-6 N '47

Synthesis of piperidine derivatives; aryldcahydroquinolines; discussion. *Chem & Ind p* 155-6 Mr 6 '48

PIPERYLENE

cis- and trans-piperylene. R. L. Frank, R. D. Emmick and R. S. Johnson. *bibliog Am Chem Soc J* 69:2313-17 O '47

Condensation of piperylene with acrylonitrile and methyl acrylate. J. S. Meek and J. W. Ragsdale. *bibliog Am Chem Soc J* 70:2502-4 J1 '48

Analysis

Chemical analysis of refinery C₈ hydrocarbon fractions. R. F. Robey and H. K. Wiese. *bibliog Anal Chem* 20:926-33 O '48

PIPES

Fluid flow and heat transfer in artificially roughened pipes studied. V. L. Streeter. *Heating-Piping* 20:98 Mr '48

Hazards in salvaged pipe. F. R. Cozzens. *World Oil* 123:158+ Je '48

Radiation of sound from an unfanged circular pipe. H. Levine and J. Schwingler. *bibliog diags Phys R* 73:383-406 F 15 '48

Simplified designs facilitate pitot tube application to small pipes. C. E. Kindsvater. *il Civil Eng* 17:680+ N '47

What the user should know about tubing. E. J. DeWitt. *il diags Mach* 54:165-9 F; 174-8 Ap '48

See also

Air pipes	Piping
Electric conduits	Piping (power plants)
Gas pipes	Plumbing
Heating pipes	Soil pipes
Petroleum pipe lines	Steam pipes
Pipe joints	Tubes
Pipe laying	Water pipes
Pipe lines	

Cleaning

Abrasive blasting speeds pipe cleaning. *il Iron Age* 162:79 J1 1 '48

Acid pig adapted to cleaning of cement-lined pipe. L. S. McCaslin, Jr. *il diag Oil & Gas J* 47:78 J1 8 '48

Magnetic tool finds go-devils jammed inside buried pipelines; patent. *diag Pet Processing* 3:260+ Mr '48

Pipe piles cleaned out by jetting through hood. *il Constr Methods* 30:104-5 Je '48

Manufacture

Press-fabricating pipe; Fort Pitt bridge works. *il diags Steel* 123:84+ J1 26 '48

Standards

Report of committee on the standardization of oil-country tubular goods. *Am Pet Inst Proc* 27(4):210-34 '47

PIPES—Continued

Tables, calculations, etc.

Approximate formula for pipe friction factors. L. F. Moody. *Mech Eng* 69:1005-6 D '47

Bursting and operating pressures of pipe; table. *Power Generation* 52:90 Ja '48

Chart gives loss of head, velocity, and pipe diameter, in the simplest way. W. F. Schapchorst. *Pulp & Pa of Can* 49:96 Ap '48

Coefficients of discharge of sharp-edged concentric orifices in commercial 2-in., 3-in., and 4-in. pipes for low Reynolds numbers, using flange taps. E. E. Ambrosius and L. K. Spink. *diags A S M E Trans* 69:805-8; Discussion, 808-12 N '47

Delivery capacity and pressure drop through brass and copper pipe. *Water & Sewage Works* 95:R266-7 Ap '48

Equivalent length in feet caused by various pipe fittings and restrictions; table. W. L. Nelson. *Oil & Gas J* 46:285 D 27 '47

Flow of fluids; eleven equations for use in pipe work. W. A. Hynes. *diags Power Generation* 52:78-81 Ja '48

Fluid pressure drop losses through smooth straight tubing. D. A. DiTirro. *Product Eng* 19:117-20 S '48

Friction factors in pipes. W. L. Nelson. *Oil & Gas J* 47:111-12 JI 22 '48

Friction in the flow of suspensions; granular solids in gases through pipe. E. G. Vogt and R. R. White. *bibliog flow diag il Ind & Eng Chem* 40:1731-8 S '48

Friction losses in screwed iron tees. J. W. Hoopes and others. *bibliog il diags Chem Eng Prog* 44:691-5; Discussion, 695-6 S '48

How calculate size of filling and equalizing pipes. *Power Pl Eng* 51:101 N '47

How to figure ductwork curves; data sheet. E. Prevost. *Power* 92:249 Ap '48

How to figure pipe length between two elbows. S. R. Lewis. *diag Heating-Piping* 20:89 S '48

How to select pipe sizes for definite pressure drop. J. I. Lacey. *Chem Eng* 55:131-2 O '48

Inspection; retiring 1½-in. pipe. W. L. Nelson. *Oil & Gas J* 46:117-18 Ap 15 '48; Correction, 47:425 My 13 '48

Liquid flow characteristics of a pipe line and a control valve. O. Kneisel. *diag Pet Refiner* 27:101-4 O '48

Pipe and tubing sizes. W. L. Nelson. *Oil & Gas J* 46:87 N 1; 83 N 3; 345 N 15; 93 N 29; 117 D 6; 125 D 13; 93 D 20 '47; 79 Ja 8; 97 Ja 15; 305 Ja 29; 89 F 5 '48

Pressure drop of gases and vapors flowing through pipes; reference book sheet. A. H. Korn. *Product Eng* 19:151, 153 JI '48

Pressure drops. W. L. Nelson. *Oil & Gas J* 47:103 Ag 5; 115 Ag 12 '48

Pressure drops in refinery piping. W. L. Nelson. *Oil & Gas J* 47:287 JI 29 '48

Pressure loss for liquid flow in pipes; viscosity and pipe roughness corrections. R. D. Madison and W. R. Elliot. *bibliog Chem Eng Prog* 44:703-6 S '48

Pressure-temperature ratings; schedule 80 (extra-heavy) pipe. W. L. Nelson. *Oil & Gas J* 46:157 Ap 29 '48

Retiring thickness of pipe. W. L. Nelson. *Oil & Gas J* 47:115 My 6; 425 My 13; 89 My 27; 115 Je 10; 99 Je 17; 81 JI 1; 103 JI 8; 111 JI 15 '48

Simplified pressure-loss calculations for plastic flow. E. L. McMillen. *bibliog Chem Eng Prog* 44:537-46 JI '48

Tabulation for schedule 40 pipe aids flow rate and Reynolds number problems. J. R. Lorah. *Chem Eng* 55:126 S '48

Velocity head in refinery lines. W. L. Nelson. *Oil & Gas J* 47:159 Ag 26 '48

Testing

Pressure and creep tests at constant hoop stress on lead and alloy E pipes; abstract. A. Latin. *Metallurgia* 37:242+ Mr '48

Tubular-goods testing device; Sclerograph operates on magnetic and ultrasonic principles. L. S. McCaslin, jr. *il Oil & Gas J* 47:83-4 My 6 '48

PIPES, Aluminum

Aluminum invades the oil field. *il Bsns W* p92+ My 15 '48

Aluminum pipe and tubing; use for heating and ventilating work. P. Brandt. *Heat & Ven* 45:33-6 F '48

Aluminum pipe lines for oil and gas. H. S. Bell and C. R. Holmes. *World Oil* 127:169-72 F '48

Aluminum piping; how to use it. C. B. McLaughlin. *Heating-Piping* 20:78-82 Ap '48

Aluminum piping; where and why it's used. C. B. McLaughlin. *il Heating-Piping* 20:87-9 Mr '48

Chemical removal of aluminum pipe sections. C. E. Glason. *World Oil* 128:132-3+ O '48

Developing a welding procedure for aluminum piping; abstract. J. D. Mattimore. *il(p78) Heating-Piping* 20:76-7 JI '48

FHA issues data on aluminum ducts. *Heating-Piping* 19:99 D '47

How to uncover a new industrial market; research, advertising, publicity, and exhibits create million-pound market for Reynolds aluminum. J. C. Bjorkholm. *il Ind Market-*

ing 32:39-40+ D '47

Installing test sections of aluminum pipe; Interstate oil pipe line company's gathering system. F. E. Miller. *il World Oil* 128:186-8+ JI '48

Interstate lays first experimental section of welded aluminum pipe line. F. Reed. *il Oil & Gas J* 46:141-3 Ap 29 '48

Interstate pipe line co. to test aluminum pipe. *Oil & Gas J* 46:287-8 Ap 1 '48

Revised FHA standards accept aluminum forms for plumbing systems. *Iron Age* 162:152 JI 22 '48

Welded aluminum alloy pipe lines. B. J. Fletcher. *il Oil & Gas J* 47:207-8+ S 23 '48

Manufacture

Light metal tube production. *il Elec R (Lond)* 143:269-73 Ag 20 '48

PIPES, Asbestos cement

Joints for transite pipe. J. E. York. *diags Heat & Ven* 45:91-6 O '48

Performance record of 14-year old transite water main at Winnipeg. W. D. Hurst. *il diag Water & Sewage Works* 94:391-6 N '47

PIPES, Brass

Dimensional and capacity data for standard weight and extra strong copper and brass pipe; tables; reference data. *Heat & Ven* 45:95a-98b Je '48

PIPES, Cast iron

Care in housekeeping assists foundry production; foundry of Charles F. Elchinger. *il Foundry* 76:320 My '48

Corrosion of steel, cast iron, and lead by sulfuric acid and choice of materials for pipe lines. M. G. Fontana. *Ind & Eng Chem* 40:sup 103A-4A Ap '48

Experience with the oxygen arc method of cutting cast iron pipe. S. L. Rogers. *il Water & Sewage Works* 95:308-9 S '48

Exterior corrosion of cast iron pipe. K. H. Logan. *Sewage Works J* 20:133-7 Ja '48

Jointing compounds; sulfur compounds for cast-iron pipe; A.W.W.A. session. *Water & Sewage Works* 95:201-4 Je '48

Los Angeles program speeds reconditioning of cast iron pipe. R. E. Hemborg. *il Eng N* 140:46 Ja 8 '48

Methods of joining cast iron pipe. J. E. York. *diags Heat & Ven* 45:94-8 F; 94-7 Mr; 86-90 Ap '48

Sulfur jointing compounds; a panel discussion. W. R. LaDue and others. *bibliog Am Water Works Assn J* 40:737-50 JI '48

Transportation factors in the location of the cast iron pipe industry. J. C. Nelson and R. C. Smith. *fold map* 20 tables U S Dept of Commerce, *Economic Ser* 63:1-54; pa 25c Supt. of doc. '47

Prices

Cast iron pipe at New York; monthly, 1929-1947; tabulation. *Iron Age* 161:290 Ja 1 '48

Testing

Laboratory corrosion tests of iron and steel pipes. G. A. Ellinger and others. *il diags Paper Tr J* 127:27-32 S 2 '48

PIPES, Clay. See Pipes, Vitrified clay

PIPES, Concrete

Concrete pipe used for surface casing in two mid-continent tests. N. Williams. *il Oil & Gas J* 47:66-7+ Ag 12 '48

PIPES, Concrete—Continued

- Corps of engineers research on concrete pipe; abstract. H. K. Cook. *Concrete* 56:42+ AP '48
- Critical analysis of a few pieces of concrete pipe; abstract. H. W. Easterly, jr. *Concrete* 56:44 AP '48
- Joints for vitreous tile and concrete pipes. J. E. York. *diags Heat & Ven* 45:95-9 AP '48
- Research on manufacture and use of concrete pipe; abstracts of papers read before American concrete pipe association. *Water & Sewage* 86:30+ JI '48

Manufacture

- Building outfall sewer at Los Angeles involves heavy engineering methods in casting and handling 450-ton pipe. P. N. Fletcher. *Concrete* 55:5-8+ D '47
- Grading of aggregates for machine tamped and vibrated pipe; abstract. C. M. Howard. *Concrete* 56:40 AP '48
- Lift trucks and conveyor belts reduce handling costs; North Carolina products co. W. B. Lenhart. *Rock Prod* 51:184-5+ AP '48
- New pipe machine makes 8-in. to 36-in. units. *Concrete* 56:44 Je '48
- Practical concrete research; developments in concrete pipe manufacturing. M. W. Loving. *Rock Prod* 51:111-13+ JI '48
- Prestressed reinforced concrete pressure pipe. M. W. Loving. *diag Water & Sewage Works* 95:379-84 N '48
- Two new plants to meet increasing demands for concrete pipe; Carolina concrete pipe co. *Rock Prod* 51:116-17+ JI '48
- Vacuum processed reinforced concrete pipe; Shearman concrete pipe co. and Thomas concrete pipe co. M. W. Loving. *Rock Prod* 51:162-5+ Ja '48

PIPES, Copper

- Dimensional and capacity data for standard weight and extra strong copper and brass pipe; tables; reference data. *Heat & Ven* 45:98a-98b Je '48
- Progress report on heat transfer tests of a buried copper pipe. W. C. Pease and others. *plan Heat & Ven* 45:87-90 Mr '48

PIPES, Glass

- Cartoons jump returns on business questionnaire; Corning glass works secured data on market for glass piping through the mail. *Ptr Ink* 222:44-5 Ja 16 '48

PIPES, Lead**Testing**

- Pressure and creep tests at constant hoop stress on lead and alloy E pipes; abstracts. A. Latin. *Engineering* 165:341 AP 9 '48; *Metallurgia* 37:242+ Mr '48; Discussion. *Engineering* 165:341 AP 9 '48

PIPES, Plastic

- Home-plumbing studies use plastic pipe. *Franklin Inst J* 245:343-4 AP '48
- Plastic ducts to assist designers fabricated from fiberglass impregnated with resin. *Aviation W* 48:26-7 Ja 12 '48
- Plastic pipelines can take it; four-year use in winery. F. Gallizio. *diag Food Ind* 20:1022-3 JI '48
- Plastic tubing used for gas service. *Heating-Piping* 19:101 D '47
- Plastics gas pipe extruded tubing replaces steel in home installations. *Sci Am* 178:31 Ja '48

Manufacture

- Complexity, no problem with laminated ducts. *Plastics* 8:42+ Mr '48

PIPES, Rubber

- Rubber pipe handles acid water. *Coal Age* 53:122 F '48

PIPES, Steel

- Corrosion of steel, cast iron, and lead by sulfuric acid and choice of materials for pipe lines. M. G. Fontana. *Ind & Eng Chem* 40:sup 103A-4A AP '48
- Drill pipe failures, inspection, and protection in the Permian basin. W. H. Crenshaw and others. *diag Pet Eng* 19:277-8+ My '48; Same, without il. *Oil & Gas J* 47:97-8+ Je 10 '48

- Installing 110-kv oil-pipe cable in old New Orleans. M. J. Cade. *il plans diag Elec World* 129:70-3 F 28 '48
- Natural gas stored in underground pipes. *il diags Comp Air Mag* 53:187-90 AG '48
- Oil country tubular goods. W. F. McConnor. *Pet Eng* 19:104+ Mr '48
- Pipe for South; Republic Steel to make large sizes in Alabama. *Bsns W* p20 Ja 24 '48
- Pipe protects 2,300-volt cable; Consolidation coal co., W. Va. *il Coal Age* 53:74-5 Ja '48
- Pipe supply to continue short. *il Steel* 122:48-9 Ja 19 '48

- Present and prospective outlook for steel tubular goods. W. F. McConnor. *Am Gas Assn Proc* 1947:122-4
- Storage of natural gas in underground pipe sections. D. V. Meiller. *il diags Western Soc E J* 53:19-38 Mr '48; Excerpts. *Heating-Piping* 20:93-7 My '48; *World Oil* 128:171-2+ S '48

- What's ahead in pipe. F. A. Marsh. *Gas Age* 101:24+ AP 15 '48

See also

- Water pipes, Steel

Graphitization

- Graphitization of steel at elevated temperatures. A. B. Wilder. *Heating-Piping* 19:108 D '47

See also

- Piping (power plants)—Graphitization

Manufacture

- Compressed air employed in the fabrication of pipe. *il Blast F & Steel Pl* 36:1116-17 S '48
- Continuous flow internal pipe pickling. *il Iron & Steel Eng* 25:102-3 Ag '48
- Factors in the operation of a Mannesmann piercing mill. H. R. McLaren. *il diags Iron & Steel Eng* 25:73-7; Discussion. 78-81 AP '48
- Modern seamless mills. A. F. Kritscher. *Blast F & Steel Pl* 36:712-13 Je '48
- Pipe forming after welding. G. E. Stedman. *il Steel* 122:98-100 My 24 '48

Standards

- A.S.T.M. specifications for steel piping materials; prepared by A.S.T.M. committee A-1 on steel; pipe, tubes, castings, forgings, bolting. 308p pa \$3 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

Testing

- Laboratory corrosion tests of iron and steel pipes. G. A. Ellinger and others. *il diags Paper Tr J* 127:27-32 S 2 '48
- Metallurgical properties of high yield strength seamless line pipe. A. B. Wilder and J. D. Tyson. *il diags Welding J* 26:872-80 O '47; Same. *Pet Eng* 19:138+ F '48
- Progress report on drill string research-non-destructive testing of drill pipe. R. C. McMaster and H. M. Banta. *il diags Pet Eng* 19:64+ N '47
- Study of the properties of 0.5 per cent chromium, 0.5 per cent molybdenum pipe steel. R. C. Fitzgerald and others. *il Welding J* 27:sup457-69 S '48; Excerpt. *Power Generation* 52:66 F '48

PIPES, Vitrified clay

- New type woodworking shop exhaust system provided by clay pipe. *il Brick & Clay Rec* 112:35 Ja '48
- Pre-jointing clay pipe with use of vertical rack speeds-up laying time. *diags Brick & Clay Rec* 113:38 S '48

PIPETTS

- Clamp and pipet for rapid delivery of approximate volumes. F. E. Holmes. *diags Anal Chem* 20:683 JI '48
- Improved holder for syringe pipets. R. B. Dean. *diags Anal Chem* 19:1046 D '47
- Pipette for the rapid transfer of measured quantities of solution. C. M. Woodruff. *diag Science* 107:377 AP 9 '48
- Safety pipetter. A. A. Singer and M. B. Jacobs. *bibliog il Anal Chem* 20:496 My '48
- Simple automatic pipette washer. W. Trager. *diag Science* 107:175 F 13 '48

PIPING

- Aluminum piping; how to use it. C. B. McLaughlin. *Heating-Piping* 20:78-82 AP '48

PIPING—Continued

Internally insulated piping and pressure vessels for high-temperature service. P. E. Darling. *diags* *Pet Refiner* 26:129-34 O '47; Same cond. *Pet Processing* 3:339-40+ Ap '48

Joints for plumbing and laboratory piping. J. E. York. *diags* *Heat & Ven* 45:89-93 Je; 88-93 Jl '48

Methods of making piping flexibility analyses. F. E. Wlosewick. *diags* *Heating-Piping* 20:78-82 S '48; Discussion. 20:96-8 N '48

New machine eliminates stainless flange welds. H. Frankfort. *il Chem Ind* 62:752-3 My '48

Oxygen and suction piping for hospitals. S. Lewis. *Heating-Piping* 20:94-5 F '48

Pipe and fittings; new equipment announced 1947-48. *Chem Ind* 63:416-19 S '48

Template of piping symbols speeds process piping layout. G. F. Sanderson. *diags* *Chem Eng* 55:129-30 Je '48

Bibliography

Reference to piping-system design. W. L. Nelson. *Oil & Gas J* 46:89 N 29 '47

Cost

How N system simplifies piping cost estimation. R. A. Dickson. *Chem Eng* 54:121-3 N '47

Identification

Identify piping for safety. A. H. Zellinger. *il Heating-Piping* 20:81-2 F '48

Pipe-line markers that meet all needs. *il Comp Air Mag* 53:20 Ja '48

Refinery piping colors; tabulated. W. L. Nelson. *Oil & Gas J* 47:99 Je 3 '48

PIPING (power plants)

How to eliminate vibration in piping systems. *diags* *Power Generation* 52:91-2 O '48

Power piping in paper mills. A. McCutchan. *diags* *Paper Ind* 29:1293-6 D '47

Proper expansion loop eliminates steam leaks. J. R. Brown. *diags* *Power* 92:557 S '48

Review of power and mechanical equipment; piping, fittings and specialties. *il Power* 91: 914-15 D '47

Series orifices reduce pipe erosion. O. Hokschi. *diags* *Power* 92:174 Mr '48

Graphitization

Fundamental investigation of graphitization of piping; final progress report. Edison Elec Inst Bul 16:43-4 F '48; Same. *Heating-Piping* 20:76-7 Ap '48

Graphitization and failure of steel in service. *Power Generation* 52:73 F '48

Graphitization of low-carbon low-alloy steel; an appraisal of the literature. G. V. Smith. *bibliog* *Welding J* 27:sup277-84 Je '48

Welding

Fatigue tests of welded elbows and comparable double-mitre bends. A. R. C. Markl. *bibliog* *il diags* A S M E Trans 69:869-76 N '47; Same. *Welding J* 27:sup310-17 Je '48; Discussion. A S M E Trans 69:877-9 N '47; *Welding J* 27:sup317-20 Je '48

Graphitization of low-carbon low-alloy steel; an appraisal of the literature. G. V. Smith. *bibliog* *Welding J* 27:sup277-84 Je '48

Radiology of joints in welded piping for power plants. E. Thomas. *diags* *Inst Mech Eng J & Proc* 158:Proc 1-5, pl 1-2; Discussion. 5-8 Je '48

PIPING (refrigerating plants)

Improved piping design aids refrigerating plant results. H. Vetter. *diags* *Heating-Piping* 20:71-3 Je '48

New standard will promote interchangeability of refrigeration flanged parts. H. N. Hermann. *il Refrig Eng* 56:330 O '48

Refrigeration piping and control for locker and processing plant. J. H. Carter. *il Heating-Piping* 20:81-3 Ag '48

Standards

Uniformity for refrigerant fittings. L. W. Benoit. *il Ind Stand* 19:116-17 S '48

PIRIE, John T. Jr.

Retail personalities. *Textile Col* 70:40 My '48

PISCIDIC acid

Constituents of cortex piscidiae erythrinae; the structure of piscidic acid. W. Bridge, F. Coleman and A. Robertson. *Chem Soc J* p257-60 Mr '48

PISTON rings**Manufacture**

Centrifugal casting proves advantageous for iron piston rings. T. C. Jarrett and E. J. Hubbard. *il diags* *Materials & Methods* 27: 79-82 Ja '48

Rings, pistons and liners; production methods employed by Hepworth and Grandage Ltd. *il Automobile Eng* 38:27-39, 51-61 Ja-F '48

Unconventional methods used to make U-Flex piston rings. *il Automotive Ind* 98:38-9+ Je 15 '48

PISTONS

Automatic assembly of pistons and connecting rods; Ford motor co. *il Automotive Ind* 98: 28 F 15 '48

Light alloy piston materials. A. Schofield and L. M. Wyatt. *il diags* *Metallurgia* 37:187-94 F '48

Materials and their requirements for automobile stampings, bumpers and pistons. N. G. Meagley. *il Materials & Methods* 26:77-8 N '47

New hydraulic pump has rotary type pistons. *il diags* *Automotive Ind* 99:48 Ag 1 '48

Piston assembly machine. *il diags* *Product Eng* 19:92-3 O '48

Pistons and con rods machine-assembled at the Rouge plant of the Ford motor co. C. S. Ricker. *il diags* *Am Mach* 92:111 Ap 6 '48

Predetermined speed control of air cylinders. F. H. Winter. *diags* *Tool Eng* 21:27-9 Ag '48

See also**Dashpots****Manufacture**

Casting aluminum pistons in permanent molds; Thompson products inc. R. H. Herrmann. *il plan* *Foundry* 76:78-83+ S '48

Rings, pistons and liners; production methods employed by Hepworth and Grandage Ltd. *il Automobile Eng* 38:27-39, 51-61 Ja-F '48

Patents

Piston design; developments as indicated by current patents. *diags* *Automobile Eng* 38: 229-34 Je '48

Testing

Cutting piston inspection costs in half; Detroit Diesel engine division of General Motors corp. *il Automotive Ind* 99:40 N 1 '48

Piston failure by preignition and detonation. A. G. Cattaneo and E. P. Viscia. *il diags* S A E J 55:54-60 N '47

PISTOSAURUS. See Plesiosauria**PITCH**

Electrically heated pitch pots speed lens production. D. W. White. *il Elec World* 129: 96-7 F 28 '48

See also

Paper making—Pitch problem

PITCHBLEND

Search for elements 94 and 93 in nature; presence of 94²³⁹ in pitchblende. G. T. Seaborg and M. L. Perlman. *bibliog* *Am Chem Soc J* 70:1571-3 Ap '48

PITOT tubes

Hydraulics for the practical water works man; measuring the flow in streams. R. W. Angus. *diags* *Water & Sewage Works* 95: 13-16 Ja '48

Simplified designs facilitate pitot tube application to small pipes. C. E. Kindsvater. *il Civil Eng* 17:680+ N '47

PITTSBURGH

Smoke law has smoggy debut. *il Bsns W* p21 O 11 '47; Same. *Heat & Ven* 44:114 N '47; Discussion. J. Vogele. *Bsns W* p 114 N 8 '47

Bridges

Street bridges raised to clear bigger locomotives. R. A. MacGregor. *il Roads & Sts* 91:116 Ja '48

PITTSBURGH—Continued

Industries

Metal fabricators hope Pittsburgh answer to f.o.b. problem; consider relocation of plants. S. Smoke. Iron Age 162:127-8 J1 29 '48

PITTSBURGH award

Fisher receives Pittsburgh award. *il Chem & Eng N 25:3849-50 D 29 '47*

PITTSBURGH coke and chemical company

Pittsburgh Coke adds to chemical output; news and views of investments. Barron's 28:27 Ag 23 '48

PITTSBURGH plate glass company

They struck oil; Pittsburgh Plate Glass and American Cyanamid; subsidiary. *Bsns W 336 My 8 '48*

PITTSBURGH railways company

Trustee offers new plan. *Comm & Fin Chr 166:914-15 S 4 '47*; Correction. 166:1846 N 6 '47

PITTSBURGH steel company

Bonds offered. *Comm & Fin Chr 167:1591 Ap 12 '48*

PITTSBURGH university. Mellon institute of industrial research

Mellon institute in 1947-48. *il Chem & Eng N 26:1618-23 My 24 '48*

Work of the Mellon institute. *il Chem Age (Lond) 68:74-7 Ja 10 '48*

PITUITARY body

Seasonal variation in the gonadotropic potency of dried anterior pituitaries of Rana pipiens. W. L. Sims and D. W. Bishop. *bibliog Science 106:588 D 12 '47*

PIVER, John C. 1874-1947

Sketch. *Weekly Underw 157:1302 N 22 '47*

PIVOTS

Offset pivot reduces sector gear noise. H. F. Baruffi. *diags Machine Design 20:131-2+ Je '48*

PLACE names. See Names, Geographical

PLACER mining. See Platinum mines and mining—Placer mining

PLACODUS gigas Agassiz

Placodus, recently mounted at Tübingen. F. R. Von Huene. *pl Am J Sci 245:784 D '47*

PLAGUE

Black death of 1348-49 and its effect upon the iron industry. H. R. Schubert. *Iron & Steel Inst J 157:525-6 D '47*

Effective vaccine found for bubonic plague. *Chem & Eng N 26:2008 J1 5 '48*

Statistics

Plague infection reported in the United States in 1946. *Pub Health Rep 62:1336-40 S 12 '47*

Plague infection reported in the United States in 1947. *Pub Health Rep 63:1102-5 Ag 20 '48*

World distribution of cholera, plague, smallpox, typhus fever, and yellow fever; Jan.-Oct. 1947, Nov. 1947, Dec. 1947, by weeks. *Pub Health Rep 63:167 Ja 30 '48* [cont monthly]

PLAIN, John and company

Plain's the name; sells to small town merchants. *Fortune 38:110 Ag '48*

PLANCK, Max, 1858-1947

Spiritual father of the modern development of physics. J. Franck. *Science 107:534-7 My 21 '48*

PLANCKIAN radiation. See Radiation

PLANCK'S constant

Freezing points of cobalt and nickel. M. S. Vandusen and A. I. Dahl. *bibliog diags J Res Nat Bur Stand 53:291-5 S '47*; Same cond. *Science 106:428-9 O 31 '47*

Our knowledge of the atomic constants F , N , m , and h in 1947, and of other constants derivable therefrom. J. W. M. DuMond and E. R. Cohen. *bibliog diags Rs Mod Phys 20:82-108 Ja '48*

PLANE trees

Occurrence of betulinic acid in the bark of the plane tree. V. Bruckner, J. Kovács and I. Koczka. *Chem Soc J p948-51 J1 '48*

PLANETARIUMS, Portable

Portable planetarium. *il Sci Am 178:130 Mr '48*

PLANETARY chemical company

Planetary Chemicals specializing in chemicals for greenhouses and orchards. *Chem Ind 62:386 Mr '48*

PLANETARY gearing. See Gearing, Planetary
PLANETARY orbits. See Orbits

PLANETS

Dust cloud hypothesis; new theory for origin of stars and planets. F. L. Whipple. *il Sci Am 178:34-45 My '48*

Relativity effect in planetary motions. G. M. Clemence. *bibliog Rs Mod Phys 19:361-4 O '47*

PLANING machines

Bar setup on planer locates trace used for turning hourglass shape. R. Egolf. *diags Am Mach 92:122 Ap 8 '48*

Electronic control of planing machine. *il Engineering 166:320-1 O 1 '48*

High-speed planing with carbide tools. W. P. Coomey. *il diags Mach 54:141-6 Ag '48*

Planer drives, their history and application. J. W. Harper. *diag Elec World 129:136-4 My 22 '48*; Same. *Product Eng 19:129-30 My '48*

Planer makes helical cuts. G. Lalak. *il Am Mach 92:93 Ja 15 '48*

Planing cast iron with carbide tools. G. J. Raible. *il diags Mach 55:171-3 S '48*

Servo electronic control of a large planing machine. *il Engineer 185:542-3 Je 4 '48*; Abstract. *Electrician 140:1650 My 28 '48*

35th annual review. *il Am Mach 92:151-5 Ja 29 '48*

Tuned and damped gyrostatic vibration absorber. R. N. Arnold. *bibliog il diags Inst Mech Eng J & Proc 157* (War emergency issue no 25):1-15; Discussion. 16-19 '47

PLANKTON

Effect of DDT on fish, fish food and plankton. *Pub Works 79:46-3 Ja '48*

Effect of DDT spray on reservoir biological balance. M. S. Shane. *il Am Water Works Assn J 40:333-6 Mr '48*

PLANNERS, Education of. See Specialization in education

PLANNING

Capacity-load charts forestall production bottlenecks; General electric co., Lynn, Mass. L. M. Nielsen. *Factory Management 106:101-3 Ja '48*

Centralized planning and control of plant layouts. C. E. Cass. *Paper Tr J 125:35-7 D 25 '47*; Same cond. *Paper Ind 29:1490+ Ja '48*

Effective controls for top management. A. E. Werolin. *Advanced Management 12:120-8 S '47*

How well can management predict? examination of prognostic research, its utility and limitations. W. A. Hamor. *Advanced Management 12:169-64 D '47*

Planning function in chemical engineering. A. J. Speakman. *il Chem Age (Lond) 53:374 Je 28 '48*

Production planning and scheduling at Westinghouse. L. A. Hradesky. *Mill & Factory 42:134-8 My '48*

Production planning for an automobile accessories manufacturer. J. W. Schafer. *N A C A Bul 30:21-8 S 1 '48*

Saves 43 per cent and more in finishing costs; Kirsch drapery hardware and venetian blinds. *il diags Mill & Factory 42:153-4 Mr '48*

Technique of financial forecasting. J. G. Robertson, Jr. *N A C A Bul 29:1459-72 Ag 1 '48*

Top management planning; potentialities in Canadian gold mining. J. S. Carman. *il map Can Min J 68:808-18, 892-902 N-D '47*

See also

National planning association

PLANNING, City. See City planning

PLANNING, Economic. See Economic planning

PLANNING, Regional. See Regional planning

PLANT cells and tissues

Explanation of longitudinal shrinkage of wood based on interconnected chain-molecule concept of cell-wall structure. R. A. Cockrell. *bibliog diags A S M E Trans 69:931-5 N '47*

Phosphorylase in guard cells. H. C. Yin and Y. T. Tung. *bibliog il Science 103:87-8 J1 23 '48*

Recent procedures for the study of three-dimensional shapes of resting cells, and a new method for the shape study of cells in division. T. J. Flint and E. B. Matzke. *bibliog Science 108:191-2 Ag 20 '48*

PLANT cells and tissues—Continued

Sodium chlorite as an aid in paleobotanical and anatomical study of plant tissues. E. S. Barghoorn. *bibliog Science* 107:480-1 My '48

See also

Chloroplasts

PLANT food council, American. *See* American plant food council

PLANT growth

Control of phases of plant growth by means of chemical regulators. M. A. H. Tincker. *bibliog* (128 ref) *Chem & Ind* p 163-5, 181-4 Mr 13-20 '48

See also

Growth inhibiting substances

Hormones, Plant

PLANT guard workers of America

Small union loses; plant-guard walkout at Briggs. *Bsns W* p97 O 2 '48

PLANT guards. *See* Factory guards**PLANT hormones.** *See* Hormones, Plant**PLANT labels**

Flower marker for plant-breeding operations. C. M. Rick. *diag Science* 106:645 D 26 '47

PLANT lice

Initiation of the cone gall of witch hazel. I. F. Lewis and L. Walton. *Science* 106:419-20 O 31 '47

PLANT viruses. *See* Viruses, Plant**PLANTS**

Insecticides derived from plants. E. J. Seiferle and D. E. H. Frear. *Ind & Eng Chem* 40:683-91 *bibliog* (194 ref, p689-91) *Ap* '48

Possible uses of annual plants in kraft pulping in Germany. G. Jayme and others. *Paper Ind* 30:956+ S '48

See also

Botany

Dyes and dyeing—

Natural dyes

Grafting

Hormones, Plant

Poisonous plants

Rubber plants and

planting

Weeds

Chemical analysis

Boron microdetermination in fresh plant tissue. H. W. Winsor. *diags Anal Chem* 20:176-81 F '48

Determination of carotene in alfalfa and cereal grasses. H. L. Mitchell and H. H. King. *bibliog Anal Chem* 20:637-8 J1 '48

Determination of carotene in plant materials. A. Sreenivasan and R. M. Vaidya. *bibliog Anal Chem* 20:720-2 Ag '48

Determination of lignin in plant material of high protein content. E. R. Armitage, R. D. Ashworth and W. S. Ferguson. *bibliog Soc Chem Ind J* 87:241-3 Je '48

Determination of small quantities of hydrogen cyanide in insects and plant tissue. R. A. Fulton and M. J. Van Dyke. *diag Anal Chem* 19:922-3 N '47

Determination of starch in plant tissues. G. W. Pucher, C. S. Leavenworth and H. B. Vickery. *bibliog Anal Chem* 20:850-3 S '48

Determining small amounts of calcium in plant materials; a colorimetric method. E. H. Tyner. *bibliog Anal Chem* 20:76-80 Ja '48

Estimation of hemicelluloses in holocellulose from nonwoody plant material. E. Bennett. *bibliog Anal Chem* 20:642-3 J1 '48

Factors influencing the composition of the tomato. A. Pollard and others. *bibliog Soc Chem Ind J* 67:281-3 J1 '48

Fluorine content of certain vegetation in a western Pennsylvania area. H. V. Churchill, R. J. Rowley and L. N. Martin. *Anal Chem* 20:69-71 Ja '48

Preliminary experiments on the use of synthetic resins in the estimation of trace elements. J. P. R. Riches. *bibliog Chem & Ind* p656-8 O 25 '47

Procedure for measurement of P^{32} and P^{33} in plant material. A. J. MacKenzie and L. A. Dean. *bibliog diag Anal Chem* 20:559-60 Je '48

Protoplasts from plant materials; properties of protoplasts released by anaerobic fermentation with clostridium roseum. J. W. White, Jr. and others. *bibliog Ind & Eng Chem* 40:293-7 F '48

Quantitative microdetermination of magnesium in plant tissue and soil extracts; rapid colorimetric method. M. Drosdoff and D. C. Neapass. *bibliog Anal Chem* 20:673-4 J1 '48

Spectrographic determination of boron in plant tissue. F. M. Smith, W. G. Schrenk and H. H. King. *bibliog Anal Chem* 20:941-3 O '48

Zinc content of plants on the Friedensville zinc slime ponds in relation to biogeochemical prospecting. W. O. Robinson and others. *bibliog Econ Geol* 42:572-82 S '47

See also

Anthocyanins—

Analysis

Cellulose—Analysis

Cotton—Analysis

Plants—Mineral

content

Tobacco—Analysis

Vegetables—Analysis

Collection and preservation

Effect of formaldehyde on picea and tsuga herbarium specimens; reply to F. R. Fosberg. A. G. Johnson. *Science* 107:294 Mr 19 '48

Use of chemicals to prevent molding of herbarium specimens. I. J. Condit. *Science* 108:53 J1 16 '48

Color

See Color of plants

Diseases

Record of the occurrence of physoderma graminis in Canada. W. R. Childers. *Science* 108:484 O 29 '48

Fluorine content

Fluorine content of certain vegetation in a western Pennsylvania area. H. V. Churchill, R. J. Rowley and L. N. Martin. *Anal Chem* 20:69-71 Ja '48

Mineral content

Chemical tissue tests for the determination of the mineral status of plants; abstract. D. J. D. Nicholas. *Chem & Ind* p 188 Mr 20 '48

Methods of determining mineral deficiencies in plants. T. Wallace. *bibliog Chem & Ind* p541-3 Ag 21 '48

See also

Plants—Trace elements

Molybdenum content

Molybdenum deficiency in serpentine barren soils. R. B. Walker. *bibliog Science* 108:473-5 O 29 '48

Studies of the molybdenum nutrition of plants with radioactive molybdenum. P. R. Stout and W. R. Meagher. *bibliog Science* 108:471-3 O 29 '48

Nitrogen content

Why some crop plants yield more than others; inverse yield-nitrogen law. O. W. Willcox. *Science* 108:38-9 J1 9 '48

Nutrition

Molybdenum deficiency in serpentine barren soils. R. B. Walker. *bibliog Science* 108:473-5 O 29 '48

Studies of the molybdenum nutrition of plants with radioactive molybdenum. P. R. Stout and W. R. Meagher. *bibliog Science* 108:471-3 O 29 '48

Soilless culture

Hot house food by the ton; Japanese occupation forces utilize controlled vegetable raising method. *Ind Food* Ind 20:190-2 F '48

Hydroponics progresses. *Ind & Eng Chem* 40:sup 10A+ Ap '48

Trace elements

Preliminary experiments on the use of synthetic resins in estimation of trace elements. J. P. R. Riches. *bibliog Chem & Ind* p656-8 O 25 '47

Symposium on trace elements in plant physiology. *Science* 107:108-10 Ja 30 '48

Zinc content

Zinc content of plants on the Friedensville zinc slime ponds in relation to biogeochemical prospecting. W. O. Robinson and others. *bibliog Econ Geol* 42:572-82 S '47

PLANTS, Effect of X rays on

Cytogenetic effects in corn exposed to atomic bomb ionizing radiation at Bikini. L. F. Randolph and others. *Science* 108:13-15 J1 2 '48

PLANTS, Flowering of

Indole-3-acetic acid and flowering. M. Green and H. J. Fuller. *Science* 108:415-16 O 15 '48

PLANTS, Watering of. See Watering of plants**PLASKON**

Alkyd hot molding compound. M. H. Bigelow. *Mod Plastics* 26:85-7 O '48
Moldable alkyd. *Chem Ind* 63:589 O '48

PLASMOCHIN

Reduction of 6-methyl-8-(4'-diethylamino-1'-methylbutylidene)-aminoquinoline. H. J. Barber, D. H. O. John and W. R. Wragg. *Am Chem Soc J* 70:2282-3 Je '48
Study of the synthesis of plasmochin by the reductive amination method with Raney nickel. R. C. Elderfield and others. *Am Chem Soc J* 70:40-4 Ja '48

Analysis

Identification of small amounts of organic compounds by distribution studies; purity of synthetic antimalarials. L. C. Craig and others. *bibliog Anal Chem* 20:134-9 F '48

PLASMODIUM

Alterations in the development of plasmodium gallinaceum following passage through tissue culture. R. M. Lewert. *Science* 107:250 Mr 5 '48
Sex of the host as a factor in plasmodium gallinaceum infections in young chicks. B. E. Bennison and G. R. Coatney. *bibliog Science* 107:147-8 F 6 '48

PLASTER and plastering

Masonry know how; cost of materials for plastering 100 sq. yds. on metal lath. *diags Brick & Clay Rec* 113:40-1 Ag '48
Materials required to plaster various sized rooms with 8' ceilings; tabulation. *Brick & Clay Rec* 113:42 S '48

PLASTER molds. See Molds (for casting)—Plaster molds**PLASTER of Paris**

Method for regeneration of plaster of Paris. J. A. Hedvall and others. *bibliog Am Cer Soc J* 30:323-9 N 1 '47

PLASTIC bearings. See Bearings, Plastic**PLASTIC braces. See Orthopedic apparatus, Plastic****PLASTIC coating**

Classification and uses of plastic coatings. J. L. Robertson. *Oil & Gas J* 47:72+ My 6 '48
Color; armored tubing. *Mod Plastics* 25:103-7 Je '48
Extrusion method of plastic finishing steel tubing. *Steel* 123:104 J1 19 '48
Industrial alcohol versus construction materials. *Chem Eng* 55:244+ O '48
Masking with a spray gun during paint operation. *Mill & Factory* 43:137 Ag '48
New type tank expedites plastic dipping operations. *Iron Age* 161:72 Ja 15 '48
Novel playing cards have plastics coating. *Plastics* 8:23 F '48
Paste dispersions of polyvinyl chloride. C. F. Ruebensaal. *Mod Plastics* 25:143-4+ Je '48
Plastic coating; Satsuply. *Chem Eng* 55:163-4 J1 '48
Plastic protective coatings. *Chem Age (Lond)* 57:722-3 D 6 '47
Sulphuric acid versus construction materials; protective coatings. *Chem Eng* 55:228+ Ag '48

See also

Plastic films

PLASTIC containers. See Containers, Plastic**PLASTIC filaments. See Filaments, Plastic****PLASTIC films**

Giving plastic film the new look; *Filmtex*. F. S. Hardenbrook. *Textile Col* 70:34 Mr '48
New Cry-O-Vac; oriented synthetic film applied semi-automatically to frozen poultry, meats and other foods. *Mod Packaging* 21:115-19+ Mr '48

New packaging film from plastic latex; *Reynolon*. *Chem & Eng N* 25:3168 O 27 '47; Same. *Mech Eng* 69:1033 D '47; Same. *Rubber Age* 62:69 O '47

New transfer print method developed; packaging seen as major field of application of patented process. *Plastics* 8:54 F '48

Oxygen absorption by cast plastic films. J. W. Westwater. *bibliog Ind & Eng Chem* 40:1494-500 Ag '48

Pectinate films; fruit by-product provides edible package. W. D. Maclay and H. S. Owens. *Mod Packaging* 22:157-8 S '48

Plastic skyhooks. *Mod Plastics* 25:100-1 My '48

Produce-film comparisons; government tests on packaged produce yield data on transparent films. J. Kaufman and others. *Mod Packaging* 21:147-51 Ag '48

Sense for humus; polyethylene bags and liners for peat, humus and potting soil. *Mod Packaging* 22:132-3 S '48

Syntlon; a plastic waterproof film for everyday use. L. R. Sherman. *Textile Col* 70:34 J1 '48

Versatile new packaging film. R. Signer and F. W. Tauber. *Food Ind* 20:1002-3+ J1 '48

Wrapped in plastics films. W. F. Cullom. *Mod Plastics* 25:87-91 My '48

Rating

Plastic films for household use. *Consumers Res Bul* 22:21-2 J1 '48

PLASTIC flooring. See Flooring, Plastic**PLASTIC furniture. See Furniture, Plastic****PLASTIC gas pipes. See Gas pipes, Plastic****PLASTIC grilles. See Grilles, Plastic****PLASTIC handles. See Handles, Plastic****PLASTIC hose. See Hose, Plastic****PLASTIC industries**

Advances in plastics during 1947. *Mod Plastics* 25:115-20+ *bibliog* (418 titles, p 120+) Ja '48

American families use plastics; market far from being saturated. *Plastics* 8:9-13+ F '48

Application research in the thermoplastics industry; Dow chemical co. R. H. Boundy and W. C. Goggin. *Chem & Eng N* 26:1220-2 Ap 26 '48

Better supply and price situation forecasts increased use of plastics. J. V. Sherman. *Materials & Methods* 28:61-5 S '48

Borden means business in plastics; new chemical division, formed by a merger of Durel plastics and Casein co. *Bsns W* 74+ My 1 '48

Chain store merchandises plastics products; T. Grant co. *Plastics* 8:19-22+ Mr '48

Comfortable living with plastics; uses of the products in the home of the Nigel Bruces, Pacific Palisades, Calif. R. A. Cooper. *Plastics* 8:9-10+ J1 '48

Elsie goes chemical. *Chem Ind* 61:794-5 N '47

How the promoting marketer broadens the use of plastics. *Plastics* 8:28+ Mr '48

How vinyl film reaches the retailer. *Plastics* 8:34-5 Ap '48

It's a trend; the use of informative labels on plastics. E. M. Kelly. *Sales Management* 61:92-4 N 1 '48

Looking toward 1948. *Mod Plastics* 25:59-83+ Ja '48

More products in plastics are here and to come, say designers. *diag Mod Plastics* 25:77-84+ N '47

Outlet for chemicals; abstract. A. J. Norton and D. V. Redfern. *Chem Ind* 61:802-3 N '47

Plastic highlights in 1947. P. O. Powers. *Chem & Eng N* 26:20-1 Ja 5 '48

Plastic trade estimates size of its niche. J. V. Sherman. *Barron's* 28:9 O 4 '48

Preparing for change; abstract. F. Sproton. *Chem & Ind* 66:0-1 O 25 '47

Prosperity passes some by even in growth enterprises like those that make plastics. J. A. Sherman. *Barron's* 28:25 Ap 19 '48

Proving plastics' possibilities; proper use, intelligent design, and good merchandising. *Mod Plastics* 25:121-2 Ap '48

Rubber or plastics. *Mod Plastics* 25:89-96 Je; 93-8 J1 '48

PLASTIC industries—Continued

Selling plastics; abstract. H. Raymond. *Mod Plastics* 25:196+ Ap '48
 Short run shops cut sales costs for Massachusetts plastics molder. J. P. Allison. *Ind Marketing* 33:66 Ap '48
 When extruders market products. K. Genereux and D. H. Garrison, jr. *Mod Plastics* 25:94-7 Mr '48
 Why plastics make good give-aways. *Ind Plastics* 8:12-14+ Jl '48

See also
 Society of plastics engineers Society of the plastics industry

Directories

Directory of names and addresses. *Plastics* 8:12+ My '48

Exhibitions

Highlights of the seventh Modern Plastics competition. *Mod Plastics* 26:110-83 S '48
 National plastics exposition, 3d, New York, Sept. 27-Oct. 1. *Mod Plastics* 26:86-8 N '48
 National plastics exposition, 3d, New York, Sept. 27-Oct. 1. *Plastics* 8:14-16 S '48
 Plastics industry show draws 50,000 visitors. *Oil Paint & Drug Rep* 154:74- O 4 '48
 Plastics look for big year. 3d national exposition. *Ind Bsns W* p64+ O 9 '48
 Presentation of new materials features 3d plastic exposition. *Rubber Age* 64:70 O '48
 Record attendance marks plastics industries exposition. *Chem & Eng N* 26:3023 O 11 '48

Labor conditions

Employment outlook in the plastics products industry. *Ind* diag U S Bur Labor Statistics Bul 929:1-18; pa 15c Supt. of doc. '48

Statistics

Consumption of plastics materials; Jan.-Aug. 1947. *Mod Plastics* 25:168-9 N '47
 Increase in plastics production predicted; abstract. A. J. Norton and D. V. Redfern. *Chem Eng* 54:254+ D '47
 Looking toward 1948; foreign trade. *Mod Plastics* 25:83 Ja '48
 Plastics and synthetic resins. *Chem Eng* 55:116 F '48
 Plastics and synthetic resins, shipments and consumption, 1941-1946. Survey of Cur Bsns 1947 Sup p 120 [supplemented in monthly numbers]
 Plastics materials sales, production in 1947. *Oil Paint & Drug Rep* 154:7 O 4 '48
 Plastics picture looks brighter. *Bsns W* p22 Ag 21 '48
 Plastics, synthetic resins consumption figures, 1947, as compared with 1946. *Oil Paint & Drug Rep* 153:73 My 17 '48

Canada

Plastics industry in Canada expands after war-time boom. L. C. McLeod. *Can Chem & Process Ind* 31:1155-6 D '47

China

Production of plastics materials. *For Comm W* 32:28 Jl 3 '48

Germany

Continuous polymerization in Germany. R. D. Dunlop and F. E. Reese. *bibliog diag Ind & Eng Chem* 40:654-60 Ap '48
 Manufacture, compounding, and uses of polystyrene in Germany. G. M. Kline and others. *Ind diag Mod Plastics* 25:131-3+ N '47
 Polyamides in Germany: intermediates. *bibliog Mod Plastics* 25:125-6+ Mr '48
 Polyamides in Germany: preparation and applications. *Mod Plastics* 25:148-50+ Ap '48
 Stimulation of plastics technology by German disclosures. J. M. DeBell and H. M. Richardson. *bibliog Ind & Eng Chem* 40:651-4 Ap '48

Great Britain

British plastics production. J. S. Trevor. *Mod Plastics* 25:180 Je '48

Growth of the plastics industry. *Ind Chem Age (Lond)* 59:416-17 S 25 '48
 Household plastics in Britain; Runcolite. *Ind Mod Plastics* 25:92-4 O '48
 Some recent developments of the British plastics industry. P. A. Delafeld. *Ind India Rubber World* 117:499-502 Ja '48

India

Market in India. D. A. S. Chari. *Plastics* 8:58 F '48

Scotland

Plan for Scottish plastics. *Chem Age (Lond)* 59:119 Jl 24 '48

PLASTIC jewelry. See Jewelry, Plastic

PLASTIC jewelry boxes. See Jewelry boxes, Plastic

PLASTIC lenses. See Lenses, Plastic

PLASTIC lighting fixtures. See Lighting fixtures, Plastic

PLASTIC luggage. See Luggage, Plastic

PLASTIC map markers. See Map markers, Plastic

PLASTIC materials

Acrylics dress-up juke boxes. *Ind Plastics* 8:42-3+ Ja '48

Advances in plastics during 1947. *Ind Mod Plastics* 25:115-20+ bibliog(418 titles, p 120+) Ja '48

ASME Rubber and plastics division meeting, Atlantic City, Dec 4. *Rubber Age* 62:312 D '47; *India Rubber World* 117:503-4 Ja '48

Annual engineering review: plastics. Materials & Methods 27:99-100 Ja '48

Application of high vacua in the paint and plastics industries. J. C. Swallow and J. S. Gourlay. *Ind diag Chem & Ind sup* 9-13 O 9 '48

Applications of plastics in chemical equipment. E. B. Yelton. *Ind Chem Eng Prog* 44:89-92 Ja '48

Better supply and price situation forecasts increased use of plastics. J. V. Sherman. *Ind Materials & Methods* 28:61-5 S '48

Cellulosic plastics; properties, applications, etc. M. Bentivoglio and M. Demarest. *Ind diag reference book sheet*(p 153,155) *Product Eng* 19:85-91 My '48

Chemical engineering in the plastics industry. T. S. Carswell; R. Buchdahl and others. *bibliog diag Ind & Eng Chem* 40:642-72 Ap '48

Chemical engineering materials of construction; plastics. G. M. Kline. *bibliog*(86 ref) *Ind & Eng Chem* 40:1804-9 O '48

Electrical and allied developments during 1947; chemical and metallurgical. G. Bartlett. *Ind Gen Elec R* 51:45-6 Ja '48

Engineering perfects a plastics camera. *Ind Mod Plastics* 25:107-11 Jl '48

Extrusion of plastics. C. P. Fortner. *Ind Rubber World* 118:671-4 Ag '48

Extrusion of thermoplastics; abstract. S. Booth and others. *Chem & Ind* p 171-2 Mr 13 '48

Hearing aid uses 22 plastics parts. *Ind Plastics* 8:13-15+ Ja '48

Increasing use of plastics in telephones. *Ind Mod Plastics* 25:182-3 D '47

Insulation material; plastic-foam. *Mech Eng* 70:627 Jl '48

Kel-F; new high temperature thermoplastic; polymer of trifluorochloroethylene. *Mod Plastics* 26:168+ O '48; Abstracts. *Chem & Eng N* 26:2721 S 13 '48; *Chem Eng* 55:161-2+ O '48; *India Rubber World* 119:221 N '48

Labeling plastic products. *Ind Mod Plastics* 25:87 Mr '48

Looking toward 1948; raw materials; cellulose acetate and kindred materials. *Mod Plastics* 25:61-72+ Ja '48

Low-pressure industries division of Society of the plastics industry 3d annual technical session, Chicago, Jan. 15-16. *Chem & Eng N* 26:309 F 2 '48

Major advances in plastics during 1947. J. W. Underwood. *bibliog*(72 titles) *India Rubber World* 117:621-3 F '48; Same. *Mech Eng* 70:298-300+ Ap '48

Matchplates made from plastic. *Ind Foundry* 76:122+ Ag '48

Measurement of ultrasonic bulk-wave propagation in high polymers. A. W. Nolle and S. C. Mowry. *Ind diag Acoustical Soc Am J* 20:432-9 Jl '48

PLASTIC materials—Continued

Molded thermosetting plastics materials; general properties and uses tabulated; engineering file facts. *Materials & Methods* 26: 111+ D '47

More music; mass production of musical instruments helped by plastics. *il Mod Plastics* 25:108-10 Je '48

More plastics in safety equipment. J. R. Fisher. *il Mod Plastics* 26:77-81 O '48

Mud acid and plastics aid solutions to completion and production problems. A. C. Polk, Jr. *Oil & Gas J* 47:210+ Je 24 '48

New crash helmet offers greater protection; utilizing fiberglass cloth, electron polyester resin and cellular cellulose acetate. *il diag Plastics* 8:34-6 F '48

New latex cures at room temperature; Geon latex 31X. E. B. Osborne. *bibliog Mod Plastics* 25:81+ F '48

New plastic resists high heat and corrosion; polytrifluorochloroethylene. *Product Eng* 19:106 O '48

Plastic committee sponsors first TAPPI fall meeting. *Paper Ind* 30:891-2 S '48

Plastic materials that supplement or supplant textiles. C. W. Patton. *Am Dyestuff Rep* 36: 757-60 D 15 '47; *Excerpt (table)*. *Textile World* 97:139 D '47

Plastics alloyed with synthetic rubber. *il Sci Am* 177:266-7 D '47

Plastics are engineering materials; use of plastics in product design. *il diag Product Eng* 19:129-52 S '48

Plastics as paper coatings. W. H. Aiken. *il Mod Packaging* 21:193-7 J '48

Plastics in automatic merchandising. M. Meyers. *il Plastics* 8:22-3 O '48

Plastics in business machines. E. G. Chollar. *il Mod Plastics* 25:111-15 F '48

Plastics in post-war buses. *il Mod Plastics* 25:116-17 D '47

Plastics in the nursery. *il Plastics* 8:14-15 Je '48

Plastics newcomers; PE8 and Plaskon alkyd molding compound. *Bsns W p83 S 25 '48*

Plastics on ice; Ice follies of 1948; costumes, scenery, and props. *il Mod Plastics* 25:106-7 Ap '48

Plastics parts make sales for the hardware dealer. M. Meyers. *il Plastics* 8:46-8+ Mr '48

Plastics solve 13 design problems of hotels. W. P. Margulies. *il Plastics* 8:10-14+ Ag '48

Portables use more plastics. *il Mod Plastics* 25:90-2 Ag '48

Price-volume ratios of plastics; quantity purchasable for one dollar (Jan. 1948); chart; engineering file facts. *Materials & Methods* 27:107 Mr '48

Properties of cellulosic plastics; reference book sheet. M. Bentivoglio and M. Demarest. *Product Eng* 19:153, 155 My '48

Radio-phonograph uses variety of plastics; miniature model. *Scottie Convertible*. *il Plastics* 8:23+ Ap '48

Ready-to-cast compound; Calcerite supplements cast plastics and may be used in dies for embossing acrylic and copper. J. Delmonte. *il Mod Plastics* 25:98-101 Ap '48

Selection and application of plastics. B. Mack. *il Materials & Methods* 28:91-104 S '48

Selling with plastics displays. *il diag Mod Plastics* 26:75-82 N '48

S.P.I. remobilization program meeting; what the armed services want from plastics; digests of papers. *Mod Plastics* 26:156+ N '48

SPI 3d annual low-pressure meeting, Chicago, Jan. 15-18; with abstracts of papers. *Plastics* 8:30+ Mr '48

Sold in molded plastics packages. *il Mod Plastics* 25:97-102 Je '48

Some recent developments of the British plastics industry. P. A. Delafield. *il India Rubber World* 117:499-502 Ja '48

Some recent phases of fabricating technique. J. W. Knight. *il diag India Rubber World* 118:379-80 Je '48

Technical papers at S.P.E. convention; abstracts. *Mod Plastics* 25:85+ F '48

Top flight plastics; luxury products, toys and novelties in New York shops. *il Plastics* 8:24-8 Ap '48

Vendor uses plastics inside and out; carbonator head made of acrylic. *il Mod Plastics* 25:82-4 JI '48

Vinyl plastics for masking in electroplating. W. M. Martz. *Iron Age* 161:94 Ap 15 '48

What the armed forces want in plastics. *il Mod Plastics* 25:75-9+ Ag '48

What's in a game? table quoits made of polystyrene, two kinds of vinyls and extruded and sheet acetate. W. Schack. *il Plastics* 8:20-2 F '48

See also

Airplanes—Materials

—Plastics

Automobiles—Materials—Plastics

Bakelite

Casein

Cellulose acetate

Cellulose acetate

butyrate

Cement

Clay

Color in plastic materials

Containers, Plastic

Gums and resins

Kalistron

Lucite

Melamine resins

Methacrylates

Molded products

Molding

Paper, Laminated

Plastic films

Plasticizers

Polyethylene

Printing on plastics

Resinous products

Rubber

Rubber, Artificial

Saran

Silicones

Styrene

Teflon

Tools, Plastic

Bibliography

Advances in plastics during 1947. *il Mod Plastics* 25:120, 186-8+ Ja '48

Plastics digest, *Mod Plastics* 25:124 Ja '48 [cont monthly]

Blowing

Blowing bubbles for helicopters; transparent cabin enclosures. K. Rose. *il Automotive Ind* 98:40-1 Ja 15 '48

Pneumatic forming of acrylic cabin enclosures; Bell aircraft corp.'s helicopters. *il Materials & Methods* 26:76-8 D '47

Case hardening

Case hardening of phenolic casting resins; Catavar #101 and Durez #7421A. G. A. Sterbutzel and J. T. Grey. *il Mod Plastics* 25:123-5+ F '48

Chemistry

Carbohydrates as an alternative source to petroleum for organic chemicals. C. Weizmann, E. Bergmann and M. Sulzbacher. *bibliog Chem & Ind* p769-71 D 13 '47

Monomers, polymers and co-polymers; how molecular structures and binding forces influence final form of plastics. W. C. Voss. *Mod Plastics* 25:89+ N '47

Recent advances in the chemistry of the phenol-aldehyde condensation; abstract and discussion. E. G. K. Pritchett. *Chem & Ind* p91-2 F 7 '48

Competitions

Highlights of the seventh Modern Plastics competition. *il Mod Plastics* 26:110-83 S '48

Progress in plastics. *il Mod Packaging* 22: 113+ O '48

Cutting

Carbide tool routs fiberglass; cutting glass reinforced laminated plastic. *il Am Mach* 92:83 F 26 '48

Machining plastics with carbide tipped tools. *diag Mill & Factory* 42:130-1 Je '48

Non-metallic materials; manufacture and employment of Tufnol. *il Automobile Eng* 38:173-5 My '48

Dictionaries

Plastics dictionary. T. A. Dickinson. 312p \$5 Pitman pub corp, 2 W. 45th st, New York 19 '48

Durability

Sporting goods uses show that plastics can take it; with list of goods and materials. M. Meyers. *il Plastics* 8:22-6+ Je '48

Electric properties

Dielectric fatigue of plastics. W. W. Shuster and D. Telfair. *Mod Plastics* 25:123-4+ Mr '48

Dust precipitator; two applications of plastics as insulating materials. *il Mod Plastics* 25: 173-4 D '47

PLASTIC materials—Electric properties—Cont.

Growing importance of plastics in the electrical industry. G. Haefely. *Inst E E J* 94 pt 2:301-8 Ag '47; Discussion. 94 pt 2:308-12; 95 pt 2:107-12 Ag '47, F '48

Plastic electrets. *Il diag Machine Design* 20:107-8 F '48

Plastics; molding and casting compounds, laminates, and synthetic and natural rubbers used in electronic equipment. *Electronics* 21:M30-5 Mid-Je '48

Embossing

Embossing acrylics. J. Delmonte. *Il Plastics* 8:30-+ Ap '48

Fillers

Fillers for phenolics. L. Debing. *bibliog Mod Plastics* 25:127-32 D '47

Fillers for ureas and melamines. P. Fuller. *Mod Plastics* 25:132-+ D '47

Properties of fillers in vinyl plastics. R. L. Moore. *Il India Rubber World* 118:232-4 My '48

Finishing

Flame polishing with the oxy-hydrogen torch. *Il Mod Plastics* 25:119 My '48

Molding and finishing instrument dials. H. Chase. *Il Mod Plastics* 25:105-8 Mr '48

New surface treatment for polystyrene; Logoquant. *Mod Plastics* 25:162-4 N '47

New treatment increases chemical and abrasive resistance of polystyrene plastics; Logoquant treatment. J. Bjorksten. *Il Materials & Methods* 27:75-7 Mr '48

Plastic parts are cleaned and finished by tumbling. H. A. Knight. *Il Materials & Methods* 28:83-5 S '48

Tumble-polishing small parts. J. S. Saviello. *Il Plastics* 8:14-17 Ap '48

Fire hazards

Toxicity and flame resistance of thermosetting plastics. L. B. Berger and others. 5pls U S Bur Mines Rep of Invest 4134:1-11 '47

Glass reinforcement

Fiberglass-reinforced plastics. *Mech Eng* 70:246-7 Mr '48

Glass fiber reinforcement for plastics; patent. *diag Glass Ind* 29:570-1 O '48

See also

Plastic materials,
Laminated—Glass
reinforcement

Heating

Application of high-frequency dielectric heating to rubber and plastics. C. Mann. *Il India Rubber World* 118:68-70; Discussion. 70-1 Ap '48

Automatic heat sealing of plastics speeds production. *Il Mill & Factory* 42:101 My '48

Identification

Quick identification of plastics; engineering file facts. K. Rose. *comp. Materials & Methods* 27:105 Ap '48

Joining

Characteristics and configurations of reinforced plastic joints. R. J. Francis. *diag Product Eng* 19:104-5 My; 134-5 Je '48

Manufacture

Chemical products of coal carbonisation. J. R. Campbell. *Chem Age (Lond)* 63:172-5 Ja 31 '48

Continuous polymerization in Germany. R. D. Dunlop and F. E. Reese. *bibliog diag Ind & Eng Chem* 40:654-60 Ap '48

Du Pont opens new plant in West Virginia. *Il Plastics* 8:24-5 O '48

Highlights of 1947. *Il diag Mod Plastics* 25:101-10 Ja '48

Papers digested for A.I.E.E. rubber and plastics conference. *Il Elec Eng* 67:704-6 Jl '48

Practical experiences with dangers and illnesses from plastics. C. S. McKinley. *Ind Med* 16:432-4 S '47; *Surg cond. Il diag Safety Eng* 94:14-16+ D '47

Precocious plastic; polyethylene's brilliant successes. *Il diag Mod Plastics* 25:73-80 F '48

Recent developments in rubber and plastics machinery. E. S. Thompson. *Il India Rubber World* 118:209-15+ My '48

Stimulation of plastics technology by German disclosures. J. M. DeBell and H. M. Richardson. *bibliog Ind & Eng Chem* 40:651-4 Ap '48

Marking

How to mark hard plastics; Acromark co. process called Oil engraving. H. O. Bates. *Il diag Am Mach* 91:119 D 18 '47

Some ways to mark plastics after parts are molded; hot stamping. H. O. Bates. *Il diag Plastics* 8:10-12+ Je '48

Patents

U.S. plastics patents. *Mod Plastics* 25:128+ Ja '48 [cont monthly]

Plating

Metal-coated plastics combine advantages of both materials. H. R. Clauser. *Il Materials & Methods* 27:79-82 Je '48

Metal plating on non-conductors. C. A. Marples. *Il diag Metal Finishing* 46:60-6+ O '48

New methods of electro-forming and depositing nickel. *Il Steel* 123:106+ Jl 12 '48

Plating on plastics; abstracts. H. Narcus. *Steel* 123:114+ Ag 2 '48; *Iron Age* 162:87 S 16 '48

Preheating

Preheating thermoplastic materials. R. R. Leiske. *India Rubber World* 117:227 N '47

Testing

Constant stress apparatus for the study of the creep properties of plastics. A. G. Ward and R. R. Marriott. *bibliog Il diag J Sci Instr* 25:147-51 My '48

Diffusivity of gases through synthetic elastomer diaphragms. L. E. Stout, R. Geisman and J. M. Mozley, jr. *bibliog Il diag Chem Eng Prog* 44:219-28 Mr '48

Dimensional stability tests on injection-molded cellulose derivatives and synthetic plastics; abstract. W. O. Bracken. *Mod Plastics* 25:174+ My '48

How to make and interpret hardness tests on plastics. V. E. Lysaght. *Il Materials & Methods* 27:84-8 Mr '48

Mechanical tests of macerated fabric phenolic molding material. W. N. Findley. *bibliog diag Mod Plastics* 25:145-50+ D '47

New attack on the degradation of plastics; abstract. F. W. Reinhart. *Product Eng* 19:131-2 My '48

Plastics tested; temperature-controlled cabinet. *Il Sci Am* 178:76 F '48

Scratch resistance of plastics. E. C. Bernhardt. *bibliog Il Mod Plastics* 26:123-6+ O '48. *Corrosion*. 26:18 N '48

Testing for better plastics; research program now underway will provide more accurate data for engineers; it may even result in the development of new plastic materials. *Il Mod Plastics* 25:92-4+ My '48

Thermally reversible strains in plasticized polyvinyl chloride. W. F. O. Pollett. *bibliog Soc Chem Ind J* 66:319-23 S '47

Water absorption

Causes of dimensional instability of paper base phenolic resin laminates on total immersion in water. C. J. Straka. *Paper Tr J* 126:50-4 Ap 1 '48

PLASTIC materials, Cellular

Low-density plastics. R. A. Clark and others. *Il India Rubber World* 117:361-2 D '47

PLASTIC materials, Decorative

Hand painting on vinyl. *Il Mod Plastics* 25:86-7 Ag '48

Picture light combines decorative wall treatment with source of illumination. *Il Mod Plastics* 25:174 F '48

PLASTIC materials, Laminated

Alkyd-vinyl insulation proves its worth; Fosterite-asbestos. E. L. Schulman. *Il Plastics* 8:50-1+ Ja '48

Applications of low pressure plastic laminates. *Materials & Methods* 28:110-11 S '48

British laminated plastic is designed for load bearing partitions; Holoplast. *Il diag Arch Forum* 88:124 Mr '48

PLASTIC materials, Laminated—Continued

- Compression molded thermoplastic laminates and sheets. *il* Mod Plastics 25:118-20 Ap '48
- Cotton fabric laminates. R. K. Witt and others. *il* Mod Plastics 25:123-5+ My '48
- Evaluation of thermoset laminated sheet products; abstract. F. L. Minnear. *Product Eng* 19:157 Ap '48
- Hotel faced with plastic and aluminum; Laurentien hotel in Montreal. *il* diags Eng N 141:70-3 JI 22 '48
- Laminate in traffic signs. *il* Mod Plastics 26:172 N '48
- Laminated blanket box; a die-cut trademark permits product visibility and boxboard gives strength to new St Mary's package. *il* Mod Packaging 21:125 Mr '48
- Laminated Plexiglas in aircraft. W. F. Bartoe and E. N. Robertson. *diags Aero Digest* 56:42-5, 102+ My; 57:68+ JI '48
- Laminated tubing enters consumer's markets. *il* Plastics 8:46 F '48
- Laminates from purified cotton linters sheet. M. Gallagher and R. B. Seymour. *Mod Plastics* 25:117-18+ Ag '48
- Laurentien, Montreal hotel uses pulp and paper product in construction; arborite, lignin enriched laminated paper. *il* Pulp & Pa of Can 49:57-9 F '48
- Low-pressure laminates in competition; abstract. J. W. Greig. *Product Eng* 19:137 Ja '48
- Monomers, polymers and co-polymers; how molecular structures and binding forces influence final form of plastics. W. C. Voss. *Mod Plastics* 25:89+ N '47
- Navy plastic personnel boat. *il* Mod Plastics 26:166 O '48
- Non-metallic materials; manufacture and employment of Tufnol. *il* Automobile Eng 33:171-6 My '48
- Operation underfoot; vinyl floors. *il* Mod Plastics 25:75-82 Mr '48
- Permeability of laminations of polyvinyl alcohol films to other polymers. P. W. Morgan. *diag Mod Packaging* 22:159-60 S '48
- Plain sleeve bearings, materials and design; plastic laminate bearings. *il* diags *Product Eng* 19:149-50 O '48
- Plastic machine parts cut bottle breakage. *il* Mod Packaging 21:117 My '48
- Plastic tooling strong, inexpensive and easy to produce. L. Wittman. *bibliog il* diags *Materials & Methods* 27:37-92 F '48
- Plated molds for laminates may reduce tooling costs. *il* Plastics 8:18-19+ JI '48
- Polyester laminate announced; Satsply. *il* Mod Plastics 25:92 JI '48
- Postforming laminates; control of temperature and the heating period. F. Sullivan. *il* diags *Mod Plastics* 25:138-40+ Ap '48
- Post-forming of thermoset phenol-formaldehyde laminates. L. Gilman and others. *bibliog il* diag *Mod Plastics* 25:140-2 D '47
- Properties and applications of laminated phenolic bearings. L. E. Caldwell and J. Boyd. *il* diags *Mech Eng* 70:601-7 JI '48
- Public health and plastics; Odonton clinic. P. Fuller. *il* Mod Plastics 25:92-4 Ja '48
- Resin laminates on the rails; Chicago, Milwaukee, St Paul and Pacific. P. Fuller. *il* Mod Plastics 25:86-8 N '47
- Some applications of laminated plastics. *il* Engineer 185:479 My 14 '48
- Thermal effects on flexural strength of laminates. P. Norelli. *il* Mod Plastics 26:121-8+ N '48

Glass reinforcement

- Carbide tool routs fiberglass; cutting glass reinforced laminated plastic. *il* Am Mach 92:33 F 26 '48
- Design and application of glass-reinforced plastic parts. R. White. *il* diags *Machine Design* 20:143-7+ O '48
- Fiberglass plus resin lightens chute pack. *Aviation W* 49:32 S 13 '48
- Laminated fiber-glass for aircraft. J. H. Beach. *il* plan *Aero Digest* 56:37+ Je '48
- Motor parts of glass-polyester laminates. *il* *Product Eng* 19:137-8 S '48
- Plastic plane; new method resembles casting. *Aviation W* 49:23 O 25 '48

Manufacture

- Big new G.E. laminating plant, Coshocton, Ohio. *il* Mod Plastics 25:124-5 N '47
- General electric company; new laminated plastics plant at Coshocton, Ohio. *il* *Factory Management* 106:B64-8 pt 2 Ap '48
- Huge British laminating press; producing Formica decorative laminates and Delaron industrial laminates. P. Reilly. *il* Mod Plastics 25:143 Ap '48
- New plant devoted to laminating plastics; General electric co. *il* *Product Eng* 18:150 N '47

Testing

- Causes of dimensional instability of paper base phenolic resin laminates on total immersion in water. C. J. Straka. *Paper Tr J* 126:50-4 Ap 1 '48

PLASTIC materials, Transparent

- Acrylic car window. *il* Mod Plastics 26:254 S '48
- Acrylic in helicopters. *il* Mod Plastics 25:85 JI '48
- Acrylic plastics in automotive body design; Plexiglas developed to eliminate sunburn wave-lengths; abstract. W. F. Bartoe. *Automotive Ind* 97:39 D 1 '47
- Acrylic plastics in lighting; abstract. W. E. Harper and H. P. Walker. *Electrician* 140:1971 Je 25 '48
- Automotive glazing with plastics. *Glass Ind* 29:573-4 O '48
- Battery vent plug gives visual warning. *il* Mod Plastics 25:98 Mr '48
- Better than a rubber stamp; map-marking. *il* diags *Plastics* 8:44+ Ja '48
- Blowing bubbles for helicopters; transparent cabin enclosures. K. Rose. *il* *Automotive Ind* 98:40-1 Ja 15 '48
- Displays award to General Electric for acrylic washing machine tub. *il* Mod Plastics 26:124-5 S '48
- Fluorescent Plexiglas. *Chem Ind* 62:960 Je '48
- Fuel flow control panel; edge-lighted acrylic panel of Martin Mercator. *il* Mod Plastics 25:110-11 Ap '48
- Know your acrylics. D. A. Rothrock. *il* *Plastics* 8:38-40+ F '48
- Laminated Plexiglas in aircraft. W. F. Bartoe and E. N. Robertson. *diags Aero Digest* 56:42-5, 102+ My; 57:68+ JI '48
- Lubrication phenomena; use of transparent models for purposes of demonstration and study. J. Boyd. *il* diags *Mech Eng* 70:589-92 JI '48
- Miracle of growth; transparent acrylic models at Museum of science and industry in Chicago. *il* Mod Plastics 25:112-15 D '47
- New Plexiglas II resists higher heat. *Aviation W* 49:30 Ag 9 '48
- Peek-a-boo demonstrators let prospects see product innards; Plexiglas models of electric appliances. T. Armstrong. *il* *Sales Management* 61:44-5 Ag 15 '48
- Personal radio features plastics; transparent polystyrene face plate. *il* Mod Plastics 25:95 Ja '48
- Plastic stars in new film; moving picture stresses role of Plexiglas in industrial safety. L. S. Metcalfe. *il* *Safety Eng* 95:17+ Ja '48
- Plexiglas protects nylon thread, boosts hosiery production. *il* *Rayon* 28:599-600 N '47
- Raman tube filters. G. Glockler and J. F. Haskin. *bibliog J Chem Phys* 15:769 O '47
- Relay curve templates made from plastics. *il* *Elec World* 129:62+ Ja 3 '48
- Tell the inside-the-product story; acetate books and plastic working models. R. H. Ganly. *il* *Ptr Ink* 225:32-4 O 8 '48
- Transparent machine; potato chips moved thru acrylic chutes and hoppers in unusual weigher and filler. *il* Mod Packaging 21:113-17+ My '48
- Transparent washing machine uses acrylic. *il* Mod Plastics 25:190 Ap '48
- Versatile new packaging film. R. Signer and F. W. Tauber. *il* *Food Ind* 20:1002-3+ JI '48
- Versatile vinyl sheeting. W. H. Sheffield. *il* Mod Plastics 25:94-6 F '48

PLASTIC materials, Transparent—*Continued*
War-plane blisters in peace-time use. *il Mod*
Plastics 26:89 N '48

See also

Containers, Trans- Lenses, Plastic
parent Lumarith

PLASTIC materials manufacturers association
Annual meeting, New York. *Oil Paint & Drug*
Rep 153:7 Ja 12 '48

PLASTIC models. *See Models, Plastic*

PLASTIC paint

Hand painting on vinyl. *il Mod Plastics* 25:
86-7 Ag '48

See also

Plastic coating
Resinous products—
Finishing materials

PLASTIC phonograph records. *See Phonograph*
records, Plastic

PLASTIC pipes. *See Pipes, Plastic*

PLASTIC replicas. *See Replica technique*

PLASTIC sculpture

Making a cast phenolic sculpture. *il Plastics*
8:38-9 Je '48

PLASTIC sheeting

Sheeting unit. *il Mod Plastics* 25:104-5 Ja '48

See also

Kalistron

PLASTIC signs. *See Signs, Plastic*

PLASTIC tableware. *See Tableware, Plastic*

PLASTIC tape. *See Tape, Plastic*

PLASTIC tiles. *See Tiles, Plastic*

PLASTIC tools. *See Tools, Plastic*

PLASTIC tubes. *See Tubes, Plastic*

PLASTIC vials. *See Vials, Plastic*

PLASTIC wallets. *See Wallets, Plastic*

PLASTIC webbing. *See Webbing, Plastic*

PLASTIC window shades. *See Window shades,*
Plastic

PLASTICITY

Cumulative extension test for plasticity in
textile fibres. R. Meredith and F. T. Peirce.
bibliog diag Textile Inst J 39:T159-84 My
'48

Effect of the sulfate ion on the plasticity
of brick clays. A. L. Johnson and G. B.
Hughes. *bibliog Am Cer Soc J* 31:194-200
Jl 1 '48

Flow of metals under various stress condi-
tions. A. L. Nadal. *diags Inst Mech Eng J*
& *Proc* 157 (War emergency issue no 28):
121-60, pl 1-8 *bibliog*(p159-60) '47

Fundamental study of clay; a new theory for
the plasticity of clay-water masses. F. H.
Norton. *bibliog il diags Am Cer Soc J* 31:
236-41 Ag 1 '48

Large plastic flow and the collapse of hollow
cylinders. P. W. Bridgman. *il J Ap Phys*
19:302-5 Mr '48

Mooney viscosity and gel plastiott relation-
ship for GR-S-xylene gels. J. C. Driskell
and R. D. Kracke. *il India Rubber World*
118:66-7 Ap '48

Partially plastic thick-walled tubes. C. W.
MacGregor and others. *bibliog diags Frank-
lin Inst J* 245:135-58 F '48

Plastic flow characteristics of aluminum-
alloy plate. L. J. Klingler and G. Sachs.
bibliog il diag J Aeronautical Sci 15:599-
604 O '48

Plastic flow of thick-walled tubes with large
strains. C. W. MacGregor and others. *bib-
liog diag J Ap Phys* 19:291-7 Mr '48

Plastic flow of thin reinforced concrete slabs.
G. W. Washa. *il Am Concrete Inst J* 19:
237-60 N '47

Plasticity for the aerodynamicist. W. Prager.
bibliog diags J Aeronautical Sci 15:253-62
My '48

Problem types in the theory of perfectly
plastic materials. W. Prager. *bibliog diags*
J Aeronautical Sci 15:337-41 Je '48

Properties of monomeric and polymeric alkyl
acrylates and methacrylates. C. E. Rehberg
and C. H. Fisher. *bibliog Ind & Eng Chem*
40:1429-33 Ag '48

Reliability of workability index of fire-clay
plastic refractories. R. A. Heindl and W. L.
Fendegast. *il Am Cer Soc J* 30:329-34 N
1 '47

Simplified pressure-loss calculations for plas-
tic flow. E. L. McMillen. *bibliog Chem Eng*
Prog 44:537-46 Jl '48

Theory of plastic flow versus theory of plas-
tic deformation. W. Prager. *bibliog J Ap*
Phys 19:540-3 Je '48

See also

Creep of materials
Plastometers

PLASTICIZERS

Application of a mechanistic theory of sol-
vent action to plasticizers and plasticiza-
tion; abstract. A. K. Doolittle. *Mod Plas-
tics* 25:138 N '47

Application of high vacua in the paint and
plastics industries. J. C. Swallow and J.
S. Gourlay. *il diags Chem & Ind* sup9-13
O 9 '48

Basic concepts in the selection of plasticizers
of polyvinyl chloride. R. J. Myers. *il India*
Rubber World 118:530-1 Jl '48; *Abstract.*
Rubber Age 63:72b Ap '48

Behavior of plasticizers in vinyl chloride-acetate
resins; 99 materials evaluated. M. C.
Reed and L. Connor. *bibliog Ind & Eng*
Chem 40:1414-22 Ag '48

Cellulose ester plastics; plasticizing action of
homologous series of esters of sebacic and
phthalic acids on cellulose acetate butyrate.
L. W. A. Meyer and W. M. Gearhart. *bib-
liog Ind & Eng Chem* 40:1478-85 Ag '48

Co-plasticizer. *Chem Eng* 55:170-+ O '48

Development of plasticizers. W. A. Wood-
cock. *Plastics* 8:21 O '48

Dicapryl sebacate. *Chem Eng* 55:161 O '48
levo-2,3-Dinitroxybutane. A. F. McKay, R.
H. Meen and G. F. Wright. *bibliog Am*
Chem Soc J 70:430 Ja '48

Influence of cloud points of coumarone-
indene resins on their use in rubber com-
pounding; Chemigum N-3, a styrene-buta-
diene-type rubber (GR-S 38) and natural
rubber. P. B. Stickney, L. E. Cheyney and
P. O. Powers. *bibliog Ind & Eng Chem* 40:
267-71 F '48

Methyl sulpho-N-dodecyloxyethylamide. *Oil*
Paint & Drug Rep 152:7 N 17 '47

Paste dispersions of polyvinyl chloride. C. F.
Ruebensaal. *Mod Plastics* 25:143-4+ Je '48

Plasticizers for vinyl resins. W. E. Scheer.
Rubber Age 63:596-8 Ag '48

Santicizer 141; vinyl plasticizer. *India Rubber*
World 118:531 Jl '48

Suitability of gasolines as fuel; effect of
contaminates extracted from synthetic vul-
canizates. R. R. James and R. E. Morris.
bibliog il diags Ind & Eng Chem 40:405-11
Mr '48

Synthetic elastomers as plasticizers for con-
densation polymers. R. G. Newberg and
others. *bibliog Rubber Age* 62:533-9 F '48

Synthetic elastomers as plasticizers for
polyvinyl resins. D. W. Young, R. G. New-
berg and R. M. Howlett. *bibliog Ind & Eng*
Chem 39:1446-52 N '47

Temperature sensitivity of the system plas-
ticizer-polymer; abstract and discussion.
H. Jones. *Chem & Ind* p378-9 Je 12 '48

Viscous plasticizer announced by Standard
oil co. of New Jersey. *Chem Eng* 55:173 Ja
'48

Testing

Fire meter; flammability of polyvinyl chloride
plasticizers. *il diags Chem Ind* 62:388-9
Mr '48

PLASTICS engineers, Society of. *See Society of*
plastics engineers

PLASTICS research

Application research in the thermoplastics
industry; Dow chemical co. R. H. Boundy
and W. C. Goggin. *Chem & Eng N* 26:1220-
2 Ap 26 '48

Coal-tar plastics; promising results of CRL
research. *Chem Age (Lond)* 59:13 Jl 3 '48

Development of thermosetting plastics. V. E.
Meharg. *Chem & Eng N* 26:1282-3 My 3 '48

English, Dutch and Belgian co-operation on
plastic research. *Chem & Ind* p754 D 6 '47

Plastics research and technology at the Na-
tional bureau of standards. G. M. Kline.
India Rubber World 118:73-7 *bibliog*(125
titles, p75-7) Ap '48

PLASTOMETERS

Measurement of the scorch and cure rate of
vulcanizable mixtures using the Mooney
plastometer. R. Shearer and others. *India*
Rubber World 117:216-19 N '47

PLATE glass insurance. See Insurance, Plate glass

PLATES

Stresses in a plate containing an overlapped circular hole. C. Ling. diags J Ap Phys 19:405-11 Ap '48

Stresses in a plate containing two circular holes. C. Ling. bibliog J Ap Phys 19:77-82 Ja '48

PLATES, Steel. See Steel plates

PLATFORMS

Special portable platform for power metal saw. Il Sheet Metal Worker 39:55+ F '48

PLATFORMS, Political

Few voters familiar with provisions in Republican platform, survey reveals. Iron Age 162:127 JI 22 '48

GOP platform. A. W. May. Comm & Fin Chr 167:2741+ Je 24 '48

Shaping the G.O.P. platform. Bsns W p23 Je 19 '48

PLATING

Surface areas of standard machine screws; table useful for barrel plating computations; engineering data sheet. Metal Finishing 46:77 S '48

See also

Chromium plating	Plastic materials—
Copper plating	Plating
Electroplating	Silver plating
Nickel plating	Zinc plating

PLATING departments

Consulting the floor doctor; plating room floors. G. Black. bibliog Il Metal Finishing 45:62-4+ D '47

Higher output from new layout and better handling; Cadillac Motor polishing and plating department. C. A. Raftery. Il plan Factory Management 106:85-7 O '48

PLATING machinery

Machine designed for high-speed metal plating. A. D. Canner and others. Il Materials & Methods 26:79-82 N '47

PLATING racks

Liquid plastic plating rack coating. Il Metal Finishing 46:79-80 Ag '48

PLATING shops

Plating and airlines efficiency; plating shop of American airlines. J. Albin. Il Metal Finishing 46:90-4+ Je '48

Costs

Estimating plating costs; abstract. A. Bregman. Iron Age 162:65-6 O 28 '48

Equipment

Direct current power transmission and piping in the modern plating room; abstract. G. L. Nankervis. Steel 122:134+ Je 7 '48

Plating zinc diecastings at Gerity-Michigan. W. MacLeay. Il Iron Age 162:90-4 JI 29 '48

Special buffing machines and fixtures reduce plating shop costs; Gerity-Michigan corp. E. Moore. Il Iron Age 162:80-5 JI 8 '48

Waste

Analytical procedures for the determination of metals affecting sewage treatment. M. L. Riehl. bibliog Sewage Works J 20:629-37; Discussion. 637-9 JI '48

Plating waste disposal problem. A. L. Fales. Sewage Works J 20:857-60 S '48

PLATINUM

Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand. diags Phys R 73:1135-9 My 15 '48

Internal conversion in tungsten and platinum. M. V. Scherb and C. E. Mandeville. bibliog Phys R 73:1401-2 Je 1 '48

Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander. bibliog diags Phys R 74:479-88 Ag 15 '48

Method for recovery of platinum from potassium iodoplatinate. M. K. Roane. Science 108:356 O 1 '48

Poisoning of platinum catalysts at high temperatures. R. H. Savage. J Chem Phys 16:237-40 Mr '48

Polarographic study with a microelectrode past which an electrolyte is flowing. O. H. Müller. bibliog diags Am Chem Soc J 69:2992-7 D '47

Isotopes

Radiations from platinum (193) and gold (199). C. E. Mandeville and others. bibliog Phys R 74:601-5 S 1 '48

Some isotopes of platinum and gold. G. Wilkinson. bibliog Phys R 73:262-3 F 1 '48

Prices

Platinum down. Barron's 28:33 Je 21 '48

PLATINUM alloys

Platinum-tungsten alloys. R. I. Jaffee and H. P. Nielsen. bibliog Il diags Metals Tech 15:TP2420 1-13 Ag '48

PLATINUM metals

After the turn of the year. C. Engelhard. Comm & Fin Chr 167:340 Ja 22 '48

Metals of the platinum group. C. A. H. Jahn. Metallurgia 37:307-10 Ap '48

Platinum metals, 1947. H. W. Davis. Eng & Min J 149:89 F '48

See also

Iridium	Rhenium
Osmium	Rhodium
Palladium	Ruthenium

PLATINUM mines and mining

Placer mining

Dredging at Similkameen. H. R. Rice. flow sheet Il maps plan diags Can Min J 69:66-71 JI '48

British Columbia

Dredging at Similkameen. H. R. Rice. flow sheet Il maps plan diags Can Min J 69:66-71 JI '48

PLATT, Rutherford

Before retiring. M. O'Dea. Ptr Ink 222:76 Ja 23 '48

PLAYING cards. See Cards

PLEISTOCENE period. See Geology, Stratigraphic—Pleistocene; Glacial geology

PLEOCHROISM

Polarization of the nitroso absorption band in *m*-nitroso-nitrobenzene monomer. C. P. Fenimore. Il Am Chem Soc J 70:3114-15 S '48

PLESIOSAURIA

Pistosaurus, a middle triassic plesiosaur. F. R. von Huene. bibliog diags Am J Sci 246:46-52 Ja '48

Simosaurus and corosaurus. F. R. von Huene. diags Am J Sci 246:41-3 Ja '48

PLEXIGLAS. See Plastic materials, Transparent

PLIOFILM

Films for cherries. F. Gerhardt and T. R. Wright. Il Mod Packaging 21:163-5+ Je '48

PLIOLITE

Union of resin and rubber; Tuf-Lite produced by Goodyear tire & rubber co. W. H. Aiken. Il Mod Plastics 26:99-103 O '48

PLIOTHERM

Use of conductive rubber in electrical heat exchange. Chem Age (Lond) 59:248 Ag 21 '48

PLISSÉ fabrics. See Crepe

PLISSELE. See Textile finishing

PLUCKER, Julius, 1801-1868

Sketch. Engineer 185:272 Mr 19 '48

PLUGS, Fusible. See Fusible plugs

PLUMBERS

See also

Plumbing trade

PLUMBING

Correct use of tools. diags Dom Eng 172:122-3 Ag '48

Engineered house construction; plumbing. Il diags Am Bld 70:102-6 S; 127-30 O; 120-3 N '48

Joints for plumbing and laboratory piping. J. E. York. diags Heat & Ven 45:89-93 Je; 88-93 JI '48

Plumbing for mass produced housing. Il Dom Eng 172:123-4 JI '48

PLUMBING—Continued

Plumbing, heating and air conditioning for laboratory installation; Shell oil company research laboratory, Houston. *il Dom Eng* 172:100-3 O '48

See also

Bathrooms
Drinking water systems
Gas fitting
Heating
Hot water supply
Lavatories

Pipes
Plumbing fixtures
Plumbing shops
Plumbing trade
Sanitary engineering
Sewerage

Estimates

Plumbing estimates and how to make them. W. W. Hughes, *Dom Eng* 169:116+ Ap; 170:120+ J1; 121-3 Ag; 125-6 S; 122-4 O; 122-4 N; 99-102 D '47; 171:112-13+ Ja; 122-6+ F; 122-3+ Ap '48

Standards

Revised FHA standards accept aluminum forms for plumbing systems. *Iron Age* 162: 152 J1 22 '48

Study and teaching

Plumbing, heating, air conditioning technical courses offered at North Carolina State. *Dom Eng* 172:166 S '48

Plumbing schools; directory. *Dom Eng* 172: 124-6 O '48

Traps

Flexible sink trap. P. Reilly. *il diags Mod* *Plastics* 25:99 Mr '48

Testing trap siphonage, for national code; illustrations. *Dom Eng* 172:105 J1 '48

PLUMBING fixtures

Proper maintenance of flush valves. *il diags* *Dom Eng* 172:130+ O '48

See also

Bathrooms
Sinks

PLUMBING laws and regulations

Plumbing code for Ontario. A. E. Berry. *Water & Sewage* 85:22+ D '47

Uniform plumbing code. *Dom Eng* 171:102-5+ Ap; 126-7 My '48

Uniform plumbing code for housing; with time-saver standards. *diags Arch Rec* 103: 150+ My '48

PLUMBING shops

Plumbers become merchants with assistance from Crane, H. A. Bergdahl. *il Sales Management* 60:44-6 Ja 1 '48

Equipment

Idea for small parts storage. *il Dom Eng* 172:115 O '48

LAYOUT

Composite model showroom and shop. *il plan* *Dom Eng* 170:103-8 D '47

More practical ideas for showroom and shop layout; illustrations with text. *Dom Eng* 170:109-10 D '47

Management

Builds traffic for volume; J. C. Flood's plumbing, heating and major appliance shop. *il Dom Eng* 172:110-13 Ag '48

Idea file; Dutch auction. *Dom Eng* 172:108-9 Ag '48

Make the little things count in cutting store expense. *Dom Eng* 172:114-15 O '48

Seven keys to profit; success story of Hilbor, inc. *il Dom Eng* 171:108-11+ Ja '48

Showmanship sells; R. A. Gunner of St. Louis tells how to make showmanship pay off in appliance merchandising. *il Dom Eng* 171:114-15+ F '48

Traffic items build appliance and fixture sales; dealer picks hardware as showroom traffic builder. *il Dom Eng* 170:94-5+ D '47

Showrooms

Better stores contests; San Diego merchant plumbers assn. *il Dom Eng* 171:134-5 Mr; 113-21 Ap '48

Composite model showroom and shop. *il plan* *Dom Eng* 170:103-8 D '47

Plan for selling; showroom design. *il plan* *diag Dom Eng* 171:118-22 Je '48

Selling bathrooms and kitchens room by room; Hanna kitchens, inc. has seven showrooms in one. *il Dom Eng* 170:118-21+ N '47

Showroom; location and layout. *il Dom Eng* 172:112-17 S '48

Three-point formula for sales; A. A. Hokom plumbing, heating and appliance co. *il Dom Eng* 172:98-9+ O '48

PLUMBING supplies industry

Middle Atlantic wholesalers' assn. spring meeting, Atlantic City, April 12-13. *Dom Eng* 171:168+ My '48

Plumbers become merchants with assistance from Crane, H. A. Bergdahl. *il Sales Management* 60:44-6 Ja 1 '48

Schaible expands. *Bsns W* p22 N 22 '47

PLUMBING trade

Contractors look at jobber services; contractor opinions on jobber services revealed by survey. *Dom Eng* 171:120-3 Ja '48

Eggs in many baskets; plumbing, heating and retail merchandising operation developed by A. E. Mayer. *il Dom Eng* 171: 110-12+ My '48

How essential is plumbing, heating and air conditioning? industries' need for steel products. *il Dom Eng* 171:108-19+ Mr; 98-100 Ap; 118-19+ My '48

Illinois master plumbers association, 55th annual meeting, Springfield, Jan. 12-15. *Dom Eng* 171:127+ F '48

It takes a key to open a door! manufacturers of electric water heaters and coolers plan aid to plumbing-contractor-dealers. *Dom Eng* 171:104-5+ Je '48

Legal decisions involving plumbing, heating and air conditioning contractors. *Dom Eng* 171:113-14 My; 113+ Je; 172:104+ J1; 104-5 Ag '48

Legal decisions of interest to contractor-dealers. *Dom Eng* 170:116+ S; 109+ O; 108+ N; 111-12 D '47

More materials on way for plumbing and heating. *Dom Eng* 172:106-7+ J1 '48

More polio research scheduled. *Dom Eng* 171: 118-19 Ja '48

Polio on the air, and at meetings helps public relations. *Dom Eng* 171:124-5 Ap '48

Special events merchandising. *il Dom Eng* 170:98-101+ N '47

Team the two up for profit; appliance sales and service. *Dom Eng* 172:112-13 O '48

Ten musts for successful selling of merchandise through plumbing and heating dealers. A. E. Thiesfeldt. *Dom Eng* 171:172+ Ap '48

This is our industry; program to prove plumbing and heating industries' right to steel. *Dom Eng* 171:98-101+ F '48

Three-point formula for sales; A. A. Hokom plumbing, heating and appliance co. *il Dom Eng* 172:98-9+ O '48

Truck telephones build business. *il Dom Eng* 172:106-7 Ag '48

Where there's profit, there's expense; rapid calculator gives nine selling prices for every contract. *Dom Eng* 171:140+ Mr '48

See also

Plumbing shops
Plumbing supplies industry

Advertising

Clever direct-mail piece helps this dealer; Poppenheimer plumbing & heating co. *il Dom Eng* 172:113 O '48

Helping the dealer sell; movie, utility plan, advertisements. *il Dom Eng* 172:108-10+ J1 '48

1948 price and value program opens; selling aids. *il Dom Eng* 171:102-11 F; 120-7 Mr; 106-17 Ap; 101-7 My; 106-9 Je '48

Plaque awarded to Domestic engineering in the national editorial contest for the campaign, Today's best buy is plumbing and heating. *il Dom Eng* 170:114-17 N '47

Plumbing and heating is high in value, low in price; selling aids. *il Dom Eng* 172:97-105 S '48

Seven keys to profit; success story of Hilbor, inc. *il Dom Eng* 171:108-11+ Ja '48

Exhibitions

Meet the people; how home shows and county fairs may help you increase business. *il Dom Eng* 172:114-17 Ag '48

PLUMBING trade—Continued

Farm market

- Blueprint for food production; need for steel for electric water systems. *il Dom Eng* 171:112-13+ Mr '48
 Electric water systems key to rural sales; interview with G. Schuler. *il Dom Eng* 171:113+ F '48
 Helping the dealer sell. *il Dom Eng* 172:108-10+ JI '48

Remodeling

- Biggest remodeling job; Kaiser-Frazer plant at Willow Run. *il Dom Eng* 169:116-23 Je; 170:104-6+ N '47

Denver

- Reporter visits Denver. *il Dom Eng* 171:116-17+ Ja '48

St Louis

- Heat conservation, St Louis style; oil shortage crisis; heating and plumbing dealers in city-wide campaign to stretch supplies. *il Dom Eng* 171:114-15+ Ja '48

Salt Lake City

- Reporter visits Salt Lake City. *il Dom Eng* 170:96-8 D '47

Seattle

- Reporter visits Seattle. *il Dom Eng* 170:102-3+ N '47

PLUMMER, Frederick Byron, 1886-1947

- Memorial. R. C. Moore. *por*(pl 11) *Geol Soc Proc* 1947:155-65 bibliog(p 162-5) My '48

PLUTONIUM

- Absorption spectrum of hexavalent plutonium. R. H. Betts and B. G. Harvey. *J Chem Phys* 16:1089-90 N '48
 Chemical properties of elements 94 and 93. G. T. Seaborg and A. C. Wahl. *bibliog Am Chem Soc J* 70:1128-34 Mr '48
 Energies of alpha-particles from Pu^{238} and Pu^{239} . W. P. Jesse and H. Forstater. *Phys R* 73:926-7 Ap 15 '48
 New high-energy pile uses plutonium fuel. *Power* 91:725+ O '47; *Same, Mech Eng* 69:1030-1 D '47
 Ranges in air and mass identification of plutonium fission fragments. S. Katcoff and others. *bibliog diag Phys R* 74:631-8 S 15 '48
 Search for elements 94 and 93 in nature; presence of 94^{239} in pitchblende. G. T. Seaborg and M. L. Perlman. *bibliog Am Chem Soc J* 70:1571-3 Ap '48
 Tripartition of heavy elements. Tsien San-Tsiang. *bibliog Phys R* 72:1257-8 D 15 '47

PLYMOUTH oil company

- New oil discovery might mean much to others. *Barron's* 28:35 Ja 12 '48

PLYWOOD

- Absorption-frequency characteristics of plywood panels. P. E. Sabine and L. G. Ramer. *diags Acoustical Soc Am J* 20:267-70 My '48
 Architectural concrete gymnasium using plywood forms. *il Concrete* 56:36-7 Mr '48
 Detail glimpses of construction; brick and cypress plywood house at Bloomfield Hills, Mich.; design by F. L. Wright. *il plans Arch Forum* 88:146-7 Ja '48
 Phenolic resin glues for plywood. F. G. Sawyer, T. S. Hodgins and J. H. Zeller. *bibliog flow sheet il plan Ind & Eng Chem* 40:1011-18 Je '48
 Plywood, a Cinderella industry. T. B. Malarky. *Comm & Fin Chr* 168:1207+ S 23 '48
 Plywood output high, but can't match demand. *Barron's* 27:30 D 1 '47
 St Louis refrigerator car co.'s plywood refrigerator cars. *il diags Ry Mech Eng* 122:130-2 Mr '48
 Softwood plywood, 1941-1946. Survey of Cur Bsns 1947 Sup p 144 [supplemented in monthly numbers]
 Steel foundry uses wood plate on core blower; Crucible steel castings co. P. Dwyer. *il Foundry* 76:82-4+ Mr '48
 Technical plywoods; tables; engineering file facts. R. S. Burpo, Jr, comp. *Materials & Methods* 27:111, 113 Ja '48

Wood in the West; significance in terms of chemicals consumed. C. C. Heritage. *Chem Ind* 61:990-3 D '47; *Abstract, Chem Eng* 54:260+ D '47

See also Douglas fir plywood association

Manufacture

- New developments in plywood production. *il Mill & Factory* 42:136-8 Mr '48
 Radio-frequency heating in the woodworking industry. F. L. Macaluso. *il diags A S M E Trans* 70:385-91 My '48

Standards

- Douglas fir plywood. 7th ed U S Nat Bur Stand Commercial Standard CS45-47:1-26; pa 10c Supt. of doc. '47

Testing

- Fatigue of wood and glued-wood constructions. W. C. Lewis. *bibliog il diags Am Soc T M Proc* 46:814-32; Discussion. 833-5 '46

PLYWOOD, inc.

- Initial annual report. *Comm & Fin Chr* 167:2691 Je 21 '48

PNEUMATIC control

- Air aids operation of dam spillway gates; Possum Kingdom dam. A. Streiff. *il diag Comp Air Mag* 53:247-9 O '48
 Air power turned targets at Olympiad. *il Comp Air Mag* 53:253 O '48
 Air-tracer scans contours in machining operation. *il diag Comp Air Mag* 53:171-2 JI '48
 Application of remote control devices to diaphragm valves. R. T. Kidde. *Paper Tr J* 126:37-9+ Je 10 '48
 Applications of mechanical cascade control systems. J. N. Swarr. *diags A S M E Trans* 70:57-63 Ja '48
 Compressed air for instrument use. *plan Pulp & Pa of Can* 48:91-2 D '47
 Controlling an oil refinery. W. P. Gillingham. *flow chart il diags Comp Air Mag* 53:154-60 JI '48
 Controlling pneumatic cylinders. J. L. Dooley. *diags Machine Design* 20:119-25+ Ap '48
 Evaluation of aircraft pneumatics indicates commercial applications. S. Bangs. *Aviation W* 48:26-7 Ja 19 '48
 Modern air operated devices for paper machines; abstracts. F. R. Erbach. *Paper Ind* 28:1213-14 N '47; *Comp Air Mag* 52:306-8 D '47
 New air aid for the machine shop; Air-Grip Jig Base. *il Comp Air Mag* 52:284 N '47
 New type of pneumatic actuator. R. H. Munch. *diags Ind & Eng Chem* 40:sup83A-4A Ja '48
 Pneumatic control achieves constant roll tension. C. S. Caffrey. *il diag Machine Design* 19:123-4 N '47
 Pneumatic control in drilling mud systems. J. E. Kastrop. *il diag World Oil* 128:71-3 S '48
 Pneumatic controls for clutches, brakes and linkages; used in type 81 power shovel manufactured by Osgood company. *il diags Product Eng* 19:96-8 Ja '48
 Pneumatic decking and control plant for colliery tubs. *il diag Engineering* 164:608-10 D 26 '47
 Pneumatic fixture simplifies broaching. *il Comp Air Mag* 52:281 N '47
 Pneumatic muscles clamp and assemble; Bendix-Westinghouse automotive air brake co. C. S. Ricker. *il diag Am Mach* 92:112-13 Je 17 '48
 Pneumatic operation of air-blast circuit breakers; abstract. W. A. McNeill. *Engineering* 166:91-2 JI 23 '48
 Pneumatic operation of model railroads. *Comp Air Mag* 53:11 Ja '48
 Pneumatics or hydraulics? E. L. Holbrook. *il Comp Air Mag* 53:220-4 S '48
 Punched tape controls engine test cycle. *il diags Product Eng* 19:104-5 Ja '48

PNEUMATIC conveying

- Air moves cement from barges to batching bins; Metropolitan sand and gravel co. W. B. Lenhart. *il diag Rock Prod* 51:154-6 F '48

PNEUMATIC conveying—Continued

- Copra gives us essential oil; pneumatic unloading, J. W. Frates, *il Comp Air Mag* 53: 94 Ap '48
- Design of exhaust systems, F. H. Stebbins, *diags Sheet Metal Worker* 39:41-2+ Ag '48
- Friction in the flow of suspensions; granular solids in gases through pipe, E. G. Vogt and R. R. White, *bibliog flow diag il Ind & Eng Chem* 40:1731-8 S '48
- Mail goes faster, at lower cost by pneumatic tube, *il Factory Management* 105:89 N '47
- Pipes pulverized coal for standby fuel, *il diags Heating-Piping* 20:92 O '48
- Pneumatic chip conveying, H. M. Nichols, *il diags Steel* 122:81-2+ Ap 19 '48
- Tips for pneumatic ash conveying, E. Hahn, *diags Power* 92:352 Je '48
- PNEUMATIC equipment**
Pneumatics afloat, E. L. Holbrook, *il diags Comp Air Mag* 52:298-301 D '47
- PNEUMATIC hammers**
Pneumatic hammer has rotary valve controls, *il diags Product Eng* 18:94-5 N '47
- Pneumatic hand-chipping; surface conditioning of steel, P. S. Paluch, *Iron & Steel Eng* 25:86-7 Je '48
- PNEUMATIC heat detectors.** See Detectors
- PNEUMATIC machinery**
Air fixtures ease machining and assembly; illustrations with text, R. E. Whinrey, *Am Mach* 92:92-5 JI 15 '48
- Air plunger helps solve a packaging problem; filling boxes with soap flakes, *Comp Air Mag* 53:151 Je '48
- Air-powered devices increase machine output, R. Le Grand, *il diags Am Mach* 92:88-91 Mr 25 '48
- Compressed air employed in the fabrication of pipe, *il Blast F & Steel Pl* 36:1116-17 S '48
- Development of an air-operated force-measuring system; ThrustTorg system, A. A. Markson and R. S. Williams, *il diags A S M E Trans* 70:271-6; Discussion, 276-8 My '48
- Pneumatic barker cuts log waste, *il Comp Air Mag* 53:68 Mr '48
- Pneumatic fatigue machines, F. B. Quinlan, *diags Am Soc T M Proc* 46:846-51 '46
- Pneumatic straightener reclaims foundry core rcds, *il Comp Air Mag* 53:44 F '48
- Predetermined speed control of air cylinders, P. H. Winter, *diags Tool Eng* 21:27-9 Ag '48
- Sheet metal operations in aircraft supply plant revolve about air power; Rohr aircraft corp, *il Steel* 123:97+ JI 26 '48
- What the power engineer needs to know about the pneumatic spreader stoker, *il diags Power Generation* 52:64-5+ JI '48
- PNEUMATIC separators.** See Air separators
- PNEUMATIC tools**
Air-operated tools in power shovel and crane assembly lines; Thew shovel co., Lorain, Ohio, *il Mach* 55:191-2 S '48
- Air power builds better fishing reels, *Comp Air Mag* 53:46 F '48
- Boring for water connections with air power, *il Comp Air Mag* 52:272-3 N '47
- Building servi-cycles better and faster with pneumatic tools, C. H. Vivian, *il diag Comp Air Mag* 53:109-14 My '48
- Quarrymaster; a new air-operated machine for drilling large blast holes, *il Can Min J* 69:80-3 Je '48
- See also
Pneumatic hammers
- PNEUMATIC tools, Portable**
Cutting the cost of portable tool operations, D. S. Linton, *il diags Foundry* 75:84-7+ D '47; 75:90-3+ Ja; 84-7+ F '48
- PNEUMATIC transmission**
Nozzle flow characteristics in pneumatic force-balance circuits, D. B. Kirk, *diags A S M E Trans* 70:111-16 F '48
- Pneumatic transmission for flow controller, *il J Sci Instr* 25:89 Mr '48
- Why pneumatics? auxiliary power for airplanes, H. F. Gerwig and J. H. Fammie, *il diags Machine Design* 20:116-21 Je; 138-42 JI '48

Why pneumatics? or the case for pneumatics for intermittent services on aircraft, H. F. Schmidt and H. F. Gerwig, *il diag S A E J* 56:50-2 Ja '48

PNEUMATIC tube conveying. See Pneumatic conveying

PNEUMOCOCCI

Fractionation and physical-chemical studies of a commercial preparation of the specific polysaccharide of type 1 pneumococcus, R. A. Alberty and M. Heidelberger, *bibliog Am Chem Soc J* 70:211-13 Ja '48

PNEUMOCONIOSIS. See Lungs—Dust diseases

PNEUMOENCEPHALITIS. Avian. See Newcastle disease

PNEUMONIA

Succinic acid derivatives of 4-nitro-4'-amino-diphenylsulfone and of 4,4'-diaminodiphenylsulfone, H. Bauer, *bibliog Am Chem Soc J* 70:2254-6 Je '48

PNEUMONOCOCCUS

Long range enzymatic action on films of antigen, A. Rothen, *Am Chem Soc J* 70: 2732-40 Ag '48

POBERS, Michel

Pobers cited for services of French paper, *por Ed & Pub* 81:34 My 22 '48

PODOCARPIC acid

Studies on resin acids; a direct reduction of podocarpic acid, H. H. Zeiss, C. E. Slimowicz and V. Z. Pasternak, *bibliog Am Chem Soc J* 70:1981-2 My '48

PODOLSKY, Boris, 1896-

Infinites in generalized meson-field theory, A. E. S. Green, *bibliog Phys R* 73:26-9 Ja 1 '48

PODOPHYLLIN

α -Peltatin, a new compound isolated from podophyllum peltatum, J. L. Hartwell, *Am Chem Soc J* 69:2918 N '47

β -Peltatin, a new component of podophyllin, J. L. Hartwell and W. E. Detty, *Am Chem Soc J* 70:2833 Ag '48

POINCARÉ, Henri, 1854-1912

Mathematical creation, J. R. Newman, ed, *por Sci Am* 179:54-7 Ag '48

POINT BARROW, Alaska

Arctic research, L. Irving, *Science* 107:284-6 Mr 19 '48

POINT COMFORT and northern railway

Stock and control, *Comm & Fin Chr* 168: 747-8 Ag 23 '48

POISON ivy

Allergenic principles of poison ivy; absorption spectra of 3-n-pentadecylcatechol and related compounds, H. S. Mason, *Am Chem Soc J* 70:138-40 Ja '48

Poison ivy and how to avoid it, *il Safety Eng* 95:58 Je '48

POISON labels. See Labels—Law

POISON oak

Preventing poison oak dermatitis with ascorbic acid; abstract, D. H. Klasson, *Pub Works* 79:44 Mr '48

POISONOUS plants

Poison from roadside plants; poison ivy, oak and sumac, and what to do about them, *il Roads & Sts* 91:101 Ap '48

See also

Poison ivy

Poison oak

POISONS

Acute toxicity of ethylene imine to small animals, C. P. Carpenter and others, *bibliog J Ind Hygiene* 30:2-6 Ja '48

Comparative toxicity of cryolite for rats and for rabbits, E. J. Largent, *J Ind Hygiene* 30:92-7 Mr '48

Comparison of acute toxicities of ethylene imine and ammonia to mice, S. D. Silver and F. P. McGrath, *bibliog J Ind Hygiene* 30:7-9 Ja '48

Data on methods of use of 1080, a potent rat poison, *Pub Works* 78:36-7 N '47

Death following accidental ingestion of DDT, experimental studies; abstract, N. J. Smith, *Nat Safety N* 58:48+ S '48

Health hazards of common laboratory reagents; toxicity of compounds and first aid procedure tabulated, P. M. Van Arsdel, *bibliog Chem & Eng N* 26:304-9 F 2 '48

POISONS—Continued

Toxicity of polyethylene glycols by repeated epidermal applications, R. P. Luduena and others, *bibliog J Ind Hygiene* 29:390-2 N '47

See also

Arsenic
Curare
DDT—Physiological effect
Fish poisons
Food poisoning
Gases, Asphyxiating and poisonous
Hydrocyanic acid

Insecticides
Labels—Law
Lead poisoning
Mussel poison
Poisonous plants
Toxins and anti-toxins
Venom

Testing

Further experience with the range finding test in the industrial toxicology laboratory, H. F. Smyth, Jr. and C. P. Carpenter, *bibliog J Ind Hygiene* 30:63-8 Ja '48

POISONS. Industrial

Explosion and poison hazards; Ministry of labour study of causes and safeguards, *Chem Age (Lond)* 58:708-10 My 22 '48

Further experience with the range finding test in the industrial toxicology laboratory, H. F. Smyth, Jr. and C. P. Carpenter, *bibliog J Ind Hygiene* 30:63-8 Ja '48

Health safeguards in industry; 9th International congress on industrial medicine, Sept. 13-17, *Chem Age (Lond)* 59:418-19+ S 25 '48

Interpretation of permissible limits in the breathing of toxic substances in air, H. H. Schrenk, *bibliog U S Bur Mines Information Circ* 7457:1-7 '48

Occupational diseases, G. B. Oliver, *Soc Dyers & Col J* 64:57-60 F '48

Physiological response of animals to 2-amino-diazine and 2-amino-4-methyl pyrimidine, J. F. Treon and others, *bibliog J Ind Hygiene* 30:79-91 Mr '48

Physiological response of experimental animals following absorption of 2-amino-thiazole, W. B. Deichmann and others, *bibliog J Ind Hygiene* 30:71-3 Mr '48

Plating room health hazards; engineering data sheet, *Metal Finishing* 46:39 Mr '48

Tellurium; the toxicity of ingested tellurium dioxide for rats, R. H. De Melo and W. W. Jetter, *bibliog J Ind Hygiene* 30:53-8 Ja '48

Toxic properties of refining chemicals listed by API medical committee, *Pet Processing* 3:969-72 O '48

Toxicity and narcotic action of mono-chloro-mono-bromo-methane with special reference to inorganic and volatile bromide in blood, urine and brain, J. L. Svirely and others, *bibliog J Ind Hygiene* 29:382-9 N '47

Toxicity of dimethyl-, diethyl-, and diisopropyl fluorophosphate vapors, S. D. Silver, *J Ind Hygiene* 30:307-11 S '48

Toxicological studies on laboratory animals of certain alkyldinitrophenols used in agriculture, H. C. Spencer and others, *bibliog J Ind Hygiene* 30:10-25 Ja '48

Toxicology of 1,2-dichloropropane (propylene dichloride); effects of repeated exposures to a low concentration of the vapor, L. A. Heppel and others, *J Ind Hygiene* 30:189-91 My '48

Trichloroethylene; hazards and precautions; industrial data sheet, *bibliog Nat Safety N* 57:40-F Je '48

Two chlorinated tertiary amines (diethyl- β -chloroethyl amine and dimethyl- β -chloroethyl amine); toxicity in industrial use, R. M. Watrous and others, *Ind Med* 17:237-41 JI '48

Useful citizens with criminal tendencies, H. B. Stere, *il Nat Safety N* 58:32-3+ Ag '48

See also

Arsine
Benzene poisoning
Beryllium poisoning
Cadmium poisoning
Carbon tetrachloride poisoning

Copper—Physiological effect
Lead poisoning
Tellurium—Physiological effect

POISSON'S ratio

X-ray method of measuring Poisson's ratio, R. F. Hanstock and E. H. Lloyd, *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 26):52-4; Discussion, 55 '47

POKER

Poker; an American game, J. McDonald, *il Fortune* 37:128-31+ Mr '48

POLAND*See also*

Education—Poland
Petroleum industry and trade—Poland
World war, 1939-1945—Poland

Commerce

Czech-Pole trade gears begin to mesh, *il Bsns W p* 117-18 My 22 '48
Polish trade and the West, *Economist* 154:932 Je 5 '48

-Commercial policy

Agreement with Sweden governing exchange of goods and payments, *For Comm W* 33:21-2 O 16 '48

Agreements for exchange of goods with the U.S.S.R. signed, *For Comm W* 32:24 Ag 21 '48

Polish tourist exchange rate extended to other classifications of foreign-exchange receipts, *For Comm W* 29:31 D 20 '47

Requirements for trading licenses, *For Comm W* 30:18 Mr 6 '48

Trade agreement with Soviet zone of Germany, *For Comm W* 31:17 My 8 '48

Economic conditions

Poland's economic distress, J. Szygowski, *Comm & Fin Chr* 166:2056+ N 20 '47

Economic policy

Poland; compulsory savings law enacted, *For Comm W* 31:17 Ap 24 '48

See also

Prices—Regulation
—Poland

Economic relations

Poland looks at Europe, *Economist* 154:802 My 15 '48

Czechoslovakia

Joint planning by Czechs and Poles, *Economist* 155:23 JI 3 '48

Poland's program of cooperation with Czechoslovakia, *For Comm W* 30:20 Mr 27 '48

Industries and resources

Assistance for Poland's handicraft industry, *For Comm W* 32:34 Ag 28 '48

Compulsory federations of private industry set up, *For Comm W* 33:22 O 16 '48

Organizational changes in handicraft industry, *For Comm W* 32:29 JI 31 '48

Private industries, *For Comm W* 31:23 Je 5 '48

Politics and government

Crisis in Poland, *Economist* 155:420-1 S 11 '48

End of the Polish Socialists, *Economist* 154:548-9 Ap 3 '48

Socialist struggle in Poland, *Economist* 154:189-90 Ja 31 '48

POLAR regions

Polar navigation for world air routes; system of polar radio stations to serve aircraft with direct reading latitude-longitude indicators, R. I. Colin, *diags Air Transport* 6:28-32 Mr '48

Strategy and politics in the polar areas, L. M. Gould, *map Ann Am Acad* 255:105-14 Ja '48

See also

Antarctic regions
Arctic regions

POLAR research

Arctic research at Point Barrow, Alaska, L. Irving, *Science* 107:284-6 Mr 19 '48

Arctic research laboratory, Office of naval research, Point Barrow, Alaska, M. C. Shelesnyak, *Science* 107:283 Mr 19 '48

Some problems of human ecology in polar regions, M. C. Shelesnyak, *Science* 106:405-9 O 31 '47

POLARISCOPE

Improvement of Savart's polariscope, M. Richartz, *il diags Opt Soc Am J* 38:623-5 JI '48

Optical system of polariscopes as used in photoelasticity, C. Mylonas, *il diags J Sci Instr* 25:77-81 Mr '48

POLARISCOPE—Continued

Simplified polariscope for industrial use. R. W. Clough. *il diags Product Eng* 19:124-8 S; 124-8 N '48

POLARITY

Depolarized petroleum naphthas. C. Allen. bibliog(43 ref) *Ind & Eng Chem* 40:124-30 Ja '48

POLARITY indicator

Polarity response from radio tuning eye tubes; abstract. M. L. Greenough. *diags Product Eng* 19:138-9 Je '48

POLARIZATION (electricity)

Frequency dependence of the capacity of a diffuse double layer. J. D. Ferry. bibliog J Chem Phys 16:737-9 JI '48

Polarity of d-c control. bibliog *Elec Eng* 67: 985 O '48

Polarization phenomena in nickel-iron alloys, and their effective elimination. O. I. Butler. bibliog *diags Inst E E J* 95 pt 2: 627-35 O '48

POLARIZATION (light)

Comparative survey of some possible systems of polarized headlights. B. H. Billings and E. H. Land. bibliog *Opt Soc Am J* 38: 819-29 O '48

Efficient, convenient polarizer for infra-red radiation. R. Newman and R. S. Halford. *R Sci Instr* 19:270-1 Ap '48

Headlighting with minimum glare. V. J. Roper. *S A E J* 56:60-3; Discussion. 63-4 S '48

Intensity and polarization of Brillouin spectra. D. H. Rank and others. *il Opt Soc Am J* 38:287-90 Mr '48

Laminated plastic polarizer reduces glare; *Polaply. Product Eng* 19:148 My '48

New glare killer; light polarizing medium. *Polaply. diag Bsns W* p56-1 N '47

New product introduced to reduce reflected glare; *Polaply. Elec World* 129:43 Ja 31 '48

Optical compensators for measurement of elliptical polarization. H. G. Jerrard. bibliog *diags Opt Soc Am J* 38:35-59 Ja '48

Petrographic microscope presents a new freezing concept. J. M. Lebeaux. bibliog *il Refrig Eng* 54:531-3 D '47

Polarization of infra-red radiation. A. Elliott and others. bibliog *diags Opt Soc Am J* 38: 212-16 F '48

Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. bibliog *diags J Chem Phys* 16:877-86 S '48

Studies of surface films by reflection of polarized light; more rigorous algebraic method for computing results. F. A. Lucy. bibliog *diags J Chem Phys* 16:167-74 Mr '48

Tables for the determination of the refractive index and of the thickness of the thin film by the polarimetric method. A. Vasiček. *Opt Soc Am J* 37:979-80 D '47

Theory of elliptically polarized photons. G. Araki. bibliog *diags Phys R* 74:472-9 Ag 15 '48

See also

Kerr effect Photoelasticity
Optical rotation Polariscope

POLARIZATION, Dielectric

Dielectric polarization and molecular association of hydrogen fluoride vapor. R. A. Oriani and C. P. Smyth. *Am Chem Soc J* 70:126-30 Ja '48

See also

Electrets

POLARIZATION of rays

Alignment chart giving the polarization correction of equi-inclination. Weissenberg photographic intensities. W. L. Bond. *J Ap Phys* 19:82-3 Ja '48

Angular correlation of scattered annihilation radiation. E. Bleuler and D. ter Haar. *Science* 108:10-11 JI 2 '48

Antennas for circular polarization. W. Si-chak and S. Milazzo. *diags Inst Radio Eng Proc* 36:997-1001 Ag '48

Circular polarization in f-m broadcasting. C. E. Smith and R. A. Fouty. bibliog *il diags Electronics* 21:103-7 S '48

Correlation between the states of polarization of the two quanta of annihilation radiation. E. Bleuler and H. L. Bradt. *diag Phys R* 73:1398 Je 1 '48

Neutron polarization. D. J. Hughes and others. bibliog *diag Phys R* 73:1277-90 Je 1 '48

Polarization and direction of propagation of successive quanta. D. R. Hamilton. *Phys R* 74:782-8 O 1 '48

Polarization correlation of successive gamma-ray quanta. D. L. Falkoff. *Phys R* 73:518 Mr 1 '48

Polarization effects in the ionization loss of 1-Mev electrons in carbon. F. L. Hersford. bibliog *diags Phys R* 73:1123-4 My 1 '48

POLAROGRAPH

Polarograph. *il R Sci Instr* 19:478-9 JI '48

Polarograph in organic chemistry. M. J. Astle. bibliog *Electrochem Soc Trans* 92 (preprint) 39:523-34 '47

Simple demonstration polarograph. C. L. Rulfs. *il diag J Chem Educ* 25:224-5 Ap '48

POLAROGRAPHIC analysis

Adsorption at the dropping mercury electrode. B. Keilin. *Am Chem Soc J* 70:1984 My '48

Analysis of 1,2,3,4,5,6-hexachlorocyclohexane for gamma isomer; a polarographic method. G. Dragt. bibliog *diag Anal Chem* 20:737-40 Ag '48

Continuous estimation of oxygen in gases using a polarographic method. W. S. Wise. bibliog *diag Chem & Ind* p37-8 Ja 17 '48

Control of a lead hazard in the brass foundry industry. L. E. Hamlin and H. J. Weber. bibliog *J Ind Hygiene* 29:367-77 N '47

Determination of aspartic acid. B. Warshowsky and M. W. Rice. bibliog *Anal Chem* 20:341-4 Ap '48

Determination of small amounts of dimethylamine in aqueous solutions containing ammonia, mono- and trimethylamine. A. A. Smales and H. N. Wilson. *diag Soc Chem Ind J* 67:210-13 My '48

Electrolytic and polarographic determination of zinc in thorium. J. H. Patterson and C. V. Banks. bibliog *Anal Chem* 20:897-900 O '48

Multiple dropping mercury electrode. T. De Vries and W. S. Barnhart. *diags Anal Chem* 19:934 N '47

Polarograph as an analytical tool in industry. M. J. Bergin. *il diag Instruments* 21:823-30 S '48

Polarographic analysis; principles, techniques, applications. L. D. Wilson. *il diags Instruments* 21:643-6 JI '48

Polarographic and amperometric determination of barium. I. M. Kolthoff and H. P. Gregor. bibliog *Anal Chem* 20:541-4 Je '48

Polarographic determination of free monomer in heteropolymerization reaction mixtures. G. C. Whitnack. bibliog *il Anal Chem* 20: 658-61 JI '48

Polarographic determination of iron. L. Meites. bibliog *Anal Chem* 20:895-7 O '48

Polarographic determination of naphthalenes in kerosene and light gas oils. D. P. Thornton, Jr. *il Pet Processing* 3:673-5 JI '48

Polarographic determination of naphthalenes in petroleum fractions. R. A. Burdett and B. E. Gordon. bibliog *il Anal Chem* 19: 843-6 N '47

Polarographic study of certain anthraquinones. N. H. Furman and K. G. Stone. *Am Chem Soc J* 70:3955-61 S '48

Polarography of certain substances related to anthraquinone. K. G. Stone and N. H. Furman. bibliog *Am Chem Soc J* 70:3062-4 S '48

Polarography; some factors affecting drop time. F. L. English. bibliog *Anal Chem* 20: 889-91 O '48

Potentiometric determination of oxygen using the dropping mercury electrode. H. A. Laitinen, T. Higuchi and M. Czuba. bibliog *diag Am Chem Soc J* 70:561-5 F '48

Preliminary experiments on the use of synthetic resins in the estimation of trace elements. J. P. R. Riches. bibliog *Chem & Ind* p566-8 O 25 '47

Removal of metals at the mercury cathode; separation of interfering metals in the determination of aluminum, alkaline earth, and alkali metals. T. D. Parks, H. O. Johnson and L. Lykken. bibliog *il Anal Chem* 20:148-51 F '48

Titanium; polarographic determination in clays and clay products. D. F. Adams. bibliog *Anal Chem* 20:891-5 O '48

POLAROGRAPHIC analysis—Continued

Trace metal determination in fats; with special reference to copper in milk fat. R. D. Coleman, J. B. Thompson and I. Brannum, *il Anal Chem* 20:365-8 Ap '48

Use of the dropping mercury electrode for the continuous measurement of dissolved oxygen in flowing water. W. A. Spoor, *diag Science* 108:421-2 O 15 '48

Validity of the Ilkovic equation in polarographic analysis; abstracts. F. L. Steghart, *Chem & Ind p 157 Mr 6 '48; Metallurgia* 37: 273 Mr '48

POLAROGRAPHY

Characteristics of the dropping mercury electrode in fused salts. N. H. Nachtrieb and M. Steinberg, *Am Chem Soc J* 70:2613-14 Jl '48

Half-wave potential of samarium. A. Timnick and G. Glockler, *bibliog Am Chem Soc J* 70:1347-50 Ap '48

Polarograph in organic chemistry. M. J. Astle, *bibliog Electrochem Soc Trans* 92 (preprint 39):523-34 '47

Polarographic behavior of nitrosophenylhydroxylamine. I. M. Kolthoff and A. Liberti, *bibliog Am Chem Soc J* 70:1885-9 My '48

Polarographic behavior of phenolphthalein. I. M. Kolthoff and D. J. Lehmicke, *bibliog Am Chem Soc J* 70:1879-85 My '48

Polarographic characteristics of +2 and +3 vanadium; polarography in non-complexing solutions. J. J. Lingane and L. Meites, *bibliog Am Chem Soc J* 70:2625-9 Jl '48

Polarographic current time curves. H. A. McKenzie, *Am Chem Soc J* 70:3147-8 S '48

Polarographic investigation of hexamine-cobaltic chloride in various supporting electrolytes. H. A. Laitinen and others, *bibliog Am Chem Soc J* 70:2999-3002 S '48

Polarographic reduction of gadolinium. S. W. Rabideau and G. Glockler, *bibliog Am Chem Soc J* 70:1342-4 Ap '48

Polarographic studies on aliphatic polyene aldehydes. M. Fields and E. R. Blout, *bibliog Am Chem Soc J* 70:330-5 Mr '48

Polarographic study with a microelectrode past which an electrolyte is flowing. O. H. Müller, *bibliog diags Am Chem Soc J* 69: 2992-7 D '47

Polarography in liquid ammonia; the alkali metals. H. A. Laitinen and C. J. Nyman, *bibliog diags Am Chem Soc J* 70:2241-4 Je '48

Polarography in liquid ammonia; the electron electrode. H. A. Laitinen and C. J. Nyman, *Am Chem Soc J* 70:3002-8 S '48

Reduction of neodymium at the dropping mercury electrode. C. R. Estee and G. Glockler, *Am Chem Soc J* 70:1344-7 Ap '48

POLAROID

Rocket-engine tester; photoelectric unit utilizing Polaroid discs. A. E. Gersch, *diag Electronics* 21:93 Je '48

POLAROID filters. See Light filters**POLE setting**

Setting poles by dynamite, *diag Power Generation* 52:82-3 Ag '48

POLES**Standards**

Wood pole standards. R. H. Colley, *il Ind Stand* 19:85-7 Ag '48

POLES, Concrete

Use of concrete poles in Mexico. J. Colon, *il Elec World* 129:106-7 Mr 13 '48

POLICE

See also

Insurance companies	Radio facsimile—
—Police cooperation	Police uses
	Radio telephone—
	Police uses

POLICE, Private

See also

Railroads—Police

POLIOMYELITIS. See Infantile paralysis**POLISHING**

Automatic polishing of metallographic samples. E. D. Hoyt, *il Metal Prog* 54:350-2 S '48

Barrel polishing of small brass parts; brass paper fasteners. T. S. Blair, *il Iron Age* 160:77 D 4 '47

Fabricating and finishing stainless steel. A. P. Schulze, *bibliog il Metal Finishing* 46: 62-7+ Mr '48

Fine-grit lubricated belt finishing. A. D. Stout, Jr., *il Iron Age* 160:68-71 D 18 '47

Fixtures facilitate automatic buffing; stainless steel moldings for automobile rear windows and windshields, *il Iron Age* 161: 94 My 6 '48

Flame polishing with the oxy-hydrogen torch, *il Mod Plastics* 26:119 My '48

Grinding, polishing and buffing of monel; tabulation; engineering file facts. E. Rosen, *Materials & Methods* 27:107 Je '48

Modern mechanical surface finishing. M. Manier, *bibliog il Metal Finishing* 45:62-6 N; 32-8 D '47

Structure of surfaces polished mechanically and electrolytically; abstract. H. Raether, *Metallurgia* 37:227-8 F '48

Surface finishing automobile moldings. L. F. Strong, *il Metal Finishing* 46:60-1 Jl '48

Time and fuel-saving exhaust system; buffing room at Bridgeport brass co. *il Sheet Metal Worker* 38:53-8 N '47

Tricks of the polishing trade. H. Moore, *diags Metal Finishing* 45:78-9 N '47

Tumble-polishing small parts. J. S. Savile, *il Plastics* 3:14-17 Ap '48

What to watch in metal-polishing costs. E. C. Bleam, *il Am Mach* 92:87-9 Ag 12 '48

POLISHING, Electrolytic

Anomalies in the appearance of glide ellipses. R. Maddin, *il diags Metals Tech* 15:TP2332 1-6 F '48; Discussion, 15:TP2449 12-15 Ag '48

Application of electrolytic polishing to ferrous metallography. H. J. Merchant, *bibliog 3pls diags Iron & Steel Inst J* 155:179-94 F '47; Discussion, *il diags* 156:624-6; 158:208-9 Ag '47, F '48

Developments in electropolishing; abstract. P. Locomb and others, *Materials & Methods* 27:109 Ap '48

Electrolytic metal polishing, *diags Chem Age (Lond)* 59:324-6, 453-4, 627-8 S 4, O 2, N 6 '48 (to be cont)

Electropolishing; a survey; with solution formulas. S. Wein, *comp. bibliog* (66 ref) *Metal Finishing* 46:71-7 F; 76-82 Ap '48

Fabricating and finishing stainless steel. A. P. Schulze, *bibliog il Metal Finishing* 46:64-8+ My '48

Industrial electropolishing; abstract. C. L. Faust and E. E. Graves, *Iron Age* 162:64-5 O 2 '48

Rapid electropolish and etch. A. De Sy and H. Haemers, *il Metal Prog* 53:368-71 Mr '48

POLISHING machines

Graphic wattmeters record production of polishing machines, *il Elec World* 128:93-4 N 22 '47

Packer abrasive-belt head automatic polishing and buffing machine, *il Mach* 54:201 Ap '48

Special buffing machines and fixtures reduce plating shop costs; Gerity-Michigan corp. E. Moore, *il Iron Age* 162:80-5 Jl 8 '48

POLISHING materials

Chemical specialties attain greater stature; polishes, D. Schoenholz, *Chem Ind* 63:389-90 S '48

Emulsion polishes. E. J. Schnieders and others, *Soap & San Chem* 24:145+ Je '48

Glass wax sales success brings imitation, lawsuits, *Soap & San Chem* 24:39-40 Jl '48

Rare earth oxides for glass polishing. R. W. Urie and A. W. Wylie, *bibliog il diag Soc Chem Ind J* 66:433-6 D '47; Same, *Engineering* 166:189-91 Ag 20 '48

POLISHING wheels

Modern mechanical surface finishing. M. Manier, *bibliog il Metal Finishing* 45:62-6 N; 32-8 D '47

What to watch in metal-polishing costs. E. C. Bleam, *il Am Mach* 92:87-9 Ag 12 '48

Wheel speeds for polishing and buffing; engineering data sheet, *Metal Finishing* 46: 75 Jl '48

POLITICAL advertising

Adventures in advertising. J. O. Young, *Ptr Ink* 224:46+ Jl 9 '48

Campaign communications media. C. W. Smith, *jr. Ann Am Acad* 259:90-7 S '48

Protests filed on political ad permit notice. Ed & Pub 31:1 O 16 '48

Radio, cooperative newspaper ads and pamphlets to get heaviest share of '48 political budgets. N. Kelne, *Ptr Ink* 224:90+ S 8 '48

POLITICAL campaigns. See Presidential campaigns

POLITICAL conventions

Getting ready to cash in on conventions. *il*
Bsns W p22-4 Je 12 '48
How presidents are nominated. E. D. Graper.
bibliog *Ann Am Acad* 259:53-63 S '48

See also

Television broadcast-
ing—Political con-
ventions

Reporting

400 newsmen cover third party. *Ed & Pub*
81:34 J1 24 '48
Parties prepare for the press at Philadelphia.
Ed & Pub 81:61 My 15 '48
Philadelphia ready for working press. C. W.
Duke. *Ed & Pub* 81:34 Je 12 '48
Skullcaps and scoops as writers ride donkey.
C. Hodge. *il Ed & Pub* 81:14 J1 17 '48
This way to the gallery for convention
guests. *Ed & Pub* 81:11 J1 3 '48
Wallaceites, chip on shoulder, bait press. C.
Hodge. *il Ed & Pub* 81:9 J1 31 '48

POLITICAL ethics

Moral basis of world peace. H. Chang. *Ann*
Am Acad 258:79-89 J1 '48

POLITICAL parties

Political handbook of the world; parliaments,
parties and press as of January 1, 1948.
W. H. Mallory, ed. 214p \$3.50 Council on
foreign relations, 58 E. 65th st, New York 21
'48

Publicity

Campaign communications media. C. W.
Smith, jr. *Ann Am Acad* 259:90-7 S '48

Bulgaria

See also

Communist party
(Bulgaria)

France

See also

Communist party
(France)

Great Britain

See also

Communist party Labor party (Great
(Great Britain) Britain)
Conservative party
(Great Britain)

India

Communism in India. *Economist* 153:846 N 22
'47

United States

Parties and politics; 1948. C. C. Rohlfing and
J. C. Charlesworth, eds. bibliog *Ann Am*
Acad 259:1-152 S '48

See major parties equally capable of han-
dling problems; Gallup poll. *Iron Age* 162:
127 J1 22 '48

See also

Communist party Republican party
(United States) Socialist party
Democratic party (United States)

POLITICAL philosophy

Heritage of Masaryk. H. Kohn. *Ann Am*
Acad 258:70-3 J1 '48

POLITICAL platforms. See Platforms, Political

POLITICAL pressure. See Pressure, Political

POLITICAL research

Directory of organizations and individuals
professionally engaged in governmental re-
search, 1948-1949. 48p ca \$1.50 Govern-
mental research assn, 30 Rockefeller plaza,
New York '48

POLITICAL science

See also

Administration, Pub- Industry and state
lic service Law
Civil service Railroads and state
Commercial policy Science and state
Democracy State governments
Economic policy Taxation
Government regula-
tion of industry

Societies

Directory of organizations and individuals
professionally engaged in governmental re-
search, 1948-1949. 48p ca \$1.50 Governmental
research assn, 30 Rockefeller plaza, New
York '48

POLITICS, Corruption in

Political machines and national elections.
D. D. McKean. *Ann Am Acad* 259:46-52 S
'48

POLITICS, Practical

Engineers and politics. R. V. Wright. *Mech*
Eng 70:614-15 J1 '48
Precinct worker. S. Forthal. bibliog *Ann Am*
Acad 259:30-45 S '48

POLITZ, Alfred, 1902-

Wins AMA study award again. *por Ptr Ink*
224:73+ J1 2 '48

POLK, George

Greece denies slanting probe of Polk death.
Ed & Pub 81:55 Ag 7 '48
OSS chief to direct inquiry in Polk death.
Ed & Pub 81:11 My 29 '48
Our debt to G. Polk. A. Fletcher. *Ed & Pub*
81:53 My 29 '48
Polk slaying climaxes press ordeal in Greece.
por Ed & Pub 81:8+ My 22 '48
Reactions vary to Greek claim in Polk case.
Ed & Pub 81:8 O 23 '48
Report by CBS calls Polk death threat to
press. *Ed & Pub* 81:54 Je 26 '48
\$10,000 reward posted for Polk death clues.
Ed & Pub 81:9 S 11 '48
Writing expert assists probe of Polk death.
Ed & Pub 81:44 O 30 '48

POLK, Louis

President of Sheffield corp. *por(cover) Bsns*
W p6 My 1 '48

POLLEN

Analysis

Qualitative analysis of amino acids in pol-
len collected by bees. J. L. Auclair and
C. A. Jamieson. bibliog *Science* 108:357-8
O 1 '48

POLLEN, Fossil

Palynological studies at Sodon lake; size-
frequency study of fossil spruce pollen.
S. A. Cain. bibliog map diags *Science* 108:
115-17 J1 30 '48

POLONIUM

Contributions to the nuclear processes in-
duced in magnesium by polonium alpha-
particles. A. Szalay and E. Csongor. bibliog
diags *Phys R* 74:1063-70 N 1 '48
Ionization currents from extended alpha-
sources. M. Blau and J. Carlin. bibliog *il*
diag *R Sci Instr* 18:715-21 O '47
Static elimination; engineers propose use of
polonium, which emits alpha rays. *Avia-
tion W* 48:26-7 My 3 '48
Structure and conductivity in the VI₆ group
of the periodic system. A. von Hippel. bib-
liog *il diags J Chem Phys* 16:372-80 Ap '48

Isotopes

Artificial radioactive isotopes of polonium.
D. H. Templeton and others. bibliog *Phys*
R 72:758-65 N 1 '47; Abstract, Chem & Eng
N 26:703 Mr 8 '48

POLYAMIDES. See Amides

POLYENES

Absorption spectra; the infrared spectra of
certain compounds containing conjugated
double bonds. E. R. Blout, M. Fields and
R. Karplus. bibliog *Am Chem Soc J* 70:
194-8 Ja '48

Absorption spectra; the ultraviolet and vis-
ible spectra of certain polyene aldehydes
and polyene azines. E. R. Blout and M.
Fields. bibliog *Am Chem Soc J* 70:189-93
Ja '48

Acetylenic glycols related to natural
polyenes. L. F. Deemer, L. Lutwak and
F. M. Strong. bibliog *Am Chem Soc J* 70:
154-7 Ja '48

Metallic model for the spectra of conjugated
polyenes. N. S. Bayliss. bibliog diags *J*
Chem Phys 16:287-92 Ap '48

Modes of addition to conjugated unsaturated
systems; a discussion of mechanism and
equilibrium, with a note on three-carbon
prototropy. P. B. D. de la Mare, E. D.
Hughes and C. K. Ingold. *Chem Soc J* p 17-
27 Ja '48

POLYENES—Continued

Polarographic studies on aliphatic polyene aldehydes. M. Fields and E. R. Blout. *bibliog Am Chem Soc J* 70:930-5 Mr '48
 Polyenes; methyl dehydrocitraidenecyanoacetate. W. G. Young and S. L. Linden. *bibliog Am Chem Soc J* 69:2912-13 N '47

POLYETHYLENE

Disposable nursing bottles; rolls of polyethylene layflat tubing are heat sealed. *il Mod Plastics* 26:90-2 N '48
 Extruded polyethylene filaments. *il Mod Plastics* 25:120-1 N '47
 Films for cherries. F. Gerhardt and T. R. Wright. *il Mod Packaging* 21:163-5+ Je '48
 Flame-sealed visibility; Edelmann's brass fittings packaged in polyethylene bags; displayed by Jobber in polystyrene stock drawer. *il Mod Packaging* 21:112-14 Mr '48
 Housewares award to Tupper corp. *il Mod Plastics* 26:134-5 S '48
 Infra-red dichroism in aligned polythene and parowax. L. Glatt and J. W. Ellis. *J Chem Phys* 15:884 D '47
 Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler. *J Res Nat Bur Stand* 41:125-3 Ag '48
 Intrinsic electric strength of polythene and its variation with temperature. W. G. Oakes. *bibliog diags Inst E E J* 95 pt 1:36-44 Ja '48
 Looking toward 1948; raw materials; polyethylene. *Mod Plastics* 25:159-60 Ja '48
 Permanent tape for tennis courts. *il Plastics* 8:54+ Mr '48
 Permeability of laminations of polyvinyl alcohol films to other polymers. P. W. Morgan. *diag Mod Packaging* 22:159-60 S '48
 Plastic skyhooks. *il Mod Plastics* 25:100-1 My '48
 Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. *bibliog diags J Chem Phys* 16:877-86 S '48
 Polyethylene bag maker. *il Mod Packaging* 21:156 Ap '48
 Polyethylene bags for humus. *Mod Plastics* 26:282 S '48; *il Mod Packaging* 22:132-3 S '48
 Polyethylene cable. *il Mod Plastics* 25:170 Je '48
 Polyethylene closures. *il Mod Packaging* 21:102-6+ Mr '48
 Polyethylene extrusion. G. G. Himmler. *India Rubber World* 117:228-9 N '47
 Polyethylene hinge-cap; closure for squeeze-bottle atomizer. *il Mod Packaging* 22:109 O '48
 Polyethylene, new packaging prospect. R. W. Lahey. *il Chem & Eng N* 26:2015 JI 5 '48
 Polyethylene packaging for chemicals. *il Chem Ind* 63:39 JI '48
 Polyethylene permeability. J. H. Parlman. *bibliog il Mod Packaging* 21:198-201+ JI '48; *Excerpt. Chem Eng* 55:262+ JI '48
 Polyethylene used as sheathing for extra high voltage cables. *Rubber Age* 62:548 F '48; *Abstract. Eng N* 140:655 Ap 29 '48
 Polythene for chemical processes. *il Chem Age (Lond)* 59:215-18 Ag 14 '48
 Powder dispensed from squeezable bottle. *il Mod Plastics* 25:158 N '47
 Precocious plastic; polyethylene's brilliant successes. *il diag Mod Plastics* 25:73-80 F '48
 Printing on polyethylene. *il Mod Plastics* 25:152 Ag '48
 Rigid molded vials. *il Mod Packaging* 21:104-6 Je '48; *Mod Plastics* 25:116-18 Je '48
 Self-hinged closures. *il Mod Plastics* 26:160-1 O '48
 Squeezable bottles. *il Mod Packaging* 21:108-11 N '47
 Squeeze bottle for acid; polyethylene with spray valve for liquid rust remover containing hydrofluoric. *il Mod Packaging* 21:106-7 Ag '48
 Voltage characteristics of polythene cables. R. Davis and others. *bibliog Inst E E J* 94 pt 3:154-65 My '47; *Discussion. il diag* 94 pt 3:165-70; 95 pt 3:111-12 My '47, Mr '48
 War baby finds a lot of peacetime uses. *il Bsns W* p46+ O 2 '48

Manufacture

New plant features straight-line production process; Du Pont Washington works produces acrylic, polyethylene, nylon, and monofilaments of nylon. *il Mod Plastics* 26:120-1 O '48

POLYETHYLENE glycols. See Glycols

POLYETHYLENIMINE

Manufacture and use of polyethylenimine in Germany. *Mod Plastics* 26:130+ N '48

POLYISOBUTYLENE. See Isobutylene

POLYMER research. Institute of. See Institute of polymer research

POLYMERIZATION

Activated bauxite as a catalyst for polymerization of α -olefins. H. Heinemann, W. A. La Lande, Jr. and W. S. W. McCarter. *bibliog (41 ref) Ind & Eng Chem* 40:1224-6 JI '48

Allyl esters of phosphonic acids; preparation and polymerization of allyl and methallyl esters of some arylphosphonic acids. A. D. F. Toy. *bibliog Am Chem Soc J* 70:186-8 Ja '48

Allyl ethers of carbohydrates; polymerization of allyl ethers. A. N. Wrigley and E. Yanovsky. *bibliog Am Chem Soc J* 70:2194-6 Je '48

Anhydrides of polyhydric alcohols; some alkenyl ethers of 1:4-3:6-dianhydromannitol and 1:4-3:6-dianhydrosorbitol. H. Gregory and L. F. Wiggins. *diag Chem Soc J* p 1405-7 O '47

Anionic chain polymerization. R. G. Beaman. *bibliog Am Chem Soc J* 70:3115-18 S '48

Applications of magnetochemistry to polymers and polymerization. P. W. Selwood. *bibliog diags J Res Nat Bur Stand* 41:151-62 Ag '48

Bench scale equipment and techniques; preparation of high-molecular-weight addition polymers. A. I. Goldberg. *bibliog il Ind & Eng Chem* 39:1570-3 D '47

Benzene formation in the radiochemical polymerization of acetylene. C. Rosenblum. *bibliog J Phys & Colloid Chem* 52:474-8 Mr '48

Catalyst for hydrocarbon synthesis. C. H. Riesz and others. *bibliog diag Ind & Eng Chem* 40:718-22 Ap '48

Catalytic polymerization and its commercial application. P. C. Weinert and G. Egloff. *flow diags Pet Processing* 3:585-6+ Je '48

Catalytic polymerization; chamber and reactor types. *flow diags Oil & Gas J* 45:126-7 Ap 1 '48

Catalytic polymerization process; Universal oil products co. *diags Pet Refiner (Process Handbook ed)* 27:124-5 sec 2 S '48

Catalytic polymerization unit is feature of McMurrey improvement plan. D. C. DeLoach. *il Oil & Gas J* 47:74-5 S 30 '48; *Same. Pet Eng* 20:286-8 O '48; *Same. Pet Refiner* 27:136-8 O '48

Chain transfer in the polymerization of styrene; the reaction of styrene with carbon tetrachloride. R. A. Gregg and F. R. Mayo. *bibliog Am Chem Soc J* 70:2373-8 JI '48

Chemical engineering unit processes. C. C. Winding. *il Ind & Eng Chem* 40:1643-9 bibliog (151 ref, p 1648-9) S '48

Chemistry of epoxy compounds; thermal polymerization of the isomeric 9,10-epoxystearic acids. D. Swern, G. N. Billen and C. R. Eddy. *bibliog Am Chem Soc J* 70:1228-35 Mr '48

Chemistry of high polymers. H. P. Staudinger. *bibliog il Soc Dyers & Col J* 63:313-19 O '47

cis- and *trans*-piperylenes. R. L. Frank, R. D. Emmick and R. S. Johnson. *bibliog Am Chem Soc J* 69:2313-17 O '47

Continuous polymerization in Germany. R. D. Dunlop and F. E. Reese. *bibliog diags Ind & Eng Chem* 40:654-60 Ap '48

Copolymerization; a comparison of some *cis* and *trans* isomers. F. M. Lewis and F. R. Mayo. *bibliog Am Chem Soc J* 70:1533-6 Ap '48

Copolymerization; copolymerizations involving α -vinylpyridine, α -vinylthiophene, *o*-chlorostyrene and α -methylstyrene. C. Walling, E. R. Briggs and K. G. Wolfstirn. *bibliog Am Chem Soc J* 70:1543-4 Ap '48

POLYMERIZATION—Continued

- Copolymerization; copolymerizations of some further monomer pairs. F. M. Lewis and others. *Am Chem Soc J* 70:1527-9 Ap '48
- Copolymerization; effects of temperature and solvents on monomer reactivity ratios. F. M. Lewis and others. *bibliog Am Chem Soc J* 70:1519-23 Ap '48
- Copolymerization of butadiene with vinyl monomers; use of 2-vinylfuran, 2-vinylthiophene, methacrylonitrile, and vinylidene chloride. R. L. Frank and others. *bibliog Ind & Eng Chem* 40:420-2 Mr '48
- Copolymerization rate constants in the system 2,5-dichlorostyrene-methyl acrylate. F. Leonard, W. P. Hohenstein and E. Merz. *Am Chem Soc J* 70:1283-4 Mr '48
- Copolymerization; relative monomer addition rates in vinyl copolymerization. R. G. Fordyce, E. C. Chapin and G. E. Ham. *Am Chem Soc J* 70:2489-92 Jl '48
- Copolymerization; some copolymerizations of vinyl acetate. F. R. Mayo and others. *bibliog Am Chem Soc J* 70:1523-5 Ap '48
- Copolymerization; the copolymerization of chloroethylenes with other monomers. K. W. Doak. *Am Chem Soc J* 70:1525-7 Ap '48
- Copolymerization; the effect of *m*- and *p*-substitution on the reactivity of α -methylstyrene toward the maleic anhydride type radical. C. Walling, D. Seymour and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1544-7 Ap '48
- Copolymerization; the effect of *meta*- and *para*-substitution on the reactivity of the styrene double bond. C. Walling and others. *bibliog Am Chem Soc J* 70:1537-42 Ap '48
- Copolymerization; the relation between structure and reactivity of monomers in copolymerization. F. R. Mayo, F. M. Lewis and C. Walling. *bibliog Am Chem Soc J* 70:1529-33 Ap '48
- Copolymerization; the validity of the tri-polymer equation for the systems; styrene-vinyl chloride-methyl acrylate and styrene-vinyl chloride-acrylonitrile. E. C. Chapin, G. E. Ham and R. G. Fordyce. *bibliog Am Chem Soc J* 70:538-42 F '48
- Cumene hydroperoxide in redox emulsion polymerization. E. J. Vandenberg and G. E. Hulse. *bibliog Ind & Eng Chem* 40:932-7 My '48
- Degree of polymerization of cellulose in cotton fibers. L. E. Hessler and others. *bibliog diags Textile Res J* 18:628-34 O '48
- Drying oil polymerization; abstract. T. F. Bradley. *Paint Oil & Chem R* 110:33 O 30 '47
- Edgar Fahs Smith memorial lecture; polymerization and copolymerization of dienes; abstract. C. S. Marvel. *Chem & Eng N* 26:1696-7 Je '48
- Effects of cross-linking and branching on the molecular constitution of diene polymers. P. J. Flory. *bibliog Am Chem Soc J* 69:2893-9 N '47
- Effects of inhibitors on the polymerization of styrene. F. R. Mayo and R. A. Gregg. *bibliog Am Chem Soc J* 70:1284-6 Mr '48
- Electron microscopy of radiation polymerization products. J. H. L. Watson. *J Phys & Colloid Chem* 52:470-4 Mr '48
- Emulsion polymerization of myrcene. A. J. Johanson, F. L. McKennon and L. A. Goldblatt. *Ind & Eng Chem* 40:500-2 Mr '48
- Emulsion polymerization of styrene. E. A. Hauser and E. Perry. *bibliog Il J Phys & Colloid Chem* 52:1175-86 O '48
- Evaluation of sodium-catalyzed copolymers of 1,3-butadiene and styrene. A. E. Juve and others. *bibliog Ind & Eng Chem* 39:1490-3 N '47
- Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton. *Il J Phys & Colloid Chem* 52:490-517 *bibliog* (64 ref, p516-17) Mr '48
- Free radical-initiated reaction of ethylene with carbon tetrachloride. R. M. Joyce, W. E. Hanford and J. Harmon. *bibliog Am Chem Soc J* 70:2529-32 Jl '48
- Further investigation of the mercury photosensitized polymerization of propylene. H. E. Gunning and E. W. R. Steacie. *bibliog J Chem Phys* 16:926-9 S '48
- High polymer forum, Chicago, April 19-20; abstracts of papers. *Rubber Age* 63:60-4 Ap '48
- High-solids synthetic latex directly from reactor. F. D. Chittenden, C. D. McCleary and H. S. Smith. *bibliog diags Ind & Eng Chem* 40:337-9 F '48
- Hot-acid polymerization process; Shell development co. flow diag Pet Refiner (Process Handbook ad) 27:132-3 sec 2 S '48
- Improved polymerization techniques; device for sampling latex during polymerization. R. J. Houston. *Il Anal Chem* 20:49-51 Ja '48
- Improved polymerization techniques; use of puncture-sealing gaskets for polymerization in bottles. S. A. Harrison and E. R. Meincke. *Il Anal Chem* 20:7-8 Ja '48
- Inhibition and retardation of vinyl polymerization. F. A. Bovey and I. M. Kolthoff. *Chem R* 42:491-525 *bibliog* (68 ref, p524-5) Je '48
- Interpretation of lignin; the synthesis of further analogs of spruce lignin. A. Russell. *Am Chem Soc J* 70:2864-5 S '48
- Introduction to polymer laboratory experiments; granular polymerization of methyl methacrylate. R. H. Wiley. *bibliog J Chem Educ* 25:204-7 Ap '48
- Kinetics and mechanism of reactions of tertiary β -chloroethylamines in solution; ethyl-bis- β -chloroethylamine. P. D. Bartlett and others. *Am Chem Soc J* 69:2977-82 D '47
- Kinetics and mechanism of the reactions of tertiary β -chloroethylamines in solution; methyl-bis- β -chloroethylamine. P. D. Bartlett, S. D. Ross and C. G. Swain. *bibliog Am Chem Soc J* 69:2971-7 D '47
- Kinetics of emulsion polymerization. W. V. Smith and R. H. Ewart. *J Chem Phys* 16:592-9 Je '48
- Kinetics of the polymerization of carbonic anhydrides. S. G. Walter and J. Watson. *Am Chem Soc J* 70:2299-300 Je '48
- Magnetic studies on polymerisation; magnetic optical rotatory powers and diamagnetic susceptibilities of certain polymethyl methacrylates. M. E. Bedwell. *Chem Soc J* p 1350-3 O '47
- Manufacture, compounding, and uses of polystyrene in Germany. G. M. Kline and others. *Il diag Mod Plastics* 25:131-3+ N '47
- Mechanical properties of high polymers as functions of the shape of the distribution curve. P. C. Scherer and E. P. Rouse. *bibliog Rayon* 29:55-7 Ag; 85-7 S '48
- Mechanism of processes initiated by excited atoms; photo-sensitized hydrocarbon reactions. K. J. Laidler. *bibliog J Chem Phys* 15:712-26 O '47
- Mercaptan modification of rosin rubber. C. F. Fryling. *bibliog Ind & Eng Chem* 40:928-32 My '48
- Mercury (SP) photo-sensitized hydrogenation of ethylene. D. J. LeRoy and A. Kahn. *bibliog J Chem Phys* 15:816-19 N '47
- Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents. G. B. Bachman and R. W. Finholt. *bibliog Am Chem Soc J* 70:622-4 F '48
- Monomers and polymers; a new synthesis for α -methylstyrenes. G. B. Bachman and H. M. Hellman. *Am Chem Soc J* 70:1772-4 My '48
- Monomers and polymers; vinylpyridines and vinylquinolines. G. B. Bachman and D. D. Micucci. *bibliog Am Chem Soc J* 70:2381-4 Jl '48
- Monomers and polymers; vinylthiophenes. G. B. Bachman and L. V. Heisey. *bibliog Am Chem Soc J* 70:2378-80 Jl '48
- Organic peroxides; properties and uses. R. P. Perry and K. P. Seltzer. *bibliog Mod Plastics* 25:134-6+ N '47
- Particle size in latex as related to synthetic rubber properties and high solids latex fluidity. A. M. Borders and R. M. Pierson. *bibliog Il Ind & Eng Chem* 40:1473-7 Ag '48
- Partition of acrylonitrile between styrene and water. W. V. Smith. *Am Chem Soc J* 70:2177-9 Je '48
- Photochemical polymerisation of vinyl acetate vapour. H. W. Melville and R. F. Tuckett. *diag Chem Soc J* p 1201-10 S '47

POLYMERIZATION—Continued

- Polarographic determination of free monomer in heteropolymerization reaction mixtures. G. C. Whitnack. *bibliog il Anal Chem* 20:658-61 J1 '48
- Polycondensation of α -amino acid derivatives; poly-lysine. E. Katchalski, I. Grossfeld and M. Frankel. *bibliog Am Chem Soc J* 70:2094-2101 Je '48
- Polymer fractionation of heat-polymerized non-conjugated vegetable oils. I. M. Bernstein. *bibliog J Phys & Colloid Chem* 52:613-61 Ap '48
- Polymerisation of acetylene; first comprehensive study of I.G. Farben discovery. *Chem Age (Lond)* 68:169 Ja 31 '48
- Polymerization of dimethacryl ether of ethylene glycol; abstract. A. A. Berlin and I. F. Bogdanov. *Chem Eng* 55:274+ Ag '48
- Polymerization of pentenes. V. N. Ipatieff and R. E. Schaad. *bibliog Ind & Eng Chem* 40:78-80 Ja '48
- Polymerization of vinyls; various commercially used methods. M. Sittenfeld. *bibliog Chem Eng* 54:129-31 D '47
- Polymerization; the action of metalating reagents on rubber. A. A. Morton and H. E. Ramsden. *bibliog Am Chem Soc J* 70:312-5 S '48
- Polymerization to lubricating oils of *n*-heptene-1 and *n*-pentadecene-1. G. H. Dazeley and C. C. Hall. *bibliog Soc Chem Ind J* 67:22-3 Ja '48
- Preparation and polymerization of *m*-cyanostyrene. R. H. Wiley and N. R. Smith. *bibliog Am Chem Soc J* 70:1560-1 Ap '48
- Preparation and polymerization of monomeric cyclic disulfides. F. O. Davis and E. M. Fettes. *bibliog Am Chem Soc J* 70:2611-12 J1 '48
- Preparation of some polymerizable esters of long-chain saturated aliphatic acids with unsaturated alcohols. D. Swern and E. F. Jordan, jr. *bibliog Am Chem Soc J* 70:2334-9 J1 '48
- Preparation of some polymerizable esters of oleic acid with unsaturated alcohols. D. Swern, G. N. Billen and H. B. Knight. *bibliog Am Chem Soc J* 69:2439-42 O '47
- Process problems in low temperature emulsion polymerization. J. E. Troyan. *bibliog diag Rubber Age* 63:585-95 Ag '48
- Production of olefin-polymer lubricating oils of satisfactory oxidation stability. G. H. Dazeley and others. *bibliog Inst Pet J* 34:647-53 S '48
- Properties of polymers as functions of conversion; composition studies of rubber-like copolymers. F. T. Wall and others. *bibliog Am Chem Soc J* 70:1031-7 Mr '48
- β -Propiolactone; polymerization reactions. T. L. Gresham, J. E. Jansen and F. W. Shaver. *Am Chem Soc J* 70:998-9 Mr '48
- Radical-sensitized polymerisation of vinyl acetate vapour. H. W. Melville and R. F. Tuckett. *Chem Soc J* p 1211-17 S '47
- Redox catalysts for vinyl polymerization; abstract and discussion. R. G. R. Bacon. *Chem & Ind* p300 My 8 '48
- Role of aggregating conditions and particle fusion in the growth of polymer particles during emulsion polymerization. C. E. Rhines and J. McGavack. *il Rubber Age* 63:599-606 Ag '48
- Role of emulsifying agents in polymerization. J. J. P. Staudinger. *bibliog diags Chem & Ind* p563-8 S 4 '48
- Soap ingredients as retarders in butadiene-styrene copolymerization. J. W. Wilson and E. S. Pfau. *bibliog Ind & Eng Chem* 40:530-4 Mr '48
- Solution viscosity of CR-S; variation with conversion. W. A. Schulze and W. W. Crouch. *bibliog Ind & Eng Chem* 40:151-4 Ja '48
- Spontaneous low-temperature polymerisation of acetaldehyde. H. A. Rigby, C. J. Danby and C. N. Hinselwood. *Chem Soc J* 234-7 F '48
- Studies of retarders and inhibitors in the emulsion polymerization of styrene; retarders. I. M. Kolthoff and F. A. Bovey. *bibliog Am Chem Soc J* 70:791-9 F '48
- Studies on lignin and related compounds; synthesis and properties of dimers related to lignin. S. B. Baker, T. H. Evans and H. Hibbert. *bibliog Am Chem Soc J* 70:60-3 Ja '48
- Substituted styrenes modify polymer properties. F. W. Reinhart. *bibliog il Chem Ind* 62:235-7 F '48
- Substitution and polymerization reactions of thiophen and the isomeric thiophthens. J. Bruce and others. *Inst Pet J* 34:226-35 Mr '48
- Synthesis of multichain polymers and investigation of their viscosities. J. R. Schaefgen and P. J. Flory. *bibliog Am Chem Soc J* 70:2709-18 Ag '48
- Synthetic elastomers as plasticizers for polyvinyl resins. D. W. Young, R. G. Newberg and R. M. Howlett. *bibliog Ind & Eng Chem* 39:1446-52 N '47
- Use of monoreactive phenol alcohols as models for the general polymerization of phenol resin systems. H. S. Lilley. *bibliog Soc Chem Ind J* 67:196-9 My '48
- Vinylidene chloride, its polymerization and polymer properties. H. P. Staudinger. *bibliog Chem & Ind* p685-9 N 8 '47

See also

Condensation, Chemical
Depolymerization
Polymers

POLYMERIZATION, Heat of

Heat and free energy of polymerization of ethylene. R. S. Jessup. *bibliog J Chem Phys* 16:661-4 J1 '48

POLYMERS

- Air-drying synthetics; abstract. W. S. Penn. *Paint Oil & Chem R* 110:41-2 D 25 '47
- Application of corrections in viscometry of high-polymer solutions. R. H. Wagner. *Anal Chem* 20:155-7 F '48
- Application of flow birefringence measurements to high-polymer solutions. M. Wales. *bibliog J Phys & Colloid Chem* 52:976-83 Je '48
- Application of high vacua in the paint and plastics industries. J. C. Swallow and J. S. Gourlay. *il diags Chem & Ind* sup9-13 O 9 '48
- Applications of magnetochemistry to polymers and polymerization. P. W. Selwood. *bibliog diags J Res Nat Bur Stand* 41:151-62 Ag '48
- Bench scale equipment and techniques; preparation of high-molecular-weight addition polymers. A. I. Goldberg. *bibliog il Ind & Eng Chem* 39:1570-3 D '47
- Capillary-tube viscometer for routine measurements of dilute high-polymer solutions. R. H. Wagner and J. Russell. *bibliog diags Anal Chem* 20:151-5 F '48
- Chemistry of high polymers. H. P. Staudinger. *bibliog il Soc Dyers & Col J* 63:313-19 O '47
- Chemistry of the organic isocyanates. J. H. Saunders and R. J. Slocombe. *Chem R* 43:203-18 bibliog(110 ref, p216-18) O '48
- Chlorostyrene polymers with butadiene. H. C. Jones. *il Rubber Age* 63:735-40 S '48
- Colloquium on macromolecules at University of Liège. *Chem & Eng N* 26:1978 J1 5 '48
- Copolymers of butadiene with halogenated styrenes. C. S. Marvel and others. *bibliog Ind & Eng Chem* 39:1486-90 N '47
- Cross-linking of vinyl polymers by Friedel-Crafts catalysts. J. C. Bevington and R. G. W. Norrish. *Chem Soc J* p771-4 Je '48
- Dependence of the scattering of light on angle and concentration in linear polymer solutions. B. H. Zimm. *bibliog J Phys & Colloid Chem* 52:260-7 Ja '48
- Depolymerization of butylene polymers; analysis of isomeric octenes by the mass spectrometer. F. G. Ciapetta, S. J. Macuga and L. N. Leum. *bibliog Anal Chem* 20:599-704 Ag '48
- Determination of refractive index of polymers. R. H. Wiley and P. H. Hobson. *bibliog(45 ref) Anal Chem* 20:520-3 Je '48
- Effect of molecular weight distribution on physical properties of natural and synthetic polymers. B. L. Johnson. *bibliog Ind & Eng Chem* 40:351-6 F '48
- Effect of temperature and molecular-weight distribution on the morphology of natural and synthetic high polymers. E. A. Hauser and D. S. le Beau. *bibliog il J Phys & Colloid Chem* 52:27-39 Ja '48

POLYMERS—Continued

- Effect of 2-vinylpyridine on properties of GR-S polymers. W. W. Rinne and J. E. Rose. *bibliog Ind & Eng Chem* 40:1437-40 Ag '48
- Effects of cross-linking and branching on the molecular constitution of diene polymers. P. J. Flory. *bibliog Am Chem Soc J* 69: 2893-9 N '47
- Elastic N-substituted polyamides. E. L. Wittbecker, R. C. Houtz and W. W. Watkins. *bibliog Ind & Eng Chem* 40:875-9 My '48
- English polymer chemistry reviewed; Polytechnic institute of Brooklyn symposium. *Chem & Eng N* 26:3025+ O 11 '48
- Equilibrium moisture and X-ray diffraction investigations of pectinic and pectic acids. K. J. Palmer, R. C. Merrill and M. Ballantyne. *bibliog Ind Am Chem Soc J* 70:570-7 F '48
- Evaluation of sodium-catalyzed copolymers of 1,3-butadiene and styrene. A. E. Juve and others. *bibliog Ind & Eng Chem* 39: 1490-3 N '47
- Further investigation of aqueous dispersions of vinyl polymers by Chicago paint and varnish production club. *Paint Oil & Chem R* 110:41-2+ N 13 '47
- Halogen-halogen distances in halogen-polymer complexes. R. E. Rundle. *bibliog J Chem Phys* 15:880 D '47
- High polymer division, A.P.S. meeting, Chicago, Dec. 29-31; abstracts of papers. *India Rubber World* 117:387-8 D '47; *Rubber Age* 62:303-5 D '47
- High polymer forum, Chicago, April 19-20; abstracts of papers. *Rubber Age* 63:60-4 Ap '48
- High vacuum pyrolytic fractionation of polystyrene; mass spectrometer analysis of some of the fractions. S. L. Madorsky and S. Straus. *diags Ind & Eng Chem* 40:848-52 My '48; *diags J Res Nat Bur Stand* 40:417-25 My '48
- Imparting water-repellency to textiles by chemical methods; a review of the literature; polymers formed *in situ*. H. A. Schuyten and others. *Textile Res J* 18:495-7 Ag '48
- Influence of physical properties on adhesion of high polymers to cellulose. A. D. McLaren. *bibliog Paper Tr J* 126:139-40 My 27 '48
- Instrument for measuring stress relaxation of high polymer materials. W. S. Macdonald and A. Ushakoff. *bibliog Ind diag Anal Chem* 20:713-17 Ag '48
- Intrinsic viscosities and diffusion constants of flexible macromolecules in solution. J. G. Kirkwood and J. Riseman. *J Chem Phys* 16:565-73 Je '48
- Intrinsic viscosity, diffusion, and sedimentation rate of polymers in solution. P. Debye and A. M. Bueche. *J Chem Phys* 16:573-9 Je '48
- Investigation of the relationship between polymer structure and mechanical properties. R. S. Stein and A. V. Tobolsky. *bibliog (76 ref) Ind diags Textile Res J* 18:201-23, 302-14 Ap-My '48
- Lactic acid polymers as constituents of synthetic resins and coatings. P. D. Watson. *bibliog Ind & Eng Chem* 40:1393-7 Ag '48
- Long time load-deformation effects in viscoelastic materials. C. H. Adams and M. C. Throdahl. *bibliog Mod Plastics* 25:139-42+ Je '48
- Measurement of internal double bonds in polymers by perbenzoic acid addition. A. Saffer and B. L. Johnson. *bibliog Ind & Eng Chem* 40:538-41 Mr '48
- Measurement of ultrasonic bulk-wave propagation in high polymers. A. W. Nolle and S. C. Mowry. *Ind diag Acoustical Soc Am J* 20:432-9 J1 '48
- Mechanical properties of high polymers as functions of the shape of the distribution curve. P. C. Scherer and B. P. Rouse. *bibliog Rayon* 29:55-7 Ag; 85-7 S '48
- Molecular weight of C_2ClF_5 polymers; abstract. J. L. Gabbard and others. *Chem Eng* 55:276+ My '48
- Oxidative degradation of polymeric materials. A. V. Tobolsky. *India Rubber World* 118:363-4+ Je '48
- Permeation through and sorption of water vapor by high polymers. F. M. Hauser and A. D. McLaren. *bibliog diag Ind & Eng Chem* 40:112-17 Ja '48
- Physical properties of diene polymers; effects of side vinyl groups and other structural features. J. D. D'lanni. *bibliog Ind & Eng Chem* 40:253-6 F '48
- Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. *bibliog diags J Chem Phys* 16:877-86 S '48
- Polyamide resins from dilinoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. *bibliog Am Chem Soc J* 70: 760-3 F '48
- Polyester resins. E. L. Kropa. *India Rubber World* 118:532-3 J1 '48
- Polymer for adhesives, thickeners, etc; Amberlite W-1. *Chem & Eng N* 25:3872 D 29 '47
- Polymer fractionation of heat-polymerized non-conjugated vegetable oils. I. M. Bernstein. *bibliog J Phys & Colloid Chem* 52: 613-61 Ap '48
- Polymeric unsaturation and relative rate of cross linkage. R. L. Zapp. *bibliog diags Ind & Eng Chem* 40:1508-17 Ag '48
- Polymers and viscosity index. H. C. Evans and D. W. Young. *bibliog Ind & Eng Chem* 39:1676-81 D '47
- Properties of polymers as functions of conversion; composition studies of rubber-like copolymers. F. T. Wall and others. *bibliog Am Chem Soc J* 70:1031-7 Mr '48
- Purity and identity of polymers. H. Mark. *bibliog (44 ref) diags Anal Chem* 20:104-10 F '48
- Pyrolysis of high polymeric hydrocarbons. R. B. Seymour. *bibliog Ind & Eng Chem* 40:524-7 Mr '48
- Pyrolysis of high polymers; new apparatus developed in rubber research. *diag Chem Age (Lond)* 58:426-7 Mr 27 '48
- Rheological problems in the processing of plastics. R. Buchdahl and H. K. Nason. *bibliog diags Ind & Eng Chem* 40:642-51 Ap '48
- S-polymers; new type of thermoplastic resinous polymer. E. N. Cunningham. *Rubber Age* 62:187-90 N '47
- Sedimentation equilibria of polydisperse non-ideal solutes. M. Wales and others. *bibliog J Phys & Colloid Chem* 52:235-43, 983-98 Ja, Je '48
- Special issue on high polymer physics. *bibliog Ind diags J Ap Phys* 19:427-80 My '48
- Statistical thermodynamics of the sorption of vapors by solids. M. Dole. *bibliog J Chem Phys* 16:25-30 Ja '48
- Structure and properties of ethylene polymers. R. B. Richards. *bibliog diags Inst Pet J* 34:237-46; *Discussion*, 246-54 Ap '48
- Structure of cellulose acetate molecules in acetone solution. S. J. Singer and H. Mark. *bibliog J Ap Phys* 19:97-101 Ja '48
- Structure of polymers and its influence on their behavior during reclaiming. D. S. le Beau. *bibliog Rubber Age* 62:51-5 O '47
- Styrene polymers and copolymers for industry. R. G. Rordy. *India Rubber World* 118:377-8 Je '48
- Substituted vinylpyridines as monomers for synthetic elastomers. R. L. Frank and others. *bibliog Ind & Eng Chem* 40:879-82 My '48
- Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, jr. and A. D. McLaren. *bibliog Ind & Eng Chem* 40:329-31 F '48
- Temperature sensitivity of the system plasticizer-polymer; abstract and discussion. H. Jones. *Chem & Ind* p378-9 Je 12 '48
- Theory of the adhesion of high polymers to cellulose. A. D. McLaren and C. H. Hofrichter, jr. *bibliog Paper Tr J* 125:96+ N 6 '47
- Thermal decomposition of high polymers developed by S. L. Madorsky and S. Straus. *diag Rubber Age* 63:204 My '48; *Same*. *Mech Eng* 70:619-20 J1 '48; *Same cond*. *Chem & Eng N* 26:948 Mr 29 '48
- Thermal depolymerization of viscous isobutylene polymer. J. A. Reid and G. C. Bailey. *bibliog Ind & Eng Chem* 40:349-51 F '48

POLYMERS—Continued

- Ultraviolet absorption spectra of substituted vinyl aromatic monomers and polymers. H. A. Laitinen, F. A. Miller and T. D. Parks. *Am Chem Soc J* 69:2707-14 N '47
- Unsaturation in isoprene-isobutylene copolymers; reaction with iodine in the presence of mercuric acetate and trichloroacetic acid. S. G. Gallo, H. K. Wiese and J. F. Nelson. *bibliog Ind & Eng Chem* 40: 1277-80 JI '48
- Use of S^3 in the measurement of transfer constants. C. Walling. *bibliog Am Chem Soc J* 70:2561-4 JI '48
- Viscoelastic properties of polymer solutions. J. D. Ferry. *bibliog il diags J Res Nat Bur Stand* 41:53-62 JI '48
- Viscosity, sedimentation, and diffusion of polymers in solution; abstract. P. Debye and A. M. Bueche. *Science* 106:507-8 N 28 '47
- Volume effect and random flights. R. C. Briant. *J Chem Phys* 16:839-40 Ag '48
- Vulcanization of chlorine-containing acrylic elastomers. W. C. Mast and C. H. Fisher. *bibliog Ind & Eng Chem* 40:107-12 Ja '48
- See also*
- | | |
|-------------------|--------------------|
| Molded products | Rayon |
| Nylon | Resinous products |
| Plastic materials | Rubber—Chemistry |
| Polyethylene | Rubber, Artificial |
| Polysaccharides | Silicones |

POLYMORPHISM

- Polymorphism of 1-monostearin and 1-monopalmitin. E. S. Lutton and F. L. Jackson. *bibliog Am Chem Soc J* 70:2445-9 JI '48
- Polymorphism of red phosphorus. W. L. Roth, T. W. DeWitt and A. J. Smith. *bibliog il Am Chem Soc J* 69:2881-5 N '47
- Polymorphism of the mixed triglycerides of palmitic and stearic acids. E. S. Lutton, F. L. Jackson and O. T. Quimby. *bibliog Am Chem Soc J* 70:2441-5 JI '48
- Pseudostructures in electron microscope specimens. J. H. L. Watson. *il J Ap Phys* 19:718-20 Ag '48
- Three new polymorphs of zinc sulfide. C. Frondel and C. Palache. *Science* 107:602 Je 4 '48
- Tri- α -naphthylboron as a highly hindered reference acid; a case of polymorphism ascribed to hindered rotation. H. C. Brown and S. Sujishi. *il diags Am Chem Soc J* 70:2793-802 Ag '48
- Triple chain-length structures of saturated triglycerides. E. S. Lutton. *bibliog diags Am Chem Soc J* 70:248-54 Ja '48
- X-ray and thermal examination of the glycerides; the polymorphism of simple triglycerides. C. E. Clarkson and T. Malkin. *pl Chem Soc J* p955-7 JI '48

POLYNOMIALS

- Least-squares' fitting of data by means of polynomials, by R. T. Birge; Mathematical appendix, by J. W. Weinberg. *bibliog Rs Mod Phys* 19:298-360 O '47

POLYPEPTIDE. See Peptides**POLYPORIN**

- Effect of crude polyporin on seed germination and root growth; a preliminary study. S. R. Bose and others. *bibliog il Science* 107: 63 Ja 16 '48

POLYSACCHARIDES

- Chemical composition and properties of guar polysaccharides. E. Heyne and R. L. Whistler. *bibliog Am Chem Soc J* 70:2249-52 Je '48
- Comparison of the gel setting properties of polyose from tamarind seed (*tamarindus indica* Linn) with fruit pectins. G. R. Savur and A. Sreenivasan. *bibliog Soc Chem Ind J* 67:190-3 My '48
- Constitution of mesquite gum; hexamethyl-3-glucuronosido-methyl-galactoside methyl ester. E. V. White. *bibliog Am Chem Soc J* 69:2264-6 O '47
- Constitution of mesquite gum; 4-methoxy-D-glucuronic acid. E. V. White. *bibliog Am Chem Soc J* 70:367-9 Ja '48
- Electrophoretic resolution of heparin and related polysaccharides. M. L. Wolfrom and F. A. H. Rice. *Am Chem Soc J* 69:2918-19 N '47
- Empirical formula for polysaccharides. K. E. Wright. *J Chem Educ* 24:562 N '47

- Enzymatic synthesis and degradation of polysaccharides; abstract. C. F. Cori. *Chem & Eng N* 26:1694-5 Je 7 '48
- Fractionation and physical-chemical studies of a commercial preparation of the specific polysaccharide of type I pneumococcus. R. A. Alberty and M. Heidelberger. *bibliog Am Chem Soc J* 70:211-13 Ja '48
- Galactomannan of the lucerne seed. E. L. Hirst, J. K. N. Jones and W. O. Walder. *Chem Soc J* p 1443-6 N '47
- Investigation of the reserve carbohydrates of leguminous seeds; periodate oxidation. O. A. Moe, S. E. Miller and M. H. Iwen. *bibliog Am Chem Soc J* 69:2621-5 N '47
- Mechanism of enzymatic synthesis of polysaccharides; abstract of Harrison Howe lecture. C. F. Cori and G. T. Cori. *Chem & Eng N* 25:3567 D 1 '47
- Polysaccharide acid esters as cation exchange media. F. C. McIntire and J. R. Schenck. *Am Chem Soc J* 70:1193-4 Mr '48
- Polysaccharides aryl β -D-glucosides. L. A. Wolff and C. E. Rist. *bibliog Am Chem Soc J* 70: 2779-82 Ag '48
- Polysaccharides of carrageen; the gigartina stellata polysaccharide. E. T. Dewar and E. G. V. Percival. *Chem Soc J* p 1622-6 D '47
- Some derivatives of D-galacturonic acid. J. K. N. Jones and M. Stacey. *Chem Soc J* p 1340-1 O '47
- Structure of an enzymatically synthesized reducing disaccharide D-glucosido-L-arabinose. W. Z. Hassid and others. *bibliog il Am Chem Soc J* 70:306-10 Ja '48
- Thiocyanoate of polysaccharide tosyl esters. J. F. Carson and W. D. Maclay. *Am Chem Soc J* 70:2220-3 Je '48

*See also***Inulin****POLYTECHNIC Institute of Brooklyn**

- Evening graduate programs in electrical engineering. E. Weber. *J Eng Educ* 38:256-61 D '47

POLYTETRAFLUOROETHYLENE. See Teflon**POLYTHENE. See Polyethylene****POLYURONIDES**

- Combination between lignin and polyuronic acid in jute fibre. P. B. Sarkar and others. *bibliog Textile Inst J* 39:71-7 Ja '48

PONTOONS

- Docking seaplanes safely; self-propelled floating berth. *il Comp Air Mag* 53:40, cover F '48
- Seaplane floating dock utilizes nylon-coated fabric pontoons. *il Rubber Age* 63:206 My '48
- Surplus pontoons make boat harbor for fleet of fishing boats at Eureka, Calif. *il diags Eng N* 141:112-13 O 14 '48

POOR laws**Great Britain**

- New poor law; National assistance bill. *Economist* 153:748-50 N 8 '47

POPCORN

- Maize. A. Herzka. *il diags Soc Chem Ind J* 66:396-7 N '47
- Quality of popcorn discussed at 3d annual convention of National association of popcorn manufacturers, Chicago. *Food Ind* 20: 69-70 Ja '48

POPE, Allan McVill, 1879-

- Heads finance committee of NYU council. *por Comm & Fin Chr* 166:2548 D 18 '47

POPLAR

- Poplar woods; their suitability for pulp; abstract. G. Jayme. *Paper Ind* 30:488 Je '48
- Sex and vigor in populus. S. S. Pauley. *Science* 108:302-3 S 17 '48

POPOV, Alexander Stepanowitsch, 1859-1905

- A. S. Popov; early radio experiments. G. W. O. Howe. *Wireless Eng* 25:1-5 Ja '48
- Inventor of radio telegraphy; Russian claim that Popov anticipated Marconi. G. W. O. Howe. *Wireless Eng* 26:135-7 My '48

POPULATION

- Dark side of sanitation; overpopulation. L. W. Johnson. *il U S Naval Inst Proc* 74: 1216-23 O '48
- How many shall inherit? *Fortune* 38:3 JI '48

POPULATION—Continued

Statistics

Customers vs population. Elec World 129: 110-13 My 22 '48

Farm states regain some of population losses registered during seven-year period 1940-1947. Nat Per N 40:28 O 20 '48

1948 survey of buying power; estimates of population, total retail sales, sales by three major store groups, effective buying income (gross and net), net farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties, cities plus special sections for Hawaii and the Dominion of Canada. il maps Sales Management 60:19-556 My 10 '48; Correction. 61: 111 JI 1; 67 Ag 1 '48

70 million persons moved in seven years. W. P. Burn. map Ptr Ink 225:33-6 O 1 '48

Australia

Population increases in 1947. For Comm W 32:13 Ag 21 '48

Canada

Record population increase. For Comm W 32: 16 S 18 '48

Sales and population in Canada, 1947. W. P. Burn. map Ptr Ink 224:63-5+ S 3 '48

Germany

Germany's biological destruction; excerpts from German realities. G. Stolper. Fortune 37:92-3+ My '48

Great Britain

Fifty millions? Economist 154:836, 962-3 My 23, Je 12 '48

Malthus regained? Economist 154:749-50 My 8 '48

United States

Census study indicates important population shifts. W. P. Burn. maps Ptr Ink 222:44+ F 27 '48

How U.S. population has grown, by states. Bsns W p23 Ag 14 '48

Population trends in the United States. W. S. Thompson. il Dun's R 56:20-2+ Ag; 21-3+ S '48

U.S. population is still rising; Census bureau study. Bsns W p22-3 Ap 10 '48

Yugoslavia

Population census. For Comm W 32:47 S 18 '48

PORCELAIN

Ceramic bodies for turbojet blades; abstracts. R. F. Geller. il S A E J 56:46+ Je '48; Machine Design 20:196+ F '48

Cordery China, New Jersey creator of old world-style porcelain pieces. il Cer Ind 51: 90 O '48

High temperature ceramics. E. L. Olcott. il Product Eng 19:110-12 Mr '48

High-temperature high-strength porcelains. il Am Cer Soc Bul 26:414 D 15 '47

How to develop vitrification in a pottery body. Cer Ind 51:91 JI '48

New French porcelains in limited editions. G. G. Antignac. il Cer Ind 49:99-100 O '47

Overcasting handles on jiggered cups. R. Gould. il Cer Ind 49:89-90 O '47

Preparation of ware for the bisque fire. R. Gould. diag Cer Ind 49:77-9 D '47

Raw materials, and methods of body preparation. R. Gould. Cer Ind 49:82+ N '47

PORCELAIN, Insulating

Ceramic spark plug insulators rich in alumina. W. Eitel. Cer Ind 50:66 F '48

Ceramics and glass used in electronics. Electronics 21:M4-5 Mid-Je '48

Electrical properties of ceramics as influenced by temperature; abstract. E. W. Lindsay and L. J. Berberich. Elec Eng 67:440 My '48

Recent trends in the ceramic industry. il Chem Eng 55:129-30 JI '48

Soldered ceramic-to-metal seals. A. L. Jenny. il diags Product Eng 18:154-7 D '47

Taylor, Tunncliffe & co. makers of porcelain insulators. il Elec R (Lond) 143:427-9 S 17 '48

Thermal resistant whiteware; abstract. E. J. Smoke. Cer Ind 49:86 O '47

PORCELAIN enamel institute

Annual forum meeting, 9th, Columbus, Ohio, Oct. 10-12. Cer Ind 49:56-7+ O '47

Annual forum, 10th, Urbana, Ill. Cer Ind 51: 64-5 N '48

Annual meeting, 16th, Cleveland. Cer Ind 49: 69-70 N '47

PORCELAIN enameling. See Enamel and enameling

PORK

Control of trichinosis; report by committee on public health relations, the New York academy of medicine. E. H. L. Corwin and L. Stice. bibliog Pub Health Rep 63:478-88 Ap 9 '48

Heat processed pork luncheon meat shows good retention of B vitamins; abstract. J. F. Feaster. Food Ind 20:306+ F '48

PORK, Frozen

Effect of fluctuating storage temperatures on quality of frozen foods. W. A. Gortner and others. bibliog Ind & Eng Chem 40:1423-6 Ag '48

POROSITY

Adsorption and pore-size measurements on charcoals and whiterites. P. H. Emmett. Chem. R 43:69-148 bibliog(157 ref, p 144-8) Ag '48

Carbides, nitrides and porosity in aluminum. D. Von Ludwig. bibliog il Iron Age 160: 73-8+ N 20 '47

Determination of pore size distribution from gas adsorption data. C. G. Shull. bibliog diags Am Chem Soc J 70:1405-10 Ap '48

Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett. bibliog diag J Phys & Colloid Chem 51:1262-76 N '47

Nature and origin of limestone porosity. R. E. Hohl. il diags Colorado School of Mines [Golden] Quarterly 43 no 4:1-51 bibliog (p49-51) '48 (pa \$1)

Physical studies of gel microstructure. C. G. Shull, P. B. Elkin and L. C. Roess. bibliog Am Chem Soc J 70:1410-14 Ap '48

Rapid method of ore testing, the S.K. porosity test. H. L. Saunders and H. J. Treas. diag Iron & Steel Inst J 152:291-300; Discussion. 300-2 no 2 '45; 153:355-6 no 1 '46

Simplified porosity measurements. R. W. Leonard. diags Acoustical Soc Am J 20: 39-41 Ja '48

Studies on aging of precipitates and co-precipitation; the bulkiness and porosity of silica powder. I. Shapiro and I. M. Kolthoff. bibliog il J Phys & Colloid Chem 52:1020-33 Je '48

Technique for reproducing rock pore space; plastic models for study of petroleum reservoir permeability. W. F. Nuss and R. L. Whiting. bibliog il diags Am Assn Pet Geologists Bul 31:2044-9 N '47

See also

Permeability

POROUS concrete. See Concrete, Porous

POROUS materials

Alteration of the size and distribution of pores in charcoals. J. Holmes and P. H. Emmett. bibliog J Phys & Colloid Chem 51:1276-307 N '47

Diffusion phenomena in solvent extraction of peanut oil; effect of cellular structure. H. P. Fan, J. C. Morris and H. Wakeham. bibliog il Ind & Eng Chem 40:195-9 F '48

Discussion on a symposium on powder metallurgy; porous metal components. pl Iron & Steel Inst J 157:561-6 D '47

Experimental study of cooling by injection of a fluid through a porous material. P. Duwez and H. L. Wheeler, jr. diags J Aeronautical Sci 15:509-21 S '48

Factors that influence thermal conductivity of porous-type insulating materials. A. V. Butterworth. bibliog diag Chem Eng Prog 43:597-600 N '47

Flow of fluids through porous media. L. E. Brownell and D. L. Katz. bibliog flow diags il diag Chem Eng Prog 43:537-44, 601-12, 703-12 O-D '47; Discussion. 43:544-8 O '47

Plain sleeve bearings, materials and design; porous bearings. il Product Eng 19:145-6 O '48

Pore size distribution in porous materials; interpretation of small-angle X-ray scattering patterns. H. L. Ritter and L. C. Erich. bibliog diags Anal Chem 20:665-70 J '48

POROUS materials—Continued

Porous media; definite study of properties and applications. H. Braidy, *Chem Age* (Lond) 58:488-9 Ap 10 '48

Powder metallurgy of porous metals and alloys having a controlled porosity. P. Duwez and H. E. Martens, bibliog *il* *diags Metals Tech* 15:TP2343 1-27 Ap '48

See also

Concrete, Porous

Metal powders

Plastic materials,

Cellular

Rubber, Sponge

PORPHYRINS

Porphyrin studies; the metal complex salts of $\alpha, \beta, \gamma, \delta$ -tetraphenylporphine. P. Rothmund and A. R. Menotti, *Am Chem Soc J* 70:1808-12 My '48

PORPHYRINURIA

Porphyrinuria in lead-poisoned dogs. K. Salomon and G. R. Cowgill, bibliog *J Ind Hygiene* 30:114-18 Mr '48

PORT authorities

Insurance requirements

Port authorities are scrutinizing cover closely. *Nat Underw* 51:2 D 4 '47

PORTABLE boilers. See Boilers, Portable

PORTABLE electric tools. See Electric tools, Portable

PORTABLE refrigerators. See Refrigerators, Electric—Refrigerators

PORTABLE scaffolding. See Scaffolding, Portable

PORTAL-to-portal pay. See Wages—Law

PORTLAND, Oregon

Portland; peak of an Oregon adventure. *il Chem & Eng N* 26:2494-5 Ag 23 '48

Sewerage

Portland sewage works project. J. C. Stevens and H. L. Thompson, *il* maps *diag Sewage Works J* 20:185-201 Mr '48; *Abstract. Eng N* 139:251-2 Ag 21 '47

Water supply

Laying a 36-in. main through traffic. S. J. Benedict, *il* *Am Water Works Assn J* 39:1115-20 N '47

PORTLAND cement association

PCA to build large research center. *il Concrete* 56:20-2 My '48

PORTLAND (Oregon) general electric company

Bonds offered. *Comm & Fin Chr* 166:1997 N 17 '47

PORTO RICO. See Puerto Rico**PORTS**

Argentina takes steps to improve port conditions. K. N. Hynes, *For Comm W* 31:37 My 15 '48

Baltimore; new export leader. *il* *Bsns W* p46-8 F 14 '48

France rebuilds her ports; Le Havre, Cherbourg and Marseille. W. G. Bowman, *il* plans *diags Eng N* 141:98-107 Ag 19 '48

Great New Orleans steal; success of city's sales promotion. *il* *Fortune* 38:102-3 N '48

How United States ports are ranked. *For Comm W* 32:36 JI 17 '48

Marine facilities at Port Newark. *il* *Marine Eng* 53:69-70 My '48

Port of Charleston; rebuilt and revitalized. *il* *Manuf Rec* 117:40-1+ Mr '48

Port of Los Angeles-Long Beach serves vast, expanding trade-area. P. E. Pauly, *il* *For Comm W* 32:4-7+ S 25 '48

South's port trade booms; eight northern ports band together. *il* *Bsns W* p24 Ag 21 '48

Venezuela to modernize port of La Guaira. *For Comm W* 29:26 D 13 '47

See also

Free ports and zones

Harbors

also names of ports, e.g.

Baltimore	New Orleans
Brownsville, Texas	New York (city)—
Cleveland, Ohio	Harbor
Mobile, Alabama	

PORTSMOUTH, England

See also

Electricity supply—
Portsmouth,
England

PORTSMOUTH steel corporation

Portsmouth steel corp. is well under way on modernization program. *il* *Steel* 121:64-5+ N 24 '47

PORTUGAL

Portugal's Estado novo. *Economist* 154:459-60, 508 Mr 20-27 '48

See also

Warships—Portugal

Commercial policy

New import-control plan effective. *For Comm W* 32:23 Ag 7 '48

Summary of import-license regulations. *For Comm W* 32:23 JI 17 '48

Politics and government

Political trials in Portugal. *Economist* 155:65 JI 10 '48

POSITEX. See Rubber latex

POSITION finding. See Direction finding apparatus

POSITRONS

Pair production by γ -rays in the field of an electron. V. Votruba, *Phys R* 73:1468 Je 15 '48

Production of a positron-electron pair in the electrostatic field of an electron. K. M. Watson, *Phys R* 72:1060-5 D 1 '47

Ratio of positives to negatives in Cu^{64} . L. Cranberg and J. Halpern, *Phys R* 73:259-60 F 1 '48

Search for positron-electron branching in certain beta emitting isotopes. W. C. Barber, bibliog *diags Phys R* 72:1156-9 D 15 '47

Shape of the positron spectrum of Cu^{64} . C. S. Cook and L. M. Langer, *Phys R* 74:227-8 JI 15 '48

Shape of the positron spectrum of N^{13} . C. S. Cook and others. *Phys R* 74:502-3 Ag 15 '48

Specific charge of the positron. J. Barnóthy, *Phys R* 74:844 O 1 '48

Stability of systems containing a light positive particle. A. Ore, bibliog *Phys R* 73:1313-17 Je 1 '48

POST cards. See Postal cards

POSTAGE stamps

Famous physicists and chemists commemorated. *il* *Chem Age* (Lond) 58:271 F 21 '48

Post offices to sell stamps via machines. *il* *Am Bsns* 18:32 F '48

Stamp speculators have their ups and downs; foreign issues collapse although U.S. values increase. R. M. Bleiberg, *Barron's* 28:9 F 16 '48

POSTAL card checks. See Checks

POSTAL cards

Main Street looking north from Courthouse square; portfolio of American picture postcards from the trolley-car period. *Fortune* 37:102-6 My '48

POSTAL cars

Hearing on head-end car safety and sanitation bill covering baggage, express or mail cars. *Ry Age* 124:640-1, 828-9 Mr 27, Ap 24 '48

POSTAL laws and regulations

P.O. official outlines lottery regulations. D. J. Kelly, *Ed & Pub* 81:14+ Ja 17 '48

POSTAL rates

New postal rates are effective Jan. 1. *Ptr Ink* 224:43, 87 JI 16 '48

P.O. costs threaten higher rate structure. *Ed & Pub* 81:54 Ap 24 '48

Postage rates to increase on Jan. 1. *Inland Ptr* 121:103-4 JI '48

Postal rates up? *il* *Bsns W* p60+ Ap 24 '48

Postal rates up. *Bsns W* p21 JI 3 '48

POSTAL savings banks

Savings deposits, U.S. postal savings, 1941-1946. Survey of *Cur Bsns* 1947 Sup p75 [supplemented in monthly numbers]

POSTAL service

See also

Parcel post

Postal cars

Money orders

Post office money orders are limited in negotiability. J. J. Lawler, *Bankers Mo* 65:34 Ja '48

POSTAL service—Money orders—Continued

Postal business, money orders, domestic, 1941-1946. Survey of Cur Bsns 1947 Sup p37 [supplemented in monthly numbers]

Periodicals

Post office attempts new delivery plan; mailers condemn. Ed & Pub 81:64 Ag 21; 48 Ag 28 '48

Post office to test four magazines in bulk mailing, NAMP told. H. L. Stephen. Ptr Ink 224:93+ S 17 '48

Mexico

Postal developments. L. B. Douglas. For Comm W 33:39 O 30 '48

United States*See also*

Air mail service

Railway mail service

POSTCARDS. See Postal cards**POSTERS**

How to design posters that will sell. J. E. Brennan and H. L. Gage. Il Adv & Sell 40: 37+ S; 43+ N '47; 41:43+ Ja; 121-2+ Mr; 45+ My '48

How visual aids were used to explain job evaluation; Metro-Goldwyn-Mayer studios. T. Hayworth and M. R. Sargent. Il Factory Management 106:72-4 Ap '48

Posters and pennies launch \$100,000 waste campaign. C. E. Lauterbach. Il Factory Management 106:113-15 Je '48

See also

Safety posters

POSTURE

Poor posture at work can cause ill health. Inland Ptr 121:49-50 Ag '48

POTASH

High-potash dikes in the Homestake mine, Lead, South Dakota. J. A. Noble. bibliog diags Geol Soc Bul 59:927-39, pl 1 S '48

Analysis

Determination of potash in fertilizers; effect of saturation of acid-alcohol with potassium chloroplatinate. M. A. Ewan, O. W. Ford and E. D. Schall. bibliog Anal Chem 20:192-4 Mr '48

Bibliography

Bibliography of literature on potash as a plant nutrient, reviewed April 1941 through June 1941. 66p American potash institute, inc, 1155 16th St. N.W., Washington 6 '48

New Mexico

Mining methods and practices. Potash co. of America, Eddy county, N. Mex. W. R. Storms. bibliog 13pls U S Bur Mines Information Circ 7445:1-18 '48

POTASH, Caustic. See Potassium hydroxide**POTASH feldspar. See Feldspar****POTASH Industry and trade****Statistics**

Potash. Il Chem Eng 55:313 Je '48
Potash deliveries for 1947 compared with 1946. Oil Paint & Drug Rep 153:4 My 3 '48
Potash industry makes new records in 1947. Chem & Eng N 26:2824 S 20 '48
Potash statistics; 1947. Oil Paint & Drug Rep 154:49 Ag 16 '48

United States

Caustic potash. Il Soap & San Chem 24:33-5+ Ja '48

Development of the domestic potash industry. H. M. Albright. Il Min Cong J 34:26-9 Mr '48

POTASH soap association. See Soap and detergent manufacturers association (formerly Potash soap association)**POTASSIUM**

Argon 40 in potassium minerals. L. T. Aldrich and A. O. Nier. bibliog Phys R 74:376-7 O 15 '48

Deacetylation of acetylated carbohydrate derivatives with potassium alkoxides. W. A. Bonner and W. L. Koehler. bibliog Am Chem Soc J 70:314-16 Ja '48

Fixation of potassium in relation to exchange capacity of soils; abstract. J. S. Joffe and A. K. Levine. Am Cer Soc J 31 (Cer A): 22, 44-5 Ja 1-F '48

Foreign ion rejection in the growth of sodium chloride single crystals from the melt. R. H. McFee. bibliog diags J Chem Phys 15: 856-61 D '47

Identification of the surplus gamma-radiation from granite. V. F. Hess and J. D. Roll. bibliog Phys R 73:916-18 Ap 15 '48

New experiments concerning the surplus gamma-radiation from rocks. V. F. Hess and J. D. Roll. Phys R 73:592-5 Mr 15 '48

Polymerization; the action of metalating reagents on rubber. A. A. Morton and H. E. Ramsden. bibliog Am Chem Soc J 70: 3132-5 S '48

Some unique properties of sodium and potassium. H. N. Gilbert. bibliog Chem & Eng N 26:2604-6+ S 6 '48

Violet asymmetry of potassium resonance lines under high rubidium vapor pressure. S. Ch'en. bibliog Phys R 73:1470 Je 15 '48

Analysis

Determination of sodium, potassium, aluminum, and zinc in derivatives of carboxymethylcellulose. E. F. Samsel and others. bibliog Il diag Anal Chem 20:142-6 F '48

Errors in the use of a model 18 Perkin-Elmer flame photometer for the determination of alkali metals; interference of common metals, acids, and solvents. T. D. Parks, H. O. Johnson and L. Lykken. Anal Chem 20:822-5 S '48

Isotopes

Geophysics and the radioactivity of potassium. F. Birch. Phys R 72:1128 D 1 '47
Half-life of K⁴⁰. T. Gráf. Phys R 74:831 O 1 '48

High energy part of the K⁴⁰ β -spectrum. S. Franchetti and M. Giovanozzi. Phys R 74: 102-3 Jl 1 '48

Radioactive decay constants of K⁴⁰ as determined from the accumulation of Ca⁴⁰ in ancient minerals. L. H. Ahrens and R. D. Evans. Phys R 74:279-86 Ag 1 '48

Radioactive decay of K⁴⁰. L. B. Borst and J. J. Floyd. bibliog Phys R 74:989-90 O 15 '48

Radioactivity of K⁴⁰. H. E. Suess. bibliog Phys R 73:1209 My 15 '48

Significance of the radioactivity of potassium in geophysics. T. Gráf. bibliog Phys R 74: 831-2 O 1 '48

Total half-life period of K⁴⁰. T. Gráf. diag Phys R 74:1199-200 N 1 '48

POTASSIUM alloys*See also*

Sodium potassium alloys

POTASSIUM amide

Metalations of diphenylmethane and related compounds by potassium amide; condensations with carbonyl compounds. R. S. Yost and C. R. Hauser. Am Chem Soc J 69: 2325-8 O '47

Reduction by dissolving metals. A. J. Birch. Chem Soc J p 1642-8 D '47

POTASSIUM borate

Behavior of certain sugars and sugar alcohols in the presence of tetraborates; correlation of optical rotation and compound formation. H. S. Isbell and others. bibliog J Res Nat Bur Stand 40:129-49 F '48

POTASSIUM bromide

Analytical boundary method for the determination of transference numbers. A. P. Brady. bibliog diag Am Chem Soc J 70: 911-14 Mr '48

Correlation through anharmonic force theory of the compressibility modulus and thermal expansion coefficient of KBr at low temperatures. C. Kittel. J Chem Phys 16:850 Ag '48

Determination of bromine addition numbers: electrometric method. H. D. DuBois and D. A. Skoog. bibliog Il diags Anal Chem 20:624-7 Jl '48

Mechanical properties of NaCl, KBr, KCl. J. K. Galt. bibliog Phys R 73:1460-2 Je 15 '48

POTASSIUM chlorate

Generation of insecticidal smokes. E. W. Bateman and G. D. Heath. Il Soc Chem Ind J 66:325-30 S '47

POTASSIUM chlorate—Continued**Manufacture**

Electrolytic production of chlorates. N. C. White, flow sheet *Electrochem Soc Trans* 92 (preprint 25):295-301 '47

POTASSIUM chloride

Activation energy for the diffusion of coupled pairs of vacancies in alkali halide crystals. G. J. Dienes, bibliog *diags J Chem Phys* 16:620-32 Je '48

Apparent molal expansibilities of potassium, barium and lanthanum chlorides as a function of concentration and temperature. G. Jones, E. F. Taylor and R. C. Vogel, bibliog *diags Am Chem Soc J* 70:966-77 Mr '48

Calibration method for infra-red prism spectrometers. D. S. McKinney and R. A. Friedel, *Opt Soc Am J* 38:222-5 Mr '48

Conductance of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. H. I. Schiff and A. R. Gordon, bibliog *J Chem Phys* 16:336-9 Ap '48

Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. P. H. Richards and J. W. McBain, bibliog *Am Chem Soc J* 70:1333-42 Ap '48

Frequency dependence of the capacity of a diffuse double layer. J. D. Ferry, bibliog *J Chem Phys* 16:737-9 Jl '48

Mechanical properties of NaCl, KBr, KCl. J. K. Galt, bibliog *Phys R* 73:1460-2 Je 15 '48

New method of preparing strongly luminescent thallium activated alkali halides and some properties of these phosphors. E. H. Hutten and P. Pringsheim, bibliog *il J Chem Phys* 16:241-6 Mr '48

Transference numbers of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. L. W. Shemilt and others, bibliog *J Chem Phys* 16:340-3 Ap '48

See also

Sylvite

POTASSIUM chloroplatinate

Determination of potash in fertilizers; effect of saturation of acid-alcohol with potassium chloroplatinate. M. A. Ewan, O. W. Ford and E. D. Schall, bibliog *Anal Chem* 20:192-4 Mr '48

POTASSIUM compounds

Isopeptic measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25°. J. M. Stokes, bibliog *Am Chem Soc J* 70:1944-6 My '48

Analysis

Determination of carboxylic acid salts. S. Siggia and M. Maisch, *Anal Chem* 20:235-6 Mr '48

POTASSIUM cryolite. See Potassium fluoaluminates

POTASSIUM cyanide

Hydrolytic titrations of lead with potassium cyanide. L. Meites, *Am Chem Soc J* 70:1659-60 Ap '48

Toxicity to plants of flue dusts containing cyanides and thiocyanates. B. Dyer and others, *Soc Chem Ind J* 66:409-10 N '47

POTASSIUM dihydrogen phosphate. See Potassium phosphates

POTASSIUM dihydrogenphosphide. See Potassium phosphides

POTASSIUM dihydroxystearate

Electrical conductance and density of solutions of potassium 9,10-dihydroxystearate at 60°. N. W. Gregory and H. V. Tartar, bibliog *Am Chem Soc J* 70:1992-5 Je '48

POTASSIUM fluoaluminates

Potassium fluoaluminates. F. A. Paine and J. Pearson, *Chem Soc J* p 1172-5 S '47

POTASSIUM fluoride

Double fluorides of potassium or sodium with uranium, thorium or lanthanum. W. H. Zachariasen, *Am Chem Soc J* 70:2147-51 Je '48

Making 1080 safe; case study in safe manufacture and distribution of a hazardous chemical. R. L. Jenkins and H. C. Koehler, *il Chem Ind* 62:232-5 F '48

Preparation of aliphatic fluorides. F. W. Hoffmann, *Am Chem Soc J* 70:2596-7 Jl '48

POTASSIUM formate

Urea, complex compounds, used for impregnating; patent. *Am Dyestuff Rep* 36:785 D 29 '47

POTASSIUM hydroxide

Action of alkali on cyclohexanones. T. L. Cairns, R. M. Joyce and R. S. Schreiber, *Am Chem Soc J* 70:1689-90 My '48

Caustic potash. *il Soap & San Chem* 24:33-5+ Ja '48

Experimental study of the Koppers-Hinckley-Podbielniak apparatus and method for the determination of conjugated dienes. M. Shepherd and others, *J Res Nat Bur Stand* 39:435-51 N '47

Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard, *il diags Elec Eng* 66:1059-63 N '47

Shrink-resistant sock treatment revealed by QMC; halogenation, resin, alcoholic potassium-hydroxide, and enzyme processes compared. *il Textile World* 93:111-14+ Ap '48

Thermodynamics of aqueous solutions of potassium hydroxide. G. C. Akerlof and P. Bender, bibliog *Am Chem Soc J* 70:2366-9 Jl '48

POTASSIUM iodate

Ternary systems; potassium iodate, iodic acid and water. S. B. Smith, *Am Chem Soc J* 69:2285-6 O '47

POTASSIUM iodide

Allylic chlorides; relative reactivities with potassium iodide in acetone. L. F. Hatch, L. B. Gordon and J. J. Russ, bibliog *Am Chem Soc J* 70:1093-6 Mr '48

Determination of high molecular weight quaternary ammonium compounds as the triiodides. O. B. Hager and others, bibliog *Anal Chem* 19:885-8 N '47

POTASSIUM iodoplatinate

Method for recovery of platinum from potassium iodoplatinate. M. K. Roane, *Science* 103:356 O 1 '48

POTASSIUM laurate

Critical micelle concentrations as determined by refractions. H. B. Klevens, bibliog *J Phys & Colloid Chem* 52:130-48 Ja '48

Effect of alkaline electrolytes on micelle formation in soap solutions. R. C. Merrill and R. Getty, bibliog *J Phys & Colloid Chem* 52:774-87 My '47

Laurate-ion activity in solutions of potassium laurate in the absence and presence of neutral salts. I. M. Kolthoff and W. F. Johnson, bibliog *J Phys & Colloid Chem* 52:22-7 Ja '48

Osmotic behavior of some colloidal electrolytes as determined by means of the Hill-Baldes vapor-tension apparatus. M. N. Fineman and J. W. McBain, bibliog *diag J Phys & Colloid Chem* 52:381-96 My '48

Solubility study of an aqueous potassium laurate-potassium silicate system. R. C. Merrill, bibliog *J Phys & Colloid Chem* 52:1143-6 O '48

POTASSIUM molybdothellurates

Crystal structures of ammonium and potassium molybdothellurates. H. T. Evans, jr, *Am Chem Soc J* 70:1291-2 Mr '48

POTASSIUM nitrate

Solubility and density isotherms; potassium and ammonium nitrates in ethanol solutions. A. R. Thompson and R. E. Vener, bibliog *Ind & Eng Chem* 40:478-81 Mr '48

POTASSIUM oxalate

Second dissociation constant of oxalic acid from 0° to 50° C, and the pH of certain oxalate buffer solutions. G. D. Pinching and R. G. Bates, bibliog *J Res Nat Bur Stand* 40:405-16 My '48

POTASSIUM oxide

Systems K₂O-ZnO-SiO₂, ZnO-B₂O₃-SiO₂, and ZnSiO₃-ZnGeO₄. E. Ingerson and others, bibliog *Am J Sci* 246:31-40 Ja '48

POTASSIUM perchlorate

Production of potassium perchlorate. C. A. Hampel and P. W. Leppla, flow sheet diags *Electrochem Soc Trans* 92 (preprint 22):251-9 '47

Analysis

Determination of potassium perchlorate in smokeless powder. W. B. Meldrum, jr, and others, bibliog *Anal Chem* 20:949-50 O '48

POTASSIUM periodate

Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose. F. S. H. Head. *bibliog* *Textile Inst J* 38:T389-407 D '47

Structure of glycogen; ratio of non-terminal to terminal glucose residues. T. G. Halsall, E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 1399-400 O '47

POTASSIUM permanganate

Accuracy of estimation of hydrogen peroxide by potassium permanganate titration. C. E. Huckaba and F. G. Keyes. *bibliog* *diag Am Chem Soc J* 70:1640-4 Ap '48

New reagent for the identification of vat dyes; acidified potassium permanganate. D. A. Derrett-Smith and B. C. Gee. *Soc Dyers & Col J* 63:401-4 D '47

Potassium permanganate and manganese chloride. *Chem Age (Lond)* 57:761 D 13 '47

Potassium permanganate test for detection of unsaturation. V. N. Ipatieff, W. W. Thompson and H. Pines. *Am Chem Soc J* 70:1658-9 Ap '48

Preparation of 1-C¹⁴-propene-1 and the mechanism of permanganate oxidation of propene. B. A. Fries and M. Calvin. *Am Chem Soc J* 70:2235-40 Je '48

POTASSIUM persulfate

High strength hydrogen peroxide; persulfate production for power uses. V. W. Slater and W. S. Wood. *Chem Age (Lond)* 59:279-82 Ag 28 '48

POTASSIUM phosphates

Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions. R. G. Bates. *bibliog J Res Nat Bur Stand* 53:411-17 N '47

POTASSIUM phosphides

Products of the interaction of potassium dihydrogenphosphide and *n*-heptyl bromide in liquid ammonia. G. W. Watt and R. C. Thompson, jr. *Am Chem Soc J* 70:2295 Je '48

POTASSIUM phthalate

Intercomparison of Beckman spectrophotometers. G. W. Ewing and T. Parsons, jr. *Anal Chem* 20:423-5 My '48

POTASSIUM silicates

Soluble silicates and the refractories industry. H. L. Bolton. *bibliog il Am Cer Soc Bul* 27:229-34 Je 15 '48

Solubility study of an aqueous potassium laurate-potassium silicate system. R. C. Merrill. *bibliog J Phys & Colloid Chem* 52:1143-6 O '48

POTASSIUM sodium tartrate

Effect of the piezoelectric properties of a crystal on diffuse X-ray reflections. D. C. Miller. *bibliog il diag Phys R* 74:166-9 J1 15 '48

Theory of the ferroelectric effect and clamped dielectric constant of Rochelle salt. W. P. Mason. *bibliog Phys R* 72:854-65, 976 N 1-15 '47

Ultrasonic reflections by domains in Rochelle-salt single crystals. W. J. Price. *Phys R* 73:1132-3 My 1 '48

POTASSIUM stearate

Electrical conductance and density of solutions of potassium 9,10-dihydroxystearate at 60°. N. W. Gregory and H. V. Tartar. *bibliog Am Chem Soc J* 70:1992-5 Je '48

POTASSIUM sulfates

Vapor pressures of solutions of sodium and potassium bisulfates at 25°. R. H. Stokes. *Am Chem Soc J* 70:874 F '48

See also
Langbeinite

Analysis

Turbidimetric method for determination of potassium sulfate in propellant powders. C. Boyars. *bibliog Anal Chem* 20:87 Ja '48

POTASSIUM sulfide

Hydrothermal alteration of feldspars at 250° C. to 400° C. T. F. O'Neill. *bibliog Econ Geol* 43:167-80 My '48

POTASSIUM tellurite

Reduced tellurite medium for isolating and typing *C. diphtheriae*. T. W. Galbraith and others. *bibliog Pub Health Rep* 63:1203-5 S 10 '48

POTASSIUM thiocyanate

Toxicity to plants of fine dusts containing cyanides and thiocyanates. B. Dyer and others. *Soc Chem Ind J* 66:409-10 N '47

POTATO chips

Factors influencing oil content of potato chips; pretreatment with salt solution. R. E. Stutz and R. H. Burris. *bibliog il Food Ind* 20:1146-9+ Ag '48

Forget competition, shoot for higher per capita consumption; Bell Brand foods. *il Sales Management* 59:88+ D 1 '47

Transparent machine; potato chips moved thru acrylic chutes and hoppers in unusual weigher and filler. *il Mod Packaging* 21:113-17+ My '48

POTATO flour

Potato flour; government to send it overseas. *Bsns W* p55-6 S 11 '48

POTATO starch

Fractionation of potato starch; absorption spectra and colour intensities of the starch-iodine complexes. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:97-101 Mr '48

Fractionation of potato starch; comparison with wheat starch. L. H. Lampitt and others. *bibliog il Soc Chem Ind J* 66:417-21; 67:38-40 D '47-Ja '48

Fractionation of potato starch; phosphorus of potato starch. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:121-5 Ap '48

Fractionation of potato starch; the retrogradation of potato starch fractions. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:179-84 My '48

Fractionation of potato starch; the viscosities of the aqueous solutions of the fractions. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:41-4 F '48

Manufacture of white potato starch; comparison of batch and continuous processes. W. W. Howerton and R. H. Treadway. *bibliog flow sheets plan Ind & Eng Chem* 40:1402-7 Ag '48

Potato-starch gels. R. T. Whittenberger and G. C. Nutting. *bibliog il Ind & Eng Chem* 40:1407-13 Ag '48

Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. Maclay. *Am Chem Soc J* 70:2220-3 Je '48

POTATOES

Brazil's potato supplies in 1947. *For Comm W* 31:29-30 Je 26 '48

Cuba's potato supplies. *For Comm W* 29:25-6 D 27 '47

Danish potato industry. *For Comm W* 31:28-9 Je 5 '48

Electricity aids processing of potatoes. P. P. De Moya. *il Elec World* 129:198 Ja 17 '48

In praise of potatoes. *Chem & Ind* p762 D 13 '47

Potato situation, Cuba. *For Comm W* 32:30-1 Ag 21 '48

Potato situation in the United Kingdom. *For Comm W* 31:23 My 8 '48

Pre-peeled potatoes from mechanized line; ready to cook potatoes save restaurants labor and space. C. R. Havighorst. *il diag Food Ind* 20:999-1001+ J1 '48

Red skin color of bliss triumph potatoes increased by the use of synthetic plant hormones. J. L. Fultz and L. A. Schaal. *Science* 108:411 O 15 '48

See also
Potato flour
Sweet potatoes

Analysis

Vitamin C content of potatoes grown on reclaimed land. L. C. Baker and others. *bibliog Soc Chem Ind J* 65:428-30; 67:118-20 D '46, Mr '48

Peeling

Pre-peeled potatoes from mechanized line. C. R. Havighorst. *il diag Food Ind* 20:999-1001+ J1 '48

Statistics

White potatoes, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 127 [supplemented in monthly numbers]

POTATOES, Dried

Development of a potato granule process. J. W. Greene and others. *Chem Eng Prog* 44:547-52; Discussion, 552 J1 '48

POTATOES, Dried—Continued

Instant mashed potatoes from dehydrated granules. J. W. Greene and others. *il* *diags* Food Ind 19:1622-5+ D '47

POTENTIAL, Electric

Determination of the product of the constants for the overlapping dissociation of weak acids by electromotive force methods. R. G. Bates. *bibliog* Am Chem Soc J 70:1579-84 Ap '48

Effect of the addition of amines on the electrode potential of copper in buffered acid solution. N. Hackerman and J. D. Sudbury. *bibliog* Electrochem Soc J 93:191-8 My '48

Electropotentials in growing halide and oxide layers on metals. A. Dravnieks and H. J. McDonald. *bibliog* *diags* Electrochem Soc J 93:177-90 My '48

Equilibria in silver acetate solutions. F. H. MacDougall and S. Peterson. *bibliog* J Phys & Colloid Chem 51:1346-61 N '47

Glass electrode; temperature-potential relationships. J. Jackson. *bibliog* Chem & Ind p7-10 Ja 3 '48

Half-wave potential of samarium. A. Timnick and G. Glockler. *bibliog* Am Chem Soc J 70:1347-50 Ap '48

Ionization potentials of some hydrocarbon series. R. E. Honig. *bibliog* *diag* J Chem Phys 16:105-12 F '48

Laurate-ion activity in solutions of potassium laurate in the absence and presence of neutral salts. I. M. Kolthoff and W. F. Johnson. *bibliog* J Phys & Colloid Chem 52:22-7 Ja '48

Measurement and control of sewage treatment process efficiency by oxidation-reduction potential. J. W. Hood. *bibliog* *diags* Sewage Works J 20:640-50; Discussion. G. A. Rohlich. 650-3 Jl '48

Origin of the potential barrier hindering rotation in ethane and related substances. E. N. Lassetre and L. B. Dean, jr. *bibliog* J Chem Phys 16:151-2 F '48

Oxidation-reduction potentials of thiol-disulfide systems; dithiobis(2,5-dimino-1,2,4-dithiazoline). P. W. Preisler and M. N. Bateman. *bibliog* Am Chem Soc J 69:2632-5 N '47

Potential coefficients for ground return circuits. W. H. Wise. *diag* Bell System Tech J 27:365-71 Ap '48

Potentials of falling drops. A. Frumkin and J. Bagotskaja. *bibliog* *diag* J Phys & Colloid Chem 52:1-11 Ja '48

Role of the cathode surface in sparking phenomena. H. Jacobs and A. P. LaRocque. *diags* Phys R 74:163-5 Jl 15 '48

Studies of sulfonates; transference numbers and activity of 1-dodecanesulfonic acid in aqueous solutions at 40°. L. L. Neff and others. *bibliog* Am Chem Soc J 70:1989-92 Je '48

Studies on some metal electrodes. A. R. Tourky, S. E. S. El Wakkad and A. A. Mousa. *diags* Chem Soc J p740-63 Je '48

Thionol and its semiquinone radical. S. Granick and L. Michaelis. *bibliog* Am Chem Soc J 69:2983-6 D '47

POTENTIOMETERS

A-c potentiometer. J. M. Vanderleck. *il* *diags* Elec Eng 67:173-81 F '48

Automatic potentiometric titrations. H. A. Robinson. *bibliog* *il* *diag* Electrochem Soc Trans 92 (preprint 38):503-22 '47

Calculation of tapped resistor for voltage divider circuit. *diag* Power Pl Eng 51:97 N '47

Low-torque potentiometers simplify many control problems. H. D. Wright. *il* *diags* Machine Design 20:134-6 My '48

New method in the analysis of complex electric waves. W. E. Rogers. *diag* R Sci Instr 19:332-5 My '48

Proportioning temperature controller. D. Lazarus and A. W. Lawson. *diag* R Sci Instr 18:730-3 O '47

Recording and control system for infra-red spectrophotometer. G. M. Rassweiler and others. *il* *diags* Opt Soc Am J 37:963-74 D '47

Variable frequency potentiometer alternator. *il* *diag* Engineer 186:92-3 Jl 23 '48

POTOMAC Edison company

Bonds offered. Comm & Fin Chr 167:472 Ja 26 '48

POTOMAC electric power company

Bonds offered. Comm & Fin Chr 167:472-3 Ja 26 '48

Financial news and comment. O. Ely. Pub Util 40:847-3 D 18 '47

POTTERIES

Cleveland has a commercial pottery making china novelties. *il* Cer Ind 49:88 D '47

Dust elimination in the finishing room. *il* Cer Ind 49:108 N '47

Frankoma; Oklahoma success story. *il* Cer Ind 51:88-9 S '48

Journey to Pond Farm, studio pottery of Marguerite Wildenhain. Z. A. Battu. *il* Cer Ind 49:102+ O '47

Pisgah forest pottery. *il* Cer Ind 49:92 N '47

Plant to make flameproof chinaware. Cer Ind 51:41 Jl '48

Scio rebuilds in 62 days. *il* Cer Ind 50:56-7+ My '48

Specific uses of vacuum cleaners in ceramic plants. *il* Cer Ind 49:60-1 N '47

Steubenville Pottery enlarges plant, adds equipment, doubles production. *il* Cer Ind 51:86-8 '48

Electric equipment

Pottery drying. *il* Elec R (Lond) 141:971 D 26 '47

Employees

Cutting labor costs economically. F. Federici. Cer Ind 51:69 N '48

Effect of the use of calcined alumina in china biscuit placing on the health of the workmen; a field study in a group of pottery workers in North Staffordshire. A. Meiklejohn and W. W. Jones. *bibliog* J Ind Hygiene 30:160-5 My '48

Equipment

Adjustable drive utilizes flexible shafts; machine for decorating china ware. G. E. Ryckman. *il* Machine Design 20:113-14 Ap '48

Knowles China first with jet dryer. *il* Cer Ind 51:92 S '48

Mechanization cuts cost and time. *il* *diag* Cer Ind 50:110+ Mr '48

Pottery pioneers new light-construction kiln. *il* *diag* Cer Ind 50:133+ Ap '48

Walking conveyor carries molds to Homer Laughlin's new jiggers. *il* Cer Ind 51:86-7 N '48

POTTERS association, United States. See United States potters association

POTTERY

A.C.S. White wares division program; abstracts. Am Cer Soc Bul 27:130-3 Mr 15 '48

Laboratory course in pottery. Cer Ind 50:72 F '48 Mr '49 Ap; 51:91 Jl; 91 Ag; 95 S; 95-6 O; 94+ N '48

Method of correlating chemical composition, relative amounts of glassy bond, and properties of ceramic bodies. G. R. Shelton. *bibliog* *diags* Am Cer Soc J 31:39-49 F 1 '48

Some tips on pottery as a hobby. A. M. McClung. *il* Cer Ind 50:150 Ap '48

See also

Ceramic materials	Glazes
Ceramics	Kilns
Clay	Porcelain
Cooking ware	Potteries
Cups	Stoneware
Enamel and enamel-ing	Tableware
	Tiles

Decoration

Decal. *il* Fortune 37:134+ Mr '48

Investigation of a new decal-application medium. L. R. Blair. *diags* Am Cer Soc Bul 27:374-6 O 15 '48

Study of decalcomania blistering. L. R. Blair. *il* Am Cer Soc Bul 27:301-7 Ag 15 '48

Exhibits

Prize winners in ceramics at California state fair. Cer Ind 49:47+ O '47

Manufacture

Adjustable electric kiln for pottery firing. A. R. Dyer. *il* *diags* Am Cer Soc Bul 27:25-7 Ja 15 '48

Car-bottom kiln saves pottery two hours a day. *il* Cer Ind 49:106 O '47

Dinnerware production nears war-time peak. *il* Cer Ind 49:76 D '47

POTTERY—Manufacture—Continued

- How to avoid whiteware defects caused by moisture. Cer Ind 50:65 F '48
- New prefire inspection reduces rejects. Il Cer Ind 50:141 Ap '48
- Preparation of ware for the bisque fire. R. Gould. diag Cer Ind 49:77-9 D '47
- Properties of whiteware products. Am Cer Soc Bul 27:272-3 JI '48
- Reading a triaxial chart. Cer Ind 50:149 Ap; 125 Je '48
- Royal China's dry-mix outmodes traditional slip house practice. Il Cer Ind 50:112-13+ Je '48
- POTTERY, Mexican**
- Pottery making in Tlaquepaque, Mexico. M. de Marron. Il Cer Ind 49:110+ O '47
- POTTERY, Photography of.** See Photography of pottery
- POTTERY industry**
- Ceramic industry predicts for whiteware. Cer Ind 50:72 Je '48
- Whitewares industry experiences rapid growth; abstract. E. F. McNamara. Cer Ind 50:75 My '48

Exhibitions

- West Coast potters 2d exhibit, Feb. 1-29. Il Cer Ind 50:172+ Ap '48

Great Britain

- American potter visits Stoke-On-Trent. E. McCrone. Cer Ind 50:168+ Ap '48
- British pottery. J. Brooks. Cer Ind 51:110+ S '48
- Dollars from pottery. Economist 154:472+ Mr 20 '48

Ohio

- Pottery plant comes back; Scio-Ohio pottery co. Il Bsns W p21-2 F 21 '48

POTTERY research

- Report of the research committee of the White wares division. bibliog Am Cer Soc Bul 27:320-3 Ag 15 '48

POULTRY

- Benzene hexachloride and poultry meat. P. D. Harwood. Science 107:113 Ja 30 '48
- Effect of benzene hexachloride on the flavor of poultry meat. E. Hixson and M. H. Muma. Science 108:422-3 O 31 '47
- Cernicidal lamps effective in poultry care. F. Vose. Elec World 130:126 O 23 '48
- Ice slush cooling of dressed poultry. R. L. Bailey and others. bibliog Refrig Eng 55: 369-71 Ap '48
- See also
- Parasites—Poultry**

Boning

- Poultry boning plants need bacteriological control. M. F. Gunderson and others. bibliog flow chart Food Ind 19:1515-17+ N '47

Diseases and pests

- Isolation of avian pneumocephalitis (Newcastle disease) virus from the yolk sac of four-day-old chicks, embryos, and infertile eggs. P. D. DeLay. Science 106:545-6 D 5 '47
- Nitrogen mustards in fowl leucosis. E. P. Johnson. bibliog Il Science 107:40-2 Ja 9 '48
- Recovery of pneumocephalitis (Newcastle) virus from the air of poultry houses containing infected birds. P. D. DeLay and others. Science 107:474-5 My 7 '48
- Sulfaminoxaline in the control of eimeria tenella and eimeria necatrix in chickens on a commercial broiler farm. L. C. Grumbles and others. Science 107:196 F 20 '48

Feeding

- Determination of the fate of phosphorus in the laying hen by means of radiophosphorus. J. B. O'Neil and others. bibliog Science 107:295-6 Mr 19 '48

POULTRY, Frozen

- Frozen storage of poultry. R. Wills and others. Refrig Eng 56:49-51, 237-8 JI, S '48
- Prevention of bone darkening in frozen-packed chickens. J. C. Woodroof and E. Shelor. bibliog Il diags Food Ind 20:43-52+ Ja '48
- Research shows airtight packaging is a must for eviscerated poultry. Refrig Eng 55: 277 Mr '48

POULTRY brooders

- Panel heated brooder. Il Heat & Ven 44: 114+ D '47
- Radiant heat for chicks; radiant heated brooder house. Il Heat & Ven 45:122 F '48
- POULTRY brooders, Electric**
- Electric brooders pay for home electric equipment. J. W. Hall. Il Elec World 129:118 F 14 '48

POULTRY food**Analysis**

- Determination of vitamin A ester in fortified poultry mash, with activated glycerol dichlorohydrin. M. E. Wall and E. G. Kelley. bibliog Anal Chem 20:757-9 Ag '48

POULTRY grits

- Convert waste stone to valuable by-products; North Carolina granite corporation produces poultry grits and concrete aggregates. W. B. Lenhart. Il Rock Prod 51: 85-6 JI '48

POULTRY hatcheries

- Diesels saved our chicks; Stromberg hatchery, L. Stromberg. Il Diesel Power 25:62-3 D '47

POULTRY houses

- Chickenhouse litter-stirrer saves work. Il Elec World 129:108+ Ap 24 '48

Heating and ventilation

- Design of exhaust systems. F. H. Stebbins. diags Sheet Metal Worker 39:61-3 Ap '48

POULTRY industry and trade

- Poultry and eggs, 1941-1946. Survey of Cur Bsns 1947 Sup p 134 [supplemented in monthly numbers]

Argentina

- Egg and poultry exports in 1947. For Comm W 31:31-2 Je 26 '48
- Increased production of chickens and eggs. For Comm W 33:25 O 9 '48

Canada

- Canadian exports of poultry meat and live poultry, 1935-39 average and 1944-1947. For Comm W 32:31 JI 3 '48

Ireland

- Egg and poultry production and exports, Ireland (Eire). For Comm W 33:33 O 23 '48

Philippine Islands

- Recovery of industry, Republic of the Philippines. For Comm W 31:31-2 Je 19 '48

POULTRY processing plants

- Poultry boning plants need bacteriological control. M. F. Gunderson and others. bibliog flow chart Food Ind 19:1515-17+ N '47
- Poultry co-op's new plant processes 24,000 birds daily. R. Bloomberg. Il plan Food Ind 20:176-81 F '48

POUNDSTONE, Homer Clark, 1860-1944

- H. C. Poundstone and the all-big-gun ship. D. R. Morris. por U S Naval Inst Proc 74: 706-21 Je '48; Discussion. H. Williams. 74: 1293-6 O '48

POWDER, Face

- Lithium salts of long-chain fatty acids in face powders. Il Chem Ind 63:591-2 O '48

Rating

- Face powder; CR reports on 23 brands. Consumers Res Bul 21:11-12 Ap '48

POWDER, Smokeless. See Smokeless powder**POWDER cutting.** See Oxyacetylene cutting**POWDER metallurgy.** See Metal powders**POWDER puffs**

- Package plus; powder puffs in permanent re-use containers of molded plastic. Il Mod Packaging 22:106-8 O '48

POWDERED iron. See Iron, Powdered**POWDERED metals.** See Metal powders**POWDERS**

- Adsorption of gases on surfaces of powders and metal foils. R. T. Davis, Jr. and others. bibliog J Phys & Colloid Chem 51:1232-48 N '47

- Air separation of powders. E. N. Simons. diags Can Chem & Process Ind 31:1121-2 D '47

POWDERS—Continued

- Basic aspects of X-ray absorption in quantitative diffraction analysis of powder mixtures. L. Alexander and H. P. Klug. *bibliog Anal Chem* 20:886-9 O '48
- Bench-scale method for determining activity of cracking catalysts in powdered form. H. McReynolds. *flow diag Am Pet Inst Proc* 27(3):78-83 '47; Same. *Pet Refiner* 26:94-8 D '47
- Determination of the surface area of powders by means of low-temperature adsorption isotherms. F. E. Bugge and R. H. Kerlogue. *bibliog diags Soc Chem Ind J* 66: 377-81 N '47
- Domain theory and the dependence of the coercive force of fine ferromagnetic powders on particle size. C. Kittel. *diag Phys R* 73:810-11 Ap 1 '48
- Extinction-coefficient; particle size relationship for fine mineral powders. H. E. Rose and C. C. J. French. *bibliog diag Soc Chem Ind J* 67:283-9 JI '48
- Modification in the roller analysis for the determination of particle-size distribution. G. L. Matheson. *diags Am Pet Inst Proc* 27(3):18-22 '47; Same. *Oil & Gas J* 46:307-8+ N 15 '47
- Powder filling; vacuum principle in packaging powdered materials. P. E. Fischer. *diags Mod Packaging* 21:161-4 D '47
- Sédimentation et granulométrie des talcs. C. Rossi and R. Baldacci. *bibliog Chimie & Ind* 58:223-7 S '47
- Separating fine particles; patent. *Chem Age (Lond)* 57:671 N 22 '47
- Spectrographic analysis of non-conducting powders in the carbon arc; abstract. R. L. Mitchell and R. O. Scott. *J Sci Instr* 25:95-7; Discussion. 97-8 Mr '48
- Studies on aging of precipitates and co-precipitation; the bulkiness and porosity of silica powder. I. Shapiro and I. M. Kolt-hoff. *bibliog il J Phys & Colloid Chem* 52:1020-33 Je '48
- Transmission of powder films in the infra-red. R. L. Henry. *bibliog diag Opt Soc Am J* 38:775-89 S '48
- Ventilation for control of dust from bagging operations. G. M. Hama. *il Heat & Ven* 45:91 Ap '48
- See also*
- | | |
|-------|---------------|
| Dust | Metal powders |
| Flour | Particles |
- POWELL, C. F.**
Nuclear photography. A. W. Haslett. *por Sci Am* 178:70-2 F '48
- POWELL, Legh Richmond, 1884-**
Sketch. *por(cover) Bsns W p6 Ja 3 '48*
- POWER (mechanics)**
Differences in per capita output of work in various countries. M. E. Dice. *Pulp & Pa of Can* 49:73-4 Ag '48
- Effect of baffles on agitator power consumption. D. E. Mack and A. E. Kroll. *bibliog diags Chem Eng Prog* 44:189-93; Discussion. 193-4 Mr '48
- Materials and power. C. Williams. *Mech Eng* 69:1012-15 D '47
- Progress in power generation, 1940-46. *il diags Elec Eng* 67:59-75 *bibliog*(315 titles, p71-5) Ja '48
- See also*
- | | |
|-----------------------------|---|
| Airplanes—Auxiliary power | Power factor |
| Atomic power | Power plants |
| Chemical plants—Power | Power transmission |
| Coal mines and mining—Power | Servomechanisms |
| Compressed air | Ship propulsion |
| Dynamometers | Steam |
| Electric power | Steel works—Power |
| Hydroelectric power | Television receiving apparatus—Power supply |
| Machinery | Tidal power |
| Petroleum engineering—Power | Wind power |
| | Windmills |
- POWER, Balance of.** *See* Balance of power
- POWER act, 1935, Federal.** *See* Federal power act, 1935
- POWER cartridge**
Applications of power cartridges; starting engines, etc. *il diag Engineering* 165:296 Mr 26 '48; Abstract. *Chem Age (Lond)* 58:393 Mr 20 '48
- Cartridge starting of Diesel engines. *il Engineer* 186:93 JI 23 '48
- Power cartridge and its applications. *il Engineer* 185:286-7 Mr 19 '48
- POWER condenser and electronics corporation**
Stock offered. *Comm & Fin Chr* 168:1367 O 4 '48
- POWER conference, World.** *See* World power conference
- POWER contracts**
See also
Federal power commission
- POWER cost**
Cost of one brake-horsepower; tabulations. I. A. Anson. *Oil & Gas J* 47:109 S 9 '48
- Economies of process steam generation. W. B. Zelley. *diag Elec Eng* 67:956-9 O '48; Same *abr.* *Power Generation* 52:56-9 Ag '48
- If you buy your electric power. D. M. Myers. *Factory Management* 106:97 JI '48
- Power factor improvement will cut mill's electric bill. W. H. Cuttino. *il Textile World* 97:149+ D '47
- Power; when to make, when to buy. D. M. Myers. *Factory Management* 106:81 Je '48
- Saved money by raising power factor. W. W. Sale. *il Factory Management* 106:88-9 Je '48
- See also*
- Power plants—Costs**
- POWER factor**
Capacitors; why and where to use. H. Brooks. *il Factory Management* 106:100-2 S; 122-5 O '48
- Economies of power factor correction. G. W. Stubbings. *Electrician* 141:773-4 S 10 '48
- How many capacitors can be economically applied? S. H. Pollock. *Elec World* 128: 108-+ N 22 '47
- How to calculate power factor of transformer type welders; engineering reference sheet. R. F. Wyer. *Elec World* 129:96 Ap 24 '48
- Improve the load power factor; chart; data sheet. W. C. Bloomquist. *Power* 92:719 N '48
- Low power factor in industrial plants. W. C. King. *Elec West* 101:81 O '48 (to be cont)
- New method of predetermining the regulation of alternators at unity and lagging power factors. D. Harrison and C. V. Jones. *Inst E E J* 95 pt 2:374-7 Ag '48
- Nomogram; power factor improvement. G. Stangland. *Paper Ind* 30:923 S '48
- Operation and care of circular-scale instruments. J. Spencer. *il diags Instruments* 21: 938-40+ O '48
- Pf calculations made easy; nomograph. G. Oldroyd. *Power* 92:167 Mr '48
- Power factor improvement will cut mill's electric bill. W. H. Cuttino. *il Textile World* 97:149+ D '47
- Power factor measurement. R. A. Guest. *diags Elec E (Lond)* 142:407 Mr 12 '48
- Saved money by raising power factor. W. W. Sale. *il Factory Management* 106:88-9 Je '48
- Synchronous generators; influence of power-factor rating on stability. W. Szwander. *Elec R (Lond)* 142:651-4 Ap 30 '48
- Use of capacitors in industrial plants. R. E. Marbury. *il Westinghouse Eng* 8:84-9 My '48
- POWER of appointment**
Powers of appointment. A. S. Guterman. *J Account* 85:157-8 F '48
- POWER plants**
ASME 68th annual meeting, Atlantic City, Dec. 1-5; abstracts and list of power plant papers. *Power Generation* 52:98-101 Ja '48
- Concrete jacketing H-piles in soft mud; foundation for a turbine building at the Schenectady, N.Y., works of the General electric co. *il Eng N* 140:179 F 5 '48
- Engineer and internationalism; power industry, an example of effective method of approach. E. G. Bailey. *Mech Eng* 70:399-403 My '48; Same. *Edison Elec Inst Bul* 16: 249-53+ JI '48
- Gas and steam turbo plant. *diag Mech Eng* 70:691 Ag '48
- 1948 modern plant survey. map plans diags. *Power* 92:583-641 O '48
- Power plant for a Mexican industrial group. V. Aldape C. *diag Elec Eng* 67:531 Je '48
- Prime movers in 1947. *il diags Engineer* 185: 44-6, supp 1, 71-2, 95 Ja 9-23 '48

POWER plants—Continued

Small industrial electric power stations in Switzerland. *il* diag Power Generation 52: 81-2 S '48

Technical briefs; engineering developments here and abroad. *diags* Power 92:52-3+, 118-19+, 184-5, 250-1+, 314-15+, 372-3+, 440-1, 499-500, 568-9, 646+, 720-1+ Ja-N '48

See also

Boiler plants	Steam plants
Electric plants	Water supply for
Hydroelectric plants	power plants

Accounting

Is B.t.u. accounting worth-while in the power plant. J. E. A. Warner. Paper Tr J 125:147-8 D 4 '47; Same cond. Paper Ind 28:1360-1 D '46

Costs

Quick way to find economical insulation thickness. Power 92:478-9 Ag '48

Design

Consider the operator's viewpoint when designing generating stations. J. H. Drake. *il* diags Power 92:102-4 F '48

Economies in power plant design. E. H. Krieg. bibliog. plan *diags* Power Pl Eng 51:117-18+ D '47

Diesel engine plants

Automatic synchronization of Diesel-generators. *diag* Diesel Power 26:54+ Ja '48

Brazil oilfields. S. A.; power plant. *il* Diesel Power 25:84 D '47

Diesel-engine generating plant. *il* Engineering 165:465-6 My 14 '48

Diesel generating station; Vauxhall motors, ltd. *il* Elec R (Lond) 142:61-2 Ja 9 '48

Diesel plant layout with auxiliary equipment. *il* diag Power Generation 52:78-9 Mr '48

Diesels saved our chicks; Stromberg hatchery. L. Stromberg. *il* Diesel Power 25:62-3 D '47

Eleven years of Diesel power at New York university. L. Arnow. *il* Diesel Power 26: 59-61 Je '48

Factory private generation; Hoffmann manufacturing co. *il* diag Elec R (Lond) 143:41-5 J 9 '48

Features of a modern Diesel pump station. F. H. Warren. *il* diags Oil & Gas J 47: 218+ S 23 '48

Feed mill case history. H. L. Spooner. *il* Diesel Power 26:44 O '48

Heating without heating fuel; system employing Diesel as source of power, air conditioning for space and heat for domestic water supply; heat pump as an auxiliary, also reversed for cooling. *il* diags Sheet Metal Worker 39:131-2+ Ja '48

Industrial service record; Diesel units operated by the Bowerston shale co. W. H. Gottlieb. *il* Diesel Power 26:64-6+ S '48

Movie distributors depend on Diesel plant. *il* Diesel Power 26:66+ O '48

Noteworthy operating record; Diesel plant of Adolf Gobel, inc. *il* diags Diesel Power 26:34-5 Ap '48

Stationary Diesel; beginning of an industry. *il* diag Diesel Power 26:92-7+ Mr '48

Vauxhall motors, new power station. *il* Engineer 185:122 Ja 30 '48

What it cost to run ten Diesels for four years. *il* Power Generation 52:100-2 Mr '48

Works Diesel engine generating station; Ransomes, Sims and Jefferies, ltd. *il* Engineer 186:60 J 16 '48; Abstract. Elec R (Lond) 143:258 Ag 13 '48

See also Electric plants (central stations) —Diesel engine stations

Efficiency

What do you mean by thermal efficiency? A. Keller. *diag* Power Generation 52:58-61+ J 1 '48

What is the over-all efficiency of your plant? chart. W. F. Schaphorst. Paper Ind 29:1822 Mr '48

Employees

So, you are going to take an examination! C. F. Greene. Power Generation 52:74-6 Ap; 76-7 Mr; 76-7 Je '48

Equipment

Automatic alarm board helps busy operators. J. C. Porter. *diags* Power 92:242 Ap '48

Brewery supply scheme; Park Royal brewery of Arthur Guinness, son & co. *il* Elec R (Lond) 143:8-10 J 2 '48

Burns bug-dust lignite at efficiencies to 79 per cent; Canada Packers' St. Boniface plant. G. E. Gibson. *il* diags Power 92:550-3 S '48

Catalog library; latest standard catalogs and bulletins to aid the engineer. Published in monthly numbers of Power generation Directory of manufacturers; buyers' guide of over 700 power products. Power 91:sup55-134D Mid-D '47

Eagle Point Works power plant. *diags* Power 92:616-17 O '48

Electric power situation in the United States; developments of 1947 in power station design. *il* map *diags* Power Generation 52: 66-9 Ja '48

Electrical engineering in 1947. *il* Engineer 185:6-9, supp 1, 34-5, 61-2, 86-9 Ja 2-23 '48

How silica reduction in boiler feedwater improved paper mill power plant operation; use of Silimite; Southern advance bag & paper co. D. G. Cooper and J. B. Davis. *il* diag Paper Ind 29:1440-2+ Ja '48; Same. Power Generation 52:52-4+ Je '48

Manufacturers' ideas to meet difficult operating problems; power; illustrated descriptions of latest equipment. Rock Prod 50: 114-16 D '47

Michigan state college power plant. *diags* Power 92:624-5 O '48

Mid-year 1948 directory of manufacturers; buyers' guide of over 700 power products; with directory of former manufacturers. Power 92:sup55-154D Mid-Je '48

New bulletins; 524 items covering equipment and supplies used by power engineers. Power 91:923-6+ Mid-D '47

New Curtis power plant at Sharon Hill burns anthracite. *il* Power Generation 52:77 S '48

New power plant for B. F. Nelson mfg. company at Minneapolis. J. H. Peebles and H. P. Harris. *il* plans *diags* Power Generation 52:70-5 O '48

1948 design survey of typical industrial and institutional power plants; tabulation. J. C. McCabe, comp. Power 92:628-34 O '48

1948 new bulletins; 453 items covering equipment and supplies used by power engineers. Power 92:sup 181-4+ Mid-Je '48

1948 review of new power and mechanical equipment. *il* diags Power 92:sup 155-78 Mid-Je '48

Norton co. expands its power plant. *diags* Power 92:618-19 O '48

Old generators in leased plant supply quick capacity. J. R. Welsh. *il* diag Elec World 130:103 J 31 '48

Portable inkless recorders. D. M. Longenecker. *il* diags Power Pl Eng 51:110-13 N '47

Power plant design for an expanding refinery; Houston refinery of Shell oil co. P. L. Andry, jr. flow *diag* *il* Pet Refiner 26:96-100 N '47

Power plant improvement at Stanley furniture company. D. L. Gusler. *il* plans *diags* Power Generation 52:52-6+ Ap '48

Power services meet the fleet halfway; San Diego naval operating base. M. A. Nishkian and G. Lewis. *il* Power 92:488-90 Ag '48

Process and power dictate the design of refinery at Whitling, Indiana. D. A. Monro and A. T. Milbrook. flow *diag* *diag* Power 92:234-7 Ap '48

Pullman Standard Car power plant. *diags* Power 92:620-1 O '48

Review of power and mechanical equipment. *il* diags Power 91:889-920 Mid-D '47

Springs cotton mills power plant. *diags* Power 92:614-15 O '48

Steam-electric power plant for mining and milling operations of the Kennicott copper corp. G. A. Parker. flow *diags* *il* Mech Eng 69:934-6 N '47

Steam plant modernized with eye toward future expansion; Fraser companies ltd. W. P. London. *il* diags Power 92:388-92 J 1 '48

POWER plants—Equipment—Continued

- Steel co. of Canada, power plant. diags
Power 92:612-13 O '48
- Ten years' experience burning lignite and
discarded slack coal. 'A. R. Eastcott. il
diag Power 92:276-9 My '48
- To measure power consumption is to econo-
mize. D. M. Myers. Factory Management
106:125 O '48
- Turbine-generator exciters keep pace with
increased operation. C. Lynn. il diag Power
92:8-11+ Ja '48
- University of Illinois growth requires Abbott
power station expansion. G. V. Carlson.
plans diags Power Generation 52:52-7 F '48
- When you modernize do a complete job; U.S.
industrial chemicals, inc. flow diag il diags
Power 92:68-71 F '48
- Where will ultrasonics fit in the power field?
C. R. Earle. il diag Power Generation 52:
86+ S '48

Fuel

- Coal handling with earth-moving equipment;
synthetic-rubber of Polymer corporation. R.
L. Hearn and R. F. Leggett. il plan diag
Mech Eng 69:559-63 Jl '47; Discussion. 69:
950-2 N '47
- Coal quality and coal buying. J. E. Tobey.
Power Generation 52:80-1 Ag '48
- Definitions of heats of combustion of a fuel
and current methods for their determina-
tion. E. F. Flock and others. bibliog diags
A S M E Trans 70:811-18; Discussion. 823-9
O '48
- Electric power situation in the United States;
energy revolution on the verge? il diags
Power Generation 52:64-5 Ja '48
- Fuel engineering study of some recent boiler
installations in the pulp and paper in-
dustry. J. E. Tobey. bibliog map diags
Paper Tr J 125:43-52 D 18 '47; Excerpts.
Paper Ind 29:1370-1 D '47
- Getting the most out of low grade fuel;
Chevrolet-Flint assembly plant. D. G.
Baird. il plan diag Mill & Factory 42:132-4
F '48
- Handling frozen coal. Power Generation 52:
74-6 S '48
- How to select fuel for plants and buildings.
F. Meyer. il diags Heating-Piping 20:78-82
Je '48
- Magnetic separators for power plant coal
handling. W. G. Hudson. il diags Power
Generation 52:80-1 F '48
- National fuels conference; joint conferences
held by committees of the ASME and
AIIME, Cincinnati, Oct. 20-21. Power Gen-
eration 52:122+ Ja '48
- Sampling coal for analyzing purposes. il diags
Power Pl Eng 51:78-80 N '47
- Uses of high- and low-heat values. A. G.
Christie. A S M E Trans 70:819-20; Dis-
cussion. 823-9 O '48
- Utilizing bagasse as fuel. F. X. Gilg. diags
A S M E Trans 70:719-23; Discussion. 723-7
Ag '48

Gas engine plants

- Gas engine performance; sewage treatment
and garbage disposal plant at Marion, Ind.
D. Backmeyer. il Water & Sewage Works
95:R255-7 Ap '48
- How gas engines serve today's steel mills.
W. M. Cline, jr. il diag Power 92:33-40 Ja
'48
- Miniature topping plant develops pipe-line-
station fuel. L. S. McCaslin, jr. flow diag
il Oil & Gas J 47:69-70 S 2 '48
- Power and heat from natural gas; Kato engi-
neering company of Mankato, Minn. il Mill
& Factory 43:148 O '48

Gas turbine plants

- Gas turbine applications in iron and steel
works; power applications. A. T. Bowden.
plans diags Iron & Steel Inst J 156:98-103
My '47; Same cond. Blast F & Steel Pl
36:228-30+ F '48
- Gas turbine plant for 1500 F operation. H. A.
Altorf. il diag Pet Eng 19:161+ Je '48
- Gas turbine with a waste-heat boiler. G. R.
Fusner. diags Mech Eng 70:515-18 Je '48;
Same cond. Power 92:421-2+ Jl '48

- Mobile gas-turbine plant. diags Mech Eng
70:438-9 My '48; Same cond. Iron Age 161:
94 Mr 25 '48; Same. Elec World News ed
129:21 Ap 17 '48; Same. Blast F & Steel Pl
36:sup88 Ap '48; Same. Ry Age 124:727 Ap
10 '48
- 1000-kw gas-turbine plant features new cen-
trifugal compressor design; experimental
open-cycle unit built by Maschinenfabrik
Oerlikon, Switzerland. il diags Power 91:851-
3 D '47; Same. Mech Eng 70:144-5 F '48
- Prime movers in 1947. il diags Engineer 185:
44-6, supp 1, 71-2, 95 Ja 9-23 '48
- 20,000-kw h-p gas turbine under way in
Switzerland. il diag Power 92:157 Mr '48
- See also—
- Electric plants (cen-
tral stations)—Gas
turbine stations

Layout

- Rebuilt steam turbines modernize this twenty-
year-old paper plant; Sorg paper co. G. H.
Suhs and R. D. MacArthur. il diags Power
92:75-7 F '48

Maintenance and repair

- How to avoid costly shutdowns through cor-
rect lubrication. A. C. Skooglund. il Power
92:105-7 F '48
- Little heat eases press-fit rotors on their
shafts. N. L. Rea. il diags Power 92:682-4
N '48
- Magnetic flux has bearing on power plant
operation; why bearing of Corliss engine-
generator set keeps burning out. G. Hol-
man. Power Generation 52:74-6 My '48
- Preventive maintenance requires firm sched-
uling. O. L. Applegate. Power 92:674-5 N
'48

Management

- Eliminating fuel waste; some of the things
which a service engineer finds being done
wrong. H. D. Elfreth and A. MacHarg. il
Power Generation 52:82-4 Ja '48

Safety measures

- Sleeping hazard has a bad bite; unguarded
belt, defective ladder, grease spot on the
floor or a projecting nail can send lost
time accidents soaring. J. G. Reynolds.
Power Pl Eng 51:96-7 N '47

POWER plants, Floating

- Giant rig for deepest marine drilling; Shell
oil company, inc.'s new barge. E. Sterrett.
il World Oil 127:75-8+ Mr '48
- Naval plug-in to shore system effective de-
spite tidal problem. il Elec World 129:80
F 28 '48
- Oil burning floating powerhouse. il Pet Eng
19:50 Jl '48
- Power and control are salient feature of
Shell's new super drilling barge. E. Short.
il Oil & Gas J 46:76-3 Mr 11 '48
- T-2 power plant services Alaskan town.
Marine Eng 52:144 D '47
- Tanker unit boosts Hilo capacity. il Elec
West 100:74 Mr '48

POWER plants, Outdoor

See also

- Steam plants, Out-
door

POWER plants, Portable

- Henry Meadows portable power plant. il En-
gineering 165:488 My 21 '48
- Mobile gas-turbine plant. diags Mech Eng
70:438-9 My '48; Same cond. Iron Age 161:
94 Mr 25 '48; Same. Elec World News ed
129:21 Ap 17 '48; Same. Blast F & Steel Pl
36:sup88 Ap '48; Same. Ry Age 124:727 Ap
10 '48
- Mobile generating equipment. il Elec R
(Lond) 143:45 Jl 9 '48
- Navy orders removal of mobile plant from
water-short Arizona. Elec World News ed
123:13 Ap 3 '48
- Portable mine plant designed for prospect-
ing; abstract J. P. Messervy. il Eng &
Min J 149:84-5 Ap '48
- POWER show. See National exposition of
power and mechanical engineering
- POWER transmission
- Application of bevel gears and curved-tooth
couplings. A. L. Stewart. il Mach 54:164-7
My '48

POWER transmission—Continued

- Constant mesh transmission for 750 horsepower bulldozer, *il* diag Product Eng 19: 90-2 N '48
- Double enveloping right angle gear drives, F. E. Birtch, *il* diags Product Eng 19:85-91 Ag '48
- Driving hints for fluctuating loads, E. L. Cady, *il* Mill & Factory 43:123-6 Ag '48
- Electric drives with fluid couplings for materials handling equipment and power driven machinery, F. W. Atz, Jr., *il* diag Paper Ind 30:462+ Je '48; Same abr. Elec Eng 67:466-8 My '48; Same cond. Paper Tr J 126:41-2 F 12 '48
- Heart of a textile mill is efficient power transmission, *il* Rayon 29:97-9 Mr '48
- How to classify power transmission requirements, E. L. Cady, *il* Mill & Factory 42: 110-13 Ap 109-12 My '48
- Intermittent loads can be deceptive, E. L. Cady, *il* Mill & Factory 43:123-6 JI '48
- Modern paper machine drive, G. E. Plaisted, *il* diags Paper Ind 30:770-5 Ag '48
- Modern rotary drilling; transmissions for slush-pumps, J. Zaba, Oil & Gas J 46:95 Ja 15 '48
- Modernizing paper machines, E. A. Gahl, *il* Paper Tr J 125:104+ D 4 '47
- Screw-type transmission enables high-speed shifting without power lag, Sci Am 177:269 D 47
- Starting loads can waste time and money, E. L. Cady, *il* Mill & Factory 43:120-3 S '48
- Stopping loads should be evaluated, E. L. Cady, *il* Mill & Factory 43:136-9 O '48
- Twelve years to discover the obvious; steps in evolution of Graham variable speed transmission, L. A. Graham, *il* diags Machine Design 20:107-11 S '48
- Unusual drives and control elements of interesting machines, *il* diags Machine Design 20:126-30 Ap '48
- Vibrational loads may occur where not expected, E. L. Cady, *il* diags Mill & Factory 42:110-13 Je '48
- See also*
- Automobiles—Transmission
 - Bearings
 - Beltings
 - Chain gear
 - Clutches
 - Compressed air
 - Couplings
 - Electric distribution
 - Electric driving
 - Electric transmission

POWERS, John E.

Portrait, *Ptr Ink* 225:48 O 29 '48

POZZUOLANA

Pozzolan cements, E. A. Ledyard, Rock Prod 50:134+ D '47

PRAGER, Bernhard, 1867-1934

Editor of Beilstein, 1907-1933, D. Stern, *pors* J Chem Educ 24:592-3 D '47

PRASEODYMIUM

- Radioactive cerium and praseodymium, M. L. Pool and N. L. Krisberg, *bibliog* Phys R 73:1035-41 My 1 '48
- Separation of rare earths by ion exchange; praseodymium and praseodymium, F. H. Spedding and others, Am Chem Soc J 69: 2786-92 N '47

Isotopes

- Isotopic constitution of praseodymium and neodymium, M. G. Inghram and others, *bibliog* Phys R 74:98-9 JI 1 '48

PRECINCT worker, *See* Politics, Practical

PRECIOUS metals

- Electric drive for precious metal rolling mill, *il* Metallurgia 37:184 F '48; Elec R (Lond) 142:338 F 27 '48
- Nitric acid versus construction materials; precious metals, E. F. Rosenblatt, Chem Eng 55:238 F '48
- Sodium chloride versus construction materials, E. F. Rosenblatt, Chem Eng 54: 232 D '47
- Sulphuric acid versus construction materials, E. F. Rosenblatt, Chem Eng 55:223 Je '48
- See also*
- Gold
 - Platinum
 - Silver

PRECIPITATION

- Accumulation of traces of arsenate by coprecipitation with magnesium ammonium phosphate, I. M. Kolthoff and C. W. Carr, *bibliog* Anal Chem 20:728-30 Ag '48
- Precipitation of oxalates from homogeneous solution; application to separation and volumetric determination of magnesium, L. Gordon and E. R. Caley, Anal Chem 20:560-3 Je '48
- Studies on aging of precipitates and coprecipitation; the bulkiness and porosity of silica powder, I. Shapiro and I. M. Kolthoff, *bibliog* *il* J Phys & Colloid Chem 52:1020-33 Je '48
- Studies on the aging of precipitates and coprecipitation; the solubility of lead chromate as a function of the particle size, D. R. May and I. M. Kolthoff, *bibliog* J Phys & Colloid Chem 52:836-54 My '48
- Thorium in monazite sand; separation and determination by precipitation from homogeneous solution, H. H. Willard and L. Gordon, *bibliog* Anal Chem 20:165-9 F '48
- Why inorganic materials precipitate, R. C. Ulmer, *il* Power 92:233 Ap '48

PRECIS writing, *See* Abstracts

PRECISION casting, *See* Lost wax process

PREFABRICATED bridges, *See* Bridges, Prefabricated

PREFABRICATED buildings, *See* Buildings, Prefabricated

PREFABRICATED houses, *See* Houses, Prefabricated

PREFERRED accident insurance company of New York

Brings suit against two former officers, Nat Underw 52:13 JI 22 '48; East Underw 49: 25+ JI 23 '48

PREFERRED stocks, *See* Stocks, Preferred

PREGNANCY

- Dental aspects of prenatal injury, R. J. M. Horton, Science 106:415-16 O 31 '47
- Male frog, rana pipiens, as a new test animal for early pregnancy, P. B. Wiltberger and D. F. Miller, Science 107:198 F 20 '48
- Recording uterine contraction patterns in pregnant women; application of the strain gage in a multichannel Tokodynamometer, S. R. M. Reynolds and others, *il* Science 106:427-8 O 31 '47

PREGNANE

- New method for the preparation of 17(a)-hydroxy-20-ketopregnanes, L. H. Sarett, *bibliog* Am Chem Soc J 70:1454-8 Ap '48
- Perbenzoic acid oxidation of 20-ketopregnanes, L. H. Sarett, *bibliog* Am Chem Soc J 69: 2399-901 N '47
- Preparation of 17-ketosteroids from enol acetates of 20-ketosteroids, C. W. Marshall and others, *bibliog* Am Chem Soc J 70: 1837-9 My '48
- p-Toluenesulfonates 20-hydroxypregnanes, L. H. Sarett, *bibliog* Am Chem Soc J 70:1690-4 My '48

PREGNENE

- Steroidal sapogenins; pregnene derivatives from nologenin, R. E. Marker, Am Chem Soc J 69:2395-7 O '47
- Sterols; A²⁰-pregnenes from *bisnor*-steroid acids, P. L. Julian, E. W. Meyer and H. C. Printy, Am Chem Soc J 70:887-92 Mr '48

PREHEATERS, *See* Air preheaters

PREMIUMS (merchandizing)

- Basic premium objectives and how they are attained, H. W. Dunk, *il* Adv & Sell 41:42+ Ja '48
- Current practice in use of premiums; coupon system, self-liquidating premiums, one-cent sales and trade-card deals, H. W. Dunk, *il* Adv & Sell 40:42+ D '47
- \$15,000,000 promotes premiums for cash, J. Sterling, *Ptr Ink* 224:92 S 24 '48
- How premium offers can be merchandised, H. W. Dunk, *il* Adv & Sell 41:42+ Ap '48
- How prize contests promote quick sales, H. W. Dunk, *il* Adv & Sell 41:52+ Je '48
- Lever brothers' circus theme, *il* Sales Management 61:56 S 1 '48
- Loading and unloading dealers' shelves; use of premiums to salesmen, to dealers, H. W. Dunk, *il* Adv & Sell 41:38+ F '48
- Mavis premium offer pushes one item, samples another, T. T. Toole, Sales Management 61:116-17 JI 15 '48

PREMIUMS (merchandising)—Continued

- Premium boom. *Bsns W* p79-80 Ap 24 '48
 Premium lady has a prize time. *J. L. Col-
 lings. II* Ed & Pub 81:26 Je 5 '48
 Premium users and their offers. *II* *Ptr Ink*
 223:44+ My 14 '48
 Premiums; do they help sell soap? *J. M.
 Davidson. II* *Soap & San Chem* 24:40-2+
 Mr '48
 Rabbits' feet, kites, plastic ponies: Alemita
 makes trick promotions pay. *L. B. Colby.
 II* *Sales Management* 50:146+ F 15 '48
 Restraint in use of premiums for young chil-
 dren. *H. A. H. Rehm. Adv & Sell* 41:36
 JI '48

See also

Insurance—Merchan-
 dizing uses

PREPACKAGING

- Kroger pre-packaging; pilot store method of
 packaging meat, baked goods, produce and
 dairy products. *II* *Mod Packaging* 21:100-4
 N '47
 New opportunity in packaged perishable
 foods; abstract. *C. W. Hauck. Mod Pack-
 aging* 21:147-8 Je '48
 Pre-packaging from the grower's and ship-
 per's viewpoint; abstract. *E. M. Seifert,
 Jr. Mod Packaging* 22:150-1 S '48
See also
 Fruit—Prepackaging Vegetables—Pre-
 Meat—Prepackaging packaging

Cost

- Pre-packaging conclusions; three-year study
 of American stores co.'s centralized opera-
 tion. *D. R. Stokes. II* *Mod Packaging* 21:
 104-10 JI '48

PREPACKAGING of meat. *See* Meat—Prepack-
 aging

PRESBREY, Frank

- Portrait. *Ptr Ink* 225:45 O 29 '48

PRESERVATION of flowers. *See* Flowers

PRESIDENTIAL campaigns

- Fortune survey; issues. *Fortune* 37:6+ Je '48
 Fruitless campaigning. *Bsns W* p21 O 2 '48
 1948 preconvention campaign. *R. V. Peel.
 Ann Am Acad* 259:75-89 S '48
 Phrase-makers are president-makers. *H.
 Stebbins. Ptr Ink* 224:100 JI 23 '48
 Why a Socialist campaign in 1948. *N. Thomas.
 Comm & Fin Chr* 168:712+ Ag 19 '48

Finance

- Party finance in a presidential election year.
J. W. Lederle. bibliog Ann Am Acad 259:
 64-74 S '48

Polls

- Big city voters seen holding key to 1948
 elections; Gallup poll. *Iron Age* 162:129 JI 1
 '48
 California leans Democratic for '48; Truman
 leads Taft in presidential trial heat; Gallup
 poll. *Iron Age* 161:123+ Ja 15 '48
 Dewey leads presidential race; Democratic
 platform arousing more attention than
 Republican platform; Gallup polls. *Iron Age*
 162:129 Ag 12 '48
 Eleven states covered show Dewey holding
 advantage; Gallup poll. *Iron Age* 162:139 O
 7 '48
 Farmers' political sentiment points go GOP
 and Dewey; manual workers and union
 members favor Democratic party and Tru-
 man; Gallup poll. *Iron Age* 162:129 Ag 26
 '48
 Fortune survey; last pre-election poll. *For-
 tune* 38:29-30+ O '48
 New England and Middle Atlantic states poll
 favors GOP; Gallup poll. *Iron Age* 162:189
 O 14 '48
 Poll shows Dewey leading as election cam-
 paigns start; Gallup poll. *Iron Age* 162:
 135+ S 23 '48
 Public opinion polls and the politician. *R.
 Bower. bibliog Ann Am Acad* 259:104-12
 S '48
 Roundup shows Dewey strength among in-
 dependents; Gallup poll. *Iron Age* 162:123
 O 21 '48
 Wallace strikes serious blow at Democratic
 chances; Gallup poll. *Iron Age* 161:107 Ja 22
 '48

PRESIDENTIAL candidates, 1948

- Fortune survey; election year, second round.
Fortune 37:5-6 Je '48
 Fortune survey; post-convention look at
 candidates and issues. *Fortune* 38:supp 1-4
 S '48
 Fortune survey; the election. *Fortune* 37:5-
 6+ F '48
 G.O.P. race. *Bsns W* p26+ My 8 '48
 Reshuffle in the G.O.P. *Bsns W* p24-5 Ap 10
 '48
 65 per cent of dailies back Dewey with 78 per
 cent of circulation; with roll call in E.&P.
 poll. *R. U. Brown. Ed & Pub* 81:11-15+
 O 30 '48
 Stassen shows surprising strength in trial
 heat against President Truman; Gallup
 poll. *Iron Age* 161:125+ F 26 '48
 Three leaders in 1948 race see Wallace as
 helpful. *E. Blair. Barron's* 28:10 Ja 12 '48
 Truman leads Dewey and Taft in national
 popularity; Dewey vote appeal strongest in
 East; Gallup poll. *Iron Age* 161:123+ F 5
 '48
 Truman vs. a legislator? general? governor?
Bsns W p22-3 D 20 '47
 Voting public found hardened to platform
 promises; Gallup poll. *Iron Age* 161:125 Je
 24 '48
 Where the candidates stand on matters vital
 to industry. *pors Factory Management* 106:
 66-75 My '48
 Which candidate is labor voting for? *Bsns W*
 p70-1 Ag 28 '48

PRESIDENTS (United States)**Election**

- How presidents are nominated. *E. D. Graper.
 bibliog Ann Am Acad* 259:53-63 S '48
 Voters favor changing presidential electoral
 system; Gallup poll. *Iron Age* 162:127 S 9
 '48

**PRESIDENT'S commission on higher educa-
 tion.** *See* United States—President's com-
 mission on higher education

PRESS

- Fact-finding boards on press advocated at
 AASDJ meeting, Philadelphia. *Ed & Pub*
 81:58 Ja 10 '48

See also

- Freedom of the press Periodicals
 Journalism Publicity
 Newspapers

PRESS associations

- International federation in the making. *G.
 Langelaan. Ed & Pub* 81:24 Ap 3 '48

See also

- Associated press
 Inter-American press
 association

PRESS conferences

- Capital corps sizzles, press parley fizzles. *J.
 J. Butler. Ed & Pub* 81:26 O 9 '48
 Separate press conferences for newspapers,
 radio and television impractical. *W. F.
 Brooks. Ed & Pub* 81:42 Ag 7 '48

PRESS law

- Austrian lawyer compares world press laws;
 review of The newspaper, by I. Rothen-
 berg. *R. Ellard. Ed & Pub* 81:50 JI 24 '48
 History of different shield laws traced. *W.
 Steigleman. Ed & Pub* 81:44-5 Mr 27 '48

See also

- Newspapers—Law

Sweden

- Experts draft new press code for Sweden.
S. E. Hoyt. Ed & Pub 81:28 F 7 '48

Wisconsin

- Wisconsin law limits press. *Ed & Pub* 81:10
 Ja 10; 15 F 7 '48

PRESS parties. *See* Publicity

PRESS photographers. *See* News photog-
 raphers

PRESS photography. *See* Photography, Jour-
 nalist

PRESS releases. *See* Publicity

PRESS women, National federation of. *See*
 National federation of press women

RESSED metal

- Designing copper-base alloy hot die press-
 ings. *F. S. Hyde. diags Materials & Meth-
 ods* 28:89-91 O '48
 Hot pressed formed parts for heavy construc-
 tion. *H. A. Ottey. II* *Product Eng* 19:113-
 16 N '48

PRESSED metal—Continued

- Pressed metal opportunities for light metals. *il* Light Metal Age 6:12-15 F '48
Theory and practice of pressing aluminum. J. W. Lenglbridge. *il* diags Tool Eng 20: 17-22 Je; 21-21-4 JI; 23-6 Ag; 23-6 S; 23-6 O; 27-30 N '48 (to be cont)

PRESSES

- Advanced type equipment conspicuous in Willys press shop. *il* Automotive Ind 97: 44-4 D 1 '47
Automatic transfer¹ and feeding mechanism. W. C. Mills. diags Mach 54:166-8 N '47
Cracks in presses repaired quickly; Metalock process. J. W. Hillhouse. *il* diags Am Mach 92:73-6 Ag 26 '48
Efficient handling of work and scrap in automatic press operations; Danville, Ill. plant of the General electric co. V. H. Laughner. *il* Mach 54:162-5 Je '48
Homemade presses build Vanette truck bodies. C. Ricker. *il* diags Am Mach 91:89-92 D 4 '47
How to feed presses. *il* diags Am Mach 91: 85-100 N 20 '47
Huge presses at work for Kaiser-Frazer; illustrations with text. Automotive Ind 97: 30-1 D 15 '47
Latest metalworking equipment employed at new Chevrolet Indianapolis truck plant. *il* Steel 121:62-3+ D 22 '47
Midland puts mammoth automobile press into service at Cleveland. Iron Age 160:93 D 25 '47
New press developments. *il* Materials & Methods 28:104+ Ag '48
Press-fabricating pipe; Fort Pitt bridge works. *il* diags Steel 123:84+ JI 26 '48
Press forging. *il* diags Automobile Eng 37: 493-7 D '47
Tandem press loader uses air cylinder. J. F. Budnick. diags Am Mach 92:104 Ja 1 '48
35th annual review; forming, forging, casting. *il* Am Mach 92:226-35 Ja 29 '48
Variable speed pulleys for small press. F. A. Westbrook. *il* Mill & Factory 42:133 Mr '48
Welded wallets; die-cut polyvinyl chloride sheets electronically sealed in high speed automatic presses. A. W. Gellert. *il* Mod Plastics 25:116+ Mr '48
Welding screw shafts to castings; adjusting screws for presses. F. H. Setzler. *il* Iron Age 162:93-4 Ag 26 '48

See also

- | | |
|--|------------------|
| Dies | Molding machines |
| Hydraulic presses | (for plastics) |
| | Printing presses |
| <i>also</i> Clearing machine corporation | |

Manufacture

- Align honing eliminates bearing scraping; bearings of Bliss presses. H. E. Linsley. *il* Am Mach 92:88-9 Ja 15 '48
Flow-production processing of huge press components; Federal machine & welder co. D. Reebel. *il* plan Steel 123:84-7 S 27 '48

Safety devices

- Guard the power press through engineering. L. A. Faulkner. *il* Safety Eng 94:18-19+ N '47
New safety features in code to guard the power press. T. O. Meisner. *il* Ind Stand 19:25-7 My '48
Power press clutch has safety features. *il* diags Product Eng 18:100-1 D '47
Power press guards. *il* Safety Eng 95:12-15+ Ap '48

PRESSES, Hydraulic. See Hydraulic presses

PRESSES, Printing. See Printing presses

PRESSMEN'S union. See International printing pressmen and assistants' union of North America

PRESSOR substances. See Blood pressure

PRESSURE

- Application of pure science to industry; pressure equipment. C. O. Brown. diags Ind & Eng Chem 39:sup77A-8A D '47
Bench scale equipment and techniques; high pressure reactions. E. L. Clark and others. bibliog flow diags diags Ind & Eng Chem 39:1555-64 D '47

- Calculation of press forging pressures and application to magnesium forgings. R. L. Dietrich and G. Ansel. *il* diags Am Soc for Metals Trans 38:709-28 '47
Changes in energy or kinetic state. diags Chem Eng 55:107-12 My '48
Conversion of pressure units; tables. Heat & Ven 45:112b O '48
Effect of fluid pressure on capacity of vertical storage tanks. W. E. Splain. diags Pet Processing 3:937-8 O '48
Effect of temperature and pressure on specific gravity. P. M. Reynolds. Oil & Gas J 46:96+ Mr 11 '48
Factors that influence thermal conductivity of porous-type insulating materials. A. V. Butterworth. bibliog diags Chem Eng Prog 43:597-600 N '47
Fluid pressure drop losses through smooth straight tubing. D. A. DiTirro. Product Eng 19:117-20 S '48
High pressure research work; abstract. V. N. Ipatieff, G. S. Monroe and L. E. Fischer. Chem Eng 55:284+ Mr '48
Prediction of pressure drop during forced-circulation boiling of water. R. C. Martinelli and D. B. Nelson. bibliog A S M E Trans 70:695-702 Ag '48
Pressure drop in fractionating towers. A. C. Eld. Pet Refiner 27:119-21 O '48
Pressure drop through packed tubes. M. Levy and M. Grummer. Chem Eng Prog 43:549-54, 633-8, 713-18 O-D '47
Pressure-volume-temperature data for oxygen. C. H. Meyers. bibliog J Res Nat Bur Stand 40:457-66 Je '48
Refractive indices of alcohol, water and their mixtures at high pressures. J. S. Rosen. bibliog diags Opt Soc Am J 37:932-3 N '47
X-ray study of the effect of high hydrostatic pressures on the perfection of crystals. L. Rosen. bibliog *il* Am Soc for Metals Trans 39:713-22 Discussion. 722-4 '47

See also

- | | |
|----------------------|---------------------------|
| Atmospheric pressure | Spectrum—Pressure effects |
| Compressibility | Strains and stresses |
| Earth pressure | Vapor pressure |
| | Wind pressure |

PRESSURE, Political

- Pressure groups versus political parties. E. E. Schattschneider. Ann Am Acad 259: 17-23 S '48

PRESSURE cookers**Manufacture**

- Departmentized for greater production; Hercules food equipment, inc. *il* diags Sheet Metal Worker 39:44-6 JI '48
Special tools bore aluminum castings at high speed. B. C. Brosheer. *il* diags Am Mach 92:90-2 Ag 12 '48

Rating

- Four more pressure saucepans tested. *il* Consumers Res Bul 23:17-19 N '48

PRESSURE gages

- Diffusion pump pressure gauge. J. A. V. Fairbrother. *il* diags J Sci Instr 25:347-8 O '48

- Dynamic pressure measurement by optical interference. W. E. Buck and W. H. Barkas. *il* diags R Sci Instr 19:673-84 O '48
Improved polymerization techniques; use of puncture-sealing gaskets for polymerization in bottles. S. A. Harrison and E. R. Meincke. *il* Anal Chem 20:47-8 Ja '48
Maintenance of pressure gauges. R. F. Angell and J. Hays. diags Pet Refiner 26: 141-5 N '47

- Method of least squares applied to bottom hole pressure gage calibration. M. F. Hawkins, Jr. Pet Eng 19:93-4 Ap '48

- Pressure-telemetering system. *il* Instruments 21:806 S '43

- Vacuum divider; a low pressure multiplier. G. W. Monk. diags R Sci Instr 19:396-8 Je '48

PRESSURE indicators. See Indicators (for internal combustion engines)

PRESSURE measurement

- Attenuation of spherical shock waves in air. R. G. Stoner and W. Bleakney. bibliog plan J Ap Phys 19:670-8 JI '48
Chart solves pressure conversions for hydraulic presses of any ram size. H. R. Frisbie. Chem Eng 55:130 Je '48

PRESSURE measurement—Continued

- Engineer's problems in the measurement of stress and pressure. J. G. G. Hempson. *Engineer* 186:303-4 S 24 '48
- Hydraulic circuit analysis. H. M. Reese. *il diag Machine Design* 20:149-52 Mr '48
- Interfacial tension at elevated pressures and temperatures; a new and improved apparatus for boundary-tension measurements by the pendent-drop method. E. A. Hauser and A. S. Michaels. *bibliog il diags J Phys & Colloid Chem* 52:1157-65 O '48
- Large-scale model earth pressure tests on flexible bulkheads. G. P. Tschebotarioff. *il plan diags Am Soc C E Proc* 74:9-48 Ja '48; Discussion. 74:1257-60 S '48
- Measurement and control of pressure in a Boyd brick press. J. A. Tauber. *il diags Am Cer Soc Bul* 27:97-100 Mr 15 '48
- Measurement of coking pressure in a small laboratory oven. B. W. Naugle and others. *bibliog 9pls U S Bur Mines Rep of Invest* 4285:1-15 '48
- New techniques in the measurement of pressures below ten mm. G. L. Mellen. *bibliog diags Ind & Eng Chem* 40:787-91 My '48
- Pressure conversion chart for molding operations. E. H. Ten Eyck, jr. *Chem Eng* 55:135-6 Ja '48
- Sensitive pressure indication with tone stylus. *il diags Product Eng* 18:98-9 N '47
- Simplified pressure-loss calculations for plastic flow. E. L. McMillen. *bibliog Chem Eng Prog* 44:537-46 Ji '48
- Special features on large-scale earth pressure tests. E. R. Ward and others. *il diags Am Soc C E Proc* 74:49-57 Ja '48
- Surface phenomena useful in vacuum technique. L. Apker. *bibliog Ind & Eng Chem* 40:346-7 My '48

See also
Manometers
Pressure gages

PRESSURE regulation

- Controls make hydro-pneumatic tanks. W. L. West. *diags Power* 92:529-31+ S '48
- Furnace pressure control in relation to performance. C. H. Stone. *il Metallurgia* 38:161-4 Ji '48
- Large volume automatic pressure regulation. W. A. La Violette. *il diags Gas Age* 102:73-6+ S 30 '48
- Liquid flow characteristics of a pipe line and a control valve. O. Kneisel. *diag Pet Refiner* 27:101-4 O '48
- Measurement and control of pressure in a Boyd brick press. J. A. Tauber. *il diags Am Cer Soc Bul* 27:97-100 Mr 15 '48
- Precision pressure regulation of various gases. J. K. Hamilton. *diags Welding J* 26:977-83 N '47
- Pressure on fuel oil line controlled through air-operated fluid drive unit; Power department equipment at Socony-Vacuum's Paulsboro refinery. A. Krieg. *diag Pet Processing* 2:831 N '47
- Time cycle pressure control for rotary digesters. L. D. McGlothlin. *diag Paper Tr J* 126:55-6 Ap 29 '48

PRESSURE regulators

- Automatic control of natural gas lines. W. A. Brewster. *diags World Oil* 128:179-80+ O '48
- Automatic gas pressure control apparatus. *diag Engineer* 185:360 Ap 9 '48
- Cartesian manostat. *diag Chem Ind* 61:981 D '47
- Control of narrow-boiling-range fractionating columns. G. G. Gallagher. *diags Pet Refiner* 27:116-17 Mr '48; Same cond. *Oil & Gas J* 46:85+ F 5 '48; Same. *Pet Eng* 19:82+ Mr '48
- Design and construction of pressure relieving systems. N. E. Sylvander and D. L. Katz. *flow sheet il diags Pet Processing* 3:642-7, 774-8+, 873-4+ Ji-S '48
- Give the control valve a chance! C. B. Nolte. *Oil & Gas J* 46:65-6+ N 23 '47; 52-3+ Ja 1 '48
- Inverted relief valves for hydraulic pressure control. H. G. Conway. *diags Machine Design* 20:129-33 My '48
- Miniature Cartesian diving bell and a water-sealed gas holder have been combined in the design of a sensitive pressure regulator. C. O. Brown. *il diag Ind & Eng Chem* 40:sup89A-90A Ap '48

- Nonmetallic diaphragms, their design and application. J. H. Swartz. *il diags Machine Design* 20:153-8+ Ja '48
- Pressure regulator for use in microdetermination of carbon and hydrogen. M. F. Furter and A. Steyermark. *bibliog il diag Anal Chem* 20:257-8 Mr '48
- Pressure regulator is improved by aspirating effect on flow; patent. *diag Pet Processing* 3:368 Ap '48
- Regulators for steam-heat loops. *il Ry Age* 124:1260 Je 26 '48
- Selecting hydraulic pressure control valves. L. S. Linderth, jr. *diags Machine Design* 20:105-12 Ap '48
- Simple manostat of constant sensitivity. R. D. Goodwin. *diags J Chem Educ* 24:511-12 O '47; Discussion. 25:113-14 F '48
- Vacuum controllers. *il Chem Ind* 63:84+ Ji '48

See also
Gas governors

PRESSURE vessels

- Accessories for good operation of pressure storage vessels; abstract. F. L. Goldsby. *Pet Processing* 2:881-2 N '47
- Internally insulated piping and pressure vessels for high-temperature service. P. E. Darling. *diags Pet Refiner* 26:129-34 O '47; Same cond. *Pet Processing* 3:339-40+ Ap '48
- Measuring liquid level in vessels under pressure. C. F. Cusick and S. D. Rose. *diags Paper Tr J* 126:53-7 My 6 '48; Same. *Pet Eng* 19:141-2+ Ag '48
- Pressure vessel research. *Welding J* 27:sup5-6 Ja '48
- Use of unfired pressure vessels in the liquefied petroleum gas industry; a summary. E. O. Matlocks. *Oil & Gas J* 46:112-13 Mr 11 '48; Same cond. *Chem & Eng N* 26:314 F 2 '48

See also

- | | |
|-----------------|-----------------|
| Air compressors | Dust collectors |
| Boilers | Evaporators |
| Caissons | Gas holders |
| Compressors | |

Cost

- Short-cut estimation of welded process vessels; charts. H. How. *diags Chem Eng* 55:122-6 Ja '48

Design

- Alternative form of pressure vessel of novel laminar construction. H. Birchall and G. F. Lake. *il diags Inst Mech Eng J & Proc* 156:Proc 349-58 D '47; Same cond. *Engineer* 184:155-7 Ag 15 '47; Discussion. *Inst Mech Eng J & Proc* 156:Proc 358-67 D '47
- Flange design calculations. H. E. Lonngrén. *diags Pet Refiner* 26:130-4 N '47; 27:69-73 Ja; 116-19 F; 104-8 Ji; 145-6 O '48
- Obround manhead cover plates; design calculations. H. E. Lonngrén. *diags Pet Refiner* 27:102-3 Ag '48

Manufacture

- Arc-welding copper vessels. J. J. Vreeland. *il diag Welding J* 27:125-9 F '48
- Design and fabrication of welded light-weight pressure vessels. J. J. Chyle. *il Welding J* 27:831-7 O '48
- Seam welding composite plates. O. R. Carpenter. *il diags Steel* 121:64-6+ D 22 '47
- Special propane decarbonizing towers. *il Pet Eng* 18:64 S '48; Same cond. (Twenty-four layer welds used in fabricating propane decarbonizing towers). *Steel* 123:96 Ag 23 '48
- Special vessels built for corrosive crude. *il Oil & Gas J* 47:105-6 Ji 8 '48

Safety measures

- Design and construction of pressure relieving systems. N. E. Sylvander and D. L. Katz. *flow sheet il diag Pet Processing* 3:642-7, 774-8+ Ji-Ag '48
- Muffler controls discharge from safety disk; noise, corrosive spray and spattered walls caused by discharge from rupture disk line eliminated. N. W. Franke and M. W. Kiebler. *il diags Chem Ind* 62:248+ F '48

Testing

- Strain gage technique employed in studying propane tank stresses under service conditions. L. P. Zick and C. E. Carlson. *il Steel* 122:86-8 Ap 12 '48

PRESSURE vessels—Testing—Continued

Welded flanges for pressure vessels; calculations and tests, G. A. Brewer, *Il diags Machine Design* 19:125-8 N '47

Transportation

Transportation of 105-ton pressure tank taxes rail and highway facilities, *Il Civil Eng* 18:489+ Ag '48

PRETZELS

Dough with a twist, *Il Food Ind* 20:219 F '48

PREVOST reagent

Hydroxylated stearic acids; action of Prevost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids, H. Wittcoff and S. E. Miller, *bibliog Am Chem Soc J* 69:3138-9 D '47

PRICE, C. E.

He makes big-plant ideas pay; C. E. Price's formula for success, *pers Mod Ind* 15:67-8+ Ja '48

PRICE cutting

Sales runaway; Denver retail sales tax spurs grocers' price war, *Bsns W* p46-7 F '48

PRICE discrimination

F.o.b. plant vs. basing point; implications of Supreme court cement case decision, J. D. C. Weldon, *Mag of Wall St* 82:230-1+ Je 5 '48

Price discrimination in space heating, E. Troxel, *Land Econ* 24:281-92 Ag '48; Correction, 24:395 N '48

Recent basing point and quantity price decisions have put sales executives on the spot; Cement, Morton Salt and Rigid Steel Conduit decisions, G. H. Montague, *Ptr Ink* 223:27+ Je 4 '48

Significance of decisions in basing-point price cases, C. W. Dunn, *Adv & Sell* 41:50+ Ag '48

Threat to delivered prices; Supreme court upholds FTC order in cement case, *Bsns W* p24-5 My 1 '48

Patman law

Advertising allowances under Robinson-Patman act, A. W. Gray, *Adv & Sell* 41:50 JI '48

Court rules against Morton Salt discounts, *Food Ind* 20:897-8 Je '48

Deciding the fate of your pricing system; court decisions in FTC cases, *Bsns W* p74-8+ Je 12 '48

FTC hits from two sides; Curtiss candy co. violated Robinson-Patman act, *Bsns W* p62+ D 6 '47

FTC vs. discounts; tire Big four file quantity schedules, *Bsns W* p82+ Ap 10 '48

Law and economics of basing points, E. B. George, *Il Dun's R* 56:14-18+ S; 11-14+ O; 22-4 N '48

Moot discounts; Minneapolis-Honeywell's quantity discounts bring on cease-and-desist order, *Bsns W* p72+ F 21 '48

Morton Salt case decision throws new light on Robinson-Patman act, *Oil Paint & Drug Rep* 153:3+ My 10 '48

Quantity discounts hazardous; Supreme court decisions in Cement Institute and Morton Salt cases, W. R. Montgomery, *Credit & Fin Management* 50:26-7 Je '48

Robinson-Patman act probed by drug group of New York state bar association, *Oil Paint & Drug Rep* 153:5+ Ja 26 '48

Supreme court's big week; quantity discounts illegal, *Bsns W* p21 My 8 '48

PRICE fixing

Cease and desist order issued; manufacturers of tickets and related products accused of unlawful combination to fix prices and eliminate competition, *Paper Tr J* 127:7+ S 23 '48

FTC hits refractory firms; orders 37 companies to cease and desist from price fixing and use of devices like basing point system, *Steel* 122:57 My 3 '48

FTC steel case analyzed; price-fixing main charge, E. J. Hardy, *Iron Age* 161:104+ F 26 '48

Lead pigments pricing system partly approved, *Oil Paint & Drug Rep* 153:4+ Ap 5 '48

Recent basing point and quantity price decisions have put sales executives on the spot; Cement, Morton Salt and Rigid Steel Conduit decisions, G. H. Montague, *Ptr Ink* 223:27+ Je 4 '48

Sherman act violations charged to paint makers, *Paint Oil & Chem R* 111:43 Ag 5 '48

Significance of decisions in basing-point price cases, C. W. Dunn, *Adv & Sell* 41:50+ Ag '48

Supreme court decision strikes blow at price fixing under patent licenses, *Elec World* 129:89-90 Mr 13 '48

PRICE fixing, Resale

Brand makers win; California court rules branded war surplus items subject to fair-trade law, *Bsns W* p80+ S 4 '48

Fair trade; the cold facts; case histories that show what it will and won't do, *Il Mod Ind* 15:54-6+ Mr '48

In defense of fair trade; E. T. Grether's review of the basis and development of fair trade; reply, B. L. Newcomb, *J Marketing* 13:34-5; Rejoinder, 85-8 JI '48

Phoney trade-ins are called breach of fair trade contracts, A. W. Gray, *Sales Management* 60:77+ Ja 1 '48

Should we repeal the Miller-Tydings Fair-trade act? yes, J. M. Klamon; no, C. R. Sheaffer, *Il Mod Ind* 15:110-12+ F '48

PRICE marks

Shall we display and advertise price? public says emphatic yes! *Sales Management* 61:44-6+ N 1 '48

PRICE policies

Ban on pricing system is held threat to ads, A. Schindler, *Ed & Pub* 81:9 O 2 '48

Base point prices banned, *Arch Forum* 88:16 My '48

Basing point ruling may force vast industrial market shifts, S. E. Cohen, *Ind Marketing* 33:39+ Ag '48

Basing point ruling poses southern problems, S. Fish, *Manuf Rec* 117:41+ Ag '48

Basing-point study set; Capehart committee, *Bsns W* p32-3 Ag 28 '48

Basing-points backfire in Congress is unlikely, *Barron's* 28:12 JI 12 '48

Basing points; the great muddle; steel, *Il map Fortune* 38:73-8 S '48

Biography of a commercial chemical, L. B. Hitchcock, *Chem & Eng N* 26:1770-3 Je 14 '48

Builders and manufacturers study cement decision effect; Supreme Court ruling outlawing basing-price plan, *Eng N* 140:671+ My 6 '48

Cement basing point case, W. B. Wooden, *J Marketing* 13:220-2 O '48

Cement case decision reviewed, R. Smethurst, *Oil Paint & Drug Rep* 154:5+ S 13 '48

Cement decision has a "burn-down-the-barn" tinge; basing point ban may foster local monopolies instead of rivalries, H. S. Taylor, *Barron's* 28:7 My 3 '48

Chains want allowances based on performance; seek same price status as jobber, *Il Ptr Ink* 221:36-8 N 21 '47

Chaos seen if multiple basing point sales system is outlawed, G. F. Sullivan, *Iron Age* 161:123-4 My 6 '48

Chem. & Met. special report on pricing systems, *Chem Eng* 55:310 JI; 344+ S '48

Congress asks opinions of metalworking industry on f.o.b. mill, *Iron Age* 162:122 S 9 '48

Congress opens probe on effects of Cement institute case decision, *Oil Paint & Drug Rep* 154:3+ S 20 '48

Court rules against Federal trade commission in international salt co. case, *Comm & Fin Chr* 168:835 Ag 26 '48

Deciding the fate of your pricing system; court decisions in FTC cases, *Bsns W* p74-8+ Je 12 '48

Don't slice the meat too thin; when sales slacken, give customers more for their money, E. J. Jacobs, *Ptr Ink* 225:38-9 O 1 '48

Electric goods pricing changed, *Steel* 121:40 D 22 '47

Engineering an orderly lowering of prices, C. W. S. Parsons, *Mech Eng* 70:586-8 JI '48

Fair-trade price cut protects dealers; for 30 days, Kirsten Pipe offers dealers a special price, *Sales Management* 61:53 S 15 '48

FTC basing point policy may force oil pricing shift, *Nat Pet N* 40:11-12 O 20 '48

PRICE policies—Continued

FTC defied; cement basing point case. Bsns W p87 My 29 '48
 FTC holds cement case decision doesn't outlaw freight absorption. Oil Paint & Drug Rep 153:3+ Je 7 '48
 Federal trade commission issues list of don'ts on basing point. G. Baker. Iron Age 162: 117-18 O 21 '48
 FTC must clarify basing point ruling Senate group warned by N.F.S.E. Sales Management 61:63 O 15 '48
 FTC policy toward pricing practices; official statement. Oil Paint & Drug Rep 154:5+ O 18 '48
 FTC regards cement decision as ban to basing point system. G. Hardy. Iron Age 161: 121 My 6 '48
 FTC stand on pricing systems. Bsns W p23 O 23 '48
 FTC states policy on pricing methods. Steel 123:40-1 O 25 '48
 FTC warns industry to revise price systems to conform to law; cites Cement Institute case. Oil Paint & Drug Rep 153:3+ My 3 '48
 F.o.b. Detroit under scrutiny again; recent decisions may result in changes in marketing practices. E. J. Hardy and others. Automotive Ind 98:24-6+ Je 15 '48
 F.o.b. plant vs. basing point; implications of Supreme court cement case decision. J. D. C. Weldon. Mag of Wall St 82:230-1+ Je 5 '48
 G.E. inflation drive shows results. Mod Ind 15:154+ Ap '48
 G.E. takes a swing at prices. Bsns W p25 Ja 3 '48
 How does the cement case affect the national economy? H. E. Capehart. Ptr Ink 225:37+ O 1 '48
 How to cut a price and tell consumers about it in paid space. C. J. Swan. Il Ptr Ink 222:36-8 Mr 5 '48
 How to cut a price; management can avoid mistakes leading to a downward spiral. C. J. Swan. Il Ptr Ink 222:31-2+ F 20 '48
 How to cut a price without hurting dealer relations; dealer relations pass through a time of stress when price is cut. C. J. Swan. Ptr Ink 222:38-9+ F 27 '48
 How to determine prices. L. T. Montant, jr. Ptr Ink 224:29-31+ S 10 '48
 How to utilize market research data in new product pricing. R. Williams, jr. Chem Ind 61:996-8 D '47
 Industry restudying pricing policies. Steel 122:71-2+ My 10 '48
 Inflation and private price policy; abstract. J. Dean. Management 37:423-5 Ag '48
 Law and economics of basing points. E. B. George. Il Dun's R 56:14-18+ S; 11-14+ O '48 (to be cont)
 Objective of Capehart committee to clarify confusion on pricing. W. Simon. Iron Age 162:128-30 O 28 '48
 One answer to the pricing problem. B. M. Sayre. Am Bsns 17:20-2+ D '47
 Opinions of basing point ruling expressed in Manufacturers Record poll in the South. Manuf Rec 117:37 S '48
 Paper zone prices illegal by FTC rules. W. Simon. Ed & Pub 81:52-6 S 25 '48
 Plastics firms drop f.o.b. pricing; Sawyer urges price policy caution. Oil Paint & Drug Rep 154:3+ S 27 '48
 Price formula for manufacturing. J. Davis. Textile Col 70:31 Ap '48
 Price guarantees to the trade. Management R 37:257-8 My '48
 Price making in a democracy. S. Cohn. Comm & Fin Chr 167:204+ Ja 15 '48
 Prices; confused industry waits clarification on basing-point decision from Capehart committee. Bsns W p20 S 25 '48
 Pricing system and the cement case. L. B. Mason. Oil Paint & Drug Rep 153:7+ My 31 '48
 Recent basing point and quantity price decisions have put sales executives on the spot; Cement, Morton Salt and Rigid Steel Conduit decisions. G. H. Montague. Ptr Ink 223:27+ Je 4 '48
 Record on basing points cited against FTC views. R. M. Bleiberg. Barron's 28:8 O 25 '48

Relief on basing point prices far from certain. H. S. Taylor. Barron's 28:7-8 O 11 '48
 Senate advisory council to make survey of pricing policies; members of the committee. Automotive Ind 99:26+ S 1 '48
 Shift in emphasis; f.o.b. pricing is target. Bsns W p46+ O 9 '48
 Shippers oppose prohibiting absorption of freight charges. Ry Age 125:489-90 S 11 '48
 Should delivered price quotations be restored? M. T. Copeland. Comm & Fin Chr 168: 1863+ N 4 '48
 Significance of decisions in basing-point price cases. C. W. Dunn. Adv & Sell 41:50+ Ag '48
 Solving the basing point dilemma. C. Caswell. Ind Marketing 33:33-4+ S '48
 Steel industry abandons basing-point pricing. Il Bsns W p 19-20 J1 10 '48
 Steel price maze unwinding. Bsns W p25-6 J1 17 '48
 Steel pricing change, a slow bomb. F. B. Dezendorf and H. S. Taylor. map Barron's 28:5-6 J1 19 '48
 Threat to delivered prices; Supreme court upholds FTC order in cement case. Bsns W p24-5 My 1 '48
 Urges study of basing point ruling. C. Sawyer. Comm & Fin Chr 168:1211+ S 23 '48
 Vast repricing movement develops gradually out of f.o.b. ruling. N. Keine. Ptr Ink 224:77+ J1 23 '48
 What the f.o.b. ruling means to industry. Factory Management 106:114 S '48
 Will zone prices go too? lead-pigment case. Bsns W p26 J1 24 '48
 See also
 Discount, Cash
 Profitteering

PRICE policies, Retail

Meat clubs slip; cost-plus-fee retailers. Bsns W p49-50 F 28 '48
 What manufacturers should know about price lining policies and practices of stores. E. B. Weiss. Ptr Ink 222:44+ F 6 '48

PRICES

Can GOP handle price situation better than Democrats? Gallup poll. Iron Age 160:145 D 11 '47
 Consumers growl and get tough in face of high prices; S.M. survey. Sales Management 61:37-9 S 15 '48
 Man-made materials resisted price trend; light metals, plastics, among those which improved competitive position. J. V. Sherman. Barron's 28:31-2 F 16 '48
 Probable continuance of wage and price increases. H. P. Gillette. Roads & Sts 91:91 Ja '48
 Statistical note on world demand for exports; price elasticity of substitution between two commodities. T. Chang. R Econ & Stat 30:106-16 My '48

See also

Advertising—Rates	Printing trade—
Cost of living	Rates
Electric rates	Railroads—Rates
Gas rates	Stocks—Price in-
Index numbers (eco-	dexes and aver-
nomics)	ages
Inflation (finance)	Wages
Money	Water rates
also subdivision	Prices under various
subjects, e.g.	
Chemicals	
Farm produce	
Stocks	

Economic aspects

Commodity prices vs. consumer demand. R. L. Heilbroner. Am Bsns 18:10-11+ Mr '48
 Economic conditions and the price level. K. Field. Comm & Fin Chr 167:2741+ Je 24 '48
 Economic relation of wages and prices. E. Bunting. Comm & Fin Chr 167:1980+ My 6 '48
 Effect of lower prices on export and import trade. V. L. Horoth. Mag of Wall St 81: 639-40+ Mr 13 '48
 First national bank of Boston says postwar price rise not due to money supply or bank operations. Comm & Fin Chr 168:1428+ O 7 '48

PRICES—Economic aspects—Continued

Influence of price on our economy; supply and demand must be watched, J. E. Bul-lard, *Credit & Fin Management* 50:37-40 F '48

Lower prices needed to avoid boom-bust, E. A. Krauss, *Mag of Wall St* 82:216-18+ Je 5 '48

More production and government economy to offset spiraling prices, R. A. Taft, *Comm & Fin Chr* 166:2263+ D 4 '47

NAM cites price effects of increased money supply, *Comm & Fin Chr* 166:1855-N 6 '47

Price trends and capital demand and supply, S. H. Slichter, *Comm & Fin Chr* 168:1310+ S 30 '48

Prices after two wars, J. Backman, *Comm & Fin Chr* 167:1420+ Ap 1 '48

Prices and profits, H. R. Bowen, *Comm & Fin Chr* 167:2195+ My 20 '48

Prices, profits and productivity, J. Backman, *Comm & Fin Chr* 167:711+ F 12 '48

Prices-profits-productivity; three peas in a pod, R. G. Dunlop, *Comm & Fin Chr* 167:202+ Ja 15 '48

Purchasing power of profits; price rises have meant reduction in buying power, J. Backman, *Comm & Fin Chr* 166:2624+ D 25 '47

Realistic study of the race between prices and wages, J. C. Cresswill, *Mag of Wall St* 81:573-9, 615+ F 28 '48

Rising prices, A. P. Lerner, *R Econ & Stat* 30:24-7 F '48

Soft spots in the price structure, R. Rodgers, *Comm & Fin Chr* 167:1746+ Ap 22 '48

Structure of postwar prices; abstract, F. C. Mills, *Comm & Fin Chr* 168:410-11 J1 29 '48

Tide of prices; impact on Britain's imports of raw materials and food, *Economist* 154:1025-7 Je 19 '48

Wages, prices and the people's savings, S. H. Slichter, *Comm & Fin Chr* 167:2187+ My 20 '48; Same cond. *Trusts & Estates* 87:118-22 Ag '48

What to do about advancing prices, E. S. Pillsbury, *Comm & Fin Chr* 167:2186+ My 20 '48

Will another wage increase bring further increase in prices? increased labor productivity? *Mill & Factory* 42:87-90 Ja '48

World price trends and the economic picture, A. W. Zelomek, *Comm & Fin Chr* 167:1312+ Mr 25 '48

Forecasting

Commodity price trends for the first quarter, F. R. Walters, *Mag of Wall St* 81:348-50+ Ja 3 '48

See also

Stocks—Price fore-casting

Regulation

Fortune survey; prices and cost of living, *Fortune* 37:10 Je '48

GOP rebels to fight Taft on price program, E. Blair, *Barron's* 27:14 D 8 '47

President scores GOP and inflation act, *Comm & Fin Chr* 167:15 Ja 1 '48

Price control in a subsequent deflation, K. E. Boulding, *R Econ & Stat* 30:15-17 F '48

Public favors return to price control and rationing; Gallup poll, *Iron Age* 161:123 F 5 '48

Should we renew selective price and wage controls? yes, R. V. Gilbert; no, B. J. Rider, *II Mod Ind* 15:105-8+ Ja '48

Special session and prices, R. A. Taft, *Comm & Fin Chr* 168:500+ Ag 5 '48

Steel is key to all price control, says OPA study, E. J. Hardy, *Iron Age* 160:108+ N 13 '47

Truman's price control program, W. I. King, *Comm & Fin Chr* 167:15 Ja 1 '48

Wage and price restraints to combat inflation; testimony before House committee on banking and currency, L. B. Schwollenbach, *Comm & Fin Chr* 166:2267+ D 4 '47

Wages, prices and inflation controls, H. A. Johnson, *Comm & Fin Chr* 167:507+ Ja 29 '48

Washington decides to promote inflation; with synopsis of Temporary price recontrol act of 1947, H. S. Taylor, *Barron's* 27:7-8 D 22 '47

See also

Price discrimination

Price fixing

Price policies

Australia

Electors' verdict in Australia; government withdraws from the prices field, *Economist* 154:975 Je 12 '48

Canada

Controls return; Canada slaps ceilings back on meat, butter, fertilizer, *Bsns W* p89 Ja 24 '48

Prices rolled back, *Bsns W* p 125 D 6 '47

Great Britain

Operation Canute; effects of price control, *Economist* 154:364-5 Mr 6 '48

Price controls; Miscellaneous goods (maximum prices) order, 1948, *For Comm W* 30:20 Mr 27 '48

Poland

New price control law enacted, *For Comm W* 29:16 N 8 '47

Russia

Russia experiences impact of rationing's end, price shifts, *II For Comm W* 30:8+ Mr 6 '48

Statistics

CPI; a summary of its essential features, E. Clague, *Mo Labor R* 67:8-11 J1 '48

Commodity prices, 1941-1946, Survey of Cur Bsns 1947 Sup p22-6 [supplemented in monthly numbers]

Consumers price index, 1929-1947; tabulation, *Automotive Ind* 93:87 Mr 15 '48

Price developments; first quarter of 1948, *Mo Labor R* 66:617-22 Je '48

Prices and cost of living, Published in Monthly labor review

Prices in the second quarter of 1948, *Mo Labor R* 67:249-53 S '48

Primary market and consumers' prices in 1947, *Mo Labor R* 66:268-78 Mr '48

Progress of the postwar transition; trend of prices in 1947; with figures for other years, Survey of Cur Bsns 28:11-13 F '48

What's happened to prices; machinery and metal working industries, Jan. 1941-June 1947; table, *Am Mach* 92:120 Ja 29 '48

See also

Cost of living—Sta- Prices, Wholesale—
tistics Statistics

Index numbers (eco-
nomics)

Austria

Prices and wages in the Austrian economy, 1938-47, I. B. Kravis, map *Mo Labor R* 66:20-7 Ja '48

Brazil

Century of prices in Brazil, H. W. Spiegel, *R Econ & Stat* 30:57-62 F '48

Canada

Canadian upward price trend may continue, *Comm & Fin Chr* 168:1330 S 30 '48

See also

Prices—Regulation—
Canada

Great Britain

Prospects for prices, *Economist* 155:513-14 S 25 '48

See also

Prices—Regulation
—Great Britain

United States

Are prices near the peak? R. L. Heilbroner, *II Am Bsns* 18:8-9+ Ja '48

Chemicals, oils and drugs price changes; Jan. 6, 1947 and Jan. 5, 1948 compared; tabulation by commodity, *Oil Paint & Drug Rep* 153:8+ sec 2 F 16 '48

Commodity prices, R. W. Babson, *Comm & Fin Chr* 166:1845 N 6 '47

Current market quotations; chemicals and related materials, Published in weekly numbers of Oil, paint and drug reporter

Demand, production, and prices in 1947, *Fed Res Bul* 34:1-10 Ja '48

Joint congressional committee on the economic report reports on high prices of consumer goods, *Comm & Fin Chr* 167:2203+ My 20 '48

PRICES—United States—Continued

More diversity in commodity markets; price trends. Survey of Cur Bsns 28:4-6 O '48
 National association of purchasing agents predicts new look in prices. Comm & Fin Chr 168:1116 S 16 '48
 Price developments; first quarter of 1948. Mo Labor R 66:617-22 Je '48
 Prices; break or break-through? Bsns W p21-2 F 7 '48
 Prices move up. Bsns W p28 JI 10 '48
 Problem of rising prices. R. E. Flanders. Comm & Fin Chr 168:1850+ N 4 '48
 Problem of rising prices. P. H. Nystrom. Comm & Fin Chr 167:609+ F 5 '48
 Rearmament and prices. M. R. Gainsbrugh. Comm & Fin Chr 167:1524 Ap 8 '48
 Rise in commodity prices. Nat City Bank p 121-4 N '47
 What to do about prices? J. D. Runkle. Comm & Fin Chr 167:1979+ My 6 '48

PRICES, Wholesale

Gray markets shade off. Bsns W p 19-20 Mr 20 '48

Statistics

Indexes of wholesale prices. Published in Monthly labor review
 New weekly index of wholesale prices. S. R. Mitchell. Mo Labor R 67:290-8 S '48
 Primary market and consumers' prices in 1947. Mo Labor R 66:268-78 Mr '48
 Progress of the postwar transition; trend of prices in 1947; with figures for other years. Survey of Cur Bsns 28:11-13 F '48
 Wholesale price index; policy on revisions and corrections. S. R. Mitchell. Mo Labor R 67:153-5 Ag '48
 Wholesale prices have doubled since 1938-39. Automotive Ind 99:80 Ag 1 '48
 Wholesale prices, 1941-1946. Survey of Cur Bsns 1947 Sup p24-6 [supplemented in monthly numbers]
 Wholesale prices, 1946. U S Bur Labor Statistics Bul 920:1-137; p 25c Supt. of doc. '48
 Year-to-year price change; data for selected commodities for end of year 1946 and 1947. Survey of Cur Bsns 28:3 Ja '48

PRIDEAUX, Edmund Brydges Rudhall, 1878-1946
 Sketch. B. D. Shaw. Chem Soc J p 1426-7 O '47

PRIESTLEY medal

E. R. Weidlein named Priestley medalist. Paint Oil & Chem R 111:10A My 13 '48

PRIME movers. See Engines; Power plants; Windmills

PRINCETON, New Jersey**Sewerage**

Additions to the treatment plant; with cost data. I. R. Riker. II Pub Works 79:35-6 Je '48

PRINCETON university**Industrial relations section**

Princeton provides useful aids for labor problems. Mill & Factory 42:108 F '48

Library

Flexible plan attained for library through modular design; Princeton university's new Harvey S. Firestone memorial library. II plans Eng N 139:808-11 D 11 '47

PRINCIPAL and agent. See Agency (law)

PRINS reaction

α -Methylene reactivity in olefinic systems; the Prins reaction with ethylene and α -methylstyrene. J. W. Baker. Chem Soc J p89-93 Ja '48

PRINTED electric circuits. See Electric circuits—Printed circuits

PRINTERS

Aptitude tests are devised for printers. ED & Pub 81:55 Je 26 '48

Chicago newspaper strike will be pattern for negotiations in other printing centers. Inland Ptr 120:62-4 D '47

CTU, publishers apart on contract proposal. Ed & Pub 81:120 Ap 17 '48

Chicago union and employers at deadlock. Inland Ptr 120:73 N '47

Commercial shops and union in Chicago sign contract to run for eighteen months. Inland Ptr 121:86 JI '48

Dailies urged to act on employe relations; Printing industry of America convention, Chicago. Ed & Pub 81:22 O 30 '48

Detroit industry marks fourth year of co-operative apprenticeship program. Inland Ptr 120:40-1 Mr '48

Labor problems cited by ANPA president. D. W. Howe. Ed & Pub 81:70+ Ap 24 '48

Minneapolis shows best apprentice ratio. Inland Ptr 120:82 N '47

New labor-management law is chief topic at PIA convention. Inland Ptr 120:47-8 N '47

NYC publishers reach accord with printers. Ed & Pub 81:16 Ap 17 '48

New York employers and union pressmen negotiate new contract for eighteen months. Inland Ptr 121:70-1 My '48

Presses roll despite rise in strikes. Ed & Pub 81:120-1 Ap 24 '48

Pressmen get same increase as printers. Ed & Pub 81:52 Ag 7 '48

Printing trades; union scales, Jan. 2, 1948. H. W. Callaway and J. P. Corkery. Mo Labor R 67:143-5 Ag '48

Spread of typo disputes puts publishers, agencies in New York and Chicago on emergency schedules. Ptr Ink 222:117+ Mr 19 '48

Union printers stay at work on papers' terms. Ed & Pub 81:10 JI 17 '48

Union wages and hours in the printing trades, July 1, 1946. U S Bur Labor Statistics Bul 912:1-67; p 15c Supt. of doc. '47

See also

Women as printers

also names of printers, e.g.

Coleman, Carroll D.

Robinson, Allan

also Amalgamated lithographers of America; International printing pressmen and assistants' union; International typographical union

PRINTERS' ink (periodical)

Early days of Printers' ink. R. W. Palmer. Ptr Ink 225:33-48 O 29 '48

PRINTERS' varnish. See Varnish, Printers'

PRINTING**See also**

Advertising, Mail—

Printing

Book industry and

trade

Catalogs—Printing

Christmas printing

Color printing

Ink

Labels—Printing

Libraries—Printing

Linoleum block

printing

Newspapers—Print-

ing

Newsprint paper

Paper

Photography

Photomechanical

processes

Posters

Printers

Printing offices

Printing presses

Printing trade

Programs (printing)

Proofreading

Publishers

Railroads—Printing

Silk screen printing

Textile printing

Xerography

Design

Contemporary labels; Burnham & Morrill specimens, 19th century and today. W. Longyear. II Mod Packaging 21:118-23 D '47

History

When soapmakers helped printers in Madagascar; printing press of British missionaries in Antanarivo. A. Warren. II Inland Ptr 120:78 Ja '48

Prize contests

Judges select prize winners in blotter design competition. II Inland Ptr 121:70-1 S '48
 Prize winners in the typographic clinic contest. II Inland Ptr 120:66-8 Ja '48

Purchasing

Ten ways to reduce production costs. Ind Marketing 33:48+ O '48

Specimens

Work of John Anderson; illustrations. Inland Ptr 121:74 Ap '48

PRINTING, Offset

Characteristics desirable in offset papers. R. F. Reed. Paper Ind 29:1210-12 N '47

Coating solution troubles. C. F. King. Inland Ptr 120:65-8 N '47

PRINTING, Offset—Continued

Conditioning paper for press. C. F. King. diags Inland Ptr 120:51-3 Ja '48
Density is important factor. C. F. King. Inland Ptr 121:39-42 Ag '48
Facts versus opinions; fountain water mixtures. C. F. King. Inland Ptr 121:50-3 Ap '48

Half of popular-size offset presses go to former letterpress only plants. Inland Ptr 121:43-4 S '48

Learning offset printing. Inland Ptr 121:55 Ap '48

Los Angeles publisher has converted to type-writers from line-composing machines; plant of the *Commercial news*. il Inland Ptr 120:53 F '48

More about the densitometer. C. F. King. Inland Ptr 121:72-4 S '48

Non-metallic methods of composing type for photographic reproduction; Justowriter; abstract. W. R. Manny. Inland Ptr 120:61-2 N '47

Offset or letterpress? Inland Ptr 121:79-80 Jl '48

Personnel and equipment. Inland Ptr 121:47-8 My '48

Prices and processes create discussions at annual convention of photo-lithographers. Inland Ptr 120:68-71 D '47

Simple cooling device for offset film development. G. W. Perry. il Inland Ptr 121:67 My '48

Simple copy preparation for offset printing. R. M. Hogan. il Ind Marketing 33:46+ F '48

Universal paper troubles. C. F. King. il Inland Ptr 120:99-101 D '47

See also

Paper, Offset

PRINTING, Practical

Objective scrutiny of package printing processes; abstract. E. H. Balkema. Mod Packaging 21:146-6 Je '48

Paper standardization as an aid to the printer. M. S. Kantrowitz and E. W. Spencer. il Paper Ind 29:1306-8, 1612-15, 1772-4 D '47, F-Mr '48

Progress in printing without use of type; Vari-Typer Electromatic executive type-writer and others. E. C. Hopcraft. il Adv & Sell 41:46+ Je '48

Salesman's corner; plant with old equipment not made obsolete by Vari-Typer, etc. F. Rundell. Inland Ptr 121:68-9 S '48

See also

Color printing	Printing trade
Ink	Proofreading
Paper—Printing	Type and type
properties	founding
Printing plates	Typesetting
Printing presses	

Copy fitting

Practical copy sheet for house organ editors. il Ptr Ink 224:63 Jl 9 '48

Quick tricks in copy fitting for ads and printed pieces. R. M. Hogan. Ind Marketing 33:45-6 Je '48

Copy preparation

Put type specifications for the composing room on the button. il Inland Ptr 120:71 F '48

Simple copy preparation for offset printing. R. M. Hogan. il Ind Marketing 33:46+ F '48

Estimates

Before you estimate, hesitate! W. S. Roberts. Ptr Ink 222:54 F 6 '48

Difference between success and failure depends on accurate knowledge of costs. C. C. Ronalds. Inland Ptr 120:60-2 Ja; 58-60 F '48

Leading

Leading; control the weight of body type in a mass by the proper use of leading. Inland Ptr 121:55 S '48

Make-ready

See Printing, Practical—Presswork

Make-up

Copy scaling devices assist all on makeup. il Ed & Pub 81:58 Ap 10 '48

See also

Printing, Practical—

Leading

Presswork

Basic facts about makeready. J. Long. il diags Inland Ptr 120:61-2 Mr '48

Better light for viewing colors in the pressroom at night. il Inland Ptr 121:44-5 My '48

Composing room layout. M. E. Powers. plans diags Inland Ptr 120:40-5 Ja '48

Dry spray method is offered to eliminate offset smudge. il Paper Tr J 126:46-7 Ap 22 '48

Facts versus opinions; fountain water mixtures. C. F. King. Inland Ptr 121:50-3 Ap '48

Getting proper ink distribution. J. Kovac. Inland Ptr 120:65 F '48

How most problems may be avoided in cylinder packing. J. Long. diags Inland Ptr 120:42-3 Mr '48

Illuminating facts about pressrooms. W. S. Greenwood. il diags Inland Ptr 120:46-50 Mr '48

Infra-red rays useful for drying ink. E. St. John. Inland Ptr 121:53-4 Je '48

Infra-red sheet heaters are valuable aids. Inland Ptr 121:63 Ag '48

Ink drying by absorption and oxidation. E. St. John. Inland Ptr 120:63-4 Ja '48

More about the densitometer. C. F. King. Inland Ptr 121:72-4 S '48

Offset lessened in test with glass bead draw-sheet. il Ed & Pub 81:11+ Mr 15 '48

Precision magnesium plates, made by new technique, eliminate electrotypes in test. G. C. Compton. il Inland Ptr 121:37-9 My '48

Press production control; abstract. E. Ny-mark. Inland Ptr 121:56 Ag '48

Pressroom operations; abstract. J. T. Morgan. Inland Ptr 121:55-6 Ag '48

Printing on foil. Inland Ptr 121:59-60 My '48

Production for letterpress. J. Kovac. Inland Ptr 121:46 My '48

Reducing the time needed for makeready. Inland Ptr 120:74-5 D '47

Register on ancient equipment. J. Kovac. Inland Ptr 121:46 S '48

Right ink makes difference. E. St. John. Inland Ptr 120:73-4 D '47

Rub- and scratch-proof inks. Inland Ptr 121:54-6 Je '48

Scraps of paper plagued printer. W. C. Vanderwerth. il Inland Ptr 120:55 N '47

Study and teaching

Complete production unit aids students at Rochester Institute. il Inland Ptr 120:78 D '47

GPO successfully revives apprentice training school. il Inland Ptr 120:44-5 Mr '48

Hartley Everett Jackson at San Jose state college. F. McCaffrey. Inland Ptr 120:85-6 D '47

Make plans for Printing education week celebration. Inland Ptr 120:95 D '47

Union announces opening of new building for technical school at Pressmen's Home. Inland Ptr 121:75-6 My '48

Style manuals

Group compiles new style book in Milwaukee. Ed & Pub 81:22 Ja 31 '48

Words into type. 585p \$5 Appleton-Century-Crofts, 35 W. 32d st, New York 1 '48

Tables, calculations, etc.

Copy scaling devices assist all on makeup. il Ed & Pub 81:58 Ap 10 '48

PRINTING associations

Trade associations working to expand and improve their services in 1948. G. C. Compton. Inland Ptr 120:35-9 Ja '48

See also International association of printing house craftsmen

PRINTING for blind. *See* Blind, Printing for
PRINTING house craftsmen. International association of. *See* International association of printing house craftsmen

PRINTING industry of America

Board meets to discuss current problems of industry at Hot Springs, Ark. Inland Ptr 121:76 My '48

Convention, French Lick, Ind. Sept. 22-25. Inland Ptr 120:47-51 N '47

Management services for small business through trade associations. I. D. Robbins. Harvard Bsns R 26:627-40 S '48

PRINTING machinery

Color stereos are registered by light rays. il Ed & Pub 81:63 Ap 10 '48

European practice for solvent recovery in printing industry. R. E. Benson and P. H. Courtois. flow diags il plan Chem Eng Prog 44:459-68; Discussion. 468 Je '48

Stitch in time saves nine applies to printing machinery. M. Hamilton. Inland Ptr 121:40-1 My '48

See also

Linotype
Phototypesetting machine

Printing presses
Typesetting machines

Lubrication

Machinist finds simple solution to troublesome problem of lubrication; kerosene for quadders. C. T. Hall. Inland Ptr 121:65 S '48

Statistics

Mechanical equipment of 1884; U.S. and Canadian dailies; tabulation. Ed & Pub 81:151 sec 2 O 30 '48

PRINTING machinery industry

Half of popular-size offset presses go to former letterpress only plants. Inland Ptr 121:43-4 S '48

PRINTING offices

Here's something unique in printing plants in this age of specialization; makes its own paper, designs and casts its own type, and prints its own books. W. Ingersoll. il Inland Ptr 120:40-2 F '48

Poop deck solves problem of expansion. S. J. Sackett. Inland Ptr 120:43 Mr '48

Warwick, unlimited. D. O. Pyke. il Inland Ptr 120:46-8 Ja '48

Yes, costs can be reduced; Newman-Rudolph lithographing company's new building provides best possible working conditions to promote efficiency. il Am Bsns 18:14-15+ Ja '48

Employees

Employee handbook is worth every cent we spent, enthusiastic printer reports. D. Markstein. il Inland Ptr 120:69-70 Ja '48

See also

Printers

Equipment

Clinic-in-print on new and forthcoming equipment for every type of printing shop. Inland Ptr 121:67-70 Jl '48

European practice for solvent recovery in printing industry. R. E. Benson and P. H. Courtois. flow diags il plan Chem Eng Prog 44:459-68; Discussion. 468 Je '48

Printer uses modernized equipment to increase production without expanding. G. C. Compton. Inland Ptr 120:37-9 F '48

Salesman's corner; plant with old equipment not made obsolete by Vari-Typer, etc. F. Rundell. Inland Ptr 121:68-9 S '48

Layout

Composing room layout. M. E. Powers. plans diags Inland Ptr 120:40-5 Ja '48

Layout demonstrates points to be avoided when making floor plans. Inland Ptr 121:68-71 Ap '48

Lighting

Better light for viewing colors in the pressroom at night. il Inland Ptr 121:44-5 My '48

Face lifting with a purpose. W. Rudolph. il Inland Ptr 120:71-2 N '47

Illuminating facts about pressrooms. W. S. Greenwood. il diags Inland Ptr 120:46-50 Mr '48

Some illuminating facts about composing rooms. W. S. Greenwood. il diags Inland Ptr 120:44-7 F '48

Typical fluorescent lighting system for a printing plant. W. S. Greenwood. plan Inland Ptr 121:52-3 Ag '48

Management

Do you submit proofs on a business-like basis? Inland Ptr 121:48 S '48

Management; abstract. I. D. Robbins. Adv & Sell 41:56 F '48

Visual planning board proves excellent investment in medium-sized plant. F. W. Reilly. il Inland Ptr 121:74-6 Jl '48

Power

New Curtis power plant at Sharon Hill burns anthracite. il Power Generation 52:77 S '48

Schedules

Salesman's corner; promise of delivery. F. Rundell. Inland Ptr 121:48 Ag '48

Stores systems

Simple way to handle perpetual inventory. B. L. Gough. il Inland Ptr 121:48-9 Ap '48

PRINTING offices, Private

Plans for company print shop. E. C. Laidlaw. Nat Underw (Life ed) 52:6 O 15 '48

PRINTING on foil

Printing on foil. E. St. John. Inland Ptr 121:60 Je '48

PRINTING on plastics

Decorating vinyl films. A. B. Sherry. il Rubber Age 62:59-60 O '47

Design for impact; merchandising possibilities of printed transparent bags and wraps. J. M. Cowan. il Mod Packaging 21:140-2+ Ap '48

Giving plastic film the new look; Filmtex. F. S. Hardenbrook. il Textile Col 70:34 Mr '48

New transfer print method developed; packaging seen as major field of application of patented process. Plastics 8:54 F '48

Printing on polyethylene. il Mod Plastics 25:152 Ag '48

PRINTING plates

Coating solution troubles. C. F. King. Inland Ptr 120:65-8 N '47

Magnesium playing increasingly important role in graphic arts. J. Walraven. il Inland Ptr 121:34-5 Ag '48

Photoelectric method for preparing printing plates. A. C. Hardy and F. L. Wurzburg, Jr. diags Opt Soc Am J 38:295-300 Ap '48

Photoengravers' convention hears about need for fast production of better plates. Inland Ptr 120:61-4 N '47

Precision magnesium plates, made by new technique, eliminate electrotypes in test. G. C. Compton. il Inland Ptr 121:37-9 My '48

Shortcuts to savings on photoengravings. il Inland Ptr 121:48 My '48

Use magnesium plates for printing textbooks. Inland Ptr 121:56-7 My '48

PRINTING plates, Plastic

Methods for sawing and routing plastic plates are discussed. Ed & Pub 81:56 Jl 10 '48

Monomelt company's all-purpose thermoplastic molding press for making plastic mold electrotypes. il Inland Ptr 120:105 D '47

PRINTING presses

Bag printing presses for Cabot's plants. il Paint Oil & Chem R 11:141 F 5 '48

Goss contemplates changes in its line; abstract. D. Barr. Ed & Pub 81:56 Mr 13 '48

Ignitron motor control for a printing press. il diag Engineer 186:161 Ag 13 '48

Improved Harris offset presses. il Inland Ptr 121:93 Jl '48

Made-to-order rotary presses are high production tools of industry. A. A. Stuebe. Inland Ptr 121:38 Ag '48

Pneumatic control achieves constant roll tension. C. S. Caffrey. il diag Machine Design 19:123-4 N '47

Precise streamlines rotogravure press. il Paper Tr J 126:36 Ja 15 '48

Sperry rotary letterpress for carton production. il Inland Ptr 121:94 Jl '48

What's new in equipment and supplies? il Published in monthly numbers of Inland printer

PRINTING presses—Continued**Noise**

Paper mill proves that noise abatement pays; acoustical treatment of press room; Fernstrom paper mills. F. A. Westbrook, II
Paper Ind 30:407-8 Je '48

PRINTING pressmen and assistants' union of North America, International. See International printing pressmen and assistants' union of North America**PRINTING research**

Activated research program; abstract. A. E. Giegengack, Inland Ptr 120:48 N '47
Added value through research; abstract. L. H. Knopf, Inland Ptr 120:70 D '47
Association builds \$100,000 laboratories; British printing, packaging and allied trades research association. Pulp & Pa of Can 49:100+ S '48
Million for research hailed as insurance; abstract. J. D. Funk, Ed & Pub 81:7 Je 26 '48

New targets in printing developments; abstract. W. C. Huebner, Inland Ptr 121:57-8 Ag '48

Publishers vote \$280,000 to spur printing research. O. J. Rochelle, Ed & Pub 81:11 Ap 24 '48

PRINTING schools*See also*

Southwest school of printing, Dallas

PRINTING supplies industry

Printing equipment manufacturers foresee continuation of good business in new year. Inland Ptr 120:59-60 D '47

See also

Printing machinery industry

Directories

Inland printer's 1948 directory of equipment and supplies. Inland Ptr 120:107-50 D '47

Where to buy printing equipment and supplies. 14th annual ed 240p pa \$2 Printing equipment engineer, 1276 W. 3d st, Cleveland 13 '47

PRINTING trade

Answer man for hotel problems; Yogg's printed press. L. Mackall, II Adv & Sell 41:36-7 My '48

Have you been thinking about starting a small printing business of your own? U.S. Department of commerce manual. Inland Ptr 120:46 N '47

Printers expect good business in 1948, unless expenses force prices too high. G. C. Compton. Inland Ptr 120:55-8 D '47

Santa Claus doesn't mean Christmas in Latin America! Chicago printer prepares effective printed matter for Latin America. II Inland Ptr 120:57 Ja '48

Specialization spells success for progressive printing firm; William Rylance & sons print forms used by savings and loan associations. G. C. Compton, II Inland Ptr 120:37-9 N '47

Successful policies adopted sixty years ago carried on by Andrew McNally, 3d. Inland Ptr 121:56 Ap '48

Warwick, unlimited. D. O. Pyke, II Inland Ptr 120:46-8 Ja '48

Why I like the printing business. H. Erickson. Inland Ptr 121:81 Jl '48

Why I like the printing business; prize winning letter. W. K. Brownlow. Inland Ptr 121:55 Je '48

Why I like the printing business; third prize letter. G. M. Hendry. Inland Ptr 121:33 Ag '48

See also International printing pressmen and assistants' union of North America; Printing industry of America

Accounting

Difference between success and failure depends on accurate knowledge of costs. C. C. Ronalds. Inland Ptr 120:60-2 Ja; 58-60 F '48

Do not overlook expenditures related to sales when calculating your net profits. A. C. Kiechlin. Inland Ptr 121:45-6 S '48

Efficient management will establish this ten-point accounting program for profits. A. C. Kiechlin. Inland Ptr 121:49-50 My '48

Here are the answers to some troubling questions encountered in cost accounting.

A. C. Kiechlin. Inland Ptr 121:59-60 Ag '48
Management control programs; abstract. F. R. Somers. Inland Ptr 120:69 D '47

Should the employer be on the payroll? A. C. Kiechlin. Inland Ptr 121:41-2 Je '48

Some good reasons why profit and loss statements should be prepared monthly. A. C. Kiechlin. Inland Ptr 121:57-8 S '48

Advertising

Charles Francis press stimulates use of elaborate annual reports to sell free enterprise system. II Inland Ptr 120:61 D '47

Mr Small-City Printer; sell this idea for a printed piece to your local Chamber of commerce or use it as a promotion piece of your own. Inland Ptr 120:62 Ja '48

Salesman's corner; Ahrendt, inc. F. Rundell. Inland Ptr 121:68-70 Je '48

What do I have to advertise? G. J. Church. Inland Ptr 120:72 D '47

Advertising service

Offering advertising service helps build sales for numerous successful printers. G. C. Compton, II Inland Ptr 121:41-6 Ap '48

Laws and regulations

Montreal government adopts regulations on selection and training of apprentices. Inland Ptr 120:85 F '48

Printers now protected against innocent publication of trademark infringements. Inland Ptr 121:49-50 S '48

Rates

Should printers make customers pay for hidden labor costs? K. Neiberg. Inland Ptr 121:41-2 My '48

Salesmen

How to build a lithographic sales force; abstract. W. D. Molitor. Inland Ptr 120:70 D '47

Prestige of printing salesman compared with that of space salesman. F. Rundell. Inland Ptr 120:56-7 F '48

Sales and compensation of the salesmen; abstract. F. Pfeiffer. Inland Ptr 120:68 D '47

Salesman should select samples with care and show few to avoid indecisive client. J. E. Bullard. Inland Ptr 121:53-4 S '48

Salesman's corner. F. Rundell. Published in monthly numbers of Inland printer

Salesman's corner; helping inexperienced buyers of printing. F. Rundell. Inland Ptr 120:58-60 N '47

Use of salesmen's time. F. Rundell. Inland Ptr 120:76-8 D '47

Service

Salesman's corner; selling employe magazine. F. Rundell. Inland Ptr 121:72-3 Ap '48

Statistics

Nation's printing business picture was bright in 1947. map Inland Ptr 120:64-5 Ja '48

Chicago

Survey of publications discloses that many moved from Chicago plants during strike. Inland Ptr 121:50 S '48

Detroit

Detroit industry marks fourth year of co-operative apprenticeship program. Inland Ptr 120:40-1 Mr '48

Great Britain

British printers are asked to curtail plans. Inland Ptr 120:84 F '48

Printers and advertisers in England are finding new use for silk screen process. Inland Ptr 121:46-7 S '48

Sweden

Invites printers to meeting; sixth international master printers' congress to be held in Stockholm. Inland Ptr 120:91 D '47

PRIORITIES and allocations, Industrial

Agreements completed to allocate steel for oil production, barges. Oil & Gas J 47:52 Ag 12 '48

PRIORITIES and allocations, Industrial—Cont.
Allocation failure; farm-equipment makers refuse to cooperate on steel use. Bsns W p20 Mr 20 '48

Allocation procedure charted. Steel 122:66-7+ Mr 15 '48

Allocations on the way out? steel makers plan to drop all nonmilitary programs. Bsns W p32+ O 23 '48

Allocations organization listless. il Steel 122: 21-2 Ja 26 '48

Allocations program limited; Justice department rules steel for rearmament and foreign aid not covered. Steel 122:66-7 My 24 '48

Chronology of failure of wartime materials controls. Automotive Ind 98:256+ Mr 15 '48
Congress and the materials shortages. A. W. Zelonek. Comm & Fin Chr 167:608+ F 5 '48

Government peacetime controls won't work. J. H. Middlekamp. Automotive Ind 98:25+ F 15 '48

Industry agreements move gains impetus. Oil Paint & Drug Rep 153:3+ Ap 5 '48

Justice department ruling validates voluntary materials allocation plans. Eng N 141:73+ S 9 '48

NPC committee named to draft petroleum allocation program. Oil & Gas J 46:42 Ja 15 '48

New draft law threatens balanced steel shipments. G. F. Sullivan. Iron Age 162:126-7 J1 1 '48

Product allocations revealed. Steel 122:69 Je 7 '48

See allocations plan aiding few steel consumers. il Steel 122:37-8+ Ja 19 '48

Steel allocation is approved for prefab home builders. Eng N 141:73+ Ag 19 '48

Steel allocation plan taking form. il Steel 122:37-8+ Ja 12 '48

Steel allocation program shaping up at slow pace. E. C. Kreutzberg. il Steel 122:45-7 F 9 '48

Steel allocation slipped into draft law. G. H. Baker. Automotive Ind 99:66+ J1 1 '48; Same abr. Iron Age 162:126 J1 1 '48

Voluntary allocation program extended to include military steel. Iron Age 162:125 J1 29 '48

Voluntary allocations get green light. Steel 122:62 J1 12 '48

WPB-type controls return. Bsns W p 19-20 Ja 3 '48

PRISMS

Calibration method for infra-red prism spectrometers. D. S. McKinney and R. A. Friedel. Opt Soc Am J 38:222-5 Mr '48

Electroformed precision prisms. B. Goldberg. il Opt Soc Am J 38:409-12 Ap '48

Infrared analysis of organic mixtures using C-H band structure resolved by a lithium fluoride prism. E. L. Saier and N. D. Coggeshall. bibliog il Anal Chem 20:812-17 S '48

Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler. J Res Nat Bur Stand 41:125-3 Ag '48; Abstract. J Chem Phys 15:885-6 D '47

Prism device eliminates one man from surveying party. S. A. Emery. il Civil Eng 18: 302 My '48

PRISON INDUSTRIES

Prisons train men for industry. il Mod Ind 16:133-4 J1 '48

PRISONERS of war

German free workers in France. Int Labour R 58:227-30 Ag '48

PRISONS

Directories

State and national correctional institutions of the United States, Canada, England and Scotland, August, 1948. 69p pa \$1 American prison assn, 135 E. 15th st, New York 3 '48

PRIVACY, Right of

How agencies can avoid common legal pitfalls; dangers in use of group photographs, testimonials and proffered ideas. Adv & Sell 41:73-4+ Ag '48

Judge defends court picture in privacy suit. Ed & Pub 81:24 O 2 '48

Public interest in news comes before privacy. Ed & Pub 81:32 O 16 '48

Right to be let alone. Adv & Sell 41:97 Ja '48

PRIVATE schools

North Country house for many children, Lake Placid; serves family and some pupils. il plans diag Arch Rec 103:106-11 F '48

PRIVILEGED communications

History of different shield laws traced. W. Steigleman. Ed & Pub 81:44-5 Mr 27 '48

Privy of relationship between accountant and his client. P. J. Foley. J Account 85: 243-4 Mr '48

PRIZE contests

Employees tell why they like their jobs; General Motors prize contest. il Mill & Factory 42:102-4 F '48

Entrant sues for prizes, claims fraud in word contest. Ptr Ink 224:92 J1 9 '48

Memory test attracts capacity crowds for sales demonstration; Dictaphone corporation's Guess who contest. il Sales Management 59:123 D 1 '47

Power company's contest sparks better farming; Arkansas power and light co. D. Markstein. Sales Management 61:131 S 15 '48

Printers' ink, American Heritage employee relations competition. Ptr Ink 222:33-40 F 20 '48

Take the curse off pep letters; National Shoes contest based on letters to retail salesmen. L. Loeb. il Ptr Ink 225:46+ O 8 '48

Why merchandise prizes spur Beatrice salesmen to extra effort; prizes are within reach of all employees receive the tools to win, and prize books go into homes. L. A. Berger. il Sales Management 61:136+ O 15 '48

See also

Advertising—Prize contests

Printing—Prize contests
Sales contests

PROBABILITIES

Probability theory helps determine system reserve generating capacity. G. Calabrese. Power 92:423-6 J1 '48

Statistical properties of a sine wave plus random noise. S. O. Rice. Bell System Tech J 27:109-57 Ja '48

Statistics, the insulation engineer's crystal ball. W. Schneider and G. L. Moses. il Westinghouse Eng 8:150-3 S '48

Tumbler mortality. G. W. Brown and M. M. Flood. Am Stat Assn J 42:562-74 D '47

See also

Correlation (statistics) Sampling (statistical methods)
Least squares

PROBATE bonds. See Insurance, Surety and fidelity—Probate bonds

PROBATE law

Handling small estates; streamlining legal requirements and administrative procedures. L. H. Roseberry. Trusts & Estates 85:408-12 N '47

Improving probate procedure. L. M. Simes. Trusts & Estates 87:277-83 O '48

Model probate code; A.B.A. committee report. Trusts & Estates 87:309 O '48

Probate and trust decisions; A.B.A. committee report. Trusts & Estates 87:317-25 O '48

Proposed Uniform ancillary administration of estates act. Trusts & Estates 87:335-7 O '48

Bibliography

Trust and probate literature; A.B.A. committee report. Trusts & Estates 87:327-34 O '48

PROCAINE

Crystalline procaine penicillins. C. J. Salivar, F. H. Hedger and E. V. Brown. Am Chem Soc J 70:1287-8 Mr '48

PROCESS engineering. See Chemical engineering

PROCTER and Gamble company

How Procter & Gamble avoided serious labor trouble for 60 years. il Ptr Ink 222:39-41 Ja 2 '48

Management's task toward economic stability. R. R. Deupree. Comm & Fin Chr 167:1880+ Ap 29 '48; Same. il Dun's R 56:11-12+ Ag '48; Excerpts. Soap & San Chem 24:45+ My '48

New process cuts inventory risk. Bairoon's 28:32-3 Ja 19 '48

PROCUREMENT departments. See Purchasing departments

PRODUCER gas. See Gas, Producer

PRODUCTION

Achieving production per man-hour in industry. E. H. Dyson. Engineer 185:602-3 Ja 18 '48

Backed-up industrial needs of 'thirties barely met. L. J. Zitnik. Barron's 28:7-8 Ja 14 '48

Demand, production, and prices in 1947. Fed Res Bul 34:1-10 Ja '48

Dynamic approach to management; increased production through improved human relations. E. Buckley. bibliog Advanced Management 12:165-71 D '47

Economist forecasts increased productivity. R. H. Riley. Comm & Fin Chr 166:1853 N 6 '47

Forgotten production; number one inflation cause arises from critical shortages. H. J. Kaiser. Comm & Fin Chr 166:2166+ N 27 '47

Gauging our productive capacity. E. A. Krauss. Mag of Wall St 81:120-2+ N 8 '47

Industrial productivity. Economist 155:273-5 Ag 14 '48

Junior executive's place in production. J. T. Brown. Mech Eng 69:304-6 N '47

Management-labor cooperation in cutting costs; statement by Labor committee on national policy of National planning association. Advanced Management 12:179-81 D '47

More production; the price of freedom. C. Luckman. Comm & Fin Chr 167:2648+ Je 17 '48

Only more production can offset inflation. L. C. Morrow. Factory Management 106:65-70 Ja '48

Outlines proposal for joint Anglo-U.S. council on production methods. S. Cripps. Comm & Fin Chr 168:714 Ag 19 '48

Predictions of higher 1948 production ignore some signs of slackening. Barron's 27:8 D 15 '47

Production is answer to inflation. M. Sayre. Comm & Fin Chr 168:503+ Ag 5 '48

Realistic appraisal of industrial production outlook. E. A. Krauss. Mag of Wall St 81:684-6+ Mr 27 '48

Supply-demand status of various industries. H. M. Tremaine. il Mag of Wall St 83:63-5 O 23 '48

Task of labor relations is higher output; personnel programs increase productivity; abstract. L. A. Appley. Comm & Fin Chr 168:414 JI 29 '48

What makes production? H. Hazlitt. Comm & Fin Chr 167:1991 My 6 '48

What's happening to productivity. Factory Management 106:66-70 S '48

World productivity through science urged; abstract. C. A. Thomas. Chem & Eng N 25:3283 N 10 '47

See also

Economics	Orders, Unfilled
Efficiency, Industrial	Quantities (in production)
Factory management	
Labor productivity	Routing systems
Manufactures	Supply and demand

Statistics

BLS productivity index revised. Factory Management 106:226+ Ja '48

Gross national product, 1941-1946. Survey of Cur Bsns 1947 Sup p7 [supplemented in monthly numbers]

Industrial production; index figures by quarters, 1946 and 1947. Survey of Cur Bsns 28:3 Ja '48

Industrial production, 1941-1946. Survey of Cur Bsns 1947 Sup p 10-15 [supplemented in monthly numbers]

Many new materials set production peaks in 1947. J. V. Sherman. Barron's 28:13 Ap 26 '48

National income and product statistics of the United States, 1929-46; with detailed tabulations. Survey of Cur Bsns 27:sup 1-54 JI '47

National income and product statistics of the United States, 1944-47; with detailed tabulations. Survey of Cur Bsns 28:12-23 JI '48

National product and income in the third quarter of 1947. Survey of Cur Bsns 27:7-9 N '47

National product and income in the first quarter of 1948. Survey of Cur Bsns 28:3-5 My '48

National product and income in the second quarter of 1948. Survey of Cur Bsns 28:4-7 Ag '48

New index of industrial production of Central statistical office. Economist 154:413 Mr 13 '48

New industrial barometer. Economist 154:300 F 21 '48

Production of consumers' durable goods; by quarters, 1946 to third quarter of 1947; charts. Survey of Cur Bsns 27:5 N '47

Production of selected types of transportation equipment; by quarters, 1946 to third quarter of 1947; charts. Survey of Cur Bsns 27:8 N '47

Progress of the postwar transition; national product and national income in 1947; with figures for other years. Survey of Cur Bsns 28:4-11 F '48

Soviet indices of industrial production. A. Gerschenkron. Econ Stat 29:217-26 N '47

United Kingdom; interim index of industrial production. For Comm W 32:26-7 Ag 7 '48

PRODUCTION and sales. Coordination of

Interlocking the sales forecast with production planning. D. M. Rush. N A C A Bul 29:551-60 Ja 15 '48

Production planning and scheduling at Westinghouse. L. A. Hradesky. Mill & Factory 42:134-8 My '48

Production scheduling in the women's apparel industry. D. S. Mitchell. N A C A Bul 29:795-807 Mr 1 '48

PRODUCTION committees. See Employees' representation in management

PRODUCTION control

Better production control with all charts in one place; Glenn L. Martin co. W. H. Snyder. il Factory Management 106:102-4 Mr '48

Case study of small business controls. C. W. Bennett. N A C A Bul 29:991-1026 Ap 15 '48

Centralized set-up simplifies production control; Reliance electric & engineering co. il Mach 54:177-8 My '48; Mill & Factory 43:111 O '48

Control boards cut written reports 75 per cent. E. W. King. il Factory Management 106:126-8 Mr '48

Factory control at a glance; use of pegboard system at Pratt & Whitney aircraft engine plant. K. Kern. il Aero Digest 55:66-7+ N '47

Job-shop production control. H. W. Newhouse. il diags Am Mach 91:122-8 D 18 '47

Machine-load charts permit scheduling 18 months ahead; Black-Clawson co. M. A. Young. Factory Management 106:85-7 Ap '48

Mechanized graphs cut control costs; Lion manufacturing corp. il Bsns W p54+ Ag 21 '48

Production control and cost procedures in a foundry producing standard units. H. L. Abernathy. N A C A Bul 29:859-64 Mr 15 '48

Production control as applied in a farm tractor plant. D. Peddie. il Iron Age 161:56-61 Ja 29 '48

Production control based on improved inventory records. F. O. Orthey. flow chart il Factory Management 105:98-9 D '47

Production control can be simple, but. E. A. Cyrol. Mill & Factory 42:101-4 Je '48

Production control for maintenance of balanced stocks; National battery co. C. E. Carlson. N A C A Bul 29:383-90 D 1 '47

Production control for mixed long and short runs. D. Haynes. Factory Management 105:110-12 Je '48

Production control fundamentals; management data sheet. B. A. Moski, jr. Factory Management 106:133, 140 My '48

Production control in a high alloy steel plant; Watervliet plant of Allegheny Ludlum steel corp. G. K. Reindel. il Iron Age 161:91-4 Je 3 '48

Production planning for an automobile accessories manufacturer. J. W. Schafer. N A C A Bul 30:21-8 S 1 '48

PRODUCTION control—Continued

- Production up 15 per cent with roll-tape control board. J. M. Shank. *Il Factory Management* 106:114-15 J1 '48
- Selling a new production control plan to supervisors; Rockbestos products corp. A. G. Newton. *Factory Management* 105:118-19 D '47
- Simplified control reduces paper work; requisition, blueprint and tag combine to control production effectively; Axelson manufacturing co. *Il Am Mach* 92:92-3 F 26 '48
- Single-form production control. H. Kissel. *Factory Management* 106:85 F '48
- Visual control cuts clerks from three to one; graphic charts rolled into view on special machines for quick visual inspection. H. B. Jones. *Il Factory Management* 106:124-5 Ag '48

See also

- Factory management—Quality control
- PRODUCTION engineering research association of Great Britain**
- Importance of the work. D. F. Galloway. *Il Metallurgia* 38:279-82 S '48
- PRODUCTION standards**
- Collective bargaining provisions; time studies and standards of production. In U S Bur Labor Statistics Bul 908:3:38-59; pa 20c Supt. of doc. '48
- Equitable standards for production and incentives. F. M. Burt. *Il Mill & Factory* 43:130-3 J1 '48
- Matter of fatigue allowances. E. A. Cyrol. bibliog diag Mill & Factory 43:110-16 J1 '48
- PRODUCTIVITY clinic (proposed)**
- Productivity clinic asked by Luckman wins favor. N. Kelne. *Ptr Ink* 223:91 Je 18 '48
- PRODUCTS, Certification of**
- New label will identify hidden qualities built into homes; Revere Copper & Brass quality house institute. *Il Ptr Ink* 223:34-5 Je 25 '48
- PRODUCTS, Defective**
- Pyrene's dilemma; product goes sour. *Bsns W* p26 Mr 29 '48
- PRODUCTS, Diversified**
- Selling the diversified product line; technical literature, house organs, direct mail, space ads help salesmen for Ohio chemical & mfg. co. H. Burnett. *Il Ind Marketing* 33:36-7+ O '48
- PRODUCTS, Identification of**
- Label plan builds material sales for Styron. *Mod Ind* 16:103-4+ O '48
- Over-the-counter promotion for hidden product; supplier takes story to public first; Sheerr hair cloth stiffening. C. J. Swan. *Il Ptr Ink* 225:38-9 O 8 '48
- What nation-wide brand name identity has done for Botany. C. F. H. Johnson, Jr. *Il Sales Management* 61:83+ O 1 '48
- PRODUCTS, Improved**
- Effective marketing begins on the design board. G. C. Johnson. *J Marketing* 13:32-6 J1 '48
- How to get the most out of your product designer. J. F. Barnes. *Il Sales Management* 59:94+ N 10 '47
- B for more salable products; sales and production teamwork. *Il Mod Ind* 16:46-9 J1 '48
- PRODUCTS, New**
- Application of marketing research techniques to problems of new products in the oil industry. C. S. Roberts. *Am Pet Inst Proc* 27(2):55-9 '47
- Ask your customers for ideas! user research in developing new industrial products. E. E. Wachsmuth. *Ind Marketing* 33:39+ Mr '48
- Beating life's little annoyances; Sutherland-Becker laboratory products co. *Il Bsns W* p31-2 S 13 '48
- Biography of a commercial chemical. L. B. Hitchcock. *Chem & Eng N* 26:1770-3 Je 14 '48
- Commercial chemical development; gearing to sales; Dow chemical co. development of ethylene dibromide. D. K. Ballman. *Chem & Eng N* 26:848-50 Mr 22 '48
- Does it pay to launch an industrial product with a fanfare? Norton co. 32 Alundum. *Il Sales Management* 60:100+ Mr 15 '48

- Engineering responsibilities in creating new products. J. B. Davis and M. M. Brandt. *Il Product Eng* 13:51-5 S '48
- Five-way problem; ethical package for prescription salt substitute. Westsal, made in liquid form. *Il Mod Packaging* 21:136-7 Ag '48
- General Foods check list for development of new products. R. H. Moulton. *Sales Management* 60:37-9 My 1 '48
- Gillette's product preview plan gives workers insight to marketing. J. P. Spang, Jr. *Il Sales Management* 60:78+ My 20 '48
- How a new company with limited capital won national distribution; Kryptar corporation markets films thru magazine distributors. D. A. Gaudion. *Il Ptr Ink* 222:34-5+ Ja 16 '48
- How a problem of heavy selling cost was licked; Fritos. J. A. Murphy. *Il Ptr Ink* 223:29-31 My 14 '48
- How big-line firms handle the launching of new products. J. A. Murphy. *Sales Management* 60:46+ Ap 15 '48
- How to utilize market research data in new product pricing. R. Williams, Jr. *Chem Ind* 61:996-8 D '47
- Industrial selling by demonstration; know the product and show the product. K. Kirchofer. *Il Ind Marketing* 32:41+ D '47
- Mix product and package, result: smash hit; Hitching Post salad dressing. *Il Sales Management* 61:48+ S 15 '48
- New products and processes index, volume 61, July-December, 1947. *Chem Ind* 61:1018 D '47
- Norton company employs showmanship to sell its salesmen on new product. *Ind Marketing* 32:74+ D '47
- Philosophy of new product development. K. H. Klipstein. *Chem & Eng N* 26:1691-3 Je 7 '48
- Redesign research as applied to product development. R. L. Nowland. *Mech Eng* 70:208-10+ Mr '48
- Redesign research; its relationship to design, engineering, production, and sales. R. L. Nowland. *Il diags Machine Design* 20:96-102 O '48
- B for more salable products; sales and production teamwork. *Il Mod Ind* 16:46-9 J1 '48
- Reconverting war research; survey on peacetime applications of war-born products. *Il Bsns W* p56-8+ Ja 10 '48
- Researching the new product. W. J. Stokes. *Ind Marketing* 33:33+ Je; 47+ Ag '48
- Sending a new heating product to market; Dole thermostatic air control. S. G. Phillips. *Il Ind Marketing* 33:36-7+ S '48
- Short cuts develop markets quickly for Kobe's free pump. J. H. Collins. *Sales Management* 60:91-2+ My 20 '48
- So you have a new product! now how are you going to sell it? J. A. Murphy. *Il Sales Management* 60:37-9 Mr 15 '48
- Television spots form backbone of screen filter advertising program. *Il Ptr Ink* 224:42-3 S 17 '48
- Ten commandments for launching a new product; Lyons tooth paste, from product development through advertising and allocation of orders. D. H. Williams. *Il Adv & Sell* 60:33-4+ N '47
- Ten reasons why Glass was blitzed 131 major markets. H. E. Green. *Il Ptr Ink* 224:33-5+ S 17 '48
- Topflight finds peacetime market for war-born tape. E. Huber. *Il Sales Management* 60:144+ Ja 15 '48
- Tupperware makes whirlwind debut via big store demonstrations. B. G. Priestley. *Il Sales Management* 60:106+ Ap 15 '48
- Visual-vocal presentation explains ads to salesmen; 35-minute script, coordinated with slides introduces Norton 32 Alundum. C. J. Swan. *Il Ptr Ink* 224:36-7 S 24 '48
- What type of distribution setup for the new product? J. A. Murphy. *Il Sales Management* 60:44-6+ Ap 1 '48
- Why hand pick buyers for a new product? Allis-Chalmers' hay baler. *Sales Management* 59:111 D 1 '47

Advertising

- Consumer education was the key to the success of home permanents; Toni co. *Il Ptr Ink* 222:40-1 Ja 16 '48

PRODUCTS, New—Advertising—Continued

- Dealers didn't like new product; campaign changed their minds; Triton motor oil. *il* Ptr Ink 221:61+ N 21 '47
- House organ and press conference teach industry an involved new-product lesson. *Ptr* Ink 225:52 O 15 '48
- New product introduced through unusual channels; Bozo, rag doll, sold thru record dealers. *L. F. Thomann. il* Ptr Ink 224:41 Ag 20 '48
- Sales clerks' approval of new product helps gain distribution; Lily of France corset co. *il* Ptr Ink 221:64+ N 28 '47
- Stopette crashes cold market; sells 1,000,000 bottles in first year. *W. A. Wright. il* Sales Management 61:37-9 Ag 1 '48
- Surf launching. *il* Sales Management 61:71 Ag 1 '48

Testing

- Three steps in product testing by mail; denture adhesive. *A. B. Day. il* Ptr Ink 222:33+ Ja 9 '48

PRODUCTS liability insurance. See Insurance, Products liability

PROFESSIONAL associations

Professional associations in manpower management. *D. Yoder. Personnel J* 27:43-6 Je '48

Directories

- World of learning, 1948, 2d ed rev 824p 60s Europa publications, 39 Bedford square, London, W.C.1 '48

PROFESSIONAL education

- Inter-professions conference on education for professional responsibility, Buck Hill Falls, Pa.; abstracts of papers. *Eng N* 26:1219 Ap 26 '48; *Mech Eng* 70:684-5 Ag '48

See also

- | | |
|-----------------------|----------------------|
| Chemical education | Mining schools and |
| Engineering education | education |
| Medical education | Scientific education |

Directories

- Directory of colleges, universities and professional schools offering training in occupations concerned with health. *C. B. Benenson, comp. 171p pa \$2* Institute of women's professional relations, Connecticut college, New London, Conn. '45
- Directory of colleges, universities and professional schools offering training in professions other than those concerned with health and the arts. *C. B. Benenson, comp. 246p pa \$2* Institute of women's professional relations, Connecticut college, New London, Conn. '45

PROFESSIONAL engineers, National society of. See National society of professional engineers

PROFESSIONAL ethics.**See also**

- | | |
|--------------------|------------------|
| Accounting ethics | Legal ethics |
| Business ethics | Newspaper ethics |
| Engineering ethics | |

PROFESSIONAL workers

- For professionals; new NLRB ruling gives employees in professional jobs right to sever connections with nonprofessional unions. *Bsns W p* 112 Je 19 '48
- Importance of the professional standing of the water works manager. *L. A. Jackson. Water & Sewage Works* 95:300-2 Ag '48
- Industrial relations with professional workers. *H. R. Northrup. Harvard Bsns R* 26:543-59 S '48
- NLRB writes first major decision relating to professional employees; time-study men held to be professionals under Taft-Hartley act. *Eng N* 140:81 Ja 15 '48
- Publishers and guild differ on profession; wage-hour hearing. *Ed & Pub* 81:15+ Ja 17 '48
- Status of professional employees under the Taft-Hartley act. *J Account* 85:380 My '48
- Survey of professional salaries. *M. J. Sunderland. Personnel J* 26:332-5 Mr '48

See also

- | | |
|-------------|---------------------|
| Accountants | Librarians, Special |
| Architects | Nurses and nursing |
| Chemists | Physicians |
| Engineers | Research workers |
| Lawyers | Teachers |
| Librarians | Technical workers |

Great Britain

- Plight of the professions. *Economist* 154:125-6 Ja 24 '48; *Same. Iron Age* 161:108-9 F 5 '48

PROFESSIONS

- Professional associations in manpower management. *D. Yoder. Personnel J* 27:43-6 Je '48
- Teaching professional attributes. *N. W. Dougherty. J Eng Educ* 38:701-4 Je '48
- Three bases for profession defined. *F. L. Mott. Ed & Pub* 81:44 My 29 '48
- What is a profession? *V. Bush. Chem & Eng N* 26:1582-3 My 31 '48

See also

Occupations

PROFILE graphs. See Graphic methods

PROFILING machines

- Milling complex contours on multiple-spindle machines. *il* Mach 54:152-4 Jl '48

PROFIT

- Are profits too high? *Nat City Bank p* 126-8 N '47; *Same. Comm & Fin Chr* 166:1857 N 6 '47
- Are profits too high? abstract. *S. H. Slichter. Management R* 37:444-6 S '48
- Bank of Montreal sees current high profits deceptive. *Comm & Fin Chr* 168:817 Ag 26 '48
- Better-than-normal profits of many industries raise question of permanence of the reform. *Barron's* 27:35 D 8 '47
- Business profits during inflation. *D. T. Smith. Harvard Bsns R* 26:216-29 Mr '48
- Capital price adjustment method for deflating inflated profits. *E. S. Freeman. N A C A Bul* 29:635-58 F 1 '48
- Control of war contract profits. *N. C. Parkin. Harvard Bsns R* 26:230-50 Mr '48
- Corporate earnings in 1947; with table giving net income of leading corporations by industrial groups for the years 1946 and 1947. *Nat City Bank p* 43-7 Ap '48
- Corporate profits before and after federal and state income and excess profits taxes, by industry, 1929-46; tabulations. *Survey of Cur Bsns* 27:sup30-2 Jl '47
- Corporate sales and profits in the third quarter of 1947. *Survey of Cur Bsns* 28:5-6 Ja '48
- Current profits enormously exaggerated. *H. Hazlitt. Comm & Fin Chr* 167:1527+ Ap 8 '48
- Don't let profits deceive you; the financial aspects of break-even points. *G. H. Blackett. Credit & Fin Management* 50:14-15+ F '48
- Earnings again top '47 but big cash need shown. *Barron's* 28:33 Jl 26 '48
- Earnings; on the way to still another record. *Bsns W p* 19-20 Jl 31 '48
- Fair profit? Texas eastern transmission corp. *J. W. Welcker. Harvard Bsns R* 26:207-15 Mr '48; *Discussion (Profits and progress). J. S. Lawrence. 26:480-91 Jl '48*
- FTC study reveals industrial profits dropped during war years. *K. Rannells. Iron Age* 160:141-2 N 6 '47
- Fiction and facts on wages and profits; an answer to Mr Murray. *M. D. Popovic. Comm & Fin Chr* 168:697+ Ag 19 '48
- First-quarter corporate profits; with comparison for 1947. *Survey of Cur Bsns* 28:3-4 Jl '48
- First-quarter profits mixed. *Bsns W p* 21 My 1 '48
- Gold rush, 1948; refutation of Consumers Union's stand on corporation profits. *Nat City Bank p* 126-8 N '48; *Same abr. Comm & Fin Chr* 168:1876 N 4 '48
- Guaranty trust company of N.Y. holds profits no cause of inflation. *Comm & Fin Chr* 168:916-17 S 2 '48
- Half year's earnings. *Nat City Bank p* 91-3 Ag '48
- How far have profits risen? with figures for 1944-1947. *Economist* 154:276 F 14 '48
- Industrial corporation 1947 reports; with data on manufacturing earnings for 1946 and 1947. *Nat City Bank p* 31-4 Mr '48
- Industrial profits rise in March 1948 quarter; oils, rails lead parade as steel, machinery sag. *Barron's* 28:33 My 10 '48
- Latest trends in profit margins; a practical clue to future market values. *E. A. Krauss. Mag of Wall St* 82:324-6 Jl 3 '48

PROFIT—Continued

- Prices—profits—productivity; three peas in a pod. R. G. Dunlop. *Comm & Fin Chr* 167: 202+ Ja 15 '48
- Profit is not without honor; Allegheny Ludlum corporation's program to combat misinformation. C. King. *Pub Util* 40:720-4 N 20 '47
- Profit paradox. A. G. Bryant. *Automotive Ind* 99:25+ S 15 '48
- Profits and dividends, 1941-1946. Survey of Cur Bsns 1947 Sup p86-7 [supplemented in monthly numbers]
- Profits and the consumer. *Trusts & Estates* 86:393 My '48
- Profits have a purpose. R. S. Tucker. *Comm & Fin Chr* 167:2205 My 20 '48
- Profits in the chemical industry. R. S. Aries. *Chem & Eng N* 25:3717-19 D 15 '47
- Public exaggerates concept of high corporate profits. H. C. Link. *Comm & Fin Chr* 168: 116 JI 8 '48
- Reality of inventory profits. C. A. Bliss. *Harvard Bsns R* 26:527-42 S '48; Excerpts. *Comm & Fin Chr* 168:914 S 2 '48
- Reduction in manufacturing net income during second quarter of 1947. *Comm & Fin Chr* 167:137 Ja 8 '48
- Report on profits, prospects; third-quarter statements. *Bsns W* p21-2 N 1 '47
- Rising profits. *Economist* 154:202 Ja 31 '48
- Role of industry's profit dollar. W. Gates. *Mag of Wall St* 81:472-3+ Ja 31 '48
- Second-quarter corporate profits. Survey of Cur Bsns 28:5+ S '48
- Small changes in volume, wages, prices could destroy profits. G. H. Blackett. *J Account* 85:231-2 Mr '48
- Small manufacturers' profits show sharp drop; with graphs. *Bsns W* p24 S 11 '48
- Teaching workers the facts about profits. *Am Bsns* 18:23+ F '48
- Telling employees about business operations; profits; abstract. *Management R* 37:489-90 S '48
- Third quarter earnings. *Nat City Bank* p 124-6 N '47
- Third quarter earnings appraised; with composite picture of 1947 corporate profits. H. F. Travis. *Mag of Wall St* 81:190-1+ N 22 '47
- Undistributed corporate profits, by industry, 1929-46; tabulation. Survey of Cur Bsns 27:sup33 JI '47
- Wages and profits. *Economist* 153:790-1 N 15 '47
- What are profits? *Economist* 154:977-8 Je 12 '48; Excerpt. *J Account* 86:381 N '48
- What are profits? *J Account* 86:177-9 S '48
- What are profits? H. Parkinson. *J Account* 85:241-3 Mr '48
- What is reasonable profit? public opinion. *Mod Ind* 15:35-6 Je '48
- What the factory worker really thinks about his job; unemployment; and industry's profits. *Factory Management* 105:86-92 D '47
- What! the profit motive! Soviet plants now earning impressive profits. *Nat City Bank* p71 Je '48
- Who makes the money, manufacturer or retailer? H. Hammer. *J Retailing* 24:74-6 Ap '48
- Will profits stay up? with sales and profits of 50 corporations for 1946 and 1947. *Bsns W* p23-4 F 21 '48
- See also
- Risk
- PROFIT and loss statements**
- Projecting the monthly profit or loss statement. E. W. Hartman. *N A C A Bul* 29:1473-82 Ag 1 '48
- Some good reasons why profit and loss statements should be prepared monthly. A. C. Kiechlin. *Inland Ptr* 121:57-8 S '48
- PROFIT sharing**
- Bank profit sharing successful; Harris trust and savings bank, Chicago, reports 31 years of experience and changes. *Trusts & Estates* 86:240-1 Mr '48
- Efficiency increased 40 per cent under profit-sharing; abstract. A. Yonto. *Management R* 37:27-8 Ja '48
- Employees benefit from savings and profit sharing plan. *Mill & Factory* 42:133 Je '48
- General Electric issues statement on its general profit sharing plan. *East Underw* 48: 10 N 14 '47
- Good will dividends in profit-sharing check sent to homes of employees. T. S. Irvin. *Ed & Pub* 81:50 Mr 13 '48
- How to make a capitalist? Trubey plans. *Management R* 37:74-6 F '48
- Legal profits-sharing plan. N. C. Rockwood. *Rock Prod* 51:53+ JI '48; Same. *Inland Ptr* 121:27-8 Ag '48
- Look at profit sharing; purposes and methods. J. J. Bigge. *N A C A Bul* 30:51-8 S 15 '48
- Payroll flexibility through employee trusts. G. Simons. *Harvard Bsns R* 26:441-53 JI '48
- Philosophy of profit-sharing. J. D. Gordon. *Advanced Management* 13:73-5 Je '48
- Profit sharing as an incentive. F. W. Willey. *Mech Eng* 69:507-8+ N '47
- Profit sharing can work in a free-enterprise system. C. A. Norgren. *Am Mach* 92:83-7 Mr 25 '48
- Profit-sharing plan lowers labor costs for Skilaw, inc. E. Whitmore. *Il Am Bsns* 18:8-9+ My '48
- Profit-sharing program combats unrest of labor. A. C. Kiechlin. *Inland Ptr* 121:36-7 Ag '48
- Profit-sharing up. *Bsns W* p 100+ N 8 '47
- Pros and cons of profit-sharing. C. C. James. *Advanced Management* 13:111-15 S '48
- San Diego bank shares its profits. J. Beach. *Banking* 40:49+ Ja '48
- Share of profits guarantees pay, pensions, and benefits; Hankins container co. *Factory Management* 106:113 S '48
- Sliding wages supplement profit sharing; Michigan tank and furnace corp. D. G. Baird. *Il Mill & Factory* 42:126-8 My '48
- Stock and profit-sharing plans for agency executives. J. K. Lasser. *Adv & Sell* 41: 73-5 JI '48
- Ten per cent more money for ten per cent more production; Precision spinning co. E. Marple. *Il Mill & Factory* 42:135-6 Ap '48
- See also
- Employees as stockholders
- PROFITEERING**
- Gray market suit; Jones & Laughlin, Ford join hands to trap alleged operators. *Bsns W* p30+ My 22 '48
- That daffy gray market. *Il Fortune* 37:94-7+ My '48
- PROGESTERONE**
- Progesterone in blood plasma of the ovulating hen. R. M. Fraps and others. *bibliog Science* 108:86-7 JI 23 '48
- Solubility of progesterone in saline. T. R. Forbes and C. W. Hooker. *Science* 107:151 E 6 '48
- Substitution reactions of triphenylethylene and its derivatives; a contribution to the problem of synthetic analogues of progesterone. N. P. Buu-Hoi and R. Royer. *Chem Soc J* p 1078-81 JI '48
- Synthesis of steroids of the progesterone series. M. Ehrenstein. *Chem R* 42:457-89 bibliog(p488-9) Ap '48
- Analysis
- Identification of crystalline progesterone with 2,4-dinitrophenylhydrazine; quantitative determination of progesterone in oil. D. Klein, N. Weiner and S. M. Gordon. *bibliog Anal Chem* 20:174-6 F '48; Discussion. 20:880-1 S '48
- PROGRAMS (printing)**
- Prize winners in the typographic clinic contest. *Il Inland Ptr* 120:66-8 Ja; 61 F '48
- PROGRESS**
- Limiting factors in development. H. Hartley. *Engineer* 186:181-3 Ag 20 '48
- Mainspring; the story of human progress and how not to prevent it. H. G. Weaver. *S A E J* 56:29-31 Ag '48
- Science and the whole man. E. W. Sinnott. *Mech Eng* 70:113-17+ F '48
- Stay the hand of progress. T. H. Thompson. *Ptr Ink* 222:126 Ja 30 '48
- PROGRESSIVE party**
- Why a third party in 1948? H. A. Wallace. *Ann Am Acad* 259:10-16 S '48
- PROJECTILES**
- Loss of spin of projectiles. J. A. Van Allen; H. P. Hitchcock. *diags J Aeronautical Sci* 15:35-40 Ja '48

PROJECTILES—Continued

Simple oxide porcelains for jet planes and projectiles; abstracts, R. F. Geller, diags Brick & Clay Rec 111:62-⁺ N '47; Metal Prog 53:412-⁺ Mr '48
Some mechanical features in anti-submarine weapons, J. M. Kirkby, il diags Engineer 185:159-61, 192-5 F 13-20 '48; Discussion. 185:165-6 F 13 '48

See also

Ballistics Photography of
Bombs, Aerial projectiles

PROJECTION, Isometric

Draughting machine for isometric projection. il diags Engineer 185:518-19 My 28 '48; Engineering 165:836-7 Je 4 '48; Automobile Eng 38:235-6 Je '48

PROJECTION apparatus

Inspection by projection, K. F. Kirchhofer, il Mill & Factory 43:108-9 JI '48
Optical grinding; the latest development in tool making, C. H. Wick, il diags Mach 54:154-60 Ap '48

See also

Measuring instruments, Optical

PROJECTORS, Moving picture. See Moving picture machines; Moving picture projection

PROJECTORS, Slidefilm. See Slide films—Projectors

PROLYL compounds

Prolyl and phthalyl derivatives of enantiomorphs of valine and leucine, M. Fling, F. N. Minard and S. W. Fox, bibliog Am Chem Soc J 69:2466-7 O '47

PROMETHEUM. See Chemical elements—Atomic no. 61

PROMISSORY notes

Acknowledgment of debt on promissory notes bars statute of limitations. Banking Law J 64:818-20 O '47

Intermediate endorser not liable where note was endorsed back to payee. Banking Law J 64:982-3 D '47

Negotiability of installment promissory note transferred after date fixed therein for payment of first installment; Bliss et al. v. California, co-operative producers et al. Banking Law J 64:781-803 O '47

Note providing for cancellation of indebtedness upon death of payee not testamentary disposition. Banking Law J 64:902-5 N '47

Oral agreement to postpone annual interest payment due under secured note held not void under statute of frauds. Banking Law J 64:820-2 O '47

Outlawed notes as consideration. Banking Law J 64:979-82 D '47

References to time of payment made both in body of note and by marginal notation construed together. Banking Law J 64:815-18 O '47

PRONUNCIATION

World words; recommended pronunciations. W. C. Greet, 2d ed rev & enl 603p \$6.75 Columbia Univ. press, Morningside Heights, New York '48

PROOF presses

New improved model of Vandercook proof press simplifies making color or black and white proofs. il Inland Ptr 120:104 D '47

PROOFREADING

Eternal question; what are a proofreader's duties and responsibilities? Inland Ptr 120:88-9 D '47

See also

Newspapers—Proof-reading

PROPAGANDA

Selling the idea of free enterprise. E. C. Bursak, Harvard Bsns R 26:372-84 My '48

See also

Moving pictures—United States—Advertising department, Proposed
Propaganda films

PROPAGANDA, Japanese

Japan's wartime hocus-pocus. B. Vogel, il U S Naval Inst Proc 74:416-23 Ap '48
Propaganda de luxe. A. McCracken, il U S Naval Inst Proc 74:1234-45 O '48

PROPAGANDA, Russian

Soviet line on U.S. crisis. Bsns W p26-⁺ D 6 '47

PROPANE

Absorption processes; Jones & Laughlin supply co. flow diags Pet Refiner (Process Handbook ed) 27:292-3 sec 2 S '48

Butane and propane as tractor fuels. E. A. Jamison and J. R. Strother. S A E J 56:38-42 F '48

Catalytic reforming of hydrocarbons; process extended to include natural gas propane, commercial butane, and refinery oil gas used in the production of peak load gas. C. H. Riesz and others. Am Gas Assn Mo 30:17-20 Ap '48

Catalytic reforming of hydrocarbons; proposed peak load reforming process using either steam or steam and air with refinery propane. C. H. Riesz and others. flow diag il Am Gas Assn Mo 30:17-22 F '48

Clear Lake plant designed for propane-gasoline product. C. C. Pryor, flow sheet il Pet Refiner 27:87-90 Ja '48

Drying propane or butane by vaporation. W. L. Nelson. Oil & Gas J 47:133 S 16 '48

Fuel oil vs. LP-gas cost test for heating made by Jobber, L. Castle, Nat Pet N 40:7-⁺ S 29 '48

High range vapor pressures and Antoine equation constants of some C₂ to C₅ hydrocarbons. J. Griswold and W. B. Brooks, bibliog Pet Refiner 26:122-7 D '47

Isomerization of propane with C₃ in one end position. O. Beeck and others. J Chem Phys 16:255-6 Mr '48

Isotope effect in the thermal cracking of propane-1-C₃. D. P. Stevenson and others. J Chem Phys 16:993-4 O '48

Liquefied petroleum gases for the steel industry; abstract, F. E. Drake, Iron & Steel Eng 25:83 S '48

More propane for less money; Southwest gas producing co. high-pressure gasoline-plant design. C. Ambrose, flow diags Oil & Gas J 46:127-⁺ Mr 25 '48

Natural gasoline plant increases output by using propane refrigeration unit. J. C. Albright, flow diag il Pet Processing 3:867-8-⁺ S '48

Les nitroparaffines, matière première de nombreux composés organiques de valeur. P. M. E. Schmitz, bibliog Génie Civil 124:427-30 N 15 '47

Peak gas economics. L. J. Eck, Gas Age 102:25-⁺ Ag 19 '48

Pressure rise during filling of propane tank. W. L. Nelson. Oil & Gas J 46:66 Ja 15 '48

Problems solved in change-over to propane-air. O. W. Barends, il Am Gas J 168:14-15 Ap '48

Propane deasphalting. flow diag Oil & Gas J 46:154 Ap 1 '48

Propane dewaxing; lubricating-oil process for separating wax from crude oil, flow diag Oil & Gas J 46:156 Ap 1 '48

Propane recovery by absorption; abstract, L. Kniel, Oil & Gas J 47:66 O 14 '48

Propane's place in the sun; abstract, T. W. Legatski, Oil & Gas J 47:66 O 14 '48

Reaction of hydrogen atoms with the paraffin hydrocarbons. W. R. Trost and E. W. R. Steacie, bibliog J Chem Phys 16:361-4 Ap '48

Send-out gas nomograph; calculation of amounts of propane and flue gas or air required to give mixture having specified heating value and specific gravity. H. E. Zeiger and W. W. Roberts, Jr. Gas Age 102:11-⁺ S 2 '48

Some fluorinated derivatives of propane. E. T. McBee, A. Truchan and R. O. Bolt. Am Chem Soc J 70:2023-4 Je '48

Special propane decarbonizing towers. il Pet Eng 19:64 S '48; Same cond. Steel 123:96 Ag 23 '48

Strain gage technique employed in studying propane tank stresses under service conditions. L. P. Zick and C. E. Carlson, il Steel 122:86-8 Ap 12 '48

Technological problems in the use of alternate fuels in the glass industry; oil-vapor gas, propane, anthracite gas. R. S. Arrandale, il diags Glass Ind 29:309-13 Je '48

Temperature rise of propane tank. W. L. Nelson. Oil & Gas J 46:66 Ja 15 '48

30 million gal. propane output hike in East isn't enough; abstract, W. W. Boynton, Nat Pet N 39:38 N 26 '47

PROPANE—Continued

Underground storage of natural gas and propane; Consumers power company stores both in mixed form. *ii* Am Gas J 169:29-30 S '48

Utilization of refinery gases by the polyform process. W. C. Offutt and others. bibliog flow sheet *Pet Refiner* 27:105-11 O '48

Vapor-liquid equilibrium constants for carbon monoxide. L. C. Widdoes and D. L. Katz. bibliog *Ind & Eng Chem* 40:1742-6 S '48

Analysis

Quick field test for propane contamination of butane streams in fractionator control. G. T. Hamblen. *Pet Processing* 3:315 Ap '48

PROPANEDIAMINE

Stereochemistry of complex inorganic compounds; configurations of some compounds as revealed by rotatory dispersion curves. T. D. O'Brien, J. P. McReynolds and J. C. Badlar, Jr. bibliog *Am Chem Soc J* 70:749-55 F '48

PROPANEDIOL. See Propylene glycol**PROPELLANTS**

Chemical propellants; mononitromethane used in combination with oxygen and an igniter. F. Bellinger and others. *diag Ind & Eng Chem* 40:1324-31 JI '48

Chemical propellants; stability of mononitromethane for launching buzz bombs. F. Bellinger and others. *ii Ind & Eng Chem* 40:1320-3 JI '48

Modern propellants employed in British ordnance; abstract. J. N. Pring. *Chem Age (Lond)* 58:711 My 22 '48

PROPELLER club of the United States

Spring meeting, Old Point Comfort, Va. April 2-3, *Marine Eng* 53:45-51 My '48

PROPELLERS

Investigation of materials for marine propellers. W. C. Stewart and W. L. Williams. bibliog *diag Am Soc T M Proc* 46:836-45 '46

Reduction of wear in rubber stern bearings by the flow controlled continuous film method. R. D. Smeallie. *ii Rubber Age* 62:543-4 F '48; Same. *Mech Eng* 70:607-8 JI '48

See also

Airplane propellers
Ship propulsion

Testing

Hydrodynamic design of 48-in. water tunnel to be used in research on torpedo propellers. D. Ross and others. *diags Engineering* 166:68-72 JI 16 '48

Longitudinal vibration of marine propeller shafting. C. P. Rigby. *ii diags Engineering* 165:381-3, 405-7 Ap 16-23 '48

Propeller tunnel notes; discussion of paper by F. M. Lewis. *Marine Eng* 53:69-70 F '48

PROPENE

High range vapor pressures and Antoine equation constants of some C₃ to C₈ hydrocarbons. J. Griswold and W. B. Brooks. bibliog *Pet Refiner* 26:122-7 D '47

Preparation of 1-C¹⁴-propene-1 and the mechanism of permanganate oxidation of propene. B. A. Fries and M. Calvin. *Am Chem Soc J* 70:2235-40 Je '48

Reaction of methylocyclopentane with propene in the presence of aluminum bromide-hydrogen bromide. H. Pines and V. N. Ipatieff. bibliog *Am Chem Soc J* 70:531-2 F '48

PROPENYLETHYNYLCARBINOL

Kinetics of anionotropic rearrangement; the simultaneous rearrangement and hydrolysis of propenylethynylcarbinyl acetate; general discussion of the mechanism of anionotropy and a comparison of the mobility of the hydroxyl and the acetoxy group. E. A. Braude. *diag Chem Soc J* p794-804 Je '48

PROPERTY**See also**

Air rights
Community property
Fixtures (law)
Real property

PROPERTY, Enemy. See Enemy property**PROPERTY and liability underwriters, American institute for**. See American institute for property and liability underwriters**PROPINE**. See Propyne**PROPIOLACTONE**. See Lactones**PROPIONATES**

Preparation and physical properties of *n*-alkyl 6-*n*-alkoxypropionates. C. E. Rehberg, M. B. Dixon and C. H. Fisher. bibliog *Am Chem Soc J* 69:2966-70 D '47

PROPIONIC acid

α -Aryloxy and α -aryl thiol cinnamic acids. D. Papa and E. Schwenk. bibliog *Am Chem Soc J* 69:3022-3 D '47

Ionization constants of propionic acid in isopropyl alcohol-water mixtures from 0 to 40°. R. L. Moore and W. A. Felsing. *Am Chem Soc J* 69:2420-2 O '47

Nature of negative ions in liquid hydrocarbons. A. Gemant. *Electrochem Soc J* 94:160-70 O '48

β -Propiolactone; reactions with salts of inorganic acids. T. L. Gresham and others. *Am Chem Soc J* 70:999-1001 Mr '48

PROPRIONITRILE

Absorption of the alkyl cyanides in the vacuum ultraviolet. J. A. Cutler. bibliog *ii J Chem Phys* 16:136-40 F '48

β -Cyclopropionitriles; conversion to bis-2-(5-cyclopropyl)azamethine salts. E. B. Knott. *Chem Soc J* p 1196-201 S '47

β -Cyclopropionitriles; general synthesis and conversion into pyrrole dyes. E. B. Knott. *Chem Soc J* p 1190-5 S '47

β -Cyclopropionitriles; reduction to 2-cyclopropylpyrrolines and 2-cyclopropylpyrrolidines. E. B. Knott. *Chem Soc J* p 186-8 F '48

Hydrolysis of some β -alkoxypropionitriles. R. V. Christian, Jr. and R. M. Hixon. bibliog *Am Chem Soc J* 70:1333-6 Ap '48

PROPIOPHENONE

Cinnolines; 4-hydroxy-3-methylcinnolines. J. R. Keneford and J. C. E. Simpson. *Chem Soc J* p354-8 Mr '48

PROPORTIONING equipment

Automatic proportioning apparatus for experimental study of the effects of chemical solutions on aquatic animals. A. Collier and S. M. Ray. *diags Science* 107:576-7 My 28 '48

Combustion control; use of oxygen. H. Ziebolz. *diags Iron & Steel Eng* 25:67-71 O '48

Derivative controller; compound proportioning bellows construction. V. V. Tivy. *diags Pet Processing* 3:679-82+ JI '48

Designs and operating principles of typical pumps used in industry; methods for changing output in metering and proportioning liquids. *diags Product Eng* 19:144-5 Ap '48

Five essentials in air-gas proportioning mix. *Cer Ind* 51:63 Ag '48

Low cost proportioner for liquids works automatically without attention. R. W. Barns. *diags Chem Eng* 55:124 S '48

New method of proportioning slush pulp. R. M. Bishop. *ii diags Pulp & Pa of Can (Convention no)* 49:178-80 [F] '48; Same cond. *Paper Ind* 29:1659-60 F '48

PROPOXYMETHYLLHYDANTOIN

5-Alkyl (or 5-phenyl)-5-propoxymethylhydantoins. H. R. Henze, J. W. Melton and E. O. Forman. *Am Chem Soc J* 70:2438-9 JI '48

PROPRIETARY association of America

Annual convention, 66th, Atlantic City, May 24-26. *Oil Paint & Drug Rep* 153:5+ My 31 '48

Meeting of scientific section, New York, Dec. 5. *Oil Paint & Drug Rep* 152:4+ D 15 '47

PROPRIETARY medicines. See Medicines, Proprietary**PROPYL alcohol**

Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Licht, Jr. and C. G. Denzler. bibliog *diag Chem Eng Prog* 44:627-38 Ag '48

PROPYLPYRROLIZIDINE

Synthesis of pyrrolizidines; basicities of 3-alkylpyrrolizidines. N. J. Leonard and K. M. Beck. bibliog *ii Am Chem Soc J* 70:2504-7 JI '48

PROPYLATION

Butylation of benzene during propylation in the presence of isobutane; ratio of reactivities of benzene and isobutane. F. E. Condon and M. P. Matuszak. *Am Chem Soc J* 70:2539-42 JI '48

PROPYLATION—Continued

Relative rates of propylation of monoalkylbenzenes, F. E. Condon, bibliog Am Chem Soc J 70:2265-7 Je '48

PROPYLENE

Alkylation of thiophene with olefins, W. G. Appleby and others, bibliog Am Chem Soc J 70:1552-5 Ap '48

Catalytic polymerization and its commercial application, P. C. Weinert and G. Egloff, flow diags Pet Processing 3:585-6+ Je '48

Further investigation of the mercury photosensitized polymerization of propylene, H. E. Gunning and E. W. R. Steacie, bibliog J Chem Phys 16:926-9 S '48

Glycerine from petroleum, J. V. Hightower, il diag Chem Eng 55:96-8 S '48

Mercury photosensitized hydrogenation of propylene, W. J. Moore, bibliog J Chem Phys 16:916-19 S '48

Perfluorinated olefins, A. L. Henne and T. H. Newby, bibliog Am Chem Soc J 70:130-2 Ja '48

Synthetic glycerine, a milestone in petrochemical progress, il diag Chem Eng 55:100-4 O '48

Synthetic glycerine plant opened at Houston by Shell, flow diag il diags Chem Eng Prog 44:sup 16-18 O '48

Synthetic glycerine; Shell Chemical's new, eight million dollar Texas plant and process, J. W. McCutcheon, il diag Soap & San Chem 24:37-9+ S '48

Utilization of refinery gases by the polymorph process, W. C. Offutt and others, bibliog flow sheet Pet Refiner 27:105-11 O '48

Vapor-liquid equilibrium constants for carbon monoxide, L. C. Widdoes and D. L. Katz, bibliog Ind & Eng Chem 40:1742-6 S '48

PROPYLENEDIAMINE. See Propanediamine

PROPYLENE dichloride. See Dichloropropane

PROPYLENE glycol

Automatic dewpoint meter for the determination of condensable vapors, T. T. Puck, bibliog diags R Sci Instr 19:16-23 Ja '48

1-(+)propylene glycol, E. Baer and H. O. L. Fischer, bibliog Am Chem Soc J 70:609-10 F '48

Refrigerating capacity of two-component systems; glycerol-water and propylene glycol-water, F. T. Gucker, Jr. and G. A. Marsh, bibliog diag Ind & Eng Chem 40:908-15 My '48

PROPYLENE sulfide

Synthesis of 2-iminothiophanes from ethyl cyanoacetate and alkene sulfides, H. R. Snyder and W. Alexander, bibliog Am Chem Soc J 70:217-18 Ja '48

PROPYLENE

Force constants and frequency assignments for some substituted methylacetylenes, A. G. Meister, bibliog J Chem Phys 16:950-9 O '48

PROSPECT lists

How business paper ads unearth leads for Turco, D. T. Buist, il Sales Management 61:110-11 N 1 '48

How to make non-selling advertising pay off; customer service campaign of Armour chemical division, R. E. Whiting, il Ind Marketing 33:33-5+ Mr '48

Market research combats high distribution costs, R. D. Crisp, Ind Marketing 33:33-4+ F '48

Memory test attracts capacity crowds for sales demonstration; Dictaphone corporation's Guess who contest, il Sales Management 59:123 D 1 '47

Prospects for sale, Bsns W p64-6+ F 14 '48

PROSPECTING

Modern equipment and methods; exploration; pictorial review, Eng & Min J 148:92-5 N '47

Portable mine plant designed for prospecting; abstract, J. P. Messervy, il Eng & Min J 149:84-5 Ap '48

Projective geology and the search for new ore deposits, J. J. Beeson, il map diag Min Cong J 34:44-9+ JI '48

Zinc content of plants on the Friedensville zinc slime ponds in relation to biogeochemical prospecting, W. O. Robinson and others, bibliog Econ Geol 42:572-82 S '47

See also

Petroleum—Prospecting

Geophysical methods

Airborne magnetometer, il diags Electronics 21:124+ O '48

Dull tools are costly; geophysical instruments need redesigning to find more oil and ore, F. Rieber, Min & Met 29:24-7 Ja '48

Expansion of geophysical methods applicable to ore, R. F. Beers, Econ Geol 42:545-7 S '47

Geophysical investigation of manganese iron deposits, Boston Hill, Grant county, N.Mex., H. R. Joesting and others, 9pils fold map U S Bur Mines Rep of Invest 4175:1-12 '48

Integration in exploration, C. H. Green, Am Assn Pet Geologists Bul 32:1216-20 JI '48

Mining geophysics; review of 1947, H. Lundberg, il Min & Met 29:88-92 F '48

Prospecting from the air, H. Jensen and E. F. Peterson, il Sci Am 178:24-6 Ja '48

Role of geophysics in mining, H. R. Joesting, Min Cong J 34:65-6 F '48

Search for minerals by physical methods, A. O. Rankine, Engineering 165:522 My 28 '48

Shoran for surveying, W. F. Kroemmelbein, il diags Electronics 21:112-17 Mr '48

See also

Petroleum—Prospecting—Geophysical methods

Bibliography

Geophysical abstracts 130, July-September 1947, V. L. Skitsky, U S Geol S Bul 957-C:117-77; pa 20c Supt. of doc. '47

Geophysical abstracts 131, Oct.-Dec. 1947, V. L. Skitsky, comp. U S Geol S Bul 957-D:179-265; pa 25c Supt. of doc. '48

Geophysical abstracts 132, January-March 1948, V. L. Skitsky and S. T. Vesselowsky, U S Geol S Bul 959-A:1-85; pa 25c Supt. of doc. '48

Geophysical abstracts 133, April-June 1948, V. L. Skitsky and S. T. Vesselowsky, U S Geol S Bul 959-B:87-175; pa 25c Supt. of doc. '48

PROSPECTUSES. See Securities—Advertising

PROSPERITY

Ascribes high business levels to inventory accumulation and consumer purchasing, D. S. Thompson, Comm & Fin Chr 168:1763 O 28 '48

Back of the boom, H. D. Everett, jr. Comm & Fin Chr 166:1843+ N 6 '47

Economic picture, has boom crest in sight, R. L. Heilbroner, il Am Bsns 18:10-11+ O '48

Is this prosperity fictitious? W. A. Irwin, Comm & Fin Chr 168:1203+ S 23 '48

New era of prosperity ahead, R. E. Wood, Comm & Fin Chr 167:602+ F 5 '48

Soft spots, yes; but the boom continues, R. L. Heilbroner, il Am Bsns 18:12-13+ S '48

Wages, prices, profits; what formula determines prosperity? A. C. Neal, Comm & Fin Chr 168:103+ JI 8 '48

PROSSER, Gwynne A.

Advertising lends ECA a top personnel man, por Ptr Ink 223:116 My 14 '48

PROTACTINIUM. See Protoactinium**PROTECTIVE paint.** See Paint, Protective**PROTEINS**

Acid hydrolysis of egg albumin; molecular weight distribution of peptides, H. B. Bull and J. W. Hahn, Am Chem Soc J 70:2132-5 Je '48

Advances in protein chemistry; address at Richards medal award, E. J. Cohn, Chem & Eng N 26:1514-15 My 24 '48

Binding of organic ions by proteins; competition phenomena and denaturation effects, I. M. Klotz, H. Triwush and F. M. Walker, bibliog Am Chem Soc J 70:2935-41 S '48

Biophysical studies of blood plasma proteins; separation of γ -globulin from the sera of various animals, J. C. Nichol and H. F. Deutsch, bibliog Am Chem Soc J 70:80-3 Ja '48

Chemical studies on vesicant-treated proteins, F. H. Carpenter and others, Am Chem Soc J 70:2551-3 JI '48

Chromated protein films for the protection of metals, A. Brenner and others, il Electrochem Soc J 93:55-62 Mr '48

PROTEINS—Continued

- Chromated proteins halt corrosion. Eng N 140:661 Ap 29 '48; Same. Metal Finishing 46:110 Je '48; Same. Franklin Inst J 246: 63-4 Jl '48; Same. Metal Prog 54:250-1 Ag '48; Same. World Oil 128:162 Ag '48; Same abr. Heat & Ven 45:83 My '48; Same cond. Mech Eng 70:548 Je '48; Excerpts, Mach 54:178 Je '48
- Constitutional factors in the production of artificial protein fiber. R. S. Hoover and others. Textile Res J 18:423-35 bibliog (90 ref, p434-5) Jl '48
- Dialysis of protein solutions for electrophoresis. M. Reiner and R. L. Fenichel. Diag Science 108:164-6 Ag 13 '48
- Effects of salts and proteins on the spectra of some dyes and indicators. I. M. Klotz. bibliog Chem R 41:373-99 O '47
- Glucose-protein reaction in dried egg albumen. R. W. Kline and G. F. Stewart. bibliog Ind & Eng Chem 40:319-22 My '48
- Homogeneity and the electrophoretic behavior of some proteins. R. A. Alberty, E. A. Anderson and J. W. Williams. bibliog J Phys & Colloid Chem 52:217-30 Ja '48
- Incorporation of C¹⁴ from carboxyl-labeled dialanine into the proteins of liver slices. I. D. Frantz, Jr. and others. bibliog Science 106:541-5 D 5 '47
- Isolation of a crystalline trypsin inhibitor-anticoagulant protein from pancreas. L. A. Kazal, D. S. Spicer and R. A. Brahinsky. bibliog J Am Chem Soc J 70:3034-40 S '48
- Microbiological protein and human nutrition. B. S. Platt and R. A. Webb. bibliog Chem & Ind p88-90 F 7 '48
- Microbiological proteins; food value for animals. R. Braude. bibliog Chem & Ind p259-62 Ap 24 '48
- Microbiological proteins; their synthesis, production and feeding value; Microbiological and nutrition panels papers. E. F. Gale and others. Chem & Ind p738-9 N 29 '47
- Modification of soy protein for paper coating applications. R. S. Burnett and W. E. Eichenberger. Paper Tr J 126:51-2 F 12 '48
- Native proteins as polycondensations of amino acids. D. Wrinch. Science 107:445-6 Ap 30 '48
- Observations on the instability of the protein phase of frozen concentrated milk; abstract. F. J. Doan and F. G. Warren. Food Ind 20:804-1 My '48
- Peptization and precipitation of nitrogenous constituents of dry peas. R. J. Evans, J. L. Henry and J. L. St John. bibliog Ind & Eng Chem 40:458-61 Mr '48
- Phosphorylation of proteins with phosphoric acid containing excess phosphorus pentoxide. R. E. Ferrel, H. S. Olcott and H. Fraenkel-Conrat. bibliog Am Chem Soc J 70:2101-7 Je '48
- Preparation and properties of serum and plasma proteins; some factors influencing the quantitative determination of fibrinogen. P. R. Morrison. bibliog Am Chem Soc J 69:2723-31 N '47
- Preparation and properties of serum and plasma proteins; the separation of purified fibrinogen from fraction I of human plasma. P. R. Morrison, J. T. Edsall and S. G. Miller. bibliog diags Am Chem Soc J 70: 3103-8 S '48
- Production of microbiological protein for food. H. J. Bunker. Chem & Ind p 179-80 Mr 20 '48
- Protein fiber enters industrial field also. Textile World 98:118 S '48
- Protein hydrolysate; source of glutamate flavor. L. A. Hall. bibliog J Food Ind 20: 1158-60-1 Ag '48
- Proteins, pigments, from alfalfa. Chem Ind 61:1016-1 D '47
- Protoplasts from plant materials; properties of protoplasts released by anaerobic fermentation with clostridium roseum. J. W. White, Jr. and others. bibliog Ind & Eng Chem 40:293-7 F '48
- Pure immune blood protein for therapeutic use; abstract. J. W. Williams. Can Chem & Process Ind 31:1144 D '47
- Quantitative study of reversible boundary spreading in the electrophoresis of proteins. R. A. Alberty. bibliog Am Chem Soc J 70:1675-82 My '48
- Reaction of formaldehyde with proteins; cross-linking between amino and primary amide or guanidyl groups. H. Fraenkel-Conrat and H. S. Olcott. bibliog Am Chem Soc J 70:2673-84 Ag '48
- Reaction of some radioactive mustard-type vesicants with purified proteins. J. L. Wood and others. bibliog Am Chem Soc J 70: 2547-50 Jl '48
- Size, shape, and charge distribution of protein molecules; abstract. J. L. Oncley. Science 106:509-10 N 28 '47
- Some applications of surface chemistry to problems in colloid science. A. E. Alexander. bibliog Chem Soc J p 1422-5 O '47
- Stability of synthetic keratin fibers in alcohol-water mixtures; theoretical basis for a new method for solubilizing feather keratin. H. P. Lundgren and others. bibliog diags J Phys & Colloid Chem 52:180-206 Ja '48
- Studies of the effect of mustard-type vesicants on the phenol color reaction of proteins. C. M. Stevens, H. McKennis, Jr. and V. du Vigneaud. bibliog Am Chem Soc J 70:2556-9 Jl '48
- Studies on double refraction of flow; human fibrinogen and fraction I of human plasma. J. T. Edsall, J. F. Foster and H. Scheinberg. bibliog Am Chem Soc J 69:2731-8 N '47
- Synthesis of polypeptides; abstract. R. B. Woodward. Science 106:510 N 28 '47
- Synthesis of protein by micro-organisms. E. F. Gale. bibliog Chem & Ind p 131-4 F 28 '48
- Thermodynamics of metallo-protein combinations; copper with bovine serum albumin. I. M. Klotz and H. G. Curme. bibliog Am Chem Soc J 70:939-43 Mr '48
- Time viscosity studies of the system groundnut protein-caustic soda-water. R. H. K. Thomson and A. Johnston. Soc Chem Ind J 66:373-4 O '47
- Water absorption of proteins; contribution of the peptide group. E. F. Mellon, A. H. Korn and S. R. Hoover. bibliog Am Chem Soc J 70:3040-4 S '48
- Water absorption of proteins; lack of dependence of hysteresis in casein on free amino groups. E. F. Mellon, A. H. Korn and S. R. Hoover. bibliog Am Chem Soc J 70:1144-6 Mr '48

See also

Albumin
Amino acids
Casein
Collagen
Gelatin
Globulins

Keratin
Myoglobin
Myosin
Nucleoproteins
Tryptophan

Analysis

- Acid hydrolysis of egg albumin; kinetic studies. H. B. Bull and J. W. Hahn. bibliog Am Chem Soc J 70:2128-31 Je '48
- Determination of lignin in plant material of high protein content. E. R. Armitage, R. D. Ashworth and W. S. Ferguson. bibliog Soc Chem Ind J 67:241-3 Je '48
- Low temperature hydrolysis of commercial proteins. E. J. Bird and L. J. Minor. bibliog J Food Ind 20:216-18 F '48
- Specific refractive increment of some purified proteins. G. E. Perlmann and L. G. Longsworth. bibliog Am Chem Soc J 70:2719-24 Ag '48

Denaturation

- Absolute reaction kinetics of tobacco mosaic virus and a proposed theory of denaturation. G. A. Boyd and J. J. Eberl. bibliog J Phys & Colloid Chem 52:1146-53 O '48

PROTEINURIA

- Proteinuria and kidney injury among workmen exposed to cadmium and nickel dust. L. Friberg. bibliog J Ind Hygiene 30:32-6 Ja '48

PROTEST (law)

See also

Checks—Protest

PROTHROMBIN

- Prothrombokinase and the three stages of blood coagulation. J. H. Milstone. bibliog Science 106:546-7 D 5 '47

PROTHROMBIN—Continued

Stabilization of prothrombin activity by freezing; application to the standardization of prothrombin determinations. A. Randall, 4th and J. P. Randall, *bibliog Science* 107:399-400 Ap 16 '48

PROTIUM-tritium. See Tritium**PROTOACTINIUM**

New radioactive series; the protactinium series. M. H. Studier and E. K. Hyde, *diags Phys R* 74:591-600 S 1 '48

PROTON accelerator

Design study for a ten-Bev magnetic accelerator. W. M. Brobeck, *plan diags R Sci Instr* 19:545-51 S '48

PROTONS

Absolute cross section for the reaction $C^{12}(p,n)C^{13}$ at high energy. E. M. McMillan and R. D. Miller, *Phys R* 73:80-1 Ja 1 '48

Calibration for Eastman proton plates. R. A. Peck, jr. *Phys R* 72:1121 D 1 '47

Cloud-chamber energy measurement of photo-neutron sources. D. J. Hughes and C. Eggler, *bibliog diag Phys R* 72:902-7 N 15 '47

Effect of non-central forces on the collisions of high energy neutrons with protons. H. S. W. Massey and others, *Phys R* 73:1403-4 Je 1 '48

Electrostatic analyzer for 1.5-Mev protons. W. A. Fowler and others, *il diags R Sci Instr* 18:818-20 N '47

Emission of protons from light nuclei on bombardment with α -particles of short range. F. C. Champion and R. R. Roy, *bibliog Phys R* 74:5-8 Jl 1 '48

Energy distribution of protons from a target bombarded by 190-Mev deuterons. W. W. Chupp and others, *bibliog il diags Phys R* 73:742-9 Ap 1 '48

Excitation curve for the reaction $C^{13}(p,p,n)C^{13}$ up to 140 Mev. W. W. Chupp and E. M. McMillan, *diag Phys R* 72:873-4 N 1 '47

Excitation function for proton-neutron reaction in lithium ($Li^7(p,n)$). J. E. Hill and W. E. Shoupp, *bibliog diag Phys R* 73:931-3 My 1 '48

Gamma-radiation from light nuclei under proton bombardment. W. A. Fowler and others, *bibliog Phys R* 73:181-2 Ja 15 '48

Gamma-radiation from the bombardment of fluorine, boron, and beryllium by protons. J. A. Jacobs and others, *Phys R* 73:1130 My 1 '48

Gamma-ray spectrometer measurements of fluorine and lithium under proton bombardment. R. L. Walker and B. D. McDaniel, *bibliog diags Phys R* 74:315-27 Ag 1 '48

High energy neutron-proton scattering. G. F. Chew and M. L. Goldberger, *Phys R* 73:1409 Je 1 '48

Measurement of the deuteron proton magnetic-moment ratio. F. Blitter and others, *Phys R* 72:1271 D 15 '47

Neutron-proton force. J. M. Blatt, *bibliog Phys R* 74:92-6 Jl 1 '48

Neutron-proton scattering at 100 Mev. J. Eisenstein and P. Rohrlich, *Phys R* 73:641-2 Mr 15 '48; Correction, 73:1411 Je 1 '48

Neutron-proton scattering formula. L. Eisenbud, *Phys R* 73:1407-8 Je 1 '48

Neutron-proton scattering formula. S. Flügge and E. Hückel, *Phys R* 73:520 Mr 1 '48; Discussion, T. Wu. and H. M. Foley, 73:1117 My 1 '48

Nuclear resonance absorption in hydrated crystals; fine structure of the proton line. G. E. Pake, *bibliog il diags J Chem Phys* 16:327-36 Ap '48

Nucleus, its structure and reactions. W. E. Shoupp and H. Odishaw, *diags Elec Eng* 67:125-34 F '48

Photo-effects in middle-weight nuclei. L. I. Schiff, *bibliog Phys R* 73:131-13 Je 1 '48

Photographic study of the neutron spectra from $Al(\alpha,n)$ and $Si(\alpha,n)$. R. A. Peck, jr. *bibliog Phys R* 73:947-55 My 1 '48

Production of nucleons by the cosmic radiation. S. A. Korff and others, *bibliog Phys R* 71:842-5; 73:1010-14 Je 15 '47, My 1 '48

Protective facings on Eastman emulsions. P. B. Maunder and H. L. Reynolds, *Phys R* 73:1131 My 1 '48

Proton-controlled magnetic field regulator. M. E. Packard, *diags R Sci Instr* 19:435-9 Jl '48

Proton-gamma-ray coincidence counting with cyclotron bombardment. B. B. Benson, *bibliog il diags Phys R* 73:7-15 Ja 1 '48

Proton stopping power of solid beryllium. C. B. Madsen and P. Venkateswarlu, *bibliog Phys R* 74:648-9 S 15 '48

Proton widths of light nuclei. R. F. Christy and R. L. Latter, *bibliog Rs Mod Phys* 20:185-90 Ja '48

Quantitative determination of the magnetic moment of the neutron in units of the proton moment. E. Bloch and others, *bibliog diags Phys R* 74:1025-45 N 1 '48

Range-energy relations for protons in substances containing C, H, O, A, and Xe. J. O. Hirschfelder and J. L. Magee, *bibliog Phys R* 73:207-15 F 1 '48

Range of protons from $N^{14}(n,p)C^{14}$. I. C. Cornog and others, *bibliog Phys R* 74:1-4 Jl 1 '48

Reaction constants for $Li^7(p,n)Be^7$. R. Taschek and A. Hemmendinger, *bibliog Phys R* 74:373-85 Ag 15 '48

Relaxation effects in nuclear magnetic resonance absorption. N. Bloembergen and others, *bibliog il diags Phys R* 73:679-712 Ap 1 '48

Resonances in $Li^7(p,n)Be^7$. G. Breit and I. Bloch, *Phys R* 74:397-404 Ag 15 '48

Resonances in the disintegration of fluorine and lithium by protons. T. W. Bonner and J. E. Evans, *bibliog Phys R* 73:666-74 Ap 1 '48

Scattering of high energy neutrons by protons. M. Camac and H. A. Bethe, *bibliog Phys R* 73:191-6 F 1 '48

Scattering of neutrons of energy between 12.0 Mev and 13.0 Mev by protons. J. S. Laughlin and P. G. Kruger, *bibliog il diags Phys R* 73:197-207 F 1 '48

Threshold for the proton-neutron reaction in copper. W. E. Shoupp and others, *bibliog diag Phys R* 73:421-3 Mr 1 '48

See also

Deuterons

Neutrons

Positrons

Scattering

Angular distribution of the (d,p) reactions making two low states of O^{17} . N. P. Heydenburg and D. R. Inglis, *bibliog diag Phys R* 73:230-40 F 1 '48

Elastic and inelastic scattering of 100- to 200-Mev protons or neutrons by deuterons. T. Wu and J. Ashkin, *bibliog Phys R* 73:986-1001 My 1 '48

Elastic scattering of high energy nucleons by deuterons. G. F. Chew, *Phys R* 74:809-16 O 1 '48

Excited state of Be^9 by inelastic scattering of protons. K. E. Davis and E. M. Hafner, *Phys R* 73:1473 Je 15 '48

Low energy yield of $D(D,p)H^3$ and the angular distribution of the emitted protons. E. Bretscher and others, *bibliog diags Phys R* 73:315-21 Ap 15 '48

Neutron-proton and proton-proton scattering at high energies. J. Ashkin and T. Wu, *bibliog Phys R* 73:973-85 My 1 '48

Neutron-proton scattering and range of nuclear forces. T. Wu, *bibliog Phys R* 73:1132 My 1 '48

Phase-shift analysis of the scattering of protons by deuterons. C. L. Critchfield, *Phys R* 73:1-6 Ja 1 '48

Proton-proton scattering at 14.5 Mev. R. R. Wilson and others, *bibliog diag Phys R* 72:1131-8 D 15 '47

Proton-proton scattering at 7 Mev. I. H. Dearnley and others, *bibliog il diags Phys R* 73:1250-306 Je 1 '48

Range of nuclear forces in the neutron-proton triplet interaction. C. G. Shull and others, *Phys R* 73:262 F 1 '48

Scattering of protons by deuterons. H. S. W. Massey and R. A. Buckingham, *Phys R* 73:260-1 F 1 '48

Scattering of 2.4- and 3.5-Mev protons by protons. J. M. Blair and others, *bibliog plan diag Phys R* 74:553-61 S 1 '48

Second Born approximation and proton-neutron and proton-proton scattering. T. Wu, *Phys R* 73:934-9 My 1 '48

PROTONS—Scattering—Continued

Sensitivity of proton-proton scattering to potentials at different distances. G. Breit and others, *bibliog Phys R* 73:869-76 Ap 15 '48

PROTOPLASM

Pathogenicity and isosterism; reactions of phycosum to carbon dioxide and to nitrous oxide. W. Seifritz, *bibliog Science* 107:15-16 Ja 2 '48

PROTOZOOLOGISTS, American society of. See American society of protozoologists

PROTRACTORS

Design for a polyphase vector drawing device. A. F. Stillson, *diag Elec World* 128:114+ D 6 '47

Unusual protractor sets angles on ends of bar stock and tubing. M. R. Hammond, *diags Am Mach* 92:126 J1 15 '48

PROUSTITE

Synthesis of some sulpharsenites of silver in alkali sulphide solutions. R. Béland, *bibliog J Econ Geol* 43:119-32 Mr '48

PROVERBS

Home book of proverbs, maxims and familiar phrases. B. Stevenson, comp. 2957p \$20 Macmillan co, 60 5th av, New York 11 '48

PROXIES

Revised proxy rules. R. K. McConnaughey. *Comm & Fin Chr* 167:2099+ My 13 '48
SEC announces revised proxy rules. *Comm & Fin Chr* 166:2631 D 25 '47

PROXIMATE cause (law)

Proximate cause important in negligence cases. J. L. Roesch, *Spectator (Property ed)* 14:24-5+ S 23 '48

PRUDENTIAL insurance company

100 years old. *East Underw* 49:18 O 15 '48

PRUDENTIAL insurance company of America

Prudential tells why it declines to answer mass cover query. *Nat Underw (Life ed)* 52:1 Mr 19 '48

PRUNES

Moisture locked in; Richmond-Chase protects product with all-paper package. *il Mod Packaging* 21:126-9 Mr '48

PRUNUS melanocarpa

Occurrence of rutin in a wild cherry, *prunus melanocarpa* (A. Nels.). Rydb, J. F. Couch, *Am Chem Soc J* 70:256-7 Ja '48

RUSSIAN blue

Determination of small quantities of hydrogen cyanide in insects and plant tissue. R. A. Fulton and M. J. Van Dyke, *diag Anal Chem* 19:922-3 N '47

PSEUDOMONAS saccharophila

Structure of an enzymatically synthesized reducing disaccharide D-glucosido-L-arabinose. W. Z. Hassid and others, *bibliog il Am Chem Soc J* 70:306-10 Ja '48

PSEUDOPELLETERINE

Cyclic polyolefins; synthesis of cyclooctatetraene from pseudopelletierine. A. C. Cope and C. G. Overberger, *bibliog Am Chem Soc J* 70:183-7 Ap '48

PSEUDOSANTONIN

Constitution of ψ -santonin. W. Cocker and S. Hornsby, *Chem Soc J* p 1157-66 S '47

PSEUDOSAPOGENINS

Steroidal sapogenins; conversion of pseudosaogenins to sapogenins and neosaogenins. R. E. Marker and J. Lopez, *Am Chem Soc J* 69:2373-5 O '47

PSEUDOSTRYCHNINE

Strychnine and brucine; a new method for the preparation of pseudostrychnine. A. S. Bailey and R. Robinson, *Chem Soc J* p703-5 My '48

Strychnine and brucine; degradation of the strychnineacetic acid prepared from pseudostrychnine. K. H. Pausacker and R. Robinson, *Chem Soc J* p 1357-60 N '47
Strychnine and brucine; experiments with pseudostrychnine, dihydropseudostrychnine, and neostrychnine. K. H. Pausacker and R. Robinson, *Chem Soc J* p951-6 J1 '48

PSITTACOSIS

Recovery of ornithosis virus from pigeons in Baltimore, Maryland. D. J. Davis and C. L. Ewing, *map Pub Health Rep* 62:1484-8 O 10 '47

PSYCHOLOGICAL research

See also Tufts college—Institute for applied experimental psychology

PSYCHOLOGY

See also

Ability tests
Advertising—Psychology
Association (psychology)
Color—Psychology
Emotions
Individuality

Learning, Psychology of
Moving pictures—Psychological aspects
Personality tests
Sex differences

Dictionaries

New dictionary of psychology. P. L. Harrisman, 364p \$5 Philosophical lib, 15 E. 40th st, New York '47

PSYCHOLOGY, Applied

How to get over the hump; six ways to sell yourself to management. F. Griesinger. *Credit & Fin Management* 50:7-8+ O '48
Psychology in the credit department. S. J. Hunter, *Credit & Fin Management* 50:24+ Ag '48
Using psychology in product design. *il diags Mod Ind* 15:50-4 Ap '48

See also

Buying habits

PSYCHOLOGY, Educational

See also

Visualization

PSYCHOLOGY, Industrial

Boxing the compass of chemical personnel. R. L. Demmerle, *Chem & Eng N* 25:3562-6 D 1 '47
Design for morale in the engineering department. H. A. Bolz, *il Machine Design* 20:89-94 Ag '48
Dynamic approach to management; increased production through improved human relations. E. Buckley, *bibliog Advanced Management* 12:165-71 D '47
Experiment in group dynamics. R. W. Kelly and H. F. Ware, *Advanced Management* 12:116-19 S '47
How collective genius contributes to industrial progress; reprinted with revisions from General electric review, May 1941. K. K. Palnev, *Advanced Management* 13:76-83 Je '48

How family status affects vocational adjustment. L. Stockford and K. R. Kunze, *bibliog Am Mach* 92:35-9 O 7 '48
How workers reflect attitudes shown by their foremen. *Coal Age* 53:124+ Je '48
Human relations; rare, medium, or well-done? review of five books. F. J. Roethlisberger, *Harvard Bsns R* 26:89-107 Ja '48
Incentives, a British approach; abstract. W. L. Sachs, *Nat Safety N* 57:89-91 Je '48
Industrial psychology pays in this plant; how Dr Alfred Marrow operates Harwood textile mill. *il Mod Ind* 16:67-8+ J1 '48
Misfits? no, just the wrong job. J. A. Murphy, *Am Bsns* 18:24 Ja '48

Psychological effects, not merely too much or too hard work, are involved in industrial fatigue. W. von Pechmann, *Ind & Eng Chem* 40:sup93A-4A F '48
Psychological evaluation of executives. E. N. Hay, *Personnel J* 26:267-9 Ja '48
Psychological services for an industrial community. L. F. Smith and L. Lipsett, *Personnel J* 27:130-4 S '48
Psychologists in industry. L. L. McQuitty, *Personnel J* 26:178-83 N '47
What to do about industrial fatigue. B. Melnitsky, *il Steel* 122:88-9+ Mr 8 '48

See also

Ability tests
Advertising—Psychology
Buying motives
Employees, Training of
Employment management

Mental hygiene, Industrial
Music in industry
Personality tests
Safety devices and measures—Psychological aspects

PSYCHOLOGY, Military

Contributions of military psychology to personnel training. C. H. Lawshe and F. J. Harris, *bibliog Personnel* 25:127-36 S '48

PSYCHOLOGY, Pathological

Mental hygiene and industrial health. R. G. Novick, *bibliog Nat Safety N* 56:28-9+ D '47

See also

Neuroses, Traumatic

PSYCHOLOGY, Physiological

Does glutamic acid have any effect on learning? E. Stellar and W. D. McElroy, *bibliog Science* 108:281-3 S 10 '48
Great ravelled knot. G. W. Gray, *il diags Sci Am* 179:26-39 O '48

Neurological and behavioristic psychological basis of the ordering of society by means of ideas, F. S. C. Northrop, *bibliog Science* 107:411-17 Ap 23 '48
See also

Sleep

PSYCHOLOGY, Social. *See* Social psychology

PSYCHOSOMATIC medicine. *See* Medicine, Psychosomatic

PSYCHOTHERAPY

Emotional factors in tuberculosis, A. O. Ludwig, *Pub Health Rep* 63:883-8 Jl 2 '48

PSYCHROMETRIC charts. *See* Humidity

PTERIDINE

Pteridine chemistry, R. B. Angier and others, *bibliog Am Chem Soc J* 70:3029-31 S '48

Synthesis of some new pteridines, G. B. Eliot and G. H. Hitchings, *bibliog Am Chem Soc J* 69:2553-5 O '47

PTERIDINECARBOXYLIC acid

Pyrimido[4,5-b]pyrazines (pteridines); pteridine-mono- and -dicarboxylic acids, C. K. Cain, M. F. Mallette and E. C. Taylor, jr, *bibliog Am Chem Soc J* 70:3026-9 S '48

PTERINS

New synthetic method for pterines, H. G. Petering and D. I. Weisblat, *Am Chem Soc J* 69:2566-7 O '47

See also

Rhizopterins

PTEROIC acid

Analogues of pteroylglutamic acid; N¹⁰-alkyl-pterioic acid and derivatives, D. B. Cosulich and J. M. Smith, jr, *bibliog Am Chem Soc J* 70:1922-6 My '48

Pterioic acid derivatives; pteroyl- α -glutamylglutamic acid and pteroyl- α - γ -glutamylid-glutamic acid, J. H. Mowat and others, *bibliog Am Chem Soc J* 70:1096-8 Mr '48

Pterioic acid derivatives; pteroyl- γ -glutamylglutamic acid and pteroyl- γ -glutamyl- γ -glutamylglutamic acid, J. H. Boothe and others, *bibliog Am Chem Soc J* 70:1099-102 Mr '48

Synthesis of pteroylglutamic acid (liver L. casein factor) and pterioic acid, C. W. Walker and others, *bibliog Am Chem Soc J* 70:19-28 Ja '48

PTEROYLGLUTAMIC acid. *See* Folic acid

PTEROYLGLUTAMYLGLUTAMIC acid

Pterioic acid derivatives; pteroyl- α -glutamylglutamic acid and pteroyl- α - γ -glutamylid-glutamic acid, J. H. Mowat and others, *bibliog Am Chem Soc J* 70:1096-8 Mr '48

Pterioic acid derivatives; pteroyl- γ -glutamylglutamic acid and pteroyl- γ -glutamyl- γ -glutamylglutamic acid, J. H. Boothe and others, *bibliog Am Chem Soc J* 70:1099-102 Mr '48

PUBLIC buildings

See also

Capitols
Municipal centers

Office buildings,
Government
School buildings

PUBLIC debts. *See* Debts, Public

PUBLIC health

Health around the world; radio interview with Dr Robert Collier Page, *Ind Med* 17:357-9 S '48

Health instruction yearbook, 1947, O. E. Byrd, comp, 325p *bibliog*(p297-314) '33 Stanford univ. press, Stanford, California '47

Role of health education in a public health program, M. Derryberry, *Pub Health Rep* 62:1629-41 N 14 '47

See also

Air pollution
City planning
Dental clinics
Dental surveys
Diseases—Statistics
Disinfection and disinfectants
Dust removal
Factory sanitation
Food supply
Hospitals
Housekeeping service (social work)
Hygiene, Industrial

Infectious diseases
Insurance, Health
Medical service
Mental hygiene, Industrial
Mortality
Mosquitoes—Extermination
National institute of health
Nurses and nursing
Nutrition
Physical examinations

Refuse disposal
Safety devices and measurements
Sewage disposal
Sickness
Social work, Medical
Tuberculosis
Ventilation
Water pollution
Water purification
Water supply
World health organization

Bibliography

American journal of public health and the Nation's health; index, volumes 1-35, 1911-1945; authors and subjects, L. P. Tanner and F. W. Tanner, 355p \$7 The Garrard press, 119-123 West Park av, Champaign, Ill. '47

Community organization for health and welfare services, a selected bibliography of publications in 1947, M. M. Otto, comp. (*Bibliog.* no.5) 16p pa 20c Russell Sage foundation, 130 E. 22d st, New York 10 '48
Good books on public health, *Munic Ref Lib Notes* [N.Y. Pub. Lib] 30:121-8 D '47 (pa 20c)

Public health service publications issued during the period Jan.-June 1947, *Pub Health Rep* 63:83-7 Ja 16 '48

Public health service publications, July-December, 1947, *Pub Health Rep* 63:716-21 My 28 '48

International aspects

Contributions of the sanitary engineering program of UNRRA to international health, F. F. Aldridge, *bibliog Pub Health Rep* 62:1729-39 D 12 '47

Statistics

See also

Diseases—Statistics
Infectious diseases—Statistics
Mortality—Statistics

Alabama

Epidemic of acute watery diarrhea in Alabama, J. W. Smilie and others, *bibliog Pub Health Rep* 63:233-43 F 20 '48

Austria

Nutrition in post-war Germany and Austria, M. Pyke, *bibliog Chem & Ind* p747-50 D 6 '47

California

Q fever studies in southern California, R. J. Huebner and others, *Pub Health Rep* 63:214-22 F 13 '48

Florida

Studies of the acute diarrheal diseases; salmonellosis in Florida, M. M. Galton and A. V. Hardy, *bibliog Pub Health Rep* 63:847-51 Je 25 '48

Georgia

Dental caries prevalence and tooth mortality; a study of 24,092 Georgia children in twelve communities, T. L. Hagan, *bibliog map Pub Health Rep* 62:1757-72 D 19 '47

Germany

Nutrition in post-war Germany and Austria, M. Pyke, *bibliog Chem & Ind* p747-50 D 6 '47

Great Britain

Poliomyelitis in England and Wales in 1947, *Pub Health Rep* 63:1370-2 O 15 '48
Water supply, drainage and health, R. Hetherington, *Engineer* 184:441-2 N 7 '47

Greece

Controlling disease in Greece, *For Comm W* 32:33-4 Ag 7 '48

Iceland

Tuberculosis case-finding survey of the total population of Reykjavik, Iceland in 1945, S. Sigurdsson and O. P. Hjaltested, *Pub Health Rep* 62:1593-607 N 7 '47

Kansas

Variations in histoplasmin sensitivity in certain cities in eastern Kansas, I. L. Bunneil and M. L. Furcolow, *bibliog Pub Health Rep* 63:1298-305 O 1 '48

PUBLIC health—Continued

Liberia

United States health missions in Liberia. J. B. West. Pub Health Rep 63:1351-64 O 15 '48

Newfoundland

Newfoundland, a problem in practical nutrition. D. P. Cuthbertson. bibliog Chem & Ind p699-702 N 15 '47

Ohio

Geographic distribution of histoplasmin and tuberculin reactors among Ohio state university freshmen and student nurses training in Columbus, Ohio hospitals. J. A. Prior and M. F. Allen. bibliog maps Pub Health Rep 62:1608-17 N 7 '47

Poland

Two outbreaks of carbon disulfide poisoning in rayon staple fiber plants in Poland. E. A. Paluch. J Ind Hygiene 30:37-42 Ja '48

Saskatchewan

Organised health services in Saskatchewan. Int Labour R 58:38-46 J1 '48

Southeastern states

Preliminary report concerning DDT dusting and murine typhus fever in nine southeastern states. J. S. Wiley. Pub Health Rep 63:41-3 Ja 9 '48

United States

Industry's contribution to public health; abstract. L. A. Scheele. Oil Paint & Drug Rep 154:7+ J1 5 '48

National health assembly meeting, Washington, D.C. May 4. Oil Paint & Drug Rep 153:7+ My 10 '48; East Underw 49:36 Je 25 '48

Utah

Diphtheria epidemic in Utah in 1947. A. A. Jenkins. Pub Health Rep 63:573-7 Ap 30 '48

PUBLIC health administration

Federal-state-local relationships in the financing of local health services. M. H. Merrill. Pub Health Rep 63:244-51 F 20 '48

Morbidity reporting in local areas. M. D. West. bibliog Pub Health Rep 63:329-39, 1187-202 Mr 12, S 10 '48

Opportunities for public health in disability insurance programs. M. I. Roemer. bibliog Pub Health Rep 62:1657-67 N 21 '47

State-local grant-in-aid formulas. A. L. Chapman and C. Greve. bibliog Pub Health Rep 63:673-7 My 21 '48

PUBLIC health departments

Local health department program in housing. L. M. Board. Pub Health Rep 62:1327-36 S 12 '47

Vacancies for full-time public health personnel in state and local health departments, June 1947. Pub Health Rep 62:1668-70 N 21 '47

Statistical work

Statistical activities in state health departments. D. D. Swinney. Pub Health Rep 62:1527-37 O 24 '47

PUBLIC health engineering. See Sanitary engineering

PUBLIC health laws

Half century of State cancer legislation. A. V. Delbert. Pub Health Rep 63:1128-35 Ag 27 '48

New public health laws. Pub Health Rep 63:1059-72 Ag 13 '48

Progress of health security legislation in the United States. Int Labour R 57:26-42 Ja-F '48

See also

Sewage disposal—
Laws and regulations

PUBLIC health research

Research grants awarded by Public health service. C. J. Van Slyke. (Pub. health rep. sup. 205) 41p U.S. Public health service, Washington '48

PUBLIC health surveys

Estimate of the incidence of chronic disease. P. S. Lawrence. Bibliog Pub Health Rep 63:69-82 Ja 16 '48

Tuberculosis case-finding survey of the total population of Reykjavik, Iceland in 1946. S. Sigurdsson and O. P. Hjaltested. Pub Health Rep 62:1593-607 N 7 '47

PUBLIC health workers

Vacancies for full-time public health personnel in state and local health departments, June 1947. Pub Health Rep 62:1668-70 N 21 '47

PUBLIC institutions. See Institutions, Public

PUBLIC lands

U.S. land now available to aid airport program. CAA J 9:109 O 15 '48

Use of military land for agriculture during World war II; War Department land. A. T. M. Lee. J Land & Pub Util Econ 23:349-59 N '47

Oregon

Oregon mining interests wage fight to open railroad lands to mineral development. R. T. Reinhardt. Iron Age 161:100+ F 26 '48

New Mexico

Taxpayers' burden: New Mexicans complain of tax-free public land. Bsns W p88-9 Ag 7 '48

PUBLIC opinion

Fortune survey. Published in monthly numbers of Fortune

Free association tests can help advertisers; psychiatric method of probing subconscious. J. M. Vicary. Ptr Ink 224:44+ S 3 '48

Life insurance company public opinion survey rates electricity best value for the money. Edison Elec Inst Bul 16:294 S '48

Public acceptance of the facts and figures of business. D. J. Hennessy. Am Gas Assn Proc 1947:22-3

Public opinion polls and the politician. R. Bower. bibliog Ann Am Acad 259:104-12 S '48

Scaling and factorial design in opinion poll analysis. N. L. Gage. (Further studies in attitudes, ser. 10) 84p bibliog(p82-4) pa \$1.25 Purdue Univ. Division of educational reference, Lafayette, Ind. '47

Survey reveals financial information people want to know about a corporation. D. J. Hennessy. J Account 86:224-7 S '48

\$20,000 given by navy for reader study to Minnesota school of journalism's research division. Ed & Pub 81:41 F 28 '48

See also

Gallup polls

PUBLIC opinion, American institute of. See American institute of public opinion

PUBLIC relations

Advertisers accept P.R. as top management job; report of P.I. Ptr Ink 224:26-9+ J1 30 '48

American opportunity program; how chambers of commerce aid community relations. L. W. Trester. Trusts & Estates 87:181-3 S '48

Attitude of communities toward working conditions. J. S. Stock. Ind Med 17:140-1 Ap '48

Business men challenged to overcome timidity. Ed & Pub 81:71+ F 7 '48

Business public relations winning higher budgets and more management recognition. PR heads say. N. Kelne. Ptr Ink 222:94 F 13 '48

Can production and marketing of British textiles be helped by public relations activities? J. A. Jackson. Textile Inst J 39:P461-75 Ag '48

Cues for employee help in public relations; Washington State Power. Sales Management 61:128 N 1 '48

Film kicks off admen's public relations plan for industry. Il Mod Ind 15:97-8 Mr '48

Financial statements need not be failures as public relations tools for management. D. Knowlton. J Account 84:401-7 N '47

Helping coal via public talks; speeches by officials and salesmen back up company and industry advertising. H. C. Woods. Il Coal Age 53:118-20 My '48

How a misunderstood industry is telling the public the facts; Bituminous coal institute. R. C. Mulligan. Il Ptr Ink 222:36-7 Mr 26 '48

How to be a good neighbor in your factory community; Johnson & Johnson held open house. E. M. Kelley. Il Sales Management 60:40-2 Ja 1 '48

PUBLIC relations—Continued

- How to meet the press; cartoons and booklet, worked up by New York Central. *Il Bsns W* p31-2+ O 30 '48
- Improves community relations by boosting the community; Bates manufacturing co. amateur radio show about Maine. *L. McCracken. Il Ptr Ink* 224:40-1 S 24 '48
- Industry's obligation to the consumer. *J. D. Mooney. Il Dun's R* 56:11-13 Mr '48
- Is advertising losing out? public relations and advertising. *H. Obermeyer. Ptr Ink* 222:136 F 6 '48
- Key to public relations; let folks know you so that they can like you; Weyerhaeuser timber co. reverses policy of keeping silent. *L. F. Thomann. Il Ptr Ink* 225:29-31 O 8 '48
- Labor looks at public relations. *G. L. Patterson. Factory Management* 106:214+ S '48
- New concept of public relations. *L. Nejeski. Management R* 37:226-7 My '48
- Open house boosts standing in community; Universal moulded products corp., Bristol, Va. *Il Factory Management* 106:76-7 J '48
- Open house creates community and employee good will. *Il plan Mill & Factory* 43:111-13 Ag '48
- Plan for action helps industry with its public relations; national advertisers and agencies have developed an integrated program. *Il Factory Management* 106:108-10 O '48
- Plan for improved public relations of U.S. Chamber of commerce. *Pub Util* 41:446-7 Mr 25 '48
- Practical public relations. *C. S. Nicolai. Credit & Fin Management* 50:12-14 My '48
- Profit is not without honor; Allegheny Ludlum corporation's program to combat misinformation. *C. King. Pub Util* 40:720-4 N 20 '47
- Public relations aspects of relationship with dealers. *C. J. Swan. Ptr Ink* 224:34-5+ J '48
- Public relations; attitude and practice; abstract. *A. Crawford. Trusts & Estates* 86:398 My '48
- Public relations is no superman. *E. F. Thomas. Ptr Ink* 224:104 J '48
- Public relations is putting your best foot forward; interview with Franklin Brill. *J. L. Collings. Ed & Pub* 81:31 O 23 '48
- Public relations is sales. *R. Hill. Ptr Ink* 221:162 D 12 '47
- Public responsibility in business. *E. Holman. Comm & Fin Chr* 167:1759+ Ap 22 '48; Excerpts. *Pub Util* 42:443-4 S 23 '48
- Some thoughts about public relations counsel. *Ptr Ink* 224:30-1 J '48
- Sound relations stressed for public, employee, community; Southern industrial relations conference. *Textile World* 98:149+ O '48
- Step forward in company public relations films. *Il Mod Ind* 16:31+ S '48
- Stockholder relations, an important part of P.R. job. *E. J. Dever, Jr. Il Ptr Ink* 224:36-8+ J '48
- Successful dramatization by tour and discussion; ATF inc., Elizabeth, N.J., runs series of pilot tours through plant. *Il Trusts & Estates* 86:143-4 F '48
- Suspicious glance at rule books; abstract. *E. A. Waite. Management R* 37:176-7 Ap '48
- Ten telephone tips to improve your public relations. *S. P. Lewis. Il Ptr Ink* 221:36-7 D 26 '47
- This company and this town team up for living; California & Hawaiian sugar refining corp., Crockett, Calif. *Il Factory Management* 106:78-9 O '48
- This house organ is a public relations tool. *Sales Management* 59:78+ N 20 '47
- Tips for organizing talks on your industry; California dairy industry advisory board uses Speakers' packet. *Sales Management* 61:112 N 1 '48
- Tips to management on working with the press; Johns-Manville corporation press relations manual. *Sales Management* 59:104-5 N 20 '47
- To market by movie; Dravo corporation promotes public relations with towboat tour and movies of river dredging operations. *E. P. Pearsall. Il Ind Marketing* 33:34-5 Ag '48
- Wall Street and public relations. *W. Smith. Comm & Fin Chr* 168:1865+ N 4 '48
- What can management do? *E. Rubicam. Management R* 37:338-40 J '48
- Who is the public? from the consumer side. *E. P. Peplow, Jr. Ind Marketing* 33:62+ Ap '48
- Why can't the ad manager be the eyes and arms of management in public relations activities? *H. S. Metcalfe. Ptr Ink* 224:35-7+ Ag 27 '48
- Why this company has no formal public relations department; Jewel Tea. *H. E. Green. Il Ptr Ink* 224:31-3 Ag 13 '48
- Words follow action in good public relations program. *J. L. McCaffrey. Ed & Pub* 81:73 F 7 '48
- Your company, a good neighbor; abstract. *Management R* 37:8-9 Ja '48
- See also*
- | | |
|--------------------------------|------------------------|
| Advertising, Institutional | Customer relations |
| Advertising—Schools, Appeal to | Publicity Visitors |
| also subdivision | Public relations under |
| special headings, e.g. | |
| Banks and banking | Public utilities |
| Electric utilities | Rapid transit |
| Engineers | Telephone companies |
| Insurance companies | Trade unions |
| Petroleum industry and trade | Trust companies |
- Bibliography**
- Bibliography of public relations. *M. Beulck. comp. 40p pa \$3 Marshall Beulck, 47 Claremont av., New York 27 '47*
- Plant-community relations and what that means today. (Business literature v. 20, no. 10) p89-90 Business library, Newark public lib, Newark, N.J. Je '48
- Selected and annotated bibliography of literature on public relations. *W. A. Nielander. (Bibliog no. 3) 14p Texas univ. Bur. of business research, College of business administration, Austin '48*
- Study and teaching**
- Boston university's new public relations school. *Am Gas J* 167:33-4 D '47
- PUBLIC relations society of America**
- New PR society functions with 1,000 enrolled. *Ed & Pub* 81:24 Mr 13 '48
- PUBLIC service company of Colorado**
- Public utility securities. *Comm & Fin Chr* 168:1664 O 21 '48
- Securities offered. *Comm & Fin Chr* 168:1697-8 O 25 '48
- PUBLIC service company of Indiana**
- Bonds offered. *Comm & Fin Chr* 166:1997 N 17 '47
- PUBLIC service company of New Hampshire**
- Bonds offered. *Comm & Fin Chr* 167:157; 168:1698 Ja 12 O 25 '48
- Common stock offered. *Comm & Fin Chr* 167:1849 Ap 26 '48
- PUBLIC service company of New Mexico**
- Stock offered. *Comm & Fin Chr* 167:1591-2 Ap 12 '48
- PUBLIC service company of Oklahoma**
- Bonds offered. *Comm & Fin Chr* 167:1261 Mr 22 '48
- PUBLIC service corporation of New Jersey**
- Dissolution of corporation; exchange of stocks, etc. *Comm & Fin Chr* 167:2472 Je 7 '48
- Public utility securities. *Comm & Fin Chr* 167:208 Ja 15 '48
- Utility's net controlled by extent of conversion. *Barron's* 28:33 F 2 '48
- PUBLIC service electric and gas company**
- SEC exempts sale of preferred from bidding rule. *Comm & Fin Chr* 168:850 Ag 30 '48
- PUBLIC speaking**
- How to build the charts for your speech. *El. J. Hegarty. Il Ptr Ink* 224:40-1 Ag 6 '48
- How to improve your ability in public speaking. *H. Simmons. Il Sales Management* 61:74+ O 1 '48
- How to turn a copy writer into a public speaker. *J. Caples. Adv & Sell* 40:37+ N; 52+ D '47; 41:46+ Ja; 42+ F; 124+ Mr '48
- Physician and his public speaking. *J. S. Felton. Ind Med* 16:569-74 D '47
- Preparing the oral version of a technical paper. *W. J. Temple. Inst Radio Eng Proc* 36:388-9 Mr '48

PUBLIC speaking—Continued

Speak your piece, D. G. Nicholson, Chem & Eng N 26:1979 J1 5 '48

To the program committee; some suggestions on care and feeding of speakers; by a guest speaker, C. B. Larrabee, Ptr Ink 223: 30-1 Ap 2; 5 Ap 30 '48

26 suggestions an audience would make to a speaker; and 15 points that college groups dislike in speeches by ad men P. W. Burton, Ptr Ink 224:37-9 J1 16 '48

See also

Chairmen
Chalk talks

PUBLIC trustees

Trade of a trustee, Economist 155:25-7 J1 3 '48

PUBLIC utilities

Public utilities and city planning, L. Williams, map Pub Util 41:135-43 Ja 29 '48

See also

Airlines	Motor trucks in freight service
Carriers	Petroleum pipe lines
Electric utilities	Railroads
Gas, Natural—Pipe lines	Street railroads
Gas companies	Telegraph
Motor bus lines	Telephone companies
	Waterworks

Accounting

Horse-trading banned in utility regulation; change in accounting methods demanded by N.Y. Commission prior to approval of Rochester Gas new financing, E. R. Abrams, Barron's 28:10 Ja 26 '48

Proper depreciation for rate cases, W. Oakley, Pub Util 41:803-4 Je 3 '48

Simulated plant-record method of life analysis of utility plant for depreciation-accounting purposes, A. E. Bauhan, bibliog diags Land Econ 24:129-36 My '48

See also

Public utilities—
Valuation

Advertising

Keys to effective advertising, J. J. Quinn, Am Gas Assn Mo 30:3-4+ J1-Ag '48; Same, Gas Age 102:19+ J1 8 '48

State control of utilities' ads is challenged, Ed & Pub 81:46 Ag 7 '48

What the utility president expects from the advertising manager, E. L. Lindseth, Edison Elec Inst Bul 16:261-2+ Ag '48; Excerpt, Pub Util 42:380-2 S 9 '48

See also

Electric utilities—Advertising	Railroads—Advertising
Gas companies—Advertising	Telephone companies—Advertising

Consolidation

Employee interest in public utility merger and abandonment cases, H. H. Goldin, Land Econ 24:161-74 My '48

Costs

Utilities and high construction costs, L. Spacek, Pub Util 41:51-5 Ja 1 '48

Customer relations

Utility customers are people; talk to them! making friends with letters, C. L. Sullivan, Pub Util 41:151-7 Ja 29 '48

Employees

Arbitration and justice too; new machinery needed, L. Rooks, Bus Transportation 26: 38-41 D '47

Employee interest in public utility merger and abandonment cases, H. H. Goldin, Land Econ 24:161-74 My '48

Health, retirement benefits for utility employees, M. Hammett, Pub Util 42:343-9 S 9 '48

How Missouri's new utility antistrike law works, V. Julian, Pub Util 42:204-10 Ag 12 '48

Pensions in public utilities, M. Hammett, Pub Util 41:31-5 Ja 1 '48

Plight of labor under totalitarianism, W. B. Smith, Pub Util 41:158-63 Ja 29 '48

Wisconsin court holds public utility antistrike law unconstitutional, Elec World 129:83 Mr 27 '48

You are public service! E. C. Giddings, Pub Util 41:344-9 Mr 11 '48

See also

Gas companies—Employees	Railroads—Employees
Municipal employees	

Equipment

Depreciation schedule, U.S. Bureau of internal revenue; length of life of buildings and equipment, construction equipment, bridges, waterworks, gas and electric plants, Eng N 140:357+ My 27 '48

Simulated plant-record method of life analysis of utility plant for depreciation-accounting purposes, A. E. Bauhan, bibliog diags Land Econ 24:129-36 My '48

Finance

Competitive bidding; barrier to utilities financing, G. D. Woods, Comm & Fin Chr 167:1641+ Ap 15 '48; Excerpts, Pub Util 41:631-2 My 6 '48; Discussion, C. S. Eaton, Comm & Fin Chr 167:1748 Ap 22 '48

Current trends in new financing, Pub Util 41:301-4 F 26 '48

Drastic changes needed if construction program is to be privately financed, O. Ely, Pub Util 41:241-3 F 12 '48

Fundamentals of utility financing, E. Hopkinson, jr, Am Gas Assn Mo 30:3-5+ My '48

Investor, indispensable man; unless the incentive of a reasonable return or dividend is offered, capital will not be risked, J. R. Whiting, Pub Util 41:267-73 F 26 '48

Need for greater flexibility in utility financing, M. Chandler, Pub Util 42:637-46 N 4 '48

New bank service to business; Irving trust company's round tables on investor relations for utility operating companies, Banking 40:120-1 My '48

Problems ahead in utilities financing, E. Hopkinson, jr, Comm & Fin Chr 167:1642+ Ap 15 '48

Public utility financing in the first quarter of 1948, E. F. Bunce, jr, Land Econ 24: 191-5 My '48

Public utility financing in the fourth quarter and a summary of the year 1947, E. F. Bunce, jr, Land Econ 24:94-101 F '48

Public utility financing in the third quarter of 1947, R. G. Dudley and W. H. Evans, J Land & Pub Util Econ 23:440-3 N '47

Review and forecast of utility earnings, O. Ely, Pub Util 41:104-7 Ja 15 '48

Sets ten per cent as minimum for utility common stock financing, A. F. Tegen, Comm & Fin Chr 167:1547 Ap 8 '48

Utilities face heavy weather, Esns W p46+ Ja 3 '48

Utility financing, selected years 1919-1947, monthly averages, 1947; charts, Pub Util 41:248 F 12 '48

Utility financing; with graphs showing historical trends, 1919-1948, O. Ely, Pub Util 42:106-8 J1 15 '48

Utility profits lag behind revenues, Esns W p84 Je 5 '48

See also

Electric utilities—Finance	Public utilities—Securities
	Railroads—Finance

Law

NARUC legislative program, A. Haines, Pub Util 41:350-4 Mr 11 '48

See also

Public utilities—Regulation	Public utilities—Valuation
also American bar association—Public utility law section	

Public relations

Persuasive appeal for franchise votes; Oklahoma gas & electric company booklet, Pub Util 41:800-1 Je 3 '48

Public utilities, Edison Elec Inst Bul 16:270 Ag '48

Why can't the ad manager be the eyes and arms of management in public relations activities? H. S. Metcalfe, Ptr Ink 224:35-7+ Ag 27 '48

PUBLIC utilities—Continued

Radio communication

Utilities having radio licenses or construction permits; list. *Edison Elec Inst Bul* 15:454-6 D '47
Utilities vie for radio channels. *Elec World News* ed 130:5 O 16 '48

Rates

Charges by gas and electric utilities for special services to be included in schedules. *Pub Util* 42:126 JI 15 '48
Current development in rate-making communications. T. J. Peycke. *Pub Util* 42:614-20 O 21 '48

See also

Electric rates Telephone—Rates
Gas rates Water rates
Railroads—Rates

Records

Symposium on microfilming regulatory records. H. R. Morris and others. *Pub Util* 41:673-82 My 20 '48

Regulation

Bills in state legislatures affecting utilities. B. Jones. *Pub Util* 42:219-26 Ag 12 '48
Coming year in regulation. F. G. Hamley. *Pub Util* 42:575-81 O 21 '48
Georgia public service commission hit for cutting utility's ad fund. *Ed & Pub* 81:51 F 23 '48
Horse-trading banned in utility regulation; change in accounting methods demanded by N.Y. Commission prior to approval of Rochester Gas new financing. E. R. Abrams. *Barron's* 28:10 Ja 26 '48
How Dewey is likely to treat public utilities. E. R. Abrams. *Barron's* 28:7 O 25 '48
Metropolitan area regulation for border-line cities; is an interstate form of control for public utilities needed? problem of Washington, D.C. A. Haines, map *Pub Util* 41:552-7 Ap 22 '48
NARUC legislative program. A. Haines. *Pub Util* 41:350-4 Mr 11 '48
Outlook for new state utility laws in 1948. B. Jones. *Pub Util* 41:80-7 Ja 15 '48
Relation of security regulation to market timing. J. L. Donnelly. *Pub Util* 42:28-36 JI 1 '48
States Island Edison irks Utility Commission. E. R. Abrams. *Barron's* 28:8 S 20 '48

See also

Gas, Natural—Laws Telephone companies—Regulation
and regulations and regulations
Public utilities— Waterworks—Laws
Valuation and regulations
Public utilities commissions

Reports

Additional comments on annual reports. *Pub Util* 42:244-7 Ag 12 '48
Excerpts from 1947 annual reports. *Pub Util* 41:635-45 My 6 '48

Securities

Bull market in bonds ended. O. Ely. *Pub Util* 40:518-24 D 18 '47
Common stock subscription rights issued by utility companies, Jan.-Oct. 1947. *Pub Util* 41:49 Ja 1 '48
Competitive bidding advantages fade fast; cites PEG case. E. R. Abrams. *Barron's* 28:32 S 27 '48
Defense of competitive bidding. R. S. Peterson. *Pub Util* 42:306-8 Ag 26 '48
IBA public service unit notes rapid utilities growth. *Comm & Fin Chr* 166:2502+ D 18 '47
Large utility bond purchases by life insurance companies. *Pub Util* 41:303 Je 3 '48
Life insurance companies must be permitted to buy utility stocks to help finance construction program. O. Ely. *Pub Util* 42:673-6 N 4 '48
Need for greater flexibility in utility financing. M. Chandler. *Pub Util* 42:637-46 N 4 '48
1943 re-appraisals of utilities. O. Ely. *Mag of Wall St* 82:232-6+ Je 13 '48

Northern vs. southern utilities. *Comm & Fin Chr* 163:519 Ag 5 '48

Outlook for utility securities. R. T. Shadoan. *Comm & Fin Chr* 166:2621+ D 25 '47
Outlook for utility stocks. H. H. Young. *Comm & Fin Chr* 168:1204+ S 23 '48
Principal public offerings of utility securities, November 1, 1947 to March 23, 1948; tabulation. *Pub Util* 41:500 Ap 8 '48
Recent financial data on telephone, transit, and water companies. *Pub Util* 41:506 Ap 8 '48 [cont monthly]
Relation of security regulation to market timing. J. L. Donnelly. *Pub Util* 42:28-36 JI 1 '48
Ruling factors behind today's utility financing problems. F. J. McDiarmid. *Pub Util* 42:278-85 Ag 26 '48
Selling utility stocks. H. H. Young. *Pub Util* 41:776-84 Je 3 '48
Sinking-fund provision for utility preferred issues. J. P. Callahan. *Pub Util* 41:76-9 Ja 15 '48
Summary of 1947 utility financing. O. Ely. *Pub Util* 41:170-1 Ja 29 '48
Utilities face a big financial problem. F. J. McDiarmid. *Pub Util* 41:3-13 Ja 1 '48
Utilities; squeezed between inflation and expansion; with statistics on leading companies. J. M. Gordon. *Mag of Wall St* 81:534-6+ F 14 '48
Utility convertible securities. *Comm & Fin Chr* 168:718 Ag 19 '48
Utility financing costs; with chart showing yield trends from 1926. *Pub Util* 42:233-5 Ag 12 '48
Utility financing; the changing fashion in securities. O. Ely. *Pub Util* 42:173-5 JI 29 '48
Utility industry outlook. P. P. Stathas. *Comm & Fin Chr* 168:1643+ O 21 '48
Utility securities in college endowment funds. O. Ely. *Pub Util* 41:172-3 Ja 29 '48
Wall Street analyses of utility securities (cont). O. Ely. *Pub Util* 40:716-17, 782-3; 41:108-9, 442, 568-70, 793-6; 42:175-8, 374-6 N 20-D 4 '47, Ja 15, Mr 25, Ap 22, Je 3, JI 29, S 9 '48

See also

Electric utilities—
Securities
Railroads—Securities

Taxation

Report on taxation of public service corporations in Virginia. *Pub Util* 41:511-12 Ap 8 '48
Some local tax trends affecting public utilities. B. Jones. *Pub Util* 40:701-7 N 20 '47
Utility bills are one-fifth taxes; Dora Foster report. *Pub Util* 41:804-6 Je 3 '48

See also

Electric utilities—
Taxation
Railroads—Taxation

Valuation

Valuation and depreciation of public utility property. M. R. Scharrf. *bibliog Am Soc C E Proc* 74:825-43 Je '48; Discussion 74:1412-14 O '48

New York (state)

Hard-boiled utilities regulation in New York state. C. ter Kuile. *Comm & Fin Chr* 167:2527+ Je 10 '48

United States

Washington utility outlook for 1948. F. X. Welch. *Pub Util* 41:14-22 Ja 1 '48

Virginia

Report on taxation of public service corporations in Virginia. *Pub Util* 41:511-12 Ap 8 '48

PUBLIC utilities advertising association
Annual meeting, Cleveland. *Elec World* 129:84 Je 5 '48

PUBLIC utilities commissions
Care and feeding of regulatory commissions. J. W. Heselton. *Pub Util* 41:399-409 Mr 25 '48

Hard-boiled utilities regulation in New York state. C. ter Kuile. *Comm & Fin Chr* 167:2527+ Je 10 '48

PUBLIC utilities commissions—Continued

- Horse-trading banned in utility regulation; change in accounting methods demanded by N.Y. Commission prior to approval of Rochester Gas new financing. E. R. Abrams. Barron's 28:10 Ja 26 '48
- New rate idea; Two Rivers case. Bsns W p48+ N 15 '47
- Novel theory of rate-making getting Wisconsin court test; telephone company fights PSC order which reduced rates. R. N. Larkin. Elec World 128:87 N 8 '47
- Regulatory battle of Two Rivers. A. Haines. Pub Util 41:36-8 Ja 1 '48
- Staten Island Edison irks Utility Commission. E. R. Abrams. Barron's 28:8 S 20 '48
- Value of public service commission control to municipal water works management. A. P. Kuranz. Am Water Works Assn J 40:121-4 F '48
- Where do utility regulatory commissioners go? R. E. Stromberg. Pub Util 42:294-6 Ag 26 '48
- Wisconsin judge pondering over rate making freedom. Elec World 128:65 N 22 '47

PUBLIC welfare

- From social insurance to social security; evolution in France. P. Laroque. Int Labour R 57:565-90 Je '48

PUBLIC works

- American public works association annual meeting. Jacksonville, Oct. 5-8. Roads & Ss 90:71-3+ N '47
- Industrial dispersion pushing new public works. J. W. Follin. Eng N 141:109 S 16 '48

See also

- | | |
|-----------------------|-----------------|
| Aqueducts | Pavements |
| Bridges | Refuse disposal |
| Flood control | Roads |
| Highway departments | Sewage disposal |
| Hydroelectric plants | Sewerage |
| Irrigation | Streets |
| Municipal improvement | Waterworks |
- also New York (city)—Public works

Cost

- Public works performance costs reveal how taxes are spent; Montclair, N.J. Eng N 140:949 Je 10 '48

Economic aspects

- Advance planning for public works. P. B. Fleming. Pub Works 79:27+ O '48
- State and local public works programs need advance planning. P. B. Fleming. Il Civil Eng 18:94-5 F '48

Employees

- Comparative employment levels; construction projects, 1941-47. Mo Labor R 65:562 N '47

Great Britain

- Tabular summary of civil engineering contracts, 1947. Engineer 185:supp 1-15 F 13 '48

United States

- Bureau of reclamation procedures control all phases of heavy construction program. A. R. Golze. Il Civil Eng 18:430-5+ JI '48
- Increased construction of public works. H. P. Gillette. Roads & Ss 90:101 O '47
- Inventory of major projects; with information on costs, sizes and features. Il maps Eng N 140:287-308 F 19 '48
- Public construction headed for peacetime record. Il Bsns W p 19-20 Ag 14 '48

PUBLICITY

- Food for the press; conferences between food manufacturers and editors. Bsns W p53-5 N 8 '47
- How to meet the press; cartoons and booklet, worked up by New York Central. Il Bsns W p31-2+ O 30 '48
- Man who sold an ice box to an Eskimo; Jim Moran. F. C. Othman. Adv & Sell 41:37+ Je '48
- Measuring public relations; James Twohey's press ratings. Bsns W p39-40 Ap 17 '48
- Meet the press; excerpts from New York central railroad pamphlet. Pub Util 42:119-20 JI 15 '48

- Press packet tells 20th Century's story. Ptr Ink 225:63+ O 8 '48
- Press releases that get into print. H. E. Linsley. Ind Marketing 33:51+ Ap '48
- Publicity means sales for the radio dealer. P. Lesly. Il Radio N 38:43+ D '47
- Story behind DPs; public relations without handout; Citizens committee on displaced persons. E. R. Armstrong. Ed & Pub 81:34 Je 19 '48
- Ten practical ideas for merchandising your publicity. G. R. Parnaby. Il Sales Management 61:98+ JI 15 '48
- Tips to management on working with the press; Johns-Manville corporation press relations manual. Sales Management 59:104-5 N 20 '47
- Trends in communicating with employees. H. A. Marple. Am Gas J 168:33-7 F '48
- What the boss should know about press releases. M. Amrine. Ptr Ink 224:45-6 JI 23 '48
- What's wrong with industrial publicity? R. H. Muehlberg. Ind Marketing 32:44+ D '47

See also

- | | |
|-----------------------------|--|
| Advertising | Social work—Publicity |
| Insurance, Life—Publicity | United States—Advertising department, Proposed |
| Political parties—Publicity | |
| Public relations | |

PUBLICKER industries, inc.

- Annual report. Comm & Fin Chr 167:1926 My 3 '48

PUBLISHERS*See also*

- Haire, Andrew
Joseph
also Periodical publishers association

Directories

- Literary market place, the complete directory of American book publishing. A. J. Richter, ed. 8th ed 244p pa \$3.50 R. R. Bowker co, 62 W. 45th St, New York 19 '48

- Writers' and artists' year book, 1947; a directory for writers, artists, playwrights, film writers, photographers and composers. v 40 337p \$2.50 Macmillan co, 60 Fifth av, New York '47

- Writers' and artists' year book, 1948; a directory for writers, artists, playwrights, film writers, photographers and composers. v41 341p 6s A. & C. Black, 4-6 Soho square, London, W.1 '48

PUBLISHERS' offices

- Offices for a publisher and his staff, combining the trades of literature and business. Il plan Arch Forum 88:121 Je '48

PUBLISHING

- '47 media profits show effect of rising costs; paper companies' net runs 85 per cent above '46. D. Bruner. Ptr Ink 223:97+ Ap 23 '48

- Gallery; George Delacorte; publisher of 50 periodicals. L. Bell. Adv & Sell 41:96+ O '48

See also

- | | |
|-------------------------|-------------|
| Book industry and trade | Periodicals |
| House organs | Printing |
| Newspapers | Time, inc. |

Costs

- NAMP study shows ten-year costs up. H. L. Stephen. Ptr Ink 224:88 S 24 '48

Statistics

- Census bureau to gather data on publishing. Ed & Pub 81:69 Mr 6 '48

PUDGET SOUND navigation company

- Ferryboat operator gives in. Bsns W p41-2 S 18 '48

PUEBLO, Colorado**Streets**

- Raising sunken gutters by guniting. J. C. Seelye. Il Pub Works 79:35 F '48

PUERTO RICO*See also*

- | | |
|---------------------|----------------------|
| Geology—Puerto Rico | Hydroelectric plants |
| Housing—Puerto Rico | —Puerto Rico |

PUERTO RICO—Continued

Bibliography

Bibliografía Puertorriqueña, 1930-1945. A. Bird, ed. 2v 547p Univ. of Puerto Rico, Social science research center Rio Piedras, P.R. '47 (pa v 1 50c v2 \$1)

Industries and resources

Island empire; Puerto Rico's Ferre family. Bsns W p 110+ My 29 '48

Puerto Rican tax haven, Fortune 37:124+ F '48

Puerto Rico woos industry; hopes to get U.S. manufacturers to set up branches. Il Bsns W p 105-6 F 7 '48

PUGET sound navigation company

Ferryboat operator quits to keep going. Il Bsns W p 57-8 Mr 20 '48

PULITZER, Joseph, jr

Portrait. Ed & Pub 81:10 O 30 '48

PULITZER prizes

St Louis post-dispatch wins 3d Pulitzer prize. Ed & Pub 81:12 My 8 '48

PULLEYS

Furnace brazing pulleys and sheaves cuts production costs. E. E. Nelson. Il diag Iron Age 162:32-4 S 2 '48

It's easy to weld pulleys and gears; how to use blowpipe for preheat. F. F. Mooney. diag Welding J 27:728 S '48

Some worth-while kinks concerning pulley covering. W. F. Schaphorst. diag Pulp & Pa of Can 49:110 S '48

Variable speed pulleys for small press. F. A. Westbrook. Il Mill & Factory 42:133 Mr '48

Welding pulleys and gears without a preheating furnace. diag Coal Age 53:112 J1 '48

When you have trouble with rubber drive belts. W. P. Hallstein. Il Factory Management 106:76-80 Ap '48

PULLIAM, Eugene C.

Star and News merged in Indianapolis deal; Pulliam heads new company. G. A. Brandenburg. por Ed & Pub 81:5+ S 4 '48

PULLMAN cars. See Sleeping cars

PULLMAN companies

Analysis of the new Pullman; abstract. C. R. Harding. Ry Age 123:867-9 N 15 '47

Diversified stake in stability; Pullman, Inc. G. W. Mathis. Mag of Wall St 82:344 J1 3 '48

Pullman incorporated; condensed annual report for 1947. Ry Age 124:1000-1 My 15 '48

Pullman men talk it over; third annual series of conferences. Ry Age 125:22-4 J1 3 '48

Pullman-Standard employee suggestions. Il Ry Mech Eng 121:704 D '47

Revenue passenger miles, passenger revenues, 1941-1946. Survey of Cur Bsns 1947 Sup p 108 [supplemented in monthly numbers]

What's ahead for Pullman? Il Ry Age 123: 866-71 N 15 '47

PULP. See Wood pulp

PULP and paper industry, Technical association of the. See Technical association of the pulp and paper industry

PULPWOOD. See Wood pulp

PULSE code modulation. See Radio pulse code modulation

PULSE counter. See Counters (electrons, ions, etc.)

PULSE deviation meter. See Frequency meters

PULSE generators. See Oscillators

PULSE time modulation. See Radio pulse time modulation

PULVERIZERS

Manufacturers' ideas to meet difficult operating problems; grinding, feeders; illustrated descriptions of latest equipment. W. B. Lenhart. Rock Prod 50:116-17 D '47

Production clinic. E. G. Thomssen. diag Soap & San Chem 24:81+ Ag '48

Pulverizer performance; comparison of three types. V. Smith. Elec R (Lond) 143:553-5 O 8 '48

Control

Automatic control of pulverizers. P. McShane. Il diag Eng & M'n J 149:86-7 S '48

PUMICE

Available Washington state pumice deposits.

Rock Prod 50:133 N '47

Design and control of pumice concrete mixes. W. K. Wagner. Rock Prod 51:125-7+ S '48

Design plant for pumice ready mixed concrete; Albuquerque gravel products co. plant facilities to handle pumice concrete. Il Rock Prod 51:131-3 S '48

Prefabricated housing of pumice concrete. Il Rock Prod 51:129-30 S '48

Prefabricated pumice concrete houses. H. L. Mathews. Il Am Concrete Inst J 19:797-811 My '48

Processing pumice for aggregate; Cochiti pumice co. flow sheet Il Rock Prod 51:102+ S '48

Pumice and perlite as industrial materials in California; abstract. C. R. King. Rock Prod 50:146+ D '47

Pumice concrete. Mech Eng 69:1046 D '47; Same. Am Concrete Inst J 19:1062-4 Je '48

Pumice concrete houses at Muroc air base. Il Concrete 56:14-15+ Je '48

Pumice takes lead in the Southwest; Pumice manufacturing co., Albuquerque. W. B. Lenhart. Il Rock Prod 51:186-7 Je '48

Story of pumice. Il Concrete 56:3-7+, 10-12 Ag; 20+ S; 8-10+ O; 20-2+ N '48

PUMICE producers association

Pumice producers form organization to carry out three-point program. Concrete 56:30 J1 '48

PUMPCRETE. See Concrete placing

PUMPING

Field tests indicate best procedure for unwatering of Davis dam. A. H. Ayres. Il map plan Civil Eng 18:490-3+ Ag '48

High density pumping and pulping. T. Agronin. Paper Ind 29:1845-6 Mr '48

Pumping requirements for irrigation; Columbia basin and Central Valley projects. I. L. Wightman. maps Mech Eng 70:417-20 My '48

See also

Mine pumping	Sand pumping
Petroleum—Pumping	Sewage pumping
Pumps	

Tables, calculations, etc.

Application of pumping equipment. K. N. Mills. diag World Oil 127:119-26+ F '48

Calculation of pumping unit engine drives. E. Caraway. Il Pet Eng 20:156 O '48

Capacity of reciprocating pumps; nomograph. Water & Sewage Works 95:R54 Ap '48

Graphic method of determining torque on pumping reducer from polished-rod and counterweight data. J. C. Slonneger. diag Am Pet Inst Proc 27(4):326-32 '47

Measurement and comparison of pumping speeds. B. B. Dayton. biblog diag Ind & Eng Chem 40:795-803 My '48

Steam demand of direct acting reciprocating pumps. S. F. Montroy and G. P. Trotter. Pet Refiner 27:91-3 Ag '48

PUMPING machinery

Desirable characteristics of pumping units and engines. J. C. Slonneger. Pet Eng (Ref annual) 19:120+ J1 '48

High speed pump operation. F. V. Cook. Il World Oil 128:187-8 O '48

Hydraulic installation and servicing of oil-well pumps. E. Short. Il diag Oil & Gas J 46:62-3 Ja 8 '48

Modern rotary drilling; hydraulic transmission for power slush pumps. J. Zaba. Oil & Gas J 46:105 Ja 22 '48

Modern rotary drilling; transmissions for slush-pumps. J. Zaba. Oil & Gas J 46:95 Ja 15 '48

New long-stroke hydraulic pump unit gets first Mid-continent installation. L. S. McCaslin, Jr. flow diag Il diag Oil & Gas J 46:87-90 Ja 15 '48

What can we do to end steam-pump slam? diag Power 92:644-5+ O '48

See also

Pumps

Control

Automatic control on Portland-Montreal line. C. D. Batchelder and R. A. Rockwell. Il maps diag Pet Eng 19:94+ D '47

PUMPING machinery, Electric

Biggest motors for biggest pumping project; irrigation project in Grand Coulee area. Westinghouse Eng 8:12-13 Ja '48
Blueprint for food production; need for steel for electric water systems. *il* Dom Eng 171:112-13+ Mr '48

Do variable-speed drives pay on centrifugal boiler feed pumps? I. J. Karassik. *il* Power Generation 52:68-9+ S '48

Dredging pump motors for Malaya. *il* Electrician 141:1081 O 8 '48

Electric water systems key to rural sales; interview with G. Schuler. *il* Dom Eng 171:113+ F '48

Electrically pumped rain increases crops. Elec World 128:52 Ja 31 '48

First municipal sewage pumping station in the Maritimes. E. C. Wightman. *il* Water & Sewage 85:18-20+ N '47

Hydraulic problems in connection with the design of the Granby pumping plant. E. B. Moses. plan diags A S M E Trans 70:459-69; Discussion. 469-71 Jl '48

Irrigation pumping with Grand Coulee power. S. M. Denton. Elec Eng 67:961 O '48

Jet pumps for rural service. J. W. McConaghy. *il* diags Comp Air Mag 53:120-1 My '48

Out beyond the water mains; modern, tankless water-pump installation. *il* plan Am Bld 69:114 D '47

Power for pump drives; chart. W. L. Nelson. Oil & Gas J 47:103 S 30 '48

Pumping for power in the Colorado Rockies; abstract. F. M. Wilson. map Elec Eng 67:980 O '48

Saving with electricity. O. J. Stewart. *il* Pub Works 79:55-6 O '48

Sewage disposal; Colne Valley pumping and treatment works. Eleo R (Lond) 141:652 O 31 '47

Water supply for town and country; market for electric water systems. *il* Am Bld 70:110-11 Mr '48

See also

Mine pumping,
Electric

Control

Automatic controls solve sewage pumping problems; variable speed drives and electrical contact switches; Corn products refining co. E. S. Stateler. *il* diags Food Ind 20:20-3 Ja '48

Pumping sewage automatically. C. E. Keefer. *il* plans Eng N 141:88-91 S 2 '48

Semi-automatic operation of stations. C. H. Lundt and F. O. Stivers. *il* diags Pet Eng 19:123-4+ Mr '48

Maintenance and repair

Motor and pump repairs go hand in hand. M. H. Kinsinger. *il* Power 92:238 Ap '48

PUMPING stations

Colorado-Big Thompson pumping plant. R. J. Willson. *il* plan diags Eng N 141:80-5 S 16 '48

Improvements to water-supply facilities of Sherbrooke, Que. *il* Water & Sewage 85:17-21+ D '47

Well pump station, Newton, Conn.; unit prices. Eng N 140:381 Mr 4 '48

Design

Hydraulic problems in connection with the design of the Granby pumping plant. E. B. Moses. plan diags A S M E Trans 70:459-69; Discussion. 469-71 Jl '48

Power

Diesel engine standby for water works pumping, Manchester, N.H. *il* Pub Works 79:25 Ag '48

Opposed piston Diesel engine in Manchester, N.H. pumping station. L. A. Harlow. *il* Diesel Power 26:42-4 My '48

Saving with electricity. O. J. Stewart. *il* Pub Works 79:55-6 O '48

PUMPS

Airhydropump, high-pressure liquid pump. *il* Engineer 185:336-7 Ap 2 '48

Centrifugal and other non-positive pumps. R. Pennington. diags Inst Mech Eng J & Proc 157 (War emergency issue no 33):340-6, pl 1-4 '47

Chemical injection pumps. *il* Chem Age (Lond) 58:61 Ja 10 '48

Compact high pressure hydraulic pump. *il* diags Product Eng 19:102-3 Jl '48

Compounded power pumps drill 10,000-ft. wells. H. L. Willike and A. L. Harrington. diags Oil & Gas J 47:68-71+ My 6 '48

Compounded power pumps drill to 10,000 feet. *il* diag World Oil 128:96-7 O '48

Engineering studies in packings. H. G. Koch. *il* diag Paper Tr J 126:27-31 Ja 1 '48; Same cond. Paper Ind 29:1494+ Ja '48

Fluids movement. diag Chem Eng 55:100-3 My '48

High pressure lubricating pump. *il* diag Engineer 186:347 O 1 '48

How pumps lose suction. H. C. Dinger. Marine Eng 53:100+ Mr '48

Hydraulic machinery; positive displacement pumps and hydraulic machines. H. R. Lupton and others. diags Inst Mech Eng J & Proc 157 (War emergency issue no 33):336-9, pl 1-2 '47

Hydraulically driven booster pump allows elevated plant location. diag Power 92:44 Ja '48

Improving pump and compressor selection. I. Taylor. *il* Chem Eng Prog 44:336-8 Ap '48

Jet pumps with liquid drive. R. G. Folsom. *il* diags Chem Eng Prog 44:765-70 O '48

Modern rotary drilling; power slush pumps. J. Zaba. Oil & Gas J 46:67 Ja 1 '48

Modern rotary drilling; steam slush pumps. J. Zaba. Oil & Gas J 46:121 D 13 '47

New glass pump impervious to most acids and alkalis. *il* Chem Age (Lond) 59:395 S 18 '48

New hydraulic pump has rotary type pistons. *il* diag Automotive Ind 99:48 Ag 1 '48

New pump. L. W. Lewis. *il* diags R Sci Instr 19:698-700 O '48

1948 review of new power and mechanical equipment; pumps. *il* Power 92:sup 176-6 Mid-Je '48

Obtain long life in plunger pump packing by using force-feed lubrication system. J. C. Albright. *il* Pet Processing 3:415 My '48

Operate filter presses with Moyno pump at Illinois Electric. *il* diag Cer Ind 51:91+ O '48

Phenolic improves jet pump. *il* Mod Plastics 26:116 N '48

Pumps, compressors, and expanders; new equipment announced 1947-48. Chem Ind 63:408-9 S '48

Radial piston pump of low cost design. *il* diags Product Eng 18:95 D '47

Reciprocating pump speed. W. L. Nelson. Oil & Gas J 47:90 My 27 '48

Relative motion at contact point offered on swashplate pump. *il* diag Am Mach 92:142 Jl 15 '48

Review of power and mechanical equipment; pumps. *il* Power 91:915-17 Mid-D '47

Rotary pump; questions and answers. A. M. Shaw. diags Power 91:714-15+, 788-90+, 866-8+ O-D '47

Special tool simplifies reseating pumps using conventional ring-type packing. G. Cunningham. diag Pet Processing 3:52+ Ja '48

Steam demand of direct acting reciprocating pumps. S. F. Montroy and G. P. Trotter. Pet Refiner 27:91-3 Ag '48

Ways and means of reducing pump cost in pulp mills. H. Carruthers. Pulp & Pa of Can 49:88 Jl '48

Will increasing pump speed give needed capacity and head? Power Pl Eng 51:101-2 N '47

See also

Gasoline pumps

Heat pump

Mine pumps

Pumps, Centrifugal

Vacuum pumps

Design

Controlled volume chemical pumps; design and operation. R. T. Sheen. *il* diags Chem Eng Prog 44:327-32 Ap '48

Designs and operating principles of typical pumps used in industry. diags Product Eng 19:118-19 F; 108-9 Mr; 144-5 Ap '48

How to combat corrosion through design. E. T. Collinsworth, Jr. bibliog *il* diags Machine Design 20:116-22 F; 142-8 Mr '48

Hydraulic pumps; some unorthodox designs. diags Automobile Eng 33:185-90 My '48

PUMPS—Continued**Maintenance and repair**

Measures adopted by Ajax Pipe Line to operate pump stations at high efficiency. C. F. Morgan. *il* *diags* Oil & Gas J 47:106-7+ Ag 19 '48

Overhauling water pumps to eliminate corrosion. *il* *Ry Mech Eng* 122:498-9 S '48

Manufacture

Pump factory at Hillington. *il* *Engineer* 184: 609 D 26 '47

Staggered quintet of boring bits rough and finish pump-body holes. G. R. Milner. *diags* *Am Mach* 92:131 S 23 '48

Models

Cardboard pump model for display. *il* *Comp Air Mag* 53:92-3 Ap '48

Standards

Report of committee on the standardization of pumping equipment and engines. *diags* *Am Pet Inst Proc* 27(4):302-25 '47

Statistics

Pumps and water systems, domestic, shipments, pumps, steam, power, centrifugal and rotary, new orders, 1941-1946. Survey of Cur Bsns 1947 Sup p 155 [supplemented in monthly numbers]

Testing

Measurement and comparison of pumping speeds. B. B. Dayton. *bibliog* *diags* *Ind & Eng Chem* 40:795-803 My '48

PUMPS, Centrifugal

Automatic primer featured as part of centrifugal pump; patent. *diag* *Pet Processing* 3:72 Ja '48

Centrifugal and other non-positive pumps. R. Pennington. *diags* *Inst Mech Eng J & Proc* 157 (War emergency issue no 33):340-5, pl 1-4 '47

Centrifugal pump troubles and kinks. *il* *Water & Sewage Works* 95:196 My '48; Same. *Can Min J* 69:70 Je '48

Centrifugal pumps; an alternative theory. H. H. Anderson. *diags* *Inst Mech Eng J & Proc* 157 (War emergency issue no 27):57-63 '47; Same *abr. Engineer* 182:106-7 Ag 2 '48; Discussion. *Inst Mech Eng J & Proc* 157 (War emergency issue no 27):63-84 '47

Design, construction and testing of waterworks pumps. H. Ulmann. *il* *diag* *Water & Sewage* 86:21-6+ *Jl*; 24-6+ Ag '48 (to be cont)

Do variable-speed drives pay on centrifugal boiler feed pumps? I. J. Karassik. *il* *Power Generation* 52:68-9+ S '48

Efficiency and cavitation of fluid machines. H. H. Anderson. *bibliog* *Inst Mech Eng J & Proc* 157 (War emergency issue no 27): 85-7 '47; Same. *Engineering* 162:334-5 O 4 '46; Discussion. *Inst Mech Eng J & Proc* 157 (War emergency issue no 27):88-92 '47

How to select and apply centrifugal pumps. T. G. Hicks. *diags* *Power Generation* 52: 74-6 Ja '48

Process engineer's guide to the centrifugal compressor. I. J. Karassik. *il* *diags* *Chem Eng* 54:110-14 O; 132-5 N; 126-8 D '47

Selection of deep well pumps. A. O. Fabrin. *diags* *Am Water Works Assn J* 40:415-22 Ap '48

Suction submergence controls condensate-pump discharge. P. Nardone. *il* *Power* 92: 680-1 N '48

PUMPS, Electromagnetic

Electromagnetic pumping of molten metals. M. Tama. *il* *diags* *Iron Age* 160:68-70 D 4 '47

PUMPS, Feed water

Adjustable vanes match pumps to operating requirements. A. J. Stepanoff. *diags* *Power* 92:162-3+ Mr '48

Boiler feed pump corrosion? here's what you can do about it. H. L. Ross. *il* *diags* *Power Generation* 52:104+ F '48

Do variable-speed drives pay on centrifugal boiler feed pumps? I. J. Karassik. *il* *Power Generation* 52:68-9+ S '48

3600-rpm fluid drives adjust feed-pump speed to boiler load. J. D. Rosebrough. *il* *Power* 92:12-13 Ja '48

Welding saves costly pump casings. C. Barlow. *il* *Power* 92:340-3 Je '48

PUMPS, Fuel

Bosch single-plunger Diesel engine pump. *il* *Automotive Ind* 98:46+ Ap 1 '48

C.A.V. injection pump with hydraulic governor. *il* *diags* *Automobile Eng* 38:392-5 O '48

Fuel injection; new single-plunger pump for small oil engines. *il* *diags* *Automobile Eng* 38:315-17 Ag '48

New fuel injection pump broadens Diesel horizons. *il* *Diesel Power* 26:46-8+ Ap '48

Northwestern's fuel injection spray chamber; useful laboratory tool. *il* *diag* *Diesel Power* 26:52+ Ag '48

Some aspects of petrol injection equipment development. K. Brook and W. E. W. Nicolls. *diags* *Inst Mech Eng J & Proc* (Auto div pt 1):30-43, pl 1-4 '47-48; Same cond. *Engineer* 185:135-7 F 6 '48; Discussion. *Inst Mech Eng J & Proc* (Auto div pt 1):43-50 '47-48

Manufacture

Fuel injection equipment; production methods employed by C.A.V. Ltd. *il* *plan* *diags* *Automobile Eng* 38:255-63, 377-84 *Jl*, O '48

Testing

Ford fuel pump tester. B. G. Hendricksmeier. *diags* *Bus Transportation* 27:116 S '48

PUMPS, Submergible

Factors to be considered in the selection and use of subsurface sucker-rod pumps. R. L. Chenault. *il* *diags* *Pet Eng* 19:132+ Ja '48

Submersible pump has fluid primer. *il* *diags* *Product Eng* 19:108-9 Ja '48

PUMPS, Turbine

Cooling water requirements for natural gas booster stations. A. V. Mueller. *il* *Gas Age* 100:32-3 D 25 '47; Same. *Oil & Gas J* 46: 66-7+ Ja 8 '48; Same. *Am Gas J* 168:35-7 Mr '48; Same. *Pet Eng* (Ref annual) 19: 202+ *Jl* 1 '48

Matching the deepwell turbine with the well. L. C. Kimball. *Pub Works* 79:59-60 *Jl* '48; Same. *Water & Sewage* 86:24+ O '48

Vertical turbine pumps; questions and answers on construction, operation, characteristics, troubles, remedies. W. C. Mumford. *il* *diags* *Power* 92:41-3+ G, 108-9+ J, 171-3+ Ja-Mr '48

PUMPS, Vacuum. See Vacuum pumps**PUNCHED card system**

Analytical and accounting control of sales and gross profit by punched cards; R. G. LeTourneau, Inc. L. F. Riddle. *il* *N A C A Bul* 29:323-34 N 15 '47

Application of punch cards; filing of optical properties of crystals. A. F. Kirkpatrick. *bibliog* *il* *Anal Chem* 20:847-9 S '48

Automatic integration of linear sixth-order differential equations by means of punched-card machines. L. F. Hausman and M. Schwarzschild. *R Sci Instr* 18:877-83 D '47

Demonstration of punched-card apparatus. *Assn of Sp Lib & Inf Bur Proc* 1947:55-7

Earthquake calculations are made by punched card machines. *il* *Eng N* 141:110 S 16 '48

Fitting the audit program to punched card accounting systems. C. C. Sparks. *J Account* 86:196-200 S '48

Four major departments profit from mechanized sales and accounting reports of Jaques manufacturing company. J. Turner. *il* *Am Bsns* 18:10-11+ Je '48

From hand to electric accounting methods for sorting and billing operations; Elyria telephone company, Ohio. *il* *Am Bsns* 18: 12-13+ *Jl* '48

Information service using both hand and machine sorted cards; Socony-Vacuum laboratories. G. S. Crandall and B. M. Brown. *J Chem Educ* 25:195-6+ Ap '48

Isotope file on punched cards. G. M. Murphy. *J Chem Educ* 24:556-7 N '47

It's all in the cards; Cincinnati, Newport and Covington completes origin-destination survey with the aid of punch cards. *il* *Bus Transportation* 27:66-8 Ap '48

Liberty Mutual develops machine writing of automobile policies; uses punched cards. J. H. Forest. *Nat Underw* 52:2 O 28 '48

Management reports reveal trends; General finance corporation uses punched-card system. *il* *Am Bsns* 18:18-19+ S '48

PUNCHED card system—Continued

- Modified punch card filing system for metallurgical literature. J. H. Westbrook and L. H. DeWald. *Metal Prog* 54:324-7 S '48
- New billing system cuts time and errors for Commonwealth Edison company, Chicago; bills are machine-punched cards. *il Am Bsns* 18:12-13+ Je '48
- New prebidding system ups office output for service parts and accessory division of Harley-Davidson motor company, Milwaukee. W. Norris. *il Am Bsns* 18:14-15+ My '48
- Post-sale record for manufactured equipment. R. I. Johnson. *il N A C A Bul* 29: 955-60 Ap 1 '48
- Punch card filing system for metallurgical literature. A. G. Guy and A. H. Geisler. *il Metal Prog* 52:993-1000 D '47
- Punched card payroll accounting. J. K. Brown. *Am Gas Assn Proc* 1947:273-5
- Punched card system for information data. *Pet Processing* 3:527-8 Je '48
- Punched-card system of indexing to meet special requirements. W. E. Batten. *Assn of Sp Lib & Inf Bur Proc* 1947:37-9
- Punched-card systems and their application to library and technical work; some applications of mechanical methods to library problems in organic chemistry. G. M. Dyson. *diags Assn of Sp Lib & Inf Bur Proc* 1947:23-36
- Recent progress in patent classification. S. W. Cochran. *Ind & Eng Chem* 40:731-3 Ap '48
- Sales and production outran office methods. P. R. Pennington. *il Am Bsns* 17:10-11+ N '47
- Simplified punch-card approach to the solution of the flutter determinant. W. D. Bell. *J Aeronautical Sci* 15:121-2 F '48
- Use of mark sensing in a large scale testing program; Psychological program of army air forces. W. L. Deemer, Jr. *Am Stat Assn J* 43:40-52 Mr '48
- Use of punched card techniques in the coding of inorganic compounds. J. C. Bailar, Jr. and others. *J Chem Educ* 25:142-3+ Mr '48
- Use of punched cards for indexing and classifying biochemical literature. S. R. Ames and W. F. Kujawski. *Special Lib* 39:233-8 S '48
- Use of punched cards in American libraries. J. W. Perry and others. *Assn of Sp Lib & Inf Bur Proc* 1947:40-50; Discussion. 50-4
- Walkie-talkie inventory cuts shut-down time; wire recorders with punched-card tabulating equipment. *il Mod Ind* 15:53-4+ Mr '48
- Wheels within wheels; NETA compiles statistics to support industry's case in ICC fare investigation. *il Bus Transportation* 27: 60-1 Ja '48

Bibliography

- Bibliography on the uses of punched cards. L. Ferris and others. *J Doc* 3:250-71 Mr '48

PUNCHES

- Design and function of a sliding cone punch. L. J. Lovisek. *diags Tool Eng* 20:21-4 Ap '48
- Details for die designers. D. A. Baker. *diags Mach* 54:175-8 Ag '48
- Meter disk punch. J. Bowles. *il Elec World* 128:126+ N 8 '47

PUNCHES (for paper)

- Design for welded stampings reduces cost of paper punches. *il Product Eng* 19:96 S '48

PUNCHING

- Curved chutes aid work ejection; lamination punching on five-stage progressive die. H. S. Wharen. *il diags Am Mach* 92:88-9 Ap 8 '48
- Pressures to pierce sheet steel; charts; reference book sheet. E. V. Sargeant. *Am Mach* 92:139, 141 Ja 15 '48
- Theoretical analysis of the stresses and strains in extrusion and piercing. R. Hill. *bibliog diags Iron & Steel Inst J* 158:177-85 F '48

PUNCHING machinery

- Automatic hydraulic stripping on piercing unit. *il Machine Design* 19:114 D '47
- C.V.A. high speed dieing machine. *il Automobile Eng* 37:508-9 D '47

- Dayton Rogers mfg. co. hydraulic mechanism for preventing overload of punch presses. *diag Mach* 54:183-4 Ap '48
- How to get the most out of punch presses. E. H. Girardot. *diags Am Mach* 92:79-82 F 26; 174-7 Mr 11; 108-11 Mr 25; 116-19 Ap 8; 86-9 Ap 22; 114-17 My 6 '48
- Plastic guards made integral with punch press dies. M. F. Biancardi. *il Factory Management* 106:103 O '48
- Precision punching with side gage racks. *il Sheet Metal Worker* 39:52 My '48
- Punch-press inspection chart; reference book sheet. *Am Mach* 92:137 My 6 '48
- Roller-grip pneumatic attachment feeds strip stock to punch press. S. H. Pearson. *diags Am Mach* 92:100 JI 29 '48
- Strain gage analysis of mechanical punch presses. G. Brewer. *il diags Iron Age* 161: 66-72 Ja 15 '48

See also

Dies

Testing

- Analysis of press performance. G. A. Brewer. *il diags Product Eng* 19:81-5 O '48

PUPILLOMETER

- Infra-red pupillometer. M. Koomen and others. *bibliog il diag Opt Soc Am J* 38: 719-22 Ag '48

PURCHASE tax. See Sales tax**PURCHASED power. See Electric plants—Isolated plants vs. purchased power****PURCHASING**

- Current 712-page issue of Purchasing is a case history of Ford buying procedure. *Ptr Ink* 224:94 JI 9 '48
- Engineered specifications aid industry, business and government. E. W. Ely. *il Power Generation* 52:69+ O '48
- How industrial buying is done; report on NIAA research project. W. D. Creiley. *Ind Marketing* 33:36+ JI '48
- NIAA committee authorizes pilot study of industrial purchasing, buying factors. *Ind Marketing* 33:128+ Ap '48
- Origins of business. J. T. Fosdick. *flow chart Ind Marketing* 33:41-3 My; 36-8+ Ag '48
- When you buy aluminum; some facts on sheet aluminum offered as a guide to purchasing. *il Sheet Metal Worker* 38:67-8 D '47
- Why we buy from industrial distributors. *il map Mill & Factory* 42:151-62 Ap '48

See also

- | | |
|-------------------------|---------------------------------|
| Automobile industry | Machinery, Replace- |
| and trade—Purchasing | ment of |
| Banks and banking | Merchandizing |
| —Purchasing | Petroleum industry |
| Buying habits | and trade—Purchasing |
| Consumers | chasing |
| Consumption (economics) | Railroads—Purchasing |
| Department stores— | ing |
| Purchasing | Retail trade—Stock |
| Instalment plan | Shopping area |
| | Trade unions—Purchasing service |

Treatment of salesmen

- Boss problems. R. B. Hara. *Ptr Ink* 224:40 Ag 20 '48
- Care and handling of space salesmen; planned interviews, saves money, time, and hard feelings. H. T. Hirst. *Ind Marketing* 32:47+ D '47

PURCHASING, Cooperative

- Establishment of business research programs, with special reference to farmers' regional purchasing associations. M. A. Abrahamsen. *J Marketing* 12:348-61 Ja '48
- Labor fights inflation by resorting to co-op buying. R. Giles. *il Ptr Ink* 221:34-6 D 12 '47
- Who's who of department stores in New York buying groups; memberships of 16 New York buying offices. *Sales Management* 61:59-62+ Ag 15 '48

PURCHASING, Government

- Air force offers streamlined buying plan. *Aviation W* 49:15-16 S 6 '48
- Bill would streamline federal buying, selling. *Bsns W* p78+ My 22 '48
- Clothes for a million men, New York quartermaster purchasing office. L. O. Grice. *Textile Col* 70:20+ F '48

PURCHASING, Government—Continued

- Engineered specifications aid industry, business and government. E. W. Ely. *il Power Generation* 52:53+ O '48
- How navy procurement process works; chart. *Aviation W* 49:26 S 6 '48
- How the navy buys a carrier; chart. *Aviation W* 49:22 S 6 '48
- How to sell your product to the government. S. C. Bennett. *Ptr Ink* 224:44+ JI 16 '48
- It's easier to sell armed forces now. *Mod Ind* 15:147-8+ Ja '48
- Military buying moves away from open bidding; non-competitive purchases will be rule under Armed services procurement act of 1947. W. C. Bryant. *Barron's* 28:30 Mr 1 '48
- Military supplies now being bought and who buys them. *Mill & Factory* 43:insert JI '48
- New NIGP standards committee to apply simplification to public purchasing. *Ind Stand* 13:282+ N '47
- Signal corps procurement; procedures to be followed by radio and communication manufacturers seeking defense contracts. R. Hertzberg. *flow chart Tele-Tech* 7:24-5+ O '48
- Where to sell to Uncle Sam; agencies buying radio and electronic equipment for national defense requirements listed by name and address. *Tele-Tech* 7:32 Je '48

Bibliography

- Buying bibliography. *Aviation W* 49:66 S 6 '48
- PURCHASING, Household**

*See also***Budget, Household****PURCHASING agents**

- National association of purchasing agents predicts new look in prices. *Comm & Fin Chr* 168:1116 S 16 '48
- Needed; a new buyer setup. L. Valenstein. *J Retailing* 24:45-51 Ap '48
- Purchasing agent's changing status. H. E. Cross. *Iron & Steel Eng* 25:81-4 Ag '48
- Purchasing agents' eye view of business. *Oil Paint & Drug Rep* 153:5 F 2 '48 [cont monthly]
- Report of business survey committee of the National association of purchasing agents. *Comm & Fin Chr* 166:1860; 167:18, 1017, 1440, 1893, 2431; 168:115, 909, 1326, 1872 N 6 '47, Ja 1, Mr 4, Ap 1, 29, Je 3, JI 8, S 2, 30, N 4 '48
- What the purchasing agent looks for in industrial advertising. W. E. Cummin. *Ind Marketing* 33:38+ Je '48
- What the purchasing agent wants from the salesman. D. M. Meeker. *Ind Marketing* 33:45+ Mr '48

*See also***Department stores—****Purchasing**

- PURCHASING agents, National association of.**
See National association of purchasing agents

PURCHASING companies

- How to sell retailers through central buying offices. J. C. Cumming. *Sales Management* 60:82+ My 1 '48

PURCHASING departments

- Evaluating departmental efficiency. H. T. Lewis. *Harvard Bsns R* 26:313-28 My '48
- Purchasing by small mill improved by centralization. J. M. Gregory. *il Textile World* 98:106-7+ JI '48
- Safety investment; when the safety and purchasing departments work together. *Nat Safety N* 57:6 Mr '48

- PURCHASING power.** *See* Consumption (economics)

PURDUE university

- Purdue's training in air transport; illustrations with text. *Air Transport* 5:46-8 N '47

PURDY, Ross Coffin, 1875-

- First Bleininger medal to Purdy. *por(cover) Chem & Eng N* 26:992 Ap 5 '48

- R. C. Purdy receives first Bleininger award. E. E. Marbaker. *por Am Cer Soc Bul* 27:203 My 15 '48

- To say American ceramic society, is to say Ross Purdy. *por Cer Ind* 50:62 Ap '48; *Same, Brick & Clay Rec* 112:56 Ap '48

- Years of fruition. J. D. Sullivan. *Am Cer Soc Bul* 27:213-14 My 15 '48

- Years of organization. E. H. Fritz. *Am Cer Soc Bul* 27:212-13 My 15 '48

- Years of preparation. F. H. Riddle. *Am Cer Soc Bul* 27:210-11 My 15 '48

PURE oil company

- Annual report. *Comm & Fin Chr* 167:1592 Ap 12 '48

- New discoveries for Pure Oil. *Barron's* 28:35 Je 14 '48

PURINES

- Dissociation constants of benzimidazole and certain purine derivatives. H. F. W. Taylor. *Chem Soc J* p765-6 Je '48

- Experiments on the synthesis of purine nucleosides; a synthesis of adenosine. J. Davoll, E. Lythgoe and A. R. Todd. *Chem Soc J* p957-9 JI '48

- Experiments on the synthesis of purine nucleosides; a synthesis of 9-D-glucopyranosidoadenine. A. Holland, B. Lythgoe and A. R. Todd. *Chem Soc J* p965-7 JI '48

- Experiments on the synthesis of purine nucleosides; the preparation of 4-glycofuranosidaminopyrimidines, and a synthesis of 9-L-arabofuranosido-2-methylthioadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. *Chem Soc J* p957-64 JI '48

PURPUROGALLIN

- Oxidation products of phenols; the structure of purpurogallin. J. A. Barltrop and J. S. Nicholson. *Chem Soc J* p 116-20 F '48

- Purpurogallin. R. D. Haworth, B. P. Moore and P. L. Pauson. *Chem Soc J* p 1045-51 JI '48

PUSAN, Korea**Sanitary affairs**

- Sanitary engineering, a Korean episode; American occupation forces clean up Pusan. P. Z. Kirpich. *il Eng N* 140:109-12 Ja 22 '48

Water supply

- U.S. military government completes Korean water supply system started by Japanese. P. Z. Kirpich. *il diag Civil Eng* 18:148-51 Mr '48

- PUSH money.** *See* Salesmen, Retail—Bonuses (manufacturers')

- PUZZOLANA.** *See* Pozzuolana

PYRANOSIDES

- Experiments on the synthesis of purine nucleosides; a synthesis of 9-D-glucopyranosidoadenine. A. Holland, B. Lythgoe and A. R. Todd. *Chem Soc J* p965-7 JI '48

PYRAZINE

- Dipole moments of diazines. W. C. Schneider. *bibliog diag Am Chem Soc J* 70:627-30 F '48

- Pyrazine chemistry; derivatives of 3-amino-5,6-dimethylpyrazinoic acid. R. C. Ellington and R. L. Henry. *bibliog Am Chem Soc J* 70:1267-61 Mr '48

- Pyrazine derivatives; conversion of diketopiperazines into pyrazine derivatives; synthesis of 2-hydroxy-3:6-di-sec-butyl-pyrazine from isoleucine. R. A. Baxter and F. S. Spring. *Chem Soc J* p 1179-83 S '47

- Pyrazine derivatives; pyrazine N-oxides and their conversion into chloropyrazines. G. T. Newbold and F. S. Spring. *Chem Soc J* p 1183-5 S '47

PYRAZINE sulfonic acid

- Syntheses in the pyrazene series; the preparation and properties of pyrazine sulfonic acid. E. Hort and P. E. Spoerri. *bibliog Am Chem Soc J* 70:1657 Ap '48

PYRAZINOINDOLEDIONE

- Pyrazinoindole-1,4-diones; ring closure of 2-indolecarbonyl derivatives of α -aminoesters. J. R. Johnson, J. H. Andreen and A. D. Holley. *bibliog Am Chem Soc J* 69:2370-2 O '47

PYRAZINOINDOLONE

- Gliotoxin; synthesis of pyrazinoindolones and pyridindolones. J. R. Johnson and others. *bibliog Am Chem Soc J* 69:2364-70 O '47

PYRAZOLONE

- Ethyl acetoacetate 4-nitrophenylhydrazone and 1-(4'-nitrophenyl)-3-methylpyrazolone-5. W. C. Sumpter and P. H. Wilken. *Am Chem Soc J* 70:1980-1 My '48

PYRENE

- Reaction of pyrene-3-aldehyde. M. Weizmann and E. Bograchov. *Am Chem Soc J* 70:2829-30 Ag '48

- PYRENE** manufacturing company
500,000 damaged extinguishers recalled.
Safety Eng 95:50-1 My '48
Pyrene's dilemma; product goes sour. Bsns
W p26 Mr 20 '48
- PYRETHRINS**
Methylenedioxyphenyl cyclohexenones. O. F.
Hedenburg and H. Wachs. Am Chem Soc J
70:2216-17 Je '48
Space spray toxicity. W. A. Gersdorff and
M. S. Schechter. Soap & San Chem 24:155+
Je '48
- Analysis
- Determination of the factor for pyrethrin 1
in the mercury method. G. T. Bray and
others. Soc Chem Ind J 66:275-9 Ag '47
- PYRETHRUM**
Constituents of pyrethrum flowers; revision
of the structure of dihydrocinerolone. F.
B. LaForge and S. B. Soloway. bibliog
Am Chem Soc J 69:2932-5 D '47
Insecticides derived from plants. E. J. Sei-
ferle and D. E. H. Frear. Ind & Eng
Chem 40:684-6 Ap '48
Residual action of organic insecticides. E.
E. Fleck. bibliog Ind & Eng Chem 40:
706-8 Ap '48
- PYREX**
Expansion effects shown by some pyrex glass-
es. A. Q. Tool and J. B. Saunders. bibliog
diags J Res Nat Bur Stand 40:67-83 Ja '48
New glass pump impervious to most acids
and alkalis. il Chem Age (Lond) 59:395
S 18 '48
Pyrex glass Dewar vessels and metal trans-
fer tubes for liquid helium. W. F. Giaque.
R Sci Instr 18:852-4 N '47
Thin glass window to withstand high
pressures. L. Seren. diags R Sci Instr 19:
123 F '48
- PYRIDAZINE**
Dipole moments of diazines. W. C. Schneider.
bibliog diags Am Chem Soc J 70:627-30 F
'48
- PYRIDAZONE**
New synthesis of 4-pyridazones. J. F. Mor-
gan. bibliog Am Chem Soc J 70:2253-4 Je
'48
- PYRIDINDOLE**
Synthesis of β -carboline; 3-aminoharman
and some of its derivatives. H. R. Snyder,
S. M. Farmerter and H. G. Walker. Am
Chem Soc J 70:237-9 Ja '48
Synthesis of derivatives of β -carboline; syn-
theses from *dl*-tryptophan and aldehydes.
H. R. Snyder and others. bibliog Am Chem
Soc J 70:219-21 Ja '48
Synthesis of derivatives of β -carboline; the
nitration of harman. H. R. Snyder, S. M.
Farmerter and L. Katz. bibliog Am Chem
Soc J 70:222-5 Ja '48
- PYRIDINDOLONE**
Glutoxin; synthesis of pyrazinoindolones and
pyridindolones. J. R. Johnson and others.
bibliog Am Chem Soc J 69:2364-70 O '47
- PYRIDINE**
Action of sulfur on certain pyridine and
quinoline derivatives; action of sulfur on
4-picoline. H. I. Thayer and B. B. Corson.
Am Chem Soc J 70:2330-3 JI '48
Brominations with pyridine hydrobromide
perbromide. C. Djerassi and C. R. Scholz.
bibliog Am Chem Soc J 70:417-18 Ja '48
Compound formation between pyridine and
polyhalogenated methanes. A. W. David-
son, C. A. VanderWerf and L. G. Boat-
right. bibliog Am Chem Soc J 69:3045-7
D '47
Concerted displacement reactions; termole-
cular displacement reactions of methyl
halides in benzene solution. C. G. Swain
and R. W. Bddy. bibliog Am Chem Soc J
70:2989-94 S '48
Decomposition of iodonium compounds; reac-
tion with pyridine. R. B. Sandin and R. K.
Brown. bibliog Am Chem Soc J 69:2253-4
O '47
Marinated wood; acetylation of wood with
acetic anhydride and pyridine. Chem Ind
61:980 D '47
Mechanism of the acetophenone-iodine-pyri-
dine reaction. R. G. Pearson. bibliog Am
Chem Soc J 69:3100-3 D '47
- Phase equilibrium studies on pyridine-amide
systems. S. Stephanou, C. A. VanderWerf
and H. H. Sisler. bibliog Am Chem Soc J
70:264-7 Ja '48
Preparation and reaction of some poly-
substituted pyridines; 2-methyl-3-hydroxy-
5-hydroxymethylpyridine (4-deshydroxy-
methylpyridoxin). L. A. Perez-Medina, R.
P. Mariella and S. M. McElvain. bibliog
flow sheet Am Chem Soc J 69:2574-9 N '47
Preparation of methylpyridines by catalytic
methods. N. M. Cullinane and others. bib-
liog Soc Chem Ind J 67:142-3 Ap '48
Properties of electrolytic solutions; conduc-
tance of some electrolytes in pyridine at
25°. D. S. Burgess and C. A. Kraus. bib-
liog Am Chem Soc J 70:706-11 F '48
Properties of electrolytic solutions; con-
ductance of some inorganic and organic
electrolytes in pyridine at 25°. W. F. Luder
and C. A. Kraus. bibliog Am Chem Soc J
69:2481-3 O '47
Purification of N-hydroxymethylphthalimide
through a molecular compound with pyri-
dine. E. J. Sakellarios. Am Chem Soc J
70:2822 Ag '48
Pyridine derivatives; some 6-methyl-4-hy-
droxy-2-pyridones and their derivatives.
W. F. Bruce and L. A. Perez-Medina. bib-
liog flow sheet Am Chem Soc J 69:2571-4
N '47
Pyridines; the dissociation of N,N'-diacetyl-
tetrahydro-4,4'-dipyridyl. R. L. Frank, F.
Pelletier and F. W. Starks. bibliog Am
Chem Soc J 70:1767-9 My '48
Reaction of ketones with iodine and pyridine.
L. C. King, M. McWhirter and R. L. Row-
land. bibliog Am Chem Soc J 70:239-42 Ja
'48
Reaction of ketones with iodine, pyridine
and water. L. C. King. Am Chem Soc J
70:242-4 Ja '48
Some 2,3-dialkylpyridines and their deriva-
tives. H. M. Woodburn and M. Hellmann.
Am Chem Soc J 70:294-5 Je '48
Some recent advances in catalysis; detoxica-
tion of catalyst poisons; hydrogenation of
free pyridine. E. B. Maxted. Soc Chem Ind
J 67:95-6 Mr '48
Substituted vinylpyridines as monomers for
synthetic elastomers. R. L. Frank and
others. bibliog Ind & Eng Chem 40:879-83
My '48
- PYRIDINESULFONIC acid**
Crystallographic data. il diags Anal Chem 20:
779-80 Ag '48
Crystallographic data; beta-pyridinesulfonic
acid. il diags Anal Chem 20:879-80 S '48
- PYRIDINIUM compounds**
Effect of salts on the solubilization of in-
soluble organic liquids by cetylpyridinium
chloride. P. H. Richards and J. W.
McBain. bibliog Am Chem Soc J 70:1338-42
Ap '48
Mechanism of the alkaline cleavage of β -
ketoalkylpyridinium salts. R. G. Pearson
and E. L. Dillon. bibliog Am Chem Soc J
70:1938-6 My '48
- PYRIDOACRIDINE**
Attempts to find new antimalarials; deriva-
tives of various benzacridines and pyrido-
acridines. J. Dobson, W. C. Hutchison and
W. O. Kermark. Chem Soc J p 123-6 F '48
- PYRIDONE**
Pyridine derivatives; some 6-methyl-4-hy-
droxy-2-pyridones and their derivatives.
W. F. Bruce and L. A. Perez-Medina. bib-
liog flow sheet Am Chem Soc J 69:2571-4
N '47
- PYRIDOXAL**
Relationship between cystine and pyridoxal
or pyridoxamine in the nutrition of certain
bacteria. M. L. Speck and D. A. Pitt. bib-
liog Science 106:420 O 31 '47
- PYRIDOXAMINE**
Relationship between cystine and pyridoxal
or pyridoxamine in the nutrition of certain
bacteria. M. L. Speck and D. A. Pitt. bib-
liog Science 106:420 O 31 '47
- PYRIMIDINE**
Absorption spectra of 5,7-dimethyltetra-
zolo(a)-pyrimidine. F. C. Nachod and E. A.
Steck. bibliog Am Chem Soc J 70:2819-20
Ag '48
Constitution of a by-product from the prep-
aration of trichloropyrimidine from bar-
bituric acid. F. E. King, T. J. King and
P. C. Spensley. Chem Soc J p 1247-8 S '47

PYRIMIDINE—Continued

- Dipole moments of diazines, W. C. Schneider, bibliog diags Am Chem Soc J 70:627-30 F '48
- Experiments on the synthesis of purine nucleosides; the preparation of 4-glycofuranosidaminopyrimidines, and a synthesis of 9-L-arabofuranosido-2-methylthioadenine, G. W. Kenner, B. Lythgoe and A. R. Todd, Chem Soc J p567-64 J1 '48
- Iodination of certain phenylsulfonamido- and amino-heterocycles, R. G. Shepherd and C. E. Fellows, bibliog Am Chem Soc J 70:157-60 Ja '48
- Preparation of 2-amino-4-hydroxy-6-keto-5,5-dichlorodihydropyrimidine, R. B. Angier and others, bibliog Am Chem Soc J 70:1274-5 Mr '48
- Pyrimidine; amino alcohols derived from pyrimidine, R. A. Clarke and B. E. Christensen, Am Chem Soc J 70:1818-19 My '48
- Pyrimidine; study of the bromination of 5-acetyl-4-methyl-2-phenylpyrimidine, R. A. Clarke, B. Graham and B. E. Christensen, Am Chem Soc J 70:1088-90 Mr '48
- Reaction between acetone and ammonia; formation of pyrimidine compounds analogous to the aldoxans of Späth, R. B. Bradbury, N. C. Hancock and H. H. Hatt, Chem Soc J p 1394-9 O '47
- Substituted sulfanilamidopyrimidines, W. Braker and others, bibliog Am Chem Soc J 69:3072-8 D '47
- Synthesis of the 2- α -aminoalkyl and 2- α -sulphanilamidoalkyl derivatives of thiazole and pyrimidine, A. A. Goldberg and W. Kelly, Chem Soc J p 1372-7 O '47
- Synthetic antimalarials; 4-arylamino-6-aminoalkylaminopyrimidines; further variations, F. R. Basford and others, Chem Soc J p 1354-64 O '47
- Synthetic antimalarials; 2-arylguanidino-4-aminoalkylaminopyrimidines; further variations, W. H. Cliffe and others, Chem Soc J p574-81 My '48
- Synthetic antimalarials; pyridyl- and pyrimidyl-aminopyrimidines, F. H. S. Curd, W. Graham and F. L. Rose, Chem Soc J p594-7 My '48
- Synthetic antimalarials; some 4-arylguanidino-2- and -6-dialkylaminoalkylaminopyrimidines, A. F. Crowther, F. H. S. Curd and F. L. Rose, Chem Soc J p586-93 My '48
- Synthetic antimalarials; some 2-phenylureido- and 2-phenylthioureido-4-dialkylaminoalkylamino-6-methylaminopyrimidines, R. D. Ashworth and others, Chem Soc J p581-6 My '48
- Synthetic antimalarials; some quinolylamino-substituted pyrimidine derivatives, F. H. S. Curd and others, Chem Soc J p 1613-19 D '47
- PYRIMIDINETHIOL**
- Synthesis of 2-pyrimidinethiols, R. A. Mathes, F. D. Stewart and F. Swedish, jr, Am Chem Soc J 70:1452-3 Ap '48
- PYRIMIDOPYRAZINE**
- Pyrimido[4,5-b]pyrazines (pteridines); pteridinemono- and -dicarboxylic acids, C. K. Cain, M. F. Mallette and E. C. Taylor, jr, bibliog Am Chem Soc J 70:3026-9 S '48
- PYRITE**
- Manufacture of hydrogen sulphide; the reaction between hydrogen and pyrites, L. M. Clark and H. M. Spittle, Soc Chem Ind J 67:5-8 Ja '48
- Manufacture of hydrogen sulphide; the utilization of the by-product ferrous sulphide from the hydrogen-pyrites reaction, L. M. Clark and H. M. Spittle, bibliog Soc Chem Ind J 67:9-10 Ja '48
- Pyrite geo-thermometer, F. G. Smith, bibliog II diags Econ Geol 42:515-23 S '47
- Reactions of iron pyrite; its thermal decomposition; reduction by hydrogen and air oxidation, G. M. Schwab and J. Phillips, bibliog diags Am Chem Soc J 69:2588-96 N '47
- PYRITES**
- Manufacture of contact sulphuric acid from arsenical pyrites, H. C. Millett, diags Chem & Ind p595-600 S '48
- PYROCATECHOL**
- Color test for identification of glucose, S. Hestrin and J. Mager, bibliog Anal Chem 19:1032-5 D '47

Studies on furan compounds; conversion of 2-acetofuran to hexen-2-dion-4,5-acetal-1 and pyrocatechol, L. Vargha, J. Ramonczai and P. Bite, bibliog Am Chem Soc J 70:371-4 Ja '48

PYROGALLOL

Dihydropyrogallol, a new ene-diol and its oxidation product; 1,2,3-cyclohexanetriene dihydrate; ketonic isomer of pyrogallol, B. Pecherer, L. M. Jampolsky and H. M. Wuest, bibliog Am Chem Soc J 70:2587-9 J1 '48

Tannins and allied chemicals in mercaptan removal processes, J. Happel and S. P. Cauley, bibliog flow diag Ind & Eng Chem 39:1655-9 D '47

PYROLYSIS

Allylic rearrangement in the pyrolysis of 3-acetoxy-3-cyano-1-butene, C. S. Marvel and N. O. Brace, bibliog Am Chem Soc J 70:1775-6 My '48

Energy of the C-H bond in the fluoro-toluenes, M. Szwarc and J. S. Roberts, J Chem Phys 16:609-11 Je '48

High vacuum pyrolytic fractionation of polystyrene; mass spectrometer analysis of some of the fractions, S. L. Madorsky and S. Straus, diags Ind & Eng Chem 40:848-52 My '48; Same, J Res Nat Bur Stand 40:417-25 My '48

Preparation of α -carbalkoxyalkyl methacrylates by pyrolysis of the corresponding α -acetoxyisobutyrate, E. M. Filachione and others, bibliog Am Chem Soc J 70:526-9 F '48

Pyrolysis of ammonium sulphate waste liquor to yield ammonia, A. E. Markham and others, bibliog Paper Tr J 127:64-8 J1 1 '48; Same abr, Paper Ind 30:778-80+ Ag '48

Pyrolysis of high polymeric hydrocarbons, R. B. Seymour, bibliog Ind & Eng Chem 40:524-7 Mr '48

Pyrolysis of high polymers; new apparatus developed in rubber research, diags Chem Age (Lond) 58:426-7 Mr 27 '48

Pyrolysis of Koresin, J. W. LeMaistre and R. B. Seymour, bibliog Am Chem Soc J 70:1776-8 My '48

Pyrolysis of methane flowing through a porcelain tube in the region 1000°, A. S. Gordon, bibliog Am Chem Soc J 70:395-401 Ja '48

Reactions of furan compounds; thermal interconversion of 2,3-dihydrofuran and cyclopropane aldehyde, C. L. Wilson, bibliog Am Chem Soc J 69:3002-4 D '47

Thermofor pyrolytic cracking, S. C. Eastwood and A. E. Potas, diags Oil & Gas J 47:104-5+ Ag 26 '48; Same, Pet Eng 19:43-6 Ag '48; Same, Pet Refiner (Process Handbook ed) 27:96-8 S '48; Same, Pet Processing 3:837+ S '48

PYROMETERS and pyrometry

Compensating millivoltmeter pyrometers for ambient temperature changes, R. H. Grant and J. T. Cataldo, Instruments 21:448+ My '48

Design and performance of some commercial optical pyrometers of the disappearing-filament type, C. R. Barber, diags Iron & Steel Inst J 152:171-88 no 2 '45; Discussion, 153:362-4 no 1 '46

Improving temperature compensation of recording pyrometers, P. Lincke, diags Instruments 21:246 Mr '48

Optical pyrometry, R. Weil, Iron & Steel Inst J 157:415-16 N '47

Photoelectric pyrometer of rapid response, M. H. Roberts, II diags J Sci Instr 25:337-9 O '48

Photo-electric roof pyrometer for open-hearth furnaces, T. Land, bibliog pl diags Iron & Steel Inst J 155:568-76 Ap '47; Discussion, 158:341-6 Mr '48; Engineering 154:521 N 23 '47; Engineer 184:522-3 D 5 '47

Pyrometry and its application in porcelain enameling plants; abstract, J. Green, Cer Ind 49:60+ O '47

Pyrometry for the ceramic industries; with an introduction to principles of automatic control, V. L. Parsegian, bibliog II diags Am Cer Soc Bul 27:1-24 Ja 15 '48

Rocket-motor pyrometer; abstract, D. H. Jacobs, Mech Eng '69:1037-8 D '47

Simple temperature controller, J. C. Mouzon, diags R Sci Instr 19:659-62 O '48

PYROMETERS and pyrometry—Continued

Surface-temperature measurement. M. D. Hedgcock and R. Mayorcas. bibliog il diags Iron & Steel Inst J 158:236-47 F '48
 Temperatures in the open-hearth furnace. R. B. Sosman. bibliog il diags Metals Tech 15:TP2435 1-37 Ag '48

PYRONE

Chemistry of the monocyclic α - and γ -pyrones. L. F. Cavalieri. Chem R 41:525-84 bibliog(264 ref, p678-84) D '47

PYROPHOSPHATES

Acid pyro- and metaphosphates produced by thermal decomposition of monocalcium phosphate. W. L. Hill and others. bibliog Ind & Eng Chem 39:1667-72 D '47

Potentiometric investigation of tripyrophosphatomanganic(III) acid. J. I. Watters and J. M. Kolthoff. bibliog Am Chem Soc J 70:2455-60 J1 '48

See also

Sodium pyrophosphate

PYROPHYLLITE

Static electrification of dust clouds. J. G. Miller and others. bibliog Science 107:144-6 F '48

PYROTECHNICS, Military. See Military fireworks**PYROXYLIN coated fabrics**

PYROXYLIN-coated woven fabrics, 1941-1946. Survey of Cur Bsns 1947 Sup p 177

Safety plus built into pyroxylin coating plant to handle nitrocellulose and flammable solvents. H. Rosenberg. il plan Chem Eng 55:136-8 My '48

See also

Celastec

PYRROCOLINE

Chemistry of the pyrrocolines and the octahydropyrrocolines. E. T. Borrows and D. O. Holland. Chem R 42:611-43 bibliog(89 ref, p641-3) Je '48

PYRROLE

Acylation of pyrrol carboxylic esters. A. H. Corwin and J. L. Straughn. bibliog Am Chem Soc J 70:2968-70 S '48

Alkylation with non-ketonic Mannich bases; aminothiazoles and pyrrole. N. F. Albertson. bibliog Am Chem Soc J 70:669-70 F '48
 β -Cyclopropionitriles; general synthesis and conversion into pyrrole dyes. E. B. Knott. Chem Soc J p 1190-5 S '47

Selective degradation of certain pyrrol polycarboxylic esters. A. H. Corwin and J. L. Straughn. bibliog Am Chem Soc J 70:1416-21 Ap '48

Studies in the azole series; a novel route to 5-aminothiazoles. A. H. Cook, I. Heilbron and A. L. Levy. Chem Soc J p 1594-8 D '47

Studies in the azole series; a synthesis of β -phenylcysteine. A. H. Cook, G. Harris and I. Heilbron. Chem Soc J p 1060-5 J1 '48

Studies in the azole series; the interaction of aminoacetoneitriles and carbon disulphide. A. H. Cook, I. Heilbron and A. L. Levy. Chem Soc J p 201-6 F '48

Studies in the azole series; the interaction of α -amino-nitriles and carbon disulphide. A. H. Cook, I. Heilbron and A. L. Levy. Chem Soc J p 1598-609 D '47

Studies in the azole series; the preparation of some thiazolones. A. H. Cook and others. Chem Soc J p 1056-60 J1 '48

PYRROLEALANINE

Alkylation of substituted malonic and cyanoacetic esters with 2-dimethylaminomethylpyrrole; proposed synthesis of β -2-pyrrole-alanine. W. Herz, K. Dittmer and S. J. Cristol. bibliog Am Chem Soc J 70:504-7 F '48

PYRROLIDINE

β -Cyclopropionitriles; reduction to 2-cyclopropylpyrrolidines and 2-cyclopropylpyrrolidines. E. B. Knott. Chem Soc J p 186-8 F '48

PYRROLIDYLALKYLPHENOTHAZINE

Histamine antagonists; N-(pyrrolidylalkyl)-phenothiazines. W. E. Reid, Jr. and others. Am Chem Soc J 70:3100-2 S '48

PYRROLINE

β -Cyclopropionitriles; reduction to 2-cyclopropylpyrrolidines and 2-cyclopropylpyrrolidines. E. B. Knott. Chem Soc J p 186-8 F '48

PYRROLIZIDINE

Synthesis of pyrrolizidines; basicities of 8-alkylpyrrolizidines. N. J. Leonard and K. M. Beck. bibliog il Am Chem Soc J 70:2504-7 J1 '48

PYRVALDEHYDE

Volatile decomposition products of sugars in aqueous solution. L. Sattler and F. W. Zerban. bibliog Am Chem Soc J 70:1975-6 My '48

PYTHAGOREAN proposition

Pythagorean numbers; designing spur gears, connecting shafts at different levels of a machine. O. Lichtwitz. diag Engineering 165:112-13 Ja 30 '48

Q**Q fever**

Action of streptomycin in experimental infection with Q fever. R. J. Huebner and others. bibliog Pub Health Rep 63:357-62 Mr 19 '48

Case of Q fever probably contracted by exposure to ticks in nature. C. M. Eklund and others. Pub Health Rep 62:1413-16 S 26 '47

Comments on the name of the Q fever organism. C. B. Philip. Pub Health Rep 63:53 Ja 9 '48

Q fever studies in southern California. R. J. Huebner and others. Pub Health Rep 63:214-22 F 13 '48

Q fever; three cases of laboratory infection. J. W. Oliphant and R. R. Parker. bibliog il Pub Health Rep 63:1364-70 O 15 '48

QUABBIN reservoir. See Boston—Water supply

QUADRATIC equations. See Equations, Quadratic

QUAKER oats company

Annual report. Comm & Fin Chr 166:2214 D 1 '47

QUALITY control. See Chemical plants—Quality control; Factory management—Quality control; Food factories—Quality control

QUALITY of products

Are your salesmen equipped to prove quality? B. Bigelow. Sales Management 60:37-40 F 15 '48

Estimating precision of measuring instruments and product variability; measuring burning time of powder train fuzes. F. E. Grubbs. Am Stat Assn J 43:243-64 Je '48

Postwar changes in the quality of apparel; changes in fabrics. L. J. Mack. Mo Labor R 67:34-7 J1 '48

What has happened to quality? J. D. Fox. Bsns W p41-2+ Je 12 '48; Discussion. p76-7 J1 10 '48

See also

Factory management Products, Certification of

QUANTITIES (in production)

How one company determines economic lot sizes; Osborn manufacturing co. Cleveland. W. W. Hannon. Factory Management 106:71-3 S '48

QUANTOMETER. See Spectrograph**QUANTUM theory**

Angular correlation of scattered annihilation radiation. E. Bleuler and D. ter Haar. Science 108:10-11 J1 2 '48

Angular correlation of scattered annihilation radiation. H. S. Snyder and others. diag Phys R 73:440-8 Mr 1 '48

Atomic structure. R. E. Lapp and H. L. Andrews. diag Inst Radio Eng Proc 36:1079-80 S '48

Calculation of self-energies in quantum theory by analytic continuation. S. B. Nilsson. bibliog Phys R 73:903-9 Ap 15 '48

Correlation between the states of polarization of the two quanta of annihilation radiation. E. Bleuler and H. L. Bradt. diag Phys R 73:1398 Je 1 '48

Dirac character operators. E. M. Corson. bibliog Phys R 73:57-60 Ja 1 '48

Elimination of divergences in the meson theory. (M. Schönberg. Phys R 74:748-60 O 1 '48 (to be cont)

QUANTUM theory—Continued

- First-order variational principle for classical electrodynamics. F. J. Belinfante. bibliog Phys R 74:779-81 O 1 '48
- Infinite field reactions in quantum field theory. S. Tomonaga. bibliog Phys R 74:224-5 J1 15 '48
- Infinities in generalized meson-field theory. A. E. S. Green. bibliog Phys R 73:26-9 Ja 1 '48
- Low energy pair production. P. V. C. Hough. Phys R 73:266-7 F 1 '48
- Max Planck, 1858-1947. J. Franck. Science 107:534-7 My 21 '48
- New aspects of the photon self-energy problem. G. Wentzel. Phys R 74:1070-5 N 1 '48
- Non-equilibrium theory of absolute rates of reaction. B. J. Zwolinski and H. Eyring. bibliog Am Chem Soc J 69:2702-7 N '47
- Phenomenological quantum-electrodynamics. J. M. Jauch and K. M. Watson. Phys R 74:950-7 O 15 '48
- Polarization and direction of propagation of successive quanta. D. R. Hamilton. Phys R 74:782-8 O 1 '48
- Quantization of space and time. H. T. Flint. bibliog Phys R 74:209-10 J1 15 '48
- Quantum corrections to the thermodynamic properties of liquids, with application to neon. O. K. Rice. bibliog J Chem Phys 16:141-7 F '48
- Quantum theory of ferromagnetic resonance. D. Polder. Phys R 73:1116 My 1 '48
- Quantum theory of localizable dynamical systems. P. A. M. Dirac. bibliog Phys R 73:1032-103 My 1 '48
- Quantum theory of the point electron. M. Schöenberg. bibliog Phys R 74:738-47 O 1 '48 (to be cont)
- Reactive terms in quantum electrodynamics. H. W. Lewis. bibliog Phys R 73:173-6; Discussion. S. T. Epstein. 177 Ja 15 '48
- Relativistic cut-off for classical electrodynamics. R. P. Feynman. bibliog diag Phys R 74:939-46 O 15 '48
- Relativistic invariance of the quantum theory of radiation. S. T. Ma. Phys R 72:1090-6 D 1 '47
- Saturation in microwave spectroscopy. R. Karplus and J. Schwinger. Phys R 73:1020-6 My 1 '48
- Space-time approach to non-relativistic quantum mechanics. R. P. Feynman. Rs Mod Phys 20:367-87 Ap '48
- Story of atomic energy. F. Soddy. diag Engineering 165:73-6, 121-3, 169-71 Ja 23, F 6, 20 '48
- Temperature dependence of electron energy levels in solids. A. Radowsky. bibliog Phys R 73:749-61 Ap 1 '48
- Theory of elliptically polarized photons. G. Araki. bibliog diags Phys R 74:472-9 Ag 15 '48
- Thermodynamic properties of the internal rotator; double minimum with attractive forces. J. O. Halford. J Chem Phys 16:560-4 Jc '48
- Thermodynamic properties of the internal rotator; double minimum with repulsive forces. J. O. Halford. J Chem Phys 16:410-19 Ap '48
- Use of phase space in classical and quantum theory. H. C. Corben. bibliog Phys R 74:788-94 O 1 '48
- See also*
Correspondence principle Relativity (physics)
Dirac's equation —Thermodynamics
Molecular dynamics Wave mechanics
- QUARRIES and quarrying**
- Arriete quarry in Cuba. R. Martinez de Castro. il Explosives Eng 26:51 Mr '48
- Blasting cement rock in a Pennsylvania quarry. J. O. Smith. il Explosives Eng 26:80-2 My '48
- Cantera Guaimaro quarry in Cuba. R. Martinez Castro, jr. il diags Explosives Eng 26:150-2 S '48
- Change from single face to bench system; Lawrence portland cement co. W. B. Lenhart. il diag Rock Prod 51:98-101+ F '48
- Convert waste stone to valuable by-products; North Carolina granite corporation produces poultry grits and concrete aggregates. W. B. Lenhart. il Rock Prod 51:85-6 J1 '48

- Cut quarrying costs with two surge piles and relocation of crusher; Southern aggregates corporation, Neverson, N.C. plant. W. B. Lenhart. il plan diags Rock Prod 51:70-3 J1 '48
- Horses plus quarrying; Armena lime mines and farms, inc. combines horse raising with production of agricultural limestone. E. L. Heidenreich, jr. il Rock Prod 51:118-19 Ap '48
- Producing ballast for the Union Pacific at Sherman hill, La. A. Luther. il Comp Air Mag 53:250-2 O '48
- Quarrying at Watauga dam. O. Reed. il map plans Roads & Sts 91:68-72+ Mr '48
- Tunnel blasting California limestone. H. D. Hellmers. il plan Explosives Eng 25:143+ S '47

Accidents

- Bridgeport quarry again wins safety award. il Explosives Eng 25:140 S '47
- Mines and quarries have best safety year; bronze Sentinels of safety trophies awarded. Nat Safety N 58:37 S '48
- National safety competition of 1947; awards of certificates; list of contest winners, 1925-1947. F. T. Moyer. il Explosives Eng 26:71-5 My '48
- Review of the injury experience in the cement and quarry industries; abstract. F. T. Moyer. Rock Prod 50:125 D '47

Electric equipment

- Electricity in Scottish quarries. il Engineer 185:514-16 My 28 '48

Equipment

- Aerial ropeway at Cornely quarry. il diag Engineer 186:362-3 O 8 '48
- Cornely limestone quarry of the Steel company of Wales, ltd. flow sheets il Iron & Steel Inst J 157:617-22 D '47
- Large capacity with simple flowsheet; John Iafolla crushed stone products co. W. B. Lenhart. flow sheet il Rock Prod 51:122-4+ Je '48
- Maine turnpike project; stone for turnpike. W. B. Lenhart. il Rock Prod 51:88-9 F '48
- Manufacturers' ideas to meet difficult operating problems; illustrated descriptions of latest equipment. B. Nordberg and others. diags Rock Prod 50:102-25+ D '47
- Michigan Silica completes three-year modernization program. D. Mocine. il plan Rock Prod 51:100-5 Ag '48
- Modernize vertical kiln stone preparation; lime plant of North American cement corp. W. R. Cliffe. flow diag il Rock Prod 51:104-6+ O '48
- Portable plants in three quarries produce agstone and roadstone. D. Mocine. il Rock Prod 51:120-3 Ap '48
- Quarrying a mountain of granite; Penmaenmawr & Welsh granite co. on the coast of Wales. J. R. Shennan. il Rock Prod 51:128-9+ Je '48
- Quarrymaster; air-operated machine for drilling large blast holes. il Comp Air Mag 53:60-2 Mr '48; Abstract. Rock Prod 51:78-9 Mr '48
- Rapid change-over from agstone to roadstone; Pontiac stone co. D. Mocine. il Rock Prod 51:88-90 My '48
- Skull breaker in a limestone quarry. M. Mosier. pl U S Bur Mines Information Circ 7472:1-4 '48
- Turntable speeds up return of quarry trucks. L. A. Castell. diag Rock Prod 51:121 Ja '48
- Two-mile tramway from quarry to plant; Central silica co. D. Mocine. flow sheet il Rock Prod 51:78-81+ S '48

Safety measures

- Motor trucks for mines; quarries, and construction; industrial data sheet. il Nat Safety N 58:39-40+ S '48
- Quarryman; illustrations from National safety council's safety training film, Jackhammer safety. Nat Safety N 57:24-5 Ja '48
- Ten years without a lost-time accident; National gypsum co. B. Nordberg. il Rock Prod 51:90-2 S '48
- QUARTERMASTER association**
- Textiles battle for the consumer dollar; part played by the Quartermaster association. K. G. Birdseye. Textile Col 70:16-17 F '48

QUARTZ

- Age determination of quartz veins and pegmatites in Brazil. D. Guimarães, bibliog il diag Econ Geol 43:100-18 Mr '48
- BeVan quartz crystal prospect Lemhi county, Idaho. J. A. Herdlick, 2pls U S Bur Mines Rep of Invest 4209:1-6 '48
- Determination of the elastic constants for beta-quartz. E. W. Kammer and others, bibliog J Ap Phys 19:265-70 Mr '48
- Effect of the piezoelectric properties of a crystal on diffuse X-ray reflections. D. C. Miller, bibliog il diags Phys R 74:166-9 Jl 15 '48
- Formation of itacolumite. A. C. Copisarow, Science 108:11-12 Jl 2 '48
- Laboratory growing of quartz. D. R. Hale, bibliog Science 107:393-4 Ap 16 '48
- Method for particle size distribution for the entire subsieve range. A. E. Jacobsen and W. F. Sullivan, bibliog diag Anal Chem 19:855-60 N '47
- Piezoelectric crystalline quartz still needed. H. H. Waesche, il Min & Met 29:22-3 Ja '48; Same, Econ Geol 43:66-8 Ja '48; Same, without il. Am J Sci 246:182-5 Mr '48
- Precision measurement of electrical characteristics of quartz-crystal units. W. D. George and others, bibliog diags Inst Radio Eng Proc 36:1122-31 S '48
- Quartz fibre manometer. il Engineer 186:16-17 Jl 2 '48
- Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz. L. J. Rainwater and others, Phys R 73:733-41 Ap 1 '48
- Solubility of quartz in sodium carbonate solutions at high temperature. I. I. Friedman, Am Chem Soc J 70:2649-50 Ag '48
- Statistical factors affecting the intensity of X-rays diffracted by crystalline powders. L. Alexander and others, diags J Ap Phys 19:742-53 Ag '48
- Synthetic quartz crystals grown. Chem & Eng N 26:2453 Ag 15 '48
- Transmission of powder films in the infrared. R. L. Henry, bibliog diag Opt Soc Am J 38:775-89 S '48
- Transportation and deposition of silica. E. Ingerson, bibliog Econ Geol 42:560-2 S '47
- See also
Silica

QUARTZ clock. See Clocks, Electric

QUATERNARY ammonium compounds. See Ammonium compounds

QUAYS. See Wharves

QUEBEC (city)

Improvements to St Charles River area. il Roads & Bridges 86:56+ Ja '48

Sewerage

Sewage interceptor in Quebec city permits industrial development. il Water & Sewage 86:24+ Ja '48

QUEBEC (province)

See also

Geology—Quebec

(province)

Gold mines and min-

ing—Quebec

(province)

Iron mines and min-

ing—Quebec (prov-

ince)

Mines and mineral

resources—Quebec

(province)

Mines, Department of

Department of mines of the province of Quebec. A. O. Dufresne, Can Min J 69: 103-9 O '48

Quebec Department of mines laboratories. M. Archambault, il Can Min J 69:138-45 O '48

QUENCHING of coke. See Coke manufacture—Cooling

QUENCHING of fluorescence. See Fluorescence

QUENCHING of steel. See Steel, Quenching of

QUENCHING oils. See Steel, Quenching of

QUERCETIN

Effect of flavonols on clostridium botulinum. A. A. Andersen and J. A. Berry, Science 106:644-5 D 26 '47

QUESTIONNAIRES

Cartoons jump returns on business questionnaire; Corning glass works secured data on market for glass piping through the mail, il Ptr Ink 222:44-5 Ja 16 '48

Case for research by mail, how it can be used and improved. G. A. Cooper, il Ptr Ink 224:38-9+ S 17 '48

Controlling bias in mail questionnaires. J. A. Clausen and R. N. Ford, Am Stat Assn J 42:497-511 D '47

How to save time and money on the tabulation of surveys. P. L. Erdos, Ptr Ink 222: 36-7 F 13 '48

Stratified-random sample of a small finite population; survey of enrollments by mail questionnaire of 1800 colleges and universities in the United States. F. G. Cornell, Am Stat Assn J 42:523-32 D '47

This small plant made a morale survey; Aeroquip corp. P. F. Hurst, Factory Management 108:78-9 My '48

Three steps in product testing by mail; denture adhesive. A. B. Day, il Ptr Ink 222: 33+ Ja 9 '48

12 ways to improve field research; 393 interviewers give their opinions. A. S. Bennett, il Adv & Sell 40:48+ D '47

Which, mail questionnaires or personal interviews? opposing views. R. Ferber, bibliog Ptr Ink 222:44-7+ F 13 '48

QUICKSILVER. See Mercury

QUINACRINE. See Atebrin; Quinaldine

QUINALDINE

Action of alkali on chloral-quinaldine. R. B. Woodward and E. C. Kornfeld, bibliog Am Chem Soc J 70:2508-14 Jl '48

Derivatives of 6-methoxyquinaldine with basic substituents in the 4-position. J. Walker, Chem Soc J p 1552-3 N '47

QUINALDINECARBOXYLIC acids

Alkoxyaryloxyketones and their condensation with isatin. R. L. Sublett and E. K. Calaway, bibliog Am Chem Soc J 70:674-5 F '48

QUINAN, Kenneth Bingham, 1878-1948

Appreciation. W. Cullen, Chem & Ind p348-9 My 28 '48

K. B. Quinan, C.H. W. H. Simmons, Chem & Ind p381 Je 12 '48

QUINAZOLINE

Chemistry of simple heterocyclic systems; reactions of 6- and 7-nitro-4-hydroxyquinazoline and their derivatives. J. S. Morley and J. C. E. Simpson, Chem Soc J p360-6 Mr '48

Quinazolines; syntheses of certain 2-methyl-4-substituted quinazolines. A. J. Tomisek and B. E. Christensen, bibliog Am Chem Soc J 70:2423-5 Jl '48

Quinazolines; the synthesis of 2-(and 3)-o-aminobenzyl-4-quinazolones. A. Tomisek and B. E. Christensen, bibliog Am Chem Soc J 70:1701-2 My '48

QUINAZOLONE

Quinazolines; synthesis and hydrolysis of 3-(4'-quinazoyl)-4-quinazolone. A. J. Tomisek and B. E. Christensen, Am Chem Soc J 70:874-5 F '48

Quinazolines; the synthesis of 2-(and 3)-o-aminobenzyl-4-quinazolones. T. Tomisek and B. E. Christensen, bibliog Am Chem Soc J 70:1701-2 My '48

QUINDOLINE

Carbazoles, carbolines, and related compounds; transformations of some quaternary salts of quindoline. S. J. Holt and V. Petrow, Chem Soc J p919-22 Jl '48

QUINDINE

Importance of the methoxy group in anti-fibrillatory compounds. J. R. DiPalma and J. J. Lambert, bibliog Science 107:66-8 Ja 16 '48

Quindine and quinine situation reported to Congress by Harriman, Oil Paint & Drug Rep 152:5+ N 10 '47

Quindine distribution controls extension proposed to Congress. Oil Paint & Drug Rep 153:5+ F 9 '48

QUINDOLINE

Carbazoles, carbolines, and related compounds; quindoline derivatives. S. J. Holt and V. Petrow, Chem Soc J p922-4 Jl '48

QUININE

Cinchona-bark and quinine production and trade, Netherlands. For Comm W 32:38 S 4 '48

Cinchona derivatives getting back to normal and quinine salts are inadequate supply. Chem & Eng N 26:68 Ja 5 '48

QUININE—*Continued*

Quinidine and quinine situation reported to Congress by Harriman, Oil Paint & Drug Rep 162:5-1 N 10 '47

Quinine struggle; Dutch push to regain control, Bsns W p44-1 N 15 '47

Quinine surplus? Bsns W p38 D 6 '47

Role of the spleen in the quinine treatment of malaria; abstract, W. H. Talliaferro and others, Science 107:460 My 7 '48

Studies in the series of 4-substituted quinolines, J. W. Cornforth and R. H. Cornforth, Chem Soc J p93-7 Ja '48

QUININE, Analogs of

Studies in the series of 4-substituted quinolines, J. W. Cornforth and R. H. Cornforth, Chem Soc J p93-7 Ja '48

QUINOL. See Hydroquinone**QUINOLINE**

Application of Pfitzinger reactions to the synthesis of quinoline derivatives; a novel route to 4-hydroxyquinolines, Buu-Hof and R. Royer, Chem Soc J p 106-10 F '48

Derivatives of 6-methoxyquinoline with basic substituents in the 4-position, J. Walker, Chem Soc J p 1552-3 N '47

Quinolines; some polysubstituted 4-(4'-diethylamino-1'-methylbutylamino)-quinolines, E. A. Steck and others, bibliog Am Chem Soc J 70:1012-15 Mr '48

Some dialkylaminosulfonyl sulfides and ethers derived from quinoline and acridine heterocycles, R. O. Clinton and C. M. Suter, bibliog Am Chem Soc J 70:491-4 F '48

Some quinoline derivatives of 2-amino-p-cymene, A. S. Wheeler and J. N. LeConte, Am Chem Soc J 70:386 Ja '48

Studies in the quinoline series; the mononitrophenylepidylcarbinols and related compounds, R. S. Tipson and A. F. Walton, bibliog Am Chem Soc J 70:892-5 Mr '48

Studies in the series of 4-substituted quinolines, J. W. Cornforth and R. H. Cornforth, Chem Soc J p93-7 Ja '48

Synthesis of antimalarials; 1-(7-chloro-2-phenylquinolinyl-4)-6-diethylamino-hexanediol-1,3 and certain other compounds, J. C. Shivers and C. E. Hauser, bibliog Am Chem Soc J 70:437-8 Ja '48

Synthesis of quinolines from aryloxyketones by the method of Pfitzinger, A. M. Dowell, Jr., H. S. McCullough and P. K. Calaway, Am Chem Soc J 70:226-7 Ja '48

See also

Aminochloroquinoline

QUINOLINOL

Copper 8-quinolinolate industrial preservative, P. G. Benignus, bibliog Ind & Eng Chem 40:1426-9 Ag '48

QUINOLIZIDINE

Quinolizidine, V. Boekelheide and S. Rothchild, Am Chem Soc J 69:3149-50 D '47

QUINOLYLMERCAPTOACETIC acid

Basic esters and amides of 4-quinolylmecaptoacetic acid derivatives, A. R. Surrey, Am Chem Soc J 70:2190-3 Je '48

QUINONE

Addition of dimethylamine to benzoquinone, R. Baltzly and E. Lorz, Am Chem Soc J 70:861-2 F '48

Formation of quinone by the action of bromine oxide on benzene, M. S. Kharasch, P. E. Polen and W. H. Urry, Am Chem Soc J 69:2566 O '47

QUINONES

Kinetics of halogen addition to unsaturated compounds; $\alpha\beta$ -unsaturated ketones and quinones, H. P. Rothbaum, I. Ting and P. W. Robertson, Chem Soc J p980-4 JI '48

Synthesis of embelin, rapanone and related quinones by peroxide alkylation, L. F. Fieser and E. M. Chamberlin, bibliog Am Chem Soc J 70:71-5 Ja '48

QUINOXALINE

Preparation of some substituted quinoxalines, R. W. Bost and E. B. Towell, bibliog Am Chem Soc J 70:903-5 Mr '48

Some basically substituted quinoxalines, H. Gilman and H. S. Broadbent, bibliog Am Chem Soc J 70:2619-21 Ag '48

Synthetic antimalarials; some derivatives of phthalazine, quinoxaline, and isoquinoline, R. D. Haworth and S. Robinson, Chem Soc J p777-82 Je '48

See also

Aminoquinoxaline

carboxylic acid

Hydroxyquinoxaline

QUINUCLIDINE

Dissociation of the addition compound of trimethylboron with quinuclidine; further evidence for the steric configuration of triethylamine, H. C. Brown and Sei Sujishi, bibliog diags Am Chem Soc J 70:2878-81 S '48

QUIRKE, Terence Thomas, 1886-1947

Memorial, C. A. Chapman, por(pl 12) Geol Soc Proc 1947:167-72 bibliog(p 171-2) My '48

QUIZ programs. See "Employees' contests"—Quiz programs**QUONSET construction**

Erecting all-aluminum quonsets is simple; illustrations with text, Constr Methods 30: 46-8 O '48

Quickly constructed quonsets provide eight-acre laboratory for atomic research, il Civil Eng 18:689 N '48

QUOTATIONS

Home book of proverbs, maxims and familiar phrases, B. Stevenson, comp. 2957p \$20 Macmillan co, 60 5th Av, New York 11 '48

R**RABBIT liver nucleoprotein**. See Nucleoproteins**RABI**, Isidor Isaac, 1898-

Portrait, Fortune 38:168 O '48

RABIES

Benzene-ether extracted rabies vaccine, J. T. Wright and others, bibliog Science 108:118-19 JI 30 '48

Purification of rabies vaccine, D. L. Harris, Science 108:158 Ag 13 '48

Some factors influencing the mouse potency test for rabies vaccine, K. Habel and J. T. Wright, bibliog Pub Health Rep 63:44-55 Ja 9 '48

RACE discrimination

Barrier falls; race covenant ban, Arch Forum 88:15-16 Je '48

Fair employment practices legislation, R. Parkinson, Harvard Bsns R 26:115-28 Ja '48

Job bias still high, Civil rights committee finds, Bsns W p96-1 N 8 '47

Only Caucasian; a study of race covenants; Queens county, Nassau county and southern Westchester county, J. E. Dean, J Land & Pub Util Econ 23:428-32 N '47

Racial discrimination in union representation forbidden, Mo Labor R 65:573 N '47

RACE problems**Bibliography**

Inventory of research in racial and cultural relations, (Bul. no. 1) 55p Univ. of Chicago, Committee on education, training and research in race relations, room 319, 1126 E. 59th st, Chicago 37 '48

Labor education materials on minority problems; an annotated list, 21p pa 25c American labor education service, 1776 Broadway, New York 19 '48

RACEMIZATION

Action of sulfuric acid on an optically active hydrocarbon, R. L. Burwell, Jr. and G. S. Gordon, 3d, bibliog Am Chem Soc J 70: 3128-32 S '48

Catalytic racemization and dehydrogenation of optically active secondary-butyl alcohol by copper and by zinc chromite, R. L. Burwell, Jr. bibliog diags Am Chem Soc J 70: 2865-9 S '48

Resolution of 9,2-substituted fluorenes, F. E. Ray and E. Kreiser, bibliog Am Chem Soc J 69:3068-70 D '47

Restricted rotation in aryl amines; preparation and resolution of N-succinyl-1-methylamino-2,4-dimethyl-6-substituted benzenes, R. Adams and N. K. Sundholm, Am Chem Soc J 70:2667-73 Ag '48

RACINE, Wisconsin**Streets**

Racine builds pavement to fit the traffic, W. J. Chadwick, Pub Works 78:35-6 N '47

RACKETEERING

Are you supporting the con men? abstract. H. Smith. Management R 37:62-3 F '48
Old look returns; gangsterism in New York's garment industry. il(p 205) Fortune 38:206+ N '48

RACKS

Compact chute rack stores motor frames. J. F. Miller. il diags Am Mach 92:102-3 Je 17 '48
Racks and bins aid raw-material warehousing. R. O. Fristoe. il diag Am Mach 92:116-17 Ag 12 '48
Rolling racks store and move with least handling; Walker-Turner co. E. J. Warwick. il Factory Management 106:116-17 Mr '48

See also

Plating racks

RADAR

Accurate measurement of the group velocity of radio waves in the atmosphere, using radar technique. R. A. Smith and others. diags Inst E E J 94 pt 3:391-5; Discussion. 402-6 N '47
Analysis and performance of waveguide-hybrid rings for microwaves. H. T. Budenbom. il diags Bell System Tech J 27:473-86 Jl '48
Attenuator materials, attenuators, and terminations for microwaves. G. K. Teal and others. il diags Elec Eng 67:754-7 Ag '48
Cathode-coupled clipper circuit. L. A. Goldmuntz and H. L. Krauss. diags Inst Radio Eng Proc 36:1172-7 S '48
Communication by means of reflected power. H. Stockman. il diags Inst Radio Eng Proc 36:1196-204 O '48
Detectability and discriminability of targets on a remote projection plan-position indicator. W. R. Garner and F. Hamburger, jr. diags Inst Radio Eng Proc 35:1220-5 N '47
Development and applications of the Skiatron. G. Wikkenhauser. il diag Electronics 21:174+ Mr '48
Developmental pulse triode for 200 kw. output at 600 mc. L. S. Nergaard and others. il diags Inst Radio Eng Proc 36:412-16 Mr '48
High-vacuum oxide-cathode pulse modulator tubes. C. E. Fay. bibliog il diags Bell System Tech J 26:818-36 O '47
Magnetron-resonator system. E. C. Okress. bibliog diags J Ap Phys 13:1098-109 D '47
Measurement of the velocity of propagation of centimetre radio waves as a function of height above the earth. F. E. Jones. diags Inst E E J 94 pt 3:399-401; Discussion. 402-6 N '47
Minimum detectable radar signal and its dependence upon parameters of radar systems. A. V. Haeff. diag Inst Radio Eng Proc 34:857-61 N '46; Discussion. V. Tiberio. 36:1261 O '48
Performance characteristics of long-persistence cathode-ray tube screens; their measurement and control. R. E. Johnson and A. E. Hardy. bibliog il diag RCA R 8:660-81 D '47
Pneumatic heat detector. H. A. Zahl and M. J. E. Golay. il diags R Sci Instr 17:511-15 N '46; Same abr. Tele-Tech 7:44-5+ My '48
Principles of frequency-modulated radar. I. Wolff and D. G. C. Luck. bibliog il diags RCA R 9:50-75, 352-62, 531-55 Mr S '48
Propagation of very short waves. D. E. Kerr. diags Electronics 21:124-8 Ja; 118-23 F '48
Quantitative radar measurements. M. Katzin. diag Inst Radio Eng Proc 35:1333-4 N '47
Radar limits indicate much-needed refinements; abstract. L. H. Lynn. S A E J 56:65+ F '48
Radar speed meter to aid engineering design. Roads & Sts 90:106 O '47
Radar's magic eye surveys a continent; Australian mapping project. Civil Eng 18:117 F '48
Radio waves and matter. H. M. Davis. il diags Sci Am 179:16-23 S '48
Recording photometer and its use in studies of cathode-ray screen displays. F. Hamburger, jr. and E. J. King. bibliog diags Opt Soc Am J 38:875-9 O '48
Reflex oscillators for radar systems. J. O. McNally and W. G. Shepherd. il diag Inst Radio Eng Proc 35:1424-35 D '47

Special magnetic amplifiers and their use in computing circuits. H. S. Sack and others. bibliog diags Inst Radio Eng Proc 35:1375-82 N '47
Testing long-persistence screens; cathode-ray tube screens for radar. J. C. Teller and J. F. Fisher. il diags Electronics 21:126-30 F '48
Tunable vacuum-contained triode oscillator for pulse service. C. E. Fay and J. E. Wolfe. il diags Inst Radio Eng Proc 36:234-9 F '48
Ultrasonic solid delay lines. D. L. Arenberg. bibliog(30 titles) diags Acoustical Soc Am J 20:1-26 Ja '48
Visibility of small echoes on radar PPI displays. R. Payne-Scott. il diags Inst Radio Eng Proc 36:180-96 F '48
Visibility on cathode-ray tube screens; signals on a P7 screen seen at different intervals after excitation. A. L. Sweet and N. R. Bartlett. diag Opt Soc Am J 38:329-37 Ap '48
Visibility on cathode-ray tube screens; the effects of light adaptation. R. M. Hanes and S. E. Williams. bibliog diag Opt Soc Am J 38:363-77 Ap '48

See also

Phantatron (delay circuit) Radar aids to aviation

Antenna and scanning mechanism

Eliminating vibration in high-speed machines. A. S. Gutman. diags Machine Design 20:118-24 O '48
Plastics used in fire control radar antenna. il Product Eng 19:148 F '48
Solution of the problem of rapid scanning for radar antennae. R. F. Rinehart. diags J Ap Phys 19:860-2 S '48
Three-dimensional cathode-ray tube displays. E. Parker and P. R. Wallis. bibliog il diags Inst E E J 95 pt 3:371-87; Discussion. 387-90 S '48
Transmission-line bridge; applications to directive arrays. C. H. Westcott. diags Wireless Eng 25:215-20 Jl '48

Bibliography

Radio progress during 1947; navigation aids. Inst Radio Eng Proc 36:525-7 Ap '48

Fire hazard

Photo flash fight; danger of ignition by radar. Esns W p37 Ap 10 '48
Radar ignition of flash bulbs creates fire hazards. Electronics 21:245-6+ F '48

Industrial applications

FCC member urges radar location permits for offshore oil work. Oil & Gas J 47:67 S 16 '48

Interference

Some effects of obstacles on the propagation of very short radio waves. E. C. S. Megaw. il diags Inst E E J 95 pt 3:97-105 Mr '48
Some fundamental considerations concerning noise reduction and range in radar and communication. S. Goldman. diags Inst Radio Eng Proc 36:584-94 My '48

Meteorological use

Continuous tropospheric soundings by radar. A. W. Friend. il Inst Radio Eng Proc 36:501-3 Ap '48
Radar and raindrops. il Westinghouse Eng 8:44-5 Mr '48; Elec Eng 67:474 My '48
Rainfall intensities and attenuation of centimeter electromagnetic waves; radar in storm detection. R. Wexler and J. Weinstein. bibliog Inst Radio Eng Proc 36:353-5 Mr '48
Telecommunications research; some current developments at T.R.E., Great Malvern. il Electrician 140:1644-5 My 28 '48
Theory of radio detection of meteors. L. A. Manning. diags J Ap Phys 19:689-99 Ag '48

Military use

Air force flies the weather. N. F. Silsbee and R. W. Brown. il Aero Digest 56:37-8+ Ap '48

RADAR—Military use—*Continued*

Checking the test birds (guided missiles); observing and governing the flights by use of tracking radar. *il Aero Digest* 56:49+ F '48

Guided missiles. C. E. Chapel. *il Radio N* 39: 39-41+ Ja '48

Wartime naval photography of the electronic image; training radar operators. F. X. Clasby and R. A. Koch. *il Soc Motion Picture Eng J* 50:189-97; Discussion. 197-8 Mr '48

Patents

RCA licensed under Raytheon radar patents. *Marine Eng* 53:86 O '48

Surveying use

Adjustment of the shoran triangulation. C. Chu. *diags Am Soc C E Proc* 74:1063-70 S '48

Shoran for surveying. W. F. Kroemmelbein. *il diags Electronics* 21:112-17 Mr '48

Shoran radar, war's contribution to oil exploration. E. B. Stern, jr. *il diag Oil & Gas J* 46:70-2 Ja '48

Surveying with pulsed-light radar. W. W. Hansen. *il diags Electronics* 21:76-9 JI '48

RADAR aids to aviation

APS-42 radar. L. W. Mallach. *il Radio N* 39:44-5+ Ap '48

Block signals to control air traffic; Tricon system. *Bsns W* p57-8 Ja 31 '48

Daytime radar reading eased. *il Aviation W* 49:34 JI 19 '48

Electronic aerial traffic cop developed by Airborne instruments laboratory. *il Bsns W* p58-9+ D 13 '47

First with the seeing eye; poor man's radar. APS-10, does a two-fold job for Peruvian international airways. N. F. Silsbee. *il Aero Digest* 55:23-4 N '47

GCA radar systems; list, CAA-operated, navy-operated, air force-operated. *Aviation W* 48:102 F 23 '48

Modern exploratory tools being used in five-company Bahama oil search; airborne magnetometer used in conjunction with shoran radar. W. W. Burns. *il map diag Oil & Gas J* 46:38-40+ N 8 '47

More on time schedules; improved air traffic control with existing techniques possible. W. D. White. *diags Air Transport* 5:39-40 N '47

New York radar charts air traffic. I. C. Nye. *il Aero Digest* 57:102+ S '48

Position-finding by radio; first thoughts on the classification of systems. C. E. Strong. *diags Inst E E J* 95 pt 1:31-5 Ja '48; Same. *Inst E E J* 95 pt 3:2-6 Ja '48; Same. *Elec Com* 25:278-85 S '48; Same cond. *Engineer* 184:446-7 N 7 '47

Radar grows as weather weapon. *Aviation W* 49:39-40 O 11 '48

Surveillance radar deficiencies and how they can be overcome. J. W. Leas. *Inst Radio Eng Proc* 36:1015-17 Ag '48

Targets for microwave radar navigation. S. D. Robertson. *diags Bell System Tech J* 26: 852-69 O '47

Teleran; first experimental installation. D. H. Ewing and others. *il diag RCA R* 8:612-32 D '47

Two-color radar provides constant measurements from plane to fixed ground beacons. *il diag Tele-Tech* 7:67+ JI '48

Using air-borne radar to increase air-line safety. R. W. Ayer. *il Elec Eng* 67:246-8 Mr '48

Bibliography

Radio progress during 1947; navigation aids. *Inst Radio Eng Proc* 36:525-7 Ap '48

RADAR aids to navigation

Electronics on shipboard; abstract. H. F. Harvey, jr. and F. P. Coleman. *Marine Eng* 53:65; Discussion. 66-7 Ja '48

Marine radar on Southend pier. *il Electrician* 141:646 Ag 27 '48

Mersey Harbour radar installation. *il plan Engineer* 186:130-2 Ag 6 '48; Abstract. *Elec R (Lond)* 143:205 Ag 6 '48

Radar control at Douglas harbour, I.O.M. *il Engineer* 186:240 Mr 5 '48

Radar for river oil tows. *il World Oil* 127: 175 Ja '48

Radar navigational aid for Liverpool. *il Engineering* 165:534 Je 4 '48

River radar promises faster tows for mills and fabricators. *il map Iron Age* 160:121-2 D 25 '47

Some effects of obstacles on the propagation of very short radio waves. E. C. S. Megaw. *il diags Inst E E J* 95 pt 3:97-105 Mr '48

Special radar designed for Great Lakes. *Marine Eng* 53:94+ Ja '48

Targets for microwave radar navigation. S. D. Robertson. *diags Bell System Tech J* 26: 852-69 O '47

Tug boat radar demonstrated by New Haven and P.R.R. *il Ry Age* 123:918-19 N 22 '47

Bibliography

Radio progress during 1947; navigation aids. *Inst Radio Eng Proc* 36:525-7 Ap '48

RADAR receiving apparatus

Considerations in the design of a radar intermediate-frequency amplifier. A. L. Hopper and S. E. Miller. *il diags Inst Radio Eng Proc* 35:1208-19 N '47

Engineering the schematic diagram. J. M. Henry and M. G. Morgan. *diags Electronics* 21:74-7 Je '48

Microwave converters, using point-contact silicon rectifiers. C. F. Edwards. *diags Inst Radio Eng Proc* 35:1181-91 N '47

Radar receiver. L. W. Morrison, jr. *il diags Bell System Tech J* 26:693-817 O '47

Stagger-tuned amplifier design. E. Wallman. *il diags Electronics* 21:100-5 My '48

Visibility of small echoes on radar PPI displays. R. Payne-Scott. *il diags Inst Radio Eng Proc* 36:180-96 F '48

Noise

Low-noise amplifier. H. Wallman and others. *il diags Inst Radio Eng Proc* 36:700-8 Je '48

Method for determining receiver noise figure. M. Allen. *il diags Tele-Tech* 7:38-9+ Ja '48

Signal-noise ratio in radar. M. Levy. *diags Wireless Eng* 24:349-52 D '47

Superregenerative

Superregenerative radar. *Electronics* 21:176+ F '48

RADAR research

Detectability and discriminability of targets on a remote projection plan-position indicator. W. R. Garner and F. Hamburger, jr. *diags Inst Radio Eng Proc* 35:1220-5 N '47

Micro-wave research tower recently completed; Federal tele-communication laboratories. *il Product Eng* 19:144 JI '48

Telecommunications research; some current developments at T.R.E.L. Great Malvern. *il Electrician* 140:1644-6 My 28 '48

Two-color radar provides constant measurements from plane to fixed ground beacons. *il diag Tele-Tech* 7:67+ JI '48

RADAR transmitters

Engineering the schematic diagram. J. M. Henry and M. G. Morgan. *diags Electronics* 21:74-7 Je '48

RADIATION

Angular correlation of scattered annihilation radiation. E. Bleuler and D. ter Haar. *Science* 108:10-11 JI 2 '48

Angular distribution of pair-produced electrons and bremsstrahlung. P. V. C. Hoch. *Phys R* 74:30-6 JI 1 '48

Atomic structure. R. E. Lapp and H. L. Andrews. *diags Inst Radio Eng Proc* 36: 1077-80 S '48

Classical equations of motion of point charges. P. Havas. *bibliog Phys R* 74: 456-63 Ag 15 '48

Contribution to the theory of the Cherenkov effect. G. Beck. *bibliog Phys R* 74:795-802 O 1 '48

Correlation between the states of polarization of the two quanta of annihilation radiation. E. Bleuler and H. L. Bradt. *diag Phys R* 73:1398 Je 1 '48

Dependence of quenching efficiency on temperature. W. M. Smith and F. W. Southam. *J Chem Phys* 15:845-6 N '47

Detection and measurement of nuclear radiation. G. W. Dunlap. *bibliog il diags Elec Eng* 67:325-32 Ap '48

RADIATION—Continued

- Effect of radiation on the rate of burning of solid fuel rocket propellants. S. S. Penner. *diags J Ap Phys* 19:392-8 Ap '48
- Efficiency of radiation shields. A. E. De Barr. *R Sci Instr* 19:569-73 S '48
- Efficiency of radiation shields. A. W. Lawson and R. Fano. *diag R Sci Instr* 18:727-9 O '47
- Extension of De Barr's analysis of radiation shielding. J. B. Garrison and A. W. Lawson. *diags R Sci Instr* 19:574-7 S '48
- Imprisonment of resonance radiation in gases. T. Holstein. *Phys R* 72:1212-33 D 15 '47
- Internally converted radiation from europium, hafnium, and osmium. J. M. Cork and others. *il Phys R* 72:1209-11 D 15 '47
- New radiation meter. H. P. Kalmus and G. O. Striker. *bibliog diags R Sci Instr* 19:79-82 F '48
- Polarization and direction of propagation of successive quanta. D. R. Hamilton. *Phys R* 74:782-8 O 1 '48
- Possibility of observing beat frequencies between lines in the visible spectrum. A. T. Forrester and others. *diag Phys R* 72:728 O 15 '47; Discussion. L. R. Griffin. 73:922; Reply (Signal-to-noise ratio in photoelectrically observed beats). 922-3 Ap 15 '48
- Qualitative experimental verification of the change of burning rate of rocket powders with radiation path length. S. S. Penner. *diags J Ap Phys* 19:511-13 Je '48
- Radiation from a diaphragm struck periodically by a light mass. M. Strasberg. *diag Acoustical Soc Am J* 20:683-90 S '48
- Radiation from electrons accelerated in a synchrotron. F. R. Elder and others. *bibliog il Phys R* 74:52-6 Jl 1 '48
- Radiation from short aerials; new method of calculation. R. G. Medhurst. *bibliog diags Wireless Eng* 25:260-6 Ag '48
- Radiation measurements; abstract. D. S. Martin. *Elec Eng* 67:588 Je '48
- Symposium on radiation chemistry and photochemistry. *bibliog il diags J Phys & Colloid Chem* 52:437-611 Mr '48
- Symposium on the interaction of matter and radiation. *Science* 108:129-30 Ag 6 '48
- Table of Planckian radiation. F. Moon. *bibliog Opt Soc Am J* 38:291-4 Mr '48
- Theory of oscillating absorber in a chain reactor. A. M. Weinberg and H. C. Schweinler. *bibliog Phys R* 74:851-68 O 15 '48
- Thermodynamics in terms of matter, radiation, and space. E. M. Fernald. *diag J Eng Educ* 38:692-8 Mr '48
- Transformation theory applied to a radiation field. J. A. Balseiro. *Phys R* 73:1346-8 Je 1 '48
- Ultimate sensitivity of radiation detectors. R. C. Jones. *bibliog Opt Soc Am J* 37:879-90 N '47
- See also*
- | | |
|----------------------|------------------|
| Absorption of rays | Luminescence |
| Alpha rays | Quantum theory |
| Beta rays | Radioactivity |
| Coincidence counting | Radiography |
| Cosmic rays | Solar radiation |
| Gamma rays | Sound |
| Heat radiation | Spectrum |
| Infrared rays | Ultraviolet rays |
| Light | X rays |

Physiological effect

- Differential effects of combined radiations on chromosome breakage and mutation rate; abstract. C. P. Swanson. *Science* 107:458 My 7 '48
- Health physics and its control radiation exposures at Clinton national laboratory. K. Z. Morgan. *bibliog il Chem & Eng N* 25:3794-8 D 22 '47
- Industrial toxicology; abstracts. *J Ind Hygiene* 30:sup34-7 Mr '48
- Physical and medical aspects of radiation. L. L. German and H. M. Rozendaal. *il Elec Eng* 67:884-90 S '48
- Protection against radiation hazards and maximum allowable exposure values; abstract. K. Z. Morgan. *Chem & Eng N* 26:1074-5 Ap 12 '48
- Studies on radiosensitivity of cells. L. O. Jacobson and others. *il Science* 107:248-50 Mr 5 '48
- See also*

- | | |
|---------------------|-------------------|
| Atomic bombs— | X rays—Physiolog- |
| Radiological effect | ical effect |

RADIATION chemistry (term)

- Radiation chemistry and nuclear energy. M. Burton. *Chem & Eng N* 26:1764-6 Je 14 '48
- Relation of radiation chemistry to photochemistry. E. W. R. Steacie. *bibliog J Phys & Colloid Chem* 52:441-6 Mr '48

RADIATORS

- Does oil and gas heating demand extra radiator surface? A. G. Canar. *Heat & Ven* 45:65-6 S '48
- Piping arrangements for convector-radiator jobs. *diags Dom Eng* 171:148-9+ Ja '48
- Radiator enclosures and placement of radiators; reference data. A. C. Willard and others. *Heat & Ven* 45:100a-100b Mr '48

RADIATORS, Automobile. *See* Automobile engines—Radiators

RADICALS (chemistry)

- Decompositions of di-*t*-alkyl peroxides; reactions of the resultant free radicals. F. E. Rust, F. H. Seubold and W. E. Vaughan. *Am Chem Soc J* 70:95-9 Ja '48
- Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton. *il J Phys & Colloid Chem* 52:490-517 *bibliog* (64 ref, p516-17) Mr '48
- Free-radical reactions of the aromatic diazo-compounds; reply to Hodgson's criticisms. D. H. Hey and W. A. Waters. *Chem Soc J* p382-5 Je '48
- Magnetic measurements on 2,2'-benzothiazyl disulfide and bis-(9-ethoxy-10-phenanthryl) peroxide. H. G. Cutforth and P. W. Selwood. *bibliog diag Am Chem Soc J* 70:278-81 Ja '48
- Mass-spectrometric detection of free radicals. G. C. Eltenton. *diags J Phys & Colloid Chem* 52:463-9 Mr '48
- Mechanism of the Gomborg reaction; an alternative to the free radical interpretation. H. H. Hodgson. *bibliog Soc Dyers & Col J* 64:99-104 Mr '48; Reply. D. H. Hey and W. A. Waters. *bibliog* 64:359-61 N '48
- Radical-sensitized polymerisation of vinyl acetate vapour. H. W. Melville and R. F. Tuckett. *Chem Soc J p* 1211-17 S '47
- Reactions of atoms and free radicals in solution; the addition of bromo esters to olefins. M. S. Kharasch, P. S. Skell and P. Fisher. *bibliog Am Chem Soc J* 70:1055-9 Mr '48
- Reactions of atoms and free radicals in solution; the reactions of diacetyl peroxide with aliphatic ketones; a new synthesis of 1,4-diketones. M. S. Kharasch, H. C. McBay and W. H. Urry. *bibliog Am Chem Soc J* 70:1269-74 Mr '48
- Some free radical reactions of hydrogen chloride. J. H. Raley, F. F. Rust and W. E. Vaughan. *Am Chem Soc J* 70:2767-70 Ag '48

RADIO advertising

- Adventures in advertising. J. O. Young. *Ptr Ink* 224:42+ Ag 20 '48
- Advertisers' pick up tab on Election day. J. Walker. *Ed & Pub* 81:40 O 30 '48
- Agency man's kit of radio facts; points about stations, listening, networks, coverage, and conclusions on use of medium. H. B. West. *il Adv & Sell* 40:42+ N '47
- ASNE gets complaint on pampered pets; radio and video. *Ed & Pub* 81:57 Ag 14 '48
- Anatomy of the radio commercial; McCann-Erickson study. H. Herzog and M. Harper, Jr. *Adv & Sell* 41:69-72 Jl; 81-3 Ag; 74-6 S; 62-4 N '48
- Car-card radio; radio programs in buses, trolleys, and trains constitute new advertising medium. A. A. McKenzie. *il Electronics* 21:72-3 Je '48
- Chain management contacts branch personnel on the air. *Ptr Ink* 221:84+ N 14 '47
- Code put into effect with time limit on ads. J. Walker. *Ed & Pub* 81:44 Jl 10 '48
- Home service greets new audiences; radio and theater demonstrations can play an increasingly important part. M. Schrock. *il Am Gas Assn Mo* 30:6-8 F '48; Excerpt. *Am Gas J* 168:19-20 Mr '48
- How to make your Hooper a super-dooper; six tested ways Hooper-sensitive regional and local advertisers can build respectable ratings. E. W. Whitney. *Adv & Sell* 41:43+ Je '48

RADIO advertising—Continued

Improves community relations by boosting the community; Bates manufacturing co. amateur radio show about Maine. L. McCracken. *Il Ptr Ink* 224:40-1 S 24 '48

Irritation advertising in radio commercials. Aesop Gilm. *Ptr Ink* 222:78 F 27 '48

NAB president defends radio's commercials; sees too severe code alienating advertisers. D. Bruner. *Ptr Ink* 221:113+ D 12 '47

NBC decalogue bans plugs between news. J. Walker. *Ed & Pub* 81:48 S 25 '48

National study answers five problems about the use of radio advertising. C. H. Wolfe. *Ptr Ink* 224:42-3+ J1 9 '48

New streetcar serenade; Transit radio, inc. supplies fm programs for buses and trolleys. H. Taft, Jr. *Pub Util* 42:406-12 S 23 '48

Policyholder and public relations; radio programs of life companies. K. H. Mathus. *Il Spectator (Life ed)* 155:18-21, 24+ Je '48

Psychologists help radio program become a national institution; Jack Armstrong show or Wheaties. H. W. Green. *Il Ptr Ink* 221:32-3+ N 7 '47

Radio admen declare war on printed media. *Ed & Pub* 81:38 Ag 21 '48

Radio and television promotions in the new department store. E. B. Weiss. *Il Ptr Ink* 222:43-4+ Mr 12 '48

Radio; car card of air; Transit radio, inc. provides broadcasting service to bus riders. F. Kane. *Il Bus Transportation* 27:49-51 Mr '48

Radio helps farmers get million a year more income than nonadvertising neighbors; Tillamook County cheese makers use radio, newspapers and magazines. L. F. Thomann. *Ptr Ink* 224:41 J1 23 '48

Radio report to depositors; Community savings bank of Rochester, N.Y. Banking 41:92-3 J1 '48

Seven keys to profit; success story of Hilbor, inc. *Il Dom Eng* 171:110-11+ Ja '48

Seven predictions for the future of radio advertising. C. H. Wolfe. *Il Sales Management* 61:130+ Ag 15 '48

Ten factors in successful network advertising. C. H. Wolfe. *Ptr Ink* 224:38-9+ Ag 27 '48

Time to re-examine promotion via radio. T. S. Irvin. *Ed & Pub* 81:52 O 9 '48

To use or not to use the irritation technique in radio advertising. L. S. Wechsler. *Ptr Ink* 223:36-7 My 14 '48

Trouble with radio is, not length of commercials, but dullness. E. W. Whitney. *Ptr Ink* 222:82 Mr 12 '48

Two parts Bill Leonard, one part news make radio show. J. Walker. *Ed & Pub* 81:42 Ja 31 '48

See also

Radio broadcasting—Television advertising
Serials

Awards

Annual advertising awards, 1947, winners. *Il Adv & Sell* 41:34-6 Mr '48

Block booking

See Radio advertising—Syndicated programs

Gift programs

Case for the give-away show; is it good or bad for radio? J. Reddy. *Il Ptr Ink* 221:53-4+ N 14 '47

Equitable opens new radio show. *Il Gas Age* 101:25+ Je 24 '48

Free gifts, cheap ads; radio programs plug manufacturers' products but stations don't profit much. *Il Bsns W* p42+ F 7 '48

Mutual Broadcasting bans phone give-aways. *Bsns W* p94 S 11 '48

NAB code will not affect spread of give-aways, networks say; Mutual issues own contest rules. D. Bruner. *Ptr Ink* 223:93+ J 11 '48

National Surety writes \$5,000 bond for Allen; combats give-away programs. *East Underw* 49:34 O 8 '48; *Nat Underw* 52:35 O 7 '48; *Weekly Underw* 159:838 O 9 '48

Stop the money; FCC thinks many radio give-away programs are lotteries. *Bsns W* p22 Ag 21 '48

Measurement

Are U.S. Hooperatings projectable? H. Zeisel. *Ptr Ink* 224:52+ J1 9 '48

Coordinating the measurements of radio listening. H. Zeisel. *Am Stat Assn J* 42:512-22 D '47

Evaluating radio time. W. Gunzendorfer. *Adv & Sell* 40:74 N '47

Hooper and Nielsen step up radio measurement. D. Bruner. *Ptr Ink* 221:75-6 D 26 '47

New look at radio audience measurement; NBC statistical method for estimating share of audience data for each county. H. M. Beville, Jr. and K. Greene. *Ptr Ink* 223:38-9+ My 14 '48

Radio audience measurement; coincidental, mechanical recorder, recall, diary methods. C. H. Wolfe. *Il Adv & Sell* 41:37-8+ J1 '48

Radio selling effectiveness to be measured by Nielsen. *Ptr Ink* 221:33 D 19 '47

Responses to newspaper and radio advertisements measured in pilot study by Columbia university bureau. P. F. Lazarsfeld. *Adv & Sell* 41:29-30+ O '48

Photograph programs

Beethoven gets a public relations job; Los Angeles enjoys gas company radio programs of recorded music. J. H. Collins. *Pub Util* 41:545-51 Ap 22 '48

Point-of-sale

Chain stores expanding use of audio devices for point-of-sale advertising at local level. W. H. Davis. *Ptr Ink* 224:75 Ag 27 '48

Soft music and sales talk; a report on store-casting. E. M. Kelley. *Sales Management* 61:108+ O 15 '48

Prize contests

How stunts build radio listenership; Miss Hush contest. V. Dallaire. *Il Ptr Ink* 222:62+ F 20 '48

Program advertising

How stunts build radio listenership; Miss Hush contest. V. Dallaire. *Il Ptr Ink* 222:62+ F 20 '48

Public attitude

Public, although critical, gives commercials and news shows a boost in new NORC study. D. Bruner. *Ptr Ink* 222:104 Mr 12 '48

What the public thinks about radio advertising; report of a metropolitan survey. C. H. Wolfe. *Ptr Ink* 224:30-1+ J1 2 '48

Purchasing

Background for buying spot radio time. C. H. Wolfe. *Ptr Ink* 225:42-4 O 8 '48

Successful strategy in buying spot radio time. C. H. Wolfe. *Ptr Ink* 225:36-8+ O 22 '48

What spot radio time buyers ought to know. C. H. Wolfe. *maps Ptr Ink* 225:40-3+ O 15 '48

Rates

Engineering factors used to determine broadcast station time rates; charts. F. J. Sheehan. *Communications* 28:26-7 Ap '48

Rating

Radio's ten best commercials. E. W. Whitney. *Adv & Sell* 41:39+ Ag '48

Research

Gallup research on radio audiences. *Adv & Sell* 40:142+ N '47

Research-suggested approach to radio commercials. C. H. Wolfe. *Il Ptr Ink* 222:33-5+ F 6 '48; Discussion (Radio irritation technique rankles readers). 222:31 Mr 5 '48

Schedules

Network radio advertiser and summer policy. E. L. Deckinger. *J Marketing* 13:23-6 J1 '48

Spot radio

Background for buying spot radio time. C. H. Wolfe. *Ptr Ink* 225:42-4 O 8 '48

FCC to study spot radio sale by networks. *Ed & Pub* 81:54 Ag 7 '48

Radio rep weighs plan to build spot network offering major programs to national advertisers. D. Bruner. *Ptr Ink* 224:73+ J1 30 '48

RADIO advertising—Spot radio—Continued

- Spot radio's success story. L. Wolfe. *Adv & Sell* 41:37+ F '48
 Successful strategy in buying spot radio time. C. H. Wolfe. *Ptr Ink* 225:36-8+ O 22 '48
 34 ways to get results from spot radio advertising. C. H. Wolfe. *il Ptr Ink* 224:29-31+ S 24 '48
 What spot radio time buyers ought to know. C. H. Wolfe. *maps Ptr Ink* 225:40-3+ O 15 '48

Statistics

- Leading advertisers of 1947 and their expenditures; 855 companies invested \$561,132,380 in magazines, farm papers and network radio. *Ptr Ink* 223:38+ Ap 2 '48
 Radio advertising, cost of facilities; 1941-1946. Survey of Cur Bsns 1947 Sup p35-6 [supplemented in monthly numbers]
 Stations report a lot of business is local. J. Walker. *Ed & Pub* 81:50 Ja 10 '48

Syndicated programs

- Block booking grows in network programming. D. Bruner. *Ptr Ink* 222:103 F 20 '48
 Network co-op shows gain as retail medium. S. Rovner. *Ed & Pub* 81:52 Mr 6 '48
 97 banks use co-op radio programs. J. B. Mack, jr. *il Banking* 40:40-2+ D '47
 Quizdown show proves popular promotion; a syndicated program by grammar school children under newspaper sponsorship. -G. A. Brandenburg. *Ed & Pub* 81:67 Ap 10 '48

Testing

- How to pre-test your radio program. C. H. Wolfe. *Ptr Ink* 224:32-3+ S 3 '48

Mexico

- Radio Mexicano; credit and debit sides. R. J. Landry. *Ptr Ink* 221:66+ D 12 '47

RADIO advertising, Cooperative

- Success, or else! marketing of perishable products like South Carolina peaches. J. A. H. Rehm. *il Adv & Sell* 40:37+ D '47

See also

- Radio advertising—
 Syndicated programs

RADIO aids to aviation

- Air force flies the weather. N. F. Silsbee and R. W. Brown. *il Aero Digest* 56:37-8+ Ap '48
 Air traffic control; abstract. C. W. Carmody. *Product Eng* 19:137-8 F '48
 Air traffic control report aims at all-weather safety. CAA J 9:49+ My 15 '48
 Airlines using ILS for safer bad-weather landings. CAA J 9:43 Ap 15 '48
 Airways and air communications service of the USAF. H. M. McClelland. *il map Aero Digest* 57:38-9+ S '48
 All-weather airway; 15-year job; target system proposed by Radio technical commission for aeronautics. R. Hotz. *Aviation W* 48:23-4 Ap 26 '48
 All-weather airways program backed by military-civil groups. R. Hotz. *Aviation W* 48:14-15 Mr 1 '48
 All-year flight; billion-dollar program agreed upon. Bsns W p47-8+ Mr 6 '48
 Automatic controls for pilotless ocean flight. *il diags Electronics* 20:83-92 D '47
 B-D computer; makes it possible to space planes on the same route in parallel tracks. *il Aero Digest* 55:49+ D '47
 CAA personnel sloppy in ILS monitoring, ATA survey shows. R. Hotz. *map Aviation W* 47:13-14 D 8 '47
 Electronic airways open new market. *Aviation W* 49:29-30 S 6 '48
 Electronic flying; Minneapolis-Honeywell B-D (bearing and direction) computer. *il Bsns W* p66+ N 8 '47
 Flight path control. P. A. Noxon. *il diags Aeronautical Eng* 7:38-45 Ag '48
 High-stability radio distance-measuring equipment for aerial navigation. H. Busignies. *bibliog il diag Elec Com* 25:237-43 S '48
 Landing through overcast. W. T. Harding. *il Elec Eng* 66:1176-7 D '47
 More on time schedules; improved air traffic control with existing techniques possible. W. D. White. *diags Air Transport* 5:39-40 N '47

- New airways agency proposed for development of electronic traffic control system. H. R. Skifter. *Aviation W* 48:12 Ap 12 '48
 Polatomic navigation for world air routes; system of polar radio stations to serve aircraft with direct reading latitude-longitude indicators. R. I. Colin. *diags Air Transport* 6:28-32 Mr '48

- Precise measurement of aircraft speed. C. S. Franklin. *il diags Electronics* 21:72-7 F '48
 Progress in landing aids at Arcata. A. L. Lewis. *il diags Aero Digest* 56:40-1+ My '48

- Proposed air traffic control and controlled handling systems for high-speed aircraft. M. W. Arnold. S A E J 56:45-6 Mr '48

- Radio Doppler effect for aircraft speed measurements. L. R. Malling. *il diags Inst Radio Eng Proc* 35:1357-60 N '47

- Safety electronic tracks for aircraft; traffic control system, called Tricon. Can Min J 69:90-1 Mr '48; Same cond. *Gen Elec R* 51:51 Ap '48

- Stability, chief approach problem. H. C. Bostwick and R. B. Roe. *diags Aviation W* 49:27+ Ag 16 '48; Discussion. H. F. X. Hesston. 49:17 N 8 '48

- Survey of continuous-wave short-distance navigation and landing aids for aircraft. C. Williams. *diags Inst E E J* 94 pt 1:491-2 O '47

- Telemetering offers new benefits in civil plane test and operation. *Aviation W* 47:31-2+ N 24 '47

- Testing transmitters for instrument landing systems. S. K. Webster. *il diags Western Soc E E J* 52:162-71 D '47

- They call it Tricon; General Electric's triple coincidence electronic method of air navigation. *il diags Aero Digest* 56:42-5+ Ap; 56:64-7+ My '48

- Try Tricon for traffic; GE navigation-traffic control system. G. Herrick. *il diags Air Transport* 6:47-8 F '48

- Vhf to revolutionize radio aids to air navigation. CAA J 9:30 Mr 15 '48

- World's largest airport under radio control; New York International airport (Idlewild). R. Hertzberg. *il Tele-Tech* 7:48-9+ S '48

See also

- | | |
|------------------------------|------------------------------|
| Airlines—Radio communication | Radar aids to aviation |
| Airways—Traffic control | Radio apparatus on aircraft |
| Direction finding apparatus | Radio beacons (for aircraft) |
| | Radio meteorographs |

RADIO aids to navigation

- Recent developments in radiotelegraph transmitters for shore stations. J. F. McDonald. *il diags RCA R* 8:751-64 D '47
 Some effects of obstacles on the propagation of very short radio waves. E. C. S. Megaw. *il diags Inst E E J* 95 pt 3:97-105 Mr '48

See also

- | | |
|-----------------------------|--------------------------|
| Direction finding apparatus | Radio telephone on ships |
| Radar aids to navigation | |

RADIO amplifiers. See Amplifiers, Vacuum tube**RADIO antennas**

- Adjusting the matching stub. W. L. Smith. *diags Q S T* 32:31-3 Mr '48
 Antenna design for low-angle fm propagation. O. O. Flet. *il diags Tele-Tech* 7:30-3 F '48

- Antenna matching with line segments. J. G. Marshall. *diags Q S T* 32:18-21+ S '48

- Antenna pattern measurement. H. R. Skifter and J. S. Prichard. *bibliog il diags Communications* 28:26-8+ Mr '48

- Antennas for circular polarization. W. Sichak and S. Milazzo. *diags Inst Radio Eng Proc* 36:997-1001 Ag '48

- Antennas for Citizens Radio. H. J. Rowland. *il diags Electronics* 21:96-9 My '48

- Broadband lens antenna for microwaves. W. E. Kock. *il diags Electronics* 21:108-10 Ap '48

- Circular polarization in f-m broadcasting. C. E. Smith and R. A. Pouty. *bibliog il diags Electronics* 21:103-7 S '48

- Cloverleaf antenna for f.m. broadcasting. P. H. Smith. *il diags Inst Radio Eng Proc* 35:1556-63 D '47

RADIO antennas—Continued

- Conical dipole of wide angle, P. D. P. Smith, bibliog diags J Ap Phys 19:11-23 Ja '48
- Currents excited on a conducting plane by a parallel dipole, B. C. Dunn, jr. and R. King, bibliog diags Inst Radio Eng Proc 36:221-9 F '48
- Electronic switching for the ham antenna, T. Gootée, il diags Radio N 39:50-1+ Ja '48
- Eliminating interference resulting from coupled antennas, F. E. Butterfield, il diags Communications 28:18+ Mr '48
- Establishing antenna resonance, M. L. Potter, diags Q S T 32:23-4 My '48
- Experimental broad-band antennas for vertical incidence ionosphere sounding; abstract, H. N. Cones, diags Tele-Tech 7:44-5 Ag '48
- Field distributions near a centre-fed half-wave radiating slot, J. L. Putman and others, diags Inst E E J 95 pt 3:282-9 Jl '48
- Field of a dipole with a tuned parasite at constant power, R. King, bibliog diag Inst Radio Eng Proc 36:872-6 Jl '48
- Field surrounding an antenna in a waveguide, J. S. Gooden, diags Inst E E J 95 pt 3:346-50 S '48
- F-m and television receiving antennas; reference sheet, G. P. Kears, diags Electronics 21:118 N '48
- F-m radiator, il Electronics 21:150+ Ag '48
- Fm ring antenna design, H. Kees, il Tele-Tech 7:66 Jl '48
- Fundamental limitations of small antennas, H. A. Wheeler, bibliog diags Inst Radio Eng Proc 35:1479-84 D '47
- High gain with disccone antennas, A. G. Kandorian and others, il Elec Com 25:139-47 Je '48
- High-output signal generator for antenna measurements, H. G. Eidson, jr. il diags Communications 28:6-7 Ag '48
- Input impedances of centre-fed slot aerials near half-wave resonance, J. L. Putman, diags Inst E E J 95 pt 3:290-4 Jl '48
- Measurement of aircraft-antenna patterns using models, G. Sinclair and others, bibliog il diags Inst Radio Eng Proc 35:1451-62 D '47
- Microwave antenna measurements, C. C. Cutler and others, il Inst Radio Eng Proc 35:1462-71 D '47
- Microwave repeater research, H. T. Friis, bibliog il maps diags Bell System Tech J 27:183-246 Ap '48
- Parallel standing waves; cleaning up the antenna system, J. W. Paddon, diags Q S T 32:45-9+ Ja '48
- Phase monitor for broadcast arrays, B. C. O'Brien and F. L. Sherwood, il diags Electronics 20:109-11 D '47
- Polyrod antennas, G. E. Mueller and W. A. Tyrrill, il diags Bell System Tech J 26:837-51 O '47
- Quad antenna, diags Q S T 32:40-2 N '48
- Radiation from short aerials; new method of calculation, R. G. Medhurst, bibliog diags Wireless Eng 25:260-6 Ag '48
- Radiation resistance of ring aerials, H. Page, diag Wireless Eng 25:102-9 Ap '48
- Radio progress during 1947; antennas, bibliog Inst Radio Eng Proc 36:528-30 Ap '48
- Recent advances in metal microwave lenses, il Product Eng 19:148 Je '48
- Results of horizontal microwave angle-of-arrival measurements by the phase-difference method, A. W. Straiton and J. R. Gerhardt, il maps diag Inst Radio Eng Proc 36:916-22 Jl '48
- Ring-aerial systems, H. Page, diag Wireless Eng 25:308-15 O '48
- Short receiving-antenna design factors, H. Kees, diags Communications 28:26-7+ My '48
- Slot antennas, N. E. Lindenblad, il diags Inst Radio Eng Proc 35:1472-9 D '47
- Some methods for determining the power gain of microwave aerials, J. D. Lawson, diags Inst E E J 95 pt 3:205-9 Jl '48
- Surface currents on a conducting sphere excited by a dipole, C. H. Papas and R. King, diags J Ap Phys 19:808-16 S '48
- Theory of the circular diffraction antenna, A. A. Pistolokors, diags Inst Radio Eng Proc 36:56-60 Ja '48
- Wavelength lenses, G. Wilkes, diags Inst Radio Eng Proc 36:206-12 F '48
- See also
Radio towers
- Directional antennas**
- Calculation of doubly curved reflectors for shaped beams, A. S. Dunbar, il diags Inst Radio Eng Proc 36:1289-96 O '48
- Characteristics of helical antennas radiating in the axial mode, J. D. Kraus and J. C. Williamson, bibliog il diags J Ap Phys 19:87-96 Ja '48
- Comb antenna, R. Grimm, il diags Inst Radio Eng Proc 36:359-62 Mr '48
- Coupled antennas, C. T. Tai, bibliog diags Inst Radio Eng Proc 36:487-500 Ap '48
- Determination of aerial gain from its polar diagram, J. A. Saxton, diags Wireless Eng 25:110-16 Ap '48
- Directional antenna pattern nomenclature, C. E. Smith, diag Communications 28:12-14+ S '48
- Experimental investigation of the radiation patterns of electromagnetic horn antennas, D. R. Rhodes, diags Inst Radio Eng Proc 36:1101-5 S '48
- Field testing 75-meter beams, W. F. Hoisington, il Q S T 32:18-20 F '48
- Gains and effective areas of horn antennas, R. B. Watson and C. M. McKinney, bibliog diags J Ap Phys 19:871-6 O '48
- H-type Adcock direction finders, W. Ross and R. E. Burgess, diags Wireless Eng 25:168-79 Je '48
- Hammock beam, G. B. Foster, diags Q S T 32:21-3 Ag '48
- Helical antenna for circular polarization, H. A. Wheeler, bibliog diags Inst Radio Eng Proc 35:1484-8 D '47
- Improvement in end-fire arrays, F. K. Goward, bibliog Inst E E J 94 pt 3:415-18 N '47
- Lightweight 14-mc, four-element beam, K. Nose, il Q S T 32:18-20+ N '48
- Maximum directivity of an antenna, H. J. Riblet, Inst Radio Eng Proc 36:620-3 My '48
- Discussion, 36:878, 1135 Jl, S '48
- Measured impedances of helical beam antennas, O. J. Glasser and J. D. Kraus, il diag J Ap Phys 19:193-7 F '48
- Metallic delay lenses; metal lens antennas, W. E. Kock, il diags Bell System Tech J 27:58-82 Ja '48
- Microwave communication link, H. R. L. Lamont and others, il diags Wireless Eng 24:324-6 N '47
- Mutual impedance between vertical antennas of unequal heights, C. R. Cox, diag Inst Radio Eng Proc 35:1367-70 N '47
- New principle in two-band rotary-beam design, A. M. Pichitino, il diags Q S T 32:11-15+ O '48
- New type rotary beam, C. V. Hays, il diags Radio N 39:44+ Ja '48
- Parabolic-antenna design for microwaves, C. C. Cutler, il diags Inst Radio Eng Proc 35:1284-94 N '47
- Pigeon catcher; novel 29 mc. rotary beam, W. Bell, il diags Radio N 39:48-50+ My '48
- Properties of loop aerials, F. Horner, diags Wireless Eng 25:254-9 Ag '48
- Radiation resistance of an antenna in an infinite array or waveguide, H. A. Wheeler, bibliog diags Inst Radio Eng Proc 36:478-87 Ap '48
- Radiation resistance of end-fire and collinear arrays, C. H. Papas and R. King, bibliog Inst Radio Eng Proc 36:736-41 Je '48
- Reflectors and directors, E. M. Noll, diags Radio N 39:156 Ap '48
- Restricted-range sky-wave transmission, J. E. Hacke, jr. and A. H. Waynick, Inst Radio Eng Proc 36:791-3 Je '48
- Small aerials in dielectric media; possibility of improvement in sensitivity of direction-finding systems, R. H. Barfield and R. E. Burgess, bibliog diags Wireless Eng 25:246-53 Ag '48
- Spaced loop aerials; comparison of simple and twin types, F. Horner, diags Wireless Eng 25:281-5 S '48
- Ten elements; ten meters; successful experiment with multielement parasitic arrays, E. C. S. Leavenworth, il diags Q S T 32:48-9+ Mr '48

RADIO antennas—Directional antennas—Cont.

Theoretical precision with which an arbitrary radiation-pattern may be obtained from a source of finite size. P. M. Woodward and J. D. Lawson. bibliog diags Inst E E J 95 pt 3:363-70 S '48

Three-element rotary beam for less than \$5.00. W. E. Wheat. diag Radio N 39:122 Mr '48

Transmission-line bridge; applications to directive arrays. C. H. Westcott. diags Wireless Eng 25:215-20 Jl '48

Transportable 10-meter beam. E. P. Bonner. il diag Q S T 32:44-5 Je '48

Testing

Measuring f-m antenna patterns with miniature antennas. M. A. Honnell and J. D. Albright. il diags Communications 28:20-2 F '48

RADIO apparatus

Electrical and allied developments during 1947; electronics. G. Bartlett. il Gen Elec R 51:19-21 Ja '48

Parts for design engineers. il Published in monthly numbers of Tele-tech

Parts, then and now; size reduction during and since the war; illustrations with text. Radio & Tv N 40:52-3 O '48

Les progrès dans la construction radio-électrique française en 1947. Génie Civil 124: 412-14 N 1 '47

Radio progress during 1947. bibliog(689 titles) Inst Radio Eng Proc 36:522-50 Ap '48

Telecommunications development; Electronic transmission equipment, Wandsworth. il Elec R (Lond) 142:851-2 My 28 '48

See also

Amplifiers, Vacuum tube	Radar
Direction finding apparatus	Radio antennas and other headings beginning Radio
Lorac	Vacuum tubes
Microphones	Wave meters
Oscillators	

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Institute of radio engineers proceedings

Cleaning

Dry-cleaning electronic equipment. J. Albin. il diag Electronics 21:94-5 S '48

Exhibitions

Radiolympia 1947. il diags Wireless Eng 24: 333-42 N '47

Manufacture

Cases in work simplification; Hallicrafters company, Chicago. C. M. McConkey. il Factory Management 108:112-13 My '48

First automatic radio factory; British machine builds three radio circuits a minute. il Fortune 38:90-3 Ag '48

Hallicrafters company; new plant at Chicago. il Factory Management 106:B74-7 pt 2 Ap '48

Vacuum drying of paper. N. M. Foote. bibliog diag Ind & Eng Chem 39:1642-6 D '47

See also

Electronics Park, Syracuse, New York

Military use

Component development for war-time service applications. I. M. Ross. Inst E E J 94 pt 1:493-4 O '47

Electronic instrumentation for underwater ordnance development and evaluation. R. D. Bennett. il plans diags Inst Radio Eng Proc 36:906-11 Jl '48

Loss of spin of projectiles measurement by radio spin sonde. J. A. Van Allen. diags J Aeronautical Sci 15:35-8 Ja '48

Patents

Armstrong of radio. il Fortune 37:88-91+ F '48

Wireless patents; summary of recently accepted specifications. Published in monthly numbers of Wireless engineer

Power supply

Compact power supply is transformerless and tubeless; using selenium rectifiers. G. Dexter. il diags Radio N 39:51+ Mr '48

New miniature, super powered filament power supply. B. Gunderson. il diags Radio N 38: 168 D '47

Power supply output voltage control. S. S. Peschel. il diags Radio & Tv N 40:66-7+ O '48

Regulated d.c. supply improvements. W. L. Kinsell. bibliog il diags Radio N 39:68-9+ Je '48

Regulated power supply. D. H. Rogers. diag Radio N 38:68+ My '48

Tube characteristics with 28-volt plate supplies. Electronics 20:190+ D '47

Versatile power supply. W. B. Miller. diag Electronics 21:126+ Je '48

See also

Radio receiving apparatus—Power supply	Radio transmitters—Power supply
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Protection

Hermetically sealed electronic components; protection against humidity, salt-water spray and fungus. W. J. Leiss and others. il Electronics 21:80-2 N '48

See also

Radio coils—Protection

Repair

Radio maintenance man. J. M. Sitton and J. W. Colvin. il Aero Digest 55:47+ N '47

Standards

Component parts standardization; what manufacturers say about need for uniformity. Tele-Tech 7:36-8+ S '48

Industrial standards. C. H. Crawford. Inst Radio Eng Proc 36:519-21 Ap '48

Testing

Construction of shielded room in vhf field. C. C. Pine. il diags Electronics 21:150+ Ap '48

Tests for the selection of components for broadcast receivers. G. D. Reynolds. diags Inst E E J 95 pt 3:54-64; Discussion. 64-8 Mr '48

What equipment is necessary for servicing and testing electronic devices? discussion meeting. Inst E E J 95 pt 3:241-2 Jl '48; Abstract. Engineering 164:562 D 12 '47

RADIO apparatus industry

After the turn of the year. D. Sarnoff. Comm & Fin Chr 167:529 Ja 29 '48

Backlog demand for consumers' durable goods; radios. L. J. Atkinson. Survey of Cur Bsns 23:20-1 Ap '48

Campaign sells radios in oversold market; R.M.A.'s Hartford, Conn. experiment. il Bsns W p60+ Mr 27 '48

Middlemen out; Bendix Radio drops its distributors. Bsns W p34 Jl 24 '48

New Magnavox sales plan; more exclusive dealers, broadening its line. il Bsns W p74+ Ag 21 '48

New status of radio industry. H. C. Bonfig. Comm & Fin Chr 168:207+ Jl 15 '48

Push money hit; FTC attacks payments to salesmen; Philco's sell-'n-win campaign. Bsns W p85 N 22 '48

Radio production setting new record. V. Bell. il Steel 121:48-7 D 22 '47

Radios; oversold? makers look to new low-priced sets, video, to keep up sales. il Bsns W p48 Ja 31 '48

Report on the world market for radio and communication equipment. S. Gerstin. Tele-Tech 7:34-5 S '48

Return of the "seasonal?" Barron's 28:30 Ag 9 '48

Signal corps procurement; procedures to be followed by radio and communication manufacturers seeking defense contracts. R. Hertzberg. flow chart Tele-Tech 7:24-5+ O '48

See also

Radio stores

Advertising

Distributor's radio-grams win dealers' co-operative ad support. W. J. Miller. il Ptr Ink 22:31 Ap 30 '48

RADIO apparatus industry—Advertising—Cont.
 Motorola maintains 5,000 roadway signs in 47 states. *il* *Ptr Ink* 224:72 Ag 20 '48
 Philco week sets new high in dealer and consumer sales. *il* *Sales Management* 59:112+ D 1 '47
 Power drives by Motorola. *Sales Management* 60:89 Ap 15 '48
 Strong local promotion zooms radio sales in Hartford test; campaign sponsored by radio manufacturers association. A. B. Ecke. *il* *Sales Management* 60:37-9 Ap 15 '48
 \$12,500 ad program accelerates huge sales of in-demand item; Federal Telephone & Radio new miniature selenium rectifier. *il* *Ptr Ink* 222:42+ Ja 2 '48

Directories

Electronics buyers' guide. *Electronics* 21:D1-172 Mid-Je '48

Exhibitions

R.C.M.F. 5th annual exhibition, London. *Electrician* 140:722 Mr 5 '48

Statistics

Report on radio industry. B. Geddes. *Radio N* 39:45+ Mr '48
 U.S. radio statistics, 1948; tabulations. *Tele-Tech* 7:29 Ja '48

Brazil

Brazilian imports of radio receivers, radio tubes and accessories, 1946. *For Comm W* 29:28 D 20 '47

Canada

Canada's radio production and trade. *For Comm W* 29:29+ D 6 '47
 1947 data on radio receiving sets, Canada. *For Comm W* 31:27 Ap 24 '48
 Radio production, sales, and imports, Canada; with figures for first nine months of 1946 and 1947. *For Comm W* 30:25-6 F 7 '48

Ceylon

Ceylon's imports of radio receiving sets, 1945, 1946 and first six months, 1947. *For Comm W* 29:25 N 22 '47

Chile

Restrictions on imports of radio parts. *For Comm W* 31:35 Je 19 '48

Egypt

1947 radio imports. *For Comm W* 33:37 O 23 '48

France

Les progrès dans la construction radio-électrique française en 1947. *Génie Civil* 124: 412-14 N 1 '47

Germany

Shortage of radio tubes. *For Comm W* 32:30 Jl 10 '48

Great Britain

Census of production; radio and telecommunications apparatus; 1946-47, 1935-7. *Elec R (Lond)* 143:628 O 22 '48
 Review of the radio component industry's activities. E. M. Lee. *il* *Inst E E J* 94 pt 1: 487-8 O '47
 United Kingdom exports of radio equipment, 1938 and first nine months, 1946 and 1947. *For Comm W* 29:36 D 6 '47

Palestine

Imports of radios into Palestine, 1946. *For Comm W* 30:25 Ja 3 '48

Yugoslavia

Developments in radio-receiver production and research. *For Comm W* 29:27 N 8 '47

RADIO apparatus on aircraft

Aeronautical communications. B. G. Gates. *Inst E E J* 94 pt 1: 473-4 O '47
 Aircraft radio communication set A.R.I. 5272. E. C. Fielding. *il* *diag Elec Com* 25:244-55 S '48
 Assembly constructed of plastic parts; aircraft antenna pattern plotter. *il* *Product Eng* 19:163 Ap '48
 Cost of vhf receivers to be cut by CAA plan. *CAA J* 9:73+ Jl 15 '48

Electric field meter for use on airplanes. R. C. Waddel. *bibliog il* *diags R Sci Instr* 19: 31-5 Ja '48

Low-cost automatic direction finding radio installation. L. Brady. *il* *diag Aero Digest* 56:74+ Je '48

Measurement of aircraft-antenna patterns using models. G. Sinclair and others. *bibliog il* *diags Inst Radio Eng Proc* 35:1451-62 D '47

More private fliers use two-way radio equipment. *CAA J* 9:65 Je 15 '48

Omni-receiver for small planes. A. McSurely. *Aviation W* 48:37 Je 14 '48

Performance of electrical and radio equipment at 40,000 ft. K. Martinez. *S A E J* 56: 24-6 Jl '48

Proximity devices returned to lab; terrain clearance indicators show lack of reliability. *Aviation W* 48:45-6 My 10 '48

Radio maintenance man. J. M. Sifton and J. W. Colvin. *il* *Aero Digest* 55:47+ N '47

Receiver development key to private use of new airways. R. Hotz. *Aviation W* 48:30 Ap 5 '48

Slot antennas. N. E. Lindénblad. *il* *diags Inst Radio Eng Proc* 35:1472-9 D '47

Snow static on aircraft; neutralization of charge by artificially activating negative corona discharges. W. H. Bennett. *bibliog diags Elec Eng* 67:947-53 O '48

RADIO apparatus on ships

Electronics on shipboard; abstract. H. F. Harvey, Jr. and F. P. Coleman. *Marine Eng* 53:65; Discussion. 66-7 Ja '48

First two-way radio on ferryboats. *il* *Gen Elec R* 51:66 Ja '48

Mobile transmitter-receiver for shipboard. W. K. Squires. *il* *diag Q S T* 32:45-7 Mr '48
 Radio interference in ships. S. F. Pearce. *bibliog Engineer* 185:261-3 Mr 12 '48

See also

Direction finding Radio telephone on apparatus ships

RADIO attenuators

Attenuator materials, attenuators, and terminations for microwaves. G. W. Teal and others. *il* *diags Elec Eng* 67:754-7 Ag '48
 Microwave attenuation standard. R. E. Grant-ham and J. J. Freeman. *diags Elec Eng* 67:535-7 Je '48

Piston attenuator chart; reference sheet. R. E. Lafferty. *Electronics* 21:132 F '48

Tables of phase associated with a semi-infinite unit slope of attenuation. D. E. Thomas. *diags Bell System Tech J* 26:870-99 O '47

Theory and design of a cavity attenuator. J. J. Freeman. *bibliog diags J Res Nat Bur Stand* 40:235-43 Mr '48

RADIO beacons

See also

Direction finding apparatus

RADIO beacons (for aircraft)

CAA v-h-f omnidirectional range at United air lines. F. J. Todd. *il* *diags Communications* 28:10-11+ Ap '48

RADIO broadcasting

Future of radio and television. H. Bannister. *Comm & Fin Chr* 167:1758 Ap 22 '48

See also

Radio advertising Television broadcasting stations

Agricultural programs

F-m broadcast network with radio links; six-station network formed by ten farm organizations in N.Y. state. D. K. de Neuf. *il* *map diag Communications* 28:12-15 O '48

Audience participating programs

Equitable opens new radio show. *il* *Gas Age* 101:25+ Je 24 '48

Children's programs

Psychologists help radio program become a national institution; Jack Armstrong show or Wheaties. H. W. Green. *il* *Ptr Ink* 221: 32-3+ N 7 '47

Crime news

Legal battle shapes up on Baltimore code. *Ed & Pub* 81:48 Jl 31 '48

RADIO broadcasting—Continued**Detective and mystery programs**

Darling, tune in a nice bed-time murder mystery; quotations from Grimm, O. Kleppner. Adv & Sell 41:66 S '48

Election returns

Advertisers pick up tab on Election day. J. Walker. Ed & Pub 81:40 O 30 '48

Frequency allocation

See Radio frequency—Allocation

Frequency modulation system

See Radio frequency modulation

Frequency standards

Changes in standard frequency broadcast, effective Jan. 30, 1948. Radio N 39:154 Mr '48

International aspects

International broadcasting: review of world-wide practices. J. H. Battison. Il Electron-ics 21:70-5 N '48

Library programs

Library broadcasts. F. G. Nunmaker. 166p bibliog(p157-9) \$2.25 H. W. Wilson co, New York '48

Music

Networks set up cooperative recorded library to help meet threat of Petrillo walkout. D. Bruner. Ptr Ink 222:75+ Ja 30 '48

News

Campbell soups air biggest news package. J. Walker. Ed & Pub 81:48 Ja 17 '48
Circulator sharing spot on global show; Christian science monitor news broadcast. Ed & Pub 81:40 Ja 24 '48
Daily, station merge newscast operation. Ed & Pub 81:56 S 11 '48
Equal opportunity makes him what he is; Thomas Velotta, American broadcasting co. J. Walker. Ed & Pub 81:42 F 28 '48
Far from Fifth. M. O'Dea. Ptr Ink 221:100 N 14 '47
NBC decalogue bans plugs between news. J. Walker. Ed & Pub 81:48 S 25 '48
New radio code defines limits on newscasts. Ed & Pub 81:10 My 22 '48

Phonograph programs

Audio noise reduction circuits. H. F. Olson. Il diags Electronics 20:118-22 D '47
Dynamic noise suppressor; provides essentially noise-free reproduction from phonograph records and transcriptions. H. H. Scott. Il diags Electronics 20:96-101 D '47
Maintenance of preamp equipment in broadcast transcription-reproducing systems. R. G. Peters. diags Communications 28:9+ JI; 26+ O '48

Political aspects

Radio censorship of political speeches. Pub Util 41:789-90 Je 3 '48

Program rating

Testing audience reaction. Il Bsns W p57-8+ D 20 '47

Serials

Soap operas win science over to their side; research uncovers their appeal and formula. W. H. Davis. Ptr Ink 221:89 D 5 '47

Sports

Broadcasting facilities at the Olympic games. Engineering 166:150-1 Ag 13 '48

Standards

Code put into effect with time limit on ads. J. Walker. Ed & Pub 81:44 JI 10 '48
Mutual Broadcasting bans phone give-aways. Bsns W p94 S 11 '48
NAB delegates approve revised standards code. Ptr Ink 223:129+ My 21 '48
NAB president defends radio's commercials; sees too severe code alienating advertisers. D. Bruner. Ptr Ink 221:113+ D 12 '47
New broadcasting code. Bsns W p85-6 My 29 '48

New C.B.S. program transmission standards. H. A. Chinn and P. Eisenberg. Inst Radio Eng Proc 35:1547-55 D '47

Time signals

See Time signals, Radio

Wired radio

Load shedding warnings; use of radio relay service network at Portsmouth. Electrician 140:346 Ja 30 '48

Brazil

President Dutra inaugurates new radio station. For Comm W 32:40 Ag 21 '48

China

XGOY, the voice of China. Fung Chien. Il Radio & Tv N 40:70+ O '48

Denmark

Copenhagen broadcasting house. F. Heegaard and E. Cohrt. Il plans Elec Com 25:106-12 Je '48

Radio broadcasting activities in Denmark. For Comm W 31:29 Ap 24 '48

Ecuador

HCJB, voice of the Andes, Quito, Ecuador; pioneer missionary broadcaster of the world. K. R. Boord, comp. Il Radio N 39:72+ My '48

Great Britain

Design and operation of high-power broadcast transmitter units with their outputs combined in parallel. T. C. Macnamara and others. Il diags Inst E E J 95 pt 3:183-98 My '48; Excerpts. Engineer 184:535-6 D 5 '47; Discussion. Inst E E J 95 pt 3:198-202 My '48

Large broadcasting station; Skelton in North Cumberland. Il Elec R (Lond) 142:993-7 Je 25 '48

War-time activities of the Engineering division of the B.B.C. H. Bishop. Inst E E J 94 pt 1:481-2 O '47; Discussion. 95 pt 3:301-2 JI '48

Indo-China, French

Saigon story, as related by J. Pipon. Radio N 39:70+ Je '48

Malayan Union

Broadcasting service, Singapore. K. R. Boord, comp. Radio & Tv N 40:65+ N '48

Norway

Speech-input equipment for new Oslo broadcasting house. E. Julsrud and G. Weider. Il plan diags Elec Com 25:2, 21-9 Mr '48

Panama

Panama licenses new broadcasting stations. For Comm W 32:39 JI 31 '48

Russia

Radio broadcasts in the USSR. P. Korzinkin and G. Kazakov. Il Radio N 40:60+ JI '48

Trinidad

Radio Trinidad, VP4RD, Port-of-Spain. K. R. Boord, comp. map Radio N 38:65+ D '47

RADIO broadcasting stations

Engineering factors used to determine broadcast station time rates; charts. F. J. Sheehan. Communications 28:26-7 Ap '48

HCJB, voice of the Andes, Quito, Ecuador; pioneer missionary broadcaster of the world. K. R. Boord, comp. Il Radio N 39:72+ My '48

International short-wave; foreign stations, call letters, time schedules (cont). K. R. Boord, comp. Radio N 39:66+ Ja '48 (cont monthly)

Radio Trinidad, VP4RD, Port-of-Spain, Trinidad. K. R. Boord, comp. map Radio N 38:65+ D '47

WFAS; engineering an fm-am station. B. F. Osbahr. Il diags Tele-Tech 7:30-2+ Ag '48

Accounting

Expense control by responsibilities in a radio broadcasting station. G. W. Swank. N A C A Bul 29:1087-91 My 1 '48

RADIO broadcasting stations—Continued

Air conditioning

KOMO; unusual air conditioning methods in radio station. *il plan Dom Eng* 171:144-5+ Ap '48

Construction

Expansion in Memphis costing \$1,500,000. *Ed & Pub* 81:56 S 11 '48

Coverage

See also

Radio listeners

Directories

Worldwide log of short-wave broadcasting stations. *K. R. Boord, comp. Radio N* 39: 62-3+ F; 66-7+ Mr '48

Employees

See Radio workers

Equipment

Cincinnati Times-Star f-m station. *J. B. Ledbetter, il plan Communications* 28:8-9+ Ja '48

Converting a Brush tape recorder for broadcast use. *M. Fleming, diags Radio N* 39: 59+ F '48

Fm monitor design speeds output. *E. F. Travis, il Tele-Tech* 7:56-7+ S '48

KLEE 5-kw a-m installation in Houston. *Tex. P. Huhndorff and R. E. Sively, il Communications* 28:18-19+ O '48

Large broadcasting station; Skelton in North Cumberland. *il Elec R (Lond)* 142:993-7 Je 25 '48

Maintenance of preamp equipment in broadcast transcription-reproducing systems. *R. G. Peters, diags Communications* 28:9+ J1 26+ O '48

Organizing studio facilities with a filing system; providing indexing and filing of electrical circuits on a distribution frame. *T. D. Reid, il Communications* 28:28-9 Ag '48

Phase monitor for broadcast arrays. *B. C. O'Brien and F. L. Sherwood, il diags Electronics* 20:109-11 D '47

R-f bridge for broadcast stations. *F. Schumann and C. Duke, il diags Electronics* 21: 83-5 Ap '48

Remote amplifier and program meter. *D. V. R. Drenner, il diag Electronics* 20:140+ D '47

Studio modulation monitor setup. *W. J. Kiewel, diag Communications* 28:24 Ag '48

Talk-back system. *A. Kelley, il diags Tele-Tech* 7:37 Ag '48

Test instruments in the broadcast station. *H. G. Eidson, Jr, il diags Communications* 28:22-3+ Mr; 20-1+ Ap; 23+ My '48

See also

Radio antennas

Radio transmitters

Insurance requirements

Radio station liability. *J. B. Walker, Rough Notes* 91:20+ F '48

Records

Equipment failure-control system for broadcast stations. *F. E. Butterfield, Communications* 28:16+ Je '48

RADIO broadcasting stations, Cooperative

New co-op fm station to be owned by listeners. *E. J. Dever, Jr, Ptr Ink* 223:96 Je 11 '48

RADIO broadcasting stations, Foreign language

Foreign-language radio stations build sales. *D. Bruner, Ptr Ink* 224:99+ S 10 '48

RADIO broadcasting stations, Municipal

O'Dwyer says New York needs radio to counter press. *Ed & Pub* 81:39 O 30 '48

RADIO broadcasting stations, Newspaper

Cincinnati Times-Star f-m station. *J. B. Ledbetter, il plan Communications* 28:8-9+ Jm '48

Fm versus television? as small to big daily. *A. S. Keshen, Ed & Pub* 81:54 J1 17 '48

Louisville C-J sells station for \$1,925,000. *Ed & Pub* 81:10 O 2 '48

One-third of stations have press affiliation. *J. Walker, Ed & Pub* 81:40 Mr 20 '48

Three papers, three stations working side by side; Endicott's new radio station. *F. Hier, Ed & Pub* 81:44 O 2 '48

RADIO broadcasting studios

Acoustic problems in studio design. *G. M. Nixon, il diags Electronics* 21:86-9 My '48

Broadcast studio design. *L. L. Beranek, plan Communications* 28:25+ Ag '48

Design and construction of a secondary broadcast studio. *R. J. Schilling and others, il diags Communications* 28:10-11+ My '48

Sound measurements in broadcast studios. *W. Jack, il Tele-Tech* 7:38-41+ Je '48

Equipment

Copenhagen broadcasting house. *F. Heegaard and E. Coht, il plans Elec Com* 25:106-12 Je '48

Enlarged WOAI/WOAI-fm studio technical facilities. *C. Jeffers, il diags Communications* 28:12-15+ Mr '48

Modern design features of CBS studio audio facilities. *R. B. Monroe and C. A. Palmquist, il pl Inst Radio Eng Proc* 36:778-86 Je '48

Speech-input equipment for new Oslo broadcasting house. *E. Julsrud and G. Weider, il plan diags Elec Com* 25:2, 21-9 Mr '48

RADIO cabinets

Plastics; dramatic ingredient in designer's bag of tricks. *H. M. Rundle, il Plastics* 8: 34-6 Je '48

R-f heating for cabinets. *C. Dusenbury, il Electronics* 21:152+ Je '48

Styrene makes multi-colored radios. *il Plastics* 8:52-3 Mr '48

RADIO circuits

Adjustment speed of automatic-volume-control systems. *A. W. Nolle, diag Inst Radio Eng Proc* 36:911-16 J1 '48

Analysis and performance of waveguide-hybrid rings for microwaves. *H. T. Budenbom, il diags Bell System Tech J* 27:473-86 J1 '48

Answer to n.f.m. reception; ratio detector. *L. H. Allen, diags Q S T* 32:28-9 F '48

Application of screen-grid supply impedance in pentodes. *P. G. Sulzer, diags Communications* 28:10-11+ Ag '48

Application of velocity-modulation tubes for reception at u.h.f. and s.h.f. *M. J. O. Strutt and A. van der Ziel, bibliog diag Inst Radio Eng Proc* 36:19-23 Ja '48

Automatic volume control as a feedback problem. *B. M. Oliver, diags Inst Radio Eng Proc* 36:466-73 Ap '48

Bridged circuits facilitate police radio. *il Tele-Tech* 7:28-9+ J1 '48

Broad-band noncontacting short circuits for coaxial lines. *W. H. Huggins, diags Inst Radio Eng Proc* 35:906-13, 1085-91, 1324-8 S-N '47

Cathode-coupled clipper circuit. *L. A. Goldmuntz and H. L. Krauss, diags Inst Radio Eng Proc* 36:1172-7 S '48

Cathode-coupled negative-resistance circuit. *P. G. Sulzer, diags Inst Radio Eng Proc* 36:1034-9 Ag '48

Circle diagrams for cathode followers. *J. M. Diamond, diags Inst Radio Eng Proc* 36:416-20 Mr '48

Circle diagrams of impedance or admittance for four-terminal networks. *J. Rybner, bibliog diags Inst E E J* 95 pt 3:243-52 J1 '48

Circuit page; diagrams and parts lists (cont). *Radio N* 38:82-3, 82, 94 D '47; 59-74-5, 82+ Ja; 79-7, 84+ F; 82-3, 90, 92 M; 90-1, 100, 102 Ap; 94-5, 104+ Je; 40:84-5, 94+ J1 '48

Design of shunt equalizers. *H. N. Wroe, diags Wireless Eng* 25:192-6 Je '48

Design principles of amplitude-modulated subcarrier telemetry systems, used for the instrumentation of airplanes and guided missiles. *C. K. Stedman, diags Inst Radio Eng Proc* 36:36-41 Ja '48

Detector for single-sideband reception. *O. G. Villard, Jr, and D. L. Thompson, il diags Q S T* 32:11-18 Je '48

Diode circuit analysis. *R. H. Dishington, diags Elec Eng* 67:1043-9 N '48

Dynamic impedance circuit. *Y. P. Yu, diags Tele-Tech* 7:28-9+ Ag '48

Efficiency of inductive coupling; chart. *A. C. Hudson, Electronics* 20:138 D '47

Equivalent circuit of a corner bend in a rectangular wave guide. *J. W. Miles, diags Inst Radio Eng Proc* 35:1313-17 N '47

RADIO circuits—Continued

- Exact design and analysis of double- and triple-tuned band-pass amplifiers. M. Dishal, bibliog charts diags Inst Radio Eng Proc 35:606-26 Je '47; Discussion, 35:1507-10 D '47; Elec Com 25:100-2 Mr '48
- First automatic radio factory; British machine builds three radio circuits a minute. il Fortune 38:90-3 Ag '48
- Flat-response single-tuned i.f. amplifier. E. H. B. Bartelink and others. il diags Inst Radio Eng Proc 36:474-8 Ap '48
- Forced oscillations in nearly sinusoidal systems. M. L. Cartwright, bibliog diags Inst E E J 95 pt 3:88-96 Mr '48
- Formulas for image rejection calculations. L. O. Vladimir, il diags Tele-Tech 7:26-7 O '48
- Fremodyne fm detector; new Hazeltine development. il diags Radio N 39:48+ F '48
- Fremodyne f-m receivers. il diags Electronics 21:83-7 Ja '48
- Frequency stabilization of microwave oscillators. R. V. Pound, diags Inst Radio Eng Proc 35:1405-15 D '47
- Frequency transformations for use with the electrolytic tank. W. H. Huggins, diags Inst Radio Eng Proc 36:421-4 Mr '48
- Hybrid circuits for microwaves. W. A. Tyrrell, diags Inst Radio Eng Proc 35:1294-306 N '47
- Impedance matching techniques. W. J. Kessler, diags Communications 28:26+ J1 '48
- Low cost fm-am receiver circuit. G. E. Gustafson and J. L. Rennick, il diags Tele-Tech 7:36-8 O '48
- Low-impedance reactances for vhf. E. K. Stodola and H. Lisman, il diags Electronics 21:93-5 My '48
- Mathematical theory of directional couplers. H. J. Riblet, bibliog diags Inst Radio Eng Proc 35:1307-13 N '47
- Matrix methods in the solution of ladder networks. R. E. Vowels, bibliog diags Inst E E J 95 pt 3:40-50 Ja '48
- Method of virtual displacements for electrical systems with applications to pulse transformers. P. D. Crout, bibliog diags Inst Radio Eng Proc 35:1236-47 N '47
- Methods of producing negative potentials. G. N. Carter, diags Radio N 39:188-9 Mr '48
- Microwave converters, using point-contact silicon rectifiers. C. F. Edwards, diags Inst Radio Eng Proc 35:1181-91 N '47
- Microwave filters using quarter-wave couplings. R. M. Fano and A. W. Lawson, Jr, diags Inst Radio Eng Proc 35:1318-23 N '47
- Microwave repeater research. H. T. Friis, bibliog il maps diags Bell System Tech J 27:183-246 Ap '48
- Miller f-m circuit and its use in railroad radios. P. L. Bargellini, il diags Electronics 21:130+ O '48
- Multivibrator design by graphic methods. A. E. Abbot, diags Electronics 21:118-20 Je '48
- Negative feedback compression. J. T. Goode, diags Radio N 39:118+ Ja '48
- Network transients. E. V. D. Glazier, diags Wireless Eng 25:338-9 O '48
- New approach to tunable resonant circuits for the 300- to 3000-mc frequency range. F. C. Isely, il diags Inst Radio Eng Proc 35:1017-22 Ag '48
- New modulator principle for fm; Serrassoid circuit. il diags Tele-Tech 7:39 O '48
- New type of waveguide directional coupler. H. J. Riblet and T. S. Saad, bibliog il diags Inst Radio Eng Proc 36:61-4 Ja '48
- No turrets, just tune; 150-watt transmitter with new type of tank circuit. A. King, Jr, il diags Q S T 32:59-63 Mr '48
- Noise neutralizing detector circuit. D. L. Hings and W. W. Garstang, diags Tele-Tech 7:40-1 Ja '48
- Optimum conditions for an r-c oscillator. H. A. Whale, diags Electronics 21:178+ F '48
- Phase and amplitude distortion in linear networks. M. J. Di Toro, bibliog il diags Inst Radio Eng Proc 36:24-36 Ja '48
- Practical radio course; i.f. transformer; action of coupling circuits. A. A. Ghrirardi, il diags Radio N 39:64-6+ F; 72-4+ Mr '48
- Rf input circuits for tv receivers. F. R. Norton, diags Tele-Tech 7:28-31+ O '48
- Reactance modulator theory. F. Butler, diags Wireless Eng 25:69-74 Mr '48
- Rectifier resistance laws; analysis of non-linear transmission circuits. D. G. Tucker, bibliog diags Wireless Eng 25:117-28 Ap '48
- Resistor-transmission-line circuits. F. I. Richards, diags Inst Radio Eng Proc 36:217-20 F '48
- Series mode crystal circuits. H. Goldberg and E. L. Crosby, Jr, il diags Tele-Tech 7:24-7+ My '48
- Simple RC equalizer circuits. H. Logemann, diags R Sci Instr 19:196 Mr '48
- Simple remote control circuit. J. D. Gallager, diags Radio N 39:102 Ja '48
- Simplified single-sideband reception. O. G. Villard, Jr, il diags Electronics 21:82-5 My '48
- Speech blockade; circuit permits discrimination between music and speech in radio programs. C. E. Atkins, diags Radio N 39:60-1+ Mr '48
- Spurious signals caused by noise in triggered circuits. D. Middleton, bibliog J Ap Phys 19:817-30 S '48
- Squelch circuits for f-m receivers. C. W. Carnahan, diags Electronics 21:98-9 Ap '48
- Temperature coefficients in electronic circuits. C. I. Soucy, bibliog Electronics 21:117-21 Ja '48
- Testing repeaters with circulated pulses. A. C. Beck and D. H. Ring, il diags Inst Radio Eng Proc 35:1228-30 N '47
- Transient response of symmetrical four-terminal networks. A. W. Glazier, bibliog diags Wireless Eng 25:11-20 Ja '48
- Valve oscillator circuits. E. Williams, diags Wireless Eng 25:297-300 S '48
- Valve oscillator; operation and properties. J. R. Tillman, bibliog diags Wireless Eng 24:357-71 D '47
- Very-high-frequency triode oscillator and amplifier circuits. G. Lehmann, bibliog diags Elec Com 25:50-61 Mr '48
- V.h.f. valves and circuits. M. R. Gavin, il diags Wireless Eng 25:315-21 O '48
- See also*
- Phantatron (delay circuit)
- Printed circuits**
- Printed vitreous enamel components; produced by sprayed-enamel printed-silver process. C. I. Bradford and others, il diags Electronics 20:106-8 D '47
- Superregenerative circuits**
- Superregenerative circuit applications. H. Stockman, diags Electronics 21:81-3 F '48
- RADIO coils**
- Calculating mutual inductance; co-axial and co-planar multilayer coils. R. C. de Holzer, diags Wireless Eng 25:286-9 S '48
- Short-circuited turns in coils of broadcast transmitters. K. R. Sturley, il Wireless Eng 25:240-5 Ag '48
- Temperature coefficients in electronic circuits. C. I. Soucy, bibliog Electronics 21:117-21 Ja '48
- Theory and design of progressive and ordinary universal windings. M. Kantor, diags Inst Radio Eng Proc 35:1563-70 D '47
- Protection**
- Temperature coefficient effects of rf coil finishes. C. I. Soucy, bibliog Tele-Tech 6:52-5+ D '47; 7:42-4+ Ja '48
- RADIO communication**
- Combined f-m and a-m communications system; abstract. J. C. O'Brien, Communications 28:12-13 Ap '48
- Considerations of moon-relay communication. D. D. Grieg and others, bibliog il diags Inst Radio Eng Proc 36:652-63 My '48
- Effects of differentiation, integration, and infinite peak clipping upon the intelligibility of speech. J. C. E. Licklider and I. Pollock, bibliog diags Acoustical Soc Am J 20:42-51 Ja '48
- Fundamental problems of radio engineers and the F.C.C. W. Coy, Inst Radio Eng Proc 36:771-3 Je '48
- Practical radio course (cont). A. A. Ghrirardi, il diags Radio N 38:68-70+ D '47; 39:88+ Ja; 64-6+ F; 72-4+ Mr '48
- Radio communication on Middle East oil pipeline. Engineering 165:163 F 13 '48; Elec R (Lond) 142:235-6 F 13 '48

RADIO communication—Continued

Role of radio in emergencies. J. H. Collins. Pub Util 41:351-7 Je 17 '48

Theoretical requirements for communication systems. W. G. Tuller. diags Electronics 21:138+ Mr '48

See also

Airlines—Radio communication
Electric communication
Electric utilities—Radio communication
Gas companies—Radio communication
Petroleum industry and trade—Radio communication

Public utilities—Radio communication
Radio aids to aviation and other headings beginning Radio
Railroads—Radio communication
Waterworks—Radio communication

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Institute of radio engineers proceedings
Bibliography of radiocommunication convention papers. Inst E E J 94 pt 1:494-6 O '47
Index to abstracts and references published monthly by month in Wireless engineer during 1947. Wireless Eng 24:sup 1-50 [D] '47
RCA technical papers index. v 2 (b) (1947)
24p RCA Review. Radio corporation of America, RCA laboratories division, Princeton, New Jersey '48

Frequency modulation

See Radio frequency modulation

History

Inventor of radio telegraphy; Russian claim that Popov anticipated Marconi. G. W. O. Howe. Wireless Eng 25:135-7 My '48

Interference

Bandwidth vs noise in communication systems; IRE symposium on the reformulation of the Hartley law; new theory shows extent to which a-m, f-m, p-m and pcm make use of communication channel. diags Electronics 21:72-5 Ja '48

Cross modulation, a recurrent factor. J. B. Ledbetter. il Radio N 39:56+ Mr '48

Distortion of frequency-modulated waves by transmission networks. A. S. Gladwin. Inst Radio Eng Proc 35:1436-45 D '47; Discussion. 36:1257-9 O '48

Effect of modulation on transmission efficiency; abstract. A. G. Clavier. Electronics 21:136 Ja '48

Effects of an unwanted signal mixed with the carrier supply of ring and Cowan modulators. D. G. Tucker. Inst E E J 95 pt 3: 173-6 My '48

Electric field meter for use on airplanes. R. C. Waddell. bibliog il diags R Sci Instr 19:31-5 Ja '48

How rigid is the Hartley law? symposium at New York section, IRE meeting, Nov. 12. Tele-Tech 7:52-3 Ja '48

Instrument for intermodulation measurements. G. Daniel. il diags Electronics 21: 134+ Mr '48

Interference between very-high-frequency radio communication circuits. W. R. Young, Jr. diags Inst Radio Eng Proc 36:923-30 JI '48

Interference measurement; effect of receiver bandwidth. G. L. Hamburger. bibliog il diags Wireless Eng 25:44-54, 89-97 F-Mr '48

Radio interference in ships. S. F. Pearce. bibliog Engineer 185:261-3 Mr 12 '48

Reflections of very-high-frequency radio waves from meteoric ionization. E. W. Allen, Jr. diags Inst Radio Eng Proc 36: 346-52 Mr '48

Some effects of obstacles on the propagation of very short radio waves. E. C. S. Megaw. il diags Inst E E J 95 pt 3:97-105 Mr '48

Theory of frequency-modulation noise. F. L. H. M. Stumpers. bibliog Inst Radio Eng Proc 36:1081-92 S '48

Video interference; problem of radio interference that may be caused by television receivers. Electronics 21:142+ S '48

See also

Radio noise, Solar

Bibliography

Radio progress during 1947; noise. Inst Radio Eng Proc 36:537-8 Ap '48

Interference elimination

Cavity type filters for interference; designs for maximum spectrum utilization in mobile radiotelephone. D. E. Noble. il Tele-Tech 7:35-7+ Ja '48

Duct capacitor. A. Watton, Jr. bibliog il diags Inst Radio Eng Proc 36:550-4 Ap '48

Eliminating interference resulting from coupled antennas. F. E. Butterfield. il diags Communications 28:18+ Mr '48

Eliminating spurious radiations from bc transmitters. V. J. Andrew. il diags Tele-Tech 7:22-6+ F '48

FCC monitoring stations. Electronics 20:152+ D '47

High frequency reception in strong noise fields. I. M. Bickford. diags Radio N 39: 168 Ap '48

Impulsive interference in amplitude-modulation receivers. D. Weighton. bibliog diags Inst E E J 95 pt 3:69-79 Mr '48

Noise neutralizing detector circuit. D. L. Hings and W. W. Garstang. diags Tele-Tech 7:40-1 Ja '48

Noise-suppression characteristics of pulse-time modulation. S. Moskowitz and D. D. Gries. diags Inst Radio Eng Proc 36:446-50 Ap '48

Reducing stray input pickup. P. L. Richman. diags Tele-Tech 7:32 JI '48

Relationship between rate of transmission of information, frequency bandwidth, and signal-to-noise ratio. C. W. Earp. Elec Com 25:178-95 Je '48

Screening at v.h.f. B. Roston. diags Wireless Eng 25:221-30 JI '48

Snow static on aircraft; neutralization of charge by artificially activating negative corona discharges. W. H. Bennett. bibliog diags Elec Eng 67:947-53 O '48

Some fundamental considerations concerning noise reduction and range in radar and communication. S. Goldman. diags Inst Radio Eng Proc 36:584-94 My '48

TV circuits cause interference. I. J. Kaar. Tele-Tech 7:39 S '48

International aspects

International radiotelegraph communications. S. Sparks. map Elec Eng 67:579 Je '48
War of Europe's ear; distribution of wavelengths. Economist 155:486-7 S 25 '48

Mining applications

Some studies on emergency mine communications. E. J. Coggeshall and others. bibliog 13pls U S Bur Mines Rep of Invest 4135:1-44 '48

Police uses

See also

Radio facsimile—Police uses

Ship-to-shore service

Estimation and forecasting of short-wave propagation conditions, with special reference to naval communications. L. E. Beghian. bibliog maps Inst E E J 95 pt 3: 351-62 S '48

Ferries use f-m in the Chesapeake Bay area. il Electronics 21:132 Ja '48

Low-, medium- and high-frequency communication to and from H.M. ships. W. P. Anderson and E. J. Grainger. Inst E E J 94 pt 1:467-8 O '47

Short wave

Any DX today? observation of maximum usable frequency. D. W. Heightman. Q S T 32:25-31+ Ja '48

Broadband lens antenna for microwaves. W. E. Kock. il diags Electronics 21:108-10 Ap '48

Duplex system of communications for microwaves. R. V. Pound. il diags Inst Radio Eng Proc 36:840-4 JI '48

Estimation and forecasting of short-wave propagation conditions, with special reference to naval communications. L. E. Beghian. bibliog maps Inst E E J 95 pt 3: 351-62 S '48

RADIO communication—Short wave—Cont.

Experimental studies of a remodulating repeater. W. M. Goodall, *il diags Inst Radio Eng Proc* 36:580-3 My '48

Free space microwave propagation; nomographic charts developed which facilitate calculation of performance of microwave relay equipment. A. L. Hammerschmidt. *RCA R* 9:159-66 Mr '48

High-frequency cable design. K. H. Zimmermann, *diags Electronics* 21:112-15 F '48

Hybrid circuits for microwaves. W. A. Tyrrell, *diags Inst Radio Eng Proc* 35:1294-306 N '47

Influence of wave propagation on the planning of short-wave communication. K. W. Tremellen and J. W. Cox, *map Inst E E J* 94 pt 1:485-6 O '47

International short wave; foreign stations, call letters, time schedules (cont). K. R. Boord, *comp. Radio N* 39:66+ Ja '48 [cont monthly]

Investigations of high-frequency echoes. H. A. Hess, *diags Inst Radio Eng Proc* 36:981-92 Ag '48

Microwave antenna measurements. C. C. Cutler and others, *il Inst Radio Eng Proc* 35:1462-71 D '47

Microwave communication link. H. R. L. Lamont and others, *il diags Wireless Eng* 24:323-32 N '47

Microwave propagation experiments. L. E. Thompson, *Inst Radio Eng Proc* 36:671-6 My '48

Microwave repeater research. H. T. Friis, *bibliog il maps diags Bell System Tech J* 27:183-246 Ap '48

Microwaves in communication. D. H. Uptegrove, Jr., *il Sci Am* 178:105-8 Mr '48

Non-reflecting branching filter for microwaves. W. D. Lewis and L. C. Tillotson, *il diags Bell System Tech J* 27:33-95 Ja '48

Parabolic-antenna design for microwaves. C. C. Cutler, *il diags Inst Radio Eng Proc* 35:1284-94 N '47

Propagation of very short waves. D. E. Kerr, *diags Electronics* 21:124-8 Ja; 118-23 F '48

Radio ultra-high frequencies; v 2, (1940-1947). A. N. Goldsmith and others, eds. 485p bibliog(p442-53) \$2.50 RCA review, Radio corp. of Am, RCA laboratories division, Princeton, New Jersey '48

Reducing transmission bandwidth; pulse systems. R. S. Bailey and H. E. Singleton, *bibliog diags Electronics* 21:107-9 Ag '48

Results of microwave propagation tests on a 40-mile overland path. A. L. Durkee, *Inst Radio Eng Proc* 36:197-205 F '48

Study of tropospheric reception at 42.8 mc. and meteorological conditions. G. W. Pickard and H. T. Stetson, *Inst Radio Eng Proc* 35:1445-50 D '47

See also

Radio receiving apparatus—Short wave	Radio transmitters—Short wave
--------------------------------------	-------------------------------

Wire line connections

Mobile selective calling for connecting mobile radiotelephone to wire telephone networks. E. H. B. Bartelink, *il diags Electronics* 21:103-5 N '48

Netherlands

Modern single-sideband equipment of the Netherlands postals telephone and telegraph. C. T. F. Van der Wyck, *il diags Inst Radio Eng Proc* 36:970-80 Ag '48

RADIO communication, Military

AFCM and national defense. S. H. Sherrill, *il Radio N* 39:44-5+ Je '48

Airways and air communications service of the USAF. H. M. McClelland, *il map Aero Digest* 57:38-9+ S '48

Developments in radio-sky-wave propagation research and applications during the war. J. H. Dellinger and N. Smith, *maps Inst Radio Eng Proc* 36:258-66 F '48

Military radio communication. J. B. Hickman, *Inst E E J* 94 pt 1:469-70 O '47

Portable microwave communication set. C. E. Sharp and R. E. Lacy, *il diags Inst Radio Eng Proc* 36:676-80 My '48

See also

Radio apparatus—Military use

RADIO compass*See also*

Direction finding apparatus

RADIO condensers

Capacitor counting circuit. B. Howland, *diags Electronics* 21:182+ Je '48

Characteristics of some oil impregnated capacitors. B. Dempster, *Electronics* 21:168+ My '48

Duct capacitor. A. Watton, Jr., *bibliog il diags Inst Radio Eng Proc* 36:550-4 Ap '48

Effectiveness of bypass capacitors at v-h-f. J. F. Price, *il diags Communications* 28:18-19+ F '48

Oil-filled miniature tuning capacitors. S. Wald, *il Tele-Tech* 7:43-5+ O '48

Oscillating stop positions stock for punchpress blanking operation. G. Remacle, *diags Am Mach* 92:123 Ag 12 '48

Printed vitreous enamel components; produced by sprayed-enamel printed-silver process. C. I. Bradford and others, *il diags Electronics* 20:106-8 D '47

Temperature coefficients in electronic circuits. C. I. Soucy, *bibliog Electronics* 21:117-21 Ja '48

Tuning in profits, *Fortune* 36:140+ D '47

Testing

Low-cost condenser tester. J. E. Lovett, *diags Radio N* 39:174 Je '48

RADIO conductors*See also*

Radio lines
Wave guides

RADIO control

Design principles of amplitude-modulated subcarrier telemeter systems, used for the instrumentation of airplanes and guided missiles. C. K. Stedman, *diags Inst Radio Eng Proc* 36:36-41 Ja '48

Guided missiles. C. E. Chapel, *il Radio N* 39:39-41+ Ja '48

Long Island experimenting with micro-wave beam radio for remote control of power sub-stations, switches and signals and for communications. D. E. Smucker, *il Ry Age* 125:474-5 S 4 '48

Photographic tracking of guided missiles. L. M. Biberman and others, *diags Electronics* 21:92-5 Jl '48

Radio control for water works, *il Electronics* 21:152+ Ja '48

Radio-controlled lighthouse in Sweden, *Engineer* 186:61 Jl 16 '48

Radio controlled model sailboat. R. C. Schmidt and L. A. Williams, *il diags Radio N* 39:39-41+ Ap '48

Variable-radio-frequency-follower system. R. F. Wild, *il diags Inst Radio Eng Proc* 36:251-5 F '48

See also

Radio frequency—control	Radio receiving apparatus—Control
-------------------------	-----------------------------------

RADIO corporation of America

Annual report, *Comm & Fin Chr* 167:1049 Mr 8 '48

R.C.A.'s television, *il Fortune* 38:80-5+ S '48
Television swells sales; quarter net up. *Barron's* 28:37 My 10 '48

RADIO detectors

Bolometer amplifier; compact tuned amplifier designed for use with bolometer or crystal microwave detectors. D. D. King and others, *il diags Electronics* 21:116-17 F '48

Detector for single-sideband reception. O. G. Villard, Jr. and D. L. Thompson, *il diags Q S T* 32:11-18 Je '48

Fm detectors. M. S. Kay, *diags Radio & Tv N* 40:56-7+ Ag '48

Noise neutralizing detector circuit. D. L. Hings and W. W. Garstang, *diags Tele-Tech* 7:40-1 Ja '48

Performance characteristics of fm detector systems. B. D. Loughlin, *diags Tele-Tech* 7:30-4 Ja '48

Superregenerative detection theory. W. E. Bradley, *diags Electronics* 21:96-8 S '48

Two new methods for detecting nuclear radio-frequency resonance absorption. A. Roberts, *bibliog diags R Sci Instr* 18:845-8 N '47

See also

Radio frequency modulation	Radio receiving apparatus
----------------------------	---------------------------

RADIO echoes

- Investigations of high-frequency echoes. H. A. Fess. diags Inst Radio Eng Proc 36: 981-92 Ag '48
 Ionosphere reflections recorded mechanically by means of a repetition frequency converter. W. Stoffregen. il diags J Ap Phys 19:487-90 My '48

See also

Radar

RADIO education. See Radio in education

RADIO engineering

- Electric power situation in the United States; electrical developments. il Power Generation 52:69-70 Ja '48
 I.R.E. annual meeting, New York, March 22-25. Electronics 21:72-5 My '48; Tele-Tech 7: 28-9+ My '48
 Radio and electronic frontiers. W. R. G. Baker. Inst Radio Eng Proc 36:893-4 Jl '48
 Radio progress during 1947. bibliog (689 titles) Inst Radio Eng Proc 36:522-50 Ap '48
 Report on the 1948 IRE national convention; abstracts of papers. Communications 28: 12-13 Ap '48
 Summaries of technical papers, I.R.E. annual meeting, New York, March 23-25. Inst Radio Eng Proc 36:367-80 Mr '48
 Theory of wireless telegraphy. J. S. Stone. diags Inst Radio Eng Proc 36:308-15 Mr '48
 Trends in electronic engineering. D. G. Fink. Elec Eng 67:647-53 Jl '48

See also

- | | |
|--------------------------------------|--|
| Direction finding apparatus | Radar |
| Electronics Park, Syracuse, New York | Radio apparatus and other headings beginning Radio |
| Loud speaking apparatus | Sound—Recording and reproducing |
| Microphones | Television |
| | Vacuum tubes |

Bibliography

- Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Institute of radio engineers proceedings
 Index to abstracts and references published month by month in Wireless engineer during 1947. Wireless Eng 24:sup 1-50 [D] '47
 RCA technical papers; third quarter, 1947. RCA R 8:765-7 D '47
 RCA technical papers; fourth quarter, 1947. RCA R 9:167-9 Mr '48
 RCA technical papers; first quarter, 1948. RCA R 9:363-5 Je '48
 RCA technical papers index. v 2 (b) (1947) 24p RCA Review. Radio corporation of America, RCA laboratories division, Princeton, New Jersey '48

History

- Alexander S. Popov; early radio experiments. G. W. O. Howe. diags Wireless Eng 25:1-5 Ja '48
 Man before Marconi; a biography of Dr Mahlon Loomis. J. R. Lebo. Q S T 32:42-4 Ag '48

Study and teaching

- Postwar curriculum emphasis. O. J. M. Smith. Inst Radio Eng Proc 35:1346-8 N '47

Tables, calculations, etc.

- Application of matrices to vacuum-tube circuits. J. S. Brown and F. D. Bennett. bibliog diags Inst Radio Eng Proc 36:844-52 Jl '48
 Circle diagrams of impedance or admittance for four-terminal networks. J. Rybnar. bibliog diags Inst E E J 95 pt 3:243-52 Jl '48
 Geometry of rectangular waveguides. A. C. Bartlett. diags Wireless Eng 25:202-10 Jl '48
 Graphical aid for frequency selectivity calculations. R. M. Maiden. diags Tele-Tech 7: 54-5 Ja '48
 Matrix methods in the solution of ladder networks. R. E. Vowels. bibliog diags Inst E E J 95 pt 3:40-50 Ja '48
 Methods of electromagnetic field analysis. S. A. Schelkunoff. diags Bell System Tech J 27:487-509 J '48
 Network analysis by the chain-relaxation method. L. Tasny-Tschiasny. bibliog diags Inst E E J 95 pt 3:177-82 My '48

- Propagation of very short waves. D. E. Kerr. diags Electronics 21:124-8 Ja; 118-23 F '48
 Radiation from short aeriels; new method of calculation. R. G. Medhurst. bibliog diags Wireless Eng 25:260-6 Ag '48
 Simplified procedure for computing behavior of multiconductor lossless transmission lines. S. Frankel. diags Elec Com 25:236-90 S '48
 Table of intermodulation products. C. A. A. Wass. Inst E E J 95 pt 3:31-9 Ja '48
 Tables of phase associated with a semi-infinite unit slope of attenuation. D. E. Thomas. diags Bell System Tech J 26:870-99 O '47
 Transmission-line calculations; use of impedance circle diagrams. W. C. Vaughan. diags Wireless Eng 24:314-22 N '47
 Trigonometric components of a frequency-modulated wave. E. Cambi. Inst Radio Eng Proc 36:42-9 Ja '48

RADIO engineers

- Engineer in the electronics industry; prospects, preparation, pay. H. B. Richmond. Inst Radio Eng Proc 36:774-7 Je '48
 Report of the committee on professional status of the Canadian council of the I.R.E. Inst Radio Eng Proc 36:115-16 Ja '48
 See also
 Armstrong, Edwin
 Howard

Directories

- Consulting engineers active in the electronics field. Electronics 21:C1-8 Mid-Je '48

Salaries

- How much pay is an engineer worth? Tele-Tech 7:24-6+ Ap; 22-3+ My; 24-5 Je '48; Discussion. 7:38-9+ Ag '48

RADIO facsimile

- Chemistry of high-speed electrolytic facsimile recording. H. G. Greig. bibliog diags Inst Radio Eng Proc 36:1224-35 O '48
 Dual program on fm gives FAX big push; simultaneous broadcast of printed material and aural programs. H. P. Brown. Ed & Pub 81:51 O 2 '48
 Facsimile goes commercial. Electronics 21: 97 Ag '48
 Facsimile modulator tube. J. R. Shonnard. diags Electronics 21:82-3 Je '48
 Facsimile transmitter at the Miami herald, Florida to broadcast stock market news, fashion reports and other business information. R. G. Peters. diags Communications 28:12-15+ F '48
 Frequency-shift radio transmission. L. E. Hatfield. bibliog il diags Inst Radio Eng Proc 36:116-20 Ja '48
 New distance record is set by radiophoto. Ed & Pub 81:47 Ja 24 '48
 Radio facsimile may print newspapers of tomorrow. F. K. Louden. il Radio & Tv N 40: 39+ Ag '48
 Radio progress during 1947; facsimile. bibliog Inst Radio Eng Proc 36:549 Ap '48
 Radiophoto standards. S. H. Simpson, jr. and R. E. Hammond. il diags RCA R 8: 682-97 D '47
 Technical session features discussion of facsimile and picture transmission; A.I.E.E. winter meeting. Elec Eng 67:389-90 Ap '48
 See also
 Newspapers—Radio transmission
 Phototelegraphy
 Ultrafax

Color

- Full color radio facsimile is now an amazing reality. il Inland Ptr 120:49 Ja '48

Police uses

- Fingerprints by electronics; facsimile transmission of fingerprints, photographs, and other police information. il Gen Elec R 51: 47 S '48

RADIO filters

- Cavity type filters for interference; designs for maximum spectrum utilization in mobile radiotelephone. D. E. Noble. il Tele-Tech 7:35-7+ Ja '48
 Eliminating interference resulting from coupled antennas. F. E. Butterfield. il diags Communications 28:18+ Mr '48
 Eliminating spurious radiations from bc transmitters. V. J. Andrew. il diags Tele-Tech 7:22-6+ F '48

RADIO filters—Continued

- Filter ripple chart; reference sheet. C. K. Hooper. *Electronics* 21:132 Mr '48
- Frequency characteristic analyzer. J. W. Sampson. *il diags R Sci Instr* 19:620-7 O '48
- Low-pass audio filters. R. W. Buchheim. *diags Q S T* 32:13-20 JI '48
- Microwave filters using quarter-wave couplings. R. M. Fano and A. W. Lawson, Jr. *diags Inst Radio Eng Proc* 35:1318-23 N '47
- Microwave repeater research. H. T. Friis. *bibliog il map diags Bell System Tech J* 27:183-246 Ap '48
- Non-reflecting branching filter for microwaves. W. D. Lewis and L. C. Tillotson. *il diags Bell System Tech J* 27:83-95 Ja '48
- Quartz filter crystals with low inductance. J. J. Vormer. *diag Inst Radio Eng Proc* 36:802-4 Je '48
- Single-sideband crystal filters. P. K. Taylor. *il diags Electronics* 21:116-20 O '48
- Transient response of symmetrical four-terminal networks. A. W. Glazier. *bibliog diags Wireless Eng* 25:11-20 Ja '48
- Ultra-high-frequency low-pass filter of coaxial construction. C. L. Cuccia and H. R. Hegbar. *il diags RCA R* 8:743-50 D '47

RADIO frequency

- Ionospheric eclipse of Oct. 1, 1940; variations in the critical frequencies of the various ionospheric layers over Queenstown, South Africa. J. A. Pierce. *il map Inst Radio Eng Proc* 36:8-15 Ja '48
- Measurements of radio frequency resistance of a piece of columbium nitride through the transition. J. V. Lebacqz. *Phys R* 73:1476 Je 15 '48
- Microwave frequency measurements and standards. B. F. Husten and H. Lyons. *il diags Elec Eng* 67:436-9 My '48

Allocation

- FCC hears tv reallocation views. A. Francis. *Tele-Tech* 7:46+ O '48
- FCC shows coolness to channel for press. J. J. Butler. *Ed & Pub* 81:65 O 16 '48
- Frequency allocations. P. F. Siling. *fold chart RCA R* 8:737-42 D '47
- Fundamental problems of radio engineers and the F.C.C. W. Coy. *Inst Radio Eng Proc* 36:771-3 Je '48
- High frequency allocations revised by International radio conference of Atlantic City. K. R. Boord. *Radio N* 38:132 D '47
- Industry seeks clear mobile radio. *il Am Gas Assn Mo* 30:3-6 Mr '48
- Joint technical advisory committee, its purpose and program. *Electronics* 21:72-5 S '48
- Newspapers plan battle for mobile radio channels. *Ed & Pub* 81:10 S 13 '48
- Petroleum industry and the Federal communications commission. J. E. Keller. *Am Pet Inst Proc* 27(5):89-96 '47
- Rap plan to reduce radio frequencies. *Ry Age* 125:687-8 O 9 '48
- Report on the Atlantic City International radio conference. H. L. Cornell. *Am Pet Inst Proc* 27(5):99-102 '47
- Shall 'phone assignments be increased? *Q S T* 32:32a-32b, 33+ F '48
- Too little for too many; allocating the radio spectrum. B. C. Burden. *Pub Util* 41:834-41 Je 17 '48
- Utilities vie for radio channels. *Elec World News* ed 130:5 O 16 '48
- War of Europe's ear; distribution of wavelengths. *Economist* 155:486-7 S 25 '48
- What's wrong with U.S. frequency allocations. J. Courtney. *Electronics* 21:73-5 Ag '48; Discussion. A. L. McIntosh. 21:240+ N '48
- Will clear channel broadcast plan be changed? A. Francis. *map Tele-Tech* 7:34-7 F '48

See also

Television transmission—Frequency allocation

Control

- Automatic frequency control; circuits used in television receivers. W. H. Buchsbaum. *diags Radio N* 39:68-9+ Mr '48
- Beat frequency tone generator with r-c tuning. J. W. Whitehead. *diag Electronics* 21:130+ My '48

Frequency stabilization in the region of 10,000 mc. A. V. Donnelly. *il diags Communications* 28:6-8+ JI '48

Frequency stabilization of microwave oscillators. E. V. Pound. *diags Inst Radio Eng Proc* 35:1405-15 D '47

Recent developments in frequency stabilization of microwave oscillators. W. G. Tuller and others. *il diags Inst Radio Eng Proc* 36:794-800 Je '48

Stabilizing frequency of reflex oscillators. G. G. Bruck. *diag Electronics* 21:170+ F '48

Theory of amplitude-stabilized oscillators. P. R. Aigrain and E. M. Williams. *diags Inst Radio Eng Proc* 36:16-19 Ja '48

See also

Oscillators—Frequency stabilization

Crystal control

- Crystal control on 220 mc. E. P. Tilton. *il diag Q S T* 32:20-2 My '48
- Crystal controlled signal generator. J. Bann. *il diag Radio N* 39:51+ My '48
- High accuracy signal generator. J. J. Bann. *il diag Electronics* 20:168+ D '47
- Putting XTAL control to work. M. Silver. *il diag Radio N* 39:60-1+ F '48
- Thickness-shear vibrations of thin anisotropic plates. G. H. H. Acoustical Soc Am J 20:406-17 JI '48

RADIO frequency modulation

- Antenna design for low-angle fm propagation. O. O. Flett. *il diags Tele-Tech* 7:30-3 F '48
- Antenna design for television and fm reception. F. A. Kolster. *il diags Inst Radio Eng Proc* 36:1242-3 O '48
- Armstrong of radio. *il Fortune* 37:88-91+ F '48
- Cincinnati Times-Star f-m station. J. B. Ledbetter. *il plan Communications* 28:8-9+ Ja '48
- Circular polarization in f-m broadcasting. C. E. Smith and R. A. Fouty. *bibliog il diags Electronics* 21:103-7 S '48
- Cloverleaf antenna for f.m. broadcasting. P. H. Smith. *il diags Inst Radio Eng Proc* 35:1556-63 D '47
- Distortion of frequency-modulated waves by transmission networks. A. S. Gladwin. *Inst Radio Eng Proc* 35:1436-45 D '47; Discussion. 35:1257-9 O '48
- Dual program on fm gives FAX big push; simultaneous broadcast of printed material and aural programs. H. P. Brown. *Ed & Pub* 81:51 O 2 '48
- Duplex system of communications for microwaves. R. V. Pound. *il diags Inst Radio Eng Proc* 36:840-4 JI '48
- Experimental studies of a remodulating repeater. W. M. Goodall. *il diags Inst Radio Eng Proc* 36:580-3 My '48
- Extending linear range of reactance modulators. F. Brunner. *diags Electronics* 21:134+ My '48
- Frequency and modulation monitor for tv and fm. C. A. Cady. *il diags Tele-Tech* 7:44-5 F '48
- F-m broadcast network with radio links; six-station network formed by ten farm organizations in N.Y. state. D. K. de Neuf. *il map diag Communications* 28:12-15 O '48
- F-m communications in oil well drilling operations. T. W. Mayborn. *il diags Communications* 28:18-21 S '48
- Fm monitor design speeds output. E. F. Travis. *il Tele-Tech* 7:56-7+ S '48
- Frequency modulation of an oscillator. M. R. Gavin. *diags Wireless Eng* 25:290-3 S '48
- F-m service areas; chart; reference sheet. J. H. Battiloin. *Electronics* 21:122 Je '48
- F-m short range carrier system. E. H. B. Bartelink and E. Daskam. *il diags Electronics* 20:112-17 D '47
- Fm versus television? as small to big daily. A. S. Keshen. *Ed & Pub* 81:54 JI 17 '48
- Generalized theory of multitone amplitude and frequency modulation. L. J. Giacoletto. *bibliog diags Inst Radio Eng Proc* 35:680-93 JI '47; Discussion. 35:240-3 F '48
- Measuring f-m antenna patterns with miniature antennas. M. A. Honnell and J. D. Albright. *il diags Communications* 28:20-2 F '48
- Miller f-m circuit and its use in railroad radios. P. L. Bargellini. *il diags Electronics* 21:130+ O '48

RADIO frequency modulation—Continued

- New development may boost fm. Bsns W p71-2 O 2 '48
- Philadelphia police duplex two-way f-m system. R. G. Peters. Communications 28:22+ My '48
- Principles of frequency-modulated radar. I. Wolff and D. G. C. Luck. bibliog il diags RCA R 9:50-75, 352-62, 531-55 Mr-S '48
- Serrasoid f-m modulator. J. R. Day. il diags Electronics 21:72-6 O '48
- Theory of frequency counting and its application to the detection of frequency-modulated waves. E. Labin. diags Inst Radio Eng Proc 36:823-39 J1 '48
- Theory of frequency-modulation noise. F. L. H. M. Stumpers. bibliog Inst Radio Eng Proc 36:1081-92 S '48
- Trigonometric components of a frequency-modulated wave. E. Cambi. Inst Radio Eng Proc 36:42-9 Ja '48
- What to look for in fm. D. T. Armstrong. il Sci Am 178:115-18, 165-8 Mr-Ap '48
- Wide-deviation frequency-modulated oscillators. E. M. Williams and L. Vallesse. bibliog Inst Radio Eng Proc 36:1282-4 O '48
- Wide deviation reactance modulator. H. D. Helfrich, jr. diags Electronics 21:120-1 Ap '48

See also

- | | |
|--|--|
| Radio receiving apparatus—Frequency modulation receivers | Radio transmitters—Frequency modulation transmitters |
|--|--|

RADIO generators

- Crystal controlled signal generator. J. Bann. il diag Radio N 39:51+ My '48
- High accuracy signal generator. J. J. Bann. il diag Electronics 20:168+ D '47
- High-output signal generator for antenna measurements. H. E. Eldson, jr. il diags Communications 28:6-7 Ag '48
- Home-built crystal signal generator. N. Chalfin. il diags Radio & Tv N 40:47+ O '48
- Linear saw-tooth generators. A. W. Keen. bibliog diags Wireless Eng 25:210-14 J1 '48
- Low cost all-wave signal generator. H. Gould. il diag Radio N 40:64-5+ J1 '48
- New am-fm signal generator. J. Najork. il diags Radio N 39:49-51+ F '48
- New compact signal generator has laboratory features. G. Dexter. il diag Radio N 38:58-9+ D '47
- Pocket signal generator has wide frequency range output to speed radio servicing. il Sci Am 177:272 D '47
- Standard signal generator for f-m broadcast service. D. B. Sinclair. il diags Communications 28:12-13+ Ag '48
- Sweep generator, portable unit produces all signals needed for fm servicing. il Sci Am 178:84 F '48
- Variable frequency standard signal generator designed for measuring piezoelectric crystal characteristics. R. G. Stokes. il diags Tele-Tech 7:44-7 S '48

*See also***Oscillators**

RADIO heating. See Electric heating, Industrial—High frequency heating

RADIO in education

- Education on the air; seventeenth yearbook of the Institute for education by radio. O. J. Olson. ed. 531p \$3.50 Ohio state univ, Columbus '47

See also

- Radio broadcasting—Library programs

RADIO instruments

- Automatic ionosphere recorder. Franklin Inst J 245:164-6 F '48
- Build the W3KPX multi-unit NBFM, crystal oscillator and signal spotter. H. D. Hooton. il diag Radio & Tv N 40:42-3+ Ag '48
- Carrier shift check meter. J. W. Whitehead. il diags Electronics 21:162+ Je '48
- Compact distortion meter. R. P. Turner. il diags Radio & Tv N 40:68-9+ N '48
- Crystal calibrator for hf and vhf. J. F. Gordon. il diags Tele-Tech 7:50-1+ S '48
- Crystal diode wave shaper. R. P. Turner. il diags Radio N 39:44+ My '48

- Frequency-scanning vhf impedance meter. L. L. Libby. il diags Electronics 21:94-7 Je '48
- Gain measuring test unit. W. E. Norman. il diags Radio & Tv N 40:61-3+ S '48
- High-power ionosphere-measuring equipment. P. G. Sulzer. il diags Inst Radio Eng Proc 36:389-94 Mr '48
- Low-cost multimeter. A. Siegel. il diag Radio & Tv N 40:100+ N '48
- Low cost volt-ohmmeter. T. R. Lawson, jr. il diag Radio & Tv N 40:64-5 S '48
- Make a test unit for your service kit. H. Leeper. il diags Radio N 40:41+ J1 '48
- Measurement of peak voltage at a frequency of 600 mc/s by means of a modified probe circuit. G. W. Bowlder. diags Inst E E J 95 pt 3:25-30 Ja '48
- New lab and test equipment. il Tele-Tech 7: 60 Ja '48
- Noise generator for receiver measurements. P. G. Sulzer. bibliog il diags Electronics 21:96-8 J1 '48
- Peak-indicating modulation monitor. J. S. Denham. diags Q S T 32:70-2+ My '48
- Polarity response from tuning eye tubes. M. L. Greenough. diags Electronics 21:162+ Ap '48

- R-f bridge for broadcast stations. F. Schumann and C. Duke. il diags Electronics 21: 83-5 Ap '48
- Radio-frequency resistance meter employs Wheatstone bridge having crystal-detector indicator circuit. H. W. Kline. il diags Gen Elec R 51:25-30 Je '48
- Rf spectrum analyzer. P. G. Sulzer. il diags Tele-Tech 7:30-1 J1 '48
- Radio inductograph; a device for recording physiological activity in unrestrained animals. J. L. Fuller and T. M. Gordon, jr. diags Science 108:287-8 S 10 '48
- Resistance deviation bridge. J. C. Frommer. diags Electronics 21:126+ Ag '48
- S meter calibration techniques for communications receivers. R. M. Berler. il diags Radio N 39:68-9+ Ap '48
- Sensitive a.f.-r.f. signal tracer. R. P. Turner. il diags Radio & Tv N 40:38+ Ag '48
- Simple Simon signal tracer. H. J. Gruber. il diag Radio & Tv N 40:146+ O '48
- Simplified rc bridge. R. L. Parmenter. il diags Radio N 39:126+ Mr '48
- Some sources of error in microwave milliwattmeters. G. F. Gainsborough. diag Inst E E J 95 pt 3:229-38 J1 '48
- Test instruments in the broadcast station. H. G. Eldson, jr. il diags Communications 28:22-3+ Mr; 20-1+ Ap; 23+ My '48
- Transmission-line bridge; applications to directive arrays. C. H. Westcott. diags Wireless Eng 25:215-20 J1 '48
- Universal a.f.-r.f. wattmeter. G. Dexter. il diags Radio N 39:66-7+ My '48
- Versatile service test instrument. C. T. Haist, jr. il diag Radio N 39:54-5+ Ap '48
- Versatile signal checker. R. P. Turner. il diags Radio N 39:42-4+ Mr '48
- Versatile substitution tester. S. S. Fleishman. il diag Radio N 39:53+ Je '48
- Voltage, current, capacitance, and resistance measuring devices. diags Radio N 39:112-16+ My '48

See also

- Oscillators
- Radio meteorographs

RADIO laboratories

- Le bâtiment des laboratoires des Fédéral Télécommunications à Nutley (New Jersey, E.-U.). G. Kimpflin. il plans Génie Civil 124:425-7 N 15 '47
- Modern research facilities of Federal telecommunication laboratories. H. H. Buttner. il plan diags Elec Com 25:210-19 S '48

Fires and fire protection

- Microwave tower automatic fire protection system; FTL tower at Nutley, N.J. S. G. Freck. il Communications 28:16 O '48

RADIO laws and regulations

- Comment on press gag deleted in Baltimore. Ed & Pub 81:11 J1 24 '48
- Court says you need more than network. J. Walker. Ed & Pub 81:48 My 29 '48
- FCC limits radio chains. Bsns W p26+ Ag 28 '48

RADIO laws and regulations—Continued

- Legal battle shapes up on Baltimore code. Ed & Pub 81:48 JI 31 '48
 New Jersey station is held liable for airing libel. Ed & Pub 81:44 S 18 '48
 New limits proposed on station ownership. Ed & Pub 81:34 Ag 28 '48
 Radio censor rule petition is dismissed. Ed & Pub 81:6 Ag 7 '48
 Radio censorship of political speeches. Pub Util 41:789-90 Jc 3 '48
 Radio editorial debate heard by Commission. J. J. Butler, Ed & Pub 81:10+ Mr 6 '48

See also

- Federal communication commission Radio frequency—Allocation

RADIO lines

- Adjusting the matching stub. W. L. Smith. diags Q S T 32:31-3 Mr '48
 Antenna matching with line segments. J. G. Marshall. diags Q S T 32:18-21+ S '48
 Broad-band noncontacting short circuits for coaxial lines. W. H. Huggins. diags Inst Radio Eng Proc 35:906-13, 1085-91, 1324-8 S-N '47
 Coaxial-cable networks. F. A. Cowan. bibliog il map diags Inst Radio Eng Proc 35:1364-7 N '47
 Coaxial-line v.h.f. receivers. J. Santangelo. il diags Q S T 32:20-3 Mr '48
 F-m and tv transmission line installation problems. J. S. Brown. il Communications 28:20-1 Ja '48
 Heating of radio-frequency cables. W. W. Macalpine. diags Elec Com 25:84-99 Mr '48
 High-frequency cable design. K. H. Zimmermann. diags Electronics 21:112-15 F '48
 Impedance matching half-wave transformer; constructed from coaxial cable and N connectors. H. E. Dinger and H. G. Paine. il diags Tele-Tech 7:41-3+ My '48
 Low-impedance reactances for vhf. E. K. Stodola and H. Lisman. il diags Electronics 21:93-5 My '48
 Mathematical theory of directional couplers. H. J. Riblet. bibliog diags Inst Radio Eng Proc 35:1307-13 N '47
 Mismatch loss chart for transmission lines; reference sheet. J. M. Hollywood. Electronics 21:130 Ja '48
 Mode separation in oscillators with two coaxial-line resonators. H. J. Reich. Inst Radio Eng Proc 36:1252-5 O '48
 Plane discontinuities in coaxial lines. J. W. Miles. diag Inst Radio Eng Proc 35:1498-502 D '47
 Resistor-transmission-line circuits. P. I. Richards. diags Inst Radio Eng Proc 36:217-20 F '48
 Series reactance in coaxial lines. H. J. Rowland. diags Inst Radio Eng Proc 36:65-9 Ja '48
 Simplified procedure for computing behavior of multiconductor lossless transmission lines. S. Frankel. diags Elec Com 25:286-90 S '48
 Tapered coaxial junctions. S. Hershfield. diag Electronics 20:146 D '47
 Transient response of symmetrical four-terminal networks. A. W. Glazier. bibliog diags Wireless Eng 25:11-20 Ja '48
 Transmission-line bridge applications to directive arrays. C. H. Westcott. diags Wireless Eng 25:215-20 JI '48
 Transmission-line calculations; use of impedance circle diagrams. W. C. Vaughan. diags Wireless Eng 24:314-22 N '47
 Ultra-high-frequency low-pass filter of coaxial construction. C. L. Cuccia and H. R. Hegbar. il diags RCA R 8:743-50 D '47

See also

- Television cables
 Wave guides

Bibliography

- Radio progress during 1947; transmission lines. Inst Radio Eng Proc 36:536 Ap '48

RADIO listeners

- Coordinating the measurements of radio listening. H. Zeisel. Am Stat Assn J 42:512-22 D '47
 Influence of reproducing system on tonal-range preferences. H. A. Chinn and P. Eisenberg. Inst Radio Eng Proc 36:572-80 My '48

RADIO loud speakers

- Low cost extended range speaker. R. Drain and A. O'Neill. diags Radio & Tv N 40:136 Ag '48
 Wide range speaker systems. J. C. Hoadley. il diags Radio & Tv N 40:53+ S '48

See also

- Loud speaking apparatus

Testing

- Graphical analysis of speakers and microphones; manual-electronic curve tracer. A. J. Sanial. il diags Tele-Tech 7:42-3 F '48

RADIO manufacturers association

- RMA standards; electrical performance standards for television broadcast transmitters, channels 1 to 13 (44 to 216 mc). diags Inst Radio Eng Proc 36:932-8 JI '48

RADIO measurements

- Accurate measurement of the group velocity of radio waves in the atmosphere, using radar technique. R. A. Smith and others. diags Inst E E J 94 pt 3:391-5; Discussion. 402-6 N '47
 Analysis of the intermodulation method of distortion measurement. W. J. Warren and W. R. Hewlett. diags Inst Radio Eng Proc 36:457-66 Ap '48
 Antenna pattern measurement. H. R. Skifter. and J. S. Prichard. bibliog il diags Communications 28:26-8+ Mr '48
 Calculation of doubly curved reflectors for shaped beams. A. S. Dunbar. il diags Inst Radio Eng Proc 36:1289-96 O '48
 Calculation of the attenuation of electrical field strength; abstract. H. J. Peake. Tele-Tech 7:45 Ag '48
 Checking f-m transmitter frequencies with WWV. R. R. Freeland. il diags Communications 28:16-18+ My '48
 Comparative propagation measurements; television transmitters at 67.25, 238, 510 and 910 megacycles. G. H. Brown and others. il map RCA R 9:177-201 Je '48
 Comparison of calculated and measured phase difference at 3.2 centimeters wavelength. E. W. Hamlin and W. E. Gordon. diag Inst Radio Eng Proc 36:1218-23 O '48
 Coupled antennas. C. T. Tai. bibliog diags Inst Radio Eng Proc 36:487-500 Ap '48
 Determination of aerial gain from its polar diagram. J. A. Saxton. diags Wireless Eng 25:110-16 Ap '48
 D.c. thermal characteristics of microwave bolometers. E. Peskin and E. Weber. bibliog diag R Sci Instr 19:188-95 Mr '48
 Distortion of frequency-modulated waves by transmission networks. A. S. Gladwin. Inst Radio Eng Proc 35:1436-45 D '47; Discussion. 36:1257-9 O '48
 Dynamic performance of peak-limiting amplifiers. D. E. Maxwell. il diag Inst Radio Eng Proc 35:1349-56 N '47
 Experimental determination of helical-wave properties. C. C. Cutler. diags Inst Radio Eng Proc 36:230-3 F '48
 Experimental investigation of the radiation patterns of electromagnetic horn antennas. D. R. Rhodes. diags Inst Radio Eng Proc 36:1101-5 S '48
 Experiments with thermocouple milliammeters at very high radio frequencies. G. F. Gainsborough. bibliog diags Inst E E J 91 pt 3:556-61 S '44; Discussion. 94 pt 3:427-8 N '47
 Field distributions near a centre-fed half-wave radiating slot. J. L. Putman and others. diags Inst E E J 95 pt 3:282-9 JI '48
 Field surrounding an antenna in a waveguide. J. S. Gooden. diags Inst E E J 95 pt 3:346-50 S '48
 Fields in nonmetallic waveguides. R. M. Whitmer. bibliog diags Inst Radio Eng Proc 36:1105-9 S '48
 Forced oscillations in nearly sinusoidal systems. M. L. Cartwright. bibliog diags Inst E E J 95 pt 3:88-96 Mr '48
 Frequency measurement by sliding harmonics. J. K. Clapp. diags Inst Radio Eng Proc 36:1285-8 O '48
 Frequency transformations for use with the electrolytic tank. W. H. Huggins. diags Inst Radio Eng Proc 36:421-4 Mr '48

RADIO measurements—*Continued*

- Graphical power-level computations; reference sheet, D. G. Nutting, *Electronics* 21: 122 Ag '48
- High-output signal generator for antenna measurements, H. G. Eidson, jr. *il diags Communications* 28:6-7 Ag '48
- High-power ionosphere-measuring equipment, F. G. Sulzer, *il diags Inst Radio Eng Proc* 36:389-94 Mr '48
- Input impedances of centre-fed slot aerials near half-wave resonance, J. L. Putman, *diags Inst E E J* 95 pt 3:290-4 Jl '48
- Instrument for intermodulation measurements, G. Daniel, *il diags Electronics* 21: 134+ Mr '48
- Interference measurement; effect of receiver bandwidth, G. L. Hamburger, *bibliog il diags Wireless Eng* 25:44-54, 89-97 F-Mr '48
- Investigations of high-frequency echoes, H. A. Hess, *diags Inst Radio Eng Proc* 36: 981-92 Ag '48
- Ionospheric radio propagation, *bibliog il maps diags U S Nat Bur Stand Circ* 462:1-209; pa 81 Supt. of doc. '48
- Mathematical theory of directional couplers, H. J. Riblet, *bibliog diags Inst Radio Eng Proc* 35:1307-13 N '47
- Measurement of aircraft-antenna patterns using models, G. Sinclair and others, *bibliog il diags Inst Radio Eng Proc* 35: 1451-62 D '47
- Measurement of delay distortion in microwave repeaters, D. H. Ring, *il diags Bell System Tech J* 27:247-64 Ap '48
- Measurement of errors in radiogoniometers at high and very high frequencies, B. G. Pressey, *diags Inst E E J* 95 pt 3:221-8 Jl '48
- Measurement of peak voltage at a frequency of 600 mc/s by means of a modified probe circuit, G. W. Bowdler, *diags Inst E E J* 95 pt 3:25-30 Ja '48
- Measurement of the velocity of propagation of centimetre radio waves as a function of height above the earth, F. E. Jones, *diag Inst E E J* 94 pt 3:399-401; Discussion, 402-6 N '47
- Measuring modulation percentage of a-m signals, R. P. Turner, *il diags Radio N* 39:52+ Je '48
- Measuring r-f power with a thermopile, G. P. Walker, *il Electronics* 21:180+ Mr '48
- Measuring sensitivity and gain of receiving system r-f amplifiers and converters, *diags Communications* 28:18-19 Ag '48
- Method of determining and monitoring power and impedance at high frequencies, J. F. Morrison and E. L. Younker, *il diags Inst Radio Eng Proc* 36:212-16 F '48
- Method of determining the angle of arrival, A. W. Straiton and others, *diag J Ap Phys* 19:524-33 Je '48
- Method of determining the velocity of radio waves over land on frequencies near 100 kc/s, E. B. Mendoza, *diags Inst E E J* 94 pt 3:396-8; Discussion, 402-6 N '47
- Method of measuring the field strength of high-frequency electromagnetic fields, R. Truell, *diag Inst Radio Eng Proc* 36:1249-51 O '48
- Method of virtual displacements for electrical systems with applications to pulse transformers, P. D. Crout, *bibliog diags Inst Radio Eng Proc* 35:1236-47 N '47
- Microwave antenna measurements, C. C. Cutler and others, *il Inst Radio Eng Proc* 35:1462-71 D '47
- Microwave frequency measurements and standards, B. F. Husten and H. Lyons, *il diags Elec Eng* 67:436-9 My '48
- Mutual impedance between vertical antennas of unequal heights, C. R. Cox, *diag Inst Radio Eng Proc* 35:1367-70 N '47
- Oscillographic method of presenting impedances on the reflection-coefficient plane, A. L. Samuel, *il diags Inst Radio Eng Proc* 35: 1279-83 N '47
- Performance characteristics of long-persistence cathode-ray tube screens; their measurement and control, R. E. Johnson and A. E. Hardy, *bibliog il diag RCA R* 8:660 81 D '47
- Phase and amplitude distortion in linear networks, M. J. Di Toro, *bibliog il diag Inst Radio Eng Proc* 36:24-36 Ja '48
- Plane discontinuities in coaxial lines, J. W. Miles, *diag Inst Radio Eng Proc* 35:1498-502 D '47
- Positive-grid characteristics of a triode, G. W. Wood, *diag Inst Radio Eng Proc* 36: 804-8 Je '48
- Precision measurement of electrical characteristics of quartz-crystal units, W. D. George and others, *bibliog diags Inst Radio Eng Proc* 36:1122-31 S '48
- Propagation of radio waves; measurements with oblique incidence on the ionosphere, W. J. G. Beynon, *bibliog il diag Wireless Eng* 25:322-30 O '48
- Radiation resistance of an antenna in an infinite array or waveguide, H. A. Wheeler, *bibliog diags Inst Radio Eng Proc* 36:478-87 Ap '48
- Radiation resistance of end-fire and collinear arrays, C. H. Papas and R. King, *bibliog Inst Radio Eng Proc* 36:736-41 Je '48
- Radiation resistance of ring aerials, H. Page, *diag Wireless Eng* 25:102-9 Ap '48
- Radio-frequency performance of some receiving tubes in television circuits, R. M. Cohen, *diags RCA R* 9:136-48 Mr '48
- Radio-frequency resistance meter employs Wheatstone bridge having crystal-detector indicator circuit, H. W. Kline, *il diags Gen Elec R* 51:25-30 Je '48
- Reduction by limiters of amplitude modulation in an amplitude- and frequency-modulated wave, A. G. Clavier and others, *diags Elec Com* 25:291-9 S '48
- Reflections from circular bends in rectangular wave guides; matrix theory, S. O. Rice, *bibliog diags Bell System Tech J* 27:305-49 Ap '48
- Representation and measurement of waveguide discontinuities, N. Marcuvitz, *diags Inst Radio Eng Proc* 36:728-35 Je '48
- Response of a linear diode-voltmeter to single and recurrent r.f. impulses of various shapes, R. E. Burgess, *Inst E E J* 95 pt 3: 105-10 Mr '48
- Results of horizontal microwave angle-of-arrival measurements by the phase-difference method, A. W. Straiton and J. R. Gerhardt, *il maps diag Inst Radio Eng Proc* 36:916-22 Jl '48
- Results of microwave propagation tests on a 40-mile overland path, A. L. Durkee, *Inst Radio Eng Proc* 36:197-205 F '48
- Simultaneous field strength recordings on 47.1, 106.5 and 700 megacycles, W. L. Carlson, *RCA R* 9:76-84 Mr '48
- Some methods for determining the power gain of microwave aerials, J. D. Lawson, *diags Inst E E J* 95 pt 3:205-9 Jl '48
- Some sources of error in microwave milliwattmeters, G. F. Gainsborough, *diag Inst E E J* 95 pt 3:229-33 Jl '48
- Study of tropospheric reception at 42.8 mc. and meteorological conditions, G. W. Pickard and H. T. Stetson, *Inst Radio Eng Proc* 35:1445-50 D '47
- Technique for distortion analysis, S. Sabaroff, *diag Electronics* 21:114-17 Je '48
- Testing repeaters with circulated pulses, A. C. Beck and D. H. Ring, *il diags Inst Radio Eng Proc* 35:1226-30 N '47
- Theoretical precision with which an arbitrary radiation-pattern may be obtained from a source of finite size, P. M. Woodward and J. D. Lawson, *bibliog diags Inst E E J* 95 pt 3:363-70 S '48
- Transadmittance and input conductance of a lighthouse triode at 3000 megacycles, N. T. Lavoo, *diag Inst Radio Eng Proc* 35: 1248-51 N '47
- Voltage, current, capacitance, and resistance measuring devices *diags Radio N* 39:112-16+ My '48
- See also
Radio instruments
- RADIO meteorographs**
- Divided flow, low-temperature humidity test apparatus designed primarily for testing radiosonde hygrometers, A. Wexler, *il diags J Res Nat Bur Stand* 40:479-86 Je '48
- Radiosonde potential gradient measurements, R. E. Belin, *il diag Electronics* 21:184+ Ja '48

RADIO meteorographs—Continued

Study on aneroid capsules. E. W. Pike and N. E. Gibbs. bibliog J Ap Phys 19:106-8 Ja '48

RADIO modulation

Analysis of the intermodulation method of distortion measurement. W. J. Warren and W. R. Hewlett. diags Inst Radio Eng Proc 36:457-66 Ap '48

Bandwidth vs noise in communication systems; IRE symposium on the reformulation of the Hartley law; new theory shows extent to which a-m, f-m, ptm and pcm make use of communication channel. diags Electronics 21:72-5 Ja '48

Broad-band high-level modulator. R. J. Rockwell. ml diags Inst Radio Eng Proc 36:1160-4 S '48

Combined f-m and a-m communications system; abstract. J. C. O'Brien. Communications 28:12-13 Ap '48

Composite amplitude and phase modulation. O. G. Villard, jr. il diag Electronics 21:86-9 N '48

Design principles of amplitude-modulated sub-carrier telemeter systems used for the instrumentation of airplanes and guided missiles. C. K. Stedman. diags Inst Radio Eng Proc 36:36-41 Ja '48

Effect of modulation on transmission efficiency; abstract. A. G. Clavier. Electronics 21:136 Ja '48

Effects of an unwanted signal mixed with the carrier supply of ring and Cowan modulators. D. G. Tucker. Inst E E J 95 pt 3:173-6 My '48

Facsimile modulator tube. J. R. Shonnard. diags Electronics 21:82-3 Je '48

500 watts of audio from A.B. H. A. Mandoli and D. H. Atkins. bibliog il diags Q S T 32:13-19 Mr '48

Generalized theory of multitone amplitude and frequency modulation. L. J. Giacetto. bibliog diags Inst Radio Eng Proc 35:580-93 Jl '47; Discussion. 36:240-3 F '48

Grid bias supply for class B modulators. H. C. Sherrod. il diag Radio & Tv N 40:94+ N '48

Measuring modulation percentage of a-m signals. R. P. Turner. il diags Radio N 39:52+ Je '48

Peak-indicating modulation monitor. J. S. Denham. diags Q S T 32:70-2+ My '48

Phase and amplitude distortion in linear networks. M. J. Di Toro. bibliog il diag Inst Radio Eng Proc 36:24-36 Ja '48

Reactance modulator theory. F. Butler. diags Wireless Eng 28:69-74 Mr '48

Reduction by limiters of amplitude modulation in an amplitude- and frequency-modulated wave. A. G. Clavier and others. diags Elec Com 25:291-9 S '48

Screen grid modulation. A. Wilson. il diags Radio & Tv N 40:40-1+ N '48

Some aspects of the design of balanced rectifier modulators for precision applications. D. G. Tucker. bibliog diags Inst E E J 95 pt 3:161-72 My '48; Discussion. 95 pt 3:436 N '48

Taylor super-modulation principle. R. E. Taylor. il diags Radio & Tv N 40:42-4+ S '48; O '48

10 db. volume compression without splatter. R. M. Crottering. il diag Radio N 40:50-1+ Jl '48

Theoretical analysis of various systems of multiplex transmission. V. D. Landon. diags RCA R 9:287-351, 433-82 Je-S '48

See also

Radio frequency modulation Radio pulse time modulation

RADIO networks. See Radio circuits; Radio lines

RADIO noise. See Radio communication—Interference; Radio receiving apparatus—Noise

RADIO noise, Cosmic

Cosmic static. G. Reber. bibliog il Inst Radio Eng Proc 36:1215-18 O '48

RADIO noise, Solar

Cosmic and solar radio noise. Franklin Inst J 245:339-41 Ap '48

Observation of a solar noise burst at 9500 mc/s and a coincident solar flare. M. Schulkin and others. bibliog Phys R 74:840 O 1 '48

Solar noise observations on 10.7 centimeters.

A. E. Covington. bibliog Inst Radio Eng Proc 36:454-7 Ap '48

Two giant radar mirrors to intercept and record radio noise generated by the sun. Science 107:13-14 Ja 2 '48

RADIO operators, Amateur

Hams simulate emergency communications on annual field day. il Radio & Tv N 40:41+ S '48

Hands that see; N.Y. institute for the blind prepares students for their ham license exams. il Radio N 38:66-7+ D '47

New England amateurs aid in forest-fire emergency. il Q S T 32:54-6 Ja '48

QRR, the dike is broken! emergency messages during Columbia River flood. A. N. Davis. il Q S T 32:38-9+ S '48

Shall 'phone assignments be increased? Q S T 32:32a-32b, 33+ F '48

Story of amateur radio teletype. J. E. Williams. il diag Q S T 32:16-20 O '48

See also

American radio relay league

RADIO oscillators. See Oscillators

RADIO patents. See Radio apparatus—Patents

RADIO-phonograph. See Radio receiving apparatus—Phonograph combination

RADIO pulse code modulation

Coded pulse modulation minimizes noise. il diags Electronics 20:126-31 D '47

Coding tube allows multiple transmission. il Product Eng 18:151 D '47

Electron beam deflection tube for pulse code modulation. R. W. Sears. il diags Bell System Tech J 27:44-57 Ja '48

Experimental multichannel pulse code modulation system of toll quality. L. A. Meacham and E. Peterson. il diags Bell System Tech J 27:1-43 Ja '48

PCM equipment; pulse code modulation. H. S. Black and J. O. Edson. diag Elec Eng 66:1123-5 N '47

Radio progress during 1947; modulation systems and radio transmitters. bibliog Inst Radio Eng Proc 36:523-4 Ap '48

Reducing transmission bandwidth; pulse systems. R. S. Bailey and H. E. Singleton. bibliog diags Electronics 21:107-9 Ag '48

Spectra of quantized signals. W. R. Bennett. bibliog Bell System Tech J 27:446-72 Jl '48

RADIO pulse position modulation

Type of non-linear random distortion (noise) in pulse communication. A. E. Ross. Phys R 73:1126 My 1 '48

RADIO pulse time modulation

Distortion in pulse-duration modulation. E. R. Kretzmer. bibliog diags Inst Radio Eng Proc 35:1230-5 N '47

High-vacuum oxide-cathode pulse modulator tubes. C. E. Fay. bibliog il diags Bell System Tech J 26:818-36 O '47

Method of transmitting sound on the vision carrier of a television system. D. I. Lawson and others. il diags Inst E E J 93 pt 3:251-67 Jl '46; Discussion. 93 pt 3:267-74; 95 pt 3:13-16 Jl '46, Ja '48

Noise-suppression characteristics of pulse-time modulation. S. Moskowitz and D. D. Grieg. diags Inst Radio Eng Proc 36:446-50 Ap '48

PCM distortion analysis; pulse count modulation; recent development in field of pulse time multiplexing. A. G. Clavier and others. diags Elec Eng 66:1110-22 N '47

Pulse communication. D. Cooke and others. Inst E E J 94 pt 1:471-2 O '47

Radio progress during 1947; modulation systems and radio transmitters. bibliog Inst Radio Eng Proc 36:523-4 Ap '48

RADIO receiving apparatus

A.c.-d.c. receiver for am and fm. W. A. Harris and R. F. Dunn. il diags Radio & Tv N 40:62-4+ N '48

Circuit page; diagrams and parts lists (cont). Radio N 38:82-3, 92, 94 D '47; 39:74-5, 82+ Ja; 76-7, 84+ F; 82-3, 90, 92 Mr; 90-1, 100, 102 Ap; 94-5, 104+ Je; 40:84-5, 94+ Jl '48

Conversion of SCR-274N receivers. C. W. Roeschke. il diags Radio N 39:49-51+ Je '48

RADIO receiving apparatus—Continued

Formulas for image rejection calculations. L. O. Vladimir, *il diags Tele-Tech* 7:26-7 O '48

Low cost fm-am receiver circuit, G. E. Gustafson and J. L. Rennick, *il diags Tele-Tech* 7:36-8 O '48

Low frequency converter, R. C. Amundsen, *il diag Radio N* 40:49+ J1 '48

Microwave communication link, H. R. L. Lamont and others, *diags Wireless Eng* 24:327-9 N '47

Positive-grid characteristics of a triode, G. W. Wood, *diag Inst Radio Eng Proc* 36:804-8 Je '48

Radio progress during 1947; radio receivers, *biblog Inst Radio Eng Proc* 36:527-8 Ap '48

Radiolympia 1947, *il diags Wireless Eng* 24:333-6 N '47

Simplified single-sideband reception, O. G. Villard, jr., *il diags Electronics* 21:82-5 My '48

Single-sideband converter, *diag Electronics* 21:156+ J1 '48

Single-sideband crystal filters, P. K. Taylor, *il diags Electronics* 21:116-20 O '48

Single-signal single-sideband adaptor, E. W. Rosentreter, *il diags Electronics* 21:124+ J1 '48

Soap opera piped with shampoos has Boston in a lather; Beautiset enables women to enjoy radio program while their hair dries, B. G. Priestley, *il Sales Management* 60:122+ Mr 15 '48

Speech blockade; circuit permits discrimination between music and speech in radio programs, C. E. Atkins, *diags Radio N* 39:60-1+ Mr '48

Tests for the selection of components for broadcasts receivers, G. D. Reynolds, *diags Inst E E J* 95 pt 3:54-64; Discussion, 64-8 Mr '48

Today's radio and television not what they ought to be, *Consumers Res Bul* 21:24-5 F '48

Utility amplifier unit, T. A. Patterson, jr., *il diags Radio N* 39:42-3 Ja '48

See also

Amplifier's, Vacuum	Radio detectors
tube	Television receiving
Radar receiving ap-	apparatus
paratus	

Automobile receivers

Automobile radios, *Consumers Res Bul* 21:14 F '48

Clock radios

Two table-model clock-radios, *il Consumers Res Bul* 21:21 Je '48

Control

Adjustment speed of automatic-volume-control systems, A. W. Nolle, *diag Inst Radio Eng Proc* 36:911-16 J1 '48

Automatic volume control as a feedback problem, E. M. Oliver, *diags Inst Radio Eng Proc* 36:466-73 Ap '48

Unique a.v.c. amplifier, J. T. Goode, *diags Radio N* 39:67+ Ap '48

Design

Low cost fm-am receiver design, W. F. Frankhart, *il diags Tele-Tech* 7:40-1 Ap '48

New trends in receiver design, W. W. Hensler, *il diags Radio N* 39:46-7+ Je; 40:38-9+ J1 '48; [cont as] *Radio & Tv N* 40:44-5+ Ag; 64-6+ N '48 (to be cont)

Open letter to the radio manufacturer, A. C. W. Saunders, *Radio N* 39:43+ Je '48

Statistical methods in the design and development of electronic systems, L. S. Schwartz, *Inst Radio Eng Proc* 36:664-70 My '48

Trends in electron tube design, W. C. White, *il Elec Eng* 67:518-21 Je '48

Fidelity

High fidelity; too much confusion, too little clarification, H. W. Becker, *Radio N* 39:43+ Ap '48

Frequency modulation receivers

Fremodyne fm detector; new Hazeltine development, *il diags Radio N* 39:48+ F '48

Fremodyne f-m receivers, *il diags Electronics* 21:83-7 Ja '48

Fm detectors, M. S. Kay, *diags Radio & Tv N* 40:56-7+ Ag '48

Fm signals received in Australia, C. Lynch, *il Radio N* 39:94-5 My '48

Inexpensive fm tuner, W. T. Peterson, *il diag Radio N* 39:46-7 My '48

Low cost fm tuner; superregenerative tuner, J. T. Goode, *il diags Radio N* 39:46-7+ Mr '48

Measuring sensitivity and gain of receiving system r-f amplifiers and converters, *diags Communications* 28:18-19 Ag '48

Meck fm converter, *Consumers Res Bul* 21:20 My '48

More pep for your fm pilotuner, M. H. Brown, *il diag Radio N* 39:58-9+ My '48

New band fm receiver, J. C. Michalowicz, *il plan diag Radio N* 39:51-3+ Ap '48

New trends in receiver design; automatic frequency control circuits used in fm receivers; Fremodyne fm detector circuit, W. W. Hensler, *il diags Radio & Tv N* 40:44-5+ Ag '48

New trends in receiver design; fm tuning and input systems, W. W. Hensler, *il diags Radio N* 40:38-9+ J1 '48

Performance characteristics of fm detector systems, E. D. Loughlin, *diags Tele-Tech* 7:30-4 Ja '48

Polarity response from tuning eye tubes, M. L. Greenough, *diags Electronics* 21:162+ Ap '48

Pre-emphasis and de-emphasis in fm broadcasting and reception, *Consumers Res Bul* 21:21 Ja '48

Reduction by limiters of amplitude modulation in an amplitude- and frequency-modulated wave, A. G. Clavier and others, *diags Elec Com* 25:291-9 S '48

Squelch circuits for f-m receivers, C. W. Carnahan, *diags Electronics* 21:98-9 Ap '48

Standard signal generator for f-m broadcast service, D. B. Sinclair, *il diags Communications* 28:12-13+ Ag '48

Stronberg-Carlson Pioneer fm-am radio, table model 1204 H and Lafayette am-fm receiver chassis; not recommended, *il Consumers Res Bul* 21:16-17 F '48

10.7 mc. i.f. transformers for fm receivers, J. C. Michalowicz, *il diags Radio N* 38:55+ D '47

Two fm tuners, *Consumers Res Bul* 20:17-18 N '47

What to look for in fm, D. T. Armstrong, *il Sci Am* 178:115-18, 165-8 Mr-Apr '48

Wide range speaker systems, J. C. Hoadley, *il diags Radio & Tv N* 40:53+ S '48

Word of warning to prospective buyers of low-priced table-model fm receivers and tuners, *Consumers Res Bul* 21:8 Ja '48

Installation on boats

Marine radio installation, M. Alth, *il map Radio N* 40:35-7+ J1 '48

Manufacture

Merry-go-round conveys radio-chassis assembly; illustrations with text, H. Gillig, *Am Mach* 92:90-1 O 7 '48

Radio sets on the assembly line, *il Bsns W* p46+ Ap 24 '48

Noise

Application of velocity-modulation tubes for reception at u.h.f. and s.h.f., M. J. O. Strutt and A. van der Ziel, *biblog diag Inst Radio Eng Proc* 36:19-23 Ja '48

Direct-reading instrument for the measurement of noise factor, and its application to the testing of microwave mixer crystals, L. A. G. Dresel and others, *diags J Sci Instr* 25:295-8 S '48

Fluctuation noise in pulse-height multiplex radio links, L. L. Rauch, *Inst Radio Eng Proc* 35:1192-7 N '47

Gain and noise figures at v.h.f. and u.h.f., M. J. O. Strutt, *biblog diags Wireless Eng* 25:31-32 Ja '48

Impulsive interference in amplitude-modulation receivers, D. Weighton, *biblog diags Inst E E J* 95 pt 3:69-79 Mr '48

Interference measurement; effect of receiver bandwidth, G. L. Hamburger, *il diags Wireless Eng* 25:44-54, 89-97 *biblog* (p97) F-Mr '48

RADIO receiving apparatus—Noise—Continued

- Microphonism in a subminiature triode, V. W. Cohen and A. Bloom, *il* diags *Inst Radio Eng Proc* 36:1039-48 Ag '48
- Noise figures, H. Goldberg, diags *Inst Radio Eng Proc* 36:1205-14 O '48
- Noise generator for receiver measurements, P. G. Suizer, bibliog *il* diags *Electronics* 21:96-8 JI '48
- Noise theory and its application to input circuit design, W. A. Harris, bibliog diags *RCA R* 9:406-18 S '48

Phonograph combination

- Am-fm phonograph combination, Consumers Res Bul 22:20 O '48
- Am-fm phonograph combinations, non-high-fidelity, Consumers Res Bul 23:23-4 N '48
- New trends in receiver design, W. W. Hensler, *il* diags *Radio & Tv* N 40:54-6+ N '48
- Radio-phonograph uses variety of plastics; miniature model, *Scottie Convertible*, *il* *Plastics* 8:23+ Ap '48
- Radio receivers, a radio-phonograph combination, and two fm tuners, Consumers Res Bul 20:16-17 N '47
- Table-model radio-phonograph combination and two radio-phonograph combinations not recommended, Consumers Res Bul 21:18-19 My '48
- Table-model radio-phonograph combination; Westinghouse model H-122A, Consumers Res Bul 21:24 Je '48

See also

Magnavox company

Power supply

- Negative-current voltage-stabilization circuit, P. Luo, diags *Inst Radio Eng Proc* 36:583 My '48

Rating

- Five radio receivers, *il* Consumers Res Bul 21:11 Mr '48
- Radio receivers, a radio-phonograph combination, and two fm tuners, *il* Consumers Res Bul 20:15-18 N '47
- Seven table-model radio receivers, *il* Consumers Res Bul 21:17-18 My '48

Repair

- Radio servicing hints, F. A. Orth, *il* *Radio & Tv* N 40:60+ Ag '48
- What? where? and why? three questions that provide answer to many problems faced by servicemen, N. B. Cook, *Radio & Tv* N 40:118+ N '48

See also

Radio service shops

Selectivity

- Adding single-sideband selectivity to the communications receiver, M. Silver, *il* diags *Radio N* 39:54-5+ Je '48
- Cavity type filters for interference; designs for maximum spectrum utilization in mobile radiotelephone, D. E. Noble, *il* *Tele-Tech* 7:35-7+ Ja '48
- Detector for single-sideband reception, O. G. Villard, jr. and D. L. Thompson, *il* diags *Q S T* 32:11-13 Je '48
- Selectivity in S.S.S.C. reception; balanced frequency-converter circuit for communications receivers, O. G. Villard, jr. diags *Q S T* 32:19-22 Ap '48
- Super-selective c.w. receiver, T. A. Githens, *il* diags *Q S T* 32:16-20+ Ag '48

Short wave

- Answer to n.f.m. reception; ratio detector, L. H. Allen, diags *Q S T* 32:28-9 F '48
- Application of velocity-modulation tubes for reception at u.h.f. and s.h.f., M. J. O. Strutt and A. van der Ziel, bibliog diags *Inst Radio Eng Proc* 36:19-23 Ja '48
- Bandpass converter for 144 mc. J. E. Williams, *il* diags *Q S T* 32:34-7 Mr '48
- Better reception for two-meter mobile, C. V. Chambers, *il* diags *Q S T* 32:23-6+ Ap '48
- Build your own communications receiver, J. T. Goode, *il* diags *Radio & Tv* N 40:46-8+ Ag; 50-2+ S; 49-61+ O; 59-61+ N '48 (to be cont)
- Design features of a deluxe receiver, C. V. Hays, *il* diags *Radio N* 39:75-8+ Ap '48

- Field tests for Citizens band, R. E. Samuelson, *il* *Electronics* 21:92-6 Ja '48
- Gain and noise figures at v.h.f. and u.h.f., M. J. O. Strutt, bibliog diags *Wireless Eng* 25:21-32 Ja '48
- Hot converter for 220 mc. H. Paul and C. Hadlock, *il* diags *Q S T* 32:31-3+ O '48
- Low-cost mobile station, R. Lewis, *il* diags *Radio & Tv* N 40:42-3+ N '48
- Microwave converters, using point-contact silicon rectifiers, C. F. Edwards, diags *Inst Radio Eng Proc* 35:1181-91 N '47
- Novel converter for 144 mc. R. S. Wenger, *il* diags *Q S T* 32:44-6+ S '48
- Peaked audio amplifier for communication receivers, G. D. Hanchett, jr. *il* diags *Q S T* 32:16-17+ S '48
- Practical single-sideband reception, D. E. Norgaard, diags *Q S T* 32:11-15 JI '48
- Receiver for the Citizens Radio service, W. C. Hollis, *il* diags *Electronics* 21:80-5 Mr '48
- S meters can be easily incorporated in communications receivers, D. M. Wherry, diags *Radio & Tv* N 40:48+ O '48
- Selectable single-sideband reception simplified, J. L. A. McLaughlin, *il* diags *Q S T* 32:11-15 Ap '48
- Simplicity in a converter; makes possible coverage of 6, 10, and 11 meter bands, C. W. Roeschke, *il* diags *Radio N* 39:54-5+ Mr '48
- Single sideband selector for ham use, J. Najork, *il* diags *Radio & Tv* N 40:53-5+ Ag '48
- Ten-meter converter, G. F. Masin, *il* diags *Radio N* 39:52-3 Ja '48
- Tendencies in the design of the communication type of receiver, G. L. Grisdale and R. B. Armstrong, *il* diags *Inst E E J* 93 pt 3:365-78 bibliog(p376) S '46; Discussion, 93 pt 3:378-84; 94 pt 3:418-20 S '46, N '47
- Transadmittance and input conductance of a lighthouse triode at 3000 megacycles, N. T. Lavoo, diags *Inst Radio Eng Proc* 35:1248-51 N '47
- Triple conversion for the communications receiver, W. I. Orr, *il* diags *Q S T* 32:53-5 S '48
- Trough line tuner for v.h.f., W. H. Smith, *il* diags *Radio N* 39:64-5+ My '48
- Two-meter converter, A. D. Middleton, *il* diags *Radio N* 39:70-1+ Ap '48
- Very-high-frequency single-channel receiver, W. C. Lane and T. C. Clark, *il* diags *Elec Com* 25:132-8 Je '48

Superheterodyne

- Compact superhet tuner, J. F. Clemens, *il* diags *Radio & Tv* N 40:52-3+ N '48
- Few crystals control many channels; multi-channel superheterodyne receiver for aircraft communication and navigation, W. R. Hedeman, jr. *il* diags *Electronics* 21:118-21 Mr '48
- Practical radio course; intermediate-frequency amplifier requirements for different types of receivers, A. A. Ghrardi, diags *Radio N* 39:88+ Ja '48
- Practical radio course; i.f. transformer; action of coupling circuits, A. A. Ghrardi, *il* diags *Radio N* 39:64-6+ F; 72-4+ Mr '48
- Simple b.c. super, C. V. Hays, *il* diags *Radio N* 39:52-3+ Mr '48
- Velocity-modulation reflection oscillator for wavelengths of about 3.2 cm, A. F. Pearce, bibliog *il* diags *Inst E E J* 95 pt 3:415-22 S '48

Superregenerative

- Coaxial-line receiver for 220 and 235 mc. C. V. Chambers, *il* diags *Q S T* 32:25-8 Je '48
- Coaxial-line v.h.f. receivers, J. Santangelo, *il* diags *Q S T* 32:20-3 Mr '48
- Superregenerative circuit applications, H. Stockman, diags *Electronics* 21:81-3 F '48
- Superregenerative detection theory, W. E. Bradley, diags *Electronics* 21:96-8 S '48
- Superregenerator design, A. Hazeltine and others, diags *Electronics* 21:99-102 S '48
- Theory of the super-regenerative receiver operated in the linear mode, G. G. Macfarlane and J. R. Whitehead, *il* diags *Inst E E J* 95 pt 3:143-57 My '48

RADIO receiving apparatus—Continued

Testing

Interference measurement; effect of receiver bandwidth. G. L. Hamburger, bibliog il diags Wireless Eng 25:44-54, 89-97 F-Mr '48
 Make a test unit for your service kit. H. Leeper, il diags Radio N 40:41-Jl '48
 S meter calibration techniques for communications receivers. R. M. Berler, il diags Radio N 39:68-9+ Ap '48
 Simple Simon signal tracer. H. J. Gruber, il diag Radio & Tv N 40:146+ O '48
 Versatile substitution tester. S. S. Fleishman, il diag Radio N 39:53+ Je '48

Tuning

Adaptol am tuner not recommended, il Consumers Res Bul 21:24 Je '48
 Electronic tuning of reflection klystrons. B. Bleaney, Wireless Eng 25:6-11 Ja '48
 Inductuner, il diags Radio N 39:62+ My '48
 Meck fm converter. Consumers Res Bul 21:20 My '48
 Meissner am-fm tuner, model 9-1091. Consumers Res Bul 21:16 F '48
 New approach to gang tuning. N. G. Noell, il diag Radio N 39:48+ Je '48
 New approach to tuneable resonant circuits for the 300- to 3000-mc frequency range. F. C. Isely, il diags Inst Radio Eng Proc 36:1017-22 Ag '48
 Test of an fm tuner; General Electric fm translator, il Consumers Res Bul 23:23 N '48
 Two fm tuners. Consumers Res Bul 20:17-18 N '47

RADIO receiving apparatus, Portable

Fleapower ham portable. C. C. Erhardt, il diags Radio N 39:60-2+ Ja '48
 Novel two-tube picnic portable. G. A. Marsh, diag Radio N 39:132 My '48
 Personal radio features plastics; transparent polystyrene face plate, il Mod Plastics 25:95 Ja '48
 Portables use more plastics, il Mod Plastics 25:90-2 Ag '48

Rating

Radio receivers, il Consumers Res Bul 20:15-16 N '47

RADIO reception

High frequency reception in strong noise fields. I. M. Bickford, diag Radio N 39:168 Ap '48
 Study of tropospheric reception at 42.8 mc. and meteorological conditions. G. W. Pickard and H. T. Stetson, Inst Radio Eng Proc 35:1445-50 D '47

Long distance

Any DX today? observation of maximum usable frequency. D. W. Heightman, Q S T 32:25-31+ Ja '48

RADIO recorders

Improved ionospheric height recorder. H. A. Thomas and R. G. Chalmers, bibliog il diags Inst E E J 95 pt 3:7-13 Ja '48

RADIO rectifiers

Compact power supply is transformerless and tubeless; using selenium rectifiers. G. Dexter, il diags Radio N 39:51+ Mr '48
 Germanium crystal rectifier. J Sci Instr 25:247 Jl '48

Microwave converters, using point-contact silicon rectifiers. C. F. Edwards, diags Inst Radio Eng Proc 35:1181-91 N '47

Novel controlled rectifier. S. S. Peschel, il diags Radio & Tv N 40:44+ N '48

Rectifier resistance laws; analysis of non-linear transmission circuits. D. G. Tucker, bibliog diags Wireless Eng 25:117-28 Ap '48

Silicon, copper-oxide and selenium rectifiers. Electronics 21:M16 Mid-Je '48

Some aspects of the design of balanced rectifier modulators for precision applications. D. G. Tucker, bibliog diags Inst E E J 95 pt 3:161-72 My '48; Discussion, 95 pt 3:436 N '48

\$12,500 ad program accelerates huge sales of in-demand item; Federal Telephone & Radio new miniature selenium rectifier, il Ptr Ink 222:42+ Ja 2 '48

RADIO relay stations

AT&T's new radio relay. Pub Util 40:791-2 D 4 '47

Experimental studies of a remodulating repeater. W. M. Goodall, il diags Inst Radio Eng Proc 36:580-3 My '48

Fluctuation noise in pulse-height multiplex radio links. L. L. Rauch, Inst Radio Eng Proc 35:1192-7 N '47

Free space microwave propagation; nomographic charts developed which facilitate calculation of performance of microwave relay equipment. A. L. Hammerschmidt, RCA R 9:159-66 Mr '48

F-m broadcast network with radio links; six-station network formed by ten farm organizations in N.Y. state. D. K. de Neuf, il map diag Communications 28:12-15 O '48

Microwave radio facilities of the Bell system; abstract. J. H. Moore, Elec Eng 67:703 Jl '48

Microwaves in communication. D. H. Uptegrove, Jr, il Sci Am 178:105-8 Mr '48

Non-reflecting branching filter for microwaves. W. D. Lewis and L. C. Tillotson, il diags Bell System Tech J 27:83-95 Ja '48

Testing repeaters with circulated pulses. A. C. Beck and D. H. Ring, il diags Inst Radio Eng Proc 35:1226-30 N '47

RADIO research

Approach to the approximate solution of the ionosphere absorption problem. J. E. Hacke, Jr, Inst Radio Eng Proc 36:724-7 Je '48

British research in the radio field. Inst E E J 94 pt 1:502-8 N '47

Cathode-coupled negative-resistance circuit. P. G. Sulzer, diags Inst Radio Eng Proc 36:1034-9 Ag '48

Determination of ionospheric electron distribution. L. A. Manning, Inst Radio Eng Proc 35:1203-7 N '47

Developments in radio sky-wave propagation research and applications during the war. J. H. Dellinger and N. Smith, maps Inst Radio Eng Proc 36:258-66 F '48

Field theory of traveling-wave tubes. L. J. Chu and J. D. Jackson, bibliog diags Inst Radio Eng Proc 36:853-63 Jl '48

Improved ionospheric height recorder. H. A. Thomas and R. G. Chalmers, bibliog il diags Inst E E J 95 pt 3:7-13 Ja '48

Investigation and forecasting of ionospheric conditions. E. Appleton, Inst E E J 94 pt 1:483-4 O '47

Ionospheric eclipse of Oct. 1, 1940; variations in the critical frequencies of the various ionospheric layers over Queenstown, South Africa. J. A. Pierce, il map Inst Radio Eng Proc 36:8-15 Ja '48

Magnetotonic multiple refraction at high latitudes. S. L. Seaton, bibliog il Inst Radio Eng Proc 36:450-4 Ap '48

Microwave propagation experiments. L. E. Thompson, Inst Radio Eng Proc 36:671-6 My '48

Microwave repeater research. H. T. Friis, bibliog il maps diags Bell System Tech J 27:183-246 Ap '48

Microwave research tower recently completed; Federal tele-communication laboratories, il Product Eng 19:144 Jl '48

New ionospheric-meteorological correlation. T. G. Mihran, bibliog Inst Radio Eng Proc 36:1093-5 S '48

New possibilities in speech transmission. D. Gabor, il diags Inst E E J 94 pt 3:369-87; Discussion, 387-90 N '47

Propagation of radio waves in the lower troposphere. J. B. Smyth and L. G. Trolese, bibliog Inst Radio Eng Proc 35:1198-202 N '47

Radio propagation research; Sir Edward Appleton, Electronics 21:138 F '48

Solar noise observations on 10.7 centimeters. A. E. Covington, bibliog Inst Radio Eng Proc 36:454-7 Ap '48

Telecommunications research establishment; Ministry of Supply establishment at Great Malvern, Engineer 185:528 My 28 '48; il Elec R (Lond) 142:901-2 Je 4 '48

Time expansion of periodic waves. L. Chen, il diag Electronics 21:130+ Je '48

Upper-atmosphere circulation as indicated by drifting and dissipation of intense sporadic-E clouds. O. F. Ferrell, bibliog maps Inst Radio Eng Proc 36:879-80 Jl '48

RADIO research—Continued

Bibliography

Radio progress during 1947; radio wave propagation. *Inst Radio Eng Proc* 36:530-8 Ap '48

RADIO resistors

Resistor cooled by spiral water flow. *il diags Product Eng* 19:102 Ap '48
Resistor-transmission-line circuits. P. I. Richards. *diags Inst Radio Eng Proc* 36: 217-20 F '48

Testing

High-speed resistor tester. A. W. Daubendick. *il diags Electronics* 21:110-11 F '48

RADIO resonators

Acceleration of electrons by a resonant cavity. F. L. Hereford, jr. *diags J Ap Phys* 18: 956-60 N '47

Analyzing electromagnetic field problems; analyzer designed on Kron principles. K. Spangenberg and others. *il diags Tele-Tech* 7:22-5+ Ag '48

Barium titanate and barium strontium titanate resonators. H. L. Donley. *bibliog RCA R* 9:218-28 Je '48

Broad-band noncontacting short circuits for coaxial lines. W. H. Huggins. *diags Inst Radio Eng Proc* 35:1085-91, 1324-8 O-N '47

Direct-reading wavemeter design. G. E. Felker and H. R. Meahl. *il diags Electronics* 21:103-7 Mr '48

Electronic tuning of reflection klystrons. B. Bleaney. *Wireless Eng* 25:6-11 Ja '48

Frequency stabilization of microwave oscillators. R. V. Pound. *diags Inst Radio Eng Proc* 35:1405-15 D '47

Magnetron-resonator system. E. C. Okress. *bibliog diags J Ap Phys* 18:1098-109 D '47

Microwave filters using quarter-wave couplings. R. M. Fano and A. W. Lawson, jr. *diags Inst Radio Eng Proc* 35:1318-23 N '47

Microwave spectra and Zeeman effect in a resonant cavity absorption cell. C. K. Jen. *diag Phys R* 72:986 N 15 '47

Mode separation in oscillators with two coaxial-line resonators. H. J. Reich. *Inst Radio Eng Proc* 36:1252-5 O '48

Reflex oscillators for radar systems. J. O. McNally and W. G. Shepherd. *il diag Inst Radio Eng Proc* 35:1424-35 D '47

Resonant cavity linear accelerator. A. B. Culen, jr. and J. H. Greig. *diags J Ap Phys* 19:47-50 Ja '48

Resonant modes of the rising sun and other untrapped magnetron anode blocks. N. M. Kroll and W. E. Lamb, jr. *diags J Ap Phys* 19:166-86 F '48

Rising sun magnetron. S. Millman and A. T. Nordsieck. *bibliog diags J Ap Phys* 19:156-65 F '48

Rising sun magnetrons with large numbers of cavities. A. V. Hollenberg and others. *bibliog diags J Ap Phys* 19:624-35 Jl '48

Secondary electron suppression. J. H. O. Harries. *diags Wireless Eng* 25:275-80 S '48

Simplified oscillators for 2300 mc. A. R. Koch. *il diags Q S T* 32:1f-14 F '48

Wavelength laws of split-anode magnetrons. G. H. Metson. *diags Wireless Eng* 24:352-6 D '47

See also

Palatron (term)

Bibliography

Radio progress during 1947; cavity resonators. *Inst Radio Eng Proc* 36:536-7 Ap '48

RADIO schools and training

Hands that see; N.Y. institute for the blind prepares students for their ham license exams. *il Radio N* 38:66-7+ D '47

RADIO serials. See Radio broadcasting—Serials

RADIO service shops

Efficient servicing. J. E. Cunningham. *il Radio & Tv* N 40:45+ S '48

Fundamentals of industrial electronics; apparatus repair and maintenance source of income for service shops. R. Endall. *il diags Radio N* 39:56-9+ Je '48

Mac's radio service shop. J. T. Frye. *diags Radio N* 39:63+ Ap; 63+ My; 64+ Je; 40: 54+ Jl '48; [cont as] *Radio & Tv* N 40: 52+ Ag; 66+ S; 54+ O; 58+ N '48

Novel servicing idea proves profitable; business derived from airport radio servicing. R. C. Travers. *Radio N* 39:108 My '48

Sales promotion means more business. L. Bader. *Radio N* 39:45+ Ja '48

Sell your service. J. B. Ledbetter. *il Radio & Tv* N 40:49+ N '48

Selling service. G. E. Vinson. *Radio N* 39: 98+ Ja '48

Stop that pedestrian with cleverly conceived and executed displays. A. B. Kaufman. *il diags Radio & Tv* N 40:66-7+ N '48

Advertising

Direct mail for dealers. G. Samkofsky. *Radio N* 39:96+ Mr '48

RADIO servicemen's associations

Pueblo serviceman's association. R. C. Travers. *Radio N* 39:95 My '48

RADIO signals

Effects of an unwanted signal mixed with the carrier supply of ring and Cowan modulators. D. G. Tucker. *Inst E E J* 95 pt 3: 173-6 My '48

Rf spectrum analyzer. P. G. Sulzer. *il diags Tele-Tech* 7:30-1 Jl '48

Reflections of very-high-frequency radio waves from meteoric ionization. E. W. Allen, jr. *diags Inst Radio Eng Proc* 36: 346-52 Mr '48

Small-signal analysis of traveling-wave tube. C. Shulman and M. S. Heagy. *diags RCA R* 8:585-611 D '47

Spurious signals caused by noise in triggered circuits. D. Middleton. *bibliog J Ap Phys* 19:817-30 S '48

Theory of the radio detection of meteors. L. A. Manning. *diags J Ap Phys* 19:689-99 Ag '48

See also

Direction finding ap- Radio echoes
paratus Time signals, Radio
Radio beacons (for
aircraft)

RADIO standards

Microwave attenuation standard. R. E. Grant-ham and J. J. Freeman. *diags Elec Eng* 67:535-7 Je '48

Microwave frequency measurements and standards. B. F. Husten and H. Lyons. *il diags Elec Eng* 67:436-9 My '48

New C.B.S. program transmission standards. H. A. Chinn and P. Eisenberg. *Inst Radio Eng Proc* 35:1547-55 D '47

See also

Radio apparatus—
Standards

RADIO stations

See also

Radio broadcasting
stations
Radio transmitters

RADIO stations, Amateur

Build the W3KFX multi-unit NEFM crystal oscillator and signal spotter. H. D. Hooton. *il diag Radio & Tv* N 40:42-3+ Ag '48

Camera club meets by radio; four-station ham net in the territory of Hawaii. U. M. Allen. *il Radio N* 39:98+ My '48

RADIO stations, Government

FCC monitoring stations. *Electronics* 20:152+ D '47

RADIO stations, Naval

Design of a naval communication station. D. Baker. *il Electronics* 21:110-11 N '48

RADIO stations, Portable

Jeep transmits pix from ship to shore; New York daily mirror. J. L. Collings. *Ed & Pub* 81:58 S 11 '48

Low-cost mobile station. R. Lewis. *il diag Radio & Tv* N 40:42-3+ N '48 (to be cont)

RADIO stores

Don't be a Dagwood; wake up to new business opportunities awaiting alert men. *Radio N* 38:100+ D '47

Failures don't just happen! L. Bader. *il Radio N* 39:48-9+ Ap '48

Money; what you need and how to get it; bank credit plays important role in business success. R. W. Pitman. *Radio N* 39:42+ Ap '48

Publicity means sales for the radio dealer. P. Lesly. *il Radio N* 38:43+ D '47

RADIO stores—Continued**Advertising**

Direct mail for dealers, G. Samkofsky. Radio N 39:36+ Mr '48
How to write an ad, G. E. DeMike. Radio N 39:114-15 Mr '48

RADIO symbols

Directional antenna pattern nomenclature. C. E. Smith, diag Communications 28:12-14+ S '48

RADIO systems, inc.

Stock offered, Comm & Fin Chr 168:1698 O 25 '48

RADIO telegraph

Automatic keying monitor. I. O. Ebert, il diags Q S T 32:27-9 Ap '48
Build your own automatic key. G. W. Gun-
kel, il diags Radio N 38:51+ D '47
Code oscillator. P. M. Cornell, il diags Radio
& Tv N 40:82+ Ag '48
Compact medium power c.w. transmitter. C.
S. Mayeda, il diag Radio N 40:42-3+ JI
'48
Dash master, a semielectronic key. T. H.
Gotsar, il diag Q S T 32:24-5 Ag '48
Frequency-shift radio transmission. L. E.
Hatfield, bibliog il diags Inst Radio Eng
Proc 36:116-20 Ja '48
Frequency shift telegraphy; radio and wire
applications. J. R. Davey and A. L. Matte,
bibliog diags Bell System Tech J 27:265-304
Au '48
Further advances in electronic-keyer design.
F. A. Bartlett, il diags Q S T 32:27-30 O
'48
High speed receiver squelch; automatic key
click eliminator. H. W. Kline, diags Radio
N 39:34+ Ap '48
Improved break-in keying. B. Goodman, diags
Q S T 32:64-7+ Mr '48
International radiotelegraph communications.
S. Sparks, map Elec Eng 67:579 Je '48
Investigations of high-frequency echoes. H.
A. Hess, diags Inst Radio Eng Proc 36:
981-92 Ag '48
Long-distance point-to-point communication.
A. H. Mumford. Inst E E J 94 pt 1:465-6
O '47
Modern single-sideband equipment of the
Netherlands postals telephone and tele-
graph. C. T. F. van der Wyck, il diags Inst
Radio Eng Proc 36:970-80 Ag '48
Monitone; simplified monitoring for c.w.
break-in. J. W. Paddon, il diag Q S T 32:
22-4 S '48
Radiotelegraph; operating revenues, expenses,
etc., 1941-1946. Survey of Cur Bsns 1947 Sup
p 109 [supplemented in monthly numbers]
Recent developments in radiotelegraph trans-
mitters for shore stations. J. F. McDonald,
il diags RCA R 8:761-64 D '47
Super-selective c.w. receiver. T. A. Githens,
il diags Q S T 32:16-20+ Ag '48

Multiplex system

Microwave multi-channel radio link, il Engi-
neer 185:358 Ap 9 '48
Spectra of quantized signals. W. R. Bennett,
bibliog Bell System Tech J 27:446-72 JI
'48

RADIO telephone

Long-distance point-to-point communication.
A. H. Mumford. Inst E E J 94 pt 1:465-6
O '47
Microwave communication link. H. R. L. La-
mont and others, il diags Wireless Eng
24:323-32 N '47
Modern single-sideband equipment of the
Netherlands postals telephone and tele-
graph. C. T. F. van der Wyck, il diags
Inst Radio Eng Proc 36:970-80 Ag '48
New possibilities in speech transmission. D.
Gabor, il diags Inst E E J 94 pt 3:369-87
N '47; Discussion, 94 pt 3:387-90; 95 pt 3:
411-12 N '47, S '48
New two-way radios boost yard efficiency at
Weirton Steel plant, il Iron Age 160:129 D
4 '47
Radio for telephone service in America; ab-
stract. H. I. Romnes, Elec Eng 67:941 O
'48
Radio phone regulation, Pub Util 42:103-4 JI
15 '48

Single-sideband operating tests. O. G. Vil-
lard, jr, diag Q S T 32:16-18+ Ja '48
What about single sideband? D. E. Norgaard.
Q S T 32:13-19 My; 36-42 Je; 11-15 JI '48
What is single-sideband telephony? B. Good-
man, diags Q S T 32:13-15+ Ja '48

See also

Motor bus lines— Telephone, Carrier
Radio telephone current

Engineering uses

Radio on the San Diego aqueduct. R. D.
Thorson, il Eng N 141:58-9 JI 22 '48
Radio to aid in use of caisson on Grand
Coulee Dam repair. F. A. Banks, il Eng N
140:945 Je 10 '48
Two-way radio tried by Kansas City bridge
co. Roads & Ssts 91:70 Ag '48

Highway department use

How Washington state is putting radio to
work. G. R. Newall, il Roads & Ssts 90:57-8
D '47
Winter road maintenance improved by ra-
diotelephone service; Ontario Department
of highways; two-way communication be-
tween snowplows and departmental offices.
il map diag, Roads & Bridges 86:65-9+ F
'48

Multiplex system

Experimental multichannel pulse code modu-
lation system of toll quality. L. A. Mea-
cham and E. Peterson, il diags Bell System
Tech J 27:1-43 Ja '48
Fluctuation noise in pulse-height multiplex
radio link. L. L. Rauch, Inst Radio Eng
Proc 35:1192-7 N '47
Microwave multi-channel radio link, il Engi-
neer 185:358 Ap 9 '48
PCM distortion analysis; pulse count modu-
lation, recent development in field of pulse
time multiplexing. A. G. Clavier and
others, diags Elec Eng 66:1110-22 N '47
PCM equipment; pulse code modulation. H.
S. Black and J. O. Edson, diag Elec Eng
66:1123-5 N '47
Spectra of quantized signals. W. R. Bennett,
bibliog Bell System Tech J 27:446-72 JI
'48
Theoretical analysis of various systems of
multiplex transmission. V. D. Landon,
diags RCA R 9:287-351, 433-82 Je-S '48

Police uses

Bridged circuits facilitate police radio, il
Tele-Tech 7:28-9+ JI '48
Brookhaven, Long Island, police 72-76/152-
162-mc two-way f-m system. P. R. Ken-
dall, il Communications 28:6-7 F '48
Philadelphia police duplex two-way f-m sys-
tem. R. G. Peters, il Communications 28:
22+ My '48

Taxicab dispatching

Two-way taxicab radio systems. S. Freed-
man, il Communications 27:10-13 D '47; 28:
8-11 F '48

RADIO telephone, Portable

Adman plans to have station up his sleeve.
J. Walker, Ed & Pub 81:50 Je 5 '48
Portable inductive radiophone on Pennsylv-
ania railroad. W. R. Triem, il diag Elec-
tronics 20:93-5 D '47
Portable microwave communication set. C.
E. Sharp and R. E. Lacy, il diags Inst
Radio Eng Proc 36:676-80 My '48

See also

Telephone receiving
apparatus, Portable

RADIO telephone in mines

Applicability of radio to emergency mine
communications. E. W. Felegy and E. J.
Coggeshall, bibliog 18pls U S Bur Mines Rep
of Invest 4294:1-56 '48

Radio phones in stripping. C. A. Osborne, il
Coal Age 53:79-81 JI '48

RADIO telephone on automobiles

Bridged circuits facilitate police radio, il
Tele-Tech 7:28-9+ JI '48
Cavity type filters for interference. D. E.
Noble, il Tele-Tech 7:35-7+ Ja '48
Citizens band transceivers. W. B. Lurie, il
diags Electronics, 21:76-81 Ag '48

RADIO telephone on automobiles—Continued

- CQ mobile; details covering a simple rig using war surplus PE-103-A dynamotor. F. L. McGraw. *il diags Radio & Tv N 40:60-2+ O '48*
- Industry seeks clear mobile radio. *il Am Gas Assn Mo 30:3-6 Mr '48*
- Limited common carrier radio service; hitherto unused frequency allocations provide extension of telephone answering service. *il map diag Electronics 21:97-9 Ja '48*
- Low-cost mobile station. R. Lewis. *il diag Radio & Tv N 40:42-3+ N '48 (to be cont)*
- Mobile radio communication. A. Bailey. *diag Elec Eng 67:655 JI '48*
- Mobile radio for pipe line communication. W. T. Bulla. *il Pet Eng 19:147+ Mr '48*
- Mobile radio-telephone service. R. S. Johnson. *maps World Oil 128:225-6+ My '48*
- Mobile selective calling for connecting mobile radiotelephone to wire telephone networks. E. H. B. Bartelink. *il diag Electronics 21:103-5 N '48*
- Mobile telephone proves its worth. W. C. Grant. *il plan Gas Age 101:18-19+ Ap 15 '48*
- Mobile telephone service; private systems; abstract. D. S. Dewire. *Elec Eng 67:703 JI '48*
- Mobile telephone service; technical aspects; abstract. J. M. Henry. *Elec Eng 67:702-3 JI '48*
- Some thoughts on ten-meter mobile. R. V. Anderson. *diag Q S T 32:33-7+ S '48*
- Telephones on wheels. W. Norris. *il Am Bsns 18:12-13+ Mr '48*
- Two-way mobile radio, a new field for servicemen. L. G. Sands. *il Radio N 39:39-41+ My '48*
- Two-way radio expedites traffic on San Francisco-Oakland Bay bridge. F. E. Ebel. *il Pub Works 78:21-3 D '47*
- RADIO telephone on motor trucks**
- Pennsylvania power & light co. uses emergency radio to restore storm-wrecked electric service. *il Edison Elec Inst Bul 16:2 Ja '48*
- Radio speeds material flow; Timken roller bearing co. equips straddle trucks with two-way radio. *il Bsns W p58+ O 23 '48*
- Speeding up service calls by radio-phone; Southern California gas company. *il Am Gas J 168:24-5 Ja '48*
- Truck telephones build business. *il Dom Eng 172:106-7 Ag '48*
- Two-way mobile radiophone. *il Mech Eng 69:944 N '47*
- Two-way radio simplifies sagging-in procedure on transmission lines. *il Elec World 129:60-1 Ja 31 '48*
- RADIO telephone on railroads**
- Technical aspects of experimental public telephone service on railroad trains. N. Monk and S. B. Wright. *il map diags Inst Radio Eng Proc 36:1146-52 S '48*
- See also*
- Railroads—Radio communication
- RADIO telephone on ships**
- Marine radio installation. M. Alth. *il map Radio N 40:35-7+ JI '48*
- Radio in the merchant marine. J. J. Canavan. *il Electronics 21:84-9 Je '48*
- RADIO time signals. See Time signals, Radio**
- RADIO towers**
- Counterbalanced tower. B. F. Davidson. *il Q S T 32:16-17 JI '48*
- Inexpensive ladder type mast. N. Lefor. *il diag Radio & Tv N 40:57+ N '48*
- Telescoping mast. *il Q S T 32:46-7 Ag '48*
- Windmill towers for antennas; how to lower or raise. M. B. Magers. *il diag Q S T 32:15-17 F '48*
- RADIO transformers**
- Impedance matching half-wave transformer; constructed from coaxial cable and N connectors. H. E. Dinger and H. G. Paine. *il diags Tele-Tech 7:41-3+ My '48*
- Method of virtual displacements for electrical systems with applications to pulse transformers. P. D. Crout. *bibliog diags Inst Radio Eng Proc 35:1236-47 N '47*
- Parallel-tuned transformer design. V. C. Rideout. *diags Bell System Tech J 27:96-108 Ja '48*
- Practical radio course; i.f. transformer; action of coupling circuits. A. A. Ghirardi. *il diags Radio N 39:64-6+ F; 72-4+ Mr '48*

- 10.7 mc. i.f. transformers for fm receivers. J. C. Michalowicz. *il diags Radio N 38:55+ D '47*
- Vector permeability; magnetic properties of transformer core materials. K. A. Macfadyen. *diags Inst E E J 94 pt 3:407-14 N '47*

RADIO transmission

- Bandwidth vs noise in communication systems. *diags Electronics 21:72-5 Ja '48*
- Characteristics of helical antennas radiating in the axial mode. J. D. Kraus and J. C. Williamson. *bibliog il diags J Ap Phys 19:87-96 Ja '48*
- Comparison of calculated and measured phase difference at 3.2 centimeters wavelength. E. W. Hamlin and W. E. Gordon. *diag Inst Radio Eng Proc 36:1218-23 O '48*
- Effect of ground constants on the characteristic values of the normal modes in non-standard propagation of microwaves. C. L. Pekeris. *bibliog J Ap Phys 19:102-5 Ja '48*
- How rigid is the Hartley law? symposium at New York section, IRE meeting, Nov. 12. *Tele-Tech 7:52-3 Ja '48*
- Ionospheric eclipse of Oct. 1, 1940; variations in the critical frequencies of the various ionospheric layers over Queenstown, South Africa. J. A. Pierce. *il map Inst Radio Eng Proc 36:8-15 Ja '48*
- Ionospheric radio propagation. *bibliog il maps diags U S Nat Bur Stand Circ 462:1-209; pa \$1 Supt. of doc. '48*
- Measured impedances of helical beam antennas. O. J. Glasser and J. D. Kraus. *il diag J Ap Phys 19:193-7 F '48*
- Measurement of ionospheric virtual height at 100 kilocycles. R. A. Helliwell. *il Phys R 73:77 Ja 1 '48*
- New possibilities in speech transmission. D. Gabor. *il diags Inst E E J 94 pt 3:369-87; Discussion. 387-90 N '47*
- New statistical method of predicting sunspots aids radio propagation forecasts. *il Franklin Inst J 244:481-7 D '47*
- Propagation of radio waves in the lower troposphere. J. B. Smyth and L. G. Trolese. *bibliog Inst Radio Eng Proc 36:1198-202 N '47*
- Propagation of very short waves. D. E. Kerr. *diags Electronics 21:124-8 Ja; 118-23 F '48*
- Reducing transmission bandwidth; pulse systems. R. S. Bailey and H. E. Singleton. *bibliog diags Electronics 21:107-9 Ag '48*
- Relationship between rate of transmission of information, frequency bandwidth, and signal-to-noise ratio. C. W. Earp. *Elec Com 26:178-95 Je '48*
- Restricted-range sky-wave transmission. J. E. Hacke, Jr. and A. H. Waynick. *diags Inst Radio Eng Proc 36:787-93 Je '48*
- Results of microwave propagation tests on a 40-mile overland path. A. L. Durkee. *Inst Radio Eng Proc 36:197-205 F '48*
- Simultaneous field strength recordings on 47.1, 106.5 and 700 megacycles. W. L. Carlson. *RCA R 9:76-84 Mr '48*
- Sunspots and radio weather. A. Arzinger and others. *il diags RCA R 9:229-44 Je '48*
- Taylor super-modulation principle. R. E. Taylor. *il diags Radio & Tv N 40:42-4+ S; 44-6+ O '48*
- Theoretical analysis of various systems of multiplex transmission. V. D. Landon. *diags RCA R 9:287-351, 433-82 Je-S '48*
- Theory of slots in rectangular wave-guides. A. F. Stevenson. *diags J Ap Phys 19:24-38 Ja '48*
- Theory of the radio detection of meteors. L. A. Manning. *diags J Ap Phys 19:689-99 Ag '48*
- Time expansion of periodic waves. L. Chen. *il diag Electronics 21:130+ Je '48*
- Transmission-line calculations; use of impedance circle diagrams. W. C. Vaughan. *diags Wirelss Eng 24:314-22 N '47*
- See also*
- | | |
|-------------------------------|-----------------------------|
| Newspapers—Radio transmission | Radio lines |
| Radio antennas | Radio pulse time modulation |
| Radio broadcasting | Radio relay stations |
| Radio communication | Radio telegraph |
| —Interference | Radio telephone |
| Radio echoes | Radio transmitters |
| Radio facsimile | Radio waves |

RADIO transmission—Continued

Bibliography

Radio progress during 1947; radio wave propagation. *Inst Radio Eng Proc* 36:530-8 Ap '48

Fading

Any DX today? observation of maximum usable frequency. D. W. Heightman. *Q S T* 32:25-31+ Ja '48

Remote pickup

Traveling light on remote assignments. G. Drisko. *il diag Communications* 28:15+ S '48

RADIO transmitters

Broad-band high-level modulator. R. J. Rockwell. *il diags Inst Radio Eng Proc* 36:1160-4 S '48

Composite amplitude and phase modulation. O. G. Villard, jr. *il diag Electronics* 21:86-9 N '48

807s in push-pull; shielded stabilized rig for the low-frequency bands. D. H. Mix. *il diag Q S T* 32:11-15+ Ag '48

Eliminating spurious radiations from bc transmitters. V. J. Andrew. *il diags Tele-Tech* 7:22-6+ F '48

Frequency-shift radio transmission. L. E. Hatfield. *bibliog il diags Inst Radio Eng Proc* 36:116-20 Ja '48

Modern single-sideband equipment of the Netherlands postals telephone and telegraph. C. T. F. van der Wyck. *il diags Inst Radio Eng Proc* 36:970-80 Ag '48

New 150-kw transmitter for standard band broadcasting. T. J. Boerner. *il Elec Eng* 67:861 S '48

Radio progress during 1947; modulation systems and radio transmitters. *bibliog Inst Radio Eng Proc* 36:524-5 Ap '48

Recent developments in radiotelegraph transmitters for shore stations. J. F. McDonald. *il diags RCA R* 8:751-64 D '47

Short-circuited turns in coils of broadcast transmitters. K. R. Sturley. *diag Wireless Eng* 25:240-5 Ag '48

Statistical methods in the design and development of electronic systems. L. S. Schwartz. *Inst Radio Eng Proc* 36:664-70 My '48

Temperature coefficients in electronic circuits. C. I. Soucy. *bibliog Electronics* 21:117-21 Ja '48

Trends in electron tube design. W. C. White. *il Elec Eng* 67:525-7 Je '48

See also

Radar transmitters

Television transmitters

Control

Crystal control on 220 mc. E. P. Tilton. *il diag Q S T* 32:20-2 My '48

Simple remote control circuit. J. D. Gallagher. *diag Radio N* 39:102 Ja '48

Frequency modulation transmitters

Balanced-modulator n.f.m. exciter. P. D. Rockwell. *il diag Q S T* 32:33-5+ Ap '48

Checking f-m transmitter frequencies with WWV. R. R. Freeland. *il diags Communications* 28:16-18+ My '48

Engineering a 50 kw fm transmitter. C. J. Starnier. *il diags Tele-Tech* 7:42-5+ Ap '48

Enlarged WOAI/WOAI-fm studio technical facilities. C. Jeffers. *il diags Communications* 28:12-15+ Mr '48

F-m transmitter performance measurements. H. P. Thomas and L. M. Leeds. *il diags Electronics* 21:84-7 F '48

Improving f.m. transmission techniques. E. C. Harrington and C. F. Hadlock. *il diag Q S T* 32:21-4+ N '48

New modulator principle for fm; Serrasoid circuit. *il diag Tele-Tech* 7:39 O '48

Simple approach to narrow-band f.m. S. Lipman. *il diag Q S T* 32:40-1 My '48

Simple NBFM transmitter. J. P. Simmons. *il diag Radio N* 39:56-8+ Ap '48

Simplified automatic stabilization of a frequency-modulated oscillator. J. L. Hollis. *il diags Inst Radio Eng Proc* 36:1164-71 S '48

Small reactance modulator for n.f.m. A. H. Ellis. *il diag Q S T* 32:34-5 F '48

Studio-to-transmitter link for f-m station WFML, Portsmouth, N.H. *il diags Electronics* 21:324+ Ag '48

Power supply

Application data for new 812A medium mu power triode. *diag Communications* 28:22+ S '48

Compact bias supply. J. F. Clemens. *il diag Radio N* 39:180-1 Mr '48

Design and operation of high-power broadcast transmitter units with their outputs combined in parallel. T. C. Macnamara and others. *il diags Inst E E J* 95 pt 3:183-98 My '48; Excerpts. *Engineer* 184:535-6 D 5 '47; Discussion. *Inst E E J* 95 pt 3:198-202 My '48

High power on 220 mc. E. P. Tilton. *il diag Q S T* 32:32-5+ Ag '48

Ignitrons in broadcast service. H. E. Zuvers. *il diags Tele-Tech* 7:27-9+ Ap '48

Method of determining and monitoring power and impedance at high frequencies. J. F. Morrison and E. L. Younker. *il diags Inst Radio Eng Proc* 36:212-16 F '48

Method of power supply control. J. D. Gallagher. *il diags Radio N* 39:88+ Je '48

Single-sideband power gain. *Q S T* 32:42-3 Mr '48

Stub tuners for power division. C. E. Smith. *diags Communications* 28:22-3 Ag '48

Safety measures

Danger, high voltage. G. Dexter. *Radio N* 40:78+ J1 '48

Short wave

Amplifier instability in transmitters. D. H. Mix. *diags Q S T* 32:19-24+ Je '48

Bandswitching without a switch. E. W. Hill. *diags Radio N* 39:124 F '48

Beginner's c.w. transmitter. R. M. Smith. *il diag Q S T* 32:25-30 My '48

Beginners' traffic transmitter. A. E. Hayes, jr. *il diag Radio N* 38:46-7+ D '47

Compact electron coupled oscillator controlled transmitter. H. R. Hyder. *il diags Radio N* 38:62-4+ D '47

Compact medium power c.w. transmitter. C. S. Mayeda. *il diag Radio N* 40:42-3+ J1 '48

Compact 20-watt rig for 50 mc. S. T. Van Esen. *il diags Q S T* 32:44-6+ Ap '48

Conversion notes on the BC-696-A. J. T. Frye. *il diags Radio N* 39:57-9+ Mr '48

Easily-constructed buffer and final amplifier. E. E. Pearson. *il diag Q S T* 32:30-2 F '48

Field tests for Citizens band. R. E. Samuelson. *il Electronics* 21:92-6 Ja '48

500-mc. transmitting tetrode design considerations. W. G. Wagener. *il diags Inst Radio Eng Proc* 36:611-19 My '48

500 watts of audio from AB1. H. A. Mandoli and D. H. Atkins. *bibliog il diags Q S T* 32:13-19 Mr '48

Grounded-grid technique at 50 mc. F. J. Gartzke. *il diag Q S T* 32:44-5 F '48

How's my modulation? built-in monitor 'scope for any 'phone transmitter. J. L. Hollis. *il diag Q S T* 32:49-51 S '48

Inexpensive and compact two-meter mobile transmitter. E. D. Gibbs. *il diag Q S T* 32:37-9 J1 '48

International broadcast h-f transmitter with continuously tunable plate system. D. A. Miller. *il diags Communications* 28:10-13+ Ja '48

Microwave plumbing replaces circuitry. S. Freedman. *il diags Radio & Tv* N 40:35-7+ S '48

Miniature ten meter phone transmitter. D. R. Rhodes. *il diags Radio N* 38:60-1+ D '47

Mobile midget for 144 mc. C. V. Chambers. *il diags Q S T* 32:21-7 F '48

New approach to single sideband. D. E. Norgaard. *diags Q S T* 32:36-42 Je '48

No turrets, just tune; 150-watt transmitter with new type of tank circuit. A. King, jr. *il diags Q S T* 32:59-63 Mr '48

Oscillator for the 1215-mc band. P. G. Sulzer and C. R. Ammerman. *il diags Q S T* 32:16-18 Ap '48

Putting the 826 to work. R. L. Parmenter and C. E. Clark. *il diags Radio N* 40:61-3+ J1 '48

RADIO transmitters—Short wave—Continued

- Putting the 522 transmitter on six and ten meters. H. S. Brier. *il* Radio N 39:50+ Ap '48
- Putting XTAL control to work. M. Silver. *il* diag Radio N 39:60-1+ F '48
- Screen grid modulation. A. Wilson. *il* diags Radio & Tv N 40:40-1+ N '48
- Self-filtered peak clipping. H. W. Johnson. diags Q S T 32:36-7+ Ap '48
- Simple crystal control on 144 mc. E. W. Johnson and M. Bernstein. *il* diag Q S T 32:22-3+ O '48
- Simple single-sideband transmitter. O. G. Villard, jr. *il* diags Q S T 32:14-17+ N '48
- Simplified oscillators for 2300 mc. A. R. Koch. *il* diags Q S T 32:11-14 F '48
- Single-control 180-watt transmitter. T. A. Benham. *bibliog il* diag Q S T 32:25-30+ Mr '48
- Single-sideband suppressed-carrier transmitter adapter. R. L. Dawley. *il* diags Q S T 32:40-9 J1 '48
- Single-sideband transmitter for amateur operation. A. H. Nichols. *il* diags Q S T 32:19-24, 128+ Ja '48
- Surplus-parts bandswitching transmitter. C. V. Chalmers. *il* diags Q S T 32:11-15+ S; 36-40+ O '48
- Taylor super-modulation principle. R. E. Taylor. *il* diags Radio & Tv N 40:42-4+ S; 44-6+ O '48
- TVI can be reduced. P. S. Rand. *il* diags Q S T 32:31-6 My '48
- 10 db. volume compression without splatter. R. M. Crotinger. *il* diag Radio N 40:50-1+ J1 '48
- 360 watt transmitter for phone or NBFM. R. N. Palmer and H. C. N. Longacre. *il* diag Radio N 39:69-71+ My '48
- Transadmittance and input conductance of a lighthouse triode at 3000 megacycles. N. T. Lavoo. *diag* Inst Radio Eng Proc 35:1248-51 N '47
- Two-tube transmitter-exciter. E. P. Tilton. *il* diag Q S T 32:44-5+ N '48
- VFO/crystal exciter. G. L. Countryman. *il* diags Q S T 32:36-9 N '48

Testing

- Carrier shift check meter. J. W. Whitehead. *il* diags Electronics 21:162+ Je '48
- Testing transmitters for instrument landing system. S. K. Webster. *il* diags Western Soc E J 52:162-71 D '47

Tuning

- Oil-filled miniature tuning capacitors. S. Wald. *il* Tele-Tech 7:43-5+ O '48

RADIO transmitters, Portable

- Pleapower ham portable. C. C. Erhardt. *il* diags Radio N 39:60-2+ Ja '48
- Joint army-navy electron tube committee recommended subminiatures and preferred transmitting tubes; vest pocket transmitter using subminiatures; instant-heating miniature tubes. *il* diag Communications 28:14+ J1 '48
- Minitrans; ideal for emergency or portable transmitter. R. C. Amundsen. *il* diag Radio N 39:65+ Mr '48
- Pack transmitter. J. L. Hathaway and W. Hotine. *il* diag RCA R 9:483-9 S '48
- Push-push portable. J. F. Clemens. *il* diag Radio & Tv N 40:40-1+ Ag '48
- QRP portable. G. L. Countryman. *il* diags Q S T 32:24-6+ J1 '48

RADIO tubes. See Vacuum tubes**RADIO waves**

- Accurate measurement of the group velocity of radio waves in the atmosphere, using radar technique. R. A. Smith and others. diags Inst E E J 94 pt 3:391-5; Discussion. 402-6 N '47
- Approach to the approximate solution of the ionosphere absorption problem. J. E. Hacke, jr. *Inst Radio Eng Proc* 36:724-7 Je '48
- Automatic standing wave indicator; abstract. P. J. Allen. *il* Elec Eng 67:1082 N '48
- Considerations of moon-relay communication. D. D. Grieg and others. *bibliog il* diags Inst Radio Eng Proc 36:652-63 My '48
- Developments in radio sky-wave propagation research and applications during the war. J. H. Dellinger and N. Smith. *maps* Inst Radio Eng Proc 36:258-66 F '48

- Effect of ground constants on the characteristic values of the normal modes in non-standard propagation of microwaves. C. L. Pekeris. *bibliog J Ap Phys* 19:102-5 Ja '48
- Elements of wave propagation using the impedance concept. H. G. Booker. *bibliog diags* Inst E E J 94 pt 3:171-98 My '47; Discussion. 94 pt 3:199-202; 95 pt 3:203-4 My '47, My '48
- Experimental determination of the gyro-frequency; magneto-ionic theory of wave propagation. S. L. Seaton. *il* Science 106:495-7 N 21 '47
- Free space microwave propagation; nomographic charts developed which facilitate calculation of performance of microwave relay equipment. A. L. Hammerschmidt. RCA R 9:159-66 Mr '48
- General divergence formula for ratio of energy per steradian reflected from a smooth curved surface to that incident on the surface. H. J. Riblet and C. B. Barker. *bibliog diags J Ap Phys* 19:63-70 Ja '48
- Improved ionospheric height recorder. H. A. Thomas and R. G. Chalmers. *bibliog il* diags Inst E E J 95 pt 3:7-13 Ja '48
- Investigation and forecasting of ionospheric conditions. E. Appleton. *Inst E E J* 94 pt 1:483-4 O '47
- Magneto-ionic multiple refraction at high latitudes. S. L. Seaton. *bibliog il* Inst Radio Eng Proc 36:450-4 Ap '48
- Measurement of the velocity of propagation of centimetre radio waves as a function of height above the earth. F. E. Jones. *diag* Inst E E J 94 pt 3:399-401; Discussion. 402-6 N '47
- Method of determining the angle of arrival. A. W. Stratton and others. diags J Ap Phys 19:524-33 Je '48
- Method of determining the velocity of radio waves over land on frequencies near 100 kc/s. E. B. Mendoza. diags Inst E E J 94 pt 3:396-8; Discussion. 402-6 N '47
- Microwave propagation experiments. L. E. Thompson. *Inst Radio Eng Proc* 36:671-6 My '48
- Narrow gaps in microwave problems. W. R. Smythe. diags Rs Mod Phys 20:175-80 Ja '48
- Phase difference between two waves reflected from the ionosphere. J. M. Kelso. diags J Ap Phys 19:590-1 Je '48
- Propagation of radio waves in the lower troposphere. J. B. Smyth and L. G. Trolese. *bibliog* Inst Radio Eng Proc 35:1198-202 N '47
- Propagation of radio waves; measurements with oblique incidence on the ionosphere. W. J. G. Beynon. *bibliog il* diag Wireless Eng 25:322-30 O '48
- Propagation of very short waves. D. E. Kerr. diags Electronics 21:124-8 Ja; 118-23 F '48
- Radio waves and matter. H. M. Davis. *il* diags Sci Am 179:16-23 S '48
- Rainfall intensities and attenuation of centimeter electromagnetic waves; radar in storm detection. R. Wexler and J. Weinstein. *bibliog* Inst Radio Eng Proc 36:353-5 Mr '48
- Reflections of very-high frequency radio waves from meteoric ionization. E. W. Allen, jr. diags Inst Radio Eng Proc 36:346-52 Mr '48; Discussion. 36:1255-7 O '48
- Result of microwave propagation tests on a 40-mile overland path. A. L. Durkee. *Inst Radio Eng Proc* 36:197-205 F '48
- Results of horizontal microwave angle-of-arrival measurements by the phase-difference method. A. W. Stratton and J. R. Gerhardt. *il* maps diag Inst Radio Eng Proc 36:916-22 J1 '48
- Scattering of electromagnetic radiation by a thin circular ring in a circular wave guide. P. Feuer and E. S. Akeley. diags J Ap Phys 19:39-47 Ja '48
- Small-signal analysis of traveling-wave tube. C. Shulman and M. S. Heagy. diags RCA R 8:585-611 D '47
- Solar intensity at 480 mc. G. Reber. *Inst Radio Eng Proc* 36:38 Ja '48
- Suggested experiment to detect the shift of $1/3\lambda_0$ level of H and He⁺. T. Wu. *Phys R* 72:976-7 N 15 '47

RADIO waves—Continued

- Tables of phase associated with a semi-infinite unit slope of attenuation. D. E. Thomas. *diags Bell System Tech J* 26:370-99 O '47
- Technique for distortion analysis. S. Sabaroff. *diag Electronics* 21:114-17 Je '48
- Theory of wireless telegraphy. J. S. Stone. *diags Inst Radio Eng Proc* 36:308-15 Mr '48
- Time expansion of periodic waves. L. Chen. *il diag Electronics* 21:130-47 Je '48
- Trigonometric components of a frequency-modulated wave. E. Cambi. *Inst Radio Eng Proc* 36:42-9 Ja '48
- Wavelength laws of split-anode magnetrons. G. H. Metson. *diags Wireless Eng* 24:352-6 D '47

See also

Radio echoes

Bibliography

- Radio progress during 1947; radio wave propagation. *Inst Radio Eng Proc* 36:530-8 Ap '48

RADIO workers

- Broadcast operator license proposal amended. *Electronics* 21:136-47 Je '48
- Broadcasters study professional training. J. Walker. *Ed & Pub* 81:46 F 14 '48
- How much pay is an engineer worth? broadcast engineers' opinions regarding pay scales. *Tele-Tech* 7:24-6+ Ap '48
- Two-way mobile radio, a new field for servicemen. L. G. Sands. *il Radio N* 39:39-41+ My '48

See also

Radio engineers

RADIOACTIVE substances

- Crystal radii of the heavy elements. W. H. Zachariasen. *Phys R* 73:1104-5 My 1 '48
- Effect of radioactive materials on stimulating plant growth. C. B. French. *Can Chem & Process Ind* 32:225-6 Mr '48
- Limits of beta-stability. T. P. Kohman. *bibliog diag Phys R* 73:16-21 Ja 1 '48
- Measurement of alpha-active dust in the atmosphere. H. Carmichael and P. R. Tunnicliffe. *bibliog diags J Ind Hygiene* 30:211-27 J1 '48
- New radioactive series, the protactinium series. M. H. Studier and E. K. Hyde. *diags Phys R* 74:591-600 S 1 '48
- Pregel brothers report success with radioactivity on crops. *Comm & Fin Chr* 167:1355 Mr 25 '48
- Preliminary report on radio-active discovery at Lac La Ronge. W. J. Bichan. *il maps Can Min J* 69:97-9 J1 '48

See also

Radium
Thorium
Uranium

Transportation

- Shipping of radio-isotopes. K. Z. Morgan. *il J Ap Phys* 19:593-8 J1 '48

RADIOACTIVE tracers

- AEC acts to expand industry's role in radio-isotope research. *Oil Paint & Drug Rep* 154:3+ J1 12 '48
- Detection of isotopes by tracer microscopy. *Franklin Inst J* 245:67-8 Ja '48
- Formation of moniodotyrosine from radioiodine in the thyroid of rat and man. K. Fink and R. M. Fink. *bibliog Science* 108:358-9 O 1 '48
- Infrared-sensitive phosphors of the alkaline earth sulfides and selenides. R. Ward. *bibliog Electrochem Soc J* 93:171-6 My '48
- Measurement of diffusion coefficients in liquids by radioactive tracers. A. Gemant. *Science* 107:622 Je 11 '48
- Methods for labeling thyroxine with radioactive iodine. E. Frieden and others. *bibliog Science* 107:353-4 Ap 2 '48
- New method of measuring diffusion coefficient in solids with radioactive tracers. G. C. Kuczynski. *diag J Ap Phys* 19:308-9 Mr '48
- Putting atoms to work in your plant. *il Mod Ind* 15:50-4 F '48
- Radioactive contaminants in tracers; origin, detection, identification, and removal. W. E. Cohn. *bibliog Anal Chem* 20:498-503 Je '48

- Radioactive isotopes as indicators in biology. J. Sacks. *Chem R* 42:411-56 bibliog(291 ref, p448-56) Ap '48
- Radioactive isotopes as tracers. A. W. Kramer. *il diags Power Pl Eng* 51:102-7+ O; 105-8 N '47
- Radioactive tracers. *Mech Eng* 70:536-7 Je '48; *Metal Prog* 53:884 Je '48
- Radioactive tracers; how they can be used in flotation research. *il diags Eng & Min J* 149:53-5 Mr '48
- Radioactive tracers in flotation; use of carbon 14 especially adaptable. A. M. Gaudin and others. *bibliog diags Min & Met* 29:432-5 Ag '48
- Radioactive tracers in steelmaking. *Iron Age* 161:85 Ap 29 '48
- Radiocardiography; a new method for studying the blood flow through the chambers of the heart in human beings. M. Prinzmetal and others. *il Science* 108:340-1 S 24 '48
- Self-diffusion coefficients and transference numbers of the small ions in colloidal electrolytes. A. P. Brady and D. J. Salley. *bibliog Am Chem Soc J* 70:914-19 Mr '48
- Some examples of radioactive tracing in glass technology; abstract. S. A. Lindroth. *Glass Ind* 29:320 Je '48
- Source of sulphur entering steel disclosed by radioactive tracers; other applications. *Steel* 122:112 Ap 26 '48
- Study of the distribution of arsine in impregnated charcoal by means of radioactive tracers. J. W. Hickey and E. O. Wlig. *bibliog diag Am Chem Soc J* 70:1574-9 Ap '48
- Summarized proceedings of conference on applications of radioactive tracer elements in physics, research and industry. Manchester, July 10-12, 1947. *bibliog J Sci Instr* 25:49-56 F '48
- Tag! use of radioactive tracers for industrial research. *Power Generation* 52:100+ Ag '48
- Theory of the study of transfers within a multi-compartment system using isotopic tracers. C. W. Sheppard. *J Ap Phys* 19:70-6 Ja '48
- Use of ion exchangers for the determination of physical-chemical properties of substances, particularly radiotracers, in solution. J. Schubert. *bibliog J Phys & Colloid Chem* 52:340-50 F '48
- Use of ion exchangers for the determination of physical-chemical properties of substances, particularly radiotracers, in solution; the dissociation constants of strontium citrate and strontium tartrate. J. Schubert and J. W. Richter. *bibliog J Phys & Colloid Chem* 52:350-7 F '48; Discussion. S. H. Wilson. 52:1260-1 O '48
- Use of radioactive diiodofluorescein in the diagnosis and localization of brain tumors. G. E. Moore. *Science* 107:569-71 My 23 '48
- Use of S³⁵ in the measurement of transfer constants. C. Walling. *bibliog Am Chem Soc J* 70:2561-4 J1 '48
- Uses of tagged atoms expanding. *il Chem Eng Prog* 44:sup22 Je '48

See also

Tracerlab, inc.
RADIOACTIVITY

- Absolute strength of radioactive sources. M. L. Wiedenbeck. *Phys R* 72:974 N 15 '47
- API research project 43c; studies of the effect of radioactivity in the transformation of marine organic materials into petroleum hydrocarbons. *Am Pet Inst Proc* 27(4): 139-41 '47
- Analysts review nucleonics progress. *Chem & Eng N* 26:2548-9+ Ag 30 '48
- Angular correlation of successive gamma-ray quanta. E. L. Brady and M. Deutsch. *bibliog Phys R* 72:870-1 N 1 '47
- Artificial collateral chains to the thorium and actinium families. A. Ghiorso and others. *Phys R* 74:695-6 S 15 '48
- Artificial radioactive isotopes of bismuth and lead. D. H. Templeton and others. *bibliog Phys R* 72:766-71 N 1 '47
- Artificial radioactive isotopes of polonium. D. H. Templeton and others. *bibliog Phys R* 72:758-65 N 1 '47

RADIOACTIVITY—Continued

- Artificially radioactive Se^{75} and Se^{76} produced by alpha-particle bombardment of germanium, W. S. Cowart and others, *Phys R* 73:1454-7 Je 15 '48
- Atom-plant waste disposal poses hazardous problems, *Eng N* 140:593-4 Ap 22 '48
- Beta- and gamma-spectra of gallium irradiated by slow neutrons, S. K. Haynes, *bibliog Phys R* 74:423-32 Ag 15 '48
- Beta-spectrum of Au^{198} , D. Saxon, *bibliog Phys R* 73:811-12 Ap 1 '48
- Chemical effects in nuclear electron emission, T. H. Davies, *bibliog J Phys & Colloid Chem* 52:595-603 Mr '48
- Chemical process control with radioactivity, A. P. Schreiber, *diags Chem Eng* 55:103-5 Ja '48
- Chemistry of energetic atoms produced by nuclear reactions, W. F. Libby, *bibliog Am Chem Soc J* 69:2523-34 O '47
- Coincidence experiments in antimony 124, E. T. Turney and A. C. G. Mitchell, *bibliog diag Phys R* 73:1153-6 My 15 '48
- Decay scheme of αRh^{106} , W. C. Peacock, *bibliog diag Phys R* 72:1049-53 D 1 '47
- Emission of alpha-particles from different faces of a radioactive crystal, K. B. Mather and F. N. D. Kurie, *Phys R* 73:1474 Je 15 '48
- Energy levels of light nuclei, W. F. Hornyak and T. Lauritsen, *Rs Mod Phys* 20:191-227 *bibliog*(p223-7) Ja '48
- Evidence for actinide series cited; abstract, J. G. Hamilton, *II Chem & Eng N* 26:165 Ja 19 '48
- Fundamentals of radioactivity, C. J. Overbeck, *II diag Instruments* 21:82-5 Ja '48
- Further studies on the radiations from Ba^{131} and Cs^{131} , B. J. Finkle, *diag Phys R* 72:1260-1 D 15 '47
- Geophysics and the radioactivity of potassium, F. Birch, *Phys R* 72:1128 D 1 '47
- Half-life of carbon 14, L. D. Norris and M. G. Inghram, *bibliog diags Phys R* 73:350-60 F 15 '48
- Houston engineers review atomic energy developments, *Chem & Eng N* 26:1438 My 17 '48
- Industrial applications of radioactivity; new radioactive devices serving as resistors, electrostatic voltmeters, light sources, tube cathodes, area measures, liquid level detectors, galvanometers, semimicrobalances, leveling systems, and micrometers, M. Blau and J. R. Carlin, *bibliog II diags Electronics* 21:78-82 Ap '48; *Abstract, Elec Eng* 67:468 My '48
- Internal conversion electrons from Sm^{150} , 47-hour, R. D. Hill, *bibliog II Phys R* 74:73-9 J 1 '48
- Internal conversion in tungsten and platinum, M. V. Scherb and C. E. Mandeville, *bibliog Phys R* 73:1401-2 Je 1 '48
- Internally converted radiation from europium, hafnium, and osmium, J. M. Cork and others, *II Phys R* 72:1209-11 D 15 '47
- Ion-exchange as a separations method; separation of fission-produced radioisotopes, including individual rare earths, by complexing elution from amberlite resin, E. R. Tompkins, J. K. Khym and W. E. Cohn, *bibliog diag Am Chem Soc J* 69:2769-77 N '47
- Loss of radioactivity from barium carbonate samples, P. E. Yankwich, *bibliog Science* 107:681-3 Je 25 '48
- More on radioactivity theory of petroleum formation; abstract, V. Burton, *Chem Eng* 55:266+ Ja '48
- Natural radioactivity of rhenium, S. N. Naldrett and W. F. Libby, *bibliog Phys R* 73:487-93 Mr 1 '48
- Natural radioactivity of rhenium, N. Sugarman and H. Richter, *Phys R* 73:1411-12 Je 1 '48
- Natural radiocarbon from cosmic radiation, E. C. Anderson and others, *bibliog Phys R* 72:931-6 N 15 '47
- Neptunium ($4n + 1$) radioactive family, G. T. Seaborg, *bibliog*(52 ref) *Chem & Eng N* 26:1902-6 Je 28 '48
- Neutron induced radioactivity in certain rare-earth elements, J. M. Cork and others, *bibliog II Phys R* 74:240-3 Ag 1 '48
- New barium and cesium isotopes; 12.0d Ba^{131} , 10.2d Cs^{131} , and long-lived Ba^{132} , S. Katcof, *Phys R* 72:1160-4 D 15 '47
- New experiments concerning the surplus gamma-radiation from rocks, V. F. Hess and J. D. Roll, *Phys R* 73:592-5 Mr 15 '48
- New method of determining short half-value periods, S. Rowlands, *bibliog diag J Sci Instr* 25:218-20 Je '48
- Nucleus, its structure and reactions, W. E. Shoup and H. Odishaw, *diags Elec Eng* 67:125-34 F '48
- Radiation chemistry and nuclear energy, M. Burton, *Chem & Eng N* 26:1764-6 Je 14 '48
- Radiations from molybdenum (99) and technetium (99), C. E. Mandeville and M. V. Scherb, *bibliog Phys R* 73:848-52 Ap 15 '48
- Radiations from tantalum (182), antimony (122), and indium (116), C. E. Mandeville and M. V. Scherb, *bibliog Phys R* 73:340-3 F 15 '48
- Radioactive bench marks for subsidence study, *Eng N* 140:645 Ap 29 '48
- Radioactive Br isotopes, L. L. Woodward and others, *bibliog Phys R* 74:870-5 O 15 '48
- Radioactive carbon of high specific activity, L. D. Norris and A. H. Snell, *Phys R* 73:254-5 F 1 '48
- Radioactive cerium and praseodymium, M. L. Pool and N. L. Krisberg, *bibliog Phys R* 73:1035-41 My 1 '48
- Radioactive decay constants of K^{40} as determined from the accumulation of Ca^{40} in ancient minerals, L. H. Ahrens and R. D. Evans, *Phys R* 74:279-86 Ag 1 '48
- Radioactive decay of K^{40} , L. B. Borst and J. J. Floyd, *bibliog Phys R* 74:989-90 O 15 '48
- Radioactive decay of slow positive and negative mesons, G. E. Valley, *bibliog II diags Phys R* 72:772-83 N 1 '47
- Radioactive europium, gadolinium, and terbium, N. L. Krisberg and others, *bibliog Phys R* 74:44-7 J 1 '48
- Radioactive indium isotopes of mass numbers 111 and 112, D. J. Tendam and H. L. Bradt, *Phys R* 72:1118-19 D 1 '47
- Radioactive isotopes as tracers, A. W. Kramer, *II diags Power Pl Eng* 61:102-7+ O: 105-8 N '47
- Radioactive isotopes of Ru and Tc, D. T. Egen and M. L. Pool, *bibliog Phys R* 74:57-62 J 1 '48
- Radioactive Kr isotopes, L. L. Woodward and others, *Phys R* 74:761-4 O 1 '48
- Radioactive materials; radium series and radioisotope reference sources with decay characteristics; range of beta particles in aluminum, and lead absorption of gamma radiation, *Electronics* 21:M36-7 Mid-Je '48
- Radioactive needles containing cobalt 60, W. G. Myers, *Science* 107:621 Je 11 '48
- Radioactive scrap, *Bsns W p50 My* 1 '48
- Radioactivity of K^{40} , H. E. Suess, *bibliog Phys R* 73:1209 My 15 '48
- Radiocolloids; abstract, J. Schubert, *Chem Eng* 55:268+ J 1 '48
- Rapid method for the determination of the maximum energies of β -emitters with simple spectra, L. Yaffe and K. M. Justus, *bibliog Phys R* 73:1400-1 Je 1 '48
- Rapid method of preparing Na^{24}N from Ba^{134}O , A. W. Adamson, *Am Chem Soc J* 69:2564 O '47
- Seaborg tells of isotope synthesis at Nichols medal award, *Chem & Eng N* 26:740-1 Mr 15 '48
- Self-diffusion in iron, C. E. Birchenall and R. F. Mehl, *J Ap Phys* 19:217-18 F '48
- Shape of the positron spectrum of Cu^{64} , C. S. Cook and L. M. Langer, *Phys R* 74:227-8 J 15 '48
- Short-lived isomeric states of Se^{88} and Ge^{77} , J. R. Arnold and N. Sugarman, *bibliog J Chem Phys* 15:703-12 O '47
- Significance of the radioactivity of potassium in geophysics, T. Graf, *bibliog Phys R* 74:831-2 O 1 '48
- Something about radioactive isotopes, M. Semchysen, *Min & Met* 29:329 Je '48
- Stability of Os^{187} against K capture, H. H. Seliger and H. L. Bradt, *Phys R* 73:1408-9 Je 1 '48

RADIOACTIVITY—Continued

- Story of atomic energy; X-rays, radioactivity, and the electron. F. Soddy, *il* diags Engineering 164:505-8, 553-5, 601-4; 165:25-8 N 28, D 12, 26, Ja 9 '48
- Study of the radiations from columbium (95), rhenium (188), osmium (191), and osmium (193). C. E. Mandeville and others, *bibliog* Phys R 74:888-93 O 15 '48
- Techniques in the use of carbon 14. W. G. Dauben, J. C. Reid and P. E. Yankwich, *bibliog* diags Anal Chem 19:828-32 N '47
- Thermal neutron activation cross sections. L. Seren, H. N. Friedlander and S. H. Turkel, *bibliog* Phys R 72:888-901 N 15 '47
- Transformation of organic substances by alpha particles and deuterons. L. A. Breger, *bibliog* *il* diag J Phys & Colloid Chem 52: 551-63 Mr '48
- X-ray emitting isotopes of radioactive Sb and Sn. K. D. Coleman and M. L. Pool, *bibliog* Phys R 72:1070-4 D 1 '47
- X-ray yield curves for γ -n reactions. G. C. Baldwin and G. S. Klaiber, *bibliog* *il* Phys R 73:1156-63 My 15 '48
- Zero-zero transitions. M. L. Goldberger, *Phys R* 73:1119 My 1 '48

See also

- | | |
|----------------------|------------------------|
| Alpha rays | Neutrons |
| Atoms—Disintegration | Radioactive substances |
| Beta rays | Radioactive tracers |
| Electrons | Radiography |
| Gamma rays | Radium |
| Ionization, Gaseous | X rays |

Measurement

- Coincidence measurements; beta spectra. M. L. Wiedenbeck and K. Y. Chu, *bibliog* diags Phys R 72:1164-70 D 15 '47
- Coincidence study of gold. C. E. Mandeville and M. V. Scherb, *bibliog* Phys R 73:634-5 Mr 15 '48
- Improved radioactivity measuring cup. R. E. Smith and J. F. Bronson, *Science* 107:603 Je 4 '48
- Measurement of carbon 14. J. D. Roberts and others, *bibliog* diags Anal Chem 20: 904-5 O '48
- Measurement of radioactivity in solution. A. K. Solomon and H. D. Estes, *diag R Sci Instr* 19:47-50 Ja '48
- Method for measuring short period activities. A. D. Scheiberg and others, *diag R Sci Instr* 19:458-61 Jl '48
- Radiation survey meter, *il* R Sci Instr 19: 725 O '48
- Relation of backscattering to self-absorption in routine beta-ray measurements. P. E. Yankwich and J. W. Weigl, *Science* 107: 651-3 Je 18 '48
- Slide rule calculations of radioactive decay. H. P. Knauss, *Science* 107:324 Mr 26 '48
- Variations in total counts of P^{32} and I^{131} for dishes of different atomic number. R. F. Cowing and E. DeAmicis, *Science* 108:187 Ag 20 '48

Physiological effect

- Problems relative to possible physiological effects caused by radiation. F. A. Bryan, *Ind Med* 17:367-71 O '48
- Program of the Atomic energy commission for the use of radioactive materials. S. Warren, *Ind Med* 17:221-4 Je '48
- Protection against radiation hazards and maximum allowable exposure values. K. Z. Morgan, *bibliog* *il* J Ind Hygiene 30:286-93 S '48
- Radiation from a flask containing various amounts of radioactive phosphorus. R. F. Cowing and E. DeAmicis, *bibliog* *Science* 107:684 Je 25 '48
- Radiation hazards in industry. C. R. Williams, *bibliog* J Ind Hygiene 30:294-9 S '48
- Radioactive hazards; abstract. R. E. Kelly, *Mech Eng* 69:1039-40 D '47
- Some biological effects due to nuclear fission. C. A. Tobias and others, *bibliog* *Science* 107:116-18 Ja 30 '48

RADIOAUTOGRAPHY. See Radiography

RADIOCARBON. See Carbon—Isotopes

RADIOGONIOMETERS. See Direction finding apparatus

RADIOGRAPHY

- Adjustment of a crystal from X-ray rotation photographs. A. Bairsto, *diags J Sci Instr* 25:215-16 Je '48
- Characteristics of some non-screen films used in industrial radiology. R. L. Durant, *J Sci Instr* 25:105-10 Mr '48
- Copying X-ray films. D. M. Gould and others, *il* Pub Health Rep 63:763-5 Je 4 '48
- Defects and preventives in weld radiographs; tabulation. L. Mullins, *Iron Age* 161:73 Ja 15 '48
- Demonstration of P^{32} in bone by radioautography. R. S. Siffert, *il* *Science* 108:445-8 O 22 '48
- Electronic radiography and microradiography. J.-J. Trillat, *bibliog* *il* diags J Ap Phys 19:844-52 S '48
- Electrostatic accelerator for electrons. W. W. Buechner and others, *bibliog* *il* diags R Sci Instr 18:754-66 O '47
- Improved technique for setting single crystals from zero layer-line photographs. O. Weisz and W. F. Cole, *il* J Sci Instr 25: 213-14 Je '48
- New tube brightens X-ray pictures, *il* diag Bsns W p23 My 29 '48
- Preliminary report on a community-wide chest X-ray survey at Minneapolis, Minn. W. Roemmich and others, *Pub Health Rep* 63:1285-90 O 1 '48
- Quantitative theory of autoradiography illustrated through experiments with P^{32} in the chick embryo. H. Branson and L. A. Hansborough, *il* *Science* 108:327-8 S 24 '48
- Radioautograph technique with C^{14} . A. M. MacDonald and others, *il* *Science* 107:550-2 My 21 '48
- Radiographic appraisal of spot welds in aluminum. G. H. Boss, *bibliog* *il* Metal Prog 53:522-7+ Ap '48
- Radiographic methods in paleontology; a progress report. R. A. M. Schmidt, *bibliog* Am J Sci 246:615-27, pl 1-6 O '48
- Radiographic practice at Ford. D. Goodman, *il* Iron Age 162:90-4 Jl 22 '48
- Radiographic tyre testing, *il* Engineer 185: 614-15 Je 25 '48
- Radiographing and controlled low-temperature stress-relieving of welded tanks for wet seal gas holder. R. Kraus, *bibliog* *il* diag Am Gas J 163:11-16 F '48
- Simple scanner for X-ray diffraction. R. H. Hay, *il* diag R Sci Instr 18:801-2 O '47
- Statistical problems in assessing methods of medical diagnosis, with special reference to X-ray techniques. J. Yerushalmy, *Pub Health Rep* 62:1432-49 O 3 '47
- Study of segregations and inclusions in steel by micro-radiography. W. Betteridge and R. S. Sharpe, *bibliog* 2pls diag Iron & Steel Inst J 158:185-91 F '48
- Supersonics versus radiography. H. R. Isenburger, *il* Metal Prog 54:318 S '48
- X-raying filer reactions in crash landing. Electronics 21:158+ Jl '48

RADIOMETERS**See also**

Spectroradiometer

RADIOSCOPIC diagnosis. See Diagnosis, Radioscopic

RADIOSONDE. See Radio meteorographs

RADIO THERAPY

- Irradiation of biological materials by high energy Roentgen rays and cathode rays. J. G. Trump and E. J. Van de Graaff, *bibliog* *il* diag J Ap Phys 19:599-604 Jl '48
- Radioactive therapy; abstract. S. Warren, *Oil Paint & Drug Rep* 153:58-9 Je 28 '48

See also

X rays—Therapeutic use

RADIUM

- Calibration of a Ra+Be neutron source by the $B(\alpha, \alpha)Li$ reaction. F. G. P. Seidl and S. F. Harris, *bibliog* R Sci Instr 18:897-9 D '47
- Cloud-chamber observation on low energy portion RaE beta-spectrum. A. Walther and F. T. Rogers, Jr, *Phys R* 74:699-700 S 15 '48
- Multistage ion-exchange system for the fractionation of solutes; radium-barium fractionation. A. F. Reid, *flow diag* Ind & Eng Chem 40:76-8 Ja '48

RADIUM—Continued

Radium content of ultramafic igneous rocks; laboratory investigation, G. L. Davis, bibliog il diag Am J Sci 245:677-93 N '47
Range of Ra-a-Be neutrons in water determined by means of indium foil activations. J. H. Rush, diag Phys R 73:271-3 F 15 '48

Safety measures

Radiation hazards in industry. C. R. Williams, bibliog J Ind Hygiene 30:294-9 S '48

RADIUM C

Alpha-ray spectra of RaC and RaC'. W. Y. Chang, Phys R 74:1195-6 N 1 '48
New method of determining short half-value periods. S. Rowlands, bibliog diag J Sci Instr 25:218-20 Je '48

RADON

Mixed adsorption of radon and argon on silica gel. B. P. Burt and J. D. Kurbatov, bibliog diag Am Chem Soc J 70:2278-82 Je '48

Tracing wildcat trends with radon emanations. R. A. Stothart, maps World Oil 127:78-9 F '48

RAFFERTY, James A. 1886-

Portrait. Fortune 35:7 N '48
Rafferty of Union Carbide awarded chemical medal. Paint Oil & Chem R 111:76 O 14 '48

RAFTERS

Accurate method of cutting rafters between wall and bow string type truss, diags Am Bld 70:113 Mr '48

RAGS

Rag mill refining. H. P. Espenmiller, il plan Paper Tr J 127:49-53 Ag 19 '48; Same cond. Paper Ind 30:336-40 S '48

RAHWAY, New Jersey**Water supply**

Experiences with filtered river water; use of chlorine dioxide. M. M. Gibbons, Pub Works 79:38 My '48

RAIL JOINTS

End hardening of rail ends and open hearth frogs. K. W. Torbert, il Welding J 27:107-10 F '48
Mill process for end-hardening rails. il Ry Age 125:554 S 18 '48

Welding

Chicago being ringed with welded rail; year's program of the Elgin, Joliet & Eastern, il Ry Age 125:544-7 S 18 '48

RAIL removal. See Street railroads—Track reclamation

RAILROAD accidents. See Railroads—Accidents

RAILROAD associations

Parallel progress and achievement; review of inception and growth of American railway engineering association and National railway appliances association, Ry Age 124:508-9+ Mr 13 '48

See also Association of American railroads

RAILROAD board of mediation. See National mediation board

RAILROAD bridges. See Bridges, Railroad

RAILROAD engineering

American railway engineering association 47th annual meeting, Chicago, Ry Age 124:553-75 Mr 20 '48

China rebuilds her railroads, P. C. Lee, il map Civil Eng 18:228-33+ Ap '48
Progress in railway mechanical engineering, 1946-1947, il diag Mech Eng 70:321-35 Ap '48

South African railways; mechanical engineer's viewpoint. M. M. Loubser, Mech Eng 70:523-7 Je '48

See also

Bridges, Railroad

Cars

Locomotives

Railroad research

Railroads—Construction

Railroads—Earth-

work

Railroads—Maintenance and repair

Railroads—Track

Train resistance

Study and teaching

Alco's educational program matches rapid Dieselization of railroads, E. F. Carney, il Diesel Power 25:66-9+ D '47

RAILROAD labor. See Railroads—Employees

RAILROAD land grants

U.S. sues for oil under Illinois Central's right-of way. Bsns W p89 Ag 7 '48

RAILROAD law

A.A.R. denies F.R.P.'s anti-trust bill charge; did not make false statements on Bulwinkle measure, Ry Age 124:588 Mr 20 '48

Behind Rail labor act trouble, il Bsns W p94-9 Ag 7 '48

Bulwinkle bill passed over President's veto, Ry Age 124:1222-3 Je 19 '48

Bulwinkle law balks Justice dept.; rate bureaus to continue to set freight rates, Bsns W p22 Je 26 '48

Congress overrides Truman's veto of railroad rate agreements bill; Reed-Bulwinkle bill, Oil Paint & Drug Rep 153:3 Je 21 '48

Dream world for rusted rail stockholders; Mahaffie act preserves fiction of solvency, F. B. Dezendorf, Barron's 28:25 Ag 16 '48

House passes Bulwinkle bill, Ry Age 124:1030-1+ My 22 '48

Labor groups urge retention of R.L.A.; hearings on proposed amendments to the Labor-management relations act, Ry Age 124:1181-2 Je 12 '48

Painless wringer nearly ready for weak railroads; Mahaffie, sponsor, says number of carriers may go bankrupt without plan, A. Clark, Barron's 27:11 D 8 '47

Rank and file fights Crosser law, H. A. Haas, Ry Age 123:990-2 D 6 '47

South Buffalo free of commodities clause; Supreme court decision, that subsidiary of Bethlehem steel corporation, does not violate Interstate commerce act by transporting commodities manufactured by another Bethlehem corporation subsidiary, Ry Age 124:866 My 1 '48

Voluntary rail revamp bill signed by President, Ry Age 124:773-4 Ap 17 '48

See also

Interstate commerce National mediation
commission board

Railroads—Rates

Railroad rates, See Railroads—Rates

RAILROAD research

Association of American railroads Mechanical division annual meeting, Chicago, June 28-30, Ry Mech Eng 122:403-42 Ag '48

Facts best weapon for capture of potential traffic, il Ry Age 125:247-51 Jl 31 '48

Plans unveiled for A.A.R. laboratory, il plans Ry Age 125:674-5 O 9 '48

Research to protect resources urged; abstract, J. B. Akers, Ry Age 123:915-6 N 22 '47

Research work on rail sections, W. Leaf, il diags A S M E Trans 70:31-5 Ja '48

RAILROAD shops. See Railroads—Shops

RAILROAD stations. See Railroads—Stations

RAILROAD superintendents. American association of, See American association of railroad superintendents

RAILROAD supplies industry**Advertising**

Railroad ads still ride Deadwood Central, il Ind Marketing 33:81-2+ S '48

Exhibitions

N.R.A.A. exhibit draws large attendance; with list of exhibitors, Ry Age 124:576-81 Mr 20 '48

Suppliers supporting cast in big railroad show, il Ry Age 125:198-201 Jl 24 '48

Finance

Investment audit of American Brake Shoe, P. Dobbs, Mag of Wall St 82:28-9+ Ap 10 '48

Securities

Promise vs. results for rail equipments; with position of leading companies, G. Merton, Mag of Wall St 81:588-9+ F 25 '48

Pros and cons in rail equipments; with position of leading companies, H. S. Coffin, Mag of Wall St 82:642-3+ S 25 '48

Statistics

See also

Railroads—Purchasing

RAILROAD ties

C. & O. tests effect on track circuits of bridge ties treated to resist fire. H. M. Church. *il Ry Age* 125:580-2 S 25 '48
 Fabco tie pads. *il Ry Age* 124:350 F 14 '48
 Facts about railway-tie shipments in connection with ERP. *For Comm W* 32:33 J1 3 '48

Forest products situation; lumber and cross-tie supplies; A.A.R. committee report. *diag Ry Age* 125:91-2 J1 10 '48

More timber was treated in 1946. *Ry Age* 123:986-8 D 6 '47

Railway tie association 30th annual meeting, White Sulphur Springs, W.Va. Aug. 30-Sept. 1. *Ry Age* 125:496-9 S 11 '48

Statistics

Tie renewals down slightly in 1947. *il Ry Age* 125:288-91 Ag 7 '48

Testing

Measurement of railway sleeper resistance. *Engineering* 166:188 Ag 20 '48

RAILROAD ties, Concrete

British railways using concrete ties. R. L. M'Ilmoyle. *il Ry Age* 124:1120-2 Je 5 '48

RAILROADS

Railroads and the American welding society. L. E. Grant. *Ry Mech Eng* 122:140-1 Ap '48

See also

Air brakes	Railroad research
Bridges, Railroad	Railroads and state
Cars	Rails
Electric railroads	Railway mail service
Freight car service	Rapid transit
Freight cars	Ship railroads
Locomotives	Street railroads
Motor cars (railroad)	Train resistance
Mountain railroads	Transportation
Railroad engineering	

Abandonment

More miles of lines abandoned in 1947; U.S., Canada and Mexico. H. E. Michael. *il Ry Age* 124:95-7 Ja 3 '48

Accidents

Accidents on railways, 1947. *Engineer* 186: 3 J1 2 '48

Death, injury and passengers. *Ry Age* 123: 841-2+ N 15 '47

Derailment caused by defective tender-truck side-bearing plate; Adamsville, Ala. *Ry Age* 125:265-6 J1 31 '48

Disregard of signals caused collision at Syracuse, Mo. *Ry Age* 124:540 Mr 13 '48

I.C.C. accident report renews lightweight controversy; collision, Jan. 1, Missouri Pacific near Syracuse, Mo. *Ry Mech Eng* 122:173-4 Ap '48

I.C.C. finds derailment caused by insecure track; Diplomat accident. *Ry Age* 125:220-1+ J1 24 '48

I.C.C. summarizes 1946 accident data. *Ry Age* 124:263 Ja 31 '48

I.C.C. summarizes 1947 accident data. *Ry Age* 125:732-3 O 16 '48

National safety council Railroad section meeting, Chicago, Oct. 19-21. *Ry Age* 125: 818-19 O 30 '48

Reports on accidents. *Ry Age* 124:589-90+ Mr 20 '48

See also

Electric railroads—Grade crossing accidents

Accounting

Accounting officers seen as management's toolmakers; annual meeting of A.A.R. Accounting division, Cleveland. *Ry Age* 125: 112-16 J1 10 '48

Bookless bookkeeping on the New Haven; handling accounts receivable; Kolect-A-Matic system. L. V. Sullivan. *il Ry Age* 125:508 S 11 '48

Challenge to accounting officers. J. W. Barriger. *Ry Age* 125:426-8 Ag 28 '48

If earnings drop, railroads can find cash for fixed charges in stepped-up depreciation. *Barron's* 27:33 N 10 '47

Material stock report; inventory and pricing methods and practices; A.A.R. committee report. *Ry Age* 125:100-1 J1 10 '48

Most accounting work can now be mechanized. *Ry Age* 125:471 S 4 '48
 Original cost basis gives railroads unrealistic valuation and depreciation. A. C. Tietjen. *J Account* 86:123-8 Ag '48

Advertising

Buyer's market to test sales methods; railroads will employ varied promotion techniques, including advertising, package tours, credit plans, and other inducements. *il Ry Age* 123:863-5 N 15 '47

Railroad advertising 12 per cent greater in 1947. F. Snow. *il Adv & Sell* 41:39+ J1 '48
 Six major railroads tag \$8,000,000 for '48 ads. W. H. Davis and N. Kelne. *il Ptr Ink* 222:90 F 27 '48

Air brakes

See Air brakes

Airplane auxiliaries

Santa Fe Skyway throws in the sponge; denied right to operate by C.A.B. *il Ry Age* 124:252-3 Ja 31 '48
 Santa Fe to quit air freight service soon. *Ry Age* 124:174 Ja 17 '48

Ballast

See Ballast

Brakes

See Air brakes; Brakes

Braking

How wheels behave on low-adhesion rail. L. D. Hays. *Ry Age* 123:373-9 D 6 '47; Same. *Ry Mech Eng* 121:686-7 D '47
 L.M.S. mobile testing plant. *il Engineer* 184: 144-6 Ag 15 '47; Same. *Ry Age* 124:752-4 Ap 17 '48; Same abr. *Electrician* 139:473-4 Ag 15 '47; Same cond. *Elec R (Lond)* 141: 290-2 Ag 22 '47

Measurement of the temperature of sliding surfaces, with particular reference to railway brake blocks. R. C. Parker and P. R. Marshall. *bibliog diag Inst Mech Eng J & Proc* 158:Proc 209-20, pl 1-4 S '48; Same cond. *Engineering* 165:21-2, 36, 45-8 Ja 2-9 '48; Conclusions. *Engineer* 184:465-6 N 14 '47; Discussion. *Inst Mech Eng J & Proc* 158:Proc 220-9, pl 5-8 S '48; *Engineer* 184: 466, 478-9 N 14-21 '47

Mobile locomotive testing plant of the London, Midland and Scottish railway. H. I. Andrews. *il plans diag Engineer* 185:409-11, 434-5, 457-3 Ap 23-25 7 '48; Same abr. *Engineering* 165:596-9 620-2 Je 18-25 '48; Discussion. *Engineer* 185:394-5 Ap 23 '48
 Unique application of the Wheatstone bridge to high-speed train braking. C. M. Hines. *diag Elec Eng* 67:317-18 Ap '48

Bridge crossing

See Bridges, Railroad

Buildings and structures

Car-a-minute coal dumper dedicated; rail-lake coal facilities of the Baltimore & Ohio at Lorain. *il map Ry Age* 124:896-7 My 8 '48

Emphasis on freight-handling facilities in property improvement programs. *il Ry Age* 124:986-90 My 15 '48

Erie's navy gets floating dry dock. A. A. Visintainer. *il Ry Age* 125:728-9 O 16 '48

Modern lake port transfer facility open for business at Toledo, Ohio. *il plan Ry Age* 124:846-51 My 1 '48

New rail-water terminal at Toledo improves coal-ore transfer. *il diag Eng N* 141:48-51 S 30 '48

Railroad buildings; building types study. *il plans diag Arch Rec* 104:122-46 O '48

Yard offices take to the air. *il Ry Age* 125: 858-9 N 6 '48

See also

Bridges, Railroad	Railroads—Shops
Car shops	Railroads—Stations
Coaling stations	Railroads—Terminals
Freight houses	Railroads—Train-sheds
Locomotive terminals	Roundhouses

RAILROADS—Continued

Car departments

- Passenger-car terminal attention; exterior maintenance. R. V. Ketring. *Il Ry Mech Eng* 122:85-6 F '48
 Passenger-car terminal attention; interior maintenance. E. E. Packard. *Ry Mech Eng* 122:81+ F '48

Cars

See Cars; Freight cars; Sleeping cars

Centralized traffic control

See Railroads—Signals

Chemists

- BR chemist at work; essential services to all railway departments. *Il Chem Age (Lond)* 59:53 JI 10 '48

Claims

- Astray freight absorbs record proportion of revenues. *Ry Age* 125:321 Ag 14 '48
 Class A transportation problem, loss and damage. *Ry Age* 124:958-60 My 15 '48
 Reduction of transportation damage claims; abstract. A. L. Green. *Mod Packaging* 21:150-1 Je '48

Color use

See Color in railroad operation

Communication

See Railroads—Radio communication;
 Railroads—Telegraph; Railroads—Telephone

Commuter service

- Can commuter traffic be made to pay? *Il Ry Age* 123:859-62 N 15 '47
 Commuters; the railroads' problem children. *Il Bsns W* p90+ Je 19 '48

Competitive transportation

- Facts best weapon for capture of potential traffic. *Il Ry Age* 125:247-51 JI 31 '48
 Railroads remain the basic freight transportation medium, but competitors take much high rate traffic. *Il Ry Age* 124:972-3 My 15 '48
 Rivals reach for the travel dollar. *Il Ry Age* 123:850-4 N 15 '47
 Traffic diversion cause for alarm. *Il Ry Age* 125:772-4 O 23 '48
 Transportation pattern changes; shippers are shifting their traffic away from rail lines. *Il Bsns W* p 19-20 O 30 '48

Concrete construction

- British rebuild engine-shed roofs with precast concrete units. R. L. M'Ilmoyle. *Il diag Ry Age* 124:296-300 F 7 '48
 Precast concrete engine shed roofs. *Il Engineer* 184:435-6 N 7 '47
 Railway precast concrete depot. *Il Engineer* 185:277-8 Mr 19 '48
 Reinforced-concrete locomotive sheds. *Il diags Engineering* 165:199-201, 204 F 27 '48
 Use of concrete on the G.W.R. *Engineer* 184:460 N 14 '47

Consolidation

- C.&O.-P.M. merger sent back to I.C.C. *Ry Age* 124:1002+ My 15 '48
 Employee interest in public utility merger and abandonment cases. H. H. Goldin. *Land Econ* 24:161-74 My '48
 Lackawanna-Nickel Plate merger gains debated; help for either road in consolidation doubted; Erie unworried. C. C. Henkel. *Barron's* 28:9 Ja 26 '48
 Rail consolidations urged by President. *Ry Age* 124:175 Ja 17 '48

Construction

- Activity high in drilling new tunnels. *Il Ry Age* 125:148-50 JI 17 '48
 Construction volume highest since 1931; U.S., Canada and Mexico. H. E. Michael. *Il Ry Age* 124:85-94 Ja 3 '48
 Montreal company plans 360-mile railroad to rich iron ore region in the North. *map Eng N* 141:6-7 S 9 '48

See also
 Railroads—Earth-work
 Railroads—Track

Cost of construction

- Many sharp rises reported in railroad construction costs. *Eng N* 141:91 O 28 '48
 Railroad construction cost indexes, 1921-1946. *map Eng N* 140:805 My 27 '48
 Relocation of railroad, Nebraska and Kansas; unit prices. *Eng N* 141:98 S 2 '48
 Southern Pacific Cascade line railroad relocation, Lane county, Oregon; unit prices. *Eng N* 140:138 Ja 22 '48

Costs

- Do first costs retard electrification? L. W. Birch. *Il Ry Age* 124:380-3+ F 21 '48
 Mexican railways on upgrade in 1947. J. M. Orozco Escobosa. *Il Ry Age* 124:40-3 Ja 3 '48
 Review of railway operations in 1947. J. H. Parmelee. *Ry Age* 124:44-53+ Ja 3 '48
 Upkeep outlay and costs show increase. M. H. Dick. *Il Ry Age* 124:16-19 Ja 3 '48

Curves and turnouts

- Blasting new river channel to reduce railroad curve; New York Central diverts flow of Mohawk river. R. J. Dillon. *Il Explosives Eng* 25:167-70+ N '47
 Speed-controlled signalling and sand-trap turn-outs. *Il Engineering* 165:450-1 My 7 '48

Damage from floods, storms, etc.

- Flood damage in the North-East. *Il Engineer* 186:184, 217-18 Ag 20-27 '48
 New York railroad operations disrupted by record snowfall. *Ry Age* 124:102+ Ja 3 '48
 Sleet follows snow to harass railroads in New York region. *Ry Age* 124:136-7 Ja 10 '48

Derailment

See Railroads—Accidents

Development work

- Katy development department pushes industry expansion. *Il Manuf Rec* 117:32-3+ Ja '48
 Reforestation aids the wood pulp industry; program of Seaboard railroad. W. J. Krebs. *Il Manuf Rec* 117:74-5+ My '48
 U. S. plants future crop of freight along lines. E. Friedman. *Barron's* 27:43 D 8 '47
 What grass roots selling has done for the Katy. H. G. Till. *map Sales Management* 59:45-6+ D 1 '47

Earthwork

- Bluffs sliced away for rail spur alongside busy road at Shamokin dam. *Il Constr Methods* 30:108-9 F '48
 Relocating 16 miles of double-track railroad to make way for Conemaugh dam. C. J. Burton. *Il map Explosives Eng* 26:11-13+ Ja '48
 River takes siding for N.Y.C. twentieth century parade; major line change, eliminating curve at Little Falls, required carving new river channel. *Il plan Ry Age* 123:904-7 N 22 '47
 Rock Island completes relocation in Iowa. *Il map diag Eng N* 139:726-30 N 27 '47
 Stabilisation of railway embankments near Gouda. J. L. A. Cuperus. *Engineering* 166:267 S 17 '48

Electric equipment

- A.I.E.E. annual meeting, Pittsburgh, Jan. 26-30; abstracts of railroad papers. *Ry Age* 124:250-1 Ja 31 '48
 Electrical needs and accomplishments. *Il Ry Age* 123:847-9 N 15 '47
 Electricity is causing major changes. A. G. Oehler. *Il Ry Age* 124:28-9 Ja 3 '48
 Long Island experimenting with micro-wave beam radio for remote control of power sub-stations, switches and signals and for communications. D. E. Smucker. *Il Ry Age* 125:474-5 S 4 '48
 Looking ahead with the railroads; locomotive and car equipment developments by Westinghouse electric corp. G. A. Price. *Ry Age* 124:581-3 Mr 20 '48
 Motors and controls; with cost data; report of A.A.R. Mechanical division, Electrical section. *Il Ry Mech Eng* 121:624-7 N '47
 See also
 Railroads—Signals

RAILROADS—Continued

Electrification

Do first costs retard electrification? L. W. Birch. *il Ry Age* 124:380-3+ F 21 '48
Electricity in transportation. C. Kerr, jr. *il Ry Mech Eng* 122:375-80 J1 '48
Electrification vs. Diesel-electrification. P. H. Hatch. *Ry Age* 125:9-10 J1 3 '48

Belgium

Belgium reports on railway electrification. *For Comm W* 29:26-7 D 13 '47

Great Britain

Electric traction on the Southern railway. C. M. Cook. map plans diag *Inst E E J* 95 pt 2:115-30 Ap '48; Same cond. Engineering 164:597-600 D 19 '47; Abstract. Elec R (Lond) 141:739 N 14 '47; Discussion. *Inst E E J* 95 pt 2:131-8 Ap '48; Electrician 139:1433-4 N 14 '47; Elec R (Lond) 141:739-40 N 14 '47

Italy

Electric lines being restored in Italy. A. Giordano. *il map Ry Age* 123:776-7 N 8 '47

Poland

Electrification of the Warsaw railway junction. J. Podolski. plans diag *Inst E E J* 95 pt 2:505-18 O '48; Abstracts. Elec R (Lond) 142:351 Mr 5 '48; Electrician 140:799 Mr 12 '48; Discussion. *Inst E E J* 95 pt 2:518-22 O '48; Elec R (Lond) 142:394 Mr 12 '48; Electrician 140:799-800 Mr 12 '48

Employees

Behind Rail labor act trouble. *il Bsns W* p94-9 Ag 7 '48
Cardiovascular problems in railroad industry. R. W. Edmonds and H. Fell. *Ind Med* 17:7-8 Ja '48
Cooperation with universities; A.R.E.A. committee report. *Ry Age* 124:564-5 Mr 20 '48
Cut in unemployment insurance tax urged. *Ry Age* 124:631-3 Mr 27 '48
Emergency board opens hearings at Chicago on wage and rules dispute between the railroads and three brotherhoods. *Ry Age* 124:306 F 7 '48
Employee interest in public utility merger and abandonment cases. H. H. Goldin. *Land Econ* 24:161-74 My '48
Employees present rules case to emergency board. *Ry Age* 124:351-2+, 395-6, 448 F 14-28 '48
Hearings before emergency board on demands for a wage increase and changes in working rules. *Ry Age* 124:483-4 Mr 6 '48
Hold-out ops leaders call off strike; court order follows government seizure. *Ry Age* 124:996-9+ My 15 '48
Holdout ops seeking congressional probe. *Ry Age* 124:1182-3 Je 12 '48
Holds Taft-Hartley act boycott ban applicable to railroads. *Ry Age* 125:220 J1 24 '48
Home comfort in camp cars for maintenance-of-way employees of the Norfolk and western railway. *il Nat Safety N* 57:37 Ja '48
How Seaboard's job-budget plan works; stabilized jobs for 2,700 shop workers. *il Bsns W* p58+ Ja 3 '48
Issues before the emergency board. *Ry Age* 124:337-9 F 14 '48
Labor act amendments suggested. J. C. Fort. *Ry Age* 124:1226-7 Je 19 '48
Labor groups urge retention of R.L.A.; hearings on proposed amendments to the Labor-management relations act. *Ry Age* 124:1181-2 Je 12 '48
Labor wants tighter federal control; resolution of Railway labor executives' association. *Ry Age* 124:1083-4 My 29 '48
Law and railway labor. D. P. Loomis. *Ry Age* 124:162-4+ Ja 17 '48
New York Central helps employees get on right track; booklet answers common questions. *il Ry Age* 125:470 S 4 '48
Non-ops testify before emergency board at Chicago. *Ry Age* 125:870 N 6 '48
Rail labor may wreck its special privileges. H. Davenport. *Barron's* 28:11 My 17 '48
Rail strike due? *Bsns W* p 110 Ap 3 '48
Reach agreement in rules case of two ops. *Ry Age* 123:1125 D 27 '47

Representation of employees. *Ry Age* 124:771-2 Ap 17 '48

Responsibility of railroads for education. H. T. Heald. *Ry Age* 125:56+ J1 10 '48; Same. *Ry Mech Eng* 122:410 Ag '48
Review of injunction asked of high court by brotherhoods, whose strike threat resulted in government seizure. *Ry Age* 125:555-6 S 13 '48

Sickness benefits for railroad workers, 1947. *Mo Labor R* 66:402 Ap '48

Sign agreements settling holdout op wage and rules case. *Ry Age* 125:390-1 Ag 21 '48
Social conditions of transport workers in Germany. *Int Labour R* 56:576-82 N-D '47
Steelman again fails to settle operating dispute. *Ry Age* 124:1131-2 Je 5 '48

Strike injunction set for hearing June 22. *Ry Age* 124:1223-6 Je 19 '48
Talks continue; new strike date is set. *Ry Age* 124:865-6 My 1 '48

Third-round rail bargaining starts. *Bsns W* p 112 O 9 '48

Threatened railroad strike and feather-bed rules. E. M. Friedman. *Comm & Fin Chr* 167:1973+ My 6 '48

T.&P. seeks friends among employees and public. *Ry Age* 124:211-12 Ja 24 '48

Two operating brotherhoods settle on wages, rules. *Ry Age* 123:915-16 N 22 '47

Ultimatum handed to emergency board; strike threatened if decision recommends carriers' rules. *Ry Age* 124:584-5 Mr 20 '48

Why engineering graduates resist railroad employment. *il Ry Age* 124:660-3 Ap 3 '48

Winners of railroad employee safety contest. *Nat Safety N* 57:21 Je '48

See also

Railroads—Pensions

Railroads—Wages

Training

Advertiser and agency cooperate to build a sales-training program; B & O salesmen. E. J. Dever, jr. *il Ptr Int* 222:34-5 Ja 23 '48

Alco's educational program matches rapid Dieselization of railroads. E. F. Carney. *il Diesel Power* 25:66-9+ D '47

All-purpose safety car on Canadian Pacific. *il Ry Age* 125:252-3 J1 31 '48

Apprentice-training school; Derby locomotive works. *il Engineering* 165:102-3 Ja 30 '48

Apprenticeship training revitalized; methods of instruction for mechanical department apprentices on the New York Central and Union Pacific. E. E. Goshen. *il Ry Age* 124:664-6+ Ap 3 '48

Florida East Coast builds Diesel instruction car. *il Ry Age* 124:552-3 Mr 20 '48; Same. *Ry Mech Eng* 122:134-5 Ap '48

New York Central offers correspondence course in public relations to its employees. *Ry Age* 124:1022-4 My 22 '48

Traffic department training on the New Haven. J. J. Danahy. *Ry Age* 124:617-19 Mr 27 '48

Training programs for supervision and employees; committee report, American association of railroad superintendents. *Ry Age* 124:1217 Je 19 '48

Workable knowledge is aim of L.&N. training program. *Ry Age* 124:291+ F 7 '48

See also

Cars, Instruction

Equipment and supplies

Alloy steels in railroad service. J. L. Carver. *il Metal Prog* 54:502-6 O '48

A.A.R. Purchases and stores division seeks ways to offset rising costs. *Ry Age* 125:84-7+ J1 10 '48

Basic materials, fuel, still short. J. W. Milliken. *il Ry Age* 124:8-9 Ja 3 '48

Committee reports of the A.A.R. Purchases and stores division. *Ry Age* 125:88-107 J1 10 '48

Construction and maintenance of railroad equipment by submerged and gas-shielded electric welding. N. G. Schreiner and J. M. Tippet. *il diag Welding J* 27:431-7 Je '48

Kershaw Kribber for ballast-stripping work. *il Ry Age* 123:1036-7 D 13 '47

Materials-handling show a huge success; railroad men interested in equipment and technical sessions. *Ry Age* 124:213+ Ja 24 '48

RAILROADS—Equipment and supplies—Cont.
Matisa, ballast cleaning machine. *il Engineer* 185:601 Je 15 '48; *Engineering* 166:33-4, 36 Ji 9 '48

More timber was treated in 1946. *Ry Age* 123:986-8 D 6 '47

New and improved products of the manufacturers. *il Ry Age* 124:510-528b Mr 13 '48

1948 work equipment prospects good, N. D. Howard. *il Ry Age* 124:14-15 Ja 3 '48

Railroad history measured by changes in management's tools; supply industry responsible for developments. *il maps Ry Age* 125:202-9+ Ji 24 '48

Railroads need more steel. *Bsns W* p23 Ap 17 '48

Railway paint needs are urgent. G. M. Hermann. *Ry Mech Eng* 121:656-7 N '47

Real value of maintenance of way equipment. S. R. Hursh. *il Ry Age* 124:428-32+ F 28 '48

Specifications for materials; A.A.R. committee report. *Ry Age* 125:65-6 Ji 10 '48

Steel-allocation plan draws some opposition from Car institute and four western roads. *Ry Age* 124:630-1 Mr 27 '48

Suppliers supporting cast in big railroad show. *il Ry Age* 125:198-201 Ji 24 '48

See also

Air brakes
Brakes
Car couplings
Cars
Freight cars
Locomotives
Railroad supplies in industry
Railroad ties
Railroads—Electric equipment

Railroads—Maintenance and repair
Railroads—Purchasing
Railroads—Rolling stock
Railroads—Shops—Equipment
Rails

Equipment trust certificates

C.&O. explains use of turbine locomotive; application filed for authority to assume liability for \$3,500,000 of equipment trust certificates. *Ry Age* 125:25-6 Ji 3 '48

Financing railroad equipment purchases; a comparison of equipment trust and conditional sales methods in the light of changing interest rates. F. C. Flechter, Jr. *Ry Age* 124:292-5 F 7 '48

Representative equipment trust issues sold in 1947; tabulation. *Ry Age* 124:58 Ja 3 '48

Exhibitions

Chicago dailies help promote railroad fair. *Ed & Pub* 81:59 Ji 24 '48

Chicago railroad fair. *il plan Western Soc E J* 63:59-65 Je '48

Plans for greatest railroad show well laid; site along Lake Michigan at Chicago will be scene of six-week exhibition. *il plan Ry Age* 124:853-5 My 1 '48

Railroad fair at Chicago; progress, 1848-1948. *il maps plan Ry Age* 125:183-209+ Ji 24 '48

Fares

Commuters; the railroads' problem children. *il Bsns W* p90+ Je 19 '48

Hearings ended on western passenger fares increase. *Ry Age* 123:879-80 N 15 '47

96 railroads receive coach fare increase. *Ry Age* 124:397-8 F 21 '48

Reduced fares bring new business; Central of Georgia; modern streamlined equipment. *il Ry Age* 124:117-19+ Je 5 '48

Study of elasticity of demand for railroad passenger transportation. W. J. Dixon. *Ry Age* 124:218-23 Ja 24 '48

Two fare increases approved by I.C.C.; western Pullman fare and N. H. coach rates. *Ry Age* 123:1041+ D 13 '47

See also

Railroads—Tickets

Finance

Anything can happen to 1948 rail earnings. A. Jansen. *Barron's* 27:5-6 D 29 '47

Can the railroads be adequately financed by private investors? review of monograph by J. G. Lyne. C. S. Duncan. *Ry Age* 125:548-51 S 18 '48

Diner loss mounts despite improving operating ratio; other 1947 statistics. *Ry Age* 125:770-1 O 23 '48

Effect of railroad wage increase on earnings; with tabulations. W. F. Hahn. *Comm & Fin Chr* 168:1769 O 28 '48

Estimate nine months' capital outlays at \$953 million. *Ry Age* 124:1276-7 Je 26 '48

Financial health of railroads. R. J. Morfa. *Comm & Fin Chr* 166:2486 D 18 '47

Financial problems of railroads. W. T. Farley. *Comm & Fin Chr* 168:109+ Ji 8 '48

Financing railroad equipment purchases; a comparison of equipment trust and conditional sales methods in the light of changing interest rates. F. C. Flechter, Jr. *Ry Age* 124:292-5 F 7 '48

Finds \$5 million more in freight-rate increase; report of Bureau of transport economics and statistics. *Ry Age* 124:1034-5 My 22 '48

Groggy from a tough winter and John Lewis, railroads see earnings come-back from now on. *Barron's* 28:26 My 31 '48

How to make higher rates palatable. W. B. Saunders. *Ry Age* 125:719-21 O 16 '48

I.C.C. bureau analyzes 1947 earnings. *Ry Age* 124:390+ F 21 '48

IBA committee warns of squeeze on railroad income. *Comm & Fin Chr* 166:2505 D 18 '47

Large improvement program begins. J. G. Lyne. *Ry Age* 124:4-7 Ja 3 '48

New revamp plan proposed for Missouri Pacific. *Ry Age* 125:864-6 N 6 '48

Nickel Plate deal; Lackawanna railroad acquires substantial interest. *Bsns W* p78+ Ja 17 '48

1948 capital outlay to exceed 1947 by 49 per cent. *Ry Age* 125:602-3 S 25 '48

1948 potentials for the rails; with statistical position of leading railroads. R. Carleson. *il Mag of Wall St* 81:531-3+ F 14 '48

1947 capital outlay highest since 1930. *Ry Age* 124:734-5 Ap 10 '48

1947 net income totaled \$480,000,000. *Ry Age* 124:349-50 F 14 '48

1947 rail revenues way up. *Bsns W* p72+ Ja 17 '48

North Western's first hundred years, an evaluation. *il Ry Age* 125:801-5 O 30 '48

Plan large capital outlays in 1948's first quarter. *Ry Age* 123:1108-9 D 27 '47

Plan 1948 capital outlays of \$1.3 billion. *Ry Age* 124:820-1 Ap 24 '48

Plan to revitalize the national transportation policy. A. G. Allison. *Ry Age* 123:1030-1 D 13 '47

Purchasing power of profits; statement on behalf of the railroads before the Interstate commerce commission, Dec. 12, 1947. J. Backman. *Comm & Fin Chr* 166:2624+ D 25 '47

Rail leopards don't often change their credit spots; most roads tend to maintain relative margin of safety for bond interest. H. F. Wyeth. *Barron's* 28:31 My 17 '48

Railroad fixed charges down 28.5 per cent in five years. *Ry Age* 125:210-11 Ji 24 '48

Railroad's dollar suffering smallest depreciation. T. G. Campbell. *Barron's* 28:32 Ag 30 '48

Railroads' financial position brightens. C. L. Tavenner. *Ry Age* 124:57-62+ Ja 3 '48

Railroads in the postwar economy. H. P. Wald and F. L. Hirt. *Survey of Cur Bsns* 28:16-23 My '48

Revenues and expenses of railways, first six months, 1948; tabulation. *Ry Age* 125:356-9 Ag 14 '48

Review of railway operations in 1947. J. H. Parmelee. *Ry Age* 124:44-53+ Ja 3 '48

Sata. Fe; no. 1 railroad. *il map Fortune* 38:122-7+ N '48

Sees \$1.2 billion net in constructive normal year; I.C.C. Bureau makes estimate. *Ry Age* 125:374-5 Ag 21 '48

Shows roads' contribution to national income; I.C.C. bureau puts 1947 proportion at 2.89 per cent. *Ry Age* 124:626-7 Mr 27 '48

Significant decline in railway working capital. *Ry Age* 125:409-11 Ag 28 '48

Six months net income totaled \$259,000,000. *Ry Age* 125:300-1 Ag 7 '48

See also

Railroads—Costs
Railroads—Rates
Railroads—Receiver-ships

Railroads—Securities
Railroads—Taxation

also names of railroads, e.g. Baltimore and Ohio railroad

Canadian Pacific railway

RAILROADS—Finance—See also—*Continued*
 Chesapeake and Ohio railway New York, New
 Chicago and north Haven and Hart-
 western railway ford railroad
 Chicago, Rock Is- New York, Ontario
 land & Pacific rail- and western rail-
 way way
 Denver and Rio Pennsylvania rail-
 Grande western road
 railroad St Louis southwest-
 ern railway

Fires and fire protection

C. & O. tests effect on track circuits of bridge
 ties treated to resist fire. H. M. Church. *Il*
 Ry Age 125:580-2 S 25 '48
 Eliminating Diesel fire losses. R. J. Snow-
 don. *Il* Ry Mech Eng 121:683-5 D '47
 Railroad fire losses slightly lower in 1947.
 Ry Age 125:518-19 S 11 '48

Freight

B.&O. Sentinel Service pays off. *Il* Ry Age
 123:784-5 N 8 '47
 Drive to save damage dollars under way;
 twelfth annual Perfect shipping campaign.
Il Ry Age 124:711-12 Ap 10 '48
 Freight carloadings, 1941-1946. Survey of
 Cur Bsns 1947 Sup p 104-6 [supplemented
 in monthly numbers]
 Freight progress annual. *Il* Ry Age 124:931-
 94 My 15 '48
 Freight service survey shows many improve-
 ments by individual roads. *Il* Ry Age 124:
 941-9+ My 15 '48
 Freight carloadings, 1941-1946. Survey of
 American railroads annual meeting, Buf-
 falo, May 19-21. Ry Age 124:1080-2 My 29
 '48
 Getting freight cars moved in a hurry; Co-
 lumbus division of Central of Georgia. *Il*
 map Ry Age 124:436-9 F 28 '48
 How shippers see outlook. Bsns W p30 J1 10
 '48
 I.C.C. bureau shows average freight loads,
 short-line miles. Ry Age 124:352 F 14 '48
 1946 freight traffic was 85.7 per cent of
 potential. Ry Age 125:727 O 16 '48
 Shows flow of 1947's first-quarter traffic. Ry
 Age 124:133-4 Ja 10 '48
 South Carolina peaches go to market. *Il*
 Ry Age 125:354-6 Ag 21 '48
 South's trade balance; sixteen states receive
 greater tonnage of products than shipped.
 C. R. Walker. *Il* Manuf Rec 116:44+ N '47
 Year of record-busting freight performance.
 W. H. Schmidt, Jr. *Il* Ry Age 124:26-7 Ja
 3 '48

See also

Container system Railroads—Claims
 (freight handling) Railroads—Rates
 Freight car service Refrigerator cars
 Freight cars

Freight cars

See Freight cars

Fuel

Coal as the purchasing agent sees it. E.
 S. Bonnet. Ry Age 125:357 N 6 '48
 Fuel; coal, fuel oils; A.A.R. committee re-
 port. Ry Age 125:101-2 J1 10 '48
 Outlook for petroleum fuels. W. W. Kelly.
 Ry Age 125:86-7 J1 10 '48

See also

Coaling stations
 Locomotives—Fuel

Government ownership

See Railroads and state

History

Good and useful railroad history; why his-
 torians should use company archives. R.
 C. Overton. Ry Age 124:343-4 F 14 '48
 High spots in the North Western's history.
Il maps Ry Age 125:796-807 O 30 '48
 Hundred-year veteran of railroad; North
 western railway. *Il* map Bsns W p86+ My 1
 '48
 One hundred years' development of railways
 in the Chicago area. S. O. Dunn. Ry Age
 125:509-11, 540-3 S 11-18 '48
 Railroad history measured by changes in
 management's tools. *Il* maps Ry Age 125:
 202-9+ J1 24 '48

Road to fortune; construction of the first
 transcontinental railroad. E. H. Cameron. *Il*
 map Tech R 50:260-5+ Mr '48
 Since 1848; Chicago railroad history. C. Fish.
Il Nat Safety N 58:90-3+ O '48

Inspection

See also
 Car inspection

Lighting

Dollar value of light; relation between in-
 creases in illumination and decreases of
 accidents. H. L. Logan. Ry Age 124:433-4
 F 28 '48
 Experimental lighting in a shunting yard. *Il*
 Engineer 134:535 D 5 '47
 High elevation lighting; Southern Railway
 shunting yard experiments. *Il* Electrician
 139:1791 D 19 '47
 Illumination; report of Electrical section,
 Engineering division, Association of Amer-
 ican railroads. *Il* diag Ry Mech Eng 122:
 544-6 O '48
 Oscillating lights on suburban trains. *diag*
 Ry Mech Eng 122:251-2 My '48
 Projection lamps for car platforms. *diag*
 Ry Mech Eng 122:380 J1 '48
 Track reconditioning and lighting on the
 Southern railway. Engineering 164:546-7
 D 5 '47

See also

Car lighting Railroads—Shops—
 Locomotives—Light- Lighting
 ing Railroads—Yards—
 Lighting

Loading rules

Revised lumber loading rules require steel
 binding. *diag* Ry Age 124:127 Ja 10 '48
 Revision of the loading rules; A.A.R. com-
 mittee report. Ry Age 125:80-1 J1 10 '48;
 Same. Ry Mech Eng 122:430-1 Ag '48

Location

See also
 Railroads—Reloca-
 tion

Maintenance and repair

China rebuilds her railroads. P. C. Lee. *Il*
 map Civil Eng 18:228-33+ Ap '48
 Hot boxes and train movement. R. Schey.
 Ry Age 124:816-17 Ap 24 '48
 I.C.C. bureau puts deferred maintenance at
 \$450 million. Ry Age 123:1076 D 20 '47
 Larger construction and maintenance budgets
 aimed at improved service. *Il* Ry Age 124:
 504-7 Mr 13 '48
 Neglected yard maintenance is costly. W. T.
 Rice. *Il* Ry Age 124:208-11 Ja 24 '48
 Upkeep outlay and costs show increase. M.
 H. Dick. *Il* Ry Age 124:16-19 Ja 3 '48

See also

Railroads—Winter
 operation

Maintenance of way

See Railroads—Track

Management

Bowman answers inquiring stockholder. Ry
 Age 124:466-8+ Mr 6 '48
 New Haven story; survival, by adaptation.
Il map Ry Age 124:1161-7 Je 12 '48
 North Western's first hundred years, an
 evaluation. *Il* Ry Age 125:801-5 O 30 '48
 Shippers, management and labor must stand
 together or lose freedom of enterprise. A.
 H. Schwieter. Ry Age 124:935+ My 15
 '48
 Stockholder questions C.&O. activities; G. S.
 Jackson asks about Young influence, ad-
 vertising, passenger service, and proposed
 tie-up with New York Central. Ry Age
 124:258-61 Ja 31 '48
 Today's North Western, a product of mod-
 ernization and adaptation. *Il* maps Ry Age
 125:808-12 O 30 '48
 Tonnage with speed on the Nickel plate. *Il*
 map Ry Age 125:632-6 O 2 '48

See also

Pennsylvania rail- Railroads—Purchas-
 road ing
 Railroads—Employ- Railroads—Rates
 ees Railroads—Traffic
 departments

RAILROADS—Continued

Mechanical departments

Coordinated mechanical meetings; Chicago, Sept. 20-22. Ry Mech Eng 122:563-5 O '48
Rolling wheels gather no rust; philosophy of mechanical department management. E. P. Gangewere. Ry Mech Eng 122:571-3+ O '48
See also Association of American railroads—Mechanical division

Medical service

See also
Railroads—Physicians

Military use

Army needs healthy transport industry. G. Gray. Ry Age 125:730-2 O 16 '48
Government reparation cases against the railroads. E. C. Matthias. Pub Util 42:581-5 O 21 '48
N.I.T. league opposes Justice department's overcharge claims on the wartime shipments. Ry Age 124:731 Ap 10 '48
Railroad movement of World war II dead. il Ry Age 124:427 F 28 '48
Reparation case hearings postponed. Ry Age 125:512-13 S 11 '48

Models

Fine detail molded into toy train. il Mod Plastics 25:91 Ja '48
Making the Christmas tree express; pressed and die-cast metal and plastic replicas of real trains by the Lionel corporation. C. H. Wick. il diags Mach 54:147-54 D '47
Model profits; Lionel corp.'s train sales climb to new highs. il Bsns W p50+ D 27 '47
Pneumatic operation of model railroads. Comp Air Mag 53:11 Ja '48

Motor transport investments

New motor bus system approved by the I.C.C.; Santa Fe to get 39 per cent interest in company taking over its bus business. Ry Age 123:1077+ D 20 '47

Motor vehicle auxiliaries

Lets Burlington subsidiary continue all-motor service. Ry Age 125:342 Ag 14 '48
Limits Texas & Pacific motor transport co. trucking to auxiliary operations. Ry Age 124:396 F 21 '48
N.Y.C. coordinated trucking plan approved by the I.C.C. Ry Age 124:771 Ap 17 '48

Motor vehicle competition

Finds freight traffic being diverted to trucks; Commerce department survey. Ry Age 125:557-8 S 18 '48
Paradox analyzed; buses vs. railroads. R. A. LeMassena. Ry Age 123:395-6 D 6 '47
Rails' rate raises pave trucks' profit road. R. M. Bleiberg. Barron's 28:9 Je 14 '48
Soaring rail freight rates foster rail vs. truck comparisons. G. F. Sullivan. Iron Age 161:111-12 F 12 '48
Trucks versus railroads. Bsns W p31-2+ S 25 '48

Moving picture installation

See Moving pictures on trains

Negro passengers

I.C.C. still insists I.C. act doesn't prohibit segregation. Ry Age 124:636-7 Mr 27 '48
Seaboard diner rules found prejudicial in part. Ry Age 123:964 N 29 '47

Passenger credit service

Banks' travel-credit service. il Burroughs Clearing House 32:4+ D '47

Passenger service

Automatic central reservation system shown by I.T.&T. il Ry Age 124:1090-1 My 29 '48
Class takes passenger business apart; future of passenger transportation object of study; Northwestern university School of commerce. Ry Age 123:372 N 15 '47
Coal burners' mileage cut by O.D.T. order; mine strike hits passenger service. Ry Age 124:629-30 Mr 27 '48
Good riding served up in '47. W. H. Schmidt, Jr. il Ry Age 124:24-5 Ja 3 '48

New service for passengers who like to read; books sold on trains. il Ry Age 123:786-7 N 8 '47

Staff report on passenger service. il Ry Age 123:855-8 N 15 '47

Traffic officers review passenger year. Ry Age 123:955-6 N 29 '47

Transatlantic train service comparison. E. H. Livesay. il Engineer 185:584-7 Je 18 '48

See also
Moving pictures on Railroads—Reservation systems

Passenger traffic

Further drop in rail passenger traffic may come as automobile output rises. Barron's 28:33 Ja 26 '48; Correction. 28:33 F 2 '48

Presidents view the passenger business. il Ry Age 123:808-11 N 15 '47

Railroads hold and advance the line in the passenger traffic field. il Ry Age 123:812-16 N 15 '47

Study of elasticity of demand for railroad passenger transportation. W. J. Dixon. Ry Age 124:218-23 Ja 24 '48

See also American association of passenger traffic officers

Pensions

Rank and file fights Crossover law. H. A. Haas. Ry Age 123:990-2 D 6 '47

Retirement board activities reach new peaks. Ry Age 124:621 Mr 27 '48

Physicians

Allergic problems of the railway surgeon. S. M. Feinberg. Ind Med 17:31-3 Mr '48

Police

Reports progress in theft-loss reduction; A.A.R.'s Protective section 28th annual meeting, Atlantic City. Ry Age 124:1091-2 My 29 '48

Power

Power and light for Cincinnati union terminal co. il Ry Mech Eng 122:451-4 Ag '48; Same cond. Ry Age 125:244-6 Jl 31 '48

Printing

Stationery and printing; A.A.R. committee report. il Ry Age 125:99-100 Jl 10 '48

Public relations

Buyer's market to test sales methods; railroads will employ varied promotion techniques, including advertising, package tours, credit plans, and other inducements. il Ry Age 123:863-5 N 15 '47

How to meet the press; cartoons and booklet, worked up by New York Central. il Bsns W p31-2+ O 30 '48

Interesting the young in railroading; New Haven and department store foster Junior railroaders' club. il Ry Age 125:326-7 Ag 14 '48

New York Central offers correspondence course in public relations to its employees. Ry Age 124:1022-4 My 22 '48

N. & W. better service meetings resumed. Ry Age 124:725-7 Ap 10 '48

Public states its preferences; survey conducted by Opinion research corp. il Ry Age 123:373 N 15 '47

Showing southerners how Southern serves them; railroad-industrial tour for Chattanooga business men and civic leaders. il Ry Age 125:852-3 N 6 '48

T.&P. seeks friends among employees and public. Ry Age 124:211-12 Ja 24 '48

Yardstick for public relations performance. J. S. Twohey. Ry Age 123:993+ D 6 '47

Purchasing

Buying new equipment through conditional sales contracts; Chicago, Burlington & Quincy. Ry Age 124:1085 My 29 '48

Buying of manufactured products up 14 per cent in one month. il Ry Age 123:1033-6 D 13 '47

Buying up 18 per cent from last year. Ry Age 125:681-2 O 9 '48

Financing railroad equipment purchases; a comparison of equipment trust and conditional sales methods in the light of changing interest rates. F. C. Flechter, Jr. Ry Age 124:292-5 F 7 '48

RAILROADS—Purchasing—Continued

First quarter purchases rise to \$750 million. Ry Age 124:129-30 Ja 5 '48
 January buying up eight per cent from last year. Ry Age 124:757-8 Ap 17 '48
 Mid-year buying figure near \$1-½ billion. Ry Age 125:506-7 S 11 '48
 \$1,909 million spent for materials and supplies in '47. Ry Age 124:767-8 Ap 17 '48
 Railroads buy over \$2½ billion in year. J. W. Milliken. Ry Age 124:54-6 Ja 3 '48
 Two months' buying tops \$470 million. Ry Age 124:901-2 My 8 '48

See also Association of American railroads—Purchases and stores division

Radio communication

Communications gain in importance. M. Peacock. Ry Age 124:32-3 Ja 3 '48
 Communications play important part in handling passenger business. Ry Age 123:843-6 N 15 '47
 Erie radio increases operating efficiency. Ry Age 125:492-5 S 11 '48
 Improved communications keep 'em rollin'. Ry Age 124:934-5 My 15 '48
 Long Island experimenting with micro-wave beam radio for remote control of power sub-stations, switches and signals and for communications. D. E. Smucker. Ry Age 125:474-5 S 4 '48
 Miller f-m circuit and its use in railroad radios. P. L. Bergellini. Ry Age 125:2130+ O '48
 Portable inductive radiophone on Pennsylvania railroad. W. R. Triem. Ry Age 125:20:93-5 D '47
 Power supply for cabooses. E. H. Musgrove. Ry Age 121:714-18 D '47
 Protests plan to take radio frequencies from railroads. Ry Age 125:217-18 JI 24 '48
 Radio and communication for rolling stock; report of A.A.R. Mechanical division, Electrical section. Ry Age 121:635-7 N '47
 Radio big success for railroad communications between distant cities. Ry Age 125:154-5 JI 17 '48
 Radio expedites switcher service in Dallas. Ry Age 124:862-4 My 1 '48
 Railway communications in India. H. C. Towers. Ry Age 124:775-7 S 10 '48
 Rap plan to reduce radio frequencies. Ry Age 125:687-8 O 9 '48
 Steel plant utilizes railroad radio; Weirton steel co. C. J. Anderson. Ry Age 124:1068-9+ My 29 '48
 Train communication saves road time; project on Missouri Pacific. Ry Age 124:718-21 Ap 10 '48
 Trainphone power supply; axle-driven generator. Ry Age 122:510-12 S '48
 V-h-f railroad radio link with six-channel telephone carrier system. P. B. Patton. Ry Age 124:1068-9+ My 29 '48
 map diag Communications 28:16-17+ JI '48

See also Radio telephone on Railroads, Industrial railroads —Radio communication

Rates

Adds four per cent to freight rate increase. Ry Age 124:804-5+ Ap 24 '48
 Canadian Pacific railway outlines Canadian freight rate puzzle. Comm & Fin Chr 168:1550 O 14 '48
 Clark opposes probe of army traffic men. Ry Age 125:213 JI 24 '48
 Court decision threatens end to all long-haul traffic. L. Leighton. Ry Age 124:1282+ Je 26 '48
 Eastern roads denied boost in L.C.I. rates. Ry Age 125:775-6 O 23 '48
 Estimates revenue effect of rate rise. Ry Age 124:206-7 Ja 24 '48
 Ex parte 166 rate increases made permanent. Ry Age 125:285-8 Ag 7 '48
 Final hearings begin on freight rate hike. Ry Age 123:1042-3 D 13 '47
 Freight rate changes require careful study by food shippers. Food Ind 20:1039 JI '48
 Freight rate increase seen vital to carriers. Ry Age 123:920-1 N 22 '47
 Freight rates going up May 6. W. J. Taft. Ry Age 124:852+ My 1 '48
 Freight rates increase made lasting by ICC. Oil Paint & Drug Rep 164:4 Ag 2 '48

Freight rates increased; coal and metals hit. Am Mach 92:118 Ag 26 '48
 French railroads develop new freight-rate system. G. L. Wilson. Ry Age 124:803-11 Ap 24 '48
 Government reparation cases against the railroads. E. C. Matthias. Pub Util 42:581-5 O 21 '48
 House group raps G.A.O. audit system; government freight bills found to be basically defective. Ry Age 125:340-1 Ag 14 '48
 How to make higher rates palatable. W. B. Saunders. Ry Age 125:719-21 O 16 '48
 Increases allowances for New York pier services. Ry Age 125:825-6 O 30 '48
 I.C.C. doubles interim rate increase. Ry Age 124:126-7 Ja 10 '48
 ICC makes interim freight increases continue in effect. Iron Age 162:125 Ag 5 '48
 I.C.C. rate-making policy; its evils and remedies. E. M. Friedman. Comm & Fin Chr 168:497+ Ag 5 '48
 Must keep Deming rule in rail-water tariffs. Ry Age 125:344 Ag 14 '48
 N.I.T. league opposes Justice department's overcharge claims on the wartime shipments. Ry Age 124:731 Ap 10 '48
 Nation's freight-rate barriers are falling. map Bsns W p 19-20 My 15 '48
 New rate raise gives rails something for net. Barron's 28:40 Ja 5 '48
 No punches pulled at New England shippers board forum. Ry Age 125:826-8 O 30 '48
 Plea submitted in ex parte 166 for 30 per cent increase. Ry Age 123:984-5 D 6 '47
 Prescribes new split of East-West rates; six complaining western roads get modified divisions plan. Ry Age 124:536-7 Mr 20 '48
 Quick decision asked in freight rate case. Ry Age 123:1126+ D 27 '47
 Rail-barge differentials prescribed by the I.C.C. Ry Age 125:159-60 JI 17 '48
 Rail freight rates raised 21 per cent in Canada. Bsns W p 119 Ap 19 '48
 Rail freight rates up again. Bsns W p 20-1 Ag 7 '48
 Railroads get another freight rate increase of ten per cent. Iron Age 161:100 Ja 8 '48
 Railroads make final plea for higher rates. Ry Age 123:1077-9 D 20 '47
 Rails look to further rate boosts next year to cover last wage hike; some are ahead now. Barron's 27:26 D 15 '47
 R.E.A. formulates single rate scale. Ry Age 125:512 S 11 '48
 Rate irregularities during war denied. Ry Age 125:157-8+ JI 17 '48
 Rate offset to wage rise would sustain rail net. Barron's 28:33 O 11 '48
 Regional rate probe starts at Chicago. Ry Age 123:788-9 N 8 '47
 Seeks to wipe out long-haul traffic; Federal trade commission would regionalize production by forbidding absorption of freight charges needed to reach distant markets. L. Leighton. biblog Ry Age 123:1071-3+, 1106-8 D 20 '47
 Shippers oppose prohibiting absorption of freight charges. Ry Age 125:489-90 S 11 '48
 Standards of rate reasonableness in Canada. G. L. Wilson. Ry Age 124:1123-5 Je 5 '48
 Transportation factors in the location of the cast iron pipe industry. J. C. Nelson and R. C. Smith. fold map 20 tables U S Dept of Commerce, Economic Ser 63:1-54; p 25c Supt. of doc. '47
 Wartime rate-making defended by Farley. Ry Age 125:259-61 JI 31 '48
 Washington-Virginia-South all-commodity rates approved. Ry Age 125:261-2 JI 31 '48

Concrete aggregates
 ICC revises upward basic freight rates on concrete aggregates. Concrete 56:44 S '48

Grain
 More rates on ex-barge grain equalized with ex-rail basis. Ry Age 125:341 Ag 14 '48

Paper
 How freight tariffs affect paper industry. E. C. Hastings. Paper Tr J 127:11+ O 21 '48

Steel
 Freight boost lifts users' steel costs. Steel 122:79 Ap 26 '48

RAILROADS—Rates—Steel—Continued

Representative freight rates from selected steel producing points to some important consuming centers; tabulation. Steel 123: 60-1 S 27 '48

Receiverships

Bankruptcy ends for Rock Island. Ry Age 124:128-9 Ja 10 '48
 Dream world for busted rail stockholders; Mahaffie act preserves fiction of solvency. F. B. Dezendorf. Barron's 28:25 Ag 16 '48
 Painless wringer nearly ready for weak railroads; Mahaffie, sponsor, says number of carriers may go bankrupt without plan. A. Clark. Barron's 27:11 D 8 '47
 Railroads' financial position brightens. C. B. Tavenner. Ry Age 124:57-62+ Ja 3 '48
 Securities of reorganized roads selling far below par. Ry Age 123:897-8+ N 22 '47
 Would leave F.B.C. in hands of A.C.L.; fourth supplement report on plan of reorganization. Ry Age 124:679-80 Ap 3 '48

Relocation

Bulldozers close rocky gap for quick Missouri Pacific railroad line change. *il Constr Methods* 30:98-9 Ja '48
 Line changes on Southern Pacific streamline train operation. *il plan Ry Age* 123:770-2 N 8 '47
 Railroad realignment changes course of river at Little Falls, N.Y. *il Civil Eng* 18:165 Mr '48
 Relocating 16 miles of double-track railroad to make way for Conemaugh dam. C. J. Burton. *il map Explosives Eng* 26:11-13+ Ja '48
 Relocation of railroad, Nebraska and Kansas; unit prices. *Eng N* 141:93 S 2 '48
 River takes siding for N.Y.C. twentieth century parade; major line change, eliminating curve at Little Falls, required carving new river channel. *il plan Ry Age* 123:904-7 N 22 '47
 Rock Island completes relocation in Iowa. *il map diag Eng N* 139:726-30 N 27 '47

Reorganization

See Railroads—Receiverships

Reports

Missouri-Kansas-Texas railway wins gold Oscar for 1946 annual report. *il Ind Marketing* 32:82 N '47

Reservation systems

Automatic brain reserves space. *il Bsns W* p56 My 22 '48
 C.&O. installs central reservation bureau. *il diag Ry Age* 124:132 Ja 10 '48
 Intelix; automatic reservations; passengers on airlines and railroads. J. D. Mountain and E. M. S. McWhirter. *il Diags Elec Com* 25:220-31 S '48

Reservations in seconds; new robot called Intelix. *il Product Eng* 19:148 Ag '48; Abstract. *Bsns W* p56 My 22 '48

Rolling stock

Engineering outlook; the rolling-stock industries. *Engineering* 165:148-61 F 13 '48
 Railway rolling stock position. *Engineering* 164:470 N 14 '47

See also

Baggage and express cars
 Freight cars
 Locomotives
 Cars
 Postal cars

Safety measures

Fiscal 1947 reviewed by Bureau of safety. Ry Age 124:223-9 Ja 24 '48
 Hearing on head-end car safety and sanitation bill covering baggage, express or mail cars. Ry Age 124:640-1, 828-9 Mr 27, Ap 24 '48
 1947 was safest year for Illinois Central. Nat Safety N 58:84-5 Ag '48
 Safety, the supervisor's responsibility. Ry Mech Eng 121:646-7 N '47
 Some current safety problems. W. J. Patterson. Ry Age 125:53-4 Jl 10 '48; Same. Ry Mech Eng 122:409 Ag '48

Toy that saves lives; model railroad in safety instruction car. *il Nat Safety N* 58: 50+ Ag '48

See also

Air brakes
 Decelostat
 Harriman memorial
 medals for safety

Railroads—Fires and fire protection

Sanitation

Human waste disposal from trains; abstract. A. Wolman and L. K. Clark. Pub Works 79:42 O '48

Scrap material

Scrap, handling and preparation, classification and sale; A.A.R. committee report. *il Ry Age* 125:89-90 Jl 10 '48

Securities

Dream world for busted rail stockholders; Mahaffie act preserves fiction of solvency. F. B. Dezendorf. Barron's 28:25 Ag 16 '48
 Effect of management on railroad securities. P. B. McGinnis. *Comm & Fin Chr* 167: 1322+ Mr 25 '48
 Factors behind strength in rails; with data on leading stocks. R. Carleson. *Mag of Wall St* 82:177-9 My 22 '48
 Factors in railroad security analysis. H. F. Wyeth. *Comm & Fin Chr* 167:994+ Mr 4 '48
 Home rails and market prospects; terms for Transport stock. *Economist* 153:1011-12 D 20 '47
 Look at the rails. E. F. Uhrbrock. *Comm & Fin Chr* 168:1644+ O 21 '48
 Measuring earnings trends in railroad stocks; with table of comparative data on 60 roads. W. F. Hahn. *Comm & Fin Chr* 168:97+ Jl 8 '48
 Mid-year appraisal of the rails. E. H. Teveriz. *Comm & Fin Chr* 168:1098+ S 16 '48
 New look at the railroads. M. B. Roberts. *Comm & Fin Chr* 167:12 Ja 1 '48
 New outlook for the rails; with position of leading stocks. R. Carleson. *il Mag of Wall St* 83:74-6+ O 23 '48
 1948 potentials for the rails; with statistical position of leading railroads. R. Carleson. *il Mag of Wall St* 81:531-3+ F 14 '48
 Railroad bonds as long-term investments and how to select them. G. M. Grinnell. *Comm & Fin Chr* 167:1656+ Ap 15 '48
 Railroad common stocks as investments. G. M. Loeb. *Comm & Fin Chr* 167:1534+ Ap 8 '48
 Railroad outlook. A. Jansen. *Comm & Fin Chr* 167:215+ Ja 15 '48
 Railroad securities. Published in weekly Thursday numbers of Commercial and financial chronicle
 Railroads' financial position brightens. C. B. Tavenner. Ry Age 124:57-62+ Ja 3 '48
 Re-appraising the rails. R. Carleson. *il Mag of Wall St* 81:413-5 N 8 '47
 Securities of reorganized roads selling far below par. Ry Age 123:897-8+ N 22 '47
 Theory of relativity in selecting railroad bonds. G. M. Grinnell. *Comm & Fin Chr* 168:1316+ S 30 '48
 Uruguayan rail purchase; speculation in stocks of South American railway companies. *Economist* 154:390-1 Mr 6 '48
 Voluntary rail revamp bill signed by President. Ry Age 124:775-4 Ap 17 '48
 Which railroad shares and why? T. G. Campbell. Barron's 28:29-30 Je 28 '48

Service

B.&O. Sentinel Service pays off. *il Ry Age* 123:784-5 N 8 '47

Moving an airplane plant all-rail, New England to Texas. Ry Age 125:846-9 N 6 '48

See also

Freight car service
 Railroads—Passenger service

Shops

B.&O.'s production wheel shop; Review of wheel and axle violations. F. B. Rykoskey. *il Ry Mech Eng* 122:235-7+, 366-7 Je-Jl '48
 How Seaboard's job-budget plan works; stabilized jobs for 2,700 shop workers. *il Bsns W* p58+ Ja 3 '48

RAILROADS—Shops—Continued

185:207 F 27 '48
See also

Car shops Locomotive terminals
Locomotive shops Roundhouses

Equipment

Canadian Pacific's grit-blast cleaning plant. il Ry Mech Eng 122:138-40 Mr '48
Diesel engine assembly platform; Omaha shops of the Union Pacific. il Ry Mech Eng 122:307 Je '48
Field coil machine aids repairs. il Ry Mech Eng 122:153-4 Mr '48
Flame-hardening feed arrangement. il Ry Mech Eng 122:499-500 S '48
Holding rack for staybolt drilling. il Ry Mech Eng 122:370-1 JI '48
Portable gear-tooth grinder. il Ry Mech Eng 122:136-7 Mr '48
Re-equips air conditioning shop at Portland. il Ry Mech Eng 122:90-4 F '48

Lighting

Color and light for the shop. D. M. Miller and R. S. Fish. il Ry Mech Eng 122:29-31+ Ja '48
Rolling lights for enginehouse and shop. il Ry Age 124:170 Ja 17 '48

Signals

Air-depolarized primary cell with caustic alkali electrolyte. G. W. Heise and others. diags Electrochem Soc Trans 92 (preprint 21):241-9 '47
C.t.c. adapted to medium traffic by the Chicago, Rock Island & Pacific. il map diag Ry Age 125:432-4 Ag 28 '48
C.t.c. down by the Ohio; new installation of the Louisville & Nashville. il map Ry Age 123:899-901 N 22 '47
C.t.c. helps trains over grades; Gulf, Mobile & Ohio track between Murphysboro, Ill., and North Cairo. il map Ry Age 125:282-4 Ag 7 '48
C.t.c. slashes C. & E.I. running time. il map Ry Age 124:1126-8 Je 5 '48
Continuously controlled cab signalling. O. S. Nock. il diags Engineer 184:454-6 N 14 '47
Educational exhibit of signaling; Union switch and signal company. il Ry Age 124:420-1 F 28 '48
New interlocking effects big savings on Chicago & Eastern Illinois. il plan Ry Age 124:376-8 F 21 '48
Power signalling; application to an Indian railway. H. C. Towers. il Elec R (Lond) 142:115-18 Ja 23 '48
Signaling construction at high level; tabulations. J. H. Dunn. Ry Age 124:81-4 Ja 3 '48
Signaling is due for a big increase. J. H. Dunn. il Ry Age 124:30-1 Ja 3 '48
Signaling saves the passengers' time. il Ry Age 123:838-40 N 15 '47
Signals keep shippers' freight moving. il Ry Age 124:952-3 My 15 '48
Speed control signalling; time element relay used by London transport. il Electrician 141:26 JI 2 '48
Speed-controlled signalling and sand-trap turn-outs. il Engineering 165:450-1 My 7 '48
Traffic congestion relieved by c.t.c. project of the Southern in Kentucky. il plans Ry Age 124:288-90 F 7 '48

See also

Track circuits
also Association of American railroads—Signal section

Snow protection and removal

Snow on the sidings; with table showing expense of removing snow, ice and sand in 1945-1946 for selected roads. Barron's 28: 34 F 16 '48

Stations

Demolition and replacement of New Street Station roof, Birmingham. il Engineer 186: 84-5 JI 23 '48; Engineering 166:105-6 JI 30 '48
Marsh Lane station, Liverpool. il Engineer 186:600 Je 18 '48
Modern properties for better service. il Ry Age 123:834-7 N 15 '47

Original depot being built for Railroad fair; Chicago's first railroad station. il Western Soc EJ 53:63-5 Je '48

Railroad buildings; building types study. il plans diags Arch Rec 104:122-46 O '48
Renewal of the track at St Pancras station. il diag Engineer 184:467-8 N 14 '47
Revamping gives old station new look; Fort Street union depot, Detroit. O. E. Hager. il plan Ry Age 125:412-17 Ag 28 '48
Stations tailored to tourist trade; Seaboard facilities at Wildwood, Fla. and Winter Haven. il Ry Age 124:812-15+ Ap 24 '48
Would modernize Chicago's South Side stations. Ry Age 125:472-3 S 4 '48

See also

Railroads—Train-sheds

Statistics

Diner loss mounts despite improving operating ratio; other 1947 statistics. Ry Age 125: 770-1 O 23 '48
Finds \$5 million more in freight-rate increase; report of Bureau of Transport economics and statistics. Ry Age 124:1034-5 My 22 '48
Freight carloadings, car surplus and shortage, and railway operations, 1941-1946. Survey of Cur Bsns 1947 Sup p 104-7 [supplemented in monthly numbers]
1947 railroad construction indices. Ry Age 125:338 Ag 21 '48
1948 statistical issue. il Ry Age 124:1-110 Ja 3 '48

See also

Cars—Statistics Railroads—Finance
Freight cars—Statistics Railroads—Purchasing
Locomotives—Statistics

Stores systems

Diesels set new style for storekeeping; illustrations with text. Ry Age 124:1250-1 Je 26 '48
Maintenance-of-way and construction materials; A.A.R. committee report. Ry Age 125: 95-7 JI 10 '48
Stores department organization, practices, records and stock control; A.A.R. committee report. Ry Age 125:104 JI 10 '48
Unit load cuts stores handling costs. C. E. Swanson. il Ry Age 125:683 O 9 '48
Unit loads and fork trucks save time; Illinois Central stores department. il Ry Age 124: 1278-81 Je 26 '48

See also

Railroads—Purchasing

Switches, frogs, etc.

End hardening of rail ends and open hearth frogs. R. W. Torbert. il Welding J 27:107-10 F '48
Heat treating special trackwork at Bethlehem's Steelton plant. il Ry Age 124:1028-9 My 22 '48

Switching

Radio expedites switcher service in Dallas. il map Ry Age 124:862-4 My 1 '48

Taxation

Cut in unemployment insurance tax urged. Ry Age 124:631-3 Mr 27 '48
Railroads press fight for insurance tax cut. Ry Age 124:1089-90+ My 29 '48
Taxing the railroads to death in New Jersey. Ry Age 124:243-4 Ja 31 '48
Treasury issues study of taxes on transport. Ry Age 123:1126-7 D 27 '47

Telegraph

Communication trends during 1947. M. Peacock. il Ry Age 124:63-5 Ja 3 '48
Communications gain in importance. M. Peacock. il Ry Age 124:32-3 Ja 3 '48

Telephone

Communication trends during 1947. M. Peacock. il Ry Age 124:63-5 Ja 3 '48
Communications gain in importance. M. Peacock. il Ry Age 124:32-3 Ja 3 '48
Communications play important part in handling passenger business. il Ry Age 123:843-6 N 15 '47

RAILROADS—Continued

Terminals

Additional New York railroad link under study in New Jersey, map Ry Age 124:755-6 Ap 17 '48

Brussels north-south rail connections, C. F. B. Lemaire, il map diag Engineer 185:596-8 Je 18 '48

New Orleans and railroads to finance terminal project jointly, il map Ry Age 123:950-2 N 29 '47

Norfolk & Western builds large tidewater pier at Norfolk, il Ry Age 125:108-11 J1 10 '48

Park avenue, Manhattan's gold-plated railroad yard; two railroads using Grand Central take back air rights over their tracks, il plan Bsns W p98-102+ S 18 '48

Terminal operations; committee report, American association of railroad superintendents, Ry Age 124:1218 Je 19 '48

See also

Freight houses	Railroads—Train-sheds
Locomotive terminals	Railroads—Yards
Railroads—Stations	

Tickets

I.C.C. passes on Pullman's ticket-redemption rules, Ry Age 123:795-6 N 8 '47

See also

Railroads—Reservation systems

Ties

See Railroad ties

Time tables

George Bradshaw, English printer, invented railway time tables, Inland Ptr 120:84 D '47

Track

A.R.E.A. committee report on track, Ry Age 124:568-9 Mr 20 '48

Correcting alignment of curved railway track, L. Bienfait, Engineering 166:137-8 Ag 6 '48

Job-built rig jacks 123-ft length of 36-in. pipe under railroad right-of-way, R. E. Snetzer, il diags Civil Eng 18:572-3 S '48

Larger construction and maintenance budgets aimed at improved service, il Ry Age 124:504-7 Mr 13 '48

Maintenance-of-way trends since the war, P. O. Ferris, il Ry Age 125:12-15 J1 3 '48

Metropolitan Line improvements, il map plans Engineering 165:522-4 My 28 '48

Modern properties for better service, il Ry Age 123:834-7 N 15 '47

New developments in railroad maintenance-of-way work, C. A. Daley, Welding J 26:1015-17 N '47

New rockfill, new track built between trains; line near Granite Bend, Mo, il Eng N 139:703 N 20 '47

Rapid track renewal at Denbigh Hall, il Engineer 186:143 Ag 6 '48

Real value of maintenance of way work equipment, S. R. Hursh, il Ry Age 124:428-32+ F 28 '48

Renewal of the track at St Pancras station, il diag Engineer 184:467-8 N 14 '47

Track reinforcement on the Southern railway, il Engineer 184:505 N 28 '47; Engineering 164:546-7 D 5 '47

Track relaying in Polhill tunnel, il Engineering 165:211 F 27 '48

See also

Ballast	Railroads—Switches,
Car retarders	frogs, etc.
Railroad ties	Railroads—Weed removal
Railroads—Snow protection and removal	

Track making machinery

Railway track-laying machine, il diags Engineer 185:300-1 Mr 26 '48

Traffic

Estimates revenue effect of rate rise, Ry Age 124:206-7 Ja 24 '48

Facts best weapon for capture of potential traffic, il Ry Age 125:247-51 J1 31 '48

See also

Freight car service	Railroads—Passenger traffic
Railroads—Freight	

Traffic departments

Traffic department training on the New Haven, J. J. Danahy, Ry Age 124:617-19 Mr 27 '48

Train dispatching

C.t.c. adapted to medium traffic by the Chicago, Rock Island & Pacific, il map diag Ry Age 125:432-4 Ag 28 '48

C.t.c. down by the Ohio; new installation of the Louisville & Nashville, il map Ry Age 123:899-901 N 22 '47

C.t.c. helps trains over grades; Gulf, Mobile & Ohio track between Murphysboro, Ill., and North Cairo, il map Ry Age 125:282-4 Ag 7 '48

C.t.c. slashes C. & E.I. running time, il map Ry Age 124:1126-8 Je 5 '48

Communication trends during 1947, M. Peacock, il Ry Age 124:63-5 Ja 3 '48

Life and death by the minute, C. P. McCord, il Ind Med 17:377-82 O '48

New interlocking effects big savings on Chicago & Eastern Illinois, il plan Ry Age 124:376-8 F 21 '48

Signaling is due for a big increase, J. H. Dunn, il Ry Age 124:30-1 Ja 3 '48

Signaling saves the passengers' time, il Ry Age 123:838-40 N 15 '47

Signals keep shippers' freight moving, il Ry Age 124:982-3 My 15 '48

Traffic congestion relieved by c.t.c. project of the Southern in Kentucky, il plans Ry Age 124:288-90 F 7 '48

Train dispatching in Guatemala, For Comm W 33:42 O 2 '48

Train heating

See Car heating

Train speed

Development of locomotive power at speed, E. L. Diamond, biblog Inst Mech Eng J & Proc 156:Proc 404-15 Mr '48; Same abbr, Engineer 183:202-3, 216-18 Mr 7-14 '47; Discussion, diags Inst Mech Eng J & Proc 156:Proc 417-43 Mr '48; Engineer 183:200-1, 211-12 Mr 7-14 '47

Trains

Burlington introduces two five-dome Zephyrs, il Ry Age 123:1127-8 D 27 '47

Burlington's newest Vista-Dome trains, diag Am Bsns 18:30+ Ja '48

C.&O. is developing a novel lightweight train, il Ry Age 124:634 Mr 27 '48

City of Kansas City placed in service, il Ry Age 123:960 N 29 '47

Diesels chief tool in road's improvement; Kansas City Southern lengthens trains without cutting speed on tough hill districts, il map Ry Age 124:667-70 Ap 3 '48

Introduction of the Coronation Scot on the L.M.S. railway, R. A. Riddles, Engineering 164:583 D 19 '47

Nation's streamliners, il Ry Age 123:817-21 N 15 '47

New Century inaugurated by New York Central, il Ry Age 125:562-3 S 18 '48; Bsns W p24 S 18 '48

New comfort for New England passengers; the Boston & Maine and the Maine Central re-equip three trains with cars built by Pullman-Standard, il plans Ry Age 123:1060-5 D 20 '47

New Haven changes Maybrook freight line to Diesel, il Ry Age 124:1210-14+ Je 19 '48

New revenue in streamliners on short runs, E. G. Budd, Jr, il Ry Age 124:118-19 Ja 10 '48

New York Central's Twentieth century limited trains are newly equipped, il plan Ry Age 125:710-17 O 16 '48

Oscillating lights on suburban trains, diag Ry Mech Eng 122:251-2 My '48

Passenger service develops apace with Southwest; new Missouri Pacific, Texas & Pacific Eagles, R. G. Lewis, il map Ry Age 125:332-6 Ag 14 '48

Reduced fares bring new business; Central of Georgia; modern streamlined equipment, il Ry Age 124:1117-19+ Je 5 '48

Road Diesel is found economical in short-run service on the Pittsburgh and West Virginia, il map Ry Age 124:204-6 Ja 27 '48

RAILROADS—Trains—Continued

Some new passenger trains of 1947; illustrations. C. B. Peck. Ry Age 124:12-13 Ja 3 '48

Streamlined Texas Specials cut time to Southwest. il map Ry Age 124:1159-60 Je 12 '48

Train communication saves road time; project on Missouri Pacific. il map Ry Age 124:718-21 Ap 10 '48

Wabash installs City of Kansas City. il plans Ry Age 123:1110-16 D 27 '47

See also

Moving pictures on Railroads—Passenger trains
Train resistance

Trains, Agricultural demonstration

Thirty-three years' specialized service to farmers; demonstration trains. il Ry Age 124:165-6 Ja 17 '48

Trainsheds

Famous train shed comes down; structure at Pennsylvania station, Pittsburgh. il diags Ry Age 123:1020-3 D 13 '47

Traveler daylights gloomy trainshed at Pittsburgh. il Constr Methods 30:32-4 Ja '48

Valuation

Original cost basis gives railroads unrealistic valuation and depreciation. A. C. Tietjen. J Account 86:123-8 Ag '48

Wages

Carriers worry. Bsns W p65-6 D 27 '47

C. & O. thinks it can start pay guarantee. R. R. Young. Ry Age 124:1134-5 Je 5 '48

Effect of railroad wage increase on earnings; with tabulations. W. F. Hahn. Comm & Fin Chr 168:1769 O 28 '48

Fact finders begin hearings at Chicago in non-op wage dispute. Ry Age 125:828-9 O 30 '48

Fairly urges finish fight in wage case. Ry Age 124:824 Ap 24 '48

Inflation and third round wage increases. J. Backman. Comm & Fin Chr 167:900-1 F 26 '48

1947, another round of wage boosts. R. G. Lewis. il Ry Age 124:10-11 Ja 3 '48

Op wage negotiations reopened. Ry Age 124:1036-8 My 22 '48

Rails look to further rate boosts next year to cover last wage hike; some are ahead now. Barron's 27:26 D 15 '47

Rate offset to wage rise would sustain rail net. Barron's 28:33 O 11 '48

Recommends 15½ cents for holdout ops; emergency board adheres to pattern of wage settlements with other unions. Ry Age 124:673-6 Ap 3 '48

Steelman again fails to mediate op wages. Ry Age 125:27 J1 3 '48

Ten cent hourly wage boost granted two ops. Ry Age 125:689-90 O 9 '48

War measures

See Railroads—Military use; Railroads in war

Water supply

Diesel water stations in packaged units. A. C. Hauser. diag Ry Age 125:718 O 16 '48

Industrial uses of reclaimed sewage effluents. N. T. Veatch. Am Water Works Assn J 40:3-4 Ja '48; Same. Sewage Works J 20:4-6 Ja '48

Progress in railroad water conditioning. R. C. Bardwell and J. J. Dwyer. bibliog Ind & Eng Chem 40:1376-8 Ag '48

Silica removal with iron shavings. W. B. Leaf. il Am Water Works Assn J 40:980-8 S '48

Treatment and control of Diesel radiator water. C. W. Brown, Jr. and D. G. Drawbaugh, Jr. il Ry Mech Eng 122:487-8 S '48

Water problems in Diesel locomotive operation. M. A. Hanson. il Am Water Works Assn J 40:971-9 S '48

Water service; report of A.R.E.A. committee. Ry Age 124:570-1 Mr 20 '48

Waterways competition

Sale of Federal barge lines urged by railroads. Ry Age 124:479-80 Mr 6 '48

Weed removal

New weed sprayer; self-propelled unit for application of weed killers to railway roadbeds. il Ry Age 124:1087 My 29 '48

Winter operation

Weather trouble; just plain cold plays hob with railroad schedules. il Bsns W p31+ F 14 '48

Yards

B.&O. expedites yard operations at Cumberland. il plan Ry Age 125:4-7 J1 3 '48

Brake-cylinder-release valve speeds freight-car handling in yards. Ry Mech Eng 122:312-14 Je '48; Same. Ry Age 125:151-2 J1 17 '48

Builds better yard at East St Louis. il plan Ry Age 124:762-6 Ap 17 '48

Builds second large retarder yard to improve operations; constructed by Union Pacific at North Platte, Neb. il plan Ry Age 125:820-3 O 30 '48

Car numbers grabbed by voice-recorder; New York, New Haven & Hartford yard in New Haven. il Ry Age 124:1283 Je 26 '48

Efficiency increased one-quarter in revamped rip-track procedure; Norfolk & Western light-repair yard. il plan Ry Age 125:452-5 S 4 '48; Same. Ry Mech Eng 122:473-6 S '48

High elevation lighting; Southern Railway shunting yard experiments. il Electrician 159:1791 D 19 '47

Improvements speed coal and ore traffic; facilities for Chesapeake & Ohio's docks at Presque Isle. il map Ry Age 125:254-7 J1 31 '48

Modernizes coach servicing facilities; Reading installs new platforms in yard at Philadelphia, Pa. il plan Ry Age 125:456-8 S 4 '48

Neglected yard maintenance is costly. W. T. Rice. il Ry Age 124:208-11 Ja 24 '48

New B.&O. yards save time and money at Willard, Ohio. il map plans Ry Age 125:754-9 O 23 '48

Power and light for Cincinnati union terminal co. il Ry Mech Eng 122:451-4 Ag '48; Same cond. Ry Age 125:244-6 J1 31 '48

This modern yard expedites traffic; Union Pacific project at Pocatello, Idaho. il plans Ry Age 124:120-5 Ja 10 '48

Yard offices take to the air. il Ry Age 125:858-9 N 6 '48

Lighting

Lighting at King's Cross goods yard. il diag Engineer 185:431-2 Ap 30 '48; Engineering 165:403 Ap 23 '48; Elec R (Lond) 142:703 Ap 30 '48

Alaska

Alaska railroad spending \$48 million for rehabilitation. il map Ry Age 124:906-7 My 8 '48

Argentina

Anglo-Argentine agreement; meat for railways; Payment at last for Argentine railway stockholders? Economist 154:276-7 F 14 '48

Argentine railway developments; fundamental changes occurring. J. L. Apodaca and V. Russo. il For Comm W 30:3-4+ Ja 24 '48

Buenos Aires letter. Bsns W p 114 Je 5 '48

1,500 Canadian railway cars sold to Argentina. For Comm W 29:36 D 27 '47

Belgium

Brussels north-south rail connections. C. F. B. Lemaire. il map diag Engineer 185:596-8 Je 18 '48

Brazil

Brazil adds Diesels to its electrics. E. M. Bill. il Ry Age 123:909-11+ N 22 '47

Mutual transport agreement signed between Brazilian shipping and railroad lines. For Comm W 30:29 F 14 '48

Paulista railway faces decline in net income. F. L. Royt. For Comm W 33:41+ O 16 '48; Correction. 34:36 Ja 10 '49

British Columbia

Crowsnest line, C.P.R. E. H. Livesay. il maps plan diags Engineer 185:176-8, 200-3, 224-7 F 20-Mr 5 '48

RAILROADS—Continued

Bulgaria
Bulgaria announces railroad construction plans for 1948. For Comm W 32:39 J1 3 '48

Canada
Canadian Pacific railway outlines Canadian freight rate puzzle. Comm & Fin Chr 168: 1550 O 14 '48
Montreal company plans 360-mile railroad to rich iron ore region in the North, map Eng N 141:6-7 S 9 '48
Rail freight rates raised 21 per cent in Canada. Bsns W p 119 Ap 10 '48
Rate rises come hard in Canada. Il Ry Age 124:36-9 Ja 3 '48
Standards of rate reasonableness in Canada. G. L. Wilson. Ry Age 124:123-5 Je 5 '48
Transatlantic train service comparison. E. H. Livesey. Il diag Engineer 185:584-6, 608-10 Je 18-25 '48
See also
Canadian Pacific railway

Chile
Tariffs increased to offset deficit on Chilean railways. For Comm W 30:29 Mr 20 '48

China
China rebuilds her railroads. P. C. Lee. Il map Civil Eng 18:228-33+ Ap '48
China's transport needs. map Eng N 141:83-5 Ag 5 '48

Colombia
Colombia considering legislation to build Magdalena River railway lines. J. M. Wilkowski. For Comm W 29:27 D 13 '47

Congo, Belgian
New African railroad to be built between Stanleyville and Goma to ease transport bottleneck. For Comm W 30:28-9 Mr 6 '48

Europe
Motive power trends on European railways. L. Armand. Il diags Inst Mech Eng J & Proc 157 (War emergency issue no 30):239-45 '47
Railroad architecture in Europe. J. L. Martin. Il plans diags Arch Rec 104:130-9 O '48

Florida
Stations tailored to tourist trade; Seaboard facilities at Wildwood, Fla., and Winter Haven. Il Ry Age 124:312-15+ Ap 24 '48

Formosa
Rehabilitation of railways on Taiwan. L. F. Craig. For Comm W 32:42-3 S 25 '48

France
French railroads develop new freight-rate system. G. L. Wilson. Ry Age 124:808-11 Ap 24 '48
Reconstruction of French railway bridges. R. Dugas and L. Carpentier. Il Engineer 185: 554-5 Je 4 '48
Reconstruction of the French national railways. Engineer 186:244-5 S 3 '48
Thin-shell concrete roofs for French round-houses. Il diag Eng N 140:752-3 My 20 '48

Germany
Recovery aided by improvement in Bizone Germany's railway operations. For Comm W 33:9 O 30 '48

Great Britain
Accidents on railways, 1947. Engineer 186:3 J1 2 '48
British rail traffic far ahead of prewar. For Comm W 31:35-6 Je 12 '48
British railways using concrete ties. R. L. M'Ilmoyle. Il Ry Age 124:1120-2 Je 5 '48
British rebuild engine-shed roofs with precast concrete units. R. L. M'Ilmoyle. Il diag Ry Age 124:296-300 F 7 '48
Continuously controlled cab signalling. O. S. Nock. Il diags Engineer 184:454-6 N 14 '47
Introduction of the Coronation Scot on the L.M.S. railway. R. A. Riddles. Engineering 164:583 D 19 '47
Last railway dividends. Economist 154:356-7 F 28 '48; Correction. 154:396 Mr 6 '48

L.M.S. installs main-line Diesels. E. C. Poultney. Il Ry Age 124:442-5 F 28 '48
Present-day locomotive working in Great Britain. O. S. Nock. Il diags Engineer 182: 314-15, 532-4, 558: 185:128-30, 152-4 O 11, D 13-20 '48, F 6-13 '48
Railway locomotives. Engineering 164:473-4 N 14 '47

Railway power plant in Great Britain. O. V. S. Bulleid and others. diags Inst Mech Eng J & Proc 157 (War emergency issue no 30):235-9, pl 1-4 '47
Railway rolling stock position. Engineering 164:470 N 14 '47
Railway slump? Economist 155:426-7 S 11 '48
Track reinforcement on the Southern railway. Il Engineer 184:505 N 23 '47; Engineering 164:546-7 D 5 '47
Trevithick and the Merthyr tramroad. S. Mercer. Engineer 185:326 Ap 2 '48
Use of concrete on the G.W.R. Engineer 184:460 N 14 '47

See also
Railroads and state
—Great Britain

Greece
Salonica-to-Verria line resumes railway service. For Comm W 32:40 Ag 7 '48

Guatemala
Train dispatching in Guatemala. For Comm W 33:42 O 2 '48

India
Indian railway budget presented to Parliament. For Comm W 31:31 Ap 3 '48
India's railways look to future as partition poses problems. J. D. Walstrom. For Comm W 30:5+ J 24 '48
Power signalling, application to an Indian railway. H. C. Towers. Il Elec R (Lond) 142:115-18 Ja 23 '48
Railway communications in India. H. C. Towers. Il plans Electrician 141:775-7 S 10 '48

Italy
Italian rail traffic shows steady increase. For Comm W 32:38 Ag 21 '48

See also
Railroads—Electrification—Italy

Japan
Japanese railways need new equipment. H. G. Hill. Il Ry Age 124:759-61+ Ap 17 '48

Latin America
Pan-American railway congress at Habana spurs forward moves. S. T. R. Abt. Il For Comm W 31:5-6+ My 22 '48

Mexico
Interoceanic railway (Mexico) gage conversion completed. L. B. Douglas. For Comm W 30:31 Mr 13 '48
Mexican government installs radiant heat in the private car of President Aleman. Il Ry Age 125:854-6 N 6 '48
Mexican railways on upgrade in 1947. J. M. Orozco Escobosa. Il Ry Age 124:40-3 Ja 3 '48
President Aleman opens new railroad; Sonora-Baja California railway. For Comm W 31:38 My 15 '48

Mongolia
Soviet rails for Outer Mongolia; map. Bsns W p 118 Ap 10 '48

Near East
Technical committee studies Hedjaz railroad rebuilding. For Comm W 32:35 S 11 '48

Netherlands
Stabilisation of railway embankments near Gouda. J. L. A. Cuperus. Engineering 166: 267 S 17 '48

New Jersey
Additional New York railroad link under study in New Jersey. map Ry Age 124: 755-6 Ap 17 '48

Taxing the railroads to death in New Jersey. Ry Age 124:243-4 Ja 31 '48

RAILROADS—Continued

Newfoundland

Newfoundland railway issues operating data for 1940-41 and 1946-47. For Comm W 30:28 Ja 10 '48

Norway

Norway's rail operations summarized for 1947. For Comm W 31:40-1 Je 26 '48

Palestine

Palestine quits operation of Kantara-Rafa railroad. For Comm W 31:38-9 My 15 '48

South Africa

South African railway workshops. Engineer 185:207 F 27 '48

South African railways. map Engineer 185:519 My 23 '48

South African railways and harbours; 1946-47 annual report. Engineer 186:95 JI 23 '48

South African railways; mechanical engineer's viewpoint. M. M. Loubser. Mech Eng 70:523-7 Je '48

South African railways move unprecedented volume in '47. For Comm W 31:29 Ap 3 '48

South America

South America's railroads look to the future. S. T. R. Abt. Il Ry Age 123:1074-5, 1117-21 D 20-27 '47; Same cond. Comp Air Mag 53:85-8 Ap '48

Uruguayan rail purchase; speculation in stocks of South American railway companies. Economist 154:390-1 Mr 6 '48

Southwestern states

Passenger service develops apace with Southwest; new Missouri Pacific, Texas & Pacific Eagles. R. G. Lewis. Il map Ry Age 125:332-6 Ag 14 '48

Spain

Annual (1946) report of Spanish national railways summarized. For Comm W 33:40 O 9 '48

New rail line opened in Spain; Cuenca-Utiel sector of direct railroad from Madrid to Valencia. For Comm W 30:28 F 14 '48

Sweden

Swedish railroad progress. For Comm W 31:34 Je 12 '48

Switzerland

Swiss national railways report on 1947 operations. For Comm W 32:40 JI 31 '48

Syria

Wartime tunneling in Syria. A. S. Park. Il map Comp Air Mag 52:268-71 N '47

Turkey

Turkish state railways release operating data for first six months of 1946 and 1947. For Comm W 30:31 Mr 13 '48

United States

Clear the track for progress. W. C. MacMillen, jr. Western Soc E J 53:79-83 Je '48

Favorable factors in railroads' prospects; abstract. R. V. Fletcher. Ry Age 124:264-5 Ja 31 '48

Fuel oil and other problems. J. H. Aydelott. Ry Age 125:54-6 JI 10 '48

I.C.C. annual report. Ry Age 124:224-7 Ja 24 '48

1947 brought the railroads record peacetime business and efficiency. W. T. Farley. Ry Age 123:1101 D 27 '47

Outlook for the railroads. R. R. Young. Comm & Fin Chr 166:2168+ N 27 '47

Pennsy's predicament. Il map Fortune 37:84-93+ Mr '48

Railroads as factor in more production. G. Metzman. Comm & Fin Chr 167:1432+ Ap 1 '48

Railroads in 1947 and after. W. T. Farley. Comm & Fin Chr 167:1757+ Ap 22 '48

Railroads in our national economy. G. Metzman. Comm & Fin Chr 167:214+ Ja 15 '48

Railroads in the postwar economy. H. P. Wald and F. L. Hirt. Survey of Cur Bsns 28:16-23 My '48

Railroads; prospects for 1948. E. F. Ross and others. Il Steel 122:138-40 Ja 5 '48

Railroads still doing record-breaking job; abstract. W. C. Kendall. Ry Age 123:959+ N 29 '47

Railroads; victims of gigantic squeeze. D. V. Fraser. Comm & Fin Chr 168:1322+ S 30 '48

Railway power plant from the United States point of view. P. W. Kiefer. Inst Mech Eng J & Proc 157 (War emergency issue no 30):245-51 '47

Rising costs necessitate economy. J. H. Aydelott. Il Ry Mech Eng 122:563-4 O '48

Strong railroads; pattern for prosperity. F. A. Dawson. Comm & Fin Chr 167:1756+ Ap 22 '48

Weighing the railroads' future. R. V. Fletcher. Ry Age 125:141-3 JI 17 '48

What's ahead in facilities and service; report of subcommittee of railroad committee for study of transportation. Ry Age 124:470-1 Mr 6 '48

See also Association of American railroads

Utah

Hauling the coal to market; Utah railway co. G. S. Anderson. map Min & Met 29:572-3 O '48

RAILROADS, Industrial

Compressed air dumps slag pots of TCI Diesel-powered trains; unique air compressor car. Il Blast F & Steel Pl 36:847-9 JI '48

Electric traction for heavy short haul; Kennecott copper corporation using electric locomotives for hauling ore trains. R. J. Corfield. Il map Ry Age 125:462-7 S 4 '48

New two-way radios boost yard efficiency at Weirton Steel plant. Il Iron Age 160:129 D 4 '47

Steel plant utilizes railroad radio; Weirton steel co. C. J. Anderson. Il plan Ry Age 124:1068-9+ My 29 '48

Radio communication

Railroad radio comes to the steel industry; Weirton steel company. C. J. Anderson. Il plan Blast F & Steel Pl 36:1101-4 S '48

RAILROADS, Suspended

Suspended monorail system for relieving traffic congestion. Il Ry Mech Eng 122:164 Ap '48

RAILROADS and state

See also

Railroads—Rates
Railway mail service

Brazil

State of São Paulo plans to expropriate Mogiana railway. For Comm W 31:33 My 1 '48

France

French government considers SNCF railway deficit problem. For Comm W 31:41 Je 26 '48

Great Britain

British railways. maps Economist 153:868-70 N 29 '47

British transport commission. map Engineer 184:523-4 D 5 '47

British transport nationalization; genesis and program. G. L. Wilson. Ry Age 123:980-4 D 6 '47

British transport stock. Economist 154:25-6 Ja 3 '48

Home rails and market prospects; terms for Transport stock. Economist 153:1011-12 D 20 '47

Nationalization of Britain's transport. Pub Util 41:307-8 F 26 '48

Nationalisation of British transport. map Engineering 165:13-14, 18-20 Ja 2 '48

Nationalisation of railways. N. Johnson. Engineer 185:9-10, 36-7 Ja 2-9 '48

Problems facing nationalized railway system in Britain; abstract. W. J. Ford. For Comm W 29:31 N 8 '47

Transport next year and after. Economist 153:908-10 D 6 '47

Spain

Decentralization planned for Spanish state railway system. For Comm W 32:38-9 JI 31 '48

RAILROADS and state—Continued

United States

- Attacks unions' bid for rail nationalization. R. E. Woodruff. Comm & Fin Chr 167: 2433 Je 3 '48
- Chamber of commerce of the U.S. 36th annual meeting, Washington, April 26-29; session on transport. Ry Age 124:914-16 My 8 '48
- Dismiss 34 defendants in Lincoln, Neb. suit; hearing in anti-trust action against railroads. Ry Age 124:352 F 14 '48
- Hold-out of leaders call off strike; court order follows government seizure. Ry Age 124:996-9+ My 15 '48
- Labor wants tighter federal control; resolution of Railway labor executives' association. Ry Age 124:1083-4 My 29 '48
- Law and railway labor. D. P. Loomis. Ry Age 124:162-4+ Ja 17 '48
- Practical, not punitive regulation for railroads. T. I. Parkinson. Comm & Fin Chr 167:108 Ja 8 '48
- Private ownership for railroads. E. Roosevelt. Pub Util 40:856-7 D 18 '47
- Report on readiness for emergency; A.A.R., R. R. Young and car-building and locomotive industries make presentations before House committee. Ry Age 124:1177-80, 1207-9 Je 12-19 '48
- Strike injunction set for hearing June 22. Ry Age 124:1223-6 Je 19 '48
- To defend America abroad, thwart socialization at home. J. G. Lyne. Ry Age 124:671-2+ Ap 3 '48
- Wage-case settlement ends federal control. Ry Age 125:146-7+ J1 17 '48
- What the Attorney General thinks of the railroads. T. C. Clark. Ry Age 124:614-16 Mr 27 '48
- Woodruff and Whitney debate nationalization of railroads. Ry Age 124:1184-5 Je 12 '48

See also
Interstate commerce
commission

Uruguay

- Uruguay rail schemes. Economist 154:773-4 My 8 '48
- Uruguay to take over British-owned railroads. For Comm W 30:31 Mr 27 '48

RAILROADS in war

- Wartime activities of O.D.T. recorded. Ry Age 125:214-15 J1 24 '48

See also
Railroads—Military
use

RAILS

- A.R.E.A. committee report on rail. Ry Age 124:566-7 Mr 20 '48
- How wheels behave on low-adhesion rail. L. D. Hays. Ry Age 123:978-9 D 6 '47; Same. Ry Mech Eng 121:686-7 D '47
- More welded rail to cut maintenance. Bsns W p40+ Mr 27 '48
- Small road leads in use of welded rail. il Bsns W p75-6+ O 23 '48

See also
Railroads—Track

Stresses

- Research work on rail sections. W. Leaf. il diags A S M E Trans 70:31-5 Ja '48

Testing

- Fatigue tests of rail steel under compressive stress. R. S. Jensen and H. F. Moore. il diags Am Soc T M Proc 46:799-806; Discussion. 807-13 '46
- Progress reports of investigation of railroad rails and joint bars. R. E. Cramer and others. il il U Eng Exp Sta Reprint Ser 37:1-47 '47 (pa 20c)

- Rails investigation since 1911. H. F. Moore. Metal Prog 53:828+ Je '48

- Research work on rail sections. W. Leaf. il diags A S M E Trans 70:31-5 Ja '48

RAILWAY express agency

- Anti-trust violations charged to R.E.A. Ry Age 125:605-6 S 25 '48
- Ubiquitous railway express recovers its efficiency. il Ry Age 124:977 My 15 '48

Claims

- Courts hold Railway Express receipts limit liability. Nat Underw 51:16 N 6 '47

RAILWAY mail service

- New plan for handling mail proposed by Postmaster General. Ry Age 125:162, 264-5 J1 17, 31 '48
- Sees final mail pay ruling long delayed. Ry Age 124:102+ Ja 3 '48

Cars

See Postal cars

RAILWAY mechanical engineer (periodical)

- Editorial appointments. Ry Mech Eng 122: 524+ S '48

RAILWAY surgeon. See Railroads—Physicians

RAILWAY tie association

- Annual meeting, 30th. White Sulphur Springs, W.Va. Aug. 30-Sept. 1. Ry Age 125:496-9 S 11 '48

RAIN and rainfall

- Drainage of airport surfaces; some basic design considerations. S. W. Jens. diags Am Soc C E Proc 73:983-1007 S '47; Discussion. 74:746-68, 895-900 My-Je '48
- New rain propagation theory; abstract. I. Langmuir. Chem & Eng N 25:3568 D 1 '47
- Rainfall intensities and attenuation of centimeter electromagnetic waves; radar in storm detection. R. Wexler and J. Weinstein. bibliog Inst Radio Eng Proc 36:353-5 Mr '48
- Range forage conditions in relation to annual precipitation. M. Clawson. bibliog Land Econ 24:264-80 Ag '48
- Scientists investigate rain-making possibilities. Comp Air Mag 53:202 Ag '48
- Sun and precipitation. C. G. Abbot. bibliog il Am Water Works Assn J 40:755-62 J1 '48
- Weather, water and power. I. P. Krick. il Elec West 100:67-70 Mr '48
- Welcome rains; Niagara Hudson restores full power service. Bsns W p52 N 15 '47

See also
Droughts

Havana

- Rainfall intensities in Havana. L. Radelat. Am Water Works Assn J 40:763-5 J1 '48

Panama Canal zone

- Panama canal; flood control and development of sea-level canal. F. S. Brown. maps diags Am Soc C E Proc 74:481-500 Ap '48

RAIN insurance. See Insurance, Rain

RAIN making. See Weather control

RAINCOATS

- Forget the weatherman! J. Daniels. il Textile Col 70:40 J1 '48
- Rainwear fashions and fabrics for fall. J. Fitch. Textile Col 70:32 J1 '48
- Rainwear industry, today's gold rush. J. Berman. Textile Col 70:36 J1 '48

RAISINS

- New dress wins national markets for Cinderella raisins; new package with aluminum foil. il Sales Management 60:110-11 Je 1 '48

Prices

- Raisins disprove Anderson's claim price support is forced on him. Barron's 27:44 D 8 '47

RALSTON Purina company

- Cow chows, and wow. il Fortune 73:84-91+ Ja '48

RAMAN effect

- Determination of the depolarization factors of highly polarized Raman lines. A. E. Douglas and D. H. Rank. Opt Soc Am J 38:281-7 Mr '48

- Extension of the polarizability theory of Raman effect. F. Matossi and R. Mayer. bibliog Phys R 74:449-55 Ag 15 '48

- Fine structure of Raman lines due to chlorine isotopes. D. H. Rank and others. bibliog diags J Chem Phys 16:698-703 J1 '48

- Force constants and frequency assignments for some substituted methylacetlenes. A. G. Meister. bibliog J Chem Phys 16:950-9 O '48

RAMAN effect—*Continued*

- Influence of an electric field on the depolarization factors of Raman lines. A. E. Douglas. *J Chem Phys* 16:849-50 Ag '48
- Infra-red and Raman spectra of heavy cyclooctatetraene. E. R. Lippincott and others. *bibliog J Chem Phys* 16:548-9 My '48
- Infra-red spectrum and depolarization factors of the Raman lines of spiropentane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. *bibliog J Chem Phys* 15:742-53 O '47
- Low frequency Raman spectrum of calcite. L. Giulotto and G. Olivelli. *diag J Chem Phys* 16:555-6 My '48; Correction. 16:668 JI '48
- Polarization of Raman lines of *s*-dichloroethane. J. T. Neu and others. *J Chem Phys* 16:1004-5 O '48
- Raman effect of dichlorohexafluorocyclobutane. W. F. Edgell and F. E. Kite. *bibliog J Chem Phys* 15:882 D '47
- Raman lines of second-order intensity in SnBr_4 , SnCl_4 , and CCl_4 . H. L. Welsh and others. *bibliog il diag J Chem Phys* 16:97-105 F '48
- Raman spectra; abstract. E. J. Rosenbaum. *Anal Chem* 20:390 Ap '48
- Raman spectrum and normal modes of vibration of butadiene-1,2. G. J. Szasz, J. S. McCartney, and D. H. Rank. *bibliog Am Chem Soc J* 69:3150-1 D '47
- Raman spectrum and structure of nickel carbonyl. B. L. Crawford, jr. and W. Horwitz. *bibliog J Chem Phys* 16:147-50 F '48
- Raman spectrum of tetraethyl orthosilicate. J. Duchesne. *bibliog J Chem Phys* 16:1009-10 O '48
- Raman spectrum of trimethyl silicon chloride. J. Duchesne. *J Chem Phys* 16:1006-7 O '48
- Raman tube filters. G. Glocker and J. F. Haskin. *bibliog J Chem Phys* 15:759 O '47
- Some characteristic frequencies in the Raman spectra of saturated aliphatic hydrocarbons. N. Sheppard. *bibliog diags J Chem Phys* 16:690-7 JI '48
- Some spectral characteristics of mercury arcs for use in study of the Raman effect. D. H. Rank and J. S. McCartney. *il Opt Soc Am J* 38:279-81 Mr '48
- Spectroscopic studies of rotational isomerism; liquid *n*-butane and the assignment of the normal modes of vibration. G. J. Szasz and others. *bibliog J Chem Phys* 16:704-11 JI '48
- Vibrational spectrum and thermodynamic functions of acrylonitrile. F. Halverson and others. *bibliog il diag J Chem Phys* 16:808-16 Ag '48
- Vibrational spectrum and thermodynamic properties of uranium hexafluoride gas. J. Bigeleisen and others. *bibliog diag J Chem Phys* 16:442-5 My '48
- RAMANUJAN**, Srinivasa, 1887-1920
S. Ramanujan, Hindu mathematician. J. R. Newman. *por Sci Am* 178:54-7 Je '48
- RAMAZZINI society**
Ramazzini society. *Ind Med* 16:534 N '47
- RAMIE**
Electron microscopical studies of natural cellulose fibers. W. G. Kinsinger and C. W. Hock. *bibliog (37 ref) il Ind & Eng Chem* 40:1711-16 S '48
- Has ramie finally arrived? *il Textile Col* 70:18-19+ Ag '48
- Quantitative X-ray investigations on the crystallinity of cellulose fibers; background analysis. P. H. Hermans and A. Weidinger. *bibliog il diags J Ap Phys* 19:491-506 My '48
- Ramie today; abstract. H. T. Coss and J. L. Taylor. *Am Dyestuff Rep* 37:660 O 4 '48
- RAMPS**
Chart for determining the grade of a road, walk, ramp, etc. W. F. Schaphorst. *Water & Sewage Works* 95:252 JI '48
- Radiant-heated outside concrete ramp; Bigelow-Sanford carpet co. *il Concrete* 56:20 Je '48; Same. Heating-Piping 20:104 Je '48
- Ramp handles 2,000 tons per shift; used for loading coal. *il Coal Age* 53:130 Je '48
- Safety measures**
Stairs and ramps. *il Nat Safety N* 57:95+ Mr '48

RANCIDITY

- Curb mackerel fillet rancidity with new dip-and-coat technic; combination of NDGA-in-oil and Irish moss extractive. L. S. Stoloff and others. *il Food Ind* 20:1130-2+ Ag '48
- Fighting rancid fats and oils; new stabilizers. Tenox HQ and Tenox BHA. *Bsns W* p49 JI 3 '48
- RAND McNally and company, Chicago**
Successful policies adopted sixty years ago carried on by Andrew McNally, 3d. *Inland Ptr* 121:56 Ap '48
- RANDALL**, Clarence Belden, 1891-
Portrait. *Bsns W* p 121 O 23 '48
- RANDOLPH**, Woodruff
Printers sick by Randolph. *por Bsns W* p 102-3 My 29 '48
- RANEY nickel**. See Nickel—Raney nickel
- RANGE finders**
Testing
Range-finder testing laboratory. I. C. Gardner. *il diags J Ap Phys* 19:721-8 Ag '48
- Testing of range finders. I. C. Gardner. *bibliog il diags J Ap Phys* 19:729-38 Ag '48
- RANGE management, American society of**
See American society of range management
- RANGELEY, Colorado**
Rangeley, the incredible. *Can Min J* 69:91 F '48
- RANGER BANK, Mexico**
Submarine geology. K. O. Emery. *bibliog 2pls maps Am Assn Pet Geologists Bul* 32:790-805 My '48
- RANGES**
Range forage conditions in relation to annual precipitation. M. Clawson. *bibliog Land Econ* 24:264-80 Ag '48
- RANKINE-HUGONIOT equation**
Relativistic Rankine-Hugoniot equations. A. H. Taub. *Phys R* 74:328-34 Ag 1 '48
- RANNEY water collectors**
Ranney water collectors in New England. J. S. Asketh. *N E Water Works Assn J* 61:312-17; Discussion. 317-27 D '47
- Ranney water collectors in New England. A. L. Glidden. *il Rayon* 29:59-60 Mr '48
- Where there's a way there's a well. *diag Chem Eng* 54:120 N '47
- RAPANONE**
Synthesis of embelin, rapanone and related quinones by peroxide alkylation. L. F. Fieser and E. M. Chamberlin. *bibliog Am Chem Soc J* 70:71-5 Ja '48
- RAPESEED oil**
Component acids of rape seed oil. M. N. Baliga and T. P. Hilditch. *bibliog Soc Chem Ind J* 67:258-62 Je '48
- RAPID construction**. See Concrete construction—Rapid construction; Roads, Concrete—Construction schedules
- RAPID transit**
Outlook for 1948 for the transit industry. G. C. Hecker. *Bus Transportation* 27:48 F '48
- Post-war transportation in European cities. C. E. DeLeuw. *Western Soc E J* 53:39-49 Mr '48
- These types of demagogues are transit's subversives! *Mass Transportation* 43:562-5 D '47
- See also**
Electric railroads Street railroads
Motor bus lines Trolley buses
Railroads
also subdivision Rapid transit under names of cities, e.g. Chicago—Rapid transit; New York (city)—Rapid transit
- Advertising**
Sell your transit service by the single line: Los Angeles promoting new line. J. H. Collins. *Pub Util* 42:413-13 S 23 '48
- Selling the public the need for higher transit rates. D. Markstein. *Pub Util* 42:419-23 S 23 '48
- Employees**
Accidents, a broader approach; new tests for hiring car and bus operators. J. H. Collins. *Pub Util* 40:693-700 N 20 '47
- Are your employees better educated than you are? H. Swift. *Mass Transportation* 43:526-30 N '47
- Fringe issues and their cost. L. A. Freeman. *Mass Transportation* 43:570-5 D '47

RAPID transit—Employees—*Continued*

Impact of anti-labor legislation on collective bargaining in the transit industry. O. D. Zimmering. *Mass Transportation* 43:515-20 N '47

It's a big job; color film produced for Los Angeles Transit; part of company's training program for street car, motor bus and trolley bus drivers. *il Bus Transportation* 27:74 Mr '48

Labor aspects of public relations. G. W. Anderson. *Bus Transportation* 27:44-5+ J1 '48

Local transit industry; union scales, Oct. 1, 1947. A. Simi. *Mo Labor R* 66:523-4 My '48
\$1.50 per hour rate coming in '48; agreements in transit industry. A. L. Spradling. *Mass Transportation* 43:521-2 N '47

Union wages and hours; local transit operating employees, Oct. 1, 1947. U S Bur Labor Statistics Bul 933:1-7; pa 10c Supt. of doc. '48

What price transit arbitration? P. B. Willauer. *Mass Transportation* 43:531-4 N '47

Why not arbitrate? W. I. King. *Mass Transportation* 43:575-8 D '47

See also Amalgamated association of street, electric railway and motor coach employees of America

Equipment and supplies

Material control. W. E. Scott. *Mass Transportation* 43:590-2 D '47

Fares

Current developments in rate making; Capital Transit case. F. G. Awalt. *Pub Util* 42:629-34 O 21 '48

Depreciated book cost not only measure of rate base. *Pub Util* 42:257-8 Ag 12 '48

Increased fares on city transits provide needed operating revenue. *Eng N* 141:94 O 28 '48

New York's new transit fares and how they are collected. *il map Bus Transportation* 27:41-3 J1; 53-9 Ag '48

Selling the public the need for higher transit rates. D. Markstein. *Pub Util* 42:419-23 S 23 '48

Transit history repeats; specter of insolvency. F. J. Tobey. *Pub Util* 40:756-61 D 4 '47

See also

Motor bus lines—

Fares

Finance

Financial problems of the transit companies. O. Ely. *Pub Util* 42:431-5 S 23 '48

How NCL weathers inflation; condensed statement of consolidated income of National city lines, inc. and subsidiaries for nine months ended Sept. 30, 1947 and comparative data for same period of 1946. *Mass Transportation* 43:593 D '47

Management

Why make route cost analysis and vehicle selection studies? W. S. Rainville. *Mass Transportation* 43:587-9 D '47

Municipal ownership

Chicago now owner-ride; Chicago transit authority takes over operation of surface lines and rapid transit. *il Bus Transportation* 26:42-5 D '47

Public relations

Labor aspects of public relations. G. W. Anderson. *Bus Transportation* 27:44-5+ J1 '48

Transit lines woo riders and dollars; girls hear customers' gripes; music furnished. *il Bsns W* p38+ F 14 '48

Statistics

Buses exclusively; rails to rubber; how trend is changing; table. *Bus Transportation* 27:86-7 S '48

Local transit lines, fares, revenue passengers carried; operating revenues, 1941-1946. Survey of Cur Bsns 1947 Sup p 104 [supplemented in monthly numbers]

Canada

Austerity and embargoes hit Canadian transit. C. L. Van Auker. *Mass Transportation* 43:566-7 D '47

Canada likes its trolley buses. *il Bus Transportation* 27:64-5 Ag '48

RAPIDOGEN dyestuffs. See Dyes and dyeing

RARE earth hydroxides

Pilot plant production of rare earth hydroxides and thorium oxalate from monazite. R. W. Urie. flow diag *Soc Chem Ind J* 66:437-9 D '47

Production of rare earth and thorium compounds from monazite. E. S. Pilkington and A. W. Wylie. *bibliog il Soc Chem Ind J* 66:387-94 N '47

RARE earth metals

Hydrated oxalates of some rare-earth elements. A. W. Wylie. *diag Chem Soc J* p 1637-92 D '47

Ion exchange develops as a unit process. J. C. Winters. *bibliog il Chem Ind* 62:754-8 My '48

Neutron induced radioactivity in certain rare-earth elements. J. M. Cork and others. *bibliog il Phys R* 74:240-3 Ag 1 '48

Rare earth metals and their compounds; an improved method for the synthesis of some rare earth acetylacetonates. J. G. Stites, C. N. McCarty and L. L. Quill. *bibliog Am Chem Soc J* 70:3142-3 S '48

See also

Eurprium	Neodymium
Gadolinium	Praseodymium
Lanthanum	Samarium

Analysis

Chemical identification of radioisotopes of neodymium and of element 61. J. A. Marin-sky, L. E. Glendenin and C. D. Coryell. *bibliog Am Chem Soc J* 69:2781-5 N '47

Mass spectrographic mass assignment of radioactive isotopes. R. J. Hayden. *bibliog Phys R* 74:650-5 S 15 '48

Qualitative semimicro-analysis with reference to Noyes and Bray's system; partial analysis of the combined nickel, zirconium, and rare-earth groups. C. C. Miller. *Chem Soc J* p 1347-50 O '47

Quantitative spectrographic analysis of the rare earth elements; determination of samarium in neodymium; determination of europium in samarium. V. A. Fassel and H. A. Wilhelm. *bibliog diag Opt Soc Am J* 38:518-26 Je '48

Separation

Exchange adsorption of ions from aqueous solutions by organic zeolites; separation of the yttrium group rare earths. B. H. Ketelle and G. E. Boyd. *bibliog diag Am Chem Soc J* 69:2800-12 N '47

Improved ion exchange method for separating rare earths in macro quantities. F. H. Spedding and others. *Am Chem Soc J* 70:1671-2 Ap '48

Ion exchange as a separations method; equilibrium studies of the reactions of rare earth complexes with synthetic ion exchange resins. E. R. Tompkins and S. W. Mayer. *bibliog Am Chem Soc J* 69:2869-66 N '47

Ion-exchange as a separations method; separation of fission-produced radioisotopes, including individual rare earths, by complexing elution from amberlite resin. E. R. Tompkins, J. X. Khym and W. E. Cohn. *bibliog diag Am Chem Soc J* 69:2769-77 N '47

Ion-exchange as a separations method; separations of several rare earths of the cerium group (La, Ce, Pr and Nd). D. H. Harris and E. R. Tompkins. *bibliog diag Am Chem Soc J* 69:2792-80 N '47

Separation of rare earths by ion exchange; cerium and yttrium. F. H. Spedding and others. *bibliog Am Chem Soc J* 69:2777-81 N '47

Separation of rare earths by ion exchange; neodymium and praseodymium. F. H. Spedding and others. *Am Chem Soc J* 69:2786-92 N '47

Separation of rare earths by ion exchange; pilot plant scale separations. F. H. Spedding and others. *bibliog Am Chem Soc J* 69:2812-18 N '47

RARE earth phosphates

Crystal structures of a series of rare earth phosphates. R. C. L. Mooney. *J Chem Phys* 16:1003 O '48

RARE earths

Production of rare earth and thorium compounds from monazite, E. S. Pilkington and A. W. Wylie, bibliog il Soc Chem Ind J 66:387-94 N '47

Rare earth oxides for glass polishing, R. W. Urie and A. W. Wylie, bibliog il diag Soc Chem Ind J 66:433-6 D '47; Same, Engineering 186:189-91 Ag 20 '48

See also

Monazite

RAT fleas. See Rats as carriers of infection

RAT poison. See Rats—Extermination

RATIONING

Public favors return to price control and rationing; Gallup poll, Iron Age 161:123 F 5 '48

Great Britain

Coupons for sale, Economist 154:870-1 My 29 '48

Rationing by the purse, Economist 155:249-50 Ag 14 '48

RATPROOFING

Rat-repellent wood developed; Protekwood, Comm & Fin Chr 168:1215 S 23 '48

RATS

Histoplasmosis in wild rats; occurrence and histopathology, C. W. Emmons and L. L. Ashburn, bibliog il Pub Health Rep 63:1416-22 O 29 '48

Inadequate maternal nutrition and hydrocephalus in infant rats, L. R. Richardson and J. DeMottier, Science 106:644 D 26 '47

Nutritional requirements of the rat for reproduction and lactation, A. J. Sica and L. R. Cerecedo, Science 107:222-3 F 27 '48

Prevention of trichobezoar in the cotton rat, sigmodon hispidus hispidus, S. R. Howell and others, Bibliog Science 107:424-5 Ap 23 '48

Extermination

ANTU, the lethal dose, A. R. Latven, A. B. Sloane and J. C. Munch, Soap & San Chem 24:127-4 Ja '48

Automatic rat-catcher circuit for electrocution of rodents, il diag Electronics 21:120 N '48

Data on methods of use of 1080, a potent rat poison, Pub Works 78:36-7 N '47

Pipings from a Pied Piper, bibliog il Consumers Res Bul 21:12-15 Mr '48

Plan urban rat control campaign, Soap & San Chem 24:175 Mr '48

Rat control program report, H. Noble, Soap & San Chem 24:141-4 JI '48

Synthetic chemicals for agriculture, R. H. Wellman, Chem Ind 63:227 Ag '48

Thioureas as rodenticides; abstract, S. H. Duke and others, Soap & San Chem 23:147 N '47

Toxicity of quaternaries; abstract, O. G. Fitzhugh and A. A. Nelson, Soap & San Chem 24:145 My '48

War on rats, Bsns W p30 Mr 13 '48

RATS as carriers of infection

Combined typhus-malaria control; residual spray operations with five percent DDT emulsion, H. P. Nicholson and others, Pub Health Rep 63:1005-13 JI 30 '48

Comparison of the effectiveness of five and ten percent DDT dusts for the control of rat fleas, H. P. Nicholson, il Pub Health Rep 63:129-36 Ja 30 '48

Observations on rats and typhus fever in San Antonio, Tex, D. E. Davis, bibliog il Pub Health Rep 63:783-90 Je 11 '48

Preliminary report concerning DDT dusting and murine typhus fever in nine southeastern states, J. S. Wiley, Pub Health Rep 63:41-3 Ja 9 '48

RAUSCH, Raymond R. 1894-

Portrait, Fortune 38:7 N '48

RAW materials

Building U.S. stockpiles under ECA program, Bsns W p25-6 S 18 '48

Conservation of vital materials, Chem Age (Lond) 59:385 S 18 '48

Military demands won't hurt; service budget unlikely to cramp business, Bsns W p21 JI 17 '48

Munitions board announces 28 critical materials to be purchased in third quarter for stockpiling, A. Leggin, Chem & Eng N 26:2671 S 13 '48

Raw materials for iron and steel making, H. W. Graham, il Min & Met 28:538-42 N '47

Raw materials from new sources; abstract, H. Levinstein, Chem & Ind p 123 F 21 '48

Raw materials still a no. 1 problem, W. A. Lloyd, il Iron Age 161:210-19 Ja 1 '48

Stockpile lags, Bsns W p22 S 4 '48

Stockpilers to go slowly, Bsns W p21-2 Je 26 '48

U.S. seeks critical materials in Europe, Oil Paint & Drug Rep 154:3 Ag 16 '48

See also

Cellulose
Ceramic materials
Chemicals
Clay
Coal
Cotton
Farm produce
Metals

Minerals
Mines and mineral resources
Oils and fats
Petroleum
Rubber
Textile fibers
Wood

RAYNOR, Geoffrey Vincent

Awarded chemistry honours, Chem Age (Lond) 58:277 F 21 '48

RAYOLANDA

Use of rayon staple in woven fabrics in England, R. S. Greenwood, Rayon 29:45-6 Ja '48

RAYON

Cellulose intercrystalline structure; study by hydrolytic methods, R. F. Nickerson and J. A. Habre, bibliog Ind & Eng Chem 39:1507-12 N '47

Cellulose studies; heterogeneous degradation of cellulose and viscose rayon in organic acid solutions; surgical cotton and commercial rayon, P. C. Mehta and E. Pacsu, bibliog diags Textile Res J 18:387-95 JI '48

Crimped staple will expand use of viscose rayon, il Rayon 29:65-6 Ap '48

Influence of the properties of cellulose on the filtration of viscose, Pulp & Pa of Can 49:122-3 O '48

Surgical use of nylon, rayon and silk, W. Schweisheimer, Rayon 29:79-80 F '48

See also

Bemberg
Textile fibers, Synthetic

Delustering

Delustering; melamine-formaldehyde condensates; patent, Am Dyestuff Rep 36:666 N 17 '47

Industrial applications

Industrial uses of rayon expanding in rubber field, Rubber Age 62:182 N '47

Industrial uses of rayon expected to increase, Rayon 29:40 F '48

Rayon uses lead synthetics in industrial field, il Textile World 98:108-9 S '48

Knit goods

Couler-motion setting is skillful operation, H. B. LeFeaux, diags Textile World 98:132-3 O '48

Special handling required for some rayon knit goods, il Textile World 98:115-4 Ap '48

Patents

Cellulose zincate solution; urea added, Am Dyestuff Rep 37:475 JI 12 '48

Crimping textiles; especially yarns, diag Am Dyestuff Rep 37:474 JI 12 '48

Parchmentizing rayon with sulfuric acid; control of reaction; patent, Am Dyestuff Rep 37:538 Ag 9 '48

Prices

Rayon yardstick? Office of alien property vetoes yarn price rise by two companies it controls, Bsns W p39-40-4 Mr 13 '48

Temperature effect

Degradation of rayon tire yarn at elevated temperatures, R. C. Waller, K. C. Bass and W. E. Roseveare, bibliog Ind & Eng Chem 40:138-43 Ja '48

Terminology

Case for rayon as a generic term for man-made fibres, Textile Inst J 38:627-8 D '47; Reply, A. G. Scroggie and F. D. Pilgrim, Am Dyestuff Rep 37:448-9 Je 28 '48; Same, Rayon 29:41-2 JI '48

RAYON—Terminology—Continued

Tennessee Eastman to use term Estron to describe product, Rayon 29:37 Ag '48
What is rayon? Tennessee Eastman faces a terminology squabble. Bsns W p53 F 7 '48

Testing

Experimental study of the creep of rayon. M. T. O'Shaughnessy. bibliog diag Textile Res J 18:263-86 My '48

RAYON carding

Cotton or wool card processes rayon staple. Textile World 97:192+ N '47

RAYON cords

Behavior of rayon tire cord during latex dipping. H. H. Gillman and R. Thoman. bibliog diag Ind & Eng Chem 40:1237-42 J1 '48

Degradation of rayon tire yarn at elevated temperatures. E. C. Waller, K. C. Bass and W. E. Roseveare. bibliog Ind & Eng Chem 40:138-43 Ja '48

Effect of alternate heating and cooling on the breaking strength and elongation of cotton and rayon tire cords; abstract. W. S. Lewis. Am Dyestuff Rep 36:663 N 17 '47

Hysteresis, elastic modulus, and growth of tire cords under comparable loads. E. Honold and H. Wakeham. bibliog Ind & Eng Chem 40:131-4 Ja '48

Rayon tire cord fabrics. C. H. Beaver. il Rayon 29:47 O '48

Manufacture

Many uses seen for high-frequency heat. T. H. Story. il Textile World 98:122-3+ Mr '48

Testing

Cumulative extension test for plasticity in textile fibres. R. Meredith and F. T. Peirce. bibliog diag Textile Inst J 39:T159-84 My '48

RAYON drying

Cake drying speeded by high-frequency current. T. H. Story. il diags Textile World 98:114-15+ Ja '48

Drying yarn packages, electrostatic field; patent. diags Am Dyestuff Rep 37:244-5 Ap 5 '48

Many uses seen for high-frequency heat. T. H. Story. il Textile World 98:122-3+ Mr '48

RAYON fabrics

Current processing problems of acetate and viscose rayon fabrics. H. G. Scull. Am Dyestuff Rep 37:468-70 J1 12 '48

McC Campbell & co. shows latest rayon and spun rayon fabrics. H. R. Mauersberger. il Rayon 29:41 Ap '48

New non-woven cotton and rayon drapery fabric. il Textile Col 70:25+ Ag '48

Sheersat treated nets gain wide acceptance. il Rayon 28:639 D '47

Spring rayon colors. Textile Col 70:49 S '48

See also

Rayon weaving

Cotton mixtures

Serviceability study comparing an all-cotton chambray with a chambray of cotton warp and viscose rayon filling. F. E. Keeney and others. il Rayon 29:53-4 O; 63-5 N '48
Use of rayon staple in woven fabrics in England. R. S. Greenwood. Rayon 28:640-2 D '47

Shrinkage

American association of textile chemists and colorists general research meeting; dimensional changes report. Am Dyestuff Rep 36:783-4 D 29 '47

Performance of resin-treated fabrics in wet and dry-cleaning; shrinkage and fading tests. D. S. Lyie and M. R. Butler. Rayon 29:66-8 Je '48

Permanent finishes on rayon. L. Shapiro. diags Am Dyestuff Rep 37:16-19 Ja 12 '48

Progress in new rayon fabric stabilization process; BR-1 process. Rayon 28:597-8 N '47

Testing

Comparison of the effect on rayon fabrics of various gases under controlled conditions. F. K. Ray and others. bibliog Am Dyestuff Rep 37:391-6 Je 14 '48

Effect of laundering on gas fading performance of rayon fabrics. F. K. Ray and S. Davison. bibliog Am Dyestuff Rep 37:322-5 My 17 '48

Formulation of an accelerated gas fading test for rayon fabrics. F. K. Ray and others. bibliog Am Dyestuff Rep 37:629-30 S 20 '48

Wool mixtures

Unshrinkable non-felting wool in all-wool and rayon mixture materials. A. J. Hall. diag Rayon 28:559-60, 662-4 O, D '47; 29:94-6 F; 99-101 Ap '48

Use of rayon staple in woven fabrics in England. R. S. Greenwood. Rayon 28:640-2; 29:45-6 D '47-Ja '48

RAYON fibres

Cotton system easily adapted to rayon staple. il Textile World 98:141+ F '48

Electron-microscopical examination of rayon. C. W. Hock. bibliog il Textile Res J 18:366-71 Je '48

Enhanced differentiation of skin and core in rayon fibres employing internal condensation resins. G. Landells and others. bibliog il Textile Inst J 39:T148-52 Ap '48

Influence of fibrous structure of rayon on its swelling and density. E. Elöd and H. G. Fröhlich. Textile Res J 18:487-9 Ag '48

Quantitative X-ray investigations on the crystallinity of cellulose fibers; background analysis. F. H. Hermans and A. Weidinger. bibliog il diags J Ap Phys 19:491-506 My '48

Relaxation and flow in cellulose fibres. R. Meredith. bibliog diag Textile Inst J 39:P245-51; Discussion. P251-2 J1 '48

Some commercial applications of the newer textile fibres; use of high tenacity rayon in increasing the spinning productivity of staple fibres. A. Johnson. Textile Inst J 39:P309-17 J1 '48

Spun-dyed staple used in cotton-rayon blends. H. Ashton. Textile World 98:143+ My '48

Structure and properties of regenerated cellulose. W. E. Roseveare and others. bibliog il diags Textile Res J 18:114-23 F '48

Use of rayon staple in woven fabrics in England. R. S. Greenwood. Rayon 28:640-2; 29:45-6 D '47-Ja '48

Viscose rayon fibres; swelling anisotropy and double refraction. J. M. Preston and R. V. Bhat. bibliog diag Textile Inst J 39:T211-17 Je '48

RAYON finishing

Anionic substantive softeners. E. D. McLeod. bibliog Ain Dyestuff Rep 37:30-3 Ja 12 '48

Finishing of cottons and rayons. D. X. Klein. Am Dyestuff Rep 37:344-7 My 17 '48

Germans had few short-cuts in preparation and creping. C. N. Rabold. diags Textile World 98:122-3+ My '48

Improving the properties of fibres and dyes by treatment with hydrophobic melamine-formaldehyde compounds. A. Landolt. bibliog 6pls Soc Dyers & Col J 64:93-7; Discussion. 97-9 Mr '48

Oxycellulose defects can be avoided or cured. J. McCartney. il Textile World 98:116+ J1 '48

Permanent finishes on rayon. L. Shapiro. bibliog diags Am Dyestuff Rep 37:16-20+ Ja 12 '48; Excerpts. Rayon 28:644 D '47; Textile World 97:141 D '47

Rayon dyeing and finishing. H. F. Creegan. Am Dyestuff Rep 37:520-4 Ag 9 '48

Recent progress in stabilized finishes on rayon piece goods. R. W. Powell. Am Dyestuff Rep 37:466-7+ J1 12 '48

Special handling required for some rayon knit goods. il Textile World 98:115+ Ap '48

Tensionless wet processing of rayon goods, now accomplished fact. il Rayon 29:47 My '48

Wrinkle resistance, a sales aid; Rhonite. D. S. Marston. Textile Col 70:21+ Je '48

RAYON industry

Burlington's integration moves. J. S. Love. Rayon 28:574-7 N '47

Celanese Corp. il Fortune 37:84-91+ My '48

How do you uncover a brand new industrial market? exploring by Celanese in fabric construction. il Sales Management 60:95+ F 15 '48

RAYON industry—Continued

Many phases to Textron activities in post-war textile field, J. A. Spooner, Rayon 29:37-8 My '48

Rayon in the production of hosiery; yarn supply; new fibers, W. D. Benson, Rayon 29:63-4 Je '48

Record figures in production and use of rayon established in 1947; reports by prominent factors, Rayon 29:30-2 Ja '48

Should converters build rayon plants? yes, H. Von Kohorn; no, say converters, Textile 70:24-5+ Je '48

Summary of rayon report by special subcommittee on cotton submitted to House of representatives, 80th Congress, R. B. Evans, Rayon 29:38-9 Mr '48

Textiles battle for the consumer dollar; the part played by rayon, Textile Col 70:22-3+ Mr '48

What is rayon? Tennessee Eastman faces a terminology squabble, Bsns W p53 F 7 '48

Advertising

Package promotion introduces yard goods to sales clerks; Wild Rice, new fabric, il Ptr Ink 222:32-3 Ja 2 '48

Rayon manufacturers set campaign pace to increase share of summer suit market, N. Kelne, Ptr Ink 223:100 My 7 '48

Finance

Rayon firms' 1948 earnings to hold near 1947 level; position of North American rayon corp. and American bemberg corp, Barron's 28:27 Mr 29 '48

Regulation

Rayon yardstick? Office of alien property vetoes yarn price rise by two companies it controls, Bsns W p39-40+ Mr 13 '48

Statistics

1948 rayon gain large but 1949 will be small, W. B. Dall, il Textile World 98:103-5+ S '48

Rayon and acetate statistics, Rayon 29:40 Mr '48

Rayon and manufactures, 1941-1946, Survey of Cur Bsns 1947 Sup p 175 [supplemented in monthly numbers]

Rayon, U.S. and world production of rayon, 1923-1947, Chem Eng 55:117-4 F '48

U.S.A. rayon production, 1936-1947; chart, Rayon 29:33 Ja '48

Canada

Canada's rayon and nylon industry, E. F. Mann, Rayon 28:62-4 D '47

Canadian imports of rayon during the first three months of 1948, For Comm W 32:37-8 Jl 3 '48

Germany

Rayon situation in 1947, For Comm W 31:28 Ap 24 '48

Great Britain

British rayon industry begins new era of expansion, Rayon 28:625-7 D '47

Merchant adventuring in textile design; British rayon design centre states its problem, V. Watkins, il Textile Col 69:44-5 N '47

Organisation of the rayon industry, W. Palmer, Textile Inst J 39:P366-71; Discussion, P371-2 Ag '48

Rayon and the new fibres, Economist 155:386-8 S 4 '48

Japan

Japanese synthetic fibre industry, T. Takagi, Rayon 28:55-7 Jl '48

What is happening in Japan's once-thriving rayon industry? W. Weinstein, il For Comm W 29:3-5+ D 20 '47

Mexico

Mexico's rayon industry advancing, For Comm W 31:34-5 Je 5 '48

1947 Mexican rayon production imports and exports, J. Kaner, Rayon 29:37 Ag '48

Salvador

Rayon-piece-goods production, imports and sales, For Comm W 31:39 My 22 '48

Spain

Spain's rayon industry growing, Rayon 29:51-2 S '48

Western states

Potential rayon manufacturing facilities on the West coast, P. W. Frisk, maps Rayon 29:55-8 S '48

RAYON machinery

Rayon spun and packaged continuously, il diag Textile World 98:142+ Ja '48

Report on German staple fiber machinery, Rayon 29:48 Je '48

RAYON manufacture

Behavior of the components of cellulose in the processing of pulp to viscose, A. Riedemann, Rayon 29:45-7 Ag; 82-4 S '48

Electrical installation in a viscose rayon factory, C. F. Freeman and H. V. Mather, il diags Inst E E J 95 pt 2:2-9; Discussion, 10-14 F '48

New ways to more rayon, il diags Bsns W p64+ N 15 '47

Raw materials for rayon, H. Levinstein, Chem & Ind p537-40 Ag 21 '48

Rayon economies with a synthetic detergent, C. M. Morgan, Rayon 29:95-6 Ap '48

Textile world's continuous-filament flow chart, Textile World 98:103-8 Mr '48

RAYON mills

Aviso increasing acetate capacity 40 per cent at Meadville, il Rayon 29:32 Ja '48

Burlington's integration moves, J. S. Love, Rayon 28:57-7 N '47

Quality plant erected for quality fabrics; weaving mill of F. Ducharme silk co. W. A. Newell, il Textile World 98:109-12+ My '48

Should converters build rayon plants? yes, H. Von Kohorn; no, say converters, Textile Col 70:24-5+ Je '48

Electric equipment

Electrical installation in a viscose rayon factory, C. F. Freeman and H. V. Mather, il diags Inst E E J 95 pt 2:2-9 F '48; Abstract, Engineering 163:470 Je 6 '47; Electrician 138:1319 My 16 '47; Discussion, Inst E E J 95 pt 2:10-14, 491-7 F, O '48; Electrician 138:1319-20 My 16 '47

Employees

Industrial innovation; the villageless mill; American Enka Lowland plant employees can live on farm, L. H. Houck, il Manuf Rec 117:46-7 O '48

Two outbreaks of carbon disulfide poisoning in rayon staple fiber plants in Poland, E. A. Paluch, J Ind Hygiene 30:37-42 Ja '48

Equipment

Modern application of automatic control in textile processing, il Rayon 29:105-7 Ap '48

Lighting

Experimental lighting for rayon weaving; study of output, quality, cost, J. W. Howell, Textile Inst J 39:P487-500 Ag '48

Waste

Electrolyzing sodium sulphate waste from spinning bath recovery in viscose process, P. W. Frisk, bibliog diags Rayon 29:51-3 F '48

Four wastes; one effluent; viscose plant treats, mixes and disposes of the various wastes from rayon production operations, B. N. Sheuer, flow diag il Chem Eng 55:138-40 F '48

RAYON printing

Application printing of acetate cellulose fabrics, H. Baumann, Rayon 29:89-90 Mr; 102 Ap '48

Cellulose acetate printing; thiocyanate, combined with solvents; patent, Am Dyestuff Rep 37:697-8 O 18 '48

Discharge pastes on acetate of cellulose-indigosols as coloring agents; patent, Am Dyestuff Rep 37:698+ O 18 '48

Discharge pastes on acetate of cellulose, non-alkaline pastes; patent, Am Dyestuff Rep 37:537 Ag 9 '48

Discharge printing of acetate rayons, H. P. Baumann, Rayon 29:94-5 Je '48

RAYON printing—Continued

Discharge prints on acetate of cellulose; thio-cyanate impregnation; patent. *Am Dyestuff Rep* 37:474 J1 12 '48

Methods in screen printing. *F. F. Jacobs. il Rayon* 28:607-9 N '47

Printing cellulose acetate by using swelling agents; patent. *Am Dyestuff Rep* 37:398 Je 14 '48

Raising; local effects by printing artificial resins on rayon; patent. *Am Dyestuff Rep* 37:567 Ag 23 '48

RAYON research

Electron-microscopical examination of rayon. *C. W. Hock. bibliog il Textile Res J* 18:366-71 Je '48

Stress-strain characteristics of viscose rayons in relation to fibre anisotropy. *L. Rose and J. D. Griffiths. bibliog il Textile Inst J* 39:P265-96 J1 '48

RAYON sizing

Importance of correct squeeze roll pressure in sizing. *il Rayon* 28:593 N '47

Sizing of yarn dyed warps. *J. J. Sussmuth. diags Rayon* 29:48 My '48

Sizing spun rayon warps. *J. J. Sussmuth. diags Rayon* 28:643-4 D '47

RAYON spinning

Continuous rayon spinning process. *il diag Chem Eng* 54:103 N '47; *Textile World* 97:157-8 N '47

Development of continuous rayon spinning. *S. W. Barker and E. Allestone. diags Textile Inst J* 39:P1-20 Ja '48

Nelson continuous rayon spinning machine. *diag Chem Eng* 55:156-7 Ja '48

Nelson continuous viscose rayon spinning process. *il diag Rayon* 28:633-6 D '47; *Engineer* 134:482-3 N 21 '47

Progress in rayon spinning machines. *il Rayon* 29:59-60 S '48

Rayon spun and packaged continuously. *il diag Textile World* 98:142-3 Ja '48

Stress-strain characteristics of viscose rayons in relation to fibre anisotropy. *L. Rose and J. D. Griffiths. bibliog il Textile Inst J* 39:P265-96 J1 '48

Tow-to-top unit to be made by Warner & Swasey. *il Textile World* 98:149 J1 '48

RAYON tow. See Rayon yarn**RAYON weaving**

Advantage of statistical data on weaving performance and quality. *O. Bitzenhofer. Rayon* 29:61-2 Ja; 65-6 F; 62-4 Ap '48

Applying reeds with a minimum of error. *H. E. Wenrich. il diag Rayon* 29:62-4 Mr '48

Careful loom adjustment aids rayon weaving. *diags Textile World* 97:114-15 D '47

Crepe warping techniques are applicable to Bemberg. *J. Gassman. il Textile World* 98:113-4 My '48

Experimental lighting for rayon weaving; study of output, quality, cost. *J. W. Howell. Textile Inst J* 39:P487-500 Ag '48

Kellogg loom has unique design features. *W. A. Newell. il diag Textile World* 98:118-21 Je '48

New cam loom by Kellogg used on rayon. *il Rayon* 29:67-8 Ap '48

New French circular loom used on rayon. *H. R. Mauersberger. il Rayon* 29:81-2 S '48

Preparing weave harness for twisting. *H. E. Wenrich. diags Rayon* 28:594-5 N '47

Proper loom adjustments eliminate bird's-eyes. *A. Frantz. il Textile World* 98:110-11 J1 '48

Warp mounting in looms varies. *H. E. Wenrich. diag Rayon* 29:57-9 J1 '48

Warp twisting-in machine technique. *H. E. Wenrich. il Rayon* 29:70-2 Ap '48

Weave room inspection of new warps. *H. E. Wenrich. diags Rayon* 29:69-70 S '48

Wooden shuttle model can solve size problems; silk shuttle enlarged to accommodate rayon. *C. S. Bicksler. diag Textile World* 98:155-6 Ag '48

RAYON yarn

Crimping textiles; especially yarns; patent. *diag Am Dyestuff Rep* 37:474 J1 12 '48

Direct spinner for tow produces fine, strong yarn; new Saco-Lowell machine. *C. M. Bowden. il Textile World* 98:114-15 My '48

Many uses seen for high-frequency heat. *T. H. Story. il Textile World* 98:122-3-4 Mr '48

Physical properties of cellulose acetate rayon yarns. *H. D. Smith and H. R. Childs. bibliog Rayon* 29:63-4 F; 52-3 Mr; 53-4 My; 52-4 Je; 47-9 Ag '48

Redraw crepe to clean and balance packages. *S. J. Miller. Textile World* 98:143 J1 '48

Tow-to-top unit to be made by Warner & Swasey. *il Textile World* 98:149 J1 '48

Cotton mixtures

Smyre features cotton-rayon blends. *C. M. Bowden. il Textile World* 98:127-4 Ap '48

Spun-dyed staple used in cotton-rayon blends. *H. Ashton. Textile World* 98:143-4 My '48

Mixtures

Sizing of spun yarns. *R. P. Morningstar. il diag Rayon* 29:54-6 F '48

Nylon mixtures

Valuable comparative yarn tables. *A. L. Dorgin. Rayon* 29:51 Je '48

Tables, calculations, etc.

Changes in domestic rayon yarn deniers and filament numbers; revised tables as of March 1948. *H. R. Mauersberger. Rayon* 29:50-1 Mr '48

Few changes of denier and filament numbers of American rayon yarns. *H. R. Mauersberger. Rayon* 29:62-3 S '48

Testing

Degradation of rayon tire yarn at elevated temperatures. *R. C. Waller, K. C. Bass and W. E. Roseveare. bibliog Ind & Eng Chem* 40:138-43 Ja '48

Instrument for measuring the coefficient of friction of yarns against other materials. *H. Buckle and J. Pollitt. il diags Textile Inst J* 39:T199-210 Je '48

Mechanics of elastic performance of textile materials. *W. J. Hamburger. bibliog Textile Res J* 18:102-13 F '48

RAYONIER, Inc.

Diversified stake in high leverage stocks. *G. W. Mathis. Mag of Wall St* 82:393 J1 17 '48

Profits rise as demand tops capacity. *Baron's* 28:32 Mr 1 '48

Pulp insurance; Rayonier buys interest in big lumber company. *Bsns W* p22 N 29 '47

RAYS**See also**

Absorption of rays	Gamma rays
Alpha rays	Infrared rays
Beta rays	Radiation
Cosmic rays	Ultraviolet rays
Diagnosis, Radio-	X rays
scope	

RAYS Positive

Historic researches; positive rays and isotopes. *il diags Engineer* 186:166-8, 189-90, 215-17, 239-41, 265-7 Ag 13-S 10 '48

RAYTHEON manufacturing company

New products promise better Raytheon net. *Barron's* 28:35 S 20 '48

RAZOR blade dispensers

Blade time-saver; plastic dispenser. *il Mod Packaging* 21:114-15 N '47; *Mod Plastics* 25:103 D '47

RAZOR blades

Steel for shaves. *Bsns W* p44-4 Mr 13 '48

RAZORS

Story of the safety razor. *D. Wharton. il Adv & Sell* 41:119-20-4 Mr '48

REACTANCE

Physical concept of leakage reactance. *J. H. Kuhlmann. bibliog il diags Elec Eng* 67:142-6 F '48

REACTIVE power

Sign of reactive power; AIEE committee report. *bibliog Elec Eng* 67:49-53 Ja '48

Train operators to dispatch reactive same as active power. *E. R. Paige. il diags Elec World* 128:94-6 D 6 '47

REACTORS

Design of magnetic amplifiers. *A. S. Fitz-Gerald. bibliog diags Franklin Inst J* 244:323-62 N '47

Motor speed control uses saturable-core reactor. *L. Helterline. il diag Machine Design* 20:137-9 S '48

Saturable reactors and magnetic amplifiers. *F. G. Logan. diags Electronics* 21:104-9 O '48

REACTORS—Continued

Theory of magnetic amplifiers and some recent developments. E. H. F. Smith, diags J Sci Instr 25:268-72 Ag '48

See also

Petersen earth coil

REACTORS, Chemical

Correlating reactor performance in alcohol butadiene process. J. Coull and C. A. Bishop, Chem Eng Prog 44:443-51; Discussion, 450+ Je '48

READING

Reading and visual fatigue; abstract. L. Carmichael, Science 106:628-9 D 26 '47

READING company

Equipment trusts offered. Comm & Fin Chr 167:2364 My 31 '48

REAL estate bonds. See Bonds, Real estate

REAL estate business

Current real estate trends. A. M. Weimer. Comm & Fin Chr 168:812+ Ag 26 '48

Forecasts 1948 firm real estate prices. M. L. Matthews, Comm & Fin Chr 167:105 Ja 8 '48

Home prices stay up. Bsns W p32+ Ap 24 '48

Institutional investments in real estate; abstract. M. Levy, Banking 40:112-13 F '48

National association of real estate boards expects commercial building gain; sees no substantial increase in real estate sales. Comm & Fin Chr 166:2269 D 4 '47

Real estate and construction markets. Fed Res Bul 34:755-63 JI '48

Real estate as an investment. T. H. Ross. Comm & Fin Chr 166:1845 N 6 '47

Real estate prices and mortgage practices. W. W. True, Comm & Fin Chr 168:1206+ S 23 '48

Realtors expect clear sailing. Bsns W p24-5 N 22 '47

Realty deals; abstract. H. Adelsberg, J Account 86:163 Ag '48

Survey of real estate conditions by Previews. Trusts & Estates 87:122 Ag '48

Today's real estate market. R. H. Pease. Harvard Bsns R 26:385-97 JI '48

Trends affecting real estate values. W. A. Marcus, Comm & Fin Chr 167:1424+ Ap 1 '48

See also

Building

Housing projects

Land—Subdivision

Leases

Mortgages

Rent

Suburban development

Taxation

Advertising

Realtor outlines ad writing technique. T. J. Housnon, Ed & Pub 81:62 Ap 17 '48

Success of photo-ads spurs realty copy. T. S. Irvin, Ed & Pub 81:48 S 18 '48

Taxation

When and how to be a dealer rather than an investor for tax purposes. J. P. Allison, bibliog(94 ref) J Account 86:38-49 JI '48

When is taxpayer dealer in real estate? J Account 86:335-6 O '48

Chicago

Record keeper; Chicago title & trust co. Bsns W p98+ D 6 '47

New York (city)

See also

United nations—

Headquarters

REAL property

Only Caucasian; a study of race covenants; Queens county, Nassau county and southern Westchester county. J. P. Dean, J Land & Pub Util Econ 23:428-32 N '47

See also

Land values

Real estate business

Taxation

New York real estate taxes. J Account 85:156-7 F '48

When and how to be a dealer rather than an investor for tax purposes. J. P. Allison, bibliog(94 ref) J Account 86:38-49 JI '48

When is taxpayer dealer in real estate? J Account 86:335-6 O '48

Valuation

Capitalization problems in real estate appraisals. L. W. Ellwood, Comm & Fin Chr 167:2101+ My 13 '48

How to appraise housing for condemnation; Connecticut state highway department's rights-of-way division. Roads & Sts 91:112+ Ja '48

See also

Insurance, Fire—

Valuation of property

REAMERS

Bar-type reamer cuts smooth bore using hardened circular cutters. G. R. Milner, diags Am Mach 92:116 My 20 '48

David Brown S type positive floating reamer. il Automobile Eng 38:106-7 Mr '48

Sharpening carbide reamers; reference book sheet. il Am Mach 92:123, 125, 127 Ag 26 '48

REAMING

Headstock bearings in old lathe replaced in shell-reaming setup. F. C. Lurz, diags Am Mach 92:111 JI 29 '48

Machining copper and its alloys; drilling and reaming. J. J. McGuinness, diags Am Mach 92:104-5 My 6 '48

Unilateral tolerances for drilled and reamed holes. E. A. Ryder, diags Tool Eng 21:27-8 O '48

REAVELL, William, 1866-1948

Sketch. por Engineer 185:428-9 Ap 30 '48

RECEPTIONISTS

Hostess conserves officer time, speeds up service. J. S. Holm and V. Feitz, il Bankers Mo 65:8+ Ag '48

RECIPROCAL insurance. See Insurance, Reciprocal

RECIPROCAL trade agreements. See Commercial treaties and agreements

RECIPROCITY law, Photographic. See Photography—Exposure

RECLAIMED rubber. See Rubber waste

RECLAMATION of land

Land reclamation of Illinois coal strippers; abstract. J. W. Bristol, Min Cong J 34:73 Je '48

RECONSTRUCTION (World war, 1939-1945)

Dollar standard. Fortune 37:2-4 Ap '48

Fire that rings the world. il Fortune 37:78-81+ Ap '48

Foreign grants and credits of the U.S. government. B. W. Ruffner, Survey of Cur Bsns 28:11-15+ Je '48

Mineral position of ECA nations. J. C. Christie, il Straniero and others, il maps Eng & Min J 149:70-9 O; 70-5 N '48

Official of International monetary fund outlines steps toward currency stabilization and multilateral payments in Europe. Comm & Fin Chr 168:105+ JI 8 '48

Our national resources and European relief. C. J. Brand, Comm & Fin Chr 168:1947+ N 13 '47

Peace settlement with Germany; economic and social. C. J. Friedrich, bibliog Ann Am Acad 257:129-41 My '48

Persistence of power politics. T. V. Kalijarvi, Ann Am Acad 257:1-12 My '48

Reconstruction of the French national railways. Engineer 186:244-5 S 3 '48

Toward a world economy. T. J. Kreps, Ann Am Acad 257:157-74 My '48

Two worlds and steel. J. Hight, maps Iron Age 161:140-7 Ja 1 '48

We must help abroad in businesslike way. T. E. Dewey, Comm & Fin Chr 166:1955+ N 13 '47

What is the Bevin plan? union of western Europe. Economist 154:169-70 Ja 31 '48

See also Cooperative for American remittances to Europe

Finance

Dollar shortage. Fortune 38:94-5 N '48

Marshall plan

After effects of the Marshall plan. J. A. de Haas, Comm & Fin Chr 167:2197+ My 20 '48

Aid to Europe and economic stability at home. P. D. Reed, il Dun's R 56:11-12+ Ja '48

American participation in European recovery. J. D. Mooney, Comm & Fin Chr 167:1312+ Mr 25 '48

American resources for world leadership. H. M. Tremaine, il Mag of Wall St 81:335-6+ Ja 3 '48

RECONSTRUCTION (World war, 1939-1945)—
 Marshall plan—*Continued*
 America's duty toward the world. C. Francis. *Credit & Fin Management* 49:6-8+ N '47
 America's role in the economic situation. M. S. Szymczak. *Comm & Fin Chr* 168:702+ Ag 19 '48
 Battle for peace; objective I. European recovery. C. A. Herter. *il Dun's R* 56:16-18+ My '48
 Belgium and European recovery. *Economist* 155:539-40 O 2 '48
 Bizonia in the Marshall plan. *Economist* 154:716-17 My 1 '48
 Blueprint for European aid; report of Harriman committee. *Nat City Bank p* 142-3 D '47
 Britain and Marshall plan. P. Einzig. *Comm & Fin Chr* 166:2489; 167:816; 168:15, 113 D 18 '47, F 19, J 1, 8 '48
 Britain in Europe; question of the plan's administration. *Economist* 153:905-6 D 6 '47
 British imperial preference and the Marshall plan. J. K. Javits. *Comm & Fin Chr* 166:2614+ D 25 '47
 Can American dollars save Europe from communism? J. H. Ball. *Comm & Fin Chr* 167:17+ Ja 1 '48
 Canada and the Marshall plan. F. H. Soward. *Pulp & Pa of Can* 49:87-8 O '48
 Chemical requirements of Europe under Marshall plan \$260,000,000. *Oil Paint & Drug Rep* 152:3+ N 10 '47
 CED favors European aid program. *Comm & Fin Chr* 167:719 F 12 '48
 Continued European planning would sabotage ERP. J. Van Galen. *Comm & Fin Chr* 167:2636+ Je 17 '48
 Controlling the Marshall plan. M. Palyi. *Comm & Fin Chr* 167:1208+ Mr 18 '48
 Decries Marshall plan for Latin America. J. S. Kemper. *Comm & Fin Chr* 168:1331 S 30 '48
 Development of the European recovery plan. *Mo Labor R* 66:40-5 Ja '48
 Economic advisory council reports on foreign aid burden. *Comm & Fin Chr* 166:1853+ N 6 '47
 Economic cooperation agreements; pacts signed, terms spotlighted. *For Comm W* 32:3+ J 10 '48
 Endorses ERP objectives. D. Sarnoff. *Comm & Fin Chr* 167:1325 Mr 25 '48
 Engineering administration of Marshall plan urged; abstract. W. L. Batt. *Civil Eng* 18:77+ F '48
 Europe can be put on self sustaining basis. C. Gutt. *Comm & Fin Chr* 166:2481+ D 18 '47
 Europe doesn't want what ECA proposes to give; swing toward capital goods buying. H. S. Taylor. *Barron's* 28:9-10 Je 7 '48
 European currency reform essential to Marshall plan success. V. C. Smith. *Comm & Fin Chr* 167:6+ Ja 1 '48
 European economic integration. P. Einzig. *Comm & Fin Chr* 168:705 Ag 19 '48
 European labor force and the ERP. J. A. Flexner and J. Mintzes. *Mo Labor R* 65:678-84 D '47
 European payments agreements, multilateral compensation and the European recovery program; report of Bank for International Settlements. *Fed Res Bul* 34:1232-7 O '48
 European payments scheme; allocating direct Marshall aid and mutual aid. *Economist* 155:466-7 S 18 '48
 European petroleum requirement estimates are revised upward. Marshall plan outline shows. *Nat Pet N* 39:35 D 24 '47
 ERP; a new adventure in peace; statement before Senate committee on foreign relations. B. M. Baruch. *Comm & Fin Chr* 167:500+ Ja 29 '48; *Discussion*, 167:704+ F 12 '48
 ERP agreements; a new international era. E. A. Gross. *Comm & Fin Chr* 168:317+ J 22 '48
 European recovery program and interim aid; report of National advisory council. *Fed Res Bul* 34:161-3 F '48
 European recovery program as an investment; address before Investment bankers association of America. J. M. Cassels. *Comm & Fin Chr* 166:2499+ D 18 '47
 ERP in operation; objectives and performance. E. A. Krauss. *Mag of Wall St* 82:420-2+ J 1 31 '48

European shopping list; Paris report. H. Bratter. *Banking* 40:38-9+ N '47
 Europe's hope of recovery. J. J. McCloy. *Comm & Fin Chr* 167:496+ Ja 29 '48
 Financial problems of the ERP. M. S. Szymczak. *Comm & Fin Chr* 168:1003+ S 9 '48
 First lap for the West. *Economist* 154:913-14 Je 5 '48
 Foreign aid programs and U.S. foreign trade. W. M. Martin, jr. *Comm & Fin Chr* 168:1314+ S 30 '48
 Foreign assistance act. W. W. Aldrich. *Comm & Fin Chr* 167:2185+ My 20 '48
 Foreign assistance act of 1948; a summary. *Economist* 154:624 Ap 17 '48
 Foreign trade developments; Marshall plan works on adjustment bureau principles. W. S. Swingle. *Credit & Fin Management* 50:13-15 Je '48
 French. British mistake U.S. motives in backing Marshall plan; Gallup poll. *Iron Age* 160:125 D '47
 Fundamentals of European recovery; address before Investment bankers association of America. W. L. Thorp. *Comm & Fin Chr* 166:2500+ D 18 '47
 Hope of European currency stability; Marshall plan succeeding. P. G. Hoffman. *Comm & Fin Chr* 168:1651+ O 21 '48
 How far can world bank contribute to Marshall plan? E. H. Weinwurm. *Comm & Fin Chr* 167:102+ Ja 8 '48
 How helping Europe will affect our economy. K. Rannels. *Automotive Ind* 93:33+ My 15 '48
 How much will it cost? Harriman committee scales down Marshall plan nations' requests. *Bsns W* p22-3 N 15 '47
 How our foreign policy touches the consumer. A. A. Friedrich. *Banking* 40:59-60 Je '48
 I'm for the middle road. E. Johnston. *Comm & Fin Chr* 167:807+ F 19 '48
 Immediate increase in European refining capacity needed to make E.R.P. work. W. W. Burns. *Oil & Gas J* 46:62-3 F 12 '48
 Impact of interim European aid; statement before Senate foreign relations committee. W. A. Harriman. *Comm & Fin Chr* 166:2059+ N 20 '47
 Imponderables in the Marshall plan. W. R. Burgess. *Comm & Fin Chr* 166:2048+ N 20 '47
 Incentive goods market opens under interim-aid law; small, packaged products wanted to spur European output. *il Bsns W* p22 Ja 17 '48
 Industry's stake in western Europe's recovery. L. H. Brown. *Am Pet Inst Proc* 27(1):54-8 '47; *Abstract*. *Oil & Gas J* 46:58 N 22 '47
 Let private enterprise into Marshall plan. E. Johnston. *Comm & Fin Chr* 167:1011+ Mr 4 '48
 Local currency funds administering interim aid in France. *Economist* 154:42-4 Ja 10 '48
 Majority in Holland support the European recovery plan; Gallup poll. *Iron Age* 161:125 Ap 8 '48
 Marshall deficits, 1948-49. *Economist* 154:814-15 My 15 '48
 Marshall plan; a snare and delusion. W. A. Robertson. *Comm & Fin Chr* 167:1208+ Mr 18 '48
 Marshall plan and world trade; groundwork for real recovery. T. C. Blaisdell, jr. *For Comm W* 33:3-5+ O 16 '48
 Marshall plan electric power requirements; tabulation. *Elec World News ed* 129:6 My 1 '48
 Marshall plan food shipments won't weigh too heavily on domestic markets. *Barron's* 28:36 Ja 5 '48
 Marshall plan for China. map *Bsns W* p21-2 D 13 '47
 Marshall plan gains support; Gallup poll. *Iron Age* 160:113+ D 18 '47
 Marshall plan is really three different schemes; economic effects on United States under-estimated in official reports. J. Hirsch. *Barron's* 27:7-8 D 8 '47
 Marshall plan must succeed! P. H. Lohman. *Comm & Fin Chr* 166:1955+ N 13 '47
 Marshall plan not broad enough to maintain U.S. exports at recent level. D. W. McKnight. *Comm & Fin Chr* 166:1847 N 6 '47

RECONSTRUCTION (World war, 1939-1945)—

Marshall plan—*Continued*
 Marshall plan; operation rat hole? C. W. Brooks. Comm & Fin Chr 167:501 J 29 '48
 Marshall plan traffic no shipping boom. F. A. Johnston. Barron's 27:27 D 29 '47
 Marshall plan will aggravate communism in Europe. F. C. Smith. Comm & Fin Chr 167:1010+ Mr 4 '48
 Marshall program. map Am Mach 91:104a-104 l D 4 '47; Same. Bsns W p67-78 N 22 '47; Same. Eng N 139:751-62 N 27 '47; Same. Factory Management 105:128C-128N D '47; Same. Food Ind 19:sup69-80 D '47 [and other McGraw-Hill publications]
 Mineral industry support needed for European recovery program. R. P. Koenig. Min & Met 29:238-40 Ap '48
 National advisory council report on financial aspects of the European recovery program. Fed Res Bul 34:1092-6 S '48
 National foreign trade council sees vast reservoir of private investment capital for European recovery. Comm & Fin Chr 167:114 J 8 '48
 Niggardly giving would defeat ERP. Barron's 28:1+ J 5 '48
 Objectives of our foreign assistance. P. G. Hoffman. Comm & Fin Chr 167:2327+ My 27 '48
 Oil requirements of Marshall plan revised; new report due soon. Oil & Gas J 46:47 Ja 8 '48
 OEEC faces the test. Economist 155:424-5 S 11 '48
 Our foreign aid policy in operation; address before Missouri bankers association. St Louis. J. W. Snyder. Comm & Fin Chr 167:1976+ My 6 '48
 Our future destiny depends on this year's decisions; address before National council of farmer cooperatives; abstract. W. A. Harriman. For Comm W 30:3+ J 17 '48
 Our money will never save Europe. F. A. Allen. Comm & Fin Chr 167:209 J 15 '48
 Outlines European aid program before Senate foreign relations committee; abstract. G. C. Marshall. Comm & Fin Chr 166:1951 N 13 '47
 Parliament approves ERP pact. P. Einzig. Comm & Fin Chr 168:314 J1 22 '48
 Plan takes shape. Economist 153:787-8 N 15 '47
 Practical procedures and operations affecting ERP shipments. For Comm W 31:13 My 22 '48
 President submits plan for European recovery; message to Congress. Comm & Fin Chr 166:2618+ D 25 '47
 President's committee reports on foreign aid. Comm & Fin Chr 166:1956+ N 13 '47
 Prices and foreign relief. A. M. London. Comm & Fin Chr 166:2051+ N 20 '47
 Problems of foreign aid program. L. E. Allen. Comm & Fin Chr 167:1103+ Mr 11 '48
 Progress in cooperation among ERP's participating countries notable; address before American association of magazine publishers. P. G. Hoffman. For Comm W 32:8-9 S 25 '48
 Realistic appraisal of international affairs. V. L. Horoth. Il map Mag of Wall St 81:399-401, 438 Ja 17 '48
 Realities of foreign aid. H. Hazlitt. Comm & Fin Chr 167:701+ F 12 '48
 Recovery in western Europe. Fed Res Bul 34:133-47 F '48
 Rejuvenating European mining; how the Marshall plan may help Europe's mines and mitigate U.S. shortages. C. W. Wright. Min & Met 29:12-15 Ja '48
 Relationship of U.S. foreign aid to the Nation's world trade. W. M. Martin, jr. Il For Comm W 33:5-6+ N 8 '48
 Report shows how Europe uses Marshall-plan funds for oil. Oil & Gas J 47:42-3 N 4 '48
 Restoration of Europe essential. E. Meyer. Comm & Fin Chr 166:2162+ N 27 '47
 Restored Europe our aim; Chicago address. G. C. Marshall. Comm & Fin Chr 166:2053+ N 20 '47
 Risks and purposes in Marshall program. Barron's 27:1+ N 17 '47
 Road-building equipment; how ERP may affect trade and supplies; Europe's requirements viewed in relation to U.S. needs. G. L. Bell. Il For Comm W 30:3-5+ F 21 '48

Shortcomings of ERP; statement before Foreign relations committee of the House of representatives. E. T. Weir. Comm & Fin Chr 167:1007+ Mr 4 '48
 Some aspects of foreign aid; implications for the American utilities industry. T. N. Sandifer. Pub Util 41:222-8 F 12 '48
 Spain and Marshall aid. Economist 155:105-6 J1 17 '48
 Steel requirements under Marshall plan revised downward. Iron Age 160:136B-136C N 6 '47
 Sterling, the sterling area and ERP. S. Cripps. Comm & Fin Chr 167:2645+ Je 17 '48
 Stockpiling hopes from ERP illusory; nations emerging from colonies would say we preyed upon them. E. Kaskeline. Barron's 28:7 Ja 26 '48
 Stop! look! listen! before adopting relief program. H. J. Taylor. Comm & Fin Chr 166:2050+ N 20 '47
 Studebaker's Paul G. Hoffman, in driver's seat as administrator of Foreign assistance program. Steel 122:50+ Ap 19 '48
 Sweden and the Marshall plan. Economist 154:230-1 F 7 '48
 Tackling aid problem; what does Europe need? Bsns W p 109-10 My 29 '48
 To men of good will. Economist 153:1033-5 D 27 '47
 United States and world crisis. A. W. Zelom. Comm & Fin Chr 166:2630+ D 25 '47
 United States balance of payments with ERP countries; estimates for 1947 and the first program year. Survey of Cur Bsns 28:5-7 My '48
 Unprecedented, heartening achievement; first annual program submitted by OEEC; abstract. P. G. Hoffman. For Comm W 33:7 O 30 '48
 Unsordid act; Marshall plan approved by Congress and signed by the President. Economist 154:569-70 Ap 10 '48
 War economy will interfere with European recovery; extract from annual report of Bank for international settlements. Comm & Fin Chr 168:332 J1 22 '48
 Western Europe and the E.R.P. Nat City Bank p56-9 My '48
 Western Europe forges own economic chains. W. Chamberlain. Comm & Fin Chr 166:2613+ D 25 '47
 Western Europe in the balance. J. L. Simpson. Comm & Fin Chr 167:603+ F 5 '48
 What can we expect from special session? E. A. Krauss. Il Mag of Wall St 81:176-8+ N 22 '47
 What ERP means to industry; how it works. Mod Ind 15:102-4+ Je '48
 What the Marshall plan involves. R. A. Taft. Comm & Fin Chr 166:1944+ N 13 '47
 Where ERP dollars will benefit American business. W. Gates. Il Mag of Wall St 82:118-19+ My 8 '48
 Who gets the money under Marshall plan? H. J. Taylor. Comm & Fin Chr 167:208+ J 15 '48
 Whose plan for foreign aid? Marshall and Herter head opposing forces. Bsns W p24-5 Ja 24 '48
 Will Marshall plan succeed? Bsns W p 19-22 N 15 '47
 World and the dollar. Economist 154:1051-2; 155:4-5, 44-6 Je 26-J1 10 '48
 World bank and ERP. J. J. McCloy. Comm & Fin Chr 167:1223+ Mr 18 '48

*See also***Economic cooperation administration****RECONSTRUCTION finance corporation**

Airline problem in RFC's lap. S. Altschul. Aviation W 49:55-6 S 20 '48
 Airlines welcome RFC survey. Aviation W 49:39 Ag 23 '48
 Bill in Congress permits RFC aid to insurance; S. 2287. Weekly Underw 158:1019 Ap 3 '48
 Loans outstanding, end of month, 1941-1946. Survey of Cur Bsns 1947 Sup p80 [supplemented in monthly numbers]
 Reorganized RFC faces budget of \$1.5 billion. Iron Age 161:160+ Je 3 '48

RECORDING instruments

- Care and calibration of recording instruments. J. E. Kerslake and others. *il Am Water Works Assn J* 40:632-40 Je '48
- Circuit incorporating a chronoscope recorder, for use with particle counters. H. D. Evans. *bibliog J Sci Instr* 25:145-7 My '48
- Continuously recording the specific gravity of solutions. R. M. Brown. *diags Pulp & Pa of Can* 49:83-6 Mr '48
- Development of Diesel operation recorder on the Atlantic coast line. J. D. Loftis. *il Ry Age* 124:1168-71 Je 12 '48
- Device for obtaining a continuous record of body temperature from the external auditory canal. R. J. Williams and R. C. Thompson. *diags Science* 103:90-1 JI 23 '48
- Diesel-electric locomotive operation recorder. *il Ry Age* 124:1269-70 Je 26 '48
- Graphical analysis of speakers and microphones; manual-electronic curve tracer. A. J. Sanial. *il diags Tele-Tech* 7:42-3 F '48
- Guide rod for ink styles. M. Zschokke. *il diags R Sci Instr* 19:552-5 S '48
- Instruments guide industry; Analog is one. *il diags Bsns W* p68+ S 25 '48
- Ionosphere reflections recorded mechanically by means of a repetition frequency converter. W. Stoffregen. *il diags J Ap Phys* 19:487-90 My '48
- Mechanical vibration recorder. C. B. Cunningham. *il diags Machine Design* 20:133-4 Ja '48
- New process control instruments for chemical industry. E. S. Lee. *il Chem Eng Prog* 44:263-7; Discussion. 267-8 Ap '48
- Portable water level recorder. *diags Engineer* 185:121 Ja 30 '48; *Engineering* 165:58 Ja 16 '48
- Simple ink writer for the mercury manometer. L. H. Anderson. *diags Science* 103:445 O 22 '48
- Simple recording system for a mass spectrometer. V. H. Dibeler and others. *bibliog diags R Sci Instr* 19:119-20 O '48
- See also*
- | | |
|------------------------|------------------------------|
| Aeronautic instruments | Oscillographs |
| Anemometers | Spectrograph |
| Barometers | Tachograph |
| Geiger-Müller counters | Telephone recorders |
| Manometers | Thermometers and thermometry |
- RECORDING instruments, Electric**
- Accurate method of determining engine oil consumption; recording scale. W. S. Powell. *il Automotive Ind* 95:35+ F 1 '48
- Application of recording type meters at electric pumping wells. R. E. Hammond. *il Oil & Gas J* 47:62-5 Je 3 '48
- Automatic ionosphere recorder. Franklin Inst J 245:164-6 F '48
- Cage landing speed recorder. *il Engineer* 186:133-4 Ag 6 '48
- Flight recorder aids safety, efficiency; GE device. C. L. Beattie and P. J. Klass. *il diags Aviation W* 48:214- Ja 12 '48
- Frequency response of recording instruments. T. D. Graybeal. *Elec Eng* 67:532 Je '48
- Gloss recorder with automatic standardization. R. S. Hunter. *il diags Paper Tr J* 127:51-3 S 16 '48
- Graphic wattmeters record production of polishing machines. *il Elec World* 128:93-4 N 22 '47
- Hexade scaling circuit. E. L. Langberg. *diags R Sci Instr* 18:796-8 O '47
- Instrument for recording continuously the salinity, temperature, and depth of sea water; abstract. A. W. Jacobson. *Elec Eng* 67:455 My '48
- Measurement of periodic errors in gear-hobbing machines. C. Timms and others. *il diags Engineering* 166:337-40 O 8 '48
- Microphone calibrator. D. H. Bastin. *il diags Electronics* 21:106-9 N '48
- New circuit design for wow tester. M. G. Nicholson. *il diags Tele-Tech* 7:26-9+ Je '48
- Polar recorder has optical centering device; developed by Albrone instruments laboratory. *il diags Product Eng* 19:108-9 F '48
- Portable inkless recorders. D. M. Longenecker. *il diags Power Pl Eng* 61:110-13 N '47

- Proficorder; instrument for recording waviness and other surface profiles. E. J. Abbott and E. Rupke. *il diags A S M E Trans* 70:263-70 My '48
- Recording and control system for infra-red spectrophotometer. G. M. Rassweiler and others. *il diags Opt Soc Am J* 37:963-74 D '47
- Recording stress level gage. R. C. Walker and J. H. Meier. *il diags Product Eng* 19:138-9 Ja '48
- Speed recorder for winding-engine tests. *Engineering* 165:537-8 Je 4 '48
- Strain and deformation recording system. *il diags Iron Age* 160:74 D 4 '47

See also

Intelix

RECORDS

- Records management and filing operations. M. K. Odell and E. P. Strong. 342p \$4 McGraw-Hill book co, 330 W. 42d st, New York 18 '47

See also

- | | |
|---|--------------------------------------|
| Accounting | Forms and blanks, Business |
| Banks and banking | Inventories |
| —Records | Machinery industry and trade—Records |
| Card system in business | Microfilm records |
| Colleges and universities—Student records | Newspaper offices—Records |
| Employment departments—Records | Photographic records |
| Factories—Records | Punched card system |
| Files and filing (documents, etc.) | Sales records |
| | Stores systems |

RECORDS, Destruction of. See Files and filing (documents, etc.)

RECORDS, Microfilm. See Microfilm records

RECORDS, Preservation of

- Office records study. *Bsns W* p92 My 29 '48
- Paper research and technology at the National bureau of standards. B. W. Scribner. *bibliog il Paper Ind* 30:577-9 JI '48
- Should we change our method of preserving records? J. B. Kaiser. *il Dun's R* 56:19+ F '48

See also

Civilization—Preservation of records

RECORDS, Visible

- Branch stock control from central office; Kardex records used by Crow-Burlingame co. K. V. Browne. *il Am Bsns* 18:16-17 O '48

RECREATION

- Employee recreation on a dime! *il Mod Ind* 15:45-8 My '48
- Recreation in industry. F. E. Gerber. *Personnel J* 26:369-73 Ap '48
- Recreational program for women; First Wisconsin national bank of Milwaukee. M. A. Ralston. *il Burroughs Clearing House* 32:20-1+ Ja '48

See also

- | | |
|-----------------------------|-----------------------------|
| Reservoirs—Recreational use | Watersheds—Recreational use |
| | Workshops, Home |

RECREATION buildings**Heating and ventilation**

- Room air temperatures for ice skating rinks. Heating-Piping 20:106-7 O '48

Lighting

- Ball cage lighting serves varied uses; installation for baseball practice, Williams college. R. A. Potter. *il Elec World* 129:114 Je 19 '48

RECREATION cars

- Enjoyable moments for P.R.R.'s coach passengers; recreation cars for the Jeffersonian; illustrations with text. *plan Ry Age* 124:1032-3 My 22 '48

RECREATION centers

- Fast earth-moving job for community project in central Illinois. *il Bsns W* p20 My 8 '48
- Play center a new idea for community developers; builder donates recreational center to residents of Los Angeles Lakewood Gardens. *il Am Bid* 69:109 D '47

See also

Community centers

RECRUITING and enlistment

Set for draft; Syracuse N.Y. meets drain on industry manpower by filling quotas with volunteers. *Bsns W* p25 J1 3 '48

RECRYSTALLIZATION. See Crystallization**RECTANGLES**

Rectangles; area and moments of inertia; chart. S. Alexeff. *Aero Digest* 56:80 Ja '48

RECTIFIERS, Electric. See Electric rectifiers**RECTIFIERS, Radio.** See Radio rectifiers**RECTIFYING columns.** See Distillation apparatus**RECUPERATORS.** See Furnaces, Recuperative and regenerative**RED lead.** See Lead oxides**REDUCTION, Chemical**

Aliphatic nitro-compounds; preparation of heterocyclic bases by reduction of 3-nitro-alkyl cyanides. G. D. Buckley and T. J. Elliott. *Chem Soc J* p 1508-11 N '47

Chemical engineering unit processes; amination by reduction. J. Werner. *Ind & Eng Chem* 40:1574-83 bibliog(223 ref, p 1581-3) S '48

Demonstrations using a divided projection cell. W. B. Meldrum. *diag J Chem Educ* 25: 490-2 S '48

Deposition of nickel and cobalt by chemical reduction. A. Brenner and G. Riddell. *il J Res Nat Bur Stand* 53:385-95 N '47

Growth of coliform bacteria in media containing nitrate and nitrite; the later stages of reduction of nitrite. F. R. Lewis and C. N. Hinshelwood. *Chem Soc J* p841-5 Je '48

Iron reduction of some aliphatic nitro-compounds. M. Senkus. *bibliog Ind & Eng Chem* 40:506-8 Mr '48

Reactions of carbon and metal oxides in a vacuum. W. J. Kroll and A. W. Schlechton. *bibliog diag Electrochem Soc J* 93:247-58 Je '48

Reactions of iron pyrite; its thermal decomposition, reduction by hydrogen and air oxidation. G. M. Schwab and J. Philinis. *bibliog diag Am Chem Soc J* 69:2588-96 N '47

Reduction by dissolving metals. A. J. Birch. *Chem Soc J* p430-6 S '44; 809-13 N '45; 593-7 J1 '46; 102-5, 1642-8 Ja, D '47

Reduction of allylic quaternary ammonium bromides. D. E. Howton. *bibliog Am Chem Soc J* 69:2565-7 O '47

Reduction of antimony solutions with metallic nickel. H. Holness. *bibliog Soc Chem Ind J* 67:238-41 Je '48

Reduction of *p*-hydroxyformylaniline by lithium aluminum hydride to *N*-methyl-*p*-amino-phenol. J. Ehrlich. *Am Chem Soc J* 70:2286-7 Je '48

Reduction of organic compounds by lithium aluminum hydride; carboxylic acids. R. F. Nystrom and W. G. Brown. *Am Chem Soc J* 69:2548-9 O '47

Reduction of oxides by hydrogen and carbon monoxide. W. E. Garner. *Chem Soc J* p 1239-44 S '47

Unit processes. H. J. Garber. *il Ind & Eng Chem* 40:1687-90 bibliog(147 ref, p 1693-4) S '48

Vapour-phase reduction of arsenic trioxide by carbon monoxide. R. C. Vickery and R. W. Edwards. *diag Metallurgia* 37:310-11 Ap '48

See also

Hydrogenation**REDUCTION, Electrolytic**

Electric vitamin; Hoffman-LaRoche preparation of riboflavin intermediate. *Chem Ind* 63:588 O '48

Electrolytic reduction of aqueous tungstate solutions. M. L. Holt and L. E. Vaaler. *bibliog Electrochem Soc J* 94:50-8 Ag '48

Electrolytic reduction of carbonyl compounds at carbon cathodes. S. Swann, jr. and H. D. Kertman. *bibliog Electrochem Soc Trans* 92 (preprint 33):407-14 '47

Electrolytic reduction of hexoses. E. A. Parker and S. Swann, jr. *bibliog il diags Electrochem Soc Trans* 92 (preprint 23): 261-86 '47

Mechanism of the reduction of oxygen at the air electrode. R. S. Weisz and S. S. Jaffe. *bibliog Electrochem Soc J* 93:123-41 Ap '48

Polarographic reduction of gadolinium. S. W. Rabideau and G. Glockler. *bibliog Am Chem Soc J* 70:1342-4 Ap '48

Reduction of acetylene to ethylene by chromous chloride. W. E. Barker and D. J. Kennedy. *bibliog diags Electrochem Soc Trans* 92 (preprint 20):231-40 '47

Reduction of neodymium at the dropping mercury electrode. C. R. Estee and G. Glockler. *Am Chem Soc J* 70:1344-7 Ap '48

See also

Polarography**REDUCTORS**

Preparation of silver for use in Walden silver reductor. G. F. Smith and F. W. Cagle, jr. *Anal Chem* 20:183 F '48

REDWOOD

Redwood bark derivative now available from Pacific lumber co. *Chem Eng* 55:180+ Ja '48

Two redwood houses designed by F. L. Wright. *il plan Arch Forum* 88:150-1 Ja '48

See also

Metasequoia**Sequoia****REED, Philip Dunham, 1899-**

Portrait. *Bsns W* p28 Ag 28 '48; *Fortune* 38:7 O '48

REED-BULWINKLE law. See Railroad law**REED reaction**

Hydrocarbon sulfonylation. W. H. Lockwood. *bibliog(72 ref) il Chem Ind* 62:760-3 My '48

REEDS (botany)

Manufacture of paper from reeds in north China. Chan Szu Shiang. *Paper Tr J* 127: 43-4 O 21 '48

REELS, Electric cable. See Electric cable**reels****REEMPLOYMENT of veterans.** See Veterans—**Reemployment****REESE, Clarence, 1900-**

Sketch. por(cover) *Bsns W* p6 S 18 '48

REESE, Lewis P.

Pottery plant comes back; Scio-Ohio pottery co. por *Bsns W* p21-2 F 21 '48

REFERENCE books

Information roundup. G. Stimpson. 587p \$3.95 Harper & brothers, 49 E. 33d st, New York 16 '48

See also

Directories**Encyclopedias****Bibliography**

British sources of reference and information; a guide to societies, works of reference and libraries. T. Besterman, ed. 56p 6s Aslib, 52 Bloomsbury st, London, W.C. 1 '47

Business reference publications; catalogs, directories, buyers' guides, etc. *Ind Marketing* 32:14-1 O 25 '47

Reference books of 1944-1946. C. M. Winchell. 94p pa \$1.25 American library assn, 520 North Michigan av, Chicago '47

Use of books and libraries. H. G. Russell and others. 5th ed 101p Univ. of Minnesota lib, Minneapolis '48

REFINERIES, Petroleum. See Petroleum refineries**REFLECTION (optics)**

Coefficients of reflection of magnesium oxide and magnesium carbonate. F. Benford and others. *il Opt Soc Am J* 38:445-7 My '48

Color of unstained wood. P. Moon and D. E. Spencer. *Opt Soc Am J* 38:405-8 Ap '48

Measurement of strongly reflecting transmission samples with the commercial recording spectrophotometer. W. E. K. Middleton. *Opt Soc Am J* 38:74-5 Ja '48

Optimum band width for two layer anti-reflection films. R. B. Muchmore. *bibliog diags Opt Soc Am J* 38:20-6 Ja '48

REFLECTOMETERS

Non-adaptability of the ICI system to some near-whites which show absorption in the far blue region of the spectrum. A. E. Jacobsen. *Opt Soc Am J* 38:442-4 My '48

REFLECTORS

Aluminum; backdrop for light; vaporized reflectors. *il Bsns W* p66 Ag 14 '48

Application data for downlighting equipment. L. C. Brown and F. Presbrey. *diags Illum Eng* 43:13-25 Ja '48; Excerpt(table). *Elec World* 129:180 Ja 17 '48; Discussion. *Illum Eng* 43:25-6 Ja '48

REFLECTORS—Continued

- Characteristics of aluminum make it suited to outdoor reflector use. W. Irby. *Materials & Methods* 27:75-8 Je '48
- Electroformed precision prisms. B. Goldberg. *Il Opt Soc Am J* 38:409-12 Ap '48
- Glass reflector blanks for television sets. *Il Am Cer Soc Bul* 27:253 Je 15 '48

REFLECTOSCOPES

- Eliminating axle breakage; Erie now using Sperry reflectoscopes. E. D. Hall. *Il Ry Mech Eng* 121:710-13 D '47
- Location of internal defects of plant equipment. B. Carlin. *Il diags Am Gas Assn Proc* 1947:690-8; Same abr. *Am Gas Assn Mo* 29:391-3 S '47
- Supersonic pulses probe metals to hunt flaws, check thickness; Reflectoscope and Reflectogage. H. C. Drake and E. W. Moore. *Il Aviation W* 48:21-3 Mr 22 '48
- Supersonics versus radiography. H. R. Isenburger. *Il Metal Prog* 54:318 S '48
- Testing welds with supersonic waves; supersonic reflectoscope. B. Carlin. *Il diags Welding J* 27:438-40 Je '48

REFORESTATION. See Forests and forestry**REFORMATSKY reaction**

- N,N-Dialkyl- β -hydroxyamides via the Reformatsky reaction. N. L. Drake, C. M. Eaker and W. Shenk. *bibliog Am Chem Soc J* 70:677-80 F '48
- Some observations on the Reformatsky reaction. A. S. Hussey and M. S. Newman. *bibliog Am Chem Soc J* 70:3024-6 S '48

REFRACTION

See also

Kerr effect

REFRACTION, Double

- Application of flow birefringence measurements to high-polymer solutions. M. Wales. *bibliog J Phys & Colloid Chem* 52:976-83 Je '48
- Investigation of the relationship between polymer structure and mechanical properties; an experimental study of the stress and birefringence properties of several relaxing polymeric systems. R. S. Stein and A. V. Tobolsky. *Il diags Textile Res J* 18:302-14 My '48
- Investigation of the relationship between polymer structure and mechanical properties; relationship between structure, mechanical properties, and birefringence. R. S. Stein and A. V. Tobolsky. *bibliog (76 ref) diags Textile Res J* 18:201-23 Ap '48
- Studies on double refraction of flow; human fibrinogen and fraction I of human plasma. J. T. Edsall, J. F. Foster and H. Scheinberg. *bibliog Am Chem Soc J* 69:2731-8 N '47
- Studies on double refraction of flow; human serum γ -globulin and crystallized bovine serum albumin. J. T. Edsall and J. F. Foster. *bibliog Am Chem Soc J* 70:1860-6 My '48
- Viscose rayon fibres; swelling anisotropy and double refraction. J. M. Preston and R. V. Bhat. *bibliog diag Textile Inst J* 39:T211-17 Je '48

REFRACTION, Molecular

- Dielectric-constant and refractivity data. J. G. Miller. *A S M E Trans* 70:645-9 bibliog (67 titles, p648-9) Ag '48
- Ultrasonic velocity in a series of 1-olefins. R. T. Lagemann and others. *bibliog J Chem Phys* 16:247-9 Mr '48

REFRACTIVE index

- Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. *bibliog Am Cer Soc J* 31:132-44 My 1 '48; Same, *J Res Nat Bur Stand* 40:361-74 My '48
- Control of fractional distillation by means of refractive index measurements. R. Raw. *Soc Chem Ind J* 66:451-3 D '47
- Critical micelle concentrations as determined by refraction. H. B. Klevens. *bibliog J Phys & Colloid Chem* 52:130-48 Ja '48
- Density and refractive indices of lactose solutions. E. J. McDonald and A. L. Turcotte. *J Res Nat Bur Stand* 41:63-8 JI '48
- Determination of refractive index of polymers. R. H. Wiley and P. H. Hobson. *bibliog (45 ref) Anal Chem* 20:520-3 Je '48

Index of refraction for electrons in crystal-line media. L. Sturkey. *Phys R* 73:183 Ja 15 '48

Interference microscope for the study of inhomogeneous media. E. J. Ambrose. *bibliog diags J Sci Instr* 25:134-5 Ap '48

Physical properties and chemical constitution. A. I. Vogel. *Chem Soc J* p607-58 My '48

Physical properties and chemical constitution; acetylenic compounds and cyanides. G. H. Jeffery and A. I. Vogel. *Chem Soc J* p674-83 My '48

Physical properties and chemical constitution; ethylenic compounds. G. H. Jeffery and A. I. Vogel. *Chem Soc J* p658-73 My '48

Rapid non-destructive method of determining the refractive index of lens components, using a spectrometer. S. Jacobsohn and others. *Il diag Opt Soc Am J* 37:941-3 D '47

Refractive index of several hydrocarbons in the near ultraviolet wave-length region. J. L. Lauer. *bibliog diag J Chem Phys* 16:612-19 Je '48

Refractive indices of alcohol, water, and their mixtures at high pressures. J. S. Rosen. *bibliog diag Opt Soc Am J* 37:932-8 N '47

Some physical properties of aqueous solutions of 1,3-butanediol. T. H. G. Michael and C. Y. Hopkins. *Can Chem & Process Ind* 32:347-2 Ap '48

Specific refractive increment of some purified proteins. G. E. Perlman and L. G. Longworth. *bibliog Am Chem Soc J* 70:2719-24 Ag '48

Study of time and temperature effects on glass in annealing range. P. W. Collyer. *bibliog Am Cer Soc J* 30:338-44 N 1 '47

Tables for the determination of the refractive index and of the thickness of the thin film by the polarimetric method. A. Vášček. *Opt Soc Am J* 37:979-80 D '47

Temperature coefficient of the refractive index of water. J. B. Hawkes and R. W. Astheimer. *bibliog Opt Soc Am J* 38:804-6 S '48

REFRACTOMETERS

Hilger-Chance refractometers. *diags J Sci Instr* 25:18 Ja '48

Regulation of temperature of refractometers. J. W. C. Crawford. *Il diags Chem & Ind* p460-1 JI 17 '48

REFRACTORY concrete. See Concrete, Refractory

REFRACTORY industry

- Development of special refractories holds interest throughout industry. C. A. Freeman. *Brick & Clay Rec* 112:56+ My '48
- FTC hits refractory firms; orders 37 companies to cease and desist from price fixing and use of devices like basing point system. *Steel* 122:57 My 3 '48
- Preparedness marks refractories manufacturers enter into new era. *Il Brick & Clay Rec* 112:66+ Ja '48

REFRACTORY materials

- A.C.S. Refractories division program; abstracts. *Am Cer Soc Bul* 27:121-5 Mr 15 '48
- AICHE New Orleans meeting features refractories and insulation. *Chem & Eng N* 26:606-7 Mr 1 '48
- Atomic energy for industry will pose intricate problems for refractories. *Il Brick & Clay Rec* 112:62+ Ja '48
- Behaviour of refractory materials in carbonizing plants; observations in continuous vertical retorts. *Il diags Gas J (Lond)* 252:582-6, 639-40+ D 10-17 '47
- Better refractories needed before atomic piles can work for industry. J. E. Armstrong. *Brick & Clay Rec* 113:64+ JI '48
- Blast furnace tapping hole construction; use of carbon. W. S. Unger. *diags Blast F & Steel Pl* 36:434-3 Ap '48
- Bottom refractory discloses freedom from hydration. *Il Blast F & Steel Pl* 36:562 My '48
- Carbon, a blast furnace refractory. M. T. Cory and F. B. Thacher. *diags Blast F & Steel Pl* 35:1482-7 D '47; Abstracts. *Metal Prog* 53:572+ Ap '48; *Brick & Clay Rec* 111:66 N '47
- Characterization of porosity in refractories; abstract. J. A. Robertson. *diag Brick & Clay Rec* 111:60 D '47

REFRACTORY materials—Continued

- Chemical and mineralogical changes in stack and hearth refractories of a blast furnace. L. H. Van Vlack, bibliog il diag Am Cer Soc J 31:220-35 Ag 1 '48
- Comments on clay flux block. W. L. Fabianic, il Am Cer Soc Bul 26:393-7 D 15 '47
- Conference on high-temperature ceramics for application to aircraft power plants. Am Cer Soc Bul 27:277-9 J1 '48
- Design and performance of a refractory recuperator for soaking pits and slab reheating furnaces. E. G. Smith, il diags Iron & Steel Eng 25:106-12 Ap '48
- Forsterite refractories from serpentine; abstract. V. M. Tsyunkina. Am Cer Soc J 31 (Cer A):101 My 1 '48
- Improvements in basic refractories; abstract. L. W. Austin, Brick & Clay Rec 111:60+ D '47
- Introduction to the study of the refractory oxides; abstracts. R. E. Birch, Brick & Clay Rec 111:62 N '47; Metal Prog 53:416+ Mr '48
- Life of ladle and spout linings increased with graphite base refractory. Steel 122: 83+ Ap 5 '48
- Oxygen firing furnaces of industry is placing new demands on refractories. il Brick & Clay Rec 112:56 Ja '48
- Permeability data on American refractories. D. O. McCreight, bibliog il Am Cer Soc Bul 27:257-62 J1 15 '48
- Preparedness marks refractories manufacturers entry into new era. il Brick & Clay Rec 112:66+ Ja '48
- Properties and uses of mullite and pure alumina refractories; abstract. G. B. Remmey. Metal Prog 53:279+ F '48
- Properties and uses of pure-oxide heavy refractories; abstract. O. J. Whittemore, Jr. Iron Age 162:36-7 J1 8 '48
- Properties and uses of technical ceramics. H. Thurnauer, il Materials & Methods 26: 87-92 D '47
- Properties of blast furnace tapping hole refractories. L. L. Wells, Jr. il Blast F & Steel Pl 36:451-4 Ap '48
- Recent development in refractories. H. M. Kraner, il diags Iron & Steel Eng 25:59-64 Ap '48
- Recent trends in the ceramic industry. il Chem Eng 55:133-4 J1 '48
- Refractories; ACS panel session; abstracts of papers. Brick & Clay Rec 112:56+ My '48
- Refractories notes. 1948. L. A. Smith, il Blast F & Steel Pl 36:sup46+ Ap '48
- Refractories, the backbone of industry. G. Junck. Blast F & Steel Pl 36:1140 S '48
- Refractories use with oxygen firing still offers problems to steelmakers. il Brick & Clay Rec 112:66+ Je '48
- Refractory and insulating materials; recent developments by U.S. chemical engineers. Chem Age (Lond) 58:297-8 F 28 '48
- Refractory ceramic base coats for metal. W. J. Plankenhorn, bibliog il Am Cer Soc J 31: 145-53 Je 1 '48
- Refractory testing, use, are discussion subjects at A.F.A. annual meeting. Foundry 76: 116+ J1 '48
- Requirements of a glass tank refractory and characteristics of Monofrax; abstract. J. C. McMullen and A. P. Thompson. Cer Ind 49: 77 O '47
- Review of the effects of refractories on steel cleanliness; abstracts. J. G. Mravec, Iron Age 160:106-7 D 11 '47; Steel 121:76+ D 22 '47
- Safer blast furnace lining; Interlake iron corp. installs new type of carbon block hearth. il Bsns W p70 F 14 '48
- Simple oxide porcelains for jet planes and projectiles; abstracts. R. F. Geller, diags Brick & Clay Rec 111:62+ N '47; Metal Prog 53:412+ Mr '48
- Soluble silicates and the refractories industry. H. L. Bolton, bibliog il Am Cer Soc Bul 27:229-34 Je 15 '48
- Some of the refractory problems faced in research on jet propulsion units. il Brick & Clay Rec 112:58+ Ja '48
- Some refractory properties of Washington chromite. H. Wilson and others, 15pls U S Bur Mines Rep of Invest 3694R.1-25 bibliog(p6-8) '47

Thermal inhibitions; a super-refractory. Chem Ind 61:978-9 D '47

See also
Concrete, Refractory Fire clay
Fire brick Silica brick

Bibliography

Ceramic abstracts. Published in monthly numbers of American ceramic society journal

Manufacture

- Chicago Retort beats fuel shortage bugaboo by burning Bunker-C oil, il plan diag Brick & Clay Rec 112:72+ F '48
- Extruding refractories; some facts on blending, adding water, picking augers. J. O. Everhart, il Brick & Clay Rec 112:70+ Je '48
- Fire clay property; prospecting and planning its development. J. O. Everhart, il Brick & Clay Rec 111:68+ N '47
- Firing is the most important step in the manufacture of refractories. J. O. Everhart, Brick & Clay Rec 113:64+ S '48
- Harbison-Walker gets step nearer making refractory brick manufacture a continuous process. Chem & Eng N 26:2898 S 27 '48
- Harbison-Walker opens new mechanized plant, flow sheet il Brick & Clay Rec 113: 60-2 O '48
- Harbison-Walker's new Baltimore plant. il Am Cer Soc Bul 27:372-3 O 15 '48
- Higher forming pressures improve dry press refractories properties. J. O. Everhart, Brick & Clay Rec 113:72+ Ag '48
- Machine made refractories are equal to or better than hand molded shapes. J. O. Everhart, il Brick & Clay Rec 112:76+ Ap '48
- Manufacture of basic refractory brick; staff-industry collaborative report. R. L. Demmerle, R. E. Birch and D. B. Hendryx, bibliog il plan diag Ind & Eng Chem 40: 1762-72 O '48
- New plant for manufacturing basic refractories; Harbison-Walker refractories co. il Steel 123:110+ S 27 '48
- New plant for refractories of basic type starts production; Harbison-Walker refractories co. il Iron & Steel Eng 25:153-4+ S '48
- New plant makes basic refractories; Baltimore plant for Harbison-Walker refractories co., Pittsburgh. il Chem Eng 55:120-1 O '48
- New refractories plant features unusual handling methods; Harbison-Walker refractories co.; illustrations with text. Iron Age 162:52-3 S 30 '48
- Permanente metals corporation making refractories history on West coast. il Brick & Clay Rec 113:66+ Ag '48
- Physical changes occurring during repressing of fire-clay refractories. J. O. Everhart, diags Am Cer Soc J 30:345-8 N 1 '47
- Refractories manufacturer develops precise processes to meet steelmakers' demands; Basic refractories, inc. C. Longenecker, il Blast F & Steel Pl 36:1085-8+ S '48
- Refractory makers modernize, il Bsns W p70+ S 18 '48
- Scientific design of refractory dies replaces cut and try construction. J. O. Everhart, il Brick & Clay Rec 113:66+ J1 '48

Patents

American optical company refractory; patent, diag Glass Ind 29:352-3 Je '48

Testing

- Mechanisms of nozzle erosion in open hearth ladles. R. B. Snow and J. A. Shea, il Steel 123:88+ J1 26 '48
- Miniature glass test tank. J. C. McMullen, il diags Am Cer Soc Bul 26:365-6 N 15 '47
- Rate of wear of tank blocks in service; abstract. Whittaker and Seddon. Glass Ind 29: 333+ Je '48
- Refractory problems in production of hydrogen by pyrolysis of natural gas. R. E. Wright and H. I. Wolff, il diags Am Cer Soc J 31:31-8 F 1 '48
- Reliability of workability index of fire-clay plastic refractories. R. A. Heindl and W. L. Pendergast, il Am Cer Soc J 30:329-34 N 1 '47

REFRACTORY research

- Ceramics and nucleonics. A. L. Johnson. *Am Cer Soc Bul* 27:235-7 Je '48
 Fixation of atmospheric nitrogen in a gas heated furnace. N. Gilbert and F. Daniels. *bibliog il diags Ind & Eng Chem* 40:1719-23 S '48
 New heat-resistant materials that slash process costs. *il Mod Ind* 16:40-5 O '48

REFRIGERANTS

- Application of centrifugal refrigeration to ultralow temperatures. E. P. Palmatier. *flow sheet il diags Chem Eng Prog* 44:481-7; Discussion. 487-8 Je '48
 Choice of refrigerants for the centrifugal compressor; with cost data. O. E. Gammill, jr. *il Refrig Eng* 55:363-8; Discussion. J. R. Chamberlain. 363+ Ap '48
 Condensation of refrigerants on finned tubes. D. B. Robinson and D. L. Katz. *il Heat & Ven* 44:83-93 N '47
 Condensation of vapors on outside of finned tubes. K. O. Beatty, jr. and D. L. Katz. *bibliog flow sheet il diags Chem Eng Prog* 44:55-68; Discussion. 69-70 Ja '48
 Desirable desiccant properties for refrigerant water removal. P. L. Veltman and C. E. Waring. *Refrig Eng* 54:550-3+ D '47; Discussion. 55:49-52, 177+ Ja-F '48
 Leak detection of refrigerants; color tracing system. D. H. Crampton and C. Winnefeld. *bibliog il Refrig Eng* 55:261-3 Mr '48
 Refrigerating capacity of two-component systems; glycerol-water and propylene glycol-water. F. T. Gucker, jr. and G. A. Marsh. *bibliog diag Ind & Eng Chem* 40: 908-15 My '48
 Theory and use of a capillary tube for liquid refrigerant control. L. A. Staebler. *diags Refrig Eng* 55:55-9+ Ja '48
 Thermodynamic analysis of subcooling refrigerants. J. Allerton and others. *diags Refrig Eng* 55:171-7 F '48

See also

- | | |
|-----------------|-------------------|
| Ammonia | Dichlorodifluoro- |
| Brine | methane |
| Carbon dioxide, | Ice |
| Solid | Methyl chloride |

Analysis

- Determination of small amounts of water in gases and liquids by infrared spectrometry. A. F. Benning, A. A. Ebert and C. F. Irwin. *il Anal Chem* 19:867-8 N '47
 Water determination in Freon-12 by infrared spectrophotometry. A. F. Benning and others. *il diags Refrig Eng* 55:166-70 F '48

Testing

- Immersion freezing solutions; a determination of the freezing point depressions of refrigerant solutions containing sugars and salt. W. Goldsmith and L. H. Bartlett. *diag Refrig Eng* 56:144-8+ Ag '48
 Refrigerator car road tests with new cooling mixtures. J. M. Carbert and others. *il Refrig Eng* 56:42-6+ Jl '48

REFRIGERATING engineering

- Compressor installation pitfalls. C. W. Lee-gard. *diags Refrig Eng* 56:219-22 S '48
 Condensation of refrigerant vapors; apparatus and film coefficients for Freon-12. R. E. White. *bibliog il diag A S M E Trans* 70:689-93 Ag '48; Same. *Refrig Eng* 55:375-9 Ap '48
 Handbook of refrigerating engineering. W. R. Woolrich and L. H. Bartlett. 3d ed 730p \$8.50 D. Van Nostrand co, 250 Fourth av, New York 3 '48
 Here's the answer; questions pertinent to refrigerating engineering answered. *Refrig Eng* 55:155 F '48 [cont monthly]
 Refrigeration of lemons and grapefruit. H. M. Hendrickson and J. R. MacRill. *plans diags Refrig Eng* 56:1-10 sec 2 Jl '48

See also

- Insulation (heat)
 Refrigeration and refrigerating machinery
 Temperature, Low

Study and teaching

- Education vs. training in refrigeration; David Ranken, jr. school of mechanical trades. J. P. Kibler. *il Refrig Eng* 55:469-70 My '48

- School combines academic refrigeration instruction with commercial testing. *il Refrig Eng* 56:337 O '48

REFRIGERATING industries

- Frigidaire removes the guesswork from salesman compensation. E. Gilbert. *il Refrig Eng* 56:40-1+ Jl '48

Statistics

- Air conditioning equipment and components and accessories for air conditioning and commercial refrigeration equipment; summary of shipments by major class of product, second and third quarters 1947; tabulation. *Heat & Ven* 45:122 Mr '48

Great Britain

- British refrigeration association; 3d annual luncheon, London, Feb. 18. *Electrician* 140: 639-40 F 27 '48

REFRIGERATING plants*See also*

- | | |
|--------------------|-------------------|
| Cold storage ware- | Refrigeration and |
| houses | refrigerating ma- |
| | chinery |

REFRIGERATING plants, Portable

- Canada tests fish freezing trailer train. *il Refrig Eng* 55:357 Ap '48
 Mobile freezer aids growers with short operating seasons; two railroad cars, a freezer and a storage car. C. F. Ellis. *il diag Food Ind* 19:1034-6 D '47; Same cond. *Refrig Eng* 55:45-6+ Ja '48

REFRIGERATION and refrigerating machinery

- American developments in air conditioning and refrigeration during the last decade. W. H. Carrier. *bibliog Inst Mech Eng J & Proc* 157 (War emergency issue no 33):357-60 '47

- Application of centrifugal refrigeration to ultralow temperatures. E. P. Palmatier. *flow sheet il diags Chem Eng Prog* 44: 481-7; Discussion. 487-8 Je '48

- Better silver brazing methods improve refrigeration equipment. A. W. Swift. *il diags Refrig Eng* 55:556-9 Je '48

- California firm demonstrates a new kind of frozen foods wholesaling; Frozen City, in Redwood city, sells full lines of refrigeration equipment to retailers and consumers. E. Gidlow. *Sales Management* 60:54+ Mr 1 '48

- Choice of refrigerants for the centrifugal compressor; with cost data. O. E. Gammill, jr. *il Refrig Eng* 55:363-8; Discussion. J. R. Chamberlain. 363+ Ap '48

- Cold air refrigerating cycles. R. P. Plank. *bibliog il diags Refrig Eng* 56:53-9 Jl '48
 Cold drink vendors, an industry in a cabinet; field for refrigeration. E. A. Terhune. *il Refrig Eng* 55:372-3 Ap '48

- Compressor design. E. E. King. *il diags Refrig Eng* 55:461-3+ My '48

- Continuous flash cycle. E. W. Zearfoss, jr. *diag Refrig Eng* 56:395-8+ N '48

- Corrosion can be controlled in refrigeration systems. J. I. Montel. *il diags Refrig Eng* 56:35-8 Jl '48

- Do you know enough about steam jet refrigeration? H. R. Havemeyer. *il diag Chem Eng* 55:102-6 S '48

- Fuel and power economy, with special reference to heat pumps. S. J. Davies and F. G. Watts. *diags Engineering* 166:285-7 S 17 '48

- Gradient-temperature coolant storage tank for variable load refrigeration systems. F. I. Stannard. *diag Chem Eng* 54:144 N '47

- Heat exchanger features unusual fin design. R. M. Armstrong. *il diags Refrig Eng* 55: 47-8 Ja '48

- Humidity in refrigeration. D. L. Fiske. *diags Heat & Ven* 44:63-8 N; 95-7 D '47; 45:103-5 Ja '48

- Iron and steel and refrigeration. D. Gordon. *Inst Mech Eng J & Proc* 153:Proc 9-14 Je '48; Same cond. *Engineer* 184:430-1 N 7 '47
 McEvoy polyphase freezer. A. M. Wilson. *il diag Food Ind* 20:538-9 Ap '48

- Natural gasoline plant increases output by using propane refrigeration unit. J. C. Albright. *flow diag il Pet Processing* 3: 867-8+ S '48

- Operation of ammonia machines. J. R. Chamberlain. *diags Refrig Eng* 55:1-9 sec 2 Mr '48

REFRIGERATION and refrigerating machinery

—Continued

Proper instrumentation assures dehydration of hermetic units. C. C. Roberts. *il Refrig Eng* 56:231-2 S '48

Proposed turbo-expander design for air liquefaction. S. C. Collins. *bibliog* *diags Refrig Eng* 55:351-4+ Ap '48

Refrigeration in the dairy industry. R. J. Ramsey. *il Refrig Eng* 55:358-61 Ap '48

Refrigeration is indispensable in the oil industry. V. Voorhees. *flow diag il diags Refrig Eng* 56:233-6+ S '48

Refrigeration, the present position and trends. S. F. Dorey. *Inst Mech Eng J & Proc* 157 (War emergency issue no 33):361-5 '47

Refrigeration with steam jet coolers. *il Pulp & Pa of Can* 49:90 Ag '48

Refrigeration's varied uses make it world necessity; abstract. W. B. Henderson. *Refrig Eng* 54:457 N '47

Seal mechanism has made use of centrifugal compressors practical for refrigeration field. *diag Machine Design* 19:106-7 N '47

Simple ventilation vs refrigeration. F. H. Bridgers. *diags Heat & Ven* 45:84-6 Mr '48

Suction line heat exchangers; why they're used in refrigeration work. H. E. Ferrill. *diag Heating-Piping* 20:90-2 Ap; 90-3 Je '48

Water from wells; practical pointers on its use for refrigeration, air conditioning, and the heat pump. G. E. Clancy. *diags Heating-Piping* 19:75-9 N; 90-3 D '47; Discussion. R. R. Storm. 19:104-5 D '47

Welding and low-temperature brazing of air conditioning and refrigeration parts. W. Swarthout. *il Welding J* 27:511-16 J1 '48; Same cond. *Steel* 123:116+ S 13 '48

See also

Air conditioning	Milk cooling
Carbon dioxide, Solid	Piping (refrigerating plants)
Cold storage	Refrigerants
Compressors	Refrigerating engineering
Cooling	Refrigeration on cars, trucks, etc.
Cooling equipment	Refrigeration on ships
Cooling of fruits and vegetables	Refrigerator cars
Electricity in refrigeration	Refrigerators
Freezing	Temperature, Low
Heat pump	
Insulation (heat)	

Control

Application and characteristics of capillary tubes. H. F. Lathrop. *diags Refrig Eng* 56:129-35 Ag '48

Theory and use of a capillary tube for liquid refrigerant control. L. A. Staebler. *diags Refrig Eng* 55:55-9+ Ja '48

Defrosting

New automatic system simplifies defrosting. *il diag Refrig Eng* 55:260+ Mr '48

History

Institution of mechanical engineers; presidential address. D. Gordon. *Engineering* 164: 487 N 21 '47

Lubrication

Food freezers require proper lubrication. A. E. Brewer. *il diag Food Ind* 20:554-6+ Ap '48

Maintenance and repair

How to spot refrigerating troubles. G. Holman. *il Power* 92:492+ Ag '48

Power

Drive motor torque must match compressor needs. H. B. Pownall. *Refrig Eng* 55:447-51 My '48

Noteworthy operating record: Diesel plant of Adolf Gobel, Inc. *il diags Diesel Power* 26: 34-5 Ap '48

Steam drives for refrigeration improve the plant heat balance. T. Mitchell. *il Heating-Piping* 20:98-9 O '48

Safety measures

Refrigeration safety code concerns you. W. R. Hainsworth. *Refrig Eng* 55:465+ My '48

Standards

New standard will promote interchangeability of refrigeration flanged parts. H. N. Hermann. *il Refrig Eng* 56:350 O '48

Proposed revision of ASRE standard; method of rating and testing refrigerant expansion valves. *diags Refrig Eng* 56:sup 1-10 S '48

Recommended practice for mechanical refrigeration installations on shipboard. *Refrig Eng* 56:sup 1-20 N '48

Use of codes and standards. G. F. Hussey, Jr. *Refrig Eng* 56:319+ O '48

Tables, calculations, etc.

Condensation of refrigerants on finned tubes. D. B. Robinson and D. L. Katz. *il Heat & Ven* 44:83-93 N '47

Condensation of vapors on outside of finned tubes. K. O. Beatty, Jr. and D. L. Katz. *bibliog flow sheet il diags Chem Eng Prog* 44:55-68; Discussion. 69-70 Ja '48

F-12 suction line selector chart and ΔP computer. H. E. Ferrill. *Refrig Eng* 54:436-7 N '47

Figuring refrigeration capacity; chart; data sheet. J. Hyam. *Power* 92:51 Ja '48

Flow cycles in low temperature refrigeration. H. E. Rex. *diags Refrig Eng* 56:137-41+ Ag '48

Graphical determination of heat transfer film coefficient for air. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:109-11 Ap '48

Graphical determination of heat transfer film coefficient for ammonia vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45: 100-2 F '48

Graphical determination of heat transfer film coefficient for carbon dioxide vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:88-90 S '48

Graphical determination of heat transfer film coefficient for methyl chloride vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:92-4 Ag '48

Graphical determination of heat transfer film coefficient for sulfur dioxide vapor. B. F. Raber and F. W. Hutchinson. *Heat & Ven* 45:98-100 Mr '48

Graphs help to solve ammonia absorption system problems. A. B. Stickney. *diags Refrig Eng* 54:451-7 N '47; Discussion. 55: 96+ Ja '48

Heat transfer rates to evaporating Freon-12 in a horizontal tube evaporator. W. F. Witzig and others. *diag Refrig Eng* 56: 153-7 Ag '48

Thermodynamic analysis of subcooling refrigerants. J. Allerton and others. *diags Refrig Eng* 55:171-7 F '48

Testing

Leak detection of refrigerants; color tracing system. D. H. Crampton and C. Winnefeld. *bibliog il Refrig Eng* 55:261-3 Mr '48

REFRIGERATION on airplanes

Air cargo refrigeration. L. R. Hackney. *bibliog diags Aero Digest* 56:37-9+ My '48

REFRIGERATION on cars, trucks, etc.

Engine-driven generator powers truck cooling system. *il Refrig Eng* 56:152+ Ag '48

Home delivery would up frozen food sales; industry needs light duty truck. *il Refrig Eng* 55:61+ Ja '48

Ice cream trucks serve in frozen food distribution. *il plans Food Ind* 20:720-1 My '48

Icing lettuce for the Nation's salad. L. A. Luther. *il Comp Air Mag* 53:212-15 S '48

Mineral wool trailer insulation permits refrigeration of perishables by ice. *Food Ind* 20:357 Mr '48

Mobile freezer aids growers with short operating seasons; two railroad cars a freezer and a storage car. C. F. Ellis. *il diag Food Ind* 19:1634-6 D '47; Same cond. *Refrig Eng* 55:45-6+ Ja '48

Rail refrigeration temperatures controlled with dry ice system; secondary refrigerant, evaporating plates and thermostat control. *il Food Ind* 20:1298-9 S '48

Truck-trailer refrigeration. D. Albert. *il diags Refrig Eng* 55:31-5 Ja '48

Truck-trailer refrigeration unit occupies small interior space. *il Refrig Eng* 56:47-8 J1 '48

REFRIGERATION on cars, trucks, etc.—*Cont.*
Truck's own engine operates refrigeration.
il Food Ind 20:156-7 Ag '48
Warehouses are by-passed in this trucking
operation; Herman processed meat in
Florida, il Food Ind 20:1292-3 S '48

REFRIGERATION on ships

Air conditioning, ventilation and refrigeration;
President Cleveland, il Marine Eng 53:61-2 Mr '48

Freezing fish at sea, J. M. Lemon and C. B.
Carlson, plans diags Refrig Eng 54:527-30+
D '47; Discussion, W. F. R. Karsten, 55:
94+ Ja '48

Handling and stowage of ship's perishable
cargoes, L. L. Westling, diags Refrig Eng
56:1-8 sec 2 O '48

Marine refrigeration in new liner; President
Cleveland, il Heat & Ven 45:130 Mr '48

Modern developments in marine refrigeration.
S. W. Brown, bibliog il diags Refrig Eng 55:
36-41+ Ja '48; Same, Marine Eng 53:65-72
Je '48; Discussion, Refrig Eng 55:90+ Ja
'48

Recommended practice for mechanical refrigeration
installations on shipboard.
Refrig Eng 56:sup 1-20 N '48

Refrigerated cargo ship, Parimina, il diags
Marine Eng 52:02-3+ N '47

Union Castle mail steamship, Pretoria Castle,
il diags Engineer 186:180-1 Ag 20 '48

Yaque class reefers, il diags Marine Eng
52:82-3+ N '47

REFRIGERATION research

Immersion freezing solutions; a determination
of the freezing point depressions of
refrigerant solutions containing sugars and
salt, W. Goldsmith and L. H. Bartlett, diags
Refrig Eng 56:144-8+ Ag '48

REFRIGERATOR cars

Automatic welding speeds up box-car production;
American car and foundry co, C. O.
Herb, il Mach 54:143-50 F '48

New manufacturing methods produce high
speed reefer cars, il Refrig Eng 55:160-1 F
'48

Produce shippers' test; five experimental
carloads illustrate research findings of Western
Growers in pre-packaging at the shipping
point, il Mod Packaging 21:128-33+
F '48

Rail refrigeration temperatures controlled
with dry ice system; secondary refrigerant,
evaporating plates and thermostat control,
il Food Ind 20:1298-9 S '48

Refrigerator car heater, il Ry Age 124:1086
My 29 '48

Rolling warehouse; an ammonia refrigeration
system for railroad cars, Chem Ind 62:
387-3 Mr '48

St Louis refrigerator car co.'s plywood refrigerator
cars, il diags Ry Mech Eng 122:
130-2 Mr '48

Special ice-salt mixtures may lower refrigerator
temperatures, J. M. Carbert and
W. H. Cook, bibliog diags Refrig Eng 55:
251-6+ Mr '48

Testing

Refrigerator car road tests with new cooling
mixtures, J. M. Carbert and others, il Refrig
Eng 56:42-6+ Jl '48

REFRIGERATOR egg compartments

Egg compartment conserves refrigerator
space, R. A. Cooper, il Plastics 8:19-21
O '48

REFRIGERATORS

Moisture migration in refrigerators, S. V.
Cook and F. F. Starr, Refrig Eng 56:149-51;
Discussion, 151+ Ag '48

Safe and adequate food storage for modern
living, il Am Bld 70:96-7 Jl '48

What about porcelain enamel refrigerator
finishes? F. L. Meacham, il Refrig Eng 56:
332-4 O '48

See also
Refrigeration and
refrigerating machinery

Manufacture

Cabinet maker for cost cutting; tangent
bender used, il Bsns W p69-70 S 11 '48

REFRIGERATORS, Electric

Backlog demand for consumers' durable
goods; electric refrigerators, L. J. Atkinson,
Survey of Cur Bsns 28:18-19 Ap '48

Big demand shown for combination refrigerator-
freezer unit, il Refrig Eng 55:62 Ja '48

Refrigerator for Princess Elizabeth, il Electrician 141:650 Ag 27 '48

Two-temperature refrigerator; design and
construction, R. F. Rolder and H. W.
Timmerman, il diags Refrig Eng 56:134-6
Ag '48

Manufacture

Advancements in refrigerator finishes, O. E.
Norberg, il Refrig Eng 55:567-70; Discussion,
570+ Je '48

Air-conditioned production area used to assemble
precision parts for domestic refrigerator
compressors; Westinghouse electric corp.
R. J. Odabashian, il Steel 121:90+ D
1 '47

Commercial refrigerators; production of
condenser equipment, il Elec R (Lond) 143:
633 O 22 '48

Electrostatic painting; Ransburg electrostatic
spray process, G. P. Kennedy, il Mech
Eng 70:545-6 Je '48; Same, Factory Management
106:98-9 Jl '48

Insulation choice for a home refrigerator,
W. A. Kuenzli, bibliog il Refrig Eng 55:560-
5+ Je '48

Plastics in refrigerators; injection molded
large parts; Crosley refrigerator design, J.
R. Finn and H. C. Haaxma, il Mod Plastics
26:105-9 N '48

Production flow charts; household refrigerators;
Crosley plant, Factory Management
106:96A-96C F '48

Refrigerator parts; use of polystyrene and
large-section molding, il Product Eng 19:
142-3 S '48

Sheet leveler incorporates new feature; General
Electric uses it to flatten sheet steel
for refrigerator cabinets, T. E. Lloyd, il
diags Iron Age 161:92-4 My 20 '48

Welding in assembly line production of
refrigerator cabinets, P. Bowman, il Welding
J 26:1083-6 D '47

Merchandizing

Frigidaire's fidgetless dealer meets; they're
produced with skits, il Sales Management
60:60-2 My 20 '48

Portable refrigerators

Portable refrigerator for car and home, il
Refrig Eng 55:451 My '48

Rating

Four electric refrigerators, il Consumers Res
Bul 21:16-18 Mr '48

Report on a Hotpoint (and a GE) electric
refrigerator, il Consumers Res Bul 20:22-3
D '47

Two refrigerators and a refrigerator-freezer
combination, il Consumers Res Bul 22:5-7
O '48

Testing

Leak detection on the refrigerator production
line, J. B. Brightman and E. G. Chace, il
diags Refrig Eng 55:552-5; Discussion, B. A.
Phillips, 555+ Je '48

REFUGEES

Arab refugees, Economist 155:540-2, 694 O 2,
30 '48

From Cyprus to Israel, Economist 154:974 Je
12 '48

Jews in Cyprus; internment camps, Economist
154:271 F 14 '48

Refugees without refuge, Economist 154:82-3
Ja 17 '48

Rehabilitation of displaced persons in India,
Int Labour R 58:187-98 Ag '48

Bibliography

Displaced persons, a selected bibliography,
1939-1947, F. Fuss, comp. (Biblog. no. 4)
12p pa 20c Russell Sage foundation, 130 E.
22d st, New York 10 '48

REFUSE collection

Bulk containers improve refuse handling at
Richmond, Va.; use of large steel boxes
transported by special pick-up trucks, il
Eng N 140:120-1 Ja 22 '48

REFUSE collection—Continued

Bulk refuse collectors help in keeping Boston clean. *il Pub Works* 79:33-4 My '48

Garbage collection practices in Tennessee. C. L. Crangle. *il Pub Works* 79:24-5+ S '48

Refuse collection and disposal in North Dakota; abstract. A. L. Bavone and others. *Pub Works* 78:34 N '47

Refuse collection by a small city; Rocky Ford, Colorado. *Pub Works* 79:46-7 Je '48

REFUSE disposal

Bulk containers improve refuse handling at Richmond, Va.; use of large steel boxes transported by special pick-up trucks. *il Eng N* 140:120-1 Ja 22 '48

Garbage collection practices in Tennessee. C. L. Crangle. *il Pub Works* 79:24-5+ S '48

Gas fire in sewer manhole traced to sanitary-fill operation; abstract. L. C. Bailey. *Eng N* 139:863 D 25 '47

Gas fires in a sanitary fill; spontaneous combustion ignites gases from decomposing garbage at San Francisco. *il Eng N* 140:40-1 Ja 8 '48

Motor trucks replace gondolas on San Francisco's sanitary fill. *il Eng N* 141:110-11 G 14 '48

Refuse collection and disposal in North Dakota; abstract. A. L. Bavone and others. *Pub Works* 78:34 N '47

Refuse disposal in Maryland. *Pub Works* 79: 63 S '48

Refuse disposal practice and cost; data from 300 cities. *Eng N* 140:712-15 My 13 '48

Refuse disposal practices analyzed at Michigan public health school. *Eng N* 139:889-90 D 25 '47

Sanitary fill operating experiences reveal performance factors. *Eng N* 139:817 D 11 '47

Sanitary fill operation; Winnetka, Ill. R. L. Anderson. *il Pub Works* 79:24-5+ Je '48

Special wings on bulldozers help in sanitary fill operation, Long Beach, Calif. *il Pub Works* 79:40+ Mr '48

Refuse grinders, Do- Sewage disposal
mestic Trade waste
Refuse incinerators Water pollution

REFUSE grinders, Domestic

Effects of garbage disposal through sewers; abstract. R. E. Fuhrman. *Eng N* 140:607 Ap 22 '48

REFUSE incinerators

Incineration solves a waste disposal problem; Hoffman-La Roche stink liquor. *il Chem Eng* 55:110-11 Mr '48

Incinerator practice, 1910 and today. S. A. Greeley and S. M. Clarke. *il Eng N* 141:87-91 O 14 '48

Incinerators include agitation and hot air; abstract. E. V. Tait. *Eng N* 140:49 Ja 8 '48

Information for bidders on garbage and refuse incinerators. B. F. Lamson. *il Water & Sewage* 86:23-4+ F '48

Modern incinerator from Amsterdam, N.Y. B. A. Kroup and R. S. Taggart. *il Pub Works* 78:26 D '47

New 300-tons-per-day refuse destructor for Winnipeg; with cost data. W. D. Hurst. *il Water & Sewage* 86:18-21+ Ja '48

Operation of Monoherd garbage and refuse incinerator; Tonawanda, N.Y.; with cost data. N. L. Nussbaumer and A. G. Martin. *Water & Sewage Works* 95:223-6 Je '48

Pre-heated air in refuse incinerator practice. H. W. Taylor. *diags Pub Works* 78:21-2 O '47

Refuse disposal by incineration. B. F. Lamson. *il Water & Sewage* 86:25-7 Ja '48

Refuse, in and out of the incinerator; mechanical handling of refuse. H. W. Taylor. *il diags Eng N* 140:54-7 Ja 8 '48

Refuse incineration data; annual report, Bureau of sanitary engineering, Maryland Department of health. *Pub Works* 78:34-5 O '47

Testing the new Winnipeg refuse incinerator. S. M. Clarke. *il plan Water & Sewage* 86: 17-21+ Ag '48

Winnipeg's new incinerator passes its tests. *il Pub Works* 79:19-20+ Ag '48

REFUSE incinerators, Domestic

New-design household incinerator eliminates smoke and odor. L. T. Bissey. *diags Gas Age* 102:30-1+ Ag 5 '48

New ways to increase base load; domestic refuse incinerators and clothes dryers. R. J. Miller. *Am Gas Assn Mo* 30:32-3 Je '48

REGENERATIVE braking. See Braking, Regenerative

REGENERATIVE furnaces. See Furnaces, Recuperative and regenerative

REGIONAL government. See Local government

REGIONAL planning

Development under the Planning act. Economist 154:1005-6 Je 19 '48

Will the Planning act work? Economist 155: 614-15 O 16 '48

REGISTERS (heating)

Sick systems cured, fuel saved, with automatic registers. *il plans Dom Eng* 171:110-11 Je '48

REID, Whitelaw, 1913-

Editor Reid widens area of Herald-Tribune coverage. *por Ed & Pub* 81:65 Ap 10 '48

REINARTZ, Paul Victor, 1896-

Sketch. *por Spectator (Property ed)* 13:18 Mr 11 '48

REINFORCED concrete. See Concrete, Reinforced

REINHOLD, Paul, 1890-

Sketch. *por Constr Methods* 30:91 Ap '48

REINSURANCE. See Insurance—Reinsurance;

Insurance, Fire—Reinsurance; Insurance, Life—Reinsurance

RELATIVITY (physics)

Classical equations of motion of point charges. P. Havas. *bibliog Phys R* 74:456-63 Ag 15 '48

Discrete space-time and integral Lorentz transformations. A. Schild. *Phys R* 73:414-15 F 15 '48

Einstein's equivalence principle and the problem of blind navigation. J. J. Gilvarry. *bibliog Phys R* 73:1409-10 Je 1 '48

Formal extension of Dirac's equation under continuous transformation groups. E. L. Hill. *bibliog Phys R* 73:910-15 Ap 15 '48

Gravitational, electromagnetic, and vector meson fields and the similarity geometry. E. Hoffmann. *bibliog Phys R* 73:30-5 Ja 1 '48

Measurement of the velocity of light by signals sent in one direction. H. E. Ives. *bibliog Opt Soc Am J* 38:879-84 O '48

Quantized space. C. Gregory. *Phys R* 73: 806-7 Ap 1 '48

Quantized space-time. C. N. Yang. *Phys R* 72:874 N 1 '47

Relativistic invariance of the quantum theory of radiation. S. T. Ma. *Phys R* 72:1090-6 D 1 '47

Relativistic Rankine-Hugoniot equations. A. H. Taub. *Phys R* 74:328-34 Ag 1 '48

Relativity effect in planetary motions. G. M. Clemence. *bibliog Rs Mod Phys* 19:361-4 O '47

Story of atomic energy: energy and mass. F. Soddy. *Engineering* 165:25-8 Ja 9 '48

Trajectories of charged meson test particles in the similarity geometry. B. Hoffmann. *bibliog Phys R* 73:1042-6 My 1 '48

See also

Gravitation

Quantum theory

RELAXATION time (physics)

Relaxation effects in nuclear magnetic resonance absorption. N. Bloembergen and others. *bibliog il diags Phys R* 73:679-712 Ap 1 '48

RELAXOMETER

Hi-Po-Log. *Chem Ind* 62:816 My '48

Measurement of stress relaxation in rubber or plastic-like materials. *il R Sci Instr* 19: 199-200 Mr '48

RELAYS

Bell relay computer. F. L. Alt. *il Instruments* 21:912-13 O '48

Change-over relay operated by pulses of one polarity only. H. R. Hindley. *diags J Sci Instr* 25:322 S '48

Circuit protection; thermal and magnetic devices. J. J. O'Connor. *il diags Power* 92: 412-15 J '48

Desirable features of protective relays; discussion meeting. *Inst E E J* 94 pt 2:546-7 O '47

Diesel-electric speed-responsive controls. A. V. Johansson. *il diag Ry Mech Eng* 122:87-9 F '48; Same cond. *Elec Eng* 67:221-2 Mr '48

RELAYS—Continued

- Domestic-load control; relay operated by change in supply frequency. J. de Gruchy. *diag Elec R (Lond)* 143:141-2 J1 23 '48
- Earth-leakage directional relays. S. A. Daines. *diags Elec R (Lond)* 141:733-4 N 14 '47
- Glass-enclosed reed relay. W. B. Ellwood. *diags Elec Eng* 66:1104-6 N '47
- Improving performance of milliwatt relays. G. Halperin. *diags Electronics* 21:140+ N '48
- Magnetic latching of relays. F. Didszuns. *diags Product Eng* 19:110-12 Ap '48
- Mercury contact relays. J. T. L. Brown and C. E. Pollard. *il diag Elec Eng* 66:1106-9 N '47
- New reactance distance relay; abstract. C. G. Dewey and J. R. McGlynn. *il Elec Eng* 67:445 My '48
- Polarized relay as an aircraft control element; abstract. R. E. Johnson and F. A. Glassow. *diag Elec Eng* 67:1059 N '48
- Principles and practices of protective relaying in the U.S.A. E. L. Harder and W. E. Marter. *diags Elec Eng* 67:1075-81 N '48
- Relay control circuits for stepping switches. C. J. Dorr and H. M. West. *il diags Electronics* 21:158+ Ja '48
- Relay curve templates made from plastics. *il Elec World* 129:62+ Ja 3 '48
- Relay design for compactness. T. B. Holliday. *il Product Eng* 18:118-21 D '47
- Relay prevents short cycling of air conditioning units. W. Ewald. *il Machine Design* 20:106 Ag '48
- Sketch for an algebra of relay and contactor circuits. G. A. Montgomerie. *bibliog diags Inst E E J* 95 pt 2:355-64 Je '48; Same. 95 pt 3:303-12 J1 '48
- Teamwork develops better, smaller relay; phenolic, urea-formaldehyde, and vinyl parts. C. D. Lake and W. M. Hoyt, Jr. *il diags Mod Plastics* 25:115-19 N '47
- Ultra-high-speed relays in the fields of protection and measurement. W. Casson and F. H. Last. *diags Inst E E J* 94 pt 2:667-85; Discussion. 685-91 D '47
- See also
- Radio relay stations
- Voice operated relays

Manufacture

- Tricky tooling cuts relay costs. P. Bonness. *il diags Am Mach* 92:93-5 Ja 1 '48

Testing

- Directional test of directional relays. A. Salzmann. *diag Electrician* 140:709-13 Mr 5 '48
- Dynamic relay analyzer. E. L. Deeter. *il diags Electronics* 21:87-9 J1 '48
- Is your relay test program realistic? F. S. Fehr. *Elec World* 129:88-9 My 8 '48

RELAYS, Time limit

- How to select and maintain definite-time-control relays. E. B. Taylor. *il diag Factory Management* 105:102-6 D '47
- New overcurrent tripping device for low-voltage circuit breakers. H. L. Rawlins and J. Sandin. *il diags Power Pl Eng* 51:71-3+ O '47; Same cond. *Elec Eng* 66:1194-7 D '47
- Speed control signalling; time element relay used by London transport. *il Electrician* 141:26 J1 2 '48
- Timing relays molded of phenolic compound. Durez. *il diag Product Eng* 19:136 S '48

RELIEF maps

- Scientific award to Aero service corporation; relief maps made from vinyl sheet. *il Mod Plastics* 25:160-3 S '48
- Sponge rubber relief models. *il Rubber Age* 62:662-3 Mr '48

RELIEF work

- Private aid to foreign areas; factor in balance of payments; remittance pattern reveals significant angles. *il For Comm W* 30:3-6+ Mr 20 '48
- When disaster strikes, industry's medical and plant protection forces respond. *il Nat Safety N* 53:26-7 J1 '48
- See also Cooperative for American remittances to Europe; Fraser, Morris and company

RELIEVING mechanism

- Sidney universal relieving attachment. *il Mach* 55:209-10 S '48

RELIGION

- Building an enduring civilization; power of religion. C. A. Norman. *J Eng Educ* 38:721-6 Js '48
- Organized religion in the United States. R. H. Abrams, ed. *Ann Am Acad* 256:1-172 Mr '48
- See also
- Shinto

Bibliography

- Suggested readings in organized religion. R. H. Abrams, comp. *Ann Am Acad* 256:169-72 Mr '48

RELIGION and science

- Religion and science in accord. G. B. Oxnam. *bibliog Ann Am Acad* 256:141-7 Mr '48
- Religion and science in conflict. O. L. Reiser and B. Davies. *Ann Am Acad* 256:132-40 Mr '48

RELIGIOUS journalism

- Press and public relations of religious bodies. A. M. Lee. *bibliog Ann Am Acad* 256:120-31 Mr '48

REMINGTON RAND, inc.

- Annual report; consolidated income account, years ended March 31, 1947 and 1948. *Comm & Fin Chr* 168:748 Ag 23 '48

- REMODELED buildings. See Buildings, Remodeled

REMODELING (architecture)

- See also
- Buildings, Remodeled
- Houses, Remodeled

- RENEGOTIATION of contracts. See Contracts, Government—Renegotiation

RENT

- 1948 survey of consumer finances; housing expenditures and finance. C. L. Fauver. *Fed Res Bul* 34:1058-65 S '48
- Rent hikes; Metropolitan Life ups rents at Parkchester. *Bsns W* p67 Ag 23 '48
- Rent increases vary in states; map. *Bsns W* p24 N 22 '47
- Rent only 12 per cent of income. *Bsns W* p23 S 25 '48

Laws and regulations

- National association of real estate boards sees rent control slowing building. *Comm & Fin Chr* 166:2621 D 25 '47
- Residential rents under the 1947 housing and rent act. B. Schiro. *Mo Labor R* 66:14-19 Ja '48
- Wants controls lifted on residential hotels. R. O. Cosgrove. *Comm & Fin Chr* 167:2431 Je 3 '48

- RENT insurance. See Insurance, Rent

RENTAL plan (merchandizing)

- Maytag, behind on deliveries, finds rental plan saves many a sale. V. R. Martin. *il Sales Management* 60:42-4 Ap 15 '48

RENTZEL, Delos Wilson, 1909-

- CAA gets new head. *por Bsns W* p98 Ap 17 '48
- New vigor for CAA; Delos Wilson Rentzel, nominated as administrator. *Aviation W* 48:13-14 Ap 19 '48
- Rentzel sworn in as head of CAA. *por(p72) CAA J* 9:61 Je 15 '48
- Rentzel sworn in as new CAA chief. *por Aviation W* 48:14 Je 7 '48

REPAIR shops

- Principles in design of a valve repair shop. R. M. Kolb and D. G. Debo. *il Oil & Gas J* 45:135+ 254-6+ Ap '48
- Salvage material built this contractor's shop. *il Roads & Sts* 91:152-3 J1 '48

- REPARATIONS (World war, 1939-1945). See Finland—Reparations; Germany—Reparations; Japan—Reparations

- REPETITION in advertising. See Advertisements—Repetition

- REPLACEMENT, Metasomatic. See Metasomatism

- REPLACEMENT of machinery. See Machinery, Replacement of

REPLICA technique

- Application of replica techniques to the study of ceramic surfaces with the optical microscope. A. W. Allen and A. L. Friedberg. *bibliog il Am Cer Soc J* 31:83-8 Mr 1 '48

- Concave metallic replica gratings. I. Simon. *il diag R Sci Instr* 18:894-6 D '47

REPLICA technique—Continued

- Electron microscopy of tooth structure by the shadowed collodion replica method. D. B. Scott and R. W. G. Wyckoff. *bibliog* Pub Health Rep 62:1513-16, pl 1-5 O 17 '47
- Electron microscopy of wool fibers by a shadowed replica method. Franklin Inst J 246:66-70 Jl '48; Same. *Am Dyestuff Rep* 37:456+ J 12 '48
- Method for the electron microscopy of wool. M. Swerdlow and G. S. Seeman. *bibliog* il Textile Res J 18:536-50 S '48
- Oxide replica technique for the electron microscope examination of stainless steel and high nickel alloys. E. M. Mahla and N. A. Nielsen. *bibliog* il J Ap Phys 19:378-82 Ap '48
- Plastic replicas for surface-finish measurement. J. Pearson and M. R. Hopkins. *il 2pls Iron & Steel Inst J* 159:67-70 My '48
- Some observations on the Formvar replica method, with a note on glass surfaces. B. M. Deacon and others. *bibliog* il diags J Ap Phys 19:704-12 Ag '48
- Surface analysis with plastic replicas. A. J. Chisholm and J. M. Lickley. *il diags Engineering* 165:389 Ap 23 '48

REPORTERS

- Editor claims top men are on small dailies. W. B. MacLachlan. *Ed & Pub* 81:42 Mr 27 '48
- Lister champions reporter as cornerstone of press. C. W. Duke. *Ed & Pub* 81:10+ Mr 13 '48
- Marines spot reporter posing as Red officer. *Ed & Pub* 81:58 O 16 '48
- Newspaper reporters association of New York city, strictly working press. S. Livingston. *Ed & Pub* 81:49 Ag 7 '48
- Reporters get glory in radio's Big story. J. Walker. *Ed & Pub* 81:36 Ja 3 '48

See also

- Newspapers—Foreign correspondents
also names of reporters, e.g.
Gregory, Helen Robb, Inez
Katkov, Norman Sprigle, Ray

REPORTING

- Dartmouth's course on press starts battle. *Ed & Pub* 81:26 O 30 '48
- Day's work was \$6 worth in Keokuk, 1908. E. E. Garrison. *Ed & Pub* 81:28 Ag 21 '48
- Little Red schoolteacher jumps into headlines. C. Hodge. *Ed & Pub* 81:13 Ag 21 '48
- Reporter joins toughs for story on delinquency. *Ed & Pub* 81:22 S 4 '48
- Reporter sails with Lomakin; gets interview. *Ed & Pub* 81:11 S 11 '48
- Special section capped Centralia Mine crusade; St Louis post-dispatch. W. Leeman. *Ed & Pub* 81:12+ My 8 '48
- Spy tale brings mild battle on press protocol; Mrs Oksana Stepanova Kasenkina. *Ed & Pub* 81:41 S 4 '48

See also

- Newspapers—Crime reporting
Political conventions
—Reporting
Press conferences

REPORTS

- Organizing the business report. W. W. Neil-kirk. *N A C A Bul* 30:193-204 O 15 '48
- Reproduction techniques for reports and information service. B. H. Weil and J. C. Lane. *il J Chem Educ* 25:134-41 Mr '48
- Technical letters and reports; review of principles of correspondence. S. D. Distelhorst. *il Ind Marketing* 33:39-40+ F '48

See also

- Accountants' reports
Banks and banking
—Reports
Business—Reports to government
Salesmen's reports
Corporations—Reports and year-books
Research reports
See Employees, Reports to
Reports to government. See Business—Reports to government

REPPLIER, Theodore S. 1900-

- Gold medal award to T. S. Repplier in recognition of his distinguished services to advertising. J. W. Young. *por Adv & Sell* 41:6-7 Mr '48

REPRESSURING. See Petroleum—Production methods**REPRINTS**

- Use and abuse of reprints. T. L. Davis. *J Chem Educ* 25:378-9 Jl '48

REPRODUCTION

- International congress of physiology and pathology of animal reproduction and of artificial insemination, 1st, Milan, June 23-30. *Science* 108:465-6 O 29 '48

REPTILES, Fossil

- New limbless vertebrate from the Pennsylvanian of Mazon Creek, Illinois. J. T. Gregory. *bibliog* diags *Am J Sci* 246:636-63, pl 1 O '48
- Notes on *gwyneddosaurus*. F. von Huene. *bibliog* diags *Am J Sci* 246:208-13 Ap '48

See also

- Dinosauria
Ichthyosauria
Microsauria
Plesiosauria

REPUBLIC pictures' corporation

- Lower cost films may assist Republic Pictures' prospects. *Barron's* 28:40 Ap 26 '48

REPUBLIC steel corporation

- Adirondacks, Republic's ace in the hole. T. Campbell. *il Iron Age* 162:119-22 Ag 19 '48
- Inside a steel research laboratory; Republic Steel's Process & product development division. *il Bsns W* p33-4+ N 15 '47
- Kaiser-Republic agreement considered more truce than treaty. B. Lloyd. *Iron Age* 162:125-6 S 9 '48

REPUBLICAN party

- Aims and accomplishments of Republican party. J. W. Martin, jr. *Comm & Fin Chr* 167:2192+ My 20 '48
- Dewey's long popularity climaxed by GOP nomination. *Iron Age* 162:125 Jl 8 '48
- Republican party program. D. H. Green. *Comm & Fin Chr* 167:2751+ Je 24 '48
- Three Republican tests. *Fortune* 38:2-3 Ag '48

Platform**See Platforms, Political****RESEARCH**

- Conference on administration of research, Pennsylvania state college, Oct. 6-7. *J Eng Educ* 38:244 N '47
- Heat and mass flow analyzer; tool for heat research. V. Paschik. *bibliog* il plan diags *Metal Prog* 52:813-18 N '47
- Integration in science, education, and society. R. E. Gibson. *Am Cer Soc Bul* 27:63-78 F 15 '48
- Man power for research. J. R. Steelman. *Mech Eng* 69:1027-8 D '47
- Reconverting war research; survey on peacetime applications of war-born products. *il Bsns W* p56-8+ Ja 10 '48
- Research for profit. T. S. Taylor. *Textile Col* 70:28, 61 My; 33+ Je '48
- Scope of engineering research. L. W. Chubb. *J Eng Educ* 38:286-9 D '47

See also

- Advertising research
Aeronautic research
Agricultural research
Bank research
Cement research
Chemical research
Coal research
Colleges and universities—Research
Corrosion research
Dye research
Electric research
Engineering colleges
—Research
Engineering research
Food research
Foundry research
Gas research
Government research
Heating research
Highway research
Hygiene, Industrial—Research
Industrial research
Journalism research
Laboratories
Lighting research
Management research
Market research
Metallurgical research
Military research
Paint research
Paper research
Petroleum research
Pharmaceutical research
Photographic research
Railroad research
Refractory research
Retail trade—Research
Rubber research
Scientific research
Steel research
Textile research
Wood research
Wool research

Methodology

- Development of Salter's conception of research. K. H. Parsons. *Land Econ* 24:175-8 My '48

RESEARCH, Government. See Government research**RESEARCH and development board. See United States—Research and development board**

RESEARCH and marketing act. See Market research

RESEARCH corporation

Research corporation awards. *Science* 106:514 N 28 '47

Research corp. grants-in-aid. *Chem & Eng N* 25:3310 N 10 '47

Service expanded. *Science* 108:408-9 O 15 '48

RESEARCH reports

Abstracting research reports. L. C. Stork and K. C. Cousins. *J Chem Educ* 25:130-3 Mr '48

Technical report and its problems. J. B. Bennett. *Chem & Eng N* 26:2435-6 Ag 16 '48

See also

Market research—Reports

RESEARCH workers

Industry's requirements for engineering graduates in research. A. E. Buchanan. *J Eng Educ* 38:551-8 Ap '48

Loyalty clearance procedures in research laboratories; report of committee on secrecy and clearance, Federation of American scientists. *bibliog Science* 107:333-7 Ap 2 '48

Maintenance of scientific proficiency in non-academic research laboratories. L. B. Loeb. *Science* 108:267-72 S 10 '48

Men in research. J. E. Hobson. *Inst Radio Eng Proc* 36:650-1 My '48

Opportunities in marketing research. C. J. Dirksen and L. W. Forman. *J Marketing* 13:37-43 Jl '48

Philosophy for a research supervisor. J. H. Wills. *Chem & Eng N* 26:3095 O 13 '48

Some controversial points in the management of research. N. A. Shepard. *Chem & Eng N* 26:1508-10 My 24 '48

Survey of professional salaries. M. J. Sunderland. *Personnel J* 26:332-5 Mr '48

Training for research. E. A. Walker. *J Eng Educ* 38:239-43 N '47

RESERVATIONS. See Airlines—Reservation systems; Railroads—Reservation systems

RESERVE officers. See United States—Army—Officers

RESERVE officers' training corps

Comments on army ROTC programs. P. B. Narmore. *J Eng Educ* 38:223-6 N '47

Some problems of military and naval training programs. E. D. Howe. *J Eng Educ* 38:390-2 Ja '48

RESERVES

Contingencies in Section 102 cases. W. L. Cary. *J Account* 86:245-6 S '48

Inventory pricing and contingent reserves; comment on new accounting research bulletins. G. O. May. *J Account* 84:361-7 N '47

Inventory reserves; accounting. Research bulletin number 31. *J Account* 84:397-9 N '47

New style reserve by A. O. Smith insures retention of firm's brains in depression. *Barron's* 27:31 N 17 '47

Reserve for research is contrary to accepted accounting principles. *J Account* 86:159-60 Ag '48

Reserves for involuntarily liquidated inventories under the LIFO method. C. G. Blough. *J Account* 85:204-6 Mr '48

Segregation of cash for depreciation reserve urged to prevent use for current expansion. *Barron's* 28:31 Ja 19 '48

Time for another look at reserves for bad debts. D. Horne. *Banking* 40:38-9+ Je; 41: 46-7 S '48

Weakness in financial reporting caused by improper use of reserves. M. H. Stans. *J Account* 85:190-5 Mr '48

What is happening to company reserves. P. Dobbs. *Mag of Wall St* 82:219-20+ Je 5 '48

RESERVOIRS

Aquatic growths in reservoirs; use of 2, 4-D. *Pub Works* 79:36 Je '48

Causes and effects of sedimentation in Lake Decatur. C. E. Brown and others. *Am Water Works Assn J* 40:1135-6 O '48

Effect of DDT spray on reservoir biological balance. M. S. Shane. *Il Am Water Works Assn J* 40:333-6 Mr '48

Erosion control in East Bay watersheds. F. B. Blanchard. *Am Water Works Assn J* 39:1229-36 D '47

Erosion control in Los Angeles watersheds. B. S. Grant. *Am Water Works Assn J* 39: 1224-3 D '47

M.W.B. Staines new reservoir. map diagrs Engineer 184:456-7 N 14 '47

Why vegetation on watersheds? C. Grant. *Science* 108:486-7 O 29 '48

Recreational use

Public use of reservoir lands and waters; panel discussion. R. E. Bonyun and others. *Am Water Works Assn J* 40:945-60 S '48; Abstract. *Water & Sewage Works* 95:243-4 Jl '48

Water works reservoirs and fish management; use of rotenone or other poisons; abstract. H. B. Mills; G. W. Bennett. *Pub Works* 79:61 S '48

RESERVOIRS, Concrete

Compressed air detects leak in reservoir. *diagrs Comp Air Mag* 53:44 F '48

Denver rebuilds a water works reservoir. D. D. Gross. *Il Pub Works* 79:23 Je '48

Design features of the Northeast Station reservoir. L. V. Garrity. *bibliog plan diagrs Am Water Works Assn J* 40:423-36 Ap '48

See also

Standpipes, Concrete

RESERVOIRS, Steel

Tentative recommended practice for inspecting, repairing and repainting elevated steel water storage tanks, standpipes and reservoirs. *Am Water Works Assn J* 40:1099-117 O '48

RESILIENCE (term)

Generalized concept of resilience. R. M. Hoffman. *bibliog il diagrs Textile Res J* 18:141-8 Mr '48

See also

Elasticity

RESILIENCE of rubber. See Rubber—Testing

RESIN acids

Chemistry of the resin acids. H. H. Zeiss. *Chem R* 42:163-87 bibliog(74 ref, p 185-7) F '48

Resin acids; an improved method of isolation of resin acids; the isolation of a new abietic-type acid; neoabietic acid. G. C. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:334-9 Ja '48

Resin acids; the isolation of dextropimaric acid and a new pimaric-type acid, isodextropimaric acid. G. C. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:2079-81 Je '48

Resin acids; the position of the ring double bond in dextropimaric acid and the structure of isodextropimaric acid. G. C. Harris and T. F. Sanderson. *bibliog Am Chem Soc J* 70:2081-5 Je '48

Resin acids; the structure of neoabietic acid. G. C. Harris and T. F. Sanderson. *Il Am Chem Soc J* 70:339-49 Ja '48

Studies on resin acids; a direct reduction of podocarpic acid. H. H. Zeiss, C. E. Slimowicz and V. Z. Pasternak. *bibliog Am Chem Soc J* 70:1981-2 My '48

Studies on resin acids; oxidation of diphenylt-dehydroabietinol; a postulated mechanism. H. H. Zeiss. *Am Chem Soc J* 70:858-60 F '48

RESINOGRAPHY (term)

Resinography; abstract. T. G. Rochow. *Chem Eng* 55:274+ S '48

RESINOUS products

Alkyd resins today. A. A. Drummond. *il Chem & Ind* p763-8 D 13 '47; Abstract. *Paint Oil & Chem R* 111:48 F 5 '48

Alkyd resins today; the pentaerythritoldibasic acid reaction. G. R. Cornish. *bibliog il diag Chem & Ind* p39-42 Ja 17 '48

Alkyd resins today; trends in oil-modified alkyds. E. O. Phillips. *bibliog Chem & Ind* p3-5 Ja 3 '48; Abstract. *Paint Oil & Chem R* 111:40-1 Jl 8 '48

Alpha- and beta-hydroxyls of glycerol in preparation of alkyd resins. H. A. Goldsmith. *bibliog Ind & Eng Chem* 40:1205-11 Jl '48

Angle on resins; bond angles in phenol-formaldehyde resins; abstract. N. J. L. Megson. *diagrs Chem Ind* 62:389 Mr '48

RESINOUS products—Continued

- Basic physical properties relied upon in the frozen stress technique. W. A. P. Fisher. *bibliog diags Inst Mech Eng J & Proc* 158: Proc 230-5, pl 1-2 S '48; Abstract, *Engineer* 184:587 D 19 '47; Discussion, *Inst Mech Eng J & Proc* 158:Proc 240-50, pl 7-10 S '48
- Behavior of plasticizers in vinyl chloride-acetate resins; 99 materials evaluated. M. C. Reed and L. Connor. *bibliog Ind & Eng Chem* 40:1414-22 Ag '48
- Butoxychlorosilanes; hydrolysis and condensation. R. K. Iler. *bibliog Ind & Eng Chem* 39:1384-8 N '47
- Case hardening of phenolic casting resins; Catavar #101 and Durez #7421A. G. A. Sterbutzel and J. T. Grey. *il Mod Plastics* 25:123-5+ F '48
- Chemical products of coal carbonisation; rich yields of plastics and coal-tar derivatives. J. R. Campbell. *Chem Age (Lond)* 58:102-4 Ja 17 '48
- Coin switch with molded Durez phenolic base and cover. *il Mod Plastics* 26:264-5 S '48
- Delamination in one step practicable with new resin; IRA-400. *Oil Paint & Drug Rep* 153:4 Je 28 '48
- Development of thermosetting plastics. V. E. Meharg. *Chem & Eng N* 26:1282-3 My 3 '48
- Developments in catalysis and processing of polyester resins. D. G. Patterson and J. D. Robinson. *India Rubber World* 118:811-12 S '48
- Fillers for phenolics. L. Debing. *bibliog Mod Plastics* 25:127-32 D '47
- Fillers for ureas and melamines. P. Fuller. *Mod Plastics* 25:132+ D '47
- Furfural in phenol resin laminates; abstracts. H. Kline. *Mod Plastics* 25:101-2 D '47; *Paper Ind* 30:775-6+ Ag '48
- Glenn L. Martin co. makes shipments of Marvinol VR-10. *il Chem & Eng N* 26:778 Mr 15 '48
- Influence of cloud points of coumaroneindene resins on their use in rubber compounding; Chemigum N-3, a styrene-butadiene-type rubber (GR-S 38) and natural rubber. P. B. Stickney, L. E. Cheyney and P. O. Powers. *bibliog Ind & Eng Chem* 40:267-71 F '48
- Know your acrylics. D. A. Rothrock. *il Plastics* 8:38-40+ F '48
- Lactic acid resins. *Chem Ind* 61:1000 D '47
- Looking toward 1948; raw materials; cellulose acetate and kindred materials. *Mod Plastics* 25:61-72+ Ja '48
- Low-temperature insulation; new plastic. Plotofoam. E. C. Van Buskirk and C. C. Surland. *Chem Eng Prog* 44:803-4 O '48
- Magnetostriuctive radial vibrator used in underwater sound signaling. L. Camp. *il diag Acoustical Soc Am J* 20:289-93 My '48
- New paper resins. W. Loudon and L. E. Kelley. *Paper Ind* 30:1039-41 O '48
- New photoelastic resin aids stress study. *il Materials & Methods* 27:122 F '48
- New ways to form and use plastics. *il Mod Ind* 16:111 S '48
- New York group symposium on synthetic resins. *India Rubber World* 117:221-3 N '47; *Rubber Age* 62:200-1 N '47
- Paste dispersions of polyvinyl chloride. C. F. Ruebensaal. *Mod Plastics* 25:143-4+ Je '48
- Patterns from casting resins. R. W. Shaeffer. *il diags Tool Eng* 20:31-2 Je '48
- Phenolic resins in natural and synthetic rubber. J. C. Searer. *Rubber Age* 62:191-3 N '47
- Plastic matchplates made by new process. D. W. Talbott and J. L. Lessman. *il Foundry* 76:194+ F '48
- Plastics and wood, topics at Wisconsin meetings. *Chem & Eng N* 26:2608-9 S '48
- Polyamide resins. A. G. Hovey. *il Paint Oil & Chem R* 111:39-42 Ja 8 '48
- Polyamide resins from dlinoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and D. H. Wheeler. *bibliog Am Chem Soc J* 70:760-3 F '48
- Polyester resins. E. L. Kropa. *India Rubber World* 118:532-3 J1 '48
- Polymer for adhesives, thickeners, etc.; Amberlite W-1. *Chem & Eng N* 26:3872 D 29 '47
- Poly-silicic acid esters; preparation from sodium silicate. R. K. Iler and P. S. Pinkney. *bibliog Ind & Eng Chem* 39:1379-84 N '47
- Preliminary experiments on the use of synthetic resins in the estimation of trace elements. J. P. R. Riches. *bibliog Chem & Ind* p565-8 O 25 '47
- Preparation, properties and applications of Geon paste resin. M. N. Burleson. *il Rubber Age* 62:417-19 Ja '48; Same cond. *Materials & Methods* 26:71-3 N '47
- Resinography in the paper industry. T. G. Rochow and others. *il Paper Tr J* 126:80+ F 26 '48
- S-polymers; new type of thermoplastic resinous polymer. E. N. Cunningham. *Rubber Age* 62:187-90 N '47
- Several new phenolic resin products announced by General Electric. *Chem Eng* 55:164+ Ap '48; *Chem Ind* 62:776+ My '48
- Structure and properties of synthetic resins; abstract. F. J. Hermann. *Paint Oil & Chem R* 111:44 My 13 '48
- Synthetic elastomers as plasticizers for polyvinyl resins. D. W. Young, R. G. Newberg and R. M. Howlett. *bibliog Ind & Eng Chem* 39:1446-52 N '47
- Thiophene-formaldehyde condensation. P. D. Caesar and A. N. Sachanen. *bibliog flow sheet il Ind & Eng Chem* 40:922-8 My '48
- Use of monoreactive phenol alcohols as models for the general polymerization of phenol resin systems. H. S. Lilley. *bibliog Soc Chem Ind J* 67:196-9 My '48
- Vibrational spectra of phenolic derivatives and phenolic resins. K. E. Richards and H. W. Thompson. *Chem Soc J* p 1260-9 S '47
- Vinyl paste technology. M. S. Moulton. *il India Rubber World* 118:815-16 S '48
- Wet strength development with neutral, water soluble polymers. R. J. Myers and L. E. Kelly. *Paper Tr J* 127:59-63 O 14 '48

See also

Amberlites	Plaskon
Bakelite	Plastic materials
Durez	Polyethylene
Formvar	Rubber, Artificial—
Koresin	Mixing with resins
Melamine resins	Saran
Methacrylates	Teflon
Molded products	Vinyl compounds
Phenol condensation products	Vinyon

Adhesives

- Adhesive designed to adhere white or colored cotton, rayon or wool flock to irregular surfaces. *il Chem Ind* 63:626+ O '48
- Comparison of cements for bonding nitrile rubber to steel. R. E. Morris and others. *diags Rubber Age* 64:53-6+ O '48
- Durability of urea-formaldehyde adhesives. T. D. Perry. *il Mod Plastics* 25:88-91 Mr '48
- Formulation of resorcinol-formaldehyde adhesives. E. G. Hancock. *bibliog Soc Chem Ind J* 66:337-40 O '47
- Industrial adhesives. N. J. De Lollis. *il diags Product Eng* 18:117-22 N; 137-42 D '47
- Metal-to-metal bonding with synthetic resin adhesives; Redux process. *Engineering* 166:367 O 15 '48
- Micro-organisms and adhesives; comparison of synthetic and natural glues; abstract. *Chem Age (Lond)* 58:434 Mr 27 '48
- Phenolic bonded metal-wood sandwich. *il Mod Plastics* 26:82-3 O '48
- Phenolic resin glues for plywood. F. G. Sawyer, T. S. Hodgins and J. H. Zeller. *bibliog flow sheet il plan Ind & Eng Chem* 40:1011-18 Je '48
- Resin bonding of silicon steels in electrical laminated cores. S. B. Ashkinazy and J. J. Freisler. *il Product Eng* 19:85-9 N '48
- Synthetic resin adhesives. K. Rose. *il Materials & Methods* 27:99-102 F '48
- Synthetic resin adhesives; Acro research, Ltd. exhibition. *Engineer* 186:309 S 24 '48
- Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, Jr. and A. D. McLaren. *bibliog Ind & Eng Chem* 40:329-31 F '48

RESINOUS products—Adhesives—Continued

Analysis

- Analytical identification of some nitrogen containing synthetic resins. C. P. A. Kappelemer, bibliog Paint Oil & Chem R 111: 8-9+ F 19 '48
- Determination of chlorine in resins obtained from polyvinyl chloride compositions. J. Haslam and W. W. Soppet, diags Soc Chem Ind J 67:33-5 Ja '48
- Determination of methylol groups and dibenzyl ether linkages in phenol alcohols and derived phenolic resins. H. S. Lilley and D. W. J. Osmond, bibliog Soc Chem Ind J 66:340-1, 425-7 O, D '47; Abstract(pt 1), Paint Oil & Chem R 111:50 F 19 '48
- Potentiometric titration of weak acids in anhydrous ethylenediamine. M. L. Moss, J. H. Elliott and R. T. Hall, bibliog diags Anal Chem 20:784-8 S '48

Binding materials

- Chemically bonded sand; its present status, its future. T. Barlow, *Il Iron Age* 161: 80-3 Ap 22 '48
- Precision molding process employs resin binder. W. R. McCullough, *Foundry* 76: 130+ O '48
- Resin bonding, a new development in paper-making. *Il Plastics* 8:12-14+ O '48; Excerpts. *Mech Eng* 70:760 S '48
- Resin bonding and strength development in offset papers. C. G. Weber and others, bibliog *Paper Ind* 30:83-8 Ap '48; Same, *J Res Nat Bur Stand* 40:427-35 Je '48
- Sawdust-binder compositions. A. E. Gabriel, *Mod Plastics* 25:145-7+ Ap '48
- Synthetic paper; synthetic resins permit paper-making from inferior woods. *Chem Ind* 63:377 S '48; Same, *Franklin Inst J* 246:252-5 S '48; Same, *Pulp & Pa of Can* 49:91-2 S '48; Excerpts. *Mech Eng* 70:760 S '48

Electric properties

- Alkyd resists tracking when exposed to arcs. *Il Product Eng* 19:133 N '48
- Electronic preserves; electronic circuits imbedded in NBS casting resin. P. J. Franklin and M. Weinberg, *Il Sci Am* 177:258-60 D '47

Finishing materials

- Air-drying synthetics; abstract. W. S. Penn, *Paint Oil & Chem R* 110:41-2 D 25 '47
- Applications of the spectrographic method for studying the resin-bodding of drying oils. E. J. Kolb, Jr. and E. A. Hauser, bibliog(41 titles) *Paint Oil & Chem R* 110: 104+ N 13 '47
- Development of synthetic resins for protective coatings. H. Burrell, *Paint Oil & Chem R* 111:17+ Ap 29 '48
- Drying oils and resins from petroleum sources. R. J. Lee and others, *Paint Oil & Chem R* 111:16-18+ Ja 8 '48
- Evaluation of certain hydrocarbon resins by Cincinnati-Dayton-Indianapolis-Columbus paint and varnish production club. *Paint Oil & Chem R* 110:76-82, 84-5 N 13 '47
- Further investigation of aqueous dispersions of vinyl polymers by Chicago paint and varnish production club. *Paint Oil & Chem R* 110:41-2+ N 13 '47
- Interior coating of tubular containers; phenol-formaldehyde resins prevent decomposition of poison gases. L. P. Hubbuch and W. C. Johnson, diags Ind & Eng Chem 40:297-301 F '48
- Lactic acid polymers as constituents of synthetic resins and coatings. P. D. Watson, bibliog Ind & Eng Chem 40:1393-7 Ag '48
- Manufacture and uses of AW2 resin. A. Hill, diags *Mod Plastics* 25:119-20 Ag '48
- New coating resin plant; Plaskon div. of Libbey-Owens-Ford glass co, *Il Mod Plastics* 25:154-5 N '47
- New resins for coatings from dairy products; abstracts. P. D. Watson, *Paint Oil & Chem R* 110:43 O 30 '47; *Chem Eng* 55:262+ F '48
- Organic finishes for metal products, bibliog *Il diags Steel* 122:81-4+ Je 28; 123:97-8+ Jl 12 '48

- Recent developments in synthetic resins for protective coatings. L. R. Whiting, diags *Paint Oil & Chem R* 111:27-8+ Jl 8 '48
- Silicone resins; use in protective and decorative finishes. J. R. Patterson, *Il Ind & Eng Chem* 39:1376-9 N '47
- Solvent release vs. hardness of lacquer films, by Los Angeles paint and varnish production club. *Paint Oil & Chem R* 110:22+ N 27 '47
- Use of Lithocite in the pulp and paper industry. W. S. Lang, *Il diags Pulp & Pa of Can (Convention no)* 49:223-30 [F] '48

Insulating materials

- Alkyd-vinyl insulation proves its worth; Fosterite-asbestos. E. L. Schulman, *Il Plastics* 8:50-1+ Ja '48
- Effect of weathering on insulation resistance of plastics. L. H. Campbell and others, *Am Soc T M Proc* 46:1465-74 '46
- For intricate switch, bubble-free cast plastics. *Il diags Plastics* 8:28+ Jl '48
- Keep your powder dry. *Westinghouse Eng* 8:154 S '48
- Plastics in electrical switchgear. W. H. Edmunds, *Il diags Mod Plastics* 25:109+ Mr '48
- Resin bonded insulation. *Il Elec R (Lond)* 142:533-6 Ap 9 '48
- Synthetic rubbers and resins as insulation for wires and cables. J. T. Blake, *India Rubber World* 118:216-18 My '48

Ion exchanging

- Characterization of ion exchange resins; acidity and number of constituent cation exchange groups. H. P. Gregor and J. I. Bregman, bibliog *Am Chem Soc J* 70:2370-3 Jl '48
- Fundamental properties of a synthetic cation exchange resin. W. C. Bauman and J. Eichhorn, bibliog *Am Chem Soc J* 69:2830-6 N '47
- Ion exchange. R. Kunin, bibliog(132 ref) Ind & Eng Chem 40:41-5 Ja '48
- Ion exchange as a separations method; equilibrium studies of the reactions of rare earth complexes with synthetic ion exchange resins. E. R. Tompkins and S. W. Mayer, bibliog *Am Chem Soc J* 69:289-65 N '47
- Ion-exchange as a separations method; separations of several rare earths of the cerium group (La, Ce, Pr and Nd). D. H. Harris and E. R. Tompkins, bibliog diags *Am Chem Soc J* 69:2792-800 N '47
- Ion exchange resins. C. W. Davies, bibliog *Chem & Ind* p51-4 Ja 24 '48
- New ion-exchange resins, by Resinous products & chemical co. *Il Chem Eng Prog* 44: sup 18 Ag '48
- Resin spectrum; four new ion-exchange resins. *Il Chem Ind* 63:31-2 Jl '48
- Use of ion exchange resins for separation of basic amino acids. B. A. Hems and others, bibliog *Soc Chem Ind J* 67:77-80 F '48

Manufacture

- Casting techniques for polyesters. W. Weeks, *Il Mod Plastics* 25:103-7+ Ag '48
- Elsie goes chemical. *Chem Ind* 61:794-5 N '47
- Furan resins. A. J. Norton, *Il Ind & Eng Chem* 40:236-8 F '48
- Monsanto completes expansion program for the manufacture of phenolic resins and molding powder. *Il Chem & Eng N* 26:530 F 23 '48
- New coating resin plant; Libbey-Owens-Ford glass co, *Il Chem & Eng N* 25:3294-5 N 10 '47
- New works of Bakelite, ltd, *Il Engineer* 186: 108-9 Jl 30 '48; *Electrician* 141:318-20 Jl 30 '48; Abstract. *Elec R (Lond)* 143:163 Jl 30 '48
- Plaskon's new Toledo plant, part of \$9,000,000 group, starts initial production. *Il Paint Oil & Chem R* 110:50D-50E O 16 '47

Plasticizers

See Plasticizers

Prices

- Synthetic resins and branded paint materials (manufacturers' list prices). *Oil Paint & Drug Rep* 153:35-7+ Ja 5 '48 [cont monthly]

RESINOUS products—Continued

Statistics

- Plastics and synthetic resins. Chem Eng 55: 116 F '48
 Plastics, synthetic resins consumption figures, 1947, as compared with 1946. Oil Paint & Drug Rep 153:73 My 17 '48
 Resin statistics from Tariff commission. Mod Plastics 25:79-82 Ja '48

Storage

- Simple procedure governs care of resins; detecting and preventing spoilage of resin in storage. R. E. Sumner. *il* Textile World 98:133+ Ja '48

Testing

- Laminates from purified cotton linters sheet. M. Gallagher and R. B. Seymour. Mod Plastics 25:117-18+ Ag '48
 Phenolic molding material tests. W. N. Findley. *diags* Mech Eng 70:823-4 O '48
 Plastics testing in the paper mill laboratory. J. C. Parsell. *bibliog* Paper Tr J 126:55-7 Ap 15 '48
 Probing polymer properties; illustrations. Chem Ind 61:1002-3 D '47

Textile uses

- Carbide unveils vinyon N plant. Chem & Eng N 26:746-7 Mr 15 '48
 Chemistry of high polymers. H. P. Staudinger. *bibliog il* Soc Dyers & Col J 63:313-19 O '47
 Crinkled fabrics; resins printed as resists; patent. Am Dyestuff Rep 37:384 My 31 '48
 Durable water repellent; Permel resin finish. Chem Ind 62:770+ My '48
 Enhanced differentiation of skin and core in rayon fibres employing internal condensation resins. G. Landells and others. *bibliog il* Textile Inst J 39:T148-52 Ap '48
 Improved evaluation of the crease resistance of resin treated fabrics. R. D. DeWaard and others. *bibliog il* *diags* Am Dyestuff Rep 37:513-18+ Ag 9 '48
 Improving the properties of fibres and dyeings by treatment with hydrophobic melamine-formaldehyde compounds. A. Landolt. *bibliog* 6pls Soc Dyers & Col J 64: 93-7; Discussion. 9-9 Mr '48
 Performance of resin-treated fabrics in wet and dry-cleaning. D. S. Lyle and M. R. Butler. *il* Rayon 29:57-8 My; 66-8 Je '48
 Pigmented resin emulsions for printing and pad dyeing. M. Silverman. *bibliog* Am Dyestuff Rep 37:44-6 Ja 26 '48; Abstract. Textile World 98:230 Mr '48; Discussion. Am Dyestuff Rep 37:46+ Ja 26 '48
 Plastic materials that supplement or supplant textiles. C. W. Patton. Am Dyestuff Rep 36:767-60 D 15 '47; Excerpt (table). Textile World 97:139 D '47
 Plastic stiffens men's collars. *il* Mod Plastics 25:93 Ag '48
 Polyvinyl resin finishes; deep penetration prevented; patent. Am Dyestuff Rep 36:787 D 29 '47
 Qualitative analysis of textile processing agents. H. B. Goldstein. *bibliog* *diag* Am Dyestuff Rep 36:629-40 N 3 '47
 Report on German polyvinyl chloride paste dispersions. Rubber Age 62:539 F '48
 Resin-curing range features high speed and heat at Avondale mills. *il* *diag* Textile World 98:123 O '48
 Resin finishes in wool textiles; abstract. M. Lipson. Am Dyestuff Rep 37:473 J1 12 '48
 Resins for textiles. K. H. Barnard. *il* *diags* Mod Plastics 25:104-7 D '47
 Resistance of resin-impregnated cotton fabrics to microorganisms. W. L. White and R. G. H. Siu. *il* Ind & Eng Chem 39:1628-30 D '47
 Scrooping to meet the new look. Textile Col 70:22+ Ap '48
 Sheersert treated nets gain wide acceptance. *il* Rayon 28:639 D '47
 Shrink-resistant sock treatment revealed by QMC; halogenation, resin, alcoholic potassium-hydroxide, and enzyme processes compared. *il* Textile World 98:111-14+ Ap '48

- Silicone water repellent now applicable to all fibers. F. L. Dennett. Textile World 98:124+ My '48
 Simple procedure governs care of resins; detecting and preventing spoilage of resin in storage. R. E. Sumner. *il* Textile World 98:133+ Ja '48
 Stitchless quilted vinyl; Sealtuft. *il* Mod Plastics 26:98-9 N '48
 Syntilon; a plastic waterproof film for everyday use. L. R. Sherman. Textile Col 70:34 J1 '48
 Ultraisol; vinyl resin coating for outdoor fabrics. P. L. Slayton. Textile Col 70:35 J1 '48
 Weather protective treatments for cotton duck. *bibliog* Am Dyestuff Rep 36:705-10 D 1 '47; Abstract. Textile World 97:135 N '47
 Wrinkle resistance, a sales aid; Rhonite. D. S. Marston. Textile Col 70:21+ Je '48
 Yanda process; fiber transmutation. *flow* *diag* Rayon 28:637-8 D '47; Abstract. Textile World 97:162 D '47

See also

Vinyon

Water treatment

- Deionized water for writing-ink manufacture. C. S. Grove, Jr. and R. S. Casey. *bibliog* *flow* sheet *il* Chem Eng Prog 44:733-6 O '48
 Dowex 50; a new high capacity cation exchange resin. W. C. Bauman, J. R. Skidmore and R. H. Osmun. *bibliog il* Ind & Eng Chem 40:1350-5 Ag '48
 Factors governing the performance of anion exchangers. J. Thompson and F. X. McGarvey. *il* Chem Ind 63:55-6 J1 '48
 Silica-free boiler feed water by ion exchange. W. C. Bauman, J. Elchhorn and L. F. Wirth. *bibliog il* *diags* Ind & Eng Chem 39:1453-7 N '47

RESINS, Natural. See Gums and resins

RESISTORS, Electric. See Electric resistors

RESONANCE

- Method for measuring the complex dielectric constant of gases at microwave frequencies by using a resonant cavity. C. K. Jen. *bibliog* *diags* J Ap Phys 19:649-53 J1 '48
 Response of linear resonant systems to excitation of a frequency varying linearly with time. G. Hok. *bibliog il* *diags* J Ap Phys 19:242-50 Mr '48; Correction. 19:623 J1 '48

RESONANCE (chemistry)

- Correlation of resonance structure with ultraviolet absorption in nitro-substituted organic molecules. W. H. Rodebush. *bibliog* Chem R 41:317-23 O '47
 Electron levels in polyatomic molecules having resonating double bonds. K. F. Herzfeld. *bibliog* *diags* Chem R 41:233-56 O '47
 Electrophilic reactions of 2- and 4-vinylpyridines. W. E. Doering and R. A. N. Weil. *bibliog* Am Chem Soc J 69:2461-6 O '47
 Electrostatic analyzer for 1.5-Mev protons. W. A. Fowler and others. *il* *diags* R Sci Instr 18:1818-20 N '47
 Nuclear resonance absorption in hydrated crystals; fine structure of the proton line. G. E. Pake. *bibliog il* *diags* J Chem Phys 16:327-36 Ap '48
 Resonance and hydrogen bond effects on the basic strengths of certain arylalkyl azomethines. C. D. Wagner and E. D. Peters. Am Chem Soc J 69:2914-15 N '47
 Resonance reactions involving Dirac-type incident particles. G. Goertzel. Phys R 73: 1463-6 Je 15 '48
 Resonances of $\text{Li}^+(\nu, n)\text{Be}^+$. G. Breit and I. Bloch. Phys R 74:397-404 Ag 15 '48
 Steric inhibition of resonance; acid strengths of some nitro- and cyanophenols. G. W. Wheland, R. M. Brownell and E. C. Mayo. *bibliog* Am Chem Soc J 70:2492-5 J1 '48
 Steric inhibition of resonance; reactivities of some halogenated primary and tertiary aromatic amines. R. B. Sandin and J. R. L. Williams. *bibliog* Am Chem Soc J 69: 2747-9 N '47
 Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel. *bibliog il* *diags* J Chem Phys 16:372-80 Ap '48

RESONANCE radiation. See Radiation

RESONATORS

Application of Helmholtz resonators to sound-absorbing structures. V. L. Jordan, bibliog il diags Acoustical Soc Am J 19:372-81 N '47
 Radiation of sound into a circular tube, with an application to resonators. U. Ingård, bibliog il diags Acoustical Soc Am J 20: 665-82 S '48

RESONATORS, Radio. See Radio resonators

RESORCINOL

Formulation of resorcinol-formaldehyde adhesives. E. G. Hancock, bibliog Soc Chem Ind J 66:337-40 O '47
 Novel synthesis of substituted phenylglyoxylic acids. I. M. Hunsberger and E. D. Amstutz, Am Chem Soc J 70:671-4 F '48

RESPIRATION

Constriction of the mid-thorax as a means of reflex maintenance of respiration during barbiturate narcosis. A. C. P. Bakos and W. L. Howell, bibliog Science 108:45-6 JI 9 '48
 Field instrument for measuring volume and instantaneous flow rate of inspired air. L. Silverman and others, bibliog il diags R Sci Instr 19:513-26 Ag '48
 Graphical analysis of respiratory problems; abstract. W. O. Fenn, Science 106:629 D 26 '47
 Regulation of respiration in heavy work; abstract. E. Asmussen and M. Nielsen, J Ind Hygiene 30:sup54 My '48
 Retention of aerosol particles in the human respiratory tract as a function of particle radius. I. B. Wilson and V. K. LaMer, bibliog (32 titles) diag J Ind Hygiene 30:265-80 S '48
 Retention of air-borne particulates in the human lung. H. D. Landahl and R. G. Herrmann, bibliog diag J Ind Hygiene 30: 131-8 My '48

RESPIRATION, Artificial

Electrophrenic respiration. S. J. Sarnoff and others, bibliog il Science 108:482 O 23 '48
 Intermittent positive pressure breathing, a means of administering artificial respiration in man. H. L. Motley and others, Nat Safety N 58:44-4 Ag '48
 Lineman is saved by pole top method. H. F. Lovering, il Power Pl Eng 51:92-3 N '47
 Modern methods of resuscitation. T. M. Thompson, bibliog il diags Ind Med 17:325-8 S '48
 Pole top resuscitation; illustrated instructions; engineering reference sheet. Elec World 129:52 Ja 3 '48
 Premier presents President's medal of the N.S.C. to 11-year old Gerald Lemay for successful application of the Schaefer prone pressure method of resuscitation, il Nat Safety N 56:31 D '47
 Twenty E.E.I. resuscitation medal awards earned by alert power company employees. M. B. Woods, Edison Elec Inst Bul 16:51-9 F '48

RESPIRATORY apparatus

Design of a collapsible, lightweight iron lung respirator. H. Lampert and R. D. Eichhorn, il diag Science 108:288-9 S 10 '48
 Laboratory develops lightweight plastic iron lung. Midwest Eng 1:28 O '48
 List of respiratory protective devices approved by the Bureau of mines. H. H. Schrenk, bibliog 13pls U S Bur Mines Information Circ 7444:1-14 '48
 Modern industrial safety equipment; respiratory protection. A. Ashburn, il Am Mach 92:109-10 O 7 '48
 Respiratory protection, il Nat Safety N 57: 29-30+ Mr '48
 Time-saving apparatus for respiratory exchange measurements. H. H. Kibler, diag Science 107:46-7 Ja 9 '48

RESPIRATORY organs**Diseases**

Cancer of the respiratory system in the United States chromate-producing industry. W. Machle and F. Gregorius, bibliog flow sheet Pub Health Rep 63:1114-27 Ag 27 '48

REST periods

Milk and rest periods boost productivity, cut accidents; Thermoid co., Trenton, N.J. Iron Age 161:90 F 26 '48

RESTAURANTS

America's most popular restaurants. Am Bns 17:24 N '47
 Good looks attract good trade; drive-in restaurant, Pasadena, Calif. il plan Am Bid 70:130-3 Ap '48
 Pierre grill; New York hotel livens up a luncheon room, il plan Arch Forum 88:90-3 Mr '48

Restaurants, building types study. il plans diags Arch Rec 104:119-42 JI '48
 Some facts about restaurant food; Mills restaurant, Cincinnati. J. Garretson, il Gas Age 101:25-6+ Ja 22 '48

See also
 Airports—Restaurants Lunchrooms and cafeterias

Advertising

Newspaper ads put shine on Brass Rail. S. Rovner, Ed & Pub 81:16 Mr 27 '48

Air conditioning

Air conditioning a restaurant; Katsinas cafe. il Dom Eng 172:124 S '48

Electric equipment

Daytime peaks make restaurant load desirable. il Elec World 130:118 JI 3 '48
 Dish sterilizer for restaurants; data sheet. A. Godfrey, il Elec West 101:101 S '48
 Electric cooking attracts motorists; Whitson's drive-in restaurant, il Elec World 128:124+ D 6 '47

Equipment

America eats out. P. P. Logan, Am Gas Assn Proc 1947:434-7
 How to sell and install water heating for commercial kitchens. il diags Dom Eng 172:116-23+ O; 118-20+ N '48 (to be cont)
 Large volume water heating; revised mass feeding hot water requirements. M. B. Mackay, Am Gas J 169:31-3 S; 35-8 O '48
 Let's sell hot water a la carte. L. J. Fretwell, Gas Age 101:24-5+ Mr 13 '48
 Report of food service equipment committee. Am Gas Assn Proc 1947:452-6
 Schrafft's votes 46 to 1 for gas. V. O'Brien, il Gas Age 102:23-4 Ag 14 '48

Lighting

Lighting effect for every mood; Hendrick's restaurant, Merchandise mart, Chicago, il plan Arch Rec 104:129-31 JI '48

RESTITUTION claims (1933-)

Legal provisions in French zone for restitution of property subjected to acts of spoliation. For Comm W 30:14-15 Mr 6 '48
 New legislation for restitution of identifiable property located in western Germany. For Comm W 29:14-15 D 20 '47
 Time limits for claiming restitution and other legal rights in Austria. For Comm W 31:8-9 My 8 '48

RESTRAINT of trade

Blow to one-supplier retailing; court rules out oil company's contracts with filling stations to sell only its line of products. Enns W 24:12 Je 12 '48
 DJ pursues attempt to prove Social violated law with exclusive dealing. Nat Pet N 40: 16 My 12 '48
 Early decision expected in Social antitrust suit. Nat Pet N 40:17-18 Je 2 '48
 Equipment buying by oil suppliers hit in first Ploeser field hearing. L. Castle, Nat Pet N 40:17 S 8 '48
 Exclusive dealing contracts defended by Social in trial. Nat Pet N 40:11-15 My 26 '48
 Force oil to give up TBA, Congress committee asked. Nat Pet N 40:15-16 S 15 '48
 Government wins decision in Social antitrust suit. Nat Pet N 40:11-12 Je 9 '48
 High court gets California Standard appeal in exclusive dealing case. Nat Pet N 40:15 S 22 '48
 Legal aspects of tying-in contracts. A. W. Gray, Ind Marketing 32:56+ D '47
 Ploeser group hears complaints in two cities on exclusive dealing. Nat Pet N 40:18 O 13 '48
 Social decision, if upheld, permits split-pump systems for independents. G. Dietrich, Nat Pet N 40:16-17 Je 16 '48

RESTRAINT of trade—Continued

Synopsis of Judge Yankwich's opinion in California Standard antitrust case. Nat Pat N 40:25-6 Je 16 '48

See also

Monopolies
Trusts, Industrial

RESUSCITATION

See also

Respiration, Artificial

RETAIL stores. See Retail trade; Store buildings; Stores (retail trade)

RETAIL stores, Government

Selfservice for Puerto Rico; government-operated supermarkets. Il Bsns W p89 N 22 '47

RETAIL stores, Trade union. See Cooperative stores, Trade union

RETAIL trade

Advertisers must manufacture customers as well as goods; 14 factors that demand greater advertising investments; problem of 400 elite retailers. E. B. Weiss. Il Ptr Ink 225:60-1+ O 29 '48

Broad advance in retail trade. Survey of Cur Bsns 28:2-3 Je '48

Can the retailer benefit from standards for consumer goods? A. F. Tesi. J Retailing 24:121-5 O '48

Easter retail sales off. Bsns W p21-2 Mr 27 '48

Immediate problems of retailing. D. M. Freudenthal. Comm & Fin Chr 168:903+ S 2 '48

Look at the retail picture as winter season nears. Bsns W p86-8 S 18 '48

Our snarled economics and retailing. J. E. McCarthy. Comm & Fin Chr 168:1440-1+ O 7 '48

Retail market in one economic world; survey of Cumberland and Allegany county, Maryland. J. H. Cover. map J Retailing 23:146-51 D '47

Retail outlook perks up. Bsns W p21 Ap 10 '48

Retailers now showing smaller gains in sales. Barron's 28:33 Je 14 '48

See also

Advertising—Dealers	Mail order business
Appeal to	Market stores
Chain stores	Marketing
Christmas business	Merchandizing
Clubs, Merchandizing	Plumbing shops
Company stores	Price fixing, Resale
Cooperative associations	Price policies, Retail
Country stores	Purchasing
Dealer helps	Retail workers
Dealer relations	Salesmanship, Retail
Department stores	Salesmen, Retail
Display of merchandise	Self service stores
Gasoline service stations	Shopping centers
Grocery trade	Show windows
Installation plan	Special sales
also National retail dry goods association	Specialty stores
	Store buildings
	Variety stores

Accounting

Bureau permits use of LIFO by retailers for tax purposes; some of the problems involved. J. P. Friedman. J Account 85:118-25 F '48

Lay-away system for retail stores. J Account 86:258 S '48

Procedure for handling the retail receivables of an oil company. A. P. Yung. N A C A Bul 29:1273-88 Je 15 '48

Retail operating ratios as managerial guides. N. H. Comish. Il Dun's R 56:18-19+ Ja '48

See also

Department stores—
Accounting

Advertising

Chain stores expanding use of audio devices for point-of-sale advertising at local level. W. H. Davis. Ptr Ink 224:75 Ag 27 '48

Copy clinic; Wallachs exchange week and other retail ads. B. Tyler. Il Adv & Sell 41:40-1 F '48

425 dailies now use retail division helps. Il Ed & Pub 81:14 Ja 24 '48

Keep ad budget up, NRPGA clinic told. Ed & Pub 81:12 Je 26 '48

Making bricks without straw. Aesop Glim. Ptr Ink 224:68 Jl 2 '48

Me and my brother. R. C. Hopcraft. Adv & Sell 41:44 O '48

Network co-op shows gain as retail medium. S. Rovner. Ed & Pub 81:52 Mr 6 '48

NABEA, NRPGA issue primer on retail ads. S. Rovner. Ed & Pub 81:18 Mr 6 '48

Responses to newspaper and radio advertisements measured in pilot study by Columbia university bureau. P. F. Lazarsfeld. Adv & Sell 41:29-30+ O '48

Retailer advises putting all ads in newspapers. E. Wilson. Ed & Pub 81:16 O 9 '48

Retailers' ad budgets in '47, 2.45 per cent of sales. Ed & Pub 81:55 Ag 7 '48

Retailers hear advice to build ad budgets. Ed & Pub 81:9 Ja 17 '48

Retailers now planners with newspapers' help. S. Rovner. Ed & Pub 81:14 S 18 '48

Sears spent \$19,134,400 in newspapers during '47. G. A. Brandenburg. Ed & Pub 81:7 S 11 '48

Split runs give small dealers better break on co-op advertising; Selective Area plan. L. B. Colby. Il Sales Management 60:82+ F 1 '48

27 minds are sold on a single thought; advertising association promoted by St Paul pioneer press. S. Rovner. Ed & Pub 81:14 Ap 10 '48

See also

Advertising—Dealer cooperation	Department stores—Advertising
Chain stores—Advertising	Mail order business—Advertising

Finance

Mr Hoving of Fifth avenue. Fortune 38:94-5+ S '48

Operating results of Illinois retail jewelry stores in 1947. D. J. Luck. (Bur. of economic and business research. Business studies no. 7) 31p Univ. of Illinois, Urbana '48

Retail operating ratios; a tool for management. R. L. Tebeau. J Retailing 23:129-37 D '47

Retail profits receding; half-year survey of National retail dry goods association. Comm & Fin Chr 168:1119 S 16 '48

Retailers need new money. Bsns W p78+ Mr 20 '48

Who makes the money, manufacturer or retailer? H. Hammer. J Retailing 24:74-6 Ap '48

Hours of business

What store hours? survey made by University of Illinois. Bsns W p69+ D 6 '47

Laboratories

Testing consumer products; Sears, Roebuck & co. merchandise testing laboratories. M. A. Blu. Il diag Product Eng 19:81-5 Je '48

Purchasing

How to sell retailers through central buying offices. J. C. Cumming. Sales Management 60:82+ My 1 '48

Research

Pattern of retail food stores in a small city. J. V. Coles. J Marketing 13:163-71 O '48

Securities

Diverse outlook for merchandise shares; with statistics on leading stocks. P. Dobbs. Mag of Wall St 82:587-9+ S 11 '48

Diverse prospects of merchandise shares; with statistics on leading stocks. J. C. Clifford. Mag of Wall St 82:22-4+ Ap 10 '48

Diversified stake in merchandise shares; with financial analysis of four leading firms. G. W. Mathis. Mag of Wall St 82:235-7+ Je 6 '48

Small town stores

Mr Herberger talks about retailing. E. Whitmore. Il Am Bsns 17:8-9+ N '47

Progress in rural selling; Gamble-Skogmo, inc. Il Bsns W p70+ Mr 13 '48

Small town store keeps business at home; Bresse's Oneonta (N.Y.) department store. A. H. Van Voris. Il Am Bsns 18:10-11+ My '48

RETAIL trade—Continued

Statistics

- Country's 20 largest retailers, Bsns W p94 S 25 '48
- Improvements in "high spot cities" statistics published in Sales management. Sales Management 60:60 Je 1 '48
- Inventory turn-over in retail trade. C. Winston and M. L. Puglisi. Survey of Cur Bsns 28:16-21+ Je '48
- Luxury sales sag. Bsns W p26+ Ap 3 '48
- National industrial conference board reports big increase in retail sales for the first six months of 1948. Comm & Fin Chr 168:1117 S 16 '48
- 1948 survey of buying power; estimates of population, total retail sales, sales by three major store groups, effective buying income (gross and net), net farm income, wholesale sales, sales-advertising controls for the Nation, sections, states, counties, cities plus special sections for Hawaii and the Dominion of Canada. II maps Sales Management 60:19-556 My 10 '48; Correction. 61: 111 JI 1; 67 Ag 1 '48
- Progress of the postwar transition; retail trade in 1947; with figures for other years. Survey of Cur Bsns 28:16-18 F '48
- Retail boom. Bsns W p78 Je 5 '48
- Retail credit survey, 1947. K. P. Reil. Fed Res Bul 34:787-93 JI '48
- Retail operating ratios; a tool for management. R. L. Tebeau. J Retailing 23:129-37 D '47
- Retail outlets in 13 lines of business. Sales Management 60:506+ My 10 '48
- Retail sales and consumer income. C. Winston and M. A. Smith. Survey of Cur Bsns 28:12-19+ O '48
- Retail sales rise to 118 billion dollars. W. P. Burn. map Ptr Ink 223:45-8+ Ap 23 '48
- Retail trade in 1947. J. M. Goloff. J Retailing 24:81-5 Ap '48
- Retail trade, 1941-1946. Survey of Cur Bsns 1947 Sup p39-46 [supplemented in monthly numbers]
- Retailers did more business in 1947 than in any previous year; charts showing comparisons, 1939-1947 and percentage change 1947 from 1946, by industry groups. Survey of Cur Bsns 28:1 Ja '48
- Revised estimates of retail inventories, monthly figures, 1940-48. Survey of Cur Bsns 28:31-2 JI '48
- Revised estimates of retail inventories, 1929-48. Survey of Cur Bsns 28:22-4 Je '48
- Revised estimates of retail sales, 1946-47; with tabulations giving monthly figures for 1946 and monthly indexes for 1942-1946. Survey of Cur Bsns 28:7-11 Ja '48
- Revised estimates; sales of retail stores by kinds of business, selected years, 1929-47. Survey of Cur Bsns 28:22 S '48
- Store size at alltime high; sales more than doubled in nine years. Bsns W p64+ Ap 3 '48

Stock

- Inventory turn-over in retail trade. C. Winston and M. L. Puglisi. Survey of Cur Bsns 28:16-21+ Je '48
- No-investment stock plan builds lucrative greeting card sales; G. E. Day keeps up a clean, timely, and moving stock of greeting cards for retailers. II Sales Management 61:113 Ag 15 '48
- Revised estimates of retail inventories, 1929-48. Survey of Cur Bsns 28:22-4 Je '48
- When a dealer says, I'm stocked, is he talking through his hat? Cory sent all their salesmen into retail stores to itemize merchandise on hand. N. H. Schlegel. II Sales Management 61:37-9 JI 1 '48
- See also
- Department stores—
- Stock

Store layout

- 40 stores; a portfolio of modern designs. Arch Forum 88:93-144 My '48
- Four floors of high-fashion selling; Salon Lenthéric, New York city. II plans Arch Rec 103:128-31 Ap '48
- Merchandising laboratory is vehicle for dealer cooperation program; modernization of 1,500 Goodyear outlets is one result. C. J. Swan. II Ptr Ink 225:27-9+ O 1 '48

- Models take hem and haw out of selling store designs; Tyler fixture corp. R. L. Tyler. II Sales Management 60:46-8 My 20 '48
- Store-modernization aid; 1,600 dealers have used Goodyear lab since war; illustrations. Bsns W p78+ My 29 '48
- See also
- Department stores—
- Layout

Store management

- Ad agency becomes a retailer to get facts at retail level. S. Krupnick. II Ptr Ink 223: 48+ Ap 9 '48
- Adjustments as a key to operating difficulties. E. Last. J Retailing 24:109-10 O '48
- Boosting home-furnishing sale; Barker bros., of Los Angeles. II Bsns W p50+ Mr 27 '48
- Business of their own; Fowler & Graham, Greenwich, Conn. II Fortune 37:98-101+ My '48
- Gamble store in St Cloud, Minn., sets pace for smaller cities. II Am Bsns 13:23 Ap '48
- Mr. Herberger talks about retailing. E. Whitmore. II Am Bsns 17:8-9+ N '47
- Retail operating ratios as managerial guides. N. H. Comish. II Dun's R 56:18-19+ Ja '48
- Stag night in Bridgeport; an experiment in community sales promotion. J. M. Goloff. J Retailing 24:28-9 F '48
- Suggestions systems; are they for retailing? G. L. Williams. J Retailing 24:21-5 F '48
- What retailing can learn from industry. H. B. Shaw. J Retailing 24:117-20 O '48
- You cannot escape store policy; stores like people have personality. F. Hooson. J Retailing 24:77-80 Ap '48

Study and teaching

- Borderline credit applicants; Food industry training center recommended. C. A. Maguire. Credit & Fin Management 50:28-9 S '48
- Establishing a demonstration store in a high school; Edison vocational and technical high school in Mount Vernon. S. A. Stanitis. J Retailing 24:30-6 F '48

Atlanta

- Rich's expanding riches; mammoth Atlanta department store. II Bsns W p88+ Ap 24 '48

Berkeley, California

- Pattern of retail food stores in a small city. J. V. Coles. J Marketing 13:163-71 O '48

Bridgeport, Connecticut

- Stag night in Bridgeport; an experiment in community sales promotion. J. M. Goloff. J Retailing 24:28-9 F '48

Canada

- Sales and population in Canada, 1947. W. P. Burn. map Ptr Ink 224:63-5+ S 3 '48

Chicago

- Loop store dies; Chicago's Boston store. Bsns W p44-5 JI 3 '48

Denver

- Sales runaway; Denver retail sales tax chases shoppers out of city. Bsns W p46-7 F 7 '48

Great Britain

- Coupons or cash? retail trade figures for June show the effect of coupon concessions. Economist 155:317 Ag 21 '48
- Retail sales fall. Economist 155:642 O 16 '48

Hawaiian Islands

- Effect of the war upon the distribution system of the Territory of Hawaii. S. Banks. J Bsns 20:220-9 O '47

Houston, Texas

- Mr Fred of the Lazari. II Fortune 37:108-15+ Mr '48

Illinois

- Consumer buying habits in selected south central Illinois communities. F. D. Converse. (Bur. of economic and business research, Business studies no. 6) 42p College of commerce and business administration, Univ. of Illinois, Urbana '48

RETAIL trade—Cont.

Latin America

Mass merchandising in Latin America; Sears, Roebuck & Co. W. F. Brown, J Marketing 13:73-7 J1 '48

St Louis

St Louis study analyzes 42 city shopping centers; location and size of retail stores in 12 lines. Sales Management 60:57+ Ja 1 '48

St Petersburg, Florida

Webb's City, \$12,000,000 drugstore, il Fortune 37:92-5+ Ja '48

White Plains, New York

What customers think about branch stores. J. M. Goloff, J Retailing 24:103-8+ O '48

RETAIL workers

Does the Taft-Hartley act apply to retailing? M. J. Simon, J Retailing 23:111-18 D '47

Executive opportunities in retail stores in Michigan for recent college graduates. E. H. Gault, Bur. of business research report no. 14) 20p pa \$1 Univ. of Michigan press, 311 Maynard st, Ann Arbor '48

Getting the most out of store personnel. E. J. Warmbier, J Retailing 23:138-45 D '47

Minimum wage in retailing. P. H. Nystrom, J Retailing 24:1-5 F '48

Mr President, let's talk about the kid; a message for top management only. E. J. Warmbier, J Retailing 24:54-9 Ap '48

Training is a staff function. J. J. McCarthy, J Retailing 24:6-13 F '48

See also

Department stores—

Employees

Salesmen, Retail

also United retail, wholesale and department store employees of America

Testing

Values of personnel testing in retailing. L. F. Greenberger, J Retailing 23:124-7+ D '47

RETAINING walls

Lateral earth pressures on flexible retaining walls; symposium. il plans diags Am Soc C E Proc 74:4-100 Ja '48; Discussion. 74: 1003-14, 1415-18 Je, O '48

Retaining wall eliminates underpinning. N. B. Green, il diag Eng N 141:74-5 S 2 '48

Failure

Cave-ins of sandy backfills. J. C. Gebhard, il plans diags Am Soc C E Proc 74:84-92 Ja '48

Failure of quay wall at Mare Island, California. L. C. Cox, il plan diags Am Soc C E Proc 74:93-100 Ja '48

RETARDERS, Car. See Car retarders

RETARDERS of polymerization. See Polymerization

RETINA

Electrical responses of the human retina to stimulation by lights of various wave lengths; abstract. L. A. Riggs. Science 106: 511 N 28 '47

RETIREMENT

How and when to plan retirement. F. W. Pennell, East Underw 49:19 S 24 '48

RETIREMENT plans. See Pensions, Industrial

RETORTS

Zinc smelting in the horizontal retort fired with natural gas. G. L. Oldright, bibliog 4pls U S Bur Mines Rep of Invest 4333:1-71; 4334:1-41; 4335:1-42; 4336:1-111 '48

See also

Gas retorts

REUTHER, Walter Philip, 1907-
Reuther's partner today may be his problem, por Bsns W p 102 N 22 '47

REVENUE act of 1948

Estate and gift tax provisions of the Revenue act of 1948. W. T. Sherwood, jr. J Account 85:463-4 Je '48

Revenue act of 1948 as it relates to reduction in taxes on individuals, M. E. Richardson and D. Blair-Smith, J Account 85: 370-80 My '48

REVENUE bonds. See Bonds, Revenue

REVERBERATION. See Echo

REVERBERATORY furnaces. See Furnaces, Reverberatory

REVERSING mechanism

Reduction and reversing drives for adapting gas turbines to marine propulsion. W. E. Hammond, diags Machine Design 20:149-52+ F '48

REWARDS, prizes, etc.

Albert and Mark Lasker foundation 1948 awards. Science 108:432 O 22 '48

APMA scientific award won by American medical association, Oil Paint & Drug Rep 152:4 N 3 '47

A.S.C.E. prizes and medals to be awarded; sketches and portraits of recipients. Civil Eng 13:32-9 Ja '48

Awards for outstanding individual achievement presented at A.G.A. convention, Am Gas Assn Mo 29:492-3+ N '47; Am Gas J 167:30-2 N '47

Cledo Brunetti receives 1947 Materials & Methods achievement award; other winners. Materials & Methods 26:63-7 N '47

First annual presentation of U.S. Department of agriculture honor awards. Science 107:9 Ja 2 '48

Grants and awards. Published in weekly numbers of Science

I.A.S. awards and honors for 1947. Aeronautical Eng R 7:6-7 F '48

I.R.E. awards; portraits. Inst Radio Eng Proc 36:756-9 Je '48

Medals and other awards, Society of motion picture engineers. il Soc Motion Picture Eng J 50:80-6 Ja '48

Moles awards for 1948; Lieutenant General Raymond A. Wheeler and William A. Durkin honored. E. K. Tomlin. Explosives Eng 26:10-4 Ja '48

New, simpler, more important Materials & Methods achievement award plan. Materials & Methods 27:66-7 My '48

\$1000 prize for a notable contribution to science. Science 107:36 Ja 9 '48

Recipients of ASM awards for distinguished service in the alloy steel industry; list. Iron Age 162:116-17 N 4 '48

Report of the prize awards committee, Edison electric institute. H. M. Sawyer. Edison Elec Inst Bul 16:195-7 Je '48

Second International lighting exposition and conference competition; what planned lighting can do; list of winners. Elec World News ed 128:16-17 N 29 '47

See also

Advertising awards	Pittsburgh award
Broun, Heywood,	Pulitzer prizes
memorial award	Safety contests and awards
Journalism awards	Westinghouse,
Lilly, Eli, award	George, science
Medals	writing award
Newspaper awards	
Nobel prizes	

REXALL drug company

New packages aid shift to national advertising; Rexall re-labeled 5,000 drug items. C. J. Swan, il Ptr Ink 223:32-3+ Je 25 '48

Rexall's new office in Los Angeles. F. Schmid, il Am Bsns 17:16-17+ N '47

REYKJAVIK, Iceland

Tuberculosis case-finding survey of the total population in 1945. S. Sigurdsson and O. P. Hjaltested. Pub Health Rep 62:1593-607 N 7 '47

REYNOLDS, R. J., tobacco company
Debutent and preferred stock offered. Comm & Fin Chr 168:1363 O 4 '48

Gain in sales outpaces industry. Barron's 28:35 O 25 '48

Tobacco financing. Barron's 28:39 S 13 '48; Bsns W p90 O 2 '48

REYNOLDS, Richard Samuel, jr.

Portrait. Bsns W p 104 S 11 '48

REYNOLDS, Thomas

Union receiver; to run New Jersey electrical union, pending outcome of court dispute. por Bsns W p74+ Ja 31 '48

REYNOLDS number. See Fluids; Hydraulics—Tables, calculations, etc.

RHEEM, Richard Scofield

Sketch. por(cover) Bsns W p5 J1 31 '48

RHEEM manufacturing company

Rheem is out to build a household name. il Bsns W p53+ J1 31 '48

RHEINSTROM, Carroll, 1904-

Portrait. Ptr Ink 223:110 Ap 23 '48

RHENIUM

- Natural radioactivity of rhenium. S. N. Nalderett and W. F. Libby. *bibliog* Phys R 73:487-93 Mr 1 '48; Correction. 73:929 Ap 15 '48
- Natural radioactivity of rhenium. N. Sugarman and H. Richter. *Phys R* 73:1411-12 Je 1 '48
- Stability of Os^{187} against K capture. H. H. Seltzer and H. L. Bradt. *Phys R* 73:1408-9 Je 1 '48
- See also*
Perrhenic acid

Isotopes

- Short-lived isomers of nuclei. S. DeBenedetti and F. K. McGowan. *diags* Phys R 74:728-35 O 1 '48
- Study of the radiations from columbium (95), rhenium (188), osmium (191), and osmium (193). C. E. Mandeville and others. *bibliog* Phys R 74:888-93 O 15 '48

RHEOLOGY

- International rheological congress in Holland. Sept. 1948. *Chem & Ind* p754-5 D 6 '47; *Science* 106:634-5 D 26 '47
- Rheological investigation of asphaltic bitumen in connexion with its technical applications. R. N. J. Saal. *Inst Pet J* 34:69-79; Discussion. 79-89 F '48
- Rheological measurements with the rotational viscometer. E. K. Fischer and C. H. Lindseley. *bibliog* *il diags* Textile Res J 18:325-37 Je '48
- Rheological state as a criterion of dispersion. J. Pryce-Jones. *Chem & Ind* p233 Ap 10 '48
- Rheology of paper; new approach to study of paper strength. S. E. Mason. *bibliog* *diags* Pulp & Pa. of Can (Convention no) 49:207-14+ [F] '48
- See also*
Thixotropy

RHEOLOGY, International congress on. See International congress on rheology**RHEOLOGY, Society of. See Society of rheology****RHEOSTATS**

- Contact liquid rheostat uses stationary electrodes. T. B. Montgomery and A. C. Halper. *diags* *Elec World* 129:144+ My 22 '48; Same. *Product Eng* 19:139-40 Je '48
- Liquid rheostat gives smooth speed control. G. L. McFarland. *il diags* *Power* 92:280-2 My '48
- Motor-driven rheostats for automatic or remote control of motor drives. H. F. Littlejohn, Jr. *il diags* *Machine Design* 19:129-34 D '47
- Vitreous enameled round rheostats. *il R Sci Instr* 19:377 My '48
- Water rheostat loads generators for testing. J. L. King. *diags* *Power* 92:110 F '48

RHEUMISM

- Antirheumatic effect of sodium gentisate. K. Meyer and C. Ragan. *Science* 108:281 S 10 '48

RHINE river

- Rhine River barges. *il Marine Eng* 53:52-7 Je '48

RHIZOPTERIN

- Degradation product of rhizopter. E. L. Rickes and others. *bibliog* *Am Chem Soc J* 69:2751-3 N '47
- Isolation of rhizopter. New growth factor for streptococcus lactis R. E. L. Rickes, L. Chajet and J. C. Keresztesy. *Am Chem Soc J* 69:2749-51 N '47
- Structure of rhizopter. D. E. Wolf and others. *bibliog* *Am Chem Soc J* 69:2753-9 N '47

RHODAMINE 6G

- Effect of sodium silicates on the absorption spectra of some dyes. R. C. Merrill, R. W. Spencer and R. Getty. *bibliog* *Am Chem Soc J* 70:2460-4 Jl '48

RHODE ISLAND

- See also*
Coal-Rhode Island

RHODES, inc.

- Revamping a homey chain. *Bsns W* p50-1 My 15 '48

RHODESIA

- See also*
Copper industry and Gold mines and mining—Rhodesia
trade—Rhodesia

Commercial policy

- Southern Rhodesia; reimposition of strict import controls. *For Comm W* 29:17-18 N 8 '47
- Southern Rhodesia; tariffs and trade controls; Geneva trade agreement. *For Comm W* 29:22 D 20 '47

Industries and resources

- Rhodesian ore; plan to industrialize colony. *Bsns W* p 110+ N 15 '47

Politics and government

- Rhodesians go unwillingly to the polls. *Economist* 155:421+ S 11 '48

RHODIUM

- Relative yields of (α, n) and $(\alpha, 2n)$ reactions for Ag and Rh with 15-20-Mev alpha-particles. H. L. Bradt and D. J. Tendam. *Phys R* 72:1117-18 D 1 '47
- Uses of rhodium; abstract. L. B. Hunt. *Materials & Methods* 27:115 F '48

Isotopes

- Decay scheme of ^{106}Rh . W. C. Peacock. *bibliog* *diags* *Phys R* 72:1049-53 D 1 '47
- Neutron deficient isotopes of rhodium and palladium. M. Lindner and I. Perlman. *Phys R* 73:1202-3 My 15 '48
- (H^1, p) reaction in Rh and Co and probable evidence of the di-neutron. D. N. Kundu and M. L. Pool. *bibliog* *Phys R* 73:22-6 Ja 1 '48

RHODIUM plating

- Stripping of rhodium plating. M. Shapiro. *il Metal Finishing* 46:56-8+ F '48

RHODIZONIC acid

- Oxidation-reduction potentials and ionization constants of the reversible series; hexahydroxybenzene-tetrahydroxyquinone-rhodizonic acid. P. W. Preisler, L. Berger and E. S. Hill. *Am Chem Soc J* 70:871 F '48

RHOMBININE

- Papilionaceous alkaloids; identity of rhombinine and monolupine with anagyrine. L. Marion and J. Ouellet. *bibliog* *Am Chem Soc J* 70:3076-8 S '48

RIBITOL. See Adonitol**RIBOFLAVIN. See Vitamins—Vitamin B₂****RIBONUCLEASE**

- See also*
Desoxyribonuclease

RIBONUCLEASE

- Inhibitors for ribonuclease. C. A. Zittle. *bibliog* *Franklin Inst J* 246:266-8 S '48

RIBOPYRANOSIDOXANTHINE

- Application of the Hofmann reaction to the synthesis of heterocyclic compounds; the synthesis of 9-D-mannopyranosidoxanthine and of 9-D-ribo-pyranosidoxanthine. E. A. Baxter, A. C. McLean and F. S. Spring. *Chem Soc J* p523-5 Ap '48

RICE, James O'Neill

- Portrait. *Bsns W* p23 My 22 '48

RICE

- Relief from rice; with data on world production, selected years, 1935-1948. *Economist* 154:604 Ap 10 '48
- Rice cultivation, France. *For Comm W* 32:30 Ag 21 '48
- Rice, 1941-1946. Survey of Cur Bsns 1947 Sup p 129 [supplemented in monthly numbers]
- Rice production and exports, Ecuador. *For Comm W* 32:33-4 S 4 '48
- Rice production and trade in 1947, Cuba. *For Comm W* 31:24 Je 12 '48
- Rice production and trade, Netherlands Indies. *For Comm W* 33:29 O 16 '48
- Rice production, consumption, and exports, Chile. *For Comm W* 32:31 Ag 7 '48
- Rice production, consumption and exports, Egypt. *For Comm W* 30:22 F 7 '48
- Rice production, consumption, and foreign trade, Iran. *For Comm W* 29:13-19 D 13 '47
- Rice supplies in the republic of the Philippines. *For Comm W* 30:20 Ja 17 '48
- Ricement; rice hulls into building blocks. *il Arch Forum* 87:12 D '47

Prices

- Rice has good chance to stay above loan level. *Barron's* 28:36 Jl 26 '48

- RICHARDS, Theodore William**, medal
Advances in protein chemistry; address at
Richards medal award. E. J. Cohn. Chem
& Eng N 26:1514-15 My 24 '48
- RICHARDSON, Robert B.** 1899-
Sketch. C. D. Greenfield. por East Underw
48:16 D 19 '47
- RICHMOND, Frederick W.**
Two with the knack; Robert G. Drake and
F. W. Richmond, fledgling foreign traders.
por Fortune 37:120+ F '48
- RICHMOND, Virginia**
Sanitary affairs
Bulk containers improve refuse handling; use
of large steel boxes transported by special
pick-up trucks. il Eng N 140:120-1 Ja 22
'48
- RICHTER, Mischa**
Richter saw his own handwriting on wall. C.
Hodge. por Ed & Pub 81:72 Ap 24 '48
- RICKENBACKER, Edward Vernon**, 1890-
Awkward case of Eastern airlines. por For-
tune 38:100-2 N '48
- RICKETTSIA**
Chloromycetin, an antibiotic with chemothera-
peutic activity in experimental rickettsial
and viral infections. J. E. Smaedel and E.
B. Jackson. Science 106:418-19 O 31 '47
- Employment of soluble antigen in screening
tests for typhus complement fixation. T. O.
Berge. biblog Pub Health Rep 63:529-37 Ap
22 '48
- Report on the histopathology of the cutaneous
lesions of a case of rickettsialpox. L. R.
Hershberger and R. J. Huebner. biblog Pub
Health Rep 62:1740-2, pl 1-2 D 12 '47
- Rickettsial rout? a new antibiotic, chloromy-
cetin. Chem Ind 61:980-1 D '47
See also
Q fever
- RIDGWAY** color standards. See Color—Stand-
ards
- RIEGEL, Ross Milton**, 1881-
Sketch. por(p33) Civil Eng 18:35 Ja '48
- RIEKE** diagrams
Rieke diagrams for oscillator design. L. S.
Schwartz. diags Tele-Tech 7:33-6+ Je '48
- RIEVE, Emil**, 1892-
Portrait. Fortune 38:204 N '48
- RIFT** valleys
Rift valleys of Africa. G. F. S. Hills. Am J
Sci 246:171-81 Mr '48
- RIGBY, George Reginald**
Awarded chemistry honours. Chem Age
(Lond) 58:277 F 21 '48
- RIGGIO, Vincent**, 1877-
Portrait. Fortune 38:67 J '48
- RIGHT** to labor
Right to have a job. N. C. Rockwood. Rock
Prod 51:83+ Mr '48
- U.S. Supreme court to pass on right-to-
work laws. N. C. Rockwood. Rock Prod
51:63, 110+ My '48
- RIGHTS** of women. See Woman—Equal rights
- RIGIDIZED** sheet metal. See Sheet metal
- RINGWORM**
Epidemic tinea capitis; a public health
problem. R. K. C. Lee. biblog Pub Health
Rep 63:261-8 F 27 '48
- Structural changes in wool degraded by the
ringworm fungus microsporum gypseum
and other microorganisms. G. R. Mandels
and others. biblog il Textile Res J 18:224-
31 Ap '48
- RIO GRANDE**
Discharges given for 1948 floods on Rio
Grande. L. M. Lawson. Civil Eng 18:588 S
'48
- Middle Rio Grande project approved by Rec-
lamation, army engineer chiefs. Eng N 139:
625 N 6 '47
- RIPLEY, Robert LeRoy**, 1893-
Robert Ripley, inc, a big business now. C.
Hodge. por Ed & Pub 81:40 JI 10 '48
- RIPPLE** control. See Carrier current control
- RISK**
Guaranty trust co. of New York sees serious
shortage of venture capital. Comm & Fin
Chr 167:1438 Ap 1 '48
- Investor, indispensable man; unless the in-
centive of a reasonable return or dividend
is offered, capital will not be risked. J. R.
Whiting. Pub Util 41:267-73 F 26 '48
- More risk capital as incentive for sound
industrial future. G. A. Price. Comm &
Fin Chr 167:1210+ Mr 18 '48
- Must have inducement for venture capital. C.
E. Merrill. Comm & Fin Chr 167:911 F 26
'48
- Must have risk capital or government own-
ership of industry. R. W. Courts. Comm &
Fin Chr 167:1211+ Mr 18 '48
- Need of venture capital for defense. N. S.
Chadwick. Comm & Fin Chr 167:497+ Je
29 '48
- Stock market speculation and venture capital.
F. A. Truslow. Comm & Fin Chr 167:602+
F 5 '48; Same cond. Dun's R 56:17-19+ JI
'48
- Tax policies must not stifle venture capital;
abstract. G. Terborgh. Pub Util 41:171-2
Ja 29 '48
- Tax reduction essential to obtain risk capi-
tal; statement before Senate finance com-
mittee. E. Schram. Comm & Fin Chr 167:
1104+ Mr 11 '48
- Taxes, their influence on venture capital.
L. du Pont. Comm & Fin Chr 167:500+ Ja
29 '48
- Venture capital needed to sustain continuing
boom. H. L. Blackburn. il Mag of Wall St
81:126-7+ N 8 '47
- Venture capital problem. A. M. Pope. Comm
& Fin Chr 167:1868+ Ap 29 '48
- Venture capital; seed corn of our economy.
H. A. Vilas. Comm & Fin Chr 167:810 F
19 '48
- Venture capital shortage; its dangers and
remedies. W. Gates. Mag of Wall St 82:
170-1+ My 22 '48
- RITTER, William Emerson**, 1856-
Rise of science understanding. W. Davis. por
Science 108:239-46 S 3 '48
- RIVER** coal. See Coal dredging
- RIVER** fronts. See Water fronts
- RIVER** traffic
Barge and towboat construction spurt means
more oil will move on rivers. E. Lamm.
il Nat Pet N 40:29-30+ Ap 7 '48
- Midwest operator declares barge deliveries
can be stepped up ten per cent. Nat Pet
N 40:30+ F 4 '48
- Proposed Allegheny-Genesee waterway links
vital inland water systems. C. E. Long. il
map Civil Eng 18:574-7 S '48
- River radar promises faster tows for mills
and fabricators. il map Iron Age 160:121-2
D 25 '47
- See also
Barges
Federal barge lines
- RIVERS**
Concept of the graded river. J. H. Mackin.
diag Geol Soc Bul 59:463-511 biblog(p509-
11) My '48
- Oxygen balance studies of a typical swamp
stream; Blackwater river, Virginia. S. C.
Crawford. biblog Sewage Works J 20:
876-80 S '48
- River infiltration as a source of ground water
supply. R. G. Kazmann. il map diag Am
Soc C E Proc 73:837-53 Je '47; Discussion.
74:355-6, 687-9 Mr. My '48
- Tidal river phenomena discussed in sym-
posium before Waterways division, A.S.C.E.
fall meeting. R. F. Rhodes; H. B. Simmons.
Civil Eng 17:646-7 N '47
- Working a riverbed to increase well water
supply. il Pub Works 78:36+ D '47
- See also
Dams
Flood control
Hydraulics
Ice on rivers, lakes,
etc.
Water pollution
Water supply
- also names of rivers, e.g.
Colorado river
Mississippi river
- Bank protection**
Flexible concrete mattresses for river-bank
protection. il Engineering 165:337-9, 348 Ap
9 '48
- Gantries move forms in assembly-line con-
struction of flood wall. il Civil Eng 18:646-7
O '48; Same. Concrete 56:6-7 O '48
- See also
Mattresses (hydrau-
lic engineering)

RIVERS—Continued

Regulation

- Blasting new river channel to reduce railroad curve; New York Central diverts flow of Mohawk river. R. J. Dillon. *Il Explosives Eng* 25:167-70+ N '47
- Correction in tailwater erosion at Prairie du Sac dam. C. N. Ward and H. J. Hunt. *Il Am Soc C E Proc* 72:1077-89 O '46; Discussion. 73:709-17; 74:187-92 My '47, F '48
- East meets West in controlling China's Yellow river. O. J. Todd. *Il Civil Eng* 18:638-41+ O '48
- High explosives solve irrigation problem; blasting to correct bad habits of Colorado river. B. E. Wilson and C. O. Mayer. *Il map Explosives Eng* 26:14-16+ Ja '48
- Mississippi River cutoffs. G. H. Matthes. *Il maps Am Soc C E Proc* 73:3-17 Ja '47; Discussion. 73:404-10, 949-52, 1089-92; 74:248-59 Mr, Je, S '47, F '48
- Nile control by hydro-electric means. A. A. B. Ahmed. *map diag Engineering* 165:577-8 Je 18 '48
- One less river to boss; story of the Wisconsin river. *Il Elec World* 130:77-92 Ag 14 '48
- Le rétablissement du fleuve Jaune dans son cours antérieur (Chine). *Il map Génie Civil* 124:414-15 N 1 '47
- River takes slings for N.Y.C. twentieth century parade; major line change, eliminating curve at Little Falls, required carving new river channel. *Il plan Ry Age* 123:904-7 N 22 '47
- Rock fill diverts river at Davis dam. *Il Eng N* 141:70-2 Ag 5 '48

China

See also
Yellow river, China

Great Britain

Clean and dirty rivers. *Engineering* 165:518 My 28 '48

Illinois

See also

Illinois waterway

RIVETED joints

- Cracking of boilers. *Il Ry Mech Eng* 121:642-5 N '47
- Structural failure of a riveted ship. E. M. MacCutcheon. *Il Welding J* 27:52-4 Ja '48

Testing

- Investigation of boiler-drum steel after forty years of service. H. S. Blumberg and G. V. Smith. *Il diags A S M E Trans* 70:185-98; Discussion. 198-200 Ap '48

RIVETS

- Electric rivet heater. *Il Engineer* 186:372 O 8 '48
- Explosive rivets; recent developments in American automobile construction. H. C. Hendrick. *Il Automobile Eng* 38:141-2 Ap '48
- Further report on the rivet plate. J. A. Campbell. *Il diags Pet Eng* 19:117-18+ My '48
- Wire, machines and processes mean better cold headed brass. W. D. France. *Il Am Mach* 92:96-7 F 12 '48

Testing

- Bearing properties of 24S-T sheet and shear strength of 24S-T rivets at elevated temperatures. A. E. Flanigan and others. *Il diags Am Soc for Metals Trans* 38:789-804; Discussion. 804-6 '47

RIVETT, Sir Albert Cherbury David, 1885-
Sir D. Rivett and the phase rule. *Chem & Ind* p433-4 J1 10 '48

ROACH, Alden G. 1901-
Portrait. *Bsns W p* 105 O 30 '48

ROACHES. See Cockroaches

ROAD contractors

- Advantages of pre-qualification of bidders to the contractor, bonding company, and public officials. E. T. Nettleton. *Roads & S* 91:68+ Ja '48

Better relations between engineers and contractors. J. Cohan. *Roads & S* 91:69+ My '48

Pre-qualification methods used by the State highway department of Connecticut. E. T. Nettleton. *Roads & S* 91:86 F '48

Directories

Contractors, Canada; roadbuilding, earth-moving, engineering construction. *Roads & Bridges* 86:125-6+ Je '48

ROAD graders. See Road making machinery

ROAD making machinery

- Champion grader with 100 hp. Diesel engine. *Il Roads & Bridges* 86:138-9 S '48
- From tarpaper shack to plate glass front; Sheridan equipment co. ltd. *Il Roads & Bridges* 86:82+ Ja '48
- Grading and ditching 85 miles of roads using modern equipment; Athens county, Ohio. J. W. Dowler. *Il Pub Works* 78:19-20 O '47
- How to build low cost roads with today's equipment. *Il diag Pub Works* 79:28-32+ J1 '48

How trailblunder units were designed for arc welding; with cost data. G. J. Storatz. *Il diags Machine Design* 20:143-8+ Ja '48

Merits of roadmixing machines for asphalt pavements. J. M. Greene. *Il Roads & Bridges* 86:75+ My '48

Modern highway building. C. M. Upham. *Comp Air Mag* 53:122 My '48

New machines mean more roads. *Il Bsns W* p28+ Ag 7 '48

New road machines feature hydraulic controls. *Il Machine Design* 20:135-6 S '48

Ohio experiments with vibration in placement of screenings in macadam bases. C. W. Allen and S. O. Linzell. *Il Roads & S* 91:65-6 Mr '48

Public works contractors' plant. V. W. Bone and others. *Inst Mech Eng J & Proc* 157 (War emergency issue no 32):313-17, pl 1-2 '47

Road-building equipment; how ERP may affect trade and supplies; Europe's requirements viewed in relation to U.S. needs. G. L. Bell. *Il For Comm W* 30:3-5+ F 21 '48

Selection, operation and care of road machinery. T. Johnston. *Roads & Bridges* 86:123+ Mr '48

Service difficulties with road building machinery. K. A. Forbes. *Il Roads & Bridges* 86:130+ S '48

Vibratory subgrader disintegrates dirt. *Il Concrete* 56:62+ F '48

See also

Road rollers
Roads, Concrete—
Construction
equipment

Exhibitions

1948 road show of American road builders association. Chicago, July 16-24. *Ind Marketing* 33:49+ Ag '48

Record road show stresses size, rubber, power, control. *Il Eng N* 141:1+ J1 29 '48

Road show exhibit, Chicago. *Il Rock Prod* 51:104-13 Je; 74:7+ S '48; *Constr Methods* 30:RS 1-32 J1; 78-83 Ag '48; *Eng N* 141:145-76 J1 8 '48; *Roads & Bridges* 86:57-60+ J1 '48; *Roads & S* 91:106+ J1 '48

Who's who and where at Chicago; list of exhibitors at the 1948 road show. *Il plan Roads & S* 91:67-9+ J1 '48

Maintenance and repair

Salvage material built this contractor's shop. *Il Roads & S* 91:152-3 J1 '48

ROAD materials

Pennsylvania stone, slag, and sand and gravel producers meet with Highway department. *Rock Prod* 51:90-1+ F '48

See also

Aggregates	Concrete
Asphalt	Gravel
Bituminous materials	Pavements
Cement	Road tar
Clay	Stone, Crushed

Testing

Mechanical stability of bitumen-aggregate mixtures. L. W. Nijboer. *bibliog Soc Chem Ind J* 67:244-9 Je '48

ROAD research. See Highway research

ROAD rollers

Compaction of soils by various types of rollers. *Pub Works* 79:43 Je '48

ROAD rollers—Continued

Sheepsfoot rollers need standardizing. *il Roads & Sts 91:54 My '48*
 200-ton super compactor being tried out at Baltimore airport. *H. J. McKeever. il plan Roads & Sts 91:82-4+ Ja '48*

ROAD signs

Connecticut adopts illuminated overhead signs. *il Roads & Sts 91:63 Je '48*
 Signs to speed traffic; radical departure in marking routes at intersections made by New Jersey highway department. *il plan diags Eng N 140:34-6 Ja 8 '48*

ROAD tar

Tar stabilized roads; progress report of ARBA committee. *A. R. Taylor. Roads & Sts 91:109 Ap '48*

Testing

Effect of petroleum-like constituents on road tars, and a test for determining the homogeneity of road tars. *R. H. Lewis and W. J. Halstead. il Pub Roads 25:53-64 Mr '48*

ROAD traffic

Increase in volume of traffic on highways in U.S. exceeds gasoline consumption gains, study shows. *Nat Pet N 40:28 S 15 '48*
 Influence of toll bridges on highway traffic is subject of report. *Civil Eng 18:55 Ja '48*
 Parkway need explained by pictorial booklet, addressed to New Jersey officials and public. *Roads & Sts 91:103 F '48*
 Planning highway systems and development of standards. *diags Roads & Bridges 86:64-70+ Ag '48*

Traffic improvements through traffic engineering. *W. S. Smith. il Civil Eng 18:160-4+ Mr '48*

Traffic trends on rural roads in 1946. *T. B. Dimmick and M. E. Kipp. Pub Roads 25:41-8 Mr '48*

Trends in motor-vehicle travel, 1946. *Pub Roads 25:49+ Mr '48*

See also

Bridge traffic
 Motor trucks and roads
 Traffic signals

ROADABLE airplanes. *See Airplanes, Light—Automobile combinations*

ROADMASTERS' and maintenance of way association

Annual meeting, Chicago, Sept. 20-22. *Ry Age 125:637-42 O 2 '48*

ROADS

American road builders association 45th annual meeting, Washington. *Eng N 140:165+ F 5 '48*

Association of highway officials of the North Atlantic states, 24th annual meeting, Atlantic City. *Eng N 140:385 Mr 11 '48*

Chart for determining the grade of a road, walk, ramp, etc. *W. F. Schaphorst. Water & Sewage Works 95:252 Jl '48*

Ice prevention in New Hampshire. *L. F. Johnson. il Pub Works 79:36+ Mr '48*

Road activities in foreign countries. *T. W. Stanier. Roads & Bridges 86:127+ Mr '48*

Roads and amenities. *B. M. Roberts. Pub Works 79:32+ S '48*

Special highway section. *il maps plans diags Eng N 141:119-44 Jl 8 '48*

See also

Causeways
 Forest roads
 Highway admin-
 istration
 Highway engineer-
 ing
 Highway research
 Highway transporta-
 tion
 Motor trucks and roads
 Pan American high-
 way
 Parkways
 Road making ma-
 chinery
 Road materials
 Roadside planting
 Snow removal
 Streets

Construction

California highway construction and main-
 tenance. *diags Pub Works 79:19 Jl '48*

How to build low cost roads with today's
 equipment. *il diag Pub Works 79:28-32+
 Jl '48*

Inventory of major projects; with information
 on costs, sizes and features. *il Eng N 140:
 296-301 F 19 '48*

Maine turnpike project. *W. B. Lenhart. il
 Rock Prod 51:82-9 F '48*

Possible cuts in highway costs; opinions of
 contractors and engineers. *D. W. Winkle-
 man and others. il Eng N 141:120-7 Jl 8 '48*
 292,000 cu. yd. earth moved in 23 days;
 U.S. 40 contract in Elko county, Nevada.
il Roads & Sts 91:83-4 My '48

Construction equipment

Better equipment will mean more economical
 road building. *C. M. Upham. Roads & Sts
 90:94+ N '47*

Equipment distributors, Canada; addresses
 of head and branch offices; list of principals
 they represent. *Roads & Bridges 86:193-4+
 Je '48*

Hard facing prolongs cutting edges. *il Roads
 & Sts 90:109-11 O '47*

Heater-planer used in highway widening. *il
 diag Roads & Sts 91:107-8 Ap '48*

Heavy is the word for this California reloca-
 tion. *il Roads & Sts 90:73-6 O '47*

Maine turnpike project; portable plants sup-
 ply aggregates. *W. B. Lenhart. il Rock
 Prod 51:85-7 F '48*

Manufacturers, products, distributors; high-
 way construction equipment; products in-
 dex. *Roads & Bridges 86:215-16+, 279-84+
 Je '48*

Moving 4000 cubic yards per day, mostly
 rock; road contract in West Virginia. *il
 Roads & Sts 91:51-3 My '48*

San Francisco soils and equipment confer-
 ence, April 8-9; with abstracts of papers.
Roads & Sts 91:55-8+ My; 66+ Je '48

Travel plant road job. *Morrison-Knudsen co.,
 inc., U.S. 30, Idaho. il Roads & Sts 91:70-1
 Ja '48*

Vibrator works binder into slag base. *il
 Constr Methods 30:86-8 Jl '48*

See also

Road making ma-
 chinery
 Roads, Concrete—
 Construction equip-
 ment

Construction schedules

Two speedy Wyoming jobs. *il Roads & Sts
 91:78+ Je '48*

Contracts

Arguments over cost plus items can be
 avoided. *E. T. Nettleton. Roads & Sts 91:
 76-8 Ap '48*

Bids, contracts and bonds for highway con-
 struction and maintenance. *J. Simpson. Pub
 Works 78:25 O '47*

How big the contract section? nationwide
 survey. *Roads & Sts 91:91-3 S '48*

Taking the gamble out of rock excavation;
 suggested form for estimating. *E. T. Net-
 tleton. il Roads & Sts 91:94-7 Ag '48*

To bid or not to bid. *E. T. Nettleton. Roads &
 Sts 90:78 D '47*

Why contractors lose money; five major
 types of errors. *E. T. Nettleton. Roads &
 Sts 91:87-8 Mr '48*

See also

Road contractors

Cost

Average bid prices for highway construction
 by states, fourth quarter, 1947. *Eng N 140:
 843 My 27 '48*

Average item bid prices on federal aid high-
 ways. *Pub Works 79:35 Ja '48*

Construction costs in Vermont. *Pub Works
 79:44 S '48*

Contract unit bid prices. *Eng N 140:879+
 My 27 '48*

Figuring aggregate costs; Arkansas state
 highway commission. *A. E. Johnson.
 Roads & Sts 90:79-81 N '47*

Highway and airport appropriations nearly
 \$200,000,000 for 1948. *Roads & Bridges 86:
 95-8+ Je '48*

Highway and culvert, Grundy county, Mo.;
 unit prices. *Eng N 140:521 Ap 1 '48*

Highway costs up 38 per cent compared to
 base period of 1925-29 in the United States.
Roads & Bridges 85:56+ N '47

Highway improvements, White Pine county,
 Nevada; unit prices. *Eng N 140:381 Mr 4
 '48*

1½ billion for roads in '48; reports from state
 highway engineers. *il Roads & Sts 91:69-
 70+ F; 94-5+ Mr '48*

Ontario counties plan road work. *il Roads
 & Bridges 86:76-7+ F; 79-80+ Ap '48*

ROADS—Cost—Continued

Roadbuilding costs, 1922-1947. Eng N 140:839
My 27 '48

See also

Roads, Bituminous— Roads, Concrete—
Cost Cost

Cost of maintenance

See Roads—Maintenance and repair

Curves

General principles of highway transition
curve design. J. J. Leeming. Am Soc C E
Proc 73:1257-69 O '47; Discussion, diags
74:139-42, 674-86, 890-4 Ja, My-Je '48

Drainage

Flow through gutter inlet gratings; abstract.
C. L. Larson. Pub Works 79:32 Je '48
46 miles subsurface drains installed in Con-
necticut; abstract. H. R. Turner. plan
Roads & Sts 91:76+ Je '48

Grading and ditching 85 miles of roads using
modern equipment; Athens county, Ohio.
J. W. Dowler. il Pub Works 78:19-20 O
'47

How Connecticut cleans highway catch
basins. il Roads & Sts 90:74 D '47
Jacked-in-place drainage pipe; abstract. J.
Feld. Pub Works 79:31 Je '48

Putting brakes on landslides. il diag Comp
Air Mag 53:191-2 Ag '48
Sand drainage wells save money on Con-
necticut highway. Pub Works 78:40-1 D
'47

Sand drains stabilize muck in Puerto Rico.
J. C. Carpenter. il diags Eng N 141:52-4 Jl
22 '48

Sand drains to consolidate marsh in building
New Jersey freeway. Concrete 55:28+ N
'47; diag Civil Eng 18:6 Ja '48

Sand drains used on eastern U.S. projects.
diag Roads & Sts 90:56 D '47

Sand piles hasten completion of California
expressway; construction of vertical sand
drains. H. A. Simard. il Roads & Sts 90:51-
3+ D '47

Special facilities drain Florida highway. il
Eng N 139:820-1 D 11 '47

Stabilizing earth slopes by boring horizontal
drains. T. E. Stanton. il diags Pub Works
79:20-2 F '48

Vertical sand drains for supporting embank-
ments over marshes. T. E. Stanton. il diag
Pub Works 79:19+ My '48

Economic aspects

Oil and motor vehicle men see world-wide
modern roads program as good business.
W. C. Platt. il Nat Pet N 40:25-6+ Jl 28 '48
Road promotion planned to lift foreign econ-
omies. Eng N 141:42 Jl 22 '48

Federal aid

Federal-aid highway act of 1948; text. Pub
Roads 25:107-8 S '48

Federal-aid system provides network of arte-
rial routes in urban areas. map Civil Eng
17:651+ N '47

Federal road funds become available for
state commitment by Sept. 1; approximate
apportionment of \$450,000,000 highway pro-
gram for fiscal 1950. Eng N 141:39 Jl 22 '48

How local and urban highways are being im-
proved in the United States. B. F. Oster-
gren. Roads & Bridges 86:124+ Mr '48

Three-year highway construction plan de-
velops northwest area. S. L. Taylor. il
Civil Eng 18:156-9+ Mr '48

Finance

Highway administration in Ontario. G. H.
Doucett. il Roads & Bridges 86:111-15+ Mr
'48

\$163,000,000 for highways in seven provinces.
Roads & Bridges 86:75+ Ap '48
PRA calls 1947 biggest highway year. Eng
N 140:83 Ja 15 '48

Realism needed in road building; abstract. P.
D. McLean. Roads & Sts 91:85 F '48
Road expenditures at new high level. Eng N
140:275-6 F 19 '48

Trends in the distribution of state road-
user taxes, 1940-1947. R. W. Meadows and
W. R. McCallum. Pub Roads 26:50-2 Mr
'48

See also

Roads—Tolls

Foundations

Base stabilization widely used on North Caro-
lina secondary roads. il Eng N 141:128-30 Jl
8 '48

Bituminous paver mixes and spreads emul-
sion base. il Roads & Sts 91:53-4 S '48
California's latest results and experiments
in asphalt subsealing. H. L. Cooper and
W. R. Severing. il Roads & Sts 91:110-11
Ja '48

Florida road stabilized with local materials.
L. O. Hester. il Constr Methods 30:92-3
Jl '48

Is field CBR test adaptable to granular sub-
grades and bases? H. R. Cedergren. diags
Civil Eng 18:449-50 Jl '48

Preparation of bases for blacktop. E. D.
Devereaux. Roads & Sts 91:113-14 Ja '48

Soil stabilization, subgrades and subbases;
abstract. H. Allen. Roads & Sts 91:93 Je
'48

Sub-bases for highways. Rock Prod 51:101+
Ja '48

Subbases for rigid type pavements. F. V.
Reigel. diags Pub Works 79:28+ Ja '48

Subgrade and base-course design study of
airport runways developed into design pro-
cedure for highways. N. W. McLeod. il diag
Roads & Bridges 86:96-8+ S '48

Tar stabilized roads; progress report of
ARBA committee. A. R. Taylor. Roads &
Sts 91:109 Ap '48

Vibrator works binder into slag base. il
Constr Methods 30:86-8 Jl '48

Soil-cement

600-mile farm-market program launched by
Madison county, Tenn. R. E. L. Odom. il
Roads & Sts 91:80-2 F '48

Frost damage**Bibliography**

Bibliography on frost action in soils. (Bib-
liog. no. 3) 57p Highway research board,
National research council. 2101 Constitu-
tion av, Washington 25 '48 (pa 45c)

Grade separation

Four-level super crossroads embodies novel
structural features; expressway program
for Los Angeles. il plans diags Roads & Sts
91:58-64 S '48

Triple-deck grade separation under construc-
tion in Virginia. il Roads & Sts 91:67-9 Ap
'48

Ice control

Ice control from a grain elevator; storage of
rock salt. il Roads & Bridges 86:57-60+ Ja
'48

Philosophy of winter maintenance. C. L.
Mott. il Pub Works 78:26-8 O '47

Solving ice control problems. R. B. Downey
il Pub Works 78:40+ O '47

Treatment of icy pavements. il Roads &
Bridges 86:81-4+ F '48

Intersections

Control for low-volume intersections. L.
Corder. Pub Works 79:55+ Jl '48

Movements through interchanges simplified
by better designs. A. M. Nash. il plans
Eng N 141:140-3 Jl 8 '48

Signs to speed traffic; radical departure in
marking routes at intersections made by
New Jersey highway department. il plan
diags Eng N 140:34-6 Ja 8 '48

Lighting

For safe street and highway lighting. P. S.
Millar. il Ind Stand 10:36-8 My '48

Highway lighting as a customer's problem.
J. A. Stooz. diags Illum Eng 42:864-76 N
'47

Progress of public lighting; abstracts. N.
Boydell. Elec R (Lond) 143:439-40 S 17 '48;
Electrician 141:851 S 17 '48

Unidirectional lighting of double carriageway
and one-way roads; abstracts. J. S. Smyth.
Elec R (Lond) 143:440 S 17 '48; Electrician
141:852 S 17 '48

See also

Street lighting

Location

Aerial surveys speed Pennsylvania turnpike
location. F. J. Williams. il maps Eng N
141:131-3 Jl 8 '48

ROADS—Location—Continued

Arizona relocation involved 100,000-yd. granite cut. *il Roads & Sts 91:75-7 F '48*
 Design of arterial routes in urban areas. J. Barnett, *il Roads & Bridges 86:71-2+ Ag '48*

Heavy is the word for this California relocation. *il Roads & Sts 90:73-6 O '47*
 Strong company rebuilds 14 miles of U.S. 40, Nevada. *il Roads & Sts 90:56-7+ N '47*

Maintenance and repair

California highway construction and maintenance, *diags Pub Works 79:19 JI '48*
 How much have highway maintenance costs risen? *Pub Works 79:31+ Ja '48; Abstract. Eng N 139:847 D 18 '47*

Postwar highway rehabilitation in the Philippine Islands. F. C. Turner, *il Roads & Sts 91:88-90+ Ap '48*

\$75,000,000 highway program for Ontario, J. D. Millar, *il Roads & Bridges 86:120-2+ Mr '48*

See also

Roads—Ice control
 Snow removal

Relocation

See Roads—Location

Resurfacing

18-ton Diesel trucks speed hot-mix resurface job in Florida. *il Roads & Sts 90:51-3+ N '47*

Pennsylvania's resurface practice. W. K. Myers, *il Roads & Sts 91:60-2 Je '48*

Second story concrete built without transverse joints; resurfacing section of Montauk highway, Long Island. *il Roads & Sts 91:90 Je '48*

67-mile hot-mix contract; northern Florida project. *il Roads & Sts 91:62-4 Ja '48*

Safety measures

Construction of safe roads. A. C. Hughes. Chem & Ind p19-21 Ja 10 '48

Safety on streets and highways. R. A. Stappells, *il Roads & Bridges 86:86+ Ap '48*

See also

Roads—Ice control
 Traffic lines

Bibliography

Selected bibliography on highway safety. (Bibliography no. 2) 46p pa 45c Highway research board, 2101 Constitution av, Washington 25 '47

Shoulders

Establishment and maintenance of stabilized shoulders. D. D. Dupre, jr. *il Roads & Sts 91:59-61 My '48*

High shoulders; how Kentucky trims 'em with fast blade and loader outfit. *il Roads & Sts 90:76-7 D '47*

Mechanized shoulder crew performs fast graveling job in Arkansas. *il Roads & Sts 91:76+ Ag '48*

Specifications

Colorado's new highway specifications geared to new construction techniques. E. W. Devalon. Eng N 141:144 JI 8 '48

Improved specifications reduce highway costs. D. W. Winkelman, *il Civil Eng 18:284-7 My '48*

Standards

Planning highway systems and development of standards, *diags Roads & Bridges 86:64-70+ Ag '48*

Subgrades

Is field CBR test adaptable to granular subgrades and bases? H. R. Cedergren, *diags Civil Eng 18:449-50 JI '48*

Sand drains stabilize muck in Puerto Rico. J. C. Carpenter, *il diags Eng N 141:52-4 JI 22 '48*

Soil stabilization, subgrades and subbases; abstract. H. Allen. *Roads & Sts 91:93 Je '48*

Subgrade and base-course design study of airport runways developed into design procedure for highways. N. W. McLeod, *il diags Roads & Bridges 86:96-8+ S '48*

Subgrade soil practices. T. E. Shelburne. *il Pub Works 79:26-7+ Je '48*

Waterproofing of soils by resinous materials; abstract and discussion. K. E. Clare. Chem & Ind p379-80 Je 12 '48

Superhighways

Maine turnpike project. W. B. Lenhart, *il Rock Prod 51:82-9 F '48*

Tolls

Privately financed toll road opens; Maine turnpike. *il Bsns W p82 D 20 '47*

Pros and cons of toll roads; abstract. E. R. Needles. *Civil Eng 18:74 F '48*

Toll road legislation in 1947. *Roads & Sts 91:95 Ja '48*

Traffic lines

See Traffic lines

Traffic signals

See Traffic signals

Turnouts

North Carolina builds highway turnouts. *il Eng N 140:633 Ap 29 '48*

Widening

California's heaviest road job; Winston bros. company contracts for realignment and widening of US 99. H. J. McKeever, *il diags Roads & Sts 91:49-57 Je '48*

Heater-planer used in highway widening. *il diags Roads & Sts 91:107-9 Ap '48*

67-mile hot-mix contract; northern Florida project. *il Roads & Sts 91:62-4 Ja '48*

Virginia reconstructs U.S. route 60 as dual-lane divided highway. *il maps diags Eng N 140:962-3 Je 10 '48*

Widening 1½ mile a day; U.S. 66, east of Amarillo, Texas. *il Roads & Sts 90:64-6 D '47*

Winter maintenance

Winter road maintenance improved by radio-telephone service; Ontario Department of highways; two-way communication between snowplows and departmental offices, *il map diags Roads & Bridges 86:65-9+ F '48*

See also

Roads—Ice control
 Snow removal

Afghanistan

Afghanistan begins \$17 million irrigation and highway program. *maps Eng N 140:314-15 F 26 '48*

Arizona

Arizona relocation involved 100,000-yd. granite cut. *il Roads & Sts 91:75-7 F '48*

Arkansas

Figuring aggregate costs; Arkansas state highway commission. A. B. Johnson. *Roads & Sts 90:79-81 N '47*

California

California plants freeway side slopes. *il Eng N 140:180-1 F 5 '48*

California's latest results and experiments in asphalt subsealing. H. L. Cooper and W. R. Severing. *il Roads & Sts 91:110-11 Ja '48*

Heavy is the word for this California relocation. *il Roads & Sts 90:73-6 O '47*

Sand piles hasten completion of California expressway; construction of vertical sand drains. H. A. Simard. *il Roads & Sts 90:51-3+ D '47*

Speed change lanes given design refinements in California; computation methods. *diags Roads & Sts 90:63 O '47*

Canada

Canadian good roads association 29th annual meeting. Digby, Nova Scotia, Sept. 7-9. *Roads & Bridges 86:85-95+ S '48*

Directory, provincial highway officials; organization charts, provincial highways departments. *Roads & Bridges 86:107-8+ Je '48*

Highway and airport appropriations nearly \$200,000,000 for 1948. *Roads & Bridges 86:95-8+ Je '48*

\$163,000,000 for highways in seven provinces. *Roads & Bridges 86:75+ Ap '48*

Provincial, county and township roads in Canada; tabulation. *Roads & Bridges 86:105 Je '48*

ROADS—Canada—Continued

Road mileages in Canada according to type of surface, by provinces. Roads & Bridges 86:103 Je '48

China

Restoration of highways in China proves difficult task. R. L. Moody. For Comm W 31:37 Je 5 '48

Colorado

Colorado's new highway specifications geared to new construction techniques. E. W. Devalon. Eng N 141:144 Jl 8 '48

Connecticut

Extra lanes for trucks cut down hazards on U. S. 5 in Connecticut. Il Roads & Sts 90:62 D '47

Ecuador

Ecuador authorizes bond issue for three highways. For Comm W 32:33 Ag 14 '48

Egypt

Old and new roadbuilding meet in lower Egypt. Il Constr Methods 30:108-9 Ja '48

Europe

Outline highway network for European development. Eng N 140:759+ My 27 '48
Standards set for European highways. Eng N 141:77 Ag 19 '48

Florida

18-ton Diesel trucks speed hot-mix resurface job in Florida. Il Roads & Sts 90:51-3+ N '47
67-mile hot-mix contract; northern Florida project. Il Roads & Sts 91:62-4 Ja '48
Special facilities drain Florida highway. Il Eng N 139:820-1 D 11 '47

Georgia

Georgia improves the Coastal highway. Il Eng N 140:490-2 Ap 1 '48

Germany

Concrete pavements on the German autobahnen. F. H. Jackson and H. Allen. Il maps diag Am Concrete Inst J 19:933-76 Je '48; Same. Pub Roads 25:65-79 Je '48
Construction of the German autobahnen. A. E. Wynn. Am Concrete Inst J 19:628-628; Discussion. M. A. Swayze. 628-628 D '47
Reasons for behavior of concrete for autobahnen. O. Graf. Rock Prod 51:156-8 O '48
What can the autobahnen teach us about concrete roads? Il diags Roads & Bridges 86:65-72+ Jl '48

Great Britain

Wartime road works. Engineer 185:233 Mr 5 '48

Kansas

Highways are tailor-made in Kansas. W. J. Arndt. Il map Roads & Sts 91:91-2+ Jl '48

Maine

Building the Maine turnpike. Il Eng N 139:741-5 N 27 '47
Maine turnpike project. W. B. Lenhart. Il Rock Prod 51:82-9 F '48
Privately financed toll road opens; Maine turnpike. Il Bsns W 98:2 D 20 '47
Ready mix for Maine turnpike. Il Rock Prod 51:156-7 F '48

Manitoba

Major projects of Manitoba's highway program for 1948-49. G. Collins. Il Roads & Bridges 86:62-4+ Jl '48

Mexico

Mexico's extensive highway-building program well under way. L. B. Douglas. For Comm W 31:35 Je 12 '48

Michigan

Comprehensive analysis shows extent of highway needs in Michigan. Il Civil Eng 18:296-8+ My '48
Report on Michigan road needs made public. Roads & Sts 91:88 My '48

Nevada

Strong company rebuilds 14 miles of U.S. 40, Nevada. Il Roads & Sts 90:56-7+ N '47

New Brunswick

Bituminous paving methods in New Brunswick. A. S. Donald. Il Roads & Bridges 86:81+ Ap '48

New Hampshire

Ice prevention in New Hampshire. L. F. Johnson. Il Pub Works 79:36+ Mr '48

New Jersey

Parkway need explained by pictorial booklet, addressed to New Jersey officials and public. Roads & Sts 91:103 F '48
Plans free competition for oil on superhighways; New Jersey's new proposal for servicing motorists. Nat Pet N 39:36+ N 12 '47
Sand drains to consolidate marsh in building New Jersey freeway. Concrete 55:28+ N '47
Signs to speed traffic; radical departure in marking routes at intersections made by New Jersey highway department. Il plan diags Eng N 140:34-6 Ja 8 '48

New York (state)

Comprehensive parkway system provides essential traffic arteries for Long Island. S. M. Shapiro. Il map Civil Eng 18:24-6 Ja '48
How D. W. Winkelman co. worked a 200,000 cu. yd. borrow pit, filling in swampy section on New York state's new Mohawk Thruway. Il diags Roads & Sts 90:59-61 O '47
Modernization of New York highways will cost state two billion dollars. Il map Civil Eng 17:29 D '47
Twin 34-E's pave 2500-3300 l.f. daily on N.Y. project. Il Roads & Sts 90:80-3 D '47

Nicaragua

Highways vital factor in Nicaragua's development. For Comm W 31:30 My 8 '48

North Carolina

Base stabilization widely used on North Carolina secondary roads. Il Eng N 141:128-30 Jl 8 '48

Northwestern states

Three-year highway construction plan develops northwest area. S. L. Taylor. Il Civil Eng 18:156-9+ Mr '48

Nova Scotia

Non-skid asphaltic surfaces. J. L. Wickwire. Il Roads & Bridges 86:128+ S '48
Secondary road program in Nova Scotia. G. S. Stairs. Roads & Bridges 85:76+ D '47

Ohio

Labor saving methods speed water bound macadam job. C. R. Hanes. Il diag Roads & Sts 91:104-8 F '48

Ontario

Concentrated attack on snowbound roads; Ontario Department of highways. Il Roads & Bridges 86:69+ Ja '48
Developing a highways research program in Ontario. W. S. McKay. Il Roads & Bridges 86:125-6+ Mr '48
Experimenting with rubber-base jointing materials on Oshawa highway. Il Roads & Bridges 85:81-2+ N '47
Ontario counties plan road work. Il Roads & Bridges 86:76-7+ F; 79-80+ Ap '48
Ontario extends dual highway. Il diag Eng N 141:86-7 S 16 '48
Ontario good roads association annual meeting. Toronto, Feb. 24-25. Roads & Bridges 86:103-15+ Mr '48
\$75,000,000 highway program for Ontario. J. D. Millar. Il Roads & Bridges 86:120-2+ Mr '48
Subsidy for streets explained. Roads & Bridges 85:76-7+ N '47
Winter road maintenance improved by radio-telephone service; Ontario Department of highways; two-way communication between snowplows and departmental offices. Il map diag Roads & Bridges 86:65-9+ F '48

ROADS—Continued

Oregon

Dredged fill for a scenic freeway; Columbia River highway. *il map diag Eng N 141:76-8 S 2 '48*

North Santiam highway follows difficult route near Cascade summit. J. F. Cameron. *il map diag Civil Eng 18:506-11+ Ag '48*
\$700 million Oregon road needs. Eng N 141:73 S 16 '48

Streamlining Oregon concrete paving job. R. Webber. *il map Roads & Sts 91:100-2+ Mr '48*

Pennsylvania

Aerial surveys speed Pennsylvania turnpike location. F. J. Williams. *il maps Eng N 141:131-3 JI 8 '48*

Paving Pennsylvania's straightest highway. *il Eng N 140:122-6 Ja 22 '48*

Pilot study of heavy motor vehicle operation in mountainous section of southwestern Pennsylvania. Roads & Sts 91:111 Ja '48
Set route for Penn Turnpike extension. Eng N 140:598 Ap 22 '48

Philippine Islands

Postwar highway rehabilitation in the Philippine Islands. F. C. Turner. *il Roads & Sts 91:88-90+ Ap '48*

Puerto Rico

Sand drains stabilize muck in Puerto Rico. J. C. Carpenter. *il diags Eng N 141:52-4 JI 22 '48*

Saskatchewan

Important highway construction operations in Saskatchewan. H. R. MacKenzie. *il map Roads & Bridges 86:57-9+ Ag '48*

South America

See also

Pan American highway

South Carolina

Plant mix cuts retreat costs on South Carolina roads. *il Eng N 141:71 S 2 '48*

Texas

Public construction co. of Denton, Texas, on east Texas projects in 1947. *il Roads & Sts 91:81-3+ Mr '48*

Road problems in north east Texas. *il Roads & Sts 91:97 Ap '48*

Turkey

Turkey has taken a fresh grip on her highway problems. *il Eng N 141:4 JI 15 '48*

United States

Annual highway need of \$4 billion places emphasis on planning. G. D. Kennedy. *il Eng N 140:626-30 Ap 29 '48*

Better roads are years off. Bsns W p22-3 JI 31 '48

Big highway program in 1948. *il Rock Prod 51:97-101 Ja '48*

How local and urban highways are being improved in the United States. B. F. Ostergren. Roads & Bridges 86:124+ Mr '48

National highway users' conference. Eng N 139:771 D 4 '47

Need for more highway planning, more engineers; abstract. F. G. Hoffman. Eng N 140:599 Ap 22 '48

1½ billion for roads in '48; reports from state highway engineers. *il Roads & Sts 91:69-70+ F: 94-5+ Mr '48*

Road expenditures at new high level. Eng N 140:275-6 F 19 '48

States announce plans for new-year highway construction, repair projects. Eng N 140:27 Ja 8 '48

Studying highway problems; 2d Highway transportation congress, Washington. Bsns W p36+ My 22 '48

Venezuela

Bond issue authorized on Venezuelan road project. For Comm W 32:33-4 JI 10 '48

Virginia

Dual-lane bypass road at Norfolk incorporates triple-level bridge. *il map Eng N 140:700-1 My 13 '48*

Virginia launches record highway reconstruction program. *il plan diag Civil Eng 17:18-22+ D '47*

Washington (state)

\$800 million Washington road need. Eng N 141:80 O 14 '48

How Washington state is putting radio to work. G. R. Newall. *il Roads & Sts 90:57-8 D '47*

Western states

Western association of state highway officials meeting, 28th, Portland, July 25-28. Roads & Sts 91:54-5 S '48

Wyoming

Two speedy Wyoming jobs. *il Roads & Sts 91:78+ Je '48*

ROADS, Automobile. See Expressways

ROADS, Bituminous

A.S.T.M. standards on bituminous materials for highway construction, waterproofing, and roofing. 306p pa \$3 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

Base stabilization widely used on North Carolina secondary roads. *il Eng N 141:128-30 JI 8 '48*

Bituminous paver mixes and spreads emulsion base. *il Roads & Sts 91:53-4 S '48*

Bituminous paving methods in New Brunswick. A. S. Donald. *il Roads & Bridges 86:81+ Ap '48*

Bituminous surface on main log hauling roads. W. Holder, Pulp & Pa of Can 49: 146+; Discussion. N. W. McLeod, 153+ S '48

California's heaviest road job; Winston bros. company contracts for realignment and widening of US 99. H. J. McKeever. *il diag Roads & Sts 91:49-57 Je '48*

Construction of asphalt road-mix pavements with crushed gravel. G. E. Putnam. *il Roads & Bridges 86:76-8+ Ap '48*

Cooperative study of structural design of nonrigid pavements. A. C. Benkelman and F. R. Olmstead. *il diags Pub Pads 25:21-9 D '47; Same cond. Roads & Bridges 85: 67-71+ D '47*

18-ton Diesel trucks speed hot-mix resurface job in Florida. *il Roads & Sts 90:51-3+ N '47*

Heater-planer used in highway widening. *il diag Roads & Sts 91:107-9 Ap '48*

How to build low cost roads with today's equipment. *il diag Pub Works 79:28-32+ JI '48*

Important highway construction operations in Saskatchewan. H. R. MacKenzie. *il map Roads & Bridges 86:57-9+ Ag '48*

Non-skid asphaltic surfaces. J. L. Wickwire. *il Roads & Bridges 86:128+ S '48*

Preparation of bases for blacktop. E. D. Devereaux. Roads & Sts 91:113-14 Ja '48

600-mile farm-market program launched by Madison county, Tenn. R. E. L. Odom. *il Roads & Sts 91:80-2 F '48*

67-mile hot-mix contract; northern Florida project. *il Roads & Sts 91:62-4 Ja '48*

Travel plant road job, Morrison-Knudsen co., inc., U.S. 30, Idaho. *il Roads & Sts 91:70-1 Ja '48*

292,000 cu. yd. earth moved in 23 days; U.S. 40 contract in Elko county, Nevada. *il Roads & Sts 91:83-4 My '48*

Use of fillers in bituminous road surfacings; a study of filler-binder systems in relation to filler characteristics. P. J. Rigden. bibliog diags Soc Chem Ind J 66:299-309 S '47

Cost

Bituminous surfaced road, Statesboro, Ga.; unit prices. Eng N 140:141 Ja 22 '48

Highway improvement, Utah; unit prices. Eng N 140:141 Ja 22 '48

Road and bridge bypass, Plymouth, Mass.; unit prices. Eng N 141:119+ Ag 19 '48

Surfacing state highway, California; unit prices. Eng N 140:309-10 F 19 '48

Maintenance and repair

Two local materials combined for 14-mile road-mix job. *il Roads & Sts 91:72+ Ag '48*

ROADS, Bituminous concrete

- Building the Maine turnpike. *il Eng N 139: 741-5 N 27 '47*
 California's latest results and experiments in asphalt subsealing. H. L. Cooper and W. R. Severing. *il Roads & Sts 91:110-11 Ja '48*
 Georgia improves the Coastal highway. *il Eng N 140:490-2 Ap 1 '48*
 Maine turnpike project. W. B. Lenhart. *il Rock Prod 51:82-9 F '48*
 Pennsylvania's resurface practice. W. K. Myers. *il Roads & Sts 91:60-2 Je '48*
 Plant mix cuts retread costs on South Carolina roads. *il Eng N 141:71 S 2 '48*
 Salvaging of old pavements in Ohio; abstract. C. R. Hanes. *il Pub Works 79:31-2 Je '48*
 Stage construction of bituminous concrete highways. A. N. Buck. *diag Pub Works 79:34+ O '48*
 Strong company rebuilds 14 miles of U.S. 40, Nevada. *il Roads & Sts 90:56-7+ N '47*

ROADS, Concrete

- Big highway program in 1948. *il Rock Prod 51:97-101 Ja '48*
 California's freeway design and construction; freeway in San Diego. E. E. Sorenson. *il Pub Works 78:26-7 N '47*
 Cement industry hoards huge backlog for rainy day; road-building. R. M. Bleiberg. *Barron's 28:7 S 20 '48*
 Comprehensive parkway system provides essential traffic arteries for Long Island. S. M. Shapiro. *il map Civil Eng 18:24-6 Ja '48*
 Concrete pavements on the German autobahnen. F. H. Jackson and H. Allen. *il maps diag Am Concrete Inst J 19:933-76 Je '48*; Same. *Pub Roads 25:65-79 Je '48*
 Construction of the German autobahnen. A. E. Wynn. *Am Concrete Inst J 19:628-628; Discussion. M. A. Swayze. 628-628 D '47*
 Improvements in highway pavement construction. R. W. Crum. *Am Concrete Inst J 19:715-19 Ap '48*
 Ontario extends dual highway. *il diag Eng N 141:86-7 S 16 '48*
 Progress in cement-concrete highway design and construction in Quebec, Ontario and Manitoba. E. F. J. Clark. *il Roads & Bridges 86:122+ S '48*
 Reasons for behavior of concrete for autobahnen. O. Graf. *Rock Prod 51:156-8 O '48*
 Second story concrete built without transverse joints; resurfacing section of Montauk highway, Long Island. *il Roads & Sts 91:90 Je '48*
 Streamlined construction on Houston interurban expressway. *il diags Constr Methods 30:74-9 J1 '48*
 Streamlining Oregon concrete paving job. R. Webber. *il map Roads & Sts 91:100-2+ Mr '48*
 Use of ready mixed concrete in highway construction; abstract. J. F. Barbee. *Concrete 56:28+ F '48*
 Virginia reconstructs U.S. route 60 as dual-lane divided highway. *il maps diag Eng N 140:962-3 Je 10 '48*
 What can the autobahnen teach us about concrete roads? *il diags Roads & Bridges 86:65-72+ J1 '48*
 Widening 1 1/4 mile a day; U.S. 66, east of Amarillo, Texas. *il Roads & Sts 90:64-6 D '47*

Construction equipment

- 457,000 sq yd, concrete in one season; Koss construction co. *il Roads & Sts 91:59-60 Ap '48*
 New diagonal screed paving machine. *il Concrete 56:50 F '48*
 Paying attachment for vibrating concrete slab. *il Concrete 56:48 F '48*
 Paving Pennsylvania's straightest highway. *il Eng N 140:122-6 Ja 22 '48*
 Truck mixers go rural. *il Roads & Sts 91: 94-7 S '48*
 Twin 34-E's pave 2500-3300 l.f. daily on N.Y. project. *il Roads & Sts 90:80-3 D '47*

Construction schedules

- Last year what was your fastest yardage? examples of notably fast or efficient jobs. *Roads & Sts 91:61-2 Ap '48*

Cost

- Cement concrete pavement, Baton Rouge, La.; unit prices. *Eng N 140:133 Ja 22 '48*
 Reinforced concrete road, Lawrence county, Indiana; unit prices. *Eng N 139:764 N 27 '47*
 Twin 34-E's pave 2500-3300 l.f. daily on N.Y. project. *il Roads & Sts 90:82-3 D '47*
 Van Wyck expressway, Queens, N.Y.; unit prices. *Eng N 140:378 Mr 4 '48*

Expansion joints

- Expansion joint practice in highway construction. A. A. Anderson. *diags Am Soc C E Proc 74:1083-92 S '48*

Joints

- Experimenting with rubber-base jointing materials on Oshawa highway. *il Roads & Bridges 85:81-2+ N '47*
 Wooden-blanks for contraction joints. *il Eng N 140:133 Ja 22 '48*

Maintenance and repair

- Emulsified asphalt; mud jacking mix successfully used in Arkansas. C. C. White. *il Roads & Sts 91:105 Mr '48*

ROADS, County

- Conferences on county and township road systems, Toronto. *Roads & Bridges 86:119+ Mr '48*
 County carries snow removal problems to citizens; Gratiot county, Mich. *Roads & Sts 91: 62 F '48*
 Grading and ditching 85 miles of roads using modern equipment; Athens county, Ohio. J. W. Dowler. *il Pub Works 78:19-20 O '47*
 600-mile farm-market program launched by Madison county, Tenn. R. E. L. Odom. *il Roads & Sts 91:80-2 F '48*

ROADS, Elevated

- New York builds an expressway on shelves; three-level cantilever structure will carry Brooklyn-Queens connecting highway through narrow way. *il diags Eng N 140: 763-71 My 27 '48*

ROADS, Forest. See Forest roads**ROADS, Gravel**

- Building a 27-mile timber-limit service road through swamp and soupy clay; gravel-surfaced road for Abitibi power & paper co. in northern Ontario. G. C. McDougall. *il Roads & Bridges 86:69-74+ Ap '48*

Stabilization

- How we built a low cost stabilized road; Osceola co., Iowa. W. Winkel. *plan diag Pub Works 79:23-4 Ag '48*

ROADS, Macadam

- Labor saving methods speed water bound macadam job; Ohio project. C. R. Hanes. *il diag Roads & Sts 91:104-8 F '48*
 Ohio experiments with vibration in placement of screenings in macadam bases. C. W. Allen and S. O. Linzell. *il Roads & Sts 91:65-6 Mr '48*

ROADS, State

- Tax diversion cuts state road mileage; tabulation. *Eng N 141:100 S 16 '48*

ROADS, Township

- Conferences on county and township road systems, Toronto. *Roads & Bridges 86:119+ Mr '48*

ROADSIDE planting

- California plants freeway side slopes. *il Eng N 140:180-1 F 5 '48*
 New horticultural methods needed to mechanize landscaping and roadside work; apparatus for spreading fertilizer and grass seed. N. M. Wells. *il Roads & Sts 90:89-90+ O '47*
 Straw mulch placed rapidly by machine methods. C. R. Hanes. *il Roads & Sts 91: 96-7 Ap '48*

ROADSIDES

- Blame weed killer for roadside fire. *Eng N 141:87 Ar 5 '48*
 Mow 'em down! roadside power mowing and weed control. *il Roads & Sts 90:75-7 N '47*
 Roadside weed spraying with 2,4-D. C. W. Magee. *il Roads & Bridges 86:72-5+ F '48*
 Stabilizing earth slopes by boring horizontal drains. T. E. Stanton. *il diags Pub Works 79:20-2 F '48*

ROASTERS, Electric. See Electric roasters

ROBB, Inez

Dodger rally is one to faze I. Robb, O. J.

Rochelle, por Ed & Pub 81:20 Je 5 '48

Wins Holmes award, Ed & Pub 81:12 F 7 '48

ROBBERIES, Bank. See Bank robberies

ROBBERY, Motor truck. See Motor truck robberies

ROBERTSON, Howard Percy, 1903-

Portrait, Fortune 38:108 O '48

ROBINSON, Allan

Topflight craftsmen, por Inland Ptr 120:90 D '47

ROBINSON, Sir Robert, 1886-

Industry's tribute to scientists; Nobel prize-winners honoured by the FBI, por Chem Age (Lond) 58:419-20 Mr 27 '48

Nobel prize, por Chem Age (Lond) 57:677 N 22 '47; Chem & Eng N 25:3510 N 24 '47

ROBINSON-PATMAN act. See Price discrimination—Patman law

ROCHE, Josephine, 1886-

In goldfish-bowl job, por Bsns W p 108 My 22 '48

ROCHESTER, New York

Water supply

New intake installation at Kodak Park, A. C. Bailey, il Am Water Works Assn J 40:791-5 Jl '48

ROCHESTER gas and electric company

Rochester company marks anniversary, il Am Gas Assn Mo 30:33 O '48

ROCHESTER (Pennsylvania) glass corporation
Stocks offered, Comm & Fin Chr 156:2108 N 24 '47

ROCHESTER institute of technology

Psychological services for an industrial community, L. F. Smith and L. Lipsett, Personnel J 27:130-4 S '48

ROCHESTER ropes, inc.

Persistent strand; history of plant at Culpeper, Va, il Manuf Rec 117:42-3 Ap '48

ROCHESTER university

Bausch & Lomb science scholarships, Science 108:6-7 Jl 2 '48

Chemical education in American institutions, W. A. Noyes, Jr, il J Chem Educ 25:71-3 F '48

ROCK bursts

General theory of rock bursts, R. G. K. Morrison, bibliog il diag Eng & Min J 148:70-3 D '47; 149:68-70 Ja '48

Observations on rock bursts, J. Spalding, diag Eng & Min J 149:91-4 My '48

Theory and the practical problem of rock bursts, R. G. K. Morrison, il diags Eng & Min J 149:66-72 Mr '48

ROCK drills

Designer of first wagon drill dies; Charles H. Locher, Comp Air Mag 53:47 F '48

Development of a successful hard-surfaced bit for drilling oil shale, T. Ertl and others, 2pls U S Bur Mines Rep of Invest 4177:1-8 '48

Drill experience; operating session, National crushed stone association, il Rock Prod 51:109-10+ Mr '48

Finding new uses for the Calyx core drill, F. Miller, il diags Comp Air Mag 53:238-43 O '48

Flexible shaft drives rock drill, il diags Eng & Min J 149:96 S '48

For faster drilling of surface blast holes, il Eng & Min J 149:64-5 Mr '48

Hard materials for rock bits, R. W. Adamson, il Min Cong J 33:38-41 N; 46-9 D '47

Ingersoll-Rand highspeed quarry drill, il Constr Methods 30:116+ Mr '48; Min & Met 29:237 Ap '48

Keeping rock drills fit, diags Coal Age 53: 94+ Mr '48

Mining at a snail's pace; use of rock drills at Phillipsburg, N.J., W. P. Gillingham, il plan Comp Air Mag 52:274-5 N '47

Mining equipment trends, T. S. Veazey, Jr, il Min Cong J 34:45-6 F '48

Mining practice marked by numerous changes; review of 1947, A. H. Hubbell, il Eng & Min J 149:96-9 F '48

New material for drill bits; Carbometal, il Eng & Min J 149:73 Mr '48

New rock-drill application speeds pipe-line construction on Kentucky contract, il Oil & Gas J 47:76+ Jl 15 '48

Quarrymaster; a new air-operated machine for drilling large blast holes, il Can Min J 69:80-3 Je '48

Quarrymaster; air-operated machine for drilling large blast holes, il Comp Air Mag 53:60-2 Mr '48; Abstract, Rock Prod 51: 78-9 Mr '48

Tungsten carbide in mining, J. A. Drain, il Can Min J 69:90-1 Ap '48

Tungsten carbide techniques for rock bits, P. M. McKenna, il Min Cong J 33:49-51 D '47

See also

Drilling and boring

(earth and rocks)

Drills, Oil well

Testing

Determining blow energy of rock drills, J. D. Ditson, il Comp Air Mag 53:15-16 Ja '48

Diamond drilling and diamond bit investigation, L. Obert and others, bibliog 8pls U S Bur Mines Rep of Invest 4041:1-18 '47; 4233:1-12 '48

ROCK dust

See also

Coal mines and mining—Rock dusting

Mine dust

ROCK handling

Car dumper unloads riprap for Canton dam, il Constr Methods 30:96-7 F '48

ROCK ISLAND railway. See Chicago, Rock Island and Pacific railway

ROCK products

See also

Aggregates

Sand

Stone, Crushed

ROCK products industry

Increased capacity will not fulfill 1948 demands; reports from all sections of the Nation, B. Nordberg, il diags Rock Prod 51:90-6 Ja '48

Looking at the industry through 26,000 miles of travel; conditions found in 26 states, W. B. Lenhart, il Rock Prod 51:102-5+ Ja '48

Directories

Sand, gravel and crushed stone producers, Canada, Roads & Bridges 86:147-8+ Je '48

ROCK products plants

Aggregate producer expands into ready mixed concrete and products fields; F. M. Reeves and sons, il Rock Prod 50:70-1 N '47

Recover waste heat from cupolas; Tex-Ark rock wool corp, B. Nordberg, il plan diags Rock Prod 51:88-94 Jl '48

Saving fuel in mineral wool manufacture; plant of Armstrong cork co., Beaver Falls, B. Nordberg, il plans Rock Prod 50:91-2 N '47

Accounting

Depreciation, depletion; abstract, R. Ash, Rock Prod 51:101-2 Mr '48

Equipment

Manufacturers' ideas to meet difficult operating problems; illustrated descriptions of latest equipment, B. Nordberg and others, diags Rock Prod 50:102-25+ D '47

Modern plant makes lightweight aggregate; Carter-Waters corp, Eng N 141:100 S 13 '48

Producing aggregates for Ft. Gibson dam; M. O. Weaver, inc, G. C. Hawkins, flow sheets il Rock Prod 50:80-5 N '47

Surge stockpile cuts plant delays, E. L. Heidenreich, Jr, il plan diags Rock Prod 51: 106-9 Ag '48

Triple capacity of stone plant with new screens and crushers; Bryan rock and sand co, flow sheets il Rock Prod 51:80-1 My '48

Wallboard production speeded up with long belt, W. B. Lenhart, flow sheet il plans diags Rock Prod 51:84-9+ Mr '48

World's largest phosphate plant at Noralyn, Fla., W. B. Lenhart, il Rock Prod 51: 116-21 Je '48

Power

Manufacturers' ideas to meet difficult operating problems; power; illustrated descriptions of latest equipment, Rock Prod 50: 114-16 D '47

ROCK products plants—Continued

Safety measures

Accident prevention methods which have proved successful in gaining cooperation of foremen and workmen. W. L. Roscoe. *il* Rock Prod 51:82-4 My; 114-15 Je '48

ROCK SPRINGS, Wyoming

Rock Springs recollections. J. McCaleb. *Can Min J* 69:115 F '48

ROCK temperatures. See Earth temperature

ROCK wool. See Mineral wool

ROCKEFELLER Center. See New York (city) —Rockefeller Center

ROCKET propulsion

Adiabatic flow of hydrogen gas through a rocket nozzle with and without composition change. S. S. Penner and D. Altman. *bibliog diag Franklin Inst J* 245:421-32 My '48

Atomic power for aircraft. A. Kalitinsky. *diags Aero Digest* 57:58-9+ Ag '48

Bell XS-1 makes supersonic flight. R. McLaren. *il Aviation W* 47:9-10 D 22 '47

Design of rocket motors; abstract. A. K. Huse. *Machine Design* 20:182 JI '48

Development of the navy-Douglas model D-558 research project. E. H. Heinemann. *il diags Aeronautical Eng R* 6:14-19 D '47

Douglas unveils its new research plane; Sky-rocket combines turbojet and rocket power; sweptback wing. R. McLaren. *il Aviation W* 47:12-13 N 17 '47

Effect of radiation on the rate of burning of solid fuel rocket propellants. S. S. Penner. *diags J Ap Phys* 19:392-8 Ap '48

Factors affecting selection of propellants for rocket powered aircraft; abstract. T. F. Reinhardt. *S A E J* 56:68 Je '48

Fuels for rocket and jet powerplants. E. L. Klein. *il S A E J* 55:22-8 D '47

Impulse determinations of rockets by means of rotating systems. S. S. Penner and R. C. Whiteman. *bibliog diags R Sci Instr* 19:428-35 JI '48

Liquid-propellant rocket power plants. M. J. Zwucrow. *flow diags il diags A S M E Trans* 69:847-57 N '47

Man-carrying rocket-jet aircraft; sonic research aircraft. D-558-2 Skyrocket. *il diag Product Eng* 19:150-1 Ja '48

Mass emissivity of powder gases in solid fuel rockets. S. S. Penner. *bibliog diag J Ap Phys* 19:278-85 Mr '48

Petroleum industry and jet propulsion. W. E. Kuhn. *il diags Aero Digest* 56:70-2+ F '48

Pulsejet, ramjet and rocket engines for aircraft. W. P. Munger. *Aero Digest* 56:72-3 Mr '48

Qualitative experimental verification of the change of burning rate of rocket powders with radiation path length. S. S. Penner. *diags J Ap Phys* 19:511-13 Je '48

Rocket engine developments. R. Healy. *il diags Aero Digest* 55:38-41+ N '47

Rocket engines as applied to future aircraft powerplants. A. K. Huse. *il S A E J* 55:24-8 N '47

XS-1; design and development. R. McLaren. *il Aviation W* 49:22-4+ JI 26 '48

ROCKETS

America zooms into the rocket age. M. Wharton. *il Explosives Eng* 26:108-12+ JI '48

Atomic rocket; novel approach to space-flight; atomic energy for the propulsion. K. W. Gatland. *Aviation W* 48:25 Je 7 '48

Cosmic-ray counting rate of a single Geiger counter from ground level to 161 kilometers altitude. J. A. Van Allen and H. E. Tatel. *bibliog diags Phys R* 73:245-51 F 1 '48

Effect of radiation on the rate of burning of solid fuel rocket propellants. S. S. Penner. *diags J Ap Phys* 19:392-8 Ap '48

Escape-rocket design research indicates practical solution near. R. McLaren. *Aviation W* 48:23 Mr 1 '48

Flight beyond the earth's atmosphere. F. H. Clauser. *diag S A E J* 55:25-8+ Ag '48

Impulse determinations of rockets by means of rotating systems. S. S. Penner and R. C. Whiteman. *bibliog diags R Sci Instr* 19:428-35 JI '48

Mass emissivity of powder gases in solid fuel rockets. S. S. Penner. *bibliog diag J Ap Phys* 19:278-85 Mr '48

Project 3401; abstract. R. C. Truax. *Mech Eng* 70:148 F '48

Qualitative experimental verification of the change of burning rate of rocket powders with radiation path length. S. S. Penner. *diags J Ap Phys* 19:511-13 Je '48

Robert H. Goddard rocket exhibit. *Science* 107:420 Ap 23 '48

Robert H. Goddard rocket project. W. W. Atwood. *Science* 108:58-60 JI 16 '48

Rocket as a weapon of war in the British forces. A. D. Croom. *diags Inst Mech Eng J & Proc* 158:Proc 15-21, pl 1-2 Je '48; Same cond. *Engineer* 184:510-12, 532-3 N 28-D 5 '47

Rocket exhibit; exhibition of Goddard inventions and research materials. *il Mech Eng* 70:533-40 Je '48

Rocket lab; U.S. naval ordnance test station at Inyokern, Calif. *Chem Ind* 61:975-6 D '47

Rocket-motor pyrometer; abstract. D. H. Jacobs. *Mech Eng* 69:1037-8 D '47

Rocket researchers sift fuels to reduce high consumption; nitric acid seen as being advantageous. R. McLaren. *Aviation W* 48:18 Ja 26 '48

Rocket society convention, Atlantic City, Dec. 1-5. *Aero Digest* 56:58 F '48

Rocket's efficiency augurs future usefulness; abstract. A. W. Robinson, Jr. *S A E J* 56:91 F '48

Some considerations of the effect of radiation on the performance of liquid fuel rockets. S. S. Penner and S. Weinbaum. *diags Opt Soc Am J* 38:599-603 JI '48

Summary of power comparisons; chart. *Aviation W* 48:22 Ja 19 '48

Trip to moon feasible, but costly; abstract. A. W. Robinson. *S A E J* 55:90 D '47

What's ahead for rockets? *Aviation W* 49:23 JI 5 '48

Testing

Rocket-engine tester; photoelectric unit utilizing Polaroid discs. A. E. Gersch. *diag Electronics* 21:93 Je '48

Television monitors dangerous operation; high-thrust rocket motors. *il Electronics* 21:168+ Ap '48

ROCKFORD, Illinois

Sanitary affairs

Swimming-pool sanitation practice. R. B. Galvanoni. *il Eng N* 141:91-2 S 16 '48

ROCKS

Archean geology of the Turku district in southwestern Finland. A. Hietanen. *il maps diags Geol Soc Bul* 58:1019-84, pl 1-4 bibliog(p 1081-2) N '47

Flysch and molasse. A. J. Eardley and W. G. White. *bibliog diags Geol Soc Bul* 58:979-89, pl 1 N '47

Genesis and evolution of Los Angeles basin, California. H. L. Driver. *maps diags Am Assn Pet Geologists Bul* 32:109-25 bibliog(102 titles, p 122-5) Ja '48

Lithofacies maps and regional sedimentary-stratigraphic analysis. W. C. Krumbein. *bibliog maps diags Am Assn Pet Geologists Bul* 32:1909-23 O '48

Mineralogical and structural evolution of the metamorphic rocks. F. J. Turner. (Memoir 30) 342p bibliog(p139-32) Geological soc. of America, 419 W. 117th st, New York '48

Occurrence of authigenic feldspar in non-metamorphic sediments. L. M. J. U. Van Straaten. *Bibliog Am J Sci* 246:569-72 S '48

Petrographic criterion for the possible replacement origin of rocks. F. Chayes. *Am J Sci* 246:413-25 JI '48

Polished rocks of Cornudas mountain, New Mexico. W. B. Lang. *Science* 105:65 Ja 17 '47; Reply. C. Grant. 107:191-2 F 20 '48

Regional structural features of the Yellowknife area. N. Campbell. *map Econ Geol* 42:687-98 D '47

Report of committee on basic research in the field of industrial minerals and rocks. J. L. Gillson and R. H. Jahns. *Econ Geol* 42:737-46 D '47

Stratigraphy and metamorphism in a part of the northern Black Hills and the Homestake mine, Lead, South Dakota. J. A. Noble and J. O. Harder. *Geol Soc Bul* 59:341-75, pl 1-3 bibliog(p971-2) S '48

ROCKS—Continued

Subsurface Trenton and sub-Trenton rocks in Ohio, New York, Pennsylvania, and West Virginia. C. R. Fetteke. bibliog maps diags Am Assn Pet Geologists Bul 32:1457-92 Ag '48

Tectonic control of lithologic associations. E. C. Dapples and others. bibliog maps diags Am Assn Pet Geologists Bul 32:1924-47 O '48

Trenton and sub-Trenton of outcrop areas in New York, Pennsylvania, and Maryland. F. M. Swartz. maps diags Am Assn Pet Geologists Bul 32:1493-595 bibliog(p 1591-5) Ag '48

Xenoliths and skoliths. G. E. Goodspeed. bibliog pls Am J Sci 246:515-25 Ag '48

See also

Boulders	Minerals
Dolomite	Pegmatites
Drilling and boring (earth and rocks)	Phosphate rock
Folds (geology)	Phyllite
Geology	Quarries and quarry- ing
Geophysics	Sandstone
Gypsum	Sedimentation and deposition
Limestone	Shale
Metamorphism	Stone, Crushed
Metasomatism	

Analysis

Equilibrium between volatiles and iron oxides in igneous rocks. G. C. Kennedy. Am J Sci 246:529-49 S '48

Heavy metals in altered rock over blind ore bodies, East Tintic district, Utah. T. S. Lovering and others. bibliog il maps diag Econ Geol 43:384-99 Ag '48

Physical and chemical properties of Ellenburger rocks, Llano county, Texas. S. S. Goldich and E. B. Parmelee. bibliog maps diags Am Assn Pet Geologists Bul 31:1982-2020, pl 1 N '47

Radium content of ultramafic igneous rocks; laboratory investigation. G. L. Davis. bibliog il diag Am J Sci 245:677-93 N '47

Trace elements in rocks of the Oliverian magma series of New Hampshire. C. A. Chapman and G. K. Schweitzer. bibliog maps Am J Sci 245:597-613 O '47

Classification and nomenclature

Time-stratigraphic classification of sedimentary rocks. H. D. Hedberg. bibliog Geol Soc Bul 59:447-62 My '48

Testing

Measuring gallery expansion and elasticity of rock. W. Müller. Engineer 185:267 Mr 12 '48

ROCKS, Igneous

Age determination of quartz veins and pegmatites in Brazil. D. Guimarães. bibliog il diag Econ Geol 43:100-18 Mr '48

Comparison between productive and barren igneous rocks. A. F. Buddington. Econ Geol 42:539-40 S '47

Emplacement of igneous rocks in relation to favorable structures. C. D. Hulin. Econ Geol 42:558-9 S '47

Equilibrium between volatiles and iron oxides in igneous rocks. G. C. Kennedy. Am J Sci 246:529-49 S '48

Genesis of intrusive magnetite and related ores. S. J. Shand. Econ Geol 42:634-6 N '47

Geology of Tobago, British West Indies. J. C. Maxwell. map diags Geol Soc Bul 59:801-54, pl 1-6 bibliog(p 852-4) Ag '48

Geophysics and the radioactivity of potassium. F. Birch. Phys R 72:1128 D '47

Geosynclinal theory. A. Knopf. maps diags Geol Soc Bul 59:649-69 bibliog(p667-9) J1 '48

High-potash dikes in the Homestake mine, Lead, South Dakota. J. A. Noble. bibliog diags Geol Soc Bul 59:927-39, pl 1 S '48

Immiscibility of igneous magmas. C. N. Fenner. bibliog diag Am J Sci 246:465-502 Ag '48

Mineral deposits of magmatic origin. D. Guimarães. bibliog Econ Geol 42:721-36 D '47

New experiments concerning the surplus gamma-radiation from rocks. V. F. Hess and J. D. Roll. Phys R 73:592-5 Mr 15 '48

Orbicular structures in aplite dikes near Ramona, Calif. E. Merriam. bibliog maps diags Am J Sci 246:129-37, pl 1 Mr '48

Ore and granitization. C. J. Sullivan. Econ Geol 43:471-93 bibliog(71 titles, p496-8) S '48

Partly vitrified xenoliths in pillow basalt. K. D. Watson and W. H. Mathews. bibliog pl maps Am J Sci 246:601-14 O '48

Petrography of Iwo Jima. G. A. Macdonald. bibliog maps Geol Soc Bul 59:1009-18 O '48

Radium content of ultramafic igneous rocks; laboratory investigation. G. L. Davis. bibliog il diag Am J Sci 245:677-93 N '47

Siletz River volcanic series, northwestern Oregon. P. D. Snively, Jr. and E. M. Baldwin. bibliog il map Am Assn Pet Geologists Bul 32:806-12 My '48

Trace elements in rocks of the Oliverian magma series of New Hampshire. C. A. Chapman and G. K. Schweitzer. bibliog maps Am J Sci 245:597-613 O '47

Xenoliths and skoliths. G. E. Goodspeed. bibliog pls Am J Sci 246:515-25 Ag '48

See also

Batholiths	Ore deposits
Granite	Pegmatites
Nephelite syenite	

ROBERT, Lewis August, 1906-

NACA engineer gets Collier trophy for thermal de-icing. por Aviation W 47:16 D 15 '47

RODS

Weight of rods or cylinders per running inch; data sheet. Foundry 76:107-8 F '48

RODS, Clothes hanger. See Clothes hanger rods

ROGERS, William Garland, 1896-

APN's Bill Rogers, jack-of-all-arts. C. Hodge. por Ed & Pub 81:40 Je 26 '48

ROLLER bearings. See Bearings, Roller**ROLLERS, Road. See Road rollers****ROLLING (metal work)**

Application of the basic principles of rolling in roll design. R. E. Beynon. diags Iron & Steel Eng 25:37-59 Je '48

Art of rolling flats; abstracts. C. P. Hammond. Iron & Steel Eng 25:70-1 Ap '48; Steel 122:116 My 10 '48

Art of rolling hexagons and octagons. C. P. Hammond. diags Iron & Steel Eng 25:37-50 Ag '48

Development of residual stresses in strip rolling. R. M. Baker and others. bibliog diags Metals Tech 15:TP2333 1-18 Ap '48

Factors in the operation of a Mannesmann piercing mill. H. R. McLaren. il diags Iron & Steel Eng 25:73-7; Discussion. 78-81 Ap '48

Forming metal shapes by cold-rolling. E. J. Vanderploeg. il diag Mach 54:153-8 F '48

Looping and repeating on merchant mills; abstract. J. W. Barry. Steel 122:116 My 10 '48

Lubricants for cold rolling steel. R. J. Nekervis and R. M. Evans. bibliog il diags Iron & Steel Eng 25:72-80; Discussion. 80-1 O '48

Method for determining the origin of surface defects in rolled steel products. C. L. Meyette and V. E. Elliott. il Metals Tech 15:TP2363 1-15 Je '48; Same cond. Ry Age 124:474-6 Mr 6 '48; Same. Steel 122:92+ Mr 23 '48

Methods for rolling angles. A. L. Lhermitte. diags Blast F & Steel Pl 36:957-60 Ag '48

New wrought zinc alloys containing small amounts of beryllium. R. H. Harrington. il Am Soc for Metals Trans 39:773-83; Discussion. 783-7 '47

Pass design and improved methods to eliminate seams and surface defects; abstract. J. A. Tischbein. Iron & Steel Eng 25:70 Ap '48

Pole figures of the effect of some cold rolling mill variables on low carbon steel. J. K. Wood, Jr. diags Am Soc for Metals Trans 39:725-36; Discussion. 736-40 '47

Precipitation in a magnesium sheet. C. T. Haller and C. S. Barrett. il Am Soc for Metals Trans 39:670-8; Discussion. 676-9 '47

Preforming in forging operations; application of Maxiroll. il Mach 54:185-6 J1 '48

Primer on steel conversion. D. I. Brown. Iron Age 162:72-7 J1 29 '48

ROLLING (metal work)—Continued

- Products manufactured by cold roll-forming. E. J. Vanderploeg, *il diags Mach* 54:179-82 J1 '48
- Researches into the deformation of metals by cold rolling; abstract and discussion. H. Ford, *Engineer* 185:352-3 Ap 9 '48
- Scarcity of hot-rolled sheet due to technological advance. G. F. Sullivan, *Iron Age* 160:119+ N 20 '47
- Sheet leveler incorporates new feature; General Electric uses it to flatten sheet steel for refrigerator cabinets. T. E. Lloyd, *il diag Iron Age* 161:92-4 My 20 '48
- Surface pre-stressing; new rolling process developed in Germany; abstract. O. Foppl, *diag Automobile Eng* 38:133 Ap '48
- Threads rolled in screw machines. C. E. Morgan, *il diags Am Mach* 92:116 J1 15 '48
- Tooling for cold roll-forming and auxiliary operations. E. J. Vanderploeg, *il diags Mach* 54:172-6 Je '48
- X-ray thickness control expected to step up sheet output. W. N. Lundahl, *il diag Steel* 122:101-2+ F 2 '48

See also

Steel, Strip

Patents

- Cold Metal's Steckel patent claims upheld. *Steel* 121:41 D 22 '47
- Steckel patent suit nears end of road. *Bsns W* p26+ My 29 '48

Tables, calculations, etc.

- Calculation of loads involved in metal strip rolling; abstracts. M. Cook and E. C. Larke, *Engineering* 165:304 Mr 26 '48; *Engineer* 185:299 Mr 26 '48; *Metallurgia* 37:240 Mr '48; Discussion, *Engineering* 165:304-5 Mr 26 '48; *Engineer* 185:299-300 Mr 26 '48
- Calculation of roll force and torque in cold strip rolling with tensions; abstract and discussion. D. R. Bland and H. Ford, *Engineer* 185:352-3 Ap 9 '48
- Roll deflection; engineering data sheet. A. B. Cox, *diags Machine Design* 19:147-50 N '47

ROLLING mills

- Four-high reversing cold strip mill; abstracts. L. L. Wilson, *Iron & Steel Eng* 25:71-2 Ap '48; *Steel* 122:115 My 10 '48
- Modern seamless mills. A. F. Kritscher, *Blast F & Steel Pl* 36:712-13 Je '48
- Modern small rolling mills. G. A. Phipps, plans *diags Iron & Steel Inst J* 157:247-61 O '47; Same, *abstr Blast F & Steel Pl* 35:1498-501+; 36:337-42 D '47, Mr '48; Discussion, *Iron & Steel Inst J* 158:249-54 F '48
- More strip capacity; Detroit steel corp.'s new cold-rolled strip mill, *il Steel* 121:112+ D 1 '47
- New British mill rolls light special sections; Darlington & Simpson rolling mills Ltd, *il Steel* 122:112+ Mr 15 '48
- New cold-rolling mill. *Bsns W* p32+ My 22 '48
- New J&L five-stand tandem cold strip mill breaks speed records in tests; illustrations with text. *Iron Age* 161:119 F 19 '48
- New mill boosts West's supply, Pittsburg, Calif. *il Bsns W* p38+ O 23 '48
- New West Coast tinplate mill means 300,000 tons more finished steel for industry; Columbia steel co. B. Packard, *il Iron Age* 162:114-16 O 21 '48
- Plate mill conversion at Geneva, *il Elec West* 101:76 O '48
- Rolling mills recently completed or under construction; tabulation, *Steel* 121:66 D 8 '47
- 70-mph. rolling mill; Jones & Laughlin cold strip mill at Aliquippa, Pa.; illustrations with text. *Bsns W* p32+ F 21 '48
- Spotless for stainless; Enduro plant no. 2, Republic Steel mill for cold rolling, *il Mod Ind* 16:18+ O '48
- Y-mill; new type of cold strip mill, A. B. Montgomery and W. M. McConnell, *il diag Iron & Steel Eng* 25:99-104 Mr '48

Bearings

- Antifriction bearings. L. E. Browne, *il diags Steel* 122:76-9+ F 9 '48

- Bearing construction and performance characteristics. E. Crankshaw and K. Scheuchter, *il diags Iron & Steel Eng* 25:109-16; Discussion, 116-19 S '48
- Mill bearings and lubrication. F. B. Golley, *Iron & Steel Eng* 25:91-3 Mr '48

Design

- Design, construction and lubrication of mill couplings and spindles. W. L. Stover, *il diags Iron & Steel Eng* 25:62-8 J1 '48

Electric equipment

- Aluminum conductors used exclusively throughout new rolling mill of Aluminum company of America, *il diags Elec World* 129:81-4 Ap 24 '48
- Columbia's new sheet, tin mill, *il Elec West* 101:68-71 O '48
- Electric flash welding of steel strip; Aliquippa works of Jones & Laughlin steel corp. *il Steel* 122:84+ My 17 '48
- Electrical developments in the steel industry during 1947. H. W. Poole, *il Blast F & Steel Pl* 36:76-82 Ja '48
- Electrical equipment for rolling cold strip at 70 mph; abstract. W. E. Miller, *Iron & Steel Eng* 25:85 S '48
- Electrical heating of steel strip for continuous processing. A. R. Ryan and F. E. Ackley, *il diags Iron & Steel Eng* 25:66-78; Discussion, 78-80 Ag '48
- Electronics at work under adverse operating conditions. H. E. Reinhold, *il diag Elec World* 130:105-8 Ag 14 '48
- G-E control system on world's fastest cold-strip mill; amplydne generator and X ray thickness gage. *Blast F & Steel Pl* 36:382-3 Mr '48
- Light metals cold rolling, *il Elec R (Lond)* 142:153-6 Ja 30 '48
- Light metals hot rolling; Birmetals, Ltd, *il Elec R (Lond)* 141:609-13 O 24 '47
- Looper guide pit designed for safety and ease of maintenance, *Steel* 123:96 Ag 9 '48
- Mill-a-minute five-stand tandem mill now in operation; Weirton steel co. A. J. Winchester, *il diags Elec Eng* 67:742-6 Ag '48
- Modern electric equipment for cold-strip reduction mills. W. E. Miller, *bibliog il diags Gen Elec R* 51:22-3 Mr '48
- New silicon strip cold mill; West Leechburg plant of the Allegheny Ludlum steel corp. F. R. Grant, *il Iron Age* 160:79-83 N 20 '47
- Operation and maintenance of automatic preset plate mill screwdown control. J. F. Skalka; R. G. Uhler, *il diags Iron & Steel Eng* 25:37-41; Discussion, 41-2 J1 '48
- Practices and trends in steel-mill control. A. W. Schmitz, *il diag Gen Elec R* 51:34-7 My '48
- Primary hot-rolling-mill auxiliaries; electrical features. P. F. Grove, *Iron & Steel Inst J* 157:272-3 O '47; Discussion, 158:376-86 Mr '48
- Progress in steel plant electrical drives. A. F. Kenyon, *il Blast F & Steel Pl* 36:1216-21 O '48
- Resistance welding in the steel industry. O. H. Griffith, *il Iron & Steel Eng* 25:58-61 J1 '48
- Rolling mill conversion; South Durham steel & iron co. *il Elec R (Lond)* 142:267-70 F 20 '48
- Steel mill applications of electronic control. J. R. Erbe, *il diags Iron & Steel Eng* 25:93-101 Ag '48
- Truck for each job achieves smoother materials flow; tinplate department of the Jones & Laughlin steel corp. *il Steel* 121:120+ N 10 '47
- Twin-motor drives for cold mills. R. H. Wright, *il Iron & Steel Eng* 25:125-8; Discussion, 129-33 S '48
- Weirton Steel rolls tin plate on high speed mill. M. J. Wohlgenuth, *il Blast F & Steel Pl* 36:431-3 Ap '48

Equipment

- Added facilities increase Republic's stainless steel capacity. R. T. Willson, *il Blast F & Steel Pl* 36:1203-6 O '48
- Association of iron and steel engineers annual meeting, Cleveland, Sept. 28-Oct. 1; abstracts of papers, *Steel* 123:114+ O 11 '48

ROLLING mills—Equipment—Continued

- Auxiliary equipment for cold roll-forming. E. J. Vanderploeg. *il Mach* 54:170-3 **My '48**
- Columbia Steel's new sheet and tin mill. P. F. Kohlhaas. *il plans* *diags* *Iron & Steel Eng* 25:42-53 **O '48**
- Conveyer system simplifies coil handling at Aliquippa. C. F. Seyler. *flow chart* *il Iron Age* 161:86-9 **Je 10 '48**
- Ferrostan electrolytic tinning line at Richard Thomas and Baldwins. Ltd., Ebbw Vale. *flow diag* *il diags* *Iron & Steel Inst J* 159: 297-314 **JI '48**
- Fifteen-ton coils handled by new high-speed cold mill; Aliquippa plant of Jones & Laughlin steel corp. *il Steel* 122:108+ **F 23 '48**
- Fontana increases rolling mill facilities. J. M. Hooper. *il plans* *diags* *Blast F & Steel Pl* 36:197-204 **F '48**
- Heat treating 54-foot alloy bars; Spang-Chaffant division, National supply co. F. H. Bremmer. *il Steel* 122:77-8+ **Ap 5 '48**
- Jones & Laughlin improves facilities for the manufacture of tin plate. *il Blast F & Steel Pl* 36:317-21 **Mr '48**; Same *abr.* *Iron & Steel Eng* 25:98a-98d **F '48**
- Light-section mill at the Darlington works of the Darlington and Simpson rolling mills, Ltd. *il plan* *Iron & Steel Inst J* 157:447-52 **N '47**
- Mechanical and electrical features of primary hot-rolling-mill auxiliaries. W. W. Franklin and P. F. Grove. *diags* *Iron & Steel Inst J* 157:262-78 **O '47**; Discussion. 158: 376-86 **Mr '48**
- New developments in tin plate manufacture. E. F. Harris. *il diag* *Steel* 122:94+ **Ap 12 '48**
- Producing wide stainless-steel sheets at Republic steel corporation's new plant. *il Mach* 55:205-6 **S '48**; *Steel* 123:56-7 **Ag 23 '48**
- Republic's 44-36-32 in. mills at Chicago. R. F. Lavette. *il Iron & Steel Eng* 25:37-40; Discussion. 40-1 **O '48**
- Republic's new 48 in. mill at Youngstown, Ohio. T. J. Ess. *il plan* *Iron & Steel Eng* 25:69-71 **S '48**
- Weirton steel company. T. J. Ess. *il plan* *diags* *Iron & Steel Eng* 25:sup21W-34W **My '48**
- West Coast plant to augment supply of electrolytic and hot-dip cold reduced tin plate. *il plans* *diags* *Steel* 123:100+ **N 1 '48**
- X-ray thickness gauge for hot-strip rolling mills. C. W. Clapp and R. V. Pohl. *diags* *Elec Eng* 67:441-4 **My '48**

See also

Furnaces, Heating

Gearing

Floating-center gear drive; Yoder cold-roll forming mills. *il Machine Design* 20:129 **Ap '48**

Layout

Fontana increases rolling mill facilities. J. M. Hooper. *plan* *Blast F & Steel Pl* 36:193 **F '48**

Merchant-bar and wire-rod mill at the Dazell steel works, Motherwell. *il plan* *Iron & Steel Inst J* 158:254-6 **F '48**; Same, without *il* and *plan*. *Blast F & Steel Pl* 36:598+ **My '48**

Republic's new 48 in. mill at Youngstown, Ohio. T. J. Ess. *Iron & Steel Eng* 25:70-1 **S '48**

West Coast plant to augment supply of electrolytic and hot-dip cold reduced tin plate. *il plans* *diags* *Steel* 123:100+ **N 1 '48**

Lubrication

Latest lubrication developments applied to world's fastest cold strip mill; Aliquippa plant of the Jones & Laughlin steel corp. *il Steel* 122:86+ **Mr 29 '48**; Same. *Blast F & Steel Pl* 36:320-1 **Mr '48**; Same. *Iron & Steel Eng* 25:116+ **Mr '48**

Lubrication equipment maintenance. R. A. Kraus. *il Iron & Steel Eng* 25:100-6; Discussion. 106-8 **S '48**

Mill bearings and lubrication. F. B. Golley. *Iron & Steel Eng* 25:91-3 **Mr '48**

Oils for the steel industry. W. L. Nelson. *bibliog* *Oil & Gas J* 47:136 **O 21 '48**

Operation and maintenance of automatic preset plate mill screwdown control; mechanical features. R. G. Uhler. *diags* *Iron & Steel Eng* 25:40-1 **JI '48**

Power

Columbia Steel's new sheet and tin mill. P. F. Kohlhaas. *il diags* *Iron & Steel Eng* 25: 54-8 **O '48**

Hydraulic drive for cold strip rolling mills. *diag* *Engineer* 186:145 **Ag 6 '48**

ROLLS (paper machinery)

Paper machine rolls; importance of correct crown shape. *Paper Ind* 29:1822 **Mr '48**

Suction roll of today. H. C. Merritt. *Paper Tr J* 125:41-2 **D 13 '47**; Same *cond.* *Paper Ind* 29:1660+ **F '48**

Suction rolls and vacuum requirements; a rational approach. E. T. Buchanan. *bibliog* *diag* *Pulp & Pa of Can* (Convention no) 49: 169-77 [**F '48**]; Excerpts. *Paper Ind* 30:296-8 **My '48**

Super calendar roll deflections and crowns. J. B. Gough. *diag* *Paper Tr J* 125:147-52 **N 6 '47**; Abstract. *Paper Ind* 29:1664-5 **F '48**

ROLLS (rolling mills)

Application of the basic principles of rolling in roll design. R. E. Beynon. *diags* *Iron & Steel Eng* 25:37-59 **Je '48**

Designing rolls for cold roll-forming. E. J. Vanderploeg. *il diags* *Mach* 54:176-80 **Mr '48**

Driven backup rolls used in cold strip mill. L. L. Wilson. *il Iron Age* 162:90-1 **JI 15 '48**

Output of tin plate gages increased 74 per cent by use of forged sleeves on backup rolls. *il Steel* 123:111+ **S 6 '48**

Ragging 40-inch blooming mill rolls. *il Steel* 122:108 **F 2 '48**

Roll deflection; engineering data sheet. A. B. Cox. *diags* *Machine Design* 19:147-50 **N '47**

Roll dressing machine developed for steel mills. *diags* *Blast F & Steel Pl* 36:383 **Mr '48**

Roll life increased 35 per cent by controlled airless blasting. *diags* *Steel* 122:116 **Ap 12 '48**

Manufacture

Casting steel and iron rolls; Mackintosh-Hemphill co. *il Foundry* 76:96-9+ **N '48**

Profile milling applied to accurate roll pod machining. D. M. Laffin. *il diag* *Steel* 122: 72-7+ **Mr 29 '48**

Roll turning with carbide tools. F. R. Dinger. *il Iron & Steel Eng* 25:66-9 **S '48**

ROLLS (textile machinery)

Importance of correct squeeze roll pressure in sizing. *il Rayon* 28:593 **N '47**

ROMAN Catholic church and communism
Schools question in Europe; battle between communism and Catholicism. *Economist* 155:252-4 **Ag 14 '48**

ROME, Italy**Antiquities**

Pipe sizes reflect engineering knowledge of ancient Romans. E. A. Pratt. *Civil Eng* 18:522-3 **Ag '48**

ROMER, John Irving

Portrait. *Ptr Ink* 225:41 **O 29 '48**

RÖNTGEN, Wilhelm Conrad, 1845-1923

Chemistry's debt to Röntgen. I. Berkovitch. *por* *Chem Age* (Lond) 58:684-6 **My 15 '48**

Historic researches; X-rays. *Engineer* 185: 560 **Je 11 '48**

ROOF gutters. See Gutters (roof)

ROOFING

A.S.T.M. standards on bituminous materials for highway construction, waterproofing, and roofing. 306p pa \$3 *Am. soc. for testing materials*, 1916 Race st, Philadelphia 3 **'48**

Big roofing job set to fast tempo. *il Constr Methods* 30:88-91 **S '48**

Built-up glass-fiber roofing covers large factory; New departure division of General Motors corp. *il diag* *Eng N* 139:660-3 **N 13 '47**

Materials handling equipment; experience of large roofing and sheet metal wholesaler; Bayonne steel products co. *il Sheet Metal Worker* 39:62-5 **F '48**

Sheet metal workers' catechism (cont). W. Neubecker. *diags* *Sheet Metal Worker* 39: 110 **Ja**; 64-5 **Ap**; 54 **Je**; 47-8 **Ag**; 46-8 **O '48**

ROOFING—Continued

Welded studs cut costs and speed work on corrugated metal roofing job. R. C. Friedly. *il Eng N 141:88-9 Ag 5 '48*

See also

Shingles, Asphalt

ROOFING, Asphalt

How to apply roll roofing. diags Am Bld 70: 154+ S; 160+ O '48

ROOFING, Copper

St Louis old courthouse reroofed with copper. *il Sheet Metal Worker 39:59-60 Ap '48*

ROOFING paper. *See Paper, Roofing*

ROOFS

Damage to roofs by wind can be minimized. P. M. Thomas. diags Textile World 98:135+ O '48

Demolition and replacement of New Street Station roof, Birmingham. *il Engineer 186: 84-5 Jl 23 '48; Engineering 166:105-6 Jl 30 '48*

Equipment and design; solutions to difficult design problems; floating roof. C. O. Brown. *Ind & Eng Chem 40:sup93A-4A S '48*

Industrial air conditioning; equipment arrangement with truss roofs. F. F. Stevenson and J. F. Salsburg. plans diags Heating-Piping 20:93-7 O '48

Roof trusses recommended for the small house. diags Arch Rec 103:146-7 My '48

Solar heat gain through walls and roofs for cooling load calculations. J. P. Stewart. diags Heating-Piping 20:121-31; Discussion. 131-2 Ag '48

See also

Factories—Roofs

Gutters (roof)

Air pressure support

Air-supported roofs. Comp Air Mag 53:146 Je '48

Water cooling

Roof sprays reduce air conditioning load. Heating-Piping 20:105-6 My '48

Solar radiation absorption by wetted roofs. W. R. Woolrich and W. M. Rice. *il Heat & Ven 45:84-7 Ja '48*

ROOFS, Aluminum

Aluminum sheet on large roof. *il Sheet Metal Worker 39:47 Jl '48*

Cinema roof in aluminium alloys. *il Metalurgia 38:172 Jl '48*

How to use aluminum roofing effectively. *il diags Eng N 140:118-19 Ja 22 '48*

Machines for fabricating enameled aluminum roofing. *il Sheet Metal Worker 39:112 Mr '48*

Metal replaces felt in built-up roofing. *il Eng N 141:93 S 16 '48*

Neoprene-washed nails for fastening aluminum roofing and siding. *il diags Sheet Metal Worker 39:66-8 F '48*

Synagogue reroofed with aluminum. *il Sheet Metal Worker 38:55 D '47*

ROOFS, Concrete

Arch roof construction provides large column-free area; motor vehicle repair shop for New York Fire department. *il Civil Eng 18:19+ Ja '48*

Arch roof with dome-ends provides unobstructed area for skating; combination skating rink, bowling alley and garage in Washington, D.C. *il Eng N 141:110-12 Jl 8 '48*

British rebuild engine-shed roofs with precast concrete units. R. L. M'Ilmoyle. *il diags Ry Age 124:296-300 F 7 '48*

Form on traveler speeds arch concreting; two hangars built at Chicago airport. N. Gray. *il Eng N 141:108-10 Ag 19 '48*

Making long concrete joists and roof slabs; Formigli corp. W. B. Lenhart. *il Rock Prod 51:149+ F '48*

Precast concrete engine shed roofs. *il Engineer 184:435-6 N 7 '47*

Pre-cast concrete roof extension; Plessey company. *il Engineer 185:578 Je 11 '48*

Pre-cast roof and wall panels in the construction of buildings. T. C. Creaghan. *il Pulp & Pa of Can 49:76-7 Ja '48*

Reinforced concrete shells span 257 ft. wide airplane hangars for American airlines at Chicago. *il diags Arch Forum 89:138-9 S '48*

Special equipment sets, 11 acres of precast roof slabs. *il Constr Methods 30:98-100 Je '48*

Stadium roof features concrete cantilever; football stadium in Seattle, Wash. *il Eng N 140:428-9 Mr 13 '48*

Thin-shell arch hangars span 257 ft. B. G. Anderson. *il diags Eng N 141:55-7 Jl 22 '48*

Thin-shell concrete roofs for French round-houses. *il diags Eng N 140:752-3 My 20 '48*

ROOFS, Copper

Copper contract on seven schools; roofing, roof drainage, cornices and flashings. *il diags Sheet Metal Worker 39:66-9 Mr '48*

Philadelphia's Convention hall gets a new copper roof. *il diags Sheet Metal Worker 39:45-6+ Je '48*

ROOMS

See also

Bathrooms

Dressing rooms

Kitchens

Living rooms

ROOS, Delmar Gerle, 1887-

Portrait. Fortune 38:83 Ag '48

ROOSEVELT oil and refining corporation

Stocks offered. Comm & Fin Chr 168:255 Jl 19 '48

ROOT beer

What makes a successful bottler? Lyons tests get some answers. L. Zweig. *il Sales Management 59:48+ D 15 '47*

ROOT forming substances

Effect of 2,4-dichlorophenoxyacetic acid on root development in bean cotyledons. E. K. Akamine. *il Science 108:209 Ag 27 '48*

ROOTS

Copper sulphate aids sewer maintenance and sewage treatment; destruction of roots. J. W. Hood. Water & Sewage Works 95:275-7 Ag '48

Simplified diffusion-dehydration technique in the microtomy of tissues. A. P. Lorz. diags Science 107:278-9 Mr 12 '48

ROPE

British nylon cordage goes on wheels; demonstration motor truck of British ropes limited. *il Rayon 29:77-8 F '48*

Correct use and maintenance will keep ropes safe! S. A. Reed; D. H. Dyer. *il diags Safety Eng 96:24-9+ O '48*

Fiber rope; types, care. *il Nat Safety N 57: 125-6 Mr '48*

Fiber ropes; engineering data manual. *il Mill & Factory 42:133a-138h My '48* [reprints 25c]

Inside that coil of rope; safety in the use of manila rope. A. R. Hatch. *il Nat Safety N 57:38-9+ F '48*

Safe practices in using fiber rope. D. Attaway. *il Eng 19:47-8 Jl '48*

See also

Wire rope

Advertising

How Plymouth rope charts aid distributor sales. W. A. Scherff. *il Ind Marketing 33: 48+ Jl '48*

Industrial ad-man-of-the-year; W. A. Scherff's ads for Plymouth rope. *il Ind Marketing 33:87-8+ Ja '48*

Tie-in with salesmen made this industrial advertising campaign a success; sells rope to consumers and industry; Plymouth cordage co. W. A. Scherff. *il Ptr Ink 224: 34-6 Ag 6 '48*

Testing

Statistical analysis of some mechanical properties of manila rope. S. B. Newman and J. H. Curtiss. bibliog J Res Nat Bur Stand 39:551-9 D '47

RORSCHACH test. See Personality tests**ROSIN**

Chemistry of western pines; Ponderosa pine stumps as potential source of rosin and other by-products. A. B. Anderson. bibliog diags Ind & Eng Chem 39:1664-7 D '47

Composition of rosin size precipitates; analyses of standard size precipitates. D. Price. bibliog Anal Chem 20:444-9 My '48

From pine stumps to rosin and terpene oils; Crosby Chemicals, De Ridder, La. J. V. Hightower. flow sheet (p 150-3) *il Chem Eng 54:119-21 D '47*

Naval stores chemicals in the disinfectant field. J. N. Borglin. bibliog Soap & San Chem 23:147+ D '47

ROSIN—Continued

Phase study of rosin soap-sodium chloride-water and rosin soap-sodium silicate-water systems, R. C. Merrill and R. Getty, bibliog J Phys & Colloid Chem 52:167-79 Ja '48

Properties of oleoresins, rosins, and turpen-
tines from chemically stimulated slash and
longleaf pines, L. W. Mims and M. C.
Schopmeyer, bibliog J Ind & Eng Chem 39:
1504-6 N '47

Rosin derived alcohol, Chem Eng 55:173 Ja '48

Rosin in soap, J. R. Skeen, Soap & San
Chem 24:46-7+ S '48

Studies of rosin sizing; composition of va-
rious size precipitates, D. Price, bibliog
Paper Tr J 126:61-6 Ap 8 '48

Studies of rosin sizing; effect of alumina, D.
Price, bibliog Paper Tr J 125:54-9 N 20 '47

Studies of rosin sizing; effect of heat on
sizing, D. Price, bibliog Paper Tr J 127:
43-5 Ag 19 '48

Studies on anti-fouling compositions; forma-
tion of copper soaps in the preparation of
compositions containing cuprous oxide and
rosin, H. Barnes, bibliog Iron & Steel Inst
J 157:590-3 D '47

Statistics

Naval stores, April-Sept. 1946; April-Sept.
1947, Chem Eng 55:126 F '48

ROSS Shelf ice

Further observations on the Ross Shelf ice,
Antarctica, A. D. Howard, bibliog Geol
Soc Bul 59:919-26, pl 1 S '48

ROTAMETERS

Double float rotameter provides continuous
viscosity measurement; patent, diags Pat
Processing 2:872 N '47

Electromagnetic indicating or recording re-
mote reading rotameter, W. J. Clark, il
diags J Sci Instr 25:257-62 Ag '48

Measuring flow rate of corrosives solutions,
F. A. Mitchell, diag Chem Eng 54:146 N '47

ROTARY dispersion. See Dispersion of rays

ROTATION

Some rules of rotation, P. Swain, diags Power
31:369 D '47

ROTATORIA. See Rotifera

ROTENONE

Insecticides derived from plants; rotenone
and allied compounds, E. J. Seiferle and
D. E. H. Frear, Ind & Eng Chem 40:686-8
Ap '48

Residual action of organic insecticides, E.
E. Fleck, bibliog Ind & Eng Chem 40:706-8
Ap '48

Water works reservoirs and fish manage-
ment; use of rotenone or other poisons;
abstract, H. B. Mills and G. W. Bennett,
Pub Works 79:61 S '48

ROTH, Arthur T.

Loans and lollipops; Franklin Square na-
tional bank uses retail merchandising tech-
niques, Fortune 37:134+ Ap '48

ROTHEN, Alexandre, 1900-

Long-range forces may account for specific
chemical reactions between molecules not
in contact, T. Stern, pseud. il diags Sci Am
179:14-17 O '48

ROTHSCHILD, Nathan Mayer, 1777-1836

Portrait, Fortune 37:95 Ap '48

ROTIFERA

Ecological applications of Lansing's physio-
logical work on longevity in rotatoria, W.
T. Edmondson, bibliog Science 108:123-6 Ag
6 '48

ROTOGRAVURE

Coating paper on the paper machine by the
roto gravure-offset method, G. Haywood,
bibliog diags Paper Tr J 127:59-61 Jl 15 '48
Precise streamlines roto gravure press, il
Paper Tr J 126:36 Ja 15 '48

ROTORS

Asymmetric rotor; calculation of higher
energy levels by means of the correspond-
ence principle, G. W. King, bibliog diags J
Chem Phys 15:820-30 N '47

Gyroscopic effects in a vibratory system,
G. S. Bennett, diag J Ap Phys 18:1110-12
D '47

Method of checking the balance of high-speed
rotors, diag Engineering 166:137 Ag 6 '48

Rotors driven by light pressure, J. W. Beams,
Phys R 72:987-8 N 15 '47

Steam turbine rotor adjustments, F. G.

Corneau, Marine Eng 53:67 S '48

Technique for high rotational speeds, D. G.
Marshall and others, diags J Sci Instr 25:
348-51 O '48

ROTORS (electric machinery)

Die-casting aluminum rotors on a vertical
hydraulic press; Life-Line motor depart-
ment, Westinghouse electric corp. il diag
Mach 54:150-2 F '48

Electrical conductivity tests facilitated by
improved fixture; control of aluminum for
casting rotors, il Steel 122:112 F 2 '48

Fixture locates rotor assemblies, W. C. Hen-
derson, il Am Mach 92:119 Jl 15 '48

Here's how to press-fit a large rotor on its
shaft, N. L. Rea, il diags Power 92:335-7+,
682-4 Je, N '48

Induction and synchronous motors with un-
laminated rotors, W. J. Gibbs, diags Inst
E E J 95 pt 2:411-20 Ag '48

Magnetic properties of generator rotors as
affected by composition, G. S. Downing and
others, il diag Metal Prog 53:87-91 Ja '48

Magnetic properties of generator rotors as
affected by treatment, G. S. Downing and
others, il Metal Prog 53:235-40 F '48

Mechanical aspects of electrical engineering;
abstract, W. J. Carrae, bibliog il diags
Engineer 186:372-3 O 8 '48

Production grinding Alnico rotors, R. E.
Roberts, il diag Am Mach 92:94-5 Ag 12 '48

Rotor removal from large machines, il diag
Elec Eng 66:1214-15 D '47

Rotor windings; new development in turbo-
alternator design, il diags Electrician 141:
323-4 Jl 30 '48

Specially developed equipment simplifies
heavy rotor handling, D. J. Copps, il Elec
World 128:84-5 D 6 '47

Wound-rotor machine operation, H. Gibson,
diags Gen Elec R 51:22-5 Ap '48

ROTOTROL

Rotating regulator for seagoing hopper dredge
propulsion, E. H. Hornbarger and J. A.
Wasmund, diag Marine Eng 53:84+ F '48

Rototrol in steelmaking, L. H. Berkley, il
Westinghouse Eng 8:73-4 My '48

Rototrol provides generator excitation, C.
Lynn and C. E. Valentine, il diag Westing-
house Eng 8:34-6 Mr '48

Rototrols simplify excitation, il Westinghouse
Eng 8:4-5 Ja '48

ROTPROOFING of textiles

Rotproofing textiles; metal oxides; British
patent, Am Dyestuff Rep 37:136 F 23 '48

ROTTLERIN

Rottlerin; synthesis of tetrahydrorottlerin
and of tetrahydroalrothlerin and the re-
versibility of the rottlerone change, T.
Backhouse and others, Chem Soc J p 113-
15 F '48

ROUGHNESS measurement. See Surfaces—
Smoothness testing

ROUNDHOUSES

Thin-shell concrete roofs for French round-
houses, il diag Eng N 140:752-3 My 20 '48

See also

Locomotive ter-
minals

Lighting

Lighting of Pennsylvania's steam engine
house at East Altoona, il diags Ry Mech
Eng 121:618-20 N '47

Portable enginehouse lights, il Ry Mech Eng
122:320-1 Je '48

ROUSE, Hunter, 1906-

George Westinghouse award, por J Eng Educ
39:6-7 S '48

ROUTING systems

Automatic dispatching means minimum man-
power; Western Electric, J. R. Dunn, il
diag Factory Management 106:122-5 My
'48

Production flow charts; automobiles, Factory
Management 106:96a-96c Je '48

Production flow charts; chinaware, Factory
Management 106:96a-96c Mr '48

Production flow charts; household refrigera-
tors; Crosley plant, Factory Management
106:96A-96C F '48

Rubber tires; Seiberling rubber company,
Akron; flow chart, Factory Management
105:96a D '47

ROW houses. See Houses, Row

- ROWE, Frederick Maurice, 1891-1946**
Sketch, H. H. Hodgson. por Soc Dyers & Col J 63:351-3 N '47
- ROWE corporation**
Stock offered, Comm & Fin Chr 166:2108 N 24 '47
- ROWELL, George P.**
Portrait. Ptr Ink 225:35 O 29 '48
- ROWEN, Paul Robert**
Named for SEC. por Comm & Fin Chr 167:808 F 19 '48; Bsns W p92 F 21 '48
- ROWLAND, Hardy**
Spider Rowland, cinder in public eye. R. E. Smith. por Ed & Pub 81:20 S 4 '48
- ROYAL aeronautical society**
Annual report of the council, 1947-1948. Roy. Aeronautical Soc J 52:383-404 Je '48
Joint conference with Institute of the aeronautical sciences, London, Sept. 3-5. Roy. Aeronautical Soc J 51:931-45 N '47; Aero Digest 55:25+ O '47
- ROYAL Dutch-Shell group**
Dutch-Shell group rehabilitation and expansion making rapid progress. Oil & Gas J 47:46-7 J1 8 '48
Royal Dutch-Shell group dividends. Economist 154:987 Je 12 '48
Royal Dutch-Shell issue. Economist 153:851-2 N 22 '47
Shell preparing to supply European specialty demands. A. L. Foster. il Oil & Gas J 46:44-5 N 29 '47
- ROYAL institute of international affairs, London**
Library
Library of the Royal institute of international affairs. B. Kyle. Special Lib 38:287-91 N '47
- ROYAL-LIVERPOOL insurance companies**
Premiums in 1947 over \$149,141,000. East Underw 49:1+ Mr 5 '48
- ROYAL observatory, Greenwich.** See Greenwich royal observatory
- ROYAL society of London**
Anniversary meeting, 285th, Dec. 1. Chem & Ind p756 D 6 '47
Officers. Science 107:13 Ja 2 '48
Royal society's conversations. Engineer 185:516 My 28 '48; Engineering 165:520-1 My 28 '48; Elec R (Lond) 142:841-2 My 28 '48; Electrician 140:1655 My 28 '48
- RUBBER**
Adhesives of natural or synthetic rubber. K. Rose. il Materials & Methods 27:96-8 F '48
ASME Rubber and plastics division meeting, Atlantic City, Dec 4. Rubber Age 62:312 D '47; India Rubber World 117:503-4 Ja '48
Chemical engineering materials of construction; elastomers. H. L. Fisher. bibliog(93 ref) il Ind & Eng Chem 40:1788-92 O '48
Chemical engineering materials of construction; hard rubber. F. S. Malm. Ind & Eng Chem 40:1809-12 bibliog(93 ref, p 1810-12) O '48
Creep, recovery, and permanent set for GR-S and hevea. S. D. Gehman. bibliog il diag J Ap Phys 19:456-63 My '48
Effect of microorganisms on rubber degradation. G. A. Greathouse. bibliog Rubber Age 63:337-8 Je '48
Effects of pile bombardment on uncured elastomers. W. L. Davidson and I. G. Geib. bibliog J Ap Phys 19:427-33 My '48
Experimenting with rubber-base jointing materials on Oshawa highway. il Roads & Bridges 85:81-2+ N '47
Long time load-deformation effects in visco-elastic materials. C. H. Adams and M. C. Throdahl. bibliog Mod Plastics 25:139-42+ Js '48
Nomograph for determination of the softness factor of rubber. H. M. Leeper and D. S. Davis. Chem Ind 63:498+ S '48
Photo-elastic properties of rubber. L. R. G. Treloar. bibliog il diags Rubber Age 63:195-8 My '48
Physical-mechanical properties of vulcanized rubber containing different types of rubber; abstract. M. Outa. Chem Eng 55:278+ J1 '48
Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with monoolefins, di-isoprenes, and rubber. R. F. Naylor. Chem Soc J p 1532-9 N '47
- Rubber as an engineering material. K. Rose. Materials & Methods 27:93-104 My '48
Rubber conference at San Francisco features interesting papers. Rubber Age 62:198-9 N '47
Rubber division, A.C.S. summer meeting, Los Angeles, July 22-23; program; abstracts of papers. India Rubber World 118:536+ J1 '48
Rubber in paints; abstract. S. C. Stokes. Paint Oil & Chem R 111:44 Ja 8 '48
Rubber technology conference, Central Hall, Westminster, June 23-25. Chem & Ind p425-6 J1 3 '48
Rubber technology conference, 2d, London, June 23-25, with abstracts of papers. Rubber Age 63:455-64+ J1 '48; India Rubber World 118:679-82+ Ag '48
Thermodynamics of a strained elastomer; compressibility. L. E. Copeland. diag J Ap Phys 19:445-9 My '48
Thermodynamics of a strained elastomer; general analysis. M. Mooney. J Ap Phys 19:434-44 My '48
Thermodynamics of a strained elastomer; thermal coefficient of modulus and the statistical theory of elasticity. L. E. Copeland and M. Mooney. J Ap Phys 19:450-5 My '48
- See also**
Elastic fabrics Rubber latex
Guayule Rubber plants and
Pliolite planting
Rubber cement Tires, Rubber
Rubber chemicals Vulcanization
Rubber industry and trade
- Aging**
Aging and preservation of vulcanized rubber. G. Reinsmith. bibliog il India Rubber World 117:65-8+, 212-15+ O-N '47
Variability of crude rubber; effect of latex nonrubber substances on vulcanization and aging characteristics of crude rubber. E. M. McCollm and J. W. Haebele. bibliog Ind & Eng Chem 40:311-16 F '48
- See also**
Rubber—Oxidation
Rubber, Artificial—
Aging
- Analysis**
Analysis of natural and synthetic rubber by infrared spectroscopy. H. L. Dinsmore and D. C. Smith. bibliog diags Anal Chem 20:11-24 Ja '48
Determination of free carbon in compounded rubber and synthetic elastomers. G. D. Louth. bibliog Anal Chem 20:717-19 Ag '48
Quantitative estimation of GR-S in rubber reclaim. D. S. le Beau. Anal Chem 20:355-8 Ap '48
Testing and grading of wild and plantation rubbers. N. Bekkedahl. bibliog Rubber Age 62:175-6 N '47
- See also**
Rubber, Artificial— Rubber latex—Analy-
Analysis sis
- Bibliography**
Advances in rubber during 1947. V. A. Cosler and S. W. McCune, 3d. Rubber Age 62:421-7 bibliog(195 titles, p423-7) Ja '48; Same. India Rubber World 117:481-5 Ja '48; Same. Mech Eng 70:307-12 Ap '48
OTS bibliography reports on rubber products. India Rubber World 118:298, 406+, 564 My-J1 '48 (to be cont)
Publications of the British rubber producers' research association. Rubber Age 62:558; 63:222; 64:74 F My, O '48
Rubber bibliography. Published in monthly numbers of India rubber world
- Chemistry**
American chemical society, Rubber division fall meeting, Detroit, Nov. 8-10; abstracts of papers. Rubber Age 64:63-7 O '48
Chemical institute of Canada Rubber division abstracts. India Rubber World 118:239 My '48; Same. Rubber Age 63:205-6 My '48
Colloidal stability of rubber latex. E. G. Cockbain. bibliog diag Rubber Age 62:649-51 Mr '48
Division of rubber chemistry, A.C.S. spring meeting, Chicago, April 21-23; abstracts of papers. Rubber Age 62:665-70 Mr '48; India Rubber World 117:758-62 Mr '48

RUBBER—Chemistry—Continued

Effect of molecular weight distribution on physical properties of natural and synthetic polymers. B. L. Johnson. *bibliog Ind & Eng Chem* 40:351-6 F '48

Effect of temperature and molecular-weight distribution on the morphology of natural and synthetic high polymers. E. A. Hauser and D. S. le Beau. *bibliog il J Phys & Colloid Chem* 52:27-39 Ja '48

Measurement of internal double bonds in polymers by perbenzoic acid addition. A. Saffer and E. L. Johnson. *bibliog Ind & Eng Chem* 40:538-41 Mr '48

Pacific chemical exposition and industrial conferences; abstracts of papers on rubber. *India Rubber World* 117:369-71 D '47

Polymerization; the action of metalating reagents on rubber. A. A. Morton and H. E. Ramsden. *bibliog Am Chem Soc J* 70: 3132-5 S '48

Rubber division, A.C.S. spring meeting, Chicago, April 21-23; with abstracts of papers. *Rubber Age* 63:210-12 My '48

Rubber division, A.C.S. summer meeting, Los Angeles, July 22-23; program; abstracts of papers. *India Rubber World* 118:536+ JI '48; *Rubber Age* 63:473-7 JI '48

Synthetics, center of attention at A.C.S. Division of rubber chemistry meeting, Los Angeles. *Chem & Eng N* 26:2354-5 Ag 9 '48

See also

Rubber, Artificial— Rubber chemicals
Chemistry Vulcanization

Chlorination

Chlorinated rubber; BIOS report no. 1626 reviewed. *Chem Age (Lond)* 58:716 My 22 '48

Cutting

See Rubber cutting

Drying

Infra. red drying of sheet rubber. *Rubber Age* 63:606 Ag '48

Electric properties

Conductive rubber for space heating. *diag Heat & Ven* 45:64 My '48

Electric radiant heating; panels called Uskon heated by conductive rubber-resistance element. *Mech Eng* 70:350-1 Ap '48

Electrically-conductive rubber. *il diag Materials & Methods* 28:60-1 JI '48

Insulation properties of Buna S and natural rubber; charts; engineering reference sheet. E. W. Davis. *Elec World* 129:118 Mr 27 '48

Rubber radiant panels. *il diag Dom Eng* 171: 165-6 Je '48

Synthetic and natural rubbers used in electronic equipment. *Electronics* 21:M34-5 Mid-Je '48

See also

Rubber, Artificial—
Electric properties

Hardness

Effect of pigments on the hardness of natural and synthetic rubbers. L. H. Cohan and R. E. Smith. *Rubber Age* 63:465-8 JI '48

History

Addenda to the history of rubber; objects dredged from the cenote of Chichen Itza. *Rubber Age* 63:747 S '48

Manufacture

Carbon pH and structure in rubber compounding. H. A. Braendle and others. *bibliog India Rubber World* 119:57-62+ O '48

Chemical and physical properties of Philblack carbons. L. R. Sperberg and H. M. Barton. *bibliog il diag Rubber Age* 63:45-51 Ap '48

Clays for rubber. L. F. Gongwer. *il India Rubber World* 118:793-5 S '48

Coumarone-indene resins in rubber compounding. T. A. Bulfant. *Rubber Age* 62:300-2 D '47

Effect of pigments on the hardness of natural and synthetic rubbers. L. H. Cohan and R. E. Smith. *Rubber Age* 63:465-8 JI '48

High styrene copolymers in natural rubber compounds. K. M. Fox. *bibliog India Rubber World* 117:487-91 Ja '48

Influence of cloud points of coumarone-indene resins on their use in rubber compounding; Chemigum N-3, a styrene-butadiene-type rubber (GR-S 38) and natural rubber. P. B. Stickney, L. E. Cheyney and P. O. Powers. *bibliog Ind & Eng Chem* 40:267-71 F '48

Petroleum products for rubber. F. S. Rostler and M. E. Fardew. *bibliog (33 ref) flow chart il diag Rubber Age* 63:317-26 Je '48

Phenolic resins in natural and synthetic rubber. J. C. Searer. *Rubber Age* 62:191-3 N '47

Preparation of natural rubber latices. E. M. McCollm. *Can Chem & Process Ind* 32:221-4 Mr '48; Same. *il Rubber Age* 62:655-8 Mr '48

Rubber from guayule. M. S. Nishimura, F. N. Hirotsawa and R. Emerson. *bibliog diag Ind & Eng Chem* 39:1477-85 N '47

Rubber in chemical engineering; abstract. H. C. Young. *Chem Age (Lond)* 58:715 My 22 '48

See also

Rubber, Artificial—
Manufacture
Vulcanization

Mixing with resins

Union of resin and rubber; Tuf-Lite produced by Goodyear tire & rubber co. W. H. Aiken. *il Mod Plastics* 26:99-103 O '48

See also

Rubber, Artificial—
Mixing with resins

Oxidation

Quantum yield of oxidation of hevea rubber and GR-S. E. J. Hart and M. S. Matheson. *bibliog diag Am Chem Soc J* 70:784-91 F '48

Patents

Patents and trade marks. Published in monthly numbers of India rubber world

Prices

Rubber rise precarious. *Barron's* 27:37 N 10 '47

Protection

Aging and preservation of vulcanized rubber. G. Reinsmith. *bibliog il India Rubber World* 117:65-8+, 212-15+ O-N '47

Reinforcement

Heats of adsorption on carbon black. R. A. Beebe and others. *bibliog diag Am Chem Soc J* 69:95-101, 2294-9 Ja, O '47

Mechanism of reinforcement of elastomers by pigments. L. H. Cohan. *bibliog il India Rubber World* 117:343-8+ D '47

Vulcanization characteristics of reinforcing furnace carbon. D. F. Cranor and others. *bibliog India Rubber World* 117:749-51+ Mr '48

Temperature effect

Effect of storage and temperature on flexibility of natural and synthetic rubbers. J. B. Gregory and others. *il India Rubber World* 117:611-16 F '48

Testing

ASTM committee D-11 meeting, Detroit, June 23-25. *India Rubber World* 118:677-8 Ag '48

A.S.T.M. standards on rubber products (with related information); prepared by A.S.T.M. committee D-11 on rubber products; methods of testing specifications. 553p pa \$4 Am soc. for testing materials, 1916 Race st, Philadelphia 3 '48 (issued annually)

Effect of storage and temperature on flexibility of natural and synthetic rubbers. J. B. Gregory and others. *il India Rubber World* 117:611-16 F '48

Gurley motor-driven stiffness tester. *il Rubber Age* 62:94 O '47

Hysteresis and heating in vulcanized rubber. S. Oberto and G. Palandri. *il diags Rubber Age* 63:725-34 S '48

Improved tackiness meter. J. M. Lambert and R. A. McDonald. *il diag R Sci Instr* 19: 119-20 F '48

Instron tensile testing instrument. *il Rubber Age* 64:60 O '48

Machine for use in buffing strip samples of rubber materials. A. K. Chatten and others. *il diags Rubber Age* 63:743-4 S '48

RUBBER—Testing—Continued

- Measurement of the scorch and cure rate of vulcanizable mixtures using the Mooney plastometer. R. Shearer and others. *India Rubber World* 117:216-19 N '47
- Methods for measuring dynamic mechanical properties of rubber-like materials. A. W. Nolle. *bibliog* *il diags J Ap Phys* 19:753-74 Ag '49
- Relationship between laboratory abrasion tests and service performance. T. R. Griffith and others. *bibliog Anal Chem* 20:837-47 S '48
- Ross rubber flexing machine. *il Rubber Age* 62:456 Ja '48
- Rubber from guayule. M. S. Nishimura, F. N. Hirose and R. Emerson. *bibliog diag-Ind & Eng Chem* 39:1477-85 N '47
- Solubility of hydrocarbon resins and their behavior in rubber compounds. P. O. Powers. *bibliog India Rubber World* 117:351-4 D '47
- Stain test for white or light colored rubber. E. J. Baruth. *il diag Rubber Age* 63:52 Ap '48
- Strain test for evaluation of rubber compounds. F. L. Roth and R. D. Stiehler. *bibliog India Rubber World* 118:367-71 Je '48; Same. *J Res Nat Bur Stand* 41:87-93 Ag '48
- Strain tester for rubber. *il Instruments* 21: 635-6 Jl '48; *Rubber Age* 63:471-2 Jl '48; *Chem & Eng N* 26:2003 Jl 5 '48
- Strain tester for rubber. *il Product Eng* 19: 185 O '48
- Strain tester for rubber. W. L. Holt and others. *il diags India Rubber World* 118: 513-17+ Jl '48; Same. *J Res Nat Bur Stand* 41:95-102 Ag '48
- Survey of resilience and the development of resilient compounds; packing materials for hydraulic machinery. R. F. Shaw. *bibliog* (65 titles) *il India Rubber World* 118: 796-801+ S '48
- Symposium on rubber testing. (Tech. pub. no. 74) 109p pa \$2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '47
- Testing and grading of wild and plantation rubbers. N. Bekkedahl. *Rubber Age* 62:173-82 *bibliog* (46 titles, p181-2) N '47

Transportation

- Postwar packaging and shipping of plantation rubbers and their effect on quality. H. W. Courtney. *il India Rubber World* 118: 521-4 Jl '48

Vulcanization**See Vulcanization****RUBBER, Artificial**

- Adhesives of natural or synthetic rubber. K. Rose. *il Materials & Methods* 27:96-8 F '48
- Can sealing compounds; test and development work in synthetic rubbers. E. N. Funkhouser. *bibliog il diags Mod Packaging* 22: 143-8+ O '48
- Carbohydrates as an alternative source to petroleum for organic chemicals. C. Weizmann, E. Bergmann and M. Sulzbacher. *bibliog Chem & Ind* p769-71 D 13 '47
- Chemical engineering materials of construction; elastomers. H. L. Fisher. *bibliog* (93 ref) *il Ind & Eng Chem* 40:1788-92 O '48
- Cold rubber; abstract. *Mech Eng* 70:763-4 S '48
- Cold rubber gets cold cash from government. *il Bsns W* p74+ O 16 '48
- Comparing rubbers with respect to their properties, mechanical applications and economies in production. J. F. McWhorter. *il diags Machine Design* 20:138-43 F '48
- Comparison of synthetic and natural rubbers in mechanical rubber goods. C. L. Brittain. *India Rubber World* 118:806-7 S '48
- Creep, recovery, and permanent set for GR-S and hevea. S. D. Gehman. *bibliog il diag J Ap Phys* 19:456-63 My '48
- Development and availability of experimental and general purpose GR-S polymers. R. E. Harmon. *Rubber Age* 62:291-5 D '47
- Effect of microorganisms on rubber degradation. G. A. Greathouse. *bibliog Rubber Age* 63:337-8 Je '48
- Effects of pile bombardment on uncured elastomers. W. L. Davidson and I. G. Geib. *bibliog J Ap Phys* 19:427-33 My '48

- Emulsion polymerization of myrcene. A. J. Johanson, F. L. McKennon and L. A. Goldblatt. *Ind & Eng Chem* 40:500-2 Mr '48
- Formation and structure of vulcanizates. J. Bardwell and C. A. Winkler. *bibliog India Rubber World* 118:509-12+ Jl '48
- GR-S black 1 and GR-S black 2. *il India Rubber World* 118:660-2 Ag '48
- High polymer division, A.P.S. meeting, Chicago, Dec. 29-31; abstracts of papers. *India Rubber World* 117:367-8 D '47; *Rubber Age* 62:303-5 D '47
- Improved GR-S. *Chem Eng* 55:163 Mr '48
- Improved polymerization techniques; use of puncture-sealing gaskets for polymerization in bottles. S. A. Harrison and E. R. Melnick. *il Anal Chem* 20:47-8 Ja '48
- Low temperature process for synthetic rubber. *Chem & Eng N* 26:336 B 2 '48
- New Rubber Reserve table of polymers. *India Rubber World* 118:35 Ap '48
- New synthetic rubber has high oil and heat resistance. *Materials & Methods* 27:72-4 Je '48
- Plastic, rubber moldings and metal parts combined to advantage; Scintilla magneto div. of Bendix aviation corp. H. Chase. *il Materials & Methods* 27:67-71 Mr '48
- Properties of philprene low-temperature rubber. R. A. Schulze and others. *Oil & Gas J* 46:126+ Mr 18 '48; *Abstract, Chem Eng* 55:109 Mr '48
- Rubber as an engineering material. K. Rose. *Materials & Methods* 27:103-4 My '48
- Rubber conference at San Francisco features interesting papers. *Rubber Age* 62:198-9 N '47
- Rubber garters seal transformer leads. *il Westinghouse Eng* 8:173 N '48
- Rubber or plastics. *il Mod Plastics* 25:89-96 Je; 93-8 Jl '48
- Rubber starts another busy year; tire-replacement market will wane, but others will hold up. C. R. Sutton. *Barron's* 28:19 Ja 19 '48
- Silicone products hit the counters. *il Plastics* 8:24-5 Mr '48
- Silicone rubber; new properties for design engineers. G. S. Irby, Jr. and others. *il A S M E Trans* 70:831-6 O '48; Same. *India Rubber World* 117:605-8+ F '48; *Excerpts, Machine Design* 20:212+ Je '48
- Solution viscosity of GR-S; variation with conversion. W. A. Schulze and W. W. Crouch. *bibliog Ind & Eng Chem* 40:151-4 Ja '48
- Symposium on national rubber situation, Washington, Jan. 13. *Rubber Age* 62:432 Ja '48; *India Rubber World* 117:626-7 F '48
- Symposium on synthetic features meeting of chemical engineers. *Rubber Age* 63:344 Je '48
- Synthetics versus Singapore. A. G. Smith. *Land Econ* 24:89-94 F '48
- Thermodynamics of a strained elastomer; thermal coefficient of modulus and the statistical theory of elasticity. L. E. Cope-land and M. Mooney. *J Ap Phys* 19:450-6 My '48
- Vulcanized petroleum oil derivative, Flex-tender 3-A. *Chem Eng* 54:177 D '47
- Washington hearings on synthetic rubber reveal divergence of industry opinions. *Rubber Age* 62:307-9 D '47

See also**Neoprene****Aging**

- Accelerated aging of neoprene compounds; effect of copper. L. R. Mayo, R. S. Griffin and W. N. Keen. *bibliog Ind & Eng Chem* 40:1977-80 O '48
- Aging of GR-S; review of the literature. T. H. Harris and R. D. Stiehler. *bibliog India Rubber World* 118:365-6+ Je '48
- Behavior of silastic on aging. G. M. Konkle, R. R. Selfridge and P. C. Servais. *bibliog il Ind & Eng Chem* 39:1410-13 N '47
- Effect of certain antioxidants in GR-S; natural and accelerated aging. H. E. Albert. *bibliog Ind & Eng Chem* 40:1746-50 S '48
- Effect of iron on aging of GR-S. H. E. Albert, G. B. P. Smith, Jr. and G. W. Gottschalk. *bibliog Ind & Eng Chem* 40:482-7 Mr '48

RUBBER, Artificial—Continued

Analysis

- Analysis of natural and synthetic rubber by infrared spectroscopy, H. L. Dinsmore and D. C. Smith, *bibliog diags Anal Chem* 20: 11-24 Ja '48
- Determination of free carbon in compounded rubber and synthetic elastomers, G. D. Louth, *bibliog Anal Chem* 20:717-19 Ag '48
- Quantitative estimation of GR-S in rubber reclaim, D. S. le Beau, *Anal Chem* 20:355-8 Ap '48
- Unsaturation in isoprene-isobutylene copolymers; reaction with iodine in the presence of mercuric acetate and trichloroacetic acid, S. G. Gallo, H. K. Wiese and J. F. Nelson, *bibliog Ind & Eng Chem* 40:1277-80 Jl '48

Bibliography

- Advances in rubber during 1947, V. A. Cosler and S. W. McCune, 3d, *Rubber Age* 62:421-7 *bibliog*(195 titles, p423-7) Ja '48; Same, *India Rubber World* 117:481-5 Ja '48; Same, *Mech Eng* 70:307-12 Ap '48
- OTS bibliography reports on rubber products, *India Rubber World* 118:298, 406+, 564 My-Jl '48 (to be cont)
- Technical reports available from Department of commerce, *Rubber Age* 64:80 O '48

Chemistry

- American chemical society, Rubber division fall meeting, Detroit, Nov. 8-10; abstracts of papers, *Rubber Age* 64:63-7 O '48
- Contributions of organic chemistry to the war effort; synthetic rubber, R. F. Dunbrook, *bibliog India Rubber World* 117:203-7, 355-9+, 486+, 617-19, 745-3 N '47-Mr '48
- Copolymerization of butadiene with vinyl monomers; use of 2-vinylfuran, 2-vinylthiophene, methacrylonitrile, and vinylidene chloride, R. L. Frank and others, *bibliog Ind & Eng Chem* 40:420-2 Mr '48
- Division of rubber chemistry, A.C.S. spring meeting, Chicago, April 21-23; abstracts of papers, *Rubber Age* 62:665-70 Mr '48; *India Rubber World* 117:758-62 Mr '48
- Edgar Fahs Smith memorial lecture; polymerization and copolymerization of dienes; abstract, C. S. Marvel, *Chem & Eng N* 26: 1696-7 Je 7 '48
- Effect of molecular weight distribution on physical properties of natural and synthetic polymers, B. L. Johnson, *bibliog Ind & Eng Chem* 40:351-6 F '48
- Effect of temperature and molecular-weight distribution on the morphology of natural and synthetic high polymers, E. A. Hauser and D. S. le Beau, *bibliog J Phys & Colloid Chem* 52:27-39 Ja '48
- Effects of cross-linking and branching on the molecular constitution of diene polymers, P. J. Flory, *bibliog Am Chem Soc J* 69: 2893-9 N '47
- Electrophoretic mobility of type II GR-S latex, S. H. Maron, D. Turnbull and M. E. Elder, *diag Am Chem Soc J* 70:582-7 F '48
- GR-S-10 compared with GR-S in vulcanizates containing various fillers, L. O. Amberg, *Ind & Eng Chem* 40:487-93 Mr '48
- Measurement of internal double bonds in polymers by perbenzoic acid addition, A. Saffer and B. L. Johnson, *bibliog Ind & Eng Chem* 40:538-41 Mr '48
- o*-Methoxy-, *p*-benzyl-, *o*-fluoro-, and *o*-cyano-styrenes; further examples of the disproportionation of phenylmethylcarbinols to ethylbenzenes, C. S. Marvel and D. W. Hein, *bibliog Am Chem Soc J* 70:1895-8 My '48
- Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents, G. B. Bachman and R. W. Finholt, *bibliog Am Chem Soc J* 70:622-4 F '48
- Monomers and polymers; vinylpyridines and vinylquinolines, G. B. Bachman and D. D. Micucci, *bibliog Am Chem Soc J* 70:2381-4 Jl '48
- Oxidative degradation of polymeric materials, A. V. Tobolsky, *India Rubber World* 118: 363-4+ Je '48
- Pacific chemical exposition and industrial conferences; abstracts of papers on rubber, *India Rubber World* 117:369-71 D '47

- Pyrolysis of Koresin, J. W. LeMaistre and R. B. Seymour, *bibliog Am Chem Soc J* 70:1776-8 My '48
- Reclaiming agents for synthetic rubber, W. S. Cook and others, *bibliog Ind & Eng Chem* 40:1194-202 Jl '48
- Soap ingredients as retarders in butadiene-styrene copolymerization, J. W. Wilson and E. S. Pfau, *bibliog Ind & Eng Chem* 40:530-4 Mr '48
- Structure of polymers and its influence on their behavior during reclaiming, D. S. le Beau, *bibliog Rubber Age* 62:51-5 O '47
- Study of the reaction of buna rubbers with aliphatic mercaptans, G. E. Serniuk, F. W. Banas and M. W. Swaney, *bibliog Am Chem Soc J* 70:1804-8 My '48
- Substituted vinylpyridines as monomers for synthetic elastomers, R. L. Frank and others, *bibliog Ind & Eng Chem* 40:879-82 My '48
- Synthetics, center of attention at A.C.S. Division of rubber chemistry meeting, Los Angeles, *Chem & Eng N* 26:2354-5 Ag 9 '48

See also

- Phenylaminophthylamine
Rubber, Artificial—
Research

Electric properties

- Development of the clay coagulation process for the reduction of electrolyte in RG-S, E. A. Willson and others, *Rubber Age* 62: 183-6 N '47
- GR-S 65, a low water absorption copolymer, J. C. Madigan and others, *bibliog diags Ind & Eng Chem* 40:307-11 F '48
- Insulation properties of Buna S and natural rubber; charts; engineering reference sheet, E. W. Davis, *Elec World* 129:118 Mr 27 '48
- Properties of Buna S insulation for wires and cables; tables; engineering reference sheet, E. W. Davis, *Elec World* 129:122 Mr 13 '48
- Synthetic and natural rubbers used in electronic equipment, *Electronics* 21:M34-5 Mid-Je '48
- Synthetic rubbers and resins as insulation for wires and cables, J. T. Blake, *India Rubber World* 118:216-18 My '48

Hardness

- Effect of pigments on the hardness of natural and synthetic rubbers, L. H. Cohan and R. E. Smith, *Rubber Age* 63:465-8 Jl '48

Joining to metal

- Comparison of cements for bonding nitrile rubber to steel, R. E. Morris and others, *diags Rubber Age* 64:53-6+ O '48

Latex

- Commercial aspects of natural and synthetic latices; abstract, R. V. Yohe, *India Rubber World* 118:240 My '48
- Electrophoretic mobility of type II GR-S latex, S. H. Maron, D. Turnbull and M. E. Elder, *diag Am Chem Soc J* 70:582-7 F '48
- Flow properties of pseudoplastic fluids, C. C. Winding, G. P. Baumann and W. L. Kranich, *bibliog diags Chem Eng Prog* 43: 527-36, 613-22 O-N '47
- Geon polyblend latex, *India Rubber World* 118:376 Je '48
- High-solids synthetic latex directly from reactor, F. D. Chittenden, C. D. McCleary and H. S. Smith, *bibliog diags Ind & Eng Chem* 40:337-9 F '48
- Improved polymerization techniques; device for sampling latex during polymerization, R. J. Houston, *il Anal Chem* 20:49-61 Ja '48
- Latex compounds for the paper industry, E. G. Partridge, *Paper Tr J* 127:45-8 Ag 5 '48; Same cond, *India Rubber World* 118: 221-3 My '48
- New England TAPPI discusses synthetic rubber latices, *Paper Tr J* 126:22 Ap 22 '48
- Particle size in latex as related to synthetic rubber properties and high solids latex fluidity, A. M. Borders and R. M. Pierson, *bibliog il Ind & Eng Chem* 40:1473-7 Ag '48
- Pliolite latex 190 in latex compounding, J. A. Weatherford and F. J. Knapp, *bibliog India Rubber World* 117:743-4+ Mr '48

RUBBER, Artificial—Latex—Continued

Role of aggregating conditions and particle fusion in the growth of polymer particles during emulsion polymerization. C. E. Rhines and J. McGavack, *il Rubber Age* 63: 599-606 Ag '48

Laws and legislation

President signs compromise rubber bill; with text of act. *Rubber Age* 63:66-70 Ap '48

Synthetic rubber legislation. A. Leggin. *Chem & Eng N* 26:297, 595, 661 F 2, Mr 1-8 '48

See also

Rubber industry and trade—Regulation

Manufacture

Carbon pH and structure in rubber compounding. H. A. Braendle and others. *bibliog India Rubber World* 119:57-62+ O '48

Cleveland regional draws large attendance; synthetic rubber and industrial waste symposia are featured. *Chem Eng Prog* 44:sup 17-20 Je '48

Compounding pure gum GR-S stocks; effect of inorganic oxides and oxidizing agents. H. L. Fisher and A. R. Davis. *bibliog Ind & Eng Chem* 40:143-50 Ja '48

Compounds involved in production of synthetic rubber; determination of purity by measurement of freezing points. A. R. Glasgow, jr. and others. *bibliog diags Anal Chem* 20:410-22 My '48

Condensation of water, styrene, and butadiene vapors; pure components and constant boiling mixtures. D. A. Edwards, C. F. Bonilla and M. T. Cichelli. *bibliog diags Ind & Eng Chem* 40:1105-12 Je '48

Cumene hydroperoxide in redox emulsion polymerization. E. J. Vandenberg and G. E. Hulse. *bibliog Ind & Eng Chem* 40:932-7 My '48

Development of the clay coagulation process for the reduction of electrolyte in GR-S. E. A. Willson and others. *Rubber Age* 62: 183-6 N '47

Effect of pigments on the hardness of natural and synthetic rubbers. L. H. Cohan and R. E. Smith. *Rubber Age* 63:465-8 Jl '48

Effect of 2-vinylpyridine on properties of GR-S polymers. W. W. Rinne and J. E. Rose. *bibliog Ind & Eng Chem* 40:1437-40 Ag '48

Evaluation of MTM modifier in GR-S-10. G. R. Mitchell and others. *Rubber Age* 62:56-8 O '47

GR-S 65, a low water absorption copolymer. J. C. Madigan and others. *bibliog diags Ind & Eng Chem* 40:307-11 F '48

Hair loss in neoprene manufacture. W. L. Ritter and A. S. Carter. *J Ind Hygiene* 30: 192-5 My '48

Heat transfer to boiling styrene and butadiene and their mixtures with water. C. F. Bonilla and A. A. Eisenberg. *bibliog diags Ind & Eng Chem* 40:1113-22 Je '48

Influence of cloud points of coumarone-indene resins on their use in rubber compounding; Chemigum N-3, a styrene-butadiene-type rubber (GR-S 38) and natural rubber. P. B. Stickney, L. E. Cheyney and P. O. Powers. *bibliog Ind & Eng Chem* 40:267-71 F '48

Lignin as a stabilizer for GR-S. G. S. Murray and W. H. Watson. *il India Rubber World* 118:667-9 Ag '48

Low temperature manufacture of chemical rubber. W. H. Shearon, jr., J. P. McKenzie and M. E. Samuels. *bibliog flow chart il diags Ind & Eng Chem* 40:769-77 My '48

Manufacture and properties of Philprene low-temperature rubber. W. A. Schulze and others. *India Rubber World* 117:739-42 Mr '48

Mechanism of reinforcement of elastomers by pigments. L. H. Cohan. *bibliog il India Rubber World* 117:343-8+ D '47

Medical problems encountered in the manufacture of American-made rubber. R. H. Wilson and others. *bibliog Ind Med* 17:199-207 Je '48

Mercaptan modification of rosin rubber. C. F. Fryling. *bibliog Ind & Eng Chem* 40: 928-32 My '48

New low temperature rubber made by antifreeze method. G. G. Oberfell and R. W. Thomas. *Automotive Ind* 99:44 Jl 15 '48

Phenomenal expansion continuing in the petrochemical industry in the Gulf Coast region. *il Oil & Gas J* 47:237-8 Je 24 '48

Pilolite latex 190 in latex compounding. J. A. Weatherford and F. J. Knapp. *bibliog India Rubber World* 117:743-4+ Mr '48

Process problems in low temperature emulsion polymerization. J. E. Troyan. *bibliog diags Rubber Age* 63:585-95 Ag '48

Synthetic rubber pilot plant; Phillips petroleum co. J. V. Hightower. *il diags Chem Eng* 55:100-2 Je '48

Vulcanization of synthetic rubbers by the Peachey process. N. Bekkedahl and others. *bibliog J Res Nat Bur Stand* 40:1-7 Ja '48

Mixing with resins

Coumarone-indene resins in rubber compounding. T. A. Bulfant. *Rubber Age* 62:300-2 D '47

Impact resistant resin-rubber blends. H. S. Sell and R. J. McCutcheon. *India Rubber World* 119:68-8+ O '48

New York group symposium on synthetic resins. *India Rubber World* 117:221-3 N '47; *Rubber Age* 62:200-1 N '47

Phenolic resins in natural and synthetic rubber. J. C. Searer. *Rubber Age* 62:191-3 N '47

Plastics alloyed with synthetic rubber. *il Sci Am* 177:266-7 D '47

Solubility of hydrocarbon resins and their behavior in rubber compounds. P. O. Powers. *bibliog India Rubber World* 117:351-4 D '47

Synthetic elastomers as plasticizers for condensation polymers. R. G. Newberg and others. *bibliog Rubber Age* 62:533-9 F '48

Synthetic elastomers as plasticizers for polyvinyl resins. D. W. Young, R. G. Newberg and R. M. Howlett. *bibliog Ind & Eng Chem* 39:1446-52 N '47

Synthetic resins in rubbers; abstract. L. Boller. *Mod Plastics* 25:176+ My '48

Union of resin and rubber; Tuf-Lite produced by Goodyear tire & rubber co. W. H. Aiken. *il Mod Plastics* 26:99-103 O '48

Use of high styrene resins in non-marking soles and heels. M. E. Jones and D. M. Pratt. *il India Rubber World* 117:609-10 F '48

Moisture absorption

GR-S 65, a low water absorption copolymer. J. C. Madigan and others. *bibliog diags Ind & Eng Chem* 40:307-11 F '48

Oxidation

Quantum yield of oxidation of hevea rubber and GR-S. E. J. Hart and M. S. Matheson. *bibliog diags Am Chem Soc J* 70:784-91 F '48

Research

Chlorostyrene polymers with butadiene. H. C. Jones. *il Rubber Age* 63:735-40 S '48

Compounding pure gum GR-S stocks; effect of inorganic oxides and oxidizing agents. H. L. Fisher and A. R. Davis. *bibliog Ind & Eng Chem* 40:143-50 Ja '48

Contributions of organic chemistry to the war effort; synthetic rubber. R. F. Dunbrook. *bibliog India Rubber World* 117:203-7, 355-9+, 486+, 617-19, 745-8 N '47-Mr '48

Copolymers of butadiene with halogenated styrenes. C. S. Marvel and others. *bibliog Ind & Eng Chem* 39:1486-90 N '47

Effect of 2-vinylpyridine on properties of GR-S polymers. W. W. Rinne and J. E. Rose. *bibliog Ind & Eng Chem* 40:1437-40 Ag '48

Evaluation of MTM modifier in GR-S-10. G. R. Mitchell and others. *Rubber Age* 62: 56-8 O '47

GR-S-10 compared with GR-S in vulcanizates containing various fillers. L. O. Amberg. *Ind & Eng Chem* 40:487-93 Mr '48

Measurement of ultrasonic bulk-wave propagation in high polymers. A. W. Nolle and S. C. Mowry. *il diags Acoustical Soc Am J* 20:432-9 J '48

Mooney viscosity and gel plasticity relationship for GR-S-xylene gels. J. C. Driskell and R. D. Kracke. *il India Rubber World* 118:66-7 Ap '48

RUBBER, Artificial—Research—Continued

Onward motives in research; Priestley medal address, 1948, E. R. Weidlein. *Chem & Eng N 26:2767-8 S 20 '48*

Particle size in latex as related to synthetic rubber properties and high solids latex fluidity. A. M. Borders and R. M. Pierson. *bibliog il Ind & Eng Chem 40:1473-7 Ag '48*
 Polysiloxane elastomers. C. M. Doede and A. Panagrossi. *bibliog Ind & Eng Chem 39:1372-5 N '47*

Rubber research; abstract. E. U. Condon. *Mech Eng 70:237-8 Mr '48*

Semi-ebonites. F. S. Rostler. *India Rubber World 117:492-7 Ja '48*

Synthesis of amino mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. *Am Chem Soc J 69:2672-4 N '47*

Synthesis of mercaptans from olefin sulfides. H. R. Snyder, J. M. Stewart and J. B. Ziegler. *Am Chem Soc J 69:2675-7 N '47*

Synthetic elastomers as plasticizers for condensation polymers. R. G. Newberg and others. *bibliog Rubber Age 62:533-9 F '48*

X-ray diffraction study of some synthetic rubbers at low temperatures. E. E. Hanson and G. Halverson. *bibliog 2pls diags Am Chem Soc J 70:779-83 F '48*

Temperature effect

Effect of storage and temperature on flexibility of natural and synthetic rubbers. J. B. Gregory and others. *il India Rubber World 117:611-16 F '48*

Testing

Crack growth in GR-S tread stocks; relation to state and cure and composition. A. E. Juve. *bibliog Ind & Eng Chem 39:1494-8 N '47*

Effect of storage and temperature on flexibility of natural and synthetic rubbers. J. B. Gregory and others. *il India Rubber World 117:611-16 F '48*

Evaluation of sodium-catalyzed copolymers of 1,3-butadiene and styrene. A. E. Juve and others. *bibliog Ind & Eng Chem 39:1490-3 N '47*

Hysteresis and heating in vulcanized rubber. S. Oberto and G. Palandri. *il diags Rubber Age 63:725-34 S '48*

Improvements in rubber testing in the government synthetic rubber program. R. D. Stiehler and R. W. Hackett. *bibliog Anal Chem 20:292-6 Ap '48*

Measurement of the scorch and cure rate of vulcanizable mixtures using the Mooney plastometer. R. Shearer and others. *India Rubber World 117:216-19 N '47*

Precision of cut-growth test for GR-S vulcanizates. R. E. Morris and R. D. Ford. *il Rubber Age 62:411-15 Ja '48*

Relationship between laboratory abrasion tests and service performance. T. R. Griffith and others. *bibliog Anal Chem 20:337-47 S '48*

Strain test for evaluation of rubber compounds. F. L. Roth and R. D. Stiehler. *bibliog India Rubber World 118:367-71 Je '48*; Same. *J Res Nat Bur Stand 41:87-93 Ag '48*

Tire use

Behavior of rayon tire cord during latex dipping. H. H. Gillman and R. Thoman. *bibliog diags Ind & Eng Chem 40:1237-42, il '48*

Comparison of synthetic and natural rubbers in tires and tubes. G. R. Smye. *India Rubber World 118:804-6 S '48*

Crack growth in GR-S tread stocks; relation to state and cure and composition. A. E. Juve. *bibliog Ind & Eng Chem 39:1494-8 N '47*

Manufacture and properties of Philprene low-temperature rubber. W. A. Schulze and others. *India Rubber World 117:739-42 Mr '48*

New synthetic for auto tires; casings made of Utiptara. *Bsns W p26+ F 21 '48*

X-435 rubber; shipments of new synthetic product on way to tire companies. K. Rannels. *Automotive Ind 98:25 Ap 15 '48*

Waste

Reclaiming agents for synthetic rubber. W. S. Cook and others. *bibliog Ind & Eng Chem 40:1194-202 J1 '48*

Structure of polymers and its influence on their behavior during reclaiming. D. S. le Beau. *bibliog Rubber Age 62:51-5 O '47*

RUBBER, Effect of light on

Photo-oxidation of olefins. L. Bateman. *bibliog Rubber Age 63:334-6 Je '48*

RUBBER, Expanded

Foam rubber for auto seats; how it's done; illustrations with text. *Bsns W p38-40 Ap 10 '48*

French foam rubber industry. *India Rubber World 117:536 Ja '48*

RUBBER, Reclaimed. See Rubber waste**RUBBER, Sponge**

Carpet wear increased with sponge rubber used as carpet cushion on theater floors. W. L. Jantzen. *Soc Motion Picture Eng J 50:436-8 My '48*

Engineering with sponge rubber. C. S. Yoran. *il diags Rubber Age 63:199-203 My '48*

Sponge rubber relief models. *il Rubber Age 62:662-3 Mr '48*

Sponge rubber; Spon. *il Chem Eng 55:173 My '48*; *Chem Ind 62:770 My '48*

RUBBER act of 1948

Complete text. *Rubber Age 63:68-70 Ap '48*

RUBBER bearings. See Bearings, Rubber**RUBBER carpets. See Carpets, Rubber****RUBBER cement**

Adhesives of natural or synthetic rubber. K. Rose. *il Materials & Methods 27:96-8 F '48*

Comparison of cements for bonding nitrile rubber to steel. R. E. Morris and others. *diags Rubber Age 64:53-6+ O '48*

Fire hazards and protection of rubber cement. E. E. Turkington. *diags Rubber Age 62:61-3 O '47*

RUBBER chemicals

Application of cinchona alkaloids in the rubber industry. R. F. A. Altmann and G. J. Van der Bie. *bibliog Ind & Eng Chem 40:897-904 My '48*

Chemical specialties attain greater stature; rubber chemicals. W. J. Geldard. *Chem Ind 63:390 S '48*

Medical problems encountered in the manufacture of American-made rubber. R. H. Wilson and others. *bibliog Ind Med 17:199-207 Je '48*

Petroleum products for rubber. F. S. Rostler and M. B. Pardew. *bibliog(33 ref) flow chart il diags Rubber Age 63:317-26 Je '48*

Symposium on application research methods. M. G. Shepard. *il Chem & Eng N 26:1140-3 Ap 19 '48*

Vulcanisation accelerators; review of German rubber chemicals. *Chem Age (Lond) 58:105 Ja 17 '48*

See also

Butadiene

Phenyl-naphthylamine

RUBBER cutting

Andal process for producing cut rubber thread. flow chart *il Rubber Age 63:741-2 S '48*

RUBBER factories

Turning loss into profit; neat trick, and he did it; Hewitt rubber co. salvaged by Thomas Robins, Jr. *il Mod Ind 16:67-8+ Ag '48*

Electric equipment

Assures accurate positioning; mold handling equipment used in vulcanizing air foam rubber cushions; Goodyear tire & rubber co. A. T. Bachelor. *il diags Machine Design 20:144+ My '48*

Conference covers electrical engineering problems in industry. *Rubber Age 63:348-9 Je '48*

Large factory servicing; Dunlop rubber co. *il Elec R (Lond) 143:615-19 O 22 '48*

New developments in electric equipment for the rubber industry. B. J. Dalton. flow diags *il diags Elec Eng 67:119-24+ F '48*

Papers digested for A.I.E.E. rubber and plastics conference. *il Elec Eng 67:704-6 J1 '48*

Employees

\$200 for 60c; rubber industry's labor relations. *Bsns W p97-8 S 4 '48*

United States rubber industry employment, wages, hours; 1939, 1943, 1947; tabulation. *India Rubber World 118:410 Je '48*

RUBBER factories—Continued**Equipment**

Flame-failure controls protect boilers at U.S. Rubber plant. *Il* Power Generation 52:59 Ag '48
 Speke factory of the Dunlop rubber company, limited. *Il* plan Engineering 164:612, 620-3 D 26 '47

Safety measures

Safety in mechanical goods curing. J. E. Lovas. *Il* diags Rubber Age 63:57-9 Ap '48
 Safety voice of Firestone. *Il* Nat Safety N 57:18-19+ Je '48

RUBBER footwear. See Shoes, Rubber

RUBBER gloves. See Gloves, Rubber

RUBBER goods

Industrial uses of rayon expanding in rubber field. Rubber Age 62:132 N '47
 Pliotherm radiant heating is developed by Goodyear. Rubber Age 62:677 Mr '48
 Textile products for the rubber industry. L. Larrick. *India Rubber World* 117:208-11+ N '47

See also
 Gloves, Rubber
 Rubber toys
 Tires, Automobile

Manufacture

Application of high-frequency dielectric heating to rubber and plastics. C. Mann. *Il* *India Rubber World* 118:68-70 Ap '48; Abstract. Elec World 129:120+ My 8 '48; Discussion. *India Rubber World* 118:70-1 Ap '48

Coagulant deposition of latices; natural latex. H. B. Morris and R. F. Hinderer. bibliog and patent list Rubber Age 63:745-7 S '48
 Injection molding of rubber goods. D. F. Fraser. *Il* *India Rubber World* 118:357-9; Discussion. 360-2 Je '48
 Molding of O-ring packings. F. E. Clark and others. *Il* Rubber Age 62:652-4 Mr '48

See also
 Golf balls—Manufacture

RUBBER goods, Mechanical

Anti-vibration mountings; recent Metalastik development. *Il* diags Automobile Eng 37:505-6 D '47; Engineering 164:455 N 7 '47
 Comparing rubber with respect to their properties, mechanical applications and economies in production. J. F. McWhorter. *Il* diags Machine Design 20:138-43 F '48
 Comparison of synthetic and natural rubbers in mechanical rubber goods. C. L. Brittain. *India Rubber World* 118:806-7 S '48
 How to design molded and extruded rubber parts. J. H. Gerstenmaier. *Il* diags Machine Design 20:115-17 Ag '48
 Panel discussion on compounding mechanicals. *India Rubber World* 118:542 Jl '48
 Research on rubber for mechanical engineers. J. F. D. Smith. bibliog (51 titles) diags Mech Eng 70:118-22 F '48

Rubber springing; survey of the technical aspects in vehicle suspension. A. E. Moulton and O. H. Varga. *Il* diags Automobile Eng 38:143-8 Ap '48

Rubber springs, shear loading. J. F. D. Smith. diags A S M E Trans 70:227-32 Ap '48

Safety in mechanical goods curing. J. E. Lovas. *Il* diags Rubber Age 63:57-9 Ap '48
 Solid rubber construction in new ball mill. Chem Age (Lond) 59:10 Jl 3 '48

Survey of resilience and the development of resilient compounds; packing materials for hydraulic machinery. R. F. Shaw. bibliog (65 titles) *Il* *India Rubber World* 118:796-801+ S '48

See also
 Bearings, Rubber

RUBBER hose. See Hose

RUBBER industry and trade

After the turn of the year. J. L. Collyer. Comm & Fin Chr 167:330 Ja 22 '48
 British rubber and American demand. Economist 153:1052-3 D 27 '47

Current rubber situation; abstract. J. Hay. Rubber Age 63:338 Je '48

Great merchant adventurer; Harrisons & Crosfield makes money in anything, all over the world. G. Burck. *Il* Fortune 38:32-9+ Jl '48

International rubber study group 5th meeting. Washington, April 26-29. Rubber Age 63:208 My '48

Malayan rubber and the United States. Economist 154:986 Je 12 '48

Post-war rubber industry; abstract. P. W. Litchfield. Rubber Age 62:197 N '47

Rubber and Geneva. Economist 153:969-71 D 13 '47

Rubber industry faces dilemma. Chem & Eng N 26:242-3 Ja 26 '48

Rubber industry stretches into non-rubber fields. *Il* Bsns W p21-3 S 25 '48

Rubber production near prewar peak. Barron's 28:37 O 25 '48

Rubber seems headed for higher prices; effects of stockpiling. Barron's 28:36-7 Je 21 '48

Rubber starts another busy year; tire-replacement market will wane, but others will hold up. C. R. Sutton. Barron's 28:19 Ja 19 '48

Rubber starts moving more swiftly toward inevitable oversupply. Barron's 28:36 F 2 '48

Short- and long-term business outlook held good; study group estimates rubber use for 1948 and 1949. *India Rubber World* 118:388-90 Je '48

Synthetics versus Singapore. A. G. Smith. Land Econ 24:89-94 F '48

See also
 Rubber—Prices

Directories

Rubber red book; directory of the rubber industry. 1947 ed v 6 \$35p \$5 Rubber Age, 250 W. 57th st, New York 19 '47

Regulation

Controls stay. Bsns W p25 N 29 '47

Opinions voiced on rubber legislation; abstract. J. L. Collyer; H. W. Fisher. Chem & Eng N 25:3866-7 D 29 '47

President signs compromise rubber bill keeping U.S. in synthetic rubber industry; with text of act. Rubber Age 63:66-70 Ap '48

Representative Shafer introduces synthetic rubber legislation. H.R.5007. Chem & Eng N 26:297 F 2 '48

Rubber act of 1948 becomes law. *India Rubber World* 118:247-51 My '48

Securities

Another look at the rubbers; with statistical position of leading tire and rubber manufacturers. G. W. Mathis. *Il* Mag of Wall St 81:708-9+ Mr 27 '48

1948-49 prospects for the rubbers; with statistical position of leading tire and rubber manufacturers. H. L. Blackburn. *Il* Mag of Wall St 82:546-7+ Ag 28 '48

Statistics

Exports of natural rubber from Singapore and the Malayan Union, Jan.-Sept. 1947; list by countries. For Comm W 29:28 D 20 '47

Rubber and products, 1941-1946. Survey of Cur Bsns 1947 Sup p 169-70 [supplemented in monthly numbers]

Rubber industry shatters 1947 production estimates. Rubber Age 62:429 Ja '48

U.S. foreign trade in rubber and manufactures hits peak. W. N. Small. *Il* For Comm W 31:3-4+ Ap 24 '48

World rubber supply up. Bsns W p24 My 8 '48

Argentina

Argentine rubber industry. For Comm W 31:37 My 29 '48; Same. Rubber Age 63:478 Jl '48

Bolivia

Bolivian production and sales in 1947. For Comm W 31:29 My 8 '48

Brazil

Report on rubber production in Brazil. Rubber Age 64:62 O '48

China

Rubber industry in China attaining new high levels. Rubber Age 64:77 O '48

RUBBER industry and trade—Continued**Detroit**

Rubber industry in the Detroit area. G. M. Wolf. *il India Rubber World* 119:63-5 O '48

Europe

European rubber industry; abstracts. R. E. Hatsch. *India Rubber World* 117:507 Ja '48; Rubber Age 62:420 Ja '48

Far East

Postwar packaging and shipping of plantation rubber and their effect on quality. H. W. Courtney. *il India Rubber World* 118:521-4 Jl '48

Germany

Post-war technical journal reviews German rubber industry. Rubber Age 63:486 Jl '48
Prospects in the rubber industry. *For Comm W* 31:30 Je 12 '48
Review of the German rubber industry. *India Rubber World* 118:277-8 My '48

Great Britain

Rubber statistics, United Kingdom, first six months of 1948. *For Comm W* 32:35 Ag 21 '48; Same. Rubber Age 63:734 S '48

See also

Dunlop rubber company

Hungary

Hungarian rubber-goods production and trade in 1947. *For Comm W* 31:23-4 Ap 17 '48

Malayan Union

Malayan rubber industry. E. M. McColm. *il Chem & Eng N* 25:3792-3, 3852-3 D 22-29 '47
Malayan rubber trade at record level in 1947. *For Comm W* 30:31-2 F 28 '48

Report from Singapore; if the U.S. lets the rubber market go to pieces, kiss Malaya goodbye. C. Burck. *il map Fortune* 37:92-5-4 Je '48

Report on rubber policy issued by Malayan agency. Rubber Age 62:431 Ja '48

Netherlands Indies

Estimated rubber production, Netherlands Indies, Jan.-Sept. 1947. *For Comm W* 30:25 Ja 10 '48

Rubber situation in 1947. *For Comm W* 31:36 My 22 '48; Same. Rubber Age 63:340 Je '48

New Jersey

New Jersey, rubber pioneer. *il India Rubber World* 118:219-20+ My '48

Nigeria

Status of the rubber industry in Nigeria. Rubber Age 62:190 N '47

Norway

Norway's rubber industry and trade in 1947. *For Comm W* 31:36 My 22 '48; Same. Rubber Age 63:478 Jl '48

South Africa

Report on the rubber manufacturing industry in South Africa. Rubber Age 62:64 O '47

United States

1947 production likely to set new record; rubber legislation hearings on. *India Rubber World* 117:373-4+ D '47

Rubber bill hearings concluded; 1948 industry outlook held good. *India Rubber World* 117:509-10+, 631-4+ Ja-F '48

Symposium on national rubber situation, Washington, Jan. 13. Rubber Age 62:432 Ja '48; *India Rubber World* 117:626-7 F '48

RUBBER laboratories

Goodrich dedicates research center. *Chem & Eng N* 25:1912 Je 28 '48
New Goodrich research center. *il Rubber Age* 63:469-70 Jl '48

Philblack's laboratory; illustrations with text. Rubber Age 62:298-9 D '47

Research center seeks new uses for rubber; Goodrich's \$5-million laboratory. *il Esns W* p46 Jl 10 '48

Small laboratory rubber mill. G. Goldfinger and others. *diag India Rubber World* 118:372 Je '48

RUBBER latex

Antiskid rug backings; newer formulations spark specialty makers' interest. D. A. Neidig. *il Chem Ind* 62:58-9 Ja '48

Coagulant deposition of latices; natural latex. H. B. Morris and R. F. Hinderer. *bibliog and patent list Rubber Age* 63:745-7 S '48

Colloidal stability of rubber latex. E. G. Cockbain. *bibliog diag Rubber Age* 62:649-51 Mr '48

Commercial aspects of natural and synthetic latices; abstracts. R. V. Yohe. Rubber Age 63:72a Ap '48; *India Rubber World* 118:240 My '48

Latex compounds for the paper industry. E. G. Partridge. *Paper Tr J* 127:45-8 Ag 5 '48; Same cond. *India Rubber World* 118:221-3 My '48

Positex. *il India Rubber World* 118:518-20 Jl '48

Preparation of dried latex films. S. H. Maron and B. Madow. *bibliog Anal Chem* 20:545-7 Je '48

Preparation of natural rubber latices. E. M. McColm. *Can Chem & Process Ind* 32:221-4 Mr '48; Same. *il Rubber Age* 62:655-8 Mr '48

Recent developments in latex technology; abstract. R. J. Noble. Rubber Age 63:72a Ap '48

Recovery of rubber latex from guayule shrub. E. P. Jones. *bibliog flow sheet il Ind & Eng Chem* 40:864-74 My '48

Rubber reinforcing agent; pliolite latex 190. J. A. Weatherford and F. J. Knapp. *Sci Am* 178:81 F '48

Variability of crude rubber; effect of latex nonrubber substances on vulcanization and aging characteristics of crude rubber. E. M. McColm and J. W. Haebele. *bibliog Ind & Eng Chem* 40:311-16 F '48

See also

Rubber, Artificial—
Latex

Analysis

Natural vulcanization accelerators in hevea latex. R. F. A. Altman. *bibliog (95 ref) Ind & Eng Chem* 40:241-9 F '48

Testing

Latex strainability test. P. D. Brass and D. G. Slovin. *Anal Chem* 20:172-4 F '48

RUBBER lining

Sodium chloride versus construction materials. O. S. True. *Chem Eng* 54:228+ D '47

Sulphuric acid versus construction materials. O. S. True. *Chem Eng* 55:235 My '48

RUBBER machinery

Design and construction of arc welded steam platens. H. O. Lehman. *il diags Rubber Age* 62:545-6 F '48

Machine for use in buffing strip samples of rubber materials. C. K. Chatten and others. *il diags Rubber Age* 63:743-4 S '48

Recent developments in rubber and plastics machinery. E. S. Thompson. *il India Rubber World* 118:209-15+ My '48

RUBBER models. See Models, Rubber**RUBBER plants and planting**

Domestic natural rubbers. F. E. Clark. *il Chem & Eng N* 26:926-9 Mr 29 '48

See also

Goldenrod

RUBBER reclamation. See Rubber waste**RUBBER research**

Basic reactions: occurring during rubber reclaiming. D. S. le Beau. *bibliog India Rubber World* 118:59-65 Ap; 119:69-74 O '48; Abstract. *Chem Eng* 55:268+ F '48

Chemical engineering materials of construction; hard rubber. F. S. Malm. *Ind & Eng Chem* 40:1809-12 bibliog (93 ref, p 1810-12) O '48

Coagulant deposition of latices; natural latex. H. B. Morris and R. F. Hinderer. *bibliog and patent list Rubber Age* 63:745-7 S '48

Correlation of surface area and dehydrogenation activity for a chromia-alumina catalyst. J. R. Owen. *Am Chem Soc J* 69:2559-60 O '47

Effect of pigments on the hardness of natural and synthetic rubbers. L. H. Cohan and R. E. Smith. Rubber Age 63:465-8 Jl '48

RUBBER research—Continued

- Influence of cloud points of coumarone-indene resins on their use in rubber compounding; Chemigum N-3, a styrene-butadiene-type rubber (GR-S 38) and natural rubber, P. B. Stickney, L. E. Cheyney and P. O. Powers. *bibliog Ind & Eng Chem* 40:267-71 F '48
- Measuring moldability of rubber compounds; abstract. P. H. Mensier. *India Rubber World* 117:536-4 Ja '48
- Methods for measuring dynamic mechanical properties of rubber-like materials. A. W. Nolle. *bibliog il diags J Ap Phys* 19:753-74 Ag '48
- Photo-elastic properties of rubber. L. R. G. Treloar. *bibliog il diags Rubber Age* 63:195-8 My '48
- Photo-oxidation of olefins. L. Bateman. *bibliog Rubber Age* 63:334-6 Je '48
- Physical properties of diene polymers; effects of side vinyl groups and other structural features. J. D'anni. *bibliog Ind & Eng Chem* 40:253-6 F '48
- Pyrolysis of high polymers; new apparatus developed in rubber research. *diag Chem Age (Lond)* 58:426-7 Mr 27 '48
- Research on rubber for mechanical engineers. J. F. D. Smith. *bibliog (51 titles) diags Mech Eng* 70:118-22 F '48
- Rubber from goldenrod. F. L. McKennon and others. *flow chart il India Rubber World* 118:655-9+, 802-3+ Ag-S '48
- Semi-ebonites. F. S. Rostler. *India Rubber World* 117:492-7 Ja '48
- Steam and radio-frequency curing of natural rubber. A. H. Sharbaugh. *diags Ind & Eng Chem* 40:1254-8 J '48
- Symposium on application research methods; rubber chemicals. M. G. Shepard. *il Chem & Eng N* 26:1140-3 Ap 19 '48
- Variability of crude rubber; effect of latex nonrubber substances on vulcanization and aging characteristics of crude rubber. E. M. McCollm and J. W. Haeefe. *diags Ind & Eng Chem* 40:311-16 F '48

See also

Rubber, Artificial—
Research

RUBBER technology conference, London, England, 1948

Conference, 2d, London, June 23-25; with abstracts of papers. *Rubber Age* 63:455-64+ J '48; *India Rubber World* 118:679-82+ Ag '48

London rubber chemistry conference reviewed. *Chem & Eng N* 26:2712 S 13 '48

RUBBER thread

Andal process for producing cut rubber thread. *flow chart il Rubber Age* 63:741-2 S '48

RUBBER tires. See Tires, Rubber**RUBBER toys****Manufacture**

Use of direct-fired warm air heaters aids production of rubber latex toys. *il Rubber Age* 62:416 Ja '48; *Same. Dom Eng* 171:152 F '48

RUBBER waste

Basic reactions occurring during rubber reclaiming. D. S. le Beau. *bibliog India Rubber World* 118:59-65 Ap; 119:69-74 O '48; *Abstract. Chem Eng* 55:268+ F '48

Quantitative estimation of GR-S in rubber reclaim. D. S. le Beau. *Anal Chem* 20:355-8 Ap '48

Testing reclaimed rubber. F. L. Kilbourne, Jr. *Rubber Age* 62:541-2 F '48

See also

Rubber, Artificial—
Waste

RUBBER workers of America, United. See United rubber workers of America**RUBBERIZED fabrics**

Positex. *il India Rubber World* 118:518-20 J '48

RUBBERS (footwear). See Shoes, Rubber**RUBICAM, Raymond, 1932-**

Sketch, porcover) *Bsns W* p6 N 15 '47

RUBIDIUM

Violet asymmetry of potassium resonance lines under high rubidium vapor pressure. S. Ch'en. *bibliog Phys R* 73:1470 Je 15 '48

Isotopes

Beta- and gamma-rays of Rb⁸⁶. D. J. Zafarano and others. *diag Phys R* 74:682-6 S 15 '48

Coincidence experiments on Sc⁴⁶, Ga⁷², Au¹⁹⁸, and Rb⁸⁶. E. T. Jurney. *Phys R* 74:1049-52 N 1 '48

Radioactive isotopes of Ru and Tc. D. T. Eggen and M. L. Pool. *bibliog Phys R* 74:57-62 J 1 '48

RUBIDIUM dichloriodide

Solubility of cesium and rubidium dichloriodides in hydrochloric acid solutions. P. Bender and R. A. Strehlow. *Am Chem Soc J* 70:1995-6 Je '48

RUDD, Wortley Fuller, 1876-

Rudd sees science education as key to southern progress; accepts Herty medal. *pors Chem & Eng N* 26:1434, cover My 17 '48

RUDDERS

Attachment for turning rudder shafts. J. Clement and J. A. Kruse. *il Mach* 64:168 Ja '48

RUGGLES, Arthur Gordon, 1875-1947

Sketch. W. A. Riley. *Science* 108:430-1 O 22 '48

RUGOSIMETER. See Surfaces—Smoothness testing**RUGS**

Antiskid rug backings; newer formulations spark specialty makers' interest. D. A. Neidig. *il Chem Ind* 62:58-9 Ja '48

Glanor in rugs; carpet industry injects showmanship into its selling, improves its designs. *il Bsns W* p88 Ja 17 '48

Infrared dries rugs faster. W. W. Clouse. *il Elec World* 130:100 J 17 '48

Selection and care of rugs and carpets. *diags Consumers Res Bul* 20:11-13 N '47; 21:16-18 Ja '48

Sequence control uses endless belt; printing machine used in making felt-base rugs. P. W. Vessey. *il Machine Design* 20:130 Ap '48

Unique face-lifting for 99 year old building; Baltimore rug and linoleum store. *il plan diags Am Bld* 69:118-19 D '47

Advertising

Full-color advertising plus complete merchandising gets results for Tumble-Twist rugs. *il Ptr Ink* 224:36-7 S 3 '48

RUHR valley

Why the Ruhr is lagging. J. Joesten. *Comm & Fin Chr* 167:1423+ Ap 1 '48

RULANE gas company

Preferred stock offered. *Comm & Fin Chr* 167:2582 Je 14 '48

RULE of the road at sea

Whistle argument; analysis and plan. R. F. Farwell. *il U S Naval Inst Proc* 74:472-81 Ap '48

ROMANIA*See also*

Petroleum industry
and trade—
mania

Commercial policy

Nationalized trading companies established. *For Comm W* 33:24-5 O 30 '48

Economic policy

Comprehensive nationalization law enacted. *For Comm W* 32:25 Ag 21; 25 S 18 '48

Government controls over economic activity. *For Comm W* 31:18 Ap 24 '48

Economic relations*Russia*

Romania signs economic agreement with U.S.S.R. *For Comm W* 33:24 O 30 '48

RUN-OFF

Drainage of airport surfaces; some basic design considerations. S. W. Jens. *diags Am Soc C E Proc* 73:983-1007 S '47; *Discussion*. 74:746-68, 895-900 My-Je '48

Experimental studies on water-shed run-off; abstract. C. R. Hursh. *Pub Works* 78:34-5 N '47

RUNWAYS. See Airports—Runways**RURAL electric cooperative association, National. See National rural electric cooperative association**

RURAL electrification administration

Pockets full of money, REA ready to set lending and building marks. *Elec World News* ed 130:5 J1 10 '48

REA loans for office equipment and buildings may arouse Congress. *Elec World* 130:83 J1 31 '48

REA, 1947; with tabulated data, 1945-1947. *Elec World* 129:170 Ja 17 '48

REA sets up new group handling power supply. *Elec World* 129:70 Je 19 '48

REA's power division ok's new loans fast. *Elec World* 129:14 Je 26 '48

Status of western REA-financed systems; tabulation. *Elec West* 100:70-1, 77 F '48

Utilities blasted by Wickard as he submits REA report. *Elec World News* ed 129:4 Ja 24 '48

RURAL fire protection. See Fire protection, Rural

RURAL hospitals. See Hospitals, Rural

RURAL housing. See Housing, Rural

RURAL hygiene. See Hygiene, Rural

RURAL sociology. See Sociology, Rural

RURAL telephone service. See Telephone service, Rural

RUSH, Benjamin, 1869-1948

Benjamin Rush as a promoter of useful knowledge; abstract. L. H. Butterfield. *Science* 106:628 D 26 '47

Sketch. *por East Underw* 49:16 Ap 30 '48; *Nat Underw* 52:11 Ap 19 '48; *Weekly Underw* 158:1310+ My 1 '48

RUSK, Dean

Portrait. *Fortune* 36:85 D '47

RUSSIA*See also*

Censorship—Russia

Chemical industries—Russia

Chemistry—Russia

Iron industry and trade—Russia

Oil shales—Russia

Petroleum supply—Russia

Radio broadcasting—Russia

Steel industry and trade—Russia

Trials (political crimes and offenses)—Russia

Vocational education—Russia

Commerce

Anglo-Russian trade. *Economist* 154:988 Je 12 '48

Anglo-Russian trade falters. *il Bsns W* p 118+ My 22 '48

Britain's trade with Russia. P. Einzig. *Comm & Fin Chr* 168:1213 S 23 '48

Developments under trade and credit agreement between U.S.S.R. and Sweden. *For Comm W* 33:22-3 O 16 '48

United States

Commerce department explains 1947 trade with Russia. *Comm & Fin Chr* 167:1556 Ap 8 '48

Doing business with Russia; tool and equipment exports to USSR. S. E. Cohen and D. Dickow. *Ind Marketing* 33:66+ Ja '48

How much merchandise have we been sending to the Soviet Union? data in terms of percentages and values released by Department of commerce. *For Comm W* 31:25 Ap 3 '48

Defenses

U.S.S.R. U S Naval Inst Proc 74:647-53 My '48

Economic conditions

Mr Molotov's Christmas box. *Economist* 153:804-5 N 15 '47

What another war would mean to Soviet Union. *il Bsns W* p 105-6+ Ag 7 '48

Economic policy

Economic brain trust of Soviet Russia. *Bsns W* p 22-4 My 15 '48

Russia experiences impact of rationing's end, price shifts. *il For Comm W* 30:8+ Mr 6 '48

Russia slaps its farmers; currency-price reshuffle. *Bsns W* p 20-1 D 20 '47

Stalin's switch in social policy. *Economist* 153:1006-7, 1044-5 D 20-27 '47; *Same*(pt 2). *Iron Age* 161:90-1 Ja 8 '48

Economic relations**Hungary**

Soviet stakes in Hungary. *Economist* 153:764+, 806 N 8-15 '47

Rumania

Rumania signs economic agreement with U.S.S.R. *For Comm W* 33:24 O 30 '48

Foreign relations

Action after Prague; Russia's coup in Czechoslovakia. *Economist* 154:361-2 Mr 6 '48; *Same* *abr. Iron Age* 161:98 Mr 13 '48

Evitability of World war III. F. B. Kraft. *Tech R* 50:210-+ F '48

Great powers in the new world order. R. Strausz-Hupé. *Ann Am Acad* 257:47-56 My '48

How strong is the eastern bloc. *map Economist* 154:363-4 Mr 6 '48

Mediterranean hot spots in the cold war. *map Bsns W* p 42+ F 14 '48

Patience, and vodka; living diplomatically with Russia. *Economist* 153:710-11 N 1 '47

Russia and world peace. E. M. Dirksen. *Paint Oil & Chem R* 110:18-20+ D 25 '47

Russia digs in to take over the Austria-Hungary empire. V. L. Horoth. *map Mag of Wall St* 81:695-7+ Mr 27 '48

China

Key to China's backdoor; Sinkiang acts as buffer state. *map Economist* 154:420 Mr 13 '48

Finland

Finnish treaty. J. H. Wuorinen. *bibliog Ann Am Acad* 257:87-96 My '48

Finnns pull it off; Russo-Finnish treaty of mutual assistance. *Economist* 154:577-8 Ap 10 '48

Next stage in Finland; Russian proposal for an alliance. *map Economist* 154:380-1 Mr 6 '48

Germany

When Stalin toasted Hitler; comments on the book *Nazi-Soviet relations, 1939-1941*. *Economist* 154:229-30 F 7 '48

Sweden

Russia eves air bases in Sweden. G. H. Smith. *Aviation W* 48:39 Ap 12 '48

United States

American voters advocate tougher Russian policy; Gallup poll. *Iron Age* 162:129 J1 15 '48

American voters voice grievances against Russia in national poll. *Iron Age* 160:131+ N 13 '47

Climax to the cold war? *Economist* 153:666-8 O 25 '47

Countries little impressed by Soviet accusations against U.S.; majority of American voters oppose lend-lease shipments to Russia; favor halting trade; Gallup polls. *Iron Age* 161:121+ F 19 '48

Fortune survey; our policy toward Russia, Marshall plan. *Fortune* 37:10+ Je '48

Have U.S.-Soviet accord and avoid world crisis. J. P. Warburg. *Comm & Fin Chr* 167:1009+ Mr 4 '48

Permanent crisis faces United States. *Baron's* 28:1+ S 13 '48

Post-war war. M. Palyl. *Comm & Fin Chr* 167:2185+ My 20 '48

Public favors stopping shipment of goods to Russia; Gallup poll. *Iron Age* 160:119 D 25 '47

Russia makes little progress in dividing American opinion; Gallup poll. *Iron Age* 160:135 N 6 '47

Soviet pressure opposed at World congress of intellectuals in Poland. B. J. Hovde. *Comm & Fin Chr* 168:1108+ S 16 '48

Three moves to avoid war with the Soviet. H. Murray-Jacoby. *Comm & Fin Chr* 167:615 F 5 '48

United States and the Soviet Union. J. N. Hazard. *bibliog Ann Am Acad* 255:84-92 Ja '48

What should be done about Russia. H. Murray-Jacoby. *Comm & Fin Chr* 167:1436 Ap 1 '48

What to do about Russia. N. Thomas. *Comm & Fin Chr* 168:1111+ S 16 '48

RUSSIA—Foreign relations—United States—*Continued*

Where do we go from here; extracts from speeches by Molotov and Forrestal. Metal Prog 52:374-5 D '47

United States—Bibliography

U.S.—Russian relations. A. Yarmolinsky and others, comps. Booklist [ALA] 44:419-22 pt 2 Ag '48

Yugoslavia

Moscow-Belgrade letters. Economist 155:629-30 O 16 '48

Industries and resources

Is Russian industry ready for war? R. Magidoff, il Factory Management 106:64a-64h My '48

National income and product of the U.S.S.R. in 1940. P. A. Baran. R Econ Stat 29:226-34 N '47

Russian production; how it stacks up. Il Bsns W p 109-10+ Je 5 '48

Soviet indices of industrial production. A. Gerschenkron. R Econ Stat 29:217-26 N '47

Soviet whaling; importance mounts and scope is broadened. Il For Comm W 31:6, 42 Je 5 '48

Soviets map their changing industry; Map of the fatherland, 1917-1947, by N. N. Mikhailov gives data on achievements and plans, maps Bsns W p97-8 Ja 10 '48

What! the profit motive! Soviet plants now earning impressive profits. Nat City Bank p71 Je '48

Navy

Big Bear wets his paws; some remarks on the Russian navy based on the secret Hitler-Molotov documents and other first-hand evidence. J. E. Wilkinson. Il U S Naval Inst Proc 74:1224-32 O '48

Soviet sea power. P. W. Rairden, jr. Il U S Naval Inst Proc 74:60-7 Ja '48

Politics and government

Mild spell in Russia. Economist 154:458-9 Mr 20 '48

Pyramid of power. A. Talerico, jr. Il U S Naval Inst Proc 74:602-11 My '48

United States and the Soviet Union. J. N. Hazard. bibliog Ann Am Acad 255:84-92 Ja '48

Statistics

Appraisals of Russian economic statistics. S. E. Harris and others. R Econ Stat 29:213-46; 30:34-41 N '47, F '48

RUSSIAN academy of sciences. See Academy of sciences of the U.S.S.R.

RUSSIAN propaganda. See Propaganda, Russian

RUTGERS university

Serological museum

New and unique kind of museum. Science 107:217 F 27 '48

RUTH, George Herman, 1894-1948

Babe Ruth and press built sports golden era. D. Daniel. por Ed & Pub 81:8 Ag 21 '48

RUTHENIUM

Analysis

Analytical methods for ruthenium. R. Thiers, W. Graydon and F. E. Beamish. bibliog (41 ref) diags Anal Chem 20:831-7 S '48

RUTILE

Method for particle size distribution for the entire subsieve range. A. E. Jacobsen and W. F. Sullivan. bibliog diags Anal Chem 19:855-60 N '47

RUTIN

Absence of protective action of rutin in anaphylactic and histamine shock. L. W. Roth and I. M. Shepperd. Science 108:410-11 O 15 '48

Control of hemorrhagic syndrome and reduction in X-irradiation mortality with a flavanone. P. E. Rekers and J. B. Field. bibliog Science 107:16-17 Ja 2 '48

Effect of flavonols on clostridium botulinum. A. A. Andersen and J. A. Berry. Science 106:644-5 D 26 '47

Effect of rutin on anaphylactic and histamine shock. R. J. Raiman and others. Science 106:363 O 17 '47; Reply. R. H. Wilson and F. DeBals. 107:369-70 Ap 9 '48

Isolation of rutin from a citrus hybrid. C. F. Krewson and J. F. Couch. bibliog Am Chem Soc J 70:257-8 Ja '48

Occurrence of rutin in a wild cherry, prunus melanocarpa (A. Nels.) Rydb. J. F. Couch. Am Chem Soc J 70:256-7 Ja '48

RUTLAND railroad

Stock to be held in trust. Comm & Fin Chr 167:1261 Mr 22 '48

RYAN aeronautical company

Ryan designing new navy plane; financial report. Aviation W 48:18 Mr 8 '48

RYANODINE

Action of ryanodine on the contractile process in striated muscle. G. A. Edwards and others. Science 108:330-2 S 24 '48

Effect of ryanodine on the oxygen consumption of periplaneta americana. C. C. Hassett. Science 108:138-9 Ag 6 '48

Plant insecticides; ryanodine, a new alkaloid from ryania speciosa Vahl. E. F. Rogers and others. bibliog Am Chem Soc J 70:3086-8 S '48

RYDBERG-RITZ formula

Rydberg-Ritz formula in quantum mechanics. R. Jastrow. bibliog Phys R 73:60-7 Ja 1 '48

RYDSTROM, Arthur

Portrait. Fortune 38:7 N '48

RYE

Rye, 1941-1946. Survey of Cur Bsns 1947 Sup p 130 [supplemented in monthly numbers]

RYKENS, Paul

Portrait. Fortune 37:79 F '48

S

SAAR valley

French customs regulations applied to the Saar. For Comm W 30:19-20 F 28 '48

SACCHARIFICATION

Evaluating fungal amylolytic materials for saccharifying fermentation mash. H. D. Reese, E. I. Fulmer and L. A. Underkofler. bibliog diags Anal Chem 20:348-53 Ap '48

SACKVILLE, New Brunswick

Sewerage

First municipal sewage-pumping station in the Maritimes. F. C. Wightman. Il Water & Sewage 85:18-20+ N '47

SACRAMENTO

Streets

Solving traffic problems; free bus rides, free parking space. Il Bsns W p22 My 29 '48

SADDLE soap. See Soap

SADDLERY. See Harnesses

SAFE deposit box insurance. See Insurance, Safe deposit box

SAFE deposits

Experience shows danger in giving vault information by phone. H. M. Hoover. Bankers Mo 65:21 S '48

56 helpful ideas on check and safe deposit liability. Il Bankers Mo 65:22+ Mr '48

Safe deposit income doubled by a fair increase in rentals. C. W. Fishbaugh. Il Bankers Mo 64:529 N '47

Law

Fiduciaries and safe deposit business. T. H. Coogan. Comm & Fin Chr 168:1216 S 23 '48

Sixteen important principles of safe deposit management. Bankers Mo 65:42 Ap '48

SAFETY advertising

Advertising needs new look; safety advertising by insurance companies; abstract. H. Armand. Safety Eng 95:34+ Mr '48

Advertising saves lives. J. C. Sterling. Il Nat Safety N 56:20-1+ N '47

Mother Goose characters in safety copy. Il Ed & Pub 81:62 Ja 10 '48

SAFETY at sea

- Emergency loud-speaker equipment for Good neighbor fleet. G. M. Marr and G. A. Slatic. *il* Marine Eng 53:75-8 F '48
Prevention of accidents peculiar to the operation of ore carriers. W. R. Macdonald. *Marine Eng* 53:61-3 F '48

SAFETY belts

- Crash injury research on safety belts. *Mech Eng* 70:439-40 My '48
Safety belts and harness. *il* Nat Safety N 57:71+ Mr '48
When can we stop guessing about safety belts? C. W. Rose. *Nat Safety N* 58:104-5+ O '48

SAFETY campaigns

- Are special campaigns useful? panel discussion. *Nat Safety N* 57:28-9+ Ja '48
Traffic safety campaign to use Mother Goose characters. *il* *Ptr Ink* 222:45 F 20 '48

SAFETY cartoons

- Serious work for the funny folk; comic strip characters to be used on safety posters. *il* *Nat Safety N* 57:22-3 Ap '48
13 ways not to burn your factory. *Paper Ind* 29:1349 D '47

SAFETY codes

- Refrigeration safety code concerns you. W. R. Hainsworth. *Refriger Eng* 56:465+ My '48

See also

National electrical safety code

SAFETY committees

- Looking for trouble; safety vigilantes try to find hazards before they cause injury; American wheelabrator and equipment corporation; illustrations with text. *Nat Safety N* 57:32 Ja '48
Safety in a tropical setting; Trinidad leaseholds limited's safety programme. A. R. Taylor. *il* *Nat Safety N* 56:34-6 D '47
Safety, pride of Lehigh Steel. *il* *Mod Ind* 15:18+ Ap '48

SAFETY conferences

- Form President's conference on industrial safety. *Nat Safety N* 58:33 Ag '48
How to make safety meetings tick. J. W. Read. *Am Gas J* 168:24-6 F '48
Safety program; unique tool of management. H. H. Anderson. *il* *Safety Eng* 94:12-13+ D '47

SAFETY congresses

- Greater New York safety council 18th annual convention. New York. *Safety Eng* 95:28-31+ Je '48
New York's safety congress attracts record throng. *Safety Eng* 95:34+ My '48

SAFETY contests and awards

- Bridgeport quarry again wins safety award. *il* *Explosives Eng* 25:140 S '47
Burra Burra mine wins safety award. S. E. Sharp. *il* *Explosives Eng* 26:178+ N '47
Butler mine wins trophy three times in a row. *il* *Explosives Eng* 26:153-4 S '48
Butler mine wins two in a row; Jermyn-Green coal co. K. A. Lambert. *Explosives Eng* 25:147+ S '47
Eleven Westinghouse plants win awards for safety. *Iron Age* 162:235-6 O 14 '48
Flint, Mich. fleet wins safety honors. G. A. Brandenburg. *Ed & Pub* 81:46 S 25 '48
Iriana daily wins safety editorial award. *Ed & Pub* 81:58 J 24 '48
It pays to know the slogan; employees receive cash award for knowing weekly safety slogan at Marcus Hook, Pa. plant of American viscose corp. *il* *Nat Safety N* 57:66 Ja '48
Make safety rate in '48; Kimble glass division of Owens-Illinois glass company safety slogan contest. *Nat Safety N* 57:48+ Ap '48
Making safety a habit cuts accident rates; Beech aircraft corp. *il* *Mill & Factory* 42:116-17 My '48
Mines and quarries have best safety year; bronze Sentinels of safety trophies awarded. *Nat Safety N* 58:37 S '48
National safety competition of 1947; awards of certificates; list of contest winners, 1925-1947. F. T. Moyer. *il* *Explosives Eng* 26:71-5+ My '48
Naval air material center awarded top safety honor. *Safety Eng* 94:38 D '47

- Naval safety award to Naval supply center, Oakland, Calif. *Safety Eng* 95:38 Je '48
Newspapers' trucks lower accident rate. *Ed & Pub* 81:28 My 1 '48
Prizes for safe workers; panel discussion. *Nat Safety N* 57:34-5+ F '48
Union Pacific coal company again wins top safety honors. *Explosives Eng* 26:140-1+ S '48
Winners of railroad employee safety contest. *Nat Safety N* 57:21 Je '48

See also

- Fire protection— Harriman memorial contests and medals for safety awards

SAFETY departments

- Safety investment; when the safety and purchasing departments work together. *Nat Safety N* 57:6 Mr '48

SAFETY devices and measures

- Accident control at Los Alamos. W. H. Hollis. *East Underw* 49:31 My 28 '48
Accident prevention methods which have proved successful in gaining cooperation of foremen and workmen. W. L. Roscoe. *il* *Rock Prod* 51:82-4 My; 114-15 Je '48
Accident reduction through labor-management cooperation; abstract. E. Dale. *Management R* 37:432-5 Ag '48
Boss's eye view. T. M. Martin. *Safety Eng* 96:22-3+ JI '48
Channel for ideas; employee ideas aid production and safety when encouraged by a well-organized suggestion system. P. L. Wise. *Nat Safety N* 56:24-5 D '47
Chemical tests of intoxication as an aid to traffic and industrial safety. R. N. Harger. *bibliog Ind Med* 17:52-6 F '48
Cleaning with hot water and steam; hazards and precautions; industrial data sheet. *diags Nat Safety N* 58:106+ O '48
Correct use and maintenance will keep ropes safe! S. A. Reed; D. H. Dyer. *il* *diags Safety Eng* 96:24-9+ O '48
Give safety a shot of color. C. H. Cole. *Safety Eng* 96:28+ S '48
Handling and storage of sulfur; hazards and precautions; industrial data sheet, *bibliog il* *Nat Safety N* 57:40+ F '48
Housing a 2,000,000 volt X-ray machine; Babcock & Wilcox co. *il* *Nat Safety N* 57:33, 99 Je '48
How we convince 22,000 workers that safety is their business; B. F. Goodrich co. T. J. Cain, Jr. *il* *Factory Management* 105:114-17 D '47
Industry's interest in health and safety services. H. W. Schwartz. *Ind Med* 17:287-9 Ag '48
Inside that coil of rope; safety in the use of manila rope. A. R. Hatch. *il* *Nat Safety N* 57:38-9+ F '48
Keep those floors clean! for safety, morale, sanitation and fire prevention. C. W. Jenkins. *il* *Safety Eng* 95:16-17+ Ap '48
Management participation in safety. W. S. Smith. *Factory Management* 106:242+ F '48
National safety news; annual safety equipment issue; buyers' guide. *bibliog il* *diags Nat Safety N* 57:2-238 Mr '48
Perchloric acid; hazards and precautions; data sheet. *bibliog Nat Safety N* 56:40+ D '47
Prevention of accidents; functions of the safety officer; abstract. G. P. Barnett. *Chem Age (Lond)* 58:423 Mr 27 '48
Progress in industrial accident prevention. F. Lang. *Management R* 36:604-6 N '47
Radiation hazards in industry; suggested safety measures. *Chem Age (Lond)* 59:9+ JI 3 '48
Remote-control manipulator; mechanical hands to perform dangerous tasks. *il* *Chem Age (Lond)* 58:645 My 8 '48
Safe practices in using fiber rope. D. Attaway. *Pet Eng* 19:47-8 JI '48
Safety activity chart keeps accidents down. E. C. Hinckley and G. E. Stolberg. *Factory Management* 106:84-5 JI '48
Safety devices for nuts and bolts; abstract. H. Schaefer. *diags Product Eng* 19:140-1 JI '48
Safety equipment; engineering data manual. *il* *Mill & Factory* 43:139-46 JI '48 [reprints 25c]
Safety is contagious; keeping interest alive. R. DeReamer. *Nat Safety N* 57:34+ Ja '48

SAFETY devices and measures—Continued

Safety program that overlooks nothing; Fisher Body-Ternstedt division, General Motors, J. E. Kane, Factory Management 106:97-101 Je '48

Safety rules for maintenance men; Mathieson alkali works; maintenance data sheet, Factory Management 105:133-4+ N '47

Safety suggestions for all employees, E. Dutcher, Paper Ind 30:277-8 My '48

Television monitors dangerous operation; high-thrust rocket motors, *il* Electronics 21:168+ Ap '48

This draft is secure; overcoming one of the hazards in stevedoring, *il* Nat Safety N 56:58-9 N '47

Use screwdrivers correctly, *il* Paper Ind 29: 1651 F '48

Useful citizens with criminal tendencies; toxic materials, H. B. Stere, *il* Nat Safety N 58:32-3+ Ag '48

War deaths in peacetime; danger from war souvenirs, H. Schneider, *il* Nat Safety N 58:26-7+ S '48

Watchman safety; industrial data sheet, *il* Nat Safety N 56:40+ N '47

When do violations of safety rules justify discharge? discussion, Nat Safety N 56: 30-1+ N '47

See also

Automobile driving

Clothing, Protective

Eye—Protection

Factories—Cleanli-

ness

Factories—Lighting

Fire protection

First aid in illness

and injury

Floors—Anti-slip

surfaces

Goggles

Inflammable liquids

Lightning protection

also subdivision

special subjects, e.g.

Aviation

Chemical engineer-

ing laboratories

Coal mines and min-

ing

Cotton mills

Cranes, derricks, etc.

Electric equipment

Elevators

Hoisting

National safety coun-

cil

Piping—Identifica-

tion

Poisons, Industrial

Railroads—Signals

Respiratory appara-

tus

Safety at sea and

other headings be-

ginning Safety

Traffic lines

Train signals

Watchmen

also subdivision

Safety measures under

special subjects, e.g.

Ladders

Lumbering

Machinery

Motor trucks, Indus-

trial

Oxyacetylene appara-

tus

Railroads

Scaffolding

Solvents

Bibliography

Safety library. Published in monthly numbers of National safety news

Psychological aspects

Accent on the human element, W. A. Cutter, Safety Eng 95:53-4 F '48

Job placement in' accident control, W. H. Hollis, Nat Safety N 56:48+ D '47

Psychological aspects of accident prevention, H. J. Sloman, U S Bur Mines Information Circ 7460:1-10 '48

Psychological factors in accident prevention, A. J. Cardall, Personnel J 26:288-93 F '48

Psychology of safety, F. J. Sluze, Pet Refiner 27:85-9 J '48

Safety attitudes of airline employees, W. A. Cutter, *il* Air Transport 6:44-6 F '48

SAFETY education

Miss Doyle to head School division of N.Y. safety council, Safety Eng 96:47 Ag '48

Poor college safety training chided, Chem & Eng N 26:3261 N '48

See also

Safety engineering— Safety instructions
Study and teaching and training

SAFETY engineering

Accident prevention, using operations-analysis procedures, J. V. Grimaldi, Mech Eng 70:528-30 Je '48

Applied accident control, R. J. Crosby, Safety Eng 94:11+ D '47

Big little business, K. W. Francis, Nat Safety N 57:35+ Ja '48

Blueprint for safety; safety in plant design, L. E. Stout, *il* Nat Safety N 58:18-19+ S '48

Britain's accident front, J. Burton, Safety Eng 95:9+ Je '48

Clear the track for safety! W. A. Cutter, Safety Eng 95:44-7 Ja '48

Color, an aid to safety engineering, C. H. Cole, Oil & Gas J 47:264+ J '48

Diary of a safety engineer; safety story, B. Andrews, Nat Safety N 56:36+ N '47

[cont monthly]

Finger tip experience, C. H. Weiser, Safety Eng 95:19-20 Ap '48

Foreman, key man in plant safety; accident prevention work at New Jersey

Standard refineries, W. C. Uhl, *il* Pet Processing 3:211-14 Mr '48

Getting management's active participation, W. S. Smith, Nat Safety N 57:38 Ja '48

Getting results in safety, A. A. Bennion, *il* Safety Eng 94:17+ N '47

Guard the power press through engineering, L. A. Faulkner, *il* Safety Eng 94:18-19+ N '47

Machines or monsters; importance of reduc-

ing mechanical hazards, J. J. Duggan, *il* Safety Eng 95:16-17+ Mr '48

Obstacles to industrial safety, J. S. White, Midwest Eng 1:28-30 S '48

Plant layout and design, *il* Nat Safety N 57: 13-14+ Mr '48

Safety, E. W. Martin, Ind Med 17:297-8 Ag '48

Safety's place in ceramic plant engineering, J. L. Carruthers, Nat Safety N 57:37+ F '48

Small plant safety pays, A. E. Armstrong, *il* Safety Eng 95:22-3+ Mr '48

Three E's for safety, F. J. Sluze, Pet Refiner 27:127-8 O '48

Too much safety talk? A. L. Dickie, Nat Safety N 57:20-1 My '48

Wanted; rain-makers; safety engineering in the small plant, A. M. Baltzer, Nat Safety N 57:32+ F '48

Why not crack down on the 85 per cent? heavy percentage of injuries due to failure of human element, G. S. Kallenbaugh, Safety Eng 95:19+ F '48

See also

Safety departments

Study and teaching

Prevention training moves on! courses of Center for safety education, Division of general education, New York university, *il* Safety Eng 95:16 F '48

Safety education in engineering colleges, G. H. Dunstan, Nat Safety N 56:56+ D '47

Safety engineer; the man without a training, J. S. Felton, Ind Med 17:123-4 Ap '48

SAFETY engineers

Choosing a safety director, P. W. Graff, *il* Coal Age 53:98-100 J '48

Code of ethics for industrial safety men, E. W. Martin, Safety Eng 95:13 My '48

Occupational disease of safety engineers, E. W. Martin, Safety Eng 94:20 D '47

What is a safety man? W. H. Hollis, Nat Safety N 57:32+ Je '48

Who is the safety engineer's boss? A. L. Dickie, Nat Safety N 57:37, 106-7 Je '48

Who prevents accidents? A. L. Dickie, Nat Safety N 58:37+ J '48

SAFETY engineers, American society of. See American society of safety engineers

SAFETY equipment

Modern industrial safety equipment, A. Ashburn, *il* diags Am Mach 92:101-16 O 7 '48

More plastics in safety equipment, J. R. Fisher, *il* Mod Plastics 26:77-81 O '48

National safety news; annual safety equipment issue; buyers' guide, bibliog *il* diags Nat Safety N 57:2-238 Mr '48

Plastic stars in new film; moving picture stresses role of Plexiglas in industrial safety, L. S. Metcalfe, *il* Safety Eng 95:17+ Ja '48

Safety; new equipment announced 1947-48, Chem Ind 63:406-7 S '48

See also

Clothing, Protective Helmets, Welders'

Fire extinguishers Respiratory appara-

Gloves, Safety tus

SAFETY exhibits

Posters with three dimensions; life size safety tableaux in a show window, C. L. R. Dougherty, *il* Nat Safety N 57:18-19+ F '48

SAFETY exhibits—Continued

Safety center established; permanent exhibit of safety equipment. *Safety Eng* 94:22 D '47

Safety hits the road; mobile units of the Ethyl corporation present unusual fuel-handling safety show. *Safety Eng* 94:27 D '47

SAFETY hats. See Hats, Safety**SAFETY in the home**

Safety for the household. *il U S Nat Bur Stand Circ* 463:1-190; pa 75c Supt. of doc. '48

SAFETY inspection

Preventive maintenance, another name for accident prevention. *J. J. Hoffman. Nat Safety N* 58:28-9+ J1 '48

SAFETY instructions and training

All-purpose safety car on Canadian Pacific. *il Ry Age* 125:252-3 J1 31 '48

Ammunition for education. *R. Clair. Nat Safety N* 57:20-1+ Je '48

Company employees learn first aid. *il Mill & Factory* 42:136 Je '48

Creation of interest in accident prevention. *J. C. Lannen, Pulp & Pa of Can* 49:139-40 J1 '48

How Anaconda trains employees to work safely and efficiently. *L. F. Bishop. il Eng & Min J* 149:91-4 Ag '48

How we convince 22,000 workers that safety is their business. *B. F. Goodrich co. T. J. Cain, jr. il Factory Management* 105:114-17 D '47

Know-how is not enough; false assumption that job training and safety training are one and the same. *B. Burns. il Safety Eng* 94:11+ N '47

LPG safety booklets seen useful in training of industry employees. *E. Lamm. Nat Pet N* 40:34+ F 4 '48

Man behind the man behind the machine. *H. W. Heinrich. Safety Eng* 95:9+ Ap '48

Quarryman; illustrations from National safety council's safety training film. *Jackhammer safety. Nat Safety N* 57:24-5 Ja '48

Safety at Wood River sold to workers. *H. D. Dale. il Oil & Gas J* 46:206+ Ap 1 '48

Safety by rule; employee booklets and manuals. *il Nat Safety N* 58:22-3+ J1 '48

Safety; go and no-go. *M. E. Sanders. il Factory Management* 106:62-3 Ap '48

Safety in industrial training; LeTourneau technical institute. *W. J. Brooking. il Nat Safety N* 57:22-3+ Je '48

Safety school cuts steel erection accidents. *M. G. Gaskin. Eng N* 141:52 S 30 '48

Toy that saves lives; model railroad in safety instruction car. *il Nat Safety N* 58:50+ Ag '48

Training aids. *il Nat Safety N* 57:197+ Mr '48

Training for safety. *E. H. Van Oot. il Coal Age* 53:77-9 O '48

Training for safety. Is it different? *E. S. Hannaford. Nat Safety N* 58:26-9+ Ag '48

Visual aids in industrial training. *C. R. Coneway. Safety Eng* 94:42-3 D '47

Visual education for safety; Stanolind oil & gas company. *Tulsa. A. Gibbon. il World Oil* 127:58+ Mr '48

See also
Safety posters

SAFETY lamps

Permissible mine equipment approved to Jan. 1, 1947, with appended list of available flame-lamp fuels. *A. B. Hooker. U S Bur Mines Information Circ* 7432:43-4 D '47

SAFETY lamps. Electric

Lamp-battery washer cuts time and maintenance. *il diag Coal Age* 53:88 Ja '48

SAFETY laws and regulations

Rhode Island safety codes supplement labor laws. *R. M. Murray. Ind Stand* 18:279-80 N '47

See also
Labels—Law

SAFETY literature

Aids at your service. *R. T. Binder. Nat Safety N* 57:26+ My '48

Putting life into the safety story; employee publication is an effective medium. *G. A. Riley. il Nat Safety N* 56:26-7+ D '47

Safety information on tap; filing system. *R. Parks. Nat Safety N* 57:36 Je '48

SAFETY movement

Connecticut plan for accident reduction. *E. W. Martin. Nat Safety N* 57:84-5 Ja '48

Getting acquainted with the safety family. *J. M. Moncrief. Nat Safety N* 57:88-9 Ja '48
Safety makes cents. *R. C. Coleman. Safety Eng* 95:11+ Mr '48

Women's work

New look in safety. *Mrs G. W. Jaqua. Nat Safety N* 56:18-19+ D '47

Cuba

Safety down in Cuba. *B. Moas. il map Safety Eng* 96:21-3 O '48

SAFETY organization

Do you understand? education, engineering and enforcement. *R. H. Ferguson. Nat Safety N* 58:30-1+ Ag '48

Down to earth; accident prevention. *W. J. McChesney. Safety Eng* 96:17+ S '48

Elected employee patrol for safe, healthful plant. *J. E. Spellman. Factory Management* 106:131 J1 '48

Engineering for safety; Republic aviation corp. *W. I. Stieglitz. Aeronautical Eng R* 7:18-23 F '48

How safety adds to profits. *E. E. Juckett. Am Mach* 92:108-9 My 20 '48

Management and employees see safety program pay off; Republic oil refining co. *H. Howell. Pet Refiner* 27:75-9 Mr '48

New plan for accident prevention set up by Weirton safety group. *Iron Age* 162:146+ S 16 '48

Obstacles to industrial safety. *J. S. White. Midwest Eng* 1:28-30 S '48

Part-time safety director. *Nat Safety N* 58:103 O '48

Reviving safety programs. *C. E. Nolan. Safety Eng* 95:22-3 F '48

Safety effort rewarded; program developed by Sharp & Dohme, inc. *R. R. Bresler. Safety Eng* 94:30 N '47

Safety program essentials. *J. M. Roche. Nat Safety N* 57:32-3+ Ap '48

Safety program; unique tool of management. *H. H. Anderson. il Safety Eng* 94:12-13+ D '47

Small shop safety organization. *E. E. Beck. Nat Safety N* 56:37+ D '47

Teamwork for safety; management, miners and the union; joint program in the Beckley field. *W. A. Stanbury, jr. il Coal Age* 53:92-5 F '48

\$3.5-billion problem; industrial safety; Forstmann labor-management safety program. *il Bsns W p* 102+ S 25 '48

Three-level organization is key to successful safety at Utopia. *F. J. Sluze. il Pet Processing* 3:249 Mr '48

See also
Safety committees
Safety departments

SAFETY paper. See Paper, Safety**SAFETY posters**

How much humor in safety posters? panel discussion. *Nat Safety N* 56:22-3+ D '47

Illuminating address. *L. Davis and B. Midgley. il Nat Safety N* 57:36 F '48

It rained posters; safety poster contest sponsored by R. R. Donnelley & sons co. *il Nat Safety N* 57:46 Je '48

Kompany Kat sells safety. *Factory Management* 106:73 F '48

Limericks cure carelessness; limerick-plus-cartoon campaign. *il Factory Management* 106:131 Mr '48

Serious work for the funny folk; comic strip characters to be used on safety posters. *il Nat Safety N* 57:22-3 Ap '48

SAFETY shoes. See Shoes, Safety**SAFETY signs**

Safety signs. *il Nat Safety N* 57:198 Mr '48

SAFETY slogans

It pays to know the slogan; employees receive cash award for knowing weekly safety slogan at Marcus Hook, Pa. plant of American viscose corp. *il Nat Safety N* 57:66 Ja '48

Make safety rate in '48; Kimble glass division of Owens-Illinois glass company safety slogan contest. *Nat Safety N* 57:43+ Ap '48

They remember the slogans printed on matchbooks; Portland, Oregon, plant of the Hy-ster co. *il Nat Safety N* 56:59 N '47

SAFETY standards

- First safety standard for conveyors. H. C. Keller. *Il Ind Stand* 19:17-18 Ja '48
- Ladder standards brought up-to-date. *Il Nat Safety N* 58:28+ S '48
- New safety features in code to guard the power press. T. O. Meisner. *Il Ind Stand* 19:25-7 My '48
- Power press guards. *Il Safety Eng* 95:12-15+ Ap '48
- Safety for those who knead the dough; ASA safety code for bakery equipment. *Safety Eng* 95:32+ Mr '48
- Safety in maintenance and construction. D. Farrell. *Iron & Steel Eng* 25:60-1 S '48
- Safety standards for anthracite mines; revision of I. C. 7282. U S Bur Mines Inform-Circ 7449:1-59 '48
- Standards for safety. *Il Nat Safety N* 57:4-6+ Mr '48
- Standards in international flying. E. P. Warner. *Ind Stand* 18:272-5 N '47
- SAFETY valves**
- Flat and bevel seat valve compared. A. H. Moulton. *diags Power Pl Eng* 51:93 N '47
- SAFELAY stores, inc.**
- Safeway suit ends. *Bsns W* p34 Ap 10 '48

SAFROLE**Analysis**

- Determination of safrole in the oil of *cotea cymbarum*; a cryoscopic method. A. J. Shukis and H. Wachs. *bibliog Anal Chem* 20:248-9 Mr '48

SAGINAW, Michigan**Water supply**

- 80-mi. pipeline taps Lake Huron; with cost data. *Il map Eng N* 140:646-9 Ap 29 '48

SAILPLANES. See Gliders**ST JOSEPH lead company**

- St Joseph Lead adds to its large ore reserves. *Barron's* 28:34 Mr 22 '48

ST LAURENT, Louis Stephen, 1882-

- Portrait. *Bsns W* p 115 Ag 21 '48

ST LAWRENCE river**Power utilization**

- All or nothing is Truman view on St Lawrence power program. *Elec World* 130:85 S 11 '48
- Army engineers okay St Lawrence project, FPC next to take action. *Elec World* 130:80 J1 31 '48
- Dewey's St Lawrence plan for power only. *Elec World* 129:76 My 8 '48
- Little opposition develops to St Lawrence power plan. *Eng N* 141:75 O 14 '48
- New move to get St Lawrence power started by Governor of New York. *Eng N* 140:673 My 6 '48
- New York and Ontario push joint power project. *Eng N* 141:17 J1 29 '48
- St Lawrence plan up for government approval. *Elec World News* ed 130:5 J1 24 '48
- St Lawrence power and private utilities. *Barron's* 28:31 Ag 9 '48
- ST LAWRENCE** waterway and power project
- Department of commerce unit makes St Lawrence report. *Ry Age* 123:922-3 N 22 '47
- Opposition to St Lawrence project develops in Senate. *Il Elec World News* ed 129:12-13 Ja 24 '48
- St Lawrence seaway may become vital oil artery. *map W* Oil 127:34+ F '48
- Senate gets favorable report on St Lawrence. *Ry Age* 124:177-8 Ja 17 '48
- What now on the St Lawrence? R. Ames. *Pub Util* 41:426-30 Mr 25 '48

ST LOUIS**See also**

- Retail trade—St Louis Trade unions—St Louis

Industries

- St Louis; industrial hub. *map Bsns W* p63-4+ Je 12 '48
- Touring St Louis. L. Schulenburg. *Il Chem & Eng N* 26:2430-1 Ag 16 '48

Railroads

- Advises I.C.C. to keep Santa Fe out of St Louis; Boies-Nye proposed report. *Ry Age* 123:912-13 N 22 '47
- Argue on St Louis entry for Santa Fe. *Ry Age* 124:536-7 Mr 13 '48

- Santa Fe denied St Louis entry. *Ry Age* 125:215-17 J1 24 '48

Sanitary affairs

- Does St Louis smoke law work? H. B. Lammer; R. E. Tucker. *Heating-Piping* 19:80-1 N; 100-1 D '47
- It is not true that St Louis smoke ordinance doesn't work! R. R. Tucker. *Heating-Piping* 20:96-7 F '48

ST LOUIS-SAN FRANCISCO railway

- Equipment trusts offered. *Comm & Fin Chr* 167:474; 168:651, 1698+ Ja 26, Ag 16, O 25 '48

- 'Frisco, now rich in cash, all set to hang on to it. *Barron's* 27:37 D 8 '47

ST LOUIS southwestern railway

- Cotton Belt equities untouched by trusteeship. M. Halpern. *Barron's* 27:34 N 24 '47

ST PETERSBURG, Florida**See also**

- Retail trade—St Petersburg, Florida
- SAINT SOPHIA, Constantinople**
- Hagia Sophia, Istanbul; preliminary report of a recent examination of the structure; abstract. W. Emerson and R. L. Van Nice. *Am Cer Soc J* 31 (Cer A):122 Je 1 '48

SALAD dressing

- Mix product and package, result: smash hit; Hitting Post salad dressing. *Il Sales Management* 61:48+ S 15 '48
- Production reaches new high in 1947. *Oil Paint & Drug Rep* 154:71 Ag 16 '48
- Salad dressing hearings. *Food Ind* 20:70, 414 Ja, Mr '48

Rating

- Mayonnaise. *Consumers Res Bul* 22:10-11 Ag '48

SALAMANDERS

- Polydactyly and limb duplication occurring naturally in the tiger salamander, *ambystoma tigrinum*. D. W. Bishop and R. Hamilton. *bibliog Il Science* 106:641-2 D 26 '47

SALARIES

- Analyses and comparisons of advertising agency salary costs and personnel. I. Rubel and N. Fields. *Ptr Ink* 22:37-40 My 21 '48
- Bank pay boosted; program of Illinois bankers assn. *Bsns W* p97-100 Mr 20 '48
- How much is a bank job worth? salary administration. W. Kennedy. *Il Burroughs Clearing House* 32:17-19+ Ap '48
- Program of salary adjustments promotes good employee relations. E. N. Hay. *Bankers Mo* 65:7-8+ F '48
- Salary administration and supervision. J. S. Brown. *Trusts & Estates* 86:333-6 Ap '48
- Salary schedule is needed for each job; use of job evaluation. R. J. Miller. *Il Bankers Mo* 65:18+ Mr '48
- Survey of professional salaries. M. J. Sunderland. *Personnel J* 26:332-5 Mr '48
- Wages and salaries, by industry, 1929-46; tabulations. *Survey of Cur Bsns* 27:sup27-8 J1 '47

See also

- | | |
|--------------------|---------------------|
| Advertising man- | Government em- |
| agers—Salaries | ployees—Salaries |
| Ceramic engineers— | and wages |
| Salaries | Municipal employees |
| College professors | —Salaries |
| and instructors— | Sales managers— |
| Salaries | Salaries |
| Engineers—Salaries | Social workers— |
| | Salaries |

- SALARY savings insurance.** See Insurance, Life
- Salary savings plan

SALEM, Massachusetts**Sewerage**

- Grit and grease chamber at Salem and Peabody. F. L. Flood. *plans diags Boston Soc C E J* 34:332-5 O '47

SALES

- Terms of sale. C. B. Everberg. *Credit & Fin Management* 50:9-11 Ag '48
- What price no compete contract? when selling a business, contractors should consider carefully all contract limitations. *Dom Eng* 171:106 Ja '48

See also

- Auctions
- Installment plan
- Price fixing, Resale

SALES—Continued

Tying-in contracts

Legal aspects of tying-in contracts. A. W. Gray. *Ind Marketing* 32:56+ D '47

SALES, Conditional

Buying new equipment through conditional sales contracts; Chicago, Burlington & Quincy. *Ry Age* 124:1085 My 29 '48
Do's and don'ts to avoid time payment headaches. *Sales Management* 60:62-4 Je 15 '48
Financing railroad equipment purchases; a comparison of equipment trust and conditional sales methods in the light of changing interest rates. F. C. Flechter, Jr. *Ry Age* 124:292-5 F 7 '48

See also

Fixtures (law)

SALES, Special. See Special sales

SALES agents. See Manufacturers' agents

SALES campaigns

Beating oil pinch; Eureka Williams corp. uses save-fuel theme to sell new oil burners. *il Bsns W* p48+ F 7 '48

Koret hikes sales, pares costs, in back-to-school apparel promotion. E. Gidlow. *il Sales Management* 61:44-5 Ag 1 '48

Planning for a sales campaign. G. H. Wood. *Soap & San Chem* 23:36-7+ D '47

Promotion must be many-sided. *Plastics* 8:32+ Ja '48

Stopette crashes cold market; sells 1,000,000 bottles in first year. W. A. Wright. *il Sales Management* 61:37-9 Ag 1 '48

Switches sales strategy to meet oil shortage; Williams Oil-O-Matic, concentrating on replacement market. *Sales Management* 60:53-4 Mr 15 '48

Timken nips oil burner sales decline with fuel saving plan. D. G. Baird. *il Sales Management* 60:46+ Mr 15 '48

Tupperware makes whirlwind debut via big store demonstrations. B. G. Priestley. *il Sales Management* 60:106+ Ap 15 '48

SALES committees

Management by committee; its Trane's approach to sales; ten department heads guide sales policies. T. Hancock. *Sales Management* 61:37-9 O 15 '48

SALES contests

Consumer quiz wins driver-salesmen's support; Golden State's unionized salesmen Gold Rush contest. *Sales Management* 61:54 S 1 '48

Dollars in advance, with a string to them. H. W. Dunk. *Ptr Ink* 221:64+ N 21 '47

Lavish prizes spur Bendix toward \$85,000,000 sales goal. W. F. Linville. *il Sales Management* 59:37-9 D 1 '47

Sales contests are the leading factor in our success; Panther oil & grease mfg. co. O. B. Swallow. *il Ptr Ink* 224:29-31 J 16 '48

Why merchandise prizes spur Beatrice salesmen to extra effort; prizes are within reach of all, employees receive the tools to win, and prize books go into homes. L. A. Berger. *il Sales Management* 61:136+ O 15 '48

SALES contests, Dealers'

Laundrell spurs sales with free-for-all prize contest; dealers, dealer salesmen, wholesale salesmen. *il Sales Management* 59:110+ N 10 '47

SALES contests, Employees'

Employe sweepstake opens 18,000 new outlets for Arden Farms. *il Sales Management* 61:102-4 J 1 '48

See also

Bank employees—Contests

SALES conventions

Bendix theater for sales training and demonstration purposes. *il Am Bsns* 18:38+ My '48

Better distributor sales meetings cut merchandising costs. J. J. De Mario. *Ind Marketing* 33:43+ F '48

Distributors' salesmen sit in on trial of Alibi Ike; traveling show is substituted for long-winded sales conference. C. J. Swan. *il Ptr Ink* 225:32-5+ N 5 '48

Eight program ideas for sales meetings. *Sales Management* 61:64 S 15 '48

Frigidaire's fidgetless dealer meets; they're produced with skits. *il Sales Management* 60:60-2 My 20 '48

Ingenuity helps sales meetings. H. W. Bluethe. *il Ind Marketing* 33:52+ Ja '48

Norton company employs showmanship to sell its salesmen on new product. *Ind Marketing* 32:74+ D '47

Playlet is medium for sales education; advertising agency's day at F. Jacobson & sons sales convention. C. J. Swan. *il Ptr Ink* 224:33-5 J 1 '48

Sales meetings too talky? playlets pay off for Jayson. *il Sales Management* 60:89 My 20 '48

Seven-Up spices facts with fun at annual bottler's sales confab. *il Sales Management* 61:95 J 15 '48

Sight and motion put pace and punch into Seagram's sales confab. *il Sales Management* 61:70+ O 1 '48

Successful sales meetings. *Management R* 37:204-6 Ap '48

Super-sales meeting; device for splicing two feuding sales forces; Gould storage battery corp. J. A. Gilruth. *il Sales Management* 61:54+ O 1 '48

Visual-vocal presentation explains ads to salesmen; 35-minute script, coordinated with slides introduces Norton 32 Aluminum. C. J. Swan. *il Ptr Ink* 224:36-7 S 24 '48

Why jobber salesmen flock to road show once a year. C. J. Swan. *il Ptr Ink* 223:34-6 My 21 '48

SALES correspondents

Five ways sales correspondents can help you sell your advertising program. C. Rondomanski. *Ptr Ink* 221:63 D 26 '47

Sales correspondent; forgotten man in the sales department? *Sales Management* 60:122+ Je 15 '48

SALES costs

Auto expenses run 5½ to 6 cents per mile on General Foods fleet; costs of traveling salesmen by car in 1948. *Sales Management* 61:132+ S 15 '48

Cost of keeping salesmen in the field rises 40-50 per cent since 1939; 1948 survey of salesmen's expense account practices; tabulation. *il Sales Management* 61:44-6 J 1 '48

When the controller says costs are too high; Allis-Chalmers industrial sales setup. J. L. Singleton. *Sales Management* 60:37-9 My 20 '48

See also

Salesmen—Expenses

Accounting

Analysis and control of distribution costs. P. G. Brown. *J Account* 86:237-8 S '48

Analytical and accounting control of sales and gross profit by punched cards; R. G. Le-Tourneau, Inc. L. P. Riddle. *il N A C A Bul* 29:323-34 N 15 '47

Distribution costs as a budget tool; abstract. C. W. Scheib. *Management R* 37:319-21 Je '48

Do not overlook expenditures related to sales when calculating your net profits. A. C. Kiechlin. *Inland Ptr* 121:45-6 S '48

Selective selling spells volume for Sylvania salesmen. T. Armstrong. *Sales Management* 61:114+ O 15 '48

We plugged the leaks in profits through tighter sales control; Michigan wholesalers, Inc. G. E. Voorhees. *Sales Management* 60:56+ Ap 15 '48

SALES departments

Check list of functions of modern sales management. H. Simmons. *Ptr Ink* 222:40-2+ Ja 23 '48

Healthy climate for advertising; how do you create it? tieup between advertising and sales. W. Guild. *Sales Management* 61:86+ Ag 15 '48

New sales plan for a new era; Allis-Chalmers mfg. co. J. L. Singleton, map *Ind Marketing* 32:41+ N '47

Organization of the selling function in a department store. J. B. Brooks. *J Marketing* 13:189-94 O '48

See also

Sales correspondents

Records

See also

Sales records

SALES engineering (term)

Why neglect sales engineering? H. R. Beatty.
J Eng Educ 38:559-64 Ap '48

SALES estimates

Budget controls for better business; Cutter laboratories use sales budget committee to forecast its sales. H. Lange. Am Bsns 18: 18-20 O '48

Federal Reserve survey of consumer finances; uses of data in sales forecasting. D. M. Holthausen. Comm & Fin Chr 167:2745+ Je 24 '48

How straight can we shoot in long-range sales forecasting? G.E. estimates on 18 electrical appliances. R. H. Colley. Sales Management 61:34+ Jl 1 '48

How to size up the sales potential for industrial products; Sterling sanders. J. A. Proven. Sales Management 61:78+ Ag 1 '48

Individual firm sales forecasting. I. Wallace. J Marketing 13:183-8 O '48

Interlocking the sales forecast with production planning. D. M. Rush. N A C A Bul 29:551-60 Ja 15 '48

Sales budget; blueprint for more efficient marketing. C. W. Smith. map Sales Management 61:37-40 Jl 15; 48+ Ag 1 '48

We read our sales future in seven simple charts. J. G. Salisbury. Sales Management 61:76+ S 1 '48

SALES executives, National federation of. See

National federation of sales executives

SALES forecasting. See Sales estimates**SALES letters**

Adhecupod letters; nine keep-in-mind attitudes for writing sales letters. H. D. Shaw. Ptr Ink 222:76+ Mr 19 '48

Don't make it too letter perfect. D. Ross. Ptr Ink 221:61 D 26 '47

Five ways sales correspondents can help you sell your advertising program. C. Rondomanski. Ptr Ink 221:63 D 26 '47

Humanizing the business letter; Sonotone keeps customer sold. C. C. Agate. Ptr Ink 224:64-5+ Jl 16 '48

More information and less noise make sales letters click. H. D. Shaw. Ptr Ink 224:56+ Ag 20 '48

Not every one can write a good sales letter, but most can learn; four rules and five formulas. E. N. Mayer, jr. Ptr Ink 223:76+ Ap 16 '48

Wordy, woozy, wasteful; are your business letters like that? R. M. Gamble. Sales Management 60:63+ My 1 '48

See also

Advertising, Mail Salesmen—Letters to
Christmas letters customers

SALES management

ATF's kit stimulates branch office meetings. Sales Management 61:86-7 O 1 '48

Are salesmen employees, or a different breed of cats? O. C. Cool. Sales Management 60: 75-7 Ap 1 '48

Check list of functions of modern sales management. H. Simmons. Ptr Ink 222:40-2+ Ja 23 '48

Creed prepared by the National federation of sales executives. Sales Management 60: sup4+ My 1 '48

Cut the high cost of selling. R. D. Crisp. Ind Marketing 33:36-7+ My '48

Dealer salesmen appraise faults and virtues of their bosses; member firms of Grocery manufacturers of America cooperate in survey. P. Salisbury. Sales Management 61: 41-4 Jl 15 '48

Effective sales analysis through control records; White & Bagley co. E. G. Bagley. Ind Marketing 32:46+ N '47

Functional blueprint for modern sales management. H. Simmons. Ptr Ink 224:54+ Jl 16 '48

Greet your salesmen with appropriate cards. F. W. Sullivan. Ptr Ink 223:36+ Ap 9 '48

How Kaiser captures 20 per cent of aluminum market in 13 months; Permanente products co. B. Inch. Sales Management 60: 37-9 Je 15 '48

How to cut waste out of salesmen's selling hours; parcels time according to potential of each account. R. A. Siegel, jr. Sales Management 59:74+ N 20 '47

How top management can guide sales and marketing plans; authority and responsibility of each executive should be defined. R. D. Crisp. Ptr Ink 223:29-30 Ap 9 '48

How 221 typical sales executives divide their time and run their jobs. Sales Management 61:46-8+ Ag 15 '48

Is today's selling lousy? Gas Age 100:25+ N 27 '47

Keeping your sales from hitting the skids. Il Mod Ind 16:46-9 O '48

Machinery and equipment manager turns to sales engineering. B. Lester. Ind Marketing 33:41-2 Je '48

Management by exception; bread and butter problems of a sales manager. J. A. Murphy. Adv & Sell 40:56 D '47

New sales plan for a new era; Allis-Chalmers mfg. co. J. L. Singleton. map Ind Marketing 32:41+ N '47

Revitalize your sales force. A. Michelson. Am Gas Assn Mo 30:29-31 Je '48

Sales outlook; national prosperity will depend on salesmanship. W. J. Gerwe. Credit & Fin Management 50:18-19+ Mr '48

Sales tools for 1948 are sharpened at Boston meeting. Sales Management 60:114-15 F 1 '48

Selective selling spells volume for Sylvania salesmen. T. Armstrong. Sales Management 61:114+ O 15 '48

Selling in 1948. A. Schindler. Sales Management 60:sup3-6 Mr 1 '48

Selling in the buyer's market; product, service, promotion, sales personnel, and public relations. L. R. Walter. Ind Marketing 33: 52+ F '48

Selling in the postwar market; H. E. Dickerman mfg. co. R. V. Wheeler. map Steel 122:84-5+ F 23 '48

Selling to the second strata of buyers. E. Whitmore. Am Bsns 13:8-9+ Mr '48

Stimulate your sales by bringing back lost customers. H. Simmons. Ptr Ink 223:31 Je 25 '48

Super-sales meeting; device for splicing two feuding sales forces, Gould storage battery corp. J. A. Gilruth. Il Sales Management 61:54+ O 1 '48

Sylvania's heart-to-heart talks with salesmen about policies. W. R. Lockridge. Sales Management 61:86+ Jl 1 '48

Three-man territory setup keeps sales wheels greased for Standard Motors; territory man and field man work with wholesalers; dealer cooperation man serves dealers. J. F. Kenny. Il Sales Management 60: 94+ Ap 15 '48

Three tools for sales management; bookings and backlog report; daily billing report; product sales and profit trend data sheet. N. A. Coan. N A C A Bul 29:1201-10 Je 1 '48

Top management is responsible for sales planning and control. A. C. White. Ptr Ink 222:29-31 F 6 '48

Upper Midwest conference to discuss sales problems. Sales Management 61:103-4 O 1 '48

Use of salesmen's time. F. Rundell. Inland Ptr 120:76-8 D '47

Using the telephone to help mechanize your field sales. K. F. Kirchhofer. Ind Marketing 33:49+ My '48

Wanted; an annual distribution audit. C. W. Smith. Sales Management 60:37-9 Ja 15 '48

What makes research pay off at the cash register? answer: the follow-through. E. H. Toussaint. Sales Management 61:60-1+ S 15 '48

What sales management expects from research. R. F. Elder. J Marketing 13:52-5 Jl '48

When the controller says costs are too high; Allis-Chalmers industrial sales setup. J. L. Singleton. Sales Management 60:37-9 My 20 '48

See also

Advertising	Printing trade—
Advertising and	Salesmen
salesmen	Prospect lists
Dealer helps	Sales contests and
Display of merchandise	other headings beginning Sales
Export trade—Sales	Salesmanship
management	Salesmen
Marketing	Salesmen's reports
	Sample cases

SALES management—Continued**Letters to salesmen**

Take the curse off pep letters; National Shoes contest based on letters to retail salesmen. L. Loeb. *il* *Ptr Ink* 225:46+ O 8 '48

Study and teaching

Marketing class stages practice sales meet; sales students at the University of California move in on California packing co. Sales Management 60:80 F 15 '48

SALES management (periodical)

Board of advisory editors, SM's survey of buying power. Sales Management 60:40-1 Ap 1 '48

SALES managers

Travel habits of the typical sales executive; pictograph. Sales Management 61:47 Ag 15 '48

What does a young sales manager need to know? Sales Management 60:114 Ap 1 '48

Salaries

Sales managers averaging 24 years in selling earn \$18,000 to \$20,000. *Ptr Ink* 223:92 Je 18 '48

Training

Chevrolet's battle plan; dealers' sales managers get instruction in how to guide salesmen. *il* *Bsns W* p64+ JI 10 '48

What Chevrolet is doing to prepare for competitive selling; factory wholesale personnel and dealers' sales managers' course. D. G. Baird. *il* *Sales Management* 61:42-4 S 15 '48

SALES manuals

General Foods' 1948 campaign marks return of free selling. W. R. Parker. *il* *Ptr Ink* 222:43-4+ Mr 19 '48

Individual manuals combine sales and product stories; General Foods replacing bulky product manual, supplementing sales manual with small booklets. E. J. Dever, Jr. *il* *Ptr Ink* 224:42-3 S 24 '48

Sales manual Dodge truck salesmen don't forget to use. *il* *Sales Management* 61:102 S 1 '48

So you're writing a sales-training manual. W. Rados. *Ptr Ink* 224:38-40 Ag 20 '48

This simple manual is a sales tactics refresher course; Williams manufacturing co. *il* *Sales Management* 59:44-6 N 20 '47

Want salesmen to use your sales manual? Fisher flouring mills co. *Sales Management* 60:122-3 Ja 15 '48

SALES manuals, Dealers'

How to move California to Kalamazoo; California apparel creator's manual. *il* *Sales Management* 60:76+ Je 1 '48

Management manual doubles as sales tool; Dentists' supply co. serves needs of dental laboratories. *Sales Management* 60:78-9 F 1 '48

Packard training course revives ancient art of salesmanship; films-and-manuals packaged training program for retail auto dealers and their salesmen. D. G. Baird. *il* *Sales Management* 60:48+ F 1 '48

So you want to create a new manual for retail salespeople! J. C. Cumming. *Sales Management* 61:88+ JI 1 '48

SALES policies

Educational campaign cracks market for infant enterprise; creating consumer desire for steel kitchen cabinets. C. E. Bullock. *il* *Sales Management* 61:122+ Ag 15 '48

Fighting seasonal slumps; Oil-O-Matic division of Eureka Williams. *il* *Bsns W* p54+ N 15 '47

General Foods check list for development of new products. R. H. Moulton. *Sales Management* 60:37-9 My 1 '48

How Lone Star's package plan closes high price tag sales quicker; Servel gas air conditioning units. J. M. Lynn, Jr. *il* *Sales Management* 61:80+ JI 1 '48

Industry further improves its selling; abstract. *Management R* 36:591-2 N '47

Management by committee; its Trane's approach to sales; ten department heads guide sales policies. T. Hancock. *Sales Management* 61:37-9 O 15 '48

Policies that licked the seasonal selling bugaboo for Koret, R. Aliamus. *Sales Management* 59:80+ D 15 '47

Sales policies revamped; steel mill sales to warehouses. Steel 123:77 S 13 '48

Selling a product that nobody wants to buy; Sonotone subtle sales methods. L. Reed. *il* *Adv & Sell* 40:33-4+ D '47

So you have a new product! now how are you going to sell it? J. A. Murphy. *il* *Sales Management* 60:37-9 Mr 15; 44-6+ Ap 1; 46+ Ap 15 '48

Sylvania's heart-to-heart talks with salesmen about policies. W. R. Lockridge. *Sales Management* 61:66+ JI 1 '48

Tie-in sales. H. J. O'Rourke. *Nat Pet N* 40: 54-5 S 15 '48

To charge or not to charge for sales promotion materials? check with 35 companies. *Sales Management* 61:92+ S 15 '48

What makes a successful bottler? Lyons tests get some answers. L. Zweig. *il* *Sales Management* 59:48+ D 15 '47

See also

Credit	Premiums (merchandizing)
Customer relations	Price fixing, Resale
Dealer helps	Price policies
Dealer relations	Products, Improved
Discount, Cash	Rental plan (merchandizing)
Discount, Trade	Sales quotas, Dealers'
Exhibits	Sales units
Installment plan	Salesmen, Retail—
Jobbers	Bonuses (manufacturers')
Mail order business—	Trade-in policies
Selling to dealers	
Manufacturers' agents	
Marketing	

Combination selling

N.Y. bans plan to furnish cover with retail purchases; problems of free insurance and sales in combination involved. *East Underw* 49:1+ Ag 27 '48

Direct selling

See Marketing—Direct selling

Free goods

FTC cracks down on free goods offers. *Bsns W* p68-9 JI 17 '48

Loading and unloading dealers' shelves; use of premiums to salesmen, to dealers. H. W. Dunk. *il* *Adv & Sell* 41:38+ F '48

Selective selling

How to cut waste out of salesmen's selling hours; parcels time according to potential of each account. R. A. Siegel, Jr. *Sales Management* 59:74+ N 20 '47

Is it smart distribution to play hard to get? B. E. Tacks. *Sales Management* 60:120+ F 1 '48

What nation-wide brand name identity has done for Botany. C. F. H. Johnson, Jr. *il* *Sales Management* 61:88+ O 1 '48

Wholesaler adds retailing; John Sexton & co., institutional grocer to sell to selected independent grocers. *il* *Bsns W* p52-3 Ap 17 '48

SALES promotion

Angostura reverses sales sag in face of liquor slump. I. P. MacPherson, Jr. *il* *Sales Management* 61:90+ JI 15 '48

Art of selling now being revived in anticipation of buyers market; General electric co. soon to launch big promotion. B. Packard. *il* *Iron Age* 162:122-3 Ag 5 '48

Big Top demonstrations win farm friends for International. *il* *Sales Management* 60:42-4 My 1 '48

Chinese promotion wins spotlight in 20 big stores for Lenthric. J. Jessee. *il* *Sales Management* 59:42-4 D 1 '47

Dritz kits for home sewers are hot news in notions; tools and materials for making buttons, or attaching snappers and nail-heads. *il* *Sales Management* 60:84+ Ja 1 '48

Everyday promotions are the life blood of department stores. E. B. Weiss. *Ptr Ink* 222:42+ Mr 5 '48

Extra dividends from your industrial advertising dollars; Hyster trucks, tractors, cranes. D. Johnson. *il* *Sales Management* 60:74+ Ja 15 '48

SALES promotion—Continued

Food for the press; conferences between food manufacturers and editors. *Bsns W* p53-5 N 8 '47

How Blumenthal pushes the button. R. G. Whalen. *il Adv & Sell* 41:48+ S '48
La Tausca promotion. M. O'Dea. *Ptr Ink* 222:110 Mr 19 '48

Manufacturers can help department stores promote their products. E. B. Weiss. *Ptr Ink* 222:42-3+ F 27 '48

Meadow Gold strikes new pay dirt through group selling. H. Roberts. *il Sales Management* 60:62+ F 1 '48

Medicine shows promote industrial equipment sales; Westinghouse electric corp. W. B. Montague. *il Ptr Ink* 224:34-7 Ag 20 '48

Neighboring gab-fests for farmers find new buyers for Humble Oil. F. A. Watts. *il Sales Management* 60:124+ F 15 '48

One-shot big store promotion; how to plot and organize it; Dell Town promotion of Margaret O'Brien dresses. J. C. Cumming. *Sales Management* 60:112+ Mr 1 '48

Philco week sets new high in dealer and consumer sales. *il Sales Management* 59:112+ D 1 '47

Sales promotion policy and organization. E. B. Weiss. *il Ptr Ink* 222:50+ F 20 '48

School for customers; Ivan Allen-Marshall company teaches filing methods to employees of customers. *Am Bsns* 17:22 N '47

Selling a ball club to the fans; Bill Veeck and Cleveland Indians. *il Bsns W* p52+ O 2 '48

Streamlined medicine shows help Westinghouse deliver concentrated sales stories. M. Montague. *il Ind Marketing* 33:37-9 JI '48

Thousands of women window shop at Philadelphia home center; permanent merchandise fair sponsored by Philadelphia bulletin. *il Sales Management* 59:110+ D 15 '47

What can you do to pre-sell a product you can't deliver? U.S. Royal Air Ride tire. J. G. Schaefer. *il Sales Management* 59:92+ D 1 '47

Wholesaler wins Philco award with tested ideas; top honors for Jos. M. Zamoiski co. in Philco corp.'s annual competition. C. Guest. *il Sales Management* 61:136-8 Ag 15 '48

See also

Dealer helps	Publicity
Exhibits	Salesmen, Retail—
Exhibits, Traveling	Bonuses (manufac-
Premiums (merchan-	turers')
dizing)	

Plays

Home service department dramatizes modern cookery; Southern California gas company's playlet for high-school and junior college students. F. A. Herr. *Am Gas J* 168:31-2 Ja '48

SALES quotas

Taking the by-guess-and-by-gosh out of quota-setting; Wholesale appliance division, Jenkins music co. K. G. Gillespie. map *Sales Management* 60:72+ F 1 '48

SALES quotas, Dealers

Why realistic dealer quotas allow for seasonal variations; Bendix Home Appliances. A. E. Cascino. *Sales Management* 61:108+ Ag 15 '48

Yardstick for setting and enforcing dealer quotas. A. E. Cascino. *Sales Management* 60:69-70 Ap 1 '48

SALES records

Analytical and accounting control of sales and gross profit by punched cards; R. G. LeTourneau, inc. L. P. Riddle. *il N A C A Bul* 29:323-34 N 15 '47

Angostura reverses sales sag in face of liquor slump. I. P. MacPherson, jr. *il Sales Management* 61:90+ JI 15 '48

Effective sales analysis through control records; White & Bagley co. E. G. Bagley. *Ind Marketing* 32:46+ N '47

Figures are ready every day; Chicago steel service company uses efficient, modern business machines. *il Am Bsns* 18:14-15+ Ap '43

Four major departments profit from mechanized sales and accounting reports of Jacques manufacturing company. J. Turner. *il Am Bsns* 18:10-11+ Ja '48

How to develop sales control facts from your own company records. R. D. Crisp. *Ind Marketing* 33:33+ O '48
Pennsilt X-rays industrial market with six simple record forms. T. Armstrong. *il Sales Management* 59:103-4+ N 10 '47

SALES research

Good news and bad, about sales; how panel studies reveal it; analyses of brand loyalty, switches and deals. V. D. Reed. *Sales Management* 60:58+ Mr 15 '48

Management viewpoint. G. F. Smith. *Anal Chem* 19:943-6 D '47

Marketing research as a tool of management in industrial goods problems. P. W. Atwood. *J Marketing* 12:295-304 Ja '48

We read our sales future in seven simple charts. J. G. Salsbury. *Sales Management* 61:76+ S 1 '48

SALES statistics

How to dig out the facts when the sales curve sags; a change in advertising strategy was dictated by simple analytical approach when sales went below budgets. R. D. Crisp. *Ptr Ink* 224:25-7 Ag 27 '48

U.S. sales map shows postwar shifts in trade volume. *Bsns W* p66-9+ Ag 14 '48

See also

Retail trade—Statistics

SALES tax

Embarrassment of riches; retail buying floods state treasuries with money from sales tax. *il Bsns W* p30+ N 22 '47

New sales tax established in Sweden. *For Comm W* 31:26 My 22 '48

Sales runaway; Denver retail sales tax chases shoppers out of city. *Bsns W* p46-7 F 7 '48

Should electricity be taxed? *Economist* 153: 731-2 N 1 '47

State sales taxes. *Bsns W* p20 Mr 6 '48

SALES territories

Eight men pool commissions, work territory as a team, in Plomb test. R. W. Kerr. *Sales Management* 60:44-5 F 1 '48

How big should the salesman's territory be? L. T. Montant, jr. *Ptr Ink* 223:31-2 My 7 '48

How Lakeside unscrambled a muddled territory set-up. W. T. Doyle. maps *Sales Management* 59:74+ N 10 '47

Sales territory is number of accounts, not geography. R. R. Poole. *Ptr Ink* 223:50+ Ap 16 '48

Taking the by-guess-and-by-gosh out of quota-setting; Wholesale appliance division, Jenkins music co. K. G. Gillespie. map *Sales Management* 60:72+ F 1 '48

SALES units

How to build sales with unit packages; lock and latch sets for two small homes. *Mod Ind* 15:105-6 F '48

Selling in multiple units; six-bar package boosts candy sales. *il Mod Packaging* 21: 130-1+ Ag '48

SALESMANSHIP

Baltimore lad wins NFSE essay contest; Selling as a career. D. A. Maccubbin. *Sales Management* 61:63 JI 1 '48

Changing role of the manufacturer's salesman. E. B. Weiss. *Ptr Ink* 223:48+ Je 18 '48

Do I want to be a salesman? Philadelphia students get answers. *Sales Management* 60:66+ Je 1 '48

How advertising licks a sales training problem for Trumbull. T. D. MacLafferty. *il Sales Management* 61:60+ S 1 '48

How 1,014 college seniors rate selling work as a career. P. Salisbury. *Sales Management* 60:37-9 Je 1 '48

How to meet 13 kinds of sales objections; Old town ribbon & carbon co. *Sales Management* 60:93 Mr 1 '48

Is salesmanship essential to distribute securities? D. Laird. *Comm & Fin Chr* 167: 1315+ Mr 25 '48

Man who sold an ice box to an Eskimo; Jim Moran. F. C. Othman. *Adv & Sell* 41:37+ Jw '48

Mapping out potential business. B. Lester. *Heat & Ven* 45:92 Ap '48

Meeting customer's objections. B. Lester. *Heat & Ven* 45:87 JI '48; *Mach* 54:190 Ap '48

SALESMANSHIP—Continued

- Planning the sales interview. B. Lester. Heat & Ven 45:39 Je '48
- Production clinic: sales and technical departments should be certain that technical information is based upon latest authentic facts. E. G. Thomssen. Soap & San Chem 24:77+ Je '48
- Sales engineer and his problems. B. Lester. Mach 54:195-6 Ja; 187-8 F; 199-200 Mr; 191-2 Ap; 184-5 My; 201-2 JI; 182 Ag; 55:207-8 S; 203-4 O; 224 N '48
- Sales strategies for today and tomorrow. B. Sando. Am Gas J 168:47-9 My '48
- Sales tools that inspire prospects' confidence in Superior Truck bodies. E. Swanson. Il Sales Management 61:116+ Ag 15 '48
- Salesman's corner; buyer's promises. F. Rundell. Inland Ptr 121:72-3 JI '48
- Salesmanship, a necessity now. E. O. Shreve. Comm & Fin Chr 168:208+ JI 15 '48
- Selling a product that nobody wants to buy; Sonotone subtle sales methods. L. Reed. Il Adv & Sell 40:33-4+ D '47
- Selling as a career. N.F.S.E. essay contest; second annual contest among secondary school students. Sales Management 61:135 O 15 '48
- Selling the contractor. B. Lester. Heat & Ven 45:113 Mr '48
- Selling the engineer and architect. B. Lester. Heat & Ven 45:99 F '48
- Selling tools that put conviction into sales talks to farmers; Larowe division, General Mills. R. Senusky. Il Sales Management 60:48+ Mr 1 '48
- They grow new crop of salesmen; National federation of sales executives. Mod Ind 16:93-4 S '48
- Twenty traits that make star salesmen. J. Lacy. Sales Management 61:42-3 N 1 '48
- What the purchasing agent wants from the salesman. D. M. Meeker. Ind Marketing 33:45+ Mr '48
- Why did I lose that order? B. Lester. Heat & Ven 45:101 Ag '48; Same. Mach 54:184 My '48

See also

- | | |
|-----------------------|---------------------|
| Advertising | Insurance agents |
| Advertising, Solicit- | Mail order business |
| ing of | Premiums (merchan- |
| Advertising and | dizing) |
| salesmen | Sales letters |
| Insurance, Life— | Sales management |
| Agents | Salesmen |

Approach

- How to talk business with a department store president; when such a course may be practical and profitable. J. C. Cumming. Sales Management 60:53+ Ja 15 '48
- Seven ways not to contact prospects. J. Bedford. Il Ptr Ink 223:36-7 Je 25 '48

Demonstrations

- Big Top demonstrations win farm friends for International. Il Sales Management 60:42-4 My 1 '48
- Demonstration for sales; laundry equipment. Il Dom Eng 172:109+ Ag '48
- Demonstration using dealer kit. M. Huck. Am Gas Assn Proc 1947:410-12; Abstract. Am Gas Assn Mo 29:126+ Mr '47
- How to get a new product off to a blazing start; Fog Fire Fighter. H. E. Engman. Il Sales Management 60:98+ Je 1 '48
- How to spellbind a bored buyer; demonstration kit of hot foods. Il Sales Management 60:44-6 Ja 15 '48
- How to stage an industrial sales demonstration in a jiffy; DoAll co. demonstration trailers. L. R. Rothenberger. Il Sales Management 60:90+ Ap 1 '48
- Industrial's best sales tool; on-site demonstration; Be-Ge earth-moving equipment. Sales Management 61:126-8 Ag 15 '48
- Industrial selling by demonstration; know the product and show the product. K. Kirchhofer. Il Ind Marketing 32:41+ D '47
- Mockup demonstrator improves salesmen's closing ratio. H. W. Bluethel. Il Ind Marketing 33:104 O '48
- Movie demonstrates heavy industrial equipment. L. F. Thomann. Il Ptr Ink 221:41 N 14 '47

- Peek-a-boo demonstrators let prospects see product innards; Plexiglas models of electric appliances. T. Armstrong. Il Sales Management 61:44-5 Ag 15 '48
- Proof of the waffle; it's in the eating; Eggo Food Products. A. Dorsa. Il Sales Management 61:41-3 Ag 15 '48
- Prospects come to dinner, stay to buy Whiting home freezers. H. Roberts. Il Sales Management 60:44-6 Je 1 '48
- Sales aids that lend a professional air to selling; Hotpoint new sales tools. L. C. Truesdell. Il Sales Management 59:40-2 N 10 '47
- Salesmaker; fingertip answers for retailers; Tappan's ranges. Il Sales Management 60:96 My 20 '48
- Salesmen demonstrate car innards with models; Hudson motor car co. Il Sales Management 61:117 N 1 '48
- See through industrial model demonstrates motors; Fairbanks-Morse Air-Gap motors. Il Sales Management 60:65 Je 15 '48
- Setting stage for selling in Bendix appliance theater. Il Sales Management 60:53 My 20 '48
- Show'em and tell'em technique cracks national markets for Varlar. J. E. Williams. Il Sales Management 59:42-3 D 15 '47
- Tell the inside-the-product story; acetate books and plastic working models. R. H. Ganly. Il Ptr Ink 225:32-4 O 8 '48
- Wash day workout shows salesmen how to sell sunny Mondays; Frigidaire trains laundry equipment men in demonstration. E. Gilbert. Il Sales Management 60:42-3 Ja 15 '48
- When industrial prospects say, let's see it work! demonstration with movies. G. E. Collins. Il Sales Management 60:37-9 Mr 1 '48

Graphic aids

- New look puts new life in sales. Il Mod Ind 15:54-6+ My '48

Group selling

- Meadow Gold strikes new pay dirt through group selling. H. Roberts. Il Sales Management 60:62+ F 1 '48
- Models help motor makers select new car colors; Ditzler theater showing. D. G. Baird. Il Sales Management 60:86+ Je 1 '48

Price problem

- How Lone Star's package plan closes high price tag sales quicker; Servel gas air conditioning units. J. M. Lynn, Jr. Il Sales Management 61:80+ JI 1 '48
- Salesman's corner. F. Rundell. Inland Ptr 120:58-9 Ja '48

Samples

- Salesman should select samples with care and show few to avoid indecisive client. J. E. Bullard. Inland Ptr 121:53-4 S '48

See also

- Sample cases

Service

- Grass roots training turns tyros into merchandisers for McKesson; salesmen as consultants to drug-dealer customers. C. D. Doerr. Sales Management 60:104+ F 15 '48
- Sales engineer and his problems; working with the men in customers' plants. B. Lester. Mach 54:187-8 F '48
- Salesman's corner; helping inexperienced buyers of printing. F. Rundell. Inland Ptr 120:58-60 N '47
- Service comes first, selling second in this new sales technique; survey selling, backed by unique training method; Todd co. L. T. Thomasma. Ptr Ink 222:38-9+ Ja 9 '48
- What kind of salesmen for half-million dollar products? Clearing machine corp. R. W. Glasner. Il Sales Management 60:127+ Ja 15 '48

Study and teaching

- How SMU students are making sales a career. Sales Management 60:120 Ja 15 '48
- Industry, college provide course in sales engineering designed expressly for the machine tool industry, will be conducted by Cornell university. Iron Age 161:117 F 12 '48
- Machine tool industry studies selling techniques. Mach 55:193-5 S '48

SALESMANSHIP—Study and teaching—*Cont.*
Machine tool salesmen to go to college at
Cornell. *Bsns W* p28 F 14 '48
Speech polisher for sales trainees. *Sales*
Management 60:101 F 15 '48
What kind of college training for careers in
sales? psychology, English, mathematics
and philosophy along with economics, sales
management and marketing. R. S. Wilson.
Sales Management 59:102+ D 15 '47

See also

Salesmen—Training

SALESMANSHIP, Retail
Be dumb, and sell. J. L. McEwen. *J Retail-*
ing 23:128 D '47
Little French milliner. A. R. Hahn. *Sales*
Management 60:94-5 Je 1 '48
Suggestion selling. H. W. Brightman. *Text-*
ile Col 70:33+ Ap '48
Words with dull edges. R. E. Westervelt. *J*
Retailing 24:14+ F '48

See also

Sales manuals, Dealers'

SALESMEN

Dealer salesmen appraise faults and virtues
of their bosses; member firms of Grocery
manufacturers of America cooperate in
survey. P. Salisbury. *Sales Management*
61:41-4 J 15 '48

15 hand habits of salesmen. J. Bedford. *Ptr*
Ink 22:72+ F 20 '48

15 smoking habits of salesmen. J. Bedford.
Ptr Ink 22:38-9 Mr 26 '48

GIs' sales records top nonveterans; abstract.
H. R. White. *Am Bsns* 13:50 Ja '48

How his company's management looks to the
sales engineer. Mach 54:185-6 My '48

Looking glass looks back. D. F. Wilber. *Ind*
Marketing 33:40+ Ja '48

Sales engineer should look at himself. B.
Lester. Mach 54:199-200 Je '48

Seven spectacle habits of salesmen. J. Bed-
ford. *il Ptr Ink* 22:36-7 S 10 '48

Stop heckling salesmen! E. Whitmore. *Am*
Bsns 17:18-20 N '47

Taking a look at yourself. B. Lester. *Heat*
& Ven 45:91 S '48

Top executives who were salesmen. W. Nor-
ris. *Am Bsns* 13:8-9+ J 1; 18-19+ Ag '48;

Discussion. H. W. Steinkraus. 18:34 S '48

What's needed for better selling job? R. L.
Slatier. *Comm & Fin Chr* 166:2632 D 25 '47

See also

Advertising and
salesmen

Automobile industry
and trade—Sales-

men

Electric utilities—
Salesmen

Insurance, Life—
Agents

Insurance agents

Printing trade—
Salesmen

Sales correspondents

Sales management

Sales quotas

Salesmanship

Bonuses

How to make a bonus behave like a bonus;
newspaper advertising salesmen. S. Rovner.
Ed & Pub 81:16 Ja 24 '48

Opposition's business enters into bonus base;
advertising salesmen. S. Rovner. *Ed & Pub*
81:12 O 2 '48

Proctor's bonus bank; what it is, how it
works; paying one-half of bonus monthly,
banking the balance, and tying bonus rates
to salesmen's expenses. J. Tiers. *il Sales*
Management 60:67-9 Ap 15 '48

Entertainment of customers

Entertaining customers. B. Lester. Mach 54:
182 Ag '48

Expenses

Automobile standard allowances on 1948
group B cars by 42 U.S. cost areas; tabu-
lation. *Sales Management* 61:124 N 1 '48

Cost of keeping salesmen in the field rises
40-50 per cent since 1939; 1948 survey of
salesmen's expense account practices; tabu-
lation. *il Sales Management* 61:44-6 J 1
'48

Expense accounts shrink. *Bsns W* p84+ O 23
'48

Present-day problems of controlling sales-
men's expense accounts. L. T. Montant, jr.
Ptr Ink 22:36-9+ Ag 13 '48

Two ways to compute fair auto allowance.
Sales Management 61:106 O 1 '48

See also

Automobiles, Sales-
men's

Law

Panama; licenses for traveling salesmen. *For*
Comm W 33:21 O 16 '48

Letters to customers

Phooey on sales reports; salesman's follow-
up letters are better records. E. G. Stan-
ley. *Ptr Ink* 22:39 Ja 30 '48

Rating

65 per cent of the men we hire now stick and
succeed; Todd co. G. L. Todd. *Sales Man-*
agement 59:99-104 D 1 '47

Routing

How to cut waste out of salesmen's selling
hours; parcels time according to potential
of each account. R. A. Siegel, jr. *Sales*
Management 59:74+ N 20 '47
Salesman routing; don't try it the easy way.
E. H. Toussaint. *il Ptr Ink* 22:34-5+ N 21
'47

Salaries and commissions

Background for planning of sales incentive
compensation. J. C. Olson. *N A C A Bul* 29:
1549-59 Ag 15 '48

Can a salesman earn too much? abstract.
Management R 36:594-5 N '47

Changes in salesmen's compensation. G. J.
Vinson. *Ptr Ink* 22:38-9 J 23 '48

Compensating the sales force. *Management*
R 37:252-4 My '48

Compensating the salesman under today's
conditions. W. F. Reibold. *Ind Marketing*
33:58+ O '48

Eight men pool commissions, work terri-
tory as a team, in Plomb test. R. W.
Kerr. *Sales Management* 60:44-5 F 1 '48

Frigidaire removes the guesswork from sales-
man compensation. E. Gilbert. *il Refrig*
Eng 56:40-1+ J 1 '48

How can you match merit and pay when
salesmen are unionized? Oakland, Calif.
dealers. E. Gidlow. *Sales Management* 60:
86+ Mr 15 '48

How eight companies handle split-commission
sales. A. J. Jerome. *Sales Management* 61:
92+ Ag 1 '48

How to set up or revise your sales compen-
sation plan. L. T. Montant, jr. *Ptr Ink*
22:29-30 Mr 12 '48

Salary-plus plans for compensating sales-
men; abstract. *Management R* 37:255-6 My
'48

Watch those compensation clauses when
you write a salesman's contract. A. W.
Gray. *Sales Management* 60:81+ Mr 15 '48

Sample cases

See Sample cases

Selection

How to avoid eight common mistakes in hir-
ing salesmen. B. Bigelow. *Ind Marketing* 32:
33-4+ N '47

Improve your batting average in selecting
real salesmen. S. J. Borchers. *Ind Market-*
ing 33:46+ O '48

Scientific methods assure better selection of
sales personnel. F. W. Siekman. *il Elec*
World 123:43-5 Ja 3 '48

Selling yourself to prospective salesmen.
Sales Management 60:117 Ap 1 '48

65 per cent of the men we hire now stick and
succeed; Todd co. G. L. Todd. *Sales Man-*
agement 59:99-104 D 1 '47

Sunset-McKee's hiring plan cuts salesmen's
turnover to 10-15 per cent. W. H. Fischer
and W. Young. *Sales Management* 60:96+
Ja 15 '48

Ten ways to avoid aimless interviews with
sales applicants. L. Llewellyn. *Sales Man-*
agement 59:82-5 N 20 '47

Value of aptitude tests in selecting sales-
men. R. A. Fear and J. P. Foley, jr. *Adv*
& Sell 41:41+ S '48

SALESMEN—Selection—Continued

What kind of salesmen for half-million dollar products? Clearing machine corp. E. W. Glasner. *Il Sales Management* 60:127+ Ja 15 '48

See also
Insurance, Life—
Agents—Selection

Training

Advertiser and agency cooperate to build a sales-training program; B & O salesmen. E. J. Dever, jr. *Il Ptr Ink* 222:34-5 Ja 23 '48

Back to school; White teaches salesmen how to sell trucks. Bsns W p76+ My 22 '48
College course helps salesmen up sales; California's College of agriculture two-day seminar in plant food fundamentals. *Il Sales Management* 59:109 N 20 '47

Don't let old gripes scare your new salesmen. J. A. Murphy. *Adv & Sell* 41:41 Ag '48

Easy way to dealer training. F. L. Fletcher and R. W. Pearson. *Am Gas Assn* Mo 30: 27+ S '48

General Foods' 1948 campaign marks return of free selling. W. R. Parker. *Il Ptr Ink* 222:43-4 Mr 19 '48

Grass roots training turns tyros into merchandisers for McKesson; salesmen as consultants to drug-dealer customers. C. D. Doerr. *Sale Management* 60:104+ F 15 '48
Gym courses for flabby salesmen. *Il Mod Ind* 16:91-2+ JI '48

How California is training salesmen in gas and electric appliance selling. *Il Gas Age* 101:25+ F 19 '48

How LeTourneau sweetens sales trainee investment; embryo salesmen dig for potential sales. R. C. Judd. *Sales Management* 60:118-20 Je 1 '48

How to polish industrial salesmanship to a shine; Carbolyco co. J. M. Bertotti. *Il Sales Management* 60:69+ Ja 1 '48

How you can build a practical sales-training course. C. White. *Ptr Ink* 223:27-9 Je 25 '48

It's product training that puts ring of conviction into sales talk; Permanente Products salesmen know about aluminum siding. D. C. Murphy. *Il Sales Management* 61: 37-40 N 1 '48

Letters tell young salesmen the basic facts of advertising; inducing dealers to run co-operative advertising. J. Siegrist. *Ptr Ink* 224:36-7 S 17 '48

Machine tool industry holds sales course. *Am Mach* 92:135-46 Ag 12 '48

Many products, many salesmen, training is the link that binds; Minnesota mining & manufacturing co. G. H. Halpin. *Sales Management* 60:42-4 Mr 15 '48

Refresher course for machine tool salesmen may become model. T. Lloyd. *Iron Age* 162:126 Ag 12 '48

Sales training guide manuals; Pacific coast gas association. F. A. Herr. *Am Gas J* 167: 47-50 N '47

Sales training is an effective tool; don't let needless detail blunt it. H. A. Glasser. *Il Ptr Ink* 221:36-7 D 5 '47

Sales training program helps manufacturer hold line on prices. E. J. Dever, jr. *Il Ptr Ink* 222:38-9 F 13 '48

Sales training starts in north California for electrical dealers. *Il Elec West* 100:92-3 Ja '48

Salesmen must be recruited and trained. *Elec World* 129:90-1 Mr 27 '48

Service comes first, selling second in this new sales technique; survey selling, backed by unique training method; Todd co. L. T. Thomasma. *Ptr Ink* 222:38-9+ Ja 9 '48

Simonds schoolhouse trains own and distributors' salesmen. *Ptr Ink* 222:62 Ja 2 '48

Simonds uses miniature models in salesmen's training course. A. Bernstein. *Il Ind Marketing* 33:76+ Ja '48

Sinclair five-day training program designed to include entire sales personnel, newcomers. *Nat Pet* N 40:38 Ja 14 '48

Ten essentials for sound sales training. S. Carter. *Sales Management* 61:108+ O 1 '48

These milk men are learning creative selling skills; R. A. Shuey creamery, Oakland, Calif. *Sales Management* 59:44+ N 10 '47

Training of security salesmen. J. Dutton. *Comm & Fin Chr* 167:20, 137, 220, 308, 504 Ja 1, 8, 15, 22, 29 '48

Wash day workout shows salesmen how to sell sunny Mondays; Frigidaire trains laundry equipment men in demonstration. E. Gilbert. *Il Sales Management* 60:42-3 Ja 15 '48

What can your salesmen gain from continuous sales training? S. Carter. *Sales Management* 61:84+ O 15 '48

What Chevrolet is doing to prepare for competitive selling; factory wholesale personnel and dealers' sales managers' course. D. G. Baird. *Il Sales Management* 61:42-4 S 15 '48

What kind of college training for careers in sales? psychology, English, mathematics and philosophy along with economics, sales management and marketing. R. S. Wilson. *Sales Management* 59:102 D 15 '47

See also
Dealer schools Salesmen, Jobbers'
Insurance, Life— Training
Agents—Training Salesmen, Retail—
 Training

Unionization

Are salesmen employees, or a different breed of cats? O. C. Cool. *Sales Management* 60: 75-7 Ap 1 '48

How to live in peace with a salesman's union. E. Gidlow. *Sales Management* 61:112+ S 15 '48

Industrial anarchy; how it breeds unionized sales forces; United millinery salesmen's union. A. B. Ecke. *Sales Management* 61: 78+ JI 15 '48

Salesmen's union; a tiger in the New York liquor trade. E. W. Davidson. *Sales Management* 60:45-6+ My 1 '48

Unionization of salesmen. B. R. Canfield. *Il Ptr Ink* 223:34-5+ My 28; 42+ Je 4 '48

Unionization of salesmen. E. W. Mounce and R. D. Stevens. *Manuf Rec* 117:51-2+ O '48

See also
Salesmen, Jobbers'
—Unionization

SALESMEN, Jobbers'

Better distributor sales meetings cut merchandising costs. J. J. De Mario. *Ind Marketing* 33:43+ F '48

Helping the distributors. J. Driscoll. *Paint Oil & Chem R* 111:22 O 23 '48

How to cut waste out of salesmen's selling hours; parcels time according to potential of each account. R. A. Siegel, jr. *Sales Management* 59:74+ N 20 '47

How wholesale drug salesmen spend their time; marketing pictographs. *Sales Management* 59:71+ D 15 '47

Why jobber salesmen flock to road show once a year. C. J. Swan. *Il Ptr Ink* 223: 34-6 My 21 '48

Training

Big training idea in Little red schoolhouse; Simonds saw and steel co. *Il Mill & Factory* 42:115 F '48

Distributors' salesmen sit in on trial of Alibi Ike; traveling show is substituted for long-winded sales conference. C. J. Swan. *Il Ptr Ink* 225:32-3+ N 5 '48

Field schools for distributors build sales for Buda co. *Ind Marketing* 33:68+ Je '48

How advertising ticks a sales training problem for Trumbull. T. D. MacLafferty. *Il Sales Management* 61:60+ S 1 '48

1,000 meetings take Hotpoint's university of sales to field men. L. C. Truesdell. *Il Sales Management* 61:58+ JI 15 '48

Stewart-Warner gives jobbers' men refresher course in pictures. L. B. Colby. *Il Sales Management* 60:122+ Ap 15 '48

28 ways to strengthen sales through distributors. L. H. Brendel. *Il Ptr Ink* 224:27-30+ Ag 6 '48

Wholesale salesmen get their training a la carte; Detroit branch, Whitaker paper co. *Sales Management* 61:112 JI 15 '48

Unionization

Five reasons why Seattle jobber salesmen carry union cards. E. Marple. *Sales Management* 60:48+ Je 1 '48

SALESMEN, Jobbers'—Unionization—Cont.

Unionization of liquor salesmen forces trade practice cleanup. E. Gidlow. *Sales Management* 60:46+ F 15 '48

Unionization of salesmen: an outline of the present situation; unionizing outside salesmen, retail, wholesale and manufacturers'. B. R. Canfield. *il Ptr Ink* 223:42+ Je 4 '48

SALESMEN, Retail

Abuses breed unionization. San Francisco auto dealers warn. E. Gidlow. *Sales Management* 60:82+ Ja 15 '48

How can you match merit and pay when salesmen are unionized? Oakland, Calif. dealers. E. Gidlow. *Sales Management* 60:86+ Mr 15 '48

New issues you will face if your salesmen are unionized; Seattle automobile dealers' experience. E. Marple. *il Sales Management* 59:37-40 N 20 '47

Take the curse off pep letters; National Shoes contest based on letters to retail salesmen. L. Loeb. *il Ptr Ink* 225:46+ O 8 '48

Bonuses (manufacturers')

Push money hit; FTC attacks payments to salesmen; Philco's sell-n-win campaign. *Bsns W* p85 N 22 '47

What P.M.s are illegal? G. H. Weil. *Ptr Ink* 224:40+ JI 2 '48

Training

Be financially successful by sales training. K. Hampton. *Elec West* 100:112 F '48

Bigelow tackles retail training with Carpet selling institute. *il Sales Management* 61:62+ O 1 '48

Chevrolet's battle plan; dealers' sales managers get instruction in how to guide salesmen. *il Bsns W* p64+ JI 10 '48

Films pay off as retail sales training tools; General Mills films on electric irons and pressure cookers. W. A. MacDonough. *Sales Management* 60:63-4 Ja 1 '48

How to sell to and through the new department store; that proverbial weak link, the sales person. E. B. Weiss. *il Ptr Ink* 223:42+ Ap 30 '48

How to train salesmen to use informative label in selling; Westinghouse Electric tags. E. J. Hegarty. *il Ptr Ink* 224:51-2+ S 24 '48

1,000 meetings take Hotpoint's university of sales to field men. L. C. Truesdell. *il Sales Management* 61:58+ JI 15 '48

Packard training course revives ancient art of salesmanship; films-and-manuals packaged training program for retail auto dealers and their salesmen. D. G. Baird. *il Sales Management* 60:48+ F 1 '48

Unionization

Unionization of salesmen; an outline of the present situation. B. R. Canfield. *il Ptr Ink* 223:34-5+ My 28; 42+ Je 4 '48

SALESMEN and credit

Credit man should study selling. S. Z. Park. *Credit & Fin Management* 50:9-10+ F '48; Discussion. G. J. Bush. 50:9 Mr '48

Credit management for profit; credit-sales partnership. J. L. Wood. *Credit & Fin Management* 50:4-5+ Ag '48

Danger in selling marginal risks just to increase sales volume. G. E. Baskie. *Credit & Fin Management* 50:7 My '48

Idea to increase sales; credit analysis of accounts augments sales study. D. K. Randolph. *Credit & Fin Management* 50:18-19 JI '48

Setting credit limits. A. P. Brigham. *Credit & Fin Management* 50:6-7 Ag '48

What the sales department expects. O. O. Lewis. *Credit & Fin Management* 50:5-6 Ja '48

SALESMEN'S automobiles. See Automobiles, Salesmen's

SALESMEN'S bulletins

How to mix a meaty sales bulletin; F. W. Dodge corp. R. H. Ray. *il Sales Management* 59:68 D 1 '47

SALESMEN'S equipment

Are your salesmen equipped to prove quality? B. Bigelow. *Sales Management* 60:37-40 F 15 '48

How Monsanto keeps salesmen abreast of advertising activities; monthly advertising sample case. H. A. Marple. *il Ptr Ink* 224:42-3 S 10 '48

How to spellbind a bored buyer; demonstration kit of hot foods. *il Sales Management* 60:44-6 Ja 15 '48

Mockup demonstrator improves salesmen's closing ratio. H. W. Bluethe. *il Ind Marketing* 33:104 O '48

Models take hem and haw out of selling store designs; Tyler fixture corp. R. L. Tyler. *il Sales Management* 60:46-8 My 20 '48

Sales aids that lend a professional air to selling; Hotpoint, new sales tools. L. C. Truesdell. *il Sales Management* 59:40-2 N 10 '47

When industrial prospects say, let's see it work; demonstration with movies. G. E. Collins. *il Sales Management* 60:37-9 Mr 1 '48

See also

Salesmen's portfolios

Sample cases

SALESMEN'S magazines

Contact by mail; general agency sends monthly illustrated pamphlet to agents. E. W. Smith. *Rough Notes* 91:66-8 O '48

John Hancock's new motivator; The patriot. *il Spectator* (Life ed) 155:35 Ja '48

John Hancock's new publication for district agents. *East Under* 48:34- N 7 '47

Publications addressed to agents. K. H. Mathus. *il Spectator* (Life ed) 155:8-15 F '48

SALESMEN'S portfolios

Simple portfolio woos prospects and public for Foster & Kleiser. C. Wright. *il Sales Management* 61:125+ O 15 '48

SALESMEN'S reports

Getting reports from salesmen. *Management* R 37:39-40 Ja '48

How to get the most out of your salesmen's call reports. L. T. Montant, jr. *il Ptr Ink* 224:34-5 JI 23 '48

Phoocy on sales reports; salesman's follow-up letters are better records. E. G. Stanley. *Ptr Ink* 222:39 Ja 30 '48

Selective selling spells volume for Sylvania salesmen. T. Armstrong. *Sales Management* 61:114+ O 15 '48

SALESMEN'S unions. See Salesmen—Unionization**SALICYLALDEHYDE**

Analysis of aliphatic amine mixtures; determination of secondary plus tertiary amines by the azomethine-acidimetric method. C. D. Wagner, R. H. Brown, E. D. Peters. *bibliog Am Chem Soc J* 69:2611-14 N '47

Synthesis of chromans from phenols and from ortho-hydroxy aromatic aldehydes. G. B. Backman and H. A. Levine. *bibliog Am Chem Soc J* 70:599-601 F '48

SALICYLANILIDE

Fungicide for cork. C. D. Cook and R. Harrington. *Product Eng* 19:107 Je '48

SALICYLATES

Physiological effect

Bibliography

Salicylates; a critical bibliographic review. M. Gross and L. A. Greenberg. 380p \$6 Hillhouse Press, 432 Temple st, New Haven 11 '48

SALICYLIC acid

Inhibition of gastric ulceration in the rat by o-hydroxybenzoic (salicylic) acid. F. Pauls and others. *Science* 107:19-20 Ja 2 '48

2-Methyl-4-keto-1,3-benzodioxanes from salicylic acids and vinyl acetate. D. T. Mowry, W. H. Yanko and E. L. Ringwald. *bibliog Am Chem Soc J* 69:2358-61 O '47

SALICYLIDES

Stereochemistry of the disalicylides. A. Schönberg. *Chem Soc J* p891-3 Je '48

SALIVA

Human saliva as a germination inhibitor. D. Yardeni. *Science* 108:62-3 JI 16 '48; Discussion. M. Kramer and K. Silberschmidt. 108:410 O 15 '48

SALMON

Air-lift salvages sunken salmon cargo. A. R. MacPherson. *il Comp Air Mag* 52:309-10 D '47

Atlantic salmon. J. McDonald. *il Fortune* 37:103-11+ Je '48

SALMON—Continued

- Food combine; Northwest salmon packer to merge with two frozen food firms. *Bsns W* p80+ D 13 '47
- Hydro kills the fishing industry; Columbia River salmon fishery. *J. H. Cellars. Pub Ut* 41:417-25 Mr 25 '48
- Salmon pack, British Columbia, Canada. *For Comm W* 32:30-1 Ag 7 '48
- Situation in salmon industry, British Columbia, Canada. *For Comm W* 29:13 D 13 '47
- Underwriters salvage major part of costly salmon cargo from Pacific. *E. O. Scharetg. East Underw* 49:21 Ja 2 '48; *Excerpts. Nat Underw* 52:13 Mr 11 '48
- United States canned salmon and sardine exports; January-June, 1947 and 1948. *For Comm W* 33:23 O 9 '48

SALMONELLA

- Diarrheal disease control studies; effect of fly control in a high morbidity area. *J. Watt and D. R. Lindsay. Pub Health Rep* 63:1319-34 O 8 '48
- Studies of the acute diarrheal diseases; salmonellosis in Florida. *M. M. Galton and A. V. Hardy. bibliog Pub Health Rep* 63: 847-51 Je 25 '48
- Survival of salmonella organisms in stored egg powder. *M. E. Wilson. Food Ind* 20: 873-4+ Je '48
- Two new salmonella types; salmonella hidalgo and salmonella mission. *J. Watt and others. Pub Health Rep* 63:223-4 F 13 '48

SALOL

- Salol reaction. *J. A. VanAllan. bibliog Am Chem Soc J* 69:2913-14 N '47

SALT

- Analytical boundary method for the determination of transference numbers. *A. P. Brady. bibliog diag Am Chem Soc J* 70: 911-14 Mr '48
- Binding energy for a self-trapped electron in NaCl. *J. J. Markham and F. Seitz. bibliog Phys R* 74:1014-24 N 1 '48
- Calcium chloride and sodium chloride refrigeration brines. *R. H. Savens. Refrig Eng* 64:1-5 sec 2 N '47 [reprints 30c]
- Calibration method for infra-red prism spectrometers. *D. S. McKinney and R. A. Friedel. Opt Soc Am J* 33:222-5 Mr '48
- Conductance of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. *H. I. Schiff and A. R. Gordon. bibliog J Chem Phys* 16:336-9 Ap '48
- Detroit heavy chloride user. *F. Stang. Roads & Sts* 91:66 S '48
- Diffusion of direct dyes into cellulose; a surface potential theory of the effect of salt and temperature on the apparent diffusion coefficient. *J. Crank. bibliog Soc Dyers & Col J* 63:412-16; Discussion. 416-18 D '47
- Disappearance of salt from glass ice during low-temperature dehydration, and its implication in electron microscopy. *D. C. Pease. J Science* 106:543 D 5 '47
- Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. *P. H. Richards and J. W. McBain. bibliog Am Chem Soc J* 70:1338-42 Ap '48
- Effect of trapping centers on dielectric breakdown in alkali halides. *C. F. Meyer and R. C. Herman. bibliog J Chem Phys* 16:161-6 Mr '48
- Energy levels of sodium chloride. *E. Fisher. bibliog diags Phys R* 73:36-40 Ja 1 '48
- Foreign ion rejection in the growth of sodium chloride single crystals from the melt. *R. H. McFee. bibliog diags J Chem Phys* 15: 856-61 D '47
- Ice control from a grain elevator; storage of rock salt. *Il Roads & Bridges* 86:57-60+ Ja '48
- Immersion freezing solutions; a determination of the freezing point depressions of refrigerant solutions containing sugars and salt. *W. Goldsmith and L. H. Bartlett. diag Refrig Eng* 56:144-8+ Ag '48
- Infra-red vibrations in NaCl. *J. J. Markham. bibliog J Chem Phys* 16:580-6 Je '48
- Low cost winter safety; rock salt keeps street free from snow and ice in East Orange, N.J. *T. Young. Il Pub Works* 79: 62 JI '48

- Mechanical properties of NaCl, KBr, KCl. *J. K. Galt. bibliog Phys R* 73:1460-2 Je 15 '48

- Partial molal volume of acetic acid in sodium acetate and in sodium chloride solutions. *H. E. Wirth. bibliog Am Chem Soc J* 70:462-5 F '48

- Phase study of rosin soap-sodium chloride-water and rosin soap-sodium silicate-water systems. *R. C. Merrill and R. Getty. bibliog J Phys & Colloid Chem* 62:167-79 Ja '48
- Photolysis of persulfate; the quantum yield in water and the effect of sodium chloride in dilute alkaline solution. *L. J. Heidt, J. B. Mann and H. R. Schneider. bibliog Am Chem Soc J* 70:3011-15 S '48
- Rock salt melts down Lansing snow removal budget. *P. H. Slack. Il Roads & Sts* 91: 65-6 S '48

- Salt; industry's standby. *E. B. Tustin, jr. J Chem Educ* 25:344-6 Je '48

- Sodium chloride versus construction materials; symposium. *Il Chem Eng* 54:211-12+ O; 217-18+ N; 225-6+ D '47; 55:223-4+ Ja '48 [reprints 25c]

- Special ice-salt mixtures may lower refrigerator car temperatures. *J. M. Carbert and W. H. Cook. bibliog diag Refrig Eng* 55:251-5+ Mr '48

- Stress-corrosion tests on high-strength aluminum alloy sheet in sodium chloride-hydrogen peroxide solution and in marine atmosphere. *H. L. Logan and H. Hessing. bibliog Il J Res Nat Bur Stand* 41:69-86 JI '48

- Subaqueous fill on soft bottom is support for raw salt storage. *Il plan diag Eng N* 141: 96-7 Ag 19 '48

- Thermodynamics of sodium chloride in 50 mole per cent; aqueous methanol from e.m.f. measurements on cells with transference. *J. P. Butler and A. R. Gordon. bibliog Am Chem Soc J* 70:2276-8 Je '48

- Transference numbers of sodium and potassium chlorides in 50-mole percent methanol-water mixtures. *L. W. Shemilt and others. bibliog J Chem Phys* 16:340-3 Ap '48

- X-ray study of the effect of high hydrostatic pressures on the perfection of crystals. *L. Rosen. bibliog Il Am Soc for Metals Trans* 39:713-22; Discussion. 722-4 '47

See also**Brine****Manufacture**

- Pennsylvania salt manufacturing company. *Il Factory Management* 106:B53-3 pt 2 Ap '48

- Planned use of heat saves fuel in salt plant; Diamond Crystal Salt in St Clair. *F. W. McCarthy. flow diags Il Food Ind* 20:540-5+ Ap '48

Therapeutic use

- Hot weather hygiene. *Nat Safety N* 57:188 Mr '48

- SALT bath heat treatment. See Heat treatment

SALT domes

- Artesian salt formations. *B. Willis. bibliog Il maps diag Am Assn Pet Geologists Bul* 32: 1227-64 JI '48

- Crowville dome, Franklin parish, Louisiana. *C. L. Bryan and W. F. Hamilton. Am Assn Pet Geologists Bul* 31:2049-50 N '47

- Weeks Island salt-dome operations. *N. Williams. Il Oil & Gas J* 47:58-60+ S 2 '48

SALT industry and trade

- Court rules against Federal trade commission in International salt co. case. *Comm & Fin Chr* 168:835 Ag 26 '48

- Court rules against Morton Salt discounts. *Food Ind* 20:897-8 Je '48

- Morton Salt case decision throws new light on Robinson-Patman act. *Oil Paint & Drug Rep* 153:3+ My 10 '48

Statistics

- Salt production and consumption, 1946 and 1947; table. *Oil Paint & Drug Rep* 154: 41 JI 19 '48

Guatemala

- National association of salt producers established. *For Comm W* 31:18 My 22 '48

SALT LAKE desert

Meteorological conditions accompanying mirages. R. L. Ives, bibliog il maps Franklin Inst J 245:457-73 Je '48

SALT marshes. See Marshes, Tide**SALT mines and mining**

Salt mining in the modern vein. il Safety Eng 95:22-3+ Ap '48

SALTER, Leonard Austin, Jr. d 1946

Development of Salter's conception of research. K. H. Parsons, Land Econ 24:175-8 My '48

SALTING-IN. See Hydrotropy**SALTS**

Catalytic action of salt pairs. G. Schwab and A. Karatzas, bibliog diag J Phys & Colloid Chem 52:1053-60 Je '48

Control of humidity by saturated salt solutions; table showing percentage relative humidities over saturated solutions at various temperatures. F. E. M. O'Brien, bibliog J Sci Instr 25:73-6 Mr '48

Effect of salts on the melamine resin wet strength paper process. C. S. Maxwell and W. F. Reynolds, bibliog Paper Tr J 126: 45-9 Ap 1 '48; Same cond. Paper Ind 30: 122+ Ap '48

See also

Salt

SALTS, Complex

Porphyrin studies; the metal complex salts of $\alpha,\beta,\gamma,\delta$ -tetraphenylporphine. P. Rothenmund and A. E. Menotti, Am Chem Soc J 70:1808-12 My '48

Spectrophotometric study of the reaction of ferric iron and citric acid. O. E. Lanford and J. R. Quinan, bibliog Am Chem Soc J 70:2900-3 S '48

Study of the exchange of nickel in certain complex compounds using radioactive nickel. J. E. Johnson and N. F. Hall, bibliog Am Chem Soc J 70:2344-8 Jl '48

SALTS, Fused

Reactions in inert fused substances. H. S. Booth, E. F. Pollard and M. J. Rent-schler, bibliog diags Ind & Eng Chem 40: 1981-8 O '48

SALTS, Molten

Develop new heat transfer unit using inorganic salt mixture; Beth-Tec unit. W. C. Uhl, il Pet Processing 3:65-6 Ja '48

Molten salt bath descaling. il Steel 122:90 Mr 29 '48

Molten salt descaling by the Efco-Virgo process. J. A. Monks and J. McMullen, il diags Metallurgia 38:311-14 O '48

Protective metallic coatings from molten salts. H. R. Hoge, il Metal Prog 52:819-23 N '47

Pyroferous package; unit for heating and circulating molten salt; Beth-Tec. il Chem Ind 62:44-5 Ja '48

Quenching steel in molten media. F. R. Morral, bibliog Steel 122:92-5+ Je 21 '48

Salts for heat-treatment. E. Hague, il Metallurgia 38:39-43 My '48

SALTZMAN, Charles Eskridge, 1903-

Portrait, Fortune 36:84 D '47

SALVADOR**Commercial policy**

Renewal of trade agreement with France. For Comm W 32:21 Ag 28 '48

SALVAGE

Air-lift salvages sunken salmon cargo. A. R. MacPherson, il Comp Air Mag 52:309-10 D '47

Court decides on fixing award for salvage service of crew of tug. East Underw 49:30 My 21 '48

In the wake of invasion; salvage and rescue in support of amphibious attack forces. W. M. Heywood, Jr. il U S Naval Inst Proc 74:456-62 Ap '48

Salvage of dredger at Port Talbot. W. F. Ware, plan diags Engineer 185:610-13 Je 25 '48

Underwriters salvage major part of costly salmon cargo from Pacific. E. O. Scharegt, East Underw 49:21 Ja 2 '48; Excerpts. Nat Underw 52:13 Mr 11 '48

SALVAGE (fires)

How the Underwriters salvage co. protection service reduces losses. W. O. Cooper, East Underw 49:16 O 29 '48

SALVAGE (waste, etc.)

Blowpipe cutting employed to reclaim ladle skulls and buttons. il Steel 122:94+ My 17 '48

Care of salvaged casing. il World Oil 128:108 Ag '48

Conveyors, chutes and hoists mechanize chip handling; Link-Belt co. R. C. Becherer. il Am Mach 92:120-2 S 9 '48

Hazards in salvaged pipe. F. R. Cozzens, World Oil 128:158+ Je '48

Organization and operation of a salvage department; Westinghouse electric corp. F. A. Buldra, il Mill & Factory 42:152 Mr '48

Possibilities of recovery and utilization. F. W. Mohlman, Am Soc C E Proc 74:1052-61 S '48

Salvage of cast iron through heat treatment. D. Von Ludwig, diag Materials & Methods 26:87-9 N '47

Salvage operations simplified by magnetic analysis. A. D. Stout, jr. il Iron Age 162:86-7 Jl 1 '48

Salvaging fifty-six tons of sheet metal per day; Buick motor division of General Motors corp. il diags Mach 55:178-83 N '48

Salvaging used cable. W. H. Meade, diag Elec World 130:116+ Jl 31; 126+ Ag 14; 90+ Ag 28; 132 S 11; 128+ S 25 '48

See also

Scrap metal

SAMARIUM

Effect of activator concentration on the infrared-sensitive phosphor, strontium sulfide-samarium, europium. K. F. Stripp and R. Ward, diags Am Chem Soc J 70:401-6 Ja '48

Half-wave potential of samarium. A. Timnick and G. Glockler, bibliog Am Chem Soc J 70:1347-50 Ap '48

Investigation of samarium and gadolinium by the photographic method. K. K. Keller and K. B. Mather, Phys R 74:624-5 S 1 '48

Neutron absorption in samarium. A. J. Dempster, il Phys R 74:505 Ag 15 '48

Analysis

Chemical isolation of samarium from lanthanide mixtures. A. F. Clifford and H. C. Beachell, bibliog Am Chem Soc J 70:2730-1 Ag '48

Quantitative spectrographic analysis of the rare earth elements; determination of samarium in neodymium; determination of europium in samarium. V. A. Fassel and H. A. Wilhelm, bibliog diag Opt Soc Am J 38:518-26 Je '48

Isotopes

Alpha-ray emitting isotope in samarium. A. J. Dempster, bibliog Phys R 73:1125-6 My 1 '48

Internal conversion electrons from Sm^{152} . 47 hour. R. D. Hill, bibliog il Phys R 74:78-9 Jl 1 '48

Isotopic composition of samarium. M. G. Inghram and others, bibliog Phys R 73:180 Ja 15 '48

Mass deposition of completely resolved samarium isotopes. A. E. Shaw, il Phys R 74:980-1 O 15 '48

SAMPLE cases

Salesmen carry samples weighing 50-100 pounds? suitcase samples for Hauserman portable steel walls. R. Cook, Sales Management 61:97 S 1 '48

SAMPLER packages. See Package goods—Sampler packages**SAMPLES (merchandizing)**

Dog-eared, dirty and drab; are your dealer samples like that? United Wallpaper's aren't. J. E. Seguire, il Sales Management 60:44-5 F 15 '48

\$1.56 sample introduces class perfume to mass market. il Ptr Ink 223:66 My 7 '48

Sampling techniques; study of trial-size package. il Mod Packaging 21:97-102+ Je '48

SAMPLES (merchandizing)—Continued

We shipped 3,380 screens without orders; dealers bought 89 per cent; Da-Lite screen co. O. N. Wilton. *il Sales Management* 61: 138+ S 15 '48

See also
Salesmanship—
Samples
Sample cases

SAMPLING

Improved polymerization techniques; device for sampling latex during polymerization. R. J. Houston. *il Anal Chem* 20:49-51 Ja '48

Modified procedure reduces sample size for routine cetane number determinations. J. O. Chase and A. D. Puckett. *diag Pet Processing* 3:120 F '48

Sampling methods for liquids. W. L. Nelson. *diag Oil & Gas J* 46:121 Ap 22 '48

See also
Air sampling Water sampling
Dust sampling Wool sampling
Petroleum—Sampling

SAMPLING (statistical methods)

Acceptance sampling by variables, with special reference to the case in which quality is measured by average or dispersion. J. H. Curlliss. bibliog *J Res Nat Bur Stand* 39:271-90 S '47

Analysis of motor-vehicle registration records. G. P. St Clair and S. B. Clark. *Pub Roads* 25:95-101 S '48

Calculated risk. *Fortune* 37:124+ My '48
Commercial surveys as an aid in the determination of public policy; a case study; Massachusetts bill for state-owned liquor stores and prohibition of private sale of packaged liquor. S. P. Hayes, jr. *J Marketing* 12:475-82 Ap '48

Determination of sample sizes in designing experiments. M. Harris and others. *Am Stat Assn J* 43:391-402 S '48

History of the uses of modern sampling procedures. F. F. Stephan. *Am Stat Assn J* 43:12-39 bibliog (77 titles, p36-9) Mr '48

Lot sampling of screw machine parts. G. M. Bowen. *il Iron Age* 161:74-6 Ja 29 '48

Oscillographic scatterplots illustrating various degrees of correlation. J. C. R. Licklider and E. Dzendolet. *il diags Science* 107:121-4 Ja 30 '48

Pooling data. F. Mosteller. *Am Stat Assn J* 43:231-42 Je '48

Problems with sampling procedures for reserve valuations. G. C. Campbell. *Am Stat Assn J* 43:413-27 S '48

Relative power of three statistics for small sample destructive tests. P. H. Jacobson. *Am Stat Assn J* 42:575-84 D '47

Sampling errors in mortality and other statistics in life insurance. D. D. Cody. bibliog *Am Stat Assn J* 43:442-50 S '48

Sampling methods applied to estimating numbers of commercial orchards in a commercial peach area. F. E. McVay. *Am Stat Assn J* 42:533-40 D '47

Sequential analysis; a new tool for commercial research. R. Ferber. *Ptr Ink* 224:67-72 Ag 13 '48

Stratified-random sample of a small finite population; survey of enrollments by mail questionnaire of 1800 colleges and universities in the United States. F. G. Cornell. *Am Stat Assn J* 42:523-32 D '47

Variations in materials, testing, and sample sizes. L. E. Simon. *Ind Stand* 19:81-3 Ag '48

SAND

Absorption of sound in suspensions of irregular particles. R. J. Urlick. bibliog *il Acoustical Soc Am J* 20:283-9 My '48

Better raw materials for the glass industry. A. Ottoson. *Glass Ind* 29:251-2+ My '48; Excerpt. *Cer Ind* 50:109-10 Je '48

Calcium chloride counteracts organic impurities in sand. I. Lyse. *Eng N* 141:62 Ji 22 '48

Cave-ins of sandy backfills. J. C. Gebhard. *il plans diags Am Soc C E Proc* 74:84-92 Ja '48

Correcting poor sand gradation. N. C. Rockwood. *Rock Prod* 51:132+ Je '48

Dredging a large sand deposit from a power plant forebay. *il diag Eng N* 139:818-19 D 11 '47

Experiences with soil types in naval construction; stability of sand as foundation material for a cellular pier. L. A. Palmer. *diag Am Soc C E Proc* 74:79-83 Ja '48

Fluidization of solid non-vesicular particles. M. Leva and others. *Chem Eng Prog* 44: 619-26 Ag '48

Grass stabilizes sand on 4,900 acres of New York's Idlewild airport. *il Civil Eng* 18: 22-3+ Ja '48

Heat transfer to granular materials; settled beds moving downward through vertical tubes. M. S. Brinn and others. bibliog *il diags Ind & Eng Chem* 40:1050-61 Je '48

Introduction to fluidization; counter-gravity flow of air, carbon dioxide, and helium through beds of round and sharp sands. M. Leva and others. *il diags Chem Eng Prog* 44:511-20 Ji '48

Sand cooling plant. *il diag Engineer* 184:514 N 28 '47

Sand on top of ballast. H. W. Protzeller. *Rock Prod* 51:97-8 Mr '48

See also
Black sand Sand drying
Oil sand Sand handling

Analysis

Determination of iron in glass sand. J. J. Diamond. *Am Cer Soc J* 31:243-5 S 1 '48
Improvement of analytical control for silica brick. J. T. Rozsa. *Am Cer Soc J* 31:260-3 O 1 '48

Moisture content

Instrument gives sand moisture content. *il diags Product Eng* 19:95 Ji '48
Two valuable aids for determining moisture content; sand moisture determination chart and moisture correcting table. R. R. Kaufman. *Rock Prod* 51:140-1 My '48

Stone sand

Michigan Silica completes three-year modernization program. D. Mocine. *il plan Rock Prod* 51:100-5 Ag '48
Producing aggregates for Ft. Gibson dam; M. O. Weaver, inc. G. C. Hawkins, flow sheets *il Rock Prod* 50:80-5 N '47

Arizona

Meteor crater; a source of quality silica. *il Min Cong J* 34:43-4 My '48

Australia

Australia's coast is rich in mineral sands. D. Mercer. *Can Min J* 69:94-5 My '48

Florida

Drilling Florida dune sand. J. R. Thoenen and R. V. Spencer. 4pls *U S Bur Mines Rep of Invest* 4227:1-4 '48

SAND, Bituminous. *See Bituminous sand*

SAND, Foundry

Aluminum alloy castings. F. A. Lewis. *il Foundry* 76:90-3+ F '48

Chemically bonded sand; its present status, its future. T. Barlow. *il Iron Age* 161: 80-3 Ap 22 '48

Core sand dried and screened with modern equipment; Standard sand co. R. S. Torgerson. *il Rock Prod* 51:126-8 Ja '48

Expansion of silica sand. H. H. Fairfield. *diags Foundry* 76:128-9 My '48

Experimental work on sand; committee papers. A.F.A. annual meeting. *Foundry* 76: 128+ Ji '48

Foundry sand, uncontrolled. H. E. Henderson. *Foundry* 76:95+ Ap '48

Properties of sand cores. V. Rowell. *il Foundry* 76:80-1+ F '48

Sand problems discussed; shop course sessions. A.F.A. annual meeting. *Foundry* 76: 132+ Ji '48

Reclamation

Unusual shakeout arrangement speeds sand conditioning. *il Iron Age* 161:75 F 5 '48

Testing

Hot-strength characteristics of moulding sands. W. Davies and W. J. Rees. *diags Iron & Steel Inst J* 152:61-70 no 2 '48; Same abr. *Engineering* 161:190-2 F 22 '46; Discussion. *Iron & Steel Inst J* 153:358-60 no 1 '46

SAND and gravel plants

Metropolitan's five year rehabilitation program; illustrations with text. Rock Prod 51:126-9 Ap '48

Directories

Sand, gravel and crushed stone producers, Canada, Roads & Bridges 86:147-8+ Je '48

Employees

Labor requirements; sand and gravel and ready-mixed concrete. A. L. Stucke. Mo Labor R 66:630-5 Je '48

Equipment

Compact plant produces many sizes; Pacific building materials co. W. B. Lenhart. flow sheet. Il diags Rock Prod 51:83-94 O '48
Conveyor belt system cuts material handling costs; Sangravl co. D. Mocine. flow plan. Il Rock Prod 51:92-6 F '48

Core sand dried and screened with modern equipment; Standard sand co. R. S. Torgerson. Il Rock Prod 51:126-8 Ja '48
Long belt conveyors reduce haulage cost; Wm. May sand and gravel corp. D. Mocine. Il plan Rock Prod 51:78-9 My '48

Manufacturers' ideas to meet difficult operating problems; hydraulic equipment; illustrated descriptions of latest equipment. plan diags Rock Prod 50:118-21 D '47
Million dollar sand and gravel plant uses belts from pit to dock; New York trap rock corp. W. B. Lenhart. Il diags Rock Prod 51:80-4 JI '48

Modern Swiss sand and gravel plant. Il Rock Prod 51:92-3 My '48
Modernized plant supplies aggregates to meet increasing demand for concrete; Milne-Coulson. Il Rock Prod 51:180-1 Je '48

Portable equipment converted to permanent plant set-up; Becker County sand and gravel co. Il Rock Prod 51:106-7 Ja '48
Produce agstone from a calcareous gravel; Northern sand and gravel co. D. Mocine. Il Rock Prod 51:126-7 Je '48

Radial stacker belts provide flexible operation; Wapak sand & gravel co. D. Mocine. Il Rock Prod 51:74-5+ JI '48
Solving the problem of little gravel, much clay. N. C. Rockwood. diag Rock Prod 51:102-4 F '48

SAND and gravel plants, Portable

Maine turnpike project; two portable gravel plants. W. B. Lenhart. Il Rock Prod 51:87 F '48

Manufacturers' ideas to meet difficult operating problems; portable plants; illustrated descriptions of latest equipment. Rock Prod 50:121-3 D '47

Portable aggregate plant. V. J. Brown. Il diag Roads & Sts 91:84-5+ JI '48

SAND blast

Abrasive blasting speeds pipe cleaning. Il Iron Age 162:79 JI 1 '48

Blast cleaning prepares surfaces for finishing. L. J. Wieschhaus. Il Am Mach 92:81-4 S 9 '48

Cleaning air diffuser plates by sandblasting. J. R. Longley. Il diag Water & Sewage Works 95:363-5 O '48

Continuous work flow to abrasive cleaning machines maintained by clever arrangements. Il Steel 122:74-7 Je 28 '48

Preparing surfaces for metallizing. R. Mansell. Il Steel 122:93-5+ Mr 1 '48

Roll life increased 35 per cent by controlled airless blasting. diags Steel 122:116 Ap 12 '48

Sand blast machine cleans ware in one-third time. Il Cer Ind 50:144 Ap '48

Sand blasting useful in cleaning variety of metal surfaces. F. Gober. Il Oil & Gas J 47:80+ S 2 '48

Steel drum reconditioning speeded; blast cleaning machine. Il Iron Age 161:65 Ja 22 '48

SAND drying

Sand-drying unit. Il Ry Age 125:8 JI 3 '48

SAND dunes

14 million cu. yd. sand pumped from bank to beach; Los Angeles sewage plant. Il Constr Methods 30:68-71 Ag '48

SAND handling

Core sand dried and screened with modern equipment; Standard sand co. R. S. Torgerson. Il Rock Prod 51:126-8 Ja '48

Manufacturers' ideas to meet difficult operating problems; hydraulic equipment; illustrated descriptions of latest equipment. plan diags Rock Prod 50:118-21 D '47

More efficient packing facilities sought by sand producers. Rock Prod 51:96+ JI '48

See also**Sand pumping**

14 million cu. yd. sand pumped from bank to beach; Los Angeles sewage plant. Il Constr Methods 30:68-71 Ag '48

Raising ground level by sand pumping. Il map Engineering 165:241-3, 252 Mr 12 '48

SAND reservoirs. See Oil sand**SAND traps**

Trapping sand in water; Miami's water-filtration plant. L. Perry. Il diags Eng N 140:127-9 Ja 22 '48

SAND washing

Solving the problem of little gravel, much clay. N. C. Rockwood. diag Rock Prod 51:102-4 F '48

SAN DIEGO, California

See also Technical and scientific societies council of San Diego

Streets

California's freeway design and construction. E. E. Sorenson. Il Pub Works 78:26-7 N '47

Water supply

Precasting concrete pipe for the San Diego aqueduct. D. K. Woodin. Il plan diags Am Concrete Inst J 19:261-88 D '47

Radio on the San Diego aqueduct. R. D. Thorson. Il Eng N 141:58-9 JI 22 '48
San Diego aqueduct. J. Beach. Il Pub Works 79:23-5 F '48

Tri-valve manifold controls water flow. Il diag Eng N 140:436-7 Mr 18 '48

SAN DIEGO gas and electric company

Bonds offered. Comm & Fin Chr 167:1261 Mr 22 '48

Common stock offered. Comm & Fin Chr 168:1804 N 1 '48

SANDING machines

How to size up the sales potential for industrial products; Sterling sanders. J. A. Proven. Sales Management 61:78+ Ag 1 '48

SANDSTONE

Nature of the iron compounds in red and yellow sandstone. L. J. E. Hofer and S. Weller. biblog Science 106:470 N 14 '47

SANDWICH construction. See Laminated construction; Metalite

SANDY HOOK, Maryland**Bridges**

2247-ft. continuous truss bridge. W. C. Hopkins. Il diags Roads & Sts 91:108-11+ Mr '48

SAN FRANCISCO

New foreign-trade zone at port of San Francisco. Ry Comm W 30:18 Mr 20 '48

San Francisco becomes free port no. 3. Bsns W p32 Je 26 '48

Commerce

San Francisco joins family of foreign-trade zones. T. E. Lyons. Il For Comm W 31:34-+ My 22 '48

Health service system

San Francisco worried by Health service system; city employees covered under compulsory system may be left without care as physicians resign. Weekly Underw 157:1265 N 15 '47

Rapid transit

New bus plan for 'Frisco. plan Bus Transportation 27:82-3 My '48

Sanitary affairs

Gas fires in a sanitary fill; spontaneous combustion ignites gases from decomposing garbage. Il Eng N 140:40-1 Ja 8 '48

Motor trucks replace gondolas on San Francisco's sanitary fill. Il Eng N 141:110-11 O 14 '48

SAN FRANCISCO—Continued

Sewerage

Richmond-Sunset sewage treatment plant operation, flow diag il Pub Works 79:20-1 My '48

Streets

San Francisco's Market street gets new track zone pavement, il Roads & Sts 91:84-6 Je '48

SAN FRANCISCO Bay bridges

Calif. Bridge board approves two plans for new San Francisco Bay crossing, Eng N 139:699 N 20 '47

Toll bridge authority directs construction of two new San Francisco Bay crossings, R. A. Tudor, il map Civil Eng 18:504-5+ Ag '48

Two-way radio expedites traffic on San Francisco-Oakland Bay bridge, F. E. Ebel, il Pub Works 78:21-3 D '47

SAN FRANCISCO stock exchange

Committee appointments, Comm & Fin Chr 167:521 Ja 29 '48

SANITARY chemicals

Sanitary chemicals featured at 11th annual supermarket show, Chicago, Soap & San Chem 24:159 Jl '48

Trends in consumer demand for household sanitary products, E. Freedman, Soap & San Chem 24:123-5, 163 Jl '48

What the distributor expects from the manufacturer, M. M. Rosenfeld, Soap & San Chem 24:133+ Ja '48

See also

Cleaning compositions
Disinfection and disinfectants
Insecticides

SANITARY chemistry

Patents

New patents, Published in monthly numbers of Soap and sanitary chemicals

SANITARY districts

Experience guides ocean outfall design for the Los Angeles county sanitation districts, il diag Eng N 140:368-71 Mr 4 '48

Public relations program pays off; bond issue carried as result of educational program; Urbana-Champaign sanitary district, W. M. Kunsch, plan Water & Sewage Works 94:424-6 N '47

SANITARY engineering

Contributions of the sanitary engineering program of UNRRA to international health, F. F. Aldridge, bibliog Pub Health Rep 62:1729-39 D 12 '47

Experimental project offers solution to China's sanitary needs, R. Stone, il Civil Eng 18:166-7 Mr '48

Nuclear fission developments pose sanitary-engineering challenge, A. Wolman and A. E. Gorman, Eng N 141:91-2 O 14 '48

Public health engineering in British Columbia, R. Bowering, Water & Sewage 86:19+ F '48

Sanitary engineering, a Korean episode; American occupation forces clean up Pusan, P. Z. Kirpich, il Eng N 140:109-12 Ja 22 '48

Sanitary engineering division, A.S.C.E. meeting, New York, Jan. 21-23, Water & Sewage Works 95:121-4 Mr '48

See also

Air conditioning
Drainage
Dust removal
Factory sanitation
Filters and filtration
Heating
Mosquitoes—Extermination
Plumbing
Refuse collection

Refuse disposal
Sewage disposal
Sewerage
Snow removal
Trade waste
Ventilation
Water pollution
Water purification
Water supply engineering

also National research council—Committee on sanitary engineering and environment

Study and teaching

Public health engineering, field training programs of U.S. Public health service, il Pub Works 79:37 F '48

SANITARY engineers

American public health association program for engineering personnel, W. T. Ingram, Am Water Works Assn J 40:337-40 Mr '48

Industry increases demand for sanitary engineers, E. T. Roetman, il Civil Eng 18:92-4 F '48

Pennsylvania engineering bureau reorganized, Water & Sewage Works 95:194 My '48

Sanitary engineers see need of catastrophe organization; National research council urges creation of sanitary-engineering unit in U.S. Public health service, Eng N 140:473+ Ap 1 '48

Directories

Federation of sewage works associations; annual directory, map Sewage Works J 20:366-439 Mr '48

SANITARY products industry

How to sell sanitary supplies to hospitals, A. LaBelle, il Soap & San Chem 24:129+ My '48

See also

Sanitary chemicals
SANITARY supply association, National. See National sanitary supply association

SANITARY ware

Recent trends in the ceramic industry, il Chem Eng 55:134 Jl '48

Manufacture

Cradling ware to dryer cuts loss, time, il diag Cer Ind 51:88 N '48

Ingenuity marks sanitaryware manufacturing at Briggs, il Cer Ind 50:82-3 Ap '48

SANITATION

See also

Dairies—Sanitation Sanitary engineering
Factory sanitation Sewage disposal
Food factories—Sanitation Smoke prevention
Trade waste
Refuse disposal Water purification

SANITATION, Military. See Military hygiene

SAN JOSÉ formation (term)

Eocene of the San Juan basin, New Mexico, G. G. Simpson, maps diags Am J Sci 246:257-82, 363-85 bibliog(p383-5) My-Je '48

SAN JOSE state college

Hartley Everett Jackson at San Jose state college, F. McCaffrey, Inland Ptr 120:85-6 D '47

SAN LEANDRO, California

Sewerage

Twin industrial waste and domestic main sewers, C. P. Martin, il Pub Works 79:20-1 Jl '48

SANTA CLARA county, California

Why scores of new industries came to America's prune capital, il Sales Management 60:128+ F 15 '48

SANTOCCEL

Santocel, a new material for the coating industry, C. L. Jones, Paint Oil & Chem R 110:88-9 N 13 '47

SANTONIN

Studies in the santonin series; the introduction of nitrogen into the desmotropo-santonin molecule, Huang-Minlon and S. Cheng, bibliog Am Chem Soc J 70:449-52 F '48

Studies in the santonin series; the stereochemistry of santonin and its derivatives, Huang-Minlon, bibliog Am Chem Soc J 70:611-14 F '48

SÃO PAULO, Brazil

Technical school aids Sao Paulo's growth, E. E. Halmos, Eng N 141:9 O 7 '48

SAPAMINE

New analytical reactions with anionic and cationic wetting agents, A. Steigmann, bibliog Soc Chem Ind J 66:355-6 O '47

SAPOGENINS

Steroidal sapogenins, R. E. Marker and J. Lopez, Am Chem Soc J 69:2373-404 O '47

SAPONIFICATION

Hydroxylated stearic acids; action of Prévost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids, H. Wittcoff and S. E. Miller, bibliog Am Chem Soc J 69:3138-9 D '47

Lipides of the cottonseed; saponification number, V. L. Frampton and G. N. Martin, bibliog Anal Chem 20:661-3 Jl '48

Pressure saponification; abstract, R. Flala, Soap & San Chem 24:87 Jl '48

SAPONINS

- Hemolysis of human red cells by saponin following virul action. B. A. Briody. *bibliog Science* 107:450-1 Ap 30 '48
Isolation of a saponin from the leaves of *solidago canadensis* L. R. C. Burrell and F. G. Houston. *Am Chem Soc J* 70:862 F '48

SAPPHIRES

- Can sapphire mining revive? *il Min Cong J* 34:38-9 My '48
Sapphire tip bores bushing. C. C. Scott. *il diags Am Mach* 92:83 J1 29 '48

SAPROLEGNIACEAE

- Comparative study of zygote germination in the saprolegniaceae. A. W. Ziegler. *Science* 107:506 My 14 '48

SARAN

- Dow enters textile field with third joint venture; Saran textiles. *Barron's* 27:33 N 17 '47
Looking toward 1948; raw materials; polyvinylidene chloride. *Mod Plastics* 25:162-3 Ja '48
Many screening uses found for monofilament fabrics. *il Textile World* 98:112-13 S '48
\$1,000,000 backs saran switch to generic name. *Ptr Ink* 222:75 Ja 30 '48
Use of saran thread as a gasket in infra-red spectrometer cells. H. R. Broadley. *R Sci Instr* 19:475 J1 '48
Vinylidene chloride, its polymerization and polymer properties. H. P. Staudinger. *bibliog Chem & Ind* p685-9 N 8 '47

SARANAC laboratory

- Saranac symposium, 6th, Saranac Lake, N.Y. Sept. 29-Oct. 3, 1947. *Ind Med* 17:72-4 F '48

SARDINES

- Norwegian food industry packs in aluminum cans. D. Nickelsen. *il Food Ind* 19:1650-3 D '47
Pacific sardine mystery. *Comp Air Mag* 53:21 Ja '48
United States canned salmon and sardine exports; January-June, 1947 and 1948. *For Comm W* 33:23 O 9 '48

SARGENT, John T.

- Big Jaw'n's the man to see about books. J. L. Collings. *por Ed & Pub* 81:32 Mr 13 '48

SARGENT and company

- Sargent expands; buys maker of hand tools. *Bsns W* p25-6 F 21 '48

SARGROVE, John A.

- First automatic radio factory; British machine builds three radio circuits a minute. *il Fortune* 38:30-3 Ag '48

SARNOFF, David, 1891-

- Annual advertising awards, 1947; medal award to D. Sarnoff. *por Adv & Sell* 41:37 Mr '48
Portrait. *Fortune* 38:82 S '48

SASKATCHEWAN

- See also*
Mines and mineral resources—Saskatchewan
Public health—Saskatchewan

SAUSAGE

- Cheese, bacon go into franks. *il Food Ind* 20:1150-1 Ag '48
Greenish discoloration of sausage; abstract. C. F. Niven. *Food Ind* 20:795 My '48
Warehouses are by-passed in this trucking operation; Herman processed meat in Florida. *il Food Ind* 20:1292-3 S '48

Advertising

- How to make the slow line move; Frey & sons labels and advertises sausage. D. Dover. *il Ptr Ink* 222:48-9 F 20 '48

SAVAGE, Thomas Edmund, 1866-1947

- Memorial. A. H. Sutton. *por(pl 13)* *Geol Soc Proc* 1947:173-6 *bibliog(p 174-6)* My '48

SAVAGE arms corporation

- Higher dividend. *Barron's* 28:35 S 6 '48

SAVANNAH river

- Augusta prepares for new industries; Clark Hill dam will bring supply of electric energy and improve Savannah River traffic. *il Manuf Rec* 117:30-1+ J1 '48

SAVING

- Anti-inflationary role of savings. R. G. Taylor. *Banking* 40:39+ F '48
Are there enough savings to meet demands for long-term capital? *Nat City Bank p* 129-30 N '47

Decline in savings. Economist 154:1029 Je 19 '48

- Employees benefit from savings and profit sharing plan. *Mill & Factory* 42:133 Je '48
Have we too much or too little free savings? analysis indicates this is poor time to experiment with credit restriction. J. Hirsch. *Barron's* 28:7-8 Mr 15 '48

How to help your employees with their financial problems. J. K. Lasser. Mill & Factory 42:118 Ap '48

- John Doe; economics of his pay envelope and savings. W. Lindow. *Comm & Fin Chr* 167:2646+ Je 17 '48

Light on savings habits. Economist 155:429-30 S 11 '48

- Modernists' attacks on savings; a rejoinder. W. E. Spahr. *Comm & Fin Chr* 166:1941+ N 13 '47

National savings; gross and net. Economist 155:470 S 18 '48

- Saver's nodder under triple squeeze, new study by Committee on public debt policy. *Comm & Fin Chr* 167:495 Ja 29 '48

Savings and capital expenditures. Nat City Bank p9-11 Ja '48

- Savings and debt. J. M. Dodge. *Comm & Fin Chr* 167:2634+ Je 17 '48

Savings and investment. A. H. Hansen. R Econ & Stat 30:30-3 F '48

- Savings stream diverted from stock market; banks, insurance companies take bulk of individuals' free funds. C. S. Koch and J. C. Whitehead. *Barron's* 28:6 Ag 30 '48

Small savings peter out. Economist 154:944 Je 5 '48

- Study of savings in U.S. sponsored by life insurance companies. *East Underw* 49:1+ S 3 '48

Supply of savings. Economist 154:829-30 My 22 '48

- Two more contributions on the consumption function; consumption-saving function; its algebra and philosophy. W. S. Woylinsky. *R Econ & Stat* 30:45-55 F '48

Wages, prices and the people's savings. S. H. Slichter. Comm & Fin Chr 167:2187+ My 20 '48; Same cond. Trusts & Estates 87:118-22 Ag '48

- See also*
Credit unions
Investments
Savings banks
School savings

Statistics

- \$8.8 billions long-term savings gain in 1947 below war years; total is now \$160 billions. *Weekly Underw* 158:622 F 21 '48

Estimated liquid asset holdings of individuals and businesses; with half-yearly figures by type of holder, Dec. 1939-Dec. 1947. Fed Res Bul 34:657-8 Je '48

- Liquid saving estimates of the Securities and exchange commission and their reconciliation with personal saving estimates of the Department of commerce, 1933-46; tabulation. *Survey of Cur Bsns* 27:sup20-1 J1 '47

Liquid saving estimates of the Securities and exchange commission and their reconciliation with personal saving estimates of the Department of commerce, 1944-47; tabulation. Survey of Cur Bsns 28:17 J1 '48

- 1948 survey of consumer finances. D. M. Holt-hausen. *Fed Res Bul* 34:766-80, 914-32 J1-Ag '48

\$162.7 billion in savings backlog; with graphs and tabulations showing trend of individual savings, 1910-1947. Banking 40:42-3 Ap '48

- Progress in savings? *Economist* 153:1057-8 D 27 '47

Ratio of mortgage loans to savings; with chart and tabulation, 1934-1947. Banking 40: 68-9+ Je '48

- SEC reports decline of \$400 million in individuals' savings during first quarter of 1948. *Comm & Fin Chr* 168:213+ J1 15 '48

SEC reports savings lowest since 1940. Comm & Fin Chr 167:1662 Ap 15 '48

- Transitional savings patterns of individuals. *Survey of Cur Bsns* 27:9-10+ N '47

Trend of individual savings, 1910-1948; with tabulation and graphs. Banking 41:48-9 O '48**SAVING, Compulsory**

- Poland; compulsory savings law enacted. *For Comm W* 31:17 Ap 24 '48

SAVINGS and loan associations. See Building and loan associations

SAVINGS and loan associations, Federal. See Federal savings and loan associations

SAVINGS and loan insurance corporation, Federal. See Federal savings and loan insurance corporation

SAVINGS banks

After the turn of the year. G. C. Johnson. Comm & Fin Chr 167:352 Ja 22 '48

Costs in the savings business. J. R. Dunkerley. Banking 40:45+ Je '48

Mutual savings banks deposits reach peak in 1947. E. B. Schwulst. Comm & Fin Chr 167:818 F 19 '48

Savings bonds not a detriment to savings institutions. W. C. Hanson. Comm & Fin Chr 166:2365+ D 11 '47

Stamp plan for special savings accounts; Savings bank of Baltimore. B. T. Salisbury. Il Burrough Clearing House 32:26-8 Mr '48

Costs

Four samples of savings bank costs; with detailed analysis. G. R. Hendrickson. Banking 40:54-5 Mr '48

Insurance selling

Accord may cut cost of insuring with banks in New York state. P. A. Johnston. Barron's 23:8 F 9 '48

Banks seek to end differences over New York limit. Nat Underw (Life ed) 51:1+ N 7 '47

Connecticut SBLI sales gain 30 per cent during '47. Weekly Underw 158:768 Mr 6 '48

Lively hearing on Rhode Island bank bill. Nat Underw (Life ed) 52:1 Ap 2 '48

Investments

Broadening investments of savings institutions; an aid in maintaining high employment. H. Jones. Comm & Fin Chr 167:13 Ja 1 '48

Corporate bonds as savings bank investment. A. N. Jones. Comm & Fin Chr 167:2314+ My 27 '48

Equity housing; banks find yesterday's golden opportunity turning into today's expensive headache. Il Arch Forum 88:14-16 Ja '48

Mutual savings banks, inflation and public debt policy. A. Ihlefeld. Comm & Fin Chr 168:1313+ S 30 '48

National debt administration and savings banks. H. Bruere. Comm & Fin Chr 167:2319+ My 27 '48

Problems ahead in utilities financing; savings bank investments. E. Hopkinson, Jr. Comm & Fin Chr 167:1642+ Ap 15 '48

Railroad bonds as long-term investments and how to select them. G. M. Grinnell. Comm & Fin Chr 167:1656+ Ap 15 '48

Savings banks and liquidity of U.S. government bonds. L. S. Pruyne. Comm & Fin Chr 167:1654+ Ap 15 '48

Theory of relativity in selecting railroad bonds. G. M. Grinnell. Comm & Fin Chr 168:1316+ S 30 '48

World events and bank investments. M. Nadler. Banking 40:41+ My '48

SAVINGS clubs

See also

Christmas clubs

SAVINGS deposits

N.Y. state savings banks and U.S. postal savings, 1941-1946. Survey of Cur Bsns 1947 Sup p75 [supplemented in monthly numbers]

Savings banks deposits at new high. W. L. Maude. Comm & Fin Chr 168:1767 O 28 '48

SAWDUST

Sawdust-binder compositions. A. E. Gabriel. Mod Plastics 25:145-7+ Ap '48

Sawdust neutral spirits; abstract. R. S. Aries. Chem Eng 55:284+ My '48

SAWMILLS

Diesel pays off for lumber plant. Il Ry Age 123:989 D 6 '47

Integrated forest utilization in the Pacific Northwest. O. H. Schrader, Jr. flow chart Il Mech Eng 69:1000-2 D '47

Equipment

Vertical log band mill. Il diags Engineer 186:241-4 S 3 '48

Safety measures

Everyone wins in hospital sweepstakes; saw-mill plants of the British Columbia lumber manufacturers' association. Nat Safety N 56:110 D '47

SAWS

Care and maintenance of power chain saws. R. Thomson. Pulp & Pa of Can 49:142+ S '48

Chain saw index sleeve redesign reduces cost. Il diags Product Eng 19:102 Mr '48

Diamond band saw solves cutting problem in ceramics. H. J. Chamberland. Il Cer Ind 51:89+ O '48

Proper shape and angle of hand saw teeth. Il diags Paper Ind 29:1321 Mr '48

Pulpwood saw V-belt improves performance of portable power saws. Il Paper Tr J 127:51 JI 22 '48

Manufacture

Broaching of teeth speeds saw blade production. Il Mach 55:157-9 O '48

Making wide band saws; illustrations with text. Mach 54:168-9 Je '48

Testing

Investigation of energy requirements for inserted-point circular headsaws; abstract. C. H. Telford and L. H. Reineke. diags Mech Eng 70:913-14 N '48

SAWS, Metal working

Band saw blading now capable of cutting 200 basic materials and their derivatives. H. J. Chamberland. Il Steel 122:66-7+ Ja 19 '48

Contour sawing hardened steels and carbides; diamond band saw. Il Iron Age 161:73 F 26 '48

Friction circular sawing; reference book sheet. Am Mach 92:141, 143 S 9 '48

Friction cutting gates and risers by the band saw method. H. J. Chamberland. Il Foundry 76:94-7+ O '48

Grinder mounted on shaper ram sharpens teeth of circular saw. J. T. Zurlo. Il Am Mach 92:183 Mr 11 '48

Handling spells economy at power saws. B. Melnitsky. Il Am Mach 92:74-5 Ja 1 '48

Lubrication extends band-saw life; oil-mist lubrication. H. J. Chamberland. Il diag Tool Eng 21:36-7 O '48

Midsize major toolroom bandsaw. Il Automobile Eng 38:238 Je '48

Modified Scotch yoke drive for hack saw. Il diags Product Eng 19:93-4 N '48

Pipe and angle-iron bandsaw driven from engine-lathe head. A. Steiner. Il Am Mach 92:110 Ag 26 '48

Solving common bandsawing troubles; tabulation. Iron Age 166:59 D 18 '47

Special portable platform for power metal saw. Il Sheet Metal Worker 39:55+ F '48

35th annual review. Il Am Mach 92:204-6 Ja 29 '48

Safety measures

Safety attachment for power saws. R. J. Gilson. Il Mach 54:154 Ja '48

SAWYER, Charles, 1887-

Portrait. Sales Management 60:40 My 20 '48

SAWYER, William Alfred, 1884-

Who's who in industrial medicine. por Ind Med 17:309-15 Ag '48

SAYRE, Morris, 1885-

New N.A.M. head. por(cover) Bsns W p6 D 6 '47

Portrait. Fortune 38:72 JI '48

SCAFFOLDING

Handling scaffolds for tuck pointing. R. M. McConkey. diags Brick & Clay Rec 111:34-5 D '47

Safety scaffolds built into bridge pier forms. Il Constr Methods 30:75 S '48; Same. Roads & Sts 91:68 S '48

Safety measures

Safe scaffolds. Safety Eng 96:51 Ag '48

Scaffold accidents. Il Nat Safety N 56:38-9+ N '47

Scaffolding. Il Nat Safety N 57:87 Mr '48

SCAFFOLDING, Portable

- Maintenance men lick lumber shortage, build movable scaffold from scrap pipe; Shell oil co.'s Wood River refinery. *il Pet Processing* 2:829 N '47
- Materials handling trucks serve as mobile scaffolds. *il Iron Age* 162:94 S 16 '48
- Portable scaffold. *il Ry Mech Eng* 122:142-3 Mr '48

SCAFFOLDING, Steel**Advertising**

- Direct mail builds six-figure business in one year. B. L. Gough. *il Ptr Ink* 222:39 Mr 5 '48

SCALES

- Accurate method of determining engine oil consumption; recording scale. W. S. Powell. *il Automotive Ind* 98:35+ F 1 '48
- Chatillon baby scale. Consumers Res Bul 21: 10 Ap '48
- Concrete control on Allatoona dam. *il Concrete* 56:22-3 Je '48
- Measuring liquid flow by weight; scales modified to check fuel consumption of airplane and automobile engines. D. B. Kendall. *il diags Electronics* 21:114-16 My '48
- Percent solids scale. To determine the percentage of solids in the mud from the white liquor clarifier and mud washer. H. J. Ostrowski and others. *il Pulp & Pa of Can* 49:70 Mr '48
- Redesigned scale has three-piece plastic housing. *il diags Product Eng* 19:98-9 Ag '48
- Scale housing molded of urea; candy scales. *il Mod Plastics* 25:112 N '47
- Scaled to match the rising flow curve; Toledo scale co. duplex wheel chart. *il Bsns W* p36 Ja 3 '48
- Store and business equipment award to Toledo scale company; plastics scale housing. *il Mod Plastics* 26:172-5 S '48
- Uses of industrial scales; illustrations. Mill & Factory 42:136 Ja '48
- Wider-range scale. *il Bsns W* p58 Ag 14 '48

*See also***Balances**

SCALING circuit. *See* Recording instruments, Electric

SCALING of metals. *See* Metals—Scaling

SCALP ringworm. *See* Ringworm

SCANDINAVIA*See also*

- | | |
|---------------------|---------------|
| Libraries, Special— | Lumber trade— |
| Scandinavia | Scandinavia |

Foreign relations

- Northern light on Mr Bevin; proposals for the political consolidation of western Europe. *Economist* 154:269+ F 14 '48
- Scandinavian perplexities. *Economist* 154:801-2 My 15 '48
- SCANDINAVIAN librarians' congress**
Meeting, 5th, Copenhagen, Aug. 13-16. *Special Lib* 38:324-7 D '47

SCANDIUM**Isotopes**

- Coincidence experiments on Sc⁴⁶, Ga⁷², Au¹⁹⁸, and Rb⁸⁶. E. T. Jurney. *Phys R* 74:1049-52 N 1 '48
- Disintegration of scandium⁴⁶, gold¹⁹⁸, and tungsten^{185,187}. C. L. Peacock and R. G. Wilkinson. *bibliog Phys R* 74:297-303 Ag 1 '48
- Radiations from scandium⁴⁶ and titanium⁴⁸. C. E. Mandeville and M. V. Scherb. *bibliog diags Phys R* 73:141-5 Ja 15 '48

SCATTERING coefficients

- Absorption of incident quanta by atoms as defined by the mass photoelectric absorption coefficient and the mass scattering absorption coefficient. J. A. Victoreen. *bibliog J Ap Phys* 19:855-60 S '48

SCATTERING of light. *See* Light, Scattering of

SCATTERING of particles and rays

- Angular correlation of scattered annihilation radiation. E. Eitel and D. ter Haar. *Science* 108:10-11 J1 2 '48
- Angular correlation of scattered annihilation radiation. H. S. Snyder and others. *diags Phys R* 73:440-8 Mr 1 '48

Application of Heisenberg's theory of S-matrix to the problems of resonance scattering and reactions in nuclear physics. Ning Hu. *bibliog Phys R* 74:131-40 J1 15 '48

Calculation of a perturbing central field of force from the elastic scattering phase shift. E. A. Hylleraas. *Phys R* 74:48-51 J1 1 '48

Charge distribution in nuclei and the scattering of high energy electrons. M. E. Rose. *bibliog Phys R* 73:279-84 F 15 '48

Compton scattering and the emission of low frequency photons. R. Jost. *bibliog Phys R* 72:815-20 N 1 '47

Contributed papers on nuclear scattering; abstracts. *Phys R* 74:1205-6 N 1 '48

Dynamics of nuclear reactions. C. E. Mandeville. *bibliog diags Franklin Inst J* 244: 385-99 N '47

Elastic scattering of high energy nucleons by deuterons. G. F. Chew. *Phys R* 74:809-16 O 1 '48

Large-angle scattering of Na²⁴ gamma-radiation. E. Pollard and D. E. Alburger. *bibliog diags Phys R* 74:926-32 O 15 '48

Nuclear reactions at high energies. R. Serber. *Phys R* 72:1114-15 D 1 '47

Penetration of gamma-radiation through thick layers; plane geometry, iron, and lead. J. O. Hirschfelder and E. N. Adams. *2d bibliog Phys R* 73:833-3 Ap 15 '48

Penetration of gamma-radiation through thick layers; plane geometry, Klein-Nishina scattering. J. O. Hirschfelder and others. *diags Phys R* 73:852-62 Ap 15 '48

Photographic apparatus for angular-distribution measurements. S. Rubin. *bibliog diags Phys R* 72:1176-86 D 15 '47

Scattering of particles by the gas in a synchrotron. N. M. Blachman and E. D. Courant. *Phys R* 74:140-4 J1 15 '48; Correction and additions. 75:315 Ja 15 '49

Technique for observing nuclear disintegrations and scattering in small gas volumes. R. E. Taschek. *bibliog diags R Sci Instr* 19:591-4 S '48

Theory of scattering processes. E. Feenberg. *Phys R* 74:664-9 S 15 '48; Discussion. P. I. Richards. 74:835-6 O 1 '48

Velocity dependence of nuclear forces. H. Snyder and R. E. Marshak. *bibliog Phys R* 72:1253-4 D 15 '47

See also

Electrons—Reflec-	Neutrons—Scatter-
tion, scattering,	ing
etc.	Protons—Scattering

SCHAEFER, Vincent Joseph, 1906.
Weather under control. *por Fortune* 37:106-11+ F '48

SCHAFER, Harold
Neat operation in North Dakota; H. Schafer, the president of a household-wax company and Glass wax. *por Fortune* 38:10 O '48

SCHAIBLE company
Schaible expands. *Bsns W* p22 N 22 '47

SCHEDULES

Fundamentals of job shop scheduling. J. Kim. *Tool Eng* 21:31-3 O '48

Machine-load charts permit scheduling 18 months ahead; Black-Clawson co. M. A. Young. *Factory Management* 106:85-7 Ap '48

Principles of job scheduling in a machine shop. L. E. Fuller, jr. flow chart Iron & Steel Eng 25:43-52; Discussion. 52-4 S '48

Principles of maintenance control; scheduling the work load. C. L. Wallace. *Factory Management* 106:89-94 S '48

Production planning and scheduling at Westinghouse. L. A. Hradesky. *Mill & Factory* 42:134-8 My '48

Visual control system; Produtrol system used by Phillips petroleum co. to schedule refinery projects. L. S. McCaslin, jr. *il Oil & Gas J* 47:109-12 Ag 19 '48

See also

Roads—Concrete—
Construction schedules

SCHEELE, Leonard Andrew, 1907-
Portrait. *Bsns W* p50 My 22 '48

Sketch. *por Pub Health Rep* 63:469-70 Ap 9 '48

SCHICK, William H.
Portrait. *Am Cer Soc Bul* 27:134 Mr 15 '48

SCHENCK, Robert Cummings, 1809-1890
Portrait. *Fortune* 37:129 Mr '48

- SCHERFF, William A.**
Industrial ad-man-of-the-year. por Ind Marketing 33:87-8+ Ja '48
- SCHERING bridge**
Theory of Wagner ground balance for alternating-current bridges. R. K. Cook. bibliog diags J Res Nat Bur Stand 40:245-9 Mr '48
- SCHIEMANN reaction**
Preparation of heterocyclic fluorine compounds by the Schiemann reaction; monofluoropyridines. A. Roe and G. E. Hawkins. bibliog Am Chem Soc J 69:2443-4 O '47
- SCHIESS, Justin**
Skin game; copper plates reproduce the surfaces of tree bark, armadillo shells, and skins of kiwi birds. Fortune 37:122 Ja '48
- SCHIFF bases**
Preparation of 4-thiazolidones by the reaction of thioglycolic acid with Schiff bases. A. R. Surrey. Am Chem Soc J 69:2911-12 N '47
Preparation of Schiff bases by condensation of 2-acylthiophenes with amines. H. D. Hartough. Am Chem Soc J 70:1282 Mr '48
- SCHIFF'S reagent**
Use of thionyl chloride in the preparation of Schiff's reagent. J. D. Barger and E. D. DeLamater. Science 108:121-2 JI 30 '48
- SCHINDLER, Alfred, 1894-**
New board chairman of National federation of sales executives. por(sup 1) Sales Management 61:sup2+ O 1 '48
- SCHISTOSOMA japonicum. See Flukes**
- SCHISTOSOMIASIS**
Organic thio-antimonials in schistosomiasis. L. W. Clemence and M. T. Leffler. Am Chem Soc J 70:2439-40 JI '48
Preparation of aromatic stibonic acids of certain benzenesulfonamides. R. D. Englert and O. J. Sweeting. Am Chem Soc J 70:2977-9 S '48
- SCHLIEREN effect**
Electron optical Schlieren effect. Franklin Inst J 246:165-7 Ag '48
- SCHMIDT reaction**
Mechanism of the Schmidt reactions and observations on the Curtius rearrangement. M. S. Newman and H. L. Gildenhorn. bibliog Am Chem Soc J 70:317-19 Ja '48
Schmidt reaction; experimental conditions and mechanism. P. A. S. Smith. bibliog Am Chem Soc J 70:320-3 Ja '48
- SCHNEIDER, George, 1896-**
Portrait. Fortune 37:86 My '48
- SCHOELLKOPF medal**
Schoellkopf award to Udy. Chem & Eng N 26:1580-1 My 31 '48
- SCHOLARSHIPS and fellowships**
Allied chemical & dye corporation graduate fellowships. Science 107:366 Ap 9 '48
Atomic energy commission research fellowships in physical, biological, and agricultural sciences. Science 108:374 O 8 '48
Availability of RCA fellowships in electronics. Science 107:12 Ja 2 '48
Carnegie corporation postdoctoral fellowships in social and natural sciences. H. S. Taylor. Science 107:11-12 Ja 2 '48
Case Institute announces paint fellowships. Paint Oil & Chem R 111:26 Ag 5 '48
Dailies support 12 scholarships in Pennsylvania summer school for teachers. Ed & Pub 81:38 S 4 '48
Fellowship in Department of biology, Harvard graduate school for research on deterioration of wood. Science 108:102 JI 30 '48
Fellowships in the medical sciences. Science 106:583-4 D 12 '47
Five Lalor foundation fellowships. Science 106:538 D 5 '47
Graduate appointments in chemistry and chemical engineering. J Chem Educ 25:62-4 Ja '48 [cont monthly]
How many bursars? problem of university scholarships. Economist 155:92-4 JI 17 '48
Jessie Horton Koessler fellowship. Science 107:314 Mr 26 '48
Merck fellowship in analytical chemistry. Chem & Eng N 26:3017 O 11 '48
National research council of Canada, medical fellowships. Science 108:374 O 8 '48
NETF scholarship awards. Am Dyestuff Rep 37:478 JI 12 '48
- New program of fellowships supported by Atomic energy commission. Science 107:367 Ap 9 '48
1948-49 Du Pont fellowship plan. Paint Oil & Chem R 110:16 D 25 '47; Excerpt. Bsns W p46 D 20 '47
Schering corp. awards five research grants. Oil Paint & Drug Rep 154:71 Ag 16 '48
Stribling fellowship in textile engineering. Chem & Eng N 26:55 Ja 5 '48
Ten Merck fellowships. Science 107:473 My 7 '48
Three-year scholarships in engineering offered by industrial firms. Iron Age 161:162+ Ap 22 '48
12 Nieman fellows selected by Harvard. Ed & Pub 81:26 Je 26 '48
U.S. Atomic energy commission fellowship program for training in medical and biological aspects of atomic energy. Science 107:136 F 6 '48
U.S. Public health service mental hygiene research fellowships for graduate work. Science 107:644 Je 18 '48
University of Rochester Bausch & Lomb science scholarships. Science 108:6-7 JI 2 '48
Wanted, 32 high school seniors; Central Hudson gas and electric corp. of Poughkeepsie will conduct indoctrination courses for selected group; one will be awarded scholarship to Rensselaer polytechnic institute. H. E. Dexter. Elec World 129:106 Mr 27 '48
- See also*
Science talent search
- SCHOLARSHIPS and fellowships, International**
AAAS-UNESCO fellowships. H. Shapley. Science 106:411-12 O 31 '47
Developments with respect to the Fulbright act. Science 107:443-4 Ap 30 '48
- SCHOLLERIZED wool. See Wool—Shrinkproofing**
- SCHOOL architecture. See School buildings—Designs and plans**
- SCHOOL bands. See Bands, School**
- SCHOOL buildings**
Aluminum schools in Britain. J. Littlefield. Il Light Metal Age 6:15 Je '48
Aluminum units accelerate British school construction program. Il Civil Eng 18:372 Je '48
American school and university; a yearbook devoted to the design, construction, equipment, utilization, and maintenance of educational buildings and grounds. 20th annual ed 731p \$4 Am. school pub. corp. 470 4th av, New York 16 '48
Copper contract on seven schools; roofing, roof drainage, cornices and flashings. Il diags Sheet Metal Worker 39:66-9 Mr '48
Safe stairs for schools; with time-saver standards. plan diags Arch Rec 103:155 Mr '48
Should California type schools be built elsewhere? schools; Architectural Record's building types study. Il plans diags Arch Rec 103:113-44 Mr '48
\$2 billion school building program ready for work. FWA survey shows. Eng N 140:925 Je 3 '48
- Designs and plans**
Brazil; vocational high school; school for industrial town; two primary schools. Il plans diags Arch Forum 87:80-3 N '47
Critical dimensions governing school design; bodily dimensions of children; minimum widths of school exits and corridors; with time-saver standards. W. W. Caudill. Arch Rec 103:147 F '48
Laurel elementary school, San Mateo, Calif. Il plans diags Arch Rec 103:80-5 Ja '48
Pioneer school in the South East; Fern Creek elementary school, Orlando, Fla. Il plan diags Arch Rec 104:100-4 Ag '48
Should California type schools be built elsewhere? schools; Architectural Record's building types study. Il plans diags Arch Rec 103:118-44 Mr '48
- Electric equipment**
If girls dislike home; modernizing home economics classrooms with new appliances. Il plans Elec West 100:94-6 Mr '48
Old schools rewired. Il Elec West 101:90-1 Ag '48; Elec World 130:130 Ag 14 '48

SCHOOL buildings—Continued**Equipment**

School kitchen replacement plan. A. G. Bur. Am Gas Assn Proc 1947:414-16; Same. Am Gas Assn Mo 29:556-7 D '47; Same. Am Gas J 168:38-9 F '48

Schools; pupils' working heights; data for furniture, fixtures, built in equipment; with time-saver standards. Arch Rec 103:153 Mr '48

See also

School supplies industry

Heating and ventilation

Air circulation without draft. Il Dom Eng 172:143+ S '48

Air supply by natural ventilation; with time-saver standards. W. W. Caudill. diags Arch Rec 103:145 F '48

Analysis of low pressure steam piping system construction costs; school building heating systems. H. A. Erickson. diags Heat & Ven 45:78-84 Ag '48

Germ free indoor air for schools; abstract. W. T. Anderson. Dom Eng 171:150 Je '48

Heating and ventilating for school buildings. T. F. Dwyer. plans diags Heat & Ven 45:69-76 F '48

Sanitary significance of ventilation. W. F. Wells. bibliog diags Heating-Piping 20:115-21 S '48

Lighting

American standard practice for school lighting. Il map diags Illum Eng 43:793-865 bibliog(67 titles, p862-5) S '48

Architect sees lighting. L. B. Perkins. Illum Eng 42:1049-53; Discussion. 1053-4 D '47

Complete re-lighting sold to schools in Pittsburgh, Kansas. C. Liebig. Il Elec World 129:79-80 Ap 24 '48

Conference sells school lighting. C. D. Hollister. Elec World 128:122+ F 14 '48

Designed around their lighting systems; elementary schools in San Mateo, Calif., suburban Detroit and Prineville, Ore. Il plans diags Arch Forum 89:107-15 S '48

Expend \$228 per room for school re-lighting. Elec World 130:128+ O 9 '48

Measurement of illumination and brightness in a classroom. W. E. Folsom and R. L. Biesele, jr. bibliog Il plans diags Illum Eng 43:355-70; Discussion. 371-6 Ap '48

Prototype classroom in Seattle utilizes both clerestory and directional block, for even light distribution. Il diags Arch Forum 89:137 S '48

Should California type schools be built elsewhere? daylight is bright enough everywhere if we are. C. D. Gibson. Il diags Arch Rec 103:125-30 Mr '48

To supplement daylight in schools; illustrations with text. Elec West 101:94 S '48

Top lighted school in the desert; Bilateral lighting with high ceiling; two schools in Barstow, Calif. Il plans diags Arch Rec 103:132-7 Mr '48

Toilet rooms

Data on special toilets in schools; with time-saver standards. Arch Rec 103:153 Mr '48

SCHOOL children

Schools; pupils' working heights; data for furniture, fixtures, built in equipment; with time-saver standards. Arch Rec 103:153 Mr '48

SCHOOL furniture

School classroom details; multiple unit storage cabinets used as partition wall; standardized storage furniture; with time-saver standards. Il plans diags Arch Rec 103:146-8, 153+ Je '48

SCHOOL hygiene

First soap for New York schools. Soap & San Chem 24:161 My '48

SCHOOL libraries

School and college libraries and the teacher in training. M. U. Robinson. J Doc 3:147-50 D '47

SCHOOL of advanced international studies**Library**

Library at the School of advanced international studies, Washington, D.C. M. E. Vance. Special Lib 39:110-14 Ap '48

SCHOOL of nutrition. See Cornell university—

School of nutrition

SCHOOL savings

Save for a goal; color sound film of Dollar savings bank of New York. Il Banking 40:16+ D '47

SCHOOL supply industries**Directories**

American school and university; a yearbook devoted to the design, construction, equipment, utilization, and maintenance of educational buildings and grounds. 20th annual ed 731p \$4 Am. school pub. corp. 470 4th av, New York 16 '48

SCHOOLS

See also

Aeronautic schools Library schools and Colleges and universities training

Dealer schools Mining schools and Engineering colleges education

Insurance schools Radio schools and Journalism schools training

SCHOOLS, Private. See Private schools

SCHOTT, Harold E. Bigger Schotts; Ohio family's empire is growing. por Bsns W p23 Ap 3 '48

SCHOTT, Walter E. 1901- Bigger Schotts; Ohio family's empire is growing. por Bsns W p23 Ap 3 '48

SCHOTTKY-MOTT theory Photo-voltaic effect. K. Lehovec. bibliog diags Phys R 74:463-71 Ag 15 '48

SCHROEDER, Wilburn Carroll, 1906- Portrait. Fortune 37:115 My '48

SCHROEDINGER equations. See Wave mechanics

SCHULMAN, Max

Portrait. Fortune 38:117 O '48

SCHWARTZ, Edward Robinson, 1899- Medalist, the man; Olney medal award. W. J.

Hamburger. por Am Dyestuff Rep 37:2-3 Ja 12 '48

Medalist, the scientist; Olney medal award. K. R. Fox. por Am Dyestuff Rep 37:1-2 Ja 12 '48

Olney medal awarded. por Am Dyestuff Rep 36:656 N 17 '47

SCIENCE

Contributions of science and technology to education. N. W. Dougherty. J Eng Educ 38:187-93 N '47

One world of science stressed at AAAS centennial celebration. Chem & Eng N 26:2886-9+ S 27 '48

See also

Bacteriology	Microscope and microscopy
Biological chemistry	Optics
Botany	Paleobotany
Chemistry	Paleontology
Crystallography	Physics
Geology	Scientific research
Mathematics	Technology
Metallography	War and science
Meteorology	Zoology
Meteorology, Aero-	
nautic	

Bibliography

Book reviews; spring book issue. Science 107:507-28 My 14 '48

See also

Scientific literature
Scientific research—
Bibliography

Classification

Classification; class Q, science. 4th ed 213p pa \$1 Library of Congress, Subject cataloging div; for sale by Supt. of doc, Washington, D.C. '48

Exhibitions

AAAS international science exhibition, Chicago, Dec. 26-31. Science 106:567-75 D 12 '47

History

See also

Chemistry—History
Physics—History

International aspects

Development of scientific publications and their importance in the promotion of international scientific relations. F. Verdoorn. Science 107:492-7 My 14 '48

SCIENCE—International aspects—*Continued*

Informal research laboratory; a proposal. C. Hyman. *Science* 107:543 My 21 '48
 Mission on science and technology. Chem & Eng N 25:3638 D 8 '47; Oil Paint & Drug Rep 152:7 N 10 '47; *Science* 106:518 N 28 '47

One world of stars. H. Shapley. *il Science* 108:315-21 S 24 '48
 Science in world affairs. H. Tizard. *Chem Age (Lond)* 59:381-4 S 18 '48
 World productivity through science urged; abstract. C. A. Thomas. *Chem & Eng N* 25:5283 N 10 '47

See also International council of scientific unions

Language

Languages for science. P. Moon and D. E. Spencer. *bibliog Franklin Inst J* 246:1-12 Jl '48

Periodicals

Development of scientific publications and their importance in the promotion of international scientific relations. F. Verdoorn. *Science* 107:492-7 My 14 '48
 Format and efficiency; the style and make-up of British periodicals. V. E. Parke. *Assn of Sp Lib & Inf Bur Proc* 1947:58-67; Discussion. L. J. F. Brimble and others. 71-6
 Journals vs. central publication; reprinted from *Nature*, May 5. G. P. Thomson and J. R. Baker. *Chem & Eng N* 26:2433-4 Ag 16 '48

See also American journal of science (periodical)

Philosophy

Current transition in the conception of science. D. E. Cameron. *Science* 107:553-8 My 28 '48
 Limitations of technique. W. S. Edgerly. *Tech R* 50:211+ F '48
 Objectives and objectivity in science. H. W. Smith. *Refring Eng* 56:412-13+ N '48
 Science and the whole man. E. W. Sinnott. *Mech Eng* 70:113-17+ F '48
 Statistical freedom of the will. W. Weaver. *Rs Mod Phys* 20:31-4 Ja '48
 Symposium on cooperation and conflict among living organisms; drive to advance social science. *Science* 108:263-4 S 3 '48

Popularization

Program known as Excursions in science under way in Monroe county, New York. *Science* 107:14 Ja 2 '48
 Rise of science understanding. W. Davis. *Science* 108:239-46 S 3 '48

See also

Television broadcasting—Scientific programs

Social aspects

Brave new world. L. H. Lampitt. *Chem & Ind* p451-5 Jl 17 '48
 Physics in the contemporary world; advancement of science, with knowledge imparted for man's benefit, responsibility of scientists. J. R. Oppenheimer. *il Tech R* 50:201-4+ F '48
 Role of science in our unique society. J. B. Conant. *Science* 107:77-83 Ja 23 '48
 Role of scientific research in human relations. W. A. Hamor. *Advanced Management* 13:131-4 S '48
 Science and the citizen. Published in monthly numbers of Scientific American
 Science and the national welfare. E. U. Condon. *il Metal Prog* 53:79-82 Ja '48
 Scientific research, our greatest hope and greatest fear. M. E. Spaght. *Can Chem & Process Ind* 31:1137-8+ D '47

Social trends in science. C. E. Dobbin. *Am Assn Pet Geologists Bul* 32:1211-15 Jl '48; Same cond. Oil & Gas J 46:102+ Ap 29 '48

See also International council of scientific unions

Study and teaching

Need for a new approach to science teaching. S. J. French. *J Chem Educ* 25:213-15 Ap '48

Relation of research to teaching in a liberal arts college. M. L. Sherrill. *J Chem Educ* 25:512-14 S '48

See also

Scientific education

Bibliography

Science courses in higher education; a selected list of references. M. H. Perkins. comp. 15p pa, 10c Northwestern univ. lib. Evanston, Ill. '47

Terminology

Shadows of science. P. Cohen. *bibliog il Tech R* 50:429-32+ Je '48

Austria

Appeal for scientific literature for Austria. L. P. Moore. *Science* 108:379-80 O 8 '48

Canada

Scientific research in Canada; closer collaboration with Britain in 1948. J. G. Malloch. *il Chem Age (Lond)* 58:70-3 Ja 10 '48

China

See also Chinese association for the advancement of science

Europe

Physics in central and southern Europe. R. L. Platzman. *Science* 108:291-4 S 17 '48

Germany

FIAT review of German science. O. Meyerhof. *Science* 107:370 Ap 9 '48
 Policy for controlling German scientific work; abstract. G. Scatchard. *Chem Eng* 55:260+ Ja '48

See also

Science and state—Germany

Russia

Mendeleev and the Russian academy of sciences. H. M. Leicester. *bibliog J Chem Educ* 25:439-41, 444 Ag '48

United States

Critical look at American science. C. A. Thomas. *Chem & Eng N* 26:2882-4 S 27 '48
 Scientists; science expanding in size, scope, and costs, lacks in basic research and attacks on its freedom. *il Fortune* 38:106-12+ O '48

See also

Science and state—United States

SCIENCE and state

How to price political liberty out of the market. R. W. King. *Elec Eng* 67:333-7 Ap '48

See also

Government research

Germany

Wartime research in Germany in physics and other sciences. C. I. Snow and S. Horrobin. *Chem & Ind* p472-3 Jl 24 '48

Great Britain

British scientific policy; Advisory council's first report. *Chem Age (Lond)* 59:147-8 Jl 31 '48
 Science and Parliament. H. N. Linstead. *Chem & Ind* p643-6 O 9 '48
 Science in relation to the public services. J. Anderson. *Chem & Ind* p483-8 Jl 31 '48; Abstracts. *Chem & Eng N* 26:2349-50 Ag 9 '48; *Chem Age (Lond)* 59:114+ Jl 24 '48
 Scientist and politician as partners; British parliamentary and scientific committee. H. Linstead. *Science* 108:47-50 Jl 16 '48

United States

Address delivered at centennial celebration of the AAAS. H. Truman. *Science* 108:313-14 S 24 '48; Same. *Comm & Fin Chr* 168:1097+ S 18 '48
 Asks Hickenlooper's aid in ending government attacks on scientists. E. U. Condon. *Chem & Eng N* 26:745+ Mr 15 '48
 Fundamental research and science of man; abstract. J. B. Conant. *Chem & Eng N* 26:94 Ja 12 '48

SCIENCE and state—United States—*Cont.*

Liaison between the President and the inter-departmental committee for scientific research and development. *Chem & Eng N* 26:244+ *Ja* 26 '48

Place of research in our national life. J. B. Conant. *Harvard Bns R* 26:46-57 *Ja* '48
 Science and the national welfare. E. U. Condon. *Science* 107:2-7 *Ja* 2 '48; Same. *Welding J* 27:sup 1-5 *Ja* '48; Same. *J Eng Educ* 38:522-31 *Ap* '48; Same cond. *il Metal Prog* 53:79-82 *Ja* '48

See also

Atomic energy commission (United States)	National science foundation (proposed)
National academy of sciences	

SCIENCE and war. *See* War and science

SCIENCE foundation, National (proposed). *See* National science foundation (proposed)

SCIENCE museum library. *See* London—Science museum library

SCIENCE service, Washington, D.C.
 Rise of science understanding. W. Davis. *Science* 108:239-46 *S* 3 '48

Stones, bones, paint; things enliven SS. H. M. Staunton. *Ed & Pub* 81:50 *F* 7 '48

SCIENCE talent search
 Seventh annual Westinghouse science talent search. *Chem & Eng N* 26:865 *Mr* 22 '48
 Winners of seventh annual competition. *Science* 107:264 *Mr* 12 '48

SCIENCE teachers association, National. *See* National science teachers association

SCIENTIFIC American (periodical)
 Announcement to our readers. *Sci Am* 178:99 *Mr* '48

SCIENTIFIC apparatus and instruments

Austrian scientific instruments; gradual revival of Zeiss and Schott works. *Chem Age (Lond)* 57:318 *D* 27 '47

British instrument makers' campaign; un-economic competition from Germany. J. E. C. Bailey. *Chem Age (Lond)* 58:563-5 *Ap* 24 '48

Historical museum on paper of American instruments in science and industry; 1784 to the present time. *il diags Instruments* 21:35-52+, 123-48+, 248-50+, 334-8+ *Ja*-*Ap* '48

New scientific equipment. I. C. P. Smith. *il Chem Age (Lond)* 58:574-6 *Ap* 24 '48

See also

Aeronautic instruments	Meteorological instruments
Cathode ray tubes	Optical instruments
Chemical apparatus	Physical instruments
Electric apparatus and appliances	Physiological apparatus
Electric instruments	Radio instruments
Electron microscope	Surveying instruments
Medical instruments and apparatus	

Exhibitions

AAAS international science exhibition, Chicago, Dec. 26-31. *Science* 106:567-75 *D* 12 '47

British exhibition at Copenhagen; some representative chemicals and scientific instruments. *il Chem Age (Lond)* 59:390-4, 414-15 *S* 18-25 '48

Royal society's conversations. *Engineer* 185:516 *My* 28 '48; *Engineering* 165:520-1 *My* 28 '48; *Elec R (Lond)* 142:841-2 *My* 28 '48

SCIENTIFIC education

Adjustments in university plans and programs to meet long-range needs. A. S. Adams. *Science* 107:384-6 *Ap* 16 '48

Maintenance of scientific proficiency in non-academic research laboratories. L. B. Loeb. *Science* 108:267-72 *S* 10 '48

Programs for fuller utilization of present resources of scientific personnel. A. H. Hausrath. *Science* 107:360-3 *Ap* 9 '48

Science education in Korea. G. A. Noble. *Science* 107:31-2 *Ja* 9 '48

Some recommendations of the President's commission on higher education. A. B. Bonds, Jr. *Science* 107:379-83 *Ap* 16 '48

Trends in supply and demand of scientific personnel. E. Clague. *Science* 107:355-60 *Ap* 9 '48

University of Rochester Bausch & Lomb science scholarships. *Science* 108:6-7 *J* 12 '48

See also

Science—Study and teaching

SCIENTIFIC expeditions

Expedition to little known Nepal. *Science* 108:254 *S* 3 '48

Recent discoveries in the Egyptian Faiyum and Sinai; University of California African expedition. W. Phillips. *Science* 107:666-70 *Je* 25 '48

Seventeen expeditions are planned for 1948 by the Chicago natural history museum. *Science* 107:165 *F* 13 '48

Summer expedition to southwestern Yukon territory. *Science* 107:617 *Je* 11 '48

SCIENTIFIC information, Freedom of Science and security. E. U. Condon. *Science* 107:659-65 *Je* 25 '48

SCIENTIFIC information conference

Royal society conference, London, June 21-July 2. *Science* 108:148-51 *Ag* 13 '48

SCIENTIFIC libraries

Scientific library enlarged at Towne scientific school of University of Pennsylvania. *il Chem & Eng N* 26:2216 *J* 12 '48

Photograph collections

Photographs in scientific and technical libraries. P. M. Strain. *Special Lib* 39:77-82 *Mr* '48

SCIENTIFIC literature

Co-ordination of information; a survey of schemes put forward in the last fifty years. E. M. R. Dittmas. *bibliog J Doc* 3:209-21 *Mr* '48

Development of scientific publications and their importance in the promotion of international scientific relations. F. Verdoorn. *Science* 107:492-7 *My* 14 '48

Distribution and use of scientific and technical information; questionnaire addressed to Science museum library readers. D. J. Urquhart. *J Doc* 3:222-31 *Mr* '48

Editing of scientific papers. W. B. McDaniel, 2d. *Science* 106:491 *N* 21 '47

Equivalent metric values in scientific papers. *Engineering* 165:115 *Ja* 30 '48

FIAT review of German science. O. Meyerhof. *Science* 107:370 *Ap* 9 '48

Journals vs. central publication; reprinted from Nature, May 6. G. P. Thomson and J. R. Baker. *Chem & Eng N* 26:2433-4 *Ag* 16 '48

Languages for science. P. Moon and D. E. Spencer. *bibliog Franklin Inst J* 246:1-12 *J* 12 '48

Literature citation. A. C. Zachlin. *Science* 107:292-3 *Mr* 19 '48

Memorandum for a Conference on bibliographical control of government scientific and technical reports. M. Taube. *Special Lib* 39:154-60 *My*-*Je* '48

Problem of the study of foreign languages, as related to scientists. L. A. Ware. *Science* 106:490 *N* 21 '47

Royal society conference examines information problems. *Chem & Eng N* 26:2432-3 *Ag* 16 '48

Royal society scientific information conference, London, *Chem & Ind* p441-3 *J* 10 '48; *Metalurgia* 38:233-4 *Ag* '48

Royal society scientific information conference, London, June 21-July 2. *Science* 108:148-51 *Ag* 13 '48

Science and planning; organisation of scientific publication. *Economist* 155:5-6 *J* 13 '48
 Scientific information; 500 delegates reviewing distribution methods. *Chem Age (Lond)* 58:369 *Je* 26 '48

Some vital books in science; 1848-1947. J. C. Bay. *Science* 107:485-91 *My* 14 '48

See also

Science—Periodicals
 Science—Popularization

SCIENTIFIC management. *See* Industrial management

SCIENTIFIC method

Let's remember we're scientists. D. Goldsmith. *Chem & Eng N* 26:2196-7 *J* 12 '48

Role of scientific and mathematical methods in the management of large scale enterprise. R. S. Burlington. *J Eng Educ* 38:366-73 *Ja* '48

SCIENTIFIC periodicals. See Science—Periodicals

SCIENTIFIC research

Address delivered at centennial celebration of the AAAS. H. Truman. Science 108:313-14 S 24 '48; Same, Comm & Fin Chr 168:1097+ S 16 '48

Better prospects for research; DSIR chief foresees more scope for scientists. Chem Age (Lond) 58:263+ F 21 '48

Can research prevent World war III? L. Reukema. Il Elec West 99:63-6 N '47

Cinematography in scientific research; abstract. S. Fordham. Chem Age (Lond) 59:513 O 16 '48

Congo research center. Sci Am 179:24-5 O '48

Development of high vacuum technique; contribution to purely scientific investigations. S. Dushman. bibliog Ind & Eng Chem 40:778-80 My '48

Does patent consciousness interfere with co-operation between industrial and university research laboratories? L. A. Hawkins. Science 105:326-7 Mr 28 '47; Same. Elec Eng 67:135-6 F '48

Electrical and allied developments during 1947; research and laboratory investigations. G. Bartlett. Il Gen Elec R 51:12-15 Ja '48

Federal research; industry may profit by co-operating. J. W. Boyer. Chem & Eng N 26:241-2 Ja 26 '48

Functions of science and scientists in industry; abstracts. E. Appleton. Chem Age (Lond) 58:420 Mr 27 '48; Engineer 185:311 Mr 26 '48

Fundamental research and science of man; abstract. J. B. Conant. Chem & Eng N 26:94 Ja 12 '48

Gordon research conference, AAAS, 1948; Colby junior college, New London, New Hampshire, June 21-September 3; program. Science 107:308-12 Mr 26 '48; Same abr. Chem & Eng N 26:332-4 Mr 29 '48

Industry-sponsored university research. S. Tour. Chem & Eng N 26:2046-8 Jl 12 '48

Informal research laboratory; a proposal. C. Hyman. Science 107:543 My 21 '48

Integration in science, education, and society. R. E. Gibson. Am Cer Soc Bul 27:68-73 F 15 '48

Large new institute for general scientific research to be created in Belgian Congo. Science 108:301 S 17 '48

Liaison between the President and the Interdepartmental committee for scientific research and development. Chem & Eng N 26:244+ Ja 26 '48

National committee on award for grants-in-aid from the Sigma xi research fund. Science 108:432-3 O 22 '48

Navy research helps industrial progress. Il Bsns W p48 O 30 '48

Organization of a research laboratory. E. A. Walker. bibliog J Eng Educ 38:432-9 Mr '48

Passing world. H. Tizard. Engineering 166:256-7, 306-7 S 10, 24 '48; Excerpts, Engineer 186:282 S 17 '48; Abstract. Chem Age (Lond) 59:381-4 S 18 '48

Place of research in our national life. J. B. Conant. Harvard Bsns R 26:46-57 Ja '48

Policy for controlling German scientific work; abstract. G. Scatchard. Chem Eng 55:260+ Ja '48

Programs for fuller utilization of present resources of scientific personnel. A. H. Hausrath. Science 107:360-3 Ap 9 '48

Research and development board. L. R. Hafstad. J Eng Educ 38:538-41 Ap '48

Research is a job for private industry; abstract. H. T. Heald. Cer Ind 49:52-3 N '47

Research progress at Midwest research institute. Il Chem & Eng N 25:3498-502 N 24 '47

Science and the national welfare. E. U. Condon. Science 107:2-7 Ja 2 '48; Same. Welding J 27:sup 1-5 Ja '48; Same. J Eng Educ 38:522-31 Ap '48; Same cond. Il Metal Prog 53:79-82 Ja '48; Excerpts. Chem & Eng N 25:3800 D 22 '47

Science in relation to the public services. J. Anderson. Chem & Ind p433-8 Jl 31 '48; Abstract. Chem & Eng N 26:2349-50 Ag 9 '48

Science in the universities. W. H. Talliaferro. Science 108:145-8 Ag 13 '48

Scientific research in Canada; closer collaboration with Britain in 1948. J. G. Malloch. Il Chem Age (Lond) 58:70-3 Ja 10 '48

Scientific research in Japan advancing. For Comm W 32:25 Ag 7 '48

Scientific research, our greatest hope and greatest fear. M. E. Spaght. Can Chem & Process Ind 31:1137-8+ D '47

Scientists; science expanding in size, scope, and costs, lacks in basic research and attacks on its freedom. Il Fortune 38:106-12+ O '48

Symposium on low temperatures shows practical uses in modern science. Refrig Eng 55:578+ Je '48

Technical report and its problems. J. B. Bennet. Chem & Eng N 26:2435-6 Ag 16 '48

Wartime research in Germany in physics and other sciences. C. I. Snow and S. Horrobin. Chem & Ind p472-3 Jl 24 '48

See also

Aeronautic research	Medical research
Agricultural research	Metallurgical research
Astronomical research	Microscope and microscopy
Atomic research	National science foundation (proposed)
Biological research	Naval research
Chemical research	Petroleum research
Electric research	Physical research
Electron microscope	Research workers
Engineering research	Scholarships and fellowships
Geographical research	Textile research
Government research	
Industrial research	
Laboratories	
Mathematical laboratories	
also Great Britain—National physical laboratory, Teddington; Hormel institute, Austin, Minnesota; National research council; Ontario—Research commission	

Bibliography

Publications of the National bureau of standards, 1901 to June 30, 1947. U S Nat Bur Stand Circ 460:1-376; pa 75c Supt. of doc. '48

Publications of the National research council of Canada; second edition, 1918-1946. 132p National research council, Ottawa '47

Finance

American academy of arts and sciences awards from Permanent science fund. Science 107:539 My 21 '48

Distribution of American research funds. C. A. Mills. Science 107:127-30 F 6 '48

Present distribution of medical research funds by governmental agencies. C. A. Mills. Science 108:438 O 22 '48

Research and the geographic factor. F. A. Mettler. Science 108:108-9 Jl 30 '48

SCIENTIFIC research and development, Office of. See United States—Scientific research and development, Office of

SCIENTIFIC societies

Handbook of scientific and technical societies and institutions of the United States and Canada; United States section, comp. by C. Hull; Canadian section, comp. by S. J. Cook and J. R. Kohr. 5th ed rev Nat Res Council Bul 115:1-371 '48 (\$5)

Institution and international scientific collaboration. Inst IE J 95 pt 1:67, 285-6, 415 F, Jl, O '48

See also American association for the advancement of science; British association for the advancement of science; Philosophy of science association

Japan

Japan's three major scientific and technological societies. Science 108:353 O 1 '48

SCIENTIFIC unions, International council of. See International council of scientific unions

SCIENTIFIC workers

AEC employee relations policy gets it in trouble with contractors. Elec World 129:72 My 8 '48

SCIENTISTS

- Adjustments in university plans and programs to meet long-range needs. A. S. Adams. Science 107:384-6 Ap 16 '48
- ACS president testifies before Senate committee; hearings on universal military training and selective service. C. A. Thomas. Chem & Eng N 26:1066-7 Ap 12 '48
- Asks Hickenlooper's aid in ending government attacks on scientists. E. U. Condon. Chem & Eng N 26:745-4 Mr 15 '48
- British Ambassador announces awards to American citizens. R Sci Instr 19:289-90 Ap '48
- Congress studying selective service legislation; Dr Thomas presents scientists' views. A. Leggin. Chem & Eng N 26:1203 Ap 26 '48
- Honours list. Engineering 165:15, 39 Ja 2-9 '48
- Let's remember we're scientists. D. Goldsmith. Chem & Eng N 26:2196-7 Jl 26 '48
- Loyalty clearance procedures in research laboratories; report of committee on secrecy and clearance. Federation of American scientists. bibliog Science 107:333-7 Ap 2 '48
- Maintenance of scientific proficiency in non-academic research laboratories. L. B. Loeb. Science 108:267-72 S 10 '48
- Man power for research. J. R. Steelman. Mech Eng 69:1027-3 D '47
- Mathematician, the scientist, the engineer. J. Siepien. Elec Eng 67:261-4 Mr '48
- Medal for merit given to 65 scientists and engineers of OSRD. Science 108:33 Jl 9 '48
- Physics in the contemporary world; advancement of science, with knowledge imparted for man's benefit, responsibility of scientists. J. R. Oppenheimer. Il Tech R 50: 201-4+ F '48
- Programs for fuller utilization of present resources of scientific personnel. A. H. Haus-rath. Science 107:360-3 Ap 9 '48
- Science and security. E. U. Condon. Science 107:659-65 Je 25 '48
- Scientist in growing role of leadership. C. A. Thomas. Chem & Eng N 26:1524-5 My 24 '48
- Scientists and the government. Sci Am 179: 24 O '48
- Scientists' committee on loyalty problems. Science 108:470 O 29 '48
- Scientists decorated in recognition of outstanding services to the armed forces; Medal for merit. Electronics 21:207-8 Ag '48
- Scientists; science expanding in size, scope, and costs; lacks in basic research and attacks on its freedom. Il Fortune 38:106-12+ O '48
- Scientist's stake in world government. C. C. Price. Chem & Eng N 26:1144 Ap 19 '48
- Some recommendations of the President's commission on higher education. A. B. Bonds, jr. Science 107:379-83 Ap 16 '48
- Trends in supply and demand of scientific personnel. E. Clague. Science 107:355-60 Ap 9 '48
- Will technicians be deferred? Bsns W p25 My 8 '48
- See also
American men of science

SCIO, Ohio

Industries

- Pottery plant comes back; Scio-Ohio pottery co. Il Bsns W p21-2 F 21 '48

SCLEROGRAPH

- Tubular-goods testing device; Sclerograph operates on magnetic and ultrasonic principles. L. S. McCaslin, jr. Il Oil & Gas J 47:83-4 My 6 '48

SCLEROSIS, Multiple

- Light on a medical mystery. Life Ins Courant 53:12-17 Ap '48

SCOTLAND

See also

- | | |
|-----------------------|----------------------|
| Distilling industries | Hydroelectric plants |
| —Scotland | —Scotland |
| Electricity supply— | Package goods— |
| Scotland | Scotland |

Antiquities

- Furth of Edinburgh; an ancient building material. H. Nicol. Chem & Ind p344 My 23 '48

Industries and resources

- Scottish industry reviewed; white paper reflects general expansion in 1947. Chem Age (Lond) 59:222-4 Ag 14 '48

Politics and government

- Scottish home rule. Economist 154:494-5, 534-5 Mr 27-Ap 3 '48

- SCOTT, Charles Ulysses, 1870-Dean of American heat treaters. M. Weiss. por Metal Prog 53:676-7 My '48

- SCOTT, Thomas A. 1877-Cited for service. por Constr Methods 30:73 S '48

- SCOTT, William Berryman, 1858-1947 Sketch. G. G. Simpson. Am J Sci 246:53-4 Ja '48

- SCOTT paper company Shooting for \$100 million sales. Barron's 28:35 O 18 '48

- SCOURING of textiles Carboxy methyl cellulose in wet processing; abstract. Textile World 97:135+ N '47

See also

Wool Scouring

SCRAP material

- Marketing the Nation's waste materials. Il Bsns W p82+ Je 12 '48
- Scrap efficiency; Flett organization. Il Bsns W p26+ F 28 '48
- Scrap filaments in air filters; vinylidene chloride monofilaments and metal. Il Mod Plastics 25:103-5 Ap '48
- We sort scrap to get top prices; Pontiac Motor. F. J. McLaughlin. Il Factory Management 106:118-19 Jl '48

See also

- Rubber waste
Scrap metal

Accounting

- Determination of scrap allowance; stage of completion method. A. J. Hieftje. N A C A Bul 29:335-41 N 15 '47

SCRAP metal

- Blowpipe cutting employed to reclaim ladle skulls and buttons. Il Steel 122:94+ My 17 '48
- Future sources of iron units in scrap. C. R. Holton. Blast F & Steel Pl 36:697-700 Je '48
- Same. Steel 123:128+ S 13 '48
- Pertinent facts about scrap. R. W. Wolcott. Am Met Inst Proc 28(3):44-5 '48
- Scrap, properly handled, brings a premium. C. W. Cederberg. Am Mach 92:98 Je 3 '48
- Steel scrap; to or from Europe? Il Bsns W p23 N 1 '47

See also

- Ships—Demolition

Prices

- Average monthly quotations in 1947. Steel 122:328 Ja 5 '48
- Heavy melting and other scrap; monthly, 1929-1947; tabulations. Iron Age 161:298+ Ja 1 '48
- Scrap formula price ceiling lifted. Steel 123: 57-3 Ag 2 '48

- SCRAP metal baling. See Baling presses

SCRAP metal industry

- Bringing in German scrap. Il Bsns W p 125-6+ S 18 '48
- Circus market in scrap seems likely to stop with three rings. D. I. Brown. Il Iron Age 162:131-2 O 7 '48
- Confusion rules the scrap market as old doctrines disappear. G. F. Sullivan. Iron Age 161:107-3 Ja 29 '48
- Cries of monopoly periling single privs/ scrap corporation. E. J. Hardy. Iron Age 162:125 S 16 '48
- End of booty scrap; exports from Germany. Economist 155:593 O 9 '48
- German scrap deliveries into U. S. lag far behind expectations. S. Smoke. Iron Age 162:111-12+ O 21 '48
- German scrap; U.S. steelmakers may get some. Bsns W p22 Jl 24 '48

SCRAP metal industry—Continued

- Metallics shortages pinch foundries; hearing before subcommittee of the Senate small business committee, *il Steel* 121:34-5+ D 22 '47
- Outlook for cupola raw materials; cast scrap, E. C. Barringer, *il Foundry* 75:82-3+ D '47
- Prompt action needed for U.S. to get more of German scrap metal, *Iron Age* 162:168-9 S 16 '48
- Raw materials still a no. 1 problem, W. A. Lloyd, *il Iron Age* 161:210-19 Ja 1 '48
- Scrap metals; annual review and forecast, C. W. Merrill and others, *il Min Cong J* 34:119-21 F '48
- Scrap supply to continue tight, *il Steel* 122:26-7+ Ja 26 '48

Statistics

- Scrap, critical national resource, *il Steel* 122:61-3 My 3 '48
- Supply of scrap in 1948 to be equal to, or greater than, supply in 1947, E. C. Barringer, *Blast F & Steel Pl* 36:89-90 Ja '48

SCRAPERS

- Effects of rope speed and moisture on the use of scrapers in mining, J. D. Forrester and R. L. Carmichael, bibliog *il Mo U Sch Mines & Met Bul tech ser v* 18 no 1:1-31 '47
- How to use a scraper, *il diags Pub Works* 79:42-3 Mr '48
- Industrial's best sales tool; on-site demonstration; Be-Ge earth-moving equipment, *Sales Management* 61:126-8 Ag 15 '48
- Operation earthmover, scrapers move 250,000 cu. yd. in 40 hr.; site of Exposition Gardens, Peoria, Ill, *il Constr Methods* 30:80-3 Jl '48
- Self-propelled scrapers find use in stripping on Mesabi, *il Eng & Min J* 149:78-9 S '48

SCRAPERS, Pipe

- Flood-proof scraper traps, M. P. Connolly, *il World Oil* 128:192-3 Je '48

SCRATCH resistance of plastics, See Plastic materials—Testing**SCREEN printing, See Silk screen printing****SCREENING**

- Correcting poor sand gradation, N. C. Rockwood, *Rock Prod* 51:132+ Je '48
- See also
- Paper making—Screening

SCREENS

- Corrosion tests of screen wire at sewage works, R. S. Young, *Sewage Works J* 20:550-1 My '48
- Manufacturers' ideas to meet difficult operating problems; developments in screens; illustrated descriptions of latest equipment, *Rock Prod* 50:114 D '47
- Rotating screen for algae removal proposed for London waterworks, *Eng N* 140:662 Ap 29 '48
- Use of vibration as a means of industrial drive, G. A. M. Thornton, bibliog *il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 25):20-31 '47; Same cond. *Machine Design* 19:147-50 D '47
- See also
- Paper making—Screening
- SCREENS, Door and window**
- Weathering behavior of corrosion-resistant steel insect screens, W. A. Wesley and H. R. Copson, *il Am Soc T M Proc* 46:652-65; Discussion, 666-72 '46
- SCREENS, Moving picture, See Moving picture screens**

SCREW machines

- B.S.A. no. 48 single-spindle automatic machine, *il Automobile Eng* 38:157-9 Ap '48
- B.S.A. no. 48 single-spindle automatic screw machine, *il Automobile Eng* 37:404-5 N '47; *Engineer* 184:444-5 N 7 '47
- Die castings that cost less than screw machine products, H. Chase, *il Materials & Methods* 26:90-4 N '47
- Lot sampling of screw machine parts, G. M. Bowen, *il Iron Age* 161:74-6 Ja 29 '48
- Milling cams without a master or lay-out; disk cams for use on Brown & Sharpe automatic screw machines, *il Mach* 54:178-9 F '48
- Standard automatic screw machine, *il Mach* 54:181-2 N '47

- Threads rolled in screw machines, C. R. Morgan, *il diags Am Mach* 92:116 Jl 15 '48

SCREW threads

- Screw thread fasteners; engineering data manual, *diags Mill & Factory* 42:139-46 Mr '48 [reprints 25c]
- Shop-run tolerances; data for parts produced on screw machines, L. M. Nielsen, *il diags Product Eng* 19:141-5 Je '48
- Threads rolled in screw machines, C. R. Morgan, *il diags Am Mach* 92:116 Jl 15 '48

Standards

- Acme thread calculations; reference book sheet, J. S. Rojahn, *diag Am Mach* 91:139 D 4 '47
- L'emploi de piges dans la mesure des filetages, *diag Génie Civil* 124:460 D 1 '47

Testing

- Adapter for sharp-V and American Standard checks diameters, C. Shope, *il diags Am Mach* 92:126 O 21 '48

SCREWDRIVERS

- Use screwdrivers correctly, *il Paper Ind* 29:1651 F '48

SCREWS

- Effective use of fasteners in product design, L. J. Lovisek, *diags Iron Age* 162:78-83+ S 23 '48
- Necked or waisted screws and bolts; possibilities in engine production, P. M. Heldt, *diags Automotive Ind* 99:42-3+ N 1 '48

Manufacture

- Wire, machines and processes mean better cold headed brass, W. D. France, *il Am Mach* 92:96-7 F 12 '48

Standards

- Modern improvements made in slotted and recessed screw heads, F. P. Tisch, *diags Ind Stand* 19:95-6 Ag '48
- Surface areas of standard machine screws; table useful for barrel plating computations; engineering data sheet, *Metal Finishing* 46:77 S '48

SCRIPPS, Edward Wyllis, 1854-1926

- Rise of science understanding, W. Davis, *por Science* 108:239-46 S 3 '48

SCRIPPS, Edward W., trust

- Scrapps, Howard sons named to new posts, *Ed & Pub* 81:12 My 15 '48

SCRIPT type, See Type and type founding—Script type**SCROOPING, See Textile finishing****SCULPTURE, Plastic, See Plastic sculpture****SCYLLITOL**

- Catalytic hydrogenation of polyhydric phenols; the synthesis of *meso*-inositol, scyllitol and a new isomeric cyclitol, R. C. Anderson and E. S. Wallis, bibliog *Am Chem Soc J* 70:2931-5 S '48

SEA air

- Corrosion-resistant steel sheet in marine atmospheres, W. Mutchler, *il diags Am Soc T M Proc* 46:621-39; Discussion, 640-1 '46
- Marine corrosion testing; Kure Beach corrosion testing station, F. N. Speller, *il Blast F & Steel Pl* 36:950-3 Ag '48
- Stress-corrosion tests on high-strength aluminum alloy sheet in sodium chloride-hydrogen peroxide solution and in marine atmosphere, H. L. Logan and H. Hessing, bibliog *il J Res Nat Bur Stand* 41:69-86 Jl '48

SEA level

- Sea level plan for Panama canal, J. G. Claybourn, maps *diags Am Soc C E Proc* 73:175-96 F '47; Discussion, 74:236-8, 921-5 F, Je '48

SEA level changes

- Crustal movement in the Great Lakes area, S. Moore, bibliog *Geol Soc Bul* 59:697-709, pl 1 Jl '48
- Date of the last rise of sea level in southern New England, with remarks on the Grassy Island site, E. S. Deevey, jr, bibliog maps *Am J Sci* 246:329-52 Je '48

SEA power

- History as a guide to naval policy, L. W. Batten, 3d, *il U S Naval Inst Proc* 74:742-7 Je '48

SEA power—Continued

Soviet sea power. P. W. Bairden, jr. *U S Naval Inst Proc* 74:60-7 Ja '48

SEA urchins

Removal of the fertilization membranes from large quantities of sea-urchin eggs. P. E. Lindahl and J. Lundin. *diag Science* 108: 481-2 O 29 '48

SEA walls

Cranes build rubble seawall; illustrations with text. *Constr Methods* 30:100-2 My '48

Deferred maintenance endangers sea wall on China's Chien Tang river. A. N. May. *il diags Civil Eng* 18:694-8 N '48

See also

Breakwaters
Jetties

SEA water

Cathodic protection of steel in sea water with magnesium anodes; abstract. H. A. Humble. *Metal Prog* 54:224-4 Ag '48

Chemicals from sea water; South African factory. *Chem Age (Lond)* 59:359 S 11 '48

Chlorine and sodium pentachlorophenate as fouling preventives in sea water conduits. H. J. Turner, jr., D. M. Reynolds and A. C. Redfield. *bibliog Ind & Eng Chem* 40: 450-3 Mr '48

Hydrodynamic properties of sea water at the front of a shock wave. J. M. Richardson and others. *bibliog J Chem Phys* 15:785-94 N '47

Instrument for recording continuously the salinity, temperature, and depth of sea water; abstract. A. W. Jacobson. *Elec Eng* 57:455 My '48

Marine corrosion testing; Kure Beach corrosion testing station. F. N. Speller. *il Blast F & Steel Pl* 36:950-3 Ag '48

See also

Concrete, Effect of
sea water on

Analysis

Conductometric titration of chloride in sea water and marine sediments. L. J. Anderson. *Anal Chem* 20:618-19 Jl '48

Desalting

Distillation of sea water by the vapor-compression method. J. J. Campobasso. *flow diag il Am Water Works Assn J* 40:547-52 My '48

Fresh water from the sea. C. A. Hampel. *bibliog il diags Chem & Eng N* 26:1982-5 Jl 5 '48

Low-pressure steam-heated distilling plants for sea water. A. M. Impag-

liazzo and R. M. Bent. *flow diag il diag Marine Eng* 53:42-7 Je '48

Pacific ocean, California's last water hole. R. G. Folsom. *bibliog il diag Elec West* 101:104-7 S '48

Solar energy to provide water supply; heat from sun to desalt sea water for island of St John, Virgin Islands. F. N. Hollingsworth. *Heat & Ven* 45:99 Ag '48

Sound transmission

See Sound—Transmission thru sea water

SEABOARD air line railroad

Equipment trusts offered. *Comm & Fin Chr* 166:2315 D 8 '47

Equipment trusts offered. *Comm & Fin Chr* 168:749 Ag 23 '48

Favorable earnings hint Seaboard common dividend. *Barron's* 23:27 My 31 '48

How Seaboard's job-budget plan works; stabilized jobs for 2,700 shop workers. *il Bsns W* p63+ Ja 3 '48

SEABORG, Glenn Theodore, 1912-

Portrait. *Fortune* 38:110 O '48

Seaborg tells of isotope synthesis at Nichols medal award. *por Chem & Eng N* 26:740-1 Mr 15 '48

SEAGRAM, Joseph E., and sons

Outside the groove; junior executives moved from job to job. *Fortune* 37:116+ Ja '48

SEAL oil

Use of low-temperature crystallization in the determination of component acids of liquid fats; marine animal oils; the component acids and glycerides of a grey (Atlantic) seal T. P. Hilditch and S. P. Pathak. *bibliog Soc Chem Ind J* 66:421-5 D '47

SEALING

Automatic heat sealing of plastics speeds production. *il Mill & Factory* 42:101 My '48

Electrically heated wax pencil for sealing inoculated eggs. N. A. Labzoffsky. *diags Science* 108:364-5 O 1 '48

Fine points of sealing pressurized plane. *diags Aviation W* 47:34-4 N 10 '47

Flame-sealed visibility; Edelmann's brass fittings packaged in polyethylene bags; displayed by jobber in polystyrene stock drawer. *il Mod Packaging* 21:112-14 Mr '48

Flange type seals for ball and roller bearing applications; drawings. *Product Eng* 19:122-3 N '48

Hermetically sealed electronic components; protection against humidity, salt-water spray and fungus. W. J. Leiss and others. *il Electronics* 21:80-2 N '48

Hershey's box seal; mechanical application of thermoplastic spot labels. *il Mod Packaging* 22:136-9 S '48

High-temperature face seals for hydraulic coupling and torque converter. F. F. Rule. *il diags Machine Design* 20:127-32 Ja '48

How two plants met problem of forming airtight seals for flexible duct connectors, convactor radiators, filter banks, and fume exhaust stacks. *il Heating-Piping* 20:92-3 F '48

Inexpensive heat sealer. *il Mill & Factory* 43:155 S '48

Influence of sealing treatments on the protective value of anodized coatings. L. Whitby. *bibliog il Metal Finishing* 46:70-4 S '48

Mechanical taper; two dispensers automatically seal boxes. *il Mod Packaging* 21:109 My '48

Method of sealing coaxial structures; patent. *diags Glass Ind* 29:331 Je '48

New way to pressure-seal solids flowing through a continuous process. J. F. Schnack. *diags Chem Eng* 55:124 Ag '48

Oil process pumps; mechanical seal. *diag Chem & Ind* p216 Ap 3 '48; *Chem Age (Lond)* 58:689 My 15 '48; *Engineer* 185:265 Mr 12 '48

Seal mechanism has made use of centrifugal compressors practical for refrigeration field. *diag Machine Design* 19:106-7 N '47

Soldered ceramic-to-metal seals. A. L. Jenny. *il diags Product Eng* 18:154-7 D '47

See also

Adhesive tape

SEALING compositions

Can sealing compounds; test and development work in synthetic rubbers. E. N. Funkhouser. *bibliog il diags Mod Packaging* 22:143-8+ O '48

Experimenting with rubber-base jointing materials on Oshawa highway. *il Roads & Bridges* 85:81-2+ N '47

See also

Carbocseal

SEALING machines

Electronic box stayer; first commercial machine demonstrates a split-second way to seal acetate sheet through controlled high-frequency heat. *il Mod Packaging* 21:113-16+ F '48

Heat-seal papers. H. W. Taylor. *il Mod Packaging* 21:149-51+ My '48

SEALS (animals)

Recovery of Newfoundland's seal fishery. *For Comm W* 32:28 Ag 14 '48

SEAMEN

Meetings of seafarers' organisations in the United Kingdom. *Int Labour R* 56:497-8 O '47

Norway acts to meet marine-specialist shortage. *For Comm W* 31:26 Je 19 '48

Social security plan for Indian seafarers. *Int Labour R* 56:436-41 O '47

Stability of employment for French seafarers. *Int Labour R* 56:467-8 O '47

Welfare work for Swedish seafarers. *Int Labour R* 56:347-8 S '47

SEAPLANE bases

Docking seaplanes safely; self-propelled floating berth. *il Comp Air Mag* 53:40, cover F '48

Portable rubber dock used to berth U.S. navy's Caroline Mars. *il Rubber Age* 63:755 S '48

Seaplane floating dock utilizes nylon-coated fabric pontoons. *il Rubber Age* 63:206 My '48

SEARCHLIGHTS

Normal probability curve as an approximation to the distribution curve of the high intensity searchlight. F. Benford and J. E. Bock. Opt Soc Am J 38:527-31 Je '48

SEARLES Lake

Desert riches. Il Chem Ind 62:75 Ja '48
Developments in recovery of Searles Lake deposits; abstract. W. H. Allen. Chem Eng 55:272+ JI '48

SEARS, Roebuck and company

Mass merchandising in Latin America. W. F. Brown. J Marketing 13:73-7 JI '48
New encyclopedia; Sears, Roebuck's American peoples encyclopedia. Bsns W p 103-4 Mr 6 '48
Sears expands. Bsns W p66+ Ap 3 '48
Sears, K.-F. make deal, but not to market cars. Bsns W p34 O 9 '48
Sears prices up. Bsns W p45 JI 3 '48
Sears spent \$19,134,400 in newspapers during '47. G. A. Brandenburg. Ed & Pub 81:7 S 11 '48
Sears' working capital less on sales than Ward's. Barron's 28:33 My 3 '48
Young Sears, Roebuck. Il Fortune 38:84-7+ Ag '48

Laboratories

Testing consumer products. M. A. Blu. Il diag Product Eng 19:81-5 Je '48

SEASHORE

See also

Bathing beaches

SEASIDE houses. See Beach houses**SEASONAL industries**

New seasonal patterns in industry. Bsns W p 19-21 Je 12 '48

See also

Greeting card indus- Oil burner industry
try Women's apparel

Advertising

Advertising used to straighten out eight-month seasonal slump; cartoon technique sells rural gas users on providing their own storage facilities. D. Markstein. Il Ptr Ink 224:42-3 JI 16 '48

See also

Electric fans—Ad-
vertising

SEATRAN lines, inc.

Fight of the month. Fortune 38:18+ N '48

SEATS

Elastic webbing; seats and berths have extruded polyvinyl plastic in place of metal springs. R. J. Considine. Il Mod Plastics 25:123 Ap '48

See also

Airplanes—Seats
Automobiles—Seats

SEATS, Theater. See Theater seats**SEATTLE**

See also

Heating industry— Plumbing trade—
Seattle Seattle

Water supply

Cross-connection survey. E. J. Allen. Am Water Works Assn J 40:641-6 Je '48

SEATTLE gas company

Preferred stock offered. Comm & Fin Chr 166:2315 D 8 '47

SEBACIC acid

Cellulose ester plastics; plasticizing action of homologous series of esters of sebacic and phthalic acids on cellulose acetate butyrate. L. W. A. Meyer and W. M. Gearhart. bibliog Ind & Eng Chem 40:1478-85 Ag '48

SEBALD, Weber William, 1888-

Portrait. Bsns W p50 My 8 '48

SECOND injury funds. See Workmen's compensation—Second injury funds**SECOND Nassau investment corporation, limited**

Statement by the chairman. R. K. Fraay. Economist 154:734-6 My 1 '48

SECOND sound. See Helium, Liquid**SECRETARIES, Private**

Training for secretarial skills. E. R. Becker. Management R 37:11-13 Ja '48
We conducted our own secretarial class. F. Truesdale. Personnel J 27:13-15 My '48

SECULAR equations

A form of the secular equation for molecular vibrations. E. B. Wilson, jr. bibliog J Chem Phys 15:736-8 O '47
Automatic simultaneous equation computer and its use in solving secular equations. W. A. Adcock. bibliog Il diags R Sci Instr 19:181-7 Mr '48

SECULAR trend

Adjustment for the secular trend of stock prices in formula timing plans. M. D. Ketchum. J Bsns 21:29-49 Ja '48

SECURITIES

Answers to inquiries. Published in biweekly numbers of Magazine of Wall Street
Boom in shipbuilding under expanded merchant marine; with data on leading companies. H. F. Travis. Mag of Wall St 82:133-5+ My 3 '48

Business financing in the postwar period. I. Friend. Survey of Cur Bsns 23:10-16+ Mr '48; Same. Comm & Fin Chr 167:1546+ Ap 8 '48

Current responsibilities of securities industry. J. H. Collins. Comm & Fin Chr 168:402+ JI 29 '48

How to buy stocks and bonds. D. L. Kemmerer and B. C. Hurd. Comm & Fin Chr 168:100 JI 8 '48

Investment fundamentals; the choice of securities. C. T. Hyder. Comm & Fin Chr 167:800+ 900+ F 19, 26 '48

Market outlook; summary of the fortnight. A. T. Miller. Mag of Wall St 81:332-4+ Ja 3 '48 [cont biweekly]

More vigor needed if security business is to perform its economic function. H. B. Dorsey. Comm & Fin Chr 168:1645+ O 21 '48
1948 special re-appraisals of values, earnings and dividend forecasts. Mag of Wall St 81:527-40+, 585-96+, 641-65+, 701-11; 82:482-91+, 534-47+, 586-95+, 634-45+ F 14-Mr 27, Ag 14-S 25 '48

Securities affording tax advantages; dividends in the non-taxable class. F. K. Dodge. Mag of Wall St 81:192-3+ N 22 '47

Securities now in registration. Published in weekly Thursday numbers of Commercial and financial chronicle

United front in securities industry. H. A. Vilas. Comm & Fin Chr 167:1528+ Ap 8 '48

Which securities under preparedness? companies likely to benefit. F. K. Dodge. Il Mag of Wall St 82:63-5+ Ap 24 '48

See also

Banks and banking Mortgages
—Investments Municipal bonds
Banks and banking Speculation
—Stock Stockholders
Bonds Stocks
Investments Trusts and trustees
Mortgage participation —Investments
certificates

also subdivision Securities under names
of industries, e.g.

Agricultural machinery industry Office equipment industry
Airlines Paint industry and trade
Building trades Paper industry and trade
Distilling industries Public utilities
Electric apparatus Railroad supplies industry
industry Railroads
Equipment industries Rubber industry and trade
Fertilizer industry Sugar industry and trade
Finance companies Textile industry
Food industry and trade Tire industry and trade
Gas companies Tobacco industry
Metal trade
Metal working industries and trade
Mining industry and finance

Advertising

Advertising needed to find more investors for business. C. Robbins. Il Ptr Ink 225:32-5+ O 22 '48

IRA state legislation group reports on red herrings. Comm & Fin Chr 166:2506 D 18 '47

Issue ads do pay; Lehman brothers survey. Bsns W p94 Mr 13 '48

SECURITIES—Advertising—Continued

Lehman brothers survey shows new issue advertising effective. Comm & Fin Chr 167:1115 Mr 11 '48
Measures readership of security issue advertisements. Ptr Ink 223:88 Ap 23 '48
Why big prospectuses? O. Ely. Pub Util 42:563 O 21 '48

Blocked securities

Sureties are doubtful of looted securities claims. Nat Underw 51:20 N 13 '47

Competitive bidding

See Securities—Marketing

Exemption from taxation

See Taxation, Exemption from

Law

Problems in administering Securities act. R. K. McConaughy. Comm & Fin Chr 167:1974+ My 6 '48
Proposals to amend the registration and prospectus requirements of the Securities act of 1933. C. Byse and R. J. Bradley. Comm & Fin Chr 167:2099+ My 13 '48
Reply to SEC charges; Otis & co. and Cyrus Eaton statements denying SEC charges in Kaiser-Frazer common stock offering. Comm & Fin Chr 168:714 Ag 19 '48
SEC and the broker-dealer. L. Loss. Comm & Fin Chr 167:1316+ Mr 25 '48
SEC rejects faulty handling of inventory losses, note liability, working capital needs; Globe Aircraft case. J Account 84:409-11 N '47

Marketing

Case for competitive bidding. R. S. Peterson. Comm & Fin Chr 168:402 Jl 29 '48
Competitive bidding advantages fade fast; cites PEG case. E. R. Abrams. Barron's 28:32 S 27 '48
Competitive bidding; barrier to utilities financing. G. D. Woods. Comm & Fin Chr 167:1641+ Ap 15 '48; Excerpts. Pub Util 41:631-2 My 6 '48; Discussion. C. S. Eaton. Comm & Fin Chr 167:1748 Ap 22 '48
Evidence against competitive bidding. O. Ely. Pub Util 41:694-5 My 20 '48
Extent of competitive bidding requirements; with summary by states. O. Ely. Pub Util 41:243-5 F 12 '48
Is salesmanship essential to distribute securities? D. Laird. Comm & Fin Chr 167:1315+ Mr 25 '48
More new money needed; sale of Pacific Telephone & Telegraph debentures may set pattern for interest costs. Bsns W p68+ N 1 '47
Negotiated security sale can still work well; experience of Dayton power & light company. B. C. Taylor. Pub Util 41:762-7 Je 3 '48
New philosophy of security selling; work of customers' broker. V. B. Cook. Comm & Fin Chr 168:1540+ O 14 '48
New plan for distributing stock; First Boston corporation standby offering of Columbia gas system shares without underwriting. Comm & Fin Chr 168:1541 O 14 '48
New private sale; Canada sells dollar bonds to group of insurance companies. Bsns W p86 Jl 24 '48
Private placement of securities. S. F. Sillo-way. Comm & Fin Chr 168:1756+ O 28 '48
Private placements; a new medium of financing. S. C. Badger. Comm & Fin Chr 168:1547+ O 14 '48
Private sales pick up. Bsns W p90+ N 22 '47
Proposals to amend the registration and prospectus requirements of the Securities act of 1933. C. Byse and R. J. Bradley. Comm & Fin Chr 167:2099+ My 13 '48
Public underwriting of securities of finance companies. M. E. Simond. Comm & Fin Chr 168:1757+ O 28 '48
Securities business; is it a profession? F. G. Smola. Comm & Fin Chr 168:313+ Jl 22 '48
Securities salesman's corner. J. Dutton. Published in weekly Thursday numbers of Commercial and financial chronicle
Snubbed again; Wall Street is bypassed by Port of New York authority and Pennsylvania railroad. Bsns W p59 Jl 3 '48

Training of security salesmen. J. Dutton. Comm & Fin Chr 167:20, 137, 220, 308, 504 Ja 1, 8, 15, 22, 29 '48
Transitions in securities business. J. F. Burns, Jr. Comm & Fin Chr 166:2264+ D 4 '47
Trend to private placements. Bsns W p89-90+ Je 26 '48
When friends fall out; Kaiser-Frazer sues after Otis walks out on new stock issue. Bsns W p85-6+ F 21 '48
Who wants to invest anyway? equity financing highest when market rises. Barron's 28:31 Mr 1 '48

Over-the-counter marketing

Counter trade. Fortune 37:122+ Je '48

Private placement

See Securities—Marketing

Regulation

Problems and responsibilities of securities administrators. H. Johnson. Comm & Fin Chr 168:400+ Jl 29 '48
Relation of security regulation to market timing. J. L. Donnelly. Pub Util 42:28-36 Jl 1 '48
SEC seeks views on market stabilization practices. Comm & Fin Chr 168:1218 S 23 '48
Securities arising from reclassification reorganization and recapitalization; need for protecting public. H. A. Smith. Comm & Fin Chr 168:404+ Jl 29 '48
See also
Securities—Law
Securities and exchange commission

Statistics

Capital flotations in the United States during the month of Dec. and for the twelve months of the calendar year 1947. Comm & Fin Chr 167:423-31 Ja 26 '48
Securities issued, by type of security, by type of issues, etc., 1941-1946. Survey of Cur Bsns 1947 Sup p87-90 [supplemented in monthly numbers]

Taxation

See Taxation of securities

Valuation

Some shortcomings of financial statements from the security analyst's point of view. J. M. Galanis. J Account 84:368-75 N '47

Canada

Canadian investment developments. J. A. Gairdner. Comm & Fin Chr 167:2760+ Je 24 '48

China

Regulations issued governing importation and exportation of foreign currency securities. For Comm W 32:16 Jl 3 '48

Great Britain

Hard going for new issues. Economist 155:76-7 Jl 10 '48
Last year's new issues. Economist 154:150 Ja 24 '48
Still a bear market? Economist 154:806-7 My 15 '48

Italy

Italian bond price spread raises payments question. Barron's 28:34 Ja 26 '48
Italian securities need ERP success; refunding issues give bondholders hope of adequate return. F. M. Stern. Barron's 28:22 Ja 19 '48
New Italian bonds registered with SEC. Comm & Fin Chr 166:2496 D 18 '47
N.Y. curb exchange restores trading in Italian bonds. Comm & Fin Chr 166:2631 D 25 '47
United States holders of Italian bonds outbargained by British in claim settlement. R. E. Bedingfield. Barron's 28:32 F 2 '48

Mexico

Securities market in Mexico. P. R. Hermosillo. Comm & Fin Chr 168:607+ Ag 12 '48

South Africa

South African shares now. Economist 154:938 Je 5 '48

SECURITIES and exchange commission

- More on revealing dealer's capital; provisions of Securities exchange act of 1934 dealing with filing of annual reports; editorial. *Comm & Fin Chr* 166:2475-48 D 18 '47
- SEC and municipal securities; editorial.** *Comm & Fin Chr* 168:1415+ O 7 '48
- SEC and the broker-dealer.** L. Loss. *Comm & Fin Chr* 167:1316+ Mr 25 '48
- SEC back to D.C.** *Bsns W* p68-9 Ja 24 '48
- SEC policy of revealing capital of dealers un-American.** J. Dutton. *Comm & Fin Chr* 166:2367 D 11 '47
- SEC position on world bank bonds.** E. M. Hanrahan. *Comm & Fin Chr* 167:2538 Je 10 '48
- SEC report of investigation of Drayer-Hanson case.** *J Account* 85:435-41 Mr '48
- SEC seeks views on market stabilization practices.** *Comm & Fin Chr* 168:1218 S 23 '48
- Un-restraint in the reform trade, confusion created by lack of monopoly by either Department of justice or the SEC in controlling the investment bankers. A. W. May. *Comm & Fin Chr* 166:1841+ N 6 '48**
- What the SEC is doing.** E. M. Hanrahan. *Comm & Fin Chr* 168:307+ JI 22 '48
- What the SEC requires in financial statements filed with the Commission.** E. C. King. *J Account* 84:377-84 N '47

SECURITY traders association of New York

- Annual dinner, 12th, New York, April 19; portraits. *Comm & Fin Chr* 167:1885-8 Ap 29 '48
- Annual meeting; portraits. *Comm & Fin Chr* 166:insert A-D D 11 '47

SEDIMENTATION

- Beaker-type centrifugal sedimentation of subviscous solid-liquid dispersions; theory. H. E. Robison and S. W. Martin. *bibliog diag J Phys & Colloid Chem* F2:854-81 My '48
- Determination of sedimentation constants in the Sharples supercentrifuge. H. K. Schachman. *bibliog diag J Phys & Colloid Chem* 52:1034-45 Je '48
- Determination of the fineness of wool samples by sedimentation. G. C. LeCompte. *diags Am Dyestuff Rep* 37:453-6 JI 12 '48
- Diffusion and sedimentation of sodium thymonucleate. H. Kahler. *bibliog J Phys & Colloid Chem* 52:676-89 Ap '48
- Electrophoretic and ultracentrifugal investigation of rabbit liver nucleoprotein. Q. Van Winkle and W. G. France. *bibliog J Phys & Colloid Chem* 52:207-16 Ja '48
- Intrinsic viscosity, diffusion, and sedimentation rate of polymers in solution. P. Debye and A. M. Bueche. *J Chem Phys* 16:573-9 Je '48
- Method for particle size distribution for the entire subviscous range. A. E. Jacobsen and W. F. Sullivan. *bibliog diag Anal Chem* 19:855-60 N '47
- Method of determining the particle size of colloids from sedimentation data obtained with the Sharples supercentrifuge. S. A. Loukowsky and S. J. O'Brien. *bibliog II diags Am Soc T M Proc* 46:1437-51 '46
- Sedimentation and hydraulic classification. A. Anable. *bibliog II diags Ind & Eng Chem* 40:50-2 Ja '48
- Sedimentation equilibria of polydisperse non-ideal solutes. M. Wales and others. *bibliog J Phys & Colloid Chem* 52:235-48, 983-98, Ja, Je '48
- Sédimentation et granulométrie des talcs. C. Rossi and R. Baldacci. *bibliog Chimie & Ind* 58:223-7 S '47

SEDIMENTATION and deposition

- Buried topography, initial structures, and sedimentation in Santa Rosalia area, Baja California, Mexico. I. F. Wilson. *maps diags Am Assn Pet Geologists Bul* 32:1762-807 *bibliog(p 1803-7) S* '48
- Channels and channel-filling sediments of Richmond age in south-central Tennessee. C. W. Wilson, Jr. *bibliog maps diags Geol Soc Bul* 59:733-65, pl 1-2 Ag '48
- Marine sedimentation and oil accumulation; regressive marine offlap and overlap-offlap. D. S. Malkin and D. J. Echols. *map diags Am Assn Pet Geologists Bul* 32:252-61 F '48

- Ogallala and post-Ogallala sediments. M. K. Elias. *bibliog Geol Soc Bul* 59:603-12 Je '48
- Outline of sedimentation in Maracaibo basin, Venezuela. H. P. Schaub. *bibliog map Am Assn Pet Geologists Bul* 32:215-27 F '48
- Recent changes in sedimentation in the Gulf of Mexico. P. D. Trask and others. *Science* 106:460-1 N 14 '47
- Some features of the Navajo formation in Zion national park, Utah. R. K. Grater. *diag Am J Sci* 246:311-18, pl 1-2 My '48
- Submarine geology of Ranger Bank, Mexico. K. O. Emery. *bibliog 2pls maps Am Assn Pet Geologists Bul* 32:790-805 My '48
- Tectonic control of lithologic associations. E. C. Dapples and others. *bibliog maps diags Am Assn Pet Geologists Bul* 32:1924-47 O '48

SEDIMENTS

- Weathering sequence of clay-size minerals in soils and sediments. M. L. Jackson and others. *bibliog J Phys & Colloid Chem* 52:1237-60 O '48

Analysis

- Conductometric titration of chloride in sea water and marine sediments. L. J. Anderson. *Anal Chem* 20:618-19 JI '48

SEED extracting machines

- New tree seed extraction machine. *Pulp & Pa of Can* 49:106 Mr '48

SEED stores

- Store for the selling of seeds, San Francisco, Calif. *il plans diag Arch Forum* 88:136-7 My '48

SEEDS

- Galactomannan of the lucerne seed. E. L. Hirst, J. K. N. Jones and W. O. Walder. *Chem Soc J p* 1443-6 N '47

Testing

- Germination indicator, 2,3,5-triphenyltetrazolium chloride. *Chem & Eng N* 26:404-5 F 9 '48

SEEGER refrigerator corporation

- Net rising as volume grows. *Barron's* 28:35 F 16 '48; *Correction*. 28:34 Mr 15 '48

SEEING, See Sight**SEGAL lock and hardware company**

- Debentures offered. *Comm & Fin Chr* 167:2692 Je 21 '48

SEIBERLING, James Penfield, 1898-

- Portrait. *Bsns W* p21 N 1 '47

SEIDMAN, Jacob Stewart, 1901-

- Angel with a system; C.P.A. and Broadway angel. *por Fortune* 37:132+ Mr '48

SEIGNETTE'S salt. See Potassium sodium tartrate**SEISMOGRAPHS**

- Modern seismograph known as Sprengnether seismometer. *Science* 108:433 O 22 '48

SELECTIVE selling. See Sales policies—Selective selling**SELENIDES**

- n*-Alkyl diselenides. G. S. Stoner and R. W. Williams. *bibliog Am Chem Soc J* 70:1113-14 Mr '48

- Ultraviolet spectra and ionization potentials of the hydrides and deuterides of sulfur, selenium, and tellurium. W. C. Price. *J Chem Phys* 16:551-2 My '48

See also

- Alkaline earth selenides

SELENINIC acids

- Iodometric analysis of *o*-nitrobenzene-seleninic acid. O. Foss. *Am Chem Soc J* 70:421 Ja '48

SELENIOS acid

- Kinetics of the oxidation of acetone by selenious acid. F. R. Duke. *bibliog Am Chem Soc J* 70:419-21 Ja '48

SELENIUM

- Compact power supply is transformerless and tubeless; using selenium rectifiers. G. Dexter. *il diags Radio N* 39:51+ Mr '48

- New television power supplies use selenium rectifiers. G. Eannarino. *il diags Radio & Tv N* 40:54-6+ S '48

- Photochemistry of selenium; the photochemical oxidation of hydrogen selenide. D. J. G. Ives and R. W. Pittman. *diag Chem Soc J p* 766-9 Je '48

SELENIUM—Continued

- Polarization of infra-red radiation. A. Elliott and others, bibliog diags Opt Soc Am J 38:212-16 F '48
- Selenium as catalyst in Kjeldahl digestions. S. M. Patel and A. Sreenivasan, bibliog Anal Chem 20:63-5 Ja '48
- Selenium rectifiers for television receivers. G. Bannarino, il diags Electronics 21:134+ F '48
- Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel, bibliog il diags J Chem Phys 16:372-80 Ap '48
- Temperature coefficient of electrical resistivity for crystalline selenium containing various percentages of bromine. W. E. Blackburn, diag J Ap Phys 19:51-4 Ja '48

Analysis

- Potentiometric titration of +4 and +6 selenium and tellurium with chromous ion. J. J. Lingane and L. Niedrach, bibliog Am Chem Soc J 70:1997-2000 Je '48

Isotopes

- Artificially radioactive Se⁷⁵ and Se⁷⁶ produced by alpha-particle bombardment of germanium. W. S. Cowart and others, Phys R 73:1454-7 Je 15 '48
- Radioactive Br isotopes. L. L. Woodward and others, bibliog Phys R 74:370-5 O 15 '48
- Radioactive Kr isotopes. L. L. Woodward and others, Phys R 74:761-4 O 1 '48
- Short-lived isomeric states of Se⁸⁰ and Ge⁷⁷. J. R. Arnold and N. Sugarman, bibliog J Chem Phys 15:703-12 O '47

SELENIUM alloys

- Thermoelectric properties and electrical conductivity of bismuth-selenium alloys. B. D. Cullity, bibliog Metals Tech 15:TP 2313 1-3 Ja '48

SELENIUM compounds

- Syntheses of the selenium analog of di-cystine. L. R. Williams and A. Ravve, bibliog Am Chem Soc J 70:1244-5 Mr '48

SELENIUM oxides

- Configuration of organic telluroxides; mixed crystals of telluroxides with selenoxides. H. Rheinboldt and E. Giesbrecht, bibliog Am Chem Soc J 69:2310-13 O '47
- Oxidation of acetic acid with selenium dioxide. R. B. Thompson and J. A. Chenicek, Am Chem Soc J 69:2563-4 O '47
- Selenium dioxide as a lubricant additive. R. E. Heikes and F. C. Croton, bibliog Il Ind & Eng Chem 39:1466-74 N '47

SELENOCYANATES

- Electric moments of some *p*-substituted phenyl selenocyanates and thiocyanates. T. W. Campbell and M. T. Rogers, bibliog Am Chem Soc J 70:1029-31 Mr '48

SELF insurance. See Insurance—Self insurance; Insurance, Marine—Self insurance**SELF service**

- Automatic merchandising evolves as a changing force in the Nation's stores. il Arch Forum 38:121-2 Mr '48
- How to sell to and through the new department store; self-service, self-selection and robot selling. E. B. Weiss, il Ptr Ink 223: 42-3+ Je 11 '48
- Meat prepackaging; a new try; A&P, installs self-service meat department in Cambridge (Mass.) supermarket, il Bsns W p56+ Ap 17 '48

See also

- Gasoline service stations—Self service stations

SELF service laundries. See Laundries, Self service**SELF service stores**

- Kroger pre-packaging; pilot store method of packaging meat, baked goods, produce and dairy products, il Mod Packaging 21:100-4 N '47
- Supermarket 100 per cent self-service; Grand union co. opens new store in New York, il Bsns W p74+ Jl 24 '48

SELLERS, William, and company

- Sellers started building machine tools one hundred years ago. il Mach 55:165-6 S '48

SELSYN apparatus

- Adaptation of selsyn transmitters for obtaining isometric myographs on the cathode-ray oscilloscope. R. L. Bowman, il diags Science 108:310-11 S 17 '48

- Utilizing selsyns in machines. W. J. Gorman, jr, il diags Machine Design 20:116-21 Mr '48

- Weatherproof housing for small selsyn motors. C. F. Donbar, diag Radio N 39:124 Ap '48

SEMANTICS

- Chinese language in the light of comparative semantics; abstract. E. Reifer, Science 107: 586 Je 4 '48

SEMICARBAZONES

- Absorption spectra of 2:4-dinitrophenylsemicarbazones. A. E. Gillam and D. G. Moss, Chem Soc J p 1387-90 O '47
- Acylation studies in the thiophene and furan series; thiophene carboxylic acids and semicarbazones derived from acetylthiophenes. H. D. Hartough and L. G. Conley, bibliog Am Chem Soc J 69:3096-8 D '47

SEMIQUINONES

- Some properties of phenanthrene semiquinone. L. Michaelis and S. Granick, bibliog Am Chem Soc J 70:624-7 F '48
- Thionol and its semiquinone radical. S. Granick and L. Michaelis, bibliog Am Chem Soc J 69:2983-6 D '47

SENESCENCE. See Old age**SENIORITY rights. See Employees—Length of service****SENNA**

- Alpha, told senna can be standardized. L. C. Miller, Oil Paint & Drug Rep 154:75 Ag 16 '48

SENSES and sensation**See also**

- | | |
|-------------|-------|
| Color sense | Smell |
| Hearing | Taste |
| Sight | |

SENSITIVITY testing

- Method for obtaining and analyzing sensitivity data. W. J. Dixon and A. M. Mood, bibliog Am Stat Assn J 43:109-26 Mr '48

SEPARATION

- Absorption studies with waste pickle liquor. J. Seiberlich, bibliog il Steel 122:90+ Ja 12 '48

- Air separation of powders. E. N. Simons, diags Can Chem & Process Ind 31:1121-2 D '47

- Cascades used in isotope separation. H. C. Urey, diags Elec Eng 67:581-6 Je '48

- Centrifugation. J. O. Maloney, bibliog Ind & Eng Chem 40:8-9 Ja '48

- Electrical separations, diags Chem Eng 55: 120-1 My '48

- Factors which control ligation in metallurgy. E. A. Peretti, bibliog il diag Eng & Min J 148:76-8 D '47

- Hypersorption provides precise concentration-separation of gases. A. L. Foster, flow diag il diag Oil & Gas J 47:90+ Ag 12 '48

- Ion-exchange as a separations method; separation of fission-produced radioisotopes, including individual rare earths, by complexing elution from amberlite resin. E. R. Tompkins, J. X. Khym and W. E. Cohn, bibliog diag Am Chem Soc J 69:2769-77 N '47

- Ion exchange as a separations method; theoretical analysis of the column separations process. S. W. Mayer and E. R. Tompkins, bibliog Am Chem Soc J 69:2866-74 N '47

- Mechanical separations, diags Chem Eng 55: 121-4 My '48

- Nitrogen removal from natural gas. W. W. Deschner and W. W. Bodle, bibliog flow diags diags Oil & Gas J 46:76-9+ Ap 15; 92+ Ap 22 '48

- Physical separations, diags Chem Eng 55: 113-19 My '48

- Separating fine particles; patent. Chem Age (Lond) 57:671 N 22 '47

- Separation of isotopes. G. W. Dunlap and R. M. Lichtenstein, diags Elec Eng 67: 469-74 My '48

See also

- Adsorption
Clarification
Crystallization
Dialysis
Distillation
Dust removal
Electric precipitation
Evaporation
Extraction processes
Filters and filtration

- Flotation process
Hydrocarbons—Separation processes
Magnetic separation of ores
Ore treatment
Rare earth metals—Separation
Sink and float processes

SEPARATORS

- Filters vs. centrifugal separators in the brewery; differences in brewing and distribution practices in Europe and the United States. S. Laufer, diags Food Ind 20:208-11+, 378-81 bibliog(p381) F-Mr '48
- Improved quality separator; tender peas float out overflow port of top-shaped separation tank; mature ones removed from bottom by brine jet. C. R. Haverhorst, flow diag il diag Food Ind 19:1499-500 N '47
- Installing a stainless steel Multicline separator. il Pet Processing 3:23, cover Ja '48
- New dry concentrating equipment. W. J. Long, 8pls U S Bur Mines Rep of Invest 4286:1-10 '48
- Solid separation; new equipment announced 1947-48, Chem Ind 63:409-10 S '48

See also

- Air separators Evaporators
Centrifuges Filters and filtration
Classifiers (technical chem-
Cream separators istry)
Dust collectors Screens

SEPARATORS, Magnetic. *See* Magnetic separators

SEPTIC tanks

- Government tests septic tanks, plans Dom Eng 172:119+ J1 '48
- Household sewage-disposal studies will evaluate design and operation. il Eng N 140: 964-5 Je 10 '48

SEPTIC tanks, Concrete

- From one block machine to concrete specialties field; West Bend concrete products co. il Rock Prod 51:174+ Ja '48

SEQUENTIAL method of sampling. *See* Sampling (statistical methods)

SEQUESTRATION (term)

- Sequestration, dispersion, and dilatancy; lecture demonstrations. T. H. Daugherty, bibliog il J Chem Educ 25:482-8 S '48

SEQUESTRENE A

- Sequestering agents; their role in liquid soap production; properties of a polyamino carboxylic acid salt. H. W. Zussman, Soap & San Chem 24:57-9+ F '48

SEQUIOA

- Chromosomes and relationships of metasequoia and sequoia. G. L. Stebbins, jr. bibliog il Science 108:95-8 J1 30 '48

SERINE

- New synthesis of *dl*-serine. J. A. King, bibliog Am Chem Soc J 69:2738-41 N '47

SEROLOGICAL museum. *See* Rutgers university—Serological museum

SEROLOGY (term)

- Immunologic; confusion with serologic. M. S. Marshall, Science 108:377-8 O 8 '48; Discussion. A. Boyden, 108:635 D 3 '48

SEROTONIN (term)

- Crystalline serotonin; vasoconstrictor present in serum and defibrinated blood. M. M. Rapport and others. il Science 108:329-30 S 24 '48

SERUM

- Biophysical studies of blood plasma proteins; separation and properties of the γ -globulins of the sera of normal cows. E. L. Hess and H. F. Deutsch, bibliog Am Chem Soc J 70:84-8 Ja '48

- Biophysical studies of blood plasma proteins; separation of γ -globulin from the sera of various animals. J. C. Nichol and H. F. Deutsch, bibliog Am Chem Soc J 70:80-3 Ja '48

- Reducing properties of serum from subjects with malignant disease. W. C. Stadie, Science 108:211 Ag 27 '48

- Studies on double refraction of flow; human serum γ -globulin and crystallized bovine serum albumin. J. T. Edsall and J. F. Foster, bibliog Am Chem Soc J 70:1860-6 My '48

SERUM albumin. *See* Albumin

SERUM diagnosis*See also*

Complement fixation

SERUM THERAPY

- Serum protection test in tularemia infections in white rats. C. L. Larson, Pub Health Rep 62:1793-9 D 26 '47

See also

Allergy

SERVANTS

- Domestic service in Hungary; Bulgaria. Int Labour R 57:659-61 Je '48

See also

- Housekeeping service (social work)

SERVEL, inc.

- Gas appliance boom. Barron's 28:39 S 13 '48

SERVICE (in industry)

- Advertising and promotions designed to help customers; International Nickel products. R. H. Canby, il Ptr Ink 224:34-6 J1 16 '48
- Allis-Chalmers establishes certified service shop plan to speed repairs. Elec World News ed 129:21 Je 12 '48
- Authentic technical copy sells your service representative; replace cure-all copy with service offers. J. Samuelson, Ind Marketing 33:40+ My '48
- Duraglas lab boosts container sales by market service. il Bsns W p72-4+ S 4 '48
- Elaborate dealer relations program pays; Capitol records, inc. L. F. Thomann, Ptr Ink 224:40-1 J1 16 '48
- Engineering + sales=technical service. M. S. Moulton, Ind Marketing 33:49-50+ Mr '48

- Fuel saving plan bucks oil shortage for Oil-O-Matic. W. A. Matheson, il Sales Management 60:108+ Je 15 '48

- How Kaiser captures 20 per cent of aluminum market in 18 months; Permanente products co. B. Inch, Sales Management 60:37-9 Je 15 '48

- Shaver clinics in retail stores pay off for Remington. S. E. Anderson and G. Thomas, il Sales Management 61:113-15 J1 15 '48

- What use is technical service? F. G. Rice, Can Chem & Process Ind 32:155-8 F '48

See also

- Banks and banking— Office equipment industry—
Service Service
Chemical industries Oil burner industry—
Service Service
Dealer helps

SERVICE industries*See also*

- Banks and banking National introduction, inc.
Beauty shops tions, inc.
Cleaning industry Railroads
Gasoline service stations Telegraph
Hotels Telephone
Laundries Trust companies

SERVICE review, inc.

- Completes 20 years in insurance inspection field. East Underw 49:29 F 6 '48; Weekly Underw 158:594 F 21 '48

SERVOMECHANISMS

- Abstracts of papers read at the convention on automatic regulators and servo mechanisms. diags Inst E E J 94 pt 1:527-50 N '47

- Amplitude selective amplifier. C. E. Lowe, il diags Electronics 21:156+ O '48

- Analogy chart aids design. Machine Design 20:146 S '48

- Analysis of nonlinear control systems with the analog computer; abstract. G. D. McCann and C. H. Wilts, Elec Eng 67:1104 N '48

- Analysis of retarded control systems. L. A. Pipes, bibliog diags J Ap Phys 19:617-23 J1 '48

- Automatic pilots. J. C. Owen, il diags Elec Eng 67:551-6 Je '48

- Automatic plotting of electrostatic fields. P. E. Green, jr. il diags R Sci Instr 19:646-53 O '48

- Discussion of servomechanisms. R. H. Müller, Anal Chem 20:sup23A-4A Ag '48

- Electronic and servo electronic controls and their application to the iron and steel industry. W. G. Thompson, bibliog il diags Iron & Steel Inst J 158:497-509 Ap '48; Discussion. 160:417-25 D '48

- Fairchild transfer function analyzer. il R Sci Instr 19:407-8 Je '48

- Frequency-response measurements of a hydraulic power unit. M. R. Hannah, bibliog il diags A S M E Trans 70:525-34; Discussion. 535-9 J1 '48

- Instruction in automatic control; Ministry of Supply courses. Chem Age (Lond) 58:834 Je 19 '48

SERVOMECHANISMS—Continued

- Inverse Nyquist plane in servomechanism theory. G. B. Criss, diags *Inst Radio Eng Proc* 35:1503-4 D '47
- Magnetic fluid clutch to improve servomechanism performance. *il diags Instruments* 21:756-+ Ag '48
- Mechanical computer would refine governing. T. E. Curtis, *il diag Elec World* 129:78-9 F 28 '48
- Obtaining attenuation-frequency characteristics for servomechanisms; charts and design aids. H. Chestnut, diags *Gen Elec R* 50:33-44 D '47
- Packaged servomechanism. W. C. Robinette, *il diags Electronics* 21:100-6 Ja '48
- Photographic tracking of guided missiles. L. M. Biberman and others, diags *Electronics* 21:92-5 J1 '48
- Power system governing. T. E. Curtis, bibliog diags *Elec Eng* 66:1197-200 D '47
- Servo and gyroscopic controls; abstract. K. Hohenemser, *Aero Digest* 56:65-+ Je '48
- Servo electronic control of a large planing machine. *il Engineer* 185:542-3 Je 4 '48
- Servomechanism performance analyzer. *il Instruments* 21:510 Je '48
- Stabilization of carrier-frequency servomechanisms. A. Sobczyk, diags *Franklin Inst J* 246:21-43, 95-121, 187-213 J1-S '48
- Stabilizing servomechanisms. D. McDonald, *il diags Electronics* 21:112-16 N '48
- Temperature control. F. E. Butcher, *Elec R (Lond)* 142:290 F 20 '48
- Theory of servo systems, with particular reference to stabilization. A. L. Whiteley, diags *Inst E E J* 93 pt 2:353-67 Ag '46; Discussion, 93 pt 2:368-72; 94 pt 2:611-15 Ag '46, D '47; *Electrician* 136:823-4 Mr 29 '46
- Variable-radio-frequency-follower system. R. F. Wild, *il diags Inst Radio Eng Proc* 36:281-5 F '48
- Voltage integrator. A. Buzzell and J. M. Sturtevant, diags *R Sci Instr* 19:688-92 O '48
- SESAME**
Sesame cultivation and exports, Nicaragua. *For Comm W* 29:27 D 20 '47
- SESPE formation**
Origin and migration of oil into Sespe red-beds, California. T. L. Bailey, map diags *Am Assn Pet Geologists Bul* 31:1913-35 N '47
- SETTLING basins**
Circular salt-water treating unit proves successful. G. Weber, *il plan diags Oil & Gas J* 47:102-3 Ag 12 '48
- Two-story sedimentation basin features filter plant layout. L. C. Larson, plan diag *Eng N* 140:656-7 Ap 29 '48
- SETTLING tanks**
Operation of small filtration plants; coagulation and settling. A. E. Clark, *Water & Sewage Works* 95:19-20 Ja '48
- Small sewage treatment plants; primary settling. *il plans diags Pub Works* 79:24-6+ Mr '48
- SEVENTH-DAY Adventists**
Church signs up; contract with U.A.W.; rights for members who can't join a union. *Bens W* p 106-8 My 1 '48
- SEVERANCE pay**. See Wages—Dismissal wage
- SEVERINGHAUS**, Willard Leslie, 1882-1947
Sketch. H. W. Farwell, *Phys R* 73:642-3 Mr 15 '48
- SEVIER, Randolph**
Portrait. *Fortune* 38:7 O '48
- SEWAGE**
Borers undeterred by domestic sewage; study of borer infested waters in Long Island sound. W. F. Clapp, *Eng N* 140:561 Ap 15 '48
- Effect of hydrogen sulphide in Winnipeg sewage. G. C. Laidlaw, *il Water & Sewage* 86:16-17+ O '48
- Sedimentation of sewage in rectangular tanks. S. H. Jenkins and others, bibliog *Water & Sewage* 86:26-+ F '48
- See also
Sewage sludge
Trade waste

Analysis

- Amperometric titration of residual chlorine in sewage. H. C. Marks and others, bibliog *Water & Sewage Works* 95:175-8 My '48

- Analytical procedures for the determination of metals affecting sewage treatment. M. L. Riehl, bibliog *Sewage Works J* 20:629-37; Discussion, 637-9 J1 '48
- Determination of zinc in water, sewage and industrial wastes by means of di-beta-naphthylthiocarbazone. L. Rubin and A. Levine, bibliog *N E Water Works Assn J* 61:267-78 S '47
- Determination of zinc in water, sewage and trade wastes. E. I. Corson, *il Water & Sewage Works* 95:40-2 Ja '48
- Oxygen consumed test for sewage. R. S. Ingols and P. E. Murray, bibliog *Water & Sewage Works* 95:113-17 Mr '48
- Semimicro determination of nitrogen in sewage sludges. L. Klein, *Soc Chem Ind J* 66:376 O '47

Bacteriology

- Bacteriostatic effect of methylene blue on the b.o.d. test. W. E. Abbott, *Water & Sewage Works* 95:424-5 N '48
- Some bacteriological aspects of hydrogen sulfide production from sewage. H. Heukelekian, *Sewage Works J* 20:490-8 My '48

Testing

- Bacteriostatic effect of methylene blue on the b.o.d. test. W. E. Abbott, *Water & Sewage Works* 95:424-5 N '48
- Biochemical oxygen demand of sulfite waste liquor. R. G. Tyler and S. Gunter, bibliog *diag Sewage Works J* 20:709-13 '48
- B.o.d. dilution technique. M. L. Riehl, *diag Sewage Works J* 20:219-21 Mr '48
- Correction of b.o.d. velocity constants for nitrification. C. C. Ruchhoff and others, bibliog *Sewage Works J* 20:832-40 S '48
- Effect of temperature on biochemical oxidation of sewage. H. B. Gotaas, *Sewage Works J* 20:441-77 bibliog(p476-7) My '48
- Manometric measurement of the biochemical oxygen demand of sewage. D. H. Caldwell and W. F. Langelier, bibliog *il diags Sewage Works J* 20:202-18 Mr '48
- Method for studying the toxicity of industrial wastes. H. Heukelekian, bibliog *Water & Sewage Works* 95:285-7 Ag '48
- Oxygen production in water by photosynthesis. W. E. Abbott, *Sewage Works J* 20:538-41 My '48
- Suspended-solids samples dewatered with vacuum system. N. Wagner, *il Eng N* 141:112 S 16 '48
- Variations in b.o.d. velocity constants of sewage dilutions. C. C. Ruchhoff and others, *Ind & Eng Chem* 40:1290-5 J1 '48

SEWAGE, Utilization of

- Industrial uses of reclaimed sewage effluents. N. T. Veatch, *Sewage Works J* 20:3-11 Ja '48; Same abr. *Am Water Works Assn J* 40:1-7 Ja '48; Discussion, *Sewage Works J* 20:11-14 Ja '48
- Industrial water supply from processed sewage treatment plant effluent at Baltimore. Md. A. Wolman, *Sewage Works J* 20:15-21; Discussion, R. F. Goudey, 22-3 Ja '48
- Plant effluent use at Fort Wayne. R. A. Hoot, *Sewage Works J* 20:908-9 S '48
- Sewage-reclamation practice needs independent engineering concepts. A. M. Rawn, *Eng N* 140:957 Je 10 '48
- Utilization of disposal plant effluent in refinery cooling water systems. G. W. Alexander, *il Pet Refiner* 27:92-4 Ja '48
- SEWAGE disposal**
Advances in sewage treatment and present status of the art; fourth progress report of the committee on sewerage and sewage treatment. *Am Soc C E Proc* 74:1515-68 bibliog(235 titles, p 1556-68) O '48
- Cast-iron turnings aid sewage treatment in the Niers River district in Germany. *Eng N* 140:437 Mr 18 '48
- Continuous-flow principle in sewage treatment. K. Imhoff, *Sewage Works J* 20:626-8 J1 '48
- Controlling infiltration; abstract. I. R. Riker, *Water & Sewage Works* 95:147-8 Ap '48
- Critical review of the literature of 1947 on sewage and waste treatment and stream pollution. W. Rudolfs and others, *Sewage Works J* 20:224-72 bibliog(295 titles, p264-72) Mr '48

SEWAGE disposal—Continued

- Developments in sewage and industrial waste treatment. G. S. Russell. *il Water & Sewage* 86:23-6+ Mr; 15-18+ My '48; Same. *Water & Sewage Works* 95:43-53 F '48
- Digestion of sewage solids. L. W. Van Kleeck. *il Water & Sewage Works* 95:104-6, 155-9, 163-6, 237-42, 325-8, 357-62, 457-9 Mr-My, JI, S-O, D '48
- Disposal of industrial wastes in Los Angeles county. A. Pickett. *Water & Sewage Works* 95:33-6 Ja '48
- Effect of change of temperature on thermophilic digestion. H. Heukelekian and A. J. Kaplovsky. *Sewage Works J* 20:306-16 S '48
- Effects of sewage treatment processes upon ova and miracidia of schistosoma japonicum. W. L. Newton and others. *Sewage Works J* 20:657-64 JI '48
- Engineering planning of sewage collection and treatment. E. Boyce. *Sewage Works J* 20:502-6; Discussion. W. R. Drury. plans 506-11 My '48
- Georgia water and sewage association, 16th annual school. Atlanta. Sept. 17-19. *Water & Sewage Works* 94:417-22 N '47
- Houston sludge disposal studies favor fertilizer production; with cost data. *Eng N* 140:559-61 Ap 15 '48
- Industrial problems of water contamination; progress made within the Calumet area of Indiana. C. B. Carpenter and W. W. Mathews. *il Midwest Eng* 1:2-7 O '48
- Industrial waste disposal in Los Angeles city. W. A. Schneider. *Water & Sewage Works* 95:37-9 Ja '48
- Inventory of major projects; with information on costs, sizes and features. *il Eng N* 140:292-4 F 19 '48
- Lime treatment of tomato canning waste. R. Y. Le Vine. flow diag *Pub Works* 79:28-30 O '48
- Liquid-phase and foam-phase oxidation of waste sulfite liquor. R. P. Logan and H. Heukelekian. *il Sewage Works J* 20:282-91 Mr '48
- Measurement and control of sewage treatment process efficiency by oxidation-reduction potential. J. W. Hood. bibliog diags *Sewage Works J* 20:640-50; Discussion. G. A. Rohlich. 650-3 JI '48
- New Jersey sewage works association 33rd annual meeting. *Water & Sewage Works* 95:146-50 Ap '48
- Ohio conference on sewage treatment, 21st annual meeting, Columbus. *Water & Sewage Works* 94:463-6 D '47
- Operation data on sewage treatment at Detroit; annual report. *Pub Works* 78:33 O '47
- Present day status of sewage disposal. S. A. Greeley. *Midwest Eng* 1:10 O '48
- Problems created by detergents. *Water & Sewage* 86:51-2+ S '48
- Pure oxygen in bio-precipitation process may reduce sewage treatment costs. D. A. Okun. *il diags Civil Eng* 13:288-9+ My '48
- Role of algae in waste treatment. A. J. Espinosa. *Pub Works* 79:36 Ag '48
- Sanitary sewer system designed to lower ground water level. G. H. Brodrick. *il diags Pub Works* 79:26-7 Ja '48
- Sewage interceptor in Quebec city permits industrial development. *il Water & Sewage* 86:24+ Ja '48
- Sewage treatment at Madison, Wisconsin. C. H. Becker and M. D. R. Riddell. *il map plan Water & Sewage Works* 95:26-32 Ja '48
- Sewage treatment processes and results. G. E. Symons. flow diags *Water & Sewage Works* 95:R161-5 Ap '48
- Survey of elementary mathematics for water and sewage works operators. W. K. Egloff. *diags Water & Sewage Works* 95:R55-66 Ap '48
- Symposium on new problems in sewage treatment with special reference to synthetic detergents; abstract. *Sewage Works J* 20:949-51 S '48
- University of Florida sewage treatment research. J. E. Kiker, jr. *il plan Pub Works* 79:30-1+ S '48

Water supply, drainage and health. R. Hetherington. *Engineer* 184:441-2 N 7 '47

See also

Inhoff tanks	Sewerage
Sewage irrigation	Trade waste
Sewage sludge	Water pollution
Sewage tanks	

Activated sludge method

- Cheaper sewage treatment is promise of tests using oxygen for aeration. *Eng N* 140:595 Ap 22 '48
- Cheaper way to purify sewage under test; Harvard bio-precipitation process. *Bsns W* p70+ My 15 '48
- Cleaning air diffuser plates by sandblasting. J. R. Longley. *il diag Water & Sewage Works* 95:363-5 O '48
- Effect of sewage concentration on the attainable degree of purification by the activated sludge process. W. E. Abbott. *Sewage Works J* 20:654-6 JI '48
- Enlarging an activated-sludge plant; Phoenix, Ariz. *il Eng N* 141:97-9 O 14 '48
- Mechanism of activated sludge process. W. E. Abbott. *Sewage Works J* 20:341-5 S '48
- Metering and control of processes for the Hyperion activated sludge plant. N. B. Hume. flow diag plan *Water & Sewage Works* 95:74-7 F '48
- New sewage-treatment plant at Orillia. L. G. McNeice. *il plans diag Water & Sewage* 86:19-21+ S '48
- Operation of activated-sludge plants. G. P. Edwards. flow sheet *il Water & Sewage* 85:24+ D '47
- Power efficiency in activated sludge aeration. R. Pomeroy. *Sewage Works J* 20:222-3 Mr '48
- Practical results of step aeration. W. N. Torpey. *diag Sewage Works J* 20:731-8 S '48; Abstracts. *Eng N* 140:361 Mr 4 '48; *Water & Sewage Works* 95:112 Mr '48
- Report. Rivers department, city of Manchester (England) for two years ended March 31, 1946; abstract. *Sewage Works J* 20:945-7 S '48
- Sewage treatment results at Fort Wayne. R. A. Hoot. flow sheet *il Pub Works* 79:21-3+ Ja '48
- Sludge pumping through long force mains; experiences and cost data during ten years of operation; Cleveland, Ohio. J. J. Wirts. *il diags Water & Sewage Works* 95:345-50; Discussion. C. E. Townsend. 350-1 O '48
- Small sewage treatment plants; activated sludge. M. Lamb; R. C. Gluppen. *il plan diag Pub Works* 79:26-7+ My; 28-9+ Je '48

Aeration

- Preaeration increases sewage treatability. J. D. Walker. *Sewage Works J* 20:115-19 Ja '48
- Sewage treatment by contact aeration; Hays process. G. R. Herzik, jr. *il Pub Works* 79:26-8+ Ag '48

Bibliography

- Bibliography of references on advances in sewage treatment. *Am Soc C E Proc* 74:1356-68 O '48
- Critical review of the literature of 1947 on sewage and waste treatment and stream pollution. W. Rudolph and others. *Sewage Works J* 20:264-72 Mr '48

Chlorination

- Chlorination curbs beach pollution. *il Eng N* 139:801-3 D 11 '47
- Chlorination of Los Angeles sewage at Hyperion plant. W. A. Schneider. *il Water & Sewage Works* 95:77-8 F '48
- Chlorination of sewage. N. S. Chamberlin. *Sewage Works J* 20:304-18 bibliog(44 titles, p317-18) Mr '48
- Chlorination practice in sewage and trade-waste disposal. N. J. Howard. *Water & Sewage* 85:21-2+ N '47
- Sewer maintenance experience at Long Beach, Calif. D. R. Kennedy. *Sewage Works J* 20:74-11; Discussion. 111-15 Ja '48
- Utilization of chlorine during septicization of sewage. H. Heukelekian. *Water & Sewage Works* 95:179-80 My '48

SEWAGE disposal—Continued

Filtration

- Alkalinity control of the trickling filter process at Virginia Beach. A. W. Petty. *il Sewage Works J* 20:566-71 My '48
- Alternating double-filtration speeds sewage treatment; report by Water pollution research board of Great Britain. *diags Eng N* 141:116 JI 8 '48
- Alternating two-stage filtration of sewage and milk waste. E. F. Wittmer. *flow sheet Sewage Works J* 20:54-8 JI '48
- Basic law for the performance of biological filters. C. J. Velz. *bibliog Sewage Works J* 20:607-17 JI '48
- Considerations and procedures in the design of high rate trickling filters. S. A. Greeley. *diags Sewage Works J* 20:789-805 S '48
- Effects of low temperatures on trickling filter operation. E. H. Arnold. *Pub Works* 79:49-50 O '48
- High-rate filter for a small community. *plan diag Pub Works* 79:33 Ap '48
- High-rate filter performance. F. W. Mohlman. *Sewage Works J* 20:618-22; Discussion. W. A. Hardenbergh. 622-5 JI '48
- Observations on two-stage biofilter operation. *Pub Works* 78:24-5+ D '47
- Simplified vacuum filter. T. R. Komline. *il diag Water & Sewage Works* 94:431-2 N '47
- Small sewage treatment plants; trickling filters. *plans diags Pub Works* 79:24-6 JI; 32-4 Ag '48
- Study of the effect of sewage distribution on high rate filter efficiency; abstract. W. Q. Kehr and C. C. Ruchhoff. *Sewage Works J* 20:953-4 S '48
- Treatment of Huddersfield sewage on percolating beds filled with special tiles; abstract. H. H. Goldthorpe and J. Nixon. *Sewage Works J* 20:947-9 S '48
- Trickling-filter maintenance costs; abstract. F. Pinney. *Eng N* 140:637 Ap 29 '48
- Vacuum sludge filtration practices at the Detroit sewage treatment plant. F. H. Burrely. *il Sewage Works J* 20:899-908 S '48

Grease and oil removal

- Grit and grease chamber at Salem and Peabody. F. L. Flood. *plans diags Boston Soc C E J* 34:332-5 O '47

Grit chambers

- Circular grit chambers used in Germany. *Eng N* 140:53 Ja 8 '48
- Grit and grease chamber at Salem and Peabody. F. L. Flood. *plans diags Boston Soc C E J* 34:332-5 O '47

Laws and regulations

- Legal decisions re: sewerage and refuse. *Pub Works* 79:36 F '48

Odor removal

- Odor control and control of filter flies. A. A. Hirsch. *bibliog il Water & Sewage Works* 95:R261-3 Ap '48
- Use of Chloroben for odor control. F. S. Taylor. *il Sewage Works J* 20:917-20 S '48
- Utilization of chlorine during septicization of sewage. H. Heukelekian. *Water & Sewage Works* 95:179-80 My '48

Patents

- Water and sewage patents (cont). *Water & Sewage Works* 95:117-18 Mr '48

Sludge and refuse mixing

- Effects of garbage disposal through sewers; abstract. R. E. Fuhrman. *Eng N* 140:607 Ap 22 '48

Standards

- Sewage-treatment standards. R. Bowering. *Water & Sewage* 86:26+ Je '48

SEWAGE disposal, Rural

- Community sewage disposal. J. I. Cahalan, Jr. *il diags Dom Eng* 171:136+ Mr '48

SEWAGE disposal plants

- Annual reports of interest; brief abstracts. *Water & Sewage Works* 95:352 O '48
- Architectural treatment and landscaping of municipal sanitary works. C. F. Rabenold. *il plans Water & Sewage* 85:23-6+ N '47

First municipal sewage-pumping station in the Maritimes. F. C. Wightman. *il Water & Sewage* 85:18-20+ N '47

Interesting extracts from operation reports; plant administration costs, etc. *plan Sewage Works J* 20:120-9, 328-31, 551-9, 737-44, 912-17 Ja-My, JI, S '48

Los Angeles' \$41,000,000 Hyperion project ends beach contamination; equipment and construction work. L. Aldrich and H. G. Smith. *il map plans Civil Eng* 18:418-23+ JI '48

Sewage treatment at military installations; summary and conclusions by the NRC subcommittee on sewage treatment. *Sewage Works J* 20:52-95 Ja '48

Accidents

Two south Texas sewer accidents take four lives. O. Paganini. *diags Sewage Works J* 20:332-5 Mr '48

Costs

Cost of heating glass covered sludge drying beds. A. B. Kozma. *bibliog Water & Sewage Works* 94:456-63 D '47

Houston sludge disposal studies favor fertilizer production; with cost data. *Eng N* 140:559-61 Ap 15 '48

How much should sewage treatment cost? C. J. Velz. *Eng N* 141:84-6 O 14 '48

Sewage disposal plant, El Reno, Okla.; unit prices. *Eng N* 140:1045-6 Je 24 '48

Sewage treatment costs up 40 percent. *Eng N* 140:786-7 My 27 '48

Trickling-filter maintenance costs; abstract. F. Pinney. *Eng N* 140:637 Ap 29 '48

Design

Factors in the design of model waste treatment plants. T. R. Camp and others. *il Pub Works* 78:29-30 D '47

Employees

1947 report of the committee on qualifications of sewage works operators. *Sewage Works J* 20:137-43 Ja '48

Salary trends of sewer maintenance and sewage treatment plant personnel. R. F. Brown. *bibliog Sewage Works J* 20:724-33 JI '48

Equipment

Additions to the Princeton, N.J. treatment plant; with cost data. I. R. Riker. *il Pub Works* 79:35-6 Je '48

Air compressors in water and sewage works; results of questionnaire. *Water & Sewage Works* 95:56 F '48

Classified index of products used in water-works and sewerage field. *Water & Sewage Works* 95:R3-12 Ap '48

Cleaning air diffuser plates by sandblasting. J. R. Longley. *il diag Water & Sewage Works* 95:363-5 O '48

Control of metal corrosion. W. T. McClenahan. *Am Water Works Assn. J* 40:606-14 Je '48

Enlarging an activated-sludge plant; Phoenix, Ariz. *il Eng N* 141:37-9 O 14 '48

Maple Lodge sewage disposal works. *il plan Engineer* 184:413-20 O 31 '47

Metering and control of processes for the Hyperion activated sludge plant. N. B. Hume. *flow diag plan Water & Sewage Works* 95:74-7 F '48

New sewage-treatment plant at Orillia. L. G. McNeice. *il plans diag Water & Sewage* 86:19-21+ S '48

Observations on two-stage biofilter operation. *Pub Works* 78:24-5+ D '47

Operating experiences at Tenafly, N.J. J. K. Adams. *il Sewage Works J* 20:909-12 S '48

Performance data on tangential influent clarifiers. G. R. Herzik, Jr. and others. *il Pub Works* 78:22-3 N '47

Plant operators' symposium; N.J. sewage works association. *Water & Sewage Works* 95:148-50 Ap '48

Richmond-Sunset sewage treatment plant operation. *flow diag il Pub Works* 79:20-1 My '48

Rotating drawoffs for sludge liquor. *il diags Eng N* 140:47-8 Ja 8 '48

Sewage treatment at Madison, Wisconsin. C. H. Becker and M. D. R. Riddell. *il map plan Water & Sewage Works* 95:26-32 Ja '48

SEWAGE disposal plants—Equipment—Cont.

Sewage treatment plant operation. A. P. Banta. *Water & Sewage Works* 95:R179-82 Ap '48

Sewage treatment results at Fort Wayne. R. A. Hoot. *flow sheet* *il Pub Works* 79: 21-3+ Ja '48

Sewage works equipment and supplies; contributed by advertisers. *flow diags* *il diags* *Sewage Works* J 20:958-98 S '48

Small sewage treatment plants. *il plans diags* *Pub Works* 79:32-4 F; 24-6+ Mr; 30-2 Ap; 26-7+ My; 28-9+ Je; 24-6 JI; 32-4 Ag '48

Some sewage works operating kinks. A. M. Rawn. *il diags* *Water & Sewage Works* 95:R185-6 Ap '48

See also

Sewage tanks

Laboratories

Small plant laboratory. C. E. Britt. *bibliog* *Sewage Works* J 20:733-7 JI '48

Management

Responsibilities of water and sewage works operators. F. S. Friel. *Water & Sewage Works* 94:435-8 D '47

Power

Electric power in sewage-treatment plants. C. E. Miller. *Gen Elec R* 51:25-7 Ag '48

Gas engine performance; sewage treatment and garbage disposal plant at Marion, Ind. D. Backmeyer. *il Water & Sewage Works* 95:R255-7 Ap '48

Sewage disposal; Colne Valley pumping and treatment works. *Elec R (Lond)* 141:652 O 31 '47

Safety measures

Safety measures in sewage treatment plants. H. S. Smith. *Sewage Works* J 20:744-52 JI '48

Tables, calculations, etc.

Digester capacity requirements. R. S. Rankin. *Sewage Works* J 20:478-89 My '48

SEWAGE filter fly

Control of flies breeding in percolating sewage filters; abstract. T. G. Tomlinson and S. H. Jenkins. *Sewage Works* J 20:354-6 Mr '48

Odor control and control of filter flies. A. A. Hirsch. *bibliog* *il Water & Sewage Works* 95:R261-3 Ad '48

SEWAGE flow

Diversion factors for combined sewers based on sewage and stream analyses. R. J. Theroux and R. L. Meek. *diags Eng N* 139: 734-6 N 27 '47; Discussion. 140:418-21; 141: 86-7 Mr 18, Ag 5 '48

Small sewage treatment plants; volume of flow. *il Pub Works* 79:32-4 F '48

SEWAGE irrigation

Agricultural uses of reclaimed sewage effluent. L. V. Wilcox. *bibliog* *Sewage Works* J 20:24-33; Discussion. D. Travaini. 33-5 Ja '48

Census of sewage effluent reclamation in the United States; tabulation. *Sewage Works* J 20:9-11 Ja '48

Oxygen production in water by photosynthesis. W. E. Abbott. *Sewage Works* J 20: 538-41 My '48

SEWAGE lagoons

Industrial waste treatment. *Pub Works* 79:69 O '48

Sludge lagoons. *bibliog* *Sewage Works* J 20: 817-31 S '48

SEWAGE pumping

First municipal sewage-pumping station in the Maritimes. F. C. Wightman. *il Water & Sewage* 85:18-20+ N '47

Pumping sewage automatically. C. E. Keefer. *il plans Eng N* 141:88-91 S 2 '48

Sewage disposal; Colne Valley pumping and treatment works. *Elec R (Lond)* 141:652 O 31 '47

Sludge pumping through long force mains; experiences and cost data during ten years of operation; Cleveland, Ohio. J. J. Wirts. *il diags* *Water & Sewage Works* 95:345-50; Discussion. C. B. Townend. 350-1 O '48

SEWAGE pumps

Locating submerged pump trouble. H. Williams. *Sewage Works* J 20:576-7 My '48

Control

Automatic control for sewage pumps. E. S. Stater. *il diag Chem Eng* 54:139 D '47

Automatic controls solve sewage pumping problems; variable speed drives and electrical contact switches; Corn products refining co. E. S. Stater. *il diags Food Ind* 20:20-3 Ja '48

SEWAGE sampling

Measurement and control of sewage treatment process efficiency by oxidation-reduction potential. J. W. Hood. *bibliog* *diags* *Sewage Works* J 20:640-50; Discussion. G. A. Rohlich. 650-3 JI '48

SEWAGE sludge

Rotating drawoffs for sludge liquor. *il diags Eng N* 140:47-8 Ja 8 '48

Sludge pumping through long force mains; experiences and cost data during ten years of operation; Cleveland, Ohio. J. J. Wirts. *il diags* *Water & Sewage Works* 95:345-50; Discussion. C. B. Townend. 350-1 O '48

See also

Sewage disposal—
Activated sludge
method

Drying

Chemical conditioning undigested sludge; abstract. H. O. Halvorson. *Water & Sewage Works* 95:280-1 Ag '48

Cost of heating glass covered sludge drying beds. A. B. Kozma. *bibliog* *Water & Sewage Works* 94:456-62 D '47

Gas production

Commercial utilization of waste digester gas. J. J. Wirts. *Sewage Works* J 20:923-4 S '48

Determination of hydrogen sulfide in digester gas. F. E. Nussberger. *bibliog* *diag* *Sewage Works* J 20:499-501 My '48

Effect of change of temperature on thermophilic digestion. H. Heukelekian and A. J. Kaplovsky. *Sewage Works* J 20:806-16 S '48

Oxnard, Calif. utilizes sewage treatment by-products; sludge gas for engine fuel. O. L. Isham. *il Water & Sewage Works* 95:267 JI '48

Sludge digestion and methane production. J. D. Walker. *bibliog* *Sewage Works* J 20:544-50 My '48

SEWAGE sludge as fertilizer

Disposal of liquid digested sludge at Marion, Ind. D. Backmeyer. *il Water & Sewage Works* 95:353-6 O '48

Experimental project offers solution to China's sanitary needs. R. Stone. *il Civil Eng* 18:166-7 Mr '48

Houston sludge disposal studies favor fertilizer production; with cost data. *Eng N* 140: 559-61 Ap 15 '48

Straw-sludge composts. P. Garrick. *Soc Chem Ind J* 66:257-9 Ag '47

See also

Sewage irrigation

SEWAGE tanks

Digestion of sewage solids. L. W. Van Kleeck. *il Water & Sewage Works* 95:104-6, 155-9, 163-6, 237-42, 325-8, 357-62 Mr-My, JI, S-O '48

Rotating drawoffs for sludge liquor. *il diags Eng N* 140:47-8 Ja 8 '48

Sedimentation of sewage in rectangular tanks. S. H. Jenkins and others. *bibliog* *Water & Sewage* 86:26+ F '48

Sludge digester insulated with glass. *il Eng N* 140:1005 Je 24 '48

See also

Imhoff tanks
Settling tanks

Heating

Digestion of sewage solids. L. W. Van Kleeck. *il Water & Sewage Works* 95:237-42, 325-8, 357-62 JI, S-O '48

Effect of change of temperature on thermophilic digestion. H. Heukelekian and A. J. Kaplovsky. *Sewage Works* J 20:806-16 S '48

New heating system for sludge digestion. E. R. Schofield and M. B. Tark. *il plan diag* *Water & Sewage Works* 95:172-4 My '48

SEWAGE tanks—Heating—Continued

Reducing heating maintenance cost on sewage treatment digesters, V. A. Vaseen, *diag Pub Works* 79:33-4 S '48
 Sludge digestion experiences with the exterior heat exchanger; abstract, W. M. Kunsch, *Water & Sewage Works* 95:279-80 Ag '48

SEWAGE works associations, Federation of.
See Federation of sewage works associations**SEWER cleaning**

Copper sulphate aids sewer maintenance and sewage treatment; destruction of roots, J. W. Hood, *Water & Sewage Works* 95:275-7 Ag '48
 New features shown by Flexible power sewer cleaner, *il Water & Sewage* 86:16 J1 '48
 Oster sewer-cleaning machine again available, *il Water & Sewage* 86:30 Je '48
 Sewer cleaning at Little Rock, Ark., T. W. Clapham, *diag Sewage Works* J 20:559-62 My '48

SEWER design

Critical appraisal of sanitary-sewer design formulas, R. Bennett, *Eng N* 141:102-5 O 14 '48
 Diversion factors for combined sewers based on sewage and stream analyses, R. J. Theroux and R. L. Meek, *diags Eng N* 139:734-6 N 27 '47; Discussion, 140:418-21; 141:86-7 Mr 18, Ag 5 '48
 Experience guides ocean outfall design for the Los Angeles county sanitation districts, *il diag Eng N* 140:368-71 Mr 4 '48
 Graph for determining size of sanitary sewers, J. G. Montgomery, *Water & Sewage Works* 95:160-1 Ap '48
 How to design sanitary sewers for a small community, K. W. Cosens, *plans diags Pub Works* 79:38-42 O '48
 Portland sewage works project, J. C. Stevens and H. L. Thompson, *il maps diag Sewage Works* J 20:185-201 Mr '48
 Size and slope of sewers by simplified formulae approximating Kutler's, B. Elsner, *Water & Sewage Works* 95:R163 Ap '48
 Twin industrial waste and domestic main sewers, San Leandro, Calif., C. F. Martin, *il Pub Works* 79:20-1 J1 '48
 Wide range of design sections for large sewers in Detroit, Mich., *map diags Eng N* 141:70-1 S 30 '48

SEWER gas

Safety measures in sewage treatment plants, H. S. Smith, *Sewage Works J* 20:744-52 J1 '48

SEWER pipes

City saves \$27,250 on sewer siphon for river crossing, M. A. Milling, *diags Pub Works* 79:27-8 S '48
 Handling sewer pipe without accidents or breakage, *il Pub Works* 79:44-5 Ag '48
 Handling steel sewer sections, *il Engineer* 148:584 D 19 '47
 How to make good sewer pipe joints, *Pub Works* 78:38 N '47
 Lining gives a 50-year-old sewer a new lease on life, W. Chadwick, *il Pub Works* 79:32-3 Ja '48
 Pipe symposium; Ohio conference on sewage treatment, *Water & Sewage Works* 94:463-4 D '47

Detection

Device to speed sewer surveys; electric signals indicate position of all wyes, crosses and tees, *il Eng N* 141:106 O 14 '48

SEWER pipes, Concrete

Building outfall sewer at Los Angeles involves heavy engineering methods in casting and handling 450-ton pipe, P. N. Fletcher, *il Concrete* 55:6-8+ D '47
 Job-built rig jacks 123-ft length of 36-in. pipe under railroad right-of-way, R. E. Snetzer, *il diags Civil Eng* 18:572-3 S '48
 Vacuum processed reinforced concrete pipe; Shearman concrete pipe co. and Thomas concrete pipe co. M. W. Loving, *il Rock Prod* 51:162-5+ Ja '48

SEWER pipes, Vitrified clay

Effect of hot pugging, vacuum, soda ash on sewer pipe; abstract, C. W. Dougan, *Brick & Clay Rec* 111:64 D '47

Hydraulic sewer pipe presses give push button power; cut down boiler costs, C. Sutherland, *il Brick & Clay Rec* 112:60+ F; 52+ Mr '48
 Joints for vitreous tile and concrete pipe, J. E. York, *diags Heat & Ven* 45:95-9 Ag '48
 New specifications for perforated clay pipe, *diags Sewage Works J* 20:970-2 S '48

SEWERAGE

Central states sewage works association 21st annual convention, Milwaukee, June 18-19, *Water & Sewage Works* 95:279-84 Ag '48
 Driving concrete piles on sewer job, J. J. Gass, *il Concrete* 56:3-5 J1 '48
 Engineering planning of sewage collection and treatment, E. Boyce, *Sewage Works J* 20:502-6; Discussion, W. R. Drury, *plans* 506-11 My '48
 Mining a deep sewer in unstable soil in village of Cuyahoga Heights, Ohio, *il plan diags Eng N* 139:882-5 D 25 '47
 Sewer gate operation by remote control, L. L. Bradish and F. C. Lorenzen, *il diag Eng N* 139:812-13 D 11 '47
 U.S.P.H.S. research grant and fellowship symposium on water, sewage, and industrial waste, *Water & Sewage Works* 95:337-9 S '48
 Use of well points for trench dewatering; construction of large trunk sewer, A. M. Rawn, *il Water & Sewage Works* 95:167-71 My '48
 Water and sewage works reference and data section, *bibliog flows* 95:R1-287 Ap '48
 Water and sewer trenching; paving breakers, *il Pub Works* 79:31+ F '48

See also

Plumbing	Sewer pipes
Sanitary districts	Sewers, Concrete
Sewage disposal	Trade waste
Sewage sludge	Water pollution
Sewer design	

also subdivision Sewerage under names of cities, e.g. Portland, Oregon—Sewerage

Bibliography

References to sewage literature; July-December, 1947, H. G. Swope, *Sewage Works J* 20:599-603 My '48
 Reviews and abstracts. Published in bi-monthly numbers of Sewage works journal Sewerage digest. Published in monthly numbers of Public works

Cost

Contract unit bid prices, *Eng N* 140:869+ My 27 '48
 Industrial sewer, Modesto, Calif.; unit prices, *Eng N* 141:101 S 2 '48
 Paving and sewer costs throughout the Midwest, *Pub Works* 79:34-5 Ja '48
 Sanitary and storm sewers, Burlington, Wis.; unit prices, *Eng N* 141:121 Ag 19 '48
 Sanitary sewer and water main extensions, McKenzie, Tenn.; unit prices, *Eng N* 139:764 N 27 '47
 Sanitary sewers, Seattle, Wash.; unit prices, *Eng N* 141:101 S 2 '48
 Sewer extension, Idlewild, New York; unit prices, *Eng N* 140:668-9 Ap 29 '48
 Sewerage and waterworks additions, Hamburg, Pa.; unit prices, *Eng N* 140:869 Ap 29 '48
 Sewers and pumping stations, Omaha, Nebraska; unit prices, *Eng N* 141:85 J1 22 '48
 Stormwater channel, E. St Louis, Mo.; unit prices, *Eng N* 140:518 Ap 1 '48
 Trunk sewer, Maryland; unit prices, *Eng N* 141:85 S 30 '48
 Watermains and sewers, Montgomery county, Md.; unit prices, *Eng N* 141:82 J1 22 '48

Finance

Financing sewerage improvements, R. L. Mitchell, *Water & Sewage Works* 95:151-4 Ap '48
 Financing water and sewage works improvements, G. S. Bell, *Am Water Works Assn J* 40:553-63 My '48
 How a publicity campaign won support for sewer bonds, *Eng N* 140:367 Mr 4 '48

SEWERAGE—Finance—Continued

- Public relations program pays off; bond issue carried as result of educational program; Urbana-Champaign sanitary district, W. M. Kunsch, plan Water & Sewage Works 94: 424-6 N '47
- Selling sewer rental to industry, G. S. Russell, il Water & Sewage Works 95:341-3 O '48
- Special sewer service charges for industrial wastes, G. E. Symons and F. W. Crane, Water & Sewage Works 95:R166-8 Ap '48
- Use of sewer rentals is increasing, Eng N 140:699 My 13 '48

Maintenance and repair

- Gunite repair to outfall chamber of Winnipeg sewage plant, D. L. McLean, il Water & Sewage 86:15-16 O '48
- Sewer maintenance at Wichita, G. J. Fisher, Sewage Works J 20:920-2 S '48
- Sewer maintenance experience at Long Beach, Calif. D. R. Kennedy, Sewage Works J 20:104-11; Discussion, 111-15 Ja '48
- Steel arch construction expedites repair of explosion-damaged sewer, R. E. Hutchins and A. J. Nehf, il Civil Eng 18:582-4 S '48

Chile

- Funds for potable water and sewerage in Chile; abstract, E. Aguirre S. Sewage Works J 20:171-3 Ja '48

Uruguay

- Sanitary engineering activities in Uruguay; abstract, J. J. Sbarbaro and others, Sewage Works J 20:173-5 Ja '48

SEWERS, Brick

- Lining gives a 50-year-old sewer a new lease on life, W. Chadwick, il Pub Works 79:32-3 Ja '48

SEWERS, Concrete

- Outfall has precast units 100 ft. long, il diags Eng N 141:64-7 Ag 5 '48
- Precast reinforced concrete sewer tunnel lining provides sound, economical structure; Tel-Aviv, Palestine, A. M. Freudenthal, il Civil Eng 18:292-4 My '48
- Sanitary sewer system designed to lower ground water level, G. H. Brodrick, il diags Pub Works 79:26-7 Ja '48

See also

- Sewer pipes, Concrete

SEWING

- Dritz kits for home sewers are hot news in notions; tools and materials for making buttons, or attaching snappers and nail-heads, il Sales Management 60:84+ Ja 1 '48

SEWING machines

- Home-sewing booms Singer, il diags Bsns W p75-80 Ag 14 '48

History

- How Singer won the women over; abstract, G. B. Tobey, Comp Air Mag 53:69 Mr '48

SEX differences

- Sex differences in relation to marketing, R. S. Alexander, Management R 37:89-91 F '48

SEXTON, John and company

- Wholesaler adds retailing, il Bsns W p52-3 Ap 17 '48

SHACKLES

- Rubber-bushed shackle pin for heavy vehicles, diags Engineer 185:240 Mr 5 '48

SHAD

- Homing tendency of shad, E. H. Hollis, map Science 108:332-3 S 24 '48

SHAFT sinking

- Deepening of no. 1 shaft; Johnson's co., Thetford mines, E. Futterer, Jr., il plans diags Can Min J 69:72-5 Jl '48
- Development shaft at Miles (Red Lake), P. G. Cross, diags Can Min J 69:59-70 Ag; 70-7 S '48
- Dropped caisson shaft sinking; Reynolds bauxite property, W. S. Cole, Jr., il diags Eng & Min J 149:82-3 Ap '48
- Methods and costs of sinking a 2½-compartment shaft at the Hope mine, Clark Fork, Idaho, R. J. Hundhausen, 4pls U S Bur Mines Information Circ 7426:1-13 '48

- Methods and costs of sinking the Silver Summit shaft, Wallace, Idaho, using a mechanical mucking machine, G. M. Grismer and R. J. Hundhausen, 4pls U S Bur Mines Information Circ 7425:1-12 '48

- Sinking shafts and driving tunnels in metropolitan Boston; Quabbin aqueduct, F. W. Gow, il map diags Explosives Eng 25:135-9+ S '47

See also

- Mine shafts

SHAFTING

- Chart for lineshaft calculations; reference book sheet, T. G. Hicks, Am Mach 92:137 N 4 '48
- How to space shaft hangers; chart, Can Min J 69:65 Jl '48

Testing

- Longitudinal vibration of marine propeller shafting, C. P. Rigby, il diags Engineering 165:381-3, 405-7 Ap 16-23 '48
- Torsional-fatigue testing of marine shafting, S. F. Dorey, il diags Engineering 165:286-7, 310-12 Mr 19-26 '48; Abstract, Engineer 185: 183-5; Discussion, 188-9 F 20 '48

SHAFTING, Flexible

- Adjustable drive utilizes flexible shafts; machine for decorating china ware, G. E. Ryckman, il Machine Design 20:113-14 Ap '48
- Flexible shaft drives rock drill, il diags Eng & Min J 149:96 S '48
- Flexible shaft tools; hazards and precautions; data sheet, Nat Safety N 57:42+ Ja '48

SHAFTS

- Attachment for turning rudder shafts, J. Clement and J. A. Kruse, il Mach 54:168 Ja '48
- Calculating deflections of hollow shafts in torsion; chart; engineering data sheet, C. P. Nachod, Machine Design 20:151-2 My '48
- Flexible couplings for shafts, J. H. Schmid, il Product Eng 19:90-1 F '48
- Removal of alternator shaft by cooling with brine and dry ice, il diags Engineering 166:32 Jl 9 '48
- Serrated, tapered shaft produced by tool held in lathe turret, G. R. Milner, diags Am Mach 92:118 Je 3 '48
- Shaft duplicating in single-tool lathe operations, il diags Mach 54:151-5 Je '48

SHAFTS, Mine. See Mine shafts**SHAGBARK hickory. See Hickory****SHAKER HEIGHTS, Ohio**

- Shaker Heights adds to property values; conversion of open ditch to residential boulevard, F. A. Pease, il Water & Sewage Works 95:119-20 Mr '48

SHALE

- Buried shale and expanded slag concretes with and without air-entraining admixture, P. H. Petersen, il diag Am Concrete Inst J 20:165-75 O '48
- Chemical engineering unit processes; pyrolysis of coal and shale, C. H. Frien, il Ind & Eng Chem 40:1649-59 bibliog(316 ref, p 1657-9) S '48
- Correlation of Sentinel Butte shale in western North Dakota, R. W. Brown, bibliog il diag Am Assn Pet Geologists Bul 32:1265-74 Jl '48
- Russians trying underground gasification of shale, Chem Eng 55:204+ Ag '48

See also

- Oil shales

SHAMPOOS

- Development of Mersol detergent products, Soap & San Chem 24:83 F '48
- Fitch case; Federal trade commission hearing on Fitch dandruff remover shampoo, A. P. Federline, Soap & San Chem 23:40-1+ N '47
- Newer shampoos combine soap and synthetics; abstract, H. Hilfer, Soap & San Chem 24:73 S '48
- Survey shows soap favorites, Soap & San Chem 24:47+ O '48

SHAMROCK oil and gas corporation

- Nears higher earnings plateau, Barron's 28: 33 My 10 '48
- New discovery well, Barron's 28:35 Je 28 '48

SHANGHAI**See also**

- Newspapers—Shanghai

SHANGHAI—Continued

Commerce

Immensely varied shipments from Shanghai to U.S. For Comm W 31:26-7 Ap 3 '48

Rapid transit

Transportation in Shanghai is a Chinese puzzle! U.S. engineers suggest a solution. il Bus Transportation 27:79-81 My '48

SHAPERS

Grinder mounted on shaper ram sharpens teeth of circular saw. J. T. Zurlo. il Am Mach 92:183 Mr 11 '48

Shaper cuts rack in sections. U. Wheatley. diags Am Mach 92:185 Mr 11 '48

Shaper head locked by hydraulically-actuated wedge. il diag Machine Design 20:161-2 Je '48

35th annual review. il Am Mach 92:151-5 Ja 29 '48

SHAREHOLDERS. See Stockholders

SHARK liver oil

Oil yields from shark liver; Brazilian analyses reveal large vitamin content. Chem Age (Lond) 59:50 Ji 10 '48

South African fish products; composition of the liver oils of the basking shark (*Cetorhinus maximus*, Gunner) and the spiny shark (*Echinorhinus spinosus*, Gmelin). M. L. Karnovsky and others. bibliog Soc Chem Ind J 67:104-7 Mr '48

South African fish products; the composition of the liver oil of the seven-gilled shark, *heptanchias pectoratus* (Garman). M. L. Karnovsky and others. bibliog Soc Chem Ind J 67:144-7 Ap '48

South African fish products; the composition of the liver oil of the soupfin shark; *Galeorhinus canis*. Rond. M. L. Karnovsky and others. bibliog Soc Chem Ind J 67:193-6 My '48

Vitamin A content of the liver of the frilled shark. W. L. McRary. Science 108:380 O 8 '48

SHARON steel corporation

Six well-entrenched dividend payers. Mag of Wall St 83:130 N 6 '48

SHARP, Edward Raymond, 1894-

Sketch. por Aero Digest 56:21 Ja '48

SHARPENING

For sharper edges; cellulose acetate housings of two new type sharpeners. il Mod Plastics 25:142 F '48

Sharpening carbide reamers; reference book sheet. il Am Mach 92:123, 125, 127 Ag 26 '48

Sharpening carbide tools. C. H. Wick. il Mach 54:145-51 Ji; 55:180-4 S; 162-7 O '48

See also

Milling cutters—

Sharpening

SHAVER, Dorothy, 1897-

Retail personalities. Textile Col 70:40 My '48

SHAVER'S disease

Analysis of cases; abstract. C. G. Shaver. Ind Med 17:sup 18-19 Mr '48

Saranac symposium, 6th, Saranac Lake, N.Y. Sept. 29-Oct. 3, 1947. Ind Med 17:73-4 F '48

SHAVING cream

Brushless shaving cream; abstract. Soap & San Chem 24:79 Ja '48

Formula for non-irritant emollient cream. Soap & San Chem 24:81 My '48

SHAW, George Bernard, 1856-

Bernard Shaw touches up agency copy for airline. Ed & Pub 81:24 Je 19 '48

SHAW, John W., advertising agency

Newspaper ads get fast action. J. W. Shaw. Ed & Pub 81:14+ S 11 '48

SHAWHAN, Ralph

Editorial chiefs named for new L.A. mirror. por Ed & Pub 81:24 S 11 '48

SHAWINAGAN water and power company

Fifty years of achievement. Pub Util 41:802-3 Je 3 '48

Public utility securities. Comm & Fin Chr 168:116 Ji 8 '48

SHEARS (machines)

Guillotine shear for sheet. il Iron Age 162: 101 S 23 '48

Revolutionary flying shear exhibited. il Plast F & Steel Pl 36:960 Ag '48

SHEAVES

Casting a 14-ft. sheave; illustrations with text. Foundry 75:100 D '47

Furnace brazing pulleys and sheaves cuts production costs. T. E. Nelson. il diag Iron Age 162:92-4 S 2 '48

Headsheave maintenance saves wear on ropes. diags Eng & Min J 149:64-5 Ja '48

Ingenious tooling cuts sheave costs; illustrations with text. C. Shank. Am Mach 92:178-81 Mr 11 '48

Molding sheaves in dry sand cores; Manitoba bridge and iron works ltd. W. Pink. il diags Foundry-76:88-9 Ap '48

Sheave with demountable rim. F. Heffernan. il Roads & Sts 90:109 D '47; Same. Safety Eng 94:34 D '47

SHEET iron

Testing

Report of subcommittee III on inspection of Annapolis tests. Am Soc T M Proc 46: 146-53 '46

SHEET metal

Aluminum sheet; various production factors affecting grain size. R. Chevigny. Automobile Eng 37:497 D '47

Precipitation heat treatment of work-hardened 61S-W aluminum alloy sheet. J. J. Warga. il diag Am Soc for Metals Trans 33:880-9; Discussion. 689-93 '47

Precipitation in a magnesium sheet. C. T. Haller and C. S. Barrett. il Am Soc for Metals Trans 33:670-6; Discussion. 676-9 '47

Rigidized metal; two products applicable to car installation. il Ry Age 123:986-7 D 6 '47

Rigidizing finds new applications. il Automotive Ind 99:38 S 1 '48

Sheet metals for high temperature service. P. A. Haythorne. il Iron Age 162:89-95 S 23 '48

Texturized metals find wide application; Rigidized metals. A. H. Allen. il diags Steel 122:94-7+ My 24 '48

When you buy aluminum; some facts on sheet aluminum offered as a guide to purchasing. il Sheet Metal Worker 38:67-8 D '47

X-ray thickness control expected to step up sheet output. W. N. Lundahl. il diag Steel 122:101-2+ F 2 '48

See also

Sheet iron

Sheet steel

Testing

Compressive qualities of aluminum alloy sheet at elevated temperatures. A. E. Flanagan and others. bibliog il diags Am Soc T M Proc 46:951-69 '46

Evaluation of the forming properties in bending of five commercial sheet aluminum alloys. G. R. Gohn and S. M. Arnold. il Am Soc T M Proc 46:1053-61; Discussion. 1062-3 '46

Folding in the cupping operation. W. M. Baldwin, Jr. and T. S. Howard. bibliog diags Am Soc for Metals Trans 38:767-88 '47

Quality control of aluminum sheet. A. Gelb. il Iron Age 161:72-7 My 13 '48

Reheating of 24S and 75S aluminum sheet. J. A. Nock, Jr. Iron Age 160:73-9 D 25 '47

SHEET metal, Enameled

Attaching porcelain enameled panels. C. F. Block. il diags Sheet Metal Worker 39:106-9 Ja '48

Determination of compressive stress present in porcelain enamel on sheet iron. E. E. Bryant and M. G. Ammon. bibliog il Am Cer Soc J 31:28-30; Discussion. W. N. Harrison. 22 Ja 1 '48

Factors affecting chippage of porcelain enamel on sheet iron. E. E. Bryant. il diags Am Cer Soc Bul 26:300-3 O 15 '47

First in new ceramic era; Lustron's \$13 million plant. il diag Cer Ind 51:56-8+ Ag '48

Hamburger realm; White Castle system of porcelain-enameled buildings. il Bsns W 93:6+ Mr 6 '48

Machines for fabricating enameled aluminum roofing. il Sheet Metal Worker 39:112 Mr '48

Testing

Residual stresses in enameled sheet-iron specimens. R. A. Jones and A. I. Andrews. bibliog il Am Cer Soc J 31:274-9 O 1 '48; Abstract. Cer Ind 50:74a+ My '48

SHEET metal, Perforated

Die set for perforating sheet metal. H. E. Murphey. diags Mach 55:203-4 S '48

SHEET metal buildings

Erecting all-aluminum quonsets is simple; illustrations with text. Constr Methods 30: 46-8 O '48

SHEET metal contractors national association
Annual meeting, Cleveland, May 3-5. Sheet Metal Worker 39:108-13 My '48

SHEET metal houses

Experimental aluminum home. il diag Sheet Metal Worker 39:42-3 O '48

Forming aluminum for new type dwellings. W. J. Granberg. il Sheet Metal Worker 39:55-6 Ap '48

SHEET metal shops

Display room is feature of Stengel's new shop. il plan diag Sheet Metal Worker 39: 145-6+ Ja '48

Dual set-up for merchandising; S.O.S. roofing & sheet metal co. il Sheet Metal Worker 39:114-15 Mr '48

Frank Kramer's new shop. il Sheet Metal Worker 39:39-40 Ag '48

How modern tools and methods shorten the work; Maridon mfg. co. il Sheet Metal Worker 39:35-6+ Jl '48

Notching sheets with special punch. il diag Sheet Metal Worker 39:148 Ja '48

Production planning; abstract. E. H. Smedley. Cer Ind 49:63+ O '47

Shop celebrating hundredth year; Nash, Raymond & Deane co. il Sheet Metal Worker 38:56-7 D '47

Sixty years of progress; G. R. Cummings co. il Sheet Metal Worker 39:62-5 Mr '48

Accounting

Material and labor variance procedure in a sheet metal products plant. R. W. Leavitt. il N A C A Bul 29:1059-68 My 1 '48

Equipment

Buick's new sheet metal plant features energy saving equipment. il Automotive Ind 98: 40-1+ Ja 1 '48

Handy hand punch stand. il Sheet Metal Worker 38:91 D '47

Hydraulic table a labor saver. il Sheet Metal Worker 39:95 Mr '48

Material handling efficiency increases output, cuts costs; Fisher Body's Ternstedt div. H. Chase. il Iron Age 161:84-9 My 13 '48

Monorail shows 80 percent time saving; shop of A. Munder & son. il Sheet Metal Worker 38:72 D '47

Noiseless hammer—speeds closing of Pittsburgh lock seams in light-gage ducts. diags Sheet Metal Worker 39:95+ S '48

Versatile notcher and shearing tool. il diags Sheet Metal Worker 39:44-5+ O '48

Versatility in drop hammer work. il Sheet Metal Worker 39:45-6 S '48

Heating and ventilation

Innovations in degreasing tanks; solutions to remove rolling mill surface oil create ventilation problem. il Sheet Metal Worker 39: 64-5 My '48

Layout

Plant setup for master control; Bramhall, Deane co. plant. il plan Sheet Metal Worker 39:34-6 O '48

Management

Combating increasing costs. Sheet Metal Worker 39:61 My '48

Shop planned for efficient production; Wolff Kubly & Hirsig, inc. il plan Sheet Metal Worker 39:57-60 Je; 36-7 Ag '48

SHEET metal trade

Carolinas roofing and sheet metal contractors assn. 5th annual convention, Myrtle Beach, S. C., June 10-12. Sheet Metal Worker 39: 41-3+ Jl '48

Materials handling equipment; experience of large roofing and sheet metal wholesaler; Bayonne steel products co. il Sheet Metal Worker 39:62-5 F '48

Metal contractors association of Illinois 34th annual convention, Peoria. Sheet Metal Worker 39:66-8 My '48

N.Y. insurance group saves 59.8 per cent; New York state sheet metal roofing & air conditioning contractors association. Sheet Metal Worker 39:150+ Ja '48

Prospects for 1948. Sheet Metal Worker 39: 58-91 Ja '48

Sheet metal contractors association of Iowa annual convention, Cedar Rapids, May 28-29. Sheet Metal Worker 39:84+ Jl '48

Shifts in purchasing power; how they affect prospects of warm-air heating and sheet metal contractors. W. Alwyn-Schmidt. Sheet Metal Worker 39:40-3 S '48

Suggestions on collecting. Sheet Metal Worker 39:84+ My; 55-6 Je '48

See also National association of sheet metal distributors

Directories

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. Sheet Metal Worker 39:193-208 Ja '48

SHEET metal work

All sheet metal compressor housing. il Product Eng 19:103 F '48

Banked spiral sheet metal chutes; newspaper chutes made by the Charles Hartmann co. il Sheet Metal Worker 39:74-5 Mr '48

Combating increasing costs. Sheet Metal Worker 39:61 My '48

Departmentized for greater production; Hercules food equipment, inc. il diags Sheet Metal Worker 39:44-6 Jl '48

Die-less duplicating; new technique for the sheet metal worker. G. H. Danielson. il Sheet Metal Worker 39:96-8 Ja '48

Electric bus ducts. il Sheet Metal Worker 39:61, 65 Mr '48

Engineering characteristics of 61S aluminum alloy sheet. J. J. Warga. il Product Eng 19:108-12 Je '48

Fabricating automobile molding clips; Buick motor plant. H. Chase. il plan diag Iron Age 161:74-7 F 19 '48

Fabricating stainless steel. R. Nelson. il Sheet Metal Worker 39:57-60+ My '48

Forming metal shapes by cold-rolling. E. J. Vanderploeg. il diag Mach 54:153-8 F '48

Forming thin-metal cylinders. W. C. Mills. diags Am Mach 91:96-103 D 4 '47

Homemade presses build Vanette truck bodies. C. Ricker. il diags Am Mach 91:89-92 D 4 '47

Hot stretch-forming of aluminum sheets. J. A. Johnson. il Mach 54:170-1 Ag '48

How to work aluminum and its alloys; sheet-working methods. A. Ashburn. il diags Am Mach 92:92-3 Jl 1 '48

Hydraulic forming of stainless steel; pail of milker unit. W. C. Brice. il diag Materials & Methods 26:68-70 N '47

Infra-red drying details on approved practices and booth design. il Sheet Metal Worker 39:48-50 Jl '48

Ingenious die design increases versatility of press brake. W. E. Peters. il diags Mach 54:168-75 Mr; 143-50 Ap '48

Making the Christmas tree express; pressed and die-cast metal and plastic replicas of real trains by the Lionel corporation. C. H. Wick. il diags Mach 54:147-54 D '47

New lock joint speeds assembly, adds rigidity. diag Sheet Metal Worker 38:61 N '47

Practice in a precision shop; E-B metal products co. il Sheet Metal Worker 39:53-4+ My '48

Production with pre-parting punch makes tear-drop sheet-metal shape. W. Gabriel. diags Am Mach 92:126 S 9 '48

Sheet metal held flat in telescoping vise insert. C. D. Mackinnon. il diags Am Mach 92:105 Ja 1 '48

Sheet metal operations in aircraft supply plant revolve about air power; Rohr aircraft corp. il Steel 123:97+ Jl 26 '48

Sheet metal spools; design and selection. W. C. Mills. il diags Product Eng 19:143-7 N '48

Sheet metal work in coffee roasting; cyclone separators. il Sheet Metal Worker 39:53-4 Ap '48

Simple method of forming sheet metal. il Iron Age 160:71 D 13 '47

SHEET metal work—Continued

Stretch forming aluminum sheets. *il* Iron Age 161:86-7 Je 3 '48

Ten-ft. of automatic welding per minute; popcorn vending machines; Viking tool corp. *il* Sheet Metal Worker 39:69 Mr '48

This news stand is news; stainless steel news stand in Times square, New York. *il* diag Sheet Metal Worker 39:49-50 My '48

Tooling and operations in vending machine making; Photomatic. *il* diag Sheet Metal Worker 39:53-5 F '48

Welding aluminum; suggestions on improving welded joint formation. *il* diag Sheet Metal Worker 39:56-8 F '48

Welding jig guarantees accurate cabinet making. *il* Sheet Metal Worker 39:44 S '48

Which should you specify, drawing or forming dies? C. R. Cory. *il* diag Mach 54:176-82 D '47

See also

Air conditioning equipment

Air pipes

Dies

Dust collectors

Exhaust systems

Metal drawing

Pipes

Presses

Rolling (metal work)

Rolling mills

Sheet metal, En-

ameled

Sheet metal, Per-

forated

Stamping

Tin cans

Tin plate

Tubes

Ventilators

Pattern making

Pattern development for double angle tee connections. O. W. Kothe. *diag* Sheet Metal Worker 38:61-4 D '47

Pattern for diagonal transformer. O. W. Kothe. *diag* Sheet Metal Worker 38:64-5 N '47

SHEET metal work, Architectural

Attaching porcelain enameled panels. C. F. Block. *il* diag Sheet Metal Worker 39:106-9 Ja '48

Production of sheet metal ornamentation; Miller & Doing. *il* Sheet Metal Worker 39:92-4 Ap '48

Sheet metal workers' catechism (cont). W. Neubecker. *diag* Sheet Metal Worker 39:110 Ja; 64-5 Ap; 54 Je; 47-8 Ag; 46-8 O '48

Store front modernization. *il* Sheet Metal Worker 39:51-2 My '48

Welded studs cut costs and speed work on corrugated metal roofing job. R. C. Friedly. *il* Eng N 141:88-9 Ag 5 '48

Wider range of metals in post-war building. *il* Sheet Metal Worker 39:47-8 Je '48

See also

Gutters (roof)

Roofing, Copper

Sheet metal build-

ings

Sheet metal houses

SHEET metal work, Decorative

Production of sheet metal ornamentation; Miller & Doing. *il* Sheet Metal Worker 39:92-4 Ap '48

SHEET metal working machinery

Automatic assembly jumps output 47 times; latch assemblies produced in progressive die equipped with a motor-driven hopper-feed mechanism. P. Bonness. *il* diag Am Mach 92:96-7 My 6 '48

Beader-crimper now motor-powered. *il* Sheet Metal Worker 39:57 O '48

Die-less duplicating; new technique for the sheet metal worker. G. H. Danielson. *il* Sheet Metal Worker 39:96-8 Ja '48

Get more from your press brake. *il* diag Sheet Metal Worker 39:62-3 My; 52-3+ Je; 38-9 Ag; 48+ S '48

Ingenious die design increases versatility of press brake. W. E. Peters. *il* diag Mach 54:168-75 Mr; 143-50 Ap '48

Machine for making S clips for duct work. *diag* Sheet Metal Worker 39:36 O '48

Machines for fabricating enameled aluminum roofing. *il* Sheet Metal Worker 39:112 Mr '48

Manufacturing versatility in press brakes. C. J. Bath. *il* Sheet Metal Worker 39:40-1 O '48

Sheet leveler incorporates new feature; General Electric uses it to flatten sheet steel for refrigerator cabinets. T. E. Lloyd. *il* diag Iron Age 161:92-4 My 20 '48

35th annual review; forming, forging, casting. *il* Am Mach 92:238-40 Ja 23 '48

Three-in-one combination punch and cutter. *il* Sheet Metal Worker 39:63 Ap '48

See also

Hydraulic presses

SHEET piling

Cofferdam protects nearby foundations while Boston builders excavate. A. D. Quinn. *il* plan diag Eng N 140:1018-21 Je 24 '48

Experiences with soil types in naval construction; stability of sand as foundation material for a cellular pier. L. A. Palmer. *diag* Am Soc C E Proc 74:79-83 Ja '48

SHEET steel

Investigation of the eddy-current anomaly in electrical steel steels. F. Brailsford. *bibliog* diag Inst E E J 95 pt 2:38-48 F '48

Magnetic sheet steel. D. Edmundson. *il* diag Engineer 186:269-71 S 10 '48

Pressures to pierce sheet steel; charts; reference book sheet. E. V. Sargeant. *Am Mach* 92:139, 141 Ja 15 '48

Primer on steel conversion. D. I. Brown. *Iron Age* 162:72-7 JI 29 '48

Producing wide stainless-steel sheets at Republic steel corporation's new plant. *il* Mach 55:205-6 S '48; Steel 123:56-7 Ag 23 '48

Scarcity of hot-rolled sheet due to technological advance. G. F. Sullivan. *Iron Age* 160:119-4 N 20 '47

Sheet and strip shortage; special report. *il* map Steel 122:55-62 F 23 '48

Sheet steel supply can be extended by better materials engineering. T. C. Du Mond. *il* Materials & Methods 27:61-6 Mr '48

See also

Partitions, Steel

Steel, Strip

Testing

Corrosion-resistant steel sheet in marine atmospheres. W. Mutchler. *il* diag Am Soc T M Proc 46:621-39; Discussion. 640-1 '46

Plastic flow in anisotropic sheet steel. L. R. Jackson and others. *bibliog* *il* diag Metals Tech 15:TP2440 1-15 Ag '48

Report of subcommittee III on inspection of Annapolis tests. *Am Soc T M Proc* 46:146-53 '46

SHEETING, Plastic. See Plastic sheeting

SHEETS

Color strategy for sheets; Dan River Mills floral boxes. *il* Mod Packaging 21:124-5 D '47

Rating

Sheets; muslin, percale, and fine-count muslin. *Consumers Res Bul* 20:23-4 D '47

SHEETS, Waterproof**Rating**

Waterproof crib sheets. *Consumers Res Bul* 21:19-20 Je '48

SHEFFIELD corporation

Mass-producing precision. *il* Bsns W p42-5 My 1 '48

SHELF ice. See Ross Shelf ice**SHELL Caribbean petroleum company**

Places \$250,000,000 bonds privately. *Comm & Fin Chr* 168:1734 O 25 '48

Shell Oil turns to Caribbean; U.S. and Canadian groups finance Royal Dutch-Shell expansion in Latin America. *Bsns W* p21 O 30 '48

SHELL chemical corporation

Ammonia as fertilizer; deep South has new source of concentrated nitrogen; cotton planters and their plants are eating it up. *il* Fortune 38:100-3+ Ag '48

SHELL development company

For progress in petroleum chemicals; award for chemical engineering achievement to Shell development co. S. D. Kirkpatrick. *Chem Eng* 55:97-9 O '48

SHELL union oil corporation

Shell Oil producing more of total refinery needs. *Barron's* 28:33 F 2 '48

SHELLFISH

Paralytic shellfish disease and poliomyelitis; abstract. R. R. Scobey. *Am Water Works Assn J* 40:570-1 My '48

Paralytic shellfish poison; occurrence and concentration by ion exchange. H. Sommer and others. *bibliog* *Am Chem Soc J* 70:1015-18 Mr '48

SHELLFISH—Continued

Paralytic shellfish poison; purification by chromatography. H. Sommer and others. *Am Chem Soc J* 70:1019-21 Mr '48

SHELLFISH poisons

Physiological effects of sulphate pulp mill wastes on shellfish. W. A. Chipman, jr. *bibliog Paper Tr J* 127:47-9 S 16 '48

SHELLS (metal work)

Drawing thin-walled shells of intricate shape; radio-tube parts and shells for other assemblies. D. A. Baker. *diags Mach* 54:171-5 Ja '48

Procedures for drawing flanged shells. J. Walker. *il diags Tool Eng* 20:37-42 F '48; *Correction*. 20:35 Je '48

Progressive die scores, trims and forms heavy shell. T. Oshinsky. *il diags Am Mach* 92:85 S 9 '48

SHELTERS

See also

Motor bus lines—

Shelters

SHEPPARD, Eugenia

Covered story on bad night; landed Herald Tribune job. H. M. Staunton. *por Ed & Pub* 81:20 F 28 '48

SHERBROOKE, Quebec

Water supply

Improvements to water-supply facilities. *il Water & Sewage* 85:17-21+ D '47

SHERMAN antitrust law

Antitrust campaign. *Fortune* 38:62-7 Jl '48

SHERRIDON, Manitoba

Water supply

Water and sewerage. M. R. C. Mitchell. *il Pub Works* 79:22 Ag '48

SHERWIN-WILLIAMS company

S-W branches out. *Bsns W* p91 O 23 '48

SHIELDING

Efficiency of radiation shields. A. E. De Barr. *R Sci Instr* 19:569-73 S '48

Efficiency of radiation shields. A. W. Lawson and R. Fano. *diag R Sci Instr* 18:727-9 O '47

Extension of De Barr's analysis of radiation shielding. J. B. Garrison and A. W. Lawson. *diags R Sci Instr* 19:574-7 S '48

SHIELDING, Electromagnetic. See Electromagnetic shielding**SHIELDS, Murray, 1902-**

Portrait. *Bsns W* p23 My 22 '48

SHIFT schedules. See Hours of labor—Shift schedules**SHIGELLOSIS. See Dysentery****SHIMS**

Heavy production machines; color-thickness identification of plastic spacers speeds production. *il diag Product Eng* 19:132-3 S '48

SHINGLES

White-fir shingles can be weatherproofed. *Bsns W* p68+ Mr 20 '48

SHINGLES, Asphalt

How-to-do-it; asphalt shingle application. *diags Am Bld* 70:148+ My; 140+ Je; 164+ Jl; 152+ Ag '48

SHINTO

Menace of Shintoism. J. R. Young. *il U S Naval Inst Proc* 74:463-5 Ap '48

SHIP decoration

Design of interiors; President Cleveland. *il Marine Eng* 53:48-60 Mr '48

Robin Line ship interiors. *il Marine Eng* 53:64-5 Jl '48

S.S. Argentina resumes prewar service. *il Marine Eng* 53:42-7 F '48

SHIP model tanks

American towing tank conference, 7th annual meeting. Oct. 7-8. *Marine Eng* 52:102+ D '47

David W. Taylor model basin. *Science* 107:614-15 Je 11 '48

Flanged joint design for welded tubular steel structures; model-towing carriage at the David W. Taylor model basin. G. A. DeShazer. *il diags Product Eng* 19:117-18 N '48

Hydrodynamic design of 48-in. water tunnel to be used in research on torpedo propellers. D. Ross and others. *diags Engineering* 166:63-72 Jl 16 '48; *Abstract, Marine Eng* 53:63-4 Jl '48

SHIP models

Radio controlled model sailboat. R. C. Schmidt and L. A. Williams. *il diags Radio N* 39:39-41+ Ap '48

See also

Ships—Model testing

SHIP plates

Brittle fracture in mild-steel plates. C. F. Tipper. *il diags Engineering* 165:568-71, 592-5, 605-7 Je 11-25 '48

Brittle fracture in ship structures. J. F. Baker. *bibliog Engineering* 164:532-4 D 5 '47

Brittle fracture of American ship plates. W. Barr. *il Engineering* 165:208-10, 222-3 F 27-Mr 5 '48

Brittleness in ship steel. J. L. Adam. *diags Engineering* 164:556-7 D 12 '47

New (1948) hull steel plate specifications of the American bureau of shipping. J. L. Willson. *Marine Eng* 53:71 S '48

Testing

Causes of cleavage fracture in ship plate; tests of wide notched plates. A. Boodberg and others. *bibliog il diags Welding J* 27:sup 186-99 Ap '48

Cleavage fracture of ship plates as influenced by size effect. W. M. Wilson and others. *il diags Welding J* 27:sup200-8 Ap '48

Correlation of laboratory tests with full scale ship plate fracture tests. E. P. Klier and others. *bibliog il diags Welding J* 27:sup171-96 F '48; *Discussion*. 27:sup96, sup614-16 F, D '48

Effect of variation in notch severity on the transition temperature of ship plate steel in the notched bar impact test. R. S. Zeno and J. R. Low, jr. *il Welding J* 27:sup 145-7 Mr '48

Method of evaluating transition from shear to cleavage failure in ship plate and its correlation with large-scale plate tests. N. A. Kahn and E. A. Imbembo. *bibliog il diag Welding J* 27:sup 169-82; *Discussion*. sup 182-5+ Ap '48

New factors to be considered in the design and welding of ships. M. Forman. *bibliog diags Welding J* 27:671-8 S '48

Study of slotted tensile specimens for evaluating the toughness of structural steel. H. R. Thomas and D. F. Windenburg. *diags Welding J* 27:sup209-16 Ap '48

SHIP propulsion

Bringing a geared-turbine unit up to speed. *Marine Eng* 53:75-6 Ap '48

Effect of shape of entrance on ship propulsion; abstract and discussion. I. L. Troost. *Engineering* 166:354-5 O 8 '48

Engining of cargo vessels of high power; symposium. *Engineer* 184:490-2 N 21 '47; *Engineering* 164:517-18 N 28 '47

German devices supplied oxygen to submerged subs; possibilities of Diesel engine. C. G. A. Rosen. *diags S A E J* 56:22-4 S '48

Marine power plants of the future. F. V. Smith. *diag Marine Eng* 53:64-8 My '48

Modern marine power plant; C-3-S-DB3. A. W. Woods. *Marine Eng* 53:61-6 Ap '48

Oil engines and steam engines for marine propulsion. P. L. Jones. *Inst Mech Eng J & Proc* 167 (War emergency issue no 29):171-4 '47

Reducing fuel consumption in marine power plants. H. C. Dinger. *Marine Eng* 53:82 Ap '48

Reduction and reversing drives for adapting gas turbines to marine propulsion. W. E. Hammond. *diags Machine Design* 20:149-52 F '48

Royal navy and nuclear power; nuclear energy as the source of power in the ship for propulsion and auxiliaries. R. J. Daniel. *Engineer* 185:362-3 Ap 9 '48; *Excerpt, Engineering* 166:431 Ap 30 '48

Steam and gas turbines for marine propulsion. T. W. F. Brown and others. *diags Inst Mech Eng J & Proc* (War emergency issue no 29):175-83 '47

SHIP propulsion—Continued

Trends in modern ship propulsion. A. S. Thaeler. *Marine Eng* 53:48-51+ F '48

See also

Bollers, Marine
Diesel engines, Marine
Gas turbines, Marine
Internal combustion engines, Marine

Motor ships
Propellers
Steam turbines, Marine
Steamboats

SHIP propulsion, Electric

American President luxury liner; President Cleveland. *il diags Marine Eng* 52:78-9+ N '47

Diesel-electric ferry, Chinook. *il plan diag Marine Eng* 52:66-71 O; 113+ N '47

Diesel-electric paddle car ferry, Farringford. G. W. Tripp. *il plan diags Engineer* 185: 250-2 Mr 12 '48

Diesel-electric tugboat, Havoline. *il Marine Eng* 52:86 N '47

Dredge, Comber. *il diag Marine Eng* 52:105+ N '47

Electric drive for cargo ships; marine engineers' discussion. Elec R (Lond) 141:731-2 N 14 '47

Marine electricity; high towing efficiency. L. M. Goldsmith. *Electrician* 141:486-7 Ag 13 '48

Narrows, electric ferry. *il Marine Eng* 52:112 N '47

Power plant of the Comber. J. A. Wasmund. *il Marine Eng* 53:60-4 Ja '48

Propulsion machinery; President Cleveland. *il plans diags Marine Eng* 53:68-77 Mr '48

Reduction and reversing drives for adapting gas turbines to marine propulsion. W. E. Hammond. *diags Machine Design* 20:149-52 F '48

Rotating regulator for seagoing hopper dredge propulsion. E. H. Hornbarger and J. A. Wasmund. *diag Marine Eng* 53:84+ F '48

Seagoing dredges, Hains and Hoffman. *il Marine Eng* 52:97+ N '47

T2-SE-A1 class tanker, James Island. *il diags Marine Eng* 52:94-6+ N '47

Turbine-electric propulsion. H. C. Coleman. *Marine Eng* 53:71-5 Ag '48

U.S.C.G. ice breaker, Mackinaw. *il diag Marine Eng* 52:106-7+ N '47

SHIP railroads

Scheme utilizes rails to transport ocean liners across Tehuantepec Isthmus. *il Civil Eng* 18:520 Ag '48

SHIP refrigeration. See Refrigeration on ships**SHIP resistance**

Limitations of model experiments. F. H. Todd. *Engineer* 184:538-9 D 5 '47

Original Froude hull models. H. P. Spratt. *il Mech Eng* 70:136 F '48

Resistance of barge forms with simple geometrically-shaped ends. A. D. Hay. *bibliog diags Marine Eng* 53:64-7 Ag '48

Resistance of barges and flotillas; abstract. L. A. Baier. *Marine Eng* 52:88-9; Discussion. 89-90 D '47

Resistance of barges in deep and shallow water; abstract and discussion. J. F. Allan and W. P. Walker. *Engineering* 164:425-6 O 31 '47

SHIP BUILDING

Need for a shipbuilding program. T. H. Bossert. *Marine Eng* 53:45-6 My '48

New method of producing three-dimensional plaster models; applicable in automobile, aircraft, and shipbuilding; involves use of Contour Developer. J. S. Haldeman. *il diags Mach* 54:144-9 Mr '48

Passenger ships and tankers vital to national security. W. W. Smith. *Marine Eng* 53:46-9 My '48

Record building time planned for super-tankers. *Marine Eng* 53:42-4 My '48

Strain gages steer boat hull design. L. Lord. *il Marine Eng* 53:71-2 Ji '48

Structural failure of a riveted ship. E. M. MacCutcheon. *il Welding J* 27:52-4 Ja '48

Who's building ships, who has the ships; chart showing comparison by country, 1939 and 1947. *Bsns W* p 121 Ap 17 '48

See also

Barges
Dry docks
Freight ships
Launching

Motor ships
Naval architecture
Navy yards and naval stations

Propellers
Ships—Reconstruction
Shipyards

Steamboats
Tank ships
Towboats
Warships

Finance

Boom in shipbuilding under expanded merchant marine; with data on leading companies. H. F. Travis. *Mag of Wall St* 82: 133-5+ My 8 '48

Labor conditions

See Shipyards—Employees

Materials

Aluminum in the marine industry. *Marine Eng* 53:86 Mr '48

Compregnated wood tested by navy. R. P. Goodale. *il Mod Plastics* 25:102-5 F '48

Investigation of materials for marine propellers. W. C. Stewart and W. L. Williams. *bibliog diag Am Soc T M Proc* 46:836-45 '46

Low-alloy tank top on the Joliet, cargo hold floor of Otiscoloy. *il Marine Eng* 53:88+ Ap '48

See also

Ships, Aluminum

Statistics

American bureau of shipping reports. *Marine Eng* 53:40-1 S '48

Lloyd's quarterly report on the world's shipbuilding. *Marine Eng* 52:73 D '47

Lloyd's register annual summary for 1947. *Engineer* 185:207 F 27 '48

Monthly shipbuilding report. *Marine Eng* 53: 48-9+ Ja '48 [cont. monthly]

Shipbuilding production in 1947. *Marine Eng* 53:36-47+ Ja '48

Shipbuilding record of the United States maritime commission. *Marine Eng* 53:44-5 S '48

Tables, calculations, etc.

Sounding scales for a horizontal cylindrical tank. *diag Marine Eng* 53:86 Ap '48

Welding operations

Adams lecture for 1947; structural strength of the welded joint. G. S. Mikhailapov. *bibliog il diags Welding J* 27:193-206 Mr '48;

Abstract. *Metal Prog* 54:216+ Ag '48

Brittle fracture in ship structures. J. F. Baker. *bibliog Engineering* 164:532-4 D 5 '47

Brittle fracture of American ship plates. W. Barr. *il Engineering* 165:208-10, 222-3 F 27- Mr 5 '48

Brittleness in ship steel. J. L. Adam. *diags Engineering* 164:556-7 D 12 '47

Causes of cleavage fracture in ship plate; tests of wide notched plates. A. Boodberg and others. *bibliog il diags Welding J* 27: sup 186-99 Ap '48

Cleavage fracture of ship plates as influenced by size effect. W. M. Wilson and others. *il diags Welding J* 27:sup200-8 Ap '48

Experimental voyage of the tanker Niso; investigating behaviour of welded as compared with riveted ships. G. M. Boyd and others. *Engineering* 165:175 F 20 '48

Fracture and notch-brittleness in ductile metals. E. Orowan. *Engineering* 164:581-3, 605-6 D 19-26 '47

Fundamental physical and metallurgical aspects of brittle steel. D. E. J. Offord. *il Engineering* 165:53 Ja 16 '48

Health of arc welders in steel ship construction; a survey made in cooperation with United States maritime commission and United States navy. W. C. Dreessen and others. (Pub. health bul. 298) 200p *bibliog*(p179-85) U.S. Public health service, Washington; pa 55c Supt. of doc. '47

Method of evaluating transition from shear to cleavage failure in ship plate and its correlation with large-scale plate tests. N. A. Kahn and E. A. Imbembio. *bibliog il diag Welding J* 27:sup 169-82; Discussion. sup 182-5+ Ap '48

New factors to be considered in the design and welding of ships. M. Forman. *bibliog diags Welding J* 27:671-8 S '48

SHIPBUILDING—Welding operations—Cont.

- Repair of welded ships. L. F. Bledsoe. *il* diags Welding J 27:690-4 S '48
- Some additional tests on the Lehigh restraint specimen. R. D. Stout and others. *il* diags Welding J 26:sup673-82 N '47
- Stud welding for deck planking. *diag* Engineer 186:218 Ag 27 '48
- Study of slotted tensile specimens for evaluating the toughness of structural steel. H. R. Thomas and D. F. Windenburg. *diags* Welding J 27:sup209-16 Ap '48
- Technical progress report of the ship structure committee, March 1, 1948, *bibliog*(53 titles) Welding J 27:sup377-84 JI '48; Same. Marine Eng 53:52-8+ S '48
- Tests of various designs of welded hatch corners for ships. E. P. DeGarmo. *il* diags Welding J 27:sup50-68; Discussion. *sup*69-70 F '48
- Tests on flow and fracture of welded and unwelded tubes of steel. L. V. Griffiths and others. *il* diags Welding J 27:sup 161-8+ Ap '48
- Todd shipyards stress-relieving tankers. *il* Marine Eng 52:110+ D '47
- Work of ship classification societies. J. L. Adam. Engineering 164:428, 453 O 31-N 7 '47

Australia

- Naval engineering and construction in Australia. A. B. Doyle. *il* Engineering 166:132, 141-4 Ag 6 '48

Germany

- German shipbuilding in the war years. Engineering 165:469-70 My 14 '48
- Industry in Bremen (U.S. zone). For Comm W 31:28 Ap 10 '48

Great Britain

- Engineering outlook. Engineering 165:257-60 Mr 12 '48
- European motorship building in 1947. *il* Marine Eng 53:72-4 Ja '48
- High shipbuilding costs. Economist 155:591-3 O 9 '48
- President's address before Institution of naval architects; abstracts. A. B. Cunningham. Engineering 165:281 Mr 19 '48; Engineer 185:284-5 Mr 19 '48
- Rising costs of shipbuilding. Economist 154:520 Mr 27 '48
- Shipbuilding at the peak? Economist 154:725-6 My 1 '48
- Shipbuilding problems now. Economist 154:385-6 Mr 6 '48

India

- Developments in India. For Comm W 32:36 Ag 7 '48

Netherlands

- Construction and deliveries. For Comm W 31:30 Je 12 '48
- Report on shipbuilding activities, last quarter 1947 and first quarter 1948; table. For Comm W 32:38 Ag 28 '48

Norway

- Norway's shipbuilding program. For Comm W 31:38 My 29 '48

Russia

- Developments in U.S.S.R. For Comm W 33:37-8 O 2 '48

Sweden

- Sweden's launching of merchant vessels in 1947. For Comm W 31:38-9 My 29 '48
- Swedish passenger ship Stockholm. *il* Marine Eng 53:68-71 Ap '48

United States

- Boom for shipbuilders. Bsns W p24 S 4 '48
- Higher level of shipbuilding activity vital. Steel 121:72 D 15 '47
- Lack of a subsidy again drives work to foreign yards. Marine Eng 53:78 JI '48
- Our marine industries at the crossroads. H. H. Holly. *il* U S Naval Inst Proc 74:468-71 Ap '48
- Shipbuilders council notes effect of new contracts on industry. Marine Eng 53:88 S '48
- Shipbuilders vigorously endorse report of President's advisory committee. Marine Eng 53:76 Jm '48

- Shipbuilding and national security. L. R. Sanford. Marine Eng 53:88+ Mr '48
- Shipping; prospects for 1948. E. F. Ross and others. *il* Steel 122:143 Ja 5 '48
- Sun shipbuilding company's 1947 operations. Marine Eng 53:76 Ap '48

SHIPMENT of goods

- Airfreight regulations. T. P. Callahan. Chem Ind 61:860+ N '47
- Appliances damaged in transit; who's to blame. *il* Elec West 99:99-102 S '47; 100:95-6+ Ap '48
- Blending and distributing liquid sugar for all users. J. V. Ziemba. *il* diags Food Ind 20:366-9, 498+ Mr '48
- Covered floor racks reduce losses. T. P. Callahan. *il* Chem Ind 63:92 JI '48
- Cutting damage in transit. Management R 37:303-4 Je '48
- Do pallets cut shipping costs? Bristol-Myers traffic manager reports 80 per cent saving in man hours. D. M. Daly. *il* Mod Packaging 21:110-12 Ja '48
- Drive to save damage dollars under way; twelfth annual Perfect shipping campaign. *il* Ry Age 124:711-12 Ap 10 '48
- Export pack; survey of foreign port conditions. G. E. Bouton. *bibliog* *il* diags Mod Packaging 21:126-31+ D '47
- Foreign inland-transport defects can snag U.S. trade flow. S. T. R. Abt. *il* For Comm W 32:8-9+ Ag 7 '48
- How to beat those climbing freight rates; abstract. Management R 37:196-7 Ap '48
- Improper loading damages packages. T. P. Callahan. *il* Chem Ind 62:628+ Ap '48
- It's cheaper to ship by parcel post. Bsns W p21 O 16 '48
- Navy preparedness courses in packaging and materials handling. Mod Packaging 21:188+ Ja '48
- One-way paper shipping pallets. E. H. Ashley. *il* Iron Age 161:90 Je 3 '48
- Package handling in glass plants. P. J. Barcus. Glass Ind 29:253-4 My '48
- Packaging engineers meet at Chicago; stresses better packages, speedier and safer materials handling, good loading. Ry Age 125:721-2 O 16 '48
- Paring costs with pallets; Packard's purchased parts. D. G. Baird. *il* Mill & Factory 43:127-9 S '48
- Reducing the cost of small-unit deliveries; abstract. W. Alwyn-Schmidt. Management R 37:307-9 Je '48
- Shipping platform warehouses six-weeks' orders, speeds handling; Bail bros. Muncie, Ind. *il* Cer Ind 61:81 S '48
- Transportation, freight claims and damage; abstract. W. W. Hale. Mod Packaging 22:152 S '48

See also

- | | |
|---------------------------|----------------------------|
| Air freight service | Loading and unloading—Cars |
| Boxes, Wirebound | Packing for shipment |
| Chemicals—Transportation | Railroads—Claims |
| Containers (for shipping) | Railroads—Rates |
| Freight car service | Shipping departments |
| Freight handling | Transportation |

SHIPPERS advisory boards, National association of. See National association of shippers advisory boards

SHIPPING**See also**

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|-------------------|-------------------|
| Barges | Shipbuilding |
| Freight handling | Shipment of goods |
| Insurance, Marine | Ships |
| Maritime law | Steamboat lines |
| Merchant marine | Train ferries |
| Ports | Transportation |
| Salvage | Waterways |

Claims

- Carrier is not liable for "on deck" damage unless negligence is shown. East Underw 49:24 JI 30 '48
- Liability limitation; Federal circuit court passes on questions dealing with filing of claims against petitioners. East Underw 49:26 Ja 9 '48
- Shipowner held obligated to insure fire risks of cargo ashore from S.S. Mormacmar at Wellington. Weekly Underw 167:1492+ D 13 '47

SHIPPING—Continued

Statistics

American bureau of shipping reports. Marine Eng 53:40-1 S '48
1947 revenue and traffic of regulated water carriers. Ry Age 125:341 Ag 14 '48

Alaska

Barges haul goods to Alaska. il Bsns W p52+ Mr 20 '48

Brazil

Mutual transport agreement signed between Brazilian shipping and railroad lines. For Comm W 30:29 F 14 '48

Great Britain

British shipping in the new world. Economist 154:234-6 F 7 '48
Position of British shipping. Engineering 165:210 F 27 '48

Great Lakes

Great Lakes ore carrier, Sewell Avery. il diag Marine Eng 52:88-9+ N '47
Low-alloy tank top on the Joliet, cargo hold floor of Otiscoloy. il Marine Eng 53:88+ Ap '48
Modern lake port transfer facility open for business at Toledo, Ohio. il plan Ry Age 124:846-51 My 1 '48; Excerpts. Marine Eng 53:74-5 Je '48
More Great Lakes ships are wanted. il Bsns W p25-6 My 15 '48
New rail-water terminal at Toledo improves coal-ore transfer. il diags Eng N 141:48-51 S 30 '48
Special radar designed for Great Lakes. Marine Eng 53:94+ Ja '48

India

Indian shipping; government organizes air and ship carriers. Bsns W p 104-5 D 20 '47

United States

Chartered ships; Maritime commission cutting down number in operation; reason, the postwar shipping boom is over. Bsns W p30-1 O 2 '48
Clearances, vessels in foreign trade, U.S. ports, 1941-1946. Survey of Cur Bsns 1947 Sup p 108 [supplemented in monthly numbers]
ECA experts seek to cut U.S. ships' export share. F. A. Johnston. Barron's 28:4 O 18 '48
First-quarter 1948 transportation account in U.S. balance of payments. For Comm W 32:43 Ji 17 '48
Great New Orleans steal; success of city's sales promotion. il Fortune 38:102-3 N '48
Hope for shipping; bills now pending. Bsns W p23 My 29 '48
Merchant ship sales act of 1946. D. Marx, jr. J Bsns 21:12-28 Ja '48
Second-quarter 1948 transportation account in United States international balance of payments. For Comm W 33:47 N 8 '48
South's port trade booms; eight northern ports band together. il Bsns W p24 Ag 21 '48
Transportation account in our postwar balance of payments. R. Q. P. Chin and L. D. Nierenberg. il For Comm W 31:3-5+ Je 19; 8-9+ Je 26 '48

See also American bureau of shipping

SHIPPING container institute

OK on delivery. Chem Ind 63:276+ Ag '48 *

SHIPPING departments

Packing and shipping on incentives. C. Mors and F. Frochaska. il Mill & Factory 43:140-3 O '48

See also

Department stores—
Wrapping departments

SHIPS

Shipbuilding and marine engineering in 1947. il Engineering 185:10-13, supp 3, 46-7, supp 2, 66-7, 96-7 Ja 2-23 '48

Tampa yard builds ships for France; Algeria, first of six vessels. il plans diags Marine Eng 52:64-72 D '47

See also

Airplane carriers	Radio telephone on ships
Barges	Refrigeration on ships
Clipper ships	Salvage
Colliers	Seamen
Dredges	Ship decoration
Excursion boats	Ship models
Ferryboats	Ship propulsion
Fishing boats	Shipbuilding
Freight ships	Shipping
Ice breaking vessels	Shipyards
Loading and unloading—Ships	Steamboats
Maritime law	Submarine boats
Motor ships	Tank ships
Naval architecture	Towboats
Power plants, Floating	Twin ferries
Propellers	Transports
	Warships
	Whaling vessels

Air conditioning

Air conditioning, ventilation and refrigeration; President Cleveland. il Marine Eng 53:61-2 Mr '48
Individual control for air conditioned ship. il Heating-Piping 20:88 S '48
Recent advances in atmospheric hygiene in the navy. E. E. Metcalfe. il U S Naval Inst Proc 74:876-81 Ji '48

Ballast

See Ballast (ships)

Classification

Work of ship classification societies. J. L. Adam. Engineering 164:423, 453 O 31-N 7 '47

Communication

Emergency loud-speaker equipment for Good neighbor fleet. G. M. Marr and G. A. Slatic. il Marine Eng 53:75-8 F '48

Deck coverings

Stud welding for deck planking. diag Engineering 186:218 Ag 27 '48

Decoration

See Ship decoration

Demolition

Battleships as advertised. Fortune 37:120 Ja '48

Electric equipment

Electrical and allied developments during 1947; marine. G. Bartlett. il Gen Elec R 61:49-50 Ja '48
Electrical equipment of the S. B. Way. W. R. Douglas. Marine Eng 53:50-1 Ag '48
Electricity and its application to ships. W. R. Douglas. Marine Eng 53:78-9 S '48
Progress of electricity in ships since the South African war; abstract. J. A. P. Farant. Electrician 140:426 F 6 '48
Redesigning to withstand shock; high-speed movies hold key to analysis of mechanisms. D. L. Pierce. il Machine Design 20:127-32 Ag '48

See also

Electric driving—	Ship propulsion,
Ships auxiliaries	Electric

Equipment

American export lines' new Excalibur. il plans diag Marine Eng 53:40-6+ O '48
American President luxury liner; President Cleveland. il diags Marine Eng 52:78-9+ N '47
Cargo handling and stowage; President Cleveland. il Marine Eng 53:65-7 Mr '48
Cargo-liner, Santa Barbara. il diag Marine Eng 52:84-5+ N '47
Cunard White Star liner Media. il plan Engineering 164:464-5, 468 N 14 '47
David Brown marine oil-operated reverse-reduction gear. diag Engineering 185:442 My 7 '48; Automotive Ind 99:27+ Ag 15 '48
Elder Dempster motor liner Accra. il plan Engineering 164:559-61, 564 D 12 '47

SHIPS—Equipment—Continued.

Gear noise exposes naval ships to detection by the enemy; how the problem is being attacked. G. Wohlberg. *il diag Machine Design* 20:133-7+ Ag '48

Low-pressure steam-heated distilling plants for distillation of sea water. A. M. Impagliazzo and R. M. Bent. flow diag *il diag Marine Eng* 53:42-7 Je '48

Navigation and safety equipment; President Cleveland. *il Marine Eng* 53:63-4 Mr '48

Operation of a Victory ship's lubricating-oil system. diag *Marine Eng* 53:60-3 Je; 66-9 JI '48

Ore carrier, S.S. Venore. *il diags Marine Eng* 52:80-1 N '47

Passenger and cargo liner, Del Norte. *il diags Marine Eng* 52:70-2+ N '47

Passenger-cargo ship, Alcoa Cavalier. *il diags Marine Eng* 52:74-6+ N '47

Pneumatics afloat. E. L. Holbrook. *il diags Comp Air Mag* 52:298-301 D '47

Propulsion machinery; President Cleveland. *il plans diags Marine Eng* 53:68-77 Mr '48

Recent advances in mechanical engineering on shipboard. T. A. Crowe. *il plan Engineering* 166:20-3 JI 2 '48; Same abr. *Engineering* 185:591-3 Je 18 '48

Revolutionary marine reversing gear. *Marine Eng* 53:86+ Je '48

Robin line converts flat-top to C-3 passenger-cargo ship. *il plans Marine Eng* 53:52-63 My '48

Seagoing hopper dredge, Comber. *il plans diags Marine Eng* 53:50-9 Ja '48

2000 s.h.p. marine reverse reduction gear. *il Engineer* 185:550-1 Je 4 '48

Union Castle mail steamship, Pretoria Castle. *il diags Engineer* 186:140-1, 155-7+, 180-1 Ag 6-20 '48

Wire rope; proper service and lubrication, plus selecting the right rope, doubles wire rope life. R. W. Slesker. *il Marine Eng* 53:67+ Ap '48

See also

Refrigeration on ships

Failures

Brittle fracture in mild-steel plates; experience of American shipbuilders and steel-makers. E. M. MacCutcheon. *diags Engineering* 165:77-8 Ja 23 '48

Brittle fracture in ship structures. J. F. Baker. *bibliog Engineering* 164:532-4 D 5 '47

Correlation of laboratory tests with full scale ship plate fracture tests. E. P. Klier and others. *bibliog il diags Welding J* 27:sup71-96; Discussion. R. E. Wiley. *sup96 F* '48

Structural failure of a riveted ship. E. M. MacCutcheon. *il Welding J* 27:52-4 Ja '48

Technical progress report of the ship structure committee, March 1, 1948. *bibliog* (53 titles) *Welding J* 27:sup377-84 JI '48; Same. *Marine Eng* 53:52-8+ S '48

Fires and fire protection

Bottled death; shipboard casualties from carbon dioxide fire extinguishers. *Marine Eng* 53:94+ Mr '48

Fire protection on liner Stockholm. A. M. Duxsey. *il Marine Eng* 53:72-3 Je '48

Navigation and safety equipment; President Cleveland. *il Marine Eng* 53:63-4 Mr '48

Port Newark adopts standard fire signal. *Marine Eng* 53:80 O '48

Reducing fire risks in ships; abstract. L. A. Jordan. *Paint Oil & Chem R* 110:41 D 25 '47

Fouling

Service tests of experimental anti-fouling compositions. H. Barnes and others. *Iron & Steel Inst J* 157:429-46 N '47

Fuel

Ship operators on the spot as oil bunkers ebb. P. A. Johnston. *Barron's* 28:22 F 2 '48

Lighting

Improving interior lighting in United States naval vessels. E. Boghosian. *il Illum Eng* 43:754-60 JI '48

Lighting in ships; use of fluorescent tubes. *il Elec R (Lond)* 141:707 N 7 '47

Navy tests lighting units. *il Marine Eng* 53:122 Mr '48

Model testing

Aircraft-carrier research; aluminum model at Stevens institute of technology. *il Mech Eng* 70:22 Ja '48

Limitations of model experiments. F. H. Todd. *Engineer* 184:538-9 D 5 '47

Original Froude hull models. H. P. Spratt. *il Mech Eng* 70:136 F '48

Panama canal; ship performance in restricted channels. C. A. Lee and C. E. Bowers. *bibliog il diags Am Soc C E Proc* 74:521-49 Ap '48

Some experiments with models of high-speed ships; abstract and discussion. A. F. Lindblad. *Engineering* 166:353-4 O 8 '48

Underwater photographs of flow patterns for surface vessels. W. H. Sutherland. *il diags Marine Eng* 53:64-7 O '48

Use of turbulence-producing devices in model experiments. K. S. M. Davidson. *Marine Eng* 53:73-5 O '48

See also

Ship model tanks

Painting

American anti-corrosive and anti-fouling paints. *il Engineer* 184:474-8 N 21 '47

Cementiferous paints. J. E. O. Mayne and R. S. Thornhill. *bibliog diag Iron & Steel Inst J* 158:219-28 F '48

Marine exposures of cementiferous painting schemes. K. A. Pyefinch. *Iron & Steel Inst J* 158:229-35 F '48

Service tests of experimental anti-fouling compositions. H. Barnes and others. *Iron & Steel Inst J* 157:429-46 N '47

Some factors in the use of plastic ship-bottom paints; abstract. D. P. Graham. *Marine Eng* 53:68; Discussion. 68-9 Ja '48

Wood preservatives; effect on seam compounds and value as paint primers. W. Spackman, Jr. and O. Tippe. *bibliog il diags Ind & Eng Chem* 40:1301-8 JI '48

Performance

Panama canal; ship performance in restricted channels. C. A. Lee and C. E. Bowers. *bibliog il diags Am Soc C E Proc* 74:521-49 Ap '48

Piping

Insulating equipment shipboard. *Marine Eng* 53:73 JI '48

Operating condensate and feed water systems in a Victory ship. *diags Marine Eng* 53:59-64 S '48

Practical piping problems; design engineer reports on operating experience (cont.). J. H. Clarke. *il diags Heating-Piping* 19:86-9 D '47; 20:116-20 Ja; 86-91 F; 90-4 Mr; 84-7 Ap; 89-92 My '48

Proper sizing of reducing valves. I. C. Wilkins. *Heating-Piping* 20:108; Reply. J. H. Clarke. 108 Mr '48

Reconstruction

Air power aids ship refitting. *il Comp Air Mag* 53:17 Ja '48

Brazil joins Good Neighbor fleet. *il Marine Eng* 53:48-9 Je '48

Conversion of Great Lakes bulk freighter Adam E. Cornelius to a self-unloader. G. F. Rankin and A. J. Zuehlke. *il Marine Eng* 53:46-61 S '48

Conversion of lake bulk carrier, S. B. Way, to self-unloader. K. C. Thornton. *il plans diags Marine Eng* 53:40-9 Ag '48

Liberty ship converted to a collier. *il Marine Eng* 53:56-8 Ag '48

Reconversion of Matson liner, Lurline. *il Marine Eng* 53:36-41 Je '48

Reconverted army P-2 transports. *il Marine Eng* 53:52-7 O '48

S.S. Argentina resumes prewar service. *il Marine Eng* 53:42-7 F '48

Steamship Uruguay reconverted. *il Marine Eng* 53:72-4 Ap '48

See also

Warships—Reconstruction

Refrigeration

See Refrigeration on ships

Repair

Repair of welded ships. L. F. Bledsoe. *il diags Welding J* 27:690-4 S '48

SHIPS—Repair—Continued

Repairs to M.S. Wanganella. Engineering 165:31 JI 9 '48
 Ship-repairing and shipyard problems in the invasion of Europe; abstracts and discussion. A. J. Merrington. Engineer 185:332-3 Ap 2 '48; Engineering 165:329-30 Ap 2 '48

Some war-time repairs. E. J. Hunter. il diags Engineering 165:60, 69-72 Ja 16 '48

Temporary repairs to tanker Markay; abstract and discussion. A. Reid. Engineering 165:400-1 Ap 23 '48

Speed

Speed at sea and dispatch in port. W. MacGillivray. Engineering 165:414-15 Ap 30 '48; Discussion. 165:306 Mr 26 '48; Engineer 185:308 Mr 26 '48

Stability

Method for determination of a ship's stability at sea; abstract. J. E. Kiernan. Marine Eng 53:55 JI '48

Staterooms

Stateroom temperature on the Lurline controlled by individual thermostats. Marine Eng 53:92 O '48

Strains and stresses

Experimental voyage of the tanker Niso; investigating behaviour of welded as compared with riveted ships. G. M. Boyd and others. Engineering 165:175 F 20 '48
 Measurement and recording of the forces acting on a ship at sea; abstracts and discussion. F. B. Bull and others. Engineer 186:332-4 O 1 '48; Engineering 166:327-8 O 1 '48

Testing

Measurement and recording of the forces acting on a ship at sea; abstracts and discussion. F. B. Bull and others. Engineer 186:332-4 O 1 '48; Engineering 166:327-8 O 1 '48

Vibration generator for studying ship's elastic characteristics. Marine Eng 53:71 Ap '48

See also

Ships—Model testing

Trim gages

Trim gage for fore and aft draft. il Marine Eng 53:69-70 JI '48

Vibration

Todd installs first Liberty ship tailshaft fly-wheel for the purpose of reducing vibration. il Marine Eng 53:74 S '48

SHIPS, Aluminum

Aluminum alloys in ship construction. M. G. Forrest. diags Marine Eng 53:55-8 F '48; Abstract. Mech Eng 70:26 Ja '48; Discussion. Marine Eng 53:70-2 F '48

SHIPS, Troop. See Transports**SHIPWAYS**

Concrete deterioration in a shipway. R. D. Terzaghi. bibliog il map diags Am Concrete Inst J 19:977-1005 Je '48

SHIPYARDS

See also

Navy yards and Shipbuilding
 naval stations Shipways

Electric equipment

Earth leakage control panel. il diag Engineer 185:454 My 7 '48
 Subs aloft clear main deck for action; San Francisco naval shipyard. il diag Elec West 100:78-80 My '48

Employees

Keeping grievances down at Alabama dry dock & shipbuilding co. il Bsns W p99 S 4 '48
 Settlement reached at Bethlehem shipyards. Bsns W p98+ N 15 '47

SHIRTING**Advertising**

Old-time advertising method gets modern results; Lonsdale shirt promotion piece for retail salesmen has flavor of 18th-century handbill. J. Handley. il Ptr Ink 222:41 F 20 '48

SHIRTS

Wholesale showroom for shirts for Cluett, Peabody & co. il plan diags Arch Forum 88:104-5 Mr '48

See also

Collars

Manufacture

Men's dress shirts; man-hours per dozen, 1939-47. Mo Labor R 67:254-6 S '48

Rating

Men's shirts. il Consumers Res Bul 20:13-14 D '47; 21:19 Ap '48

SHISHKIN, Boris Basil, 1906-Harriman's men. por(p 105) Bsns W p 109 S 4 '48

Paul Hoffman's union men. por Fortune 38:141-2+ O '48

SHOCK

Absence of protective action of rutin in anaphylactic and histamine shock. L. W. Roth and I. M. Shepperd. Science 108:410-11 O 15 '48

Effect of rutin on anaphylactic and histamine shock. R. J. Raiman and others. Science 106:368 O 17 '47; Reply. R. H. Wilson and F. DeEds. 107:369-70 Ap 9 '48

Head injuries and shock. W. N. Kemp. il Nat Safety N 58:38-9 Ag '48

Inhibition of anaphylactic shock by acetylsalicylic acid. B. Campbell. bibliog Science 108:478-9 O 29 '48

SHOCK absorbers

Aeroplanes undercarriage. H. G. Conway. il diags Inst Mech Eng J & Proc 156:Proc 272-81; Discussion. 293-304 D '47

Design of orifices for hydraulic shock absorbers. J. Brown. il diags Product Eng 19:146-9 Ap '48

Hydraulic shock absorber orifice designs and equations. J. Brown. il diags Product Eng 19:92-5 F '48

New hydraulic pump shock absorber to give easier rides. Iron Age 160:148-9 N 13 '47; Mech Eng 69:1037 D '47; Ry Age 123:997 D 6 '47; Machine Design 20:108-9 F '48

New shock absorber uses uncured rubber. diags Automotive Ind 98:268 Mr 15 '48

Smoothing out railroad swing and sway. diags Bsns W p62 D 13 '47

Westinghouse super shock-absorber. C. R. Hanna. il Sci Am 178:77-8 F '48

SHOCK waves

Attenuation of spherical shock waves in air. R. G. Stoner and W. Bleakney. bibliog plan J Ap Phys 19:670-8 JI '48; Correction. 19:1129 D '48

Camera catches shock waves in flight; illustrations with text. Aviation W 49:33 S 13 '48

Decay of shock waves. B. Cassen and J. Stanton. diags J Ap Phys 19:803-7 S '48

Energy partition in underwater explosion phenomena. A. B. Arons and D. R. Yennie. Bibliog Rs Mod Phys 20:519-36 JI '48

Head-on collision of a shock wave and a rarefaction wave in one dimension. H. E. Moses. diags J Ap Phys 19:383-7 Ap '48

Hydrodynamic properties of sea water at the front of a shock wave. J. M. Richardson and others. bibliog J Chem Phys 15:785-94 N '47

Relativistic Rankine-Hugoniot equations. A. H. Taub. Phys R 74:328-34 Ag 1 '48

Theory of the propagation of shock waves from infinite cylinders of explosive. S. R. Brinkley, jr. and J. G. Kirkwood. bibliog Phys R 72:1109-13 D 1 '47

SHOE corporation of America

Family shoe firm expands. il Bsns W p84+ JI 17 '48

SHOE dressings

White shoe dressings. M. A. Lesser. bibliog il Soap & San Chem 23:38-41+ D '47

SHOE factories**Employees**

Footwear manufacture; man-hours per pair, 1939-45. Mo Labor R 67:256-8 S '48
 Footwear manufacturing; earnings, Sept. 1947. Mo Labor R 67:32-4 JI '48

Records

Control reports to aid top management at Freeman shoe co. W. Norris. il Am Bsns 18:8-9+ Ag '48

SHOE industry and trade

After the turn of the year. H. Edison, Comm & Fin Chr 167:338 Ja 22 '48
 Cinderella slipper; Prima Footwear's sales zoom. Il Bsns W p80+ My 1 '48
 Hide prices decline with shoe demand. Bar-ron's 28:29 Ag 16 '48
 This simple manual is a sales tactics re-fresher course; Williams manufacturing co. Il Sales Management 59:44-6 N 20 '47

See also
 Shoe corporation of America
 Shoes—Prices
 Shoe stores
 Slippers

Advertising

Ad agency becomes a retailer to get facts at retail level. S. Krupnick, Il Ptr Ink 223:48+ Ap 9 '48
 Footprints arouse prospect's interest; shoe advertisers for The American magazine. Sales Management 61:103 JI 15 '48

Statistics

Leather manufactures; shoes and slippers, 1941-1946. Survey of Cur Bsns 1947 Sup p 140 [supplemented in monthly numbers]
 Production and sales of footwear; with data for 1939-1947. Survey of Cur Bsns 28:10-11+ Ap '48

Austria

Production of shoes; restrictions on sales. For Comm W 33:28 O 9 '48

Belgium

Production during first six months of 1947. For Comm W 29:24-5 N 8 '47

France

Supplies of hides, tanning extracts, and foot-wear, France; with data on production of leather and footwear in third quarter of 1947. For Comm W 30:24-5 Ja 24 '48

Norway

Situation in 1947. For Comm W 31:28-9 My 1 '48

South Africa

Situation in shoe industry. Union of South Africa. For Comm W 33:30 O 16 '48

Sweden

Sweden's footwear production and trade. For Comm W 33:32 O 30 '48

SHOE machinery

Cellophane, shoe machinery monopolies charged. Bsns W p21 D 20 '47

SHOE polish

Manufacture of shoe polishes, Switzerland. For Comm W 31:33 Je 26 '48

*See also***Shoe dressings****SHOE stores**

Edison bros. shoes. Il Fortune 37:82-7+ F '48
 Meeting modern requisites; Walk-Over shoe store, Elgin, Ill. Il plan Am Bld 69:88 N '47

Portfolio of designs. Arch Forum 88:97-101, 124-7 My '48

Selby shoe store, West Palm beach, Florida; Bostonian shoe store, Chicago, Ill. M. Ketchum, jr. Il plans Arch Rec 103:134-5 Ap '48

Where one store equals two; store in Glen-dale, Calif. has separate shops for men and women. Il Arch Rec 104:132-4 S '48

SHOE whitening. See Shoe dressings**SHOES**

Cellulose acetate shoes for marionettes. Il Mod Plastics 26:260 S '48

See also

Heels
 Slippers
 Soles

Manufacture

Footwear manufacture; man-hours per pair, 1939-45. Mo Labor R 67:256-8 S '48
 Synthetics' role in shoe supplies seems per-mament. F. A. Johnston. Barron's 28:11 S 13 '48

See also

Shoe factories

Prices

Cheaper shoes? Bsns W p21 Mr 13 '48
 Shoe firms reducing prices on fall lines. Bar-ron's 28:25 Ap 5 '48
 Shoe fright; manufacturers lift prices due to soaring hides. Bsns W p51-2 N 8 '47
 Shoe prices, first quarter 1948. L. J. Mack. Mo Labor R 66:526-7 My '48

Rating

Men's shoes. Il Consumers Res Bul 23:11-13 N '48

Standards

Size differences cause trouble in sending shoes to Europe. Ind Stand 19:73 JI '48

SHOES, Children's**Rating**

Children's shoes. Il Consumers Res Bul 21:5-8 My '48

SHOES, Rubber

Comparison of synthetic and natural rubbers in footwear. A. B. Lewis, India Rubber World 118:808-9 S '48

Rating

Men's rubbers and women's rubber boots. Consumers Res Bul 21:9-10 Ap '48

SHOES, Safety

Care of safety shoes. Safety Eng 96:55 Ag '48
 Foot protection. Il Nat Safety N 57:31+ Mr '48

SHOP fronts. See Store buildings—Fronts**SHOPPING areas**

Marketing pattern; Converse formula. Bsns W p74 JI 17 '48

Retail market in one economic world; survey of Cumberland and Allegany county, Mary-land. J. H. Cover. map J Retailing: 23:146-51 D '47

Trading area depends on many variables. S. Rovner. Ed & Pub 81:14 My 29 '48

SHOPPING centers

Edmondson Village; shopping center in south-west section of Baltimore. Il plans Am Bld 70:114-19 F '48

Hampton Village gives shoppers a place to park; project in St Louis residential neigh-borhood. Il plans Am Bld 69:68-72 N '47

Main Street under one roof, built around a big parking area; Euclid, Ohio. Il plan Arch Forum 88:132-3 My '48

Neighborhood shopping centers; time-saver standards. plans diags Arch Rec 102:123+ D '47

Remedy for a common commercial ailment; Ridgeway shopping center, Stamford, Conn. Il Arch Rec 102:112-14 D '47

St Louis study analyzes 42 city shopping centers; location and size of retail stores in 12 lines. Sales Management 60:57+ Ja 1 '48

Shopping center; logical adjunct of group housing in suburban areas. T. D. Mac-Gregor, plans Eng N 141:16-17 Ag 12 '48

Shopping centers; a new and growing devel-opment in distribution. J. Reiss. Il Ptr Ink 221:31-3+ D 12 '47

Shopping centers in urban redevelopment. R. M. Lillibridge. plans Land Econ 24:137-60 bibliog(53 titles, p 159-60) My '48

SHOPS

Navy building features glass exterior; shop building under construction at San Fran-cisco naval shipyard. Il Eng N 140:351-3 Mr 4 '48

See also

Airlines—Shops	Plumbing shops
Car shops	Railroads—Shops
Locomotive shops	Repair shops
Machine shops	Sheet metal shops
Motor bus lines—Shops	

SHORAN. See Radar aids to aviation**SHORE lines***See also*

Sea level changes

SHORE protection

Beach erosion studies in Florida. H. J. Han-sen. Il maps diags Florida Eng and Indus-trial Exp Sta, Univ of Florida [Gainesville] Bul 16:1-68 bibliog(p67-8) '47

SHORE protection—Continued

Chicago's sea wall; based on an interview with J. L. Bridges. D. H. Dyer. *Il Roads & Sts* 90:92-3 D '48
 Field research groups provide data for design of shore protection structures. *Il Civil Eng* 18:363+ Je '48

See also

Breakwaters
 Jetties

SHORING and underpinning

Steel adjustable shoring device. *Midwest Eng* 1:37 S '48

SHORT, Mac, 1897-1948

Sketch. *por S A E J* 56:74-5 S '48

SHORT circuits

Broad-band noncontacting short circuits for coaxial lines. W. H. Huggins. *diags Inst Radio Eng Proc* 35:196-13, 1085-91, 1324-8 S-N '47

Electric power supply protection on aircraft. J. G. Hutton and P. C. Bogiages. *Il diags Gen Elec R* 51:27-32 Ap '48

Influence of design and operational practice on the stability of large metropolitan cable systems. A. J. Gibbons and E. B. Powell. *diags Engineering* 166:165-7 Ag 13 '48

Short circuit analysis of a 40,000 kva, 2300 volt power system on an a.c. network calculator. E. L. Cowan and W. V. Knight. *Il diags Paper Tr J* 126:45-50 Mr 4 '48;

Same cond. *Paper Ind* 30:283+ My '48

Short-circuit testing; high power equipment in the Nelson laboratories. *Il Electrician* 139:1632-4 D 5 '47

Short-circuit tests predict performance of corroded connectors. R. M. Schaffer and W. H. Knutz. *Elec World* 129:80-2 F 14 '48

Short-circuited turns in coils of broadcast transmitters. K. R. Sturley. *Il Wireless Eng* 25:240-5 Ag '48

Simplified calculation of fault currents. *Elec Eng* 67:1085-7 N '48

SHORTENING

Plastic shortening; patent. *Food Ind* 20:642 Ap '48

See also

Lard

SHOT

Spherical metal formations; wide application of French patent. *Chem Age (Lond)* 58:21 Ja 3 '48

SHOT blasting

Flood lamps illuminate large shot blasting room; Erie works of the General electric co. N. B. Burroughs. *Il Foundry* 76:156 Mr '48

Shot blasting won't break these lamps; PAR-33 lamps at Erie works, General electric co. *Il Nat Safety N* 56:74+ N '47

Western Maryland solves its boiler cleaning problems; installation of shot-blast cleaning room. V. F. Stine. *Il Ry Mech Eng* 122:305-6 Je '48

See also

Shot peening

SHOT effect

Noise in vacuum phototubes at high current levels. R. F. Morrison. *Electronics* 21:126+ N '48

SHOT peening

Advantages of shot-peening. A. Orefice and L. Locati. *Metal Prog* 53:548-9 Je '48

Selective shot peening extends fatigue life; Curtiss-Wright Propeller division. J. Epprecht and H. W. Eberhardt. *Il diags Am Mach* 92:95-8 S 23 '48

Shot-peening aluminum forgings; Pratt & Whitney aircraft division of United Aircraft corp. C. H. Wick. *Il Mach* 54:133-9 N '47

Shot peening castings. C. R. Austin. *Il diags Steel* 122:79-82+ Ap 5 '48

Shotpeening; charts; abstract. F. K. Landecker. *S A E J* 56:65 Ja '48

Shotpeening of nonferrous metals. H. A. Knight. *Il Materials & Methods* 26:83-6 N '47

Shot-peening to increase wear resistance. *World Oil* 127:192 Ap '48

Shot quality, how it affects fatigue life. F. P. Zimmerli. *Steel* 123:126-9 O 18 '48

SHOVELING machines

Long range shovels and draglines for strip-ping. W. Barnes. *Il Engineer* 186:314-16, 330-2, 354-7 S 24-O 8 '48

Machine of 101 uses; Hough Payloader. R. W. Esty. *Il Water & Sewage Works* 95:303-7 S '48

Pneumatic controls for clutches, brakes and linkages; used in type 81 power shovel manufactured by Osgood company. *Il diags Product Eng* 19:96-8 Ja '48

Power shovel principle is used in shaft mucker. J. B. Huttli. *Il diags Eng & Min J* 149:83-5 Je '48

Shovel's circle rails changed in three days. *Il Coal Age* 53:118+ S '48

Strip progress accelerated. *Il Coal Age* 53:70-3 Ja '48

Torque limiters protect shovel drive. *Il Coal Age* 53:108+ JI '48

Manufacture

Air-operated tools in power shovel and crane assembly lines; Thew shovel co., Lorain, Ohio. *Il Mach* 55:191-2 S '48

SHOW rooms. See Showrooms**SHOW windows**

Capturing customers at point-of-sale. *Il Mod Ind* 15:93-4+ Je '48

Department store window space. E. B. Weiss. *Il Ink* 223:86+ Ap 9 '48

How to get your wares into that big window on Main street. J. C. Cumming. *Il Sales Management* 60:84+ F 15 '48

Story of a product to which thousands of buyers said no! transparent plastic sunshades that protect merchandise from sun-fading. *Sales Management* 60:122+ Mr 1 '48

Tests show window displays sell more merchandise. J. W. Maurer. *Il Adv & Sell* 41:39-40+ S '48

See also

Banks and banking—
 Show windows

Contests

Make them want to make them wait; Bendix home appliances. *Il Ptr Ink* 222:42-3 F 6 '48

Lighting

Avoids reflections in show-glass windows; installation at the Thad B. Reese, inc. jewelry store. *Il Elec World* 129:130+ Mr 27 '48

Lighting practices for stores and other merchandising areas. *Il diags Illum Eng* 43:595-604 Je '48

Motion displays

Stop that pedestrian with cleverly conceived and executed displays. A. B. Kaufman. *Il diags Radio & Tv N* 40:66-7+ N '48

SHOWER baths

Shower stall base redesigned to reduce cost. *Il diags Product Eng* 19:97 Ag '48

SHOWROOMS

Bally showroom for shoes. New York city. *Il plan Arch Rec* 103:114-17 Mr '48

Cluett, Peabody tests a new showroom technique. *Il Sales Management* 59:43 N 10 '47

Display of showroom samples simplified by industrial design; Cluett Peabody shows many lines in various patterns and colors. *Il Ptr Ink* 222:36-7 Ja 9 '48

Fabrics; showroom for A. D. Juilliard & co. *Il plan diags Arch Forum* 88:108-9 Mr '48

Flexible and lightweight, Deskey's modular screening system is first step in Boston renovation job; furniture showroom for John H. Pray & sons. *Il diags Arch Forum* 87:106-7 D '47

Four functions of a sales office; illustrations. *Sales Management* 60:92 Ja 15 '48

Furniture showroom and plant. East Orange, N.J. *Il plan Arch Forum* 88:143 My '48

Look at Libbey's display idea center. *Il Sales Management* 60:43 Ja 1 '48

Offices and showrooms with a specialty shop air; Lily of France corset company. New York city. *Il plan Arch Rec* 104:128-31 S '48

Package selling clicks in office furniture; new display rooms of Spak and Natovich in Chicago. *Il Am Bsns* 18:18-19+ Mr '48

Progress in St Louis; American stove company's administrative headquarters and sales display building. *Il plans diags Arch Forum* 89:69-79 O '48

SHOWROOMS—Continued

Showroom and offices serve as building education center for building material dealer. *il Am Bid* 70:120-3 S '48
 Showroom for Magee carpet company. *il plan Arch Forum* 88:106 Mr '48
 Showroom for Nat Halpern wholesale jewelers. *il plan Arch Forum* 88:102-3 Mr '48
 Showroom for Valley upholstery corporation. *il plan Arch Forum* 88:107 Mr '48
 Wholesale showroom for shirts for Cluett, Peabody & co. *il plan diags Arch Forum* 88:104-5 Mr '48

See also

Plumbing shops—
Showrooms

SHREVE, Earl Owen, 1881-

Receives McGraw award. *por Bsns W* p70 Mr 20 '48

SHREVEPORT, Louisiana**Water supply**

Shreveport's new water tank. T. L. Amiss. *il plan diag Water & Sewage Works* 95: 10-12 Ja '48
 Taste and odor control. B. G. Cole. *Am Water Works Assn J* 40:539-46 My '48

SHRIMPS

Acoustical characteristics of noise produced by snapping shrimp. F. A. Everest and others. *il Acoustical Soc Am J* 20:137-42 Mr '48

Bacteria counts of shrimp demonstrate need for better processing methods; *Refrig Eng* 55:381 Ap '48

Shrimp fisherman, Jim Melton. *il Marine Eng* 53:88+ Je '48

SHRINKAGE of metals

Mechanism of sintering. A. J. Shaler and J. Wulff. *bibliog Ind & Eng Chem* 40:838-42 My '48

Shrinkage stresses in spot-welded joints. V. Hauk. *bibliog diags Welding J* 27:sup453-6 S '48

SHRINKAGE of textiles

American association of textile chemists and colorists general research meeting; dimensional changes report. *Am Dyestuff Rep* 36: 783-4 D 29 '47

Knit-goods shrinker ready in nine months. *diag Textile World* 98:150 J1 '48

Shrink-resistant finishes. *Textile Col* 70:38 Ap '48

Shrinkage, swelling and measurements of nylon. *il Rayon* 29:67-9 Ja '48

See also

Cotton fabrics—
Shrinkage
 Rayon fabrics—
Shrinkage

Textile fabrics—
Shrinkage
 Wool—Shrinkproofing
 Woolen and worsted
 fabrics—Shrinkage

Testing

Measurement of shrinkage in socks by the Schlefer measuring device. G. Smith. *bibliog il diag Textile Inst J* 39:S11-20 Ap '48

SHRUBS

Possible importance of annual and perennial shrubs for the German pulp and paper industry. O. Goy. *Paper Tr J* 126:86-7 My 27 '48

SHUGG, Carleton

Portrait. *Bsns W* p50 Ap 10 '48

SHULMAN, Harry, 1903-

Ford-union middleman displeases the union. *por Bsns W* p110 Mr 20 '48

SHUTTLES

Wooden shuttle model can solve size problems; silk shuttle enlarged to accommodate rayon. C. S. Bicksler. *diag Textile World* 98:155-6 Ag '48

SIAM (Thailand)

See also

Budget—Siam

Commerce

Large export trade with United States. *For Comm W* 32:26 S 4 '48

Commercial policy

Exchange controls modified; sterling transferable accounts set up in London. *For Comm W* 30:21-2 F 28 '48

Exports of petroleum products and tin under control of Ministry of commerce; restrictions on exports of coconuts and coconut products. *For Comm W* 32:25 J1 3 '48
 Siam; Swiss francs may be transferred against sterling; other exchange controls modified. *For Comm W* 30:18-19 Ja 24 '48
 Status of United States private trade with the Far East; trade and exchange controls. *For Comm W* 32:46-7 J1 17 '48

SIBERIA

See also

Petroleum—Siberia

Industries and resources

Siberian growth. *map Bsns W* p83 N 29 '47

SICILY

See also

Chemical industries—
Sicily

SICK benefits. *See Sickness benefits.*

SICK leave

Paid sick leave has accumulation privileges. R. Conklin. *Factory Management* 105:127-8 D '47

SICKLEMLIA. *See Anemia*

SICKNESS

Estimate of the incidence of chronic disease. P. S. Lawrence. *bibliog Pub Health Rep* 63:69-82 Ja 16 '48

Illness absenteeism in manufacturing plants in 1947. M. D. Kossoris. *Mo Labor R* 66: 265-7 Mr '48

Illness absenteeism in manufacturing plants, 1947. F. S. McClellroy and A. Moros. *Mo Labor R* 67:235-9 S '48

Sickness absenteeism among industrial workers, first and second quarters of 1947. W. M. Gafafer. *Pub Health Rep* 62:1773-4 D 19 '47

Sickness absenteeism among industrial workers, third and fourth quarters of 1947; trend of disabling morbidity, 1938-47. W. M. Gafafer. *Pub Health Rep* 63:689-92 My 21 '48

Sickness absenteeism among male and female industrial workers, 1937-46, inclusive. W. M. Gafafer. *Pub Health Rep* 62:1538-41 O 24 '47

Studies on the duration of disabling sickness; duration table for specific causes of disability among male workers, W. M. Gafafer and others. *bibliog Pub Health Rep* 63:901-23 J1 9 '48

See also

Diseases
 Infectious diseases
 Insurance, Health

Medical service
 Mortality
 Public health

SICKNESS benefits

Cash sickness laws. A. Pike, jr. *Weekly Underw* 159:1175-7 N 13 '48; Same *abr. East Underw* 49:60-1 O 15 '48; Same *cond. Nat Underw* 52:22+ O 14 '48; Same *cond. Nat Underw (Life ed)* 52:1+ O 15 '48

Protecting distillers workers for a full year; Shenley distillers corp. H. C. Phillips. *Factory Management* 106:123 Ag '48

Sickness benefits for railroad workers, 1947. *Mo Labor R* 66:402 Ap '48

Sickness insurance; its meaning for management. J. J. Wittmer. *Ind Med* 17:149-50 Ap '48

State sickness benefits; program in New Jersey. *Bsns W* p46+ My 22 '48

SIDE lines

Fuller's sideline; brush company adds cosmetics. *Bsns W* p62 J1 10 '48

Rubber industry stretches into non-rubber fields. *il Bsns W* p21-3 S 25 '48

Specialty blitz; Sherwin-Williams nonpaint lines. *Chem Ind* 52:43 Ja '48

Tonight finds peacetime market for war-born tape. E. Huber. *il Sales Management* 60:144+ Ja 15 '48

Traffic items build appliance and fixture sales; dealer picks hardware as showroom traffic builder. *il Dom Eng* 170:94-6+ D '47

SIDEWALKS

Electric snow melting for sidewalks. M. F. Muzzillo. *il Elec World* 129:124+ Ap 10 '48

Sidewalk snow clearing; reports from Canadian cities; with cost data. *il Roads & Bridges* 86:70-1+ F '48

SIDING (building)

Neoprene-washed nails for fastening aluminum roofing and siding. *il* diags Sheet Metal Worker 39:66-8 F '48
 Proper handling of insulation siding. *il* Sheet Metal Worker 39:57-8 Ap '48

SIEFF, Daniel, institute

Work at Israel's Sieff institute. M. Orchin. *il* Chem & Eng N 26:2956-7 O 4 '48

SIERRA NEVADA

Donner Pass zone of deformation, Sierra Nevada, Calif. F. S. Hudson. Geol Soc Bul 59:795-800, pl 1 Ag '48

SIERRA Pacific power company

Bond offered. Comm & Fin Chr 167:2794 Je 28 '48

SIEVES

Laboratory test sieve vibrator. *il* diags Engineer 135:575-6 Je 11 '48

Sieve test of metal powders. R. E. Pollard. bibliog *il* J Res Nat Bur Stand 39:487-505 D '47; Abstract. Steel 122:89-90+ F 23 '48

SIGHT

Analysis of reflected glare. W. G. Darley. *il* diags Illum Eng 43:85-95; Discussion. 95-103 Ja '48

Certain class of binocularly equivalent configurations. A. Stein. diags Opt Soc Am J 37:944-62 D '47

Cutting the cost of poor vision. R. W. Habersat and J. M. Davis. *il* Nat Safety N 57:26-7+ Ap '48

Effect of spectral quality of light on visual performance and fatigue. E. Simonson and J. Brozek. bibliog Opt Soc Am J 38:830-40 O '48

Effects of illumination level on visual performance and fatigue. E. Simonson and J. Brozek. bibliog Opt Soc Am J 38:334-97 Ap '48; Discussion. P. Moon and D. E. Spencer. bibliog 38:650 JI '48

Important uses of industrial vision tests and the medical director. W. G. Morgan and N. F. Stump. *il* Ind Med 17:253-8 JI '48

Insect vision. L. J. Milne and M. J. Milne. *il* diags Sci Am 179:42-5 JI '48

Lighting and visual efficiency: the present status of research. M. E. Bitterman. bibliog Illum Eng 43:906-22; Discussion. 923-31 S '48

Muscular tension as an index of visual efficiency: a progress report. M. E. Bitterman and others. diags Illum Eng 43:1074-81; Discussion. 1081-6 N '48

Quanta explanation of vision and the brightness impression for various times of observation and visual angles. M. A. Bouman and H. A. van der Velden. diags Opt Soc Am J 38:231-6 Mr '48

Recommended footcandle levels for prolonged critical seeing. M. Luckiesh. bibliog Opt Soc Am J 38:712-18 Ag '48

Sensitivity performance of the human eye on an absolute scale. A. Rose. bibliog *il* diags Opt Soc Am J 38:196-208 F '48

Size, shape, and contrast in detection of targets by daylight vision; frequency of seeing and the quantum theory of cone vision. E. S. Lamar and others. bibliog Opt Soc Am J 38:741-55 S '48

Test proves better seeing means more production. *il* Factory Management 105:111-13 D '47

Two-quanta explanation of the dependence of the threshold values and visual acuity on the visual angle and the time of observation. M. A. Bouman and H. A. van der Velden. bibliog Opt Soc Am J 37:908-19 N '47

Two-quanta hypothesis as a general explanation for the behavior of threshold values and visual acuity for the several receptors of the human eye. M. A. Bouman and H. A. van der Velden. bibliog diags Opt Soc Am J 38:570-81 JI '48

Vision standards must be related to mill's own loopers. N. C. Kephart. bibliog Textile World 98:141+ My '48

Visual acuity as measured with various orientations of a parallel-line test object. G. C. Higgins and K. Stultz. Opt Soc Am J 38:756-8 S '48

See also

Color sense

Eye

Lighting

Optics, Physiological

Retina

Space perception

Visibility

SIGHTS for firearms. See Guns, Aircraft—Sights

SIGMA xi

National committee on award for grants-in-aid from the Sigma xi research fund. Science 108:432-3 O 22 '48

SIGNALS, Railroad. See Railroads—Signals

SIGNALS and signaling

Novel foreign chemical and pyrotechnic munitions. J. Goldenson and C. E. Danner. *il* diags Chem & Eng N 26:1976-8 JI 5 '48

See also

Light signals

Mine signals

Radio signals

Railroads—Signals

Significant difference (statistics)

Determination of sample sizes in designing experiments. M. Harris and others. Am Stat Assn J 43:391-402 S '48

Police data. F. Mosteller. Am Stat Assn J 43:231-42 Je '48

SIGNS

See also

Road signs

Safety signs

SIGNS, Electric. See Electric signs

SIGNS, Plastic

Acrylics make sturdy signs for outdoors.

il Plastics 8:20-1 Je '48

Better signs with plastics. *il* Mod Plastics 25:102-7 N '47

Self-illuminated acrylic; Daylight Fluorescent Plexiglas. *il* Mod Plastics 25:164 My '48

Signs award to Socony-Vacuum oil co.; Flying Red Horse trademark. *il* Mod Plastics 26:164-5 S '48

SIGNS, Theater

See also

Moving picture theaters

Billboards

SILAGE

Tests of ensilage cutters driven by 7½-hp motor. J. W. Hall and A. W. Cook. *il* Elec World 129:144+ Ap 10 '48

SILANE

tert-Alkoxyaminosilanes. C. S. Miner, jr. and others. *il* Ind & Eng Chem 39:1368-71 N '47

Chlorides and other derivatives of tetramethylsilane. J. L. Speier and B. F. Daubert. bibliog Am Chem Soc J 70:1400-1 Ap '48

Cyclic dimethylpolymethylenedioxysilanes. R. H. Kriebel and C. A. Burkhard. bibliog Am Chem Soc J 69:2689-92 N '47

Mechanism of the alkaline cleavage of silicohydrogen bonds; temperature coefficients of the rate of cleavage of several trialkylsilanes. F. R. Price. bibliog Am Chem Soc J 69:2600-4 N '47

Some diethylsiloxypropoxyhalogenosilanes and their hydrolysis products. F. A. McCusker and C. E. Greene. Am Chem Soc J 70:2807-8 Ag '48

Use of the Wurtz-Fittig reaction in the preparation of organo-substituted silanes. E. A. Bassett and others. bibliog Soc Chem Ind J 67:177-9 My '48

SILASTIC. See Rubber, Artificial

SILENCERS

Exhaust steam noise quieted by silencers; industrial turbine connected to utility system. *il* Elec World 129:96 F 14 '48

Successful operation of waste heat boilers; combination spark arrestor, silencer and waste heat boiler. W. R. Williamson. *il* diags Diesel Power 25:50-2 D '47

SILENT sound. See Supersonic waves

SILENTZ river

Siletz River volcanic series, northwestern Oregon. P. D. Snively, jr. and E. M. Baldwin. bibliog *il* map Am Assn Pet Geologists Bul 32:806-12 My '48

SILICA

Action of methanol on naphthalene in the presence of catalysts of the alumina-silica type; formation of 2-methylnaphthalene. N. M. Cullinane and S. J. Chard. Chem Soc J p804-5 Je '48

Activated silica sols in water treatment. R. C. Merrill. bibliog diags Ind & Eng Chem 40:1355-9 Ag '48

Analytical treatment of multicomponent systems. L. A. Dahl. bibliog J Phys & Colloid Chem 52:698-729 Ap '48

SILICA—Continued

Exchange reaction between methane and deuteromethanes on silica-alumina cracking catalysts. G. Parravano, E. F. Hammel and H. S. Taylor. *Am Chem Soc J* 70:2269-70 Je '48

How silica reduction in boiler feedwater improved paper mill power plant operation; use of Silmite; Southern advance bag & paper co. D. G. Cooper and J. B. Davis. *Il diag Paper Ind* 29:1440-2+ Ja '48; Same. *Power Generation* 52:52-4+ Je '48

Interferometric method for the calibration of electron microscope magnification. J. L. Farrant and A. J. Hodge. *bibliog Il J Ap Phys* 19:840-4 S '48

Liquid immiscibility in the system $\text{H}_2\text{O}-\text{Na}_2\text{O}-\text{SiO}_2$. O. F. Tuttle and I. L. Friedmann. *Il diag Am Chem Soc J* 70:919-26 Mr '48

Melting points of iron oxides on silica; phase equilibria in the system $\text{Fe}-\text{Si}-\text{O}$ as a function of gas composition and temperature. L. S. Darken. *bibliog diags Am Chem Soc J* 70:2046-53 Je '48

New pigment concept. F. J. Williams and A. R. Pitrot. *bibliog Il diag Ind & Eng Chem* 40:1948-50 O '48

Preliminary study on portions of systems $\text{Na}_2\text{O}-\text{CaO}-\text{Al}_2\text{O}_3-\text{Fe}_2\text{O}_3$ and $\text{Na}_2\text{O}-\text{CaO}-\text{Fe}_2\text{O}_3-\text{SiO}_2$. W. R. Eubank and R. H. Bogue. *bibliog Am Cer Soc J* 31:284-91 O 1 '48; Same. *J Res Nat Bur Stand* 40:225-34 Mr '48

Silica bearing dust. L. E. Hamlin. *bibliog Ind Med* 17:216-20 Je '48

Silica dust census taken; experiments utilizing X-ray diffraction determine percentage of free silica in foundry dust. D. Huffman. *Safety Eng* 95:60-1 Mr '48

Silica-free boiler feed water by ion exchange. W. C. Bauman, J. Eichhorn and L. F. Wirth. *bibliog Il diags Ind & Eng Chem* 39:1453-7 N '47

Silica powder. *Chem Eng* 54:177 D '47

Solubility and transfer of silica and other non-volatiles in steam. T. E. Gillingham. *bibliog diags Econ Geol* 43:241-72 Je '48

Some energy relations in the systems $\text{PbO}-\text{B}_2\text{O}_3$ and $\text{PbO}-\text{SiO}_2$. L. Shartsis and E. S. Newman. *bibliog diags J Res Nat Bur Stand* 40:471-8 Je '48; Same. *Am Cer Soc J* 31:213-19 Ag 1 '48

Surface tension of compositions in the systems $\text{PbO}-\text{B}_2\text{O}_3$ and $\text{PbO}-\text{SiO}_2$. L. Shartsis and others. *bibliog Am Cer Soc J* 31:23-7 Ja 1 '48; Same. *J Res Nat Bur Stand* 40:61-6 Ja '48

Systems $\text{K}_2\text{O}-\text{ZnO}-\text{SiO}_2$, $\text{ZnO}-\text{B}_2\text{O}_3-\text{SiO}_2$, and $\text{ZnSiO}_3-\text{Zn}_2\text{GeO}_4$. E. Ingerson and others. *bibliog Am J Sci* 246:3140 Ja '48

Viscosity studies of system $\text{CaO}-\text{MgO}-\text{Al}_2\text{O}_3-\text{SiO}_2$: $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$. J. S. Machin and T. B. Yee. *Am Cer Soc J* 31:200-4 Jl 1 '48

X-ray diffraction studies of steam turbine deposits. L. A. Burkhardt and C. E. Imhoff. *bibliog Il Ind & Eng Chem* 39:1427-32 N '47

See also

Diatomaceous earth	Sand
Ludox	Water purification—
Quartz	Silica removal

Analysis

Determination of silica in the presence of fluorine and phosphorus. J. A. Brabson and others. *bibliog Anal Chem* 20:504-10 Je '48

Identification of free silica in dusts and fumes. W. H. Gitzen. *Il Anal Chem* 20:265-7 Mr '48

X-ray diffraction analysis of crystalline dusts. H. F. Klug and others. *bibliog J Ind Hygiene* 30:166-71 My '48

SILICA, Colloidal. See Silica gel**SILICA, Fused**

Production of fused silica. B. A. Rogers and others. *bibliog diags Electrochem Soc Trans* 92 (preprint 29):345-56 '47

Water content and infrared transmission of simple glasses. A. J. Harrison. *bibliog Am Cer Soc J* 30:362-6 D 1 '47

SILICA brick

Effect of grain-size distribution on the properties of Dinas made of Karaulnaya Mountain crystalline quartzites; abstract. V. A. Bron and I. P. Bas'vas. *Am Cer Soc J* 31 (Cer A):101 My 1 '48

Factors in service behavior of silica brick. L. A. Smith. *bibliog Blast F & Steel Pl* 36:701-6 Je '48; Excerpts. *Iron & Steel Eng* 25:125-6 Ag '48

Openhearth furnace; making the most of silica roofs. J. H. Chesters. *Il diags Iron Age* 161:72-7 Ap 29; 86-93 My 6 '48

Prevention of silicosis in the steel industry. E. M. Feitman. *Ind Med* 17:266 Jl '48

Use of phase equilibria data in solving technological problems of Dinas; abstract. G. V. Kukolev. *Am Cer Soc J* 31 (Cer A):104 My 1 '48

Analysis

Improvement of analytical control for silica brick. J. T. Rozsa. *Am Cer Soc J* 31:280-3 O 1 '48

SILICA gel

Adsorption; a tool in the preparation of high-purity saturated hydrocarbons. A. E. Hirschler and S. Amon. *bibliog Ind & Eng Chem* 39:1585-96 D '47

Colloidal silica aids woolen and worsted spinning. Sytton. R. L. Brown. *Il Textile World* 98:123+ Ag '48

Desirable desiccant properties for refrigerant water removal. P. L. Veltman and C. E. Waring. *Refrig Eng* 54:550-3+ D '47; Discussion. 55:49-52, 177+ Ja-F '48

Determination of aromatic compounds in petroleum products; chromatographic method. A. L. Conrad. *bibliog Anal Chem* 20:725-6 Ag '48

Determination of chlorinated hydrocarbons in air. J. F. Fahy. *bibliog diag J Ind Hygiene* 30:205-7 My '48

Hygroscopic adsorbents. A. E. Williams. *Chem Age (Lond)* 58:538-40 Je 19 '48

Isomerization of certain olefins by silica gel at room temperature. W. S. Gallaway and M. J. Murray. *Am Chem Soc J* 70:2584-6 Jl '48

Low temperature nitrogen adsorption studies of silica gel. I. Kirshenbaum and R. K. Grover. *Am Chem Soc J* 70:1282-3 Mr '48

Mixed adsorption of radon and argon on silica gel. B. P. Burt and J. D. Kurbatov. *bibliog diag Am Chem Soc J* 70:2278-82 Je '48

Physical studies of gel microstructure. C. G. Shull, F. B. Elklin and L. C. Roess. *bibliog Am Chem Soc J* 70:1410-14 Ap '48

Proposed method of test for aromatic hydrocarbons in mixtures with naphthenes and paraffins by silica gel adsorption. *diags Am Soc T M Proc* 46:356-64 '46

Shale-oil naphthas; analysis of small samples by the silica gel adsorption method. G. U. Dinneen and others. *bibliog diag Anal Chem* 19:392-8 D '47

Sorption-desorption hysteresis characteristics of the system $\text{SiO}_2-\text{H}_2\text{O}$ below the bulk freezing point of water. W. O. Milligan and H. H. Rachford, jr. *bibliog Am Chem Soc J* 70:2922-4 S '48

Studies on aging of precipitates and coprecipitation; the bulkiness and porosity of silica powder. I. Shapiro and I. M. Kolthoff. *bibliog Il J Phys & Colloid Chem* 52:1020-33 Je '48

See also

Santocel

SILICANE. See Silane**SILICATES**

Hydrothermal silicate equilibria; abstract. N. L. Bowen and O. F. Tuttle. *Science* 107:465-6 My 7 '48

New hydrothermal quenching apparatus. O. F. Tuttle. *diags Am J Sci* 246:628-35 O '48

Raman spectrum of tetraethyl orthosilicate. J. Duchesne. *bibliog J Chem Phys* 16:1009-10 O '48

Soluble silicates and the refractories industry. H. L. Bolton. *bibliog Il Am Cer Soc Bul* 27:229-34 Je 15 '48

See also

Aluminum silicates

Ethyl silicate

Glass

Mica

Sodium silicates

Spodumene

Talc

Vermiculite

SILICATES—Continued

Analysis

- Colorimetric methods for rapid analysis of silicate materials; abstract, R. Hedin, *Am Cer Soc J* 31 (Cer A) 43-4 F 1 '48.
- Colorimetric methods for rapid analysis of silicate materials; abstract, R. Hedin, *Rock Prod* 51:85 My '48.

SILICIC acid

- Polysilicic acid esters; preparation from sodium silicate. R. K. Iler and P. S. Pinkney, *bibliog Ind & Eng Chem* 39:1379-84 N '47.

SILICIC acid gel

- Effect of temperature on reactions in gels; an honors course problem, H. H. Fillinger, *il J Chem Educ* 25:102-3 F '48.

SILICOCHLOROFORM. See Trichlorosilane

SILICON

- Abnormal creep in carbon steels; effect of manganese, silicon and molybdenum, J. Glen, *il Iron & Steel Inst J* 155:501-12 Ap '47; Discussion, 157:579-86 D '47.
- Gamma-rays from alpha-particle reactions, D. E. Alburger, *bibliog diag Phys R* 73:1014-19 My 1 '48.
- Methyl silicate from silicon and methanol, E. G. Rochow, *Am Chem Soc J* 70:2170-1 Je '48.
- Microwave converters, using point-contact silicon rectifiers, C. F. Edwards, *diags Inst Radio Eng Proc* 35:1181-91 N '47.
- Mobility of electrons in pure non-polar insulators, F. Seitz, *bibliog Phys R* 73:549-64 Mr 15 '48.
- Photographic study of the neutron spectra from Al(*an*) and Si(*an*), R. A. Peck, Jr., *bibliog Phys R* 73:947-55 My 1 '48.
- Silicic chemistry; a new branch of colloid science, E. A. Hauser, *bibliog il diags J Phys & Colloid Chem* 52:1165-74 O '48.
- Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz, L. J. Rainwater and others, *Phys R* 73:733-41 Ap 1 '48.

Analysis

- Determination of phosphorus, germanium, silicon, and arsenic by the heteropoly blue method, D. F. Boltz and M. G. Mellon, *bibliog Anal Chem* 19:873-7 N '47.
- Determination of silicon and manganese in iron and steel, *Metallurgia* 38:346-52 O '48.
- Determination of silicon in organosilicon compounds, J. A. McHard, P. C. Servais and H. A. Clark, *bibliog Anal Chem* 20:325-8 Ap '48.
- Determination of trace impurities in high-purity magnesium and calcium, S. Abbey, *bibliog Anal Chem* 20:630-4 JI '48.
- Direct-reading silicon meter for electrical sheet steels and a note on resistivity, N. F. Astbury and S. P. Roper, *diags J Sci Instr* 25:191-3 Je '48.
- Improved gravimetric determination of silicon in aluminum alloys, developed in Germany during the war, W. Stross, *bibliog Metallurgia* 38:63-5 My '48.
- Improved spectrographic source, C. Braudo and H. R. Clayton, *bibliog il diags Soc Chem Ind J* 66:259-67 Ag '47.
- Phosphoric acid attack method for determination of silicon in aluminum alloys, G. Norwitz, *Anal Chem* 20:182 F '48.
- Rapid determination of small amounts of silicon in magnesium alloys, D. F. Phillips and S. E. Hermon, *Metallurgia* 38:179-80 JI '48.
- Spectrographic determination of sodium in a silica-alumina catalyst, J. B. Marling, *bibliog Anal Chem* 20:299-300 Ap '48.

Isotopes

- Proton-gamma-ray coincidence counting with cyclotron bombardment, B. B. Benson, *bibliog il diags Phys R* 73:7-15 Ja 1 '48.
- Rotation vibration levels of the Si²⁸ and Al²⁷ nuclei, H. A. Wilson, *Phys R* 74:352 Ag 1 '48.

SILICON alloys

- Copper-aluminum-silicon alloys, *Engineer* 185:520 My 28 '48.
- Copper-rich corner of the copper-aluminum-silicon diagram, F. H. Wilson, *bibliog il Metals Tech* 15:TP2329 1-12 F '48; Discussion, *il* 15:TP2449 41-50 Ag '48.

- Corrosion tests of heater-tube materials for acid concentration service, H. F. Brown, *il Oil & Gas J* 46:134-7+ Ap 29 '48.

- Equilibrium of iron-carbon-silicon and of iron-carbon-manganese alloys with mixtures of methane and hydrogen at 1000°, R. P. Smith, *bibliog Am Chem Soc J* 70:2724-9 Ag '48.

- Kappa eutectoid transformation in the copper-silicon system, W. R. Hibbard, Jr. and others, *bibliog il Metals Tech* 15:TF2441 1-9 S '48.

See also

- Silicon bronze
Silumina

SILICON bronze

- Silicon bronze welding problems overcome through inert-arc method, P. J. Gurklis, *il Materials & Methods* 27:66-9 F '48.

SILICON carbide

- Experiences with silicon carbide linings in water gas generators, T. A. Corby, *bibliog Am Gas Assn Proc* 1947:620-30.
- Ladle deoxidation of killed steel with silicon carbide and its effect on physical properties and hardenability, E. A. Loria and A. P. Thompson, *bibliog il Am Soc for Metals Trans* 39:651-65; Discussion, 665-9 '47.
- Silicon carbide non-ohmic resistors, F. Ashworth and others, *il diags Inst E E J* 93 pt 1:385-401 *bibliog*(p393-4) S '46; Discussion, 93 pt 1:401-5, 595-8; 95 pt 1:244-6 S, D '46, Je '48.

SILICON compounds

- Acylation reactions with organosilicon compounds, R. A. Benkeser and R. B. Currie, *bibliog Am Chem Soc J* 70:1780-2 My '48.
- t-Butylsilicon compounds, L. J. Tyler, L. H. Sommer, and F. C. Whitmore, *bibliog Am Chem Soc J* 70:2876-8 S '48.
- Competitive reactions between trialkylchlorosilanes and alkylmagnesium bromides, L. H. Sommer, G. T. Kerr and F. C. Whitmore, *bibliog Am Chem Soc J* 70:434-5 Ja '48.
- Cyclic dimethylpolymethylenedioxysilanes, R. H. Krieble and C. A. Burkhard, *bibliog Am Chem Soc J* 69:2689-92 N '47.
- Determination of silicon in organosilicon compounds, J. A. McHard, P. C. Servais and H. A. Clark, *bibliog Anal Chem* 20:325-8 Ap '48.
- Further studies of β -eliminations involving silicon, L. H. Sommer, D. L. Bailey and F. C. Whitmore, *bibliog Am Chem Soc J* 70:2869-72 S '48.
- Imparting water-repency to textiles by chemical methods; a review of the literature; silicon derivatives and miscellaneous compounds, H. A. Schuyten and others, *bibliog Textile Res J* 18:502-3 Ag '48.
- New synthesis of organosilicon compounds, E. W. Pietrusza, L. H. Sommer and F. C. Whitmore, *bibliog Am Chem Soc J* 70:484-6 F '48.
- Organic silicon compounds; symposium, H. D. Cogan and others, *il Ind & Eng Chem* 39:1364-409 N '47.
- Polysilimethylene compounds and their siloxy derivatives, B. A. Bluestein, *bibliog Am Chem Soc J* 70:3068-71 S '48.
- Preparation and properties of trimethylsilylmethanol, J. L. Speier, B. F. Daubert and R. R. McGregor, *bibliog Am Chem Soc J* 70:1117-19 Mr '48.
- Raman spectrum of trimethyl silicon chloride, J. Duchesne, *J Chem Phys* 16:1006-7 O '48.
- Reaction of olefins and chlorohydrasilanes, A. J. Barry and others, *Am Chem Soc J* 69:2916 N '47.
- Reactions of allyltrimethylsilane, L. H. Sommer, L. J. Tyler and F. C. Whitmore, *bibliog Am Chem Soc J* 70:2872-4 S '48.
- Reactions of trimethylsilyl sulfate, L. H. Sommer, G. T. Kerr and F. C. Whitmore, *bibliog Am Chem Soc J* 70:445-7 F '48.
- Some reactions of trialkylaminosilanes, D. L. Bailey, L. H. Sommer and F. C. Whitmore, *Am Chem Soc J* 70:435-6 Ja '48.
- Synthesis and cleavage of ethyl trimethylsilylacetate, J. R. Gold, L. H. Sommer and F. C. Whitmore, *bibliog Am Chem Soc J* 70:2874-6 S '48.
- Trimethylhalosilane preparations, B. O. Pray and others, *bibliog Am Chem Soc J* 70:483-4 Ja '48.

SILICON compounds—Continued

Trimethylsilylcellulose. H. A. Schuyten and others. *bibliog Am Chem Soc J* 70:1919-20 My '48

Use of the Wurtz-Fittig reaction in the preparation of organo-substituted silanes. E. A. Bassett and others. *bibliog Soc Chem Ind J* 67:177-9 My '48

See also

Chlorosilane

Silica

Silicates

Silicones

SILICON fluoride

Dissociation of SF_6 , CF_4 , and SiF_4 by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog J Res Nat Bur Stand* 40: 25-9 Ja '48

SILICON halides

Some systems of silicon halides with dioxane. S. M. S. Kennard and P. A. McCusker. *bibliog Am Chem Soc J* 70:1039-43 Mr '48

SILICON hydrides

Mechanism of the alkaline cleavage of silicon-hydrogen bonds; temperature coefficients of the rate of cleavage of several trialkylsilanes. F. R. Price. *bibliog Am Chem Soc J* 69:2600-4 N '47

Preparation and some properties of hydrides of elements of the fourth group of the periodic system and of their organic derivatives. A. E. Finholt and others. *bibliog Am Chem Soc J* 69:2692-6 N '47

SILICON isocyanate

Methyl silicon isocyanates and *n*-butyl silicon trisocyanate. G. S. Forbes and H. H. Anderson. *bibliog Am Chem Soc J* 70:1222-3 Mr '48

Phenyl and ethoxy silicon isocyanates. G. S. Forbes and H. H. Anderson. *Am Chem Soc J* 70:1043-4 Mr '48

Silicon oxysocyanates and silicon oxyisothiocyanate. G. S. Forbes and H. H. Anderson. *bibliog Am Chem Soc J* 69:3048-9 D '47

SILICON isothiocyanate

Methyl silicon isothiocyanates; molar refractions. H. H. Anderson. *bibliog Am Chem Soc J* 69:3049-51 D '47

Phenyl silicon isothiocyanates. H. H. Anderson. *bibliog Am Chem Soc J* 70:1220-2 Mr '48

Silicon oxysocyanates and silicon oxyisothiocyanate. G. S. Forbes and H. H. Anderson. *bibliog Am Chem Soc J* 69:3048-9 D '47

SILICON oxysocyanate

Silicon oxysocyanates and silicon oxyisothiocyanate. G. S. Forbes and H. H. Anderson. *bibliog Am Chem Soc J* 69:3048-9 D '47

SILICON steel

Anisotropic strains produced by surface abrasion, and their effect on the magnetic properties of silicon sheet steel. R. G. Martindale. *bibliog diags Inst E E J* 95 pt 2: 620-6 O '48

Direct-reading silicon meter for electrical sheet steels and a note on resistivity. N. F. Astbury and S. P. Roper. *diags J Sci Instr* 25:191-3 Je '48

New silicon strip cold mill: West Leechburg plant of the Allegheny Ludlum steel corp. F. R. Grant. *il Iron Age* 160:79-83 N 20 '47

Resin bonding of silicon steels in electrical laminated cores. S. B. Ashkinazy and J. J. Freisler. *il Product Eng* 19:85-9 N '48

SILICON tetrachloride

Alkyl, aryl, and alkoxy-derivatives of silicon tetrachloride and silicochloroform. H. J. Emeléus and S. R. Robinson. *Chem Soc J* p 1592-4 D '47

Forces between tetrahalide molecules. J. H. Hildebrand. *bibliog J Chem Phys* 15:727-36 O '47

Industrial uses of silicon tetrachloride. H. G. Emblem and G. E. Stockwell. *Chem Age (Lond)* 59:483-4 O 9 '48

Use of the Wurtz-Fittig reaction in the preparation of organo-substituted silanes. E. A. Bassett and others. *bibliog Soc Chem Ind J* 67:177-9 My '48

SILICONES

Behavior of silastic on aging. G. M. Konkle, R. R. Selfridge and P. C. Servais. *bibliog il Ind & Eng Chem* 39:1410-13 N '47

Chemistry of silicones. E. G. Rochow. *il Sci Am* 179:50-3 O '48

Contribution to the direct synthesis of phenylchlorosilanes. L. Riccoboni and M. Zotta. *bibliog diag Soc Chem Ind J* 67:235-7 Je '48

Determination of functionality in methyl silicone systems. G. F. Roedel. *bibliog Anal Chem* 20:705-7 Ag '48

Effects of silicone vapor on brush wear; abstract. J. Marsden and R. H. Savage. *il Elec Eng* 67:1084 N '48

Flammability of the higher boiling liquids and their mists. M. V. Sullivan, J. K. Wolfe and W. E. Zisman. *bibliog il diag Ind & Eng Chem* 39:1607-14 D '47

General Electric completes full-scale silicone plant at Waterford. *il Chem Ind* 63:220-2 Ag '48

General Electric completes silicone plant at Waterford. *il Rubber Age* 63:483 J1 '48

G.E.'s silicone production goes commercial. *il Bsns W* p21 J1 3 '48

Higher ratings for totally-inclosed non-ventilated motors by using high temperature insulation; abstract. W. H. Formhals and G. P. Gibson. *Product Eng* 18:134-5 N '47

Industrial alcohol versus construction materials. J. A. McHard and L. Van Volkinburg. *Chem Eng* 55:235-6 O '48

Insulation, electrical and thermal; silicone insulating varnishes and molding compounds protect motors. *il Product Eng* 19:133 S '48

Low-voltage, air-cooled transformers designed for 225C operation; silicone insulation development. J. F. Dexter and others. *bibliog il Elec World* 130:97-9+ Ag 14 '48

Melting-point bath liquids; Aroclor 1248 and silicone oil 9931-LTNV-40. J. L. Hartwell. *Anal Chem* 20:374-6 Ap '48

New plant answers demand for silicones. *il Product Eng* 19:146 Ag '48

Nitric acid versus construction materials. J. A. McHard. *Chem Eng* 55:232+ Mr '48

Polymethylsiloxanes; thermal and oxidation stabilities. D. C. Atkins, C. M. Murphy and C. B. Saunders. *bibliog Ind & Eng Chem* 39:1395-401 N '47

Polyorganosiloxanes; surface active properties; polymethylsiloxanes and the related polymers. H. W. Fox, P. W. Taylor and W. A. Zisman. *bibliog il Ind & Eng Chem* 39:1401-9 N '47

Polysiloxane elastomers. C. M. Doede and A. Panagrossi. *bibliog Ind & Eng Chem* 39: 1372-5 N '47

Silicone eye glass cleaner. *Chem Ind* 62:776 My '48

Silicone golf-ball center. *Mech Eng* 70:343-4 Ap '48; *Gen Elec R* 51:60-1 Ap '48

Silicone insulations reduce motor failures. F. S. Campbell. *il Power Generation* 52:76-7 F '48

Silicone lubricants; abstract. J. E. Brophy and others. *Machine Design* 20:200+ F '48

Silicone materials production; General Electric completes new chemical plant. *il Plastics* 8:28-5 S '48

Silicone molding compounds. *Mod Plastics* 25:183 Je '48

Silicone oils. *Chem & Eng N* 25:3520 N 24 '47

Silicone oils designed for high temperature use. *Elec World* 129:174-5 Ja 17 '48

Silicone production steps up; plant for Chemical department of the General electric co. *il Mod Plastics* 25:88-9 Ag '48

Silicone products hit the counters. *il Plastics* 8:24-5 Mr '48

Silicone resins; use in protective and decorative finishes. J. R. Patterson. *il Ind & Eng Chem* 39:1376-9 N '47

Silicone rubber; new properties for design engineers. G. S. Irby, Jr. and others. *il A S M E Trans* 70:331-6 O '48; Same. *India Rubber World* 117:605-8+ F '48; Excerpts. *Machine Design* 20:212+ Je '48

Silicone water repellent now applicable to all fibers. F. L. Dennett. *Textile World* 98: 124+ My '48

Silicone window gasket. *il Mod Plastics* 25: 148 Ag '48

Silicones and their application to the textile industry. F. L. Dennett. *bibliog il Am Dyestuff Rep* 36:748-53 D 15 '47

Silicones for electrical insulation. K. N. Mathes. *Paper Ind* 29:1516-17+ Ja '48

Silicones use reported; abstract. K. W. Given. *Oil Paint & Drug Rep* 152:61 N 3 '47

Some modern developments in electrical insulation. R. Snadow. *Engineer* 186:171 Ag 13 '48

Still more silicones; widening applications in many industries. *il Chem Age (Lond)* 59: 221 Ag 14 '48

SILICONES—Continued

- Sulphuric acid versus construction materials. J. A. McHard, *Chem Eng* 55:228+ J1 '48
 Transportation award to American locomotive company; silicone rubber, *Il Mod Plastics* 28:180-1 S '48
 Welding facilitates assembly of silicone engine dampers, J. Geschelin, *Il diag Automotive Ind* 97:24-5 D 1 '47

SILICOSIS

- Apparatus for dispensing aluminum dust in the treatment of silicotics, F. W. Church and F. R. Ingram, *diags J Ind Hygiene* 30:246-50 J1 '48
 Diseases of metal miners, W. Schweisheimer, *Can Min J* 68:903-4 D '47
 Effect of the use of calcined alumina in china biscuit placing on the health of the workmen; a field study in a group of pottery workers in North Staffordshire, A. Meiklejohn and W. W. Jones, *bibliog J Ind Hygiene* 30:160-5 My '48
 Employability of silicotic subjects, summary of report of the Minnesota survey; abstract, L. U. Gardner, *Nat Safety* N 57:73-4 Ja '48
 Influence of particle size in dust exposure, T. Hatch and W. C. L. Hemeon, *bibliog diags J Ind Hygiene* 30:172-80 My '48
 New data on the use of aluminum and of alumina in the prophylaxis and treatment of silicosis; abstract, A. Pollicard, *J Ind Hygiene* 29:sup 114-15 N '47
 Prevention of silicosis in the steel industry, E. M. Feiman, *Ind Med* 17:266 J1 '48
 Radiologic diagnosis of silicosis; abstract, F. Manchon and A. Modolell, *J Ind Hygiene* 29:sup 112-13 N '47
 Review of the work of the Silicosis medical bureau, Johannesburg; abstract, J. M. Smith, *J Ind Hygiene* 30:sup 28 Mr '48
 Silica bearing dust, L. E. Hamlin, *bibliog Ind Med* 17:216-20 Je '48
 Silicosis in workmen in the Alzo granite quarries; abstract, E. Zanetti, *J Ind Hygiene* 30:sup 91 S '48
 Silicosis study and management in the Calumet industrial area, C. W. Rauschenbach and others, *bibliog Ind Med* 17:1-6 Ja '48
 Silicosis, tuberculosis, and anthracosis; abstract, J. André, *J Ind Hygiene* 30:sup 91-2 S '48
 Solubility theory of silicosis; a critical study; abstract, E. J. King, *J Ind Hygiene* 30:sup 30-1 Mr '48

SILK

- Raw silk; abstract, P. W. Gaddum, *Textile Inst J* 38:P630 D '47
 Surgical use of nylon, rayon and silk, W. Schweisheimer, *Rayon* 29:79-80 F '48

Prices

- Fiber of princes falls to comparative levels, J. W. Roberts, *Barron's* 28:37 Je 28 '48

SILK fabrics**Testing**

- Abnormal weft bursting pressures in silk fabric for parachutes, A. R. Docking and J. A. Wilding, *Textile Inst J* 39:T142-7 Ap '48; Discussion, 39:T282-4 Ag '48

SILK mills

- Silk throwing industry in Australia, C. Lynch, *Il Rayon* 29:49 Je '48

Air conditioning

- Air conditioning equipment for new weaving mill installed on platforms; F. Ducharme silk co. *Il Heating-Piping* 20:95 Mr '48

SILK screen printing

- Agar, for screen printed fabrics; British patent, *diags Am Dyestuff Rep* 37:134 F 23 '48
 Methods in screen printing, F. F. Jacobs, *Il Rayon* 28:607-9 N '47
 New textile colors for screen printers, G. W. Leffingwell and O. S. Linkletter, *Il Rayon* 28:659-60 D '47; 29:79-80 Ja; 89-92 F '48
 Printers and advertisers in England are finding new use for silk screen process, *Inland Ptr* 121:46-7 S '48
 Screen printing of textiles, E. S. Beton, *Soc Dyers & Col J* 64:276-8 Ag '48
 Short runs are profitable, B. Ellison, *Textile Col* 70:25+ S '48

SILK throwing

- Natural silk; throwing with non-alkaline solutions; patent, *Am Dyestuff Rep* 37:632 S 20 '48

SILK trade

- Fiber of princes falls to comparative levels, J. W. Roberts, *Barron's* 28:37 Je 28 '48
 Part played by silk, *Textile Col* 70:14-15 Ja '48

Statistics

- Silk; imports and prices, data as available, 1941-1946, Survey of Cur Bsns 1947 Sup p 175 [supplemented in monthly numbers]

Australia

- Silk throwing industry in Australia, C. Lynch, *Il Rayon* 29:49 Je '48

China

- China seeks U.S. market for raw silk, *For Comm W* 29:13-14 N 29 '47

Korea

- Korean silk trade stimulated by U.S. army, *Textile Col* 70:30 Ag '48

SILK weaving

- Advantage of statistical data on weaving performance and quality, O. Bitzenhofer, *Rayon* 29:61-2 Ja; 65-6 F; 52-4 Ap '48

SILK yarn

- Valuable comparative yarn tables, A. L. Dorgin, *Rayon* 29:51 Je '48

SILLERY, Quebec**Water supply**

- Canada's first welded elevated tank for municipal water service, *Il Water & Sewage* 85:23+ D '47

SILLIMAN, Benjamin, 1779-1864

- American journal of science, 1818-1948, E. W. Sinnott, *por Science* 108:227-9 S 3 '48

SILOS

- Tests of 7½ hp motor for silo elevator, J. W. Hall and A. W. Cook, *Il Elec World* 129:130 Mr 27 '48

SILOS, Concrete

- Keep workmen busy the year round; precast reinforced concrete staves for silo construction, manufactured by Mason & Lawrence, D. Mocine, *Il Rock Prod* 51:161+ Ja '48

SILOXANES

- Butoxychlorosilanes; hydrolysis and condensation, R. K. Iler, *bibliog Ind & Eng Chem* 39:1384-8 N '47

- Determination of functionality in methyl silicone systems, G. F. Roedel, *bibliog Anal Chem* 20:705-7 Ag '48

- Freezing point depression of sulfuric acid by siloxanes, F. F. Price, *Am Chem Soc J* 70:871-2 F '48

- Methylphenylpolysiloxanes, R. N. Lewis, *bibliog Am Chem Soc J* 70:1115-17 Mr '48

- Polymethylsiloxanes; thermal and oxidation stabilities, D. C. Atkins, C. M. Murphy and C. E. Saunders, *bibliog Ind & Eng Chem* 39:1395-401 N '47

- Polyorganosiloxanes; surface active properties; polymethylsiloxanes and the related polymers, H. W. Fox, P. W. Taylor and W. A. Zisman, *bibliog Il Ind & Eng Chem* 39:1401-9 N '47

- Poly siloxane elastomers, C. M. Doede and A. Panagrossi, *bibliog Ind & Eng Chem* 39:1372-5 N '47

- Properties of polyorganosiloxane surfaces on glass, M. J. Hunter and others, *bibliog Ind & Eng Chem* 39:1389-95 N '47

SILT

- Causes and effects of sedimentation in Lake Decatur, C. B. Brown and others, *Am Water Works Assn J* 40:1135-6 O '48

- Concept of the graded river, J. H. Mackin, *diag Geol Soc Bul* 59:463-511 bibliog(p 509-11) My '48

- European harbor installations; attempts to reduce silting, G. F. Dixon, *Civil Eng* 18:244 Ap '48

- Theory of surface cracks in mud and lava and resulting geometrical relations, L. I. Hewes, *diags Am J Sci* 246:138-49, pl 1 Mr '48; Discussion, H. Simpson, 246:591-2 S '48

SILUMIN

- Influence of chemical composition and quality of raw materials on the physical properties of silumin gamma, V. Zednik, *Il diags Metallurgia* 37:195-200, 263-7 F-Mr '48

SILVER

Acidic properties of cotton cellulose and derived oxycelluloses; a comparison of various methods proposed for the determination of carboxyl content, G. F. Davidson and T. P. Nevell, *bibliog Textile Inst J* 39:1102-17 Mr '48

Acidic properties of cotton cellulose and derived oxycelluloses; absorption of silver from silver nitrophenate solutions, G. F. Davidson and T. P. Nevell, *bibliog Textile Inst J* 39:1102-17 Mr '48

Basic strength of amines as measured by the stabilities of their complexes with silver ions, R. J. Bruehlman and F. H. Verhoek, *Am Chem Soc J* 70:1401-4 Ap '48

Corrosion of silver in a water saturated chlorine atmosphere, H. B. Linford and M. J. Ford, *bibliog Electrochem Soc J* 93:16-26 Ja '48

Influence of atmosphere firing on the cathodoluminescence of zinc sulfide; silver type phosphors, A. L. Smith, *bibliog diag Electrochem Soc J* 93:324-33 Je '48

Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals, J. J. Lander, *bibliog diags Phys R* 74:479-88 Ag '48

Nature of negative ions in liquid hydrocarbons, A. Gemant, *Electrochem Soc J* 94:160-70 O '48

Preparation of silver for use in Walden silver reductor, G. F. Smith and F. W. Cagle, jr., *Anal Chem* 20:183 F '48

Reversible photolysis of Ag sorbed on colloidal metal oxides, A. Goetz and E. C. Y. Inn, *il diag Rs Mod Phys* 20:131-42 Ja '48

Vibrational spectrum and specific heat of a face-centered cubic crystal, R. B. Leighton, *Rs Mod Phys* 20:165-74 Ja '48

Analysis

Assaying gold and silver in works products, C. C. Downie, *Can Min J* 68:321-3 N '47

Colorimetric determination of micro amounts of silver and silver halides, S. Siggia, *Anal Chem* 19:923-4 N '47

Determination of silver and copper in one sample of plating solution, L. Silverman, *Metal Finishing* 45:80-2 N '47

Determination of silver with ascorbic acid, E. C. Stathis, *Anal Chem* 20:271 Mr '48

Industrial applications

Characteristics of silver and copper for use as electrical contacts, B. W. Jones and L. L. Zickbrick, *il Product Eng* 18:104-7 N '47

Printed vitreous enamel components; produced by sprayed-enamel printed-silver process, C. I. Bradford and others, *il diags Electronics* 20:106-8 D '47

Role that silver played in wartime power transformers, L. H. Burnham, *il Gen Elec R* 50:34-6 D '47

See also

Silver solder

Isotopes

Electro-disintegration of Cu^{63} , Ag^{107} , and Ag^{109} , L. S. Skaggs and others, *bibliog Phys R* 73:420 F '48

Excitation curves of (α, n) ; $(\alpha, 2n)$; and $(\alpha, 3n)$ reactions on silver, S. N. Ghoshal, *Phys R* 73:417-18 F '48

Relative yields of (α, n) and $(\alpha, 2n)$ reactions for Ag and Rh with 15-20-Mev alpha-particles, H. L. Bradt and D. J. Tendam, *Phys R* 72:1117-18 D '47

Prices

Silver; annual review and forecast, P. McCarran, *il Min Cong J* 34:92-3 F '48

Silver, 1947, D. H. Leavens, *Eng & Min J* 149:73-5 F '48

Statistics

Gold and silver, 1941-1946, Survey of Cur Bsns 1947 Sup p84-5 [supplemented in monthly numbers]

SILVER acetate

Equilibria in silver acetate solutions, F. H. MacDougall and S. Peterson, *bibliog J Phys & Colloid Chem* 51:1346-61 N '47

SILVER alloys

High strength-high conductivity copper-silver alloy wire, W. Hodge and others, *bibliog il Metals Tech* 15:TP2366 1-17 Je '48

See also

Silver solder

SILVER amines

Basic strengths of amines as measured by the stabilities of their complexes with silver ions, R. J. Bruehlman and F. H. Verhoek, *Am Chem Soc J* 70:1401-4 Ap '48

SILVER as money

Gold and silver, J. Dana, *il Mag of Wall St* 81:340-1+ Ja '48

Silver; annual review and forecast, P. McCarran, *il Min Cong J* 34:92-3 F '48

Great Britain

Silver hoarding, *Economist* 154:74 Ja 10 '48

SILVER brazing. See Silver solder

SILVER chloride

AgCl as a temperature indicator for hand torching in high vacuum work, J. Rothstein, *R Sci Instr* 18:856 N '47

Apparatus for the detection and estimation of small amounts of chloride, B. A. Scott, *diags Soc Chem Ind J* 67:1-2 Ja '48

Behavior of silver chloride crystal counters, R. Hofstadter and others, *Phys R* 72:977-8 N '47

Effects of space charge on the detection of high energy particles by means of silver chloride crystal counters, L. F. Wouters and R. S. Christian, *Phys R* 72:1127-8 D '47

Low frequency dispersion in ionic crystals, R. G. Breckenridge, *bibliog J Chem Phys* 16:959-67 O '48

Technique for obtaining increased range and mobility of free electrons in silver chloride, J. R. Haynes, *R Sci Instr* 19:51 Ja '48

Tensile properties of rolled silver chloride, B. M. Axilrod and J. J. Lamb, *J Ap Phys* 19:213-6 F '48

SILVER CREEK (New York) precision corporation

Common stock offered, *Comm & Fin Chr* 166:2146 N 24 '47

SILVER cyanide

Some mathematical relations involving the solubility of silver cyanide, J. E. Ricci, *bibliog J Phys & Colloid Chem* 51:1375-94 N '47

SILVER halides**Analysis**

Colorimetric determination of micro amounts of silver and silver halides, S. Siggia, *Anal Chem* 19:923-4 N '47

SILVER industry and trade

London bullion market; silver trading under difficulties, *Economist* 154:680-1 Ap 24 '48

Review of the silver market for 1947, *Can Min J* 69:125-8 F '48

Silver; annual review and forecast, P. McCarran, *il Min Cong J* 34:92-3 F '48

Statistics

Silver, 1947, D. H. Leavens, *Eng & Min J* 149:73-5 F '48

SILVER iodobenzoate

Hydroxylated stearic acids; action of Prévost's reagent on oleic and elaidic esters; evidence for configuration of the hydroxy acids, H. Wittcoff and S. E. Miller, *bibliog Am Chem Soc J* 69:3138-9 D '47

SILVER mines and mining**Bolivia**

Tin-silver veins of Oruro, Bolivia, F. M. Chace, *bibliog maps plans diags Econ Geol* 43:333-83, pl 1-8, 435-70, pl 1-12 Ag-S '48

Colorado

History of western mines; Silverton dream, J. McCaleb, *Can Min J* 68:383 D '47

Old Colorado silver mine being reopened; Caribou mine, L. A. Luther, *il Comp Air Mag* 53:26-9 F '48

Idaho

Methods and costs of sinking a 2½-compartment shaft at the Hope mine, Clark Fork, Idaho, R. J. Hundhausen, *4pls U S Bur Mines Information Circ* 7426:1-13 '48

SILVER mines and mining—Idaho—Continued

Methods and costs of sinking the Silver Summit shaft, Wallace, Idaho, using a mechanical mucking machine. G. M. Grismer and R. J. Hundhausen. 4pls U S Bur Mines Information Circ 7425:1-12 '48
Silver Summit opens rich ore. R. E. Sorenson. map diag Eng & Min J 149:70-3+ J1 '48

Mexico

Mineral relationships in the ores of Pachuca and Real del Monte, Hidalgo, Mexico. E. S. Bastin. bibliog il Econ Geol 43:53-65 Ja '48; Reply. E. Wisser. map diag 43:280-92 Je '48

Montana

Reopening three shipping-grade mines; the U. S. Grant, Alameda-Bamboo Chief and Easton-Pacific mines. W. H. Myers. il plan Min Cong J 34:78-81 Ap '48

Nevada

Famous western mines; legend of the lost silver treasure. J. McCaleb. Can Min J 69:63 Ja '48

Washington (state)

Knob Hill mine prospers on newer ore discoveries. J. B. Huttli. flow sheet il diag Eng & Min J 149:56-9 Mr '48

SILVER nitrate

Analytical boundary method for the determination of transference numbers. A. P. Brady. bibliog diag Am Chem Soc J 70: 911-14 Mr '48

Argentometric microdetermination of organic chlorine. K. Sisido and H. Yagi. bibliog Anal Chem 20:677-8 J1 '48

Determination of acetylene in gas. J. A. Shaw and E. Fisher. bibliog il Anal Chem 20:533-6 Je '48

Properties of electrolytic solutions; conductance of some inorganic and organic electrolytes in pyridine at 25°. W. F. Luder and C. A. Kraus. bibliog Am Chem Soc J 69:2481-3 O '47

Silver nitrate crystals mass-produced by a new continuous process. il Sci Am 177:268-9 D '47

SILVER nitrophenate

Acidic properties of cotton cellulose and derived oxycelluloses: absorption of silver from silver nitrophenate solutions. G. F. Davidson and T. P. Nevell. bibliog Textile Inst J 39:T93-101 Mr '48

SILVER ores

Mineral relationships in the ores of Pachuca and Real del Monte, Hidalgo, Mexico. E. S. Bastin. bibliog il Econ Geol 43:53-65 Ja '48; Reply. E. Wisser. map diag 43:280-92 Je '48

Synthesis of some sulpharsenites of silver in alkali sulphide solutions. R. Béland. bibliog il Econ Geol 43:119-32 Mr '48

SILVER oxide

Vapor-phase hydration of ethylene oxide; silver oxide catalyst. R. R. Cartnell and others. bibliog flow diag Ind & Eng Chem 40:389-92 Mr '48

SILVER perchlorate

Properties of electrolytic solutions; conductance of some inorganic and organic electrolytes in pyridine at 25°. W. F. Luder and C. A. Kraus. bibliog Am Chem Soc J 69:2481-3 O '47

SILVER plating

Blistering of silver plating at high temperature. C. F. Floe and M. B. Bever. Metal Prog 53:247-8 F '48

Influence of internal stress on the structure of electro-deposits. M. R. J. Wyllie. il diags J Chem Phys 16:57-60 Ja '48

See also**Silvering****SILVER solder**

ABC's of silver alloy brazing. W. J. Van Natten. il Iron Age 161:51-5 Ja '48

Better silver brazing methods improve refrigeration equipment. A. W. Swift. il diags Refrig Eng 55:556-9 Je '48

Brazing cast iron. S. D. Heron. il diags Automobile Eng 38:149-51 Ap '48

Designing for silver brazing by induction heating. F. W. Curtis. il diags Product Eng 19:109-13 Ag '48

Electric furnace brazing for mass production; Sunbeam corp. H. Eickelberg. il Iron Age 160:56-9 D 18 '47

How brazing methods affect design of details. S. DeDomenico and A. Squire. il diags Product Eng 19:86-91 Ap '48

Kolene process aids silver brazing of cast iron. E. R. Atkinson. diag Iron Age 160: 85 N 6 '47

Pipe fittings without threads assembled by brazing. il Mach 54:170 Ja '48

Precision soldering of small parts; Zenith hearing aid. il Iron Age 162:77 S 9 '48

Production methods of low-temperature silver alloy brazing. A. M. Setapen. il diag Welding J 27:136-9 F '48

Silver brazology. E. L. Cady. il Mill & Factory 42:137-40 Ja '48

Threadless fitting for pipe. il Heat & Ven 45:101-2 Ja '48

Threadless pipe fittings. il Mech Eng 70: 148-50 F '48

Welding and low-temperature brazing of air conditioning and refrigeration parts. W. Swarthout. il Welding J 27:511-16 J1 '48; Same cond. Steel 123:116+ S 13 '48

SILVERING

Method for silvering a Dewar flask for optical experiments. J. S. Haynes and J. F. Scott. diags Science 107:301 Mr 19 '48

SILVERWARE

Aluminum foil; wrapping of sterling silver. J. D. Edwards and D. B. Strohm. Mod Packaging 21:191+ Ap '48

Manufacture

Standard costs applied to the manufacture of silverware. J. F. Mickelson. N A C A Bul 29:445-58 D 15 '47

SIMILARITY, Theory of
Trajectories of charged meson test particles in the similarity geometry. B. Hoffman. bibliog Phys R 73:1042-6 My 1 '48

SIMILARITY principle

Theory of high frequency gas discharges; note on the similarity principle. H. Margenau. Phys R 73:326-8 F 15 '48

SIMON, Norton, 1907-

Regional food-packer hits big time; Hunt Foods, gains manufacturing foothold in East to give new zip to its entry in the national field. il Bsns W p80-1 O 30 '48

SIMOSAURUS. See Plesiosauria**SIMPSON, James Young, 1811-1870**

Anniversary of interest to scientists. Science 106:488 N 21 '47

SIMULTANEOUS equations. See Equations, Simultaneous**SINGAPORE**

Democracy in Singapore. Economist 154:677 Ap 24 '48

Politics and trade in Singapore. Economist 153:1008 D 20 '47

Report from Singapore; if the U.S. lets the rubber market go to pieces, kiss Malaya goodbye. G. Burck. il map Fortune 37:92-5+ Je '48

SINGER manufacturing company

Home-sewing booms Singer. il diags Bsns W p75-80 Ag 14 '48

SINK and float process

Concentratability of Birmingham, Ala., red iron ores by separation in heavy media. B. H. Clemmons and others. bibliog 2pls U S Bur Mines Rep of Invest 4249:1-45 '48

Effects of moisture on float-and-sink testing of lignite. H. M. Cooper and others. bibliog 4pls U S Bur Mines Rep of Invest 4184: 1-8 '47

Heavy-density separation; a review of its literature. J. W. Hyer, jr. flow sheets il diags Colorado School of Mines [Golden] Quarterly v 43 no 1:1-94 bibliog(p91-4) '48 (pa \$1)

Heavy-media separation processes; present status and potentialities. G. B. Walker. flow sheets il diag Min, Cong J 34:38-41+ Mr '48

Heavy medium in the Baum jig; new washing process. E. M. Bird. diags Coal Age 53:107-12 F '48

New process extends steel industry's reserves of coal for making blast furnace coke. Blast F & Steel Pl 36:1104 S '48

Process cleans coal and ores; Float-Sink concentrator, flow sheet il Blast F & Steel Pl 36:863-4 J1 '48; Rock Prod 51:102 Je '48

SINK and float process—Continued

Recent developments in heavy-density separation. J. V. Beall, flow sheet *il* *diag* Min & Met 29:488-92 S '48

Sink-float process. W. B. Lenhart, flow sheets *il* *Rock Prod* 51:100-3+ O '48

SINKING funds

Sinking-fund provision for utility preferred issues. J. P. Callahan, *Pub Util* 41:76-9 Ja 15 '48

Sinking funds added to new utility preferences to protect buyers against too thin markets. E. R. Abrams, *Barron's* 28:33 Ja 12 '48

SINKS

Flexible sink trap. P. Reilly, *il* *diags* Mod Plastics 25:99 Mr '48

Planning kitchens for today's houses; sinks; dishwashers; waste disposal units; sink tops and counters. *il* *Am Bld* 70:82-7 Jl '48

Wash basins formed of acrylic. *il* *Mod Plastics* 25:112-14 Je '48

SINNOTT, Edmund Ware, 1838-

President of AAAS, 1948. L. H. Tiffany, *por(cover)* *Science* 107:1 Ja 2 '48

SINTERING

Alumina from clay by the lime-sinter method. F. R. Archibald and C. M. Nicholson, *bibliog* flow sheet *il* *diags* *Metals Tech* 15:TP2390 1-25 Je '48

Mechanism of sintering. A. J. Shaler and J. Wulff, *bibliog* *Ind & Eng Chem* 40:388-42 My '48

Ore-preparation plant at the Workington branch of the United steel companies, *ltd.* flow *diag* *il* plans *Iron & Steel Inst* J 159: 73-6 My '48

Oscillating burner cuts sintering costs, *diags* *Comp Air Mag* 53:47 F '48

Powder metallurgy of porous metals and alloys having a controlled porosity. P. Duwez and H. E. Martens, *bibliog* *il* *diags* *Metals Tech* 15:TP2343 1-27 Ap '48

Rate of sintering of metal powders. A. J. Shaler and J. Wulff, *bibliog* *Phys R* 73: 926 Ap 15 '48

Sinter quality and effect of sinter on blast furnace practice. J. L. Mauthe, *bibliog* *il* *Blast F & Steel Pl* 36:517-24 Jl '48; *Excerpts*, *Iron Age* 162:88-9 Jl 29 '48

Sintering atmospheres used in powder metallurgy; abstract. N. K. Koebel, *Iron Age* 161:79-80 My 6 '48

Sintering in the presence of a liquid phase. F. V. Lenel, *il* *Metals Tech* 15:TP2415 1-19 *bibliog(p* 18-19) *Je* '48; *Discussion*, 15: TP2449 33-41 Ag '48

Sintering of brass compacts; abstract. H. C. Miller, *Iron Age* 161:80-1 My 6 '48

Sintering of electrolytic tantalum powder. R. H. Myers, *Metallurgia* 38:307-10 O '48

SIPHONS

City saves \$27,250 on sewer siphon for river crossing. M. A. Milling, *diags* *Pub Works* 79:27-8 S '48

Simple siphon device. E. E. McDermott, *diags* *Chem & Ind* p73 Ja 31 '48

Siphoning arrangement for process vessels. W. G. Thompson, *diags* *Chem Eng* 55:125-6 Mr '48

Tests determine discharge coefficients for small siphons. E. L. Harrington, *diag* *Civil Eng* 18:170 Mr '48

SIRENS. See Whistles**SIRUPS**

Ion exchange; operation of commercial scale plant for demineralization of cane sirups and molasses. E. Bloch and R. J. Ritchie, *bibliog* flow sheet *il* *Ind & Eng Chem* 39: 1581-4 D '47

Production of maltose sirups from granular wheat flour. A. Efron and R. H. Blom, *bibliog* *Ind & Eng Chem* 40:412-15 Mr '48

See also

Corn sirup
Malt sirup
Sugar, Liquid

SISAL hemp

Free market for sisal? *Economist* 154:1034 Je 19 '48

Lugage of resin impregnated sisal. *il* *Mod Plastics* 25:90 N '47

Sisal fiber vs wet water. D. Powell, *il* *Safety Eng* 96:22-3+ Ag '48

Waxes from sisal waste. W. Politzer, *Chem & Ind* p408-9 Je 26 '48

SISTO, Ernest L.

Where's E. Sisto? he'll fix it good. J. L. Collings, *por* *Ed & Pub* 81:60 Je 5 '48

SITOSTEROLS

Steroids and the Walden inversion; derivatives of 6-ketositostane and 6:17-diketostano. C. W. Shoppee, *Chem Soc J* p 1043-5 Jl '48

SIVIAN, Leon John, 1894-1947

Sketch. H. T. O'Neil, *por* *Acoustical Soc Am* J 20:69-70 Ja '48

666. See Hexachlorocyclohexane

SIZE (biology)

Metabolism of small mammals, with remarks on the lower limit of mammalian size. O. P. Pearson, *bibliog* *Science* 108:44 Jl 9 '48

SIZES (garments). See Clothing and dress—Standards

SIZING (textiles)

Qualitative analysis of textile processing agents. H. E. Goldstein, *bibliog* *diag* *Am Dyestuff Rep* 36:629-40 N 3 '47

Sizing of spun yarns. R. P. Morningstar, *il* *diag* *Rayon* 29:54-6 F '48

Slashing practices studied by Alabama men. *il* *Textile World* 98:137+ Ag '48

Warp sizing influenced by 54 variables. *Textile World* 98:224+ Ja '48

See also

Cotton sizing
Rayon sizing

Patents

Algin-protein as a sizing composition. *Am Dyestuff Rep* 37:290 My 3 '48

Sizing with liquid starch mixtures, *diag* *Am Dyestuff Rep* 36:645 N 3 '47

SJORMAN, N. L. 1880-

Sketch. *por* *East Underw* 49:17+ My 14 '48

SKATING rinks

Arch roof with dome-ends provides unobstructed area for skating; combination skating rink, bowling alley and garage in Washington, D.C. *il* *Eng N* 141:110-12 Jl 8 '48

Room air temperatures for ice skating rinks. *Heating-Piping* 20:106-7 O '48

SKELLY, William Grove, 1878-

Sketch. *por* *Nat Pet N* 40:12 My 19 '48

SKERRETT, Robert Gregg, 1868-1947

Sketch. *Comp Air Mag* 52:311 D '47

SKIALITHS (term)

Xenoliths and skialiths. G. E. Goodspeed, *bibliog* *pls* *Am J Sci* 246:515-25 Ag '48

SKIATRON. See Cathode ray tubes

SKIDS

Furnaces on skids add forging flexibility. *il* *Am Mach* 92:92 Ap 8 '48

Skidded container reduces l.c.l. handling. *il* *Ry Age* 125:11 Jl 3 '48

Versatile skid expedites material handling in stamping plant. L. M. Beckwith, *il* *Iron Age* 161:88-9 Je 3 '48

SKILLMAN, W. McKay, 1894.

Detroit hot potato; car sales racket. *Bsns W* p49-50 N 22 '47

SKIN

Depression of tuberculin and histoplasmin sensitivity associated with critical illness. M. L. Furcolow and others, *bibliog* *Pub Health Rep* 63:1290-8 O 1 '48

Dermatological action of skin cleansers. L. Schwartz, *bibliog* *Soap & San Chem* 24:35-6+ My '48

Mounting of dermatological material with synthetic resins. L. Goldman and L. Mason. *il* *Science* 106:646 D 26 '47

Penetration of lead through the skin. E. P. Laug and F. M. Kunze, *bibliog* *J Ind Hygiene* 30:256-9 Jl '48

Diseases

Cleanliness roundup; excerpts from various papers dealing with dermatoses, cleanliness, and industrial sanitation. *Safety Eng* 95:24-6+ My '48

Dermatitis in wallpaper plants. *Safety Eng* 95:68 Mr '48

Developments in barrier creams; abstract. S. J. Hopkins, *Soap & San Chem* 24:86 Ja '48

9,9-Dibromofluorene and formation of a dangerous skin irritant. J. R. Sampey and S. J. Childress, *Am Chem Soc J* 70:1979 My '48

SKIN—Diseases—Continued

Educational program controls dermatitis; West Allis plant of the Allis-Chalmers mfg. co., W. F. Scholtz, *il Am Mach* 91:106-8 N 20 '47

Emotional aspects of skin diseases. *Safety Eng* 94:64 N '47

Occupational dermatoses; abstract. J. G. Downing, *Ind Med* 17:18 Ja '48

Occupational diseases of the skin among paint factory workers, painters, polishers and varnishers in Finland; a clinical and experimental study; abstracts. V. Pirilä, *J Ind Hygiene* 30:sup6-6 Ja '48; *Nat Safety N* 57:45 Ap '48

Report on the histopathology of the cutaneous lesions of a case of rickettsialpox. L. R. Hersherberger and R. J. Huebner, *bibliog Pub Health Rep* 62:1740-2, pl 1-2 D 12 '47

Skin hazards in the jewelry industry. M. H. Samitz and P. Mori, *Ind Med* 17:341-3 S '48

Skin hazards of longshoremen and harbor workers. M. H. Samitz and T. E. Gibson, *Ind Med* 16:576-7 D '47

Skin infections. *Nat Safety N* 57:192+ Mr '48

Skin lesions in persons exposed to beryllium compounds. R. S. Crier and others, *bibliog il J Ind Hygiene* 30:228-37 JI '48

Skin; the fragile element in industrial production. G. E. Morris, *Ind Med* 17:213-15 Je '48

See also

Grain itch

SKIN effect

Skin effect in electrical conductors. F. C. DeWeese, *diag Power Pl Eng* 51:84-6 N '47

SKIN friction

Loss of spin of projectiles; skin friction drag. H. P. Hitchcock, *J Aeronautical Sci* 15:38-40 Ja '48

SKIN grafting

Motor driven dermatome; abstract of a film presentation of the Brown electro-dermatome. H. M. Brown, *il Ind Med* 17:46 F '48

SKIP tracers company. See Eisenberg, Daniel M.

SKIS, Airplane. See Airplanes—Landing gear

SKIS and skiing

Winter tests. *il Textile Col* 70:32-3 Ja '48

SKODA works

Skoda; western industry's new competitor. *il Bsns W* p 114+ Je 12 '48

SKOGMO, Philip W.

Sketch. por(cover) *Bsns W* p6 Mr 13 '48

SKRAUP reaction

Skraup reaction with acrolein and its derivatives. H. L. Yale and J. Bernstein, *Am Chem Soc J* 70:254 Ja '48

SKY

Sunlight and skylight as determinants of photographic exposures; luminous density as determined by solar altitude and atmospheric conditions. L. A. Jones and H. R. Condit, *il diags Opt Soc Am J* 38:123-78 *bibliog*(53 titles, p 177-8) F '48

SKYLIGHTS

Mammoth skylight installation; puttyless aluminum type; aluminum louvered vents. *il Sheet Metal Worker* 39:33+ S '48

SLABS, Concrete. See Concrete slabs**SLAG**

Basic open hearth slag control. C. R. Funk, *il diags Blast F & Steel Pl* 35:933-43, 1098-104+, 1230-4, 1372-4, 1490-7+; 35:332-6, 539-49 Ag-D '47, Mr, My '48

Blowpipe cutting employed to reclaim ladle skulls and buttons. *il Steel* 122:94+ My 17 '48

Burned shale and expanded slag concretes with and without air-entraining admixture. P. H. Petersen, *il diag Am Concrete Inst J* 20:165-75 O '48

Effect of acid oxides upon desulfurization in the iron-manganese system. M. B. Royer and A. J. Williams, Jr, *bibliog 3pls U S Bur Mines Rep of Invest* 4300:1-25 '48

Influence of carbon on the equilibria between steel and slag in the acid open-hearth furnace. P. Herasymenko, *bibliog Iron & Steel Inst J* 157:515-25 D '47

Kinetics of the transfer of sulphur across a slag-metal interface. L. Chang and K. M. Goldman, *bibliog diag Metals Tech* 15: TP2367 1-19 Je '48

Laboratory investigation of the phosphorus reaction in the basic steelmaking process. K. Balajiva and others, *bibliog diags Iron & Steel Inst J* 153:115-45, pl 5-6; Discussion. 145:50 no 1 '46

Method of manufacturing blast furnace slag cement; plant of Cementos del norte, Monterrey, N.L., Mexico. *bibliog il plan Rock Prod* 51:96-100 S '48

Oxide systems—pertaining to steel-making furnace slags. A. H. Jay and K. W. Andrews, *bibliog Iron & Steel Inst J* 152:15-18 no 2 '45; Discussion. 153:353-5 no 1 '46

Slag control in the economics of steel production; abstract. K. L. Feters. *Steel* 122: 115 F 23 '48

Analysis

Analysis of copper and nickel slags and mattes. J. Kinnunen, *Metallurgia* 37:153-6 Ja '48

Further work on the phosphorus reaction in basic steelmaking. P. Vajragupta, *Iron & Steel Inst J* 153:494-6 Ap '48

Mineralogical observations on some basic open-hearth slags. S. O. Agrell, *bibliog Iron & Steel Inst J* 152:19-55, pl 2-6 no 2 '45; Discussion. 153:355-8 No 1 '46

Penn mine slag dump and mine water, Calaveras county, Calif. F. J. Wiebelt and S. Ricker, *2pls U S Bur Mines Rep of Invest* 4224:1-6 '48

Spark technique in spectrographic analysis of slags: lime-silica ratio. R. H. Steinberg and H. J. Belic, *Anal Chem* 20:72-3 Ja '48

SLAG (in boilers)

Deposits on the external heating surfaces of boiler systems. H. E. Crossley, *il diags Power* 92:273-5 My '48

Drilling rig made from salvaged material for removing slag from boilers. *il Elec World* 130:104 JI 31 '48

Modern design of multiple fuel steam units. A. R. Mumford, *il diags Iron & Steel Eng* 25:92-4 F '48

Slag on boiler tubes. H. C. Dinger, *Marine Eng* 53:90+ Ap '48

SLASHERS. See Sizing (textiles)**SLATE**

Stratigraphy of the Arvonja slate, Virginia. G. W. Stose and A. J. Stose, *bibliog maps diags Am J Sci* 246:393-412, pl 1 JI '48

SLAUGHTERING and slaughterhouses

Rewiring an abattoir. *il Elec R (Lond)* 142: 555-6 Ap 9 '48

SLAYTER, Russel Games, 1896-

Industrial research institute, 1948 medal. por(cover) *Chem & Eng N* 26:165 Ja 19 '48

Sketch. por *Chem Eng* 55:243 F '48

SLEEP

Ah, sweet mystery of sleep; differences in temperament and metabolism account for wide variations in individual needs. M. F. A. Montagu and E. Milton, *il Tech R* 50: 319-21 Ap '48

SLEEPING cars

New Pullmans trickle along. *il Bsns W* p24 D 20 '47

New sleepers for M.P.-T.P. Eagles. *il Ry Age* 125:370-2 Ag 21 '48

Third-class sleeping car for the L.N.E.R. *Engineering* 165:44 Ja 9 '48; *il Engineer* 185: 137 F 6 '48

What's ahead for Pullman? *il Ry Age* 123: 866-71 N 15 '47

SLEEPING sickness in cattle. See Encephalomyelitis, Bovine**SLEPIAN, Joseph, 1891-**

J. Slepian, Edison medalist for 1947; presentation by J. F. Fairman and M. W. Smith; response by J. Slepian. *por Elec Eng* 67: 258-64 Mr '48

Slepian of Westinghouse gets 1947 Edison medal. por(cover) *Elec World News* ed 128: 6 D 13 '47

SLICK foundation

Southwest research institute, newest member of Slick foundation. G. Weber, *il Oil & Gas J* 46:108+ D 13 '47

SLIDE films

Effectiveness of business paper advertising; U.S. steel corporation's sound-slide film. G. R. Schreiner, *Ind Marketing* 33:34-5+ JI '48

Film kicks off admen's public relations industry. *il Mod Ind* 15:97-8 Mr '48

SLIDE films—Continued

- Film tells management facts of business-paper advertising; U.S. Steel ad department develops slide films. R. H. Ganly. *Ptr Ink* 224:34-5 J1 2 '48
- Films pay off as retail sales training tools; General Mills films on electric irons and pressure cookers. W. A. MacDonough. *Sales Management* 60:63-4 Ja 1 '48
- FPRA slide film series for bank employee relations and training. *Trusts & Estates* 87:197-8 S '48
- Goodyear trains 25,000 dealers with films in ten months. *il Sales Management* 60:111+ Mr 15 '48
- New visual aid in personnel training; FPRA sound slide films. P. E. Reed. *il Burroughs Clearing House* 32:24-5+ Ap '48
- Packard training course revives ancient art of salesmanship; films-and-manuals packaged training program for retail auto dealers and their salesmen. D. G. Baird. *il Sales Management* 60:48+ F 1 '48
- Stewart-Warner gives jobbers' men refresher course in pictures. L. B. Colby. *il Sales Management* 60:122+ Ap 15 '48
- Visual education for safety; Stanolind oil & gas company. Tulsa. A. Gibbon. *il World Oil* 127:58+ Mr '48
- Visual information aids management; Creole petroleum corporation, system at Caracas, Venezuela. map diags *World Oil* 127:204-6 F '48
- Visual-vocal presentation explains ads to salesmen; 35-minute script, coordinated with slides introduces Norton 32 Alundum. C. J. Swan. *il Ptr Ink* 224:36-7 S 24 '48
- What Chevrolet is doing to prepare for competitive selling; factory wholesale personnel and dealers' sales managers' course. D. G. Baird. *il Sales Management* 61:42-4 S 15 '48

Catalogs

- Filmstrip guide, annual volume, September 1948; inclusive list of approximately 1275 current filmstrips. K. M. Holden, comp. 122p H. W. Wilson co, New York '48

Projectors

- New sound slidefilm projector. J. M. Stone. *il Soc Motion Picture Eng J* 50:74-6 Ja '48
- Slide projector redesigned. T. G. Clement. *il Mod Plastics* 25:118 F '48
- Still projectors. *il Consumers Res Bul* 21:20-1 F '48

SLIDE rule

- Errors of measurement with the slide rule. M. L. Marshall. *J Chem Educ* 25:376-7 J1 '48
- New assay slide rule computes complex ore values. R. E. Gilbert. *il diags Eng & Min J* 149:95-7 Je '48
- Slide rule calculations of radioactive decay. H. P. Knauss. *Science* 107:324 Mr 26 '48
- Slide rule easily made for converting ram to sample pressures. J. R. Bothel. *il Chem Eng* 55:125-6 S '48
- Slide rule for rapid computation of volumes of cylindrical, conical and rectangular tanks. A. E. Babcock, jr. *il Chem Eng* 55:142-3 My '48
- Slide rule solves gas flow and dust sampling problems. H. Richardson. *il Chem Eng* 55:124-5 J1 '48
- Special slide rule solves pipe-line engineering problems. R. M. Hutchinson. *diag Oil & Gas J* 46:249-51 S 20 '47; Same. *Gas Age* 100:20-1+ N 27 '47
- Use of the log-log slide rule in connection with trigonometric functions. R. T. Brown. *J Eng Educ* 38:393-4 Ja '48

SLIDING contact. See Friction**SLIP rings**

- Slip rings and brushes for constant electrical resistance. F. J. Dutee and others. *il diags Product Eng* 19:129-33 Je '48

SLIPPERINESS tester

- Measurement of the slipperiness of walkway surfaces. P. A. Sigler and others. *il diag J Res Nat Bur Stand* 40:339-46 My '48
- Slipperiness of walkway surfaces. P. A. Sigler. *il diags Soap & San Chem* 24:147+ Ja '48; Same. *Rubber Age* 62:296-7 D '47

SLIPPERS

- Cinderella slipper; Prima Footwear's sales zoom. *il Bsns W* p80+ My 1 '48

SLOAN-KETTERING institute for cancer research

- New institute; views, plans, and construction outline. *Arch Forum* 89:65-9 Ag '48
- Opening. *Science* 107:467 My 7 '48
- Revolutionary photographic technique announced at dedication. *il Chem & Eng N* 26:1280-1+ My 3 '48

SLOANE-BLABON corporation

- New Smith issue aids Sloane-Blabon line. *Barron's* 28:34 Je 28 '48

SLOGANS

- How to write a slogan. O. Kleppner. *Ptr Ink* 222:40-2 Mr 19 '48
- You can say that again! power of repetition. T. H. Thompson. *Sales Management* 60:120-1 Ap 15 '48
- See also
Safety slogans

SLOSS, Laurence Louis, 1913-

- Recipient of President's award. C. E. Erdmann. bibliog *por Am Assn Pet Geologists Bul* 32:833-8 My '48

SLOSSON, Edwin Emery, 1865-1929

- Rise of science understanding. W. Davis. *por Science* 108:239-46 S 3 '48

SLOT machines, Gambling

- Slot machines' generosity told in Reno club ad. *Ed & Pub* 81:20 O 23 '48

SLOT machines, Vending. See Vending machines**SLOTting machines**

- Slotter forms thread-like cuts as crank positions unusual job. C. D. MacKinnon. *diags Am Mach* 92:123 My 6 '48

SLOWDOWNS. See Labor productivity**SLUDGE, Sewage. See Sewage sludge****SLUMS**

- Slums increase disease, death and taxes. *Eng N* 140:580 Ap 15 '48

- Stuyvesant Town; rebuilding a blighted city area. *il plans diags Eng N* 140:185-208 F 5 '48

- Two for rebuilding; slum and blighted areas to be cleared in Chicago and San Francisco. *il plan Arch Forum* 89:15-16 Ag '48

SMALL business. See Business—Small business**SMALL loans. See Loans, Bank—Small loans****SMALL town stores. See Retail trade—Small town stores****SMALLPOX****Statistics**

- World distribution of cholera, plague, smallpox, typhus fever, and yellow fever; Jan.-Oct. 1947, Nov. 1947, Dec. 1947, by weeks. *Pub Health Rep* 63:158-9 Ja 30 '48 [cont monthly]

SMELL

- Some theoretical and experimental relationships between infrared absorption and olfaction; abstract. L. H. Beck and W. R. Miles. *Science* 106:511 N 28 '47

SMELTING

- Smelting under pressure. L. Engel. *il diag Sci Am* 178:54-7 My '48

- Utilization of oxygen in smelting low-grade ores. W. M. Politzer. *diags Steel* 122:98+ F 16 '48

- Zinc smelting in the horizontal retort fired with natural gas. G. L. Oldright. bibliog 4pls U S Bur Mines Rep of Invest 4333:1-71; 4334:1-41; 4335:1-42; 4336:1-111 '48

- Zinc smelting; review of 1947. F. P. Sinn. *Min & Met* 29:97-8 F '48

SMELTING, Electric

- Electric furnace smelts Sullivan tin concentrate. J. B. Hutt. *flow sheet il Eng & Min J* 149:60-2 Ja '48

SMELTING works

- New antimony smelter to be built in Idaho. *Min & Met* 29:427 Ag '48

- Technical developments leading up to the present Midvale plant of the United States smelting refining and mining co. R. Wallace and H. L. Johnson. *Min & Met* 29:542-3 O '48

Equipment

- Midvale lead smelter for company and custom ores. C. A. Nelson and W. M. Whitecotton. *flow sheet il Min & Met* 29:548-52 O '48

SMELTING works—Continued

Management

- Careful attention given to custom shippers; United States smelting refining and mining co. F. X. Meyer and B. Watts. Min & Met 29:555-6 O '48
- SMITH, A. O., corporation**
Comparative study of U.S. Pipe and A. O. Smith. H. S. Coffin. Mag of Wall St 81: 597-9+ F 28 '48
New style reserve by A. O. Smith insures retention of firm's—brains in depression. Barron's 27:31 N 17 '47
- SMITH, Alexander, and sons, carpet company**
Preferred stock offered. Comm & Fin Chr 167:2298-9 My 24 '48
- SMITH, Crapo Cornell, 1868-1948**
Student benefactor, Michigan style. E. M. Heffernan. Trusts & Estates 86:492-4 Je '48
- SMITH, Cyril Stanley, 1903-**
Appreciation. por Metal Prog 53:216-18 F '48
- SMITH, Howard Alexander, 1880-**
Portrait. Sci Am 178:9 Je '48
- SMITH, Marvin Wadsworth, 1893-**
Portrait. Fortune 38:7 O '48
- SMITH, Richard Wellington, 1898-**
Sketch. por Min & Met 29:583 O '48
- SMITH, Thomas Woodford, 1886-**
Chemical institute of Canada elects T. W. Smith president. por(cover) Chem & Eng N 26:1397 Je 28 '48
- SMITH, Tom, Jr.**
Portrait. Bsns W p24 N 29 '47
- SMITH, W. Eugene**
Smith carries torch with his camera. J. L. Collings. por Ed & Pub 81:46 O 2 '48
- SMITH, Winthrop H. 1893-**
Sketch. por(cover) Bsns W p6 N 8 '47
- SMITH-ROSE, Reginald L. 1894-**
Sketch. por Inst Radio Eng Proc 36:178 F '48
- SMITH and Wesson, Inc.**
Smith & Wesson prepares to go underground. il Bsns W p39-41+ J1 24 '48
- SMITH Davis corporation**
Doctoring service aims to bolster dailies. J. Walker. Ed & Pub 81:52 O 30 '48
- SMITHITE**
Synthesis of some sulpharsenites of silver in alkali sulphide solutions. R. Béland. bibliog il Econ Geol 43:119-32 Mr '48
- SMITHSONIAN institution**
Smithsonian institution. Science 108:261-2 S 3 '48
- SMOKE**
Influence of injection characteristics on exhaust smoke. M. Berlyn. Diesel Power 26: 40-1 F '48
New smoke chart in convenient form. il Power Generation 52:79 Ap '48
Rating Diesel engines on smoke-curve basis. K. J. Fleck. Diesel Power 26:41-3 F '48
Smoke in high speed Diesel engines. J. J. Broeze and C. Stillbroer. diags Diesel Power 26:37-40 F '48
Smoking of Diesels being attacked from many angles; based on papers by H. D. Young and others. diags S A E J 56:54-8 Ap '48
See also
Flue dust
Smoke prevention
- SMOKE, Chemical**
Generation of insecticidal smokes. E. W. Bateman and G. D. Heath. il Soc Chem Ind J 66:325-30 S '47
Laboratory experiments with chemical warfare agents. W. Kintof. diags J Chem Educ 25:36-40 Ja '48
Photoelectronic counter for colloidal particles. F. T. Gucker, Jr. and others. bibliog diags Am Chem Soc J 69:2422-31 O '47
Selective plugging with smoke. R. F. Nielsen. diags World Oil 127:132+ F '48
Smoke dispensers for insecticides. H. L. Sweetman and others. il Soap & San Chem 24:141+ O '48
- SMOKE detectors**
Excess-smoke indicator. il Blast F & Steel Pl 35:1527 D '47
- SMOKE houses. See Smokehouses**
- SMOKE prevention**
Application of overfire jets to prevent smoke from stationary plants. R. B. Engdahl and W. S. Major. diags Power 92:532-5 S '48
Cities are taking anti-smoke action. Eng N 140:412 Mr 18 '48
Cut smoke by proper jet application. L. N. Rowley and J. C. McCabe. diags Power 92: 676-9 N '48
Does St Louis smoke law work? H. B. Lammerers; R. R. Tucker. Heating-Piping 19: 80-1 N; 100-1 D '47
Freedom from filth. Fortune 38:4 S '48
It is not true that St Louis smoke ordinance doesn't work! R. R. Tucker. Heating-Piping 20:96-7 F '48
Outdoor air conditioning. Nat Safety N 57: 53-5 My '48
Overfire air licked this smoke problem. H. B. McDemid. diags Power Generation 52: 79-80 Ap '48
Proper hand firing makes no smoke. L. N. Rowley and J. C. McCabe. diags Power 92:456-8 Ag '48
Smog fighters; Los Angeles county. J. R. Callahan. Chem Eng 55:114-15 O '48
Smoke abatement and smoke ordinances. F. D. Mosher. il Mill & Factory 43:119-22 Ag '48
Smoke abatement by overfire air jets. diags Dom Eng 170:145-6+ D '47
Smoke abatement; the role of gas and coke; annual conference of the National smoke abatement society. Gas J (Lond) 252:355-6 N 12 '47
Smoke eliminator for natural draught boilers. diags Engineer 185:600-1 Je 18 '48
Smoke law has smoggy debut; Pittsburgh ordinance. il Bsns W p21 O 11 '47; Same. Heat & Ven 44:114 N '47; Discussion. P. Vogele. Bsns W p 114 N 8 '47
Smokeless boiler for use with bituminous coal. Heat & Ven 45:101 My '48
Spread of smoke regulations for public utilities. B. Jones. Pub Util 41:229-34 F 12 '48
Underfeed stokers are meant to operate smokefree. L. N. Rowley and J. C. McCabe. il diags Power 92:284-7 My '48
Unnecessary pollution of air discouraged by cities' smoke abatement edict. Dom Eng 171:158 F '48
Want your overfeed stoker to be smoke-free? L. N. Rowley and J. C. McCabe. il diags Power 92:153-61 Mr '48
Where to put overfire jets. W. S. Major. il diags Power Generation 52:95-7 Mr '48
See also
Locomotives—Smoke problem
- SMOKE prevention association**
1948-49 officers. Ry Age 125:345 Ag 14 '48
- SMOKE recorders**
Bailey smoke density recorder. il Blast F & Steel Pl 36:1132+ S '48; Instruments 21: 808 S '48; Paper Tr J 127:144 S 9 '48
Technique of exhaust smoke measurement; C.R.C. smokeometer. J. P. Jung and F. L. Coers. diags Diesel Power 26:43-4 F '48
- SMOKE screens**
Novel foreign chemical and pyrotechnic munitions. J. Goldenson and C. E. Danner. il diags Chem & Eng N 26:1976-8 J1 5 '48
- SMOKED fish. See Fish, Smoked**
- SMOKED meat. See Meat, Smoked**
- SMOKEHOUSES**
Smoke washing unit improves meat quality. il diags Food Ind 20:205-7 F '48
- SMOKELESS powder**
Visco-elastic behavior of a highly plasticized nitrocellulose in compression under constant load. G. J. Doyle and R. M. Badger. J Ap Phys 19:373-7 Ap '48
Analysis
Determination of dinitrotoluene in smokeless powder by the titanous chloride-buffer method. F. G. Butts and others. Anal Chem 20:947-8 O '48
Determination of potassium perchlorate in smokeless powder. W. B. Meldrum, Jr. and others. bibliog Anal Chem 20:949-50 O '48
Manufacture
Nitration of wood pulp. M. O. Schur and D. H. McMurtrie. bibliog il diags Paper Tr J 127:51-8 S 23; 39-45 S 30 '48
- SMOKING**
15 smoking habits of salesmen. J. Bedford. Ptr Ink 222:38-9 Mr 26 '48
- SMOOTHNESS of paper. See Paper—Smoothness measurement**

SMOOTHNESS testing. See Surfaces—Smoothness testing

SMUGGLING

Hong Kong boom; China bust. *il* Fortune 38: 86-7+ S '48

SMYTH, Henry Lloyd, 1862-1944

Memorial. L. C. Graton. bibliog por(pl 14) *Geol Soc Proc* 1947:177-90 My '48

SNAKES

See also
Venom

SNELL, Foster D., inc.

Industrial consultants. D. H. Killeffer. *il* Sci Am 178:122-6 Mr '48

SNIDER, Luther Crocker, 1882-1947

Memorial. C. N. Gould. bibliog por(pl 15) *Geol Soc Proc* 1947:191-3 My '48

SNOW

Expanding air causes sudden temperature drop. B. Vonnegut. *Franklin Inst J* 245:189-90 F '48

General Electric's instrument that records the geometric shapes, sizes, and frequency of occurrence of snow crystals falling during a storm. *Science* 107:265 Mr 12 '48

Heavy snow this winter? *Roads & Sts* 90:98-9 N '47

Man-made blizzards; experiments of climatic test chambers of the Signal corps engineering laboratories, Fort Monmouth. *Mech Eng* 70:145-6 F '48; Same abr. *il* *Refrig Eng* 55:48 Ja '48

Reduce icing danger with artificial snow. *Aviation W* 47:34 N 17 '47

Snow static on aircraft; neutralization of charge by artificially activating negative corona discharges. W. H. Bennett. bibliog diags *Elec Eng* 67:947-53 O '48

Weather under control; Langmuir and Schaefer discover how to make it rain or snow. *il* diags *Fortune* 37:106-11+ F '48

SNOW plows

Lower snow removal cost permits extended operations. *il* *Roads & Sts* 90:94-5 O '47

New rotary snow plow. *il* *Roads & Sts* 91:119-20 Ja '48

Manufacture

Advantages of integrated manufacturing; plant of Omaha steel works where steel foundry, machine shop, fabricating and manufacturing departments co-operate closely. G. E. Stedman. *il* *Steel* 122:85-7+ F 16 '48

SNOW removal

Concentrated attack on snowbound roads; Ontario Department of highways. *il* *Roads & Bridges* 86:69+ Ja '48

County carries snow removal problems to citizens; Gratiot county, Mich. *Roads & Sts* 91:62 F '48

Cyclone tractor mounted snow-blower. *il* *Roads & Bridges* 85:90+ D '47

Detroit heavy chloride user. F. Stang. *Roads & Sts* 91:66 S '48

Electric snow melting for sidewalks. M. F. Muzzillo. *il* *Elec World* 129:124+ Ap 10 '48

How Minneapolis does its snow plowing. H. G. Erickson. *il* *Roads & Sts* 91:89-91 Ag '48

How New York city dug out; peak force of machines and men attacked the big Dec. 26 snowfall. H. J. McKeever. *il* *Roads & Sts* 91:102-6 Ap '48

How to figure snow melting jobs. *il* diag *Dom Eng* 171:126-8 F '48; Discussion. P. S. Park. 172:138+ J '48

Lansing, Mich. removes all the snow. *il* *Eng N* 141:93-5 O 14 '48

Lower snow removal cost permits extended operations. *il* *Roads & Sts* 90:94-5 O '47

Motor grader opens fast V-plow clears. *il* *Roads & Sts* 91:67 S '48

Municipal and street railway authorities co-operate in snow clearing in Toronto. H. D. Bradley; J. G. Inglis. *il* *Roads & Bridges* 85:62-6+ D '47

Philosophy of winter maintenance. C. L. Motl. *il* *Pub Works* 78:26-8 O '47

Plowing a Colorado pass; illustrations with text. *Roads & Sts* 90:96-8 N '47

Radiant-heated outside concrete ramp; Eigelow-Sanford carpet co. *il* *Concrete* 56:20 Je '48; Same. *Heating-Piping* 20:104 Je '48

Rock salt melts down Lansing snow removal budget. P. H. Slack. *il* *Roads & Sts* 91:65-6 S '48

Sand loader speeds up snow removal. A. H. McCaffrey. *il* *Pub Works* 79:31 O '48

Sidewalk snow clearing; reports from Canadian cities; with cost data. *il* *Roads & Bridges* 86:70-1+ F '48

Snow melting job pays off. T. N. Adlam. *il* *Heat & Ven* 45:95 Je '48

Snow melting system in heated Belmont road opens way to hilltop dwellers. *Heat & Ven* 45:124+ Mr '48

Snow-melting systems; their design, installation and operation. *il* *Eng N* 141:62-4 S 30 '48

Snow removal by steam heat under open-air shipping and receiving truck ramps. R. B. Thompson. plan *Factory Management* 105: 97 N '47

We let hot water shovel our snow; Beechnut packing co. J. H. Mowrey. *il* diags *Heating-Piping* 20:76-7 Je '48

We won't be caught again; plans for snow removal in Milwaukee. J. E. Hubel. *il* *Pub Works* 78:33 D '47

Winter road maintenance improved by radio-telephone service; Ontario Department of highways; two-way communication between snowplows and departmental offices. *il* map diags *Roads & Bridges* 86:65-9+ F '48

See also

Airports—Snow pro- Railroads—Snow
tection and re- protection and re-
moval removal

SOAKING pits. See Furnaces, Heating

SOAP

Colloidal structures in binary soap systems. T. M. Doscher and R. D. Vold. bibliog diags *J Phys & Colloid Chem* 52:97-109 Ja '48

Critical micelle concentrations as determined by refraction. H. B. Klevens. bibliog *J Phys & Colloid Chem* 52:130-48 Ja '48

Cylindrical model for the small soap micelle. W. D. Harkins. diags *J Chem Phys* 16:156-7 F '48

Dermatological action of skin cleansers. L. Schwartz. bibliog *Soap & San Chem* 24: 33-6+ My '48

Detergency in the laundry. F. C. Harwood and J. Powney. *il* *Chem & Ind* p579-81 S 11 '48

Effect of alkaline electrolytes on micelle formation in soap solutions. R. C. Merrill and R. Getty. bibliog *J Phys & Colloid Chem* 52: 774-87 My '47

Effect of soap on skin; abstract. S. Alperin. *Soap & San Chem* 23:69 N '47

Electrical conductance and density of solutions of potassium 9,10-dihydroxystearate at 60°. N. W. Gregory and H. V. Tartar. bibliog *Am Chem Soc J* 70:1992-5 Je '48

Electrical conductivity of crystalline and liquid-crystalline soap-water systems. R. D. Vold and M. J. Heldman. bibliog diags *J Phys & Colloid Chem* 52:148-66 Ja '48

Free alkali in soaps. T. Ruemele. *Soap & San Chem* 24:42-3 Ja '48

Guanidine soaps; properties as detergents. M. Z. Poliakoff and G. B. L. Smith. bibliog *Ind & Eng Chem* 40:335-7 F '48

Hydrolysis of soap solutions; abstract. J. W. McBain and others. *Soap & San Chem* 24: 87 My '48

Improving soap whiteness. *Soap & San Chem* 24:73 S '48

Interpretation of soap savings data. T. E. Larson. *Am Water Works Assn Mo* 40:296-300 Mr '48

Light scattering in soap solutions; abstract. P. Debye. *Chem & Eng N* 26:2049 J 12 '48

New abrasive for hand soaps. T. F. Clark. *il* *Soap & San Chem* 24:41+ Ag '48

New type of micelle; soap with alcohol, amine, or other polar-nonpolar molecules. W. D. Harkins and others. *J Chem Phys* 15:763-4 O '47

New type of micelle; solubility by film penetration. W. D. Harkins and H. Oppenheimer. *J Chem Phys* 16:1000-2 O '48

Phase study of rosin soap-sodium chloride-water and rosin soap-sodium silicate-water systems. R. C. Merrill and R. Getty. bibliog *J Phys & Colloid Chem* 52:167-79 Ja '48

Pine oil scrub soaps. A. S. DuBois and G. E. Morenz. bibliog *il* *Soap & San Chem* 24: 135+ Ag '48

Potassium soap, soft or hard? A. F. Nelson. *J Chem Educ* 25:379 J '48

Saddle and leather soaps. M. A. Lesser. bibliog *Soap & San Chem* 24:43-5+ Mr '48

SOAP—Continued

- Size and theory of soap micelles; abstract and discussion. W. D. Harkins. *Chem & Eng N* 26:2051 JI 12 '48
- Soap ingredients as retarders in butadiene-styrene copolymerization. J. W. Wilson and E. S. Pfau. *bibliog Ind & Eng Chem* 40:530-4 Mr '48
- Soaps in the sanitary chemicals supply field. E. G. Thomssen. *Soap & San Chem* 23:33-5 D '47
- Solubility of soaps and of some salts in mixtures of solvents, one of which is of glycolic type. S. R. Palit. *bibliog Am Chem Soc J* 69:3120-9 D '47
- Solubility of sodium soap in organic solvents. A. Bondi. *bibliog J Chem Phys* 16:157-8 F '48
- Solubilization of dimethylaminoazobenzene in solutions of detergents; the effect of temperature on the solubilization and upon the critical concentration. I. M. Kolthoff and W. Stricks. *bibliog J Phys & Colloid Chem* 52:915-41 Je '48
- Some correlating principles of detergent action. W. C. Preston. *bibliog diags J Phys & Colloid Chem* 52:84-97 Ja '48
- Structure of micelles of colloidal electrolytes; a new long-spacing X-ray diffraction band, and the relations of other bands. R. W. Mattoon and others. *bibliog J Chem Phys* 16:644-58 JI '48
- Synthetic detergents vs. soap. K. T. King. *Soap & San Chem* 24:53-4 F '48
- White dye; optical bleaches. *il Chem Ind* 62:219-20 F '48
- X-ray study of the stepwise melting of anhydrous sodium palmitate. H. Nordsieck and others. *bibliog il J Chem Phys* 16:175-80 Mr '48

See also

- | | |
|-----------------------|-----------------|
| Cleaning compositions | Saponification |
| Potassium laurate | Shampoos |
| | Sodium stearate |

Drying

- Production clinic. E. G. Thomssen. *il Soap & San Chem* 24:87+ O '48 (to be cont)

Rating

- Toilet soaps; CR's report on 20 brands. *Consumers Res Bul* 22:16-17 Ag '48

Testing

- End-use testing of scrub soaps. A. DuBois. *bibliog il Soap & San Chem* 24:134-6 Mr '48

SOAP, Dog. See Dog soap**SOAP, Liquid**

- Clarifying liquid soap; water vapor type refrigeration equipment prior to filtration. E. G. Thomssen. *il diags Soap & San Chem* 24:44-6 Ap '48
- Liquid hand cleaners; new developments, including non-soap products. M. A. Lesser. *bibliog(34 ref) il Soap & San Chem* 24:37-40+ Je '48
- Liquid soaps. C. V. Cardew. *Soap & San Chem* 24:71+ S '48
- Liquid soaps in glass containers; role of sequestering agents in preserving clarity. H. Kranich. *bibliog Soap & San Chem* 23:33-5 N '47

Manufacture

- Sequestering agents; their role in liquid soap production; properties of a polyamino carboxylic acid salt. H. W. Zussman. *Soap & San Chem* 24:57-9+ F '48

SOAP, Metallic

- Control of throughput, temperature, and purity of solvent in Soxhlet extraction. K. J. Mysels, H. H. Pomeroy and G. H. Smith. *diags Anal Chem* 20:378-9 S '48
- Preparation of aluminum di-soaps. G. H. Smith and others. *bibliog Am Chem Soc J* 70:1053-4 Mr '48

- Studies on anti-fouling compositions; formation of copper soaps in the preparation of compositions containing cuprous oxide and rosin. H. Barnes. *bibliog Iron & Steel Inst J* 157:590-3 D '47

- Wool wax acids; abstract. E. S. Lower. *Soap & San Chem* 24:67+ Ja '48

SOAP, Powdered

- Production clinic. E. G. Thomssen. *il diag Soap & San Chem* 24:73+ JI; 81+ Ag '48

SOAP, Textile

- Soaps and synthetic detergents in the textile field. A. M. Schwartz. *Soap & San Chem* 24:47-9+ F '48

- SOAP and detergent manufacturers association** (formerly Potash soap association) Meeting, 1st, New York, Jan. 27. *Soap & San Chem* 24:44-6+ F '48

SOAP associations

- See also* Association of American soap and glycerine producers; Soap and detergents manufacturers association

SOAP dust

- Avoiding soap dust; patent. *Soap & San Chem* 24:97 Mr '48

SOAP factories

- Soap plant observer. J. W. McCutcheon. *Soap & San Chem* 24:45+ S; 93+ O '48
- Year round employment in the soap plant; Procter & Gamble co. R. R. Deupree. *Soap & San Chem* 24:45+ My '48

SOAP industry and trade

- How Procter & Gamble avoided serious labor trouble for 60 years. *il Ptr Ink* 222:39-41 Ja '48
- Lever expansion plans. *Soap & San Chem* 24:41 JI '48
- Premiums; do they help sell soap? J. M. Davidson. *il Soap & San Chem* 24:40-2+ Mr '48
- Soap preferences. *Soap & San Chem* 24:94 Je '48
- Survey shows soap favorites. *Soap & San Chem* 24:47+ O '48
- Unilever; the conversion. G. Burck. *il map Fortune* 37:74-81+ F '48
- Wobbly market for soap. *Bsns W* p30+ My 15 '48
- World of Unilever. G. Burck. *il Fortune* 36:86-93+ D '47

- See also* Welch, Holme and Clark company

Advertising

- Copy clinic. B. Tyler. *il Adv & Sell* 41:70-1 Ag '48
- Copy clinic; deodorant soap. B. Tyler. *il Adv & Sell* 41:71-2 S '48
- Lever brothers' circus theme. *il Sales Management* 61:56 S 1 '48
- Soap advertising. J. E. Gilman. *Soap & San Chem* 24:39+ My '48
- Soap makers hike ad budgets for '48 competition. N. Keine. *il Ptr Ink* 222:97-8 F 6 '48

History

- Short history of Colgate-Palmolive-Peet. *il Soap & San Chem* 24:48-9+ O '48

Statistics

- Soap exports from the United States during 1947. *For Comm W* 31:37 My 22 '48
- Soap exports of U.S. in 1946-47. *Oil Paint & Drug Rep* 153:82 My 17 '48
- Soap statistics; imports and exports, 1947. *Oil Paint & Drug Rep* 153:86 Ap 12 '48

Canada

- Canadian soap output down in 1946. *Soap & San Chem* 24:46-7+ Ag '48
- Canadian soap output in 1947; table. *Oil Paint & Drug Rep* 153:83 Je 14 '48

Germany

- Composition of German tall oil soaps; abstract. A. Noll. *Soap & San Chem* 24:77 Mr '48
- Soap in war-time Germany. *Soap & San Chem* 23:35 D '47

Great Britain

- Stonewalling; soap manufacturer v Sir Stafford Cripps. *Chem Age (Lond)* 58:804 Je 12 '48

Poland

- Soap production in Poland, 1947. *For Comm W* 29:24 D 13 '47

SOAP manufacture

- French continuous process for soap making. M. J. Seemuller. *diags Soap & San Chem* 23:73+ O; 65+ N; 73+ D '47
- Manufacture of silicated soap. R. C. Merrill. *Soap & San Chem* 24:67+ My '48
- New continuous soap process; Sharples process. W. J. Beach. *flow sheet diag Soap & San Chem* 24:77+ Ap '48

SOAP manufacture—Continued

Soap plant observer; continuous soap making methods; Sharples centrifugal process. J. W. McCutcheon. *diag Soap & San Chem* 24:93+ O '48

See also

Soap—Drying Soap factories
Soap, Liquid—Manu- Soap materials
facture

Perfuming

Perfumes in soaps; abstract. E. Gorokhoff. *Soap & San Chem* 24:83+ O '48
Soap perfumes. S. Klein. *il Soap & San Chem* 24:50-2 F '48

SOAP materials

Deacidification of glyceridic oils; economic and technical merits of steam distillation. A. E. Williams. *diag Chem Age (Lond)* 59: 245-8 Ag 21 '48
French oilseeds industry; progressive policy in soap and detergents. *bibliog diag Chem Age (Lond)* 58:397-9 Mr 20 '48
Rosin in soap. J. R. Skeen. *Soap & San Chem* 24:46-7+ S '48
Soap makers get 1948 fats and oils forecast. *Oil Paint & Drug Rep* 153:7+ F 2 '48
Tall-oil soaps; abstract. F. D. Snell and others. *Chem Eng* 55:274 Je '48

See also

Coconut oil
Sodium pyrophosphate
Tallow

SOAP operas. *See* Radio broadcasting—Serials

SOCIAL ethics

Challenge and response. J. G. Vall. *Chem Eng Prog* 43:sup 13-16 N '47
Education for peace; what we can do to make ourselves indispensable to welfare of our fellow men. A. H. Compton. *Tech R* 50: 501-3+ J1 '48

SOCIAL insurance. *See* Insurance, Social

SOCIAL laws and legislation

See also

Insurance, Social Labor laws and legisla-
Insurance, Unem- tion
ployment Old age pensions
Public health laws

Australia

Australian social services consolidation act, 1947. *Int Labour R* 57:521-5 My '48

Brazil

Social policy in Brazil. *Int Labour R* 58:201-4 Ag '48

Finland

Recent social developments in Finland. N. A. Mannio. *bibliog Int Labour R* 57:1-14 Ja-F '48

SOCIAL physics (term)

Concerning social physics. J. Q. Stewart. *il maps Sci Am* 178:20-3 My '48

SOCIAL problems

See also

Gambling Public health
Housing Race discrimination
Liquor problem Safety movement
Medical service Unemployment

SOCIAL psychology

Neurological and behavioristic psychological basis of the ordering of society by means of ideas. F. S. C. Northrop. *bibliog Science* 107:411-17 Ap 23 '48

SOCIAL research

Role of scientific research in human relations. W. A. Hamor. *Advanced Management* 13: 131-4 S '48

See also

Questionnaires

SOCIAL sciences

Current transition in the conception of science. D. E. Cameron. *Science* 107:553-8 My 28 '48

Museum of the social sciences. M. S. Goldstein. *Science* 107:269 Mr 12 '48

National clearinghouse of information on the social sciences established by Office of education. *Science* 108:81 J1 23 '48

Role of science in our unique society. J. B. Conant. *Science* 107:77-83 Ja 23 '48

Symposium on cooperation and conflict among living organisms; drive to advance social science. *Science* 108:263-4 S 3 '48

See also

Economics
Political science
Sociology

Bibliography

Books of 1947 on social subjects. R. W. Holbrook, comp. (*Bibliography no. 3*) 8p pa 10c Russell Sage foundation, 130 E 22d st, New York 10 '48

Study and teaching

Social science and the established order. E. Ginzberg. *bibliog Science* 107:607-11 Je 11 '48

SOCIAL sciences research council

Social research; Social sciences research council proposed in Great Britain. *Sci Am* 178:24 Je '48

SOCIAL security (term)

From social insurance to social security; evolution in France. P. Laroque. *Int Labour R* 57:565-90 Je '48

SOCIAL security, Inter-American conference on. *See* Inter-American conference on social security

SOCIAL security association, International. *See* International social security association

SOCIAL work

Self help and charity; comments on Lord Beveridge's Voluntary action. *Economist* 155:654-5 O 23 '48

Bibliography

Community organization for health and welfare services; a selected bibliography of publications in 1947. M. M. Otto, comp. (*Bibliog. no. 5*) 16p pa 20c Russell Sage foundation, 130 E. 22d st, New York 10 '48

Directories

Public welfare directory, 1948. H. L. Russell, ed. 310p \$1.80 American public welfare assn, 1313 E. 60th st, Chicago 37 '48

See also

Youth serving associations

Periodicals

Checklist of current serials in social welfare. M. M. Otto, comp. (*Bibliography no. 1*) 18p pa 20c Russell Sage foundation, 130 E. 22d st, New York 10 '48

Publicity

Expenditures for publicity by Health and welfare services, New York city. F. Rundell. *Inland Ptr* 121:64 My '48
Salesman's corner; printing needs of the social service agency. F. Rundell. *Inland Ptr* 120:56-7 Mr '48

SOCIAL work, Medical

Some economic and emotional problems of the tuberculosis patient and his family. S. Bloom. *Pub Health Rep* 63:448-55 Ap 2 '48

SOCIAL workers**Salaries**

Salaries in public assistance agencies, 1946. *Mo Labor R* 66:13 Ja '48

SOCIALISM

Failure of Marxism; reprinted from *Life*, Jan. 19. J. Dos Passos. *Edison Elec Inst Bul* 16: 11-14+ Ja '48

Lessons in failure of socialism in Britain. V. L. Horroth. *Mag of Wall St* 83:19-21+ O 9 '48

Socialist strength in Europe. *Economist* 153: 679-80, 722-3 O 25-N 1 '48

They all hated the boss! fallacy of state socialism. E. Lyons. *Pub Util* 42:3-10 J1 1 '48

Who's Utopian now? democratic capitalism has made good on most of the Socialist promises. *Fortune* 37:2-4 Ja '48

See also

Communism

SOCIALIST party (United States)

Do left-wing parties belong in our system? N. Thomas. *Ann Am Acad* 259:24-9 S '48
Why a Socialist campaign in 1948. N. Thomas. *Comm & Fin Chr* 168:712+ Ag 19 '48

SOCIÉTÉ des ingénieurs civils de France

Centenary celebration, Paris, May 29-June 3. Engineer 185:539 Je 4 '48

SOCIETIES

See also

Association and associations Engineering societies
Benefit societies Scientific societies
Chemical societies Trade associations
Trade unions

SOCIETY buildings

Erection of A.S.T.E. building marks milestone in Society progress. *Il* map plan Tool Eng 21:38-9 J1 '48

Pictorial tour of the home of the Institute of radio engineers. plan *Inst* Radio Eng Proc 36:89-100 Ja '48

SOCIETY for cell biology

International congresses on experimental cytology. Science 106:540-1 D 5 '47

SOCIETY for the social study of invention

Organization. Science 107:243-4 Mr 5 '48

SOCIETY of American bacteriologists

Southeastern branch, 2d biannual meeting, Gainesville, Fla. April 16. Science 107:619 Je 11 '48

SOCIETY of American foresters

Officers. Science 107:138 F 6 '48
Professional organization of technically trained foresters. Science 108:260 S 3 '48

SOCIETY of automotive engineers

Annual meeting, Detroit, Jan. 12-16. S A E J 56:18-20+ F '48; Bsns W p53-4 Ja 24 '48; Steel 122:43 Ja 19 '48; Iron Age 161:125+ F 5 '48

Annual meeting, Detroit; abstracts of papers. Automotive Ind 98:30-4 F 1 '48

Council acts to revise dues and fees schedule. S A E J 56:17-18 My '48

Councillors, vice-presidents. S A E J 56:36-9 Ja '48

Fuels and lubricants meeting, Tulsa, Nov. 6-7. Nat Pet N 39:48-9 N 19 '47

National aeronautic and air transport meeting, New York. S A E J 56:55-60 Je '48

National aeronautic meeting, Los Angeles, Oct. 2-4. S A E J 56:36-41 N '47

National aeronautic meeting, Los Angeles; abstracts of papers. Automotive Ind 97:42-6+ N 1 '47

National aeronautic meeting, Los Angeles. Aviation W 49:17 O 18 '48

National air transport meeting, Kansas City, Dec. 1-3. S A E J 56:28-31+ Ja '48

National fuels and lubricants meeting, Tulsa, Nov. 6-7. S A E J 56:29-33 D '47

National passenger car and production meeting, Detroit, March 3-5. S A E J 56:17-19 Ap '48

National passenger car and production meeting, Detroit; abstracts of papers. Automotive Ind 98:38-41, 78 My 1 '48

National production engineering meeting, Cleveland, Oct. 20-21. Automotive Ind 97:43-4 N 15 '47

National production meeting, Cleveland, Oct. 20-21. S A E J 56:17-19+ D '47

National tractor and Diesel engine meeting, Milwaukee, Sept. 17-19. S A E J 56:82-9 O '48

National transportation meeting, Philadelphia, March 30-April 1. S A E J 56:63-7 My '48

National West Coast meeting, San Francisco, Aug. 18-20. S A E J 56:60-4 O '48

President's report for 1947. C. E. Frudden. S A E J 56:17-23 Ja '48

Section officers for 1948-1949. S A E J 56:73-7 O '48

S.A.E. *Il* Fortune 38:78-83+ Ag '48

SAE summer meeting, French Lick Springs, June 6-11. S A E J 56:17, 62-77 J1 '48; Automotive Ind 99:32-7+ J1 1 '48; Nat Pet N 40:37-8+ Je 23 '48

SOCIETY of chemical industry

Annual general meeting, Edinburgh. Chem & Ind p362 Je 5 '48

Annual general meeting, 67th, Edinburgh. Chem & Ind p467-71, 489-92, 503-10, 521-4 J1 24-Ag 14 '48

Food group

Food group; summer tour. Chem & Ind p438-40 J1 10 '48

South-western section

Meeting, 1st, Exeter, England, Feb. 20. Chem & Ind p 150-2+ Mr 6 '48

SOCIETY of cosmetic chemists

Semiannual meeting, 4th, New York, May 19.

Oil Paint & Drug Rep 153:7+ My 24 '48

Semi-annual meeting, New York, Dec. 3.

Oil Paint & Drug Rep 152:7+ D 8 '47

SOCIETY of dyers and colourists

Annual general meeting, 64th, Manchester, March 19. Soc Dyers & Col J 64:169-79 My '48

SOCIETY of economic paleontologists and mineralogists

Annual meeting, Denver, April 26-29; abstracts of papers. Oil & Gas J 46:120-1 Ap 29 '48

SOCIETY of exploration geophysicists

Annual meeting, Denver, April 26-29; abstracts of papers. Oil & Gas J 46:113-17+ Ap 29 '48

SOCIETY of leather trades' chemists

Formation of autonomous national societies; dissolution of International Society. Chem Age (Lond) 58:97 Ja 17 '48

SOCIETY of motion picture engineers

Committees of the Society (correct to May 6, 1948). Soc Motion Picture Eng J 50:505-15 My '48

Committees of the Society, correct to Aug. 10, 1948. Soc Motion Picture Eng J 51:312-22 S '48

Medals and other awards. *Il* Soc Motion Picture Eng J 50:80-6 Ja '48

1948 membership directory. Soc Motion Picture Eng J 51:1-66 pt 2 S '48

Officers, governors and section managers of the Society; constitution and by-laws, awards, treasurer's report. Soc Motion Picture Eng J 50:393-413 Ap '48

Report of SMPE progress committee. *Il* Soc Motion Picture Eng J 50:523-42 bibliog(p541-2) Je '48

Report of the president. L. L. Ryder. Soc Motion Picture Eng J 50:1-3 Ja '48

Report of the president. L. L. Ryder. Soc Motion Picture Eng J 51:221-2 S '48

SOCIETY of naval architects and marine engineers

Annual meeting, 55th, New York, Nov. 13-14. Marine Eng 52:86-96 D '47; 53:65-71 Ja; 69-70 F '48

Committee appointments. Marine Eng 53:90 F '48

SOCIETY of plastics engineers

Abstracts of technical papers at annual meeting, Detroit, Jan. 21-23. Mod Plastics 25:85+ F '48; Plastics 8:40+ Mr '48

SOCIETY of rheology

Annual meeting, New York, Oct. 31-Nov. 1. Chem & Eng N 25:3366 N 17 '47

SOCIETY of systematic zoologists

Organized in Chicago, Dec. 29, 1947. Science 108:35 J1 9 '48

SOCIETY of the plastics industry

Annual low pressure meeting, 3d, Chicago, Jan. 15-16; with abstracts of papers. Plastics 8:30+ Mr '48

Annual meeting, Atlantic City, May 20-21. Chem & Eng N 26:1698 Je 7 '48; India Rubber World 118:382-3 Je '48

Low-pressure industries division 3d annual technical session, Chicago, Jan. 15-16. Chem & Eng N 26:309 F 2 '48

West Coast conference, Santa Barbara, Calif. March 28-31; abstracts of papers. Mod Plastics 25:86+ My '48

Canadian section

Annual convention, 6th, Montreal, Feb. 16-17. Mod Plastics 25:108-9+ Ap '48

SOCIOLOGY

See also

Man—Influence of environment

Methodology

Concerning social physics. J. Q. Stewart. *Il* maps Sci Am 178:20-3 My '48

SOCIOLOGY, Christian

See also

Church and social problems

SOCIOLOGY, Rural

Folk economy of rural Mexico with special reference to marketing. G. M. Foster. J Marketing 13:153-62 O '48

SOCKS. See Hosiery

SOCONY-VACUUM oil company

Socony's trade committees; what they are, how they operate. W. L. Faust. Sales Management 61:56+- O 15 '48

SODA ash

Desulphurizing with soda ash; Lynchburg foundry co. W. W. Levi. *Il Foundry* 76: 78-9+ Ap '48

Developments in recovery of Searles Lake deposits; abstract. W. H. Allen. *Chem Eng* 55:272+ J1 '48

Heats of formation and decomposition of trona. D. R. Torgeson. *bibliog Ind & Eng Chem* 40:1152-3 Je '48

Soda ash in its fastest growing market, glass. *Cer Ind* 50:69+- Je '48

Manufacture

Sosa Texcoco; Mexico's newest and biggest alkali plant. R. Williams, jr. *flow sheet* (p 136-9) *il diag Chem Eng* 55:96-8 Ag '48

Statistics

Alkalis and chlorine in 1947. *Chem Eng* 55: 106-7+ F '48

Outlook for soda ash in the glass industry. M. E. Clark. *Glass Ind* 29:322-4+ Je '48

Soda ash. J. R. Skeen. *Soap & San Chem* 24:50-1 O '48

Soda ash; statistical review. J. R. Skeen. *Chem & Eng N* 26:1440-1 My 17 '48

SODA ash, Substitutes for

Substitutes for soda ash in the treatment of boiler feed water. W. A. Tanzola, R. L. Reed and J. J. Maguire. *bibliog Ind & Eng Chem* 39:1440-3 N '47

SODDING

Sod, its production and placement at the Sampson (N.Y.) naval training station. J. Feld. *map diag Roads & Sts* 91:84-6+- Ap '48

SODIUM

Absorption of oxygen by sodium in liquid ammonia; evidence for the existence of sodium superoxide. W. H. Schechter, H. H. Sisler and J. Kleinberg. *bibliog diag Am Chem Soc J* 70:267-9 Ja '48

Aliphatic halide-carbonyl condensations by means of sodium. E. A. Cadwallader and others. *bibliog J Res Nat Bur Stand* 41: 111-18 Ag '48

Anionic chain polymerization. R. G. Beaman. *bibliog Am Chem Soc J* 70:3115-18 S '48

Apparent molar volume of sodium in liquid ammonia. A. J. Stosick and E. B. Hunt. *diag Am Chem Soc J* 70:2826-7 Ag '48

Dependence of quenching efficiency on temperature. W. M. Smith and F. W. Southam. *J Chem Phys* 15:845-6 N '47

Evaluation of sodium-catalyzed copolymers of 1,3-butadiene and styrene. A. E. Juve and others. *bibliog Ind & Eng Chem* 39:1490-3 N '47

Gamma-rays from alpha-particle reactions. D. E. Alburger. *bibliog diag Phys R* 73: 1014-19 My 1 '48

Gamma-rays from the alpha-particle bombardment of Na, Mg, Al, Si, P, S. E. Pollard and D. E. Alburger. *bibliog diag Phys R* 72:1196-201 D 15 '47

Intrinsic moment of the electron. H. M. Foley and P. Kusch. *bibliog Phys R* 73:412 F 15 '48

Magnetic moment of the electron. P. Kusch and H. M. Foley. *bibliog Phys R* 74:250-63 Ag 1 '48

Metal-ammonia solutions. A. J. Birch and D. K. C. MacDonald. *J Chem Phys* 16:741 J1 '48

Polymerization; the action of metalating reagents on rubber. A. A. Morton and H. E. Ramsden. *bibliog Am Chem Soc J* 70:3132-5 S '48

Resistivity in the systems sodium-ammonia and lithium-ammonia. H. Jaffe. *J Chem Phys* 16:743 J1 '48

Sodium atom model for lecture demonstration. G. A. Hall, jr. *il J Chem Educ* 24: 564 N '47

Some unique properties of sodium and potassium. H. N. Gilbert. *bibliog Chem & Eng N* 26:2604-6+- S 6 '48

Analysis

Determination of sodium, potassium, aluminum, and zinc in derivatives of carboxymethylcellulose. E. P. Samsel and others. *bibliog il diag Anal Chem* 20:142-6 F '48

Errors in the use of a model 18 Perkin-Elmer flame photometer for the determination of alkali metals; interference of common metals, acids, and solvents. T. D. Parks, H. O. Johnson and L. Lykken. *Anal Chem* 20:822-5 S '48

Spectrographic determination of sodium in a silica-alumina catalyst. J. B. Marling. *bibliog Anal Chem* 20:299-300 Ap '48

Isotopes

Absorption of Na²⁴ gamma-radiation in lead, copper, and aluminum. D. E. Alburger. *bibliog diag Phys R* 73:344-6 F 15 '48

Aspects of the biologic decay periods of sodium in normal and diseased man. G. Burch and others. *Science* 107:91-2 Ja 23 '48

Cyclotron targets; preparation and radiochemical separation; Na²³. J. W. Irvine, jr. and E. T. Clarke. *bibliog J Chem Phys* 16: 686-90 J1 '48

Large-angle scattering of Na²⁴ gamma-radiation. E. Pollard and D. E. Alburger. *bibliog diag Phys R* 74:926-32 O 15 '48

Measurement of Na⁺ ion diffusion by means of radiosodium. A. W. Adamson. *bibliog J Chem Phys* 15:762-3 O '47

Nuclear spin and magnetic moment of Na²³. L. Davis, jr. *bibliog Phys R* 74:1193 N 1 '48

Radiofrequency spectra of the sodium halides. W. A. Nierenberg and N. F. Ramsey. *bibliog diag Phys R* 72:1075-89 D 1 '47

SODIUM acetate

Determination of dinitrotoluene in smokeless powder by the titanous chloride-buffer method. P. G. Butts and others. *Anal Chem* 20:947-8 O '48

Equilibria in silver acetate solutions. F. H. MacDougall and S. Peterson. *bibliog J Phys & Colloid Chem* 51:1346-61 N '47

Partial molal volume of acetic acid in sodium acetate and in sodium chloride solutions. H. E. Wirth. *bibliog Am Chem Soc J* 70: 462-5 F '48

SODIUM acetylide

Researches on acetylenic compounds; the reaction between epichlorohydrin and sodium acetylide; a novel route to the ethynyl-ethylenic alcohol, pent-2-en-4-yn-1-ol. L. J. Haynes and others. *Chem Soc J* p 1583-5 D '47

SODIUM alginate

Alginate acid acetate. A. Wassermann. *Chem Soc J* p 197-8 F '48

SODIUM alloys

Equilibrium relations in aluminum-sodium alloys of high purity. W. L. Fink and others. *bibliog il diag Metals Tech* 15:TP2339 1-8 F '48

Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Calingaert, H. Shapiro and I. T. Krohn. *Am Chem Soc J* 70:270-7 Ja '48

See also

Sodium potassium alloys

SODIUM aluminum fluoride. See Cryolite

SODIUM amalgam

Alcohols of the sugar group; 2,5-anhydro-L-iditol. L. Vargha, T. Puskás and E. Nagy. *bibliog Am Chem Soc J* 70:261-2 Ja '48

SODIUM amide

Claisen benzoylation of certain methylene ketones with phenyl benzoate by the sodium amide method. C. R. Hauser and others. *bibliog Am Chem Soc J* 69:2649-51 N '47

Reduction by dissolving metals. A. J. Birch. *Chem Soc J* p 1642-8 D '47

SODIUM aminobenzoate**Analysis**

p-Aminobenzoic acid and its sodium salt; properties of analytical interest. C. J. Kern, T. Antoshkiw and M. R. Malese. *bibliog Anal Chem* 20:919-22 O '48

SODIUM bichromate. See Sodium dichromate

SODIUM carbonates

Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hofstijzer. *bibliog Chem Eng Prog* 44:529-36; Discussion. 536 J1 '48

New surface treatment for magnesium; anodizing in a hot saturated sodium carbonate solution. A. L. Kohl and H. Waterman. *bibliog Il Iron Age* 161:50-5 Ja '48

Solubility of quartz in sodium carbonate solutions at high temperature. I. I. Friedman. *Am Chem Soc J* 70:2649-50 Ag '48

Thermochemistry of sodium carbonate and its solutions. K. A. Kobe and T. M. Sheehy. *bibliog Ind & Eng Chem* 40:99-102 Ja '48; Addendum to table 5. 40:2370 D '48

Analysis

Determination of small amounts of sodium bicarbonate in sodium carbonate. R. B. Regier. *Anal Chem* 19:1039 D '47

New pH indicator for titration of sodium carbonate; disodium 4,4'-bis(2-amino-1-naphthylazo)-2,2'-stilbenedisulfonate. M. Taras. *bibliog Anal Chem* 20:630-1 J1 '48

Physiological effect

Sodium bicarbonate, an occupational medical problem. E. W. Probst and F. B. Lanahan. *Ind Med* 17:24 Ja '48

SODIUM carboxymethyl cellulose. See Carboxymethyl cellulose

SODIUM chlorate

Absorptiometric determination of chromium in high-speed steels by sodium chlorate oxidation. F. E. Eborall. *Metallurgia* 38:135-6 J1 '48

Blame weed killer for roadside fire. *Eng N* 141:87 Ag '48

Manufacture

Electrolytic production of chlorates. N. C. White. flow sheet *Electrochem Soc Trans* 92 (preprint 25):295-301 '47

SODIUM chloride. See Salt

SODIUM chlorite

Bleaching of jute with chlorite. P. B. Sarkar and H. Chatterjee. *bibliog Textile Inst J* 39:T274-81 Ag '48

Combination between lignin and polyuronic acid in jute fibre. P. B. Sarkar and others. *bibliog Textile Inst J* 39:T1-7 Ja '48

Sodium chlorite as an aid in plant botanical and anatomical study of plant tissues. E. S. Barghoorn. *bibliog Science* 107:480-1 My '48

Sodium chlorite goes commercial; source of chlorine dioxide. G. P. Vincent. flow diag *il Sci Am* 177:249-51 D '47

SODIUM cholestanol sulfate

Studies in steroid metabolism; the problem of Walden inversion in the reactions of steroid hydrogen sulfates and steroid sulfites. S. Lieberman, L. B. Hariton and D. K. Fukushima. *bibliog Am Chem Soc J* 70:1427-32 Ap '48

SODIUM compounds

Allylic rearrangements; reaction of the sodium derivative of allylbenzene with carbonyl compounds. T. W. Campbell and W. G. Young. *bibliog Am Chem Soc J* 69:3066-8 D '47

Deoxyribose nucleic acids; electrometric titration of the acidic and the basic groups of the deoxyribose nucleic acid of calf thymus. J. M. Gulland, D. O. Jordan and H. F. W. Taylor. *Chem Soc J* p 1131-41 S '47

Deoxyribose nucleic acids; preparation of the tetrasodium salt of the deoxyribose nucleic acid of calf thymus. J. M. Gulland, D. O. Jordan and C. J. Threlfall. *Chem Soc J* p 1129-30 S '47

Deoxyribose nucleic acids; viscosity and streaming birefringence of solutions of the sodium salt of the deoxyribose nucleic acid of calf thymus. J. M. Creeth, J. M. Gulland and D. O. Jordan. *Chem Soc J* p 1141-5 S '47

Effect of alkaline electrolytes on micelle formation in soap solutions. R. C. Merrill and R. Getty. *bibliog J Phys & Colloid Chem* 52:774-87 My '48

Isopiestic measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25°. J. M. Stokes. *bibliog Am Chem Soc J* 70:1944-6 My '48

Metalation studies in the thiophene series; condensation of thienyl- and substituted thienyl-sodium compounds with ethylene oxide. J. W. Schick and H. D. Hartough. *bibliog Am Chem Soc J* 70:1646-7 Ap '48

Metalation studies in the thiophene series; preparation of 2-thienylsodium and the 5-halo-2-thienylsodiums. J. W. Schick and H. D. Hartough. *bibliog Am Chem Soc J* 70:286-8 Ja '48

Mexican production of sodium compounds. *Chem & Eng N* 26:953 Mr 29 '48

Solubility of soaps and of some salts in mixtures of solvents, one of which is of glycolic type. S. R. Palit. *bibliog Am Chem Soc J* 69:3120-9 D '47

Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Callingaert, H. Shapiro and I. T. Krohn. *Am Chem Soc J* 70:270-7 Ja '48

Analysis

Determination of carboxylic acid salts. S. Siggia and M. Maisch. *Anal Chem* 20:235-6 Mr '48

SODIUM desoxyribosenucleate. See Sodium thymonucleate

SODIUM dichromate

Pinch in chrome. *Bsns W* p32 F 7 '48

SODIUM dodecyl sulfate

Infrared absorption spectra of some amino acids and their complexes. I. M. Klotz and D. M. Gruen. *bibliog J Phys & Colloid Chem* 52:961-8 Je '48

Properties of freshly-formed surfaces; expansion of soluble films of sodium dodecyl sulphate at air-water and toluene-water interfaces. C. C. Addison and S. K. Hutchinson. *Chem Soc J* p343-8 J1 '48

SODIUM dodecyl sulfate

Critical micelle concentrations as determined by refraction. H. B. Klevens. *bibliog J Phys & Colloid Chem* 52:130-48 Ja '48

SODIUM ethoxide

Kinetic study of alkylation by ethyl arylsulfonates. M. S. Morgan and L. H. Cretcher. *bibliog Am Chem Soc J* 70:375-8 Ja '48

SODIUM fluoaluminates

Nature of precipitated sodium fluoaluminates. J. M. Cowley and T. R. Scott. *Am Chem Soc J* 69:2596-8 N '47

SODIUM fluoride

Double fluorides of potassium or sodium with uranium, thorium or lanthanum. W. H. Zachariasen. *Am Chem Soc J* 70:2147-51 Je '48

Effect of topically applied fluoride on dental caries experience; experiments with sodium fluoride and calcium chloride. D. J. Galagan and J. W. Knutson. *bibliog Pub Health Rep* 63:1215-21 S 17 '48

Effect of topically applied fluorides on dental caries experience; report of findings with two, four and six applications of sodium fluoride and of lead fluoride. D. J. Galagan and J. W. Knutson. *bibliog Pub Health Rep* 62:1477-83 O 10 '47

Health of workers exposed to sodium fluoride at open hearth furnaces. (Pub. health bul. 299) 64p U.S. Public health service, Washington; ps 25c Supt. of doc. '48

Mean life of negative mesotrons in sodium fluoride. H. K. Ticho and M. Schein. *bibliog diag Phys R* 73:81-2 Ja 1 '48

Some practical aspects of the addition of sodium fluoride to a municipal water supply. J. C. Zufelt. *il Water & Sewage Works* 95:57-60 F '48

Analysis

Titration of fluoride ion with aluminum chloride. J. H. Saylor and M. E. Larkin. *bibliog Anal Chem* 20:194-6 Mr '48

SODIUM fluoroacetate

Data on methods of use of 1080, a potent rat poison. *Pub Works* 78:36-7 N '47

Manufacture

Making 1080 safe; case study in safe manufacture and distribution of a hazardous chemical. R. L. Jenkins and H. C. Koehler. *il Chem Ind* 62:232-5 F '48

SODIUM gentisate

Antirheumatic effect of sodium gentisate. K. Meyer and C. Ragan. *Science* 108:281 S 10 '48

SODIUM glutamate

Campaigns laid out to convert oriental seasoning into household item under modern brand names. W. H. Davis. *Ptr Ink* 224:101 S 10 '48

Food flavor from beet sugar byproduct. P. D. V. Manning, flow sheet (p 136-9) *il Chem Eng* 55:100-1 Ap '48; Same, *Food Ind* 20:510-15 Ap '48

Manufacture of monosodium glutamate. P. D. V. Manning, R. W. Shafer and F. H. Catterton, flow sheet *il Chem Eng Prog* 44:491-6 JI '48; Excerpt, *Mech Eng* 70:761-2 S '48; Discussion, *Chem Eng Prog* 44:496 JI '48

Monosodium glutamate; a symposium. 92p bibliog(95 titles, p79-83) Associates food and container institute, 1849 West Pershing road, Chicago 9 '48

Monosodium glutamate given thorough study; symposium. *Food Ind* 20:746-7 My '48

Painful growth of monosodium glutamate; J. E. Larrow's twelve-year struggle to wring monosodium glutamate out of beet sugar waste. *Chem Eng* 55:223-4+ Ap '48

Protein hydrolysate; source of glutamate flavor. L. A. Hall, bibliog *il Food Ind* 20:1158-60+ Ag '48

What glutamate does in food. S. E. Cairncross and L. B. Sjostrom. *Food Ind* 20:982-3+ JI '48

SODIUM halides

Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions. R. G. Bates, bibliog *J Res Nat Bur Stand* 39:411-17 N '47

Radiofrequency spectra of the sodium halides. W. A. Nierenberg and N. F. Ramsey, bibliog *diag Phys R* 72:1075-89 D 1 '47

See also

Salt
Sodium fluoride
Sodium iodide

SODIUM hexametaphosphate

Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeyer and A. D. Ayers, bibliog *Am Chem Soc J* 69:2769-61 N '47

Calgon treatment as applied in water quality control. O. Rice. *Water & Sewage Works* 95:R135 Ap '48

Metachromatic reaction of hexametaphosphate. J. M. Wiame, bibliog *Am Chem Soc J* 69:3146-7 D '47

Stabilization of lime-softened water. H. O. Hartung, flow diag *il Water & Sewage Works* 95:R129-32 Ap '48

Use of sodium hexametaphosphate in the blanching of peas; abstract. J. W. Holmquist, C. F. Schmidt and A. E. Guest, *Food Ind* 20:237 F '48

SODIUM hydride

Employment of sodium hydride as a condensing agent. N. Green and F. B. LaForge, *Am Chem Soc J* 70:2287-8 Je '48

Lukens initiates its new descaling plant. *Paper Tr J* 126:24 F 12 '48

Neutron diffraction studies of NaH and NaD. C. G. Shull and others, *Phys R* 73:842-7 Ap 15 '48

Sodium hydride effective in descaling stainless steel sheets. M. H. Lebowitz, *il Steel* 122:107+ Ap 5 '48

Stobbe condensation with sodium hydride. G. H. Daub and W. S. Johnson, bibliog *Am Chem Soc J* 70:418-19 Ja '48

Synthesis of some β -keto esters. S. B. Solomon and F. B. LaForge, bibliog *Am Chem Soc J* 69:2677-8 N '47

SODIUM hydrosulfite

Hydrosulfites; production, properties, and textile applications. G. Brearley and J. Starkie, *diag Soc Dyers & Col J* 64:278-83 Ag '48

SODIUM hydroxide

Action of alkali on chloral-quinadine. R. B. Woodward and E. C. Kornfeld, bibliog *Am Chem Soc J* 70:2508-14 JI '48

Colorimetric determination of certain dinitro aromatics in the presence of the corresponding mononitro compounds. F. L. English. *Anal Chem* 20:745-6 Ag '48

Decomposition of 2,5-dinitrobenzoic acid by alkali. W. D. Langley. *Am Chem Soc J* 70:1633-4 Ap '48

Dissolution of aluminum in sodium hydroxide solutions. M. A. Streicher, bibliog(45 ref) *il diag Electrochem Soc J* 93:285-316 Je '48

Enzymatic hydrolysis of desoxyribonucleic acid prepared with the use of strong sodium hydroxide. C. A. Zittle, bibliog *Franklin Inst J* 245:78-80 Ja '48

Experiments on the corrosion resistance of porous bronze compacts produced by powder metallurgy. M. M. Hallett, *Soc Chem Ind J* 67:57-61 F '48

Fluorine disposal; continuous process. R. Landau and R. Rosen, flow sheet *Ind & Eng Chem* 40:1389-93 Ag '48

Free alkali in soaps. T. Ruemele, *Soap & San Chem* 24:42-3 Ja '48

Higher yields of better oils by continuous alkali refining. L. D. Tyler, *il diag Food Ind* 20:1456-9+ O '48

Kinetics of simultaneous absorption and chemical reaction. D. W. van Krevelen and P. J. Hoftijzer, bibliog *Chem Eng Prog* 44:529-36; Discussion, 536 JI '48

Reaction of coal with oxygen in the presence of aqueous sodium hydroxide; effect of methylation with dimethyl sulfate. G. R. Yohe and E. O. Blodgett, bibliog *diag Am Chem Soc J* 69:2644-8 N '47

Time viscosity studies of the system groundnut protein-caustic soda-water. R. H. K. Thomson and A. Johnston, *Soc Chem Ind J* 66:373-4 O '47

Manufacture

Caustic purification by liquid-liquid extraction. H. C. Twiehaus and N. J. Ehlers, *il diag Chem Ind* 63:230-3 Ag '48

Electrolytic caustic soda; latest equipment. *il Chem Age (Lond)* 57:786 D 20 '47

New mercury cell makes its bow; Mathieson alkali works. W. C. Gardiner, *il diag Chem Eng* 54:108-12 N '47

Power conversion for the chlorine caustic industry. M. S. Kircher and D. O. Hubbard, *il diags Elec Eng* 66:1059-63 N '47

Sosa Texoco; Mexico's newest and biggest alkali plant. R. Williams, jr. flow sheet (p 136-9) *il diag Chem Eng* 55:96-8 Ag '48

Statistics

Alkalies and chlorine; U.S. production 1921-1947; estimated distribution by industry, 1945-1947. *Chem Eng* 55:106-7+ F '48

SODIUM hypochlorite

Effect of hypochlorite bleaching on the resistance to abrasive wear of cotton fabric. H. E. Cowles and J. G. Williams, *Textile Inst J* 39:P375-7 My '48; Discussion, 39: P504-6 Ag '48

Slug feeding of sodium hypochlorite on water-flood leases. J. K. Barton and others, *World Oil* 128:194+ My '48

SODIUM hypophosphite

Deposition of nickel and cobalt by chemical reduction. A. Brenner and G. Riddell, *il J Res Nat Bur Stand* 39:385-95 N '47

SODIUM hyposulfite

Stripping of dyed textiles by the use of hydrosulphite compounds. J. Starkie, *Soc Dyers & Col J* 63:340-3 N '47

Work horse of the dye-house; Lykopen. *il Rayon* 29:86-7 Mr '48

SODIUM in the body

Aspects of the biologic decay periods of sodium in normal and diseased man. G. Burch and others, *Science* 107:91-2 Ja 23 '48

SODIUM iodide

Alkali halide scintillation counters. R. Hofstadter, bibliog *il Phys R* 74:100-1 JI 1 '48

SODIUM isopropyl xanthate

Chemical herbicides; sodium isopropyl xanthate, and allyl mixed chlorophenyl carbonate, *Chem Ind* 62:260+ F '48

SODIUM laurate

Effect of alkaline electrolytes on micelle formation in soap solutions. R. C. Merrill and E. Getty, bibliog *J Phys & Colloid Chem* 52:774-87 My '47

Osmotic behavior of some colloidal electrolytes as determined by means of the Hill-Baldes vapor-tension apparatus. M. N. Fineman and J. W. McBain, bibliog *diag J Phys & Colloid Chem* 52:881-96 My '48

SODIUM linoleate

Soap ingredients as retarders in butadiene-styrene copolymerization, J. W. Wilson and E. S. Pfau, *bibliog Ind & Eng Chem* 40:530-4 Mr '48

SODIUM metaphosphates

Sequestration, dispersion, and dilatancy; lecture demonstrations, T. H. Daugherty, *bibliog il J Chem Educ* 25:482-8 S '48

See also

Sodium hexameta-phosphate

SODIUM methacrylate

Electroviscous effect with measurements on sodium polymethacrylate solutions, A. H. W. Aten, Jr., *bibliog J Chem Phys* 16:636 Je '48

SODIUM methoxide

Claisen condensation of methyl esters, E. E. Royals, *bibliog Am Chem Soc J* 70:489-91 F '48

SODIUM naphthalene

Quantitative volumetric analysis of carbon-bonded halogen with sodium naphthalene, F. L. Benton and W. H. Hamill, *Anal Chem* 20:269-70 Mr '48

SODIUM nitrate

Growth of coliform bacteria in media containing nitrate and nitrite, P. R. Lewis and C. N. Hinshelwood, *Chem Soc J* p824-47 Je '48

Railroad boiler-seam cracking controlled by nitrate treatment, A. A. Berk, *bibliog diag Ind & Eng Chem* 40:1371-5 Ag '48

Systems ammonium sulfamate-sodium sulfamate and sodium sulfamate-sodium nitrate, S. H. Laning and P. A. van der Meulen, *Am Chem Soc J* 70:1799-800 My '48

SODIUM nitrite

Chemical determination of tryptophan; study of color-forming reactions of tryptophan, *p*-dimethylaminobenzaldehyde, and sodium nitrite in sulfuric acid solution, J. R. Spies and D. C. Chambers, *bibliog Anal Chem* 20:30-9 Ja '48

Decomposition reactions of sodium aryldiazotates; replacement of the diazo- by the nitro-group in alkaline solution with sodium nitrite, H. H. Hodgson and E. R. Ward, *Chem Soc J* p566-9 My '48

Growth of coliform bacteria in media containing nitrate and nitrite, P. R. Lewis and C. N. Hinshelwood, *Chem Soc J* p824-47 Je '48

Inhibition of steel corrosion by sodium nitrite in water, M. Cohen, *bibliog diags Electrochem Soc J* 93:26-39 Ja '48

Rate of breakdown and mechanism of nitrite inhibition of steel corrosion, R. Pyke and M. Cohen, *Electrochem Soc J* 93:63-78 Mr '48

SODIUM oleate

Solubility of soaps and of some salts in mixtures of solvents, one of which is of glycolic type, S. R. Palit, *bibliog Am Chem Soc J* 69:3120-9 D '47

SODIUM oxalate

Second dissociation constant of oxalic acid from 0° to 50° C, and the pH of certain oxalate buffer solutions, G. D. Pinching and R. G. Bates, *bibliog J Res Nat Bur Stand* 40:405-16 My '48

SODIUM oxide

Absorption of oxygen by sodium in liquid ammonia; evidence for the existence of sodium superoxide, W. H. Schechter, H. H. Sisler and J. Kleinberg, *bibliog diag Am Chem Soc J* 70:267-9 Ja '48

Liquid immiscibility in the system $\text{H}_2\text{O}-\text{Na}_2\text{O}-\text{SiO}_2$, O. F. Tuttle and I. I. Friedman, *il diag Am Chem Soc J* 70:919-26 Mr '48

Preliminary study on portions of systems $\text{Na}_2\text{O}-\text{CaO}-\text{Al}_2\text{O}_3-\text{Fe}_2\text{O}_3$ and $\text{Na}_2\text{O}-\text{CaO}-\text{Fe}_2\text{O}_3-\text{SiO}_2$, W. R. Eubank and R. H. Bogue, *bibliog Am Cer Soc J* 31:284-91 O 1 '48; Same, *J Res Nat Bur Stand* 40:225-34 Mr '48

See also

Sodium peroxide

SODIUM palmitate

Electrical conductivity of crystalline and liquid-crystalline soap-water systems, R. D. Vold and M. J. Heldman, *bibliog diags J Phys & Colloid Chem* 52:148-66 Ja '48

Soap ingredients as retarders in butadiene-styrene copolymerization, J. W. Wilson and E. S. Pfau, *bibliog Ind & Eng Chem* 40:530-4 Mr '48

Solubility of sodium soap in organic solvents, A. Bondi, *bibliog J Chem Phys* 16:157-8 F '48

X-ray study of the stepwise melting of anhydrous sodium palmitate, H. Nordsieck and others, *bibliog il J Chem Phys* 16:175-80 Mr '48

SODIUM penicillin. See Penicillin**SODIUM pentachlorophenate**

Chlorine and sodium pentachlorophenate as fouling preventives in sea water conduits, H. J. Turner, Jr., D. M. Reynolds and A. C. Redfield, *bibliog Ind & Eng Chem* 40:450-3 Mr '48

Foaming properties of solutions of various chlorinated phenols, C. R. Haefele, *il Paper Tr J* 126:66-8 Ap 8 '48

Treatment for prevention of decay in stacked straw, B. F. Stahl and H. L. Smith, *Paper Tr J* 125:52-4 D 11 '47

SODIUM periodate

Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose, F. S. H. Head, *bibliog Textile Inst J* 38: T389-407 D '47

SODIUM peroxide

Paper mill goes modern; now de-inks with peroxide, J. A. Lee, *flow sheet(p146-9) il Chem Eng* 55:106-9 Ja '48

SODIUM phosphates

Activity coefficients in aqueous mixtures of phosphates with sodium chloride, sodium bromide, and sodium iodide, and the pH of phosphate buffer solutions, R. G. Bates, *bibliog J Res Nat Bur Stand* 39:411-17 N '47

See also

Sodium hexameta-

phosphate

Sodium metaphos-

phates

Sodium pyrophos-

phate

Analysis

Determination of sodium pyrophosphate and tripolyphosphate, W. R. Cale, *Can Chem & Process Ind* 32:741-5 Ag '48

SODIUM potassium alloys

Use of alkali metal alloys for trapping mercury vapor, K. W. Hunten and others, *diag R Sci Instr* 18:842-4 N '47

SODIUM pyrophosphate

Sodium pyrophosphate, J. R. Skeen, *Soap & San Chem* 24:44-5+ My '48

SODIUM silicates

Activated silica sols in water treatment, R. C. Merrill, *bibliog diag Ind & Eng Chem* 40:1355-9 Ag '48

Effect of sodium silicates on the absorption spectra of some dyes, R. C. Merrill, R. W. Spencer and R. Getty, *bibliog Am Chem Soc J* 70:2460-4 Jl '48

Phase study of rosin soap-sodium chloride-water and rosin soap-sodium silicate-water systems, R. C. Merrill and R. Getty, *bibliog J Phys & Colloid Chem* 52:167-79 Ja '48

Polysilicic acid esters; preparation from sodium silicate, R. K. Iler and P. S. Pinkney, *bibliog Ind & Eng Chem* 39:1379-84 N '47

Soluble silicates and the refractories industry, H. L. Bolton, *bibliog il Am Cer Soc Bul* 27:229-34 Je 15 '48

Tailored adhesives for corrugated board, J. H. Wills, *bibliog il Paper Tr J* 127:47-50 Jl 8 '48; Same abr. *Paper Ind* 30:616+ Jl '48

X-ray diffraction studies of steam turbine deposits, L. A. Burkardt and C. E. Imhoff, *bibliog il Ind & Eng Chem* 39:1427-32 N '47

SODIUM stearate

Colloidal structures in binary soap systems, T. M. Doscher and R. D. Vold, *bibliog diags J Phys & Colloid Chem* 52:97-109 Ja '48

Electrical conductivity of crystalline and liquid-crystalline soap-water systems, R. D. Vold and M. J. Heldman, *bibliog diags J Phys & Colloid Chem* 52:148-66 Ja '48

Solubility of sodium soap in organic solvents, A. Bondi, *J Chem Phys* 16:157-8 F '48

SODIUM sulfamate

Systems ammonium sulfamate-sodium sulfamate and sodium sulfamate-sodium nitrate. S. H. Laning and P. A. van der Meulen. *Am. Chem Soc J* 70:1799-800 My '48

SODIUM sulfates

Current tasks of exploitation of sodium sulphate deposits in the fourth five-year plan; abstract. A. I. Dzents-Litovskiy. *Chem Eng* 55:278+ F '48

Electrolyzing sodium sulphate waste from spinning bath recovery in viscose process. F. W. Frisk. *bibliog diags Rayon* 29:51-3 F '48

Reduction of sodium sulfate in glass manufacture; abstract. N. I. Kitaigorodskii and others. *Glass Ind* 28:636 D '47

Role of aggregating conditions and particle fusion in the growth of polymer particles during emulsion polymerization. C. E. Rhines and J. McGavack. *il Rubber Age* 63:599-606 Ag '48

Vapor pressures of solutions of sodium and potassium bisulfates at 25°. R. H. Stokes. *Am Chem Soc J* 70:374 F '48

See also

Sodium thiosulfate

SODIUM sulfides

β -Propiolactone; reactions with salts of inorganic acids. T. L. Gresham and others. *Am Chem Soc J* 70:999-1001 Mr '48

Rapid preparation of a solution of sodium hydrogen sulphide. H. H. Hodgson and E. R. Ward. *Chem Soc J* p242 F '48

Analysis

Rapid determination of sulfides, thiosulfates, and sulfites in refinery spent caustic solutions. J. H. Karchmer and J. W. Dunahoe. *bibliog diag Anal Chem* 20:915-19 O '48

SODIUM sulfites

Aliphatic nitro-compounds; preparation of 2-nitroalkanesulphonic acids by interaction of α -nitro-olefins and sodium hydrogen sulphite. R. L. Heath and H. A. Piggott. *Chem Soc J* p 1481-5 N '47

Neutral sodium sulphite for digestion of corrugating strawboard. B. F. Stahl. *Paper Tr J* 126:131-4 My 27 '48

Pulping of straw with digestion liquors containing sodium sulphite. G. S. Hannaway. *Paper Tr J* 126:124+ F 26 '48; Same cond. *Paper Ind* 29:714+ Ag '47

Some experiments in sodium sulphite pulping. J. N. McGovern and E. L. Keller. *bibliog Pulp & Pa of Can* 49:98-100 Ag '48

Analysis

Rapid determination of sulfides, thiosulfates, and sulfites in refinery spent caustic solutions. J. H. Karchmer and J. W. Dunahoe. *bibliog diag Anal Chem* 20:915-19 O '48

SODIUM sulfoxylate

Estimation of vat printing paste on cloth and an electrometric analysis of the critical chemical. H. E. M. Specht. *bibliog Am Dyestuff Rep* 37:110-11+ F 23 '48

SODIUM thiosulfate

Determination of high molecular weight quaternary ammonium compounds as the triiodides. O. B. Hager and others. *bibliog Anal Chem* 19:885-8 N '47

Analysis

Rapid determination of sulfides, thiosulfates, and sulfites in refinery spent caustic solutions. J. H. Karchmer and J. W. Dunahoe. *bibliog diag Anal Chem* 20:915-19 O '48

SODIUM thymonucleate

Diffusion and sedimentation of sodium thymonucleate. H. Kahler. *bibliog J Phys & Colloid Chem* 52:676-89 Ap '48

SODIUM xylenesulfonate

Chemical copula; sodium xylenesulfonate joins incompatible substances. *Chem Ind* 62:741-2 My '48

Hydrotropic solubilities; solubilities in 40 per cent sodium xylenesulfonate. H. S. Booth and H. E. Everson. *bibliog Ind & Eng Chem* 40:1491-3 Ag '48

SODON lake

Palynological studies at Sodon lake; size-frequency study of fossil spruce pollen. S. A. Cain. *bibliog map diags Science* 108:115-17 Jl 30 '48

SOFAR

Sofar; position-determining system depends upon propagation of sound from bomb exploded in the ocean. W. W. Stiffer, Jr. and W. F. Saars. *il diag Electronics* 21:98-101 Je '48

SOFT drinks. See Beverages

SOFTENING agents

Anionic substantive softeners. E. D. McLeod. *bibliog Am Dyestuff Rep* 37:30-3 Ja 12 '48; Abstract. *Textile World* 98:218+ F '48

Scott. *Soc Chem Ind J* 66:330-6 S '47

SOIL analysis

Concentration methods in spectrographic analysis; recovery of trace constituents in plant materials and soil extracts by mixed organic reagents. R. L. Mitchell and R. O. Quantitative microdetermination of magnesium in plant tissue and soil extracts; rapid colorimetric method. M. Drosdoff and D. C. Nearpass. *bibliog Anal Chem* 20:673-4 Jl '48

Mechanical analysis

New soil-dispersing apparatus for mechanical analysis of soils. A. M. Wintermyer. *diags Pub Roads* 25:102-6 S '48

SOIL bacteriology

See also

Azotobacter

SOIL cement mixtures

Soil-cement ditch lining. *il Roads & Sts* 91:67 My '48

Soil-cement lining placed mechanically; irrigation canal on the W. C. Austin project. W. S. Byrne and W. G. Holtz. *il Eng N* 139:860-3 D 25 '47

Soil-cement tested as low-cost canal lining. *il Civil Eng* 17:45 D '47

SOIL-cement pavements. See Pavements, Soil-cement

SOIL conservation

Arid acres point to arid living; review of Road to survival, by William Vogt. *Bsns W* p80, 82-3 O 2 '48

Development of soil conservation programmes in Australia. K. O. Campbell. *Land Econ* 24:63-78 F '48

Dust storms of 1948; marginal lands in New Mexico and west Texas. H. H. Finnell. *il map Sci Am* 179:7-11 Ag '48

Eight-state soil inspection tour. L. Reid. *Banking* 41:62+ O '48

Five-point soil conservation program; Palouse branch of Old national bank of Spokane. C. E. Funkhouser. *Banking* 40:50+ Je '48

One-day erosion surgery demonstrations. M. B. Leach. *il Banking* 41:54-5+ S '48

One-day show on southern farm. *il Bsns W* p25 My 22 '48

Soil conservation; all aboard! special train, sponsored by railroad and bank officials, tours Texas farm lands. J. J. McCann. *il Banking* 40:54 Ja '48

Utilities' stake in soil conservation. H. H. Bennett. *Edison Elec Inst Bul* 16:203-6 Je '48; Excerpts. *Elec World* 129:91 Je 5 '48

SOIL consolidation. See Soils—Consolidation

SOIL corrosion. See Corrosion and anti-corrosives—Underground corrosion

SOIL disinfection

Application of electricity to horticulture. C. A. Cameron Brown and E. W. Golding. *il Inst EEJ* 95 pt 2:430-1 Ag '48

Electro-horticulture; research problems under investigation by the E.R.A. *Electrician* 140:1267-8 Ap 23 '48

SOIL erosion. See Erosion

SOIL fertility

Diversity of amino acids in legumes according to the soil fertility. V. L. Sheldon and others. *Science* 104:426-8 O 22 '48

SOIL mechanics

Consolidation of fine-grained soils by drain wells. R. A. Barron. *bibliog il diags Am Soc C E Proc* 73:811-35 Je '47; Discussion. 74:153-8, 707-10, 875-8 Ja, My-Je '48

Experiences with soil types in naval construction. L. A. Palmer. *diag Am Soc C E Proc* 74:72-83 Ja '48

International conference on soil mechanics, 2d, Rotterdam, June 22. *Engineering* 166:41, 136-7, 161-2, 208-10, 267-9, 401-3, 413-14 Jl 9, Ag 6-13, 27, S 17, O 22-29 '48

SOIL mechanics—Continued

Nomograph solves equations for laboratory soil permeability coefficient. B. C. Wilkas. *Civil Eng* 18:375-6 Je '48

Panama canal; excavation slopes. W. V. Binger and T. F. Thompson. *il* maps plan diags *Am Soc C E Proc* 74:570-90 Ap '48

Panama canal; strength of soils under dynamic loads; studies of stability of slopes under effects of bombing. A. Casagrande and W. L. Shannon. *il* diags *Am Soc C E Proc* 74:591-608 Ap '48

Progress in soil mechanics. K. von Terzaghi. *Engineering* 166:16-17 Ji '48

Soil mechanics; abstracts of A.S.C.E. fall meeting papers. *Civil Eng* 18:681+ N '48

Stability of soil slopes. E. Tan. diags *Am Soc C E Proc* 73:19-38 Ja '47; Discussion. 73:723-8, 963-8, 1119-21; 74:221-30 My-Je, S '47, F '48

Underground conduits; an appraisal of modern research. M. G. Spangler. bibliog diags *Am Soc C E Proc* 73:855-84 Je '47; Discussion. 73:1543-6; 74:261-76, 381-5, 727-33 D '47, F-Mr, My '48

See also

Earth pressure**SOIL moisture**

Ground-moisture meter. *Bsns W* p69 My 15 '48

Measuring soil moisture under field conditions; abstract. G. J. Bouyoucos and A. H. Mick. *Pub Works* 73:39 N '47

Rapid moisture-density test. F. A. Harris. *il* diags *Roads & Sts* 90:85-8 O '47

Threat to wheat; parched topsoil. *Bsns W* p25 N 1 '47

SOIL percolation

Proposed method for measuring the movement of soluble fertilizer salts in the soil. J. E. Hester. *diag Science* 107:99-100 Ja 23 '48

SOIL pipes

Centrifugal casting of soil pipe. R. L. Farabee. *il Foundry* 76:88-91+ Ji '48

SOIL sampling

Improved technique saves time in obtaining undisturbed chunk samples of clay. R. W. Brandley and S. D. Wilson. *il Civil Eng* 18:239-40 Ap '48

Taking soil samples by soil tube method. O. J. Porter. *il Roads & Sts* 90:64-5+ N '47

Undisturbed soil sampler devised for use on Houston expressways. *il Roads & Sts* 91:98-9 Ja '48

SOIL stabilization

Base stabilization widely used on North Carolina secondary roads. *il Eng N* 141:123-30 Ji 8 '48

Development of a method of test for soil bituminous mixtures. E. O. Rhodes and P. F. Phelan. diags *Am Soc T M Proc* 46:1416-28; Discussion. 1429-36 '46

Electrical stabilization of soil. E. S. Barber. bibliog diags *Roads & Sts* 91:64-5 Je '48

Lime-soil stabilization; abstract. C. McDowell. *Rock Prod* 51:102 My '48

Soil stabilization by pneumatic pressure injection methods; Thomas A. Edison vocational and technical high school building, Elizabeth, N.J. *il diag Concrete* 56:40+ Mr '48

Soil stabilization, subgrades and subbases; abstract. H. Allen. *Roads & Sts* 91:93 Je '48

Stabilization of railway embankments near Gouda. J. L. A. Cuperus. *Engineering* 166:267 S 17 '48

Tar stabilized roads; progress report of ARBA committee. A. R. Taylor. *Roads & Sts* 91:109 Ap '48

Tung oil of value in stabilizing soil for land-filling strips. *CAA J* 9:100 S 15 '48

Waterproofing of soils by resinous materials; abstract and discussion. K. E. Clare. *Chem & Ind* p379-80 Je 12 '48

SOILING of textiles

Studies in soiling and detergency. J. R. Clark and V. B. Holland. bibliog *Am Dyestuff Rep* 36:734-47 D 15 '47

Testing company to produce standard soiled fabrics for evaluating detergents and washing machines. *Ind Stand* 19:125 S '48

SOILS

Adsorption phenomena in soils with special reference to their surface area. W. H. Cohen and B. H. Knight. bibliog diags *Soc Chem Ind J* 66:357-64 O '47

Carbohydrate metabolism in the soil. W. G. C. Forsyth. bibliog *Chem & Ind* p515-19 Ag 14 '48

Effect of organic manures on the auxin content of soils and the auxin balance in soils. J. H. Hamence. *Soc Chem Ind J* 67:277-81 Ji '48

Fixation of potassium in relation to exchange capacity of soils; abstract. J. S. Joffe and A. K. Levine. *Am Cer Soc J* 31 (Cer A):22, 44-5 Ja 1-F '48

Influence of micro-organisms on aggregate formation in soil; abstract and discussion. M. J. Geoghegan. *Chem & Ind* p202 Mr 27 '48

Microbial decomposition of resinous stabilizing agents in soil; abstract. P. C. T. Jones. *Chem & Ind* p201 Mr 27 '48

San Francisco soils and equipment conference, April 8-9; with abstracts of papers. *Roads & Sts* 91:55-8+ My '48

Soil properties computed by nomograph. H. Leibovich. *Eng N* 141:108-9 S 16 '48

Solubility of iron in submerged soils. J. B. Hester and R. A. Shelton. *diag Science* 108:595 D 12 '47

Sorption of fumigant vapors by soil. I. Fuhr and others. bibliog *Science* 107:274-5 Mr 12 '48

Water repellents for soils. *Pub Works* 73:35-6 O '47

Weathering sequence of clay-size minerals in soils and sediments. M. L. Jackson and others. bibliog *J Phys & Colloid Chem* 52:1237-60 O '48

See also

Agriculture	Humus
Clay	Irrigation
Drainage	Roads—Subgrades
Earthwork	Sand
Erosion	Silt
Fertilizers	Soil mechanics
Foundation soils	Soil moisture
Highway engineering	

Calcium content

Calcium deficiency in serpentine soils as revealed by adsorbent technique. J. Vlamis and H. Jenny. *Science* 107:549 My 21 '48

Classification

Classification and identification of soils. A. Casagrande. bibliog *Am Soc C E Proc* 73:783-810 Je '47; Discussion. 73:1166-9, 1310-18, 1435-43; 74:121-38, 403-22, 819-22, 916-20 S-N '47, Ja, Mr, My-Je '48

Consolidation

Cities Service Gas compacts soil to form base for heavy engine foundations in Hugoton field. R. W. Hofess. *il Oil & Gas J* 47:226+ S 23 '48

Consolidation of fine-grained soils by drain wells. E. A. Barron. bibliog *il diags Am Soc C E Proc* 73:311-35 Je '47; Discussion. 74:153-8, 707-10, 875-8 Ja, My-Je '48

Heavy tractors compact swamp fill for airport enlargement. C. C. Munoz. plan *Eng N* 140:948-9 Je 10 '48

Michigan studies backfill consolidation. R. L. Greenman. *il Eng N* 141:88-90 S 16 '48

Proper compaction eliminates curing period in constructing fills. W. H. Rowan and W. W. Graham. *Civil Eng* 18:450-1 Ji '48

Rapid moisture-density test. F. A. Harris. *il diags Roads & Sts* 90:85-8 O '47

Super compactor for runways on the Baltimore, Md. Friendship airport. *il Eng N* 140:89 Ja 15 '48

200-ton super compactor being tried out at Baltimore airport. H. J. McKeever. *il plan Roads & Sts* 91:82-4+ Ja '48

Electric properties

Geophysical measurements determined by electrode probing; search for low resistivity areas for good grounding. J. R. Leslie. *il map Elec World* 130:105+ O 9 '48

High-voltage characteristics of earth resistances. G. M. Petropoulos. bibliog *il diags Inst E E J* 95 pt 2:59-70 F '48

Measurement of the dielectric properties of soils and water at 3.2 cm. wave length. A. W. Stratton and C. W. Tolbert. *diag Franklin Inst J* 246:13-20 Ji '48

SOILS—Continued

Freezing

- Building an earth-fill dam in Arctic placer territory. J. B. Hutt. *il Eng & Min J* 149:90-2 J1 '48
- Dams in permafrost. J. D. Lewin. *diags Pub Works* 79:22-3+ My; 33-4 Je; 57-8 bibliog(p58) J1 '48
- Earth-fill dam built on frozen ground; Hess Creek dam in Alaska; sprinkling found preferable in removing frozen overburden. *il Eng N* 140:182-4 F 5 '48
- Essentials of foundation design in permafrost. J. D. Lewin. *il diags Pub Works* 79:28-30 F; 27-30 Mr '48
- Working frozen ground in the Arctic; building an earth-fill dam. *il Constr Methods* 30: 92-5 Ap '48

Molybdenum content

- Molybdenum deficiency in serpentine barren soils. R. B. Walker. *bibliog Science* 108: 473-5 O 29 '48

Testing

- Method of particle size determination of soils, cement, etc., by means of a chainomatic specific gravity balance. E. V. Barrett. *il diags Am Soc T M Proc* 46: 1355-72; Discussion. 1373-6 '46
- Rapid moisture-density test. F. A. Harris. *il diags Roads & Sts* 90:85-3 O '47
- Symposium on load tests of bearing capacity of soils. (Special tech. pub. no. 79) 148p pa \$3 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

See also

Soil analysis

Australia

- Development of soil conservation programmes in Australia. K. O. Campbell. *Land Econ* 24:63-78 F '48

Haiti

- Aluminous lateritic soil of the Republic of Haiti. W. I. S. S. Goldich and H. R. Bergquist. *maps U S Geol S Bul* 954-C:63-111, pl 20-2; pa 40c Supt. of doc. '48

SOLAR energy. See Solar radiation

SOLAR heating

- Don't neglect zoning with solar heat jobs. S. Lewis. *Heating-Piping* 20:107-8 Je '48
- Measurements of solar heat transmission through flat glass. G. V. Parmelee and others. *il diag Heating-Piping* 20:158-66 Ja '48
- Old sol gets another job; housing project at Northbrook, Ill. uses sun's heat in combination with warm air, radiant, floor panel heat. *il plans diags Arz Bld* 70:82-7 F '48
- Solar energy for house heating; an application of solar data to heating through windows facing south. I. F. Hand. *Heat & Ven* 44:80-94 D '47
- Solar-heat accumulator; abstract. *Mech Eng* 70:245-6 Mr '48
- Solar house is here to stay. J. L. Cox. *Glass Ind* 29:503+ S '48
- Sun-heated home ready for tests through Boston winter. *Heat & Ven* 45:136 O '48

SOLAR houses. See Solar heating

SOLAR noise. See Radio noise, Solar

SOLAR radiation

- Brief history of studies in solar radiation. J. T. Wilson. *il diags Elec Eng* 66:1209-13 D '47
- Cosmic-ray effects from solar flares and magnetic storms. H. V. Neher and W. C. Roesch. *bibliog Rs Mod Phys* 20:350-2 Ja '48
- Measurements of solar heat transmission through flat glass. G. V. Parmelee and others. *il diag Heating-Piping* 20:158-66 Ja '48
- Mechanism of heat transfer panel cooling heat storage; solar radiation. C. S. Leopold. *diags Refrig Eng* 55:571-7; Discussion. 577+ Je '48
- Radiation by sun to tanks causing evaporation loss. W. L. Nelson. *Oil & Gas J* 46: 143-4 F 26 '48
- Solar and total heat gain through double flat glass. G. V. Parmelee and W. W. Aubele. *il diags Heating-Piping* 20:111-26 Je '48
- Solar energy for house heating; an application of solar data to heating through windows facing south. I. F. Hand. *Heat & Ven* 44:80-94 D '47

- Solar energy to provide water supply; heat from sun to desalt sea water for island of St John, Virgin Islands. F. N. Hollingsworth. *Heat & Ven* 45:99 Ag '48
- Solar heat gain through walls and roofs for cooling load calculations. J. F. Stewart. *diags Heating-Piping* 20:121-31; Discussion. 131-2 Ag '48
- Solar intensity at 480 mc. G. Reber. *Inst Radio Eng Proc* 36:88 Ja '48
- Solar noise observations on 10.7 centimeters. A. E. Covington. *bibliog Inst Radio Eng Proc* 36:454-7 Ap '48
- Solar radiation absorption by wetted roofs. W. R. Woolrich and W. M. Rice. *il Heat & Ven* 45:84-7 Ja '48
- Sun and precipitation. C. G. Abbot. *bibliog il Am Water Works Assn J* 40:755-62 J1 '48

See also

Sunlight

SOLAR spectrum. See Spectrum, Solar

SOLAR system

- Recent theories about the origin of the solar system. D. ter Haar. *bibliog diag Science* 107:405-11 Ap 23 '48

SOLAR water heaters

- Solar heating for domestic hot water. *il diags Dom Eng* 171:124-5+ Je; 172:120-2+ J1 '48

SOLDER and soldering

- New-type plastic-metal soldering tape. *il Mill & Factory* 42:163 Mr '48
- Notes on soldering. W. R. Lewis. *bibliog 88p Tin research inst, Fraser road, Greenford, Middlesex, England* '48
- Soldered ceramic-to-metal seals. A. L. Jenny. *il diags Product Eng* 43:154-7 D '47
- Soldering aluminum alloys; magnetostriction oscillator vibrates soldering iron at ultrasonic frequency. F. W. Thomas and E. Simon. *il diag Electronics* 21:90-2 Je '48
- Some properties of soft solders. P. Hydrean. *Sheet Metal Worker* 39:103-5 Ja '48
- Sound waves may lick soldering problem. *Bsns W p50 Je* 12 '48

See also

Brazing

Silver solder

Welding

SOLDERING apparatus

- Automatic furnace for soldering Diesel-electric commutators. *il Iron Age* 162:101 O 7 '48

Soldering gun. *il Engineer* 186:18 J1 2 '48

SOLDIERS' bonus. See Veterans—Bonuses

SOLENOIDS

- New solenoid operated four-way control valve. *il Blast F & Steel Pl* 36:1254-5 O '48
- Operating characteristics of industrial solenoids. C. R. Underhill. *il diags Product Eng* 19:86-91 J1; 130-3 Ag '48

SOLES

- Use of high styrene resins in non-marking soles and heels. M. E. Jones and D. M. Pratt. *il India Rubber World* 117:609-10 F '48

SOLID carbon dioxide. See Carbon dioxide,

Solid

SOLIDAGO. See Goldenrod

SOLIDS

- New way to pressure-seal solids flowing through a continuous process. J. F. Schnacky. *diags Chem Eng* 55:124 Ag '48
- Order-disorder transition in solids. Y. Mut5. *J Chem Phys* 16:519-25 My '48; Correction. 16:1176 D '48
- Reaction rates in solids; abstract. F. Seitz. *Science* 107:463 My 7 '48
- Reactions in the solid state. G. Cohn. *diags Chem R* 42:527-73 bibliog(169 ref, p575-9) Je '48
- Surface tension of solids and methods of measuring the same. G. Antonoff. *bibliog diag J Phys & Colloid Chem* 52:969-75 Je '48

See also

Crystals

Expansion (heat)

Melting points

Particles

SOLOMON islands

See also

- Labor laws and legislation—Solomon islands

Powders

Solutions, Solid

Surface phenomena

SOLUBILITY

- Ammonia as a solvent; an example of the application of existing theory. J. H. Hildebrand. *bibliog J Chem Educ* 25:74-7 F '48
- Determination of aromatics and olefins in hydrocarbon mixtures; acid solubility test. C. Berg and F. D. Parker. *bibliog Anal Chem* 20:456-7 My '48
- Determination of the solubility of dyes. C. L. Zimmerman and H. R. McCleary. *bibliog il Am Dyestuff Rep* 37:47-51; Discussion. 51+ Ja 26 '48
- Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. P. H. Richards and J. W. McBain. *bibliog Am Chem Soc J* 70:1338-42 Ap '48
- Equilibria in silver acetate solutions. F. H. MacDougall and S. Peterson. *bibliog J Phys & Colloid Chem* 51:1346-61 N '47
- Hydrotropic solubilities; solubilities in 40 per cent sodium xylenesulfonate. H. S. Booth and H. E. Everson. *bibliog Ind & Eng Chem* 40:1491-3 Ag '48
- Identification of small amounts of organic compounds by distribution studies; purity of synthetic antimalarials. L. C. Craig and others. *bibliog Anal Chem* 20:134-9 F '48
- Influence of dipolar ions on the solubility of some sparingly soluble salts. F. Lee and L. Luh. *bibliog Am Chem Soc J* 70:113-14 Ja '48
- Interaction of ions and dipolar ions; the solubility of cupric iodate in glycine and in alanine solutions. R. M. Keefer. *bibliog Am Chem Soc J* 70:476-9 F '48
- Locating tie lines on solubility plots. A. Y. Tabani. *diags Chem Eng* 54:140 D '47
- New type of micelle; soap with alcohol, amine, or other polar-nonpolar molecules. W. D. Harkins and others. *J Chem Phys* 15:763-4 O '47
- Partition of hydrogen chloride between water and benzene. J. E. Such and R. H. Tomlinson. *bibliog Soc Chem Ind J* 67:110-14 Mr '48
- Phase study of rosin soap-sodium chloride-water and rosin soap-sodium silicate-water systems. R. C. Merrill and R. Getty. *bibliog J Phys & Colloid Chem* 52:167-79 Ja '48
- Quantitative separation of calcium, barium, and strontium. S. Kallmann. *bibliog Anal Chem* 20:449-51 My '48
- Solubilities of four amino butyric acids and the densities of aqueous solutions of the acids at 25°. L. S. Mason. *bibliog Am Chem Soc J* 69:3000-2 D '47
- Solubility analysis and the problem of purity. T. J. Webb. *bibliog diag Anal Chem* 20:100-3 F '48
- Solubility and density isotherms; potassium and ammonium nitrates in ethanol solutions. A. R. Thompson and R. E. Vener. *bibliog Ind & Eng Chem* 40:478-81 Mr '48
- Solubility and transfer of silica and other non-volatiles in steam. T. E. Gillingham. *bibliog diags Econ Geol* 43:241-72 Je '48
- Solubility at high temperatures of pure sucrose in water. M. Taylor. *pl diag Chem Soc J* p 1678-83 D '47
- Solubility of aluminum bromide in cyclohexane. P. A. Leighton and J. B. Wilkes. *Am Chem Soc J* 70:2600-1 JI '48
- Solubility of aminoguanidonium bisulfate in water and in sulfuric acid solutions. J. J. Pitha and G. B. L. Smith. *Am Chem Soc J* 70:1977 My '48
- Solubility of cesium and rubidium dichlorides in hydrochloric acid solutions. P. Bender and R. A. Strehlow. *Am Chem Soc J* 70:1995-6 Je '48
- Solubility of hydrocarbon resins and their behavior in rubber compounds. P. O. Powers. *bibliog India Rubber World* 117:351-4 D '47
- Solubility of iron in solid aluminum. J. K. Edgar. *bibliog il Metals Tech* 15:TP2389 1-5 Je '48
- Solubility of quartz in sodium carbonate solutions at high temperature. I. I. Friedman. *Am Chem Soc J* 70:2649-50 Ag '48
- Solubility of salts in deuterium oxide. E. C. Noonan. *bibliog diag Am Chem Soc J* 70:2915-18 S '48
- Solubility of soaps and of some salts in mixtures of solvents, one of which is of glycolic type. S. R. Palit. *bibliog Am Chem Soc J* 69:3120-9 D '47
- Solubility of sodium soap in organic solvents. A. Bondi. *bibliog J Chem Phys* 16:157-8 F '48
- Solubility of tetraethylammonium iodide in benzene-ethylene dichloride mixtures. A. A. Vernon and J. L. Sheard. *Am Chem Soc J* 70:2035-6 Je '48
- Solubility of thorium nitrate tetrahydrate in organic solvents at 25°C. C. C. Templeton and N. P. Hall. *bibliog J Phys & Colloid Chem* 51:1441-9 N '47
- Solubility of water in hydrocarbons. C. Black and others. *diag J Chem Phys* 16:537-43 My '48
- Solubility study of an aqueous potassium laurate-potassium silicate system. R. C. Merrill. *bibliog J Phys & Colloid Chem* 52:1143-6 O '48
- Solubilization of dimethylaminoazobenzene in solutions of detergents; the effect of temperature on the solubilization and upon the critical concentration. I. M. Kolthoff and W. Stricks. *bibliog J Phys & Colloid Chem* 52:915-41 Je '48
- Solubilization of water-insoluble dye by colloidal electrolytes and non-ionizing detergents. J. W. McBain, A. G. Wilder and R. C. Merrill, jr. *bibliog J Phys & Colloid Chem* 52:12-22 Ja '48
- Some mathematical relations involving the solubility of silver cyanide. J. E. Ricci. *bibliog J Phys & Colloid Chem* 51:1375-94 N '47
- Studies on the aging of precipitates and coprecipitation; the solubility of lead chromate as a function of the particle size. D. R. May and I. M. Kolthoff. *bibliog J Phys & Colloid Chem* 52:836-54 My '48
- System calcium oxide-phosphorus pentoxide-sulfur trioxide-water at 75.3°C. A. N. Campbell and J. W. Coutts. *bibliog (35 ref)* Ind & Eng Chem 40:1295-9 JI '48
- Systems; glycol-n-amy alcohol-water and glycol-n-hexyl alcohol-water. G. S. Laddha and J. M. Smith. *bibliog Ind & Eng Chem* 40:494-6 Mr '48
- Ternary systems; potassium iodate, iodic acid and water. S. B. Smith. *Am Chem Soc J* 69:2285-6 O '47
- Tetrachlorophthalic anhydride, acid, and salts; properties and solubilities. F. E. Lawlor. *bibliog Ind & Eng Chem* 39:1424-6 N '47
- Thermochemistry of sodium carbonate and its solutions. K. A. Kobe and T. M. Sheehy. *bibliog Ind & Eng Chem* 40:99-102 Ja '48
- Turbidimeter for the measurement of the solubility of slightly soluble liquids. J. F. Cady and G. Goldfinger. *diags Science* 107:453 Ap 30 '48
- Use of tritium in the determination of the solubility of water in solvents; the solubility of water in benzene. G. G. Joris and H. S. Taylor. *bibliog diags J Chem Phys* 16:45-61 Ja '48
- Vapor pressure studies in the system, aluminum bromide-hydrogen bromide-paraffin hydrocarbon. C. M. Fontana and R. J. Herold. *bibliog diag Am Chem Soc J* 70:2881-3 S '48
- See also
- Hydrotropy
- SOLUTION (chemistry)
- Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeier and A. D. Ayers. *bibliog Am Chem Soc J* 69:2759-61 N '47
- Dependence of the scattering of light on angle and concentration in linear polymer solutions. B. H. Zimm. *bibliog J Phys & Colloid Chem* 52:260-7 Ja '48
- Effect of size, shape, and flexibility of the solute molecules on the properties of colloidal solutions. M. L. Huggins. *bibliog diags J Phys & Colloid Chem* 52:248-59 Ja '48
- Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. P. S. Dainton. *il J Phys & Colloid Chem* 52:490-517 *bibliog (64 ref., p516-17)* Mr '48
- Measurement of Na⁺ ion diffusion by means of radiosodium. A. W. Adamson. *bibliog J Chem Phys* 15:762-3 O '47
- Measurement of radioactivity in solution. A. K. Solomon and H. D. Estes. *diag R Sci Instr* 19:47-50 Ja '48

SOLUTION (chemistry)—Continued

- Molal volumes of aqueous solutions of perchloric acid. J. Bigeleisen, bibliog J Phys & Colloid Chem 51:1369-74 N '47
- Molecular-weight determination of non-volatile substances based on the evaporation velocities of their solutions. A. Schönberg and M. Z. Barakat, diags J Phys & Colloid Chem 52:1074-81 Je '48
- Osmotic and activity coefficients; the rational type versus the practical type. P. Van Rysselberghe and G. J. Hunt, bibliog J Chem Educ 25:87-9 F '48
- Quenching of fluorescence in solution. G. K. Rollefson and H. Boaz, bibliog J Phys & Colloid Chem 52:518-27 Mr '48
- Radiation chemistry of aqueous solutions. A. O. Allen, bibliog J Phys & Colloid Chem 52:479-90 Mr '48
- Relation between entropy and enthalpy of solution. O. K. Rice, bibliog J Chem Phys 15:875-9 D '47
- Shape of heat-capacity and equilibrium cooling curves in the region of melting of solid solutions. K. J. Mysels, diag J Phys & Colloid Chem 51:1361-9 N '47
- Some reactions using test tubes; lecture demonstrations. W. G. Kessel, diags J Chem Educ 25:497-8 S '48
- Structure and behavior of ferric tartrate and citrate complexes in dilute solutions. M. Bottelsky and J. Jordan, bibliog Am Chem Soc J 69:2286-90 O '47
- Structure of cellulose acetate molecules in acetone solution. S. J. Singer and H. Mark, bibliog J Ap Phys 19:97-101 Ja '48
- Study of the Berthelot method for determining the tensile strength of a liquid. A. F. Scott and others, bibliog diags J Chem Phys 16:495-502 My '48
- Surface tension and viscosity of solutions of uranyl salts. W. E. Grant and others, bibliog J Phys & Colloid Chem 52:1227-36 O '48
- Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components. O. Redlich and A. T. Kister, bibliog Ind & Eng Chem 40:345-8 F '48
- Thermodynamics of non-electrolyte solutions and its technical applications; systems with associated components. O. Redlich and A. T. Kister, bibliog J Chem Phys 15:849-55 D '47
- Thermodynamics of nonelectrolyte solutions; α - γ -t relations in a binary system. O. Redlich and A. T. Kister, Ind & Eng Chem 40:341-5 F '48
- Time-dependence of surface tension of solutions. C. M. Blair, jr, bibliog J Chem Phys 16:113-16 F '48
- Viscosity of solutions and suspensions. V. Vand, bibliog diags J Phys & Colloid Chem 52:277-321 F '48
- See also*
- | | |
|-----------------|---------------|
| Colloids | Ions |
| Crystallization | Precipitation |
| Diffusion | Solubility |
| Electrolysis | Solvents |
| Electrolytes | |
- SOLUTION, Heat of**
- Determination of the free energy of formation of the manganese ion from thermal data. A. Walkley, bibliog Electrochem Soc J 93:316-23 Je '48
- Some energy relations in the systems PbO-B₂O₃ and PbO-SiO₂. L. Shartsis and E. S. Newman, bibliog diags J Res Nat Bur Stand 40:471-8 Je '48; Same, Am Cer Soc J 31:213-19 Ag '48
- Thermochemistry of solutions; the heat of ionisation of succinic acid. T. L. Cottrell and J. H. Wolfenden, Chem Soc J p 1019-24 J '48
- Thermochemistry of solutions; the heats of ionisation of some organic acids. T. L. Cottrell and others, Chem Soc J p 1016-19 J '48
- SOLUTIONS, Solid**
- Absolute reaction rate theory for diffusion in metals. J. C. Fisher and others, bibliog Metals Tech 15:TP2344 1-10 F '48; Discussion, il 15:TP2448 37-40 Ag '48
- Apparatus for refined thermal analysis exemplified by study of system p-dichlorobenzene -p-dibromobenzene-p-chlorobromobenzene. A. N. Campbell and L. A. Prodan, bibliog diags Am Chem Soc J 70:553-61 F '48
- Binary systems of some carboxylic acids; systems containing benzoic acid or a substituted benzoic acid as one of the components. K. Mislow, bibliog J Phys & Colloid Chem 52:729-40 Ap '48
- Binary systems of some carboxylic acids; systems containing heterocyclic acids as the components. K. Mislow, bibliog J Phys & Colloid Chem 52:740-9 Ap '48
- Clustering phenomena in solid solution. A. Opinsky and K. Smoluchowski, Phys R 74:343 Ag 1 '48
- Configuration of organic telluroxides; mixed crystals of telluroxides with selenoxides, H. Rheinboldt and E. Giesbrecht, bibliog Am Chem Soc J 69:2310-13 O '47
- Densities of magnesium-cadmium solid solutions. J. M. Singer and W. E. Wallace, bibliog J Phys & Colloid Chem 52:999-1006 Je '48
- Effect of composition on grain growth in aluminum-magnesium solid solutions. L. J. Demer and P. A. Beck, bibliog il Metals Tech 15:TP2374 1-16 Je '48
- Internal friction and precipitation from the solid solution of N in tantalum. T. Ké, bibliog Phys R 74:914-16 O 15 '48
- Internal friction in the interstitial solid solutions of C and O in tantalum. T. Ké, bibliog diag Phys R 74:9-15 J 1 '48
- Mixed crystal formation in linear copolyesters. C. S. Fuller, il Am Chem Soc J 70:421-3 Ja '48
- Shape of heat-capacity and equilibrium cooling curves in the region of melting of solid solutions. K. J. Mysels, diag J Phys & Colloid Chem 51:1361-9 N '47
- Simple binary solid solutions. A. W. Lawson, bibliog J Chem Phys 15:831-42 N '47
- Stress relaxation by interstitial atomic diffusion in tantalum. T. Ké, bibliog Phys R 74:16-20 J 1 '48
- Systems chromic ammonium sulfate-ferric ammonium sulfate-water and chromic ammonium sulfate-aluminum ammonium sulfate-water at 25°. N. O. Smith and C. S. Lennox, bibliog Am Chem Soc J 70:1793-6 My '48
- Transmission of monoenergetic slow neutrons through solid solutions and mechanical mixtures of TiC and WC. S. S. Sidhu, bibliog il J Ap Phys 19:639-41 S '48
- SOLUTIONS, Standard**
- Preparation of standard chromous sulfate or chromous chloride solutions of determinate concentration. J. J. Lingane and R. L. Pecsok, bibliog diags Anal Chem 20:425-8 My '48
- SOLUTIZER process.** See Gasoline—Manufacture
- SOLVAY American corporation**
- Chemical change; Solvay American buys into Wyandotte, Enns W p92- Mr 27 '48
- Long call on Allied Chemical in new Solvay American preferred. Barron's 28:40 Ap 26 '48
- Preferred stock offered. Comm & Fin Chr 167:1700 Ap 19 '48
- SOLVENTS**
- Acid-base catalysis in non-aqueous solvents; the halogenation of acetone by various N-halogen compounds in chlorobenzene solution at 50°. R. P. Bell and A. D. S. Tantram, Chem Soc J p370-4 Mr '48
- Alcohol and solvents, 1947, Chem Eng 55:120-1 F '48
- CMRA speakers discuss raw material sources for solvents. C. L. Gabriel and others, Oil Paint & Drug Rep 154:5-4 O 11 '48
- Chromatographic separation of beta-carotene stereoisomers as a function of developing solvent. E. M. Bickoff, bibliog Anal Chem 20:51-4 Ja '48
- Copolymerization; effects of temperature and solvents on monomer reactivity ratios. F. M. Lewis and others, bibliog Am Chem Soc J 70:1519-23 Ap '48
- Decomposition of benzoyl peroxide in solvents; ethers, alcohols, phenols and amines. P. D. Bartlett and K. Nozaki, bibliog Am Chem Soc J 69:2299-306 O '47

SOLVENTS—Continued

- Dielectric studies; dipole moments of solvents in nonpolar solvents of unknown molecular weights. N. C. C. Li, C. V. An and W. H. Wu. *Am Chem Soc J* 69:2558-9 O '47
- Distribution in hydrocarbon-solvent systems. T. F. Brown. *bibliog Ind & Eng Chem* 40: 103-6 Ja '48
- Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and P. F. Hall. *bibliog J Phys & Colloid Chem* 52: 1006-20 Je '48
- Effect of solvent composition and primary solvent dilution on dewaxing filter rates and wax oil contents. E. J. Reeves and I. E. Pattillo. *bibliog Pet Refiner* 27:80-2 Mr '48
- Effect of temperature and solvent upon the fate of carboxyl groups in the decomposition of benzoyl peroxide. P. F. Hartman, H. G. Sellers and D. Turnbull. *bibliog Am Chem Soc J* 69:2416-19 O '47
- Electric moments of hydrogen fluoride, hydrogen chloride and hydrogen bromide in several non-polar solvents. A. J. Weith, jr., M. E. Hobbs and P. M. Gross. *diags Am Chem Soc J* 70:805-11 F '48
- Electrolytic dissociation processes; the solvolytic ionisation of molecular iodine. F. Fairbrother. *Chem Soc J* p 1051-6 JI '48
- Furans in vegetable oil refining. S. W. Gloyer. *bibliog flow sheet il diag Ind & Eng Chem* 40:228-36 F '48
- Furfural as a selective solvent in petroleum refining. L. C. Kemp, jr., G. B. Hamilton and H. H. Gross. *bibliog flow diag il Ind & Eng Chem* 40:220-7 F '48
- Immobilization of solvent in randomly coiled chain molecules. W. Kuhn and H. Kuhn. *bibliog J Chem Phys* 16:838-9 Ag '48
- Kinetics of the reaction between ethylene chlorohydrin and hydroxyl or alkoxyl ions in mixed solvents. J. E. Stevens, C. L. McCabe and J. C. Warner. *bibliog Am Chem Soc J* 70:2449-52 JI '48
- Liquid nitrosyl chloride as an ionizing solvent. A. B. Burg and G. W. Campbell, jr. *bibliog Am Chem Soc J* 70:1964-5 My '48
- Partition coefficients of formaldehyde solution. H. G. Johnson and E. L. Piret. *Ind & Eng Chem* 40:743-6 Ap '48
- Petroleum derivatives. Published in weekly numbers of Oil, paint and drug reporter
- Photosensitizing properties of some petroleum solvents. J. E. Dunn and F. S. Brackett. *Ind Med* 17:303-8 Ag '48
- Relative solubilities of dyes in immiscible solvents; tabulation. *Am Dyestuff Rep* 37:714-16 N '48
- Solubility of soaps and of some salts in mixtures of solvents, one of which is of glycolic type. S. R. Palit. *bibliog Am Chem Soc J* 69:3120-9 D '47
- Solubility of thorium nitrate tetrahydrate in organic solvents at 25°C. C. C. Templeton and N. F. Hall. *bibliog J Phys & Colloid Chem* 51:1441-9 N '47
- Solution and hydrogenation of coal. M. Orchin and H. H. Storch. *bibliog Ind & Eng Chem* 40:1385-9 Ag '48
- Solvent effects on the quenching of the fluorescence of uranin by aniline. K. C. Hodges and V. K. La Mer. *bibliog Am Chem Soc J* 70:722-6 F '48
- Some aspects of the drying and heating of textiles; the migration of solvents and solutes during drying. J. M. Preston and J. C. Chen. *bibliog Jpls Soc Dyers & Col J* 64:60-3; Discussion. 63-4 F '48
- Studies in selective extraction and adsorption; selective solvents for ethylene chlorohydrin. C. Weizmann and others. *bibliog Soc Chem Ind J* 67:203-5 My '48

See also

Acetone
Acetonitrile
Benzene
Butyl alcohol
Carbon disulfide
Carbon tetrachloride
Chloroform
Cleaning compositions

Extraction processes
Furfural
Methanol
Naphtha
Partition (chemistry)
Petroleum ether

Physiological effect

- Health protection needed for small or occasional solvent users. *Weekly Underw* 157: 1517 D 13 '47; Same. *Rubber Age* 62:297 D '47; Same. *Paint Oil & Chem R* 110:36 D 25 '47

Recovery

- Activated carbon; manufacture, capacity of adsorption, use in solvent recovery. P. H. Courouleau and R. E. Benson. *diags Chem Eng* 55:112-15 Mr '48
- European practice for solvent recovery in printing industry. R. E. Benson and P. H. Courouleau. *flow diags il plan Chem Eng Prog* 44:459-68; Discussion. 468 Je '48
- Reclaiming solvent cleaners; American Airlines engine build-up shop. J. Albin. *flow chart il Iron Age* 161:74-5 F '48
- Recovery of solvent from air. W. L. Nelson. *bibliog Oil & Gas J* 46:114-15 Ap 15 '48

Safety measures

- Cleaning safely with synthetic solvents. L. Gordon. *il Safety Eng* 94:56-9 N '47
- Control of solvent exposures. E. C. Barnes. *Nat Safety N* 57:20-1+ Ja '48
- Health protection needed for small or occasional solvent users. *Weekly Underw* 157: 1517 D 13 '47; Same. *Rubber Age* 62:297 D '47; Same. *Nat Safety N* 57:81-2 Ap '48
- Prevention of exposure to organic solvents. *Rubber Age* 63:194 My '48
- Solvents used in lithography. C. F. King. *Inland Ptr* 120:67-70 F '48
- Ventilation tips for solvent users. *Heating-Piping* 20:97 My '48; Same. *Safety Eng* 95:65 My '48

Testing

- Petroleum solvents; correlation of kauri butanol solvency with gravity and aniline point. W. T. Harvey and I. W. Mills. *bibliog Anal Chem* 20:207-9 Mr '48

SOLVOLYSIS

- Correlation of solvolysis rates. E. Grunwald and S. Winstein. *bibliog Am Chem Soc J* 70:846-54 F '48
- Role of neighboring groups in replacement reactions; kinetics of solvolysis of *trans*-2-acetoxycyclohexyl *p*-toluenesulfonate. S. Winstein, C. Hanson and E. Grunwald. *bibliog Am Chem Soc J* 70:812-16 F '48

SOMERS, Richard, 1778-1804

- R. Somers. R. W. Daly. *U S Naval Inst Proc* 74:1138-45 S '48

SOMERVELL, Brehon Burke, 1892-

- Portrait. *Fortune* 38:7 N '48

SOMMERFELDT, Harald, 1886-

- Sketch. *por East Underw* 49:17 JI 16 '48

SONAR

- Sonar and asdic, anti-submarine sisters. M. Prendergast. *il U S Naval Inst Proc* 74: 1008-11 Ag '48

SONDES PLACE research institute

- Sondes Place research institute. *il Chem & Ind* p446 JI 10 '48

SONGS

- How nice to be a physicist; songs, with music. A. Roberts. *Sci Am* 179:50-1 S '48

SONIGAGE. See Testing; Thickness measurement

SONNETT, John Francis, 1912-

- Antitrust chief. *por Bsns W* p21 Ja 3 '48

SONOTONE corporation

- Selling a product that nobody wants to buy; Sonotone subtle sales methods. L. Reed. *il Adv & Sell* 40:33-4+ D '47

SOONG, T. V.

- Portrait. *Fortune* 37:115 F '48

SOOT blowers

- Are you aware that you can save a surprising amount of steam when you blow soot? W. F. Schaphorst. *Pulp & Pa of Can* 49:64 F '48

SORBITAN

See also

- Iododesoxyorbitan

SORBITOL

- Anhydrides of polyhydric alcohols; derivatives of 1:4-anhydrosorbitol from 1:4-3:6-dianhydrosorbitol. R. Montgomery and L. F. Wiggins. *Chem Soc J* p237-41 F '48

SORBITOL—Continued

Anhydrides of polyhydric alcohols; some alkenyl ethers of 1:4-3:6-dianhydromannitol and 1:4-3:6-dianhydrosorbitol. H. Gregory and L. F. Wiggins. *diag Chem Soc J p 1405-7* O '47

Manufacture

Sorbitol from corn sugar by catalytic reduction; Atlas powder co.'s process. R. W. Porter. *il Chem Eng 54:114-17* N '47

SORRELLS, John Harvey, 1896-1948

Appraisal of self preceded death by few days. *por Ed & Pub 81:11* F 23 '48

SORTING devices

Application of electrical technique to the service of some other industries; magnetic sorting bridge. H. C. Turner and G. M. Tomlin. *il diags Inst E E J 94 pt 2:502-5* O '47

SOUND

Analysis of acoustic signals by means of the self-consistent spectrum. J. J. Markham. *diag Acoustical Soc Am J 20:95-8* Mr '48

Construction material of the sound conduction system of the human ear. H. G. Kobrak. *bibliog il diags Acoustical Soc Am J 20:125-30* Mr '48

Influence of relaxation on the two velocity field model of helium II. W. Band and L. Meyer. *bibliog Phys R 74:386-94* Ag 15 '48

Masking of tones by repeated bursts of noise. G. A. Miller and W. R. Garner. *diag Acoustical Soc Am J 20:691-6* S '48

Program of the 35th meeting of the Acoustical society of America, Washington, April 22-24; with abstracts of papers. *Acoustical Soc Am J 20:582-600* JI '48

Pulsed second sound in liquid helium II. J. R. Pellam. *bibliog il Phys R 74:841* O 1 '48

Reflection and transmission of sound by a spherical shell. J. B. Keller and H. B. Keller. *diag Acoustical Soc Am J 20:310-13* My '48

Relaxation theory of thermal conduction in helium II. L. Meyer and W. Band. *Phys R 74:394-6* Ag 15 '48

Second sound and the heat conductivity in helium II; dispersion of second sound and of ordinary sound. W. Band and L. Meyer. *bibliog Phys R 73:226-9* F 1 '48

Wave transmission and reflection phenomena in liquid helium II. J. R. Pellam. *diag Phys R 73:608-17* Mr 15 '48

What's new in acoustics? V. O. Knudsen. *il Heating-Piping 19:88-90* N '47

See also

Acoustics, Architectural
Electroacoustics
Hearing
Music—Acoustics and physics
Noise
Sound waves

Soundproofing
Speech
Supersonic waves
Television—Sound transmission
Vibration
Voice

Absorption

Absorption and scattering for impedance boundary conditions on spheres and circular cylinders. M. Lax and H. Feshbach. *bibliog Acoustical Soc Am J 20:108-24* Mr '48

Absorption of sound in suspensions of irregular particles. R. J. Urick. *bibliog il Acoustical Soc Am J 20:283-9* My '48

Application of Helmholtz resonators to sound-absorbing structures. V. L. Jordan. *bibliog il diag Acoustical Soc Am J 19:372-81* N '47

Construction and design of Parmlly sound laboratory and technical chamber. P. J. Mills. *il diags Acoustical Soc Am J 19:988-92* N '47

Origin of ultrasonic absorption in water. L. Hall. *bibliog Phys R 73:775-81* Ap 1 '48

Performance of the anechoic room of the Parmlly sound laboratory. H. C. Hardy and others. *Acoustical Soc Am J 19:992-5* N '47

Sound absorption and velocity in liquefied argon, oxygen, nitrogen, and hydrogen. J. K. Galt. *bibliog diag J Chem Phys 16:505-7* My '48

Ultrasonic absorption in water in the temperature range 0°-80° C. M. C. Smith and R. T. Beyer. *bibliog diags Acoustical Soc Am J 20:608-10* S '48

See also

Sound absorbent materials

Apparatus

Acoustic well sounder. *il Electronics 21:150+* S '48

Acoustic well sounder; Sonolog for determination of fluid level in annular space between casing and tubing of oil well. *il R Sci Instr 19:126* F '48

Blind guidance by ultrasonics. F. H. Slaymaker and W. F. Meeker. *bibliog il diags Electronics 21:76-80* My '48

Characteristics of stepped-frequency transducer elements. F. P. Bundy. *diags Acoustical Soc Am J 20:297-304* My '48

Design of an ultrasonic analyzer. *il diags Electronics 20:102-5* D '47

Direct-reading frequency meter for the audio and supersonic ranges. H. J. Reich and R. L. Ungvary. *diags R Sci Instr 19:43-6* Ja '48

Directional characteristics of a clamped-edge disk. L. L. Merrill and F. H. Slaymaker. *diags Acoustical Soc Am J 20:375-80* JI '48

Distortion meter. *il R Sci Instr 18:808* O '47

Doorbell that is different; neon tube relaxation oscillators provide any desired series of musical notes. R. H. Houston. *il diags Radio N 39:46-7+* Ap '48

Gas analysis apparatus employing the velocity of sound. C. E. Crouthamel and H. Diehl. *bibliog diags Anal Chem 20:515-20* Je '48

Lamination designs for magnetostrictive underwater electroacoustic transducers. L. Camp. *diags Acoustical Soc Am J 20:616-19* S '48

Magnetostrictive radial vibrator used in underwater sound signaling. L. Camp. *il diag Acoustical Soc Am J 20:289-93* My '48

Microphone calibrator. D. H. Bastin. *il diags Electronics 21:106-9* N '48

Parabolic sound concentrators. R. C. Coile. *bibliog diags Soc Motion Picture Eng J 51:298-311* S '48

Radiation from a diaphragm struck periodically by a light mass. M. Strasberg. *diag Acoustical Soc Am J 20:683-90* S '48

Reverberation in the sea. C. F. Eyring and others. *il diag Acoustical Soc Am J 20:462-75* JI '48

Sensitive pressure indication with tone stylus. *il diags Product Eng 18:98-9* N '47

Sofar; position-determining system depends upon propagation of sound from bomb exploded in the ocean. W. W. Stiffer, jr. and W. F. Saars. *il diag Electronics 21:98-101* Je '48

Sound flashlight for the blind; obstacle-detecting device. V. Twersky. *il diag Electronics 21:156+* N '48

Sound generator; erection by Ultrasonic corporation of unit to precipitate carbon black. *Mech Eng 69:1041-2* D '47

Sound pressure measurement equipment. *il R Sci Instr 19:284-5* Ap '48

Sound pressure measurement equipment for the range 50 cycles to 250 kc. F. Massa. *il diags Acoustical Soc Am J 20:451-4* JI '48

Voice measurements with an audio spectrometer. H. W. Rudmose and others. *bibliog il diags Acoustical Soc Am J 20:503-12* JI '48

Where are the fish? Hughes supersonic detector. *Fortune 36:136+* D '47

See also

Acoustic patents
Electroacoustic transducers
Hearing aids, Mechanical
Hydrophone interferometers,
Sonic
Loud speaking apparatus
Microphones

Moving picture sound recording
Phonograph
Radio apparatus
Sonar
Sound—Recording and reproducing
Sound filters
Telephone
Whistles

SOUND—Continued

Attenuation

- Attenuation of sound in lined air ducts, C. P. Brittain and others, *il Engineering* 165:97-8, 145-7 Ja 30, F 13 '48
- Energy losses of sound waves in metals due to scattering and diffusion, W. P. Mason and H. J. McSkimin, *J Ap Phys* 19:940-6 O '48

Bibliography

- Current publications on acoustics, F. A. Firestone, Published in bi-monthly numbers of *Journal of the Acoustical society of America* Index to volume 19, 1947, *Acoustical Soc Am J* 19:1015-36 N '47

Diffraction

- Diffraction of a sound wave by an infinite set of plates, J. W. Miles, *bibliog diag Acoustical Soc Am J* 20:370-4 Jl '48
- Diffraction of sound by circular disks and apertures, R. D. Spence, *diag Acoustical Soc Am J* 20:381-5 J '48
- Sound diffraction by rigid circular cones, F. M. Wiener, *diags Acoustical Soc Am J* 20:367-9 Jl '48

Measurement

- Absorbing media for underwater sound measuring tanks and baffles, W. P. Mason and F. H. Hibbard, *il diags Acoustical Soc Am J* 20:476-82 Jl '48
- Absorption and scattering for impedance boundary conditions on spheres and circular cylinders, M. Lax and H. Feshbach, *bibliog Acoustical Soc Am J* 20:108-24 Mr '48
- Acoustic impedance from motional impedance diagrams, R. D. Fay and J. E. White, *bibliog diags Acoustical Soc Am J* 20:98-107 Mr '48
- Acoustic impedance measurement of very porous screen, C. M. Harris, *il diags Acoustical Soc Am J* 20:440-7 Jl '48
- Cavity pressure method for measuring the gain of hearing aids, E. L. R. Corliss and G. S. Cook, *diags J Res Nat Bur Stand* 40: 85-91 Ja '48; Same, *Acoustical Soc Am J* 20: 131-6 Mr '48
- Coupling of a cylindrical tube to a half-infinite space, J. W. Miles, *bibliog diags Acoustical Soc Am J* 20:652-64 S '48
- Direct-reading instrument for the measurement of noise factor, and its application to the testing of microwave mixer crystals, L. A. G. Dresel and others, *diags J Sci Instr* 25:295-8 S '48
- External sound levels of aircraft, R. L. Field and others, *Aeronautical Eng R* 7:42-9+ Jl '48
- Fundamentals of noise, H. C. Hardy, *il Product Eng* 19:131-4 F '48
- Interactions between a plate and a sound field, R. D. Fay, *bibliog diags Acoustical Soc Am J* 20:620-5 S '48
- Measurement of ultrasonic bulk-wave propagation in high polymers, A. W. Nolle and S. C. Mowry, *il diag Acoustical Soc Am J* 20:432-9 Jl '48
- Measuring of impact sound transmission through floors, F. Ingerslev and others, *il diag Acoustical Soc Am J* 19:981-7 N '47
- Noise in vacuum phototubes at high current levels, R. F. Morrison, *Electronics* 21:126+ N '48
- Noise measurements, R. L. Morgan, *Communications* 28:28-9+ F; 21+ Jl '48
- Proposed loudness-efficiency rating for loudspeakers and the determination of system power requirements for enclosures, H. F. Hopkins and N. R. Stryker, *bibliog diags Inst Radio Eng Proc* 36:315-35 Mr '48
- Pulsed underwater acoustic measurements, G. F. Breitwieser, *il diags Electronics* 21:120+ N '48
- Radiation of sound into a circular tube, with an application to resonators, U. Ingård, *bibliog il diags Acoustical Soc Am J* 20: 665-82 S '48
- Reciprocity calibration of primary vibration standards, S. P. Thompson, *il diag Acoustical Soc Am J* 20:637-40 S '48
- Reflection of sound from submerged plates, W. J. Finney, *bibliog il diags Acoustical Soc Am J* 20:626-37 S '48

- Self-reciprocity calibration of electroacoustic transducers, E. L. Carstensen, *bibliog diags Acoustical Soc Am J* 19:961-5 N '47
- Sheet of air bubbles as an acoustic screen for underwater noise, D. P. Loye and W. F. Arndt, *diag Acoustical Soc Am J* 20:143-5 Mr '48
- Simplified porosity measurements, R. W. Leonard, *diags Acoustical Soc Am J* 20:39-41 Ja '48
- Sound measurements in broadcast studios, W. Jack, *il Tele-Tech* 7:38-41+ Je '48
- Sound pressure measurement equipment for the range 50 cycles to 250 kc, F. Massa, *il diags Acoustical Soc Am J* 20:451-4 Jl '48
- Sources of machine noise, H. C. Hardy, *il diags Product Eng* 19:87-91 Mr '48
- Standard lag line for phase measurement, O. H. Schuck, *il diags Acoustical Soc Am J* 20:26-39 Ja '48
- Versatile measuring instrument for theater sound service, C. S. Perkins and E. S. Seeley, *il Soc Motion Picture Eng J* 50:554-62 Je '48
- Voice measurements with an audio spectrometer, H. W. Rudmose and others, *bibliog il diags Acoustical Soc Am J* 20:503-12 Jl '48

See also

Decibel (transmission unit)

Nomenclature

- Suggested reference level nomenclature, V. Salmon, *Acoustical Soc Am J* 20:707 S '48

Physiological effect

- Bacteria and vibrations, *Franklin Inst J* 246: 292 O '48
- Biological and psychological effects of ultrasonics, E. L. Davis, *Acoustical Soc Am J* 20: 605-7 S '48
- Biological effects of intense high frequency airborne sound, C. H. Allen and others, *Acoustical Soc Am J* 20:62-5 Ja '48
- Relative sensitivities of bacterial viruses to intense sonic vibration, T. F. Anderson and others, *bibliog Science* 108:18 Jl 2 '48

Recording and reproducing

- Car numbers grabbed by voice-recorder; New York, New Haven & Hartford yard in New Haven, *il Ry Age* 124:1283 Je 26 '48
- Design of audio compensation networks; equalization for phonograph recordings, W. A. Savory, *il diags Tele-Tech* 7:24-7 Ja; 27-9+ F; 34-5+ Ap '48
- Dynamic sound reproduction, T. S. Korn, *diag Electronics* 21:166-70 Jl '48
- Force at the stylus tip while cutting lacquer disk-recording blanks, H. E. Roys, *diags Inst Radio Eng Proc* 35:1360-3 N '47
- How high is high fidelity? M. Camras, *il diag Tele-Tech* 7:26-7+ Jl '48
- Influence of reproducing system on tonal-range preferences, H. A. Chinn and P. Eisenberg, *Inst Radio Eng Proc* 36:572-80 My '48
- Lateral recording, W. H. Robinson, *Communications* 28:34-5 S '48
- Miniature tube high fidelity amplifier, W. Boyer and E. Toops, *il diag Radio & Tv N* 40:48-7+ S '48
- Recorder of difference of level, J. M. Lawther and J. G. King, *diags Acoustical Soc Am J* 19:966-71 N '47
- Recorder specifications; home, commercial and broadcast equipment tabulated, *Tele-Tech* 7:40-2 Ag '48
- Recording and reproduction of sound (cont.), O. Read, *il diags Radio N* 38:48-50+ D '47; 39:54-6+ Ja; 56-8+ F; 62-4+ Mr; 72-3+ Ap; 60-1+ My; 65-7+ Je; 40:52-3+ Jl '48; [cont as] *Radio & Tv N* 40:49-51+ Ag; 43-9 S; 56-7+ O; 50-1+ N; 48-50+ D '48
- Reproduction of microgroove recordings, N. C. Pickering and J. D. Goodell, *il diags Radio & Tv N* 40:41-1 O '48
- Simple device for making recording easier, S. A. Lanza, *il Radio & Tv N* 40:109-10 Ag '48
- Transcription recordings for the home; new system cuts up to 300 grooves per inch, *il Electronics* 21:86-7 S '48

See also

Moving picture sound recording
Phonograph

SOUND—Recording and reproducing—Continued

Magnetic recording

- Basic amplifier for a wire recorder, L. S. Hicks, *il* diag Radio N 39:44-5+ F '48
- Brush Soundmirror, a magnetic tape recorder-reproducer, *il* Consumers Res Bul 20:25-6 D '47
- Build your own magnetic tape recorder, L. B. Hust, *il* diags Radio N 39:39-42+ F '48
- Cathode-ray magnetization curve tracer, M. V. Scherb, *bibliog il* diags R Sci Instr 19: 411-19 JI '48; Correction, 19:674 O '48
- Converting a Brush tape recorder for broadcast uses, M. Fleming, *diags* Radio N 39: 59+ F '48
- Drive mechanism for high fidelity magnetic tape recorder, R. H. Ranger and R. H. Kunnappel, *il* diag Product Eng 19:125-6 Ag '48
- Field measurements on magnetic recording heads, D. L. Clark and L. L. Merrill, *diags* Inst Radio Eng Proc 35:1575-9 D '47
- Magnetic belt recorder, *diags* Mech Eng 70: 540 Je '48
- Magnetic recorder for power systems, Elec Eng 67:357 Ap '48
- Magnetic sound-on-film, M. Camras, *il* diags Elec Eng 67:136-41 F '48
- Magnetic tape systems; Brush Sound-mirror, C. E. Jackson, *il* diags Radio N 39:46-7+ F '48
- New circuit design for wow tester, M. G. Nicholson, *il* diags Tele-Tech 7:26-9+ Je '48
- Paper sound recording tape, Pulp & Pa of Can 49:56-7 Ap '48
- Performance features new magnetic tape recorder, R. H. Ranger, *il* diags Tele-Tech 7: 40-2+ O '48
- Quasi-technical discussion of magnetic recording, G. T. Cleary, *bibliog il* Radio N 39:52-3+ F '48
- Recording and reproduction of sound; design of magnetic tape recorders, O. Read, *il* diags Radio N 39:56-8+ F '48
- Stereophonic sound; magnetic tape carrying three simultaneous channels gives a striking illusion, *il* diags Electronics 21:83-9 Ag '48
- Test characteristics of recording wire, G. S. Carter and R. Koontz, *il* Tele-Tech 7:33-40+ My '48
- Twin-trax magnetape recorder, *il* R Sci Instr 19:537 Ag '48
- Understanding the wire recorder, R. Frank, *il* Radio N 39:43+ F '48
- Walkie-talkie inventory cuts shut-down time; wire recorders with punched-card tabulating equipment, *il* Mod Ind 15:83-4+ Mr '48
- Wire recorders, *il* Consumers Res Bul 21:23-5 Ja '48
- Wire recorders for inventory, W. Norris, *il* Am Bsns 18:12-13+ O '48

Transmission thru sea water

- Absorbing media for underwater sound measuring tanks and baffles, W. P. Mason and F. H. Hibbard, *il* diags Acoustical Soc Am J 20:476-82 JI '48
- Acoustical characteristics of noise produced by snapping shrimp, F. A. Everest and others, *il* Acoustical Soc Am J 20:137-42 Mr '48
- Cones as underwater transducer reflectors, R. E. Mueser, *bibliog il* diags Acoustical Soc Am J 19:952-5 N '47
- Electronic instrumentation for underwater ordinance development and evaluation, R. D. Bennett, *plans* diags Inst Radio Eng Proc 36:906-7, 909-10 JI '48
- Example of propagation of underwater sound by bottom reflection, R. W. Young, *bibliog* Acoustical Soc Am J 20:455-62 JI '48
- Reflection of sound from coastal sea bottoms, L. N. Liebermann, *il* diag Acoustical Soc Am J 20:305-9 My '48
- Reflection of underwater sound from the sea surface, L. N. Liebermann, *il* Acoustical Soc Am J 20:498-503 JI '48
- Reverberation in the sea, C. F. Eyring and others, *il* diag Acoustical Soc Am J 20: 462-75 JI '48
- Sheet of air bubbles as an acoustic screen for underwater noise, D. P. Loye and W. F. Arndt, *diag* Acoustical Soc Am J 20:143-5 Mr '48

Sofar; position-determining system depends upon propagation of sound from bomb exploded in the ocean, W. W. Stifler, Jr. and W. F. Saars, *il* diag Electronics 21:98-101 Je '48

See also

Sonar

Transmission thru water

- Acoustic treatment of liquids in thin laminae, C. B. Horsley and others, *bibliog* diags Acoustical Soc Am J 20:182-5 Mr '48
- Interactions between a plate and a sound field, R. D. Fay, *bibliog* diags Acoustical Soc Am J 20:620-5 S '48
- Pulsed underwater acoustic measurements, G. F. Breitwieser, *il* diags Electronics 21: 120+ N '48
- Reflection of sound from submerged plates, W. J. Finney, *bibliog il* diags Acoustical Soc Am J 20:626-37 S '48
- Sonic navigation system, S. R. Rich and A. H. Rosen, *il* diags Electronics 21:92-7 N '48
- Ultrasonic absorption in water in the temperature range 0°-80° C, M. C. Smith and R. T. Beyer, *bibliog* diags Acoustical Soc Am J 20:608-10 S '48
- Underwater sound transducers, H. F. Olson and others, *il* diags RCA R 8:698-718 D '47

Velocity

- Precision ultrasonic interferometer for liquids and some velocities in heavy water, D. R. McMillan, Jr. and R. T. Lagemann, *bibliog* diags Acoustical Soc Am J 19:956-60 N '47
- Sound absorption and velocity in liquefied argon, oxygen, nitrogen, and hydrogen, J. K. Galt, *bibliog* diag J Chem Phys 16: 505-7 My '48
- Sound velocity method for determining the compressibility of finely divided substances, R. J. Urick, *diag* J Ap Phys 18:983-7 N '47
- Ultrasonic investigation of molecular properties of liquids; the alcohols, A. Weissler, *bibliog* diags Am Chem Soc J 70:1634-40 Ap '48

SOUND absorbent materials

- Absorbing media for underwater sound measuring tanks and baffles, W. P. Mason and F. H. Hibbard, *il* diags Acoustical Soc Am J 20:476-82 JI '48
- Absorption-frequency characteristics of plywood panels, P. E. Sabine and L. G. Ramer, *diags* Acoustical Soc Am J 20:267-70 My '48
- Acoustic materials, *diags* Electronics 21:M2-3 Mid-Je '48
- Acoustical board processed glass fibers treated with a phenol-formaldehyde resin, *il* Mod Plastics 25:141 Ja '48
- Application of Helmholtz resonators to sound-absorbing structures, V. L. Jordan, *bibliog il* diags Acoustical Soc Am J 19:972-81 N '47
- Behavior of acoustic materials, R. K. Cook, *il* diags Soc Motion Picture Eng J 51:192-200; Discussion, 200-2 Ag '48
- Deft remodeling; new office for Owens-Corning fiberglass corp., use of fiberglass acoustical board, *il* diags Arch Forum 88: 87-91 Je '48
- Fiberglass building in New York for Owens-Corning fiberglass corp.; use of acoustical fiberglass blankets, *il* Arch Rec 103:140-1 F '48; *Am Bld* 70:98-9 Mr '48
- Measuring of impact sound transmission through floors, P. Ingerslev and others, *il* diag Acoustical Soc Am J 19:981-7 N '47
- Simplified porosity measurements, R. W. Leonard, *diags* Acoustical Soc Am J 20:39-41 Ja '48
- See also
- Sound proofing
- SOUND filters
- Analysis of acoustic signals by means of the self-consistent spectrum, J. J. Markham, *diag* Acoustical Soc Am J 20:95-8 Mr '48
- Effects of high pass and low pass filtering on the intelligibility of speech in noise, I. Pollack, *bibliog* Acoustical Soc Am J 20: 259-66 My '48
- SOUND laboratories
- Construction and design of Parmlly sound laboratory and anechoic chamber, P. J. Mills, *il* diags Acoustical Soc Am J 19:988-92 N '47
- Mobile laboratory for acoustical work, W. C. Copeland, *il* J Sci Instr 25:82-5 Mr '48

SOUND production by animals

Acoustical characteristics of noise produced by snapping shrimp. F. A. Everest and others. *il Acoustical Soc Am J* 20:137-42 Mr '48

SOUND recording, Moving picture. See Moving picture sound recording**SOUND recording paper.** See Paper, Sound recording**SOUND waves**

Acoustic treatment of liquids in thin laminae. C. B. Horsley and others. *bibliog diags Acoustical Soc Am J* 20:182-5 Mr '48

Calculation of the directivity index for various types of radiators. C. T. Molloy. *diags Acoustical Soc Am J* 20:387-405 Jl '48

Compressional wave front propagation through a simple vortex. R. B. Lindsay. *diags Acoustical Soc Am J* 20:89-94 Mr '48

Coupling of a cylindrical tube to a half-infinite space. J. W. Miles. *bibliog diags Acoustical Soc Am J* 20:652-64 S '48

Interactions between a plate and a sound field. R. D. Fay. *bibliog diags Acoustical Soc Am J* 20:620-5 S '48

Propagation of an acoustic wave along a boundary. I. Rudnick. *bibliog Acoustical Soc Am J* 19:348-56 Mr '47; Correction. 20:149 Mr '48

Radiation of sound from an unflanged circular pipe. H. Levine and J. Schwinger. *bibliog diags Phys R* 73:383-406 M 15 '48

Radiation of sound into a circular tube, with an application to resonators. U. Ingård. *bibliog il diags Acoustical Soc Am J* 20:665-82 S '48

Reflection of sound from submerged plates. W. J. Finney. *bibliog il diags Acoustical Soc Am J* 20:626-37 S '48

Refraction of waves from a point source into a medium of higher velocity. E. Gerjuoy. *bibliog Phys R* 73:1442-9 Je 15 '48

Theoretical analysis of the mercury delay line. H. J. McSkimin. *diags Acoustical Soc Am J* 20:418-24 Jl '48

Two complementary diffraction problems. A. Storruste and H. Wergeland. *Phys R* 73:1397-8 Je 1 '48

Vortices and streams caused by sound waves. C. Eckart. *bibliog diags Phys R* 73:68-76 Ja 1 '48

See also

Supersonic waves

Industrial applications

Flocculation of aerosols by intense high-frequency sound. H. W. St Clair and others. *bibliog 11 pls U S Bur Mines Rep of Invest* 4218:1-28 '48

High intensity sound waves now harnessed for industry. R. W. Porter. *flow diag il Chem Eng* 55:100-1+ Mr '48

High-intensity sound works for industry; sound waves precipitate carbon black from smoke, help dry soap and paper. *il Bsns W* p54+ F 7 '48

Sonic vibrations measure combustion chamber volume. *il Automotive Ind* 99:49 S 15 '48

Sound generator; erection by Ultrasonic corporation of unit to precipitate carbon black. *Mech Eng* 69:1041-2 D '47

Sound waves may lick soldering problems. *Bsns W* p50 Je 12 '48

See also

Supersonic waves—Industrial applications

SOUNDING

Instrument for recording continuously the salinity, temperature, and depth of sea water; abstract. A. W. Jacobson. *Elec Eng* 67:455 Mr '48

Major structural features of the western North Pacific, an interpretation of H.O. 5485, bathymetric chart, Korea to New Guinea. H. H. Hess. *maps diags Geol Soc Bul* 59:417-45, pl 1-2 *bibliog*(p443-5) My '48

Progress of echo sounding. *il Electrician* 140:339-40 Ja 30 '48

SOUNDING boards. See Acoustics, Architectural**SOUNDPROOFING**

Acoustic problems in studio design. G. M. Nixon. *il diags Electronics* 21:86-9 My '48

Greater comfort for the airline passenger; cabin silencing. K. R. Jackman. *bibliog il diags Aero Digest* 57:62-3+ O '48

Muffling noise of engine tests. S. Bangs. *il Aviation W* 48:20 Je 14 '48

Paper mill proves that noise abatement pays; acoustical treatment of press room; Fernstrom paper mills. F. A. Westbrook. *il Paper Ind* 30:467-8 Je '48

Quieting and noise isolation in moving picture theaters. E. J. Content. *Soc Motion Picture Eng J* 61:184-8; Discussion. 188-91 Ag '48

Trapping sound in ventilating ducts; sound-proof test room of the Bell telephone laboratories. N. N. Wolpert. *il diags Heat & Ven* 45:65-7 Ja '48

SOUSTELLE, Jacques. 1912—Men around de Gaulle. *por Bsns W* p26 O 16 '48

SOUTH

Southerners strongly oppose Truman's civil rights program; Gallup poll. *Iron Age* 161:125 Ap 15 '48

Economic conditions

South registers substantial income gains. *Manuf Rec* 117:38 O '48

Industries and resources

Batteries for Dixie; major manufacturers building plants in Memphis. *Bsns W* p86 Je 19 '48

Blue book studies show southern enterprise at its best with \$23,000,000,000 output in 1946. *il Manuf Rec* 116:35-7+ D '47

Creative effort; key to balanced economy with graph showing patents and technical publications ratio for southern states. R. B. Seymour. *Manuf Rec* 117:37+ F '48

Doubling of invested capital underlies southern growth. C. R. Walker. *Manuf Rec* 117:48 Mr '48

Katy development department pushes industry expansion. *il Manuf Rec* 117:32-3+ Ja '48

Middle South development committee readies campaign for more industry. *Manuf Rec* 117:174 My '48

Migration of industry; bus companies will do well to study resultant changes. *map Bus Transportation* 27:41-3 Ag '48

Petroleum-coal products rank fourth in southern industry. C. R. Walker. *il Manuf Rec* 117:36+ S '48

South to gain from industrial decentralization. S. Fish. *Manuf Rec* 117:35+ S '48

Southern association of science and industry conference. Old Point Comfort, Va. Jan. 11-13. *Chem & Eng N* 26:247 Ja 26 '48

South's balance sheet. C. R. Walker. *Manuf Rec* 117:32-3+ Ap '48

South's post-war activity reflects accelerated progress. R. L. Gould. *Manuf Rec* 117:132+ My '48

South's trade balance; sixteen states receive greater tonnage of products than shipped. C. R. Walker. *il Manuf Rec* 116:44+ N '47

SOUTH AFRICA

See also

Libraries—South Africa

Rubber industry and trade—South Africa

Railroads—South Africa

Antiquities

Man-apes of South Africa. W. M. Krogman. *il Sci Am* 178:16-19 My '48

Bibliography

Bibliography in South Africa. H. Holdsworth. *J Doc* 3:151-9 D '47

Commercial policy

Geneva tariff negotiations; southern dominion concessions. *For Comm W* 29:13-16 D 6 '47

Economic conditions

New age for South Africa. V. L. Horoth. *il map Mag of Wall St* 82:479-81+ Ag 14 '48

Industries and resources

Industrial research in South Africa. *Chem & Eng N* 26:480-1 F 16 '48

New age for South Africa. V. L. Horoth. *il map Mag of Wall St* 82:479-81+ Ag 14 '48

New U.S. stake in South Africa. *il Bsns W* p81-2 N 29 '47

SOUTH AFRICA—Continued**Politics and government**

- Danger signals in South Africa? Economist 154:316-17 Je 5 '48
 South Africa under the Nationalists. Economist 155:382-3 S 4 '48
 South African politics. Economist 154:590-1 Ap 10 '48

Race problems

- Two native policies in South Africa. Economist 154:718 My 1 '48

SOUTH AFRICAN chemical institute

- Annual convention, 2d, Pretoria, June 23-26. Chem & Ind 493-4 Jl 31 '48

SOUTH AMERICA*See also*

- | | |
|---------------------------|-------------------------|
| Amazon valley | Latin America |
| Building—South America | Petroleum—South America |
| Engineering—South America | Railroads—South America |
| Geology—South America | |

SOUTH Atlantic gas company

- History of energetic South Atlantic gas company marked by rapid growth. Am Gas Assn M 29:553 D '47

SOUTH CAROLINA electric and gas company

- Acquisition to strengthen South Carolina electric and gas co. Barron's 28:35 Ja 5 '48

- Public utility securities. Comm & Fin Chr 167:2544 Je 10 '48
 Stocks offered. Comm & Fin Chr 167:2138 My 17 '48

- Utility realizing gains from recent merger. Barron's 28:35 Je 28 '48

SOUTH DAKOTA*See also*

- Geology—South Dakota

SOUTH JERSEY gas company

- Public utility securities. Comm & Fin Chr 168:917 S 2 '48

SOUTH PACIFIC commission

- South Seas conference, Canberra, Australia, Jan. 28-Feb. 6, 1947; establishment of a commission. Int Labour R 56:590-2 N-D '47

SOUTH PORCUPINE, Ontario**Water supply**

- Dual water-supply system to be unified. map Water & Sewage 86:22-3+ Ja '48

SOUTH SEA islands*See also***Micronesia****SOUTHEASTERN underwriters association**

- Annual meeting, 67th, White Sulphur Springs, W. V. June 1-3. Nat Underw 52:2 Je 10 '48; Weekly Underw 158:1690+ Je 12 '48
 Semi-annual meeting, Pinehurst, N.C., Oct. 29. East Underw 49:19 N 7 '47; Nat Underw 51:12 N 6 '47

SOUTHERN association of science and industry

- Conference, Old Point Comfort, Va. Jan. 11-13. Chem & Eng N 26:247 Ja 26 '48

SOUTHERN brick and tile manufacturers association

- Annual meeting, Asheville, May 23-24. Brick & Clay Rec 112:54 Je '48

SOUTHERN California Edison company

- Annual report. Comm & Fin Chr 167:1476 Ap 5 '48

- Bonds offered. Comm & Fin Chr 167:475; 168:749 Ja 26, Ag 23 '48

- Preferred stock offered. Comm & Fin Chr 166:2423; 167:2138-9 D 15 '47, My 17 '48

- Public utility securities. Comm & Fin Chr 167:104 Ja 8 '48

SOUTHERN California gas company

- Bonds offered. Comm & Fin Chr 167:2035 My 10 '48

SOUTHERN California university

- Petroleum engineering schools. il Oil & Gas J 46:80-1 N 22 '47

SOUTHERN counties gas company of California

- Bonds offered. Cpmm & Fin Chr 167:1593 Ap 12 '48

SOUTHERN Indiana gas and electric company

- Public utility securities. Comm & Fin Chr 168:1874 N 4 '48

SOUTHERN Methodist university, Dallas

- How SMU students are making sales a career. Sales Management 60:120 Ja 15 '48

SOUTHERN minerals corporation

- They struck oil; Pittsburgh Plate Glass and American Cyanamid; subsidiary. Bsns W p36 My 8 '48

SOUTHERN natural gas company

- Bonds offered. Comm & Fin Chr 167:2794 Je 28 '48

SOUTHERN newspaper publishers association**Advertising clinic**

- SNPA clinic stresses need of ad revenue. L. Phillips. Ed & Pub 81:79 Jl 17 '48

SOUTHERN Pacific railroad

- Ten potential market leaders for 1948. Mag of Wall St 81:404 Ja 17 '48

SOUTHERN railway

- Annual report, 1947. Comm & Fin Chr 167:1320-1, 1369 Mr 25-29 '48
 Equipment trusts offered. Comm & Fin Chr 168:1404 O 4 '48

SOUTHERN states iron roofing company

- Southerners at work. il Manuf Rec 117:40-1 Jl '48

SOUTHERN textile association

- STA discusses general problems. Textile World 98:234+ Jl '48

SOUTHERN union gas company

- Preferred stock offered. Comm & Fin Chr 168:51-2 Jl 5 '48

- Southern union gas company system. C. H. Zachry. il map Am Gas J 168:32-5 My '48

SOUTHWEST

- Land of the big rich; free-wheeling free enterprise in that capitalistic oasis, the Southwest, U.S.A. il map Fortune 37:98-103+ Ap '48

Industries and resources

- Great Southwest; a region rich in resources now expanding industrially. Index 28 no2: 25-37 [Je] '48

- New market opportunities as industry discovers Southwest. il Mod Ind 16:38-9+ Ag '48

- New skyline for old Southwest. J. V. Hightower. il map Chem Eng 64:104-7 N '47

- Study of industrial opportunities. W. H. Stueve. maps Gas Age 100:33-6+ D 11 '47

SOUTHWEST research institute

- Southwest research institute dedicated. Chem & Eng N 25:2328 S 29 '47; Glass Ind 28:599 N '47

SOUTHWEST school of printing, Dallas

- Texas school helps in printer shortage. J. Stag. Ed & Pub 81:20 Jl 24 '48

SOUTHWESTERN Bell telephone company

- Debentures over-subscribed. Comm & Fin Chr 167:2036 My 10 '48

SOUTHWESTERN gas and electric company

- Bonds offered. Comm & Fin Chr 167:1156+ Mr 15 '48

SOUTHWESTERN public service company

- Bonds placed privately. Comm & Fin Chr 166:2316 D 8 '47

- Common stock offered; sale of preferred stock privately. Comm & Fin Chr 167:552 F 2 '48

- Public utility securities. Comm & Fin Chr 166:2372 D 11 '47

SOYBEAN flour

- Cereal-soya products; patent. Food Ind 20: 942 Je '48

- Effect of soy flours on rate of staling in plain cake; abstract. L. B. Powers and J. I. Simpson. Food Ind 20:943+ Je '48

SOYBEAN meal**Analysis**

- Low temperature hydrolysis of commercial proteins. E. J. Bird and L. J. Minor. bibliog il Food Ind 20:216-18 F '48

SOYBEAN oil

- Flavor reversion in soybean oil; abstract. C. J. Martin and others. Food Ind 20:1094+ Jl '48

- Furans in vegetable oil refining. S. W. Gloyer. bibliog flow sheet il diag Ind & Eng Chem 40:228-36 F '48

- Midwest chemurgy. G. E. Hilbert. il Chem Eng 55:145-6 S '48

- Nondistillation alcohol extraction process for soybean oil; abstract. A. C. Beckel and others. Food Ind 20:642+ Ap '48

- Polyamide resins. A. G. Hovey. il Paint Oil & Chem R 111:39-42 Ja 8 '48

SOYBEAN oil—Continued

Polymer fractionation of heat-polymerized non-conjugated vegetable oils. I. M. Bernstein. bibliog J Phys & Colloid Chem 52:613-61 Ap '48

Selective extraction of vegetable oils with furfural; drying oils from soybeans. R. L. Kenyon, S. W. Gloyer and C. C. Georgian. bibliog (52 ref) il diags Ind & Eng Chem 40:1162-70 Jl '48

Solvent extraction of oil from soybeans; staff-industry collaborative report. R. L. Kenyon, N. F. Kruse and S. P. Clark. bibliog flow sheets il Ind & Eng Chem 40:186-94 F '48

Soybean oil, 1941-1946. Survey of Cur Bsns 1947 Sup p 119 [supplemented in monthly numbers]

Study of soya-tung oil combinations by Pittsburg paint and varnish production club. Paint Oil & Chem R 110:99-103 N 13 '47

World's largest vegetable oil plant goes into operation; Archer-Daniels-Midland co., Minneapolis. Paint Oil & Chem R 111:11 Ja 8 '48

Analysis

Delta-tocopherol; assay of individual tocopherols in mixtures containing delta-tocopherol. L. Weisler, C. D. Robeson and J. G. Baxter. bibliog Anal Chem 19:906-9 N '47

Delta-tocopherol; assay of total tocopherols in mixtures containing delta-tocopherol. M. H. Stern and J. G. Baxter. bibliog Anal Chem 19:902-5 N '47

Determination of moisture in lecithin and crude soybean oils. K. M. Brobst. Anal Chem 20:939-41 O '48

SOYBEANS

American soybean association calls for government action to stabilize market. Paint Oil & Chem R 111:36 S 30 '48

Borden co. expands soybean research project. Chem & Eng N 26:616 Mr 1 '48

Drackett's stake in soybeans. il Bsns W p30+ My 8 '48

Modification of soy protein for paper coating applications. R. S. Burnett and W. R. Eichenger. Paper Tr J 126:51-2 F 12 '48

Role of inhibitors in soybean. H. S. R. Desikachar and S. S. De. bibliog Science 106:421-2 O 31 '47

Soya protein; Kelkote. Chem Eng 55:167-8 Je '48

Soybeans, flaxseed near support levels. Barron's 28:31 S 27 '48

Soybeans, 1941-1946. Survey of Cur Bsns 1947 Sup p 118 [supplemented in monthly numbers]

Soybeans to lead Nation's oilseeds industry; abstract. W. Eastman. Paint Oil & Chem R 111:10 My 13 '48

See also American soybean association

SPACE

Quantization of space and time. H. T. Flint. bibliog Phys R 74:209-10 Jl 15 '48

SPACE charge

Electron optics and space charge in simple emission systems with circular symmetry. O. Klemperer and B. J. Mayo. bibliog diags Inst E E J 95 pt 3:135-41 My '48

Separation of isotopes in quantity by electromagnetic means. L. P. Smith and others. bibliog diags Phys R 72:989-1002 D 1 '47

Space-charge and transit-time effects on signal and noise in microwave tetrodes. L. C. Peterson. diags Inst Radio Eng Proc 35:1264-72 N '47

Space charge due to corona; abstract. O. J. M. Smith. Elec Eng 67:979 O '48

Space-charge effects in beam tetrodes and other valves. C. S. Bull. bibliog Inst E E J 95 pt 3:17-24 Ja '48

Space-charge tetrode amplifiers. N. Pickering. il diag Electronics 21:96-9 Mr '48

Tangential electron emission. O. Klemperer. diag Tele-Tech 7:45+ Ja '48

SPACE perception

Distortion of stereoscopic spatial localization. K. N. Ogle and P. Boeder. bibliog diags Opt Soc Am J 38:723-33 Ag '48

SPAIN

See also

Airlines—Spain
Chemical industries—Spain
Electric apparatus industry—Spain

Fertilizer industry—Spain
Mercury mines and mining—Spain
Rayon industry—Spain

Commerce

Trade active; important trade agreements concluded; commercial and payments agreement with Sweden. For Comm W 33:18-19 O 9 '48

Commercial policy

Argentina signs protocol to trade agreement with Spain. For Comm W 31:18-19 My 15 '48

France; commercial agreement concluded with Spain. For Comm W 32:19-20 Ag 7 '48

Import-licensing procedure summarized. For Comm W 32:26 S 18 '48

Economic conditions

Spain and Marshall aid. Economist 155:105-6 Jl 17 '48

Foreign relations

Unimportance of Franco. Economist 155:612-14 O 16 '48

Industries and resources

Revival of handicraft industries. For Comm W 29:25-6 D 6 '47

Politics and government

Party politics for Spain? Economist 154:1022-3 Je 19 '48

SPANISH-AMERICAN war. See United States—History—Spanish-American war

SPANISH MOROCCO. See Morocco

SPARK gap

Calibration of 2-cm diameter sphere-gaps. R. Cooper and others. Inst E E J 95 pt 2:309-11 Je '48

Measurement of short-duration recurrent voltage impulses by means of spark-gaps. R. Cooper. bibliog diags Inst E E J 95 pt 2:378-82 Ag '48

Production of high velocity mercury vapor jets by spark discharge. J. R. Haynes. bibliog il diag Phys R 73:891-903 Ap 15 '48

SPARK plugs

Ceramic spark plug insulators rich in alumina. W. Eitel. Cer Ind 50:66 F '48

Factors affecting the functioning of spark plugs. W. A. Bychinsky. diag S A E J 55:45-7 N '47

Preignition and its deleterious effects in aircraft engines. A. Hundere and J. A. Bert. S A E J 56:43-4 Ag '48

Manufacture

Ingenious fixtures for making new spark plug; il Automotive Ind 99:45 Ag 1 '48

Oil standby equipment proves value in gas shortage; Champion spark plug co. J. A. Soden. il Iron Age 162:93-4 S 16 '48

Spark plug manufacture; A. C. Sphinx spark plug co. il Elec R (Lond) 142:721-2 My 7 '48

SPARKING potential. See Potential, Electric

SPARROW, Stanwood Willston

Portrait. Fortune 38:83 Ag '48

SPARTEINE

Papilionaceous alkaloids; baptisia australis (L.) R. Br. L. Marion and J. Ouellet. bibliog Am Chem Soc J 70:691-2 F '48

Total synthesis of sparteine. N. J. Leonard and R. E. Beyler. Am Chem Soc J 70:2298-9 Je '48

SPAS. See Health resorts, watering places, etc.

SPEARMINT

Peppermint and spearmint crop conditions reported. Oil Paint & Drug Rep 153:7+ Je 14 '48

SPEARMINT oil

Mint oils production increased in 1947. Oil Paint & Drug Rep 153:68 Ja 5 '48

Spearmint oil supplied by imports, Chile. For Comm W 30:26 F 21 '48

SPECIAL libraries association

Annual convention, 39th, June 6-12, 1948; program; who's who among the speakers. Special Lib 39:135-49 My-Je '48

Directory of members of Special libraries association as of January 1, 1948. 138p Special lib. assn, 31 E. 10th st, New York 3 '48 (pa \$3)

Fountain report; a resume. B. J. Cole. Special Lib 39:225-31 S '48

New institutional members, October 1, 1947-June 30, 1948. Special Lib 39:192-6 Jl-Ag '48

SPECIAL libraries association—Continued

- Now is yesterday's tomorrow. I. M. Strieby. Special Lib 39:255-61 O '48
- President's message. R. L. Vormelker. II Special Lib 39:215-17 S '48
- Reports of secretary, treasurer and editor and reports of chapters, groups, etc. Special Lib 39:261-89 O '48
- Seen from the sidelines. R. Savord. Special Lib 39:149-54 My-Je '48
- Special libraries association makes bibliographies available. Paper Tr J 126:38 Ap 22 '48
- SLA national officers, chapter presidents, group and committee chairmen and special representatives, 1948-1949. Special Lib 39:239-41 S '48
- SLA publications; cumulative statement on publications in print as of Dec. 31, 1947. Special Lib 39:89 Mr '48
- Structure and interrelations of SLA groups. R. Savord. Special Lib 39:218-25 S '48
- Whither SLA? A. A. Paradis. Special Lib 39:231-3 S '48
- Why raise dues? W. Hausdorfer. Special Lib 39:19-20 Ja '48

Financial group

- Annual meeting, Washington D. C. June 11. Comm & Fin Chr 167:2756 Je 24 '48

Insurance group

- Annual meeting, Washington, D.C. Nat Underw 52:4 Je 17 '48; Nat Underw (Life ed) 52:6 Je 18 '48

SPECIAL sales

- Special events merchandising. II Dom Eng 170:98-101+ N '47

SPECIAL weeks. See Advertising campaigns—Special weeks**SPECIALIZATION**

- Critical look at American science. C. A. Thomas. Chem & Eng N 26:2882-4 S 27 '48

SPECIALIZATION in education

- Science and pragmatics in the education of planners; reprinted from Science Aug. 29, 1902; Training and work of a geologist. C. R. Van Hise. Land Econ 24:209-20 Ag '48

SPECIALIZATION in industry

- Specialization spells success for progressive printing firm; William Rylance & sons print forms used by savings and loan associations. G. C. Compton. II Inland Ptr 120:37-9 N '47

- What technology has done to us; over specialization in industry and politics; abstract. R. P. Soule. Management R 36:562-4 N '47

SPECIALTY stores

- Specialty units are becoming important branches of department stores. E. B. Weiss. II Ptr Ink 221:42-3+ D 12 '47

SPECIFIC dispersion

- Relation of the physical properties of the isomeric alkanes to molecular structure; surface tension, specific dispersion, and critical solution temperature in aniline. H. Wiener. bibliog J Phys & Colloid Chem 52:1082-9 Je '48

SPECIFIC gravity

- A.P.I. and specific gravity at high temperatures; asphaltic residual oils table. W. L. Nelson. Oil & Gas J 47:279-80 O '48

- Continuously recording the specific gravity of solutions. E. M. Brown. diags Pulp & Pa of Can 49:83-6 Mr '48

- Correlating densities of liquids; a new nomograph. D. F. Othmer, S. Josefowitz and A. E. Schmutzler. bibliog Ind & Eng Chem 40:883-5 My '48

- Densities of cellulose esters. C. J. Malm, L. B. Genung and J. V. Fleckenstein. bibliog Ind & Eng Chem 39:1499-504 N '47

- Densities of magnesium-cadmium solid solutions. J. M. Singer and W. E. Wallace. bibliog J Phys & Colloid Chem 52:999-1006 Je '48

- Density measurements. W. T. Pell-Walpole. Metal Prog 52:1032 D '47

- Density of aqueous hydrogen peroxide solutions. C. E. Huckaba and F. G. Keyes. Am Chem Soc J 70:2578-81 Jl '48

- Determination of specific gravity of pigments. W. W. Ewing and R. N. Rhoda. diags Anal Chem 20:743-5 Ag '48

- Effect of temperature and pressure on specific gravity. P. M. Reynolds. Oil & Gas J 46:96+ Mr 11 '48

- Floats indicate specific gravity continuously on process streams; patent. diags Pet Processing 3:790 Ag '48

- Gravimetry of heavy water; new reference liquids for the falling-drop method and precision attainable. V. J. Frilette and J. Hanle. bibliog Anal Chem 19:984-7 D '47

- Laboratory tests and equipment for plating tests. J. B. Mohler and H. J. Sedusky. II diags Metal Finishing 46:50-5 F '48

- Measurement of small changes in density. II Engineer 186:17-18 Jl 2 '48

- Method of particle size determination of soils, cement, etc., by means of a chainomatic specific gravity balance. E. V. Barrett. II diags Am Soc T M Proc 46:1355-72; Discussion. 1373-6 '46

- Methods for determining the specific gravity of wood and wood-base materials. L. J. Markwardt and B. H. Paul. bibliog II diags Am Soc T M Proc 46:1520-39 '46

- Rapid determination of specific gravity of liquids under pressure. J. I. Lacey. diags Anal Chem 20:379 Ap '48

SPECIFIC heat

- Adiabatic calorimeter for specific heat determinations over the temperature range 25° to 300° C. F. S. Stow, Jr. and J. H. Elliott. bibliog II diags Anal Chem 20:250-3 Mr '48

- Carbonyl chloride, entropy, heat capacity, vapor pressure, heats of fusion and vaporization; comments on solid sulfur dioxide structure. W. F. Glaueque and W. M. Jones. bibliog Am Chem Soc J 70:120-4 Ja '48

- Enthalpy, entropy and specific heat of liquid p-xylene from 0° to 300°; the heat of fusion. R. J. Corruccini and D. C. Ginnings. bibliog Am Chem Soc J 69:2291-4 O '47

- Entropy of ethyl chloride; heat capacity from 13° to 287°K; vapor pressure; heats of fusion and vaporization. J. Gordon and W. F. Glaueque. bibliog Am Chem Soc J 70:1506-10 Ap '48

- Experimental vapor heat capacities and heats of vaporization of n-hexane and 2,2-dimethylbutane. G. Waddington and D. R. Douslin. Am Chem Soc J 69:2275-9 O '47

- Flow calorimeter measures specific heats of gases. diags Pet Eng 19:148 D '47

- Gas heat capacity and internal rotation in 1,2-dichloroethane and 1,2-dibromoethane. W. D. Gwinn and K. S. Pitzer. bibliog J Chem Phys 16:303-9 Ap '48

- Heat capacities at high temperatures of uranium, uranium trichloride, and uranium tetrachloride. D. C. Ginnings and R. J. Corruccini. bibliog J Res Nat Bur Stand 39:309-16 O '47

- Heat capacities at low temperatures and entropies of 3CaO·BaO, 3CaO·BaO, CaO·BaO, and CaO·2BaO. K. K. Kelley, S. S. Todi and C. H. Shomate. bibliog Am Chem Soc J 70:1350-2 Ap '48

- Heat capacities of liquids and vapors. S. W. Benson. J Chem Phys 15:866-7 D '47

- Heat capacity, heat of fusion and entropy of benzene. G. D. Oliver, M. Eaton and H. M. Huffman. bibliog Am Chem Soc J 70:1502-5 Ap '48

- Heat capacity of nitrogen absorbed on titanium dioxide between 20°K and 80°K. J. A. Morrison and G. J. Szasz. bibliog diags J Chem Phys 16:280-6 Ap '48

- Heat contents at high temperatures of vanadium dichloride and vanadium trichloride. E. G. King. bibliog Am Chem Soc J 70:2154-5 Je '48

- Measurements of heat of vaporization and heat capacity of a number of hydrocarbons. N. S. Osborne and D. C. Ginnings. bibliog diags J Res Nat Bur Stand 39:453-77 N '47

- Normal vibrations of a crystal lattice. W. V. Houston. bibliog diags Rs Mod Phys 20:161-5 Ja '48

- Refrigerating capacity of two-component systems; glycerol-water and propylene glycol-water. F. T. Gucker, Jr. and G. A. Marsh. bibliog diags Ind & Eng Chem 40:908-15 My '48

- Shape of heat-capacity and equilibrium cooling curves in the region of melting of solid solutions. K. J. Mysels. diags J Phys & Colloid Chem 51:1361-9 N '47

- Simple calorimeter for measuring specific heat. R. B. Rice. bibliog II diags Gen Elec R 51:32-6 O '48

SPECIFIC heat—Continued

- Simple expressions for the heat capacities of gases, B. L. Crawford, Jr. and R. G. Parr, *J Chem Phys* 16:233-6 Mr '48
- Specific heat, enthalpy, and entropy of uranyl fluoride, P. F. Wacker and R. K. Cheney, *bibliog J Res Nat Bur Stand* 39:317-20 O '47
- Specific heat of Colorado oil shales, R. J. Shaw, *bibliog 2pls U S Bur Mines Rep of Invest* 4151:1-9 '47
- Specific heat of food required for boiling; abstract, *Product Eng* 19:131 My '48
- Specific heat of human blood, M. Mendlowitz, *Science* 107:97-3 Ja 23 '48
- Specific heat of sulfur hexafluoride, E. G. Meyer and C. E. Buell, *J Chem Phys* 16:744 JI '48
- Specific heats of volatile liquids, G. C. Williams, *diag Ind & Eng Chem* 40:340-1 F '48
- Thermal properties of petroleum oils, M. Van Winkle, *Pet Refiner* 27:81-5 Je '48
- Vibrational spectrum and specific heat of a face-centered cubic crystal, R. B. Leighton, *Rs Mod Phys* 20:165-74 Ja '48

SPECIFIC surface

- Measurement of specific surfaces of calcined and hydrated alumina powders by adsorption of *n*-heptole acid from aqueous solutions, L. Saunders, *diag Chem Soc J* p969-73 JI '48
- Physical studies of gel microstructure, C. G. Shull, P. B. Elkin and L. C. Reoss, *bibliog Am Chem Soc J* 70:1410-14 Ap '48
- Relationship of specific surface factor of talcs to slip viscosity and dry-pressing characteristics, W. W. Gaskins, *diag Am Cer Soc J* 31:80-2 Mr 1 '48

SPECIFIC volume

- Methane-*n*-butane-water system in two- and three-phase regions, J. J. McKetta, Jr. and D. L. Katz, *bibliog (504 ref) diags Ind & Eng Chem* 40:853-63 My '48
- Molal volumes of aqueous solutions of perchloric acid, J. Bigeleisen, *bibliog J Phys & Colloid Chem* 51:1369-74 N '47
- Over-all specific volume, compressibility and resilience of fibrous materials in bulk, W. H. Reed, *bibliog il diags Textile Inst J* 39:T131-41 Ap '48
- Vapor pressure, specific volume, *p-v-T* data for H₂, N₂, O₂, CO, CO₂, air, He, A. Hg., S. Gratch, *A S M E Trans* 70:631-40 *bibliog* (154 titles, p637-40) Ag '48
- Vapor pressure, specific volumes, and *p-v-T* data for H₂O, NH₃, CH₄, C₂H₄ with comments on mixtures, F. G. Keyes, *bibliog A S M E Trans* 70:641-4 Ag '48

SPECIFICATIONS

- Clear, precise specifications and contracts invite lower bids, G. B. Hills and C. F. Lovan, *il Civil Eng* 17:668-71+ N '47
- Engineered specifications aid industry, business and government, E. W. Ely, *il Power Generation* 52:69-+ O '48
- See also subdivision Specifications under special subjects, e.g., Butadiene—Specifications; Steel—Specifications

SPECTACLES

- Right before your eyes; plastic frames for spectacles and sunglasses; contact lenses; molded eyeglass lenses, *il Mod Plastics* 25:75-81 JI '48
- Seven spectacle habits of salesmen, J. Bedford, *il Ptr Ink* 224:36-7 S 10 '48

SPECTROGRAPH

- Automatic arc-current regulator, E. V. Potter and A. Scott, *il diag R Sci Instr* 18:722-6 O '47
- Cinema-spectrograph for photographing rapid spectral sequences, R. C. Herman and S. Silverman, *il diag Opt Soc Am J* 38:209-11 F '48
- Double modulation detection method for microwave spectra, R. J. Watts and D. Williams, *Phys R* 72:1122-3 D 1 '47
- Focusing field for a 180° type spectrograph, F. M. Beiduk and E. J. Konopinski, *diag R Sci Instr* 19:594-8 S '48
- 45-second spectrochemical analysis; use of Quantometer, *il Steel* 122:109+ Ap 12 '48
- Improved spectrographic source, C. Braudo and H. R. Clayton, *bibliog il diags Soc Chem Ind J* 66:259-67 Ag '47
- Modified Stark-effect modulation spectrograph for microwaves, R. J. Watts and D. Williams, *Phys R* 72:980-1 N 15 '47

- More time for bath alterations provided by use of spectrograph in steel plants, B. W. Bowen, *il Steel* 121:69-70+ D 29 '47
- Multi-prism spectrographs with glass optics by Carl Zeiss, Jena, G. Hansen, *il diags Opt Soc Am J* 38:759-66 S '48
- Quantitative analysis performed quickly by instrument; Quantometer, *il Foundry* 76:304 My '48
- Quantometer, a direct reading instrument for spectrochemical analysis, M. F. Hasler and others, *il diags Opt Soc Am J* 38:789-99 S '48
- Quantometer, a tool for the metallurgist, W. Bousack, *il Metal Prog* 52:975-8 D '47
- Quantometer for rapid spectrographic examination of metals and alloys, R. H. Muller, *il Ind & Eng Chem Anal ed* 18:sup23-4 Ag '46; Same, *Pet Eng (Ref annual)* 19:156+ JI 1 '48
- Quantometer speeds aluminum alloy analyses, T. S. Blair, *il Iron Age* 160:65-7+ D 18 '47
- Rapid method of spectrographic analysis, H. R. Clayton, *bibliog diags Soc Chem Ind J* 67:270-3 JI '48
- Simultaneous photography of two wavelength ranges in spectrochemical analysis, N. H. Nachtrieb and others, *diags Anal Chem* 20:282 Mr '48
- Spectrographic analysis of low-alloy steel; a statistical examination of sources of error, H. T. Shirley and others, *il Iron & Steel Inst J* 157:391-409 N '47
- Spectrographic analysis of nickel alloys, C. J. Neuhaus, *il Iron Age* 161:62-5 Ja 22 '48

SPECTROGRAPHY

- Automatic control of the spectrographic exposure, C. H. R. Gentry and others, *diag Soc Chem Ind J* 66:323-5 S '47
- Oscilloscope scanning of visible spectra, W. E. Deal and others, *il J Chem Phys* 16:638 Je '48
- Photographic aspect of spectroscopy; abstract, E. W. H. Selwyn, *bibliog J Sci Instr* 25:98-9; Discussion, 99-100 Mr '48
- Use of the electron multiplier in emission spectroscopy, abstract, G. F. Mitchell and F. Popper, *bibliog J Sci Instr* 25:100-1; Discussion, 101-2 Mr '48

SPECTROMETERS

- Absorption of 17-Mev gamma-rays in lead and aluminum, B. D. McDaniel and others, *diag Phys R* 72:985-6 N 15 '47
- Beta-ray spectrometer design of quadratic resolution-solid angle relationship, S. Frankel, *diag Phys R* 73:804 Ap 1 '48
- Beta-ray spectrometer magnetic shielding, D. E. Alburger, *diag R Sci Instr* 19:474 JI '48
- Calibrated null circuit for Perkin-Elmer infra-red spectrometer, R. L. Chapman and others, *diag R Sci Instr* 19:116-17 F '48
- Calibration method for infra-red prism spectrometers, D. S. McKinney and R. A. Friedel, *Opt Soc Am J* 38:222-5 Mr '48
- Comparison of glower and Globar sources for infra-red spectrometry, R. A. Friedel and A. G. Sharkey, Jr., *R Sci Instr* 18:928 D '47
- Determination of small amounts of water in gases and liquids by infrared spectrometry, A. F. Benning, A. A. Ebert and C. F. Irwin, *il Anal Chem* 19:867-8 N '47
- Determination of the optical properties of opaque isotropic substances, W. A. Wooster, *bibliog il diag J Sci Instr* 25:170-4 My '48
- Disintegration of antimony 124, B. D. Kern and others, *bibliog diag Phys R* 73:1142-8 My 15 '48
- Energies of the beta- and gamma-rays from antimony; magnetic spectrometer, C. S. Cook and L. M. Langer, *Phys R* 73:1149-52 My 15 '48
- Grating spectrometer for millimeter waves, R. J. Coates, *il diags R Sci Instr* 19:586-90 S '48
- High resolution nuclear spectrometer, L. M. Langer and C. S. Cook, *bibliog il R Sci Instr* 19:257-62 Ap '48
- Infrared analysis of organic mixtures using C-H band structure resolved by a lithium fluoride prism, E. L. Saier and N. D. Coggeshall, *bibliog il Anal Chem* 20:812-17 S '48
- Infra-red instrumentation and techniques, V. Williams, *bibliog (210 ref) il diags R Sci Instr* 19:135-78 Mr '48

SPECTROMETERS—Continued

- Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler. *J Res Nat Bur Stand* 41:125-8 Ag '48; Abstract. *J Chem Phys* 15:385-6 D '47
- Limiting sensitivity of a microwave spectrometer. C. H. Townes and S. Geschwind. *J Ap Phys* 19:795-6 Ag '48
- Magnetic lens beta- and gamma-ray spectrometer. E. A. Quade and D. Halliday. bibliog diags *R Sci Instr* 19:234-9 Ap '48
- New industrial infra-red spectrometer. R. R. Gordon and others. *il diags J Sci Instr* 25:277-82 Ag '48
- Precision wave-length and energy measurement of gamma-rays from Au^{198} with a focusing quartz crystal spectrometer. J. W. M. DuMond and others. *Phys R* 73:1392-4 Je 1 '48
- Rapid non-destructive method of determining the refractive index of lens components, using a spectrometer. S. Jacobsohn and others. *il diag Opt Soc Am J* 37:341-3 D '47
- Recording spectrometer. *il Electronics* 21:140+- Mr '48
- Self-filling micro infra-red absorption cell. N. B. Colthup and V. Z. Williams. *il R Sci Instr* 18:927-8 D '47
- Slow neutron spectrometer studies of oxygen, nitrogen, and argon. E. Melkonian and others. *Phys R* 73:1399-400 Je 1 '48
- Slow neutron velocity spectrometer studies of Cu, Ni, Bi, Fe, Sn, and calcite. W. W. Havens, Jr. and others. bibliog *Phys R* 73:963-72 My 1 '48
- Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz. L. J. Rainwater and others. *Phys R* 73:733-41 Ap 1 '48
- Stray radiation in Littrow-type spectrometers which employ collimating mirrors. H. W. Straat. diags *Opt Soc Am J* 37:507-9 Je '47; Discussion. A. E. Martin. 38:70-1 Ja '48
- Use of saran thread as a gasket in infra-red spectrometer cells. H. R. Broadley. *R Sci Instr* 19:475 J1 '48
- SPECTROMETERS, Mass.** See Mass spectrometers
- SPECTROMETERS, X ray**
- Combined creep machine and X-ray spectrometer. H. J. Tapsett and others. *il diags J Sci Instr* 25:193-9 Je '48
- Direct-reading contact scale for analysis of X-ray spectrometer charts. W. R. Foster. *Anal Chem* 20:439-90 My '48
- Geiger counter spectrometer for X-ray fluorescence analysis. F. Friedman and L. S. Birks. bibliog diag *R Sci Instr* 19:323-30 My '48
- Organic quantitative analysis using the Geiger counter X-ray spectrometer. C. L. Christ, R. B. Barnes and E. F. Williams. bibliog *il diags Anal Chem* 20:789-95 S '48
- Producing a fiducial mark on X-ray spectrometer curves. J. Parsons and S. G. Knoch. *il diag R Sci Instr* 19:722 O '48
- Quantitative analysis with the X-ray spectrometer; accuracy and reproducibility. H. P. Klug, L. Alexander and E. Kummer. *Anal Chem* 20:607-9 J1 '48
- Use of the double crystal spectrometer in the analysis of Bragg reflections at very small angles. P. Kaesberg and others. bibliog *Phys R* 74:71-3 J1 1 '48
- SPECTROMETRY**
- Method for automatically plotting spectral energy distribution of luminescent materials. F. J. Studer. *il Opt Soc Am J* 38:467-70 My '48
- SPECTROPHOTOMETERS**
- Flame spectrophotometer. *il R Sci Instr* 19:726-7 O '48
- Flame spectrophotometer determines mineral content in water rapidly. *il Eng N* 140:652 Ap 23 '48
- Infra-red instrumentation and techniques. V. Williams. bibliog (210 ref) *il diags R Sci Instr* 19:135-78 Mr '48
- Infra-red spectrophotometer for industrial research. E. J. Martin and others. *il diags Opt Soc Am J* 37:923-31 N '47
- Intercomparison of Beckman spectrophotometers. G. W. Ewing and T. Parsons, jr. *Anal Chem* 20:423-5 My '48
- Measurement of strongly reflecting transmission samples with the commercial recording spectrophotometer. W. E. K. Middleton. *Opt Soc Am J* 38:74-5 Ja '48
- New process control instruments for chemical industry. E. S. Lee. *Chem Eng Prog* 44:266-7 Ap '48
- Nomographs for spectral band width of the Beckman DU spectrophotometer. H. M. Haender. *Opt Soc Am J* 38:417-19 Ap '48
- Non-adaptability of the ICI system to some near-whites which show absorption in the far blue region of the spectrum. A. E. Jacobsen. *Opt Soc Am J* 38:442-4 My '48
- Rapid machine method, calculating results of infrared analyses of gaseous hydrocarbon mixtures. E. C. Daigle and J. H. Lee. bibliog *Pet Refiner (Process Handbook ed)* 27:120-3 S '48
- Rapid routine method for testing stainless steels; procedure employing the Beckman spectrophotometer. J. E. Culbertson and R. M. Fowler. bibliog *il Steel* 122:108+- My 24 '48
- Recording and control system for infra-red spectrophotometer. G. M. Rassweiler and others. *il diags Opt Soc Am J* 37:963-74 D '47
- Spectrophotometric determination of serum calcium. J. A. Weybrew, G. Matrone and H. M. Baxley. bibliog *Anal Chem* 20:759-62 Ag '48
- Textile analysis by infrared technique. P. Sadtler. diags *Am Dyestuff Rep* 37:555-8 Ap 23 '48
- Use of a line source in ultraviolet absorption spectrophotometric analyses; application to analysis of mixtures of aniline, N-methylaniline, and N,N-dimethylaniline. D. D. Tunnicliff. *Anal Chem* 20:828-30 S '48
- Installation**
- Reduction of noise; Perkin-Elmer infrared spectrophotometer recording system. C. Creitz. bibliog diags *Anal Chem* 20:707-13 Ag '48
- SPECTROPHOTOMETRY**
- Allylidene halides; spectrophotometric study of solvolysis reactions of cinnamal chloride. L. J. Andrews. bibliog *Am Chem Soc J* 69:3062-5 D '47
- Application of spectrophotometry in the textile industry; testing dyestuff shipments. E. P. Mersereau and J. L. Barach. bibliog *Textile Res J* 18:436-9 J1 '48
- Combined method for spectrophotometric analysis of gray iron. G. T. Henderson. *Foundry* 76:93+- O '48
- Determination of monomer in polystyrene; spectrophotometric and solubility methods. J. J. McGovern, J. M. Grim and W. C. Teach. *Anal Chem* 20:312-14 Ap '48
- Determination of phosphorus, germanium, silicon, and arsenic by the heteropoly blue method. D. F. Boltz and M. G. Mellon. bibliog *Anal Chem* 19:373-7 N '47
- Determination of thiophene, carbon oxysulfide, and carbon disulfide in producer gas; spectrophotometric method. L. J. Brady. bibliog diag *Anal Chem* 20:512-14 Je '48
- Determination of vanillin and related compounds after treatment with alkali; a spectrophotometric method. H. W. Lemon. bibliog *Anal Chem* 19:846-9 N '47
- Electronic intensity regulator for a hydrogen discharge tube. W. L. Pondrom and W. W. Robertson. diags *R Sci Instr* 19:561-4 S '48
- Simple preparation of transparent scales. H. M. Haender. *Science* 107:554-5 Je 18 '48
- Spectrophotometric evaluation of the color of ink marks on paper; handwriting on white paper. C. F. Bailey and R. S. Casey. bibliog *Anal Chem* 19:1020-2 D '47
- Spectrophotometric studies on complex formation with sulfosalicylic acid; with iron III. R. T. Foley and R. C. Anderson. bibliog *Am Chem Soc J* 70:1195-7 Mr '48
- Spectrophotometric study of the reaction of ferric iron and citric acid. O. E. Lanford and J. R. Quinan. bibliog *Am Chem Soc J* 70:2900-3 S '48
- Spectrophotometry. N. F. Barnes. diags *Paper Tr J* 125:39-47 N 13 '47
- Water determination in Freon-12 by infrared spectrophotometry. A. F. Benning and others. *il diags Refrig Eng* 55:166-70 F '48

SPECTRORADIOMETER

- Emission spectra of zinc cadmium sulfides. F. J. Studer and D. A. Larson. *Opt Soc Am J* 38:480-1 My '48
- Method for automatically plotting spectral energy distribution of luminescent materials. F. J. Studer. *Opt Soc Am J* 38:467-70 My '48
- Spectroradiometer, a new measuring instrument. *Elec Eng* 67:57 Ja '48; Same. *Mech Eng* 70:341-2 Ap '48

SPECTROSCOPE

- Electronic eyepiece for spectroscopy of near infra-red. Z. V. Harvalik. *Opt Soc Am J* 38:19:254-7 Ap '48
- Microwave spectra and Zeeman effect in a resonant cavity absorption cell. C. K. Jen. *Opt Soc Am J* 72:986 N 15 '47

SPECTROSCOPY

- Condensed arc source unit for spectrochemical analysis. D. A. Sinclair. *bibliog diags Opt Soc Am J* 38:547-53 Je '48
- Conference on applied spectroscopy, 8th. Pittsburgh. Nov. 13-15; with abstracts of papers. *bibliog Anal Chem* 19:1042-5 D '47
- Dr W. F. Meggers; Ives medalist for 1947. *Opt Soc Am J* 38:1-6 *bibliog*(134 titles, p3-6) Ja '48
- Microwave molecular spectroscopy. D. K. Coles. *bibliog diags Elec Eng* 67:735-40 Ag '48
- Microwave secondary frequency standard. R. R. Unterberger and W. V. Smith. *bibliog diags R Sci Instr* 19:580-5 S '48
- Microwave spectroscopy of paramagnetic salts; the spectrum of chromic alum. F. R. Weiss. *bibliog Phys R* 73:470-6 Mr 1 '48
- Molecular constants from spectroscopic data. G. Herzberg. *bibliog A S M E Trans* 70:623-4 Ag '48
- Nomographs for computing exponential relationships; infrared spectroscopy; electrical application. A. H. Canada. *Gen Elec R* 51:44-7 Mr '48
- Special applications of absorption spectroscopy. F. W. Crawford and C. K. Buell. *Pet Processing* 2:923-5+ D '47
- Spectroscopic method for the determination of absorption coefficients. G. W. Marks and H. C. Lukens. *bibliog Spis U S Bur Mines Rep of Invest* 4242:1-8 '48
- Summarized proceedings of conference on industrial spectroscopy, Glasgow 1947. *bibliog J Sci Instr* 25:95-102 Mr '48

SPECTRUM

- Atomic energy levels as derived from the analyses of optical spectra; the spectra of hydrogen, deuterium, helium, lithium, beryllium, boron, carbon, nitrogen, oxygen, and fluorine. C. E. Moore. *bibliog U S Nat Bur Stand Circ* 467:1-75; pa 50c Supt. of doc. '48
- Beta- and gamma-spectra of Ga⁷². S. K. Haynes. *bibliog Phys R* 73:187-8 Ja 15 '48
- Calculation of nuclear quadrupole effects in molecules. J. Bardeen and C. H. Townes. *bibliog Phys R* 73:97-105 Ja 15 '48
- Continuous spectra and OH absorption in carbon monoxide oxygen explosions. G. A. Hornbeck. *Opt Soc Am J* 38:345-6 Ag '48
- Dirac's theory of continuous spectra. A. Wintner. *bibliog Phys R* 73:781-5 Ap 1 '48
- Electromagnetic shift of energy levels. F. J. Dyson. *Phys R* 73:617-26 Mr 15 '48
- Emission spectra of silicate phosphors with manganese activation. K. H. Butler. *bibliog Electrochem Soc J* 93:143-56 My '48
- Fast modulation effects in the optical region. A. Ruark. *Phys R* 73:181 Ja 15 '48
- Intensity and polarization of Brillouin spectra. D. H. Rank and others. *Opt Soc Am J* 38:287-90 Mr '48
- Internal conversion electrons from 70-day I¹³⁰. R. D. Hill and W. E. Meyerhof. *Phys R* 73:812-13 Ap 1 '48
- Isotopic shift in the helium line spectrum. A. Andrew and W. W. Carter. *Phys R* 74:838-9 O 1 '48
- Microwave determination of the molecular structures and nuclear couplings of the methyl halides. W. Gordy and others. *bibliog Phys R* 74:243-9 Ag 1 '48
- Microwave spectra; methyl cyanide and methyl isocyanide. H. Ring and others. *bibliog Phys R* 72:1262-3 D 15 '47

- Microwave spectra of some linear XYZ molecules. C. H. Townes and others. *bibliog diags Phys R* 74:1113-33 N 1 '48
- Microwave spectrum frequency markers. R. L. Carter and W. V. Smith. *Opt Soc Am J* 72:1265-6 D 15 '47
- Microwave spectrum of iodine monochloride at 4½ centimeters wave-length. R. T. Weidner. *Phys R* 72:1268-9 D 15 '47
- Nuclear quadrupole interaction in CsF. J. W. Trischka. *bibliog diags Phys R* 74:718-20 O 1 '48
- Possibility of observing beat frequencies between lines in the visible spectrum. A. T. Forrester and others. *Opt Soc Am J* 72:728 O 15 '47; Discussion. L. R. Griffin. 73:922; Reply (Signal-to-noise ratio in photoelectrically observed beats). 922-3 Ap 15 '48
- Precision measurement of the ratio of the atomic 'g' values in the ²P_{3/2} and ²P_{1/2} states of gallium. P. Kusch and H. M. Foley. *Phys R* 72:1256-7 D 15 '47
- Preliminary analysis of the microwave spectrum of SO₂. B. P. Dailey and others. *Phys R* 72:817-2 N 1 '47
- Quantum-mechanical methods and the electronic spectra and structure of molecules. R. S. Mulliken. *bibliog Chem R* 41:201-6 O '47
- Radio waves and matter. H. M. Davis. *Opt Soc Am J* 73:16-23 S '48
- Ratio of g values of the ²P_{1/2} and ²S_{1/2} states in ionized calcium. J. R. McNally, jr. *bibliog Phys R* 73:1130 My 1 '48
- Reinvestigation of the vibration spectrum of ozone. M. K. Wilson and R. M. Badger. *bibliog J Chem Phys* 16:741-2 JI '48
- S-level shift in ionized helium. G. R. Fowles. *Opt Soc Am J* 74:219-20 JI 15 '48
- Spectrum of locally isotropic turbulence. L. S. G. Kovaszny. *Phys R* 73:1115-16 My 1 '48
- Structure of the ionized helium line 1640. G. R. Fowles. *Phys R* 73:639 Mr 15 '48
- Use of the Kurie plot. F. N. D. Kurie. *Phys R* 73:1207 My 15 '48
- Vibrational spectra of molecules and complex ions in crystals; general theory. D. F. Hornig. *bibliog J Chem Phys* 16:1063-76 N '48
- Vibrational spectrum and specific heat of a face-centered cubic crystal. R. B. Leighton. *Es Mod Phys* 20:165-74 Ja '48
- Violet asymmetry of potassium resonance lines under high rubidium vapor pressure. S. Chen. *bibliog Phys R* 73:1470 Je 15 '48

See also

- Raman effect Stark effect
Spectroscopy Zeeman effect
Spectrum analysis

Absorption spectra

- Absolute absorption intensities of alkylbenzenes in the 2250-1700 Å region. J. R. Platt and H. E. Klevens. *bibliog Chem R* 41:301-10 '47
- Absorption of water vapor between 1.34μ and 1.97μ. R. C. Nelson and W. S. Benedict. *bibliog Phys R* 74:703-4 S 15 '48
- Absorption spectra of 4,6-diamino-2-phenyl-1,3,5-triazine. F. C. Nachod and E. A. Steck. *Am Chem Soc J* 70:2818-19 Ag '48
- Absorption spectra of 5,7-dimethyltetrazolo(a)-pyrimidine. F. C. Nachod and E. A. Steck. *bibliog Am Chem Soc J* 70:2819-20 Ag '48
- Absorption spectra of 2:4-dinitrophenylsemicarbazones. A. E. Gillam and D. G. Moss. *Chem Soc J* p 1387-90 O '47
- Absorption spectra; the infrared spectra of certain compounds containing conjugated double bonds. E. R. Blout, M. Fields and R. Karplus. *bibliog Am Chem Soc J* 70:194-8 Ja '48
- Absorption spectra; the ultraviolet and visible spectra of certain polyene aldehydes and polyene azines. E. R. Blout and M. Fields. *bibliog Am Chem Soc J* 70:189-93 Ja '48
- Absorption spectrum of carbon dioxide from 14 to 16 microns. L. D. Kaplan. *bibliog J Chem Phys* 15:809-15 N '47
- Absorption spectrum of diborane. W. C. Price. *bibliog J Chem Phys* 16:894-902 S '48
- Absorption spectrum of hexavalent plutonium. R. H. Betts and B. G. Harvey. *J Chem Phys* 16:1089-90 N '48

SPECTRUM—Absorption spectra—*Continued*

- Absorption spectrum of ozone in the visible. G. L. Humphrey and R. M. Badger. *bibliog J Chem Phys* 15:794-8 N '47
- Additional rotational energy levels of H_2O and D_2O molecules. N. Ginsburg. *bibliog Phys R* 74:1052-7 N 1 '48
- Allergenic principles of poison ivy; absorption spectra of 3-*n*-pentadecylcatechol and related compounds. H. S. Mason. *Am Chem Soc J* 70:138-40 Ja '48
- Anomalous values of certain of the fine structure lines in the ammonia microwave spectrum. H. H. Nielsen and D. M. Denison. *bibliog Phys R* 72:1101-8 D 1 '47
- Atmospheric absorption of water vapor between 1.42μ and 2.50μ . O. C. Mohler and W. S. Benedict. *bibliog Phys R* 74:702-3 S 15 '48
- Binding of organic ions by proteins; competition phenomena and denaturation effects. I. M. Klotz, H. Eriwush and F. M. Walker. *bibliog Am Chem Soc J* 70:2935-41 S '48
- Correlation of vibrational absorption spectra with molecular structure. H. W. Thompson. *bibliog Chem Soc J* p328-31 Mr '48
- Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds. W. H. Lemon. *bibliog Am Chem Soc J* 69:2998-3000 D '47
- Effect of large quadrupole interactions on nuclear radiofrequency spectra at twice Larmor frequency. N. F. Ramsey. *bibliog Phys R* 74:286-91 Ag 1 '48
- Effect of sodium silicates on the absorption spectra of some dyes. R. C. Merrill, R. W. Spencer and R. Getty. *bibliog Am Chem Soc J* 70:2460-4 JI '48
- Electric moments and ultraviolet absorption spectra of some derivatives of cyclopropane and of ethylene oxide. M. T. Rogers. *bibliog Am Chem Soc J* 69:2544-8 O '47
- Excited states of benzene. F. M. Garforth and others. *diags Chem Soc J* p406-517 Ap '48
- Fractionation of potato starch; absorption spectra and colour intensities of the starch-iodine complexes. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:97-101 Mr '48
- Free electron model for absorption spectra of organic dyes. H. Kuhn. *bibliog J Chem Phys* 16:840-1 Ag '48
- Frequency modulation in microwave spectroscopy. R. Karplus. *Phys R* 73:1027-34 My 1 '48
- Frequency stabilization of microwave oscillators by spectrum lines. W. V. Smith and others. *bibliog il diags J Ap Phys* 18:1112-15; 19:831-6 D '47, S '48
- Frequency stabilization with microwave spectral lines. W. D. Herschberger and L. E. Norton. *bibliog il diag RCA R* 9:38-49 Mr '48
- Further alkylbenzene spectra to 1750A. J. R. Platt and H. B. Klevens. *J Chem Phys* 16:832-4 Ag '48
- Gliotoxin; synthesis of pyrazinoidolones and pyridindolones. J. R. Johnson and others. *bibliog Am Chem Soc J* 69:2364-70 O '47
- Infrared absorption spectrum and vibrational frequency assignment of ketene. W. R. Harp, jr. and E. S. Rasmussen. *bibliog J Chem Phys* 15:778-85 N '47
- Infrared absorption spectrum of hexafluoroethane gas. J. R. Nielsen and others. *bibliog J Chem Phys* 16:67-73 Ja '48
- Low-temperature spectroscopy of biological compounds. J. F. Scott and others. *bibliog Science* 107:302 Mr 19 '48
- Metallic model for the spectra of conjugated polyenes. N. S. Bayliss. *bibliog diags J Chem Phys* 16:287-92 Ap '48
- Microwave secondary frequency standard. R. B. Unterberger and W. V. Smith. *bibliog diags R Sci Instr* 19:580-5 S '48
- Microwave spectrum and structure of isothiocyanic acid. C. I. Beard and B. P. Dailley. *bibliog J Chem Phys* 15:762 O '47
- Minimum detectable absorption in microwave spectroscopy and an analysis of the Stark modulation method. W. D. Herschberger. *bibliog il diags J Ap Phys* 19:411-19 Ap '48
- Near ultraviolet absorption spectra of mono-substituted benzenes; the effect of certain meta directing groups. W. F. Hamner and F. A. Matsen. *Am Chem Soc J* 70:2482-5 JI '48
- Near ultraviolet absorption spectra of the vapors of the monodeuterated toluenes. A. R. Choppin and C. H. Smith. *bibliog Am Chem Soc J* 70:577-81 F '48
- Nuclear electric quadrupole interaction in molecular spectra. B. T. Feld. *bibliog Phys R* 72:1116-17 D 1 '47
- Photochemistry of some ions in solution. L. Farkas and F. S. Klein. *bibliog diag J Chem Phys* 16:886-93 S '48
- Photochemistry of the aldehydes. F. E. Blacet. *bibliog J Phys & Colloid Chem* 52:534-45 Mr '48
- Porphyry studies; the metal complex salts of $\alpha,\beta,\gamma,\delta$ -tetraphenylporphine. F. Rothmund and A. R. Menotti. *Am Chem Soc J* 70:1808-12 My '48
- Pressure broadening in ammonia at centimeter wave-lengths. D. F. Smith. *bibliog Phys R* 74:506-7 Ag 15 '48
- Relation between the absorption spectra and the chemical constitution of dyes; induced non-coplanarity in symmetrical benzidine dyes. R. J. Morris and W. R. Brode. *Am Chem Soc J* 70:2485-8 JI '48
- Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of fluorotom (CHF_3) from 2.4μ to 0.7μ . H. J. Bernstein and G. Herzberg. *il diags J Chem Phys* 16:30-9 Ja '48
- Saturation effect in microwave absorption of ammonia. R. L. Carter and W. V. Smith. *bibliog il diag Phys R* 73:1053-8 My 1 '48
- Saturation effects in microwave spectroscopy. R. Karplus. *bibliog Phys R* 74:223-4 JI 15 '48
- Saturation effects in the microwave spectrum of ammonia. R. Karplus. *Phys R* 73:1120 M 1 '48
- Saturation in microwave spectroscopy. R. Karplus and J. Schwinger. *Phys R* 73:1020-6 My 1 '48
- Search for spectral absorption in active nitrogen. R. E. Worley. *bibliog diag J Chem Phys* 16:533-6 My '48
- Self-absorption of spectrum lines. R. D. Cowan and G. H. Dieke. *il Rs Mod Phys* 20:418-55 *bibliog*(56 titles, p454-5) Ap '48
- Some dihydroisoquinolines and their absorption spectra. J. L. Bills and C. R. Noller. *bibliog Am Chem Soc J* 70:957-62 Mr '48
- Special applications of absorption spectroscopy. F. W. Crawford and C. K. Buell. *Pet Processing* 2:923-5+ D '47
- Spectroscopic evidence for activation of fluorescence by high valency manganese ions. G. Szigetli and others. *J Chem Phys* 15:881-2 D '47
- Stark effect in high frequency fields. C. H. Townes and F. R. Merritt. *Phys R* 72:1266-7 D 15 '47
- Symposium on color and the electronic structure of complex molecules; dedicated to the memory of Gilbert Newton Lewis. *bibliog il diags Chem R* 41:199-419 O '47
- Synthesis and spectrum of 2-cyclopropylpyridine. R. P. Mariella, L. F. A. Peterson and R. C. Ferris. *bibliog Am Chem Soc J* 70:1494-7 Ap '48
- Ultraviolet absorption spectra of simple unsaturated compounds; mono- and *p*-disubstituted benzene derivatives. L. Doub and J. M. Vandenberg. *bibliog Am Chem Soc J* 69:2714-23 N '47
- Ultraviolet absorption spectra of substituted vinyl aromatic monomers and polymers. H. A. Laitinen, F. A. Miller and T. D. Parks. *Am Chem Soc J* 69:2707-14 N '47
- Ultraviolet absorption spectrum of benzonitrile vapor. R. C. Hirt and J. P. Howe. *bibliog J Chem Phys* 16:480-5 My '48
- Ultraviolet absorption spectrum of hydrogen peroxide. R. B. Holt and others. *bibliog J Chem Phys* 16:225-9 Mr '48; *Correction*. 16:638 Je '48
- Ultraviolet light-absorption of alkali-treated solutions of carbohydrates. D. Macmillan and E. H. Melvin. *bibliog diag Science* 107:447-9 Ap 30 '48
- Ultraviolet spectra and ionization potentials of the hydrides and deuterides of sulfur, selenium, and tellurium. W. C. Price. *J Chem Phys* 16:551-2 My '48

SPECTRUM—Absorption spectra—Continued

Vibrational bands measured with a thallium bromide-iodide prism. E. K. Plyler, J Chem Phys 16:1008 O '48

Band spectra

Dissociation energy of carbon monoxide and the heat of sublimation of carbon. H. D. Hagstrum, bibliog Phys R 72:947-63 N 15 '47

High energy states of N_2 and N_2 . R. B. Setlow, bibliog il Phys R 74:153-62 JI 15 '48

Nomographs for spectral band width of the Beckman DU spectrophotometer. H. M. Haendler, Opt Soc Am J 38:417-19 Ap '48

Nuclear spins of the carbon isotopes. F. A. Jenkins, bibliog il diag Phys R 74:355-63 Ag 15 '48

Pure rotational spectrum of ICl . C. H. Townes and others, bibliog Phys R 73:1334-7 Je 1 '48

Excitation

Automatic arc-current regulator. E. V. Potter and A. Scott, il diag R Sci Instr 18:722-6 O '47

Improved spectrographic source. C. Braudo and H. R. Clayton, bibliog il diags Soc Chem Ind J 66:259-67 Ag '47

Magnetic stabilizer for direct current arcs in spectroscopy. G. C. B. Cave, bibliog il diags Anal Chem 20:817-21 S '48

Some spectral characteristics of mercury arcs for use in study of the Raman effect. D. H. Rank and J. S. McCartney, il Opt Soc Am J 38:279-81 Mr '48

Fine structure

Absorption spectrum of carbon dioxide from 14 to 16 microns. L. D. Kaplan, bibliog J Chem Phys 15:809-15 N '47

Absorption spectrum of ozone in the visible; examination for fine structure; effect of temperature. G. L. Humphrey and R. M. Badger, bibliog J Chem Phys 15:794-8 N '47

Anomalies in the hyperfine structure of CH_3I and ICN . O. R. Gilliam and others, Phys R 73:635-6 Mr 15 '48

Anomalous values of certain of the fine structure lines in the ammonia microwave spectrum. H. H. Nielsen and D. M. Dennison, bibliog Phys R 72:1101-8 D 1 '47

Effect of nuclear motion of the hyperfine structure of the ground term of hydrogen. G. Breit and R. E. Meyerott, bibliog Phys R 72:1023-37 D 1 '47

Electric quadrupole coupling of the nuclear spin with the rotation of a polar diatomic molecule in an external electric field. U. Fano, bibliog J Res Nat Bur Stand 40:215-23 Mr '48

Fine structure in the inversion spectrum of ammonia. R. S. Henderson, Phys R 74:107 JI 1 '48

Fine structure of Raman lines due to chlorine isotopes. D. H. Rank and others, bibliog diags J Chem Phys 16:698-703 JI '48

Further work on satellites in the microwave spectrum of ammonia. D. Williams, Phys R 72:974 N 15 '47

Hyperfine structure in the spectrum of Np^{237} . F. S. Tomkins, Phys R 73:1214-15 My 15 '48

Hyperfine structure of atomic hydrogen and deuterium. D. E. Nagle and others, bibliog Phys R 72:971 N 15 '47

Hyperfine structure of deuterium. A. Bohr, bibliog Phys R 73:1109-11 My 1 '48

Hyperfine structure of gallium. G. E. Becker and P. Kusch, bibliog diag Phys R 73:584-91 Mr 15 '48

Hyperfine structure of hydrogen and deuterium. J. E. Nafe and E. E. Nelson, bibliog diag Phys R 73:718-28 Ap 1 '48

Infra-red absorption spectrum and vibrational frequency assignment of ketene. W. R. Harp, Jr. and R. S. Rasmussen, bibliog J Chem Phys 15:778-85 N '47

Interval formula for multiplets of atomic energy levels. G. Araki, Phys R 72:1255-6 D 15 '47

Magnetic moment of the deuteron. A. Roberts, bibliog Phys R 72:979 N 15 '47

Microwave absorption spectra of Na_2O . D. K. Coles and others, Phys R 72:973 N 15 '47

Microwave molecular spectroscopy. D. K. Coles, bibliog diags Elec Eng 67:735-40 Ag '48

Microwave spectra and Zeeman effect in a resonant cavity absorption cell. C. K. Jen, diag Phys R 72:986 N 15 '47

Newly observed structure in He II λ 4686. J. E. Mack and N. Austern, Phys R 72:972 N 15 '47

Nuclear electric quadrupole interaction in molecular spectra. B. T. Feld, bibliog Phys R 72:1116-17 D 1 '47

Radiofrequency spectra of the sodium halides. W. A. Nierenberg and N. F. Ramsey, bibliog diag Phys R 72:1075-89 D 1 '47

Relative nuclear moments of H^1 and H^2 . F. Bloch and others, bibliog Phys R 72:1125-6 D 1 '47

Structure of the inversion spectrum of ammonia. J. W. Simmons and W. Gordy, bibliog il Phys R 73:713-18 Ap 1 '48

Suggested experiment to detect the shift of $1S_{1/2}$ level of H and He⁺. T. Wu, Phys R 72:976-7 N 15 '47

Fluorescence spectra

Cathodoluminescence emission spectra of zinc-oxide phosphors. R. E. Shrader and H. W. Leverenz, Opt Soc Am J 37:939-40 N '47

Emission spectra of some zinc sulfide and zinc-cadmium sulfide phosphors. W. H. Byler, Opt Soc Am J 37:920-2 N '47

Fluorescence of uranium trioxide hydrates. D. T. Vier and others, Opt Soc Am J 38:811-14 S '48

Measurement of fluorescence spectra. S. Sambursky and G. Wolfsohn, Opt Soc Am J 38:739 Ag '48

Radiation-induced fluorescence and fluorescence spectra of certain quinoline derivatives. C. C. Price, W. G. Jackson and A. Pohland, Am Chem Soc J 70:2983-8 S '48

Spectral power distribution of cathode-ray phosphors. R. M. Bowie and A. E. Martin, bibliog il Inst Radio Eng Proc 36:1023-9 Ag '48

Intensity

Experimental determination of the intensities of infra-red absorption bands. A. M. Thorndike, bibliog J Chem Phys 15:868-74 D '47

Internal intensity ratio of $\text{H}\alpha$ and of $\text{D}\alpha$. C. Hsueh, bibliog il diags Phys R 74:670-6 S 15 '48

Self-absorption of spectrum lines. R. D. Cowan and G. H. Dieke, il Rs Mod Phys 20:418-55 bibliog(56 titles, p454-5) Ap '48

Spectral power distribution of cathode-ray phosphors. R. M. Bowie and A. E. Martin, bibliog il Inst Radio Eng Proc 36:1023-9 Ag '48

Line breadth

Collision and saturation broadening in microwave spectra. H. S. Snyder and P. I. Richards, Phys R 73:1178-80 My 15 '48

Dipolar broadening of magnetic resonance lines in crystals. J. H. Van Vleck, diags Phys R 74:1168-83 N 1 '48

Indirect measurement of spectral line breadth in the infra-red. A. M. Thorndike, bibliog J Chem Phys 16:211-13 Mr '48

Saturation effect in microwave absorption of ammonia. R. L. Carter and W. V. Smith, bibliog il diag Phys R 73:1053-8 My 1 '48

Saturation effect in microwave spectrum of ammonia. T. A. Pond and W. F. Cannon, diag Phys R 72:1121-2 D 1 '47

Saturation in microwave spectroscopy. R. Karplus and J. Schwinger, Phys R 73:1020-6 My 1 '48

Mass spectra

See Mass spectra

Pressure effects

Phase shift approximation in the theory of pressure broadening of spectral lines. A. Jabłoński, bibliog Phys R 73:258-9; Reply. H. M. Foley, 259 F 1 '48

Pressure broadening in ammonia at centimeter wave-lengths. D. F. Smith, bibliog Phys R 74:506-7 Ag 15 '48

Tables, etc.

Configurations of the low terms of Ti II . H. N. Russell, Phys R 74:689-90 S 15 '48

SPECTRUM—Tables, etc.—*Continued*

- Interatomic distances and nuclear quadrupole couplings in ClCN, BrCN, and ICN. A. G. Smith and others. *bibliog Phys R* 74:370-2 Ag 15 '48
- Spectral emissivity and total emissivity of beryllium oxide. R. L. Seifert. *bibliog diags Phys R* 73:1181-7 My 15 '48
- Structure of the ^2D terms of the arc spectrum of lithium. K. W. Meissner and others. *bibliog Phys R* 74:932-8 O 15 '48
- SPECTRUM, Infrared**
- Absorption spectra; the infrared spectra of certain compounds containing conjugated double bonds. E. R. Blout, M. Fields and R. Karplus. *bibliog Am Chem Soc J* 70:194-8 Ja '48
- Absorption spectrum of carbon dioxide from 14 to 16 microns. L. D. Kaplan. *bibliog J Chem Phys* 15:809-15 N '47
- Analysis of natural and synthetic rubber by infrared spectroscopy. H. L. Dinmore and D. C. Smith. *bibliog diags Anal Chem* 20:11-24 Ja '48
- Application of infra-red analysis to the study of the reaction of certain olefins with hydrogen sulphide. N. Sheppard and G. B. B. M. Sutherland. *Chem Soc J p* 1540-6 N '47
- Calibration method for infra-red prism spectrometers. D. S. McKinney and R. A. Friedel. *Opt Soc Am J* 38:222-5 Mr '48
- Comparison of glower and Globar sources for infra-red spectrometry. R. A. Friedel and A. G. Sharkey, jr. *R Sci Instr* 18:928 D '47
- Determination of olefins in gasoline; application of infrared spectroscopy. R. W. B. Johnston, W. G. Appleby and M. O. Baker. *bibliog Anal Chem* 20:805-12 S '48
- Determination of trace impurities in reference fuel grade iso-octane by infrared absorption spectroscopy. J. A. Anderson, jr. *bibliog Anal Chem* 20:801-4 S '48
- Diketene; infrared spectrum and structure. F. A. Miller and S. D. Koch, jr. *bibliog Am Chem Soc J* 70:1890-4 My '48
- Electronic eyepiece for spectroscopy of near infra-red. Z. V. Harvalik. *il diags R Sci Instr* 19:254-7 Ap '48
- Experimental determination of the intensities of infra-red absorption bands. A. M. Thorndike. *bibliog J Chem Phys* 15:868-74 D '47
- Indirect measurement of spectral line breadth in the infra-red. A. M. Thorndike. *bibliog J Chem Phys* 16:211-13 Mr '48
- Infrared absorption spectra of some amino acids and their complexes. I. M. Klotz and D. M. Gruen. *bibliog J Phys & Colloid Chem* 52:961-8 Je '48
- Infrared absorption spectrum and vibrational frequency assignment of ketene. W. R. Harp, Jr. and E. S. Rasmussen. *bibliog J Chem Phys* 15:778-85 N '47
- Infrared absorption spectrum of hexafluoroethane gas. J. R. Nielsen and others. *bibliog J Chem Phys* 16:67-73 Ja '48
- Infrared analysis of organic mixtures using C-H band structure resolved by a lithium fluoride prism. E. L. Saier and N. D. Coggeshall. *bibliog il Anal Chem* 20:812-17 S '48
- Infrared analytical techniques for analyzing Cs mixtures. V. Thornton and A. E. Herald. *Anal Chem* 20:9-10 Ja '48
- Infrared and Raman spectra of heavy cyclooctatetraene. E. R. Lippincott and others. *bibliog J Chem Phys* 16:548-9 My '48
- Infrared dichroism in aligned polythene and parowax. L. Glatt and J. W. Ellis. *J Chem Phys* 15:884 D '47
- Infrared dichroism involving hydrogen bonds. L. Glatt and J. W. Ellis. *bibliog J Chem Phys* 15:880-1 D '47
- Infrared emission spectra of CO₂ and H₂O molecules. E. K. Plyler. *Science* 107:48 Ja 9 '48
- Infrared emission spectra of flames. E. K. Plyler and C. J. Humphreys. *J Res Nat Bur Stand* 40:449-56 Je '48
- Infrared emission spectra of hot liquids. S. F. Kapff. *diags J Chem Phys* 16:446-53 My '48
- Infrared gas analysers. *il diag Engineer* 186:40-1 Jl 9 '48
- Infrared instrumentation and techniques. V. Williams. *bibliog (210 ref) il diags R Sci Instr* 19:135-78 Mr '48
- Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler. *J Res Nat Bur Stand* 41:125-8 Ag '48
- Infrared radiation from a Bunsen flame. E. K. Plyler. *bibliog J Res Nat Bur Stand* 40:113-20 F '48
- Infrared spectra and molecular structure; abstract and discussion. H. W. Thompson and others. *Chem & Ind* p60-1 Ja 24 '48
- Infrared spectra of hydrocarbons; analysis of octane mixtures by the use of infra-red spectra obtained at low temperatures. W. H. Avery and J. R. Morrison. *bibliog il diags J Ap Phys* 18:960-7 N '47
- Infrared spectra of nuclei acids and certain of their components. E. R. Blout and M. Fields. *bibliog Science* 107:252 Mr 5 '48
- Infrared spectrophotometer for industrial research. E. J. Martin and others. *il diags Opt Soc Am J* 37:923-31 N '47
- Infrared spectrum and depolarization factors of the Raman lines of spiropentane and the Raman and infra red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane. F. F. Cleveland and others. *bibliog J Chem Phys* 15:742-58 O '47; Correction. 16:158 F '48
- Infrared spectrum and structure of aluminum trimethyl. K. S. Pitzer and R. K. Sheline. *bibliog il J Chem Phys* 16:552-3 My '48; Correction. 16:563 Jl '48
- Infrared spectrum of heavy water vapor. F. P. Dickey and H. H. Nielsen. *bibliog Phys R* 73:1164-73 My 15 '48
- Infrared spectrum of polyvinyl alcohol. E. R. Blout and R. Karplus. *bibliog Am Chem Soc J* 70:862-4 F '48
- Infrared spectrum of spruce native lignin. E. J. Jones. *Am Chem Soc J* 70:1984-5 My '48
- Mass spectrometric and infra-red study of rates of deuterium exchange, isomerization, and hydrogenation of the *n*-butenes. W. H. Dibeler and T. I. Taylor. *J Chem Phys* 16:1008-9 O '48
- Molecular interaction and infra-red absorption spectra; methyl alcohol and phenol. M. Davies. *bibliog J Chem Phys* 16:267-79 Ap '48
- New crystals for infrared spectrometry. Franklin Inst J 246:249-50 S '48
- Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. *bibliog diags J Chem Phys* 16:377-86 S '48
- Qualitative organic analysis and infrared spectrometry. R. B. Barnes and others. *bibliog Anal Chem* 20:402-10 My '48
- Rapid machine method; calculating results of infrared analyses of gaseous hydrocarbon mixtures. E. C. Daigle and J. H. Lee. *bibliog Pet Refiner (Process Handbook ed)* 27:120-3 S '48
- Recording and control system for infra-red spectrophotometer. G. M. Rassweiler and others. *il diags Opt Soc Am J* 37:963-74 D '47
- Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of fluoroform (CHF₃) from 2.4 μ to 0.7 μ . H. J. Bernstein and G. Herzberg. *il diags J Chem Phys* 16:30-9 Ja '48
- Self-filling micro infra-red absorption cell. N. B. Colthup and V. Z. Williams. *il R Sci Instr* 18:927-8 D '47
- Special applications of absorption spectroscopy. F. W. Crawford and C. K. Buell. *Pet Processing* 2:923-5+ D '47
- Spectroscopic studies of the amide linkage. R. E. Richards and H. W. Thompson. *Chem Soc J p* 1248-60 S '47
- Structure of ozone. D. M. Simpson. *bibliog J Chem Phys* 15:846-7 N '47
- Studies in steroid metabolism; the characterization of carbonyl and other functional groups in steroids by infrared spectrometry. R. N. Jones and others. *bibliog Am Chem Soc J* 70:2024-34 Je '48
- Textile analysis by infrared technique. P. Sadtler. *diags Am Dyestuff Rep* 37:555-8 Ag 23 '48
- Thallium bromide-iodide prism spectroscopy in the far infra-red. W. L. Hyde. *J Chem Phys* 16:744-5 Jl '48

SPECTRUM, Infrared—Continued

- Vibrational frequency assignments for paraffin hydrocarbons; infra-red absorption spectra of the butanes and pentanes, R. S. Rasmussen, bibliog diags J Chem Phys 16:712-27 J '48
- Vibrational spectra of phenolic derivatives and phenolic resins, R. E. Richards and H. W. Thompson, Chem Soc J p 1260-9 S '47
- Vibrational spectrum and thermodynamic functions of acrylonitrile, F. Halverson and others, bibliog il diag J Chem Phys 16:808-16 Ag '48
- Vibrational spectrum and thermodynamic properties of uranium hexafluoride gas, J. Bigeleisen and others, bibliog diag J Chem Phys 16:442-5 My '48

SPECTRUM, Solar

- Atmospheric absorption of water vapor between 1.42μ and 2.50μ , O. C. Mohler and W. S. Benedict, bibliog Phys R 74:702-3 S 15 '48
- Continuous spectrum of the sun, A. J. Deutsch, bibliog diags Rs Mod Phys 20:388-98 Ap '48
- Lines of methane at 7.7μ in the solar spectrum, M. V. Migeotte, Phys R 74:112-13 J1 '48
- Nitrous oxide in the earth's atmosphere, J. H. Shaw and others, Phys R 74:978-9 O 15 '48
- Spectroscopic evidence of methane in the earth's atmosphere, M. V. Migeotte, Phys R 73:519-20 Mr 1 '48
- Telluric bands of methane in the Fraunhofer spectrum, R. R. McMath and others, bibliog Phys R 73:1203-4 My 15 '48
- Ultraviolet spectrum of the sun from V-2 rockets, J. J. Hopfield and H. E. Clearman, jr, il diag Phys R 73:877-84 Ap 15 '48

SPECTRUM, Ultraviolet

- Absorption of the alkyl cyanides in the vacuum ultraviolet, J. A. Cutler, bibliog il J Chem Phys 16:136-40 F '48
- Correlation of resonance structure with ultraviolet absorption in nitro-substituted organic molecules, W. H. Rodebush, bibliog Chem R 41:317-23 O '47
- Effect of alkali on the ultraviolet absorption spectra of hydroxyaldehydes, hydroxyketones and other phenolic compounds, W. H. Lemon, bibliog Am Chem Soc J 69:2998-3000 D '47
- Electric moments and ultraviolet absorption spectra of some derivatives of cyclopropane and of ethylene oxide, M. T. Rogers, bibliog Am Chem Soc J 69:2544-8 O '47
- Excited states of benzene, F. M. Garforth and others, diags Chem Soc J p406-517 Ap '48
- Further alkylbenzene spectra to $1750\text{\AA}$, J. R. Platt and H. B. Klevens, J Chem Phys 16:832-4 Ag '48
- Gliotoxin; synthesis of pyrazinoidolones and pyridinolones, J. R. Johnson and others, bibliog Am Chem Soc J 69:2364-70 O '47
- Identification of Pennsylvania lubricating oils, R. E. Hersh and others, bibliog Anal Chem 20:434-44 My '48
- Intensities of electronic transitions in aliphatic ketones in the vacuum ultraviolet, R. S. Holdsworth and A. E. F. Duncan, bibliog Chem R 41:311-16 O '47
- Low voltage source of ultra-violet continuum, H. J. Rothfels, diag J Sci Instr 25:156 My '48
- Molecular orbital treatment of the ultraviolet spectra of benzene and borazole, C. G. J. Roothaan and R. S. Mulliken, bibliog J Chem Phys 16:118-22 F '48
- New bands in the second negative or ultraviolet band system O_2^+ molecule (${}^2\pi_g \rightarrow {}^2\pi_g$), L. Lal, Phys R 73:255 F 1 '48
- Open-chain sugars; absorption in ultra-violet of D-glucose and L-arabinose in acid solution, E. Pacsu and L. A. Hiller, jr, bibliog Am Chem Soc J 70:523-6 F '48
- Radiation-induced fluorescence and fluorescence spectra of certain quinoline derivatives, C. C. Price, W. G. Jackson and A. Pohlman, Am Chem Soc J 70:2983-8 S '48
- Search for near ultraviolet bands in borazole, L. E. Jacobs and others, J Chem Phys 16:116-17 F '48

- Steric hindrance and short wave length bands in the ultraviolet spectra of some naphthalene and diphenyl derivatives, R. A. Friedel, M. Orchin and L. Reggel, bibliog Am Chem Soc J 70:199-204 Ja '48
- Ultraviolet absorption bands of iodine in aromatic hydrocarbons, H. A. Benesi and J. H. Hildebrand, Am Chem Soc J 70:2832-3 Ag '48
- Ultraviolet absorption spectra of anthracene derivatives, R. N. Jones, bibliog Chem R 41:353-71 O '47
- Ultraviolet absorption spectra of 1,1'- and 2,2'-binaphthyl, V. L. Frampton, J. D. Edwards, jr, and H. R. Henze, Am Chem Soc J 70:2284-5 Je '48
- Ultraviolet absorption spectra of simple unsaturated compounds; mono- and *p*-disubstituted benzene derivatives, L. Doub and J. M. Vandenberg, bibliog Am Chem Soc J 69:2714-23 N '47
- Ultraviolet absorption spectra of substances dissolved in compressed gases, B. Vodar and S. Robin, bibliog J Chem Phys 16:996-7 O '48
- Ultraviolet absorption spectra of substituted vinyl aromatic monomers and polymers, H. A. Latinen, F. A. Miller and T. D. Parks, Am Chem Soc J 69:2707-14 N '47
- Ultraviolet absorption spectrum of benzonitrile vapor, R. C. Hirt and J. P. Howe, bibliog J Chem Phys 16:480-5 My '48
- Ultraviolet absorption spectrum of hydrogen peroxide, R. B. Holt and others, bibliog J Chem Phys 16:225-9 Mr '48
- Ultraviolet absorption spectrum of toxicarol and dehydrotoxicarol, S. Chen and F. Chao, J Chem Phys 16:658-60 J1 '48
- Ultraviolet light-absorption of alkali-treated solutions of carbohydrates, D. Macmillan and E. H. Melvin, bibliog Diag Science 107:447-9 Ap 30 '48
- Ultraviolet spectrum on the sun from V-2 rockets, J. J. Hopfield and H. E. Clearman, jr, il diag Phys R 73:877-84 Ap 15 '48
- Ultraviolet transmission limits of some liquids and solids, H. B. Klevens and J. R. Platt, bibliog Am Chem Soc J 69:3055-62 D '47
- Use of a line source in ultraviolet absorption spectrophotometric analyses; application to analysis of mixtures of aniline, *N*-methylaniline, and *N,N*-dimethylaniline, D. D. Tunnicliffe, il Anal Chem 20:828-30 S '48

SPECTRUM, X ray

- Geiger counter spectrometer for X-ray fluorescence analysis, F. Friedman and L. S. Birks, bibliog diag R Sci Instr 19:323-30 My '48

- X-ray spectrum of element 43, L. E. Burkhardt and others, bibliog il Phys R 73:347-9 F 15 '48

SPECTRUM analysis

- Alkylbenzenes in the C_6 fraction from seven representative crude petroleum, A. F. Forziati and F. D. Rossini, bibliog J Res Nat Bur Stand 53:425-33 N '47
- Analysis of natural and synthetic rubber by infrared spectroscopy, H. L. Dinsmore and D. C. Smith, bibliog diags Anal Chem 20:11-24 Ja '48
- Application of infra-red analysis to the study of the reaction of certain olefins with hydrogen sulphide, N. Sheppard and G. B. M. Sutherland, Chem Soc J p 1540-6 N '47
- Applications of the spectrographic method for studying the resin-bodding of drying oils, F. J. Kolb, jr, and E. A. Hauser, bibliog (41 titles) Paint Oil & Chem R 110:104-1 N 13 '47
- Automatic arc-current regulator, E. V. Potter and A. Scott, il diag R Sci Instr 18:722-6 O '47
- Combined shutter and projection device for alignment of electrodes in spectrographic analysis, A. L. Smith and V. A. Fassel, bibliog diag Anal Chem 20:782 Ag '48
- Concentration methods in spectrographic analysis; recovery of trace constituents in plant materials and soil extracts by mixed organic reagents, R. L. Mitchell and R. O. Scott, Soc Chem Ind J 66:330-6 S '47
- Condensed arc source unit for spectrochemical analysis, D. A. Sinclair, bibliog diags Opt Soc Am J 38:547-53 Je '48

SPECTRUM analysis—Continued

- Correction for gamma changes due to variations in exposure and development with reference to spectrographic analysis (two line-pair method), C. Sanders, Soc Chem Ind J 67:155-7 My '48
- Detecting residual elements in steel by spectrographic analysis, H. Swett, *il* Steel 122:106+ My 3 '48
- Determination of diphenyl carbonate; three analytical methods for estimating in cloth, J. Goldensohn and S. Sass, bibliog Anal Chem 20:730-2 Ag '48
- Determination of olefins in gasoline; application of infrared spectroscopy, R. W. B. Johnston, W. G. Appleby and M. O. Baker, bibliog Anal Chem 20:805-12 S '48
- Determination of trace impurities in reference fuel grade iso-octane by infrared absorption spectroscopy, J. A. Anderson, Jr, bibliog Anal Chem 20:801-4 S '48
- Emission spectroscopy in an oil laboratory, R. G. Russell, bibliog Anal Chem 20:296-8 Ap '48
- Excited states of benzene, F. M. Garforth and others, diags Chem Soc J p406-517 Ap '48
- Gamma-ray studies; spectrum analysis and absorption measurements, J. L. Lawson, *il* diag Gen Elec R 51:47-50 O '48
- Improved spectrographic source, C. Braudo and H. R. Clayton, bibliog *il* diags Soc Chem Ind J 66:259-67 Ag '47
- Improvement of analytical control for silica brick, J. T. Rozsa, Am Cer Soc J 31:280-3 O 1 '48
- In situ study of the thermal decomposition of ethylene oxide by infra-red spectrometry, G. L. Simard and others, J Chem Phys 16: 856 Ag '48
- Infrared analysis of organic mixtures using C-H band structure resolved by a lithium fluoride prism, E. L. Saier and N. D. Coggeshall, bibliog *il* Anal Chem 20:812-17 S '48
- Infrared analytical techniques for analyzing C₈ mixtures, V. Thornton and A. E. Herald, Anal Chem 20:9-10 Ja '48
- Infra-red gas analysers, *il* diag Engineer 186: 40-1 J 9 '48
- Infra-red spectra of hydrocarbons; analysis of octane mixtures by the use of infra-red spectra obtained at low temperatures, W. H. Avery and J. R. Morrison, bibliog *il* diags J Ap Phys 18:960-7 N '47
- Infra-red spectrophotometer for industrial research, E. J. Martin and others, *il* diags Opt Soc Am J 37:923-31 N '47
- Investigation of the use of Geiger-Müller photoelectron counters in the spectrographic analysis of phosphorus in steel, R. Hanau and R. A. Wolfe, bibliog *il* Opt Soc Am J 38:377-83 Ap '48
- Isomerization of certain olefins by silica gel at room temperature, W. S. Gallaway and M. J. Murray, Am Chem Soc J 70:2584-6 J '48
- Magnetic stabilizer for direct current arcs in spectroscopy, G. C. B. Cave, bibliog *il* diags Anal Chem 20:817-21 S '48
- Method of spectrographic analysis of impurities in materials for oxide coating of thermionic cathodes, T. J. Organ and S. L. Parsons, bibliog Opt Soc Am J 38:191-5 F '48
- Micro-spectrochemistry of aluminum alloys, D. P. Jensen, bibliog *il* Iron Age 161:66-8 Ja 8 '48
- Molecular radar; microwave absorption spectra, Chem Ind 62:910 Je '48
- Molecular spectroscopic evidence of the existence of strontium isotopes Sr⁸⁸, Sr⁸⁷, and Sr⁸⁶, L. H. Ahrens, *il* Phys R 74:74-7 J 1 '48
- More time for bath alterations provided by use of spectrograph in steel plants, B. W. Bowen, *il* Steel 121:69-70+ D 29 '47
- New method of photographic evaluation in spectrographic analysis, A. Argyle and W. J. Price, Soc Chem Ind J 67:187-90 My '48
- Photographic aspect of spectroscopy; abstract, E. W. H. Selwyn, bibliog J Sci Instr 25: 98-9; Discussion, 99-100 Mr '48
- Preliminary analysis of the microwave spectrum of ethylene oxide, R. G. Shulman and others, Phys R 74:846 O 1 '48
- Qualitative organic analysis and infrared spectrometry, R. B. Barnes and others, bibliog Anal Chem 20:402-10 My '48
- Quantitative spectrochemical determination of barium, strontium, and calcium, W. Hartmann and B. E. Prescott, Opt Soc Am J 38:539-41 Je '48
- Quantitative spectrographic analysis of powdered ceramic materials, J. M. Zander and J. H. Terry, bibliog Am Cer Soc J 30:366-70 D 1 '47
- Quantitative spectrographic analysis of the rare earth elements; determination of samarium in neodymium; determination of europium in samarium, V. A. Fassel and H. A. Wilhelm, bibliog diag Opt Soc Am J 38:518-26 Je '48
- Quantometer, a direct reading instrument for spectrochemical analysis, M. F. Hasler and others, *il* diags Opt Soc Am J 38:789-99 S '48
- Quick change scales for Quantometer analysis of alloys, *il* Chem Ind 62:816 My '48
- Raman spectra; abstract, E. J. Rosenbaum, Anal Chem 20:390 Ap '48
- Rapid machine method, calculating results of infrared analyses of gaseous hydrocarbon mixtures, E. C. Daigle and J. H. Lee, bibliog Pet Refiner (Process Handbook ed) 27: 120-3 S '48
- Rapid method of spectrographic analysis, H. R. Clayton, bibliog diags Soc Chem Ind J 67:270-3 J '48
- Rapid spectrographic analysis of cemented carbide compositions, J. C. Redmond, *il* Steel 122:86+ Je 28 '48
- Recording and control system for infrared spectrophotometer, G. M. Rassweiler and others, *il* diags Opt Soc Am J 37:963-74 D '47
- Simultaneous photography of two wave-length ranges in spectrochemical analysis, N. H. Nachtrieb and others, diags Anal Chem 20: 282 Mr '48
- Spark technique in spectrographic analysis of slags; lime-silica ratio, R. H. Steinberg and H. J. Belle, Anal Chem 20:72-3 Ja '48
- Special applications of absorption spectroscopy, F. W. Crawford and C. K. Buell, Pet Processing 2:923-5+ D '47
- Spectrochemical determination of beryllium; increased sensitivity of detection in the cathode layer, J. Cholak and D. M. Hubbard, Anal Chem 20:970-2 O '48
- Spectrochemical determination of copper in copper-zinc and in copper-nickel alloys, W. M. Spicer, bibliog Anal Chem 20:557-8 Je '48
- Spectrochemical determination of nickel in electrolytic cobalt using a current-regulated direct-current arc, C. A. Bridger and G. W. Marks, bibliog 2pls U S Bur Mines Rep of Invest 4198:1-7 '48
- Spectrographic analysis of low-alloy steel; a statistical examination of sources of error, H. T. Shirley and others, *il* Iron & Steel Inst J 157:391-409 N '47; Discussion, 159:172-3 Je '48
- Spectrographic analysis of nickel alloys, C. J. Neuhaus, *il* Iron Age 161:62-5 Ja 22 '48
- Spectrographic analysis of non-conducting powders in the carbon arc; abstract, R. L. Mitchell and R. O. Scott, J Sci Instr 25: 95-7; Discussion, 97-8 Mr '48
- Spectrographic determination of beryllium in biological material and in air, J. Cholak and D. M. Hubbard, bibliog Anal Chem 20:73-6 Ja '48
- Spectrographic determination of boron in plant tissue, F. M. Smith, W. G. Schrenk and H. H. King, bibliog Anal Chem 20:941-3 O '48
- Spectrographic determination of lead in blood, W. A. Patterson, bibliog Can Chem & Process Ind 32:239-42 Mr '48
- Spectrographic determination of sodium in a silica-alumina catalyst, J. B. Marling, bibliog Anal Chem 20:299-300 Ap '48
- Spectroscopic determination of cyclopentadiene and methylcyclopentadiene, J. S. Powell and K. C. Edson, Anal Chem 20:510-11 Je '48
- Spectroscopic evidence for ammonia in the earth's atmosphere, O. C. Mohler and others, Phys R 74:352-3 Ag 1 '48
- Textile analysis by infrared technique, P. Sadtler, diags Am Dyestuff Rep 37:555-8 Ag 23 '48

SPECTRUM analysis—Continued

Trace elements in rocks of the Oliverian magma series of New Hampshire, C. A. Chapman and G. K. Schweitzer, *bibliog* maps *Am J Sci* 245:597-613 O '47

Use of a line source in ultraviolet absorption spectrophotometric analyses; application to analysis of mixtures of aniline, N-methylaniline, and N,N-dimethylaniline, D. D. Tunnicliffe, *il Anal Chem* 20:828-30 S '48

Use of the spectrograph for residual and alloy control in the steel plant; abstract, B. W. Bowen, *Steel* 121:128+ N 10 '47

Wide range analysis for zinc using spectrographic line widths, E. J. Eastmond and B. E. Williams, *Opt Soc Am J* 38:800-3 S '48

SPECTRUM analysis (mass spectrometer). See Mass spectrometric analysis

SPECULATION

Board of trade anniversary; Chicago grain exchange hopes to convince public, speculation is a necessary function, *Bsns W* p90+ Ap 3 '48

More speculation and equity financing needed, R. W. Courts, *Comm & Fin Chr* 166:2503 D 18 '47

New tax law and speculation, J. K. Lasser, *Comm & Fin Chr* 167:2640 Je 17 '48

Plain talk on freedom; upholds role of speculator, O. H. Lamborn, *Comm & Fin Chr* 167:1530+ Ap 8 '48

Speculation and the price of grain, R. S. Valle, *J Marketing* 12:497-9 Ap '48

Stock market speculation and venture capital, F. A. Truslow, *Comm & Fin Chr* 167:602+ F 5 '48; Same cond. *Dun's R* 56:17-19+ JI '48

See also

Hedging

SPEECH

Analysis-synthesis telephony, with special reference to the vocoder, R. J. Halsey and J. Swaffield, *bibliog il diags Inst E E J* 95 pt 3:391-406; Discussion, 406-11 S '48

Effect of noise in one ear upon the loudness of speech in the other ear, J. P. Egan, *diags Acoustical Soc Am J* 20:58-62 Ja '48

Effects of differentiation, integration, and infinite peak clipping upon the intelligibility of speech, J. C. R. Licklider and I. Pollack, *bibliog diags Acoustical Soc Am J* 20:42-51 Ja '48

Effects of high pass and low pass filtering on the intelligibility of speech in noise, I. Pollack, *bibliog Acoustical Soc Am J* 20:259-66 My '48

Influence of interaural phase relations upon the masking of speech by white noise, J. C. R. Licklider, *bibliog il diags Acoustical Soc Am J* 20:150-9 Mr '48

Reaction of small enclosures on the human voice; analyses of vowels, C. T. Morrow, *il diags Acoustical Soc Am J* 20:487-97 JI '48

Speech communication under conditions of deafness or loud noise, W. G. Radley, *bibliog il Inst E E J* 95 pt 1:201-12 My '48; Discussion, 95 pt 1:212-16, 544-50 My, D '48

Voice measurements with an audio spectrometer, H. W. Rudmose and others, *bibliog il diags Acoustical Soc Am J* 20:503-12 JI '48

SPEECH, Visible

Representation of vowels and their movements, R. K. Potter and G. E. Peterson, *il Acoustical Soc Am J* 20:528-35 JI '48

SPEECH association of America

Directory of the Speech association of America, 1948, 282p pa \$1 Speech assn. of America, 111 Switzer Hall, Univ. of Missouri, Columbia '48

SPEED indicators

Cage landing speed recorder, *il Engineer* 186:133-4 Ag 6 '48

Differential registers synchronous speed; adjustment between a roughing and finishing wood planer, J. H. Geptert, *diag Machine Design* 20:118-14 Ap '48

Indicates speed from hydraulic circuit; records locomotive performance, J. A. Roberts, *diag Machine Design* 20:114-15 Ap '48

Method and equipment for checking motion picture apparatus speeds, C. T. Owlett, *il diags Soc Motion Picture Eng J* 49:471-8 N '47

Speed recorder for winding-engine tests, *Engineering* 165:537-8 Je 4 '48

Speed-time analyzer aids engine equipment designer, *il diags Product Eng* 19:104 Ap '48

See also

Accelerometers

Tachograph

SPEED Variation

A-c power system for large aircraft; variable ratio transmission between engine and generator, J. G. Hatton, *il diags Gen Elec R* 51:11-15 F '48

Applying planetary gears to differential drives; engineering data sheet, *diags Machine Design* 20:165-8 Je '48

Case for variable speed ring spinning, R. Porter and J. D. Stanesby, *bibliog diags Textile Inst J* 39:P397-404; Discussion, P404-6 Ag '48

Diesel-electric speed-responsive controls, A. V. Johansson, *il diag Ry Mech Eng* 122:87-9 F '48; Same cond. *Elec Eng* 67:221-2 Mr '48

Do variable-speed drives pay on centrifugal boiler feed pumps? I. J. Karassik, *il Power Generation* 52:68-9+ S '48

Electronic motor drives increase machine tool versatility, R. B. Crawford, *il Mach* 54:156-9 D '47

Gear motors in dough-mixers, L. S. Sherman, *il diags Food Ind* 19:1489-90 N '47

Gear trains for multiple speeds, L. Dodge, *bibliog diags Product Eng* 19:144-8 F '48

General Electric adjustable speed motors, *il Elec World* 128:140+ N 8 '47

Instrumentation as applied to speed control, J. G. Wilson and others, *diags Pet Refiner* 27:120-9 Mr '48

Intermittent mechanisms; engineering data sheet, G. J. Talbourdet, *diags Machine Design* 20:159-62 S; 135-8 O '48

Liquid rheostat gives smooth speed control, G. L. McFarland, *il diags Power* 92:280-2 My '48

Magnetic drives for paper mills, G. L. Oscarson, *il diags Paper Ind* 30:574-6+ JI '48

Motor driven machines; multispeed machine drives, *Product Eng* 19:134-5 Mr '48

Motor-driven rheostats for automatic or remote control of motor drives, H. F. Littlejohn, jr, *il diags Machine Design* 19:129-34 D '47

Motor speed control uses saturable-core reactor, L. Helterline, *il diag Machine Design* 20:137-9 S '48

New developments in electric equipment for the rubber industry, B. J. Dalton, *flow diags il diag Elec Eng* 67:119-24+ F '48

New drive for a new machine for a new technique; Landis centerless grinder, W. E. Hoppel, *diags Product Eng* 18:128-9 D '47

New thyatron circuit for motor control, J. R. Devoy, *diags Electronics* 21:116-19 Ap '48

Packaged servomechanism, W. C. Robinette, *il diags Electronics* 21:100-6 Ja '48

Rectifiers supply power for adjustable speed motors, *Am Mach* 91:128 D 18 '47

Reduction and reversing drives for adapting gas turbines to marine propulsion, W. E. Hammond, *diags Machine Design* 20:149-52+ F '48

Speed control for small a-c motors; using small thyatrons, W. E. Tuttle, *il diags Electronics* 21:106-9 F '48

Speed control for the air driven ultracentrifuge, S. D. Majumdar and G. N. Sarkar, *diags R Sci Instr* 19:541-4 S '48

Speed control systems for high-speed squirrel-cage motors, G. W. Heumann, *il diags Gen Elec R* 51:28-34 F '48

Speed-increasing gearbox for special test plant, S. A. Couling, *il diags Engineering* 164:412-14 O 31 '47

Spot conversion for adjustment speed, W. R. Hough and J. L. Van Nort, *Paper Tr J* 125:104+ N 6 '47

Strip tension and velocity control; continuous cleaning, plating and coiling steel venetian blind stock; Life time products corp. C. Diechert, *il diag Steel* 123:69-70+ JI 26 '48

Tension controlled by variety of drives, A. P. Mansfield, *diags Textile World* 98:126-7+ F '48

3600-rpm fluid drives adjust feed-pump speed to boiler load, J. D. Rosebrough, *il Power* 92:12-13 Ja '48

SPEED variation—Continued

- Twelve years to discover the obvious; steps in evolution of Graham variable speed transmission. L. A. Graham. *il diags Machine Design* 20:107-11 S '48
- Using available voltages increases speed range. *diag Power* 92:44 Ja '48
- Variable speed a.c. motors. *Electrician* 140: 635-8 F 27 '48
- Variable speed blower control unit. *il diags Product Eng* 19:100 JI '48
- Variable speed control; electronic equipment. *il Electrician* 139:1508-9 N 21 '47
- Variable-speed drives. E. L. Schwarz-Kast. *il diags Machine Design* 20:169-72 Ap '48
- Variable-speed fluid drives. J. D. Rosebrough. *il diags Machine Design* 20:149-52 Ap '48
- Variable speed pulleys for small press. F. A. Westbrook. *il Mill & Factory* 42:133 Mr '48
- Various strokes and speeds from common shaft. L. H. Browne. *diags Machine Design* 20:117-18+ Ap '48
- Ward-Leonard system assures exact speed control for dc motors. H. Oman. *il diags Power* 92:546-7 S '48
- Wound-rotor machine operation. H. Gibson. *diags Gen Elec R* 51:22-5 Ap '48
- SPEEDER** carbon company
Stock offered. *Comm & Fin Chr* 166:2147 N 24 '47
- SPEKKER** absorptiometer. See **Absorptiometer**
- SPENCER**, Steven
AAAS-George Westinghouse science writing award for 1947. *Science* 106:513-14 N 28 '47
- SPENCER** chemical company
Chemical bonanza. *Bsns W* p72-3+ O 2 '48
- SPENCER** Kellogg and sons, inc.
Companies paying higher dividends on split shares. *Mag of Wall St* 82:131 My 8 '48
- SPENDING**. See **Consumption (economics)**
- SPERMINE**
Preparation of spermine tetrahydrochloride (1,12-diamino-4,9-diazadodecane tetrahydrochloride). H. P. Schultz. *Am Chem Soc J* 70:2666-7 Ag '48

- SPHERES**
Absorption and scattering for impedance boundary conditions on spheres and circular cylinders. M. Lax and H. Feshbach. *bibliog Acoustical Soc Am J* 20:108-24 Mr '48
- SPHERICAL** aberration. See **Aberration (optics)**
- SPHERICAL** shock waves. See **Shock waves**
- SPHERICAL** surfaces
Depth gage and ground block measure curved-surface radii. R. Cañero. *diags Am Mach* 92:134 S 23 '48

- Milling spherical surfaces without a form tool. *il Mach* 55:160 O '48
- Simple set-up for turning concave surfaces. C. T. Bower. *diags Mach* 54:196 Je '48
- Spherical-turning lathe tool cuts precision ball and socket elements. A. B. Nixon. *diags Am Mach* 92:119 Ja 15 '48
- Templet-and-follower fixture controls turning of spheroids. F. C. Fonquen. *diag Am Mach* 92:119 F 26 '48

- SPHEROIDIZING** of steel. See **Steel—Metallography**

- SPICE** trade association, American. See **American spice trade association**

- SPICES**
Cuban imports and exports in 1947. *For Comm W* 31:32 Je 19 '48

- Spice field's best; top award winners in annual competition. *il Mod Packaging* 21:140-1 N '47

- U.S. imports in 1947. *For Comm W* 30:23-4 Mr 20 '48

- See also
Clove
also American spice trade association

- Prices
Botanical drugs, spices, gums; 1947 market trends. *Oil Paint & Drug Rep* 153:29-31 sec 2 F 16 '48

- SPIDERS**, Fossil
See also
Phalangiotarbus sub-ovalis (Woodward)

SPIEGELEISEN**Prices**

- Spiegeleisen, 19 to 21 per cent; monthly, 1929-1947; tabulation. *Iron Age* 161:308 Ja 1 '48

SPILLERS limited

- Statement by the chairman at 61st annual ordinary general meeting. A. Whitaker. *Economist* 154:817 My 15 '48

SPILLWAYS

- Air aids operation of dam spillway gates; Possum Kingdom dam. A. Strieff. *il diags Comp Air Mag* 53:247-9 O '48
- Navigation lock and spillway, McNary dam, Washington; unit prices. *Eng N* 141:115-16 O 28 '48

- Unusual design problems, Harlan County dam. L. G. Feil. *Am Soc C E Proc* 74:1078-80 S '48

SPINACH

- How Suffolk promotes pre-packaged spinach. *Sales Management* 60:134-5 Je 15 '48
- Some factors involved in oxygen evolution from triturated spinach leaves. F. P. Boyle. *bibliog Science* 108:359-60 O 1 '48

SPINDLES (machine tools)

- Antifriction bearings. L. E. Browne. *il diags Steel* 121:98-9+ D 1 '47
- Giddings & Lewis quick-change spindle. *il Ry Mech Eng* 122:269-70 My '48
- Improved spindle drive in plain miller. *il diags Machine Design* 20:146-8 JI '48
- Spindle noses for lathes; new standard; reference book sheets. *diags Am Mach* 92: 137, 139 JI 15 '48

SPIKE

- Significance of anatomical defects of the lower spine. F. N. Barton. *bibliog il Ind Med* 17: 37-40 F '48

SPINEL

- Synthetic-spinel jewels; German research report. *Mech Eng* 70:24 Ja '48

SPINNING

- Aids to spinning interest Georgia mill men. *Textile World* 98:137+ Je '48
- Analysis of technical factors controlling spinning breaks at the ring frame. F. Charnley. *Textile Inst J* 38:P556-8; Discussion. P558-60 D '47
- Analysis of the results of end breakage tests. A. Ormerod. *Textile Inst J* 38:P576-82 D '47
- End breakages in cotton ring spinning. *Textile Inst J* 38:P590-1 D '47
- Ends-down tests reveal spinning troubles. F. H. Gunther and M. Gross. *il Textile World* 97:112-13 D '47
- Fibre movement in drafting. D. R. Cox. *diags Textile Inst J* 39:P230-8; Discussion. P238-40 JI '48
- Long-draft roving has developed slowly. S. Carter. *Textile World* 98:133+ Je '48
- Some factors affecting end breakage in ring spinning. J. U. Steiger. *Textile Inst J* 38: P561-75 D '47
- Spinning end breakage test and some typical results. A. F. W. Coulson. *Textile Inst J* 38:P535-48 D '47

See also

- Cotton spinning Rayon spinning
Linen spinning Woolen and worsted
Nylon spinning spinning

SPINNING machinery

- Aids to spinning interest Georgia mill men. *Textile World* 98:137+ Je '48
- Applications of pin drafter disclosed. J. R. Longstreet. *il Textile World* 98:133+ JI '48
- Continuous rayon spinning process. *il diags Chem Eng* 54:103 N '47; *Textile World* 97: 157-8 N '47
- Design innovations in yarn spinner. G. F. Norcross. *il diags Machine Design* 20:108-10 O '48
- Direct spinner for tow produces fine, strong yarn; new Saco-Lowell machine. C. M. Bowden. *il Textile World* 98:114-15 My '48
- End breakages at the ring frame; their effect on P.M.H. J. Baines. *Textile Inst J* 38:P549-53; Discussion. P554-5 D '47
- Gage lends accuracy in setting mule fallers. J. T. Igo. *diags Textile World* 97:171 D '47
- How to adjust the builder properly for correct taper. F. H. Gunther and M. Gross. *il diags Textile World* 98:125+ My '48

SPINNING machinery—Continued

- Nelson continuous viscose rayon spinning process, *il* diag Rayon 28:633-6 D '47; Engineer 184:482-3 N 21 '47
- New Toyoda super-high-draft spinning system, *il* Textile World 98:104-5 Ja '48
- Progress in rayon spinning machines, *il* Rayon 29:59-60 S '48
- Some factors affecting end breakage in ring spinning, J. U. Steiger, Textile Inst J 38: P561-75 D '47
- Spinning control cuts labor and waste, P. M. Thomas, *il* diag Textile World 98:121+ Ag '48
- Spring roll-weighting system developed by Japanese, A. W. Jessup, *il* Textile World 98:246 Je '48
- Worsted frame has rising drafting field; McGlynn Hays system, *il* Textile World 97: 155-6 D '47

Cleaning

- Cloth-covered cone cleans spinning top rolls, *il* Textile World 98:155 Je '48

SPIRAL gearing. See Gearing, Spiral

SPIRO compounds

- Synthesis of some cyclopropane and spirane hydrocarbons, R. W. Shortridge and others, *ibid* Am Chem Soc J 70:946-9 Mr '48

SPIROPENTANE

- Infra-red spectrum and depolarization factors of the Raman lines of spiropentane and the Raman and infra-red spectra of 1,1-dimethylcyclopropane, 1-methylcyclobutene, and methylenecyclobutane, F. F. Cleveland and others, *ibid* J Chem Phys 15:742-58 O '47

SPLITZBERGEN

- Spitzbergen, Norway's Arctic coal treasure, O. Ljone, *il* Min & Met 29:330-2 Je '48

SPLINES. See Keys and keyways (machinery)

SPLIT-run ads. See Advertisements—Testing

SPLIT-up of stocks. See Stocks—Split-up

SPODUMENE

- Edison spodumene mine, Pennington county, S. Dak. F. F. Clarke and others, *9pls* U S Bur Mines Rep of Invest 4234:1-23 '48
- Investigation of the Mateen spodumene deposit, Pennington county, S. Dak. *7pls* U S Bur Mines Rep of Invest 4339:1-20 '48

SPOILAGE

- Scrap report [hold-ups and breakdowns] cuts spoilage 73 per cent the first year; Dexion, Ltd., London, England, D. Comino, *Factory Management* 106:116-17 O '48

SPOKANE**Lighting**

- Spokane modernizes with mercury, A. Gruber, *il* diags Elec West 100:82-3 My '48

SPONGE iron. See Iron, Sponge

SPONGE rubber. See Rubber, Sponge

SPONGES

- Sponge industry of Greece. For Comm W 29:19 D 13 '47
- World trade in sponges. For Comm W 32:31 Ag 28 '48

SPONTANEOUS combustion

- Could spontaneous ignition have caused this explosion? H. T. Livingston, *Power Generation* 52:89 Ja '48
- Gas fires in a sanitary fill; spontaneous combustion ignites gases from decomposing garbage at San Francisco, *il* Eng N 140:40-1 Ja 8 '48
- Spontaneous combustion; lecture demonstration, W. F. Ehret, *J Chem Educ* 25:250-1 My '48
- Where to look for spontaneous ignition hazards, *il* Mill & Factory 43:99-101 Ag '48

SPOOLERS

- Spooler uses phenolic, *il* Mod Plastics 25:168 D '47

SPOOLS

- Sheet metal spools; design and selection, W. C. Mills, *il* diags Product Eng 19:143-7 N '48

SPOONS

- Story of mining on a spoon handle; illustrations, Can Min J 69:95-6 Ap '48

SPORTING goods

- Sporting goods uses show that plastics can take it; with list of goods and materials, M. Meyers, *il* Plastics 8:22-6+ Je '48

Exhibitions

- For sportsmen; trade show of National sporting goods assn, *il* Bsns W p22-3 F 14 '48

SPORTS

- Lighting recommendations for sports and recreational areas; tabulation; engineering reference sheet, D. W. Rowton, *Elec World* 129:106 My 8 '48
- Sports as an industry; an important economic factor, *Index* 28 no2:38-47 [Je] '48

Insurance aspects

- Now is the time to insure grid teams for accidents, Nat Underw 52:21 S 9 '48; Same, Nat Underw (Life ed) 52:13-14 S 10 '48

SPORTSWEAR

- Intensive dealer cultivation wins market for Masland new line; hunting and fishing clothes, E. M. Kelley, *il* Sales Management 60:59-61 Je 15 '48
- Winter tests, *il* Textile Col 70:32-3 Ja '48

SPOT radio. See Radio advertising—Spot radio

SPOT tests. See Microanalysis

SPOT welding. See Electric welding

SPRAYING and dusting

- Surface active agents in foliage sprays, F. Wilcoxon and R. L. Morgan, *ibid* Ind & Eng Chem 40:700-2 Ap '48

SPRAYING apparatus

- Design of exhaust systems, F. H. Stebbins, *diags* Sheet Metal Worker 38:59-61 N '47
- Dry vapor aerosol gun, *il* Mod Plastics 25: 168-9 My '48
- For better spraying watch length and diameter of air hose, Cer Ind 51:54+ JI '48
- High-pressure sprays trap dust on underground rotary dump at Old Ben's new no. 9 mine, *il* diag Coal Age 52:86-8 D '47
- Low-pressure aerosols; adaptation of wartime bug bomb for pressure dispensers in insecticides, drugs, deodorants, *il* Mod Packaging 21:116-18 N '47
- Metallizing gun uses less air, Comp Air Mag 53:97 Ap '48
- Modern porcelain enameling, G. H. Spencer-Strong and others, *il* Cer Ind 51:55+ JI '48
- New nozzle widens the market for sprayers, Bsns W p50 Ap 24 '48
- Sprayers, up to date, E. G. Thomssen, *Soap & San Chem* 24:122-4+ S; 145+ O '48

Advertising

- Tags tote sales load for Bean-Cutler's orchard sprayer, *Sales Management* 60:120-1 Je 15 '48

SPRAYING of enamel. See Enamel spraying

SPREADING

- Spreading device, for finishing textiles; patent, *diag* Am Dyestuff Rep 37:133-4 F 23 '48

SPRIGLE, Ray, 1886-

- Sprigle poses as Negro to get story of South, E. F. Brennan, *pers* Ed & Pub 81:9 Ag 7 '48
- Sprigle series stirs letters, lecture, book, E. F. Brennan, *Ed & Pub* 81:26 O 2 '48

SPRINGS

See also

Hot springs

SPRINGS (mechanism)

- Liquid springs for aircraft; landing-gear strut, H. Shawbrook, *il* diag Aero Digest 57:53-5+ Ag '48
- New timepiece hairspring made of Elinvar Extra; abstract, *Mech Eng* 69:941 N '47
- Rubber springs, shear loading, J. F. Downie Smith, *diags* A S M E Trans 70:227-32 Ap '48

- Spring roll-weighting system developed by Japanese, A. W. Jessup, *il* Textile World 98:246 Je '48

- Torsion bar springs, D. Bastow, *il* diags Product Eng 19:111-16 S '48

- Typical ends of commercial helical springs; diagrams; reference book sheet, *Am Mach* 92:143 Ap 8 '48

See also

Automobiles—

Springs and sus-

pension

Motor buses—Springs

and suspension

Motor trucks—

Springs and sus-

pension

SPRINGS (mechanism)—Continued

Design

- Common sense of spring design. R. F. Pond. *il* *diags* Iron Age 162:82-5+ J1 '48
 Design of dynamically loaded extension and compression springs. C. I. Johnson. *diags* Mach 54:174-8 J1; 159-64 Ag '48; Same cond. pt. 1. Machine Design 20:98-100 Ag '48
 Formulas for spring redesign. A. Bodenschatz. *diags* Product Eng 19:143 Ap '48
 Nomogram for designing steel torsion springs; reference book sheet. C. P. Nachod. *diag* Product Eng 19:167, 169 S '48
 Two-day course for spring designers offered by Hunter spring co. Steel 123:132+ Ag 16 '48

Manufacture

- New method for fabricating coil springs. Automotive Ind 98:29 Ap 15 '48
 Spring steels air-fabricated at West Coast automotive parts plant. *il* Steel 123:110+ S 20 '48
 Submarine quench technique; forming and hardening auto leaf springs; also used for bumper treatment. G. E. Stedman. *il* Steel 122:92-4 Je 7 '48

Specifications

- Specifying for economy in springs. R. F. Pond. *il* *diags* Machine Design 19:120-2 N; 115-20 D '47

Testing

- Shot quality, how it affects fatigue life. F. P. Zimmerli. Steel 123:126-9 O 18 '48
 Spring tester; Hunter pressed steel. *il* Instruments 21:824+ S '48
 Testing motor brushholder springs. *il* Steel 121:128 D 1 '47
 SPRINKLER leakage insurance. See Insurance, Sprinkler leakage

SPRINKLING systems

- Automatic protection. Nat Safety N 57:155-6 Mr '48
 Automatic sprinklers reduce both insurance costs and fire losses. *il* Rayon 29:59-61 O '48
 Fire protection for wellways; exhaust-water spray system has been developed for moving stairways. *il* Safety Eng 95:10-11+ Ap '48
 Hangar fire losses can be reduced. E. B. Rumble. *il* Aero Digest 56:52-3+ Ja '48
 Hosiery mill has first rate-of-rise sprinklers. *il* plan Textile World 98:128-9 O '48
 Method of fire control; combination of exhaust system and water curtain for cooling gases when fire is located adjacent to escalator. A. C. Bartlett. *il* *diags* Heating-Piping 19:117-22 N '47
 Rate-of-rise principle meets modern fire protection requirements. H. N. Rider. *il* Steel 121:84-5+ N 24 '47
 Sprinkler fire-alarm. *il* Safety Eng 96:44-6+ O '48
 Sprinkler protection of fur vaults approved; results of tests. East Underw 49:31 F 20 '48; Same. Safety Eng 95:20 Mr '48
 Water spray will stop fire at conveyor openings. N. J. Thompson. *diags* Factory Management 106:104-7 J1 '48

SPROCKETS

- Elimination of the fire hazard of projectors using nitrate film; automatic safety sprocket. L. Mannon. *il* Soc Motion Picture Eng J 50:173-6 F '48
 Proposals for 16-mm and 8-mm sprocket standards. J. S. Chandler and others. *bibliog* *diags* Soc Motion Picture Eng J 48:483-520 Je '47; Discussion. 51:437-40 O '48
 Stainless steel bushings maintain sprocket's pitch. E. E. Lamberson. *diag* Elec World 128:96 N 22 '47

SPROUL, Allan, 1896-

- New York Federal Reserve's president, por (cover) Bsns W p6 S 4 '48

SPRUCE

- Alkaline pulping; spruce. J. S. Hart and R. K. Strapp. Pulp & Pa of Can (Convention no) 49:151-65 [F] '48; Excerpts, Paper Ind 30:304-6 My '48

- Infrared spectrum of spruce native lignin. E. J. Jones. Am Chem Soc J 70:1984-5 My '48

- Interpretation of lignin; the synthesis of further analogs of spruce lignin. A. Russell. Am Chem Soc J 70:2864-5 S '48
 Limits of closer utilization of black spruce pulpwood. Z. A. Zasada and F. T. Frederickson. Pulp & Pa of Can 49:128+ O '48
 Palynological studies at Sodon lake; size-frequency study of fossil spruce pollen. S. A. Cain. *bibliog* map *diags* Science 108:115-17 J1 30 '48
 Studies on lignin and related compounds; hydrogenation of dimers related to lignin. S. B. Baker and H. Hibbert. Am Chem Soc J 70:63-7 Ja '48
 Studies on lignin and related compounds; synthesis and properties of dimers related to lignin. S. B. Baker, T. H. Evans and H. Hibbert. *bibliog* Am Chem Soc J 70:60-3 Ja '48

SPRUCE budworms

- Green River project for the study of forest management in relation to spruce budworm control. *biolog* *il* map Pulp & Pa of Can 49:136+ O '48

SPUR gearing. See Gearing, Spur

SQUALENE

- Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with squalene. G. F. Bloomfield. Chem Soc J p 1546-7 N '47

SQUARE root

- Nomogram for the square root of the sum of squares; reference book sheet. C. P. Nachod. Product Eng 19:155 N '48

SQUIRE, Clark

- Uses honey to attract taxpayers. por Bsns W p26 Ja 31 '48

STABILITY, Chemical. See Chemical stability

STABILIZATION in industry

- How Procter & Gamble avoided serious labor trouble for 60 years. *il* Ptr Ink 222:39-41 Ja 2 '48
 Management's task toward economic stability. R. R. Deupree. Comm & Fin Chr 167:1880+ Ap 29 '48; Same. *il* Dun's R 56:11-12+ Ag '48; Excerpts, Soap & San Chem 24:45+ My '48
 Policies that licked the seasonal selling bugaboo for Koret. E. Aliamus. Sales Management 59:80+ D 15 '47
 See also Employment—Stabil- Production and ity sales, Coordination of

STADIUMS

- Double decks of precast concrete on steel frame enlarge Orange Bowl stadium. *il* *diags* Eng N 141:48-50 J1 22 '48
 Pitching a bold curve in concrete; baseball stadium at Cartagena, Colombia. *il* plan *diags* Arch Rec 104:88-93 J1 '48
 Stadium press box on stilts; concrete stands at Georgia school of technology's Grant field. J. J. Pollard. *il* Eng N 140:566-7 Ap 15 '48
 Stadium roof features concrete cantilever; football stadium in Seattle, Wash. *il* Eng N 140:428-9 Mr 18 '48

Lighting

- Colossal lighting; reffloodlighting of Los Angeles coliseum. A. H. Clarke. *il* Elec West 101:67 J1 '48
 World's most brilliantly lighted ball park; Briggs stadium, Detroit. *il* Gen Elec R 51:46-7 S '48

STAGE (geological term)

- Definition and adoption of the terms stage and age; American commission on stratigraphic nomenclature. Am Assn Pet Geologists Bul 22:372-6 *bibliog*(p374-6) Mr '48

STAGE lighting

- Flexible lighting for a small stage; auditorium of Academy and convent of the Sacred Heart in Menlo park, Calif. *il* Elec West 100:76-7 Mr '48

STAGE setting and scenery. See Theater—

Stage setting and scenery

STAINED glass

- Future of stained glass; workshop and designs of Emil Frei, inc. *il* Arch Rec 103:120-6 Je '48

STAINLESS steel. See Steel, Stainless

STAINS

- See also Concrete—Stains

STAINS—Continued

Removal

Convenient stain remover kit, Consumers Res Bul 21:12 Ap '48

STAINS and staining (microscopy)

Intravenous methylene blue for studying fiber degeneration in the central nervous system, W. H. Feindel and A. C. Allison, *il Science* 107:429 Ap 23 '48

Pollak's trichrome stain for demonstrating distemper inclusion bodies in tissue sections, J. R. Gorham, *Science* 107:175 F 13 '48

Staining of oyster larvae as a method for studies of their movements and distribution, V. L. Loosanoff and H. C. Davis, *Science* 106:597-8 D 12 '47

Staining of the stem tissue of plants by triphenyltetrazolium chloride, T. D. Waugh, *bibliog Science* 107:275 Mr 12 '48

Staining procedure for the study of insect musculature, S. Kramer, *Science* 108:141-2 Ag 6 '48

Transfer of malarial parasites between blood films during mass staining procedures, M. M. Brooke and A. W. Donaldson, *bibliog diags Pub Health Rep* 63:991-1004 JI 30 '48

STAIRWAYS

Permanent stainless steel exhibit of stair-case feature, *il Sheet Metal Worker* 93:56 Je '48

Safe stairs for schools; with time-saver standards, *plan diags Arch Rec* 103:155 Mr '48

Stairs and ramps, *il Nat Safety N* 57:95+ Mr '48

STAKMAN, Elvin Charles

Portrait, *Science* 108:cover S 24 '48

STALEY, A. E., manufacturing company

Net effect of crops good for A. E. Staley, *Barron's* 28:29 S 27 '48

STALIN, Iosif, 1879-

Economic brain trust of Soviet Russia, *por Bsns W* p22-4 My 15 '48

When Stalin dies, what then? H. J. Taylor, *Comm & Fin Chr* 167:1424+ Ap 1 '48

STALING of bread. See Bread—Staling

STAMFORD, Connecticut

Remedy for a common commercial ailment; Ridgeway shopping center, *il Arch Rec* 102:112-14 D '47

STAMP collecting. See Postage stamps

STAMP mills

First stamp mills in English industry, H. R. Schubert, *bibliog il Iron & Steel Inst J* 167:343-4 N '47

STAMPING

Automatic transfer method for stamping parts at high rate, *il Automotive Ind* 98:27 Ja 15 '48

Composition and properties of nonferrous alloys for stampings, including deep-drawn parts; tables; engineering file facts, H. Chase, *Materials & Methods* 28:103, 105 O '48

High speed stamping of electrical terminal plugs; International business machines corp. H. Chase, *il diags Iron Age* 161:64-72 Mr 18 '48

How conversion to other materials solved malleable castings shortage; International harvester co. H. Chase, *il diags Materials & Methods* 27:89-92 My '48

How to reduce costs of thin metal stampings, W. C. Mills, *il diags Am Mach* 92:99-106 Je 3 '48

Kirksite dies for auto stampings, W. G. Patton, *il Iron Age* 161:78-81 Ap 15 '48

Metal stamping design for economy in production; drawings, *Product Eng* 19:122-3 S '48

Metal stampings for ordnance held to be answer to many needs of armed forces, H. C. Wolf, *Steel* 123:120+ S 6 '48

Piercing holes on stamping press is aid to interchangeability, *Sci Am* 178:28 Ja '48

Semiproduction runs of experimental stampings, Tinnerman products, inc, *il Iron Age* 160:78-9 N 27 '47

Some ways to mark plastics after parts are molded; hot stamping, H. O. Bates, *il diags Plastics* 8:10-12+ Je '48

Stamping data; reference book sheets, *diags Am Mach* 92:125 JI 29; 137, 139 O 7; 143, 145 O 21 '48

Stampings for welded fabrication cut costs and increase production; Lincoln electric co. C. G. Herbruck, *il Iron Age* 160:102-4 D 11 '47

Stampings from molten nonferrous metals; abstract, N. A. Sokolov, *Materials & Methods* 28:94 JI '48

Versatile skid expedites material handling in stamping plant, L. M. Beckwith, *il Iron Age* 161:88-9 Je 3 '48

See also

Marking devices

also Clearing machine corporation

STAMPS, Postage. See Postage stamps

STAND oils

Standardization; contribution in theory and practice; abstract, A. Vian and L. Yzu, *Chem Age (Lond)* 58:180 Ja 31 '48

Ultraviolet light absorption of standoils, M. Pestemer and J. Tschinkel, *Paint Oil & Chem R* 111:14+ S 2 '48

STANDARD accident insurance company

First Boston group underwrites preferential offering of common stock, *Comm & Fin Chr* 167:1196 Mr 15 '48

STANDARD cells

Standard cells and the change from international to absolute electrical units, G. W. Vinal, *il diags Electrochem Soc J* 93:95-101 Ap '48

STANDARD gas and electric company

Recent transaction involving company and its subsidiaries, *Comm & Fin Chr* 168:1259-60 S 27 '48

STANDARD of living

Casualties of inflation; extent to which a person is better or worse off than in 1930, *Nat City Bank* p80-3 JI '48

Family budgets; a historical survey, D. S. Brady, *bibliog Mo Labor R* 66:171-5 F '48

STANDARD oil company (Indiana)

Sugar Creek refinery in operation, *Comm & Fin Chr* 168:750 Ag 23 '48

STANDARD oil company (New Jersey)

Annual report, *Comm & Fin Chr* 167:1927-8 My 3 '48

Jersey Standard spends 58 per cent more than earnings to meet the demand, *Nat Pet N* 40:38+ My 5 '48

Portrait of oil, untouched; Standard oil co. (N.J.) invites the public to look beneath the surface, *il Fortune* 38:102-7 S '48

Professors roam corporate campuses; Standard throws the door open, E. M. Kelley, *Sales Management* 61:48+ S 1 '48

Profit rise, *Barron's* 28:33 Je 7 '48

Romance and prospects, J. C. Clifford, *il Mag of Wall St* 82:340-2+ JI 3 '48

STANDARD oil company (Ohio)

Common stock offered, *Comm & Fin Chr* 166:1932 N 10 '47

STANDARD oil company of California

DJ pursues attempt to prove Socal violated law with exclusive dealing, *Nat Pet N* 40:16 My 12 '48

DJ seeks to prove Socal operates interstate and cuts competition, *Nat Pet N* 40:17-18 My 19 '48

Early decision expected in Socal antitrust suit, *Nat Pet N* 40:17-18 Je 2 '48

Exclusive dealing contracts defended by Socal in trial, *Nat Pet N* 40:11-15 My '48

Government wins decision in Socal antitrust suit, *Nat Pet N* 40:11-12 Je 9 '48

High court gets California Standard appeal in exclusive dealing case, *Nat Pet N* 40:15 S 22 '48

Socal decision, if upheld, permits split-pump systems for independents, G. Dietrich, *Nat Pet N* 40:16-17 Je 16 '48

Synopsis of Judge Yankwich's opinion in California Standard antitrust case, *Nat Pet N* 40:25-6 Je 16 '48

STANDARD register company, Dayton

How to find out what your workers think about you; survey, *Factory Management* 106:81-91 Ag '48

STANDARD time. See Time, Standard

STANDARDIZATION

History and philosophy of standardization, P. Good, *Inst E E J* 95 pt 1:19-22 Ja '48

Same abr. Engineer 184:368-9 O 17 '47; Abstracts, *Elec R (Lond)* 141:573 O 17 '47; Electrician 139:1137-8 O 17 '47

STANDARDIZATION—Continued

New field for standards; General Motors sponsors cooperative study to standardize machine tools and other production equipment. *Il Bsns W* p61-2+ *My* 29 '48

Report of activities of AISE standardization committee, 1947. *Iron & Steel Eng* 25:60-77 *F* '48

Report of central committee on the standardization of oil-field equipment. *Il diags Am Pet Inst Proc* 27(4):145-350 '47

Standardization, ally of industry. *W. J. Kunz. Il Ind Stand* 19:138-40 *O* '48

Standardization and simplification for the air transport industry. *W. Littlewood, S A E J* 56:41-3 *S* '48

Standardization by electrical manufacturers. *F. Thornton, jr. Elec Eng* 67:562 *Je* '48

Standardization in the United States. *H. S. Osborne. Elec Eng* 67:569 *Je* '48

Standardization of industrial steam turbines is coming. *L. E. Newman. Il diags Power* 92:143-5+ *Mr* '48

Standards department, its organization and function; Stewart-Warner corp. *P. R. Godfrey. Il Iron Age* 161:78-83+ *My* 27 '48

Tool standardization program at GM; committee system. *W. G. Patton. Il Iron Age* 161:131-5 *Mr* 11 '48

What it takes for a good standards department. *S. H. Watson. Ind Stand* 19:53-4 *Jl* '48

What we are doing; annual report of chairman of ASA Standards council. *E. C. Crittenden. Ind Stand* 18:268-9 *N* '47

See also

Standards**STANDARDS**

Can the retailer benefit from standards for consumer goods? *A. F. Tesi. J Retailing* 24:121-5 *O* '48

Company member committee hears reports on standards. *Ind Stand* 18:270-1 *N* '47

Industrial standards. *C. H. Crawford. Inst Radio Eng Proc* 36:519-21 *Ap* '48

Standards and the special librarian. *H. Macdonald. Special Lib* 39:55-6 *F* '48

Standards in business. *Il Ind Stand* 19:90-4 *Ag* '48

See also

Cost accounting— Standard costs	Quality of products Safety standards
Electric standards	Textile standards
Production standards	Time study
Products, Certification of	Weights and measures
<i>also</i> subdivision	Standards under various subjects, e.g.

Airports	Color
Building	Lathes
Ceramics	Lenses, Photographic
Chucks	Screws
Clothing and dress	Taps

also United States—Standards, National bureau of

Bibliography

ASA standards activities; standards approved or being considered. Published in bimonthly issues of Industrial standardization

Publications of the National bureau of standards, 1901 to June 30, 1947. *U S Nat Bur Stand Circ* 460:1-375; pa 75c Supt. of doc. '48

Standards from other countries (cont). *Ind Stand* 19:4, 103-4, 128-9 *Ja, Ag-S* '48

Germany

Report indicates German standards group revived. *Ind Stand* 19:68 *Jl* '48

India

India reports active program. *L. Verman. Il Ind Stand* 19:122-4 *S* '48

Mexico

AIEE meeting in Mexico encourages mutually beneficial cooperation. *Il Ind Stand* 19:113-14 *S* '48

Russia

Standardization in the USSR. *D. Gollaev. Ind Stand* 19:74-5 *Jl* '48

Sweden

Swedish exhibition shows benefits of standardization. *Il Ind Stand* 19:101 *Ag* '48

West Indies, British

West Indies set up its first standards institution. *Ind Stand* 19:102 *Ag* '48

STANDARDS, Engineering

ASME streamlines standards procedure. *Ind Stand* 19:31 *My* '48

Engineering and manufacturing standards; Caterpillar tractor co. *W. L. Matthew. Il diags Product Eng* 18:81-5 *N* '47

Reflections on standard specifications for structural design. *A. M. Freudenthal. Am Soc C E Proc* 73:103-21 *F* '47; *Discussion. 73:941-3*; 74:374-6 *Je* '47, *Mr* '48

See also

Electric standards	Weights and measures
Standardization	Standards under various subjects, e.g.
<i>also</i> subdivision	

Building	Lighting
Electric equipment	Screw threads

Gearing *also* United States—Standards, National bureau of

STANDARDS, International

American delegation reports on meetings at Buxton, England, of the international technical committee on textiles. *D. E. Douty. Il Ind Stand* 19:146-9 *O* '48

pH scales may be standardized. *Eng N* 140: 57 *Ja* 8 '48; *Same. Chem Age* (Lond) 57: 645-6 *N* 15 '47; *Same. Franklin Inst J* 245: 163-6 *F* '48

International banking standards; French proposal. *B. Melnitsky. Banking* 41:140 *S* '48

International organization for standardization. *Ind Stand* 19:48 *My* '48

International transformer standards and applications. *A. Boyajian and others. bibliog Elec Eng* 67:663-7 *Jl* '48; *Excerpts. Ind Stand* 19:111-12 *S* '48

Problems of international standardization of civil air regulations. *E. Warner. S A E J* 56:52-4 *Mr* '48

Standards in international flying. *E. P. Warner. Ind Stand* 18:272-5 *N* '47

See also International organization for standardization

STANDARDS, National bureau of. *See* United States—Standards, National bureau of

STANDARDS association, American. *See* American standards association

STANDARDS of length

Industry favors legal basis for inch-millimeter-light wave ratio. *Ind Stand* 18:283-4 *N* '47

Light wave of artificial mercury as the ultimate standard of length. *W. F. Meggers. bibliog Opt Soc Am J* 33:7-14 *Ja* '48

Light wave of mercury 193 as the ultimate standard of length. *Franklin Inst J* 245: 166-70 *F* '48

Measurement by mercury. *W. F. Meggers. Il diag Sci Am* 179:48-53 *Ag* '48

Mercury 193 line as standard of length. *Il Chem & Eng N* 26:268 *Ja* 26 '48; *Elec Eng* 67:12 *Ja* '48; *Mech Eng* 70:150 *F* '48; *Product Eng* 19:155-6 *F* '48; *Instruments* 21:458 *My* '48

Nuclear research yields ultimate standard of length. *Power Generation* 52:89 *O* '48

Ultimate length standard; basis is wave length of light from mercury isotope. *Sci Am* 178:79-80 *F* '48

STANDARDS. *See* Stand oils

STANDPIPES

Reconditioning of waterworks standpipe at Ingersoll, Ont. *R. D. McCollum. Il Water & Sewage* 86:21-2+ *Mr* '48

Tentative recommended practice for inspecting, repairing and repainting elevated steel water storage tanks, standpipes and reservoirs. *Am Water Works Assn J* 40:1099-117 *O* '48

STANDPIPES, Concrete

Waterproofing a concrete standpipe. *H. S. Crocker. Il Pub Works* 78:23-4 *O* '47

STANFORD, Alfred Boller, 1900-

Herald tribute hires the Bureau's boss. *por Ptr Ink* 224:82 *Jl* 23 '48; *Ed & Pub* 81: 13 *Jl* 24 '48

Hot shots secondary in Stanford's plans. *por Ed & Pub* 81:18 *S* 18 '48

STANFORD research institute

How Research institute serves industry. *Am Bsns* 18:50 *S* '48

STANLEY, Wendell Meredith, 1904-

Portrait. *Fortune* 38:168 *O* '48

STANNANES. See Tin compounds**STANTON, Charles Ingram, 1893-**

Stanton, father of U.S. airways, accepts high aviation post in Brazil. *por* CAA J 9:2 Ja 15 '48

STAPHYLOCOCCI

Quaternaries vs. phenolics; germicidal effectiveness reported; together with time-survival numbers of *E. typhosa* and *S. aureus*. L. H. James and G. Eckfeldt. *Soap & San Chem* 23:125+ N; 157+ D '47

Survival of food-poisoning staphylococci on nut-meats; abstract. W. W. Smith and S. Iba. *Food Ind* 20:470+ Mr '48

STARCH

Amylolytic degradation of starch; a revision of the hypothesis of sensitization. E. J. Bourne and others. *Chem Soc J* p924-30 Ji '48

Beaumont has automatic starch control. C. M. Bowden. *il diag Textile World* 98:122-3 Ap '48

Cereal core binders. C. L. Mehlretter. *Foundry* 75:224+ D '47

Chemistry of starches interests finishing man. *Textile World* 98:174+ My '48

Correlations of the gel strength of paste walls and the shelf life of electric dry cells. W. J. Hamer. *bibliog J Res Nat Bur Stand* 40:261-62 Mr '48

Fractionation of potato starch; absorption spectra and colour intensities of the starch-iodine complexes. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:97-101 Mr '48

Fractionation of potato starch; comparison with wheat starch. L. H. Lampitt and others. *bibliog il Soc Chem Ind J* 66:417-21; 67:38-40 D '47-Ja '48

Fractionation of potato starch; phosphorus of potato starch. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:121-5 Ap '48

Fractionation of potato starch; the retrogradation of potato starch fractions. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:179-84 My '48

Fractionation of potato starch; the viscosities of the aqueous solutions of the fractions. L. H. Lampitt and others. *bibliog Soc Chem Ind J* 67:41-4 F '48

Further studies of the action of pancreatic amylase; extent of hydrolysis of starch. R. B. Alfin and M. L. Caldwell. *bibliog Am Chem Soc J* 70:2534-9 Ji '48

General Mills develops two new food starches. *Food Ind* 20:1487 O '48

Many uses for new stabilizer; Clearjel starch for fruit pie filling, marshmallows, etc. P. A. Deutsch. *il Food Ind* 19:1648-9 D '47

Mills report on new starch solubilizer. *Textile World* 98:236+ Ag '48

Nature of the interaction between starch and iodine. R. S. Stein and R. E. Rundle. *bibliog diags J Chem Phys* 16:195-207 Mr '48

Potato-starch gels. R. T. Whittenberger and G. C. Nutting. *bibliog il Ind & Eng Chem* 40:1407-13 Ag '48

Schardinger's dextrans derived from starch. K. Freudenberg and others. *bibliog Chem & Ind* p731-5 N 29 '47

Starch blue. N. C. Turner. *Science* 108:302 S 17 '48

Starch in paper making. G. P. Graham. *Pulp & Pa of Can* 49:32-3 S '48

Starch treatment, phosphoric acid; patent. *Am Dyestuff Rep* 36:721 D 1 '47

Structure of starch; the ratio of non-terminal to terminal groups. R. Brown and others. *Chem Soc J* p27-32 Ja '48

Surface coating; allyl starch. *Chem Eng* 54:175-6 N '47; *Chem Ind* 61:330 N '47

See also
Cornstarch

Analysis

Determination of starch in plant tissues. G. W. Pucher, C. S. Leavenworth and H. B. Vickery. *bibliog Anal Chem* 20:850-3 S '48

Manufacture

Manufacture of white potato starch; comparison of batch and continuous processes. W. W. Howerton and R. H. Treadway. *bibliog flow sheets plan Ind & Eng Chem* 40:1402-7 Ag '48

Testing

Mercury-balance method for the measurement of gel strength. *Franklin Inst J* 245:71-2 Ja '48

STARK effect

Crystalline stark splitting and microwave resonance absorption in paramagnetic salts. C. Kittel and J. M. Luttinger. *bibliog diags Phys R* 73:162-72 Ja 15 '48

Microwave absorption line frequencies of methyl alcohol and their Stark effect. D. K. Coles. *Phys R* 74:1194-5 N 1 '48

Minimum detectable absorption in microwave spectroscopy and an analysis of the Stark modulation method. W. D. Herschberger. *bibliog il diags J Ap Phys* 19:411-19 Ap '48

Modified stark-effect modulation spectrograph for microwaves. R. J. Watts and D. Williams. *Phys R* 72:980-1 N 15 '47

Preliminary analysis of the microwave spectrum of ethylene oxide. R. G. Shulman and others. *Phys R* 74:846 O 1 '48

Preliminary analysis of the microwave spectrum of SO₂. B. P. Dailey and others. *Phys R* 72:871-2 N 1 '47

Stark effect for a rigid asymmetric rotor. S. Golden and E. B. Wilson, Jr. *bibliog J Chem Phys* 16:669-85 Ji '48

Stark effect in diatomic molecules. W. A. Nierenberg and others. *bibliog Phys R* 73:1430-3 Ja 15 '48

Stark effect in high frequency fields. C. H. Townes and F. R. Merritt. *Phys R* 72:1266-7 D 15 '47

Stark spectrum of HDO. M. W. P. Strandberg and others. *bibliog Phys R* 73:188 Ja 15 '48

Stark spectrum of H₂O. S. Golden and others. *bibliog Phys R* 73:92-3 Ja 1 '48

STARLIGHT

Interaction of cosmic-ray primaries with sunlight and starlight. E. Feenberg and H. Primakoff. *bibliog Phys R* 73:449-69 Mr 1 '48

STARS

Dust cloud hypothesis; new theory for origin of stars and planets. F. L. Whipple. *il Sci Am* 178:34-45 My '48

Formation of chemical elements inside the stars. G. Wataghin. *Phys R* 73:79 Ja 1 '48

Nine new White Dwarf stars. *Science* 108:326 S 24 '48

Relative abundances of nuclei in the universe. F. Saraiya de Toledo and G. Wataghin. *bibliog Phys R* 73:79-80 Ja 1 '48

Visibility of stars in the daylight sky. R. Tousey and E. O. Hulburt. *Opt Soc Am J* 38:886-90 O '48

See also

Galactic systems
Nautical astronomy

STARS, Variable

Magnetic variable stars as sources of cosmic rays. H. W. Babcock. *bibliog Phys R* 74:489 Ag 15 '48

Variable stars, a study completed; abstract. C. P. Gaposchkin and S. Gaposchkin. *Science* 107:590-1 Je 4 '48

STARZEL, Frank Joseph, 1904-

Starzel named AP general manager. *por* Ed & Pub 81:7 O 23 '48

Starzel steered AP while K.C. traveled. *por* Ed & Pub 81:16B O 16 '48

STASSEN, Harold Edward, 1907-

Portrait. *Bsns W* p23 D 20 '47

Stassen shows surprising strength in trial heat against President Truman; Gallup poll. *Iron Age* 161:125+ F 26 '48

STATE advertising

Industrial development campaign of Oklahoma state planning and resources board. *Sales Management* 59:59 D 1 '47

STATE banks. See Banks and banking, State**STATE bonds**

State and city department bond proposals and negotiations. Published in weekly Monday numbers of Commercial and financial chronicle

STATE buildings**See also**

Capitols

STATE finance

State and local finances; report issued by Bureau of the census. *Pub Works* 79:35-6 O '48

STATE finance—Continued

State and municipal finance in 1947; programs for 1948. Nat City Bank p34-5 Mr '48

See also

Taxation, State

Federal aid

Indiana decides beggars can't be Hoosiers; starts movement to end system of federal grants. J. Bingham. Barron's 28:9 Ja 12 '48

STATE governments

Statistical activities in state health departments. D. D. Swinney. Pub Health Rep 62:1527-37 O 24 '47

Bibliography

Administrative reorganization of state governments; a bibliography. M. Yates and M. Gilchrist, comps. 12p pa 50c Council of state governments, 1813 E. 60th st, Chicago 37 '48

State manual procurement guide. D. O. Hotelling. Special Lib 39:184-91 Jl-Ag '48

Federal relations

See also

Federal power com- State finance—Federal aid
mission
Roads—Federal aid

STATE laws

Analysis of antistream pollution legislation in United States, its territories, and Canada; tabulation. A. Anable and R. P. Kite. Chem Eng Prog 44:6-7 Ja '48

Bills in state legislatures affecting utilities. B. Jones. Pub Util 42:219-28 Ag 12 '48

Education for freedom, as provided by state laws. W. W. Keesecker. (Bul. 11) 38p Federal security agency, Office of education; pa 20c Supt. of doc. '48

Half century of state cancer legislation. A. V. Deibert. Pub Health Rep 63:1128-35 Ag 27 '48

Labour legislation in the United States; state labour laws enacted during 1947. Int Labour R 56:596-601 N-D '47

Laws governing the keeping of bank records, 1947 revision; tabulation by states. Bankers Mo 65:26 F '48

Outlook for new state utility laws in 1948. B. Jones. Pub Util 41:80-7 Ja 15 '48

Retail instalment sales legislation; tabulation by states. Banking 40:51 Ja '48

State labor legislation, 1937 to 1947. H. A. Millis and H. A. Katz. Mo Labor R 66:637-8 Je '48

State minimum-wage legislation; progress in 1947-48. A. Angus and L. Sullivan. Mo Labor R 67:275-8 S '48

STATE publications

State manual procurement guide. D. O. Hotelling. Special Lib 39:184-91 Jl-Ag '48

STATE taxation. See Taxation, State**STATEN ISLAND Edison corporation**

Staten Island Edison irks Utility Commission. E. R. Abrams. Barron's 28:8 S 20 '48

STATEROOMS. See Ships—Staterooms**STATIC electricity. See Electricity, Static****STATIONERY**

See also

Forms and blanks,

Business

STATISTICAL association, American. See American statistical association**STATISTICAL chains. See Chains, Chemical****STATISTICAL mechanics**

Derivation of the complete Van der Waals' equation from statistical mechanics. T. L. Hill. J Chem Educ 26:347-8 Je '48

Free-volume models for liquids. T. L. Hill. bibliog J Phys & Colloid Chem 51:1219-32 N '47

Generalized virial theorems. H. Einbinder. bibliog Phys R 74:803-6 O 1 '48

Order-disorder transition in solids. Y. Mutō. J Chem Phys 16:519-25 My '48; Correction. 16:1176 D '48

Statistical mechanics of mixtures of Bose-Einstein and Fermi-Dirac systems. W. Band. J Chem Phys 16:343-52 Ap '48

Statistical mechanics of multimolecular adsorption; introductory treatment of horizontal interactions; capillary condensation and hysteresis. T. L. Hill. bibliog J Chem Phys 15:767-77 N '47

Statistical mechanics of multimolecular adsorption; the statistical analog of the BET constant a/ba_0 ; hindered rotation of a symmetrical diatomic molecule near a surface. T. L. Hill. bibliog J Chem Phys 16:181-9 Mr '48

Statistical theory of the elementary process of plastic deformation. W. J. Lyons. diag Phys R 73:413-14 F 15 '48

Transport properties for non-polar gases. J. O. Hirschfelder and others. J Chem Phys 16:963-81 O '48

See also

Gases, Kinetic theory Phase space of Wave mechanics

STATISTICAL methods

Advantage of statistical data on weaving performance and quality. O. Bitzenhofer. Rayon 29:61-2 Ja; 65-6 F; 52-4 Ap '48

Application of statistical methods to electricity supply problems. P. Schiller. bibliog Inst E E J 95 pt 2:161-74 Ap '48

Application of statistical methods to paper testing procedures. L. K. Reitz and F. J. Sillay. bibliog Paper Tr J 126:54-8 Ap 22 '48

Application of the theory of extreme values in fracture problems. B. Epstein. bibliog Am Stat Assn J 43:403-12 S '48

Appraisal of the errors involved in estimating the size distribution of a given aggregate income. D. Durand. R Econ & Stat 30:63-8 F '48

Aspect of the dialing behavior of subscribers and its effect on the trunk plant. C. Clos. Bell System Tech J 27:424-45 Jl '48

Collection and use of daily production statistical information. C. R. Tait and J. C. Wilson. Pulp & Pa of Can 49:77-8 Mr '48

Control of the accuracy and precision of industrial tests and analyses. J. A. Mitchell. bibliog J Anal Chem 19:961-7 D '47

Edge-marking method of analyzing data. L. L. Thurstone. Am Stat Assn J 43:451-62 S '48

General methods of analysis for incomplete block designs. C. R. Rao. bibliog Am Stat Assn J 42:541-61 D '47

Graphical correlation; its application to steel mill problems. C. R. Taylor. Iron Age 160:78-84 N 6 '47

Industrial statistics; their place in the manufacture of pulp and paper. C. A. Bleckling. bibliog Pulp & Pa of Can (Convention no) 49:131-34 [P] '48

Is statistical quality control of value in manufacturing? no. B. D. Miller; yes. C. W. Kennedy. Am Mach 92:86-7 S 9 '48

Mathematics of life; biologist makes increasing use of statistics in analyzing results of research. F. W. Nordsieck. bibliog Il Tech R 50:313-15+ Ap '48

Meeting, Brighton, Sept. 13; discussion on application of statistics in engineering. Engineer 186:357-8 O 8 '48

Motivation analysis in market research. F. T. Schreier and A. J. Wood. J Marketing 13:172-82 O '48

New statistical method of predicting sunspots aids radio propagation forecasts. Il Franklin Inst J 244:481-7 D '47

Oscillographic scatterplots illustrating various degrees of correlation. J. C. R. Licklider and E. Dzendolet. Il diag Science 107:121-4 Ja 30 '48

Outline of statistical treatment of the problem of diagnosis. J. Neyman. Pub Health Rep 62:1449-56 O 3 '47

Process research. A. H. Aston. Engineer 186:2-3, 28-9 Jl 2-9 '48

Purchased-part quality controlled; statistical methods, applied to inspection of incoming parts; John Deere tractor co. E. L. Fay. Il Am Mach 91:98-100 D 18 '47

Quality control in the textile industry. L. H. C. Tippet. Textile Inst J 38:P594-8; Discussion. P598-600 D '47

Recent developments in graduation and interpolation. T. N. E. Greville. Am Stat Assn J 43:428-41 bibliog(p440-1) S '48

Simplified methods of fitting certain types of growth curves. D. J. Cowden. Am Stat Assn J 42:585-90 D '47

Some basic concepts of statistics and their application to simple industrial experimentation. M. S. Renner. bibliog Paper Tr J 127:54-7 Ag 26 '48

STATISTICAL methods—Continued

Spectrographic analysis of low-alloy steel; a statistical examination of sources of error. H. T. Shirley and others. *Iron & Steel Inst J* 157:391-409 N '47

Statistical aspects of fracture problems. B. Epstein, bibliog *J Ap Phys* 19:140-7 F '48

Statistical control. J. H. Toulouse. *Glass Ind* 23:79-80+ F '48

Statistical control in chemical production; abstract. G. Wernimont. *Chem Eng* 55:272+ Ja '48

Statistical method of assessing the safety of gaps between flanges of flame-proof electrical apparatus. C. E. R. Bruce and N. L. Johnson, diags *Inst E E J* 95 pt 2:49-58 F '48

Statistical methods in engineering and industry; postwar development; review of current literature. H. A. Freeman. *Mech Eng* 70:818 O '48

Statistical methods in the design and development of electronic systems. L. S. Schwartz. *Inst Radio Eng Proc* 36:664-70 My '48

Statistical methods in the iron and steel industry. A. W. Swan. *Engineering* 166:379-80 O 15 '48

Statistical methods in wire and cable processing. M. G. Woolfson. *Elec Eng* 67:637 JI '48

Statistical problems in assessing methods of medical diagnosis, with special reference to X-ray techniques. J. Yerushalmi. *Pub Health Rep* 62:1432-49 O 3 '47

Statistics of boiler embrittlement. C. D. Weir. *A S M E Trans* 70:253-6 Ap '48

Symposium on statistical methods in experimental and industrial chemistry. B. L. Clarke and others, bibliog *Anal Chem* 19:943-55; Discussion. 956-60 D '47

Techniques in evaluation of rapid anti-syphilitic therapy. A. P. Iskrent and others. *Pub Health Rep* 63:965-77 JI 23 '48

Temperature transitions in ductility of steel. W. P. Roop, diags *Welding J* 26:sup748-52 D '47

Theory of extreme values and its implications in the study of the dielectric strength of paper capacitors. B. Epstein and E. Brooks, bibliog *J Ap Phys* 19:544-50 Je '48

Using statistical analysis, engineers can determine blender efficiency. J. P. Beaudry. *Chem Eng* 55:112-13 JI '48

Work and organization of a statistical department in heavy industry with particular reference to the steel industry. A. W. Swan, bibliog diags *Iron & Steel Inst J* 160:1-20 S '48

See also

Business forecasting
Correlation (statistics)

Forecasting (statistical methods)

Frequency distribution (statistics)

Graphic methods
Growth curves

Index numbers (economics)

Least squares

Probabilities

Punched card system

Sampling (statistical methods)

Secular trend

Sensitivity testing

Significant difference (statistics)

Variation (statistics)

Bibliography

Statistical methodology index; a quarterly guide to current literature. O. K. Burros, ed. *Am Stat Assn J* 42:668-81 D '47 [cont quarterly]

Study and teaching

Proposed basic course in statistics. G. W. Snedecor. *Am Stat Assn J* 43:53-60 Mr '48

Statistical training for industry. S. S. Wilks, bibliog *Anal Chem* 19:953-5 D '47

STATISTICIANS**See also**

Public health departments—Statistical work

STATISTICS**See also**

Business statistics

Commercial statistics

Correlation (statistics)

Economic statistics

Financial statistics

Index numbers (economics)

Industrial statistics

Market statistics

Public health departments—Statistical work

Punched card system

Sampling (statistical methods)

Significant difference (statistics)

Variation (statistics)

also subdivision subjects, e.g.

Accidents, Industrial Mortality

Chemical industries Wages

Employment

also Canada—Statistics; Great Britain—Statistics; United States—Statistics

International aspects

Statistics and foreign policy. W. L. Thorp. *Am Stat Assn J* 43:1-11 Mr '48

STATISTICS, Mathematical. See Mathematical statistics

STATISTICS, Medical. See Medical statistics

STATUES, Aluminum

Corrosion of aluminum is shown in the return of Eros, statue by Alfred Gilbert. *Il Light Metal Age* 6:6-9+ Ap '48

STATUTE of limitations. See Limitation of actions

STAVES

Performance characteristics of tight white-oak laminated-stave and solid-stave barrels. R. S. Kurtenacker and D. L. Patrick. *Il A S M E Trans* 70:547-51 JI '48

STAYBOLTS

Design and construction of staybolted fire-boxes. F. P. Huston. *Il diags Ry Mech Eng* 122:129-33+ Ap '48

Holding rack for staybolt drilling. *Il Ry Mech Eng* 122:370-1 JI '48

STEADYRESTS

Adjustable steadyrest eliminates taper in cylindrical-ground work. A. B. Nixon. *diag Am Mach* 92:187 Mr 11 '48

Bearings prevent stock marking in lathe steadyrest installation. W. E. Blackham. *diags Am Mach* 92:121 Mr 25 '48

STEAM

Carbon oxygen steam reactions studied. J. D. Parent and S. Katz. *Il diags Am Gas Assn Mo* 30:21-4 Ja '48

Catalytic hydrogenation of normal butenes to butadiene in the presence of steam. L. H. Beckberger and K. M. Watson. bibliog flow chart *diag Chem Eng Prog* 44:229-48 Mr '48

Catalytic hydrocarbon-steam reaction under development. *Pet Processing* 3:925 O '48

Coke removal by steam. G. W. Alexander. *diags Pet Refiner* 27:21-3 Je '48

Consider steam for air conditioning. B. Dmitrieff. *Power Generation* 52:102+ O '48

Deacidification of glyceric oils; economic and technical merits of steam distillation. A. E. Williams. *diag Chem Age* (Lond) 59:245-8 Ag 21 '48

Hydrogen and synthesis gas production; hydrocarbon-steam process. R. M. Reed and A. Eriksen. flow diag *Il Pet Eng* 20:278+ O '48; Same. *Pet Processing* 3:1011-12+ O '48

Overcoming condensation in meat packing room; circulating heated air. R. Walter. *Il Food Ind* 20:356-7 Mr '48

Production of synthesis gas by reacting light hydrocarbons with steam and carbon dioxide. R. E. Reitmeier and others, bibliog *Il Ind & Eng Chem* 40:620-6 Ap '48

Solubility and transfer of silica and other non-volatiles in steam. T. E. Gillingham. bibliog diags *Econ Geol* 43:241-72 Je '48

Steam bubble formation; effects of heating surface and use of antifoams. A. L. Jacoby and L. C. Bischmann. bibliog *Il diag Ind & Eng Chem* 40:1360-3 Ag '48

Steam demand of direct acting reciprocating pumps. S. F. Montroy and G. P. Trotter. *Pet Refiner* 27:91-3 Ag '48

Steam supply and control arrangements for driers. G. H. Young. *diags Paper Tr J* 125:38-42 D 25 '47; Same cond. *Paper Ind* 30:280+ My '48

Steam vs. CO₂ for fire extinguishment in kitchen range hoods. T. W. Reynolds. *Il plan diags Heat & Ven* 44:75-82 N '47

Vapor pressure, specific volumes, and p-v-T data for H₂O, NH₃, CH₄, C₂H₆ with comments on mixtures. F. G. Keyes, bibliog *A S M E Trans* 70:641-4 Ag '48

See also

Boilers

Condensers (steam)

Evaporators

Exhaust steam

Feed water purification

Steam engines and

other headings beginning Steam

STEAM—Continued**Tables, calculations, etc.**

Practical applications of the Mollier diagram. W. Heidecker. flow diag diags Power Pl Eng 51:88-90 J1; 94 Ag; 88-9, 100 S; 90-1 O; 94-5 N; 92-3 D '47

STEAM, Natural

Geothermic power projects; utilising Italy's natural resources. il Electrician 141:475-6 Ag 13 '48

Power without fuel; ethyl chloride and natural steam plants on island of Ischia in Bay of Naples. J. A. C. Pennycuik. il Electrician 140:117-18 Ja 9 '48

STEAM accumulators

Accumulator helps carry peak load. J. B. Thuman. diag Power 92:432-3 J1 '48

STEAM-air jets. See Air ejectors**STEAM boilers. See Boilers****STEAM distribution**

District steam supply makes byproduct energy; steam demands on the New York steam corporation system, make it possible to generate additional electricity. M. J. Steinberg. il map diag Power 92:297-9 My '48

What is best way to supply steam, electricity to college buildings? plan diags Heating-Piping 20:97-100 S '48

See also

Electric plants (central stations)—
Steam distribution
Steam pipe lines

STEAM engineering**See also**

Boilers	Steam engines and other headings beginning Steam
Electric plants (central stations)—	Steamboats
Steam distribution	Thermodynamics
Feed water	
Marine engineering	
Power plants	

History

Let's salute the old timers! C. F. Palmer. il Power Generation 52:74-6 F '48

STEAM engineers

What makes an engineer? D. Frederick. Power Generation 52:72-4 Je '48

STEAM engines

Aligning reciprocating steam engines. F. G. Corneau. Marine Eng 53:77-8 Ag '48

How can we stop pound in a Corliss engine? Power 92:438-9 J1 '48

Old engines run on; illustrations with text. J. Campbell. Power Pl Eng 51:98-9 N '47

Why does engine pound on low steam pressure? diags Power 91:865+ D '47

See also

Locomotives
Steam turbines

History

Peter Willans. El. S. Ormsby. Engineering 165:255-6 Mr 12 '48

Some lesser-known traction engines. R. H. Clark. il diags Engineering 165:529-33, 540, 553-6 Je 4-11 '48

Walking-beam engine; Plymouth cordage co. il diags Power 92:34 Ja '48

Water supply of greater London. H. W. Dickinson. il diags Engineer 186:276-9, 300-2, 326-8 S 17-O 1 '48

Uniflow engines

Unexpected events in engineering; repairing a uniflow engine under difficulties. E. R. Webber. Power Pl Eng 51:88-9 D '47

STEAM fitting

Piping arrangements for convector-radiator jobs. diags Dom Eng 171:148-9+ Ja '48

STEAM fittings

Metallic steam connector repairs on C. & N.W.; illustrations with text. Ry Mech Eng 121:700-1 D '47

Steam connector maintenance tools. il Ry Mech Eng 122:144-5 Mr '48

Steam-fitting turned accurately with ball-and-socket spacer bar. W. D. Stevens. il diag Am Mach 92:128 S 9 '48

Testing

Steam-line connection tester. il Ry Mech Eng 122:492-3 S '48

STEAM flow

Flow of fluids in pipes. E. C. Petrie. il Dom Eng 170:111-13+ N '47

How to compute steam flow through a pipe without a steam flow meter. W. F. Schaphorst. Paper Ind 29:1483 Ja '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace; variations as shown by density and velocity measurements of fluid within a tube. A. R. Mumford and C. G. R. Humphreys. bibliog il plan diags A S M E Trans 70:587-600 J1 '48

Prediction of pressure drop during forced-circulation boiling of water. R. C. Martinelli and D. B. Nelson. bibliog A S M E Trans 70:695-702 Ag '48

Process engineer's guide to the centrifugal compressor. I. J. Karassik. Chem Eng 54:132-5 N '47

Steam flow through orifices; chart. W. L. Nelson. Oil & Gas J 46:103 Ja 22 '48

See also

Steam meters

STEAM generators. See Boilers**STEAM heaters**

How to control zoned unit heater system. diags Heating-Piping 19:94-7 D '47; 20:124-7 Ja '48

Unit heater types and their use with various steam pressures. G. S. Whittaker. il diag Heat & Ven 45:77-9 O '48

Why a lift fitting? diags Power Generation 52:84-5 Ag '48

STEAM heating

Advances in boiler-type heating; results of tests in I-B-R research home, University of Illinois. W. S. Harris. il diags Arch Rec 103:145-8 Mr '48

Building shape vs heating efficiency. A. J. Maher. Heat & Ven 45:91+ Ag '48

Convection heating, air conditioning combined in new building; administration building of the Modine mfg. co. il Heating-Piping 20:112-15 Ja '48

Does oil and gas heating demand extra radiator surface? A. G. Canar. Heat & Ven 45:65-6 S '48

Flexibility is the name for it; heating and ventilating warehouse and office buildings. il Dom Eng 172:143, 152-3+ O '48

Heating and ventilating for school buildings. T. F. Dwyer. plans diags Heat & Ven 45:69-76 F '48

Heating fundamentals at I-B-R course. Dom Eng 170:109-11 N '47

Here's how to save heating steam. W. B. Pride. il Heating-Piping 20:72-5 Ap; 75-9 My '48

Improved heating system saves cost in two years; change from low-pressure steam to vacuum system. C. D. Wolf. diag Factory Management 106:78-9 J1 '48

Is one pipe steam system better than two pipe? S. Lewis. Heating-Piping 19:115-16 S '47; Discussion. 20:130-2; Reply. 133-4 Ja '48

Piping arrangements for convector-radiator jobs. diags Dom Eng 171:148-9+ Ja '48

Versatile heating job; installation providing comfortable heat for light manufacturing plant's present needs with provision for future expansion. il Dom Eng 170:150 N '47

See also

Boilers, Heating	Steam pipe coverings
Heating from central stations	Steam pipes
Steam heaters	

Control

How to control zoned unit heater system. diags Heating-Piping 19:94-7 D '47; 20:124-7 Ja '48

How to save fuel with controls, instruments. diag Dom Eng 170:144-5+ N '47

Return systems

Condensate return system modernized. F. C. Holbrook. diags Heat & Ven 45:115 O '48

See also

Steam plants—
Condensate recovery

STEAM heating, Industrial

ABC of laundry equipment heating. C. J. Ray. diags Power Generation 52:84-6 Ja '48

STEAM heating, Industrial—Continued

- Design and construction of arc welded steam platens. H. O. Lehman. *il* *diags* Rubber Age 62:545-6 F '48
- Low-pressure steam-heated distilling plants for distillation of sea water. A. M. Impagliazzo and R. M. Bent. *flow diag il* *diag* Marine Eng 53:42-7 Je '48
- New developments in steam preheating. S. K. Moxness and J. Formo. *il* *Mod* *Plastics* 25:107-9+ My '48
- Preheating with steam. *diags* *Mod* *Plastics* 25:102-3 Ja '48
- Snow removal by steam heat under open-air shipping and receiving truck ramps. R. B. Thompson. *plan* *Factory Management* 105: 97 N '47
- Steam and radio-frequency curing of natural rubber. A. H. Sharbaugh. *diags* *Ind & Eng Chem* 40:1254-8 Jl '48
- Steam at the molding press; electric steam generator. *il* *Mod* *Plastics* 25:119 F '48
- Steaming flow lines to remove paraffin. *il* *World Oil* 128:165-6 Ag '48
- Velocity steam research; faster drying and more production from paper dryers. P. Harrison. *diags* *Paper Ind* 29:1512-16 Ja '48

STEAM irons

- Ingenious equipment modifications increase production; Silex steam iron; illustrations with text. R. Le Grand. *Am Mach* 92:90-3 Je '48

STEAM jets

- Do you know enough about steam jet refrigeration? H. R. Havemeyer. *il* *diag* *Chem Eng* 55:102-6 S '48
- Ignition jet system for boilers. *diags* *Engineer* 185:452-3 My '48
- Steam jets used in Weirton strip picklers. *Iron & Steel Eng* 25:140+ My '48
- See also*
- Air ejectors

STEAM meters

- Two-way flow metering of steam lines; Gulf oil corporation's refinery at Port Arthur. G. P. Trotter and C. D. Holt. *diags* *Pet Refiner* 27:129-30 Je '48

STEAM motive power, inc.

- Stock offered. *Comm & Fin Chr* 166:2564-5 D 22 '47

STEAM pipe coverings

- Insulating a 2,500 psi steam-electric power unit; Twin Branch plant of the Indiana & Michigan electric co. H. E. Quick. *il* *diags* *Power Generation* 52:64-6 F '48
- Stop heat loss in flanges. *diags* *Dom Eng* 171:154 Ja '48

STEAM pipe lines

- City steam line tunneled beneath heavily traveled six-lane street; Cleveland, Ohio. G. W. Hamlin. *il* *Eng N* 140:772-3 My 27 '48
- Corrosion of underground steam line supports. L. F. Collins and others. *il* *diags* *Heat & Ven* 45:83-5 Je '48
- New underground steam piping decreases line pressure drop. E. J. Flahie. *il* *Heating-Piping* 20:88-90 Ag '48
- New underground tie line boosts tail-end pressure; steam distribution system, Ohio Edison co., Akron. P. A. Hyde. *il* *diags* *Heating-Piping* 19:94-6 N '47
- Steam main pushed under highway for Cleveland's central heating system. G. W. Hamlin. *il* *Heat & Ven* 45:87-8 F '48
- Two-way flow metering of steam lines; Gulf oil corporation's refinery at Port Arthur. G. P. Trotter and C. D. Holt. *diags* *Pet Refiner* 27:129-30 Je '48
- Utilities for a city within a city; Stuyvesant Town. *il* *Eng N* 140:207-8 F 5 '48

STEAM pipes

- Analysis of low pressure steam piping system construction costs; school building heating systems. H. A. Erickson. *diags* *Heat & Ven* 45:78-84 Ag '48
- Is one pipe steam system better than two pipe? S. Lewis. *Heating-Piping* 19:115-16 S '47; *Discussion*. 20:130-2; *Reply*. 133-4 Ja '48
- Metallic steam connection repairs. *il* *Ry Mech Eng* 122:253-4 My '48
- Steam supply and control arrangements for driers. G. H. Young. *diags* *Paper Tr J* 125: 33-42 D 25 '47

What caused this steam line stoppage? experience with scale deposit. R. O. Barnhart. *il* *Power Generation* 52:75-6 Jl '48

Tables, calculations, etc.

- Determination of pipe sizes and carrying capacities of steam lines. C. J. Major. *Chem Ind* 62:114+ Ja '48
- How to compute steam flow through a pipe without a steam flow meter. W. F. Schap-horst. *Paper Ind* 29:1483 Ja '48
- Sizing of water and steam lines. W. L. Nelson. *Oil & Gas J* 46:93 N 22 '47

STEAM plants

- Industrial power activity emphasizes steam-making. *Power* 92:610-11 O '48
- What can we learn from the mechanical engineer in process design? E. J. Stephens. *flow diag* *Chem & Ind* p551-4 Ag 28 '48
- See also*
- | | |
|-----------------------|----------------|
| Boiler plants | Power plants |
| Electric plants | Steam engines |
| Feed water | Steam turbines |
| Piping (power plants) | |

Auxiliaries

- Dry type transformers supply auxiliaries at Southwark. G. R. Monroe and W. E. Knouse. *il* *diag* *Power Generation* 52:94+ Ag '48
- Generating station auxiliary services. W. Szwander. *diags* *Elec R (Lond)* 143:421-4 S 17 '48

By-product power

- District steam supply makes byproduct energy; steam demands on the New York steam corporation system, make it possible to generate additional electricity. M. J. Steinberg. *il* *map* *diag* *Power* 92:297-9 My '48
- Economics of process steam generation. W. E. Zelle. *diags* *Elec Eng* 67:956-9 O '48; *Same abr.* *Power Generation* 52:56-9 Ag '48
- Getting byproduct power from process steam. D. M. Myers. *Factory Management* 106:84 Ap '48
- High pressure power station at Whiting. D. A. Monro and A. T. Milbrook. *flow diag* *Pet Eng* 19:166+ Ap '48; *Same cond.* *plans* *diags* *Power Generation* 52:66-9+ Ap; 66-7 My; 88+ Ag '48
- Topping stretches refinery steam; Whiting refinery of Standard oil co. of Indiana. D. A. Monro and A. T. Milbrook. *plan* *diags* *Power* 92:154-6, 234-7 Mr-Apr '48

Combined heating and process steam

- New boiler-plant design features reliability and simple operations; Melchers distilleries. J. A. Kearns. *il* *plan* *diags* *Power* 92:4-7 Ja '48

Combined power and heating

- Supplying heat and power to college building group. *diags* *Heating-Piping* 20:107-8 O '48

Combined power and process steam

- Carborundum co. process and heating plant. *diags* *Power* 92:626-7 O '48
- Eagle Point Works power plant. *diags* *Power* 92:616-17 O '48
- New power plant for B. F. Nelson mfg. company at Minneapolis. J. H. Peebles and H. P. Harris. *il* *plans* *diags* *Power Generation* 52:70-5 O '48
- Norton co. expands its power plant. *diags* *Power* 92:618-19 O '48
- Outgrown distribution system replaced; Chevrolet-Detroit forge division of General motors corp. V. L. Drummond. *il* *diags* *Elec World* 130:74-6+ Ag 28 '48
- Packaged steam generators modernize industrial plant; Ansonia O & C co. R. S. Franklin. *il* *Heating-Piping* 20:77-9 Mr '48
- Planned use of heat saves fuel in salt plant; Diamond Crystal Salt in St Clair. F. W. McCarthy. *flow* *diags* *il* *Food Ind* 20:540-5+ Ap '48
- Purchased power held under control aids process plant. F. O. Wallene. *il* *diags* *Power* 92:688-90 N '48
- Rebuilt steam turbines modernize this twenty-year-old paper plant; Sorg paper co. G. H. Suhs and R. D. McArthur. *il* *diags* *Power* 92:75-7 F '48

STEAM plants—Combined power and process steam—Continued

Save fuel with better heat cycles. S. D. Fulton. flow diag *Il Power Generation* 52:55-8+ Je '48

Springs cotton mills power plant. diag *Power* 92:614-15 O '48

Steam drives for refrigeration improve the plant heat balance. T. Mitchell. *Il Heating-Piping* 20:98-9 O '48

Steam generation at 600 psi 700° F as applied to carburetted water gas plant. A. D. Harrison. *Il diag Am Gas Assn Proc* 1947:101-14; Same, without *Il. Gas Age* 100:14-17+ N 27 '47

Steam plant modernized with eye toward future expansion; Fraser companies Ltd. W. P. London. *Il diag Power* 92:388-92 JI '48

Turbine installation and maintenance. H. P. Dahlstrand. flow diag *diag Power Tr J* 123:154-67 O 10 '46; Same cond. *Paper Ind* 29:1361-6 D '47

Woodfibre modernizes its power plant; British Columbia pulp & paper co. B. Dekking. *Paper Tr J* 125:66-7 D 4 '47; Same. *Pulp & Pa of Can* 48:81-2 D '47

Condensate recovery

Condensate return system increases machine production. F. T. Cleveland. *Il diag Power Ind* 30:251-2 My '48

How closed condensate drainage system increases efficiency and saves fuel. *diag Power Tr J* 127:48 O 21 '48

Improved heat balance raises production, saves fuel; high-pressure condensate-return system at Rhode Island worsted co. R. W. Shoemaker. *Il diag Textile World* 98:125+ Ja '48

Preventing corrosion of condensate return lines. R. T. Hanlon. *Heating-Piping* 20:86-8 My '48

Savings possible by proper condensate return systems. W. W. Gaylord. *diag Power Generation* 52:71+ Je '48

Costs

Combining two steam plants cuts the cost. S. Lewis. *Heating-Piping* 20:95-6 S '48

Fifth steam station cost survey; data covering 113 stations. A. E. Knowlton. *Elec World* 130:71-94 JI 3 '48

How to make industrial steam plants pay with today's high costs. B. A. Lininger. *Power Generation* 52:62-3+ Ap '48

Steam generation at 600 psi 700° F as applied to carburetted water gas plant. A. D. Harrison. *Il diag Am Gas Assn Proc* 1947:101-14; Same, without *Il. Gas Age* 100:14-17+ N 27 '47

Design

Economies in power-plant design. E. H. Krieg. bibliog *Il plan diag A S M E Trans* 70:171-9 Ap '48; Same. *Power Pl Eng* 51:117-18+ D '47; Discussion. *A S M E Trans* 70:179-83 Ap '48

Reliable simple steam plants cost less. J. A. Powell and M. J. Lowenberg. *diag Elec World* 128:61-4 D 20 '47

2000-psi. 1050 F. and 1000 F. reheat cycle at the Philip Sporn and Twin Branch steam-electric stations. F. Sporn. bibliog *maps diag A S M E Trans* 70:287-94 My '48

Efficiency

Application of heat balance analysis to industrial plants. H. C. Carroll. *Blast F & Steel Pl* 36:724-6 Je '48

Prospects of the steam cycle in the central power station. G. H. Martin. *diag Inst. Mech Eng J & Proc* 158:Proc 52-8; Discussion. 58-65 Je '48

Save fuel with better heat cycles. S. D. Fulton. flow diag *Il Power Generation* 52:55-8+ Je '48

Steam supply changes in jam factory save 33 per cent in fuel. J. O. G. Gibbons. *diag Power Generation* 52:93 O '48

Super-regeneration; compound cycle developments. *diag Elec R (Lond)* 141:785-6 N 21 '47

Equipment

Beerbower, Ponca City plant of Oklahoma gas & electric co. plan diag *Power* 92:592-4 O '48

Centralized control at Kern. *Il Elec West* 101:79-80 O '48

Electricity supply in Bradford. *Engineering* 164:451-2 N 7 '47

Essex; unit no. 1; Public service electric and gas co., Newark, N.J. plan diag *Power* 92:601-3 O '48

Fifth steam station cost survey; station characteristics and auxiliaries. A. E. Knowlton. *Elec World* 130:94 JI 3 '48

Harbor steam plant nears completion. W. C. Rowse and J. P. Stratford. flow diag *Il plan diag Power Generation* 52:56-62 Mr 48

High-pressure boilers serve new condensing and topping turbines; Crawford station. T. Y. Mullen. *Il diag Power* 92:670-3+ N '48

High pressure power station at Whiting. D. A. Monro and A. T. Milbrook. flow diag *Pet Eng* 19:166+ Ap '48; Same cond. plans *diag Power Generation* 52:66-9+ Ap; 66-7 My; 88+ Ag '48

Lansing station; Interstate power co.'s new station. plan diag *Power* 92:595-7 O '48

Meaford generating station. *Il diag Engineer* 186:342-4, 369-72, 385-8 O 1-15 '48

Mechanical plant for steam power stations in the United States. A. G. Christie. *Il diag Inst Mech Eng J & Proc* 157 (War emergency issue no 29):226-32 '47; Abstract. *Mech Eng* 70:757-8 S '48

New one-boiler-per-turbine unit increases system capacity by 20 per cent; Blackhawk generating station of Wisconsin power and light co. L. M. Abrahamson. *Il plan diag Power* 92:330-4 Je '48

New steam plant at Ocean Falls. H. R. Wright. *Il Pulp & Pa of Can* 49:80-1 S '48

Power station construction; extension at Kearsley. *Il plan diag Elec R (Lond)* 143:463-8 S 24 '48

Power station construction; progress at Lincoln. *Il plan Elec R (Lond)* 142:39-44 Ja 9 '48

Redondo steam station brings needed power to southern California. W. C. Woodman. flow diag *Il plan diag Power Generation* 52:52-7+ JI '48

Some aspects of generating station development. J. Wright. *Il diag Inst Mech Eng J & Proc* 157 (War emergency issue no 29):207-20 '47

Station C; Braddock light and power co. station at Alexandria, Va. plan diag *Power* 92:589-91 O '48

Station F; Pacific gas and electric co. extension in San Francisco. plan diag *Power* 92:586-8 O '48

Steam-electric station. A. H. Jensen and J. F. Vogt, jr. flow diag *diag Mech Eng* 70:762-3 S '48

Suction submergence controls condensate-pump discharge. P. Nardone. *Il Power* 92:680-1 N '48

Trenton channel adds 200,000 kw. *Il plan diag Power Generation* 52:72-3 Ag '48

Two years' operation at Jennison. W. Greacen, 3d. *Il plan diag Power Generation* 52:54-6 My '48

Use of house turbines marks design of Philadelphia's Southwark station. A. R. Pettit and F. W. Myers. *Il plans diag Power* 92:134-9+ Mr '48

Welding saves million dollars a year at Harbor steam plant. C. N. Barlow. *Il map diag Power* 92:459-61 Ag '48

See also

Stokers, Mechanical
Superheaters

High pressure

District steam supply makes byproduct energy; steam demands on the New York steam corporation system, make it possible to generate additional electricity. M. J. Steinberg. *Il map diag Power* 92:297-9 My '48

High-pressure boilers serve new condensing and topping turbines; Crawford station. T. Y. Mullen. *Il diag Power* 92:670-3+ N '48

High pressure power station at Whiting. D. A. Monro and A. T. Milbrook. flow diag *Pet Eng* 19:166+ Ap '48; Same cond. plans *diag Power Generation* 52:66-9+ Ap; 66-7 My; 88+ Ag '48

Insulating a 2,500 psi steam-electric power unit; Twin Branch plant of the Indiana & Michigan electric co. H. E. Quick. *Il diag Power Generation* 52:64-6 F '48

STEAM plants—High pressure—Continued

- Modern methods of feedwater conditioning for high pressure boiler plants, S. D. Distelhorst. Paper Tr J 125:41-4 J1 31 '47;
 Same, Iron & Steel Eng 25:53-7 J1 '48
 Philip Sporn and Twin Branch to have 2000-psi, 1050-F and 1000-F reheat cycles. il diags Power Generation 52:58-60 S '48
 Practical applications of the Mollier diagram, W. Heidecker, flow diag diags Power Pl Eng 51:92-3 D '47
 Quick starting of high-pressure steam turbines, J. C. Falkner and others, il diags Power Pl Eng 51:82-6 D '47
 32-MW turbo-alternator set at Willesden, il diags Engineering 164:417-18, 420 O 31 '47
 Topping stretches refinery steam; Whiting refinery of Standard oil co. of Indiana, D. A. Monro and A. T. Milbrook, plan diags Power 92:154-6 Mr '48

Maintenance and repair

- Establish adequate maintenance program for industrial turbines, A. Hansen, bibliog il diags Power 92:26-9+ Ja '48
 Industrial turbine maintenance, G. W. Anderson, il Pet Eng 19:70+ Je '48; Same, Blast F & Steel Pl 36:980-2 Ag '48
 Unexpected events in engineering; repairing a uniflow engine under difficulties, E. R. Webber, Power Pl Eng 51:88-9 D '47

Management

- Fuel and steam economy, M. Berkeley, il diags Pet Eng 19:221-2+ My '48
 How to make industrial steam plants pay with today's high costs, B. A. Lininger, Power Generation 52:62-3+ Ap '48

Process steam

- Mansfield Tire steam plant, diags Power 92:622-3 O '48
 Savings possible by proper condensate return systems, W. W. Gaylord, diag Power Generation 52:71+ Je '48

Superposition

See Steam plants—High pressure

STEAM plants, Outdoor

- Operation and maintenance of outdoor plants found practicable, R. M. Hanson, il map Elec World 130:93-6 Ag 14 '48
 Permian basin; Texas electric service co. installs outdoor station near Monahans, Texas, plan diags Power 92:598-600 O '48

STEAM pump. See Pumps**STEAM traps**

- Case of the middlin' steam trap, G. Holman, diag Power Generation 52:78-9 F '48
 Steam traps; types available and applications, Heating-Piping 20:104-6 F '48

STEAM turbines

- La chaudière à équipression, associant la turbine à gaz et la turbine à vapeur, R. Papault, il diags Génie Civil 124:405-10 N 1 '47
 Coal saving and pass-out turbines, D. Brownlee, Pulp & Pa of Can 49:89 Ag '48
 Establish adequate maintenance program for industrial turbines, A. Hansen, bibliog il diags Power 92:26-9+ Ja '48
 Facts about steam turbines for industrial plant owners, G. D. Farrar, il diags Power Generation 52:63-5 Mr '48
 Industrial turbine maintenance, G. W. Anderson, il Pet Eng 19:70+ Je '48; Same, Blast F & Steel Pl 36:980-2 Ag '48
 Russian steam turbine, Mech Eng 69:1033-4 D '47
 Russian steam turbines, Mech Eng 70:441 My '48
 Steam turbine inspection and maintenance, H. A. Smith, Iron & Steel Eng 25:89-90; Discussion, 90-1 Mr '48
 32-MW turbo-alternator set at Willesden, il diags Engineering 164:417-18, 420 O 31 '47
 Three years' work ahead for turbine builders, W. F. McHale, Barron's 28:30 Mr 8 '48
 Turbine for all industry, W. Schmid, il Westinghouse Eng 8:191-2 N '48
 Turbine installation and maintenance, H. P. Dahlstrand, flow diag diags Paper Tr J 123:154-67 O 10 '46; Same cond. Paper Ind 29:1361-6 D '47

- Use of house turbines marks design of Philadelphia's Southwark station, A. R. Pettit and F. W. Myers, il plan diags Power 92:134-9+ Mr '48
 When to use steam turbines for mechanical drive, F. S. Kohl, il Power 92:338-9+, 427-8+, 706-8 Je-J1, N '48

Blades

- Boiler water condensation to prevent turbine deposits, C. E. Imhoff, diags Pet Refiner 27:108-11 Ag '48
 New machine speeds turbine blade contour measurement, W. A. Lloyd, il diags Iron Age 162:76-8 Ag 5 '48
 Study of furnace brazing as applied to 12 per cent chromium low carbon steel, T. H. Gray, il diags Am Soc for Metals Trans 39:453-78; Discussion, 478-87 '47

Control

- Temporary throttling diaphragm gives rated output from damaged turbine, G. G. Guthrie, diags Elec World 130:79-80 O 23 '48

Deposits

- Prevention of turbine blade deposits, C. E. Imhoff, il diag Paper Tr J 127:39-43 J1 29 '48
 X-ray diffraction studies of steam turbine deposits, L. A. Burkardt and C. E. Imhoff, bibliog il Ind & Eng Chem 39:1427-32 N '47

Design

- Estimation of stresses in turbine-disc rims, G. F. C. Rogers, diags Engineering 165:1-4, 40-3 Ja 2-9 '48
 Regenerative reheating possibilities in steam turbines, W. E. Caldwell, il diags Power Generation 52:56-7+ Ap '48

Efficiency

- High fuel costs revive reheating, C. W. Bloedorn, diags Power 92:485-7 Ag '48
 Prospects of the steam cycle in the central power station, G. H. Martin, diags Inst Mech Eng J & Proc 158:Proc 52-8; Discussion, 58-65 Je '48
 What do you mean by thermal efficiency? A. Keller, diag Power Generation 52:58-61+ J1 '48

Lubrication

- Guide for plant operator in preparing new turbine oil system, il diag Power 92:691-3 N '48
 Proposed recommended practices for the preparation of new turbine lubricating systems, A. S. M. E. Trans 70:363-6; Discussion, 366-7 My '48
 Some problems encountered in the lubrication of steam turbines, R. Lowe, Engineer 185:482-3, 506-7 My 14-21 '48

Manufacture

- Turbine manufacturing capacity adequate for seven years, J. Pope, il Elec World 130:71-3 Ag 28 '48

Reconstruction

- Rebuilt steam turbines modernize this twenty-year-old paper plant; Sorg paper co., G. H. Suhs and R. D. McArthur, il diags Power 92:75-7 F '48

Repair

- Repairing a steam turbine cylinder, J. C. Blankenship, il Power Generation 52:68-9 My '48
 Simple tools repair pedestal cracks, A. R. Eastcott, diags Power 92:153 Mr '48

Standards

- Power plant production; recommendations of Central electricity board regarding sizes and steam conditions of turbo-alternator sets; abstracts, Elec R (Lond) 141:766 N 21 '47; Electrician 139:1495 N 21 '47
 Standardization of industrial steam turbines is coming, L. E. Newman, il diags Power 92:143-5+ Mr '48
 Standards for turbine-generators, S. H. Mortensen and others, Elec Eng 67:548-9 Je '48

STEAM turbines—Continued

Starting

- Quick starting of high-pressure steam-turbine units. J. C. Falkner and others. diags A S M E Trans 70:201-7 Ap '48; Abstracts. Elec World 128:98-9 J 19 '47; Power 91:621 S '47; Discussion. A S M E Trans 70:207-9 Ap '48
- Quick starting of high-pressure steam turbines. J. C. Falkner and others. il diags Power Pl Eng 51:82-6 D '47
- Starting turbo-alternators. M. P. Henzell. il diag Elec R (Lond) 141:699-701 N 7 '47
- Torque characteristics of steam turbines. J. S. Newton. diags Westinghouse Eng 8:119-21 J1 '48

STEAM turbines, Marine

- Bridge gage readings, bearing replacement, pinion gear bearings. F. G. Corneau. Marine Eng 53:76 O '48
- Bringing a geared-turbine unit up to speed. Marine Eng 53:75-6 Ap '48
- Design trends in modern marine power plants. F. V. Smith. il diag Iron & Steel Eng 25:92-7 Ap '48
- Modern marine power plant; C-3-S-DB3. A. W. Woods. Marine Eng 53:61-6 Ap '48
- Operating a geared-turbine unit. Marine Eng 53:71-3 My '48
- Steam and gas turbines for marine propulsion. T. W. F. Brown and others. diags Inst Mech Eng J & Proc 157 (War emergency issue no 29):175-7 '47
- Steam turbine rotor adjustments. F. G. Corneau. Marine Eng 53:67 S '48
- Turbine-electric propulsion. H. C. Coleman. Marine Eng 53:71-5 Ag '48
- Warming-up a geared-turbine unit. Marine Eng 53:78-80+ Mr '48

Gearing

- Mechanical reduction gears; abstract. J. A. Davies and H. W. Semar. Marine Eng 53:69-70; Discussion. 70-1 Ja '48

Lubrication

- Operation of a Victory ship's lubricating-oil system. diags Marine Eng 53:60-3 Je; 66-9 J1 '48

Testing

- Floating turbine test laboratory. Marine Eng 53:52 Ap '48; Same. Mech Eng 69:1028-9 D '47

STEAM vehicles. See Motor vehicles, Steam

STEAMBOAT lines

- Economics of ship operation. W. W. Smith. Marine Eng 53:38-9 O '48
- Shipping family honors own; American South African lines, inc. becomes Farrell lines, inc. Bsns W p82-4 Ap 3 '48
- U.S. lines carried 100,000 passengers in 1947. Marine Eng 53:75-6 Ja '48

Airline subsidiaries

- PAA hits a tie-up of TACA, Waterman. Aviation W 48:14 Mr 15 '48
- TACA trouble; CAB examiner's report asks denial of renewed foreign carrier permit. Aviation W 49:40 J1 5 '48

Finance

- Flow of capital in U.S. shipping. Marine Eng 53:58-60 O '48

Ticket offices

- Ticket offices for American president lines in three ports. il plans Arch Forum 88:122-4 Je '48

Great Britain

- Cunard steam-ship company, limited; statement of the chairman, F. A. Bates. Economist 154:607-9 Ap 10 '48
- Union-Castle mail steamship company, limited; statement by the chairman at annual general meeting. V. Thomson. Economist 154:1038-9 Je 19 '48

Netherlands

- World bank's new loan to Dutch shipping companies. For Comm W 32:38 Ag 28 '48

STEAMBOATS

- American export lines' new Excalibur. il plans diag Marine Eng 53:40-6+ O '48
- American Export places firm order for two luxury liners. il Marine Eng 53:38-9+ S '48

- C-3 cargo ship, African Star. il diag Marine Eng 52:98-9 N '47
- Cargo liner, Mormacgulf. il Marine Eng 52:109-4 N '47
- Cargo-liner, Santa Barbara. il diag Marine Eng 52:84-5+ N '47
- Cargo vessel for Brazil, Loide America. il diag Marine Eng 52:108+ N '47
- Cunard White Star liner Caronia. il Engineer 184:433-4 N 7 '47; Abstract. Engineering 164:451 N 7 '47
- Cunard White Star liner Media. il plan Engineering 164:464-5, 468 N 14 '47
- Cunard White Star liner Parthia. il Engineer 185:385-6 Ap 16 '48
- Design trends in modern marine power plants. F. V. Smith. il diag Iron & Steel Eng 25:92-7 Ap '48
- Great Lakes ore carrier, Sewell Avery. il diag Marine Eng 52:88-9+ N '47
- Khdivial mail line passenger steamer El Malek Foad. il diags Engineering 165:152-4, 156 F 13 '48
- Launch of the Commandant Quéré. il Engineer 184:527 D 5 '47; Engineering 164:538 D 5 '47
- Launch of the P. and O. liner Himalaya. il Engineer 186:396-7 O 15 '48
- Millionaire's yacht becomes cruise ship; Corsair. il Marine Eng 52:74-80 D '47
- Modern Atlantic liner. J. M. McNeill. Engineering 164:437-8 N 7 '47
- Modern Dutch cargo ship, Triton. il Marine Eng 52:104+ N '47
- Modern marine power plant; C-3-S-DB3. A. W. Woods. Marine Eng 53:61-6 Ap '48
- Ore carrier, S.S. Venore. il diags Marine Eng 52:80-1 N '47
- Passenger and cargo liner, Del Norte. il diags Marine Eng 52:70-2+ N '47
- Passenger-cargo ship, Alcoa Cavalier. il diags Marine Eng 52:74-6+ N '47
- Passenger liner, President Cleveland. il Marine Eng 53:38-9+ Mr '48
- Power plant of the Comber. J. A. Wasmund. il Marine Eng 53:60-4 Ja '48
- Practical piping problems; design engineering reports on operating experience (cont). J. H. Clarke. il diags Heating-Piping 19:86-9 D '47; 20:116-20 Ja; 86-91 F; 90-4 Mr; 84-7 Ap; 89-92 My '48
- Recent advances in mechanical engineering on shipboard. T. A. Crowe. il plan Engineering 186:20-3 J1 2 '48; Same abr. Engineer 185:591-3 Je 18 '48
- Reconversion of Matson liner, Lurline. il Marine Eng 53:36-41 Je '48
- Refrigerated cargo ship, Parismina. il diags Marine Eng 52:102-3+ N '47
- Royal mail lines, S.S. Andes. il Engineering 165:105-6 Ja 30 '48
- Seagoing hopper dredge, Comber. il plans diags Marine Eng 53:50-9 Ja '48
- Shipbuilding and marine engineering in 1947. il Engineer 185:10-13, supp 3, 46-7, supp 2, 96-7 Ja 2-9, 23 '48
- Sinclair refining company tankers. il Marine Eng 52:73+ N '47
- Steam gunboat machinery, a lightweight steam plant; abstract. H. A. K. Lay and L. Baker. Engineering 166:389; Discussion. 389-90 O 22 '48; Engineer 186:395-6 O 15 '48
- S.S. Argentina resumes prewar service. il Marine Eng 53:42-7 F '48
- S.S. Commandant Quéré for the Compagnie générale transatlantique. il Engineering 165:618-19 Je 25 '48
- Steamship Uruguay reconverted. il Marine Eng 53:72-4 Ap '48
- Survival of the paddle boat, G. W. Tripp. il Engineer 184:568-70, 592-3 D 19-26 '47
- Tanker, Gulfube enters service. il plans diags Marine Eng 53:36-46 Ap '48
- Tanker, Stanvac Calcutta of T-3 class. il diags Marine Eng 52:90-1 N '47
- Three APL liners awarded to New York shipbuilding corporation. il Marine Eng 53:42-3 S '48
- Todd shipyards converting Pulaski to oil-burning. il Marine Eng 52:104 D '47
- Turbine steamer, Commandant Quéré. il plan Engineer 186:14-16 J1 2 '48
- Union Castle mail steamship, Pretoria Castle. il diags Engineer 186:140-1, 156-7+, 180-1 Ag 6-20 '48

STEAMBOATS—Continued

- Yaque class reefers. *il diag* Marine Eng 52: 82-3+ N '47
See also
 Rollers, Marine Ships
 Freight ships Steam turbines, Ma-
 Ship propulsion rine
 Shipbuilding Steamboat lines
 Shipping

STEARIC acid

- Hydroxylated stearic acids; action of Pré-
 vost's reagent on oleic and elaidic esters;
 evidence for configuration of the hydroxy
 acids. H. Wittcoff and S. E. Miller. *bibliog*
Am Chem Soc J 69:3138-9 D '47
 Hydroxylated stearic acids; the periodate
 oxidation of the 9,10-dihydroxystearic acids
 and the 1,9,10-trihydroxyoctadecanones. H.
 Wittcoff, O. A. Moe and M. H. Iwen. *bib-*
liog Am Chem Soc J 70:742-4 F '48
 Polymorphism of the mixed triglycerides of
 palmitic and stearic acids. E. S. Lutton,
 F. L. Jackson and O. T. Quimby. *bibliog*
Am Chem Soc J 70:2441-5 JI '48
 Tallow acids. J. R. Skeen. *Soap & San Chem*
 24:45+ Ag '48
See also
 Epoxystearic acid

STEARIN

- Polymorphism of 1-monostearin and 1-mono-
 palmitin. E. S. Lutton and F. L. Jackson.
bibliog Am Chem Soc J 70:2445-9 JI '48
 Range-energy relations for protons in sub-
 stances containing C, H, O, A, and Xe.
 J. O. Hirschfelder and J. L. Magee. *bibliog*
Phys R 73:207-15 F I '48

STEATITE

- Steatite becomes a major ceramic with a big
 future. H. H. Hausner and A. Gunzen-
 hauser. *bibliog il Cer Ind* 51:76-7+ JI; 74-6
 Ag; 90-1 S '48

STECKEL patents. *See* Rolling (metal work)—
 Patents**STEEL**

- Aluminum foil; packaging of polished steel.
 J. D. Edwards and D. B. Strohm. *Mod*
Packaging 21:190-1 Ap '48
 Annual engineering review; irons and steels.
il Materials & Methods 27:92-5 Ja '48
 Application tables to guide in the selection
 of materials; reference book sheet. Z. Fox.
Product Eng 18:165+ N '47
 Basic guide to ferrous metallurgy; chart
 shows working characteristics of steels at
 temperatures from minus 300 F to 2900 F.
Power Generation 52:84 My '48
 Carbon steel gives good service in processing
 sour crude oils. *il Pet Processing* 3:111-13
 F '48
 Chemical engineering materials of construc-
 tion; iron, mild steels, and low alloy steels.
 R. B. Mears and S. C. Snyder. *bibliog* (30
 ref) *il Ind & Eng Chem* 40:1798-800 O '48
 Chemical erosion of steel by hot gases under
 pressure. R. C. Evans and others. *bibliog*
diags J Phys & Colloid Chem 51:1404-29 N
 '47
 Expansion chart for steel. *Tool Eng* 21:35
 O '48
 First successful photograph of steel surface
 made with an electron microscope. R. F.
 Mehl and others. *Metal Prog* 52:988 D '47
 Forming oxide films on electrical steel. P.
 L. Schmidt. *Elec Eng* 67:538 Je '48
 Free cutting steels. T. C. Du Mond. *il Ma-*
terials & Methods 28:95-102 O '48
 Iron and steel and refrigeration. D. Gordon.
Inst Mech Eng J & Proc 158:Proc 9-12 Je
 '47; Same cond. *Engineer* 184:416-17 O 31
 '47
 New developments in steel. M. A. Grossman.
Product Eng 19:135-6 F '48
 Report of American gas association commit-
 tee on steel requirements of gas utility
 companies for distribution facilities and
 plant structures and equipment. *Am Gas J*
 169:38 JI '48
 Selecting engineering materials for coke
 plants. C. F. Pogacar. *il diags Steel* 122:
 111+ Je 7 '48
 Steel and the world we live in. C. M.
 Parker. *S A E J* 56:37+ My '48
 Steel for shaves. *Bsns W* p44+ Mr 13 '48

- Steels and their treatment. N. N. Brown. *il*
Machine Design 20:87-92+ O; 110-16+ N '48

See also

- | | |
|-----------------------------------|---|
| Bridges, Iron and
steel | Nickel steel |
| Case hardening | Open hearth process |
| Chromium nickel
steel | Pipes, Steel |
| Chromium steel | Rails |
| Concrete, Reinforced | Rolling (metal work) |
| Corrosion and anti-
corrosives | Rolling mills |
| Foundry practice | Sheet steel |
| Iron | Silicon steel |
| Manganese steel | Steel, Aircraft and
other headings be- |
| Molybdenum steel | ginning Steel |
| | Tool steel |
| | Tubes, Steel |

Aging

- Strain-age embrittlement of steel. *bibliog En-*
gineer 184:412-13 O 31 '47
 Strain aging criteria. G. Sachs. *bibliog* (72
 titles) *diag Iron Age* 161:78-83 My 13 '48

Analysis

- Absorptiometric determination of chromium
 in high-speed steels by sodium chlorate
 oxidation. F. E. Eborall. *Metallurgia* 38:
 135-6 JI '48
 Analysis of steel for carbon content speed-
 ed. Blast F & Steel Pl 36:347-8 Mr '48
 Apparatus for the hot-extraction analysis
 for hydrogen in steel. C. E. Sims and G.
 A. Moore. *bibliog il diags Metals Tech* 15:
 TP2369 1-10 Je '48
 Art of carbometry. F. S. Ellis and H. Mac-
 Lees. Blast F & Steel Pl 35:1357-8 N '47
 Colorimetric estimation of tungsten in high
 speed steels using ammonium thiocyanate
 and titanous chloride. R. S. Emery and
 D. W. Curtis. *il Metallurgia* 38:113-14 Je
 '48
 Critical examination of a perchloric acid
 colorimetric method of analysis for chrom-
 ium in carbon and low alloy steel. *Metall-*
urgia 37:211-16 F '48
 Detecting residual elements in steel by spec-
 trographic analysis. H. Swett. *il Steel* 122:
 106+ My 3 '48
 Determination of copper in carbon and low-
 alloy steels. *Metallurgia* 38:342-5 O '48
 Determination of silicon and manganese in
 iron and steel. *Metallurgia* 38:346-52 O '48
 Determination of small amounts of carbon
 in steel; evaluation of low-pressure com-
 bustion apparatus. J. J. Noughton and H.
 H. Uhlig. *diag Anal Chem* 20:477-80 My '48
 Determination of the gases in meteoritic and
 terrestrial irons and steels. L. K. Nash and
 G. P. Baxter. *bibliog diags Am Chem Soc J*
 69:2534-44 O '47
 Direct-reading silicon meter for electrical
 sheet steels and a note on resistivity.
 N. F. Astbury and S. P. Roper. *diags J*
Soc Instr 25:191-3 Je '48
 Estimation of molybdenum in iron and steel,
 using a simple photometer. E. J. Ronnie.
diags Metallurgia 38:235-6 Ag '48
 Hydrogen, nitrogen and oxygen in ferrous
 metals; their properties and their determi-
 nation. E. C. Pigott. *il diags Metallurgia*
 37:23-7, 129-32, 181-4, 263-6; 38:6-12 N '47,
 Ja-Mr, My '48
 Improved combustion technique speeds carbon
 analysis of steel. *il Steel* 122:96 F 16 '48;
 Same. *Iron & Steel Eng* 25:107-8 F '48
 Industrial application of Geiger-Müller coun-
 ters to the analysis of phosphorus in steels.
 F. R. Bryan and G. A. Nahstoll. *bibliog*
Opt Soc Am J 38:510-17 Je '48
 Investigation of the use of Geiger-Müller
 photoelectron counters in the spectro-
 graphic analysis of phosphorus in steel. R.
 Hanau and R. A. Wolfe. *bibliog il Opt Soc*
Am J 38:377-83 Ap '48
 More time for bath alterations provided by
 use of spectrograph in steel plants. B. W.
 Bowen. *il Steel* 121:69-70+ D 29 '47
 Quantitative experimental investigation of
 the hydrogen and nitrogen contents of steel
 during commercial melting. C. E. Sims and
 others. *bibliog Metals Tech* 15:TP2347 1-19
 F '48; Discussion. 15:TP2448 24-8 Ag '48
 Rapid routine method for testing stainless
 steels; procedure employing the Beckman
 spectrophotometer. J. B. Culbertson and R.
 M. Fowler. *bibliog il Steel* 122:108+ My 24
 '48

STEEL—Analysis—Continued

Routine chemical methods for analysis of niobium and tantalum bearing 18/8 steels. E. Rogers. *bibliog Metallurgia* 37:326-30 A '48

Russian methods for spot testing steel; tabulation. *Iron Age* 160:76 D 18 '47

Sampling and analysis of steel for hydrogen. G. Derge and others. *bibliog il diags Metals Tech* 15:TP2362 1-28 Je '48; Excerpts.

Blast F & Steel Pl 36:343-4+ Mr '48

Study of films isolated from passive stainless steels. E. M. Mahla and N. A. Nielsen. *il diags Electrochem Soc J* 93:1-16 Ja '48

See also

Steel alloys—Analysis

Bibliography

Abstracts of current literature and book notices (cont). *Iron & Steel Inst J* 157:289-320, 461-80, 629-56; 158:147-60, 265-83, 391-426, 527-44; 159:83-112, 209-40, 321-52, 431-64; 160:99-120, 217-40 O '47-O '48

Review of iron and steel literature for 1947. E. H. McClelland. *Blast F & Steel Pl* 36:212-16+ F '48

Survey of literature on the manufacture and properties of iron and steel, and kindred subjects. *Iron & Steel Inst J* 153:1A-86A no 1 '46

Blackening

Fabricating and finishing stainless steel. A. P. Schulze. *bibliog il Metal Finishing* 46:103-5 Je '48

Boron content

Boron steels in commercial heats; abstract. S A E J 56:77-9 Fe '48

Boron-treated steels. *Blast F & Steel Pl* 36:345-6+ Mr '48; Same. *Franklin Inst J* 245:437-40 My '48

Evaluation of boron-treated steels. W. F. Toerge. *bibliog il diag Steel* 121:93-8+ D 8 '47

Brittleness

Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire. C. A. Zapffe and M. E. Haslem. *Am Soc for Metals Trans* 39:213-37; Discussion. 237-40 '47

Brittle fracture in mild-steel plates. W. Barr and C. F. Tipper. *il 2pls diags Iron & Steel Inst J* 157:223-38 O '47; Discussion. 158:327-36 Mr '48; Engineer 184:500-2 N 28 '47; Engineering 164:498-9 N 21 '48

Brittle fracture in mild-steel plates. C. F. Tipper. *il diags Engineering* 165:568-71, 592-5, 605-7 Je 11-25 '48

Brittle fracture in mild-steel plates; experience of American shipbuilders and steel-makers. E. M. MacCUTCHEON. *diags Engineering* 165:77-8 Ja 23 '48

Brittle fracture in ship structures. J. F. Baker. *bibliog Engineering* 164:532-4 D 5 '47

Brittle fracture of American ship plates. W. Barr. *il Engineering* 165:208-10, 222-3 F 27-Mr 5 '48

Brittle transition temperatures of various low-carbon steels welded by the same method. N. Grossman and C. W. MacGregor. *il diags Welding J* 27:sup267-71 My '48

Brittleness in ship steel. J. L. Adam. *diags Engineering* 164:556-7 D 12 '47

Causes of low ductility in mild steel. J. F. Baker. *diags Engineering* 164:548-50 D 5 '47

Comparison of the brittle transition temperatures as determined by the Charpy impact and the M.I.T. slow bend tests. C. W. MacGregor and N. Grossman. *bibliog il diags Welding J* 27:sup 16-19, sup 159-60 Ja, Mr '48

Development of an improved basic Bessemer steel. H. A. Dickie. *Iron & Steel Inst J* 159:360-4 Ag '48

Development of temper brittleness in alloy steels. W. S. Pellini and B. R. Queneau. *bibliog Am Soc for Metals Trans* 39:139-53 '47; Abstracts. *Iron Age* 158:56-7 N 28 '46; Engineer 183:286-7 Ap 4 '47; Discussion. *Am Soc for Metals Trans* 39:153-61 '47

Effect of combined stresses on the transition temperature for brittle fracture. C. W. MacGregor and N. Grossman. *bibliog il diags Welding J* 27:sup7-16 Ja '48

Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling. C. A. Zapffe and O. G. Specht. *in bibliog Am Soc for Metals Trans* 39:193-211; Discussion. 212 '47

Effect of the manganese/carbon ratio on the brittle fracture of mild steel. W. Barr and A. J. K. Honeyman. *4pls Iron & Steel Inst J* 157:239-42 O '47; Discussion. 158:327-36 Mr '48; Engineer 184:500-2 N 28 '47; Engineering 164:498-9 N 21 '48

Embrittlement of roller chains by plating after assembly. *il Product Eng* 19:105 S '48

Evaluating hydrogen embrittlement in acid pickling. M. Rosenfeld. *bibliog il Iron Age* 161:82-7 Je 17 '48

Factors affecting the weldability of carbon and alloy steels. C. M. Offenbauer and K. H. Koopman. *il diags Welding J* 27:sup 234-52 My '48

Fracture and notch-brittleness in ductile metals. E. Orowan. *Engineering* 164:581-3, 605-6 D 19-26 '47

Fracture of metals; some theoretical considerations. N. F. Mott. *Engineering* 165:16-18 Ja 2 '48

Fundamental physical and metallurgical aspects of brittle steel. D. E. J. Offord. *il Engineering* 165:53 Ja 16 '48

Hardness and brittleness of quenched soft carbon steels. B. D. Enlund. *bibliog Engineer* 186:310-11 S 24 '48

Hydrogen embrittlement in oxyacetylene pressure welding? K. B. Young and H. J. Nichols. *il Welding J* 27:sup30-2 Ja '48

Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zapffe and M. E. Haslem. *bibliog Am Soc for Metals Trans* 39:241-58; Discussion. 258-60 '47

Metallographic etchant to reveal temper brittleness in steel. J. B. Cohen and others. *bibliog il Am Soc for Metals Trans* 39:109-36 '47; Abstract. *Iron Age* 158:57-8 N 28 '46; Discussion. *Am Soc for Metals Trans* 39:136-8 '47

Metallurgical factors in the embrittlement of welded plate. R. D. Stout and L. J. McGeady. *il diag Welding J* 26:sup683-92 N '47

Micro-examination and electrode-potential measurements of temper-brittle steels. D. McLean and L. Northcott. *6pls Iron & Steel Inst J* 158:169-77 F '48

Practical importance of hydrogen in metal-arc welding of steel. S. A. Herres. *bibliog il diags Am Soc for Metals Trans* 39:162-89; Discussion. 189-92 '47

Some new aspects of the fatigue of metals brought out by brittle transition temperature tests. C. W. MacGregor and N. Grossman. *bibliog il diag Welding J* 27:sup 132-43 Mr '48; Discussion. 27:sup 143-4, 428-32 Mr, Ag '48

Stabilization of austenitic stainless steel. S. J. Rosenberg and J. H. Darr. *bibliog il J Res Nat Bur Stand* 40:321-33 Ap '48; Abstract. *Iron Age* 162:81 Jl 22 '48

Steel embrittlement in caustic treating service. E. L. Hildebrand. *flow diag il Oil & Gas J* 47:271+ O 7 '48

Strain-age embrittlement of steel. *bibliog Engineer* 184:412-13 O 31 '47

Strain aging in welding low-carbon structural steel. W. H. Bruckner and W. E. Ellis. *il diags Welding J* 27:sup441-7 S '48

Case hardening

See Case hardening

Cathodic protection

Behavior of experimental zinc-steel couples underground. I. A. Denison and M. Romanoff. *bibliog il diags J Res Nat Bur Stand* 40:301-13 Ap '48

Cathodic corrosion protection studied at Dow Chemical's metals protection laboratory; use of magnesium as a galvanic anode. *il Steel* 121:106-7+ N 10 '47

Cathodic protection of buried metallic structures against corrosion; correlating committee on cathodic protection. *Am Water Works Assn J* 40:485-8 My '48

Cathodic protection of steel in sea water with magnesium anodes; abstract. H. A. Humble. *Metal Prog* 54:224+ Ag '48

STEEL—Cathodic protection—*Continued*

- Cathodic protection of underground metallic structures; six-year tests at National Bureau of standards. Heat & Ven 45:122 Ag '48
- Cathodic protection of underground structures. *Il* Gas Age 102:25+ JI 8 '48
- Galvanic corrosion and concentration cell corrosion. M. G. Fontana. *Il* diag Metal Prog 53:384-5 Mr '48
- Preventing steel corrosion. *Il* Chem Age (Lond) 59:455-6 O 2 '48
- Promote cathodic protection to check corrosion of buried structures. Pet Processing 3:902-3 S '48
- Zinc combats corrosion of buried pipes. Dom Eng 172:124 JI '48

Cleaning

- Descaling plant installed by Lukens. *Il* Chem & Eng N 26:531-2 F 23 '48; Elec World 129:94 F 28 '48; Mech Eng 70:347 Ap '48
- Diphase metal cleaners; preferential wetting by the two phases. I. Reich and F. D. Snell. *Ind & Eng Chem* 40:1233-7 JI '48
- Fabricating and finishing stainless steel. A. P. Schulze. *bibliog il* Metal Finishing 46: 72-7 Ja; 59-64 F '48
- Fundamentals of forging practice; scale removal by tumbling, blast cleaning or pickling. W. Naujoks. Steel 123:39-92+ S 27 '48
- Largest salt-bath descaling equipment in the world; Ajax-Hultgren electrical salt bath furnace used. *Il* Mach 54:166 Ap '48
- Molten salt bath descaling. *Il* Steel 122:90 Mr 29 '48
- Novel bitjet descaler aids forging. *Il* Iron Age 162:79 JI 15 '48
- Sodium hydride effective in descaling stainless steel sheets. M. H. Lebowitz. *Il* Steel 122:107+ Ap 5 '48

Copper content

- Determination of copper in carbon and low-alloy steels. Metallurgia 38:342-5 O '48

Decarburization

- Advantages and applications of carbon restoration. O. E. Cullen. *Il* Steel 121:34-5+ N 17 '47
- Effect of composition on the fatigue strength of decarburized steel. L. R. Jackson and T. E. Pochapsky. *diags Am Soc for Metals* Trans 39:45-57; Discussion. 57-60 '47
- Electric furnace oxygen utilization affords greater stainless scrap charge, reduced heat time and improved chromium recovery. J. H. Eisaman. *Il* Steel 123:112+ Ag 16 '48; Same. Blast F & Steel Pl 36:1081-4 S '48; Same cond. Iron & Steel Eng 25:117-19 Ag '48
- Oxygen for decarburization; abstract. R. Carpenter. Steel 121:126 N 10 '47

Defects

- Detection of cracks in steel by means of supersonic waves. C. H. Desch and others. *bibliog diags Iron & Steel Inst* J 153:319-41, pl 21-30 no 1 '46; Same. Welding J 26: sup 1-25 Ja '47; Discussion. Iron & Steel Inst J 153:341-53, pl 30A-30B no 1 '46
- Factors affecting subsurface defects in forging-steel ingots; abstract. E. A. Loria and H. D. Shephard. Metal Prog 54:378+ S '48
- Regress surface defects. P. Walker. *Il* diags Iron & Steel Inst J 158:96-3 Ja '48
- Method for determining the origin of surface defects in rolled steel products. C. L. Meyette and V. E. Elliott. *Il* Metals Tech 15:TP2368 1-15 Je '48; Same cond. Ry Age 124:474-6 Mr 6 '48; Same. Steel 122:92+ Mr 29 '48; Abstract. Iron Age 161:128-9 F 26 '48
- Steel casting-pit practice and ingot defects. R. N. Duncan. *diags Engineering* 166:117-18 JI 30 '48
- Vector fields to locate deep-seated defects in steel; use of magnetic powders and superimposed electrical fields. R. M. Killen. *Il* Materials & Methods 26:66-7 D '47

See also

- Steel—Overheating and burning

Deoxidation

- Deoxidation and deoxidation products in electric furnace steel; abstract. S. W. Poole. Steel 121:74+ D 22 '47

- Ladle deoxidation of killed steel with silicon carbide and its effect on physical properties and hardenability. E. A. Loria and A. P. Thompson. *bibliog il* Am Soc for Metals Trans 39:651-65; Discussion. 665-9 '47
- Modern open hearth; analyses of deoxidizing and alloying additions; tabulation. T. J. Ess. Iron & Steel Eng 25:043 JI '48

Descaling*See* Steel—Cleaning**Failure**

- Brittle fracture in mild-steel plates; symposium. *Il* diags Engineering 164:532-4, 556-7, 581-3, 605-6; 165:16-18, 53, 77-8, 208-10, 222-3, 568-71, 592-5, 605-7 D 5 '47-Ja 2, 16-23, F 27-Mr 5, Je 11-25 '48; Abstract. Metal Prog 54:84+ JI '48
- Causes of cleavage fracture in ship plate; tests of wide notched plates. A. Boodberg and others. *bibliog il* diags Welding J 27: sup 186-99 Ap '48
- Caustic cracking of welded steel plate; re-boling in refinery at Port Arthur, Texas. H. M. Wilten. *Il* Metal Prog 52:803-5 N '47
- Cleavage fracture of ship plates as influenced by size effect. W. M. Wilson and others. *Il* diags Welding J 27:sup200-8 Ap '48
- Cleavage fracturing and transition temperatures of mild steels. A. B. Bagsar. *Il* diags Welding J 27:sup 123-31 Mr '48
- Correlation of laboratory tests with full scale ship plate fracture tests. E. P. Kilier and others. *bibliog il* diags Welding J 27:sup17-96; Discussion. R. E. Wiley. sup96 F '48
- Cracking of steel in nitrate solutions. M. Smialowski. *diags Engineer* 186:110 JI 30 '48
- Determination of physical chemical factors in stress corrosion cracking of mild steel. M. G. Winterstein and others. *bibliog il* diag Welding J 26:sup723-6 D '47
- Development of cleavage fractures in mild steels. A. B. Bagsar. *bibliog il* diags A S M E Trans 70:751-77 O '48; Same. Welding J 27:sup97-123 Mr '48; Discussion. A S M E Trans 70:777-809 O '48
- Graphitization and failure of steel in service. Welding J 27:sup29 Ja '48
- How atmospheric nitrogen encourages galling and fatigue failures. H. Schottky and H. Hiltkamp. *bibliog Steel* 123:97+ JI 5 '48
- Influence of strain aging on the fracture stress of low-carbon steel. D. J. McAdam, jr. and others. *bibliog Metals Tech* 15: TP2313 1-11 Ja '48
- Laboratory study of quench cracking in cast alloy steels. M. C. Udy and M. K. Barnett. *Il* diags Am Soc for Metals Trans 38:471-9 Ag; Discussion. 485-7 '47
- Large plastic flow and the collapse of hollow cylinders. P. W. Bridgman. *Il* J Ap Phys 19:302-5 Mr '48
- Method of evaluating transition from shear to cleavage failure in ship plate and its correlation with large-scale plate tests. N. A. Kahn and E. A. Imbombo. *bibliog il* diag Welding J 27:sup 169-82; Discussion. sup 182-5+ Ap '48
- Refinery tube failures; excessive temperatures found chief cause. *Il* Pet Processing 3:829-31 S '48
- Stress-corrosion cracking of steels in the presence of sulphur compounds. W. P. Rees. *Engineering* 164:489-90 N 21 '47
- Stress cracking of electroplated lockwashers. K. B. Valentine. *Il* Am Soc for Metals Trans 38:488-94; Discussion. 494-504 '47
- Tests on flow and fracture of welded and unwelded tubes of steel. L. V. Griffiths and others. *Il* diags Welding J 27:sup 161-8+ Ap '48
- Transmission of cracks from plate to underlying metal. F. D. Rowe and J. B. Dance. *Il* Metal Prog 53:537-8 Ap '48

See also
Steel—Brittleness**Finishing**

- Fabricating and finishing stainless steel. A. P. Schulze. *bibliog il* Metal Finishing 46: 72-7 Ja; 59-64 F; 62-7+ Mr; 64-8+ My; 103-9 Je '48
- Improved physical properties of titanium enamels provide better steel finish. B. W. King. *bibliog Steel* 122:108+ Je 21 '48

STEEL—Finishing—Continued

- New techniques in conditioning stainless steel. A. E. Hamilton, jr. *il* diag Iron & Steel Eng 25:78-84 F '48; Excerpts. Steel 121:106-10 O 13 '47; Discussion. Iron & Steel Eng 25:85-7 F '48
- Pitting of steel parts during barrel tumbling. A. L. Simmons. *il* Metal Prog 54:349 S '48
- Powder process in stainless steel production. C. J. Burch and E. M. Holub. *il* Iron & Steel Eng 25:43-51 J1 '48; Same cond. Blast F & Steel Pl 36:443-6 Ap '48; Discussion. Iron & Steel Eng 25:51-2 J1 '48
- Slab and billet heating symposium; surface conditioning. P. S. Paluch; J. H. Vollmer. *il* Iron & Steel Eng 25:86-95; Discussion. 96-7 Je '48
- Stainless steel finishing procedure. K. M. Huston. *il* diag Steel 122:106-4 Je '48
- Strip tension and velocity control; continuous cleaning, plating and coiling steel vaneous blind stock. Life time products corp. C. Diechert. *il* diag Steel 123:69-70-4 J1 26 '48

Hydrogen content

- Apparatus for the hot-extraction analysis for hydrogen in steel. C. E. Sims and G. A. Moore. *il* diag Metals Tech 15: TP2369 1-10 Je '48
- Behavior of steel during and after immersion in acid; abstract. L. S. Darken and R. P. Smith. Metal Prog 54:230-4 Ag '48
- Evolution and absorption of hydrogen by steel in industrial reheating furnaces. J. Cameron. *il* Iron & Steel Inst J 157: 609-15 D '47; Discussion. 158:71-2 My '48
- Hydrogen, nitrogen and oxygen in ferrous metals; their properties and their determination. E. C. Pigott. *il* diag Metallurgia 37:23-7, 129-32 N '47, Ja '48
- Quantitative experimental investigation of the hydrogen and nitrogen contents of steel during commercial melting. C. E. Sims and others. *il* diag Metals Tech 15:TP2347 1-19 F '48; Discussion. 15:TP2448 24-8 Ag '48
- Removal of hydrogen from steel. J. H. Andrew and others. *il* diag Iron & Steel Inst J 153:67-113, pl 2-4 no 1 '46
- Sampling and analysis of steel for hydrogen. G. Derge and others. *il* diag Metals Tech 15:TP2362 1-28 Je '48; Excerpts. Blast F & Steel Pl 36:343-4-4 Mr '48; Abstract. Iron Age 161:129-30 F 26 '48

Hydrogen effect

- Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire. C. A. Zapffe and M. E. Haslem. *il* Am Soc for Metals Trans 39:213-37; Discussion. 237-40 '47
- Comparative behavior of mild steel welds made with E 6010 and E 6016 electrodes. F. W. Daniels and others. *il* diag Metals Welding J 27:sup436-40 S '48
- Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling. C. A. Zapffe and O. G. Specht, jr. *il* diag Am Soc for Metals Trans 39:193-211; Discussion. 212 '47
- Effects of hydrogen in the corrosion of steel; abstract. M. H. Bartz and C. E. Rawlins. Iron Age 161:93-4 Je 17 '48
- Embrittlement of roller chains by plating after assembly. *il* Product Eng 19:105 S '48
- Evaluating hydrogen embrittlement in acid pickling. M. Rosenfeld. *il* Iron Age 161:82-7 Je 17 '48
- Hydrogen and transformation characteristics in steel. J. H. Andrew and others. *il* diag Metals Welding J 27:sup436-40 S '48; Discussion. 157:377-81; 158:437-46 N '47, Ap '48
- Hydrogen attack on carbon steels. T. C. Evans. *il* diag Mech Eng 70:414-16 My '48
- Hydrogen embrittlement in oxyacetylene pressure welding. K. B. Young and H. J. Nichols. *il* Welding J 27:sup30-2 Ja '48; Discussion. 27:sup272 My '48
- Hydrogen in steel manufacture. C. Sykes and others. *il* diag Metals Welding J 27:sup30-2 Ja '48; Discussion. 157:377-81; 158:437-47 N '47, Ap '48

- Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zapffe and M. E. Haslem. *il* Am Soc for Metals Trans 39:241-58; Discussion. 258-60 '47
- Practical importance of hydrogen in metal-arc welding of steel. S. A. Herres. *il* diag Am Soc for Metals Trans 39: 162-89; Discussion. 189-92 '47

Inclusions

- Distribution of inclusions in some killed alloy steel ingots; abstract. K. L. Fetter and others. Metal Prog 54:374-4 S '48
- Evaluation of steel cleanliness; abstract. P. Schane, jr. Blast F & Steel Pl 36:135 Ja '48
- Micro-examination of eight steels for the inclusions sub-committee. J. H. Whiteley. *il* diag Iron & Steel Inst J 157:89-97 S '47; Discussion. 160:29-36 S '48
- Origin of silicate inclusions in basic electric-arc-furnace steel of higher carbon contents. A. Hultgren. *il* diag Metals Tech 15:TP2418 1-28 Ag '48
- Review of the effects of refractories on steel cleanliness; abstracts. J. G. Mravec, Iron Age 160:106-7 D 11 '47; Steel 121:76-4 D 22 '47
- Some thermodynamical aspects of the formation of inclusions in mild-steel weld metal. E. C. Rollason and E. Bishop. *il* diag Iron & Steel Inst J 158:161-8 F '48; Discussion. 160:29-36 S '48
- Study of segregations and inclusions in steel by micro-radiography. W. Betteridge and R. S. Sharpe. *il* diag Metals Welding J 158:185-91 F '48; Discussion. 160:29-36 S '48
- Very small amounts of sulfur and oxide inclusions in steel; abstract. M. L. Colombier. Materials & Methods 27:109 Ja '48

Lead content

- German experience of lead-bearing steels. Engineer 185:304 Mr 26 '48

Manganese content

- Effect of manganese on the properties of cast carbon and carbon-molybdenum steels. N. A. Ziegler and others. *il* diag Am Soc for Metals Trans 38:398-434 *il* diag (106 titles, p429-34); Discussion. 434-6 '47
- Effect of the manganese/carbon ratio on the brittle fracture of mild steel. W. Barr and A. J. K. Honeyman. *il* diag Iron & Steel Inst J 157:239-42 O '47; Discussion. 158:327-36 Mr '48

Metallography

- American society for metals 30th annual meeting, Philadelphia, Oct. 25-28; abstracts of papers. Steel 123:144-5 O 18 '48
- Apparent influence of grain size on the high temperature properties of austenitic steels. C. L. Clark and J. W. Freeman. *il* Am Soc for Metals Trans 38:148-69; Discussion. 169-79 '47
- Application of electrolytic polishing to ferrous metallography. H. J. Merchant. *il* diag Metals Welding J 27:sup436-40 S '48; Discussion. 158:208-9 F '48
- Applied X-ray metallography. N. P. Goss. Steel 123:93-4 J1 5; 114-5 S 6 '48
- As-cast structures in cast steels. M. F. Hawkes and B. F. Brown. *il* Iron Age 162: 138-47 O 14 '48
- Bainitic hardening of high speed steel. C. K. Baer and P. Payson. *il* diag Am Soc for Metals Trans 39:488-513; Discussion. 514-20 '47
- Breadths of X-ray diffraction lines from martensite. J. A. Wheeler and M. A. Jaswon. *il* diag Iron & Steel Inst J 157:181-6 O '47; Abstract. Metal Prog 53:422-4 Mr '48
- Carbide and oxide in surface zones of carburized alloy steels. A. Hultgren and E. Hagglund. *il* diag Am Soc for Metals Trans 39:820-37; Discussion. 837-42 '47
- Changes in austenitic chromium-nickel steels during exposures at 1100 to 1700 F. P. Payson and C. H. Savage. *il* diag Am Soc for Metals Trans 39:404-39; Discussion. 439-52 '47
- Coalescing anneals. A. M. Portevin. Metal Prog 52:829-30 N '47; Discussion. J. J. Curran. 53:536-7 Ap '48

STEEL—Metallography—Continued

- Current theories of the hardening of steel; discussion of A. Sauveur's papers, J. B. Austin, *il* diags Metal Prog 54:201-8 Ag '48
- Decomposition of austenite by nucleation and growth processes, R. F. Mehl, 4pls diags Iron & Steel Inst J 159:113-29 bibliog (50 titles, p128-9) Je '48
- Determination of phase diagrams, W. L. P. Pink, *il* Metal Prog 53:530-5, 672-5 Ap-May '48
- Development of temper brittleness in alloy steels, W. S. Pellini and B. R. Queneau, bibliog Am Soc for Metals Trans 39:139-53; Discussion, 153-61 '47
- Diffusion of carbon in austenite with a discontinuity in composition, L. S. Darken, bibliog Metals Tech 15:TP2443 1-9 S '48
- Dimensional instability affects design of precision equipment; stability of heat-treated steel parts, F. C. Victory, diags Am Mach 92:144-7 Mr 11; 112-15 Mr 25 '48
- Dynamic hot hardness testing (with special reference to isothermal transformations), G. M. Enos and others, *il* diag Metal Prog 54:51-5 Jl '48
- Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel, S. H. Weaver, Am Soc T M Proc 46:356-66; Discussion, 367-9 '46
- Effect of chromium on the M_s point, J. B. Bassett and E. S. Rowland, bibliog *il* Metals Tech 15:TP2417 1-8 Ag '48
- Effect of manganese on the properties of cast carbon and carbon-molybdenum steels, N. A. Ziegler and others, *il* diags Am Soc for Metals Trans 38:398-434 bibliog (106 titles, p429-34); Discussion, 434-6 '47
- Effect of oxygen on the isothermal transformations of steel, and a suggested test for burning, E. C. Thompson and L. R. Stanton, diags Iron & Steel Inst J 153:259-63, pl 13-19 no 1 '46
- Effects of microstructure on the mechanical properties of steel, J. H. Hollomon and others, bibliog *il* diags Am Soc for Metals Trans 38:807-44; Discussion, 844-7 '47
- Evaluation of boron-treated steels, W. F. Toerge, bibliog *il* diag Steel 121:93-8+ D 8 '47
- Experimental studies of continuous cooling transformations, C. A. Liedholm, bibliog *il* diags Am Soc for Metals Trans 38:180-208 '47
- Factors influencing the pearlitic microstructure of annealed hypoeutectoid steel, R. A. Grange, *il* Am Soc for Metals Trans 38: 879-98; Discussion, 898-908 '47
- Factors influencing the spheroidisation of steel, E. V. Tull, bibliog (48 titles) Metalurgia 38:257-62 S '48
- Ferrous physical metallurgy; review of 1947, M. Baeyerzt and W. F. Craig, Jr, Min & Met 29:114-17 F '48
- Formation and transformation studies of iron-carbon powder alloys, J. F. Kahles, bibliog *il* Am Soc for Metals Trans 38:618-51; Discussion, 651-8 '47
- Formation of sigma phase in duplex chromium-nickel-molybdenum corrosion-resisting steels, H. W. Kirkby and J. I. Morley, 4pls Iron & Steel Inst J 153:289-94 Mr '48
- Grand prize; 1947 A.S.M. metallographic exhibit; subzero transformation of austenite, R. H. Hays, *il* Metal Prog 53:374-5 Mr '48
- How low temperature treatments affect properties of steel, H. W. Gillett, *il* Product Eng 18:81-4 D '47
- Influence of Ni and Mo on the isothermal transformation of austenite in pure Fe-Ni and Fe-Ni-Mo alloys with 0.55 per cent C; abstract, D. A. Scott and others, Metal Prog 54:366+ S '48
- Internal stresses arising from transformations in metals and alloys, F. C. Thompson, Engineering 164:499 N 21 '47
- Inter-relation of hardenability and isothermal transformation data, W. I. Pumphrey and F. W. Jones, bibliog Iron & Steel Inst J 159:137-44 Je '48
- Interrupted quench and its practical aspects, H. E. Boyer, *il* Am Soc for Metals Trans 38:209-25; Discussion, 226-38 '47
- Isothermal heat treatment, J. M. Hodge, diags Steel 123:92-4+ O 11 '48
- Isothermal transformation of austenite, A. Hultgren, *il* diags Am Soc for Metals Trans 39:915-89 bibliog (p986-9); Discussion, 989-1005 '47
- Kinetics of solidification of killed steel ingots, J. W. Spretnak, bibliog *il* diags Am Soc for Metals Trans 39:569-619; Discussion, 619-26 '47
- Ladle deoxidation of killed steel with silicon carbide and its effect on physical properties and hardenability, E. A. Loria and A. P. Thompson, bibliog *il* Am Soc for Metals Trans 39:151-65; Discussion, 655-9 '47
- Low temperature treatment of steel, H. E. Boyer, Iron Age 161:69-73+ F 12; 78-83 F 19; 85-90 F 26 '48
- Measure of dispersion of carbide spheroids, N. T. Belaviev, Metal Prog 52:827 N '47
- Mechanical properties of a nickel-chromium-molybdenum steel obtained by stepped quenching, G. Delbart and R. Potaszkin, 2pls Iron & Steel Inst J 157:527-35 D '47
- Metallographic etchant to reveal temper brittleness in steel, J. B. Cohen and others, bibliog *il* Am Soc for Metals Trans 39:109-36; Discussion, 136-8 '47
- Metalurgical factors in the embrittlement of welded plate, R. D. Stout and L. J. Me Geady, *il* diag Welding J 26:sup633-92 N '47
- Micro-examination and electrode-potential measurements of temper-brittle steels, D. McLean and L. Northcott, 6pls Iron & Steel Inst J 158:169-77 F '48
- New steel features high strength and high toughness; Hy-Tuf, P. Payson and A. E. Nehrenberg, bibliog *il* Iron Age 162:74-80+ O 23 '48
- Nickel-steels by powder metallurgy, L. Delisle and W. V. Knopp, *il* Metals Tech 15:TP2340 1-20 F '48
- Nonmetallic grain boundary material in carburized cases, J. J. Kary, *il* Metal Prog 53: 218-22 F '48
- Occurrence and some effects of sigma phase in a molybdenum-bearing chromium-nickel austenitic steel, L. Smith and K. W. J. Bowen, *il* 4pls diag Iron & Steel Inst J 158:295-305 Mr '48
- Pole figures of the effect of some cold rolling mill variables on low carbon steel, J. K. Wood, Jr, diags Am Soc for Metals Trans 39:725-36; Discussion, 736-40 '47
- Secondary hardening of tempered martensitic alloy steel, W. Crafts and J. L. Lamont, bibliog *il* Metals Tech 15:TP2439 1-42 S '48
- Sigma phase in alloys containing iron and chromium, bibliog Engineer 185:424-5 Ap 30 '48
- Spheroidization of molybdenum steel in high temperature service, R. F. Miller and others, *il* Metal Prog 53:83-6 Ja '48
- Stability of austenite in stainless steels, C. B. Post and W. S. Eberly, diag Am Soc for Metals Trans 39:868-88; Discussion, 888-90 '47
- Stabilization of austenitic stainless steel, S. J. Rosenberg and J. H. Darr, bibliog *il* J Res Nat Bur Stand 40:321-38 Ap '48
- Stabilization of the austenite-martensite transformation, W. J. Harris, Jr, and M. Cohen, bibliog Metals Tech 15:TP2446 1-24 S '48
- Studies on susceptibility of casting steels to graphitization, J. J. Kanter and E. A. Sticha, *il* Am Soc T M Proc 46:182-7 '46
- Study of segregations and inclusions in steel by micro-radiography, W. Betheridge and R. S. Sharpe, bibliog 2pls diag Iron & Steel Inst J 158:185-91 F '48
- Study of the properties of 0.5 per cent chromium, 0.5 per cent molybdenum pipe steel, R. C. Fitzgerald and others, *il* Welding J 27:sup457-69 S '48
- Transformation and retention of austenite in 5140, 2340 and T1340 steels of comparable hardenability; abstract, A. R. Troiano, Metal Prog 54:362+ S '48
- Transformation of S.A.E. 6115 steel during continuous cooling; chart and photomicrographs; data sheet, C. A. Liedholm and others, Metal Prog 53:392B Mr '48
- Transformations in Krupp-type carburizing steels, A. R. Troiano and J. E. DeMoss, bibliog Am Soc for Metals Trans 39:788-98; Discussion, 798-800 '47
- Use of carbide-stabilizing elements to improve weldability of plate steels, F. F. Franklin, bibliog *il* Welding J 27:sup20-6 Ja '48

STEEL—Metallography—Continued

X ray determination of retained austenite by integrated intensities. B. L. Averbach and M. Cohen, *bibliog* *il* *Metals Tech* 15: TP2342 1-14 F '48

X-ray identification of sigma phase in 25-20 Cr-Ni stainless. W. J. Barnett and A. R. Troiano, *il* *Metal Prog* 53:366-7 Mr '48

See also

Piping (power plants)—Graphitization

Nitrogen content

Development of an improved basic Bessemer steel. H. A. Dickie, *bibliog* 2pls *diags* *Iron & Steel Inst J* 159:360-75 Ag '48

Effect of titanium on nitrogen in steel. G. F. Comstock, *Metal Prog* 54:319-22 S '48

Hydrogen, nitrogen and oxygen in ferrous metals; their properties and their determination. E. C. Pigott, *diags* *Metallurgia* 37:23-7, 129-32 N '47, Ja '48

Quantitative experimental investigation of the hydrogen and nitrogen contents of steel during commercial melting. C. E. Sims and others, *bibliog* *Metals Tech* 15:TP2347 1-19 F '48; Discussion, 15:TP2443 24-8 Ag '48

Nitrogen effect

How atmospheric nitrogen encourages galling and fatigue failures. H. Schottky and H. Hiltkamp, *bibliog* *Steel* 123:97+ JI 5 '48

Overheating and burning

Effect of oxygen on the isothermal transformations of steel, and a suggested test for burning. F. C. Thompson and L. R. Stanton, *diags* *Iron & Steel Inst J* 153:259-63, pl 18-19 no 1 '46

Overheating and burning of nickel-chromium-molybdenum steel. W. E. Goodrich, *Iron & Steel Inst J* 153:255-8, pl 16-17; Discussion, 279-315, pl 20A-20D no 1 '46

Overheating and burning of steel. A. Preece and others, *bibliog* *diags* *Iron & Steel Inst J* 153:237-54, pl 13-15; Discussion, 279-314, pl 20A-20D no 1 '46

Some aspects of the overheating of steel drop-forgings. H. J. Merchant, *bibliog* *Iron & Steel Inst J* 153:217-35, pl 7-12; Discussion, 279-311, pl 20A-20D no 1 '46

Some experiments on overheating. J. Woolman and H. W. Kirby, *Iron & Steel Inst J* 153:265-79, pl 20; Discussion, 279-317, pl 20A-20D no 1 '46

Oxygen content

Effect of oxygen on the isothermal transformations of steel, and a suggested test for burning. F. C. Thompson and L. R. Stanton, *diags* *Iron & Steel Inst J* 153:259-63, pl 18-19 no 1 '46

Hydrogen, nitrogen and oxygen in ferrous metals; their properties and their determination. E. C. Pigott, *il* *diags* *Metallurgia* 37:23-7, 129-32, 181-4, 263-6; 38:6-12 N '47, Ja-Mr, My '48

Phosphorus content

Development of an improved basic Bessemer steel. H. A. Dickie, *bibliog* 2pls *diags* *Iron & Steel Inst J* 159:360-75 Ag '48

Further work on the phosphorus reaction in basic steelmaking. P. Vajragupta, *Iron & Steel Inst J* 158:494-6 Ap '48

Industrial application of Geiger-Müller counters to the analysis of phosphorus in steels. F. R. Bryan and G. A. Nahstoll, *bibliog* *Opt Soc Am J* 38:510-17 Je '48

Laboratory investigation of the phosphorus reaction in the basic steelmaking process. K. Balajiva and others, *bibliog* *diags* *Iron & Steel Inst J* 153:115-45, pl 5-6; Discussion, 145-50 no 1 '46

Prices

Alloy steel customers still shuddering at extra increases. D. I. Brown, *Iron Age* 161:98-9 Ja '48

Anti-inflation plan fails; U.S. Steel forced to raise wages, prices, *Iron Age* 162:121+ JI 22 '48

Average monthly quotations in 1947, *Steel* 122:328 Ja 5 '48

Bars, sheets, plates, strips, etc.; monthly, 1929-1947; tabulations, *Iron Age* 161:274+ Ja 1 '48

Basing point hearing resumed, *Steel* 122:73 Ap 26 '48

Basing point system, G. F. Sullivan, *Iron Age* 161:220-7 Ja 1 '48

Basing points; the great muddle, *il* map *Fortune* 38:73-9 S '48

British iron and steel prices; Jan. and Nov. 1947; tabulation, *Steel* 122:326 Ja 5 '48

Chaos seen if multiple basing point sales system is outlawed, G. F. Sullivan, *Iron Age* 161:123-4 My 6 '48

Defends boost in semi-finished steel prices, B. F. Fairless, *Comm & Fin Chr* 167:1011+ Mr 4 '48

Details on steel prices, *Iron Age* 161:125A+ My 6 '48

Details on U.S. Steel price cuts astound other steel firms; Inland Steel slashes prices, *Iron Age* 161:125B My 6 '48

Drive to legalize basing point, *Steel* 123:39-40 S 27 '48

Elimination of steel basing point system would have varying effect on consuming industries, E. A. Knight, *map* *Materials & Methods* 23:51-4 JI '48

Expects prices to hold, E. G. Grace, *Steel* 123:51 Ag 9 '48

Export price revisions are issued for main carbon steel products, *Iron Age* 161:118 Ja 29 '48

FTC appraising cease and desist order aimed at steel selling, G. Hardy, *Iron Age* 161:123 Je 17 '48

Federal trade commission issues list of don'ts on basing point, G. Baker, *Iron Age* 162:117-18 O 21 '48

FTC states policy on pricing methods, *Steel* 123:40-1 O 25 '48

FTC steel case analyzed; price-fixing main charge, E. J. Hardy, *Iron Age* 161:104+ F 26 '48

FTC steel hearing seen another legal marathon, E. C. Kreutzberg, *Steel* 122:53-5 F 16 '48

Finished steel composite price, monthly, 1929, 1936-47; tabulation, *Iron Age* 161:238 Ja 1 '48

Finished steel price record; weighted price composite, 1938-47; price changes, 1937-47; annual price averages, 1927-47; tabulations, *Steel* 122:329 Ja 5 '48

French iron and steel prices; Jan. and Nov. 1947; tabulation, *Steel* 122:326 Ja 5 '48

Furor follows price advance in semifinished, *il* *Steel* 122:59-60+ Mr 1 '48

Guide for steel buyers under the new f.o.b. pricing system; geographical location of facilities for producing principal steel products; tabulation, *Steel* 123:62-3 JI 19 '48

Guide to steel industry's new pricing system, *maps* *Steel* 123:47-62 S 27 '48

Iron and steel prices, *Engineer* 185:123; 186: 218 Ja 30, Ag 27 '48

Iron and steel prices, first quarter 1948, E. I. Eaton, *Mo Labor R* 66:524-6 My '48

Majority of steel users favor retention of basing point system, T. Campbell, *Iron Age* 162:119-21 JI 1 '48

Metal fabricators hope Pittsburgh answer to f.o.b. problem; consider relocation of plants, S. Smoke, *Iron Age* 162:127-8 JI 29 '48

New f.o.b. steel price system boosts freight charges, has little effect on oil equipment, G. Dietrich, *Nat Pet N* 40:15-16 Ag 11 '48

Objective of Capehart committee to clarify confusion on pricing, W. Simon, *Iron Age* 162:128-30 O 28 '48

Price front quiet, *Bsns W* p24 My 8 '48

Proposed steel order is misunderstood, L. C. Paulson, *Iron Age* 162:123 JI 1 '48

Revolutionary changes feared in steel markets, due to Supreme Court decision in cement case, outlawing multiple basing point pricing, *Steel* 122:53-5+ My 3 '48

Short-run economic effects seen small in steel's pricing change, *Am Mach* 92:132-3 S 9 '48

Stainless producers study new revisions of extra schedules, J. Anthony, *Iron Age* 162:113-14 O 28 '48

Steel consumer pays the freight; industry adopts f.o.b. pricing system reluctantly, *Steel* 123:59 JI 12 '48

STEEL—Prices—Continued

- Steel consumers study marketing map; shift to f.o.b. prices and price boosts confuse buyers, map Bsns W p62+ Ag 7 '48
- Steel extra increases since war show tremendous variation, D. I. Brown, Iron Age 161:187+ Mr 11 '48
- Steel extras; why they exist and how to save on them, H. A. Knight, Materials & Methods 27:61-5 F '48
- Steel for automobiles advanced 34 per cent between 1940 and 1947, G. Sullivan, Iron Age 161:123 Ap 15 '48
- Steel industry abandons basing-point pricing, il Bsns W p 19-20 Jl 10 '48
- Steel industry poised to plunge into f.o.b. mill sales system, T. Campbell, Iron Age 162:120-20 Jl 8 '48
- Steel is key to all price control, says OPA study, E. J. Hardy, Iron Age 160:108+ N 13 '47
- Steelmen face price problem, Bsns W p25 Je 5 '48
- Steel men say FTC order leaves the basic problem unsolved, G. F. Sullivan, Iron Age 161:119-20 Je 24 '48
- Steel price boost to lift metalworking costs, Steel 123:37-9 Jl 26 '48
- Steel price increases vary among producers, Iron Age 162:121-4 Jl 29 '48
- Steel price maze unwinding, Bsns W p25-6 Jl 17 '48
- Steel price reductions spread as industry fights inflation, Steel 122:61-2 My 10 '48
- Steel price rise backfires, Bsns W p20 F 28 '48
- Steel prices, Economist 155:347 Ag 28 '48
- Steel prices nudge upward, Bsns W p36 O 23 '48
- Steel pricing change, a slow bomb, F. B. Dezenford and H. S. Taylor, map Barron's 28:5-6 Jl 19 '48
- Steel pricing change snap for mills, headache for consumers, D. I. Brown, Iron Age 162:119-20 Jl 22 '48
- Switch to f.o.b. mill steel sales brings up complex questions, G. F. Sullivan, Iron Age 162:125-6 Jl 15 '48
- Truman board hits price rise, Steel 122:40 Mr 22 '48
- U.S. Steel and other firms name new f.o.b. mill prices on steel, Iron Age 162:122+ Jl 22 '48
- U.S. Steel denies demand for wage increase and will cut prices instead, B. F. Fairless, Comm & Fin Chr 167:1833 Ap 29 '48
- U.S. Steel leadership prepared to answer challenges of critics, T. Campbell, Iron Age 162:119-20 Jl 29 '48
- U.S. Steel subsidiaries' new prices, Steel 122:56+ My 3 '48
- U.S. Steel to cut prices May 1, Steel 122:74 Ap 26 '48
- Warehouses brewing stormy reaction over discount elimination, J. Anthony, Iron Age 162:183-4 O 14 '48
- What the industry thinks about f.o.b. mill steel; higher car and truck prices seen as result, L. Westrate, Automotive Ind 99:25+ Ag 1 '48

Protection

- Aluminum coating of steel, A. Di Giulio, il Light Metal Age 6:3-9 Je '48
- Anticorrosive compositions; abstract, F. Fancutt and J. C. Hudson, Paint Oil & Chem R 110:56+ O 16 '47
- Cementiferous paints, J. E. O. Mayne and R. S. Thornhill, bibliog diag Iron & Steel Inst J 58:219-23 F '48
- Chromising steel surfaces, G. Black and E. Rosen, diags Metal Finishing 46:70-2 Ag '48
- Coating steel with nickel by immersion in nickel chloride solutions, W. A. Wesley and H. R. Copson, bibliog il Electrochem Soc J 94:20-31 Jl '48
- Copper-titanium alloy coatings on mild steel, E. J. Chapin and C. R. Hayward, bibliog il diag Am Soc for Metals Trans 38:909-66 '47
- Corrosion in isomerization of light hydrocarbons by aluminum chloride-hydrocarbon complex catalyst, N. Fragen, C. W. Nysewander and W. R. Hertwig, flow diag il diag Ind & Eng Chem 40:1133-8 Je '48

- Electrodeposition and properties of tin-zinc alloys, J. W. Cuthbertson and R. M. Angles, bibliog il Electrochem Soc J 94:73-98 Ag '48
- Impregnating steel with aluminum improves corrosion resistance and conductivity; Mollerizing, Steel 123:110 Ag 23 '48
- Inhibition of steel corrosion by sodium nitrite in water, M. Cohen, bibliog diags Electrochem Soc J 93:26-39 Ja '48
- Low temperature phosphate coating for steel easily applied; Grandolizing process, N. P. Gentieu, il Materials & Methods 27:74-5 F '48
- Magnetic measurement of the thickness of composite copper and nickel coatings on steel, A. Brenner and E. Kellogg, il J Res Nat Bur Stand 40:295-9 Ap '48
- Marine exposures of cementiferous painting schemes, K. A. Pyefinch, Iron & Steel Inst J 158:229-35 F '48
- Nitric acid versus construction materials; protective coatings for steel, Chem Eng 55:220 Ap '48
- Phosphate coating of steel; abstract, N. F. Murphy and M. A. Streicher, Steel 123:116+ Ag '48
- Pre-tinning as a base for paint; abstract, Materials & Methods 26:118-19 D '47
- Principles or cathodic protection design, L. P. Sudrabrin and F. P. Macdonald, bibliog Am Water Works Assn J 40:489-94 My '48
- Process sheet for chromising steel; reference book sheet, G. Black, Am Mach 92:123 Jl 29 '48
- Protection of iron and steel against corrosion; discussion, il Iron & Steel Inst J 157:349-68 N '47
- Protection of steel by various non-metallic coatings; J. C. Hudson and T. A. Banfield, il 2pls Iron & Steel Inst J 158:99-110 Ja '48
- Protective metallic coatings from molten salts, H. R. Hoge, il Metal Prog 52:819-23 N '47
- Rate of breakdown and mechanism of nitrite inhibition of steel corrosion, R. Pyke and M. Cohen, Electrochem Soc J 93:63-78 Mr '48
- Recent developments in paints for the petroleum industry, G. W. Oxley, Oil & Gas J 47:93-6 Jl 8 '48
- Service trials of painting schemes applied to a steelworks gantry, J. C. Hudson, 2pls Iron & Steel Inst J 158:50-6 My '48
- South Wales laboratories at Sketty Hall; British iron and steel research association, il plans Metallurgia 37:259-63 Mr '48
- Tin-coating steel; abstract, Mech Eng 69:938-9 N '47
- See also
Bonderizing
Calorizing

Steel—Cathodic protection**Rimmed steel**

- Practices affecting yields and surface quality of rimmed and semi-rimmed steel, L. R. Silliman, il Blast F & Steel Pl 36:550-4, 691-4 My-Je '48

Scaling

- Determining the origin of surface defects in rolled-steel products, V. E. Elliott and C. L. Mayette, il Ry Age 124:474-6 Mr 6 '48; Same, Steel 122:92+ Mr 29 '48
- Electrolytic descaling, C. A. Zapffe, il Metal Prog 53:833-6 Je '48
- Induction heating triples die life by reducing scales on billets for forging tractor track links, J. M. Butler, il Steel 122:98+ Ja 19 '48; Same, Mach 54:156-7 Ja '48
- Lukens initiates its new descaling plant, Paper Tr J 126:24 F 12 '48

Specifications

- Automotive steel users report experience with H-band specs, S A E J 56:17-19+ O '48; Same cond, Steel 123:81+ N 1 '48
- Iron and steel specifications in Russia, Metallurgia 37:313-20 Ap '48
- Practical application of hardenability specifications, H. E. Knowlton, bibliog Iron Age 161:72, 158 Je 3 '48

Standards

- A.I.S.I. standard alloy steel compositions, revised Oct. 1947; data sheet, Metal Prog 53:240B F '48

STEEL—Standards—Continued

Postwar SAE steels; expanded steel specification tables. S A E J 55:17-23 N; 59:61 D '47
Standard carbon and free cutting steels; revised Oct. 30, 1947; data sheet. Metal Prog 53:544B Ap '48

Strength

Creep and creep-rupture testing. G. V. Smith and others. diags Steel 121:88-90+ D 8 '47
Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel. S. H. Weaver. Am Soc T M Proc 46:856-66; Discussion. 867-9 '46
Effect of composition on the fatigue strength of decarburized steel. L. R. Jackson and T. E. Pochapsky. diags Am Soc for Metals Trans 39:45-57; Discussion. 57-60 '47
Effect of residual tension stress on the fatigue strength of mild steel. L. D. Hall and E. R. Parker. *il* Welding J 27:sup421-5 Ag '48
Effect of temperature and welding conditions on the strength of large welded tubes. G. E. Troxell and others. *il* diags Welding J 27:sup34-49; Discussion. J. Vasta. sup49+ F '48
How processing affects bolt fatigue strength. N. B. Green. *il* Machine Design 19:138-40 D '47
Impact strength of single bead arc weld deposits as affected by temperature. R. Eisenberg and R. J. Raudebaugh. *il* diag Welding J 27:sup43-5 S '48
Mechanical properties of cast low alloy steels. M. F. Hawkes. bibliog *il* diags Am Soc for Metals Trans 39:1-40; Discussion. 41-4 '47
New steel features high strength and high toughness; HY-Tuf. P. Payson and A. E. Nehrenberg. bibliog *il* Iron Age 162:64-71 O 21; 74-80+ O 28 '48
Recent developments concerning the properties of cast steels. C. W. Briggs. A S M E Trans 70:37-47 Ja '48
Selecting alloy structural steels for high-toughness applications. B. S. Lement. bibliog Iron Age 160:80-4 D 25 '47
Strength limitations in the use of SAE 4340 steel forgings. E. J. Rippling and L. J. Ebert. bibliog diags Iron Age 162:88-93 Ag 5 '48
Versatility of high-strength steels; abstract. H. M. Priest. Steel 121:104 N 17 '47
What is strength? J. B. Caine. Foundry 76: 80-1+ J1; 100-1+ Ag '48

Sulfur content

Source of sulphur entering steel disclosed by radioactive tracers; other applications. Steel 122:112 Ap 26 '48
Sulphur control is big problem in open hearths; abstract. H. E. Warren. Steel 123:108 J1 5 '48

Testing

Change in mechanical properties of mild steel under repeated impact. F. V. Warnock and J. A. Pope. bibliog *il* diags Inst Mech Eng J & Proc 157 (War emergency issue no 26):33-44; Discussion. 45-51 '47
Cleavage fracturing and transition temperatures of mild steels. A. B. Bagsar. *il* diags Welding J 27:sup 123-31 Mr '48
Cleavage patterns disclose toughness of metals. C. A. Zapffe and others. *il* Science 108:440-1 O 22 '48
Climatic effects on the corrosion of steel. J. Dearden. bibliog Iron & Steel Inst J 159: 241-6 J1 '48
Deformation of metals during single and repeated tensile impact. J. A. Pope. bibliog *il* diags Iron & Steel Inst J 157:31-54 S '47; Discussion. 158:215-18 F '48
Detection of cracks in hardened steel; Magnaflux inspection and Zyglol. Mach 54:165 Ap '48
Detection of cracks in steel by means of supersonic waves. C. H. Desch and others. bibliog diags Iron & Steel Inst J 153:319-41, pl 21-30, no 1 '46; Same. Welding J 26:sup 1-25 Ja '47; Discussion. Iron & Steel Inst J 153:344-53, pl 30A-30B no 1 '46
Development of cleavage fractures in mild steels. A. B. Bagsar. bibliog *il* diags A S M E Trans 70:751-77 O '48; Same. Welding J 27:sup97-123 Mr '48; Discussion. A S M E Trans 70:777-809 O '48

Effect of the manganese/carbon ratio on the brittle fracture of mild steel. W. Barr and A. J. K. Honeyman. 4pls Iron & Steel Inst J 157:239-52 O '47
Effect of variations in welding technique on the transition behavior of welded specimens. C. E. Jackson and W. J. Goodwin. *il* diag *il* Welding J 27:sup253-66 My '48
Effects of microstructure on the mechanical properties of steel. J. H. Hollomon and others. bibliog *il* diags Am Soc for Metals Trans 38:807-44; Discussion. 844-7 '47
Fatigue tests on crankshaft steels. P. H. Frith. bibliog 2pls *il* diags Iron & Steel Inst J 159:385-409 Ag '48
Influence of strain aging on the fracture stress of low-carbon steel. D. J. McAdam, Jr. and others. bibliog Metals Tech 15:TP2318 1-11 Ja '48
Laboratory corrosion tests for steels; first report of the methods of testing (corrosion) sub-committee; summary. Engineering 165: 619 Je 25 '48
Magnetic particle inspection of silver-plated or phenolic resin coated steel. V. H. McBride. *il* Metal Prog 53:691-2 My '48
Micro-examination and electrode-potential measurements of temper-brittle steels. D. McLean and L. Northcott. 6pls Iron & Steel Inst J 158:169-77 F '48
Salvage operations simplified by magnetic analysis. A. D. Stout, Jr. *il* Iron Age 162: 86-7 J1 '48
Some factors affecting the notched-bar impact properties of mild steel. W. Barr and A. J. K. Honeyman. 2pls Iron & Steel Inst J 157:243-6 O '47; Discussion. 158:327-36 Mr '48; Engineering 164:498-9 N 21 '47
Study of the damaging effect of fatigue stressing on X4130 steel. J. A. Bennett. bibliog diags Am Soc T M Proc 46:693-711; Discussion. 712-14 '46
Study of the tension test. E. R. Parker and others. bibliog *il* diags Am Soc T M Proc 46:1159-74; Discussion. 1175-8 '46
Subzero treatments for carburized medium-alloy parts. J. C. Selby and E. S. Rowland. *il* Metal Prog 53:667-71 My '48
Tensile testing. F. W. Sowa. Iron Age 161: 68-9 Ja 22 '48
Torsion tests on sheet-bar steel; abstract. F. Eisenkoib. Engineer 185:305 Mr 26 '48
Whirl pit testing. *il* Sci Am 178:79 F '48
See also
Boiler plates—Testing
Rails—Testing
also subdivision Testing under various Steel headings, e.g.
Steel, Aircraft— Testing
Steel castings—Testing
Steel plates—Testing
Tool steel—Testing
Temperature effect
Abnormal creep in carbon steels; effect of manganese, silicon and molybdenum. J. Glen. *il* Iron & Steel Inst J 155:501-12 Ap '47; Abstract. Metal Prog 52:280+ Ag '47; Discussion. Iron & Steel Inst J 157:579-86; 160:143-50 D '47, O '48
Apparent influence of grain size on the high temperature properties of austenitic steels. C. L. Clark and J. W. Freeman. *il* Am Soc for Metals Trans 38:148-69; Discussion. 169-79 '47
Brittle transition temperatures of various low-carbon steels welded by the same method. N. Grossman and C. W. MacGregor. *il* diags Welding J 27:sup267-71 My '48
Changes in austenitic chromium-nickel steels during exposures at 1100 to 1700 F. P. Payson and C. H. Savage. bibliog *il* Am Soc for Metals Trans 39:404-39; Discussion. 439-52 '47
Comparison of the brittle transition temperatures as determined by the Charpy impact and the M.I.T. slow bend tests. C. W. MacGregor and N. Grossman. bibliog *il* diags Welding J 27:sup 16-19, sup 159-60 Ja, Mr '48
Creep and creep-rupture testing. G. V. Smith and others. diags Steel 121:88-90+ D 8 '47
Creep properties of molybdenum, chromium-molybdenum, and molybdenum-vanadium steels. J. Glen. bibliog Iron & Steel Inst J 158:37-80 Ja '48; Discussion. 160:143-50 O '48

STEEL—Testing—Temperature effect—Cont.

- Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel. S. H. Weaver. *Am Soc T M Proc* 46:856-66; Discussion. 867-9 '46
- Effect of combined stresses on the transition temperature for brittle fracture. C. W. MacGregor and N. Grossman. *bibliog* *il diags Welding J* 27:sup7-16 Ja '48
- Effect of temperature and welding conditions on the strength of large welded tubes. G. E. Troxell and others. *il diags Welding J* 27:sup24-49; Discussion. J. Vasta. *sup49+* F '48
- Effect of variation in notch severity on the transition temperature of ship plate steel in the notched bar impact test. R. S. Zeno and J. R. Low, jr. *il Welding J* 27:sup145-7 Mr '48
- Factors affecting the weldability of carbon and alloy steels. C. M. Offenbauer and K. H. Koopman. *il diags Welding J* 27:sup234-52 My '48
- Graphitization of steel at elevated temperatures. A. B. Wilder. *Heating-Piping* 19:108 D '47
- High-temperature corrosion of stainless steels; parts of a gas turbine locomotive. W. E. Fontaine. *il diag Metal Prog* 54:332-6 S '48
- Impact strength of single bead arc weld deposits as affected by temperature. R. Eisenberg and R. J. Raudebaugh. *il diag Welding J* 27:sup433-5 S '48
- Influence of low temperatures on the mechanical properties of 18-8 chromium-nickel steel. D. J. McAdam, jr. and others. *bibliog J Res Nat Bur Stand* 40:375-92 My '48
- Low-temperature creep of steel. A. Portevin. *il Metal Prog* 54:188-9 Ag '48
- Low-temperature test at Air reduction apparatus research laboratory. *il Mech Eng* 70:449 My '48; *Welding J* 27:456-7 Je '48; *Steel* 122:104 Je 28 '48
- Meaning and measurement of transition temperature. R. D. Stout and L. J. McGeady. *bibliog diag Welding J* 27:sup299-302 Je '48
- Measurement of Young's modulus at high temperatures. M. H. Roberts and J. Northcliffe. *diags Iron & Steel Inst J* 157:345-8 N '47
- Some new aspects of the fatigue of metals brought out by brittle transition temperature tests. C. W. MacGregor and N. Grossman. *bibliog il diag Welding J* 27:sup132-43 Mr '48; Discussion. 27:sup143-4, 428-32 Mr, Ag '48
- Some properties of low carbon 8½ per cent nickel steel; abstract. T. N. Armstrong and G. R. Brophy. *Pet Processing* 2:883 N '47
- Spheroidization of molybdenum steel in high temperature service. R. F. Miller and others. *il Metal Prog* 53:83-6 Ja '48
- Stress-rupture characteristics of various steels in steam at 1200 F. J. T. Agnew and others. *il diag Purdue Univ Eng Exp Sta. Research Ser* 101:1-60 *bibliog*(p58-9) '47 (pa 50c)
- Study of the properties of 0.5 per cent chromium, 0.5 per cent molybdenum pipe steel. R. C. Fitzgerald and others. *il Welding J* 27:sup457-69 S '48
- Temperature variation of Young's modulus of various steels. F. W. Jones and J. Northcliffe. *Iron & Steel Inst J* 157:535-6 D '47
- Temperatures transition in ductility of steel. W. P. Roop. *diags Welding J* 26:sup748-52 D '47

Transportation

- Pittsburgh may double barge shipments of steel within two years. T. S. Blair. *Iron Age* 162:119-20 Ag 12 '48
- Rail rate raises chase midwestern shippers to Illinois waterway. D. I. Brown. *map Iron Age* 161:119-21 My 20 '48
- River radar promises faster tows for mills and fabricators. *il map Iron Age* 160:121-2 D 25 '47
- Soaring rail freight rates foster rail vs. truck comparisons. G. F. Sullivan. *Iron Age* 161:111-12 F 12 '48
- State laws stymie efficient use of trucks for hauling steel. E. J. Hardy. *Iron Age* 162:104+ J1 1 '48
- Steel shipping changes limited. *Steel* 123:45 Ag 23 '48

Welding

- Brittle transition temperatures of various low-carbon steels welded by the same method. N. Grossman and C. W. MacGregor. *il diags Welding J* 27:sup267-71 My '48
- Caustic cracking of welded steel plate; reboiler in refinery at Port Arthur, Texas. H. M. Wilten. *il Metal Prog* 52:803-5 N '47
- Cleavage fracturing and transition temperatures of mild steels. A. B. Bagsars. *il diags Welding J* 27:sup123-31 Mr '48
- Clinical approach to weldment design. G. von Stroh. *il diags Welding J* 27:207-16 Mr '48; Same cond. *Steel* 122:68-72+ Ja 19 '48
- Comparative behavior of mild steel welds made with E 6010 and E 6016 electrodes. F. W. Daniels and others. *bibliog il diags Welding J* 27:sup436-40 S '48
- Design of arc-welded steel and its relation to costs. R. H. Davies. *il diags Welding J* 26:1087-90 D '47
- Development of cleavage fractures in mild steels. A. B. Bagsars. *bibliog il diags A S M E Trans* 70:751-77 O '48; Same. *Welding J* 27:sup97-122 Nov '48; Discussion. A S M E Trans 70:777-808 O '48
- Development in the welding of armor; abstract. T. L. H. Butterfield. *Metal Prog* 53:864+ Je '48
- Effect of manganese and molybdenum on the microstructure and mechanical properties of low-alloy ferritic weld metal. W. G. Benz, jr. *diags Welding J* 26:sup742-8 D '47
- Effect of residual tension stress on the fatigue strength of mild steel. L. D. Hall and E. R. Parker. *il Welding J* 27:sup421-5 Ag '48
- Effect of temperature and welding conditions on the strength of large welded tubes. G. E. Troxell and others. *il diags Welding J* 27:sup24-49; Discussion. J. Vasta. *sup49+* F '48
- Extent of peening weld deposits for stress relief. J. L. Morris. *bibliog il diags Welding J* 27:sup148-58 Mr '48
- Factors affecting the weldability of carbon and alloy steels. C. M. Offenbauer and others. *il diags Welding J* 27:sup234-66 My '48
- Fatigue tests of spot welds; improvement of their endurance limit by hydrostatic pressure. G. Welter. *bibliog il diags Welding J* 27:sup285-98 Je '48
- Graphitization and failure of steel in service. *Welding J* 27:sup29 Ja '48
- Heat treatment of spot welds in steel plate. W. F. Hess and others. *bibliog il diags Welding J* 26:sup641-52 N '47
- How to weld clad steels. L. W. Williams. *il diags Iron Age* 162:72-80 J1 22; 82-8 J1 29 '48
- Hydrogen embrittlement in oxyacetylene pressure welding? K. B. Young and H. J. Nichols. *il Welding J* 27:sup30-2 Ja '48
- Laying of flat bead increases production; fabrication of cabinets for teletype printers. *il Steel* 122:100 Ja 19 '48
- Metallurgical aspects of carbon steel spot welding. J. Heuschkel. *il diag Steel* 122:93-5+ Mr 15; 67-9+ Mr 22 '48
- Open-butt pressure welding of steel. H. R. Clauser. *il diags Materials & Methods* 27:83-6 Ja '48
- Practical importance of hydrogen in metal-arc welding of steel. S. A. Herres. *bibliog il diags Am Soc for Metals Trans* 39:162-89; Discussion. 189-92 '47
- Preheating for welding is heat treatment. *Roads & Sts* 91:103+ Ag '48
- Pressure welding propeller barrels. G. W. Motherwell and others. *bibliog il diags Welding J* 26:994-1001 N '47
- Research on arc-welded butt joints of mild steel. G. Welter. *il diags Welding J* 27:sup321-69 J1 '48
- Some thermodynamical aspects of the formation of inclusions in mild-steel weld metal. E. C. Rollason and E. Bishop. *bibliog Iron & Steel Inst J* 153:161-8 F '48
- Spot welding of mild steel in production. N. E. Wheeler. *il Welding J* 27:613-14 Ag '48
- Study of projection welding. W. F. Hess and W. J. Childs. *il diags Welding J* 26:sup712-23 D '47

STEEL—Welding—Continued

Submerged melt welding of hardenable steels. E. A. Clapp and E. L. Frost. *il Welding J* 26:1079-82 D '47

Tests on flow and fracture of welded and unwelded tubes of steel. L. V. Griffiths and others. *il diags Welding J* 27:sup 161-8+ Ap '48

Thermal resistance of metal contacts. W. B. Kouwenhoven and J. H. Potter. *bibliog il diags Welding J* 27:sup 15-20 O '48

Three-part refrigerator liners joined in one operation; Seeger refrigerator co. *il Steel* 122:78 Mr 29 '48

Use of carbide-stabilizing elements to improve weldability of plate steels. F. F. Franklin. *bibliog il Welding J* 27:sup 20-6 Ja '48

Weldability of steels and a new weld-cracking test. P. L. J. Leder. *il diags Engineering* 165:573-5, 582-3 Je 11-18 '48

Welding in assembly line production of refrigerator cabinets. F. Bowman. *il Welding J* 26:1083-6 D '47

Welding screw shafts to castings; adjusting screws for presses. P. H. Setzler. *il Iron Age* 162:93-4 Ag 26 '48

Welding stresses dissipated by low-temperature process. T. W. Greene. *il Steel* 123:78-82 Ag 9 '48

See also

Steel, Stainless—

Welding

Steel, Structural—

Welding

Steel construction—

Welding

STEEL, Aircraft

Principal applications of aircraft alloy steels; tabulation. *Aviation W* 47:29 D 22 '47

Structural alloy steels in the air age. A. W. F. Green; L. D. Bonham. *il Metal Prog* 54:491-6 O '48

Testing

Impact strength and hardness of aircraft alloys down to -423° F. M. G. Fontana and J. L. Zambrow. *il diags Metal Prog* 53:97-101 Ja '48

Metallurgical and structural investigation of steel castings for aircraft. L. W. Smith and L. D. Morris. *il diags Am Soc for Metals Trans* 33:848-74; Discussion. 874-8 '47

STEEL, Automobile

Alloy steel industry; its early history. *il Iron Age* 162:148-54+ O 14 '48

Auto makers owning steel plants have best production records. W. G. Patton. *Iron Age* 160:133-4 D 11 '47

Automobile steel buyers are leaning toward broader use of H hardenability bands. W. G. Patton. *Iron Age* 162:110 O 7 '48

Automotive steel users report experience with H-band specs. S. A. E. J 56:17-19+ O '48; Same cond. *Steel* 123:31+ N 1 '48

Cold extrusion of steel now being investigated for automotive use. R. C. Mack. *il diags Automotive Ind* 97:40-1+ N 1 '47

Latest uses of alloy steels in motor vehicles. M. J. Day. *Automotive Ind* 98:26-7+ Ap 1 '48

Low-alloy steels for vehicle construction. F. J. Erroll. *Automobile Eng* 33:289-90 Ag '48

Practical usage of low alloy high tensile steels in automotive structures; abstracts. C. L. Altenburger. *il S A E J* 56:21-3 Jl '48; *Automotive Ind* 98:32 F 1 '48

Present-day approach to the choice and application of automotive steels. W. E. Jominy. *bibliog diags Steel* 122:82-6+ Mr 8 '48; Abstracts. S. A. E. J 56:40-8+ Ap '48; *Machine Design* 20:192+ My '48

Role of alloy steels in the automotive industry. W. F. Sherman. *il Metal Prog* 54:497-501 O '48

Shipments of steel to automobile industries. 1941-'46-'47; tabulation. *Automotive Ind* 99:41 Ag 15 '48

Steel and aluminum for automotive products compared. D. F. Toot. *il Materials & Methods* 28:69-73 O '48; Same cond. S. A. E. J 56:59-62 Ag '48

Steels classified for automotive gears. J. R. England and O. F. Hager. *Automotive Ind* 97:38+ N 1 '47

STEEL, Clad

Clad metals makers raise sights to capture new markets. G. F. Sullivan. *Iron Age* 160:137-9 D 11 '47

Clad steels reduce corrosion. W. G. Thiesinger. *il Oil & Gas J* 46:275+ Ap 1 '48

How to weld clad steels. L. W. Williams. *il diags Iron Age* 162:72-80 Jl 22; 82-8 Jl 29 '48

New welder makes clad pressure vessel plates. *Steel* 121:126 D 1 '47

See also

Steel, Copper clad

Steel, Stainless clad

STEEL, Cold treatment of

Changes in size and toughness of high carbon-high chromium steels due to subzero treatments. L. E. Gippert and G. M. Butler, jr. *Am Soc for Metals Trans* 39:549-57; Discussion. 558-68 '47

How low temperature treatments affect properties of steel. H. W. Gillett. *il Product Eng* 18:81-4 D '47

Low temperature treatment of steel. H. E. Boyer. *Iron Age* 161:69-73+ F 12; 78-83 F 19; 85-90 F 26 '48

Subzero treatments for carburized medium-alloy parts. J. C. Selby and E. S. Rowland. *il Metal Prog* 53:667-71 My '48

STEEL, Cold working of

Cold extrusion of steel now being investigated for automotive use. R. C. Mack. *il diags Automotive Ind* 97:40-1+ N 1 '47

Cold work hardening properties of stainless steel in compression. F. K. Bloom and others. *bibliog il Am Soc for Metals Trans* 39:843-64; Discussion. 864-7 '47

Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling. C. A. Zapffe and O. G. Specht, jr. *bibliog Am Soc for Metals Trans* 39:193-211; Discussion. 212 '47

Fabricating steel hardware; fasteners and pole line hardware; Oliver iron & steel corp. *Steel* 121:86+ D 22 '47

Magnetic study of stainless-steel wires. P. T. Hobson and others. *bibliog Iron & Steel Inst J* 159:145-57 Je '48

New silicon strip cold mill; West Leeburg plant of the Allegheny Ludlum steel corp. F. R. Grant. *il Iron Age* 160:79-83 N 20 '47

Plastic deformation of carbon steels. R. Saxton. *il Metallurgia* 37:293-4 Ap '48

Pole figures of the effect of some cold rolling variables on low carbon steel. J. K. Wood. *il diags Am Soc for Metals Trans* 39:725-36; Discussion. 736-40 '47

Steckel patent suit nears end of road. *Bsns W* p26+ My 29 '48

Steel shapes formed by cold extrusion. K. Rose. *diags Materials & Methods* 27:68-71 My '48

Strain aging criteria. G. Sachs. *bibliog (72 titles) diags Iron Age* 161:78-83 My 13 '48

STEEL, Copper clad

Copper-covered steel proves useful for a variety of applications. H. A. Knight. *il Materials & Methods* 27:75-7 My '48

STEEL, Corrosion resisting

Alloy for corrosive jobs; super corrosion-resistant stainless steel that can be wrought. *Bsns W* p62-4 Ja 17 '48

Alloy steel in oil refineries. F. C. Braun. *il Metal Prog* 54:471-3 O '48

Corrosion-resistant steel for architectural and structural applications. H. A. Grove. *Am Soc T M Proc* 46:610-13; Discussion. 614-17 '46

Fluorine corrosion; high-temperature attack on metals by fluorine and hydrogen fluoride; behavior of insulated steel parts in fluorine cells. W. R. Myers and W. B. DeLong. *bibliog diags Chem Eng Prog* 44:359-62 My '48

Metallurgical methods for combating corrosion and abrasion in the petroleum industry. B. B. Morton. *bibliog 8 pls diags Inst Pet J* 34:1-59; Discussion. 59-86 Ja '48

New corrosion resistant alloy. *Metal Prog* 53:224-5 F '48

Special steels for the petroleum industry. R. Jackson and R. J. Sarjant. *bibliog pls diags Inst Pet J* 34:445-85 Jl '48

See also

Steel, Stainless

Testing

Atmospheric corrosion tests of corrosion-resistant steel wires. A. P. Jahn. *Am Soc T M Proc* 46:618-20 '46

STEEL, Corrosion resisting—Testing—Continued

- Atmospheric corrosion tests on corrosion-resistant steel. G. L. Snair, jr. *il Am Soc T M Proc* 46:642-51 '46
- Weathering behavior of corrosion-resistant steel insect screens. W. A. Wesley and H. R. Copson. *il Am Soc T M Proc* 46:652-65; Discussion. 666-72 '46

STEEL, Galvanized

- Applications of zinc coatings by hot dipping. R. Steele. *il Metal Finishing* 45:71-6 D '47

STEEL, Hardening of

- Atmospheres for clean hardening and carburizing. F. E. Harris. *il Metal Prog* 54:337-43 S '48
- Automotive steel users report experience with H-band specs. S A E J 56:17-19+ O '48
- Same cond. Steel 123:81+ N 1 '48
- Bainitic hardening of high speed steel. C. K. Baer and P. Payson. bibliog *il diags Am Soc for Metals Trans* 39:488-513; Discussion. 514-20 '47
- Boron steels in commercial heats; abstract. S A E J 56:77-9 Je '48
- Boron-treated steels. Blast F & Steel Pl 36:345-6+ Mr '48; Same. Franklin Inst J 245:437-40 My '48
- Bright hardening and tempering tiny parts. H. L. Hovis and A. W. Marks. *il Am Mach* 92:91-4 F 12; 112-15 F 26 '48
- Can hardenability bands be narrower? L. W. Cashdollar. *Metal Prog* 52:825-6 N '47
- Can you use lower priced alloy steels? A. S. Jameson. *Steel* 122:88-92+ Je 14 '48
- Changes in size and toughness of high carbon-high chromium steels due to sub-zero treatments. L. E. Gimpert and G. M. Butler, Jr. *Am Soc for Metals Trans* 39:549-57; Discussion. 558-68 '47
- Cold work hardening properties of stainless steel in compression. F. K. Bloom and others. bibliog *il Am Soc for Metals Trans* 39:843-64; Discussion. 864-7 '47
- Cooling time in Jominy bars to half-temperature. C. A. Liedholm. *Metal Prog* 51:266 F '47; Discussion. M. G. Corson. 52:828-9 N '47
- Current theories of the hardening of steel; discussion of A. Sauveur's papers. J. B. Austin. *il diags Metal Prog* 54:201-8 Ag '48
- Deep-penetration powder compound hardens cold-rolled, machine steel. *il Am Mach* 92:134 My 20 '48
- Dynamic hot hardness testing (with special reference to isothermal transformations). G. M. Enos and others. *il diag Metal Prog* 54:51-51 J '48
- End hardening of rail ends and open hearth frogs. R. W. Torbert. *il Welding J* 27:107-10 F '48
- Evaluation of boron-treated steels. W. F. Toerge. bibliog *il diag Steel* 121:93-8+ D 8 '47
- Hardenability. J. M. Vialle. *Engineer* 185:617 Je 25 '48
- Hardenability. P. R. Wray. *Iron Age* 160:84-9 D 11 '47
- Hardenability bands for H-steels; reference book sheets. *Am Mach* 91:155, 157, 159 N 6; 143, 145, 147 N 20; 135, 137 D 4 '47
- Hardenability control for alloy steel parts. A. L. Boegehold. *il diags Metal Prog* 53:697-709 My '48
- Hardenability of shallow hardening steels determined by the P-V test. B. K. Shepherd. *il diags Am Soc for Metals Trans* 38:354-85; Discussion. 385-97 '47
- Hardenability of steel; summary of symposium. *Engineering* 162:415 My 16 '47; Discussion. *Engineer* 183:445-7 My 23 '47; *Engineering* 163:437-8 My 23 '47; *Iron & Steel Inst J* 157:55-80; 158:210-15 S '47, F '48
- Inter-relationship of hardenability and isothermal transformation data. W. I. Pumphrey and F. W. Jones. bibliog *Iron & Steel Inst J* 159:137-44 Je '48
- Isothermal heat treatment aids bearing production. P. A. Cushman. *il Iron Age* 160:76-7 N 27 '47
- Ladle deoxidation of killed steel with silicon carbide and its effect on physical properties and hardenability. E. A. Loria and A. P. Thompson. bibliog *il Am Soc for Metals Trans* 39:651-65; Discussion. 665-9 '47

- Machining work-hardening steels. W. M. Halliday. *diags Metallurgia* 38:254-6 S '48
- Measuring the micro-hardness of steel. *il Mach* 54:166-7 Ja '48
- Mechanical properties of cast low alloy steels. M. F. Hawkes. bibliog *il diags Am Soc for Metals Trans* 39:1-40; Discussion. 41-4 '47
- Metallurgical aspects of ball bearing steels. A. S. Jameson. *il diag Iron Age* 162:72-3 S 2; 81-7 S 9; 88-92 bibliog(p92) S 15 '48
- Mill process for end-hardening rails. *il Ry Age* 125:554 S 18 '48
- New compound hardens steel. *il Eng & Min J* 149:110 JI '48
- Practical application of hardenability specifications. H. B. Knowlton. bibliog *Iron Age* 161:72-7, 158 Je 3 '48
- Present-day approach to the choice and application of automotive steels. W. E. Jominy. bibliog *diags Steel* 122:82-6+ Mr 8 '48; Abstract. S A E J 56:40-8+ Ap '48
- Relation of quenching rate and hardenability to the mechanical properties of several heat treated cast alloy steels. C. R. Wilks and others. bibliog *il diags Am Soc for Metals Trans* 38:437-68; Discussion. 468-70 '47
- Secondary hardening of tempered martensitic alloy steel. W. Crafts and J. L. Lamont. bibliog *il Metals Tech* 15:TP2439 1-42 S '48
- Some properties of titanium steels. L. Northcott and D. McLean. bibliog 2pls *Iron & Steel Inst J* 157:492-512 D '47; Discussion. 159:170-1 Je '48
- Tempering of high alloy tool steels. G. A. Roberts and others. bibliog *Am Soc for Metals Trans* 39:521-46; Discussion. 546-8 '47
- Tentative hardenability bands, 1320H to 4132H; charts; data sheet. *Metal Prog* 53:696B My '48
- Tentative hardenability bands, 4135H to 4340H; charts; data sheet. *Metal Prog* 53:840B Je '48
- Tentative hardenability bands, 4620H to 6150H; charts. *Metal Prog* 54:64B JI '48
- Tentative hardenability bands, 8617H to 8641H; charts. *Metal Prog* 54:200B Ag '48
- Tentative hardenability bands, 8642H to 8742H; charts; data sheet. *Metal Prog* 54:344B S '48
- Tentative hardenability bands, 8745H to 9445H; data sheet. *Metal Prog* 54:488B O '48
- Use of modified martempering for hardening intricately-shaped dies. W. Olson and G. Nevins. *il diags Steel* 121:38-9+ D 15 '47
- Vertical furnaces reduce labor costs 20 per cent in treating high-speed steel broaches. W. L. Gibbons. *il Materials & Methods* 28:77-9 S '48

See also**Case hardening****Steel, Quenching of****STEEL, Heat resisting**

- Heat-resistant alloys for use in jet propulsion engines. J. W. Freeman and others. bibliog *J Aeronautical Sci* 14:693-702 D '47
- High chromium nickel alloys; essential in dehydrogenation of butane and in butadiene processes; abstract. H. D. Newell. *Oil & Gas J* 46:279 Ap 1 '48
- High-creep strength austenitic steel for gas turbines. D. A. Oliver and G. T. Harris. *Engineering* 163:533-6 Je 20 '47; Abstracts. *Product Eng* 19:132-4 Ja '48; *Metal Prog* 53:584+ Ap '48
- High creep strength austenitic steel tubes for use in heat exchangers of gas turbines. G. T. Harris and W. H. Bailey. *il Metallurgia* 38:189-92 Ag '48
- High-temperature disk-forging developments for aircraft gas turbines. L. B. Fonda. *il diags A S M E Trans* 70:1-9; Discussion. 9-12 Ja '48
- Intermediate alloy steels at elevated temperatures. R. F. Miller. bibliog *Pet Eng* 19:178+ Ja '48
- Metallography and properties of high alloy hot work steels; abstract. P. Payson and A. E. Nehrenberg. *Steel* 122:76+ My 31 '48
- Problem of high temperature alloys for gas turbines. W. T. Griffiths. bibliog *il Roy Aeronautical Soc J* 52:1-20; Discussion. 20-6 Ja '48

STEEL, Heat resisting—Continued

Special steels for the petroleum industry, R. Jackson and R. J. Sarjant, bibliog pls diags Inst Pet J 34:445-85 J1 '48

STEEL, Heat treatment of

Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire, C. A. Zapffe and M. E. Haslem, Am Soc for Metals Trans 39:213-37; Discussion, 237-40 '47

Apparent influence of grain size on the high temperature properties of austenitic steels, C. L. Clark and J. W. Freeman, Il Am Soc for Metals Trans 38:148-69; Discussion, 169-79 '47

Atmospheres for the heat treatment of steel, F. E. Harris, Il Metal Prog 54:175-9, 337-43 Ag-S '48

Better steel devised for hubbing, A. L. Pranses, Il Am Mach 92:84-7 J1 29 '48

Brittle fracture in mild-steel plates, W. Barr and C. F. Tipper, Il diags 2pls Iron & Steel Inst J 157:223-38 O '47

Control of carbon content during heat treatment of steel in atmosphere furnaces, W. H. Holcroft and E. C. Bayer, Materials & Methods 28:59-61 Ag '48

Controlled vacuum heat treating; results of American gas association experiments, Il Steel 121:80-3+ N 24 '47

Dimensional instability affects design of precision equipment; stability of heat-treated steel parts, F. C. Victory, diags Am Mach 92:144-7 Mr 11; 112-15 Mr 25; 112-15 Ap 8 '48

Effect of carbide spheroidization upon the rupture strength and elongation of carbon-molybdenum steel, S. H. Weaver, Am Soc T M Proc 46:356-66; Discussion, 367-9 '46

Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling, C. A. Zapffe and O. G. Specht, jr, bibliog Am Soc for Metals Trans 39:193-211; Discussion, 212 '47

Effects of microstructure on the mechanical properties of steel, J. H. Hollomon and others, bibliog Il diags Am Soc for Metals Trans 38:807-44; Discussion, 844-7 '47

Experimental studies of continuous cooling transformations, C. A. Liedholm, bibliog Il diags Am Soc for Metals Trans 38:180-208 '47

Factors influencing the spheroidisation of steel, E. V. Tull, bibliog(48 titles) Metal-lurgia 38:257-62 S '48

Fundamentals of annealing low carbon steel, G. Sachs and others, Il Iron & Steel Eng 25:98-100 Ja '48

Fundamentals of forging practice; heat treatments and equipment, W. Naujoks, Il Steel 123:89-92+ S 27 '48

Heat treating 54-foot alloy bars; Spang-Chalfant division, National supply co, F. H. Bremner, Il Steel 122:77-8+ Ap 5 '48

Heat treating in vacuum; work sponsored by American gas association, J. Huebler, Metal Prog 53:720+ My '48

Heat-treating principles and their application to salt baths, H. Solakian, Il Am Mach 92: 96-8 Ap 8; 90-3 Ap 22; 118-21 My 6 '48

Heat treating special trackwork at Bethlehem's Steelton plant, Il Ry Age 124:1028-9 My 22 '48

Heat treatment of spot welds in steel plate, W. F. Hess and others, bibliog Il diags Welding J 26:sup641-52 N '47

How to select quenching and tempering oils for treating steel, E. L. H. Bastian, Il Steel 122:64-6+ Mr 22; 79-82+ Mr 29 '48

Hydrogen and transformation characteristics in steel, J. H. Andrew and others, bibliog 5pls diags Iron & Steel Inst J 156:208-53 Je '47; Discussion, 157:377-81; 158:437-46 N '47, Ap '48

Isothermal heat treatment, J. M. Hodge, diags Steel 123:92-4+ O 11 '48; Abstract, S A E J 56:18-21 S '48

Isothermal transformation of austenite, A. Hultgren, Il diags Am Soc for Metals Trans 39:915-89 bibliog(p986-9); Discussion, 989-1005 '47

Magnetic properties of generator rotors as affected by treatment, G. S. Downing and others, Il Metal Prog 53:235-40 F '48

Magnetic study of stainless-steel wires, F. T. Hobson and others, bibliog Iron & Steel Inst J 159:145-57 Je '48

New steel features high strength and high toughness; Hy-Tuf, P. Payson and A. E. Nehrenberg, bibliog Il Iron Age 162:74-80+ O 28 '48

Notch-tensile characteristics of a partially austempered, low alloy steel, G. Sachs and others, bibliog Il Metals Tech 15:TP2321 1-12 F '48

Occurrence and some effects of sigma phase in a molybdenum-bearing chromium-nickel austenitic steel, L. Smith and K. W. J. Bowen, Il 4pls diags Iron & Steel Inst J 158: 295-305 Mr '48

Practical heat treatment of high speed steel cutting tools, W. E. Bancroft and W. W. Wight, Il Metal Prog 53:545-55 Ap '48

Preheating for welding is heat treatment, Roads & Sts 91:103+ Ag '48

Principles of modern heat treating, R. M. Dyke, bibliog Il diags Steel 122:55-60+ Ja 26 '48

Progress in the heat treatment of steel, E. S. Davenport, Il Sci Am 178:148-53 Ap '48

Proper precautions eliminate cracking in tool steel heat treatment, S. D. Smoke, Il Materials & Methods 27:86-8 Mr '48

Recent developments concerning the properties of cast steels, C. W. Briggs, A S M E Trans 70:37-47 Ja '48

Resistance of sensitized stainless steels to boiling nitric acid, R. S. Stewart, Metal Prog 52:971-3 D '47

Results of research in controlled vacuum heat treating, J. Huebler, Il Ind & Eng Chem 40: 825-31 My '48

Selecting alloy structural steels for high-toughness applications, B. S. Lemert, bibliog Iron Age 160:80-4 D 25 '47

Steel heat treating processes and equipment, S. D. Smoke, Il Materials & Methods 27:93-104 Ap '48

Steels and their treatment, N. N. Brown, Il Machine Design 20:87-92+ O; 110-16+ N '48

Strength limitations in the use of SAE 4340 steel forgings, E. J. Ripling and L. J. Ebert, bibliog diags Iron Age 162:88-93 Ag 5 '48

Stress cracking of electroplated lockwashers, K. B. Valentine, Il Am Soc for Metals Trans 38:488-94; Discussion, 494-504 '47

Surface-temperature measurement, M. D. Hedgcock and R. Mayorcas, bibliog Il diags Iron & Steel Inst J 158:236-47 F '48

Swiss process for heat treating Cr-Si valves, Automotive Ind 99:64 N 1 '48

Technical progress in metalworking; heat treating, Steel 122:225-6+ Ja 5 '48

Tool and die materials; their selection, application and necessary treatment; sources, trade names and chemical analyses, Steel 123:98-100+ Ag 16; 82-4+ Ag 23; 64-6+ Ag 30; 96-100+ S 6; 106-10+ S 13; 92-4+ S 27; 84-6+ O 4 '48

Transverse mechanical properties in heat treated steel products; abstract, C. Wells and R. F. Mehl, Metal Prog 54:512+ O '48

Use of carbide-stabilizing elements to improve weldability of plate steels, F. F. Franklin, bibliog Il Welding J 27:sup20-6 Ja '48

Use of modified martempering for hardening intricately-shaped dies, W. Olson and G. Nevins, Il diags Steel 121:88-9+ D 15 '47

Uses of isothermal heat treatment, Materials & Methods 28:109 S '48

Welding stresses dissipated by low-temperature process, T. W. Greene, Il Steel 123: 78-82 Ag 9 '48

See also
Case hardening
Steel, Quenching of
Tempering

Bibliography

Modern heat treating; reference index with 105 titles, F. R. Morral, Iron Age 161:83-5 Je 10 '48

Wartime heat treating developments; Office of technical services reports, Iron Age 162: 80 J1 22 '48

STEEL, High speed. *See* Tool steel

STEEL, Molten

Chromium-oxygen equilibrium in liquid iron. H. Chen and J. Chipman, bibliog il diags Am Soc for Metals Trans 38:70-113; Discussion. 113-16 '47

Fluidity of steel; experimental investigations on fluidity/temperature relationships. R. Jackson and others, bibliog diags Iron & Steel Inst J 157:1-21 S '47; Discussion. 158: 448-51 Ap '48

Theoretical thermal studies of steel ingot solidification. V. Paschakis, diags Am Soc for Metals Trans 38:117-47 '47

STEEL, Quenching of

Evaluation of quenching oils by means of the end quench test. C. A. Siebert and G. Sandoz, Metals Tech 15:TP2353 1-6 Ap '48; Discussion. 15:TP2394 24-6 Je '48

Experimental studies of continuous cooling transformations. C. A. Liedholm, bibliog il diags Am Soc for Metals Trans 38:180-208 '47

Hardness and brittleness of quenched soft carbon steels. B. D. Enlund, bibliog Engineer 186:310-11 S 24 '48

High speed photographs of water jet in the end-quench test. R. A. Buchanan, il Metal Prog 54:180-1 Ag '48

Hot-quenching of steel. W. Connert and H. Kiessler, Engineer 185:616-17 Je '48

How to select quenching and tempering oils for treating steel. E. L. H. Bastian, il Steel 122:64-6+ Mr 22; 79-82+ Mr 29 '48

Interrupted quench and its practical aspects. H. E. Boyer, il Am Soc for Metals Trans 38:209-25; Discussion. 226-38 '47

Laboratory study of quench cracking in cast alloy steels. M. C. Udy and M. K. Barnett, il diags Am Soc for Metals Trans 38:471-85; Discussion. 485-7 '47

Mechanical properties of a nickel-chromium-molybdenum steel obtained by stepped quenching. G. Delbart and R. Potaszkin, 2pls Iron & Steel Inst J 157:527-35 D '47

Minimizing oil fire damage in quenching areas. F. C. Rodgers, il Steel 122:101-2+ Ap 19 '48

Practical aspects of quenching below the critical temperature; new case-hardening technique. W. H. Holcroft and H. J. Hammond, il plan Steel 122:106+ S 20 '48

Quenching steel in molten media. F. R. Morral, bibliog Steel 122:92-5+ Je 21 '48

Relation of quenching rate and hardenability to the mechanical properties of several heat treated cast alloy steels. C. R. Wilks and others, bibliog il diags Am Soc for Metals Trans 38:437-68; Discussion. 468-70 '47

Submarine quench technique; forming and hardening auto leaf springs; also used for bumper treatment. G. E. Stedman, il Steel 122:92-4 Je 7 '48

Tests of quenching and tempering oils. W. L. Nelson, Oil & Gas J 46:82 N 22 '47

STEEL, Reinforcing

Reinforcing marches to forms; handling cage of reinforcing bars. il Constr Methods 30:89 F '48

Testing

Laboratory measurements of stress distribution in reinforcing steel. D. McHenry and W. T. Walker, bibliog il diags Am Concrete Inst J 19:1041-54 Je '48; Excerpts. Concrete 56:30 Ap '48

Strength and slip under load of bent-bar anchorages and straight embedments in Haydite concrete. C. C. Fishburn, il diags Am Concrete Inst J 19:289-305 D '47

STEEL, Stainless

Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire. C. A. Zapffe and M. E. Haslem, Am Soc for Metals Trans 39:213-37; Discussion. 237-40 '47

Added facilities increase Republic's stainless steel capacity. R. T. Willson, il Blast F & Steel Pl 36:1203-6 O '48

Automatic spinning of stainless steel; cone for cathode ray television tube. A. Hildebrandt, il diags Tool Eng 21:20-2 S '48

Brazing stainless steel parts in hydrogen atmosphere. Blast F & Steel Pl 36:sup62 Ap '48; Steel 122:96 Ap 19 '48

Carbon brick tank linings used for pickling stainless steels. il Steel 123:101+ Ag 2 '48

Carpenter announces stainless steel in wrought forms. Chem & Eng N 26:268 Ja 26 '48

Chemical engineering materials of construction; stainless steels and other ferrous alloys. M. H. Brown and W. B. DeLong, il Ind & Eng Chem 40:1812-20 bibliog(232 ref, p 1818-20). O '48

Developments in metals and alloys for chemical plant equipment. W. Z. Friend, il Chem Eng Prog 44:507-8 Jl '48

Duplexing steel operation affords greater use of stainless scrap. In melt. D. Reebel, il plan diag Steel 122:90+ Je 28 '48

Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling. C. A. Zapffe and O. G. Specht, jr, bibliog Am Soc for Metals Trans 39:193-211; Discussion. 212 '47

Fabricating and finishing stainless steel. A. P. Schulze, bibliog il Metal Finishing 46:72-7 Ja; 59-64 F; 62-7+ Mr; 64-8+ My; 103-9 Je '48

Fabricating stainless steel. R. Nelson, il Sheet Metal Worker 39:57-60+ My '48

Fabrication of high nickel alloys and austenitic stainless steel. A. S. Tuttle, jr, Pulp & Pa of Can 49:74-80 Ap '48

High-temperature corrosion of stainless steels; parts of a gas turbine locomotive. W. E. Fontaine, il diag Metal Prog 54:332-6 S '48

Magnetic study of stainless-steel wires. P. T. Hobson and others, bibliog Iron & Steel Inst J 159:145-57 Je '48

Maintenance of stainless steel equipment in refineries. W. G. Renshaw, il Pet Processing 3:25-8, 155-6+ Ja-F '48

Manufacture and application of composite plates. O. R. Carpenter, il diags Welding J 27:779-87 Ap '48; Same cond. Steel 121: 64-6+ D 22 '47

Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zapffe and M. E. Haslem, bibliog Am Soc for Metals Trans 39:241-58; Discussion. 258-60 '47

New stainless steel process; changed furnace technique reported from South Africa. Chem Age (Lond) 58:464 Ap 3 '48

New technique in brazing of stainless-steel parts. Gen Elec R 51:47 Jl '48

New techniques in conditioning stainless steel. A. E. Hamilton, jr, il diag Iron & Steel Eng 25:78-84 F '48; Excerpts. Steel 121:106+ O 13 '47; Discussion. Iron & Steel Eng 25:85-7 F '48

Nitric acid versus construction materials. G. L. Snair, jr, Chem Eng 55:228+ Mr '48

Oxide replica technique for the electron microscope examination of stainless steel and high nickel alloys. E. M. Mahia and N. A. Nielsen, bibliog il J Ap Phys 19:378-82 Ap '48

Passivation of stainless steels; abstract. L. Guittion, Materials & Methods 27:109 F '48

Permanent stainless steel exhibit of staircase feature, il Sheet Metal Worker 39:56 Je '48

Postwar SAE steels. S A E J 55:59-61 D '47

Powder metallurgy of porous metals and alloys having a controlled porosity. P. Duwez and H. E. Martens, bibliog il diags Metals Tech 15:TP2343 1-27 Ap '48

Powder process in stainless steel production; oxyacetylene cutting with fluxing agent. C. J. Burch and E. M. Holub, il Iron & Steel Eng 25:43-51 Jl '48; Same cond. Blast F & Steel Pl 36:443-6 A '48; Discussion. Iron & Steel Eng 25:51-2 Jl '48

Precision cast stainless steel electrical parts reduce weight, save costs. H. C. Amtsberg, il Materials & Methods 28:73 S '48

Producing wide stainless-steel sheets at Republic steel corporation's new plant. il Mach 55:205-6 S '48; Steel 123:56-7 Ag 23 '48

Rapid routine method for testing stainless steels; procedure employing the Beckman spectrophotometer. J. B. Culbertson and R. M. Fowler, bibliog il Steel 122:108+ My 24 '48

Roughen stainless before nitriding. S. Dedomenico, il Am Mach 92:96-7 O 21 '48

STEEL, Stainless—Continued

Sodium chloride versus construction materials; stainless steel. G. L. Snair, Jr. Chem Eng 55:230-+ Ja '48

Sodium hydride effective in descaling stainless steel sheets. M. H. Lebowitz. II Steel 122:107-+ Ap 5 '48

Stabilization of austenitic stainless steels. Engineer 186:210-11 Ag 27 '48

Stabilization of austenitic stainless steel; abstract. S. J. Rosenberg and J. H. Darr. Metal Prog 54:520-+ O '48

Stabilizing stainless steel. II Chem Age (Lond) 59:457-8 O 2 '48

Stainless producers study new revisions of extra schedules. J. Anthony. Iron Age 162:113-14 O 28 '48

Stainless steel finishing procedure. K. M. Huston. II diag Steel 122:106-+ Je 7 '48

Stainless steel runners for lower maintenance. II Elec World 130:114 O 23 '48

Stainless steels for the engineer; abstract. L. Rotherham. Chem Age (Lond) 57:735 D 6 '47

Stainless steels, their characteristics. J. J. Heger. bibliog Steel 123:71-5-+ O 25 '48

Stainless tightens. Bsns W p26 S 18 '48

Standard stainless steels; AISI types; analyses and brief data on properties, characteristics and machine applications; trade names, producers. Machine Design 20:281-2 O '48

Standard stainless steels, wrought and cast; tabulation; data sheet. Metal Prog 53:96B Ja '48

Study of films isolated from passive stainless steels. E. M. Mahla and N. A. Nielsen. II diag Electrochem Soc J 93:1-16 Ja '48

Sulphuric acid versus construction materials. W. G. Renshaw. Chem Eng 55:242-+ My '48

Sulphuric resistant stainless. Steel 122:90-+ Ja 19 '48; Iron Age 161:83 Ja 15 '48; Materials & Methods 27:80-2 F '48

This news stand in Times square, New York. II diag Sheet Metal Worker 39:49-50 My '48

Use of exothermic cores in pouring stainless steel. M. Beam. II Steel 122:76-+ Ja 26 '48

Use of stainless steel gains. Blast F & Steel P 36:1001 Ag '48

Uses of flux-injection cutting for stainless steels. G. E. Bellow. II diag Welding J 27:118-24 F '48

Welding dissimilar metals with stainless electrodes. A. L. Schaeffler. II diag Iron Age 162:72-9 Jl 1 '48

Which wrought stainless steel? S. P. Watkins and R. J. Berkol. II Machine Design 20:107-12 Mr, 174-9 Ap '48

X-ray identification of sigma phase in 25-20 Cr-Ni stainless. W. J. Barnett and A. R. Troiano. II Metal Prog 53:366-7 Mr '48

See also
Chromium nickel Steel, Corrosion resisting
Chromium steel

History

Who discovered stainless steel? C. A. Zapffe. bibliog(55 titles) Iron Age 162:120-9 O 14 '48

Testing

Cold work hardening properties of stainless steel in compression. F. K. Bloom and others. bibliog II Am Soc for Metals Trans 39:843-64; Discussion, 864-7 '47

Factors affecting stabilization of stainless steels. II Steel 123:119 S 6 '48

Increasing corrosion resistance; recent tests with stainless steels. H. Seymour. Chem Age (Lond) 59:191-2 Ag 7 '48

Resistance of sensitized stainless steels to boiling nitric acid. R. S. Stewart. Metal Prog 52:971-3 D '47

Stability of austenite in stainless steels. C. B. Post and W. S. Eberly. diag Am Soc for Metals Trans 39:868-88; Discussion, 888-90 '47

Stabilization of austenitic stainless steel. S. J. Rosenberg and J. H. Darr. bibliog II J Res Nat Bur Stand 40:321-38 Ap '48

Welding

Arc welding stainless impellers. W. L. Elliott and G. Handyside. II Steel 122:82-4 Ap 12 '48

Inert-arc welding solves tricky problem in chemical plant; stainless steel welded into an endless belt. Gen Elec R 50:50 N '47
Investigation into spacing of spotwelds. H. D. Wimer, Jr. diags Aero Digest 57:66-7+ Jl '48

Manufacture and application of composite plates. O. R. Carpenter. II diags Welding J 27:279-87 Ap '48

New machine eliminates stainless flange welds. H. Frankfort. II Chem ind 62:752-3 M '48

Nondestructive spot weld test for stainless steels; abstracts. A. M. Armour. Iron Age 160:100 N 6 '47; Materials & Methods 27:107 Ja '48

Stainless steel piping fabrication by welding. J. D. Mattimore. II diag Heating-Piping 19:73-8 D '47

Welding stainless containers by inert-gas shielded arc process; illustrations with text. Steel 123:82-3 N 1 '48

Welding stainless steel tanks. II Steel 122:110 F 2 '48

STEEL, Stainless clad

Diversified applications of stainless clad steel. L. W. Townsend. II Steel 123:95-6+ S 6 '48

Manufacture and application of composite plates. O. R. Carpenter. II diags Welding J 27:279-87 Ap '48; Same cond. Steel 121:64-6+ D 22 '47

STEEL, Strip

Continuous noncontact gaging of hot strip. Iron Age 161:78 M 6 '48

Continuous strip pickling. E. D. Martin. bibliog II diags Blast F & Steel P 36:825-32, 942-9-+, 1089-94 Jl-S '48; Excerpts, Iron & Steel Eng 25:132-6 Ag '48; Excerpts (pt 3). Iron Age 162:60-3+ S 30 '48; Abstract. Steel 122:78 M 31 '48

Development of residual stresses in strip rolling. R. M. Baker and others. bibliog diags Metals Tech 15:TF2333 1-18 Ap '48

Electric flash welding of steel strip; Alliquippa works of Jones & Laughlin steel corp. II Steel 122:34-+ My 17 '48

Electrical heating of steel strip for continuous processing. A. R. Ryan and F. E. Ackley. II diags Iron & Steel Eng 25:66-78; Discussion, 78-80 Ag '48

Fifteen-ton coils handled by new high-speed cold mill; Alliquippa plant of Jones & Laughlin steel corp. II Steel 122:108-+ F 23 '48

More strip capacity; Detroit steel corp.'s new cold-rolled strip mill. II Steel 121:112-+ D 1 '47

New silicon strip cold mill; West Leeburg plant of the Allegheny Ludlum steel corp. F. R. Grant. II Iron Age 160:79-83 N 20 '47

New ten-inch four-high reversing cold strip mill; abstract. L. L. Wilson. Steel 122:115 My 10 '48

Primer on steel conversion. D. I. Brown. Iron Age 162:72-7 Jl 29 '48

Resistance welding equipment used in steel mill strip processing; abstract. J. J. Riley. diags Elec World 129:110 Je 5 '48

70-mph. rolling mill; Jones & Laughlin cold strip mill at Alliquippa, Pa.; illustrations with text. Bsns W p32-+ F 21 '48

Sheet and strip shortage; special report. II map Steel 122:55-62 F 23 '48

STEEL, Structural

Construction; prospects for 1948. L. E. Browne. II Steel 122:152-3 Ja 5 '48

Corrosion-resistant steel for architectural and structural applications. H. A. Grove. Am Soc T M Proc 46:610-13; Discussion, 614-17 '48

Modernization program ends fabricating shop bottlenecks; Austin co. W. G. Paton. II Iron Age 161:86-9 Ap 1 '48

Selecting alloy structural steels for high-toughness applications. B. S. Lement. bibliog Iron Age 160:80-4 D 25 '47

Structural steel fabricators, Canada. Roads & Bridges 86:145 Je '48

Versatility of high-strength steels; abstract. H. M. Priest. Steel 121:104 N 17 '47

Welded steel column assemblies designed by Alexander Ban replace wood posts in frame houses. II diags Arch Forum 89:115-16 Jl '48

See also
Bridges, Iron and Steel, Aircraft
steel Steel, Automobile
Concrete, Reinforced Steel, Reinforcing
Partitions, Steel Steel construction

STEEL, Structural—Continued

Testing

- Ductility of steels for welded structures. A. B. Kinzel, bibliog il diags Welding J 27:sup217-34 My '48; Abstracts, Metal Prog 52:795-9 N '47; Steel 121:91-2+ D 8 '48
- Effect of non-uniform distribution of stress on the yield strength of steel, D. Morokovin and O. Sidebottom, bibliog il diags III U Eng Exp Sta Bul 372:1-72 '47 (50c)
- Effect of stress distribution on yield points. F. G. E. Peterson, il diags Am Soc C E Proc 72:445-59 bibliog(p458-9) Ap '46; Discussion, bibliog diags 72:1032-40, 1271-84, 1421-4; 73:381-2; 74:215-17 S, N-D '46, Mr '47, F '48

- Flexural fatigue strength of steel beams; a report of an investigation. W. M. Wilson, diags III U Eng Exp Sta Bul 377:1-32 '48 (10p); Same, Welding J 27:sup493-17 Ag '48
- Study of slotted tensile specimens for evaluating the toughness of structural steel, H. R. Thomas and D. F. Windenburg, diags Welding J 27:sup209-16 Ap '48

See also

Steel plates—Testing

Welding

- Ductility of steels for welded structures. A. B. Kinzel, bibliog il diags Welding J 27:sup217-34 My '48; Abstracts, Metal Prog 52:795-9 N '47; Steel 121:91-2+ D 8 '48; Engineer 185:208 F 27 '48
- Effect of welding and local heating on residual stress and dimensional changes in steel. L. C. Bibber, Marine Eng 53:61-3 Ag '48
- Metallurgical factors in the embrittlement of welded plate, R. D. Stout and L. J. McGeady, il diags Welding J 26:sup683-92 N '47
- Proposed specification for steel S.L. 37 for welded bridge construction. P. Schoonmaker and others, Welding J 27:117 F '48
- Residual stresses in a butt-welded structural I-beam, W. J. Krefeld and E. C. Ingalls, il diags Welding J 27:sup417-20 Ag '48
- Rigid-frame church arches prefabricated by welding; Mission Baptist tabernacle in Chicago, il Constr Methods 30:100-2 F '48
- Some additional tests on the Lehigh restraint specimen, R. D. Stout and others, il diags Welding J 26:sup673-82 N '47
- Some modern developments in steels for welded structures, W. Barr, il diags Metallurgia 38:79-84 Je '48
- Steel fabricator shifts to ac welding, F. Wendel, il Iron Age 161:88-9 Je 24 '48
- Strain aging in welding low-carbon structural steel, W. H. Bruckner and W. E. Ellis, il diags Welding J 27:sup441-7 S '48
- Studies on the effects of red lead paints on the quality of metal-arc welds in structural steel, R. W. Bennett and others, il diags Welding J 26:sup653-63 N '47

STEEL alloys

- Alloy steel in oil-field equipment, R. L. Adams, il Metal Prog 54:468-70 O '48
- Alloy steel in oil refineries, F. C. Braun, il Metal Prog 54:471-3 O '48
- Alloy steel in the turret lathe, D. M. Gurney, il Metal Prog 54:474-6 O '48
- Alloy steel in war, then and now, C. Williams, il Metal Prog 54:485-8+ O '48
- Alloy steel industry; its early history, il Iron Age 162:148-54+ O 14 '48
- Alloy steels in railroad service, J. L. Carver, il Metal Prog 54:502-6 O '48
- Alloy steels, the farm tractor, and the full granary, M. L. Frey; G. C. Riegel, il Metal Prog 54:507-10 O '48
- Alloys made by electric ingot process have improved properties, H. R. Clauser, il diags Materials & Methods 27:57-61 Ja '48
- Can you use lower priced alloy steels? A. S. Jameson, Steel 122:88-92+ Je 14 '48
- Carbide and oxide in surface zones of carburized alloy steels, A. Hultgren and E. Hägglund, bibliog il Am Soc for Metals Trans 39:820-37; Discussion, 837-42 '47
- Carbon mold plugs in alloy steel production, H. F. Walther, il Iron Age 160:70-3 N 27 '47
- Chemical engineering materials of construction; iron, mild steels, and low alloy steels, R. E. Mears and S. C. Snyder, bibliog(30 ref) il Ind & Eng Chem 40:1798-800 O '48

Continuous casting of alloys made possible by new process, il Product Eng 18:143 D '47

- Development of temper brittleness in alloy steels, W. S. Pellini and B. R. Queneau, bibliog Am Soc for Metals Trans 39:139-53; Discussion, 153-61 '47
- Electric ingot method for continuous casting alloys, L. E. Browne, il diags Steel 122:74-6+ Ja 19 '48
- French alloy and tool steel industry, map Iron Age 162:80-1 J11 '48
- How to develop maximum strength in alloy steel bolts, G. Sachs, diags Steel 122:104-6 F 2 '48
- Improved metals promise design progress, il Machine Design 20:103-6 Ja '48
- Latest uses of alloy steels in motor vehicles, M. J. Day, Automotive Ind 98:26-7+ Ap 1 '48
- Low-alloy steels in the electrical industry, J. T. Rettaliata, il Metal Prog 54:477-81 O '48
- Low-alloy tank top on the Joliet, cargo hold floor of Otiscoloy, il Marine Eng 53:88+ Ap '48
- Metallurgical aspects of ball bearing steels, A. S. Jameson, il diags Iron Age 162:72-9 S 2; 81-7 S 9; 88-92 bibliog(p92) S 16 '48
- Modern open hearth; analyses of deoxidizing and alloying additions; tabulation, T. J. Ess, Iron & Steel Eng 25:043 J1 '48
- New beryllium alloys; five American patent applications, Chem Age (Lond) 53:327 S 4 '48
- New process to make specialized alloy steels announced by the M. W. Kellogg co, il Pet Eng 19:92 F '48
- New steel features high strength and high toughness; Hy-Tuf, P. Payson and A. E. Nehenbergh, bibliog il Iron Age 162:64-71 O 21; 74-80+ O 28 '48
- No shortage of alloy steel, il Bsns W p36+ D 13 '47
- Present trends in nickel alloys, Pet Eng 19:106 Ja '48
- Progress in alloy steels, H. J. French, il Min & Met 29:336-40 Je '48
- Recipients of ASM awards for distinguished service in the alloy steel industry; list, Iron Age 162:116-17 N 4 '48
- Role of alloy steels in the automotive industry, W. F. Sherman, il Metal Prog 54:497-501 O '48
- Salute to alloy steel, F. B. Foley, Metal Prog 54:171-4 As '48
- Selecting alloy structural steels for high-toughness applications, B. S. Lement, bibliog Iron Age 160:80-4 D 25 '47
- Steels for antifriction bearings; abstract, H. Diergarten, Product Eng 19:121-2 O '48
- Structural alloy steels in the air age, A. W. F. Green; L. D. Bonham, il Metal Prog 54:491-6 O '48

See also

- | | |
|-----------------------|-------------------|
| Chromium nickel steel | Molybdenum steel |
| Chromium steel | Nickel steel |
| Ferroalloys | Silicon steel |
| Iron alloys | Steel, Stainless |
| Manganese steel | Steel, Structural |
| | Tool steel |

Analysis

- Correction for gamma changes due to variations in exposure and development with reference to spectrographic analysis (two line-pair method), G. Sanders, Soc Chem Ind J 67:185-7 My '48
- Determination of columbium in rustless and heat-resisting steels, B. Bagshawe and W. T. Elwell, Soc Chem Ind J 66:398-400 N '47
- Spectrographic analysis of low-alloy steel; a statistical examination of sources of error, H. T. Shirley and others, il Iron & Steel Inst J 157:391-409 N '47; Discussion, 159:172-3 Je '48

History

- Brief history of alloy steel, C. A. Zapffe, Metal Prog 54:459-67 O '48

Testing

- Notch-tensile characteristics of a partially austempered, low alloy steel, G. Sachs and others, bibliog il Metals Tech 15:TP2321 1-12 F '48

STEEL barges. See Barges, Steel

STEEL bars

Continuous casting of semifinished steel. T. W. Lippert. *il diag Iron Age* 162:72-80+ Ag 19 '48

Electrical resistance bar heating machines. *il Engineer* 185:576-7 Je 11 '48; *Engineering* 165:546 Je 4 '48

Heat treating 54-foot alloy bars; Spang-Challant division, National supply co. F. H. Bremmer. *il Steel* 122:77-8+ Ap 5 '48

Hook rig transfers steel bars from furnace to quenching bath. *il Am Mach* 92:118 My 20 '48

How to live with bar stock shortage. B. Melnitsky. *il Mill & Factory* 42:148-52 Ja '48

Induction heating of cylindrical steel bars; chart; engineering file facts, Materials & Methods 28:107 S '48

Mechanized scarfing conditions 4-1/32 x 5-3/16-inch billets at average rate of 125 feet per minute. *il Steel* 121:74+ D 29 '47

Merchant-bar and wire-rod mill at the Dailzell steel works, Motherwell, *il plan Iron & Steel Inst J* 158:254-6 F '48; Same, without *il and plan. Blast F & Steel Pl* 36:598+ My '48

Weights of steel bar for 1000 pieces; chart; reference book sheet. *Am Mach* 92:141 Ap 8 '48

Storage

How one company solved its bar stock storage problem; Bullard co. C. H. Parks. *il Factory Management* 105:71 N '47

STEEL brothers and company, limited

Statement by the chairman at 57th annual ordinary general meeting. J. K. Michie. *Economist* 154:1090-1 Je 26 '48

STEEL buildings

Hamburger realm; White Castle system of porcelain-enameled buildings. *il Bsns W* p36+ Mr 6 '48

STEEL cars. See Freight cars, Steel

STEEL castings

Are furnace cuts costs in steel melting. H. E. Wilkins. *il Elec World* 130:108 Ag 23 '48

As-cast structures in cast steels. M. F. Hawkes and B. F. Brown. *il Iron Age* 162:138-47 O 14 '48

Cast crankshafts; a survey of published information. R. J. Love. *il diags Iron & Steel Inst J* 159:247-74 bibliog(116 titles, p272-4) J1 '48

Casting developments in review; steel. C. W. Briggs. bibliog *il Foundry* 76:66-9+ Ja '48

Casting steel and iron rolls; Mackintosh-Hemphill co. *il Foundry* 76:96-9+ N '48

Centrifugal and precision steel castings for aircraft. J. F. B. Jackson. *il diags Engineering* 165:481-4 My 21 '48

Centrifugal casting of steel. J. H. Hall. bibliog *il diags Foundry* 76:76-7+ Ag; 74-7+ S; 88-91+ O '48

Centrifugal casting process applied to stainless- and carbon-steel tubes. J. W. Moore and J. W. Mackay. *il diag Mech Eng* 69:551-8 J1 '47; Abstract, *Mach* 54:181-3 Ja '48

Centrifugally cast steel. *Engineer* 184:600 D 26 '47

Continuous casting of semifinished steel. T. W. Lippert. *il diag Iron Age* 162:72-80+ Ag 19 '48

Continuous casting of steel. *il diag Fortune* 38:16 O '48

Continuous casting of steel; semi-finished shapes in one machine process. *il Chem Age (Lond)* 59:319-21 S 4 '48; *Iron & Steel Eng* 125:123-4+ O '48; *Mech Eng* 70:825-6 O '48; *Product Eng* 19:161-2 O '48; *Min & Met* 29:587 O '48

Continuous casting research planned by British iron & steel research assn. *il Iron Age* 160:84 N 20 '47

Continuous casting; revolution in steel making? *il diag Bsns W* p21-2 Ag 23 '48

Deep-sea diving sphere is alloy steel casting; bathyscaphe designed by Professor Piccard. V. Delpont. *diags Foundry* 76:153+ N '48

Electrolytic manganese in acid and basic electric steel foundry practice and basic steel ingot production. F. Sillers, jr. and others. bibliog *U S Bur Mines Rep of Invest* 4157:1-24 '47

Engineering uses for steel castings. J. A. Rassenfoss. *il Steel* 121:90-1+ D 15 '47

Friction cutting gates and risers by the band saw method. H. J. Chamberland. *il Foundry* 76:34-7+ O '48

Gating systems for metal casting. W. H. Johnson and W. O. Baker. *il diags Foundry* 76:68-73+ O '48

Internal risers on steel castings. T. Shute. *il diag Foundry* 76:82-3+ F '48

Mass-production methods applied to the manufacture of cast-steel bomb bodies. P. H. Wilson. *il diags Engineering* 164:501-3, 525-7, 550-2 N 21-D 5 '47

Method devised for casting steel from liquid phase to semi-finished shape. Blast F & Steel *Pl* 36:1105-6 S '48

Papers on steel castings. A.F.A. annual meeting. *Foundry* 76:126+ J1 '48

Patterns and molding methods for steel castings. J. H. Hall. *il Foundry* 76:80-3+ N '48 (to be cont)

Precision cast stainless steel electrical parts reduce weight, save costs. H. C. Amtberg. *il Materials & Methods* 28:73 S '48

Production of cast crankshafts. R. B. Templeton. *Product Eng* 19:126-8 Ag '48

Recent developments concerning the properties of cast steels. C. W. Briggs. *A S M E Trans* 70:37-47 Ja '48

Steel foundry uses wood plate on core blower; Crucible steel castings co. P. Dwyer. *il Foundry* 76:82-4+ Mr '48

Use of exothermic cores in pouring stainless steel. M. Beam. *il Steel* 122:76+ Ja 26 '48

What is strength? J. B. Caine. *Foundry* 76:80-1+ J1; 100-1+ Ag '48

Why cast steel centrifugally? J. F. B. Jackson. *il Iron Age* 160:64-9 N 27 '47

See also

Steel ingots

Testing

Effect of manganese on the properties of cast carbon and carbon-molybdenum steels. N. A. Ziegler and others. *il diags Am Soc for Metals Trans* 38:398-434 bibliog(106 titles, p429-34); Discussion. 434-6 '47

Laboratory study of quench cracking in cast alloy steels. M. C. Udy and M. K. Barnett. *il diags Am Soc for Metals Trans* 38:471-85; Discussion. 485-7 '47

Mechanical properties of cast low alloy steels. M. F. Hawkes. bibliog *il diags Am Soc for Metals Trans* 39:1-40; Discussion. 41-4 '47

Metallurgical and structural investigation of steel castings for aircraft. L. W. Smith and L. D. Morris. *il diags Am Soc for Metals Trans* 38:848-74; Discussion. 874-8 '47

Microstructure and mechanical properties of cast steels; abstract. M. F. Hawkes and B. F. Brown. *Metal Prog* 54:388+ S '48

Relation of quenching rate and hardenability to the mechanical properties of several heat treated cast alloy steels. C. R. Wilks and others. bibliog *il diags Am Soc for Metals Trans* 38:437-68; Discussion. 468-70 '47

Studies on susceptibility of casting steels to graphitization. J. J. Kanter and E. A. Sticha. *il Am Soc T M Proc* 46:182-7 '46

Tentative industrial radiographic standards for steel castings; data sheet. *il Foundry* 76:199-200 My '48

STEEL chimneys. See Chimneys, Steel

STEEL columns. See Columns, Steel

STEEL construction

Bolted connections in structures. A. M. Hamilton. *il diags Engineering* 165:433-5 My 7 '48

Double decks of precast concrete on steel frame enlarge Orange Bowl stadium. *il diags Eng N* 141:48-50 J1 22 '48

Gas torches kick warped beams into shape without dismantling. *il diag Constr Methods* 30:58 O '48

Milled-end building framing takes thrust of Boston soil; New England telephone and telegraph building. H. D. Gurney. *diag Eng N* 140:1022-3 Je 24 '48

Research on thin skin panels of steel being pushed to replace masonry walls. *diags Brick & Clay Rec* 112:38 Mr '48

Rigid frames reduce cost at Boys Town. J. D. Griffiths. *il Eng N* 139:673-4 N 13 '47

Seismic factors control design of ten-story, steel-frame building for Los Angeles times. D. L. Narver. *il diags Eng N* 141:81-2 S 2 '48

STEEL construction—Continued

Semi-rigid beam-to-column connection in steel frames are subject of favorable AISC report, diags Arch Forum 89:107 Ag '48
 Steel dikes saved six acres; enclosure for oil storage tanks, F. L. Plummer, il diag Pet Processing 3:671-2 Jl '48; Same, Pet Eng 19:115-16+ Ag '48
 Steel-framed structures alleviate Britain's low-cost housing problem, D. H. Lee, il diag Civil Eng 18:370-2 Je '48
 Storage tank construction on Guam, T. Richards, il Pet Eng 19:136+ Ag '48
 Stuyvesant Town framing saves steel, il plan Eng N 140:192-3 F 5 '48
 Three types of steel timbering for tunnels, il Constr Methods 30:54-6 O '48
 Umbrella trusses form low weight roof for New Orleans factory, il diags Eng N 140: 774-5 My 27 '48

See also

Bridges, Iron and steel	Reservoirs, Steel
Concrete, Steel	Steel buildings
Concrete, Reinforced	Steel houses

Concrete encasement

Electrolysis; electrolytic corrosion of steel in concrete; report of Electrical section, Engineering division, Association of American railroads, il Ry Mech Eng 122:541-3 O '48
 Something new in bridge-pier design; combination of steel piles and Prepak concrete; reconstruction of Canadian National railway bridge, C. P. Disney, il diags Ry Age 124:158-61 Ja 17 '48

Design

Critical collapsing load for columns of variable cross section, R. Laurensen and R. V. Bremer, Civil Eng 18:240-1 Ap '48
 Design of a skyscraper hospital; Ft Hamilton veterans hospital, with unit prices, il plan diags Eng N 140:778-82 My 27 '48
 Design of tall refinery frames, S. W. Lewaren, diags Oil & Gas J 46:95-6+ F 19 '48
 In the open hearth area; designing crane runways, H. G. Tregillus, diags Blast F & Steel Pl 36:954-6 Ag '48
 Limit design of prismatic beams, E. P. Popov, diags Eng N 140:721-3 My 13 '48
 Rigid-frame base supports heavy loads of five-story bottling plant; Coca Cola bottling company of New York, il Eng N 140:37-9 Ja 8 '48
 Rigid frames and arches; potentials for the building field, il diags Arch Forum 88:105-8+ F '48
 Stability of thin-walled compression members, H. D. Wimer, jr. diags Am Soc C E Proc 74:655-68 My '48
 Steel-column analysis, R. P. V. Marquardsen, diags Western Soc E J 52:171-81 D '47
 Strength of beams as determined by lateral buckling, K. de Vries, diags Am Soc C E Proc 72:985-1011 S '46; Discussion, 72:1425-32; 73:236-8, 559-68, 953-9; 74:193-210 D '46, F, Ap, Je '47, F '48

Erection

Bolting 43,000 tons of building steel; erection of the steel frames at Stuyvesant Town, il Eng N 140:200-1 F 5 '48
 Substation design remains flexible with Erection assembled sections, E. V. Sayles, il diags Elec World 128:106-8 N 8; 82-4 N 22 '47

Safety measures

Safety school cuts steel erection accidents, M. G. Gaskin, Eng N 141:52 S 30 '48

Welding

Adams lecture for 1947; structural strength of the welded joint, G. S. Mikhailapov, bibliog il diags Welding J 27:193-206 Mr '48; Abstract, Metal Prog 54:216+ Ag '48
 Arc-welded steel framing reduces cost of residential building, A. F. Davis, il Welding J 27:788 O '48
 Creative architectural design with welded rigid frames, M. P. Korn, il diags Welding J 27:369-75 My '48
 Development of arc-welded gas holder; with cost data, A. C. Thompson, il diags Welding J 27:363-8 My '48

Flanged joint design for welded tubular steel structures; model-towing carriage at the David W. Taylor model basin, G. A. DeShazer, il diags Product Eng 19:117-18 N '48

Future developments in welded steel buildings, A. Amirikian, diags Welding J 27: 593-9 Ag '48
 Heavy flexible beam and girder connections; fluid catalytic cracking plants built by the Atlantic refining co, H. Greaves, il diags Welding J 27:345-9 O '48
 On-the-ground welded fabrication of studing speeds construction of all-steel three-story office building for the WKM valve co, R. H. Newton, il diags Welding J 26:984 N '47

Radiographing and controlled low-temperature stress relieving of welded tanks for wet seal gas holder, R. Kraus, bibliog il diags Welding J 26:1073-9 D '47; Same, Am Gas J 168:11-16 F '48

Rigid structures; phrase "all-welded rigid design" sometimes used incorrectly, M. P. Korn, Welding J 27:135 F '48
 Standardized welded beam connections and special rigid frame details of new Aircro laboratory, L. Grover, il diags Welding J 27:130-5 F '48

Standardized welded connections cut costs for research building; Air reduction co, Apparatus research laboratory, L. Grover, il diags Eng N 140:1031-3 Je 24 '48
 Structural dead weight eliminated in construction of four-story, all-welded steel building, E. D. Anderson, il Welding J 26: 985-7 N '47

Welded steel column assemblies designed by Alexander Ban replace wood posts in frame houses, il diags Arch Forum 89:115-16 Jl '48

Welded steel construction for hydroelectric power plants; with cost data, O. J. Afreth and A. J. Perry, plans diags Power Generation 62:98+ F '48

Welding conserves steel, T. R. Mullen, il Eng N 141:104-5 O 28 '48
 Welding of ore bridge effects dead weight reduction, il Steel 121:93 D 1 '47
 Welding permits use of lighter sections in ore bridge, il Civil Eng 18:283 My '48

STEEL construction, Subaqueous

Steel-drum crib for Cleveland intake, A. A. Burger, il diags Eng N 141:76-9 Ag 5 '48

STEEL containers. See Containers, Steel**STEEL cutting**

Cast alloys vary in cutting efficiency; investigation on tool breakdown, life, speed and feed change, interrupted cuts and tool grinding, J. B. Dym and T. Badger, diag Am Mach 91:109-11 N 20 '47
 Contour sawing hardened steels and carbides; diamond band saw, il Iron Age 161:73 F 26 '48

Faster steel cutting promoted by electric measuring gage, il Steel 123:113 Jl 19 '48

Flame-cut disk flywheels; Lukens steel co, il diags Product Eng 18:141-3 N '47

Flame cutting of ferrous metals; engineering file facts, R. S. Burpo, jr., comp. Materials & Methods 28:87, 89 Ag '48

Flame-cutting stainless steel; Hydrapulper machine, il Mech Eng 69:930-1 N '47; Same, Steel 121:89-90 N 24 '47

Free cutting steels, T. C. Du Mond, il Materials & Methods 28:95-102 O '48

Fundamentals of forging practice; facilities for cutting bars and billets, trimming and punching, coining and sizing must be available in any efficient plant, W. Naujoks, il diags Steel 123:100-3+ S 13 '48

High-speed planing with carbide tools, W. P. Coomey, il diags Mach 54:141-6 Ag '48

Machining work-hardening steels, W. M. Hallday, diags Metallurgia 38:254-6 S '48

Mechanized scarfing conditions 4-1/32 x 5-3/16-inch billets at average rate of 125 feet per minute, il Steel 121:74+ D 29 '47

Oxycetylene production cutting in steel mills, A. H. Yoch and W. Begerow, il Welding J 27:188-92 Mr '48

Powder cutting as a production tool, D. H. Fleming, il Welding J 27:181-7 Mr '48

STEEL cutting—Continued

- Powder process in stainless steel production; oxyacetylene cutting with fluxing agent. C. J. Burch and E. M. Holub. *Iron & Steel Eng* 25:43-51 J1 '48; Same cond. *Blast F & Steel Pl* 36:443-6 Ap '48; Discussion. *Iron & Steel Eng* 25:51-2 J1 '48
- Progress report no. 1 on tool-chip interface temperatures. K. J. Trigger. *bibliog diags* A S M E Trans 70:91-8 F '48
- Uses of flux-injection cutting for stainless steels. G. E. Bellew. *Iron & Steel Eng* 27:118-24 F '48

STEEL drums. See Containers, Steel**STEEL forgings**

- Automobile crankshaft forgings mass produced on 33-foot high press. *Iron & Steel* 123:110 Ag 16 '48
- Cyclic annealing alloy steel forgings. *Iron & Steel* 122:99 F 9 '48
- Cyclic annealing of steel forgings saves time, betters quality. K. Rose. *flow diag* *Iron & Steel* 122:71-4 Ja '48
- Development of low weight forgings. J. H. Friedman. *Iron & Steel* 122:100-2+ Je 7; 98-102 Je 21; 123:76-9+ J1 5; 99-100+ J1 19; 91-4+ Ag 2; 94-7 Ag 16; 69-64+ Ag 30; 100-3+ S 13; 89-92+ S 27; 101-2+ O 11; 78+ O 25; 96-100+ N 8; 68-71+ N 22; 121-2+ D 6 '48
- High-creep strength austenitic steel for gas turbines. D. A. Oliver and G. T. Harris. *Engineering* 163:533-6 Je 20 '47; Abstracts. *Product Eng* 19:132-4 Ja '48; *Metal Prog* 53:584+ Ap '48
- Hot pressing. 575-pound propeller hubs. F. Welschner and A. A. Flout. *Iron & Steel* 122:90-2+ Mr 15 '48
- Increased forging die life; forge shop of International harvester co. H. Chase. *Iron & Steel* 122:98-94 My 27 '48
- Induction heating for steel forging can reduce costs. K. Rose. *Iron & Steel* 122:76-80 Ap '48
- Induction heating triples die life by reducing scale on billets for forging tractor track links. J. M. Butler. *Iron & Steel* 122:98+ Ja 13 '48; Same. *Mach* 64:156-7 Ja '48
- Magnetic properties of generator rotors as affected by composition. G. S. Downing and others. *Iron & Steel* 122:98+ Ja '48
- Magnetic properties of generator rotors as affected by treatment. G. S. Downing and others. *Iron & Steel* 122:98+ Ja '48
- Novel billet descaler aids forging. *Iron & Steel* 122:79 J1 15 '48
- Rapid billet heating with gas. L. J. Stanbery and J. M. Brennan. *Iron & Steel* 122:82-5 Ag 26 '48
- Some aspects of the overheating of steel drop-forgings. H. J. Merchant. *bibliog* *Iron & Steel Inst J* 153:217-35 pl 7-12; Discussion. 279-311, pl 20A-20D no 1 '46
- Strength limitations in the use of SAE 4340 steel forgings. E. J. Ripling and L. J. Ebert. *bibliog diags* *Iron & Steel* 122:88-93 Ag 5 '48
- Toughness and strength beyond requirements for normal service; abstract. *Iron & Steel* 122:136-7 Ja '48

Testing

- Fundamentals of forging practice. W. Naujoks. *Iron & Steel* 123:101-2+ O 11 '48
- High-temperature disk-forging developments for aircraft gas turbines. L. B. Fonda. *Iron & Steel* 122:98+ Ja '48; Discussion. 9-12 Ja '48

STEEL founders' society of America

- Annual meeting, Chicago, Feb. 11-12. Foundry 76:80-1+ Ap '48
- Technical and operating committee 3d annual meeting, Cleveland, June 3-5. Foundry 76:130+ Ag '48

STEEL handling

- Conveyor system simplifies coil handling at Aliquippa. C. F. Seyler. *flow chart* *Iron & Steel* 122:86-9 Je 10 '48
- Heat treating 54-foot alloy bars; Spang-Chalfant division, National supply co. F. H. Bremmer. *Iron & Steel* 122:77-8+ Ap 5 '48

- Planned handling; Morse chain co. R. O. Erickson. *Iron & Steel* 121:95+ D 15 '47
- Radio speeds material flow; Timkin Roller Bearing equips straddle trucks with two-way radio. *Bsns W* p 58+ O 23 '48
- Steel set with Sea mule and pontoons; structural steel transported and placed for Harvard Street crossing at Peoria. H. M. Maxwell. *Iron & Steel* 122:91-70-3 Ap '48
- Warehouse equipped to move heavy but transient stock; Crucible steel company of America. *Iron & Steel* 122:96-7 Ag '48

STEEL heddle manufacturing company

- Steel Heddle celebrates fiftieth anniversary. *Rayon* 29:36-7 My '48

STEEL houses

- Low cost housing by mass production; Byrne-Moline communities, inc. erects low-priced steel frame houses in Moline, Ill. *Iron & Steel* 122:69-102-3 D '47
- Porcelain prefabricated nearly ready; Lustron porcelain-enamel steel homes. *Iron & Steel* 122:69-102-3 D '47
- Prefab stalled; FHA's Philadelphia office does not like architect Lescaze's flat roof. *Iron & Steel* 122:69-102-3 D '47
- Steel allocation is approved for prefabricated home builders. *Eng* N 141:73+ Ag 19 '48
- Winner; first industrialized house looks like a sure bet as Lustron clinches loan. *Arch Forum* 89:14 Ag '48

STEEL industry and trade

- After the turn of the year. E. T. Weir. *Comm & Fin Chr* 167:388-9 Ja 22 '48
- American steel production and world demand in 1947; with figures for other years. *Comm & Fin Chr* 167:398 Ja 22 '48
- Automobiles and steel. *Iron & Steel* 122:38-9 O '48
- Big Steel has troubles with economics; politics. *Barron's* 28:40 My 24 '48
- Court hands industry decision in second bout with gray market. W. G. Patton. *Iron Age* 161:127-8 Je 17 '48
- Deals, inc., the real low down on how they do it; sheet steel procurement; satire. *Iron Age* 162:119-23+ J1 15 '48
- Developments in the iron and steel industry during 1947. I. E. Madsen. *Iron & Steel* 122:54-68 Ja '48
- Free steel grows shorter. *Bsns W* p 19-20 S 4 '48
- Gray market suit; Jones & Laughlin, Ford join hands to trap alleged operators. *Bsns W* p30+ My 22 '48
- K-F cashes in. *Iron & Steel* 122:64-7+ D '47
- Overcoming the world steel shortage; international agreement on wider distribution of materials. *Chem Age (Lond)* 59:16 J1 3 '48
- Position of steel in 1948. W. S. Tower. *Iron & Steel* 122:29-274-7 My '48
- Prospects of steel industry. W. S. Tower. *Comm & Fin Chr* 167:2433 Je 3 '48
- Quotas set for steel exports to 48 nations. *Steel* 122:46-7 Mr 22 '48
- Sales policies revamped; steel mill sales to warehouses. *Steel* 123:77 S 13 '48
- Should the steel industry expand now? T. C. Du Mond. *Iron & Steel* 122:65-7 Ag '48
- Small business committee investigators invade steel company. B. Packard. *Iron Age* 162:123-4 Ag 26 '48
- Some economic aspects of the steel industry. R. E. Zimmerman. *Comm & Fin Chr* 167:2316-7 My 27 '48
- Steel at the crossroads. T. C. Campbell. *Iron Age* 161:130-5 Ja 1 '48; Excerpt. *Comm & Fin Chr* 167:326 Ja 22 '48
- Steel consumers study marketing map; shift to f.o.b. prices and price boosts confuse buyers. *map* *Bsns W* p52+ Ag 7 '48
- Steel; how made and how much. *Iron & Steel* 122:86-72 My '48
- Steel industry outlook. W. Sykes. *Comm & Fin Chr* 166:2365+ D 11 '47
- Steel prepares for new era. N. T. Caruthers. *Iron & Steel* 122:81-233-5+ D 6 '47
- Steel requirements under Marshall plan revised downward. *Iron Age* 160:136B-136C N 6 '47
- Steel warehousemen have uneasy prosperity. *Iron & Steel* 122:80+ Je 19 '48

STEEL industry and trade—Continued

Subcommittee on questionable trade practices smacks many knuckles. E. J. Hardy. Iron Age 162:164+ O 14 '48

That daffy gray market. *il* Fortune 37:94-7+ My '48

Where steel shortage will hit most. H. L. Blackburn. Mag of Wall St 83:14-15+ O 9 '48

World steel output rising faster than expected. E. Kaskeline. Barron's 28:31-2 Je 7 '48

World ups steel output. Steel 123:69-70 J1 12 '48

See also	
Iron industry and	Sheet steel
trade	Steel workers
Rolling mills	Steel works

Advertising

Battle of the metals. *il* Ind Marketing 33:73-4+ Ag '48

Effectiveness of business paper advertising; U.S. steel corporation's sound-slide film. G. R. Schreiner. Ind Marketing 33:34-5+ J1 '48

Film tells management facts of business-paper advertising; U.S. Steel ad department develops slide films. R. H. Ganly. *Ptr Ink* 224:34-5 J1 2 '48

Allocation procedure

See Steel industry and trade—Regulation

Coal properties

Steelmakers buy coal source; purchase Carter coal co. *Bsns W* p21 D 6 '47

Steel's labor troubles die; compromise with Lewis. *Bsns W* p20 J1 17 '48

Directories

Modern open hearth; steel works directory and tabulated data. T. J. Ess. Iron & Steel Eng 25:O67-70 J1 '48

Structural steel fabricators, Canada. Roads & Bridges 86:145 Je '48

Finance

Earnings reported by steel companies are lower during quarter. Iron Age 160:134 N 6 '47

FTC study reveals industrial profits dropped during war years. K. Rannells. Iron Age 160:141-2 N 6 '47

Financial analysis of the steel industry, 1947-1946; data covers operations of 24 companies; tabulation. G. F. Sullivan. Iron Age 161:130a-130d Ap 8 '48

High output boosts earnings; preliminary reports. Steel 122:48 F 9 '48

Iron ore mining no longer steel's Cinderella; development costs, dwindling reserves, make ore ownership more important. W. K. Gutman. Barron's 28:38 J1 12 '48

New plant costs may squeeze steel makers; working capital is low now, with big expenditures still ahead. F. B. Dezendorf. Barron's 28:37-8 Ap 26 '48

Peacetime output record reflected in steel producers' 1947 earnings; financial analysis of 28 producers. Steel 122:78a-78e Ap 26 '48

Plant needs claim much of peak steel earnings in third quarter. Barron's 28:26 N 1 '48

Should the federal government subsidize new steel capacity in the West? yes, E. H. Klaus; no, E. Martin. map *Mod Ind* 15: 100-2+ My '48

Steel prices and profits are low, but costs are higher; abstract. C. F. Hood. Iron Age 161:140-1 F 5 '48

Steel producers' earning ability strengthens during third quarter. Steel 123:50 N 1 '48

Third quarter steel profits rose sharply over 1947 period. G. F. Sullivan. Iron Age 162: 163-4 N 4 '48

Regulation

Agreements completed to allocate steel for oil production, barges. Oil & Gas J 47:52 Ag 12 '48

Allocation failure; farm-equipment makers refuse to cooperate on steel use. *Bsns W* p20 Mr 20 '48

Allocation procedure charted. Steel 122:66-7+ Mr 15 '48

Allocations edge steel toward full U.S. control. R. M. Bleiberg. Barron's 28:43 S 13 '48

Allocations on the way out? steel makers plan to drop all nonmilitary programs. *Bsns W* p32+ O 23 '48

Allocations program limited; Justice department rules steel for rearmament and foreign aid not covered. Steel 122:66-7 My 24 '48

New draft law threatens balanced steel shipments. G. F. Sullivan. Iron Age 162:126-7 J1 1 '48

Product allocations revealed. Steel 122:69 Je 7 '48

Some steel executives may favor allocations. R. M. Bleiberg. Barron's 27:7-8 N 24 '47

Steel allocation is approved for prefab home builders. Eng N 141:73+ Ag 19 '48

Steel allocation plan. *il* Steel 122:37-8+ Ja 12; 37-8+ Ja 19; 21-2 Ja 26 '48

Steel-allocation plan draws some opposition from Car institute and four western roads. Ry Age 124:630-1 Mr 27 '48

Steel allocation program shaping up at slow pace. E. C. Kreutzberg. *il* Steel 122:45-7 F 9 '48

Steel allocation slipped into draft law. G. H. Baker. Automotive Ind 99:66+ J1 1 '48; Same abr. Iron Age 162:126 J1 1 '48

Steel draft can't snarl supply lines much worse. S. H. Scheibla. Barron's 28:5-6 J1 5 '48

Steel rebels against new set-aside programs. R. M. Bleiberg. Barron's 28:3 O 18 '48

Voluntary allocation program extended to include military steel. Iron Age 162:125 J1 29 '48

Voluntary allocations get green light. Steel 123:62 J1 12 '48

Securities

New factors affecting the steel industry; with statistical data on leading steel and iron companies. W. Beecher. Mag of Wall St 82:535-7+ Ag 28 '48

Re-appraisal of the steel industry; with data on leading steel and iron companies. W. Beecher. Mag of Wall St 81:645-7+ Mr 13 '48

Statistics

Iron and steel, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 147-9 [supplemented in monthly numbers]

1946 steel exports lowest since 1940. Blast F & Steel Pl 35:1407 N '47

Producers of sheets and strip in the United States; tabulation. Steel 122:58-9 F 23 '48

Production of open hearth, Bessemer and electric steel ingots and steel for castings in 1947; tabulation. Blast F & Steel Pl 35:246 F '48

Shipments of steel products in Dec. and entire 1947 year; tabulation. Steel 122:62 Mr 1 '48

Steel industry; prospects for 1948. B. K. Price. *il* Steel 122:124-9 Ja 5 '48

Steel industry's production in 1947 sets peace time record. W. S. Tower. *il* Blast F & Steel Pl 36:45-8+ Ja '48

World steel output rises. Steel 122:56 F 9 '48

Belgium

Belgium-Luxemburg; appreciable advance made during 1947. L. Jaudoin and J. Foulon. Steel 122:325 Ja 5 '48

Brazil

Volta Redonda begins to pay off after two years of operation. S. Smoke. *il* Iron Age 162:132-3 S 23 '48

Canada

Canadian steel output hits near capacity but falls short of demand. Iron Age 161:124+ F 19 '48

Canadian steelmaking lags demand despite impressive expansion. F. Sanderson. Iron Age 162:161-2 N 4 '48

Europe

American executive looks at European steel. *Bsns W* p 121-2+ J 23 '48

Europe drives for recovery. V. Delport. Steel 122:322-3 Ja 5 '48

European recovery; factors in European steel. Economist 155:589-91 O 9 '48

STEEL industry and trade—Europe—Cont.

International co-operation and the recovery of the European iron and steel industries. Int Labour R 58:346-53 S '48
Two worlds and steel. J. Hight. maps Iron Age 161:140-7 Ja 1 '48

France

French alloy and tool steel industry. map Iron Age 162:80-1 Jl 1 '48
Improvement in the French iron and steel industry. L. Jaudoin and J. Foulon. Steel 122:324-5 Ja 5 '48

Germany

Can Germany spare scrap? Economist 154:600-1 Ap 10 '48
Nationalization? battle brewing over Ruhr steel industry. il Bsns W p 120-2 Je 19 '48
Politics wreck Bizone's steel planning group. Steel 122:74 Je 21 '48
Raw materials place German steel output. Steel 122:39 My 31 '48

Great Britain

Bottleneck answers back. Economist 154:600 Ap 10 '48
British iron and steel industry. Metallurgia 38:137-43 Jl '48
British making progress. J. A. Horton. Steel 122:323-4 Ja 5 '48
British steel needs in 1948 exceed supply. Steel 122:70 Mr 1 '48
Colvilles, limited; statement by the chairman at 17th ordinary general meeting. J. Craig. Economist 154:906-7 My 29 '48
Economics of Britain's steel industry. R. Shone. il Iron & Steel Eng 25:66-8 Mr '48
Failure of British steel allocation program brings new plan. Iron Age 160:111-12 D 25 '47
Improved steel control. Economist 153:690-1 O 25 '47
John Summers and sons, limited, annual general meeting. Economist 154:821 My 15 '48
More Scunthorpe steel for Britain. il Bsns W p 126-7 O 23 '48
Nationalization of steel industry in England is delayed. Iron Age 160:145-6 N 13 '47
Productivity in the steel industry. Economist 155:428-9 S 11 '48
Raw materials cited as limiting factors on Britain's output. Iron Age 162:142-1 O 7 '48
Sir Stafford on steel. Economist 154:109 Ja 17 '48
La situation de la sidérurgie britannique pendant la guerre; projets de modernisation. Génie Civil 124:400 O 15 '47
Steel in 1948. Economist 154:67-8+ Ja 10 '48
Steel production and scrap supplies. Engineer 185:446 My 7 '48
Steel situation; abstracts. S. Cripps. Engineer 185:74-5 Ja 16 '48; Iron Age 161:145-8 F 5 '48
Stewarts and Lloyds, limited, statement by the chairman at 58th ordinary general meeting. A. G. Stewart. Economist 154:946-7 Je 5 '48
Whitehead iron and steel company, limited, 41st annual ordinary general meeting. Economist 155:166 Jl 24 '48
See also
United steel companies

India

Good steel prospects in S. India; substantial high quality ores surveyed. Chem Age (Lond) 58:530 Ap 17 '48
More steel for India's industry; Tata works at Jamshedpur. il Bsns W p 112-13 Jl 17 '48

Italy

Material shortages strangle efforts of Italian steel industry. Iron Age 161:132-3 F 26 '48
Material shortages strangle output of Italian steel works. Iron Age 160:150-1 N 6 '47
Revival of the Italian steel industry. A. Gior-dano. Steel 122:325 Ja 5 '48

New England

New England reconsidering building of steel mill. J. E. Kelly. Barron's 28:32 Ag 23 '48

Pacific coast

Should the federal government subsidize new steel capacity in the West? yes. E. H. Klaus; no. E. Martin. map Mod Ind 15:100-2+ My '48

Russia

Iron and steel industry in Russia. J. Alexandrovsky. maps Engineering 165:141-3 F 6 '48
Soviet steel industry attempting to meet 1950 schedule year early. Am Mach 92:192 Mr 11 '48

Spain

Spanish iron and steel; official plan to enlarge home resources. Chem Age (Lond) 59:15 Jl 3 '48

Sweden

Fuel problems in the Swedish iron and steel industry. M. Tigerschild. dags Iron & Steel Inst J 153:151-63; Discussion. 199-218 no 1 '48
Use of sponge iron for steel; production in Sweden. M. Tickerschild and S. Eketorp. bibliog Metallurgia 37:167-77 F '48

Texas

Texas pig iron. Bsns W p46-7 N 8 '47
Texas steel industry-markets. D. I. Brown. il Iron Age 161:119-20+ Ap 29 '48
Texas steel industry-production. D. I. Brown. flow sheet il Iron Age 161:119-20+ My 6 '48

United States

Basing points; the great muddle. il map Fortune 38:75-9 S '48
Capture of steel mills injures smaller users; big fabricators' purchases offset projected increase in total supply. R. M. Bleiberg. Barron's 28:31-2 Ja 12 '48
Conversion, swaps, gray market widespread. il Steel 122:69-70 F 2 '48
45 per cent more steel needed to maintain reserves. I.P.A.A. says. H. D. Ralph. Oil & Gas J 46:38-9 Ja 8 '48
Management by acclaim; critics have raised all the problems except the important ones. Fortune 37:2-4 F '48
More steel in 1948. W. S. Tower. Steel 121:20-1 D 29 '47
1948 seen repetition of 1947 in steel. C. M. White. Steel 121:62-3+ D 1 '47
1947 steel production 93 percent of capacity; abstract. R. E. Zimmerman. Eng N 140:924 Je 3 '48
Outlook for the steel industry; address before Association of customers' brokers, New York. A. S. Rudd. Comm & Fin Chr 167:994-1 Mr 4 '48
Pressed Metal group and Republic head battle on steel. B. Lloyd. Iron Age 160:116+ N 27 '47
Raw materials still a no. 1 problem. W. A. Lloyd. il Iron Age 161:210-19 Ja 1 '48
Senate committee report on steel. E. J. Hardy. Iron Age 161:98-1 Ja 15 '48
Steel consumer; survey of the steel supply situation from the consumer's viewpoint. D. I. Brown. Iron Age 161:148-55 Ja 1 '48
Steel customer survey. Iron Age 161:136-9 Ja 1 '48
Steel expansion plans bigger than expected. il Bsns W p 19-21 N 8 '47
Steel facilities now operate in 27 states. Steel 122:52-3 Mr 22 '48
Steel industry's supply problem compared to that of petroleum in meeting rising demand. H. J. Wallace. Nat Pet N 40:36 My 5 '48
Steel supply vs. demand; a continuing struggle. D. F. Austin. Comm & Fin Chr 167:2529+ Je 10 '48
Warehouse aid sought in steel supply pinch. Steel 122:43-5 Ap 5 '48
Who gets steel? Bsns W p24 N 29 '47
See also
Kaiser company, inc. United States steel corporation
Republic steel corporation

Western states

Steel expands. il Elec West 101:72 O '48

STEEL ingots

Alloys made by electric ingot process have improved properties. H. R. Clausen. il diag Materials & Methods 27:57-61 Ja '48

STEEL ingots—Continued

- Continuous casting of alloys made possible by new process. *il* Product Eng 18:148 D '47
- Difficulties involved in producing sound ingots. R. L. Stephenson. *il* Blast F & Steel Pl 36:457-8 Ap '48
- Electric hot topping steel ingots. E. S. Kopecki. *il* diags Iron Age 161:80-6 Mr 25 '48
- Electric ingot method for continuous casting alloys. L. E. Browne. *il* diag Steel 122: 74-6+ Ja 19 '48
- Electrolytic manganese in acid and basic electric steel foundry practice and basic steel ingot production. F. Sillers, jr. and others. bibliog U S Bur Mines Rep of Invest 4157:1-24 '47
- Ingot factors in the production of seamless gun tubes. J. W. Spretnak and others. bibliog *il* diag Am Soc for Metals Trans 39:627-50 '47
- Ingot surface defects. P. Walker. *il* diags Iron & Steel Inst J 158:96-8 Ja '48
- Method for increasing steel ingot yield; abstract. G. A. Dornin, jr. diags Iron Age 161: 55 Ja 22 '48
- Practices affecting yields and surfaces quality of rimmed and semi-rimmed steel. L. R. Silliman. *il* Blast F & Steel Pl 36:550-4, 691-4 My-Je '48
- Review of the effects of refractories on steel cleanliness; abstracts. J. G. Mravec. Iron Age 160:106-7 D 11 '47; Steel 121:76+ D 22 '47
- Round ingots reduce steelmaking costs. R. Scherer. Iron Age 162:81 O 21 '48
- Steel casting-pit practice and ingot defects. R. N. Duncan. diags Engineering 166:117-18 J1 30 '48
- Technique in casting a 250-ton ingot; abstract. F. B. Foley. Iron Age 160:72 D 25 '47
- Theoretical thermal studies of steel ingot solidification. V. Paschkis. diags Am Soc for Metals Trans 38:117-47 '47
- Various steps involved in the Dornin process; abstract. G. A. Dornin, jr. diags(p76) Steel 121:78+ D 22 '47

Molds

- Carbon mold plugs in alloy steel production. H. F. Walther. *il* Iron Age 160:70-3 N 27 '47
- Comparison of moulds of standard composition and of approximately ingot mould subcommittee composition. W. L. Kerlie. Iron & Steel Inst J 157:410-15 N '47
- Contributions to the study of the life of ingot molds; abstract. R. Stumper. Metal Prog 54:238+ Ag '48
- Effect of mold thickness and cooling on base quality of intermediate size ingots; abstract. G. Breyer. Iron Age 160:106 D 11 '47
- Mould-weight/ingot-weight ratio and its relation to mold consumption. N. H. Bacon. bibliog Iron & Steel Inst J 158:81-95 Ja '48
- Recent problems and developments in steel making controls. H. J. Forsyth. Blast F & Steel Pl 36:73-4 Ja '48

Statistics

- Steel ingot production and operating rates; monthly, 1940-1947; tabulation. Steel 122: 327 Ja 5 '48
- United States steel ingot production; monthly, 1922-1947; tabulation. Iron Age 161:233 Ja 1 '48
- World pig iron, steel ingot, castings, and ferroalloy production; by countries, 1940-1947; tabulation. Steel 122:326 Ja 5 '48

Testing

- Kinetics of solidification of killed steel ingots. J. W. Spretnak. bibliog *il* diags Am Soc for Metals Trans 39:569-619; Discussion. 619-26 '47

STEEL joists. See Joists, Steel**STEEL lining**

- Design of steel-lined concrete pressure conduits. D. B. Gumensky and P. F. Chu. *il* diags Civil Eng 18:700-1 N '48

STEEL metallurgy

- American iron and steel institute 56th general meeting, New York, May 26; abstracts of technical papers. Steel 122:68+ My 31 '48
- American society for metals 30th annual meeting, Philadelphia, Oct. 25-28; abstracts of papers. Steel 123:144+ O 18 '48

- Application of oxygen enrichment to side-blown-converter practice. J. L. Harrison and others. bibliog diags Iron & Steel Inst J 159:281-90 J1 '48
- Bearing steels meet high quality standards. E. M. Taussig and C. B. Coburn. Steel 122: 100+ F 23 '48
- Casting developments in review; steel. C. W. Briggs. bibliog *il* Foundry 76:66-9+ Ja '48
- Continuous casting; revolution in steel making? *il* diag Bsns W p21-2 Ag 23 '48
- Development in the iron and steel industry during 1947. I. E. Madsen. *il* diags Iron & Steel Eng 25:46-68 Ja '48
- Ferrous production metallurgy; review of 1947. M. W. Lightner and S. Marshall. Min & Met 29:111-13 F '48
- Formation and transformation studies of iron-carbon powder alloys. J. F. Kahles. bibliog *il* Am Soc for Metals Trans 36:618-51; Discussion. 651-8 '47
- Further work on the phosphorus reaction in basic steelmaking. P. Vajragupta. Iron & Steel Inst J 158:494-6 Ap '48
- Graphical correlation; its application to steel mill problems. C. R. Taylor. Iron Age 160: 78-84 N 6 '47
- Hydrogen in steel manufacture. C. Sykes and others. bibliog *il* 2pls diags Iron & Steel Inst J 156:155-80 Je '47; Discussion. 157: 377-81; 158:437-47 N '47, Ap '48
- Ingot factors in the production of seamless gun tubes. J. W. Spretnak and others. bibliog *il* diag Am Soc for Metals Trans 39:627-50 '47
- Iron and steel and refrigeration. D. Gordon. Inst Mech Eng J & Proc 158:Proc 9-12 Je '48; Same cond. Engineer 184:418-17 O 31 '47
- Laboratory investigation of the phosphorus reaction in the basic steelmaking process. K. Balajiva and others. bibliog diags Iron & Steel Inst J 153:115-45, pl 5-6; Discussion. 145-50 no 1 '46
- Ladle deoxidation of killed steel with silicon carbide and its effect on physical properties and hardenability. E. A. Loria and A. P. Thompson. bibliog *il* Am Soc for Metals Trans 39:651-65; Discussion. 665-9 '47
- Mass-production methods applied to the manufacture of cast-steel bomb bodies. P. H. Wilson. *il* diags Engineering 164:501-3 N 21 '47
- Metallurgy in America, 1917-1947; chronological record. Metal Prog 53:75-8, 827-32 Ja, Je '48
- Metallurgy; research drives to meet new economic needs. E. S. Kopecki. *il* Iron Age 161: 138-207 Ja 1 '48
- New stainless steel process; changed furnace technique reported from South Africa. Chem Age (Lond) 58:464 Ap 3 '48
- O.H. + O₂ = ? using oxygen in steel making. D. E. Carb. Blast F & Steel Pl 36:301-5 J1 '48
- Oxygen activities during 1947. J. H. Zimmermann. *il* Blast F & Steel Pl 36:83-5 Ja '48
- Oxygen enriched air for steel production. bibliog Engineer 186:103-5 J1 30 '48
- Oxygen in side blown converters. M. E. Davies. bibliog diags Iron Age 162:87-91 S 2 '48
- Oxygen in steelmaking. W. Mann. *il* Sci Am 135:52-6 F '48
- Oxygen in the steel industry. H. W. McQuaid and F. E. Pavlis. *il* Iron & Steel Eng 25: 41-6; Discussion. 46-8 Ap '48
- Raw materials for iron and steel making. H. W. Graham. *il* Min & Met 28:538-42 N '47
- Recent problems and developments in steel making controls. H. J. Forsyth. *il* Blast F & Steel Pl 36:70-5 Ja '48
- Removal of hydrogen from steel. J. H. Andrew and others. diag Iron & Steel Inst J 153:67-113, pl 2-4 no 1 '46
- Revolution in steel. H. W. McQuaid. *il* Metal Prog 53:67-74 Ja '48
- Russian steel-making research; recent work on air-oxygen mixtures. Chem Age (Lond) 58:785-6 Je 5 '48
- Side-blow converter practice. S. R. Robinson. Foundry 76:315-16+ My '48
- Steel; how made and how much. *il* Westinghouse Eng 8:66-72 My '48

STEEL metallurgy—Continued

Steel technological revolution seen near with advanced methods, *il* *diag* *Am Mach* 92:130 S 9 '48

Steelmaking in acid side blown converters. N. F. Dufty, bibliog *il* *diags* *Blast F & Steel* Pl 36:683-90+ Je '48

Technical progress in metalworking; metal production, *Steel* 122:258+ Ja 5 '48

Tonnage oxygen versatile aid for increasing iron and steel output, J. H. Strassburger, *il* *diag* *Steel* 123:143+ O 18 '48; Abstracts, *Iron & Steel Eng* 25:112-15 Ag '48; *Iron Age* 161:92-3 Je 10 '48

Use of carbide-stabilizing elements to improve weldability of plate steels, F. F. Franklin, bibliog *il* *Welding J* 27:sup20-6 Ja '48

Use of sponge iron for steel; production in Sweden, M. Tjerschiöld and S. Eketorp, bibliog *Metallurgia* 37:167-77 F '48

Use of the spectrograph for residual and alloy control in the steel plant; abstract, B. W. Bowen, *Steel* 121:128+ N 10 '47

See also

Bessemer process	Steel—Metallography
Case hardening	Steel, Hardening of
Furnace, Steel mak-	Steel, Heat treat-
ing	ment of
Iron metallurgy	Steel alloys
Open hearth fur-	Steel castings
naces	Steel ingots
Open hearth process	Steel works

Duplex process

Duplex process, D. T. Rogers, bibliog *Iron & Steel Eng* 25:49-57; Discussion, 57-8 Ap '48

Duplexing steel operation affords greater use of stainless scrap in melt, D. Reebel, *il* *plan* *diag* *Steel* 122:90+ Je 28 '48

Use of blown metal in open hearth steelmaking, H. B. Emerick, *Blast F & Steel* Pl 36:695-6 Je '48

Water-cooled cupola features duplexing plant; Central iron and steel co. E. S. Kopecki, *il* *diags* *Iron Age* 162:81-5 Ag 19 '48

Electrometallurgy

Alloys made by electric ingot process have improved properties, H. R. Clauser, *il* *diag* *Materials & Methods* 27:57-61 Ja '48

Developments in the electric furnace industry during 1947, W. J. Reagan, *Blast F & Steel* Pl 36:61-3 Ja '48

Difficulties involved in producing sound ingots, R. L. Stephenson, *il* *Blast F & Steel* Pl 36:457-8 Ap '48

Effect of some melting variables on the tensile properties of acid electric steel; abstract, S. F. Carter, *Iron Age* 160:107 D 11 '47

Electric furnace oxygen utilization affords greater stainless scrap charge, reduced heat time and improved chromium recovery, J. H. Elsaman, *il* *Steel* 123:112+ Ag 16 '48; Same, *Blast F & Steel* Pl 36:1081-4 S '48; Same cond, *Iron & Steel Eng* 25:117-19 Ag '48

Electric furnace steel conference, 5th, sponsored by electric furnace steel committee of iron and steel division, American institute of mining and metallurgical engineers, Pittsburgh, Dec. 4-6, *Steel* 121:74+ D 22 '47; *Foundry* 76:114+ Ja '48; *Metal Prog* 53:91-3+ Ja '48

Electric furnace steel; flow chart, *Factory Management* 106:96a-96c My '48

Electric ingot method for continuous casting alloys, L. E. Browne, *il* *diag* *Steel* 122:74-6+ Ja 19 '48

Electrolytic manganese in acid and basic electric steel foundry practice and basic steel ingot production, F. Siller, jr. and others, bibliog *U S Bur Mines Rep of Invest* 4157:1-24 '47

Eliminating carbon with oxygen in commercial grades of electric furnace steel, W. B. Arness, *il* *diag* *Steel* 122:120+ F 2 '48

Evaluation of steel cleanliness; abstract, P. Schane, jr, *Blast F & Steel* Pl 36:135 Ja '48

Impact properties of semi-hard electric steel; abstract, P. Bastien and C. Dubois, *Materials & Methods* 26:119-20 D '47

New electric furnaces will add 600,000 tons to 1949 capacity, G. F. Sullivan, *Iron Age* 162:93-4 S 30 '48

Origin of silicate inclusions in basic electric-arc-furnace steel of higher carbon contents, A. Hultgren, bibliog *il* *diags* *Metals Tech* 15:TP2418 1-28 Ag '48

Oxygen in the electric furnace, J. H. Berryman and J. M. Crockett, bibliog *il* *Iron Age* 162:72-5+ Ag '48

Present applications of oxygen in electric furnace steelmaking; abstract, J. H. Berryman, *Iron Age* 160:105-6 D 11 '47

Single slag basic electric furnace practice, W. R. Patterson and J. T. Evans, jr, *il* *Iron Age* 162:54-9 S 30 '48

Thermochemical behavior of chromium in the process of steel manufacture in electric arc furnaces; abstract, A. Bargone, *Chem Eng* 55:298 Mr '48

History

Institution of mechanical engineers; presidential address, D. Gordon, *Engineering* 164:475-6 N 14 '47

STEEL partitions. *See* Partitions, Steel

STEEL pipes. *See* Pipes, Steel

STEEL plates

British annealing furnace heat treats 45-ton plates, *il* *Steel* 122:104+ Ap 12 '48

Brittle fracture in mild-steel plates; symposium, *il* *diags* *Engineering* 164:532-4, 556-7, 581-3, 605-6; 165:16-18, 53, 77-8, 208-10, 222-3, 568-71, 592-5, 605-7 D 5 '47-Ja 2, 16-23, F 27-Mr 5, Je 11-25 '48; Abstract, *Metal Prog* 54:34+ Jl '48

Cautious cracking of welded steel plate; reboiler in refinery at Port Arthur, Texas, H. M. Wilten, *il* *Metal Prog* 52:803-5 N '47

Heat treatment of spot welds in steel plate, W. F. Hess and others, bibliog *il* *diags* *Welding J* 26:sup641-52 N '47

Metallurgical factors in the embrittlement of welded plate, R. D. Stout and L. J. McGeady, *il* *diag* *Welding J* 26:sup683-92 N '47

Perforated cover plates for steel columns; compressive properties of plates having oval, elliptical, and square perforations, A. H. Stang and E. S. Jaffe, *il* *diags* *J Res Nat Bur Stand* 40:121-3 F '48

Perforated cover plates for steel columns; summary of compressive properties, A. H. Stang and M. Greenspan, bibliog *il* *diags* *J Res Nat Bur Stand* 40:347-59 My '48

Radiative and convective heat transfer rates pertaining to heating processes; a theoretical comparison, J. Huebler, *Ind & Eng Chem* 40:1094-8 Je '48

Salt bath handles large hot-rolled plate; descaling process, *il* *Elec World* 129:94 F 28 '48

Seam welding composite plates, O. R. Carpenter, *il* *diags* *Steel* 121:64-6+ D 22 '47

Spin six-in. thick steel plate; Lukens steel co. *il* *Am Mach* 92:33-4 Ap 8 '48

Steel tubing and plate replaces castings in heavy-duty parts; manufacture of draft gears, K. Rose, *il* *Materials & Methods* 26:68-70 D '47

This handy chart gives the weight of any steel plate, W. F. Schaphorst, *Am Gas J* 167:23 D '47

Use of carbide-stabilizing elements to improve weldability of plate steels, F. F. Franklin, bibliog *il* *Welding J* 27:sup20-6 Ja '48

See also

Ship plates

Testing

Brittle fracture in mild-steel plates, W. Barr and C. F. Tipper, *il* 2pls *diags* *Iron & Steel Inst J* 157:223-38 O '47; Discussion, 158:327-36 Mr '48

Developments in high-speed rotating disk research at M.I.T., C. W. MacGregor and W. D. Tierney, *il* *diags* *Welding J* 27:sup303-9 Je '48

Notch toughness of steel plates, D. F. Windenburg, *il* *diags* *Product Eng* 19:110-13 F '48

Rate of propagation of fatigue cracks in 12-inch by ¾-inch steel plates with severe geometrical stress-raisers, W. M. Wilson and J. L. Burke, *il* *diags* *Ill U Eng Exp Sta Bul* 37:11-14 '47 (35c); Same, *Welding J* 27:sup405-8 Ag '48

Strain aging in welding low-carbon structural steel, W. H. Bruckner and W. E. Ellis, *il* *diags* *Welding J* 27:sup441-7 S '48

STEEL research

British iron and steel research association; activities during the past year. *Il Metallurgia* 38:270-2 S '48

Continuous casting research planned by British iron & steel research assn. *Il Iron Age* 160:84 N 20 '47

Controlled vacuum heat treating; results of American gas association experiments. *Il Steel* 121:80-3+ N 24 '47

Current theories of the hardening of steel; discussion of A. Sauveur's papers. J. E. Austin. *Il diags Metal Prog* 54:201-8 Ag '48

Decomposition of austenite by nucleation and growth processes. R. F. Mehl. 4pls diags Iron & Steel Inst J 159:113-29 bibliog(50 titles, p123-9) Je '48

Ductility of steels for welded structures. A. B. Kinzel. bibliog *Il diags Welding J* 27: sup217-34 My '48; Abstracts. *Metal Prog* 52:795-9 N '47; *Steel* 121:91-2+ D 8 '47

Effect of chromium on the M_s point. J. B. Bassett and E. S. Rowland. bibliog *Il Metals Tech* 15:TP2417 1-8 Ag '48

Ferrous physical metallurgy; review of 1947. M. Baeyerzt and W. F. Craig, jr. *Min & Met* 29:114-17 F '48

Fluidity of steel; experimental investigations on fluidity/temperature relationships. R. Jackson and others. bibliog diags Iron & Steel Inst J 157:1-21 S '47; Discussion. 158:448-51 Ap '48

Hydrogen and transformation characteristics in steel. J. H. Andrew and others. bibliog 5pls diags Iron & Steel Inst J 156: 208-53 Je '47; Discussion. 157:377-81; 158: 437-46 N '47, Ap '48

Hydrogen in steel manufacture. C. Sykes and others. bibliog *Il 2pls diags Iron & Steel Inst J* 156:155-80 Je '47; Discussion. 157: 377-81; 158:437-47 N '47, Ap '48

Inside a steel research laboratory; Republic Steel's Process & product development laboratory. *Il Bsns W* p38-4+ N 15 '47

Laboratory investigation of the phosphorus reaction in the basic steelmaking process. K. Balajiva and others. bibliog diags Iron & Steel Inst J 153:115-45, pl 5-6; Discussion. 145-50 no 1 '46

Metallurgy; research drives to meet new economic needs. E. S. Kopecki. *Il Iron Age* 161:198-207 Ja 1 '48

Radioactive tracers in steelmaking. *Iron Age* 161:85 Ap 29 '48

Recent developments concerning the properties of cast steels. C. W. Briggs. *A S M E Trans* 70:37-47 Ja '48

Removal of hydrogen from steel. J. H. Andrew and others. *diag Iron & Steel Inst J* 153:67-113, pl 2-4 no 1 '46

Russian steel-making research; recent work on air-oxygen mixtures. *Chem Age (Lond)* 58:785-6 Je 5 '48

Science and the steel industry. C. H. Desch. *Iron & Steel Inst J* 153:33-40 no 1 '46; Same. *Engineering* 161:476, 485-6 My 17-24 '46; Excerpts. *Engineer* 181:432-4 My 10 '46

Services to metallurgy of the late Dr W. H. K. Balajiva and others. bibliog diags Iron & Steel Inst J 153:369-75 no 1 '46; Same cond. *Engineering* 161:461 My 17 '46

Some properties of titanium steels. L. Northcott and D. McLean. bibliog 2pls Iron & Steel Inst J 157:492-512 D '47; Discussion. 159:170-1 Je '48

Source of sulphur entering steel disclosed by radioactive tracers; other applications. *Steel* 122:112 Ap 26 '48

South Wales laboratories at Sketty Hall; British iron and steel research association. *Il plans Metallurgia* 37:259-63 Mr '48

Steel research laboratories in south Wales. *Il Engineer* 185:179-81 F 20 '48; *Engineering* 165:187-8 F 20 '48

Surface-temperature measurement. M. D. Hedgcock and R. Mayorcas. bibliog *Il diags Iron & Steel Inst J* 158:236-47 F '48

Technical trends in steel research. E. C. Bain. *Blast F & Steel Pl* 36:1222-5+ O '48

Theoretical thermal studies of steel ingot solidification. V. Paschakis. diags *Am Soc for Metals Trans* 35:117-47 '47

Use of wetting agents in conjunction with acid inhibitors. P. H. Cardwell and L. H. Eilers. bibliog *Il Ind & Eng Chem* 40:1951-6 O '48

History

Institution of mechanical engineers; presidential address. D. Gordon. *Engineering* 164: 475-6 N 14 '47

STEEL reservoirs. See Reservoirs, Steel

STEEL straps
Cribben & Sexton tries steel strapping for range shipment. *Il Cer Ind* 49:69 O '47

STEEL tables. See Tables, Steel

STEEL using industries
Congress finds no solution for oil industry's steel problems. B. F. Linz. *Oil & Gas J* 47:49-50 Je 3 '48

Distribution; more efficient system for channeling steel and finished products as well as other materials, one of 1948's major problems. B. K. Price. *Il Steel* 122:134-7 Ja 5 '48

Elimination of steel basing point system would have varying effect on consuming industries. H. A. Knight. map *Materials & Methods* 28:51-4 Jl '48

Freight boost lifts users' steel costs. *Steel* 122:79 Ap 26 '48

Guide for steel buyers under the new f.o.b. pricing system; geographical location of facilities for producing principal steel products; tabulation. *Steel* 123:62-3 Jl 19 '48

House committee resumes hearings on steel supplies for petroleum. *Nat Pet N* 40:18 My 26 '48

How essential is plumbing, heating and air conditioning? industries' need for steel products. *Il Dom Eng* 171:108-19+ Mr; 98-100 Ap; 118-19+ My '48

Industry's steel needs. *Il World Oil* 127:57-8+ Ap '48

Majority of steel users favor retention of basing point system. T. Campbell. *Iron Age* 162:119-21 Jl 1 '48

Metal fabricators hope Pittsburgh answer to f.o.b. problem; consider relocation of plants. S. Smoke. *Iron Age* 162:127-8 Jl 29 '48

Oil field steel needs pressing. *Steel* 122:65+ Ap 12 '48

Oil marketing steel need estimated 1.8 million tons. *Nat Pet N* 40:11-12 Mr 17 '48

Primer on steel conversion. D. I. Brown. *Iron Age* 162:72-7 Jl 29 '48

Sheet and strip shortage; special report. *Il map Steel* 122:55-62 F 23 '48

Sheet shortage crimps metalworking. *Steel* 121:61-2 N 17 '47

Steel consumer; survey of the steel supply situation from the consumer's viewpoint. D. I. Brown. *Iron Age* 161:148-55 Ja 1 '48

Steel customer survey. *Iron Age* 161:136-9 Ja 1 '48

Statistics
Automakers take record steel tonnage; industrial consumers statistics for 1947. *Steel* 122:63-4 Je 21 '48

18-month oil steel needs set at 15 million tons. *Nat Pet N* 40:11-12 F 26 '48

14 million bbl. consumer storage boost seen if steel can be had; steel requirements of petroleum industry, last three quarters of 1948 and first three quarters of 1949. *Nat Pet N* 40:14-15 Mr 24 '48

More steel delivered in the first half of 1948. *Steel* 123:41-2 O 25 '48

Shipments of steel to automobile industries, 1941-46-47; tabulation. *Automotive Ind* 99: 41 Ag 15 '48

Total gas industry steel requirements exceed 4,000,000 tons. *Gas Age* 101:27+ My 13 '48

STEEL waste
Salvaging fifty-six tons of sheet metal per day; Buick motor division of General Motors corp. *Il diags Mach* 55:178-83 N '48

STEEL water pipes. See Water pipes, Steel

STEEL wire. See Wire, Steel

STEEL work
All steel burial caskets mass produced; Warren stamping co. J. R. Barefoot. *Il diag Iron Age* 162:72-7 Jl 8 '48

Closely-controlled forming operations used to fabricate copper-bottom stainless containers; Norris stamping & mfg. co. G. E. Stedman. *Il Steel* 122:102+ Mr 1 '48

Fabricating rolled steel draft gears for railroad cars. E. F. Ross. *Il Steel* 121:46-8 D 29 '47

Fabricating stainless steel. R. Nelson. *Il Sheet Metal Worker* 39:57-60+ My '48

STEEL work—Continued

- Fabricating steel hardware; fasteners and pole line hardware; Oliver Iron & steel corp. il diags Steel 121:71-2+ D 22 '47
- Fundamentals of forging practice; facilities for cutting bars and billets, trimming and punching, coining and sizing must be available in any efficient plant, V. Naujoks. il diags Steel 123:100-3+ S 13 '48
- Injuries in ground surfaces, L. P. Tarasov. il diags Steel 122:71-4+ Mr 22 '48
- Prewar French experience with steel cart-dridge cases, E. Herzog. il diags Metal Prog 53:879-83 My '48
- Properties of copper brazed joints, G. B. Wilkes, Jr. il diags Iron Age 162:44-51 S 30 '48
- Sheet steel supply can be extended by better materials engineering, T. C. Du Mond. il Materials & Methods 27:61-6 Mr '48
- Steel shapes formed by cold extrusion, K. Rose. diags Materials & Methods 27:68-71 My '48
- Which wrought stainless steel? S. P. Watkins and R. J. Berkol. il Machine Design 20:107-12 Mr; 174-9 Ap '48

*See also***Rolling (metal work)****STEEL workers**

- Anti-inflation plan fails; U.S. Steel forced to raise wages, prices, Iron Age 162:121+ J1 22 '48
- Employee-benefit plans in basic steel analyzed, E. J. Hardy. Iron Age 161:96+ F 5 '48
- GM wage setup isolates steel's move to block third wage round, T. Campbell. Iron Age 161:119-20 Je 3 '48
- Good vision program increases efficiency, improves employee morale, E. M. Soles. il Steel 121:96-7+ N 17 '47
- Health hazards under the microscope; industrial hygiene laboratory, Bethlehem steel co. il plan Nat Safety N 57:22-3+ My '48; Same, Steel 122:110+ Je 14 '48
- Health of workers exposed to sodium fluoride at open hearth furnaces, (Pub. health bul. 299) 64p U.S. Public health service, Washington; pa 25c Supt. of doc. '48
- Human relations program gets glad hand from union; Allegheny Ludlum's program to develop better relations in plant communities, G. F. Sullivan. Iron Age 161:123+ Ap 29 '48
- Let's make workers feel they belong; Allegheny Ludlum Steel, H. G. Batcheller. Factory Management 106:90-3 F '48
- More Pittsburgh firms pay all of employees group insurance cost, Iron Age 160:143-4 N 13 '47
- Murray announces new wage agreement signed with U.S. Steel. Iron Age 162:123 J1 22 '48
- Over one-third of all factory wages paid by steel, Blast F & Steel Pl 36:379 Mr '48
- Repeat performance; Big steel starts third-round wage talks with C.I.O. Bsns W p 100-1 Ap 3 '48
- Second session of the I.L.O. iron and steel committee, Int Labour R 56:298-303 S '47
- Ten-million raises; steel grants 13¢ an hour, Bsns W p92 J1 24 '48
- U.S. Steel denies demand for wage increase and will cut prices instead, B. F. Fairless. Comm & Fin Chr 167:1893 Ap 29 '48

Great Britain

- Easel technique; getting facts of Britain's economic situation to workers, R. Desbrow. Ptr Ink 223:38-9 Je 26 '48

STEEL works

- Capture of steel mills injures smaller users; big fabricators' purchases offset projected increase in total supply, R. M. Bleiberg. Barron's 28:31-2 Ja 12 '48
- Continuous-flow, self-cleaning diversion works increase water supply of Colorado steel plant, A. J. Ryan; R. L. Parshall, il plan diags Civil Eng 17:30-5+ D '47
- Crucible steel company of America; new plant at Chicago, il Factory Management 106:B59-61 pt 2 Ap '48
- Developments in the iron and steel industry during 1947, I. E. Madsen. il diags Iron & Steel Eng 25:46-68 Ja '48

- Former wasteland now western steelmaking enterprise; plant at Geneva, Utah, G. E. Stedman, il plan Steel 122:128+ Mr 8 '48
- Gulf port steel plant contributes to Southwest's industrial development, G. E. Stedman. il Steel 122:114+ Je 21 '48
- In the open hearth area; designing crane runways, H. G. Tregillus. diags Blast F & Steel Pl 36:954-6 Ag '48
- Kaiser's gamble at Fontana defies dire predictions of failure, T. Campbell. Iron Age 162:133-4 O 7 '48
- Modern open hearth; steel works directory and tabulated data, T. J. Ess. Iron & Steel Eng 25:067-70 J1 '48

Accidents

- Steel has its best year in safety; 1947 figures, Safety Eng 96:54-5 Ag '48
- Steel industry's 1947 safety record is best in its history, S. Smoke, Iron Age 162:123 Ag 19 '48

Electric equipment

- AISE standards for wiring diagrams, Iron & Steel Eng 25:69-70 F '48
- Control of maximum demand in steel works, il diags Engineering 166:176-7 Ag 20 '48
- Electric control gear for steel-mill auxiliaries, R. A. West. il diags Iron & Steel Inst J 158:357-75 Mr '48
- Electronic and servo electronic controls and their application to the iron and steel industry, W. G. Thompson. bibliog il diags Iron & Steel Inst J 158:497-509 Ap '48; Discussion, 160:417-25 D '48
- Maintenance of electrical machinery in iron and steel works, G. S. Martin and M. Y. Harvey. il diags Iron & Steel Inst J 158:510-20 Ap '48; Discussion, 160:426-8 D '48
- Maintenance of main drive motors and motor-generator sets, Iron & Steel Eng 25:96-8 Mr '48
- Manufacture of mill type motors, C. B. Hathaway, Iron & Steel Eng 25:105-6 Mr '48
- Motor location factor in heavy service, Elec World 129:97+ F 14 '48
- Operation of ingot buggies by remote control, K. S. Kuka. il diags Iron & Steel Eng 25:77-9 Je '48
- Rototrol in steelmaking, L. H. Berkley. il Westinghouse Eng 8:73-4 My '48
- Steel industry electrification trends, L. A. Umansky. bibliog diag Elec Eng 67:774-5 Ag '48

Employees*See Steel workers***Equipment**

- Annual coke production at Lorain works increased by 300,000 net tons, il Blast F & Steel Pl 36:325-31 Mr '48; Same cond. Steel 122:92+ Mr 22 '48; Same cond. Iron & Steel Eng 25:113-15 Ap '48
- Automatic welding of steel mill equipment, W. W. Scherer and H. J. Ralston, il Iron Age 162:80-8 J1 15 '48
- Clarification and filtration plant supplies controlled purity water; Columbia steel co. flow diag il Iron Age 162:68-9 O 28 '48
- Cleaning of service water in steel plants; self-cleaning water strainer, S. P. Kinney, il Iron & Steel Eng 25:56-9 F '48
- Compressed air dumps slag pots of TCI Diesel-powered trains; unique air compressor car, il Blast F & Steel Pl 36:847-9 J1 '48
- Cooling system installed on ladle cranes, il Blast F & Steel Pl 36:sup78+ Ap '48
- Crane cab cooling, il diags Steel 122:82 Mr 22 '48
- J & L's Aliquippa works increases capacity by use of thirteen hot metal cars, il Iron & Steel Eng 25:77-8 J1 '48; Same, Blast F & Steel Pl 36:982-3 Ag '48
- Locomotives for iron and steel works, E. L. Diamond. diags Iron & Steel Inst J 159:37-59 My '48
- Modern coal handling system important unit in Lorain expansion, il plan Iron & Steel Eng 25:44-6 Mr '48
- New two-way radios boost yard efficiency at Weirton Steel plant, il Iron Age 160:129 D 4 '47
- Overhead coil conveyor; Weirton steel co. il Steel 122:73 Ja 19 '48

STEEL works—Equipment—Continued

Oxycetylene production cutting in steel mills. A. H. Yoch and W. Begerow, *il* Welding J 27:188-92 Mr '48

Portsmouth steel corp. is well under way on modernization program, *il* Steel 121:64-5+ N 24 '47

Prevention of mechanical failures in steel plant equipment. O. J. Horger and G. A. Stumpf, bibliog. *il* diags Iron & Steel Eng 25:69-76; Discussion, 77 My '48

Railroad radio comes to the steel industry; Weirton steel company, C. J. Anderson, *il* plan Blast F & Steel Pl 36:1101-4 S '48

Raw materials handling in the steelworks storage yard, F. C. Wier, *il* Steel 122:101+ Mr 29 '48

Service trials of painting schemes applied to a steelworks gantry, J. C. Hudson, 2pls Iron & Steel Inst J 159:60-6 My '48

Steel plant service requirements for cranes, I. E. Madsen, Iron & Steel Eng 25:96-9 S '48

Weirton steel company, T. J. Ess, *il* plan diags Iron & Steel Eng 25:sup 16W-34W My '48

Welding of ore bridge effects dead weight reduction, *il* Steel 121:98 D 1 '47

Fuel

Controls for multiple fuels, W. F. Pray, diags Iron & Steel Eng 25:61-5 Ag '48

Fuel problems in the Swedish iron and steel industry, M. Tigerschild, diags Iron & Steel Inst J 153:151-63; Discussion, 199-213 no 1 '46

Fuel utilization in iron and steel works, N. H. Turner and F. A. Gray, diags Iron & Steel Inst J 153:183-98 no 1 '46; Same abr. Blast F & Steel Pl 34:1408-12+ N '46; Discussion, Iron & Steel Inst J 153:199-216 no 1 '46

Gaseous and liquid fuels in iron and steel works, J. B. R. Brooke and J. S. Bryan, *il* diags Iron & Steel Inst J 153:111-24 Ja '48; Discussion, 160:85-94 S '48

Liquefied petroleum gases for the steel industry; abstract, F. E. Drake, Iron & Steel Eng 25:88 S '48

Problems in fuel efficiency, C. Hulse and R. J. Sarjant, bibliog. Iron & Steel Inst J 153:165-81 no 1 '46; Excerpts, Blast F & Steel Pl 34:1292-4 O '46; Discussion, Iron & Steel Inst J 153:199-216 no 1 '46

Heating and ventilation

Heating system for high ceiling buildings; plant of Penn iron works, *il* Blast F & Steel Pl 36:221-3 F '48

Layout

Production flow charts; electric furnace steel, Factory Management 106:96a-96c My '48

Steel wire; production flow charts, Factory Management 106:96a-96c Jl '48

Lighting

Planning and co-ordinating steel mill lighting, W. H. Kahler, *il* Steel 121:118+ D 15 '47

Maintenance and repair

Lubrication equipment maintenance, R. A. Kraus, *il* Iron & Steel Eng 25:100-6; Discussion, 106-8 S '48

Maintenance methods symposium, Iron & Steel Eng 25:89-98 Mr '48

Maintenance welding in a steel plant, F. J. Gaydos, *il* Welding J 27:527-30 Jl '48

Preventive maintenance, E. L. Anderson, Iron & Steel Eng 25:55-6 S '48

Selecting materials to reduce maintenance, W. H. Sparr, *il* Iron & Steel Eng 25:134-8 S '48

Submerged arc welding for maintenance, C. C. Keyser, *il* Iron & Steel Eng 25:37-42 S '48

Management

Graphical correlation; its application to steel mill problems, C. R. Taylor, Iron Age 160:78-84 N 6 '47

How to run a successful open house program; Oliver iron and steel corp, J. B. Patton, *il* Mill & Factory 42:137-9 Je '48

Multiple correlation applied to steel plant problems, W. T. Rogers, Blast F & Steel Pl 35:1375-6 N '47

Production control in a high alloy steel plant; Watervliet plant of Allegheny Ludlum steel corp, G. R. Reindel, *il* Iron Age 161:91-4 Je 3 '48

Statistical methods in the iron and steel industry, A. W. Swan, Engineering 166:379-80 O 15 '48

Work and organization of a statistical department in heavy industry with particular reference to the steel industry, A. W. Swan, bibliog. diags Iron & Steel Inst J 160:1-20 S '48

Power

Electric power in the steel industry, H. W. Poole, Gen Elec R 51:23-4 Ag '48

English boiler house utilizes coke oven and blast furnace gas as fuel, Blast F & Steel Pl 35:1388+ N '47

Five modern boilers will replace forty-six old ones in steel plant; Jones & Laughlin steel corp, F. X. Gilg, diags Blast F & Steel Pl 36:108-11 Ja '48

Gas turbine applications in iron and steel works, A. T. Bowden and others, *il* plans diags Iron & Steel Inst J 156:98-113 My '47; Excerpts, Blast F & Steel Pl 36:228-30+ F '48; Discussion, Iron & Steel Inst J 157:115-30 S '47

How gas engines serve today's steel mills, W. M. Cline, jr. *il* diag Power 92:38-40 Ja '48

Increased energy supply for steel mill, H. A. P. Langstaff and K. N. Reardon, *il* diag Elec World 130:93-5 O 9 '48

Keystone steel & wire co. adds 150,000 lbs. per hr. boiler capacity, W. Gaumer and M. O. Funk, Blast F & Steel Pl 36:460-1 Ap '48

Low air pressure; its causes, effects and remedies, *il* Blast F & Steel Pl 36:356-8 Mr '48

Power and power factor in arc furnace operation, E. H. Browning, bibliog. *il* diags Iron & Steel Eng 25:79-84; Discussion, 84-6 Ja '48

Steel co. of Canada power plant, diags Power 92:612-13 O '48

Steel-mill boilers designed for blast-furnace gas, W. M. Cline, jr. *il* Power 92:350-1+ Je '48

Safety measures

New plan for accident prevention set up by Weirton safety group, Iron Age 162:146+ S 16 '48

Prevention of silicosis in the steel industry, E. M. Feiman, Ind Med 17:266 Jl '48

Pushing steel's accident rate down, *il* Safety Eng 95:43+ Mr '48

Safety in maintenance and construction, D. Farrell, Iron & Steel Eng 25:60-1 S '48

Waste

Waste water treatment by steel plants aids in water, chemicals reuse; abstract, C. F. Hauck, Iron Age 161:124-5 Mr 18 '48

Brazil

Brazilian ore resources and the Volta Redonda plant, R. Vaill, Blast F & Steel Pl 35:1365-7, 1488-9+ N-D '47

Great Britain

Steel works in the making; new Abbey works, diag Economist 153:810-11 N 15 '47; Same cond, Iron Age 161:119-21 Ja 29 '48

India

Modern Tata steel works made dream of Indian industrialist real, S. Smoke, Iron Age 162:97-8 S 30 '48

Mexico

Mexico's steel industry, C. E. Plumb, Elec Eng 67:533-4 Je '48

Russia

Soviet Union builds large northwestern steel center, *il* map Eng & Min J 149:92-4 Je '48

South Africa

South Africa will have another steel plant, *il* Blast F & Steel Pl 36:1097-8 S '48

STEELMAN, John Roy, 1900-
Liaison between the President and the Inter-departmental committee for scientific research and development. *por(cover) Chem & Eng N* 26:244+ *Ja* 25 '48

STEERING

596-foot grain carrier steered by propellers. *il Marine Eng* 53:79 *Ja* '48

STEERING gear

See also

Rudders

STEIN, Hall and company

Corporate omnibus; importer, exporter, manufacturer, seller and distributor. *Fortune* 37:122 *My* '48

STELLITE

Spot test distinguishes between stellite and vitallium. *Iron Age* 160:64 *D* 18 '47

Stellite in the mining industry. *B. G. MacKenzie, il diags Can Min J* 69:71-4 *Ag* '48

STENOGRAPHIC departments

See also

Transcription departments

STEPHENS, John Allen, 1895-

Portrait. *Bsns W* p22 *My* 22 '48

STEPHENS college, Columbia, Missouri

Practical ladies; Stephens College girls learn business ropes by doing. *il Bsns W* p35-6+ *O* 3 '48

STEREOCHEMISTRY

Chemistry of epoxy compounds; stereochemical relationships between the 3,10-epoxy-, chlorohydroxy- and dihydroxystearic acids. *D. Swern, bibliog Am Chem Soc J* 70:1235-40 *Mr* '48

Configuration of organic telluroxides; mixed crystals of telluroxides with selenoxides. *H. Rheinboldt and E. Giesbrecht, bibliog Am Chem Soc J* 69:2310-13 *O* '47

Crystal structure of anhydrous cupric chloride, and the stereochemistry of the cupric atom. *A. F. Wells, diags Chem Soc J* p 1670-5 *D* '47

Dissociation of the addition compound of trimethylboron with quinuclidine; further evidence for the steric configuration of triethylamine. *H. C. Brown and Sei Sujishi, bibliog diags Am Chem Soc J* 70:2878-81 *S* '48

Stereochemistry of complex inorganic compounds; configurations of some compounds as revealed by rotatory dispersion curves. *T. D. O'Brien, J. P. McReynolds and J. C. Ballar, jr, bibliog Am Chem Soc J* 70:749-55 *F* '48

Stereochemistry of complex inorganic compounds; the diastereoisomers of *dextro*-tartrato-*bis*-ethyleneediamine cobaltic ion. *H. E. Jonassen, J. C. Ballar, jr, and E. H. Huffman, bibliog Am Chem Soc J* 70:756-8 *F* '48

Stereochemistry of organic derivatives of phosphorus; the synthesis of 2:2-disubstituted 1:2:3:4-tetrahydroisophosphorinolinium salts and the optical resolution of 2-phenyl-2-*p*-hydroxyphenyl-1:2:3:4-tetrahydroisophosphorinolinium bromide. *F. G. Holliman and F. G. Mann, Chem Soc J* p 1634-42 *D* '47

Stereochemistry of the disalicylides. *A. Schönberg, Chem Soc J* p891-3 *Je* '48

Steroids and the Walden inversion. *C. W. Shoppee, pl Chem Soc J* p 1138-51 *D* '46; p 1032-45 *Jl* '48

Structural chemistry. *J. A. Campbell, il J Chem Educ* 25:558-62 *O* '48

Studies in the santonin series; the stereochemistry of santonin and its derivatives. *Huang-Minlon, bibliog Am Chem Soc J* 70:611-14 *F* '48

Tri- α -naphthylboron as a highly hindered reference acid; a case of polymorphism ascribed to hindered rotation. *H. C. Brown and S. Sujishi, il diags Am Chem Soc J* 70:2793-802 *Ag* '48

STEREONOMETER. See Goniometers**STEREOSCOPE**

Folding stereoscope. *il R Sci Instr* 19:729-30 *O* '48

Plastic viewer redesigned without die cavity change. *il diags Product Eng* 19:103 *Ap* '48

Simple stereoscope for viewing double-lens camera stereographs without transposition. *A. H. Schooley, diag Science* 107:281 *Mr* 12 '48

Stereo viewer has plastic case and light control button. *il Mod Plastics* 25:119 *D* '47

Stereoscopic viewing of cathode-ray tube presentations. *H. A. Iams and others, il diags RCA R* 9:149-58 *Mr* '48

STEREOTYPING

Metro stereo plant is huge; daily's mat-filing system. *Ed & Pub* 81:53 *S* 11 '48

STERIC hindrance

Esterification of tetrachlorophthalic anhydride. *R. W. Nordlander and W. E. Cass, bibliog Am Chem Soc J* 69:2679-82 *N* '47

Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents. *G. B. Bachman and R. W. Finholt, bibliog Am Chem Soc J* 70:622-4 *F* '48

Rates of dissociation of some tetraphenylxylyl-ethanes. *R. R. Grunert, J. C. Nichol and R. B. Sandin, bibliog Am Chem Soc J* 69:2254-6 *O* '47

Steric effect of methylene groups. *R. T. Arnold and P. N. Craig, Am Chem Soc J* 70:2791-3 *Ag* '48

Steric effects; general equations; application to *cis*- and *trans*-2-butene. *T. L. Hill, bibliog J Chem Phys* 16:938-49 *O* '48

Steric effects; van der Waals potential energy curves. *T. L. Hill, bibliog J Chem Phys* 16:399-404 *Ap* '48

Steric hindrance and short wave length bands in the ultraviolet spectra of some naphthalene and diphenyl derivatives. *R. A. Friedel, M. Orchin and L. Reggel, bibliog Am Chem Soc J* 70:199-204 *Ja* '48

Steric hindrance to planarity in dye molecules. *L. G. S. Brooker and others, bibliog Chem R* 41:325-51 *O* '47

Steric inhibition of resonance; acid strengths of some nitro- and cyanophenols. *G. W. Wheland, R. M. Brownell and E. C. Mayo, bibliog Am Chem Soc J* 70:2492-5 *Jl* '48

Steric inhibition of resonance; reactivities of some halogenated primary and tertiary aromatic amines. *R. B. Sandin and J. R. L. Williams, bibliog Am Chem Soc J* 69:2747-9 *N* '47

Strains in methyl amines and hydrocarbons. *R. Spitzer and K. S. Pitzer, bibliog Am Chem Soc J* 70:1261-4 *Mr* '48

Synthesis and optical resolution of 4,5,8-trimethyl-1-phenanthrylacetic acid. *M. S. Newman and A. S. Hussey, Am Chem Soc J* 69:3023-7 *D* '47

STERILIZATION

Chemical engineering aspects of handling sterile medical products; abstract. *B. Edgington, Chem & Ind* p77 *Ja* 31 '48

Electronic preservation of food by exposure to pulsed cathode rays from a capacitor; sterilization of drugs also possible. *W. Huber, bibliog il diags Electronics* 21:74-9 *Mr* '48

Flash process, aseptic fill, are used in new canning unit. *W. M. Martin, bibliog flow diag il Food Ind* 20:832-6 *Je* '48

Sterilisation by liquid aerosols; distinctive advantages over wet sprays. *A. E. Williams, Chem Age (Lond)* 58:875-6 *Je* 26 '48

See also

Medical instruments

and apparatus—

Sterilization

STERILIZERS, Electric

Dish sterilizer for restaurants; data sheet. *A. Godfrey, il Elec West* 101:101 *S* '48

STERLING area. See Money—International aspects**STERLING drug company**

Widening fields bring lower margins. *Baron's* 27:29 *D* 29 '47

STERLING oil and refining corporation

Debentures and common stock warrants offered. *Comm & Fin Chr* 168:1049 *S* 13 '48

STERIODS

Application of the method of molecular rotation differences to steroids; optical anomalies. *D. H. R. Barton and J. D. Cox, bibliog Chem Soc J* p783-93 *Je* '48

Bromination of 3-ketosteroids in acetic acid and the effect of trace substances in the solvent. *C. Djerassi and C. R. Scholz, bibliog Am Chem Soc J* 69:2404-10 *O* '47

Derived steroids; cholesterol ketones. *R. H. Baker and E. N. Squire, bibliog Am Chem Soc J* 70:1487-90 *Ap* '48

STERIODS—Continued

Hemihydrohalides of 3(α)-hydroxy steroids. V. R. Mattox, B. F. McKenzie and E. C. Kendall. *bibliog Am Chem Soc J* 70:2662-3 Apr '48

Hydrolysis of steroid esters on activated alumina. W. Dasler. *Science* 107:369 Apr 9 '48; *Discussion*, 108:82 JI 23 '48

Mechanism of steroid hormone activity investigated; symposium sponsored by University of Wisconsin. *Chem & Eng N* 26: 2891 S 27 '48

Mercaptols of 17-keto steroids. L. Norymberska, J. Norymberski and A. Olalde. *Am Chem Soc J* 70:1256-7 Mr '48

New synthesis of fused ring structures related to the steroids; the 17-equilenones; a total synthesis of equilenin. W. S. Johnson, J. W. Petersen and C. D. Gutsche. *bibliog Am Chem Soc J* 69:2942-55 D '47

Preparation of 3-keto-Δ⁴-steroids. V. R. Mattox and E. C. Kendall. *Am Chem Soc J* 70:382-3 F '48

Preparation of 17-ketosteroids from enol acetates of 20-ketosteroids. C. W. Marshall and others. *bibliog Am Chem Soc J* 70: 1837-9 My '48

Spiro (steroid) thiazolidines. S. Lieberman, P. Brazeau and L. B. Hariton. *bibliog Am Chem Soc J* 70:3094-7 S '48

Steroid acids and their transformation products; desulfurization of thiol esters of desoxycholic acid. G. B. Spero, A. V. McIntosh, Jr. and R. H. Levin. *bibliog Am Chem Soc J* 70:1907-10 My '48

Steroid acids and their transformation products; desulfurization of thiol esters of 3(β)-hydroxy-5-cholenic and -bisor-5-cholenic acids. A. V. McIntosh, Jr., E. M. Meinzer and R. H. Levin. *bibliog Am Chem Soc J* 70:2955-8 S '48

Steroid acids and their transformation products; epimeric 24-phenyl-5-cholen-3(β),24-diols and related compounds. R. H. Levin and others. *bibliog Am Chem Soc J* 70:2958-60 S '48

Steroid acids and their transformation products; thiol esters. R. H. Levin and others. *bibliog Am Chem Soc J* 70:511-14 F '48

Steroidal sapogenins. R. E. Marker and J. Lopez. *Am Chem Soc J* 69:2373-404 O '47

Steroids and the Walden inversion. C. W. Shoppee. *pl Chem Soc J* p 1138-51 D '46; p 1032-45 JI '48

Steroids; Δ²⁰-pregnenes from *bisor*-steroid acids. P. L. Julian, E. W. Meyer and H. C. Printy. *Am Chem Soc J* 70:887-92 Mr '48

Studies in steroid metabolism; the characterization of carbonyl and other functional groups in steroids by infrared spectrometry. R. N. Jones and others. *bibliog Am Chem Soc J* 70:2024-34 Je '48

Studies in steroid metabolism; the problem of Walden inversion in the reactions of steroid hydrogen sulfates and steroid sulfates. S. Lieberman, L. B. Hariton and D. K. Fukushima. *bibliog Am Chem Soc J* 70:1427-32 Apr '48

Synthesis of steroids of the progesterone series. M. Ehrenstein. *Chem R* 42:457-89 *bibliog*(p488-9) Apr '48

Synthetic studies in the steroid series; use of methyl γ-bromocrotonate in the synthesis of fused-ring hydroaromatic ketones. J. W. Cook and R. Philip. *Chem Soc J* p 162-4 F '48

See also
Hormones

Analysis

New series of reagents for the colorimetric determination of steroids. L. C. Clark, Jr. and H. Thompson. *Science* 107:429-31 Apr 23 '48

STEROLS

Significance of sterols in foodstuffs. *J Chem Educ* 25:46-7 Ja '48

Sterols; Δ²⁰-pregnenes from *bisor*-steroid acids. P. L. Julian, E. W. Meyer and H. C. Printy. *Am Chem Soc J* 70:887-92 Mr '48

Sterols; the *χ*-cholesterylaminates. P. L. Julian and others. *bibliog Am Chem Soc J* 70: 1834-7 My '48

Synthetic sterols; model experiments employing Hagemann's ester. J. A. Hogg. *bibliog Am Chem Soc J* 70:161-4 Ja '48

See also

Cholesterol
STEVEDORES. See Longshoremen

STEVENS, Ashton, 1872-

No right to be dull, says A. Stevens. G. A. Brandenburg. *por Ed & Pub* 81:78+ Apr 17 '48

STEVENS, J. P., and company

Newcomers on the New York stock exchange.

Mag of Wall St 81:250 D 6 '47

Stock offered. *Comm & Fin Chr* 168:750 Ag 23 '48

STEWART, Alfred Walter, 1880-1947

Sketch. S. Smiles. *Chem Soc J* p396-8 Mr '48

STEWART, D. D.

Trade bureau aid. *por Bsns W* p35-6 JI 17 '48

STIBINE

Preparation and properties of triarylstibines. J. I. Harris, S. T. Bowden and W. J. Jones. *Chem Soc J* p 1568-71 D '47

STIBONIC acids

Preparation of aromatic stibonic acids of certain benzenesulfonamides. R. D. Englert and O. J. Sweeting. *Am Chem Soc J* 70: 2977-9 S '48

STIBONIUM compounds

Tetraphenylphosphonium and tetraphenylstibonium chloride. H. H. Willard, L. R. Perkins and F. F. Blicke. *bibliog Am Chem Soc J* 70:737-8 F '48

STIGMASTEROL

Derivatives of *bisor*-5-choleinaldehyde. A. P. Centolella, F. W. Heyl and M. E. Herr. *bibliog Am Chem Soc J* 70:2953-4 S '48

STILBENE

4-Styrylbenzylamine and 4-styrylbenzylidimethylamine. G. A. R. Kon. *Chem Soc J* p224-7 F '48

STILBENECARBOXYLIC acids

Stilbenecarboxylic acids. F. Bell and D. H. Waring. *Chem Soc J* p 1024-6 JI '48

STILLING basins. See Dams—Design

STIRRERS

Air motor stirrer. *il R Sci Instr* 19:376 My '48

Magnetic stirrer. *diags Instruments* 21:433-4 My '48

Propeller influence in high speed stirring. A. A. Morton and L. M. Redman. *bibliog diags Ind & Eng Chem* 40:1190-3 JI '48

Stirrer for viscous liquids. J. J. Wobasek. *diag J Chem Educ* 24:583 D '47

STIRRING

Propeller influence in high speed stirring. A. A. Morton and L. M. Redman. *bibliog diags Ind & Eng Chem* 40:1190-3 JI '48

STOBBE condensation. See Condensation, Chemical

STOCK dividends. See Dividends

STOCK exchange

Abnormal factors maintaining business at boom level. A. Huber. *Comm & Fin Chr* 163:99+ JI 8 '48

Adverse stock market discounted. N. L. Jarvis. *Comm & Fin Chr* 163:1202 S 23 '48

Are stocks headed for a downturn? R. L. Heilbroner. *Am Bsns* 18:10-11+ F '48

Bear markets; their life, and damage, data for selected years 1899-1946. *Bsns W* p95 F 21 '48

Before the big break. J. E. Loshar. *Comm & Fin Chr* 167:1644 Apr 15 '48

Bond trend unfavorable for stock boom. J. E. Banks. *Barron's* 23:25 JI 19 '48

Calling the turn in the market. A. Bernhard. *Comm & Fin Chr* 168:1746+ O 28 '48

Capital malnutrition in stock market. A. R. Wells. *Comm & Fin Chr* 167:1310+ Mr 25 '48

Commodities peak reached but capital marts in danger. E. P. Boylan. *Comm & Fin Chr* 167:802+ F 19 '48

Completed secondary reaction. L. S. Herzog. *Comm & Fin Chr* 168:897+ S 2 '48

Counter trade. *Fortune* 37:122+ Je '48

Death of a bear market. L. S. Herzog. *Comm & Fin Chr* 167:996 Mr 4 '48

Demand performance and the stock market; the finale. G. M. Haas and J. J. Quinn. *Comm & Fin Chr* 167:597+ F 5 '48

STOCK exchange—Continued

Factors in the outlook for the securities markets, H. E. Aul, *Comm & Fin Chr* 166: 2048+ N 20 '47

Fear psychology from the investor's viewpoint, N. S. Chadwick, *Comm & Fin Chr* 168:1414+ O 7 '48

Federal reserve bank of Chicago holds loss of investor confidence underlies downward trend in security markets, *Comm & Fin Chr* 167:1559+ Ap 5 '48

Formula plan that always works; Burlingame plan, G. A. Drew, *Comm & Fin Chr* 166: 2476+ D 13 '47

Grounds for bullish optimism, E. Jelinek, *Comm & Fin Chr* 167:2635+; 168:1099+ Je 17, S 16 '48

How can we stimulate venture capital? sources of stock-market transactions, F. A. Truslow, *il Dun's R* 56:17-19+ J1 '48

Inflation and the stock market, M. Palyi, *Comm & Fin Chr* 167:1+ Ja 1 '48

Is this a bull market? J. J. Quinn and G. M. Haas, *Comm & Fin Chr* 167:2311+ My 27 '48

Looking into the crystal ball, J. Coe, *Comm & Fin Chr* 167:304+; 168:3+, 997+ Ja 22, J1, S 9 '48

Market forecasting; lecture before Small investors forum, Columbia university, March 4, E. W. Tabell, *Comm & Fin Chr* 167:1097+ Mr 11 '48

Market outlook, E. W. Tabell, *Comm & Fin Chr* 167:2521+ Je 10 '48

Market outlook; summary of the fortnight, A. T. Miller, *Mag of Wall St* 81:332-4+ Ja 3 '48 [cont biweekly]

Measuring the stock market, H. D. Comer, *Comm & Fin Chr* 167:2415+ Je 3 '48

Midwest exchanges talk about a merger, *Bsns W p* 104 S 11 '48

Mr Dow's wonderful invention, *Fortune* 38: 110+ Ag '48

1929 upside down, T. W. Phelps, *Fortune* 38: 95-7+ N '48; *Abstract, Comm & Fin Chr* 168:1867 N 4 '48

Optimistic Wall Street psychology justified, A. Gaubis, *Comm & Fin Chr* 167:1975+ My 6 '48

Our greatly under-priced stock market, E. W. Tabell, *Comm & Fin Chr* 168:998+ S 9 '48

Outlook for the stock market, A. A. Mol, *Comm & Fin Chr* 166:2045+ N 20 '47

Outlook for the stock market; symposium, H. H. Biel and others, *Comm & Fin Chr* 167:1748+ Ap 22 '48

Prospects for a bull market, A. J. Cortese, *Comm & Fin Chr* 167:1864+ Ap 29 '48

Regional stock exchange, W. G. Paul, *Comm & Fin Chr* 168:403+ J1 29 '48

Savings stream diverted from stock market; banks, insurance companies take bulk of individuals' free funds, C. S. Koch and J. C. Whitehead, *Barron's* 28:6 Ag 30 '48

Scientific basis of internal stock market analysis, N. Molodovsky and J. Mindell, *Comm & Fin Chr* 166:2616+; Discussion (Answering the market internalizers), A. W. May, 2617+ D 25 '47

Stock market action contradicting the news, J. E. Miller, *Comm & Fin Chr* 168:1416 O 7 '48

Stock market; an emphatic word of caution, M. S. Benjamin, *Comm & Fin Chr* 168:97+ J1 8 '48

Stock market at a glance; price changes, earnings and dividends; New York stock and curb exchanges. Published in weekly numbers of *Barron's*

Stock market forecast, A. Gaubis, *Comm & Fin Chr* 168:1533+ O 14 '48

Stock market forecast, L. S. Herzog, *Comm & Fin Chr* 166:1839+ N 6 '47

Stock market outlook, G. Y. Billard, *Comm & Fin Chr* 167:1531+ Ap 8 '48

Technical considerations in market analysis, A. H. Wheelan, *Comm & Fin Chr* 167:707+ F 12 '48

Truman victory not ruinous to the stock market, H. E. Dickinson, *Comm & Fin Chr* 168:1849+ N 4 '48

Why the pessimism? A. Gaubis, *Comm & Fin Chr* 168:397+ J1 29 '48

Will stocks leap this year? M. S. Benjamin, *Comm & Fin Chr* 167:101 Ja 8 '48

See also

Bonds
Brokers
Dow theory
Investments

Securities
Speculation
Stocks

also names of exchanges, e.g.

Chicago stock ex- New York stock ex-
change change
London stock ex- San Francisco stock
change exchange

Los Angeles stock
exchange

also Association of stock exchange firms

History

Stock market in 1925 and today, S. Boulton, *Comm & Fin Chr* 167:995+ Mr 4 '48

STOCK liquidation agreements**See also**

Insurance, Business
—Stock liquidation
agreements

STOCK purchase options

Shape of taxes to come; granting of options to employees as incentives, L. J. Freeman, *Barron's* 28:9-10 S 20 '48

STOCK purchase warrants

Dealers' cash incentive spurs exercise of rights, E. R. Abrams, *Barron's* 28:30 N 1 '48

STOCK rights. See Stocks—Rights**STOCK transfer tax**

NASD informs brokers and dealers of New York state of transfer tax liability, *Comm & Fin Chr* 167:2325 My 27 '48

STOCKBROKERS. See Brokers**STOCKHOLDERS**

Acres of stockholders, all happy, B.-F. Sessel, *Elec World* 129:111-12 Mr 13 '48

Advertising needed to find more investors for business, C. Robbins, *il Ptr Ink* 225:32-5+ O 22 '48

Banks pursue owners of stocks to pay them, P. A. Johnston, *Barron's* 27:13 D 8 '47

Broader common stock ownership; foe of socialism and communism, J. A. Harvey, *Comm & Fin Chr* 168:1538 O 14 '48

Clarity in reporting earnings; three excellent examples; letters to the stockholders, *J Account* 85:159-60 F '48

CIO says corporations controlled by few, *Comm & Fin Chr* 168:413+ J1 29 '48

Court holds stockholders may select auditors, *J Account* 84:400 N '47

How many really own stocks? with tabulations by leading corporations showing number of stockholders for 1946 and 1947, L. O. Hooper, *Comm & Fin Chr* 168:897+ S 2 '48

Incentive plan for the forgotten man, G. A. Price, *Comm & Fin Chr* 168:1432-3+ O 7 '48; Excerpts, *Trusts & Estates* 87:354-5 O '48

Lost stockholders; Skip tracers co. adds search for missing securities holders, *Bsns W p* 95-6 Je 26 '48

Management's responsibilities to stockholders; policy of General Mills, H. A. Bullis, *Comm & Fin Chr* 167:2636+ Je 17 '48

New methods for getting results in stockholder relations, N. E. Crane, *Comm & Fin Chr* 167:311 Ja 22 '48

Program for stockholder relations, E. C. Potter, *Trusts & Estates* 87:111-14 Ag '48

Stockholder relations, an important part of P.R. job, E. J. Dever, jr, *il Ptr Ink* 224: 36-8+ J1 30 '48

Stockholders' high cost of living; what to do about it, R. A. Gilbert, *Comm & Fin Chr* 167:2086+ My 13 '48

Stockholders' incentive program of G. A. Price not quite basic, *Barron's* 28:12 O 4 '48

What one company learned about its stockholders; survey among women stockholders of General foods corp, E. Watson, *il Adv & Sell* 41:117-18+ Mr '48

What people want to know about a company; stockholders surveyed, *Trusts & Estates* 87:105-9 Ag '48

Who are our stockholders? H. S. Sutton, *Comm & Fin Chr* 167:2526+ Je 10 '48; Same, *Edison Elec Inst Bul* 16:210-13 Je '48; Abstracts, *Elec World* 129:102 Je 5 '48; *Trusts & Estates* 87:9-10 J1 '48

STOCKHOLDERS—Continued

Who owns big business? analysis of stock-holdings in largest corporations. Trusts & Estates 87:5-8 J1 '48
 Who owns corporations? appraisal of CIO survey. Nat City Bank p93-5 Ag '48
 Who owns the AT&T? C. S. Van Cise. Pub Util 42:539-44 O 21 '48
 Your stockholders and you, E. C. Potter, jr. Comm & Fin Chr 167:304+ Ja 22 '48

See also

Advertising—Stock- Employees as stock-
 holders, Appeal to holders
 Customers as stock- Proxies
 holders

STOCKHOLDERS, Reports to. See Corporations—Reports and yearbooks

STOCKHOLDERS' liability. See Banks and banking—Stockholders' liability

STOCKKEEPING records. See Inventories; Stores systems

STOCKPILING. See Minerals—Stockpiling

STOCKS

Another look at Consolidated Edison, Air Reduction, Western Union, Pennsylvania railroad. S. Devlin. Il Mag of Wall St 81:357-9, 373-4 Ja 3 '48

Appraising normal earning power for ten dynamic companies. F. K. Dodge. Mag of Wall St 81:234-5+ D 20 '47

Bache & co. sees ERP maintaining corporate earnings; which stocks to buy. Comm & Fin Chr 167:1882 Ap 29 '48

Case for common stocks. T. W. Phelps. Comm & Fin Chr 167:706+ F 12 '48

Coming trends in consumer goods industries. W. Gates. Il Mag of Wall St 81:239-41+ D 6 '47

Diversified stake in stability; companies able to maintain their position; Ohio oil company; Pullman, inc.; Thompson products, inc.; Wheeling steel corporation. G. W. Mathis. Mag of Wall St 82:343-5 J1 3 '48

Financial survey of specialty and unclassified stocks; tabulation. Mag of Wall St 81:710-11; 82:594-5 Mr 27, S 11 '48

Genuine growth companies for long term capital gains. Mag of Wall St 83:77-8+ O 23 '48

Good quality stocks yielding seven per cent and over. Mag of Wall St 81:140-2 N 8 '47

High-yield stocks selling less than five times earnings. Mag of Wall St 82:183-4 My 22 '48

More vigor needed if security business is to perform its economic function; lists recommended stocks. H. E. Dorsey. Comm & Fin Chr 168:1645+ O 21 '48

Newcomers on the New York stock exchange. Mag of Wall St 81:249-51 D 6 '47

1948 special re-appraisals of values, earnings and dividend forecasts. Mag of Wall St 81:527-40+, 535-96+, 641-55+, 701-11+; 82:482-91+, 534-47+, 586-95+, 634-45+ F 14-Mr 27, Ag 14-S 25 '48

Program for regular monthly income. H. L. Blackburn. Mag of Wall St 81:477+ Ja 31 '48

Pros and cons of stocks selling around net quick assets. J. C. Clifford. Mag of Wall St 81:698-700+ Mr 27 '48

Reader tells why he can't buy stocks. W. Scott. Barron's 28:30 J1 19 '48; Discussion. J. S. Hicks. 28:37 J1 26 '48

Securities disturbing investors. R. Colston. Mag of Wall St 82:293-5, 442-3; 83:82-3+ Je 19, J1 31, O 23 '48

Selecting growth companies for 1948. J. C. Clifford. Il Mag of Wall St 81:461-3+ Ja 31 '48

Six well-entrenched dividend payers. Mag of Wall St 83:129-31 N 6 '48

Small companies with big earnings. Mag of Wall St 81:294-5 D 20 '47

Ten potential market leaders for 1948. Mag of Wall St 81:402-7 Ja 17 '48

Trust buying in first quarter; with tabulations. H. A. Long. Comm & Fin Chr 167:2414+ Je 3 '48

Trusts continue buying on balance during second quarter; with tabulations. H. A. Long. Comm & Fin Chr 168:598+ Ag 12 '48

See also

Banks and banking Investments
 —Stock Securities
 Bonds Speculation
 Corporations Stock exchange
 Dividends
 also names of exchanges, e.g. New York stock exchange

Leverage

Diversified stake in high leverage stocks; with financial data on Jones & Laughlin steel corp., Deere & co., United States rubber co. and Rayonier, inc. G. W. Mathis. Mag of Wall St 82:391-3 J1 17 '48

Margin buying

Again scores margin restrictions. E. Schram. Comm & Fin Chr 166:2480 D 18 '47

Margin and credit restrictions; bane of industry and stock market. W. Witherspoon. Comm & Fin Chr 168:203+ J1 15 '48

Margin requirements; ninety-day rule in special cash account. Fed Res Bul 34:517 My '48

Margin requirements; substitutions in undermargined accounts. Fed Res Bul 34:397-8 Ap '48

Substitutions in undermargined accounts; amendments to Regulations T and U. Fed Res Bul 34:234 Mr '48

Who killed Cock Robin? margin restrictions reduce available equity capital. T. Prince. Comm & Fin Chr 167:1422+ Ap 1 '48

Marketing

Kaiser-Eaton feud. Fortune 38:88-9+ O '48
 Taxes and the stockholder. L. P. Stack. Edison Elec Inst Bul 16:239-43 J1 '48

Odd lots

Do net odd-lot sales confirm bull signal? A. D. Whitney. Barron's 28:31 My 24 '48
 Odd-lot houses face dilemma of the eighth; their commission, unchanged since 1932, has barely covered costs recently. O. J. Gingold. Barron's 28:29-30 My 10 '48

Price-earnings ratios

Common-stock price ratios and long-term interest rates. B. Brown. J Esns 21:180-92 J1 '48

Earnings or confidence; price-earnings ratio is neglected child in market analysis. W. G. Lyle, jr. Comm & Fin Chr 167:1206+ Mr 18 '48

Earnings versus dividends as guide to stock price. A. M. Hamburg. Comm & Fin Chr 168:1536+ O 14 '48

Realistic approach to the price-earnings ratio gauge. G. W. Mathis. Mag of Wall St 82:271-3+ Je 19 '48

Stocks cheaper than during prewar depression; cites as illustrations, U.S. Steel, Anaconda Copper, Montgomery Ward, Wilson & co., and Atchison railroad. F. H. Rosentiel. Comm & Fin Chr 167:898+ F 26 '48

What's prosperity worth? low price-earnings ratios. Barron's 28:26 Ag 2 '48

Price fluctuations

Adjustment for the secular trend of stock prices in formula timing plans. M. D. Ketchum. J Esns 21:29-49 Ja '48

Barron's 20 low-priced stocks up 23 per cent in year. Barron's 28:28 Je 21 '48

Federal reserve bank of Chicago holds loss of investor confidence underlies downward trend in security markets. Comm & Fin Chr 167:1559+ Ap 8 '48

Formula plan that always works; Burlingame plan. G. A. Drew. Comm & Fin Chr 166:2476+ D 18 '47

General Motors as a market forecaster; analysis of movements of shares over last 30 years. S. J. Sanford. Comm & Fin Chr 167:2743+ Je 24 '48

How stocks behave in a falling bond cycle; from 1900 to 1920 there were bull markets, but they were of limited size. B. Griffith. Barron's 28:25 Mr 8 '48

STOCKS—Price fluctuations—Continued

Market effect of large accrued dividend payment. O. K. Burrell. Comm & Fin Chr 167:1098+ Mr 11 '48
 Market triangles signal renewed bear market. B. Ravits. Barron's 27:33 D 8 '47
 Measurement of financial sentiment; stock market prices since 1881. L. V. Plum. Comm & Fin Chr 167:1099+ Mr 11 '48
 Measuring the stock market. H. D. Comer. Comm & Fin Chr 167:2415+ Je 3 '48
 Quality stocks vs. low-priced equities; with tabulation showing long term cyclical fluctuations of selected stocks. W. Beecher. Mag of Wall St 81:244-5+ D 6 '47
 Scientific basis of internal stock market analysis. N. Molodovsky and J. Mindell. Comm & Fin Chr 166:2616+; Discussion (Answering the market internalizers). A. W. May. 2617+ D 25 '47
 Stock price behavior. R. Fiske, jr. Trusts & Estates 85:538+ D '47
 Stock price trend continues up. A. Gaubis. Comm & Fin Chr 166:2045+ N 20 '47

Price forecasting

Deflating prophets; forecasting errors. A. W. May. Comm & Fin Chr 166:1409+, 1537+, 1633+, 1737+, 2049+, 2161, 2265+ O 9, 16, 23, 30, N 20, 27, D 4 '47; Discussion. 166:1632, 1736+, 2160+, 2264+, 2621 O 23, 30, N 27, D 4, 25 '47
 Dow theory not a gadget to be followed blindly. T. W. Phelps. Comm & Fin Chr 166:1943+ N 13 '47
 General Motors as a market forecaster. S. J. Sanford. Comm & Fin Chr 167:2743+ Je 24 '48
 Why the market confounds the forecaster. A. W. May. Comm & Fin Chr 168:1641+, 1853+ O 21, N 4 '48

Price indexes and averages

Common stock index. Published in biweekly numbers of Magazine of Wall Street
 50-stock average's ratio to five-year profits normal. Barron's 28:39 Je 7 '48
 Is the market right? review of the Street's newest perplexities. il Fortune 37:77-83+ Mr '48
 Market drop since '46 worse than Dow-Jones industrial average shows; rail case special. Barron's 28:26 Mr 29 '48
 1947 earnings on industrial average largest since 1929; with chart showing quarterly earnings on Dow-Jones industrial average, 1935-1947. Barron's 28:24 Ap 5 '48
 Seasonal stock price trends; Cleveland trust company analysis of Dow-Jones industrial averages, 1897-1947. Comm & Fin Chr 168:1120 S 16 '48
 Stock market trends in last six months of presidential election years since 1900 as reflected by the Dow Jones industrial averages; with graphs. Barron's 28:32 Jl 5 '48
 Stocks; prices, 1941-1946. Survey of Cur Bsns 1947 Sup p94-5 [supplemented in monthly numbers]
 Study of price movement; market laboratory. Published in weekly numbers of Barron's
 Study of the price movement; 16-month chart showing daily fluctuations of the Dow-Jones averages. Barron's 28:42 Ap 26 '48

Prices

Fallacy of equities as a hedge against inflation. A. M. Bernstein. Comm & Fin Chr 168:697+ Ag 19 '48
 Inflation and common stock prices. A. T. Ostrander. Comm & Fin Chr 167:4+ Ja 1 '48
 Influence of stock split-ups on market price. J. H. Myers and A. J. Bakay. Harvard Bsns R 26:251-5 Mr '48
 Low prices for shares. Economist 153:725-6 N 1 '47; Same abr. Trusts & Estates 85:548-9 D '47
 Monthly range of prices on the New York stock exchange. Comm & Fin Chr 167:399-410 Ja 22 '48
 1929 upside down. T. W. Phelps. Fortune 38:95-7+ N '48
 Stock market at a glance; price changes, earnings and dividends; New York stock and curb exchanges. Published in weekly numbers of Barron's

Rights

Dealers' cash incentive spurs exercise of rights. E. R. Abrams. Barron's 28:30 N 1 '48

Short selling

Short interest on Feb. 13 and comparison for Jan. 15. Barron's 28:30 F 23 '48 [cont monthly]

Split-up

Companies paying higher dividends on split shares. Mag of Wall St 82:131-2 My 8 '48
 Influence of stock split-ups on market price. J. H. Myers and A. J. Bakay. Harvard Bsns R 26:251-5 Mr '48
 New bear market twist; stock splitup trend grows. Bsns W p86-7 Mr 13 '48
 Stock splits in a bear market; with statistical data on companies which have recently effected or proposed stock split-ups. G. W. Mathis. Mag of Wall St 82:14-15+ Ap 10 '48

Statistics

Relation of stock issues to total amount of new capital issues, by industry groups, 1919-47; tabulation. Survey of Cur Bsns 28:14 Mr '48; Same. Comm & Fin Chr 167:1554 Ap 8 '48
 Security markets, 1941-1946. Survey of Cur Bsns 1947 Sup p93-5 [supplemented in monthly numbers]

Treasury stocks

Purchase of stock to reduce capitalization. J Account 85:70-1 Ja '48

Valuation

Are stocks undervalued? F. Escher. Comm & Fin Chr 167:2190 My 20 '48
 Bargains in earning assets; today's investment dollar can buy at pre-war prices. Trusts & Estates 87:165-6 S '48; Discussion. 87:338-42 O '48
 Determining the real worth of common stocks. A. W. May. Comm & Fin Chr 167:5+ Ja 1 '48
 Dividends, not earnings, set stock values as undisbursed profits become undistributable. Barron's 28:33 Ap 12 '48
 Industry group price behavior; relative price action affords check on economic analysis. H. C. Ray. Trusts & Estates 86:299-304 Ap '48
 Stock values and stock prices. W. Parkhurst. Comm & Fin Chr 168:1747 O 28 '48

Yields

Dividend yields, 1941-1946. Survey of Cur Bsns 1947 Sup p94 [supplemented in monthly numbers]
 Relation of bond and stock yields by industry groups, 1919-48; tabulation. Survey of Cur Bsns 28:14 Mr '48; Same. Comm & Fin Chr 167:1554 Ap 8 '48

STOCKS, Convertible. See Stocks, Preferred--Convertible stocks

STOCKS, Preferred

Depressed markets for high-grade preferred stocks. R. E. Niebling. Comm & Fin Chr 168:1533+ O 14 '48
 Now nobody wants preferred stocks! but high yields may drop with revived insurance company buying. R. E. Niebling. Barron's 28:25 Mr 29 '48
 Preferred financing cheaper than common now, but charges might weigh heavily in bad times. Barron's 28:33 My 17 '48
 Preferred stockholder's rights under attack as SEC and courts enforce Holding company act. J. Preston. Barron's 28:31-2 S 6 '48
 Preferred stocks for trust investment. R. F. Murray. Comm & Fin Chr 166:2368+ D 11 '47; Same cond. Trusts & Estates 86:27-8+ Ja '48
 Prices of non-callable preferred stocks bow to same wind that struck bonds. Barron's 27:31 N 24 '47
 Sinking-fund provision for utility preferred issues. J. P. Callahan. Pub Util 41:76-9 Ja 15 '48

Convertible stocks

Are convertibles now attractive? J. S. Williams. Mag of Wall St 83:134-5+ N 6 '48

STODGHILL, Howard M.

Stodghill is father of Newspaperboy day.
C. W. Duke, por Ed & Pub 81:10 O 2 '48

STOICHIOMETRY

Hypothetical tie element; stoichiometric method. K. A. Kobe. J Chem Educ 24:544-5 N '47

Stoichiometric extraction of mixed acids. A. V. Branner. Soc Chem Ind J 66:453-6 D '47

Thermodynamics and stoichiometry of synthesis gas production by the partial oxidation of methane. C. W. Montgomery, E. B. Weinberger and D. S. Hoffman. Ind & Eng Chem 40:601-7 Ap '48

STOKER manufacturers association

Annual meeting, 31st, Chicago, June 17-18. Dom Eng 172:164+ JI '48

Annual technical conference, 2d, Chicago, June 17-18. Sheet Metal Worker 39:80+ JI '48

STOKERS, Mechanical

Anthraccite stokers offer opportunities for increased profits. N. E. Curtin. II diags Sheet Metal Worker 39:86+ S '48

Data on anthracite sizes with which heating contractors should be conversant. P. A. Mulvey. diags Sheet Metal Worker 39:70+ O '48

Demand for, supply and distribution of Illinois stoker coal; abstract. H. Herder. Coal Age 52:136+ D '47

Future of pulverized-coal firing in Great Britain. C. H. Sparks. diags Inst Mech Eng J & Proc 156:Proc 391-4 Mr '48; Same. Inst E E J 94 pt 2:409-13 O '47

Improving stoker performance; excerpts. J. Roland. Dom Eng 172:170+ JI '48

Modern bark burning. M. H. Snodgrass. II diag Paper Tr J 125:43-5 D 25 '47; Same cond. Paper Ind 23:1488+ Ja '48

Spreader stoker today. II Power Pl Eng 51:117-18+ N '47

Stoker-firing round down-draft kilns reduces burning time, saves 14 per cent fuel. II Brick & Clay Rec 111:56-7 D '47

Stoker in a carton, Iron Fireman uses corrugated package. II Mod Packaging 21:143+ Ap '48

Underfeed stokers are meant to operate smokefree. L. N. Rowley and J. C. McCabe. II diags Power 92:284-7 My '48

Use of raw brown coal on industrial stokers; abstract. I. M. Stewart and others. diags Power 92:52-3 Ja '48

Want your overfeed stoker to be smoke-free? L. N. Rowley and J. C. McCabe. II diags Power 92:158-61 Mr '48

What the power engineer needs to know about the pneumatic spreader stoker. II diags Power Generation 52:64-5+ JI '48

Wide range of coals can be burned with spreader stoker. K. Steiner and R. H. Wilder. II diag Heating-Piping 20:69-71 JI '48

Advertising

Advertising to the power industry. II Ind Marketing 32:85-6+ D '47

Statistics

Mechanical stokers, sales, 1941-1946. Survey of Cur Bsns 1947 Sup p 155 [supplemented in monthly numbers]

STOMACH**Diseases**

Anticuler vitamin being investigated. Chem & Eng N 26:2218 JI 26 '48

Effect of tetraethylammonium chloride in experimental gastric ulceration in the rat. J. M. Little and others. bibliog Science 106:418-9 N 7 '47

Inhibition of gastric ulceration in the rat by o-hydroxybenzoic (salicylic) acid. F. Pauls and others. Science 107:19-20 Ja 2 '48

STONE**See also**

Dolomite Quarries and quarrying
Granite
Limestone
Masonry Rocks

STONE, Crushed

Cut quarrying costs with two surge piles and relocation of crusher; Southern aggregates corporation, Neverson, N.C. plant. W. B. Lenhart. II plan diags Rock Prod 51:70-3 JI '48

Flexibility marks Allatoona aggregate plant. flow sheets II Constr Methods 30:90-6 Mr '48

Ft. Gibson aggregate plant. flow sheet II Constr Methods 30:80-4 F '48

Large capacity with simple flowsheet; John lafolla crushed stone products co. W. E. Lenhart. II Rock Prod 51:122-4+ Je '48

Maine turnpike project; portable plants supply aggregates. W. B. Lenhart. II Rock Prod 51:85-7 F '48

Maine turnpike project; stone for turnpike. W. B. Lenhart. II Rock Prod 51:88-9 F '48

Mine with a by-product business; Scrub Oaks in northern New Jersey sells by-product stone. C. H. Vivian. II Comp Air Mag 53:180-3 Ag '48

Pennsylvania stone, slag, and sand and gravel producers meet with Highway department. Rock Prod 51:90-1+ F '48

Rapid change-over from agstone to road-stone; Pontiac stone co. D. Mocine. II Rock Prod 51:88-90 My '48

Straight-line production agstone plant; Cheney limestone co. II Rock Prod 51:136 Je '48

Surge stockpile cuts plant delays. E. L. Heidenreich, Jr. II plan diags Rock Prod 51:106-9 Ag '48

Triple capacity of stone plant with new screens and crushers; Bryan rock and sand co. flow sheets II Rock Prod 51:80-1 My '48

See also**Ballast****STONE construction**

Hospital construction for leper colony presents many engineering problems; colony near Sapucay, Paraguay. J. W. Greenleaf, Jr. II Civil Eng 18:685-8+ N '48

STONE houses

Stone house near Chippewa Falls, Wis.; design by F. L. Wright. II plan Arch Forum 88:89 Ja '48

STONE sand. See Sand—Stone sand**STONE waste**

Convert waste stone to valuable by-products; North Carolina granite corporation produces poultry grits and concrete aggregates. W. B. Lenhart. II Rock Prod 51:85-6 JI '48

STONEWARE

Recent trends in the ceramic industry; chemical ware. II Chem Eng 55:131-2 JI '48

Sulphuric acid versus construction materials. F. H. Herstein. Chem Eng 55:219 Ag '48

STOP mechanism

Mechanism designed for quick stopping and easy removal of bobbin spindle. H. E. Murphey. diag Mach 54:184-5 Ap '48

Oscillating stop positions stock for punchpress blanking operation. G. Remacle. diag Am Mach 92:128 Ag 12 '48

See also**Geneva stop****STOP payment. See Checks—Stop payment****STOPPING methods. See Mining methods****STOPPERS, Glass**

Method of grinding stoppers; patent. diag Glass Ind 28:577 N '47

STORAGE

Flat cars effective in mill room storage. II plan Cer Ind 51:63 Ag '48

Materials handling and storage of light alloys. J. Erickson. II Light Metal Age 6:10-14 Je '48

Modern porcelain enameling; receiving, storing and handling enamel shop materials. J. B. Willis. II Cer Ind 51:55-6 JI '48

Power trucks raise effective storage by 50 per cent; Fruehauf trailer co. L. H. Niles. II Factory Management 105:94-6 D '47

Racks and bins aid raw-material warehousing. R. O. Fristoe. II diag Am Mach 92:116-17 Ag 12 '48

Raw materials handling in the steelworks storage yard. F. C. Wier. II Steel 122:101+ Mr 29 '48

Tiering of materials conserves valuable floor space. II Steel 123:106 JI 26 '48

See also

Apples—Storage	Fur storage
Coal storage	Gasoline storage
Cold storage	Petroleum storage
Food—Storage	Stores systems
Food, Frozen—Storage	Warehousing
Freight houses	Water storage

STORAGE batteries

- Addition agents for negative plates of lead-acid storage batteries; with list of addition agents. E. J. Ritchie, *bibliog Electrochem Soc Trans* 92 (preprint 34):415-43 '47
- Batteries in Diesel service. A. O. Ridgely. *Ry Mech Eng* 122:160-2 Ap '48
- Battery case affects business abroad. *Bsns W* p25 D 20 '47
- Battery vent plug gives visual warning. *Il Mod Plastics* 25:38 Mr '48
- Capacity as a function of temperature and discharge rate of certain military types of lead-acid batteries. D. Linden. *Electrochem Soc Trans* 92 (preprint 37):497-501 '47
- Care and maintenance of railroad storage batteries. R. I. Fort. *Il Ry Mech Eng* 122:264-6 My '48
- Court decision opens way to new battery; cadmium battery. *Bsns W* p24 D 6 '47
- Double service by a control battery for starting a Diesel-electric unit. *Elec World* 129:62+ Ja 31 '48
- Electrochemical sources of electric power. G. W. Vinal. *bibliog il diags Elec Eng* 67:354-7, 456-65 Ap-May '48
- How is the heart of your alarm system? K. A. Vaughan. *Il Safety Eng* 96:14-16+ S '48
- Industrial and machinery award to the Electric storage battery co; use of polystyrene for container. *Il Mod Plastics* 26:136-7 S '48
- Industrial truck storage battery maintenance. R. E. Miller. *Iron & Steel Eng* 25:64-5 S '48
- Lamp-battery washer cuts time and maintenance. *Il diag Coal Age* 53:88 Ja '48
- Lightweight aircraft battery. *Il Engineer* 186:194 Ag 20 '48
- New miniature, super powered filament power supply. B. Gunderson. *Il diags Radio N* 38:163 D '47
- Self discharge in lead-acid storage batteries. A. C. Zachlin. *bibliog Electrochem Soc Trans* 92 (preprint 28):323-43 '47
- Storage batteries in generating stations and substations. E. R. Sanderson. *diags Elec R (Lond)* 142:119-22 Ja 23 '48
- Storage battery addition agents. E. Willihnganz. *il diags Electrochem Soc Trans* 92 (preprint 32):385-406 '47
- Storage battery explosions. *Marine Eng* 53:90 Ap '48
- Storage battery work. L. S. Bowser. *Il Welding J* 27:36-7 Ja '48
- Super-sales meeting; device for splicing two feuding sales forces; Gould storage battery corp. J. A. Gilruth. *Il Sales Management* 61:54+ O 1 '48
- Underground vaults house storage batteries. J. Booth and W. A. Holland. *Il Elec World* 129:128 Mr 13 '48

Charging

- Fast charging of 12-volt batteries. C. H. Endress. *Il Bus Transportation* 26:56-7 D '47

Manufacture

- Casting lead parts in permanent molds. H. Chase. *Il Iron Age* 161:90-1 My 20 '48
- Proteinuria and kidney injury among workmen exposed to cadmium and nickel dust. L. Friberg. *bibliog J Ind Hygiene* 30:32-6 Ja '48

Rating

- Storage batteries. *Consumers Res Bul* 22:10 O '48

STORAGE sheds

- Basementless boost; storage and utility ell is cheaper. *plan diag Arch Forum* 88:16 Je '48

STORE buildings

- Barker bros. store is brick-styled; illustrations. *Brick & Clay Rec* 112:29 Ja '48
- Big opportunities in small commercial jobs; remodeling stores. *il diags Am Bld* 69:94-5 N '47
- Clay products in commercial buildings; illustrations. *Brick & Clay Rec* 112:28 F '48
- Colonial shops, a rental property in Evanston. *Il. il plan Am Bld* 69:73-5 N '47
- 40 stores; a portfolio of modern designs. *Arch Forum* 88:93-144 My '48
- New concepts of store architecture affect store promotion. E. B. Weiss. *Ptr Ink* 222:42+ Mr 26 '48

- Self-lease: new source of capital; firms sell real estate to insurance companies, universities, then lease it back. W. N. Augsburger. *Il Am Bsns* 17:8-9+ D '47
- Stores; Architectural Record's building types study. M. Ketchum, jr. *il plans Arch Rec* 103:109-44 Ap '48
- Unique face-lifting for 99 year old building; Baltimore rug and linoleum store. *il plan diags Am Bld* 69:118-19 D '47

See also

- Department stores
Shopping centers

Air conditioning

- Self-service food stores go for air conditioning; H. C. Bohack, inc. *il plans Sheet Metal Worker* 38:86-8 D '47

Fires and fire protection

- Air system shields escalators from fire; J. C. Penney department store. *il diag Eng N* 141:51 J1 22 '48

Fronts

- Brick makes smart shop facades; illustrations. *Brick & Clay Rec* 113:27 Ag '48
- Ceramic veneer used in store front renewal for streamlined eye appeal. *il diag Brick & Clay Rec* 112:30-1 Je '48
- New storefront trend is to modern design. *il Am Bld* 69:80-1 N '47
- Open front boosts trade in shoes. *il plan Arch Forum* 88:97 My '48
- Pittsburgh Plate Glass sends store modernization caravan on U.S. tour. *il(p 16-17) Elec World News* ed 129:21 Ap 3 '48
- Somewhere in claustrophobia; booby traps along the glazed front; illustrations with text. V. Gruen. *Arch Forum* 88:95-6 My '48
- Store front modernization. *il Sheet Metal Worker* 39:51-2 My '48

Heating and ventilation

- Heating commercial buildings. J. L. Shank. *il Am Bld* 69:89-93 N '47

Lighting

- Brightness engineering, architect Kenneth Welch's techniques for the more effective selling of impulse merchandise. *il plans diags Arch Forum* 88:178-80+ My '48
- Fluorescent lighting in a modern store. *il Light & Lighting* 40:204 N '47
- Hollywood styles lighting too; shops of I. Magnin and Bullock's; illustrations with text. *Elec West* 101:90-1 S '48
- Lighting an essential merchandising tool. *Elec World* 128:96 D 20 '47
- Lighting practices for stores and other merchandising areas. *il diags Illum Eng* 43:565-660 *bibliog*(p638-60) Je '48
- Lighting store to 1-3-5-10 formula; Mangel's store in Birmingham. *il Elec World* 129:83 F 14 '48
- Planned light in action; recent western installations; illustrations with text. *Elec West* 101:92-3 S '48
- R.I. utility sells one out of three prospects replying to planned store lighting mailing pieces. *Edison Elec Inst Bul* 15:401 N '47
- Selling lighting to small town merchants. C. E. Romberger. *il Elec World* 130:86-8 O 23 '48
- Spokane's Bon Marche. *il Elec West* 100:80 Mr '48
- Store lighting practices; recommendations of the store lighting committee, Illuminating engineering society; with time-saver standards. *diags Arch Rec* 103:152-3+ Ap '48
- Utility store shows own lighting exhibit. *il Elec World* 129:136 Mr 13 '48

See also

- Department stores—
Lighting

STORE fixtures

- Models take hem and haw out of selling store designs; Tyler fixture corp. R. L. Tyler. *Il Sales Management* 60:46-8 My 20 '48

- Power tools, new materials open new fields; portable shop for remodeling store fixtures and interiors. *il Am Bld* 70:98-101 My '48

STORE fronts. See Store buildings—Fronts**STORE lighting. See Store buildings—Lighting**

STORE management. See Retail trade—Store management

STORECAST corporation of America
Soft music and sales talk; a report on store-casting. E. M. Kelley. *il Sales Management* 61:108+ O 15 '48

STORES (retail trade)
40 stores; a portfolio of modern designs. Arch Forum 88:93-144 My '48
Stores; Architectural Record's building types study. M. Ketchum, jr. *il plans Arch Rec* 103:109-44 Ap '48

See also

Candy stores	Music stores
Country stores	Plumbing shops
Department stores	Retail trade
Drug stores	Seed stores
Florists' shops	Self service stores
Food stores	Shoe stores
Furniture stores	Store buildings
Grocery stores	Store fixtures
Jewelry stores	Women's apparel
Market stores	shops
Men's stores	

Models

Pittsburgh plate glass co. model store caravan takes face-lifting ideas to Main street. H. R. Roberts. *il Sales Management* 60:42-3 Je 1 '48

STORES, Company. See Company stores

STORES systems

Good practice in a maintenance stockroom; Edison plant, West Orange, N.J. J. Henderson. *il Factory Management* 106:76-8 Mr; 68-71 Ap '48

Incentive applied to order filling; Stanley greeting cards. R. W. Putterbaugh. *il Mill & Factory* 42:105-7 Je '48

Perpetual inventory method helps factory warehouse. C. V. Davis. *il Food Ind* 19:1507-8+ N '47

Stores control procedure. F. W. Berry. N A C A Bul 29:1429-35 Ji 15 '48

Traveling stockroom helps output in British plant; Standard Telephones & Cables conveyor, stores parts as well as moves them. *il plan Factory Management* 106:78-9 F '48

See also

Banks and banking	Inventories
—Stores systems	Railroads—Stores
Coal mines and mining—Stores systems	systems
	Tool rooms

STORMS

Direction finder for locating storms. W. J. Kessler and H. L. Knowles. *il diags Electronics* 21:106-10 My '48

See also

Cyclones
Dust storms

STOVES

Cooking and heating equipment manufactured in Argentina. For Comm W 29:25 D 6 '47

Cribben & Sexton tries steel strapping for range shipment. *il Cer Ind* 49:69 O '47

Gas, electric and oil ranges that help make kitchens modern. *il diag Am Bld* 70:94-5 Ji '48

Salesmaker; fingertip answers for retailers; Tappan's ranges. *il Sales Management* 60:96 My 20 '48

Steam vs. CO₂ for fire extinguishment in kitchen range hoods. T. W. Reynolds. *il plan diags Heat & Ven* 44:75-82 N '47

Stoves and ranges, domestic, 1941-1946. Survey of Cur Bsns 1947 Sup p 153-4 [supplemented in monthly numbers]

Use of wood for heating logging camps. J. H. Jenkins. *Pulp & Pa of Can* 49:114+ Ag '48

Your own factory folks; forgotten prospects? Roberts & Mander give pre-showing for plant employees. W. B. Eckenhoff. *il Sales Management* 60:104+ Mr 1 '48

Manufacture

Air power helps Odin build kitchen ranges. *il Comp Air Mag* 52:278 N '47

Stove manufacture, Bizonal area, Germany. For Comm W 32:31-2 Ji 3 '48

STOWAGE

Cargo handling and stowage; President Cleveland. *il Marine Eng* 53:65-7 Mr '48

Handling and stowage of ship's perishable cargoes. L. L. Westling. *diags Refrig Eng* 56:1-8 sec 2 O '48

STRAIGHTEDGES

How to align long straightedges. *il Am Mach* 92:99 S 23 '48

STRAIGHTENING

Let contraction—do the heavy work; using oxyacetylene flame for straightening welded parts. E. F. Kuzinski. *diags Welding J* 27:37-8 Ja '48

STRAIGHTENING machines

Straightening machine offers flexibility. *il Iron Age* 162:93 Ag 5 '48

See also

Wire straightening machines

STRAIN gages

Creep measurement with wire gauges. *Elec Eng* 67:1049 N '48

Determination of dynamic loads in coach structures. W. E. Rice and R. O. Ellerby. *Automotive Ind* 98:49 Ap 15 '48

Device for measuring physiologic pressure phenomena using the bonded electrical wire resistance strain gauge. H. R. Bierman. *bibliog il diags R Sci Instr* 19:707-10 O '48

Direct recording strain analyzer. *il R Sci Instr* 19:282 Ap '48

Electric strain gage analysis of a 50-ft. Hortonsphere. G. Brewer. *bibliog il diags Welding J* 27:sup476-80 S '48

Electrical strain gage measures gas flow. *il Elec World* 128:118+ D 6 '47

Fifty-point bridge balance unit for use with a Baldwin SR-4 strain indicator. N. C. Fick and N. A. Crites. *il Instruments* 21:329-30 Ap '48

Finding dynamic loads in coach structures. W. E. Rice and R. O. Ellerby. *il diags S A E J* 56:72+ Ag '48

How to organize for experimental stress analysis. *il diags Product Eng* 19:126-36 Ap '48

Instrument for measuring stress relaxation of high polymer materials. W. S. Macdonald and A. Ushakoff. *bibliog il diag Anal Chem* 20:713-17 Ag '48

Laboratory measurements of stress distribution in reinforcing steel. D. McHenry and W. T. Walker. *bibliog il diags Am Concrete Inst J* 19:1041-54 Je '48

Measurement and control of pressure in a Boyd brick press. J. A. Tauber. *il diags Am Cer Soc Bul* 27:97-100 Mr 15 '48

Minimising zero-drift in electrical strain gage bridges. C. R. Urwin and K. H. Swanger. *diags Roy Aeronautical Soc J* 51:367-73 N '47

Protection of electric strain gages in concrete. R. H. Sherlock and A. Belgin. *il diags Am Concrete Inst J* 19:189-92 N '47

Recording stress level gage. R. C. Walker and J. H. Meier. *il diags Product Eng* 19:133-9 Ja '48

Recording uterine contraction patterns in pregnant women; application of the strain gage in a multichannel Tokodynamometer. S. R. M. Reynolds and others. *il Science* 106:427-8 O 31 '47

Simplified dynamic strain equipment. W. J. Worley. *il diag Instruments* 21:330-2 Ap '48

Simultaneous measurement of tensional and electrical resistance of fine wires. J. T. Norton and G. C. Kuczynski. *il diag Instruments* 21:323 Ap '48

Slip rings and brushes for constant electrical resistance. F. J. Dutee and others. *il diags Product Eng* 19:129-33 Je '48

Strain gage analysis of mechanical punch presses. G. Brewer. *il diags Iron Age* 161:66-72 Ja 15 '48

Strain gage technique employed in studying propane tank stresses under service conditions. L. P. Zick and C. E. Carlson. *il Steel* 122:86-8 Ap 12 '48

Strain gages steer boat hull design. L. Lord. *il Marine Eng* 53:71-2 Ji '48

Strain gages used in recording and controlling machine load. *il diag Machine Design* 20:156-7 F '48

Strain-sensitive resistance wire manometer. A. G. Keenan and R. L. McIntosh. *bibliog diags R Sci Instr* 19:336-9 My '48

STRAIN gages—Continued

- Strain tester for rubber, *il* Instruments 21: 635-6 J1 '48; Rubber Age 63:471-2 J1 '48; Chem. & Eng N 26:2003 J1 5 '48
- Strain tester for rubber, W. L. Holt and others, *il* diags India Rubber World 118:513-17+ J1 '48; Same, J Res Nat Bur Stand 41: 95-102 Ag '48
- Welded flanges for pressure vessels; calculations and tests, G. A. Brewer, *il* diags Machine Design 19:125-8 N '47

See also

Extensometers

STRAINERS

- Cleaning of service water in steel plants; self-cleaning water strainer, S. P. Kinney, *il* Iron & Steel Eng 25:56-9 F '48
- Strainers protect costly hydraulic systems, J. H. Schmid, *diag* Iron Age 162:89 J1 8 '48

STRAINS and stresses

- Analysis of normal stresses in reinforced concrete sections under symmetrical bending, M. Bakhoum, *diags* Am Concrete Inst J 19: 457-83 F '48
- Analysis of strain and its graphical representation, A. H. Willis, *diags* Engineering 165: 457-60 My 14 '48
- Analysis of the state of stress in the neck of a tension test specimen, N. N. Davidenkov and N. I. Spiridonova, *bibliog* *il* diags Am Soc T M Proc 46:1147-58; Discussion, 1175-8 '46
- Calibration of X-ray measurement of strain, J. A. Bennett and H. C. Vacher, *il* diags J Res Nat Bur Stand 40:285-93 Ap '48
- Compressive stress-strain properties of some aircraft materials, P. E. Sandorff and R. K. Dillon, *bibliog* *il* diag Am Soc T M Proc 46:1039-52 '46
- Dependence of the stress-strain curves of cold-worked metals upon the testing direction, L. J. Klingier and G. Sachs, *bibliog* J Aeronautical Sci 15:151-4 Mr '48
- Design of wood beams and joists; time-saving standards, O. Albert, *Arch Rec* 102:128-9+ N '47
- Determination of physical chemical factors in stress corrosion cracking of mild steel, M. G. Winterstein and others, *bibliog* *il* diag Welding J 26:sup723-6 D '47
- Development of residual stresses in strip rolling, R. M. Baker and others, *bibliog* *diags* Metals Tech 15:TP2333 1-18 Ap '48
- Disk stresses; calculating stresses due to rotation and to interference fits, V. G. Guins and G. H. Heiser, *il* diags Machine Design 20:144-5+ '48
- Drilling stresses present in cable-tool operations, J. F. Kendrick Oil & Gas J 46:80+ D 13 '47; 47:56-9+ J1 1 '48
- Ductility of metals under general conditions of stress and strain, J. E. Dorn and E. G. Thomsen, *bibliog* *diags* Am Soc for Metals Trans 39:741-72 '47
- Effect of combined stresses on the transition temperature for brittle fracture, C. W. MacGregor and N. Grossman, *bibliog* *il* diags Welding J 27:sup7-16 Ja '48
- Effect of some processing variables on the stress required to draw tubular parts, G. Espey and G. Sachs, *bibliog* *diags* A S M E Trans 70:233-9 Ap '48; Same *abr*, Steel 122: 82-4+ F 16 '48
- Effect of stress distribution on yield points, F. G. E. Peterson, *il* diags Am Soc C E Proc 72:445-59 *bibliog*(p458-9) Ap '46; Discussion, *bibliog* *diags* 72:1032-40, 1271-84, 1421-4; 73:381-2; 74:215-17 S, N-D '46, Mr '47, F '48
- Effect of thermal-mechanical history on the strain hardening of metals, J. E. Dorn and others, *bibliog* *il* diags Metals Tech 15: TP2445 1-20 S '48
- Effect of various stress histories on the flow and fracture characteristics of the aluminum alloy 24ST, J. J. Lynch and others, *bibliog* *diags* Metals Tech 15:TP2307 1-24 Ja '48; Discussion, 15:TP2449 100-9 Ag '48
- Engineering applications of Newton's method of approximation, R. W. Richards, J Eng Educ 38:231-4 N '47
- Engineering aspects of bolt variables, V. E. Hillman, *diags* Iron Age 160:62-8 N 20 '47
- Engineer's problems in the measurement of stress and pressure, J. G. G. Hempson, Engineer 186:303-4 S 24 '48

- Estimation of stresses in turbine-disc rims, G. F. C. Rogers, *diags* Engineering 165:1-4, 40-3 Ja 2-9 '48
- Fatigue tests of rail steel under compressive stress, R. S. Jensen and H. F. Moore, *il* diags Am Soc T M Proc 46:799-806; Discussion, 807-13 '46
- Flange design calculations, H. E. Lonngren, *diags* Pet Refiner 26:130-4 N '47; 27:69-73 Ja; 116-19 F '48
- Flow and fracture characteristics of the aluminum alloy 24ST after alternating tension and compression, S. I. Liu and G. Sachs, *bibliog* Metals Tech 15:TP2392 1-12 Je '48
- Flow, fracture and ductility of metals, D. J. McAdam, jr. and others, *bibliog* Metals Tech 15:TP2296 1-30 Ja '48
- Flow of metals under various stress conditions, A. L. Nadai, *diags* Inst Mech Eng J 1:60 157 (War emergency issue no 28): 121-60, pl 1-3 *bibliog*(p159-60) '47
- Fracture of metals; some theoretical considerations, N. F. Mott, Engineering 165:16-18 Ja 2 '48
- How to organize for experimental stress analysis; techniques, advantages, limitations, cost, applications, results and savings, *il* diags Product Eng 19:113-36 Ap '48
- Influence of size and the stress system on the flow stress and fracture stress of metals, D. J. McAdam, jr. and others, *bibliog* Metals Tech 15:TP2373 1-19 Je '48
- Influence of strain aging on the fracture stress of low-carbon steel, D. J. McAdam, jr. and others, *bibliog* Metals Tech 15: TP2318 1-11 Ja '48
- Influence of strain rate and temperature on the mechanical properties of monel metal and copper, D. J. McAdam, jr. and others, *il* Am Soc T M Proc 46:302-50 *bibliog*(p917-18) '46
- Influence of the strain rate and the stress system on the mechanical properties of copper, D. J. McAdam, jr. and others, *bibliog* *diags* Am Soc for Metals Trans 38: 551-76 '47
- Instability of simply supported square plate with reinforced circular hole in edge compression, S. Levy and others, *diags* J Res Nat Bur Stand 39:571-7 D '47
- Internal stresses arising from deformations in metals and alloys, F. C. Thompson, Engineering 164:499 N 21 '47
- Internal stresses in metals and alloys; discussion organized by the Faraday society in 1921, Engineer 184:507 N 28 '47
- Laboratory measurements of stress distributions in reinforcing steel, D. McHenry and W. T. Walker, *bibliog* *il* diags Am Concrete Inst J 19:1041-54 Je '48
- Lattice analysis in concrete design, D. McHenry, *diags* Am Concrete Inst J 20:129-38 O '48
- Measurement of stress by means of X-rays, D. E. Thomas, *il* diags J Ap Phys 19:190-3 F '48
- Neglected problem in physical metallurgy; problem of stress-strain relationship in plastic deformation, M. G. Corson, Metal Prog 53:248-9 F '48
- New formulas for stresses in concrete pavements of airfields, H. M. Westergaard, *bibliog* Am Soc C E Proc 73:687-701 My '47; Discussion, 73:1562-4; 74:218-20, 723-4 D '47, F, My '48
- Normal stresses in reinforced concrete sections under unsymmetrical bending, M. Bakhoum, *diags* Am Concrete Inst J 19:669-91 Ad '48
- Partially plastic thick-walled tubes, C. W. MacGregor, and others, *bibliog* *diags* Franklin Inst J 245:135-58 F '48
- Plastic flow of thick-walled tubes with large strains, C. W. MacGregor and others, *bibliog* *diag* J Ap Phys 19:291-7 Mr '48
- Residual stress and dimensional changes caused by welding and other local heating processes, L. C. Bibber, Steel 122:107 My 24 '48
- Rubber springs, shear loading, J. F. Downie Smith, *diags* A S M E Trans 70:227-32 Ap '48
- Save stress on boiler drums by planned operation, F. X. Gilg, *diags* Power 92: 474-6 Ag '48

STRAINS and stresses—*Continued*

- Shearing stress distribution in box girders with multiple webs. A. S. Neiman, diags Am Soc C E Proc 74:161-7 F '48; Discussion, 74:1041-4, 1210-18 Jc-S '48
- Some effects of applied stresses on precipitation phenomena. W. L. Finlay and W. R. Hibbard, jr. bibliog diag Metals Tech 15: TP2470 1-18 S '48
- Stability of thin cylindrical shells in torsion. R. G. Sturm, bibliog il diags Am Soc C E Proc 73:471-95 Ap '47; Discussion, 73:1802-4, 1448-9, 1549-52; 74:231-5 O-D '47, F '48
- Strain-age embrittlement of steel. bibliog Engineer 184:412-13 O 31 '47
- Strain aging in welding low-carbon structural steel. W. H. Bruckner and W. E. Ellis, il diags Welding J 27:sup41-7 S '48
- Strain and deformation recording system. il diag Iron Age 160:74 D 4 '47
- Strain energy in greatly deformed elastic or inelastic anisotropic engineering metals. K. H. Swainger, bibliog diags Franklin Inst J 245:501-16 Je '48
- Strain test for evaluation of rubber compounds. F. L. Roth and R. D. Stiehler, bibliog India Rubber World 118:367-71 Je '48; Same, J Res Nat Bur Stand 41:87-93 Ag '48
- Strain testing improves iron alloy machine parts. H. M. Hardy and T. O. Kuivinen, il diags Product Eng 19:116-20 Ag '48
- Strength and failure characteristics of thin circular membranes. W. F. Brown, jr. and G. Sachs, bibliog il A S M E Trans 70:241-9; Discussion, 249-51 Ap '48
- Strength of beams as determined by lateral buckling. K. de Vries, diags Am Soc C E Proc 72:985-1011 S '46; Discussion, 72:1425-32; 73:236-8, 397-403, 559-68, 953-9; 74:193-210 D '46, F-Ap, Je '47, F '48
- Stress analysis applied to underground mining problems. W. I. Duvall, bibliog 16pls U S Bur Mines Rep of Invest 4192:1-18 '48
- Stress concentration and fatigue failures. S. Timoshenko, il diags Inst Mech Eng J & Proc 157 War emergency issue no 28:163-9, pl 1-4 '47; Same cond, Engineer 183:398-9, 421-2 My 9-16 '47; Discussion, O. Föppl, 185: 114-15 Ja 30 '48
- Stress-corrosion and corrective measures. M. G. Fontana, il Metal Prog 53:838-40 Je '48
- Stress-corrosion cracking of steels in the presence of sulphur compounds. W. P. Rees, Engineering 164:489-90 N 21 '47
- Stress corrosion in materials; abstract. Materials & Methods 27:107-8 Ja '48
- Stress corrosion of manganese bronze castings. T. L. Sheehan and H. E. Dickerman, il Foundry 76:82-7 J J '48
- Stress corrosion, one of eight visual forms of corrosion. M. G. Fontana, il Ind & Eng Chem 39:sup87A-8A N '47
- Stress cracking of electroplated lockwashers. K. B. Valentine, il Am Soc for Metals Trans 38:488-94; Discussion, 494-504 '47
- Stress engineering as applied to automotive bodies. P. O. Johnson and R. G. Heyl, jr. il diags S A E J 56:46-8 JI '48
- Stress notch sensitivity with eccentric holes. L. Schapiro and R. H. Esling, diags A S M E Trans 70:135-8 F '48
- Stress rupture and creep properties of heat resistant gas turbine alloys. N. J. Grant, bibliog il diags Am Soc for Metals Trans 39:281-325; Discussion, 325-34 '47
- Stresses in a plate containing an overlapped circular hole. C. Ling, diags J Ap Phys 19: 405-11 Ap '48
- Stresses in a plate containing two circular holes. C. Ling, bibliog J Ap Phys 19:77-82 Ja '48
- Structural variations in gas turbine alloys revealed by the stress rupture test. N. J. Grant, il Am Soc for Metals Trans 39: 335-59; Discussion, 359-67 '47
- Study of the tension test. E. R. Parker and others, bibliog il diags Am Soc T M Proc 46:1159-74; Discussion, 1175-8 '46
- Summarized proceedings of 1st annual conference on stress analysis, London, March 25-27, 1947. J Sci Instr 25:19-23 Ja '48
- Systematic expression for stress-strain-temperature relationships. M. B. Corson, Metal Prog 53:538 Ap '48
- Tensile properties of rolled silver chloride. E. M. Axilrod and J. J. Lamb, J Ap Phys 19:213-16 F '48
- Theoretical analysis of the stresses and strains in extrusion and piercing. R. Hill, bibliog diags Iron & Steel Inst J 158:177-85 F '48
- Theory of inelastic bending with reference to limit design. A. Hrennikoff, Am Soc C E Proc 73:255-89 Mr '47; Discussion, 73:944-6, 1293-301; 74:277-82, 377-80 Je, O '47, F-Mr '48
- Torsional stress analysis of twist-drill sections by membrane analogy. E. T. F. Neubauer and O. W. Boston, il diags A S M E Trans 69:397-302 N '47
- Trapped stresses; how they can be created to improve the performance of machine parts. H. O. Fuchs, il diags Machine Design 20:114-18+ JI '48
- See also*
- | | |
|------------------------------|-----------------------------|
| Airplanes—Stresses | Least work, Principle of |
| Beams and girders | Load (mechanics) |
| Bending moment | Photoelasticity |
| Building | Poisson's ratio |
| Columns | Rails—Stresses |
| Concrete construction—Design | Ships—Stresses and stresses |
| Creep of materials | Soil mechanics |
| Creep of metals | Steel construction—Design |
| Deformation (mechanics) | Strain gages |
| Earth pressure | Strength of materials |
| Elasticity | Torsion |
| Fatigue in metals | Welding—Stresses |
| Friction, Internal | Wind pressure |
| Hysteresis (mechanics) | |
- Brittle coating test**
- Brittle lacquer method of determining stresses. N. R. Goncharov, il diag Metallurgia 37: 290-2 Ap '48
- Experimental method of stress analysis. J. E. Lambie, il Engineering 165:436 My 7 '48
- How to organize for experimental stress analysis. il diags Product Eng 19:116-21 Ap '48
- Stress determination by brittle coatings. G. Ellis, il Mech Eng 69:567-71 JI '47; Discussion, 69:1049-51 D '47
- Stress determination; use of brittle coatings. Automobile Eng 37:499-500 D '47
- What kind of information does brittle coating give? A. J. Durelli, il diags Product Eng 19:86-91 Je; 133-6 bibliog(p 136) JI '48
- STRAW**
- Agricultural residue fibers for gas mask filters. S. I. Aronovsky and others, il Paper Ind 29:1300-3 D '47
- Agricultural residue pulps; comparison of pulping processes. S. I. Aronovsky and others, Paper Tr J 126:78-83 Je 24 '48
- Agricultural residue pulps; high-yield straw pulps for fine papers. S. I. Aronovsky and others, bibliog Paper Tr J 127:154-62 S 9 '48
- Collection and quality of straw for the straw-board industry. S. I. Aronovsky, Paper Tr J 126:51-2 Ja 8 '48
- Combined straw again injurious to clover seedings. C. J. Willard, il Paper Tr J 126: 57-9 Ap 29 '48
- Manufacture of straw pulp. S. I. Aronovsky, bibliog il maps Paper Ind 30:71-9, 244-51 Ap-Mr '48
- Pulping of straw with digestion liquors containing sodium sulphite. G. S. Hannaway, Paper Tr J 126:124+ F 26 '48; Same cond, Paper Ind 29:714+ Ag '47
- Straw cellulose for feeding-stuffs; an aid in fighting the food shortage. Chem Age (Lond) 54:277-8 Mr 16 '46; Same cond, Pulp & Pa of Can 49:85-6 S '48
- Straw-sludge composts. P. Garrick, Soc Chem Ind J 66:257-9 Ag '47
- TAPPI fibrous agricultural residues committee meeting. Paper Ind 29:1177-8+ N '47
- Treatment for prevention of decay in stacked straw. B. F. Stahl and H. L. Smith, Paper Tr J 125:52-4 D 11 '47
- See also*
- Flax straw
- Analysis**
- Some data on chemical composition of cereal straw. E. L. Ritman and others, bibliog Paper Ind 29:1751-4 Mr '48

STRAW—Continued**Moisture content**

Moisture testing of baled straw by electronic methods. N. F. Wilson. *diags Paper Tr J* 126:55-6 Ja 15 '48
 Rapid estimation of moisture of straw in bales. S. I. Aronovsky and H. M. Sutcliffe. *il diags Paper Tr J* 126:51-4 Ja 15 '48

STRAW board. See **Paper board**

STRAWBERRIES

Pectic substances; molecular structure of strawberry and apple pectic acids. G. H. Beavan and J. K. N. Jones. *Chem Soc J p* 1218-21 S '47
 To reduce color loss in strawberry preserves. Z. I. Kertesz and E. Sondheimer. *bibliog il Food Ind* 20:1300-2+ S '48

Analysis

Anthocyanin pigments; colorimetric determination in strawberries and strawberry products. E. Sondheimer and Z. I. Kertesz. *bibliog Anal Chem* 20:245-8 Mr '48

STRAWBERRIES, Frozen

Effect of fluctuating storage temperatures on quality of frozen foods. W. A. Gortner and others. *bibliog Ind & Eng Chem* 40: 1423-6 Ag '48

STREAM flow

Concept of the graded river. J. H. Mackin. *diag Geol Soc Bul* 59:463-511 *bibliog*(p509-11) My '48

Hydraulics for the practical water works man; flow in streams, drains and open channels. R. W. Angus. *diags Water & Sewage Works* 94:405-8 N '47

STREAM measurement

Hydraulics for the practical water works man; measuring the flow in streams. R. W. Angus. *diags Water & Sewage Works* 95: 13-16 Ja '48

STREAM pollution. See **Water pollution**

STREAMLINING (design)

Streamlining effect on air resistance and smoke lifting on steam locomotives. J. F. Griffin. *il diags A S M E Trans* 70:515-24 Jl '48

To streamline or not to streamline. W. B. Petzold and P. Belk. *diags Plastics* 8:30-1+ F '48

STREET accidents

Effect of light changes on traffic accidents shown in Detroit lighting report. L. J. Schrenk. *Illum Eng* 42:390-2 N '47

Safety on streets and highways. R. A. Stappels. *il Roads & Bridges* 86:86+ Ap '48

Traffic accident costs in Detroit; study made by Association of casualty and surety companies. *Safety Eng* 95:43 Je '48

See also

Automobile accidents

STREET cars**Radio equipment**

New streetcar serenade; Transit radio, inc. supplies fm programs for buses and trolleys. H. Taft, jr. *Pub Util* 42:406-12 S 23 '48

STREET cleaning

How street cleaning can be improved. *Eng N* 140:43-9 Ja 8 '48

Synthetic detergents for washing city streets. O. M. Morgan. *il Soap & San Chem* 23:42-3+ D '47

STREET cleaning apparatus

Bulk refuse collectors help in keeping Boston clean. *il Pub Works* 79:33-4 My '48

Highway and sanitation equipment repair procedures. R. K. Sawyer. *Pub Works* 79: 40-2 F; 75-6 Ap '48

Leaf loader for Birmingham. *il Roads & Sts* 91:109 Ja '48

STREET lighting

Association of public lighting engineers; discussion of street lighting problems. *Elec R (Lond)* 143:479-81 S 24 '48

Evolution of mercury vapor street lighting. D. W. Rowten. *il diags Illum Eng* 43:290-313; Discussion. 313-18 Mr '48

Fluorescent street lighting in Kingsway, London. *il Electrician* 140:33-4 Ja 2 '48; *Elec R (Lond)* 142:19 Ja 2 '48

Fluorescent street lighting in the South-West. *il Light & Lighting* 40:205 N '47

Footometer and height finder, aids to street lighting design; abstract. C. J. Alderidge. *il Light & Lighting* 40:193 N '47

Lighting for streets and airports; illustrations with text. *Elec West* 101:96 S '48

Maidenhead's new street lighting; fluorescent illumination in three main roads. *il Electrician* 140:870 Mr 19 '48

Mercury lamps step up street lighting in Greeley, Colo. *il Elec World* 128:114 N 22 '47

Mercury replaces magnetite arcs in Spokane, Wash. *il Elec World* 129:130+ Je 5 '48

Modern white-ways. A. F. Dickerson. *Illum Eng* 43:1061-70; Discussion. 1071-3 N '48

Modernizing a city street lighting system. W. H. Woods. *il Illum Eng* 43:194-201; Discussion. L. J. Schrenk. 201-2 F '48

New mercury street lighting; illustrations. *Elec West* 100:79 Mr '48

Penge street lighting conversion. *il Electrician* 140:729 Mr 5 '48

Police praise mercury street lights at Rock Island, Illinois. *il Elec World* 130:102 Jl 17 '48

Potentialities of modern white-way lighting. A. F. Dickerson. *Elec World* 129:135+ Mr 13 '48

Progress of public lighting; abstracts. N. Boydell. *Elec R (Lond)* 143:439-40 S 17 '48; *Electrician* 141:851 S 17 '48

Sealed-beam lamps for street lighting? R. G. Slauer and W. Alphin. *il plan Elec World* 130:97-8 S 25 '48

Selling street lighting by demonstration. *il Elec World* 128:92 D 20 '47

Spokane modernizes with mercury. A. Gruber. *il diags Elec West* 100:82-3 My '48

Street lighting. E. C. Lennox. *il Inst E E J* 93 pt 2:170-83 *bibliog*(p183) Ap '46; Discussion. 83 pt 2:183-90; 94 pt 2:58-60; 95 pt 2:78-81 Ap '46, F '47, F '48

Street lighting changed, no service interruption. A. Gruber. *diags Elec World* 130: 104 Ag 28 '48

Street lighting in Cheltenham. *il Light & Lighting* 40:189 O '47

Street lighting in the vicinity of aerodromes; abstracts. S. English and J. G. Holmes. *Elec R (Lond)* 143:440-1 S 17 '48; *Electrician* 141: 854 S 17 '48

Cost

New lamps reduce costs. D. W. Rowten. *diags Elec World* 129:112-13 Ap 10 '48

Safety aspects

Effect of light changes on traffic accidents shown in Detroit lighting report. L. J. Schrenk. *Illum Eng* 42:390-2 N '47

For safe street and highway lighting. P. S. Millar. *il Ind Stand* 19:36-3 My '48

Tree problem

Correlation of street lighting and street tree management. E. H. Scanlon and K. M. Reid. *bibliog il Illum Eng* 43:339-54 Ap '48

STREET lighting fixtures

Higher mounting reduces vandalism. C. E. Waldron. *Elec World* 129:72 Ja 3 '48

Maintenance of outdoor lighting equipment? F. T. Tillemans. *il Illum Eng* 43:377-91; Discussion. 391-4 Ap '48

Modernization of one street lighting system, Spokane, Wash. A. Gruber. *il Elec World* 129:98+ Je 19 '48

Public lighting exhibition. *il Elec R (Lond)* 143:388-91 S 10 '48; *Electrician* 141:778-83 S 10 '48

Sealed-beam lamps for street lighting? R. G. Slauer and W. Alphin. *il plan Elec World* 130:97-8 S 25 '48

Unidirectional lighting of double carriageway and one-way roads; abstracts. J. S. Smyth. *Elec R (Lond)* 143:440 S 17 '48; *Electrician* 141:852+ S 17 '48

Testing

Modern photometry of street lighting luminaires. G. A. Horton. *il diags Illum Eng* 43:989-1014 *bibliog*(46 titles, p 1012-14) N '48

STREET maps

Street maps for small towns. L. F. Dingman. *maps Eng N* 140:348-50 Mr 4 '48

STREET openings

Laying a 36-in. main through traffic. S. J. Benedict. *il Am Water Works Assn J* 39: 1115-20 N '47

STREET openings—Continued

Service cut-offs in one foot square holes.
F. Bell. *il* Gas J (Lond) 252:581 D 10 '47;
Same. *Am Gas Assn Mo* 30:25+ Ja '48
Use of small holes for work on gas services.
il Engineering 164:584 D 19 '47

See also

Pavements—Cutting

STREET railroads

Maintenance and repair

Slip an organized thinker into your maintenance department. S. D. Forsythe. *Mass Transportation* 43:542+ N '47

Motor bus substitution

Bus exclusively; rails to rubber; how trend is changing; table. *Bus Transportation* 27:86-7 S '48

New bus plan for Frisco. plan *Bus Transportation* 27:82-3 My '48

Norfolk goes all-bus. *il* *Bus Transportation* 27:52-3 Mr '48

Out with the old; modernization program by Wilkes-Barre transit corporation; street cars give way to motor and trolley buses. *il* map *Bus Transportation* 27:71-3 My '48
Public address systems used to publicize Connecticut company's motorization of lines and to announce new routes, etc. F. Kane. *il* *Bus Transportation* 27:87-8 F '48

Railway in name only; Memphis joins ranks of all bus cities as last rail is removed. A. D. McWhorter. *il* *Bus Transportation* 27:62-4 Ja '48

Snow protection and removal

Municipal and street railway authorities cooperate in snow clearing in Toronto; Transportation commission's responsibilities. J. G. Inglis. *il* *Roads & Bridges* 85:65-6+ D '47

Track pavement

San Francisco's Market street gets new track zone pavement. *il* *Roads & Sts* 91:84-6 Je '48

Track reclamation.

Improvised equipment makes rail pulling profitable. *il* *Civil Eng* 18:8 Ja '48

Railway in name only; Memphis joins ranks of all bus cities as last rail is removed. A. D. McWhorter. *il* *Bus Transportation* 27:62-4 Ja '48

Track removal

Rail-mounted gang drill breaks pavement for rail removal by tractor shovel hoist. *il* *Constr Methods* 30:95 Je '48

STREET trades

See also

News stands

STREET traffic

Adequate traffic facilities are the key to urban prosperity. L. Williams; C. A. Meadows; G. A. McNamee. plans *diags Roads & Bridges* 85:72-5+ D '47

Cities fight truck-traffic congestion. *Bsns W* p34-6 Mr 27 '48

Federal-aid system provides network of arterial routes in urban areas. map *Civil Eng* 17:651+ N '47

Fluid city of the future. L. Williams. *Pub Util* 42:399-405 S 23 '48

Parking meters now an accepted part of traffic-control program. C. F. LeeDecker. *il* *Roads & Bridges* 86:78-80+ F '48

Possibilities of two-level superblocks; Weissman-Greenstein plan. *il* plans *Arch Rec* 104:122-5 S '48

Solving traffic-congestion problems in urban centers. E. D. Tallamy. *il* maps *Roads & Bridges* 86:106+ S '48

Solving traffic problems; free bus rides, free parking space in Sacramento; for Boston, an under-Common garage. *il* *Bsns W* p22 My 29 '48

Traffic congestion; abstract. R. W. Crum. *Mech Eng* 69:1039 D '47

Traffic improvements through traffic engineering. W. S. Smith. *il* *Civil Eng* 18:160-4+ Mr '48

Transportation in Shanghai is a Chinese puzzle! U.S. engineers suggest a solution. *il* *Bus Transportation* 27:79-81 My '48

We won't cure billion dollar city traffic jams until we make room for the pedestrian. *il* plans *Arch Forum* 88:12-14 My '48

See also

Automobile parking

Bridge traffic

Traffic signals

STREETS

See also

Business streets

City planning

Parkways

Pavements

also subdivision Streets under names of cities, e.g. New York (city)—Streets

Finance

Subsidy for streets explained. *Roads & Bridges* 85:76-7+ N '47

Ice control

Low cost winter safety; rock salt keeps street free from snow and ice in East Orange, N.J. T. Young. *il* *Pub Works* 79:82 JI '48

No more winter emergencies in Oneida. A. T. Ernenwein. *il* *Pub Works* 78:33 N '47

Maintenance and repair

City street programs; with cost data. *il* *Roads & Sts* 90:69 Ag; 92 O '47

Expediting paving and drainage by force account. R. E. Edmondson. *il* *Pub Works* 79:29+ Apr '48

Face-lifting Milwaukee's Wisconsin ave. *il* *diags Roads & Sts* 91:65-6 My '48

Getting a needed paving job done. A. E. J. Johnson. *Pub Works* 79:80-1 Ap '48

How Boise widened and modernized its streets. H. K. Glidden. *il* *Roads & Sts* 90:84-6+ D '47

Maps

See Street maps

Widening

Street widening programs in Milwaukee. J. E. Hubel. *il* *Pub Works* 79:65 My '48

STRENGTH of materials

Accular cast irons. *Engineering* 164:596, 607-8 D 19-26 '47

Application of the theory of extreme values in fracture problems. B. Epstein. bibliog *Am Stat Assn J* 43:403-12 S '48

Bear-up requirements for aircraft; fatigue strength, the engineers call it. B. Lundberg. *il* *Aero Digest* 55:56-8+ D '47

Bearing properties of 24S-T sheet and shear strength of 24S-T rivets at elevated temperatures. A. E. Flanagan and others. *il* *diags Am Soc for Metals Trans* 38:789-804; Discussion. 804-6 '47

Behavior of bent stanchions. J. F. Baker. *Chem Age (Lond)* 58:619 My 1 '48

Ductility of metals under general conditions of stress and strain. J. E. Dorn and E. G. Thomsen. bibliog *diags Am Soc for Metals Trans* 39:741-72 '47

Effect of rib proportions on beam bending strength. A. R. Holowenko. *diags Product Eng* 18:122-3 D '47

Engineering materials. R. W. Bailey. *Inst Mech Eng J & Proc* 157 (War emergency issue no 31):274-7, pl 1-2 '47

Flexural strength and stiffness of wood-aluminum sandwich panels. R. A. Miller and H. L. Langhaar. *diags Product Eng* 19:104-8 Ag '48

Graphic comparison of specific strengths. T. R. C. Wilson. *Civil Eng* 18:99-100 F '48

How to develop maximum strength in alloy steel bolts. G. Sachs. *diags Steel* 122:104-6 F 2 '48

Impact strength and hardness of aircraft alloys down to -423°F. M. G. Fontana and J. L. Zambrow. *il* *diags Metal Prog* 53:97-101 Ja '48

Overstrength of short bending members. F. L. Ryder. *diags Product Eng* 19:110-12 N '48

Properties of chemical engineering materials of construction; tabulation. *Ind & Eng Chem* 40:1821-936 bibliog(p 1933-6) O '48; Correction. 40:2442 D '48

STRENGTH of materials—Continued

- Selection of engineering materials for coke plants. C. F. Pogacar. *il Blast F & Steel* Pl 36:439-42, 555-9 Ap-My '48; Same abr. *Steel* 122:111+ Je 7 '48
- Stability of thin cylindrical shells in torsion. B. G. Sturm. bibliog *il diags Am Soc E* Proc 73:471-95 Ap '47; Discussion, 73:1302-4, 1448-9, 1549-52; 74:231-5 O-D '47, F '48
- Static and fatigue strengths of welded joints in aluminum-manganese alloy sheet and plates. R. L. Templin and M. Holt. *il Welding J* 26:sup705-11 D '47
- Statistical aspects of fracture problems. B. Epstein. bibliog *J Ap Phys* 19:140-7 F '48
- Strength and clamping force of bolts. K. H. Lenzen. *il diags Product Eng* 18:130-3 D '47
- Strength and failure characteristics of thin circular membranes. W. F. Brown, Jr. and G. Sachs. bibliog *il A S M E Trans* 70:241-9; Discussion, 249-51 Ap '48
- Tensile and creep strengths of some magnesium-base alloys at elevated temperature. A. A. Moore and J. C. McDonald. *il Am Soc T M Proc* 46:970-89 '46
- What is strength? J. B. Caine. *Foundry* 76: 80-1+ JI; 100-1+ Ag '48
- Yield strength determinations without stress-strain curves. L. J. Ebert and others. *Engineer* 185:208-9 F 27 '48

See also

- | | |
|-------------------------|----------------------|
| Bending moment | Fatigue in metals |
| Building materials | Glass—Strength |
| Columns | Steel—Strength |
| Deformation (mechanics) | Strains and stresses |
| Elasticity | Wood—Strength |

STREPTAMINE

- Streptomycin; degradation of O-tetramethyl-streptomycin to D,L-dimethoxysuccinic acid. O. Wintersteiner and A. Klingsberg. *Am Chem Soc J* 70:885 F '48

STREPTIDINE

- Synthesis of streptidine. M. L. Wolfrom and W. J. Polglase. bibliog *Am Chem Soc J* 70:1672-3 Ap '48

STREPTOBOSAMINE

- Streptomyces antibiotics; dihydrostreptosonic acid lactone and configuration of streptose and streptobosamine. F. A. Kuehl, Jr. and others. bibliog *Am Chem Soc J* 70:2613 JI '48
- Streptomycin; some derivatives and reactions of dihydrostreptobosamine. H. E. Staveland and others. bibliog *Am Chem Soc J* 69:2742-7 N '47

STREPTOCOCCI

- Enhancement of penicillin blood levels following oral administration of caronamide. L. Loewe and others. bibliog *Science* 106: 494-6 N 21 '47
- Isolation of rhizopteris, new growth factor for streptococcus lactis R. El. L. Rickes, L. Chalet and J. C. Keresztesy. *Am Chem Soc J* 69:2749-51 N '47
- Paradoxical zone phenomenon in the bactericidal action of penicillin in vitro. H. Eagle. *Science* 107:44-5 Ja 9 '48
- Production of starch-like material from glucose-1-phosphate by diphtheria bacilli. E. J. Hehre and others. *Science* 106:523-4 N 28 '47

- Pteric acid derivatives; pteroyl- α -glutamyl-glutamic acid and pteroyl- α , γ -glutamyl-di-glutamic acid. J. H. Mowat and others. bibliog *Am Chem Soc J* 70:1096-8 Mr '48

- Pteric acid derivatives; pteroyl- γ -glutamyl-glutamic acid and pteroyl- γ -glutamyl- γ -glutamyl-glutamic acid. J. H. Boothe and others. bibliog *Am Chem Soc J* 70:1099-102 Mr '48

- Studies in enterococcal food poisoning. L. Buchbinder and others. bibliog *Pub Health Rep* 63:109-13 Ja 23 '48

STREPTOLIN

- Evidence for the presence of streptothricin in streptolin culture filtrates. D. H. Peterson and others. *Am Chem Soc J* 69:3145-6 D '47

- Streptolin, a new antibiotic from a species of streptomyces. R. W. Rivett and W. H. Peterson. bibliog *Am Chem Soc J* 69:3006-9 D '47

STREPTOMYCES

- Streptomyces antibiotics; the structures of bis-desoxystreptose, dihydrodesoxystreptose and tetraacetyl-bis-desoxystreptobosamine. N. G. Brink and others. bibliog *Am Chem Soc J* 70:2085-91 Je '48

STREPTOMYCES griseus

- Actidione, an antibiotic from streptomyces griseus. J. H. Ford and B. E. Leach. *Am Chem Soc J* 70:1223-5 Mr '48
- Respiration of streptomyces griseus. D. Gottlieb and H. W. Anderson. *Science* 107:172-3 F 13 '48
- Structure of actidione, an antibiotic from streptomyces griseus. E. C. Kornfeld and R. G. Jones. *Science* 108:437-8 O 22 '48

STREPTOMYCIN

- Action of streptomycin in experimental infection with Q fever. R. J. Huebner and others. bibliog *Pub Health Rep* 63:357-62 Mr 19 '48

- Antibiotic activity of subtilin and streptomycin in the presence of BAL. H. H. Anderson and Y. Chin. bibliog *Science* 106:643-4 D 26 '47

- British home grown streptomycin. *il Chem Age (Lond)* 59:209 Ag 14 '48

- Case study in biochemical engineering; Merck's brilliant streptomycin achievement typifies the potentialities of a new technology. S. D. Kirkpatrick. *il Chem. Eng* 54: 94-6, 101-2 N '47

- Chemical engineers honor Merck & co. *Chem Eng* 54:110-11+ D '47

- Cooperation of science and industry in the development of the antibiotics. R. T. Major. *il Chem & Eng N* 26:3186-90+ O 25 '48

- Crystalline trihydrochlorides of streptomycin and mannosidostreptomycin. L. J. Heuser, M. A. Dolliver and E. T. Stiller. bibliog *Am Chem Soc J* 70:2833-4 Ag '48

- Degradative studies on streptomycin. M. L. Wolfrom and W. J. Polglase. bibliog *Am Chem Soc J* 70:2835-6 Ag '48

- Demonstration of naturally-occurring streptomycin-resistant variants in the human strain of tubercle bacillus H-37RV. K. Vennesland and others. bibliog *Science* 106: 476-7 N 14 '47

- Enhancement of growth of a strain of M. tuberculosis (var. hominis) by streptomycin. C. A. Spendlove and others. bibliog *Pub Health Rep* 63:1177-9 S 3 '48

- Fluorescence of solid streptomycin salts. H. A. Frediani. *Science* 107:344 Ap 2 '48

- In vitro resistance of the genus bacteroides to streptomycin. G. E. Foley. bibliog *Science* 106:423-4 O 31 '47

- Industrial development of antibiotics. W. H. Engels. *il Chem & Eng N* 26:1284-7 My 3 '48

- Millions from molds. *il Chem Ind* 63:25-6 JI '48

- News about streptomycin. *Safety Eng* 96:66 Ag '48

- Nomenclature of streptomycin preparations. S. A. Waksman. bibliog *Science* 107:233-4 Mr 5 '48

- Progress in drugs and fine chemicals. G. C. Green. *il Chem Age (Lond)* 58:106-7, 136-8+ Ja 17-24 '48

- Recent advances in antibiotic research. P. P. Regna. bibliog *Chem & Ind* p275-8, 295-7 My 1-3 '48

- Remote sustained threshold therapeutic action of streptomycin in tuberculosis. H. J. Corper and M. L. Cohn. bibliog *Science* 106: 446-7 N 7 '47

- Respiration of streptomyces griseus. D. Gottlieb and H. W. Anderson. *Science* 107:172-3 F 13 '48

- Soybean nutrient for streptomycin. *il Chem Ind* 61:832 N '47

- Story of streptomycin. *il Chem Eng* 54:97-100 N '47

- Streptomyces antibiotics; heptabenzoylstreptidine from streptomycin. R. L. Peck and others. bibliog *Am Chem Soc J* 70:2321-5 JI '48

- Streptomyces antibiotics; N-methyl-L-glucosamine. F. A. Kuehl, Jr. and others. bibliog *Am Chem Soc J* 69:3032-5 D '47

- Streptomyces antibiotics; structure of streptomycin. F. A. Kuehl, Jr. and others. *Am Chem Soc J* 70:2325-30 JI '48

STREPTOMYCIN—Continued

- Streptomycin and tuberculosis; abstract. H. C. Hinshaw, *Chem Eng* 55:280-4 Mr '48
- Streptomycin; degradation of O-tetramethyl-streptomine to D,L-dimethoxy succinic acid. O. Wintersteiner and A. Klingsberg, *Am Chem Soc J* 70:885 F '48
- Streptomycin export applications excessive; tighter rules planned. *Oil Paint & Drug Rep* 154:3- O 25 '48
- Streptomycin; free sale reauthorized and maximum price fixed in Argentina. *For Comm W* 31:11 Ap 17 '48
- Streptomycin-sensitive, -dependent, and -resistant bacteria. T. F. Paine and M. Finland, *bibliog. Science* 107:143-4 F 6 '48
- Streptomycin; some derivatives and reactions of dihydrostreptobiosamine. H. E. Stavely and others, *bibliog. Am Chem Soc J* 69: 2742-7 N '47
- Streptomycin therapy in experimental tuberculosis of guinea pigs infected intracerebrally with virulent tubercle bacilli. W. Steenken, Jr. and E. Wolinsky, *Science* 106:638-9 D 26 '47
- Studies of the acute diarrheal diseases; further observations of chemotherapy in shigellosis; the efficacy of streptomycin and sulfacarazole. A. V. Hardy and S. P. Halbert, *bibliog. Pub Health Rep* 63:790-2 Je 11 '48
- Use of streptomycin-dependent strains of bacteria for demonstrating the ability of microorganisms to produce streptomycin. W. P. Iverson and S. A. Waksman, *bibliog. Science* 108:382-3 O 8 '48
- Variants of *Escherichia coli*, *Pseudomonas aeruginosa*, and *Bacillus subtilis* requiring streptomycin. T. Kushnick and others, *Science* 106:587-8 D 12 '47

STREPTOSE

- Configuration of streptose. M. L. Wolfrom and C. W. DeWalt, *Am Chem Soc J* 70: 3148-9 S '48
- Streptomycetes antibiotics; dihydrostreptosonic acid lactone and configuration of streptose and streptobiosamine. F. A. Kuehl, Jr. and others, *bibliog. Am Chem Soc J* 70:2613 JI '48

STREPTOSONIC acid

- Streptomycetes antibiotics; dihydrostreptosonic acid lactone and configuration of streptose and streptobiosamine. F. A. Kuehl, Jr. and others, *bibliog. Am Chem Soc J* 70:2613 JI '48

STREPTOTHRICIN

- Chloromycetin and streptothricin. H. E. Carter and others, *Science* 107:113 Ja 30 '48
- Evidence for the presence of streptothricin in streptolite culture filtrates. D. H. Peterson and others, *Am Chem Soc J* 69:3145-6 D '47

STRESSES. See Strains and stresses**STRETCHERS (litters)**

- Mine casualty stretcher. *Il Engineer* 185:455 My 7 '48

STRETCHING

- Glass blanket for stretch forming. R. Heath, *Il Tool Eng* 21:58 Ag '48
- Hot stretch-forming of aluminum sheets. J. A. Johnson, *Il Mach* 54:170-1 Ag '48
- Rotary contour formed parts. C. J. Bath, *Il Diags Product Eng* 19:117-20 O '48
- Spun glass aids in metal forming. *Il Aviation W* 49:27 JI 26 '48; *Mach* 54:199 JI '48; *Steel* 123:94 Ag 9 '48; *Light Metal Age* 6:17 Ag '48

STRETCHING machines

- Stretch forming aluminum sheets. *Il Iron Age* 161:86-7 Je 3 '48

STRIKES

- Big strike tests are shaping up. *Il Bsns W* p 102+ My 8 '48
- Cable strike ends in defeat. *Il Bsns W* p 100-1 Ap 10 '48
- Chicago newspaper strike will be pattern for negotiations in other printing centers. *Inland Ptr* 120:62-4 D '47
- Court injunction hits agricultural workers' long strike at Di Giorgio ranch, Arvin, Calif. *Il Bsns W* p74-6 JI 31 '48
- Dockers and discipline. *Economist* 154:1055 Je 26 '48
- Effects of oil strike minimized by industry, government efforts. *Oil & Gas J* 47:66 S 16 '48

Forecasting strike pattern. *Bsns W* p 104-6 S 25 '48

Garage settlement; Seattle mechanics go back to work after six-month strike. *Bsns W* p91 Ja 10 '48

How effective is the Taft-Hartley law? latest data on strikes and worker idleness compiled by the Bureau of labor statistics. K. Rannels, *Automotive Ind* 99:24-6 Ag 15 '48

I.T.U. showdown in Chicago. *Il Bsns W* p 114-16 D 6 '47

Labor battles, old-style. *Bsns W* p 104-5 Mr 20 '48

Meat strike on the wane. *Il Bsns W* p 106-7 p Ap 17 '48

Military vs. strikes; Boeing strike hurts. *Bsns W* p 104-6 Je 19 '48

M.I. survey; public finds most strikes unjustified. *Mod Ind* 15:35 F '48

Musicians' strike; issue between the BBC and the Musicians' union. *Economist* 155: 132-4 JI 24 '48

NLRB asks courts end building strikes. *Eng N* 139:838 D 13 '47

New York stock exchange strike ended. *Comm & Fin Chr* 167:1989 My 6 '48

Picket-line tension is growing. *Il Bsns W* p 100+ My 22 '48

Reviews N.Y. stock exchange strike. E. Schram, *Comm & Fin Chr* 167:1558 Ap 8 '48

Settlement reached at Bethlehem shipyards. *Bsns W* p98+ N 15 '47

Small union losses; plant-guard walkout at Briggs. *Bsns W* p97 O 2 '48

Solidarity wins in Pittsburgh; 16-day teamster strike ended. *Bsns W* p 106-7 D 6 '47

Strike fallacy; New York's trucking strike. *Barron's* 28:16 S 13 '48

Struck trucks roll; end delivery tie-up at Kaufmann's, Pittsburgh. *Bsns W* p 108 Ap 3 '48

Union loses seniority fight; Boeing and machinists' union. *Il Bsns W* p 108-10 S 25 '48

West Coast strikes harass C.I.O. politicians. *Il Bsns W* p 101 O 16 '48

Wildcats tamed. *Il Bsns W* p 102-3 JI 17 '48

See also

Arbitration, Industrial

Injunctions
Labor disputes

Law

Ban industry-wide strikes under antitrust laws? yes, F. A. Hartley, Jr.; no, D. D. Carmell, *Il Mod Ind* 15:104-6-4 Ag '48

Boeing union loses bargaining rights; fails to file 60-day strike notice. *Bsns W* p68 JI 3 '48

Company losses; strike vote asked by Murray Corp. boomers; Michigan's new Bonine-Tripp act. *Bsns W* p 100+ F 21 '48

Eligibility of strikers to vote under the Taft-Hartley act. B. H. Levy, *Personnel* 25:60-71 JI '48

Getting around the Taft law; community group in Chicago may take over meat strike. *Bsns W* p23 Mr 20 '48

Machinists lose; strikers can't vote in bargaining election if permanently replaced. *Bsns W* p 115-16 O 23 '48

Michigan utility anti-strike law ruled out; New Jersey act upheld. *Elec World News* ed 130:5 S 18 '48

NLRB decision changes Wagner act practice; bars replaced strikers from voting in collective bargaining elections. P. A. Johnston, *Barron's* 28:10 O 25 '48

T-H law fails in dock test; Harry Bridges' C.I.O. union quits. *Il Bsns W* p 108-9 S 11 '48

T-H law invoked in coal tie-up; gets trial run in meat strike. *Il Bsns W* p 108-9 Mr 27 '48

Statistics

Labor conditions; labor-management disputes, work stoppages, 1941-1946. Survey of Cur Bsns 1947 Sup p63 [supplemented in monthly numbers]

Presses roll despite rise in strikes. *Ed & Pub* 81:120-1 Ap 24 '48

Strike curve; how high will it go in '48? data for 1945-47; graph. *Bsns W* p96 F 7 '48

STRIKES—Statistics—Continued

- Strikes in all industry, by years, 1928-1947; tabulation. *Automotive Ind* 98:86 Mr 15 '48
- Work stoppages by union affiliation in 1947. *Factory Management* 106:128 Jl '48
- Work stoppages during 1947. D. Q. Crowther and A. J. Herlihy. *Mo Labor R* 66:479-87 My '48; Same, with additional data. U S Bur Labor Statistics Bul 935:1-22; pa 20c Supt. of doc. '48
- Work stoppages in first half of 1947. *Mo Labor R* 66:59-61 Ja '48

France

- Red-inspired strikes hit France. *Steel* 121:29 D 29 '47

STRINGED instruments

See also

- Piano
- STRIP steel. See Steel, Strip
- STRIPPER wells. See Petroleum—Stripper wells
- STRIPPING of dyes. See Dyes and dyeing—Stripping
- STRIPPING operations. See Coal mines and mining—Stripping operations; Mining methods—Stripping operations

STROBFLOW

- Reproducing desired rates of flow in liquids. *il R Sci Instr* 19:280-1 Ap '48

STROBOSCOPIC instruments

- Portable, lightweight, 1-tube stroboscope. R. P. Turner. *il diags Radio & Tv N* 40:38-9+ S '48
- Synchro-strob timer. W. R. Berg. *diag Electronics* 21:196+ O '48
- Watch timer. R. S. Mackay, Jr. and R. R. Soule. *diags Electronics* 21:160+ F '48
- Wild filling can be easily studied; stroboscopic flashes and dark glasses permit observation. C. D. Brown. *il Textile World* 97:114-15 N '47

STROMBERG-CARLSON company

- Bells without bells; Stromberg-Carlson buys Liberty carillons, inc. *il Bsns W* p82+ Je 26 '48

STRONTIUM**Analysis**

- Mass spectrographic mass assignment of radioactive isotopes. R. J. Hayden. *bibliog Phys R* 74:650-5 S 15 '48
- Microdetermination of alkaline earths as normal molybdates. R. Moser and R. J. Robinson. *bibliog Anal Chem* 19:929-30 N '47
- Quantitative separation of calcium, barium, and strontium. S. Kallmann. *bibliog Anal Chem* 20:449-51 My '48
- Quantitative spectrochemical determination of barium, strontium, and calcium. W. Hartmann and B. E. Prescott. *Opt Soc Am J* 38:539-41 Je '48

Isotopes

- Beta-spectra of Y⁹⁰ and Sr⁹⁰. W. E. Meyerhof. *bibliog Phys R* 74:621-2 S 1 '48
- Molecular spectroscopic evidence of the existence of strontium isotopes Sr⁸⁸, Sr⁸⁷, and Sr⁸⁶. L. H. Ahrens. *il Phys R* 74:74-7 Jl 1 '48

STRONTIUM bromide

- Electrical conductance of strontium chloride and strontium bromide in ethanol-water mixtures. R. L. Bateman and D. T. Ewing. *bibliog Am Chem Soc J* 70:2137-40 Je '48

STRONTIUM carbonate

- Conversion of strontium sulfate to carbonate in molten state; effect of alkali halides. H. M. Bussey and E. F. Pollard. *bibliog Ind & Eng Chem* 40:1988-90 O '48
- Method of spectrographic analysis of impurities in materials for oxide coating of thermionic cathodes. T. J. Organ and S. L. Parsons. *bibliog Opt Soc Am J* 38:191-5 F '48
- Reactions in inert fused substances; conversion of celestite to strontium carbonate. H. S. Booth and E. F. Pollard. *bibliog Ind & Eng Chem* 40:1986-8 O '48

STRONTIUM chloride

- Electrical conductance of strontium chloride and strontium bromide in ethanol-water mixtures. R. L. Bateman and D. T. Ewing. *bibliog Am Chem Soc J* 70:2137-40 Je '48

STRONTIUM citrate

- Use of ion exchangers for the determination of physical-chemical properties of substances, particularly radiotracers, in solution; the dissociation constants of strontium citrate and strontium tartrate. J. Schubert and J. W. Richter. *bibliog J Phys & Colloid Chem* 52:350-7 F '48; Discussion. S. H. Wilson. 52:1260-1 O '48

STRONTIUM oxide

- Properties of soda-strontium oxide-alumina-silica glasses. *bibliog Am Cer Soc J* 31:1-8 Ja 1 '48; Abstract. *Glass Ind* 29:333 Je '48
- Secondary electron emission from targets of barium-strontium oxide. J. B. Johnson. *bibliog diags Phys R* 73:1058-73 My 1 '48

STRONTIUM sulfate

- Reactions in inert fused substances; conversion of celestite to strontium carbonate. H. S. Booth and E. F. Pollard. *bibliog Ind & Eng Chem* 40:1986-8 O '48

STRONTIUM sulfide

- Effect of activator concentration on the infrared-sensitive phosphor, strontium sulfide-samarium, europium. K. F. Stripp and R. Ward. *diags Am Chem Soc J* 70:401-6 Ja '48

- Excitation of infra-red phosphors by alpha- and beta-particles. R. H. Thompson and R. T. Fillickson. *Phys R* 73:185-6 Ja 15 '48

STRONTIUM tartrate

- Use of ion exchangers for the determination of physical-chemical properties of substances, particularly radiotracers, in solution; the dissociation constants of strontium citrate and strontium tartrate. J. Schubert and J. W. Richter. *bibliog J Phys & Colloid Chem* 52:350-7 F '48; Discussion. S. H. Wilson. 52:1260-1 O '48

STRONTIUM titanate

- Cyclic variations of capacitance; effect of 50-c/s voltages on high-permittivity ceramics. W. Reddish. *bibliog il diags Wireless Eng* 25:331-7 O '48

STRUCTURAL aluminum. See Aluminum,**Structural****STRUCTURAL carbon. See Carbon, Structural****al****STRUCTURAL clay products institute**

- Region 6 manufacturers 6th general assembly. *Madison Wis.* July 12-13, Brick & Clay Rec 113:47 Ag '48
- Research specialists launch survey on clay products industry problems. *Brick & Clay Rec* 112:68+ Ap '48

STRUCTURAL engineering

- Engineering approach to house design; Bureau of standards report; abstracts. *il diags Arch Rec* 104:149-50 Ag '48; *Civil Eng* 18:417+ Jl '48
- Engineering problems in building changes and repairs. F. H. Wells. *diags Midwest Eng* 1:25-7 S '48

See also

- | | |
|--------------------|-----------------------|
| Building | Steel construction |
| Concrete construc. | Strains and stresses |
| Foundations | Strength of materials |
| Retaining walls | Wind pressure |

Design

- Analysis of frames with elastic joints. R. W. Stewart. *diags Am Soc C E Proc* 73:1499-506 D '47; Discussion. 74:993-1002, 1223-7, 1637-8 Je-S, D '48
- Analysis of stepped-column mill bents. D. S. Ling. *diags Am Soc C E Proc* 73:1271-92 O '47; Discussion. *il diags* 73:1553-4; 74:779-87, 901-15 D '47, My-Je '48
- Centroidal method of rigid-frame analysis. S. J. Bell. *diags Am Soc C E Proc* 73:1391-411 N '47; Discussion. 74:944-50, 1166-72 Je-S '48
- Effect of rib proportions on beam bending strength. A. R. Holowenko. *diags Product Eng* 18:122-3 D '47
- Elastic foundations analyzed by the method of redundant reactions. Z. Levinton. *Am Soc C E Proc* 73:1529-41 D '47; Discussion. 74:1173-84, 1375-83, 1630-6 S-O, D '48
- Flexural constants of haunched beams by area computation. F. Tsai. *diags Am Soc C E Proc* 74:1129-59 S '48
- Impact loading of structures. D. L. Thornton. *diags Engineering* 165:409-12 Ap 30 '48

STRUCTURAL engineering—Design—Cont.

Rational explanation of column behavior. F. L. Ryder. *Am Soc C E Proc* 73:311-41 Mr '47; Discussion. 73:756-8, 969-72; 74:283-4 My-Je '47, F '48

Reflections on standard specifications for structural design. A. M. Freudenthal. *Am Soc C E Proc* 73:103-21 F '47; Discussion. 73:941-3; 74:374-6 Je '47, Mr '48

Rigid frames and arches; potentials for the building field. *Il diags Arch Forum* 88:105-8+ F '48

Shearing stress distribution in box girders with multiple webs. A. S. Neiman. *diags Am Soc C E Proc* 74:161-7 F '48; Discussion. 74:1041-4, 1210-18 Je-S '48

Theory of inelastic bending with reference to limit design. A. Hrennikoff. *Am Soc C E Proc* 73:255-89 Mr '47; Discussion. 73:944-6, 1293-301; 74:277-82, 377-80 Je, O '47, F-Mr '48

Model testing

Large-scale model earth pressure tests on flexible bulkheads. G. P. Tschobanoff. *Il plan diags Am Soc C E Proc* 74:9-48 Ja '48; Discussion. 74:1257-60 S '48

Tables, calculations, etc.

Continuous frame analysis by elastic support action. J. C. Rathbun and C. E. Cunningham. *diags Am Soc C E Proc* 73:413-49 Ap '47; Discussion. 73:1139-56, 1419-34; 74:101-15, 357-73 S, N '47, Ja, Mr '48

Experimental determination of vibration characteristics of structures. S. J. Loring. *Il diag Am Soc C E Proc* 73:1457-74 D '47; Discussion. 74:1022-8, 1219-22, 1627-9 Je-S, D '48

Matrix analysis of continuous beams. S. U. Benscoter. *diags Am Soc C E Proc* 72:1091-122 O '46; Discussion. 73:241-50, 543-56, 960-2; 74:179-86 F, Ap, Je '47, F '48

Matrix analysis of pin-connected structures. F. Chen. *diags Am Soc C E Proc* 73:1475-82 D '47; Discussion. 74:1039-40, 1393-4 Je, O '48

Variation of coefficients of simultaneous linear equations. B. L. Weiner. *Am Soc C E Proc* 73:1219-44 O '47; Discussion. 74:814-18, 931-43 My-Je '48

STRUCTURAL glass. See Glass, Structural

STRUCTURAL steel. See Steel, Structural

STRUNSKY, Simeon, 1879-1948

Strunsky dies; columnist in New York times. *Ed & Pub* 81:50 F 14 '48

STRYCHNINE

Structure of strychnine; formulation of the *neo* bases. R. B. Woodward and W. J. Brehm. *bibliog Am Chem Soc J* 70:2107-15 Je '48

Strychnine and brucine; a new method for the preparation of pseudostrychnine. A. S. Bailey and R. Robinson. *Chem Soc J* p703-5 My '48

Strychnine and brucine; degradation of the strychnineacetic acid prepared from pseudostrychnine. K. H. Pausacker and R. Robinson. *Chem Soc J* p1557-60 N '47

Strychnine and brucine; experiments with pseudostrychnine, dihydropseudostrychnine, and neostrychnine. K. H. Pausacker and R. Robinson. *Chem Soc J* p951-6 J1 '48

Strychnine and brucine; oxodihydroneostrychnine and oxodihydromethoxymethyl-dihydroneostrychnine. R. N. Chakravarti, K. H. Pausacker and R. Robinson. *Chem Soc J* p1554-6 N '47

Strychnine; some new reductions products; abstract and discussion. G. R. Clemons and T. J. King. *Chem & Ind* p156-7 Mr 6 '48

STRYCHNINE acetic acid

Strychnine and brucine; degradation of the strychnineacetic acid prepared from pseudostrychnine. K. H. Pausacker and R. Robinson. *Chem Soc J* p1557-60 N '47

STUCCO

Stucco properly applied finds ready acceptance in Green Bay, Wis. *Il Am Bid* 70:131 S '48

STUDEBAKER corporation

Empire Steel being sold to Studebaker. *Iron Age* 160:134-5 D 11 '47

Larger share of auto market being obtained. *Barron's* 28:35 My 24 '48

Studebaker rides high. *Il Bsns W* p102-5 O 30 '48

STUDENT insurance. See Insurance, Student

STUDENT loans

Low cost loans to students; First national bank in Dallas. *Banking* 40:79 N '47

STUDENT records. See Colleges and universities—Student records

STUDIOS

Music studio and dwelling combined near Detroit, Mich.; design by F. L. Wright. *Il plan Arch Forum* 88:76 Ja '48

STUDS. See Bolts and nuts

STUFFING boxes

Repacking, stuffing boxes. *Roads & Sts* 90:105+ N '47

STUYVESANT Town housing project. See Housing—New York (city)

STYLE manuals. See Printing, Practical—Style manual

STYLUSES, Phonograph

Force at the stylus tip while cutting lacquer disk-recording blanks. H. E. Roys. *diags Inst Radio Eng Proc* 35:1360-3 N '47

Recording and reproduction of sound; cutting styli and their proper use. O. Read. *Il diags Radio N* 39:62-4+ Mr '48

STYRENE

Arrival of polystyrene. J. R. Turnbull. *Il Sci Am* 178:63-5 F '48

Bathrub dressing table. D. Monroe. *Il Mod Plastics* 25:98-9 D '47

Better polystyrene brush backs. *Il Mod Plastics* 26:98 O '48

Blade time-saver; plastic dispenser. *Il Mod Packaging* 21:114-15 N '47; *Mod Plastics* 25:103 D '47

Chain transfer in the polymerization of styrene; the reaction of styrene with carbon tetrachloride. R. A. Gregg and F. R. Mayo. *bibliog Am Chem Soc J* 70:2373-8 J1 '48

Cheese dish; molded of clear polystyrene. *Il Mod Packaging* 21:91 Ja '48

Chinese chest; candy container used as jewel case. J. C. Kazimier. *Il Mod Plastics* 25:93-5 N '47

Condensation of water, styrene, and butadiene vapors; pure components and constant boiling mixtures. D. A. Edwards, C. F. Bonilla and M. T. Cichelli. *bibliog diags Ind & Eng Chem* 40:1105-12 Je '48

Continuous polymerization in Germany. R. D. Dunlop and F. E. Reese. *bibliog diags Ind & Eng Chem* 40:654-60 Ap '48

Copolymerization; copolymerizations involving α -vinylpyridine, α -vinylthiophene, α -chlorostyrene and α -methylstyrene. C. Walling, E. R. Briggs and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1543-4 Ap '48

Copolymerization; effects of temperature and solvents on monomer reactivity ratios. F. M. Lewis and others. *bibliog Am Chem Soc J* 70:1519-23 Ap '48

Copolymerization; relative monomer addition rates in vinyl copolymerization. R. G. Fordyce, E. C. Chapin and G. E. Ham. *Am Chem Soc J* 70:2489-92 J1 '48

Copolymerization; the effect of *meta*- and *para*-substitution on the reactivity of the styrene double bond. C. Walling and others. *bibliog Am Chem Soc J* 70:1537-42 Ap '48

Copolymerization; the validity of the tri-polymer equation for the systems; styrene-vinyl chloride-methyl acrylate and styrene-vinyl chloride-acrylonitrile. E. C. Chapin, G. E. Ham and R. G. Fordyce. *bibliog Am Chem Soc J* 70:533-42 F '48

Copolymers of butadiene with halogenated styrenes. C. S. Marvel and others. *bibliog Ind & Eng Chem* 39:1486-90 N '47

Effect of temperature and molecular-weight distribution on the morphology of natural and synthetic high polymers. E. A. Hauser and D. S. le Beau. *bibliog Il J Phys & Colloid Chem* 52:27-39 Ja '48

Effects of inhibitors on the polymerization of styrene. F. R. Mayo and R. A. Gregg. *bibliog Am Chem Soc J* 70:1284-6 Mr '48

Electronic preserves; electronic circuits imbedded in NBS casting resin. P. J. Franklin and M. Weinberg. *Il Sci Am* 177:258-60 D '47

Emulsion polymerization of styrene. E. A. Hauser and E. Perry. *bibliog Il J Phys & Colloid Chem* 52:1175-86 O '48

STYRENE—Continued

- Evaluation of sodium-catalyzed copolymers of 1,3-butadiene and styrene. A. E. Juve and others. *bibliog Ind & Eng Chem* 39: 1490-3 N '47
- Fine detail molded into toy train. *il Mod Plastics* 25:91 Ja '48
- Fluorescent lamp molded of polystyrene. *il Mod Plastics* 25:96-7 N '47
- Heat-resistant polystyrene. *il Chem Ind* 63: 622 O '48
- Heat transfer to boiling styrene and butadiene and their mixtures with water. C. F. Bonilla and A. A. Eisenberg. *bibliog diag Ind & Eng Chem* 40:1113-22 Je '48
- High styrene copolymers in natural rubber compounds. K. M. Fox. *bibliog India Rubber World* 117:487-91 Ja '48
- High vacuum pyrolytic fractionation of polystyrene; mass spectrometer analysis of some of the fractions. S. L. Madorsky and S. Straus. *diags Ind & Eng Chem* 40:848-52 My '48; Same, *J Res Nat Bur Stand* 40: 417-25 My '48
- Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler. *J Res Nat Bur Stand* 41:125-8 Ag '48
- Intrinsic viscosity, diffusion, and sedimentation rate of polymers in solution. P. Debye and A. M. Bueche. *J Chem Phys* 16:573-9 Je '48
- Light where you need it; polystyrene lamp uses phenolic, urea, and vinyl for wire, plug, switch, socket. *il Mod Plastics* 25:97 F '48
- Looking toward 1948; raw materials; polystyrene. *Mod Plastics* 25:65-9 Ja '48
- Manufacture, compounding, and uses of polystyrene in Germany. G. M. Kline and others. *il diag Mod Plastics* 25:131-3+ N '47
- Mechanism for the reaction of dioxane sulfonoxide with olefins; sulfonation of styrene. F. G. Bordwell and C. S. Ronsdestvedt, Jr. *bibliog Am Chem Soc J* 70:2429-33 Ji '48
- Medical problems encountered in the manufacture of American-made rubber. R. H. Wilson and others. *bibliog Ind Med* 17: 199-207 Je '48
- Mercaptan modification of rosin rubber. C. F. Fryling. *bibliog Ind & Eng Chem* 40: 928-32 My '48
- o*-Methoxy-, *p*-benzyl-, *o*-fluoro-, and *o*-cyano-styrenes; further examples of the disproportionation of phenylmethylcarbinols to ethylbenzenes. C. S. Marvel and D. W. Hein. *bibliog Am Chem Soc J* 70:1895-8 My '48
- Monomers and polymers; a new synthesis for α -methylstyrenes. G. B. Bachman and H. M. Hellman. *Am Chem Soc J* 70:1772-4 My '48
- Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents. G. B. Bachman and R. W. Finholt. *bibliog Am Chem Soc J* 70:622-4 F '48
- Mortarboards for keeps; three firms adopt same gift package; graduation-hat boxes. *il Mod Packaging* 21:142-3 My '48
- New treatment increases chemical and abrasive resistance of polystyrene plastics; Logoquant treatment. J. Bjorksten. *il Materials & Methods* 27:75-7 Mr '48
- Partition of acrylonitrile between styrene and water. W. V. Smith. *Am Chem Soc J* 70:2177-9 Je '48
- Personal radio features plastics; transparent polystyrene face plate. *il Mod Plastics* 25: 95 Ja '48
- Polystyrene in centrifugal casting; plastic material producing metal castings by the lost-wax process. *il Mod Plastics* 26:112-15 N '48
- Polystyrene in toys. *il Mod Plastics* 25:154-5 Ja '48
- Process problems in low temperature emulsion polymerization. J. E. Troyan. *bibliog diag Rubber Age* 63:585-95 Ag '48
- Radiation patterns of dielectric rods; experiment and theory. R. B. Watson and C. W. Horton. *diags J Ap Phys* 19:661-70 Ji '48
- Refrigerator parts; use of polystyrene and large-section molding. *il Product Eng* 19: 142-3 S '48
- Rigid molded vials. *il Mod Packaging* 21:104-6 Je '48; *Mod Plastics* 25:116-18 Je '48
- Role of emulsifying agents in polymerization. J. J. P. Staudinger. *bibliog diags Chem & Ind* p563-8 S 4 '48
- Role of neighboring groups in replacement reactions; general theory of neighboring groups and reactivity. S. Winstein and E. Grunwald. *Am Chem Soc J* 70:323-37 F '48
- Rubber or plastics; high styrene-butadiene copolymers and status of raw materials. *il Mod Plastics* 25:93-8 Ji '48
- Sedimentation equilibria of polydisperse non-ideal solutes. M. Wales and others. *bibliog J Phys & Colloid Chem* 52:983-98 Je '48
- Soap ingredients as retarders in butadiene-styrene copolymerization. J. W. Wilson and E. S. Pfau. *bibliog Ind & Eng Chem* 40:530-4 Mr '48
- Stamps housed in plastic; personalized marking set. *il Mod Plastics* 25:95 My '48
- Studies of retarders and inhibitors in the emulsion polymerization of styrene; retarders. I. M. Kolthoff and F. A. Bovey. *bibliog Am Chem Soc J* 70:791-9 F '48
- Styrene co-polymers for paint manufacture. *Engineering* 166:106 Ji 30 '48
- Styrene makes multi-colored radios. *il Plastics* 8:52-3 Mr '48
- Styrene polymers and copolymers for industry. R. G. Fordyce. *India Rubber World* 118: 377-8 Je '48
- Styrofoam for low-temperature insulation. O. E. McIntire and R. N. Kennedy. *bibliog Chem Eng Prog* 44:27-31 S 4 '48
- Substituted styrenes modify polymer properties. F. W. Reinhart. *bibliog il Chem Ind* 62:235-7 F '48
- Substituted styrenes; the preparation of some *m*- and *p*-substituted α -methylstyrenes. D. Seymour and K. B. Wolfstern. *bibliog Am Chem Soc J* 70:1177-9 Mr '48
- Ultraviolet absorption spectra of substituted vinyl aromatic monomers and polymers. H. A. Laitinen, F. A. Miller and T. D. Parks. *Am Chem Soc J* 69:2707-14 N '47
- Use of high styrene resins in non-marking shoes and heels. M. E. Jones and D. M. Pratt. *il India Rubber World* 117:609-10 F '48
- Use of liquid phase oxidation for the preparation of nuclearly substituted styrenes; *m*-chlorostyrene. W. S. Emerson and V. E. Lucas. *bibliog Am Chem Soc J* 70:1180-1 Mr '48
- Viscoelastic properties of polymer solutions. J. D. Ferry. *bibliog il diags J Res Nat Bur Stand* 41:53-62 Ji '48
- Viscosity-molecular weight and viscosity-temperature relationships for polystyrene and polyisobutylene. H. G. Fox, Jr. and P. J. Flory. *bibliog diags Am Chem Soc J* 70:2384-95 Ji '48

Analysis

- Compounds involved in production of synthetic rubber; determination of purity by measurement of freezing points. A. R. Glasgow, Jr. and others. *bibliog diags Anal Chem* 20:410-22 My '48
- Determination of monomer in polystyrene; spectrophotometric and solubility methods. J. J. McGovern, J. M. Grim and W. C. Teach. *Anal Chem* 20:312-14 Ap '48
- Determination of unsaturation in dehydrogenated diethylbenzene; by use of mercuric acetate. R. P. Marquardt and E. N. Luce. *bibliog Anal Chem* 20:751-3 Ag '48
- Double freezing-point method for determination of styrene purity. J. F. Masi and R. K. Cheney. *bibliog diags Anal Chem* 20: 321-5 Ap '48
- Double freezing point method for styrene purity. *diag Rubber Age* 63:339-40 Je '48
- Polarographic determination of free monomer in heteropolymerization reaction mixtures. G. C. Whitnack. *bibliog il Anal Chem* 20: 658-61 Ji '48
- Purity control of styrene; effective determination by double freezing point. J. F. Masi. *Chem Age (Lond)* 58:817-18 Je 12 '48

Manufacture

- Rapid reconstruction at Texas City; production of styrene resumed within a year. *il Chem Age (Lond)* 59:307 S 4 '48
- Ugite cracking process; patent. P. J. Gaylor. *diag Pet Processing* 3:69-70 Ja '48

STYRENE—Continued

Testing

Stretch orientation of polystyrene and its interesting results. J. Bailey. *il* diags India Rubber World 118:225-31 My '48

STYROFOAM. See Styrene—Industrial applications

STYRYLBENZYLAMINE

4-Styrylbenzylamine and 4-styrylbenzylidimethylamine. G. A. R. Kon. *Chem Soc J* p224-7 F '48

SUBAQUEOUS blasting. See Blasting, Subaqueous

SUBAQUEOUS construction. See Concrete construction, Subaqueous; Marine structures

SUBAQUEOUS explosions. See Explosions, Subaqueous

SUBCONTRACTING

Subcontracting follows plane orders; Northrop deal with Convair. *il* Bsns W p32+ Ag 14 '48

What about subcontracting today? P. T. Norton, jr. *Manuf Rec* 117:50+ Je '48

SUBDIVISION of land. See Land—Subdivision

SUBJECT headings

Catholic subject headings; a list designed for use with Library of Congress subject headings or the Sears List of subject headings for small libraries. O. L. Kapsner, ed. 2d ed 426p \$4.65 St John's abbey press, Collegeville, Minn. '47

Subject analysis, a rising star. J. Orne. *Special Lib* 39:42-6 F '48

Symposium on medical subject headings, Washington, Dec. 12-13. *Science* 107:87-8 Ja 23 '48

SUBLIMATION

Sublimation; its applications in chemical processing. C. R. Wilke. *il* diags *Chem Ind* 63:34-8+ J1 '48

SUBLIMATION, Heat of

Bond energies of hydrocarbons. L. Gerö. *bibliog J Chem Phys* 16:1011-13 N '48

Dissociation energy of carbon monoxide and the heat of sublimation of carbon. H. D. Hagstrum. *bibliog Phys R* 72:947-63 N 15 '47

Dissociation energy of carbon monoxide and the heat of sublimation of carbon. J. G. Valatin. *bibliog Phys R* 74:350-1 Ag 1 '48

Thermochemistry of organic compounds. J. G. Valatin. *bibliog J Chem Phys* 16:1018-24 N '48

Vapor pressure and heat of sublimation of graphite. L. Brewer and others. *bibliog diag J Chem Phys* 16:797-807 Ag '48

Vapor pressure and heat of sublimation of graphite. L. H. Long. *bibliog J Chem Phys* 16:1087 N '48

SUBMARINE boats

German devices supplied oxygen to submerged subs; possibilities of Diesel engine. C. G. A. Rosen. *diags S A E J* 56:22-4 S '48

German U-boat design and production; abstracts and discussion. J. F. Starks. *Engineer* 185:357 Ag 9 '48; *Engineering* 165:376-8 Ap 16 '48

One last look. I. E. McMillian. *U S Naval Inst Proc* 74:862-3 J1 '48

Sheet of air bubbles as an acoustic screen for underwater noise. D. P. Loye and W. F. Arndt. *diag Acoustical Soc Am J* 20:143-5 Mr '48

See also

Submarine warfare

SUBMARINE cables. See Electric cables, Submarine

SUBMARINE diving. See Diving, Submarine

SUBMARINE mines. See Mines, Submarine

SUBMARINE photography. See Photography, Submarine

SUBMARINE topography. See Ocean bottom

SUBMARINE warfare

Battle stations submerged; submarine warfare in the Pacific. R. C. Benitez. *il* map *U S Naval Inst Proc* 74:24-35 Ja '48

Carrier war in the Atlantic. J. L. Blackman, jr. *il* *U S Naval Inst Proc* 74:998-1003 Ag '48

Electronic instrumentation for underwater ordnance development and evaluation. R. D. Bennett. *il* plans *diags Inst Radio Eng Proc* 36:906-11 J1 '48

Our submarines' victory in the Pacific. *il* *U S Naval Inst Proc* 74:1146-55 S '48

Some mechanical features in anti-submarine weapons. J. M. Kirby. *il* diags *Engineer* 185:159-61, 192-5 F 13-20 '48; *Discussion*. 185:165-6 F 13 '48

Sonar and asdic, anti-submarine sisters. M. Prendergast. *il* *U S Naval Inst Proc* 74:1008-11 Ag '48

See also

Mines, Submarine World war, 1939-1945
Submarine boats Submarine operations

SUBMERGIBLE pumps. See Pumps, Submergible

SUBORDINATION agreements. See Credit—Subordination agreements

SUBROGATION of insurer

Citizen's insurer cannot sue government under Federal tort claims act. *East Underw* 49:26 J1 9 '48

Complications of subrogation; Weber v. United hardware & implement mutuals co. J. L. Roesch. *Spectator* (Property ed) 13:10-11+ Ap 22 '48

Insurance carriers made parties to suit against U.S. for bridge damage. *East Underw* 49:26 O 22 '48

Subrogation rights in suits against the government under the Federal tort claim act. J. L. Roesch. *Spectator* (Property ed) 14:26-7 J1 8 '48

Subrogation rights of fidelity insurers against non-negligent banks. F. E. Pausch. *Weekly Underw* 157:1644-6; 158:313-15 D 27 '47, Ja 24 '48; *Excerpts*, *East Underw* 48:38 S 26 '47; *Nat Underw* 51:25 O 2 '47

Subrogation suits against government by insurers upheld by U.S. court. *East Underw* 49:31 Ap 16 '48

SUBSIDENCES (earth movements)

Radioactive bench marks for subsidence study. *Eng N* 140:645 Ap 29 '48

Stanford research institute to study Long Beach, Calif. subsidence. *Eng N* 141:7 O 7 '48

Subsidence of the Terminal Island-Long Beach area, California; effect of water and oil pumping. F. R. Harris and E. H. Harlow. *il* plans *diags Am Soc C E Proc* 73:1197-218 *bibliog* (p 1217-18) O '47; *Discussion*. 74:397-9, 788-92 Mr, My '48

SUBSIDIARIES. See Corporations—Subsidiaries

SUBSIDIARIES, Foreign. See Corporations—Foreign subsidiaries

SUBSIDIES

Air subsidies seen justified in future; House study group report. Public aid to aid transportation. *Ry Age* 124:72-5 Ap 10 '48

Arithmetic of the food subsidies. *Economist* 154:334-5 F 28 '48

Case against subsidies; farm price support. F. R. Walters. *il* *Mag of Wall St* 82:426-74 J1 31 '48

Metal subsidies advance; Russell bill. *Baron's* 28:28-9 My 31 '48

Russell bill's failure means more metals. *Baron's* 28:37 Je 14 '48

Should the federal government subsidize new steel capacity in the West? yes, E. H. Klaus; no, E. Martin. *map Mod Ind* 15:100-2+ My '48

Subsidies defended in House report. *Aviation W* 48:50-1 Ap 12 '48

Subsidies for mine production. *E. Just. Min & Met* 29:233-5 Ap '48

Subsidization of industry in forty selected cities in Wisconsin, 1930-1946. W. D. Knight. (Wisconsin commerce studies v 1, no 2) 206p pa \$1 Univ. of Wisconsin, Bur. of business research and science, 404 Sterling Hall, Madison '47

SUBSTATIONS, Electric. See Electric substations

SUBSTITUTES

What is worth what? Berliners are meeting shortages. *Fortune* 37:122+ My '48

SUBSTITUTION (chemistry)

Basically-substituted isoxaloxazines. H. Burkett. *bibliog Am Chem Soc J* 69:2555 O '47

Chlorination of thiophene; substitution products; physical properties of the chlorothiophenes; the mechanism of the reaction. H. L. Coonradt, H. D. Hartough and G. C. Johnson. *Am Chem Soc J* 70:2564-8 J1 '48

SUBSTITUTION (chemistry)—Continued

- Copolymerization; the effect of *m*- and *p*-substitution on the reactivity of α -methylstyrene toward the maleic anhydride type radical. C. Walling, D. Seymour and K. B. Wolfstirn. *bibliog Am Chem Soc J* 70:1544-7 Ap '48
- Copolymerization; the effect of *meta*- and *para*-substitution on the reactivity of the styrene double bond. C. Walling and others. *bibliog Am Chem Soc J* 70:1537-42 Ap '48
- Correlation of resonance structure with ultraviolet absorption in nitro-substituted organic molecules. W. H. Rodebush. *bibliog Chem R* 41:317-23 O '47
- Effect of alkyl substitution on the spectra and ionization potentials of some fundamental chromophores. W. C. Price. *bibliog Chem R* 41:257-72 O '47
- Elastic *N*-substituted polyamides. E. L. Wittbecker, R. C. Houtz and W. W. Watkins. *bibliog J Ind & Eng Chem* 40:875-9 My '48
- Electron levels in polyatomic molecules having resonating double bonds. K. F. Herzfeld. *bibliog diags Chem R* 41:233-56 O '47
- Electronic transitions in trisubstituted benzenes in the near ultraviolet. H. Sponer. *bibliog J Chem R* 41:281-91 O '47
- Influence of substituents on the course of addition of maleic anhydride to diarylethylenes. F. Bergmann and J. Szmuskowicz. *bibliog Am Chem Soc J* 70:2748-52 Ag '48
- Kinetics of aromatic halogen substitution; iodination by iodine chloride. L. J. Lam-bourne and P. W. Robertson. *Chem Soc J* p 1167-8 S '47
- Kinetics of aromatic halogen substitution; the 1-halogenonaphthalenes and related compounds. P. B. D. de la Mare and P. W. Robertson. *Chem Soc J* p 100-6 F '48
- Monomers and polymers; α -methylstyrenes and the steric hindrance of *ortho*-substituents. G. B. Bachman and R. W. Finholt. *bibliog Am Chem Soc J* 70:622-4 F '48
- Near-ultraviolet absorption spectra of mono-alkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. *bibliog Chem R* 41:273-9 O '47
- Near ultraviolet absorption spectra of mono-substituted benzenes; the effect of certain male directing groups. W. F. Hamner and F. A. Matsen. *Am Chem Soc J* 70:2482-5 JI '48
- Nucleophilic substitution in the benzene ring; rates of reactions of *p*-substituted bromobenzenes with piperidine. J. F. Bunnett and A. Levitt. *bibliog Am Chem Soc J* 70:2778-9 Ag '48
- Orientation problems; the nitration of the trichloroacetoluides. A. McGookin. *bibliog Soc Chem Ind J* 67:23-4 Ja '48
- Orienting effect of negatively substituted vinyl groups in aromatic substitution. F. G. Bordwell and K. Rohde. *bibliog Am Chem Soc J* 70:1191-3 Mr '48
- Rearrangement and substitution in anionotropic systems. A. G. Catchpole, E. D. Hughes and C. K. Ingold. *Chem Soc J* p 1-17 Ja '48
- Resolution of 9,2-substituted fluorenes. F. E. Ray and E. Kreiser. *bibliog Am Chem Soc J* 69:3068-70 D '47
- Significance of the transition state in aromatic substitution. W. A. Waters. *Chem Soc J* p727-31 Je '48
- Substitution reactions of triphenylethylene and its derivatives; a contribution to the problem of synthetic analogues of progesterone. N. P. Buu-Hoi and R. Royer. *Chem Soc J* p 1078-81 JI '48
- Synthesis of substituted furans. G. F. Wright and H. Gilman. *bibliog(48 ref) Ind & Eng Chem* 40:1517-22 Ag '48
- Ultraviolet absorption spectra of anthracene derivatives. R. N. Jones. *bibliog Chem R* 41:253-71 O '47
- Ultraviolet absorption spectra of simple unsaturated compounds; mono- and *p*-disubstituted benzene derivatives. L. Doub and J. M. Vandenberg. *bibliog Am Chem Soc J* 69:2714-23 N '47
- SUBSTITIN**
- Antibiotic activity of subtilin and streptomycin in the presence of BAL. H. H. Anderson and Y. Chin. *bibliog Science* 106:643-4 D 26 '47

SUBURBAN development

- Building permanent real estate value; suburban development of County homes, Inc., Westchester county. 11 plans *Am Bld* 70:68-73 Mr '48
- Controlled development assures value; Colonial Farms subdivision, Detroit. 11 plans *Am Bld* 70:99-101 S '48
- Large homes and big values here; Adams Estates, Tulsa, Okla. 11 plans *Am Bld* 70:108-11 My '48
- Neighborhood planned from the ground up; Meadowood of Birmingham, a suburb of Detroit. 11 plans *Am Bld* 70:90-3 S '48
- Planning and building city of quality homes; Midwest City built by W. P. Atkinson of Oklahoma City. 11 plan *Am Bld* 69:115-17 D '47
- Shopping center; logical adjunct of group housing in suburban areas. T. D. MacGregor. plans *Eng N* 141:16-17 Ag 12 '48
- Street of modern homes; Clayton Gardens subdivision, Clayton, Mo. 11 plans *Am Bld* 70:80-5 S '48
- See also
- Land—Subdivision
- SUBURBAN homes**
- Protected openness in suburban location. 11 plan *Arch Rec* 103:106 Je '48
- Special techniques required for upper bracket building; Springbrook, a subdivision in Short Hills, N.J. 11 plans *Am Bld* 70:78-9 Ap '48
- SUBURBAN propane gas corporation**
- Annual report. *Comm & Fin Chr* 167:1511 Ap 5 '48
- SUBWAY stations**
- Automatic lifts on London underground railways. 11 *Engineering* 165:213-14 F 27 '48
- Extending Gotham's old subway platforms. 11 plan *Comp Air Mag* 53:12-14 Ja '48
- White City station; London transport central line. 11 plan *Engineering* 165:8-9 Ja 2 '48
- SUBWAYS**
- See also
- Rapid transit
- Subway stations
- also subdivision Subways under names of cities, e.g.
- London—Subways
- New York (city)—Subways
- Construction
- Clean-cut bracing tames tough New York subway. 11 *Constr Methods* 30:86-90 Je '48
- SUCCESS**
- Proof of the waffle; it's in the eating; Eggo Food Products. A. Dorsa. 11 *Sales Management* 61:41-3 Ag 15 '48
- Urge for a better life; education, creativeness and service. K. T. Compton. *Tech R* 50:504-5+ JI '48
- Workers ok Alger story; M.I. survey. *Mod Ind* 16:35 Ag '48
- SUCCESSION.** See Inheritance and succession
- SUCCESSOR trustees.** See Trusts and estates—Successor trustees
- SUCCINALDEHYDE**
- Preparation of succinaldehyde and its derivatives from furan. J. Fakstorp and others. *Science* 108:302 S 17 '48
- SUCCINANILIC acid**
- Reactions of antiserum homologous to the *p*-azosuccinilate ion group. D. Pressman, J. H. Bryden and L. Pauling. *bibliog Am Chem Soc J* 70:1352-8 Ap '48
- SUCCINIC acid**
- Esters of (carboxymethylmercapto)-succinic acid. J. F. Mulvaney, J. G. Murphy and R. L. Evans. *Am Chem Soc J* 70:2428-9 JI '48
- Isopiestic measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25°. J. M. Stokes. *bibliog Am Chem Soc J* 70:1944-6 My '48
- Succinic acid derivatives of 4-nitro-4'-aminodiphenylsulfone and of 4,4'-diaminodiphenylsulfone. H. Bauer. *bibliog Am Chem Soc J* 70:2254-6 Je '48
- Thermochemistry of solutions; the heat of ionisation of succinic acid. T. L. Cottrell and J. H. Wolfenden. *Chem Soc J* p 1019-24 JI '48

SUCCINOYLATION

Succinylation of 1-acetyl amino-7-methoxynaphthalene, L. E. Miller and E. F. Morello, *bibliog Am Chem Soc J* 70:1900-1 My '48

SUCKER rods

Factors to be considered in the selection and use of subsurface sucker-rod pumps, R. L. Chenault, *il diag Pet Eng* 19:132+ Ja '48
Rod pumping, K. T. McCamman, *Oil & Gas J* 47:80+ Je 10 '48

SUCROSE, See Sugar**SUDAN****Commerce**

Foreign trade during 1947, *For Comm W* 32:14 JI 17 '48

Politics and government

Self-government for the Sudan, *Economist* 154:509 Mr 27 '48

SUDAN seed oils, See Oils and fats**SUEDE**

Shoe manufacturer turns converter; suede for men's garments, M. Davidson, *il Textile Col* 70:20+ Ap '48

SUEZ canal company

Middle East conflict boosts stock, P. Wohl, *Barron's* 28:8 Je 21 '48
Statement by the chairman at annual general meeting, F. Charles-Roux, *Economist* 154:1093 Je 26 '48

SUFFOLK, Virginia**Water supply**

Elevated tank reduces pumping costs and improves fire protection, X. D. Murden, *il Pub Works* 79:37 O '48

SUGAR

Conversion of sucrose into furan compounds; some aminotetrahydrofuran derivatives, F. H. Newth and L. F. Wiggins, *Chem Soc J* p 155-8 F '48

Conversion of sucrose into thiazole derivatives and 2:4:5-trimethylthiazole, H. Gregory and L. F. Wiggins, *Chem Soc J* p 1400-3 O '47
Fruit-flavored raw cane sugars; patent, *Food Ind* 20:644+ Ap '48

Solubility at high temperatures of pure sucrose in water, M. Taylor, *pl diag Chem Soc J* p 1678-83 D '47

Sucrose in the stalks of maize inbreds, W. R. Singleton, *Science* 107:174 F 13 '48

Viscosity of solutions and suspensions; theoretical interpretation of viscosity of sucrose solutions, V. Vand, *bibliog J Phys & Colloid Chem* 52:314-21 F '48

Manufacture and refining

Bone char behavior is a key to sugar refining improvement, *il Food Ind* 20:1141-3 Ag '48

Deminalization of sugar cane juice; pilot plant study, A. B. Mindler, *bibliog flow diags il Ind & Eng Chem* 40:1211-15 JI '48

Ion exchange develops as a unit process, J. C. Winters, *il Chem Ind* 62:754-5 My '48
Ion exchange finds new uses, R. W. Porter, *flow sheet il diags Food Ind* 20:691-702 My '48

Ion exchange in beet sugar refining, B. N. Dickinson, *flow sheet il Chem Eng* 55:114-17 JI '48

Kinetics of sucrose crystallization; real massecuites, A. Van Hook, *bibliog il Ind & Eng Chem* 40:85-9 Ja '48

Some chemical problems and prospects of the sugar industry, A. Van Hook, *bibliog J Chem Educ* 25:49-51 Ja '48

By-products

Food flavor from beet sugar byproduct, P. D. V. Manning, *flow sheet (p138-9) il Chem Eng* 55:100-1 Ap '48; Same, *Food Ind* 20:510-15 Ap '48

Manufacture of monosodium glutamate, P. D. V. Manning, R. W. Shafer and F. H. Catterson, *flow sheet il Chem Eng Prog* 44:491-6; Discussion, 496 JI '48

Scale for sale; calcium aconitate, *il Chem Ind* 62:736-7 My '48

Vitamin B content of sugar beets and by-products, D. Rogers and M. N. Mickelson, *bibliog Ind & Eng Chem* 40:527-9 Mr '48

Prices

Sugar prices decline, *Barron's* 28:36-7 Ja 12 '48

Sugar prices will be kept up by quotas as supply tries to force them down, *Barron's* 27:28 D 15 '47

Transportation

Sugar in bulk aids big users, E. B. Schmalz, *il diags Food Ind* 19:1483-8+ N '47

SUGAR, Liquid

Blending and distributing liquid sugar for all users, J. V. Ziembra, *il diag Food Ind* 20:366-9, 498+ Mr '48

Liquid sugar sweetens more processed foods, *il Bsns W* p94 O 23 '48

SUGAR analysis

Anthrone in estimating low concentrations of sucrose, E. E. Morse, *Anal Chem* 19:1012-13 D '47

Applications of periodate oxidation to some problems of carbohydrate chemistry, D. J. Bell, *Chem Soc J* p952-6 JI '48

Color test for identification of glucose, S. Hestrin and J. Mager, *bibliog Anal Chem* 19:1032-5 D '47

Determination of aconitic acid in sugar-house products, J. A. Ambler and E. J. Roberts, *bibliog Anal Chem* 19:877-8 N '47

Determination of alcohol-insoluble solids and sugar contents of vegetables, J. C. Moyer and K. C. Holgate, *bibliog Anal Chem* 20:472-4 My '48

Elimination of nitrite interference in iodometric sugar determinations, J. Corman, *Anal Chem* 20:984 O '48

Microdetermination of O-acetyl groups, J. F. Alicino, *bibliog Anal Chem* 20:590 Je '48

See also**Fructose—Analysis****Xylose—Analysis****SUGAR cane**

Mechanizing eases cost pinch; Hawaiian sugar companies, *il Bsns W* p46-8+ Je 12 '48

Recovery of wax from sugar cane; abstract, T. S. Harding, *Chem Age (Lond)* 58:396 Mr 20 '48

SUGAR factories

This company and this town team up for living; California & Hawaiian sugar refining corp., Crockett, Calif. *il Factory Management* 106:78-9 O '48

Electric equipment

Sugar production; private generating plant, British sugar corp. *il Elec R (Lond)* 142:191-5 F 6 '48

Equipment

Microbiological problems in the manufacture of sugar from beet; corrosion in the diffusion battery and in the recirculation system, L. A. Allen and others, *bibliog diags Soc Chem Ind J* 67:70-7 F '48

Overhead bag-sewing machines cut cost; shipping operations of United States sugar corp., Clewiston, Fla. *diag Food Ind* 20:843 Je '48

Power

Utilizing bagasse as fuel, F. X. Gilg, *diags A S M E Trans* 70:719-23; Discussion, 723-7 Ag '48

Waste

Waste waters from beet sugar factories, their treatment and disposal; abstract, T. W. Brandon, *Sewage Works J* 20:360-2 Mr '48

SUGAR handling

Blending and distributing liquid sugar for all users, J. V. Ziembra, *il diag Food Ind* 20:366-9, 498+ Mr '48

Overhead bag-sewing machines cut cost; shipping operations of United States sugar corp., Clewiston, Fla. *diag Food Ind* 20:843 Je '48

Sugar in bulk aids big users, E. B. Schmalz, *il diags Food Ind* 19:1483-8+ N '47

SUGAR industry and trade

Firmer sugar market, *Economist* 155:282 Ag 14 '48

Government's sugar squeeze a tough one, *Barron's* 28:37 JI 26 '48

More sugar, *Bsns W* p21 Ja 31 '48

Proclamation of the 1947 sugar protocol, *For Comm W* 31:22 Je 19 '48

SUGAR industry and trade—Continued

Quotas for sugar? Economist 155:352 Ag 28 '48

Reality rules sugar mart. Barron's 27:37 N 10 '47

Sugar developments pose question; scarcity or surplus? G. F. Dudik, il For Comm W 31:3-5+ My 29 '48

Sugar quota cut drastic. Barron's 28:37 Je 7 '48

Sugar shortage promoted. Barron's 28:29 Ap 5 '48

Sugar supplies below expectations. Economist 153:698-9 O 25 '47

Sugar surplus disappears. Barron's 27:28-9 D 1 '47

Law

Looking forward on sugar; Sugar act of 1948. G. L. Wright, Comm & Fin Chr 167:2312+ My 27 '48

Securities

Outlook for sugar industry; with statistical summary of leading companies. S. Devlin, il Mag of Wall St 82:437-9+ JI 31 '48

Statistics

Sugar, 1941-1946. Survey of Cur Bsns 1947 Sup p 135-6 [supplemented in monthly numbers]

Austria

Production and imports. For Comm W 30:22-3 Mr 6 '48

Bolivia

Bolivian production, consumption, and imports, 1946 and 1947. For Comm W 31:27 My 1 '48

Brazil

Sugar situation in Brazil. For Comm W 31:23 My 8 '48

Chile

Sugar situation in Chile. For Comm W 31:25 Ap 10 '48

China

Sugar industry in south China. For Comm W 29:24-5 N 29 '47

Colombia

Colombia sugar report. For Comm W 31:23 My 8 '48

Cuba

Cuba granted a reprieve from sugar oversupply. Barron's 28:36 Ag 9 '48

Cuban sugar mills face squeeze as market is cut. Barron's 28:34 F 9 '48

Cuban sugar situation. For Comm W 31:31 My 22 '48

Cuba's sugar production in 1947. For Comm W 29:23 N 15 '47

Farm relief tactics applied to Cuba; no little drop now, big one later on; problem of record sugar crop. Barron's 28:44-5 Ap 26 '48

Sugar piles up. Barron's 28:36-7 My 17 '48

Egypt

Production, consumption, and exports, 1947-48 season. For Comm W 32:31 JI 3 '48

Production, consumption, and exports of sugar. For Comm W 29:25 N 29 '47

Europe

Sugar 'prospects and ECA; with data on European beet sugar and production, selected years, 1937-1948. Economist 155:32 JI 3 '48

Great Britain

Sugar or dollars? Economist 154:144-5 Ja 24 '48

Greece

Sugar-beet cultivation, Greece. For Comm W 29:22 N 22 '47

Hawaiian Islands

Mechanizing eases cost pinch; Hawaiian sugar companies. il Bsns W p46-8+ Je 12 '48

Netherlands Indies

Situation in Netherlands Indies. For Comm W 29:25 N 29 '47; 33:31 O 30 '48

Peru

Sugar production, consumption, and exports in 1947. For Comm W 32:25-6 JI 10 '48

Salvador

Sugar production, prices, and exports. For Comm W 31:25-6 Ap 10 '48

Sugar situation. For Comm W 29:24 D 6 '47

Switzerland

Sugar situation in Switzerland. For Comm W 31:19 Ap 17 '48

SUGAR research

Sugar research award. Chem & Eng N 25:3871 D 29 '47

Third intermediate Sugar research foundation award presented to Leslie F. Wiggins. Science 107:502 My 14 '48

SUGAR workers**Hawaiian Islands**

Harry's headache; Bridges has halted sugar workers revolt. Bsns W p90+ Ja 17 '48

Latin America

Workers' movement in Latin America. Int Labour R 57:97-9 Ja-F '48

SUGARS

Action of copper sulfate on the phenylsaccharides of the sugars; gentiobiose phenylsaccharide. W. T. Haskins, R. M. Hann and C. S. Hudson. Am Chem Soc J 70:2288-9 Je '48

Alcohols of the sugar group; 2,5-anhydro-L-iditol. L. Vargha, T. Puskás and E. Nagy. bibliog Am Chem Soc J 70:261-2 Ja '48

1,5-Anhydro-4-(β -D-glucopyranosyl)-D-glucitol and 1,5-anhydro-D-galactitol. H. G. Fletcher, Jr. and C. S. Hudson. bibliog Am Chem Soc J 70:310-14 Ja '48

Application of thallium compounds in organic chemistry. R. C. Menzies. Chem Soc J p 1378-84 O '47

Behavior of certain sugars and sugar alcohols in the presence of tetraborates; correlation of optical rotation and compound formation. H. S. Isbell and others. bibliog J Res Nat Bur Stand 40:129-49 F '48

Chemical interactions of amino compounds and sugars; methylation experiments. M. L. Wolfrom, L. F. Cavalieri and D. K. Cavalieri. bibliog Am Chem Soc J 69:2411-13 O '47

Chemical interactions of amino compounds and sugars; the conversion of D-glucose to 5-(hydroxymethyl)-2-furaldehyde. M. L. Wolfrom, E. D. Schuetz and L. F. Cavalieri. bibliog Am Chem Soc J 70:514-17 F '48

Cyclization of 6-nitrodesoxyaldohexoses to nitrodesoxyinositols. J. M. Grosheintz and H. O. L. Fischer. bibliog Am Chem Soc J 70:1479-84 Ap '48

Fermentable sugars from unfermented reducing substances in cane molasses. C. Erb and F. W. Zerbán. bibliog diag Ind & Eng Chem 39:1597-602 D '47

Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. E. Harris and E. G. Lang. bibliog J Phys & Colloid Chem 51:1430-41 N '47

Hydroxylation of 2,3-dihydroxypropan and the application of desoxyaldopentoses in the Browning reaction. C. D. Hurd and C. D. Kelso. bibliog Am Chem Soc J 70:1484-6 Ap '48

Immersion freezing solutions; a determination of the freezing point depressions of refrigerant solutions containing sugars and salt. W. Goldsmith and L. H. Bartlett. diag Refrig Eng 56:144-8+ Ag '48

Measurement of enzymatic activity on limit dextrin. T. M. Back, W. H. Stark and R. E. Scaif. bibliog Anal Chem 20:56-60 Ja '48

Open-chain sugars; absorption in ultraviolet of D-glucose and L-arabinose in acid solution. E. Pacsu and L. A. Hiller, Jr. bibliog Am Chem Soc J 70:523-6 F '48

Oxidation of carbohydrates by the periodate ion. T. G. Halsall, E. L. Hirst and J. K. N. Jones. Chem Soc J p 1427-32 N '47

Quantitative separation of methylated sugars. F. Brown and J. K. N. Jones. Chem Soc J p 1344-7 O '47

SUGARS—Continued

- Role of 5-(hydroxymethyl)-furfural in the discoloration of sugar solutions. B. Singh, G. R. Dean and S. M. Cantor. *bibliog Am Chem Soc J* 70:517-22 F '48
- Separation of *d*-fructose from other natural sugars as its 2,3:4,5-diacetone and 1:2-monoacetone derivatives; observations on the behaviour of acetone derivatives of monosaccharides towards cold decinormal sulphuric acid. D. J. Bell. *Chem Soc J* p 1461-4 N '47
- Structure of egg-plum gum; the hydrolysis products obtained from the methylated degraded gum. E. L. Hirst and J. K. N. Jones. *Chem Soc J* p 120-3 F '48
- Sugars from the sulphite cook; abstract. R. Schepp. *Paper Ind* 30:488 Je '48
- Synthesis of 6-nitro-6-deoxy-D-glucose and 6-nitro-6-deoxy-L-idose. J. M. Grosheintz and H. O. L. Fischer. *bibliog Am Chem Soc J* 70:1476-9 Ap '48
- Synthesis of some iodo-sugar derivatives. A. L. Raymond and E. F. Schroeder. *bibliog Am Chem Soc J* 70:2785-91 Ag '48
- Volatile decomposition products of sugars in aqueous solution. L. Sattler and F. W. Zerban. *bibliog Am Chem Soc J* 70:1975-6 My '48

See also

- | | |
|------------------|--------------------|
| Aldoses | Invertase |
| Altrose | Optical rotation |
| Arabinose | Polysaccharides |
| Carbohydrates | Sugar |
| Fermentation | Thiosorbitol |
| Fructomethyllose | Wood saccharifica- |
| Fructose | tion |
| Galactose | Xylose |
| Glucose | |
- SUGGESTION systems**
- Channel for ideas; employee ideas aid production and safety when encouraged by a well-organized suggestion system. P. L. Wise. *Nat. Safety* N 56:24-5 D '47
- Cost-cutting conference brings out an idea a minute; Bigelow-Sanford carpet co. E. I. Petersen. *Factory Management* 106:94-6 My '48
- Employees offer Prudential 40,000 suggestions. *Nat Underw* (Life ed) 52:4 S 24 '48
- Employees support this suggestion program; Remington Rand. C. W. Dester. *il Personnel* 24:366-71 Mr '48
- Factory improvements suggested by employees. E. A. Dench. *Pulp & Pa of Can* 49:61-3 My '48
- GM suggestion system saves time, money. D. G. Baird. *il Am Bsns* 18:22+ Je '48
- Ideas pay off; Philadelphia Electric's employee suggestion system. S. W. Rubenstein. *Am Gas Assn Mo* 30:14-16 F '48
- Los Angeles Times suggestion box improves operations in many ways. *il Ed & Pub* 81:49 JI 10 '48
- National suggestion system makes money for employees, saves company money; Socony-Vacuum oil co., inc. *il Oil & Gas J* 47:131-2+ O 21 '48
- One source of answers to management questions; employee suggestion system of Central national bank of Cleveland. F. Steele. *Banking* 40:73-4 F '48
- Posters and pennies launch \$100,000 waste campaign. C. E. Lauterbach. *il Factory Management* 106:113-15 Je '48
- Pullman-Standard employee suggestions. *il Ry Mech Eng* 121:704 D '47
- Reducing the waste of ideas. E. Mottershead. *il Mill & Factory* 42:100-2 Ja '48
- Suggestions systems; are they for retailing? G. L. Williams. *J Retailing* 24:21-5 F '48
- Supervisor and the suggestion system. C. C. Gibbons. *Personnel* 24:284-7 Ja '48
- Supervisor gets bonus when worker makes suggestion. C. E. Albert. *il Factory Management* 106:84-5 Mr '48
- \$2,500 paid for an idea sets Prudential record. *Weekly Underw* 157:1193 N 8 '47

SULFAGUANIDINE

- Acyl derivatives of *p*-aminobenzenesulphonylguanidine. P. R. Carter, D. H. Hey and D. S. Morris. *Chem Soc J* p 143-7 F '48

SULFAMATES

- Lead refining with sulfamate baths. R. Piontehl. *bibliog il Electrochem Soc J* 94:106-8 S '48

SULFAMIC acid

- Reaction of diazo compounds with sulfamic acid. H. W. Grimmel and J. F. Morgan. *Am Chem Soc J* 70:1750-1 My '48

SULFANILAMIDE

- Fine structure of sulfanilamide. A. Weizmann. *bibliog Am Chem Soc J* 70:2342-3 JI '48
- Sulfanilamide derivatives containing urea, thiourea or hydrazide groupings. E. Niemiec. *bibliog Am Chem Soc J* 70:1067-8 Mr '48

Analysis

- Microdetermination of sulfur in organic compounds. A. Steyermark, E. Bass and B. Littman. *bibliog Anal Chem* 20:587 Je '48

SULFANILAMIDODIMETHYLPYRIMIDINE

- Synthesis of the 2- ω -aminoalkyl and 2- ω -sulphanilamidoalkyl derivatives of thiazole and pyrimidine. A. A. Goldberg and W. Kelly. *Chem Soc J* p 1372-7 O '47

SULFANILAMIDOPYRIMIDINE

- Substituted sulfanilamidopyrimidines. W. Braker and others. *bibliog Am Chem Soc J* 69:3072-8 D '47

SULFANILAMIDOQUINOXALINE

- Substituted sulfaquinoxalines; some derivatives and isomers of 2-sulfanilamidoquinoxaline. F. J. Wolf, R. H. Beutel and J. R. Stevens. *bibliog Am Chem Soc J* 70:2572-4 JI '48

SULFANILIC acid

- Determination of phenol and *m*-cresol in complex biochemical mixtures; application of countercurrent distribution method. B. Warszawsky, E. J. Schantz and M. W. Rice. *Anal Chem* 20:951-4 O '48

SULFAQUINOXALINE

- Substituted sulfaquinoxalines; some derivatives and isomers of 2-sulfanilamidoquinoxaline. F. J. Wolf, R. H. Beutel and J. R. Stevens. *bibliog Am Chem Soc J* 70:2572-4 JI '48

- Sulfaquinoxaline in the control of eimeria tenella and eimeria necatrix in chickens on a commercial broiler farm. L. C. Grumbles and others. *Science* 107:196 F 20 '48

SULFARSENITES

- Synthesis of some sulpharsenites of silver in alkali sulphide solutions. R. Béland. *bibliog il Econ Geol* 43:119-32 Mr '48

- SULFATE process.** See Paper making—Sulfate process

SULFATES

- Carbohydrate sulphuric esters; production of a derivative of 5:6-anhydroglucose by the hydrolysis of a sulphate. R. B. Duff and E. G. V. Percival. *Chem Soc J* p 1675-8 D '47

- Effect of the sulfate ion on the plasticity of brick clays. A. L. Johnson and G. B. Hughes. *bibliog Am Cer Soc J* 31:194-200 JI 1 '48

- Symmetrical morpholinium alkyl sulfates. J. B. Niederl, H. W. Salzberg and J. J. Shatynski. *Am Chem Soc J* 70:618 F '48

- Test data on gas-side sulphate-type deposits on tubes beyond boiler furnace. J. F. Barkley and others. *il diags A S M E Trans* 70:81-7; Discussion. 87-9 F '48

See also

- Alums
Cement, Effect of sulfates on

Analysis

- Rapid determination of sulphate; abstract. M. L. Chepelevetsky, S. S. Rubinova and B. B. Evzina. *Chem Age (Lond)* 58:436 Mr 27 '48

SULFATHIAZOLE

- Synthesis of the 2- ω -aminoalkyl and 2- ω -sulphanilamidoalkyl derivatives of thiazole and pyrimidine. A. A. Goldberg and W. Kelly. *Chem Soc J* p 1372-7 O '47

SULFENYL chlorides

- Reaction of ketene with 2-nitro-4-chlorophenylsulfenyl chloride and other organic halogen compounds. A. Roe and J. W. McGeehee. *bibliog Am Chem Soc J* 70:1662 Ap '48

- SULFHYDRYL compounds.** See Mercapto compounds

SULFIDES

- Geothermal gradients, recent climatic changes, and rate of sulfide oxidation in the San Manuel district, Arizona, T. A. Lovering, bibliog map Econ Geol 43:1-20 Ja '48
- Polyalkylene sulfides from diolefins and dimercaptans, C. S. Marvel and R. R. Chambers, bibliog *il* Am Chem Soc J 70: 993-8 Mr '48
- Reaction of sulphur and sulphur compounds with olefinic substances; thermal decomposition of organic polysulphides, and its contribution to the sulphur-olefin reaction, G. F. Bloomfield, Chem Soc J p 1547-51 N '47
- Reclaiming agents for synthetic rubber, W. S. Cook and others, bibliog *Ind & Eng Chem* 40:1194-202 Jl '48
- Some dialkylaminoalkyl sulfides and ethers derived from quinoline and acridine heterocycles, R. O. Clinton and C. M. Suter, bibliog *Am Chem Soc J* 70:491-4 F '48
- Structure of certain polysulphides and sulphonyl sulphides; a preliminary X-ray survey, I. M. Dawson, A. M. Mathieson and J. M. Robertson, Chem Soc J p322-8 Mr '48
- Synthesis of amino mercaptans from olefin sulfides, H. R. Snyder, J. M. Stewart and J. B. Ziegler, *Am Chem Soc J* 69:2672-4 N '47
- Synthesis of lead sulphantimonites, S. C. Robinson, bibliog *diags Econ Geol* 43:293-312 Je '48
- Synthesis of mercaptans from olefin sulfides, H. R. Snyder, J. M. Stewart and J. B. Ziegler, *Am Chem Soc J* 69:2675-7 N '47
- Ultraviolet spectra and ionization potentials of the hydrides and deuterides of sulfur, selenium, and tellurium, W. C. Price, *J Chem Phys* 16:551-2 My '48

See also

- Alkali metal sulfides Alkaline earth sulfides

Analysis

- Determination of alkyl sulfides and disulfides, S. Siggia and R. L. Edsberg, bibliog *Anal Chem* 20:938-9 O '48
- Determination of calcium sulphate in sulphide ores, R. S. Young and A. J. Hall, *Soc Chem Ind J* 66:375 O '47
- Quantitative methods for certain organic sulfides, J. W. Seaser and others, bibliog *Anal Chem* 20:431-4 My '48

SULFITE liquor

- Antioxidant made from sulphite waste liquor; abstract, G. S. Fisher and others, *Paper Ind* 29:1854 Mr '48
- Biochemical oxygen demand of sulfite waste liquor, R. G. Tyler and S. Gunter, bibliog *diag Sewage Works J* 20:709-19 Jl '48
- Butyric acid fermentation of sulphite waste liquor, H. S. Daniels and J. L. McCarthy, bibliog *diag Paper Tr J* 126:43-6 Ja 29 '48
- Court decision on mill waste discharge; Supreme judicial court of Maine in equity decision against paper companies discharging sulphite waste liquor into Androscoggin river, *Pub Works* 79:22 F '48
- Fodder yeast from wood hydrolyzates and still residues, E. E. Harris and others, bibliog *il Ind & Eng Chem* 40:1220-3 Jl '48
- Fodder yeast production from sulfite waste liquor, R. G. Tyler and W. Maske, *diag Sewage Works J* 20:516-24 My '48
- Fox River mills seek pollution solution, *Paper Tr J* 126:14 Ap 8 '48
- Lactic acid from fermentation of sulfite waste liquor, R. H. Leonard, W. H. Peterson and M. J. Johnson, bibliog *il Ind & Eng Chem* 40:57-67 Ja '48
- Lignin; purification of lignin sulfonic acids by continuous dialysis, Q. P. Peniston and J. L. McCarthy, bibliog *diag Am Chem Soc J* 70:1324-8 Ap '48
- Liquid-phase and foam-phase oxidation of waste sulfite liquor, R. F. Logan and H. Haukeleian, *il Sewage Works J* 20:282-91 Mr '48
- Pioneering in the chemical processing of wood, G. H. Tomlinson, bibliog *Chem & Ind* p371-5 Je 12 '48; Same, *Pulp & Pa of Can* 49:63-8 Je '48
- Pollution research tackles sulphite waste, *Bens W p74 Mr 27 '48*

Production of fodder yeast, E. E. Harris and others, bibliog *il diags Paper Tr J* 125:34-7 N 27 '47; Same cond. *Paper Ind* 29:879-81 S '47

Pyrolysis of ammonium sulphite waste liquor to yield ammonia, A. E. Markham and others, bibliog *Paper Tr J* 127:64-8 Jl 1 '48; Same abr. *Paper Ind* 30:778-80+ Ag '48

Recovery of chemicals and energy in the sulphite process through the use of magnesium as a base, R. S. Hatch, *Pulp & Pa of Can* 48:85-7 D '47

Separation of lignin sulphonic acids from sulphite waste liquor by batch dialysis, N. K. Hiester and others, bibliog *Paper Tr J* 126:58-61 Ap 15 '48

Some physical and chemical properties of weight-fractionated lignosulfonic acid, including the dissociation of lignosulfonates, F. M. Ernsberger and W. G. France, bibliog *diags J Phys & Colloid Chem* 52:267-76 Ja '48

Utilization of sulfite waste liquor, I. A. Pearl, bibliog *Chem & Eng N* 26:2950-3+ O 4 '48

Yield and quality of pulp and waste liquor in sulphite pulping of softwoods, M. Baum and others, bibliog *Paper Tr J* 126:130+ F 26 '48

Analysis

Analysis of sulphite waste liquor, F. H. Yorston, bibliog *Pulp & Pa of Can* 48:74-80 D '47

Analysis of sulfite waste liquor and lignosulfonates; determination of neutralized solids and wet oxidation for determination of total sulfur and cations, J. R. Salvesen and D. Hogan, bibliog *Anal Chem* 20:909-11 O '48

Composition changes occurring during vacuum evaporation, steam stripping, and deashing of ammonium sulphite waste liquors, A. E. Markham and J. L. McCarthy, bibliog *Paper Tr J* 126:70-2 Je 17 '48

SULFITE process. See Paper making—Sulfite process

SULFONAMIDES

Action of chlorine on aqueous solutions of ammonium sulphates, P. R. Carter and D. H. Hey, *Chem Soc J* p 147-9 F '48

p-Aminophenylmethylsulfonyl β-naphthalenesulfonate and antibacterial activity, P. E. Wilcox, J. H. Owen and M. A. Stammann, bibliog *Am Chem Soc J* 70:1931-3 My '48

Binding of some sulfonamides by bovine serum albumin, I. M. Klotz and F. M. Walker, bibliog *Am Chem Soc J* 70:943-6 Mr '48

Color reactions of sulfonamides with β-naphthoquinone-4-sulfonate, F. J. Bandelin, *Science* 106:426 O 31 '47

Hypochoirite solutions, stabilized with aromatic sulfonamides; patent, *Am Dyestuff Rep* 37:631 S 20 '48

Iodination of certain phenylsulfonamido- and amino-heterocycles, R. G. Shepherd and C. E. Fellows, bibliog *Am Chem Soc J* 70: 157-60 Ja '48

New methods for the preparation of amidines; abstract, P. Oxley and others, *Chem & Ind* p349-50 My 29 '48

Physiological response of animals to 2-amino-diazine and 2-amino-4-methyl pyrimidine, J. F. Teon and others, bibliog *il J Ind Hygiene* 30:79-91 Mr '48

Preparation of aromatic stibonic acids of certain benzenesulfonamides, R. D. Englert and O. J. Sweeting, *Am Chem Soc J* 70: 2977-9 S '48

Preparation of N⁴-carboxyacylsulphonamides; the synthesis of N⁴-phthalylsulphanilamide derivatives, C. W. Picard and others, *Chem Soc J* p821-3 Je '48

Some developments in organic chemical manufacture; pharmaceutical products, W. Smith and W. G. Reid, *Chem & Ind* p662-3 O 16 '48

Studies of the acute diarrheal diseases; further observations of chemotherapy in shigellosis; the efficacy of streptomycin and sulfacarazole, A. V. Hardy and S. P. Halbert, bibliog *Pub Health Rep* 63:790-2 Je 11 '48

Sulfonate salts of substituted benzimidazoles, N. J. Leonard, D. Y. Curtin and K. M. Beck, bibliog *Am Chem Soc J* 69:2459-61 O '47

SULFONAMIDES—*Continued*

Synthesis of the 2-*o*-aminoalkyl and 2-*o*-sulphanilamidoalkyl derivatives of thiazole and pyrimidine. A. A. Goldberg and W. Kelly. *Chem Soc J* p 1372-7 O '47

See also

Chlorotoluenesulfonamide

Sulfanilamide
Sulfathiazole

SULFONATES

Alkyl aryl sulfonates. H. F. Reeves, jr. *Soap & San Chem* 24:79 Ja '48

Detergents from petroleum. B. H. Weil. *bibliog* *il Pet Refiner* 27:126-33 My '48

Non-ionic detergents. G. E. Barker. *Soap & San Chem* 24:46-8+ Je '48

Petroleum chemical detergents. M. Sittenfeld. *flow sheet il Chem Eng* 55:120-2 Je '48

Reaction of certain diazosulphonates derived from β -naphthol-1-sulphonic acid; derivatives of 2'-chloro-5'-nitrobenzene-2-naphthol-1-diazosulphonate. F. M. Rowe, A. T. Peters and Y. I. Rangwala. *Chem Soc J* p206-9 F '48

Studies of sulfonates; transference numbers and activity of 1-dodecanesulfonic acid in aqueous solutions at 40°. L. L. Neff and others. *bibliog Am Chem Soc J* 70:1989-92 Je '48

Sulfonate salts of substituted benzimidazoles. N. J. Leonard, D. Y. Curtin and K. M. Beck. *bibliog Am Chem Soc J* 69:2459-61 O '47

Sulfonate series; acetaldehyde disulfonic acid. *Chem Ind* 61:977 D '47

SULFONATION

Chemical engineering unit processes. G. F. Lisk. *flow diagrs il diagrs Ind & Eng Chem* 40:1671-83 *bibliog* (312 ref, p 1681-3) S '48

Determination of total aromatic plus olefin by sulfonation in the presence of phosphorus pentoxide. I. W. Mills and others. *bibliog il diag Anal Chem* 20:333-8 Ap '48

Kinetics of aromatic sulfonation reactions; sulfonation by sulphuric acid in nitrobenzene solution. F. J. Stubbs, C. D. Williams and C. N. Hinshelwood. *Chem Soc J* p 1065-73 JI '48

Liquid sulfur dioxide in sulfonation of benzene. L. Leiserson, R. W. Bost and R. LeBaron. *bibliog Ind & Eng Chem* 40:508-10 Mr '48

Mechanism for the reaction of dioxane sulfoxide with olefins; sulfonation of styrene. F. G. Bordwell and C. S. Rondestvedt, jr. *bibliog Am Chem Soc J* 70:2429-33 JI '48

Studies on the mechanism of the sulfonation of aromatic amines; rearrangement of barium phenylsulfamate. E. R. Alexander. *Am Chem Soc J* 70:1274 Mr '48

Sulfonation of mesityl oxide. R. H. Eastman and D. Gallup. *Am Chem Soc J* 70:864-5 F '48

Sulfonation products of mineral oil. R. Sperling. *bibliog Ind & Eng Chem* 40:890-7 My '48

SULFONEPHTHALEIN

See also

Phenolsulfonephtalein

SULFONES

Aliphatic nitro-compounds; reaction of nitroparaffins with unsaturated sulphones. G. D. Buckley, Mrs J. L. Charlsh and J. D. Rose. *Chem Soc J* p 1514-17 N '47

Chemistry of acrylonitrile; cyanoethylation of ketones and sulphones. H. A. Bruson and T. W. Rlener. *bibliog Am Chem Soc J* 70:214-17 Ja '48

Experiments with diazomethane and its derivatives; action of diazomethane on (a) *N*-acyl compounds and (b) *o*-hydroxydiaryl sulphones and the corresponding *peri*-compounds. A. Schönberg and A. Mustafa. *Chem Soc J* p605-6 My '48

p-Methylthiobenzenesulphonyl chloride and related compounds. H. Burton and P. F. Hu. *Chem Soc J* p604-5 My '48

Oxidations of certain polyacetyl- β -D-thioglycosides to the corresponding sulfoxes. W. A. Bonner and R. W. Drisko. *bibliog Am Chem Soc J* 70:2435-8 JI '48

Some chemotherapeutically active sulfoxes; azido substituted sulfoxes. C. K. Banks and O. M. Gruhitz. *Am Chem Soc J* 70:1268-9 Mr '48

Studies in the sulfone series; certain heterocyclic derivatives of 2,8-diaminothioxanthone-5-dioxide. E. D. Amstutz, E. A. Fehnel and I. M. Hunsberger. *bibliog Am Chem Soc J* 70:133-8 Ja '48

Succinic acid derivatives of 4-nitro-4'-aminodiphenylsulfone and of 4,4'-diaminodiphenylsulfone. H. Bauer. *bibliog Am Chem Soc J* 70:2254-6 Je '48

Synthesis of some *p*-arylsulphonylbenzaldehydes and related aldehydes and ketones. H. Burton and P. F. Hu. *Chem Soc J* p601-3 My '48

Synthesis of some aryl 2-thienyl sulphones and the nitration of thiophen-2-sulphonyl chloride. H. Burton and W. A. Davy. *Chem Soc J* p525-7 Ap '48

Use of phenylmagnesium bromide for the preparation of phenyl aryl sulphides, sulphoxides, and sulphones. H. Burton and W. A. Davy. *Chem Soc J* p528-9 Ap '48

See also

Diaminodiphenyl sulfone

SULFONIC ACIDS

Aliphatic nitro-compounds; preparation of 2-nitroalkanesulphonic acids by interaction of α -nitro-olefins and sodium hydrogen sulphite. R. L. Heath and H. A. Piggott. *Chem Soc J* p 1481-5 N '47

Derivatives of 6-methoxyquinoline with basic substituents in the 4-position. J. Walker. *Chem Soc J* p 1552-3 N '47

Ketoxime-*O*-sulfonic acids. P. A. S. Smith. *bibliog Am Chem Soc J* 70:323-6 Ja '48

Liquid sulfur dioxide in sulfonation of benzene. L. Leiserson, R. W. Bost and R. LeBaron. *bibliog Ind & Eng Chem* 40:508-10 Mr '48

Preparation of certain nuclear-substituted 2-aminophenolsulphonic acids. W. F. Beech. *Chem Soc J* p212-16 F '48

Properties and uses of alkanesulfonic acids; C₁ to C₈ acids. W. A. Proell, C. E. Adams and B. H. Shoemaker. *bibliog Ind & Eng Chem* 40:1129-32 Je '48

Quantitative analysis of synthetic detergents; extension of Igepon T method to various agents containing the sulfonic acid group. D. A. Shiraef. *Am Dyestuff Rep* 37:411-14 Je 14 '48

Sulfonate series; acetaldehyde disulfonic acid. *Chem Ind* 61:977 D '47

Sulfonation products of mineral oil. R. Sperling. *bibliog Ind & Eng Chem* 40:890-7 My '48

Analysis

Volumetric determination of free sulfuric acid in crude sulfonic acids. O. H. Dawson. *Anal Chem* 20:383-4 Ap '48

SULFONIUM COMPOUNDS

p-Aminophenylmethylsulfonium β -naphthalenesulfonate and antibacterial activity. P. E. Wilcox, J. H. Owen and M. A. Stahmann. *bibliog Am Chem Soc J* 70:1931-3 My '48

SULFONYLBENZALDEHYDE

Synthesis of some *p*-arylsulphonylbenzaldehydes and related aldehydes and ketones. H. Burton and P. F. Hu. *Chem Soc J* p601-3 My '48

SULFONYLBENZYLAMMONIUM CHLORIDE

Preparation of some *p*-alkylsulphonylbenzylammonium chlorides. J. Cymerman, A. Koebner and W. F. Short. *Chem Soc J* p381-3 Mr '48

SULFONYL CHLORIDES

Hydrocarbon sulfonylation. W. H. Lockwood. *bibliog* (72 ref) *il Chem Ind* 62:760-3 My '48

p-Methylthiobenzenesulphonyl chloride and related compounds. H. Burton and P. F. Hu. *Chem Soc J* p604-5 My '48

See also

Thiophene sulfonyl chloride

SULFONYL SULFIDES

Structure of certain polysulphides and sulphonyl sulphides; a preliminary X-ray survey. I. M. Dawson, A. M. Mathieson and J. M. Robertson. *Chem Soc J* p322-8 Mr '48

SULFOSALICYLIC ACID

Spectrophotometric studies on complex formation with sulfosalicylic acid; with iron III. R. T. Foley and R. C. Anderson. *bibliog Am Chem Soc J* 70:1195-7 Mr '48

SULFUR

Action of sulfur on certain pyridine and quinoline derivatives; action of sulfur on 4-picoline. H. I. Thayer and B. B. Corson. *Am Chem Soc J* 70:2330-3 J1 '48

Contact sulfuric acid from sulfur; a staff-industry collaborative report. M. L. Kastens and J. C. Hutchison. *bibliog flow sheet il diags Ind & Eng Chem* 40:1340-9 Ag '48

Determination of the $S^{32}(n,p)P^{32}$ cross section for neutrons having energies of 1.6 to 5.8 Mev. E. D. Klema and A. O. Hanson. *bibliog diag Phys R* 73:106-10 Ja 15 '48

Effect of sulfur fluorides on the viscosity of sulfur. R. Faneli. *bibliog Am Chem Soc J* 70:1965-6 My '48

Elimination of sulphur in certain reductions of the 2:2':4:4'-tetranitrodiphenyl mono- and di-sulphides, and an alternative route to the preparation of some 5-substituted benz-1-thia-2:3-diazoles. H. H. Hodgson and D. P. Dodgson. *Chem Soc J p* 1002-4 J1 '48

Extreme pressure (e.p.) lubricating properties of some bromine and iodine compounds, alone and in presence of sulphur, with observations on the mechanism of the development of e.p. properties. W. Davey. *Inst Pet J* 33:673-7 N '47

Filtration solves sulphur difficulties. J. A. Lee. *il Chem Eng* 55:119-21 Ap '48

Gamma-rays from alpha-particle reactions. D. E. Alburger. *bibliog diag Phys R* 73:1014-19 My 1 '48

Handling and storage of sulfur; hazards and precautions; industrial data sheet. *bibliog il Nat Safety N* 57:40-F '48

Influence of ultrasonic irradiation upon the phase transition in the formation of colloidal sulfur; abstract. V. K. La Mer and J. W. Yates. *Science* 106:508 N 28 '47

Mean life of negative mesotrons in sulfur. H. K. Ticho. *Phys R* 74:492 Ag 15 '48

Mobility of electrons in pure non-polar insulators. F. Seitz. *bibliog Phys R* 73:549-64 Mr 15 '48

Plastic and allotropic forms of sulfur. R. C. Ferreira. *J Chem Educ* 25:54 Ja '48

Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with mono-olefins, di-isoprenes, and rubber. R. F. Naylor. *Chem Soc J p* 1532-9 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with mono-olefins and with $\Delta^{1,2}$ -di-olefins. E. H. Farmer and F. W. Shipley. *Chem Soc J p* 1519-32 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with squalene. G. F. Bloomfield. *Chem Soc J p* 1546-7 N '47

Reaction of sulphur and sulphur compounds with olefinic substances; rubber vulcanization. G. F. Bloomfield. *Soc Chem Ind J* 67:14-17 Ja '48

Reaction of sulphur and sulphur compounds with olefinic substances; thermal decomposition of organic polysulphides, and its contribution to the sulphur-olefin reaction. G. F. Bloomfield. *Chem Soc J p* 1547-51 N '47

Slow neutron velocity spectrometer studies of H, D, F, Mg, S, Si, and quartz. L. J. Rainwater and others. *Phys R* 73:733-41 Ap 1 '48

Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel. *bibliog il diags J Chem Phys* 16:372-30 Ap '48

Sulfur as a promoter for a nickel catalyst in dehydrogenation. H. Adkins and others. *Am Chem Soc J* 70:381-2 Ja '48

Sulfur as a protective coating; abstract. H. W. Greenwood. *Paint Oil & Chem R* 111:31 Ag 19 '48

Sulfur bond in vulcanizates; vulcanization by dithiols. C. M. Hull and others. *bibliog Ind & Eng Chem* 40:513-17 Mr '48

Sulphur's rôle in oil refining; Persian plants approaching self-sufficiency. *il Chem Age (Lond)* 57:627-8 N 8 '47

Ultrasonic effect on nucleation of sulfur sols; abstract. V. K. La Mer. *Chem & Eng N* 25:3568-9 D 1 '47

Unit processes; desulfurization. H. J. Garber. *Ind & Eng Chem* 40:1686-7 *bibliog* (129 ref, p 1692-4) S '48

See also

Gas—Sulfur content	Iron—Sulfur content
Gas, Natural—Sulfur content	Petroleum refining—Sulfur removal
Gasoline—Sulfur content	Steel—Sulfur content
	Vulcanization

Analysis

Analysis of sulfite waste liquor and lignosulfonates; determination of neutralized solids and wet oxidation for determination of total sulfur and cations. J. R. Salvesen and D. Hogan. *bibliog Anal Chem* 20:909-11 O '48

Colorimetric determination of less than 0.001 per cent sulphur as carbon disulphide in benzoles. T. Alt. *Dick. bibliog Soc Chem Ind J* 56:253-7 Ag '47

Determination of sulfur in bone char. V. R. Deitz and others. *bibliog diag J Res Nat Bur Stand* 40:263-74 Ap '48

Microdetermination of sulfur in organic compounds. A. Steyermark, E. Bass and B. Littman. *bibliog Anal Chem* 20:587 Je '48

Microvolumetric method for determination of sulfur in organic compounds. J. F. Alicino. *bibliog Anal Chem* 20:35-6 Ja '48

Sulphur in fuel oil determined rapidly by combustion method. K. R. Klumb. *diags Steel* 122:107-F 2 '48

Systematic qualitative tests for certain acidic elements in organic compounds. E. L. Bennett and others. *bibliog Anal Chem* 19:1035-9 D '47

Volumetric determination of microgram quantities of acid-soluble sulfur. L. P. Pepkowitz. *diag Anal Chem* 20:968-70 O '48

Volumetric determination of small amounts of soluble sulfates. C. L. Ogg, C. O. Willits and F. J. Cooper. *bibliog Anal Chem* 20:83-5 Ja '48

Isotopes

Beta-spectrum of S^{32} . R. D. Albert and C. S. Wu. *Phys R* 74:847-8 O 1 '48

Beta-spectrum of S^{32} and the mass of the neutrino. C. S. Cook and others. *Phys R* 73:1395 Je 1 '48

Comparison of the beta-spectra of C^{14} and S^{32} . L. E. Glendenin and A. K. Solomon. *bibliog Phys R* 74:700-1 S 15 '48

Energy of beta-radiation from S^{32} and C^{14} . A. K. Solomon and others. *bibliog diag Phys R* 72:1097-100 D 1 '47

Inside Geiger-Müller counter for soft beta-emitters; assay of radioactive sulfur 35 or carbon 14. L. W. Labaw. *bibliog diag R Sci Instr* 19:390-5 Je '48

Introduction of radioactive sulfur (S^{32}) into the penicillin molecule by biosynthesis. S. F. Howell and others. *Science* 107:299-300 Mr 19 '48

Recoil-activated and thermal exchange reactions between sulfur-35 and carbon disulfide. R. R. Edwards, F. B. Nesbitt and A. K. Solomon. *Am Chem Soc J* 70:1670 Ap '48

Spin and quadrupole moment of S^{32} . C. H. Townes and S. Geschwind. *Phys R* 74:626-7 S 1 '48

Study of the beta-spectra of C^{14} and S^{32} . C. S. Cook and others. *bibliog Phys R* 74:548-52 S 1 '48

Use of S^{32} in the measurement of transfer constants. C. Walling. *bibliog Am Chem Soc J* 70:2561-4 J1 '48

SULFUR bacteria

Bacteria in mine drainage accelerates rust formation; abstract. M. E. Hinkle and W. A. Koehler. *Eng N* 139:873 D 25 '47

Bacterial oxidation of sulfur in pipe sealing mixtures. L. R. Frederick and R. L. Starkey. *bibliog Am Water Works Assn J* 40:729-36 J1 '48

Some bacteriological aspects of hydrogen sulfide production from sewage. H. Heukelekian. *Sewage Works J* 20:490-8 My '48

SULFUR compounds

Effect of sulphur and phosphorus on aviation fuel performance. T. K. Hanson and K. F. Coles. *Inst Pet J* 33:589-97 O '47

Effect of sulfur compounds on octane number of leaded fuels. H. K. Livingston. *bibliog Oil & Gas J* 46:180-3-Mr 11 '48

SULFUR compounds—Continued

- Flames and organic sulphur compounds; valuable data provided by the gas industry. L. T. Minchin, *Chem Age* (Lond) 58:9-10 Ja '48
- Lubrication of metals by compounds containing sulphur. E. B. Greenhill, bibliog 2pls *Inst Pet J* 34:659-69 S '48
- New API project started. *il Chem & Eng N* 26:3274-5 N 1 '48
- New organic sulphur vesicants; analogues of 2:2'-dichlorodiethyl sulphide and 2:2'-di-(2-chloroethylthio)diethyl ether. A. H. Williams and F. N. Woodward. *Chem Soc J* p38-42 Ja '48
- New organic sulphur vesicants; 2-chloroethyl-2-chloroisopropyl sulphide. A. Hamilton, R. C. G. Moggridge and F. N. Woodward. *Chem Soc J* p47 Ja '48
- New organic sulphur vesicants; 2:2'-di-(2-chloroethylthio)diethyl ether. F. N. Woodward. *diag Chem Soc J* p35-8 Ja '48
- New organic sulphur vesicants; 1:2-di-(2-chloroethylthio)ethane and its analogues. E. J. Gasson and others. *Chem Soc J* p44-6 Ja '48
- New organic sulphur vesicants; homologues of 2:2'-di-(2-chloroethylthio)diethyl ether. R. Brown and F. N. Woodward. *Chem Soc J* p42-4 Ja '48
- Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with mono-olefins, di-isoprenes, and rubber. R. F. Naylor. *Chem Soc J* p 1532-9 N '47
- Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with mono-olefins and with $\Delta^{1,3}$ -di-olefins. E. H. Farmer and F. W. Shipley. *Chem Soc J* p 1519-32 N '47
- Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with squalene. G. F. Bloomfield. *Chem Soc J* p 1546-7 N '47
- Reaction of sulphur and sulphur compounds with olefinic substances; rubber vulcanization. G. F. Bloomfield. *Soc Chem Ind J* 67:14-17 Ja '48
- Reaction of sulphur and sulphur compounds with olefinic substances; thermal decomposition of organic polysulphides, and its contribution to the sulphur-olefin reaction. G. F. Bloomfield. *Chem Soc J* p 1547-51 N '47
- Some recent advances in catalysis; detoxication of catalyst poisons. E. B. Maxted, bibliog *Soc Chem Ind J* 67:33-7 Mr '48
- Studies of properties of sulfur joining compounds containing various bactericides. W. W. Duecker and others, bibliog *il Am Water Works Assn J* 40:715-23 Jl '48
- Sulfur compounds in gasoline. A. Fookson and A. D. Bell. *Pet Refiner* (Process Handbook ed) 27:87-95 bibliog(p94-5) S '48
- Sulfur-containing amines; local anesthetics. R. O. Clinton and others, bibliog *Am Chem Soc J* 70:950-5 Mr '48
- Sulfur joining compounds; a panel discussion. W. R. LaDue and others, bibliog *Am Water Works Assn J* 40:737-50 Jl '48
- Sulfur linkage in vulcanized rubber; acetone extraction of vulcanizates. M. L. Selker and A. R. Kemp, bibliog *Ind & Eng Chem* 40:1470-3 Ag '48
- Sulfur linkage in vulcanized rubber; reaction of methyl iodide with sulfur compounds. M. L. Selker, bibliog *Ind & Eng Chem* 40:1467-70 Ag '48
- 8-R-thio- and 8-R-sulfonylcaffeine derivatives. L. M. Long, bibliog *Am Chem Soc J* 69:2939-41 D '47
- Why sulphur joint compounds are providing a mystery for waterworks engineers. *Eng N* 140:742 My 20 '48

See also
Mercaptans
Methionine

Sulfonamides
Thiols

Analysis

- Determination and effect of sulfur gases in plant atmospheres. E. J. Sweo and M. J. Bozin, bibliog *Am Cer Soc Bul* 27:293-5 Ag 15 '48
- Violence experienced in Ball's reaction. R. Y. Mixer, bibliog *Chem & Eng N* 26:2434 Ag 16 '48

SULFUR dioxide

- Addition compounds of sulfur dioxide with three isomeric lutidines. H. A. Hoffman and C. A. VanderWerf, bibliog *Am Chem Soc J* 70:262-4 Ja '48
- Carbon disulfide from sulfur dioxide and anthracite. C. W. Siller, bibliog *diag Ind & Eng Chem* 40:1227-33 Jl '48
- Carbonyl chloride, entropy, heat capacity, vapor pressure, heats of fusion and vaporization; comments on solid sulfur dioxide structure. W. F. Giauque and W. M. Jones, bibliog *Am Chem Soc J* 70:120-4 Ja '48
- Determination of sulfur dioxide in air by means of midget impinger. S. J. Pearce and H. H. Schrenk, *U S Bur Mines Rep of Invest* 4282:1-6 '48
- Germicidal effects of free and combined sulfur dioxide. M. Ingram, bibliog *Soc Chem Ind J* 67:18-21 Ja '48
- Graphical determination of heat transfer film coefficient for sulfur dioxide vapor. B. F. Raber and F. W. Hutchinson, *Heat & Ven* 45:98-100 Mr '48
- Manufacture of hydrogen sulphide; the utilization of the by-product ferrous sulphide from the hydrogen-pyrites reaction. L. M. Clark and H. M. Spittle, bibliog *Soc Chem Ind J* 67:9-10 Ja '48
- Nomographical calculation for the absorption coefficients of ammonia and sulphur dioxide in water. S. Sheehan and J. Reilly, *Chem & Ind* p 136 F 28 '48
- Preliminary analysis of the microwave spectrum of SO₂. B. P. Dailey and others, *Phys R* 72:371-2 N 1 '47
- Solubility of sulphur dioxide in ammonia-base sulphite cooking acid. D. E. Marriner and R. P. Whitney, bibliog *Paper Tr J* 126:52-4 My 20 '48
- Solubility of sulphur dioxide in calcium bisulphite solutions. C. K. White, jr, and others, bibliog *Paper Tr J* 126:46-8 My 13 '48
- Solvent extraction by SO₂; Edeleanu process. *flow diag Oil & Gas J* 46:155 Ap 1 '48
- Some equilibrium relations in the system magnesium oxide-sulfur dioxide-water (acid region) at pressures below atmospheric. F. H. Conrad and D. B. Brice, bibliog *Am Chem Soc J* 70:2179-82 Je '48
- Sulphur dioxide cleans filter sand in place; abstract. J. P. Harris, *Eng N* 140:643 Ap 29 '48
- System ammonia-sulphur dioxide-water at 25°. L. M. Hill, *Chem Soc J* p76-8 Ja '48

Analysis

- Method for the determination of small concentrations of SO₂ in the presence of larger concentrations of SO₃. D. Flint, bibliog *diags Soc Chem Ind J* 67:2-5 Ja '48
- Phototurbidimetric method for the estimation of SO₂ in the presence of SO₃. P. F. Corbett, bibliog *diag Soc Chem Ind J* 67:227-30 Je '48
- SULFUR dioxide, Liquid**
- Liquefied sulphur dioxide. *Can Min J* 69:58-9 S '48
- Liquid sulfur dioxide in sulfonation of benzene. L. Leiserson, R. W. Bost and R. LeBaron, bibliog *Ind & Eng Chem* 40:508-10 Mr '48
- Use of liquid sulphur dioxide for calcium bisulphite acid production. E. H. Lougheed, bibliog *flow sheet il diags Pulp & Pa* of Can (Convention no) 49:215-21 [F] '48

Analysis

- Rapid determination of moisture in liquid sulfur dioxide; comparison of phosphorus pentoxide and Karl Fischer method. B. R. DiCaprio, *diag Anal Chem* 19:1010-11 D '47

SULFUR fluoride

- Effect of sulfur fluorides on the viscosity of sulfur. R. Fanelli, bibliog *Am Chem Soc J* 70:1965-6 My '48

SULFUR hexafluoride

- Dissociation of SF₆, CF₄, and SiF₄ by electron impact. V. H. Dibeler and F. L. Mohler, bibliog *J Res Nat Bur Stand* 40:25-9 Ja '48
- Gaseous insulation for high-voltage apparatus; sulphur hexafluoride possesses superior insulating qualities. G. Camilli and J. J. Chapman, *diags Gen Elec R* 51:35-41 F '48

SULFUR hexafluoride—Continued

Specific heat of sulfur hexafluoride, E. G. Meyer and C. E. Buell, *J Chem Phys* 16: 744 J1 '48
Sulfur hexafluoride, *Chem & Eng N* 26:1170 Ap 19 '48

SULFUR industry and trade

Sulphur in 1947, W. W. Duecker and E. W. Eddy, *Il Min Cong J* 34:96-7 F '48
World sulphur and pyrites: review of occurrence and recovery methods, *Chem Age (Lond)* 58:401-2 Mr 20 '48

Statistics

Sulphur and sulphuric acid in 1945-1947, *Chem Eng* 55:104-5 + F '48

SULFUR trioxide

Mechanism for the reaction of dioxane sulfotrioxide with olefins; sulfonation of styrene, F. G. Bordwell and C. S. Rondstedt, jr. *bibliog Am Chem Soc J* 70:2429-33 J1 '48

System calcium oxide-phosphorus pentoxide-sulfur trioxide-water at 75.3° C, A. N. Campbell and J. W. Coutts, *bibliog*(35 ref) *Ind & Eng Chem* 40:1295-9 J1 '48

Analysis

Method for the determination of small concentrations of SO₂ in the presence of larger concentrations of SO₃, D. Flint, *bibliog diags Soc Chem Ind J* 67:2-5 Ja '48

Phototurbidimetric method for the estimation of SO₂ in the presence of SO₃, P. F. Corbett, *bibliog diags Soc Chem Ind J* 67:227-30 Je '48

SULFURETTED hydrogen, See **Hydrogen sulfide**

SULFURIC acid

Acid cleaning of boilers, W. H. Betz and L. D. Betz, *diag Paper Ind* 29:1197-8 N '47
Action of sulfuric acid on an optically active hydrocarbon, R. L. Burwell, jr. and G. S. Gordon, 3d, *bibliog Am Chem Soc J* 70: 3128-32 S '48

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; action of sulphuric acid on the trimethylpentanes, F. Morton and A. R. Richards, *bibliog diags Inst Pet J* 34:133-46 F '48

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; composition of an aviation alkylate, F. Morton and A. R. Richards, *bibliog Inst Pet J* 33:697-720 D '47

Anodic reactions of aluminum and its alloys in sulfuric and oxalic acid electrolytes, R. B. Mason and C. J. Slunder, *bibliog Ind & Eng Chem* 39:1602-7 D '47; Same, *Metal Finishing* 46:65-70 F '48

Cellulose intercrystalline structure; study by hydrolytic methods, R. F. Nickerson and J. A. Habre, *bibliog Ind & Eng Chem* 39: 1507-12 N '47

Chemical determination of tryptophan; study of color-forming reactions of tryptophan, *p*-dimethylaminobenzaldehyde, and sodium nitrite in sulfuric acid solution, J. R. Spies and D. C. Chambers, *bibliog Anal Chem* 20:30-9 Ja '48

Corrosion of steel, cast iron, and lead by sulfuric acid and choice of materials for pipe lines, M. G. Fontana, *Ind & Eng Chem* 40: sup 103A-4A Ap '48

Corrosion tests of heater-tube materials for acid concentration service, H. F. Brown, *Il Oil & Gas J* 46:134-7 + Ap 29 '48

Determination of cyclopropane by selective absorption, F. R. Brooks, R. E. Murdock and V. Zahn, *bibliog Anal Chem* 20:62-3 Ja '48

Experimental bases for the calculation of the sulfuric acid vapor pressure above the sulfuric acid-water system, E. Abel, *bibliog J Phys & Colloid Chem* 52:908-14 My '48

Experiments on the corrosion resistance of porous bronze compacts produced by powder metallurgy, M. M. Hallett, *Soc Chem Ind J* 67:57-61 F '48

Freezing point depression of sulfuric acid by siloxanes, F. F. Price, *Am Chem Soc J* 70:871-2 F '48

Handling sulfuric acid sludges, E. L. Hildebrand, *Oil & Gas J* 47:68-9 + S 30 '48

Hydrogen transfer; reaction of *p*-cymene with olefinic hydrocarbons in the presence of sulfuric acid and hydrogen fluoride catalysts, V. N. Ipatieff, H. Pines and R. C. Olberg, *bibliog Am Chem Soc J* 70:2123-8 Je '48

Kinetics of aromatic sulphonation reactions; sulphonation by sulphuric acid in nitrobenzene solution, F. J. Stubbs, C. D. Williams and C. N. Hinshelwood, *Chem Soc J* p 1065-73 J1 '48

Modern practice in sulphite mill acid and recovery plants, F. J. Hoar, *Paper Tr J* 126:51-3 Ap 22 '48

Nitration in sulphuric acid; nitration of 2:4-dinitrotoluene in a two-phase system, G. M. Bennett and others, *Chem Soc J* p 1185-90 S '47

Open-chain sugars; absorption in ultraviolet of D-glucose and L-arabinose in acid solution, E. Pacsu and L. A. Hiller, jr. *bibliog Am Chem Soc J* 70:523-6 F '48

Photochemistry of tryptophan, *p*-dimethylaminobenzaldehyde and reaction products in sulfuric acid solution, J. R. Spies and D. C. Chambers, *bibliog diags Am Chem Soc J* 70:1682-5 My '48

Reaction of 2-amino-2-methyl-1-propanol with sulfuric acid, R. E. Buckles and G. V. Mock, *bibliog Am Chem Soc J* 70:1275-6 Mr '48

Separation of *d*-fructose from other natural sugars as its 2:3-4:5-diacetone and 1:2-monoacetone derivatives; observations on the behaviour of acetone derivatives of monosaccharides towards cold decinormal sulphuric acid, D. J. Bell, *Chem Soc J* p 1461-4 N '47

Sludge acid recovery, *Chem & Eng N* 26:2571 Ag 30 '48

Soil neutralizing is new use for sulphuric acid, *Il Chem Eng* 55:204 + S '48

Stratcold processing; application of sulfuric acid treating to certain types of petroleum distillates, *flow diags Oil & Gas J* 46:157 Ap 1 '48

Sulfuric; a rising glass, *Il Chem Ind* 62: 217-18 F '48

Sulfuric acid alkylation, *flow diags Oil & Gas J* 46:129 Ap 1 '48

Sulphuric acid from sludge; patents, *Chem Age (Lond)* 57:593 N 1 '47

Sulfuric acid steep at elevated temperatures for gray cotton fabrics, R. E. Hudson, jr. and H. M. Waddle, *bibliog Textile Res J* 18:232-6 Ap '48

Sulphuric acid versus construction materials, *Il Chem Eng* 55:235-6 + My; 223-4 + Je; 227-8 + J1; 219-20 + Ag '48

Sulphuric resistant stainless, *Steel* 122:90 + Ja 19 '48; *Iron Age* 161:83 Ja 15 '48; *Materials & Methods* 27:80-2 F '48

Analysis

Determination of water in alkylation sulfuric acid, W. H. Goff, W. S. Palmer and R. F. Huhndorff, *bibliog diags Anal Chem* 20:344-6 Ap '48

Electrometric titration of nitric acid in oleum, C. D. McKinney, jr. W. H. Rogers and W. M. McNabb, *Anal Chem* 19:1041 D '47

Volumetric determination of free sulfuric acid in crude sulfonic acids, O. H. Dawson, *Anal Chem* 20:383-4 Ap '48

Manufacture

Contact sulfuric acid from sulfur; a staff-industry collaborative report, M. L. Kastens and J. C. Hutchison, *bibliog flow sheet il diags Ind & Eng Chem* 40:1340-9 Ag '48; *Correction*, 40:1994 O '48

Corrosion in sulphuric acid towers; further study of acid-lead behaviour; abstract, F. Perktold and P. M. Müller, *Chem Age (Lond)* 57:787 D 20 '47

Cyclic process of sulphuric acid manufacture at Trail, B.C., A. F. Snowball, *flow sheet il diags Can Chem & Process Ind* 31: 1110-14 D '47

Development continues in chamber acid plants; water-cooled chambers of improved Mills-Packard type, A. M. Fairlie, *Il Chem Eng* 55:108-9 + J1 '48

SULFURIC acid—Manufacture—Continued

- Manufacture of contact sulphuric acid from arsenical pyrites. H. C. Millett, diags Chem & Ind p595-600 S 18 '48
- Nouveaux perfectionnements dans la fabrication combinée des acides sulfurique et nitrique. F. Salsas-Serra, diags Chimie & Ind 53:433-5 N '47
- Recovering refinery acids: outline of Monsanto coke deposition process. il Chem Age (Lond) 59:522-3 O 16 '48
- Sulphuric acid patents; Italian approach to intensive production. Chem Age (Lond) 58:326 Mr 6 '48
- Trail refuses to trail in chemical pioneering. S. D. Kirkpatrick, flow sheet il Chem Eng 55:96-9 Ap '48

Statistics

- Sulphur and sulphuric acid in 1945-1947. Chem Eng 55:104-5+ F '48
- Sulfuric acid index of production follows industrial activity. C. C. Concannon and F. M. Hoffheins, Chem & Eng N 26:1072-3 Ap 13 '48
- Sulphuric acid industry. Chem & Ind p706 N 15 '47; 105 F 14 '48
- Sulphuric acid output, use in United Kingdom and Elre in 1947. Oil Paint & Drug Rep 153: 42 Mr 15 '48
- Sulphuric acid statistics: July-September. Chem Age (Lond) 57:652 N 15 '47

SULFURYL chloride

- Chlorination of thiophenes with sulfonyl chloride. E. Campaigne and W. M. LeSuer. Am Chem Soc J 70:415-16 Ja '48

SULLIVAN, Betty, 1902-

- Awarded Osborne medal by American assn. of cereal chemists. por Chem & Eng N 26: 1767 Je 14 '48
- Sketch, por(cover) Chem & Eng N 26:2055 JI 12 '48

SULLIVAN, John Daniel, 1900-

- Portrait. Am Cer Soc Bul 26:347 O 15 '47

SULZER engines

- Fifty years development of the Sulzer Diesel engine. Engineering 164:568-70 D 12 '47
- Fifty years of Sulzer Diesel engines. il Diesel Power 25:68+ N '47

SUMERIAN inscriptions. See Cuneiform inscriptions, Sumerian**SUMERIAN law. See Law, Sumerian****SUMMER**

- Comparison of physiological adjustments of human beings during summer and winter. N. Glickman and others, bibliog il Heating-Piping 20:113-19 Ag '48

See also**Hot weather****SUMMER resorts**

- Summer resorts; recent work by architects Robin & Vogel illustrates a century's change. il plans diags Arch Forum 88:110-20 Mr '48

SUMMERSBY, Kathleen

- Gen. Ike's WAC aide tells her war story. C. Hodge. por Ed & Pub 81:40 S 11 '48

SUN

- Abundance of oxygen in the sun. I. S. Bowen. Rs Mod Phys 20:109-12 Ja '48
- Brief history of studies in solar radiation. J. T. Wilson. il diags Elec Eng 66:1209-13 D '47
- Charts to obtain solar altitudes and azimuths. I. F. Hand. Heat & Ven 45:86-8 O '48

- Sun and precipitation. C. G. Abbot, bibliog il Am Water Works Assn J 40:755-62 JI '48

See also

- | | |
|--------------------|-----------------|
| Anticreza | Solar radiation |
| Radio noise, Solar | Solar system |
| Solar heating | Spectrum, Solar |

SUN glasses

- Dark glasses; National bureau of standards reports on studies. il Nat Safety N 53:34+ S '48

- Virtuous sunglass; information to aid in proper selection. D. Farnsworth. il Safety Eng 95:14-16+ My '48

SUN oil company

- Annual report. Comm & Fin Chr 167:2139 My 17 '48

- Proposed science center. Science 106:532-9 D 5 '47

SUNBURN

- New sunburn ointments developed. Chem Ind 62:59 Ja '48

SUNDAY supplements. See Newspapers—Magazine sections**SUNLIGHT**

- Interaction of cosmic-ray primaries with sunlight and starlight. E. Feenberg and H. Primakoff. bibliog Phys R 73:449-69 Mr 1 '48

- Sunlight and skylight as determinants of photographic exposure; luminous density as determined by solar altitude and atmospheric conditions. L. A. Jones and H. R. Condit. il diags Opt Soc Am J 38:123-78 bibliog(53 titles, p 177-8) F '48

See also**Orientation (architecture)****SUNLIGHT, Artificial**

- Solarium of synthetic sunshine. il Gen Elec R 51:51 Ap '48

SUNRAY oil corporation

- Expansion plans should bring rise in net. Barren's 25 34 My 15 '48
- Oil merger off; Sunray deal. Bsns W p50 Ja 3 '48

- Preferred stock offered. Comm & Fin Chr 167:2036+ My 10 '48

SUNSET, Louisiana, bank. See Banks and banking—Sunset, Louisiana**SUNSHINE**

- Duration and intensity of sunshine. F. Benford. il map diags Illum Eng 42:527-44. 877-89; 43:533-6, 699-710 My, N '47, My, JI '48

- Number of sunshine hours in heating season; reference data. Heat & Ven 45:86a-86b JI: 84a-84b Ag '48

SUNSPOTS

- Bursts of solar noise at 45 mc accompanying the large sunspots of 1947. H. T. Stetson. Science 108:354-5 O 1 '48

- New statistical method of predicting sunspots aids radio propagation forecasts. il Franklin Inst J 244:481-7 D '47

- Relation of frequency of occurrence of small cosmic-ray bursts to areas of sunspots and other variables. J. W. Broxon. Phys R 72: 1187-96 D 15 '47

- Sun and precipitation. C. G. Abbot, bibliog il Am Water Works Assn J 40:755-62 JI '48

- Sunspots and radio weather. A. Arzinger and others. il diags RCA R 9:229-44 Je '48

SUPER electric products corporation

- Common stock offered. Comm & Fin Chr 168:750+ Ag 23 '48

SUPERCARGERS**See also**

- Airplanes—Cabins—
Supercharging

Lubrication

- Lubrication of cabin-pressurization and air-conditioning systems. D. N. Harris, flow diag il diags Aero Digest 57:38-44+ O; 63-4+ N '48

Manufacture

- Producing Diesel engine turbosuperchargers. F. R. Ericson. il diags Iron Age 161:72-7 Mr 25 '48

Testing

- High-speed revolution counter for testing supercharger impellers for aircraft cabins. A. E. Kaufman. il diags Electronics 21:80-2 S '48

SUPERCONDUCTING bolometers. See Bolometers**SUPERCONDUCTIVITY. See Electric conductivity****SUPERCooling**

- Interesting case of water undercooling. E. C. McCracken. Science 106:453 N 7 '47; Discussion. 107:567; 108:157-8 My 23, Ag 13 '48

- Nature of the glassy state and the behavior of liquids at low temperatures. W. Kauzmann. Chem R 43:219-56 bibliog(104 ref, p253-6) O '48

SUPERHEATED steam

Review of data on dynamic viscosity of water and superheated steam. G. A. Hawkins and others. bibliog A S M E Trans 70:19-23 Ja '48

Super-regeneration; compound cycle developments. diags Elec R (Lond) 141:786-6 N 21 '47

SUPERHEATER company

Growth leads away from rails. Barron's 28: 34 J 26 '48

SUPERHEATERS

Hydrogen-zeolite treated water dissolves boiler, superheater scale. T. L. B. Webb and J. D. Yoder. diags Power 92:35-7+ Ja '48

Preventing superheater tube failures during starting-up periods. Locomotive 46:245+ O '47

Superheater tube failures. H. B. Snider and F. H. Ward. Mech Eng 70:625-6 JI '48

SUPERHETERODYNE. See Radio receiving apparatus—Superheterodyne**SUPERMARKET institute**

Superproblems; meeting of supermarket operators in Chicago. Bsns W p58+ N 15 '47

SUPERMARKETS. See Market stores**SUPERPHOSPHATES**. See Phosphates**SUPERPOSITION, Principle of**

Submerged-weir discharge studies; based on an application of the superposition principle. J. R. Villemonte. diags Eng N 139: 866-9 D 25 '47

SUPERREGENERATION

Superregenerative circuit applications. H. Stockman. diags Electronics 21:81-3 F '48

SUPERSONIC waves

Acoustical methods in supersonic aerodynamics. J. W. Miles. diags Acoustical Soc Am J 20:314-23 My '48

Air siren produces ultrasonic sound. il Comp Air Mag 53:198 Ag '48

Chemical uses of silent sound; U.S. studies. Chem Age (Lond) 58:677 My 15 '48

Design of an ultrasonic analyzer. il diags Electronics 20:102-5 D '47

Direct-reading frequency meter for the audio and supersonic ranges. H. J. Reich and R. L. Ungvary. diags R Sci Instr 19:43-6 Ja '48

Distortion of progressive ultrasonic waves. J. C. Hubbard and others. bibliog il Phys R 74:107-8 JI 1 '48

Influence of ultrasonic irradiation upon the phase transition in the formation of colloidal sulfur; abstract. V. K. La Mer and J. W. Yates. Science 106:508 N 28 '47

Interferometric studies of faster than sound phenomena. R. Ladenburg and others. bibliog il diags Phys R 73:1359-77 Je 1 '48

Light scattering in supersonic streams. J. H. McQueen and others. Phys R 73:260 F 1 '48

Measurement of ultrasonic bulk-wave propagation in high polymers. A. W. Nolle and S. C. Mowry. il diags Acoustical Soc Am J 20:432-9 JI '48

Mechanical properties of long chain molecule liquids at ultrasonic frequencies. W. P. Mason and others. diags Phys R 73:1074-91 My 1 '48; Correction. 74:1873-4 D 15 '48

Origin of ultrasonic absorption in water. L. Hall. bibliog Phys R 73:775-81 Ap 1 '48

Precision ultrasonic interferometer for liquids and some velocities in heavy water. D. R. McMillan, jr. and R. T. Lagemann. bibliog diags Acoustical Soc Am J 19:956-60 N '47

Progress of echo sounding. il Electrician 140: 339-40 Ja 30 '48

Scattering of ultrasonic radiation in polycrystalline metals. W. Roth. bibliog il diags J Ap Phys 19:901-10 O '48

Some background history of ultrasonics. E. Klein. Acoustical Soc Am J 20:601-4 S '48

Sound velocity method for determining the compressibility of finely divided substances. R. J. Urick. diags J Ap Phys 18: 983-7 N '47

Study of ultrasonic velocity and absorption in liquid mixtures. C. J. Burton. bibliog diags Acoustical Soc Am J 20:186-99 Mr '48

Supersonic sound waves; research. Mech Eng 70:156 F '48

Supersonics in a water-alcohol mixture and analysis of its intermolecular action. R. Parshad. Acoustical Soc Am J 20:66-7 Ja '48

Ultrasonic absorption in water in the temperature range 0°-80°C. M. C. Smith and R. T. Beyer. bibliog diags Acoustical Soc Am J 20:608-10 S '48

Ultrasonic delay lines. H. B. Huntington and others. diags Franklin Inst J 245:1-23, 101-15 Ja-F '48

Ultrasonic effect on nucleation of sulfur sols; abstract. V. K. La Mer. Chem & Eng N 25:3568-9 D '47

Ultrasonic investigation of molecular properties of liquids; the alcohols. A. Weissler. bibliog diags Am Chem Soc J 70:1634-40 Ap '48

Ultrasonic observation of twinning in tin. W. P. Mason and others. diags Phys R 73: 1213-14 My 15 '48

Ultrasonic propagation through mercury in tubes. H. B. Huntington. diags Acoustical Soc Am J 20:424-32 JI '48

Ultrasonic reflections by domains in Rochelle-salt single crystals. W. J. Price. Phys R 73:1132-3 My 1 '48

Ultrasonic solid delay lines. D. L. Arenberg. bibliog (30 titles) diags Acoustical Soc Am J 20:1-26 Ja '48

Ultrasonic velocity and absorption in liquid helium. J. R. Pellam and C. F. Squire. bibliog diags Phys R 72:1245-52 D 15 '47

Ultrasonic velocity in a series of 1-olefins. R. T. Lagemann and others. bibliog J Chem Phys 16:247-9 Mr '48

Ultrasonic velocity in some liquid fluorocarbons. R. T. Lagemann and others. Am Chem Soc J 70:2994-6 S '48

Ultrasonic velocity in some organic halides; constitutive effects. R. T. Lagemann, J. S. Evans and D. R. McMillan, jr. Am Chem Soc J 70:2996-9 S '48

Ultrasonics in chemistry. A. Weissler. bibliog il J Chem Educ 25:28-30 Ja '48

Industrial applications

Agglomeration of aerosols; increasing industrial uses of ultrasonics. Chem Age (Lond) 59:287 Ag 28 '48

Design and application of supersonic flaw detectors. D. C. Erdman. il diags Elec Eng 67:181-5 F '48

Detection of cracks in steel by means of supersonic waves. C. H. Desch and others. bibliog diags Iron & Steel Inst J 153:339-41, pl 21-30 no 1 '46; Same. Welding J 26:sup 1-25 Ja '47; Discussion. Iron & Steel Inst J 153:341-53, pl 30A-30B no 1 '46

Eliminating axle breakage; Erie now using Sperry reflectoscopes. E. D. Hall. il Ry Mech Eng 121:710-13 D '47

German uses of ultrasonics; original experiments in spinning and metal bonding. Chem Age (Lond) 58:870 Je 26 '48

Inaudible sound, a new tool for air cleaning. S. Y. White. il Heat & Ven 45:59-64 S '48

Location of internal defects of plant equipment. E. Carlin. il diags Am Gas Assn Proc 1947:690-8; Same abr. Am Gas Assn Mo 29: 391-3 S '47; Excerpt. Chem Eng 54:250+ O '47

Portable ultrasonic thickness gage. N. G. Branson. il diags Electronics 21:88-91 Ja '48

Reflectogage. il R Sci Instr 18:804 O '47

Supersonic pulses probe metals to hunt flaws, check thickness; Reflectoscope and Reflectogage. H. C. Drake and E. W. Moore. il Aviation W 48:21-3 Mr 22 '48

Supersonic testing of welds; effective with steel and non-ferrous metals. il diags Chem Age (Lond) 58:781 Je 5 '48; Mach 54:168-9 Ag '48

Supersonics in industry; U.S. progress in smoke, mist and dust control. Chem Age (Lond) 58:520+ Ap 17 '48

Testing welds with supersonic waves; supersonic Reflectoscope. B. Carlin. il diags Welding J 27:438-40 Je '48

Ultrahigh-frequency sound waves measure thickness of metal from one side; Audiogage. N. G. Branson. il diags Oil & Gas J 46:66+ Ja 22 '48

Ultrasonic resonance applied to non-destructive testing; automatic sonigage. W. S. Erwin and G. M. Rassweiler. bibliog il diags R Sci Instr 18:750-3 O '47

SUPERSONIC waves—Industrial applications—*Continued*

- Ultrasonic thickness indicator; Reflectogage. E. Carlin, *il* diag Electronics 21:76-9 N '48
- Ultrasonics in pest control; abstract. H. Frings, *Chem & Eng N* 25:3361 N 17 '47
- Ultrasonics; magic wand in production. *il* Mod Ind 15:50-3 Ja '48
- Ultrasonics; sound generators to work at inaudibly high frequencies to clear smoke, precipitate dust, dry paper, etc. Heat & Ven 45:124+ Ag '48
- Unit operations auxiliaries. *Chem Eng* 55: 125-6 My '48
- Where will ultrasonics fit in the power field? C. R. Earle, *il* diag Power Generation 52: 86+ S '48

Physiological effect

- Biological and psychological effects of ultrasonics. H. Davis, *Acoustical Soc Am J* 20: 605-7 S '48
- Induction of cytogenetic variations by ultrasonic waves. R. H. Wallace and others. *Science* 107:577-8 My 28 '48
- Supersonic sickness reported on by navy. *Aviation W* 49:28 Ag 2 '48

SUPERSTITION

- Superstitions in the building field. S. F. Borg, *il* Eng N 140:968-9 Je 10 '48

SUPERVISORY workers

- Can the salary values of line and staff positions be coordinated by job evaluation? *Personnel J* 27:153-4 S '48
- Daily report tells supervisors status of company business; Monarch machine tool co. J. A. Raterman, *Factory Management* 106: 67 Ap '48
- How to evaluate supervisory jobs. O. R. Winjum, *diag Am Mach* 92:81-92 Ag 26 '48
- Incentive pay for supervisors; a survey. *Personnel* 24:341-50 Mr '48
- Industrial hygiene for the supervisor. A. D. Hoesey, *Safety Eng* 94:47-8 D '47
- Junior executive's place in production. J. T. Brown, *Mech Eng* 69:904-6 N '47
- Keep your executives and supervisors informed. A. R. Laney, jr. *Personnel J* 26: 321-8 Mr '48
- Management communicator; Caterpillar tractor co.; tape recorder connected to telephone system. G. W. Torrence, *Management R* 37:236-8 My '48
- Management doubles as teacher; manual defines scope of supervisory workers' authority; Public service electric and gas co., Newark, N. J. E. R. Eberle, *Am Gas Assn Mo* 30:27-9 Jl-Ag '48
- Philosophy for a research supervisor. J. H. Wills, *Chem & Eng N* 26:3095 O 18 '48
- Pointers for supervisors. G. Gardiner, *Textile World* 98:154 My '48 [cont monthly]
- Policy manual helps supervisors in day-to-day management. T. J. Henley, *il* Factory Management 106:120-1 Jl '48
- Safety, the supervisor's responsibility. *Ry Mech Eng* 121:646-7 N '47
- Salary administration and supervision. J. S. Brown, *Trusts & Estates* 86:333-6 Ap '48
- Self-analysis quiz for supervisors and executives. R. Hersey, *Personnel* 24:454-76 My '48
- Stress importance of supervisory employees in the auto industry; Packard's liberalized policy. *Iron Age* 162:162 O 14 '48
- Supervising people; closing the gap between what we think and what we do. M. Hall, *Advanced Management* 12:129-35 S '47
- Supervisor and the suggestion system. C. C. Gibbons, *Personnel* 24:284-7 Ja '48
- Supervisor's place in management. L. J. Fletcher, *Mech Eng* 70:893-4 N '48
- Supervisor's role in the job evaluation program. J. E. Elington, *Personnel* 24:360-6 Mr '48
- Utility supervisor under the Taft-Hartley law. A. M. Cooper, *Pub Util* 41:479-86 Ap 8 '48
- What makes a supervisor easy to work for. J. W. Taylor, *Factory Management* 106:80-1 F '48
- What makes a supervisor hard to work for. J. W. Taylor, *Factory Management* 106:80-1 Ja '48

What supervisors and foremen should know about the Taft-Hartley act. C. S. Hamilton, jr. *Personnel* 24:293-7 Ja '48

What supervisors want from management. E. M. Selve, *Personnel J* 26:281-3 F '48

See also
Foremen

Selection

- New method of supervisory selection; abstract. *Management R* 37:351-3 Jl '48
- Selection of blue-collar and white-collar supervisors. M. M. Mandell, *Personnel* 24: 321-7 Mr '48
- Selection of supervisors. M. Mandell, *Management R* 37:79-80 F '48
- Systematic recruiting of supervisors; abstract. G. Westerlund, *Management R* 37:294-6 Je '48

Training

- Case study of role-playing. A. H. Tyler, *Personnel* 25:136-42 S '48
- Communication and training; the tools of supervisory development. W. J. Eisenberg and C. G. Donerly, *Personnel J* 27:87-92 Jl-Ag '48
- Developing supervisory personnel; abstract. R. W. Beamer, *Min Cong J* 34:64 Je '48
- Guide to successful conference leadership. *Personnel* 24:328-40; 25:31-46 Mr, Jl '48 [reprinted as pamphlet]
- How to talk to workers, one of many topics covered at oil training center established by Esso standard oil co. F. C. Sturtevant, *Nat Pet N* 40:28+ Je 2 '48
- Industrial management institutes sponsored by University of Wisconsin. J. D. Howard, *Edison Elec Inst Bul* 16:41 F '48
- Man behind the man behind the machine. H. W. Heinrich, *Safety Eng* 95:9+ Ap '48
- Pattern for improved supervisory leadership. J. M. Pfaffner, *bibliog Personnel* 24:271-80 Ja '48
- Personnel management; study of steps taken by I. G. Farben, to increase production by improving the quality of supervisory personnel. *Mech Eng* 69:1042-3 D '47
- Selling a new production control plan to supervisors; Rockbestos products corp. A. G. Newton, *Factory Management* 105:118-19 D '47
- Supervisors study union relations; Detroit Edison co. L. J. Kaufman, *Elec World* 129: 56-7 Ja 31 '48
- Supervisory training; keystone of good employee relations. J. D. Elliott and J. G. Ross, *bibliog Am Gas Assn Proc* 1947:291-310
- Supervisory training pays large dividends. J. H. Hinds, *Am Gas Assn Mo* 30:13-14+ Jl-Ag '48
- Thought for today stimulates supervisors' thinking; Fiberglas corp. C. S. Steinmetz, *Factory Management* 106:97 Ap '48
- Training office supervisors. W. G. Torpey, *Personnel J* 26:227-30 D '47
- Training supervisors in a decentralized organization. A. R. Latelner, *Personnel J* 26:340-2 Mr '48
- "Work with" versus "work for"; job relations program of Central Hanover bank and trust company, New York. K. W. McLaren, *il* Banking 40:38-40 My '48

SUPPLY and demand

- Demand performance and the stock market; the finale. G. M. Haas and J. J. Quinn, *Comm & Fin Chr* 167:597+ F 5 '48
- Demand, production, and prices in 1947. *Fed Res Bul* 34:1-10 Ja '48
- Influence of price on our economy; supply and demand must be watched. J. E. Bulard, *Credit & Fin Management* 50:37-40 F '48
- Lack of free competition threatens free enterprise; cites curtailed output of cotton textile manufacturers. W. G. Lightbowne, *Comm & Fin Chr* 168:610 Ag 12 '48
- Roving reporter muses over the passing of the gravy train. L. B. Colby, *Sales Management* 60:80+ Ap 15 '48
- Supply-demand status of various industries. H. M. Tremaine, *il* Mag of Wall St 83:63-5 O 23 '48
- Ten economists on the inflation. S. E. Harris and others, *R Econ & Stat* 30:1-29 F '48

SUPREME court. See United States—Supreme court

SURETY and fidelity insurance. See Insurance, Surety and fidelity

SURETY association of America

Annual meeting, New York, May 13. Weekly Underw 158:1453 My 15 '48

Association firmly installed as rate making body; abstracts. P. T. Morehouse. Nat Underw 52:17+ Ja 15 '48; East Underw 49: 28-9 Ja 16 '48

Surety association absorbs Towner rating bureau. Nat Underw 51:23 O 30 '47; East Underw 48:25+ O 31 '47; Weekly Underw 157:1121 N 1 '47

SURFACE active substances

Analyzing anionic surface active agents; abstract. S. R. Epton. Soap & San Chem 24: 85 F '48

Cationic type surface-active agents; Nopco-gen. Chem Ind 61:830+ N '47

Determination of surface active agents in solution. T. Barr and others. bibliog Soc Chem Ind J 67:45-8 F '48

Economic outlook for synthetic detergents. M. Sittenfeld. il Chem Ind 62:584-5+ Ap '48

Effect of surface-active agents upon dispersions of lead monoxide in xylene. V. R. Damerell and M. J. Vogt. J Phys & Colloid Chem 52:363-7 F '48

Electrolyte builders for surface active agents. J. C. Harris. bibliog diags Am Dyestuff Rep 37:266-70 Ap 19 '48

New tough films and bubbles. A. L. Kuehner. il J Chem Educ 25:211-12 Ap '48

Polyorganosiloxanes; surface active properties; polymethylsiloxanes and the related polymers. H. W. Fox, P. W. Taylor and W. A. Zisman. bibliog il Ind & Eng Chem 39:1401-9 N '47

Qualitative analysis of textile processing agents. H. B. Goldstein. bibliog diag Am Dyestuff Rep 36:629-40 N 3 '47

Relation between chemical structure and performance. W. D. Scott and D. S. P. Roebuck. bibliog Chem & Ind p627-31 O 2 '48

Self-diffusion coefficients and transference numbers of the small ions in colloidal electrolytes. A. P. Brady and D. J. Salley. bibliog Am Chem Soc J 70:314-19 Mr '48

Series openers; alkylated aryl sulfopropionic esters. Chem Ind 62:907 Je '48

Soaps and synthetic detergents in the textile field. A. M. Schwartz. Soap & San Chem 24: 47-9+ F '48

Surface active agents in foliage sprays. F. Wilcoxon and R. L. Morgan. bibliog Ind & Eng Chem 40:700-2 Ap '48

Surface active chemicals for textile processing; abstract. E. A. Robinson. Am Dyestuff Rep 36:760 D 15 '47

Surface activity; abstract. R. Leslie. Soap & San Chem 24:67 Ja '48

Textile applications of the glycol fatty acid esters. J. H. Dollinger. Rayon 29:98-9 Ap; 83 My '48

Wetter water pares fire losses. H. W. Zussman. bibliog il Chem Ind 61:994-5 D '47

SURFACE area of particles. See Particles

SURFACE combustion. See Combustion, Surface

SURFACE energy

Calculation of the surface energy of liquid argon and mercury. G. Jura. bibliog diags J Phys & Colloid Chem 52:40-7 Ja '48

SURFACE phenomena

Bob and transit; gas adsorption a tool of growing importance. Chem Ind 62:385-6 Mr '48

Catalytic reaction of hydrogen and oxygen on plane faces of a single crystal of copper. H. Leidheiser, Jr. and A. T. Gwathmey. 2pls diags Am Chem Soc J 70:1200-6 Mr '48

Effect of variations in surface on the photolysis of acetone. E. W. R. Steacie and B. D. Darwent. bibliog J Chem Phys 16: 230-2 Mr '48

Heterogeneity of catalyst surfaces; zinc oxide-chromic oxide, manganous oxide-chromic oxide, chromic oxide gel. H. S. Taylor and S. Liang. bibliog Am Chem Soc J 68:2989-91 D '47

Some applications of surface chemistry to problems in colloid science. A. E. Alexander. bibliog Chem Soc J p 1422-5 O '47

Surface chemistry; abstract. H. R. Touchin. Paint Oil & Chem R 11:48-9 My 27 '48

Surface complexes on charcoal; gas evolution as a function of vapor adsorption and of high-temperature evacuation. R. B. Anderson and P. H. Emmett. bibliog diags J Phys & Colloid Chem 51:1308-29 N '47

Surface phenomena useful in vacuum technique. L. Apker. bibliog Ind & Eng Chem 40:846-7 My '48

See also
Adsorption
Contact angle
Films

SURFACE tension

Capillary forces; surface tension. J. C. Calhoun, Jr. Oil & Gas J 46:137 Mr 18 '48

Consideration of the Gibbs theory of surface tension. R. C. Tolman. J Chem Phys 16:758-74 Ag '48

Correlating surface tensions of liquids; a new nomogram. D. F. Othmer, S. Josefovitz and A. F. Schmutzler. bibliog Ind & Eng Chem 40:886-9 My '48

Fluid mechanics; forgotten factor in electroplating. J. B. Kushner. diags Metal Finishing 46:63-7 Ja '48

Properties of freshly-formed surfaces. C. C. Addison and others. diags Chem Soc J p930-43 J '48

Relation of the physical properties of the isomeric alkanes to molecular structure; surface tension, specific dispersion, and critical solution temperature in aniline. H. Wiener. bibliog J Phys & Colloid Chem 52:1032-9 Je '48

Simple method for measuring surface pressures; use of a floating plate. W. Dickinson and J. Iball. diags J Sci Instr 25:362 O '48

Surface tension and conductivity of penicillin salts. W. D. Kumler and E. L. Alpen. Science 107:567 My 28 '48

Surface tension and viscosity of solutions of uranyl salts. W. E. Grant and others. bibliog J Phys & Colloid Chem 52:1227-36 O '48

Surface tension of chloroform. R. Fanelli. bibliog Am Chem Soc J 70:1792-3 My '48

Surface tension of compositions in the systems PbO-B₂O₃ and PbO-SiO₂. L. Shartsis and others. bibliog Am Cer Soc J 31:23-7 Ja 1 '48; Same. J Res Nat Bur Stand 40: 61-6 Ja '48

Surface tension of liquid metals. A. S. Skapski. bibliog J Chem Phys 16:389-93 Ap '48

Surface tension of solids and methods of measuring the same. G. Antonoff. bibliog diag J Phys & Colloid Chem 52:969-75 Je '48

Surface tensions of some optical glasses. Glass Ind 28:579+ N '47

Temperature coefficient of the surface tension of liquid metals. A. S. Skapski. bibliog J Chem Phys 16:386-9 Ap '48

Time-dependence of surface tension of solutions. C. M. Blair, Jr. bibliog J Chem Phys 16:113-16 F '48

See also
Interfacial tension

SURFACES

American standard on surface roughness; symposium of three articles. R. F. Gagg; E. R. Boynton; J. W. Owens. il diags Ind Stand 19:6-13 Ja '48

Application of replica techniques to the study of ceramic surfaces with the optical microscope. A. W. Allen and A. L. Friedberg. bibliog il Am Cer Soc J 31:83-8 Mr 1 '48

Behavior of metal surfaces discussed at annual meeting of Société française de métallurgie. Steel 122:89 Ja 12 '48

La catalyse d'oxydation et l'influence de l'état des surfaces catalysantes. J. Ternisien. bibliog il Chimie & Ind 58:234-7 S '47

Control of surface finish improves quality, cuts cost. H. R. Clauser. il diag Materials & Methods 28:74-7 O '48

Criteria for surface failure. R. Howard. bibliog Engineer 185:203-4 F 27 '48

SURVIVAL (after airplane accidents, shipwrecks, etc.)

Aircraft accidents; can chances of survival be increased? R. E. Hardingham, Roy Aeronautical Soc J 52:477-80 J1 '48; Discussion. 52:566-73 S '48

Army trains personnel for Arctic survival. *il* Refrig Eng 56:142-3 Ag '48

Crash survival chances measured. Aviation W 49:15 Ag 30 '48

SUSPENDED railroads. See Railroads, Suspended**SUSPENSION** bridges. See Bridges, Suspension**SUSPENSIONS**

Settling characteristics of suspensions in water treatment processes. A. A. Kalinske. Am Water Works Assn J 40:113-20 F '48

Sound velocity method for determining the compressibility of finely divided substances. R. J. Urick. *diag* J Ap Phys 18:983-7 N '47

Viscosity of solutions and suspensions. V. Vand. *bibliog* *diags* J Phys & Colloid Chem 52:277-321 F '48

SUSPENSOID process. See Gasoline—Manufacture**SUTHERLAND-BECKER** laboratory products company

Beating life's little annoyances. *il* Bsns W p31-2 S 18 '48

SUTURES

Canned sutures; Ethicon packs tubes of surgical gut in antiseptic fluid in key-opening cans. *il* Mod Packaging 22:102-5 O '48

Surgical use of nylon, rayon and silk. W. Schweisheimer. Rayon 29:79-80 F '48

SWAGING

Application of heat to swaged tungsten permits parts to be machined. D. White and J. J. Aust, Jr. *il* Materials & Methods 27:81 Ap '48

Cost cutting with rotary swaging. A. E. Rylander. *il* *diags* Tool Eng 21:17-20 O '48

What will swaging do? *il* *diags* Am Mach 92:78-84 Ap 22 '48

SWAGING machines

What will swaging do? *il* *diags* Am Mach 92:78-84 Ap 22 '48

SWAMPS. See Marshes**SWANSON**, Charles Oscar, 1869-1948

Sketch. Chem & Eng N 26:403 F 9 '48

SWEDEN

Russia eyes air bases in Sweden. G. H. Smith. Aviation W 46:39 Ap 12 '48

Sweden and the Marshall plan. Economist 154:230-1 F 7 '48

Sweden marks time in foreign and domestic policy. Economist 155:190 J1 31 '48

See also

Cooperation—Sweden	Insurance, Social—Sweden
Education—Sweden	Iron industry and trade—Sweden
Finance—Sweden	Steel industry and trade—Sweden
Housing—Sweden	Wool trade—Sweden
Immigration and emigration—Sweden	

Commerce

Developments under trade and credit agreement with U.S.S.R. For Comm W 33:22-3 O 16 '48

Commercial policy

Belgium-Luxembourg; supplementary trade agreement concluded with Sweden. For Comm W 33:15-16 O 23 '48

France; agreements for exchange of goods concluded with Sweden. For Comm W 32:19 S 18 '48

Modification of understanding reached between the United States and Sweden relative to treatment of American products under Swedish import restrictions. For Comm W 30:22-3 F 28 '48

Second thoughts in Sweden; trade and credit agreement with the Soviet government. Economist 153:766 N 8 '47

Summary of import license and exchange regulations. For Comm W 32:26 Ag 7 '48

Sweden concludes supplementary trade understanding with United Kingdom. For Comm W 32:27-8 S 18 '48

Sweden signs trade and payments agreements with Switzerland. For Comm W 33:25 O 30 '48

Economic conditions

Second thoughts in Sweden. Economist 153:766 N 8 '47

Swedish economy under pressure. Mag of Wall St 81:158 N 8 '47

Politics and government

Socialism in Sweden. Economist 154:102 Ja 17 '48

SWEET potato oil

Beta-carotene from sweet potatoes. W. C. Sherman and C. J. Koehn. *bibliog* Ind & Eng Chem 40:1445-8 Ag '48

SWEET potatoes

Beta-carotene from sweet potatoes. W. C. Sherman and C. J. Koehn. *bibliog* Ind & Eng Chem 40:1445-8 Ag '48

Effect of variety and storage on carotene and total carotenoid pigments in sweet potatoes; abstract. B. D. Ezell and M. S. Wilcox. Food Ind 20:1542 O '48

Flowering of the Jersey type sweet potato. J. J. Mikell and others. *bibliog* Science 107:628 Je 11 '48

Inactivation of 2,4-D on sweet-potato slips with activated carbon. H. F. Arle and others. Science 107:247-8 Mr 5 '48

Peeling with lye; suitable for all peaches, pears and root vegetables. J. G. Woodroof and others. *bibliog* *il* *diags* Food Ind 20:862-9 Je '48

SWELLING

Effect of carbon blacks on swelling of neoprene GRM-10 vulcanizates. N. L. Catton and D. C. Thompson. *bibliog* Ind & Eng Chem 40:1523-6 Ag '48

Shrinkage, swelling and measurements of nylon. *il* Rayon 29:67-9 Ja '48

Viscose rayon fibres; swelling anisotropy and double refraction. J. M. Preston and R. V. Bhat. *bibliog* *diag* Textile Inst J 39:T211-17 Je '48

See also

Coal—Swelling

SWENSRUD, Sidney Anton, 1900-

Portrait. Fortune 38:73 Ag '48

SWIFT and company

Annual report. Comm & Fin Chr 166:2666 D 29 '47

Debentures offered. Comm & Fin Chr 167:1928 My 3 '48

SWIMMING pool water. See Water purification

—Swimming pool water

SWIMMING pools

Empire swimming pool at Wembley. D. Brownlie. *il* Water & Sewage 86:36+ S '48

Engineered design of swimming pools. *il* Eng N 139:870-3 D 25 '47; Discussion. W. A. Becker. 140:724-5 My 13 '48

SWIMMING pools, Concrete

Lewiston has Northwest's first postwar swimming pool; with cost data. W. P. Hughes. *il* Pub Works 79:32-3+ Mr '48

SWINE

Amino acid requirements of swine; tryptophan. W. M. Beeson and others. *bibliog* Science 107:599-600 Je 4 '48

Call for more pigs find farmers eager to comply. Barron's 28:30 S 27 '48

Pig crop, though small, improves meat outlook. Barron's 28:36 Je 28 '48

Yellow fat in swine; abstract. B. W. Beadle and others. Food Ind 20:795 My '48

Prices

Use of variance components in the analysis of hog prices in two markets. R. L. Anderson. Am Stat Assn J 42:612-34 D '47; Correction. 43:242 Je '48

SWINE houses**Lighting**

Would overtime lighting fatten pigs faster? W. J. Parvis. Elec World 129:140 Mr 13 '48

SWITCHBOARDS

New long-scale instruments for modern switchboards. R. M. Rowell and N. P. Millar. *il* *diags* Gen Elec R 51:14-19 Ap '48

Switchboard panels made locally. *il* Elec World 129:123 Ap 10 '48

SWITCHES, Electric. See Electric switchgear

SWITZERLAND

Let Europe consider the Swiss. G. Burck. *il Fortune* 36:114-19+ D '47; Discussion. 37: 26 F '48

See also

Engineering education—Switzerland
Textile machinery industry—Switzerland
Tourist trade—Switzerland
Wages—Switzerland
Woman—Employment—Switzerland

Commerce

U.S. now tops Swiss foreign trade. F. Bek-Andree. *Comm & Fin Chr* 167:714 F 12 '48
U.S. sales lag in Swiss market. *il Ind Marketing* 32:68+ D '47

Commercial policy

Summary of import-license regulations. *For Comm W* 32:26 Ag 7 '48
Sweden signs trade and payments agreements with Switzerland. *For Comm W* 33: 25 O 30 '48

Constitutional law

Swiss constitutional problems and the International labour organisation. J. Secretan. *bibliog Int Labour R* 56:1-20 J1 '47

Economic conditions

Prosperity in Switzerland. *Economist* 154:638-9 Ap 17 '48

Foreign relations

Switzerland and western union. *Economist* 154:381-2+ Mr 6 '48

Industries and resources

Manufacture of shoe polishes. *For Comm W* 31:33 Je 26 '48
Selected Swiss industrial establishments and workers, 1944. *For Comm W* 30:35 Ja 3 '48
Situation in Switzerland's watch industry. *For Comm W* 31:23 Ap 24 '48

SYLVANIA electric products, inc.

Common stock offered. *Comm & Fin Chr* 168:551-2 Ag 9 '48

Outlook better as two lines again show profit. *Barron's* 23:39 Ap 26 '48

Places debentures privately. *Comm & Fin Chr* 168:52 J1 5 '48

SYLVITE

Argon 40 in potassium minerals. L. T. Aldrich and A. O. Nier. *bibliog Phys R* 74:876-7 O 15 '48

SYMBIOSIS

Symbiosis, antibiosis and cancer. E. V. Cowdry. *Science* 107:101-4 Ja 30 '48

SYMBOLS

Modern Tower of Babel. J. A. Thomén. *J Eng Educ* 38:156-8 O '47
Scientific and technical abbreviations, signs and symbols. O. T. Zimmerman and I. Lavine. 476p \$7.50 Industrial research service, Masonic bldg, Dover, New Hampshire '48

See also

Electric symbols
Gas turbines, Aircraft—Symbols
Mathematical symbols
Welding—Symbols

SYMMETRY, Dynamic

Dynamic symmetry in pier design. W. J. LaFleur. *il diags Concrete* 56:6-10 My '48

SYMPATHECTOMY

Indications for sympathetic block and sympathectomy in traumatic and associated conditions. T. R. Adams. *bibliog Ind Med* 17:17-20 Ja '48

SYMPATHIN

Chemical structure and the definition of sympathin. E. A. S. Marrazzi and R. N. Marrazzi. *bibliog Science* 106:520-1 N '48 '47

Facts and theories about sympathins. Z. M. Bacq. *il Science* 108:135 Ag 6 '48

Sympathin E and nor-adrenaline. U. S. v. Euler. *Science* 107:422 Ap 23 '48

SYMPATHOMIMETIC substances

Conversion of sucrose into thiazole derivatives; 2,4-dimethylthiazole derivatives and 2,4,5-trimethylthiazole. H. Gregory and L. F. Wiggins. *Chem Soc J* p 1400-3 O '47
Nature and spatial relationship of the prosthetic chemical groups required for maximal muscarinic action. C. C. Pfeiffer. *bibliog Science* 107:94-6 Ja 23 '48

SYNAGOGS

Synagogue reroofed with aluminum. *il Sheet Metal Worker* 38:55 D '47

SYNCHRONIZING

Automatic synchronization of Diesel-generators. *diag Diesel Power* 26:54+ Ja '48

Differential registers synchronous speed; adjustment between a roughing and finishing wood planer. J. H. Gephert. *diag Machine Design* 20:115-16 Ap '48

Engine-synchronizer controls speed and phasing. *il diag Product Eng* 19:97 S '48

Operation of induction motors in synchronism. T. F. Wall. *diags Engineering* 164: 577-90 D 19 '47

Synchronization of oscillators. R. D. Huntoon and A. Weiss. *diags Inst Radio Eng Proc* 35:1415-23 D '47

See also

SYNCHROSCOPE

Synchroneous motors. See Electric motors, Synchronous

SYNCHROSCOPE

Polyphase power synchroscope. E. B. Kurtz and R. H. Burkhardt. *il diags Electronics* 21:152+ Ag '48

Synchroscope designs. R. M. Rowell and E. E. Lynch. *il diags Gen Elec R* 50:20-5 N '47

What is synchroscope connection reference? steam-electric, hydro and utility plant connected to bus. *diags Power* 91:862-4+ D '47

What the synchroscope does, and how it works. J. Wilson. *il diags Power* 92:146-9 Mr '48

SYNCHROTRON

Construction of Cornell university's new high-voltage synchrotron. *Science* 107:339 Ap 2 '48

Design of an air core synchrotron. J. P. Blewett. *diags J Ap Phys* 18:976-82 N '47

Design study for a ten-Bev magnetic accelerator. W. M. Brobeck. *plan diags R Sci Instr* 19:545-51 S '48

Effect of vacuum-tube size on X-ray output of a synchrotron. F. R. Elder and others. *diags R Sci Instr* 19:121-2 F '48

Experiments on the design of synchrotron magnets. W. C. Parkinson and others. *diags R Sci Instr* 18:734-8 O '47

New method for displacing the electron beam in a betatron (synchrotron). R. Wide-rie. *diags R Sci Instr* 19:401-2 Je '48

Prebunching; a method controlling synchrotron radial oscillation amplitudes. D. C. dePackh and M. Birnbaum. *J Ap Phys* 19:795 Ag '48

Radiation from electrons accelerated in a synchrotron. F. R. Elder and others. *bibliog il Phys R* 74:52-6 J1 '48

Scattering of particles by the gas in a synchrotron. N. M. Blachman and E. D. Courant. *Phys R* 74:140-4 J1 15 '48; Correction and additions. 75:315 Ja 15 '49

70,000,000-v synchrotron for Queen's university. *il Can Chem & Process Ind* 32:59 Ja '48

Synchrotrons; abstract. H. C. Pollock. *il Elec Eng* 67:587 Je '48

Waves and electrons traveling together; a comparison between traveling wave tubes and linear accelerators. L. Brillouin. *Phys R* 74:90-2 J1 '48

World's accelerators; map showing those known to U.S. physicists. *Sci Am* 179:18-19 O '48

SYNDICATE service, Newspaper. See Newspapers—Syndicate service

SYNDICATED advertisements. See Advertisements, Syndicated

SYNONYMS

Laird's promptory; a dictionary of synonyms and antonyms and specific equivalents. C. Laird. 957p \$4.95 H. Holt & co, 257 Fourth av, New York 10 '48

Thesaurus of English words and phrases; classified and arranged so as to facilitate the expression of ideas and to assist in literary composition. P. M. Roget, new ed rev & enl 705p \$1 World publishing co, 2231 W. 110th st, Cleveland 2 '48

SYNTHESIS

Analgesics; a new synthesis of aminophthalidylalkanes. G. E. Ulliyot, H. W. Taylor, Jr and N. Dawson. *bibliog Am Chem Soc J* 10:542-5 F '48

SYNTHESIS—Continued

- Application of the Hofmann reaction to the synthesis of heterocyclic compounds; the synthesis of 9-*D*-mannopyranosidoxanthine and of 9-*D*-ribosepyranosidoxanthine. R. A. Baxter, A. C. McLean and F. S. Spring. *Chem Soc J* p523-5 Ap '48
- Applications of the fluid catalyst technique to catalytic cracking and hydrocarbon synthesis. R. W. Krebs. *bibliog il diag Pet Refrner* 27:115-20 My '48
- Appraisal of gas synthesis operations. R. C. Alden and A. Clark. *bibliog Pet Processing* 3:425-30 My '48
- Aromatic cyclodehydrogenation; synthesis of ring oxygen compounds. M. Orchin. *Am Chem Soc J* 70:495-7 F '48
- Attempts to prepare new aromatic systems; cyclopentindene; phenylcyclopentanecarboxylic acids, and derived ketones. W. Baker and W. G. Leeds. *Chem Soc J* p974-80 JI '48
- Chemistry of the insoluble red woods; a new synthesis of 4-hydroxycoumarins. J. Boyd and A. Robertson. *Chem Soc J* p 174-6 F '48
- Commercial application of hydrocarbon synthesis in the United States. J. E. Latta and S. W. Walker. *diags Chem Eng Prog* 44:173-6 F '48
- Critical review of chemistry of oxo synthesis for production of alcohols from olefins, carbon monoxide, and hydrogen. I. Wender and M. Orchin. *pl U S Bur Mines Rep of Invest* 4270:1-26 '48
- Experiments on the synthesis of purine nucleosides; a synthesis of adenosine. J. Davoll, B. Lythgoe and A. R. Todd. *Chem Soc J* p67-9 JI '48
- Experiments on the synthesis of purine nucleosides; a synthesis of 9-*D*-glucopyranosidoadenosine. A. Holland, B. Lythgoe and A. R. Todd. *Chem Soc J* p65-7 JI '48
- Experiments on the synthesis of purine nucleosides; the preparation of 4-glycofuranosidaminopyrimidines, and a synthesis of 9-*L*-arabofuranosid-2-methylthioadenine. G. W. Kenner, B. Lythgoe and A. R. Todd. *Chem Soc J* p957-64 JI '48
- Fluid solids technique; applications in the petroleum industry. E. V. Murphree and others. *diag Inst Pet J* 33:617-19 O '47; Same. *Pet Processing* 3:358 Ap '48
- Kinetics of carbiding and hydrocarbon synthesis with cobalt Fischer-Tropsch catalysts. S. Weller. *bibliog diag Am Chem Soc J* 69:2432-6 O '47
- New synthesis and confirmation of the structure of amidone. N. R. Easton, J. H. Gardner and J. R. Stevens. *bibliog Am Chem Soc J* 69:2941-2 D '47
- New synthesis of atranol (2,6-dihydroxy-4-methylbenzaldehyde) and the corresponding cinnamic acid. R. Adams and J. Mathieu. *bibliog Am Chem Soc J* 70:2120-2 Je '48
- New synthesis of organosilicon compounds. E. W. Pietrusza, L. H. Sommer and F. C. Whitmore. *bibliog Am Chem Soc J* 70:484-6 F '48
- New synthesis of *DL*-serine. J. A. King. *bibliog Am Chem Soc J* 69:2738-41 N '47
- New synthesis of *DL*-threonine. J. Attenburrow, D. F. Elliott and G. F. Penny. *Chem Soc J* p310-18 Mr '48
- 3-Nitrofluorenone. F. E. Ray and J. G. Barrick. *bibliog Am Chem Soc J* 70:1492-4 Ap '48
- Nitrogen analogs of hexestrol; the synthesis of *N,N*-dimethyl- α,α' -bis-(4-hydroxyphenyl)-ethyleneamine and derivatives. J. B. Niederl and M. I. Dexter. *Am Chem Soc J* 70:3071-3 S '48
- Organic silicon compounds; symposium. H. D. Cogan and others. *il Ind & Eng Chem* 39:1354-409 N '47
- Preparation of synthetic estrogens. K. Sisido and H. Nozaki. *bibliog Am Chem Soc J* 70:776-9 F '48
- Problem of molecular asymmetry based on isotopic differentiation of hydrogen; an attempted asymmetric synthesis by the Marckwald method. D. J. G. Ives and M. R. Nettleton. *Chem Soc J* p 1085-8 JI '48
- Studies on the structure of colchicine; syntheses in the biphenyl series. H. R. Frank, P. E. Fanta and D. S. Tarbell. *Am Chem Soc J* 70:2314-20 JI '48
- Symposium on production of synthesis gas. A. R. Powell; L. L. Newman and others. *bibliog flow diags il diags Ind & Eng Chem* 40:558-641 Ap '48
- Synthesis and optical resolution of 4,5,8-trimethyl-1-phenanthrylacetic acid. M. S. Newman and A. S. Hussey. *Am Chem Soc J* 69:3023-7 D '47
- Synthesis and reduction of difluorodecanoic acid derivatives. M. S. Newman, M. W. Renoll and I. Auerbach. *bibliog Am Chem Soc J* 70:1023-4 Mr '48
- Synthesis of derivatives of β -carboline; syntheses from *DL*-tryptophan and aldehydes. H. R. Snyder and others. *bibliog Am Chem Soc J* 70:219-21 Ja '48
- Synthesis of 1,3,5-estratrien-3-ol-16-one, a structural isomer of estrone. A. L. Wilds and T. L. Johnson. *bibliog Am Chem Soc J* 70:1166-75 Mr '48
- Synthesis of ethylene urea (imidazolidone-2); development of processes. J. F. Mulvaney and R. L. Evans. *bibliog flow sheets Ind & Eng Chem* 40:393-7 Mr '48
- Synthesis of *N*-(3-methoxybenzyl)-*N*-methyl-3-methoxy-4,5-methylenedioxyphenethylamine. A. R. Surrey. *bibliog Am Chem Soc J* 70:2387-90 S '48
- Synthesis of products related to vitamin A; the application of the Darzens reaction to β -ionone. N. A. Milas and others. *bibliog Am Chem Soc J* 70:1584-91 Ap '48
- Synthesis of products related to vitamin A; the synthesis of biologically active vitamin A esters. N. A. Milas and others. *bibliog Am Chem Soc J* 70:1597-607 Ap '48
- Synthesis of products related to vitamin A; the synthesis of 1-(cyclohexen-1-yl)-3-methyl-3-epoxybutyne-1 and related products. N. A. Milas, N. S. MacDonald and D. M. Black. *bibliog Am Chem Soc J* 70:1829-34 My '48
- Synthesis of products related to vitamin A; the synthesis of [1-(2',6',6'-trimethylcyclohexen-1'-yl)-3,7-dimethyldeca-1,3,5,7-tetraenyl]-10-ethyl ether. N. A. Milas and others. *bibliog Am Chem Soc J* 70:1591-6 Ap '48
- Synthesis of 2-pyrimidinethiols. R. A. Mathes, F. D. Stewart and F. Swedish, Jr. *Am Chem Soc J* 70:1452-3 Ap '48
- Synthesis of ring systems related to morphine; 9, 10-dioxo-13-cyanomethyl-5,8,9,10, 13,14-hexahydrophenanthrene. M. Gates and W. F. Newhall. *Am Chem Soc J* 70:2261-3 Je '48
- Synthesis of some *p*-arylsulphonylbenzaldehydes and related aldehydes and ketones. H. Burton and P. F. Hu. *Chem Soc J* p601-3 My '48
- Synthesis of some aryl 2-thienyl sulphones and the nitration of thiophen-2-sulphonyl chloride. H. Burton and W. A. Davy. *Chem Soc J* p525-7 Ap '48
- Synthesis of some derivatives of 3:4-diphenyl-*n*-hexane. G. Fodor and J. Wein. *Chem Soc J* p684-7 My '48
- Synthesis of some long-chain primary alcohols and related compounds. R. G. Jones. *bibliog Am Chem Soc J* 69:2350-4 O '47
- Synthesis of some substituted thiocarbazones. D. S. Tarbell and others. *bibliog Am Chem Soc J* 70:1381-5 Ap '48
- Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and *m*-xylene, by dehydrogenation of corresponding cyclohexene intermediates. T. W. Reynolds and others. *bibliog Ind & Eng Chem* 40:1751-2 S '48
- Synthesis of unsaturated fatty acids. K. Ahmad and F. M. Strong. *bibliog Am Chem Soc J* 70:1699-700 My '48
- Synthetic studies in the steroid series; use of methyl γ -bromocrotonate in the synthesis of fused-ring hydroaromatic ketones. J. W. Cook and R. Philip. *Chem Soc J* p 162-4 F '48
- Use of zinc alkyls in the preparation of hydrocarbons with a quaternary carbon atom. F. R. Buck and others. *diags Inst Pet J* 34:339-69 *bibliog*(58 ref, p369) My '48

SYNTHESIS—Continued

Vapor phase catalytic synthesis of thianaphthenes. C. Hansch and W. A. Blondon. *bibliog Am Chem Soc J* 70:1561-3 Ap '48

See also

Darzens reaction

Study and teaching

Laboratory course in aromatic chemistry based on sequence syntheses. M. M. Baizer. *bibliog J Chem Educ* 25:336-7+ Je '48

SYNTHETIC fuel. See Liquid fuel

SYNTHETIC organic chemical manufacturers association

Annual spring outing. Shawnee-on-Delaware, Pa. May 25-27. Oil Paint & Drug Rep 153:54+ My 31 '48

Re-elects officers. *Chem & Eng N* 25:3850 D 29 '47

SOCMA continues export-control group. Oil Paint & Drug Rep 153:5 Ap 19 '48

SYNTHETIC products

Case for synthetics; will they ultimately banish natural materials? *Chem Age (Lond)* 58:527 Ap 17 '48

Catalytic treatment of synthetic gasoline. C. J. Helmers and others. *bibliog Oil & Gas J* 47:86+ O 28 '48

Glycerine from petroleum; Shell chemical corp. D. P. Thornton, jr. flow diag *il Pet Processing* 3:931-4 O '48

Krug plan seen as challenge to industry synthetics program. A. L. Sollday. *Oil & Gas J* 46:110-11 Ap 1 '48

Man-made materials resisted price trend; light metals, plastics, among those which improved competitive position. J. V. Sherman. *Barron's* 28:31-2 F 16 '48

Synthetic alcohol from petroleum. R. S. Aries. *il diag Oil & Gas J* 46:108-10+ Mr 18 '48

Synthetic detergents have many uses. *Mech Eng* 70:439 My '48

Synthetic glycerin plant goes on stream. A. L. Foster. *il diag Pet Eng* 20:274-7 O '48

Synthetic liquid fuels in the United States. W. C. Schroeder. *il Mech Eng* 69:989-95 D '47

Synthetic oil, no threat to petroleum industry. E. Kaskeline. *Barron's* 28:32 Ap 5 '48

World's first synthetic glycerine plant opens at Houston. L. S. McCaslin, jr. now chart *il Pet Refiner* 27:112-14 O '48; Same cond. *Oil & Gas J* 47:83-90+ S 16 '48

See also

Resinous products

Textile fibers, Synthetic

SYNTHOL process. See Gasoline, Natural—Manufacture—Synthol process

SYNTILON. See Plastic films

SYPHILIS

Derivatives of 3-amino-4-hydroxybenzenearsonic acid. L. A. Sweet and others. *bibliog Am Chem Soc J* 69:2258-9 O '47

Serological tests for industrial workers. W. Clarke. *Ind Med* 16:538-9, 567-9 N-D '47

Techniques in evaluation of rapid anti-syphilitic therapy. A. P. Iskrrant and others. *Pub Health Rep* 63:965-77 JI 23 '48

SYRACUSE, New York

Citizens foundation

Weed killing in the grassroot area; anti-Communist measures. *il Mill & Factory* 43:117-20 JI '48

Water supply

Extension of number three conduit. E. P. Stewart. *il Am Water Works Assn J* 40: 657-62 Je '48

SYRIA

See also

Railroads—Syria

Economic conditions

Economic conditions during second quarter of 1948. *For Conm W* 32:27-8 S 4 '48

SYRINGALDEHYDE

Synthesis of syringaldehyde. I. A. Pearl. *bibliog Am Chem Soc J* 70:1746-8 My '48

Analysis

Determination of vanillin and related compounds after treatment with alkali; a spectrophotometric method. H. W. Lemon. *bibliog Anal Chem* 19:846-9 N '47

SZILARD-CHALMERS reaction

Reactions of carbon tetrachloride with bromine activated by isomeric nuclear transition and by the neutron-gamma reaction. J. E. Willard. *bibliog diag J Phys & Colloid Chem* 52:585-94 Mr '48

Szilard-Chalmers reaction in the chain-reacting pile. R. R. Williams. *J Phys & Colloid Chem* 52:603-11 Mr '48

SZYMCAK, Menc Stephen, 1894-

New Federal Reserve plan? *Bsns W* p98+ O 23 '48

1

TCC process. See Gasoline—Manufacture

TDE. See Tetrachlorodiphenylethane

TABLE mats

Self-displaying boxes; inner pulley-cord arrangement enables automatic opening; Silastic table mats. *il diags Mod Packaging* 22: 124-5 O '48

TABLE tennis. See Ping pong

TABLES, Steel

New packing tables designed with many sanitary features; stainless steel tables. J. V. Ziembra. *il diags Food Ind* 20:188-9 F '48

TABLETS (paleography)

If a slave girl died; law code of Lipit-Ishtar, antedates code of Hammurabi. F. R. Steele. *il Sci Am* 178:44-7 Je '48

TABLEWARE

Dinnerware production nears war-time peak. *il Cer Ind* 49:76 D '47

Recent trends in the ceramic industry; china tableware. *il Chem Eng* 55:130 JI '48

Manufacture

Overcasting handles on jiggered cups. R. Gould. *il Cer Ind* 49:89-90 O '47

Preparation of ware for the bisque fire. R. Gould. *diag Cer Ind* 49:77-9 D '47

Production flow charts; chinaware. *Factory Management* 106:96a-96c Mr '48

Raw materials, and methods of body preparation. R. Gould. *Cer Ind* 49:82+ N '47

Sand blast machine cleans ware in one-third time. *il Cer Ind* 50:144 Ap '48

TABLEWARE, Plastic

Housewares award to Tupper corp. *il Mod Plastics* 26:134-5 S '48

Merchandising award to American cyanamid company. *il Mod Plastics* 26:144-7 S '48

Tupperware makes whirlwind debut via big store demonstrations. B. G. Priestley. *il Sales Management* 60:106+ Ap 15 '48

Weight-saving on tableware sells plastics to airlines. *il Plastics* 8:58+ Mr '48

TABLOIDS. See Newspapers

TABULATING machines

How to fit mechanical tabulating equipment into a specific accounting system. W. J. Wiley. *J Account* 85:224-7 Mr '48

Short cut in job evaluation; use of mechanical tabulating machines. G. S. Fitz-Patrick. *il Mill & Factory* 42:115-17 Ap '48

TABULATION

How to save time and money on the tabulation of surveys. P. L. Erdos. *Ptr Ink* 222: 36-7 F 13 '48

TACHOGRAPH

Truck operation recorders; how they aid safety, reduce maintenance costs. W. M. Pritchard. *Nat Pet N* 40:37+ Je 2 '48

TACHOMETERS

Supersensitive tachometer. E. B. Brown. *diag J Sci Instr* 25:47-8 F '48

Testing

Tachometer testing facilities increased electronically. H. H. Chamberlain. *il diags Gen Elec R* 61:15-18 My '48

TACKINESS meter

Improved tackiness meter. J. M. Lambert and R. A. McDonald. *il diag R Sci Instr* 19:119-20 F '48

Tack of wax films. H. R. Broll and others. *bibliog il Soap & San Chem* 24:151+ Je '48

TACOMA, Washington**Bridges**

Aerodynamic stability of suspension bridges. F. B. Farquharson. *il diag Western Soc E J* 52:141-52 S '47

Tacoma Narrows bridge; reconstruction to follow design resulting from extensive wind tunnel research. *diags Roads & Sts* 90:72-3+ D '47

Unusual design problems; second Tacoma Narrows bridge. C. E. Andrew. *il diags Am Soc C E Proc* 73:1483-97 *bibliog* (p 1495-7) D '47; *Discussion*. 74:985-92 Je '48

Water supply

Tacoma lays four miles of 58-inch pipe. A. R. McPherson. *il Pub Works* 79:29+ Ag '48

TACONITE

Completes new laboratory for study of taconite concentration; Oliver iron mining co. flow sheet *il Steel* 122:108+ My 10 '48

Iron from low-grade ores assures steel for the future. *il Bsns W* p52-5 J1 17 '48

Laboratory-developed concentration processes bolster iron ore reserves; Oliver iron mining co. *il Civil Eng* 18:648 O '48

Research laboratory of Oliver mining co. opened to public. *Iron Age* 161:150-1, 157 My 13 '48

Taconite project; harbor for Reserve Mining's iron-ore extracting operation in Minnesota. *Bsns W* p26 Ja 3 '48

Taconite research laboratory. *il Min Cong J* 34:60 My '48

Taconite to be concentrated. *Blast F & Steel* p36:694 Je '48

U.S. Steel pushes ore research. *il Iron & Steel Eng* 25:92-3 My '48

TAFT, Robert Alphonso, 1889-

Opposes restoration of economic controls; radio address. *Comm & Fin Chr* 166:2046+ N 20 '47

Portrait. *Bsns W* p22 D 20 '47

TAFT-Elliender-Wagner bill. See Housing laws—United States**TAFT-HARTLEY law. See Labor laws and legislation—United States—Taft-Hartley law****TAGS**

How to train salesmen to use informative label in selling; Westinghouse Electric tags. E. J. Hegarty. *il Ptr Ink* 224:51-2+ S 24 '48

Tags tote sales load for Bean-Cutler's orchard sprayer. *Sales Management* 60:120-1 Je 15 '48

TAILINGS

Concentration of gravity tailings from the Grasselli deposit, Park City, Utah. T. F. Mitchell and others. *2pls U S Bur Mines Rep of Invest* 4159:1-18 '47

TAILOR shops

Texas branch for a custom tailor. *il plans diag Arch Forum* 88:120 My '48

To sell tailoring first, then merchandise; Carver's, custom tailors, Los Angeles, Calif. M. Ketchum, Jr. *il plan Arch Rec* 103:136-7 Ap '48

TAILORING

Can a camera make over the clothing business? *PhotoMetric tailoring*. *il Am Bsns* 18:12-13+ Ag '48

PhotoMetric; new idea for men's clothing. *il Fortune* 38:106-7+ J1 '48

TAILORS

Importing labor; Hickey-Freeman gets 100 tailors. *Bsns W* p23 Mr 6 '48

TAINTER gates. See Gates, Hydraulic**TAKINS, Fossil**

Budorcas, a new element in the proto-historic Anyang fauna of China. C. Young. *bibliog il map Am J Sci* 246:157-64 Mr '48

TALC

Relationship of specific surface factor of talcs to slipp viscosity and dry-pressure characteristics. W. W. Gaskins. *diag Am Cer Soc J* 31:30-2 Mr 1 '48

Sédimentation et granulométrie des talcs. C. Rossi and R. Baldacci. *bibliog Chimie & Ind* 58:233-7 S '47

Talc production, sales; 1947 and 1946. *Oil Paint & Drug Rep* 154:68 Ag 23 '48

TALL oil

By-products from the kraft pulping of pine woods. O. Kress. *Pulp & Pa of Can (Convention no)* 49:166-8+ [F] '48; Same cond. *Paper Ind* 30:302-3 My '48

Composition of German tall oil soaps; abstract. A. Noll. *Soap & San Chem* 24:77 Mr '48

1947 output expected to hit peak. *Oil Paint & Drug Rep* 152:82 N 10 '47

Sex hormones from tall oil; abstract. T. Enkvist. *Paper Ind* 29:1676 F '48

Standard terms relating to tall oil; TAPPI tentative standard O 405 p-48. *Paper Tr J* 126:54 My 20 '48

Tall oil. W. A. Wachholtz. *Paint Oil & Chem R* 111:28+ My 27 '48

Tall oil. D. H. Wheeler. *il Paint Oil & Chem R* 111:24-8 S 2 '48

Tall oil production in Germany. *Oil Paint & Drug Rep* 153:78 F 9 '48

Tall-oil soaps; abstract. F. D. Snell and others. *Chem Eng* 55:274 Je '48

Analysis

Potentiometric method for determination of acid, saponification, and rosin acid values of tall oil; abstract. C. A. Snell. *Soap & San Chem* 23:83+ N '47

Progress of tests of electrometric methods for tall oil analysis by ASTM. A. Pollak and others. *Paper Tr J* 126:51-4 Mr 4 '48

Seasonal and geographical variations in tall oil composition. W. H. Jennings. *Paper Tr J* 126:137-8 F 26 '48

TALLOW

Directed interesterification in glycerides. E. W. Eckey. *bibliog Ind & Eng Chem* 40:1183-90 J1 '48

Tallow acids. J. R. Skeen. *Soap & San Chem* 24:45+ Ag '48

Tallow; what next? consumption and price statistics. J. R. Skeen. *Soap & San Chem* 23:42-3 N '47

What's behind the tallow price advance? *Soap & San Chem* 24:37-8 J1 '48

TAMARIND seed

Comparison of the gel setting properties of polyose from tamarind seed (tamarindus indica Linn) with fruit pectins. G. R. Savur and A. Sreenivasan. *bibliog Soc Chem Ind J* 67:190-3 My '48

TAMPA electric company

Bonds offered. *Comm & Fin Chr* 167:692-3 F 9 '48

TAMPING machines

Powerful earth tamper affects large areas; Vibroflotation machine. *il Comp Air Mag* 53:46 F '48

TANBERG, Arthur Percival, 1885-

Du Pont chemist retires. *Paint Oil & Chem R* 110:8 D 11 '47

TANGIER, Morocco

Boom town. *Fortune* 37:138 Ap '48

TANK barges

Midwest operator declares barge deliveries can be stepped up ten per cent. *Nat Pet* N 40:30+ F 4 '48

Welded steel barge stores standby oil; Pittsburgh plate glass co. *il Heating-Piping* 20:93 Je '48

TANK cars

Bulk packaging of chemicals; Chem. and Met. report; cars that chemicals use; tabulation. *il Chem Eng* 55:133-4 Ap '48

Commercial chemical development of butadiene; transportation and handling. J. H. Boyd. *bibliog il Ind & Eng Chem* 40:1703-7 S '48

Committee on tank cars; A.A.R. report. *Ry Age* 125:72-3 J1 10 '48

Modifications of tank-car specifications; A.A.R. Mechanical division. *Ry Mech Eng* 122:429-30 Ag '48

ODT must revive 200-mile rule on tank cars. *Nat Pet* N 39:46 N 26 '47

Types of tank cars. W. L. Nelson. *Oil & Gas J* 47:323-4 S 23 '48

See also

Loading and unloading—Tank cars

TANK ships

- Alaska. Standard has first major overhaul in 24 years. *il* Pet Eng 20:341-2 O '48
- Chemicals ride the waves. *il* Chem Ind 63: 585-6 O '48
- Contracts for 18 tankers awarded last month to cost \$85,000,000. *Marine Eng* 53:38-40 F '48
- Modern oil tanker design.** F. L. Pavlik, *diag* *Marine Eng* 53:53-9 Ap '48
- Record building time planned for super-tankers. *Marine Eng* 53:42-4 My '48
- Shearing stress distribution in box girders with multiple webs. A. S. Neiman, *diags* *Am Soc C E Proc* 74:161-7 F '48; *Discussion*, 74:1041-4 Je '48
- Sinclair refining company tankers. *il* *Marine Eng* 52:73+ N '47
- Super-tanker characteristics. *Marine Eng* 53:59-60, 96 Ag '48
- Supertankers; shipyards get orders. *Bsns W* p50+ Mr 6 '48
- Super-tankers to augment deep sea fleets. *diag* *World Oil* 128:232+ My '48
- T2-SE-A1 class tanker, James Island. *il* *diags* *Marine Eng* 52:94-6+ N '47
- Tanker, Gulfbe, enters service. *il* *plans* *diags* *Marine Eng* 53:36-46 Ap '48
- Tanker, Stanvac Calcutta of T-3 class. *il* *diags* *Marine Eng* 52:90-1 N '47
- Tanker transportation and remarks on inland-waterway operations. M. G. Gamble. *Am Pet Inst Proc* 27(5):16-18 '47; *Same cond.* *Nat Pet N* 39:56-7 N 12 '47; *Excerpts*. *Oil & Gas J* 46:311 N 15 '47
- Tanker trouble; selling surplus tankers abroad may boomerang with oil pinch looming. *Bsns W* p22 N 8 '47
- Temporary repairs to tanker Markay; abstract and discussion. A. Reid. *Engineering* 165:400-1 Ap 23 '48
- Todd shipyards stress-relieving tankers. *il* *Marine Eng* 52:110+ D '47
- U.S. tanker tonnage now 30 per cent below 1946. *Barron's* 28:29 *Jl* 12 '48
- World tank ship fleets as of Oct. 1, 1947, actual number, gross and deadweight tonnage and T2-SE-A1 equivalent tonnage; tabulation. *World Oil* 127:Yrbk 234 F '48
- World tanker fleet now adequate for current needs and still growing. *il* *Oil & Gas J* 47:52-4 *Jl* 22 '48
- World tanker fleets increased 63 per cent in past nine years, analysis shows. B. Saurino. *Nat Pet N* 40:41-3 Ag 4 '48
- World's tanker fleet. *Marine Eng* 52:80 D '47
- World's tanker fleet. *il* *Oil & Gas J* 46:228-31 D 27 '47

Fires and fire protection

- Hazards in tanker pump rooms. R. G. Wooler. *Marine Eng* 53:92+ Mr '48

Safety measures

- Nonex vents for oil-tanks. *il* *diags* *Engineering* 164:440 N 7 '47

Testing

- Experimental voyage of the tanker Niso; investigating behaviour of welded as compared with riveted ships. G. M. Boyd and others. *Engineering* 165:175 F 20 '48

TANK truck drivers

- Bonus plan helps fuel oil distributor reduce costs. F. C. Sturtevant. *Nat Pet N* 39:30+ N 5 '47

- Five-day truck driver training program planned for operation at local level. H. Ridder. *il* *Nat Pet N* 40:31-2+ O 27 '48

TANK trucks

- Fire fighting revolution; J. E. Holden converts oil truck into a fire engine. P. W. Kearney. *Nat Safety N* 57:30-1+ F '48

- Four-point plan to better competitive position of for-hire carriers urged; abstract. C. A. Sutherland. *Nat Pet N* 39:41-2 N 5 '47

- Future problems of transportation of petroleum by highway. J. W. Sinclair. *Am Pet Inst Proc* 27(5):24-7 '47; *Same abr.* *Nat Pet N* 39:43+ N 12 '47; *Same cond.* *Oil & Gas J* 46:275+ N 15 '47

- Mutual problems of oil transporter, marketer. F. Baird-Smith. *Nat Pet N* 40:28+ My 5 '48

- Norway solves a fuel problem; uses largest tractor-trailer in Scandinavia. *il* *Diesel Power* 26:49 *Jl* '48

- Oil tank truckers expect to set new records in '48. C. A. Sutherland. *Nat Pet N* 40: 19-20 *Jl* 28 '48

- Preventive maintenance to fit the needs of oil marketers. H. Ridder. *Nat Pet N* 40: 21-2+ F 4; 42-3+ F 11; 24-6 F 13; 30+ F 25; 36 Mr 3; 50+ Mr 10; 30+ Mr 17 '48

- Time, dollars and headaches can be saved by co-ordinating planning and purchasing in adding new tank trucks to a fleet. H. Ridder. *diag* *Nat Pet N* 40:29+ S 15 '48

- Truck delivery of fuel oil appeals to industrial users. *il* *Nat Pet N* 40:37-8 Ap 14 '48

Fires and fire protection

- 11 states require separate pumps, meters for split heating oil, gasoline delivery. A. R. Patla. *Nat Pet N* 40:34 S 29 '48

TANKERS. See Tank ships**TANKS**

- Economical rinse tank design in electroplating operations and other processes. J. B. Mohler. *diags* *Iron Age* 161:76-7+ Ap 15 '48

- Four case studies in the insulation of tanks. J. C. Moore. *il* *Chem Eng* 55:110-11 Je '48
- Cunite lined tanks save on thickener cost. *Chem Eng* 54:140 D '47

- Heat losses from tanks, vats and kettles. S. J. Friedman. *bibliog* *diags* *Heat & Ven* 45:94-108 Ap '48

- How to insulate tanks with new mineral wool board form. *il* *Sheet Metal Worker* 39:56 Ap '48; *Same cond.* *Power Generation* 52:102 Mr '48

- New type tank expedites plastic dipping operations. *il* *Iron Age* 161:72 Ja 15 '48

See also

- | | |
|----------------------|------------------|
| Alrplanes—Fuel tanks | Pressure vessels |
| Boilers | Settling tanks |
| Gas holders | Sewage tanks |
| Imhoff tanks | Tank ships |
| Oil tanks | Tank trucks |
| | Water tanks |

Cleaning

- Explosion and poison hazards; Ministry of labour study of causes and safeguards. *Chem Age (Lond)* 58:708-10 My 22 '48

Heating

- See also*
Oil tanks—Heating

Measurement

- Calibration of cylindrical tanks with axis inclined. W. L. Coats. *diags* *tables* *Inst Pet J* 34:627-26 S '48

- Effect of fluid pressure on capacity of vertical storage tanks. W. E. Splain. *diag* *Pet Processing* 3:937-8 O '48

- How to find radius of a tank. P. C. Zeimke. *diag* *Chem Eng* 55:136 Ja '48

- Method for estimating dimensions of vertical cylindrical tanks. S. Yokell. *Chem Eng* 55: 131 O '48

- Slide rule for rapid computation of volumes of cylindrical, conical and rectangular tanks. A. B. Babcock, jr. *il* *Chem Eng* 55:142-3 My '48

- Sounding scales for a horizontal cylindrical tank. *diag* *Marine Eng* 53:86 Ap '48

- Tank calibration. *il* *diags* *Inst Pet J* 34:288-308 Ap '48

- These short-cuts will speed your design and estimation of tanks; six charts. E. H. Coe. *diags* *Chem Eng* 55:107-9 S '48

- Universal tank-capacity scales; data sheet. W. H. Wieboldt. *Power* 92:437 *Jl* '48
- Volume determination of tanks. T. F. Phillips. *diags* *Pet Eng* 19:174+ Mr '48

Repair

- Crowded storage tanks quickly repaired. A. H. Bayer. *diags* *Chem Eng* 55:124-5 Mr '48

Ventilation

- See also*
Oil tanks—Venting

TANKS, Aluminum

- Aluminum tanks for inside storage of oil. *Heat & Ven* 45:122+ Ja '48

TANKS, Aluminum—Continued

Aluminum tanks for oil storage. Safety Eng 96:34 S '48

Field-erected storage tanks of aluminum. F. L. Plummer, bibliog il Welding J 27:796-804 O '48

TANKS, Concrete

See also

Septic tanks, Concrete Water tanks, Concrete

TANKS, Military

Speech communication under conditions of deafness or loud noise; data concerning noise in armoured fighting vehicles. W. G. Radley, bibliog il Inst E E J 95 pt 1:204-12; Discussion. 212-16 My '48

See also

Flame throwers

TANKS, Ship model. See Ship model tanks

TANKS, Steel

Innovations in degreasing tanks; solutions to remove rolling mill surface oil create ventilation problem. il Sheet Metal Worker 39:64-5 My '48

Radiographing and controlled low-temperature stress relieving of welded tanks for wet seal gas holder. R. Kraus, bibliog il diags Welding J 26:1073-9 D '47

Report of committee on the standardization of tanks for oil storage. diags Am Pet Inst Proc 27(4):333-50 '47

See also

Rheem manuf.-turing company
Water tanks, Steel

Lining

Carbon brick tank linings used for pickling stainless steels. il Steel 123:101+ Ag 2 '48

Resistant lining for alum boiling tanks; thermoplastic, non-porous, flexible membrane faced with acidproof brick. E. S. Hopkins, diags Chem Eng 55:102-5 Mr '48

Manufacture

Applying resistance welding in tank production; White motor co. il Mach 54:156-8 N '47

Automatic joining method; fabrication of liquefied petroleum tanks. G. E. Stedman. il Steel 121:106+ N 17 '47

Large stainless steel tank heads fabricated by spinning; illustrations with text. Materials & Methods 28:56-8 Ag '48

Spin six-in. thick steel plate; Lukens steel co. il Am Mach 92:83-4 Ap 8 '48

Uniform tank coatings produced by controlled automatic hot dip galvanizing process; Rheem manufacturing co. R. W. Thrasher, bibliog il Steel 122:76-80+ Ap 19 '48

Welding stainless steel tanks. il Steel 122:110 F 2 '48

TANNERIES**Waste**

Disposal of vegetable tanning wastes. H. T. Reuning, bibliog flow diag Sewage Works J 20:525-9 My '48

TANNERIES' council of America

Annual meeting, Chicago, Dec. 4-5. Oil Paint & Drug Rep 152:5+ D 8 '47

Spring meeting, White Sulphur Springs, W. Va. Oil Paint & Drug Rep 153:7+ Je 14 '48

TANNIC acid

Concentration methods in spectrographic analysis; recovery of trace constituents in plant materials and soil extracts by mixed organic reagents. R. L. Mitchell and R. O. Scott. Soc Chem Ind J 66:330-6 S '47

TANNIN sultolizer process. See Gasoline—Manufacture

TANNING

Studies in tannery chemistry; some vegetable and metallic processes reviewed. Chem Age (Lond) 59:524-5 O 16 '48

TANNING materials

Chemical specialties attain greater stature; leather chemicals. H. G. Turley, Chem Ind 63:392-3 S '48

Chemical tanner for heavy leather. Bsns W p78 O 23 '48

New tanning agents based on German technology; staff report, 44th annual meeting of American leather chemists association. Chem & Eng N 26:1980-1+ J1 5 '48

Reactive leather; new dialdehyde resin tannage gives a water-absorbent as well as hydrothermally-stable leather. Chem Ind 63:214 Ag '48

Spare that tree; the chestnut blight turns tanners to synthetic and other natural tanning agents. Chem Ind 62:46-7 J '48

Synthetic tanning agent announced by Du Pont. Chem & Eng N 26:1856 Je 21 '48

Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter

Prices

Textile and leather chemicals; 1947 market trends. Oil Paint & Drug Rep 153:36-7 sec 2 F 16 '48

TANNINS

Regeneration steps cut cost of removing mercaptans. flow diag Pet Processing 3:435-8 My '48

Tannins and allied chemicals in mercaptan removal processes. J. Happel and S. P. Cauley, bibliog flow diag Ind & Eng Chem 39:1655-9 D '47

TANTALITE

Australia to increase production of tantalite. C. Lynch, Can Min J 68:834 D '47

TANTALUM

Balke receives Perkin medal for tantalum development. Chem & Eng N 26:156-7 Ja 19 '48

Deposition of tantalum and columbium from their volatilized halides. C. F. Powell and others, bibliog il Electrochem Soc J 93:258-65 Je '48

Effect of annealing and gas content on the superconducting properties of tantalum. R. T. Webber, bibliog Phys R 72:1241-5 D 15 '47

Internal friction and precipitation from the solid solution of N in tantalum. T. Ké. bibliog Phys R 74:914-16 O 15 '48

Internal friction in the interstitial solid solutions of C and O in tantalum. T. Ké. bibliog diag Phys R 74:9-15 J1 1 '48

Secondary electron emission by fast neutral molecules and neutralization of positive ions. H. W. Berry. Phys R 74:848-9 O 1 '48

Sodium chloride versus construction materials. L. R. Scribner, Chem Eng 54:232 D '47

Story of tantalum. C. W. Balke. Chem & Ind p83-6 F 7 '48

Stress relaxation by interstitial atomic diffusion in tantalum. T. Ké. bibliog Phys R 74:16-20 J1 '48

Sulphuric acid versus construction materials. L. R. Scribner, Chem Eng 55:234+ J1 '48

Tantalum. R Sci Instr 19:483-4 J1 '48

Analysis

Routine chemical methods for analysis of niobium and tantalum bearing 18/8 steels. B. Rogers, bibliog Metallurgia 37:326-30 Ap '48

Isotopes

Beta-beta-coincidence curves for Ir¹⁹² and Ta¹⁸². M. V. Scherb and C. E. Mandeville. Phys R 74:508-9 Ag 15 '48

β -Radiations of antimony¹²⁴, tantalum¹⁸², tungsten¹⁸², and iridium¹⁹². S. Jnanananda, bibliog Phys R 72:1124-5 D 1 '47

Radiations from tantalum (182), antimony (122), and indium (116). C. E. Mandeville and M. V. Scherb, bibliog Phys R 73:340-3 F 15 '48

Short-lived isomers of nuclei. S. DeBenedetti and F. K. McGowan, diags Phys R 74:728-35 O 1 '48

TANTALUM, Powdered

Sintering of electrolytic tantalum powder. R. H. Myers, Metallurgia 38:307-10 O '48

TANTALUM hydride

Superconductivity and structure of hydrides and nitrides of tantalum and columbium. F. H. Horn and W. T. Ziegler, bibliog diag Am Chem Soc J 69:2762-9 N '47

TANTALUM metallurgy

Tungsten and tantalum. J. A. Lee, flow sheet(p152-5) il Chem Eng 55:110-12 S '48

TANTALUM nitride

Superconductivity and structure of hydrides and nitrides of tantalum and columbium. F. H. Horn and W. T. Ziegler, bibliog diag Am Chem Soc J 69:2762-9 N '47

TAPE, Adhesive. See Adhesive tape**TAPE, Plastic**

Permanent tape for tennis courts. il Plastics 8:54+ Mr '48

TAPPING

Magazine fixture feeds parts automatically into tapping position. G. E. Shopbell, diag Am Mach 92:127 JI 15 '48

TAPPING machines

Natco Holessteel multi-spindle drilling and tapping machines. il Mach 54:203-4 JI '48
Natco Holessteel vertical drilling, boring, and tapping machines. il Mach 55:225-6 N '48
Pollard multiple unit drilling and tapping machine. il Engineer 185:217 F 27 '48
35th annual review. il Am Mach 92:167-9 Ja 29 '48

TAPPING machines for pipes. See Water pipes —Tapping**TAPS**

Broach-tap cuts quintuple threads. H. S. Wharen, il diags Am Mach 92:69-72 Ap 22 '48
Extractor for broken taps. il Engineering 166:118 JI 30 '48
Precision taps flute-sharpened for close tolerances. S. Lovejoy, diags Am Mach 92:133-5 Mr 11 '48

Standards

Industrial changes reflected in revised standard for taps. C. M. Pond, il Ind Stand 19:59-60 JI '48
Machine screw taps; reference book sheet. diags Am Mach 92:127 JI 29 '48

TAR

Chemical treatment of water gas tar emulsion. S. A. Petrino, Am Gas Assn Proc 1947:608-14
Mechanical dehydration of coke oven tar emulsion. E. W. Young, Am Gas Assn Proc 1947:698-700
Plant practice in mechanical dehydration of water gas tar emulsions. A. G. Hall and A. R. Bayer, flow sheet diags Am Gas Assn Proc 1947:713-17
Studies on water-gas tar. A. W. Gauger and others, Am Gas Assn Proc 1947:757-60
See also
Coal tar products

TAR distillation

Modern methods of tar distillation; abstracts. A. L. Curtis, Chem Age (Lond) 57:670 N 22 '47; Chem & Ind p740 N 29 '47

TAR distillation plants

Large-scale distillation of tar. Chem Age (Lond) 59:54 JI 10 '48

TAR oils

Solvent extraction of indene and coumarone from coal tar light oils. A. W. Gauger and J. N. Breston, bibliog Inst Pet J 33:687-94 N '47

TARGET practice

Air power turned targets at Olympiad. il Comp Air Mag 53:253 O '48

TARIFF

Benelux concessions under general agreement on tariffs and trade. R. P. Donogh, For Comm W 30:4-7+ Ja 17 '48
Geneva agreement; Brazil, Burma, Ceylon, New Zealand, Pakistan, Syria-Lebanon; tariff concessions under general agreement. For Comm W 32:41-2 JI 31 '48
Geneva conference; agreements affect large part of U.S. trade. Survey of Cur Bsns 27:19 D '47
Geneva multilateral trade agreement concluded; final act signed Oct. 30, 1947. For Comm W 29:32 N 8 '47
Geneva trade agreement made public. For Comm W 29:32 N 22 '47
Geneva trade negotiations; concessions by the United States, by the British southern dominions and by India and Pakistan. For Comm W 29:13-16, 19-20 D 6 '47
Important tariff concessions in Geneva trade agreement; summary by country of tariff changes affecting major automotive items. E. Hardy, Automotive Ind 97:45-6+ D 1; 45+ D 15 '47

India, Norway, and Southern Rhodesia; tariff concessions under General Agreement now in effect. For Comm W 32:40-1 JI 10 '48
New general agreement on tariffs and trade; conclusion of the Geneva trade-agreement negotiations. H. P. MacGowan, For Comm W 29:3+ N 29 '47

Nickel and the tariff agreement. Economist 153:897 N 29 '47

Reduction of world-trade barriers; rhetoric or reality? Habana and Geneva agreements. W. G. Brown, For Comm W 31:10-11+ My 15 '48

Renegotiations of certain tariff concessions in the general agreement on tariffs and trade granted by Brazil, Ceylon, Cuba, and Pakistan. For Comm W 33:41-2 O 30 '48
Second session of GATT countries at Geneva finishes its work. For Comm W 33:42 O 16 '48

Several nations trim chemical tariffs. Chem Ind 62:225 F '48

Tariff concessions gained by U.S. at Geneva. Oil Paint & Drug Rep 152:7 N 24 '47

Trade and trade; Geneva agreement. Economist 153:827-8 N 22 '47
World tariff barriers tumble; Geneva trade agreements. Bsns W p23-4 N 22 '47

Algeria

Petroleum products; change in Algerian import duties and consumption taxes; table. For Comm W 31:12 Ap 24 '48

Belgium

See also
Benelux union

Brazil

Bill making Geneva agreement provisionally effective and increasing duties on most products passed. For Comm W 32:14 Ag 14 '48

Geneva agreement; United States and Brazilian tariff concessions. A. J. Poirier, il For Comm W 30:7+ Mr 6 '48
Law making Geneva agreement provisionally effective. For Comm W 32:15 Ag 23 '48

British Guiana

Import duties increased on certain specified products. For Comm W 31:10-11 My 22 '48

Burma

Tariffs and trade controls; Geneva trade agreement. For Comm W 29:11 D 20 '47

Canada

Geneva tariff concessions. For Comm W 30:10-11 Ja 24 '48
Textile tariff reductions in Canadian federal budget. Rayon 29:88 S '48

Ceylon

Import duties increased on certain products. For Comm W 30:11 Ja 24 '48
Tariffs and trade controls; Geneva trade agreement. For Comm W 29:11-12 D 20 '47

Chile

Geneva agreement; United States and Chilean tariff concessions. A. J. Poirier, il For Comm W 31:7+ Ap 17 '48

China

New import tariff for China. For Comm W 32:17-18 Ag 23 '48
Tariff concessions on specified items withheld by China under Geneva trade agreement. For Comm W 32:15 JI 10; 15 Ag 14 '48

Cuba

Duty-free entry of imported industrial equipment extended; five-year duty and tax exemptions granted on assembly parts and machinery for assembly plants. For Comm W 32:18 Ag 7 '48

Czechoslovakia

Geneva general agreement on tariffs and trade effective. For Comm W 31:10 My 8 '48

Dominican Republic

Characteristics of new law. For Comm W 30:11-12 Ja 3 '48
Motor vehicles; import duties increased; tabulation. For Comm W 30:13 F 14 '48

TARIFF—Continued

France

Concessions obtained from France at UN conference in Geneva. For Comm W 29:6-7+ D 13 '47
 Import duties reapplied on numerous additional products. For Comm W 31:13-14 Je 5 '48
 Import duties reapplied on specified products. For Comm W 30:18-19 Ja 31 '48
 New customs tariff effective in France, Algeria, and overseas colonies. For Comm W 30:14 Ja 24 '48

Germany

Status of customs tariff For Comm W 31:12-13 My 8 '48

Great Britain

Geneva tariff agreement. Elec R (Lond) 141:321 N 28 '47
 Trade under the new tariff; Geneva agreement. Economist 153:848-50 N 22 '47

Hungary

Amendment of certain items of the customs tariff. For Comm W 31:26-7 My 29 '48

Indo-China, French

Equal distribution tax. For Comm W 32:19 Ag 21; 33:15 O 9 '48
 Mineral oils temporarily exempt from import duties; tabulation. For Comm W 30:14 F 7 '48

Luxembourg

See also
 Benelux union

Mexico

Basis for assessment of ad valorem import and export duties established. For Comm W 30:17 Mr 6 '48
 Mexican tariff act hit by two industries; raising of import duties on essential oils and paints protested. Oil Paint & Drug Rep 153:5+ Mr 1 '48
 Mexico's new import tariff schedule. For Comm W 29:16 N 22 '47; Same cond. Oil Paint & Drug Rep 152:3 N 24 '47
 New rates of import duty for items in schedule 1 of United States-Mexican trade agreement; tabulation. For Comm W 29:19-21 D 27 '47; Correction. 30:18 Ja 10 '48; Excerpts. Oil Paint & Drug Rep 153:73 Ja 12; 52 Ja 26 '48
 Regulations for declaration of values and basis for assessment of ad-valorem duties; with tabulation showing new import duty rates for schedule 1 items on which importation has been suspended. For Comm W 30:17-18 F 14 '48
 Rules for establishing official valuations of imported merchandise. For Comm W 32:18 S 11 '48

Netherlands

See also
 Benelux union

Pakistan

Geneva agreement effective. For Comm W 32:24 Ji 31 '48
 Import duties increased; table. For Comm W 31:22-3 My 22 '48

Rhodesia

Southern Rhodesia; tariffs and trade controls; Geneva trade agreement. For Comm W 29:22 D 20 '47

Salvador

Basic changes in tariff legislation. For Comm W 33:21-2 O 23 '48

South Africa

Customs amendment act. For Comm W 31:25 Je 5 '48
 Union of South Africa; concessions effective June 14. For Comm W 32:41 Ji 10 '48

Tunis (state)

Customs formality tax increased on imports into Tunisia. For Comm W 31:11 Ap 3 '48
 Luxury and production taxes established in Tunisia; with list of commodities affected. For Comm W 31:16-17 Ap 10 '48

United States

American business and the new tariff. E. A. Krauss. Il Mag of Wall St 81:282-3+ D 20 '47
 Balanced national tariff program. W. B. Bullock. Paper Ind 30:1048-9 O '48
 Both GOP and Democrats give wide support to tariff cuts; Gallup poll. Iron Age 161:10 Ja 8 '48
 Chestnut case; nuts may set precedent or Geneva pact. Bsns W p21 My 15 '48
 Dollar value in United States import statistics; implications for tariff purposes. W. C. George and I. Weiss. Il For Comm W 32:7-8+ Ag 14 '48
 Geneva agreement; United States and Brazilian tariff concessions. A. J. Poirier. Il For Comm W 30:7+ Mr 6 '48
 Geneva agreement; United States and Chilean tariff concessions. A. J. Poirier. Il For Comm W 31:7+ Ap 17 '48
 Import threat probe procedure; administration of the escape clause in trade agreements. Oil Paint & Drug Rep 154:44 N 1 '48
 Reductions in United States tariffs; proposed international trade organization charter analyzed. J. G. Lerch. Rayon 29:49-51 F '48
 Takes exception to views on protective tariffs. F. S. Dunbar, jr. Comm & Fin Chr 168:912 S 2 '48; Reply. A. Wilson. 168:1326 S 30 '48
 Tariff benefits and concessions summarized by State dept. Iron Age 160:119+ N 27 '47
 Tariff lowered on 60 per cent of trade. Steel 121:54-5+ N 24 '47
 Two way traffic for international trade. F. H. Chapin. Il Dun's R 56:19-20+ My '48
 U.S. travelers can now bring back more merchandise from abroad, duty-free. For Comm W 31:13 Je 12 '48; Correction. 31:48 Je 26 '48
 Wholesale tariff reductions. Min & Met 28:614 D '47

Chemicals

Geneva trade pact proclaimed effective Jan. 1; list concessions withheld. Oil Paint & Drug Rep 152:3 D 22 '47
 Tariff cuts under Geneva international agreement for chemicals, oils and drugs. Oil Paint & Drug Rep 152:7+ N 24 '47

Metals

Geneva convention gave maximum cuts on U.S. tariff levels; compilation of concessions in the metals field. Iron Age 160:115-16+ D 18; 124+ D 25 '47; 161:330-1 Ja 1; 115-17 Ja 8 '48

Paper

Grades of paper and paperboard affected by tariff reductions at Geneva; tabulations. Paper Ind 29:1354-5 D '47
 Paper industry a victim of reciprocity. W. B. Bullock. Paper Ind 30:879-80 S '48
 Reciprocal trade agreements create paper duty problems. Paper Tr J 127:13 Ji 29 '48
TARIFF (export duties)

Bolivia

Tin; new export taxes imposed. For Comm W 31:12 Ap 17 '48
 Tin; new taxes proposed on exports; Wolfram, additional tax reimposed on exports. For Comm W 29:10-11 D 13 '47

Mexico

Basis for assessment of ad valorem import and export duties established. For Comm W 30:17 Mr 6 '48
 Export-duty rates revised on certain commodities; table. For Comm W 31:21 My 22 '48
 Export valuations changed on certain items; new export-duty schedule enacted. For Comm W 29:16-17 D 20 '47

Morocco

Schedule of export taxes on certain products revised. For Comm W 32:19-20 Ag 21 '48

Peru

Reduction of export taxes on copper, silver, and lead. For Comm W 32:25 Ji 3 '48

TARIFF (export duties)—*Continued*

Sweden

Removal of equalization fee on pulp exports.
For Comm W 33:25 O 30 '48

TARIFF commission. See United States—Tariff commission

TARNISHING of metals

Tarnishing of metals; abstract. U. R. Evans.
Materials & Methods 27:109-10 F '48

TARTARIC acid

Stereochemistry of complex inorganic compounds; the diastereoisomers of *dehydro-tartrato-bis-ethylenediamine* cobaltic ion. H. B. Jonassen, J. C. Bailar, jr. and E. H. Huffman. *bibliog Am Chem Soc J* 70: 756-8 F '48

TARTRATES

Structure and behavior of ferric tartrate and citrate complexes in dilute solutions. M. Bobtelsky and J. Jordan. *bibliog Am Chem Soc J* 69:2286-90 O '47

TASTE

Objective tasting tests; abstract. H. M. Mason and A. G. Lipscomb. *Chem & Ind* p 107 F 14 '48

See also

Flavor

TATA iron and steel company

Modern Tata steel works make dream of Indian industrialist real. S. Smoke. *Iron Age* 162:97-8 S 30 '48
More steel for India's industry. *il Bsns W* p 112-13 J1 17 '48

TATHAM and Laird

Tatham-Laird agency team scores with newspaper ads. G. A. Brandenburg. *Ed & Pub* 81:5-6 J1 10 '48

TAURINE

Derivatives of taurine and β -alanine. M. M. Rapport and others. *bibliog Am Chem Soc J* 69:2561-3 O '47

TAUTOMERISM

Mechanism of the tautomeric change of 5-hydroxy-1:2:3-triazole-4-carboxylic esters into aliphatic diazo compounds. B. R. Brown and D. L. Hammick. *Chem Soc J* p 1384-6 O '47

Secondary and tertiary amino ketones and alcohols derived from desoxybenzoin and 1,2-diphenylethanol; ring-chain tautomerism of the α -(β -hydroxyethylamino) ketones. R. E. Lutz, J. A. Freek and R. S. Murphey. *bibliog Am Chem Soc J* 70:2015-23 Je '48

Thermodynamic properties and molecular structure of cyclohexane, methylcyclohexane, ethylcyclohexane and the seven dimethylcyclohexanes. C. W. Beckett, K. S. Pitzer and R. Spitzer. *bibliog il Am Chem Soc J* 69:2488-95 O '47

TAX administration

Property tax in Canada and the United States; administration and supplementation. H. M. Groves. *bibliog Land Econ* 24:120-8 My '48

See also

Income tax—Auditing
Tax fraud

TAX auditing

See also

Income tax—Auditing
Tax fraud

TAX benefit rule. See Income tax—Deductions; Income tax—United States—Decisions

TAX collection

Tax assessor uses ads to soften up public; Howard W. Schroeder, Sedgwick county, Wichita, Kan. *Bsns W* p93 F 14 '48
Uses honey to attract taxpayers. *Bsns W* p26 Ja 31 '48

TAX consultants

Should tax practice be regulated? *J Account* 85:271-2 Ap '48
Tax expert, J. K. Lasser. *L. Bell. Adv & Sell* 41:94+ F '48

TAX court. See United States—Tax court

TAX deductions. See Income tax—Deductions

TAX evasion and avoidance

Bank loan-policy purchase plans for tax saving rapped. *Nat Underw (Life ed) Daily ed* 52:33 S 16 '48
Deferred compensation. G. B. Gordon. *Weekly Underw* 157:1536-8 D 13 '47

How to have your own foundation. *Fortune* 36:108-9+ Ag '47; Excerpts. *J Account* 84: 412-13 N '47

Keep tax savings in mind when handling business transactions. A. C. Klechlin. *Island Ptr* 120:37-8 Mr '48

One way to pay deferred compensation. *J Account* 86:245 S '48

Securities affording tax advantages; dividends in the non-taxable class. F. K. Dodge. *Mag of Wall St* 81:192-3+ N 22 '47

Tax advantages in premium redeemable convertible bonds. M. Fried. *Comm & Fin Chr* 168:806 Ag 26 '48

Tax aspects of dividing and merging a business. L. A. Diamond. *bibliog J Account* 86: 314-22 O '48

Tax avoidance. H. J. Rudick. *Comm & Fin Chr* 167:2199+ My 20 '48

Tax effects of accounting methods; abstract. J. W. Ahern. *J Account* 85:256 Mr '48

Tax saving method on convertibles upheld. L. H. Hoffman. *Barron's* 28:10 Je 21 '48

When and how to be a dealer rather than an investor for tax purposes. J. P. Allison. *bibliog(94 ref) J Account* 86:38-49 J1 '48

TAX exempt securities. See Taxation, Exemption from

TAX exemption. See Taxation, Exemption from

TAX fraud

What to do when fraud is alleged in tax cases. J. S. Platt. *J Account* 85:30-7 Ja '48

TAX liens

Federal liens on bank deposits; liability of banks. D. J. Needham. *Banking* 41:45+ Ag '48

TAX refunds

Review of recent court decisions affecting the glass industry; income tax refund. L. T. Parker. *Cer Ind* 51:80 S '48

Suits for refund. *J Account* 85:415-16 My '48

Tax carryovers; aids to business expansion. J. K. Lasser. *il Dun's R* 56:13-15+ Ja '48

Western Pacific case, an extraordinary lawsuit; holding company claims proceeds of tax refund. V. C. Smith. *Comm & Fin Chr* 168:1858-9 N 4 '48

TAXATION

National advisory council figures reveal a tax and debt ridden world. *Comm & Fin Chr* 168:1219 S 23 '48

Need of tax coordination. P. M. Brown. *Comm & Fin Chr* 167:1117 Mr 11 '48

See also

Capital levy	Mine taxation
Debts, Public	Municipal taxation
Excess profits tax	Sales tax
Excise tax	Tariff
Gift tax	Taxation of securities
Income tax	
Inheritance tax	
also subdivision	Taxation under special
subjects, e.g.	
Cooperative associations	Partnership
Corporations	Public utilities
Insurance companies	Railroads
	Real property

Accounting

Functions of a tax department. H. W. Ziethen. *Am Gas Assn Mo* 30:29-30+ F '48
Tax clinic. J. K. Lasser. *ed. J Account* 85: 65-9 Ja '48 [cont monthly]

Law

Involuntary conversions; abstract. M. Richardson. *J Account* 85:415 My '48

Algeria

Changes in consumption, circulation, and special taxes of certain products, Algeria. For Comm W 31:12 Ap 24 '48

Production tax reduced on certain materials and products; list. For Comm W 31:14-15 Je 5 '48

Canada

Overlapping taxes; Canada achieves reforms. A. E. Buck. *il Dun's R* 56:21-2+ My '48

Property tax in Canada and the United States. H. M. Groves. *bibliog Land Econ* 24:23-30, 120-8 F-My '48

Special excise taxes on wide range of durable consumer goods. For Comm W 30:11 Ja 17 '48

TAXATION—Continued

Columbus, Ohio

City wage tax. Bsns W p34 N 22 '47

Cuba

Ten percent luxury tax; suspension on certain products. For Comm W 29:16 D 6 '47

District of Columbia

Manufacturers and business firms must pay new District of Columbia franchise tax by April 15. E. C. Kreutzberg. Steel 122:64+ F 23 '48

Georgia

Georgia story; state finance; taxes. Manuf Rec 117:116-17 My '48

Germany

Tax reform in the U.S.-U.K. zones. For Comm W 32:26 JI 24 '48

Great Britain

Britain's capital levy; collectivism via the back door. A. W. May. Comm & Fin Chr 167:1645+ Ap 15 '48

Burden of taxation. Economist 154:1054-5; 155:6-7 Je 26-JI 3 '48

Burdens on the revenue. Economist 155:236-8 Ag 7 '48

New taxes announced. For Comm W 29:21+ N 29 '47

Tax changes; Mr Dalton's proposals. Economist 153:808-10 N 15 '47

See also

Income tax—Great

Britain

Tariff—Great Britain

Hungary

Capital and capital increases subject to tax. For Comm W 29:11-12 N 8 '47

Indo-China, French

Equal distribution tax. For Comm W 32:19 Ag 21; 33:15 O 9 '48

Italy

Scope of sales tax extended; rate on certain luxury items reduced. For Comm W 32:23 Ag 21 '48

See also

Tariff—Mexico

Tariff (export duties)—Mexico

Mexico

Morocco

French Morocco; direct tax rates changed. For Comm W 33:25 O 23 '48

New Mexico

Taxpayers' burden; New Mexicans complain of tax-free public land. Bsns W p88-9 Ag 7 '48

New York (city)

New York real estate taxes. J Account 85: 156-7 F '48

Norway

Commodity taxes revised or extended. For Comm W 32:33+ S 11 '48

Peru

Foreign periodicals and advertisements; imposition of tax. For Comm W 29:19 N 22 '47

Philippine Islands

Sales taxes increased on luxuries and semi-luxuries. For Comm W 32:22-3 JI 17 '48

Specific taxes increased on distilled spirits, wines, fermented liquors, cigarettes and other items. For Comm W 32:24-6 Ag 7 '48

Sweden

New sales tax established. For Comm W 31:26 My 22 '48

Tunis (state)

Luxury and production taxes established in Tunisia; with list of commodities affected. For Comm W 31:16-17 Ap 10 '48

United States

Ability-to-pay taxation not compatible with private property. H. K. Allen. Comm & Fin Chr 168:204+ JI 15 '48

Congress Republicans have two-year tax-cut plan. W. P. Helm. Barron's 28:5-6 Ag 23 '48

Current federal tax notes. S. J. Foosaner. Trusts & Estates 86:84-8 Ja '48 [cont monthly]

Debt reduction vs. tax reduction. H. L. Lutz. Comm & Fin Chr 168:897+ S 2 '48

Federal tax outlook; address before American institute of accountants. R. Magill. Comm & Fin Chr 166:1944+ N 13 '47

Fiscal program of the 80th Congress. J. A. Maxwell. Harvard Bsns R 26:63-73 Ja '48

Holds taxation is undermining capital formation. R. W. Valentine. Comm & Fin Chr 167:306+ Ja 22 '48

How to keep taxes within reason. B. Ruml. Comm & Fin Chr 167:2084 My 13 '48

Investor must have tax relief; possible economies in government expenditures. R. A. Gilbert. Comm & Fin Chr 168:1001+ S 9 '48; Discussion. F. S. Dunbar, jr. 168:1972-3 N 11 '48

Property tax in Canada and the United States. H. M. Groves. bibliog Land Econ 24:23-30, 120-3 F-MY '48

Proposed changes in federal taxation. R. Ash. Comm & Fin Chr 168:398+ S 2 '48

Prospects for tax cuts and inequities in tax laws; address before the National industrial conference board. R. Magill. Comm & Fin Chr 166:2169+ N 27 '47

Recent tax developments. F. L. Morton. Spectator (Life ed) 155:30-1+ Ap '48

Reforms urged on Congress by Magill group and C.E.D. Bsns W p26+ N 15 '47

Revenue act of 1948; Northwestern Mutual Life explains it to field force. East Underw 49:3+ Ag 13 '48

Revision of federal tax structure, 1948. F. L. Morton. Spectator (Life ed) 156:16-17+ Ag; 28-9+ S '48

Symposium on the new tax law; Revenue act of 1948. T. S. Kiley and others. Trusts & Estates 86:365-86 My '48

Tax clinic. J. K. Lasser, ed. J Account 85: 65-9 Ja '48 [cont monthly]

Tax pot is boiling. L. D. Farrar. Pub Util 40:825-32 D 18 '47

Tax prospects brighten with election year. P. A. Johnston. Barron's 27:7-8 N 10 '47

Tax revenue act of 1948. F. L. Morton. Spectator (Life ed) 155:15-17+ My '48

Tax revision in 1948; the Magill report. F. L. Morton. Spectator (Life ed) 155:20-1+ Ja '48

Taxes and the stockholder. L. P. Stack. Elec World 129:95 Je 5 '48

22nd amendment; proposal to limit the taxing power of Congress. Manuf Rec 117:25 Ja '48

Urges tax revision in address at Houston. J. W. Snyder. Comm & Fin Chr 166:2378 D 11 '47

What will happen to taxes in '49? L. D. Farrar. Comm & Fin Chr 168:1102+ S 16 '48

See also

Corporations—Taxa-

tion

Income tax—United

States

Tariff—United States

TAXATION, Double

Double taxation of dividends. H. B. Sutter. Trusts & Estates 86:55-60 Ja '48; Excerpts. Comm & Fin Chr 166:2061+ N 20 '47

TAXATION, Exemption from

Advantages of tax exempt bonds overlooked by smaller investors. B. M. Goldsmith. Comm & Fin Chr 167:1761 Ap 22 '48

Changing value of tax exemption versus municipal bond prices. W. Browne. Comm & Fin Chr 168:797+ Ag 26 '48

Court clarifies bona fide residence for income tax purposes; gives wide travel privileges to engineers in foreign service. Civil Eng 18:517 Ag '48

Homestead tax exemption; a tenure improvement measure? R. Barlowe. bibliog J Land & Pub Util Econ 23:360-70 N '47

TAXATION, Exemption from—Continued

Your tax load is increasing; how co-ops' free ride adds to burden. G. C. Klippel. Credit & Fin Management 50:20-3 Mr '48

See also

Cooperative associations—Taxation

TAXATION, Municipal. See Municipal taxation

TAXATION, State

Interstate tax barriers; abstract. R. S. Holzman. J Account 85:65-6 Ja '48

Local taxes soar; state and city fathers scour old and new revenue sources. Bsns W p63-5 Ja 24 '48

Problems in federal, state and city tax coordination. A. G. Buehler. Comm & Fin Chr 168:201+ JI 15 '48

Some local tax trends affecting public utilities. B. Jones. Pub Util 40:701-7 N 20 '47

State tax collections increase sharply. Bsns W p 106 S 18 '48

See also

Income tax, State

Sales tax

TAXATION of securities

Special tax problems in purchase and sale of securities. I. Sack. Comm & Fin Chr 167:702+ F 12 '48

When and how to be a dealer rather than an investor for tax purposes. J. P. Allison. bibliog(94 ref) J Account 86:38-49 JI '48

See also

Stock transfer tax

Taxation, Exemption from

TAXICABS

Latest Checker cab. diags Automotive Ind 98: 43 Ja 1 '48

More taxicabs; Checker Cab's plans. il Bsns W p26 Ja 3 '48

Veterans' cabs. Bsns W p96-7 My 8 '48

Radio equipment

Two-way taxicab radio systems. S. Freedman. il diag Communications 27:10-13 D '47; 28:8-11 F '48

Television equipment

Taxi television. il Tele-Tech 7:21 Ag '48

TAYLOR, David W., model basin. See Ship model tanks

TAYLOR, George William, 1901-Deciding the fate of the Dept. of labor. por Bsns W p92-4 S 4 '48

TAYLOR technology (periodical)

Taylor technology. R. H. Munch. diag Ind & Eng Chem 40:sup97A-8A S '48

TEA

See also

Maté**TEA chests**

Imports of tea chests, Ceylon. For Comm W 32:31-2 S 25 '48

TEA industry and trade

India's 1948 tea prospects. For Comm W 33:33 O 23 '48

Advertising

3,000,000 leaflets tell how to brew a cup of tea. Ptr Ink 221:120 D 12 '47

Bolivia

Tea production and imports. For Comm W 29:23 D 6 '47

Ceylon

Tea production and exports. For Comm W 32:35 JI 24 '48

Egypt

Egypt consumes more tea. For Comm W 31:24 Je 12 '48

Great Britain

Tea imports and the ration. Economist 155: 163 JI 24 '48

India

Production and exports. For Comm W 31:26 My 15 '48

Shortage of tea chests. For Comm W 32:32 JI 3 '48

Japan

Japan's tea crop and exports in 1947. For Comm W 32:26 JI 17 '48

Netherlands Indies

Netherlands Indies tea industry. For Comm W 31:24 Ap 10; 29-30 Je 5 '48

TEACHERS

See also

Chemistry teachers

Salaries

See also

Engineering teachers

—Salaries

Taxation

Taxability of teachers' income. J. M. Maquire. J Account 86:330-1 O '48

TEACHERS' colleges

School and college libraries and the teacher in training. M. U. Robinson. J Doc 3:147-50 D '47

TEACHING

See also

Chemical education Industrial education

Education Newspapers—Use in

Engineering colleges teaching

Engineering education Technical education

 Visual instruction

 also subdivision Study and teaching under special subjects, e.g. Chemistry—Study and teaching

TEAMSTERS, chauffeurs, warehousemen and helpers of America, International brotherhood of. See International brotherhood of teamsters, chauffeurs, warehousemen and helpers of America

TECHNETIUM (element 43). See Chemical elements—Atomic no. 43

TECHNICAL and scientific societies council of San Diego

Third science and industry show, San Diego, Nov. 17-23. il Chem & Eng N 25:3726 D 15 '47

TECHNICAL association of the pulp and paper industry

Abridgements from papers presented at annual meeting, New York, Feb. 24-27, 1947 (cont). Paper Ind 29:1350-68 D '47

Abridgements from papers presented at annual meeting, New York, Feb. 23-26, 1948. Paper Ind 29:1830-4+; 30:122+, 280+, 616+, 775-6+, 930-40 Mr-May, JI-S '48

Annual meeting, 33rd, New York, Feb. 23-26. Chem & Eng N 26:676 Mr 8 '48; Paper Ind 29:1785-6+ Mr '48

Annual meeting, 33d, New York, Feb. 23-26; with abstracts of papers. Oil Paint & Drug Rep 153:5+ Mr 1 '48

Engineering conference, 2d, Philadelphia, Nov. 3-5. Paper Ind 29:1315-16+ D '47

Technical Association and the American paper and pulp association. E. W. Tinker. Paper Ind 30:1086+ O '48

TAPPI fall meetings. R. G. Macdonald. Paper Tr J 125:71-2 N 6 '47

TAPPI prepares bigger program. W. F. Gillespie. Paper Tr J 126:66+ F 26 '48

TAPPI's forward strides in 1947 reflect industry progress. R. G. Macdonald. Paper Tr J 126:71-2+ F 26 '48

TECHNICAL education

Accrediting technical institutes. H. P. Hammond. J Eng Educ 35:616-21 My '48

Report of the N.P.V. & L.A. committee on technical education. Paint Oil & Chem R 110:132-4 N 13 '47

Technical education. C. F. Kettering. Air Affairs 2:223-8 Winter '48

Technical education congress in Belgium. Int Labour R 58:82-4 JI '48

Technical report bugaboo; young graduate should be taught on-the-job disciplines of thinking. W. T. Nichols. Chem & Eng N 26:602-4 Mr 1 '48

Technical vocational education; technical institute training for aviation. C. C. Moseley. bibliog Air Affairs 2:218-22 Winter '48

See also

Aeronautic schools Mining schools and

Chemical education education

Employees, Training Radio schools and

of training

Engineering colleges Textile schools

Engineering education Trade unions—Edu-

 cational work

Industrial education Vocational education

 also Massachusetts institute of technology

TECHNICAL education—Continued**Directories**

Approved technical institutes; a handbook of information for vocational guidance officers, student advisors, etc. J. S. Noffsinger, comp. 48p pa 25c National council of technical schools, Washington 6 '48

Brazil

Technical school aids Sao Paulo's growth. E. E. Halmos. Eng N 141:9 O 7 '48

Great Britain

Training hands and brains for industry and commerce; National advisory council for industry and commerce. Textile Inst J 39: P206-7 Je '48

India

Developments in Indian technical education. Int Labour R 56:608-9 N-D '47
India's government plans for training technical personnel. For Comm W 32:40 S 25 '48

Technical training in India. Int Labour R 56:469-71 O '47

Mexico

Technical education trends in Mexico. J. M. R. Caraza. Elec Eng 67:748 Ag '48
Technological problems in Mexico. F. W. Godwin and J. E. Hobson. Elec Eng 67:656 JI '48

Scotland

Training a technical staff; North of Scotland hydro-electric board's scheme. S. P. Smith. Elec R (Lond) 142:349-51 Mr 5 '48

TECHNICAL institutes. See Technical education

TECHNICAL libraries

Company library provides answers; Burroughs adding machine co. II Mill & Factory 43:129-30 O '48

Functional library organization for instrumentation research. C. A. Mabey. Instruments 21:862-4 S '48

See also

Business libraries Patent libraries and
Medical libraries collections
also Engineering societies library, New York

Bibliography

Science-technology libraries bibliography; Illinois chapter, S.L.A. Special Lib 39:25 Ja '48

Photograph collections

Photographs in scientific and technical libraries. P. M. Strain. Special Lib 39:77-82 Mr '48

TECHNICAL literature

Appeal for scientific literature for Austria. L. P. Moore. Science 108:379-80 O 8 '48

Distribution and use of scientific and technical information; questionnaire addressed to Science museum library readers. D. J. Urquhart. J Doc 3:222-31 Mr '48

Memorandum for a Conference on bibliographical control of government scientific and technical reports. M. Taube. Special Lib 39:154-60 My-Je '48

Preparing the oral version of a technical paper. W. J. Temple. Inst Radio Eng Proc 36:388-9 Mr '48

Reviewing of technical books, the minimum requirements. E. H. McClelland. J Chem Educ 25:380-2 JI '48

Scientific and engineering texts; some contemporary problems; abstract. W. B. Wiley. Science 107:503-4 My 14 '48

Time interval between book publication and review. G. Schutze. Special Lib 38:297-9 N '47

See also

Technical writing

TECHNICAL periodicals

Format and efficiency; the style and make-up of British periodicals. V. E. Parke. Assn of Sp Lib & Inf Bur Proc 1947:58-67; Discussion. L. J. F. Brimble and others. 71-6 List of periodicals abstracted. Textile Res J 18:48-55 Ja '48

TECHNICAL personnel. Bureau of. See Canada—Technical personnel, Bureau of

TECHNICAL products

Production clinic; sales and technical departments should be certain that technical information is based upon latest authentic facts. E. G. Thomssen. Soap & San Chem 24:77+ Je '48

See also

Engineers as salesmen Industrial market
Equipment industries Machinery industry

Advertising

Authentic technical copy sells your service representative; replace cure-all copy with service offers. J. Samuelson. Ind Marketing 33:40+ My '48

From slide rule to typewriter; Allis-Chalmers gives engineers an internship in advertising. A. R. Tofte. II Ind Marketing 33:41-2+ Ap '48

TECHNICAL service. See Service in industry

TECHNICAL service association. See Commercial chemical development association

TECHNICAL societies

Handbook of scientific and technical societies and institutions of the United States and Canada; United States section, comp. by C. Hull; Canadian section, comp. by S. J. Cook and J. R. Kohr. 5th ed rev Nat Res Council Bul 115:1-371 '48 (\$5)

TECHNICAL terms. See Technology—Terminology

TECHNICAL workers

Engineers begin panels on administration of technical personnel. Chem & Eng N 26:2954 O 4 '48

Man power for research. J. R. Steelman. Mech Eng 69:1027-8 D '47

Urges military buying of technical brains as well as beans, bullets; abstract. W. Evans. Iron Age 160:142-3 N 13 '47

See also

Chemical workers Laboratory workers
Electric workers Radio workers
Engineers Research workers

Salaries

Salaries of technical personnel. Pulp & Pa of Can 49:88-90 Mr '48

TECHNICAL writing

Making technical reports understandable. D. E. Gray. J Chem Educ 25:226-8 Ap '48

Suggestions for writing papers for publication in the Welding journal. Welding J 27:714+ S '48

Technical report and its problems. J. B. Bennet. Chem & Eng N 26:2435-6 Ag 16 '48

Technical report bugaboo; young graduates should be taught on-the-job disciplines of thinking. W. T. Nichols. Chem & Eng N 26:602-4 Mr 1 '48

Technical writing, an easily acquired skill. J. A. Miller. Civil Eng 18:299-300+ My '48

Training English teachers for engineers. W. G. Crouch and R. L. Zetler. Elec Eng 66: 1182-4 D '47

Use of words. Chem & Ind p658 O 16 '48

What constitutes an acceptable technical paper? M. D. Hassall. Min & Met 29:495-6 S '48

Writing a technical paper. G. E. Moore. Elec R (Lond) 143:351-3 S 3 '48

See also

Engineers as copy writers

TECHNOCRACY

Funny money; Townsend plan, technocracy, etc. Fortune 37:136 Ap '48

TECHNOLOGICAL advancement. Council for. See Council for technological advancement

TECHNOLOGY

Contributions of science and technology to education. N. W. Dougherty. J Eng Educ 38:187-93 N '47

Europe looks to America for technological assistance. J. A. Willard. Mech Eng 70:813-14 O '48

Manufacturing advances in wartime Germany; machines and processes now available to U.S. industry. J. L. Kent. II Sci Am 178:161-4 Ap '48

Research and new inventions; their effects on investments. R. P. Soule. Trusts & Estates 86:136-41 F '48

TECHNOLOGY—Continued

What technology has done to us; over specialization in industry and politics; abstract. R. P. Soule. *Management R* 36:562-4 N '47

See also

Building	Metallurgy
Ceramics	Paper making
Chemistry, Technical	Pottery
Concrete	Printing
Dyes and dyeing	Radio communication
Electric engineering	Railroad engineering
Engineering	Rubber
Glass manufacture	Soap
Inventions	Steel
Machinery	Technical education
Manufactures	Textile industry

Bibliography

Commercial reference sources. M. Moore and W. R. Holleman. *Library Journal* [New York] 72:1599-602 N 15 '47

German wartime technical developments (cont.). *Iron Age* 160:98 N 13; 86 D 4; 108 D 11 '47; 161:58 Ja 8 '48

New technical books; a bi-monthly list of additions to the New York public library. \$1 a year

Technical books; 1947-1948. R. R. Hawkins. *Library Journal* [New York] 73:760-7 My 15 '48

Social aspects

Challenge and response. J. G. Vail. *Chem Eng Prog* 43:sup 13-16 N '47

Terminology

New words come and go; use of new technical terms in business names. W. C. White. *Electronics* 21:72-3 Mr '48

TEEPOL

New analytical reactions with anionic and cationic wetting agents. A. Steigmann. *Bibliog Soc Chem Ind J* 66:355-6 O '47

TEES

See Pipes—Tables, calculations, etc.

TEETH

Electron microscopy of tooth structure by the shadowed collodion replica method. D. B. Scott and R. W. G. Wyckoff. *Bibliog Pub Health Rep* 62:1513-16, pl 1-5 O 17 '47

See also

Dental clinics and other headings beginning Dental
Dentistry

Diseases and defects

Dental aspects of prenatal injury. R. J. M. Horton. *Science* 106:415-16 O 31 '47

Dental caries prevalence and tooth mortality; a study of 24,092 Georgia children in twelve communities. T. L. Hagan. *Bibliog map Pub Health Rep* 62:1757-72 D 19 '47

Dental conditions in workers chronically exposed to dilute and anhydrous hydrofluoric acid; abstract. P. P. Dale and H. B. McCauley. *Nat Safety N* 53:120+ O '48

Dental effects of community waters accidentally fluorinated for nineteen years; differences in the extent of caries reduction among the different types of permanent teeth. H. Klein. *Bibliog Pub Health Rep* 63:563-73 Ap 30 '48

Effect of topically applied fluoride on dental caries experience; experiments with sodium fluoride and calcium chloride. D. J. Galagan and J. W. Knutson. *Bibliog Pub Health Rep* 63:1215-21 S 17 '48

Effect of topically applied fluorides on dental caries experience; report of findings with two, four and six applications of sodium fluoride and of lead fluoride. D. J. Galagan and J. W. Knutson. *Bibliog Pub Health Rep* 62:1477-83 O 10 '47

In vitro studies of caries of the enamel in the Syrian hamster. V. Hurst and others. *Science* 107:42-4 Ja 9 '48

Possible role of food purification in the etiology of dental caries. R. F. Sognnaes. *Science* 106:447-8 N 7 '47

Shall fluoride be added to public water supplies? H. A. Faber. *Bibliog W & Sewage Works* 95:393-400 N '48

Supplementing water supplies with fluorine to prevent tooth decay. M. S. Nichols. *Am Water Works Assn J* 40:751-3; Discussion. H. T. Dean. 753-4 J1 '48

Theory of tooth decay. B. Gottlieb. *Sci Am* 179:20-3 O '48

Tooth decay inhibitor. *Chem & Eng N* 26:336 F 2 '48

TEETH, Fossil

Middle paleocene mammal tooth from the foothills of Alberta. L. S. Russell. *Bibliog Am J Sci* 246:152-6, pl 1 Mr '48

TEFLON

Heat resistant resin for industrial uses. W. H. Halliwell, jr. *Ind diag Mod Plastics* 25:108-9 N '47

High heat and corrosion resistant plastic; Teflon. E. B. Yelton. *Ind diags Product Eng* 18:154-8 N '47

Polytetrafluoroethylene for the prevention of bumping from superheating of boiling fluids. H. S. Bennett. *Science* 106:646 D 26 '47

Some advances in techniques for the study of adsorbed monolayers at the liquid-air interface. H. W. Fox and W. A. Zisman. *Bibliog R Sci Instr* 19:274 Ap '48

TEL-AVIV, Palestine**Sewerage**

Precast reinforced concrete sewer tunnel lining provides sound, economical structure. A. M. Freudenthal. *Ind Civil Eng* 18:292-4 My '48

TELECOMMUNICATION. See Electric communication; Radio communication; Telegraph; Telephone

TELECOMMUNICATION union, International. See International telecommunication union

TELEGRAPH

Desk unit sends and receives telegrams; Desk-Fax. *Ind Bsns W* p60 J1 17 '48

Frequency shift telegraphy; radio and wire applications. J. R. Davey and A. L. Matte. *Bibliog diags Bell System Tech J* 27:265-30 Ap '48

Mathematical theory of communication. C. E. Shannon. *diags Bell System Tech J* 27:379-423, 623-56 J1, O '48

Telegraph, cable, and radiotelegraph carriers, 1941-1946. Survey of Cur Bsns 1947 Sup p 109 [supplemented in monthly numbers]

Telegraph signal analyzer. G. L. Erickson. *Ind Elec Eng* 67:218-21 Mr '48

See also

Electric communication
Radio telegraph

Private wire systems

Modern reperforator switching system for patron telegraph service. R. F. Dirkes. *Ind Elec Eng* 67:638-44 J1 '48

Rates

Carriers granted rate boosts on dispatches. *Ed & Pub* 81:40+ Ap 24 '48

Telegraph rate concessions to government are removed by Commission. *Pub Util* 40:735-6 N 20 '47

Uncle Sam now getting bigger telegraph bill. *Pub Util* 40:713-14 N 20 '47

Germany

International telegraph authorized for Germany. *For Comm W* 29:31 D 27 '47

India

Telecommunications developments in India. N. F. Frome. *maps diags Inst E E J* 95 pt 1:45-55 Ja '48

Mexico

Telegraph development in Mexico. J. H. Olmedo. *Elec Eng* 67:513-15 Je '48

TELEGRAPH, Carrier current

Frequency shift telegraphy; radio and wire applications. J. R. Davey and A. L. Matte. *Bibliog diags Bell System Tech J* 27:265-304 Ap '48

Telecommunications developments in India. N. F. Frome. *maps diags Inst E E J* 95 pt 1:45-55 Ja '48

TELEGRAPH companies

Employees

Employee interest in public utility merger and abandonment cases; Western Union-Postal Telegraph merger. H. H. Goldin. Land Econ 24:169-74 My '48

TELEGRAPH keys

Build your own automatic key. G. W. Gunkel. il diags Radio N 38:514 D '47
Dash master, a semielectronic key. T. H. Gotisar. il diag Q S T 32:24-5 Ag '48
Further advances in electronic-keyer design. F. A. Bartlett. il diags Q S T 32:27-30 O '48

TELEMETERING

Design principles of amplitude-modulated subcarrier telemeter systems used for the instrumentation of airplanes and guided missiles. C. K. Stedman. diags Inst Radio Eng Proc 36:36-41 Ja '48
Electrical supervisory control for New Zealand irrigation scheme. Engineering 166:167-8 Ag 13 '48
Faster telemeter for carrier-current channels. E. D. Lynch and others. diags Elec Eng 67:249-52 Mr '48
New devices derived from a torque balance telemeter. W. H. Burnham. diags Elec Eng 67:483-5 My '48
Radio control for water works. il Electronics 21:152+ Ja '48
Remote control for an irrigation scheme. il diag Engineer 186:10-11 Ji 2 '48
Sewer gate operation by remote control. L. L. Bradish and F. C. Lorenzen. il diag Eng N 139:812-13 D 11 '47
Supervisory control permits decentralization of large systems. il diag Elec World 129:53-5 Ja 31 '48
Supervisory control systems. L. Gess and R. M. Hutchinson. flow diag Pet Processing 3:948 O '48
Telemeter transmitter without moving contacts. C. Oman. il diags Westinghouse Eng 8:92-3 My '48
Telemetering circuits; metallic and carrier; abstract. M. A. Bostwick. diag Elec Eng 67:946 O '48
Telemetering equipment; indicating kwh and maximum demand at a distance. diag Elec R (Lond) 142:313-14 F 27 '48
Telemetering offers new benefits in civil plane test and operation. Aviation W 47:31-2+ N 24 '47
Universal telemetering system. L. D. Harris. diags Elec Eng 67:995 O '48
Why supervisory control equipment. W. R. Tackaberry. il diags Oil & Gas J 47:109+ S 16 '48

TELEPHONE

Analysis-synthesis telephony, with special reference to the vocoder. R. J. Halsey and J. Swaffield. bibliog il diags Inst E E J 95 pt 3:391-406; Discussion. 406-11 S '48
Effects of high pass and low pass filtering on the intelligibility of speech in noise. I. Pollack. bibliog Acoustical Soc Am J 20:259-66 My '48
Increasing use of plastics in telephones. il Mod Plastics 25:182-3 D '47
Speech communication under conditions of deafness or loud noise. W. G. Radley. bibliog il Inst E E J 95 pt 1:201-12 My '48; Discussion. 95 pt 1:212-16, 544-50 My, D '48
Survey of the telephone transmission-rating problem. L. C. Pocock. bibliog diags Inst E E J 95 pt 3:253-65 Ji '48; Same. Elec Com 25:256-77 S '48; Summary. Electrician 140:511 F 13 '48; Discussion. Inst E E J 95 pt 3:266-70, 422-4 Ji, S '48; Electrician 140:511-12 F 13 '48
Transmission losses in 2n-terminal networks. V. Belevitch. J Ap Phys 19:636-8 Ji '48

See also

Electric communication	Radio telephone
Radio communication—Wire line connections	Railroads—Telephone
	Telephone, Carrier current

Apparatus and supplies

Glass-enclosed reed relay. W. B. Ellwood. diags Elec Eng 66:1104-6 N '47

Loudspeaker for your 'phone; Jordaphone. Barron's 27:34 D 8 '47
Mercury contact relays. J. T. L. Brown and C. E. Pollard. il diag Elec Eng 66:1106-9 N '47
Nickel-iron alloy dust cores. S. E. Buckley. bibliog il Elec Com 25:126-31 Je '48
Number display using the cathode-ray tube. G. T. Baker. il diags Inst E E J 94 pt 3:421-7 N '47
Portable electronic chronometer. G. T. Baker. bibliog il diags J Sci Instr 25:194-8 Je '48
Production for export; telecommunication equipment. il Elec R (Lond) 142:951-5 Je 18 '48
Relay control circuits for stepping switches. C. J. Dorr and H. M. West. il diags Electronics 21:158+ Ja '48
Standard's new factory; making telecommunication gear. Electrician 139:1363-4 N 7 '47
Telephone industry uses artificial crystals. il Eng & Min J 149:87 Ap '48

See also

Telephone recorders

History

Hammond Vinton Hayes; his contribution to telephony. E. L. Bowles. Inst Radio Eng Proc 36:443-5 Ap '48

Long distance

Analysis of the problems of long-line telephone signalling. T. S. Skillman. diags Inst E E J 95 pt 3:114-26; Discussion. 126-30 My '48
Zurich automatic tandem toll exchange. G. Klingelfuss. il map diag Elec Com 25:113-20 Je '48

Multiplex system

Coding tube allows multiple transmission. il Product Eng 18:151 D '47
Experimental multichannel pulse code modulation system of toll quality. L. A. Meacham and E. Peterson. il diags Bell System Tech J 27:1-43 Ja '48

Noise

Coded pulse modulation minimizes noise. il diags Electronics 20:126-31 D '47

Radio telephone connection

AT&T's new radio relay. Pub Util 40:791-2 D 4 '47
Long-distance point-to-point communication. A. H. Mumford. Inst E E J 94 pt 1:465-6 O '47
Mobile radio communication. A. Bailey. diag Elec Eng 67:655 Ji '48
Résumé of v.h.f. point-to-point communication. F. Hollinghurst and C. W. Sowton. map Inst E E J 94 pt 1:475-6 O '47
Technical aspects of experimental public telephone service on railroad trains. N. Monk and S. B. Wright. il map diags Inst Radio Eng Proc 36:1146-52 S '48

Rates

AT&T license fee in Georgia Supreme court. Pub Util 41:562 Ap 22 '48
Bell rate increases; with tabulation by states. Pub Util 41:238-40 F 12 '48
Bell system rate cases. Pub Util 42:670-1 N 4 '48
Box score on Bell rate increases. Pub Util 40:844-5 D 18 '47
Comprehensive decision on California telephone rates. Pub Util 41:624-5 My 6 '48
Controversial rate order overturned in Wisconsin; Two Rivers case. Bsns W p32 D 20 '47
Current developments in rate-making communications. T. J. Peycke. Pub Util 42:614-20 O 21 '48
Dividends rise as 'phone rates overtake costs. Barron's 28:33 My 24 '48
Drastic decline in earnings justifies higher telephone rates; Chesapeake & Potomac telephone company case. Pub Util 41:191-2 Ja 29 '48
Emergency rate increase allowed telephone company; re New England telephone and telegraph co. Pub Util 40:867 D 18 '47
New rate idea; Two Rivers case. Bsns W p48+ N 15 '47

TELEPHONE—Rates—Continued

New rate-making freedom ended by Wisconsin court; Judge A. C. Reis reverses order reducing rates of Commonwealth telephone co. R. N. Larkin. Elec World News ed 128: 5 D 13 '47

Novel theory of rate-making getting Wisconsin court test; telephone company fights PSC order which reduced rates. R. N. Larkin. Elec World 128:87 N 8 '47

Phone rate may force papers to ration calls. Ed & Pub 81:28 Mr 20 '48

Rate increase based on higher operating costs is upheld; Chesapeake & Potomac telephone company case. Pub Util 41:60-1 Ja 1 '48

Rate order denying allowance for proper expenses is confiscatory; George case. Pub Util 42:455-6 S 23 '48

Rate relief. Bsns W p88-91 Je 12 '48

Regulatory battle of Two Rivers. A. Haines. Pub Util 41:36-8 Ja 1 '48

Return allowance of company under control of parent organization; Northwestern Bell telephone company authorized by Minnesota commission to increase exchange rates. Pub Util 41:322-3 F 26 '48

Southern Bell gets break. Pub Util 41:296-7 F 26 '48

Status of Bell rate cases. Pub Util 41:861-3 Je 17 '48

Telephone rate increases are related to service value and cost; re Southern New England telephone co. Pub Util 40:801-2 D 4 '47

Tennessee commission turns down Southern Bell rate increase. Pub Util 40:778-9 D 4 '47

Toll call walls. Pub Util 41:623-4 My 6 '48

Transitory effect of telephone construction program considered in rate proceeding. Pub Util 41:654-5 My 6 '48

Wisconsin judge pondering over rate making freedom. Elec World 128:65 N 22 '47

Statistics

Telephone carriers, 1941-1946. Survey of Cur Bsns 1947 Sup p 109 [supplemented in monthly numbers]

Argentina

Argentine government takes over operations of Empresa mixta telefónica Argentina (EMTA). For Comm W 31:33 My 1 '48

Argentina improves telephone service. For Comm W 29:30-1 D 6 '47

France

French coax cable laid; telephone cable between Paris and Toulouse. diag Electronics 20:178+ D '47

Germany

Reopening of international telephone service for Germany. For Comm W 30:29 Ja 17 '48

Iceland

Telephone and telegraph developments. For Comm W 31:42 Je 26 '48

India

Telecommunications developments in India. N. F. Frome. maps diags Inst E E J 95 pt 1:45-55 Ja '48

Philippine Islands

Philippine telephone service somewhat expanded. For Comm W 29:32 D 27 '47

Spain

Emergency operation of SOJ-12 carrier telephone systems. J. M. Clara and E. S. Calabuig. il map Elec Com 25:121-5 Je '48

Sudan

Sudan plans telephone modernization project. For Comm W 33:41 N 8 '48

Switzerland

Zurich automatic tandem toll exchange. G. Klingefuss. il map diag Elec Com 25:113-20 Je '48

TELEPHONE, Automatic

Analysis of the problems of long-line telephone signaling. T. S. Skillman. diags Inst E E J 95 pt 3:114-26; Discussion. 126-30 My '48

Aspect of the dialing behavior of subscribers and its effect on the trunk plant. C. Clos. Bell System Tech J 27:424-45 Jl '48

Director for automatic telephone switching systems. A. B. Smith. il diags Elec Eng 67:539-48 Je '48

Monarch director automatic exchange. Engineer 185:288-9 Mr 19 '48

Rotary automatic telephone system. W. Hutton. il Elec Eng 67:646 Jl '48

Telephone dial tester. G. E. Beggs, Jr. and E. L. Langberg. il diags Electronics 21:128-30 Ap '48

Zurich automatic tandem toll exchange. G. Klingefuss. il map diag Elec Com 25:113-20 Je '48

TELEPHONE, Carrier current

Carrier voltmeter aids channel maintenance. R. L. Brinton. diag Elec World 130:88+ Jl 17 '48

Coded pulse modulation minimizes noise. il diags Electronics 20:126-31 D '47

Emergency operation of SOJ-12 carrier telephone systems. J. M. Clara and E. S. Calabuig. il map Elec Com 25:121-5 Je '48

Experimental multichannel pulse code modulation system of toll quality. L. A. Meacham and E. Peterson. il diags Bell System Tech J 27:1-43 Ja '48

F-m short range carrier system. E. H. B. Bartelink and E. Daskam. il diags Electronics 20:112-17 D '47

First single sideband carrier; Pacific power and light co. il Elec West 100:71 Mr '48

Kellogg short-range carrier. il Ky Age 124:262 Ja 31 '48

Linear theory of bridge and ring modulator circuits. V. Belevitch. diags Elec Com 25:62-73 Mr '48

Modern single-sideband equipment of the Netherlands postals telephone and telegraph. G. T. van der Wyck. il diags Inst Radio Eng Proc 36:970-80 Ag '48

Power-line carrier communications. R. C. Cheek. diags Communications 28:26-7+ Ag '48

Single-sideband carrier telephone gives high voice quality. F. S. Beale. il diags Elec World 123:103-4 Mr 27 '48

Telecommunications developments in India. N. F. Frome. maps diags Inst E E J 95 pt 1:45-55 Ja '48

Telecommunications in the petroleum industry. Z. Friedberg. Inst Pet J 34:316-30 My '48

Three-phase rural power line carrier. il Elec World 128:112 N 22 '47

Trolleyphones at Lake Superior coal co. il Coal Age 52:100-2 N '47

V-h-f railroad radio link with six-channel telephone carrier system. P. B. Patton. il map diags Communications 28:16-17+ Jl '48

TELEPHONE, Light. See Light telephone

TELEPHONE, Mine. See Mine telephone

TELEPHONE, Submarine

Anglo-Dutch telephone cable. il Elec R (Lond) 141:917-18 D 19 '47; Electrician 139:1713-14 D 12 '47; Engineer 185:113 Ja 30 '48

TELEPHONE and general trust, limited
Statement by the chairman. A. Roger. Economist 154:609 Ap 10 '48

TELEPHONE answering service

Limited common carrier radio service; hitherto unused frequency allocations provide extension of telephone answering service. il map diag Electronics 21:97-9 Ja '48

TELEPHONE cables

Telephone cable measurements; discussion. Inst E E J 95 pt 2:350-1; 95 pt 3:238-9 Je-Jl '48; Abstract. Electrician 139:1572 N 28 '47

Coaxial cables

Anglo-Dutch telephone cable. il Elec R (Lond) 141:917-18 D 19 '47; Electrician 139:1713-14 D 12 '47; Engineer 185:113 Ja 30 '48

Coaxial cable; first coaxial telephone cable to connect New York and Albany. Mech Eng 69:942 N '47

Coaxial-cable networks. F. A. Cowan. bibliography il map diags Inst Radio Eng Proc 35:1364-7 N '47

TELEPHONE cables—Coaxial cables—*Cont.*
 French coax cable laid; telephone cable between Paris and Toulouse. *diag Electronics* 20:178-4 D '47
 Heating of radio-frequency cables. W. W. Macalpine. *diags Elec Com* 25:84-99 Mr '48

Installation

Aussies cook concrete for circular cable ducts. *il Constr Methods* 30:113 Ap '48

TELEPHONE companies

Ideas from independent telephone companies. Pub Util 41:872-4 Je 17 '48
 Illinois Bell telephone company expands facilities. *il Midwest Eng* 1:8-9 S '48
 Licking the telephone shortage. *il Bsns W* p25 D 6 '47
See also American telephone and telegraph company; Anglo-Portuguese telephone company, limited; General telephone corporation; International telephone and telegraph corporation; Peninsular telephone company

Accounting

From hand to electric accounting methods for sorting and billing operations; Elyria telephone company, Ohio. *il Am Bsns* 18:12-13+ J1 '48

Advertising

Georgia public service commission hit for cutting utility's ad fund. *Ed & Pub* 81:51 F 28 '48
 Phone company advertising limited by ruling of Georgia commission. *Elec World News* ed 129:12 Ap 3 '48

Employees

Double trouble in the spring? CWA's bargaining program. Pub Util 41:167-8 Ja 29 '48
 Five unions compete for telephone members. Pub Util 41:435-6 Mr 25 '48
 Minimum wage hike seen as sure thing in the telephone field. Pub Util 40:712-13 N 20 '47
 National minimum wage boost to squeeze independents. Pub Util 40:779-80 D 4 '47
 No general telephone strike. Pub Util 41:788-9 Je 3 '48
 Phone labor tries to unite. Pub Util 42:368 S 9 '48
 Phony picketing; union parades outside telephone offices. *il Bsns W* p98+ J1 24 '48

Finance

New capital for independent telephone companies; abstract. P. P. Stathas. Pub Util 42:184-5 J1 29 '48

Management

Responsibility of management in the Bell system. *Sales Management* 59:47 D 1 '47

Public relations

Good business citizenship. K. S. McHugh. *Trusts & Estates* 87:130 Ag '48

Regulation

Phone company advertising limited by ruling of Georgia commission. *Elec World News* ed 129:12 Ap 3 '48

See also

Telephone—Rates

Reports

Pictures or no pictures; American telephone and telegraph company's 1947 report tells serious investor what he wants to know. Pub Util 42:170 J1 29 '48

TELEPHONE company buildings

Big new telephone building completely air conditioned; Illinois Bell telephone co.'s Toll building in Chicago. *il Heating-Piping* 20:74-5 Je '48

Illinois Bell telephone company expands facilities. *il Midwest Eng* 1:8-9 S '48
 Steel tube piles for 100-ton loads; new telephone building at Oakland, Calif. *il diags Eng N* 140:511-13 Ap 1 '48

Telephone office of efficient layout in Washington, D.C. J. G. Jory. *il diags Eng N* 140:484-6 Ap 1 '48

TELEPHONE conversation

Recording devices

See Telephone recorders

TELEPHONE directories

Printing

Precision magnesium plates, made by new technique, eliminate electrotypes in test. G. C. Compton. *il Inland Ptr* 121:37-9 My '48

TELEPHONE exchanges

Monarch director automatic exchange. *Engineer* 135:238-9 Mr 19 '48
 Zurich automatic tandem toll exchange. G. Klingefuss. *il map diag Elec Com* 25:113-20 Je '48

TELEPHONE in business

How department stores are using direct-mail, telephone and outside selling. E. B. Weiss. *il Ptr Ink* 221:38-9+ D 26 '47
 Telephone technique. H. R. Kuhn. *Life Ins Courant* 53:55-8 My '48
 Ten telephone tips to improve your public relations. S. P. Lewis. *il Ptr Ink* 221:36-7 D 26 '47
 Use of telephone survey. P. McDowell. *Life Ins Courant* 53:35-6 Ap '48
 Using the telephone to help mechanize your field sales. K. F. Kirchhofer. *Ind Marketing* 33:49+ My '48

See also

Newspapers—Telephone service

TELEPHONE laboratories

See also

Bell telephone laboratories

TELEPHONE lines

Failure

Emergency operation of SOJ-12 carrier telephone systems. J. M. Clara and E. S. Calabuig. *il map Elec Com* 25:121-5 Je '48

Rural service

See Telephone service, Rural

TELEPHONE rates. *See* Telephone—Rates

TELEPHONE recorders

Beep calls seen helpful for interviews. *Ed & Pub* 81:12 Ag 7 '48
 FCC sets rules on telephone recorders. *Bsns W* p22 D 6 '47
 Tattle-tale telephones get FCC approval. Pub Util 40:845 D 18 '47
 Telephone conversation recording is started. Pub Util 42:301-2 Ag 26 '48

TELEPHONE rentals, limited

Statement by the chairman at 19th annual general meeting. F. T. Jackson. *Economist* 155:85 J1 10 '48

TELEPHONE research

Telecommunication research at Dollis Hill establishment of the post office. *Electrician* 141:101-2 J1 9 '48

See also

Bell telephone laboratories

TELEPHONE service, Rural

Survey of inductive co-ordination in rural areas; abstract. M. W. Rothpletz and H. S. Williams. *Elec Eng* 67:1042 N '48
 Three-phase rural power line carrier. *il Elec World* 128:112 N 22 '47

TELEPHONE workers. *See* Telephone companies—Employees

TELERAN. *See* Television aids to aviation

TELESCOPE

Amateur astronomer; long and short telescope. A. G. Ingalls. *il diag Sci Am* 179:60-3 S '48

Automatic guider for astronomical telescopes. H. W. Babcock. *R Sci Instr* 18:854-5 N '47
 Flexure plates form mounting of telescope. *il Machine Design* 20:99 J1 '48

How high is the sky? telescope at Mount Palomar. C. A. Scarlott. *il diags Westinghouse Eng* 8:98-102 J1 '48

Influence of the atmosphere upon the precision of telescope pointing. F. E. Washer and L. W. Scott. *diag J Res Nat Bur Stand* 39:297-302 O '47

Loss in resolving power caused by primary astigmatism, coma, and spherical aberration in telescopic systems. H. S. Coleman and S. W. Harding. *Opt Soc Am J* 38:217-21 Mr '48

Night on Palomar. A. G. Ingalls. *il diags Sci Am* 179:12-17 Ag '48

TELESCOPE—Continued

- Precision of telescope pointing. Franklin Inst J 244:403-5 N '47
 Telescope of Louis Waland, a Dumfries aircraft factory employee. il Sci Am 179:60-3 JI '48
 200-inch telescope; abstract. W. T. Skilling. Mech Eng 70:351-2 Ap '48
 Visibility of stars in the daylight sky. R. Tousey and E. O. Hulburt. Opt Soc Am J 38:886-90 O '48

Mirrors

- How 200-inch telescope mirror was hauled 160 miles; low-bed trailer used under special overload permit. R. A. Wagner. il Roads & Sts 91:84-5 F '48
 Moving the Eye with Diesels; transporting Mount Palomar Observatory telescope mirror. il Diesel Power 26:48 F '48
 Telescopes. A. G. Ingalls. il Sci Am 178: 141-2 Mr '48
 200-inch Corning mirror goes into service at Mt Palomar. il Glass Ind 29:381- JI '48

TELESCOPE, Cosmic ray

- Effective path length through a vertical cosmic-ray telescope. E. E. Witmer and M. A. Pomerantz. bibliog diags Franklin Inst J 246:293-309 O '48
 New cosmic-ray telescope for high altitudes. A. T. Biehl and others. il diags Rs Mod Phys 20:253-9 Ja '48

TELESCOPE, Portable

- Telescopes. A. G. Ingalls. il diags Sci Am 177:283-6 D '47

TELETYPE

- Reservations in seconds; new robot called Intelix. il Product Eng 19:148 Ag '48
 Story of amateur radio teletype. J. E. Williams. il diag Q S T 32:16-20 O '48

TELETYPESETTERS

- Teletypesetters keep Texas paper running. P. Clark, jr. Ed & Pub 81:28 Ja 31 '48

TELEVISION

- After the turn of the year. E. A. Nicholas. Comm & Fin Chr 167:364 Ja 22 '48
 Avenues of improvement in present-day television. D. G. Fink. il Inst Radio Eng Proc 36:896-905 JI '48
 Credit; don't overdo television picture snatching. J. Walker. Ed & Pub 81:34 Mr 13 '48
 Development and applications of the Skiatron. G. Wickenhauser. il diag Electronics 21:174+ Mr '48
 Electro-optical characteristics of television systems. O. H. Schade. bibliog il diags RCA R 9:5-37, 245-86, 490-580, 653-86 Mr-D '48
 Engineers reveal tv developments; Cincinnati IRE spring technical sessions. R. R. Batcher. diags Tele-Tech 7:44+ Je '48
 Future of radio and television. H. Bannister. Comm & Fin Chr 167:1758 Ap 22 '48
 Hard look at tv's future; Curtis Publishing survey. Bsns W p72+ O 30 '48
 Look ahead on video. C. R. Dunhill. il Adv & Sell 41:35+ My '48
 Modest income families lead in video survey in New York city. Ed & Pub 81:24 Ap 10 '48
 Motion picture companies analyze video to find adaptability of medium threatening box office. N. Kelne. Ptr Ink 225:91-2 O 1 '48
 Motion picture photography of television images. R. M. Fraser. bibliog il diags RCA R 9:202-17 Je '48
 Phonevision potential told for publishers. E. F. McDonald, jr. Ed & Pub 81:44 Je 26 '48
 Producer sees video as selling, not ad-ing; probable divorcement of producers and distributors. J. Walker. Ed & Pub 81:52 JI 24 '48
 Progress and future of television. A. B. DuMont. Comm & Fin Chr 167:1973+ My 6 '48

- Prospects for uhf television. Electronics 21: 68-9 N '48
 Radio progress during 1947; television. bibliog Inst Radio Eng Proc 36:538-40 Ap '48
 Spurt in television expansion. Pub Util 41: 434-5 Mr 25 '48
 Tele service areas; charts; reference sheet. J. H. Battison. Electronics 21:122 O '48

- Television! boom! il Fortune 37:78-83+ My '48
 Television dc component. K. R. Wendt. diags RCA R 9:85-111 Mr '48
 Television 1.Q.; questions and answers. E. Bukstein. diags Radio & Tv N 40:120, 142 O '48
 Television, its present status. Mech Eng 70:693 Ag '48
 Television on the move. il Bsns W p40+ F 28 '48
 Television; present and future. R. C. Cosgrove. Comm & Fin Chr 168:1752+ O 28 '48
 Television-recording camera. Mech Eng 70: 18 Ja '48; Barron's 28:38 F 16 '48
 Television recording camera. J. L. Boon and others. il diags Soc Motion Picture Eng J 51:117-26 Ag '48
 Television resolution chart. Electronics 20: 123-5 D '47
 Television; the billion dollar boom. J. R. Poppele. Comm & Fin Chr 168:1868 N 4 '48
 Television timetable for 1948; NBC network map; station directory. Tele-Tech 7:pt 2 My '48
 Television transcription by motion picture film. T. T. Goldsmith, jr. and H. Milholland. il diag Soc Motion Picture Eng J 51: 107-13 Ag '48; Abstract. Electronics 21:68-71 O '48; Discussion. Soc Motion Picture Eng J 51:113-16 Ag '48
 Television will change our approach to designing living rooms. Arch Forum 89:118-20 S '48
 Television's growing pains. Economist 155: 416-17 S 11 '48
 Testing repeaters with circulated pulses. A. C. Beck and D. H. Ring. il diags Inst Radio Eng Proc 35:1226-30 N '47
 Video storage by secondary emission from simple mosaics. R. A. McConnell. bibliog diags Inst Radio Eng Proc 35:1258-64 N '47
 We learned about television commercials by producing them; case history of commercials for American oil co. R. G. Swan. il diag Ptr Ink 223:34-7 Ap 23 '48

See also

- Moving picture theaters—Television
 Radio facsimile

Color

- Application of projective geometry to the theory of color mixture. F. J. Bingley. Inst Radio Eng Proc 36:709-23 Je '48
 Color-television film scanner. B. Erde. il diags Soc Motion Picture Eng J 51:351-72 O '48
 New viewing tube for color tv. A. Bronwell. diags Tele-Tech 7:40-1+ Mr '48
 Something new in color television; method of converting black and white equipment to permit color transmissions. R. Crosman. il diags Radio & Tv N 40:40+ S '48

History

- Historical sketch of television's progress. L. R. Lankes. bibliog Soc Motion Picture Eng J 51:223-9 S '48

Industrial applications

- Television monitors dangerous operation; high-thrust rocket motors. il Electronics 21: 168+ Ap '48
 Television observation; remote viewing of rocket test. il Sci Am 178:75-6 F '48

Photographic aspects

- Television vs. stills? It's a foto-finish. J. L. Collings. Ed & Pub 81:38 JI 3 '48

Rates

- Video transmission rates bring protest. Bsns W p76-7 Ap 3 '48

Scientific applications

- Underwater television. C. L. Engleman. il diag Electronics 21:78-80 F '48

Sound transmission

- Design factors for intercarrier television sound. S. W. Seeley. diags Electronics 21: 72-5 JI '48

TELEVISION—Sound transmission—*Continued*
 Method of transmitting sound on the vision carrier of a television system. D. I. Lawson and others. *il* diags *Inst E E J* 93 pt 3:251-67 *Jl '46*; Discussion. 93 pt 3:267-74; 95 pt 3:13-16 *Jl '46*, *Ja '48*
 What is wrong with tv sound? H. Helt. Communications 28:8-9+ *S '48*
 WPIX sound engineering. *Tele-Tech* 7:56 *Jl '48*

Study and teaching

Students of today; technicians of tomorrow; many schools ready to give basic training in television. C. E. Chapel. *il* Radio & Tv N 40:68-9 *O '48*

Great Britain

British television policy. *Elec R (Lond)* 143: 314 *Ag 27 '48*
 U.K. extends present television system. *For Comm W* 33:42 *O 9 '48*

TELEVISION, Submarine

Underwater television. C. L. Engleman. *il* diags *Electronics* 21:78-80 *F '48*

TELEVISION advertising

Advertising can finance television. E. S. Thomas. *il* *Ptr Ink* 222:30-1 *Ja 30 '48*
 Agencies urged to help television get under way for their own self-interest; Warren heads AAAAN. *Ptr Ink* 224:74 *Ag 27 '48*

ASNE gets complaint on pampered pets; radio and video. *Ed & Pub* 81:57 *Ag 14 '48*

Annual advertising awards, 1947; medal award to David Sarnoff. *Adv & Sell* 41:37 *Mr '48*

As for television commercials, there are better ways to advertise by video than keeping the camera focused on the product. B. V. Fuchs and T. Pan. *il* *Ptr Ink* 222: 34-5 *Ja 30 '48*

Building a television commercial. J. R. Allen. *il* *Ptr Ink* 224:32-4 *S 10 '48*

Cuff notes by a copywriter on a potent new medium. T. H. Thompson. *Sales Management* 61:52+ *Ag 15 '48*

Demonstrators, mechanical demonstrators and intra-store television. E. B. Weiss. *il* *Ptr Ink* 223:46+ *My 28 '48*

Four-minute quiz about television advertising. D. McNamara. *il* *Sales Management* 60:114+ *Je 1 '48*

How effective is television for today's advertiser? C. H. Wolfe. *il* *Adv & Sell* 41: 37-8+ *S '48*

How to organize your agency for television accounts. W. H. Case. *il* *Ptr Ink* 223:41-3+ *My 21 '48*

How will television affect other advertising media? E. P. H. James. *il* *Ptr Ink* 224:29-30+ *Ag 13 '48*

Industrial builder goes into television; Austin co. *il* *Bsns W* p25-6 *Je 12 '48*

Intrastore television as a sales-promotion medium. H. Jonas. *J Retailing* 24:15-20 *F '48*

Let's stop jumping to conclusions about television. E. P. H. James. *il* *Ptr Ink* 225:34-6+ *O 15 '48*

Radio and television promotions in the new department store. E. B. Weiss. *il* *Ptr Ink* 222:43-4+ *Mr 12 '48*

Reynolds & co. uses commercial television. *Comm & Fin Chr* 167:2423 *Je 3 '48*

Security-First's program. *il* Burroughs Clearing House 32:25 *Ag '48*

Seven predictions for the future of radio advertising. C. H. Wolfe. *il* *Sales Management* 61:130+ *Ag 15 '48*

Should we tackle television, now? M. Heinemann. *il* *Sales Management* 61:43+ *Jl 15 '48*

16 of 22 major advertisers on television as Mid-West and Coast stations bow in. *Ptr Ink* 225:91+ *O 1 '48*

Spot radio's success story; importance of spots in television. L. Wolfe. *Adv & Sell* 41:123+ *Mr '48*

Survey of video backs General Foods' decision to use it in '48. N. Kelne. *Ptr Ink* 221:76 *D 26 '47*

Take television out of the television department. L. Valenstein. *Ptr Ink* 225:40-1 *O 1 '48*

Telequizzicals promote television. R. Latimer. *Elec World* 129:120+ *F 14 '48*

Television; a new bank advertising medium; National Shawmut bank of Boston. J. J. Barry. *il* Burroughs Clearing House 32:24-5+ *Ag '48*

Television gets three heavyweight sponsors. *Bsns W* p50+ *F 7 '48*

Television gets top billing at American association of advertising agencies convention, Virginia Beach, Va. April 7-9. *Sales Management* 60:50+ *My 1 '48*

Television; how is it like, unlike, other media? C. H. Wolfe. *il* *Sales Management* 61:40-2 *Jl 1 '48*

Television is now wearing long pants; interview with Ralph Brooke Austrian. J. L. Collings. *il* *Ed & Pub* 81:30 *F 14 '48*

Television shows oil burner history. *il* *Dom Eng* 171:120-3 *My '48*

Television spots form backbone of screen filter advertising program. *il* *Ptr Ink* 224: 42-3 *S 17 '48*

Television's costs can be cut through pre-production planning. B. Fuchs and T. Pan. *Ptr Ink* 223:53+ *Ap 16 '48*

Television's spurt holds AAAA interest. S. Rovner. *Ed & Pub* 81:12 *Ap 10 '48*

These three changes should bring television costs into line; shorter programs, repeat use of films and emphasis on public relations. H. Marlowe. *il* *Ptr Ink* 222:32-3 *Ja 30 '48*

Three major agencies survey commercial television as its impact on radio billings is weighed. N. Kelne. *Ptr Ink* 221:84 *D 18 '47*

Video ad standards will be high; interview with W. E. Forbes. J. L. Collings. *Ed & Pub* 81:40 *Jl 3 '48*

Video will win public from radio*and justify cost, agency men predict; Brophy elected 4-A chairman. *Ptr Ink* 223:110 *Ap 16 '48*

We learned about television commercials by producing them; case history of commercials for American oil co. R. G. Swan. *il* *diags* *Ptr Ink* 223:34-7 *Ap 23 '48*

What about television? *il* *Mod Packaging* 22:91-8 *S '48*

Why General Foods will make a large investment in television. *Sales Management* 60:53 *Ja 1 '48*

Women will view daytime video and be sold by the commercials. W. Ware. *il* *Ptr Ink* 224:38-9 *Ag 6 '48*

Rates

Television rates go up as audience expands and medium outgrows era of token charges. *Ptr Ink* 221:113 *N 21 '47*

\$3,850 an hour rate for 10-station video. J. Walker. *Ed & Pub* 81:50 *Je 12 '48*

TELEVISION aids to aviation

Flight measurements by television. *il* *Aero Digest* 55:55 *N '47*

Storage orthicon and its application to Telean. S. V. Forgue. *il* *diags* *RCA R* 8:633-50 *D '47*

Teran; first experimental installation. D. H. Ewing and others. *il* *diags* *RCA R* 8:612-32 *D '47*

TELEVISION antennas

Antenna design for television and fm reception. F. A. Kolster. *il* *diags* *Inst Radio Eng Proc* 36:1242-8 *O '48*

Cathode-follower tv-antenna system. E. G. Hills. *il* *diags* *Communications* 23:22+ *Ja '48*

F-m and television receiving antennas; reference sheet. G. P. Kearse. *diags* *Electronics* 21:118 *N '48*

Fm ring antenna design. H. Kees. *il* *Tele-Tech* 7:66 *Jl '48*

Helical antenna for circular polarization. H. A. Wheeler. *il* *diags* *Inst Radio Eng Proc* 35:1484-8 *D '47*

Helical beam antennas for wide-band applications. J. D. Kraus. *bibliog* *il* *diags* *Inst Radio Eng Proc* 36:1236-42 *O '48*

Indoor television antenna. J. H. Newitt. *diags* *Electronics* 21:173-6 *Ag '48*

Recent advances in metal microwave lenses. *il* *Product Eng* 19:148 *Je '48*

Simple dipole television antenna. E. M. Noll. *diags* *Radio N* 39:144 *Mr '48*

Stacked array. E. M. Noll. *diags* *Radio & Tv N* 40:186 *O '48*

TELEVISION antennas—Continued

- Television antenna and rf distribution systems for apartment houses, H. E. Kallmann, *il* *diags* *Inst Radio Eng Proc* 36: 1153-60 S '48
- Television installation, W. W. Wayne, *il* *diag* *Radio N* 38:44-6+ S; 54-6+ O; 56-8+ N; 52-4+ D '47; 39:54-5+ F '48
- Television tower tops tall building, *il* *Constr Methods* 30:86-8 Ag '48
- Wide-range dual-band tv antenna design, L. L. Libby, *il* *diags* *Communications* 28:12-14+ Je '48
- WPIX antenna and tower, *il* *diags* *Tele-Tech* 7:36-7 JI '48

TELEVISION apparatus

- Barrier grid storage tube and its operation, A. S. Jensen and others, *il* *diags* *RCA R* 9:112-35 Mr '48
- Counter circuits for television, A. Easton and P. H. Odessey, *diags* *Electronics* 21: 120-3 My '48
- Distributed amplification, E. L. Ginzton and others, *diags* *Inst Radio Eng Proc* 36:956-69 Ag '48
- Flying spot designed for television studio scanning; new RCA cathode-ray tube, *il* *diags* *Tele-Tech* 7:42-3+ Je '48; *Communications* 28:33+ Je '48; *Electronics* 21:124+ Je '48
- New mobile field strength equipment for tv, *il* *Radio & Tv N* 40:61+ Ag '48
- Parts for design engineers, *il* *Published* in monthly numbers of *Tele-Tech*
- Permeameter for metals, used in cathode-ray and television tubes, H. J. Evans, *bibliog* *il* *diag* *Am Soc T M Proc* 46:1119-25 '46
- Product and package designed at same time; Polaroid filter for television screens, *il* *Ptr Ink* '224:70+ JI 16 '48
- Steady-state and transient analysis of a feedback video amplifier, J. H. Mulligan, Jr. and L. Mautner, *diags* *Inst Radio Eng Proc* 36:595-610 My '48
- Triode-type magnetic-deflection 2½ projection tv tube, *il* *Communications* 28:24+ Mr '48
- Video images enlarged; two-piece acrylic lens filled with clear mineral oil, *il* *Mod Plastics* 25:114-16 Ap '48

See also

- Television antennas
Television cameras

Manufacture

- Scale model cost \$400, will save thousands; Motorola's new television plant, E. V. Phillips, *il* *Factory Management* 106:76-7 F '48
- Television tubes by the thousands; manufacture of iconoscopes and kinescopes, F. E. Butler, *il* *Radio N* 38:39-42+ D '47

See also

- Electronics Park,
Syracuse, New
York

Standards

- Component parts standardization; what manufacturers say about need for uniformity, *Tele-Tech* 7:36-8+ S '48

TELEVISION apparatus industry

- Expanding television field, F. M. Folsom, *Comm & Fin Chr* 153:909 S 2 '48
- How dealer-distributor organization was built from scratch since war's end; Television receiver division, Allen B. DuMont laboratories, E. Marx, *Ptr Ink* 222:35 Mr 5 '48
- Installation and antenna hinder video, radio-men told, *Ptr Ink* 223:134 My 21 '48
- Let's stop kidding about television, C. V. Brown, *il* *Ptr Ink* 222:36-8 Ja 30 '48
- Nearly half-million television sets produced since war's end, *Barron's* 28:32 Ag 23 '48
- R.C.A.'s television, *il* *Fortune* 38:80-5+ S '48
- Television—exclusively! retail shop opened by J. R. Porterfield in conjunction with UVX Industries, Inc. M. Alth, *il* *Radio N* 39: 48-9+ Mr '48
- Television industry joins mass-production ranks, *il* *Mod Ind* 16:36-7 Ag '48
- Television may add millions to Kodak's sales, B. Ravits, *Barron's* 28:30 Ag 2 '48

- Television on wheels; traveling showroom to stimulate interest, R. P. Wakeman and T. T. Goldsmith, Jr., *il* *Radio N* 40:46-7+ JI '48

- Television: sales target for today, *il* *Mod Ind* 15:55-6+ Ap '48
- Television swells RCA sales, *Barron's* 28:37 My 10 '48
- Tv tubes are drag on an otherwise humming industry, *il* *Bsns W* p22-3 O 16 '48
- 300,000 television sets made since war, J. Walker, *Ed & Pub* 31:52 My 8 '48
- Video visions; cheaper sets, receivers for hotel guests, *il* *Bsns W* p33+ N 29 '47
- Waiting for television; but Admiral sells 'em now; sell fm-am radio-phonograph combinations and priority for television sets, R. D. Siragusa, *il* *Sales Management* 61:45-6 S 15 '48

Advertising

- Code to govern advertising of television sets, *Ed & Pub* 31:28 JI 17 '48
- How Philco uses direct mail to sign new dealers, *il* *Ptr Ink* 221:46 N 14 '47
- Wholesaler wins Philco award with tested ideas; top honors for Jos. M. Zamolski co. in Philco corp.'s annual competition, C. Guest, *il* *Sales Management* 61:136-8 Ag 15 '48

Directories

- Directory of television receiver manufacturers, *Tele-Tech* 7:58+ Mr '48

TELEVISION apparatus on aircraft

- Airborne telecasting proves successful, *il* *plan* *Aero Digest* 57:32+ Ag '48
- Stratovision meets first test, *il* *plan* *Tele-Tech* 7:47 Ag '48; *Westinghouse Eng* 8: 137 S '48

- Westinghouse pushes stratovision; pictures from broadcasting equipment contained in an airplane *Pub Util* 42:300-1 Ag 26 '48

TELEVISION broadcasters association

- Proceedings of the second television conference and exhibition, New York, Oct. 10-11, 1946, 225p Television broadcasters assn, 500 Fifth av, New York 18 '47 (pa \$3)

TELEVISION broadcasting

- Bells toll; effect of television on moving picture theater attendance, *Barron's* 28:12 S 20 '48
- FCC hears tv reallocation views, A. Francis, *Tele-Tech* 7:46+ O '48
- How WABD handles remotes, O. Freeman, *il* *diag* *Tele-Tech* 7:42-5+ Mr '48
- Interlocked scanning for network television, J. R. De Baun, *il* *diags* *RCA R* 8:651-9 D '47
- Joint technical advisory committee, its purpose and program, *Electronics* 21:72-5 S '48
- Petrillo settles with television broadcasters, *Bsns W* p58+ Mr 27 '48
- Television reaches stage of big-volume business and mass entertainment, *il* *map* *Bsns W* p24-6+ Ja 10 '48
- Television remote operations; pickup of program matter outside the studio and station, A. H. Broly, *il* *diag* *Soc Motion Picture Eng J* 50:54-63 Ja '48
- Test reel for television broadcast stations, M. R. Boyer, *Soc Motion Picture Eng J* 49: 391-4 N '47

- 2,000-mc television program chain, F. M. Deerhake, *il* *diags* *Electronics* 21:94-7 F '48

- WABD sets schedule for Nov. 1 daytime television as other stations start filling in program gaps., D. Bruner, *Ptr Ink* 225: 75+ O 22 '48

- Westinghouse pushes stratovision; beaming television pictures from broadcasting equipment contained in an airplane, *Pub Util* 42:300-1 Ag 26 '48

See also

- Television institute

Audience participation programs

- Televizuals promote television, R. Latimer, *Elec World* 129:120+ F 14 '48

Finance

- Advertising can finance television, E. S. Thomas, *il* *Ptr Ink* 222:30-1 Ja 30 '48

TELEVISION broadcasting—Finance—Cont.

Phonevision potential told for publishers. E. F. McDonald, jr. Ed & Pub 81:44 Je 26 '48
Vast financing problem. il Bsns W p83-4+ Ag 21 '48

Moving pictures

Color-television film scanner. B. Erde. il diags Soc Motion Picture Eng J 51:351-72 O '48
Motion picture television projected from film. il Electronics 21:128 Je '48
Report of SMPTE progress committee. Soc Motion Picture Eng J 50:538-40 Je '48
WPXI film projection. il plan Tele-Tech 7:46-7 Jl '48

Multiple outlet systems

Central television distribution system engineering; providing multiple viewing outlets in hotels. il Tele-Tech 7:46-8+ Ja '48
Video for hotel rooms. Electronics 21:152+ F '48

Political conventions

Tv pool at national conventions. S. Gerstin. il plans Tele-Tech 7:22-3+ Je '48

Regulation

See Television laws and regulations

Scientific programs

WPTZ, Philco television broadcasting corporation. Science 107:368 Ap 9 '48

TELEVISION cables

Coaxial-cable networks. F. A. Cowan. bibliog il map diags Inst Radio Eng Proc 35:1364-7 N '47

F-m and tv transmission line installation problems. J. S. Brown. il Communications 28:20-1 Ja '48

Television antenna and rf distribution systems for apartment houses. H. E. Kallmann. il diags Inst Radio Eng Proc 36:1153-60 S '48

Video delay lines. J. P. Blewett and J. H. Rubel. il diags Inst Radio Eng Proc 35:1580-4 D '47

TELEVISION cameras

Electro-optical characteristics of television systems. O. H. Schade. bibliog il diags RCA R 9:490-530 S '48

Eriscope camera tube. B. France. il diags Electronics 21:130 O '48

How WABD handles remotes. O. Freeman. il diags Tele-Tech 7:42-5+ Mr '48

Limiting resolution in an image-orthicon-tube pickup tube. H. B. DeVore. diags Inst Radio Eng Proc 36:335-45 Mr '48

Motion of electrons subject to forces transverse to a uniform magnetic field. P. K. Weimer and A. Rose. diags Inst Radio Eng Proc 35:1273-9 N '47

New design for medium definition tv camera system. J. B. Sherman. il diags Tele-Tech 7:52-5 S '48

New television field-pickup equipment employing the image orthicon. J. H. Roe. il plan diags Inst Radio Eng Proc 35:1632-46 D '47

Storage orthicon and its application to Tele-ran. S. V. Forgue. il diags RCA R 8:633-50 D '47

Tv lens considerations for image orthicon cameras. L. Mautner. Communications 28:14-16+ Ja '48

Television remote operations; pickup of program matter outside the studio and station. A. H. Brolly. il diags Soc Motion Picture Eng J 50:54-63 Ja '48

Television resolution chart. Electronics 20:123-5 D '47

Underwater television. C. L. Engleman. il diags Electronics 21:78-80 F '48

TELEVISION filters

Guide-line package; Polaroid television filter. il Mod Packaging 21:131 My '48

Television spots form backbone of screen filter advertising program. il Ptr Ink 224:42-3 S 17 '48

TELEVISION fund, inc.

Formed in Chicago. Comm & Fin Chr 168:806 Ag 26 '48

TELEVISION in naval education

Navy training by television. il Electronics 21:134+ N '48

TELEVISION industry

Tv boom is noted in numerous cities. Ed & Pub 81:32 S 4 '48

TELEVISION institute

Television network planning outlined. J. Walker. il Ed & Pub 81:80 Ap 24 '48

TELEVISION interference. See Television transmission—Interference

TELEVISION laboratories

Television receiver laboratory. F. R. Norton. il diags Electronics 21:86-9 Mr '48

TELEVISION laws and regulations

Television as a problem in copyright registration. R. S. MacCarteney. il Ptr Ink 224:32-3 Jl 23 '48

Video's quiz program; what is a news event? J. Walker. Ed & Pub 81:54 O 16 '48

TELEVISION lines. See Television cables

TELEVISION projection

Big picture practices. il diags Tele-Tech 7:30-5+ Mr '48

Compact projection television system. H. G. Boyle and E. B. Doll. il diags Electronics 21:72-7 Ap '48

Developments in large-screen television. R. V. Little, jr. il diags Soc Motion Picture Eng J 51:37-46; Discussion. 47-51 Jl '48

Home projection television. H. Rinia and others. il diags Inst Radio Eng Proc 36:395-411 Mr '48

Image dissector pickup tube, used in telecine projectors. il Communications 28:24+ F '48

New projection package for television; Norelco's Protegram system. L. J. A. van Lieshout. il diags Tele-Tech 7:30-3+ Ap '48

Optical problems in large-screen television. I. G. Maloff. il diags Soc Motion Picture Eng J 51:30-6; Discussion. 47-51 Jl '48

Projection screens for home television receivers. R. R. Law and I. G. Maloff. il diags Opt Soc Am J 38:497-502 Je '48

Theater television; a general analysis. A. N. Goldsmith. Soc Motion Picture Eng J 50:95-117; Discussion. 119-21 F '48

Triode-type magnetic-deflection 2½ projection tv tube. il Communications 28:24+ Mr '48

TELEVISION receiving apparatus

Acrylic lens magnifies television. il Plastics 8:24 F '48

After-spot elimination for television picture tubes. L. Mackta. diags Radio N 39:110 Ja '48

Baseline for visual alignment systems. E. A. Henry. diags Electronics 21:154+ S '48

Big picture practices. il diags Tele-Tech 7:30-5+ Mr '48

British developing projection television; Olympia exhibit. il Tele-Tech 7:28+ Ja '48

Cause and cure of spurious tv receiver oscillations. R. T. Cavanaugh. il diags Tele-Tech 7:36-7+ My '48

Custom-built telesees provide new video market. A. C. Lescarboursa. il Radio & Tv N 40:45 N '48

Design factors for intercarrier television sound. S. W. Seeley. diags Electronics 21:72-5 Jl '48

Dc restoration methods in television receivers. S. Deutsch. diags Tele-Tech 7:34-6 Ag '48

Forecasts 2,000,000 television sets by 1950. F. E. Mullen. Comm & Fin Chr 166:2198 N 27 '47

Home projection television. H. Rinia and others. il diags Inst Radio Eng Proc 36:395-411 Mr '48

House lighting tailored for television. il Arch Rec 102:126 N '47

How to use sweep generators with tv receivers. il diags Radio & Tv N 40:46-8+ N '48

Inductuner. il diags Radio N 39:62+ My '48

Interference traps for television. S. N. Finley. il diags Radio N 39:70-1+ Mr '48

Modern television receivers. M. S. Kiver. il diags Radio N 39:59-62+ Ap; 74-6+ My; 71-4+ Je; 40:66-8+ Jl '48; [cont as] Radio & Tv N 40:63-6+ Ag; 67-8+ S; 63-5+ O; 70-2+ N '48 (to be cont)

New projection package for television; Norelco's Protegram system. J. J. A. van Lieshout. il diags Tele-Tech 7:30-3+ Ap '48

New viewing tube for color tv. A. Bronwell. diags Tele-Tech 7:40-1+ Mr '48

TELEVISION receiving apparatus—Continued.

- Operating characteristics of film resistors; producing thin resistance film and coatings for tv circuits; can be applied to printed circuit elements. J. Marsten and A. L. Pugh, jr. *il Tele-Tech* 7:46-8+ Mr '48
- Photometry in television engineering. D. W. Epstein. *diag Electronics* 21:110-13 J1 '48
- Practical radio course; intermediate-frequency amplifier requirements for different types of receivers. A. A. Ghirardi. *diags Radio N* 39:88+ Ja '48
- Practical radio course; i.f. transformer; action of coupling circuits. A. A. Ghirardi. *il diags Radio N* 39:64-6+ F; 72-4+ Mr '48
- Practical radio course; sound and video channels of a tv receiver. A. A. Ghirardi. *il diags Radio N* 38:68-70+ D '47
- Present television boom. *il Consumers Res Bul* 22:17-20 J1 '48
- Projection screens for home television receivers. R. R. Law and I. G. Maloff. *il diags Opt Soc Am J* 38:497-502 Je '48
- Pulse rise time response chart for single stage video amplifiers. A. J. Baracket. *diags Tele-Tech* 7:38-9 F '48
- Rf input circuits for tv receivers. F. R. Norton. *diags Tele-Tech* 7:28-31+ O '48
- Radio-frequency performance of some receiving tubes in television circuits. R. M. Cohen. *diags RCA R* 9:136-48 Mr '48
- Selenium rectifiers for television receivers. G. Eannarino. *il diags Electronics* 21:134+ F '48
- Simplified wide band amplifiers. F. L. Burroughs. *diags Radio & Tv N* 40:58-9+ O '48
- 16-in. metal tv tube in production. *il Tele-Tech* 7:66 O '48
- Spectral power distribution of cathode-ray phosphors. R. M. Bowie and A. E. Martin. *bibliog il Inst Radio Eng Proc* 36:1023-9 Ag '48
- Tv circuits cause interference. I. J. Kaar. *Tele-Tech* 7:39 S '48
- Television front ends. A. D. Sobel. *il Electronics* 21:76-9 S '48
- Television kit. M. Flomenhoff. *il diags Radio & Tv N* 40:42-3+ O '48
- Television oscilloscope. L. H. VanArsdale, jr. *il diags Radio N* 39:64-6+ Ap; 62-5+ My '48
- Television receiver intermediate frequencies. P. F. G. Holst. *Electronics* 21:90-6 Ag '48
- Tests for the selection of components for broadcast receivers. G. D. Reynolds. *diags Inst E E J* 95 pt 3:54-64; Discussion. 64-8 Mr '48
- Today's radio and television not what they ought to be. *Consumers Res Bul* 21:25 F '48
- Trap circuits for receivers. *il diags Radio & Tv N* 40:58-9+ S '48
- Video interference; problem of radio interference that may be caused by television receivers. *Electronics* 21:142+ S '48
- What's ahead in tv receiver engineering? A. F. Murray. *il Tele-Tech* 7:26-7+ Mr '48

Control

- Automatic frequency control; circuits used in television receivers. W. H. Buchsbaum. *diags Radio N* 39:68-9+ Mr '48
- Automatic gain controls for television receivers. K. R. Wendt and A. C. Schroeder. *diags RCA R* 9:373-93 S '48

Installation

- Individualized television installations. B. Taber. *il diags Radio & Tv N* 40:35-8+ O '48
- Television antenna and rf distribution systems for apartment houses. H. E. Kallmann. *il diags Inst Radio Eng Proc* 36:1153-60 S '48
- Television installation. W. W. Wayne. *il diag Radio N* 38:44-6+ S; 54-6+ O; 56-8+ N; 52-4+ D '47; 39:57-9+ Ja; 54-5+ F '48

Installation on automobiles

- Mobile television receivers. *il Electronics* 21:120+ S '48
- WCAU-TV mobile television. *il Tele-Tech* 7:58 S '48

Installation on taxicabs

- Taxi television. *il Tele-Tech* 7:21 Ag '48

Manufacture

- Conveyor and test systems speed tv set assembly. Philco procedure; illustrations with text. *Tele-Tech* 7:36-8 Mr '48
- New tv switch stamping process. *il Tele-Tech* 7:94-5 S '48

Power supply

- Home projection television; pulse-type high-voltage supply. G. J. Siezen and F. Kerkhof. *il diags Inst Radio Eng Proc* 36:401-7 Mr '48
- New television power supplies use selenium rectifiers. G. Eannarino. *il diags Radio & Tv N* 40:54-6+ S '48
- Power converters for television. *diag Electronics* 21:152+ S '48
- Video sets favor cities' electric use. *Barron's* 28:34 Je 28 '48

Rating

- Four table-model television receivers. *Consumers Res Bul* 22:15-16 O '48
- Table-model television set. *Consumers Res Bul* 21:22 Je '48

Repair

- ABC's of home television servicing. M. C. Shore. *il Radio & Tv N* 40:35-7+ Ag '48

Specifications

- Television. '48-'49 receiver specifications; tabulation. *Tele-Tech* 7:pt2 S '48

Testing

- Crystal calibrator for hf and vhf. J. F. Gordon. *il diags Tele-Tech* 7:50-1+ S '48
- Lab testing tv receivers. W. F. Bailey. *il Tele-Tech* 7:36-9+ Ap '48
- Monitoring 'scope for television production lines. R. De Cola. *il diag Tele-Tech* 7:40-1 F '48
- New test equipment speeds video servicing. A. Liebscher. *il diag Radio N* 40:44-5+ J1 '48
- Picture-modulated television signal generator. A. Easton. *il diags Electronics* 21:110-15 Ag '48
- Resonance indicator for passive circuits; grid-dip meter. *il diags Tele-Tech* 7:39+ Mr '48
- Television receiver laboratory. F. R. Norton. *il diags Electronics* 21:86-9 Mr '48

Tuning

- Stagger tuned video i.f. systems. *diags Radio & Tv N* 40:55+ O '48

TELEVISION reception

- New mobile field strength equipment for tv. *il Radio & Tv* 40:61+ Ag '48

TELEVISION relay stations

- AT&T's new radio relay. *Pub Util* 40:791-2 D '47
- Indirect microwave relay system. R. R. Wakeman. *il diags Tele-Tech* 7:42-3+ S '48
- Microwave radio facilities of the Bell system; abstract. J. H. Moore. *Elec Eng* 67:703 J1 '48
- Microwaves for relaying tv programs. S. Freedman. *il maps Radio & Tv N* 40:36-8+ N '48
- NY-Boston microwave television relay. *il map diags Electronics* 21:114-16 Ja '48
- New York-Boston radio relay. *Tele-Tech* 7:62+ Ja '48
- Report on microwave tv networks. S. Freedman. *il maps diags Communications* 28:22-3+ O '48 (to be cont)
- Stratovision meets first test. *il plan Tele-Tech* 7:47 Ag '48; *Westinghouse Eng* 8:137 S '48
- 2,000-mc television program chain. F. M. Deerhake. *il diags Electronics* 21:94-7 F '48
- Two-way tv relay; Philco's New York-Philadelphia hook-up. W. H. Forster. *il diags Tele-Tech* 7:46-8 Ap '48

TELEVISION stations

- Television freeze; FCC holds up applications for new stations. *Bsns W* p24 O 9 '48
- Vast financing problem. *il Bsns W* p83-4+ Ag 21 '48
- WNOW, a-m/f-m installation. W. N. Weaver and N. C. Kitchen. *il diag Communications* 28:10-11 S '48

TELEVISION stations—Continued

Construction

Industrial builder goes into television; Austin co. il Bsns W p25-6 Je 12 '48
Salute to WPIX. il plans diags Tele-Tech 7:33-56 Jl '48
Television station built from roof up; WPIX. il Eng N 141:74 S 16 '48

Cost

Tv station cost study; tabulation. Tele-Tech 7:58 S '48

Directories

Stations on the air in 1948. Tele-Tech 7:pt 2 My '48
Television station list. Electronics 21:148+ F '48

Equipment

Recent telecommunication development; television station monitor. il Elec Com 25:312 S '48
Tv control console design. J. Ruston. il diags Communications 28:8-11+ O '48
Television synchronizing signal generator. A. J. Baracket. il diags Electronics 21:110-15 O '48
WPIX master control. il plan diag Tele-Tech 7:42-5 Jl '48

Power supply

WPIX power supply. plan Tele-Tech 7:51 Jl '48

TELEVISION stations, Newspaper

CBS effects another partnership with press. J. Walker. Ed & Pub 81:56 My 22 '48
Fm versus television? as small to big daily. A. S. Keshen. Ed & Pub 81:54 Jl 17 '48
N.Y. Daily news, with WPIX, shows it to Sweney. J. Walker. Ed & Pub 81:48 Je 19 '48
Newcomers welcome in Detroit tv boom. G. W. Parker. Ed & Pub 81:40 O 23 '48
News in television; newspapers in news. J. Walker. Ed & Pub 81:48 My 1 '48
Red ink and headache, but tv is worth while. A. S. Keshen. Ed & Pub 81:44 Jl 31 '48
Salute to WPIX. il plans diags Tele-Tech 7:33-56 Jl '48
Star-telegram brings video to Fort Worth. Ed & Pub 81:28 O 9 '48

TELEVISION studios

Technical aspects of television studio operation. R. W. Clark and H. C. Gronberg. il diags RCA R 8:719-36 D '47
WB3-TV; new Grand Central studios. A. B. Chamberlain. il plans diags Electronics 21:80-6 Jl '48

WPIX studio design. il plan diag Tele-Tech 7:48-50 Jl '48

Air conditioning

Television presents special problems. R. H. Emerick. il plan Heat & Ven 44:65-9 D '47

Equipment

Tv sync stretcher. R. C. Palmer. il diags Communications 28:10-11+ Mr '48
WPIX studio control equipment. il plan Tele-Tech 7:41 Jl '48

TELEVISION theaters

Showmanship side of television. R. B. Austrian. Soc Motion Picture Eng J 49:395-401; Discussion. 402-4 N '47

TELEVISION transmission

Comparative propagation measurements; television transmitters at 67.25, 288, 510 and 910 megacycles. G. H. Brown and others. il map RCA R 9:177-201 Je '48
Glass reflector blanks for television sets. il Am Cer Soc Bul 27:253 Je 15 '48
Measurement of delay distortion in microwave repeaters. D. H. Ring. il diags Bell System Tech J 27:247-64 Ap '48
Microwaves for relaying tv programs. S. Freedman. il maps Radio & Tv N 40:35-8+ N '48
NY-Boston microwave television relay. il map diags Electronics 21:114-16 Ja '48

Frequency allocation

Report on tv hearing. A. Francis. il Tele-Tech 7:33 Ag '48

Interference

Bandwidth vs noise in communication systems; IRE symposium on the reformulation of the Hartley law; new theory shows extent to which a-m, f-m, ptm and pcm make use of communication channel. diags Electronics 21:72-5 Ja '48
Cause and cure of spurious tv receiver oscillations. E. T. Cavanaugh. il diags Tele-Tech 7:36-7+ My '48
Individualized television installations. B. Taber. il diags Radio & Tv N 40:35-8+ O '48
New fast noise-immune television AGC circuit. K. R. Wendt. diags RCA R 9:385-93 S '48
No television interference from power lines in Los Angeles. I. L. Bateman. il Elec World 129:86-7 My 8 '48
Television installation. W. W. Wayne. il Radio N 39:57-9+ Ja '48
TVI can be reduced. P. S. Rand. il diags Q S T 32:31-6 My '48
Trap circuits for receivers. il diags Radio & Tv N 40:58-9+ S '48

Remote pickup

Indirect microwave relay system. R. R. Wakeman. il diags Tele-Tech 7:42-3+ S '48
Phasing of remote tv signals. R. C. Palmer. il diags Communications 28:14-16 Ap '48
WPIX remote technics. il diags Tele-Tech 7:52-4 Jl '48

TELEVISION transmitters

Comparative propagation measurements; television transmitters at 67.25, 288, 510 and 910 megacycles. G. H. Brown and others. il map RCA R 9:177-201 Je '48
Design trends in television transmitters. il diags Electronics 21:76-82 Ja '48
Tv transmitter design. G. E. Hamilton. diags Communications 28:12-15+ My; 20-2+ Je; 10-13 Jl; 8-9+ Ag '48
WPIX transmitter. il plan diags Tele-Tech 7:38-40 Jl '48

Control

Tv control console design. J. Ruston. il diags Communications 28:8-11+ O '48

Power supply

Stub tuners for power division. C. E. Smith. diags Communications 28:22-3 Ag '48

Standards

RMA standards; electrical performance standards for television broadcast transmitters, channels 1 to 13 (44 to 216 mc). diags Inst Radio Eng Proc 36:932-8 Jl '48

Testing

Frequency and modulation monitor for tv and fm. C. A. Cady. il diags Tele-Tech 7:44-5 F '48

TELLERS' cages. See Bank buildings—Tellers' cages

TELLURIDES

Ultraviolet spectra and ionization potentials of the hydrides and deuterides of sulfur, selenium, and tellurium. W. C. Price. J Chem Phys 16:551-2 My '48

TELLURITES

See also
Potassium tellurite

TELLURIUM

Separation of iodine-131 from tellurium. M. Levy, A. S. Keston and S. Udenfriend. Am Chem Soc J 70:2289-90 Je '48
Structure and conductivity in the VI₆ group of the periodic system. A. von Hippel. bibliog il diags J Chem Phys 16:372-80 Ap '48
Tellurium-graphite use in foundry work. Ry Mech Eng 122:257-8 My '48

Analysis

Microdetermination of tellurium V. R. H. DeMeio. Anal Chem 20:488-9 My '48
Potentiometric titration of +4 and +6 selenium and tellurium with chromous ion. J. J. Lingane and L. Niedrach. bibliog Am Chem Soc J 70:1997-2000 Je '48

Isotopes

Long-lived metastable state of Te¹²⁶. G. Friedlander and others. bibliog Phys R 74: 981-2 O 15 '48

TELLURIUM—Isotopes—Continued

Neutron deficient isotopes of tellurium and antimony, M. Lindner and I. Perlman, *Phys R* 73:1124-5 My 1 '48

Nuclear chemistry of tellurium; chemical effects of isomeric transition, R. R. Williams, jr. bibliog *J Chem Phys* 16:513-19 My '48

Physiological effect

Tellurium; effect of ascorbic acid on the tellurium breath, R. H. De Meio, bibliog *J Ind Hygiene* 29:393-5 N '47

Tellurium; the toxicity of ingested tellurium dioxide for rats, R. H. De Meio and W. W. Jetter, bibliog *J Ind Hygiene* 30:53-8 Ja '48

TELLURIUM oxides

Configuration of organic telluroxides; mixed crystals of telluroxides with selenoxides, H. Rheinholdt and E. Giesbrecht, bibliog *Am Chem Soc J* 69:2310-13 O '47

Physiological effect

Tellurium; the toxicity of ingested tellurium dioxide for rats, R. H. De Meio and W. W. Jetter, bibliog *J Ind Hygiene* 30:53-8 Ja '48

TELLUROXIDES. See Tellurium oxides

TEMPER brittleness. See Steel—Brittleness

TEMPERANCE

See also

Liquor problem

TEMPERATURE

Changes in energy or kinetic state, diags *Chem Eng* 55:107-12 My '48

Consistency and temperature of oils and printing inks at high shearing stresses, R. N. Weltmann, bibliog diags *Ind & Eng Chem* 40:272-80 F '48

Effect of temperature and impurities on certain photochemical reactions in solids; darkening of antimony oxide and bleaching of dye deposited upon titanium dioxide, C. F. Goodeve and M. R. Taylor, bibliog *J diags J Phys & Colloid Chem* 52:823-36 My '48

Effect of temperature and pressure on specific gravity, P. M. Reynolds, *Oil & Gas J* 46:96+- Mr 11 '48

Effect of temperature on biochemical oxidation of sewage, H. B. Gotaas, *Sewage Works J* 20:441-77 bibliog(p476-7) My '48

Effect of temperature on liquid phase activity coefficients, C. Berg and A. C. McKinnis, bibliog *Ind & Eng Chem* 40:1309-11 Ji '48

Effect of temperature on reactions in gels; an honors course problem, H. H. Fillinger, *J Chem Educ* 25:102-3 F '48

Frequency factor in the viscosity-temperature relationship of liquids, M. S. Telang, *J Chem Phys* 15:885 D '47

Intrinsic electric strength of polythene and its variation with temperature, W. G. Oakes, bibliog diags *Inst EE J* 95 pt 1:36-44 Ja '48

Microscopy of high-temperature phenomena, H. N. Baumann, jr. bibliog *J diags Am Cer Soc Bul* 27:267-71 Ji '48

Pressure-volume-temperature data for oxygen, C. H. Meyers, bibliog *J Res Nat Bur Stand* 40:457-66 Je '48

Simulation of high air temperatures by hydrogen admixtures, B. N. Cole, *Engineering* 165:508 My 28 '48

Spectral emissivity of iron and cobalt, H. B. Wahlen and H. W. Knop, jr. *Phys R* 74: 687-9 S 15 '48

Temperature lag and chemical kinetics, W. S. Horton, *J Phys & Colloid Chem* 52:1129-36 O '48

Thermodynamics; work, heat, and temperature concepts, and an examination of the temperature scale, J. L. Finck, *Franklin Inst J* 245:365-78 My '48

See also

Boiling points

Cold

Color temperature

Earth temperature

Heat

Lakes—Temperature

Melting points

Metals—Temperature

effect

Ocean temperature

Petroleum—Well temperature

Temperature, Low

Thermochemistry

Water, Underground

—Temperature

Measurement

Calculation of the temperature development in a contact heated in the contact surface, and application to the problem of the temperature rise in a sliding contact, R. Holm, bibliog *diag J Ap Phys* 19:361-4 Ap '48

Design of temperature-measuring elements, M. T. Cichelli, diags *Ind & Eng Chem* 40:1032-9 Je '48

Determination of boiling range of methy bromide, D. Williams and C. C. Meek, *diag Anal Chem* 20:733-5 Ag '48

Determination of ignition temperatures of combustible liquids and gases; modification of the drop method apparatus, G. S. Scott, G. W. Jones and F. E. Scott, bibliog *J diags Anal Chem* 20:238-41 Mr '48

Determining furnace heat transfer by gas temperature measurement, H. F. Mullikin, bibliog diags *Power Generation* 52:68-71 Ag '48

Determining temperatures of traction motors, J. W. Teker and F. H. Catlin, *J diags Gen Elec R* 51:27-9 O '48; Same, *Ry Ago* 125:628-31 O 2 '48

Device for obtaining a continuous record of body temperature from the external auditory canal, R. J. Williams and R. C. Thompson, diags *Science* 108:90-1 Ji 2 '48

Heat-flow meter for use in furnaces, R. H. Baulk and M. W. Thring, bibliog *diag Iron & Steel Inst J* 153:41-66, pl 1 no 1 '46

Heat requirements for instruments and air foils during icing storms on Mt Washington, V. J. Schaefer, *J A S M E Trans* 69:843-6 N '47

Instrument for recording continuously the salinity, temperature, and depth of seawater; abstract, A. W. Jacobson, *Elec Eng* 67:455 My '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boller furnace; measurement of surface temperature of exposed side of furnace tubes, L. B. Schueler, *J diags A S M E Trans* 70:553-67 Ji '48

Measurement of heat output of a one square foot panel, R. S. Leigh and R. G. Vanderwell, diags *Heating-Piping* 20:107-10 F '48

Measurement of temperature and relative humidity on the skin and clothing of human subject, L. W. Ogden and W. H. Rees, bibliog *J diags Textile Inst J* 38: T371-86 N '47

Measurement of the temperature of sliding surfaces, with particular reference to railway brake blocks, R. C. Parker and P. R. Marshall, bibliog diags *Inst Mech Eng & Proc* 158:Proc 209-20, pl 1-4 S '48; Same, *cond. Engineering* 165:21-2, 36, 45-8 Ja 2 '48; Conclusions, *Engineer* 184:465-6 N 1 '47; Discussion, *Inst Mech Eng J & Proc* 158:Proc 220-9, pl 5-8 S '48; *Engineer* 184:466, 478-9 N 14-21 '47

Measurements of solar heat transmission through flat glass, G. V. Parmelee and others, *J diags Heating-Piping* 20:153-6 Ja '48

Modified Fitch thermal conductivity apparatus, Z. V. Harvalik, diags *R Sci Instr* 18:815-17 N '47

Null temperature bridge with thermistor, R. L. Deeter, *J diags Electronics* 21:180+- Mr '48

Pneumatic method for measuring high-temperature gases, D. W. Moore, jr. *J diags Aeronautical Eng R* 7:30-4 My '48

Precision of heat transfer measurements with thermocouples; geometric errors, W. A. Mohun and W. S. Peterson, bibliog *J diags Can Chem & Process Ind* 31:908-13 O '47

PVT-laws system for measuring gas temperatures to 5000°F.; Fairchild laboratory gas temperature indicator, *J diags Instruments* 21:418 My '48

Progress report no. 1 on tool-chip interface temperatures, K. J. Trigger, bibliog *diag A S M E Trans* 70:91-8 F '48

Temperature conversion aided by diagram, B. H. Sanders, *Chem Eng* 54:145 N '47

TEMPERATURE—Measurement—Continued

Temperature distribution in some simple bodies developing or absorbing heat at a linear function of temperature. M. Jakob. *A S M E Trans* 70:25-8; Discussion, 28-30 Ja '48

Temperature distribution in the bush of a journal bearing. D. Clayton and M. J. Wilkie. *diags Engineering* 166:49-52 JI 16 '48

Temperature measurements and combustion efficiency in combustors for gas-turbine engines. W. T. Olson and E. Bernardo. *bibliog diags A S M E Trans* 70:329-33; Discussion, 333-4 My '48

Temperature variation of the thermal diffusion factors for binary mixtures of hydrogen, deuterium, and helium. B. F. Murphey. *bibliog diag Phys R* 72:834-7 N 1 '47

Welding arc temperatures. W. R. Chynoweth and others. *Welding J* 27:sup426-7 Ag '48

See also
Bolometers
Calorimeters and calorimetry
Pyrometers and pyrometry
Thermocouples
Thermometers and thermometry

Physiological effect

Comparison of physiological adjustments of human beings during summer and winter. N. Glickman and others. *bibliog il Heating-Piping* 20:113-19 Ag '48

Effects of climatic extremes; abstract. M. Critchley. *Nat Safety N* 57:56-7 F '48

Month of mayhem; working in August. *Fortune* 38:104-7 Ag '48

Thermal assessment of the environment; abstract and discussion. D. H. K. Lee. *Heating-Piping* 20:133-5 Ap '48

See also
Cold—Physiological effect
Heat exhaustion

Regulation

Comparison of systems for controlling gas-fired furnace process temperature. H. E. McClatchey. *diags Pet Processing* 3:878-80 S '48

Controlled heat cures heat-cure ills; automatic-control ovens in rubber and allied industries; vulcanization of rubber-bonded abrasive cutting wheels. H. Gehrich. *il Chem Ind* 63:54-5 JI '48

Furnace temperature control; energy regulator for small resistance types. G. B. Lamb. *il diags Elec R (Lond)* 142:229-31 F 13 '48

Gas thermometer for automatic control of low temperatures; application to separation of gases by isothermal distillation. D. D. Tunnicliff. *diag Anal Chem* 20:962-4 O '48

Primary-element response; for hairline control, off to a good start, is chief requirement. M. F. Behar. *diags Instruments* 21:691-8 Ag '48

Pyrometry for the ceramic industries; with an introduction to principles of automatic control. V. L. Parsegian. *bibliog il diags Am Cer Soc Bul* 27:1-24 Ja 15 '48

Regulation of temperature of refractometers. J. W. C. Crawford. *il diags Chem & Ind* p460-1 JI 17 '48

Temperature control. F. E. Butcher. *Elec R (Lond)* 142:230 F 20 '48

See also
Cryostats
Temperature regulators
Thermostats

TEMPERATURE, Animal and human

Body temperature, blood pressure and hypothalamus. S. Rodbard. *bibliog Science* 108:413-15 O 15 '48

Continuous recording of body temperatures of mice. S. Vernet and K. F. Metcalf. *il diag Science* 107:655-6 Je 18 '48

Device for obtaining a continuous record of body temperature from the external auditory canal. R. J. Williams and R. C. Thompson. *diags Science* 108:90-1 JI 23 '48

Measurement of temperature and relative humidity on the skin and clothing of a human subject. L. W. Ogden and W. H. Rees. *bibliog il diags Textile Inst J* 38: T371-86 N '47

TEMPERATURE, Low

Absorption spectrum of ozone in the visible; examination for fine structure; effect of temperature. G. L. Humphrey and R. M. Badger. *bibliog J Chem Phys* 15:794-8 N '47

Application of centrifugal refrigeration to ultra-low temperatures. E. P. Palmatier. *flow sheet il diags Chem Eng Prog* 44:481-7; Discussion, 487-8 Je '48

Cellular-glass insulation for low-temperature equipment. V. Sanders. *il Chem Eng Prog* 44:804-6 O '48

Correlation through anharmonic force theory of the compressibility modulus and thermal expansion coefficient of KBr at low temperatures. C. Kittel. *J Chem Phys* 16:850 Ag '48

Cryogenic conference, 4th, Ohio state university, Oct. 27-28. *Science* 107:244-5 Mr 5 '48

Cryoscopic behavior of carbon tetrachloride. A. W. Davidson, W. J. Argersinger, jr. and C. I. Michaelis. *bibliog J Phys & Colloid Chem* 52:332-9 F '48

Effect of low temperatures on the germination of inbred lines of sweet corn. G. Haskell. *Science* 107:150 F 6 '48

Gas thermometer for automatic control of low temperatures; application to separation of gases by isothermal distillation. D. D. Tunnicliff. *diag Anal Chem* 20:962-4 O '48

Glass-fiber insulation at liquid-air temperatures. B. M. Palmer and R. B. Taylor. *il diag Chem Eng Prog* 44:652-4 Ag '48

Heatless helium; abstract. S. Collins. *Chem Ind* 61:796-7 N '47

Impact strength and hardness of aircraft alloys down to -423° F. M. G. Fontana and J. L. Zambrow. *il diags Metal Prog* 53:97-101 Ja '48

Influence of low temperatures on the mechanical properties of 1818 chromium-nickel steel. D. J. McAdam, jr. and others. *bibliog J Res Nat Bur Stand* 40:375-82 My '48

Infra-red spectra of hydrocarbons; analysis of octane mixtures by the use of infra-red spectra obtained at low temperatures. W. H. Avery and J. R. Morrison. *bibliog il diags J Ap Phys* 18:960-7 N '47

Investigation of low-temperature nitrogen adsorption at high relative pressures. J. Holmes and P. H. Emmett. *bibliog diag J Phys & Colloid Chem* 51:1262-76 N '47

Low temperature and some of its effects upon the behavior of matter. S. C. Collins. *bibliog Science* 107:327-33 Ap 2 '48

Low-temperature insulation; new plastic, Flotofoam. E. C. Van Buskirk and C. C. Surland. *Chem Eng Prog* 44:803-4 O '48

Low-temperature insulation; problems and developments. J. F. White. *bibliog Chem Eng Prog* 44:647-51; Discussion, 651-2 Ag '48

Low temperature properties of tin and tin-lead alloys. H. S. Kalish and F. J. Dunkerley. *bibliog il Metals Tech* 15:TP2442 1-20 S '48

Low-temperature research simplified. *il Chem & Eng N* 25:3450 N 17 '47

Low-temperature spectroscopy of biological compounds. J. F. Scott and others. *bibliog Science* 107:302 Mr 19 '48

Low-temperature test at Air reduction apparatus research laboratory. *il Mech Eng* 70:449 My '48; *Welding J* 27:456-7 Je '48

Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. *bibliog J Chem Phys* 16:190-4 Mr '48

Low temperature treatment of steel. H. E. Boyer. *Iron Age* 161:69-73+ F 12; 78-83 F 19; 85-90 F 26 '48

Nature of the glassy state and the behavior of liquids at low temperatures. W. Kauzmann. *Chem R* 43:219-56 *bibliog*(104 ref, p253-6) O '48

Phase relations of a gas-condensate fluid at low temperatures, including the critical state. C. K. Eilerts and others. *bibliog il diags Pet Eng* 19:154+ F '48

Properties of philprene low-temperature rubber. W. A. Schulze and others. *Oil & Gas J* 46:126+ Mr 18 '48

TEMPERATURE, Low—Continued

- Some properties of low carbon 8½ per cent nickel steel; abstract. T. N. Armstrong and G. R. Brophy. *Pet Processing* 2:883 N '47
- Strange behavior of metals at very low temperatures; superconductivity. D. H. Andrews. bibliog il diag *Refrig Eng* 54:431-5+ N '47
- Styrofoam for low-temperature insulation. O. R. McIntire and R. N. Kennedy. bibliog *Chem Eng Prog* 44:727-30 S '48
- Superconductivity and structure of hydrides and nitrides and tantalum and columbium. F. H. Horn and W. T. Ziegler. bibliog diag *Am Chem Soc J* 69:2762-9 N '47
- Symposium on low temperatures shows practical uses in modern science. *Refrig Eng* 55:578+ Je '48
- Theory of liquid helium. L. Tisza. bibliog *Phys R* 72:838-54 N 1 '47
- Thermal insulation for low-temperature application. C. B. Bradley and J. F. Stone. bibliog diag *Chem Eng Prog* 44:723-6 S '48

See also

- | | |
|-------------------|----------------------|
| Cold | Refrigeration and |
| Cryogenic labora- | refrigerating ma- |
| tories | chinery |
| Freezing | Testing laboratories |
| Helium, Liquid | —Cold rooms |

TEMPERATURE regulators

- Adequate temperature controls provide improved apartment house heating. R. A. Lawder. diags *Heat & Ven* 45:85-3 Ag '48
- Compensated indicating temperature controller. il diag *Engineer* 186:398 O 15 '48; *Electrician* 141:1088 O 8 '48
- Control of narrow-boiling-range fractionating columns. G. G. Gallagher. diags *Pet Refiner* 27:116-17 Mr '48; Same cond. *Oil & Gas J* 46:85+ F 5 '48; Same. *Pet Eng* 19:82+ Mr '48
- Indicating temperature controller. il *R Sci Instr* 19:481-2 J1 '48
- New methods of heat control; abstract. F. E. Butcher. *Electrician* 140:582 F 20 '48
- Production temperature control. il *Mod Plastics* 25:150 J1 '48
- Proper instrumentation assures dehydration of hermetic units. C. C. Roberts. il *Refrig Eng* 56:231-2 S '48
- Proportioning temperature controller. D. Lazarus and A. W. Lawson. diag *R Sci Instr* 18:730-3 O '47
- Sending a new heating product to market; Dole thermostatic air control. S. G. Phillips. il *Ind Marketing* 33:36-7+ S '48
- Simple temperature controller. J. C. Mouzon. diag *R Sci Instr* 19:659-62 O '48
- Temperature control for dry-cleaning tumblers. il *Comp Air Mag* 53:201 Ag '48
- Temperature controller for use with electrically heated ovens and furnaces. il *R Sci Instr* 18:858 N '47
- Thermal protection of power transformers. C. L. Denault. bibliog il diag *Westinghouse Eng* 8:103-5 J1 '48

TEMPERING

- Bright hardening and tempering tiny parts. H. L. Hovis and A. W. Marks. il *Am Mach* 92:91-4 F 12; 112-15 F 26 '48
- Dual-tempering treatment; continuous draw furnace constructed by Holcroft & co. il *Steel* 122:104 F 16 '48
- How to select quenching and tempering oils for treating steel. E. L. H. Bastian. il *Steel* 122:64-6+ Mr 22; 79-82+ Mr 29 '48
- Metallographic etchant to reveal temper brittleness in steel. J. B. Cohen and others. bibliog il *Am Soc for Metals Trans* 39:109-36; Discussion. 136-8 '47
- Multiple tempering of low-alloy toolsteel. B. Z. Berman. *Metal Prog* 54:64 J1 '48
- New temper designations for aluminum alloys. R. B. Smith. *Iron Age* 161:72-8 Je 24 '48
- Secondary hardening of tempered martensitic alloy steel. W. Crafts and J. L. Lamont. bibliog il *Metals Tech* 15:TP2439 1-42 S '48
- Special induction heating setup tempers spline bores of gears. P. A. Hassell. il diag *Automotive Ind* 98:44+ F 15 '48
- Temper designations for aluminum alloys; engineering file facts. *Materials & Methods* 28:105 S '48

- Tempering of high alloy tool steels. G. A. Roberts and others. bibliog *Am Soc for Metals Trans* 39:521-46; Discussion. 546-8 '47
- Temperers for aluminum alloys; reference book sheets. *Am Mach* 92:129, 131 J1 1 '48
- Tests of quenching and tempering oils. W. L. Nelson. *Oil & Gas J* 46:82 N 22 '47

TEMPLETS

- Contrasting colors for metal templates. *Product Eng* 19:124 Ag '48
- New machine speeds templating; automatic sensitizer, conveyor system; Boeing aircraft. il *Aviation W* 47:20+ D 1 '47
- Plastic templets held by magnets. il *Mod Plastics* 25:170-1 D '47
- Template of piping symbols speeds process piping layout. F. Saunderson. diags *Chem Eng* 55:129-30 Je '48
- Templets; technique developed for plant layout. il *Machine Design* 19:113 D '47; *Sci Am* 177:271 D '47

1080. See Sodium fluoroacetate

TENAFLY, New Jersey

Sewerage

- Operating experiences at Tenafly. J. K. Adams. il *Sewage Works J* 20:909-12 S '48

TENNANT, Charles, 1768-1838

- Early history of the St Rollox chemical works; second Tennant memorial lecture. E. W. D. Tennant. *Chem & Ind* p667-73 N 1 '47

TENNESSEE

See also

- | | |
|----------------------|---------------------|
| Hydroelectric plants | Zinc mines and min- |
| —Tennessee | ing—Tennessee |

Sanitary affairs

- Garbage collection practices. C. L. Crangle. il *Pub Works* 79:24-5+ S '48

TENNESSEE gas transmission company

- Awaits next expansion move. *Barron's* 28:35 O 25 '48; Correction. 28:27 N 1 '48
- Common stock offered. *Comm & Fin Chr* 168:1405 O 4 '48
- FPC sets further hearings on applications for authorization to construct natural gas transmission facilities. *Comm & Fin Chr* 168:1626 O 18 '48
- Hustling pipe borrower. *Bsns W* p26 Ag 7 '48

TENNESSEE press association

- Annual convention. 80th, Kingsport. Ed & Pub 81:61 Je 19 '48

TENNESSEE valley

- Heating by electricity in the Tennessee Valley area; with cost data. B. H. Martin and T. W. Newberry. il map diags *Heat & Ven* 45:57-63 My '48

TENNESSEE Valley authority

- Comment on TVA audit. E. L. Kohler. *J Account* 85:337-8 Ap '48
- Dewey endorses TVA power job, spurs authorities for other areas. *Elec World News* ed 130:6 S 18 '48
- For sale; TVA will auction off two southern villages; Norris, Tenn. and Wilson Village, Ala. il *Bsns W* p66-7 Mr 13 '48
- Hidden red ink in TVA's books; abstract. J. T. Flynn. *Pub Util* 40:850-3 D 18 '47
- Norris, Tennessee; an abandoned experiment. L. D. Farrar. *Pub Util* 40:686-92 N 20 '47
- TVA calls on chemists. il *Chem & Eng N* 26:40 Ja 5 '48
- TVA fertilizer policies criticized. *Oil Paint & Drug Rep* 153:5 Ap 26 '48
- TVA on the griddle. *Pub Util* 41:559-60 Ap 22 '48
- TVA planning huge expansion. J. P. Callahan. *Pub Util* 41:282-4 F 26 '48
- TVA won't get new Johnsonville plant, survey of Congress shows. *Elec World* 129:70 My 8 '48
- TVA's burning issue (fuel); New Johnsonville plant. *Pub Util* 41:786-7 Je 3 '48

Bibliography

- Indexed bibliography of the Tennessee Valley authority; cumulative supplement, January 1945-December 1946. B. L. Foy, comp. 74p. 25p Technical lib. Tennessee Valley authority, Knoxville '47

TENNESSEE Valley project

- Clapp believes U.S. must build TVA steam plant to live up to contracts. *il Elec World News* ed 130:13-14 Ag 7 '48
- Constructing the Watauga project. G. K. Leonard and D. H. Mattern. *il map diags Civil Eng* 18:277-82+ My '48
- House turns down TVA's appeal for funds to construct steam plant. *Elec World News* ed 129:4-5 My 15 '48
- Planning the Watauga project; flood control and power project of Tennessee Valley authority. G. K. Leonard and D. H. Mattern. *il maps Civil Eng* 18:142-6+ Mr '48
- TVA increases use of steam for generation in fiscal 1947. *Elec World News* ed 129:13 Ja 10 '48
- TVA plan would break tie that binds federal power systems to rivers; requests fund to build steam-electric plant. *il Elec World News* ed 129:16-17 Mr 20 '48

TENNIS balls**Rating**

- Tennis balls. Consumers Res Bul 22:23 S '48

TENNIS courts

- Permanent tape for tennis courts. *il Plastics* 8:54+ Mr '48

TENSILE strength

- Study of the Berthelot method for determining the tensile strength of a liquid. A. F. Scott and others. *bibliog diags J Chem Phys* 16:495-502 My '48

See also

- Strength of materials

TENSIMETERS

- Interfacial tension by the ring method; the benzene-water interface. H. L. Cupples. *bibliog J Phys & Colloid Chem* 51:1341-5 N '47

- TENSION devices.** *See* Textile machinery—Tension devices

TENSOR analysis

- Applications of tensor analysis to elasticity and piezoelectricity. J. H. Jurmain. *bibliog Franklin Inst J* 245:475-500 Je '48

TENTS

- How to heat a big tent for International Harvester exhibition. *il Heating-Piping* 20:79 My '48

TERBIUM**Isotopes**

- Isotopic constitution of europium, gadolinium, and terbium. D. C. Hess, jr. *bibliog diags Phys R* 74:773-8 O 1 '48
- Radioactive europium, gadolinium, and terbium. N. L. Krisberg and others. *bibliog Phys R* 74:44-7 Jl 1 '48

TEREDOS

- Timber exposed to sea-water. *Engineering* 166:374 O 15 '48

TERMINALS

- Large motor truck terminals planned for metropolitan area. *il Civil Eng* 18:536 Ag '48

- Modern ore and coal transfer facility is open for business at Toledo. *il Marine Eng* 53:74-5 Je '48

- New rail-water terminal at Toledo improves coal-ore transfer. *il diags Eng N* 141:48-51 S 30 '48

- Staten Island terminal provides for ferry, bus and rail transportation. E. A. Verpillot. *il Civil Eng* 18:682-4+ N '48

See also

- | | |
|--------------------------------|---------------------|
| Airlines—Terminals | Petroleum shipping |
| Locomotive terminals | terminals |
| Motor bus lines—Terminals | Ports |
| Petroleum pipe lines—Terminals | Railroads—Terminals |

TERPENES

- Chemical uses of sulphate turpentine. P. O. Powers. *bibliog Paper Tr J* 126:39-42 Ja 29 '48

- From pine stumps to rosin and terpene oils; Crosby Chemicals, De Ridder, La. J. V. Hightower. *flow sheet* (p 150-3) *il Chem Eng* 54:119-21 D '47

- Insecticides nouveaux; les dérivés chlorés de la série terpénique. L. Desalbres and R. Labatut. *bibliog Chimie & Ind* 58:443-8 N '47

- Studies in the terpene series; effect of catalyst, solvent and temperature on the dehydrogenation of pinane and *p*-menthane. H. Pines, R. C. Olberg and V. N. Ipatieff. *bibliog Am Chem Soc J* 70:533-7 F '48

- Studies in the terpenes; a synthesis of di-2 : 2 : 3-trimethylcyclohexane-1-carboxylic acid. R. N. Chakravarti. *Chem Soc J* p 1565-8 D '47
- Terpenes of oil sweet goldenrod. B. R. Holland. *Am Chem Soc J* 70:2597-8 Jl '48

See also

- Citral
Copene

TERPINOLENE

- Electrolytic oxidation of *a*-pinene, terpinolene and dipentene. S. Glasstone and H. E. Stanley. *diag Electrochem Soc Trans* 92 (preprint 41):543-50 '47

TERRA cotta

- Ceramic veneer used in store front renewal for streamlined eye appeal. *il diag Brick & Clay Rec* 112:30-1 Je '48

- Some questions and answers on uses of exterior architectural terra cotta. *il diags Brick & Clay Rec* 112:33-5 Ja '48

TERRACES (geology)

- Pleistocene mammals and terraces in the Great Plains. C. B. Schultz and T. M. Stout. *diags Geol Soc Bul* 59:553-88, pl 1 *bibliog* (p574-87) Je '48

TERRAZZO

- Terrazzo as affected by cleaning materials. D. W. Kessler. *il Am Concrete Inst J* 20:33-40 S '48

TERRE HAUTE, Indiana**Sewerage**

- Steel arch construction expedites repair of explosion-damaged sewer. R. E. Hutchins and A. J. Nehf. *il Civil Eng* 18:582-4 S '48

TERRESTRIAL magnetism. *See* Magnetism, Terrestrial**TERYLENE**

- Terylene and its early development; abstract and discussion. D. V. N. Hardy. *Chem & Ind* p59-60 Ja 24 '48

- Terylene promises to be new rival for nylon. *Barron's* 28:19 F 9 '48

- Terylene, the new British fiber. W. H. Cady. *Am Dyestuff Rep* 37:699+ O 18 '48

TERZAGHI, Karl, 1883-

- Sketch. *por Civil Eng* 18:38-9 Ja '48

TEST of significance. *See* Significant difference (statistics)**TESTING**

- Application of electrical technique to the service of some other industries. H. C. Turner and G. M. Tomlin. *bibliog il diags Inst E E J* 34 pt 2:501-8; Discussion. 508-10 O '47; *Electrician* 138:365-6 Ja 31 '47

- Manufacturers boosting expenditures for product testing in response to consumer demands. N. Kelne. *il Ptr ink* 224:96 Ag 13 '48

- Non-destructive test methods. B. Carlin. *il diags Product Eng* 19:129-32 Jl '48

- Principles and uses of simulated service testing. L. L. Wyman. *il Materials & Methods* 27:63-7 Je '48

- Relative power of three statistics for small sample destructive tests. P. H. Jacobson. *Am Stat Assn J* 42:575-84 D '47

- Technical progress in metalworking; inspection and testing. *Steel* 122:211-12+ Ja 5 '48

- Ultrasonic resonance applied to non-destructive testing; automatic sonigage. W. S. Erwin and G. M. Rassewiler. *bibliog il diags R Sci Instr* 13:750-3 O '47

- Variations in materials, testing, and sample sizes. L. E. Simon. *Ind Stand* 19:81-3 Ag '48

See also

- | | |
|--|-----------------------|
| Brinell hardness test | Stiffness tester |
| Electric testing | Testing laboratories |
| Magnetic testing | Testing machines |
| <i>also</i> subdivision subjects, e.g. | Textile testing |
| Corrosion and anti-corrosives | Testing under various |
| Hardness | Plastic materials |
| Metals | Rubber |
| | Steel |

TESTING laboratories

- Expanded lubrication research laboratory for A.A.R. Mechanical division. *il Ry Age* 124: 1256-7 Je 26 '48
- Manufacturers boosting expenditures for product testing in response to consumer demands. *N. Kelne. il Ptr Ink* 224:96 Ag 13 '48
- Plant for testing full-scale components for gas turbines. *R. C. McLeod. il diags Engineering* 166:1-5, 12 Jl 2 '48
- PCA to build large research center. *il Concrete* 56:20-2 My '48
- Practical research program; Jeffrey mfg. co. *L. E. Newell and C. S. Thomas. il Steel* 123:104-4 Ag 9 '48
- Research by the mile; Ethyl corporation research laboratory at San Bernardino; research on engines and motor fuels. *il Pet Eng* 19:116-7 Ap '48
- Trapping sound in ventilating ducts; sound-proof test room of the Bell telephone laboratories. *N. N. Wolpert. il diags Heat & Ven* 45:65-7 Ja '48

See also

Retail trade-Laboratories

Underwriters laboratories

Cold rooms

- Hangar for aeroplane tests in extreme climatic conditions; Elgin field, Florida. *il Engineering* 166:25-7 Jl 9 '48
- High-altitude test chamber for aircraft. *il Engineering* 164:512-13, 516 N 28 '47
- Low-temperature research; Collins helium cryostat. *il Mech Eng* 70:18-19 Ja '48; *Paper Tr J* 125:24 N 13 '47

TESTING machines

- Air-driven spinners for testing fast-rotating machine components up to bursting speeds, pose mysterious design problems. *L. W. Wightman. il diags Machine Design* 20:121-5 My '48
- Baldwin-Tate-Emery material testing machine. *il Mach* 54:181 N '47; *Rubber Age* 62:336 D '47
- Calibration of testing machines with proving ring. *D. H. Rowland. diag Metal Prog* 54: 347-8 S '48
- Change in mechanical properties of mild steel under repeated impact. *F. V. Warnock and J. A. Pope. bibliog il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 26): 33-44; Discussion. 45-61 '47
- Creep tester for elevated temperature work. *il diags Product Eng* 19:36-7 My '48
- Development of an air-operated force-measuring system; Thrustorq system. *A. A. Markson and R. S. Williams. il diags A S M E Trans* 70:271-6; Discussion. 276-8 My '48
- Dynamic testing machine for testing rubber and fabric strips, and other materials used in tire manufacture. *diag Mech Eng* 70:433 My '48
- Fatigue of wood and glued-wood constructions. *W. C. Lewis. bibliog il diags Am Soc T M Proc* 46:814-32; Discussion. 833-5 '46
- Fatigue testing heavy structures; Douglas aircraft co. vibration table. *il Iron Age* 161:77 My 13 '48
- Fatigue testing machine simulates service conditions on large parts. *il Materials & Methods* 28:121 S '48
- Fatigue testing production parts; machine developed at General motors corp. Research laboratories div. *C. B. Griffin. il diags Iron Age* 161:59-62 Ja 8 '48
- Full-scale fatigue testing. *C. B. Griffin. il diags Mech Eng* 70:542-3 Je '48
- Calling tests of graphitic and regular oil hardening die steels. *A. F. Sprankle and R. W. Dayton. il diags Metal Prog* 54:65-9 Jl '48
- Giant tension and compression testing machine. *il Mach* 54:172-3 Jl '48
- Hardness testing with a ball tracing machine; abstract. *H. Hautman. diags Product Eng* 18:124-6 D '47
- Hydraulic-electric system; machine for magnafux inspection of crankshafts and camshafts. *W. E. Bock. il diags Machine Design* 19:107-11 D '47
- Hydraulic testing press with pre-stressed concrete frame. *il diags Engineering* 165:441 My 7 '48

- Impact testing of weldments. *W. C. Long. il Metal Prog* 54:43-5 Jl '48
- Inspecting Oldsmobile's new V-eight engine; unique inspection machines. *S. C. Starnaman. il Mach* 55:184-93 N '48
- Instron tensile testing instrument. *il Rubber Age* 64:60 O '48
- Laboratory tester simulates mud conditions *N. E. Martello. il diags World Oil* 128:98-4 Ag '48
- Motor-mount testing machine; abstract. *L. E. Muller. il Mech Eng* 70:340-1 Ap '48
- Navy using largest test machine. *il diag Aviation W* 49:33 N 8 '48; *Instruments* 21: 876-7 O '48; *Mech Eng* 70:900-2 N '48
- New creep testing machines. *J. Marin. il Automotive Ind* 98:46-7+ My 15 '48
- New wire fatigue testing method. *F. A. Votta, jr. il diags Iron Age* 162:78-81 Ag 12 '48
- Nondestructive inspection of mine hoist cable. *P. E. Cavanagh and R. S. Segsworth. bibliog il diag Am Soc for Metals Trans* 38: 517-45; Discussion. 545-50 '47
- Obtaining fatigue-test data; Sonntag fatigue testing machine. *J. A. Sauer and P. K. Roos. il Machine Design* 20:115-17+ O '48
- 150-ton universal structure testing machine. *il diags Engineer* 184:594-6 D 26 '47; *Engineering* 165:79-82, 84 Ja 23 '48
- Pneumatic fatigue machines. *F. B. Quinlan. diags Am Soc T M Proc* 46:846-51 '46
- Ross rubber flexing machine. *il Rubber Age* 62:456 Ja '48
- Rotating-load, elevated temperature fatigue-testing machine. *J. McKeown and L. H. Back. il diags Metallurgia* 38:247-54 S '48
- Speed-increasing gearbox for special test plant. *S. A. Couding. il diags Engineering* 164:412-14 O 31 '47
- Tangyes universal testing machine. *il Engineer* 186:320 S 24 '48
- Torsional-fatigue testing of marine shafting. *S. F. Dorey. il diags Engineering* 165:286-8, 310-12 Mr 19-26 '48; Abstract. *Engineer* 185:183-5; Discussion. 188-9 F 20 '48
- Vibratory cavitation test apparatus. *H. H. Schwartz. Product Eng* 19:184+; Reply. *R. Beeching. diag* 186+ My '48

See also

Dynamometers

Textile testing machines

Extensometers

Gear testing machines

TESTS, Ability. *See* Ability tests**TETRAACETYL glucopyranosyl bromide**

- Preparation of tetraacetyl- α -D-glucopyranosyl bromide. *C. G. Jeremias, G. B. Lucas and C. A. MacKenzie. Am Chem Soc J* 70:2598 Jl '48

TETRAACETYL thioglucoside

- Cleavage of tetraacetyl- β -D-thioglucosides with bromine in acetic acid. *W. A. Bonner. bibliog Am Chem Soc J* 70:770-2 F '48

TETRABROMOPHENOLPHTHALEIN

- Acid-base reactions in benzene and other organic solvents; behavior of bromophthalein magenta with different classes of organic bases. *M. M. Davis and P. J. Schuhmann. il J Res Nat Bur Stand* 39:221-63 bibliog(94 ref, p262-3) S '47

TETRACAPRIDUM conophorum

- African drying oils; the seed oil of tetra-carpidium conophorum. *F. D. Gunstone and others. Soc Chem Ind J* 66:293-6 Ag '47

TETRACHLORODIPHENYLETHANE

- Isolation of 1,1-dichloro-2-o-chlorophenyl-2-p-chlorophenylethane from technical TDE. *S. J. Cristol and H. L. Haller. Am Chem Soc J* 70:1323-4 Ap '48

TETRACHLOROETHANE

- Fine structure of Raman lines due to chlorine isotopes. *D. H. Rank and others. bibliog diags J Chem Phys* 16:698-703 Jl '48

TETRACHLOROETHYLENE

- Fine structure of Raman lines due to chlorine isotopes. *D. H. Rank and others. bibliog diags J Chem Phys* 16:698-703 Jl '48

TETRACHLOROPHTHALIC anhydride

- Esterification of tetrachlorophthalic anhydride. *B. W. Nordlander and W. E. Cass. bibliog Am Chem Soc J* 69:2679-82 N '47
- Reactions and uses of tetrachlorophthalic anhydride. *F. E. Lawlor. Ind & Eng Chem* 39:1419-23 bibliog(126 ref, p1422-3) N '47

TETRACHLOROPHTHALIC anhydride—*Cont.*
Tetrachlorophthalic anhydride, acid, and salts; properties and solubilities. F. E. Lawlor. *bibliog Ind & Eng Chem* 39:1424-6 N '47

TETRACYCLONE. See Tetraphenylcyclopentadiene

TETRAETHOXYETHYLENE

Ketene acetals; pentaethoxyethane and tetraethoxyethylene (diethoxyketene diethylacetal). S. M. McElvain and R. L. Clarke. *bibliog Am Chem Soc J* 69:2661-3 N '47

TETRAETHYL ammonium chloride

Effect of tetraethylammonium chloride in experimental gastric ulceration in the rat. J. M. Little and others. *bibliog Science* 106:448-9 N 7 '47

TETRAETHYL ammonium iodide

Solubility of tetraethylammonium iodide in benzene-ethylene dichloride mixtures. A. A. Vernon and J. L. Sheard. *Am Chem Soc J* 70:2035-6 Je '48

TETRAETHYL lead

DuPont begins direct sales of tetraethyl. *Aviation W* 48:19 Ja 19 '48

Effect of sulfur compounds on octane number of leaded fuels. H. K. Livingston. *bibliog Oil & Gas J* 46:30-34, Mr 11 '48

Penetration of lead through the skin. E. P. Laug and F. M. Kunze. *bibliog J Ind Hygiene* 80:256-9 Jl '48

Permeability of protective glove materials to tetraethyllead and ethylene bromide; nylon and nylon-neoprene. G. Calingaert and H. Shapiro. *bibliog Ind & Eng Chem* 40:332-5 F '48

Analysis

Determination of lead in air; rapid micro-method for field use. L. J. Snyder, W. R. Barnes and J. V. Tokos. *bibliog Ind & Eng Chem* 20:772-6 Ag '48

Manufacture

Manufacture of ethyl antiknock compound. C. C. Vogel. *J Chem Educ* 25:55-7 Ja '48

TETRAETHYL pyrophosphate

Effect of tetraethyl pyrophosphate on sympathetic ganglionic activity. T. Koppányi and others. *bibliog Science* 106:492-3 N 21 '47

Government and industry cooperate on tetraethyl pyrophosphate report. *Chem & Eng N* 26:2356 Ag 9 '48

Hexaethyl tetraphosphate and tetraethyl pyrophosphate. S. A. Hall and M. Jacobson. *bibliog Ind & Eng Chem* 40:694-9 Ap '48

Analysis

Determination of phosphorus in hexaethyl tetraphosphate and tetraethyl pyrophosphate. M. Jacobson and S. A. Hall. *bibliog Dig Anal Chem* 20:736-7 Ag '48

Determination of tetraethyl pyrophosphate in mixtures of ethyl phosphate esters. M. N. Dvornikoff and H. L. Morrill. *Anal Chem* 20:935-6 O '48

TETRAETHYL silicate

Raman spectrum of tetraethyl orthosilicate. J. Duchesne. *bibliog J Chem Phys* 16:1009-10 O '48

TETRAFLUOROETHYLENE, Polymeric. See Teflon

TETRAFLUOROMETHANE

Dissociation of SF₆, CF₄, and SiF₄ by electron impact. V. H. Dibeler and F. L. Mohler. *bibliog J Res Nat Bur Stand* 40:25-9 Ja '48

TETRAHALIDES

Forces between tetrahalide molecules. J. H. Hildebrand. *bibliog J Chem Phys* 15:727-36 O '47

TETRAHYDROANTHRACENE

Studies in the anthracene series; alkyl ketones derived from 1,2,3,4-tetrahydro-9,10-anthraquinone. E. L. May and E. Mosettig. *Am Chem Soc J* 69:3036-7 D '47

Studies in the anthracene series; derivatives of 1,2,3,4-tetrahydroanthracene. H. G. Latham, Jr., E. L. May and E. Mosettig. *bibliog Am Chem Soc J* 70:1079-81 Mr '48

TETRAHYDROANTHRAQUINONE

Studies in the anthracene series; alkyl ketones derived from 1,2,3,4-tetrahydro-9,10-anthraquinone. E. L. May and E. Mosettig. *Am Chem Soc J* 69:3036-7 D '47

TETRAHYDROCANNABINOL

Tetrahydrocannabinol homologs. R. Adams, B. F. Aycock, Jr. and S. Loewe. *bibliog Am Chem Soc J* 70:662-4 F '48

Tetrahydrocannabinol homologs with doubly branched alkyl groups in the 3-position. R. Adams, S. MacKenzie, Jr. and S. Loewe. *bibliog Am Chem Soc J* 70:664-8 F '48

TETRAHYDROCARBAZOLE

One-step synthesis of 1,2,3,4-tetrahydrocarbazole and 1,2-benzo-3,4-dihydrocarbazole. C. U. Rogers and B. B. Corson. *bibliog Am Chem Soc J* 69:2910-11 N '47

TETRAHYDROFURAN

Chemical intermediates from furfural. O. W. Cass. *diag Ind & Eng Chem* 40:216-19 F '48

4,4'-dichlorodibutyl ether and its derivatives from tetrahydrofuran. K. Alexander and L. E. Schniepp. *bibliog Am Chem Soc J* 70:1839-42 My '48

TETRAHYDROFURFURYL alcohol

Reactions of furan compounds; dehydration of tetrahydrofurfuryl alcohol to 2,3-dihydrofuran and subsequent formation of acrolein and ethylene. C. L. Wilson. *bibliog Am Chem Soc J* 69:3004-6 D '47

TETRAHYDROFURFURYL lactate

n-Alkanoyl derivatives of *n*-butyl and tetrahydrofurfuryl lactates. M. L. Fein and C. H. Fisher. *bibliog Am Chem Soc J* 70:52-6 Ja '48

TETRAHYDROISOQUINOLINE

Preparation of *cis*- and *trans*-decahydroisoquinolines and of *bz*-tetrahydroisoquinoline. B. Witkop. *bibliog Am Chem Soc J* 70:2617-19 Ag '48

TETRAHYDRONAPHTHALENE. See Tetralin

TETRAHYDRONAPHTHOL

1-Alkyl-1,2,3,4-tetrahydro-2-naphthols. B. C. McKusick. *bibliog Am Chem Soc J* 70:2196-8 Je '48

TETRAHYDROPHENANTHRENE

Sex hormones; synthesis of 1-keto-7-methoxy-1,2,3,4-tetrahydrophenanthrene and of 1-keto-7-methoxy-1,2,3,4,9,10-hexahydrophenanthrene. G. Stork. *bibliog Am Chem Soc J* 69:2936-9 D '47

TETRAHYDROPYRAN

Cleavage of tetrahydropyran by acid chlorides in the presence of zinc chloride; the preparation of 5-diethylaminopentanol-1. M. E. Synerholm. *bibliog Am Chem Soc J* 69:2581-2 N '47

TETRAHYDROROTTLERIN

Rottlerin; synthesis of tetrahydrorottlerin and of tetrahydroallorottlerin and the reversibility of the rottlerone change. T. Blackhouse and others. *Chem Soc J* p 113-15 F '48

TETRAHYDROXYQUINONE

Microdetermination of sulfur in organic compounds. A. Steyermark, E. Bass and B. Litman. *bibliog Anal Chem* 20:587 Je '48

Oxidation-reduction potentials and ionization constants of the reversible series; hexahydroxybenzene-tetrahydroxyquinone-rhodizonic acid. P. W. Preisler, L. Berger and E. S. Hill. *Am Chem Soc J* 70:871 F '48

TETRAHYDROXYBYRINE

Studies in the indole series; yohimbine; the synthesis of yobyryne, yobyron and tetrahydroxybyryne. P. L. Julian and others. *bibliog Am Chem Soc J* 70:180-3 Ja '48

TETRALIN

Chloromethylation of naphthalene and of tetralin. G. M. Badger, J. W. Cook and G. W. Crosbie. *Chem Soc J* 1432-4 N '47

Jacobsen reaction; 6,7-dialkyltetralins. L. I. Smith and C. Lo. *Am Chem Soc J* 70:2209-15 Je '48

Morphine studies; tetralin analogs. E. C. Horning and R. U. Schock, Jr. *bibliog Am Chem Soc J* 70:2945-9 S '48

Organic reactions with aluminum chloride; the cycl-alkylation of benzene with 1,4-dibromo-2-butene and the disproportionation of hydrogen atoms. K. Sisido and H. Nozaki. *Am Chem Soc J* 70:1609-12 Ap '48

Reaction between tetralin and β , β -dimethylacrylic acid. L. I. Smith and C. Lo. *bibliog Am Chem Soc J* 70:2215-16 Je '48

TETRALONE

Reaction of ketones with iodine and pyridine. L. C. King, M. McWhirter and R. L. Rowland. *bibliog Am Chem Soc J* 70:239-42 Ja '48

TETRALONE—Continued

Willgerodt reaction on α -tetralone. W. J. Horton and J. Van Den Berghe. bibliog Am Chem Soc J 70:2425-7 J1 '48

See also

Methoxytetralone

TETRAMETHYLANTHRACENE

Rates of dissociation of some tetraphenylxyllylethanes. R. R. Grunert, J. C. Nichol and R. B. Sandin. bibliog Am Chem Soc J 69:2254-6 O '47

Some tetramethylanthracenes. J. C. Nichol and R. B. Sandin. bibliog Am Chem Soc J 69:2256-8 O '47

TETRAMETHYLSILANE

Chlorides and other derivatives of tetramethylsilane. J. L. Speier and B. F. Daubert. bibliog Am Chem Soc J 70:1400-1 Ap '48

TETRANITRODIPHENYL sulfide

Elimination of sulphur in certain reductions of the 2:2':4:4'-tetranitrodiphenyl mono- and di-sulphides, and an alternative route to the preparation of some 5-substituted benz-1-thia-2:3-diazoles. H. H. Hodgson and D. P. Dodgson. Chem Soc J p 1002-4 J1 '48

TETRAPHENYLARSONIUM chloride

Gravimetric determination of thallium with tetraphenylarsonium chloride. W. T. Smith, jr. bibliog Anal Chem 20:937-8 O '48

TETRAPHENYL chlorin

Possibility of a triplet state intermediate in the photo-oxidation of a chlorin. M. Calvin and G. D. Dorough. bibliog il diags Am Chem Soc J 70:699-706 F '48

TETRAPHENYL cyclopentadienone

Reactions with tetraphenylcyclopentadienone; condensation with 1-phenyl-1,3-butadiene. O. Grummitt and E. I. Becker. bibliog Am Chem Soc J 70:149-54 Ja '48

TETRAPHENYLETHANE

Rates of dissociation of some tetraphenylxyllylethanes. R. R. Grunert, J. C. Nichol and R. B. Sandin. bibliog Am Chem Soc J 69:2254-6 O '47

TETRAPHENYL porphyrin

Porphyrin studies; the metal complex salts of $\alpha,\beta,\gamma,\delta$ -tetraphenylporphyrin. P. Rothmund and A. R. Menotti. Am Chem Soc J 70:1808-12 My '48

Possibility of a triplet state intermediate in the photo-oxidation of a chlorin. M. Calvin and G. D. Dorough. bibliog il diags Am Chem Soc J 70:699-706 F '48

TETRAPHENYLSIBONIUM chloride. See Sibonium compounds**TETRA TRIACONTANOIC acid**

Tetra triacontoic acid and related compounds. N. L. Drake and S. Melamed. bibliog Am Chem Soc J 70:364-7 Ja '48

TETRAZOLIUM compounds

Demonstration of reducing enzyme systems in neoplasms and living mammalian tissues by triphenyltetrazolium chloride. F. H. Straus and others. bibliog Science 108:113-15 J1 '48

Effects of a new tetrazolium derivative on tissue, bacteria, and onion root tips. W. Antopol and others. bibliog Pub Health Rep 63:1231-8 S 17 '48

TETRODE voltmeters. See Voltmeters, Vacuum tube**TETRODES.** See Vacuum tubes**TETRONIC acid**

See also

Anhydrotetronic acid

Hydroxytetronic acid

TETRYL

Analysis

Estimation of impurities in tetryl (2:4:6-trinitrophenylmethylnitramine). I. A. Brownlie and W. M. Cumming. bibliog Soc Chem Ind J 67:206-10 My '48

TEXAS

See also

Ceramic industries— Petroleum industry

Texas and trade—Texas

Manufactures— Water supply—

Texas Texas

Petroleum—Texas

Industries and resources

Texas, southwestern paradox. il map J Eng Educ 38:sup 1-5 Mr '48

TEXAS CITY, Texas

Ammonium nitrate explosions at Texas City. J. E. Jacobson. Mech Eng 69:1054-5 D '47

Compensation publicity; what Monsanto chemical company did for victims of disaster. Nat Safety N 57:88 Ap '48

Explosions of ammonium nitrate fertilizer on board the S.S. Grandcamp and S.S. High Flyer at Texas City, Tex., April 16, 17, 1947. G. M. Kintz and others. 37pls U S Bur Mines Rep of Invest 4245:1-57 '48

Eye-witness reports on the re-birth of Texas City. il Am Bld 70:120-1 Ag '48

Magic of fire insurance protection demonstrated in rapid restoration of Texas City from explosion disaster. E. M. Ackerman. il Weekly Underw 158:1022+ Ap 3 '48

Texas City and its industries rebuild. il Bsns W p42+ Ap 17 '48

Texas City, one year after; adapted from Monsanto magazine. il Nat Safety N 58:18-19+ J1 '48

Texas City, one year later. il Spectator (Property ed) 13:14-15+ Ap 8 '48

Texas City shows great progress year after catastrophe. National Board survey. Nat Underw 52:1 Mr 25 '48

TEXAS college of arts and industries

Petroleum engineering schools. il Oil & Gas J 46:86+ Ap 8 '48

Trained engineers for an expanding natural gas industry; natural gas engineering courses offered. F. H. Dotterweich. il Am Gas J 168:23-6 My '48

TEXAS company

Annual report. Comm & Fin Chr 167:1262-3 Mr 22 '48

TEXAS eastern transmission corporation

Fault? J. W. Welcker. Harvard Bsns R 26:207-15. Mr '48: Discussion (Profits and progress). J. S. Lawrence. 26:480-91 J1 '48

Stock offered. Comm & Fin Chr 166:1998-9 N 17 '47

TEXAS electric service company

Securities offered. Comm & Fin Chr 167:1512 Ap 5 '48

TEXAS engineering and manufacturing company

Variety at Temco; Texas engineering & manufacturing co. manufactures planes, parts and accessories, overhauls and converts planes. R. McCulloch. il Aero Digest 56:46-7 Ap '48

TEXAS gas transmission corporation

Financing program. Comm & Fin Chr 167:2794 Je 28 '48

TEXAS Gulf sulphur company

Net at record level. Barron's 28:34-5 O 11 '48

TEXAS mid-continent oil and gas association

Annual meeting. Fort Worth, Oct. 14-15. Oil & Gas J 47:56-7 O 21 '48

TEXAS power and light company

Securities offered. Comm & Fin Chr 167:1735-6 Ap 19 '48

TEXAS technological college

Petroleum engineering schools. il Oil & Gas J 46:116+ Mr 18 '48

TEXAS university

Texas awaits you. il J Eng Educ 38:251-5 D '47

University of Texas well-sample library offers increased facilities at new site. D. E. Feray. il Oil & Gas J 47:95-6+ O 28 '48

College of engineering

Building the future today. il J Eng Educ 38:513-16 Ap '48

TEXAS utilities company

American Power plans Texas distribution. Barron's 28:27 J1 5 '48

TEXSUN citrus exchange, Weslaco, Texas

Citrus fruit processing; staff-industry collaborative report. W. H. Shearon, jr. and E. M. Burdick. bibliog (46 ref) flow diags il diag Ind & Eng Chem 40:370-8 Mr '48

TEXTILE analysis

Alkali-sensitivity of the aldehydes obtained by periodate oxidation of β -methyl glucoside, β -methyl cellobioside, and cellulose. F. S. H. Head. bibliog Textile Inst J 38: T389-407 D '47

Determination of diphenyl carbonate; three analytical methods for estimating in cloth. J. Goldenson and S. Sass. bibliog Anal Chem 20:730-2 Ag '48

TEXTILE analysis—Continued

Qualitative analysis of textile processing agents. H. B. Goldstein, bibliog diag Am Dyestuff Rep 36:629-40 N 3 '47
 Textile analysis by infrared technique. P. Sadler, diags Am Dyestuff Rep 37:555-8 Ag 23 '48

See also

Cotton—Analysis
 Nylon—Analysis
 Wool—Analysis

TEXTILE associations

U.N. for synthetic textiles. H. E. Goodman. Textile Col 70:26+ Je '48

TEXTILE chemicals

Alphabetical list of new products developed since November, 1946. II diags Am Dyestuff Rep 36:687-94+ D 1 '47

Chemical finishes for cotton yarn and hosiery. M. S. Furry, II Rayon 29:58-60 Ja; 67-70 E; 65-6 bibliog 666 Mr '48

Chemical specialties attain greater stature; textile chemicals. R. E. Sumner, Chem Ind 63:394 S '48

Colloidal silica aids woolen and worsted spinning; Syton. R. L. Brown, II Textile World 98:123+ Ag '48

Gluconic acid in the textile industry. G. B. Stone, Am Dyestuff Rep 37:633-4+ O 4 '48

Glycerine in textiles. M. A. Lesser, Textile Col 70:20+ Je '48

Newer uses of glycerine. M. A. Lesser and J. Cotter, bibliog Rayon 29:83-5 Ja '48

Petroleum chemicals in relation to the textile industry. E. S. Paice, bibliog Soc Dyers & Col J 64:237-45 J1 '48

Proper preparation prevents printing problems. T. N. Patrick, Textile World 98:141+ S '48

Qualitative analysis of textile processing agents. H. B. Goldstein, bibliog diag Am Dyestuff Rep 36:629-40 N 3 '47

Research service to the textile industry. H. Robinette, jr. Textile Col 70:24+ O '48

Silicones and their application to the textile industry. F. L. Dennett, bibliog II Am Dyestuff Rep 36:748-53 D 15 '47

Surface active chemicals for textile processing; abstract. E. A. Robinson, Am Dyestuff Rep 36:760 D 15 '47

Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter

Wetting agents and auxiliary products. J. B. Speakman, bibliog Chem & Ind p456-60 J1 17 '48

See also

Carboxymethyl cellulose	Resinous products—Textile uses
Dyes and dyeing	Waterproofing of textiles
Fireproofing of textiles	Wetting agents

Prices

Textile and leather chemicals; 1947 market trends. Oil Paint & Drug Rep 153:36-7 sec 2 F 16 '48

TEXTILE chemistry

Distribution of water in cellulose and other materials. R. Simha and J. W. Rowen, bibliog Am Chem Soc J 70:1663-5 Apr '48

Textile chemistry session at 1948 conference of the Chemical Institute of Canada. E. F. Mann, Rayon 29:74 O '48

See also

Bleaching	Textile analysis
Cotton finishing	Textile chemicals
Dyes and dyeing—Chemistry	Textile finishing
Resinous products—Textile uses	Waterproofing of textiles
Sizing (textiles)	Wool—Chemistry

TEXTILE design

Art and economics of printed textile design. II Textile Col 69:28+ O; 32+ N; 34+ D '47

Art in relation to the textile industry; Mather lecture. A. Walton, II Textile Inst J 39: P220-3 J1 '48

Atom interpreted in fabric. II Textile Col 70: 32 Ag '48

Blueprints for tomorrow's decorative fabrics. J. Wynborough, II Textile Col 70:21-4 Ja '48

Buyer's search. P. Cantor, Textile Col 70:36 My '48

Case for creative fabric design versus mass production. Textile Col 70:26-7+ Ap '48

Comeback in carpets. II Fortune 38:88-93+ S '48

Costumes of the eastern world form inspiration for modern design and fashion; exhibition at the Costume Institute of the Metropolitan museum of art. II Rayon 29:41 F '48

Creative fabric design, the Tillett's way. II Textile Col 70:20+ Ag '48

Design and colour in textiles. P. Whiston. Textile Inst J 39:P193-9 Je '48

Design in furnishing fabrics. E. W. Goodale. Textile Inst J 39:P187-80 Ag '48

Design protection. F. Hepp; S. Gotshal. Textile Col 70:20+ Ja '48

Designing of fabrics to meet consumers' requirements; dimensional stability, wearing properties and draping properties. W. E. Morton, Textile Inst J 39:P187-92 Je '48

East is East, West is West; Ilza Hahlo's dress fabric designs. II Textile Col 70:22-3+ Ag '48

Flowers return. II Textile Col 69:30 N '47

Future trends in woven design of decorative textiles. J. L. Maag, II Textile Col 70:22+ Je '48

Hand has not lost its skill; present place of older textile centers in new textile world. I. Blunt, Textile Col 69:27+ D '47

Heavenly flowers of Hawaii, II Textile Col 69:34-5 N '47

Introducing Manon Peter. II Textile Col 70: 30-1 O '48

Knitted fabric has great facility for fancy patterns. C. R. Carter, diags Textile World 97:132-3 D '47

Merchant adventuring in textile design; British rayon design centre states its problem. V. Watkins, II Textile Col 69:44-5 N '47

Modern conception for decorative design. II Textile Col 70:28-9 Ap '48

New department speeds fabric development. P. M. Thomas, II Textile World 98:133+ Mr '48

Original French textile designs for 1949. II Textile Col 69:35-40 D '47

Outerwear knit goods designed on machine. diags Textile World 98:172+ Ap '48

Phototranspositograph; abstract. A. Barella. II diag Textile Inst J 39:P113-15 Mr '48

Seagoing decor. Textile Col 70:50+ Ja '48

Search for the Latin look. II Textile Col 70:37 My '48

Song of the loom; Dorothy Liebes unveils her designs for the future. II Textile Col 69:23-6 N '47

Textile color and design; abstract. Textile Col 70:49 Ja '48

Textile institute; competitions for textile design, 1947. Textile Inst J 38:P526-7 N '47

TEXTILE drying

Drying fabrics improved by enhancing absorbency; patent. Am Dyestuff Rep 36: 787-8 D 29 '47

Gas-fired dryers dry quickly, save space. C. N. Rabold, flow diag II Textile World 98: 122-3 S '48

Many uses seen for high-frequency heat. T. H. Story, II Textile World 98:122-3+ Mr '48

Progress in drying and heating textiles. Rayon 29:68 S '48

Radiation drying of textiles; woven and matted wool felts, woven wool crepe, and absorbent cotton batting. G. T. Paul and R. H. Wilhelm, bibliog II diags Textile Res J 18:573-97 O '48

Some aspects of the drying and heating of textiles. J. M. Preston and J. C. Chen, bibliog 4pls diag Soc Dyers & Col J 62:361-8; 64:60-3 D '46, F '48; Abstract. Am Dyestuff Rep 36:252 My 5 '47; Discussion. Soc Dyers & Col J 64:63-4 F '48

Textile drying. M. T. Fleming, diags Am Dyestuff Rep 37:333-9+ My 17 '48; Abstract. Rayon 29:60-2 Mr '48

Textile drying process. A. C. Walker, bibliog diag Am Dyestuff Rep 36:753-6 D 15 '47

See also

Rayon drying

TEXTILE education

Textile institute; education. F. Scholefield. Textile Inst J 39:P338-40; Discussion. 340-2 Ag '48

See also

Textile schools

TEXTILE fabrics

- Conflicting textile requirements; a challenge to the scientist; fabrics to meet new requirements. S. Backer and N. E. Roberts. *il* Tech R 50:378-30+ My '48
- Designing of fabrics to meet consumers' requirements; dimensional stability, wearing properties and draping properties. W. E. Morton. *Textile Inst J* 39:PI87-92 Je '48
- Fabrics; showroom for A. D. Juilliard & co. *il* plan diags Arch Forum 88:108-9 Mr '48
- Fashion by the yard; Mrs Corn's fabric shop. *il* Textile Col 70:25 O '48
- Let's return to pre-war fabric qualities; discussion. *Textile Col* 70:26+ My '48
- Lurex fabrics in fashions and furnishings. *Textile Col* 70:26+ Ag '48
- New department speeds fabric development. P. M. Thomas. *il* Textile World 98:133+ Mr '48
- New type fabrics for new type fashions. *il* Textile Col 70:34-5 My '48
- Postwar changes in the quality of apparel; changes in fabrics. L. J. Mack. *Mo Labor R* 67:34-7 Jl '48
- Rush to sell retailers. M. Fluegelman. *Textile Col* 70:20+ O; 22+ N; 16 D '48
- Some aspects of the ageing of coated fabrics. E. V. Painter. *bibliog diags Am Dyestuff Rep* 36:767-74 D 29 '47
- Unwoven fabrics; their future in the textile industry. O. G. Edwards. *Am Dyestuff Rep* 37:131-2 F 23 '48
- What mail order and volume retailers need in fabrics and fashions for 1948. R. Engelman. *Textile Col* 70:34 Ja '48
- Who's holding the bag? the department store fabric buyer thinks he is. *Textile Col* 69:27+ N '47

See also

- | | |
|---------------------|----------------------------|
| Bleaching | Nylon |
| Carpets | Nylon fabrics |
| Chambray | Parachute fabrics |
| Cotton fabrics | Photography on textiles |
| Crepe | |
| Drapery | Rayon fabrics |
| Dress goods | Rugs |
| Duck (textile) | Saran |
| Felt | Sizing (textiles) |
| Knit goods | Tire fabrics |
| Laundry | Trimmings (for |
| Linen | drapery, upholstery, etc.) |
| Milnew | Upholstery |
| Mohair | Woolen and worsted |
| Napping of textiles | fabrics |
| Net fabrics | |

Bibliography

- Abstracts. Published in monthly numbers of *Journal of the Textile Institute*

Coating

- Polyvinyl resin finishes; deep penetration prevented; patent. *Am Dyestuff Rep* 36:787 D 29 '47
- Some aspects of the ageing of coated fabrics. E. V. Painter. *bibliog diags Am Dyestuff Rep* 36:767-74 D 29 '47
- Ultrazol; vinyl resin coating for outdoor fabrics. P. L. Slayton. *Textile Col* 70:35 Jl '48

Creasing

- See* Creasing of textiles

Flame resistance

- See* Textile fabrics—Inflammability

Fur blending

- New dimension in textiles; fur in fabric. F. Schacter. *il* Textile Col 70:38+ F '48

Heat transmission

- Measurement of temperature and relative humidity on the skin and clothing of a human subject. L. W. Ogden and W. H. Rees. *bibliog il diags Textile Inst J* 38: T371-86 N '47
- With Byrd cloth at the South Pole; my experience with cotton fabrics for protective clothing. R. E. Byrd. *il* Textile Col 70:28-9+ Jl '48

See also

- Cotton fabrics—Heat transmission

Inflammability

- American association of textile chemists and colorists general research meeting; inflammability of consumer textiles report. *Am Dyestuff Rep* 36:783 D 29 '47
- Flammability varies with type test and fabric. M. W. Sandholzer. *il* diags Textile World 98:109-104 Mr '48
- Flammable garments and proposed national legislation on flammable textiles. F. Bonnet. *Rayon* 29:53-4 Ja '48
- Trends in the evolution of fire-resistant textiles. R. W. Little. *Am Dyestuff Rep* 37:114-18 F 23 '48

Moisture content

- Effect of moisture content and other factors on water resistance tests. G. J. Mandikos. *bibliog Am Dyestuff Rep* 37:584-6+ S 6 '48
- Some aspects of the drying and heating of textiles; the moisture in fabrics. J. M. Preston and J. C. Chen. *bibliog 4pls diags Soc Dyers & Col J* 62:361-4; 64:60-3 D '46, F '48; Discussion. 64:63-4 F '48

Odors

- Is there a little fish in your fabric? *Textile Col* 70:48 S '48

Protection

- Protection of textiles from microbial attacks. A. Minich. *il* Rayon 28:610-11, 661-2 N-D '47
- Spore-rain technique for mildew resistance testing. F. R. Romano. *bibliog diags Am Dyestuff Rep* 36:651-3+ N 17 '47
- Testing as an aid to efficiency in finishing. E. G. H. Carter. *pl Soc Dyers & Col J* 63:337-9 N '47
- Testing of fungicidal materials against pathogenic fungi. L. C. Barail. *Am Dyestuff Rep* 37:257-8+ Ap 19 '48

See also

- Cotton fabrics—Protection

Shrinkage

- Redman shrinker passes experimental test runs. E. E. West. *Textile World* 98:110 Ap '48
- See also*
- | | |
|--------------------------|--------------------------------------|
| Cotton fabrics—Shrinkage | Woolen and worsted fabrics—Shrinkage |
| Rayon fabrics—Shrinkage | |

Terminology

- English textile nomenclature. L. J. Wilhelmssen. 229p pa 14.50kr. J. D. Beyer A. S. Boktrykkeri, Bergen, Norway '43

Testing

- Construction and operation of accelerated aging cabinets. D. S. Lyle. *bibliog il diags Am Dyestuff Rep* 36:623-8+ N 3 '47
- Effect of clamp design on fabric breaking strength. W. T. Kelly and M. B. Hays. *Textile Res J* 18:130-2 F '48
- Flammability varies with type test and fabric. M. W. Sandholzer. *il* diags Textile World 98:109-104 Mr '48
- Improved evaluation of the crease resistance of resin treated fabrics. R. D. DeWaard and others. *bibliog il diags Am Dyestuff Rep* 37:513-18+ Ag 9 '48
- New Stevens laboratory insures fabric quality. W. A. Newell. *il* plan Textile World 98:100-3 Ag '48
- Preliminary steps in the development of an accelerated aging test to light. D. S. Lyle and others. *Am Dyestuff Rep* 37:251-6+ Ap 19 '48
- Spore-rain technique for mildew resistance testing. F. R. Romano. *bibliog diags Am Dyestuff Rep* 36:651-3+ N 17 '47
- Wearing qualities of fabrics. J. G. Williams. *Textile Inst J* 39:PI64-74 My '48

Transportation

- Packing faults result in goods damaged in transit. W. R. White. *il* Textile World 98:226+ Ja '48

Water absorption*See also*

- Cotton fabrics—Moisture absorption

TEXTILE fabrics—Continued**Water resistance**

- Are water-repellent fabrics properly labeled? A. J. Kellner, *Textile Col* 70:24 J1 '48
- Comprehensive comparison of the more common water resistance test methods existing today, G. J. Mandikos, bibliog diags Am Dyestuff Rep 37:587-95 S 6 '48
- Effect of moisture content and other factors on water resistance tests, G. J. Mandikos, bibliog Am Dyestuff Rep 37:584-6+ S 6 '48
- FTC trade practice conference on water-resistant fabrics and apparel, Rayon 29:65-7 S '48
- Hydrodynamic test for water resistance, J. H. Skinkle and M. S. Lyra, il diag Am Dyestuff Rep 37:340-3+ My 17 '48
- Imparting water-repellency to textiles by chemical methods; a review of the literature, H. A. Schuyten and others, bibliog *Textile Res J* 18:396-415, 490-503 J1-Ag '48
- Rainwear designing and printing, D. McCoy, *Textile Col* 70:37 J1 '48
- Water repellent fabrics; aluminum salts blended with cellulose zincate; patent, Am Dyestuff Rep 36:787 D 29 '47
- Water resistant fabric treatments, R. A. Pingree, Am Dyestuff Rep 37:440-2 Je 28 '48

See also

Waterproofing of textiles

TEXTILE fabrics, Effect of light on

- Preliminary steps in the development of an accelerated aging test to light, D. S. Lyle and others, Am Dyestuff Rep 37:251-6+ Ap 19 '48

TEXTILE fabrics, Interior decoration

- Coordinating decorative and dress fabrics, il *Textile Col* 70:36 S '48
- Design in furnishing fabrics, E. W. Goodale, *Textile Inst J* 39:P377-80 Ag '48
- Future trends in woven design of decorative textiles, J. L. Maag, il *Textile Col* 70:22+ Je '48

TEXTILE fibers

- Fibers for clothing, *Economist* 155:310-12 Ag 21 '48
- Fibre movement in drafting, D. R. Cox, diags *Textile Inst J* 39:P230-8; Discussion, P238-40 J1 '48
- New concept of the mechanical behavior of fibers, H. Burte and others, bibliog *Textile Res J* 18:449-69 Ag '48
- Non-linear viscous elasticity and the Eyring shear model, G. Halsey, bibliog diags J Ap Phys 18:1072-97 D '47
- Over-all specific volume, compressibility and resilience of fibrous materials in bulk, W. H. Rees, bibliog il diags *Textile Inst J* 39: T131-41 Ap '48
- Petroleum chemicals in relation to the textile industry, E. S. Paice, bibliog Soc Dyers & Col J 64:237-45 J1 '48
- Properties of fibres in relation to their molecular structure, *Textile Inst J* 39:P145-6 Ap '48
- Regenerated protein fibres from wool and casein, R. L. Wormell, il diag *Textile Inst J* 39:T219-24 J1 '48
- Relaxation and flow in cellulose fibres, R. Meredith, bibliog diag *Textile Inst J* 39:P245-51; Discussion, P251-2 J1 '48
- Search for fibers, C. H. Herr, *Textile Col* 70:30 My '48
- Small angle X-ray scattering of various cellulose fibers, A. N. J. Heyn, bibliog il Am Chem Soc J 70:3138-9 S '48
- Sorption of nitrogen and water vapor on textile fibers, J. W. Rowen and R. L. Blaine, bibliog Ind & Eng Chem 39:1659-63 D '47; Same, J Res Nat Bur Stand 39:479-86 D '47
- Textile fiber developments, R. E. Wright and M. Harris, Chem & Eng N 26:21-3 Ja 5 '48
- Textile products for the rubber industry, L. Larrick, *India Rubber World* 117:208-11+ N '47
- Textiles from seaweed, W. H. Cady, bibliog Am Dyestuff Rep 37:283-4+ My 3 '48
- Thixotropic viscoelastic systems, B. A. Dunell and G. Halsey, diags *Textile Res J* 18:178-86 Mr '48
- X-rays in relation to textiles, R. Meredith bibliog diags *Textile Inst J* 39:P132-9; Discussion, P139-40 Ap '48

Yanda process; fiber transmutation, flow diag Rayon 28:637-8 D '47

See also

Cotton fibers Ramie
Flax Silk
Jute Wool
Mohair

Bibliography

Abstracts, Published in monthly numbers of *Journal of the Textile Institute*

Identification

- Identification of nylon yarn, Rayon 28:655 D '47
- Microscopy of textile fibres; aids to their identification, A. B. Wildman, il *Textile Inst J* 38:P468-73 O '47
- Tentative textile specification no. 13, 1948; identification of textile materials, 14pls 4 fold tables *Textile Inst J* 39:S1-10 Mr '48

Industrial applications**Bibliography**

Chemical engineering materials of construction; fibers; annotated bibliography of 273 items, R. S. Casey and C. S. Grove, jr, il Ind & Eng Chem 40:1793-8 O '48

Measurement

Dye sampling method of measuring fibre length distribution, R. C. Palmer, bibliog diag *Textile Inst J* 39:T8-22 Ja '48

Testing

- Cumulative extension test for plasticity in textile fibres, R. Meredith and F. T. Peirce, bibliog diag *Textile Inst J* 39:T159-84 My '48
- Method for the absolute measurement of dynamic properties of linear structures at sonic frequencies, W. J. Lyons and I. B. Prettyman, bibliog il diag J Ap Phys 19: 473-80 My '48

Uses

Functions of a use-development organisation in the textile industry, H. A. Thomas, *Textile Inst J* 39:P444-60 Ag '48

TEXTILE fibers, Effect of light on

Action of light on viscose rayon, silk and nylon, undyed and dyed with some vat dyes, G. S. Egerton, bibliog *Textile Inst J* 39:T293-304 S '48

TEXTILE fibers, Metallic

Lurex fabrics in fashions and furnishings, *Textile Col* 70:26+ Ag '48

Silver threads among the gold, il *Textile Col* 69:31 D '47

TEXTILE fibers, Synthetic

- Carbide unveils vinyl N plant, Chem & Eng N 26:746-7 Mr 15 '48
- Constitutional factors in the production of artificial protein fiber, S. R. Hoover and others, *Textile Res J* 18:423-35 bibliog(90 ref, p434-5) J1 '48
- DuPont announces new type fiber as Orlon, Rayon 29:37 O '48
- Elastic N-substituted polyamides, E. L. Wittbecker, R. C. Houtz and W. W. Watkins, bibliog il Ind & Eng Chem 40:875-9 My '48
- Elastic recovery of protein artificial fibres stretched in water, R. L. Wormell, *Textile Inst J* 39:T387-8 N '47
- Keratin, reduced and dissolved in alkalis; coating and producing fibers; patent, Am Dyestuff Rep 37:538 Ag 9 '48
- Lowell Textile inaugurates first synthetic textile dept, il Rayon 28:586-7 N '47
- New textile material; I.C.I. plant to process groundnuts; Ardil; abstract, R. H. Thomson, Chem Age (Lond) 58:687 My 15 '48
- Nylon's brother; Du Pont announces Orion, Bsns W p20 Ag 28 '48
- Physical classification of manufactured fibers; chart, Rayon 28:657 D '47
- Polyamides in Germany; preparation and applications, Mod Plastics 25:148-50+ Ap '48
- Protein to wear; Virginia-Carolina chemical corp, will make Vicara, Chem Ind 62:382-3 Mr '48
- Rayon and the new fibres, *Economist* 155:386-8 S 4 '48
- Some concepts of textile fibers; abstract, M. Harris, Rayon 29:49 Mr '48

TEXTILE fibers, Synthetic—Continued

Stability of synthetic keratin fibers in alcohol-water mixtures; theoretical basis for a new method for solubilizing feather keratin. H. F. Lundgren and others. bibliog diags J Phys & Colloid Chem 52:180-206 Ja '48

Synthetic fibers other than rayon increasing rapidly in importance. Franklin Inst J 245: 190-1 F '48

Textile fiber developments. R. E. Wright and M. Harris. Chem & Eng N 26:21-3 Ja 5 '48

Textile World's continuous-filament flow chart. Textile World 98:103-8 Mr '48

U.N. for synthetic textiles. H. E. Goodman. Textile Col 70:26+ Je '48

Use of nylon and other new fibers in knitting. W. A. B. Davidson. Rayon 29:75-6 F '48

See also

Bemberg	Rayon fibers
Dyes and dyeing—	Saran
Synthetic fibers	Terylene
Nylon	Vinyon
Nylon fibers	

Industrial applications

Industrial uses of synthetics are important and growing. C. W. Bendigo. il Textile World 98:106-7 S '48

Terminology

Case for rayon as a generic term for man-made fibres. Textile Inst J 38:P627-8 D '47; Reply. A. G. Scroggie and F. D. Pilgrim. Am Dyestuff Rep 37:448-9 Je 28 '48; Same. Rayon 29:41-2 Jl '48

Fully descriptive names urged for man-made fibres. Rayon 29:36-7 O '48

TEXTILE finishing

Anionic substantive softeners. E. D. McLeod. bibliog Am Dyestuff Rep 37:330-3 Ja 12 '48; Abstract. Textile World 98:218+ F '48

Application of carboxymethyl cellulose to the wet processing of textiles. Am Dyestuff Rep 37:596-602 S 6 '48

Art and economics of printed textile design; applying the finishing touch. Textile Col 69:34+ D '47

Boiling-out cloth; apparatus; patent. diags Am Dyestuff Rep 37:655 O 4 '48

Cellulose oxypropionic acid from acrylonitril for producing permanent finishes and the like; patent. Am Dyestuff Rep 37:567-8 Ag 23 '48

Cellulose zincate solutions oxidizing agents added; patent. Am Dyestuff Rep 37:533 Ag 9 '48

Dyeing and finishing from the consumer angle. R. L. Elliott. Soc Dyers & Col J 64: 179-83 My '48

Economics of instrumentation. C. W. Bowden, jr. diags Am Dyestuff Rep 37:647-51 O 4 '48

Effect of crease resistant finishes on stiffness resiliency; abstract. L. Fourt and others. Textile World 98:228+ Mr '48

Effect of temperature on finishing compounds; abstract. A. H. Noble, jr. Textile Col 70:23 O '48

Finishers make progress in speeding their processes. C. N. Rabold and N. D. Marius. Textile World 98:114-15 F '48

Improving the properties of fibres and dyes by treatment with hydrophobic melamine-formaldehyde compounds. A. Landolt. bibliog 6pls Soc Dyers & Col J 64:93-7; Discussion. 97-9 Mr '48

Kandar, the permanent finish. Textile Col 69:31 N '47

Newer uses of glycerine. M. A. Lesser and J. Cotter. bibliog Rayon 29:83-5 Ja '48

Plisse, the transforming finish. F. G. Brown. Textile Col 69:29 N '47

Precision finishing needed for striped knit goods. I. Teplitz, diags Textile World 98: 139+ S '48

Progress and prosperity keynote knit-goods finishing. W. A. Newell. il Textile World 98:103-4 Ap '48

Scrooping to meet the new look. Textile Col 70:22+ Ap '48

Shrink-resistant finishes. Textile Col 70:38 Ap '48

Silicone water repellent now applicable to all fibers. F. L. Dennett. Textile World 98: 124+ My '48

Silicones and their application to the textile industry. F. L. Dennett. bibliog il Am Dyestuff Rep 36:748-52 D 15 '47

Spreading device, for finishing textiles; patent. diag Am Dyestuff Rep 37:133-4 F 23 '48

Static electricity measuring; patent. diag Am Dyestuff Rep 36:644 N 3 '47

Synthetic detergents in textile processing. H. C. Borghetty. Am Dyestuff Rep 37:112-13+ F 23 '48; Abstract. Textile World 98:220+ F '48

Tenter frame, preheating with infrared lamps; British patent. Am Dyestuff Rep 37:133 F 23 '48

Textile dyeing and finishing; work injuries in 1945. F. S. McElroy and G. R. McCormack. Mo Labor R 67:20-5 Jl '48; Abstract. Textile World 98:125+ Ag '48

Transparentizing fabrics, modified amino-resins; British patent. Am Dyestuff Rep 37:135-6 F 23 '48

Urea, complex compounds, used for impregnating. Am Dyestuff Rep 36:785 D 29 '47

See also

Bleaching	Rayon finishing
Cotton finishing	Sizing (textiles)
Creasing of textiles	Textile fabrics—
Dyes and dyeing	Water resistance
Embossing (textiles)	Waterproofing of
Fireproofing of textiles	textiles
Napping of textiles	Woolen and worsted
Nylon finishing	finishing

Bibliography

Review of the German technical reports. T. R. Smith. Am Dyestuff Rep 37:263-5 Ap 19 '48

Testing

Performance of resin-treated fabrics in wet and dry-cleaning. D. S. Lyle and M. R. Butler. il Rayon 29:57-8 My; 66-8 Je '48

Testing as an aid to efficiency in finishing. E. G. H. Carter. pl Soc Dyers & Col J 63:337-9 N '47

TEXTILE finishing machines

Latest trends and necessary developments of dyeing, printing and finishing machinery. M. Pagerie. Rayon 29:85-6 Jl '48

Tensionless wet processing of rayon goods now accomplished fact. il Rayon 29:47 My '48

Tensitrol claimed to solve textile problem; no tension on fabric at any stage of operation. Barron's 28:13 Ap 26 '48

Tensitrol development permits tensionless processing. il Textile World 98:145-6 My '48

Tensitrol process announced by Rodney Hunt. il Am Dyestuff Rep 37:312-13 My 3 '48

Textile finishing machinery. E. S. Pierce. il diags Am Dyestuff Rep 37:186-91 Mr 22 '48

TEXTILE industry

Converting textiles for export. H. Bernstein. Textile Col 70:43+ My '48

Coordinated styling saves time and money. M. Pagerie. Textile Col 69:26+ D '47

Fabric manufacturer at the last frontier. J. L. Fri. Textile Col 70:27+ S '48

Fibres for clothing. Economist 155:310-12 Ag 21 '48

Function of the factor in modern business. W. D. Yankauer. Rayon 29:50-1 Ap '48

Modernization, the hedge in textiles. J. H. Axelrod. Rayon 29:67-8 S '48

More goods and many more risks. Textile Col 70:16+ Ja '48

Nashua may just be first of textile troubles. R. M. Bleiberg. Barron's 28:5 S 27 '48

1948 may duplicate many textile achievements of 1947; annual review and forecast. W. B. Dall and others. Textile World 98: 101-15 F '48

Past and future in textiles from the consumer's point of view. L. Hahn. Am Dyestuff Rep 36:657-9 N 17 '47

Philadelphia textile institute 3d annual seminar. Shawnee-on-Delaware. Textile World 98:123C-123D+ Je '48

Reformed textile trade facing old temptations. Barron's 28:39 S 13 '48

TEXTILE industry—Continued

Textile films available in the United Kingdom; list of titles and distributors. Soc Dyers & Col J 63:345-50 N '47; Same cond. Textile Inst J 38:P519-25 N '47

Textile industry's expenditures top \$400,000,-000 in 1947; annual mill check-up. W. B. Dall, il Textile World 97:101-94+ N '47

Textile technology in perspective. J. F. Warner. Am Dyestuff Rep 37:553-4 Ag 23 '48

Textiles battle for the consumer dollar. Textile Col 69:16-17 J1; 14-15+ Ag; 22-3 S; 16-17+ O; 18-19+ N; 20-1 D '47; 70:14-15 Ja; 16-17 F; 22-3+ Mr; 16-17 Ap; 22-3+ My; 14-15+ Je '48

Textiles; downturn coming? Bsns W p24-5 Mr 13 '48

Textiles pick up, some. Bsns W p21-2 J1 24 '48

Trends in textiles and clothing. Survey of Cur Bsns 28:7-9+ Mr '48

What does the consumer want? J. LaBarthe, jr. Textile Col 70:27+ O '48

Yesterday and today in textile production. Textile Col 70:47 Ja '48

See also

Carpets	Silk trade
Cotton trade	Sizing (textiles)
Dye industry	Textile mills
Dyes and dyeing	Texttron, inc.
Hosiery trade	Thread
Knit goods	Weaving
Rayon industry	Wool trade
Rugs	

Advertising

Importance of copy in merchandising fabrics. J. Trahey. Textile Col 70:31+ S '48

Over-the-counter promotion for hidden product; supplier takes story to public first; Sheerr hair cloth stiffening. C. J. Swan. il Ptr Ink 225:38-9 O 8 '48

Textile advertising, past and present. H. Cleveland. Rayon 29:41 My '48

Textile houses up ad budgets. N. Kelne. Ptr Ink 221:98 N 28 '47

See also

Rayon industry—
Advertising

Bibliography

British intelligence objectives sub-committee reports. Textile Inst J 38:P633-43 D '47

Exhibitions

Brussels international trade fair; textile section. K. H. Waggoner. Rayon 29:46 J1 '48

Fabric futures forum huge success. il Textile Col 70:38+ J1 '48

Fabric show fills Grand Central Palace. il Textile World 98:232+ J1 '48

Preview of the textile industry's two forthcoming expositions. Textile Col 70:44+ Mr '48

Southern textile exposition, 15th. Greenville, S. C. Oct. 4-9; alphabetical list of exhibitors. Rayon 29:38-45 S '48; Textile World 98:175-82 S '48

Southern textile exposition, 15th, Oct. 4-9. Textile Col 70:29+ O '48

Textile show; Grand Central Palace. il Textile Col 70:28+ Je '48

Finance

Whose mistakes at Nashua? il Fortune 38. 98-100 N '48

History

Design and colour in textiles. P. Whiston. Textile Inst J 39:P193-9 Je '48

Securities

Varying prospects for textiles; with statistical data on leading stocks. H. F. Travis. Mag of Wall St 81:702-4+ Mr 27 '48

Statistics

Fiber consumption shows cotton dominance, rayon rise; United States, 1935-1947. R. E. Evans and B. Meadows. Textile World 98:129+ Mr '48

1948 may duplicate many textile achievements of 1947; annual review and forecast. W. B. Dall and others. Textile World 98:101-15 F '48

Terminology

Textile brand names dictionary. 377p \$6 Textile book publishers, 303 Fifth av, New York '47

Textile terms and definitions. Textile Inst J 38:P615-28 D '47

See also

Textile fabrics— Terminology	Textile fibers, Syn- thetic—Termi- nology
---------------------------------	---

California

California is demanding fabrics suitable to western needs. J. J. Perlmutter. Textile Col 70:31+ Mr '48

Canada

Textile tariff reductions in Canadian federal budget. Rayon 29:88 S '48

Czechoslovakia

Foreign trade during 1947 in textiles and related products. For Comm W 31:23 Ap 24 '48

Planning and modernisation in Czechoslovakia. B. Hellman and Z. Szaloki. Textile Inst J 39:P415-23 Ag '48

France

Role of textiles in French foreign trade. H. Jeanmaire. Textile Col 70:38+ S '48

Germany

British intelligence objectives sub-committee reports. Textile Inst J 38:P633-43 D '47

Output of textile industry, U.S.-U.K. zones. For Comm W 31:27-8 Ap 24 '48

Review of the German technical reports. T. R. Smith. Am Dyestuff Rep 37:263-5 Ap 19 '48

Textile testing in Germany. H. F. Schiefer and others. bibliog il diags Textile Res J 17:689-713; 18:18-38, 89-101 D '47-F '48

Great Britain

Can production and marketing of British textiles be helped by public relations activities? J. A. Jackson. Textile Inst J 39:P461-75 Ag '48

Conditions in U.K.'s industry; exports. For Comm W 33:39 O 2 '48

Lancashire's export task. Economist 154:728 My 1 '48

Organisation of the textile industry. H. Wilson. Textile Inst J 39:P329-37 Ag '48

Small scale effort in the textile industry. A. N. Shimmmin. Textile Inst J 39:P424-8; Discussion. P428-9 Ag '48

Textile problems today. R. Street. Textile Inst J 38:P455-9; Discussion. P459-61 O '47

Textile research and its practical application to industry. J. B. Goldberg. Rayon 29:58-9 Ag '48

Italy

Review of Italian textile conditions. A. Glordano. Rayon 29:50-1 Je '48

Japan

Is Japan a threat? with production figures for 1938, 1947 and Jan. 1948. Economist 154:896+ My 29 '48

Japanese textiles may be sold for goods and currencies other than United States dollars. For Comm W 31:20 Je 5 '48

Japanese textiles will be slow in revival. A. W. Jessup. il Textile World 98:101-7+ Ja '48

Production and exports, 1946-1947 and Jan.-Feb. 1948. For Comm W 31:33 Je 12 '48

New England

Axelrod buys another mill. Bsns W p36+ F 7 '48

What's behind the Nashua mill shutdown? Bsns W p44+ O 23 '48

Whose mistakes at Nashua? il Fortune 38: 98-100 N '48

Norway

Situation in Norway; with data on textile and fiber imports, 1946-47. For Comm W 31:29-30 My 1 '48

Pennsylvania

Pennsylvania story. Textile Col 70:33 Ag '48

TEXTILE industry—Continued**Philippine Islands**

Activity in Philippine industries. For Comm W 31:39-40 My 29 '48

Southern states

Textile manufacture continues as second southern industry. C. R. Walker. Manuf Rec 117:32+ J1 '48

Sweden

Textile situation in 1947. For Comm W 31:38 My 22 '48

United States

Textile industry; production continues at peak levels after wartime expansion. Index 27 no 4:88-98 [D] '47

Textile migration continues; but with glacial slowness. W. B. Dall. Textile World 98:99+ Ag '48

Textiles battle for the consumer dollar; part played by the Quartermaster association. K. G. Birdseye. Textile Col 70:16-17 F '48

Uruguay

News by commodities; textiles. For Comm W 33:35 O 16 '48

TEXTILE institute

Annual conference, Buxton, June 2-5; proceedings. Textile Inst J 39:P329-486 Ag '48

Textile institute; competitions for textile design, 1947. Textile Inst J 38:P526-7 N '47

TEXTILE laboratories

Modernized textile chemical laboratory, Monsanto Chemical. Il Am Dyestuff Rep 37:573-4 S 6 '48

New Stevens laboratory insures fabric quality. W. A. Newell. Il plan Textile World 98:100-3 Ag '48

Research and development at Alexander Smith & sons carpet co. Il Am Dyestuff Rep 37:700-2 O 18 '48

Textile laboratory installed at University of Southern Calif. M. Ralston. Il Textile World 98:250 Je '48

Use of acceptance testing data to substantiate specification requirements. S. Backer. Am Dyestuff Rep 37:603-12 S 20 '48

Layout

Control laboratory can save money for a mill. R. M. Ashner. Il plan Textile World 98:117-19 J1 '48

TEXTILE laws and regulations

Labeling act. T. F. Green. Textile Col 70:65 My '48

TEXTILE machinery

Aluminum widely used on textile machines. H. V. Menking. Il Textile World 98:126-9 S '48

Fluid drive adapted to textile machinery. Il Rayon 29:91 J1 '48

Improved textile machinery promises lower costs. Il Rayon 29:101-3 Je '48

Instruments and their application to textile machinery; abstract. W. H. Ridley. Rayon 29:90 Ja '48

Japanese textile industry; equipment, technology range from good to ancient. A. W. Jessup. Il Textile World 98:104-7 Ja '48

Machine timing at full speed done by oscillograph. M. Scheraga. Il diags Textile World 98:118-19+ Ja '48

Machinery development sets record pace. W. A. Newell. Textile World 98:112-14 F '48

Machinery forums work out well. Rayon 29:41 Je '48

Measurement of influence of replacement of old machinery with new models on cost of production. N. M. Mitchell. Rayon 29:44-5 J1 '48; Same. Textile World 98:121+ J1 '48

Modern trends in textile machinery. E. Cotterill. Textile Inst J 39:P99-106 Mr '48

New York forum highlighted technical progress; abstracts of papers. Textile World 98:108-9 Je '48

Pick-finding devices developed in Europe. Il Textile World 98:112-13+ J1 '48

Redman shrinker passes experimental test runs. E. E. West. Textile World 98:110 Ap '48

Textile finishing machinery. E. S. Pierce. Il diags Am Dyestuff Rep 37:186-91 Mr 22 '48

Textile machinery development and research. F. Heywood. Textile Inst J 39:P526-32 S '48

Textile machinery; use of plastics. Il Product Eng 19:149 S '48

Textile mill problems solved; plastic machine parts; Plastone A. Il Mod Plastics 25:106-8 F '48

See also

Carding machines
Combing machines
Cotton machinery
Creping machines
Dyeing machines
Hosiery machines
Knitting machines
Looms
Rayon machinery
Rolls (textile machinery)

Spinning machinery
Textile finishing machines
Textile printing machines
Textile testing machines
Twisting machines
Woolen and worsted machinery

Control

Mechanism designed for quick stopping and easy removal of bobbin spindle. H. E. Murphey. diags Mach 54:184-5 Ap '48

Modern application of automatic control in textile processing. Il Rayon 29:105-7 Ap '48

Timing devices in the textile industry. S. K. Hargis. Il diags Rayon 29:94-5 Ag '48

Lubrication

Departmental lubrication aided by general-purpose oil. F. M. Edwards. Il Textile World 98:145+ J1 '48

Lower costs and increased production through correct lubrication. Il Rayon 29:87-9 Ja '48

Machinery lubricating schedules and methods. H. E. Wenrich. Rayon 29:50-1 O '48

Performance standards should govern oil purchases. V. E. Hillman. Il Textile World 98:126+ Je '48

Manufacture

Bending a textile mill forging in an arbor press. R. Mawson. diags Mach 54:190-1 Ja '48

Fixture for drilling spindle rails of various lengths. H. E. Murphey. diags Mach 55:219 N '48

New Whitin office and plant at Charlotte. Il Rayon 29:73 Ja '48

Tension devices

Reeves' mill achieves slasher tension control. C. M. Bowden. Il Textile World 98:122-3, 178+ Je '48

Slasher and loom drives featured at AIEE meeting, New Haven, Conn. Textile World 98:129+ Je '48

Tension controlled by variety of drives. A. P. Mansfield. diags Textile World 98:126-7+ F '48

TEXTILE machinery industry

Continental production of weaving and finishing machinery. A. Laszlo. Textile Inst J 39:P476-84; Discussion. P485-6 Ag '48

New loom on assembly line in Kellogg's Jersey City plant. Il Bsns W p604- Mr 20 '48

Pullman affiliate develops new weaving equipment. Barron's 28:30 Mr 29 '48

Textile machinery holds pace. Il Bsns W p26 O 9 '48

Exhibitions

International exposition of textile machinery, equipment and supplies, New York, May 3-7. Il Textile World 98:107-8+ Je '48

Swiss and French display textile developments. C. W. Bendigo. Il Textile World 98:103-6 Je '48

Textile World's guide to exhibitors at the International exposition of textile machinery, equipment and supplies, New York, May 3-7. plan Textile World 98:179-81 Ap '48

Great Britain

Engineering outlook. Engineering 165:172-5 F 20 '48

Report on weaving machinery. Economist 153:977 D 13 '47

TEXTILE machinery industry—Continued**Japan**

Japanese textile industry; equipment, technology range from good to ancient. A. W. Jessup. *il Textile World* 98:104-7 Ja '48

Russia

Russian research results in machine improvements. A. Steiger. *Textile World* 98:260 Ap '48

Switzerland

Impressions of the Swiss textile machinery industry. R. Sanderson. *Textile Inst J* 39:P501-3 Ag '48

Swiss promote small textile machinery. Bsns W p70-1 N 8 '47

TEXTILE mills

Chemical engineering in the textile industry; Chem & Met report. *il diags Chem Eng* 55:127-34 Mr '48

Damping of textile-mill movement by Frahm system. C. E. Crede. *il diags A S M E Trans* 69:937-46 N '47

Flexibility is key to best engineering practice. *Textile World* 98:111-12 F '48

Management and engineering progress in the textile industry. *il Rayon* 29:133-9 S '48

Many new features in textile mill construction. H. Miedendorf. *il Rayon* 28:647-9 D '47

Nashua may just be first of textile troubles. R. M. Bleiberg. *Barron's* 28:5 S 27 '48

Textile industry's expenditures top \$400,000,000 in 1947; annual mill check-up. W. B. Dall. *il Textile World* 97:101-9+ N '47

Textile mill takes on college atmosphere; Crown manufacturing co. D. M. Thompson. *il Mill & Factory* 42:114-16 Je '48

Textile mill walls faced with aluminum; Duplan corp. air-conditioned nylon-throwing plant. J. W. Davis. *il Eng N* 140:130-1 Ja 22 '48

Treated wood combats mill decay. R. H. Bescher. *il Textile World* 98:131 J1 '48

See also

Carpet factories Rayon mills
Cotton mills Silk mills
Curtain factories Water supply for
Electric driving—textile mills
Textile mills Woolen and worsted
Hosiery mills mills
Knitting mills

Accidents

Textile dyeing and finishing; work injuries in 1945. F. S. McElroy and G. R. McCormack. *Mo Labor R* 67:20-5 J1 '48; Abstract. *Textile World* 98:125+ Ag '48

Accounting

See also
Cotton mills—Accounting

Air conditioning

Air conditioning in textile mills. H. Herkimer. *Rayon* 29:94-6 Mr; 103-4 Ap; 59-60 My '48

Keeping cool; report for management. Bsns W p 108+ O 9 '48; Same. *Heat & Ven* 45:105 N '48

Manufactured weather a must for quality and lower cost textiles. *il Rayon* 29:97-9 F '48

Textile mills should control both temperature and humidity. G. F. Benn. *Heating-Piping* 20:82 S '48

See also

Cotton mills—Air conditioning
Hosiery mills—Air conditioning

Silk mills—Air conditioning**Costs**

Measurement of influence of replacement of old machinery with new models on cost of production. N. M. Mitchell. *Rayon* 29:44-5 J1 '48; Same. *Textile World* 98:121+ J1 '48

Electric equipment

Electrical progress in the textile industry. F. D. Snyder. *diags Rayon* 29:62-4 O; 68-70 N '48 (to be cont); Abstract. *Product Eng* 19:134-6 N '48

How to cut fire risks in textile mills; abstract. R. G. Shepherd. *Elec World* 129:79-80 F 28 '48

Equipment

Alphabetical list of new products developed since November, 1946. *il diags Am Dyestuff Rep* 36:714-18 D 1 '47

Beam handling facilitated by fork truck. J. C. Moore. *il Textile World* 98:125 J1 '48

Machine-shop capacity increased at Pacolet no. 4. P. M. Thomas. *il Textile World* 98:116-17+ Je '48

Materials-handling show draws many textile men. W. A. Newell. *il Textile World* 98:114-16+ Mr '48

Preparatory and finishing equipment use aluminum. H. V. Menking. *il Textile World* 98:143+ O '48

See also

Textile machinery

Fires and fire protection

Fighting flash fires is a vital mill problem. *Textile World* 97:170 N '47

Fire and accident prevention is an important factor in textiles. *il Rayon* 28:603-5 N '47

How to cut fire risks in textile mills; abstract. R. G. Shepherd. *Elec World* 129:79-80 F 28 '48

Floors

Concrete floors for weave rooms. C. J. McCormack. *Rayon* 29:89-90 Ja '48

Mill floor problems. C. J. McCormack. *Rayon* 28:616 N '47

Lighting

Cost reduction through better lighting. *il Rayon* 29:89-91 J1 '48

Experimental lighting for rayon weaving; study of output, quality, cost. J. W. Howell. *Textile Inst J* 39:P437-500 Ag '48

Illuminant in textile color matching. D. Nickerson. *bibliog il diags Illum Eng* 43:416-64; Discussion. 464-7 Ap '48

Management

Control laboratory can save money for a mill. R. M. Ashner. *il plan Textile World* 98:117-19 J1 '48

Man-and-machine charts can increase production. R. Leppla. *Textile World* 98:108-9 Ja '48

New department speeds fabric development. P. M. Thomas. *il Textile World* 98:133+ Mr '48

Practical efficiency in the mill. P. G. Alexander. *Rayon* 28:642 D '47

Profits through efficient materials handling. *il Rayon* 29:91-3 Ag '48

Sound management principles underlie Crown college. C. H. Leach. *il Textile World* 98:114-15+ J1 '48

Task of weave room inspectors. P. G. Alexander. *Rayon* 29:62 Ag '48

Power

Heart of a textile mill is efficient power transmission. *il Rayon* 29:97-9 Mr '48

Power factor improvement will cut mill's electric bill. W. H. Cuttino. *il Textile World* 97:149+ D '47

Public electricity supply in the textile industry. R. H. Harral and J. B. Ashworth. *Textile Inst J* 39:P387-95; Discussion. P395-6 Ag '48

Unit substations reduce line losses at mill. *il Elec World* 129:138+ Ap 10 '48

Purchasing

Purchasing by small mill improved by centralization. J. M. Gregory. *il Textile World* 98:106-7+ J1 '48

Safety measures

Designed for working; uniforms for workers; Reeves brothers, inc., cotton textile manufacturers. *il Safety Eng* 96:23+ S '48

Fire and accident prevention is an important factor in textiles. *il Rayon* 28:603-5 N '47

Southern safety conference learns practical programs, at Birmingham, Ala. March 7-9. *Textile World* 98:139+ My '48

Waste

Industrial waste problem; brass and copper, electroplating, and textile wastes. W. S. Wise. *Sewage Works J* 20:100-1 Ja '48

TEXTILE mills—Waste—Continued

Wasted B.t.u.'s recovered by heat exchanger. W. T. Harding, Jr. *il* *diag* *Textile World* 98:120-1 Ap '48
 Water purification and waste disposal. *il* Rayon 29:85-7 My '48

Water supply

See Water supply for textile mills

TEXTILE oils

Use of oils on nylon. Rayon 29:71 Ja '48

TEXTILE patents

Abstracts. Published in monthly numbers of *Journal of the Textile Institute*
 Patent digest. Published in bi-weekly numbers of *American dyestuff reporter*
 Patent reports. Published in *Rayon textile monthly*

See also

Dye patents	Sizing (textiles)—
Knitting—Patents	Patents
Nylon—Patents	Textile printing—
Rayon—Patents	Patents

TEXTILE printing

Black for textile printing; abstract. J. H. Downey. *Am Dyestuff Rep* 37:415 Je 14 '48
 Coordinated styling saves time and money. M. Pagerie. *Textile Col* 69:26+ D '47
 Estimation of vat printing paste on cloth and an electrometric analysis of the critical chemical. H. E. M. Specht. *bibliog* *Am Dyestuff Rep* 37:110-11+ F 23 '48; *Excerpt. Textile World* 97:141 D '47
 Giving plastic film the new look; *Filmtext.* F. S. Hardenbrook. *il* *Textile Col* 70:34 Mr '48
 Luminescent pigments are easily applied. R. Campbell. *il* *Textile World* 98:137+ JI '48
 New printing process in England. *Textile Col* 70:54-5 Mr '48
 New steam ageling method for developing Chantime (indigosol) colors; abstract. R. Haller. *Am Dyestuff Rep* 37:318 My 3 '48
 Photographic printing successful on velvets, crepes and satins. R. E. Ellsworth. *il* *Rayon* 29:41-2 Ja '48
 Pigmented emulsions for textile printing; abstract. W. B. DePass. *Am Dyestuff Rep* 37:680 O 18 '48
 Pigmented resin emulsions for printing and pad dyeing. M. Silverman. *bibliog* *Am Dyestuff Rep* 37:44-6; *Discussion.* 46+ Ja 26 '48
 Preserving the life of printers' blankets; abstract. *Am Dyestuff Rep* 36:643 N 3 '47
 Proper preparation prevents printing problems. T. N. Patrick. *Textile World* 98:141+ S '48
 Rainwear designing and printing. D. McCoy. *Textile Col* 70:37 JI '48
 Requirements of petroleum solvents in pigmented textile printing pastes; abstract. R. A. Billmeier. *Am Dyestuff Rep* 37:680 O 18 '48
 Review of the use of Rapidogen dyestuffs and related products in textile printing. F. F. Jacobs. *Rayon* 29:83-6 Mr '48
 Short runs are profitable. B. Ellison. *Textile Col* 70:25+ S '48
 Textile printing, skill or mystery? E. Broadbent. *Textile Col* 70:23+ O '48

See also

Photography on tex- Woolen and worsted tiles printing

History

Block printing. P. Chadwick. *Soc Dyers & Col J* 64:274-6 Ag '48
 Textile printing; fifth Mercer lecture. F. Farrington. *bibliog* *Soc Dyers & Col J* 64:269-74 Ag '48

Patents

Block printing device, mechanically operated; patent. *diags* *Am Dyestuff Rep* 37:455-6 Je 28 '48
 Chrome dyestuffs printing, paste containing thiosulfate, oxygen acceptor, etc.; patent. *Am Dyestuff Rep* 37:538-9 Ag 9 '48
 Crinkled fabrics; resins printed as resists; patent. *Am Dyestuff Rep* 37:334 My 31 '48
 Fast-color resist prints from indigosol grounds. T. N. Patrick. *diag* *Textile World* 98:131-4 Ag '48
 Jute fabrics; pretreatment with solvents to prepare for printing. *Am Dyestuff Rep* 37:697 O 18 '48

Pigment dyeing and printing, aftertreatment with resin solutions. *Am Dyestuff Rep* 37:567 Ag 23 '48

Pigment printing from oil-in-water emulsion. *Am Dyestuff Rep* 37:697 O 18 '48

Printing device (screen printing, omitting the squeegee). *diags* *Am Dyestuff Rep* 37:103-4 F 9 '48

Printing device, mechanism for feeding fabrics. *diags* *Am Dyestuff Rep* 37:317-18 My 3 '48

Printing diazonium salts, thinning avoided. *Am Dyestuff Rep* 37:245-6 Ap 3 '48

Printing indigosols; betaines or sulfobetaines as assistants; patent. *Am Dyestuff Rep* 37:475 JI 12 '48

Printing indigosols; dispersing with sulfo-betaines or ammonium-amide condensates. *Am Dyestuff Rep* 37:246-7 Ap 5 '48

Printing; planographic method; dyestuff containing putties. *Am Dyestuff Rep* 37:656-7 O 4 '48

Printing vat dyestuffs and other insoluble dyestuffs, with varnish-like thickeners; British patent. *Am Dyestuff Rep* 37:136 F 23 '48

TEXTILE printing machines

Latest trends and necessary developments of dyeing, printing and finishing machinery. M. Pagerie. *Rayon* 29:86-6 JI '48
 Sequence control uses endless belt; printing machine used in making felt-base rugs. P. W. Vessey. *il* *Machine Design* 20:130 Ap '48

TEXTILE research

Address of the medalist at presentation of Olney medal. E. R. Schwarz. *Am Dyestuff Rep* 37:4-6 Ja 12 '48
 American association of textile chemists and colorists general research meeting, Chicago, Oct. 24. *Am Dyestuff Rep* 36:778-84 D 29 '47
 A.A.T.C.C. 155th research committee meeting, New York, June 8. *Am Dyestuff Rep* 37:461-3 JI 12 '48
 Applied research in the textile industry. D. H. Powers. *Chem & Eng N* 26:1442-3 My 17 '48
 Functions of a use-development organisation in the textile industry. H. A. Thomas. *Textile Inst J* 39:P444-60 Ag '48
 Gearing toward better textiles. J. R. Bonnar. *Am Dyestuff Rep* 36:765-6+ D 29 '47
 Non-linear viscous elasticity and the Eyring shear model. G. Halsey. *bibliog* *diags* *J Ap Phys* 18:1072-97 D '47
 Place of research in the organisation of the textile industry. F. C. Toy and D. W. Hill. *Textile Inst J* 39:P343-54; *Discussion.* P354-5 Ag '48
 Progress reports presented at A.A.T.C.C. research committee meeting, April 2, 1948. *Am Dyestuff Rep* 37:402-9 Je 14 '48
 Relaxation and flow in cellulose fibres. R. Meredith. *bibliog* *diag* *Textile Inst J* 39:P245-51; *Discussion.* P251-2 JI '48
 Research committee AATCC meeting, New York, April 2. *Am Dyestuff Rep* 37:292-4 My 3 '48
 Research methods in weaving machinery; Draper corp., Hopedale, Mass. F. M. Fitzgerald. *Rayon* 29:55-6 My; 64-5 Je '48
 Research strides ahead in all textile branches. J. B. Goldberg. *Textile World* 98:109-11 F '48
 Review of the German technical reports. T. R. Smith. *Am Dyestuff Rep* 37:263-5 Ap 19 '48
 Search for fibers. C. H. Herr. *Textile Col* 70:30 My '48
 Studies in soiling and detergency. J. R. Clark and V. B. Holland. *bibliog* *Am Dyestuff Rep* 36:734-47 D 15 '47
 Textile research achievements in 1947. J. B. Goldberg. *Rayon* 29:47-9 Mr; 51-2 Ap; 47-8 Je '48
 Textile research and its application to industry. J. B. Goldberg. *Textile Inst J* 39:P211-18 JI '48; Same. *Rayon* 29:53-9 Ag; 43-4 O; 60-1 N '48; *Discussion.* *Textile Inst J* 39:P218-19 JI '48

See also

Cotton research	Textile fibers, Effect
Nylon research	of light on
Rayon research	Textile laboratories
	Wool research

TEXTILE research—Continued

Bibliography

Abstracts. Textile Res J 18:56-70 Ja '48 [cont monthly]

TEXTILE research institute

Annual meeting, New York, Nov. 13-14. Textile World 98:135+ Ja '48

TEXTILE schools

Lowell Textile inaugurates first synthetic textile dept. il Rayon 28:586-7 N '47

PTI expands program, starts new buildings. H. P. Galloway. il Textile World 98:137+ O '48

School of textiles, N.C. State, enlarges, plans Textile World 98:254+ Je '48

Textile courses revised at North Carolina State, R. Freeman. il Textile World 98:135+ Ag '48

TEXTILE sizing. See Sizing (textiles)

TEXTILE standards

American delegation reports on meetings at Buxton, England, of the international technical committee on textiles, D. E. Douty. il Ind Stand 19:146-9 O '48

A.S.T.M. standards on textile materials (with related information); specifications, tolerances, methods of testing, definitions and terms. 515p pa \$4 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '47 [issued annually]

Determination of twist in yarns. Textile Inst J 38:S21-2 D '47

Determination of yarn count or yarn number. diags Textile Inst J 38:S15-21 D '47

Report on ISO conference and Colour index meeting. Am Dyestuff Rep 37:481-2+ JI 26 '48

See also

Cotton yarn—Standards

TEXTILE technologists

Textile institute; professional status of the textile technologist, J. C. Withers. Textile Inst J 39:P361-3; Discussion. 363-5 Ag '48

TEXTILE terms. See Textile fabrics—Terminology; Textile fibers, Synthetic—Terminology; Textile industry—Terminology

TEXTILE testing

Compressional behavior of textile materials. R. B. Finch, bibliog (52 titles) il diags Textile Res J 18:165-77, 237-43 Mr-Ap '48

Generalized concept of resilience, R. M. Hoffman, bibliog il diags Textile Res J 18:141-8 Mr '48

Instrument for measuring the coefficient of friction of yarns against other materials. H. Buckle and J. Pollitt. il diags Textile Inst J 39:T199-210 Je '48

Measurement of hysteresis and dynamic elastic modulus of textile yarns and cords. G. Palandri. il diag Rubber Age 64:45-52 O '48

Mechanics of elastic performance of textile materials. W. J. Hamburger, bibliog Textile Res J 18:102-13 F '48

Service wearing tests. E. N. Ditton. Rayon 29:69-70 Je '48

Textile testing in Germany. H. F. Schiefer and others, bibliog il diags Textile Res J 17:689-713; 18:18-38, 89-101 D '47-F '48

Use of acceptance testing data to substantiate specification requirements. S. Backer. Am Dyestuff Rep 37:603-12 S 20 '48

See also

Dye testing	Textile finishing—
Textile fabrics—	Testing
Testing	Yarn—Testing
Textile fibers—Testing	

TEXTILE testing machines

Cloth abrasion tester made of wooden rail. H. J. Haas, diag Textile World 98:156 O '48

Cumulative extension test for plasticity in textile fibres, R. Meredith and F. T. Peirce, diag Textile Inst J 39:T159-64 My '48

Testing machines point way to progress, J. J. Mills. il Textile World 98:129+ JI '48

Uniform abrasion in the testing of textiles. il Rayon 28:646 D '47; Same, Rubber Age 62:547-8 F '48

TEXTILE workers

Burlington Mills' film stresses worker importance. W. A. Newell. il Textile World 98:103-6 O '48

C & K produces first of training-film series. W. A. Newell. il Textile World 98:112-13 Ag '48

Employee training can be combined with research; Fieldcrest mills. Textile World 98:145, 206 Ap '48

Expanded personnel services are fixture in textile industry. C. M. Bowden. Textile World 98:115 F '48

Human engineering is stressed by ASME, H. Knowlton. Textile World 98:137+ Mr '48

Report to employees ties wages to profits; Cherokee textile mills, A. G. Heinsohn, jr. Factory Management 105:83 N '47

Tell your employees about mill and industry. T. M. Forbes. Textile World 98:116-17 My '48

Textile dyeing and finishing; work injuries in 1945. F. S. McElroy and G. R. McCormack. Mo Labor R 67:20-5 JI '48; Abstract. Textile World 98:125+ Ag '48

Textile mill takes on college atmosphere; Crown manufacturing co. D. M. Thompson. il Mill & Factory 42:114-16 Je '48

Textile workers like plan that transforms mill into college; Crown manufacturing co., Pawtucket. il Ptr Ink 222:70 F 27 '48

Textiles manufacture; earnings in April 1948. T. P. Kanninen. Mo Labor R 67:267-71 S '48

Visual tests can fit employees to jobs. W. C. Ezell. il Textile World 98:137+ Ap '48

See also

Carpet factories—	Woolen and worsted
Employees	mills—Employees
Cotton mills—Em-	
ployees	

TEXTILE workers union of America

Textile union plans drive. Bsns W p68-70+ Mr 6 '48

TEXTOLITE

Big new G.E. laminating plant, Coshocton, Ohio. il Mod Plastics 25:124-5 N '47

TEXTRON, inc.

Congress investigates Textron, inc.; outcome will be closely watched. H. Rogers. Textile Col 70:34-5 O '48

Defends practice of speculating with funds set up as charitable trusts. R. Little. Comm & Fin Chr 168:1841 N 1 '48

Many phases to Textron activities in post-war textile field. J. A. Spooner. Rayon 29:37-8 My '48

What's behind the Nashua mill shutdown? Bsns W p44+ O 23 '48

Whose mistakes at Nashua? il Fortune 38:98-100 N '48

THACKREY, Theodore Olin, 1901-

Thackrey versus Thackrey; how Mr and Mrs run paper. C. Hodge. por Ed & Pub 81:9+ S 18 '48

THAILAND. See Siam (Thailand)

THALLIUM

Exchange reaction between thallium (I) and thallium (III) ions in perchloric and nitric acid solutions. R. J. Prestwood and A. C. Wahl. Am Chem Soc J 70:880-1 F '48

Fission of elements from Pt to Bi by high energy neutrons. E. L. Kelly and C. Wiegand. diag Phys R 73:1135-9 My 15 '48

New method of preparing strongly luminescent thallium activated alkali halides and some properties of these phosphors. E. H. Hutten and P. Fringsheim, bibliog il J Chem Phys 16:241-6 Mr '48

Analysis

Determination of thallium in urine. H. H. Ackerman, bibliog J Ind Hygiene 30:300-2 S '48

Gravimetric determination of thallium with tetraphenylarsonium chloride. W. T. Smith, jr. bibliog Anal Chem 20:937-8 O '48

Isotopes

Artificial radioactive isotopes of polonium. D. H. Templeton and others, bibliog Phys R 72:758-65 N 1 '47

THALLIUM bromide

Infrared prism spectroscopy from 24 to 40 microns. E. K. Plyler. J Res Nat Bur Stand 41:125-8 Ag '48

New crystals for infrared spectroscopy. Franklin Inst J 246:249-50 S '48

Thallium bromide-iodide prism spectroscopy in the far infra-red. W. L. Hyde. J Chem Phys 16:744-5 JI '48

THALLIUM bromide—Continued

Vibrational bands measured with a thallium bromide-iodide prism. E. K. Plyler, *J Chem Phys* 16:1008 O '48

THALLIUM chloride

Influence of dipolar ions on the solubility of some sparingly soluble salts. F. Lee and L. Luh. *bibliog Am Chem Soc J* 70:113-14 Ja '48

Analysis

Determination of thallous chloride in solutions of thallous decanesulfonate. J. C. Henniker and E. C. Lingafelter, *bibliog Anal Chem* 19:933 N '47

THALLIUM compounds

Application of thallium compounds in organic chemistry. R. C. Menzies, *Chem Soc J* p 1378-84 O '47

THALLIUM decanesulfonate

Determination of thallous chloride in solutions of thallous decanesulfonate. J. C. Henniker and E. C. Lingafelter, *bibliog Anal Chem* 19:933 N '47

THALLIUM halides

Thallium halide crystal counter. R. Hofstadter, *Phys R* 72:1120-1 D 1 '47

Thallium halide crystals for infrared spectrometry. *Chem & Eng N* 26:2453 Ag 16 '48

THALLIUM iodide

Infrared prism spectrometry from 24 to 40 microns. E. K. Plyler, *J Res Nat Bur Stand* 41:125-8 Ag '48

New crystals for infrared spectrometry. *Franklin Inst J* 246:249-50 S '48

Thallium bromide-iodide prism spectroscopy in the far infra-red. W. L. Hyde, *J Chem Phys* 16:744-5 J1 '48

Vibrational bands measured with a thallium bromide-iodide prism. E. K. Plyler, *J Chem Phys* 16:1008 O '48

THALLIUM oxides

Catalytic oxidation of aniline in the vapor phase. O. W. Brown and W. C. Frishe, *diags J Phys & Colloid Chem* 51:1394-400 N '47

Exchange reaction between the two oxidation states of thallium in perchloric acid solutions. G. Harbottle and R. W. Dodson, *Am Chem Soc J* 70:880 F '48

THALLIUM sulfoxylate

Thallous sulfoxylate isomerism. J. Fentress and P. W. Selwood, *bibliog diags Am Chem Soc J* 70:711-16 F '48

THAWING, Electric

Electric snow melting for sidewalks. M. F. Muzzillo, *il Elec World* 129:124+ Ap 10 '48

Heat requirements for instruments and air-foils during icing storms on Mt Washington. V. J. Schaefer, *il A S M E Trans* 69:843-6 N '47

Thermal anti-icing survey on Mt Washington. A. G. Guibert, *il A S M E Trans* 69:829-32 N '47

THEATER**Stage setting and scenery**

Plastics on ice; Ice follies of 1948; costumes, scenery, and props. *il Mod Plastics* 25:106-7 Ap '48

THEATER seats

New slide-back chair. W. A. Gedris, *Soc Motion Picture Eng J* 50:389-92 Ap '48

THEATERS**See also**

Moving picture theaters

THEATRICAL production

Angel with a system; J. S. Seidman, C.P.A. and Broadway angel, *Fortune* 37:132+ Mr '48

THEFT

Fighting industrial thefts. *il Bsns W* p49-50 Mr 20 '48

Legislation helps combat New York port theft pilferage. *Nat Underw* 52:17 Ag 12 '48

See also

Automobiles—Theft
Motor truck robberies

THEFT insurance. *See Insurance, Theft*

THENYLENE

Clinical observation on a new synthetic antihistamine. J. K. Martins, *Ind Med* 17:133-4 Ap '48

THEOBROMINE

Caffeine and theobromine production, Brazil; with data on exports, 1945-1947. *For Comm W* 31:26-7 My 8 '48

Analysis

Determination of theobromine and caffeine in cacao materials. R. G. Moores and H. A. Campbell, *bibliog il Anal Chem* 20:40-7 Ja '48

THEODOLITES

Optical theodolite speeds dam survey. C. O. Greenwood, jr. *il Eng N* 140:956-7 Je 10 '48; Discussion. C. S. Aspina, 141:112 O 28 '48

THERAPEUTICS**See also**

Chemotherapy

Electrotherapeutics

Inhalation (therapeutics)

Radiotherapy

Serumtherapy

Vaccines

THERMAL analysis

Apparatus for refined thermal analysis exemplified by a study of the system *p*-dichlorobenzene-*p*-dibromobenzene-*p*-chlorobromobenzene. A. N. Campbell and L. A. Prodan, *bibliog diags Am Chem Soc J* 70:553-61 F '48

Differential thermal analyses of some Missouri fire clays. W. D. Keller and J. F. Westcott, *bibliog Am Cer Soc J* 31:100-5 Ap 1 '48

Differential thermal analysis of clays in sediments. A. J. Kauffman, jr. *bibliog World Oil* 128:118+ J1 '48

Thermal investigation of the ternary system Mg-Na-Pb; the compound MgNaPb and several cross sections. G. Calingaert, H. Shapiro and I. T. Krohn, *Am Chem Soc J* 70:270-7 Ja '48

THERMAL demand meters. *See Demand meters*

THERMISTORS. *See Electric resistors*

THERMOCHEMISTRY

Heat of formation and free energy of chlorous acid. E. J. Fontana and W. M. Latimer, *bibliog Am Chem Soc J* 69:2598-9 N '47

Heats of formation and chemical thermodynamic properties. F. D. Rossini, *bibliog A S M E Trans* 70:625-9 Ag '48

Heats of formation and decomposition of trona. D. R. Torgeson, *bibliog Ind & Eng Chem* 40:1152-3 Je '48

Heats of formation of the N=N and C=N bonds; abstract. G. E. Coates and L. E. Sutton, *Chem & Ind* p896 D 27 '47

Hydrofluoric acid solution calorimeter and the determination of the heats of formation of MgSiO₃, MgSiO₃, and CaSiO₃. D. R. Torgeson and T. G. Sahara, *bibliog diag Am Chem Soc J* 70:2156-60 Je '48

Thermochemical evaluation of the bond-strength in some carbon compounds; methyl carbon-iodine and methyl carbon-magnesium; abstract. H. Mackle and A. R. Ubbelohde, *Chem & Ind* p806 D 27 '47

Thermochemistry of organic compounds. J. G. Valatin, *bibliog J Chem Phys* 16:1018-24 N '48

Thermochemistry of sodium carbonate and its solutions. K. A. Kobe and T. M. Sheehy, *bibliog Ind & Eng Chem* 40:99-102 Ja '48

See also

Adsorption, Heat of

Combustion

Combustion, Heat of

Combustion analysis

Isomerization, Heat of

Melting points

Polymerization, Heat of

Solution, Heat of

Specific heat

Sublimation, Heat of

Thermodynamics

Vapor pressure

Vaporization, Heat of

Wetting, Heat of

THERMOCOUPLES

Embrittlement of chromel and alumel thermocouple wires. W. I. Pumphrey, *2pls Iron & Steel Inst J* 157:513-14 D '47

Make neat welds on thermocouple tips with simple, portable welding device. H. A. Fitzgerald, *diag Pet Processing* 3:847 S '48

Measurement of gas temperatures by means of thermocouples. W. L. Bolles, *bibliog diags Pet Refiner* 27:120-6 F '48

Measuring temperature of energized hv equipment. R. Bailey, *il diag Elec World* 130:100+ O 23 '48

THERMOCOUPLES—Continued

- Precision of heat transfer measurements with thermocouples; geometric errors. W. A. Mohun and W. S. Peterson, bibliog *diags Can Chem & Process Ind* 31:908-13 O '47
- Pyrometry for the ceramic industries; with an introduction to principles of automatic control. V. L. Parsegian, bibliog *diags Am Cer Soc Bul* 27:1-24 Ja 15 '48
- Thermocouple alloys; tabulation. *Electronics* 21:M27 Mid-Je '48
- Vacuum thermocouple. *diag R Sci Instr* 19:55 Ja '48

THERMODYNAMICS

- Activity coefficients in alpha-brass from statistical thermodynamics. L. Guttman, bibliog *Metals Tech* 15:TP2330 1-5 F '48
- Adsorption isotherms for binary gas mixtures. D. B. Broughton. *Ind & Eng Chem* 40:1506-8 Ag '48
- Aerothermodynamic design of turbines for aircraft power plants. J. E. Talbert and J. C. Smith, *diags J Aeronautical Sci* 15:556-64 S '48
- Affinity and reaction rate close to equilibrium; hydrogenation of benzene; dehydrogenation of cyclohexane. I. Prigogine, P. Outer and C. Herbo, bibliog *J Phys & Colloid Chem* 52:321-31 F '48
- Application of Onsager's reciprocal relations to thermoelectric, thermomagnetic, and galvanomagnetic effects. H. B. Callen, bibliog *Phys R* 73:1349-58 Ja 1 '48
- Applications of thermodynamics to hydrocarbon processing. W. C. Edmister, bibliog *Pet Refiner* 26:77-82 JI; 83-8 Ag; 105-11 S; 99-105 O; 110-17 N; 112-18 D '47; 27:74-82 Ja; 100-7 F; 83-9 Mr; 134-42 Ap; 93-100 My; 104-11 Je '48 (to be cont)
- Carbonyl chloride, entropy, heat capacity, vapor pressure, heats of fusion and vaporization; comments on solid sulfur dioxide structure. W. F. Giauque and W. M. Jones, bibliog *Am Chem Soc J* 70:120-4 Ja '48
- Changes in energy or kinetic state, diags *Chem Eng* 55:107-12 My '48
- Chemical engineering unit processes; applied kinetics and equilibria; chemical and physical equilibria. O. A. Hougen. *Ind & Eng Chem* 40:1561-5 bibliog (292 ref, p 1562-5) S '48
- Curing, a problem in thermodynamics. G. A. Mansfield. *Rock Prod* 51:212-14+ Ag '48
- Energy levels and thermodynamic functions of the fourth power oscillator. J. E. Kilpatrick and M. F. Kilpatrick, bibliog *J Chem Phys* 16:781-7 Ag '48
- Enthalpy, entropy and specific heat of liquid *p*-xylene from 0 to 3000°; the heat of fusion. R. J. Corruccini and D. C. Ginnings, bibliog *Am Chem Soc J* 69:2291-4 O '47
- Fugacities in gas mixtures. J. Joffe, bibliog *Ind & Eng Chem* 40:1738-41 S '48
- Gas transportation system calculations; preparing thermodynamic tables and charts for natural gas. B. Miller, *Gas Age* 102:31-5 JI 22 '48
- Gas transportation system calculations; thermodynamics involved in gas compression. B. Miller, *diags Gas Age* 101:28-31 Ja 22; 27-34 F 5 '48
- General thermodynamic theory of ion exchange processes. H. P. Gregor, *Am Chem Soc J* 70:1293 Mr '48
- Generalized thermodynamics of high-temperature combustion. H. C. Hottel and others, bibliog *A S M E Trans* 70:667-76 Ag '48
- Glass electrode; temperature-potential relationships. J. Jackson, bibliog *Chem & Ind* p7-10 Ja 3 '48
- Graphical residual; its application to phase relations of oxygen and nitrogen. H. A. Koch, Jr. and V. C. Williams, bibliog *Chem Eng Prog* 43:623-32 N '47
- Heat and entropy. H. H. Steinour, bibliog *J Chem Educ* 25:15-20 Ja '48
- Heat capacities, heats of transition, heats of fusion and entropies of cyclopentene and cyclohexene. H. M. Huffman, M. Eaton and G. D. Oliver, bibliog *Am Chem Soc J* 70:2911-14 S '48

- Heats, equilibrium constants, and free energies of formation of the alkylcyclopentanes and alkylcyclohexanes. J. E. Kilpatrick and others, bibliog *J Res Nat Bur Stand* 39:523-43 D '47
- Heats of formation and chemical thermodynamic properties. F. D. Rossini, bibliog *A S M E Trans* 70:625-9 Ag '48
- High-output combustion of ethyl alcohol and air. A. H. Shapiro and others, bibliog *diags A S M E Trans* 70:161-9 Ap '48
- High-temperature heat contents of $3\text{CaO} \cdot \text{B}_2\text{O}_3$, $2\text{CaO} \cdot \text{B}_2\text{O}_3$, $\text{CaO} \cdot \text{B}_2\text{O}_3$, and $\text{CaO} \cdot 2\text{B}_2\text{O}_3$. E. G. King, D. R. Torgeson and O. A. Cook, bibliog *Am Chem Soc J* 70:2160-3 Je '48
- History and exposition of the laws of thermodynamics. J. H. Keenan and A. H. Shapiro, bibliog *Mech Eng* 69:915-21 N '47
- Influence of relaxation on the two velocity field model of helium II. W. Band and L. Meyer, bibliog *Phys R* 74:386-94 Ag 15 '48
- Ionic exchange equations derived from statistical thermodynamics. C. Krishnamoorthy and others, *Science* 108:439-40 O 22 '48
- Irreversible production of entropy. R. C. Tolman and P. C. Fine, *Rs Mod Phys* 20:51-77 Ja '48
- Liquid isopropyl alcohol; enthalpy, entropy, and specific heat from 0° to 200° C. D. C. Ginnings and R. J. Corruccini, bibliog *Ind & Eng Chem* 40:1990-1 O '48
- Low temperature heat capacities, enthalpies, and entropies of UF_4 and UF_6 . F. G. Brickwedde and others, *diags J Chem Phys* 16:429-36 My '48
- Magnetic studies on the dissociation and disproportionation of some hexaarylethanes. W. Byerly, H. G. Cutforth and P. W. Selwood, *Am Chem Soc J* 70:1142-3 Mr '48
- Molecular constants from spectroscopic data. G. Herzberg, bibliog *A S M E Trans* 70:623-4 Ag '48
- Osmotic and activity coefficients; the rational type versus the practical type. P. Van Rysselberghe and G. J. Hunt, bibliog *J Chem Educ* 25:87-9 F '48
- Physical properties of benzene-methanol mixtures. G. C. Williams, S. Rosenberg and H. A. Rothenberg, bibliog *Ind & Eng Chem* 40:1273-6 JI '48
- Quantum corrections to the thermodynamic properties of liquids, with application to neon. O. K. Rice, bibliog *J Chem Phys* 16:141-7 F '48
- Quantum statistics and the N theorem. H. Einbinder, bibliog *Phys R* 74:805-8 O 1 '48
- Relation between entropy and enthalpy of solution. O. K. Rice, bibliog *J Chem Phys* 15:875-9 D '47
- Relation between the order of a phase transition and discontinuities in the distribution functions of molecules. J. E. Mayer, *J Chem Phys* 16:665-8 JI '48
- Relative abundances of nuclei in the universe. P. S. Sarafa de Toledo and G. Wataghin, bibliog *Phys R* 73:79-80 Ja 1 '48
- Second-order transformations in two-component systems; application to solutions of He^3 in He^4 . J. W. Stout, *Phys R* 74:605-9 S 1 '48
- Some thermodynamical aspects of the formation of inclusions in mild-steel weld metal. E. C. Rollason and E. Bishop, bibliog *Iron & Steel Inst J* 158:161-8 F '48
- Specific heat, enthalpy, and entropy of uranyl fluoride. P. F. Wacker and R. K. Cheney, bibliog *J Res Nat Bur Stand* 39:317-20 O '47
- Statistical thermodynamics of the sorption of vapors by solids. M. Dole, bibliog *J Chem Phys* 16:25-30 Ja '48
- Story of atomic energy; laws of thermodynamics. F. Soddy, *Engineering* 164:457-8 N 14 '47
- Surfaces of solids; the heats of emersion and desorption of water from graphite at 25°. P. R. Basford, G. Jura and W. D. Harkins, bibliog *Am Chem Soc J* 70:1444-50 Ap '48
- Table and Mollier chart of the thermodynamic properties of 1,3-butadiene. C. H. Meyers and others, bibliog *fold chart J Res Nat Bur Stand* 39:507-21 D '47
- Temperature dependence of penetration depth in superconductors. J. de Launay and M. C. Steele, bibliog *Phys R* 73:1450-4 Je 15 '48

THERMODYNAMICS—Continued

- Theory of liquid helium, L. Tisza. bibliog Phys R 72:838-54 N 1 '47
- Thermal properties of petroleum oils, M. Van Winkle, Pet Refiner 27:81-5 Je; 123-8 Jl; 105-7 Ag '48
- Thermochemistry of solutions; the heats of ionisation of some organic acids, T. L. Cottrell and others. Chem Soc J p 1016-19 J '48
- Thermodynamic analysis of subcooling refrigerants, J. Allerton and others. diags Refrig Eng 55:171-7 F '48
- Thermodynamic calculations concerning the possible participation of the carbides of iron as intermediate in Fischer-Tropsch synthesis, J. T. Kummer and others, J Chem Phys 16:739-40 Jl '48
- Thermodynamic functions for molecular oxygen in the ideal gas state, H. W. Woolley, bibliog J Res Nat Bur Stand 40:163-8 F '48
- Thermodynamic functions for tritium and tritium hydride; the equilibrium of tritium and hydrogen with tritium hydride; the dissociation of tritium and tritium hydride, W. M. Jones. bibliog J Chem Phys 16:1077-81 N '48
- Thermodynamic properties and molecular structure of cyclohexane, methylcyclohexane, ethylcyclohexane and the seven dimethylcyclohexanes, C. W. Beckett, K. S. Pitzer and R. Spitzer. bibliog J Am Chem Soc J 69:2488-95 O '47
- Thermodynamic properties of hydrogen sulfide, J. R. West. bibliog Chem Eng Prog 44:287-92 Ap '48
- Thermodynamic properties of methyl alcohol, J. M. Smith. bibliog Chem Eng Prog 44:521-8 Jl '48
- Thermodynamic properties of the internal rotator; double minimum with attractive forces, J. O. Halford, J Chem Phys 16:560-4 Je '48
- Thermodynamic properties of the internal rotator; double minimum with repulsive forces, J. O. Halford, J Chem Phys 16:410-19 Ap '48
- Thermodynamic substitution group and its representation by the rotations of a square, J. A. Prins. diags J Chem Phys 16:65-6 Ja '48
- Thermodynamics and molecular structure of cyclopentane, J. E. Kilpatrick, K. S. Pitzer and R. Spitzer. bibliog Am Chem Soc J 69:2483-8 O '47
- Thermodynamics and stoichiometry of synthesis gas production by the partial oxidation of methane, C. W. Montgomery, E. B. Weinberger and D. S. Hoffman, Ind & Eng Chem 40:601-7 Ap '48
- Thermodynamics in terms of matter, radiation, and space, I. M. Fernald. diags J Eng Educ 38:692-8 My '48
- Thermodynamics of a strained elastomer; compressibility, L. E. Copeland. diags J Ap Phys 19:445-9 My '48
- Thermodynamics of a strained elastomer; general analysis, M. Mooney, J Ap Phys 19:434-44 My '48
- Thermodynamics of adsorption from solutions; the molality and activity coefficient of adsorbed layers, Y. Fu, R. S. Hansen and F. E. Bartell. J Phys & Colloid Chem 52:374-86 F '48
- Thermodynamics of aqueous solutions of potassium hydroxide, G. C. Akerlof and P. Bender. bibliog Am Chem Soc J 70:2366-9 Jl '48
- Thermodynamics of butadiene-1,2 from calorimetric and spectroscopic data, J. G. Aston and G. J. Szasz. bibliog diags Am Chem Soc J 69:3108-14 D '47
- Thermodynamics of deformation, P. G. Nutting. Science 106:445 N 7 '47
- Thermodynamics of hexafluoroethane from calorimetric and spectroscopic data, E. L. Pace and J. G. Aston. bibliog Am Chem Soc J 70:566-70 F '48
- Thermodynamics of irreversible processes; the theory of elasticity and anelasticity, C. Eckart. bibliog diags Phys R 73:373-82 F '48
- Thermodynamics of metallo-protein combinations; copper with bovine serum albumin, I. M. Klotz and H. G. Curme, bibliog Am Chem Soc J 70:939-43 Mr '48
- Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components, O. Redlich and A. T. Kister. bibliog Ind & Eng Chem 40:345-8 F '48
- Thermodynamics of non-electrolyte solutions and its technical applications; systems with associated components, O. Redlich and A. T. Kister. bibliog J Chem Phys 15:849-55 D '47
- Thermodynamics of nonelectrolyte solutions; x - y - t relations in a binary system, O. Redlich and A. T. Kister. Ind & Eng Chem 40:341-5 F '48
- Thermodynamics of sodium chloride in 50 mole per cent; aqueous methanol from e.m.f. measurements on cells with transference, J. P. Butler and A. R. Gordon. bibliog Am Chem Soc J 70:2276-8 Je '48
- Thermodynamics of the system benzene-benzyl, H. Tompa. bibliog diags J Chem Phys 16:292-302 Ap '48
- Thermodynamics; the second law from the standpoint of the equation of state, J. L. Finck. bibliog Franklin Inst J 245:301-17 Ap '48
- Thermodynamics; work, heat, and temperature concepts, and an examination of the temperature scale, J. L. Finck, Franklin Inst J 245:365-78 My '48
- Two gaseous mixtures containing hydrogen and nitrogen; thermodynamic properties, B. H. Sage, R. H. Olds and W. N. Lacey. bibliog Ind & Eng Chem 40:1453-9 Ag '48
- Ultimate sensitivity of radiation detectors, R. C. Jones. bibliog Opt Soc Am J 37:879-90 N '47
- Vapor pressure, specific volume, p - v - T data for H_2 , N_2 , O_2 , CO , CO_2 , air, He, A, Hg, S, Gratch, A S M E Trans 70:631-40 bibliog (154 titles, p637-40) Ag '48
- Vapor pressure, specific volumes, and p - v - T data for H_2O , NH_3 , CH_4 , C_2H_6 with comments on mixtures, F. G. Keyes. bibliog A S M E Trans 70:641-4 Ag '48
- Vapor pressures and some related quantities of pentene-1 from 0 to 200°, H. O. Day, D. E. Nicholson and W. A. Felsing. bibliog Am Chem Soc J 70:1784-5 My '48
- Vibrational spectrum and thermodynamic functions of acrylonitrile, F. Halverson and others. bibliog J Chem Phys 16:808-16 Ag '48
- Vibrational spectrum and thermodynamic properties of uranium hexafluoride gas, J. Bigeleisen and others. bibliog diags J Chem Phys 16:442-5 My '48

See also

- | | |
|-------------------|----------------------|
| Boiling | Isomerization, Heat |
| Entropy | of |
| Equation of state | Joule-Thomson effect |
| Evaporation | Melting points |
| Free energy | Specific heat |
| | Vapor pressure |

Study and teaching

- Graduate thermodynamics in chemical engineering, R. Yark, Jr. bibliog J Chem Educ 25:126-30 Mr '48

THERMOELECTRICITY

- Application of Onsager's reciprocal relations to thermoelectric, thermomagnetic, and galvanomagnetic effects, H. B. Callen. bibliog Phys R 73:1349-58 Je 1 '48
- Efficiency of thermoelectric generators, M. Telkes. bibliog J Ap Phys 18:1116-27 D '47
- Influence of deformation on the thermoelectric power of metals; abstract, C. Crusard and F. Aubertin. Engineer 185:305 Mr 26 '48
- Pyrite geo-thermometer, F. G. Smith. bibliog J diags Econ Geol 42:515-23 S '47
- Thermo-electric and conductive properties of blue titanium dioxide, H. K. Henisch. bibliog(30 titles) J diags Elec Com 25:163-77 Je '48
- Thermoelectric generator designs, G. B. Ellis. diags Elec Eng 67:657-60 Jl '48; Abstract. Mech Eng 70:765-6 S '48
- Thermoelectric properties and electrical conductivity of bismuth-selenium alloys, B. D. Cullity. bibliog Metals Tech 15:TP2313 1-8 Ja '48

See also

- Thomson effect

THERMOFOR process. See Gasoline—Manufacture

THERMOMAGNETISM

Application of Onsager's reciprocal relations to thermoelectric, thermomagnetic, and galvanomagnetic effects, H. B. Callen, bibliog Phys R 73:1349-58 Je 1 '48
Thermomagnetic generator, L. Brillouin and H. P. Iskenderian, bibliog diag Elec Com 25:300-11 S '48

THERMOMETERS and thermometry

Gas thermometer for automatic control of low temperatures; application to separation of gases by isothermal distillation, D. D. Tunncliffe, diag Anal Chem 20:962-4 O '48
High-output resistance-thermometer bulb, Instruments 21:306 S '48
Joint AECI-EEI heat pump committee suggests method for ground temperature measurements, diag Edison Elec Inst Bul 16:35-6 F '48
New thermometric standard utilizing the freezing point of benzoic acid, il diag Pet Eng 19:158+ D '47; Same, Can Chem & Process Ind 31:1144 D '47; Same, Instruments 21:458-60 My '48
Primary-element response; for hairline control, off to a good start, is chief requirement, M. F. Behar, diags Instruments 21:691-8 Ag '48
Resistance-thermometer bridge, S. S. Stack, il diags Gen Elec R 51:17-21 J1 '48
Thermometer element, il diag R Sci Instr 19:610 S '48

See also

Bolometers Color temperature
Calorimeters and Pyrometers and py-
calorimetry rometry

THERMOPILES

Measuring r-f power with a thermopile, G. P. Walker, il Electronics 21:180+ Mr '48

THERMOSTATS

Applying bimetal thermostats, J. O. Moorhead, il diag Product Eng 15:123-7 N '47
Automatic controls and their functions, Am Gas J 168:19-20 F '48
Bellows type thermostat, J. R. Parks, il diags Tool Eng 20:27-30 F '48
Circuit protection; thermal and magnetic devices, J. J. O'Connor, il diags Power 92:412-15 J1 '48
Conveyor furnace anneals bimetal strips, C. F. Alban, il Am Mach 92:108-10 S 23 '48
Economies result when parts are designed for beryllium copper, R. W. Carson and W. Martin, il diags Materials & Methods 26:79-84 D '47
Electrical snap-action temperature controls for aircraft; thermostat known as Cam-Stat, J. R. Campbell, il diags A S M E Trans 69:821-5; Discussion, 825-7 N '47
Electronic controls for air conditioning systems, il Heat & Ven 45:67-8 J1 '48
Heating system controls, J. L. Shank, il diags Am Bldg 70:134-8 Ap '48
History and functions of domestic temperature control, C. W. Nessel, il diag Sheet Metal Worker 39:71+ F; 81-2+ Mr; 71-2+ Ap; 73-4+ Mr; 80+ Je; 64+ Ag; 67+ S; 69-70 N '48 (to be cont)
Motor protector thermostats; use of heat-resistant phenolic, il Product Eng 19:137 S '48
Multi-temperature metal block thermostat, F. Howlett and R. J. B. Marsden, il J Sci Instr 26:311-13 S '48
Rate-of-rise principle meets modern fire protection requirements, H. N. Rider, il Steel 121:84-5+ N 24 '47
Room thermostat, diag Elec R (Lond) 143:438 S 17 '48
Sick systems cured, fuel saved, with automatic registers, il plans Dom Eng 171:110-11 Je '48
Stateroom temperature on the Lurline controlled by individual thermostats, Marine Eng 53:92 O '48
Temperature control device employing thermostats and a saturable reactor, R. L. Burwell, Jr. and others, bibliog diags R Sci Instr 19:608-9 S '48
Thermostatic bimetal, E. R. Howard, il diags Product Eng 19:106-10 S '48

Testing

Testing oven controls, H. J. Hense, il Am Gas Assn Mo 29:483-4+ N '47

THESES. See Dissertations, Academic

THEVENIN theorem

Use of Thevenin's theorem, I. Cogan, diags Elec Eng 67:1127-8 N '48

THIADIAZOLE

Review of the chemistry of the arylthiadiazoles or internal diazo-sulphides, H. H. Hodgson and D. P. Doddson, bibliog Soc Dyers & Col J 64:65-71 F '48
Some derivatives of benz-1-thia-2:3-diazole, the nature of the thiadiazole ring, and a note on the thiolation of 2-chloro-5-nitroaniline, H. H. Hodgson and D. P. Doddson, Chem Soc J p870-4 Je '48

THIAMIN. See Vitamins—Vitamin B1

THIANAPHTHENE. See Thionaphthene

THIAPYRAN

Studies in the thiapyran series; the preparation, properties and reactions of 1,4-thiapyrone-1-dioxide, E. A. Fehnel and M. Carmack, bibliog Am Chem Soc J 70:1813-17 My '48

THIAPYRONE dioxide

Studies in the thiapyran series; the preparation, properties and reactions of 1,4-thiapyrone-1-dioxide, E. A. Fehnel and M. Carmack, bibliog Am Chem Soc J 70:1813-17 My '48

THIAOXANTHONE

Studies in the sulfone series; certain heterocyclic derivatives of 2,8-diaminothiaxanthone-5-dioxide, E. D. Amstutz, E. A. Fehnel and I. M. Hunsberger, bibliog Am Chem Soc J 70:133-8 Ja '48

THIAZINE

Preparation of 1,4-thiazine, C. Barkenbus and P. S. Landis, Am Chem Soc J 70:684-5 F '48

THIAZOLE

Conversion of sucrose into thiazole derivatives; 2:4-dimethylthiazole derivatives and 2:4:5-trimethylthiazole, H. Gregory and L. F. Wiggins, Chem Soc J p 1400-3 O '47
Studies in the azole series; a synthesis of β -phenylcysteine, A. H. Cook, G. Harris and I. Heilbron, Chem Soc J p 1060-5 J1 '48
Synthesis of the 2- ω -aminoalkyl and 2- ω -sulphanilamidoalkyl derivatives of thiazole and pyrrolidine, A. A. Goldberg and W. Kelly, Chem Soc J p 1372-7 O '47

THIAZOLES

Miscellaneous thiazoles, E. B. Knott, Chem Soc J p 1656-9 D '47
Some quaternary ammonium salts of substituted thiazoles, C. T. Bahner, D. Pickens and D. B. Bales, Am Chem Soc J 70:1652-4 Ap '48

THIAZOLETHIOL

Synthesis of 2-thiazolethiol and its disulfide, R. A. Mathes and A. J. Beber, bibliog Am Chem Soc J 70:1451-2 Ap '48

THIAZOLIDINE

Spiro (steroid) thiazolidines, S. Lieberman, P. Brazeau and L. B. Hariton, bibliog Am Chem Soc J 70:3094-7 S '48

THIAZOLIDINE carboxylic acid

2-Substituted-thiazolidine-4-carboxylic acids, H. Soloway and others, Am Chem Soc J 70:1667-8 Ap '48

THIAZOLIDONE

Preparation of 4-thiazolidones by the reaction of thioglycolic acid with Schiff bases, A. R. Surrey, Am Chem Soc J 69:2911-12 N '47

THIAZOLONE

Studies in the azole series; the preparation of some thiazolones, A. H. Cook and others, Chem Soc J p 1056-60 J1 '48

THICKENERS

How the cyclone works on mineral separations; Driessen cyclone has proved ability as a thickener and as a concentrator in coal washing, il diags Eng & Min J 148:74-5 D '47

New edible colloidal gum from linseed oil meal cake can be used in soft drinks, candy, jelly, mayonnaise, ice cream mix, processed cheese, C. T. Mason and L. A. Hall, il Food Ind 20:382-3 Mr '48

Versatile thickener, Chem Eng 55:174 O '48

THICKNESS measurement

Continuous noncontact gaging of hot strip, Iron Age 161:78 My 6 '48

THICKNESS measurement—Continued

- Electrolytic thickness tester for plated metal coatings. H. T. Francis, *il* diags Electrochem Soc J 93:79-83 Mr '48
- Electronic micrometer measures thin materials accurately. *il* Materials & Methods 27:124 My '48
- Electronic micrometer using variable mutual inductance. M. L. Greenough, *il* diags Product Eng 19:134-6 Ja '48
- Magnetic measurement of the thickness of composite copper and nickel coatings on steel. A. Brenner and E. Kellogg, *il* J Res Nat Bur Stand 40:295-9 Ap '48
- Measurement of thickness of oxide coatings on aluminum alloys. R. B. Mason and W. C. Cochran, *iblog* Metal Finishing 46:69-73 My '48
- Metroscope, *il* R Sci Instr 19:535 Ag '48
- Nomograph for paint film calculations; wet film thickness, spreading rate, and dry film thickness of paint and varnish coatings. H. A. Berman, *iblog* Anal Chem 19:915-18 N '47
- Noncontact thickness gage uses radioactive carbon. Iron Age 162:94 J1 29 '48
- Nondestructive thickness gaging by X-ray successfully applied, *diag* Product Eng 19:158 Mr '48
- Optical thickness micrometer, *il* R Sci Instr 18:803-4 O '47
- Portable ultrasonic thickness gage. N. G. Branson, *il* diags Electronics 21:88-91 Ja '48
- Reflectogage, *il* R Sci Instr 18:804 O '47
- Studies of surface films by reflection of polarized light; more rigorous algebraic method for computing results. F. A. Lucy, *iblog* diags J Chem Phys 16:167-74 Mr '48
- Thickness gage for hot steel strip. Power Generation 52:70 Je '48
- Thickness gage for moving sheets of glass and other nonmagnetic materials. J. W. Head, *il* diag Electronics 21:90-2 My '48
- Thickness gaging with X-rays, *il* diag Machine Design 20:100 My '48
- Ultrahigh-frequency sound waves measure thickness of metal from one side; Audi-gage. N. G. Branson, *il* diags Oil & Gas J 46:66+ Ja 22 '48
- Ultrasonic resonance applied to non-destructive testing; automatic sonigage. W. S. Erwin and G. M. Rassweiler, *iblog* *il* diags R Sci Instr 18:750-3 O '47
- Ultrasonic thickness indicator; Reflectogage. B. Carlin, *il* diags Electronics 21:76-9 N '48
- X-ray gaging of sheet and strip thickness, *il* diag Iron Age 161:69+ Ja 29 '48; Blast F & Steel Pl 36:254 F '48
- X-ray thickness control expected to step up sheet output. W. N. Lundahl, *il* diag Steel 122:101-2+ F 2 '48; Excerpts. Elec World 129:116+ Mr 13 '48
- X-ray thickness gage, *il* diags Electronics 21:154+ Mr '48
- X-ray thickness gage, Sci Am 178:176 Ap '48
- X-ray thickness gauge for cold rolled strip steel. W. N. Lundahl, *il* diags Elec Eng 67:349-53 Ap '48; Abstract. Westinghouse Eng 8:42-3 Mr '48
- X-ray thickness gauge for hot-strip rolling mills. C. W. Clapp and R. V. Pohl, *diags* Elec Eng 67:441-4 My '48
- X-rays help control quality; new gaging units test thickness of moving materials. *il* diags Bsns W p54+ Ja 31 '48
- X-rays measure thickness, *il* Westinghouse Eng 8:21 Ja '48
- THIENYALANINE.** See Thiophene alanine
- THIOANISOLE**
p-Methylthiobenzenesulphonyl chloride and related compounds. H. Burton and P. F. Hu, *Chem Soc J* p604-5 My '48
- THIOBENZAMIDES**
Conversion of benzylamine to N-substituted thiobenzamides. F. H. McMillan, *iblog* Am Chem Soc J 70:868-9 F '48
- THIOCARBAZONES**
Synthesis of some substituted thiocarbazonones. D. S. Tarbell and others, *iblog* Am Chem Soc J 70:1381-5 Ap '48
- THIOCYANATES**
Discharge prints on acetate of cellulose; thiocyanate impregnation; patent. Am Dyestuff Rep 37:474 J1 12 '48

Dyeing cellulose acetate; thiocyanates used; British patent. Am Dyestuff Rep 37:243 Ap 5 '48

- Electric moments of some p-substituted phenyl selenocyanates and thiocyanates. T. W. Campbell and M. T. Rogers, *iblog* Am Chem Soc J 70:1029-31 Mr '48
- Imparting water-repelling to textiles by chemical methods; a review of the literature; cyanates, thiocyanates, and related compounds. H. A. Schuyten and others, *iblog* Textile Res J 18:497-500 Ag '48
- Phosphorus fluoroisocyanates and difluoroisothiocyanate, H. H. Anderson, *iblog* Am Chem Soc J 69:2495-7 O '47

THIOCYANATION

Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. MacLay, *Am Chem Soc J* 70:2220-3 Je '48

THIODIGLYCOL

Thiodiglycol monoacetate by the photochemical addition of mercaptoethanol to vinyl acetate. W. H. C. Rueggeberg and others, *Am Chem Soc J* 70:2292-3 Je '48

Analysis

Quantitative methods for certain organic sulfides. J. W. Sease and others, *iblog* Anal Chem 20:431-4 My '48

THIOGLUCOSIDES

Cleavage of tetraacetyl- β -D-thioglucosides with bromine in acetic acid. W. A. Bonner, *iblog* Am Chem Soc J 70:770-2 F '48

Oxidations of certain polyacetyl- β -D-thioglucosides to the corresponding sulfones. W. A. Bonner and R. W. Drisko, *iblog* Am Chem Soc J 70:2435-8 J1 '48

THIOGLYCOLIC acid. See Mercaptoacetic acid

THIOHYDANTOINS. See Hydantoins

THIOIMIDAZOLE

Preparation of some substituted thiohydantoins and thioimidazoles. M. Jackman and others, *iblog* Am Chem Soc J 70:2884-6 S '48

THIOLS

Aliphatic nitro-compounds; addition of thiols to α -nitro-olefins. R. L. Heath and A. Lambert, *Chem Soc J* p 1477-81 N '47

Oxidation-reduction potentials of thiol-disulfide systems; dithioburet-3,5-diimino-1,2,4-dithiazoline. P. W. Preisler and M. M. Bateman, *iblog* Am Chem Soc J 69:2632-5 N '47

Steroid acids and their transformation products; desulfurization of thiol esters of desoxycholic acid. G. B. Spero, A. V. McIntosh, Jr. and R. H. Levin, *iblog* Am Chem Soc J 70:1907-10 My '48

Steroid acids and their transformation products; desulfurization of thiol esters of 3(β)-hydroxy-5-cholenic and -bisor-5-cholenic acids. A. V. McIntosh, Jr., E. M. Meinzer and R. H. Levin, *iblog* Am Chem Soc J 70:2955-8 S '48

Steroid acids and their transformation products; thiol esters. R. H. Levin and others, *iblog* Am Chem Soc J 70:511-14 F '48

THIONAPHTHENE

Catalytic synthesis of thianaphthene from ethylbenzene. C. Hansch and F. Hawthorne, *Am Chem Soc J* 70:2495-6 J1 '48

Formation of thionaphthens from derivatives of phenylthioacetic acid. E. W. McClelland, M. J. Rose and D. W. Stammers, *Chem Soc J* p81-5 Ja '48

Purification of thianaphthene. C. Hansch, *Am Chem Soc J* 69:2908 N '47

Some 1:3-oxazine derivatives of thionaphthene. E. W. McClelland and D. W. Stammers, *Chem Soc J* p78-81 Ja '48

Studies in the thianaphthene series; amino-thianaphthene-1-dioxides. F. G. Bordwell and C. J. Albisetti, *jr*, *iblog* Am Chem Soc J 70:1955-8 My '48

Studies in the thianaphthene series; reactivity of the bromine atom in 3-bromothianaphthene-1-dioxide. F. G. Bordwell and C. J. Albisetti, *jr*, *iblog* Am Chem Soc J 70:1558-60 Ap '48

Vapor phase catalytic synthesis of thianaphthenes. C. Hansch and W. A. Blondon, *iblog* Am Chem Soc J 70:1561-3 Ap '48

THIONIC acid. See Thiophenecarboxylic acid

THIONOL

Thionol and its semiquinone radical. S. Granick and L. Michaelis. *bibliog Am Chem Soc J* 69:2983-6 D '47

THIONYL chloride

Preparation of acyl chlorides with thionyl chloride. S. Zuffanti. *bibliog J Chem Educ* 25:481 S '48

Study of the reaction of phenol with thionyl chloride. W. E. Bissinger and F. E. Kung. *bibliog Am Chem Soc J* 70:2664-6 Ag '48

Use of thionyl chloride in the preparation of Schiff's reagent. J. D. Barger and E. D. DeLamater. *Science* 108:121-2 JI 30 '48

THIOPHENE

Acylation of thiophene and furan by means of boron trifluoride. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 70:867 F '48

Acylation studies in the thiophene and furan series; direct acylation with carboxylic acids and phosphorus pentoxide. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3098-9 D '47

Acylation studies in the thiophene and furan series; strong inorganic oxyacids as catalysts. H. D. Hartough and A. I. Kosak. *bibliog Am Chem Soc J* 69:3093-6 D '47

Acylation studies in the thiophene and furan series; thiophene carboxylic acids and semicarbazones derived from acetylthiophenes. H. D. Hartough and L. G. Conley. *bibliog Am Chem Soc J* 69:3096-8 D '47

Alkylation of thiophene with olefins. W. G. Appleby and others. *bibliog Am Chem Soc J* 70:1552-5 Ap '48

Aminomethylation of thiophene; the reaction of thiophene with formaldehyde and ammonium salts. H. D. Hartough, S. J. Lukasiewicz and E. H. Murray, jr. *bibliog Am Chem Soc J* 70:1146-9 Mr '48

Chlorination of thiophene; addition products. H. L. Coonradt and H. D. Hartough. *Am Chem Soc J* 70:1158-61 Mr '48

Chlorination of thiophene; substitution products; physical properties of the chlorothiophenes; the mechanism of the reaction. H. L. Coonradt, H. D. Hartough and G. C. Johnson. *Am Chem Soc J* 70:2564-8 JI '48

Chlorination of thiophenes with sulfonyl chloride. E. Campaigne and W. M. LeSuer. *Am Chem Soc J* 70:415-16 Ja '48

Color reactions of thiophene compounds with ceric nitrate alcohol reagent. H. D. Hartough. *Anal Chem* 20:860-1 S '48

Condensation of thiophene and certain derivatives with chloral. J. F. Feeman, J. R. Dove and E. D. Amstutz. *Am Chem Soc J* 70:3136-8 S '48

Continuous process for acetylation of thiophene. J. Kellett and H. E. Rasmussen. *bibliog flow sheets Ind & Eng Chem* 40:384-9 Mr '48

Metalation studies in the thiophene series; condensation of thienyl- and substituted thienyl-sodium compounds with ethylene oxide. J. W. Schick and H. D. Hartough. *bibliog Am Chem Soc J* 70:1646-7 Ap '48

Metalation studies in the thiophene series; preparation of 2-thienylsodium and the 5-halo-2-thienylsodiums. J. W. Schick and H. D. Hartough. *bibliog Am Chem Soc J* 70:286-8 Ja '48

Metalation studies in the thiophene series; transmetalation of the alkylthiophenes. J. W. Schick and H. D. Hartough. *Am Chem Soc J* 70:1645 Ap '48

Monomers and polymers; vinylthiophenes. G. B. Bachman and L. V. Heisey. *bibliog Am Chem Soc J* 70:2378-80 JI '48

Some derivatives of 2-acetylthiophenes. E. Campaigne and J. L. Diedrich. *bibliog Am Chem Soc J* 70:391-2 Ja '48

Some recent advances in catalysis; detoxication of catalyst poisons. E. B. Maxted. *bibliog Soc Chem Ind J* 67:93-7 Mr '48

3-Substituted thiophenes. E. Campaigne and W. M. LeSuer. *bibliog Am Chem Soc J* 70:1555-8 Ap '48

Substitution and polymerization reactions of thiophene and the isomeric thiophthens. J. Bruce and others. *Inst Pet J* 34:226-35 Mr '48

2-Thienyl substituted diamines with anti-thiaminemic activity. F. Leonard and U. V. Solmsen. *bibliog Am Chem Soc J* 70:2064-7 Je '48

Thiophene analogs of DDT. P. Truitt, M. Mattison and E. Richardson. *bibliog Am Chem Soc J* 70:79-80 Ja '48

Thiophene-formaldehyde condensation. P. D. Caesar and A. N. Sachanen. *bibliog flow sheet Ind & Eng Chem* 40:922-8 My '48

Analysis

Determination of thiophene, carbon oxysulfide, and carbon disulfide in producer gas; spectrophotometric method. L. J. Brady. *bibliog diag Anal Chem* 20:512-14 Je '48

Estimation of thiophene in gasoline. H. C. McKee, L. K. Herndon and J. R. Withrow. *bibliog Anal Chem* 20:301-3 Ap '48

THIOPHENE acetic acid

2-Thienyl- and 3-thienyl-thioacetic acids and their derivatives. F. Challenger, S. A. Miller and G. M. Gibson. *Chem Soc J* p769-71 Je '48

THIOPHENE alanine

Synthesis of β -3-thienylalanine. E. Campaigne and others. *Am Chem Soc J* 70:2611 JI '48

THIOPHENE carboxylic acid

Acylation studies in the thiophene and furan series; thiophene carboxylic acids and semicarbazones derived from acetylthiophenes. H. D. Hartough and L. G. Conley. *bibliog Am Chem Soc J* 69:3096-8 D '47

THIOPHENE sulfonyl chloride

Synthesis of some aryl 2-thienyl sulphones and the nitration of thiophen-2-sulphonyl chloride. H. Burton and W. A. Davy. *Chem Soc J* p525-7 Ap '48

Use of phenylmagnesium bromide for the preparation of phenyl aryl sulphides, sulphoxides, and sulphones. H. Burton and W. A. Davy. *Chem Soc J* p528-9 Ap '48

THIOPHENE thioacetic acid

2-Thienyl- and 3-thienyl-thioacetic acids and their derivatives. F. Challenger, S. A. Miller and G. M. Gibson. *Chem Soc J* p769-71 Je '48

THIOPHOSPHORIC amides

Reaction of amines with phosphorus pentasulfide; thiophosphoric amides. A. C. Buck, J. D. Bartleson and H. P. Lankelma. *bibliog Am Chem Soc J* 70:744-6 F '48

Thiophosphoric amides; aminolysis. A. C. Buck and H. P. Lankelma. *Am Chem Soc J* 70:2396-7 JI '48

THIOPHOSPHORYL ethoxydichloride

Fluorination of thiophosphorylethoxydichloride. H. S. Booth, D. R. Martin and F. E. Kendall. *bibliog Am Chem Soc J* 70:2523-5 JI '48

THIOPHTHENE

Substitution and polymerization reactions of thiophene and the isomeric thiophthens. J. Bruce and others. *Inst Pet J* 34:226-35 Mr '48

THIOSORBITOL

1-Thiosorbitol. M. W. Farlow and others. *Am Chem Soc J* 70:1392-4 Ap '48

THIOURACIL

Diffuse and nodular hyperplasia of the thyroid gland in thiouracil-treated rats. W. G. Kuzell and others. *bibliog Il Science* 107:374-5 Ap 9 '48

Dipole moments of thiouracil and some derivatives in dioxane solution. W. C. Schneider and I. F. Halverstadt. *bibliog Am Chem Soc J* 70:2626-31 Ae '48

Effect of diethylstilbestrol on the thyroid glands of chicks receiving thiouracil. J. E. Selle and E. M. Selle. *Science* 107:394-5 Ap 16 '48

Preparation of some 6-substituted-2-thiouracils. M. Jackman, A. J. Bergman and S. Archer. *bibliog Am Chem Soc J* 70:497-500 F '48

Synthesis of 5-halogeno-2-thiouracil and 6-methyl-5-halogeno-2-thiouracil derivatives. H. W. Barrett, I. Goodman and K. Dittmer. *bibliog diag Am Chem Soc J* 70:1753-6 My '48

Synthesis of some substituted 2-thiouracils. H. Gilman and H. S. Broadbent. *bibliog Am Chem Soc J* 70:2755-8 Ag '48

Synthesis of some 6-substituted-2-thiouracils. W. H. Miller, A. M. Dessert and G. W. Anderson. *bibliog Am Chem Soc J* 70:500-3 F '48

THIOUREA

Condensations of α -alkyl- α -carbethoxy- γ -butyric lactones. G. S. Skinner, A. Stokes and G. Spiller. *bibliog Am Chem Soc J* 69:3083-6 D '47

β -Propiolactone; reactions with dithiocarbamic acids, their salts and thiourea. T. L. Gresham, J. C. Jansen and F. W. Shaver. *Am Chem Soc J* 70:1001-2 Mr '48

Sulfanilamide derivatives containing urea, thiourea or hydrazide groupings. E. Niemiec. *bibliog Am Chem Soc J* 70:1067-8 Mr '48

Synthetic antimalarials; some 2-phenylureido- and 2-phenylthioureido-4-dialkylaminoalkyl-amino-6-methylpyrimidines. R. D. Ashworth and others. *Chem Soc J* p581-6 My '48

THIRD avenue transit corporation

City fare rise would lift net for Third ave. railway bonds. *Barron's* 27:33 N 24 '47

THIXOTROPY

Consistency and temperature of oils and printing inks at high shearing stresses. R. N. Weltmann. *bibliog diags Ind & Eng Chem* 40:272-80 F '48

Initial oscillation on a rotational viscometer. R. N. Weltmann. *bibliog diag J Ap Phys* 18:933-40 N '47

Thixotropic viscoelastic systems. B. A. Dunell and G. Halsey. *diags Textile Res J* 18:178-86 Mr '48

THOMAS, Charles Allen, 1900-

President of ACS for 1948. *por(cover) Chem & Eng N* 26:39 Ja 5 '48

Receives AIC gold medal. *por Chem & Eng N* 26:1524-5 My 24 '48; *Chem Eng* 55:251 My '48; *Oil Paint & Drug Rep* 153:60 My 17 '48

THOMPSON, J. Walter, company**Insurance staff**

How facts on insurance reach press, magazines; press bureau representatives of J. Walter Thompson co. *East Underw* 49:3 Ja 30 '48

THOMPSON products, inc.

Diversified stake in stability. G. W. Mathis. *Mag of Wall St* 82:345 Jl 3 '48

THOMSON, Joseph John, 1856-1940

Sketch. *Engineer* 185:296 Mr 26 '48

THOMSON, William A.

Bill Thomson bows out of Bureau after 35 years. *por Pr Ink* 222:86 Ja 30 '48

THOMSON effect

Measurements of Thomson coefficients for metals at high temperatures and of Peltier coefficients for solid-liquid interfaces of metals. J. J. Lander. *bibliog diags Phys R* 74:479-88 Ag 15 '48

THORIA. See Thorium oxide**THORIUM**

Atomic energy in India; rich thorium deposits to be exploited. *Chem Age (Lond)* 57:322 D 27 '47

Australia's coast is rich in mineral sands. D. Mercer. *Can Min J* 69:94-5 My '48

Fission excitation functions. J. Jungerman and S. C. Wright. *bibliog Phys R* 74:150-2 Jl 15 '48

Metallurgical problems involved in the generation of useful power from atomic energy. W. Akers. *Metal Prog* 52:1016+ D '47

New experiments concerning the surplus gamma-radiation from rocks. V. F. Hess and J. D. Roll. *Phys R* 73:592-5 Mr 15 '48

New radioactive series; the protactinium series. M. H. Studier and E. K. Hyde. *diags Phys R* 74:591-600 S 1 '48

Production of thorium, zirconium and uranium. G. Meister. *diags Metal Prog* 53:515-20 Ap '48

Analysis

Analysis of thorium-chromium mixtures. R. E. Ewing and C. V. Banks. *bibliog diag Anal Chem* 20:233-5 Mr '48

Analytical aspects of thorium chemistry. T. Moeller, G. K. Schweitzer and D. D. Starr. *Chem R* 42:63-105 *bibliog* (263 ref, p99-105) F '48

Electrolytic and polarographic determination of zinc in thorium. J. H. Patterson and C. V. Banks. *bibliog Anal Chem* 20:397-900 O '48

Thorium in monazite sand; separation and determination by precipitation from homogeneous solution. H. H. Willard and L. Gordon. *bibliog Anal Chem* 20:165-9 F '48

Isotopes

Alpha-ray spectra of $RdTh$, ThC , and ThC' . W. Y. Chang and T. Coor. *Phys R* 74:1196-7 N 1 '48

Energy distribution of the fragments resulting from the fission of U^{235} and Th^{232} by slow and by fast neutrons. J. L. Fowler and L. Rosen. *bibliog diags Phys R* 72:926-30 N 15 '47

THORIUM compounds

Production of rare earth and thorium compounds from monazite. E. S. Pilkington and A. W. Wylie. *bibliog il Soc Chem Ind J* 66:387-94 N '47

THORIUM fluorides

Double fluorides of potassium or sodium with uranium, thorium or lanthanum. W. H. Zachariasen. *Am Chem Soc J* 70:2147-51 Je '48

THORIUM nitrate

Distribution of thorium nitrate between water and certain alcohols and ketones. B. F. Rothschild, C. C. Templeton and N. F. Hall. *bibliog J Phys & Colloid Chem* 52:1006-20 Je '48

Solubility of thorium nitrate tetrahydrate in organic solvents at 25°C. C. C. Templeton and N. F. Hall. *bibliog J Phys & Colloid Chem* 51:1441-9 N '47

THORIUM oxalate

Pilot plant production of rare earth hydroxides and thorium oxalate from monazite. R. W. Urie. *flow diags Soc Chem Ind J* 66:437-9 D '47

THORIUM oxide

Changes in the indices of refraction and liquidus of a barium crown glass produced by the partial substitution of some oxides. E. H. Hamilton and others. *bibliog Am Cer Soc J* 31:132-44 My 1 '48; *Same, J Res Nat Bur Stand* 40:361-74 My '48

Designing thoriated tungsten filaments. H. J. Dailey. *il Electronics* 21:107-9 Ja '48

Fischer-Tropsch synthesis with cobalt catalysts. S. R. Craxford. *bibliog Soc Chem Ind J* 66:440-4 D '47

Reactions of molten titanium with certain refractory oxides. P. H. Brace. *diags Electrochem Soc J* 94:170-6 O '48

Spectral emissivity and electron emission constants of thorium cathodes. T. E. Hanley. *il diag J Ap Phys* 19:583-9 Je '48

X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-506 O '47

THORP, Willard Long, 1839-

Portrait. *Fortune* 36:84 D '47

THOUGHT and thinking

Mathematical creation. J. R. Newman. *ed. Sci Am* 179:54-7 Ag '48

See also

Visualization

THREAD

Needlework exhibit glorifies story of thread. *il Sales Management* 59:67-8 D 15 '47

See also

Cotton thread
Nylon thread

THREAD, Rubber. See Rubber thread**THREAD cutting**

Broach-tap cuts quintuple threads. H. S. Wharen. *il diags Am Mach* 92:69-72 Ap 22 '48

Dieheads will turn, form and groove. C. A. Reimschuessel. *il diags Am Mach* 92:92-4 O 7 '48

Difference in tool point widths for worm job on mill and lathe. E. J. Rantsch. *diag Am Mach* 92:186 Mr 11 '48

High-speed milling of threads in armor plate. *il diags Mach* 54:190-2 Jl '48

How to turn non-standard threads. E. L. Schlage. *diag Am Mach* 92:95 F 12 '48

Ingenious method of threading both ends of a bar simultaneously. M. W. Purser. *il diag Mach* 54:187-9 Ap '48

Thread cutting in the lathe. C. Thomas. *il diags Power Generation* 52:72-6 Mr; 76-8 Ap; 78-9 My '48

THREAD rolling

High-production rolling of precision threads.
 il diags Mach 55:152-6 O '48

THREADING machines

Brown & Sharpe automatic screw-threading machine, il diag Am Mach 92:130 Ja 1 '48
 Lees-Bradner's Sentinel Cri-Dan designed for high-speed threading, il Am Mach 92:114 Ap 22 '48; Mach 54:185 My '48
 35th annual review, il Am Mach 92:167-9 Ja 29 '48

Thread-generating machine adapted for both threading and forming, il Mach 55:199-201 O '48

THREONINE

New synthesis of DL-threonine, J. Attenburrow, D. F. Elliott and G. F. Penny, Chem Soc J 3:10-18 Mr '48
 Synthesis of DL-threonine, K. Pfister, 3d and others, Am Chem Soc J 70:2297-8 Je '48

THROMBIN

Preparation and properties of serum and plasma proteins; some factors influencing the quantitative determination of fibrinogen, P. R. Morrison, bibliog Am Chem Soc J 69:2723-31 N '47

Prothrombokinase and the three stages of blood coagulation, J. H. Milstone, bibliog Science 106:546-7 D 5 '47

THRUSTORQ. See Torque meters**THULIUM**

Short-lived isomers of nuclei, S. DeBenedetti and F. K. McGowan, diags Phys R 74: 728-35 O 1 '48

THUNDERSTORMS

Suggested mechanism for the generation of thunderstorm electricity, E. J. Workman and S. E. Reynolds, Phys R 74:709 S 15 '48

THYMIDINE

Interrelationship of thymidine and vitamin B₁₂, W. Shive, J. M. Ravel and R. E. Eakin, Am Chem Soc J 70:2614-15 Ji '48

THYMINE

Synthesis of thymine nucleosides, D. W. Visser, I. Goodman and K. Dittmer, bibliog Am Chem Soc J 70:1926-8 My '48

THYMOL

Synthetic estrogens; tetraalkyl substituted analogs of dieneol and hexestrol, J. B. Niederl and P. Weiss, Am Chem Soc J 70:2394-6 S '48

THYMUS gland

Deoxypentose nucleic acids; electrometric titration of the acidic and the basic groups of the deoxypentose nucleic acid of calf thymus, J. M. Gulland, D. O. Jordan and H. F. W. Taylor, Chem Soc J p-1131-41 S '47

Deoxypentose nucleic acids; preparation of the tetrasodium salt of the deoxypentose nucleic acid of calf thymus, J. M. Gulland, D. O. Jordan and C. J. Threlfall, Chem Soc J p 1129-30 S '47

Deoxypentose nucleic acids; viscosity and streaming birefringence of solutions of the sodium salt of the deoxypentose nucleic acid of calf thymus, J. M. Creeth, J. M. Gulland and D. O. Jordan, Chem Soc J p 1141-5 S '47

THYRATRON

Automatic limit bridge for production testing, R. D. Campbell and E. J. Totah, il diags Electronics 21:110-13 Ja '48

Electronic control for dc motors, G. W. Heumann, il diags Power 92:703-5+ N '48
 Electronic sequence control circuit for the operation of a Wilson cloud chamber, R. L. Allen, bibliog il diags R Sci Instr 19: 24-7 Ja '48

Fast, noiseless thyatron switch, S. W. Kitchen, il diags R Sci Instr 19:370-1 My '48
 New line of thyratrons; abstract, A. W. Cooldige, jr, diag Elec Eng 67:435 My '48

New thyatron circuit for motor control, J. R. Devoy, diags Electronics 21:116-19 Ap '48
 Speed control for small a-c motors; using small thyratrons, W. N. Tuttle, il diags Electronics 21:106-9 F '48

Thyatron braking for oil drilling rigs, R. L. Jaeschke, il diag Electronics 21:92-4 Ap '48
 Thyatron frequency changers; designed to permit parallel operation of three-phase aircraft alternators driven at unequal speeds, O. E. Bowlus and P. T. Nims, bibliog il diags Electronics 21:126-30 Mr '48

Thyatron phase-control circuits, J. C. May and others, diags Electronics 21:107-9 Ji '48

THYROID gland

Diffuse and nodular hyperplasia of the thyroid gland in thiouracil-treated rats, W. G. Kuzell and others, bibliog il Science 107: 374-5 Ap 9 '48

Effect of diethylstilbestrol on the thyroid glands of chicks receiving thiouracil, J. E. Selle and R. M. Selle, Science 107:394-6 Ap 16 '48

Formation of monoiodotyrosine from radioiodine in the thyroid of rat and man, K. Fink and R. M. Fink, bibliog Science 108: 358-9 O 1 '48

Preparation of some substituted thiohydantoins and thioimidazoles, M. Jackman and others, bibliog Am Chem Soc J 70:2884-6 S '48

Synthesis of 5-halogeno-2-thiouracil and 6-methyl-5-halogeno-2-thiouracil derivatives, H. W. Barrett, I. Goodman and K. Dittmer, bibliog diag Am Chem Soc J 70:1753-6 My '48

Synthesis of some substituted 2-thiouracils, H. Gilman and H. S. Broadbent, bibliog Am Chem Soc J 70:2755-8 Ag '48

See also

Golter**THYROXINE**

Methods for labeling thyroxine with radioactive iodine, E. Frieden and others, bibliog Science 107:353-4 Ap 2 '48

THYSSEN-GALOCYS process. See Gas manufacture—Complete gasification processes

TICKET offices. See Airlines—Ticket offices; Steamboat lines—Ticket offices

TICKETS

Cease and desist order issued; manufacturers of tickets and related products accused of unlawful combination to fix prices and eliminate competition, Paper Tr J 127:7+ S 23 '48

TICKETS, Railroad. See Railroads—Tickets

TICKS

Case of Q fever probably contracted by exposure to ticks in nature, C. M. Eklund and others, Pub Health Rep 62:1413-16 S 26 '47

DDT makes playgrounds safer; practical and inexpensive control of dog ticks, Franklin Inst J 244:406 N '47

Field tests with tick repellents, J. M. Brennan, Pub Health Rep 63:339-46 Mr 12 '48

TIDAL power

Tidal power in Maine, L. Smith, bibliog Land Econ 24:239-52 Ag '48

TIDE water associated oil company

New debenture issue to be placed privately, Comm & Fin Chr 166:2147-8 N 24 '47

TIDES

Analogy between tides and a.c. electricity, J. Van Veen, map diags Engineer 184:498-500, 520-1, 544-5 N 28-D 12 '47

Panama canal; tidal currents, J. S. Meyers and E. A. Schultz, il plans diags Am Soc C E Proc 74:501-20 Ap '48

Tidal river phenomena discussed in symposium before Waterways division, A.S.C.E. fall meeting, R. F. Rhodes; H. B. Simmons, Civil Eng 17:646-7 N '47

See also

Tidal power

TIE-IN advertisements. See Advertising, Co-operative—Tie-in advertisements; Advertising, National—Local tie-in

TIE-IN sales. See Sales policies

TIES. See Neckties

TIES, Railroad. See Railroad ties

TIGOGENIN

Steroidal sapogenins; magogenin and cagogenin and their biogenesis to chlorogenin and tigenin, R. E. Marker, Am Chem Soc J 69:2399-401 O '47

TILE, Asphalt. See Asphalt tile

TILE construction

Brick and tile core wall, glazed tile interiors used in plastics plant, il diag Brick & Clay Rec 111:31 D '47

Chance of a lifetime! ceramic homes, Austin, Texas, il plans diags Brick & Clay Rec 113:32-5 Ag '48

Creamery features tile construction, il Cer Ind 61:91 S '48

TILE construction—Continued

- Fireproofing with clay tile. diags Brick & Clay Rec 113:42-3 O '48
 Interior partitions; how to build them using structural clay tile. diags Brick & Clay Rec 113:34 J1 '48
 Multi-million dollar Blatz bottling plant uses all-tile construction; Blatz brewing co. il diags Brick & Clay Rec 112:32-3 F '48
 Number of tile required for barn gable ends. diags Brick & Clay Rec 112:38 Ja '48
 Tile aircraft hangar built in Texas; illustrations. Brick & Clay Rec 113:31 S '48
 Tile and terra cotta give plant clean bright lines; plant of Johnson & Johnson at Cranford, N.J.; illustrations. Brick & Clay Rec 112:29 F '48

TILE council of America

- Industry changes pace to meet growing competition; uses modern sales promotion, advertising and merchandising techniques. il Ptr Ink 224:35 S 10 '48

TILE floors. See Floors, Tile**TILE industry****Advertising**

- Title contractors made advertising prospects. Ed & Pub 81:24 Ag 7 '48

TILES

- Economy of precast four-in. Joistile beam appeals to southwest builders. diags Brick & Clay Rec 112:32-3 Je '48
 Investigation of U type tile-concrete beams. J. N. Thompson and W. D. Ramey. il diags Texas U Bur of Eng Research Bul 41:1-66 '47

See also

- | | |
|-------------------|------------------|
| Concrete tiles | Title council of |
| Drain tile | America |
| Tile construction | |

Manufacture

- Cut fuel consumption, increase production 94 per cent, obtain uniform heat distribution; rebuilt tunnel kilns on tile plant. il diags Cer Ind 50:63-4 F '48
 Factors involved in production of thin wall tile. H. Heystek and R. M. Campbell. bibliog il diags Am Cer Soc J 31:59-65 F 1 '48
 Jenkins brick co. dries hollow tile by radiation with less than one per cent loss. il Brick & Clay Rec 113:53-4 O '48
 Tile making. il Elec R (Lond) 141:911-14 D 19 '47
 Use of dolomite as an auxiliary flux in floor tile. G. T. Morse. bibliog Am Cer Soc J 31:67-70 Mr 1 '48; Abstract. Cer Ind 49:86-7 O '47

TILES, Concrete. See Concrete tiles**TILES, Plastic**

- How to install plastic wall tile. il Am Bid 70:122 Ag '48
 What's happening in wall tile. il Plastics 8:26-7+ Ja '48

TILLETT, Leslie

- Creative fabric design, the Tillett's way. por Textile Col 70:20+ Ag '48

TILLS. See Glacial geology**TIMBER.** See Lumber; Mine timber; Wood**TIMBER bridges.** See Bridges, Wooden**TIME**

- Quantization of space and time. H. T. Flint. bibliog Phys R 74:209-10 J1 15 '48

TIME, inc.

- Story of Time, inc. G. M. Loeb. Comm & Fin Chr 168:889+ S 2 '48
 Time, inc.; in 25 years, a publishing empire. il Bsns W p92+ Mr 6 '48

TIME, Standard

- Map of standard time zones of the United States and adjacent parts of Canada and Mexico as of Jan. 1, 1948. (Misc. pub. 190) U.S. National bur. of standards, Washington; pa 15c Supt. of doc. '48
 Report of the Astronomer Royal. Engineering 166:363-4 O 15 '48

TIME cards

- Putting cost control on a sound basis. il Mod Ind 15:135-6+ My '48

TIME delay circuit. See Phantastron (delay circuit)**TIME measurement**

- Interval timer counter chronograph. il R Sci Instr 18:931 D '47

- Laboratory oscilloscope. V. L. Fitch and E. W. Titterton. bibliog il diags R Sci Instr 18:821-30 N '47

See also**Chronometers****TIME series (statistics)****See also****Secular trend****TIME signals, Radio**

- Report of the Astronomer Royal. Engineering 166:363-4 O 15 '48

- Time announcements by radio station WWV; engineering reference sheet. diag Elec World 129:132 Ap 10 '48

TIME study

- Additional facts about normal effort. H. R. Nissley. Management R 37:249-52 My '48
 Applying time and motion study principles in design. M. E. Mundel and R. C. Howell. diags Machine Design 20:121-6 Ag '48
 Belgium's contribution to production per man-hour. R. Caussin. Engineer 185:579 Je 11 '48

- Charts aid computing spooler's task; charts based on job analysis and time study. R. Leppla. il Textile World 97:110-11+ D '47

- Collective bargaining provisions; time studies and standards of production. In U S Bur Labor Statistics Bul 908-3:38-59; pa 20c Supt. of doc. '48

- Cone-winding task easily computed from data. R. Leppla. il Textile World 98:118-19+ My '48

- Control and planning of maintenance with an incentive bonus scheme. R. Talbot and G. F. Satow. Inst Mech Eng J & Proc 156: Proc 305-13; Discussion. 313-17 D '47

- Determining reliable delay allowances. A. Abruzzi. Management R 37:198-201 Ap '48

- How we set fatigue allowances that are fair to all; Motorola, inc. H. C. Rymer. Factory Management 106:118-19 Ja '48

- Incentive applied to order filling; Stanley greeting cards. R. W. Putterbaugh. il Mill & Factory 42:105-7 Je '48

- Labor and management team up for time studies; Oliver iron & steel corp. R. T. Walton. Factory Management 106:75 J1 '48

- Man-and-machine charts can increase production. R. Leppla. Textile World 98:108-9 Ja '48

- Methods-time measurement. H. B. Maynard and others. diags Factory Management 106: 97-104 F '48

- Packing and shipping on incentives. C. Mors and E. Prochaska. il Mill & Factory 43: 140-3 O '48

- Production management; raising machine output through modern management principles. V. C. Dephens. Coal Age 53:34-8 Mr 105-9 Ap '48

- Reliability of time-study standards. H. R. Nissley. Management R 37:83-4 F '48

- Statistical studies of labour utilization in spinning. P. D. Vincent. Textile Inst J 33: P500-5 N '47

- Time standards, even for messenger service; Krisson Printing, London. F. W. Reilly. maps Factory Management 106:100-1 Ag '48

- Time studies in mechanized mining. P. R. Paulick. il Min Cong J 34:48-9 Mr '48

- Time study and methods development in the foundry. F. W. Mazur. Foundry 76:80-1+ F '48

- Time study and office work; abstract. A. R. Schuman. J Account 84:423-4 N '47

- Union participation in methods and time study; Oliver iron & steel corp. R. T. Walton. il Iron Age 160:60-4 D 18 '47

- Using ratio delay studies to set allowances. J. S. Petro. Factory Management 106:92-4 O '48

- Wage incentives based on careful time studies; operational reviews by management-labor time study teams at Oliver iron and Steel. R. T. Walton. il Steel 122:63-6 My 31 '48

- Work factor analysis takes stopwatches out of time study; Chicago radio plant of Motorola. T. C. Stewart. Factory Management 106:126-8 My '48

See also**Production standards**

TIME study (of machinery)

Machine timing at full speed done by oscillograph. M. Scheraga. *il diags Textile World* 98:118-19+ Ja '48

TIMING devices

Camera shutter timer. H. Sear. *diag Electronics* 21:148+ N '48

Dynamic relay analyzer. E. L. Deeter. *il diags Electronics* 21:87-9 JI '48

Electronic photo timer. E. B. Pray. *il diag Radio & Tv N* 40:58-9+ Ag '48

Electronic process timer. *diag Engineering* 166:139 Ag 6 '48; *il Engineer* 185:387 Ap 16 '48

Electronic timer. S. H. Frase. *il diag Electronics* 21:136+ Ap '48

Electronic timer for viscosity measurements. *il diag Power Pl Eng* 51:76-7 N '47; Same abr. *R Sci Instr* 18:857-8 N '47; Same abr. *Mech Eng* 69:928-9 N '47

Electronics in astronomy. G. E. Kron. *il diags Electronics* 21:98-100 Ag '48

Frequency errors in timing with electric clocks. R. S. Craig, C. B. Satterthwaite and W. E. Wallace. *Anal Chem* 20:555-7 Je '48

Light-flash generator. R. G. Roush and F. Hamburger, Jr. *il diags Electronics* 21:100-2 N '48

Neon timer releases oscillograph element. C. J. Tirk. *diags Elec World* 123:108 F 14 '48

Portable electronic chronometer. G. T. Baker. *bibliog il diags J Sci Instr* 25:194-3 Je '48

Program controls; guide to their selection. A. M. Patterson. *il Machine Design* 20:137-43 My '48

Recorder time-marking; simple device of drum cameras. J. C. Needham and L. H. Orton. *il diags Elec R (Lond)* 142:419-20 Mr 19 '48

Simple electronic reflux ratio timer. H. E. Fisher. *diag Anal Chem* 20:932 O '48

Switch interval timer. H. T. Gittings, Jr. *diag R Sci Instr* 19:720-1 O '48

Synchrostop timer. W. R. Berg. *il diag Electronics* 21:196+ O '48

Time control mechanisms. R. H. Mecklenborg. *il diag Machine Design* 20:132-7 JI '48

Time switches group tested on special panel. C. Morsher. *il Elec World* 130:128+ S 11 '48

Timing devices in the textile industry. S. K. Hargis. *il diags Rayon* 29:94-5 Ag '48

Watch timer. R. S. Mackay, Jr. and R. R. Soule. *diags Electronics* 21:160+ F '48

See also

Chronograph

TIMOR

See also

Petroleum—Timor

TIMOSHENKO, Stephen Prokofievitch, 1878-

Award of the James Watt international medal. *pers Inst Mech Eng J & Proc* 157 (War emergency issue no 28):160b, 161-2 '47

TIN

Low temperature properties of tin and tin-lead alloys. H. S. Kalish and F. J. Dunkerley. *bibliog il Metals Tech* 15:TP2442 1-20 S '48

Slow neutron velocity spectrometer studies of Cu, Ni, Bi, Fe, Sn, and calcite. W. W. Havens, Jr. and others. *bibliog Phys R* 73:963-72 My 1 '48

Tin-top tube; tin lined lead tubes. *il diag Mod Packaging* 21:123-5 Ag '48

Ultrasonic observation of twinning in tin. W. P. Mason and others. *diags Phys R* 73:1213-14 My 15 '48

Isotopes

X-ray emitting isotopes of radioactive Sb and Sn. K. D. Coleman and M. L. Pool. *bibliog Phys R* 72:1070-4 D 1 '47

Prices

Price, wholesale, Straits (N.Y.) 1941-1946. *Survey of Cur Bsns* 1947 Sup p 152 [supplemented in monthly numbers]

Straits tin at New York; monthly, 1929-1947; tabulation. *Iron Age* 161:306 Ja 1 '48

TIN alloys

Constitution of the system indium-tin. F. N. Rhines and others. *bibliog il Am Soc for Metals Trans* 39:694-711; Discussion. 711-12 '47

Electrodeposition and properties of tin-zinc alloys. J. W. Cuthbertson and R. M. Angles. *bibliog il Electrochem Soc J* 94:73-98 Ag '48

Fatigue strength of some tin-base alloys; abstract. P. G. Forrester and others. *Materials & Methods* 26:120-1 N '47

Frictional properties of lead-base and tin-base bearing alloys; role of the matrix and the hard particles. D. Tabor. *il Engineer* 156:117-19 JI 30 '48

Low temperature properties of tin and tin-lead alloys. H. S. Kalish and F. J. Dunkerley. *bibliog il Metals Tech* 15:TP2442 1-20 S '48

Young's modulus and strain coefficient of resistivity of some bismuth rich alloys. G. C. Kuczynski and J. T. Norton. *bibliog J Ap Phys* 19:683-6 JI '48

See also

Bronze

Analysis

Rapid colorimetric determination of copper in tin-base alloys. G. Norwitz. *bibliog Anal Chem* 20:469-70 My '48

TIN bromides

Raman lines of second-order intensity in SnBr₄, SnCl₄, and CCl₄. H. L. Welsh and others. *bibliog il diag J Chem Phys* 16:97-105 F '48

TIN cans

Better tobacco tin. *il diag Mod Packaging* 21:99+ JI '48

Condensation and rust on canned goods in storage. D. H. Rose and H. D. Johnson. *il Food Ind* 20:212-15+ F '48

Frozen foods in tin. *il Mod Packaging* 22:124-6 S '48

Tin-saving order coming. *Bsns W* p36+ D 6 '47

Manufacture

Engineering the tin can. H. S. Van Vleet. *bibliog il diags Mech Eng* 70:315-20 Ap '48

Tin plate doubling in can fabricating eliminated by simple magnet. *il Steel* 122:106 Mr 22 '48

TIN chlorides

Raman lines of second-order intensity in SnBr₄, SnCl₄, and CCl₄. H. L. Welsh and others. *bibliog il diag J Chem Phys* 16:97-105 F '48

TIN coating

Pre-tinning as a base for paint; abstract. *Materials & Methods* 26:118-19 D '47

Protective metallic coatings from molten salts. H. R. Hoge. *il Metal Prog* 52:819-23 N '47

Tin-coating steel; abstract. *Mech Eng* 69:938-9 N '47

Tinning manganese bronze. I. R. Valentine. *il Steel* 122:68-70 Ja 12 '48

See also

Tin plating

TIN compounds

Preparation and properties of allyl phosphines, arsines, and stannanes. W. J. Jones and others. *Chem Soc J* p 1446-50 N '47

TIN dredging

Modern equipment and methods; modern placer dredging; pictorial review. *Eng & Min J* 148:132-5 N '47

TIN hydride

Preparation and some properties of hydrides of elements of the fourth group of the periodic system and of their organic derivatives. A. E. Finholt and others. *bibliog Am Chem Soc J* 69:2692-6 N '47

TIN industry and trade

Higher price for tin. *Economist* 153:1019 D 20 '47

London tin corporation limited; statement by the chairman at 22d annual general meeting. J. I. Spens. *Economist* 155:557-8 O 2 '48

Tin allocations for first half of 1948 at 17,703 long tons. *Iron Age* 161:122 Ja 29 '48

Tin; annual review and forecast. E. Vogel-sang. *il Min Cong J* 34:113-14 F '48

Tin-bearing alloys important fuels eased. *Oil Paint & Drug Rep* 154:4+ Ag 9 '48

Tin contract for 1948-49 signed by U.S., Bolivia. *Oil Paint & Drug Rep* 153:3 Ja 5 '48

Tin production increasing. *Barron's* 27:45 D 8 '47

TIN industry and trade—Continued

Tin-saving order coming. *Bsns W* p36+ D 6 '47

World tin allocations announced; this year's final distribution by countries. *Chem Age (Lond)* 57:620 N 8 '47

Statistics

Tin, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 151-2 [supplemented in monthly numbers]
Tin, 1947. J. C. Johnson, *Eng & Min J* 149: 80-2 F '48

Bolivia

Tin; new export taxes imposed. *For Comm W* 31:12 Ap 17 '48

Egypt

Distribution of tin plate regulated. *For Comm W* 31:11 My 8 '48

Malayan Union

Rehabilitation in tin. *Economist* 155:430 S 11 '48

TIN metallurgy

Concentration of urania tin-tungsten ore from Bolivia, South America. G. M. Potter and W. G. Sandell, *pl U S Bur Mines Rep of Invest* 4185:1-10 '48

Electrometallurgy

Electric furnace smelts Sullivan tin concentrate. J. B. Hutt, *flow sheet* *il Eng & Min J* 149:60-2 Ja '48

TIN mines and mining

See also
Tin dredging

Alaska

Churn drilling at Cape Mountain tin placer deposits. Seward Peninsula, Alaska. H. E. Heide and R. S. Sanford. *bibliog* 7pls U S Bur Mines Rep of Invest 4345:1-14 '48

Investigation of the Morelock Creek tin placer deposits, Fort Gibbon district, Alaska. B. I. Thomas and W. S. Wright. 3pls U S Bur Mines Rep of Invest 4323:1-11 '48

Investigation of the Tozimoran Creek tin placer deposits, Fort Gibbon district, Alaska. B. I. Thomas and W. S. Wright. 3pls U S Bur Mines Rep of Invest 4323:1-11 '48
Sampling methods and results at the Sullivan Creek tin placer deposits, Manley hot springs, Tofty, Alaska. R. L. Thorne and W. S. Wright. *bibliog* 6pls U S Bur Mines Rep of Invest 4346:1-8 '48

Bolivia

Tin-silver veins of Oruro, Bolivia. F. M. Chace. *bibliog* maps plans *diags Econ Geol* 43:333-83, pl 1-8, 435-70, pl 1-12 Ag-S '48

Egypt

Tin-tungsten deposit in Egypt. M. S. Amin. *bibliog* *il maps Econ Geol* 42:637-71 N '47

Great Britain

Development of Britain's tin resources. *Engineer* 186:183 Ag 20 '48

Malayan Union

Malayan tin mining. *Mech Eng* 70:547-8 Je '48

Mexico

Can Mexico's tin industry be modernized? R. M. Atwater, jr. *il Eng & Min J* 149: 74-7 Ja '48
Mexican victory minerals; abstract. E. Ysita. *Chem Eng* 54:252+ N '47

TIN oxide

Benign pneumoconiosis due to tin oxide. E. P. Pendergrass and A. W. Pryde. *bibliog* *il J Ind Hygiene* 30:119-23 Mr '48

TIN plate

Country export quotas for tinplate revealed by Department of commerce; tabulation. *Iron Age* 162:170 N 4 '48
Engineering the tin can. H. S. Van Vleet. *bibliog* *il diags Mech Eng* 70:315-20 Ap '48
Tin reclamation in Spain; dry chloride method favourably reviewed; abstract. P. L. Gómez, *Chem Age (Lond)* 53:179 Ja 31 '48

Analysis

Determination of tin coating weights on tinplate. H. A. McKenzie. *bibliog* *il Soc Chem Ind J* 66:312-19 S '47

Manufacture

Columbia Steel's new sheet and tin mill. P. F. Kohlhaas, *il plans diags Iron & Steel Eng* 25:42-58 O '48

Ferrostan electrolytic tinning line at Richard Thomas and Baldwins, Ltd., Ebbw Vale. *flow diag* *il diags Iron & Steel Inst J* 159: 297-314 J '48

Jones & Laughlin improves facilities for the manufacture of tin plate. *il Blast F & Steel Pl* 36:317-21 Mr '48; Same *abr. Iron & Steel Eng* 25:98a-98d F '48

New developments in tin plate manufacture. E. F. Harris. *il diag Steel* 122:94+ Ap 12 '48

New West Coast tinplate mill means 300,000 tons more finished steel for industry; Columbia steel co. B. Packard. *il Iron Age* 162:114-16 O 21 '48

Output of tin plate gages increased 74 per cent by use of forged sleeves on back-up rolls. *il Steel* 123:111+ S 6 '48

Weirton Steel rolls tin plate on high speed mill. M. J. Wohlgemuth. *il Blast F & Steel Pl* 36:431-3 Ap '48

West Coast plant to augment supply of electrolytic and hot-dip cold reduced tin plate. *il plans diags Steel* 123:100+ N 1 '48

TIN plating

Continuous gas-radiant fusion for electrolytic tinning. C. E. Cunningham. *il diags Iron & Steel Eng* 25:85-92 Ag '48

Electrolytic tinning process speeded by power brush application. *diag Steel* 123:122 JI 12 '48

Evaluation of strip plating aided by use of circulating electrolyte cell. R. A. Dimon. *il diags Steel* 123:116+ S 20 '48; Abstract. *Iron Age* 162:84-5 S 16 '48

Tin coatings on metals. F. W. Bogert. *il Metal Finishing* 46:68-71 Ja '48

Tinning of cast iron. R. A. Cresswell. *bibliog Iron & Steel Inst J* 152:157-69, pl 15-18 no 2 '45; Same. *Engineering* 161:526-8, 550-1 My 31-Je 7 '46; Abstract. *Metal Prog* 51:802+ My '47; Discussion. *Iron & Steel Inst J* 153: 360-2 no 1 '46

TINEA capitis

Epidemic tinea capitis; a public health problem. R. K. C. Lee. *bibliog Pub Health Rep* 63:261-8 F 27 '48

TINPLATE. See Tin plate**TINSMAN, Robert, 1879-**

Bob Tinsman remembers. *por Adv & Sell* 40: 43 Ag; 62 S; 54 O; 60 N; 64 D '47; 41:54 Ja; 58 F; 130 Mr; 44 Ap; 62 My; 57 Je; 50 JI '48

TIRE fabrics

Behavior of rayon tire cord during latex dipping. H. H. Gillman and R. Thoman. *bibliog diag Ind & Eng Chem* 40:1237-42 JI '48

Degradation of rayon tire yarn at elevated temperatures. R. C. Waller, K. C. Bass and W. E. Roseveare. *bibliog Ind & Eng Chem* 40:138-43 Ja '48

Microscopical technique for determining latex distribution in tire cords. I. V. deGruy and M. L. Rollins. *bibliog* *il Textile Res J* 18: 371-3 Je '48

Rayon tire cord fabrics. C. H. Beaver. *il Rayon* 29:47 O '48

Textile products for the rubber industry. L. Larrick. *India Rubber World* 117:208-11+ N '47

Testing

Hysteresis, elastic modulus, and growth of tire cords under comparable loads. E. Honold and H. Wakeham. *bibliog Ind & Eng Chem* 40:131-4 Ja '48

Measurement of hysteresis and dynamic elastic modulus of textile yarns and cords. G. Palandri. *il diag Rubber Age* 64:45-52 O '48

Method for the absolute measurement of dynamic properties of linear structures at sonic frequencies. W. J. Lyons and I. B. Prettyman. *bibliog* *il diag J Ap Phys* 19: 473-80 My '48

TIRE factories

Modern methods make 1948 tires. J. A. Lee. flow sheet(p 146-9) *il Chem Eng* 55:139-41 My '48

Accidents

Tire machine accidents. *Safety Eng* 95:34 Je '48

Electric equipment

Making tyre tubes; Dunlop factory at Speke. *il Elec R (Lond)* 143:155-9 J1 30 '48
Tyre manufacture; electrical applications, Dunlop factory at Speke, Liverpool. *il Elec R (Lond)* 141:645-50 O 31 '47

Equipment

Air vent for tire vulcanizers. *il Rubber Age* 63:770 S '48
Mansfield Tire steam plant, diags *Power* 92:622-3 O '48

Management

Improved procedure for painting plants in the rubber industry. J. S. Thayer. *il India Rubber World* 117:349-50+ D '47

Safety measures

Safety in tire and tube curing. L. E. Soderquist. *il diags Rubber Age* 62:659-61 Mr '48

See also

Vulcanizers—Safety measures

TIRE industry and trade

After the turn of the year. J. L. Collyer. *Comm & Fin Chr* 167:330 Ja 22 '48

FTC now studying quantity discounts of automobile parts and tire industries. *Automotive Ind* 98:26+ Je 15 '48

For tires, another good year. P. W. Litchfield. *Sales Management* 59:85 D 1 '47

Goodyear trains 25,000 dealers with films in ten months. *il Sales Management* 60:111+ Mr 15 '48

Normal auto tire needs up to new level. G. O. Trenchard. *Barron's* 28:9-10 Ag 9 '48

Rubber starts another busy year; tire-replacement market will wane, but others will hold up. C. R. Sutton. *Barron's* 28:19 Ja 19 '48

Second-line tires coming? *Bsns W* p23 Mr 27 '48

Significant merchandising trends of the independent tire dealer. A. F. Schalk, jr. *J Marketing* 12:462-9 Ap '48

Spring boosts tire sales. *Bsns W* p21 My 22 '48

Tire profits; now where? *Bsns W* p82+ Mr 6 '48

What can you do to pre-sell a product you can't deliver? U.S. Royal Air Ride tire. J. G. Schaefer. *il Sales Management* 59:92+ D 1 '47

See also Goodyear tire and rubber company; Pharis tire and rubber company

Securities

Another look at the rubbers; with statistical position of leading tire and rubber manufacturers. G. W. Mathis. *il Mag of Wall St* 81:708-9+ Mr 27 '48

Statistics

Passenger car tire shipments, production and inventory, 1939-1947. *Automotive Ind* 98:155 Mr 15 '48

Tires and tubes, 1941-1946. Survey of Cur *Bsns* 1947 Sup p 169-70 [supplemented in monthly numbers]

Germany

Production and imports. *For Comm W* 33:35 O 30 '48

TIRE rims

Wide-base rims for longer-lasting tires; abstract. W. L. Hamlen. *S A E J* 55:89-90 D '47

TIRES, Airplane**Retreading and recapping**

Giving 'em more mileage; picture story shows Goodyear's job of retreading air-craft tires. *Air Transport* 6:44-5 Mr '48

TIRES, Automobile

Application of extra low pressure tires to passenger cars; abstracts. G. H. Parker and E. Shay. *il S A E J* 56:23-8 Mr '48; *Automotive Ind* 98:31 F 1 '48

Comparison of synthetic and natural rubbers in tires and tubes. G. R. Smye. *India Rubber World* 118:804-6 S '48

Extra low pressure tires for passenger cars; abstracts. W. E. Shively. *Automotive Ind* 98:30-1 F 1 '48; *S A E J* 56:22-3+ Mr '48
New extra low pressure tires. *diag Consumers Res Bul* 23:22 N '48

New tire developments. A. W. Bull. *diags India Rubber World* 118:663-6 Ag '48

Speed-record tires. *Mech Eng* 69:1043 D '47
X-435 rubber; shipments of new synthetic product on way to tire companies. K. Rannels. *Automotive Ind* 98:25 Ap 15 '48

See also

Tire industry and trade

Manufacture

Compressed air in the manufacture of tires and tubes. *il Rubber Age* 63:53-6 Ap '48
Dynamic testing machine for testing rubber and fabric strips, and other materials used in tire manufacture. *diag Mech Eng* 70:438 My '48

Making tyre tubes; Dunlop factory at Speke. *il Elec R (Lond)* 143:155-9 J1 30 '48

Modern methods make 1948 tires. J. A. Lee. flow sheet(p 146-9) *il Chem Eng* 55:139-41 My '48

New synthetic for auto tires; casings made of Utiptara. *Bsns W* p26+ F 21 '48

Rubber tires; Seiberling rubber company, Akron; flow chart. *Factory Management* 105:96a D '47

Safety in tire and tube curing. L. E. Soderquist. *il diags Rubber Age* 62:659-61 Mr '48

Speke factory of the Dunlop rubber company, limited, *il plan Engineering* 164:612, 620-3, D 26 '47

Tyre manufacture; electrical applications, Dunlop factory at Speke, Liverpool. *il Elec R (Lond)* 141:645-50 O 31 '47

Prices

Cheaper tires. *Bsns W* p28 Ap 10 '48

FTC vs. discounts; tire Big four file quantity schedules. *Bsns W* p82+ Ap 10 '48

Tire price hike. *Bsns W* p24 N 15 '47

Rating

Automobile tires. *il Consumers Res Bul* 21:19-20 Ja '48

Testing

Crack growth in GR-S tread stocks; relation to state of cure and composition. A. E. Juve. *bibliog Ind & Eng Chem* 39:1494-8 N '47

Radiographic tyre testing. *il Engineer* 185:614-15 Je 25 '48

Relationship between laboratory abrasion tests and service performance. T. R. Griffith and others. *bibliog Anal Chem* 20:837-47 S '48

TIRES, Bicycle

Production of wired-on cycle tires by the Dunlop-Shaw monoband process. *il Rubber Age* 62:664 Mr '48

TIRES, Motor truck

Steel cord cased pneumatic tyres. *il Engineer* 185:238-9 Mr 5 '48

Truck tire do's and don't's. J. E. Hale. *il S A E J* 56:57-62 My '48

TIRES, Rubber

Effect of molecular weight distribution on physical properties of natural and synthetic polymers. B. L. Johnson. *bibliog Ind & Eng Chem* 40:351-6 F '48

Longer life for your off-the-road tires. *Roads & Sts* 90:103+ N '47

Textile products for the rubber industry. L. Larrick. *India Rubber World* 117:208-11+ N '47

Truck mines haul on rubber. *il Coal Age* 53:9-13 S '48

Repair

Safety suggestions for tire repair shops. *Nat Safety* N 56:105 N '47

TISELIUS apparatus. See Electrophoresis

TISSUE paper

Golden fleece co., inc. *il Paper Tr J* 127:125-8+ S 9 '48

TISSUES

- Effects of a new tetrazolium derivative on tissue, bacteria, and onion root tips. W. Antopol and others. *bibliog Pub Health Rep* 63:1231-8 S 17 '48
- Optical staining of tissue. G. C. Crossmon. *Opt Soc Am J* 38:417 Ap '48
- Radioautograph technique with C^{14} . A. M. MacDonald and others. *Science* 107:550-2 My 21 '48
- Simple micromethod for rapid extraction of lipids. S. C. Hsiao. *diag Science* 107:24-5 Ja 2 '48

Analysis

- Fumarate content of certain tissues of the rat as determined by partition chromatography. L. M. Marshall and others. *Science* 108:92 J1 23 '48
- Improved method for the determination of volatile halogenated hydrocarbons in blood and other biological materials. W. C. Alford. *bibliog diag J Ind Hygiene* 29:396-9 N '47
- Microextraction procedure for phenol determination. R. H. DeMeio. *bibliog diag Science* 108:391-3 O 8 '48

Culture mediums

- New histological procedure for whole tissue cultures grown in plasma. A. Cohen and C. Waymouth. *Science* 108:480-1 O 29 '48

TITANIUM

- Adirondacks mining; its past and its future. A. H. Trost. *il Can Min J* 69:75-80 My '48
- Configurations of the low terms of Ti II. H. N. Russell. *Phys R* 74:689-90 S 15 '48
- Corrosion resistance as well as other properties of titanium metal make it an attractive material. M. G. Fontana. *Ind & Eng Chem* 40:sup99A-100A O '48
- Enter titanium. *Bsns W* p76+ S 25 '48
- Incipient superconductivity in titanium. R. T. Webber and J. M. Reynolds. *bibliog Phys R* 73:640 Mr 15 '48
- Iron and titanium producing plant under development in Canada; unusual ore deposit at Lake Tio. S. Smoke. *map Iron Age* 162:125 S 2 '48
- Metallic titanium is light, strong, durable, and corrosion resistant. E. A. Gee and others. *flow sheet Materials & Methods* 27:75-8 Ja '48
- More titanium? *il Bsns W* p32+ D 27 '47
- New commercial light metal. *Light Metal Age* 6:28-9 O '48
- New light metals being produced; titanium and zirconium show great promise for use in aviation. *il Aviation W* 48:31 Mr 15 '48
- Phase of scattering of thermal neutrons by titanium. S. S. Sidhu and others. *Phys R* 74:222 J1 15 '48
- Pilot plant produces titanium metal for industrial research. *Iron Age* 162:131 S 23 '48; *Chem Ind* 63:622+ O '48; *Mech Eng* 70:910-11 N '48
- Preparation and properties of pure titanium. I. E. Campbell and others. *bibliog il diag Electrochem Soc J* 93:271-35 Je '48
- Prospects for titanium. *Chem Age (Lond)* 59:451 O 2 '48
- Rare metals utilized in increasing quantities. *Barron's* 28:29 Ag 30 '48
- Reactions of molten titanium with certain refractory oxides. P. H. Brace. *diags Electrochem Soc J* 94:170-6 O '48
- Stabilization of austenitic stainless steel. S. J. Rosenberg and J. H. Darr. *bibliog il J Res Nat Bur Stand* 40:321-38 Ap '48
- Thermal and electrical properties of ductile titanium. E. S. Greiner and W. C. Ellis. *bibliog Metals Tech* 15:TP2466-1-9 S '48
- These new metals challenge old stand-bys; titanium, zirconium, molybdenum are 100 per cent American. *il Mod Ind* 15:50-3 Je '48
- Titanium among Canada's mineral wealth. *Can Chem & Process Ind* 32:717 Ag '48
- Titanium and zirconium; metals of industrial promise. W. H. Waggaman and E. A. Gee. *bibliog flow sheets il Chem & Eng N* 26:377-81 F 9 '48
- Titanium, 1947. H. M. Meyer. *Eng & Min J* 149:89 F '48
- Titanium offered for experimentation. *Chem & Eng N* 26:2912 S 27 '48

- Titanium takes on new importance; abstract. O. Herres. *Eng & Min J* 149:78 Ap '48
- Triumph for engineers; British chemical firm's new titanium plant. *il Chem Age (Lond)* 59:157-9 J1 31 '48
- Two new metals are in test production; titanium and zirconium. *Bsns W* p58-9 F 28 '48
- Wide scope for titanium; review of important research in Australia. F. K. McTaggart. *Chem Age (Lond)* 59:646-8 My 8 '48

Analysis

- Automatic potentiometric titration of iron and titanium with chromous ion. J. J. Lingane. *bibliog diag Anal Chem* 20:797-801 S '48
- Titanium; polarographic determination in clays and clay products. D. F. Adams. *bibliog Anal Chem* 20:891-5 O '48

Isotopes

- Radiations from scandium⁴⁶ and titanium⁴⁸. C. E. Mandeville and M. V. Scherb. *bibliog diag Phys R* 73:141-5 Ja 15 '48

Prices

- Titanium price increased. *Bsns W* p23 Ja 3 '48

TITANIUM alloys

- Copper-titanium alloy coatings on mild steel. E. J. Chapin and C. R. Hayward. *bibliog il diag Am Soc for Metals Trans* 38:909-56 '47
- Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; an electron diffraction study. J. W. Hickman and E. A. Gulbransen. *bibliog Anal Chem* 20:158-65 F '48

TITANIUM carbide

- Carbides for high temperature applications; Kennametal grade K 138. *il Materials & Methods* 26:55-6 D '47
- Modern uses of hard metals. H. Burden. *il Metallurgia* 38:27-33 My '48; *Abstract. Product Eng* 19:137-8 N '48
- Transmission of monoenergetic slow neutrons through solid solutions and mechanical mixtures of TiC and WC. S. S. Sidhu. *bibliog il J Ap Phys* 19:639-41 J1 '48

TITANIUM chlorides

- Determination of dinitrotoluene in smokeless powder by the titanous chloride-buffer method. P. G. Butts and others. *Anal Chem* 20:947-8 O '48
- Determination of nitro nitrogen in nitrogenamine and cyclotrimethylenetrinitramine. D. L. Kouba, R. C. Kicklighter and W. W. Becker. *bibliog Anal Chem* 20:948-9 O '48
- Pilot-plant distillation and purification of titanium tetrachloride. C. K. Stoddard and E. Pietz. *bibliog 4pls U S Bur Mines Rep of Invest* 4153:1-40 '47; *Abstract. Chem Age (Lond)* 58:300-2 F 28 '48
- Reaction of metallic copper with titanium (IV) chloride. D. E. Koontz and D. G. Nicholson. *Am Chem Soc J* 70:1936-7 My '48

TITANIUM compounds

- Titanium pigments in exterior paints. J. MacGuffie. *Paint Oil & Chem R* 110:11-14 O 30 '47

TITANIUM ores

- Canada, U.S. team up on titanium. *map Bsns W* p 128 S 18 '48
- Canada's titanium ore for US oxide market. *Oil Paint & Drug Rep* 154:5+ S 6 '48
- Titanium minerals in Trail Ridge, Fla. R. V. Spencer. *19pls U S Bur Mines Rep of Invest* 4208:1-21 '48
- Titanium ore deposits discovered in Canada. *Oil Paint & Drug Rep* 154:5 Ag 23 '48

See also

Ilmenite

TITANIUM oxides

- Britain's titanium oxide production increased. *Chem & Eng N* 26:3150 O 18 '48
- Effect of size and shape of titanium oxide crystals on spectrophotometric properties of titanium-bearing porcelain enamels. A. L. Friedberg and others. *bibliog il Am Cer Soc J* 31:246-53 S 1 '48; *Abstract. Cer Ind* 51:62 Ag '48

TITANIUM oxides—Continued

- Effect of temperature and impurities on certain photochemical reactions in solids; darkening of antimony oxide and bleaching of dye deposits upon titanium dioxide. C. F. Goodeve and M. R. Taylor. *bibliog* il diags J Phys & Colloid Chem 52:828-36 My '48
- Effects of various clays used in mill additions on properties of a titania-opacified enamel. E. E. Marbaker and others. *il Am Cer Soc J* 31:260-7 S 1 '48
- Heat capacity of nitrogen adsorbed on titanium dioxide between 20°K and 80°K. J. A. Morrison and G. J. Szasz. *bibliog* diags J Chem Phys 16:280-6 Ap '48
- Improved physical properties of titanium enamels provide better steel finish. B. W. King. *bibliog* Steel 122:108+ Je 21 '48
- Non-adaptability of the ICI system to some near-whites which show absorption in the far blue region of the spectrum. A. E. Jacobsen. *Opt Soc Am J* 33:142-4 My '48
- Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; an electron diffraction study. J. W. Hickman and E. A. Gulbransen. *bibliog* Anal Chem 20:158-65 F '48
- Reversible photolysis of Ag sorbed on colloidal metal oxides. A. Goetz and E. C. Y. Inn. *il diags Rs Mod Phys* 20:131-42 Ja '48
- Thermo-electric and conductive properties of blue titanium dioxide. H. K. Henisch. *bibliog* (30 titles) *il diags Elec Com* 25:163-77 Je '48
- Titanium dioxide. J Chem Educ 25:400 J1 '48
- Titanium pigments. Chem Eng 55:332 Mr '48

TITANIUM steel

- Effect of titanium on nitrogen in steel. G. F. Comstock. *Metal Prog* 54:319-22 S '48
- Some properties of titanium steels. L. Northcott and D. McLean. *bibliog* 2pls Iron & Steel Inst J 157:492-512 D '47; Discussion. 159:170-1 Je '48
- Titanium steel, sought in pure form for jets, is used on range tops. R. M. Beatty. *Iron Age* 161:148+ Ap 22 '48

TITANIUM tetrachloride. See Titanium chlorides**TITLES of honor and nobility**

- Birthday honours list. *Engineer* 185:590 Je 18 '48
- Honours list. *Engineering* 165:15, 39 Ja 2-9 '48
- New year honours; outstanding electrical personalities. *Elec R (Lond)* 142:45-6 Ja 9 '48

TITRATION. See Volumetric analysis**TIZARD, Sir Henry Thomas, 1885-**

Portrait. *Science* 108:248 S 3 '48

TOBACCO

- Better tobacco tin. *il diags Mod Packaging* 21:99+ J1 '48

Analysis

- Improved steam-distillation apparatus; application to determination of nicotine in green and dry tobacco. R. B. Griffith and R. N. Jeffrey. *bibliog* il diags Anal Chem 20:307-11 Ap '48
- Transformation products of nicotine in fermented tobacco. W. G. Frankenburg. *Science* 107:427-8 Ap 23 '48
- Turkish tobaccos; characteristics and chemical composition of imported types. F. R. Darks, E. J. Hackney and P. M. Gross. *bibliog* il maps Ind & Eng Chem 39:1631-42 D '47

Prices

- Acreage cut brings tobacco price rise. *Barron's* 28:29 Ag 2 '48

TOBACCO factories

- Study of the health hazards of the tobacco stemming and redrying industry. W. E. McCormick and others. *bibliog* flow sheet il J Ind Hygiene 30:43-52 Ja '48

TOBACCO industry and trade

- Tobacco aid; CCC's move to buy excess of flue-cured crop. *Bsns W* p32+ N 9 '47
- Tobacco and related products. Published in *Foreign commerce weekly*
- Tobacco outlook brightens. *Barron's* 28:36-7 My 24 '48

See also

- Cigarette industry and Reynolds, R. J., tobacco company

Securities

- Tobacco equities may face some dilution; huge borrowings incurred for expansion must be funded or repaid. F. B. Dezendorf. *Barron's* 28:31-2 Mr 15 '48
- Tobaccos earnings prospects; with position of leading companies. P. Dobbs. *il Mag of Wall St* 82:490-1+ Ag 14 '48
- Varying prospects; the tobacco companies, with position of leading firms. F. R. Walters. *Mag of Wall St* 81:537+ F 14 '48

Statistics

- American Tobacco sales up eight per cent first quarter '48. H. L. Stephen. *Ptr Ink* 223:114 Ap 16 '48
- Exports of unmanufactured tobacco from U.S., January-June 1948. F. S. Everts. *For Comm W* 32:5+ Ag 21 '48
- Leaf and manufactured products, 1941-1946. Survey of Cur Bsns 1947 Sup p 136-7 [supplemented in monthly numbers]

Belgium

- Supplies and consumption in Belgium, 1947. *For Comm W* 30:28+ F 7 '48

Bolivia

- Production, consumption, and imports in 1946. *For Comm W* 30:27 Ja 3 '48

Chile

- Chilean production and imports, 1946-47. *For Comm W* 30:26 Ja 17 '48

Germany

- All tobacco products; importation, purchase, or ordering from outside Germany prohibited in the United States zone; transmission to Germany prohibited. *For Comm W* 29:16 D 27 '47

Great Britain

- No more dollar tobacco. *Economist* 153:695-6 O 25 '47
- See also Imperial tobacco company (of Great Britain and Ireland)

Nicaragua

- Production, consumption, and imports in 1947. *For Comm W* 31:47 My 15 '48

Persia

- Iran's production, consumption, and foreign trade, 1946-47 crop and 1947-48 outlook. *For Comm W* 31:31 My 1 '48

Peru

- Peruvian tobacco situation. *For Comm W* 29:29+ N 8 '47

Philippine Islands

- Cultivation and manufacture, Republic of the Philippines. *For Comm W* 32:31 Ag 14 '48

Poland

- Expansion in Poland's industry. *For Comm W* 31:26 Ap 17 '48

Portugal

- Portuguese imports and manufacture in 1947. *For Comm W* 31:36 My 8 '48

Rhodesia

- Rhodesian tobacco supplies. *Economist* 154:34-5 Ja 3 '48

Sweden

- Sweden's supply and utilization, 1946 and 1947. *For Comm W* 31:26 Ap 17 '48

Venezuela

- Production, imports, and manufacture in 1947. *For Comm W* 31:38 Je 26 '48

TOBACCO mosaic virus

- Absolute reaction kinetics of tobacco mosaic virus and a proposed theory of denaturation. G. A. Boyd and J. J. Eberl. *bibliog* J Phys & Colloid Chem 52:1146-53 O '48
- Chemical studies on vesicant-treated proteins. F. H. Carpenter and others. *Am Chem Soc J* 70:2551-3 J1 '48
- Chemical studies on viruses. W. M. Stanley. *il Chem & Eng N* 25:3786-91 D 22 '47

TOBACCO mosaic virus—Continued

Reaction of some radioactive mustard-type vesicants with purified proteins. J. L. Wood and others. *bibliog Am Chem Soc J* 70:2547-50 J1 '48

Studies of the effect of mustard-type vesicants on the phenol color reaction of proteins. C. M. Stevens, H. McKennis, Jr. and V. du Vigneaud. *bibliog Am Chem Soc J* 70:2556-9 J1 '48

TOBACCO pipes

Fair-trade price cut protects dealers; for 30 days, Kirsten Pipe offers dealers a special price. *Sales Management* 61:53 S 15 '48

TOBAGO

See also
Geology—Tobago

TOBIN, Edmund P., 1904-

Sketch. *por Spectator* (Life ed) 155:38 Je '48

TOBIN, Maurice Joseph, 1901-

Named for labor post. *por Bsns W* p92 Ag 14 '48

TOCOPHEROL. See **Vitamins—Vitamin E****TOCOPHERYL phosphate**

Effect of α -tocopheryl phosphate on diphosphopyridine nucleotides. W. M. Govier and N. S. Jetter. *bibliog Science* 107:146-7 F 6 '48

TOILET goods association

Annual meeting, 13th. New York, May 18-20. *Chem & Eng N* 26:1589 My 31 '48; *Soap & San Chem* 24:51 My '48

Annual convention, 13th. New York, May 18-20; with abstracts of papers. *Oil Paint & Drug Rep* 153:39-40+ My 24 '48

Annual convention, 13th. New York, May 18-20; elects Pennock. *Soap & San Chem* 24:41-2 Je '48

Midyear meeting, New York, Dec. 4. *Oil Paint & Drug Rep* 152:7+ D 8 '47

TOILET seats, Infant's

Child's toilet seat molded of Tenite II cellulose acetate butyrate. *il Mod Plastics* 26:278 S '48

Training seat for youngsters folds up and serves as lid when not in use. *il Mod Plastics* 25:146-7 F '48

Rating

Toilet seats for babies. *Consumers Res Bul* 21:25-6 Ja '48

TOKENS

Chain uses tokens in cigarette promotion; Sun Ray's answer in Pennsylvania price dispute. *il Bsns W* p57 Mr 27 '48

TOLEDO, Ohio

Let's settle it here, say local labor-management groups; Toledo, Louisville and other plans. A. N. Weckler. *Mill & Factory* 42:93-6 F '48

Bridges

Repairing a bascule. T. W. Reeves. *il diags Roads & Sts* 90:103-5 O '47

Railroads

Modern lake port transfer facility open for business. *il plan Ry Age* 124:846-51 My 1 '48

New rail-water terminal at Toledo improves coal-ore transfer. *il diags Eng N* 141:48-51 S 30 '48

TOLEDO Edison company

Bonds offered. *Comm & Fin Chr* 168:1260 S 27 '48

TOLERANCE

Commercial tolerances for magnesium-alloy sheet and extrusions; tables; data sheet. *Mach* 55:251 O '48

Determinable variations in close tolerance castings. L. M. Nielsen. *il Foundry* 76:72-3 F '48

Forging tolerances; chart. *Steel* 121:107 N 24 '47

Graphical representation of the Johansson system of machining tolerances; reference book sheet. H. Woodhouse. *Product Eng* 19:169 O '48

Shop-run tolerances. L. M. Nielsen. *il diags Product Eng* 19:142-4 My; 141-5 Je '48

Tolerances for impression die forgings; chart; data sheet. *Mach* 55:251 O '48

Unilateral tolerances for drilled and reamed holes. E. A. Ryder. *diags Tool Eng* 21:27-8 O '48

TOLL bridges. See **Bridges—Tolls**

TOLL roads. See **Roads—Tolls**

TOLOXYN

Toloxyn available. *Chem & Eng N* 26:3058 O 11 '48

TOLUENE

Absolute absorption intensities of alkylbenzenes in the 2250-1700 A. region. J. R. Platt and H. B. Klevens. *bibliog Chem R* 41:301-10 O '47

Analysis of the vibrations of benzene derivatives; the class A₁ carbon vibrations of toluene. A. R. Choppin and C. H. Smith. *bibliog Am Chem Soc J* 70:2520-3 J1 '48

C-H bond energy in toluene and xylenes. M. Szwarc. *bibliog diag J Chem Phys* 16:128-36 F '48

Correlation of rates of halogenation of methylbenzenes. F. E. Condon. *bibliog Am Chem Soc J* 70:1963-4 My '48

Economic trends in coal tar hydrocarbons. J. M. Weiss. *Chem & Eng N* 26:238-40 Ja 26 '48

Energy of the C-H bond in the fluoro-toluenes. M. Szwarc and J. S. Roberts. *J Chem Phys* 16:609-11 Je '48

Formation of quinone by the action of bromine oxide on benzene. M. S. Kharasch, P. B. Polen and W. H. Urry. *Am Chem Soc J* 69:2566 O '47

Heat transfer through boiling liquid films. F. Rumpf. *bibliog diag Soc Chem Ind J* 66:309-12 S '47

Near-ultraviolet absorption spectra of monoalkyl-substituted benzenes; hyperconjugation and the Baker-Nathan effect. F. A. Matsen and others. *bibliog Chem R* 41:273-9 O '47

Near ultraviolet absorption spectra of the vapors of the monodeuterated toluenes. A. R. Choppin and C. H. Smith. *bibliog Am Chem Soc J* 70:577-81 F '48

Properties of freshly-formed surfaces; expansion of soluble films of sodium dodecyl sulphate at air-water and toluene-water interfaces. C. C. Addison and S. K. Hutchinson. *Chem Soc J* p943-3 J1 '48

Relative rates of propylation of monoalkylbenzenes. F. E. Condon. *bibliog Am Chem Soc J* 70:2265-7 Je '48

Synthesis of benzaldehyde, a possible route to toluene. D. V. N. Hardy. *bibliog Soc Chem Ind J* 67:150-5 Ap '48

Synthesis of toluene by the Friedel-Craft's reaction. D. V. N. Hardy. *Soc Chem Ind J* 67:81-2 Mr '48

Thermodynamics of nonelectrolyte solutions; algebraic representation of thermodynamic properties and the classification of solutions; systems of two or more components. O. Redlich and A. T. Kister. *bibliog Ind & Eng Chem* 40:345-8 F '48

Manufacture

Reactor design for manufacture of toluene by catalytic reforming. A. A. Burton and others. *diag Chem Eng Prog* 44:195-200; Discussion. 200 Mr '48

TOLUENESULFONAMIDE

Determination of *p*-toluenesulfonamide in nickel plating baths. J. Sirota. *bibliog diag Metal Finishing* 46:68-9 S '48

Preparation of some *N*-substituted derivatives of *p*-toluenesulfonamide. A. D. Kemp and H. Stephen. *Chem Soc J* p 110-12 F '48

TOLUENESULFONATE

Role of neighboring groups in replacement reactions; kinetics of solvolysis of *trans*-2-acetoxycyclohexyl *p*-toluenesulfonate. S. Winstein, C. Hanson and E. Grunwald. *bibliog Am Chem Soc J* 70:812-16 F '48

Role of neighboring groups in replacement reactions; rates of acetylation of 2-substituted cyclohexyl benzenesulfonates. S. Winstein, E. Grunwald and L. L. Ingraham. *bibliog Am Chem Soc J* 70:821-8 F '48

Role of neighboring groups in replacement reactions; some reactivities involving neighboring groups. S. Winstein and others. *bibliog Am Chem Soc J* 70:816-21 F '48

TOLUENESULFONATE—*Continued*

Role of neighboring groups in replacement reactions; the 5,6-double bond in cholesterol *p*-toluenesulfonate as a neighboring group. S. Winstein and R. Adams. *bibliog* Am Chem Soc J 70:838-40 F '48

p-Toluenesulfonates of 20-hydroxypregnanes. L. H. Sarett. *bibliog* Am Chem Soc J 70:1690-4 My '48

TOLUENESULFONIC acid

Electrolyte effects in the hydration of isobutene. F. G. Ciapetta and M. Kilpatrick. *bibliog* il Am Chem Soc J 70:639-46 F '48

TOLUENESULFONYL chloride

Determination of primary hydroxyl groups in cellulose acetate by tosylation and iodination. C. J. Malm, L. J. Tanghe and B. C. Laird. *bibliog* Am Chem Soc J 70:2740-7 Ag '48

Use of phenylmagnesium bromide for the preparation of phenyl aryl sulphides, sulphoxides and sulphones. H. Burton and W. A. Davy. *Chem Soc J* p528-9 Ap '48

TOLUENESULFONYL esters

Thiocyanation of polysaccharide tosyl esters. J. F. Carson and W. D. MacLay. *Am Chem Soc J* 70:2220-3 Je '48

TOLUIC acid

Biosynthesis of penicillins: N-2-hydroxy-ethylamides of some polycyclic and heterocyclic acetic acids as precursors. R. G. Jones and others. *bibliog* Am Chem Soc J 70:2843-8 S '48

Biosynthesis of penicillins; substituted phenylacetic acid derivatives as penicillin precursors. J. W. Corse and others. *bibliog* Am Chem Soc J 70:2837-43 S '48

TOLUIDINE blue

Effect of sodium silicates on the absorption spectra of some dyes. R. C. Merrill, R. W. Spencer and R. Getty. *bibliog* Am Chem Soc J 70:2460-4 JI '48

Metachromatic reaction of hexametaphosphate. J. M. Wiame. *bibliog* Am Chem Soc J 69:3146-7 D '47

TOMATO juice

Spoilage control procedures for tomato juice; abstract. E. J. Cameron and C. W. Bohrer. *Food Ind* 20:236 F '48

TOMATOES

Factors influencing the composition of the tomato. A. Pollard and others. *bibliog* Soc Chem Ind J 67:281-3 JI '48

Lime treatment of tomato canning waste. E. Y. Le Vine. *flow diag* Pub Works 79:28-30 O '48

Mold count on tomato products; abstract. H. R. Smith. *Food Ind* 20:1537 O '48

Tomato growers balk at lower prices offered by Campbell soup co. *Bsns W* p32-3 Ap 17 '48

Tomato pre-packer; Walter Holm building modern packaging plant on Mexican border. *il Mod Packaging* 21:108-11 Mr '48

Toxicity to plants of flue dusts containing cyanides and thiocyanates. E. Dyer and others. *Soc Chem Ind J* 66:409-10 N '47

Vitamin C in English tomatoes. F. Wokes and others. *bibliog* Soc Chem Ind J 67:262-4 Je '48

Transportation

Static eliminator; American stores co. acetate film for machine-wrapped tomato boats. *il Mod Packaging* 21:174 Ap '48

TONERS. See **Pigments****TONES**

Chroma fixation at the ends of the musical frequency scale. A. Bachem. *Acoustical Soc Am J* 20:704-5 S '48

Loudness of repeated short tones. W. R. Garner. *bibliog* il diag Acoustical Soc Am J 20:513-27 JI '48

TOOL engineering

Ingenious tooling cuts sheave costs; illustrations with text. C. Shank. *Am Mach* 92:178-81 Mr 11 '48

Mathematical shortcut for computing new coordinates. D. E. Sweet. *diag* Am Mach 92:115 F 26 '48

Role of tool engineering in today's production problems. W. B. Peirce. *Mach* 54:142-3 Mr '48

Story of tool engineering. W. B. Pierce. *Mill & Factory* 42:159+ Mr '48

Tool engineer; mass production vs small lots. J. K. Matter. *Iron Age* 161:136-41 Mr 11 '48

Tool engineering department; its organization and function. F. S. Dobric. *il Iron Age* 162:72-9 JI 15 '48

Tool standardization program at GM; committee system. W. G. Patton. *il Iron Age* 161:131-5 Mr 11 '48

Study and teaching

Education and the tool engineer. M. S. Gjesdahl. *Tool Eng* 20:39-40 Ap '48

TOOL engineers

Compulsory licensing of tool engineers? R. B. Douglas. *Tool Eng* 21:21-2 O '48

TOOL industry

Eight men pool commissions, work territory as a team. In Flomberg test. R. W. Kerr. *Sales Management* 60:44-5 F 1 '48

Sargent expands; buys maker of hand tools. *Bsns W* p25-6 F 21 '48

Splashy red carton lifts tools out of hiding. *il Sales Management* 60:55 Ap 15 '48

TOOL rooms

Form for keeping tool records. J. A. Janwyck. *il Mill & Factory* 42:123 My '48

Introduction to plant layout. A. E. Rylander. *plans Tool Eng* 19:23-4 Ja '48

TOOL steel

Alloy die steels. L. Sanderson. *Metallurgia* 38:147-52 JI '48

Bainitic hardening of high speed steel. C. K. Baer and P. Payson. *bibliog* il diags Am Soc for Metals Trans 39:488-513; Discussion. 514-20 '47

Better steel devised for hubbing. A. L. Frances. *il Am Mach* 92:84-7 JI 29 '48

Comparative tool steel brands; tabulation. *Iron Age* 162:79-81 JI 29 '48

Dimensional stability of steel; toolsteels; abstract. B. S. Lement and others. *Metal Prog* 54:362 S '48

French alloy and tool steel industry. map *Iron Age* 162:80-1 JI 1 '48

Hard die inserts. F. Lovell. *diags Steel* 123:108 Ag 23 '48

Modern high speed tool steels. O. Zmeskal. *diags Western Soc E J* 52:155-61 D '47

Multiple tempering of low-alloy toolsteel. B. Z. Berman. *Metal Prog* 54:64 JI '48

Nitriding cycle for high-speed steel tools. *Mach* 54:200 JI '48

Proper precautions eliminate cracking in tool steel heat treatment. S. D. Smoke. *il Materials & Methods* 27:86-8 Mr '48

Replacing tungsten with aluminum in high speed steels. R. Mitsche and E. M. Onitsch. *Metal Prog* 53:690-1 My '48

Tool and die materials; their selection, application and necessary treatment; sources, trade names and chemical analyses. *Steel* 123:98-100+ Ag 16; 82-4+ Ag 23; 64-6+ Ag 30; 96-100+ S 6; 106-10+ S 13; 92-4+ S 27; 84-6+ O 4 '43

History

Personal recollections of early high speed steel (1904-1906). J. H. Hall. *il Metal Prog* 53:211-15 F '48

Testing

Cast alloys vary in cutting efficiency; investigation on tool breakdown, life, speed and feed change, interrupted cuts and tool grinding. J. B. Dym and T. Badger. *diag* Am Mach 91:109-11 N 20 '47

Changes in size and toughness of high carbon-high chromium steels due to sub-zero treatments. L. E. Gippert and G. M. Butler, Jr. *Am Soc for Metals Trans* 39:549-57; Discussion. 558-68 '47

Dynamic hot hardness testing (with special reference to isothermal transformations). G. M. Enos and others. *il diag Metal Prog* 54:51-5 JI '48

Galling tests of graphitic and regular oil hardening die steels. A. F. Sprankle and R. W. Dayton. *il diags Metal Prog* 54:65-9 JI '48

Tempering of high alloy tool steels. G. A. Roberts and others. *bibliog* Am Soc for Metals Trans 39:521-46; Discussion. 546-8 '47

TOOLING docks

Master tooling dock finds numerous applications in heavy industries. F. Charity. *il Steel* 122:88-9+ F 16 '48

TOOLS

- Correct use of tools, diags Dom Eng 172:122-3 Ag '48
- Development of powder alloys; widening use for fabricating hard metals. Chem Age (Lond) 58:462 Ap 3 '48
- Gauge and tool exhibition. Il diag Engineer 185:110-11, 132-4 Ja 30-F 6 '48; Engineering 165:136-9 F 6 '48
- Hand and power tools; safety aspects. Il Nat Safety N 57:134 Mr '48
- Hard facing improves tool life; Glenn L. Martin co. L. Barrett. Il Am Mach 92:94-5 Ap 8 '48
- Step-by-step control system provides spot checks on tool design and manufacture; Reliance electric & engineering co. F. S. Dobric. Steel 123:78-80+ N 1 '48
- Study of servicemen's tools. J. R. Larson. Am Gas J 169:19-21 Ji '48
- 35th annual review; tools and accessories. Il Am Mach 92:207-25 Ja 29 '48

See also

- | | |
|-----------------|------------|
| Cutting tools | Saws |
| Electric tools | Tool rooms |
| Machine tools | Tool steel |
| Pneumatic tools | |

TOOLS, Plastic

- Plastic tooling comes of age; abstract. L. Wittman. Il Mech Eng 70:629-30 Ji '48
- Plastic tooling strong, inexpensive and easy to produce. L. Wittman. bibliog il diags Materials & Methods 27:87-92 F '48
- Plastics in German aircraft tooling. J. T. Grey. bibliog il diags Mod Plastics 25: 126-7+ F '48

TOPAZ

- Topaz as an admixture in refractory concrete. F. E. Lobaugh. Il Am Cer Soc J 30: 349-53 D 1 '47

TOPOGRAPHICAL maps

- Topographic mapping of municipalities by photogrammetric surveying. Eng N 140: 992 Je 17 '48

See also

- Relief maps

TOPOGRAPHICAL surveying

- Contours superimposed on aerial photographs are a step toward faster and cheaper field surveys. H. O. Sharp and R. K. Palmer. Il diags Eng N 141:75-8 S 30 '48
- Surveying in brush-covered country. K. H. Waters. Il map Oil & Gas J 46:122-3+ Ap 29 '48

TORCHES

- Olympic torch. Engineer 186:121 Ji 30 '48
- Science provided the torches. Chem Age (Lond) 59:156 Ji 31 '48

TORNADO insurance. See Insurance, Tornado**TORNADOES**

- When disaster strikes, industry's medical and plant protection forces respond. Il Nat Safety N 58:26-7 Ji '48

TORONTO

- Two new limited-access dual-lane highways at Toronto to cost \$9,000,000. plan Roads & Bridges 85:60 N '47

Industries

- New title for Toronto, the Paper mill city. D. W. Emmerson. Il Pulp & Pa of Can 49: 69-75 Je '48

Lighting

- Modernizing a city street lighting system. W. H. Woods. Il Illum Eng 43:194-201; Discussion. L. J. Schrenk. 201-2 F '48

Rapid transit

- New shelters and terminal built by municipally owned transport system. Il plan Arch Forum 88:98-9 F '48

Streets

- Municipal and street railway authorities cooperate in snow clearing. H. D. Bradley; J. G. Inglis. Il Roads & Bridges 85:62-6+ D '47

TORONTO evening telegram (newspaper)

- Hospital will get fortune from sale. J. Montagnes. Ed & Pub 81:11 Ag 14 '48

TORONTO star (newspaper)

- Toronto Star's research staff solves problems. Il Ed & Pub 81:12 O 9 '48

TORPEDO boat destroyers

- Story of a small boy; Griswold (DE-7). R. P. Dillon. Il U S Naval Inst Proc 74:816-21 Ji '48

TORPEDO boats

- Hydrodynamic design of 48-in. water tunnel to be used in research on torpedo propellers. D. Ross and others. diags Engineering 166:68-72 Ji 16 '48; Abstract, Marine Eng 53:53-4 Ji '48

TORQUE

- Acceleration of inertia loads with a varying torque. J. D. Burby. Product Eng 18:102-5 D '47
- Drive motor torque must match compressor needs. H. B. Pownall. Refrig Eng 55:447-51 My '48; Discussion. 55:570+ Je '48
- Graphic method of determining torque on pumping reducer from polished-rod and counterweight data. J. C. Slonneger. diags Am Pet Inst Proc 27(4):326-32 '47
- Motor driven machines; torque and horsepower; multiplication of torque. diags Product Eng 19:120-1 Mr '48
- Motor driven machines; torque required to accelerate machines. diag Product Eng 19: 124-5 Mr '48
- Torque characteristics of steam turbines. J. S. Newton. diags Westinghouse Eng 8:119-21 Ji '48

TORQUE converters

- Automobile transmissions; some recent developments and a forecast of the future trend. E. McEwen. bibliog diags Automobile Eng 38:111-16 Mr '48
- Buick car producer to offer torque-converter. W. G. Patton. Iron Age 161:78+ Ja 22 '48
- Buick Dynaflo drive. C. A. Chayne. Il diag S A E J 56:23-9 Ap '48
- Buick reveals design of new Dynaflo transmission. J. Geschelin. flow diag il diags Automotive Ind 98:28-31+ Ja 15 '48
- Buick's new automatic drive; torque-converter. Il Bsns W p21 Ja 17 '48
- Buick's new Dynaflo transmission. Il diags Product Eng 19:96-102 F '48
- Combination torque converter and fluid coupling drive; with description of Salerno transmitter. B. J. Tams; A. L. Gatiss. Il diags Inst Mech Eng J & Proc 158:Proc 95-101; Discussion. 101-2 Je '48
- High-temperature face seals for hydraulic coupling and torque converter. F. F. Ruhl. Il diags Machine Design 20:127-32 Ja '48
- Hydraulic drives. C. C. Lindblom. diags S A E J 56:53-7 O '48
- Materials used in the new Buick automatic transmission. H. Chase. Il diag Iron Age 161:74-7 Ja 15 '48
- Plaster molds for casting intricate aluminum torque converter parts; Buick's new Dynaflo drive. H. Chase. Il diags Iron Age 161: 60-8 F 12 '48
- Power-operated controls for the S.R. 45 flying boat. plan Engineer 186:134-5 Ag 6 '48
- Single-stage torque converters. R. Brunken and W. Howard. diag Machine Design 20:155-6 Ap '48
- Three-stage torque converters. W. B. Gibson. Il Machine Design 20:152-5 Ap '48
- Torque converter drive. Il Diesel Power 25: 64-5+ D '47
- Torque-converter drive for Buick automobiles. diag Mach 54:176-7 F '48
- Torque converter drive for new Buicks. Il diags Machine 20:122-4+ Mr '48
- Torque converters evaluated at hydraulic conference; abstracts of papers. Il Automotive Ind 97:36-7+ D 1 '47
- Using an old technique to make parts too difficult to produce by other means; production of aluminum torque converter castings; Allison-Bedford foundry; use of Antioch plaster mold technique. J. Geschelin. Il Automotive Ind 99:38-30+ Ag 15 '48

TORQUE meters

- Capacitance type torquemeter. C. H. G. Mills. diags J Sci Instr 25:151-6 My '48
- Development of an air-operated force-measuring system; ThrusTorq system. A. A. Markson and R. S. Williams. Il diags A S M E Trans 70:271-6; Discussion. 276-8 My '48
- Measuring engine torque under driving conditions; Kaiser-Frazer torquemeter. Il Automotive Ind 99:35 Ag 15 '48

TORSION

Calculating deflections of hollow shafts in torsion; chart; engineering data sheet. C. P. Nachod. *Machine Design* 20:151-2 My '48

General theory of cylindrical and conical tubes under torsion and bending loads. J. Hadji-Arghis and P. C. Dunne. *diags Roy Aeronautical Soc J* 51:199-269 bibliog(p208-9), 757-84, 884-930 F, S, N '47

Special tools torsion-test lockwashers correctly. H. Greenberg. *il Am Mach* 92:87 Ja 15 '48

Stability of thin cylindrical shells in torsion. R. G. Sturm. *bibliog il diags Am Soc C E Proc* 73:471-95 Ap '47; Discussion. 73:1302-4, 1448-9, 1549-52; 74:231-5 O-D '47, F '48

Torsion tests on sheet-bar steel; abstract. F. Eisenkolb. *Engineer* 185:305 Mr 26 '48

Torsional-fatigue testing of marine shafting. S. F. Dorey. *il diags Engineering* 165: 286-7, 310-12 Mr 19-26 '48; Abstract. *Engineer* 185:183-5; Discussion. 188-9 F 20 '48

Torsional stress analysis of twist-drill sections by membrane analogy. E. T. P. Neubauer and O. W. Boston. *il diags A S M E Trans* 69:897-902 N '47

Torsional vibration frequency determined by use of charts and formulas; engineering data sheet. F. P. Porter. *diags Machine Design* 20:153-6 Ja '48

TORULA

Fermentation of wood hydrolyzates by torula utilis. E. E. Harris and others. *il Ind & Eng Chem* 40:1216-20 Jl '48

Fodder yeast from wood hydrolyzates and still residues. E. E. Harris and others. *bibliog il Ind & Eng Chem* 40:1220-3 Jl '48

TOSYL chloride. See Toluenesulfonyl chloride

TOTALITARISM

Totalitarian blueprints. E. B. Schwulst. *Comm & Fin Chr* 167:2320+ My 27 '48

TOURIST camps, hostels, etc.

Apartments for recreation; Villa Hermosa, Palm Springs, Calif. *il plans Arch Rec* 103: 116-19 F '48

Motels move into the select circle; a portfolio of designs. *Arch Rec* 103:95-117 My '48

Tourist cabins; for all year occupancy. *il plan diags Am Bld* 70:106-7 My '48

Two motels designed to render complete service. *il plans Am Bld* 70:108-9 S '48

TOURIST motor bus lines. See Motor bus lines, Tourist

TOURIST trade

Boom year for transatlantic travel; resorts at home slump. *il Bsns W* p26+ Jl 10 '48

Heavy tourist travel seen this summer. *Baron's* 28:12 Je 21 '48

International travel program initiated by United States. C. Sawyer. *il For Comm W* 33:3-4 N 8 '48

New travel peaks in 1948? *Bsns W* p 117-18 Ap 3 '48

See also

Tourist camps, hostels, etc.

Advertising

Vacation billions; banks publicize vacation attractions. *il Banking* 40:28+ My '48

Value of U.S. tourist shown in travel issue of New York times. *Ed & Pub* 81:14 Mr 20 '48

See also

Travel—Advertising

Europe

European travel commission established; Marshall plan benefits seen. *For Comm W* 32:34 Ag 14 '48

European travel commission sets target. *For Comm W* 32:42 S 25 '48

Great Britain

Tourist dollars; British groups in all-out campaign to entice American tourists. *Bsns W* p49 N 1 '47

Norway

Norway's tourist trade in 1947. *For Comm W* 31:43 Je 12 '48

Russia

Travel in the U.S.S.R.; the situation today. *For Comm W* 31:42 My 29 '48

Switzerland

Switzerland's tourist industry exemplifies wholesome trends. F. E. Forbes. *il For Comm W* 32:6-7+ Jl 3 '48

TOWBOATS

Barge and towboat construction spurt means more oil will move on rivers. E. Lamm. *il Nat Pet N* 40:29-30+ Ap 7 '48

Bushey-built yard tug. *il Marine Eng* 53:86 Jl '48

Diesel-electric tugboat, Havoline. *il Marine Eng* 52:86 N '47

Diesel river towboat Fort Dearborn. *il Marine Eng* 53:59-60 F '48

Diesel river towboat, Lehigh. *il Marine Eng* 52:100 N '47

Diesel towboat, Havana Zephyr. *il Marine Eng* 52:116+ N '47

Diesel towboat Meriwether Lewis. *il Marine Eng* 53:68-9 Ag '48

Diesel towboat, Victory. *il Marine Eng* 53: 84+ Jl '48

Marine electricity; high towing efficiency. L. M. Goldsmith. *Electrician* 141:486-7 Ag 13 '48

New boat and barges are designed to permit maximum maneuverability, cut delay at locks. *il Nat Pet N* 39:44 D 17 '47

New tow cuts costs and time for river freight. *il Bsns W* p23 Je 26 '48

River towboats Wm. Pitt and Freedom. *il Marine Eng* 52:106+ D '47

V4-M-A1 class tug. *il Marine Eng* 52:101+ N '47

TOWELS, Paper. See Paper towels

TOWER clocks

Memorial tower clock. *Elec R (Lond)* 141: 932 D 26 '47

Restoration of Coningsby church clock. *il Engineer* 185:471-2 My 14 '48

Tower clock of simplified construction. *il diags Engineer* 184:533-5 D 5 '47

TOWERS

New copper church tower; Church of the Transfiguration, New York. *il Sheet Metal Worker* 39:43-4 Ag '48

TOWERS, Brick

Concrete prismatic shell reinforces 85-year-old brick church tower. A. R. Kelly. *il diags Civil Eng* 18:690-1 N '48

TOWERS, Concrete

Concrete prismatic shell reinforces 85-year-old brick church tower. A. R. Kelly. *il diags Civil Eng* 18:690-1 N '48

Fort-type structure in Berlin tests demolition ingenuity; attempt to demolish flask tower with TNT. *il Eng N* 140:675 My 6 '48

TOWERS, Radio. See Radio towers

TOWN planning. See City planning

TOWNER rating bureau

Surety association of America absorbs Towner rating bureau. *Nat Underw* 51:23 O 30 '47; *East Underw* 48:25+ O 31 '47; *Weekly Underw* 157:1121 N 1 '47

TOWNSEND, William Subers, 1889-

Spokane dailies offer ad evaluation service. *por Ed & Pub* 81:30 Je 19 '48

Townsend method of evaluating advertising. *por Ftr Ink* 222:31-2 F 13; 34-6 F 27; 39-40 Mr 12; 40-1 Mr 26; 223:34-5 Ap 9; 38-9 Ap 23; 54+ My 7; 48+ My 21; 40-1 Je 4; 58+ Je 18; 224:46+ Jl 12; 50-2 Jl 16; 46+ Jl 30; 56+ Ar 13 '48

TOWNSEND discharges. See Electric discharges

TOWNSEND equation

Ionization currents in divergent fields in hydrogen and in air. G. W. Johnson. *bibliog diags Phys R* 73:284-97 F 15 '48

TOXAPHENE

Insecticide emulsions easier to ship, safer to use. G. A. Mail. *il Chem Ind* 63:238-40 F '48

Residual toxicity; chlorinated camphene compared to DDT for toxic residual effects on various surfaces and in paints against the house fly. J. H. Beacher and W. L. Parker. *Soap & San Chem* 24:139+ Je '48

TOXICAROL

Ultraviolet absorption spectrum of toxicarol and dehydrotoxicarol. S. Ch'en and F. Chao. *J Chem Phys* 16:658-60 Jl '48

TOXINS and antitoxins

Effect of calcium chloride on the preparation of extracts of *H. pertussis*. J. I. Burrell and others. *Bibliog Science* 108:311 S 17 '48
 Protection against bacterial endotoxins by penicillin and its impurities. C. P. Miller and others. *Bibliog Science* 107:118-19 Ja 30 '48
 Studies on the denaturation of antibody; kinetic aspects of the inactivation of diphtheria antitoxin by urea. G. G. Wright and V. Schomaker. *Bibliog Am Chem Soc J* 70:356-64 Ja '48

TOY automobiles. See Automobiles, Toy**TOY industry and trade**

Predicts \$300 million toy business in 1949. *Comm & Fin Chr* 168:1654 O 21 '48
 Toys exported from U.S., 1946 and first nine months of 1947. *For Comm W* 29:22 N 22 '47

Advertising

Toy manufacturers look for heavier ad budgets to match record retail sales this year. N. Kelne. *Pir Ink* 223:83 Ap 30 '48

Canada

Increased activity in Canada's toy industry. *For Comm W* 31:23-4 My 8 '48

TOY piano. See Piano, Toy**TOY trains. See Railroads—Models****TOYS***See also*

Rubber toys

Manufacture

Multi-product assembly on a single line; Doepeke construction toys. flow chart. *il Factory Management* 106:74-5 Mr '48

Rating

Christmas presents for the younger set. *il Consumers Res Bul* 20:17-20 D '47

TOYS, Plastic

Construction sets for young builders. *il Mod Plastics* 25:184-5 Ap '48
 Fine detail molded into toy train. *il Mod Plastics* 25:91 Ja '48
 Merchandising a plastic product; toy blocks. *il Mod Plastics* 25:111 Je '48
 New thrills with a toy car. *il Mod Plastics* 25:92-3 Mr '48
 Polystyrene in toys. *il Mod Plastics* 25:154-5 Ja '48
 Toys. *il Mod Plastics* 25:75-81 My '48
 Toys award to Kusan incorporated and to Plastic art toy corp. *il Mod Plastics* 26:176-9 S '48

TRACE analysis

Colorimetric determination of traces of gold. E. B. Sandell. *Bibliog Anal Chem* 20:253-6 Mr '48
 Concentration methods in spectrographic analysis; recovery of trace constituents in plant materials and soil extracts by mixed organic reagents. R. L. Mitchell and R. O. Scott. *Soc Chem Ind J* 66:330-6 S '47
 Detection and determination of trace elements; papers submitted at analysts' symposium. *Chem Age (Lond)* 58:713-14 My 22 '48
 Determination of trace impurities in high-purity magnesium and calcium. S. Abbey. *Bibliog Anal Chem* 20:630-4 Jl '48
 Determination of trace impurities in reference fuel grade iso-octane by infrared absorption spectroscopy. J. A. Anderson, jr. *Bibliog Anal Chem* 20:801-4 S '48
 Optimum conditions for titrimetric determinations; determination of acetone. W. B. Huckabay, C. J. Newton and A. V. Metler. *Bibliog Anal Chem* 19:338-41 N '47
 Preliminary experiments on the use of synthetic resins in the estimation of trace elements. J. P. R. Riches. *Bibliog Chem & Ind* p656-8 O 25 '47
 Trace metal determination in fats; with special reference to copper in milk fat. R. D. Colman, J. B. Thompson and I. Branum. *il Anal Chem* 20:365-8 Ap '48

TRACE elements in plants. See Plants—Trace elements**TRACERLAB, Inc.**

Business in isotopes. *il diags Fortune* 36:120-5+ D '47
 Red hots here. *il Chem Ind* 62:906-7 Je '48

TRACK circuits

C. & O. tests effect on track circuits of bridge ties treated to resist fire. H. M. Church. *il Ry Age* 125:580-2 S 25 '48

TRACK pavement. See Street railroads—Track pavement**TRACTOR industry and trade**

Ferguson; future. *Bsns W* p26 N 8 '47
 '48 another big year for the tractor industry. H. E. Everett. *il Automotive Ind* 98:30-1+ Ja 1 '48
 Post-sale record for manufactured equipment. R. I. Johnson. *il N A C A Bul* 29:955-60 Ap 1 '48

Advertising

Teaching dealers how to promote increases co-op advertising 100 per cent; B. F. Avery local advertising guide. *il Pir Ink* 225:32-3 O 15 '48

Statistics

Farm and non-farm tractor shipments, by years, 1938-1947; factory sales by hp ratings, 1945-1947; tabulations. *Automotive Ind* 98:100 Mr 15 '48

TRACTORS

Adhesion; unit for mechanical-horse tractors. *il Engineering* 165:407 Ap 23 '48
 Allis-Chalmers makes largest crawler tractor. *il Roads & Bridges* 85:99-100 N '47; *Automotive Ind* 97:31 D 1 '47
 Allis-Chalmers rear-engined tractor improves visibility. *il diag Product Eng* 19:101 N '48
 Alloy steels, the farm tractor, and the full granary. M. L. Frey; G. C. Riegel. *il Metal Prog* 54:507-10 O '48
 Capacity requirements for power-controlled agricultural implements. K. B. Sorensen and S. Madill. *diags S A E J* 56:32-4 Ja '48
 Efficient farming owed to tractor refinements; abstract. L. F. Overholt. *S A E J* 56:78 Mr '48
 Export tractor designed to facilitate servicing. *il Automotive Ind* 98:45 Je 15 '48
 Farm power gains. *S A E J* 55:29-31 N '47
 Improved Franklin engine for trucks and tractors. *il Automotive Ind* 97:48 N 1 '47
 Moving the Eye with Diesels; transporting Mount Palomar Observatory telescope mirror. *il Diesel Power* 26:48 F '48
 New crawler tractor takes the field. E. A. Braker. *il diag Diesel Power* 26:48-50+ Ag '48
 Practical approach to operator's comfort. C. W. Cannon and E. Cox. *diags S A E J* 56:74-5 My '48
 Road tractor for overseas. *il Engineer* 185:502 My 21 '48
 Russian power lift for direct-mounted implements. *diags Automotive Ind* 97:78+ D 15 '47
 Shervick industrial tractor for ground clearing. *il Engineer* 185:400-1, 430-1 Ap 23-30 '48; *Engineering* 165:513-14, 516 My 28 '48
 SAE National tractor and Diesel engine meeting. Milwaukee, Sept. 17-19. *S A E J* 56:82-9 O '48
 Tractor engine designed for maintenance. *il Product Eng* 19:102 Ag '48
 Tractor speeds for harvesting grain, hay, and corn; abstract. R. L. Worrell. *S A E J* 55:68-9 D '47
 Tractor speeds for implement use—tillage and planting; abstract. H. V. Hansen and others. *S A E J* 55:69 D '47
 Tractor train freighting in the Arctic; with cost data. T. C. Mathews and E. D. Spalding. *il map World Oil* 128:214-18+ Jl '48
 Tractor train takes winter freight north. J. Montagnes. *il Diesel Power* 26:44+ Ja '48
 Trends in farm tractors. L. F. Overholt. *il Automotive Ind* 98:34+ Je 15 '48

Bearings

Comparison of stationary and rotating axle idler wheel mountings for tractor and implement service; abstracts. G. W. Curtis. *diags S A E J* 56:64 Ja '48; *Automotive Ind* 97:33-4 O 15 '47

Fuel

Butane and propane as tractor fuels. E. A. Jamison and J. R. Strother. *S A E J* 56:38-42 F '48

TRACTORS—Fuel—Continued

Need to conserve gasoline stressed at oil-farm meeting in Kansas City. Nat Pet N 40:17-18 Mr 24 '48

Lubrication

Truck wheel seal history; abstract. J. T. Liggett. diag S A E J 56:66 Ja '48

Maintenance and repair

Use of visual aids in training tractor operators. A. M. Stewart. Pulp & Pa of Can 49:128+ S '48

Manufacture

Engineering and manufacturing standards; Caterpillar tractor co. W. L. Matthew. il diag Product Eng 18:81-5 N '47
Increased forging die life; forge shop of International harvester co. H. Chase. il Iron Age 161:88-94 My 27 '48
Induction heating triples die life by reducing scale on billets for forging tractor track links. J. M. Butler. il Steel 122:98+ Ja 19 '48; Same. Mach 54:156-7 Ja '48
Massey-Harris' new setup for tractor production. J. Geschelin. il Automotive Ind 98:24-6+ My 1 '48
Materials handling a prime factor in Ford tractor production. J. Geschelin. il plan Automotive Ind 98:36-8+ Ja 1 '48
New and well-equipped tractor plant; International Harvester's Louisville works. J. Geschelin. il Automotive Ind 99:30-2+ O 15 '48
Production control as applied in a farm tractor plant. D. Peddie. il Iron Age 161:56-61 Ja 29 '48
Purchased-part quality controlled; statistical methods, applied to inspection of incoming parts; John Deere tractor co. E. L. Fay. il Am Mach 91:98-100 D 18 '47
Quality control in a tractor plant; Minneapolis-Moline power implement co. J. Geschelin. il Automotive Ind 98:34-5+ Je 1 '48
Shifts stretch radials to fit. B. C. Brosheer. il diag Am Mach 92:93-4 Ag 12 '48
Tractor production; abstract. C. A. Davis and W. C. Cadwell. il diag Mech Eng 70:907-9 N '48

Specifications

American tractors; tabulation. Automotive Ind 98:148-9 Mr 15 '48

Transmission

Construction machine standards featured with transmissions for tractors; S A E annual meeting. S A E J 56:74-6 F '48
Current practice in tractor transmission gears; abstract. W. H. Worthington and B. G. Rich. Automotive Ind 98:34 F 1 '48
Torque converter drive. il Diesel Power 25:64-5+ D '47

Wheels

Broaching mating parts on one machine; tractor wheel hub and hub clamp. il Mach 54:170-1 F '48
Overall considerations in fifth-wheel mounting on tractor-semi-trailers. M. C. Horine. diag S A E J 56:24-7 Mr '48

TRACTORS, Industrial

Alis-Chalmers large industrial tractor. il Engineer 185:552 Je 4 '48
David Brown industrial tractor. il Engineer 185:504 My 21 '48
Materials handling demonstration at London airport. il Mech Handling 34:667 D '47
Welding spiral flights with automatic tractor inside 4-ft. diam. kiln. J. W. Hill. il Welding J 27:723-4 S '48

TRADE agreements

Better bargaining for coal; how operators and union can work toward peaceful settlement of differences. Coal Age 53:75-9 Ag '48
Collective bargaining and industrial peace in St Louis. Mo Labor R 66:411 Ap '48
Collective bargaining provisions; apprentices and learners. U S Bur Labor Statistics Bul 908-4:1-44; pa 15c Supt. of doc. '48

Collective bargaining provisions; discharge, discipline, and quits; dismissal pay provisions. U S Bur Labor Statistics Bul 908-5:1-63; pa 20c Supt. of doc. '48
Collective bargaining provisions; vacations, holidays and week-end work. U S Bur Labor Statistics Bul 908-2:1-57; pa 15c Supt. of doc. '48
Contract problems under the Taft-Hartley act. G. Moskowitz. Paper Ind 29:1757-60 Mr '48; Same cond. Steel 122:48-50 F 23 '48; Excerpts. Management R 37:134-7 Mr '48
Economic fringe demands of unions; vacations, holiday pay, night-shift premiums, call-in pay, paid sick leave, and health and welfare plans, etc. R. C. Smyth. Personnel 24:243-56 bibliog(p254-6) Ja '48
Facing the facts on fringe issues. il Mod Ind 16:55-6+ J1 '48
Hand-picking contract clauses. Mod Ind 16:33-4+ O '48
Human factors in the interpretation of union contracts. N. C. Rockwood. Rock Prod 51:63+ S '48
ITU gives green light for NYC contract. Ed & Pub 81:5-6+ Ag 7 '48
Judge holds ITU in civil contempt; no evidence of illegality in N.Y. pact; texts of Judge Swygert's opinion. p56A and 56B. G. A. Brandenburg. Ed & Pub 81:7+ O 16 '48
Know your labor contract. R. C. Rogers. Personnel J 27:171-5 O '48
Paid vacations for wiremen? Elec West 99:77-8 N '47
Practical negotiation of vacation and holiday clauses. H. A. Lien. Personnel 25:48-54 J1 '48
Pressmen union signs a five-year agreement. Inland Ptr 121:73 Je '48
60-year peace; sales promotion scheme started by glass workers' union and employers. il Bsns W p 106-8 O 16 '48
Union gets bill; U.A.W. assessed full cost in arbitration case as result of agreement with Ex-Cello-O corp. Bsns W p78+ Ja 31 '48
Union security clauses since Taft-Hartley act. Management R 37:291-2 Je '48
Union security under the Taft-Hartley act; provisions of contracts signed, August 23, 1947, June 23, 1948. Factory Management 106:77 O '48

Arbitration clauses

Man in the middle talks shop. R. T. Seward. il Mod Ind 15:67-8+ Mr '48

Health clauses

Medical service plans under collective bargaining; Labor health institute in St Louis and the Union health center in Philadelphia. J. Silver and L. Janis. Mo Labor R 66:34-9 Ja '48

Hiring provisions

Decisions of interest to labor; hiring halls under the Taft-Hartley act. Mo Labor R 67:409 O '48
Hiring hall ban offsets kind words for unions. H. Davenport. Barron's 28:7 Ag 23 '48
Hiring halls; job-control issue. il Bsns W p104+ Ap 10 '48

Insurance clauses

Collective bargaining grows in group picture; Bureau of labor statistics study. East Underw 49:11 O 1 '48
Group insurance provisions in 18½ per cent of new union agreements. Conference Board Ann & Fin Chr 168:1015 S 9 '48; Excerpts. Nat Underw 52:22 S 16 '48; Nat Underw (Life ed) 52:16 S 17 '48
Unions, management disagree on the role of insurance in bargaining. Nat Underw (Life ed) 51:2 N 28 '47; Same. Nat Underw 51:32 D 4 '47

Wage clauses

Collective bargaining provisions; incentive wage provisions. In U S Bur Labor Statistics Bul 908-3:1-36; pa 20c Supt. of doc. '48
Collective bargaining provisions, wage adjustment plans. U S Bur Labor Statistics Bul 908-9:1-75; pa 20c Supt. of doc. '48

TRADE agreements—Wage clauses—Cont.

Cost-of-living wage clauses and UAW-GM pact. N. M. Bortz. *Mo Labor R* 67:1-7 J1 '48

Dismissal pay provisions in union agreements; abstract. *Management R* 37:299-301 Je '48

Loop holes in wage contracts. N. C. Rockwood. *Rock Prod* 50:93 N '47

Severance pay in union contracts. F. G. Moore. *Mill & Factory* 43:109-12 S '48

Unpopular raise; G.M.'s cost-of-living pay hike. *Bsns W* p94-6 S 4 '48

Wage rates in union agreements in effect February 1, 1948. 650p pa \$10 Bur. of national affairs, 1231 24th st. N.W. Washington 7 '48

TRADE agreements, Commercial. See Commercial treaties and agreements**TRADE associations**

Industry changes pace to meet growing competition; Tile council of America uses modern sales promotion, advertising and merchandising techniques. *Il Ptr Ink* 224:35 S 10 '48

1948 calendar of meetings and events. *Chem & Eng N* 26:330-1 F 2 '48

Responsibility of business under the anti-trust laws. W. Berge. *Paint Oil & Chem R* 110:114-16+ N 13 '47

Trade association and retailers finance merchandising program; soft coal cooperative venture. J. N. Stuart. *Il Ptr Ink* 225:35-7 O 8 '48

Trade bureau aid; Seattle's Organization service bureau. *Bsns W* p35-6 J1 17 '48

See also

Advertising, Association
Insurance associations

Paper associations
Press associations
Trade unions

also names of associations, e.g.

American petroleum institute
Cotton textile institute

National electrical manufacturers association

Glass container manufacturers institute

National paint, varnish and lacquer association

National association of manufacturers

Printing industry of America

Directories

Directory of trade and allied associations, and its publications; Greater New York city. rev ed 48p pa \$1 TAD pub. co. 1589 Woolworth bldg, New York 7 '48

See also

Advertising associations—Directories

Law

Some observations on trade associations and the law. E. S. Meyers. *J Marketing* 12:379-81 Ja '48

Libraries

Legislative histories for private business. M. C. Vance. *Special Lib* 38:318-20 D '47

Service

Management services for small business through trade associations; work of printing industry of America. I. D. Robbins. *Harvard Bsns R* 26:627-40 S '48

Tips for organizing talks on your industry; California dairy industry advisory board uses Speakers' packet. *Sales Management* 61:112 N 1 '48

Trade associations working to expand and improve their services in 1948. G. C. Comp-ton. *Inland Ptr* 120:35-9 Ja '48

Canada

Associations and societies, Canada. Roads & Bridges 86:191 Je '48

China

Chinese federations of industrial associations. *Int Labour R* 57:635-7 Je '48

TRADE barriers. See Commercial policy**TRADE catalogs. See Catalogs****TRADE directories**

Buyers' guide; bus parts, materials, accessories, shop equipment and tools. *Bus Transportation* 27:239-51+ Je '48

Classified index of products used in water-works and sewerage field. *Water & Sewage Works* 95:R3-12 Ap '48

Directory of manufacturers; buyers' guide of over 700 power products. *Power* 91:sup55-134D Mid-D '47

Directory of materials. *Machine Design* 20:223-310 O '48 [reprints \$1]

Directory of Texas manufacturers; classified by products and by cities as of October 1947. 173p. 169p pa \$3.50 Bur. of business research, College of business administration, Univ. of Texas, Austin 12 '47

Directory section; names and addresses of manufacturers of equipment and products used in warm-air heating, air conditioning, ventilation and sheet metal work. *Sheet Metal Worker* 39:193-208 Ja '48

Electronics buyers' guide. *Electronics* 21: D1-172 Mid-Je '48

Equipment manufacturer addresses. *Chem Ind* 63:476+ S '48

Guidebook and directory for the metal finishing industries. v 17 468p \$1.50 Finishing publications inc., 11 W. 42d st, New York 18 '48

Inland printer's 1948 directory of equipment and supplies. *Inland Ptr* 120:107-50 D '47

Manufacturers, products, distributors; highway construction equipment; products index. *Roads & Bridges* 86:215-16+, 279-84+ Je '48

Mid-year 1948 directory of manufacturers; buyers' guide of over 700 power products; with directory of former manufacturers. *Power* 92:sup55-154D Mid-Je '48

1948 directory of heating, piping, and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names and manufacturers' addresses. *Heating-Piping* 20:301-415 Ja '48

1949 buyers' directory; equipment and materials used in the production, handling, use and transportation of concrete, concrete products and ready-mixed concrete. *Concrete* 56:57-69 S '48

Tewkesbury's Who's who in Alaska and Alaska business index. 320p \$4.50 Tewkesbury, 200 Lyon bldg. Seattle, Washington '47

Washer's directory of antique dealers. 195p pa \$1.50 Edward C. Washer, 628 Montgomery st. San Francisco 11 '47

Where-to-buy; products directory of current advertisers in Steel. *Steel* 122:1-48 sec 2 Mr 29 '48

Who sells it! Iron Age metalworking buyers' guide. A. D. Stout, Jr. and T. S. Blair. *Iron Age* 161:208-9, 316+ Ja 1; 106+ Ja 8; 87-8+ Ja 15; 70-2+ Ja 22; 77-8+ Ja 29; 128+ F 5; 122-4+ F 12; 125-6+ F 19; 134-6+ F 26; 216-28 Mr 11; 135-54 Mr 18 '48

See also subdivision Directories under various headings, e.g.

Airplane accessories	Equipment industries
Airplane industry and trade	Machinery industry
Diesel engines	Petroleum refineries

Bibliography

Business reference publications; catalogs, directories, buyers' guides, etc. *Ind Marketing* 32:140-1 O 25 '47

Guide to American business directories. M. V. Davis. 242p \$3.75 Public affairs press, 2153 Florida av, Washington, D.C. 8 '48

Industrial directories. rev ed Cleveland Pub Lib Business Information Bur Bul v 19, no 4:15-18 S '48

World trade; world-wide product directories. Cleveland Pub Lib Business Information Bur Bul v 19, no 2:11-12 pt 2 My '48

TRADE discount. See Discount, Trade**TRADE exhibitions. See Exhibitions****TRADE-in policies**

Phoney trade-ins are called breach of fair trade contracts. A. W. Gray. *Sales Management* 60:77+ Ja 1 '48

Tips on appliance merchandising; way to accept trade-ins at a profit. *Dom Eng* 170:92-4 D '47

To trade-in or not to trade-in? *Elec West* 100:103 My '48

TRADE journals

Business papers in the year 2004 A.D. A. J. Haire. *Ind Marketing* 33:56 Ja '48
 Partners in progress; industrial advertisers, agencies and business papers. F. S. Chalmers. *Ind Marketing* 33:34-5+ My '48
 What the business paper editor can learn from the advertising man; plea for more thought in fewer words. L. Gibson. *Ind Marketing* 33:41+ Ja '48

Advertising service

Merchandising helps for advertisers using business publications; fourth Deutsch & Shea study of services offered by media. *Ptr Ink* 222:42 Ja 9 '48

Costs

Membership acts to build lineage to offset '48 net profit dip predicted at Associated business papers 23rd annual convention, Hot Springs. *Ptr Ink* 223:95+ Je 4 '48

Directories

Market data book number, 1948. *Ind Marketing* 32:1-532 O 25 '47

Editorials

Look to the editor, Mr Copy writer. L. Gibson. *Ind Marketing* 33:54+ O '48

Editors

44 awards to 38 editors dramatize progress of Nation's business press. *Ind Marketing* 32:40+ N '47
 1947 winners in tenth annual business paper editorial awards. *Ind Marketing* 32:38-9 N '47

TRADE marks

Don't be afraid to simplify your trade-mark or package design. J. Nash. *Ptr Ink* 221:41-3 D 5 '47
 How does your trade mark rate as a salesman? E. A. Burns. *Ind Marketing* 33:40-1+ Ag '48
 Lift for Luer. *Ind Mod Packaging* 21:142-4 Ag '48
 New trade marks. *Soap & San Chem* 24:55+ Ja '48
 New trade-marks of the textile industry. *Ind Published in Rayon textile monthly*
 Patents and trade marks. Published in monthly numbers of India rubber world
 Pluto's new look; a world-famed trademark, red devil with pitchfork, becomes a friendly character. *Ind Mod Packaging* 21:102-3 Ja '48
 Symbols for oil: Cities Service station green stripes tied to same design on 400 packages. *Ind Mod Packaging* 21:107 Je '48
 Textile brand names dictionary. 377p \$6 Textile book publishers, 303 Fifth av, New York '47
 Trade-mark applications [chiefly Latin American]. Published in Foreign commerce weekly

Law

Assignment of trade-marks. S. H. Rewoldt. *J Marketing* 12:483-7 Ap '48
 Drug manufacturers' fears stilled on trade-mark loss under new law. W. Derenberg. *Oil Paint & Drug Rep* 154:3+ J1 19 '48
 How trade-marks, patents and copyrights protect your property. C. J. Hauk, Jr. *Ptr Ink* 221:41-6 D 19 '47
 New trade mark act and its importance to the chemical industry. J. Rossman. *Chem & Eng N* 25:3640-4 D 8 '47
 Printers now protected against innocent publication of trademark infringements. *Inland* *Ptr* 121:49-50 S '48
 Small business and trade-marks. B. Watson. *U S Dept of Com Economic (Small Business)* Ser 68:1-24; pa 10c Supt. of doc. '48
 Trade mark owners skirt Lanham Act pitfalls. R. M. Bleiberg. *Barron's* 28:9 My 17 '48
 Trademark protection warning issued by U.S. *Oil Paint & Drug Rep* 152:3 N 3 '47
 Trademarks. V. E. Hillman. *Ind Mod Packaging* 21:144-8+ D '47

TRADE names

Condensed review of some recently developed materials, arranged alphabetically by trade names. *Mach* 55:179-91 O '48

Heating, piping, and air conditioning equipment for industry and large buildings. *Heating-Piping* 20:387-99 Ja '48
 Materials listed by tradenames. *Machine Design* 20:225-80 O '48
 Product names need clarity. J. M. Adie. *Ind Marketing* 33:40+ Ap '48
 Synthetic detergents; main types, uses, properties and prospects; tabulation of properties of more than 400 commercial compounds. J. W. McCutcheon. *Ind Chem* 61:311-24 N '47 [reprints 50c]
 Textile brand names dictionary. 377p \$6 Textile book publishers, 303 Fifth av, New York '47

Trade name index; products in or related to the electronic field. *Electronics* 21:D150-61 Mid-Je '48

See also

Brand names foundation

Business names

TRADE pacts. See Commercial treaties and agreements

TRADE practices

Complaints of unfair dealer practices plague auto producers. W. G. Patton. *Iron Age* 160:122+ N 20 '47

F.T.C. holds conference on floor wax trade practices. *Soap & San Chem* 24:145+ S '48

FTC trade practice conference on water-resistant fabrics and apparel. *Rayon* 29:65-7 S '48

Industrial anarchy; how it breeds unionized sales forces; United millinery salesmen's union. A. B. Ecke. *Sales Management* 61:78+ J1 15 '48

New England oil heat men OK proposed fair trade code. D. L. Harbour. *Nat Pet* N 40:57-8 O 6 '48

New England oil heating industry to map fair trade code at parley. *Nat Pet* N 40:51 S 15 '48

Text of oil heat industry's proposed fair trade code. *Nat Pet* N 40:58+ O 13 '48

See also

Dealer relations	Price policies
Discount, Trade	Restraint of trade
Federal trade commission	Sales policies
Price cutting	Salesmen (retail)—
Price fixing	Bonuses (manufacturers')
Price fixing, Resale	
also International	trade organization
(proposed)	

TRADE relations

Direct-to-dealer sales strategy brings cheers from wholesalers; Resin Industries garden hose. *Ind Sales Management* 59:62+ D 1 '47
 Put your distribution policies in writing. G. D. Crain, Jr. *Ind Marketing* 33:47+ Je '48

See also

Dealer relations	Marketing
Jobber relations	Sales policies

TRADE schools

Construction-worker training that works; Montreal contractors, unions and Quebec provincial government jointly operating school for construction apprentices. *Ind Eng N* 140:1038-9 Je 24 '48

See also

Radio schools and training
 Textile schools

Directories

Plumbing schools. *Dom Eng* 172:124-6 O '48

TRADE shows. See Exhibits

TRADE union cooperative stores. See Cooperative stores, Trade union

TRADE union journals. See Advertising mediums—Trade union journals

TRADE unions

Abuses breed unionization, San Francisco auto dealers warn. E. Gidlow. *Sales Management* 60:82+ Ja 15 '48

Church signs up; Seventh-day Adventist contract with U.A.W.; rights for members who can't join a union. *Bsns W* p 106-8 My 1 '48

Engineering professional status as related to labor unions. J. F. D. Smith. *J Eng Educ* 38:630-7 My '48

Five unions compete for telephone members. *Pub Util* 41:435-6 Mr 25 '48

TRADE unions—Continued

- Functional roles of union and management. N. W. Chamberlain. *Advanced Management* 12:143-7 D '47
- Growing union interest in pensions. H. C. Kwasha. *Nat Underw (Life ed)* 52:2 F 20 '48
- How can you match merit and pay when salesmen are unionized? Oakland, Calif. dealers. E. Gidlow. *Sales Management* 60: 86+ Mr 15 '48
- Labor unions can't do business with government. A. M. Cooper. *Pub Util* 42:86-92 J1 15 '48
- More grievances? rallying issues. *Bsns W* p 104-5 O 16 '48
- New issues you will face if your salesmen are unionized; Seattle automobile dealers experience. E. Marple. *il Sales Management* 59:37-40 N 20 '47
- Office unionization; is management facing the problem squarely? D. Mack. *Management R* 37:181-4 Ap '48
- Organized labor's monopolistic power must be curtailed. D. R. Richberg. *Automotive Ind* 98:27+ Je 15 '48
- Pensions or power? *il Coal Age* 53:74-7 Ap '48
- Plant guard unions must be independent. *Bsns W* p 114 My 15 '48
- Study on the management prerogative issue. J. G. Turnbull. *Personnel* 25:106-24 S '48
- Supervisors study union relations; Detroit Edison co. L. J. Kaufman. *Elec World* 129: 56-7 Ja 31 '48
- Trade unions and the European recovery plan. *Int Labour R* 57:687-9 Je '48
- Union attitudes on the application of industrial engineering techniques to collective bargaining. W. Gomberg. *Personnel* 24: 443-54 My '48
- Union labor and nonfarm cooperatives. F. E. Parker. *Mo Labor R* 67:388-92 O '48
- Union target; the white-collar worker. *il Bsns W* p88+ F 7 '48
- Unionization of liquor salesmen forces trade practice cleanup. E. Gidlow. *Sales Management* 60:46+ F 15 '48
- Unions and job evaluation. L. Cohen. *Personnel J* 27:7-12 My '48
- What labor is going after in 1948. *Factory Management* 106:110-12 Ja '48
- Will the aircraft industry be labor's next battleground? R. McLaren. *Automotive Ind* 99:31+ Ag 15 '48

See also

- American federation of labor
- Arbitration, Industrial
- Boycott
- Collective bargaining
- Company unions
- Congress of industrial organizations
- Foremen—Unionization
- Industrial relations
- also names of trade unions, e.g.
- American communications association
- American federation of musicians
- Financial employees' guild
- Foreman's association of America
- International brotherhood of electrical workers
- International brotherhood of teamsters
- International longshoremen's and warehousemen's union
- International printing pressmen and assistants' union of North America

Accounting

- Accounting methods for local unions. R. H. Sexton and H. G. Heneman, Jr. (Minnesota report ser. no. 1) 77p Univ. of Minnesota. Industrial relations center, Minneapolis 14 '48

Business activities

- UAW plots permanent future for its retail warehouses. D. G. Baird. *Sales Management* 61:119-21 S 1 '48

Communist problem

- Affidavit scrutiny; check on truth of non-Communist oaths filed by union leaders. *Bsns W* p74+ Mr 6 '48
- Anti-ERP tactics spell trouble. *il Bsns W* p 112-13 Ap 17 '48
- AEC boots out leftist unions. *Bsns W* p 100+ O 9 '48
- Campaign against leftists registers. *il Bsns W* p 116+ My 15 '48
- Communists lose; C.I.O.'s victory in World Federation. *Bsns W* p 112+ My 15 '48
- Communists win; Inland Steel local elects Communist-backed slate. *Bsns W* p63 J1 3 '48
- C.I.O. begins careful crackdown on left wing. *Bsns W* p 108-9 O 23 '48
- Enemy within; Communist influence. *Economist* 155:649-50 O 23 '48
- Fall clearance at the big stores; union caught between T-H and non-complying locals. *il Fortune* 38:147-8 O '48
- Key cases under the new labor law; non-filing of affidavits; case of Precision castings co. J. M. Gambatese. *il Factory Management* 106:92-3 Je '48
- Left-wing cracks; St Louis members of big department store union secede. *Bsns W* p 102-3 F 14 '48
- Leftist unions' new tactics; United electrical workers show how to achieve employer recognition despite boycott of NLRB. *Bsns W* p82+ N 1 '47
- Red menace in labor and how to fight it. *Factory Management* 106:108-12 S '48
- Tactical switch; left-wing C.I.O. unions of farm equipment and packinghouse workers reorganize to comply with T-H law. *Bsns W* p 108 Je 12 '48
- T-H and the Commies. J. M. Gambatese. *Chem Eng* 55:177-8+ O; 207-8+ N '48
- T-H flaws cheer Communists. *Bsns W* p 102-4+ Mr 13 '48
- Topsy-turvy; Canadian counterpart of C.I.O. lambastes Communism; A.F.L. group ducks issue. *Bsns W* p 104 N 8 '47
- Unions veer further right. *Bsns W* p92-3 Ag 7 '48
- United Electrical keeps left. *Bsns W* p 112+ S 11 '48
- What Reuther victory means; U.A.W.'s shift to the right. *Bsns W* p92+ N 15 '47

See also

- World federation of trade unions

Cooperation with management

- Botany and union issue joint training text; sets forth practical ways to insure free interchange of ideas between management and labor. *Sales Management* 60:117+ Mr 15 '48
- Union buys company's products. *Bsns W* p72-3 Mr 6 '48
- Union participation in methods and time study; Oliver iron & steel corp. R. T. Walton. *il Iron Age* 160:60-4 D 18 '47
- Workers aid boss; Apex electrical mfg. co. tackles problem of spotty quality of products. *Bsns W* p94+ N 15 '47

Directories

- Directory of labor unions in the United States; national and international unions, state labor organizations. U S Bur Labor Statistics Bul 937:1-64; pa 20c Supp of doc. '48

Dues and fees

See also

- Checkoff system

Educational work

- Boom in apprentice training; Apprenticeship-training service of the U.S. Dept. of labor. *il Bsns W* p 110-13 D 6 '47
- Having ideological time; vacation season is school season, as C.I.O. trains men. *il Fortune* 38:140-1 O '48
- Union announces opening of new building for technical school at Pressmen's Home. *Inland Ptr* 121:75-6 My '48

TRADE unions—Educational work—Continued
 Union education of workers in management procedure. C. S. Golden. *Advanced Management* 12:111-15 S '47

Union goes to school to improve bargaining ability through study. *Iron Age* 161:150+ My 20 '48

Why union education? aims, history and philosophy of the educational work of the ILGWU; abstract. M. Starr. *Science* 106: 631 D 26 '47

Health service

Medical service plans under collective bargaining; Labor health institute in St Louis and the Union health center in Philadelphia. J. Silver and L. Janis. *Mo Labor R* 66:34-9 Ja '48

Insurance plans

Foresee immense growth in union welfare programs. Nat Underw (*Life* ed) 52:1+ J1 9 '48

International aspects

Eyes overseas; A.F.L. and C.I.O. interest in foreign labor movements. *Bsns W* p90-2 N 1 '47

International labor confederations. *Mo Labor R* 66:499-503; 67:147-51 My, Ag '48

Toward unity? C.I.O. and A.F.L. sit down together to discuss ERP with European unions. *Bsns W* p78+ Mr 6 '48

See also

World federation of trade unions

Jurisdictional disputes

AFL unions approve pact to end jurisdictional strikes in the construction industry. *Eng N* 140:397 Mr 18 '48

Builders' peace? first decisions in jurisdictional disputes. *Bsns W* p 100 S 4 '48

Caterpillar Tractor workers tangle. *Bsns W* p 114+ Ap 24 '48

Craft unions' new push. *il Bsns W* p84+ Ja 17 '48

Electrical workers hear jurisdictional decision. *Eng N* 141:44 S 30 '48

Jurisdiction issue; T-H law. *Bsns W* p 107-8 O 9 '48

Left vs. right; targets; electrical, smelter groups. *Bsns W* p 112 Mr 20 '48

Plan to stop jurisdictional disputes makes progress in AGC-AFL sessions. *Eng N* 139:339 D 13 '47

Shipping injunction brings truce, but not peace; tug-of-war between right and the left. *il Bsns W* p 102-4 Je 19 '48

U.A.W. moves in on U.E.'s left wing. *Bsns W* p 104+ Mr 27 '48

Law

Anti-union legislation of 80th Congress. J. W. Gibson. *Comm & Fin Chr* 163:406+ J1 29 '48

California hot cargo act, unconstitutional. *Mo Labor R* 65:638-9 D '47

Decisions of interest to labor; temporary injunctions against union unfair labor practices; private injunctions. *Mo Labor R* 66: 307-9 Mr '48

Firemen-guards. *Bsns W* p 106-7 O 9 '48

For professionals; new NLRB ruling gives employees in professional jobs right to sever connections with nonprofessional unions. *Bsns W* p 112 Je 19 '48

Lost featherbed; NLRB orders repayments of exacted wages. *Bsns W* p92 Ag 14 '48

Plant guards; NLRB problem; what kind of plant police union is legal. *Bsns W* p86+ F 23 '48

Violators feel Hobbs act teeth. *il Bsns W* p96 D 20 '47

Management

My union; an inside story. John Worker, pseud. *Harvard Bsns R* 26:108-14 Ja '48

Membership drives

U.A.W. lure; sponsors contest with \$75,000 in prizes to win new members in G.M. plants. *Bsns W* p98 F 14 '48

Political activities

A.F.L.'s political arm discusses future plans. *Bsns W* p92 Ja 10 '48

C.I.O.'s tug-of-war over Wallace. *Bsns W* p88+ Ja 17 '48

Labor groups form for political action. *Pub Util* 41:40-2 Ja 1 '48

Labor political action sluggish. *Bsns W* p64-5 J1 3 '48

Labor's political action for '48. J. M. Gambatese. *il Factory Management* 106:66-72 F '48

Political aims of organized labor. *Ann Am Acad* 259:144-52 S '48

Unions as political pros? *Fortune* 38:203-6 N '48

What the factory worker really thinks about the Taft-Hartley law and labor in politics. *Factory Management* 105:90-6 N '47

Which candidate is labor voting for? *Bsns W* p70-1 Ag 28 '48

Public relations

How to build industrial peace and prevent strife; unions should educate public, employers, and their own members. E. L. Bernays. *Advanced Management* 12:154-8 D '47

Purchasing service

Labor fights inflation by resorting to co-op buying. R. Giles. *il Ptr Ink* 221:34-6 D 12 '47

America

International labor confederations; CIT and CTAL. J. Barbash. *Mo Labor R* 66:499-503 My '48

Austria

Trade-union developments in postwar Austria. O. Weigert and T. Lit. *Mo Labor R* 67: 244-8 S '48

Canada

Topsy-turvy; Canadian counterpart of C.I.O. lambastes Communism; A.F.L. group ducks issue. *Bsns W* p 104 N 8 '47

Trade union movement in Canada. *Int Labour R* 57:534-40 My '48

Caribbean region

Caribbean labour congress, 2d conference, Kingston, Jamaica, Sept. 2-8, 1947. *Int Labour R* 57:528-30 My '48

China

Chinese trade union act. *Int Labour R* 56: 319-21 S '47

Trade unions in China. *Int Labour R* 58: 223-5 Ag '48

France

Split in the French unions. *Economist* 154:22 Ja 3 '48

Germany

Trade union membership in Germany. *Int Labour R* 57:400-1 Ap '48

Great Britain

Background of British labor movement; abstract. M. Cole. *Mo Labor R* 67:392-3 O '48

British labor under the labor government; position and role of trade-unions. J. A. Flexner. *Mo Labor R* 67:366-72 O '48

British trades union congress 79th annual session. *Int Labour R* 57:254-7 Mr '48

Cotton textile trade unions and research. E. Thornton. *Textile Inst J* 39:P381-4; Discussion. P385-6 Ag '48

Enemy within; Communist influence. *Economist* 155:649-50 O 23 '48

Labour and the Nation; limitations of the Trade union congress. *Economist* 155:362-4, 402-4 S 4-11 '48

India

All-India trade union congress, 22d, Calcutta, Feb. 13-19. *Int Labour R* 56:361-2 S '47

Indian trade unions (amendment) act, 1947; compulsory recognition of trade unions by employers. *Int Labour R* 57:231-2 Mr '48

Italy

Italian general confederation of labour. *Int Labour R* 57:670-2 Je '48

Latin America

Trade union movement in Latin America. *Int Labour R* 56:355-61, 489-97; 57:97-103 S-O '47, Ja-F '48

TRADE unions—Latin America—Continued

Workers' movement in Latin America. Int Labour R 56:622-8 N-D '47
 Workers' movement in Latin America; social legislation. Int Labour R 57:531-4 My '48

See also
 Confederation of workers of Latin America

Malayan Union

Trade union movement in Malaya. Int Labour R 57:673-4 Je '48

Peru

Confederation of workers of Peru. Int Labour R 57:672-3 Je '48

St Louis

Collective bargaining and industrial peace in St Louis. Mo Labor R 66:411 Ap '48

United States

Labor, 1948; peace or pickets. W. V. Packard. Iron Age 161:178-83 Ja 1 '48
 Memo from an old labor skate; trade unions in the airlines. J. Woods. Air Transport 5:28-9+ D '47
 Paul Hoffman's union men. Fortune 38:141-2+ O '48

Position of labour. Economist 153:799-800, 880-1 N 15, 29 '47

Trade union movement in the United States. Int Labour R 56:91-7 JI '47

Union security under the Taft-Hartley act; provisions of contracts signed, August 23, 1947, June 23, 1948. Factory Management 106:77 O '48

See also
 American federation of labor
 Congress of industrial organizations
 United automobile workers of America

Venezuela

Second national congress of Venezuelan workers. Int Labour R 57:390-2 Ap '48

TRADE unions as sales agents

Union buys company's products, makes jobs at Bowers tool & die co. Bsns W p72-3 Mr 6 '48

TRADE waste

Automatic pH control in water and industrial waste treatment. R. T. Sheen. bibliog flow sheets il diags Ind & Eng Chem 39:1433-9 N '47

Chlorination practice in sewage and trade-waste disposal. N. J. Howard. Water & Sewage 85:21-2+ N '47

Critical review of the literature of 1947 on sewage and waste treatment and stream pollution. W. Rudolfs and others. bibliog Sewage Works J 20:251-9 Mr '48

Determination of the time of passage of pollution in the Androscoggin river and pond. W. A. Lawrence. Sewage Works J 20:881-96 S '48

Determination of zinc in water, sewage and industrial wastes by means of di-beta-naphthylthiocarbazone. L. Rubin and A. Levine. bibliog N E Water Works Assn J 61:267-78 S '47

Determination of zinc in water, sewage and trade wastes. B. I. Corson. il Water & Sewage Works 95:40-2 Ja '48

Developments in sewage and industrial waste treatment. G. S. Russell. il Water & Sewage 86:23-6+ Mr; 15-18+ My '48; Same. Water & Sewage Works 95:43-53 F '48

Developments of 1947 in sewage and industrial waste treatment. G. S. Russell. il Water & Sewage Works 95:43-53 F '48

Disposal of industrial wastes in Los Angeles county. A. Pickett. Water & Sewage Works 95:33-5 Ja '48

Disposal of pharmaceutical wastes; abstract. C. H. P. Arbogast. Pub Works 79:53-4 O '48

Economies in industrial-waste treatment plant design. B. A. Poole. il Water & Sewage 86:20-2+ F '48

Effect on stream pollution legislation and control. D. E. Bloodgood. Am Soc C E Proc 74:1048-51 S '48

Fluorine disposal; continuous process. R. Landau and R. Rosen. flow sheet Ind & Eng Chem 40:1389-93 Ag '48

Four wastes; one effluent; viscose plant treats, mixes and disposes of various wastes from rayon production operations. B. N. Scheuer. flow diag il Chem Eng 55:138-40 F '48

Industrial and city wastes. F. Merryfield and others. map Oregon State College. Eng Exp Sta [Corvallis] Bul 22:1-53 '47 (pa 40c)

Industrial problems of water contamination; progress made within the Calumet area of Indiana. C. B. Carpenter and W. W. Mathews. il Midwest Eng 1:2-7 O '48

Industrial waste disposal. G. E. Barnes. bibliog Mech Eng 69:465-70 Je '47; Discussion. 69:46-8 N '47

Industrial waste disposal in Los Angeles city. W. A. Schneider. Water & Sewage Works 95:37-9 Ja '48

Industrial waste pollution abatement program for Buffalo, N.Y. G. E. Symons and others. il map Sewage Works J 20:861-71 S '48

Industrial waste problem; brass and copper, electroplating, and textile wastes. W. S. Wise. Sewage Works J 20:96-102 Ja '48

Industrial waste research. Pub Works 79:19 F '48

Industrial waste summary guide. Pub Works 78:29-30+ O '47

Industrial waste treatment. Pub Works 79:69 O '48

Industrial wastes program outlined; Pennsylvania chemical society meeting, Harrisburg, March 26. Chem & Eng N 26:1076 Ap 12 '48

Industry increases demand for sanitary engineers. E. T. Roetman. il Civil Eng 18:92-4 F '48

Management's interest in stream pollution problems. M. E. Putnam. il Chem Eng Prog 44:sup 18+ S '48

Methane fermentation of a fiberboard waste. A. M. Buswell and F. W. Sollo, jr. plan Sewage Works J 20:687-94 JI '48

Method for studying the toxicity of industrial wastes. H. Heukelekian. bibliog Water & Sewage Works 95:285-7 Ag '48

New inflico waste-treating equipment; Cyclator. diag Chem Eng Prog 44:sup 26 S '48

New law sets stage for cleanup of polluted streams. E. J. Hardy. Iron Age 162:104+ JI 15 '48

Plant neutralizes own waste; New Department's ballbearing plant handles variety of liquid waste. il Bsns W p48-50+ Ag 21 '48

Pollution abatement; appraisal of current regulations; with analysis of antistream pollution legislation in United States, its territories, and Canada. A. Anable and R. P. Kite. il map Chem Eng Prog 44:3-16 Ja '48; Discussion. 44:397-8 My '48

Possibilities of recovery and utilization. F. W. Mohlman. Am Soc C E Proc 74:1052-61 S '48

Proceedings of the third industrial waste conference held at Purdue university, May 21-22, 1947. Purdue Univ, Eng Ext Dept, Ext Ser 64:1-368 '47

Responsibility for waste treatment urged as industry duty; abstract. M. E. Putnam. Eng N 140:960 Je 10 '48

Special sewer service charges for industrial wastes. G. E. Symons and F. W. Crane. Water & Sewage Works 95:R166-8 Ap '48

Treating metal-working wastes; New Department ball-bearing plant. H. D. Unwin. flow diag il diags Eng N 141:91-5 Ag 19 '48

Treatment and disposal of waste soluble oils. E. F. Eldridge and R. W. Purdy. diags Sewage Works J 20:849-56 S '48

Treatment and disposal of waste waters from industry; abstract and discussion. E. A. Southgate. Chem & Ind p364-5 Je 5 '48

Treatment of wastes from natural gums in chewing gum manufacture. R. P. Logan and W. Rudolfs. Ind & Eng Chem 39:1673-5 D '47

Typical problem in industrial waste treatment; reclaims water for boiler feed. H. M. Ross. il Midwest Eng 1:12-13 O '48

TRADE waste—Continued

Waste treatment plant of Eastman gelatine corporation; caustic lime removal. A. C. Holde. diag Boston Soc C E J 34:331-2 O '47

Waste treatment problems from the viewpoint of industry. W. B. Hart. Sewage Works J 20:273-8; Discussion. F. B. Milligan. 278-81 Mr '48

Waste water; industry problem. il Bsns W p54+ Mr 6 '48

See also

Canneries—Waste	Refuse disposal
Chemical plants—	Rubber waste
Waste	Sewage disposal
Coke plants—Waste	Sewerage
Food factories—	Steel works—Waste
Waste	Sulfite liquor
Milk plants—Waste	Tanneries—Waste
Packing houses—	Textile mills—
Waste	Waste
Paper mills—Waste	Waste, Utilization of
Petroleum refineries	Water pollution
—Waste	Woolen and worsted
Petroleum waste	mills—Waste
Plating shops—Waste	

Radioactive wastes

Atom-plant waste disposal poses hazardous problems. Eng N 140:593-4 Ap 22 '48

Radioactive scrap. Bsns W p50 My 1 '48

TRADES and labor congress of Canada

Annual convention, 62d, Hamilton, Ontario, Sept. 24-Oct. 3, 1947. Int Labour R 57: 535-7 My '48

TRADES union congress, British. See Trade unions—Great Britain**TRAFFIC, Street. See Street traffic****TRAFFIC departments, industrial**

How to beat those climbing freight rates; abstract. Management R 37:196-7 Ap '48

TRAFFIC engineering

Solving traffic-congestion problems in urban centers. B. D. Tallamy. il maps Roads & Bridges 86:106+ S '48

Traffic improvements through traffic engineering. W. S. Smith. il Civil Eng 18:160-4+ Mr '48

Bibliography

Library classification scheme and selected bibliography of traffic engineering literature. K. G. Cassidy and J. Redfield. 118p. Bur. of highway traffic, Yale univ, New Haven, Conn. '48

Study and teaching

Traffic engineering courses sponsored by National Institute at universities. Eng N 141:55 S 2 '48

TRAFFIC lines

Improved traffic striping machines are 100 per cent air operated. il Roads & Sts 91: 94+ My '48

Marking highways for safety; California traffic striping uses compressed air. il Comp Air Mag 53:116-18 My '48

New sound sight traffic marker; corrugated concrete line on New Jersey highway. il Concrete 55:22 N '47

Singing separators; corrugated white cement traffic lane markers hum by day, reflect by night. il Roads & Sts 90:71 O '47; Civil Eng 18:26 Ja '48

TRAFFIC regulations

Extra lanes for trucks cut down hazards on U.S. 5 in Connecticut. il Roads & Sts 90:62 D '47

Parking meters now an accepted part of traffic-control program. C. F. LeeDecker. il Roads & Bridges 86:78-80+ F '48

See also

Street traffic
Traffic lines
Traffic signals

TRAFFIC signals

Control for low-volume intersections. L. Corder. Pub Works 79:55+ JI '48

Mechanical traffic cop automatically decides crossing priority. Roads & Sts 90:89 D '47

Traffic actuated signal system; New Jersey's robot traffic cop. J. L. Hays. il plan Roads & Sts 91:78-9 Ja '48

Unique signal system for Houston's four-street expressway grid. W. J. Van London. il Roads & Sts 90:87-8 N '47

TRAFFIC signs

Laminate in traffic signs. il Mod Plastics 26:172 N '48

TRAFFIC surveys

Movement of people; a field for market research. A. B. Blankenship. J Marketing 13:44-51 JI '48

Traffic trends on rural roads in 1946. T. B. Dimmick and M. E. Kipp. Pub Roads 25: 41-8 Mr '48

TRAIL, British Columbia

Trail refuses to trail in chemical pioneering. S. D. Kirkpatrick. flow sheet il Chem Eng 55:96-9 Ap '48

TRAILERS

Aluminum alloy wheels reduce trailer weight. il Automotive Ind 98:45 F 15 '48

Bomb trailers excellent for material transport for large line jobs. C. L. Richey. il Elec World 129:107 Mr 27 '48

Dyson 50-ton low-loading trailer. il diags Engineering 165:224-5, 228 Mr 5 '48

Gramm introduces first model of aluminum trailer series. il Automotive Ind 98:49+ Je 15 '48

How to haul 125-ft. girders. il Roads & Sts 91:94 Ja '48

How to stage an industrial sales demonstration in a jiffy; DoAll co. demonstration trailers. L. R. Rothenberger. il Sales Management 60:90+ Ap 1 '48

How 200-inch telescope mirror was hauled 160 miles; low-bed trailer under special overload permit. R. A. Wagner. il Roads & Sts 91:84-5 F '48

Kraft designs trailers for bigger loads. il Food Ind 20:871-2 Je '48

Mineral wool trailer insulation permits refrigeration of perishables by ice. Food Ind 20:357 Mr '48

New trailer, tension indicator, speed western cable job. F. B. Schullerts. il plan Elec World 130:77-8 Ag 23 '48

Overall considerations in fifth-wheel mounting on tractor-semi-trailers. M. C. Horine. diag S A E J 56:24-7 My '48

Railroad handling method cuts shipment costs; aluminum truck-trailer body. il Steel 122:96 Mr 29 '48

Tandem axle unit for truck trailers. il diags Product Eng 19:96 Ag '48

Tractor-trailers ease bakery distribution. il map Food Ind 20:1020-1 JI '48

Trailer bodies made from sub-assembled components. il diag Product Eng 19:102 Je '48

Trailers for curb sales; ice cream trucks replaced by specially designed tractor-trailer units. il Food Ind 20:560-1 Ap '48

Truck-trailer refrigeration unit occupies small interior space. il Refrig Eng 56:47-8 JI '48

See also

Automobile trailers

Manufacture

Full mechanized handling speeds trailer assembly; Fruehauf trailer co. F. M. Burt. il Mill & Factory 42:112-14 F '48

TRAILERS, Automobile. See Automobile trailers**TRAILWAYS bus system, National. See National railroads bus system****TRAIN dispatching. See Railroads—Train dispatching****TRAIN ferries**

Diesel-electric paddle car ferry, Farringford. G. W. Tripp. il plan diags Engineer 185: 250-2 Mr 12 '48

Ice-breaking car ferry, Abegweit, il Engineer 184:489-90 N 21 '47

Pier on 200-ft. piles in N.Y. harbor used for shore-to-ship transfer of loaded freight cars. F. A. Ciampa. il diags Eng N 140: 104-8 Ja 22 '48

TRAIN resistance

Highspeed freight train resistance its relation to average car weight. J. K. Tuthill. diags Ill U Eng Exp Sta Bul 376:1-77 '48 (50c)

TRAIN resistance—Continued

Streamlining effect on air resistance and smoke lifting on steam locomotives. J. F. Griffin. *il diags A S M E Trans* 70:515-24 J1 '48

See also

Dynamometer cars

TRAINS. See Railroads—Trains

TRAINSHEDS. See Railroads—Trainsheds

TRAMMELL, Niles, 1894-

Portrait. *Fortune* 38:82 S '48

TRANSAMERICA corporation

Battling again; Giannini banking empire. *Esns W* p92-5 O 16 '48

TRANS-CANADA air lines

Chosen instrument makes good in Canada; airline controlled by a government railroad. J. Montagnes. *il Air Transport* 5:36-9+ D '47

TRANS CARIBBEAN air cargo lines, inc.

Equipment trusts offered. *Comm & Fin Chr* 167:2140; 168:489 My 17, Ag 2 '48

TRANSCONTINENTAL and western air, inc.
Annual report. *Comm & Fin Chr* 167:1963-4 My 3 '48

Cohu quits TWA. *Aviation W* 48:13 My 10 '48

Last-minute reprieve for TWA; additional mail pay saves it from defaulting on sinking fund payments. S. Altschul. *Aviation W* 48:32 My 31 '48

Securities disturbing investors. R. Colston. *Mag of Wall St* 82:295 Je 19 '48

TWA finances beginning to clarify. S. Altschul. *Aviation W* 49:44 J1 12 '48

TWA's new crisis; carrier says it lacks cash to cope with Communist threats to its foreign routes. *Aviation W* 48:44 Ap 26 '48

TRANSCONTINENTAL bus system, inc.
Giant bus system. *il Bus Transportation* 27:50-3 J1 '48

TRANSCRIPTION departments

Cost control in the transcription department. J. E. Thiele. *Management R* 36:572-5 N '47

TRANSDUCERS, Electroacoustic. See Electroacoustic transducers

TRANSDUCERS, Electromechanical. See Electromechanical transducers

TRANSFER mechanism

Automatic machines speed truck-axle production; use of Cross Transfer-matic. C. S. Ricker. *il diag Am Mach* 92:94-6 Ja 15 '48

Automatic transfer and feeding mechanism. W. C. Mills. *diags Mach* 54:166-8 N '47

Automatic transfer method for stamping parts at high rate. *il Automotive Ind* 98:27 Ja 15 '48

Deep-drilling of crankshafts on transfer type machines. C. H. Wick. *il diags Mach* 54:153-6+ Ag '48

First transfer machine for drilling crankshaft oil holes; Ford motor co. *il Automotive Ind* 98:36+ Ap 1 '48

Flexible transfer machines for Packard cylinder heads and blocks. *il Automotive Ind* 99:34-6+ J1 15 '48

Ford retools cylinder block line with transfer machines. *il Automotive Ind* 98:38-9+ F 1 '48

Four double-end transfer machines cut off position. machine work. *il Am Mach* 92:144 J1 15 '48

High speed machining of large V-8 cylinder blocks. J. Geschelin. *il Automotive Ind* 99:32-5 O 1 '48

High-speed machining of rear-axle housings on a Transfer-matic. *il diags Mach* 54:161-4 F '48

Hydraulic transfer, locating and clamping expedite manifold production in multi-station machine. G. Hubbard. *il Steel* 123:74-6 Ag 23 '48

Latest transfer machines at Ford plant. *il Automotive Ind* 99:41+ Ag 1 '48

M-59; transfer machine for manifolds. *il Automotive Ind* 99:52 S 15 '48

Nash pioneered in automatic transfer lines. J. Geschelin. *Automotive Ind* 97:78 N 1 '47

New transfer process lines mean less handling, higher output; Buick Motor, D. G. Baird. *il Mill & Factory* 42:112-14 Mr '48

Packard transfer line machines 50 blocks an hour. T. E. Lloyd. *il Iron Age* 161:72-9 My 20 '48

Railroad car axles machined automatically by completely automatic transfer-type machine. W. G. Patton. *il diag Iron Age* 161:63-5 Ja 8 '48

Transfer line drills Ford crankshafts. W. G. Patton. *il diag Iron Age* 161:72-6 Je 17 '48

Transfer machine for automotive axle housings. *il diags Product Eng* 43:96-7 Ap '48

Transfer machine works in duplicate; transmission gear-shift housings. *il diags Am Mach* 92:122-4 Ag 12 '48

Transfer-type machine tools. *il Steel* 121:76 D 15 '47

TRANSFERENCE numbers. See Ionization, Electrolytic

TRANSFORMATIONS (mathematics)

Dimensional analysis; an approach from transformation theory and a criterion for scaling model experiments. J. C. Decius. *Franklin Inst J* 245:379-87 My '48

TRANSFORMER oil. See Insulating oil

TRANSFORMERS, Electric. See Electric transformers

TRANSFORMERS, Radio. See Radio transformers

TRANSULF corporation

Stock offered. *Comm & Fin Chr* 166:1999 N 17 '47

TRANSISTOR

Bell Labs introduces a revolutionary component. *il Radio & Tv N* 40:84 S '48

Crystal that amplifies; experiments with a double-contact germanium type. C. E. Atkins. *il diags Radio & Tv N* 40:39+ O '48

Development of the transistor, a germanium crystal valve. R. H. Müller. *Anal Chem* 20:sup25-6A S '48

Semi-conductor replaces vacuum tubes. *il diags Product Eng* 19:158-9 S '48; *Instruments* 21:636-8 J1 '48; *Mech Eng* 70:766 S '48; *Machine Design* 20:95-6 Ag '48;

Electronics 21:68-71 S '48; *Power Generation* 52:83-5 O '48; *R Sci Instr* 19:724-5 O '48

Transistor. F. H. Rockett. *il diag Sci Am* 179:52-5 S '48

Transistor; a new amplifier. *il diags Elec Eng* 67:740 Ag '48

Transistor, a semi-conductor triode. J. Bardeen and W. H. Brattain. *diag Phys R* 74:230-1 J1 15 '48

Transistor may replace vacuum tubes. *il diag Tele-Tech* 7:18-20+ Ag '48

TRANSIT operations. See Banks and banking—Transit operations

TRANSIT radio, inc.

New streetcar serenade; supplies fm programs for buses and trolleys. H. Taft, Jr. *Pub Util* 42:406-12 S 23 '48

Radio; car card of air; Transit radio, inc. provides broadcasting service to bus riders. F. Kane. *il Bus Transportation* 27:49-51 Mr '48

TRANSITE

Boreholes replace shaft lines; use of transite pipe. B. Gleason. *diags Coal Age* 53:76-8 Mr '48

Joints for transite pipe. J. E. York. *diags Heat & Ven* 45:91-6 O '48

Performance record of 14-year old transite water main at Winnipeg. W. D. Hurst. *il diag Water & Sewage Works* 94:391-6 N '47

TRANSITION elements

Color and the transition elements. I. H. Parsons. *diags J Chem Educ* 25:207-10 Ap '48

TRANSJORDAN

Greater Transjordan? maps *Economist* 153:1009 D 20 '47

TRANSMISSION, Electric. See Electric transmission; Radio transmission

TRANSMITTERS, Radio. See Radio transmitters

TRANSOCEAN air lines

Transocean makes money with foreign charter service, overhaul business and other activities. R. Hotz. *il Aviation W* 49:39 Ag 30 '48

TRANSPARENT containers. See Containers, Transparent

TRANSPARENT plastics. See Plastic materials, Transparent

TRANSPLANTATION (physiology)

Atrophy of ovaries transplanted to the spleen in unilaterally castrated rats; proliferative changes following subsequent removal of intact ovary. G. R. Biskind and M. S. Biskind. *bibliog Science* 108:137-8 Ag 6 '48

TRANSPORT workers. See Transportation workers

TRANSPORTATION

Foreign inland-transport defects can snag U.S. trade flow. S. T. R. Abt. *il For Comm W* 32:8-9+ Ag 7 '48

Size in transport. A. Gouge. *il plan diags Roy Aeronautical Soc J* 52:410-37 Jl '48

See also

Aeronautics, Commercial

Aircraft

Airlines

Airplanes

Automobiles

Barges

Carriers

Commerce

Electric railroads

Electric traction

Freight car service

Freight cars

Freight handling

Freight ships

Gasoline pipe lines

Highway transportation

Mechanical handling

Merchant marine

Mine haulage

Motor bus lines

Motor ships

Motor trucks

Motor trucks in freight service

Packing for shipment

Petroleum pipe lines

Pipe lines

Pneumatic conveying

Ports

Postal service

Railroads

Rapid transit

River traffic

Road traffic

Roads

Shipment of goods

Shipping

Ships

Steamboat lines

Street railroads

Street traffic

Streets

Towboats

Trailers

Trolley buses

Trucks

Vehicles

Waterways

Laws and regulations

What Congress did; recent legislation affecting the transportation industry. G. Bayless. *Bus Transportation* 27:56-7 Ag '48

See also

Carriers

Railroad law

Statistics

Bus industry and other transportation; basic facts, 1945-1947. C. W. Stocks. *il Bus Transportation* 27:68-73 F '48

Progress of the postwar transition; domestic transportation in 1947. Survey of Cur Bsns 28:31-2 F '48

Argentina

Argentina releases 1947 transport statistics. *For Comm W* 32:32 Jl 10 '48

China

China's transport needs. map *Eng N* 141:83-5 Ag 5 '48

Georgia

Georgia story. *il Manuf Rec* 117:108-12 My '48

Great Britain

Nationalisation in Great Britain. *Int Labour R* 57:491-4 My '48

Nationalization of Britain's transport. *Pub Util* 41:307-8 F 26 '48

Transport act; effects upon electrical traders. G. Saville. *Elec R (Lond)* 143:147-8 Jl 23 '48

United States

House group holds transport hearings. *Ry Age* 124:824-6 Ap 24 '48

Inventory of major projects; with information on costs, sizes and features. *il Eng N* 140:296-301 F 19 '48

National transportation survey. J. H. Fredrick. *Am Pet Inst Proc* 27(5):11-15 '47

Plan to revitalize the national transportation policy. A. G. Allison. *Ry Age* 123:1030-1 D 13 '47

Transportation industries; prospects for 1948. E. F. Ross and others. *il Steel* 122:138-43 Ja 5 '48

See also

Railroads—United States

Shipping—United States

Waterways

also United States—Defense transportation, Office of; United States—Transportation, Department of (proposed)

TRANSPORTATION, Military

See also

Transports

TRANSPORTATION workers

Social conditions of transport workers in Germany. *Int Labour R* 56:576-84 N-D '47

TRANSPORTS

Reconverted army P-2 transports. *il Marine Eng* 53:52-7 O '48

TRANSPORTATION errors. See Arithmetic

TRANSURANIUM elements

Transuranium elements and nuclear chemistry. I. Periman. *J Chem Educ* 25:273-7 My '48

See also

Neptunium

Plutonium

TRAUMA

Trauma and arthritis; analysis of 162 cases. E. Wolff. *bibliog Ind Med* 17:41-5 F '48

See also

Edema

TRAUMATIC neuroses. See Neuroses, Traumatic

TRAVEL

Boom year for transatlantic travel. *il Bsns W* p26+ Jl 10 '48

New travel peaks in 1948? *Bsns W* p 117-18 Ap 3 '48

Travel, 1941-1946. Survey of Cur Bsns 1947 Sup p 108 [supplemented in monthly numbers]

See also

Air travel

Ocean travel

Tourist travel

Voyages around the world—Bibliography

Advertising

Bernard Shaw touches up agency copy for airline. *Ed & Pub* 81:24 Je 19 '48

Vacation promoters build up advertising outlay for 1948 to \$50,000,000 to take up travel slack. N. Kelne. *Ptr Ink* 223:103+ My 14 '48

See also

Air travel—Advertising

TRAVEL bureau offices

See also

Panama national

tourist commission

TRAVEL bureaus

Promoting bus travel; Greyhound corporation's sales offices abroad; expansion of tour service. *il Bus Transportation* 27:74-5 My '48

See also

Oil companies—

Travel bureaus

TRAVELING clinics. See Clinics, Traveling

TRAVELING exhibits. See Exhibits, Traveling

TRAWLERS. See Fishing boats

TREASURERS, Company. See Corporations—Treasurers

TREASURY stocks. See Stocks—Treasury stocks

TREE farms. See Woodlots

TREE planting

Forest service sees new tree farm goal. *Paper Tr J* 126:24 My 6 '48

Tree plantations lower pulpwood costs. R. Black. *Pulp & Pa of Can* 49:133 Ag '48

Tree planting gaining momentum; state nursery seedling production, 1947-1948, 1948-1949. *Paper Tr J* 127:64 S 9 '48

TREES

Chemical treatment of trees to facilitate removal of bark and to reduce weight of wood. D. C. McIntosh. *Pulp & Pa of Can* 49:117-18+ Je '48

Growth of stumps. I. Aaron. *Science* 107:391-2 Ap 16 '48

See also

Fruit trees

Hickory

Street lighting—Tree problem

TREES—Continued

Diseases and pests

- Forest pathology. A. W. McCallum. Pulp & Pa of Can 48:108+ N '47
 Survey damage by forest insects; report by Forest insect investigations, Dominion Department of agriculture, Pulp & Pa of Can (Convention no) 49:291+ [F] '48

See also

- Elm—Diseases and pests Pine—Diseases and pests

TREMATODA

See also

Flukes

TRENCHES

- Use of well points for trench dewatering; construction of large trunk sewer. A. M. Rawn. Il Water & Sewage Works 95:167-71 My '48

- Water and sewer trenching; paving breakers. Il Pub Works 79:31+ F '48

TRENCHING machinery

- Light weight service trenchers. F. J. Hall. Am Gas Assn Proc 1947:499-504; Same abr. Gas Age 99:17-18+ My '47
 Mud-hog; air-lift subaqueous trencher. H. U. Fuller. diags Water & Sewage Works 95:R258 Ap '48

- Trenching equipment. diags Pub Works 79:34-5 Mr '48

TREND measurement

- Increased facilities geared to analysis of load trend. M. R. Hansen. Elec World 130:84-6 Ag 28 '48

TRENTON period. See Geology, Stratigraphic—Ordovician

TREPANNING

- Sampling of welds by trepanning and allied methods. R. B. Lincoln. Welding J 27:809-11 O '48

TRIACETIN. See Acetin

TRIAL by jury. See Jury

TRIALKYLACETIC acids

- Quaternary carbon compounds; trialkylacetic acids as antispasmodic agents. N. Sperber, D. Papa and E. Schwenk. bibliog Am Chem Soc J 70:3091-4 S '48

TRIALS (political crimes and offenses)

Portugal

- Political trials in Portugal. Economist 155:65 JI 10 '48

Russia

- Trial and terror; political process of law on the Moscow model. Economist 153:788-90 N 15 '47; Same cond. Iron Age 160:108-9 N 27 '47

TRIANGULATION

- Adjustment of the shoran triangulation. C. Chu. diags Am Soc C E Proc 74:1063-70 S '48

- Least squares adjustment of triangulation net between geodetic stations. B. F. Codrington and O. C. J. Marshall. diags Am Soc C E Proc 73:1047-64 S '47; Discussion. 74:430-42 Mr '48

TRIAZINE

- Absorption spectra of 4,6-diamino-2-phenyl-1,3,5-triazine. F. C. Nachod and E. A. Steck. Am Chem Soc J 70:2818-19 Ag '48

- Contributions to the chemistry of synthetic antimalarials; some derivatives of 1:3:5-triazine. W. W. Cuthbertson and J. S. Moffatt. Chem Soc J p561-4 My '48

- So-called anthraquinomedimines; symmetrical trisubstituted triazines. C. V. Wilson. bibliog Am Chem Soc J 70:1901-3 My '48

TRIAZODIPHENYLSULFONE

- Some chemotherapeutically active sulfones; azido substituted sulfones. C. K. Banks and O. M. Gruhzt. Am Chem Soc J 70:1268-9 Mr '48

TRIAZOLES

- Mechanism of the tautomeric change of 5-hydroxy-1:2:3-triazole-4-carboxylic esters into aliphatic diazo-compounds. B. R. Brown and D. L. Hammick. Chem Soc J p 1384-6 O '47

TRIBENZYLAMMONIUM picrate

- Acid-base equilibrium constant and dipole moment of tribenzylammonium picrate in benzene from measurements of dielectric constant. A. A. Maryott. bibliog J Res Nat Bur Stand 41:7-9 JI '48

TRIBORINE triamine. See Borazole

TRIBUTYL phosphate

- Use of tributyl phosphate for extracting organic acids from aqueous solution. H. A. Pagel and F. W. McLafferty. Anal Chem 20:272 Mr '48

TRICALCIUM phosphate. See Calcium phosphates

TRICHINA and trichinosis

- Control of trichinosis; report by committee on public health relations, the New York academy of medicine. E. H. L. Corwin and L. Stice. bibliog Pub Health Rep 63:478-88 Ap '48

TRICHLORIMINOCYANURIC acid

- Preparation of cyanuric acid and trichloriminocyanuric acid on a pilot plant scale. C. H. G. Hands and F. R. Whitt. bibliog diags Soc Chem Ind J 67:66-9 F '48

TRICHLOROACETIC acid

- Kinetics of the decomposition of trichloroacetic acid in formamide-water mixtures. C. N. Cochran and F. H. Verhoek. bibliog Am Chem Soc J 69:2987-8 D '47

TRICHLOROACETOTOLUIDIDES

- Orientation problems; the nitration of the trichloroacetotoluidides. A. McGookin. bibliog Soc Chem Ind J 67:23-4 Ja '48

TRICHLORO BENZENE

- Electronic transitions in trisubstituted benzenes in the near ultraviolet. H. Sponer. bibliog Il Chem R 41:281-91 O '47

TRICHLORODIPHENYLETHANE

- Derivatives of 1,1,1-trichloro-2,2-diphenylethane. L. Haskeberg and D. Lavie. bibliog Am Chem Soc J 69:2267-8 O '47

TRICHLOROETHANE

- Fine structure of Raman lines due to chlorine isotopes. D. H. Rank and others. bibliog diags J Chem Phys 16:698-703 JI '48

TRICHLOROETHYLENE

- Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Licht, jr. and C. G. Denzler. bibliog diags Chem Eng Prog 44:627-38 Ag '48

- Fine structure of Raman lines due to chlorine isotopes. D. H. Rank and others. bibliog diags J Chem Phys 16:698-703 JI '48

- Trichloroethylene; hazards and precautions; industrial data sheet. bibliog Nat Safety N 57:40+ Je '48

TRICHLOROSILANE

- Alkyl, aryl, and alkoxy-derivatives of silicon trichloride and silicohydroform. H. J. Emelius and S. R. Robinson. Chem Soc J p 1592-4 D '47

- Alkylation of hydrochlorosilanes. C. A. Burkhardt and R. H. Kriebel. bibliog Am Chem Soc J 69:2687-9 N '47

- New synthesis of organosilicon compounds. E. W. Pietrusza, L. H. Sommer and F. C. Whitmore. bibliog Am Chem Soc J 70:484-6 F '48

TRICHOBEZOAR. See Hair balls

TRICHODERMA

- Fungicides for fungus-proofing glue-glycerol-bonded cork gaskets. S. Berk. Il Ind & Eng Chem 40:262-7 F '48

TRICKLING filters. See Sewage disposal—Filtration

TRICOT machines. See Knitting machines

TRIESTE

- Carefree Trieste. Economist 155:423 S 11 '48
 Interregnum in Trieste. Economist 154:348 F 28 '48

TRIETHANOLAMINE

- Diphase metal cleaners; preferential wetting by the two phases. I. Reich and F. D. Snell. Ind & Eng Chem 40:1233-7 JI '48

TRIETHYLACETIC acid

- Preparation of triethylacetone nitrile and triethylacetic acid. C. Schuerch, jr. and E. H. Huntress. bibliog Am Chem Soc J 70:2824-5 Ag '48

TRIETHYLAMINE

- Dissociation of the addition compound of trimethylboron with quinuclidine; further evidence for the steric configuration of triethylamine. H. C. Brown and Sei Sujishi. bibliog diags Am Chem Soc J 70:2878-81 S '48

- Preparation of nitrite salts of alkyl amines. J. K. Wolfe and K. L. Temple. bibliog Am Chem Soc J 70:1414-16 Ap '48

TRIETHYLAMINOSILANE

Some reactions of trialkylaminosilanes. D. L. Bailey, L. H. Sommer and F. C. Whitmore. *Am Chem Soc J* 70:435-6 Ja '48

TRIETHYLENE glycol

Automatic dewpoint meter for the determination of condensable vapors. T. T. Puck. *Bibliog diag R Sci Instr* 19:16-23 Ja '48

Glycol system cuts air conditioning costs 40 per cent; glycol reactivated by exhaust steam from turbine driven refrigeration compressor. B. A. Engelbach. *Il diag Food Ind* 20:839-41+ Je '48

Triethylene glycol; significant new air sterilant. *Sheet Metal Worker* 39:70+ Ag '48

TRIETHYLENETETRAMINE

Quadridentate amines; some coordination compounds of cobalt(III) and triethylene-tetramine. F. Basolo. *bibliog Am Chem Soc J* 70:2634-8 Ag '48

TRIETHYLENETETRANTRAMINE

Triethylenetetrantramine. G. N. R. Smart and G. F. Wright. *Am Chem Soc J* 70:3141-2 S '48

TRIFLUOROCHLOROETHYLENE

Kel-T; new high temperature thermoplastic. *Mod Plastics* 28:168+ O '48; *Abstract, Chem & Eng N* 26:2721 S 13 '48

New plastic resists high heat and corrosion; polytrifluorochloroethylene. *Product Eng* 19:106 O '48

TRIFLUOROETHANE

Moment of inertia of CF_3CH_3 . W. F. Edgell and A. Roberts. *bibliog J Chem Phys* 16:1002 O '48

TRIFLUOROETHANOL

Preparation of 2,2,2-trifluoroethanol. H. Gilman and R. G. Jones. *bibliog Am Chem Soc J* 70:1281-2 Mr '48

Trifluoroethanol. A. L. Henne, R. M. Alm and M. Smook. *Am Chem Soc J* 70:1968 My '48

TRIFLUOROMETHYL benzene

Chlorination of 1,3-bis-(trifluoromethyl)-benzenes. C. K. Bradsher and R. S. Kittila. *Am Chem Soc J* 70:1318-20 Ap '48

TRIFLUOROMETHYL group

Aliphatic ketones and amines containing the trifluoromethyl group. R. G. Jones. *Am Chem Soc J* 70:143-4 Ja '48

TRIFLUOROTOLUENE

Ortho and para substituted derivatives of benzotrifluoride. R. G. Jones. *bibliog Am Chem Soc J* 69:2346-50 O '47

Vapor pressure of benzotrifluoride measured by the Rodebush manometer. G. W. Sears and E. R. Hopke. *bibliog J Phys & Colloid Chem* 52:1137-42 O '48

TRIGG, Ernest T.

Address to the 59th annual congress of the N.P.V. & L. association; retirement. *por Paint Oil & Chem R* 110:15-18 N 13 '47

TRIGLYCERIDES. See **Glycerides****TRIGONOMETRY**

Use of the log-log slide rule in connection with trigonometric functions. R. T. Brown. *J Eng Educ* 38:393-4 Ja '48

TRIHYDROXYOCTADECANE

Hydroxylated stearic acids; the periodate oxidate of the 9,10-dihydroxystearic acids and the 1,9,10-trihydroxyoctadecanes. H. Wittcoff, O. A. Moe and M. H. Twen. *bibliog Am Chem Soc J* 70:742-4 F '48

TRIODIDES

Determination of high molecular weight quaternary ammonium compounds as the triiodides. O. B. Hager and others. *bibliog Anal Chem* 19:885-8 N '47

TRIOIODACETONITRILE

Iodination of ω -cyanacetophenone. W. M. Hearon and A. F. Helin. *Am Chem Soc J* 69:2907-8 N '47

TRIODOBENZOYL chloride

3,4,5-Triodobenzoyl chloride as a reagent for alcohols. D. C. O'Donnell and others. *Am Chem Soc J* 70:1657-8 Ap '48

TRIOBITES

Crepicephalid trilobites from Murphy creek, Quebec, and Cow Head, Newfoundland. C. H. Kindle. *Bibliog maps diag Am J Sci* 246:441-51, pl 1-2 Jl '48

Terminology

Revisions in the terminology of trilobites. R. J. Ross, jr. *bibliog pl Am J Sci* 246:573-7 S '48

TRIMETHOXYPHENANTHRENE

Synthesis of 3,4,9-trimethoxyphenanthrene. S. F. MacDonald and A. J. Chechak. *bibliog Am Chem Soc J* 70:1972-3 My '48

TRIMETHYLAMINE

Effect of operating variables on methylamine production. R. S. Egly and E. F. Smith. *bibliog flow sheet Il Chem Eng Prog* 44:387-96; *Discussion*, 396-7 My '48

Strains in methyl amines and hydrocarbons. R. Spitzer and K. S. Pitzer. *bibliog Am Chem Soc J* 70:1261-4 Mr '48

TRIMETHYLBENZENE

Electronic transitions in trisubstituted benzenes in the near ultraviolet. H. Sponer. *bibliog Il Chem R* 41:281-91 O '47

1,2,3-TRIMETHYLBENZENE. See **Hemimellitene**

TRIMETHYLCHLOROSILANE

Peroxide-catalyzed chlorination of trimethylchlorosilane and *t*-butyl chloride. J. J. McBride, jr. and H. C. Beachell. *bibliog Am Chem Soc J* 70:2532-3 Jl '48

TRIMETHYLCOUMARANONE

Vitamin E; conversion of 4,6,7-trimethylcoumaran-3-one into some homologs of 2-isopropyl-4,6,7-trimethyl-5-hydroxycoumaran. L. I. Smith and G. A. Boyack. *Am Chem Soc J* 70:2687-90 Ag '48

TRIMETHYLCYCLOHEXANECARBONITRILE

Preparation of stable ketimines from 2,2,6-trimethylcyclohexanecarbonitrile. H. L. Lochte and others. *Am Chem Soc J* 70:2012-15 Je '48

TRIMETHYLCYCLOHEXANE carboxylic acid

Studies in the terpenes; a synthesis of *dl*-2:2:3-trimethylcyclohexane-1-carboxylic acid. R. N. Chakravarti. *Chem Soc J* p 1565-8 D '47

TRIMETHYLDIHYDROQUINOLINE

Effect of certain antioxidants in GR-S; natural and accelerated aging. H. E. Albert. *bibliog Ind & Eng Chem* 40:1746-50 S '48

TRIMETHYLMETHOXYANILINE

Polyalkylbenzenes; the reaction between polymethyl-*p*-methoxyanilines and formaldehyde. L. I. Smith and W. M. Schubert. *bibliog Am Chem Soc J* 70:2656-61 Ag '48

2,2,4-TRIMETHYLPENTANE. See **Isocotane****TRIMETHYLPENTANES**

Alkylation of isoparaffins with olefins in the presence of sulphuric acid; action of sulphuric acid on the trimethylpentanes. F. Morton and A. R. Richards. *bibliog diag Inst Pet J* 34:133-46 F '48

TRIMETHYLPENTENE

Isomerization of certain olefins by silica gel at room temperature. W. S. Gallaway and M. J. Murray. *Am Chem Soc J* 70:2584-6 Jl '48

TRIMETHYLPHENANTHRYLACETIC acid

Synthesis and optical resolution of 4,5,8-trimethyl-1-phenanthrylacetic acid. M. S. Newman and A. S. Hussey. *Am Chem Soc J* 69:3023-7 D '47

TRIMETHYLSILYLCELLULOSE

Trimethylsilylcellulose. H. A. Schuyten and others. *bibliog Am Chem Soc J* 70:1919-20 My '48

TRIMETHYLSILYLMETHANOL

Preparation and properties of trimethylsilylmethanol. J. L. Speier, B. F. Daubert and R. B. McGregor. *bibliog Am Chem Soc J* 70:1117-19 Mr '48

TRIMETHYLSILYL sulfate

Reaction of trimethylsilyl sulfate. L. H. Sommer, G. T. Kerr and F. C. Whitmore. *bibliog Am Chem Soc J* 70:445-7 F '48

TRIMETHYLTHIAZOLE

Conversion of sucrose into thiazole derivatives; 2:4-dimethylthiazole derivatives and 2:4:5-trimethylthiazole. H. Gregory and L. F. Wiggins. *Chem Soc J* p 1400-3 O '47

TRIMETHYLAMINE

Determination of small amounts of dimethylamine in aqueous solutions containing ammonia, mono- and trimethylamine. A. A. Smales and H. N. Wilson. *diag Soc Chem Ind J* 67:210-13 My '48

TRIMMINGS

Wright's ruffling redesigned to meet current production budgets. *il Mod Packaging* 21: 139 D '47

TRIMMINGS (for drapery, upholstery, etc.)

Trimming and their applications. G. Shackleton. *Textile Inst J* 39:P107-13 Mr '48

TRINAPHTHYLBORON. See Boron compounds**TRINIDAD**

See also
Paleontology— Radio broadcasting—
Trinidad Trinidad
Petroleum industry
and trade—Trinidad

TRINITROMETHANE. See Nitroform**TRINITROPHENOL**. See Picric acid**TRINITROTOLUENE**

Attenuation of spherical shock waves in air. R. G. Stoner and W. Bleakney. *bibliog plan J Ap Phys* 19:670-8 J1 '48
Factors influencing the rate of nitration of 2:4 dinitrotoluene in a 2-phase system. G. M. Bennett and others. *bibliog Soc Chem Ind J* 66:288-93 Ag '47
Fugacity determinations of the products of detonation. M. A. Cook. *bibliog J Chem Phys* 16:1081-6 N '48
Secondary pressure pulses due to gas globe oscillation in underwater explosions. A. B. Arons and others. *il Acoustical Soc Am J* 20:271-82 My '48

TRIPHENYLACETIC acid

Thermal decomposition of triphenylacetic acid and triphenylacetyl chloride. F. G. Scholefield and others. *bibliog Soc Chem Ind J* 66:447-9 D '47

TRIPHENYLACETYL chloride

Thermal decomposition of triphenylacetic acid and triphenylacetyl chloride. F. G. Scholefield and others. *bibliog Soc Chem Ind J* 66:447-9 D '47

TRIPHENYLCARBINOL

Preparation of ethers of triphenylcarbinol from the triphenylcarbonium ion. H. A. Smith and R. J. Smith. *bibliog Am Chem Soc J* 70:2400-1 J1 '48

TRIPHENYLETHYLENE

Substitution reactions of triphenylethylene and its derivatives; a contribution to the problem of synthetic analogues of progesterone. N. P. Buu-Hoi and R. Royer. *Chem Soc J p* 1078-81 J1 '48
Synthetic oestrogens of the triphenylethylene series. P. R. Carter and D. H. Hey. *Chem Soc J p* 150-5 F '48

TRIPHENYLMETHYL group

p-Triphenylmethylphenyl and 2-fluorenyl isocyanates as reagents for alcohols. B. Witten and E. E. Reid. *bibliog Am Chem Soc J* 69:2470-2 O '47

TRIPHENYLMETHYL halides

Concerted displacement reactions; termolecular displacement reactions of methyl halides in benzene solutions. C. G. Swain and R. W. Eddy. *bibliog Am Chem Soc J* 70:2389-94 S '48
Kinetic evidence for a termolecular mechanism in displacement reactions of triphenylmethyl halides in benzene solution. C. G. Swain. *bibliog Am Chem Soc J* 70:1119-28 Mr '48

TRIPHENYLMETHYLPHENYL isocyanate

p-Triphenylmethylphenyl and 2-fluorenyl isocyanates as reagents for alcohols. B. Witten and E. E. Reid. *bibliog Am Chem Soc J* 69:2470-2 O '47

TRIPHENYLTETRAZOLIUM chloride

Demonstration of reducing enzyme systems in neoplasms and living mammalian tissues by triphenyltetrazolium chloride. F. H. Straus and others. *bibliog Science* 108:113-15 J1 30 '48
Germination indicator; 2,3,5-triphenyltetrazolium chloride. *Chem & Eng N* 26:404-5 F 9 '48
Preparation of 2,3,5-triphenyltetrazolium chloride. A. M. Mattson, C. O. Jensen and E. A. Dutcher. *Am Chem Soc J* 70:1284 Mr '48
Staining of the stem tissue of plants by triphenyltetrazolium chloride. T. D. Waugh. *bibliog Science* 107:275 Mr 12 '48

TRISECTION of angle

Angle trisected by graphical methods. J. B. Goodwin. *diags Civil Eng* 18:27-8 Ja '48; Discussion. 18:172-3 Mr '48; Reply. 18:243-4 Ap '48
Some angles on trisection. W. Ley. *diags Tech R* 50:375-7 My '48

TRISODIUM bismuthide

Some reactions of trisodium monobismuthide in liquid ammonia. G. W. Watt and T. E. Moore. *bibliog diags Am Chem Soc J* 70:1197-200 Mr '48

TRITIUM

Cathodic protium-tritium separation factor; apparatus; platinum cathode-alkaline solution. M. L. Eidinoff. *bibliog diags Am Chem Soc J* 69:2507-9 O '47
Cloud-chamber observations of the decay of tritium. W. J. Byatt and others. *Phys R* 74:699 S 15 '48
Half-life of tritium. M. Goldblatt and others. *Phys R* 72:973 N 15 '47
Half-life of tritium. A. Novick. *Phys R* 72:972 N 15 '47
(H³,p) reaction in Rh and Co and probable evidence of the di-neutron. D. N. Kundu and M. L. Pool. *bibliog Phys R* 73:22-6 Ja 1 '48
Search for tritium, the hydrogen isotope of mass three. M. L. Eidinoff. *bibliog diag J Chem Educ* 25:31-4+ Ja '48
Solubility of water in hydrocarbons. C. Black and others. *diag J Chem Phys* 16:537-43 My '48
Thermodynamic functions for tritium and tritium hydride; the equilibrium of tritium and hydrogen with tritium hydride; the dissociation of tritium and tritium hydride. W. M. Jones. *bibliog J Chem Phys* 16:1077-81 N '48
Use of tritium in the determination of the solubility of water in solvents; the solubility of water in benzene. G. G. Joris and H. S. Taylor. *bibliog diags J Chem Phys* 16:45-51 Ja '48

Analysis

Quantitative measurement of tritium; hydrogen-alcohol-argon mixtures. M. L. Eidinoff. *bibliog diags Am Chem Soc J* 69:2504-7 O '47

TRITIUM hydride

Thermodynamic functions for tritium and tritium hydride; the equilibrium of tritium and hydrogen with tritium hydride; the dissociation of tritium and tritium hydride. W. M. Jones. *bibliog J Chem Phys* 16:1077-81 N '48

TRITON X-100

Effect of salts on the solubilization of insoluble organic liquids by cetylpyridinium chloride. F. H. Richards and J. W. McBain. *bibliog Am Chem Soc J* 70:1338-42 Ap '48

TRITONS (tritium ions)

Binding energy of the triton. M. Goepfert-Mayer and R. G. Sachs. *Phys R* 73:185 Ja 15 '48

TROLLEY bus brakes. See Brakes, Trolley bus**TROLLEY buses**

Canada likes its trolley buses. *il Bus Transportation* 27:64-5 Ag '48
4,238 trolley buses now in use. C. Speare. *il Bus Transportation* 27:61-3 F '48
London transport trolleybuses. *il Engineer* 185:252-3 Mr 12 '48
Motor bus is the surface vehicle of the future. S. H. Bingham. *plans diags Bus Transportation* 27:88-91 S '48
1948 bus show; illustrations with text. *Bus Transportation* 27:110-11 S '48
Out with the old; modernization program by Wilkes-Barre transit corporation; street cars give way to motor and trolley buses. *il map Bus Transportation* 27:71-3 My '48
Single-deck trolley-bus chassis for overseas. *il plans diags Engineering* 166:272-3 S 17 '48
Trolley buses for Brazil. *Engineering* 166:9 J1 2 '48; *Elec R (Lond)* 143:25 J1 2 '48; *Electrician* 141:31 J1 2 '48

Brakes

See Brakes, Trolley bus

TROLLEY buses—Continued**Control**

Automatic acceleration for trolleybuses. *il* Engineer 186:346-7 O 1 '48; Engineering 166:451 N 5 '48
 Trolley-bus control. *il* Elec R (Lond) 143: 517-18 O 1 '48; Electrician 141:989-90 O 1 '48

Maintenance and repair

Trolley bus preventive maintenance at Wilkes-Barre; illustrations with text. *Bus Transportation* 27:82-3 Je '48

Manufacture

Aircraft fixtures make trolley-coach assemblies. *S. C. Klein. il Am Mach* 92:88-91 S 9 '48

Overhead construction

New soles for trolley shoes. *il Bus Transportation* 28:66 D '47

Specifications

Front end specifications, motor and trolley bus; tabulation. *Bus Transportation* 27:60 Je '48
 1948 trolley bus specifications; tabulation. *Bus Transportation* 27:83 F '48

TRONA

Heats of formation and decomposition of trona. *D. R. Torgeson. bibliog Ind & Eng Chem* 40:1152-3 Je '48

TROOP ships. See Transports**TROPIC acid**

New synthesis of *dl*-tropic acid. *M. R. Natarajan and S. Swaminathan. bibliog Am Chem Soc J* 69:2560-1 O '47
 Separation of tropic and atropic acids by partition chromatography. *S. Gottlieb. Am Chem Soc J* 70:423 Ja '48

TROPICAL medicine and malaria, International congresses on. See International congresses on tropical medicine and malaria**TROPICS**

Large new institute for general scientific research to be created in Belgian Congo. *Science* 108:301 S 17 '48

Production for export; all-climate switch-gear; special laboratory gives extreme conditions for testing. *il Elec R (Lond)* 142: 253-5 F 13 '48; Electrician 140:497-9 F 13 '48

What are the right air conditions for comfort cooling? *C. Tasker. Heating-Piping* 20:84-7 Ag '48

See also

Electric engineering

—Tropics**Diseases and hygiene**

Medical meetings, Washington. *Bsns W* p49-51 My 22 '48

Synthetic drugs in the fight against tropical diseases. *J. Walker. Chem & Ind* p 195-8 Mr 27 '48

Value of industrial medicine in tropical America. *E. H. Payne. Ind Med* 16:574-5 D '47

TROPOSPHERE. See Atmosphere**TROTMAN, Samuel Russell, 1869-1948**

Sketch. *por Chem & Ind* p318-19 My 15 '48

TRUCK drivers, chauffeurs and helpers union of Chicago

Union reformer; independent truckers' chief tosses out gang influence in Chicago area. *Bsns W* p 104+ F 14 '48

TRUCK mines. See Coal mines and mining—Truck mines**TRUCKS**

Beam handling facilitated by fork truck. *J. C. Moore. il Textile World* 98:125 JI '48

Fork trucks double storage capacity, halve man-hours. *F. M. Brandon. il Factory Management* 105:129 N '47

Ironbound markets new roll-handling truck. *il Paper Tr J* 126:34 F 19 '48

Materials handling in multi-story cold storage warehouses. *P. B. Christensen and D. O. Haynes. il Diags Refrig Eng* 54:539-43+ D '47

Rolling racks store and move with least handling; Walker-Turner co. *E. J. Warwick. il Factory Management* 106:116-17 Mr '48

Shop carts carry all the tools; National automatic tool co.; illustrations with text. *A. B. McCrea. Am Mach* 92:110-11 Je 17 '48

See also

Electric trucks, Industrial
 Motor trucks

TRUCKS, Motor. See Motor trucks**TRUK islands**

Truk; a tourist attraction. *J. D. Pillsbury. il U S Naval Inst Proc* 74:852-61 JI '48
 Truk, South Sea mystery base. *B. Vogel. il U S Naval Inst Proc* 74:1268-75 O '48

TRUMAN, Harry S. 1884-

Asks Congress to act on inflation and public housing; message to special session. *por Comm & Fin Chr* 163:397+ JI 29 '48

\$40 vote bid taints high Truman ideals; comments on state of the Union message. *Baron's* 28:1+ Ja 12 '48

Links European aid to inflation controls; text of address before special session of Congress. *Comm & Fin Chr* 166:2046+ N 20 '47

Portrait. *Bsns W* p22 D 20 '47

Revel of old new deal; criticizes Truman's state of the Union message. *R. A. Taft. Comm & Fin Chr* 167:211+ Ja 15 '48

Southerners strongly oppose Truman's civil rights program; Gallup poll. *Iron Age* 161: 125 Ad 15 '48

Truman foresees \$1½ billion budget deficit; text of mid-year review of the federal budget. *Comm & Fin Chr* 168:699+ Ag 19 '48

Truman urges defense program. *por Comm & Fin Chr* 167:1205+ Mr 18 '48

Urges higher taxes on business; message on state of the Union. *por Comm & Fin Chr* 167:97+ Ja 8 '48

TRUMPET

Performance of cup mouthpiece instruments. *R. W. Young. Acoustical Soc Am J* 20:345-6 My '48

TRUSSES

Analysis of two-column symmetrical bents and Vierendel trusses having parallel and equal chords. *J. E. Goldberg. Am Concrete Inst J* 9:225-34 N '47

New timber truss uses 50 per cent less material than conventional design; Lank-Teco truss. *il diag Arch Forum* 87:158 N '47

Roof trusses recommended for the small house. *diags Arch Rec* 103:146-7 My '48

Simple trusses were first analyzed correctly only one hundred years ago. *V. R. Bergman. diags Civil Eng* 17:46-7 D '47

Umbrella trusses form low-weight roof for New Orleans factory. *il diags Eng N* 140: 774-5 My 27 '48

See also

Beams and girders
 Rafters

TRUST associations

Connecticut 'bankers' association annual trust conference, New Haven, May 11. *Trusts & Estates* 86:503-4 Je '48

Kentucky bankers association, Trust section conference, Louisville, Dec. 4. *Trusts & Estates* 86:50 Ja '48

New Jersey bankers association mid-year trust and banking conference, Asbury Park, Dec. 3-4. *Trusts & Estates* 86:48-9 Ja '48

Pennsylvania bankers association, Trust company section 21st mid-winter conference, Harrisburg, Dec. 5. *Trusts & Estates* 86:45-7 Ja '48

Pennsylvania 'bankers' association Trust section annual meeting, Atlantic City, May 20. *Trusts & Estates* 86:495-501 Je '48

Texas bankers association, Trust section annual conference, Fort Worth. *Trusts & Estates* 86:52-4 Ja '48

TRUST companies

Trust business in the United States. *G. T. Stephenson. Trusts & Estates* 86:206 Mr '48

See also

Banks and banking—
 Trust departments
 Investment trusts
 also American bankers association—Trust division

Accounting

Case history in trust cost study. *R. B. Wilhoit. Trusts & Estates* 87:99-104 Ag '48

TRUST companies—Accounting—Continued

Trust cost accounting; application of results to fees and accounts. C. MacLennan. Trusts & Estates 86:409-14 My '48

Costs

New trust cost analysis for New England banks for 1947. L. M. Hoyle. Trusts & Estates 87:171-5 S '48

Trust costs and charges; the problem and remedy. M. W. Lowell. Trusts & Estates 85:447-50 N '47

Customer relations

Customer service; panel discussion. E. Halfpenny and others. Trusts & Estates 86:418 My '48

Employees

Overcoming personnel problems. F. E. Whitmer. Trusts & Estates 86:131-4 F '48

Trust education in Canada; pioneer course for trust company personnel given at Queens university. A. R. Courtice. Trusts & Estates 86:237-9 Mr '48

Fees

See Trust fees

Investments

See Trusts and trustees—Investments

Lawyers' cooperation

Lawyer in estate planning. E. S. MacNeill. Trusts & Estates 86:307-12 Ap '48

Management

Avoiding complaints by beneficiaries and co-fiduciaries. R. S. Davis. Trusts & Estates 86:505-7 Je '48

New business

Economic value of trusts; present market and how to develop it. F. H. Schmidt. Trusts & Estates 85:451-7 N '47

Technique of trust forums. E. S. MacNeill. Trusts & Estates 85:531-7 D '47

Trusts new business development. D. W. Mackay. Trusts & Estates 85:437-9 N '47

Public relations

Components of community relations for banks and trustees. Trusts & Estates 86:8-10 Ja '48

Host to 12,000; open house of Chicago title & trust company, an accomplishment in public relations. Il Trusts & Estates 86:72-3 Ja '48

Small bank public relations; Canadian trust company doubles assets through aggressive program. Trusts & Estates 86:325-6 Ap '48

Technique of trust forums. E. S. MacNeill. Trusts & Estates 85:530-7 D '47

To promote financial understanding; annual report awards feature public relations program of Detroit trust co. Il Trusts & Estates 86:61-2 Ja '48

Records

Destruction of trust files; procedure suggested by trust operations committee of Pennsylvania bankers association. Trusts & Estates 86:176 F '48

Alabama

Alabama trust development commission reports. A. K. Foster. Trusts & Estates 87:60-3 Jl '48

Canada

Trusteeship around the world. Trusts & Estates 86:419-21 My '48

West Virginia

West Virginia trust development commission reports. Trusts & Estates 87:138 Ag '48

TRUST departments. See Banks and banking—Trust departments

TRUST fees

Minimum trust fees; should supervisory authorities help formulate schedules? R. M. Alton. Trusts & Estates 85:557-8 D '47

Trust cost accounting; application of results to fees and accounts. C. MacLennan. Trusts & Estates 86:409-14 My '48

Trust costs and charges; the problem and remedy. M. W. Lowell. Trusts & Estates 85:447-50 N '47

TRUST receipts

Trust receipts not voidable preferences under section 60-a of the Bankruptcy act. G. B. McGowan. Credit & Fin Management 50:4-6+ F '48

TRUSTEES. Public. See Public trustees

TRUSTEESHIPS. International. See International trusteeships

TRUSTS, Industrial

Anti-trust action against seventeen investment banking firms. Burroughs Clearing House 32:30+ D '47

Antitrust campaign. Fortune 33:62-7 Jl '48

Antitrust case silver lining; investment bankers glad to get charges out in open. Bsns W p86+ N 8 '47

Anti-trust suit against banking concerns filed; Monopoly suit unfounded, say accused firms. Comm & Fin Chr 166:1848+, 1849+ N 6 '47

Defends big business. H. B. du Pont. Comm & Fin Chr 168:1653 O 21 '48

FTC wants bigness stopped. Bsns W p24 Jl 31 '48

Fiat glass monopoly trial opens in Toledo. Glass Ind 29:199+, 262-3+, 325-7 Ap-Je '48

Intensified industrial concentration; trend toward bigness continues. W. Gates. Mag of Wall St 82:578-9+ S 11 '48

IBA blames suit on compulsory bidding views. Comm & Fin Chr 166:1849+ N 6 '47

Senate group enlarges scope of economic probe; developing into study of monopoly control and trust law enforcement. Steel 122:59-61 Je 14 '48

Tribulations of trust-busting. Barron's 28:1-4 Je 14 '48

Truman plants an antitrust time bomb. Bsns W p 19-20 S 26 '48

International trusts

Cartels or competition? G. W. Stocking and M. W. Watkins. 516p bibliog(p493-505) \$4 Twentieth century fund, 330 W. 42d st, New York 18 '48

See also

Interessen gemeinschaft farbenindustrie aktiengesellschaft

Law

If you're in business you're probably guilty; strict application of Supreme court antitrust rulings. J. W. Burns. Barron's 28:5-6 N 1 '48

Responsibility of business under the antitrust laws. W. Berge. Paint Oil & Chem R 110:114-16+ N 13 '47

Trust-busters plan a big '48; with roster of cases pending. Bsns W p21-3 Ja 3 '48

See also

Clayton antitrust act

Germany

Break-up of the German trusts. Economist 155:147-8 Jl 24 '48

Great Britain

Offensive against monopoly; Monopoly (Inquiry and control) bill. Economist 154:574-5 Ap 10 '48

Probe for monopolies. Economist 154:444-5 Mr 20 '48

Japan

Trust busting in Japan. E. M. Hadley. Harvard Bsns R 26:425-40 Jl '48

TRUSTS and trustees

Alabama trust development commission reports. A. K. Foster. Trusts & Estates 87:60-3 Jl '48

Economic value of trusts. F. H. Schmidt. Trusts & Estates 85:451-7 N '47

Operation of business enterprises as executor and trustee. M. McHenry. Trusts & Estates 85:414-18 N '47

Probate and trust decisions; A.B.A. committee report. Trusts & Estates 87:317-25 O '48

Recent decisions. Published in monthly numbers of Trusts and estates

TRUSTS and trustees—Continued

- Role of the family trust, M. A. Shattuck. Comm & Fin Chr 167:2748+ Je 24 '48
- Sprinkling; a valuable technique for wills; discretionary powers conferred upon a trustee, A. Mannheim. bibliog Trusts & Estates 86:451-7 Je '48
- Standard clauses for wills and trusts; A.B.A. committee report. Trusts & Estates 87: 310 O '48
- Summary of the law of trusts, W. F. Halde- man. Weekly Underw 159:101-2+, 140-1+, 138-9 Jl 10-24 '48
- Trade of a trustee. Economist 155:25-7 Jl 3 '48
- Trust agreements are stuffy; why not a simple letter? L. Schaefer. Trusts & Estates 86:222-4 Mr '48
- Trust assets and gross earnings of national banks up in 1946. Trusts & Estates 85:480 N '47
- Trusteeship around the world. Trusts & Estates 86:419-21 My '48
- West Virginia Trust development commission reports. Trusts & Estates 87:138 Ag '48
- See also*
- Banks and banking Executors and ad-
 ministrators
—Trust depart- Investment trusts
ments Pension trusts
Employees' trusts Public trustees
- also American bankers association—Trust division

Accounting

- Accounting for worthless securities; procedure suggested by Pennsylvania bankers association. Trusts & Estates 87:64-5 Jl '48
- How depreciation affects distributions of income from property held by trustee, J. F. Traver. J Account 85:320-3 Ap '48

Advisory trustees

- Advisory trustees; their value and relationship with corporate trustees, W. G. Baird. Trusts & Estates 87:167-8 S '48

Bibliography

- Trust and probate literature; A.B.A. committee report. Trusts & Estates 87:327-34 O '48

Common trust funds

- Common trust fund developments; ten year record proves value. C. W. Fenninger. Trusts & Estates 86:207-8 Mr '48
- Common trust fund experience in California, C. C. Blakemore. Trusts & Estates 87:35-9 Jl '48
- Common trust funds; limitations on participation. Fed Res Bul 34:1113 S '48
- New York rules on common trusts amended. Trusts & Estates 85:563 D '47
- Popular trust fund; editorial. Trusts & Estates 86:320 Ap '48
- Practical aspects of common trust fund; consideration in creation and administration. W. E. Anderson. Trusts & Estates 85:559-63 D '47
- Tax aspects of common trust funds, L. W. Dalton. Trusts & Estates 87:185-90 S '48

Employees' trusts

See Employees' trusts

Insurance requirements

See also

- Insurance, Surety
and fidelity—
Fiduciary bonds

Investments

- Adequate investment facilities; joint trust department and investment counsel service. G. P. Caterer. Trusts & Estates 87:177-9 S '48
- Close corporation in trust; experience of industries committee of the Rhode Island hospital trust company, P. B. Simonds, Jr. Trusts & Estates 85:226+ Mr '48
- Current trust investment policy. R. Rodgers. Comm & Fin Chr 167:2211-12 My 20 '48
- Do trustees have a duty to consider purchasing power? H. H. Judson; E. G. Roodhouse. Trusts & Estates 85:428+ N '47
- Growth stocks for trust funds. E. J. Overman. Trusts & Estates 86:406-7 My '48

- Holding close corporation securities; policy for corporate fiduciaries. A. H. Parker, Jr. Trusts & Estates 86:113-17 F '48
- Industry group price behavior; relative price action affords check on economic analysis. H. C. Ray. Trusts & Estates 86:299-304 Ap '48

- Investment of trust funds by fiduciary as the problem affects surety companies, G. Fiedler. Weekly Underw 158:1248-50, 1307-9 Ap 24 My 1 '48

- Investment policies for a trust institution. C. D. Cowdery. Comm & Fin Chr 168: 1954+ N 13 '47; Excerpts. Trusts & Estates 85:545-7 D '47

- Key factors in investment analysis. Trusts & Estates 87:343-4 O '48

- Preferred stocks for trust investment. R. F. Murray. Comm & Fin Chr 166:2368+ D 11 '47; Same cond. Trusts & Estates 86:27-8+ Ja '48

- Prudent man rule of trust investments; A.B.A. committee report. Trusts & Estates 87:313-15 O '48

- Real estate as an investment. T. H. Ross. Trusts & Estates 85:440-5 N '47

- Research and new inventions; their effects on investments. R. P. Soule. Trusts & Estates 86:136-41 F '48

- Stock price behavior. R. Fiske, Jr. Trusts & Estates 85:538+ D '47

- Trust administration and current economic problems; address before mid-winter trust conference of the American bankers association. M. Nadler. Comm & Fin Chr 167: 711+ F 12 '48; Excerpts. Trusts & Estates 86:128-8 F '48

- Trust investment policy and its application. R. H. Metzner. Comm & Fin Chr 167: 2649+ Je 17 '48

- Trustee's duty to invest; further consideration of effect of modern conditions and draftsmanship. M. A. Shattuck. Trusts & Estates 86:119-24 F '48

- Why our investment percentages? F. J. Thieme, Jr. Trusts & Estates 87:41-4 Jl '48

Living trusts

- Living trusts under new tax law. R. O. Schwartz. Trusts & Estates 86:281-3 Ap '48

Pension trusts

See Pension trusts

Small trust funds

- Acceptance of small estates, D. T. Pyne. Trusts & Estates 87:207-9 S '48

See also

- Trusts and trustees
—Common trust funds

Successor trustees

- Powers and duties of successor trustees, W. H. Dillon. Trusts & Estates 85:551-6 D '47

Taxation

- Effects of proposed tax integration. A. J. Casner. Trusts & Estates 86:199-200 Mr '48

- Integration and correlation of federal taxes; Treasury study penalizes flexible trusts and concentrates wealth. M. Miller. Trusts & Estates 86:18-24 Ja '48
- State and federal taxation; A.B.A. committee report. Trusts & Estates 87:299-309 O '48

- Tax aspects of common trust funds, L. W. Dalton. Trusts & Estates 87:185-90 S '48
- Taxes affecting trusts and estates; recent legislation, decisions, regulations, W. C. Hopkins. Trusts & Estates 85:420+ N '47

Taxation problems

- Living trusts under new tax law. R. O. Schwartz. Trusts & Estates 86:281-3 Ap '48
- Marital deduction; its effects on trusts. T. S. Kiley and J. R. Golden. Trusts & Estates 86:367-70 My '48

- Testamentary trusts under 1948 Revenue act; effects of new law on will and trust planning. S. A. Mitchell. Trusts & Estates 86:373-9 My '48

- Trust business under the 1948 revenue act. C. R. Rosenberg, Jr. Burroughs Clearing House 32:27+ My '48

TRUSTS and trustees—Taxation problems—*Continued*

- Will drafting under new tax law. M. L. Gordon. *Trusts & Estates* 87:93-7 Ag '48
- Will trust business decline? new tax law may prove stimulus. E. J. Nicholas. *Trusts & Estates* 86:384-6 My '48

TRYPANOCIDES

- Contributions to the chemistry of phenanthridine: conversion of 9-(3'-pyridyl)phenanthridines into their quaternary salts and the preparation of some derivatives of potential biological interest. V. Petrow and W. R. Wragg. *Chem Soc J* p 1410-15 O '47
- Potential trypanocides of the *N*-heterocyclic series; phenanthridinium salts. A. G. Caldwell and L. P. Wallis. *Chem Soc J* p 188-97 F '48
- Study of the properties of fluorine-substituted 5-aminoacridines and related compounds; some 5-amino-1:2:2':3'-pyridoacridines. J. H. Wilkinson and I. L. Finar. *Chem Soc J* p288-91 Mr '48

Synthetic drugs in the fight against tropical diseases. J. Walker. *Chem & Ind* p 195-6 Mr 27 '48

TRYPANOSOMA cruzi

Action of the endotoxin of *trypanosoma cruzi* (KR) on malignant mouse tumors. W. M. Malisoff. *il Science* 106:591-4 D 12 '47

Trypanosoma cruzi endotoxin (KR) in the treatment of malignant mouse tumors. T. S. Hauschka and M. B. Goodwin. *bibliog Science* 107:600-2 Je 4 '48

TRYPANOSOMES

Action of the endotoxin of *trypanosoma cruzi* (KR) on malignant mouse tumors. W. M. Malisoff. *il Science* 106:591-4 D 12 '47

TRYPSIN

Isolation of a crystalline trypsin inhibitor-anticoagulant protein from pancreas. L. A. Kazal, D. S. Spicer and R. A. Brahinsky. *bibliog il Am Chem Soc J* 70:3034-40 S '48

Long range enzymatic action on films of antigen. A. Rothen. *Am Chem Soc J* 70:2732-40 Ag '48

TRYPTAMINE

Alkylation of aliphatic nitro compounds with gramine; a new synthesis of derivatives of tryptamine. H. R. Snyder and L. Katz. *bibliog Am Chem Soc J* 69:3140-2 D '47

TRYPTOPHAN

Amino acid requirements of swine; tryptophan. W. M. Beeson and others. *bibliog Science* 107:599-600 Je 4 '48

Amino acids; new syntheses of DL-tryptophan, DL-ornithine and DL-glutamic acid. D. T. Warner and O. A. Moe. *Am Chem Soc J* 70:2765-7 Ag '48

Inactivation of nutrients by heating with glucose. A. R. Patton and E. G. Hill. *Science* 107:68-9 Ja 16 '48

New color test for tryptophan. H. Tauber. *Am Chem Soc J* 70:2615 J1 '48

Photochemistry of tryptophan, *p*-dimethylaminobenzaldehyde and reaction products in sulfuric acid solution. J. R. Spies and D. C. Chambers. *bibliog diag Am Chem Soc J* 70:1682-5 My '48

Synthesis and microbiological properties of β -(2-benzothieryl)- α -aminopropionic acid. S. Avakian, J. Moss and G. J. Martin. *bibliog Am Chem Soc J* 70:3075-6 S '48

Synthesis of derivatives of β -carboline; syntheses from DL-tryptophan and aldehydes. H. R. Snyder and others. *bibliog Am Chem Soc J* 70:219-21 Ja '48

Synthesis of the nuclear-C-methylated tryptophans; a note on the aldehyde reactions for tryptophan. H. N. Rydon. *Chem Soc J* p705-10 My '48

Analysis

Chemical determination of tryptophan; study of color-forming reactions of tryptophan, *p*-dimethylaminobenzaldehyde, and sodium nitrite in sulfuric acid solution. J. R. Spies and D. C. Chambers. *bibliog Anal Chem* 20:30-9 Ja '48

Spectrophotometric estimation of tryptophan. D. C. Carpenter. *bibliog Anal Chem* 20:536-8 Je '48

TSUTSUGAMUSHI disease

Chloromycetin in the treatment of scrub typhus. J. E. Smadel and others. *bibliog Science* 108:160-1 Ag 13 '48

Chloromycetin used to treat scrub typhus. *Chem & Eng N* 26:1718 Je 7 '48

TUBE investments, limited

Statement by the chairman at annual general meeting. J. A. R. Stedeford. *Economist* 153:982 D 13 '47

TUBERCLE bacilli

Absorption of bacteriostatic quantities of fatty acid from media by large inocula of tubercle bacilli. B. D. Davis. *bibliog Pub Health Rep* 63:455-9 Ap 2 '48

Culture mediums

Effect of different methods of coagulation of culture media on tubercle bacilli growth. M. M. Cummings and others. *bibliog Pub Health Rep* 63:1305-12 O 1 '48

Liquid ascitic medium for the isolation of mycobacterium tuberculosis from pathological material. L. Sula. *bibliog il Pub Health Rep* 63:867-83 J1 2 '48

TUBERCULIN

Depression of tuberculin and histoplasmin sensitivity associated with critical illness. M. L. Furcolow and others. *bibliog Pub Health Rep* 63:1290-8 O 1 '48

Geographic distribution of histoplasmin and tuberculin reactors among Ohio state university freshmen and student nurses training in Columbus, Ohio hospitals. J. A. Prior and M. F. Allen. *bibliog maps Pub Health Rep* 62:1608-17 N 7 '47

TUBERCULOSIS

Approaches to case finding. F. J. Weber. *Pub Health Rep* 63:297-8 Mr 5 '48

Case finding and the private practitioner. F. J. Weber. *Pub Health Rep* 63:865-7 J1 2 '48

Cause of cell vulnerability in TB found. *Chem & Eng N* 26:1928 Je 28 '48

Courses in laboratory diagnosis of tuberculosis. *Pub Health Rep* 63:1180-1 S 3 '48

Decline of tuberculosis mortality. F. J. Weber. *Pub Health Rep* 63:161-2 F 6 '48

Demonstration of naturally-occurring streptomycin-resistant variants in the human strain of tubercle bacillus H-37RV. K. Vennesland and others. *bibliog Science* 106:476-7 N 14 '47

Derivatives of 1,1,1-trichloro-2,2-diphenylethane. L. Haskelberg and D. Lavie. *bibliog Am Chem Soc J* 69:2267-8 O '47

Early recognition of tuberculosis. F. J. Weber. *Pub Health Rep* 63:1283-4 O 1 '48

Emotional factors in tuberculosis. A. O. Ludwig. *Pub Health Rep* 63:883-8 J1 2 '48

Enhancement of growth of a strain of *M. tuberculosis* (var. hominis) by streptomycin. G. A. Spendlove and others. *bibliog Pub Health Rep* 63:1177-9 S 3 '48

Expert committee on tuberculosis; report of first session, Paris, July 30-August 2. *Pub Health Rep* 63:616-22 My 7 '48

Further study of BCG vaccination. F. J. Weber. *Pub Health Rep* 63:593-4 My 7 '48

Institution for tuberculosis research to be established at University of Illinois. *Science* 107:11 Ja 2 '48

Insurance against tuberculosis in Greece. *Int Labour R* 58:395-6 S '48

Laboratory services and tuberculosis. F. J. Weber. *Pub Health Rep* 63:1147-8 S 3 '48

Liquid ascitic medium for the isolation of mycobacterium tuberculosis from pathological material. L. Sula. *bibliog il Pub Health Rep* 63:867-83 J1 2 '48

Mechanism of immunity and allergy in tuberculosis. J. K. Weissfeller. *Pub Health Rep* 63:190 F 6 '48

Modern pattern of tuberculosis control. F. J. Weber. *Pub Health Rep* 62:1591-2 N 7 '47

Nation's capital surveyed. F. J. Weber. *Pub Health Rep* 63:737-8 Je 4 '48

New official classifications for tuberculosis in Great Britain. *Pub Health Rep* 63:316-19 Mr 5 '48

TUBERCULOSIS—Continued

- News about streptomycin. *Safety Eng* 96:66 Ag '48
- No contributory negligence. *Safety Eng* 94: 55 D '47
- Outline of statistical treatment of the problem of diagnosis. J. Neyman. *Pub Health Rep* 62:1449-56 O 3 '47
- Preliminary report on a community-wide chest X-ray survey at Minneapolis, Minn. W. Roemnick and others. *Pub Health Rep* 63:1285-90 O 1 '48
- Prevention of tuberculosis among students of nursing. J. A. Meyers and others. *Nat Safety N* 56:90-2 D '47
- Problem in mass surveys. F. J. Weber. *Pub Health Rep* 62:1709-10 D 5 '47
- Progress in drugs and fine chemicals; alternative anti-tubercular agents. G. C. Green. *Chem Age (Lond)* 58:178-9, 202 Ja 31-F 7 '48
- Rates go down. *Safety Eng* 96:93-4 O '48
- Remote sustained threshold therapeutic action of streptomycin in tuberculosis. H. J. Corper and M. L. Cohn. *bibliog Science* 106: 446-7 N 7 '47
- Roentgenographic appearance of persistent pulmonary infiltrates associated with sensitivity to histoplasmin. M. L. Furcolow and others. *bibliog Pub Health Rep* 62:1711-18, pl 1-16 D 5 '47
- Some economic and emotional problems of the tuberculosis patient and his family. S. Bloom. *Pub Health Rep* 63:448-55 Ap 2 '48
- Statistical problems in assessing methods of medical diagnosis, with special reference to X-ray techniques. J. Yerushalmi. *Pub Health Rep* 62:1432-49 O 3 '47
- Streptomycin and tuberculosis; abstract. H. C. Hinshaw. *Chem Eng* 55:280+ Mr '48
- Streptomycin therapy in experimental tuberculosis of guinea pigs infected intracerebrally with virulent tubercle bacilli. W. Steenken, jr. and E. Wolinsky. *Science* 106: 638-9 D 26 '47
- Succinic acid derivatives of 4-nitro-4'-aminodiphenylsulfone and of 4,4'-diaminodiphenylsulfone. H. Bauer. *bibliog Am Chem Soc J* 70:2254-6 Je '48
- Tuberculosis and industrial employment. O. A. Sander. *Ind Med* 16:577-80 D '47
- Tuberculosis and the Negro. F. J. Weber. *Pub Health Rep* 63:425-6 Ap 2 '48
- Tuberculosis case-finding survey of the total population of Reykjavik, Iceland in 1945. S. Sigurdsson and O. P. Hjaltsted. *Pub Health Rep* 62:1593-607 N 7 '47
- Tuberculosis ex-patients in industry. N. C. Klefer and H. E. Hilleboe. *Safety Eng* 95: 65+ Mr '48
- Verification of the diagnosis of tuberculosis. C. E. Woodruff. *bibliog Pub Health Rep* 63:184-9 F 6 '48

Bibliography

- Tuberculosis nursing bibliography. 15p pa 25c National organization for public health nursing, 1790 Broadway, New York 19 '46

Hospitals and sanatoriums

- Fiftieth anniversary of the founding of the first state sanatorium in the United States. F. J. Weber. *Pub Health Rep* 63:1-2 Ja 2 '48

Statistics

- Studies of patients discharged from tuberculosis sanatoria; method of collecting basic data from Central record systems. A. W. Brewster and R. C. Fletcher. *bibliog Pub Health Rep* 63:427-47 Ap 2 '48
- Tuberculosis deaths in the United States by county, 1946. *Pub Health Rep* 63:1149-77 S 3 '48
- Tuberculosis mortality and morbidity data. E. Hanna and S. Glaser. *Pub Health Rep* 63:748-62 Je '48
- Tuberculosis mortality in major cities; United States, 1945. S. A. Lewis and R. V. Kasius. *Pub Health Rep* 63:3-30 Ja 2 '48
- Tuberculosis mortality in the United States, 1946. E. H. Halpin. *maps Pub Health Rep* 63:1029-45 Ag 6 '48

TUBERCULOSTEARIC acid

- Branched-chain fatty acids; the synthesis of optically active 10-methyloctadecanoic acids. F. S. Prout, J. Cason and A. W. Ingersoll. *bibliog Am Chem Soc J* 70:298-305 Ja '48

TUBES

- Chart for determining properties of round aircraft tubing; reference book sheet. B. Ostlund. *Product Eng* 19:165 S '48
- Color; armored tubing. *Il Mod Plastics* 25: 103-7 Je '48
- General theory of cylindrical and conical tubes under torsion and bending loads. J. Hadji-Argyris and P. C. Dunne. *diags Roy Aeronautical Soc J* 51:199-269 *bibliog*(p208-9), 757-84, 884-930 F, S, N '47
- Improvements in automatic rolling-in of small tubes. E. T. Cope. *Il diags Power Generation* 52:64-5+ Je '48
- Joints for thin wall tubes. J. E. York. *diags Heat & Ven* 45:84-8 My '48
- Partially plastic thick-walled tubes. C. W. MacGregor and others. *bibliog diags Franklin Inst J* 245:135-58 F '48
- Plastic flow of thick-walled tubes with large strains. C. W. MacGregor and others. *bibliog diags J Ap Phys* 19:291-7 Mr '48
- Pressure tubing for high temperatures. *chart*(p 104) *Power Pl Eng* 51:97-8 D '47
- Stability of thin cylindrical shells in torsion. R. G. Sturm. *bibliog Il diags Am Soc C E Proc* 73:471-95 Ap '47; Discussion, 73:1302-4, 1448-9, 1549-52; 74:231-5 O-D '47, F '48
- Tubes in manufacturing. E. L. Cady. *Il Sci Am* 178:60-2 F '48
- What the user should know about tubing. E. J. DeWitt. *Il diags Mach* 54:165-9 F; 174-8 Ap '48

See also

- Boiler tubes
Pipes

Manufacture

- Forming thin-metal cylinders. W. C. Mills. *diags Am Mach* 91:96-103 D 4 '47
- Greater forming efficiency provided by new process utilizing a combination of electrical current and pressure; Westin process. *Il Steel* 123:92 N 1 '48
- High-speed oxyacetylene tube welding. H. O. Jones. *Welding J* 27:25-6 Ja '48
- Modern cold drawn equipment. G. W. Garwig and A. L. Thurman. *Il plan diags Iron & Steel Eng* 25:90-100 O '48

TUBES (containers)

- Airordon tube. *Il Mod Packaging* 22:140 O '48
- Kolynos' Jolly closure. *Il Mod Packaging* 21: 106-7 N '47
- Tin-top tube; tin lined lead tubes. *Il diag Mod Packaging* 21:123-5 Ag '48
- Toothpaste tube cap has hinged closure which cannot be lost; Jolly Kap. *Il Mod Plastics* 25:180 D '47

Manufacture

- Impact extrusion methods at western aluminum plant; collapsible tube manufacturing. H. Pierce. *Il Light Metal Age* 6:20+ Ag '48

Testing

- Testing collapsible tubes; methods of rating performance of coatings, inks and enamels. M. Schor. *Il Mod Packaging* 21:148-51 F '48

TUBES, Brass

- Effect of some processing variables on the stress required to draw tubular parts. G. Espey and G. Sachs. *bibliog diags A S M E Trans* 70:233-9 Ap '48; Same abr. *Steel* 122: 82-4+ F 16 '48

TUBES, Copper

- Design method for panel heating systems using copper tubing. R. G. Vanderweil. *diags Heating-Piping* 19:123-7 N '47
- Dimensional and capacity data for type K copper tubing; data sheet. *Mach* 54:231 F '48
- Dimensional and capacity data for type L copper tubing; tables; data sheet. *Mach* 54:247 Mr '48
- Dimensional and capacity data for type M copper tubing; tables; data sheet. *Mach* 54: 233 Ap '48
- Labor saved by copper tubing for radiant heating. *Il Constr Methods* 30:110-11 Mr '48
- Panel heat with copper tubing; experiment in practice. D. L. Mills and L. J. Latart. *Il Heat & Ven* 44:65-9 O; 95-8 N; 75-8 D '47

TUBES, Flexible

- Flexible tubing. *Il Automobile Eng* 38:197 My '48

TUBES, Plastic

- Beverage filling units use synthetic tubing. *il Food Ind* 20:1024 J1 '48
 Dimensional control in extruded tubing. G. Jargstorff and C. Joslin. *il diags Mod Plastics* 26:191-3+ S '48
 Vinyl tube aids physicians; used in intestinal treatment. *il Mod Plastics* 25:119 Je '48

TUBES, Steel

- Effect of temperature and welding conditions on the strength of large welded tubes. G. E. Troxell and others. *il diags Welding J* 27:sup34-49; Discussion. J. Vasta. sup49+ F '48
 High creep strength austenitic steel tubes for use in heat exchangers of gas turbines. G. T. Harris and W. H. Bailey. *il Metallurgia* 38:189-92 Ag '48
 Refinery tube failures; excessive temperatures found chief cause. *il Pet Processing* 3: 829-31 S '48
 Service life of austenitic alloy furnace tubes. C. S. Pugsley, Jr. *il Pet Refiner* 26:119-20 O '47; Abstract. *Chem Eng* 55:290+ Mr '48
 Steel tube piles for 100-ton loads; new telephone building at Oakland, Calif. *il diags Eng N* 140:511-13 Ap 1 '48
 Steel tubing and plate replaces castings in heavy-duty parts; manufacture of draft gears. K. Rose. *il Materials & Methods* 26: 68-70 D '47
 What the user should know about tubing. E. J. DeWitt. *diags Mach* 54:174-8 Ap '48

Manufacture

- Centrifugal casting process applied to stainless- and carbon-steel tubes. J. W. Moore and J. W. MacKay. *il diags Mech Eng* 69: 551-8 J1 '47; Abstract. *Mach* 54:181-3 Ja '48; Discussion. *Mech Eng* 69:1051-2 D '47
 Extrusion method of plastic finishing steel tubing. *il Steel* 123:104 J1 '48
 Ingot factors in the production of seamless gun tubes. J. W. Spretnak and others. *bibliog il diag Am Soc for Metals Trans* 39: 627-50 '47

Standards

- A.S.T.M. specifications for steel piping materials; prepared by A.S.T.M. committee A-1 on steel; pipe, tubes, castings, forgings, bolting. 308p pa \$3 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

Testing

- Tests on flow and fracture of welded and unwelded tubes of steel. L. V. Griffiths and others. *il diags Welding J* 27:sup 161-8+ Ap '48

TUBES, Vacuum. See Vacuum tubes**TUBOCURARINE chloride**

- Curare alkaloids; constitution of *dextro*-tubocurarine chloride. H. King. *Chem Soc J* p265-6 Mr '48
 Curare alkaloids; constitution of *dextro*-tubocurarine chloride and its botanical origin; abstract and discussion. H. King. *Chem & Ind* p349 My 29 '48
 Curariform activity and chemical structure; synthesis in the benzyltetrahydroisoquinoline series. L. E. Craig and D. S. Tarbell. *bibliog Am Chem Soc J* 70:2783-5 Ag '48

TUCKER corporation

- Assets tumble. *Bsns W* p96-7 O 16 '48
 Receiver asked. *Comm & Fin Chr* 168:256 J1 19 '48
 Road still bumpy for new Tucker car. *Bsns W* p91 Je 12 '48

TUFF, Volcanic. See Volcanic ash, tuff, etc.**TUFTS college****Institute for applied experimental psychology**

- Established. *Science* 107:241 Mr 5 '48

TUG boats. See Towboats**TUITION fees insurance. See Insurance, Tuition fees****TULAREMIA**

- Serum protection test in tularemic infections in white rats. C. L. Larson. *Pub Health Rep* 62:1793-9 D 26 '47

TULSA university

- Petroleum engineering schools. *il Oil & Gas J* 46:71-2 N 29 '47

TUMBLERS, Aluminum

- PermaHues on view; transparent box top for tumblers. *il Mod Packaging* 21:132-3 My '48

TUMBLERS, Glass

- Sanitizing glasses; abstract. W. L. Mallmann. *Soap & San Chem* 23:147 N '47

Length of service

- Tumbler mortality. G. W. Brown and M. M. Flood. *Am Stat Assn J* 42:562-74 D '47

Manufacture

- Owens burn-off method; patent. *diags Glass Ind* 23:284+ Ap '48

TUMBLERS, Nylon

- Selling a higher price product. R. L. Bright. *il Plastics* 8:18-19+ Je '48

TUMBLERS, Plastic**See also****Tumblers, Nylon****TUMBLING barrels**

- Abrasive tumbling reduces finishing cost. V. H. Laughner. *il Mach* 54:139-46 D '47
 Barrel finishing for mass production; Endicott plant of the International business machines corp. H. Chase. *il Metal Finishing* 46:56-60 Ap '48
 Barrel finishing of aircraft parts. J. Wingate. *il Metal Finishing* 46:67-74 O '48
 Plastic parts are cleaned and finished by tumbling. H. A. Knight. *il Materials & Methods* 28:33-5 S '48
 Precision tumbling metal parts. R. M. Lord. *il Steel* 121:93-4+ D 15 '47
 Precision tumbling processes improve finishing efficiency. C. H. Castle. *il Steel* 123: 68-70+ O 25 '48

TUMORS

- Enzymes in tumors. E. Waldschmidt-Leitz and others. *Franklin Inst J* 245:535-40 Je '48
 Granulosa cell tumors in female rats and rabbits. B. M. Peckham and others. *bibliog Science* 107:319-20 Mr 26 '48
 Heterologous tumor transplantation by intravenous inoculation of the chick embryo. H. F. Lee and others. *Science* 107:374 Ap 9 '48
 Simple method of measuring the surface area of small objects of irregular shape. I. Zeldman. *Science* 108:214-15 Ag 27 '48
 Some observations on the larval growth rate and viability of two tumor strains of *Drosophila melanogaster*. E. W. Hartung. *Science* 107:296-7 Mr 19 '48
 Transformation of renal tumors of frogs to normal tissues in regenerating limbs of salamanders; abstract. S. M. Rose and H. M. Wallingford. *Science* 107:457 My 7 '48

TUMORS, Malignant. See Cancer**TUNA fish**

- Maiden voyage proves value of mother ship in tuna fishing; cannery are planning to convert more vessels for receiving and freezing tuna in tropical waters. C. B. Carlson. *il plans Food Ind* 20:43-6 Ja '48

Advertising

- Consistent, helpful advertising makes big seller of once unknown tuna. L. F. Thomann. *il Ptr Ink* 224:27-9 J1 2 '48

TUNG oil

- China's motor fuels from tung oil. C. Chang and S. Wan. *bibliog flow sheets diag Ind & Eng Chem* 39:1543-8 D '47
 China's tung oil output for 1948 estimated at 93,700 tons. *Oil Paint & Drug Rep* 154:4 O 11 '48
 Domestic and foreign tung oil markets in conflict say experts. G. Elsenschiml and E. Elsenschiml. *Paint Oil & Chem R* 111:51 F 5 '48
 Study of soya-tung oil combinations by Pittsburgh paint and varnish production club. *Paint Oil & Chem R* 110:99-103 N 13 '47
 Tung nut growers advised to produce economically. *Paint Oil & Chem R* 111:40 Ag 5 '48
 Tung oil industry views effects of Chinese dumping. *Oil Paint & Drug Rep* 153:7+ My 10 '48
 Tung oil of value in stabilizing soil for land-ing strips. *CAA J* 9:100 S 15 '48

TUNGSTATES

Electrolytic reduction of aqueous tungstate solutions. M. L. Holt and L. E. Vaaler. *bibliog Electrochem Soc J* 94:50-8 Ag '48

TUNGSTEN

Application of heat to swaged tungsten permits parts to be machined. D. White and J. J. Aust, jr. *il Materials & Methods* 27:81 Apr '48

Beta-ray spectra of europium and tungsten. F. B. Shull. *diags Phys R* 74:917-25 O 15 '48

Designing thoriated tungsten filaments. H. J. Dailey. *il Electronics* 21:107-9 Ja '48

Energy distribution of photoelectrons from polycrystalline tungsten. L. Apker and others. *bibliog diag Phys R* 73:46-50 Ja 1 '48

Internal conversion in tungsten and platinum. M. V. Scherb and C. E. Mandeville. *bibliog Phys R* 73:1401-2 Je 1 '48

Ionization processes on tungsten filaments. M. Melay and G. E. Kimball. *bibliog J Chem Phys* 16:774-81 Ag '48

Mass spectrographic mass assignment of radioactive isotopes. R. J. Hayden. *bibliog Phys R* 74:650-5 S 15 '48

Surface phenomena useful in vacuum technique. L. Apker. *bibliog Ind & Eng Chem* 40:846-7 My '48

Tungsten. 1947. H. W. Davis. *Eng & Min J* 149:91 F '48

Analysis

Analysis of cemented carbide compositions. W. O. Touhey and J. C. Redmond. *il Anal Chem* 20:202-6 Mr '48; Discussion. 20:989 O '48

Colorimetric estimation of tungsten in high speed steels using ammonium thiocyanate and titanous chloride. R. S. Emery and D. W. Curtis. *il Metallurgia* 38:113-14 Je '48

Rarer elements in qualitative analysis; tungsten. T. Chao and J. Yang. *J Chem Educ* 25:388-9 Jl '48

Isotopes

β -Radiations on antimony¹²⁴, tantalum¹⁸², tungsten¹⁸⁶, and iridium¹⁹². S. Jnanananda. *bibliog Phys R* 72:1124-5 D 1 '47

Disintegration of scandium⁴⁶, gold¹⁹⁸, and tungsten^{185,187}. C. L. Peacock and R. G. Wilkinson. *bibliog Phys R* 74:297-303 Ag 1 '48

TUNGSTEN, Powdered

Pore size of hydrogen reduced tungsten powder. B. Kopelman and C. C. Gregg. *il Metals Tech* 15:TP2434 1-6 Ag '48

TUNGSTEN alloys

Electrodeposition of tungsten alloys. *Mech Eng* 70:34 Ja '48; Same cond. *il Chem & Eng N* 25:3590 D 1 '47; Abstract. *Iron Age* 160:70 D 4 '47

Electrodeposition of tungsten alloys containing iron, nickel, and cobalt. A. Brenner and others. *bibliog il J Res Nat Bur Stand* 39:351-83 O '47; Abstract. *Steel* 121:63+ D 29 '47

Platinum-tungsten alloys. R. I. Jaffee and H. P. Nielsen. *bibliog il diag Metals Tech* 15:TP2420 1-13 Ag '48

TUNGSTEN carbide

Carbide boring bars. *il Sci Am* 178:126-7 Mr '48

Carbide inserts rejuvenate plastic transfer molds. A. L. Pranses. *il Am Mach* 92:95 Je 17 '48

Carbide welding rods developed for hard-facing. *Steel* 123:119 N 1 '48

Contour sawing hardened steels and carbides; diamond band saw. *il Iron Age* 161:73 F 26 '48

Hard materials for rock bits. R. W. Adamson. *il Min Cong J* 33:38-41 N; 46-9 D '47

Manufacture and application of sintered carbides; application in industry. H. Eckersley. *il Engineer* 184:420-2 O 31 '47

Modern uses of hard metals. H. Burden. *il Metallurgia* 38:27-33 My '48; Abstract. *Product Eng* 19:137-8 N '48

Transmission monoenergetic slow neutrons through solid solutions and mechanical mixtures of TiC and WC. S. S. Sidhu. *bibliog il J Ap Phys* 19:639-41 Jl '48

Tungsten carbide blanking dies. E. J. Reitter and C. R. Harmon. *diags Tool Eng* 20:47-9 Mr '48

Tungsten carbide in mining. J. A. Drain. *il Can Min J* 69:90-1 Ap '48

Tungsten carbide techniques for rock bits. P. M. McKenna. *il Min Cong J* 33:49-51 D '47

See also
Cutting tools, Carbide

Analysis

Analysis of simple and complex tungsten carbides. J. J. Furey and T. R. Cunningham. *Anal Chem* 20:563-70 Je '48

TUNGSTEN fluorides

Colored complexes of tungsten hexafluoride with organic compounds. H. F. Priest and W. C. Schumb. *Am Chem Soc J* 70:2291-2 Je '48

TUNGSTEN metallurgy

Concentration of uranium tin-tungsten ore from Bolivia, South America. G. M. Potter and W. G. Sandell. *pl U S Bur Mines Rep of Invest* 4185:1-10 '48

Tungsten and tantalum. J. A. Lee. *flow sheet(p152-5) il Chem Eng* 55:110-12 S '48

TUNGSTEN mines and mining**Alaska**

Tungsten deposits in Alaska. R. L. Thorne and others. *bibliog 22pls U S Bur Mines Rep of Invest* 4174:1-61 '48

Argentina

Plan for a law covering tungsten; abstract. H. S. Fernandez. *Chem Eng* 55:312 S '48
Tungsten investigations in the republic of Argentina, 1942-43. W. C. Smith and E. M. González. *U S Geol S Bul* 954-A:1-37, pl 1-17; pa 75c Supt. of doc. '47

California

Black Rock tungsten deposit, Mono county, Calif. L. W. Dupuy. *8pls U S Bur Mines Rep of Invest* 4210:1-6 '48

Egypt

Tin-tungsten deposit in Egypt. M. S. Amin. *bibliog il maps Econ Geol* 42:637-71 N '47

Idaho

Exploration, development, mining, and milling of a unique tungsten ore body at the Yellow Pine mine, Stibnite, Idaho. J. W. Cole and H. D. Bailey. *6pls U S Bur Mines Information Circ* 7443:1-24 '48
Tungsten mineralization at the Ima mine, Blue Wing district, Lemhi county, Idaho. A. L. Anderson. *il maps Econ Geol* 43:181-206 My '48

North Carolina

North Carolina tungsten. F. H. Bishop. *flow sheet il plan diag Min Cong J* 34:77-82 S '48

TUNGSTEN ores

Tungsten mineralization at the Ima mine, Blue Wing district, Lemhi county, Idaho. A. L. Anderson. *il maps Econ Geol* 43:181-206 My '48

TUNGSTEN oxide

Pseudostructures in electron microscope specimens. J. H. L. Watson. *il J Ap Phys* 19:713-20 Ag '48

TUNGSTEN plating

Electrodeposition of tungsten alloys containing iron, nickel, and cobalt. A. Brenner and others. *bibliog il J Res Nat Bur Stand* 39:351-83 O '47; Abstract. *Steel* 121:63+ D 29 '47

Improved method of electroplating tungsten alloys. *Mach* 54:167 Ja '48

TUNGSTIC acid

Direct electron-microscopic thickness determinations of ultramicroscopically thin crystals. J. H. L. Watson and others. *il J Chem Phys* 16:999-1000 O '48

Isothermal and non-isothermal transformations of tactoid-forming particles of tungstic acid. W. Heller and others. *il J Chem Phys* 16:993-9 O '48

Morphological changes of tactoid-forming particles. J. H. L. Watson and others. *il J Chem Phys* 16:997-8 O '48

TUNIS (state)**Commerce**

Tunisia's foreign-trade expansion in 1947.
For Comm W 32:18 Ag 14 '48

Commercial policy

French north Africa; various changes in duties, taxes, regulations, and the like in Tunisia during 1946 and early 1947. For Comm W 30:14-15 F 7 '48

TUNISIA. See Tunisia (state)**TUNNEL air**

Diesel engines underground; use of Diesel locomotives in construction of the Delaware aqueduct; effect of exhaust gases upon quality of tunnel air. L. B. Berger and others. bibliog 2 pls U S Bur Mines Rep of Invest 4032:1-26 '47; Same cond. Engineering 165:54-5, 95-6, 114 Ja 16-30 '44

TUNNEL lighting

Line of light makes tunnel driving safe and easy; new Brooklyn-Battery tunnel. L. Geenens. il diags Elec World 128:82-3 D 6 '47

TUNNEL lining

Concreting operations for the Aguasabon power development. il Roads & Bridges 86:76-8+ My '48
Pneumatic equipment speeds tunnel lining. il diag Comp Air Mag 53:199 Ag '48
Precast reinforced concrete sewer tunnel lining provides sound, economical structure; Tel-Aviv, Palestine. A. M. Freudenthal. il Civil Eng 18:292-4 My '48
Single arch converted to double arch in Mount Royal tunnel. C. P. Disney. il diag Roads & Bridges 86:65-8+ My '48

TUNNEL ventilation

Diesel engines underground. Safety Eng 96:64 Ag '48

TUNNELS and tunneling

Activity high in drilling new tunnels. il Ry Age 125:148-50 Jl 17 '48
Application of geology to tunneling problems. E. E. Wahlstrom. diags Am Soc C E Proc 73:1245-56 O '47; Discussion. il 74:116-20, 389-96, 690-704 Ja, Mr, My '48
City steam line tunneled beneath heavily traveled six-lane street; Cleveland, Ohio. G. W. Hamlin. il Eng N 140:772-3 My 27 '48
Design and construction of the Anderson Ranch dam. E. L. Armstrong. il Engineering 166:169-71, 80 Ag 20 '48
Driving the Grootvlei 45 haulageway. il diags Eng & Min J 149:80-5 O '48
Friction coefficients in a large tunnel. G. H. Hickox and others. bibliog il plan diags Am Soc C E Proc 73:451-70 Ap '47; Discussion. 73:1122-33, 1307-9, 1450-4, 74:867-72 S-N '47, Je '48
Hungry Horse diversion tunnel. C. Walter. il Comp Air Mag 53:184-6 Ag '48
Mechanical tunnel driving at Newkirk colliery. R. S. Davies. il plans diags Can Min J 69:55-7 S '48
Mining a deep sewer in unstable soil in village of Cuyahoga Heights, Ohio. il plan diags Eng N 139:882-5 D 25 '47
More power for the San Francisco area; driving tunnels for Mokelumne project. L. A. Luther. il map Comp Air Mag 53:104-8 My '48
Seven-mile tunnel has eight line changes; Baltimore's water supply conduit. il map Eng N 141:83-7 O 28 '48
Single arch converted to double arch in Mount Royal tunnel. C. P. Disney. il diag Roads & Bridges 86:65-8+ My '48
Sinking shafts and driving tunnels in metropolitan Boston; Quabbin aqueduct. F. W. Gow. il map diags Explosives Eng 25:135-9+ S '47
3,000 feet to coal; C.&O. Railroad's new tunnel opens vast reserves in Wise county, Va. il Manuf Rec 117:46 Ap '48
Three types of steel timbering for tunnels. il Constr Methods 30:54-6 O '48
Tough tunneling at Aspen; Union Pacific railroad tunnel. il Constr Methods 30:66-71 S '48
Tunnel blasting California limestone. H. D. Hellmers. il plan Explosives Eng 25:143+ S '47

Tunnel for service lines returns first cost; De Laval steam turbine co. C. V. Schaefer. il diag Factory Management 106:82-3 Ja '48
Tunnels reopen old sections; Philadelphia & Reading coal & iron co. R. R. Richart. il diags Coal Age 53:98-104 Ap '48
Union Village dam, Vermont; first step in program to control flood-waters of Connecticut river. J. I. Horty. il diag Explosives Eng 26:136-7 S '48
Wartime tunneling in Syria. A. S. Park. il map Comp Air Mag 52:268-71 N '47

Cost

Aqueduct tunnel, Boston, Mass.; unit prices. Eng N 139:894 D 25 '47
Dupont Circle underpass, Washington, D.C.; unit prices. Eng N 140:309 F 19 '48

Safety measures

Special safety rules set up for highway tunnel; Wilbur Cross Parkway project. il Roads & Sts 91:65 Ap '48

Vehicular tunnels

Big tunnel aids French expressway plan in Lyon. il map diags Eng N 139:886-8 D 25 '47
Big tunnel job; Pittsburgh's Squirrel Hill project. diag Roads & Sts 91:57 S '48
Enlarging highway tunnels in Wyoming. R. V. Pierce. il Explosives Eng 25:148-50+ S '47
Line of light makes tunnel driving safe and easy; new Brooklyn-Battery tunnel. L. Geenens. il diags Elec World 128:82-3 D 6 '47
Progress of work on Brooklyn-Battery tunnel indicates early completion date. il map diag Civil Eng 18:558-60+ S '48
Special safety rules set up for highway tunnel; Wilbur Cross Parkway project. il Roads & Sts 91:65 Ap '48

TUNNELS and tunneling, Subaqueous

Line of light makes tunnel driving safe and easy; new Brooklyn-Battery tunnel. L. Geenens. il diags Elec World 128:82-3 D 6 '47

Progress of work on Brooklyn-Battery tunnel indicates early completion date. il map diag Civil Eng 18:558-60+ S '48
Underwater tunnels in South. Comp Air Mag 53:255 O '48

See also

English Channel tunnel

TUNNER, William H. 1906-
Portrait. Fortune 38:90 S '48

TUOHY, Walter J. 1901-
W. J. Tuohy, new C.&O. president. por Ry Age 125:860-1 N 6 '48

TURBIDIMETERS

Power unit for Wagner turbidimeter. D. M. Broad. il diags Rock Prod 51:95 Ag '48
Turbidimeter for the measurement of the solubility of slightly soluble liquids. J. F. Coyle and G. Goldfinger. diags Science 107:453 Ap 30 '48

TURBIDIMETRIC analysis

Phototurbidimetric method for the estimation of SO₂ in the presence of SO₂. P. F. Corbett. bibliog diag Soc Chem Ind J 67:227-30 Je '48
Rapid estimation of citrus peel oil; new turbidimetric method. E. M. Burdick and J. S. Allen. il Anal Chem 20:539-41 Je '48
Rapid method for estimation of use-dilution concentrations of quaternary ammonium germicides. J. F. Gain and C. A. Lawrence. bibliog Science 106:525-7 N 28 '47
Turbidimetric method for determination of potassium sulfate in propellant powders. C. Boyars. bibliog Anal Chem 20:87 Ja '48

TURBIDITY

Turbidimetric determination of the molecular weight of micelles of dihexyl sodium sulfosuccinate in water. R. F. Stamm and others. bibliog J Chem Phys 16:423-4 Ap '48
La turbidité des eaux. A. Vibert. Génie Civil 124:410-12 N 1 '47

TURBINE pumps. See Pumps, Turbine

TURBINES

Penstock diameter for hydraulic turbines; chart; engineering reference sheet. Elec World 130:102 Jl 3 '48

TURBINES—Continued

Recent tendencies and present position of hydraulic machinery (water power plant). P. W. Seewer. *diags Inst Mech Eng J & Proc* 157 (War emergency issue no 33): 345-52 '47

Runner size of hydraulic turbine; chart; engineering reference sheet. *Elec World* 129: 142 My 22 '48

Selection of hydraulic turbine for given head and capacity; chart; engineering reference sheet. *Elec World* 129:108 My 8 '48

Stainless steel runners for lower maintenance. *il Elec World* 130:114 O 23 '48

Water turbos power French wind tunnel. *Aviation W* 48:27-8 Ja 19 '48

Waterwheels operate 100 years near Trollhattan, Sweden. G. Willock. *il diags Power* 92:165 Mr '48

See also

Air turbines
Gas turbines

Steam turbines
Water wheels

Design

Modern trends in hydraulic turbine design; abstract. W. J. Rheingans. *il Elec Eng* 67: 954 O '48

105,000-hp turbines at Shasta dam. J. F. Roberts. *il plan diags A S M E Trans* 70: 217-24; Discussion. 225-6 Ap '48

Installation

Temporary installation of Shasta turbines at Grand Coulee. H. H. Sloane. *il diags A S M E Trans* 70:49-56 Ja '48

Repair

Repairs of hydro adjustable turbine blades by welding; abstract. J. B. Justin and E. T. Davis. *Welding J* 27:844 O '48

TURBULENCE

Air turbulence and transfer processes; flow normal to cylinders. E. W. Comings, J. T. Clapp and J. F. Taylor. *bibliog diags Ind & Eng Chem* 40:1076-82 Je '48

L'écoulement des fluides en régime turbulent; la formule de Colebrook. A. Vibert. *bibliog Génie Civil* 124:471-3 D 15 '47

Influence of reaction interface extension in the combustion of gaseous fuel constituents. W. J. Wohlenberg. *bibliog A S M E Trans* 70:143-56; Discussion. 156-60 Ap '48

Kinematics of turbulence. F. N. Frenkiel. *bibliog diags J Aeronautical Sci* 15:57-64 Ja '48; Correction. 15:247 Ap '48

Spectrum of locally isotropic turbulence. L. S. G. Kovaszny. *Phys R* 73:1115-16 My 1 '48

Study of turbulence by light diffraction. J. C. Hubbard and others. *il Phys R* 74:708-9 S 15 '48

Use of turbulence-producing devices in model experiments. K. S. M. Davidson. *Marine Eng* 53:73-5 O '48

Why turbulence is important to engineers. J. S. McNown. *Power Generation* 52:51-4 Ap '48

TURF

Sod. its production and placement at the Sampson (N.Y.) naval training station. J. Feld. *map diag Roads & Sts* 91:84-6+ Ap '48

Turf fungicide. *Chem Ind* 62:772 My '48

TURKEY

Strains and stresses in the Middle East. E. Lengyel. *Ann Am Acad* 258:3-13 Jl '48

Turkey; bastion of the Middle East. *Economist* 154:1052-3 Je 26 '48

See also

Airlines—Turkey
Airports—Turkey
Chemical industries—Turkey

Electric apparatus industry—Turkey
Petroleum industry and trade—Turkey
Roads—Turkey

Commercial policy

Summary of import-license regulations. *For Comm W* 32:28-9 S 18 '48

Economic conditions

Conditions during second quarter of 1948. *For Comm W* 33:31-3 O 2 '48

Turkey; today's economic picture in key-country of Near East. *il map For Comm W* 31:6-10+ Je 19 '48

Economic relations**United States**

Turkey under the dollar sign. *Economist* 154: 21-2 Ja 3 '48

Foreign relations

Our Near Eastern policy in the making. W. L. Wright, jr. *Ann Am Acad* 255:93-104 Ja '48

Industries and resources

Turkey's bid for industrial sufficiency; state plans to expand electricity, steel and chemicals. *Chem Age (Lond)* 59:462 O 2 '48

Politics and government

Turkey's silver jubilee. *Economist* 155:667 O 25 '48

Turkish government intends to establish a clear division between state planning and private enterprise. *Iron Age* 161:110-11 Ja 15 '48

Social conditions

In rural Turkey. *Economist* 155:269-70 Ag 14 '48

TURKEY insurance. See Insurance, Turkey

TURNER, Walter Van Buskirk, 1887- Retires after 35 years of service to the gas industry. *por Gas Age* 100:50+ O 30 '47

TURNER and Newall, limited

Statement by the chairman; abstract. W. W. F. Shepherd. *Economist* 154:36 Ja 3 '48

TURNING

Attachment for turning rudder shafts. J. Clement and J. A. Kruse. *il Mach* 54:168 Ja '48

Dieheads will turn, form and groove. C. A. Reimschuessel. *il diags Am Mach* 92:92-4 O 7 '48

How to turn non-standard threads. E. L. Schlage. *diag Am Mach* 92:95 F 12 '48

Machining copper and its alloys; turning and boring, drilling and reaming. J. J. McGuinness. *diags Am Mach* 92:102-4 My 6 '48

Milling machine handles turning with swing too large for lathe. F. C. Lurz. *diags Am Mach* 92:95 Ap 22 '48

Offset boring head saves time when taper turning with lathe. J. W. Rundt. *diags Am Mach* 92:129 F 12 '48

Production processes; their influence on design; automatic and shape turning. R. W. Bolz. *il diags Machine Design* 20:129-34 F '48

Simple set-up for turning concave surfaces. C. T. Bower. *diags Mach* 54:196 Je '48

Special lathes turn tapers; cream-separator valves; illustrations with text. K. R. McKay. *Am Mach* 92:102-3 Ag 26 '48

Spherical-turning lathe tool cuts precision ball and socket elements. A. B. Nixon. *diags Am Mach* 92:119 Ja 15 '48

Templet-and-follower fixture controls turning of spheruloids. F. C. Fonquen. *diag Am Mach* 92:119 F 26 '48

Turning irregular contours on a lathe. R. Maxant. *il Mach* 55:145-51 O '48

Turning points in the metal working industry; abstract. M. S. Curtis. *Product Eng* 19: 128-9 Ag '48

Turning thin-walled bushings with a single-point tool. D. A. Baker. *diags Mach* 54:171 N '47

Work loaders applied to machine tools. R. Le Grand. *il diags Am Mach* 92:166-72 Mr 11 '48

TURNOUTS, Road. See Roads—Turnouts

TURNOVER

Four practical approaches to packaged food merchandising. F. L. McKibbin, jr. *il Sales Management* 60:37-40 F 1; 112+ F 15 '48

Inventory turn-over in retail trade. C. Winston and M. L. Puglisi. *Survey of Cur Bsns* 28:16-21+ Je '48

TURNOVER, Labor. See Labor turnover

TURNSTILES, Fare collecting

Fare, please; Bee line solves a threefold fare collection problem. *Bus Transportation* 27: 59 Ja '48

TURNABLES

Turntable speeds up return of quarry trucks. L. A. Castell. *diag Rock Prod* 51:121 Ja '48

TURNTABLES, Phonograph. See Phonograph—
Turntables

TURPENTINE

By-products from the kraft pulping of pine woods. O. Kress. Pulp & Pa of Can (Convention no) 49:168+ [F] '48
Chemical uses of sulphate turpentine. P. O. Powers. bibliog Paper Tr J 126:39-42 Ja 29 '48; Excerpts. Chem Eng 55:274+ Mr '48
Continuous distillation of gum turpentine; staff-industry collaborative report. W. H. Shearon, jr., E. L. Patton and G. P. Shingler. bibliog flow chart il diags Ind & Eng Chem 40:1695-702 S '48
Properties of oleoresins, rosins, and turpen-
tines from chemically stimulated slash
and longleaf pines. L. W. Mims and M. C.
Schopmeyer. bibliog il Ind & Eng Chem 39:
1504-6 N '47

See also

Myrcene

Prices

Fate of big commodity support plans pre-
viewed in turpentine price break. Barron's
28:36 Je 7 '48

Statistics

Naval stores, April-Sept. 1946, April-Sept.
1947. Chem Eng 55:126 F '48

TWIST drills. See Drilling and boring ma-
chinery

TWISTING machines

Warp twisting-in machine technique. H. E.
Wenrich. il Rayon 29:70-2 Ap '48

TWO-family houses. See Architecture, Do-
mestic—Two-family houses

2,4-D. See Dichlorophenoxyacetic acid

TWOHEY, James S., associates

Measuring public relations; James Twohey's
press ratings. Bsns W p39-40 Ap 17 '48

TYING-in contracts. See Sales—Tying-in con-
tracts

TYLER, Carroll L.

Portrait. Bsns W p50 Ap 10 '48

TYLOSE HBR

Tylose a detergent aid; abstract. Soap &
San Chem 24:94 Je '48

TYNDALL effect

Monodisperse colloids and higher-order Tyn-
dall spectra. V. K. La Mer. bibliog J Phys
& Colloid Chem 52:65-76 Ja '48

TYPE, Plastic

German printing plant develops plastic type.
R. Krüger. Ed & Pub 81:115 Ap 17 '48

TYPE and type founding

American type designers exhibit turns up
some not-so-widely-known styles. il Inland
Ptr 121:51-2 Je '48

Have specific type styles and sizes in mind
as you make working layouts. G. J. Church.
il Inland Ptr 121:52 S '48

How can I find what type to use? set of
foundry types in characters per pica. A. R.
Hopper. Ind Marketing 33:46-50 Ap '48

How to judge the readability of type. J. M.
Secret. il Ptr Ink 221:44-5+ D 12 '47

Serif or sans serif, type's job is to convey
ideas clearly. S. L. Smith. il Ptr Ink 223:
36-7 Je 4 '48

Standardization of type specimens plan sub-
mitted for approval by typographers. In-
land Ptr 120:83 Ja '48

Will Bradley lettering on 1894 cover inspired
type faces of many foundries. il Inland
Ptr 121:55-6 My '48

Will modern art influence typography? J. M.
Secret. il Ind Marketing 33:56+ Je '48

See also

Advertisements—
Typography

Newspapers—
Typography

Script type

When you make use of script types, do it
right! F. DeWitt. Inland Ptr 120:69 F '48

TYPE washing

Gasoline, naphtha, mineral spirits, kerosene,
carbon tetrachloride, metasilicate of soda;
what is best for washing up? W. A. An-
derson. Inland Ptr 121:78 J1 '48

TYPESETTING

Have specific type styles and sizes in mind
as you make working layouts. G. J. Church.
il Inland Ptr 121:52 S '48
How to combine type faces in single line
layouts. A. R. Hopper. il Ind Marketing
33:40-1+ O '48
How to judge the readability of type. J. M.
Secret. il Ptr Ink 221:44-5+ D 12 '47
This new hand composition system meets
today's drastically changed requirements.
E. H. Roy. il Inland Ptr 121:43-7 Je; 87-91
J1; 29-32 Ag '48

See also

Phototypesetting
machine

Tables, calculations, etc.

Quick tricks in copy fitting for ads and
printed pieces. R. M. Hogan. Ind Market-
ing 33:45-6 Je '48

TYPESETTING machines

Lithotype is put into production. il Ed &
Pub 81:49 O 9 '48

Non-metallic methods of composing type for
photographic reproduction; Justowriter; ab-
stract. W. R. Manny. Inland Ptr 120:61-2 N
'47

See also

Linotype

Phototypesetting ma-
chine

TYPEWRITERS

Differential spacing of characters featured in
new Vari-Typer machine. il Inland Ptr 121:
41 Ag '48

Los Angeles publisher has converted to type-
writers from line-composing machines;
plant of the Commercial news. il Inland Ptr
120:63 F '48

New typing reel aligns margin automatically;
Spielvogel invention. il Ed & Pub 81:32 Je
19 '48

Non-metallic methods of composing type for
photographic reproduction; Justowriter; ab-
stract. W. R. Manny. Inland Ptr 120:61-2 N
'47

Progress in printing without use of type;
Vari-Typer, Electromatic executive type-
writer and others. R. C. Hopcraft. il Adv &
Sell 41:46+ Je '48

Six ways to type copy for duplicating; mak-
ing right-hand margins even. K. H. Mathus.
il Ptr Ink 222:38-9 F 6 '48

TYPEWRITING

How to increase your typing efficiency. Rough
Notes 90:28-30 N '47

Six ways to type copy for duplicating; mak-
ing right-hand margins even. K. H. Mathus.
il Ptr Ink 222:38-9 F 6 '48

TYPHOID fever

Quaternaries vs. phenolics; germicidal effec-
tiveness reported; together with time-
survival numbers of E. typhosa and S.
aureus. L. H. James and G. Eckfeldt. Soap
& San Chem 23:125+ N; 157+ D '47

Typhoid in the large cities of the United
States in 1946. Am Water Works Assn J
40:564-70 My '48

Water-borne disease outbreaks in the United
States, 1938 to 1945. Pub Works 78:24-5 N
'47

TYPHUS fever

Combined typhus-malaria control; residual
spray operations with five percent DDT
emulsion. H. P. Nicholson and others. Pub
Health Rep 63:1005-13 J1 30 '48

Distribution of endemic typhus in rats in
Lavaca county, Texas. J. V. Irons and
others. Pub Health Rep 63:692-4 My 21 '48

Employment of soluble antigen in screening
tests for typhus complement fixation. T. O.
Berge. bibliog Pub Health Rep 63:529-37
Ap 23 '48

Observations on rats and typhus fever in San
Antonio, Tex. D. E. Davis. bibliog Pub
Health Rep 63:783-90 Je 11 '48

Preliminary report concerning DDT dusting
and murine typhus fever in nine south-
eastern states. J. S. Wiley. Pub Health Rep
63:41-3 Ja 9 '48

Relation of reported cases of typhus fever to
location, temperature, and precipitation. C.
R. Eskey and F. M. Hemphill. map Pub
Health Rep 63:941-8 J1 16 '48

TYPHUS fever—*Continued*

Statistics

World distribution of cholera, plague, small-pox, typhus fever, and yellow fever; Jan.-Oct. 1947, Nov. 1947, Dec. 1947, by weeks. *Pub Health Rep* 63:159-60 *Ja* 30 '48 [cont monthly]

TYPOGRAPHICAL errors. See Errors, Typographical

TYRAMINE

Tyramine in cheese; abstract. F. V. Kosikowski and A. C. Dahlberg. *Food Ind* 20:1390-1 S '48

TYROSINASE

Inactivation of invertase by tyrosinase. I. W. Sizer. *bibliog Science* 108:335-6 S 24 '48
Oxidation of catechol-type substrates by tyrosinase. M. L. Cushing. *bibliog Am Chem Soc J* 70:1184-7 Mr '48

TYROSINE

Synthesis of α -amino- γ -(*p*-hydroxyphenyl)-butyric acid, a homologue of tyrosine. W. C. Evans and N. Walker. *Chem Soc J* p 1571-3 D '47
See also
Iodotyrosine

U

U.A.W. See United automobile workers of America (International union, United automobile, aircraft and agricultural implement workers of America)

UDY, Marvin J.

Schoellkopf award to Udy. *pors Chem & Eng N* 26:1580-1, cover *My* 31 '48

UDYLITE process. See Cadmium plating

UGANDA

See also

Hydroelectric plants

—Uganda

UHLMANN, Richard Frederick, 1898-

Portrait. *Bsns W* p93 Ap 3 '48

ULCERS

See also

Leg—Ulcers

ULCERS, Gastric. See Stomach—Diseases

ULLMANN reaction

1-(β -Carboxyethyl)-3,4,7-trimethoxydibenzofuran. P. E. Fanta. *Am Chem Soc J* 70:2602-3 JI '48
Preparation of symmetrical dinitrodiphenyls by the Ullmann reaction. W. Davey and E. W. Lattar. *Chem Soc J* p264-5 Mr '48

ULMIC acids

Anodic oxidation of coal. R. Belcher. *bibliog Soc Chem Ind J* 67:213-16, 217-21, 265-70 *My*-JI '48

ULTIMATE particles. See Particles, Elementary

ULTRACENTRIFUGE. See Centrifuges

ULTRAFAX

Million words a minute. *il diag Bsns W* p20 O 30 '48

ULTRAFILTRATION. See Dialysis; Filters and filtration (technical chemistry)

ULTRAMAR company, limited

Statement by the chairman at 12th ordinary general meeting. E. Herbert. *Economist* 155: 81 JI 10 '48

ULTRASONIC corporation

High-intensity sound works for industry. *il Bsns W* p54- F 7 '48

ULTRASONIC waves. See Supersonic waves

ULTRAVIOLET rays

Achromatic ultraviolet microscope objective. L. V. Foster and E. M. Thiel. *il diags Opt Soc Am J* 38:689-92 Ag '48
Determination of chlorogenic acid in coffee; ultraviolet absorption and iodometric oxidation methods. R. G. Moores, D. L. McDermott and T. R. Wood. *bibliog Anal Chem* 20:620-4 JI '48
Method of ultraviolet photomicrography. J. O. Ely and M. H. Ross. *il diag Franklin Inst J* 246:37-91 JI '48

Refractive index of several hydrocarbons in the near ultraviolet wave-length region. J. L. Lauer. *bibliog diag J Chem Phys* 16: 612-19 Je '48

Ultraviolet light absorption of standolls. M. Pestemer and J. Tschinkel. *Paint Oil & Chem R* 111:14- S 2 '48

Ultraviolet phase microscopy. A. H. Bennett and others. *il Opt Soc Am J* 38:739-40 Ag '48

Ultraviolet transmission of counting diamonds. H. Friedman and others. *il Phys R* 73:186-7 *Ja* 15 '48

See also

Spectrum, Ultraviolet

Industrial applications

Black light spots trouble. *il Bsns W* p28- *Ja* 3 '48

Ultraviolet flame detector. *diags Electronics* 21:168-7 Mr '48

Lamps

Bactericidal radiation. A. W. Ewell. *bibliog il Refrig Eng* 55:466-8 *My* '48

Cold starting, high intensity ultraviolet lamp developed. *il Refrig Eng* 55:354 Ap '48
Germicidal lamps effective in poultry care. F. Vose. *Elec World* 130:126 O 23 '48

Pasteurizing with ultraviolet gives low bacteria count milk. E. Nicholson. *il diags Food Ind* 19:1495-6- N '47

Photochemistry in industry. E. W. Beggs. *il diags Sci Am* 178:109-14 Mr '48

Practical method for the illumination of biological material with ultraviolet rays. B. V. Bisha. *il Science* 108:142-3 Ag 6 '48

Simple inexpensive ultra-violet analytic lamp. G. Robinson. *il diags Metallurgia* 38:67-8 *My* '48

Ultraviolet air disinfection in the theater. L. J. Buttolph. *bibliog diags Soc Motion Picture Eng J* 51:79-91 JI '48

Measurement

Phototube amplifier for measuring uv radiation. C. M. Rively. *il diag Electronics* 21: 130-1 JI '48

Sensitive ultraviolet meters. A. B. Pal. *diags R Sci Instr* 19:529-32 Ag '48

Physiological effect

Radiation from the welding arc; its effect on the eye. E. van Someren and E. C. Rollason. *Welding J* 27:sup448-52 S '48

UNBALANCE squelcher

Unbalance squelcher. K. Tomiyasu. *il diags R Sci Instr* 19:675-7 O '48

UNCERTAINTY principle

Uncertainty principle and the yield of nuclei formed in fission. P. F. Gast. *diag Phys R* 72:1265 D 15 '47

UNCLAIMED policies. See Insurance, Life—

Policy settlement—Unclaimed policies

UNDERCOOLING. See Supercooling

UNDERGROUND construction

Extending Gotham's old subway platforms. *il plan Comp Air Mag* 53:12-14 *Ja* '48

Underground military structures, sound defense measure. L. M. Hersum. *Civil Eng* 18:305 *My* '48

UNDERGROUND electric lines. See Electric lines—Underground lines

UNDERGROUND factories. See Factories, Underground

UNDERGROUND structures

Explosion prevention in underground utility structures in Los Angeles and vicinity. *Sewage Works J* 20:665-78 *Jl* '48

Report on coordination of utilities and regulatory authorities for controlling underground work. *Am Gas Assn Proc* 1947:510-12

Underground conduits; an appraisal of modern research. M. G. Spangler. *bibliog diags Am Soc C E Proc* 73:865-84 *Je* '47; Discussion. 73:1543-6; 74:261-76, 381-5, 727-33 D '47, F-Mr. *My* '48

Utilities for a city within a city; Stuyvesant Town. *il plan Eng N* 140:205-8 F 5 '48

See also

Factories, Under- Sewers, Concrete
ground Tunnels and tunnel-
Pipe lines ing
Sewerage

UNDERGROUND water. See Water, Under-
ground

UNDERTAKERS

Funerals prepaid; California mortuaries thrive on insurance sideline. *Il Bsns W* p60-1 *Ja* 17 '48

UNDERWATER explosions. See Explosions, Subaqueous

UNDERWEAR

Circular-rib machines versatile for women's underwear. *C. R. Carter. Il Textile World* 98:118-19+ *Ag* '48

Manufacture

Cases in work simplification; Dutchess underwear corp. *R. T. Selver. Il Factory Management* 106:100-1 *Mr* '48

UNDERWOOD corporation

Companies paying progressively higher dividends. *H. F. Travis. Mag of Wall St* 82: 26 *Ap* 10 '48

UNDERWRITERS' laboratories

Small elected vice-chairman, Curtis Welborn new president. *Nat Underw* 52:2 *Je* 17 '48
Underwriters' lab tests everything. *Il Bsns W* p22-3 *My* 1 '48

Why some burglaries don't happen. *H. Severson. Il Banking* 40:30 *Je* '48

Work in 1947 reached all-time high. *East Underw* 49:23 *My* 21 '48

UNDERWRITERS salvage company of New York

N.Y. salvage unit sells goods valued at \$9 million in '47. *Nat Underw* 52:5 *Ja* 29 '48
Protection service reduces losses. *W. O. Cooper. East Underw* '49:16 *O* 29 '48

UNDISTRIBUTED profits tax. See Corporations—Taxation**UNDULANT fever.** See Brucellosis**UNEMPLOYMENT**

What the factory worker really thinks about his job; unemployment; and industry's profits. *Factory Management* 105:86-92 *D* '47

Relief measures

See also
Employment systems—Guaranty of employment

Public works

Need for new public works plans as U.S. surveys hedge against slump. *V. B. Smith. Eng N* 141:6 *Ag* 26 '48

Statistics

Unemployment, employment and hours of work. *Int Labour R* 57:411-13, 676-83; 58: 116-23, 402-9, 554-61 *Ap, Je-Jl, S-O* '48

Belgium

Manpower situation in Belgium. *Int Labour R* 58:385-9 *S* '48

Italy

Italy battles unemployment. *Il Bsns W* p 116-17 *O* 30 '48

UNESCO. See United nations educational, scientific and cultural organization

UNFAIR practices acts. See Price cutting

UNFILLED orders. See Orders, Unfilled

UNIFLOW engines. See Steam engines—Uniflow engines

UNIFORMS

Designed for working; uniforms for workers; Reeves brothers, inc., cotton textile manufacturers. *Il Safety Eng* 96:23+ *S* '48

Dressing up the ladies; uniforms worn by women employees of New England confectionery co. *El. J. Cook. Safety Eng* 95:62-4 *Je* '48

Peacetime market built by introducing new use for war product; Reeves brothers promote a work garment new look. *R. H. Ganly. Il Ptr Ink* 224:30-1+ *S* 3 '48

Uniforming meter readers. *W. R. Seidel. Am Gas Assn Proc* 1947:148-55

UNILEVER, limited. See Lever brothers and Unilever, limited

UNION agreements. See Trade agreements

UNION bag and paper company

Stock offered. *Comm & Fin Chr* 166:2316 *D* 8 '47

UNION carbide and carbon corporation

Annual report. *Comm & Fin Chr* 167:1050+ *Mr* 8 '48

New plastic may take Carbide into synthetic textile field. *Barron's* 28:35 *Mr* 22 '48

UNION catalogs. See Catalogs, Union

UNION electric company of Missouri
Debentures offered. *Comm & Fin Chr* 167: 2366 *My* 31 '48

UNION label

Buy union label. *Il Bsns W* p 102-4 *Je* 12 '48

UNION management cooperation. See Employees' representation in management; Trade unions—Cooperation with management

UNION mutual life insurance company

Celebrates centenary. *C. Axman. East Underw* 49:16 *O* 15 '48

Marks 100th birthday. *H. J. Burrigide. Nat Underw* (Life ed) 52:3+ *S* 17 '48

UNION oil company of California

Union Oil borrows now to get low interest rate. *Bsns W* p74 *Ja* 10 '48

UNION Pacific railroad

Annual report, 51st, year ended Dec. 31, 1947. *Comm & Fin Chr* 167:1872-3 *Ap* 29 '48;

Same. *Ry Age* 124:874-7 *My* 1 '48

Annual report; with consolidated income statement for calendar years, 1944-1947. *Comm & Fin Chr* 167:1370 *Mr* 29 '48

Oil profits assume major importance. *Barron's* 28:35 *My* 24 '48

UNIONMELT process. See Electric welding—Unionmelt process

UNISOL process. See Gasoline—Manufacture

UNIT processes

Chemical engineering unit processes review. bibliog flow diags *Il diags Ind & Eng Chem* 40:1552-694 *S* '48

Correlation of unit operations and processes. *D. E. Mack. J Eng Educ* 38:638-41 *My* '48

Ion exchange develops as a unit process. *J. C. Winters. bibliog Il Chem Ind* 62:754-8 *My* '48

Process engineering plots its course; Chem. & Met. report. diags *Chem Eng* 55:95-126 *My* '48 [reprints 75c]

Teaching the unit process laboratory. *C. J. Marsel. J Eng Educ* 38:650-2 *My* '48

Twelfth unit process symposium. bibliog flow sheets *Il Ind & Eng Chem* 40:379-99 *Mr* '48

Unit operations review. bibliog *Il diags Ind & Eng Chem* 40:2-56 *Ja* '48

Unit process fundamentals. *C. H. Frien. bibliog J Eng Educ* 38:467-81 *Mr* '48

Unit processes of chemical metallurgy. *R. Schuhmann, Jr. Metals Tech* 15:TP2363 1-6 *Je* '48

UNITED Africa company

Unilever's Africa. *G. Burck. Il map Fortune* 37:57-65+ *Ja* '48

UNITED air lines

Capital shift needed for UAL to pay on preferred. *Barron's* 28:27 *Mr* 8 '48

Offers 184,809 shares of common. *Comm & Fin Chr* 163:552+ *Ag* 9 '48

Savings in maintenance due. *Barron's* 28:35 *My* 10 '48

Study of United's financing plan shows stress on future earnings. *S. Altschul. Aviation W* 48:32 *Mr* 29 '48

UAL fears heavy loss in 1948. *Aviation W* 48: 45 *Je* 14 '48

UAL seeks more working capital. *S. Altschul. Aviation W* 48:33 *Je* 21 '48

UNITED aircraft corporation

Annual report. *Comm & Fin Chr* 167:1964 *My* 3 '48

UNITED automobile workers of America (International union, united automobile, aircraft and agricultural implement workers of America)

Auto workers' blues; U.A.W. survey shows that sick care is chief concern today. *Fortune* 38:210+ *N* '48

Auto workers jump the gun; wage-boost drive of U.A.W. locals. *Bsns W* p56 *Ja* 3 '48

Cost-of-living wage clauses and UAW-GM pact. *N. M. Bortz. Mo Labor R* 67:1-7 *Jl* '48

Ford-union middleman displeases the union. *Bsns W* p 110 *Mr* 20 '48

G.M. cited; NLRB's first complaint against an employer under T-H law. *Bsns W* p95 *F* 7 '48

Leftist mop-up. *Bsns W* p 108-9 *D* 6 '47

Local's no-strike vote upsets U.A.W. tradition. *Bsns W* p94 *Je* 5 '48

UNITED automobile workers of America—Cont.
New U.A.W. strategy awaited. *il* Bsns W p 100+ N 22 '47

Opposing Reuther, R. T. Leonard, former vice-president, launches new faction. Bsns W p 94-5 Ag 14 '48

Setting the wage pattern? U.A.W. comes to grips with Chrysler. Bsns W p 108+ Ap 24 '48

Stretching fuel; U.A.W. sponsors Karrick process for low-temperature distillation of low-grade coal. Bsns W p 38 F 28 '48

Umpire wanted; U.A.W.—G.M. arbiter. Bsns W p 111-12 S 25 '48

U.A.W. fight due at convention. Bsns W p 95-6 N 8 '47

U.A.W. lure; sponsors contest with \$75,000 in prizes to win new members in G.M. plants. Bsns W p 98 F 14 '48

U.A.W. 1949 goal. Bsns W p 109-10 S 11 '48

U.A.W. plots permanent future for its retail warehouses. D. G. Baird, Sales Management 61:119-21 S 1 '48

What Reuther victory means; U.A.W.'s shift to the right. Bsns W p 92+ N 15 '47

UNITED biscuit company
Companies paying higher dividends on split shares. *Mag of Wall St* 82:131 My 8 '48

UNITED-CARR fastener corporation
Sales, net helped by new lines. *Barron's* 28:35 Ja 5 '48

UNITED corporation
Nearing end of regulation by SEC. *Barron's* 28:27 Mr 29 '48

Plan to retire preference stock. *Comm & Fin Chr* 168:788 Ag 23 '48

Preference stock plan modified. *Comm & Fin Chr* 167:1852-3 Ap 26 '48

Stockholders offer amendment to liquidation plan. *Comm & Fin Chr* 167:2300-1 My 24 '48

United corp. plan awaits federal court's approval. *Barron's* 28:27 Ag 23 '48

UNITED dairies, limited
Statement by the chairman at ordinary general meeting. *L. Maggs. Economist* 153:1024-5 D 20 '47

Statement by the chairman at 33d ordinary general meeting. *L. Maggs. Economist* 155:685-6 O 23 '48

UNITED drug company. See *Rexall drug company*

UNITED electrical, radio and machine workers of America
Is the picket line enough? can United electrical workers lose bargaining rights at Remington-Rand? *il* Bsns W p 68-9 N 29 '47

Leftist unions' new tactics; United electrical workers shows how to achieve employer recognition despite boycott of NLRB. Bsns W p 82+ N 1 '47

To bargain on U.E. demands. Bsns W p 82+ F 28 '48

U.E. keeps left. Bsns W p 112+ S 11 '48

Will Rand lead a parade? breaks off relations with C.I.O. electrical workers after NLRB ruling. Bsns W p 19-20 D 13 '47

UNITED engineering and foundry company
Annual report. *Blast F & Steel Pl* 36:433 Ap '48

UNITED engineering trustees, inc.
Annual meeting, New York, Oct. 23. *Science* 106:517 N 28 '47

Report for 1946-1947. J. P. H. Perry. *Mech Eng* 70:87-8 Ja '48

UNITED farm equipment and metal workers of America
Caterpillar Tractor workers tangle. Bsns W p 114+ Ap 24 '48

International Harvester's attack on radical labor leadership. *il* *Factory Management* 105:68-73 D '47

Union fires back at company's head in war over its value to employees. *Barron's* 27:12 N 17 '47

Unminned words; International Harvester tells employees some of their union officials are irresponsible radicals. Bsns W p 87-9 N 1 '47

UNITED financial employees
Street's labor woes. Bsns W p 99 Ap 3 '48

Street's strike ends. Bsns W p 99 My 8 '48

Wall Street unions fall in year's drive. R. M. Bleiberg. *Barron's* 27:9 N 17 '47

Wall Street wins its first two T-H tests. Bsns W p 97 N 22 '47

UNITED glass bottle manufacturers, limited
Statement by the chairman at 35th annual general meeting. *W. Sinclair. Economist* 154:694 Ap 24 '48

UNITED light and railways company
Amended plan filed. *Comm & Fin Chr* 166:1933-4 N 10 '47

Lowers value of planned dividends; decline in price of American Light & Traction common stock. *Barron's* 28:26-7 F 23 '48

UNITED merchants and manufacturers, inc.
High-yield stocks selling less than five times earnings. *Mag of Wall St* 82:184 My 22 '48

UNITED mine workers of America
'49 coal demands. Bsns W p 110-11 O 16 '48

Lewis' miners score victory. Bsns W p 62 J1 3 '48

Lewis' third labor movement. Bsns W p 86 D 20 '47

Miners' \$100 pensions begin. Bsns W p 120 S 18 '48

Storm signal on labor front; Lewis wants big pensions for miners over 60. Bsns W p 96 F 14 '48

UNITED nations
Efficiency in Uno. *Economist* 155:364-5 S 4 '48

I.L.O. and the United nations; 102d session of the governing body. *Int Labour R* 56:304-5 S '47

One world through the United nations. J. Katz-Suchy. *Ann Am Acad* 258:90-100 J1 '48

United nations and the peace treaties. F. O. Wilcox. *Ann Am Acad* 257:175-83 My '48

United nations, despite handicaps, accomplishes noteworthy work. *il* *For Comm W* 33:3-9+ O 23 '48

Uno's second year. *Economist* 153:965-6 D 13 '47

Uses of Uno. *Economist* 155:251-2 Ag 14 '48

Voters favor strengthening UN by charter revision; Gallup poll. *Iron Age* 161:115 Mr 25 '48

Yearbook of the United nations, 1946-1947. 99p \$10 Dept. of public information, United nations, Lake Success, New York; for sale by Columbia university press, Morningside Heights, New York '47

See also

Food and agriculture organization of the United nations	International trade organization (proposed)
	World health organization

Commission on human rights

International protection of human rights. J. P. Humphrey. *Ann Am Acad* 255:15-21 Ja '48

Towards a bill of human rights? *Economist* 154:46-7 Ja 10 '48

Economic commission for Europe

Recovery of Europe; E.C.E. report summarized. *il* *maps Sci Am* 179:9-15 J1 '48

Headquarters

Plans for United nations headquarters stress functional design. *il* *Civil Eng* 17:23 D '47

United nations and changing land use in a metropolis. R. Tough and R. G. Weintraub. *Land Econ* 24:186-90 My '48

U.N. headquarters revised for economy. *il* *plan Arch Rec* 102:68-73 N '47

Housing project

Copper on large housing project; United nations housing project on Long Island. *il* *diag Sheet Metal Worker* 39:101-2 Ja '48

Laboratories

United nations research laboratories. *J Eng Educ* 38:690-1 My '48

Reporters and reporting

State dept. clarifies policy on UN writers. *Ed & Pub* 81:6 Ja 3 '48

Study and teaching

Three-day United nations institute. *Science* 107:314-15 Mr 26 '48

UNITED nations—Continued

Subcommission on freedom of information and of the press

- American concept in UN declaration. W. Reed, Ed & Pub 81:8 Ja 24 '48
 Covenant protects fundamental rights. Z. Chafee, Jr. Ed & Pub 81:32 Mr 6 '48
 Expert explains work of UN press group. Z. Chafee, Jr. Ed & Pub 81:20 Ja 17 '48
 UN covenant bars government control. W. Reed, Ed & Pub 81:11 Ja 8 '48
 UN debate outlines freedom blueprint. W. Reed, Ed & Pub 81:11+ F 7 '48

Trusteeships

- United nations trusteeships. J. C. Cooper. Air Affairs 2, no 1:115-27 [S] '47

Palestine

- Fortune survey; Palestine situation. Fortune 37:12 Je '48
 Palestine; acid test of the United Nations. C. H. Voss, Ann Am Acad 268:14-21 Jl '48
 Voters oppose use of U.S. troops in Palestine settlement; Gallup poll. Iron Age 160:121 N 27 '47

UNITED nations conference on freedom of information

- Democracies head off warmonger measure. M. Johnston, Ed & Pub 81:11 Ap 10 '48
 Don't highbat task of world freedom. S. Brown, Ed & Pub 81:26 Ap 17 '48
 Freedom of information. Economist 154:700-2 My 1 '48
 Geneva conference off to good start. M. Johnston, Ed & Pub 81:11 Mr 27 '48
 Text of report by United States delegation. Ed & Pub 81:9+ My 15 '48
 Three treaty propositions on free press adopted. M. Johnston, Ed & Pub 81:16B Ap 24 '48
 U.S. delegates hail Geneva achievements; free press principles defined. Ed & Pub 81:75-6 My 8 '48
 U.S. is winning cold war. E. Canham, Ed & Pub 81:20+ Ap 24 '48

UNITED nations educational, scientific and cultural organization

- Engineers joint council offers services to UNESCO. R. M. Gates. Mech Eng 70:270 Mr '48

- Problem of international understanding. G. S. Delatour. Ann Am Acad 255:1-14 Ja '48

- UNESCO and engineering. Mech Eng 70:819 O '48

- UNESCO initiates cooperation in the abstracting of biological and medical sciences. E. R. Cunningham. Science 106:609-11 D 19 '47

- UNESCO program for 1948. Mech Eng 70:233-4 Mr '48

- UNESCO sponsors two conferences on scientific abstracting. Science 108:8-9 Jl 2 '48
See also International council of scientific unions; United States national commission for UNESCO

UNITED nations relief and rehabilitation administration

- Contributions of the sanitary engineering program of UNRRA to international health. F. F. Aldridge. bibliog Pub Health Rep 62: 1729-39 D 12 '47

Insurance program

- Views differ on UNRRA self-insurance results. H. C. Hallam. Nat Underw 51:4-5 D 25 '47

UNITED oil corporation

- Common stock offered. Comm & Fin Chr 168: 89 Jl 5 '48

UNITED packinghouse workers of America

- C.I.O. puts fire in meat-strike picketing. II Bsns W p 111 My 15 '48

UNITED press

- U.P. appoints Bradford as European chief. Ed & Pub 81:14 Ap 3 '48

- U.P. reviews services for 4,327 clients. Ed & Pub 81:112A Ap 24 '48

UNITED retail, wholesale and department store employees of America

- Left-wing cracks. Bsns W p 102-3 F 14 '48

UNITED rubber workers of America

- Rubber union rift. Bsns W p 113-15 Ap 17 '48

- Rubber union unity. Bsns W p 102-3 O 2 '48

- Rubber workers stretch six-hour day. Bsns W p75-6 N 29 '47

UNITED STATES

- Food, fuel, and faith; the war proved soundness of the American way of life. K. T. Compton. Tech R 60:266+ Mr '48

- Heritage that is ours. L. V. Sutton. Edison Elec Inst Bul 16:263-5 Ag '48

Advertising department, Proposed

- Advertising department in the Cabinet? E. F. Howard; H. C. Sieck. Ptr Ink 223:40-1 My 14 '48

Aeronautics, Bureau of (navy)

- Navy orders 1,632 new planes. Aviation W 48:13-14 Ja 12 '48

Agricultural and Industrial chemistry, Bureau of

- New knowledge through research; Bureau of agricultural and industrial chemistry reports on new discoveries. Food Ind 20: 719+ My '48

Agricultural research administration

- Administration of federal research. W. V. Lambert. Science 107:179-83 F 20 '48
 Good order in federal research. J. W. Boyer. Chem & Eng N 26:2960-2 O 4 '48

Agriculture, Department of

- First annual presentation of U.S. Department of agriculture honor awards. Science 107:9 Ja 2 '48

- USDA makes first annual honor awards presentation. Oil Paint & Drug Rep 152: 40 N 17 '47

- USDA reviews 1947 research developments; abstract. L. B. Howard. Oil Paint & Drug Rep 153:48 F 2 '48

Air coordinating committee

- Air coordinating committee submits its annual report. CAA J 9:25+ Mr 15 '48
 Grass roots get new voice; advisory panel to Air coordinating committee. A. McSurely. Aviation W 49:33-4 Jl 26 '48
 Group formed to plan plane development; working as ACC branch. Aviation W 49: 11-12 Ag 16 '48
 New panel to handle traffic and navigation control plan of RTCA. CAA J 9:88 Ag 15 '48
 Trebling military plane production urged in ACC report to Truman. R. Hotz. Aviation W 48:9-10 F 16 '48

Air policy commission, President's

- Air policy commission hears them all. I. F. Angstadt. Aero Digest 55:62+ D '47
 Aircraft design superiority recommended as national policy; from President's air policy commission report. Survival in the air age. Product Eng 19:156-8 Mr '48
 Commission on air policy submits report to President; Survival in the air age. CAA J 9:13+ F 15 '48
 Finletter report. R. F. Murray, 2d. Air Affairs 2:395-403 Jl '48
 Four point program offered to boost U.S. civil aviation. A. McSurely. Aviation W 48:35-6 Ja 26 '48
 Long range procurement plans suggested for aircraft industry. Aviation W 48:16-17 Ja 26 '48
 New lift for aircraft industry; Finletter commission report. Bsns W p28+ Ja 24 '48
 Power in the air; an analysis of the President's air policy commission report. Survival in the air age. S. P. Johnston. II Dun's R 56:14-16+ Mr '48
 President's air policy commission urges more financial aid to airlines. C. Adams. Aviation W 48:39-9 Ja 19 '48
 Research personnel fund boost urged. R. McLauren. Aviation W 48:14-15 Ja 19 '48
 Survival in the air age; excerpts from the official summary of the report of the President's air policy commission. Aeronautical Eng R 7:34-6+ Mr '48
 Survival in the air age; highlights from the report of the President's air policy commission. Aero Digest 56:25+ F '48

UNITED STATES—Continued

Air service

Air force buys. Bsns W p40 O 2 '48
 Air force cancels F-87 contract. Aviation W 49:13 O 25 '48
 Air force flies the weather. N. F. Silsbee and R. W. Brown, II Aero Digest 56:37-8+ Ap '48
 Air-force-in-being. W. S. Symington. Aero Digest 57:33 S '48
 Air force industrial mobilization now moves into second phase. Aviation W 48:17 F 2 '48
 Air force learning news value of pix. J. L. Collings. Ed & Pub 81:50 O 30 '48
 Air force offers streamlined buying plan. Aviation W 49:15-16 S 6 '48
 Air force operational funds cut. Aviation W 48:13 Je 14 '48
 Air force plans extensive research. Automotive Ind 98:270+ Mr 15 '48
 Air force procurement problems. H. A. Shepard. II Aero Digest 56:51+ Mr '48
 Air force reveals new orders for 1,150 military planes. Aviation W 48:12-13 Ja 5 '48
 Air force seeks 12,441 planes for adequate U.S. defense force. Aviation W 47:11-12 D 8 '47
 Air force shuffles inspectors. Aviation W 47:13-14 D 29 '47
 AMC makes use of regional offices. Aviation W 49:59-60 S 6 '48
 Air power break-through. K. K. Hoyt. Aero Digest 56:34+ My '48
 Air power enthusiasts seek defense show-down. H. Davenport. Barron's 28:11 O 25 '48
 Air reserve field report. G. E. Stratemeyer. II Aero Digest 55:25 D '47
 Army and air force research. Mech Eng 70:232-3 Mr '48
 Army trains personnel for Arctic survival. II Refrig Eng 56:142-3 Ag '48
 Betrayal of air power; editorial. R. H. Wood. Aviation W 48:50 Ap 5; 54 Ap 12; 66 Ap 19 '48
 Budgets pass; USAF and navy funds for fiscal 1949. Aviation W 48:12 Je 28 '48
 Cargo contracts; USAF calls on six U.S. carriers to help with Berlin airlift. Aviation W 49:42-3 Ag 2 '48
 Congress has okayed the building of our air defense. K. K. Hoyt. Aero Digest 56:34+ Je '48
 Congress scorns mothball plan; Forrestal tries compromise with 70-group advocates by proposing to enlarge air force with stored craft. II Aviation W 48:11 My 3 '48
 Congress still battling Truman administration over airpower. Aviation W 48:14 Ap 12 '48
 Congressional sentiment favors more funds for U.S. air force. Aviation W 47:12-13 D 29 '47
 Elephant, the whale and the eagle; an analysis of U.S. military air power. C. Caldwell. II Aero Digest 56:23-5+ Ap '48
 Fight for 70 group air force flares again on Capitol hill. Aviation W 48:11-12 Ap 5 '48
 Forgotten air force (marine). C. Caldwell. II Aero Digest 57:19-20+ N '48
 Forty-four years since Kitty Hawk. J. S. Knight. Aero Digest 56:26-8 F '48
 Good shooting from Shooting Stars; gunnery tests. II Aero Digest 56:37 F '48
 Helicopters in the air force. A. T. Culbertson. II Aero Digest 57:73-4+ S '48
 How USAF classifies its property. Aviation W 49:55-6 S 6 '48
 How USAF purchase requests become contracts; chart. Aviation W 49:17 S 6 '48
 Inspector general of the air force; organization of specialized inspection service. H. J. Knerr. Aero Digest 57:40+ S '48
 Joint chiefs of state and national security. C. Hinshaw. Aero Digest 56:28-9+ Je '48
 Lack of strategic plan hampers development of U.S. air power; report of Congressional air policy board. Aviation W 48:11-12 Mr 1 '48
 More for the air reserve. C. Caldwell. II Aero Digest 56:42-3+ Je '48
 New air force test: the Senate; 70-group program. Aviation W 48:13 Ap 26 '48

New air program; 70-group project. map Aero Digest 56:23-4+ Je '48
 New weapons for air supremacy; work of Air materiel command. B. W. Chidlaw. II Aero Digest 57:50-3 S '48
 1949 military aircraft program; how the aircraft industry will be affected. R. McLaren. Automotive Ind 98:40-1+ Je 15 '48
 Orders are coming for aircraft industry. R. Hotz. Aviation W 48:11-12 Ap 19 '48
 Overhauling jets for the air force. M. M. Eakes, Jr. II Aero Digest 56:54-5 D '47
 Plans for petroleum personnel for the Department of defense; air force. S. C. Lombard. Am Pet Inst Proc 27(1):94-5 '47
 70-group air program detailed. Steel 122:75 Ap 26 '48
 70-group program; new funds will buy 4262 planes. Aviation W 48:9-10 My 17 '48
 Size of air force remains in doubt. Aviation W 48:12 My 31 '48
 12 companies share aircraft program. R. Hotz. II Aviation W 48:11-12 Je 21 '48
 USAF Air materiel command buyers list. Aviation W 49:49-50 S 6 '48
 USAF Air materiel command; organization chart. Aviation W 49:14 S 6 '48
 USAF definitions will be useful to manufacturers interested in air force contracts. Aviation W 49:45-6 S 6 '48
 USAF flexes muscle at Idlewild; exposition opening world's largest civil airport. II Aviation W 49:14 Ag 9 '48
 USAF in evolutionary period. II Aviation W 48:12+ F 23 '48
 USAF-navy rivalry makes top air show. Aviation W 49:13 S 13 '48
 USAF smooths administrative details. Aviation W 48:13 F 23 '48
 USAF wants more than 70 groups. Aviation W 49:13 S 6 '48
 U.S. air force; year's progress. Mech Eng 70:906-7 N '48
 Vast air program held defense need. I. F. Angstadt. II Aero Digest 56:15+ Ja '48
 Wildest blue yonder yet; the aircraft industry Finletter report. II Fortune 37:94-101+ Mr '48

Education

U.S. air force education. M. S. Fairchild. Air Affairs 2:209-17 Winter '48

History

U.S. air force, 1909-1948. C. Caldwell. II map Aero Digest 57:66+ S '48

Safety program

From the ground up, and world wide; ground safety program in the post-war air force. L. F. Carter. II Nat Safety N 58:82-4+ O '48

Air service, Army

Transport command

Water supply for the Air transport command. F. E. Smith. N E Water Works Assn J 61:238-46 S '47

Air service, Navy

Elephant, the whale and the eagle; an analysis of U.S. military air power. C. Caldwell. II Aero Digest 56:23-5+ Ap '48
 How navy procurement process works; chart. Aviation W 49:26 S 6 '48
 More Mercators for the navy. II Aero Digest 57:37 Ag '48
 Naval aviation buying offices are listed. Aviation W 49:25 S 6 '48
 Naval aviation program. A. M. Pride. II Aero Digest 56:55-7 Mr '48
 Navy air arm debate flares at Clinic. Aviation W 49:12-13 O 25 '48
 Navy expanding plane strength to 14,500. R. Hotz. Aviation W 48:11 My 10 '48
 Navy now expanding aviation program. Aviation W 49:19-20 S 6 '48
 Navy offers incentive plan. Aviation W 49:20-1+ S 6 '48
 Navy reveals new air program. Aviation W 48:13 Ap 5 '48
 Navy's week-end warriors; Naval air reserve. C. Caldwell. II Aero Digest 57:37-8+ J1 '48
 New concept of naval air power. Aviation W 48:16-17 F 23 '48
 Plane-sub team devised for navy for atomic bomb attacks. R. Hotz. II diag Aviation W 49:12-13 N 8 '48

UNITED STATES—Air service, Navy—*Cont.*
 Safety in the skies. H. B. Say. *il* U S Naval
 Inst Proc 74:1110-19 S '48
 Sea-based air power. C. Caldwell. *Aero Digest*
 57:50-1+ Ag '48
 XP5Y-1; latest navy flying boat. *il* Aviation
 W 49:13-14 N 1 '48

Transport service

NATS makes new safety record in 1947.
 Aviation W 48:11 Ja 12 '48
 Navy has a heart. B. L. Britton. *il* U S Naval
 Inst Proc 74:1212-15 O '48

Antiquities

River basin surveys. *Science* 106:586 D 12 '47

Apprentice training service

Boom in apprentice training; Apprenticeship-
 training service of the U.S. Dept. of labor.
il Bsns W p 110-13 D 6 '47

Appropriations and expenditures

Federal appropriations and 80th Congress
 economy program. S. Bridges. *Comm & Fin*
 Chr 168:211+ JI 15 '48
 Federal budget locks horns with simple arith-
 metic. E. A. Kracke. *J Account* 84:471-9
 D '47
 Government aviation obligations under 1949
 fiscal year appropriations; tabulations. *Aviation*
 W 49:18 S 6 '48

See also

Budget—United
 States

Armed services

Fortune survey; our military strength. *For-*
tune 37:10 Je '48
 Geologist in uniform; World war II. D. M.
 Delo. *Am Assn Pet Geologists Bul* 32:1691-
 711 S '48
 In defense of the military. R. J. Lauer. *il*
 U S Naval Inst Proc 74:1134-7 S '48
 It's easier to sell armed forces now. *Mod*
Ind 15:147-8+ Ja '48
 Personnel and pay in military branch of fed-
 eral government, yearly figures, 1939 and
 1943 and monthly Nov. 1946-Nov. 1947. *Mo*
Labor R 66:98 Ja '48 [cont monthly]
 S.P.I. remobilization program meeting; what
 the armed services want from plastics;
 digests of papers. *Mod Plastics* 26:156+
 N '48
 Trends in the traditional relation between
 military and civilian; abstract. H. Sprout
Science 107:588-9 Je 4 '48

See also

Military supplies	United States—Army
United States—Air	United States—Navy
service	Veterans

Army

Army composite reserve groups. M. B. Chit-
 tick. *Am Pet Inst Proc* 27(1):98-9 '47
 Army rules press correspondents may
 criticize. *Ed & Pub* 81:15 Ap 3 '48
 Plans for petroleum personnel for the De-
 partment of the army. J. D. Hines. *Am Pet*
Inst Proc 27(1):96-7 '47

Clothing

Clothes for a million men, New York quarter-
 master purchasing office. L. O. Grice. *Textile*
Col 70:20+ F '48
 Ventilation of clothing and tolerance of man to
 low environmental temperatures. S. M.
 Horvath. *il* J Ind Hygiene 30:133-9 Mr '48

Commissariat

Hot pills; combat ration heating. *Ind & Eng*
Chem 39:sup5A+ N '47

Education

Army PR plan wins support of editors. *Ed &*
Pub 81:24 JI 17 '48
 Army to train men for career in public re-
 lations work. *Ed & Pub* 81:62 My 22 '48
 Comments on army ROTC programs. P. B.
 Narmore. *J Eng Educ* 38:223-6 N '47
 Training personnel executives in the army.
 C. D. Leatherman. *Personnel* 25:46-8 JI '48

See also

United States mili-
 tary academy,
 West Point

Engineer corps

AGC sponsors 100 reserve army units. *Con-*
crete 55:13-14 N '47
 Army military construction program tops
 \$300 million, report discloses. *Eng N* 140:
 320-1 F 26 '48
 Electric utilities aid army build trained re-
 serves for emergencies. *Elec World News*
 ed 130:5 Ag 21 '48

Equipment and supplies

Army-convoys' 20,000-mile run tests lubes in
 all weathers. G. H. Vogel. *il* Pet Processing
 3:761-2 Ag '48
 Industry acts to erase military motor gaso-
 line deficit. R. E. Bjorkback. *Nat Pet N* 40:
 15 Ag 4 '48

See also

Army fabrics

Officers

Department of the army program of particu-
 lar interest to scientists. *Science* 108:352 O
 1 '48

Research

Army and air force research. *Mech Eng* 70:
 232-3 Mr '48
 Army and navy research programs set for
 two years. *il* Product Eng 19:154-5 F '48
 Chemical research of army expanded. *il* Oil
 Paint & Drug Rep 152:3+ D 29 '47
 War department's research and development
 program; important unsolved metallurgical
 problems. E. A. Routheau. *Metal Prog*
 53:249-50 F '48

Signal corps

Signal corps procurement; procedures to be
 followed by radio and communication man-
 ufacturers seeking defense contracts. R.
 Hertzberg. *flow chart Tele-Tech* 7:24-5+
 O '48

Textile requirements

See also

Army fabrics

Transportation

See also

Transports

Bibliography

German publications on the United States,
 1933 to 1945. H. Hainebach. *comp. N Y Pub*
Lib Bul 52:435-49, 501-23 S-O '48
 Interpreting the United States; a selection of
 books published July-September, 1947; ele-
 venth supplement. 7p New York public lib,
 New York '47
 Interpreting the United States; a selection
 of books published October-December 1947.
N Y Pub Lib Bul 52:26-32 Ja '48

Chemical corps

John Grebe accepts new Chemical corps ad-
 visory post. *Chem & Eng N* 26:2890 S 27
 '48

Civil aeronautics board

Trying to revamp a major industry. *pors*
Bsns W p 19-20 O 9 '48

Civilization

Strength of America. D. Lilienthal. *Power*
 92:1-3 Ja '48; Same cond. *Power Genera-*
tion 52:51+ F '48

Coast and geodetic survey

U.S. Coast and geodetic survey. *Science* 108:
 259-60 S 3 '48

Coast guard

Merchant marine inspection; a major func-
 tion of the coast guard. H. F. Crouch. *il*
 U S Naval Inst Proc 74:822-31 JI '48

Commerce

Can America prosper without foreign trade?
 A. Wilson. *Comm & Fin Chr* 168:407+ JI 29
 '48

Developments in international finance and
 trade; United States international transac-
 tions. *Survey of Cur Bsns* 27:14-19 D '47

Dollar value in United States import statis-
 tics. W. C. George and I. Weiss. *il* For
Comm W 32:7-8+ Ag 14 '48

UNITED STATES—Commerce—Continued

Effect of lower prices on export and import trade. V. L. Horoth, Mag of Wall St 81: 639-40+ Mr 13 '48

Expanding United States imports; broad efforts serve vital ends. F. P. Forbes, il For Comm W 32:5-7+ Ag 28 '48

Exports, imports and dollars. A. M. Strong, Comm & Fin Chr 167:1229 Mr 18 '48

Extraordinary peaks attained by U.S. world trade in 1947; with charts and tabulations. G. A. Witherow, il For Comm W 31:3-7+ My 16 '48

First-quarter 1948 transportation account in U.S. balance of payments. For Comm W 32: 48 JI 17 '48

Foreign aid programs and U.S. foreign trade. W. M. Martin, jr, Comm & Fin Chr 168: 1314+ S 30 '48; Same. For Comm W 33: 5-6+ N 8 '48

Foreign trade; indexes and shipping weight; value of exports and imports, 1941-1946. Survey of Cur Bsns 1947 Sup p96-103 [supplemented in monthly numbers]

Foreign trade pattern shifts. Bsns W p25 Ag 28 '48

Fundamental facts on foreign trade; need of greater U.S. imports. G. W. Wolf, Comm & Fin Chr 167:2651+ Je 17 '48

Implications of our rising purchases abroad. V. L. Horoth, Mag of Wall St 82:335-7+ JI 3 '48

Import trade promotion. P. J. Stevenson, Comm & Fin Chr 166:1635+ O 23 '47; Same. For Comm W 29:3+ D 6 '47

International transactions of the United States during 1947. W. Lederer, Survey of Cur Bsns 28:17-23 Mr '48

International transactions of the United States during the first quarter of 1948. Survey of Cur Bsns 28:8-10 Je '48

International transactions of the United States during the second quarter of 1948. Survey of Cur Bsns 28:6-9 S '48

International transactions of the United States during the war, 1940-45. U S Dept of Commerce Economic Ser 65:1-227; pa 60c Supt. of doc. '48

Our foreign trade and the dollar problem. A. Maffry, Comm & Fin Chr 168:1640+ O 21 '48

Our foreign-trade outlook; decisive factors and forces. T. C. Blaisdell, jr, For Comm W 30:3-4+ Mr 6 '48; Same, Comm & Fin Chr 167:1533+ Ap 8 '48

Progress of the postwar transition; foreign trade in 1947. Survey of Cur Bsns 28:21-3 F '48

Second-quarter 1948 transportation account in United States international balance of payments. For Comm W 33:47 N 8 '48

Status of United States private trade with the Far East; trade and exchange controls. For Comm W 32:40-7 JI 17 '48

Transportation account in our postwar balance of payments. R. Q. P. Chin and L. D. Nierenberg, il For Comm W 31:3-5+ Je 19; 8-9+ Je 26 '48

United States balance of payments with ERP countries; estimates for 1947 and the first program year. Survey of Cur Bsns 28:5-7 My '48

United States exports in 1947, by commodity groups and destinations. R. L. Kraybill, il Dun's R 56:18-19 Ag '48

U.S. exports to eastern Europe; quarterly report by Secretary of commerce. C. Sawyer, Comm & Fin Chr 168:811+ Ag 26 '48

U.S. foreign trade at new high. Steel 122:64-5 F 16 '48

United States foreign trade, total trade, distribution by countries and areas and by leading commodities, and figures for private relief shipments; figures for selected months Nov. 1946-Nov. 1947, 1936-38 11-month average, and Jan.-Nov. totals for 1946 and 1947. For Comm W 30:8-10 Ja 31 '48 [cont monthly]

U.S. has assumed top position in chemical trade. C. C. Concannon, Ind & Eng Chem 40:1004-10 Je '48

U.S. imports increasing, exports falling as rest of world recovers. Elec World 130:64 Ag 28 '48

Why and how of imports; facing up to a challenge. E. M. Braderman, il For Comm W 33:7-8+ N 8 '48

See also
Export trade

Canada

See Canada—Commerce

Great Britain

See Great Britain—Commerce

India

See India—Commerce

Latin America

See Latin America—Commerce

Russia

See Russia—Commerce—United States

Switzerland

See Switzerland—Commerce

Commerce, Department of

CAB, Commerce, argue air safety. Aviation W 48:12 My 10 '48

Commerce dept. perks up. E. J. Hardy, Iron Age 162:104+ S 16 '48

Discussion of the new Department of commerce income series; national income; a new version. S. Kuznets, bibliog R Econ & Stat 30:151-79; Reply (Objectives of national income measurement). M. Gilbert and others. 179-95; Further comments. M. Kalecki. 195-7 Ag '48

Esselen heads government bureau to help admen. Ed & Pub 81:20 JI 10 '48

Commercial policy

Called giant of economic world, U.S. faces crucial decision; should ratify I.T.O. charter. W. L. Clayton. For Comm W 31:3+ Je 26 '48

Controls on shipments to the Soviet Union and eastern Europe. W. A. Harriman, For Comm W 31:24 Ap 3 '48

Expanding world trade; primary objective of our foreign policy. J. W. Snyder, Comm & Fin Chr 167:2323+ My 27 '48

Export control; instrument of foreign policy. J. M. George, Comm & Fin Chr 168:100+ JI 8 '48; Same. For Comm W 32:3-5+ JI 3 '48

Extension of trade agreements act strongly urged by the President; text of message to Congress, March 1. For Comm W 30:5+ Mr 13 '48

Le protectionnisme américain. J. Ducrocq, Chimie & Ind 58:597-9 D '47

Provisions of General agreement on tariffs and trade put into effect with respect to China and Czechoslovakia. For Comm W 31:47-8 My 22 '48

Two way traffic for international trade. F. H. Chapin, il Dun's R 56:19-20+ My '48

United States and world trade. F. W. Fetter, Ann Am Acad 255:166-75 Ja '48

United States commercial policy. J. A. Loftus, J Bsns 21:193-202 JI '48

See also
Export trade—Regulation
Tariff—United States

Congress

Congress comes, through. il Fortune 37:74-81 Je '48

Congress was busy in session's closing days. Ey Age 124:1284-7 Je 26 '48

Fiscal program of the 80th Congress. J. A. Maxwell, Harvard Bsns R 26:63-73 Ja '48

Good Congress record seen on construction matters. V. B. Smith, Eng N 141:1-3, 10 JI 1 '48

In review, the 80th Congress; aviation legislation. K. K. Hoyt, Aero Digest 57:34+ Ag '48

What Congress did; recent legislation affecting the transportation industry. G. Bayless, Bus Transportation 27:56-7 Ag '48

Committees

Tale of two committees: Wilson and Thomas committees. Fortune 36:3-4 D '47

UNITED STATES—Continued

Constitution

Proposes organization to defend constitutional rights. E. F. Hutton. *Comm & Fin Chr* 167:1211 Mr 18 '48
22nd amendment; proposal to limit the taxing power of Congress. *Manuf Rec* 117:25 Ja '48

Council of economic advisers

Brains trusting; 1948 style. A. W. May. *Comm & Fin Chr* 167:1421+ Ap 1 '48
CEA report and Foreign assistance act of 1948. *Mo Labor R* 66:640-1 Je '48
Economic advisers gain influence; tax plan theirs. H. Davenport. *Barron's* 28:9 Ja 19 '48
Truman aides repeat worst Marxist error; comments on second annual report. *Barron's* 27:1+ D 29 '47
U.S. Council of economic advisers put on year's probation. H. Davenport. *Barron's* 28:7 F 23 '48

Cultural relations

See also
Mexico—Cultural relations—United States

Great Britain

Mission on science and technology. *Chem & Eng N* 25:3633 D 8 '47; *Science* 106:518 N 28 '47

Defense transportation, Office of

Wartime activities of O.D.T. recorded. *Ry Age* 125:214-15 Ji 24 '48

Defenses

Air defense today; activities of the Air defense command. G. E. Stratmeyer. *maps Aero Digest* 57:45-8+ S '48
Air power is peace power. E. Rickenbacker. *Aero Digest* 55:28-9+ D '47
American economy and defense. G. W. Malone. *Air Affairs* 2:346-50 Ji '48
AFCA and national defense. S. H. Sherrill. *if Radio N* 39:44-5+ Je '48
Build the stockpile now for national security. *Factory Management* 106:50-5 Ap '48
Capital markets and national defense; backbone of American military security is industrial power. J. S. Lawrence. *Banking* 40:33-5+ Ap '48
Civilian components of the air force. K. K. Hoyt. *if Aero Digest* 57:59-60+ S '48
Defense agencies concerned about power supply. T. N. Sandifer. *Pub Util* 42:93-8 Ji 15 '48
Effect on our economy, under defense mobilization, under all-out preparedness. E. A. Krauss. *Mag of Wall St* 82:60-2+ Ap 24 '48
Electric power and our national defense. W. L. Cislser. *if Elec Eng* 67:319-24 Ap '48; Same cond. *Power Generation* 52:53+ My '48; Excerpts. *Elec World* 129:86-7 F 14 '48; Abstract. *Mech Eng* 70:898-900 N '48
\$55 billion budget possible in two years; military plans include big projects yet unveiled. J. Abels. *Barron's* 28:34 My 3 '48
Industry's part in our best defense; organization for national security; chart. *Mill & Factory* 42:148-50 F '48
Joint chiefs of state and national security. C. Hinshaw. *Aero Digest* 56:28-9+ Je '48
Military lessons learned and not learned. B. Vogel. *if U S Naval Inst Proc* 74:722-31 Je '48
Military strategy and minerals. G. A. Lincoln. *if map Eng & Min J* 149:84-8 My '48
Mobilization of communications; summary of Peebles report. *Pub Util* 42:40-1 Ji 1 '48
More science in security planning. W. Evans. *Power Generation* 52:51 Ji '48; Same abr. *Iron Age* 160:142-3 N 13 '47
Munitions board in new role; master-minding procurement program for national defense. *Aviation W* 49:35-6 S 6 '48
Need for strategic intelligence on economic war potential. R. A. Rowe. *if U S Naval Inst Proc* 74:803-15 Ji '48

Petroleum and its relation to national security. B. K. Brown. *Am Pet Inst Proc* 27(1):37-42 '47; Same cond. *Nat Pet N* 39:26+ N 19 '47; Same cond. *Oil & Gas J* 46:190+ N 15 '47
Relationship of the power industry to national defense. J. W. Swaren. *Pub Util* 42:135-46 Ji 29 '48
Requirements for national security. A. M. Hill. *Comm & Fin Chr* 167:1433+ Ap 1 '48
Riddle of the West. R. Sunderland. *if U S Naval Inst Proc* 74:286-95 Mr '48
Sanitary engineers see need of catastrophe organization; National research council urges creation of sanitary-engineering unit in U.S. Public health service. *Eng N* 140:473+ Ap 1 '48
Science in national security. S. B. Ritchie. *Franklin Inst J* 246:223-31 S '48
Security by enactment. C. Moran. *if U S Naval Inst Proc* 74:403-15 Ap '48
Truman urges defense program in address to Congress, March 17. *Comm & Fin Chr* 167:1205+ Mr 18 '48
Underground military structures, sound defense measure. L. M. Hersum. *Civil Eng* 18:305 My '48
Utilizing small industrial plants in event of national emergency. J. A. McPherson. *Mech Eng* 69:909-10 N '47
What we are doing about national security. *Factory Management* 106:66-73 Mr '48
What's ahead for industry if the cold war warms up. *Factory Management* 106:66-71 Ji '48
Wherein lies our strength? H. H. Holly. *if U S Naval Inst Proc* 74:836-41 Ji '48

See also
United States—Armed services
United States—Army
United States—National security resources board
United States—Navy

Description and travel

Guide to America. E. Jenkins, ed. 705p bibliog(p671-85) \$5 Public affairs press, 2153 Florida av, Washington 8, D.C. '47

Economic conditions

America's broadened economy. E. A. Krauss. *if Mag of Wall St* 81:454-6 Ja 31 '48
Council of economic advisers sums up economic situation in mid-year report to President. *Comm & Fin Chr* 168:498+ Ag 5 '48
Crisis in American life. H. Hoover. *Comm & Fin Chr* 167:2751+ Je 24 '48
Demand, production, and prices in 1947. *Fed Res Bul* 34:1-10 Ja '48
Economic advisory council reports on foreign aid burden. *Comm & Fin Chr* 166:1853+ N 6 '47
Economic reports, Dec. 1947-Jan. 1948; summaries of economic report of the President; report of council of economic advisers; Presidential messages to Congress; annual report of the Secretary of labor. *Mo Labor R* 66:278-81 Mr '48
Economic review of 1947. S. M. Foster. *East Underw* 49:4 Ja 2 '48; Same. *Life Ins Courant* 53:10-12 F '48; Same. *Spectator (Life ed)* 155:14-15+ Ja '48; Same. *Weekly Underw* 158:98-9+ Ja 3 '48; Same cond. *Nat Underw (Life ed)* 52:3+ Ja 2 '48
Economic scene; Los Angeles address. J. W. Snyder. *Comm & Fin Chr* 168:1748+ O 28 '48
Economic tendencies; situation during last 12 months. A. W. Zelomek. *Comm & Fin Chr* 167:1431+ Ap 1 '48
Fortune survey; Fortune consumer outlook. E. Roper. *Fortune* 36:5-6+ N '47; 37:5-6+ Ap '48
How sound is the dollar? *Fortune* 37:84-8+ Ap '48
National income and product statistics, 1944-47; with detailed tabulations. *Survey of Cur Bsns* 28:12-29 Ji '48
National income and product statistics of the United States, 1929-46; with detailed tabulations. *Survey of Cur Bsns* 27:sup 1-54 Ji '47
New American market; the Nation. *if maps Bsns W* p61-72 D 20 '47 [reprints 20c]
Our current high-level economy can be maintained. J. W. Snyder. *Comm & Fin Chr* 168:1197+ S 23 '48

UNITED STATES—Economic conditions—Cont.

- Postwar I and II conditions; a comparison. A. L. M. Wiggins. Comm & Fin Chr 167: 1861+ Ap 29 '48
- President's advisers stress inflationary trends; report covering first three months of year. Comm & Fin Chr 167:1644+ Ap 15 '48
- President's economic report renews plea for inflation curbs; abstract. Comm & Fin Chr 167:201+ Ja 15 '48
- Preview of 1948; economic and business trends; with balance sheet of economic factors. E. A. Krauss. Mag of Wall St 81: 389-91+ Ja 17 '48
- Progress of the postwar transition; review of 1947; with graphs, charts and tabulations. Survey of Cur Bsns 28:1-32 F '48
- Prosperity not certain without price competition; report of Council of economic advisers. Comm & Fin Chr 166:2614+ D 25 '47
- Significance of recent economic developments. R. Rodgers. Comm & Fin Chr 167: 1867+ Ap 29 '48
- State of the Nation's business. W. J. Matherly. Comm & Fin Chr 168:1543+ O 14 '48
- Survey of our economy; pluses and minuses; abstract. S. H. Slichter. Management R 37:114-16 Mr '48
- Tax pinch may affect markets in first quarter. G. E. Shea, jr. Barron's 28:7-8 Ja 12 '48
- Truman; it's time to put on brakes; meaning of economic report and budget. Bsns W p 19-20 Ja 17 '48

See also

- | | |
|-----------------------|-----------------------|
| Business conditions | Labor and laboring |
| Finance—United States | classes—United States |
| Income—United States | Wages—United States |

Economic history

- Must 1929 repeat itself? T. Arnold. Harvard Bsns R 26:32-45 Ja '48
- Origin and evolution of our free enterprise system. W. E. Spahr. Comm & Fin Chr 166: 1838+ N 6 '47
- Supporting America's high-level economy; with charts showing comparison with conditions after World war I. Bsns W p 19-21 S 18 '48

Economic policy

- Administration anti-inflation program; statement before House banking and currency committee. J. W. Snyder. Comm & Fin Chr 166:2158+ N 27 '47
- American faith in a dynamic economy. C. E. Wilson. Edison Elec Inst Bul 15:395-7 N '47
- Buttressing our economy as boom levels off. E. A. Krauss. il Mag of Wall St 82:8-10 Ap 10 '48
- Can democracy act without a crisis? L. H. Keyserling. Comm & Fin Chr 167:1529+ D 8 '48
- Decline of property rights. M. R. Gainsbrugh. Edison Elec Inst Bul 16:137-41 My '48
- Economics? or camouflage? comments on Truman's economic report to Congress. Barron's 28:1+ Ja 19 '48
- Engineer's appraisal of the current outlook. F. T. Letchfield. Edison Elec Inst Bul 16: 125-6+ Ap '48
- General business conditions; Truman's proposals for combating inflation. Nat City Bank p 133-6 D '47
- Industry's answer to the police state; NAM's 12-point program. E. Bunting. Comm & Fin Chr 166:2273+ D 4 '47
- Lessons of recent experience in fiscal policy; economic thinking unbalanced. A. G. Hart. Comm & Fin Chr 167:13+ Ja 1 '48
- Planned economy vs. the competitive spirit. Ry Age 124:129-31 Ja 10 '48
- President's message to special session of Congress; anti-inflation program. Nat City Bank p 85-8 Ag '48; Same abr. Comm & Fin Chr 168:513+ Ag 5 '48
- Program of limited price and wage controls; statement before House banking and currency committee. W. A. Harriman. Comm & Fin Chr 166:2262+ D 4 '47

- Question of controls; strategic, economic and political aspects. R. S. Meriam. Harvard Bsns R 26:454-67 Jl '48
- Something less than total. il Fortune 37:74-7 My '48
- Southern California economists' recommendations on curbing inflation; memorandum to Joint committee on the economic report. Comm & Fin Chr 166:2482+ D 18 '47
- Strengthening U.S. economy; Cincinnati address. C. Sawyer. Comm & Fin Chr 167: 2742+ Je 24 '48
- Truman urges higher taxes on business; message on state of the Union. Comm & Fin Chr 167:97+ Ja 8 '48
- Truman's advisers ignore basic economic truths. W. Witherspoon. Comm & Fin Chr 166:2170-1 N 27 '47
- Truman's control plans written by OPA veterans. H. Davenport. Barron's 27:11 N 24 '47
- Truman's ten points; five good, five bad, proposals put before Congress. Barron's 27: 1+ N 24 '47
- What can we expect from special session? E. A. Krauss. il Mag of Wall St 81:176-8+ N 22 '47
- What pressure is the foreign-aid program exerting on U.S. economy? excerpt from mid-year report by Council of economic advisers. For Comm W 32:3+ Ag 14 '48
- Where do we go from here? L. Ruthenburg. Edison Elec Inst Bul 15:449-53 D '47

Economic relations

- America's role in the Orient. P. V. McNutt. Ann Am Acad 258:53-8 Jl '48
- Economic defense of the United States. C. C. Abbott. Harvard Bsns R 26:613-26 S '48
- Economic factors in Canadian and United States trade. R. A. Gillies. Iron & Steel Eng 25:98-101 Je '48
- Impact of international developments on the American economy; abstract. F. A. Lutz. Science 107:537 Je 4 '48
- International developments and the American economy; abstract. S. Kuznets. Science 107: 586-7 Je 4 '48
- International transactions of the United States during the war, 1940-45. U S Dept of Commerce Economic Ser 65:1-227; pa 60c Supt. of doc. '48

Argentina

- See* Argentina—Economic relations—United States

France

- See* France—Economic relations—United States

Education, Office of

- United States Office of education. Science 108:256-7 S 3 '48

Employment service

- Public employment service; functions and operations. C. Stocking. Mo Labor R 66:605-8 Je '48
- U.S. employment service, nonagricultural placements, 1941-1946. Survey of Cur Bsns 1947 Sup p64 [supplemented in monthly numbers]

Executive departments

- Dictionary of federal alphabetical agencies. Bsns W p 85 Ag 28 '48
- Hoover board blues. Pub Util 42:667-9 N 4 '48
- Streamlining the government; Hoover commission. Bsns W p 25-6 S 11 '48; Same cond. Eng N 141:75 S 16 '48

Federal mediation and conciliation service

- Ching prescribes an apple a day. Mod Ind 15: 143-4+ Mr '48
- Conciliation and mediation in the United States. Int Labour R 57:640-5 Je '48
- Conciliation Service arbitration functions and facilities. Mo Labor R 67:42-3 Jl '48
- Dispute over secrecy; Joy case. Bsns W p 88+ D 13 '47
- Federal mediation and conciliation service; what it means, how it works. J. M. Gambatese. Bus Transportation 26:85 N '47
- Policies of Federal mediation and conciliation service. Mo Labor R 65:564-5 N '47

UNITED STATES—Continued

Fish and wildlife service

Fish and wildlife service. Science 108:255-6 S 3 '48

Food and drug administration

Food and drug administration. Science 108:257-8 S 3 '48

FDA powers strengthened by Appeals court decisions. Oil Paint & Drug Rep 152:3+ N 17 '47

FDA reorganizes field service and creates three new offices. Oil Paint & Drug Rep 153:3+ My 17 '48

Foreign relations

Another defeat for U.S. system; mistakes of American foreign policy. Barron's 28:1+ My 17 '48

Bipartisanship in American foreign policy. B. H. Williams. Ann Am Acad 259:136-43 S '48

Close European military alliance favored by voters; Gallup poll. Iron Age 162:127 Ag 19 '48

Facing gravest crisis in our history; Milwaukee address. T. E. Dewey. Comm & Fin Chr 167:1542+ Ap 8 '48

Favor mutual defense pact between U.S., Britain, France; Gallup poll. Iron Age 161:119 F 12 '48

Foreign policies and relations of the United States. H. M. Ehrmann, ed. bibliog Ann Am Acad 255:1-185 Ja '48

Foreign policy for the air age. T. K. Finletter. Aeronautical Eng R 7:16-19 Mr '48

Foreign policy must be reversed! T. E. Dewey. Comm & Fin Chr 167:816+ F 19 '48

Fortune survey; foreign policy under the new deal. Fortune 38:38 N '48

Fortune survey; our policy toward Russia, Marshall plan. Fortune 37:10+ Je '48

Great powers in the new world order. R. Strausz-Hupé. Ann Am Acad 257:47-56 My '48

Impact of external affairs on American public opinion; abstract. C. Binder. Science 107:587-8 Je 4 '48

New strategy in foreign policy; a general and a banker bring order and method to the U.S. State department. R. T. Elson. il Fortune 36:80-5+ D '47

Our Near Eastern policy in the making. W. L. Wright, Jr. Ann Am Acad 255:93-104 Ja '48

Our role in world affairs. J. P. Warburg. Comm & Fin Chr 168:609+ Ag 12 '48

Trends in the traditional relation between military and civilian; abstract. H. Sprout. Science 107:588-9 Je 4 '48

United States and the world crisis. J. P. Warburg. Ann Am Acad 258:112-23 Jl '48

We must help abroad in businesslike way. T. E. Dewey. Comm & Fin Chr 166:1955+ N 13 '47

See also

Reconstruction (World war, 1939-1945)—Marshall plan

Canada

See Canada—Foreign relations—United States

China

See China—Foreign relations—United States

Great Britain

See Great Britain—Foreign relations—United States

Greece

See Greece—Foreign relations—United States

Italy

See Italy—Foreign relations—United States

Russia

See Russia—Foreign relations—United States

Foreign service

Our public relations abroad; open letter to Hon. George V. Allen. C. Rheinstrom. Ptr Ink 223:27 Ap 30 '48
Training foreign-service officers in Office of international trade. J. N. Cortada. For Comm W 33:6+ O 16 '48
See also School of advanced international studies

Forest service

U.S. forest service. Science 108:258-9 S 3 '48

General accounting office

House group raps G.A.O. audit system; government freight bills found to be basically defective. Ry Age 125:340-1 Ag 14 '48

Geological survey

U.S. Geological survey. Science 108:258 S 3 '48

Government printing office

Activated research program; abstract. A. E. Giegengack. Inland Ptr 120:48 N '47
GPO successfully revives apprentice training school. il Inland Ptr 120:44-5 Mr '48
Head of Joint printing committee is watchdog of GPO for Congress. L. D. Farrar. Inland Ptr 121:70-1 Je '48

History

Spanish-American war

Abortive duel on Hicacaal Point. D. W. Knox. il U S Naval Inst Proc 74:1080-5 S '48
Remembering the Maine. W. S. Meriwether. il U S Naval Inst Proc 74:548-61 My '48

Industries and resources

American industry, democracy's ace in the hole. C. S. Wyand. Mech Eng 70:663-5 Ag '48

American resources for world leadership. H. M. Tremaine. il Mag of Wall St 81:355-6+ Ja 3 '48

America's changing industrial map; a McGraw-Hill study of the migration of industry in the U.S. Bsns W p65-72 Ag 7 '48 [reprints 10c]

Capital expansion boom; industry's plans for new plant and equipment. il Bsns W p65-72 F 7 '48 [reprints 20c]

Fifty-year record of industry migration, map Factory Management 106:94-6 Ag '48

Industrial migration. maps Chem Eng 55:110-12 Ag '48

Marshall program; what it means to American business. map Bsns W p67-78 N 22 '47 [reprints 20c]

Our national resources and European relief. C. J. Brand. Comm & Fin Chr 166:1947+ N 13 '47

Role of ceramic products in our engineering economy. J. D. Sullivan. Am Cer Soc Bul 27:149-52 Ap 15 '48

See also

Industrial mobilization Southwest—Industries and resources
also subdivision United States under names of various industries, e.g.
Airplane industry Automobile industry and trade

Information and education, Office of

(State department)

ASNE committee endorses government news-casts. Ed & Pub 81:17+ Ap 17 '48

Need for AP, U.P. Ed & Pub 81:118 Ap 24 '48

Insular possessions

United States and the Pacific islands. T. C. Hart. Ann Am Acad 255:115-23 Ja '48

Interdepartmental committee for scientific research and development

President's appointments. Science 107:184 F 20 '48

Interior, Department of

Krug gives Congress the hotfoot. Pub Util 42:365-7 S 9 '48

Internal revenue bureau

Advisory group urges changes in Bureau of internal revenue. J Account 85:504-5 Je '48

UNITED STATES—Internal revenue bureau—*Continued*

Losses on sales of business property as net operating loss deductions. F. C. Scott. J Account 86:219-23 S '48

International trade, Office of

Middle East branch set up in Areas division of OIT. For Comm W 32:17 Ag 14 '48
Reorganization helps OIT meet newly developing needs. For Comm W 30:6 Ja 24 '48;
Oil Paint & Drug Rep 153:4 Ja 19 '48
Training foreign-service officers in Office of international trade. J. N. Cortada. For Comm W 33:6+ O 16 '48

Labor, Department of

Deciding the fate of the Dept. of labor. Bsns W p92-4 S 4 '48
Work and policies of the Department of labor, 1913-48. L. B. Schwellenbach. Mo Labor R 66:249-54 Mr '48

Marine corps

Marine air reserve maneuvers. H. J. Blackwelder. il Aero Digest 55:43 N '47
Marine corps in 1948. A. A. Vandegrift. il U S Naval Inst Proc 74:134-43 F '48
U.S. marine corps in World War II. il U S Naval Inst Proc 74:1012-21 Ag '48

Maritime commission

Mission of the United States Maritime commission. J. K. Carson, Jr. Marine Eng 53: 49-51 O '48
Shipbuilding record of the United States maritime commission. Marine Eng 53:44-5 S '48

Merchant marine

Flow of capital in U.S. shipping. Marine Eng 53:58-60 O '48

Military air transport service

Airlift need; LeMay wants 105 additional C-54s to supply Berlin. Aviation W 49:13 O 11 '48
Airlines to lend pilots to airlift. Aviation W 49:43 O 18 '48
NATS and ATC are merged into single military transport service. R. Hotz. Aviation W 48:10 F 9 '48
Transport merger tests unification. Aviation W 48:17-18 F 23 '48
World's great transport system. R. Hotz. map Aviation W 48:11-12 My 17 '48

Mines, Bureau of

Bureau of mines reports its progress in synthetic liquid fuels research. Pet Processing 3:207-8 Mr '48
Forbes new mine safety chief; Fene and Ankeny also promoted. Nat Safety N 58: 23 S '48
Mineral program of the U.S. Bureau of mines. J. Boyd. il Min Cong J 33:19-22 N '47
Mineral resources probed and developed in active year by Bureau of mines. Heat & Ven 45:130+ Mr '48

Bibliography

Bibliography of Bureau of mines publications dealing with health and safety in the mineral and allied industries, 1910-46. S. J. Davenport. U S Bur Mines Tech Pa 705:1-154; pa 30c Supt. of doc. '48

Mint

How the mint makes change. il Banking 40: 16-17 Mr '48

Munitions board

Munitions board in new role; master-minding procurement program for national defense. Aviation W 49:35-6 S 6 '48

National academy of sciences

See National academy of sciences

National advisory committee for aeronautics

NACA buying. Aviation W 49:50+ S 6 '48
NACA cites many attainments in year of intensive research; 23d annual report. Aviation W 48:28+ Mr 22 '48
NACA expands its facilities. Aviation W 48: 22 Mr 15 '48

NACA research ends ice hazard; award of Robert J. Collier trophy to Lewis A. Rodert. R. McLaren. il diags Aviation W 47:24-5+ D 22 '47
NACA sees research progress; annual report. Aviation W 48:15 Mr 1 '48
NACA shows Ames Laboratory progress. R. Hotz. il Aviation W 49:11-12 J1 26 '48
Presenting Hugh Dryden of NACA; new research director. R. McLaren. Aviation W 48:12-13 Mr 8 '48

National labor-management panel

See National labor-management panel

National security resources board

Big plans of NSRB. Pub Util 42:167-8 J1 29 '48
Chemical industry and the National security resources board. W. T. Hack. Chem & Eng N 26:2584-5 S 27 '48
Chemical strategy; a chemicals division has been set up under the National security resources board to advise the President on preparedness. Chem Ind 62:566-7 Ap '48
Economic mobilization study gets underway. Oil Paint & Drug Rep 152:4+ D 29 '47
Ghost orders start rolling. Bsns W p21 O 9 '48
Mobilization plan takes form; industrial, military and civilian activities to be co-ordinated under National security resources board. Steel 121:36-7 D 22 '47
NSRB coordinates mobilization for war. Aviation W 49:60 S 6 '48
Organizational blueprint for defense emerging. il Steel 123:61-2 Ag 16 '48
Resources board steps up plans to be ready for war. H. Davenport. Barron's 28:15 S 13 '48
Security board places standby order for 100,000 machine tools. E. J. Hardy. Automotive Ind 99:54+ O 15 '48

Naval research, Office of

Arctic research at Point Barrow, Alaska. L. Irving. Science 107:284-6 Mr 19 '48
Funds for the Office of naval research. Science 108:584 D 12 '47
Office of naval research. Science 108:277 S 10 '48
Office of naval research requests proposals for basic chemical research. A. Leggin. Chem & Eng N 26:1133+ Ap 19 '48
Program of basic research in chemistry. T. A. Solberg. Chem & Eng N 26:2688-90+ S 13 '48
Project squid probes pulsejet; five eastern universities hold navy research contracts. R. McLaren. Aviation W 47:26+ D 1 '47

Navy

Amphibious warfare; naval weapon of the future. R. E. Cushman, Jr. il U S Naval Inst Proc 74:300-7 Mr '48
Defense of the navy. C. Caldwell. il Aero Digest 56:23-5+ My '48
Honored men and ships; illustrations. U S Naval Inst Proc 74:748-57 Je '48
Naval contributions to aeronautical science, 1908-1913. M. C. Welborn. il U S Naval Inst Proc 74:990-7 Ag '48
Navy and civil liberty. W. B. Prendergast. bibliog U S Naval Inst Proc 74:1262-7 O '48
Navy and universal military training. J. E. Hamilton. il U S Naval Inst Proc 74: 562-71 My '48
Navy program for petroleum-specialist reserve personnel. R. E. Wilson. Am Pet Inst Proc 27(1):32-3 '47
Navy's stake in the future. G. Richards. il U S Naval Inst Proc 74:182-95 F '48
Our navy and South America's greatest earthquake. H. C. Votaw. il U S Naval Inst Proc 74:344-9 Mr '48
Survey of the application of photography in naval research, testing, and development. J. H. Bell and W. R. Cronenweitt. Soc Motion Picture Eng J 49:494-505 D '47
U. S. navy through 150 years; illustrations. U S Naval Inst Proc 74:882-91 J1 '48

UNITED STATES—Navy—Continued

United States place names honoring the navy. E. H. Clark, jr. il U S Naval Inst Proc 74:452-5 Ap '48

War-making must be in the hands of those who hate war. M. A. Peel, jr. il U S Naval Inst Proc 74:536-47 My '48

See also

United States naval expedition to Korea, 1871

Appropriations and expenditures

Let's take off our shells. H. V. Bird. il U S Naval Inst Proc 74:518-22 My '48

Clothing

Cold weather clothing and the navy. J. C. Busby. il Textile Col 70:33-+ F '48

Construction battalion reserve

Navy to organize reserve battalions to supplement construction units. Eng N 140: 525 Ap 8 '48

Education

Naval reserve officers training corps program in the engineering colleges. J. H. Belknap. J Eng Educ 38:294-9 D '47

Navy preparedness courses in packaging and materials handling. Mod Packaging 21: 183-+ Ja '48

See also

United States naval academy, Annapolis United States naval institute

Equipment and supplies

Navy purchase of Persian Gulf oil seen as realistic policy. W. W. Burns. Oil & Gas J 47:32 Jl 1 '48

Judicial system

Legal specialist. H. A. Patrick. il U S Naval Inst Proc 74:204-9 F '48

Laboratories

Expanding three permanent laboratories in California. Science 107:390 Ap 16 '48

Navy dedicates new research laboratory at Inyokern, Calif.; Michelson research laboratory. il plan diag Civil Eng 18:368-9+ Je '48

Rocket lab; U.S. naval ordnance test station at Inyokern, Calif. Chem Ind 61:975-6 D '47

See also

Naval ordnance laboratory, White Oak, Maryland Naval research laboratory

Medical and sanitary affairs

Influence of weather, combat status and overcrowding on the incidence of disease and accidents aboard naval vessels. M. Morales and E. Tarver. il U S Naval Inst Proc 74:210-17 F '48

Navy has a heart. B. L. Britton. il U S Naval Inst Proc 74:1212-15 O '48

Recent advances in atmospheric hygiene in the navy. E. E. Metcalfe. il U S Naval Inst Proc 74:876-81 Jl '48

Officers

Effect of combat commendation upon retirement. H. A. Patrick. il U S Naval Inst Proc 74:956-65 Ag '48

Maintenance of scientific proficiency in non-academic research laboratories. L. B. Loeb. Science 108:267-72 S 10 '48

Our vanishing petty officers. G. P. Steele, 2d. il U S Naval Inst Proc 74:700-5 Je '48

Prodigal son returns after thirty-three months in Japanese prison camps. A. McCracken. il U S Naval Inst Proc 74: 572-7 My '48

Pay, allowances, etc.

Pay and prize money in the old navy, 1776-1899. R. W. Daly. il U S Naval Inst Proc 74:966-71 Ag '48

Public relations

Let's take off our shells. H. V. Bird. il U S Naval Inst Proc 74:518-22 My '48

Navy department

Navy advances in business management. L. Lee, jr. il U S Naval Inst Proc 74:42-51 Ja '48

Bureau of yards and docks

Navy lists \$134 million construction for national defense installations; survey of work scheduled by Bureau of yards and docks. il Eng N 140:460-1 Mr 25 '48

Reshuffling of navy bureau aimed at greater efficiency. Eng N 141:69-+ S 16 '48

Employees

Naval air material center awarded top safety honor. Safety Eng 94:38 D '47

Naval safety award to Naval supply center, Oakland, Calif. Safety Eng 95:38 Je '48

Patent office

Cures for the troubles of the Patent office. H. A. Toulmin, jr. Product Eng 19:102-3 N '48

Open letter to the Commissioner of patents. J. Bjorksten. Chem & Eng N 26:1216-17 Ap 26 '48

Politics and government

Dewey administration will have its hands full. il Bns W p 19-20 Jl 3 '48

Election won't make too much difference; Republicans should be sure they have real issues to discuss. H. S. Taylor and P. A. Johnston. Barron's 28:7 Ja 19 '48

Fortune survey; looking back; new deal reforms approved. Fortune 38:33-4-+ N '48

Parties and politics; 1948. C. C. Rohlfing and J. C. Charlesworth, eds. bibliog Ann Am Acad 259:1-162 S '48

President's commission on higher education

Some recommendations of the President's commission on higher education. A. B. Bonds, jr. Science 107:379-83 Ap 16 '48

Public health service

Industrial hygiene services available to industry from U.S. Public health service. Chem Ind 62:812 My '48

Operation of the United States Public health service malaria control program. F. Tetzlaff. Pub Health Rep 63:557-63 Ap 30 '48

Public health service celebrates one hundred and fiftieth birthday. Pub Health Rep 63: 933 Jl 16 '48

Public health service under leadership of Dr Parran. Pub Health Rep 63:470-1 Ap 9 '48

Research grants awarded by Public health service. C. J. Van Slyke. (Pub. health rep. sup. 205) 41p U.S. Public health service, Washington '48

Road ahead in public health. L. A. Scheele. Pub Health Rep 63:472-8 Ap 9 '48

United States health missions in Liberia. J. B. West. Pub Health Rep 63:1351-64 O 15 '48

See also

National institute of health

Bibliography

Public health service publications. Pub Health Rep 63:716-21 My 28 '48

Public health service publications issued during the period Jan.-June 1947. Pub Health Rep 63:83-7 Ja 16 '48

Quartermaster corps

New York quartermaster office industrial mobilization planning. J. V. McDowell. Textile Col 70:32-+ F '48

See also

National research council—Committee on quartermaster problems

Research laboratory

Hearings held in Congress. A. Leggin. Chem & Eng N 26:825 Mr 22 '48

Reclamation, Bureau of

Bureau of reclamation procedures control all phases of heavy construction program. A. R. Golze. il Civil Eng 18:430-5+ Jl '48

UNITED STATES—Reclamation, Bureau of—*Continued*

Power income main source for reclamation repayments. Elec World News ed 129:5 Ja 24 '48

Quadruple power output rise by reclamation bureau. Eng N 141:1 Ag 12 '48

Reclamation accounting criticised; pressure to oust Straus grows. Elec World News ed 129:5 Mr 20 '48

Reclamation gets its money; Congress votes \$29,375,000. Elec World News ed 128:11 D 27 '47

United States Department of the Interior, Bureau of reclamation, program of power development, fiscal years 1948-1957; statistical data by states. Elec World News ed 130:16-17 S 4 '48

Religious institutions and affairs

Organized religion in the United States. R. H. Abrams, ed. Ann Am Acad 256:1-172 Mr '48

Research and development board

Research and development board. L. R. Hafstad. J Eng Educ 38:538-41 Ap '48

Scientific research and development, Office of, 1941-1947

Indexing Office of scientific research and development war reports. J. F. Sondheimer. Special Lib 33:35-9 F '48

Medal for merit given to 65 scientists and engineers of OSRD. Science 108:33 JI 9 '48

Standards, National bureau of

Atomic physics division formed at National bureau of standards. Elec Eng 66:1260 D '47; Excerpt. Oil Paint & Drug Rep 152:40 O 20 '47

National bureau of standards. Science 108: 152-3 Ag 13 '48

NBS reorganization adds new divisions. Ind Stand 18:284-5 N '47

Paper research and technology at the National bureau of standards. B. W. Scribner. II Paper. Ind 30:393-9, 577-81 bibliog(193 titles, p397-9, 580-1) Je-Jl '48

Plastics research and technology at the National bureau of standards. G. M. Kline. India Rubber World 118:73-7 bibliog(125 titles, p75-7) Ap '48

Promotions and retirements. pors Rubber Age 62:554 F '48

Bibliography

Publications of the National bureau of standards, 1901 to June 30, 1947. U S Nat Bur Stand Circ 460:1-375; pa 76c-Supt. of doc. '48

National applied mathematics laboratories

Federal program in applied mathematics. J. H. Curtiss. Science 107:257-62 Mr 12 '48

National applied mathematics laboratories. Science 106:519 N 28 '47

State department

New strategy in foreign policy; a general and a banker bring order and method to the U.S. State department. R. T. Elson. II Fortune 36:80-5+ D '47

Bibliography

Publications of the Department of state; a semi-annual list cumulative from October 1, 1929. 56p Supt. of doc. '48

Statistics

Financial, industrial, and commercial statistics. Published in monthly numbers of Federal reserve bulletin

Handbook of basic economic statistics; manual of basic economic data on industry, commerce, labor, and agriculture in the United States. Published monthly by Government statistics bur. of Washington, 631 Pennsylvania av, N.W., Washington 4

1947 statistical supplement. Survey of Cur Bsns 1947 Sup p 1-282 (pa \$1)

Supreme court

Antitrust campaign. Fortune 38:62-7 JI '48
Bargain on merit; Allison case; other actions. Bsns W p 102 O 16 '48

Supreme court's big week; decisions on discounts on salt; film monopoly; real estate covenants. Bsns W p21-2 My 8 '48
U.S. Supreme court docket; shift from business regulation to labor regulation. F. B. Kurland. Fortune 38:179-80 N '48

Tariff commission**Library**

United States Tariff commission library. C. Notz. Special Lib 38:320-3 D '47

Tax court

Bar association's statement on practice before tax court. J Account 84:425-31 N '47
Institute statement on Tax court before Senate committee. J Account 85:511-13 Je '48

Permission to practice before tax court difficult to obtain. C. W. Olofson. J Account 84:396 N '47

Report and summary of testimony before Senate committee on HR 3214; right of non-lawyers to practice before Tax court. M. Austin. J Account 85:475-80 Je '48

Technical services, Office of

House of representatives votes to abolish Office of technical services. A. Leggin. Chem & Eng N 26:733 Mr 15 '48

Transportation, Department of (proposed)

Transport department advocated by Johnson. Ry Age 124:537-8+ Mr 13 '48
Transport department bill hearings. Ry Age 124:628-9 Mr 27 '48

War department

Use of military land for agriculture during World war II. A. T. M. Lee. J Land & Pub Util Econ 23:349-59 N '47

War production board

War production board's statistical reporting experience. D. Novick and G. A. Steiner. Am Stat Assn J 43:201-30, 463-88 Je-S '48

Weather bureau

Weather bureau. Science 108:255 S 3 '48

Women's bureau

Report on 1948 Women's bureau conference, Feb. 17-19; American woman, her changing role; worker, homemaker, citizen. II U S Women's Bur Bul 224:1-210 '48

UNITED STATES and international securities corporation

Buying preferred would lift investment firm's surplus. Barron's 28:33 Mr 1 '48; Correction. 28:27 Mr 8 '48

UNITED STATES merchant marine academy, Kings Point, New York

Graduation exercises. Marine Eng 53:88 JI '48

UNITED STATES military academy, West Point

Mess hall extended while cadets dine; United States military academy. II diags Eng N 141:65-7 S 30 '48

UNITED STATES national commission for the United Nations educational, scientific and cultural organization

Meeting, Boston, Sept. 27-29. Science 108: 324 S 24 '48

UNITED STATES naval academy, Annapolis

Learning at the Naval academy; the academic departments and system of instruction. E. W. Thomson. II U S Naval Inst Proc 74:434-51 Ap '48

Naval academy and naval aviation. F. M. Hertel. II U S Naval Inst Proc 74:36-41 Ja '48

Naval academy as an undergraduate college. E. W. Thomson. II U S Naval Inst Proc 74:270-85 Mr '48

UNITED STATES naval expedition to Korea, 1871

Korean expedition of 1871; example of early amphibious operation. K. J. Bauer. II U S Naval Inst Proc 74:196-203 F '48

UNITED STATES naval institute

Admirable servant, occasionally obsequious; seventy-five years of the United States naval institute. G. V. Stewart. II U S Naval Inst Proc 74:1199-211 O '48

- UNITED STATES naval institute proceedings**
 Proceedings picture album. U S Naval Inst
 Proc 74:1280-91 O '48
 Seventy-five years of progressive naval thinking; review of some outstanding articles published in the Proceedings. W. H. Russell. U S Naval Inst Proc 74:1250-61 O '48
- UNITED STATES naval observatory**
 U.S. naval observatory. Science 108:52 J1 16 '48
- UNITED STATES naval research laboratory.**
 See Naval research laboratory
- UNITED STATES of Europe (proposed)**
 Blueprint for a united Europe. V. L. Horoth. Mag of Wall St 82:71-3+ Ap 24 '48
 Commonwealth and western union. Economist 154:866-8 My 29 '48
 D-day for western union? Economist 154:659-60 Ap 24 '48
 Problem of international understanding. G. S. Delatour. Ann Am Acad 255:1-14 Ja '48
 Push, prod and encourage; goal of European union. Economist 155:563-4 O 9 '48
 United Europe. W. W. Aldrich. Comm & Fin Chr 168:1637+ O 21 '48
 United States of Europe? J. W. Fulbright. Ann Am Acad 257:151-6 My '48
 United States of Europe finds considerable support; Gallup poll. Iron Age 160:115 N 20 '47
 Western workshop; Mr Bevin strikes the right note at the 2d conference of the Sixteen nations. Economist 154:443-4 Mr 20 '48
- UNITED STATES pipe and foundry company**
 Comparative study of U.S. Pipe and A. O. Smith. H. S. Coffin. Mag of Wall St 81:597-9+ F 28 '48
 Record sales restore profit margin. Barron's 28:34 Ja 12 '48
- UNITED STATES plywood corporation**
 Annual report. Comm & Fin Chr 168:788-9 Ag 23 '48
- UNITED STATES potters association**
 Annual convention, 69th, New York, Dec. 9-10. Am Cer Soc Bul 27:176 Ap 15 '48
 Annual convention, 69th, New York, Dec. 9-10. Cer Ind 50:61-2 Ja '48
- UNITED STATES radiator corporation**
 Plans recapitalization; earnings for years ended Jan. 31, 1947-1948. Comm & Fin Chr 167:1631 Ap 12 '48
- UNITED STATES rubber company**
 Diversified stake in high leverage stocks. G. W. Mathis. Mag of Wall St 82:393 J1 17 '48
 '47 earnings down despite big sales rise. Barron's 27:34 D 22 '47
- UNITED STATES smelting refining and mining company**
 United States smelting refining and mining company; history and present operations. flow sheets il maps diagrs Min & Met 29: 527-82 O '48
- UNITED STATES steel corporation**
 Annual capacity of U.S. steel corporation 31,226,200 tons; abstract. B. F. Fairless. Blast F & Steel Pl 36:111 Ja '48
 Annual report. Comm & Fin Chr 167:1359-61, 1370 Mr 29 '48; Excerpt. Blast F & Steel Pl 36:464-5 Ap '48
 Anti-inflation plan fails; U.S. Steel forced to raise wages, prices. Iron Age 162:121+ J1 22 '48
 Appropriates fifty million dollars for expansion in Chicago area. Blast F & Steel Pl 35:1394 N '47
 Number of stockholders. Comm & Fin Chr 166:2000 N 17 '47
 Steel's accounting aims to minimize depression. Barron's 28:35 F 9 '48
 Stocks cheaper than during prewar depression. F. H. Rosenstiel. Comm & Fin Chr 167:898+ F 26 '48
 Ten potential market leaders for 1948. Mag of Wall St 81:406 Ja 17 '48
 Traces rise of steel costs; U.S. Steel report. Steel 122:54-5 Mr 29 '48
 U.S. Steel, into chemicals? Bsns W p30+ Ap 10 '48
- UNITED steel companies**
 Statement by the chairman at annual general meeting. W. B. Jones. Economist 153:778-9 N 8 '47
- UNITED steelworkers of America**
 Communists win; Inland Steel local elects Communist-backed slate. Bsns W p63 J1 3 '48
 Raise in steelworkers dues anticipates need for emergency chest. B. Packard. Iron Age 161:119-20 My 27 '48
 Steelworkers ask security plan. Steel 122:74+ Ap 26 '48
- UNITED wallpaper, inc.**
 New lines expected to bring higher net. Barron's 28:27 My 31 '48
- UNITS**
 Engineering units of force. K. S. Lennie. Engineering 165:40 Ja 9 '48; Discussion. 165: 64, 88, 112, 280, 352, 496, 544-5; 166:40, 113 Ja 16-30, Mr 19, Ap 9, My 21, Je 4, J1 9, 30 '48
 Simple method for changing units. F. L. Robeson. Science 106:352 O 10 '47; Reply. B. H. Sanders. 107:191 F 20 '48
 See also
 Electric units
 Metric system
- UNIVERSAL decimal classification system.** See Classification, Decimal
- UNIVERSAL joints.** See Joints, Universal
- UNIVERSAL pictures company**
 Annual report. Comm & Fin Chr 167:693 F 9 '48
- UNIVERSE**
 Galaxies in flight; theory of expanding universe. G. Gamow. Il Sci Am 179:20-5 J1 '48
 Origin of chemical elements. R. A. Alpher and others. bibliog Phys R 73:803-4 Ap 1 '48
 See also
 Cosmogony
- UNIVERSITY of California African expedition.** See Scientific expeditions
- UNIVERSITY teachers of insurance, American association of.** See American association of university teachers of insurance
- UNSATURATED compounds**
 Determination of unsaturation in dehydrogenated diethylbenzene; by use of mercuric acetate. R. P. Marquardt and E. N. Luce. bibliog Anal Chem 20:751-3 Ag '48
 Kinetics of halogen addition to unsaturated compounds; iodine catalysis of chlorine and bromine addition to ethyl cinnamate. H. D. C. Waters, A. R. Caverhill and P. W. Robertson. Chem Soc J p 1163-72 S '47
 Kinetics of halogen addition to unsaturated compounds; $\alpha\beta$ -unsaturated ketones and quinones. H. P. Rothbaum, I. Ting and P. W. Robertson. Chem Soc J p980-4 J1 '48
 Reactions of unsaturated compounds; the action of organic peracids on β -disubstituted (2 : 4 : 4-trimethylpent-2-ene). A. Byers and W. J. Hickinbottom. Chem Soc J p284-8 Mr '48
 Ultraviolet absorption spectra of simple unsaturated compounds; mono- and *p*-disubstituted benzene derivatives. L. Doub and J. M. Vandenberg. bibliog Am Chem Soc J 69:2714-23 N '47
- UNSATURATION**
 Polymeric unsaturation and relative rate of cross linkage. R. L. Zapp. bibliog diagrs Ind & Eng Chem 40:1508-17 Ag '48
 Potassium permanganate test for detection of unsaturation. V. N. Ipatieff, W. W. Thompson and H. Pines. Am Chem Soc J 70:1658-9 Ap '48
- UNSHRINKABLE wool.** See Wool-Shrink-proofing
- UPDEGRAFF, Robert Rawls, 1889-**
 R. R. Updegraff becomes a publisher. Adv & Sell 41:84 Ja '48
- UPHOLSTERY**
 New nylon upholstery fabrics. Rayon 29:76 O '48
 Nylon in knit upholstery offers strong advantages. W. A. B. Davidson. Rayon 29:67 J1 '48
 Song of the loom; Dorothy Liebes unveils her designs for the future. Il Textile Col 69:23-6 N '47
 Stitchless quilted vinyl; Sealtuft. Il Mod Plastics 26:98-9 N '48
 Vinyl upholstery; Boltatex. Il Mod Plastics 25:160-1 Ag '48
 See also
 Trimmings (for drapery, upholstery, etc.)

UPPER atmosphere. See Atmosphere, Upper

URANIUM

Kinetics of activation-diffusion controlled reactions in solution; the temperature dependence of the quenching of fluorescence. B. Williamson and V. K. La Mer, *bibliog Am Chem Soc J* 70:717-21 F '48
Solvent effects on the quenching of the fluorescence of uranium by aniline, K. C. Hodges and V. K. La Mer, *bibliog Am Chem Soc J* 70:722-6 F '48

URANIUM

Fission excitation functions, J. Jungerman and S. C. Wright, *bibliog Phys R* 74:150-2 J 15 '48

Heat capacities at high temperatures of uranium, uranium trichloride, and uranium tetrachloride, D. C. Ginnings and R. J. Corruccini, *bibliog J Res Nat Bur Stand* 53:309-16 O '47

High energy spallation and fission products of uranium, P. E. O'Connor and G. T. Seaborg, *bibliog Phys R* 74:1189-90 N 1 '48

Metallurgical problems involved in the generation of useful power from atomic energy. W. Akers, *Metal Prog* 52:1016+ D '47

Mining congress hears AEC uranium plans. Chem & Eng N 26:3030-1 O 11 '48

New experiments concerning the surplus gamma-radiation from rocks, V. F. Hess and J. D. Roll, *Phys R* 73:592-5 Mr 15 '48

Nuclear engineering, E. U. Condon, *diags Elec Eng* 67:229-32 Mr '48

Production of thorium, zirconium and uranium, G. Meister, *diags Metal Prog* 53:515-20 Ap '48

Public lands in Colorado and Utah reserved for uranium drilling, *Franklin Inst J* 246:270 S '48

Some mechanisms for the fixation of uranium in certain sediments, A. F. Frederickson, *Science* 108:184-5 Ag 20 '48

U.S. Atomic energy commission announces program to stimulate production of domestic uranium, *Eng & Min J* 149:108 My '48

U.S. intensifies uranium search, *Oil Paint & Drug Rep* 153:7 Ap 5 '48

Uranium production programme, *Chem Age (Lond)* 58:712 My 22 '48

Uranium search, *Mech Eng* 70:548 Jé '48

Isotopes

Delayed neutrons from fission of U^{235} , D. J. Hughes and others, *bibliog il diags Phys R* 73:111-24 Ja 15 '48

Delayed neutrons from U^{235} after short irradiation, F. de Hoffmann and others, *Phys R* 73:636 Mr 15 '48

Energy distribution of the fragments resulting from the fission of U^{235} and Th^{232} by slow and by fast neutrons, J. L. Fowler and L. Rosen, *bibliog diags Phys R* 72:926-30 N 15 '47

Long life zirconium from uranium 235 fission, A. V. Grosse and E. T. Booth, *bibliog Am Chem Soc J* 70:465-6 F '48

Preparation and radiation of U^{237} , L. Melander and H. Siätis, *bibliog Phys R* 74:709-11 S 15 '48

Tripartition of heavy elements, Tsien San-Tsiang, *bibliog Phys R* 72:1257-8 D 15 '47

URANIUM carbides

Preparation and structure of the carbides of uranium, L. M. Litz, A. B. Garrett and F. C. Croxton, *diags Am Chem Soc J* 70:1718-22 My '48

Structures of the carbides, nitrides and oxides of uranium, R. E. Rundle and others, *bibliog Am Chem Soc J* 70:99-105 Ja '48

URANIUM chloride. See Uranium tetrachloride; Uranium trichloride

URANIUM compounds

Magnetic susceptibilities of some uranium (IV) compounds, C. A. Hutchison, Jr. and N. Elliott, *bibliog J Chem Phys* 16:920-6 S '48

URANIUM fluorides

Crystal structure of U_2F_6 , W. H. Zachariasen, *J Chem Phys* 16:425 Ap '48

Double fluorides of potassium or sodium with uranium, thorium or lanthanum, W. H. Zachariasen, *Am Chem Soc J* 70:2147-51 Je '48

See also

Uranium hexafluoride

Uranium tetrafluoride

URANIUM hexafluoride

Absorption in a high molecular weight non-aqueous system; uranium hexafluoride in heavy oil, R. Landau and others, *Chem Eng Prog* 44:315-26 Ap '48

Low temperature heat capacities, enthalpies, and entropies of UF_4 and UF_6 , F. G. Brickwedde and others, *diags J Chem Phys* 16:429-36 My '48

0.0000146; thermal conductivity of the gas uranium hexafluoride; abstract, P. A. Agron and A. H. Taylor, *Chem Eng* 55:260 Ag '48

Vapor pressure of uranium hexafluoride, B. Weinstein and R. H. Crist, *diags J Chem Phys* 16:436-41 My '48

Vibrational spectrum and thermodynamic properties of uranium hexafluoride gas, J. Bigeleisen and others, *bibliog diag J Chem Phys* 16:442-5 My '48

URANIUM hydride

Formation of uranium hydride, J. E. Burke and C. S. Smith, *Am Chem Soc J* 69:2500-2 O '47

Structure of uranium hydride, L. Pauling and F. J. Ewing, *bibliog Am Chem Soc J* 70:1860-1 Ap '48

URANIUM nitrides

Structures of the carbides, nitrides and oxides of uranium, R. E. Rundle and others, *bibliog Am Chem Soc J* 70:99-105 Ja '48

URANIUM ores

Atomic energy commission offers \$10,000 uranium bonus, *Chem & Eng N* 26:1228 Ap 26 '48

Canadian law on uranium spurs private exploration, W. M. Fawcett, *Barron's* 28:8 Je 28 '48

How to go about finding and mining it, P. Leach, Jr., *Eng & Min J* 149:75-7 S '48

URANIUM oxides

Fluorescence of uranium trioxide hydrates, D. T. Vier and others, *Opt Soc Am J* 38:811-14 S '48

Structures of the carbides, nitrides and oxides of uranium, R. E. Rundle and others, *bibliog Am Chem Soc J* 70:99-105 Ja '48

URANIUM tetrachloride

Heat capacities at high temperatures of uranium, uranium trichloride, and uranium tetrachloride, D. C. Ginnings and R. J. Corruccini, *bibliog J Res Nat Bur Stand* 53:309-16 O '47

Kinetic study of the oxidation of uranium tetrachloride, J. Van Wazer and G. John, *diag Am Chem Soc J* 70:1207 Mr '48

URANIUM tetrafluoride

Low temperature heat capacities, enthalpies, and entropies of UF_4 and UF_6 , F. G. Brickwedde and others, *diags J Chem Phys* 16:429-36 My '48

Magnetic susceptibility of uranium tetrafluoride, UF_4 , N. Elliott, *Phys R* 74:498-9 Ag 15 '48

URANIUM trichloride

Heat capacities at high temperatures of uranium, uranium trichloride, and uranium tetrachloride, D. C. Ginnings and R. J. Corruccini, *bibliog J Res Nat Bur Stand* 53:309-16 O '47

UCl_3 type of crystal structure, W. H. Zachariasen, *J Chem Phys* 16:254 Mr '48

URANYL compounds

Surface tension and viscosity of solutions of uranyl salts, W. E. Grant and others, *bibliog J Phys & Colloid Chem* 52:1227-36 O '48

URANYL fluoride

Specific heat, enthalpy, and entropy of uranyl fluoride, P. F. Wacker and R. K. Cheney, *bibliog J Res Nat Bur Stand* 53:317-20 O '47

URBAN redevelopment. See City planning

UREA

Chemistry of urea and melamine resins, R. W. Auten, *bibliog Paper Tr J* 127:45-51 J 29 '48

UREA—Continued

- Condensations of α -alkyl- α -carbethoxy- γ -butyric lactones, G. S. Skinner, A. Stokes and G. Spiller, bibliog Am Chem Soc J 69: 3083-6 D '47
- Durability of urea-formaldehyde adhesives, T. D. Perry, *il Mod Plastics* 25:88-91 Mr '48
- Effect of urea on cellulosic textiles; presented by South central section, AATCC, bibliog Am Dyestuff Rep 37:10-15 Ja 12 '48
- Evidence for the planar structure of the urea molecule, W. E. Keller, bibliog J Chem Phys 16:1003-4 O '48
- Imparting water-repellency to textiles by chemical methods; a review of the literature; urea derivatives, H. A. Schuyten and others, bibliog Textile Res J 18:500-2 Ag '48
- New synthetic nitrogen fertilizer; preparation and properties of urea-form, K. G. Clark, J. Y. Yee and K. S. Love, bibliog Ind & Eng Chem 40:1178-83 Jl '48
- Scale housing molded of urea; candy scales, *il Mod Plastics* 25:112 N '47
- Studies on the denaturation of antibody; kinetic aspects of the inactivation of diphtheria antitoxin by urea, G. G. Wright and V. Schomaker, bibliog Am Chem Soc J 70:356-64 Ja '48
- Sulfanilamide derivatives containing urea, thiourea or hydrazide groupings, E. Niemiec, bibliog Am Chem Soc J 70:1067-8 Mr '48
- Synthetic antimalarials; some 2-phenylureido- and 2-phenylthioureido-4-dialkylaminoalkyl-amino-6-methylpyrimidines, R. D. Ashworth and others, Chem Soc J p531-6 My '48
- Urea, complex compounds, used for impregnating; patent, Am Dyestuff Rep 36: 785 D 29 '47
- Urea molds main parts of signal lights; hospital signal units for nurses, *il Mod Plastics* 25:91-2 N '47

Analysis

- Analytical identification of some nitrogen containing synthetic resins, C. P. A. Kappelmeier, bibliog Paint Oil & Chem R 111: 8-9+ F 19 '48
- Estimation of ultramicroquantities of urea and Kjeldahl and amino acid nitrogen; improvements in microaeration technique, A. E. Sobel, A. Hirschman and L. Besman, *diags Anal Chem* 19:927-9 N '47
- UREASE**
- Denaturation of urease without inactivation, J. B. Sumner, *Science* 108:410 O 15 '48
- URETHANE**
- Derivatives of urethan; azamalonate esters, L. G. R. Tompkins and E. F. Degering, bibliog Am Chem Soc J 69:2616-18 N '47
- Pulmonary edema in leucemic mice following treatment with urethane, W. M. Winchester and G. M. Higgins, bibliog Science 107:568-9 My 28 '48
- URETHANS**
- Imparting water-repellency to textiles by chemical methods; a review of the literature; esters and urethanes, H. A. Schuyten and others, bibliog Textile Res J 18:490-2 Ag '48
- Some urethans of phenolic quaternary ammonium salts, J. H. Gardner and J. R. Stevens, bibliog Am Chem Soc J 69:3086-8 D '47

URIC acid

- Mechanism of the oxidation of uric acid studied with isotopic nitrogen as a tracer, L. F. Cavalieri and G. B. Brown, bibliog Am Chem Soc J 70:1242-3 Mr '48
- Synthesis of uric acid containing isotopic nitrogen, L. F. Cavalieri, V. E. Blair and G. B. Brown, bibliog Am Chem Soc J 70: 1240-2 Mr '48

URINE

- Use of the Campbell-Pressman lyophilizing apparatus for urinary extractives, H. S. Strickler and C. B. Shaffer, *diag Science* 107:71 Ja 16 '48

Analysis

- Control of a lead hazard in the brass foundry industry, L. E. Hamlin and H. J. Weber, bibliog J Ind Hygiene 29:367-77 N '47

- Determination of lead in freshly voided urine; a rapid screening test, J. Cholak and others, J Ind Hygiene 30:59-62 Ja '48
- Determination of thallium in urine, H. H. Ackerman, bibliog J Ind Hygiene 30:300-2 S '48
- Effect of indole on the determination of N'-methylnicotinamide, B. S. Schweigert, bibliog Science 106:522-3 N 28 '47
- Microdetermination of bismuth in biological material; an improved photometric dithionite method, D. M. Hubbard, bibliog Anal Chem 20:363-4 Ap '48
- Spectrochemical determination of beryllium; increased sensitivity of detection in the cathode layer, J. Cholak and D. M. Hubbard, Anal Chem 20:970-2 O '48
- Spectrographic determination of beryllium in biological material and in air, J. Cholak and D. M. Hubbard, bibliog Anal Chem 20:73-6 Ja '48
- Use of papergrams in the study of the urinary excretion of radioactive sulfur compounds, R. M. Tomarelli and K. Florey, *diags Science* 107:630-1 Je 11 '48

URONIC acid

- Constitution of mesquite gum; 4-methoxy-D-glucuronic acid, E. V. White, bibliog Am Chem Soc J 70:367-9 Ja '48
- Noninterference of pectinous substances in aconitic acid method and of aconitic acid in uronic acid method, J. A. Ambler and E. J. Roberts, bibliog Anal Chem 20:880 S '48

Analysis

- Acidic properties of cotton cellulose and derived oxycelluloses; application of the Lefèvre-Tollens method for the estimation of uronic acid groups, T. P. Nevell, bibliog Textile Inst J 39:T118-30 Mr '48

URUGUAY

- See also
Hydroelectric plants
—Uruguay
Sewerage—Uruguay

Commercial policy

- Netherlands signs trade agreement with Uruguay, *For Comm W* 32:19 S 11 '48

Economic policy

- Articles of prime necessity subject to import, export, and price controls, and other regulations, *For Comm W* 29:35 D 6 '47

- USE and occupancy insurance.** See Insurance, Use and occupancy

- USED cars.** See Automobile industry and trade —Used cars; Automobiles, Used

- USED lumber.** See Lumber, Used

- USONIAN houses.** See Architecture, Domestic —Designs and plans

USURY

- Charge of premium to permit borrower to prepay entire balance on note not considered interest as regards usury, *Banking Law J* 64:962-5 D '47

UTAH

- See also
Manganese mines Mines and mineral
and mining—Utah resources—Utah

Bibliography

- Bibliography of the archives of the Utah humanities research foundation, 1944-1947, (v 38, no 9) 41p Utah humanities research foundation, 309 Library building, Univ. of Utah, Salt Lake City 1, Utah '47

UTAH power and light company

- Securities offered, *Comm & Fin Chr* 167:1513-14 Ap 5 '48

UTERUS

- Loss of contractility of the uterus and partial atrophy of the uterus and ovaries in albino rats fed choline-deficient diets, M. Peet and M. M. Sampson, bibliog Science 107:548-9 My 21 '48

- Recording uterine contraction patterns in pregnant women; application of the strain gage in a multichannel Tokodynamometer, S. R. M. Reynolds and others, *il Science* 106:427-8 O 31 '47

V

VACATIONS

- Collective bargaining provisions; vacations, holidays and week-end work. U S Bur Labor Statistics Bul 908-2:1-57; pa 15c Supt. of doc. '48
- Holiday facilities in Great Britain. Int Labour R 56:203 Ag '47
- Holidays with pay in Belgium. Int Labour R 56:78-81 J1 '47
- Mass vacations take hold. Il Bsns W p 19-20 My 29 '48
- Paid vacations for wiremen? Elec West 99: 77-8 N '47
- Practical negotiation of vacation and holiday clauses. H. A. Lien. Personnel 25:48-54 J1 '48
- Three weeks' holidays with pay in Norway. Int Labour R 57:381-3 Ap '48
- To hold workers; Los Angeles firm is offering one-year vacations with pay after ten years' service. Bsns W p 110 N 22 '47
- Vacation problem; plant-wide shutdowns. Bsns W p43-4 N 8 '47
- Vacations for executives. O. Tead. Advanced Management 13:97 S '48

VACCENIC ACID

- Configuration of vaccenic acid. P. C. Rao and B. F. Daubert. bibliog Am Chem Soc J 70: 1102-4 Mr '48

VACCINES

- Further study of BCG vaccination. F. J. Weber. Pub Health Rep 63:593-4 My 7 '48
- Results of influenza vaccination in industry during the 1947 epidemic. A. M. Baetjer. bibliog Ind Med 17:171-5 My '48
- Studies of the acute diarrheal diseases; immunization in shigellosis. A. V. Hardy and others. bibliog Pub Health Rep 63:685-8 My 21 '48

Testing

- Benzene-ether extracted rabies vaccine. J. T. Wright and others. bibliog Science 108: 118-19 J1 30 '48
- Some factors influencing the mouse potency test for rabies vaccine. K. Habel and J. T. Wright. bibliog Pub Health Rep 64:44-55 Ja 9 '48

VACUUM

- AgCl as a temperature indicator for hand torching in high vacuum work. J. Rothstein. R Sci Instr 18:356 N '47
- Apparatus for weighing in vacuum. G. W. Monk. diag J Ap Phys 19:485-6 My '48
- Application of high vacua in the paint and plastics industries. J. C. Swallow and J. S. Gourlay. Il diags Chem & Ind sup9-13 O 9 '48
- Calculations for high vacuum systems. W. P. Dryer. Chem Eng 54:127-31 N; 122-4 D '47
- Dezincing lead under vacuum; abstract. W. T. Isbell. diag Comp Air Mag 53:45 F '48
- High vacuum pyrolytic fractionation of polystyrene; mass spectrometer analysis of some of the fractions. S. L. Madorsky and S. Straus. diags Ind & Eng Chem 40:348-52 My '48; Same. J Res Nat Bur Stand 40:417-25 My '48
- Metal coatings by high vacuum evaporation. P. Godley. Il diag Iron Age 161:90-4 Ap 1 '48
- Powder filling; vacuum principle in packaging powdered materials. P. E. Fischer. diags Mod Packaging 21:161-4 D '47
- Production coating under high vacuum. Il Mod Plastics 25:128 N '47
- Reactions of carbon and metal oxides in a vacuum. W. J. Kroll and A. W. Schlechton. bibliog diags Electrochem Soc J 93:247-58 Je '48
- Scientific aspects of vacuum technique. S. Dushman. bibliog Chem & Ind sup3-8 O 9 '48
- Six ways to check vacuum in sealed containers. H. Bartenbach. diags Product Eng 19:124-6 Ja '48
- Surface phenomena useful in vacuum technique. L. Apker. bibliog Ind & Eng Chem 40:846-7 My '48

Symposium on high vacuum; sponsored by the National research corporation and the Division of industrial and engineering chemistry, American chemical society, Cambridge, Mass. Oct. 30-31, 1947, bibliog flow diags Il diags Ind & Eng Chem 40: 778-847 My '48

Use of high vacuum techniques increasing; symposium. Chem & Eng N 25:3359 N 17 '47

Vacuum metallurgy. R. A. Stauffer. bibliog (54 ref) Il Chem & Ind sup 19-26 O 9 '48

Vacuum metallurgy produces purer, denser, tougher and more ductile metals. H. A. Knight. Il diag Sci Am 178:173-5 Ap '48

Vacuum properties of synthetic dielectrics. B. G. Hogg and H. E. Duckworth. R Sci Instr 19:331-2 My '48

Vacuum systems, seals, and valves. F. N. D. Kurie. diags R Sci Instr 19:485-93 Ag '48

Vacuum test of a sphere to failure. Pub Works 79:40 Ja '48

VACUUM APPARATUS

- Application of high vacuum distillation to the processing of triglyceride oils. E. W. M. Fawcett. bibliog Chem & Ind sup27-32 O 9 '48
- Calculations for high vacuum systems. W. P. Dryer. Chem Eng 54:127-31 N; 122-4 D '47
- Continuous process vacuum evaporation plant. Il J Sci Instr 25:89 Mr '48
- Continuous vacuum crystallization of ammonium nitrate. P. Miller and W. C. Saeman. bibliog flow diag Il diags Chem Eng Prog 43:667-87; Discussion. 687-90 D '47
- Controlled vacuum heat treating; results of American gas association experiments. Il Steel 121:80-3+ N 24 '47
- Dynamic vacuum manometer. L. B. Lipson and G. W. Crawford. Il R Sci Instr 19:372-3 My '48
- Electronic and vacuum physics apparatus shown at the Physical society's exhibition. T. B. Rymer. J Sci Instr 25:183-4 Je '48
- Flow of fluids through porous media; application to rotary vacuum filtration. L. B. Brownell and D. L. Katz. bibliog Il diag Chem Eng Prog 43:703-12 D '47
- Heat treating in vacuum; work sponsored by American gas association. J. Huebler. Metal Prok 53:720-4 My '48
- High vacuum dehydration and distillation. R. S. Morse. bibliog Il diags Chem & Ind sup 13-19 O 9 '48
- High vacuum distillation. K. C. D. Hickman. bibliog Ind & Eng Chem 40:16-18 Ja '48
- High vacuum equipment. Chem Age (Lond) 58:657 My 8 '48
- High vacuum valve and seal. L. D. P. King. diags R Sci Instr 19:83-4 F '48
- Reduction of topped crude by vacuum flashing. C. J. Helmers and others. diag Oil & Gas J 47:85-7+ Je 17 '48
- Results of research in controlled vacuum heat treating. J. Huebler. Il Ind & Eng Chem 40:825-31 My '48; Excerpt. Foundry 76:306 My '48
- Sampling and analysis of steel for hydrogen. G. Derge and others. bibliog Il diags Metals Tech 15:TP2362 1-28 Je '48
- Scientific aspects of vacuum technique. S. Dushman. bibliog Chem & Ind sup3-8 O 9 '48
- Selection and use of ejectors. D. H. Jackson. Il diags Chem Eng Prog 44:347-52 My '48
- Sheet material coated with metal in a vacuum chamber. Comp Air Mag 53:228 S '48
- Skanscope. Il R Sci Instr 19:536 Ag '48
- Suspended-solids samples dewatered with vacuum system. N. Wagner. Il Eng N 141: 112 S 16 '48
- Vacuum concentration by adsorption. E. Ledoux. diags Chem Eng 55:102-4 J1 '48
- Vacuum control equipment. Il Electrician 141:1161 O 15 '48
- Vacuum furnace control; thermistor operates indicating meter and relay; used in manufacture of electron tubes. F. F. Davis. Il diag Electronics 21:81 My '48
- Vacuum melting and casting of copper. R. A. Stauffer, K. Fox and W. O. DiPietro. bibliog Il diags Ind & Eng Chem 40:820-5 My '48

VACUUM apparatus—Continued

Vacuum pressing in the manufacture of pharmaceutical tablets, mint candies, electrical porcelain, chemicals, sintered carbides, vitamins, food specialties and other materials and products. *Mech Eng* 69:928 N '47
 Vacuum systems, seals, and valves. F. N. D. Kurie. *diags R Sci Instr* 19:486-93 Ag '48

See also

Air compressors Pressure gages
 Electric furnaces Vacuum gages
 Vacuum melting Vacuum pumps

Design

Design of high vacuum engineered plants. H. C. Weingartner. *bibliog Ind & Eng Chem* 40:780-2 My '48
 Design of high vacuum systems. C. E. Normand. *bibliog Ind & Eng Chem* 40:783-7 My '48

Protection

Leak protection circuit for vacuum systems. I. A. D. Lewis and P. Chippindale. *diag J Sci Instr* 25:205-6 Je '48
 Vacuum protection system for oil diffusion pumps and thermionic filaments. H. I. S. Allwood. *bibliog diags J Sci Instr* 25:207-8 Je '48

Testing

Measurement and control of leakage in high vacuum systems. R. B. Jacobs. *bibliog diags Ind & Eng Chem* 40:791-4 My '48

VACUUM brakes. See Brakes, Vacuum**VACUUM cleaners**

Backlog demand for 'consumers' durable goods; vacuum cleaners. L. J. Atkinson. *Survey of Cur Bsns* 28:17-18 Ap '48
 Come clean with vacuum cleaning. O. J. Smith. *il diags Safety Eng* 95:10-12 Je '48
 Double or —; sales goal of Lewyt vacuum cleaners. *Sales Management* 61:101-2 O 1 '48
 Eureka Williams. *il Fortune* 36:108-13+ D '47
 Hoover Junior; insurance for future sales. *il Bsns W* p42+ S 25 '48
 Kirby, the man behind less work in the home. R. K. Lotz. *il Machine Design* 20:108-13 J1 '48
 Molded plastic parts simplify vacuum cleaner. *il diag Product Eng* 19:94-5 O '48
 New tank cleaner features phenolics. *il Mod Plastics* 25:108-9 D '47
 Put dust in a vacuum. L. C. Smith. *il Safety Eng* 96:30+ J1 '48
 Sales job ahead. *il Bsns W* p48-50+ Ja 17 '48
 Specific uses of vacuum cleaners in ceramic plants. *il Cer Ind* 49:60-1 N '47
 Two vacuum cleaner floor-polishing attachments. *Consumers Res Bul* 21:13 F '48
 Unusual uses for vacuum cleaning. *il Safety Eng* 96:87-92+ O '48
 Vacu-Mite car vacuum cleaner. *Consumers Res Bul* 22:24 J1 '48
 Vacuum cleaner designed for quiet operation. *il diags Product Eng* 19:92-5 Mr '48
 Vacuum cleaner employs vertical dust bag. *il diag Machine Design* 19:154 D '47
 Vacuum cleaner features ethyl parts. *il Plastics* 8:20-1, 40 J1 '48
 Vacuum cleaning of theaters. R. Webber. *Soc Motion Picture Eng J* 50:439-41 My '48

Manufacture

Floor layout and material handling in the light engineering industry. L. W. Bailey. *il plan diags Mech Handling* 34:620-7 D '47
 It's the little things that count in design of product. A. F. Murray. *il Mech Eng* 70:519-22 Je '48; Same cond. *Machine Design* 20:126-8 My '48
 Mechanizing cleaner manufacture ups output, saves floor space; Electrolux corp. A. F. Murray. *il Am Mach* 92:110-13 My 20 '48
 Tubes keep ball bearing clean; Electrolux vacuum-cleaner motors. A. F. Murray. *il Am Mach* 92:102 J1 '48

Rating

Report on four vacuum cleaners. *il Consumers Res Bul* 21:9-11 Ja '48

Three vacuum cleaners. *il Consumers Res Bul* 21:21-2 My '48

VACUUM containers

Bacon in vacuum; Armour's new package. *il Bsns W* p66 N 8 '47
 New gas packaging method retains quality of peanuts; Flex-Vac. J. V. Ziemba. *il Food Ind* 20:677-9+ My '48
 Pyrex glass Dewar vessels and metal transfer tubes for liquid helium. W. F. Glaueque. *R Sci Instr* 18:852-4 N '47
 Well kept bacon; Hornell Institute canning process. *Bsns W* p61 J1 10 '48

Testing

Vacuum tester. J. Razek. *il diags Mod Packaging* 21:181-3 Ap '48

VACUUM gages

Industrial vacuum melting. K. Fox and others. *bibliog il diags Iron Age* 161:68-70 F 19 '48
 Nonlinear indicator for vacuum gage. R. S. Mackay. *diag Electronics* 21:140+ F '48
 Standard types of vacuum gages used to measure degree of vacuum during evacuation of tubes. K. M. Laing. *il diags Communications* 28:22-3+ Ap '48

VACUUM melting. See Foundry practice**VACUUM packaging. See Vacuum containers****VACUUM pumps**

Calculations for high vacuum systems. W. P. Dryer. *Chem Eng* 54:127-31 N; 122-4 D '47
 Carbon adsorber protects oil-sealed vacuum pump from solvent vapors. N. W. Franke and others. *diag Chem Ind* 61:870 N '47
 Compact multiple way metal stopcock. S. H. Bauer. *diags R Sci Instr* 19:52 Ja '48
 Comparison of mercury diffusion pumping speeds for five gases. D. Fluoke. *R Sci Instr* 19:665-6 O '48
 Construction materials for jet pumps. M. Richelson. *Chem Eng* 55:114-17+ S '48
 Diffusion pump pressure gauge. J. A. V. Fairbrother. *il diags J Sci Instr* 25:347-8 O '48
 Glycerol vapour vacuum pump. P. Alexander. *J Sci Instr* 25:313-14 S '48
 High vacuum installations; more British equipment in a widened field. *il Chem Age (Lond)* 55:573 Ap 24 '48
 Industrial vacuum melting. K. Fox and others. *bibliog il diags Iron Age* 161:65-8 F 19 '48
 Laboratory vacuum pump. *il Engineer* 185:265-6 Mr 12 '48
 Laboratory vacuum pumps. *il diags Engineering* 165:440 My 7 '48
 Measurement and comparison of pumping speeds. B. B. Dayton. *bibliog diags Ind & Eng Chem* 40:795-803 My '48
 Pumping speed of an oil diffusion pump for hydrogen. R. J. Gibson, jr. *R Sci Instr* 19:276-7 Ap '48
 Pumping speed of an oil diffusion pump for hydrogen. R. B. Setlow. *R Sci Instr* 19:533 Ag '48
 Rotary or steam-jet air pumps? W. C. Woodman. *diags Power* 92:470-3+ Ag '48
 Suction rolls and vacuum requirements; a rational approach. E. T. Buchanan. *bibliog diag Pulp & Pa of Can (Convention no)* 49:169-77 [F] '48; Excerpts. *Paper Ind* 30:296-8 My '48
 Trajectories of heavy molecules in air. R. B. Jacobs and S. F. Kapf. *diags Ind & Eng Chem* 40:842-6 My '48
 Uncooled all-metal oil diffusion pump. G. Liebmann. *diag J Sci Instr* 25:186-7 Je '48
 Use of alkali metal alloys for trapping mercury vapor. K. W. Hunt and others. *diag R Sci Instr* 18:842-4 N '47
 Use of oil-diffusion pumps in mass spectrometers. T. D. Morgan. *R Sci Instr* 18:926-7 D '47
 Vacuum divider; a low pressure multiplier. G. W. Monk. *diag R Sci Instr* 19:396-8 Je '48
 Vacuum drying of paper. N. M. Foote. *bibliog diag Ind & Eng Chem* 39:1642-6 D '47
 Vacuum pumping equipment and systems. H. M. Sullivan. *bibliog il diags R Sci Instr* 19:1-15 Ja '48
VACUUM tube amplifiers. See Amplifiers, Vacuum tube

VACUUM tubes

- Adjusting 1B3GT filament voltage by observation of filament temperature, diags Communications 28:22, 39 S '48
- All-stage radio valve, J. A. Sargrove, Engineering 164:610 D 26 '47
- Application of matrices to vacuum-tube circuits, J. S. Brown and F. D. Bennett, bibliog diags Inst Radio Eng Proc 36:844-52 JI '48
- Cathodes that stay put, II Westinghouse Eng 8:184 N '48
- Designing thoriated tungsten filaments, H. J. Dailey, II Electronics 21:107-9 J '43
- Developmental pulse triode for 200 kw. output at 600 mc. L. C. Nergaard and others, II diags Inst Radio Eng Proc 36:412-16 Mr '48
- Digests of papers presented at conference on electron tubes, Elec Eng 67:589-600 Je '48
- Effect of vacuum-tube size on X-ray output of a synchrotron, F. R. Elder and others, diags R Sci Instr 19:121-2 F '48
- Effects of hydrostatic pressure on electron flow in diodes, W. C. Hahn, Inst Radio Eng Proc 36:1115-21 S '48
- Electron beam deflection tube for pulse code modulation, R. W. Sears, II diags Bell System Tech J 27:44-57 Ja '48
- Electron tubes provide subject for first of AIEE conferences, Elec Eng 67:494-7 My '48
- Electronics for the power engineer; elements of electron tubes, F. A. Annett, diags Power 92:361-3+, 429-31+ Je-JI '48
- Experimental basis for the study of atomic structure, W. E. Morrell, J Chem Educ 25:551-4 O '48
- 500-mc. transmitting triode design considerations, W. G. Wagener, II diags Inst Radio Eng Proc 36:611-19 My '48
- High altitude tube; can be operated in guided missiles and in industrial equipment subject to dust, moisture and fumes, N. Anton and M. Youdin, II diags Electronics 21:95-7 Ap '48
- High-vacuum oxide-cathode pulse modulator tubes, C. B. Fay, bibliog II diags Bell System Tech J 26:818-36 O '47
- High vacuum valve, A. E. Lockenvitz and others, II diag R Sci Instr 19:272-3 Ap '48
- Method of measuring the field strength of high-frequency electromagnetic fields, R. Truell, diag Inst Radio Eng Proc 36:1249-51 O '48
- Motion of electrons subject to forces transverse to a uniform magnetic field, P. K. Weimer and A. Rose, diags Inst Radio Eng Proc 35:1273-9 N '47
- National bureau of standards tube research, Elec Eng 66:1208 D '47; Mech Eng 69:938 N '47
- New 100-watt triode for 1000 megacycles, W. P. Bennett and others, II diags Inst Radio Eng Proc 36:1296-302 O '48
- New types of electron tubes, II Tele-Tech 7:61 Ja; 52 Mr '48
- Positive-grid characteristics of a triode, G. W. Wood, diag Inst Radio Eng Proc 36:804-8 Js '48
- Preferred list of army-navy electron tubes; tabulation, Electronics 21:136 Ag '48
- RCA electron tubes; four new additions, II R Sci Instr 18:930 D '47
- Radio-frequency performance of some receiving tubes in television circuits, R. M. Cohen, diags RCA R 9:136-48 Mr '48
- Radio progress during 1947; electron tubes, bibliog Inst Radio Eng Proc 36:540-7 Ap '48
- Reactions of zirconium with gases at low pressure, W. G. Guldner and L. A. Wooten, bibliog II diag Electrochem Soc J 93:223-35 Je '48
- Relationship between the emission constant and the apparent work function for various oxide-coated cathodes, H. Jacobs and others, bibliog diag Inst Radio Eng Proc 36:1109-14 S '48
- Rugged electron tubes, I. L. Cherrick, II Electronics 21:111-13 Ap '48
- Scientific aspects of vacuum technique, S. Dushman, bibliog Chem & Ind sup3-8 O '48
- Secondary electron suppression, J. H. O. Harries, diags Wireless Eng 25:275-80 S '48
- Secondary emission, L. R. Koller, bibliog II diags Gen Elec R 51:33-40 Ap; 50-2 Je '48
- Space-charge and transit-time effects on signal and noise in microwave tetrodes, L. C. Peterson, diags Inst Radio Eng Proc 35:1264-72 N '47
- Space-charge effects in beam tetrodes and other valves, C. S. Bull, bibliog Inst E E J 95 pt 3:17-24 Ja '48
- Spectral emissivity and electron emission constants of thoriated cathodes, T. E. Hanley, II diag J Ap Phys 19:583-9 Je '48
- Tracing of electron trajectories using the differential analyzer, J. P. Blewett and others, diags Inst Radio Eng Proc 36:63-83 Ja '48
- Transadmittance and input conductance of a lighthouse triode at 3000 megacycles, N. T. Lavov, diag Inst Radio Eng Proc 35:1248-51 N '47
- Transistor, a semi-conductor triode, J. Barden and W. H. Brattain, diag Phys R 74:230-1 JI 15 '48
- Trends in the electron tube design, W. C. White, bibliog(36 titles) II Elec Eng 67:517-30 Je '48
- Tube characteristics with 28-volt plate supplies, Electronics 20:190-1 D '47
- Tube engineering. Published in monthly numbers of Communications
- Vacuum-tube-type transducer for use in the reproduction of lateral phonograph recordings, J. F. Gordon, II diags Inst Radio Eng Proc 35:1571-5 D '47
- Valve design and development; abstract, F. Smith, Electrician 141:1231 O 22 '48
- V.h.f. valves and circuits, M. R. Gavin, II diags Wireless Eng 25:315-21 O '48

See also

- | | |
|-------------------------|---------------------------|
| Amplifiers, Vacuum tube | Multivibrators |
| Cathode followers | Photoelectric cells |
| Cathode ray tubes | Radio receiving apparatus |
| Electric discharges | Radio rectifiers |
| Electron multipliers | Thyratron |
| Geiger-Müller counters | Voltmeters, Vacuum tube |
| Klystron | X ray tubes |
| Magnetron | |

Control uses

- Automatic synchronization of Diesel-generators, diag Diesel Power 26:54+ Ja '48
- Circuit design for gas-discharge regulator tubes, W. G. Hoyle, diags Tele-Tech 7:46-7+ F '48
- Cyclophon; a multipurpose electronic commutator tube, D. D. Grieg and others, II diags Inst Radio Eng Proc 35:1251-7 N '47
- Dynamic noise suppression circuits, J. D. Goodell, II diags Radio N 39:46-8+ Ja '48
- Electrical and electronic controls for form-duplicating machines, H. C. Town, diags Mach 54:193-6 JI '48
- Electronic and servo electronic controls and their application to the iron and steel industry, W. G. Thompson, bibliog II diags Iron & Steel Inst J 158:497-509 Ap '48; Discussion, 160:417-25 D '48
- Electronic bin level indicator, II diags Product Eng 19:39 Je '48
- Electronic control for dc motors, G. W. Heumann, II diags Power 92:703-5+ N '48
- Electronic control of motors, A. L. Whiteley, II diags Engineer 186:219-21 Ag 27 '48
- Electronic control of planing machine, II Engineering 166:320-1 O 1 '48
- Electronic control unit for cathode-ray oscillograph recording of transients arriving at indeterminate times, S. L. Windes, bibliog 6pls U S Bur Mines Rep of Invest 4154:1-8 '47
- Electronic controls for air conditioning systems, II Heat & Ven 45:67-8 JI '48
- Electronic lathe controls; abstract, K. T. Kuck, Machine Design 20:192+ Ag '48
- Electronic motor drives increase machine tool versatility, R. B. Crawford, II Mach 54:166-9 D '47
- Electronic photoflash unit, W. G. Many, II diags Radio N 38:44-5 D '47
- Electronic photo timer, E. B. Pray, II diag Radio & Tv N 40:58-9+ Ag '48
- Electronic power source for electrolysis, R Sci Instr 19:198-9 Mr '48; Same, Franklin Inst J 245:433-5 My '48

VACUUM tubes—Control uses—Continued

- Electronic process timer, *diag Engineering* 166:139 Ag 6 '48; *il Engineer* 185:387 Ap 16 '48
- Electronic sequence control circuit for the operation of a Wilson cloud chamber, F. L. Allen, *bibliog il diags R Sci Instr* 19:24-7 Ja '48
- Electronic stabilizer for power transmission, E. F. W. Alexanderson and D. C. Prince, *il diags Elec Eng* 66:1053-7 N '47
- Electronic switching for the ham antenna, T. Gootée, *il diags Radio N* 39:50-1+ Ja '48
- Electronic timer, S. H. Frase, *il diag Electronics* 21:136+ Ap '48
- Electronic trigger circuit for automatic potentiometric and photometric titrations, R. H. Muller and J. J. Lingane, *il diags Anal Chem* 20:795-7 S '48
- Elevator signal button consists of a cold cathode, gas triode, *il diag Electronics* 21:150+ Jl '48
- Flexible electronic load-control method for motor-drive operations, G. C. Wilson, *il diags Instruments* 21:616-17 J '48
- Functionalized electronic controls for resistance welding, W. E. Large, *il Iron Age* 162:90-4 J 18 '48
- Inverse Nyquist plane in servomechanism theory, G. B. Criss, *diags Inst Radio Eng Proc* 35:1503-4 D '47
- Light-flash generator, R. G. Roush and F. Hamburger, Jr., *il diags Electronics* 21:100-2 N '48
- New developments in electric equipment for the rubber industry, B. J. Dalton, *flow diags il diag Elec Eng* 67:119-24+ F '48
- New thyatron circuit for motor control, J. R. Devoy, *diags Electronics* 21:116-19 Ap '48
- Otis controls elevators electronically, *il Bsns W* p58-60+ Je 19 '48
- Predetermined counter for process control, R. J. Blume, *bibliog il diags Electronics* 21:88-93 F '48
- Regulator for 400-cycle inverter, C. A. Helber, *il diag Electronics* 21:90-1 N '48
- Servo electronic control of a large planing machine, *il Engineer* 185:542-3 Je 4 '48; *Abstract, Electrician* 140:1650 My 28 '48
- Stabilizing servomechanisms, D. McDonald, *il diags Electronics* 21:112-16 N '48
- Steel mill applications of electronic control, J. R. Erbe, *il diags Iron & Steel Eng* 25:93-101 Ag '48
- Temperature controlled electronically in automatic flame hardener, *il Machine Design* 20:148-9 My '48
- Transmitter-blocker cells, R. H. Kay and M. Surdin, *diags Wireless Eng* 25:55-61, 75-87 F-Mr '48
- Variable-radio-frequency-follower system, R. F. Wild, *il diags Inst Radio Eng Proc* 36:281-5 F '48
- Variable speed control; electronic equipment, *il Electrician* 139:1508-9 N 21 '47

Cooling

- Blower requirements for forced-air-cooled tubes, *bibliog Communications* 28:26-7 F '48
- Cooling jacket accepts varied dimensions of tubes, *il diags Product Eng* 19:100 S '48
- Protecting cooling systems subject to electrolysis, E. W. Balis and H. A. Liebhafsky, *il diags Gen Elec R* 51:40-5 S '48

Exhibitions

- Electronic and vacuum physics apparatus shown at the Physical society's exhibition, T. B. Rymer, *J Sci Instr* 25:183-4 Je '48

Generating action

- D.c. stabilized power supply of low impedance, V. H. Attree, *diags J Sci Instr* 25:263-8 Ag '48
- Palletron, a new electron resonator and its proposed application to the generation of potentials in the million-volt range, A. M. Skellett, *il diag J Ap Phys* 19:187-90 F '48
- Valve oscillator; operation and properties, J. E. Tillman, *bibliog diags Wireless Eng* 24:357-71 D '47

See also

Oscillators**Industrial applications**

- Airborne engine analyzer, V. C. Cetrone, *il diags Electronics* 21:90-5 Mr '48
- Automatic limit bridge for production testing, R. D. Campbell and E. J. Totah, *il diags Electronics* 21:110-13 Ja '48
- Compact analog computer for obtaining solutions of the simultaneous differential equations usually encountered in design engineering, S. Frost, *il diags Electronics* 21:116-20+ Jf '48
- Design and application of supersonic flaw detectors, D. C. Erdman, *il diags Elec Eng* 67:181-5 F '48
- Design of an ultrasonic analyzer, *il diags Electronics* 20:102-5 D '47
- Design of d-c electronic integrators, G. A. Korn, *diags Electronics* 21:124-6 My '48
- Electronic equipment in industry, G. Parr, *il Engineer* 185:85-6 Ja 23 '48
- Electronic measuring and recording instruments; exhibition, *Engineering* 165:186 F 20 '48
- Electronic pipe locators and leak detectors, H. David, *il diags Oil & Gas J* 46:75-8 Ja 15 '48
- Electronic preserves; electronic circuits imbedded in NBS casting resin, P. J. Franklin and M. Weinberg, *il Sci Am* 177:258-60 D '47
- Electronic rotating indicator and belt protector for mills, C. M. Marquardt, *diags Eng & Min J* 149:80-1 Jl '48
- Electronics at work under adverse operating conditions, H. E. Reinhold, *il diag Elec World* 130:105-8 Ag 14 '48
- Electronics for the power engineer, F. A. Annett, *diags Power* 92:239-41+ Ap '48
- Elements of d-c analog computers, G. A. Korn, *diags Electronics* 21:122-7 Ap '48
- Estimation of moisture in timber; infrared and electronic moisture testers, *il Engineer* 185:497 My 21 '48
- Fundamentals of industrial electronics; apparatus repair and maintenance source of income for service shops, R. Endall, *il diags Radio N* 39:56-9+ Je '48
- High-speed resistor tester, A. W. Daubendick, *il diags Electronics* 21:110-11 F '48
- High-speed revolution counter for testing supercharger impellers for aircraft cabins, A. B. Kaufman, *il diags Electronics* 21:80-2 S '48
- High voltages in electronics; correct spacing between conductors for prevention of sparking and corona effects, W. E. Peery, *diags Machine Design* 20:123-7 Je '48
- Induction cable fault locator, *il diag Engineer* 186:61 Jl 16 '48
- Industrial applications of electronic techniques, H. A. Thomas, *diags Inst E E J* 94 pt 1:309-31 *bibliog* (81 titles p330-1) Jl '47; *Discussion*, 94 pt 1:331-3; 95 pt 1:381-96 Jl '47, S '48
- Locating pipe lines and leaks by electronics, J. L. Cassingham, *il diag Pet Eng* 19:78+ Ap '48
- Plug-in scaler for industrial counting, C. H. Brown, *il diag Electronics* 21:90-1 Jl '48
- Quality tests of mercury buttons made automatically, K. T. Sutton, *il diags Gen Elec R* 51:39-41 My '48
- Radio seeks black gold, T. A. Patterson, Jr., *il diags Radio N* 40:55-7+ Jl '48
- Road-testing gasoline; electronic spark-advance indicator and tachometer, R. R. Proctor, *il diags Electronics* 21:83-5 N '48
- Simple electronic fault recorder, L. R. Engvall, *il diag Elec World* 130:95+ Jl 3 '48
- Telephone dial tester, G. E. Beggs, Jr. and E. L. Langberg, *il diags Electronics* 21:128-30 Ap '48
- Thermistors, a new electronic component, F. E. Butler, *il Radio N* 39:49+ Ja '48
- Tubes designed for industry, *il Electronics* 21:172+ Ap '48
- Variable-frequency metals comparator; rapid checking of both magnetic and nonmagnetic materials for hardness, composition, or heat treatment, D. E. Bovey, *il diag Gen Elec R* 50:45-9 N '47

VACUUM tubes—Industrial applications—*Continued*

Variety of subjects discussed at industrial electronics session; A.I.E.E. Middle eastern district meeting. Elec Eng 66:1141-2 N '47

See also

Electric heating, Industrial—High frequency heating

Manufacture

Dissimilar metals joined by step brazing methods. I. S. Goodman. *il* Materials & Methods 28:64-7 Ag '48

Drawing thin-walled shells of intricate shape; radio-tube parts and shells for other assemblies. D. A. Baker. *diags* Mach 54:171-5 Ja '48

Machine for molding beads on wire; patent. *diag* Glass Ind 29:268, 284 My '48

Miniature resistance welding and its application in the radio tube industry. G. Freedman. *il* Welding J 27:838-44 O '48

New techniques in glass-to-metal sealing; glass-to-Kovar seals. J. A. Pask. *il* Inst Radio Eng Proc 36:289-9 F '48

Standard types of vacuum gauges used to measure degree of vacuum during evacuation of tubes. K. M. Laing. *il* *diags* Communications 28:22-3+ Ap '48

Vacuum tube machine; patent. *diag* Glass Ind 29:572+ O '48

Measurement uses

Dynamic relay analyzer. E. L. Deeter. *il* *diags* Electronics 21:87-9 Jl '48

Electronic circuit has logarithmic response. A. W. Nolle. *diags* Electronics 21:166+ S '48

Electronic micrometer using variable mutual inductance. M. L. Greenough. *il* *diags* Product Eng 19:134-6 Ja '48

Electronic slip indicator easily built. M. M. Flanders. *diag* Elec World 128:84+ D 20 '47

Electronic timer for viscosity measurements. *il* *diag* Power Pl Eng 51:76-7 N '47; Same *abr.* Mech Eng 69:928-9 N '47

Improved intermodulation measuring system. G. W. Read and R. R. Scoville. *bibliog* *il* 2 fold pls *diags* Soc Motion Picture Eng J 50:162-73 F '48

Instrument for intermodulation measurements. G. Daniel. *il* *diags* Electronics 21:134+ Mr '48

Integrator for small currents. J. E. Brolley, jr. *diag* R Sci Instr 19:405-6 Je '48

Line-operated pH meter. H. S. Anker. *diag* Electronics 21:134 F '48

Microphone calibrator. D. H. Bastin. *il* *diags* Electronics 21:106-9 N '48

Moisture testing of baled straw by electronic methods. N. F. Wilson. *diags* Paper Tr J 126:55-6 Ja 15 '48

New balanced electrometer circuit. P. A. Caldwell. *bibliog* *diags* R Sci Instr 19:85-8 F '48

New measuring circuit for conductance meter. W. A. McCool. *il* *diags* Tele-Tech 7:30-1+ Je '48

Pulsed underwater acoustic measurements. G. F. Breitwieser. *il* *diags* Electronics 21:120+ N '48

Radio Doppler effect for aircraft speed measurements. L. R. Malling. *il* *diags* Inst Radio Eng Proc 36:1357-8 N '47

Simple and inexpensive method for accurately measuring steady-state and transient high voltages. H. L. Levinton. *il* *diags* Elec Eng 67:154-7 F '48

Simple electronic electrolytic drop recorder. D. F. Marsh and C. B. Seibert. *bibliog* *diags* Science 108:363-4 O 1 '48

Simplified instrument for wide-range dielectric constant measurement. R. B. Fischer. *bibliog* *diag* Anal Chem 19:835-7 N '47

Tachometer testing facilities increased electronically. H. H. Chamberlain. *il* *diags* Gen Elec R 51:15-18 My '48

Testing photographic shutters. S. H. Duffield and L. R. Lankes. *bibliog* *diags* Electronics 21:82-7 Ag '48

Thickness gage for moving sheets of glass and other nonmagnetic materials. J. W. Head. *il* *diag* Electronics 21:90-2 My '48

Variable-capacitance aircraft fuel gage. *diag* Electronics 21:155+ F '48

Miniature tubes

Joint army-navy electron tube committee recommended subminiatures and preferred transmitting tubes; vest pocket transmitter using subminiatures; instant-heating miniature tubes. *il* *diag* Communications 28:14+ Jl '48

Microphonism in a subminiature triode. V. W. Cohen and A. Bloom. *il* *diags* Inst Radio Eng Proc 36:1039-48 Ag '48

Sub-miniature valves for hearing aids. Engineer 185:145 F 6 '48

Models

Table-top tube model simulates electrons, tube elements on grand scale to test new designs. *il* Sci Am 178:30 Ja '48

Noise

Low-noise amplifier. H. Wallman and others. *il* *diags* Inst Radio Eng Proc 36:700-8 Je '48

Negative-grid partition noise. R. L. Bell. Wireless Eng 25:294-7 S '48

Noise in resistances and electron streams. J. R. Pierce. *bibliog* *diags* Bell System Tech J 27:158-74 Ja '48

Noise theory and its application to input circuit design. W. A. Harris. *bibliog* *diags* RCA R 9:406-18 S '48

Reducing hum in pentodes. I. Zakarias. *diag* Electronics 21:170+ N '48

Space-charge and transit-time effects on signal and noise in microwave tetrodes. L. C. Peterson. *diags* Inst Radio Eng Proc 35:1264-72 N '47

Spurious signals caused by noise in triggered circuits. D. Middleton. *bibliog* J Ap Phys 19:817-30 S '48

Statistical properties of a sine wave plus random noise. S. O. Rice. Bell System Tech J 27:109-57 Ja '48

Valve noise and transit time. N. R. Campbell and others. *bibliog* Wireless Eng 26:148-57 My '48

See also

Photoelectric cells—

Noise**Scientific applications**

Digital computer switching circuits. C. H. Page. *diags* Electronics 21:110-16+ S '48

Electronic techniques in nuclear science. S. A. Korff. *il* *diags* Electronics 20:80-7 D '47

Electronics in astronomy. G. E. Kron. *bibliog* *il* *diags* Electronics 21:98-103 Ag '48

High-speed N-scale counters. T. K. Sharp. *diags* *bibliog* *il* *diags* Electronics 21:122-5 Mr '48

Megacycle stepping counter. C. B. Leslie. *diags* Inst Radio Eng Proc 36:1030-4 Ag '48

Multifrequency synchronizer. R. K. Scal. *il* *diags* Electronics 21:168-73 Ag '48

Selective sequence digital computer for science. *il* Electronics 21:138+ Ap '48

Testing

Apparatus for micro gas analysis. C. Kenty and F. W. Reuter, jr. *bibliog* *diag* R Sci Instr 18:918-24 D '47

Industrial tube tester. *diag* Electronics 21:122+ S '48

Quick check for series filament trouble. H. Lineback. *diag* Radio & Tv N 40:108 N '48

Traveling wave tubes

Effect of passive modes in traveling-wave tubes. J. R. Pierce. *Inst Radio Eng Proc* 36:993-7 Ag '48

Experimental determination of helical-wave properties. C. C. Cutler. *diags* Inst Radio Eng Proc 36:230-3 F '48

Field theory of traveling-wave tubes. L. J. Chu and J. D. Jackson. *bibliog* *diags* Inst Radio Eng Proc 36:853-63 Jl '48

Small-signal analysis of traveling-wave tube. C. Shulman and M. S. Heagy. *diags* RCA R 8:585-611 D '47

Velocity modulation tubes

Application of velocity-modulation tubes for reception at u.h.f. and s.h.f. M. J. O. Strutt and A. van der Ziel. *bibliog* *diag* Inst Radio Eng Proc 36:19-23 Ja '48

VACUUM tubes—Velocity modulation tubes—*Continued*

Velocity-modulation reaction oscillator for wavelengths of about 3.2 cm. A. F. Pearce, bibliog J Chem Inst E E J 95 pt 3:415-22 S '48

*See also***Klystron****VALENCE**

Carbon-hydrogen bond strengths in methane. H. H. Voge, bibliog J Chem Phys 16:984-6 O '48

Chemastery; card games to teach valence and making of compounds. H. M. Demuth, J Chem Educ 25:459-60 Ag '48

Development of electrochemical theories of the course of reactions of carbon compounds. R. Robinson, Chem Soc J p 1288-301 S '47

Nature of bond orbitals in quadricovalent complexes of transition elements. H. Kuhn, bibliog J Chem Phys 16:727-33 JI '48

Oxidation numbers and valence. S. Glasstone, J Chem Educ 25:278-9 My '48

Ratio of valence electrons to atoms in metals and intermetallic compounds. L. Pauling and F. J. Ewing, bibliog diags Rs Mod Phys 20:112-22 Ja '48

Relation between covalent and packing radii of atoms. A. L. G. Rees, diags J Chem Phys 16:995-6 O '48

Role of electrons in interatomic relations. W. F. Ehret, diag J Chem Educ 25:291-5+ My '48

Use of electronic structure in interpreting chemical reactions. W. F. Kieffer, bibliog J Chem Educ 25:537-43 O '48

Use of fluoro compounds in the determination of valency angles by electric dipole moment measurements. N. J. Leonard and L. E. Sutton, bibliog Am Chem Soc J 70:1564-71 Ap '48

See also

Chemical affinity Double bonds
Chemical bonds Molecules

VALENCE inductivity (term)

Valence inductivity. P. W. Selwood, Am Chem Soc J 70:883 F '48

VALERIODINE

Minor alkaloids of duboisia myoporoides; valeriodine. W. Mitchell and E. M. Trautner, diags Chem Soc J p 1330-1 O '47

VALINE

Biosynthesis of penicillins; substituted phenylacetic acid derivatives; as penicillin precursors. J. W. Corse and others, bibliog Am Chem Soc J 70:2837-43 S '48

Infrared absorption spectra of some amino acids and their complexes. I. M. Klotz and D. M. Gruen, bibliog J Phys & Colloid Chem 52:961-8 Je '48

Prolyl and phthalyl derivatives of enantiomorphs of valine and leucine. M. Fling, F. N. Minard and S. W. Fox, bibliog Am Chem Soc J 69:2466-7 O '47

VALUABLE papers insurance. *See Insurance, Valuable papers***VALUATION**

Comparison of inventory valuation methods. D. P. Jones, Am Pet Inst Proc 27(1):119-21 '47

Death, taxes and your business; valuation of business interests. G. J. Laiklin, Trusts & Estates 85:517-22 D '47

See also

Depreciation	Public utilities—
Insurance, Fire—	Valuation
Valuation of property	Real property—
	Valuation
Inventories—Accounting	Securities—Valuation
	Stocks—Valuation

VALVES

Application of pure science to industry; pressure equipment. C. O. Brown, diags Ind & Eng Chem 39:sup77A-8A D '47

Brake-cylinder-release valve speeds freight-car handling in yards. Ry Mech Eng 122:312-14 Je '48; Same, Ry Age 125:151-2 JI 17 '48

Check valves, traffic cops of the pipe lines. H. J. Bartlett, il Paint Oil & Chem R 111:19-20+ Ja 22; 15-16+ F 5 '48; Same, Paper Ind 30:79-82, 253-6 Ap-May '48; Same abr. Gas Age 101:26-8+ F 19 '48; Same abr. Water & Sewage Works 95:138-41 Ap '48

Cloud-chamber valves. F. Chu and G. E. Valley, diags R Sci Instr 19:496-9 Ag '48

Explanation of valve service rating marks. Pulp & Pa of Can 49:103-4 Je '48

Farris introduces new pinch valve. il Paper Tr J 126:49 Ap 22 '48

Give the control valve a chance! C. B. Nolte, Oil & Gas J 46:65-6+ N 29 '47; 52-3+ Ja 1 '48

High vacuum valve and seal. L. D. P. King, diags R Sci Instr 19:83-4 F '48

1948 review of new power and mechanical equipment; valves. il Power 92:sup 176-8 Mid-Je '48

Non-lubricated shut-off and selector valves. il Chem Ind 62:94+ Ja '48

Pointers on up-to-date valves. W. F. Schaphorst, Can Min J 69:70 Ap '48

Progress in open-hearth valve design. diags Steel 122:90+ F 9 '48

Proper sizing of reducing valves. I. C. Wilkins, Heating-Piping 20:108; Reply, J. H. Clarke, 108 Mr '48

Review of power and mechanical equipment; valves. il Power 91:917-19 Mid-D '47

Selection of valve material for petroleum applications. H. O. Teeple, Am Pet Inst Proc 28(3):35-41; Discussion, 41-3 '48

Valve lubricated automatically by ratchet wrench arrangement; patent, diag Pet Processing 3:71 Ja '48

Valves for heating and ventilating. R. Irmiter, il Heat & Ven 45:77-83 Mr '48

Valving CC's; drawing small volumes from a high pressure system. il Chem Ind 62:222 F '48

Control

Application of remote control devices to diaphragm valves. R. T. Kidde, Paper Tr J 126:37-9+ Je 10 '48

Remote control with valves and gate valves in the chemical industry; abstract, V. E. Moroshkin, Chem Eng 55:282+ Ja '48

Electric control

New solenoid operated four-way control valve. il Blast F & Steel Pl 36:1254-5 O '48

Vacuum control equipment. il Electrician 141:1161 O 15 '48

Maintenance and repair

How to maintain and repair gate and globe valves. R. A. Hendrickson, il Heating-Piping 20:72-5 JI '48; Same, Paper Tr J 127:49-51 JI 15 '48; Same, Pulp & Pa of Can 49:111-13 S '48; Same, Dom Eng 172:108-11+ S '48; Same, Mod Plastics 25:109-12 O '48; Same, Mill & Factory 43:126-8 D '48

Maintenance and repair of valves. R. P. Hendrickson, il Oil & Gas J 46:190-1+ Ap 1 '48

Maintenance of plug valves. R. E. Bush, il Pet Processing 3:251+ Mr '48

135 practical pointers on valve maintenance. G. Holman, il diag Heating-Piping 20:90-4 S '48

Principles in design of a valve repair shop. R. M. Kolb and D. G. Debo, il Oil & Gas J 46:185+, 254-6+ Ap 1 '48

Manufacture

Compound die cuts off, forms, curls; making valves for air control device. J. J. McGuinness, il diags Am Mach 92:106-7 My 20 '48

Smaller valves using drop forged components accommodate higher temperatures and pressures. Ohio injector co. D. Reebel, il Steel 122:104-7 Ap 26 '48

Valve manufacturer expands foundry; Homestead valve co. J. C. Sullivan, il Foundry 76:208-10+ Ap '48

Standards

Proposed revision of ASRE standard; method of rating and testing refrigerant expansion valves. diags Refrig Eng 56:sup 1-10 S '48

Report of committee on the standardization of valves and fittings. Am Pet Inst Proc 27(4):242-50 '47

Valve and fittings industry uses standards for savings. L. Benoit, Ind Stand 19:28-9 My '48

VALVES, Electron. *See Vacuum tubes*

VALVES, Hydraulic

- Care and maintenance of valves and hydrants. P. Amundson. *Water & Sewage Works* 95: 36 Ja '48
- Flushometer valve problems in temporary shut-offs. A. P. Bell and W. H. Cary, jr. *Am Water Works Assn J* 40:504-8 My '48
- Hydrant and valve maintenance. J. G. Carnes, jr. *Water & Sewage Works* 95:67-8 F '48; Same. *Il Water & Sewage* 86:19-20+ My '48
- Insertion of line valves in mains under pressure. F. Y. Dorrance. *Il Water & Sewage* 86:76-8+ Ap '48
- Inverted relief valves for hydraulic pressure control. H. G. Conway. *diags Machine Design* 20:129-33 My '48
- Know your valves and hydrants. A. G. Scheinert. *Water & Sewage Works* 95:215-17 Je '48
- Proper maintenance of flush valves. *Il diags Dom Eng* 172:130+ O '48
- Selecting hydraulic pressure control valves. L. S. Linderoth, jr. *diags Machine Design* 20:105-12 Ap '48
- Tri-valve manifold controls water flow. *Il diags Eng N* 140:436-7 Mr 18 '48

Control

- Remote hydraulic control. H. P. Kupiec. *Il diags Product Eng* 18:136-7 N '47

VANADIUM

- Les métaux rares; molybdène et vanadium; existence possible de leurs minerais en France. V. Charrin. *Chimie & Ind* 65:608-10 D '47
- Polarographic characteristics of +2 and +3 vanadium; polarography in non-complexing solutions. J. J. Lingane and L. Meites. *bibliog Am Chem Soc J* 70:2525-9 Jl '48
- Secrecy versus the law; vanadium antitrust case. *Bsns W* p65-6 S 25 '48
- Vanadium, 1947. H. W. Davis. *Eng & Min J* 149:90-1 F '48

VANADIUM chlorides

- Heat contents at high temperatures of vanadium dichloride and vanadium trichloride. E. G. King. *bibliog Am Chem Soc J* 70: 2154-5 Je '48

VANADIUM oxide

- Vanadium oxide, a hydrogenation catalyst. V. I. Komarewsky, L. B. Bos and J. R. Coley. *bibliog Am Chem Soc J* 70:423-30 Ja '48

VANADIUM steel

- See also
Molybdenum vanadium steel

VANADIUM sulfate

- Removal of oxygen from gas streams. L. Meites and T. Meites. *Anal Chem* 20:984-5 O '48

VANCOUVER, British Columbia**Water supply**

- Water supply to rural areas. W. H. Powell. *Il map Water & Sewage* 86:21-6+ Je; 27-9+ Jl '48

VANDALISM insurance. See Insurance, Fire—Policies—Extended coverage endorsements

- VANDENBERG, Arthur Hendrick, 1884—Portrait. *Bsns W* p22 D 20 '47

VANDERBILT, Alfred Gwynne, 1913?—Palace revolution. por Fortune 37:120+ My '48

- VANDERKLEED, Charles Edwin, 1878—Gets Proctor medal. *por Oil Paint & Drug Rep* 153:7 F 2 '48

VAN DER WAALS' equation. See Equation of state**VAN DER WAALS forces**

- Influence of retardation on the London-van der Waals forces. H. B. G. Casimir and D. Polder. *bibliog Phys R* 73:360-72 F 15 '48

VAN DER WAALS potential

- Steric effects; van der Waals potential energy curves. T. L. Hill. *bibliog J Chem Phys* 16:399-404 Ap '48

VAN DEUSEN, Ellen, 1926—

- Portrait. *Bsns W* p74 N 1 '47

VANILLA

- Vanilla-bean price reduction, Madagascar. *For Comm W* 32:34-5 S 18 '48
- Vanilla, chief export from Madagascar to U.S. *For Comm W* 30:25 Mr 13 '48

VANILLIC acid

- Preparation of vanillonitrile and vanillic acid from vanillin. C. Schuerch, jr. *Am Chem Soc J* 70:2293-4 Je '48
- Reactions of vanillin and its derived compounds; esters of vanillic acid. I. A. Pearl and J. F. McCoy. *bibliog Am Chem Soc J* 69:3071-2 D '47

VANILLIN

- Azlacones and phenylacetic acids derived from the 2-nitro-derivatives of vanillin, isovanillin, and veratraldehyde. S. F. MacDonald. *Chem Soc J* p376-8 Mr '48
- Preparation of vanillonitrile and vanillic acid from vanillin. C. Schuerch, jr. *Am Chem Soc J* 70:2293-4 Je '48
- Reactions of vanillin and its derived compounds; esters of vanillic acid. I. A. Pearl and J. F. McCoy. *bibliog Am Chem Soc J* 69:3071-2 D '47
- Reactions of vanillin and its derived compounds; the reaction of vanillin with mercuric oxide. I. A. Pearl. *bibliog Am Chem Soc J* 70:2008-10 Je '48

Analysis

- Determination of vanillin and related compounds after treatment with alkali; a spectrophotometric method. H. W. Lemon. *bibliog Anal Chem* 19:846-9 N '47

VANILLONITRILE

- Preparation of vanillonitrile and vanillic acid from vanillin. C. Schuerch, jr. *Am Chem Soc J* 70:2293-4 Je '48

- VAN SCHAICK, George S, 1883—Sketch. *por East Underw* 49:5 Ap 9 '48; *Nat Underw* (Life ed) 52:1 Ap 2 '48; *Weekly Underw* 158:1053+ Ap 3 '48

VAN SLYKE method. See Nitrogen—Analysis**VAPOR lock. See Automobile engines—Fuel feeding****VAPOR pressure**

- Apparatus for measurement of vapor pressure. R. R. Legault, B. Makower and W. F. Talburt. *bibliog diags Anal Chem* 20: 428-30 My '48
- Applications of thermodynamics to hydrocarbon processing; vapor pressures and equations of state. W. C. Edmister. *bibliog Pet Refiner* 27:100-7 F '48
- Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Licht, jr. and C. G. Denzler. *bibliog diags Chem Eng* 40:627-38 Ag '48
- Carbonyl chloride, entropy, heat capacity, vapor pressure, heats of fusion and vaporization; comments on solid sulfur dioxide structure. W. F. Glaue and W. M. Jones. *bibliog Am Chem Soc J* 70:120-4 Ja '48
- Correlating adsorption data. D. F. Othmer and S. Josefowitz. *Ind & Eng Chem* 40: 723-5 Ap '48
- Counter flow of vapor pressures. T. W. Reynolds. *diags Heat & Ven* 44:102 D '47
- Entropy of ethyl chloride; heat capacity from 13 to 287°K; vapor pressure; heats of fusion and vaporization. J. Gordon and W. F. Glaue. *bibliog Am Chem Soc J* 70: 1506-10 Ap '48
- Experimental bases for the calculation of the sulfuric acid vapor pressure above the sulfuric acid-water system. E. Abel. *bibliog J Phys & Colloid Chem* 52:908-14 My '48
- Graphical residual; its application to phase relations of oxygen and nitrogen. H. A. Koch, jr. and V. C. Williams. *bibliog Chem Eng Prog* 43:623-32 N '47
- Heat and the external work of vaporization of twenty-two hydrocarbons. J. E. Haggenmacher. *bibliog Ind & Eng Chem* 40:436-7 Mr '48
- High range vapor pressures and Antoine equation constants of some C₂ to C₆ hydrocarbons. J. Griswold and W. B. Brooks. *bibliog Pet Refiner* 26:122-7 D '47
- Increase in vapor pressure of liquid helium due to He³ in solution. H. A. Fairbank and others. *Phys R* 74:345-6 Ag 1 '48

VAPOR pressure—Continued

- Isopiestic measurements on the primary sodium and potassium salts of malonic, succinic and adipic acids at 25°. J. M. Stokes. bibliog Am Chem Soc J 70:1944-6 My '48
- Maxima in vapor pressure curves. A. E. Korveze and P. Dingemans. Am Chem Soc J 70:2818 Ag '48
- Nomogram for vapor pressures of binary solutions. M. Tyner. bibliog Chem Eng 55:144 My '48
- Relative association of hydrogen and deuterium fluorides in the liquid state. J. H. Hildebrand and A. Gee. bibliog Am Chem Soc J 70:427-8 Ja '48
- Theory of vapor pressures of liquids based on van der Waals' equation of state. F. T. Wall. J Chem Phys 16:508-12 My '48
- Thermodynamics of the system benzene-biphenyl. H. Tompa. bibliog diags J Chem Phys 16:292-302 Ap '48
- Vapor pressure and heat of sublimation of graphite. L. Brewer and others. bibliog diag J Chem Phys 16:797-807 Ag '48
- Vapor pressure and heat of sublimation of Graphite. L. E. Long. bibliog J Chem Phys 16:1087 N '48
- Vapor pressure data for phenols. K. B. Goldblum, R. W. Martin and R. B. Young. bibliog diag Ind & Eng Chem 39:1474-6 N '47
- Vapor pressure of benzotrifluoride measured by the Rodebush manometer. G. W. Sears and E. R. Hopke. bibliog J Phys & Colloid Chem 52:1137-42 O '48
- Vapor pressure of eleven organic compounds. C. E. Redemann, S. W. Chalkin and R. B. Fearing. Am Chem Soc J 70:2532-3 Jl '48
- Vapor pressure of isobutene over dioxane as basis of manometric kinetic studies; the dissociation of *t*-butyl benzoate. R. Altschul and J. Herbert. Am Chem Soc J 70:351-4 Ja '48
- Vapor pressure of methyl sulfoxide from 20 to 50°; calculation of the heat of vaporization. T. B. Douglas. diag Am Chem Soc J 70:2001-2 Je '48
- Vapor pressure of mustard gas (β,β' -dichloroethylsulfide), diphenyl ether and their mixtures. H. E. Bent and R. J. Francel. bibliog diags Am Chem Soc J 70:634-7 F '48
- Vapor pressure of uranium hexafluoride. B. Weinstock and R. H. Crist. diags J Chem Phys 16:436-41 My '48
- Vapor pressure, specific volume, *p-v-T* data for H_2 , Na_2O , CO , CO_2 , air, He , A , Hg , S . Gratch. A S M E Trans 70:631-40 bibliog (154 titles, p637-40) Ag '48
- Vapor pressure, specific volumes, and *p-v-T* data for H_2O , NH_3 , CH_4 , C_2H_6 with comments on mixtures. F. G. Keyes. bibliog A S M E Trans 70:641-4 Ag '48
- Vapor pressure studies in the system, aluminum bromide-hydrogen bromide-paraffin hydrocarbon. C. M. Fontana and R. J. Herold. bibliog diag Am Chem Soc J 70:2381-3 S '48
- Vapor pressure-temperature relationships among the branched paraffin hydrocarbons. H. Wiener. bibliog J Phys & Colloid Chem 52:425-30 F '48
- Vapor pressures and some related quantities of pentene-1 from 0 to 200°. H. O. Day, D. E. Nicholson and W. A. Felsing. bibliog Am Chem Soc J 70:1784-5 My '48
- Vapor pressures of solutions of sodium and potassium bisulfates at 25°. R. H. Stokes. Am Chem Soc J 70:874 F '48
- Vapor pressures of some alkali halides. G. E. Cogan and G. E. Kimball. bibliog diag J Chem Phys 16:1035-48 N '48
- Violet asymmetry of potassium resonance lines under high rubidium vapor pressure. S. Chen. bibliog Phys R 73:1470 Je 15 '48
- Volatility and vapor pressure of eight 2-chloroethyl alkyl (or cycloalkyl) sulfides. C. E. Redemann, S. W. Chalkin and R. B. Fearing. bibliog diags Am Chem Soc J 70:631-3 F '48
- Volatility and vapor pressure of nine organic arsines. C. E. Redemann and others. bibliog Am Chem Soc J 70:637-9 F '48
- Volatility and vapor pressure of ten substituted 2-chloroethylamines. C. E. Redemann, S. W. Chalkin and R. B. Fearing. Am Chem Soc J 70:1648-50 Ap '48

VAPORIZATION

- Correlation of A.S.T.M. true boiling point and flash vaporization curves. W. L. Nelson and R. J. Harvey. bibliog Oil & Gas J 47:71-2+ Je 17 '48
- Heat and the external work of vaporization of twenty-two hydrocarbons. J. E. Haggemacher. bibliog Ind & Eng Chem 40:436-7 Mr '48
- Vaporization in furnace tubes. G. Baars. 2pls diags Inst Pet J 34:417-36; Discussion. 436-42 Je '48
- Vaporization of petroleum fractions; method of calculation for vapor-liquid equilibria of complex mixtures. W. D. Harbert. bibliog Pet Refiner 26:132-9 D '47
- See also Sublimation
- VAPORIZATION, Heat of
- Azeotropic mixtures; variation of boiling point and latent heat with pressure. W. Licht, Jr. and C. G. Denzler. bibliog diag Chem Eng Prog 44:627-38 Ag '48
- Correlation of heats of isomerization, and differences in heats of vaporization of isomers, among the paraffin hydrocarbons. H. Wiener. bibliog Am Chem Soc J 69:2636-8 N '47
- Entropy of ethyl chloride; heat capacity from 13 to 287°K; vapor pressure; heats of fusion and vaporization. J. Gordon and W. F. Glaue. bibliog Am Chem Soc J 70:1505-10 Ap '48
- Experimental vapor heat capacities and heats of vaporization of *n*-hexane and 2,2-dimethylbutane. G. Waddington and D. R. Douslin. Am Chem Soc J 69:2275-9 O '47
- Heat and the external work of vaporization of twenty-two hydrocarbons: J. E. Haggemacher. bibliog Ind & Eng Chem 40:436-7 Mr '48
- Latent heat of vaporization, temperature and density of liquids. S. T. Bowden and W. J. Jones. Soc Chem Ind J 66:342-3 O '47
- Measurements of heat of vaporization and heat capacity of a number of hydrocarbons. N. S. Osborne and D. C. Glinnings. bibliog diags J Res Nat Bur Stand 39:453-77 N '47
- Vapor pressure of methyl sulfoxide from 20 to 50°; calculation of the heat of vaporization. T. B. Douglas. diag Am Chem Soc J 70:2001-2 Je '48
- VAPORIZERS
- Continuous fly control; new device vaporizing pure DDT. il Food Ind 20:722+ v '48
- High velocity vaporizers. E. W. Comings, C. H. Adams and E. D. Shippee. bibliog diags Ind & Eng Chem 40:74-6 Ja '48
- Miniature topping plant develops pipe-line-station fuel. L. S. McCaslin, Jr. flow diag il Oil & Gas J 47:69-70 S 2 '48
- VAPORS
- Adsorption of vapors; new apparatus, and data for the lower ketones, benzene, and hexane on activated carbon. S. Josefowitz and D. F. Othmer. bibliog il diag Ind & Eng Chem 40:739-43 Ap '48
- Automatic dewpoint meter for the determination of condensable vapors. T. T. Puck. bibliog diags R Sci Instr 19:16-23 Ja '48
- Composition of vapors from boiling binary solutions; systems of phenol with beta- and gamma-picoline and 2,6-lutidine. D. F. Othmer and S. A. Savitt. bibliog Ind & Eng Chem 40:168-74 Ja '48; Correction. 40:435 Mr '48
- Composition of vapors from boiling solutions; improved equilibrium still. D. F. Othmer. bibliog diags Anal Chem 20:763-6 Ag '48
- Condensation of refrigerant vapors; apparatus and film coefficients for Freon-12. R. E. White. bibliog il diag A S M E Trans 70:689-93 Ag '48; Same. Refrig Eng 55:375-9 Ap '48
- Condensation of vapors on outside of finned tubes. K. O. Beatty, Jr. and D. L. Katz. bibliog flow sheet il diags Chem Eng Prog 44:55-68; Discussion. 69-70 Ja '48
- Heat capacities of liquids and vapors. S. W. Benson. J Chem Phys 15:866-7 D '47
- Pressure drop in vapor lines. W. L. Nelson. Oil & Gas J 46:97 Mr 4 '48
- Pressure drop of gases and vapors flowing through pipes; reference book sheet. A. H. Korn. Product Eng 19:151, 153 Jl '48

VAPORS—Continued

- Statistical thermodynamics of the sorption of vapors by solids. M. Dole. bibliog J Chem Phys 16:25-30 Ja '48
- Thermal properties of petroleum oils; effect of pressure on enthalpy of petroleum vapor. M. Van Winkle, Pet Refiner 27:105-7 Ag '48
- Thermal properties of petroleum oils; enthalpies of saturated and super heated petroleum vapors at atmospheric pressure. M. Van Winkle, Pet Refiner 27:123-8 Jl '48
- Toxicity of dimethyl-, diethyl-, and diisopropyl fluorophosphate vapors. S. D. Silver. J Ind Hygiene 30:307-11 S '48
- Viscosity of vapors, gasoline, gases; charts and tables. W. L. Nelson. Oil & Gas J 46:147 F '26 '48

See also

- | | |
|------------------------|----------------|
| Adsorption | Solvents |
| Electric precipitation | Steam |
| Evaporation | Vapor pressure |
| Fumes | Vaporization |
| Fumigants | Water vapor |
| Gases | |

- VARGA, Eugene S.**
Soviet economist falls from grace. Fortune 37:5 Mr '48
- Varga; victim of capitalism; no. 1 Soviet economist in disgrace. Bsns W p22-3 Ja 31 '48

VARIATION (statistics)

- Estimating precision of measuring instruments and product variability. F. E. Grubbs. Am Stat Assn J 43:243-64 Je '48; Correction. 43:564 D '48
- General methods of analysis for incomplete block designs. C. R. Rao. bibliog Am Stat Assn J 42:541-61 D '47
- Use of variance components in the analysis of hog prices in two markets. R. L. Anderson. Am Stat Assn J 42:612-34 D '47; Correction. 43:242 Je '48

*See also***Secular trend****VARIETY stores**

- Variety chains put brakes on prices. Bsns W p65-6+ O 16 '48

Finance

- Expenses and profits of limited price variety stores in 1947; chains and independents. M. P. Brown. (Bur. of business research bul. no. 129) 53p pa 32 Harvard univ. Graduate school of business administration, Soldiers field, Boston 63 '48

VARISTORS. See Electric resistors**VARNISH, Insulating**

- Electrical insulating materials and varnish. B. F. McNamara. il Iron & Steel Eng 25: 69-75 Jl '48
- Generator laminations reinsulated in the field; spraying with red oxide glyptal. F. R. Gould. il Elec World 129:171+ Ja 17 '48
- Study of the dielectric strength of paint, varnish and lacquer films by New York paint and varnish production club. bibliog il diags Paint Oil & Chem R 110:52-9 D 11 '47
- Thermoset varnish, the first line of defense. G. F. Sutton and M. F. Hertel. il Westinghouse Eng 8:124-8 Jl '48
- Value of vacuum impregnation of railway traction motors with insulating varnish. il Ry Mech Eng 121:713 D '47

VARNISH, Printers'

- Use of varnishes. E. St. John. Inland Ptr 121: 59 Je '48

VARNISH and varnishing

- Applications of the spectrographic method for studying the resin-bodying of drying oils. F. J. Kolb, Jr. and E. A. Hauser. bibliog (41 titles) Paint Oil & Chem R 110:104+ N 13 '47
- Confirmatory analysis of the lost Italian varnish. J. Michelman. Science 107:679 Je 25 '48
- Furfural in phenol resin laminates; abstracts. H. Kline. Mod Plastics 25:101-2 D '47; Paper Ind 30:775-6+ Ag '48
- Paint, varnish, and lacquer industry in 1947. C. P. Neldig and H. Burrell. Chem & Eng N 26:25-7 Ja 5 '48

- Petroleum varnish; abstract. H. Dannenberg and others. Chem Eng 55:292+ My '48
- Studies on anti-fouling compositions; rate of loss of material from a graded series of varnishes exposed in the sea. H. Barnes. bibliog Iron & Steel Inst J 157:593-600 D '47

- Varnish from petroleum needs no drying oil. Oil Paint & Drug Rep 153:3 Je 21 '48

See also

- Drying oils
Lacquer and lacquer-
ing
Tung oil

Testing

- Evaluation of certain hydrocarbon resins by Cincinnati-Dayton-Indianapolis-Columbus paint and varnish production club. Paint Oil & Chem R 110:76-82, 84-5 N 13 '47

VARNISH factories

- Sherwin-Williams, new Montreal varnish plant modern to last detail. il Paint Oil & Chem R 111:14-15 Ja 22 '48

VASCULAR system

- Sludged blood. M. H. Knisely and others. bibliog (53 ref.) il Science 106:431-40 N 7 '47

VASOCONSTRICTION. See Blood vessels**VATS**

- Heat losses from tanks, vats and kettles. S. J. Friedman. bibliog diags Heat & Ven 45: 94-108 Ap '48

VAULTS (electric installation)

- Dry-type transformers for underground use. W. W. Satterlee. il diag Westinghouse Eng 8:146-9 S '48
- Precast vaults cut underground costs. C. F. Myers. il Elec World 130:96 O 23 '48

VEAZEY, William Reed, 1883-

- American contemporary. A. D. McFadyen. Chem & Eng N 26:2607 S 6 '48

VEBLEN, Thorstein Bunde, 1857-1929

- Veblen. por Fortune 36:132-5+ D '47

VECTOR analysis

- A.c. network analysis. L. Tasny-Tschiasny. bibliog diags Elec R (Lond) 141:925-7, 963-5 D 19-26 '47
- Calculation of errors in three-winding voltage transformers. T. Waterhouse. diags Inst E E J 95 pt 2:71-8 F '48
- Design for a polyphase vector drawing device. A. F. Stilson. diag Elec World 128: 114+ D 6 '47
- Phasing out synchronous motors; application of vectors. A. J. Caparo. diags Power Pl Eng 51:94-6 D '47
- Symmetrical component analysis. T. F. Wall. Engineering 165:134 F 20 '48
- Unbalanced impedance star network; new graphical solution. E. Wilkinson. diags Elec R (Lond) 141:660-2 O 31 '47
- Use of vectors in vibration measurement and analysis. C. C. Kennedy and C. D. P. Pancu. bibliog diags J Aeronautical Sci 14:603-25 N '47
- Vector permeability; magnetic properties of transformer core materials. K. A. Macfadyen. diags Inst E E J 94 pt 3:407-14 N '47

VEECK, William Louis

- Selling a ball club to the fans; Bill Veeck and Cleveland Indians, por Bsns W p52+ O 2 '48

VEGETABLE gardening

- Hot house food by the ton; Japanese occupation forces utilize controlled vegetable raising method. il Food Ind 20:190-2 F '48

VEGETABLE gasoline. See Automotive fuel**VEGETABLE juices**

- Freeze-concentration process employs new approach; pilot unit concentrates fruit and vegetable juices, milk, coffee, wine and beer. T. R. Olive. diag Food Ind 20:1432-3 O '48

VEGETABLES

- Cuban production and exports, 1947-48 season. For Comm W 30:23 Ja 24 '48
- Denmark's production. For Comm W 31:26 Ap 30 '48
- Outlook for winter-vegetable industry, Mexico. For Comm W 30:23 Ja 24 '48

VEGETABLES—Continued

Produce from four western states; most of it only bulk packaged, *il* Mod Packaging 21:145-7 J1 '48

See also

Canned food	Drying (fruits and vegetables)
Cooling of fruits and vegetables	
also names of vegetables, e.g.	
Beans	Potatoes
Carrots	Sweet potatoes
Corn	Tomatoes
Peas	

Advertising

How Suffolk promotes pre-packaged spinach. Sales Management 60:134-5 Je 15 '48

Analysis

Determination of alcohol-insoluble solids and sugar contents of vegetables, J. C. Moyer and K. C. Holgate, *bibliog Anal Chem* 20:472-4 My '48

Estimation of ascorbic acid in food preparations, S. A. Goldblith and R. S. Harris, *bibliog Anal Chem* 20:649-51 J1 '48

Peeling

See Peeling

Prepackaging

Consumer packaging of fruits and vegetables in California, G. L. Mehren, *J Marketing* 12:327-36 Ja '48

How Suffolk promotes pre-packaged spinach. Sales Management 60:134-5 Je 15 '48

ICC challenged; farmers fear blow to pre-packaging, *Bsns W* p42+ My 22 '48

Pre-packaging conclusions; three-year study of American stores co.'s centralized operation, D. R. Stokes, *il* Mod Packaging 21:104-10 J1 '48

Produce-film comparisons; government tests on packaged produce yield data on transparent films, J. Kaufman and others, *Mod Packaging* 21:147-51 Ag '48

Produce packaging; how and where? F. Gindick, *il* diag Mod Packaging 21:106-11+ D '47

Produce shippers' test; five experimental carloads illustrate research findings of Western Growers in pre-packaging at the shipping point, *il* Mod Packaging 21:128-33+ F '48

Sales tests in super markets show pre-packaged produce and fruit outselling bulk, W. H. Davis, *Ptr Ink* 22:299 F 6 '48

Tomato pre-packer; Walter Holm building modern packaging plant on Mexican border, *il* Mod Packaging 21:108-11 Mr '48

Preservation

Effect of chipped ice packing on fresh kale preservation, M. Potgieter and C. Cowell, *bibliog Refrig Eng* 56:399-401+ N '48

Retention of vitamins in low acid canned foods; new processing techniques, J. F. Feaster and others, *bibliog il Food Ind* 20:14-17+ Ja '48

Storage

How to build a good vegetable storage building, *il* diag Am Bld 69:111 D '47

Produce storage in small walk-in coolers, R. Hockman, *il* Refrig Eng 56:228-30 S '48

VEGETABLES, Dried**Moisture content**

New desiccant keeps quality in, moisture out; small packets or larger containers of desiccant preserve crispness of potato chips and baked goods, prevent hard candy from sticking, helps to dehydrate vegetables, K. D. Kahn, *il* Food Ind 20:18-19+ Ja '48

Use of lyophilization in determination of moisture content of dehydrated vegetables, B. Makower and E. Nielsen, *Anal Chem* 20:856-8 S '48

VEGETABLES, Frozen

Dehydroascorbic acid in frozen and cooked frozen vegetables, C. L. Bedford and M. A. McGregor, *bibliog Science* 107:251-2 Mr 5 '48

Field-to-consumer control assures quality frozen foods; California consumers corp. E. E. Todd, *il* Food Ind 19:1501-6 N '47

Frozen vegetables, 1941-1946, Survey of Cur Bsns 1947 Sup p 127 [supplemented in monthly numbers]

VEHICLES

Production of selected types of transportation equipment, by quarters, 1946 to third quarter of 1947; charts, Survey of Cur Bsns 27:6 N '47

See also

Automobiles	Motor vehicles
Cars	Street cars
Electric vehicles	Taxicabs
Motor buses	Trailers
Motor trucks	

VELOCITY

Accurate measurement of the group velocity of radio waves in the atmosphere, using radar technique, E. A. Smith and others, *diags Inst E E J* 94 pt 3:391-5; Discussion, 402-6 N '47

Measurement of the velocity of propagation of centimetre radio waves as a function of height above the earth, F. E. Jones, *diag Inst E E J* 94 pt 3:399-401; Discussion, 402-6 N '47

Method of determining the velocity of radio waves over land on frequencies near 100 kc/s., E. B. Mendoza, *diags Inst E E J* 94 pt 3:396-8; Discussion, 402-6 N '47

Technique for velocity error corrections in seismograph technique, J. L. Kezeler, *diags World Oil* 128:112+ S '48

See also

Acceleration	Light—Velocity
Electrons—Velocity	Sound—Velocity

VELOCITY modulation tubes. See Vacuum tubes—Velocity modulation tubes

VELOCITY of light. See Light—Velocity

VELOTTA, Thomas

Equal opportunity makes him what he is; T. Velotta, American broadcasting co. J. Walker, *por Ed & Pub* 81:42 F 28 '48

VENDING machines

Automatic electric cigarette and match merchandiser, *il* diags Product Eng 19:92-4 Je '48

Automatic vendors' sales to hit two billions from 3,800,000 machines by 1952, W. H. Davis, *il* Ptr Ink 22:177 D 26 '47

Can you sell your product through vending machines? E. Saperstein, *il* Ptr Ink 22:50-2+ O 1 '48

Cold drink vendors, an industry in a cabinet; field for refrigeration, E. A. Terhune, *il* Refrig Eng 55:372-3 Ap '48

Plastics in automatic merchandising, M. Meyers, *il* Plastics 8:22-3 O '48

Post offices to sell stamps via machines, *il* Am Bsns 18:32 F '48

Robot drink vendor makes change, *il* diag Machine Design 19:144 N '47

Slot-machine insurance opposition is withdrawn by Texas agents, A. Ragland, Jr. Weekly Underw 158:1639 Je 5 '48; Excerpts, Nat Underw 52:25 Je 3 '48

Stand holds three welding fixtures; assembly of Coca-Cola bottle-dispensing machines, C. W. Holmstrom, *il* diag Am Mach 92:128 S 23 '48

Tooling and operations in vending machine making; Photomatic, *il* diag Sheet Metal Worker 39:53-5 F '48

Vendor package; \$1 pack of nylons, *il* Mod Packaging 21:86-7+ Ja '48

Vendor uses plastics inside and out; carbonator head made of acrylic, *il* Mod Plastics 25:82-4 J1 '48

Exhibitions

Jackpot for coin vendors? Chicago show of selling machines, *il* Bsns W p50-2 D 20 '47

VENEERS and veneering

Compregnated wood tested by navy, R. P. Goodale, *il* Mod Plastics 25:102-5 F '48

High-frequency molding applied to compound curvatures in wood, E. H. Bihuber, *il* Mech Eng 70:213-16 Mr '48

Plastic protected wood veneers; laminate incorporating a sheet of melamine-impregnated veneer, *il* Mod Plastics 25:110-11 D '47

VENEREAL diseases

Industry's part in venereal disease control, H. M. Soloway, *Nat Safety* N 56:28-9+ N '47

VENETIAN blinds**Manufacture**

Saves 43 per cent and more in finishing costs; Kirsch drapery hardware and venetian blinds. *il diags Mill & Factory* 42:153-4 Mr '48

VENEZUELA

New constitution of Venezuela. *Int Labour R* 56:592-4 N-D '47

See also

Diamond mines and mining—Venezuela
Petroleum—Venezuela

Petroleum industry and trade—Venezuela
Petroleum pipe lines—Venezuela

Industries and resources

Oil, agriculture and industry in Venezuela. *map Economist* 155:383-4 S 4 '48

Politics and government

Venezuela's social revolution. *map Economist* 153:845 N 22 '47

VENOM

Laboratory for snake-bite serum; Vital Brazil institute. *il plans Arch Forum* 87:106-7 N '47

VENTILATION

Discharge of air from a long slot. A. Koestel and G. L. Tuve. *diags Heating-Piping* 20:153-7 Ja '48

Heating, ventilation, and air conditioning. O. Faber. *Inst Mech Eng J & Proc* 157 (War emergency issue no 33):355-7 '47

Let a ventilating job find itself. T. W. Reynolds. *Heat & Ven* 45:89-90 O '48

Minimum ventilation. T. W. Reynolds. *Heat & Ven* 44:101 D '47

Pertinent facts on natural ventilation. G. R. Gelert. *Sheet Metal Worker* 39:34-7 S '48

Sanitary significance of ventilation. W. F. Wells. *bibliog diags Heating-Piping* 20:115-21 S '48

Simple ventilation vs refrigeration. F. H. Erdgers. *diags Heat & Ven* 45:84-6 Mr '48

Valves for heating and ventilating. R. Irmiter. *il Heat & Ven* 45:77-83 Mr '48

Ventilation tips for solvent users. *Heating-Piping* 20:97 My '48; *Same. Safety Eng* 95:65 My '48

See also

Air conditioning
Air diffusers
Air filters
Air pipes
Air pollution
Air purification

Exhaust systems
Heating
Humidity
Kitchens—Ventilation
Mine ventilation
Ventilators

Cooling
Dust removal

also subdivision Heating and ventilation under various subjects, e.g.

Airplanes
Car shops
Factories
Hosiery mills
School buildings

Bibliography

Abstracts and reviews; books and pamphlets. Published in monthly numbers of *Heating and ventilating*

Laws and regulations

State laws concerning industrial exhaust ventilation. K. J. Caplan and A. D. Brandt. *Heating-Piping* 20:118-23 F '48

VENTILATION of clothing. See *Clothing and dress—Hygienic aspects*

VENTILATION research

ASHVE research in air distribution and air duct friction. C. Tasker. *Heating-Piping* 20:125-7; *Discussion*. 127-30 Ap '48

1947 annual report of committee on research. *il diag Heating-Piping* 20:115-20 Mr '48

VENTILATORS

Keg of dynamite; your ventilating system may be loaded with dust and grease. G. L. Candler. *il Safety Eng* 95:36-4 Mr '48

Mammoth skylight installation; puttyless aluminum type; aluminum louvered vents. *il Sheet Metal Worker* 39:33-4 S '48

Trapping sound in ventilating ducts; sound-proof test room of the Bell telephone laboratories. N. N. Wolpert. *il diags Heat & Ven* 45:65-7 Ja '48

VENTURI flume**See also**

Parshall flume

VENTURI meters

Simpler and better Venturi tube. J. C. Stevens. *il diags Eng N* 140:658-61 Ap 29 '48; *Discussion*. 140:973, 1040-2; 141:93, 114-15 Je 10, 24, Ag 5, 19 '48

VENTURI tubes. See *Venturi meters*

VENTURI-SCRUBBER

Venturi-Scrubber, new device for cleaning stack gases. *flow diag il diags Power Generation* 52:57-9 My '48

VERATRALDEHYDE

Azoxones and phenylacetic acids derived from the 2-nitro-derivatives of vanillin, isovanillin, and veratraldehyde. S. F. MacDonald. *Chem Soc J* p376-8 Mr '48

VEREIN deutscher ingenieure

Meetings, Munich, Sept. 7-10. *Engineer* 186:345 O 1 '48

VERMAN, Lal Chand, 1902-

Heads Indian standards institution. *Ind Stand* 19:102 Ag '48

VERMICULITE

Deposits at Palabro, Transvaal. *Chem & Ind* p200 Mr 27 '48

Hoaxes of poured vermiculite. *il plans diags Am Bid* 69:100-1 D '47

Labor requirements to produce home insulation. *il U S Bur Labor Statistics Bul* 919:1-19; *pa 10c Supt. of doc.* '47

New floor design for cold storage plants. R. F. Rea. *il diag Refrig Eng* 54:449-50 N '47

Pulverized vermiculite has foundry applications. T. Wilcox. *Foundry* 76:116 O '48

Vermiculite reduces construction costs. E. E. Hanks. *il diag Manuf Rec* 117:40-14-1 Je '48

Vermiculite; what it is, how it works and where it's used in buildings. G. B. Coggins. *il diags Brick & Clay Rec* 111:36-8 N '47

VERNEY corporation

Stock offered. *Comm & Fin Chr* 168:1050 S 13 '48

VERNIERS

How to read micrometers and verniers. J. Foster. *il diag Power Generation* 52:81-3 Mr '48

VERTEBRATES, Fossil

Chadron vertebrate fossils from below the rim rock of Presidio county, Texas. J. W. Stovall. *bibliog maps diags Am J Sci* 246:78-95 F '48

VESALIUS, Andreas, 1514-1564

Vesalius; discoverer of the human body. M. Gumpert. *Sci Am* 178:24-31 My '48

VESICANTS

Chemical studies on vesicant-treated proteins. F. H. Carpenter and others. *Am Chem Soc J* 70:2551-3 Jl '48

p-(2-Chloroethylthio)phenylchloroarsine. H. T. Openshaw and A. R. Todd. *Chem Soc J* p374-6 Mr '48

Derivatives of 10-methyl-1,2-benzanthracene related to the nitrogen and sulfur beta-chloroethyl vesicants. O. M. Friedman and A. M. Seilgman. *bibliog Am Chem Soc J* 70:3082-6 S '48

New organic sulphur vesicants. F. N. Woodward and others. *diag Chem Soc J* p35-47 Jm '48

Reaction of some radioactive mustard-type vesicants with purified proteins. J. L. Wood and others. *bibliog Am Chem Soc J* 70:2547-50 Jl '48

Reactions of mustard-type vesicants with amino acids. V. du Vigneaud and others. *Am Chem Soc J* 70:1620-4 Ap '48

Studies of the effect of mustard-type vesicants on the phenol color reaction of proteins. C. M. Stevens, H. McKennis, jr. and V. du Vigneaud. *bibliog Am Chem Soc J* 70:2556-9 Jl '48

Studies on acid hydrolysates of vesicant-treated insulin. C. M. Stevens and others. *Am Chem Soc J* 70:2554-6 Jl '48

VETERANS

American Legion; its housing parade marches down the middle of the road. *Arch Forum* 87:10-11 D '47

Controlling bias in mail questionnaires. J. A. Clausen and R. N. Ford. *Am Stat Assn J* 42:497-511 D '47

Veterans' cabs. *Bsns W* p96-7 My 8 '48

VETERANS—Continued

Veterans' cooperative apartments in New York; Great Oaks, Riverdale. *Il plan Arch Rec* 103:128-9 F '48

Where does the veteran stand today? S. Stavisky. *Ann Am Acad* 259:128-35 S '48

See also
American legion

Bonuses

State veterans' bonuses. Survey of Cur Bsns 28:5-6 Ap '48

Business plans

Business of their own; Fowler & Graham, Greenwich, Conn. *Il Fortune* 37:98-101+ My '48

Cost and financial tests for the veteran's business adventure. P. L. Procter. *N A C A Bul* 29:499-508 Ja 1 '48

Education

Air schools grounded by VA curbs on courses. H. Davenport. *Barron's* 23:8 S 6 '48

Charges against GI training are challenged; abstract. J. W. Batchelor. *Aviation W* 48:50 Mr 8 '48

Expected World war II pilot surplus used up. Balfour says; rebuttal to Budget bureau's attack on GI aviation training. A. McSurely. *Aviation W* 48:29-30 Mr 29 '48

Fixed base operators dispute training claims of Budget bureau. *Aviation W* 48:39-40 Mr 15 '48

Industry challenges VA threat to GI flight training future. A. McSurely. *Aviation W* 48:27-8 F 16 '48

Keep GI aviation training. Congress says. *Aviation W* 48:11 Je 28 '48

Veterans' administration to back slash in college flight training. A. McSurely. *Aviation W* 47:51-2 N 17 '47

Veterans flight program cost totals \$257,000, 000 for year. A. McSurely. *Aviation W* 48:13-14 Mr 1 '48

Employment

GIs' sales records top nonveterans; abstract. H. R. White. *Am Bsns* 18:50 Ja '48

Looking to the future; Fort Wayne builder trains veterans while building three subdivisions. *Il plans Am Bld* 69:90-3 D '47

Veteran looks at jobs and employers. C. J. Freund. *Foundry* 76:126-7+ My '48

Vets now being employed prove to be good agents. *Nat Underw (Life ed)* 52:3 Je 4 '48

See also
Veterans—Reemployment

Veterans, Disabled
—Employment

Housing

How veterans got houses in Baton Rouge; Legion Village. *Il Banking* 41:60+ JI '48

Laws and legislation

G.I. Homestead act. Burroughs Clearing House 32:32 Ja '48

Loans

Developing a sound G.I. lending program; interview with W. T. Robinson. Burroughs Clearing House 32:26-8+ N '47

Government-guaranteed home loans to veterans. Survey of Cur Bsns 23:8-10 Ap '48

G.I. business loans have been plentiful, profitable, and safe. W. H. McDaniel. *Bankers Mo* 65:30, 32 My '48

Higher rates needed; defends companies' refusal of GI mortgages. C. L. Benner. *Nat Underw (Life ed)* 52:3+ Ap 16 '48; Same cond. *East Underw* 49:1+ Ap 9 '48

Mortgages under GI loans as investment medium, attractive. J. Malzo. *East Underw* 49:1+ Ja 2 '48; Abstract. *Nat Underw (Life ed)* 51:3 D 26 '47

Some case histories of GI loans. *Banking* 40:94+ F; 76-7 Je; 41:119-20 JI '48

Veterans repair loans; VA unwraps new low-interest plan. *Arch Forum* 87:14 N '47

Vets make strong bid in home loan market. *Spectator (Life ed)* 155:52 N '47

Reemployment

Decisions of interest to labor; veterans' reemployment. *Mo Labor R* 65:575-6, 687-8; 66:67-8, 188-9, 309-10, 419-20, 539-41, 649-50; 67:58-9, 168-70, 409-10 N '47-Ag, O '48

Australia

Reconstruction training in Australia. *Int Labour R* 56:325 S '47

China

Rehabilitation of ex-servicemen in China. *Int Labour R* 58:235-6 Ag '48

India

Resettlement and vocational training in India. *Int Labour R* 56:178-82 Ag '47

VETERANS, Disabled**Employment**

Asks laws to encourage hiring disabled persons. M. Rice. *Nat Underw* 52:17 Ag 26 '48

Handicapped vets handle jobs normally in production. S. Stanley. *Il Am Mach* 92:114-15 S 9 '48

Rehabilitation

Use of 16-mm motion pictures for educational conditioning at the Walter Reed general hospital. E. W. Schultz. *Il Soc Motion Picture Eng J* 51:424-30 O '48

VETERANS administration

Industry challenges VA threat to GI flight training future. A. McSurely. *Aviation W* 48:27-8 F 16 '48

VA insurance chief not to quit; hits back at critics. *Nat Underw (Life ed)* 51:3 N 7 '47

Veterans' administration to back slash in college flight training. A. McSurely. *Aviation W* 47:51-2 N 17 '47

Buildings

Brick builds VA office building at Wilkes Barre, Pa.; illustrations. *Brick & Clay Rec* 112:29 Je '48

VETERINARY medicine

University of Illinois College of veterinary medicine has recently enrolled its first group. *Science* 108:374 O 8 '48

VIALS, Plastic

Rigid molded vials. *Il Mod Packaging* 21:104-6 Je '48; *Mod Plastics* 25:116-18 Je '48

Transparent plastic vials. *Chem & Eng N* 26:3056 O 11 '48

VIBRATION

Damping capacity of metals. E. V. Potter. *17pls U S Bur Mines Rep of Invest* 4194:1-48 bibliog(49 titles, p 38) '48

Damping characteristics of dashpots. J. B. Peterson. *diag Product Eng* 18:138-40 N '47

Directional characteristics of a clamped-edge disk. L. L. Merrill and F. H. Slaymaker. *diags Acoustical Soc Am J* 20:375-80 JI '48

Gyrograms for simple harmonic systems subjected to external forces. V. Rojansky. *diags J Ap Phys* 19:297-301 Mr '48

Gyroscopic effects in a vibratory system. G. S. Bennett. *diag J Ap Phys* 18:1110-12 D '47

Infra-red vibrations in NaCl. J. J. Markham. *bibliog J Chem Phys* 16:580-6 Je '48

Initial oscillation on a rotational viscometer. R. N. Weltmann. *bibliog diag J Ap Phys* 18:933-40 N '47

Measurement of the damping capacity of metals in torsional vibration; abstracts and discussion. G. A. Cottell and others. *Engineering* 186:340-2 O 1 '48; *Engineering* 166:330-1 O 1 '48; *Metallurgia* 38:333-5 O '48

Mechanical behavior of high damping metals. C. Zener. *bibliog J Ap Phys* 18:1022-5 N '47

Self-excited mechanical oscillations. N. Minorsky. *diags J Ap Phys* 19:332-8 Ap '48

Stability and high frequency. A. Wintner. *J Ap Phys* 18:941-2 N '47

Thickness-shear vibrations of thin anisotropic plates. G. Hok. *Acoustical Soc Am J* 20:406-17 JI '48

Use of vibration as a means of industrial drive. C. A. M. Thornton. *bibliog il diags Inst Mech Eng J & Proc* 157 (War emergency issue no 25):20-31 '47; Same cond. *Machine Design* 19:147-50 D '47

VIBRATION—*Continued*

- Vibration in piping systems. F. E. Davenport. diags Heating-Piping 20:104-6 Ja '48
 Vibrational loads may occur where not expected. E. L. Cady. il diags Mill & Factory 42:110-13 Je '48
 Vibratory cavitation test apparatus. H. H. Schwartz. Product Eng 19:184-; Reply. R. Beeching. diag 186+ My '48

See also

- | | |
|-----------------------|--------------------------|
| Automobile engines | Electric lines—Vibration |
| —Vibration | |
| Automobiles—Vibration | Machinery—Vibration |
| Buildings—Vibration | Sound waves |

Measurement

- Application of electrical technique to the service of some other industries; vibration analyzers. H. C. Turner and G. M. Tomlin. il diag Inst E E J 94 pt 2:505-6 O '47
 Electronic control unit for cathode-ray oscillograph recording of transients arriving at indeterminate times. S. L. Windes. bibliog 6pls U S Bur Mines Rep of Invest 4154:1-3 '47
 Experimental determination of vibration characteristics of structures. S. J. Loring. il diag Am Soc C E Proc 73:1457-74 D '47; Discussion. 74:1022-8, 1219-22, 1627-9 Je-S, D '48
 Ford develops device for testing viscous dampers. il Automotive Ind 98:43+ F 1 '48
 Integral-equation approach to problems of vibrating beams. W. T. White. diags Franklin Inst J 245:25-36, 117-33 bibliog(p 131-3) Ja-F '48
 Longitudinal vibration of marine propeller shafting. C. P. Rigby. il diags Engineering 105:381-3, 405-7 Ap 15-23 '48
 Lumping of distributed mass. G. E. Hudson and R. D. Specht. bibliog Acoustical Soc Am J 20:648-51 S '48
 Mechanical vibration recorder. C. B. Cunningham. il diags Machine Design 20:133-4 Ja '48
 Methods of measuring torsional vibration; abstract. L. F. Hope. diags S A E J 56: 20-1 Mr '48
 Natural frequency calculations; reference book sheet. S. R. Hazelett, comp. diags Product Eng 19:155, 157, 159 Ag '48
 Reciprocity calibration of primary vibration standards. S. P. Thompson. il diag Acoustical Soc Am J 20:637-40 S '48
 Salvaged pressure gauge modified to measure vibration. diags Elec World 130:118 O 9 '48
 Torsional vibration frequency determined by use of charts and formulas; engineering data sheet. F. P. Porter. diags Machine Design 20:153-6 Ja '48
 Use of vectors in vibration measurement and analysis. C. C. Kennedy and C. D. P. Pancu. bibliog diags J Aeronautical Sci 14:603-25 N '47

*See also***Vibrograph****VIBRATION absorbers**

- Damped quill stops self-excited chatter. E. J. Tangerman. il diag Am Mach 92:93-5 My 6 '48
 Damping combination stops span vibration. E. M. Wright. il Elec World 129:114+ F 14 '48
 Damping of textile-mill movement by Frahm system. C. E. Crede. il diags A S M E Trans 69:937-46 N '47
 Eliminating vibration in high-speed machines. A. S. Gutman. diags Machine Design 20:123-4 O '48
 Ford develops device for testing viscous dampers. il Automotive Ind 98:43+ F 1 '48
 Tuned and damped gyrostatic vibration absorber. R. N. Arnold. bibliog il diags Inst Mech Eng J & Proc 157 (War emergency issue no 25):1-15; Discussion. 16-19 '47
 Vibration isolation and shock mounting. C. J. Bastien. il diags Product Eng 19:86-9 S; 112-16 O '48
 Welding facilitates assembly of silicone engine dampers. J. Geschelin. il diag Automotive Ind 97:24-5 D 1 '47

VIBRATORS

- Electric vibrating process equipment. J. H. Whitelock. flow sheet il diag Mech Handling 34:629-36 D '47
 Laboratory test sieve vibrator. il diags Engineer 185:575-6 Je 11 '48
 Magnetostrictive radial vibrator used in underwater sound signaling. L. Camp. il diag Acoustical Soc Am J 20:289-93 My '48
 Ohio experiments with vibration in placement of screenings in macadam bases. C. W. Allen and S. O. Linzell. il Roads & Svs 91:65-6 Mr '48
 Soldering aluminum alloys; magnetostriction oscillator vibrates soldering iron at ultrasonic frequency. F. W. Thomas and E. Simon. il diag Electronics 21:90-2 Je '48
 Vibration generator for studying ship's elastic characteristics. Marine Eng 53:71 Ap '48
 Vibrator for treating small samples of biological materials. B. R. Russell and H. B. Washin. diag R Sci Instr 19:277 Ag '48
 Vibrator works binder into slag base. il Constr Methods 30:86-8 Jl '48
VIBROGRAPH
 Vibrograph. J Sci Instr 25:249-50 Jl '48
VICARA. See Textile fibers, Synthetic
VICKERS-ARMSTRONGS limited
 War effort. R. Micklem. Engineering 166:364-5 O 15 '48
VIGNA, Pietro
 Peruvian Order given CAA airport engineer. CAA J 9:106 S 15 '48
VILAMAJÓ, Julio, 1894-1948
 Sketch. por Arch Forum 88:54 Je '48
VINCENT, Jesse Gurney, 1880-
 Portrait. Fortune 38:83 Ag '48
VINSON-TRAMMEL act
 Aid to aircraft makers proposed in two bills amending the Vinson-Trammel act. B. Ravits. Barron's 27:9 D 22 '47

VINYL acetate

- Behavior of plasticizers in vinyl chloride-acetate resins; 99 materials evaluated. M. C. Reed and L. Connor. bibliog Ind & Eng Chem 40:1414-22 Ag '48
 Continuous polymerization in Germany. R. D. Dunlop and F. E. Reese. bibliog diags Ind & Eng Chem 40:655-60 Ap '48
 Copolymerization; relative monomer addition rates in vinyl copolymerization. R. G. For-dyce, E. C. Chapin and G. E. Ham. Am Chem Soc J 70:2489-92 Jl '48
 Copolymerization; some copolymerizations of vinyl acetate. F. R. Mayo and others. bibliog Am Chem Soc J 70:1523-5 Ap '48
 2-Methyl-4-keto-1,3-benzodioxanes from salicylic acids and vinyl acetate. D. T. Mowry, W. H. Yanko and E. L. Ringwald. bibliog Am Chem Soc J 69:2358-61 O '47
 Particle size determinations with electron microscopes. J. H. L. Watson. bibliog il Anal Chem 20:576-84 Je '48
 Photochemical polymerisation of vinyl acetate vapour. H. W. Melville and R. F. Tuckett. Chem Soc J p 1211-17 S '47
 Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrich-ter, jr. and A. D. McLaren. bibliog Ind & Eng Chem 40:329-31 F '48
 Thiodiglycol monoacetate by the photochemical addition of mercaptoethanol to vinyl acetate. W. H. C. Rueggeberg and others. Am Chem Soc J 70:2292-3 Je '48

Analysis

- Polarographic determination of free monomer in heteropolymerization reaction mixtures. G. C. Whittack. bibliog il Anal Chem 20: 653-61 Jl '48

VINYLLACETYLENE. See Butenine**VINYL acetylol**

- Nature of the interaction between starch and iodine. R. S. Stein and R. E. Rundle. bibliog diags J Chem Phys 16:195-207 Mr '48

VINYL alcohol—Continued

- Permeability of laminations of polyvinyl alcohol films to other polymers. P. W. Morgan. *diag Mod Packaging* 22:159-60 S '48
- Polyvinyl alcohol as an emulsifying agent. C. F. Blehn and M. L. Ernsberger. *il Ind & Eng Chem* 40:1449-53 Ag '48
- Vinyl alcohols; mesitylphenylacetaldehyde. R. C. Fuson and T. Tan. *bibliog Am Chem Soc J* 70:602-5 F '48

VINYL benzonitrile

- Preparation and polymerization of *m*-cyano-styrene. R. H. Wiley and N. R. Smith. *bibliog Am Chem Soc J* 70:1560-1 Ap '48

VINYL chloride

- Basic concepts in the selection of plasticizers for polyvinyl chloride. R. J. Myers. *il India Rubber World* 118:530-1 Jl '48
- Behavior of plasticizers in vinyl chloride-acetate resins; 99 materials evaluated. M. C. Reed and L. Connor. *bibliog Ind & Eng Chem* 40:1414-22 Ag '48
- Continuous polymerization in Germany. R. D. Dunlop and F. E. Reese. *bibliog diags Ind & Eng Chem* 40:654-60 Ap '48
- Copolymerization; the validity of the tri-polymer equation for the systems; styrene-vinyl chloride-methyl acrylate and styrene-vinyl chloride-acrylonitrile. E. C. Chapin, G. E. Ham and R. G. Fordyce. *bibliog Am Chem Soc J* 70:538-42 F '48
- Determination of chlorine in resins obtained from polyvinyl chloride compositions. J. Haslam and W. W. Soppet. *diags Soc Chem Ind J* 67:33-5 Ja '48
- Elastic webbing; seats and berths have extruded polyvinyl plastic in place of metal springs. R. J. Considine. *il Mod Plastics* 25:123 Ap '48
- Fire meter; flammability of polyvinyl chloride plasticizers. *il diags Chem Ind* 62:388-9 Mr '48
- Flexible sink trap. P. Reilly. *il diags Mod Plastics* 25:99 Mr '48
- New latex cures at room temperature; Geon latex 31X. E. B. Osborne. *bibliog Mod Plastics* 25:81+ F '48
- Paste dispersions of polyvinyl chloride. C. F. Ruebensaal. *Mod Plastics* 25:143-4+ Je '48
- Permeability of laminations of polyvinyl alcohol films to other polymers. P. W. Morgan. *diag Mod Packaging* 22:159-60 S '48
- Polyvinyl chloride pastes; abstract. M. Chazal. *Chem Eng* 54:272 D '47
- Preparation, properties and applications of Geon paste resin. M. N. Burleson. *il Rubber Age* 62:417-19 Ja '48; Same cond. *Materials & Methods* 26:71-3 N '47
- Properties of fillers in vinyl plastics. R. L. Moore. *il India Rubber World* 118:232-4 Mr '48
- Report on German polyvinyl chloride paste dispersions. *Rubber Age* 62:539 F '48
- Role of emulsifying agents in polymerization. J. J. P. Staudinger. *bibliog diags Chem & Ind* 5:63-8 S 4 '48
- Temperature dependence of the adhesion of high polymers to cellulose. C. H. Hofrichter, jr. and A. D. McLaren. *bibliog Ind & Eng Chem* 40:329-31 F '48
- Thermally reversible strains in plasticized polyvinyl chloride. W. F. O. Pollett. *bibliog Soc Chem Ind J* 66:319-23 S '47
- Unplasticized vinyl latices are versatile coatings; Geon latex 31X. J. L. Foster. *Materials & Methods* 28:81-3 O '48
- Welded wallets; die-cut polyvinyl chloride sheets electronically sealed in high speed automatic presses. A. W. Gellert. *il Mod Plastics* 25:116+ Mr '48

See also

Vinyon**VINYL compounds**

- Better wearing qualities with calendered vinyl floorings. *il Plastics* 3:28-9, 56-7 F '48
- Coded vinyl-covered wire. *il Mod Plastics* 25:142 Ja '48
- Cross-linking of vinyl polymers by Friedel-Crafts catalysts. J. C. Bevington and R. G. W. Norrish. *Chem Soc J* p771-4 Je '48
- Decorating vinyl films. A. B. Sherry. *il Rubber Age* 62:59-60 O '47

- Further investigation of aqueous dispersions of vinyl polymers by Chicago paint and varnish production club. *Paint Oil & Chem R* 110:41-2+ N 13 '47
- Hand painting on vinyl. *il Mod Plastics* 25:86-7 Ag '48
- How vinyl film reaches the retailer. *Plastics* 8:34-5 Ap '48
- Improved method of precipitating and drying vinyl copolymers. H. Werbin. *Science* 107:400-1 Ap 16 '48
- Inflated vinyls make display manikins. *il Plastics* 8:18+ Ja '48
- Inhibition and retardation of vinyl polymerization. F. A. Bovey and I. M. Kolthoff. *Chem R* 42:491-525 bibliog (68 ref, p524-5) Je '48
- Leaded vinyls. *il Chem Ind* 62:218-19 F '48
- Monomers and polymers; vinylthiophenes. G. B. Bachman and L. V. Heisey. *bibliog Am Chem Soc J* 70:2378-80 Jl '48
- Operation underfoot; vinyl floors. *il Mod Plastics* 25:75-82 Mr '48
- Orienting effect of negatively substituted vinyl groups in aromatic substitution. F. G. Bordwell and K. Rohde. *bibliog Am Chem Soc J* 70:1191-3 Mr '48
- Permeation through and sorption of water vapor by high polymers. P. M. Hauser and A. D. McLaren. *bibliog diag Ind & Eng Chem* 40:112-17 Ja '48
- Plasticizers for vinyl resins. W. E. Scheer. *Rubber Age* 63:596-8 Ag '48
- Polarized infra-red radiation as an aid to the structural analysis of long-chain polymers. A. Elliott and others. *bibliog diags Chem Phys* 16:377-86 S '48
- Polymerization of vinyls; various commercially used methods. M. Sittenfeld. *bibliog Chem Eng* 54:129-31 D '47
- Preparation of some polymerizable esters of long-chain saturated aliphatic acids with unsaturated alcohols. D. Swern and E. F. Jordan, jr. *bibliog Am Chem Soc J* 70:2334-9 Jl '48
- Redox catalysts for vinyl polymerization; abstract and discussion. R. G. R. Bacon. *Chem & Ind* p300 My 8 '48
- Rubber or plastics; which material will win in what fields, and where will they join forces? *il Mod Plastics* 25:89-96 Je '48
- Some properties and mechanical applications of compar. J. J. Hitov. *il A S M E Trans* 70:117-21 F '48
- Stitchless quilted vinyl; Sealtuft. *il Mod Plastics* 26:98-9 N '48
- Substituted vinylpyridines as monomers for synthetic elastomers. R. L. Frank and others. *bibliog Ind & Eng Chem* 40:879-82 My '48
- Synthetic elastomers as plasticizers for polyvinyl resins. D. W. Young, R. G. Newberg and R. M. Howlett. *bibliog Ind & Eng Chem* 39:1446-52 N '47
- Three steps to a vinyl monomer. E. A. Kern and C. W. Wilson. *il diag Chem Eng* 55:114-17 Je '48
- Ultraviolet absorption spectra of substituted vinyl aromatic monomers and polymers. H. A. Laitinen, F. A. Miller and T. D. Parks. *Am Chem Soc J* 69:2707-14 N '47
- Vinyl aromatic compounds; ortho-, meta- and para-isopropenylbiphenyls. D. T. Mowry and others. *Am Chem Soc J* 70:1916-17 My '48
- Vinyl covers wires, yarns, flexible or stiff, as desired, film provides abrasion resistance, electrical insulation, and built-in color possibilities; tensolizing. *il Mod Plastics* 25:113 N '47
- Vinyl-metal combination; Plastic Metal. *Mod Plastics* 25:166 My '48
- Vinyl records. *il Mod Plastics* 25:125-8 Je '48
- Vinyl tube aids physicians; used in intestinal treatment. *il Mod Plastics* 25:119 Je '48
- Vinyl upholstery; Boltaxflex. *il Mod Plastics* 25:180-1 Ag '48
- Vinyls prepare to ascend. *il Chem Ind* 61:793-4 N '47

See also

Kalistron**Vinyon****VINYL ethers**

- Farben process for lower vinyl ethers; abstract. *Chem Eng* 55:104 Jl '48

VINYL ethers—Continued

Analysis

Determination of vinyl ethers and acetals and of any alcohol, acetaldehyde, and water contained therein. S. Siggia. bibliog diags Anal Chem 19:1025-9 D '47
Iodometric determination of vinyl alkyl ethers. S. Siggia and R. L. Edsberg. Anal Chem 20:762-3 Ag '48

VINYL FURAN

Copolymerization of butadiene with vinyl monomers; use of 2-vinylfuran, 2-vinylthiophene, methacrylonitrile, and vinylidene chloride. R. L. Frank and others. bibliog Ind & Eng Chem 40:420-2 Mr '48

VINYL methoxydihydronaphthalene

Diels-Alder reaction of 1-vinyl-6-methoxy-3,4-dihydronaphthalene with citraconic anhydride. W. E. Bachmann and J. M. Chemerdar. bibliog Am Chem Soc J 70:1468-73 Ap '48

VINYL NAPHTHALENE

Reaction of 1-vinylnaphthalene and 6-methoxy-1-vinylnaphthalene with citraconic anhydride, fumaric acid and mesaconic acid. W. E. Bachmann and L. B. Scott. bibliog Am Chem Soc J 70:1462-8 Ap '48

VINYL PYRIDINE

Copolymerization; copolymerizations involving α -vinylpyridine, α -vinylthiophene, α -chlorostyrene and α -methylstyrene. C. Walling, E. R. Briggs and K. B. Wolfstirn. bibliog Am Chem Soc J 70:1543-4 Ap '48

Effect of 2-vinylpyridine on properties of GR-S polymers. W. W. Rinne and J. E. Rose. bibliog Ind & Eng Chem 40:1437-40 Ag '48

Electrophilic reactions of 2- and 4-vinylpyridines. W. E. Doering and R. A. N. Weil. bibliog Am Chem Soc J 69:2461-6 O '47
Monomers and polymers; vinylpyridines and vinylquinolines. G. B. Bachman and D. D. Micucci. bibliog Am Chem Soc J 70:2381-4 JI '48

VINYL QUINOLINE

Monomers and polymers; vinylpyridines and vinylquinolines. G. B. Bachman and D. D. Micucci. bibliog Am Chem Soc J 70:2381-4 JI '48

VINYL THIOPHENE

Copolymerization; copolymerizations involving α -vinylpyridine, α -vinylthiophene, α -chlorostyrene and α -methylstyrene. C. Walling, E. R. Briggs and K. B. Wolfstirn. bibliog Am Chem Soc J 70:1543-4 Ap '48

Copolymerization of butadiene with vinyl monomers; use of 2-vinylfuran, 2-vinylthiophene, methacrylonitrile, and vinylidene chloride. R. L. Frank and others. bibliog Ind & Eng Chem 40:420-2 Mr '48

VINYLATION

Acetylene chemistry. W. E. Hanford and D. L. Fuller. bibliog flow sheet diags Ind & Eng Chem 40:1171-7 JI '48

VINYLENE group

Inhibition of microbiological growth by allylglycine, methylallylglycine and crotylglycine. K. Dittmer and others. bibliog Am Chem Soc J 70:2499-501 JI '48

VINYLIDENE chloride. See Dichloroethylene

VINYLITE

Scientific award to Aero service corporation; relief maps made from vinyl sheet. *il* Mod Plastics 26:160-3 S '48
Versatile vinyl sheeting. W. H. Sheffield. *il* Mod Plastics 25:94-6 F '48

VINYLON

Carbide and Carbon introduces vinyon N to the textile industry. J. G. Davidson. *il* Rayon 29:34-5 My '48

Carbide unveils vinyon N plant. Chem & Eng N 26:746-7 Mr 15 '48

Cutting thermoplastic filter cloth. R. A. Ghelardi. Chem Eng 54:146 N '47

Knitter looks at vinyon. W. A. B. Davidson. Rayon 29:82-3 Ap '48

Place of vinyon N yarns in textiles. H. S. Bunn. Rayon 29:53-4 JI '48

Process sequences in vinyon yarn production. J. M. Swalm. diags Rayon 29:68-70 JI '48

Some properties and uses of vinyon type N fiber. E. Stowell. Rayon 29:43-4 Ja '48

Stability in price of chemical yarns, great factor in knitting trade. W. A. B. Davidson. Rayon 29:67-8 My '48

Textile fabrication and applications of vinyon N yarns. E. Stowell. Rayon 29:78-80 Je '48

Types and properties of vinyon N yarns. T. A. Feild. Rayon 29:107-9 S 71-2 O '48

Vinyon N. *il* Chem Eng 55:120-1 Mr '48

Vinyon N is being produced in seven types. C. W. Bendigo. diags Textile World 98:116-17 Ap '48

Vinyon N resin and fibers. E. W. Rugeley, T. A. Feild, jr. and G. H. Fremon. bibliog Ind & Eng Chem 40:1724-31 S '48

Vinyon yarns research. E. W. Rugeley. *il* Rayon 29:68-70 My '48

Wide fields seen for various vinyons. *il* Textile World 98:114-15 S '48

VIRGINIA

Industries and resources

Hampton Roads booming; Norfolk, Newport News push expansion programs. *il* Bus W 248-4 Mr 13 '48

Rochester ropes, inc.; a persistent strand; development of Culpeper plant. *il* Manuf Rec 117:42-3 Ap '48

See also

Newport News, Virginia—Industries

VIRGINIA academy of science

Annual meeting, 26th, Roanoke, May 6-8. Science 108:104 JI 30 '48

VIRGINIA BEACH, Virginia

Sewerage

Alkalinity control of the trickling filter process at Virginia Beach. A. W. Petty. *il* Sewage Works J 20:566-71 My '48

VIRGINIA electric and power company

Debentures and bonds offered. Comm & Fin Chr 167:1263-4 Mr 22 '48

VIRGINIAN railway

Bonds offered. Comm & Fin Chr 168:1736 O 25 '48

VIRIAL coefficients

Pressure-volume-temperature data for oxygen. C. H. Meyers. bibliog J Res Nat Bur Stand 40:457-66 Je '48

VIRIAL theorems

Generalized virial theorems. H. Einbinder. bibliog Phys R 74:803-5 O 1 '48

VIRUSES

Chemical studies on viruses. W. M. Stanley. *il* Chem & Eng N 25:3786-91 D 22 '47

Determination of sedimentation constants in the Sharples supercentrifuge. H. K. Schachman. bibliog diags J Phys & Colloid Chem 52:1034-45 Je '48

Hemolysis of human red cells by saponin following viral action. B. A. Briody. bibliog Science 107:450-1 Ap 30 '48

Inactivation of the virus of infectious hepatitis in drinking water; abstract. J. R. Neefe and others. Water & Sewage 85:49-50+ D '47

Origin of virus phosphorus. F. W. Putnam and L. M. Kozloff. bibliog Science 108:386-7 O 8 '48

Relative sensitivities of bacterial viruses to intense sonic vibration. T. F. Anderson and others. bibliog Science 108:18 JI 2 '48
Simple technic for passage of certain viruses. F. M. Schabel, jr. and F. B. Gordon. Science 106:549 D 5 '47

See also

Newcastle disease

VIRUSES, Plant

Chemical nature and origin of phaseolus virus 2 crystalline inclusions. S. Rich. bibliog Science 107:194 F 20 '48

Inhibition of virus increase by malachite green. W. N. Takahashi. bibliog Science 107:226 F 27 '48

Plant virus for electron microscopy. J. Johnson. bibliog Science 108:122 JI 30 '48

Rapid chemical test for some plant virus diseases. R. C. Lindner. Science 107:17-19 Ja 2 '48

VISA TONE. See Moving picture machines

VISCOMETERS. See Viscosimeters

VISCOSE

Behavior of the components of cellulose in the processing of pulp to viscose. A. Riedemann. Rayon 29:45-7 Ag; 82-4 S '48

VISCOSE—Continued

- Moisture relationships of cellulose; the heat of wetting in water and in certain organic liquids. M. Wahba. bibliog diags J Phys & Colloid Chem 52:1197-208 O '48
- Reaction of acrylonitrile with viscose. J. H. MacGregor and C. Pugh. Soc Dyers & Col J 64:71-2 F '48

VISCOSIMETERS

- Accurate microviscometer. E. Glynn and L. Grunberg. bibliog diags Inst Pet J 34:331-8 My '48
- Capillary-tube viscometer for routine measurements of dilute high-polymer solutions. R. H. Wagner and J. Russell. bibliog diags Anal Chem 20:151-5 F '48
- Consistency and temperature of oils and printing inks at high shearing stresses. R. N. Weltmann. bibliog diags Ind & Eng Chem 40:272-80 F '48
- Continuous viscosity measurement. W. A. Diamant. diags Chem Eng 54:136-7 N '47
- Determination of malt sirup density; application of the Brabender recording viscometer. R. H. Fosnot and R. W. Haman. bibliog diags Anal Chem 20:955-7 O '48
- Electronic timer for viscosity measurements. il diag Power Pl Eng 51:76-7 N '47; Same abr. Mech Eng 69:928-9 N '47; Same abr. R Sci Instr 18:857-8 N '47
- End-effect in rotational viscometers. C. H. Lindsley and E. K. Fischer. bibliog il diags J Ap Phys 18:989-96 N '47
- E.v.t. viscometer. G. H. Fuidge and others. il diag Chem & Ind p601-2 S 18 '48
- Flow properties of pseudoplastic fluids. C. C. Winding. G. P. Baumann and W. L. Kranich. bibliog diags Chem Eng Prog 43:527-36, 613-22 O-N '47
- Hercules high-shear viscometer. J. W. Smith and P. D. Applegate. bibliog il diags Paper Tr J 126:60-6 Je 3 '48
- Initial oscillation on a rotational viscometer. R. N. Weltmann. bibliog diag J Ap Phys 18:933-40 N '47
- Interchemical rotational viscometer. il R Sci Instr 19:378 My '48; Chem Ind 62:816 My '48
- Kinematic viscometer tube cleaning apparatus. J. McGlynn. il diags Anal Chem 20:681-2 Jl '48
- Measurement of enamel-slip consistency by means of the Brookfield viscometer. E. M. Oliver. il diags Am Cer Soc J 31:128-32 My 1 '48
- Measurement of mud viscosities at high temperatures. V. N. Bednarski. il diags Pet Eng 20:192+ O '48
- Measuring the flow properties of lubricating greases. O. P. Puryear. bibliog il diags Aero Digest 56:54-6+ Ja '48
- Rheological measurements with the rotational viscometer. E. K. Fischer and C. H. Lindsley. bibliog il diags Textile Res J 18:325-37 Je '48
- Viscosity measurement; oil industry's tool; abstract. D. J. Pompeo. Chem Age 54:113 N '47

VISCOSITY

- Brief review of available data on the dynamic viscosity and thermal conductivity for twelve gases. G. A. Hawkins. A S M E Trans 70:655-9 bibliog(133 titles, p657-9) Ag '48
- Cellulose ester plastics; plasticizing action of homologous series of esters of sebacic and phthalic acids on cellulose acetate butyrate. L. W. A. Meyer and W. M. Gearhart. bibliog Ind & Eng Chem 40:1478-85 Ag '48
- Effect of sulfur fluorides on the viscosity of sulfur. R. Fanelli. bibliog Am Chem Soc J 70:1965-6 My '48
- Electroviscous effect with measurements on sodium polymethacrylate solutions. A. H. W. Aten, jr. bibliog J Chem Phys 16:636 Je '48
- End-effect in rotational viscometers. C. H. Lindsley and E. K. Fischer. bibliog il diags J Ap Phys 18:988-96 N '47
- Flow properties of pseudoplastic fluids. C. C. Winding. G. P. Baumann and W. L. Kranich. bibliog diags Chem Eng Prog 43:527-36, 613-22 O-N '47

- Fluid mechanics; forgotten factor in electrolating; how viscosity affects dragout, concentrations, and electropolishing. J. B. Kushner. diags Metal Finishing 46:55-9+ Jl '48
- Fractionation of potato starch; the viscosities of the aqueous solutions of the fractions. L. H. Lampitt and others. bibliog Soc Chem Ind J 67:41-4 F '48
- Immobilization of solvent in randomly coiled chain molecules. W. Kuhn and H. Kuhn. bibliog J Chem Phys 16:838-9 Ag '48
- Intrinsic viscosities and diffusion constants of flexible macromolecules in solution. J. G. Kirkwood and J. Riseman. J Chem Phys 16:565-73 Je '48
- Intrinsic viscosity, diffusion, and sedimentation rate of polymers in solution. P. Debye and A. M. Bueche. J Chem Phys 16:573-9 Je '48
- Investigation of the relationship between polymer structure and mechanical properties. R. S. Stein and A. V. Tobolsky. bibliog(76 ref) diags Textile Res J 18:201-23 Ap '48
- Mean molecular weights of asphalts and their constituents. G. W. Eckert and B. Weetman. bibliog Ind & Eng Chem 39:1512-16 N '47
- Mooney viscosity and gel plasticity relationship for GR-S-xylyne gels. J. C. Driskell and R. D. Kracke. il India Rubber World 118:66-7 Ap '48
- Non-linear viscous elasticity and the Eyring shear model. G. Halsey. bibliog diags J Ap Phys 18:1072-97 D '47
- Physical basis of a concept about the mechanism of viscosity of liquids. R. Parshad. J Chem Phys 16:152-3 F '48
- Polyamide resins from dilaoleic acid and ethylenediamine; molecular weight-viscosity relationships. R. H. Anderson and J. H. Wheeler. bibliog Am Chem Soc J 70:760-3 F '48
- Polymers and viscosity index. H. C. Evans and D. W. Young. bibliog Ind & Eng Chem 39:1676-81 D '47
- Polymethylsiloxanes; thermal and oxidation stabilities. D. C. Atkins, C. M. Murphy and C. E. Saunders. bibliog Ind & Eng Chem 39:1395-40 N '47
- Potentials of falling drops. A. Frumkin and J. Bagotskaja. bibliog diag J Phys & Colloid Chem 52:1-11 Ja '48
- Relationship of specific surface factor of talcs to slip viscosity and dry-pressing characteristics. W. W. Gaskins. diag Am Cer Soc J 31:80-2 Mr 1 '48
- Rheological problems in the processing of plastics. R. Buchdahl and H. K. Nason. bibliog diags Ind & Eng Chem 40:642-51 Ap '48
- Solution viscosity of GR-S; variation with conversion. W. A. Schulze and W. W. Crouch. bibliog Ind & Eng Chem 40:151-4 Ja '48
- Solvent effects on the quenching of the fluorescence of uranin by aniline. K. C. Hodges and V. K. La Mer. bibliog Am Chem Soc J 70:722-6 F '48
- Some physical properties of aqueous solutions of 1,3-butanediol. T. H. G. Michael and Y. C. Hopkins. Can Chem & Process Ind 32:341-2 Ap '48
- Stability of the laminar parabolic flow of a viscous fluid between parallel fixed walls. C. L. Pekeris. bibliog Phys R 74:191-9 Jl 15 '48
- Surface tension and viscosity of solutions of uranyl salts. W. E. Grant and others. bibliog J Phys & Colloid Chem 52:1227-36 O '48
- Synthesis of multichain polymers and investigation of their viscosities. J. R. Schaefgen and P. J. Flory. bibliog Am Chem Soc J 70:2709-18 Ag '48
- Systematic study of the effect of oxide constituents on the viscosity of silicate glasses; abstract. J. P. Poole and M. Gensamer. Glass Ind 29:321+ Je '48
- Theory of the anelastic fluid. C. Eckart. diag Rs Mod Phys 20:232-5 Ja '48
- Thixotropic viscoelastic systems. B. A. Dunell and G. Halsey. diags Textile Res J 18:178-86 Mr '48

VISCOSITY—Continued

- Time viscosity studies of the system groundnut protein-caustic soda-water, R. H. K. Thomson and A. Johnston. *Soc Chem Ind J* 66:373-4 O '47
- Transfer of energy in continuous media. C. Truesdell. *Phys R* 73:513-15 Mr 1 '48
- Viscoelastic properties of polymer solutions. J. D. Ferry. bibliog *il* diags *J Res Nat Bur Stand* 41:53-62 J1 '48
- Viscosity blending relationships of heavy petroleum oils. M. H. Rahmes and W. L. Nelson. bibliog *Anal Chem* 20:312-15 O '48
- Viscosity-molecular weight and viscosity-temperature relationships for polystyrene and polyisobutylene. T. G. Fox, Jr. and P. J. Flory. bibliog *diags Am Chem Soc J* 70:2384-95 J1 '48
- Viscosity of solutions and suspensions. V. Vand. bibliog *diags J Phys & Colloid Chem* 52:277-321 F '48
- Viscosity of solutions of primary alcohols and fatty acids in benzene and in carbon tetrachloride. W. J. Jones and others. bibliog *J Phys & Colloid Chem* 52:753-60 Ap '48
- Viscosity of vapors; gas oil, kerosine and naphtha. W. L. Nelson. *Oil & Gas J* 46:109 F 12 '48
- Viscosity of vapors, gasoline, gases; charts and tables. W. L. Nelson. *Oil & Gas J* 46:147 F 26 '48
- Viscosity, sedimentation, and diffusion of polymers in solution; abstract. P. Debye and A. M. Bueche. *Science* 106:507-8 N 28 '47
- Viscous slip along grain boundaries and diffusion of zinc in alpha-brass. T. K. E. bibliog *J Ap Phys* 19:235-90 Mr '48
- Vortices and streams caused by sound waves. C. Eckart. bibliog *diags Phys R* 73:68-76 Ja 1 '48
- What to look for in hydraulic oils. A. J. Zino, Jr. diags *Am Mach* 91:112-16 N 20; 112-14 D 4 '47

Measurement

- Application of corrections in viscometry of high-polymer solutions. R. H. Wagner. *Anal Chem* 20:155-7 F '48
- Application of viscosity measurement in petroleum refining operations. D. J. Pompeo. *Pet Refiner* 26:101-3 N '47; *Abstract, Chem Eng* 54:113 N '47
- Consistency and temperature of oils and printing inks at high shearing stresses. R. N. Weltmann. bibliog *diags Ind & Eng Chem* 40:272-80 F '48
- Continuous viscosity measurement. W. A. Diamant. diags *Chem Eng* 54:136-7 N '47
- Deoxyribose nucleic acids; viscosity and streaming birefringence of solutions of the sodium salt of the deoxyribose nucleic acid of calf thymus. J. M. Creeth, J. M. Gulland and D. O. Jordan. *Chem Soc J* p 1141-5 S '47
- Determination of functionality in methyl silicone systems. G. F. Roedel. bibliog *Anal Chem* 20:705-7 Ag '48
- Determination of molecular weights from the activation energy for viscous flow of liquids. M. S. Telang. *J Chem Phys* 15:844-5 N '47
- Double float rotameter provides continuous viscosity measurement; patent. diags *Pet Processing* 2:872 N '47
- Frequency factor in the viscosity-temperature relationship of liquids. M. S. Telang. *J Chem Phys* 15:885 D '47
- Low temperature transport properties of gases; neon, argon, krypton, and xenon. I. Amdur. bibliog *J Chem Phys* 16:190-4 Mr '48
- Low-temperature viscosity of alkali-silicate glasses; abstract. J. P. Poole. *Glass Ind* 29:321 Je '48
- Review of data on dynamic viscosity of water and superheated steam. G. A. Hawkins and others. bibliog *A S M E Trans* 70:19-23 Ja '48
- Structure of cellulose acetate molecules in acetone solution. S. J. Singer and H. Mark. bibliog *J Ap Phys* 19:97-101 Ja '48
- Visco-elastic behavior of a highly plasticized nitrocellulose in compression under constant load. G. J. Doyle and R. M. Badger. *J Ap Phys* 19:373-9 Ap '48

Viscosity studies of system $\text{CaO-MgO-Al}_2\text{O}_3\text{-SiO}_2$; $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2$. J. S. Machin and T. B. Yee. *Am Cer Soc J* 31:200-4 J1 '48

VISES

- Cam-operated air vise. M. W. Purser. *il Mach* 54:170-1 N '47
- Jigs and fixtures at low cost; use of vises. E. J. Weierstall. *il diags Am Mach* 92:126 S 23 '48
- Knurled cam and rack built into quick-acting machine-shop vise. A. B. Nixon. *diag Am Mach* 92:128 Je '48
- Tubing and machinists' vises covered by simplified practices. *Am Mach* 92:115 J1 15 '48
- Vise operated by a rack and pinion with locking motion. L. Kasper. diags *Mach* 54:187-8 Ja '48

VISIBILITY

- Comparison of computed and experimental detection ranges of objects viewed with telescopic systems from aboard ship. H. S. Coleman and W. S. Verplanck. bibliog *Opt Soc Am J* 38:250-3 Mr '48
- Highway lighting as a customer's problem. J. A. Stoops. diags *Illum Eng* 42:864-76 N '47
- Meteorological conditions accompanying mirages in the Salt Lake desert. R. L. Ives. bibliog *il maps Franklin Inst J* 245:457-73 Je '48
- Reduction of apparent contrast by the atmosphere. S. Q. Duntley. bibliog *diags Opt Soc Am J* 38:179-91 F '48
- Size, shape and contrast in detection of targets by daylight vision; frequency of seeing and the quantum theory of cone vision. E. S. Lamar and others. bibliog *Opt Soc Am J* 38:741-55 S '48
- Technique of using the Luckiesh-Moss visibility meter. M. Luckiesh and others. *Illum Eng* 43:223-30 Mr '48
- Visibility of distant objects. S. Q. Duntley. bibliog *Opt Soc Am J* 38:237-49 Mr '48
- Visibility of moving objects. E. Ludvig. *Science* 108:63-4 J1 16 '48
- Visibility of small echoes on radar PPI displays. R. Payne-Scott. *il diags Inst Radio Eng Proc* 36:180-96 F '48
- Visibility of stars in the daylight sky. R. Tousey and E. O. Hulburt. *Opt Soc Am J* 38:886-96 O '48
- Visibility on cathode-ray tube screens; signals on a P7 screen seen at different intervals after excitation. A. L. Sweet and N. R. Bartlett. *diag Opt Soc Am J* 38:329-37 Ap '48
- Visibility on cathode-ray tube screens; the effects of light adaptation. R. M. Hanes and S. B. Williams. bibliog *diag Opt Soc Am J* 38:363-77 Ap '48
- Visual acuity as measured with various orientations of a parallel-line test object. G. C. Higgins and K. Stultz. *Opt Soc Am J* 38:756-8 S '48

VISION. See Sight

VISITORS

- Blueprint for a plant family day. W. J. Connelly. *il Ptr Ink* 224:44-6 S 17 '48
- Burroughs family night builds goodwill. *il Bsns W p* 104 O 9 '48
- Factory open house is eye-opener in community relations; Roberts & Mander. W. B. Eckenhoof. *il Sales Management* 60:78+ My 1 '48
- Gurley firm stages open house in See-us-at-work program. *il Paper Tr J* 126:20 Ja 8 '48
- Here is a mighty good plan for small-plant open house. *Factory Management* 106:116-17 Ag '48
- How to be a good neighbor in your factory community; Johnson & Johnson held open house. E. M. Kelley. *il Sales Management* 60:40-2 Ja 1 '48
- How to run a successful open house program; Oliver iron and steel corp. J. B. Patton. *il Mill & Factory* 42:137-9 Je '48
- Industry's open house programs. *Management R* 37:392-3 Ag '48
- Open house boosts standing in community; Universal moulded products corp., Bristol, Va. *il Factory Management* 106:76-7 J1 '48

VISITORS—Continued

- Open house creates community and employee good will. *Il* plan Mill & Factory 43:111-13 Ag '48
- Open house; large vs. small. *Il* Mod Ind 16:141 Ag '48
- Pepperell hangs out latchstring in Biddeford. Sales Management 61:128-9 S 15 '48
- Safety has the spotlight at plant open house; Hamilton foundry and machine company. *Il* Nat Safety N 56:21 D '47
- Successful dramatization by tour and discussion. ATF Inc., Elizabeth, N.J., runs series of pilot tours through plant. *Il* Trusts & Estates 86:143-4 F '48
- Survey of open house programs by National industrial conference board. Trusts & Estates 86:490 Je '48

VISUAL education dealers, National association of. See National association of visual education dealers

VISUAL instruction

- Audio-visual materials. E. Dale. Air Affairs 2:179-85 Winter '48
- Scientific aids to learning; center being established at M.I.T. Tech R 50:164-4 Ja '48
- Use of visual aids in training tractor operators. A. M. Stewart. Pulp & Pa of Can 49:128-9 S '48
- Visual aids in industrial training. C. R. Coneway. Safety Eng 94:42-3 D '47
- We get more helpful response from directors by giving them visual information; opaque projector throws charts and printed matter on screen. T. R. Heffy. *Il* Bankers Mo 65:20-4 Ap '48

See also
Moving pictures in industry
Slide films

Catalogs

- Filmstrip guide, annual volume, September 1948; inclusive list of approximately 1275 current filmstrips. K. M. Holden, comp. 122p H. W. Wilson co, New York '48

VISUAL purple

- Two-quanta explanation of the dependence of the threshold values and visual acuity on the visual angle and the time of observation. M. A. Bouman and H. A. van der Velden. *Il* Opt Soc Am J 37:908-19 N '47

VISUALIZATION

- Visualization; a step to understanding. A. B. Garrett. *Il* J Chem Educ 25:544-7 O '48

VITAL statistics

See also

- | | |
|-------------------|----------------------|
| Birth rate | Infectious diseases |
| Infant mortality— | —Statistics |
| Statistics | Mortality—Statistics |

VITALLIUM

- Development of a turbosupercharger bucket alloy. E. Epreman. *Il* Am Soc for Metals Trans 39:261-73; Discussion. 273-80 '47
- Effect of composition and structural changes on the rupture properties of certain heat resistant alloys at 1500 F. N. J. Grant. *Il* Am Soc for Metals Trans 39:363-402 '47
- Spot test distinguishes between tellurite and vitallium. Iron Age 160:64 D 13 '47
- Stress rupture and creep properties of heat resistant gas turbine alloys. N. J. Grant. *Il* *Il* diags Am Soc for Metals Trans 39:281-325; Discussion. 325-34 '47
- Structural variations in gas turbine alloys revealed by the stress rupture test. N. J. Grant. *Il* Am Soc for Metals Trans 39:335-59; Discussion. 359-67 '47

VITAMINS

- Grocery stores best source of vitamins; food processors urged to retain or replace more of the essential nutrients. B. L. Oser. *Il* Food Ind 20:1440-2+ O '48
- Heat processed pork luncheon meat shows good retention of B vitamins; abstract. J. E. Easter. Food Ind 20:306-4 F '48
- Vitamin requirements of microbacterium lacticum Orla-Jensen. R. N. Doetsch and M. J. Pelczar, Jr. Science 106:524-5 N 28 '47
- Vitamins and carbohydrate metabolism. H. A. Lardy. *Il* J Chem Educ 25:262-7 My '48

Wayne Woolley named Eli Lilly award winner. Chem & Eng N 26:1148-9 Ap 19 '48

See also

Biotin

Vitamin A

- Beta-carotene from sweet potatoes. W. C. Sherman and C. J. Koehn. *Il* Ind & Eng Chem 40:1445-8 Ag '48
- Crystalline synthetic vitamin A and neovitamin A. J. D. Cawley and others. Science 107:346 Ap 2 '48
- Crystalline vitamin A methyl ether. A. R. Hanz and others. *Il* Am Chem Soc J 70:1263-6 Mr '48
- Fortification of edible fat with vitamin A. U. P. Basu and S. K. Sen Gupta. *Il* Am Chem Soc J 70:413 Ja '48
- Recent developments in the vitamin A field. I. Heilbron. *Il* Am Chem Soc J 386-93 Mr '48
- Study of vitamin A retention in margarine; abstract. A. I. Coombes. Food Ind 20:795 My '48
- Synthesis of 1-[cyclohexen-1'-yl]-3-methyl-1,3,5-octatrien-7-one (Cis ketone). N. A. Milas and others. *Il* Am Chem Soc J 70:1292 Mr '48
- Synthesis of products related to vitamin A; the application of the Darzens reaction to β -ionone. N. A. Milas and others. *Il* Am Chem Soc J 70:1584-91 Ap '48
- Synthesis of products related to vitamin A; the synthesis of biologically active vitamin A ethers. N. A. Milas and others. *Il* Am Chem Soc J 70:1597-607 Ap '48
- Synthesis of products related to vitamin A; the synthesis of 1-(cyclohexen-1'-yl)-3-methyl-3-epoxybutyne-1 and related products. N. A. Milas, N. S. MacDonald and D. M. Black. *Il* Am Chem Soc J 70:1829-34 My '48
- Synthesis of products related to vitamin A; the synthesis of [1-(2',6',6'-trimethylcyclohexen-1'-yl)-3,7-dimethyldeca-1,3,5,7-tetraenyl]-10-ethyl ether. N. A. Milas and others. *Il* Am Chem Soc J 70:1591-6 Ap '48
- Synthetic vitamin A. Barron's 27:6 N 17 '47

Analysis

- Biological assay of vitamin A; liver storage test of Guggenheim and Koch. J. E. Foy and K. Morgareidge. *Il* Anal Chem 20:304-7 Ap '48
- Determination of vitamin A ester in fortified poultry meshes, with activated glycerol dichlorohydrin. M. E. Wall and E. G. Kelley. *Il* Anal Chem 20:757-9 Ag '48
- Preformed vitamin A in mixed feeds; chemical estimation by chromatographic methods. M. Nared and D. Verhagen. *Il* *Il* diag Anal Chem 20:627-30 Ji '48
- Vitamin A and carotenoids in the blood serum of dairy cattle; chemical methods for determination. D. B. Parrish, G. H. Wise and J. S. Hughes. *Il* Anal Chem 20:230-3 Mr '48

Standards

- Vitamin A acetate as a Vitamin A standard. N. B. Guerrant and others. *Il* Anal Chem 20:465-9 My '48

Vitamin A₂

- Isolation of pure vitamin A₂. E. M. Shantz. *Il* Science 108:417-19 O 15 '48

Vitamin B complex

- Animal protein factor; abstract. L. Wright. Chem & Eng N 26:2875-6 S 27 '48
- Vitamin B content of sugar beets and by-products. D. Rogers and M. N. Mickelson. *Il* Ind & Eng Chem 40:527-9 Mr '48

Vitamin B₆

- Degradation product of rhizopterins. E. L. Rickes and others. *Il* Am Chem Soc J 69:2751-3 N '47

Vitamin B₁

- Crystallographic data; thiamine hydrochloride (vitamin B₁). *Il* diags Anal Chem 20:583-4 Ji '48
- Curare-like action of thiamine. J. A. Smith and others. *Il* Science 108:412 O 15 '48

VITAMINS—Vitamin B₁—Continued

- Retention of vitamins in low acid canned foods; new processing techniques. J. F. Feaster and others. bibliog *Ind Food Ind* 20:14-17+ Ja '48
- Thiamine hydrochloride labeling opinion given by Food and drug administration. Oil Paint & Drug Rep 153:56 Ap 5 '48

Vitamin B₂

- Electric vitamin; Hoffman-LaRoche preparation of riboflavin intermediate. Chem Ind 63:588 O '48
- Producing riboflavin; patent. Food Ind 19:1732 D '47
- Riboflavin from milk; patent. Food Ind 20:795-6 My '48

Analysis

- Microbiological assay for riboflavin. H. A. Kornberg, R. S. Langdon and V. H. Chel-delin. bibliog *Anal Chem* 20:81-3 Ja '48

Vitamin B₃

- Experiment on human vitamin B₃ deprivation. W. W. Hawkins and J. Barsky. bibliog *Science* 108:284-6 S 10 '48
- Pyridine derivatives; some 6-methyl-4-hydroxy-2-pyridones and their derivatives. W. F. Bruce and L. A. Perez-Medina. bibliog flow sheet *Am Chem Soc J* 69:2571-4 N '47

Vitamin B₁₂

- Activity of vitamin B₁₂ for the growth of lactobacillus lactis. M. S. Shorb. *Science* 107:397-8 Ap 16 '48
- Activity of vitamin B₁₂ in Addisonian pernicious anemia. R. West. *Science* 107:398 Ap 16 '48
- Crystalline vitamin B₁₂. E. L. Rickes and others. bibliog *Science* 107:596-7 Ap 16 '48
- Interrelationship of thymidine and vitamin B₁₂. W. Shive, J. M. Ravel and R. E. Eakin. *Am Chem Soc J* 70:2614-15 JI '48
- Vitamin B₁₂, a cobalt complex. E. L. Rickes and others. *Science* 108:134 Ag 6 '48

Vitamin C

- Ascorbic acid therapy of pteroylglutamic acid-deficient rats. B. C. Johnson and A. S. Dana. *Science* 108:210-11 Ag 27 '48
- Barium 2-ketolactobionate and the corresponding barium bromide double salt. W. W. Walton and H. S. Isbell. bibliog *Ind J Res Nat Bur Stand* 41:119-23 Ag '48
- Crystallographic data. bibliog *Ind Anal Chem* 20:986-7 O '48
- Dehydroascorbic acid in frozen and cooked frozen vegetables. C. L. Bedford and M. A. McGregor. bibliog *Science* 107:251-2 Mr 5 '48
- Factors influencing the composition of the tomato. A. Pollard and others. bibliog *Soc Chem Ind J* 67:281-3 JI '48
- Oxidation of ascorbic acid to dehydroascorbic acid. D. W. Bolin and L. Book. *Science* 106:451 N 7 '47
- Preventing poison oak dermatitis with ascorbic acid; abstract. D. H. Klasson. *Pub Works* 79:44 Mr '48
- Retention of ascorbic acid in preserved fruits. A. Crang and others. bibliog *Chem & Ind* p583-5 S 11 '48
- Stability of ascorbic acid in various carriers; abstract. S. Brenner and others. *Food Ind* 20:128+ Ja '48
- Stability of solutions of pure ascorbic acid and of dehydroascorbic acid. L. P. Guild and others. bibliog *Science* 107:226-7 F 27 '48
- Studies on the reactions between formaldehyde and enediols. F. J. Reithel and E. S. West. bibliog *Am Chem Soc J* 70:898-900 Mr '48
- Tellurium; effect of ascorbic acid on the tellurium breath. R. H. De Meio. bibliog *J Ind Hygiene* 29:393-5 N '47
- Vitamin-C content of potatoes grown on reclaimed land. L. C. Baker and others. bibliog *Soc Chem Ind J* 65:428-30; 67:118-20 D '46, Mr '48
- Vitamin C in English tomatoes. F. Wokes and others. bibliog *Soc Chem Ind J* 67:262-4 Je '48

Analysis

- Estimation of ascorbic acid in food preparations. S. A. Goldblith and R. C. Harris. bibliog *Anal Chem* 20:649-51 JI '48

Vitamin D

- Effects of vitamins on phosphorus metabolism in the chick embryo; vitamin D and the utilization of inorganic phosphorus. H. Branson and others. bibliog *Science* 106:637-8 D 26 '47

Vitamin D₂**Analysis**

- Determining vitamins D₂ by two physical chemical methods; oil solutions. D. T. Ewing and others. bibliog *Anal Chem* 20:317-20 Ap '48

Vitamin D₃

- Philips announces new vitamin D method. *Chem & Eng N* 26:1718 Je 7 '48

Analysis

- Modified glycerol dichlorohydrin reaction for vitamin D. J. A. Campbell. bibliog *Anal Chem* 20:766-71 Ag '48

Vitamin E

- Vitamin E; conversion of 4,6,7-trimethylcoumaran-3-one into some homologs of 2-isopropyl-4,6,7-trimethyl-5-hydroxycoumaran. L. I. Smith and G. A. Boyack. *Am Chem Soc J* 70:2687-90 Ag '48
- Vitamin E; the coumaran isomer of α -tocopherol. L. I. Smith and G. A. Boyack. bibliog *Am Chem Soc J* 70:2690-5 Ag '48

Analysis

- Delta-tocopherol; assay of individual tocopherols in mixtures containing delta-tocopherol. L. Welsler, C. D. Robeson and J. G. Baxter. bibliog *Anal Chem* 19:906-9 N '47
- Delta-tocopherol; assay of total tocopherols in mixtures containing delta-tocopherol. M. H. Stern and J. G. Baxter. bibliog *Anal Chem* 19:902-5 N '47

Vitamin K

- Crystallization of vitamin K. *Science* 107:162 F 13 '48

Vitamin M

- Fourth Midwest award recognizes vitamin M work of Paul L. Day. *Chem & Eng N* 26:2772+ S 20 '48

Vitamin P

- Isolation of rutin from a citrus hybrid. C. F. Krewson and J. F. Couch. bibliog *Am Chem Soc J* 70:257-8 Ja '48

Vitamin U

- Antiulcer vitamin being investigated. *Chem & Eng N* 26:2218 JI 26 '48

VITRAIN

- Anodic oxidation of coal; the effect of oxidizing vitrain and ulmic acids at various metal anodes. R. Belcher. *Soc Chem Ind J* 67:217-18 Je '48

- VITRIFIED clay pipes. See Pipes, Vitrified clay

VOCATIONAL education

- Correspondence courses and their place in vocational education. J. N. Stephenson. *Paper Tr J* 126:50-1 My 20 '48; Same. *Pulp & Pa of Can* 49:53-5 My '48

See also

- | | |
|--|---------------------------------|
| American institute for foreign trade apprentices | Mining schools and education |
| Chemical education | Paper making—Study and teaching |
| Employees, Training of | Retail trade—Study and teaching |
| Engineering education | Technical education |
| Industrial education | Textile schools |
| | Trade schools |
| | Veterans—Education |

Argentina

- Vocational education in Argentina. *Int Labour R* 57:652-4 Je '48

VOCATIONAL education—Continued**Belgium**

Reform of technical education in Belgium.
Int Labour R 56:328-9 S '47

Bulgaria

Vocational training in Bulgaria. Int Labour
R 58:389-90 S '48

Great Britain

Vocational training in Great Britain. Int
Labour R 57:500-2 My '48

Hungary

Vocational education and training in Hun-
gary. Int Labour R 58:84-6 J1 '48

Russia

Soviet Union; industrial training. E. Nash.
Mo Labor R 65:569-71 N '47

VOCATIONAL guidance

Chemical student guidance. H. R. L.
Streight. Can Chem & Process Ind 32:44-7
Ja '48

Occupational guidance in high-school chemis-
try. V. W. Fisher. bibliog J Chem Educ 25:
90-3 F '48

Selected bibliography of guidance materials.
Michigan state college. Inst. of counseling,
testing and guidance. East Lansing '47
Trends in supply and demand of scientific
personnel. E. Clague. Science 107:355-60 Ap
9 '48

Vocational guidance for juveniles in the
United Kingdom; juvenile employment
service. H. M. D. Parker. Int Labour R 57:
15-25 Ja-F '48

Vocational guidance in Belgium. E. Lobet.
Int Labour R 57:187-204 Mr '48

Vocational guidance in New Zealand. R.
Winterbourn. Int Labour R 56:393-407 O
'47

Vocational guidance in Poland. S. Hartman.
Int Labour R 57:591-602 Je '48

Vocational guidance in Sweden. E. Ney-
mark. Int Labour R 57:438-55 My '48

Vocational guidance in the United States. H.
A. Jager. Int Labour R 57:300-14 Ap '48

See also

Educational guidance

VOCODER

Analysis-synthesis telephony, with special
reference to the vocoder. R. J. Halsey and
J. Swaffield. bibliog il diags Inst E E J
95 pt 3:391-406; Discussion. 406-11 S '48

VOGT, William, 1902-

Arid acres point to arid living; review of
Road to survival. por Bsns W p80, 82-3 O
2 '48

VOICE

Reaction of small enclosures on the human
voice; analyses of vowels. C. T. Morrow.
il diags Acoustical Soc Am J 20:487-97
J1 '48

Voice measurements with an audio spec-
trometer. H. W. Rudmose and others. bib-
liog il diags Acoustical Soc Am J 20:503-12
J1 '48

VOICE operated relays

Experiment in voice controlled relays. L. A.
Wortman. il diags Radio N 38:56-7+ D '47

VOLATILITY

Estimation of relative volatility; nomograph.
D. S. Davis. Chem Ind 61:872 N '47

Volatility and vapor pressure of eight 2-
chloroethyl alkyl (or cycloalkyl) sulfides.
C. E. Redemann, S. W. Chaikin and R. B.
Fearing. bibliog diags Am Chem Soc J 70:
631-3 F '48

Volatility and vapor pressure of nine organic
arsines. C. E. Redemann and others. bib-
liog Am Chem Soc J 70:637-9 F '48

Volatility and vapor pressure of ten substi-
tuted 2-chloroethylamines. C. E. Rede-
mann, S. W. Chaikin and R. B. Fearing.
Am Chem Soc J 70:1648-50 Ap '48

VOLCANIC ash, tuff, etc.

Glazes from Kansas volcanic ash. J. S. Carey.
bibliog Am Cer Soc Bul 27:225-8 Je 15 '48

Incandescent tuff flows in southern Peru. C.
N. Fenner. bibliog map Geol Soc Bul 59:
879-93, pl 1-5 S '48

Mineralogy and petrology of the Currant
Creek magnesite deposits and associated
rocks of Nevada. G. T. Faust and E. Cal-
laghan. il map diag Geol Soc Bul 59:11-74,
pl 1-4 bibliog (p70-2) Ja '48

VOLCANOES

Geologic notes on Adak island and the Aleu-
tian chain, Alaska. C. C. Bradley. bibliog
maps diags Am J Sci 246:214-40, pl 1-4
Ap '48

Niufo'ou. G. A. Macdonald. bibliog maps
diag Am J Sci 246:65-77, pl 1 F '48

Volcanic emanations as keys to ore transport.
C. S. Ross. bibliog Econ Geol 42:537-9 S
'47

See also

Iwo Jima

Paricutin

VOLTAGE

Critical analysis of voltage convention, and
double-subscript notations. M. B. Reed and
W. A. Lewis. bibliog diags Elec Eng 67:
41-8 Ja '48; Discussion 67:420-1, 619-21,
832-3 Ap, Je, Ag '48

Estimating voltage drops caused by starting
a-c motors. W. K. Boice. il diags Power
En Eng 51:76-81 D '47. [cont. as] Power
Generation 52:102-4 Ja; 90-3 F '48

Measurement of peak voltage at a frequency
of 600 mc/s by means of a modified probe
circuit. G. W. Bowdler. diags Inst E E J
95 pt 3:25-30 Ja '48

Measurement of short-duration recurrent
voltage impulses by means of spark-gaps.
R. Cooper. bibliog diags Inst E E J 95 pt 2:
378-82 Ag '48

Table shortens voltage drop calculations. C.
C. Hoke. Elec World 129:110 Mr 27 '48

See also

High voltages

VOLTAGE dividers

100,000-volt pulses measured with capacitance
voltage divider. S. C. Clark, jr. il diag
Gen Elec R 51:20-1 My '48

VOLTAGE integrators

Voltage integrator. A. Buzzell and J. M.
Sturtevant. diags R Sci Inst 19:688-92 O
'48

VOLTAGE regulation

Adjustable-voltage control system; operating
characteristics of a newly developed a-c
powered adjustable-voltage scheme for
driving machines such as cranes. J. E.
Jones. il diag Product Eng 19:127-30 F '48
Amplidyne gives quick response on synchron-
ous condenser fields. J. H. Vivian and F. V.
Gillum. il diags Elec World 128:68-71 D 20
'47

D.c. stabilized power supply of low im-
pedance. V. H. Attree. diags J Sci Instr 25:
263-8 Ag '48

Electronic power source for electrolysis. R.
Sci Instr 19:198-9 Mr '48; Same. Franklin
Inst J 245:433-5 My '48

Electronic stabilizer for power transmission.
E. F. W. Alexanderson and D. C. Prince.
il diags Elec Eng 66:1053-7 N '47

New method of predetermining the regula-
tion of alternators at unity and lagging
power factors. D. Harrison and C. V. Jones.
Inst E E J 95 pt 2:374-7 Ag '48

Operation and maintenance of variable volt-
age control systems. A. D. Howry. diags
Iron & Steel Eng 25:48-53; Discussion. 53-5
My '48

Power supply output voltage control. S. S.
Peschel. il diags Radio & Tv N 40:66-7+ O
'48

Regulated d.c. supply improvements. W. L.
Kinsell. bibliog il diags Radio N 39:68-9+
Je '48

Report on industrial voltage requirements;
AIEE committee report. diags Elec Eng 67:
358-74 Ap '48

Series capacitors approach maturity. A. A.
Johnson. il diags Westinghouse Eng 8:106-
13 J1 '48

Series capacitors on distribution circuits. R.
E. Marbury and J. B. Owens. diag Elec
Eng 67:158-62 F '48

Short method for calculating voltage regula-
tion on transmission line; engineering re-
ference sheet. R. N. Early. Elec World 129:
102-3 Jc 19 '48

66-kv 10,000-kva series capacitor for voltage
regulation. il Elec Eng 67:236-41 Mr '48

VOLTAGE regulation—Continued

- Switched capacitors back bus regulation. F. M. Reed, diag Elec World 128:89 D 6 '47
- Transformer voltage regulation in oil-field service; engineering reference sheet. Elec World 130:112 J1 31 '48
- Variable voltage control on multimotor blocks; abstract. O. M. Bundy. Elec Eng 67:699-700 J1 '48
- Voltage regulated for high-frequency tools. R. L. Gomon, il Elec World 129:98+ My 8 '48

VOLTAGE regulators

- Aircraft carbon-pile voltage regulator, fundamentals and design improvements; abstract. B. O. Austin and H. H. C. Richards. il Elec Eng 67:1033 N '48
- Automatic line voltage regulator for industrial loads; abstract. E. W. Vaughan. diag Elec Eng 67:696-7 J1 '48
- Circuit design for gas-discharge regulator tubes. W. G. Hoyle, diags Tele-Tech 7: 46-7+ F '48
- Compensator setting chart for feeder voltage regulators; engineering reference sheet. P. E. Benner. Elec World 129:102 F 14 '48
- D.c. voltage regulator for moderately high currents. J. M. McCrear and D. J. Le Roy. diags R Sci Instr 19:692-7 O '48
- Feeder voltage regulator accuracy standards; abstract. W. E. Birchard. Elec Eng 67:451 My '48
- Generator voltage regulators and their applications. C. E. Valentine, il diags Westinghouse Eng 8:167-72 N '48
- Inductively coupled high voltage stabilizer. G. Schwarz and E. H. Byerly. diag R Sci Instr 19:273 Ap '48
- Inductively coupled series tube d.c. high voltage regulator. R. Pepinsky and P. Jarmotz. diags R Sci Instr 19:247-54 Ap '48
- Moving-coil regulated transformer. E. T. Norris, il diag Electrician 141:393-4 Ag 6 '48
- On-load voltage regulators. il Electrician 141: 500 Ag 13 '48
- Regulator for 400-cycle inverter. C. A. Helber, il diag Electronics 21:90-1 N '48
- Three-winding transformers for feeder regulators. T. L. Rundlett, il diags Elec World 129:124 Ap 10 '48
- Voltage regulating unit built into generator. R. L. Gomon, il diag Elec World 129:90 Ap 24 '48
- Voltage regulator; what to expect of it. G. A. Hanlon and R. E. Lloyd, diag Power Generation 52:68-70 Mr '48
- Voltage regulators of the shunt type. W. G. Hoyle, diags R Sci Instr 19:244-6 Ap '48
- Voltage stabilizer for photometer lamps. R. J. Hercok, il diag J Sci Instr 25:320-1 S '48

See also

Rototrol**VOLTAGE standards**

- Standard very-high voltages; international aspects that affect choice of levels. P. Allieret. Elec R (Lond) 142:59-60 Ja 9 '48

VOLTMETERS

- New and easily constructed precision coulometer. E. L. Abers and R. F. Newton, bibliog diag J Phys & Colloid Chem 52:955-8 Je '48
- New type of voltmeter. W. M. Macnevin and G. L. Martin, J Chem Educ 24:587+ D '47

VOLTMETERS

- Absolute measurement of high voltages by oscillating electrode systems. E. Bradshaw and others, bibliog diags Inst E E J 95 pt 2: 636-41; Discussion. 641-4 O '48
- High-frequency crystal voltmeter. B. F. Tyson, diags Electronics 21:150+ Mr '48
- Kilovoltmeter. il R Sci Instr 18:931 D '47
- Operation and care of circular-scale instruments. J. Spencer, il diags Instruments 21: 715-18+ Ag '48
- Range of kilovoltmeters for high d.c. voltages. F. W. Waterton, il diags J Sci Instr 25:304-6 S '48
- Simple high-resistance electrostatic voltmeter. G. G. MacNeice, il J Sci Instr 25:189-91 Je '48
- Voltmeter for the measurement and comparison of peak and r.m.s. values of recurrent voltage waves. D. E. M. Garfitt, bibliog diags Inst E E J 95 pt 2:407-10 Ag '48

VOLTMETERS, Vacuum tube

- Battery-operated voltmeter and oscillator. il R Sci Instr 19:479-80 J1 '48
- Bridge-balanced amplifiers. Y. P. Yu, diags Electronics 21:111-13 My '48
- Carrier voltmeter aids channel maintenance. R. L. Brinton, diag Elec World 130:88+ J1 17 '48
- Compact linear diode v.t.v.m. R. P. Turner, il diag Radio N 40:40+ J1 '48
- Electronic square-law circuit. H. M. Ross and A. L. Shuffrey, diag J Sci Instr 25:200-2 Je '48
- High-impedance d.c. valve voltmeter. I. A. D. Lewis and K. Firth, diag J Sci Instr 25:340-1 O '48
- Improved peak voltmeter for pulses. Y. P. Yu, diags R Sci Instr 19:447-50 J1 '48
- Inverted tetrode voltmeter for high negative voltages. R. J. Schneeberger, il diag R Sci Instr 190:40-2 Ja '48
- Master Voltomyst. il R Sci Instr 19:536-7 Ag '48
- Peak-to-peak voltmeter. F. H. Shepard, jr. and E. Osterland, il diags Electronics 21: 101-3 O '48
- Precision high voltage vacuum-tube voltmeter. L. C. L. Yuan, diag R Sci Instr 19:450-2 J1 '48
- Response of a linear diode-voltmeter to single and recurrent r.f. impulses of various shapes. R. E. Burgess, Inst E E J 95 pt 3:106-10 Mr '48
- Stable voltmeter amplifier. J. D. Clare, diags Wireless Eng 25:231-6 J1 '48
- Vacuum tube voltmeter. R. H. Krueger, il diags Radio N 39:60-1+ Je '48

VOLUME

- Calibration of cylindrical tanks with axis inclined. W. L. Coats, diags tables Inst Pet J 34:627-46 S '48
- Figuring volumes of sawmill logs; data sheet. H. C. Fuller, Power 91:875 D '47
- Method for determining the volume of small solid objects. J. M. Stewart, diag Science 106:425 O 31 '47
- Reservoir volumes; space occupied by stock-tank oil and its original gas. J. C. Calhoun, jr, diags Oil & Gas J 46:37 N 22 '47
- Volume determination of tanks. T. F. Phillips, diags Pet Eng 19:174+ Mr '48

VOLUMETRIC analysis

- Accuracy of estimation of hydrogen peroxide by potassium permanganate titration. C. E. Huckaba and F. G. Keyes, bibliog diag Am Chem Soc J 70:1640-4 Ap '48
- Acidimetric determination of aluminum. A. H. Bushey, bibliog Anal Chem 20:169-72 F '48
- p-Aminobenzoic acid and its sodium salt; properties of analytical interest. C. J. Kern, T. Antoshkiw and M. R. Maiese, bibliog Anal Chem 20:919-22 O '48
- Amperometric microtitration of diamidines. J. B. Conn, bibliog Anal Chem 20:585-6 Je '48
- Amperometric titration of residual chlorine in sewage. H. C. Marks and others, bibliog Water & Sewage Works 95:175-8 My '48
- Analysis and composition of lead dioxide. R. S. Myers, bibliog Anal Chem 20:654-7 J1 '48
- Analysis of aliphatic amine mixtures; determination of secondary plus tertiary amines by the azomethine-azimetric method. C. D. Wagner, R. H. Brown and E. D. Peters, bibliog Am Chem Soc J 69:2611-14 N '47
- Analysis of chloroacetic acid; determination of dichloroacetic and acetic acids. G. A. Dalin and J. N. Haimsohn, Anal Chem 20: 470-2 My '48
- Analysis of thorium-chromium mixtures. R. E. Ewin and C. V. Banks, bibliog diag Anal Chem 20:233-5 Mr '48
- Analysis of water-soluble chlorohydrins and other organic chlorides. L. Trafelet, Anal Chem 20:68-9 Ja '48
- Argentometric microdetermination of organic chlorine. K. Sisido and H. Yagi, bibliog Anal Chem 20:677-8 J1 '48
- Automatic potentiometric titration of iron and titanium with chromous ion. J. J. Lingane, bibliog diag Anal Chem 20:797-801 S '48

VOLUMETRIC analysis—Continued

- Automatic potentiometric titrations. H. A. Robinson. bibliog *il* diag *Electrochem Soc Trans* 92 (preprint 38):503-22 '47
- Automatic recording of titrations. J. M. González Barredo and J. K. Taylor. diags *Electrochem Soc Trans* 92 (preprint 26): 303-10 '47
- Conductometric titration of chloride in sea water and marine sediments. L. J. Anderson. *Anal Chem* 20:618-19 *Jl* '48
- Coulometric titration of arsenic by means of electrolytically generated bromine and an amperometric end-point. R. J. Myers and E. H. Swift. diags *Am Chem Soc J* 70:1047-52 *Mr* '48
- Deoxypentose nucleic acids; electrometric titration of the acidic and the basic groups of the deoxypentose nucleic acid of calf thymus. J. M. Gulland, D. O. Jordan and H. F. W. Taylor. *Chem Soc J* p 1131-41 *S* '47
- Determination of acetic acid in mixtures with citric acid. J. A. Ambler and E. J. Roberts. bibliog *Anal Chem* 19:879-80 *N* '47
- Determination of acetic acid in sugar-house products. J. A. Ambler and E. J. Roberts. bibliog *Anal Chem* 19:877-8 *N* '47
- Determination of alkyl sulfides and disulfides. S. Siggia and R. L. Edsberg. bibliog *Anal Chem* 20:938-9 *O* '48
- Determination of benzoyl peroxide in organic media. S. Siggia. *Anal Chem* 19:872-3 *N* '47
- Determination of bromine addition numbers; electrometric method. H. D. DuBois, and D. A. Skoog. bibliog *il* diags *Anal Chem* 20:624-7 *Jl* '48
- Determination of carbon dioxide in water; improved evolution method. F. E. Clarke. bibliog *diag Anal Chem* 19:889-91 *N* '47
- Determination of chlorine dioxide and other active chlorine compounds in water. J. F. Haller and S. S. Listek. bibliog *diag Anal Chem* 20:639-42 *Jl* '48
- Determination of dinitrotoluene in smokeless powder by the titanous chloride-buffer method. P. G. Butts and others. *Anal Chem* 20:947-8 *O* '48
- Determination of formaldehyde and other aldehydes; assessment of the methods. J. G. Reynolds and M. Irwin. bibliog *Chem & Ind* p420-1 *Jl* 3 '48
- Determination of high molecular weight quaternary ammonium compounds as the triiodides. O. B. Hager and others. bibliog *Anal Chem* 19:885-8 *N* '47
- Determination of hydrogen chloride in presence of chlorine. H. N. Barham and T. R. Thomson. bibliog *diag Anal Chem* 20: 60-1 *Ja* '48
- Determination of methylene blue. G. F. Davidson. bibliog *Textile Inst J* 38:T408-18 *D* '47
- Determination of methylol groups and dibenzyl ether linkages in phenol alcohols and derived phenolic resins; methylol groups. H. S. Lilley and D. W. J. Osmond. bibliog *Soc Chem Ind J* 66:340-1 *O* '47
- Determination of olefinic unsaturation; co-operative evaluation of nitrogen tetroxide methods. E. T. Scafe and others. bibliog *diags Anal Chem* 19:971-5 *D* '47
- Determination of potassium perchlorate in smokeless powder. W. B. Meldrum, jr. and others. bibliog *Anal Chem* 20:949-50 *O* '48
- Determination of silver and copper in one sample of plating solution. L. Silverman. *Metal Finishing* 45:80-2 *N* '47
- Determination of small amounts of sodium bicarbonate in sodium carbonate. R. B. Regier. *Anal Chem* 19:1039 *D* '47
- Determination of small amounts of water in chloral. T. P. G. Shaw and T. Bruce. *Anal Chem* 19:884-5 *N* '47
- Determination of small concentrations of calcium and magnesium by titration with standard soap solution; comparison with gravimetric results. J. W. McCoy. *Anal Chem* 19:1002-3 *D* '47
- Determination of sodium, potassium, aluminum, and zinc in derivatives of carboxymethylcellulose. E. P. Samsel and others. bibliog *il* diag *Anal Chem* 20:142-6 *F* '48
- Determination of sodium pyrophosphate and tripyrophosphate. W. B. Caley. *Can Chem & Process Ind* 32:741-5 *Ag* '48
- Determination of surface active agents in solution. T. Barr and others. bibliog *Soc Chem Ind J* 67:45-8 *F* '48
- Determination of the alcoholic hydroxyl group in organic compounds; phthalic anhydride method. P. J. Elving and B. Warshowsky. bibliog *Anal Chem* 19:1006-10 *D* '47
- Determination of theobromine and caffeine in cacao materials. R. G. Moores and H. A. Campbell. bibliog *il* *Anal Chem* 20:40-7 *Ja* '48
- Determination of traces of organic bases in benzol and the like. H. N. Wilson. *Soc Chem Ind J* 67:237-8 *Je* '48
- Determination of water in alkylation sulfuric acid. W. H. Goff, W. S. Palmer and R. F. Huhndorff. bibliog *diag Anal Chem* 20:344-6 *Ap* '48
- Determination of water in dry food materials; Karl Fischer method. C. W. Schroeder and J. H. Nair. bibliog(43 ref) *il* *Anal Chem* 20:452-5 *My* '48
- Electrometric titration of nitric acid in oleum. C. D. McKinney, jr. W. H. Rogers and W. M. McNabb. *Anal Chem* 19:1041 *D* '47
- Estimation of vat printing paste on cloth and an electrometric analysis of the critical chemical. H. E. M. Specht. bibliog *Am Dyestuff Rep* 37:110-11 *F* 23 '48
- Evaluation of the ferrous-titanous method; comparison with sodium iodide isopropyl alcohol method. C. D. Wagner, R. H. Smith and E. D. Peters. bibliog *Anal Chem* 19:982-4 *D* '47
- Hydrolytic titrations of lead with potassium cyanide. L. Meites. *Am Chem Soc J* 70: 1659-60 *Ap* '48
- Improved procedure for determination of aldehydes. S. Siggia and W. Maxcy. bibliog *Anal Chem* 19:1023-5 *D* '47
- Lignin; liberation of phenolic hydroxyl groups by alkaline cleavage of lignin sulfonic acids. Q. F. Peniston and J. L. McCarthy. bibliog *Am Chem Soc J* 70:1329-32 *Ap* '48
- Microchemical aspects of the dead-stop end-point titration method. J. T. Stock. bibliog(43 ref) diags *Metallurgia* 37:220-3 *F* '48
- Microvolumetric method for determination of sulfur in organic compounds. J. F. Allcino. bibliog *Anal Chem* 20:85-6 *Ja* '48
- New pH indicator for titration of sodium carbonate; disodium 4,4'-bis(2-amino-1-naphthylazo)-2,2'-stilbenedisulfonate. M. Taras. bibliog *Anal Chem* 20:680-1 *Jl* '48
- Optimum conditions for titrimetric determinations; determination of acetone. W. B. Huckabay, C. J. Newton and A. V. Metler. bibliog *Anal Chem* 19:838-41 *N* '47
- Organic reagents for volumetric analysis; abstract. J. F. Flagg. *Anal Chem* 20:393 *Ap* '48
- Polarographic and amperometric determination of barium. I. M. Kolthoff and H. P. Gregor. bibliog *Anal Chem* 20:541-4 *Je* '48
- Potentiometric determination of lead. L. Farkas and N. Uri. *Anal Chem* 20:236-7 *Mr* '48
- Potentiometric investigation of tripyrophosphatomanganic(III) acid. J. I. Waters and I. M. Kolthoff. bibliog *Am Chem Soc J* 70:2455-60 *Jl* '48
- Potentiometric titration of +4 and +6 selenium and tellurium with chromous ion. J. J. Lingane and L. Nedrach. bibliog *Am Chem Soc J* 70:1997-2000 *Je* '48
- Potentiometric titration of weak acids in anhydrous ethylenediamine. M. L. Moss, J. H. Elliott and R. T. Hall. bibliog *diags Anal Chem* 20:784-8 *S* '48
- Precipitation of oxalates from homogeneous solution; application to separation and volumetric determination of magnesium. L. Gordon and E. R. Caley. *Anal Chem* 20:560-3 *Je* '48
- Preparation of standard chromous sulfate or chromous chloride solutions of determinate concentration. J. J. Lingane and R. L. Pecsok. bibliog *diags Anal Chem* 20: 425-8 *My* '48
- Progress of tests of electrometric methods for tall oil analysis by ASTM. A. Pollak and others. *Paper Tr J* 126:51-4 *Mr* 4 '48

VOLUMETRIC analysis—Continued

- Quantitative analysis of synthetic detergents; extension of Igepon T method to various agents containing the sulfonic acid group. D. A. Shirreff, *Am Dyestuff Rep* 37:411-14 *Je* 14 '48
- Quantitative results of volumetric analysis; a graphic procedure. W. I. Tretsen. *J Chem Educ* 24:565-+ *N* '47
- Quantitative volumetric analysis of carbon-bonded halogen with sodium naphthalene. F. L. Benton and W. H. Hamill. *Anal Chem* 20:269-70 *Mr* '48
- Rapid determination of moisture in liquid sulfur dioxide; comparison of phosphorus pentoxide and Karl Fischer method. B. R. DiCaprio. *diag Anal Chem* 19:1010-11 *D* '47
- Rapid determination of sulphate; abstract. M. L. Chepelevetsky, S. S. Rubinova and B. B. Evzlina. *Chem Age (Lond)* 58:436 *Mr* 27 '48
- Rapid determination of sulfides, thiosulfates, and sulfites in refinery spent caustic solutions. J. H. Karchmer and J. W. Dunahoe. *bibliog diag Anal Chem* 20:915-19 *O* '48
- Rapid method for analysis of chlorides; electrochrometric end point for titration of chlorides with silver nitrate. R. B. Dean and E. L. Hawley. *bibliog diag Anal Chem* 19:841-2 *N* '47
- Some mathematical relations involving the solubility of silver cyanide. J. E. Ricci. *bibliog J Phys & Colloid Chem* 51:1375-94 *N* '47
- Structure and behavior of ferric tartrate and citrate complexes in dilute solutions. M. Bobtelsky and J. Jordan. *bibliog Am Chem Soc J* 69:2286-90 *O* '47
- Titration of fluoride ion with aluminum chloride. J. H. Saylor and M. E. Larkin. *bibliog Anal Chem* 20:194-6 *Mr* '48
- Titration of iron in high-temperature alloys; use of copper powder reduction method. L. Silverman. *il Steel* 122:66-+ *Ja* 26 '48
- Volumetric determination of free sulfuric acid in crude sulfonic acids. O. H. Dawson. *Anal Chem* 20:383-4 *Ap* '48
- Volumetric determination of microgram quantities of acid-soluble sulfur. L. P. Pepkowitz. *diag Anal Chem* 20:968-70 *O* '48
- Volumetric determination of small amounts of soluble sulfates. C. L. Oge, C. O. Wilfitts and F. J. Cooper. *bibliog Anal Chem* 20:83-5 *Ja* '48
- Volumetric microdetermination of arsenic and iron. G. F. Smith and J. S. Fritz. *Anal Chem* 20:874-6 *S* '48
- See also*
Colorimetric analysis
Iodometry
- Apparatus**
- Automatic potentiometric titrations. J. J. Lingane. *bibliog diags Anal Chem* 20:285-92 *Ap* '48
- Electronic trigger circuit for automatic potentiometric and photometric titrations. R. H. Muller and J. J. Lingane. *il diags Anal Chem* 20:795-7 *S* '48
- Instrument suitable for production use in automatic potentiometric titrations; abstract. H. A. Robinson. *il(p98)* *Steel* 121:1084-*N* 17 '47
- Magnetic-flea agitating device for microtitration. C. L. Claft. *diags Science* 108:67 *Jl* 16 '48
- Some apparatus for micro-titration. P. F. Holt and D. G. Stringer. *diags Metallurgia* 38:65-7 *My* '48
- Storage and titration with oxygen-sensitive solutions. H. W. Stone. *bibliog diags Anal Chem* 20:747-9 *Ag* '48
- VOLUNTARY chain movement**
- Two new chains; independent grocers expand voluntary cooperatives. *Bsns-W* p50-1 *O* 2 '48
- VON KARMAN, Theodore, 1881-**
Dr T. von Karman awarded John Fritz medal for '48. *por Elec World* 129:162-+ *Mr* 13 '48
- VON ZEHLE, William Worthington Lister**
Adland's Fireball; it's a cinch to tell about Bill von Zehle. J. L. Collings. *por Ed & Pub* 81:30 *Mr* 27 '48
- Study in paradoxes. H. Woodward, jr. *por Sales Management* 60:40 *My* 1 '48

VORMELKER, Rose Lillian, 1895-

- Our new president. *Special Lib* 39:191-2 *Jl*-*Ag* '48
- VORTEX motion**
- Compressional wavefront propagation through a simple vortex. R. B. Lindsay. *diags Acoustical Soc Am J* 20:89-94 *Mr* '48
- Total vorticity of motion of a continuous medium. C. Truesdell. *Phys R* 73:510-12 *Mr* 1 '48
- Vortices and streams caused by sound waves. C. Eckart. *bibliog diags Phys R* 73:68-76 *Ja* 1 '48
- VOTING**
- Do you vote? H. A. Patrick. *il U S Naval Inst Proc* 74:1276-9 *O* '48
- See also*
Elections
- VOTING machines**
- Voting machines; business as well as politics. *il Bsns W* p25-6-+ *O* 30 '48
- VOUCHERS**
- Handling of vouchers is cut 30 per cent by Uarco, inc. *il Am Bsns* 18:14-15-+ *Jl* '48
- VOWELS**
- Reaction of small enclosures on the human voice; analyses of vowels. C. T. Morrow. *il diags Acoustical Soc Am J* 20:487-97 *Jl* '48
- Representation of vowels and their movements. R. K. Potter and G. E. Peterson. *il Acoustical Soc Am J* 20:528-35 *Jl* '48
- VOYAGES around the world**
- Bibliography**
- Captain Cook's voyages; a bibliography of the French translations, 1772-1800. S. Roberts. *J Doc* 3:160-76 *D* '47
- VOZNESENSKY, Nikolai Alexeevich**
Economic brain trust of Soviet Russia. *por Bsns W* p22-4 *My* 15 '48
- VULCANIZATION**
- Controlled heat cures heat-cure ills; automatic-control ovens in rubber and allied industries; vulcanization of rubber-bonded abrasive cutting wheels. H. Gehrnich. *il Chem Ind* 63:54-5 *Jl* '48
- Effect of carbon blacks on swelling of neoprene GRM-10 vulcanizates. N. L. Catton and D. C. Thompson. *bibliog Ind & Eng Chem* 40:1523-6 *Ag* '48
- Formation and structure of vulcanizates. J. Bardwell and C. A. Winkler. *bibliog India Rubber World* 118:509-12-+ *Jl* '48
- Measurement of the scorch and cure rate of vulcanizable mixtures using the Mooney plastometer. R. Shearer and others. *India Rubber World* 117:216-19 *N* '47
- Mechanism and theory of vulcanization. R. D. Stiehler and J. H. Wakelin. *bibliog* (30 ref) *il Ind & Eng Chem* 39:1647-54 *D* '47
- Polymeric unsaturation and relative rate of cross linkage. R. L. Zapp. *bibliog diags Ind & Eng Chem* 40:1508-17 *Ag* '48
- Rapid method of vulcanization to ebonite; abstract. A. D. Stepukhovitch. *Chem Eng* 55:276 *Ag* '48
- Reaction of sulphur and sulphur compounds with olefinic substances; mechanism of the reaction of hydrogen sulphide with monoolefins, diisoprenes, and rubber. R. F. Naylor. *Chem Soc J* p 1532-9 *N* '47
- Reaction of sulphur and sulphur compounds with olefinic substances; reaction of sulphur with mono-olefins and with $\Delta^1:5$ -diolefins. E. H. Farmer and F. W. Shipley. *Chem Soc J* p 1519-32 *N* '47
- Reaction of sulphur and sulphur compounds with olefinic substances; rubber vulcanization. G. F. Bloomfield. *Soc Chem Ind J* 67:14-17 *Ja* '48
- Reaction of sulphur and sulphur compounds with olefinic substances; thermal decomposition of organic polysulphides, and its contribution to the sulphur-olefin reaction. G. F. Bloomfield. *Chem Soc J* p 1547-51 *N* '47
- Safety in mechanical goods curing. J. E. Lovas. *il diags Rubber Age* 63:57-9 *Ap* '48
- Safety in tire and tube curing. L. E. Soderquist. *il diags Rubber Age* 62:659-61 *Mr* '48
- Semi-ebonites. F. S. Rostler. *India Rubber World* 117:492-7 *Ja* '48
- Steam and radio-frequency curing of natural rubber. A. H. Sharbaugh. *diags Ind & Eng Chem* 40:1264-8 *Jl* '48

VULCANIZATION—Continued

- Sulfur bond in vulcanizates; vulcanization by dithiols. C. M. Hull and others. *bibliog Ind & Eng Chem* 40:513-17 Mr '48
- Sulfur linkage in vulcanized rubber; acetone extraction of vulcanizates. M. L. Selker and A. R. Kemp. *bibliog Ind & Eng Chem* 40:1470-3 Ag '48
- Sulfur linkage in vulcanized rubber; reaction of methyl iodide with sulfur compounds. M. L. Selker. *bibliog Ind & Eng Chem* 40:1467-70 Ag '48
- Synthesis and reactions of disazodicarboxylates. N. Rabjohn. *bibliog Am Chem Soc J* 70:1181-3 Mr '48
- Variability of crude rubber; effect of latex nonrubber substances on vulcanization and aging characteristics of crude rubber. E. M. McCollm and J. W. Haeefe. *bibliog Ind & Eng Chem* 40:311-16 F '48
- Vulcanization of chlorine-containing acrylic elastomers. W. C. Mast and C. H. Fisher. *bibliog Ind & Eng Chem* 40:107-12 Ja '48
- Vulcanization of synthetic rubbers by the Peachey process. N. Bekkedahl and others. *bibliog J Res Nat Bur Stand* 40:1-7 Ja '48
- Vulcanizing characteristics of reinforcing furnace carbon. D. F. Cranor and others. *bibliog India Rubber World* 117:749-51+ Mr '48

Accelerators

- Application of cinchona alkaloids in the rubber industry. R. F. A. Altman and G. J. Van der Bie. *bibliog Ind & Eng Chem* 40:897-904 My '48
- Natural vulcanization accelerators in hevea latex. R. F. A. Altman. *bibliog(95 ref) Ind & Eng Chem* 40:241-9 F '48
- Stability of accelerators as affected by high processing temperatures. F. L. Holbrook and T. H. Fitzgerald. *Rubber Age* 64:57-9 O '48
- Vulcanisation accelerators; review of German rubber chemicals. *Chem Age (Lond)* 58:105 Ja 17 '48

VULCANIZED fiber

- Vulcanized fiber for machine parts. G. A. Albert. *il diag Machine Design* 19:109-12 N '47
- Vulcanized fibre is strong, tough, hard and easy to work. G. A. Albert. *il Materials & Methods* 27:88-92 Ap '48

VULCANIZERS**Safety measures**

- Tire and tube curing; industrial data sheet. *diags Nat Safety N* 58:40+ J1 '48

W**WADING pools**

- Design for a wading pool. *plan diags Pub Works* 78:34 O '47

WAFFLE mixes

- Proof of the waffle; it's in the eating; Eggo Food Products. A. Dorsa. *il Sales Management* 1:41-3 Ag 15 '48

WAGE assignments

See also

Wage garnishment

WAGE differentials

- Intercity wage differences, 1945-46. L. M. David and H. Ober. *Mo Labor R* 66:599-604 Je '48
- North-South differential; a different view. A. W. Swinyard and F. M. Stephenson. *Management R* 37:192-4 Ap '48
- Occupational wage differentials, 1907-1947. H. Ober. *Mo Labor R* 67:127-34 Ag '48
- Regional wage differentials; 1907-46. J. W. Bloch. *Mo Labor R* 66:371-7 Ap '48

WAGE fixing, Government

See also

Minimum wage

WAGE garnishment

- Keeping employes out of hock; Russell Electric plan. A. C. Norris. *il Mill & Factory* 43:120-1 O '48

WAGE payment by drafts. See Payrolls**WAGE payment plans**

Economic fringe demands of unions; vacations, holiday pay, night-shift premiums, call-in pay, paid sick leave, and health and welfare plans, etc. R. C. Smyth. *Personnel* 24:243-56 *bibliog(p254-6)* Ja '48

Employee incentive plan pares payroll expense for J. P. Seeburg corporation, Chicago. W. Norris. *il Am Bsns* 18:14-15+ Je '48

Equitable standards for production and incentives. F. M. Burt. *il Mill & Factory* 43:130-3 J1 '48

Future of wage incentives; abstract. E. A. Cyrol. *Management R* 36:587-9 N '47

How do you spend your salary dollar? E. C. Schleh. *Management R* 37:396-8 Ag '48

Incentive applied to order filling; Stanley greeting cards. R. W. Putterbaugh. *il Mill & Factory* 42:105-7 Je '48

Incentive compensation in the office. G. Z. Wollam. *Management R* 37:232-4 My '48

Incentive pay in American industry, 1945-46. J. M. Sherman. *Mo Labor R* 65:535-8 N '47

Incentive plan for learners reduces turnover; pay for output over standard. E. A. Metzger. *il Factory Management* 106:86-7 F '48

Incentive plans for office workers show good results at Aetna Life. *Nat Underw (Life ed)* 51:4 N 7 '47

Incentives in the national economy. J. W. Nickerson. *Foundry* 76:92+ O '48

Incentives to step up office output; abstract. R. S. Smith. *Management R* 37:129-30 Mr '48

Independent jobber's incentive pay plan cuts down labor turnover at stations. F. C. Sturtevant. *Nat Pet N* 40:24+ O 27 '48

Kaiser-Frazier shares production kiddy. *il Bsns W p66 D 27 '47*

Making incentives work in your plant. *il Mod Ind* 15:45-9 Mr '48

Manual gives workers wage incentive facts; Clark manufacturing co., Cleveland. J. F. Shuri. *Factory Management* 106:86-7 Ja '48

New wage plan guarantees share of production; Continental paper co. A. J. Woodfield. *Factory Management* 105:74-5 N '47

Objectives and fundamentals of wage incentive plans. J. V. Miccio. *N A C A Bul* 30:59-68 S 15 '48

Packing and shipping on incentives. C. Mors and F. Prochaska. *il Mill & Factory* 43:140-3 O '48

Patterns in fringe benefits. A. C. Croft. *Personnel* 25:11-17 J1 '48

Prevalence of incentive wages in Wisconsin; a report of a questionnaire survey of Wisconsin manufacturers. W. H. Mayer and W. H. Keown. (Wisconsin commerce reports v 2, no 2) 41p pa \$1.10 Univ. of Wisconsin, Bur. of business research and service, 404 Sterling hall, Madison '48

Self-liquidating incentive plan; Republic drill and tool company saving-sharing plan. J. Turner. *il Am Bsns* 17:10-11+ D '47

Sliding wages supplement profit sharing; Michigan tank and furnace corp. D. G. Baird. *il Mill & Factory* 42:126-3 My '48

Standard hour wage incentive plan; Bendix radio. J. J. Bananger. *N A C A Bul* 29:391-8 D 1 '47

Union and management cooperate to establish incentive system. *il Mill & Factory* 42:95-9 Mr '48

Wage incentive practices in 96 plants. *Factory Management* 106:88-90 O '48

Wage incentives based on careful time studies; operational reviews by management-labor time study teams at Oliver Iron and Steel. R. T. Walton. *il Steel* 122:63-6 My 31 '48

Wages in cotton weaving; replacing the Uniform list. *Economist* 154:978+ Je 12 '48

See also

Bonus system Salesmen—Bonuses

Overtime Salesmen—Salaries

Pay days and commissions

Payrolls Trade agreements—

Piece work Wage clauses

Profit sharing

Cost of living adjustments

General Motors boss passes wage idea to personnel executives. *Bsns W* p98-9 Je 6 '48

WAGE payment plans—Cost of living adjustments—Continued

General Motors hikes wages to living costs. Steel 122:30-1 My 31 '48
 GM's pay plan, good or bad? Factory Management 106:108-12 JI '48
 G.M. ties wages to cost of living. Bsns W p96-7 My 29 '48
 General Motors wage increase; cost of living adjustments. Nat City Bank p62-4 Je '48
 Inflation by escalator; attacks General Motors wage agreement. M. Palyi. Comm & Fin Chr 167:2741-+ Je 24 '48
 Looking forward in labor relations; General Motors wage agreement. C. E. Wilson. Comm & Fin Chr 167:2531-+ Je 10 '48

Cost of living bonus

Cost-of-living bonus fights labor unrest. Inland Ptr 121:50 Ag '48

See also

Trade agreements—
 Wage clauses

Group bonus

British firm stimulates output with group bonus. II Factory Management 106:74-5 S '48
 Operating and procedural advantages of departmental group incentives. J. Johannes. N A C A Bul 30:69-76 S 15 '48

Guaranty of earnings

C. & O. thinks it can start pay guarantee. R. R. Young. Ry Age 124:1134-5 Je 5 '48
 Guaranteed wage plans in the United States. U S Bur Labor Statistics Bul 925:1-90; pa 35c Supt. of doc. '48
 Guaranteed wages; Latimer report; review. A. R. Oxenfeldt. R Econ Stat 29:286-9 N '47
 Guaranteed work week. O. C. Cool. Manuf Rec 116:35-+ N '47
 Guaranteeing security for the worker; experience of Hormel, Procter & Gamble and Nunn-Bush. J. Backman and J. Kelper. II Dun's R 56:20-2-+ Je '48

Work guarantee; contract between Metal mouldings corp. and U.A.W. Bsns W p67 JI 3 '48

WAGE scales

Adjustments in installing evaluated rates. G. H. Metz. Mill & Factory 42:119-20 Mr '48

Following up the wage program. R. C. Smyth. Personnel 24:313-16 Mr '48

How to do a community wage survey. B. McClancy. Mill & Factory 43:134-7 JI '48

Job content measurement in wage surveys. W. R. Hanawalt. Personnel 24:350-9 Mr '48

Making effective wage surveys by mail; abstract. A. McMurtrie. Management R 37:22-3 Ja '48

Union and management cooperate to establish incentive system. II Mill & Factory 42:95-9 Mr '48

WAGE surveys

How to do a community wage survey. B. McClancy. Mill & Factory 43:134-7 JI '48

WAGES

Coal miner round the world; wages, living conditions and costs; U.S. compared with ten other countries. II Coal Age 53:74-95 My '48

New wage plan; G.E.'s offer of eight per cent boost. Bsns W p26 Je 12 '48

Wage trends and wage policies; various foreign countries. U S Bur Labor Statistics Bul 934:1-54; pa 25c Supt. of doc. '48 [reprinted from Monthly labor review]

See also

Bonus system	Profit sharing
Executives—Salaries	Railroads—Wages
Labor and laboring classes	Salaries
Overtime	Salesmen—Salaries and commissions
Payrolls	Wage payment plans
Pensions, Industrial	Wage scales
Piece work	

Dismissal wage

Collective bargaining provisions; discharge, discipline, and quits; dismissal pay provisions. U S Bur Labor Statistics Bul 908-5:1-63; pa 20c Supt. of doc. '48

Dismissal pay provisions in union agreements; abstract. Management R 37:299-301 Je '48

Severance pay in union contracts. F. G. Moore. Mill & Factory 43:109-12 S '48

Economic aspects

Behavior of wages; summary of a study by the National industrial conference board. J. Backman and M. R. Gainsbrugh. Comm & Fin Chr 167:1541-+ Ap 8 '48

Can further wage increases be passed to consumer? C. F. Roos. Comm & Fin Chr 167:806-+ F 19 '48

CIO, bankers share inflationary policy; wage boosts harmful. Barron's 27:1-+ D 8 '47

Economic relation of wages and prices. E. Bunting. Comm & Fin Chr 167:1980-+ My 6 '48

Fiction and facts on wages and profits; an answer to Mr Murray. M. D. Popovic. Comm & Fin Chr 168:697-+ Ag 19 '48

Inflation and third round wage increases. J. Backman. Comm & Fin Chr 167:900-1 F 26 '48

Labor's economic dilemma. I. Wright. Comm & Fin Chr 168:1100-+ S 16 '48

Majority frowns on wage boosts leading to higher prices; Gallup poll. Iron Age 161:115 Ja 29 '48

Next depression's goblins get a powerful recruit; rigid wage structure will close one avenue of cost reduction. H. S. Taylor. Barron's 28:5-6 Mr 29 '48

Realistic study of the race between prices and wages. J. C. Cresswill. Mag of Wall St 81:578-9, 615-+ F 28 '48

Two-way squeeze in third-round wage battle. P. T. Sheldrick. II Mag of Wall St 82:11-13-+ Ap 10 '48

Unions' demands and managers' policy. E. M. Friedman. Comm & Fin Chr 167:2413-+ Je 8 '48

Wage increases are not primary cause of high prices. B. Shishkin. Comm & Fin Chr 167:2195 My 20 '48

Wage policy in the United Kingdom. Int Labour R 57:360-5 Ap '48

Wage-price front may be held this time. P. A. Johnston and H. S. Taylor. Barron's 28:7-8 My 17 '48

Wages of labor. L. C. Lockley. J Retailing 23:109-10-+ D '47

Wages, prices and the people's savings. S. H. Slichter. Comm & Fin Chr 167:2187-+ My 20 '48; Same cond. Trusts & Estates 67:118-22 Ag '48

Will another wage increase bring further increase in prices? increased labor productivity? Mill & Factory 42:87-90 Ja '48

Law

Chemical industry violations of wage-hour law revealed. Oil Paint & Drug Rec 153:5 Ja 19 '48

Court decisions in portal-to-portal cases. N. C. Rockwood. Rock Prod 51:73-+ F '48

Decisions of labor interest; constitutionality of the Portal-to-portal act. Mo Labor R 65:686-7 D '47

Equal pay for equal work in the United States. Int Labour R 58:391-4 S '48

New portal-to-portal pay law interpreted by its administrator. W. E. McComb. Elec World 128:72 D 6 '47; Same. Bsns W p70-1 N 29 '47

Portal act constitutional. Mo Labor R 67:299-300 S '48

Prospective changes in wage and hour law. N. C. Rockwood. Rock Prod 51:129-+ Ja '48

Recent decisions of interest to labor; Portal act; constitutionality; good faith defense; activities during lunch time. Mo Labor R 67:406-7 O '48

See also

Minimum wage
 Overtime

Regulation

Should we renew selective price and wage controls? yes. R. V. Gilbert; no. B. J. Rider. II Mod Ind 15:106-8-+ Ja '48

Wage and price restraints to combat inflation; testimony before House committee on banking and currency. L. B. Schwellenbach. Comm & Fin Chr 166:2267-+ D 4 '47

WAGES—Regulation—Continued

Wage control missing from price-curb plans.
H. Davenport. Barron's 27:15 D 8 '47

Statistics

Average annual earnings per full-time employee, by industry, 1929-46; tabulation. Survey of Cur Bsns 27:sup38 J1 '47

Average annual earnings per full-time employee, by industry, 1944-47; tabulation. Survey of Cur Bsns 28:22 J1 '48

Candy and other confectionery; wage structure, Jan. 1947. L. Badenhoop. Mo Labor R 66:395-7 Ap '48

Construction wage rates and trends, 1926-1947. Eng N 140:823+ My 27 '48

Earnings and hours. Published in Monthly labor review

Earnings of nonfarm employees in the U.S., 1890-1946. S. Lebergott. bibliog Am Stat Assn J 43:74-93 Mr '48

Earnings of power laundry workers in large cities, July 1947. Mo Labor R 66:554-5 N '47

Electric and gas utilities; wage structures in 1948. K. B. Mohn. Mo Labor R 67:377-80 O '48

Ferrous foundries; earnings in Nov. 1947. Mo Labor R 66:287-8 Mr '48

Footwear manufacturing; earnings, Sept. 1947. Mo Labor R 67:32-4 J1 '48

Grain milling industry; wage structure, Jan. 1948. T. P. Kanninen. Mo Labor R 67:30-2 J1 '48

Hosiery manufacture; earnings in Sept. 1947. T. P. Kanninen. Mo Labor R 66:616-18 My '48

Hourly and weekly earnings and hours worked per week in the U.S. 1941-1947; employment, earnings and hours worked, by years, 1929-1947; tabulations. Automotive Ind 98:88-9 Mr '48

How do your office salaries compare? tabulation showing range of weekly pay in six industries. Bsns W p98 J1 '48

How do your wages stack up? data on recent changes in wage rates; tabulation by industry. Bsns W p26 Ap 17 '48

Industrial chemical industry; earnings in Jan. 1948. D. L. Helm. Mo Labor R 67:142-3 Ag '48

Intercity wage differences, 1945-46. L. M. David and H. Ober. Mo Labor R 66:599-604 Je '48

Local city truck driving; union scales, July 1, 1947. A. Simi. Mo Labor R 66:392-4 Ap '48

Local transit industry; union scales, Oct. 1, 1947. A. Simi. Mo Labor R 66:523-4 My '48

Machine tool accessory plants; earnings in December 1947. J. F. Laciskey. Mo Labor R 66:515-16 My '48

Machinery industries; earnings in Nov. 1947. D. Helm. Mo Labor R 66:398-9 Ap '48

Manufacturing industries; wage rate structure, 1945-46. L. M. David. Mo Labor R 66:281-2 Mr '48

Meat products industries; wage structure, Jan. 1947. T. P. Kanninen. Mo Labor R 66:283-6 Mr '48

1947 labor statistics; analysis of employment and compensation. C. W. Stocks and P. Masiakou. Bus Transportation 27:87-9 My '48

Paint and varnish manufacture; earnings in Aug. 1947. Mo Labor R 66:401-2 Ap '48

Printing trades; union scales, Jan. 2, 1948. H. W. Callaway and J. P. Corkery. Mo Labor R 67:143-5 Ag '48

Salaries and working conditions, Atlanta office workers, 1947. H. Hall. Mo Labor R 66:612-14 My '48

Salaries of office workers in large cities. K. B. Mohn. Mo Labor R 67:240-3 S '48

Salaries of office workers, New York city, 1948. Mo Labor R 67:26-9 J1 '48

Salaries of office workers, San Francisco and Oakland, 1948. Mo Labor R 67:138-41 Ag '48

Statistics of the general level of wages in various countries; hourly rates or earnings; daily, weekly or monthly earnings. Published in International labour review, February, May, August, November

Textiles manufacture; earnings in April 1948.

T. P. Kanninen. Mo Labor R 67:267-71 S '48

Trends in urban wage rates, September 1947. F. J. Clerc and E. K. Buschman. Mo Labor R 66:45-50 Ja '48

Typical wage settlements in manufacturing companies since January 1, 1948. Mill & Factory 43:supp S '48

Union wages and hours; local transit operating employees, Oct. 1, 1947. U S Bur Labor Statistics Bul 933:1-7; pa 10c Supt. of doc. '48

Union wages and hours; motortruck drivers and helpers, July 1, 1947. U S Bur Labor Statistics Bul 928:1-32; pa 15c Supt. of doc. '48

Union wages and hours; the baking industry, July, 1947. J. P. Corkery. U S Bur Labor Statistics Bul 936:1-37; pa 20c Supt. of doc. '48; Excerpts. Mo Labor R 66:521-3 My '48

Wage structure in glassware. M. Hammett. Glass Ind 29:255-6+ My '48

Wage structures; manufacturing wage structure in selected countries, industries, and occupations. S. Lebergott. R Econ Stat 29:274-85 N '47

Wages and salaries, by industry, 1929-46; tabulations. Survey of Cur Bsns 27:sup27-8 J1 '47

Wages and salaries, by industry, 1944-47; tabulation. Survey of Cur Bsns 28:19 J1 '48

Wages in glassware industry, Jan. 1947. J. M. Sherman. Mo Labor R 65:549-51 N '47

Wages in home offices of life insurance companies. K. B. Mohn. Mo Labor R 66:10-13 Ja '48; Same cond. Nat Underw (Life ed) 52:11 O '48

Wages in wholesale drugs and allied products, Jan. 1947. K. B. Mohn. Mo Labor R 65:552-4 N '47

Wages of foundry workers, October 1946. D. L. Helm. Mo Labor R 65:180-3 Ag '47; Same cond. Foundry 75:202-3 D '47

Weekly and hourly earnings, and miscellaneous wage data, 1941-1946. Survey of Cur Bsns 1947 Sup p65-71 [supplemented in monthly numbers]

What's happening to wages. Factory Management 106:120-2 Ag '48

White collar salaries; with tabulation showing average salaries for selected office occupations in New York, N.Y., for selected industries, Jan. 1948. Banking 41:24-5 Ag '48

Wholesale groceries; earnings in large cities, July 1947. Mo Labor R 66:288 Mr '48

Women's dress manufacture; earnings in Aug. 1947. K. B. Mohn. Mo Labor R 66:518-20 My '48

See also

Wage surveys

Alaska

Wages hit stratosphere in Alaska. E. M. Fitch. Air Transport 6:43 F '48

Austria

Austrian currency reform and wage-price stabilization. Mo Labor R 67:45-7 J1 '48

Prices and wages in the Austrian economy, 1938-47. L. B. Kravis. map Mo Labor R 66:20-7 Ja '48

Belgium

Belgium; wage trends and wage policies, 1939-47. J. H. Palmer. Mo Labor R 66:289-92 Mr '48

Holidays with pay in Belgium. Int Labour R 56:78-81 J1 '47

Denmark

Denmark; wage trends and wage policies, 1939-47. J. A. Flexner. Mo Labor R 66:293-5 Mr '48

Germany

Conditions in Germany. Int Labour R 56:611-12 N-D '47

Great Britain

Cotton wages and output. Economist 154:193 Ja 31 '48

Engineering and shipbuilding wages. Engineer 185:181 F 20 '48

Government's statement on personal incomes, costs and prices. Iron Age 161:108-9 F 19 '48; Same. Economist 154:209-10 F 7 '48

WAGES—Great Britain—Continued

- Labour and the Nation; reward of work. Economist 155:402-4 S 11 '48
 Labour's reward. Economist 153:774 N 8 '47
 Wage policy in the United Kingdom. Int Labour R 57:360-5 Ap '48
 Wages and hours. Economist 154:808-9 My 15 '48
 Wages and profits. Economist 153:790-1 N 15 '47
 Wages impolicy; Trades union congress stands pat. Economist 154:3-4 Ja 3 '48
 Wages in cotton weaving; replacing the Uniform list. Economist 154:978+ Je 12 '48
 Wages in 1947. Economist 154:74+ Ja 10 '48
 Wages merry-go-round. Economist 155:549-50 O 2 '48

India

- Minimum wage rates established in India. Int Labour R 57:513-15 My '48

New York (city)

- Salaries of office workers, New York city, 1948. Mo Labor R 67:26-9 JI '48
 Wage rates per hour New York city; building trades, 1874-1947. Eng N 140:833 My 27 '48

Oakland, California

- Salaries of office workers, San Francisco and Oakland, 1948. Mo Labor R 67:138-41 Ag '48

Panama

- National commission of minimum wage created. For Comm W 32:22-3 Ag 7 '48

Switzerland

- Switzerland; wage trends and wage policies, 1939-47. J. Mintzes. Mo Labor R 66:296-300 Mr '48

United States

- Automobile repair shops; wages in July 1947. Mo Labor R 66:54 Ja '48
 Average wages vs. real wages; automobile and other industries, monthly, 1941-1947; tabulation. Automotive Ind 95:37 Mr 15 '48
 Behavior of wages; summary of a study by the National industrial conference board. J. Backman and M. R. Gainsbrugh. Comm & Fin Chr 167:1541+ Ap 8 '48
 Building trades wage rates, eight-hour day, prevailing Sept. 1, 1947. Eng N 139:695 N 13 '47
 Changes in labor income, 1939-1947. Survey of Cur Bsns 27:5-9 D '47
 Cotton garment industries; wage structure, Sept. 1947. L. Badenhop. Mo Labor R 66:626-9 Je '48
 Earnings and hours. Published in Monthly Labor review
 GM wage setup isolates steel's move to block third wage round. T. Campbell. Iron Age 161:119-20 Je 3 '48
 Is the third round the final one? R. M. Bleiberg and F. B. Dezenzendorf. Barron's 28:5-6 Ag 2 '48
 Metalworking wages 40 per cent of factory total in 1946. Steel 122:85 Mr 1 '48
 Over one-third of all factory wages paid by steel. Blast F & Steel Pl 36:379 Mr '48
 Peaceful third pay round? Bsns W p72-3 Ja 24 '48
 Postwar wages up 31 per cent. Steel 121:73 N 17 '47
 Probable continuance of wage and price increases. H. P. Gillette. Roads & Sts 91:91 Ja '48
 Salaries of federal employees by major pay groups. L. C. Ursell and J. W. Mitchell. Mo Labor R 67:12-15 JI '48
 Smaller unions take lead in third-round drive. Il Bsns W p85-6 D 13 '47
 Third round has big week. Bsns W p 106+ Je 19 '48
 Third wage round is on. Bsns W p 19-20 N 22 '47
 Third wage round likely without major strikes. S. H. Scheibla and E. M. Haller. Barron's 28:7 F 2 '48
 Typical wage settlements in manufacturing companies since January 1, 1948. Mill & Factory 43:supp S '48
 Union wages and hours: building trades, July 1, 1947. H. W. Callaway. U S Bur Labor Statistics Bul 930:1-36; pa 20c Supt. of doc. '48; Excerpt. Mo Labor R 66:50-3 Ja '48

- Union wages and hours in the printing trades, July 1, 1946. U S Bur Labor Statistics Bul 912:1-67; pa 15c Supt. of doc. '47
 Union wages and hours of motortruck drivers and helpers, July 1, 1946. J. P. Corkery. U S Bur Labor Statistics Bul 911:1-42; pa 15c Supt. of doc. '47

- Union wages and hours; motortruck drivers and helpers, July 1, 1947. U S Bur Labor Statistics Bul 928:1-32; pa 15c Supt. of doc. '48

- Wage geography; pay rates still vary widely. Bsns W p74-6 Ag 28 '48

- Wage rates in the building trades. Sheet Metal Worker 39:47 S '48

- Wage rates in the building trades in 48 cities; tabulation. Sheet Metal Worker 39:92 Ja '48

- Wage structure of gas utilities in January 1947. T. P. Kanninen. Mo Labor R 66:55-8 Ja '48

- Wage structures of gas utilities. T. P. Kanninen. Pub Util 41:214-21 F 12 '48

- Wages have increased more than prices since 1941. Am Mach 92:118-19 Ja 29 '48

- Wages lag behind prices. L. B. Schwellenbach. Comm & Fin Chr 167:110 Ja 8 '48

- Wages of non-office utility workers up 30 per cent '45. Elec World News ed 130:6 O 16 '48

- Weekly and hourly earnings, and miscellaneous wage data, 1941-1946. Survey of Cur Bsns 1947 Sup p65-71 [supplemented in monthly numbers]

- Whither your 1949 wages? Bsns W p96-7 JI 17 '48

- Wide diversity in wage changes. J. Backman. Comm & Fin Chr 167:2539 Je 10 '48

Wisconsin

- Prevalence of incentive wages in Wisconsin; a report of a questionnaire survey of Wisconsin manufacturers. W. H. Mayer and W. H. Keown. (Wisconsin commerce reports v 2, no 2) 41p pa \$1.10 Univ. of Wisconsin. Bur. of business research and service, 404 Sterling hall, Madison '48

- WAGNER, Herbert Appleton, 1867-1947 Sketch, por Edison Elec Inst Bul 15:453+ D '47

- WAGNER ground

- Theory of Wagner ground balance for alternating-current bridges. R. K. Cook. bibliog diags J Res Nat Bur Stand 40:245-9 Mr '48

WAGONS

- Conestoga wagon. T. Coulson. Il Franklin Inst J 246:215-22 S '48

WAHLSTROM, Frank O.

- He makes security profitable; F. O. Wahlstrom Southern states iron roofing co., has cut labor costs, boosted wages, lifted worker benefits. por Mod Ind 15:67-8+ F '48

- Southerners at work. pors Manuf Rec 117:40-1 JI '48

WALDEN inversion

- New Walden inversion. R. L. Burwell, Jr. and H. E. Holmquist. Am Chem Soc J 70:878 F '48

- Steroids and the Walden inversion. C. W. Shoppee. pl Chem Soc J p 1138-51 D '46; p 1032-45 JI '48

- Studies in steroid metabolism; the problem of Walden inversion in the reactions of steroid hydrogen sulfates and steroid sulfates. S. Lieberman, L. B. Hariton and D. K. Fukushima. bibliog Am Chem Soc J 70:1427-32 Ap '48

WALES

See also

- Gold mines and min- Machinery industry—
 ing—Wales Wales
 Hydroelectric plants
 —Wales

Industries and resources

- Welsh industry and the crisis. Chem Age (Lond) 58:388 Mr 20 '48

WALKS, Concrete**Heating**

- How to figure snow melting jobs. Il diag Dom Eng 171:126-8 Je '48; Discussion. P. S. Park. 172:138+ JI '48
 Snow melting job pays off. T. N. Adlam. Il Heat & Ven 45:95 Je '48

WALKS, Concrete—Heating—Continued

We let hot water shovel our snow; Beech-Nut packing co. J. H. Mowrey. *il* diags Heating-Piping 20:76-7 Je '48

WALKWAYS

Measurement of the slipperiness of walkway surfaces. P. A. Sigler and others. *il* diag J Res Nat Bur Stand 40:339-46 My '48

Slipperiness of walkway surfaces. P. A. Sigler. *il* diags Soap & San Chem 24:147+ Ja '48

See also

Floors

Sidewalks

Walks, Concrete

WALL board

Accelerated method for measuring the penetration of water in insulation board. W. A. Wink and J. A. Van den Akker. *diags* Paper Tr J 127:35-40 S 2 '48

Australia's new gypsum wallboard plant. K. O. Brown. *il* Rock Prod 51:110-12+ F '48

Infant industry matures; insulating board. *il* Am Bid 70:96-7 Ja '48

Insulating board, wallboard, and hardboard. bibliog Pulp & Pa of Can 49:60-1 My '48
Johns-Manville insulating board plant at Natchez is opened. *il* Paper Ind 30:693-4 Ag '48

Studies on composition of bark; utilization for structural boards. L. P. Clermont and H. Schwartz. bibliog Paper Tr J 126:57-60 My 6 '48; Same. Pulp & Pa of Can 49:90-4 Je '48

Wallboard production speeded up with long belt. W. B. Lenhart. flow sheet *il* plans *diags* Rock Prod 51:84-9+ Mr '48

WALL paper. See Wallpaper**WALL Street**

Communists penetrate Wall Street. L. M. Cherne. *Comm & Fin* Chr 166:1855+ N 6 '47

Is the market right? review of the Street's newest perplexities. *il* Fortune 37:77-83+ Mr '48

Securities business and free government. F. A. Truslow. *Comm & Fin* Chr 168:306+ J 22 '48

Wall Street and public relations. W. Smith. *Comm & Fin* Chr 168:1865+ N 4 '48

Wall Street launches information drive. *Comm & Fin* Chr 168:112 J 1 '48

Wall Street should take the offensive. L. Leif. *Comm & Fin* Chr 167:2416+ Je 3 '48

Wall Street unions fail in year's drive. R. M. Bleiberg. *Barron's* 27:9 N 17 '47

What Wall Street is. E. Schram. *Comm & Fin* Chr 167:1326+ Mr 25 '48

WALL Street Journal (periodical)

Starts edition for Southwest. J. Stag. *Ed & Pub* 81:18 My 8 '48

Wall Street journal has unique staff training. O. J. Rochelle. *Ed & Pub* 81:24 J 10 '48

WALLABA

Production of a metallurgical coke from the resin of wallaba wood (*eperua* sp.) R. H. Farmer and W. G. Campbell. *Soc Chem Ind* J 67:233-4 Je '48

WALLACE, Henry Agard, 1888-

Announces candidacy in radio address. Dec. 29, 1947. *por* *Comm & Fin* Chr 167:14+ Ja 1 '48

C.I.O.'s left clings to Wallace. *por* *Bsns W* p70+ Ja 31 '48

C.I.O.'s tug-of-war over Wallace. *Bsns W* p88+ Ja 17 '48

Democrats will label Wallace party as Red. H. Davenport. *Barron's* 28:11 Ja 5 '48

One billion yearly of federal money for South; address at Durham, N.C. H. A. Wallace. *por* *Comm & Fin* Chr 168:905+ S 2 '48

Opens Progressive Party campaign; address at Bridgeport, Conn. *Comm & Fin* Chr 168:807+ Ag 26 '48

Wallace strikes serious blow at Democratic chances; Gallup poll. *Iron Age* 161:107 Ja 22 '48

WALLACE, Tom, 1874-

T. Wallace retires; Briney succeeds him. *por* *Ed & Pub* 81:13 Ag 7 '48

WALLBOARD. See Wall board**WALLEN, Saul**

New G.M. umpire. *por* *Bsns W* p83-4 Ja 10 '48

WALLETS, Plastic

Welded wallets; die-cut polyvinyl chloride sheets electronically sealed in high speed automatic presses. A. W. Gellert. *il* *Mod* *Plastics* 25:116+ Mr '48

WALLPAPER

Decorative fabric house enters the wall-paper business. T. Greeff. *Textile* Col 70:34+ Ap '48

Dermatitis in wallpaper plants. *Safety Eng* 55:68 Mr '48

Dog-eared, dirty and drab; are your dealer samples like that? United Wallpaper's aren't. J. E. Seguire. *il* *Sales Management* 60:44-5 F 15 '48

Set for cleanup; United Wallpaper washable Varlar. *il* *Bsns W* p70+ Je 26 '48

Show'em and tell'em technique cracks national markets for Varlar. J. E. Williams. *il* *Sales Management* 59:42-3 D 15 '47

WALLS

Masonry know how; heat transmission coefficient; U. *diags* *Brick & Clay Rec* 113:36 J 1 '48

Periodic heat transfer at the inner surface of a homogeneous wall. H. A. Johnson. bibliog *Heating-Piping* 20:121-31 My '48

Sandwich wall construction developed for aircraft is under study as boon to low-cost housing. *il* *Heat & Ven* 44:110+ D '47

Solar heat gain through walls and roofs for cooling load calculations. J. P. Stewart. *diags* *Heating-Piping* 20:121-31; *Discussion*. 131-2 Ag '48

Textile mill walls faced with aluminum; Duplan corp. air-conditioned nylon-throwing plant. J. W. Davis. *il* *Eng N* 140:130-1 Ja 22 '48

Wall of thin self-framed metal panels. R. L. Davison and H. T. Fisher. *il* *diags* *Arch Rec* 103:135-9 F '48

See also

Fire walls

Foundations

Sea walls

WALLS, Brick

Brick curtain walls of research lab supported by welded steel lintels. *il* *diags* *Brick & Clay Rec* 113:36-7 F '48

Economical reinforced brick masonry wall presents possibilities for home construction. *diags* *Brick & Clay Rec* 113:39 J 1 '48

Gymnasium addition to small school uses exterior brick for inside walls. *il* *plan diag* *Arch Forum* 89:116-17 S '48

Handling scaffolds for tuck pointing. R. M. McConkey. *diags* *Brick & Clay Rec* 111:34-5 D '47

Handy table for figuring quantities of brick. *Brick & Clay Rec* 112:38 Ja '48

Masonry walls of Metropolitan's apartments are insulated and waterproofed. *il* *diags* *Brick & Clay Rec* 112:34-6 Ap '48

Overcoming cracks in brick walls. *diags* *Brick & Clay Rec* 112:37 My '48

Quantities for 100 sq. ft. of wall; tabulation. *Brick & Clay Rec* 113:42 S '48

WALLS, Concrete

Air jets compact concrete around reinforcing in walls forms. *diags* *Eng N* 140:638 Ap 29 '48; *Abstract. Comp Air Mag* 53:197 Ag '48

Design table for reinforced concrete bearing walls. P. Rice. *Am Concrete Inst* J 19:1058-9 Je '48

Development of tilt-up construction. C. A. Clark. *il* *diags* *Am Concrete Inst* J 19:813-20 My '48

Double wall of precast concrete slabs; Metry-Hyak building, Victoria, Texas. *il* *Concrete* 56:26, 28 Je '48

Gantries move forms in assembly-line construction of flood wall. *il* *Civil Eng* 18:646-7 O '48; Same. *Concrete* 56:6-7 O '48

Insulated precast concrete wall panels prove economical substitute for brick; du Pont nylon plant at Chattanooga. C. H. Topping. *il* *diag* *Civil Eng* 18:578-81 S '48

New wall concrete construction introduced by the Modern-wall co., Osborn, Ohio. *il* *Am Bid* 70:133 S '48

Pre-cast roof and wall panels in the construction of buildings. T. C. Creaghan. *il* *Pulp & Pa* of Can 49:76-7 Ja '48

Prevention of dampness in basements. C. C. Fishburn. *diags* *Am Concrete Inst* J 19:421-36 F '48

WALLS, Concrete—Continued

- Reinforced concrete wall and column footings. F. E. Richart, bibliog. *il* diags *Am Concrete Inst J* 20:97-127, 237-60 O-N '48
- Shop-cast concrete sections, set in place, make up part of column forms in new method for building cavity walls, *il* diags *Arch Forum* 89:118 *Jl* '48
- Steel forms speed hollow wall construction. J. E. King, *il* diags *Eng N* 140:726 *My* 13 '48

Testing

- Flexure tests show strength of jetcreted dry wall block panel. *il* *Concrete* 56:32+ *Je* '48; *Constr Methods* 30:96-7 *Je* '48

WALLS, Glass

- Knock-down glass partitions and picture windows built easily with new mechanically-connected aluminum frames; Temprex Livingwall, *il* diags *Arch Forum* 88:130 *Je* '48

WALLS, Interior

- Attractive floor and wall finishes are selling aids for today's kitchens. *il* *Am Bld* 70:98-9 *Jl* '48

- Needing an interior wall in tight quarters. L. C. Jordan, diags *Eng N* 141:111 *S* 16 '48

WALTERS, Charles Sylvanus

- Half was not told; address presented at the ceremony naming the Walters hydroelectric plant of the Carolina power & light co. D. H. Ramsey, *il* *Edison Elec Inst Bul* 15:441-2+ *D* '47

WANT ads. See Advertisements, Classified—Want ads**WAR**

- Americans fear war more than British do, poll shows. *Iron Age* 162:101 *S* 30 '48

- Evitability of World war III. F. B. Krafft, *Tech R* 50:210+ *F* '48

- Increased spending can hasten war with Russia. H. L. Lutz, *Comm & Fin Chr* 167:2081+ *My* 13 '48

- Is capitalism the cause of wars? reply to Mr Vishinsky's charges. A. Wilson, *Comm & Fin Chr* 166:2157+ *N* 27 '47

- Unfounded war rumors again sweep U.S. *Bsns W* p32 *D* 6 '47

See also

- | | |
|------------------------|----------------------|
| Aeronautics, Military | Chemical warfare |
| Agriculture and war | Military engineering |
| Air raids and building | Newspapers and war |
| Biological warfare | Peace |

Economic aspects

- Economic consequences of a third World war. *Bsns W* p 19-23 *Ap* 24 '48 [reprints 10c]; *Discussion*, p50+ *My* 29 '48

- Need for strategic intelligence on economic war potential. R. A. Rowe, *il* *U S Naval Inst Proc* 74:803-15 *Jl* '48

- Postwar conditions; World wars I and II. L. T. Stevenson, *Paper Ind* 30:67-70 *Ap* '48

- Postwar I and II conditions; a comparison. A. L. M. Wiggins, *Comm & Fin Chr* 167:1861+ *Ap* 29 '48

- Prices after two wars. J. Backman, *Comm & Fin Chr* 167:1420+ *Ap* 1 '48

- Rearmament and prices. M. R. Gainsbrugh, *Comm & Fin Chr* 167:1524 *Ap* 8 '48

- What another war would mean to Soviet Union. *il* *Bsns W* p 105-6+ *Ag* 7 '48

See also**War finance**

- WAR administration**
Business in the next war, if war comes. *Elec World News* ed 129:16-17 *My* 1 '48

WAR and religion

- Churches and the clergy in World war II. R. H. Abrams, *Ann Am Acad* 256:110-19 *Mr* '48

WAR and science

- ACS president testifies before Senate committee; hearings on universal military training and selective service. C. A. Thomas, *Chem & Eng N* 26:1066-7 *Ap* 12 '48

- Can research prevent World war III? L. Reukema, *il* *Elec West* 59:63-6 *N* '47

- Science and security. E. U. Condon, *Science* 107:659-65 *Je* 25 '48

See also

- World war, 1939-1945

- Science and the war

WAR assets administration

- End of the road. *Bsns W* p36+ *S* 18 '48

- WAA going out of business. *Mill & Factory* 43:150-1 *S* '48

WAR contracts. See Contracts, Government**WAR correspondents**

- Arab censors make life miserable for press. R. C. Miller, *Ed & Pub* 81:26 *Ag* 21 '48

- Capper resolutions reopen Kennedy case. *Ed & Pub* 81:25+ *Ap* 17 '48

- Pentagon map honors 45 soliders of press. *Ed & Pub* 81:58 *S* 25 '48

Loyalty tests

- Newsman's loyalty check may be eased. *Ed & Pub* 81:6 *O* 23 '48

WAR damage corporation

- Picture of WDC results; abstract of 1947 annual report. *Nat Underw* 52:2 *Ja* 8 '48

- WDC current payments are 75 per cent of the ultimate. *Nat Underw* 51:3 *D* 25 '47

- WDC; its origin, operation, and liquidation. W. Hay, *Weekly Underw* 158:1629-32 *Je* 5 '48

WAR damage payments

- War damage; value payments. *Economist* 153:756 *N* 8 '47

WAR debts. See Debts, Public**WAR finance**

- War financing in two World wars. R. C. Leffingwell, *Comm & Fin Chr* 167:1524 *Ap* 8 '48

WAR measures**See also**

- Waterworks—War measures

WAR memorials

- Memorial in bronze and granite, depicting services performed by pharmacists. *Science* 107:564-5 *My* 28 '48

- Milwaukee's proposed memorial center. *il* *Arch Rec* 102:74-7 *N* '47

WAR production board. See United States—War production board**WAR risk insurance. See Insurance, War risk****WARDEN, Al**

- Utah sports editor develops wide beat. *por* *Ed & Pub* 81:36 *My* 22 '48

WARE, Louis, 1894-

- Sketch, *por*(cover) *Bsns W* p6 *Mr* 27 '48

WARE industries, Inc.

- Town keeps industry going; ten year review. *plan Mill & Factory* 42:135-6 *F* '48

WAREHOUSE receipts

- Field warehousing and credits. L. A. Benoit, *Credit & Fin Management* 50:16-17+ *F* '48

- We widen our field of lending with field warehouse receipts. E. L. King, *il* *Bankers Mo* 65:8+ *My* '48

WAREHOUSEMEN'S liability insurance. See Insurance, Warehousemen's liability**WAREHOUSES**

- Huge refrigerated warehouses bring model storage at Dallas. O. Leiding, *il* *plan Food Ind* 20:1284-3 *S* '48

- Industry-wide trend to new one-story warehouses. *il* *Bsns W* p24-5 *D* 13 '47

- Lowering costs by handling building materials with power equipment; Reserve supply co., St Paul, Minn. *il* *Am Bld* 70:88-9 *My* '48

- Materials handling equipment; experience of large roofing and sheet metal wholesaler; Bayonne steel products co. *il* *Sheet Metal Worker* 39:62-5 *F* '48

- New parts depots do cheaper, faster sales job for International Harvester. *il* *Bsns W* p42-4+ *Ag* 7 '48

- Palletizing doubles warehouse capacity of pole line hardware manufacturer; Oliver iron & steel corp. W. W. Hiller, *il* *Steel* 122:103, 119 *F* 2 '48

- Planned warehouse handling curtails cost and saves space; Goldblatt bros., Chicago. W. S. Wheeler, *il* *Factory Management* 106:86-8 *Jl* '48

- Social modernizes warehouse operation; speeds work, uses space efficiently. B. C. Manuel, *il* *Nat Pet N* 40:25+ *Ja* 7 '48

- Warehouse equipped to move heavy but transient stock; Crucible steel company of America, *il* *plans Arch Forum* 89:96-7 *Ag* '48

WAREHOUSES—Continued

Warehouses can also serve as sales outlets.
 Il Mod Ind 15:103+ F '48
See also
 Freight houses

Fires and fire protection

Defense Supplies recovers fire loss from
 bailees; Lawrence warehouse company
 case. Nat Underw 52:10+ F 19 '48; East
 Underw 49:27 S 3 '48

Heating and ventilation

Night air solves cooling problem; Specialties
 paper co. Il Mill & Factory 42:125 Je '48
 Temperature variations in warehousing
 citrus juice. D. W. Riester and others.
 bibliog Il diag Food Ind 20:372-5+ Mr '48

Insurance requirements

Fidelity bond to cover warehouse dishonesty
 risk. Nat Underw 52:19 Je 10 '48

WAREHOUSING

Steel warehousemen have uneasy prosperity.
 Il Bsns W p80+ Je 19 '48
 Warehousing for profit; abstract. J. D.
 Sheahan. Mod Packaging 21:151-2 Je '48
See also
 Cold storage ware-
 houses
 Warehouse receipts

WARM air heating. *See* Furnaces, Warm air;
 Heating, Warm air

WARNER, Harold, 1883-1948

Sketch. por East Underw 48:19 D 5 '47; Nat
 Underw 51:1+ D 4 '47; Weekly Underw
 157:1408+ D 6 '47

WARNER, Kenneth Bryant, 1894-1948

Tribute. pors Q S T 32:9-13 N '48

WARNER brothers pictures, inc.

Annual report. Comm & Fin Chr 167:948 Mr
 1 '48
 Securities disturbing investors. R. Colston.
 Mag of Wall St 82:295 Je 19 '48

WARREN, Dorothy

Spring and girl river columnist go together.
 Ed & Pub 81:68 Ap 17 '48

WARREN, Earl, 1891-

Governor Warren runs California with aid of
 editors, publishers. por Ed & Pub 81:10
 J1 3 '48

Newsmen give Warren preferential treat-
 ment. J. J. Butler. Ed & Pub 81:13 S 18
 '48

Portrait. Bsns W p23 D 20 '47

WARREN foundry and pipe corporation

Warren Foundry rich in iron ore reserves.
 Barron's 28:34 S 20 '48

WARSHIPS

Effect of non-contact explosions on warship
 machinery design. A. D. Bonny. Il diags
 Engineering 165:477-9, 501-3, 525-6 My 14-
 28 '48; Discussion. 165:352-3 Ap 9 '48;
 Engineer 185:356-7 Ap 9 '48

Gear noise exposes naval ships to detection
 by the enemy; how the problem is being
 attacked. G. Wohlberg. Il diag Machine De-
 sign 20:133-7+ Ag '48

Homer Clark Poundstone and the all-big-gun
 ship. D. R. Morris. Il U S Naval Inst Proc
 74:706-21 Je '48; Discussion. H. Williams.
 74:1293-6 O '48

Naval construction in 1947. F. McMurtrie. Il
 Engineer 185:17-19, supp2, 37-9, 63-4, 83-4
 Ja 2-23 '48

Steam gunboat machinery, a lightweight
 steam plant; abstract. H. A. K. Lay and
 L. Baker. Engineering 166:389; Discussion.
 389-90 O 22 '48; Engineer 186:395-6 O 15 '48

See also

Airplane carriers Torpedo boat de-
 submarine boats stroyers

Mine sweepers

Electricity in the navy; specialized equip-
 ment in H.M.S. Springtide. R. C. Gordon.
 Il Elec R (Lond) 142:571-2 Ap 16 '48
 Saga of a YMS. H. Hughes. Il U S Naval
 Inst Proc 74:52-9 Ja '48

Reconstruction

Gulf yard converts flat tops. Il Marine Eng
 63:64-5 F '48

Australia

Naval engineering and construction in Aus-
 tralia. A. B. Doyle. Il Engineering 166:132,
 141-4 Ag 6 '48

Great Britain

Behaviour of H.M. ships during the war;
 abstracts and discussion. N. G. Holt and
 F. E. Clementson. Engineer 186:367-8 O 8 '48;
 Engineering 166:377-9 O 15 '48
 Ship target and other trials. Engineer 185:
 443-4 My 7 '48
 State of the navy. Il Engineer 185:30-1 Ja
 9 '48

Japan

Akagi, famous Japanese carrier. W. L.
 Robinson. Il U S Naval Inst Proc 74:578-
 95 My '48

Portugal

Refitting of the Portuguese destroyer Douro.
 Il Engineer 185:121 Ja 30 '48

United States

Dehumidification protects materials from de-
 terioration; preservation of interiors of
 ships. G. C. Wells. Il diags Heating-Piping
 20:75-80 Ag '48

Improving interior lighting in United States
 naval vessels. E. Boghosian. Il Illus Eng
 43:754-60 J1 '48

U.S.S. Newcomb (DD 586), victim of the
 kamikazes. I. E. McMillian. Il U S Naval
 Inst Proc 74:682-9 Je '48

U.S.S. Oregon; pathfinder. W. O. Foss. Il U S
 Naval Inst Proc 74:950-5 Ag '48

WARWICK typographers

Warwick, unlimited. D. O. Pyke. Il Inland
 Ptr 120:46-8 Ja '48

WASHERS (faucet)

Nylon faucet washers. Sci Am 177:267 D '47

WASHERS (machinery)

Hand tool simplifies application of washers.
 D. G. Cochran. diag Factory Management
 106:127 Ja '48

Stress cracking of electroplated lockwashers.
 K. B. Valentine. Il Am Soc for Metals
 Trans 38:488-94; Discussion. 494-504 '47
 Theory and manufacture of helical-spring
 washers. Engineering 166:127 Ag 6 '48

Testing

Lock washer torsion test improved. Il Iron
 Age 162:94 Ag 5 '48

Special tools torsion-test lockwashers cor-
 rectly. H. Greenberg. Il Am Mach 92:87
 Ja 15 '48

WASHING apparatus

Burlington car-roof washer. Il Ry Mech Eng
 122:484-6+ S '48; Same. Ry Age 125:624-7
 O 2 '48

Car washer improves terminal service. Il Ry
 Age 125:418-19 Ag 28 '48; Same. Ry Mech
 Eng 122:455 Ag '48

Filled can washing unit. Il Engineer 186:92
 J1 23 '48

WASHING compositions. *See* Cleaning compositions**WASHING machine wringers. *See* Wringers, Washing machine****WASHING machines**

Backlog demand for consumers' durable
 goods; electric washing machines. L. J.
 Atkinson. Survey of Cur Bsns 28:19-20 Ap
 48

Buying reasons for washers. Elec West 101:
 101 Ag '48

Detergents for automatic washing machines.
 C. A. Tyler. Il Soap & San Chem 24:41-3+
 Ap '48

Displays award to General Electric for acrylic
 washing machine tub. Il Mod Plastics 26:
 124-5 S '48

Fluid coupling for washing machine agitator.
 Il diags Machine Design 20:108-9 Ja '48

Home sales are aided by automatic washers.
 Il Am Bld 69:108 D '47

Kirby, the man behind less work in the
 home. R. K. Lotz. Il diag Machine Design
 20:110-12 J1 '48

Laundrell spurs sales with free-for-all prize
 contest; dealers, dealer salesmen, whole-
 sale salesmen. Il Sales Management 59:
 110+ N 10 '47

WASHING machines—Continued

- Lavish prizes spur Bendix toward \$85,000,000 sales goal. W. F. Linville. *Il Sales Management* 59:37-9 D 1 '47
- Maytag, behind on deliveries, finds rental plan saves many a sale. V. R. Martin. *Il Sales Management* 60:42-4 Ap 15 '48
- Pattern for washing machines; competition brings improved models, price cuts, new brands. Bsns W p39+ My 15 '48
- Pulsating action for automatic washer. *Il diags Product Eng* 18:96-8 N '47
- Soap injector for automatic washer. *Il Mod Plastics* 26:84 O '48
- Toggle positions washer drain valve. *Il diags Machine Design* 20:163 Je '48
- Transparent washing machine uses acrylic. *Il Mod Plastics* 25:19 Ap '48
- Washer boom. *Il Bsns W* p44-7 Ja 31 '48
- Washing machine for piece goods; British patent. *diags Am Dyestuff Rep* 37:245 Ap 5 '48
- Water power washing machine. *Il diags Product Eng* 19:100 O '48

Advertising

- Copy clinic. B. Tyler. *Il Adv & Sell* 41:127 Mr '48
- Display and demonstration help dealers tie in with national ads; campaigns of Bendix home laundry units and California-Arizona grapefruit. *Il Ptr Ink* 224:43+ JI 23 '48
- Make them want to make them wait; Bendix home appliances. *Il Ptr Ink* 222:42-3 F 6 '48

Manufacture

- Deep-drawing washer tubs with less than one percent loss. *Il Cer Ind* 50:47-8 F '48
- Enterprise in south Wales; new factory for Hoover washing machines opened. *Il Electrician* 141:1153-4 O 15 '48; *Elec R (Lond)* 143:631 O 22 '48
- Improved materials handling means more washing machines; F. L. Jacobs co. B. V. Eastman. *Il Am Mach* 92:104-6 Je 17 '48

Rating

- Automatic washing machines. *Il Consumers Res Bul* 21:5-6 F; 11-14+ Je '48
- Non-automatic power-wringer type washing machine. *Il Consumers Res Bul* 21:23 Je '48
- Two more small or personal washing machines. *Il Consumers Res Bul* 20:5-6 N '47

Testing

- Testing company to produce standard soiled fabrics for evaluating detergents and washing machines. *Ind Stand* 19:125 S '48

WASHING machines (for metal parts)

- Greasy parts cleaned without hazard. *Il Coal Age* 53:132 Je '48
- Metal cleaning processes; solutions, safeguards and equipment. L. Sanderson. *Chem Age (Lond)* 58:613-15 My 1 '48
- Washing machine for cylinder blocks. *Il Automotive Ind* 98:29 Ap 15 '48

WASHINGTON, D.C.

- Metropolitan area regulation for borderline cities; is an interstate form of control for public utilities needed? A. Haines. *map Pub Util* 41:552-7 Ap 22 '48

Bibliography

- Washington yesterday and today; suggested reading. E. Lacy. *comp. Special Lib* 38:340-1 D '47

Rapid transit

- Current developments in rate making; Capital Transit case. F. G. Awalt. *Pub Util* 42:629-34 O 21 '48

Streets

- Washington's limited access highway. L. R. Watson, Jr. and R. A. Boucher. *Il Pub Works* 79:28-9 My '48

Water supply

- De-chlorination at the Washington aqueduct. C. J. Lauter. *Am Water Works Assn J* 39:1237-40 D '47

WASHINGTON (state)

- See also
- | | |
|--|--|
| Gold mines and mining—Washington (state) | Silver mines and mining—Washington (state) |
|--|--|

Industries and resources

- Appraisal of the Pacific Northwest. M. W. Lee. *Harvard Bsns R* 26:282-304 My '48

WASHINGTON, Mount

- Mount Washington observatory; America's original mountain weather station. D. H. Chapman. *bibliog Heating-Piping* 20:113-18 JI '48

- Worst weather in the world; Mount Washington's natural testing laboratory. M. Sheridan. *Il Sci Am* 178:154-6 Ap '48

WASHINGTON academy of sciences

- New officers. *Science* 107:163-4 F 13 '48

WASHINGTON award

- Washington award for 1948 presented to Ralph Edward Flanders; presentation Feb. 11 by T. G. LeClair; address by R. E. Flanders. *Il Western Soc E J* 53:2-18 Mr '48

WASHINGTON gas light company

- Gas grows with Washington; first century of progress observed. *Il Am Gas Assn Mo* 50:11 S '48

- Public utility securities. *Comm & Fin Chr* 166:2620 D 25 '47

- Washington, D.C. celebrates a century of gas service. H. F. Hetrick. *Am Gas J* 169:11-13 S '48

- Washington gas light co. celebrates centennial of service. *Il Gas Age* 102:24-5+ Ag 5 '48; *Pub Util* 42:241-3 Ag 12 '48

WASHINGTON post

- Control of Washington post goes to Grahams. *Ed & Pub* 81:10 JI 24 '48

WASHINGTON Times-Herald

- Employee get Times-Herald under Mrs Patterson's will. J. J. Butler. *Ed & Pub* 81:5+ JI 31 '48

- Patterson will contest weighed by attorneys. *Ed & Pub* 81:11 Ag 7 '48

- Shelton is designated to run Times-Herald. *Ed & Pub* 81:63 O 16 '48

WASHROOMS. See Lavatories**WASTE**

- Can you spotlight handling wastes? *Il diag Mod Ind* 15:40-5 F '48

- Posters and pennies launch \$100,000 waste campaign. C. E. Lauterbach. *Il Factory Management* 106:113-15 Je '48

- Reducing operating waste reduces operating costs. E. Mottershead. *Mill & Factory* 42:127-8 Mr '48

- Scrap report [hold-ups and breakdowns] cuts spoilage 73 per cent the first year; Dexion, Ltd., London, England. D. Comino. *Factory Management* 106:116-17 O '48

- War on waste; abstract. *Management R* 37:413-14 Ag '48

- War on waste reduces losses, ups morale; W. J. Volt rubber corp. *Il Am Bsns* 18:30 JI '48; *Rubber Age* 63:472 JI '48

- What the foreman can do to conserve materials. E. Mottershead. *Mill & Factory* 42:114-15 My '48

See also

- | | |
|---------------------------|-------------|
| Conservation of resources | Scrap metal |
| Exhaust steam | Trade waste |
| Metal waste | Waste fuel |
| Paper mills—Waste | Waste heat |
| Salvage (waste, etc.) | Waste paper |
| | Wood waste |
| | Wool waste |

WASTE, Utilization of

- Chemical precipitation of meat packing wastes. M. D. Sanders. *flow sheet Ind & Eng Chem* 40:1151-2 Je '48

- Importance of economic considerations in wood-waste utilization research. R. K. Winters. *map Paper Tr J* 127:22+ JI 15 '48

- Pulp and paper mill reduces pollution of Clarion river in Pennsylvania. C. L. Siebert. *Water & Sewage Works* 94:449-51 D '47

- What is worth what? Berliners are meeting shortages. *Fortune* 37:122+ My '48

See also

- Rubber waste
Waste products

WASTE disposal. See Refuse disposal; Sewage disposal; Trade waste**WASTE fuel**

- Burn acid sludge under boilers. D. P. Thornton, Jr. *flow diag Il Pet Processing* 3:981-2+ O '48

- Combustion problems of various fuels. H. C. Carroll. *Western Soc E J* 52:181-8 D '47

WASTE fuel—Continued

Developments in kraft-process recovery-unit design and performance. R. K. Allen, flow sheet il diags A S M E Trans 70:709-14 Ag '48; Same. Paper Tr J 126:43-8 Mr 25 '48; Discussion. A S M E Trans 70:714-17 Ag '48

Furnaces for by-product fuels. O. de Lorenzi, il diags A S M E Trans 70:351-8 My '48; Excerpts. Power 92:53 Ja '48; Pet Processing 3:140-1 F '48; Discussion. A S M E Trans 70:358-62 My '48

Recovery of chemicals and energy in the sulphite process through the use of magnesium as a base. R. S. Hatch, Pulp & Pa of Can 48:85-7 D '47

Ten years' experience burning lignite and discarded slack coal. A. R. Eastcott, il diag Power 92:276-9 My '48

WASTE heat

Case for the heat pump; economies in treatment of cooling water for space heating purposes. J. Butler, diag Chem Age (Lond) 57:757-60 D 13 '47

Harnessing heat from reaction vessels; economies at a Russian chemical works. Chem Age (Lond) 57:653 N 15 '47

Heat recovery utilizing flash steam regeneration. M. C. McKeown, il diag Power Generation 52:118+ Mr '48

Heating water with waste heat. L. G. Janett, diags Paper Tr J 126:58-6 Mr 25 '48; Same cond. Paper Ind 29:1662-4 F '48

Recover waste heat from cupolas; Tex-Ark rock wool corp. B. Nordberg, il plan diags Rock Prod 51:88-94 Jl '48

Recovery of heat and chemicals in sulphate recovery furnace stack gases. T. T. Collins, Jr. and R. H. Collins. Paper Ind 29:1608-11, 1766-71 bibliog(p 1770-1) F-Mr '48

Waste heat drying system. T. W. Garve, plan diags Am Cer Soc Bul 27:296-8 Ag 15 '48

Wasted B.t.u.'s recovered by heat exchanger. W. T. Harding, Jr. il diag Textile World 98:120-1 Ap '48

See also

Boilers, Waste heat
Heat exchangers

WASTE heat boilers. See Boilers, Waste heat

WASTE material dealers, National association of. See National association of waste material dealers

WASTE paper

Biological treatment of deinking waste. P. F. Morgan, il Paper Tr J 126:41-5 My 13 '48

De-inking machine offers aid for Europe. K. Wandel, Ed & Pub 81:28 Jl 3 '48

Lauds National waste paper committee. C. S. Baker, Paper Tr J 127:10 Jl 15 '48

Mill attitude toward standards. H. C. Sackett, Paper Tr J 127:8 Jl 1 '48

New de-inking process claims many economical features. Paper Tr J 126:44 Ap 22 '48

Paper for re-use; Gary mill to de-ink used newsprint by new cold-water process. Bsns W p71-2 F 14 '48

Paper mill goes modern; now de-inks with peroxide. J. A. Lee, flow sheet(p146-9) il Chem Eng 55:106-9 Ja '48

Possible benefits of standards to waste paper dealers. H. C. Resnick, Paper Tr J 127:9+ Jl 1 '48

Six Michigan mills to attack de-inking waste problem. Paper Tr J 126:7+ Ap 23 '48

Value of standards in intra-industry relations. F. Block, Paper Tr J 127:8-9 Jl 1 '48

WASTE products

Electrolyzing sodium sulphate waste from spinning bath recovery in viscose process. P. W. Frisk, bibliog diags Rayon 29:51-3 F '48

From waste pulp of the coffee bean comes a new corn-substitute cattle feed. Science 108:519 N 28 '47

Microbiological utilization and disposal of wood-processing wastes. E. E. Harris and M. C. Johnson, bibliog Paper Ind 30:940-2 S '48

Odor control problem in processing penicillin culture medium for recovery of vitamin-rich by-product. il diag Heat & Ven 45:101 Jl '48

Quaker Oats nurses a stepchild product to volume and profits; furlural. L. B. Hitchcock, il Sales Management 60:37-9 Ja 1 '48

Recovery of heat and chemicals in sulphate recovery furnace stack gases. T. T. Collins, Jr. and R. H. Collins. Paper Ind 29:1608-11, 1766-71 bibliog(p 1770-1) F-Mr '48

See also

Blast furnace gas
Coke manufacture—

By-products

Coke-oven gas

Farm produce—By-

products

Flue dust

Flue gas

Lignin

Metal waste

Packing houses—By-

products

Paper making—By-

products

Rubber waste

Salvage (waste, etc.)

Scrap metal

Sewage sludge

Slag

Straw

Sulfate liquor

Trade waste

Waste, Utilization of

Waste paper

Wood waste

WATCH factories**Employees**

Movie used to combat turnover; Hamilton watch co. L. S. Metcalfe, il Mill & Factory 42:134 Ap '48

WATCHES

Exports of watches and clocks, Switzerland. For Comm W 32:32-3 S 25 '48

New timepiece hairspring made of Elinvar Extra; abstract. Mech Eng 69:941 N '47

Situation in Switzerland's watch industry. For Comm W 31:23 Ap 24 '48

Sweden's watch trade. For Comm W 32:37 S 4 '48

U.S. exports of clocks and watches; 1946 and first nine months of 1947. For Comm W 29:22 N 22 '47

Manufacture

Bright hardening and tempering tiny parts. H. L. Hovis and A. W. Marks, il Am Mach 92:91-4 F 12; 112-15 F 26 '48

Testing

Watch timer. R. S. Mackay, Jr. and R. R. Soule, diags Electronics 21:160+ F '48

WATCHMEN

How to schedule watchmen. E. Guilbert. Safety Eng 95:48-9 F '48

Plant guards; NLRB problem; what kind of plant police union is legal. Bsns W p86+ F 28 '48

Throw your fire troubles away; central station services; fire detection, alarm and watchman's systems. R. K. Hyde, il diag Safety Eng 96:10-13+ Ag '48

Watchman safety; industrial data sheet. il Nat Safety N 56:40+ N '47

WATER

Action of natural waters on lead. G. Miles, bibliog Soc Chem Ind J 67:10-13 Ja '48

Additional rotational energy levels of H₂O and D₂O molecules. N. Ginsburg, bibliog Phys R 74:1052-7 N 1 '48

Condensation of water, styrene, and butadiene vapors; pure components and constant boiling mixtures. D. A. Edwards, C. F. Bonilla and M. T. Cicchelli, bibliog diags Ind & Eng Chem 40:1105-12 Je '48

Determination of small amounts of water in chloral. T. P. G. Shaw and T. Bruce, Anal Chem 19:884-5 N '47

Determination of small amounts of water in gases and liquids by infrared spectrometry. A. F. Benning, A. A. Ebert and C. F. Irwin, il Anal Chem 19:867-8 N '47

Determination of water in alkylation sulfuric acid. W. H. Goff, W. S. Palmer and R. F. Huldorff, bibliog diag Anal Chem 20:344-6 Ap '48

Determination of water in bleaching powder. J. Goldenson and C. E. Danner, bibliog diag Anal Chem 20:359-60 Ap '48

Dielectric properties of aqueous ionic solutions. J. B. Hasted and others, bibliog diags J Chem Phys 16:1-21 Ja '48

Distribution of water in cellulose and other materials. R. Simha and J. W. Rowen, bibliog Am Chem Soc J 70:1663-5 Ap '48

Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton, il J Phys & Colloid Chem 52:490-517 bibliog(64 ref, p516-17) Mr '48

WATER—Continued

- Heat transfer through boiling liquid films. F. Rumpf, bibliog diag Soc Chem Ind J 66:309-12 S '47
- Heat transfer to boiling styrene and butadiene and their mixtures with water. C. F. Bonilla and A. A. Eisenberg, bibliog diag Ind & Eng Chem 40:1113-22 Je '48
- Heat transfer to water boiling under pressure. E. A. Farber and R. L. Scorch, bibliog il diags A S M E Trans 70:369-80; Discussion. 380-4 My '48
- Interesting case of water undercooling. E. C. McCracken, Science 106:453 N 7 '47
- Interfacial tension by the ring method; the benzene-water interface. H. L. Cupples, bibliog J Phys & Colloid Chem 51:1341-5 N '47
- Origin of ultrasonic absorption in water. L. Hall, bibliog Phys R 73:775-81 Ap 1 '48
- Radiation chemistry of aqueous solutions. A. O. Allen, bibliog J Phys & Colloid Chem 52:479-90 Mr '48
- Review of data on dynamic viscosity of water and superheated steam. G. A. Hawkins and others, bibliog A S M E Trans 70:19-23 Ja '48
- Study of the Berthelot method for determining the tensile strength of a liquid. A. F. Scott and others, bibliog diags J Chem Phys 16:495-502 My '48
- Surfaces of solids; the heats of emersion and desorption of water from graphite at 25°. P. R. Basford, G. Jura and W. D. Harkins, bibliog Am Chem Soc J 70:1444-50 Ap '48
- Use of tritium in the determination of the solubility of water in solvents; the solubility of water in benzene. G. G. Joris and H. S. Taylor, bibliog diags J Chem Phys 16:45-51 Ja '48
- Vapor pressure, specific volumes, and p - v - T data for H_2O , NH_3 , CH_4 , C_2H_6 with comments on mixtures. F. G. Keyes, bibliog A S M E Trans 70:841-4 Ag '48
- Water; chemical properties which affect its use in extinguishing fires. W. O. Lincoln, Spectator (Property ed) 13:12+ F 12; 20+ F 26 '48
- Water determination in Freon-12 by infrared spectrophotometry. A. F. Benning and others, il diags Refrig Eng 55:166-70 F '48
- Water for making concrete. Am Concrete Inst J 19:414-16 Ja '48
- Wetted water penetrates better for fighting fires. D. S. Marstan, il Safety Eng 95: 28-30 My '48
- What about this wet water? P. W. Kearney, Safety Eng 94:30-1 D '47
- See also**
- | | |
|-----------------------------|-------------------------------------|
| Cooling water | Irrigation |
| Drinking water systems | Lakes |
| Drying | Moisture |
| Feed water | Pumping |
| Fire service (water supply) | Rain and rainfall |
| Floods | Rivers |
| Humidity | Sea water |
| Hydraulic engineering | Solution (chemistry) |
| Hydraulics | Steam |
| Ice | Water supply and beginning headings |
| Ice on rivers, lakes, etc. | Waterways |
| | Waves |
| | Wells |
- Analysis**
- Action of natural waters on lead. G. Miles, bibliog Soc Chem Ind J 67:10-13 Ja '48
- Chemical quality of underground water supplies. J. R. Rossum, il Water & Sewage Works 95:69-71 F '48
- Determination of carbon dioxide in water; improved evolution method. F. E. Clarke, bibliog diag Anal Chem 19:889-91 N '47
- Determination of chlorine dioxide and other active chlorine compounds in water. J. F. Haller and S. S. Listek, bibliog diag Anal Chem 20:639-42 J '48
- Determination of deuterium in water; mass spectrometric method. R. B. Fischer, R. A. Potter and R. J. Voskuyl, bibliog Anal Chem 20:571-2 Je '48
- Determination of small concentrations of calcium and magnesium by titration with standard soap solution; comparison with gravimetric results. J. W. McCoy, Anal Chem 19:1002-3 D '47
- Determination of small quantities of phenols in water; abstract. F. C. Basavilbaso, Am Water Works Assn J 39:1164 N '47
- Determination of the time of passage of pollution in the Androscoggin river and pond. W. A. Lawrance, Sewage Works J 20:381-96 S '48
- Determination of zinc in water, sewage and industrial wastes by means of di-beta-naphthylthiocarbazono. L. Rubin and A. Levine, bibliog N E Water Works Assn J 61:267-78 S '47
- Flame spectrophotometer determines mineral content in water rapidly, il Eng N 140: 552 Ap 29 '48
- Gravimetry of heavy water; new reference liquids for the falling-drop method and precision attainable. V. J. Frilette and J. Hanle, bibliog Anal Chem 19:984-7 D '47
- pH determination in condensate well waters. D. A. Shock, il diag World Oil 128:141-2 J '48
- Improved residual chlorine test. F. W. Gilcreas, Water & Sewage Works 95:R169-60 Ap '48
- Operation of water treatment plants; third edition, rewritten. il diags Pub Works 79: 35-8 Ap '48
- Tasteless residual at the tap. K. S. MacLeod, il Water & Sewage 86:22-3+ Ag '48
- La turbidité des eaux. A. Vibert, Génie Civil 124:410-12 N 1 '47
- Two new total alkalinity indicators. M. Taras, Am Water Works Assn J 40:468-72 Ap '48
- Use of the dropping-mercury electrode for the continuous measurement of dissolved oxygen in flowing water. W. A. Spoor, diag Science 108:421-2 O 15 '48
- Water-testing instruments for chemical treatment. il Engineer 185:480-1 My 14 '48
- See also**
- Sea water—Analysis
- Bacteriology**
- Analysis of water-borne outbreaks, 1938-45. R. Eliassen and R. H. Cummings, Am Water Works Assn J 40:509-28 My '48
- Bacterial removal by lime-alum and alum-clay flocs. W. L. Mallmann and D. Kahler, bibliog diags Am Water Works Assn J 40: 615-24 Je '48
- Baltimore water sampling methods. G. W. Schucker, maps Am Water Works Assn J 40:625-30; Discussion. W. H. Cary, Jr. 630-1 Je '48
- Chlorine dioxide for water treatment. il Water & Sewage 86:27-9+ Mr '48
- Effect of chemical agents on iron bacteria. K. Duchon and L. B. Miller, bibliog il Paper Tr J 126:47-58 Ja 22 '48
- Iron bacteria in industrial process water. L. B. Miller, bibliog il Rayon 29:77-80 My '48
- New vistas in water quality research. W. W. DeBerard and J. R. Baylis, il diag Eng N 140:639-42 Ap 29 '48
- Operation of water treatment plants; third edition, rewritten. Pub Works 79:38+ Ap '48
- Deactivation and deaeration**
- Chemical fixation of oxygen; problem of corrosion in industrial water supplies. D. J. Pye, flow diag il Am Water Works Assn J 39:1121-7 N '47
- Deaeration of boiler feedwater for atomic power plants. S. D. Distelhorst, il Power Pl Eng 51:107-8 D '47
- Electric properties**
- Corona from a water drop. W. N. English, bibliog il diags Phys R 74:179-89 J 15 '48
- Measurement of the dielectric properties of soils and water at 3.2 cm. wave length. A. W. Stratton and C. W. Tolbert, diag Franklin Inst J 246:13-20 J '48
- Stark spectrum of H_2O . S. Golden and others, bibliog Phys R 73:92-3 Ja 1 '48
- Variation of the complex dielectric constant with frequency. H. C. Bolton, bibliog J Chem Phys 16:486-9 My '48
- Hardness**
- Calcium ion activities in supersaturated solutions stabilized by sodium metaphosphate as determined by clay membrane electrodes. R. F. Reitemeier and A. D. Ayers, bibliog Am Chem Soc J 69:2759-61 N '47

WATER—Hardness—Continued

Total raw-water hardness from ionic analysis; chart; data sheet. Power 92:371 Je '48

See also
Water softening

Heavy water

Additional rotational energy levels of H_2O and D_2O molecules. N. Ginsburg. bibliog Phys R 74:1052-7 N 1 '48

Gravimetry of heavy water; new reference liquids for the falling-drop method and precision attainable. V. J. Frllette and J. Hanle. bibliog Anal Chem 19:984-7 D '47

Infra-red spectrum of heavy water vapor. F. P. Dickey and H. H. Nielsen. bibliog Phys R 73:1164-73 My 15 '48

Precision ultrasonic interferometer for liquids and some velocities in heavy water. D. R. McMillan, Jr. and R. T. Lagemann. bibliog diags Acoustical Soc Am J 19:956-60 N '47

Rate of exchange of cellulose with heavy water. V. J. Frllette, J. Hanle and H. Mark. bibliog diags Am Chem Soc J 70:1107-13 Mr '48

Solubility of salts in deuterium oxide. E. C. Noonan. bibliog diag Am Chem Soc J 70:2915-18 S '48

Stark spectrum of HDO . M. W. P. Strandberg and others. bibliog Phys R 73:188 Ja 15 '48

Optical properties

Refractive indices of alcohol, water, and their mixtures at high pressures. J. S. Rosen. bibliog diag Opt Soc Am J 37:932-8 N '47

Temperature coefficient of the refractive index of water. J. B. Hawkes and R. W. Astheimer. bibliog Opt Soc Am J 38:804-6 S '48

Temperature

See also
Lakes—Temperature Water, Underground
Ocean temperature —Temperature

WATER, Canned. See Canned water

WATER, Distilled

Distillation of sea water by the vapor-compression method. J. J. Campobasso. flow diag il Am Water Works Assn J 40:547-52 My '48

Fresh water from the sea. C. A. Hampel. bibliog il diags Chem & Eng N 26:1982-5 Jl 5 '48

Preparation of chlorine-demand-free water. S. Megregian. Pub Health Rep 63:137-41 Ja 30 '48; Same. Water & Sewage 86:25-4 F '48

WATER, Underground

Abstracts of papers at Geological society of America Section B meeting, Chicago, Dec. 26-27, 1947. Geol Soc Bul 58:1271-80 pt 2 D '47

Chemical quality of underground water supplies. J. R. Rossum. il Water & Sewage Works 95:69-71 F '48

Correlation of connate water with permeability. J. C. Calhoun, Jr. Oil & Gas J 47:241 My 20 '48

Ground water; abstracts and discussions of A.W.W.A. papers. Water & Sewage Works 95:245-8 Jl '48

Ground-water symposium. F. H. Klaer and others. Science 107:56 Ja 16 '48

Ground water's role in power production. M. W. Kyler. Paper Tr J 127:43 O 28 '48

How to use groundwater without pumping it from wells; heat pump installations. G. E. Clancy. il diags Heating-Piping 19:90-3; Discussion. R. R. Storm. 104-5 D '47

Policies and problems in controlling ground water resources; with digest of water laws, 1948. H. T. Critchlow. Am Water Works Assn J 40:775-83 Jl '48

Proper development of ground water. E. W. Bennison. Am Water Works Assn J 40:771-4 Jl '48; Abstract. Eng N 140:952 Je 10 '48

Protection of ground water in Long Island. Pub Works 79:48 Je '48

Report on ground water by the research committee of the Society of economic geologists. O. E. Meinzer. Econ Geol 42:672-5 N '47

River infiltration as a source of ground water supply. R. G. Kazmann. il map diag Am Soc C E Proc 73:837-53 Je '47; Discussion. 74:355-6, 687-9 Mr, My '48

Sanitary sewer system designed to lower ground water level. G. H. Brodrick. il diags Pub Works 79:26-7 Ja '48

Subsidence of the Terminal Island—Long Beach area, California; effect of water and oil pumping. F. R. Harris and E. H. Harlow. il plans diags Am Soc C E Proc 73:1197-218 bibliog(p 1217-18) O '47; Discussion. 74:397-9, 788-92 Mr, My '48

Water spreading and conservation. Water & Sewage 86:19-4 Jl '48

See also
Hot springs
Mineral waters
Wells

Bibliography

Bibliography and index of publications relating to ground water prepared by the Geological survey and cooperating agencies. G. A. Waring and O. E. Meinzer. U S Geol S Water-supply Pa 992:1-412; pa \$1 Supt. of doc. '47

Cooling uses

Reducing refrigeration costs in the dairy plant. R. J. Ramsey. diags Food Ind 20:686-7-4 My '48

Temperature

Temperature and heat flow in a well near Colorado Springs. F. Birch. map Am J Sci 245:733-53 D '47

Arizona

Association to protect Salt River Valley water. Eng N 139:837 D 18 '47

OK. Arizona groundwater control code. Eng N 140:525 Ap 8 '48

Colorado

Temperature and heat flow in a well near Colorado Springs. F. Birch. map Am J Sci 245:733-53 D '47

Iwo Jima

Geology and ground-water resources of Iwo Jima. F. A. Swenson. bibliog maps Geol Soc Bul 59:995-1008, pl 1-2 O '48

Kentucky

Some solutional features of the limestone near Lexington, Kentucky. D. K. Hamilton. maps diags Econ Geol 43:39-52 Ja '48

Minnesota

Geology and underground waters of northeastern Minnesota. G. A. Thiel. (Minnesota geol. survey bul. 32) 247p pa \$1 Univ. of Minnesota press, Minneapolis '47

Mississippi valley

Ground-water conditions and problems in the upper Mississippi River embayment. R. Schneider. bibliog map diag Econ Geol 42:626-33 N '47

Puerto Rico

Geology and ground-water resources of Puerto Rico. C. L. McGuinness. il Econ Geol 42:563-71 S '47

WATER collectors, Ranney. See Ranney water collectors

WATER companies**Forest properties**

Forestry operations of the New Haven water company. R. C. Hawley. N E Water Works Assn J 61:235-7 S '47

Is forestry on municipal water sheds financially profitable? abstract. C. M. Saville. Pub Works 79:58 Jl '48

Management

Watershed practices of Bridgeport hydraulic company with particular reference to aerial watershed surveys. F. B. Silliman. N E Water Works Assn J 61:302-10; Discussion. 310-11 D '47

WATER conduits

Extension of number three conduit at Syracuse. E. P. Stewart. il Am Water Works Assn J 40:657-62 Je '48

WATER conduits—Continued

Friction coefficients in a large tunnel. G. H. Hickox and others. bibliog il plan diags Am Soc C E Proc 73:451-70 Ap '47; Discussion. 73:973-4, 1122-38, 1307-9, 1450-4; 74:867-72 Je, S-N '47, Je '48

WATER conduits, Concrete

Design of steel-lined concrete pressure conduits. D. B. Gumensky and P. F. Chu. il diags Civil Eng 18:700-1 N '48
Seven-mile tunnel has eight line changes; Baltimore's water supply conduit. il map Eng N 141:83-7 O 28 '48

See also

Flumes, Concrete

WATER conservation

Conservation and control of Texas water resources. E. V. Spence. Am Water Works Assn J 40:445-53 Ap '48

Conservation and water supply. A. S. L. Barnes. bibliog il map Water & Sewage 86:70-4+ Ap '48

Pacific ocean, California's last water hole. R. G. Folsom. bibliog il diag Elec West 101:104-7 S '48

Policies and problems in controlling ground water resources; with digest of water laws, 1948. H. T. Critchlow. Am Water Works Assn J 40:775-83 J '48

See also

Water companies—

Forest properties

Water waste

WATER coolers, Electric. See Electric water coolers

WATER cooling towers. See Cooling towers

WATER damage insurance. See Insurance, Water damage

WATER departments

Water department in city planning. F. A. Cuthbert. Am Water Works Assn J 40:385-90; Discussion. O. K. Jensen. 390-2 Ap '48

WATER distribution

Charts for determining equivalent pipes and loop flow distribution. H. W. Clark. Water & Sewage Works 95:R81-4 Ap '48

Controls make hydro-pneumatic tanks. W. L. West. diags Power 92:529-31+ S '48

Dual water-supply system at South Porcupine, Ont., to be unified. map Water & Sewage 86:22-3+ Ja '48

Flushometer valve problems in temporary shut-offs. A. P. Bell and W. H. Cary, Jr. Am Water Works Assn J 40:504-8 My '48

Freeing curb boxes of debris. H. H. Smith. Pub Works 78:39 N '47

Hydraulics of hydropneumatic installations; compressed air in tank provides pressure for water distribution. O. G. Goldman. diags Am Water Works Assn J 40:144-58 F '48

Operation of pneumatic storage tanks. J. B. Wilkinson. Water & Sewage Works 95:135-7 Ap '48

Reducing unaccounted-for water. C. Haydock. Am Water Works Assn J 39:1204-7; Discussion. 1207-10 D '47

Selection and control of sampling points in distribution systems. K. W. Brown. Am Water Works Assn J 39:1128-32 N '47

Storage on the distribution system. C. B. Burdick. Water & Sewage Works 95:R105-8 Ap '48

Tri-valve manifold controls water flow. il diag Eng N 140:436-7 Mr 18 '48

2700-ft. line to serve 12 customers; Corry, Pa. H. A. Gilbert. Pub Works 79:44 S '48

Water supply to rural areas around Vancouver. W. E. Powell. il map Water & Sewage 86:21-5+ Je; 27-9+ J '48

Water works and sewerage in the Far North; distribution system at Flin Flon, Manitoba. M. A. Roche. il Pub Works 79:21-2+ Ag '48

See also

Aqueducts

Hydrants

Hydraulics

Pumping stations

Water flow

Water hammer

Water pipes

Waterworks

Cost

Determination of economical pipe diameters in distribution systems. V. C. Lischer. bibliog Am Water Works Assn J 40:849-67 Ag '48

Sanitary sewer and water main extensions, McKenzie, Tenn.; unit prices. Eng N 139:764 N 27 '47

Watermain, Jefferson, Ga.; unit prices. Eng N 140:141 Ja 22 '48

Watermains and sewers, Montgomery county, Md.; unit prices. Eng N 141:82 J1 22 '48

Cross connections

Cross-connection survey. E. J. Allen. Am Water Works Assn J 40:641-6 Je '48

WATER flow

Charts aid in solving problems of flow in open channels. C. Freeman. Civil Eng 18:585-7 S '48

Computing water flow; with chart. W. F. Schaphorst. Roads & Sts 91:87+ Je '48

L'écoulement des fluides en régime turbulent; la formule de Colebrook. A. Vibert. bibliog Génie Civil 124:471-3 D 15 '47

Equipment and procedure for long line hydraulic studies. F. C. Scooby. bibliog il Am Water Works Assn J 39:1191-203 D '47

Flow of boiling water through nozzles, orifices and pipes. J. G. Burnell. il Engineering 164:572-6 D 12 '47

Flow of fluids in pipes. E. C. Petrie. il Dom Eng 170:111-13+ N '47

Friction losses in screwed iron tees. J. W. Hoopes and others. bibliog il diags Chem Eng Prog 44:691-5; Discussion. 695-6 S '48

Hydraulics for the practical water works man (cont). R. W. Angus. diags Water & Sewage Works 94:405-8; 95:13-16, 85-7 N '47, Ja, Mr '48

Investigation of the variation in heat absorption in a pulverized-coal-fired water-cooled steam-boiler furnace; variations as shown by density and velocity measurements of fluid within a tube. A. R. Mumford and C. G. R. Humphreys. bibliog il plan diags A S M E Trans 70:587-600 J1 '48

Prediction of pressure drop during forced-circulation boiling of water. R. C. Martirelli and D. B. Nelson. bibliog A S M E Trans 70:695-702 Ag '48

Pressure loss for liquid flow in pipes; viscosity and pipe roughness corrections. R. D. Madison and W. R. Elliot. bibliog Chem Eng Prog 44:703-6 S '48

See also

Venturi meters

Weirs (measuring)

WATER fronts

Redevelopment plan for Grand Haven. il plans Arch Rec 103:92-7 F '48

WATER gages

Water column as a safety device. C. C. Custer. diags Power Generation 52:78-80 S '48

WATER hammer

Hydraulics for the practical water works man; pressures in pipes due to sudden changes of flow. E. W. Angus. diags Water & Sewage Works 95:85-7 Mr '48

Practical aspects of water hammer. S. L. Kerr. Am Water Works Assn J 40:599-605 Je '48; Abstract. Water & Sewage Works 95:249 J1 '48

WATER heaters

Curses and blessings of a hot process heater and softener. W. F. Lorge. diags Power Generation 52:82 Ag '48

Figuring hot water demand; sizing water heaters for commercial, industrial and domestic installation. R. H. Emerick. diag Dom Eng 172:98-101+ Ag '48

How to sell and install water heating for commercial kitchens. il diags Dom Eng 172:116-23+ O; 118-20+ N '48 (to be cont)

Large volume water heating; recovery water heating systems. M. B. Mackay. diags Am Gas J 167:22-4 S; 43-6 N '47; 169:26-30+ J1; 22-3 Ag '48

Waste heat boilers and water heaters. il Diesel Power 25:53-5 D '47

See also

Electric water

heaters

Gas water heaters

Hot water supply

Manufacture

Rheem is out to build a household name. il Bsns W p58+ J1 31 '48

Rating

Tankless water heaters. il diags Consumers Res Bul 21:13-16 My '48

WATER heating

Heat transfer from single horizontal wires to boiling water. W. H. McAdams and others. *bibliog diags Chem Eng Prog* 44: 639-46 Ag '48

See also

Hot water supply
Water heaters

WATER in the body

Apparatus and method for the continuous measurement of evaporative water loss from human subjects. E. D. Palmes. *bibliog diags R Sci Instr* 19:711-17 O '48

Effect of morphine addiction on blood, plasma, and extra-cellular fluid volumes in man. H. Isbell. *bibliog Pub Health Rep* 62:1499-513 O 17 '47

WATER jet

Water-jet air blast. W. Prandtl. *il J Chem Educ* 24:561-2 N '47

WATER laws and legislation

Court decision on mill waste discharge; Supreme judicial court of Maine in equity decision against paper companies discharging sulphite waste liquor into Androscoggin river. *Pub Works* 79:22 P '48

Effect on stream pollution legislation and control. D. E. Bloodgood. *Am Soc C E Proc* 74:1048-51 S '48

Federal and interstate pollution abatement programs. L. E. Longdon. *il map Midwest Eng* 1:7-9 O '48

Federal legislation on water pollution control. A. D. Weston. *Paper Tr J* 126:92+ F 26 '48

Federal water pollution control act analyzed. *Paper Tr J* 127:22+ O 21 '48

Industrial stream pollution regulations. V. L. King. *Sewage Works J* 20:679-81 JI '48

New federal water pollution control act; its significance to petroleum refiners. W. B. Hart. *Pet Processing* 3:827-8 S '48

Policies and problems in controlling ground water resources; with digest of water laws. 1948. H. T. Critchlow. *Am Water Works Assn J* 40:775-83 JI '48

Pollution abatement; appraisal of current regulations; with analysis of antistream pollution legislation in United States, its territories, and Canada. A. Anable and R. P. Kite. *il map Chem Eng Prog* 44:3-16 Ja '48; *Discussion*. 44:397-8 My '48

Proposed water pollution legislation. M. LeBosquet, jr. *Water & Sewage Works* 94: 427-30 N '47

Rates and regulations for water used in air conditioning; panel discussion. F. C. Amsbury, jr. and others. *Am Water Works Assn J* 40:809-26 Ag '48

River rules; new water pollution act and concerted action by states. *il Chem Ind* 63:373 S '48

Water pollution control act; text. *Am Water Works Assn J* 40:899-906 Ag '48

See also

Water rights
Waterworks—Laws and regulations

Arizona

OK Arizona groundwater control code. *Eng N* 140:525 Ap 8 '48

British Columbia

Water legislation in British Columbia. J. C. MacDonald. *Am Water Works Assn J* 40: 159-64 F '48

Idaho

Public water supply legislation in Idaho. H. C. Clare and R. E. Smylie. *Am Water Works Assn J* 40:97-9 Ja '48

Louisiana

State control of Louisiana water resources. J. E. Trygg. *bibliog Am Water Works Assn J* 40:457-60 Ap '48

Michigan

Water legislation in Michigan. J. M. Hepler. *Am Water Works Assn J* 40:88-96 Ja '48

Ohio

Enabling and restrictive legislation in Ohio. L. T. Fawcett. *Am Water Works Assn J* 40:284-92 Mr '48

Oklahoma

Water laws of Oklahoma. C. Burch. *Am Water Works Assn J* 40:454-6 Ap '48

WATER leakage

See also

Water pipes—Leakage

WATER level indicators

Portable water level recorder. *diags Engineer* 185:121 Ja 30 '48; *Engineering* 165:58 Ja 16 '48

WATER measurement

Cubic feet, gallons, pounds, and tons of water in rectangular tanks. W. F. Schaphorst. *Water & Sewage Works* 95:210 Je '48
Measurement of water by circular orifice at end of discharge pipe. *diags Water & Sewage Works* 95:R48 Ap '48

See also

Flow meters
Parshall flume
Venturi meters
Water flow
Water level indicators
Water meters
Weirs (measuring)

WATER meters

Design and installation of large meters. E. W. R. Butler. *diags Water & Sewage* 86: 19-23+ O '48

Meter service and sizing; abstract. E. Walasyk. *Water & Sewage Works* 95:23-4 Ja '48

Propeller-type meters for main-line metering. J. M. Montgomery. *il diag Water & Sewage Works* 95:R97-8 Ap '48

Reducing unaccounted-for water. C. Haydock. *Am Water Works Assn J* 39:1204-7; *Discussion*. 1207-10 D '47

Results of universal metering at Naugatuck, Conn. W. H. Moody. *il diag Water & Sewage Works* 95:317-19 S '48

Selection of main line meters with a set of charts designed to simplify the problem. J. C. Thoresen. *diags Water & Sewage Works* 95:R89-95 Ap '48

Standard design for water services. M. C. Smith. *Water & Sewage Works* 95:R69-71 Ap '48

Water metering solves Milan's financial problems. R. T. Hosmon. *Pub Works* 79: 20-1 S '48

See also

Venturi meters

Standards

American water works association tentative standard specifications for cold water meters; current type. *Am Water Works Assn J* 38:541-50 Ap '46; *Same*. N E Water Works Assn J 61:sup[2] 1-8 S '47; *Revision*. *Am Water Works Assn J* 39:466; 40: 300 My '47, Mr '48

WATER pipes

Bacterial oxidation of sulfur in pipe sealing mixtures. L. R. Frederick and R. L. Starkey. *bibliog Am Water Works Assn J* 40:729-36 JI '48

Discharge coefficients for water pipe, their preservation and restoration. W. S. Lea. *Water & Sewage Works* 95:320-4 S '48

Equipment and procedure for long line hydraulic studies. F. C. Scobey. *bibliog il Am Water Works Assn J* 39:1191-203 D '47

Jointing compounds; sulfur compounds for cast-iron pipe. A. W. W. A. session. *Water & Sewage Works* 95:201-4 Je '48

Laying a 36-in. main through traffic. S. J. Benedict. *il Am Water Works Assn J* 39: 1115-20 N '47

New water service pulled under pavement. H. E. Archibald. *Eng N* 140:666 Ap 29 '48

Performance record of 14-year old transite water main at Winnipeg. W. D. Hurst. *il diag Water & Sewage Works* 94:391-6 N '47

Proper handling of joint compound speeds pipe line construction. R. A. Toler. *il Pub Works* 79:29-30 Ja '48

Studies of properties of sulfur jointing compounds containing various bactericides. W. W. Duecker and others. *bibliog il Am Water Works Assn J* 40:716-28 JI '48

Sulfur jointing compounds; a panel discussion. W. R. LaDue and others. *bibliog Am Water Works Assn J* 40:737-50 JI '48

Tacoma lays four miles of 58-inch pipe. A. R. McPherson. *il Pub Works* 79:29+ Ag '48

WATER pipes—Continued

Twin lines supply steam plant water; Redondo steam station of the Southern California Edison co. *il diag Eng N 140:696-9 My 13 '48*

Water and sewer trenching; paving breakers. *il Pub Works 79:31+ F '48*

Watermain crossings at railways, bridges, rivers and roads; discussion. *Water & Sewage 86:67-8+ Ap '48*

Why sulphur joint compounds are providing a mystery for waterworks engineers. *Eng N 140:742 My 20 '48*

See also

Aqueducts	Plumbing
Hot water heating	Water distribution
Hot water supply	

Cleaning

Cleaning gas and water mains. A. G. Hol-tam. *il diag Engineer 186:142 Ag 6 '48*

Corrosion**See also**

Water pipes—Protec-tion

Deposits

Control of slime growths in transmission lines. R. L. Derby. *il Am Water Works Assn J 39:1107-14 N '47*

Failures

Liability for damage due to breaks or leaks. H. M. Ohland and others. *Am Water Works Assn J 40:577-84 Je '48*

Shutdown procedure in main breaks. L. M. Leedom. *il plans Am Water Works Assn J 40:393-409 Ap '48*

Leakage

Liability for damage due to breaks or leaks. H. M. Ohland and others. *Am Water Works Assn J 40:577-84 Je '48*

Reducing unaccounted for water. C. Hay-dock. *Am Water Works Assn J 39:1206 D '47*

Straight from our readers; what they tell us about leaks in water mains. *Water & Sew-age Works 95:96 Mr '48*

Lining

Los Angeles program speeds reconditioning of cast iron pipe. R. E. Hemborg. *il Eng N 140:46 Ja 8 '48*

Mortar-coated thin steel shells for distribu-tion main service. *Eng N 140:662 Ag 29 '48*

Rehabilitation of existing pipe lines. A. B. Anderson. *il Iron & Steel Eng 25:57-9 S '48*

Tests on steel pipes lined in place. W. G. Banks. *map Am Water Works Assn J 39: 1181-8; Discussion. W. K. LaDue. 1188-90 D '47*

Water mains lined-in-place with electrically deposited bitumen. *il diags Eng N 140:506-7 Ap 1 '48*

Protection

Catholic protection of buried metallic struc-tures against corrosion; correlating com-mittee on catholic protection. *Am Water Works Assn J 40:485-8 My '48*

Magnesium for catholic protection of a municipal piping system. K. D. Wahlquist and O. Osborn. *diags Am Water Works Assn J 40:495-503 My '48*

Principles of catholic protection design. L. P. Sudrabin and F. P. Macdonald. *bibliog Am Water Works Assn J 40:489-94 My '48*

Problems in catholic protection. F. E. Dol-son. *diags Am Water Works Assn J 39: 1079-86+; Discussion. L. J. Alexander. 1086-8 N '47*

Proper bedding prolongs life of buried water pipes. D. W. Johnson. *diags Eng N 140: 581 Ap 15 '48*

Repair

Quick freezing of small pipes for repairs. J. L. Ford. *il Water & Sewage Works 94:413-14 N '47; Abstract. Eng N 140:15 Ja 1 '48*

Service pipes

Boring for water connections with air power. *il Comp Air Mag 52:272-3 N '47*

Collected standard specifications for service line materials. *Am Water Works Assn J 40:883-9 Ag '48*

Drilling water-service connections. J. R. Sullivan. *il Eng N 140:794 My 27 '48*

Standard design for water services. M. C. Smith. *Water & Sewage Works 95:R69-71 Ap '48*

Standards

Collected standard specifications for service line materials. *Am Water Works Assn J 40:883-9 Ag '48*

Pipe sizes reflect engineering knowledge of ancient Romans. E. A. Pratt. *Civil Eng 18:522-3 Ag '48*

Sterilization

Control of slime growths in transmission lines. R. L. Derby. *il Am Water Works Assn J 39:1107-14 N '47*

Odor and taste control as influenced by consumers' pipes. C. Wilson. *il Water & Sewage Works 95:366-8 O '48*

Procedure for disinfecting water mains. *Am Water Works Assn J 40:131-7; Discussion. C. K. Calvert. 125-30 F '48*

Tables, calculations, etc.

Charts for determining equivalent pipes and loop flow distribution. H. W. Clark. *Water & Sewage Works 95:R81-4 Ap '48*

Computing water flow; with chart. W. F. Schaphorst. *Roads & Sts 91:87+ Je '48*

Determination of economical pipe diameters in distribution systems. V. C. Lischer. *bibliog Am Water Works Assn J 40:849-67 Ag '48*

Flow of boiling water through nozzles, ori-fices and pipes. J. G. Burnell. *il Engineer-ing 164:572-6 D 12 '47*

Gallons in water supply pipe. W. F. Schap-horst. *Water & Sewage Works 95:R54 Ap '48*

Sizing of water and steam lines. W. L. Nel-son. *Oil & Gas J 46:93 N 22 '47*

Tapping

Insertion of line valves in mains under pres-sure. F. Y. Dorrance. *il Water & Sewage 86:76-8+ Ap '48*

Use of tapping sleeves and valves under pressure and the insertion of line valves in mains under pressure; discussion. *Water & Sewage 86:106+ Ap '48*

WATER pipes, Concrete

Back hoes and bulldozers build big water line. *il Constr Methods 30:104-8+ Ap '48*

Cleveland's new water intake. F. J. Schwem-ler. *il Water & Sewage Works 95:265-6 Jl '48*

80-mi. pipeline taps Lake Huron; with cost data. *il map Eng N 140:646-9 Ap 29 '48*

Fast work on Saginaw-Midland water sup-ply pipeline. *il Roads & Sts 91:88-9 Je '48*

Laying 60 mi. of pre-stressed pipe; Saginaw-Midland water line project. *il Eng N 140: 708-11 My 13 '48*

Manufacture

Big prestressed pipe without liners. R. M. Doull. *il diag Eng N 140:1010-15 Je 24 '48*

Precasting concrete pipe for the San Diego aqueduct. D. K. Woodin. *il plan diags Am Concrete Inst J 19:261-88 D '47*

Reinforced concrete pressure pipe manufac-tured on two levels; prestressed pipe for Montreal water system. M. W. Loving. *il Rock Prod 51:158-62+ F '48*

Standards

Tentative standard specifications for rein-forced concrete water pipe; steel cylinder type, not prestressed. *Am Water Works Assn J 40:371-84 Mr '48*

WATER pipes, Steel

Mortar-coated thin steel shells for distribu-tion main service. *Eng N 140:662 Ag 29 '48*

Water supply job follows 1924 plans; con-struction of the second Mokelumne aqueduct in California. *il map Eng N 140:50-2 Ja 8 '48*

Standards

Design standards for steel water pipe. R. E. Barnard. *bibliog il diags Am Water Works Assn J 40:24-87 Ja '48*

WATER pipes, Steel—Continued**Testing**

Tests on steel pipes lined in place. W. G. Banks, map, Am Water Works Assn J 39: 1181-8; Discussion. W. R. LaDue, 1183-90 D '47

WATER pipes, Wood

Milwaukee uncovers old wood pipes. J. E. Hubel, Il Water & Sewage Works 95:99 Mr '48

WATER pollution

Abatement of stream pollution being pressed in Pennsylvania. J. Anthony, map Iron Age 162:126-7+ J1 8 '48

Acid mine water in the anthracite region of Pennsylvania. E. W. Felegy and others, bibliog Il map U S Bur Mines Tech Pa 710:1-49; pa 15c Supt. of doc. '48

California pushes clean-stream drive; other state reports. Eng N 140:221 F 12 '48

Chlorination curbs beach pollution. Il Eng N 139:801-3 D 11 '47

Clean and dirty rivers. Engineering 165:518 My 28 '48

Court decision on mill waste discharge; Supreme judicial court of Maine in equity decision against paper companies discharging sulphite waste liquor into Androscoggin river. Pub Works 79:22 F '48

Court rules against North Carolina pollution law. Eng N 140:523 Ap 8 '48

Critical review of the literature of 1947 on sewage and waste treatment and stream pollution. W. Rudolfs and others, bibliog Sewage Works J 20:259-64 Mr '48

Determination of the time of passage of pollution in the Androscoggin river and pond. W. A. Lawrance, Sewage Works J 20:381-96 S '48

Diseases carried by water. Nat Safety N 57: 94-5 Ja '48

Effect of DDT spray on reservoir biological balance. M. S. Shane, Il Am Water Works Assn J 40:333-6 Mr '48

Effect of recent floods on Iowa's water supply. J. A. Sampson, Am Water Works Assn J 40:139-43 F '48

Effect on stream pollution legislation and control. D. E. Bloodgood. Am Soc C E Proc 74:1048-51 S '48

Eight-state drive to clean up rivers in Ohio Basin. Bsns W p26 J1 31 '48

Federal and interstate pollution abatement programs. L. E. Longdon. Il map Midwest Eng 1:7-9 O '48

Federal government enters pollution control. Eng N 141:7 J1 15 '48

Federal groups complete pollution control plans. Eng N 141:77 Ag 19 '48; Oil Paint & Drug Rep 154:3, 43 Ag 16 '48

Federal legislation on water pollution control. A. D. Weston. Paper Tr J 126:92+ F 26 '48

Federal water pollution control act analyzed. Paper Tr J 127:22+ O 21 '48

Federal water pollution control program. Pub Health Rep 63:1066-8 Ag 13 '48

Fox River mills seek pollution solution. Paper Tr J 126:14 Ap 8 '48

Industrial problems of water contamination; progress made within the Calumet area of Indiana. C. B. Carpenter and W. W. Mathews. Il Midwest Eng 1:2-7 O '48

Industrial stream pollution regulations. V. L. King. Sewage Works J 20:679-81 J1 '48

Industrial waste disposal. G. E. Barnes, bibliog Mech Eng 69:465-70 Je '47; Discussion. 69:946-8 N '47

Industrial waste pollution abatement program for Buffalo, N.Y. G. E. Symons and others, Il map Sewage Works J 20:861-71 S '48; Abstract. Water & Sewage Works 95:110-11 Mr '48

Industry men urge clearer wording of pollution control regulations; meeting of New Jersey sewage works association. Eng N 140:400 Mr 18 '48

Investigating water pollution in California. R. O. Van Meter. Am Water Works Assn J 40:784-6 J1 '48

Land-use and stream-turbidity study started on Potomac River basin in Harrisburg, Pa. Eng N 140:787 My 27 '48

Management's interest in stream pollution problems. M. E. Putnam. Il Chem Eng Prog 44:sup 18+ S '48

National council for stream improvement; interim report, number 10. Aug. 20, 1948. Paper Tr J 127:10-11 S 2 '48

Near abatement of stream pollution; abstracts. J. R. Hoffer. Nat Safety N 57: 64-5 Ja '48; Mech Eng 70:629 J1 '48

New federal water pollution control act; its significance to petroleum refiners. W. B. Hart. Pet Processing 3:827-8 S '48

New law sets stage for cleanup of polluted streams. E. J. Hardy. Iron Age 162:104+ J1 15 '48

New York anti-pollution law studied. Eng N 140:989 Je 17 '48

Ohio River compact now in motion. Water & Sewage Works 95:sup78A Ag '48

Oxygen balance studies of a typical swamp stream; Blackwater river, Virginia. S. C. Crawford, bibliog Sewage Works J 20: 876-80 S '48

Paper industry attacks problems of river pollution. Il Paper Tr J 126:51 Mr 18 '48

Polio on the air, and at meetings helps public relations. Dom Eng 171:124-5 Ap '48

Pollution abatement; appraisal of current regulations. A. Anable and R. P. Kite. Il map Chem Eng Prog 44:3-16 Ja '48; Discussion. 44:397-8 My '48

Pollution load capacity of streams. H. A. Thomas, jr. diag Water & Sewage Works 95:409-13 N '48

Potable water from evaporators and pollution hazard in open sea shown by navy studies. Pub Works 78:36 N '47

Progress report on the Allegheny county (Pa.) sanitary authority. map Eng N 140:6 Jm 1 '48

Proposed water pollution legislation. M. LeBosquet, jr. Water & Sewage Works 94: 427-30 N '47

Pulp and paper mill reduces pollution of Clarion river in Pennsylvania. C. L. Siebert. Water & Sewage Works 94:449-51 D '47

Radioactive effluents; full agreement on safeguards at Harwell. Chem Age (Lond) 58: 163 Ja 31 '48

Research in stream pollution; abstract. R. L. Winget. Pub Works 78:28 N '47

River rules; new water pollution act and concerted action by states. Il Chem Ind 63:373 S '48

Some aspects of the requirements for the quality of water for industrial uses. S. T. Powell. Il Am Water Works Assn J 40:20-3 Ja '48; Same. Sewage Works J 20:45-50 Ja '48

Some fundamentals on water pollution for industry. R. F. Weston. Sewage Works J 20:682-6 J1 '48

Sound pollution abatement policy asked; abstract. T. R. Camp. Civil Eng 18:678-9 N '48

Thirteenth report of the Water pollution research board with the report of the Director of water pollution research (England), July 1, 1939 to December 31, 1945; abstract. Sewage Works J 20:353-4 Mr '48

Threaten crack down on stream polluters. Eng N 139:774 D 4 '47

Unique pollution decree issued by Maine court; polluters permitted to discharge certain amount of wastes based on maintaining predetermined quality of water in the stream. Eng N 139:842 D 18 '47

United States-Canadian boundary waters pollution control. Pub Health Rep 63:1238-40 S 17 '48

U.S. Public health service programs nationwide aid for pollution control. Eng N 140: 691 My 13 '48

Waste treatment problems from the viewpoint of industry. W. B. Hart. Sewage Works J 20:273-8; Discussion. F. B. Milligan. 278-81 Mr '48

Waste water; industry problem. Il Bsns W p54+ Mr 6 '48

Water; a national asset. H. W. Cremer. Chem & Ind p323-9 My 22 '48

Water-borne disease outbreaks in the United States, 1938 to 1945. Pub Works 78:24-6 N '47

Water pollution control act; text. Am Water Works Assn J 40:899-906 Ag '48

WATER pollution—Continued

- Water supply, drainage and health. R. Hetherington. *Engineer* 184:441-2 N 7 '47
- Waterworks industry misrepresented, says AWWA in a white paper; magazine articles impugning quality of supplies said to frighten people simply to promote stream-pollution control. *Eng N* 139:835 D 18 '47
- White water treatment; industrial waste problem. R. T. Sheen. *bibliog il diags Paper Tr J* 126:106+ F 26 '48

See also

- | | |
|-------------------|--------------------|
| Algae | Trade waste |
| Fish poisons | Water—Bacteriology |
| Sewage disposal | Water purification |
| Shellfish poisons | |

WATER power

- Developed waterpower of the world. *Can Min J* 69:90 Ag '48

See also

- | | |
|----------------------|--------------|
| Hydroelectric plants | Turbines |
| Tidal power | Water wheels |

Laws and regulations

- See Federal power act, 1935; Water laws and legislation

India

- Development of India's water resources provides for power and irrigation needs. *Civil Eng* 18:499+ Ag '48

Maine

- See also
Passamaquoddy tidal power project

WATER purification

- Calgon treatment as applied in water quality control. O. Rice. *Water & Sewage Works* 95:R135 Ap '48
- Chemical control at Chicago's South District filtration plant. J. R. Baylis. *plans diags Ind & Eng Chem* 40:1379-84 Ag '48
- Chemistry of water treatment. A. P. Black. *Water & Sewage Works* 95:142-4, 211-14, 369-74 *bibliog*(p374) Ap, Je, O '48
- Deionized water for writing-ink manufacture. C. S. Grove, Jr. and R. S. Casey. *bibliog flow sheet il Chem Eng Prog* 44:733-6 O '48
- Disposal of water purification and softening plant wastes; preliminary committee report. W. W. Aultman and others. *diags Am Water Works Assn J* 39:1211-23 D '47
- Inactivation of the virus of infectious hepatitis in drinking water; abstract. J. R. Neefe and others. *Water & Sewage* 85:49-50+ D '47
- Ion exchange finds new uses. R. W. Porter. *flow sheet il diags Food Ind* 20:691-702 My '48
- Ion exchangers; abstract. H. B. Gustafson. *Chem Eng* 55:274+ Je '48
- Needs for further research in algal control. F. W. Collins. *Civil Eng* 18:171 Mr '48
- Operation of water treatment plants; third edition, rewritten. *flow diag il diags Pub Works* 79:34-8+ Ap '48
- Recent trends in water supplies. C. R. Cox. *Am Water Works Assn J* 40:529-33 My '48
- Removing low concentrations of phenolic compounds from water. N. H. Brown, Jr. and L. B. Miller. *bibliog Pub Works* 79:38-40 Je '48
- Settling characteristics of suspensions in water treatment processes. A. A. Kalinske. *Am Water Works Assn J* 40:113-20 F '48
- Some aspects of the requirements for the quality of water for industrial uses. S. T. Powell. *il diags Am Water Works Assn J* 40:8-23 Ja '48; Same. *Sewage Works J* 20:36-50; Discussion. A. M. Buswell. 50-1 Ja '48
- Some problems of water treatment. H. E. Watson. *bibliog J Chem Educ* 25:401-4 J '48
- Surface water made fit for boilers; Esso standard oil company's Bayway refinery. A. L. Wilson. *flow diag Power* 92:283 My '48
- Symposium on purification and conditioning of water supplies. *bibliog il diags Ind & Eng Chem* 40:1350-78 Ag '48

- Treatment of surface water supplies for pulp and paper mills. R. R. Adams. *Paper Tr J* 125:43-7 D 11 '47; Same cond. *Paper Ind* 29:1498+ Ja '48

- Water purification and waste disposal. *il Rayon* 29:85-7 My '48

- Water purification division holds three sessions at American water works association 68th annual conference, Atlantic City, May 3-7. *Water & Sewage Works* 95:259-64 J '48

- Water purification for Diesel locomotives. *flow diag Ry Age* 124:172-3 Ja 17 '48

- Water purification topics; digest of papers presented before the Water purification division of A.W.W.A., San Francisco, July 21-25. *Water & Sewage Works* 94:409-12 N '47

- Water treatment for heating and air conditioning. W. H. Lang. *bibliog il diag Heat & Ven* 45:97-111 O '43

- White water treatment and recovery. W. Rudolfs and others. *Water & Sewage Works* 95:219-22, 268-70, 329-32, 419-23 Je-Jl, S, N '48

See also

- | | |
|-------------------------|-------------------|
| Feed water purification | Filtration plants |
| Filters and filtration | Water softening |

Chlorination

- Bactericidal properties of chloramines and free chlorine in water. C. T. Butterfield. *Pub Health Rep* 63:934-40 J '48; Abstract. *Water & Sewage* 86:18+ O '48
- Behavior of chlorine as a water disinfectant. G. M. Fair and others. *bibliog Am Water Works Assn J* 40:1051-61 O '48; Abstract. *Eng N* 141:60-1 J '48
- Chlorine dioxide for water treatment. *il Water & Sewage* 86:27-9+ Mr '48
- Controlling the Green goddess. M. F. Tier-nan. *bibliog il Am Water Works Assn J* 40:1042-50 O '48
- De-chlorination at the Washington aqueduct. C. J. Lauter. *Am Water Works Assn J* 39:1237-40 D '47
- Determination of chlorine dioxide and other active chlorine compounds in water. J. F. Haller and S. S. Listek. *bibliog diag Anal Chem* 20:639-42 J '48
- Developments in water chlorination practice during 1947. H. A. Faber. *bibliog Am Water Works Assn J* 40:534-8 My '48; Same. *il Water & Sewage Works* 95:90-2 Mr '48
- Dynamics of water chlorination. G. M. Fair and others. *bibliog N E Water Works Assn J* 61:285-301 D '47; Abstract. *Water & Sewage Works* 94:397-8 N '47
- Elimination of phenolic tastes by chloro-oxidation. R. S. Ingols and G. M. Ridenour. *Water & Sewage Works* 95:187-90 My '48
- Fifty years of water chlorination practice; abstract. H. A. Faber. *Water & Sewage Works* 95:182 My '48
- How to chlorinate wells. T. A. Filipi. *diag Eng N* 141:93 S 2 '48
- Interesting chlorinator installation; La Mesa, Lemon Grove and Spring Valley irrigation district. M. J. Shelton and L. L. Flor. *il diag Pub Works* 79:19 S '48
- Microbiological problems in the manufacture of sugar from beet; corrosion in the diffusion battery and in the recirculation system. L. A. Allen and others. *bibliog diags Soc Chem Ind J* 67:70-7 F '48
- Operation of small water filtration plants. A. E. Clark. *Water & Sewage Works* 95:253-4 J '48
- Operation of water treatment plants; third edition, rewritten. *flow diag diags Pub Works* 79:60-3+ Ap '48
- Significance of the Bubby Creek experiment; beginning of chlorination in 1908 at Chicago. C. A. Jennings. *Am Water Works Assn J* 40:1037-41 O '48
- Some practical aspects of chlorination and coagulation. H. T. Hotchkiss and V. A. Mascia. *il Water & Sewage Works* 95:101-3 Mr '48
- Super-chlorination and de-chlorination. N. J. Howard. *Am Water Works Assn J* 39:1241-4 D '47; Same. *Water & Sewage* 86:17-18+ F '48
- Symposium on chlorine dioxide. *il diag Pub Works* 79:35-6+ My '48

Water purification—Chlorination—Continued
 Tasteless residual at the tap. K. S. MacLeod.
 il Water & Sewage 86:22-3+ Ag '48
 These chlorine sprays improve processed
 green beans. R. Haynes and J. O. Mundt.
 il diag Food Ind 20:977-81+ JI '48
 Le traitement des eaux potables. A. Le Strat.
 Chimie & Ind 58:346-7 O '47
 Use of chlorine dioxide in water treatment;
 abstract. L. H. Coult and W. Johnson.
 Water & Sewage Works 95:390 N '48
 Using hypochlorites. il Pub Works 79:36+
 S '48
 Water-testing instruments for chemical
 treatment. il Engineer 185:480-1 My 14 '48

Coagulation

Activated silica sols in water treatment. R.
 C. Merrill. bibliog diag Ind & Eng Chem
 40:1355-9 Ag '48
 Bacterial removal by lime-alum and alum-
 clay floccs. W. L. Mallmann and D. Kahler.
 bibliog diags Am Water Works Assn J 40:
 615-24 Je '48
 Chemistry of water treatment; coagulation.
 A. P. Black. Water & Sewage Works 95:
 142-4 Ap '48
 Gravity flocculator for water treatment. G. R.
 Frith and L. Cady. il plan diag Pub Works
 78:19-20+ D '47
 Improvements in an alum flocculation process,
 following difficulties with a domestic
 supply used as feed water for a high-pres-
 sure boiler plant. J. P. Beveridge and
 others. flow diag Soc Chem Ind J 66:267-73
 Ag '47
 Modified Parshall flume combines measuring
 and mixing; Greeley, Colo. water-treat-
 ment plant. A. J. Ryan and C. L. Morgan.
 il diags Eng N 140:644-5 Ap 29 '48
 Operation of small filtration plants; coagu-
 lants and feeding. A. E. Clark. Water &
 Sewage Works 94:415-16; 95:19-20 N '47,
 Ja '48
 Operation of water treatment plants; third
 edition, rewritten. Pub Works 79:48+ Ap
 '48
 Solids-contact process basins; characteris-
 tics and performances of the Accelerator,
 Hydrotreator and Precipitator. H. O. Har-
 tung. Am Water Works Assn J 40:1028-36
 O '48
 Some practical aspects of chlorination and
 coagulation. H. T. Hotchkiss and V. A.
 Mascia. il Water & Sewage Works 95:101-3
 Mr '48

Color removal

Ozone treatment for the removal of taste,
 odor and color from water; with cost data.
 V. Hann. N E Water Works Assn J 61:
 247-52 S '47

Corrosion control

Automatic pH control in water and indus-
 trial waste treatment. R. T. Sheen. bib-
 liog flow sheets il diags Ind & Eng Chem
 39:1433-9 N '47
 Basic principles of corrosion control by the
 use of lime. E. S. Hopkins. bibliog il Paper
 Tr J 127:61-3 JI 1 '48
 Calculation of the pH of saturation of trical-
 cium phosphate. J. Green and J. A.
 Holmes. bibliog Am Water Works Assn J
 39:1090-6 N '47
 Chemical fixation of oxygen; problem of cor-
 rosion in industrial water supplies. D. J.
 Pyle. flow diag il Am Water Works Assn J
 39:1121-7 N '47
 Chemistry of water treatment; stabilization.
 A. P. Black. bibliog il Water & Sewage
 Works 95:369-74 O '48
 Rid water of dissolved gas to stop corrosion.
 R. C. Ulmer. Power 92:491-2 Ag '48
 Treating water to prevent corrosion. J. R.
 Baylis. Water & Sewage Works 95:R127-8
 Ap '48

Deminceralization

Deminceralization of water. F. R. Morral. bib-
 liog Metal Finishing 46:71-2 JI '48
 Deminceralizing water and what it costs. D.
 J. Saunders. diag Power Generation 52:84+
 JI '48; Abstract. Power 92:314 My '48
 Evaluation of deminceralization methods. E.
 G. Kominek. bibliog diag Chem Eng Prog
 44:697-702 S '48

**Ion-exchange deminceralizing of solutions. F.
 R. Riley and H. M. Day. flow diag diags
 Chem Eng Prog 44:353-3 My '48**
 Large-scale water purification; desalting
 water in Palestine. Chem Age (Lond) 57:694
 N 29 '47

Iron removal

Iron and manganese removal. S. B. Apple-
 baum. bibliog diags Water & Sewage
 Works 94:439-44 D '47

Lime treatment

Basic principles of corrosion control by the
 use of lime. E. S. Hopkins. bibliog il Paper
 Tr J 127:61-3 JI 1 '48

See also

Water softening

Manganese removal

Iron and manganese removal. S. B. Apple-
 baum. bibliog diags Water & Sewage
 Works 94:439-44 D '47
 Manganese removal; experiences at Durham.
 N.C. R. S. Phillips. Water & Sewage
 Works 95:R143-5 Ap '48

Odor removal

See Water purification—Taste and odor
 removal

Ozone treatment

Ozone treatment for the removal of taste,
 odor and color from water; with cost data.
 V. Hann. N E Water Works Assn J 61:247-
 52 S '47

Patents

Water and sewage patents (cont). Water &
 Sewage Works 95:117-18 Mr '48

Silica removal

Silica removal by an improved ion-exchange
 process; comparison with the fluosilicic acid
 method. V. J. Calise and M. Lane. bibliog
 diags Chem Eng Prog 44:269-74 Ap '48

Swimming pool water

Application of diatomaceous earth filters to
 swimming pool recirculation systems; ab-
 stract. J. W. Engle. Am Water Works Assn
 J 40:274-5 F '48
 Bromine for pool disinfection finds favor in
 Illinois. Eng N 139:881 D 25 '47
 Empire swimming pool at Wembley. D.
 Brownlie. il Water & Sewage 86:36+ S '48
 Swimming-pool sanitation practice, Rockford,
 Ill. R. B. Galvanoni. il Eng N 141:91-2
 S 16 '48

Taste and odor removal

**Chlorine dioxide for water treatment. il
 Water & Sewage 86:27-9+ Mr '48**
 Elimination of phenolic tastes by chloro-
 oxidation. R. S. Ingols and G. M. Ridenour.
 Water & Sewage Works 95:187-90 My '48
 Mathematical calculation of phenol value of
 an activated carbon; solving the Freundlich
 equation by the method of least squares.
 R. A. Hoot. il Water & Sewage Works 94:
 402-4 N '47
 Odor and taste control as influenced by con-
 sumers' pipes. C. Wilson. il Water & Sew-
 age Works 95:366-8 O '48
 Operation of small water filtration plants.
 A. E. Clark. Water & Sewage Works 95:
 375-6 O '48
 Operation of water treatment plants; third
 edition, rewritten. Pub Works 79:72-3 Ap
 '48
 Ozone treatment for the removal of taste,
 odor and color from water; with cost data.
 V. Hann. N E Water Works Assn J 61:
 247-52 S '47
 Super-chlorination and de-chlorination. N. J.
 Howard. Am Water Works Assn J 39:1241-4
 D '47; Same. Water & Sewage 86:17-18+ F
 '48
 Taste and odor control at Shreveport. B. G.
 Cole. Am Water Works Assn J 40:539-46
 My '48
 Taste and odor control in water. C. R. Cox.
 Water & Sewage 86:75+ Ap '48

WATER purification, Natural
 Pollution load capacity of streams. H. A.
 Thomas, jr. diag Water & Sewage Works
 95:409-13 N '48

WATER rates

Dealing with the public in obtaining rate increases. L. N. Thompson and others. Am Water Works Assn J 40:842-8 Ag '48

Future trends in water rates. A. P. Learned. Am Water Works Assn J 40:712-14 Jl '48

How cities charge for private fire protection services. Pub Works 79:30-2 Mr; 30 Je; 72 Jl '48

Need for increased water rates. L. R. Howson. Am Water Works Assn J 40:277-83 Mr '48; Same. Water & Sewage Works 95:81-4 Mr '48

Rates and regulations for water used in air conditioning; panel discussion. F. C. Amshary, jr. and others. Am Water Works Assn J 40:809-26 Ag '48

Waterworks cost accounting and water rates. S. H. Gillett. Water & Sewage 86: 84+ Ap '48

WATER rights

Battle over water in the West. A. M. Cooper. Pub Util 41:23-30 Ja 1 '48

Calmer waters; Upper Basin states agree on division of Colorado River water. Esns W 68:1 Ag 7 '48

Congress airs states' fight over Colorado River water. Eng N 140:915+ Je 3 '48

Exploiting the Nile; Egypt's and the Sudan's claim for water. map Economist 155:187-8 Jl 31 '48

Five Upper Basin states make pact to share waters of Colorado river. Elec World News ed 130:5 Ag 7 '48

No new Colorado River jobs until states agree on water. Eng N 139:851 D 25 '47

Water fight rages over Colorado river. map Esns W 62+ Jl 10 '48

WATER sampling

Baltimore water sampling methods. G. W. Schucker. maps Am Water Works Assn J 40:625-30; Discussion. W. H. Cary, jr. 630-1 Je '48

Selection and control of sampling points in distribution systems. K. W. Brown. Am Water Works Assn J 39:1128-32 N '47

Tasteless residual at the tap. K. S. MacLeod. Il Water & Sewage 86:22-3+ Ag '48

Unique sampler for deep water surveys. F. L. Woodward. diag Sewage Works J 20:720-2 Jl '48

WATER screw. See Archimedeian screw**WATER softeners**

How to precondition a zeolite softener. diags Power Generation 52:81-3 My '48

New Liquon zeolite water softener. Rayon 23:649 D '47

Review of soft water services; with cost data. H. M. Olson. biblog Am Water Works Assn J 40:301-8 Mr '48

Water softener for use on Diesel locomotives. Il Ry Age 124:710 Ap 10 '48; Same. Ry Mech Eng 122:270 My '48

WATER softeners, Domestic

Home zeolite service. H. W. MacDuff. Am Water Works Assn J 40:309-12 Mr '48

Soft water provides longer life for pipes and drains. Il map Am Bld 70:107 Jl '48

WATER softening

Automatic pH control in water and industrial waste treatment. R. T. Sheen. biblog flow sheets Il diags Ind & Eng Chem 39:1433-9 N '47

Calculation of the pH of saturation of tricalcium phosphate. J. Green and J. A. Holmes. biblog Am Water Works Assn J 39:1090-6 N '47

Chemistry of water treatment. A. P. Black. Water & Sewage Works 95:211-14, 369-74 biblog(p374) Je, O '48

Curses and blessings of a hot process heater and softener. W. F. Lorge. diags Power Generation 52:82 Ag '48

Cutting water-softening costs; lime-recovery plant at Miami. C. F. Wertz. flow diag Il plan Eng N 141:113-15 Jl 8 '48

Disposal of water purification and softening plant wastes; preliminary committee report. W. W. Aultman and others. diags Am Water Works Assn J 39:121-23 D '47

Dowex 50; a new high capacity cation exchange resin. W. C. Bauman, J. R. Skidmore and R. H. Osmun. biblog Il Ind & Eng Chem 40:1350-5 Ag '48

Fundamentals of feedwater treatment; special section. E. W. Feller. diags Power 91:813-48 D '47

Hydrogen-zeolite treated water dissolves boiler, superheater scale. T. L. B. Webb and J. D. Yoder. diags Power 92:35-7+ Ja '48

Interpretation of soap savings data. T. E. Larson. Am Water Works Assn J 40:296-300 Mr '48

Lime recalcining plant designed for alternate processes. T. B. Henry and B. H. Swab. diags Eng N 140:663-4 Ap 29 '48

Liquid carbon-dioxide recarbonation permits high absorption rates. H. Stock. Il Eng N 140:653-5 Ap 29 '48

Operating characteristics of synthetic siliceous zeolite. L. Streicher and others. biblog Am Water Works Assn J 39:1133-51 N '47

Operation of water treatment plants; third edition, rewritten. Pub Works 79:70-1 Ap '48

Pontiac recalcining plant. B. H. Swab. flow diag Am Water Works Assn J 40: 461-4; Discussion. 465-7 Ap '48

Progress in railroad water conditioning. R. C. Bardwell and J. J. Dwyer. biblog Ind & Eng Chem 40:1376-8 Ag '48

Safety essentials in designing water-recarbonation systems. H. Arnold. Eng N 141: 96 O 14 '48

Sequestering agents; their role in liquid soap production; properties of a polyamino carboxylic acid salt. H. W. Zussman. Soap & San Chem 24:57-9+ F '48

Softening public water supplies. D. L. Maffitt. Am Water Works Assn J 40:293-5 Mr '48

Stabilization of lime-softened water. H. O. Hartung. flow diag Il Water & Sewage Works 95:R129-32 Ap '48

Substitutes for soda ash in the treatment of boiler feed water. W. A. Tanzola, R. L. Reed and J. J. Maguire. biblog Ind & Eng Chem 39:1440-3 N '47

Two-stage water softener with unique backwashing arrangement. H. J. Meier. Il diag Pet Refiner 27:118-19 Mr '48

Up-flow tanks; abstract. C. F. Wertz. Eng N 140:954 Je 10 '48

See also

Feed water purification—Water purification—Silica removal

Water purification—Demineralization

WATER storage

Storage on the distribution system. C. B. Burdick. Water & Sewage Works 95:R105-8 Ap '48

See also

Reservoirs

Water tanks

WATER supply

Story of water; non-technical talk to publicize the unadvertised labors of the water works profession. F. E. Smith. Water & Sewage Works 95:315-16 S '48

U.S.P.H.S. research grant and fellowship symposium on water, sewage, and industrial waste. Water & Sewage Works 95:337-9 S '48

Water; a national asset. H. W. Cremer. Chem & Ind 6323-9 My 22 '48

What is a safe and satisfactory water from a chemical standpoint? G. P. Edwards. N E Water Works Assn J 61:260-6 S '47

See also

Aqueducts Railroads—Water supply

Filters and filtration Rain and rainfall

Filtration plants Reservoirs

Fire service (water supply) Rivers

Hot water supply Water, Underground

Hydrants Water distribution

Hydraulic engineering Water purification

Irrigation Waterworks

Pumping stations Wells

Fluorine content

Dental effects of community waters accidentally fluorinated for nineteen years; differences in the extent of caries reduction among the different types of permanent teeth. H. Klein. biblog Pub Health Rep 63:563-73 Ap 30 '48

Fluoride treatment of water in Lewiston, Idaho. Pub Works 78:34 D '47

WATER supply—Fluorine content—Continued

- Shall fluoride be added to public water supplies? H. A. Faber. biblog il Water & Sewage Works 95:393-400 N '48
- Some practical aspects of the addition of sodium fluoride to a municipal water supply. J. C. Zufelt. il Water & Sewage Works 95:57-60 F '48
- Supplementing water supplies with fluorine to prevent tooth decay. M. S. Nichols. Am Water Works Assn J 40:751-3; Discussion. H. T. Dean. 753-4 J1 '48

Salt water intrusion

- California must conserve water. Eng N 141: 91-2 Ag 5 '48

Standards

- Manual of recommended water-sanitation practice. biblog (Pub. health bul. 296) 40p Federal security agency, U.S. Public health service. Washington 25; pa 15c Supt. of doc. '46
- La turbidité des eaux. A. Vibert. Génie Civil 124:410-12 N 1 '47

Arizona

- Congress studies \$738 million plan to supply more water to Arizona. Eng N 140:921 Je 3 '48

Austria

- Importance of rural water supply in Austria; abstract. V. Zatloukal. Am Water Works Assn J 40:104-5 Ja '48

California

- Artificial rain ordered by group to ease California water shortage. Eng N 141:72 S 16 '48
- California must conserve water. map Eng N 141:90-2 Ag 5 '48
- Investigating water pollution in California. R. O. Van Meter. Am Water Works Assn J 40:784-6 J1 '48
- Pacific ocean, California's last water hole. R. G. Folsom. biblog il diag Elec West 101:104-7 S '48
- Water is getting scarce. Bsns W p24-5 F 28 '48
- Water plan of California anticipates statewide development of water resources. E. Hyatt. il Civil Eng 18:620-5 O '48
- Water plan presentation lacks emphasis on municipal and industrial development. S. B. Morris. il Civil Eng 18:625-6+ O '48

Canada

- Canadian water supplies for industrial use. J. F. J. Thomas. biblog Water & Sewage 86:21-4+ My '48

Chile

- Funds for potable water and sewerage in Chile; abstract. E. Aguirres. Sewage Works J 20:171-3 Ja '48

Florida

- Basic water problem in Florida. A. G. Matthews. Am Water Works Assn J 40:441-4 Ap '48

Great Britain

- Fresh water biology and water supply in Britain; abstract. W. H. Pearsall and others. Am Water Works Assn J 40:997-8 S '48
- National parks and water supply. Engineering 164:494 N 21 '47
- Water supply, drainage and health. R. Hetherington. Engineer 184:441-2 N 7 '47

Hawaiian Islands

- Hawaii's amazing water system. il Pub Works 79:53 J1 '48

Idaho

- Public water supply legislation in Idaho. H. C. Clare and R. E. Smylie. Am Water Works Assn J 40:97-9 Ja '48

Illinois

- Water is getting scarce. Bsns W p24-5 F 28 '48
- Water supplies in Illinois. Pub Works 79:56 O '48

India

- Appraisal of India's water resources. L. G. Straub. il Civil Eng 18:702-4 N '48

Louisiana

- State control of Louisiana water resources. J. E. Trygg. biblog Am Water Works Assn J 40:457-60 Ap '48

Michigan

- Water legislation in Michigan. J. M. Hepler. Am Water Works Assn J 40:88-96 Ja '48

Mississippi

- Public water supplies in Mississippi. H. A. Kroeze. Am Water Works Assn J 40:437-40 Ap '48

New York (state)

- Recent trends in water supplies. C. R. Cox. Am Water Works Assn J 40:529-33 My '48

North Carolina

- Court rules against N.C. pollution law. Eng N 140:523 Ap 8 '48

Oklahoma

- Water laws of Oklahoma. C. Burch. Am Water Works Assn J 40:454-6 Ap '48

Ontario

- Conservation and water supply. A. S. L. Barnes. biblog il map Water & Sewage 86:70-4+ Ap '48

Palestine

- Large-scale water purification; desalting water in Palestine. Chem Age (Lond) 57:694 N 29 '47

Pennsylvania

- Abatement of stream pollution being pressed in Pennsylvania. J. Anthony. map Iron Age 162:126-7+ J1 8 '48

Southwestern states

- Battle over water in the West. A. M. Cooper. Pub Util 41:23-30 Ja 1 '48
- Meeting the southwestern water shortage. O. A. Clerlich. Am Water Works Assn J 40: 766-70 J1 '48
- Vexing Colorado River water supply problem. B. Avery. Pub Util 41:608-14 My 6 '48
- Water fight rages over Colorado river. map Bsns W p32+ J1 10 '48

Texas

- Conservation and control of Texas water resources. E. V. Spence. Am Water Works Assn J 40:445-53 Ap '48

United States

- National policy on water resources; committee report; statement on A.W.W.A. policy. Am Water Works Assn J 40:693-9 J1 '48
- Waterworks industry misrepresented, says AWWA in a white paper; magazine articles impugning quality of supplies said to frighten people simply to promote stream-pollution control. Eng N 139:835 D 18 '47

Western states

- Late snows ease drought. P. A. Ewing and R. A. Work. il map Elec West 100:68-70 My '48
- Weather, water and power. I. P. Krick. il Elec West 100:67-70 Mr '48
- Western areas face drought conditions as precipitation stays below normal. Eng N 140: 316-17 F 26 '48

WATER supply, Rural

- Blueprint for food production; need for steel for electric water systems. il Dom Eng 171: 112-13+ Mr '48
- Electric water systems key to rural sales; interview with G. Schuler. il Dom Eng 171:113+ F '48
- Jet pumps for rural service. J. W. McConaghy. il diag Comp Air Mag 53:120-1 My '48
- Water supply for town and country; market for electric water systems. il Am Bid 70:110-11 Mr '48
- Water supply to rural areas around Vancouver. W. H. Powell. il map Water & Sewage 86:21-5+ Je; 27-9+ J1 '48

WATER supply engineering

- Continuous-flow, self-cleaning diversion works increase water supply of Colorado steel plant. A. J. Ryan; R. L. Parshall. *Il plan diags Civil Eng 17:30-5+ D '47*
- 80-mi. pipeline taps Lake Huron; with cost data. *Il map Eng N 140:646-9 Ap 29 '48*
- Erosion control in East Bay watersheds. F. B. Blanchard. *Am Water Works Assn J 39:1229-36 D '47*
- Erosion control in Los Angeles watersheds. B. S. Grant. *Am Water Works Assn J 39:1224-8 D '47*
- Increase in water facilities to meet wartime demands at Newport, Rhode Island. H. E. Watson. *fold map N E Water Works Assn J 61:211-19 S '47*
- U.S. military government completes Korean water supply system started by Japanese. P. Z. Kirpich. *Il diag Civil Eng 18:148-51 Mr '48*
- Water supply; Chem & Met report. *Il maps diags Chem Eng 55:137-44 Ja '48 [reprints 35c]*
- Water supply job follows 1924 plans; construction of the second Mokelumne aqueduct in California. *Il map Eng N 140:50-2 Ja 8 '48*

See also

- | | |
|------------------------|-------------------------|
| Aqueducts | Pipe laying |
| Dams | Plumbing |
| Filters and filtration | Pumping stations |
| Hydraulic engineering | Ranney water collectors |
| Irrigation | Reservoirs |
| Irrigation water | Water distribution |

History

- Water supply of greater London. *Il maps diags Engineer 186:26-7, 50-3, 76-8, 100-2, 126-7, 150-1, 176-7, 206-8, 232-4, 278-9, 300-2, 326-8, 352-4, 378-81, 404-7, 430-3, 456-8, 482-4, 508-11, 534-6, 560-1, 586-7 Jl 9-D 10 '48*

WATER supply for armies

- Water is life; story of water supply in World war II. W. J. Diamond. *Am Water Works Assn J 40:802-6 Jl '48*
- Water supply for the Air transport command. F. E. Smith. *N E Water Works Assn J 61:238-46 S '47*

WATER supply for factories

- Canadian water supplies for industrial use. J. F. J. Thomas. *bibliog Water & Sewage 86:21-4+ My '48*
- Chemical fixation of oxygen; problem of corrosion in industrial water supplies. D. J. Pye. *flow diag Il Am. Water Works Assn J 39:1121-7 N '47*
- Clarification and filtration plant supplies controlled purity water; Columbia steel co. *flow diag Il Iron Age 162:68-9 O 28 '48*
- Cleaning of service water in steel plants; self-cleaning water strainer. S. P. Kinney. *Il Iron & Steel Eng 25:56-9 F '48*
- Continuous-flow, self-cleaning diversion works increase water supply of Colorado steel plant. A. J. Ryan; R. L. Parshall. *Il plan diags Civil Eng 17:30-5+ D '47*
- Deionized water for writing-ink manufacture. C. S. Grove, Jr. and R. S. Casey. *bibliog flow sheet Il Chem Eng Prog 44:733-6 O '48*
- Industrial uses of reclaimed sewage effluents. N. T. Veatch. *Sewage Works J 20:3-11 Ja '48; Same abr. Am Water Works Assn J 40:1-7 Ja '48; Discussion, Sewage Works J 20:11-14 Ja '48*
- Industrial water supply from processed sewage treatment plant effluent at Baltimore. Md. A. Wolman. *Sewage Works J 20:15-21; Discussion, R. F. Goudey. 22-3 Ja '48*
- Industry increases demand for sanitary engineers. E. T. Roetman. *Il Civil Eng 18:92-4 F '48*
- Owens-Corning Fiberglas cuts costs with own water system. *Il Cer Ind 51:78-9 S '48*
- Rehabilitation of existing pipe lines. A. B. Anderson. *Il Iron & Steel Eng 25:57-9 S '48*
- River infiltration as a source of ground water supply. R. G. Kazmann. *Il map diag Am Soc C E Proc 73:837-53 Je '47; Discussion. 74:687-9 My '48*
- Some aspects of the requirements for the quality of water for industrial uses. S. T. Powell. *Il diags Am Water Works Assn J 40:8-23 Ja '48; Same, Sewage Works J 20:36-50; Discussion, A. M. Buswell. 50-1 Ja '48*

- Waste water treatment by steel plants aids in water, chemicals reuse; abstract. C. F. Hauck. *Iron Age 161:124-5 Mr 18 '48*
- Water supply; Chem & Met report. *Il maps diags Chem Eng 55:137-44 Ja '48 [reprints 35c]*

See also

- | | |
|---------------------|------------------|
| Drinking water sys- | Water supply for |
| tents | textile mills |
| Water supply for | |
| paper mills | |

WATER supply for food factories

- These chlorine sprays improve processed green beans. R. Haynes and J. O. Mundt. *Il diag Food Ind 20:977-81+ Jl '48*

WATER supply for paper mills

- Basic principles of corrosion control by the use of lime. E. S. Hopkins. *bibliog Il Paper Tr J 127:61-3 Jl 1 '48*
- Clarification of paper boardmill white water. W. Rudolfs and E. J. Axe. *bibliog Paper Tr J 126:37-42 Ap 1; 51-7 Ap 8 '48*
- Filtering water continuously; Newton Falls paper co. *Il diags Eng N 140:650-1 Ap 29 '48*

- Foaming properties of solutions of various chlorinated phenols. C. R. Haefele. *Il Paper Tr J 126:66-8 Ap 8 '48*

- Heating water with waste heat. L. G. Janett. *diags Paper Tr J 126:53-6 Mr 25 '48; Same cond. Paper Ind 29:1662-4 F '48*

- How cheap is water? A. Thurn. *Paper Ind 29:1846-7+ Mr '48*

- How water requirements for sulphate pulp bleaching are met by Nekoosa-Edwards. T. A. Pascoe. *Il plan diags Paper Ind 29:1754-6 Mr '48*

- Process water used in the manufacture of papers containing groundwood; summary of replies from 36 companies. J. G. Patrick. *Paper Tr J 126:56-7 Mr 25 '48*

- Slime control at the Anglo-Canadian pulp and paper mills limited, 1947. E. L. Neal and S. F. Jennings. *diags Pulp & Pa. of Can (Convention no) 49:137-42 [F] '48; Same abr. Paper Ind 30:292-6 My '48*

- Sludge contact reactors in white and waste water treatment. V. J. Calise. *flow diags diags Paper Tr J 127:57-61 Ag 12 '48*

- Specification for chemical composition of process water for manufacture of groundwood papers; TAPPI tentative standard E 602 a-43. *Paper Tr J 126:105 F 26 '48*

- Treatment of surface water supplies for pulp and paper mills. R. R. Adams. *Paper Tr J 125:43-7 D 11 '47; Same cond. Paper Ind 29:1498+ Ja '48*

- White water treatment and recovery. W. Rudolfs and others. *Water & Sewage Works 95:219-22, 268-70, 329-32, 419-23 Je-Jl, S, N '48*

WATER supply for petroleum industry

- Acidizing rig water wells. M. M. DeWitt. *diags World Oil 128:87-3 Jl '48*

- Field test of corrosion inhibitor for low-pH flood water. J. N. Breston and K. Barton. *Il Oil & Gas J 46:91-2+ D 6 '47*

- Mobile laboratory moves in on boiler feed-water treatment. E. Short. *Il Oil & Gas J 46:60-2 Ja 1 '48*

- Relation of water to drilling mud. E. C. Page. *Il Pet Eng 19:219-21 F '48*

- Two-stage water softener with unique backwashing arrangement. H. J. Meier. *Il diag Pet Refiner 27:118-19 Mr '48*

- Utilization of disposal plant effluent in refinery cooling water systems. G. W. Alexander. *Il Pet Refiner 27:92-4 Ja '48*

WATER supply for plating

- Deminalization of water. F. R. Morral. *bibliog Metal Finishing 46:71-2 Jl '48*

WATER supply for power plants

- Annual water conference, 8th, Pittsburgh. Nov. 12-14. *Power Generation 52:89+ F '48*

- Control of barnacle growth in condenser intake pits. R. E. Lea. *plan diag Power Generation 52:86+ My '48*

- Ground water's role in power production. M. W. Kyler. *Paper Tr J 127:43 O 28 '48*

- Hydraulic model aids plant design; problems involving increased cooling water requirements. J. R. James. *Il plan Elec World 129:105-6 Mr 27 '48*

Water supply for power plants—Continued

- Hydraulically driven booster pump allows elevated plant location. *diag* Power 92:44 Ja '48
- Rid water of dissolved gas to stop corrosion. R. C. Ulmer. Power 92:491-2 Ag '48
- Simple aspirators reduce CO₂ in makeup water. D. White. *diags* Power 92:557 S '48
- Some aspects of the requirements for the quality of water for industrial uses. S. T. Powell. *il diags* Am Water Works Assn J 40:8-23 Ja '48; Same. *Sewage Works J* 20:35-50; Discussion. A. M. Buswell. 50-1 Ja '48
- Surface water made fit for boilers. Esso standard oil company's Bayway refinery. A. L. Wilson. *flow diag* Power 92:283 My '48
- Twin lines supply steam plant water; Redondo steam station of the Southern California Edison co. *il diag* Eng N 140:696-9 My 13 '48
- Typical problem in industrial waste treatment; reclaims water for boiler feed. H. M. Ross. *il Midwest Eng* 1:12-13 O '48
- Water is getting scarce; northern California gets dimout to conserve hydro power. *Bsns W* p24 F 28 '48
- Welcome rains; Niagara Hudson restores full power service. *Bsns W* p52 N 15 '47

See also

Feed water purification

Water supply for ships

- Operating condensate and feed water systems in a Victory ship. *diags* Marine Eng 53:59-64 S '48
- Potable water from evaporators and pollution hazard in open sea shown by navy studies. *Pub Works* 78:36 N '47

Water supply for sugar factories

- Microbiological problems in the manufacture of sugar from beet; corrosion in the diffusion battery and in the recirculation system. L. A. Allen and others. *bibliog diags* Soc Chem Ind J 67:70-7 F '48

Water supply for textile mills

- Boiler feedwater treatment can produce savings. V. J. Calise. *Textile World* 98:137+ S '48
- Iron bacteria in industrial process water. L. B. Miller. *bibliog il* Rayon 29:77-80 My '48
- Water purification and waste disposal. *il* Rayon 29:85-7 My '48
- Water quality essential to textile processes. V. J. Calise. *il Textile World* 98:101-3 JI '48

Water tanks

- Controls make hydro-pneumatic tanks. W. L. West. *diags* Power 92:529-31+ S '48
- Cubic feet, gallons, pounds and tons of water in rectangular tanks. W. F. Schaphorst. *Water & Sewage Works* 95:210 Je '48
- Elevated tank reduces pumping costs and improves fire protection. X. D. Murden. *il* Pub Works 79:37 O '48
- Hydraulics of hydropneumatic installations; compressed air in tank provides pressure for water distribution. O. G. Goldman. *diags* Am Water Works Assn J 40:144-58 F '48
- Operation of pneumatic storage tanks. J. B. Wilkinson. *Water & Sewage Works* 95:135-7 Ap '48
- Up-flow tanks; abstract. C. F. Wertz. *Eng N* 140:954 Je 10 '48

Manufacture

- Custom built installation boosts welded tank output. *il* Steel 122:104 F 9 '48

Testing

- Vacuum test of a sphere to failure. *Pub Works* 79:40 Ja '48

Water tanks, Concrete

- How can we insulate and waterproof concrete tank? *diag* Power 92:497-8 Ag '48

See also

Standpipes, Concrete

Water tanks, Steel

- Canada's first welded elevated tank for municipal water service. *il* Water & Sewage 85:23+ D '47
- Shreveport's new water tank. T. L. Amiss. *il plan diag* Water & Sewage Works 95:10-12 Ja '48

- Welded steel, 40,000-gallon golf ball rests on 65-ft tee; water tank for Tam O'Shanter country club. *il* Civil Eng 17:44-5 D '47

Cathodic protection

- Cathodic protection of steel water tanks. P. E. Pallo. *bibliog il* *diag* Am Water Works Assn J 40:701-11 JI '48; Same. *Water & Sewage Works* 95:293-7 Ag '48
- Cathodic protection with magnesium anodes prevented underwater corrosion of hot water tanks. M. G. Fontana. *Ind & Eng Chem* 40:sup 105A-6A S '48

Painting

- Reconditioning of waterworks standpipe at Ingersoll, Ont. R. D. McCollum. *il* Water & Sewage 86:21-2+ Mr '48
- Tentative recommended practice for inspecting, repairing and practicing elevated steel water storage tanks, standpipes and reservoirs. *Am Water Works Assn J* 40:1099-117 O '48

WATER tube boilers. *See* Boilers, Water tube

WATER tunnels. *See* Ship model tanks

WATER use in air conditioning. *See* Air conditioning equipment—Water requirements

WATER vapor

- Absorption of water vapor between 1.34 μ and 1.97 μ . R. C. Nelson and W. S. Benedict. *bibliog Phys R* 74:703-4 S 15 '48
- Absorption of water vapor on glass surfaces. R. I. Razouk and A. S. Salem. *bibliog il* *diag J Phys & Colloid Chem* 52:1208-27 O '48
- Absorption of water vapour on insulin and plasma albumin. R. A. Robinson. *Chem Soc J* p 1083-5 JI '48
- Atmospheric absorption of water vapor between 1.42 μ and 2.50 μ . O. C. Mohler and W. S. Benedict. *bibliog Phys R* 74:702-3 S 15 '48
- Existence of free atoms and radicals in water and aqueous solutions subjected to ionizing radiation. F. S. Dainton. *il J Phys & Colloid Chem* 52:490-517 *bibliog* (64 ref, p516-17) Mr '48
- Flow method for determining water vapor permeability at 0°F. F. H. Cherepow. *bibliog il* *diag* Paper Tr J 125:110+ N 6 '47
- Gas drying by calcium chloride solutions: the mechanism of transfer. E. F. Thurston. *bibliog diags* Soc Chem Ind J 67:289-96 JI '48
- Gravimetric (weighed-cell) method of determining water vapor permeability. F. T. Carson. *bibliog Paper Tr J* 125:118+ N 6 '47
- Infrared emission spectra of CO₂ and H₂O molecules. E. K. Plyler. *Science* 107:48 Ja 9 '48
- Infra-red spectrum of heavy water vapor. F. P. Dickey and H. H. Nielsen. *bibliog Phys R* 78:1164-73 My 15 '48
- Measurement of water in gases by electrical conduction in a film of hygroscopic material and the use of pressure changes in calibration. E. R. Weaver and R. Riley. *bibliog diags J Res Nat Bur Stand* 40:169-214 Mr '48; Same cond. *Anal Chem* 20:216-29 Mr '48
- Moisture determination by electrolytic film; measuring water vapor in gases. *il diags* *Refrig Eng* 55:266-7 Mr '48
- Permeation through and sorption of water vapor by high polymers. F. M. Hauser and A. D. McLaren. *bibliog diag Ind & Eng Chem* 40:112-17 Ja '48
- Sorption-desorption hysteresis characteristics of the system SiO₂-H₂O below the bulk freezing point of water. W. O. Milligan and H. H. Rachford, jr. *bibliog Am Chem Soc J* 70:2922-4 S '48
- Sorption of nitrogen and water vapor on textile fibers. J. W. Rowen and R. L. Elaine. *bibliog Ind & Eng Chem* 39:1659-63 D '47; Same *J Res Nat Bur Stand* 39:479-86 D '47
- Statistical thermodynamics of the sorption of vapors by solids. M. Dole. *bibliog J Chem Phys* 16:25-30 Ja '48

See also

Humidity
Moisture
Steam

WATER vapor—Continued**Analysis**

Determination of water vapor: thermal conductivity methods. R. H. Cherry, bibliog diags Anal Chem 20:958-62 O '48

WATER waste

Water waste surveys; discussion. Water & Sewage 86:112-18 Ap '48

WATER wheels

See also

Turbines**History**

Water wheels of Sheffield. A. Allison, il map Engineering 165:165-8 F 13 '48

WATERING of plants

Methods of automatic watering of plants. J. G. Seeley, bibliog diags Science 108:65 JI 16 '48

WATERPROOFING

tert-Alkoxyaminosilanes, C. S. Miner, Jr, and others, il Ind & Eng Chem 39:1368-71 N '47

A.S.T.M. standards on bituminous materials for highway construction, waterproofing, and roofing. 306p pa \$3 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '48

How can we insulate and waterproof concrete tank? diags Power 92:497-8 Ag '48

Prevention of dampness in basements. C. C. Fishburn, diags Am Concrete Inst J 19:421-36 F '48

Waterproofing a concrete standpipe. H. S. Crocker, il Pub Works 78:23-4 O '47

Weatherproofing concrete-block houses. il Eng N 140:634-6 Ap 29 '48

WATERPROOFING of textiles

Chemical progress in water-repellency. C. R. Bellwood, Textile Col 70:24+ Ag '48

Durable water repellent; Permel resin finish. Chem Ind 62:770+ My '48

Imparting water-repellency to textiles by chemical methods; a review of the literature. H. A. Schuyten and others, bibliog Textile Res J 18:396-415, 490-503 JI-Ag '48

Qualitative analysis of textile processing agents. H. B. Goldstein, bibliog diags Am Dyestuff Rep 36:629-40 N 3 '47

Silicone water repellent now applicable to all fibers. E. L. Dennett, Textile World 98:124+ My '48

Water resistant fabric treatments. R. A. Pingree, Am Dyestuff Rep 37:440-2 Je 28 '48

Patents

Carboxy alkyl cellulose hardened with zirconium compounds. Am Dyestuff Rep 36:644 N 3 '47

Flame and waterproofing at the same time; patent. Am Dyestuff Rep 36:785 D 29 '47

Imparting water-repellency to textiles by chemical methods; a review of the literature; acids, acid halides, acid anhydrides, and other esterifying agents. H. A. Schuyten and others, bibliog(78 ref) Textile Res J 18:398-402 JI '48

Imparting water-repellency to textiles by chemical methods; a review of the literature; quaternary nitrogen compounds. H. A. Schuyten and others, Textile Res J 18:403-15 bibliog(154 ref, p414-15) JI '48

Water repellent compositions; behenic acid amide; patent. Am Dyestuff Rep 37:134-5 F 23 '48

Water repellent fabrics; methylol melamines modified; patent. Am Dyestuff Rep 37:244 Ap 5 '48

Waterproofing textiles; latex combined with cation-active compounds; patent. Am Dyestuff Rep 36:665 N 17 '47

Testing

Comprehensive comparison of the more common water resistance test methods existing today. G. J. Mandikos, bibliog diags Am Dyestuff Rep 37:587-95 S 6 '48

Effect of moisture content and other factors on water resistance tests. G. J. Mandikos, bibliog Am Dyestuff Rep 37:584-6+ S 6 '48

Hydrodynamic test for water resistance. J. H. Skinkle and M. S. Lyra, il diags Am Dyestuff Rep 37:340-3+ My 17 '48

WATERSHEDS

Effect of uncontrolled logging on stream turbidity. J. A. Lieberman and M. D. Hoover.

Water & Sewage Works 95:255-8 JI '48

Experimental studies on water-shed run-off; abstract. C. R. Hursh, Pub Works 78:34-5 N '47

How Akron, Ohio, has utilized its watershed as a business and recreation venture. W. R. LaDue, Eng N 141:78 Ag 19 '48

Is forestry on municipal water sheds financially profitable? abstract. C. M. Saville, Pub Works 79:58 JI '48

Reservoir lands pay their way. W. R. LaDue and others, Am Water Works Assn J 40:827-36 Ag '48

Watershed practices of Bridgeport hydraulic company with particular reference to aerial watershed surveys. F. B. Silliman, N E Water Works Assn J 61:302-10; Discussion. 310-11 D '47

Why vegetation on watersheds? C. Grant, Science 108:486-7 O 29 '48

Protection

Erosion control in East Bay watersheds. F. B. Blanchard, Am Water Works Assn J 39:1229-36 D '47

Erosion control in Los Angeles watersheds. B. S. Grant, Am Water Works Assn J 39:1224-8 D '47

Recreational use

Public use of reservoir lands and waters; panel discussion. R. E. Bonyun and others, Am Water Works Assn J 40:945-60 S '48;

Abstract. Water & Sewage Works 95:243-4 JI '48

WATERWAYS

Development of Lake Calumet. M. M. Cohen, map plan Western Soc E J 52:128-40 S '47

Proposed Allegheny-Genesee waterway links vital inland water systems. C. E. Long, il map Civil Eng 18:574-7 S '48

See also

Barges Railroads—Water-

Canals ways competition

Illinois waterway Rivers

Inland waterways St Lawrence water-

corporation way and power

Panama canal project

River traffic

WATERWORKS

A.W.W.A. Minnesota section meeting, Winnipeg, Sept. 1-2; with abstracts of papers. Water & Sewage Works 95:385-91 N '48

Annual conference, 31st, four-states section, A.W.W.A. Washington, Nov. 20-21. Water & Sewage Works 95:61-6 F '48

Annual reports of interest; brief abstracts. Water & Sewage Works 95:352 O '48

Architectural treatment and landscaping of municipal sanitary works. C. F. Rabenold, il plans Water & Sewage 85:23-6+ N '47

Georgia water and sewage association, 16th annual school, Atlanta, Sept. 17-19. Water & Sewage Works 94:417-22 N '47

Improvements to water-supply facilities of Sherbrooke, Que. il Water & Sewage 85:17-21+ D '47

Improving Boise's water supply. H. R. Vinson, il Pub Works 79:32-3 O '48

Inventory of major projects; with information on costs, sizes and features. il map Eng N 140:294-6 F 19 '48

Joint meeting of A.W.W.A. Florida and Cuban sections, St Petersburg, Nov. 20-22. Water & Sewage Works 95:72-3 F '48

Metropolitan water board; works in progress and constructed during 1947, il Engineer 185:101 Ja 23 '48

Minnesota section, A.W.W.A. 32d annual conference, Winnipeg, Sept. 1-3. Water & Sewage 86:22-4+ S '48

N.E.W.W.A. 66th annual meeting, Boston, Sept. 16-19. Water & Sewage Works 94:397-401 N '47

New England water works association meeting, Boston, March 18. Water & Sewage Works 95:181-3 My '48

New intake installation at Kodak Park. A. C. Bailey, il Am Water Works Assn J 40:791-5 JI '48

New Jersey section, A.W.W.A. fall meeting, Atlantic City. Water & Sewage Works 95:21-5 Ja '48

WATERWORKS—Continued

- New York section, A.W.W.A. Spring meeting, Syracuse, April 1. Water & Sewage Works 95:184-6 My '48
- Ohio section A.W.W.A. 9th annual meeting, Columbus, Sept. 30-Oct. 2. Water & Sewage Works 94:445-8 D '47
- Pennsylvania water works operators 21st annual meeting, State College. Water & Sewage Works 95:414-18 N '48
- Report of the committee on water works practice for the year ending Dec. 31, 1947. Am Water Works Assn J 40:351-9 Mr '48
- Survey of elementary mathematics for water and sewage works operators. W. K. Egloff. diags Water & Sewage Works 95:R55-66 Ap '48
- Water and sewage works reference and data section, bibliog flow diags II diags Water & Sewage Works 95:R1-287 Ap '48
- Water supply at Lagos, Nigeria: illustrations with text. Water & Sewage Works 94:452-3 D '47
- Water works and sewerage in the Far North. M. A. Roche. II Pub Works 79:21-2+ Ag '48
- Waterworks improvements at Amarillo, Tex. S. M. Field. II Pub Works 79:27 Jl '48
- Water works industry in 1947. N. T. Veatch. II Water & Sewage Works 95:1-9 Ja '48
- See also*
- | | |
|-------------------|--------------------|
| Aqueducts | Water distribution |
| Dams | Water purification |
| Filtration plants | Water supply engi- |
| Pumping stations | neering |
| Reservoirs | |

Accidents

- Plugging up leaks. H. Behr. N E Water Works Assn J 61:220-30 S '47

Accounting

- Accounted-for water and unbilled revenue; method for estimating between scheduled meter readings. C. E. Moore. Water & Sewage Works 95:R100-1 Ap '48
- Mechanization of public utility billing and accounting. A. Knapp. Am Water Works Assn J 40:1062-6 O '48
- Symposium on waterworks accounting; annual convention of the Canadian section, A.W.W.A. G. F. Shreve and others. Water & Sewage 86:79-80+ Ap '48
- Water works dollar; whence comes it? where goes it; abstract. C. H. Capen. Water & Sewage Works 95:291 Ag '48

Bibliography

- Waterworks digest. Published in monthly numbers of Public works

By-product power

- Low-cost by-product power from municipal water supply; hydroelectric development at Quabbin reservoir; with cost data. II map diags Elec World 130:102-4 S 11 '48

Costs

- Contract unit bid prices. Eng N 140:865+ My 27 '48
- Sewerage and waterworks additions, Hamburg, Pa.; unit prices. Eng N 140:669 Ap 29 '48
- Well pump station, Newtown, Conn.; unit prices. Eng N 140:381 Mr 4 '48
- What filter sizes are economical? H. A. Thomas, jr. diags Eng N 139:864-5 D 25 '47

Emergency problems

- Flushometer valve problems in temporary shut-offs. A. F. Bell and W. H. Cary, jr. Am Water Works Assn J 40:504-8 My '48
- Shutdown procedure in main breaks. L. M. Leedom. II plans Am Water Works Assn J 40:393-409 Ap '48

Employees

- Employer-employee relationships in water utilities. J. W. Helney. Water & Sewage Works 95:16-18 Ja '48
- Importance of the professional standing of the water works manager. L. A. Jackson. Water & Sewage Works 95:300-2 Ag '48
- Scope and value of water works schools; panel discussion. W. T. Ingram and others. Am Water Works Assn J 40:1005-27 O '48; Abstract. Water & Sewage Works 95:250-2 Jl '48

- Water works short schools. C. M. Everts, jr. Am Water Works Assn J 40:653-6 Je '48

Equipment

- Air compressors in water and sewage works; results of questionnaire. Water & Sewage Works 95:56 F '48
- Classified index of products used in water-works and sewerage field. Water & Sewage Works 95:R3-12 Ap '48
- Control of metal corrosion. W. T. McClenahan. Am Water Works Assn J 40:606-14 Je '48
- Cutting water-softening costs; lime-recovery plant at Miami. C. F. Wertz. flow diag II plan Eng N 141:113-15 Jl 8 '48
- Gravity flocculator for water treatment. G. R. Frith and L. Cady. II plan diag Pub Works 78:19-20+ D '47
- Lime recalcining plant designed for alternate processes. T. B. Henry and B. H. Swab. diags Eng N 140:663-4 Ap 29 '48
- Liquid carbon-dioxide recarbonation permits high absorption rates. H. Stock. II Eng N 140:653-5 Ap 29 '48
- Liquid chlorine from single unit tank cars; Louisville water purification plant. B. E. Payne and W. H. Lovejoy. II diags Water & Sewage Works 95:93-5 Mr '48
- Modified Marshall furnace combines measuring and mixing; Greeley, Colo. water-treatment plant. A. J. Ryan and C. L. Morgan. II diags Eng N 140:644-5 Ap 29 '48
- New filters supplement spring supply; Johnson City, Tenn. R. F. Taylor. II Pub Works 79:37-8 Mr '48
- Pontiac recalcining plant. B. H. Swab. flow diag Am Water Works Assn J 40:461-4; Discussion. 465-7 Ap '48
- Radio control for water works. II Electronics 21:152+ Ja '48
- Rotating screen for algae removal proposed for London waterworks. Eng N 140:662 Ap 29 '48
- Selection of deep well pumps. A. O. Fabrin. diags Am Water Works Assn J 40:415-22 Ap '48
- Solids-contact process basins; characteristics and performances of the Accelerator, Hydrotreator and Precipitator. H. O. Hartung. Am Water Works Assn J 40:1028-36 O '48

Extension rules

- Water main extension policy. W. V. Weir and others. Am Water Works Assn J 39:1067-78 N '47

Finance

- Financing water and sewage works improvements. G. S. Bell. Am Water Works Assn J 40:553-63 My '48
- New for increased water rates. L. R. Howson. Am Water Works Assn J 40:277-83 Mr '48; Same. Water & Sewage Works 95:81-4 Mr '48; Abstract. Eng N 140:145 Ja 29 '48
- Statistical analysis of water works data for 1945. G. J. Schroeffer and others. Am Water Works Assn J 40:1067-98 O '48
- Survey of operating data for water works in 1945. Am Water Works Assn J 40:165-260 F '48
- Water works revenue and expenditure. C. H. Capen. bibliog Am Water Works Assn J 40:907-26 S '48

Ice protection

- Fighting frazil ice at a waterworks; Chicago's South district filtration plant. J. A. Baylis and H. H. Gerstein. II diags Eng N 140:562-5 Ap 15 '48

Land utilization

- Reservoir lands pay their way. W. R. LaDue and others. Am Water Works Assn J 40:827-36 Ag '48

Laws and regulations

- Water works rules and regulations. M. P. Hatcher. diags Am Water Works Assn J 39:1165-75 D '47; Same. Water & Sewage Works 95:R73-6 Ap '48

Maintenance and repair

- Maintenance and operation problems of Winnipeg's waterworks system. N. S. Bubbis. II Water & Sewage 86:25-6+ S '48

WATERWORKS—Continued**Management**

- Business principles in water works operation. G. E. Arnold. *Am Water Works Assn J* 39:1176-30 D '47
- Responsibilities of water and sewage works operators. F. S. Friel. *Water & Sewage Works* 94:435-8 D '47

Municipal ownership

- Value of public service commission control to municipal water works management. A. P. Kuranz. *Am Water Works Assn J* 40:121-4 F '48

Power*See also*

- Waterworks—By-product power

Public relations

- Are your customers water conscious? E. J. Bear. *Water & Sewage Works* 95:196-6 My '48
- Dealing with the public in obtaining rate increases. L. N. Thompson and others. *Am Water Works Assn J* 40:842-8 Ag '48
- Our relations are always with us! J. E. Kleinhenz. *Il Water & Sewage Works* 95:310-14 S '48
- Public relations symposium. R. B. Cooney and others. *Am Water Works Assn J* 40:675-92 Jl '48; Abstract. *Water & Sewage Works* 95:200-1 Je '48

Radio communication

- Maintenance and operation problems of Winnipeg's waterworks system. N. S. Bubbis. *Water & Sewage* 86:43-4+ S '48
- Radio control for water works. *Il Electronics* 21:152+ Ja '48
- Radio service in the water supply field. W. C. Morse. *Il Water & Sewage Works* 95:132-4 Ap '48
- Radio service in water systems. A. Damiano. *Am Water Works Assn J* 39:1097-103; Discussion. W. C. Morse. 1104-6 N '47

Records

- Care and calibration of recording instruments. J. E. Kerslake and others. *Il Am Water Works Assn J* 40:632-40 Je '48

- Individual customer records. L. J. Hoffman. *Il Am Water Works Assn J* 40:647-52 Je '48

Safety measures

- Safety essentials in designing water-recarbonation systems. H. Arnold. *Eng N* 141:96 O 14 '48

War measures

- Biological warfare hazards to water supplies; abstracts. H. H. Gerstein and R. E. Noble. *Eng N* 140:685 My 13 '48; *Water & Sewage Works* 95:289 Ag '48

Waste

- Disposal of water purification and softening plant wastes; preliminary committee report. W. W. Aultman and others. *diags Am Water Works Assn J* 39:1211-23 D '47

- WATSON, Cassius Hinds, 1878-**
Who's who in industrial medicine. *Ind Med* 17:409-15 O '48

- WATT, James, 1736-1819**
Breda portrait. *Inst Mech Eng J & Proc* 157 (War emergency issue no 28):160a '47

WATT hour meters

- Application guide for single-phase watt-hour meters; engineering reference sheet. L. G. Betz. *Elec World* 130:82 Jl 17 '48

- General Electric new type I-50. *il diag Instruments* 21:416 My '48; *Product Eng* 19:96-7 Je '48

- Lifetime bearing in new meter; magnetic-suspension bearing. *diags Machine Design* 20:143-4 Je '48

- New GE watt-hour meter has magnet, no jewels. *Elec World News* ed 129:6 My 29 '48

- Premature obsolescence of meters alarms PEA. *Elec World News* ed 130:6 O 30 '48

- Revolutionary advances in watt-hour meter design; magnetic suspension of the moving element. I. F. Kinnard. *il diags Gen Elec R* 61:11-15 Je '48; Same. *Elec Eng* 67:627-9 Jl '48; Same cond. *Elec World* 129:104-6 Je 5 '48

- Totalization of watt-hours; metering total consumption on two or more circuits; meter and transformer connections. H. S. Edgerly. *il diags Gen Elec R* 50:28-30 N '47

- Watt-hour meter accuracy can be preserved despite surge currents; aluminum protector cap. E. L. Keller. *il Elec World* 129:67-9 F 28 '48

WATTMETERS

- Graphic wattmeters record production of polishing machines. *il Elec World* 128:93-4 N 22 '47

- Photoelectric recording wattmeter. *il Blast F & Steel Pl* 36:860 Jl '48

- Some aspects of the theory of iron-testing by wattmeter and bridge methods. N. F. Astbury. *biblog diags Inst E E J* 95 pt 2:607-16 O '48

- Some sources of error in microwave milliwattmeters. G. F. Gainsborough. *diag Inst E E J* 95 pt 3:229-38 Jl '48

- Universal a.f.-r.f. wattmeter. G. Dexter. *il diags Radio N* 39:66-7+ My '48

Testing

- New sine-wave motor-generator set for wattmeter and other testing purposes. K. Aston. *il diags Inst E E J* 94 pt 2:543-6 O '47

WAVE guides

- Adjustable wave-guide phase changer. A. G. Fox. *diags Inst Radio Eng Proc* 35:1489-98 D '47

- Analysis and performance of waveguide-hybrid rings for microwaves. H. T. Budenbom. *il diags Bell System Tech J* 27:473-86 Jl '48

- Calculation of radiation patterns of dielectric rods. R. B. Watson and C. W. Horton. *J Ap Phys* 19:836-7 S '48

- Dielectric measurement of liquids at microwave frequencies. C. E. Crouch, Jr. *biblog diags J Chem Phys* 16:364-71 Ap '48

- Double current sheet in diffraction. W. R. Smythe. *biblog diags Phys R* 72:1066-70 D 1 '47

- Equivalent circuit of a corner bend in a rectangular wave guide. J. W. Miles. *diags Inst Radio Eng Proc* 35:1313-17 N '47

- Field surrounding an antenna in a waveguide. J. S. Gooden. *diags Inst E E J* 95 pt 3:346-50 S '48

- Fields in nonmetallic waveguides. R. M. Whitmer. *biblog diags Inst Radio Eng Proc* 36:1105-9 S '48

- Geometry of rectangular waveguides. A. C. Bartlett. *diags Wireless Eng* 25:202-10 Jl '48

- Hybrid circuits for microwaves. W. A. Tyrrell. *diags Inst Radio Eng Proc* 35:1294-306 N '47

- Magic-tee waveguide junction. G. Saxon and C. W. Miller. *il diags Wireless Eng* 25:138-47 My '48

- Metallic delay lenses; metal lens antennas. W. E. Kock. *il diags Bell System Tech J* 27:58-82 Ja '48

- Methods of electromagnetic field analysis. S. A. Schelkunoff. *diags Bell System Tech J* 27:487-509 Jl '48

- Microwave plumbing replaces circuitry. S. Freedman. *il diags Radio & Tv N* 40:35-7+ S '48

- Minimum detectable absorption in microwave spectroscopy and an analysis of the Stark modulation method. W. D. Hersberger. *biblog il diags J Ap Phys* 19:411-19 Ap '48

- Narrow gaps in microwave problems. W. R. Smythe. *diags Rs Mod Phys* 20:175-80 Ja '48

- New type of waveguide directional coupler. H. J. Riblet and T. S. Saad. *biblog il diags Inst Radio Eng Proc* 36:61-4 Ja '48

- Polyrod antennas. G. E. Mueller and W. A. Tyrrell. *il diags Bell System Tech J* 26:837-51 O '47

- Radiation patterns of dielectric rods; experiment and theory. R. B. Watson and C. W. Horton. *diags J Ap Phys* 19:661-70 Jl '48

WAVE guides—Continued

- Radiation resistance of an antenna in an infinite array of waveguide, H. A. Wheeler, bibliog diags *Inst Radio Eng Proc* 36:478-87 Ap '48
- Reflection from dielectric structures in wave guide, J. Shmoy's, diag *J Ap Phys* 19:797 Ag '48
- Reflections from circular bends in rectangular wave guides; matrix theory, S. O. Rice, bibliog diags *Bell System Tech J* 27:305-49 Ap '48
- Representation and measurement of waveguide discontinuities, N. Marcuvitz, diags. *Inst Radio Eng Proc* 36:728-35 Je '48
- Resonant cavity linear accelerator, A. B. Cullen, jr. and J. H. Greig, diags *J Ap Phys* 19:47-50 Ja '48
- Scattering of electromagnetic radiation by a thin circular ring in a circular wave guide, P. Feuer and E. S. Akeley, diags *J Ap Phys* 19:39-47 Ja '48
- Slow waves in cylindrical guides, A. A. Oliner, *J Ap Phys* 19:109-10 Ja '48; Same, *Elec Com* 26:157-9 Je '48
- Theory of disk-loaded wave guides, E. L. Chu and W. W. Hansen, diags *J Ap Phys* 18:996-1003 N '47
- Theory of slots in rectangular waveguides, A. F. Stevenson, diags *J Ap Phys* 19:24-38 Ja '48
- $TM_{0,1}$ mode in circular wave guides with two coaxial dielectrics, S. Frankel, *J Ap Phys* 18:650-5 Jl '47; Same, *Elec Com* 26:152-7 Je '48
- Transmitter-blocker cells, R. H. Kay and M. Surdin, diags *Wireless Eng* 25:55-61, 75-87 F-Mr '48
- Universal curves for dielectric-filled wave guides and microwave dielectric measurement methods for liquids, W. H. Surber, jr, bibliog diags *J Ap Phys* 19:514-23 Je '48
- Waves and electrons traveling together; a comparison between traveling wave tubes and linear accelerators, L. Brillouin, diags *Phys R* 74:90-2 Jl '48

Bibliography

- Radio progress during 1947; waveguides, *Inst Radio Eng Proc* 36:535-6 Ap '48

WAVE mechanics

- Absorption of incident quanta by atoms as defined by the mass photoelectric absorption coefficient and the mass scattering coefficient, J. A. Victoreen, bibliog *J Ap Phys* 19:855-60 S '48
- Analytic behavior of Heisenberg's S-matrix, R. J. Eden, *Phys R* 74:932 O 15 '48
- Application of Heisenberg's theory of S-matrix to the problems of resonance scattering and reactions in nuclear physics, Ning Hu, bibliog *Phys R* 74:131-40 Jl 15 '48
- Asymptotic expression for the energy levels of the rigid asymmetric rotor, S. Golden, bibliog *J Chem Phys* 16:78-86, 250-3 Ja, Mr '48
- Behavior of cross sections near thresholds, E. P. Wigner, bibliog *Phys R* 73:1002-9 My 1 '48
- Binding energy for a self-trapped electron in NaCl, J. J. Markham and F. Seitz, bibliog *Phys R* 74:1014-24 N 1 '48
- Certain integrals useful in molecular orbital calculations, R. G. Parr and B. L. Crawford, jr, *J Chem Phys* 16:1049-56 N '48
- Contributions to the theoretical treatment of ammonium, J. I. Horváth, bibliog diags *J Chem Phys* 16:857-64 S '48
- Counting of nodal curves and surfaces, A. Wintner, *J Chem Phys* 16:405-6 Ap '48
- Davison and Germer, K. K. Darrow, il diags *Sci Am* 178:50-3 My '48
- Different form for the interaction between Dirac's electron field (ψ) and Maxwell's electromagnetic field (Φ , A), F. J. Belinfante, *Phys R* 73:641 Mr 15 '48
- Dirac character operators, E. M. Corson, bibliog *Phys R* 73:57-60 Ja 1 '48
- Dirac's one-electron problem in momentum representation, A. Rubinowicz, bibliog *Phys R* 73:1330-3 Je 1 '48
- Dirac's theory of continuous spectra, A. Wintner, bibliog *Phys R* 73:781-5 Ap 1 '48
- Electrical network for determining the eigenvalues and eigenvectors of a real symmetric matrix, A. Many and S. Meiboom, il diags *R Sci Instr* 18:831-6 N '47
- Electromagnetic shift of energy levels, F. J. Dyson, *Phys R* 73:617-26 Mr 15 '48
- Energy levels and thermodynamic functions of the fourth power oscillator, J. F. Kilpatrick and M. F. Kilpatrick, bibliog *J Chem Phys* 16:781-7 Ag '48
- Energy levels of sodium chloride, E. Fisher, bibliog diags *Phys R* 73:36-40 Ja 1 '48
- Enumeration of potentials for which one-particle Schroedinger equations are separable, L. P. Eisenhart, bibliog *Phys R* 74:87-9 Jl 1 '48
- Factorization method, hydrogen intensities, and related problems, T. E. Hull and L. Infeld, bibliog *Phys R* 74:905-9 O 15 '48
- High energy photo-disintegration of the deuteron, M. E. Rose and G. Goertzel, bibliog *Phys R* 72:749-57 S 1 '47
- Higher order field equations, A. E. S. Green, bibliog *Phys R* 73:519 Mr 1 '48
- Influence of retardation on the London-van der Waals forces, H. B. G. Casimir and D. Folder, bibliog *Phys R* 73:360-72 F 15 '48
- Ionization loss of energy of fast charged particles in gases and condensed bodies, O. Halpern and H. Hall, bibliog *Phys R* 73:477-86 Mr 1 '48
- Molecular orbital method and molecular ionization potentials, R. S. Mulliken, bibliog *Phys R* 74:736-8 O 1 '48
- Molecular spectroscopic evidence of the existence of strontium isotopes Sr^{88} , Sr^{87} and Sr^{90} , L. H. Ahrens, il *Phys R* 74:74-7 Jl 1 '48
- Non-product wave function for a negative ion, E. Conwell, bibliog *Phys R* 74:268-76 Ag 1 '48
- Pair production by γ -rays in the field of an electron, V. Votruba, *Phys R* 73:1468 Je 15 '48
- Perturbation theory, E. Feenberg, *Phys R* 74:206-8 Jl 15 '48
- Phase shift approximation in the theory of pressure broadening of spectral lines, A. Jablonski, bibliog *Phys R* 73:253-9; Reply, H. M. Foley, 259 F 1 '48
- Problem of the molecular theory of superconductivity; Heisenberg's superlattice theory, F. London, bibliog *Phys R* 74:562-73 S 1 '48
- Quantum-mechanical methods and the electronic spectra and structure of molecules, R. S. Mulliken, bibliog *Chem R* 41:201-6 O '47
- Quantum statistics and the N theorem, H. Einbinder, bibliog *Phys R* 74:805-8 O 1 '48
- Quantum theory of localizable dynamical systems, P. A. M. Dirac, bibliog *Phys R* 73:1092-103 My 1 '48
- Radial dependence of the tensor force in the deuteron, W. G. Guindon, *Phys R* 74:146-9 Jl 15 '48
- Recurrence formulas for Coulomb wave function, I. Infeld, *Phys R* 72:1125 D 1 '47
- Relativistic quantum mechanics, H. S. Snyder, *Phys R* 73:524 Mr 1 '48
- Relativistic wave equations; abstract, E. P. Wigner, *Science* 106:506 N 28 '47
- Resonance reactions involving Dirac-type incident particles, G. Goertzel, *Phys R* 73:1463-6 Je 15 '48
- Rydberg-Ritz formula in quantum mechanics, R. Jastrow, bibliog *Phys R* 73:60-7 Ja 1 '48
- Solutions of radial wave equations, A. Wintner, bibliog *Phys R* 73:91-2 Ja 1 '48
- Some observable effects of the quantum-mechanical fluctuations of the electromagnetic field, T. A. Welton, bibliog *Phys R* 74:1157-67 N 1 '48
- Space-time approach to non-relativistic quantum mechanics, R. P. Feynman, *Rs Mod Phys* 20:367-87, Ap '48
- Stark effect for a rigid asymmetric rotor, S. Golden and E. B. Wilson, jr, bibliog *J Chem Phys* 16:669-85 Jl '48
- Theory of elliptically polarized photons, G. Araki, bibliog diags *Phys R* 74:472-9 Ag 15 '48

WAVE mechanics—Continued

- Theory of scattering processes. E. Feenberg. Phys R 74:664-9 S 15 '48; Discussion. P. I. Richards. 74:835-6 O 1 '48
- Transformation theory applied to a radiation field. J. A. Balseiro. Phys R 73:1346-8 Je 1 '48
- Wave functions for H⁻ obtained by variation method. E. Conwell. Phys R 74:277-8 Ag 1 '48

WAVEMETERS

- Direct-reading wavemeter design. G. E. Feiker and H. R. Meahl. *il* diags Electronics 21:103-7 Mr '48
- Ideal grid dip oscillator. J. N. Whitaker. *il* diags Radio N 39:56-7+ My '48

WAVES

- Approximate solution of one-dimensional wave equations. C. Eckart. bibliog diags Rs Mod Phys 20:399-417 Ap '48
- Gradual damping of solitary waves. G. H. Keulegan. bibliog diag J Res Nat Bur Stand 40:487-98 Je '48
- Instrument for recording ultra low frequency ocean waves. W. E. Munk and others. diags R Sci Instr 19:654-8 O '48
- Refraction of waves from a point source into a medium of higher velocity. E. Gerjuoy. bibliog Phys R 73:1442-9 Je 15 '48
- Surface waves from an underwater explosion. J. G. Kirkwood and R. J. Seeger. bibliog J Ap Phys 19:346-60 Ap '48

See also

- | | |
|----------------|------------------|
| Electric waves | Shock waves |
| Light | Sound waves |
| Radiation | Supersonic waves |
| Radio waves | Vibration |

WAXAHACHIE, Texas

- Texas town talks in favor of life insurance. W. E. Roesch. *il* Spectator (Life ed) (Endorsement no 1947-1948) 155:24-36 N '47

WAXES

- Atlantic's ultramodern wax plant. flow chart *il* diags Oil & Gas J 47:312-13+ S 23 '48
- Emulsion polishes. E. J. Schmieders and others. Soap & San Chem 24:145+ Je '48
- Ketonization of higher fatty acids with some observations on the mechanism of the reaction; studies of waxes. R. G. Curtis and others. bibliog diag Soc Chem Ind J 66:402-7 N '47
- Polyisobutylene in waxes. W. L. Abramowitz. bibliog Mod Packaging 21:159-62+ Je '48
- Recovery of wax from sugar cane; abstract. T. S. Harding. Chem Age (Lond) 58:396 Mr 20 '48
- Some solid state properties of petroleum waxes in terms of their composition. S. T. Minchin. bibliog diag Inst Pet J 34:542-87; Discussion. 587-601 Ag '48
- Specifications of microcrystalline waxes. W. L. Nelson. Oil & Gas J 46:105 F 19 '48
- Structure and properties of ethylene polymers; crystallization of polymers and waxes. R. B. Richards. diags Inst Pet J 34:240-4 Ap '48
- Tack of wax films. H. R. Broll and others. bibliog *il* Soap & San Chem 24:151+ Je '48
- Wax from old wood. I. Cox. Can Chem & Process Ind 32:147 F '48
- Wax manufacture. flow diag Oil & Gas J 46:158 Ap 1 '48
- Waxes and kindred materials; complex functions in printing inks; abstract. L. Ivanovszky and A. C. Healey. Chem Age (Lond) 58:457 Ap 3 '48
- Waxes; dielectric, physical and chemical properties for insulating, coating and sealing applications; tabulation. Electronics 21:M38-9 Mid-Je '48
- Waxes from sisal waste. W. Politzer. Chem & Ind p408-9 Je 26 '48

See also

- | | |
|----------------|---------------------|
| Beeswax | Petroleum refining— |
| Candelilla wax | Wax removal |
| Paraffin | Wool wax |

Statistics

- Oils, fats and waxes. Published in weekly numbers of Oil, paint and drug reporter

Testing

- Flexibility of microcrystalline wax. A. Kinsel and H. Schindler. *il* diags Paper Tr J 126:58-60 Mr 25 '48

WEADOCK, Bernard Francis, 1884-1947

- Sketch. por Edison Elec Inst Bul 15:406 N '47

WEALTH

- American genius for bankruptcy; Europe, not the U.S.A., has the love of money. G. Burk. Fortune 37:130-1+ Ap '48
- Wealth of thirty-three nations; post-war Europe and the United States. R. R. Doane. Dun's R 56:21-3+ Mr '48

See also

- | | |
|----------------------------|--------------|
| Economics | Millionaires |
| Income | Profit |
| Inheritance and succession | Success |

WEAPONS

- Rocket as a weapon of war in the British forces. A. D. Crow. diags Inst Mech Eng J & Proc 158:Proc 15-21, pl 1-2 Je '48; Same cond. Engineer 184:510-12, 532-3 N 28-D 5 '47
- Some mechanical features in anti-submarine weapons. J. M. Kirkby. *il* diags Engineer 185:159-61, 192-5 F 13-20 '48; Discussion. 185:165-6 F 13 '48

See also

- | | |
|-----------------|-----------------|
| Flame throwers | |
| WEAR of metals. | See Metals—Wear |

WEATHER*See also*

- | | |
|-------------|-------------------|
| Cold | Meteorology |
| Droughts | Rain and rainfall |
| Hot weather | Snow |
| Humidity | |

Business aspects

- Economist charts plan to study effects of weather on oil demand as important key to supply-demand balance. Nat Pet N 40:51+ O 13 '48

WEATHER bureau. See United States—**Weather bureau****WEATHER control**

- Artificial rain ordered by group to ease California water shortage. Eng N 141:72 S 16 '48
- Rain by contract; modern rainmaker to wring water from San Diego's clouds. Bsns W p36 Ag 28 '48
- Weather under control; Langmuir and Schaefer discover how to make it rain or snow. *il* diags Fortune 37:106-11+ F '48; Reply. F. W. Reichelderfer. 37:38 Mr '48

WEATHER forecasting

- New ceiling and visibility recorders take the guesswork out of forecasting airport weather conditions. *il* diags Aviation W 47:33-4 N 17 '47
- Weather in prospect. H. P. Gillette. Roads & Sts 90:94+ D '47; Same. Water & Sewage Works 95:42 Ja '48
- Weather prediction may be aided by new technique for measurement of total stratosphere ozone. Heat & Ven 45:124 Ap '48
- Weather, water and power. I. P. Krick. *il* Elec West 100:67-70 Mr '48

*See also***Radio meteorographs****Bibliography**

- Forecasting maximum probable precipitation. S. Singh. comp. (Lib. bul. 20) 4p Colorado A & M college library, Fort Collins '48

WEATHER forecasts

- Load forecasting; method used by Boston consolidated gas co. in estimating daily outputs from weather forecasts. E. L. Sweeney. Gas Age 101:21-4 F 19 '48

WEATHER stations. See Meteorological stations**WEATHERING**

- Effect of weathering on insulation resistance of plastics. L. H. Campbell and others. Am Soc T M Proc 46:1465-74 '46
- Weathering machine correlation in the Cleveland club and other areas, by Cleveland paint and varnish production club. *il* Paint Oil & Chem R 110:32-4+ N 27 '47

*See also***Soils****WEAVING**

- Beam handling facilitated by fork truck. J. C. Moore. *il* Textile World 98:125 J1 '48
- C & K produces first of training-film series. W. A. Newell. *il* Textile World 98:112-13 Ag '48

WEAVING—Continued

- Drop-wire maintenance aids weaving efficiency. H. E. Wenrich. *Il diags Textile World* 98:141+ O '48
- Hand twisting-in of warps. H. E. Wenrich. *diags Rayon* 29:55-7 Ja '48
- Loom checking is aid to good weaving. *Il Textile World* 98:116-17+ Ag '48
- Loom study by means of the cathode ray oscillograph; variations in individual warp thread tension during the weaving cycle. N. H. Chamberlain and D. S. Snowden. *bibliog Il diags Textile Inst J* 39:T23-43 F '48
- Quality plant erected for quality fabrics; weaving mill of F. Ducharme silk co. W. A. Newell. *Il Textile World* 98:109-12+ My '48
- Task of weave room inspectors. P. G. Alexander. *Rayon* 29:62 Ag '48
- Tray suggested to speed battery filling. A. R. Kandler. *diags Textile World* 98:137+ My '48
- Weaving developments previewed by American association of textile technologists. *Il Textile World* 98:117+ Mr '48
- Wild filling can be easily studied; stroboscopic flashes and dark glasses permit observation. C. D. Brown. *Il Textile World* 97:114-15 N '47
- Wrong ends reduced by educating weavers. T. Vine. *diag Textile World* 97:173-4 N '47
- See also*
- | | |
|----------------|----------------------------|
| Cotton weaving | Silk weaving |
| Looms | Woolen and worsted weaving |
| Nylon weaving | |
| Rayon weaving | |

WEAVING machines. See Looms

WEBB, James Earl, 1899-
Webb's City. \$12,000,000 drugstore. *por Fortune* 37:92-5+ Ja '48

WEBBING, Cotton. See Cotton webbing

WEBBING, Plastic

Elastic webbing; seats and berths have extruded polyvinyl plastic in place of metal springs. R. J. Considine. *Il Mod Plastics* 25:123 Ap '48

WEBB'S CITY (store). See Drug stores

WEBER, Wilhelm Eduard, 1804-1891

Diamagnetism; clarification of relations between fundamental molecular theories. S. J. Barnett. *Rs Mod Phys* 20:78-81 Ja '48

WEBER equation

Solutions of the transformed Weber equation as an aid in teaching Legendre polynomials and Bessel functions. F. M. Mallett. *bibliog J Eng Educ* 38:672-9 My '48

WECKER, Walter Andre, 1895-
Portrait. *Fortune* 38:67 Jl '48

WEDDINGS

Complete analysis of royal fashions; wedding of Princess Elizabeth. H. Huntington. *Il Textile Col* 69:33+ D '47

WEEDS

See also
Railroads—Weed removal

Control

- Chemical herbicides; sodium isopropyl xanthate, and allyl mixed chlorophenyl carbonate. *Chem Ind* 62:260+ F '48
- Chemical weapons discussed by Northeastern weed control conference; abstract. *Chem & Eng N* 26:604 Mr 1 '48
- Chemicals used in western agriculture; abstract. R. J. Hansberry. *Chem Ind* 61:803-4 N '47
- Control of grass weeds in sugar-cane fields in Puerto Rico; 2,4-D in oil. J. A. B. Nolla. *Science* 108:112-13 Jl 30 '48
- Cyclization of phenoxyacetic acid and some chlorophenoxyacetic acids. M. L. Kalinowski and L. W. Kalinowski. *bibliog Am Chem Soc J* 70:1970-1 My '48
- Effects of 2,4-dichlorophenoxyacetic acid on chicks. M. K. Bjorn and H. T. Northern. *Science* 108:479-80 O 29 '48
- Increase of herbicidal action of concentrate 40 and oil emulsion by 2,4-D. J. C. Mangual. *Science* 107:66 Ja 16 '48
- Killing weeds the easy way with 2,4-D. B. McDowell. *Il Pub Works* 79:24-5 My '48
- More potent weed killer. *Il Ry Age* 124:523-4 Mr 13 '48
- Mow 'em down! roadside power mowing and weed control. *Il Roads & Sts* 90:75-7 N '47

- Plant hormones with special reference to selective weedkillers. E. Holmes. *Chem & Ind* p355-8; Discussion. 358-9 Je 5 '48
- Recent developments in weed control. F. E. Hance. *Science* 108:278-9 S 10 '48
- Roadside weed spraying with 2,4-D. C. W. Magee. *Il Roads & Bridges* 86:72-5+ F '48
- Synthetic chemicals for agriculture. R. H. Wellman. *Il Chem Ind* 63:227-9 Ag '48
- Theory of herbicidal action. A. S. Crafts. *bibliog Science* 108:85-6 Jl 23 '48
- 2,4-D and other chemicals; abstract. C. Brown. *Chem & Eng N* 26:1598 My 31 '48
- Weed control, a liquid concentrate of the isopropyl ester of 2,4-D miscible with oil or water in any proportion. F. E. Hance. *Science* 108:303 S 17 '48
- Weed control in the tropics. A. S. Crafts. *bibliog Science* 107:196-7 F 20 '48
- Weed control research progress described at Topeka conference. *Oil Paint & Drug Rep* 153:5+ Ja 5 '48

WEEK-END houses

Summer and week-end house, Candlewood Lake, Conn. *Il plans Arch Forum* 88:142-3 Ap '48

WEEKLY newspapers. See Newspapers—Weekly newspapers

WEIDLEIN, Edward Ray, 1887-
American contemporary. A. D. McFadyen. *por (cover) Chem & Eng N* 26:1065+ Ap 12 '48

E. R. Weidlein named Priestley medalist. *por Paint Oil & Chem R* 111:10A My 13 '48

Man of the month. *por Chem Eng* 55:239 Ag '48

WEIGHING

- Apparatus for weighing in vacuum. G. W. Monk. *diag J Ap Phys* 19:485-6 My '48
- Weight control; basic measurement in industry. D. M. Considine. *Il diags Food Ind* 20:1443-54 O '48
- Weight control in packaging gelatin desserts. K. A. Fitch. *Food Ind* 20:550-1 Ap '48

See also

Balances

WEIGHING machines

Welded beam design reduces production costs of continuous weighing machines. *Il Steel* 121:108 D 15 '47

WEIGHTS and measures

- Concentric circles, areas, and weights. *diag Am Gas J* 188:30 Ja '48
- Determining the weights of metal fillets; tables; data sheet. *diags Foundry* 76:117 Mr '48
- How to figure weight of pipe insulation. S. S. Ulrich and T. H. Dickson, jr. *Il Heating-Piping* 20:84-5 F '48; Same. *Power Generation* 52:86, 88 Mr '48
- Table of weights for elliptical bars; data sheet. *diag Foundry* 76:118 Mr '48
- Weight loss and the law. *Mod Packaging* 21:135+ N '47
- Weight of rods or cylinders per running inch; data sheet. *Foundry* 76:107-8 F '48
- Weight of steel bar for 1000 pieces; chart; reference book sheet. *Am Mach* 92:141 Ap 8 '48
- Weights of round galvanized steel elbows in ducts; factors for converting weights from one gage to another; tables; reference data. *Heat & Ven* 44:94a-94b N '47
- Weights of various materials; tabulation. *Brick & Clay Rec* 111:33 D '47

See also

- | | |
|-----------------------|-----------------------|
| Balances | Measuring instruments |
| Electric measurements | Metric system |
| Gages | Specific gravity |
| | Standards of length |

WEIR, Walter

I want my children to serve in advertising. W. Weir. *por Ptr Ink* 221:29-30 N 7 '47

WEIRS (measuring)

- Instrument facilitates setting of weir zero values. P. E. Johnson and H. C. Storey. *Il diag Civil Eng* 18:699-700 N '48
- Submerged-weir discharge studies; based on an application of the superposition principle. J. R. Villemonte. *diags Eng N* 139:866-9 D 25 '47
- Weirs and the gas calorimeter. J. H. Elseman and R. F. Plapp. *Am Gas Assn Mo* 30:34-5 Je '48

WEIRTON steel company

Weirton steel company. T. J. Ess. *il* plan diags Iron & Steel Eng 25:sup 16W-34W My '48

WEISENBURGER, Walter Bertheau, 1888- Portrait. Bsns W p28 Ap 24 '48

WEIZMANN, Chaim, 1874- Zion's senior statesman. Chem & Eng N 26: 1579 My 31 '48

WELCH, Holme and Clark company

Welch, Holme & Clark is 110. *il* Soap & San Chem 24:93 Ag '48

WELDERS**Training**

Interpreting teaching of arc welding from an analysis of motor learning studies. W. J. Brooking. biblog Welding J 26:1002-10 N '47

WELDERS' helmets. See Helmets, Welders'

WELDING

American welding society 29th annual meeting, Philadelphia, Oct. 24-29; abstracts of technical papers. Steel 123:147- O 18 '48 Building, repairing and design of farm machinery. E. J. Koop. *il* Welding J 26:988-90 N '47

Carbon blocks simplify welding jobs. P. Glanzor. *il* diags Am Mach 92:124-5 O 21 '48

Choosing the correct metals-joining method; chart to aid manufacturing engineers and designers in making correct selection. J. W. Kehoe. diags Mach 55:185-8 S '48

Design and fabrication of welded light-weight pressure vessels. J. J. Chyle. *il* Welding J 27:831-7 O '48

Effect of welding practice on abrasion resistance of hard facings. R. D. Haworth. *il* Iron Age 162:82-7 O 7 '48

Five new welding ideas that bring more profits. *il* Mod Ind 16:123-4 Ag '48

Furnace fixture for maintaining welding pre-heat. W. R. Patterson. *il* Iron Age 161:141-2 Mr 11 '48

Future welded design of farm equipment. E. J. Koop. *il* Welding J 27:850-4 O '48

General welding practices in locomotive and car shops. J. Michne. *il* Welding J 27:781-4 O '48

Hard surfacing by fusion welding. H. S. Avery. *il* Steel 123:96-100+ O 11 '48

Jigs and fixtures facilitate economic mass welding. O. L. Dubie. *il* Steel 122:90-3 My 3 '48

Let contraction do the heavy work; using oxyacetylene flame for straightening welded parts. E. F. Kurzinski. diags Welding J 27:37-8 Ja '48

Maintenance welding in a steel plant. F. J. Gaydos. *il* Welding J 27:527-30 J1 '48

Methods of joining pipe; welded and brazed pipe joints. J. E. York. diags Heat & Ven 44:99-101 N '47

Review of power and mechanical equipment; welding equipment. *il* Power 91:919-20 Mid-D '47

Technical progress in metalworking; joining and welding. Steel 122:202+ Ja 5 '48

35th annual review; welding and heat-treating. *il* Am Mach 92:245-53 Ja 29 '48

Tool construction and maintenance by welding. E. H. Girardot. *il* diags Steel 123:80-2+ J1 5 '48

Welding a Roto-Clone Impeller. H. Powers. *il* Welding J 27:51-2 Ja '48

Welding and fabrication of high-temperature alloys. C. G. Chisholm. *il* diags Welding J 27:217-23 Mr '48

Welding and flame cutting; rapid repairs help to maintain production. C. W. Brett. *il* Chem Age (Lond) 57:732-4 D 6 '47

Welding characteristics of high temperature alloys. C. G. Chisholm. *il* diag Steel 121: 54-6+ D 29 '47; Abstract. Product Eng 19: 138-9 F '48

Welding dissimilar metals. Welding J 27:604 Ag '48

Welding in assembly line production of refrigerator cabinets. P. Bowman. *il* Welding J 26:1083-6 D '47

Welding in car repairs. H. E. Gannett. Ry Mech Eng 121:688-90+ D '47

Welding in machine design. J. Mikulak. *il* diags Welding J 27:290-3 Ap '48; Same cond. Machine Design 20:147-52 S '48

Welding in the development of jet propulsion engines; abstract. H. E. Lardge. Engineering 164:366 O 17 '47; Same. Mech Eng 70:24-5 Ja '48

Welding of locomotive type high pressure boilers. G. M. Trefts. 3d. *il* diag Welding J 26:1011-14 N '47

Welding technology reviewed; Institute's studies of equipment and material. Chem Age (Lond) 58:782 Je 5 '48

See also

Airplanes—Welding operations	Oxyacetylene welding
Aluminum—Welding	ing
Brazing	Oxyhydrogen welding
Bronze welding	Piping (power plants)
Cast iron—Welding	—Welding
Electric welding	Shipbuilding—Welding operations
Electric welding, Arc	Steel—Welding
Hard facing	Steel, Structural—Welding
Lead burning	Steel construction—Welding
Magnesium—Welding	

Bibliography

Current welding literature. Welding J 27:10, 35, 47 Ja '48 [cont monthly]

Cold welding

Developments in cold welding. *il* Engineer 185:432-3, 541-2 Ap 30, Je 4 '48; Engineering 165:535 Je 4 '48; Automobile Eng 38: 277-8 J1 '48; Iron Age 162:85 Ag 19 '48

Failures

Some additional tests on the Lehigh restraint specimen. R. D. Stout and others. *il* diags Welding J 26:sup673-82 N '47

History

Story of welding. W. P. Gillingham. *il* Comp Air Mag 53:78-84 Ap '48

Hygienic aspects

Sixteen ways to exhaust welding fumes. M. E. Ringquist. *il* diags Heat & Ven 45:69-77 My '48

Trend in welding ventilation. *il* diags Sheet Metal Worker 39:86+ F '48

Patents

Abstracts of current welding patents (cont). V. L. Oldham. Welding J 26:1135-6; 27:92-3, 174-6, 250+, 334, 420-1, 655+, 884 D '47-My, Ag, O '48

Safety measures

Blind don't weld. *il* Safety Eng 95:17+ My 48

Fire underwriting; welding and cutting. W. O. Lincoln. Spectator (Property ed) 13:13+ D 25 '47; 12+ Ja 8 '48

How to weld with safety. *il* Dom Eng 172: 107+ S '48

Standardization of the optical densities of industrial eye-protective glasses. R. Stair. biblog Glass Ind 29:375-80+ J1 '48

See also

Helmets, Welders'

Stresses

Determination of physical chemical factors in stress corrosion cracking of mild steel. M. G. Winterstein and others. biblog *il* diag Welding J 26:sup223-6 D '47

Effect of residual tension stress on the fatigue strength of mild steel. L. D. Hall and E. R. Parker. *il* Welding J 27:sup421-5 Ag '48

Effect of temperature and welding conditions on the strength of large welded tubes. G. E. Troxell and others. *il* diags Welding J 27:sup24-49; Discussion. J. Vesta. sup49+ F '48

Electric strain gage analysis of a 50-ft. Horseshoe. G. Brewer. biblog *il* diags Welding J 27:sup476-80 S '48

Extent of peening weld deposits for stress relief. J. L. Morris. biblog *il* diags Welding J 27:sup 148-58 Mr '48

Metallurgical aspects of carbon steel spot welding. J. Heuschkel. Steel 122:67-9+ Mr 22 '48

WELDING—Stresses—Continued

- Radiographing and controlled low-temperature stress relieving of welded tanks for wet seal gas holder. R. Kraus, bibliog il diags Welding J 26:1073-9 D '47; Same, Am Gas J 168:11-16 F '48
- Residual stresses in a butt-welded structural I-beam. W. J. Krefeld and E. C. Ingalls, il diags Welding J 27:sup147-20 Ag '48
- Shrinkage stresses in spot-welded joints. V. Hank, bibliog diags Welding J 27:sup453-6 S '48
- State of stress in arc welds made under transverse restraint. E. F. Nippes and W. F. Savage, il diags Welding J 27:sup370-6 JI '48
- Stress investigations of flat welded-in heads. H. M. Spring, jr., il diags Mech Eng 69:452-4 Je '47; Discussion, 69:948-9 N '47
- Todd shipyards stress-relieving tankers, il Marine Eng 52:110+ D '47
- Weld repairs on tubing stress-relieved with water-cooled copper induction coils. E. K. Dewey, jr., diags Pet Processing 3:845-6 S '48
- Welded fabrication. J. R. Stitt, il diags Welding J 27:48-51 Ja '48
- Welding stresses dissipated by low-temperature process, T. W. Greene, il Steel 123:78-82 Ag 9 '48

Study and teaching

- New emphasis on welding and heat treating for mechanical and industrial engineers. R. S. Green, J Eng Educ 38:496-9 Mr '48
- Training welding technicians on a college level; California state polytechnic college. R. C. Wiley, il Welding J 27:686-9 S '48

Symbols

- Story of the welding symbols. L. C. Bibber, Welding J 27:101-7 F '48
- Summary of standard welding symbols; engineering data, diags Aviation W 48:21 F 16 '48

Testing

- Etchant for welds. G. H. Boss, il Metal Prog 53:372 Mr '48
- Impact testing of weldments. W. C. Long, il Metal Prog 54:43-5 JI '48
- Sampling of welds by trepanning and allied methods. R. B. Lincoln, Welding J 27:809-11 O '48
- Static and fatigue strengths of welded joints in aluminum-manganese alloy sheet and plates. R. L. Templin and M. Holt, il Welding J 26:sup705-11 D '47
- Supersonic testing of welds; effective with steel and non-ferrous metals, il diag Chem Age (Lond) 58:781 Je 5 '48; Mach 54:168-9 Ag '48
- Testing welds with supersonic waves; supersonic reflectoscope. B. Carlin, il diags Welding J 27:438-40 Je '48
- Welded flanges for pressure vessels; calculations and tests. G. A. Brewer, il diags Machine Design 19:125-8 N '47

Thermit process

- Welding screw shafts to castings; adjusting screws for presses. P. H. Setzler, il Iron Age 162:93-4 Ag 26 '48

X ray inspection

- Acceptance standards in radiographic examination of castings and welds; discussion, Engineer 184:551 D 12 '47
- Defects and preventives in weld radiographs; tabulation. L. Mullins, Iron Age 161:73 Ja 15 '48
- 40-in. concrete houses big X-ray machine installed by Babcock & Wilcox co.; abstracts. O. R. Carpenter, il Concrete 56:36 My '48; Safety Eng 95:32 My '48
- Line weld checking with portable X ray unit. E. Sterrett, il World Oil 128:195-6+ Ag '48
- Mobile X-ray unit for examination, in situ, of welded high-pressure pipelines, il Elec R (Lond) 141:640 O 24 '47; Engineer 184:468 N 14 '47
- Naval radiographical laboratory to assist welding and casting technique. A. Wilson, Metallurgia 37:305-6 Ap '48

Radiographic appraisal of spot welds in aluminum. G. H. Boss, bibliog il Metal Prog 53:522-7+ Ap '48

Radiographing and controlled low-temperature stress relieving of welded tanks for wet seal gas holder. R. Kraus, bibliog il diags Welding J 26:1073-9 D '47; Same, Am Gas J 168:11-16 F '48

Radiology of joints in welded piping for power plants. E. Thomas, diags Inst Mech Eng J & Proc 158:Proc 1-5, pl 1-2; Discussion, 5-8 Je '48

Shrinkage stresses in spot-welded joints. V. Hank, bibliog diags Welding J 27:sup453-6 S '48

WELDING journal (periodical)

Suggestions for writing papers for publication in the Welding journal. Welding J 27:714+ S '48

WELDING machines

New machine eliminates stainless flange welds. H. Frankfort, il Chem Ind 62:752-3 My '48

Manufacture

Moving materials with ease and economy; manufacture of a-c welders, Westinghouse Electric, il plan Mill & Factory 42:104-7 Ap '48

WELDING research

Adams lecture for 1947; structural strength of the welded joint. G. S. Mikhailov, bibliog il diags Welding J 27:193-206 Mr '48

British welding research association, research station at Abington Hall, il Engineer 185:589-90 Je 18 '48

British welding research association; review of the year's work. F. A. Fox, bibliog il Metallurgia 38:276-9 S '48

Clinical approach to weldment design. G. von Stroh, il diags Welding J 27:207-16 Mr '48; Same cond, Steel 122:68-72+ Ja 19 '48

Determination of physical chemical factors in stress corrosion cracking of mild steel. M. G. Winterstein and others, bibliog il diag Welding J 26:sup723-6 D '47

Effect of temperature and welding conditions on the strength of large welded tubes. G. E. Troxell and others, il diags Welding J 27:sup24-49; Discussion, J. Vasta, sup49+ F '48

Fatigue tests of spot welds; improvement of their endurance limit by hydrostatic pressure. G. Welter, bibliog il diags Welding J 27:sup285-93 Je '48

Inert gas-shielded arc welding pure copper. J. W. Mortimer, il diags Welding J 27:715-22 S '48

International harvester co. new manufacturing research department; welding section. Welding J 26:1114+ D '47

Investigation of methods for evaluating welding-arc stability and their application. R. A. Wyant and others, bibliog diags Welding J 27:sup502-14 O '48

Pressure vessel research. Welding J 27:sup5-6 Ja '48

Principal researches of the Welding research council. C. A. Adams and W. Spraragen, Metal Prog 53:811-16 Je '48

Research on arc-welded butt joints of mild steel. G. Welter, il diags Welding J 27:sup321-69 JI '48

Tests on flow and fracture of welded and unwelded tubes of steel. L. V. Griffiths and others, il diags Welding J 27:sup161-8+ Ap '48

Weldability of alloys for high-temperature service. G. E. Linnert, il diags Welding J 27:sup385-405 Ag '48

WELDING rods

French specifications for gas welding rods. Welding J 27:223-4 Mr '48

WELFARE work. See Social work**WELFARE work in industry***See also*

Company towns
Employees' benefit plans

WELL drilling contracts

We drill a new well; Asbury Park, N.J. C. M. Roberts, plan Pub Works 79:28+ Ap '48

WELL liners. See Petroleum—Well liners

WELL water. See Wells

WELLPOINT system

Use of well points for trench dewatering; construction of large trunk sewer. A. M. Rawn. *il* Water & Sewage Works 95:167-71 My '48

Well-points on bridge job progress from pier to pier. Eng N 141:85 Ag 5 '48

WELLS

Acid treatment of wells. G. Pelon. Pub Works 79:29 S '48

Acidizing rig water wells. M. M. DeWitt. *diags* World Oil 128:87-8 J1 '48

Determination of sand in well water. G. C. Bunker. *diag* Water & Sewage Works 95: R145 Ap '48

Free surface around, and interference between, gravity wells. H. E. Babbitt and D. H. Caldwell. *bibliog il* *diags* *il* U Eng Exp Sta Bul 374:1-58 '48 (60c)

How to chlorinate wells. T. A. Filipi. *diag* Eng N 141:33 S 2 '48

Matching the deepwell turbine with the well. L. C. Kimball. Pub Works 79:59-60 J1 '48

Same. Water & Sewage 86:24+ O '48

Proper development of ground water. E. W. Bennisson. *Am* Water Works Assn J 40:771-4 J1 '48

Rating and sampling wells by an improved method. P. F. Howard. *diag* Water & Sewage Works 95:R102 Ap '48

Temperature and heat flow in a well near Colorado Springs. F. Birch. *map* *Am* J Sci 245:733-53 D '47

Water from wells; practical pointers on its use for refrigeration, air conditioning, and the heat pump. G. E. Clancy. *diags* *Heat-Piping* 19:75-9 N; 90-3 D '47; Discussion. R. R. Storm. 19:104-5 D '47

Working a riverbed to increase well water supply. *il* Pub Works 78:36+ D '47

See also

Well drilling contracts

WELTON, Spencer, 1880-1948

Sketch. East Underw 49:15, 25 Ag 13 '48; Nat Underw 52:21+ Ag 12 '48

WERKSPOOR-LUGT engine. See Diesel engines, Marine

WEST

Industries and resources

High rate of industrialization continues in the West during 1947. R. T. Reinhardt. *Iron* Age 161:248+ Ja 1 '48

Industry marches westward. D. Palmer. *Elec* West 101:89-90 J1 '48

Industry moves west. *map* *Elec* West 101: 69-76 Ag '48

Migration of industry; bus companies will do well to study resultant changes. *map* *Bus Transportation* 27:41-3 Ag '48

New markets, new industries. *il* *Elec* West 101:67-78 O 48

Western industrial growth provides expanding outlet for chemicals; symposium at Pacific chemical exposition. *Chem Ind* 61: 800-4, 990-3 N-D '47

See also

Rayon industry—
Western states

WEST disinfecting company

Stocks offered. *Comm & Fin* Chr 166:2000 N 17 '47

WEST INDIES, British

See also

Bahama Islands

Commercial policy

Revised import controls in Trinidad and Tobago. *For* *Comm* W 29:11 D 13 '47

WEST INDIES, French

Commercial policy

Tariffs and trade controls. *For* *Comm* W 31: 25 My 29 '48

WEST INDIES, Netherlands

See also

Curacao

Economic conditions

Prosperity in the Dutch West Indies. *Economist* 154:1023 Je 19 '48

WEST PENN electric company

Annual report. *Comm & Fin* Chr 167:1737 Ap 19 '48

WEST PENN power company

\$17,000,000 of securities offered. *Comm & Fin* Chr 167:1370+ Mr 29 '48

WEST SHORE railroad

West Shore 48 discount value in Central's system. W. H. Davis. *Barron's* 28:32 F 9 '48

WEST Texas utilities company

Bonds offered. *Comm & Fin* Chr 167:2301 My 24 '48

WEST VIRGINIA academy of science

Annual meeting, Montgomery, April 30-May 1. *Science* 107:644-5 Je 18 '48

WEST VIRGINIA pulp and paper company

High-yield stocks selling less than five times earnings. *Mag* of Wall St 82:183 My 22 '48

WEST VIRGINIA university

Bibliography

Publications by the faculty of West Virginia university, 1925-1944. G. Jenny, comp. (Ser. '47, no. 10-1) 71p pa 50c West Virginia univ, Morgantown '47

WESTERN air lines

Blueprints future with five-year program. C. Adams. *Aviation* W 48:38-9 Ja 5 '48

Stock sale; Coulter announces plan to dispose of entire holdings. *Aviation* W 49:45 O 18 '48

WAL finds consolidation vital to belt-tightening program. S. Bangs. *Aviation* W 48:39-40 Mr 8 '48

Western pushes retrenchment. S. Bangs. *Aviation* W 48:48-9 Mr 15 '48

WESTERN auto supply company

Western Auto's borrowing would limit use of surplus. *Barron's* 28:35 Mr 22 '48

WESTERN electric employees association

Union receiver; T. Reynolds to run New Jersey electrical union, pending outcome of court dispute. *Bsns* W p74+ Ja 31 '48

WESTERN Maryland railway

E. S. Williams succeeds C. W. Brown as head. *Ry* Age 124:171 Ja 17 '48

WESTERN Pacific railroad

Western Pacific case, an extraordinary lawsuit; holding company claims proceeds of tax refund. V. C. Smith. *Comm & Fin* Chr 168:1858-9 N 4 '48

Whitman groomed for Western Pacific presidency. *Ry* Age 125:671-3 O 9 '48

WESTERN petroleum refiners association

Annual meeting, 36th, Galveston. Oil & Gas J 46:40-1+ Ap 8; 63, 143 Ap 15 '48; Nat Pet N 40:23 Ap 7 '48; Chem & Eng N 26:1149 Ap 19 '48

WESTERN Reserve historical society

Library

Types of service offered by an historical society library. M. D. Gidney. *Special Lib* 39:13-15 Ja '48

WESTERN society for clinical research

Officers elected. *Science* 106:583 D 12 '47

WESTERN society of engineers

Annual meeting, 78th, Chicago, June 2. Western Soc E J 52:103-19 S '47

Annual meeting, 79th, Chicago, June 7. Western Soc E J 53:65-74 Je '48

Year book containing the constitution, by-laws, the membership roster, and the administrative and operating organization. Western Soc E J 52:1-89 pt 2 S '47

Year in the life of WSE. Western Soc E J 53:76-7 Je '48

WESTERN society of naturalists

Annual winter meeting, Berkeley, Dec. 29-31. *Science* 107:138 F 6 '48

WESTERN underwriters association

Annual meeting, Swampscott, Mass. April 27-28. Nat Underw 52:1+ Ap 29 '48

Midyear meeting, White Sulphur Springs, W. Va. Sept. 28-30. Nat Underw 52:1+ S 30 '48; East Underw 49:26 O 8 '48

WESTERN union telegraph company

Another look. S. Devlin. *Mag* of Wall St 81: 373-4 Ja 3 '48

Employee interest in public utility merger and abandonment cases; Western Union-Postal Telegraph merger. H. H. Goldin. *Land Econ* 24:169-74 My '48

Nailing buyers; to locate your nearest dealer, call Western Union. *Bsns* W p78 J1 24 '48

- WESTINGHOUSE, George**, award in engineering education
George Westinghouse award; Hunter Rouse. *J Eng Educ* 39:6-7 S '48
Nominations for the award requested. *J Eng Educ* 38:401 Ja '48
Report of the G. Westinghouse award committee for the year 1946-1947. *J Eng Educ* 38:627-9 My '48
- WESTINGHOUSE, George**, science writing award
AAAS-George Westinghouse science writing award for 1947. *Science* 106:513-14; 107:85 N 28 '47 Ja 23 '48
Westinghouse science writing awards. *Science* 108:273 S 10 '48
- WESTINGHOUSE air brake company**
Companies paying progressively higher dividends. H. F. Travis. *Mag of Wall St* 82:26 Ap 10 '48
Rail rate boost to aid Westinghouse. *Barron's* 28:32 Ja 19 '48
- WESTINGHOUSE electric corporation**
Annual report. *Comm & Fin Chr* 167:1264 Mr 22 '48
Debentures offered. *Comm & Fin Chr* 168:292 J1 19 '48
Offers stock purchase rights to employees. *Comm & Fin Chr* 168:789 Ag 23 '48
Westinghouse has financing, insurance plan for banks. *Nat Underw* 52:6 Ag 19 '48; *East Underw* 49:22 Ag 20 '48
Westinghouse has prosperous 1947. *Elec World News ed* 129:21 Mr 6 '48
Westinghouse vs. General Electric; a comparative study. F. K. Dodge. *il Mag of Wall St* 82:290-2+ Je 19 '48
- WESTINGHOUSE electric international company**
Let's close the import gap. W. C. Haddon. *Comm & Fin Chr* 167:1112+ Ja 8 '48
- WESTMINSTER bank, limited**
Statement by the chairman. R. E. Beckett. *Economist* 154:203 Ja 31 '48
- WESTVACO chemical corporation**
Food Machinery to absorb Westvaco Chemical. *Barron's* 28:9 Je 21 '48
Merger into Food machinery corp. approved. *Comm & Fin Chr* 168:1090 S 13 '48
Merger proposed between Food machinery corp. and Westvaco chemical corp. *Chem & Eng N* 26:1990 J1 5 '48
New mine to lift sales net. *Barron's* 27:33 N 17 '47
Westvaco takes a helpmate; merges with Food machinery corp. *il map Chem Ind* 62: 908-9 Je '48
- WETTING**
Capillary forces; wettability. J. C. Calhoun, Jr. *diags Oil & Gas J* 46:205 Mr 25 '48
- WETTING, Heat of**
Moisture relationships of cellulose; the heat of wetting in water and in certain organic liquids. M. Wahba. *bibliog diags J Phys & Colloid Chem* 52:1197-208 O '48
Prediction of the activity of cracking catalysts from heat of wetting. I. W. Mills. *diags Am Pet Inst Proc* 27(3):29-33 '47; *Same. Oil & Gas J* 46:237+ N 15 '47
- WETTING agents**
Detergents, wetting and emulsifying agents; S.C.I. symposium. *Chem Age (Lond)* 58: 517-18 Ap 17 '48
Diphase metal cleaners; preferential wetting by the two phases. I. Reich and F. D. Snell. *Ind & Eng Chem* 40:1233-7 J1 '48
New analytical reactions with anionic and cationic wetting agents. A. Steigmann. *bibliog Soc Chem Ind J* 66:355-6 O '47
Sisal fiber vs wet water. D. Powell. *il Safety Eng* 95:22-3+ Ag '48
Use of wetting agents in conjunction with acid inhibitors. F. H. Cardwell and L. H. Ehlers. *bibliog il Ind & Eng Chem* 40:1951-6 O '48
Use of wetting agents in forest fire suppression. C. E. Edson and W. W. Parker. *il Pulp & Pa of Can* 49:79-80+ F '48
Wetter water pares fire losses. H. W. Zussman. *bibliog il Chem Ind* 61:994-5 D '47
Wetter water penetrates better for fighting fires. D. S. Marstan. *il Safety Eng* 95: 28-30 My '48
Wetting agents and auxiliary products. J. B. Speakman. *bibliog Chem & Ind* p456-60 J1 17 '48
- Wetting agents in the fire-fighting industry. W. W. Parker. *J Chem Educ* 24:615-16 D '47
What about this wet water? P. W. Kearney. *Safety Eng* 94:30-1 D '47
- Testing**
Determination of industrial value of detergents; methods for determination of wetting power. J. J. Sisley. *bibliog diags Am Dyestuff Rep* 37:635-42 O 4 '48
Laboratory investigation of anti-stripping admixtures used for promoting wetting power and adhesion between bitumens and aggregates. J. C. Sprague. *il Am Soc T M Proc* 48:1377-406; *Discussion*. 1407-15 '46
Re-examination of wetting tests; abstract. S. M. Edelstein and C. E. Draves. *Textile Col* 70:23 O '48
- WEYL theory**
Trajectories of charged meson test particles in the similarity geometry. B. Hoffmann. *bibliog Phys R* 73:1042-6 My 1 '48
- WHALE oil**
Component acids and glycerides of whale oil. T. P. Hilditch and L. Maddison. *bibliog Soc Chem Ind J* 67:253-7 Je '48
Whale- and sperm-oil production and exports. Newfoundland. *For Comm W* 32: 35 Ag 7 '48; *Oil Paint & Drug Rep* 154: 79 Ag 23 '48
Whale oil. J. R. Skeen. *Soap & San Chem* 24: 49+ Je '48
- WHALING**
Norway whaling prospects called bright. *For Comm W* 30:36 Ja 10 '48
Soviet whaling; importance mounts and scope is broadened. *il For Comm W* 31:6, 42 Je 5 '48
Whale catch and oil output, Norway. *For Comm W* 33:34 O 9 '48
Whaling output and profits. *Economist* 153: 699 O 25 '47
- WHALING vessels**
Boilers for whaling vessels. *il diag Marine Eng* 53:77-9 O '48
- WHARVES**
Cave-ins of sandy backfills. J. C. Gebhard. *il plans diags Am Soc C E Proc* 74:84-92 Ja '48
Failure of quay wall at Mare island, California. L. C. Cox. *il plan diags Am Soc C E Proc* 74:93-100 Ja '48
Lateral earth pressures on flexible retaining walls; application of test results to quay wall design. H. Epstein. *diags Am Soc C E Proc* 74:58-71 Ja '48
Perfectionnement aux tirants d'ancrage. A. Colard. *diags Génie Civil* 124:419 N 1 '47
See also
Piers
- WHARVES, Concrete**
Concrete deck forms are precast slabs; wharf at Richmond, Calif. *il diags Eng N* 139: 646-9 N 13 '47
Precast concrete units simplify construction of West Coast marine structures. B. C. Gerwick. *il diag Civil Eng* 18:512-16+ Ag '48
- WHEAT**
Better weather, bigger wheat acreages here, in Canada and Europe improve supply outlook. *Barron's* 27:36-7 D 22 '47
Bountiful harvest? *Economist* 154:851 My 22 '48
Fertilizer requirements of wheat as determined by field trials. G. A. Cowie. *bibliog Chem & Ind* p211-6 Ap 3 '48
Free wheat supply beginning to dwindle. *Barron's* 28:29 N 1 '48
Friction in the flow of suspensions; granular solids in gases through pipe. E. G. Vogt and R. R. White. *bibliog flow diag il Ind & Eng Chem* 40:1731-8 S '48
Government maneuvers emphasize its loss of dominance over wheat market. *Barron's* 28:36-7 My 3 '48
Grain under control; 4,000,000-bu. Australian wheat terminal. *il Food Ind* 20:548-9 Ap '48
How wheat moves from U.S. to breadlines of Europe. *il Bsns W* p20-1 N 15 '47
International wheat agreement. *Economist* 154:408-9, 511-12 Mr 13, 27 '48
Low corn stocks to bring wheat crisis; carry-over law and feed needs are pincers. *Barron's* 28:36 Ja 19 '48

WHEAT—Continued

- Month adds amazing amount to wheat yield. Barron's 28:28 J1 5 '48
- Nearly two-thirds of wheat export goal obtained in first third of season. Barron's 27:36-7 N 10 '47
- 1948 wheat crop characteristics. D. B. Pratt, jr. il Food Ind 20:1314+ S '48
- Production of maltose sirups from granular wheat flour. A. Efron and R. H. Blom. bibliog Ind & Eng Chem 40:412-15 Mr '48
- Rains in Southwest ease wheat pressure; another squeeze in spring possible. Barron's 27:36-7 N 24 '47
- Repercussions of international wheat pact failure. E. Hirsch. Comm & Fin Chr 168:306+ J1 22 '48
- Threat to wheat; parched topsoil. Bsns W p25 N 1 '47
- Wheat glut end may bring price squeeze in spring. Barron's 28:36 S 20 '48
- Wheat in eastern dress; Australian hydrolyzed wheat cereal; Rycena. il Food Ind 19:1482+ N '47
- Wheat market discounting coming crops; unlikely to respond to CCC buying. Barron's 28:36 Mr 22 '48
- Wheat outlook brightens. Bsns W p30+ Ap 17 '48
- Wheat without agreement. Economist 155:119-20 J1 17 '48
- Winter wheat field reports cast some doubt on crop. E. S. Stateler. Food Ind 20:703 My '48
- World's food prospects; wheat and meat, prime food sources. H. A. Bullis. il Dun's R 56:11-12+ J1 '48
- World's wheat. Economist 155:682+ O 23 '48

Prices

- CCC may be forced to bid wheat price up again to keep it from animals. Barron's 28:36 Ja 12 '48
- Interim wheat loan offer just a move by U.S. to head off fall in price. Barron's 28:28 My 31 '48
- World food as a long-term problem; price supports hardly needed. Barron's 27:28 D 1 '47

Statistics

- Wheat, 1941-1946. Survey of Cur Bsns 1947 Sup p 130-1 [supplemented in monthly numbers]

WHEAT germ

- Infra-red toasting unit speeds wheat-germ processing. D. B. Pratt, jr. flow sheet il Food Ind 20:184-6 F '48

WHEATSTONE bridge

- Improved conductance bridge. W. L. Foy and A. E. Martell. bibliog diag R Sci Instr 19:628-32 O '48
- Location of the galvanometer branch for maximum sensitivity of the Wheatstone bridge. F. R. Kotter. diags J Res Nat Bur Stand 40:401-4 My '48
- Null temperature bridge with thermistor. E. L. Deeter. il diag Electronics 21:180+ My '48
- Radio-frequency resistance meter employs Wheatstone bridge having crystal-detector indicator circuit. H. W. Kline. il diags Gen Elec R 51:25-30 Je '48
- Resistance deviation bridge. J. C. Frommer. diags Electronics 21:126+ Ag '48
- Resistance-thermometer bridge. S. S. Stack. il diags Gen Elec R 51:17-21 J1 '48
- Unique application of the Wheatstone bridge to high-speed train braking. C. M. Hines. diag Elec Eng 67:317-18 Ap '48
- Wheatstone bridge network. G. W. Stubbing. diags Electrician 140:493-4 F 13 '48

WHEELBARROWS

- Plane-maker's wheelbarrow; Bell aircraft corp.'s engine-driven Prime Mover. il Bsns W p39+ Ja 10 '48

WHEELER, Raymond Albert, 1885-

- Moles awards for 1948. R. K. Tomlin. por Explosives Eng 26:10+ Ja '48
- Moles to honor two engineers. por Comp Air Mag 53:18 Ja '48
- Sketch. por Constr Methods 30:93 My '48
- Explosives Eng 26:68-9 My '48

WHEELER-FEYNMAN theory

- Classical equations of motion of point charges. P. Havas. bibliog Phys R 74:456-63 Ag 15 '48

WHEELING and Lake Erie railroad

- Railroad securities. Comm & Fin Chr 168:717 Ag 19 '48

WHEELING steel corporation

- Diversified stake in stability. G. W. Mathis. Mag of Wall St 82:345 J1 3 '48

WHEELS*See also*

- | | |
|--------------------|----------------------|
| Automobiles—Wheels | Locomotives, Diesel— |
| Car wheels | Wheels |
| Flywheels | Motor trucks— |
| Gearing | Wheels |
| Grinding wheels | Water wheels |

Manufacture

- Broaching mating parts on one machine; tractor wheel hub and hub clamp. il Mach 54:170-1 F '48

WHEELS, Aluminum

- Aluminum alloy wheels reduce trailer weight. il Automotive Ind 98:45 F 15 '48

WHEELS, Steel**Manufacture**

- Mechanized handling eases wheel manufacture. Norris stamping and manufacturing co. H. S. Wharen. il diags Am Mach 92:84-8 F 26 '48

WHETLERITES. See Charcoal**WHISKY**

- Behind battle of the blends. Bsns W p50+ S 25 '48
- Seagram buying whiskey from Publicker. Bsns W p49 My 15 '48
- Seagram in the chips. il Fortune 38:96-101+ S '48
- Struggle for liquor markets intensified; some companies short of aged whiskey. J. C. Looser. Barron's 28:29-30 O 25 '48
- U.S. whisky makers applaud label bill. Bsns W p22 Ap 3 '48
- Whisky exports and domestic sales (Scotland). U.K. For Comm W 32:28-9 Ag 7 '48
- Younger blends; Distillers corp.-Seagrams reduces aged whisky in two brands. Bsns W p22 Je 19 '48

See also

- Distilling industries

Manufacture

- How the Scotch make it. il Bsns W p24-6 Ja 31 '48

WHISTLES

- Air siren produces ultrasonic sound. il Comp Air Mag 53:198 Ag '48

WHITAKER, Milton C. 1870-

- M. C. Whitaker honored. por Chem & Eng N 26:168 Ja 19 '48

WHITE, Alfred Holmes, 1873-

- Man of the month. por Chem Eng 55:287 Ap '48

WHITE, Aubrey L.

- Garden editor retires; plans many inquiries. Ed & Pub 81:24 Ag 21 '48

WHITE, Charles McElroy, 1891-

- Portrait. Bsns W p24 N 29 '47

WHITE, Harry Dexter, 1892-1948

- Sketch. por Comm & Fin Chr 168:713 Ag 19 '48

WHITE, J. B. 1892-

- Editor without a competitor; J. B. White, Cameron, Tex. C. C. Springfield. por Ed & Pub 81:30 S 25 '48

WHITE, Thomas Justin, 1884-1948

- Long Hearst executive. por Ed & Pub 81:26 J1 17 '48

WHITE

- Dye improves whiteness; abstract. Soap & San Chem 24:71 J1 '48
- Non-adaptability of the ICI system to some near-whites which show absorption in the far blue region of the spectrum. A. E. Jacobsen. Opt Soc Am J 38:442-4 My '48; Discussion. A. C. Hardy. 38:650 J1 '48

WHITE Castle system, inc.

- Hamburger realm; porcelain-enameled buildings. il Bsns W p36+ Mr 6 '48

WHITE HOUSE, Washington, D.C.

- Vote fund to fireproof White House. Eng N 140:750 My 20 '48

WHITE lead

- Fire underwriting; white lead plants. W. O. Lincoln. Spectator (Property ed) 13:12+ Ja 22 '48

WHITE metals

White metal welding. A. E. Speck. *Il Welding* J 26:1091-3 D '47

See also

Bearing metals

WHITE PLAINS, New York

See also

Retail trade—White

Plains, New York

WHITE shoe dressings. See Shoe dressings

WHITE water. See Paper mills—Waste

WHITEHEAD, Alfred North, 1861-1947

Sketch. F. S. C. Northrop. *Science* 107:262-3 Mr 12 '48

WHITEHEAD, Stanley, 1902-

Sketch. *por Electrician* 139:1365 N 7 '47

WHITMAN, Frederic B. 1898-

Whitman groomed for Western Pacific presidency. *por Ry Age* 125:671-3 O 9 '48

WHITMAN and Barnes

Whitman & Barnes celebrates one-hundredth anniversary. *Mach* 64:60 F '48

WHITMORE, Frank Clifford, 1887-1947

Sketch. M. R. Fenske. *Chem Soc J p* 1090-1 J1 '48

WHITTEMORE, John Weed, 1897-

Sketch. *por Am Cer Soc Bul* 27:196-7 My 15 '48

WHITTEMORE, Laurence F. 1894-

L. F. Whittemore elected New Haven head. *por Ry Age* 125:459-61 S 4 '48

WHITTLE, Frank, 1907-

Presentation of the Kelvin medal. *por Electrician* 141:1143 O 15 '48

WHOLESALE druggists association, National.

See National wholesale druggists association

WHOLESALE prices. See Prices, Wholesale

WHOLESALE trade

Wholesale market patterns. E. H. Lewis. *maps J Marketing* 12:317-26 Ja '48

Statistics

Behind the scenes in twenty-four wholesale trades; fourteen important ratios for 1946 for 24 wholesale trades and for wholesale groceries, by size (tangible net worth) classes. *Dun's R* 55:18-19 N '47

Revised estimates of wholesale sales and stocks, selected years, 1929-1947 and monthly data 1947-June 1948. *Survey of Cur Bsns* 28:22-4 Ag '48

Wholesale sales in 1947. *Sales Management* estimates. *Sales Management* 60:110 My 10 '48

Wholesale sales, monthly average, 1939-1940 and monthly, 1941-1946. *Survey of Cur Bsns* 28:23 S '48

Wholesale trade; service and limited function wholesalers, estimated sales, 1941-1946. *Survey of Cur Bsns* 1947 Sup p46 [supplemented in monthly numbers]

Wholesalers' bad debt losses; a comparison between 1946 and 1947. J. Albright. *Credit & Fin Management* 50:9-10+ Je '48

WHOLESALEERS. See Jobbers

WHOOPIING cough

Effect of calcium chloride on the preparation of extracts of *H. pertussis*. J. I. Burrell and others. *bibliog Science* 108:311 S 17 '48

WICKENDEN, William Elgin, 1882-1947

Appreciation. G. A. Stetson. *Mech Eng* 69:387-3 D '47

In memoriam. *por Elec Eng* 67:94 Ja '48

Sketch. *J Eng Educ* 38:162-3 O '47

WICKES corporation

To place stock on a 60c-annual dividend basis; organization; merger. *Comm & Fin Chr* 166:2666 D 29 '47

WIEN effect

Dielectric behavior of solutions of electrolytes in solvents of low dielectric constant; dielectric absorption of butyl alcohol; the second Wien effect. H. A. Strobel and H. C. Eckstrom. *bibliog J Chem Phys* 16:827-31 Ag '48

WIESS, Harry Carothers, 1887-1948

Sketch. *por Nat Pet N* 40:19 S 1 '48

WIGGINS, Leslie Frederick

Third intermediate Sugar research foundation award. *por(cover) Science* 107:502 My 14 '48

WIGHT, Charles A.

Portrait. *Bsns W p96* Ap 10 '48

WILCOX formation

Correlation of Wilcox formation. H. O. De Beck. *Am Cer Soc Bul* 27:377-9 O 15 '48

See also

Geology, Stratigraphic—Eocene

WILD life. See United States—Fish and wild-life service; Wildlife conservation

WILDCAT drilling. See Petroleum—Prospecting

WILDE stokroos (Deccan hemp). See Hemp

WILDLIFE conservation

Concepts in conservation of land, water, and wild life. I. N. Gabrielson. *Tech R* 50:152-3 Ja '48

WILDLIFE service. See United States—Fish and wildlife service

WILEY, Blaine

B. Wiley named NIAA executive secretary. *por Pir Ink* 223:99 Ap 23 '48

Personalities in industrial advertising. *por Ind Marketing* 33:126+ My '48

Portrait. *Sales Management* 60:40 My 20 '48

WILKES-BARRE, Pennsylvania

Rapid transit

Out with the old; modernization program by Wilkes-Barre transit corporation; street cars give way to motor and trolley buses. *il map Bus Transportation* 27:71-3 My '48

WILLGERODT reaction

Willgerodt reaction on α -tetralone. W. J. Horton and J. Van Den Bergh. *bibliog Am Chem Soc J* 70:2425-7 J1 '48

WILLIAMS, C. K., and company

Williams merges its subsidiary interests. *Paper Tr J* 126:18 F 19 '48; *Paint Oil & Chem R* 11:11 F 19 '48

WILLIAMS, Dean, 1891-

Sketch. *por(cover) Chem & Eng N* 26:1981 J1 5 '48

WILLIAMS, Langbourne Meade, 1903-

E.C.A. industry division head. *por(cover) Bsns W p6* Je 26 '48

WILLIAMS, W. Walter, 1894-

New high priest for C.E.D. gospel. *por Bsns W p26* My 29 '48

Sketch. *por East Underw* 49:17 My 28 '48

WILLIAMS Deacon's bank, limited

Statement by the chairman. G. P. Dewhurst. *Economist* 154:205-6 Ja 31 '48

WILLICOMBE, Joseph

Sketch. *Ed & Pub* 81:56 Ag 7 '48

WILLKIE, Herman Frederick, 1890-

Outside the groove; junior executives moved from job to job. *por Fortune* 37:116+ Ja '48

WILLOW

Willow mats economical for bank protection. D. D. Dupre, jr. *il diags Roads & Sts* 31:92-4 F '48

WILLS

Caleb Diplock, decd. *Economist* 155:174-5 J1 31 '48

Do's and don't's to avoid litigation and realize objectives in wills. P. P. Lacovara. *Nat Underw (Life ed)* 52:6 Ja 30 '48

Not enough attention paid to drawing wills. H. S. Brussel. *East Underw* 49:79 pt 2 O 8 '48

Prudent poet left life insurance in verse will; Walter Malloy. *Nat Underw (Life ed)* 52:2 S 17 '48

Sprinkling; a valuable technique for wills; discretionary powers conferred upon a trustee. A. Mannheim. *bibliog Trusts & Estates* 86:451-7 Je '48

Standard clauses for wills and trusts; A.B.A. committee report. *Trusts & Estates* 87:310 O '48

Testamentary trusts under 1948 Revenue act; effects of new law on will and trust planning. S. A. Mitchell. *Trusts & Estates* 86:373-9 My '48

Where there's a will. Published in monthly numbers of *Trusts and estates*

Will drafting under new tax law. M. L. Gordon. *Trusts & Estates* 87:93-7 Ag '48

See also

Executors and administrators Gifts (law)

Probate law

WILSON, Alva S.

Sketch. *por Manuf Rec* 117:45 Ap '48

- WILSON, Charles Erwin, 1890-**
General Motors boss passes wage idea to personnel executives. por Bsns W p98-9 Je 5 '48
- WILSON, Earl, 1907-**
E. Wilson; anybody here from Pocatello? C. Hodge. por Ed & Pub 81:46 J1 24 '48
- WILSON, John Henry, 1871-**
Story of J. H. Wilson, the 76-year old engineer who is mayor of Honolulu. por Eng N 141:10 Ag 26 '48
- WILSON, Leroy August, 1901-**
New A.T.&T. president. por Bsns W p85 F 28 '48
- WILSON, William, 1887-1948**
Sketch. por Inst Radio Eng Proc 36:826 J1 '48
- WILSON and company**
Armour vs. Wilson; a comparative study. H. F. Travis. il Mag of Wall St 81:478-80+ Ja 31 '48
- Stocks cheaper than during prewar depression. F. H. Rosenstiel. Comm & Fin Chr 167:931 F 26 '48
- WILSON cloud chamber**
Electronic sequence control circuit for the operation of a Wilson cloud chamber. F. L. Allen. bibliog il diags R Sci Instr 19:24-7 Ja '48
- Novel expansion ratio control for Wilson cloud chambers. A. M. C. Helmer. diag R Sci Instr 19:723 O '48
- WILSON Village, Alabama**
For sale; TVA will auction off two southern villages. Bsns W p56-7 Mr 13 '48
- WIMPFEN, Sheldon P.**
Wimphen named editor of Mining congress journal. por Min Cong J 33:87 D '47
- WINANT, John Gilbert, 1889-1947**
Sketch. Int Labour R 56:527-32 N-D '47
- WINCHES**
Georgia bridge girder pulled into place with a hand winch. il Eng N 139:746-7 N 27 '47
- WIND instruments**
Performance of cup mouthpiece instruments. R. W. Young. Acoustical Soc Am J 20:345-6 My '48
- Purchase of band instruments; with list of makers. Consumers Res Bul 22:7-9 O '48
- WIND meters. See Anemometers**
- WIND power**
Progress in power generation, 1940-46. bibliog diag Elec Eng 67:68-70 Ja '48
- Wind power; abstract. E. O. Taylor. Electrician 140:572 F 20 '48
- Wind-power generation; new design of high-speed turbine. H. Honnef. il Elec R (Lond) 143:433-4 S 17 '48
- See also*
Windmills
- WIND pressure**
Dynamic instability of truss-stiffened suspension bridges under wind action. F. Bleich. diags Am Soc C E Proc 74:1269-314 O '48
- Wind-tunnel experiments on models of a spirally guided gasholder. S. M. Milbourne. il Gas J (Lond) 252:352+ N 12 '47
- Wind tunnel tests yield aerodynamically stable bridge sections. D. B. Steinman. il diags Civil Eng 17:40-3+ D '47
- WIND tunnels**
Application of eddy current coupling to wind tunnel drive; abstract. F. W. Sama. Elec Eng 67:701-2 J1 '48
- Balloon operates wind tunnel; technique for storing dry air. il Aviation W 49:28 J1 12 '48
- Big winds for model planes; electric drives for wind tunnels. S. L. Lindbeck and L. A. Kilgore. il diags Westinghouse Eng 8: 57-62 Mr '48
- British wind tunnels built of concrete. il Eng N 140:609 Ap 22 '48
- Correlation of wind-tunnel and flight-test stability and control data for an SB2C-1 airplane. M. T. Hockman and R. E. Elisminger, jr. bibliog diags J Aeronautical Sci 15:5-17 Ja '48
- Design and work of the Farnborough high speed tunnel. A. Thom and W. G. A. Ferring. il diags Roy Aeronautical Soc J 52:205-47; Discussion. 247-50 Ap '48
- Effect of screens in wind-tunnel wide-angle diffusers. Franklin Inst J 246:341-3 O '48
- Effects of compressibility on the two-dimensional subsonic wind-tunnel constriction correction. H. T. Epstein and L. U. Albers. bibliog J Aeronautical Sci 15:144-50 Mr '48
- High-speed testing in the southern California cooperative wind tunnel. C. B. Millikan and others. bibliog il diags J Aeronautical Sci 15:69-88 F '48
- Instrumentation conquers the sonic barrier. M. F. Behar. Instruments 21:505-7 Je '48
- Low-pressure wind tunnel; abstract. R. G. Folsom and E. D. Kane. diags Mech Eng 70:242-3 Mr '48
- Method of wind-tunnel testing through the transonic range. J. W. Weaver. il diags J Aeronautical Sci 15:28-34 Ja '48
- NACA supersonic wind tunnels; tabulated data. Aviation W 48:44 F 23 '48
- New supersonic tunnel largest operating; Ames aeronautical laboratory. il Aviation W 49:31 O 18 '48
- Special wind tunnels for testing aluminum oil coolers. il Automotive Ind 99:27 S 1 '48
- Supersonic-speed wind-tunnels facility, automatic-control marvel, one huge double-barrel testing instrument. il diags Instruments 21:508-9 Je '48
- Supersonic tunnel for missiles. R. B. Pearce. bibliog il diags Aviation W 49:22-4 Ag 23 '48
- Supersonic tunnel plan stalled. Aviation W 48:12 Mr 29 '48
- Tacoma Narrows bridge; reconstruction to follow design resulting from extensive wind tunnel research. diags Roads & Sts 90:72-3+ D '47
- Two wind-tunnel items concerned with blocking corrections. A. Pope. J Aeronautical Sci 14:626-8 N '47
- Water turbos power 'French wind tunnel. Aviation W 48:27-8 Ja 19 '48
- Weapon of tomorrow stalled by scarcity of power today; wind tunnels to test supersonic aircraft will require 1,500,000 kw. Elec World News ed 129:4 F 21 '48
- Wind-tunnel experiments on models of a spirally guided gasholder. S. M. Milbourne. il Gas J (Lond) 252:352+ N 12 '47
- Wind-tunnel optics; new field concerned with wind-tunnel instrumentation. Mech Eng 70: 446 My '48
- Wind-tunnel testing problems in superaerodynamics. H. Tsen. bibliog il J Aeronautical Sci 15:573-80 O '48
- Wind tunnel tests yield aerodynamically stable bridge sections. D. B. Steinman. il diags Civil Eng 17:40-3+ D '47
- Wind tunnels, various applications; abstract. diags Mech Eng 70:244-5 Ap '48
- World's largest supersonic wind tunnel unveiled by NACA. R. Hotz. il Aviation W 49:14-15 O 11 '48
- WIND turbine. See Wind power**
- WINDING**
See also
Wool winding
- WINDING machines**
Coil-winder drive. il diag Elec R (Lond) 142: 1018 Je 25 '48
- Modern winders for coated papers. A. A. Neese. Paper Ind 30:136+ Ap '48
- Quick-acting intermittent feeding mechanism for winding paper intermittently on an automatic machine. F. Server. diags Mach 54:187-8 D '47
- Tension control**
Electrical control of tension in the paper industry. G. E. Shaad. diags Paper Ind 29: 1138-42 N '47
- Electronic tension control in golf ball winding. K. E. Wilhelm and others. il diags Rubber Age 63:331-3 Je '48
- Pneumatic control achieves constant roll tension. C. S. Caffrey. il diag Machine Design 19:123-4 N '47
- Strip tension and velocity control; continuous cleaning, plating and coiling steel venetian blind stock; Life time products corp. C. Diechert. il diag Steel 123:69-70+ J1 26 '48
- WINDMILLS**
Brake wheels and wallowers. H. O. Clark and R. Wallis. il Engineering 165:453-5 My 7 '48
- WINDOW frames**
Windows glide on plastic track. il Mod Plastics 25:97 Ag '48

WINDOW sashes**Rating**

Combination storm sash and screens. Consumers Res Bul 23:14-16 N '48

WINDOW shades, Plastic

Story of a product to which thousands of buyers said no! transparent plastic sunshades that protect merchandise from sun-fading. Sales Management 60:122+ Mr 1 '48

WINDOWLESS construction

Air conditioning and blank walls introduce new fire problems. R. C. Corson. *il Civil Eng* 18:557+ S '48

Carpent-yarn mill, 1947 model; James Lees & sons co. *il Eng N* 140:58-60 Ja 8 '48

Fire fighting problems in windowless plants. Nat Safety N 57:164 Mr '48

Simonds saw and steel co. opens little red schoolhouse doors; windowless, controlled conditions plant, and new visual method of schooling its sales representatives shown to group of visitors. *il Paper Tr J* 125: 18+ D 11 '47

Workers in windowless factories are subject to claustrophobia. E. A. Dench. *Glass Ind* 29:147+ Mr '48

WINDOWS

Air conditioned building has double glass and glass block; Detroit Edison co.'s air conditioned service building. P. G. Heidman. *il Heating-Piping* 20:69-71 Ap '48

Better detail plate; construction details, corner windows. Am Bld 70:135 S '48

Better detail plate; corner view window and fireplace. *diags Am Bld* 70:149 O '48

Better detail plate; metal windows in frame construction. *diags Am Bld* 70:121 J1 '48

Heat transmission through insulating glass units; reference data. Heat & Ven 45: 88a-88b F '48

New windows give design flexibility. *il Am Bld* 70:134-5 F '48

Window treatments with brick; views. Brick & Clay Rec 111:23 D '47

See also

Airplanes—Windows Stained glass
Car windows Windowless construction
Show windows

WINDS

Damage to roofs by wind can be minimized. P. M. Thomas. *diags Textile World* 98:135+ O '48

See also

Wind pressure

WINE

Argentina wine industry looks to domestic demand. For Comm W 31:27 Je 26 '48

Austrian wine situation. For Comm W 31:29 My 29 '48

Canada's wine supplies, trade, and consumption, 1943-1947. For Comm W 33:27 O 30 '48

Gracious living on the high seas; ship stewards learn to sell wine. *il Sales Management* 60:42-3 Mr 1 '48

Roll-on capper; Taylor Wine machine applies aluminum closures. *il Mod Packaging* 21: 138-9 Ap '48

Spanish wine situation. For Comm W 29:21 D 6 '47

Wine production and exports, Spain. For Comm W 31:28 My 29 '48

Wine production, consumption, and trade, Switzerland. For Comm W 30:20 Ja 10 '48

Wine supplies, exports, and stocks, France. For Comm W 31:19-20 Ap 24 '48

Wines. *il Mod Packaging* 21:158-60 J1 '48

Manufacture

How California wines are made. W. V. Cruess and C. R. Havighorst. *flow diag il Food Ind* 20:523-30 Ap '48

Plastic pipelines can take it; four-year use in winery. F. Gallizio. *il diags Food Ind* 20:1022-4 J1 '48

WINKLER process. See Gas manufacture—Complete gasification processes

WINNETKA, Illinois**Sanitary affairs**

Sanitary fill operation. R. L. Anderson. *il Pub Works* 79:24-5+ Je '48

WINNIPEG, Manitoba**Sanitary affairs**

Incinerator practice, 1910 and today. S. A. Greeley and S. M. Clarke. *il Eng N* 141:87-91 O 14 '48

New 300-tons-per-day refuse destructor; with cost data. W. D. Hurst. *il Water & Sewage* 86:18-21+ Ja '48

Testing the new Winnipeg refuse incinerator. S. M. Clarke. *il plan Water & Sewage* 86:17-21+ Ag '48

Winnipeg's new incinerator passes its tests. *il Pub Works* 79:19-20+ Ag '48

Sewerage

Effect of hydrogen sulphide in Winnipeg sewage. G. C. Laidlaw. *il Water & Sewage* 86:16-17+ O '48

Gumite repair to outfall chamber of Winnipeg sewage plant. D. L. McLean. *il Water & Sewage* 86:15-16 O '48

Water supply

Maintenance and operation problems of waterworks system. N. S. Bubbis. *il Water & Sewage* 86:25-6+ S '48

Performance record of 14-year old transite water main. W. D. Hurst. *il diag Water & Sewage Works* 94:391-6 N '47

WINSTEIN, Saul, 1912-

1948 American chemical society award in pure chemistry. por(cover) Chem & Eng N 26:2553 Ag 30 '48

WINTER

Colder than normal weather adds to oil's supply task this winter. Nat Pet N 40:45 F 25 '48

Comparison of physiological adjustments of human beings during summer and winter. N. Glickman and others. *bibliog il Heating-Piping* 20:113-19 Ag '48

Invitation to live, this winter. Spectator (Property ed) 13:30-1 D 25 '47; Same abr. Safety Eng 95:36-7 F '48

New method for selecting winter design temperatures; study of temperatures for 120 cities as obtained from Weather bureau and covering 23 heating seasons from Nov. 1914 to March 1937. C. M. Humphreys. Heating-Piping 20:167-72 Ja '48

WINTER construction

Artist looks at a construction job; Wilmington sewer; portfolio of winter sketches by William D. White. Explosives Eng 26:47-9 Mr '48

You can lay brick in cold weather by winter-proofing your masons. *il Brick & Clay Rec* 111:39-40 N '47

See also

Concrete construction in winter

WIRE

See also
Electric wire

Testing

New wire fatigue testing method. F. A. Votta, Jr. *il diags Iron Age* 162:78-81 Ag 12 '48

Simultaneous measurement of tensional and electrical resistance of fine wires. J. T. Norton and G. C. Kuczynski. *il diag Instruments* 21:328 Ap '48

WIRE, Aluminum

See also
Aluminum—Elec.rotechnical uses

WIRE, Copper

Copper-base alloy containing iron as a high-strength, high-conductivity wire material. W. Hodge and others. *bibliog il diag Metals Tech* 15:TP2422 1-10 Ag '48

Wire textures of copper and its binary alpha solid solution alloys with aluminum, nickel and zinc. W. R. Hibbard, Jr. and M. Yen. *bibliog diags Metals Tech* 15:TP2334 1-10 F '48; Discussion. *il* 15:TP2449 94-9 Ag '48

WIRE, Steel

Acid composition, concentration, temperature, and pickling time as factors in the hydrogen embrittlement of mild steel and stainless steel wire. C. A. Zapffe and M. E. Haslem. Am Soc for Metals Trans 39:213-37; Discussion. 237-40 '47

WIRE, Steel—Continued

- Copper-covered steel proves useful for a variety of applications. H. A. Knight. *il Materials & Methods* 27:75-7 My '48
- Drawing special types of industrial wire; Keystone steel & wire co. *il diag Steel* 122: 98-100+ F 2 '48
- Effect of composition, heat treatment, and cold work on the hydrogen embrittlement of stainless steel wire during cathodic pickling. C. A. Zappfe and O. G. Specht, jr. *bibliog Am Soc for Metals Trans* 39:193-211; Discussion. 212 '47
- Magnetic study of stainless-steel wires. P. T. Hobson and others. *bibliog Iron & Steel Inst J* 159:145-57 Je '48
- Measurement of embrittlement during chromium and cadmium electroplating and the nature of recovery of plated articles. C. A. Zappfe and M. E. Haslem. *bibliog Am Soc for Metals Trans* 39:241-58; Discussion. 258-60 '47
- Resistance welding crossed wires. R. C. Jones. *il diag Welding J* 27:703-14 S '48
- Specifications for high-tensile-strength music spring wire; data sheet. *Mach* 55:271 N '48

Manufacture

- Control and production of high-carbon wire; abstract. J. G. Weiss. *Steel* 123:94+ N 1 '48
- Crucible modernizes wire mill. J. Anthony. *il Iron Age* 161:70-3 Ja 29 '48
- Expands wire producing facilities; Jones & Laughlin. *il Steel* 123:114+ J 12 '48
- Overhead carrier system streamlines material flow at J & L's wire plant. *il diag Steel* 123:92+ Ap 19 '48
- Steel wire; production flow charts. *Factory Management* 106:96a-96c Jl '48

Testing

- Atmospheric corrosion tests of corrosion-resistant steel wires. A. P. Jahn. *Am Soc T M Proc* 46:618-20 '46
- Creep of steel and concrete in relation to prestressed concrete. G. Magnel. *diags Am Concrete Inst J* 19:435-500 F '48

WIRE, Tungsten

- Fine tungsten wire in the laboratory. H. A. Liebhafsky and others. *R Sci Instr* 18:854 N '47

WIRE association

- Annual meeting, Pittsburgh, Oct. 18-22. *Steel* 123:94+ N 1 '48

WIRE baskets. See Baskets, Wire**WIRE drawing**

- Back-pull wire drawing; a critical review of literature. J. G. Wistreich. *bibliog diag Iron & Steel Inst J* 157:417-28 N '47
- Constant potential or variable voltage for wire blocks; abstract. R. A. Gender. *Elec Eng* 67:700-1 Jl '48
- Critical survey of wire-drawing theory. G. D. S. MacLellan. *bibliog diag Iron & Steel Inst J* 158:347-56 Mr '48
- Drawing special types of industrial wire; Keystone steel & wire co. *il diag Steel* 122:98-100+ F 2 '48
- Flexibility in multimotor multispinde tandem wire block control; abstract. D. E. Donaldson. *Elec Eng* 67:700 Jl '48
- New theory of the plastic deformation in wire-drawing. R. Hill and S. J. Tupper. *bibliog diags Iron & Steel Inst J* 159:353-9 Ag '48
- Plastic deformation of carbon steels. R. Saxton. *il Metallurgia* 37:293-4 Ap '48
- Rust inhibitor speeds wire drawing; Banox. *Iron Age* 162:124 N 4 '48
- Variable voltage control on multimotor blocks; abstract. O. M. Bundy. *Elec Eng* 67:699-700 Jl '48
- Wire drawing practice; abstract. E. T. Miller. *Steel* 123:94 N 1 '48

History

- Wire-drawers of Bristol, 1312-1797. H. R. Schubert. *bibliog il Iron & Steel Inst J* 159:16-22 My '48

WIRE forming machines

- Combination die to bend and cut wire. F. Strasser. *diags Tool Eng* 20:34 Ap '48
- Production processes; their influence on design; wire and ribbon forming. R. W. Bolz. *il plan diags Machine Design* 19:141-6 D '47

- Rack and gear assembly for intermittent rotary motion. L. Kasper. *diags Mach* 55: 199-200 S '48

WIRE products

- Copper-covered steel proves useful for a variety of applications. H. A. Knight. *il Materials & Methods* 27:75-7 My '48
- Resistance welding crossed wires. R. C. Jones. *il diag Welding J* 27:703-14 S '48
- WIRE recorders. See Sound—Recording and reproducing—Magnetic recording**

WIRE rope

- Headshave maintenance saves wear on ropes. *diags Eng & Min J* 149:64-5 Ja '48
- How to choose the proper wire-rope construction. W. I. Lex. *il diags Power* 92: 467-9 Ag '48
- Mechanics of locked-coil wire ropes. J. A. L. Matheson. *il diag Engineering* 165:578-81, 601-4 Je 18-25 '48
- New nylon-coated wire rope. *il Rayon* 29:75 O '48
- Sheave with demountable rim cuts replacement cost and increases wire rope life. F. Heffernan. *il Roads & Sts* 90:109 D '47; Same. *Safety Eng* 94:34 D '47
- Some facts about wire rope. *il Roads & Sts* 91:97-8+ Je '48
- Wire rope maintenance. *Roads & Sts* 90:111-13 O '47
- Wire rope; proper service and lubrication, plus selecting the right rope, doubles wire-rope life. R. W. Sieker. *il Marine Eng* 53: 67+ Ap '48

Manufacture

- Overhead carrier system streamlines material flow at J & L's wire plant. *il diag Steel* 122:92+ Ap 19 '48
- Rochester ropes, inc.; a persistent strand; development of Culpeper plant. *il Manuf Rec* 117:42-3 Ap '48
- When everything looks dark, try color. J. Lear. *il Nat Safety N* 58:22-3+ S '48

Safety measures

- Correct use and maintenance will keep ropes safe! S. A. Reed; D. H. Dyer. *il diags Safety Eng* 96:24-9+ O '48
- Safe practices in using wire rope. D. Ataway. *Pet Eng* 19:254+ My '48
- Wire rope. *il diags Nat Safety N* 57:119+ Mr '48

Standards

- Report of committee on the standardization of wire rope and manila cordage. *il diags Am Pet Inst Proc* 27(4):281-301 '47

Testing

- Nondestructive inspection of mine hoist cable. P. E. Cavanagh and R. S. Segsworth. *bibliog il diag Am Soc for Metals Trans* 38: 517-45; Discussion. 645-50 '47

WIRE rope fastenings

- Fixing wire-rope sockets. *il diag Engineering* 165:527 My 28 '48

WIRE straightening machines

- Straightener designed for reeled wire. T. Burgess. *diag Elec World* 129:97 F 14 '48

WIREBOUND boxes. See Boxes, Wirebound**WISCONSIN**

- See also*
- | | |
|---------------------|---------------------|
| Electric utilities— | Lead mines and min- |
| Wisconsin | ing—Wisconsin |
| Iron ores—Wisconsin | Zinc mines and min- |
| | ing—Wisconsin |

History**Bibliography**

- Subject bibliography of Wisconsin history. L. Schlinkert, comp. 213p pa \$3.60. State historical society, 816 State st, Madison 6, Wisconsin '47

Industries and resources

- Prewar industrial pattern of Wisconsin. E. Z. Palmer. (Wisconsin commerce studies v 1, no 1) 168p bibliog(pl47-68) pa \$1 Univ. of Wisconsin, Bur. of business research and service, 404 Sterling Hall, Madison '47
- WISCONSIN academy of sciences, arts and letters**
- Annual meeting, 78th, Stevens Point, Wis. April 23-24. *Science* 107:594 Je 4 '48

- WISCONSIN central airlines**
Stock offered. Comm & Fin Chr 166:2605 D 22 '47
- WISCONSIN Michigan power company**
Bonds offered. Comm & Fin Chr 167:1965 My 3 '48
- WISCONSIN power and light company**
Bonds offered. Comm & Fin Chr 167:1090; 168: 1300 Mr 8, S 27 '48
Public utility securities. Comm & Fin Chr 167:1228 Mr 18 '48
- WISCONSIN public service corporation**
Bonds offered. Comm & Fin Chr 166:1934, 2000; 168:789 N 10, 17 '47, Ag 23 '48
- WISCONSIN river**
One less river to boss. Il Elec World 130:77-92 Ag 14 '48

Power utilization

- To make the river work harder; Wisconsin River utilities. Il Bsns W p61-5 Ag 14 '48
- WISCONSIN River power company**
Financing approved by the SEC. Comm & Fin Chr 167:890 F 23 '48
- WISCONSIN university**
Industrial management institutes sponsored by University of Wisconsin. J. D. Howard. Edison Elec Inst Bul 16:41 F '48
Wisconsin operating new metal casting laboratory. R. W. Heine. Il Foundry 76:220-2+ Ag '48
- WISCONSIN Valley improvement company**
One less river to boss; story of the Wisconsin river. Il Elec World 130:77-92 Ag 14 '48
To make the river work harder; Wisconsin River utilities. Il Bsns W p61-5 Ag 14 '48
- WISE, Marion, J.** 1883-
Central of Georgia president. por Ry Age 125: 153+ Jl 17 '48
- WISSLER, Clark, 1870-1947**
Sketch. D. G. Mandelbaum. Science 107:338-9 Ap 2 '48
- WITH doctors.** See Medicine men
- WOHL-ZIEGLER reaction**
Brominations with N-bromosuccinimide and related compounds. C. Djerassi. Chem R 43:271-317 bibliog (125 ref, p296, 312-14, 316-17) O '48
- WOLFFENSTEIN-BÖTERS reaction**
Oxy-nitration of benzene to picric acid; Wolffenstein-Böters reaction. E. E. Aristoff and others. bibliog Il diags Ind & Eng Chem 40:1281-90 Jl '48
- WOLTMAN, Frederick, 1905-**
Effort to void Woltnan's award fails. Ed & Pub 81:12 F 7 '48
- WOLVERTON, Charles A., 1880-**
Portrait. Sci Am 178:9 Je '48

WOMAN

- Report on 1948 Women's bureau conference, Feb. 17-19; American woman, her changing role; worker, homemaker, citizen. Il U S Women's Bur Bul 224:1-210 '48
- Women have ideas. H. Robertson. Am Gas Assn Proc 1947:417-21; Same. Am Gas Assn Mo 29:532-4+ D '47

See also

- Advertising—Women, Appeal to Safety movement—Women's work
Working women

Bibliography

- American woman; a selected bibliography of basic sources of current and historic interest. 10p U.S. Dept. of labor, Women's bur, Washington 25 '48
- Woman's collection; a bibliography of materials in all matters pertaining to women's interests added to the Woman's college library of the University of North Carolina, 1937-1943; 1947 supplement. M. M. Hussey, comp. 52p Univ. of North Carolina, Woman's college library, Greensboro '48

Employment

- Beauty contest sparks women employee relations. W. J. Sheehan. Ptr Ink 224:42+ Jl 23 '48
- Equal pay for equal work in the United States. Int Labour R 58:391-4 S '48
- More older women work; more married women work. Bsns W p 114+ Mr 20 '48
- Women workers and recent economic change. M. E. Pidgeon. Mo Labor R 65:666-71 D '47

- Women's share of jobs holds up, Oct. 1939-May 1947; chart. Bsns W p62 Ja 3 '48

See also

- Women as architects, etc.

France

- Recruitment of women workers in France. Int Labour R 58:232-3 Ag '48

Great Britain

- Fewer women in industry. Economist 154: 320 F 21 '48
- Women in industry. Economist 155:218-19 Ag 7 '48

Switzerland

- Employment of women in Switzerland. Int Labour R 56:167-74 Ag '47

Equal rights

- Centennial of women's rights initiation. Mo Labor R 66:408-9 Ap '48

Health and hygiene

- See also
Menstruation

Occupations

See also

- Insurance women
Women as architects, etc.
- WOMEN as architects**
Thousand women in architecture; a portfolio of their work; with brief biographical sketches. Il Arch Rec 103:105-13 Mr; 108-15 Je '48
- WOMEN as bank employees.** See Bank employees
- WOMEN as bankers**
See also
Association of bank women
- WOMEN as chemists**
Women as professional chemists. C. T. Snell. J Chem Educ 25:450-3 Ag '48
Women at work at Hanford plutonium plant; abstract. N. E. Thompson. Chem & Eng N 26:2872-3 S 27 '48
- See also
Cori, Gerty T.
- WOMEN as contractors**
Hats off to the ladies; demonstration house sponsored by Good housekeeping constructed by woman builder of Milwaukee. Il plans diag Am Bid 70:76-81 F '48
- WOMEN as engineers**
Women's council, Western society of engineers. Western Soc E J 53:77-9 Je '48
- WOMEN as journalists**
Ladies of press urged as leaders of peace. M. Planthold. Ed & Pub 81:24 Jl 31 '48
- See also
Patterson, Alicia

WOMEN as newspaper editors

See also

- Bair, Edna F.
Gardiner, Mary
- WOMEN as printers**
Pioneer women printers. H. E. Zimmerman. Inland Ptr 120:50 Mr '48

WOMEN as purchasers

- Ladies day idea stresses merchandising and cleanup. L. Castle. Nat Pet N 40:7+ Ag 4 '48
- What women like and dislike about packages today; housewives in ten cities supply criticism. A. R. Hahn. Il Sales Management 59:48-50+ N 10 '47

WOMEN as stockholders

- What one company learned about its stockholders; survey among women stockholders of General foods corp. B. Watson. Il Adv & Sell 41:117-18+ Mr '48

WOMEN'S apparel

- Dealer's problem is the key to our sales approach; Koret of California helps dealers through timeless styles, tested fabrics, and merchandise and promotion packages backed by advertising. D. H. Hawkins. Il Sales Management 61:102+ S 15 '48
- Policies that licked the seasonal selling bugaboo for Koret. R. Allamus. Sales Management 59:80+ D 15 '47

WOMEN'S apparel—Continued

Production scheduling in the women's apparel industry. D. S. Mitchell. N A C A Bul 29:795-807 Mr 1 '48

Advertising

Petticoats; their advertising come-back. Ptr Ink 222:76+ Mr 26 '48

WOMEN'S apparel shops

Companion shops 'without confusion, Long Beach, Calif.; two separate stores under separate proprietors provide complete outfitting. M. Ketchum, Jr. Il plan Arch Rec 103:140-3 Ap '48

Houston store rebuilds eleven floors without shutting down; Fashion, Inc. Il plans diag Arch Forum 88:110-11 My '48

Hudson's fashions, eight new apparel shops in Detroit department store. Bsns W p79+ F 21 '48

Mr Hoving of Fifth avenue. Fortune 38:94-5+ S '48

Narrow frontage no handicap; store remodeled for Gerstenfeld's, Columbus, Ohio. Il plans Am Bld 70:102-3 Mr '48

Women's wear shop for a New England college town. Il plan Arch Forum 88:116 My '48

WOMEN'S rights. See Woman—Equal rights**WOMEN'S shops. See Women's apparel shops****WOMRATH'S bookshops and libraries, Inc.**

Womrath sells stores. Bsns W p82 D 13 '47

WOOD, Alan, steel company

Bonds offered. Comm & Fin Chr 168:1300 S 27 '48

WOOD, Henry, 1715-1795

Inventor of the hot-air engine and the engine driven air pump. Engineer 186:168-9 Ag 13 '48

WOOD, Robert Elkington, 1879-

Young Sears, Roebuck. por Fortune 38:84-7+ Ag '48

WOOD

Flexural strength and stiffness of wood-aluminum sandwich panels. R. A. Müller and H. L. Langhaar. diags Product Eng 19:104-8 Ag '48

Le méthanol de synthèse à partir du bois par le procédé de Lacotte; l'usine-pilote de Decazeville (Aveyron). R. Delaunay. diags Chimie & Ind 58:335-40 O '47

Occurrence of pectic materials in wood. W. W. Pigman, E. Anderson and R. L. Leaf, Jr. bibliog Am Chem Soc J 70:432-3 Ja '48

Penetration of DDT into wood surfaces. W. R. Schmitz and M. B. Goette. bibliog Il Soap & San Chem 24:118-21 Ja '48

See also

Bark peeling	Lumber
Bridges, Wooden	Lumbering
Cellulose	Pine
Cypress	Plywood
Douglas fir	Redwood
Forests and forestry	Spruce
Hickory	Wallaba
Holocellulose	Wood construction
Juniper	Wood preservation
Lignin	Wood pulp
Lignum vitae	

Analysis

Chemical analysis of western woods. E. F. Kurth. diag Paper Tr J 126:56-7 F 5 '48

Composition of Scots pine; abstract. G. Larinkar. Paper Ind 30:156 Ap '48

Constituents of Sierra juniper wood (Juniperus occidentalis, Hooker). E. F. Kurth and H. B. Lackey. Am Chem Soc J 70:2206-9 Je '48

Determination of mannose; mannans in hardwoods. L. E. Wise, E. K. Ratliff and B. L. Browning. bibliog Anal Chem 20:825-8 S '48

Method for isolation of hemicelluloses directly from maple wood. S. C. Rogers, R. L. Mitchell and G. J. Ritter. bibliog Anal Chem 19:1029-32 D '47

Bibliography

Properties of chemical engineering materials of construction; 104 references. Ind & Eng Chem 40:1936 O '48

Chemistry

A.C.S. Portland session; wood and wood products. Chem & Eng N 26:2874-5 S 27 '48

Chemistry of the insoluble red woods; a new synthesis of 4-hydroxycoumarins. J. Boyd and A. Robertson. Chem Soc J p 174-6 F '48

Chemistry of western pines; Ponderosa pine stumps as potential source of rosin and other by-products. A. B. Anderson. bibliog diags Ind & Eng Chem 39:1664-7 D '47

Extractives of Douglas fir and Douglas fir lignin residue. I. L. Clark, J. R. Hicks and E. E. Harris. Am Chem Soc J 69:3142-3 D '47

e-Galactan of larch wood (larix decidua). W. G. Campbell, E. L. Hirst and J. K. N. Jones. Chem Soc J p774-7 Je '48

German wood chemistry; wartime production of food and chemicals. Chem Age (Lond) 59:84 JI 17 '48

Hemicelluloses from maple holocellulose; yield and composition. R. L. Mitchell, S. C. Rogers and G. J. Ritter. bibliog Ind & Eng Chem 40:1528-9 Ag '48

Lignin-alcohol condensation; the reaction of lignin with amino- and nitro-butanol. A. Bailey. bibliog Paper Ind 29:1606-74 F '48

More lignin research needed; Forest products research society, first national meeting. Chem & Eng N 25:3639 D 8 '47

One third of wood. E. Giesinger. Il diags Sci Am 178:9-11, 57-9 Ja-F '48

Periodate lignins; their preparation and properties. P. F. Ritchie and C. B. Purves. bibliog(56 ref) diag Pulp & Pa of Can 48:74-82 N '47

Recent advances in the chemistry of wood. F. H. Yorston. bibliog Pulp & Pa of Can (Convention no) 49:310+ F '48

Wood chemistry studies; possible sources of sugar and fertilisers. Chem Age (Lond) 58:775 Je 5 '48

Color

Color of unstained wood. P. Moon and D. E. Spencer. Opt Soc Am J 38:405-8 Ap '48

Decay

Effect of decay on the Greenwood pulping of quaking aspen. A. Hyttinen and E. R. Schafer. Paper Ind 30:405-7 Je '48

White-speck lumber. Mech Eng 70:903 N '48

Joining to metal

Lightness and strength combined in metal-wood composites. K. Rose. Il Materials & Methods 27:70-3 F '48

Moisture content

Estimation of moisture in timber; infrared and electronic moisture testers. Il Engineer 185:497 My 21 '48

Shrinkage and swelling

Explanation of longitudinal shrinkage of wood based on interconnected chain-molecule concept of cell-wall structure. R. A. Cockrell. bibliog diags A S M E Trans 69:931-5 N '47

Marinated wood; acetylation of wood with acetic anhydride and pyridine. Chem Ind 61:980 D '47

Strength

Behavior of wood under continued loading. L. W. Wood. Eng N 139:804-7 D 11 '47

Tests of timber structures from Golden Gate international exposition. Il diags Am Soc C E Proc 73:571-685 My '47; Discussion. 73:1323-8, 1444-7; 74:147-52, 423-6, 879-85 O-N '47, Ja, Mr, Je '48

Transmission line structures designed to utilize full pole strength. A. J. Borchers and T. N. Cofer. Il diags Elec World 129:32-4 My 8 '48

Testing

Fatigue of wood and glued-wood constructions. W. C. Lewis. bibliog Il diags Am Soc T M Proc 46:814-32; Discussion. 833-5 '46

Methods for determining the specific gravity of wood and wood-base materials. L. J. Markwardt and B. H. Paul. bibliog Il diags Am Soc T M Proc 46:1520-39 '46

Precision measuring instruments made from wood. N. N. Sawin. diags Tool Eng 20:27-9 J= '48

WOOD, Compressed

- Compregnated wood tested by navy, R. P. Goodale, *il Mod Plastics* 25:102-5 F '48
 Densified wood made with bakelite resins, *Mech Eng* 70:617 J1 '48
 Plastics in German aircraft tooling, J. T. Grey, *bibliog il diags Mod Plastics* 25:126-7+ F '48

WOOD, Laminated

- Cross-laminated oak, E. G. Stern, *A S M E Trans* 70:123-33 F '48
 Laminating for small-boat construction; abstract, D. F. May, *il Mech Eng* 70:634 J1 '48
 Performance characteristics of tight white-oak laminated-stave and solid-stave barrels, R. S. Kurtenacker and D. L. Patrick, *il A S M E Trans* 70:547-51 J1 '48
 Results of accelerated tests and long-term exposures on glue joints in laminated beams, T. R. Truax and M. L. Selbo, *il A S M E Trans* 70:393-400 My '48
 Shop fabrication of wood trusses and laminated beams expedites erection, V. Ketchum, *il diags Eng N* 141:106-8 O 28 '48

See also

Plywood
 Veneers and veneering

Testing

- Fatigue of wood and glued-wood constructions, W. C. Lewis, *bibliog il diags Am Soc T M Proc* 46:814-32; Discussion, 833-5 '46

WOOD as fuel

- Efficient burning of wood refuse, D. Brownlie, *Pulp & Pa of Can* 49:90-1 S '48
 Use of wood for heating logging camps, J. H. Jenkins, *Pulp & Pa of Can* 49:114+ Ag '48

See also

Boilers—Wood firing

WOOD bearings. See Bearings, Wood**WOOD construction**

- Behavior of wood under continued loading, L. W. Wood, *Eng N* 139:804-7 D 11 '48
 Flexible and lightweight, Deskey's modular screening system is first step in Boston renovation job; use of wooden eggcrate, *il diags Arch Rec* 87:106-7 D '47
 Greene and Greene; their turn-of-the-century work in California, J. M. Bangs, *il plan diags Arch Forum* 89:80-9 O '48
 Leigh Stevens ranch group near Yemassee, South Carolina, built out of cypress in swamp forest; design by F. L. Wright, *il plans diag Arch Forum* 88:95-6 Ja '48
 Loxide precut system adapted for architect-designed house; illustrations with text, *Arch Forum* 88:15 Je '48
 New timber truss uses 50 per cent less material than conventional design; Lank-Teco truss, *il diag Arch Forum* 87:158 N '47
 Shop fabrication of wood trusses and laminated beams expedites erection, V. Ketchum, *il diags Eng N* 141:106-8 O 28 '48
 War experience accelerates standardization of timber design and construction procedures, F. J. Hanrahan, *il Civil Eng* 17: 662-7 N '47

See also

Bridges, Wooden
 Lumber

Design

- Advancement in timber mechanics and design calls for specially trained engineers, H. J. Hansen, *il Civil Eng* 17:672-5+ N '47
 Design of wood beams and joists; time-saver standards, O. Albert, *Arch Rec* 102: 128-9+ N '47

Testing

- Tests of timber structures from Golden Gate international exposition, *il diags Am Soc C E Proc* 73:571-685 My '47; Discussion, 73: 1323-8, 1444-7; 74:147-52, 423-6, 879-85 O-N '47, Ja, Mr, Je '48

WOOD distillation

- Destructive distillation of Douglas fir lignin, T. L. Fletcher and E. E. Harris, *Am Chem Soc J* 69:3144-5 D '47
 Old industry; abstract, E. Beglinger, *Chem Eng* 55:268+ Ag '48

WOOD drying

- Explanation of longitudinal shrinkage of wood based on interconnected chain-molecule concept of cell-wall structure, R. A. Cockrell, *bibliog diags A S M E Trans* 69: 931-5 N '47

WOOD finishing

- Floor sealers and hardeners, M. A. Lesser, *bibliog Soap & San Chem* 24:129+ S '48

WOOD flour

- Manufacture and use of wood flour, P. P. Bowen, *Pulp & Pa of Can* 49:100-1 Je '48

WOOD grinders

- Longitudinal grinding of wood; further work, W. H. de Montmorency, *il diags Pulp & Pa of Can (Convention no)* 49:115-23 [F] '48; Excerpts, *Paper Ind* 30:146-8 Ap '48
 Welded design of a pulpwood grinder; with cost data, H. F. Brauns, *il Pulp & Pa of Can* 49:95-8 Je '48

WOOD handling

- Experiences with pulpwood handling and accounting, C. E. Patch, *il Paper Tr J* 127: 62-5 J1 15 '48

See also

Lumber handling

WOOD measurement

- Use of Doyle log scale in Ontario, *Pulp & Pa of Can* 48:114+ D '47; 49:119-20+ Ja '48

WOOD preservation

- American wood preservers' association 44th annual meeting, St Paul, April 27-29, Ry Age 124:909-13 My 8 '48
 Finding and fighting marine borers; creosote impregnation and poisoning, R. D. Chellis, *il Eng N* 140:555-8 Ap 15 '48
 Marinated wood; acetylation of wood with acetic anhydride and pyridine, *Chem Ind* 61:980 D '47
 More timber was treated in 1946, Ry Age 123:986-8 D 6 '47
 Pressure-treated wood for freight cars; abstract, P. D. Brentlinger, Ry Age 124:910 My 8 '48
 Timber exposed to sea-water, *Engineering* 166:374 O 15 '48
 Timber preservation, unsung ally in coal mining, J. M. Bray, *il Min Cong J* 33:33-5 N '47
 Treat pole tops for \$1.08, W. L. Montgomery, *il Elec World* 129:92+ Je 19 '48
 Treated wood combats mill decay, R. H. Bescher, *il Textile World* 93:131 J1 '48
 Wood in the West; significance in terms of chemicals consumed, C. C. Heritage, *Chem Ind* 61:990-3 D '47; Abstract, *Chem Eng* 54:260+ D '47
 Wood preservation for mines, S. S. Watkins, *il Min Cong J* 34:75-7 Ap '48

WOOD preservatives

- New wood preservatives made from petroleum, *Pet Processing* 3:10 Ja '48
 Wood preservatives; characteristics and related toxicity of hydrocarbon oils, J. A. Vaughan, *bibliog Pet Processing* 3:237-8+ Mr '48
 Wood preservatives use increased 13 per cent in 1947, *Oil Paint & Drug Rep* 154:3 J1 12 '48

Advertising

- Consistent small space introduces specialty item; Cuprinol for treatment of boat hulls, D. Murray, *il Ptr Ink* 221:40-1 N 7 '47

Terminology

- Nomenclature and definitions of wood preservatives and wood coatings, *Paint Oil & Chem R* 111:48-9 O 28 '48

Testing

- Wood preservatives; effect on seam compounds and value as paint primers, W. Spackman, jr. and O. Tippe, *bibliog il diags Ind & Eng Chem* 40:1301-8 J1 '48

WOOD products

- Bacteria-based timber progressing; bonding airborne bacteria with water and wood flour, *Plastics* 8:22 F '48
 Chemistry of western pines; Ponderosa pine stumps as potential source of rosin and other by-products, A. B. Anderson, *bibliog diags Ind & Eng Chem* 39:1664-7 D '47

WOOD products—Continued

- From pine stumps to rosin and terpene oils; Crosby Chemicals, De Ridder, La. J. V. Hightower, flow sheet(p 150-3) *il Chem Eng* 54:119-21 D '47
- Integrated forest utilization in the Pacific Northwest. O. H. Schrader, jr. bibliog flow chart *il Mech Eng* 69:999-1004 D '47
- New uses of wood. H. B. Marshall. *il Can Chem & Process Ind* 32:816-20 S '48
- Tree; more wood, more products. C. A. Scarlott. *il Westinghouse Eng* 8:130-6 S '48
- Utilization of wood. Pulp & Pa of Can 49:63-4 My '48
- Widening uses for wood waste. T. A. McElhanney. Pulp & Pa of Can (Convention no) 49:124-8+ [F] '48; Same cond. Paper Ind 30:299-302 My '48
- Wood waste now converted into fine wood-work; Prespine panels. *il Am Bld* 70:118-19 JI '48

See also

Fiber board
Wood flour

WOOD pulp

- Aspen for pulp and paper. E. R. Schafer. bibliog Pulp & Pa of Can 48:104+ D '47
- Cellulose; its history, growth, and influence. M. Heath. *il Chem Ind* 62:405-12 Mr '48
- Championing scientific timber conservation; timber-cutting rights to Eastern corp. *il Paper Tr J* 127:28 JI 15 '48
- Chemical treatment of trees to facilitate removal of bark and to reduce weight of wood. D. C. McIntosh. Pulp & Pa of Can 49:117-18+ Je '48
- Effect of decay on the groundwood pulping of quaking aspen. A. Hyttinen and E. R. Schafer. Paper Ind 30:405-7 Je '48
- Electron microscopical studies of natural cellulose fibers. W. G. Kinsinger and C. W. Hock. bibliog(37 ref) *il Ind & Eng Chem* 40:1711-16 S '48
- Engineering pulpwood production. E. E. Esgate. Pulp & Pa of Can 49:132+ S '48; Same. Paper Ind 30:1088+ O '48
- Future pulpwood for Wisconsin mills. M. N. Taylor. Paper Tr J 127:20+ O 14 '48
- Hardwood pulp process. Chem Ind 62:772+ My '48
- Harriman report declares U.S. needs all of its pulp. Paper Tr J 126:9+ N 20 '47
- High density pumping and pulping. T. Agronin. Paper Ind 29:1845-6 Mr '48
- Limits of closer utilization of black spruce pulpwood. Z. A. Zazada and F. T. Fredrickson. Pulp & Pa of Can 49:128+ O '48
- Mechanical pulping conference, Poland Spring, Maine, Sept. 27-29; abstracts of papers. Pulp & Pa of Can 49:98-104 O '48
- Nitration of wood pulp. M. O. Schur and D. H. McMurtrie. *il Paper Tr J* 127:51-8 S 23; 39-45 S 30 '48
- Observations on bleaching groundwood pulps. R. M. Kingsbury and others. bibliog Paper Tr J 126:49-53 Je 10 '48
- Oldest wood pulp and the newest. R. E. Canfield. Paper Tr J 127:17-19 O 14 '48
- Ownership and availability of Lake States pulpwood. R. N. Cunningham. maps Paper Tr J 127:37-9 JI 8 '48
- Poplar woods; their suitability for pulping; abstract. G. Jayme. Paper Ind 30:488 Je '48
- Possibility of preventing decay in wet mechanical wood pulp; abstract. S. O. Pehrson. Pulp & Pa of Can 49:92 Ag '48
- Products from pulp and pulpwood on Pacific coast. H. K. Benson. flow sheets *il Paper Tr J* 126:59-62 Mr 18 '48
- Pulp and paper role in consumption of industrial chemicals; abstract. R. G. Misphey. Chem Ind 61:993 D '47
- Pulp insurance; Rayonier buys interest in big lumber company. Esns W p22 N 29 '47
- Pulp yield and quality as affected by chip thickness; abstract. A. Backman. Paper Ind 29:1378 D '47
- Pulpwood from tops. E. V. Brender. Pulp & Pa of Can 49:112 Ja '48
- Recent developments in the use of sulphite pulp. A. C. Hill. Pulp & Pa of Can 49:77-9 My '48
- Recovery system for chemical and groundwood screenings. H. J. Ostrowski. plan Pulp & Pa of Can 48:88-90 D '47

- Report on the commercial production of high yield sulphite and sulphate pulps; Sutherland refiner. D. G. Sutherland. Paper Ind 29:1214-15 N '47
- Semichemical pulps from beech wood; abstract. H. Bouchayer. Paper Ind 30:956 S '48
- Sugars from the sulphite cook; abstract. R. Schepp. Paper Ind 30:488 Je '48
- TAPPI mechanical pulping conference, Poland Spring, Maine, Sept. 27-29. Paper Ind 30:1060+ O '48
- Tree plantations lower pulpwood costs. R. Black. Pulp & Pa of Can 49:133 Ag '48
- Uses of wood wastes in pulp and paper products. C. E. Hrubesky. Pulp & Pa of Can 49:61-3 F '48
- Wood-fiber production with revolving disk mills. C. K. Textor. flow sheet *il Paper Tr J* 126:47-53 Ap 15 '48
- Woodpulp faces triple problem. O. F. Swanson. Paper Tr J 126:56+ F 26 '48
- Wood pulping by the Asplund defibrator. U. Lowgren. flow diag Paper Tr J 127:41-3 S 16 '48
- World situation in pulp and paper. Pulp & Pa of Can 49:60+ F '48

See also

Wood grinders

Statistics

- Pulpwood waste paper, and wood pulp. 1941-1946. Survey of Cur Esns 1947 Sup p 157-8 [supplemented in monthly numbers]
- Wood pulp statistics. 269p pa \$5 United States pulp producers assn, 122 E. 42d st, New York 17 '47

Testing

- Alkaline pulping; spruce. J. S. Hart and R. K. Strapp. Pulp & Pa of Can (Convention no) 49:161-65 [F] '48; Excerpts. Paper Ind 30:304-6 My '48
- Approach to the rational evaluation of pulp. J. d'A. Clark. *il Pulp & Pa of Can* 49:101-9 S '48
- Coarse impurities and fiber fractionation; abstract. W. Brecht and M. Holl. Paper Ind 30:1110 O '48
- Effect of petroleum base additives on sulphite pulping and papermaking. W. A. Beman and H. E. Corbin. Paper Tr J 126:65-70 Je 17 '48
- Effect of some manufacturing variables on the properties of fiberboard prepared from milled Douglas-fir. H. D. Turner and others. diags Paper Tr J 127:43-50 Ag 26 '48
- Effect on pulp quality of the stepwise removal and replacement of the hemicelluloses from aspen holocellulose. R. E. March. bibliog Paper Tr J 127:51-7 O 21 '48; Same cond. Paper Ind 29:1833-4+ Mr '48
- Length and width of unbleached sulphate pulp fibers from certain western woods. M. Heinig and F. A. Simmonds. bibliog Paper Ind 30:738-41 Ag '48

Alaska

- Problems in Alaskan pulp development; abstract. H. E. Capehart. Paper Tr J 126:7+ F 12 '48

Finland

- Finn's pulpwood output under pre-season estimates. Paper Tr J 127:11 JI 8 '48
- Reviewing Finland's forest industries, 1947. J. O. Soderhjelm. Pulp & Pa of Can 49:57-8 Ap '48

Saskatchewan

- Pulpwood resources of Saskatchewan. Pulp & Pa of Can 49:146+ O '48

Scandinavia

- Scandinavian wood pulp market. K. A. Clauson. Paper Tr J 127:7+ JI 1 '48

Sweden

- Removal of equalization fee on pulp exports. For Comm W 33:25 O 30 '48

WOOD research

- Fellowship in Department of biology, Harvard graduate school. Science 108:102 JI 30 '48

WOOD research—Continued

Wood research laboratory facilities enlarged. Frankl Inst J 246:270-1 S '48

WOOD saccharification

Acclimatization of various yeasts to wood sugar. M. C. Johnson and E. E. Harris. bibliog. Am Chem Soc J 70:2961-3 S '48

Aerobic fermentor with good foam-control properties. J. F. Saeman. bibliog. JI diags Anal Chem 19:913-15 N '47

Butanol-acetone fermentation of wood sugar. R. H. Leonard, W. H. Peterson and G. J. Ritter. bibliog Ind & Eng Chem 39:1443-5 N '47

Fermentation of wood hydrolyzates by torula utilis. E. E. Harris and others. JI Ind & Eng Chem 40:1216-20 JI '48

Fodder yeast from wood hydrolyzates and still residues. E. E. Harris and others. bibliog. JI Ind & Eng Chem 40:1220-3 JI '48

Hydrolysis of wood cellulose and decomposition of sugar in dilute phosphoric acid. E. E. Harris and B. G. Lang. bibliog J Phys & Colloid Chem 51:1430-41 N '47

Production of fodder yeast. E. E. Harris and others. bibliog JI diags Paper Tr J 125: 34-7 N 27 '47; Same cond. Paper Ind 29: 879-81 S '47

Wood molasses as feed for swine; abstract. J. McGinnis and J. S. Carver. Chem & Eng N 26:2875 S 27 '48

Wood-sugar molasses from wood waste; abstract. E. E. Harris. diag Chem Eng 55:105 Je '48

Wooden beefsteak; wood-sugar molasses; abstract. E. E. Harris. Chem Eng 55:272+ Ag '48

WOOD waste

Automatic feeding of woodwaste replaces hand firing, saves fuel; Weyerhaeuser timber co. H. Panning. JI diags Power 92:396-8 JI '48

Disposal of wood refuse at Thunder Bay paper co. limited, Port Arthur, Ontario. T. C. Anderson. JI diag Pulp & Pa of Can (Convention no) 49:129-32 [F] '48; Same cond. Paper Ind 29:1658-9 F '48

Fodder yeast from wood hydrolyzates and still residues. E. E. Harris and others. bibliog. JI Ind & Eng Chem 40:1220-3 JI '48

Importance of economic considerations in wood-waste utilization research. R. K. Winters. map Paper Tr J 127:22+ JI 15 '48

Microbiological utilization and disposal of wood-processing wastes. E. E. Harris and M. C. Johnson. bibliog Paper Ind 30:940-2 S '48

Pioneering in the chemical processing of wood. G. H. Tomlinson. bibliog Chem & Ind p371-5 Je 12 '48; Same. Pulp & Pa of Can 49:63-9 Je '48

Putting waste wood to work. E. L. Heermance. Paper Ind 30:1092+ O '48

Uses of wood wastes in pulp and paper products. C. E. Hrubesky. Pulp & Pa of Can 49:61-3 F '48

Widening uses for wood waste. T. A. McElhanney. Pulp & Pa of Can (Convention no) 49:124-8+ [F] '48; Same cond. Paper Ind 30:299-302 My '48

Wood waste now converted into fine wood work; Prespine panels. JI Am Bld 70:118-19 JI '48

See also

Wood saccharification

Bark
Lumber, Used
Wood flour

WOODEN bridges. See Bridges, Wooden

WOODLOTS

Twenty-first tree farm state, Maryland ceremonies; Virginia tree farm system. Paper Tr J 127:12 Ag 12 '48

WOODROW WILSON foundation**Library**

Rockefeller Foundation grant to Woodrow Wilson library. Special Lib 38:302 N '47

WOODRUFF, Lorange Loss, 1879-1947
Sketch. R. G. Harrison. Science 106:533-4 D 5 '47

WOODS Hole oceanographic institution

Deep-sea fishing expedition. Science 108:81 JI 23 '48

WOODWORK

Builder fabricates millwork with aid of power tools. JI Am Bld 70:90-1 Je '48

Commercial interiors profitable for this dealer-builder; custom built millwork installed by Ebenreiter lumber co., Sheboygan, Wis. JI Am Bld 70:126-9 Ap '48

Dielectric heat, wood-fabrication tool. T. P. Kinn and R. E. Kirby. JI diags Westinghouse Eng 8:138-43 S '48

How to handle lignum-vitae. H. E. Linsley. JI Am Mach 92:122-3 Je 17 '48

Power tools, new materials open new fields; portable shop for remodeling store fixtures and interiors. JI Am Bld 70:98-101 My '48

Radio-frequency heating in the woodworking industry. F. L. Macaluso. JI diags A S M E Trans 70:385-91 My '48

See also

Veneers and veneering

WOODWORKING industries**Germany**

Planing mills in Luebeck. For Comm W 31:26 My 8 '48

WOODWORKING machinery

Differential registers synchronous speed; adjustment between a roughing and finishing wood planer. J. H. Gepfert. diag Machine Design 20:115-16 Ap '48

Exhaust arrangement for double-ended tenononer. K. L. Whitaker. JI Heating-Piping 20:135 O '48

Portable wood-grooving machine; Haydick portable houser. JI Engineering 164:570-1 D 12 '47

Short wave plastic forming co.'s portable wood welder. JI Mod Plastics 26:101-2 Ja '48

See also

Sanding machines
Wood grinders

WOODWORKING shops

Behind the scenes in a woodworking factory. JI Am Bld 70:122-3 Mr '48

Heating and ventilation

Underground exhaust duct eliminates inconveniences of overhead system. JI Civil Eng 18:18 Ja '48

Safety measures

Woodworking safety drive by South Carolina Dept. of labor. R. L. Gamble. JI flow charts Safety Eng 95:14-16+ Ja '48

WOOL

Certain variations in the structure of wool fibers. E. Berkley and O. C. Woodyard. JI diag Textile Res J 18:519-25 S '48

Crimp-fineness relationship in Australian wool; dependence of wool quality number on crimp fineness in Australian wool. A. F. Barker; W. R. Lang. bibliog JI Textile Inst J 39:T153-7 Ap '48

Foreign bodies in wool, determining; patent. JI Am Dyestuff Rep 37:135 F 23 '48

Measurement of the frictional properties of wool fibers. D. Frishman and others. bibliog JI Textile Res J 18:476-80 Ag '48

Mechanism of set and supercontraction in wool fibres. S. Blackburn and H. Lindley. bibliog diag Soc Dyers & Col J 64:305-12; Discussion. 312-14 S '48

Method for the electron microscopy of wool. M. Swerdlow and G. S. Seeman. bibliog JI Textile Res J 18:536-50 S '48; Abstract. Textile Col 70:29+ Ag '48

New concept of the mechanical behavior of fibers. H. Burte and others. bibliog Textile Res J 18:449-69 Ag '48; Discussion. 18:635 O '48

New theory of non-linear viscous elasticity; the curve shape factor. S. M. Katz and G. D. Halsey, jr. Textile Res J 18:557-9 S '48

Regenerated protein fibres from wool and casein. R. L. Wormell. JI diag Textile Inst J 39:T219-24 JI '48

Visco-elastic properties of wool fibres. L. Peters and J. B. Speakman. bibliog diag Textile Inst J 39:P253-64 JI '48; Same. Textile Res J 18:511-18 S '48

See also

Bleaching—Wool
Dyes and dyeing—
Wool
Mohair

WOOL—Continued

Analysis

Estimation of residual wool fat in tops oiled with b.m. (blended mineral) oil. E. W. Clark and W. L. Thomas. Textile Inst J 39:7255-9 Ag '48

Foreign bodies in wool, determining; patent. il Am Dyestuff Rep 37:135 F 23 '48

Chemistry

Chemical modification of wool-replacement of disulfide groups by more stable linkages. A. E. Brown and M. Harris. bibliog Ind & Eng Chem 40:316-22 F '48

Importance of pH control in wool processing. S. Mooradian and H. E. Millson. Rayon 29: 83-5 Ag; 121-4 S; 92-4 O; 94-5 bibliog(p94) N '48

Mechanism of set and supercontraction in wool fibres. S. Blackburn and H. Lindley. bibliog diag Soc Dyers & Col J 64:305-12; Discussion. 312-14 S '48

Production of unshrinkability by cross-linkage formation in wool; the rate of reaction of mercuric acetate with animal fibres. J. Menkart and J. B. Speakman. 2pls Soc Dyers & Col J 63:322-4 O '47

Chlorination

Dye behavior varies on chlorinated wool. Textile World 97:118 D '47

Dyeing and fastness characteristics of aqueous-chlorinated wool. bibliog il Am Dyestuff Rep 37:221-36 Ap 5 '48

Dyeing properties of chlorinated wool. J. Barritt and F. F. Elsworth. bibliog pl Soc Dyers & Col J 64:19-33 Ja '48

Influence of chlorination on wool dyeing. H. Luttringhaus. Am Dyestuff Rep 37:464-5+; Discussion. 471-2 JI 12 '48

Shrink-resistant sock treatment revealed by QMC; halogenation, resin, alcoholic potassium-hydroxide, and enzyme processes compared. il Textile World 98:111-14+ Ap '48

Shrinkage control of wool by wet chlorination. L. Shapiro. bibliog il Am Dyestuff Rep 37:376-81 My 31 '48

Shrinkproofing wool; chlorosulfamates; patent. Am Dyestuff Rep 36:788 D 29 '47

Some aspects of the chlorination of wool to produce shrink resistance. M. Harris and D. Frishman. il Am Dyestuff Rep 37:52-5; Discussion. 55-6 Ja 26 '48

Unshrinkable non-felting wool in all-wool and rayon mixture materials. A. J. Hall. Rayon 29:94-6 F; 99-101 Ap '48

Wool made shrink-resistant by improved chlorination. L. Shapiro. il Textile World 97:151+ N '47

Damage

Structural changes in wool degraded by the ringworm fungus microsporium gypseum and other microorganisms. G. R. Mandels and others. bibliog il Textile Res J 18:224-31 Ap '48

Wetting of wool as a function of the duration of fadeometer exposure. K. S. La Fleur. bibliog Textile Res J 18:39-41 Ja '48

Felting

Felting of animal fibres. J. Menkart and J. B. Speakman. bibliog diag Soc Dyers & Col J 64:14-19 Ja '48

Measurement of the frictional properties of wool fibres. D. Frishman and others. bibliog il Textile Res J 18:475-80 Ag '48

Unshrinkable non-felting wool in all-wool and rayon mixture materials. A. J. Hall. diag Rayon 28:559-60, 662-4 O, D '47; 29: 94-6 F; 99-101 Ap '48

Measurement

Interpretation of merino staple length measurements. W. R. Lang and A. M. Chaudhri. Textile Inst J 39:T249-52 JI '48

Moisture content

Moisture determination in textiles by electrical meters. R. K. Toner and others. il Textile Res J 18:526-35 S '48

Prices

Fall in wool prices. Economist 155:601 O 9 '48

Foreign wool prices drop. Barron's 28:36-7 Mr 22 '48

Sydney sales to give wool price tip-off. Barron's 28:28 Ag 30 '48

Wool prices show lack of U.S. buying. Barron's 28:36-7 S 20 '48

Shrinkproofing

Dye behavior varies on chlorinated wool. Textile World 97:118 D '47

Evaluation of shrinkage controlled wool socks; purpose of the A.A.T.C.C. sub-committee tests. Am Dyestuff Rep 37:405 Je 14 '48

Measurement of friction between single fibres; influence of different treatments on the frictional properties of wool fibres. J. Lindberg. bibliog Textile Res J 18:470-4 Ag '48

Measurement of the frictional properties of wool fibres. D. Frishman and others. bibliog il Textile Res J 18:475-80 Ag '48

No wool is shrinkproof yet. F. E. Ackerman. Textile Col 70:30+ Ap '48

Production of unshrinkability by cross-linkage formation in wool; the rate of reaction of mercuric acetate with animal fibres. J. Menkart and J. B. Speakman. 2pls Soc Dyers & Col J 63:322-4 O '47

Progress in control of wool shrinkage; facts assembled by National knitted underwear association. Rayon 29:91-2 S; 48-50 O '48

Reaction between wool and active chlorine; abstract. D. Frishman and others. Textile World 98:220 Ja '48

Resumé of research in shrink-resistant wool. R. E. Wright. Rayon 29:64 S '48

Scholler announces wool shrink-resistant process. Textile World 98:238+ Ag '48

Schollerized wool shrinkage control. il Am Dyestuff Rep 37:385 My 31 '48

Shrink-resistance in wool. Textile Col 70:32 O '48

Shrink-resistant sock treatment revealed by QMC; halogenation, resin, alcoholic potassium-hydroxide, and enzyme processes compared. il Textile World 98:111-14+ Ap '48

Shrinkage control; a stretch of the imagination? E. Wilkinson. Am Dyestuff Rep 37: 733-5 N 1 '48

Shrinkage control of wool by wet chlorination. L. Shapiro. bibliog il Am Dyestuff Rep 37:376-81 My 31 '48

Shrinkproofing wool; alkylating process; patent. Am Dyestuff Rep 37:445 Je 28 '48

Shrinkproofing wool by mechanical means, abrasion; patent. Am Dyestuff Rep 37:630-1 S 20 '48

Shrinkproofing wool; permanganate treatment combined with chlorine; patent. Am Dyestuff Rep 37:383 My 31 '48

Some aspects of the chlorination of wool to produce shrink resistance. M. Harris and D. Frishman. il Am Dyestuff Rep 37:52-5; Discussion. 55-6 Ja 26 '48

Unshrinkable non-felting wool in all-wool and rayon mixture materials. A. J. Hall. diag Rayon 28:559-60, 662-4 O, D '47; 29: 94-6 F; 99-101 Ap '48

Wool made shrink-resistant by improved chlorination. L. Shapiro. il Textile World 97:151+ N '47

Sulfur content

Chemical modification of wool-replacement of disulfide groups by more stable linkages. A. E. Brown and M. Harris. bibliog Ind & Eng Chem 40:316-22 F '48

Testing

Bending modulus of animal fibres; human hair and wool. R. M. Khayatt and N. H. Chamberlain. il diags Textile Inst J 39: T185-97 My '48

Determination of the fineness of wool samples by sedimentation. G. C. LeCompte. diags Am Dyestuff Rep 37:453-6 JI 12 '48

Measurement of friction between single fibres. J. Lindberg and N. Gralén. bibliog il diags Textile Res J 18:287-301, 470-4 My, Ag '48

Wool testing houses. M. Savell. Textile Col 70:18 Ja '48

Wettability

Wetting of wool as a function of the duration of fadeometer exposure. K. S. La Fleur. bibliog Textile Res J 18:39-41 Ja '48

WOOL, Effect of light on

Effect of light exposure on animal fibers. A. N. Patterson. Rayon 29:97 Ap '48

Wetting of wool as a function of the duration of fadeometer exposure. K. S. La Fleur. bibliog Textile Res J 18:39-41 Ja '48

WOOL, Unshrinkable. See Wool—Shrinkproofing**WOOL carding**

Woolen-card speeds are governed by stock. G. Zelnik. il Textile World 98:127+ Je '48

WOOL combing

Corrosion of lead by blended mineral combining oil. W. L. Thomas and E. W. Clark. Textile Inst J 38:P593 D '47

WOOL drying

Radiation drying of textiles; woven and matted wool felts, woven wool crepe, and absorbent cotton batting. G. T. Paul and R. H. Wilhelm. bibliog il diags Textile Res J 18:573-97 O '48

WOOL fat

Cholesterol from wool grease produced at Ambler unit. il Chem Eng 55:183 My '48

Cholesterol now made from wool grease. H. C. E. Johnson. il Chem Ind 62:922-3 Je '48

Estimation of residual wool fat in tops oiled with b.m. (blended mineral) oil. E. W. Clark and W. L. Thomas. Textile Inst J 39:T255-9 Ag '48

Structure of the branched chain fatty acids in wool fat; X-ray diffraction study. S. F. Velick. bibliog diags Am Chem Soc J 69:2317-22 O '47

Terminology

Wool wax; a review of its properties, recovery and utilization. D. T. C. Gillespie. Textile Inst J 39:P45-85 bibliog(422 titles, P75-85) F '48

WOOL oiling

Estimation of residual wool fat in tops oiled with b.m. (blended mineral) oil. E. W. Clark and W. L. Thomas. Textile Inst J 39:T255-9 Ag '48

Wool piece goods scouring with a synthetic organic detergent. O. M. Morgan. Am Dyestuff Rep 37:93-5 F '48

WOOL research

Dyeing and fastness characteristics of aqueous-chlorinated wool. bibliog il Am Dyestuff Rep 37:221-36 Ap 5 '48

Electron microscopy of wool fibers by a shadowed replica method. Franklin Inst J 246:66-70 Jl '48; Same. Am Dyestuff Rep 37:456+ Jl 12 '48

Measurement of friction between single fibers. J. Lindberg and N. Gralen. bibliog il diags Textile Res J 18:287-301, 470-4 My, Ag '48

Measurement of the frictional properties of wool fibers. D. Frishman and others. bibliog il Textile Res J 18:475-80 Ag '48

Résumé of research in shrink-resistant wool. R. E. Wright. Rayon 29:64 S '48

Wool study; Americans and British to join in research at Princeton. Bsns W p48 Jl '48

Woolen manufacturers meet on research. Am Dyestuff Rep 37:540 Ag 9 '48; Rayon 29:36-7 Ag '48

WOOL sampling

Dye sampling method of measuring fibre length distribution. R. C. Palmer. bibliog diags Textile Inst J 39:T8-22 Ja '48

WOOL scouring

Detergency comparator; abstract. Nutting. Am Dyestuff Rep 36:781-2 D 29 '47

Important notes on scoured wools. A. N. Patterson. Rayon 29:31-2 Ja '48

Nonionic detergents in the scouring of raw wool. H. C. Borghetty. Am Dyestuff Rep 36:676-8 N 17 '47

Quantitative test method for evaluating wool scouring detergent systems. E. A. Leonard and A. R. Winch. bibliog Am Dyestuff Rep 37:202-8 Mr 22 '48

Scour water from wool processing, clarifying; patent. Am Dyestuff Rep 37:383-4 My 31 '48

Scouring wool raw stock with a synthetic organic detergent. O. M. Morgan. Am Dyestuff Rep 37:96-8; Discussion. 98-9 F 9 '48

Some aspects of wetting and detergency. C. A. Norris. Textile Inst J 39:P125-8; Discussion. P129-31 Ap '48

Wool piece goods scouring with a synthetic organic detergent. O. M. Morgan. Am Dyestuff Rep 37:93-5 F 9 '48; Abstract. Textile World 98:139+ Ja '48

WOOL trade

American wool handbook. W. von Bergen and H. R. Mauersberger. 2d ed ed 1055p \$8 Textile book publishers, 303 5th av, New York 16 '48

Textiles battle for the consumer dollar; the part played by wool. B. A. Rittersporn. Textile Col 69:18-19+ N '47

What nation-wide brand name identity has done for Botany. C. F. H. Johnson, jr, il Sales Management 61:88+ O 1 '48

Wool hoarding continues. Barron's 27:36-7 N 17 '47

Wool rebound continues. Barron's 28:37 My 10 '48

Wool trade asks FTC for help. Bsns W p69 Jl 10 '48

Woolens pick up. Bsns W p34 D 13 '47

See also

Wool—Prices

Statistics

Wool and manufactures, 1941-1946. Survey of Cur Bsns 1947 Sup p 176-7 [supplemented in monthly numbers]

Australia

Australian wool textile industry. C. H. McFadyen. Textile Inst J 39:P318-19 Jl '48

Great Britain

Cotton and wool again dearer. Economist 154:812 My 15 '48

Export drive in wool textiles; Problems of worsted and woollen production. Economist 154:517-18 Mr 27 '48

Higher wool reserve prices. Economist 155:31 Jl 3 '48

Prestige and price in wool cloth exports; Boom in wool. Economist 154:239-40+ F 7 '48

Wool liquidation progresses well. Barron's 28:29 Jl 19 '48

India

Situation in India and Pakistan. For Comm W 29:30 D 27 '47

Trade in carpet wool, India and Pakistan. For Comm W 31:25-6 Ap 17 '48

Italy

Wool import regulations revised. For Comm W 29:12-13 N 8 '47

Japan

Japan asks Australian help in wool industry. Bsns W p 113 Ag 21 '48

Mexico

Import duties raised, classifications changed, and subsidy removed on certain classes of wool. For Comm W 29:19 N 15 '47

Morocco

French Morocco's industry and trade. For Comm W 31:37 Je 19 '48

Peru

Wool industry of Peru. For Comm W 30:30 Ja 31 '48

Sweden

Swedish woolen and worsted industry. J. B. Wathey. Am Dyestuff Rep 37:559+ Ag 23 '48

Western states

Textile shift? western wool producers wooing processing plants. Bsns W p40-1 F 7 '48

WOOL waste

Wool waste fatty acids; abstract. H. A. Faber. Soap & San Chem 24:90 My '48

WOOL wax

Wool wax; a review of its properties, recovery and utilization. D. T. C. Gillespie. Textile Inst J 39:P45-85 bibliog(422 titles, P75-85) F '48; Abstract. Soap & San Chem 24:69+ Jl '48

Wool wax acids; abstract. E. S. Lower. Soap & San Chem 24:67+ Ja '48

WOOL winding

Cone-winding task easily computed from data. R. Leppla. il Textile World 98:118-19+ My '48

WOOLCOCK, William James Uglow, 1878-1947
Sketch. A. J. Malacrida. por Chem & Ind
p807 D 27 '47

WOOLEN and worsted fabrics
Cleaning white woollens; abstract. C. H.
Bayley. Soap & San Chem 24:83 F '48

See also
Carpets

Mixtures

Manufacture and processing of quality
blended fabrics. E. A. Richards. Am Dye-
stuff Rep 37:34-6 Ja 12 '48

Rayon mixtures

See Rayon fabrics—Wool mixtures

Shrinkage

A.A.T.C.C. Boston area wool fabric shrink-
age committee. Am Dyestuff Rep 37:403 Je
14 '48

Color fastness and shrinkage control in
woolens; men's wear versus women's wear.
Textile Col 69:32+ D '47

Resins for textiles. K. H. Barnard. il diags
Mod Plastics 25:104-7 D '47

Scholler announces wool shrink-resistant
process. Textile World 98:238+ Ag '48

Test for washable woollens; police department
shirts treated with Monsanto's Resloom W.
Am Dyestuff Rep 37:540-1 Ag 9 '48

Unshrinkable non-felting wool in all-wool
and rayon mixture materials. A. J. Hall.
diag Rayon 28:559-60, 662-4 O, D '47; 29:
94-6 F; 99-101 Ap '48

See also
Wool—Chlorination
Wool—Shrinkproof-
ing

WOOLEN and worsted finishing

Resin finishes in wool textiles; abstract. M.
Lipson. Am Dyestuff Rep 37:473 Jl 12 '48

Resins for textiles. K. H. Barnard. il diags
Mod Plastics 25:104-7 D '47

Stabilizing wool fibers; bisulfites of organic
bases; patent. Am Dyestuff Rep 37:612+
S 20 '48

Wool finishing technology bared at AATCC
meeting. Textile World 98:125+ S '48

See also
Wool—Chlorination

WOOLEN and worsted machinery

Wool-mill needs revealed by machinery sur-
vey. Textile World 98:116-17+ Ja '48

Worsted frame has rising drafting field; Mc-
Glynn Hays system. il Textile World 97:
155-6 D '47

See also
Looms

WOOLEN and worsted manufacture

Importance of pH control in wool processing.
S. Mooradian and H. E. Millson. Rayon
29:83-5 Ag; 121-4 S; 92-4 O; 94-5 bib-
liog(p94) N '48

Textile mill driving. il Elec R (Lond) 143:
345-9, 383-7 S 3-10 '48

See also
Dyes and dyeing— Woolen and worsted
Wool mills
Woolen and worsted Woolen and worsted
machinery spinning

WOOLEN and worsted mills

American system used for fine worsteds and
nylon. C. M. Bowden. il Textile World 98:
130-1+ O '48

Electric equipment

Drive requirements for worsted slashers; ab-
stract. P. J. Wenzel. Elec Eng 67:696 Jl
'48

Employees

Botany's library helps employees get ahead;
books for job improvement as well as for
entertainment. il Sales Management 59:70
N 10 '47

Charts aid computing spooler's task; charts
based on job analysis and time study. R.
Leppia. il Textile World 97:110-11+ D '47

Mill builds course to train fork lift truck
operators; Arlington mills div. of William
Whitman co. T. R. Hadfield and J. L.
English. il plan Textile World 97:112-13 N
'47

Textiles manufacture; earnings in April 1948.
T. P. Kanninen. Mo Labor R 67:270-1 S '48

See also
Carpet factories—
Employees

Equipment

Improved heat balance raises production,
saves fuel; high-pressure condensate-re-
turn system at Rhode Island worsted co.
R. W. Shoemaker. il diags Textile World
98:125+ Ja '48

Woolen-spinning mill is Belgian equipped. G.
Zellnik. il Textile World 98:104-5+ Jl '48

See also
Woolen and worsted
machinery

Management

Engineering for profit; North star woolen
mill co. E. B. Mathewson. J Eng Educ
38:453-9 Mr '48

Management and production in wool textiles.
G. E. Birkenshaw. Textile Inst J 39:P373-5;
Discussion. P375-6 Ag '48

Waste

Scour water from wool processing, clarify-
ing; patent. Am Dyestuff Rep 37:383-4 My
31 '48

WOOLEN and worsted printing

Discharge prints on wool, preparing with
formaldehyde solutions; British patent. Am
Dyestuff Rep 37:243 Ap 5 '48

WOOLEN and worsted spinning

American system used for fine worsteds and
nylon. C. M. Bowden. il Textile World 98:
130-1+ O '48

Applications of pin drafter disclosed. J. R.
Longstreet. il Textile World 98:133+ Jl '48

Colloidal silica aids woolen and worsted
spinning; Syton. R. L. Brown. il Textile
World 98:123+ Ag '48

New worsted-yarn mill uses long-draft
spinning; Highland City mills, Talladega,
Ala. il Textile World 98:120-1 Mr '48

Wool-mill needs revealed machinery survey.
Textile World 98:116-17+ Ja '48

Woolen-spinning mill is Belgian equipped.
G. Zellnik. il Textile World 98:104-5+ Jl
'48

Woolen spinning unit has balanced pack-
ages; James Lees & sons co. F. Smith. il
Textile World 98:133+ F '48

Worsted spun on new cotton-type equipment.
R. S. Crowsley. il Textile World 98:120-1+
S '48

WOOLEN and worsted weaving

Filling holder influences loom stoppage. E.
P. Schremp. diags Textile World 98:129 Ag
'48

Loom study by means of cathode ray oscillo-
graph; variations in individual warp-thread
tension during the weaving cycle. N. H.
Chamberlain and D. S. Snowden. bibliog
il diags Textile Inst J 39:T23-43 F '48

New wool loom has wide speed range; Baker
loom. E. P. Schremp. il Textile World 98:
139-40+ Ag '48

WOOLEN and worsted yarn

Charts aid computing spooler's task; charts
based on job analysis and time study. R.
Leppia. il Textile World 97:110-11+ D '47

Cone-winding task easily computed from
data. R. Leppia. il Textile World 98:118-
19+ My '48

Dye sampling method of measuring fibre
length distribution. R. C. Palmer. bibliog
diag Textile Inst J 39:T8-22 Ja '48

Nylon mixtures

Some commercial applications of the newer
textile fibres; use of high tenacity rayon
in increasing the spinning productivity of
staple fibres. A. Johnson. Textile Inst J 39:
P309-17 Jl '48

WOOLEN, Evans, 1897-

A.B.A.'s incoming president. H. J. Boone.
por Burroughs Clearing House 32:21-3+
S '48

New A.B.A. vice-president. por Banking 40:
47 N '47

President of A.B.A. por Banking 41:51+ O
'48; Abstract. Bsns W p6 O 2 '48

WOOLLEY, Dilworth Wayne

W. Woolley named Eli Lilly award winner.
por(cover) Chem & Eng N 26:1148-9 Ap 19
'48

WOOLWORTH, F. W., company

Postwar growth easily financed. Barron's 28:
34 Je 14 '48

WORCESTER foundation for experimental biology

Gifts and grants. Science 107:676 Je 25 '48

WORD association. See Association (psychology)**WORDEN, Helen, 1896-**

Back on Manhattan beat. D. Willens. por
Ed & Pub 81:59 O 30 '48

WORKS

Dictionary companion. C. O. S. Mawson.
479p \$1.49 Garden City pub. co, 14 W. 49
st, New York 20 '48

WORK, Harold Knowlton, 1901-

American society for metals president.
por(cover) Bsns W p6 O 30 '48

WORK, Right to. See Right to labor**WORK clothes**

Peacetime market built by introducing new
use for war product; Reeves brothers pro-
mote a work garment new look. K. H.
Ganly. Il Ptr Ink 224:30-1+ S 3 '48

Working clothes on dress parade; Reeves
Bros. new styles. Il Bsns W p82 F 21 '48

WORK simplification. See Labor saving devices**WORKERS' education. See Education of workers****WORKING women**

State budget for single women workers. H.
Kefauver. Mo Labor R 66:182-4 F '48

WORKMEN'S compensation

Clean sweep; workmen's compensation laws
now in effect in 48 states. Bsns W p 103-4
My 1 '48

Hygiene problems are still with us; report
on occupational disease claims for 1947.
W. E. Obetz. Safety Eng 95:63-5 S '48

NACCA law journal. Published semi-annually
by National association of claimants' com-
pensation attorneys, 6 Beacon st, Boston 8
Occupational incapacity; can this dilemma
in workmen's compensation be overcome?
B. Hanman. Ind Med 17:383-402 O '48

Relationship of neuralgia and referred pain
to hernia compensability; cause of diag-
nostic error. F. W. Slobe. Il Ind Med 17:
259-62 JI '48

Report of the workmen's compensation com-
mittee to the officers and board of direc-
tors; American association of industrial
physicians and surgeons, Boston, April 1;
text. Ind Med 17:268-72 JI '48

Review of recent court decisions affecting
the glass industry; old disease aggravated;
accidental injury. L. T. Parker. Cer Ind
51:80 S '48

Socialized industrial medicine? P. B. Reaser.
bibliog Ind Med 17:81-4 Mr '48

Survey reveals extension of trend to broaden
compensation statutes. B. Jones. East
Underw 49:42 Mr 26 '48

When injured employees receive compensation.
L. T. Parker. Am Gas J 168:31-3 Mr '48

Workmen's compensation legislation, 1948.
A. Acee. Mo Labor R 67:278-81 S '48

See also

Accidents, Industrial Insurance, Work-
men's compensation, Employ-
ment, Insurance, Workmen's compensa-
tion

Second injury funds

Court construes intent of New Jersey 2nd
injury act. East Underw 49:27 Ap 30 '48

Election by dependents to sue third party
does not require payment by insurer into
second injury fund. Weekly Underw 158:
1602 My 29 '48

British Columbia

Study of fractures of the lower extremity,
from the records of the Workmen's com-
pensation board of British Columbia. C. A.
Ryan. Ind Med 17:97-9 Mr '48

Canada

Workmen's compensation amendments in
Canada. Int Labour R 56:618-19 N-D '47

Louisiana

Award warranted only where father actually
contributed to support of child living with
divorced mother. Weekly Underw 158:1210
Ap 17 '48

Massachusetts

Injuries to taxi driver held to have arisen
out of employment though assailant never
identified. Weekly Underw 159:250 JI 31
'48

Michigan

Election by dependents to sue third party
does not require payment by insurer into
second injury fund. Weekly Underw 158:
1602 My 29 '48

Mississippi

Mississippi workmen's compensation act. A.
Acee. Mo Labor R 66:639-40 Je '48
New comp law analyzed. T. T. Wilson. Nat
Underw 52:20 My 20 '48

New Jersey

Widow of public employee may recover bene-
fits under workmen's compensation law in
addition to pension. Weekly Underw 159:
998 O 23 '48

New York (state)

Two changes in law affect special fund for
reopened cases. Nat Underw 52:20 S 2 '48

New Zealand

Workers' compensation act of 1947. Int La-
bour R 57:662-3 Je '48

Oklahoma

Employee injured while going to install
scales sold by employer not covered by
Oklahoma compensation act. Weekly
Underw 158:1482 My 15 '48

Palestine

Workmen's compensation in Palestine. Int
Labour R 57:247-9 Mr '48

South Carolina

Settlement of claim for injuries caused by
third party bars employee's right to com-
pensation against employer. Weekly Un-
derw 158:694 F 28 '48

United States

Employment at military base acquired from
a foreign government; Republic aviation
corp. & Liberty mutual insurance co. v
Lowe. J. L. Roesch. Spectator (Property
ed) 18:10-11+ D 25 '47

WORKMEN'S compensation insurance. See In-
surance, Workmen's compensation

WORKS committees. See Employees' represen-
tation in management

WORKSHOPS, Home
Home workshops. Il Fortune 37:108-15+ Ja
'48

WORLD assembly for moral re-armament
Conference, 3d, Caux-sur-Montreux, Switzer-
land. Ed & Pub 81:64 O 16 '48

WORLD economics, Academy of, See Academy
of world economics

WORLD fairs. See Exhibitions

WORLD federation of trade unions

Communists lose; C.I.O.'s victory. Bsns W
p 112+ My 15 '48

C.I.O. speaks up on Marshall plan. Bsns W
p90+ D 13 '47

International labor confederations. Mo Labor
R 67:147-51 Ag '48

Meeting of the general council, Prague, June
9-14. Int Labour R 56:351-5 S '47

Rift in world labour. Economist 155:292-4 Ag
21 '48

WORLD flights. See Aviation—World flights

WORLD government. See International federa-
tion

WORLD health organization

First world health assembly. J. A. Doull and
M. Kramer. Pub Health Rep 63:1379-403
O 22 '48

Role in facilitation of international com-
merce. For Comm W 31:43 My 22 '48

U.S. joins WHO. Sci Am 179:30 JI '48

World health assembly announces 1949 pro-
gram. Oil Paint & Drug Rep 154:7+ JI 26
'48

WORLD health organization—Continued

World health campaign. *Economist* 155:13 JI 3 '48

WORLD oil (periodical)

Court upholds World oil; federal judge rules magazine has full right to use of name.

World Oil 128:33+ Ag '48

Our library and yours! World Oil's expanded library. R. L. Dudley. *il World Oil* 128:52-3 JI '48

WORLD power conference

Le congrès de la Conférence mondiale de l'énergie (La Haye, 2-9 septembre 1947). *Génie Civil* 124:452-5 D 1 '47

WORLD trade conference

Annual conference, 12th, Chicago, Feb. 16. *Ind Marketing* 33:68+ Mr '48

WORLD war, 1939-1945**Aerial operations**

Development of naval night fighters in World war II. J. S. Gray, jr. *il U S Naval Inst Proc* 74:846-51 JI '48

Japan's homeland aerial defense. B. Vogel. *il U S Naval Inst Proc* 74:174-81 F '48

Amphibious warfare

In the wake of invasion; salvage and rescue in support of amphibious attack forces. W. M. Heywood, jr. *il U S Naval Inst Proc* 74:456-62 Ap '48

Casualties

Railroad movement of World war II dead. *il Ry Age* 124:427 F 28 '48

Claims

Procedures announced for those who wish to seek restitution of property in Japan. *For Comm W* 31:22 My 1 '48

Economic aspects

International transactions of the United States during the war, 1940-45. U S Dept of Commerce *Economic Ser* 65:1-227; pa 60c Supt. of doc. '48

Land use

Use of military land for agriculture during World war II; War Department land. A. T. M. Lee. *J Land & Pub Util Econ* 23:349-59 N '47

Medical and sanitary affairs

Water is life; story of water supply. W. J. Diamond. *Am Water Works Assn J* 40:302-6 JI '48

Moral and religious aspects

Churches and the clergy in World war II. R. H. Abrams. *Ann Am Acad* 256:110-19 Mr '48

Naval operations

Development of naval gunfire support of amphibious operations. I. E. McMillian. *il U S Naval Inst Proc* 74:1-15 Ja '48

Graf Spee; why a suicide? K. H. Donavin. *il U S Naval Inst Proc* 74:1106-9 S '48

Gunfire support lessons learned in World war II. I. E. McMillian. *il U S Naval Inst Proc* 74:978-89 Ag '48

Seron ten; repairing, fueling, supplying and servicing the fleet in the Pacific. W. R. Carter. *il U S Naval Inst Proc* 74:152-67 F '48

Ship-repairing and shipyard problems in the invasion of Europe; abstracts and discussion. A. J. Merrington. *Engineer* 185:332-3 Ap 2 '48; *Engineering* 165:329-30 Ap 2 '48

U.S.S. Newcomb (DD 588), victim of the kamikazes. I. E. McMillian. *il U S Naval Inst Proc* 74:682-9 Je '48

Peace

Let's speed up peace treaties! A. H. Vandenberg. *Comm & Fin Chr* 166:1843+ N 6 '47

Peace settlements of World war II. T. V. Kalijarvi, ed. *bibliog Ann Am Acad* 257:1-202 My '48

Why peace conference failed; report on London meeting of Council of foreign ministers; radio address. G. C. Marshall. *Comm & Fin Chr* 166:2619+ D 25 '47

Petroleum supply

U.K. petroleum industry in war. A. Agnew. *4pls Inst Pet J* 34:403-16 Je '48

Propaganda**See also**

Propaganda, Japanese

Restitution claims

See Restitution claims (1933-)

Results

Peace settlements of World war II. T. V. Kalijarvi, ed. *bibliog Ann Am Acad* 257:1-202 My '48

Price of victory. I. Olch. *il U S Naval Inst Proc* 74:16-23 Ja '48

Science and the war

Geologist in uniform; World war II. D. M. Delo. *Am Assn Pet Geologists Bul* 32:1691-711 S '48

Science in national security. S. B. Ritchie. *Franklin Inst J* 246:223-31 S '48

Strategy

Inquest on Sealion; Hitler's plan to invade Britain. *map Economist* 153:870-1 N 29 '47

Submarine operations

Axis submarine losses to allied submarines. *U S Naval Inst Proc* 74:1160-1 S '48

Supplies

New papers and their uses in World war II. M. S. Kantrowitz. *Paper Tr J* 126:70-2 Je 24 '48; *Same abstr. Paper Ind* 30:632-5 JI '48

Finland

Finnish treaty. J. H. Wuorinen. *bibliog Ann Am Acad* 257:87-96 My '48

Italy

Italian treaty. R. Albrecht-Carrié. *Ann Am Acad* 257:76-86 My '48

Japan

Assignment in Japan. H. Salomon, jr. *il U S Naval Inst Proc* 74:972-7 Ag '48

Desperate Japs tried to make avgas even from pine tree roots, needles. D. P. Thornton, jr. *il Pet Processing* 2:815-20 N '47

Japan's homeland aerial defense. B. Vogel. *il U S Naval Inst Proc* 74:174-81 F '48

Truk, South Sea mystery base. B. Vogel. *il U S Naval Inst Proc* 74:1268-75 O '48

Pacific ocean

Battle stations submerged; submarine warfare in the Pacific. R. C. Benitez. *il map U S Naval Inst Proc* 74:24-35 Ja '48

Seron ten; repairing, fueling, supplying and servicing the fleet in the Pacific. W. R. Carter. *il U S Naval Inst Proc* 74:152-67 F '48

Poland

Tin can gold rush; wartime rescue and transportation of Poland's gold. S. Kinney. *il U S Naval Inst Proc* 74:168-73 F '48

United States

Harvard report, Problems of accelerating aircraft production during World war II, gives yardstick for industrial preparedness plans. *Aviation W* 48:17 Ja 12 '48

International transactions of the United States during the war, 1940-45. U S Dept of Commerce *Economic Ser* 65:1-227; pa 60c Supt. of doc. '48

WORMLEY, Theodore George, 1826-1897

T. G. Wormley, first American microchemist. W. M. MacNevin. *por(front) J Chem Educ* 25:182-6 Ap '48

WORMS, intestinal and parasitic

Synthetic drugs in the fight against tropical diseases. J. Walker. *Chem & Ind p* 197-8 Mr 27 '48

See also

Schistosomiasis

WORT

Boiling and hopping of wort; abstract. E. Willemart. *Food Ind* 20:1226+ Ag '48

WORTHINGTON pump and machinery corporation

Annual report. *Comm & Fin Chr* 167:1965 My 3 '48

WORTHITE

- Nitric acid versus construction materials. E. T. Collinsworth, jr. Chem Eng 55:219 Ap '48
 Sulphuric acid versus construction materials. E. T. Collinsworth, jr. Chem Eng 55:235-6+ My '48

WOUNDS

- Chemical components of onion vapors responsible for wound-healing qualities. E. F. Kohman. bibliog Science 106:625-7 D 26 '47
 Secondary closure of wounds of the hand. M. L. Mason. J. Ind Med 17:12-16 Ja '48

WOW meter. See Phonograph

WRAPPING

- How wrappers influence quality of frozen meats. D. C. McCoy. J. diags Food Ind 19: 1497-8+ N '47

See also

Packaging

WRAPPING departments. See Department stores—Wrapping departments

WRAPPING machines

- Chilling units reduce sealing time; Twin-Pack bread wrapping machine. J. diags Product Eng 19:100-1 Ja '48
 Fruits of Arizona; citrus fruits and dates wrapped in ploid film by semi-automatic machine. J. Mod Packaging 21:108-11 Ag '48
 How much will the new machine cost? C. Nyberg. diags Machine Design 19:101-5 N '47

Static eliminator; American stores co. acetate film for machine-wrapped tomato boats. J. Mod Packaging 21:174 Ap '48

Wraps, heat seals candy pops. J. Mod Packaging 21:156 Ap '48

See also

Packaging machinery

WRAPPING materials

- Cheese-curing film wrap. J. Mod Packaging 21:118-19 JI '48
 Discoloration of packaged red meat. C. G. Lavers. bibliog Mod Packaging 21:125-7 Ja '48

Films for cherries. F. Gerhardt and T. R. Wright. J. Mod Packaging 21:163-5+ Je '48
 How wrappers influence quality of frozen meats. D. C. McCoy. J. diags Food Ind 19: 1497-8+ N '47

Static eliminator; American stores co. acetate film for machine-wrapped tomato boats. J. Mod Packaging 21:174 Ap '48

See also

Plastic films

WRAPPING paper

See also

Glassine

Testing

Coatings on kraft. L. Teitell and S. Berk. J. Mod Packaging 21:165-7+ D '47

WRATHER, William Embry, 1883-

President, AIME, 1948. por Min & Met 29: 4-5 Ja '48
 Sketch. por Explosives Eng 26:4-5 Ja '48

WRECKING

Demolition and replacement of New Street Station roof, Birmingham. J. Engineer 186: 84-5 JI 23 '48; Engineering 166:105-6 JI 30 '48

Famous train shed comes down; structure at Pennsylvania station, Pittsburgh. J. diags Ry Age 123:1020-3 D 13 '47

Fort-type structure in Berlin tests demolition ingenuity; attempt to demolish flask tower with TNT. J. Eng N 140:675 My 6 '48

Traveler daylights gloomy trainshed at Pittsburgh. J. Constr Methods 30:82-4 Ja '48

See also

Automobiles—

Wrecking

WRENCHES

Conversion from spot to butt joining steps up wrench production. J. Steel 122:98 Ap 19 '48

Valve lubricated automatically by ratchet wrench arrangement; patent. diag Pet Processing 3:71 Ja '48

WRIGHT, Frank Lloyd, 1869-

F. L. Wright; a portfolio of work. Arch Forum 88:65-156 Ja '48

WRIGHT, Orville, 1871-1948

Genius of the Wright brothers. A. McSurely. Aviation W 48:50 F 9 '48

In memoriam; with portrait by L. E. Thompson. Aeronautical Eng R 7:14-15 Mr '48

Orville Wright. W. F. Durand. por Mech Eng 70:581-5 JI '48

Orville Wright; editorial. Engineering 165: 133-4 F 6 '48

Orville Wright's death may return Kitty Hawk plane to U.S. museum. A. McSurely. por Aviation W 48:13-14 F 9 '48

Sketch. por Engineer 185:139-40 F 6 '48

Wright biplane may return to U.S. Aug. 19. Aviation W 48:7 F 23 '48

Wright brothers. bibliog por Roy Aeronautical Soc J 52:141-50 Mr '48

Wright death recalls coverage of flight. H. Kriehbaum. Ed & Pub 81:34 F 14 '48

WRIGHT, Roydon Vincent, 1876-1948

Sketch. por Ry Mech Eng 122:401-2 Ag '48

Tribute. Mech Eng 70:727-8 S '48

Vice-president and secretary of the Simmons-Boardman publishing corporation. por Ry Age 125:139-40 JI 17 '48

WRIGHT, Theodore Paul, 1895-

T. P. Wright to leave CAA post for Cornell air research group. por Aviation W 48: 11-12 Ja 26 '48

Wright resigns; served 3½ years as administrator. por CAA J 9:13+ F 15 '48

WRIGHT, Wilber, 1867-1912

Genius of the Wright brothers. A. McSurely. Aviation W 48:50 F 9 '48

Wright brothers. bibliog por Roy Aeronautical Soc J 52:141-50 Mr '48

WRINGERS, Washing machine

Conveyors break painting bottlenecks; wringer assemblies for washing machines. W. Rudolph. J. Mill & Factory 43:118-19 S '48

WRITING

Materials and instruments

Cado up front; specialty writing and marking pens re-dressed in effective package. J. Mod Packaging 21:140-1+ D '47

See also

Paper

WROUGHT iron

Century-old wrought-iron structures are still in good condition; lighthouses on the Florida reefs. J. Civil Eng 18:722 N '48

New York Barge Canal lock walls refaced with wrought iron. J. Eng N 141:61 S 30 '48

Tests made on wrought-iron specimens, fifty years old; spikes used in schooner, wrecked in storm off Arcadia, Mich. Marine Eng 53:90+ O '48

WURTZ reaction

Preparation of optically active hydrocarbons by the Wurtz reaction. R. L. Letsinger. bibliog Am Chem Soc J 70:406-9 Ja '48

WURTZ-FITTIG reaction

Use of the Wurtz-Fittig reaction in the preparation of organo-substituted silanes. E. A. Bassett and others. bibliog Soc Chem Ind J 67:177-9 My '48

WYANDOTTE chemicals corporation

Chemical change; Solvay American buys into Wyandotte. Bsns W p92+ Mr 27 '48; Chem & Eng N 26:1156 Ap 19 '48

WYILLIN. See Penicillin**WYOMING**

See also

Gold mines and min- Hydroelectric plants ing—Wyoming —Wyoming

Industries and resources

Wyoming Natural resources research institute in fifth year of operation. H. G. Fisk. J. Chem & Eng N 26:677-8 Mr 8 '48

WYOMING university

Natural resources research institute

Wyoming Natural resources research institute in fifth year of operation. H. G. Fisk. J. Chem & Eng N 26:677-8 Mr 8 '48

X

X RAY and electron diffraction. American society for. See American society for X-ray and electron diffraction

X RAY apparatus

Apparatus for taking X-ray diffraction pictures of volatile systems at high temperatures. O. A. Hoffman. *il diag R Sci Instr* 19:277-8 Ap '48

Brighter fluoroscopic images with fluoroscope

X-ray image amplifier. H. D. Moreland. *il Nat Safety* N 58:54 Jl '48

Characteristics of commercial X-ray intensifying screens and films. W. W. Van Allen. *Pub Health Rep* 63:746-8 Je 4 '48

Electrical and allied developments during 1947: electromedical equipment. G. Bartlett. *il Gen Elec* R 51:47-8 Ja '48

Electrostatic accelerator for electrons. W. W. Buechner and others. *bibliog il diags R Sci Instr* 18:754-66 O '47

Formation of optical images by X-rays. P. Kirkpatrick and A. V. Baez. *il diags Opt Soc Am J* 38:766-74 S '48

High temperature X-ray studies. *il Chem Age (Lond)* 58:19-20 Ja 3 '48

Inductively coupled series tube d.c. high voltage regulator. R. Pepinsky and P. Jarmotz. *diags R Sci Instr* 19:247-54 Ap '48

Mobile X-ray unit for examination, in situ, of welded high-pressure pipelines. *il Elec R (Lond)* 141:640 O 24 '47; *Engineer* 184:468 N 14 '47

Rapid method for preparing powder camera specimens with cellulose acetate capillary tubes. K. E. Beu and H. H. Claassen. *il diags R Sci Instr* 19:179-80 Mr '48

Simple high-temperature X-ray camera furnace. R. L. Woolley. *diags J Sci Instr* 25:321 S '48

Stand for X-ray diffraction cameras. A. N. Lanham and D. P. Riley. *il diags J Sci Instr* 25:323 S '48

Temperature-controlled Frevel focusing X-ray powder camera. V. Vand. *il diag J Ap Phys* 19:352-5 S '48

X-ray diffraction cameras for metallurgical specimens. D. W. Davison. *il diags J Sci Instr* 25:7-10 Ja '48

X-ray diffraction in routine production control. H. Seymour. *il Chem Age (Lond)* 58:561-2 Ap 24 '48

X-ray glancing angle and back-reflexion camera. J. L. Howarth. *il diags J Sci Instr* 25:231-4 Jl '48

See also

Electron accelerator Synchrotron

Fluoroscopy X ray tubes

X RAY laboratories

Largest X-ray lab dedicated at Milwaukee: Coolidge laboratory. *Am Mach* 92:129 O 7 '48

World's largest X-ray development laboratory. *Science* 108:299 S 17 '48

World's largest X-ray development laboratory dedicated by General electric X-ray corp. in Wisconsin. *il Chem & Eng* N 26:2966 O 4 '48

X RAY microscope

It's all done with mirrors. *Chem & Eng N* 26:3046 O 11 '48

X RAY photometers. See Photometers, X ray

X RAY spectrometers. See Spectrometers, X ray

X RAY tubes

Automatic switch for protecting water-cooled X-ray tubes. K. E. Beu. *diag R Sci Instr* 18:326 D '47

Fine-adjustment needle-valve suitable as controlled leak for X-ray gas tubes. T. C. Alock and others. *diag J Sci Instr* 25:87-8 Mr '48

X RAYS

Historic researches. *il diags Engineer* 185:560-2 Je 11 '48

Relative yields of some X-ray induced nuclear reactions. M. L. Perlman and G. Friedlander. *bibliog Phys R* 74:442-8 Ag 15 '48

Story of atomic energy; X-rays, radioactivity, and the electron. F. Soddy. *il diags Engineering* 164:505-8 N 28 '47

Summarized proceedings of conference on X-ray analysis. London 1947. *bibliog diags J Sci Instr* 25:90-5 Mr '48

X-ray emitting isotopes of radioactive Sb and Sn. K. D. Coleman and M. L. Pool. *bibliog Phys R* 72:1070-4 D 1 '47

X-ray study of the stepwise melting of anhydrous sodium palmitate. H. Nordsieck and others. *bibliog il J Chem Phys* 16:175-80 Mr '48

X-ray yield curves for γ -n reactions. G. C. Baldwin and G. S. Klaiber. *bibliog il Phys R* 73:1156-63 My 15 '48

See also

Crystallography—

X ray studies

Diagnosis, Radio-

scopic

Metals—X ray in-

spection

Radiography

Welding—X ray in-

spection

X ray apparatus

X ray tubes

Absorption

Absorption of X-rays in air. F. H. Day and L. S. Taylor. *diags J Res Nat Bur Stand* 40:393-9 My '48

Atomic absorption coefficient for X-rays. J. A. Victoreen. *Phys R* 72:869 N 1 '47

Basic aspects of X-ray absorption in quantitative diffraction analysis of powder mixtures. L. Alexander and H. P. Klug. *bibliog Anal Chem* 20:886-9 O '48

Chemical analysis based on X-ray absorption measurements with a multiplier phototube; gases. E. H. Winslow and others. *il Anal Chem* 19:866-7 N '47

Chemical analysis based on X-ray absorption measurements with a multiplier phototube; solids and liquids. H. A. Liebhafsky and others. *bibliog il diag Anal Chem* 19:861-5 N '47

Energy levels of sodium chloride. E. Fisher. *bibliog diags Phys R* 73:36-40 Ja 1 '48

X-ray analysis. *Chem Ind* 61:876 N '47

X-ray speeds chemical comparisons. *il Electrons* 21:158+ Ap '48

Biological effect

Biological and photo-chemical effects of high energy, electrostatically produced Roentgen rays and cathode rays. C. G. Dunn and others. *J Ap Phys* 19:605-16 bibliog(p615-16) Jl '48

Biological effects of high energy radiations. Franklin Inst J 246:360-1 O '48

Irradiation of biological materials by high energy Roentgen rays and cathode rays. J. G. Trump and R. J. Van de Graaff. *bibliog il diag J Ap Phys* 19:599-604 Jl '48

Diffraction

Alignment chart giving the polarization correction of equi-inclination Weissenberg photographic intensities. W. L. Bond. *J Ap Phys* 19:82-3 Ja '48

Aqueous systems of non-ionic detergents as studied by X-ray diffraction. S. S. Marsden, Jr. and J. W. McBain. *bibliog il diags J Phys & Colloid Chem* 52:110-30 Ja '48

Basic aspects of X-ray absorption in quantitative diffraction analysis of powder mixtures. L. Alexander and H. P. Klug. *bibliog Anal Chem* 20:886-9 O '48

Breadths of X-ray diffraction lines from martensite. J. A. Wheeler and M. A. Jaswon. *bibliog Iron & Steel Inst J* 157:161-6 O '47; *Abstract. Metal Prog* 53:422+ Mr '48

Calibration of X-ray measurement of strain. J. A. Bennett and H. C. Vacher. *il diags J Res Nat Bur Stand* 40:285-93 Ap '48

Direct-reading contact scale for analysis of X-ray spectrometer charts. W. R. Foster. *Anal Chem* 20:439-50 My '48

Divergent beam X-ray photography of metallic single crystals. A. H. Geisler and others. *il Phys R* 72:933-4 N 15 '47

Effect of the piezoelectric properties of a crystal on diffuse X-ray reflections. D. C. Miller. *bibliog il diags Phys R* 74:166-9 Jl 15 '48

Equilibrium moisture and X-ray diffraction investigations of pectinic and pectic acids. K. J. Palmer, R. C. Merrill and M. Ballantyne. *bibliog il Am Chem Soc J* 70:570-7 F '48

Halogen-halogen distances in halogenpolymer complexes. R. E. Rundle. *bibliog J Chem Phys* 15:880 D '47

High angle X-ray diffraction at elevated temperatures. E. G. Steward. *bibliog il diags J Sci Instr* 25:331-2 S '48

X RAYS—Diffraction—Continued

Identification of unknown materials made easier by X-ray diffraction. Steel 123:121-2 Ag 16 '48

Index for X-ray powder diffraction patterns. S. E. Q. Ashley and R. C. Newton. *il Anal Chem* 20:657-8 JI '48

Molecular weight of lysozyme determined by the X-ray diffraction method. K. J. Palmer, M. Ballantyne and J. A. Galvin. *Am Chem Soc J* 70:906-8 Mr '48

Multilization of kaolinite. J. E. Comeforo and others. *bibliog il diags Am Cer Soc J* 31:254-9 S 1 '48

Organic quantitative analysis using the Geiger counter X-ray spectrometer. C. L. Christ, R. B. Barnes and E. F. Williams. *bibliog il diags Anal Chem* 20:789-95 S '48

Oriented X-ray diffraction patterns produced by hydrous liquid crystals. S. S. Marsden, Jr. and J. W. McBain. *bibliog il J Chem Phys* 16:633 Je '48

Quantitative X-ray investigations on the crystallinity of cellulose fibers; background analysis. P. H. Hermans and A. Weidinger. *bibliog il diags J Ap Phys* 19:491-506 My '48

Recent advances in the study of the crystalline state. L. Bragg. *diags Science* 108:455-63 O 29 '48

Resolution of X-ray doublet diffraction lines into α components. R. S. Pease. *J Sci Instr* 25:353 O '48

Sealed sample holder for X-ray diffraction powder work. C. L. Christ and E. F. Champayne. *diags R Sci Instr* 19:117-18 F '48

Self-printing X-ray diffraction interplanar scale. A. P. deBretteville, Jr. and S. B. Levin. *il R Sci Instr* 19:120-1 F '48

Shape of X-ray diffraction lines from colloidal magnesium oxide. C. R. Berry. *bibliog Phys R* 72:942-7 N 15 '47

Simple scanner for X-ray diffraction. R. H. Hay. *il diag R Sci Instr* 18:801-2 O '47

Statistical factors affecting the intensity of X-rays diffracted by crystalline powders. L. Alexander and others. *diags J Ap Phys* 19:742-53 Ag '48

Structure of micelles of colloidal electrolytes; a new long-spacing X-ray diffraction band; and the relations of other bands. R. W. Mattoon and others. *bibliog J Chem Phys* 16:644-58 JI '48

Structure of the branched chain fatty acids in wool fat; X-ray diffraction study. S. F. Velick. *bibliog diags Am Chem Soc J* 69:2317-22 O '47

Structure studies on chromium-aluminum oxide and related catalyst systems. R. P. Eischens and P. W. Selwood. *Am Chem Soc J* 69:2698-702 N '47

Use of X-ray and electron diffraction as methods of analysis in biochemical chromatography. C. L. Christ and others. *Science* 108:91-2 JI 23 '48

X-ray and thermal examination of the glycerides; the polymorphism of simple triglycerides. C. E. Clarkson and T. Malkin. *pl Chem Soc J* p985-7 JI '48

X-ray diffraction analysis of crystalline dusts. H. P. Klug and others. *bibliog J Ind Hygiene* 30:166-71 My '48

X-ray diffraction analysis of indium hydroxide and "indium chromate". A. Palm. *bibliog il J Phys & Colloid Chem* 52:959-61 Je '48

X-ray diffraction in aqueous systems of dodecyl sulfonic acid. S. S. Marsden, Jr. and J. W. McBain. *Am Chem Soc J* 70:1973-4 My '48

X-ray diffraction in routine production control. H. Seymour. *il Chem Age (Lond)* 58:561-2 Ap 24 '48

X-ray diffraction studies in the system $\text{NiO-Cr}_2\text{O}_3\text{-ZrO}_2$. W. O. Milligan and L. M. Watt. *bibliog il J Phys & Colloid Chem* 52:230-5 Ja '48

X-ray diffraction studies of steam turbine deposits. L. A. Burkardt and C. E. Imhoff. *bibliog il Ind & Eng Chem* 39:1427-32 N '47

X-ray diffraction studies of systems involved in the preparation of alkaline earth sulfide and selenide phosphors. W. Primak, H. Kaufman and R. Ward. *bibliog Am Chem Soc J* 70:2043-6 Je '48

X-ray diffraction studies of the action of carbon monoxide on cobalt-thoria-kieselguhr catalysts. L. J. E. Hofer and W. C. Peebles. *bibliog Am Chem Soc J* 69:2497-500 O '47

X-ray diffraction study of some synthetic rubbers at low temperatures. E. E. Hanson and G. Halverson. *bibliog 2pls diags Am Chem Soc J* 70:779-83 F '48

X-ray dog tags; index of X-ray diffraction measurements provides identification of 3,000 compounds. *il Chem Ind* 62:912 Je '48

X-ray, electron, and neutron diffraction. C. G. Shull and E. O. Wollan. *bibliog il Science* 108:69-75 JI 23 '48

X-ray investigation of glycerides; diffraction analyses of synthetic 1,3-dielaidin. B. F. Daubert and S. S. Sidhu. *bibliog Am Chem Soc J* 70:1848-9 My '48

X-ray method of measuring Poisson's ratio. R. F. Hanstock and E. H. Lloyd. *il diags Inst Mech Eng* 157:157 (War em agency issue no 26):52-4; Discussion. 55 '47

X-rays in relation to textiles. R. Meredith. *bibliog diags Textile Inst J* 39:P132-9; Discussion. P139-40 Ap '48

Industrial applications

Nondestructive thickness gaging by X-ray successfully applied. *diag Product Eng* 19:158 Mr '48

Radiation hazards in industry. C. R. Williams. *bibliog J Ind Hygiene* 30:294-9 S '48

Radiographic tyre testing. *il Engineer* 185:614-15 Je 25 '48

Thickness gaging with X-rays. *il diag Machine Design* 20:100 My '48

X-ray diffraction studies of steam turbine deposits. L. A. Burkardt and C. E. Imhoff. *bibliog il Ind & Eng Chem* 39:1427-32 N '47

X-ray fluorescence analysis. J. L. Abbott. *bibliog il diag Iron Age* 162:58-62 O 28; 121-4 N 4 '48

X-ray thickness gage. *il diags Electronics* 21:154-7 Mr '48

X-ray thickness gauge for cold rolled strip steel. W. N. Lundahl. *il diags Elec Eng* 67:349-53 Ap '48; Abstract. Westinghouse Eng 8:42-3 Mr '48

X-ray thickness gauge for hot-strip rolling mills. C. W. Clapp and R. V. Pohl. *diags Elec Eng* 67:441-4 My '48

X-ray to help cut helicopter costs. *Aviation W* 47:16 N 17 '47

X-rays help control quality; new gaging units test thickness of moving materials. *il diag Esns W* p64-4 Ja 31 '48

X-rays measure thickness. *il Westinghouse Eng* 8:21 Ja '48

Measurement

Absorption of X-rays in air. F. H. Day and L. S. Taylor. *diag J Res Nat Bur Stand* 40:393-9 My '48

Conversion factor for kX units to Angstrom units. W. L. Bragg and E. A. Wood. *Am Chem Soc J* 69:2919 N '47

Correction for the α doublet in the measurement of widths of X-ray diffraction lines. W. A. Rachinger. *J Sci Instr* 25:254-5 JI '48

Correction of X-ray intensities for polarization and Lorentz factors. W. Cochran. *J Sci Instr* 25:253-4 JI '48

Detection and measurement of nuclear radiation. G. W. Dunlap. *bibliog il diags Elec Eng* 67:325-32 Ap '48

Positive print method of measuring X-ray reflexions from a single crystal. R. G. Wood and G. Williams. *il diag J Sci Instr* 25:202-4 Je '48

Recovery time of Geiger counters for X-ray intensity measurement. R. Pepinsky and others. *R Sci Instr* 19:51-2 Ja '48

Physiological effect

Control of hemorrhagic syndrome and reduction in X-irradiation mortality with a flavanone. P. E. Rekers and J. B. Field. *bibliog Science* 107:16-17 Ja 2 '48

Effects of X-rays on the mitotic activity of mouse epidermis. N. P. Knowlton, Jr. and others. *Science* 107:625-6 Je 11 '48

X irradiation of the hypophysectomized rat. H. M. Patt and others. *bibliog Science* 108:475-6 O 29 '48

X RAYS—Continued

Protection

Housing a 2,000,000 volt X-ray machine; Babcock & Wilcox co. *il Nat Safety N* 57:33, 99 Je '48

Protection against radiation hazards and maximum allowable exposure values, K. Z. Morgan, *bibliog il J Ind Hygiene* 30:286-93 S '48

Safety in a radiochemical laboratory; abstract, W. H. Ray, *Safety Eng* 95:46-7 My '48

Scattering

Interpretation of X-ray scattering from solutions of long-chain electrolytes on the basis of a spherical micelle, M. L. Corrin, *bibliog J Chem Phys* 16:844-5 Ag '48

Pore size distribution in porous materials; interpretation of small-angle X-ray scattering patterns, H. L. Ritter and L. C. Erich, *bibliog diags Anal Chem* 20:665-70 J '48

Small-angle X-ray scattering from amorphous materials, G. H. Vineyard, *bibliog Phys R* 74:1076-83 N 1 '48

Small-angle X-ray scattering from metal deposits made by evaporation, B. Carroll and I. Fankuchen, *il J Chem Phys* 16:153-4 F '48

Small angle X-ray scattering of various cellulose fibers, A. N. J. Heyn, *bibliog il Am Chem Soc J* 70:3138-9 S '48

Therapeutic use

Roentgen rays against cancer; use of electrostatic generators, J. G. Trump, *il diag Tech R* 50:91-5+ D '47

X-raying is simplified, *il Westinghouse Eng* 8:21-2 Ja '48

X RAYS in dentistry

Westinghouse midget X-ray tube, *il Sci Am* 178:81 F '48

XANTHINE

Application of the Hofmann reaction to the synthesis of heterocyclic compounds; the synthesis of 9-D-mannopyranosidoxanthine and of 9-D-ribosepyranosidoxanthine, R. A. Baxter, A. C. McLean and F. S. Spring, *Chem Soc J* p523-5 Ap '48

XANTHONITE

Synthesis of some sulpharsenites of silver in alkali sulphide solutions, R. Béland, *bibliog il Econ Geol* 43:119-32 Mr '48

XANTHOPHYLLS

Green light for chlorophyll; extraction of leaves and fractionation of extract is big business, *Chem Ind* 63:590-1 O '48

Leaf xanthophylls, H. H. Strain, *bibliog Am Chem Soc J* 70:1672 Ap '48

XANTHOPTERIN

Degradation product of rhizopterin, E. L. Rickes and others, *bibliog Am Chem Soc J* 69:2751-3 N '47

XENOLITHS, See Rocks, Igneous

XENON

Interaction between neutrons and electrons, E. Fermi and L. Marshall, *diags Phys R* 72:1139-46 D 15 '47

Low-temperature transport properties of gases; neon, argon, krypton, and xenon, I. Amdur, *bibliog J Chem Phys* 16:190-4 Mr '48

Range-energy relations for protons in substances containing C, H, O, A, and Xe, J. O. Hirschfelder and J. L. Magee, *bibliog Phys R* 73:207-15 F 1 '48

Isotopes

Isotopic composition of xenon, A. H. W. Aten, jr, *bibliog Phys R* 73:1206-7 My 15 '48

XEROGRAPHY

New photo reproduction process shown by Battelle institute, *il diags Chem & Eng N* 26:3264-5 N 1 '48

Reproducing photos by electrostatic means, *il diags Bens W* p58 O 30 '48

Research lab demonstrates high-speed inkless printing, J. Walker, *il Ed & Pub* 81: 5-6 O 23 '48

XYLENE

Absolute absorption intensities of alkylbenzenes in the 2250-1700 Å. region, J. R. Platt and H. B. Kleven, *bibliog Chem R* 41:301-10 O '47

Alkylbenzenes in the C₈ fraction from five different catalytic petroleum refining processes, A. J. Streiff and F. D. Rossini, *bibliog J Res Nat Bur Stand* 53:303-8 O '47

C-H bond energy in toluene and xylenes, M. Szwarc, *bibliog diag J Chem Phys* 16:128-36 F '48

Effect of surface-active agents upon dispersions of lead monoxide in xylene, V. E. Damerell and M. J. Vogt, *J Phys & Colloid Chem* 52:363-7 F '48

Enthalpy, entropy and specific heat of liquid p-xylene from 0 to 300°; the heat of fusion, R. J. Corruccini and D. C. Ginnings, *bibliog Am Chem Soc J* 69:2291-4 O '47

Mooney viscosity and gel plasticity relationship for GR-S-xylene gels, J. C. Driskell and R. D. Kracke, *il India Rubber World* 118:66-7 Ap '48

Nature of negative ions in liquid hydrocarbons, A. Gemant, *Electrochem Soc J* 94: 160-70 O '48

Sound velocity method for determining the compressibility of finely divided substances, R. J. Urick, *diag J Ap Phys* 18:983-7 N '47

Synthesis of 1,2,3-trimethylbenzene, 1-ethyl-3-methylbenzene, and m-xylene by dehydrogenation of corresponding cyclohexene intermediates, T. W. Reynolds and others, *bibliog Ind & Eng Chem* 40:1751-2 S '48

Viscoelastic properties of polymer solutions, J. D. Ferry, *bibliog il diags J Res Nat Bur Stand* 41:63-62 J 1 '48

XYLENOL

Halogenation of m-5- and m-2-xenolol; mixed chlorobromo-derivatives, S. W. Gleed and A. T. Peters, *Chem Soc J* p209-11 F '48

Halogenation of m-5- and m-2-xenolols; preparation and structure of certain polyhalogeno-m-5- and -m-2-xenolols, C. H. R. Eaton, A. T. Peters and F. M. Rowe, *Chem Soc J* p367-70 Mr '48

Synthetic estrogens; tetraalkyl substituted analogs of diestrol and hexestrol, J. B. Niederl and P. Weiss, *Am Chem Soc J* 70: 2894-6 S '48

XYLIDINE

New xylidine process revealed, R. J. DeLargy and others, *il diag Chem Eng* 55: 124-6 O '48

Production of xylidines by high pressure hydrogenation, A. Voorhies, jr., W. M. Smith and R. B. Mason, *il plan Ind & Eng Chem* 40:1543-8 Ag '48

Production of xylidines by high pressure hydrogenation; process development, C. L. Brown, W. M. Smith and W. G. Scharmann, *bibliog diags Ind & Eng Chem* 40: 1538-42 Ag '48

Production of xylidines by high pressure hydrogenation; quality and performance characteristics, J. F. Kunc, jr., W. C. Howell, jr. and C. E. Starr, jr, *bibliog Ind & Eng Chem* 40:1530-3 Ag '48

Analysis

Study of the efficiency of methods for obtaining vapor samples in air, H. L. Andrews and D. C. Peterson, *bibliog flow diag diags J Ind Hygiene* 29:403-7 N '47

XYLOSE

Butyl alcohol from xylose saccharification liquors from corncobs, A. F. Langlykke, J. M. Van Lanen and D. R. Fraser, *Ind & Eng Chem* 40:1716-19 S '48

Analysis

Quantitative determination of hemicellulose constituents by fermentation, A. H. Auernheimer, L. J. Wickerham and L. E. Schniepp, *bibliog Anal Chem* 20:876-7 S '48

Y

YACHT clubs

Insurance requirements

Yacht club protection developed in England, *Weekly Underw* 159:494 S 4 '48

YACHTS and yachting

Houseboat cruiser, Seaplay. *il* Marine Eng 53:74-6 J1 '48

Millionaire's yacht becomes cruise ship; Corsair. *il* Marine Eng 52:74-80 D '47

YALE and Towne manufacturing company

Carey leads Yale & Towne in regional program. *Bsns W* p66+ D 6 '47

YALE daily news

Yale daily uses new process; first cost put at \$100,000; vari-type photo offset process. *Ed & Pub* 81:12 S 18 '48

YALE institute of alcohol studies in the Southwest

Inaugurated at Fort Worth. *Science* 108:55 J1 16 '48

YANDA process. See Resinous products—Textile uses**YANGTZE river****Power utilization**

Le projet d'aménagement hydroélectrique sur le cours moyen du fleuve Bleu (Chine). *il* map *Génie Civil* 124:435-7 N 15 '47

YARN

Determination of twist in yarns. *Textile Inst J* 38:S21-2 D '47

Determination of yarn count or yarn number. *diags* *Textile Inst J* 38:S15-21 D '47

See also

Cotton yarn

Rayon yarn

Glass yarn

Woolen and worsted yarn

Nylon yarn

Mixtures

Some commercial applications of the newer textile fibres; use of high tenacity rayon in increasing the spinning productivity of staple fibres. A. Johnson. *Textile Inst J* 39:P309-17 J1 '48

Tables, calculations, etc.

Valuable comparative yarn tables. A. L. Dorgin. *Rayon* 29:51 Je '48

Testing

Composite frequencies in yarn-thickness variations; shown by an air-flow method. W. L. Balls. *diag* *Textile Inst J* 39:T225-31 J1 '48

Instrument for measuring the coefficient of friction of yarns against other materials. H. Buckle and J. Pollitt. *il* *diags* *Textile Inst J* 39:T199-210 Je '48

Measurement of hysteresis and dynamic elastic modulus of textile yarns and cords. G. Palandri. *il* *diag* *Rubber Age* 64:46-52 O '48

Method for the absolute measurement of dynamic properties of linear structures at sonic frequencies. W. J. Lyons and L. B. Prettyman. *bibliog* *il* *diag* *J Ap Phys* 19:473-80 My '48

Taber yarn-sheet abrasion test. E. M. Hicks and A. G. Scroggie. *bibliog* *il* *diag* *Textile Res J* 18:416-23 J1 '48

Theory of commercial yarn testing. C. J. Geyer, jr. and others. *diag* *J Ap Phys* 19:464-72 My '48

Theory of commercial yarn testing. C. J. Geyer, jr. and others. *Textile Res J* 18:338-50 Je '48

YEADON, Clyde

Yeadon translates Paul Bunyan legend. O. J. Rochelle. *por* *Ed & Pub* 81:40 S 4 '48

YEARBOOKS (statistical, historical, etc.)

Britannica book of the year, 1948. W. Yust, ed. 842p. Encyclopaedia Britannica, Inc. 20 N Wacker drive, Chicago 6 '48 (\$10)

Economic almanac for 1948. 472p \$5; pa \$4

National industrial conference board, 247 Park av, New York 17 '47

Information please almanac, 1948. J. Kieran, ed. 960p \$2 Doubleday & co, 14 W. 49th st, New York 20 '47

New international year book; a compendium of the world's progress for the year 1947. H. E. Vizetelly, ed. 683p \$10 Funk & Wagnalls co, 153 E. 24th st, New York 10 '48

Statesman's year-book; statistical and historical annual of the states of the world for the year, 1948. v85 1471p \$7.50 Macmillan co, 60 5th av, New York 11 '48

YEASTS

Acclimatization of various yeasts to wood sugar. M. C. Johnson and E. E. Harris. *bibliog* *Am Chem Soc J* 70:2961-3 S '48

Acetate metabolism in yeast, studied with isotopic carbon. S. Weinhouse and R. H. Millington. *bibliog* *Am Chem Soc J* 69:3089-93 D '47

Aerobic fermentor with good foam-control properties. J. F. Saeman. *bibliog* *il* *diags* *Anal Chem* 19:913-15 N '47

Dry active yeast; abstract. A. Stubbs. *Food Ind* 20:1544+ O '48

Fermentation of wood hydrolyzates by torula utilis. E. E. Harris and others. *il* *Ind & Eng Chem* 40:1216-20 J1 '48

Fodder yeast from wood hydrolyzates and still residues. E. E. Harris and others. *bibliog* *il* *Ind & Eng Chem* 40:1220-3 J1 '48

Fodder yeast production from sulfite waste liquor. R. G. Tyler and W. Maske. *diag* *Sewage Works J* 20:516-24 My '48

Microbiological proteins; food value for animals. R. Braude. *bibliog* *Chem & Ind* p259-62 Ap 24 '48

Microbiological utilization and disposal of wood-processing wastes. E. E. Harris and M. C. Johnson. *bibliog* *Paper Ind* 30:940-2 S '48

Production of fodder yeast. E. E. Harris and others. *bibliog* *il* *diags* *Paper Tr J* 125:34-7 N 27 '47; Same cond. *Paper Ind* 29:879-81 S '47

Turbidimetric method for determining the effect of 2,4-D upon the growth of yeast. F. R. West, jr. and J. H. M. Henderson. *Science* 107:604 Je 4 '48

Wartime production of food yeast in Germany; abstract. H. J. Bunker. *Chem & Ind* p332 My 22 '48

Analysis

Yeast estimation methods; when and how to apply them. E. D. Stewart. *il* *Food Ind* 20:557-9+ Ap '48

Manufacture

Production of microbiological protein for food. H. J. Bunker. *Chem & Ind* p 179-80 Mr 20 '48

Storage

Effect of oxygen on retention of activity by commercial dried baker's yeast. J. Oyaas and others. *bibliog* *Ind & Eng Chem* 40:280-3 F '48

YELLOW fever**Statistics**

World distribution of cholera, plague, smallpox, typhus fever, and yellow fever; Jan.-Oct. 1947, Nov. 1947, Dec. 1947, by weeks. *Pub Health Rep* 63:160 Ja 30 '48 [cont monthly]

YELLOW river, China

East meets West in controlling China's Yellow river. O. J. Todd. *il* *Civil Eng* 18:638-41+ O '48

Le rétablissement du fleuve Jaune dans son cours antérieur. *il* map *Génie Civil* 124:414-15 N 1 '47

YENCHING university, Peiping, China

Bulletin from the College of natural sciences. *Science* 107:242 Mr 5 '48

YOBYRINE

Structure of ketoyobyrine. R. B. Woodward and B. Witkop. *bibliog* *Am Chem Soc J* 70:2409-12 J1 '48

Studies in the indole series; yohimbine; the synthesis of yobyrine, yobyrone and tetrahydroyobyrine. P. L. Julian and others. *bibliog* *Am Chem Soc J* 70:180-3 Ja '48

Synthesis of ketoyobyrine. P. L. Julian and others. *bibliog* *Am Chem Soc J* 70:2834 Ag '48

YOBYRONE

Studies in the indole series; yohimbine; the synthesis of yobyrine, yobyrone and tetrahydroyobyrine. P. L. Julian and others. *bibliog* *Am Chem Soc J* 70:180-3 Ja '48

YOGG, Howell J.

Answer man for hotel problems; Yogg's printed press. L. Mackall. *Adv & Sell* 41:36-7 My '48

YOHIMBINE

Studies in the indole series; yohimbine; the mechanism of dehydrogenation of yohimbine and related compounds. F. L. Julian and others. *bibliog* *Am Chem Soc J* 70:174-9 Ja '48

YOHIMBINE—*Continued*

Studies in the indole series; yohimbine; the synthesis of yobyrine, yobyron and tetrahydrobyriner. P. L. Julian and others. bibliog Am Chem Soc J 70:180-3 Ja '48
 Synthesis of ketoyobyrine. P. L. Julian and others. bibliog Am Chem Soc J 70:2334 Ag '48

YOUNG, James Webb, 1886-

Jim Young, who retired but didn't quit, plies his trade through Webb Young, trader, por Ptr Ink 222:107 Ja 16 '48

YOUNG, John Orr, 1886-

Adventures in advertising; an agency that started on a shoestring. J. O. Young, il Ptr Ink 222:27-30+ Mr 5; 34-7 Mr 19; 223: 32-4+ Ap 2; 41-2+ Ap 16; 40-1+ Ap 30; 42-3+ My 14; 44-5+ My 28; 40-1+ Je 11; 41+ Je 25; 224:46+ Jl 9; 31+ Jl 23; 37+ Ag 6; 42+ Ag 20; 38+ S 3; 48+ S 17; 225: 42+ O 1 '48

Portrait. Ptr Ink 222:29 Mr 5 '48

Y & R started in 1923 on mere shoestring. L. L. Collings. Ed & Pub 31:9+ My 22 '48

YOUNG, Robert Ralph, 1897-

Denies Young N.Y.C. directorship; I.C.C. rejects Bowman application and petition of C. & O. and Alleghany corporation for release of Central holdings from trusteeship. Ry Age 124:1020-1+ My 22 '48

Setback for Young. Bsns W p81-2 D 20 '47
 Young on the mat? Bsns W p95-6 Ap 10 '48

YOUNG and Rubicam

Welcome to Young & Rubicam. il Adv & Sell 41:56-7 O '48

See also

Young, John Orr**YOUNG-HELMHOLTZ theory**

New determination of the Young-Helmholtz primaries. G. Szekeres. Opt Soc Am J 38: 350-63 Ap '48

YOUNGREN, Harold T. 1892-

Portrait. Fortune 38:83 Ag '48

YOUNG'S modulus. See Elasticity**YOUNGSTOWN sheet and tube company**

Ten potential market leaders for 1948. Mag of Wall St 81:406 Ja 17 '48

YOUTH

Deplorable generation. Economist 155:214-15 Ag 7 '48

Employment problems of out-of-school youth. E. S. Johnson. Mo Labor R 65:671-4 D '47

Oregon bankers association's successful youth program; assistance given to FFA and 4-H. il Banking 40:56-7+ Mr '48

Teen-agers. E. Morrison. Am Gas Assn Proc 1947:412-14; Same, il Am Gas Assn Mo 30: 8-10 Ja '48

There's gold in them thar kids; youth market. il Mod Ind 15:46-9 Ja '48

Youth market. E. Gilbert. J Marketing 13: 79-80 Jl '48

See also

Chicago youth conference Great Britain—Juvenile employment service

YOUTH serving associations

Youth-serving organizations, national non-governmental associations. M. M. Chambers. 3d ed 162p 83 American council on education, Washington, D.C. '48

YTTRIUM

Separation of rare earth by ion exchange; cerium and yttrium. F. H. Spedding and others. bibliog Am Chem Soc J 69:2777-81 N '47

Isotopes

Beta-spectra of Y^{90} and Sr^{90} . W. E. Meyerhof. bibliog Phys R 74:621-2 S 1 '48

Conservation of momentum in the beta-decay of Y^{90} . C. W. Sherwin. bibliog Phys R 73:1173-7 My 15 '48

YUCCA

Steroidal sapogenins; biogenesis of steroidal sapogenins in plants. R. E. Marker and J. Lopez. Am Chem Soc J 69:2383-5 O '47

Steroidal sapogenins; seasonal variation of sapogenins in plants. R. E. Marker and J. Lopez. Am Chem Soc J 69:2375-80 O '47

YUCCAGENIN

Steroidal sapogenins; position of the double bond in yuccagenin and kammogenin. R. E. Marker and J. Lopez. Am Chem Soc J 69:2401-2 O '47

YUGOSLAVIA**Commercial policy**

Argentina signs commercial agreement with Yugoslavia. For Comm W 32:14-15 Jl 17 '48

Economic relations

U.S. hopes to profit by Tito's dilemma. il map Bsns W p 108-11 Jl 24 '48

Foreign relations**Russia**

Chip off the eastern bloc; Marshal Tito disowned by the Cominform. Economist 155:2-4 Jl 3 '48

Moscow-Belgrade letters. Economist 155:629-30 O 16 '48

YUKON

Settlement of Canada's Northland. H. C. Plummer. il Sci Am 173:169-72 Ap '48

See also

Gold mines and mining—Yukon

Z**ZEDER, Fred Morrell, 1886-**

Portrait. Fortune 38:104 O '48

ZEDER, James Churchill, 1900-

Portrait. Fortune 38:83 Ag '48

ZEEMAN effect

Crystalline stark splitting and microwave resonance absorption in paramagnetic salts. C. Kittel and J. M. Luttinger. bibliog diags Phys R 73:162-72 Ja 15 '48

Microwave spectra and Zeeman effect in a resonant cavity absorption cell. C. K. Jen. diags Phys R 72:986 N 15 '47

Zeeman effect and g -values for neutral nitrogen and oxygen. C. C. Kiess and G. Shortley. il Science 107:649-50 Je 18 '48

ZEIDLER, Frank P.

Portrait. Bsns W p36 Ap 24 '48

ZEIN

Bromination of zein. W. W. Binkley. Am Chem Soc J 70:2010-12 Je '48

ZEISS, Carl, foundation, Jena

Austrian scientific instruments; gradual revival of Zeiss and Schott works. Chem Age (Lond) 57:818 D 27 '47

ZEISS spectrograph. See Spectrograph**ZELLERBACH, James David, 1892-**

Portrait. Fortune 38:67 Ag '48

ZEOLITES

Brine disposal from sodium zeolite softeners. P. D. Haney. diags Am Water Works Assn J 39:1215-19 D '47

Exchange adsorption of ions from aqueous solutions by organic zeolites. G. E. Boyd and others. bibliog diags Am Chem Soc J 69:2818-29, 2836-59 N '47

Exchange adsorption of ions from aqueous solutions by organic zeolites; separation of the yttrium group rare earths. B. H. Kettle and G. E. Boyd. bibliog diags Am Chem Soc J 69:2800-12 N '47

Home zeolite service. H. W. MacDuff. Am Water Works Assn J 40:309-12 Mr '48

How to recondition a zeolite softener. diags Power Generation 52:81-3 My '48

Hydrogen-zeolite treated water dissolves boiler, superheater scale. T. L. B. Webb and J. D. Yoder. diags Power 92:35-7+ Ja '48

New Liqueur zeolite water softener. Rayon 28:649 D '47

Operating characteristics of synthetic siliceous zeolite. L. Streicher and others. bibliog Am Water Works Assn J 39:1133-61 N '47

Sorptive and molecular-sieve properties of a new zeolitic mineral. R. M. Barrer and D. W. Riley. Chem Soc J p 133-43 F '48

Synthesis of a zeolitic mineral with chabazite-like sorptive properties. R. M. Barrer. pl Chem Soc J p 127-32 F '48

See also

Amberlites

ZETZLEMOYER, Albert Charles, 1915-

Bob and transit; gas adsorption, a tool of growing importance; A. G. Zetzlemoyer's research. *por Chem Ind* 62:385-6 Mr '48

ZHDANOV, Andrei Alexandrovich, 1896-

Economic brain trust of Soviet Russia. *por Bsns W* p22-4 My 15 '48

ZIEGLER, Karl, 1898-

K. Ziegler, R. E. Oesper, *por (front) J Chem Educ* 25:510-11 S '48

ZIMMERLI, Franz Perrine, 1894-

Recipient of the Sauvage award, 1947. E. V. Ivanso. *por Metal Prog* 53:528-9 Ap '48

ZINC

Behavior of experimental zinc-steel couples underground. I. A. Denison and M. Romanoff. *bibliog il diags J Res Nat Bur Stand* 40:301-13 Ap '48

Effect of inhibitors on the corrosion of zinc in dry-cell electrolytes. C. K. Morehouse and others. *bibliog diag J Res Nat Bur Stand* 40:151-61 F '48

Removal of zinc from bright nickel baths by electrolytic treatment. H. D. Carter. *bibliog Metal Finishing* 46:85-8+ O '48

Viscous slip along grain boundaries and diffusion of zinc in alpha-brass. T. Ké. *bibliog J Ap Phys* 19:285-90 Mr '48

Widening field for zinc; record 1947 production in U.K. *Chem Age (Lond)* 59:17 Jl 3 '48

Zinc anode protection installed during pipeline construction. O. C. Roddey. *diags Oil & Gas J* 46:87-8+ Ap 22 '48

Zinc combats corrosion of buried pipes. *Dom Eng* 172:124 Jl '48

Zinc film permits plating on magnesium. H. K. DeLong. *il Am Mach* 92:98-100 My 6 '48

Analysis

Determination of zinc in water, sewage and industrial wastes by means of di-beta-naphthylthiocarbazone. L. Rubin and A. Levine. *bibliog N E Water Works Assn J* 61:267-78 S '47

Determination of zinc in water, sewage and trade wastes. B. I. Corson. *il Water & Sewage Works* 95:40-2 Ja '48

Electrolytic and polarographic determination of zinc in thorium. J. H. Patterson and C. V. Banks. *bibliog Anal Chem* 20:897-900 O '48

Microdetermination of zinc in aluminium alloys. D. F. Phillips and L. J. Holton. *Metallurgia* 38:237-9 Ag '48

Wide range analysis for zinc using spectrographic line widths. E. J. Eastmond and B. E. Williams. *Opt Soc Am J* 38:800-3 S '48

Isotopes

Relative abundances of the zinc and cadmium isotopes. W. T. Leland and A. O. Nier. *Phys R* 73:1206 My 15 '48

Relative energies of the gamma-radiations from Co⁶⁰ and Zn⁶⁵. E. N. Jensen and others. *bibliog Phys R* 73:529 Mr 1 '48

Physiological effect

Trace metals in human nutrition; cobalt, copper, manganese and zinc as dietary essentials. W. F. J. Cuthbertson. *bibliog Chem & Ind* p391-3 Je 19 '48

Prices

Move to raise zinc price. *Barron's* 28:36-7 Ja 19 '48

Price, wholesale, prime western (St. Louis), 1941-1946. *Survey of Cur Bsns* 1947 Sup p 152 [supplemented in monthly numbers]

Zinc at New York; monthly, 1929-1947; tabulation. *Iron Age* 161:304 Ja 1 '48

Zinc mines press for better return. *Barron's* 28:29 Jl 5 '48

Protection

Chromate passivation of sprayed zinc coatings; abstract. E. E. Halls. *Materials & Methods* 27:109 F '48

Improving the adhesion of organic finishes over zinc plate. R. E. Kohl. *il Materials & Methods* 27:83 My '48

Painting zinc; abstract. H. A. Holden. *Paint Oil & Chem R* 111:41-2 Ja 22 '48

Phosphate treatments for zinc surfaces. E. E. Halls. *Metallurgia* 37:299-305 Ap '48

Zinc anode protection in dry cells. *Chem & Eng N* 26:2711 S 13 '48

ZINC alloys

Acidic emulsion cleaner for zinc base die-castings; Dykasol. *Iron Age* 161:79 Je 17 '48

Advantages of induction furnaces in zinc die casting. H. Chase. *il plan diags Steel* 121:108-9+ N 10 '47

Balanced alkaline dry cells. S. Ruben. *il diag Electrochem Soc Trans* 92 (preprint 19): 219-29 '47

Composition and properties of zinc alloys for die casting; table. *Steel* 122:82 F 9 '48

Corrosion characteristics of some magnesium-zinc-calcium alloys. G. C. Kuczynski and F. Schonfeld. *bibliog Electrochem Soc J* 93:41-6 F '48

Effect of alloy composition on surface quality of diecastings. A. W. Sundwick. *Iron Age* 160:71-4 D 4 '47

Electrodeposition and properties of tin-zinc alloys. J. W. Cuthbertson and R. M. Angles. *bibliog il Electrochem Soc J* 94:73-98 Ag '48

Exhibition of zinc alloy die castings. *il Metallurgia* 38:90-1 Je '48

Kirkite dies for auto stampings. W. G. Patton. *il Iron Age* 161:78-81 Ap 15 '48

Machining Ford carburetor die-castings. H. Chase. *il Mach* 54:144-8 N '47

Plating on zinc die casting; abstracts of papers. *Materials & Methods* 27:113-15 My '48

Reverberatory melting of zinc base diecasting alloys. R. L. Wilcox. *il diags Iron Age* 161:80-2 Je 10 '48

Room and elevated temperature properties of some sand cast magnesium-base alloys containing zinc. T. E. Leontis. *bibliog Metals Tech* 15:TP2371-1-35 Je '48

Small zinc alloy die castings; economic and design advantages. J. Saks. *il diag Product Eng* 18:86-9 N '47

Worn and broken zinc die castings can be repaired by welding. A. E. Speck. *il diag Materials & Methods* 27:72-4 Mr '48

See also

Brass

Testing

Atmospheric and indoor aging studies on some aluminum and zinc-base die-casting alloys. G. R. Gohn and L. E. Menges. *bibliog il Am Soc T M Proc* 46:1064-94; Discussion. 1095-6 '46

New wrought zinc alloys containing small amounts of beryllium. R. H. Harrington. *il Am Soc for Metals Trans* 39:773-83; Discussion. 733-7 '47

Report of subcommittee V on exposure and corrosion tests. *Am Soc T M Proc* 46:244-58 '46

ZINC benzoate

Versatile technique for X-ray single crystal structural analysis applied to benzaldehyde 2,4-dinitrophenylhydrazones and zinc salts of salicylic and benzoic acids. G. L. Clark and Hung Kao. *Am Chem Soc J* 70:2151-4 Je '48

ZINC cadmium sulfide

Emission spectra of zinc cadmium sulfides. F. J. Studer and D. A. Larson. *Opt Soc Am J* 38:480-1 My '48

ZINC chloride

Cleavage of tetrahydropyran by acid chlorides in the presence of zinc chloride; the preparation of 5-diethylaminopentanol-1. M. E. Synerholm. *bibliog Am Chem Soc J* 69: 2581-2 N '47

Electrolyte equilibria in relation to dry cell performance. N. C. Cahoon. *bibliog Electrochem Soc Trans* 92 (preprint 17):203-16 '47

ZINC chromate

Corrosion inhibiting primers for ferrous metals. W. G. Huckle and H. S. Davidson. *il Paint Oil & Chem R* 111:18+ Jl 22 '48

Effects of overheating aluminum; appraised from color changes in zinc chromate coated surfaces. P. A. Haythorne and H. B. Wiley. *il Product Eng* 19:104-5 Jl '48

ZINC chromite

Catalytic racemization and dehydrogenation of optically active secondary-butyl alcohol by copper and by zinc chromite. R. L. Burwell, Jr. *bibliog diag Am Chem Soc J* 70: 2865-9 S '48

ZINC coating

Chromate passivation of sprayed zinc coatings; abstract. E. E. Halls. *Materials & Methods* 27:109 F '48
 Process sheet for zinc-immersion treatment; reference book sheet. G. Black. *Am Mach* 92:135 J1 15 '48

ZINC compounds

Use of zinc alkyls in the preparation of hydrocarbons with a quaternary carbon atom. F. R. Buck and others. *diags Inst* Pet J 34:339-69 bibliog(58 ref, p369) My '48

ZINC dimethyl

Ignition of *n*-butane by the spontaneous oxidation of zinc dimethyl. E. J. Badin, D. R. Walters and R. N. Pease. *Am Chem Soc J* 69:2586-8 N '47

ZINC dust

Electrolytic preparation of zinc dust; tr. by O. Ralston. W. Eckhardt. U S Bur Mines Information Circ 7466:1-6 '48
 Surface-area measurements on metal spheres and on carbon blacks. P. H. Emmett and M. Cines. bibliog il J Phys & Colloid Chem 51:1329-41 N '47

ZINC germanates

Systems K_2O - ZnO - SiO_2 , ZnO - B_2O_3 - SiO_2 , and $ZnSiO_4$ - Zn_3GeO_8 . E. Ingerson and others. bibliog *Am J Sci* 246:31-40 Ja '48

ZINC hydrosulfite

Hydrosulphites; production, properties, and textile applications. G. Brearley and J. Starkie. *diag Soc Dyers & Col J* 64:278-83 Ag '48
 Recent advances in the zinc hydrosulphite bleaching of groundwood. R. R. Ferguson. flow sheet Pulp & Pa. of Can 49:85-8 J1 '48; Same. Paper Tr J 127:52-5 O 14 '48

ZINC industry and trade

Zinc industry approaches full production. R. A. Young. il *Min Cong J* 34:83-6 F '48

Statistics

Consumption of slab zinc in the United States by industries, grades, and geographic divisions, 1940-45; including a summary of consumption since 1900. A. L. Ransome. 10pls U S Bur Mines Information Circ 7450:1-30 '48

Zinc, 1941-1946. Survey of Cur Bsns 1947 Sup p 152 [supplemented in monthly numbers]

Zinc, 1947. C. R. Ince. *Eng & Min J* 149:77-8 F '48

Zinc products production, consumption; 1947. Oil Paint & Drug Rep 153:75 Je 28 '48

ZINC iodide

Activity coefficients of zinc iodide. J. R. Partington and F. G. Torto. *Chem Soc J* p216-19 F '48

ZINC metallurgy

Beneficiation of an oxide zinc ore by pyrometallurgical means. J. C. Nieto and others. *diag Mo U Sch Mines & Met bul tech ser v* 18 no 4:1-10 '47

Bunker Hill's new mill. F. McKinley. il *Eng & Min J* 149:89-91 Je '48

Concentrating lead-zinc ore at the Bayard mill; United States smelting refining and mining co. P. V. Brough and K. B. Gillaspie. flow sheet il *Min & Met* 29:562-6 O '48

Concentration at the Midvale mill; ores of lead, zinc, and iron treated by flotation; United States smelting refining and mining co. R. A. Pallanch. flow sheets il *Min & Met* 29:544-7 O '48

Technical developments leading up to the present Midvale plant of the United States smelting refining and mining co. R. Wallace and H. L. Johnson. *Min & Met* 29:542-3 O '48

Use of coal in zinc production. W. M. Peirce. *Min & Met* 29:286-8 My '48

Zinc smelting in the horizontal retort fired with natural gas. G. L. Oldright. bibliog 4pls U S Bur Mines Rep of Invest 4333:1-71; 4334:1-41; 4335:1-42; 4336:1-111 '48

Zinc smelting; review of 1947. F. P. Sinn. *Min & Met* 29:97-8 F '48

Electrometallurgy

Paralleling rectifiers and converters; electrolytic zinc plant of the Anaconda copper mining co. R. J. Kennard. il *diag Elec Eng* 66:1074-6 N '47

ZINC methide. See Zinc dimethyl

ZINC mines and mining**Alaska**

Investigation of the Mount Eielson zinc-lead deposits, Mount McKinley national park, Alaska. N. M. Muir and others. 5pls U S Bur Mines Rep of Invest 4121:1-13 '47

Arizona

Antler copper-zinc deposit, Mohave county, Ariz. T. M. Romslo. 9pls U S Bur Mines Rep of Invest 4214:1-14 '48

Arkansas

Investigation of the North Arkansas zinc mines, Searcy, Boone and Newton counties, Ark. R. B. McElwaine and others. 7pls U S Bur Mines Rep of Invest 4343:1-25 '48

California

Blue Ledge copper-zinc mine, Siskiyou county, Calif. R. J. Hundhausen. 3pls U S Bur Mines Rep of Invest 4124:1-16 '47
 Penn mine slag dump and mine water, Calaveras county, Calif. F. J. Wiebelt and S. Ricker. 2pls U S Bur Mines Rep of Invest 4224:1-6 '48

Chile

Chilean mineral area offers new field for exploration. R. Fritis C. and C. Milon. il maps *diag Eng & Min J* 149:92-4 Ap '48

Colorado

Camp Bird lead-zinc deposits, Ouray county, Colo. E. V. Deshayes and W. E. Young. 7pls U S Bur Mines Rep of Invest 4230:1-19 '48

Idaho

Investigation of the Hornsilver lead-zinc property, Butte county, Idaho. R. N. Roby. 14pls U S Bur Mines Rep of Invest 4277:1-15 '48

Mining and milling methods and costs at the Little Pittsburgh lead-zinc mine, Shoshone county, Idaho. R. J. Hundhausen. 6pls U S Bur Mines Information Circ 7428:1-21 '48

Mining method expands lead-zinc reserves in the Coeur d'Alene district. C. E. Schwab. il *Min Cong J* 34:72-3 Ap '48

Pine Creek production booms. H. W. Ingalls. il map *Min Cong J* 34:42-5 O '48
 Sidney mine, Pine Creek area, Shoshone county, Idaho. R. M. Gammell and R. J. Hundhausen. 7pls U S Bur Mines Rep of Invest 4188:1-11 '48

Illinois

Investigation of the Blewett zinc-lead deposit, Jo Daviess county, Ill. S. P. Holt. 7pls U S Bur Mines Rep of Invest 4350:1-36 '48

Investigation of the Skene zinc mine, Jo Daviess county, Ill. O. W. Terry and F. C. Lincoln. 3pls U S Bur Mines Rep of Invest 4320:1-5 '48

New finds revive old Galena-Platteville area. il *Eng & Min J* 149:63-4 Ja '48

Iowa

Dubuque lead-zinc district, Iowa. F. C. Lincoln. 2pls U S Bur Mines Rep of Invest 4212:1-7 '48

Kansas

Investigation of Melrose zinc-lead district Ottawa county, Okla., and Cherokee county, Kans. C. C. Knox. bibliog 23pls U S Bur Mines Rep of Invest 4337:1-92 '48

Maine

Investigation of the Cape Rosier zinc-copper-lead mine, Hancock county, Maine. S. B. Levin and Robert S. Sanford. 14pls U S Bur Mines Rep of Invest 4344:1-8 '48

Missouri

Churn drilling at Mary Arnold zinc-lead mines, Christian county, Mo. H. J. Ballinger. 3pls U S Bur Mines Rep of Invest 4313:1-8 '48

Churn drilling at the Capital and Greenland zinc mines, Lawrence county, Mo. L. C. Brichta and A. B. Needham. 4pls U S Bur Mines Rep of Invest 4318:1-24 '48

Churn drilling at the McGregor zinc-lead mine, Washington county, Mo. W. D. McMillan. 3pls U S Bur Mines Rep of Invest 4308:1-6 '48

ZINC mines and mining—Missouri—Continued

- Investigation of Rex zinc mine, Howell county, Mo. H. J. Ballinger, 2pls U S Bur Mines Rep of Invest 4325:1-11 '48
- Investigation of the Dempsey zinc-lead mine, Washington county, Mo. W. D. McMillan and others, 5pls U S Bur Mines Rep of Invest 4332:1-16 '48
- Investigation of the Krueger zinc deposit, Washington county, Mo. H. J. Ballinger, 2pls U S Bur Mines Rep of Invest 4292:1-49 '48
- Mon-Ark zinc-lead mines, Christian county, Mo. H. J. Ballinger, 7pls U S Bur Mines Rep of Invest 4297:1-16 '48

New Hampshire

- Investigation of the Ore Hill zinc-lead mine, Grafton county, N.H. H. P. Hermance and M. Mosier, 9pls U S Bur Mines Rep of Invest 4328:1-13 '48

New Mexico

- Copper flat zinc deposit, Central mining district, Grant county, N. Mex. D. H. Mullen and W. R. Storms, 5pls U S Bur Mines Rep of Invest 4228:1-8 '48
- West Pinos Altos zinc-lead deposits, Grant county, N. Mex. J. H. Soule, 5pls U S Bur Mines Rep of Invest 4237:1-3 '48

Oklahoma

- Investigation of Melrose zinc-lead district, Ottawa county, Okla., and Cherokee county, Kans. C. C. Knox, bibliog 23pls U S Bur Mines Rep of Invest 4337:1-92 '48

Pennsylvania

- Bamford zinc mine, Lancaster county, Pa. M. Mosier, 2pls U S Bur Mines Rep of Invest 4247:1-3 '48
- Correll zinc mine, Lehigh county, Pa. C. B. White and J. E. Bell, 2pls U S Bur Mines Rep of Invest 4180:1-3 '48

South Dakota

- Belle-Eldridge lead-zinc deposits, Lawrence county, S. Dak. V. C. Davis, 2pls U S Bur Mines Rep of Invest 4215:1-8 '48

Tennessee

- D. W. Harris (O'Dell) zinc prospect, Claiborne county, Tenn. R. C. Hickman, 2pls U S Bur Mines Rep of Invest 4206:1-3 '48
- G. S. Stiner zinc prospect, Union county, Tenn. R. C. Hickman, 2pls U S Bur Mines Rep of Invest 4202:1-2 '48
- Howard Lynch zinc prospect, Claiborne county, Tenn. R. C. Hickman, 2pls U S Bur Mines Rep of Invest 4204:1-3 '48

Western states

- Predicts production of zinc will shift to western states, Iron Age 161:158 My 13 '48

Wisconsin

- Churn drilling at the McIlhonn zinc deposit, Iowa county, Wis. O. W. Terry, 2pls U S Bur Mines Rep of Invest 4307:1-8 '48
- Investigation at the Fairplay zinc and lead area, Grant county, Wis. J. V. Kelly, pl U S Bur Mines Rep of Invest 4327:1-5 '48
- Investigation of Coker and Bickford zinc deposits, Iowa county, Wis. F. C. Lincoln, 3pls U S Bur Mines Rep of Invest 4426:1-20 '48
- Investigation of the Argall (Baggaley) zinc-lead mine, Iowa county, Wis. M. H. Berliner, 2pls U S Bur Mines Rep of Invest 4340:1-5 '48
- Investigation of the Crescent lead and zinc mine, Iowa county, Wis. M. H. Berliner, pl U S Bur Mines Rep of Invest 4317:1-6 '48
- Trego lead-zinc mine, Grant county, Wis. A. M. Cummings, 2pls U S Bur Mines Rep of Invest 4211:1-8 '48
- Wisconsin lead and zinc mining; illustrations with text. Min & Met 29:10-11 Ja '48

ZINC ores

- Investigations on flotation of the oxidized ores of zinc. F. H. Bunge and others, bibliog Mo U Sch Mines & Met Bul tech ser v 17 no 3:1-29 '46
- Zinc content of plants on the Friedensville zinc slime ponds in relation to biogeochemical prospecting. W. O. Robinson and others, bibliog Econ Geol 42:72-82 S '47

Analysis

- Determination of oxidized zinc in ores and concentrator products. C. W. Barker and R. S. Young, Soc Chem Ind J 67:61 F '48

ZINC oxides

- Cathodoluminescence emission spectra of zinc-oxide phosphors. R. E. Shrader and H. W. Leverenz, Opt Soc Am J 37:939-40 N '47
- Electroplating on aluminum; preparation by zinc immersion process. M. B. Diggins, J Metal Finishing 45:67-8 N '47
- Heterogeneity of catalyst surfaces; zinc-oxide-chromic oxide, manganous oxide-chromic oxide, chromic oxide gel. H. S. Taylor and S. Liang, bibliog Am Chem Soc J 69:2989-91 D '47
- Reduction of oxides by hydrogen and carbon monoxide. W. E. Garner, Chem Soc J p 1239-44 S '47
- Reversible photolysis of Ag sorbed on colloidal metal oxides. A. Goetz and E. C. Y. Inn, il diag Rs Mod Phys 20:131-42 Ja '48
- Systems $K_2O-ZnO-SiO_2$, $ZnO-B_2O_3-SiO_2$, and $ZnSiO_4-Zn_3GeO_4$. E. Ingerson and others, bibliog Am J Sci 246:31-40 Ja '48
- Temperature dependence of the emission bands of zinc oxide phosphors. F. H. Nicoll, Opt Soc Am J 38:817 S '48
- Ultraviolet absorption of zinc oxide phosphors. F. H. Nicoll, Opt Soc Am J 38:417 Ap '48
- Zinc oxide increases enamel fusibility. Cer Ind 50:101 Je '48
- Zinc oxide prevents crazing. Cer Ind 50:121 Je '48

ZINC plating

- Bright barrel plating of nickel and zinc; abstract. L. A. Chesworth, Iron Age 162:85-6 S '48
- Electro-zinc phosphate coatings for iron and steel. E. E. Halls, Metallurgia 38:34-6 My '48
- Introductory survey of electroplating. R. Mansell, il Metal Finishing 45:70-4 N; 79-81 D '47
- Plating zinc diecastings at Gerity-Michigan. W. MacLeary, il Iron Age 162:90-4 Jl 29 '48
- Process sheet for zinc electroplating; reference book sheet. G. Black, Am Mach 92:127 Jl 1 '48
- Thickness standards for zinc electroplate; reference book sheet. G. Black, Product Eng 19:167 Je '48

See also

Galvanizing**ZINC silicifyte**

- Versatile technique for X-ray single crystal structural analysis applied to benzaldehyde 2,4-dinitrophenylhydrazones and zinc salts of salicylic and benzoic acids. G. L. Clark and Hung Kao, Am Chem Soc J 70:2151-4 Je '48

ZINC silicates

- Emission spectra of silicate phosphors with manganese activation. K. H. Butler, bibliog Electrochem Soc J 93:143-56 My '48

ZINC sulfide

- Blue luminescence of zinc sulfide. F. A. Kroeger and J. E. Hellingman, bibliog Electrochem Soc J 93:156-71 My '48
- Conductivity pulses induced in single crystals of zinc sulfide by alpha-particle bombardment. A. J. Ahearn, Phys R 73:524 Mr 1 '48
- Emission spectra of some zinc sulfide and zinc-cadmium sulfide phosphors. W. H. Byler, Opt Soc Am J 37:920-2 N '47
- Emission spectra of zinc cadmium sulfides. F. J. Studer and D. A. Larson, Opt Soc Am J 38:480-1 My '48
- Excitation time of silver-activated zinc sulfide on electron bombardment. J. F. Mulaney and others, Phys R 74:491-2 Ag 15 '48
- Fluorescence efficiency and hole migration in zinc sulphides. M. E. Wise and H. A. Klasens, bibliog Opt Soc Am J 38:226-31 Mr '48
- Influence of atmosphere firing on the cathodoluminescence of zinc sulfide; silver type phosphors. A. L. Smith, bibliog diag Electrochem Soc J 93:324-33 Je '48
- Luminescent pigments; high purity zinc sulfide as base. Chem Age (Lond) 57:595 N 1 '47

ZINC sulfide—Continued

- Relation between efficiency and exciting intensity for zinc-sulphide phosphors. H. A. Klasens and others. *bibliog diag Opt Soc Am J* 38:60-5 Ja '48
- Three new polymorphs of zinc sulfide. C. Frondel and C. Palache. *Science* 107:602 Je 4 '48
- Transmission of powder films in the infrared. R. L. Henry. *bibliog diag Opt Soc Am J* 38:775-89 S '48

ZINC sulfoxylate

- Hydrosulphites; production, properties, and textile applications. G. Brearley and J. Starkie. *diag Soc Dyers & Col J* 64:278-83 Ag '48

ZINC yellow. See Zinc chromate**ZION national park, Utah**

- Some features of the Navajo formation. R. K. Grater. *diag Am J Sci* 246:311-18, pl 1-2 My '48

ZIPPERS. See Fastenings**ZIRCON**

- Australia's coast is rich in mineral sands. D. Mercer. *Can Min J* 69:94-5 My '48
- Thermal inhibitions; a super-refractory. *Chem Ind* 61:978-9 D '47
- Thermal resistant whiteware; abstract. E. J. Smoke. *Cer Ind* 49:86 O '47
- Zircon and zirconia refractories; abstracts. C. E. Curtis and E. Thomas. *Brick & Clay Rec* 111:64+ N '47; *Metal Prog* 53:568+ Ap '48

ZIRCONIUM

- Large-scale laboratory production of ductile zirconium. W. J. Kroll and others. *il diags Electrochem Soc J* 94:1-20 Jl '48
- Metals, rare today, common tomorrow. *Westinghouse Eng* 8:29 Ja '48
- New graphite resistor vacuum furnace and its application in melting zirconium. W. J. Kroll and others. *il diag Metals Tech* 15:TP2310-1-6 Ja '48
- New light metals being produced; titanium and zirconium show great promise for use in aviation. *il Aviation W* 48:31 Mr 15 '48
- Production of ductile zirconium from zircon sands; abstract. *Steel* 121:99-100 N 17 '47
- Production of thorium, zirconium and uranium. G. Meister. *diags Metal Prog* 53:515-20 Ap '48
- Purification of zirconium by ion exchange columns. J. A. Ayres. *Am Chem Soc J* 69:2879-81 N '47
- Rare metals improve magnesium alloys. *Iron Age* 162:83 Jl 22 '48
- Reactions of zirconium with gases at low pressure. W. G. Guldner and L. A. Wooten. *bibliog il diag Electrochem Soc J* 93:223-35 Ja '48
- Recent progress in the metallurgy of malleable zirconium. W. J. Kroll and others. *diags Electrochem Soc Trans* 92 (preprint 16):187-201 '47
- These new metals challenge old stand-bys; titanium, zirconium, molybdenum are 100 per cent American. *il Mod Ind* 15:60-3 Je 48
- Titanium and zirconium; metals of industrial promise. W. H. Waggaman and E. A. Gee. *bibliog flow sheets il Chem & Eng N* 26:377-81 F 9 '48
- Two new metals are in test production; titanium and zirconium. *Bsns W* p58-9 F 28 '48
- Zirconium as a fixative for dyes. W. B. Blumenthal. *bibliog Rayon* 29:87-9 O '48

Analysis

- Colorimetric microdetermination of zirconium. D. E. Green. *bibliog Anal Chem* 20:370-2 Ap '48
- Quantitative evaluation of oxygen in zirconium. W. C. Lillendahl and others. *il diag Electrochem Soc J* 93:235-47 Je '48

Isotopes

- Long life zirconium from uranium 235 fission. A. V. Grosse and E. T. Booth. *bibliog Am Chem Soc J* 70:465-6 F '48
- Study of the radiations from iridium (194), iridium (192), lanthanum (140), antimony (124), and zirconium (95). C. E. Mandeville and M. V. Scherb. *bibliog Phys R* 73:1434-41 Je 15 '48

ZIRCONIUM alloys

- Magnesium-cerium-zirconium alloys; properties at elevated temperatures; abstracts. A. J. Murphy and R. J. M. Payne. *il Engineering* 163:485-7 Je '47; *Metal Prog* 53:268+ F '48; *Product Eng* 19:153-6 Ap '48
- Manufacture and use of magnesium and its alloys; with special reference to the magnesium-zirconium-zinc range. C. J. P. Ball. *il diag Chem & Ind* p531-6 Ag 21 '48
- Outstanding properties of the magnesium-zirconium alloys; abstract. C. J. P. Ball. *Metal Prog* 53:116+ Ja '48
- Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; an electron diffraction study. J. W. Hickman and E. A. Gulbransen. *bibliog Anal Chem* 20:158-65 F '48

ZIRCONIUM compounds

- Carboxy alkyl cellulose, hardened with zirconium compounds; patent. *Am Dyestuff Rep* 36:644 N 3 '47

ZIRCONIUM oxide

- Oxide films formed on titanium, zirconium, and their alloys with nickel, copper, and cobalt; an electron diffraction study. J. W. Hickman and E. A. Gulbransen. *bibliog Anal Chem* 20:158-65 F '48
- Precipitation of basic dyes with modified hydrous zirconia. W. B. Blumenthal. *Am Dyestuff Rep* 37:285-6 My 3 '48
- Thermal inhibitions; a super-refractory. *Chem Ind* 61:978-9 D '47
- X-ray diffraction studies in the system $\text{NiO-Cr}_2\text{O}_3\text{-ZrO}_2$. W. O. Milligan and L. M. Watt. *bibliog il J Phys & Colloid Chem* 52:230-5 Ja '48

- Zircon and zirconia refractories; abstracts. C. E. Curtis and E. Thomas. *Brick & Clay Rec* 111:64+ N '47; *Metal Prog* 53:568+ Ap '48

- Zircon needs alumina to opacify. *Cer Ind* 51:60 Ag '48

- Zircon reduces crazing tendency. *Cer Ind* 51:34+ Ag '48

- Zirconium oxide; two German methods described. *Chem Age (Lond)* 57:605 N 1 '47

ZIRCONIUM silicate. See Zircon**ZIRCONYL compounds**

- Zirconyl and basic zirconyl compounds in acid dyestuffs. W. B. Blumenthal. *bibliog Ind & Eng Chem* 40:510-12 Mr '48

ZONE pricing. See Price policies**ZOOLOGISTS****See also**

- Society of systematic zoologists

ZOOLOGY**See also**

- Birds Marine fauna
Fishes Paleontology

Nomenclature

- Important advances in zoological nomenclature achieved at 13th International congress of zoology, Paris. F. Hemming. *Science* 108:156-7 Ag 13 '48
- International commission on zoological nomenclature; applications for suspension of *Regles internationales*. *Science* 106:584-5 D 12 '47
- International rules of zoological nomenclature. R. Wichterman. *Science* 106:491 N 21 '47
- Proposed changes in article 25 (the law of priority) of the International rules of zoological nomenclature. E. A. Chapin and others. *Science* 107:166-7 F 13 '48
- Proposed petition to the International commission on zoological nomenclature. C. W. Sabrosky and R. I. Sailer. *Science* 107:543-4 My 21 '48
- Revised proposal for errors and emendations in the rules of zoological nomenclature. R. E. Blackwelder and others. *Science* 108:37-8 Jl 9 '48

ZYGOGRAPH

- Application of zygraph to distillation of binary mixtures. Kuo Tsung Yu and J. Coull. *bibliog diags Chem Eng Prog* 44:795-800 O '48

ZYLSTRA, Maryon

- Inquiring camera girl of the Chicago tribune. G. A. Brandenburg. *por Ed & Pub* 81:22 Ju 12 '48



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